

Work Plan for Utilizing Indefinite Delivery / Indefinite Quantity Contracting for Bridge Preservation and Maintenance

Purpose and Scope

The Indiana Department of Transportation (INDOT) submits this work plan for review and approval to evaluate the use of Federal-Aid for Indefinite Delivery / Indefinite Quantity Contracts (ID/IQ) to address bridge and highway preservation needs. With approval of this work plan, the Indiana Department of Transportation (INDOT) will use federal aid for ID/IQ Contracts under the Federal SEP-14 program.

INDOT Preservation Strategy

INDOT has identified three critical success factors (CSF) that are essential for the management of a comprehensive Preservation Program. The first CSF is routine identification of preservation needs uniformly across the entire network of assets. The second is efficient and effective delivery to construction. The third is a fair, balanced, and effective construction contract that mitigates contractor risk, affords consistent profitability, and incentivizes high quality work.

Current Preservation Practice

Presently, bridge and pavement preservation projects are programmed through the Bridge and Culvert Preservation Initiative (BCPI) and Pavement Preservation Initiative (PPI) Programmatic Agreements. This requires approximately two to three years from the time that the preservation need is identified to the time that the construction contract can be Let to address the need. Contracts are Let by developing detailed plans and a contract book with an identified location and a detailed pay item list for each item of work. The contractors bid each pay item, with the award going to the lowest responsive, responsible bidder. This method is suitable for traditional contracts involving major replacement and rehabilitation projects. For minor preservation repairs, the project development time and associated development costs are prohibitive to delivering the relatively modest construction value of the contract. We also lose bid favorability in small preservation contracts, because there are often not a lot of competitive bidders for these small projects. Another characteristic that is inherent to small preservation projects is that there is a very high ratio of risk to profitability. There are very small profit margins for the contractor due to the small quantity of work, but very high levels of risk. Preservation repairs often are not addressed, because of the associated cost and time issues mentioned above.

Routine identification of preservation needs, and timely resolution of the deficiency is essential for management of a productive preservation program. The three primary mechanisms that INDOT uses to identify deficiencies are biennial bridge inspections, maintenance crew observations, and customer complaints. The current time to cure (the time it takes from the point the problem is identified, to the contract closeout) is an extraordinary impediment to those stakeholders' confidence in their role as having ownership in the resolution of the subject deficiencies. The second CSF is where our current process needs the most improvement. Currently, our small project development process is identical to our large project delivery process. The exorbitant contract development "soft" costs (costs internal to INDOT for contract development) make the delivery of small preservation projects an inefficient and costly process. The development time (multiple years) makes the implementation of the remedy much later than it should be completed, allowing continued deterioration throughout the duration of the contract development process. The third CSF affords an opportunity for improvement by effectively managing the contractors risk associated with small projects. Currently, Contractors must approach the

bidding process with a large number of unknowns. Uncertainty regarding working hours subject to traffic congestion policies, and uncertainties with vague pay items leaves the contractors exposed to high risks with minimal profitability on small preservation projects.

Proposed Preservation Strategy

It is anticipated that the ability to resolve deficiencies within months rather than years will increase the frequency with which deficiencies are reported. It is also anticipated that the accelerated resolution of deficiencies will dramatically improve Customer Satisfaction by expediting the resolution of customer complaints.

In evaluating INDOT's current Preservation Program through the lens of the three identified Critical Success Factors, it was determined that innovative procurement methods should be evaluated with the intention of optimizing how we achieve the identified Preservation CSF's. To accomplish these goals, INDOT identified an Indefinite Delivery / Indefinite Quantity (ID/IQ) Contract as a potential tool for procuring Preservation Projects. ID/IQ is an indefinite quantity contract under which INDOT may assign the contractor an ongoing series of individual Job Orders.

To begin the process of establishing an ID/IQ program, INDOT researched the existing ID/IQ programs that are active at other State DOT's. After numerous discussions with representatives from FHWA, other State DOT's, and academic experts on ID/IQ, INDOT moved forward with selecting a consultant to act as a facilitator in helping establish INDOT's ID/IQ program. A Request For Proposal was issued to more than 1900 consulting firms that were identified as having provided consulting services to State DOT's in the past. One week prior to closing the RFP submittals, an Open Question and Answer session was held allowing an opportunity for interested parties to ask questions about INDOT's intent for the ID/IQ program. 21 individuals attended the meeting representing 11 Consulting Firms, 2 Contractors, the Indiana Contractor's Association, INDOT, and FHWA. There were 3 consulting companies that submitted proposals for the INDOT ID/IQ program. Those three consultants were scored for their Technical Approach to the program. Then, the top two scores were short listed for a second phase of the selection process. The second phase of the selection required interviews of each of the two short-listed firms. After the interviews, the two firms were scored for their Business Approach to the ID/IQ program. The contract was awarded to the consultant that scored the highest for each of the two independent steps of the selection process. The two short-listed consultants offered unique approaches to the ID/IQ program. The approach that was ultimately selected is based on the Job Order Contracting procurement methodology.

A major component of Job Order Contracting is a Construction Task Catalog (CTC) consisting of a comprehensive list of work activities called pre-priced tasks. The CTC contains preset unit prices for the direct cost of each task. The unit prices are calculated using local labor, equipment, and material costs. Contractors will be asked to bid two adjustment factors to be applied to the pre-priced tasks in the CTC—one for working during normal working hours and another for working other-than-normal working hours (evenings, weekends, recognized holidays and when INDOT can only provide access to the work site for less than 7 hours at any one time. Each adjustment factor is weighted (e.g. 75%, 25%) and the sum of the weighted adjustment factors determines the lowest bidder. ID/IQ will be used for small to medium-sized bridge and pavement preservation projects.

Once a contract is awarded to the lowest, responsive, responsible bidder, and projects are identified, the contractor and INDOT's project manager will meet at the project site and discuss the work to be performed. After the site meeting, INDOT's project manager will develop a Detailed Scope of Work and issue a Request for Proposal to the contractor. The contractor will then build a Proposal Package which

includes the Price Proposal, a construction schedule, and a list of subcontractors and will submit the Proposal Package to the INDOT project manager for review and approval. The Price Proposal amount is determined by the unit price of the individual tasks, multiplied by the quantity determined by the Detailed Scope of Work, multiplied by the appropriate adjustment factor based on the work schedule. Once the Proposal Package is approved by the INDOT project manager, a Job Order will be issued to the contractor.

If there is a change in the Detailed Scope of Work after a Job Order is issued, any extras, changes or deletions are handled as a Supplemental Job Order where the Contractor is required to price the work in the same manner as the original Price Proposal – unit prices multiplied by the quantity multiplied by the appropriate adjustment factor. This eliminates the traditional change order negