

REVIEW PLAN

OHIO RIVERFRONT – CINCINNATI CINCINNATI, OHIO

DESIGN & IMPLEMENTATION PHASE LOUISVILLE DISTRICT

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**US Army Corps
of Engineers®**

REVIEW PLAN

OHIO RIVERFRONT - CINCINNATI
CINCINNATI, OHIO

DESIGN & IMPLEMENTATION PHASE

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the last phase of the Ohio Riverfront – Cincinnati, Ohio Project.

b. References

- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review, December 2012
- (2) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (3) Ohio Riverfront – Cincinnati, Ohio Project Management Plan

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for this review plan is the Great Lakes and Ohio River Division.

3. STUDY INFORMATION

a. **Implementation Document.** The only remaining work is to update the final design documents and award the final construction contract for the last phase of the project. This will complete the project as authorized. Approximately \$4.5 million of Federal funds are needed to complete the project. All non-Federal funds have been received. The project was not in the FY13 President's budget; however, funds were requested through the FY 13 Work Plan process. Funds were not received in FY13; however, the \$4.5 million to complete the project were received in the FY14 work plans.

The authorized project is "Ohio Riverfront – Cincinnati, Ohio". A 905(b) Analysis was completed in August 2002. Since recreation and regional economic development received a low budget priority at that time, no follow-on feasibility study was recommended. Two years later language in the Consolidated Appropriations Act of 2004 authorized and directed the Corps to design the project. The Water Resources Development Act (WRDA) of 2007 provided authorization for construction of the \$30 million project. The Project Partnership Agreement was executed in February 2010.

b. **Study/Project Description.** The project is located in Cincinnati, Ohio along Ohio River Mile 470.0 and is approximately five acres in size. The Roebling Bridge forms the western boundary of the project and Main Street the eastern boundary. The northern boundary is Theodore M. Berry Way and the old existing Mehring Way forms the southern boundary. See Attachment 1 for a map of the area. The project area is highlighted in color

and includes continuous pedestrian walkways along the river, informal grass terraces, festival areas, a great lawn, landscaping, lighting, and water features. The project objective is to enhance public use of and access to the recreational and environmental amenities of the Ohio River, and other riverfront parks including the Theodore M. Berry International Friendship Park, the Public Landing, and the Bicentennial Commons project. The non-Federal sponsor owns the property for the last phase and all non-Federal funds have been received for the project. The non-Federal sponsor is the City of Cincinnati (Cincinnati Park Board).

c. Factors Affecting the Scope and Level of Review. The majority of this \$30 million authorized project has been completed. The only remaining work is to update the final design documents for the third/last phase and award the final construction contract for the project. This will allow the remainder of the project to be turned over to the sponsor for operation and maintenance. Phases I and II have already been turned over to the local sponsor to operate and maintain. See Attachment 2 for a map of the three phases.

Design documents were prepared by an A-E contractor. The Phase III design was completed in 2011 and will be updated and finalized for construction contractor solicitation. During 2011 the District personnel performed a quality assurance (QA) review of the A-E design products. An Agency Technical Review (ATR) was not performed.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind products provided by the non-Federal sponsor for this project consisted mainly of environmental investigations and testing. The products were submitted for review and approved in 2005. The credits were used as the non-Federal contribution for the Design Agreement, which was executed on 13 September 2005.

4. DISTRICT QUALITY CONTROL (DQC) AND QUALITY ASSURANCE (QA)

The District will perform quality control of any in-house design products in accordance with Qualtrax 08504 LRD – QC/QA Procedures for Civil Works, including completion of a BCOES review. In accordance with paragraphs 5-9 and 5-10 of ER 1110-1-12, Change 2, the District will perform quality assurance of the A-E design products, including: (1) review and approval of the A-E quality control plan and (2) perform a technical criteria review,

All implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts.

Additionally, the PDT is responsible to ensure consistency and effective coordination across all project disciplines during project design and construction management. DQC has been performed on the plans and specifications for Phase III. Since Federal funds are now available, DQC will be performed on any updates to the plans and specifications prior to the award process. The extent of the DQC will be based on the number and type of updates to the documents. The same DQC members will be used to the extent possible. See Table 1 in Attachment 3 for PDT members.

- a. **Products to Undergo DQC.** All products completed to date have undergone DQC including the plans and specifications for the last construction contract. Since Federal funds are now available, DQC will be performed on any updates to the plans and specifications prior to advertisement and award of the last construction contract.
- b. **Documentation of DQC.** Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC. DrChecks review software will be used to document comments to the plans and specifications. DQC was also performed by the Architect/Engineer (A/E) that performed the design. A Statement of their Technical Review was completed for the current set of plans and specs and is included as Attachment 4. This same document will also be required from the A/E for the updated plans and specifications.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all implementation documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. Management of ATR reviews is dependent upon the phase of work and the reviews are conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC. The ATR budget and schedule are shown in paragraph 8.a. The ATR team members are shown in Attachment 3.

- a. **Products to Undergo ATR.** The final set of plans and specifications. See above discussion.
- b. **Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses, and associated resolutions accomplished throughout the review process. Comments were limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:
 - (1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;

- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks includes the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review was completed for the current set of plans and specs and is included as Attachment 5. In addition, the BCOE Certification for the current set of plans and specifications is included as Attachment 6. A Statement of Technical Review and a BCOES Certification will be completed once the ATR and BCOES review is completed for the revised plans and specifications. The Statement of Technical Review form that will be used is included as Attachment 5(a).

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for implementation documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- **Type I IEPR.** Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study.
 - **Type II IEPR.** Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.
- a. Decision on Type I IEPR.** A Type I IEPR will not be performed on the final set of plans and specifications since the project's decision document was completed in 2009 and the total project cost is under \$45,000,000. In addition, there were no requests by the Governor of Ohio or heads of Federal or state agencies to conduct a Type I IEPR, nor are there significant public issues or complex design methods that warrant review.
- b. Decision on Type II IEPR.** In accordance with EC 1165-2-214, a Type II IEPR Safety Assurance Review (SAR) shall be conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. This review will be on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety and welfare. Since the Ohio Riverfront – Cincinnati, Ohio project design and construction activities are not related to hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life, no Type II – IEPR (Safety Assurance Review) in accordance with paragraph 12 of EC 1165-2-214 will be required. The features of the last phase (Phase III) include trails, playground areas, lighting, and landscaping.

c. Products to Undergo Type I IEPR. Not Applicable.

Products to Undergo Type II IEPR. Not Applicable.

d. Required Type I IEPR Panel Expertise. Not applicable.

Required Type II IEPR Panel Expertise. Not Applicable.

e. Documentation of Type I IEPR. Not Applicable.

Documentation of Type II IEPR. Not Applicable.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All implementation documents will be reviewed throughout the project for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies.

8. REVIEW SCHEDULES AND COSTS

ATR Schedule and Cost. The ATR for the plans and specifications is scheduled for July. The approximate cost for the ATR is \$8,000.

a. Type II IEPR Schedule and Cost. Not Applicable.

9. PUBLIC PARTICIPATION

Not Applicable.

10. REVIEW PLAN APPROVAL AND UPDATES

The Great Lakes and Ohio River Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the implementation document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval will be documented in Attachment 7. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the

process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

11. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

Louisville District POC: Matthew C. Schueler, Project Manager; (502) 315-6890

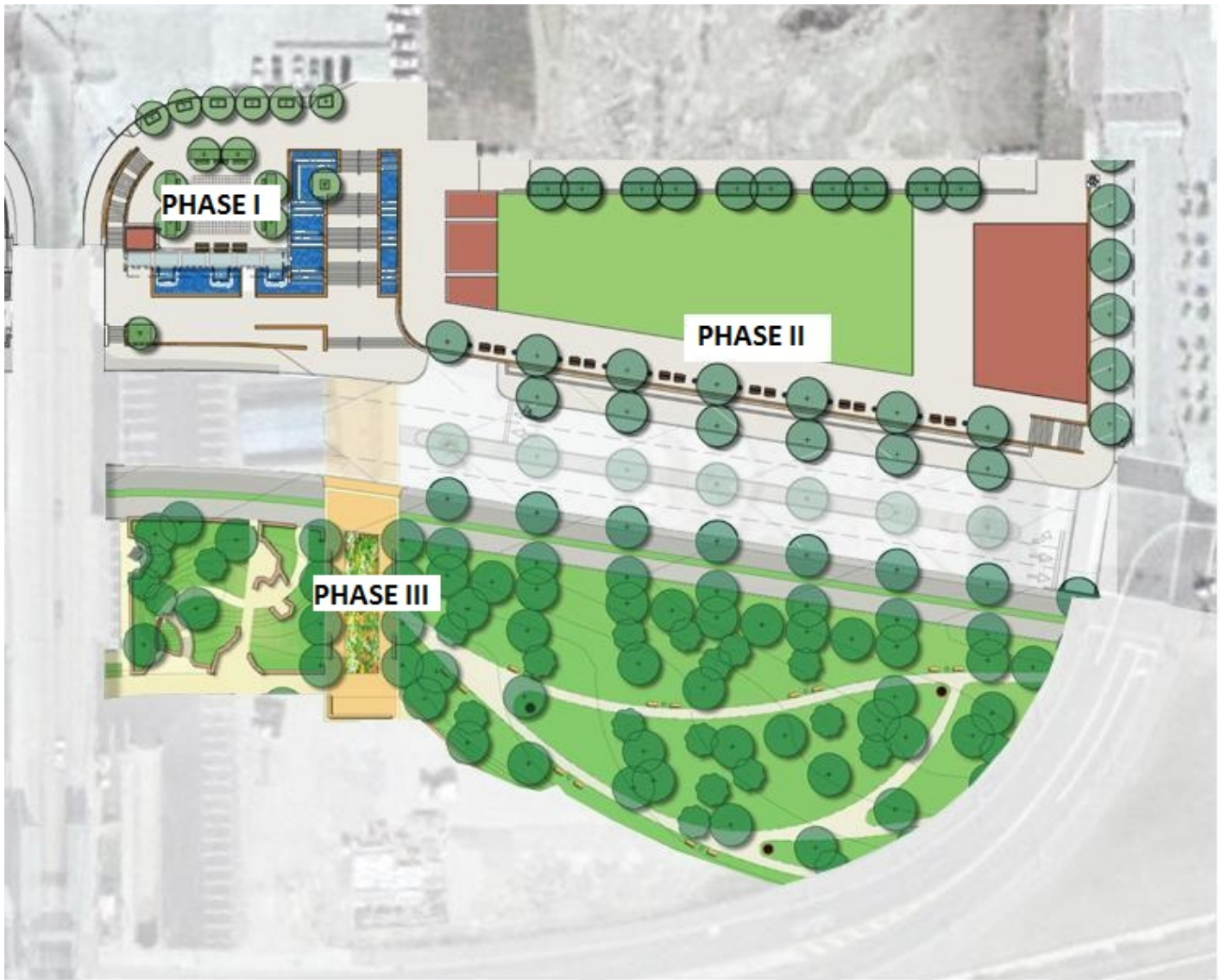
Louisville District Technical POC: David Yankey; Project Engineer; (502) 315-6277

Review Management Organization POC: Frank Appelfeller, LRD, (513) 684-6200

ATTACHMENT 1: PROJECT MAP



ATTACHMENT 2: PROJECT MAP – PHASE LOCATIONS



ATTACHMENT 3: Ohio Riverfront - Cincinnati, Ohio TEAM ROSTER

TABLE 1: Product Delivery Team (PDT)		
Functional Area	Name	Office
Project Manager		CELRL-PM-C
Project Engineer		CELRL-ED
Real Estate		CELRL-RE-C
Cost Engineering		CELRL-ED-M-C
Environmental		CELRL-PM-P
Environmental		CELRL-ED-E
Construction		CELRL-CD
Designer		

TABLE 2: Agency Technical Review Team		
Functional Area	Name	Office
Civil (Team Leader)		CEMVK-EC-DC
Structural		CEMVP-EC-D

Note: If the ATR Civil (Team Leader) does not have sufficient landscape + silviculture experience, the District will have someone with said experience review the documents at the DQC level.

ATTACHMENT 4: STATEMENT OF TECHNICAL REVIEW FOR IMPLEMENTATION DOCUMENTS

ATTACHMENT 5: STATEMENT OF TECHNICAL REVIEW FOR IMPLEMENTATION DOCUMENTS

ATTACHMENT 5(a):

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer’s needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrCheckssm.

SIGNATURE

Name (TBD)
ATR Team Leader
Office Symbol/Company

Date

SIGNATURE

Matthew Schueler
Project Manager, Louisville District
CELRL-PM-C

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE

Eugene Dowell
Chief, Operations Division, Louisville District
CELRL-OP

Date

SIGNATURE

Marilyn Lewis
Chief, Engineering Division, Louisville District
CELRL-ED

Date

ATTACHMENT 6: STATEMENT OF BCOE REVIEW

ATTACHMENT 7: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number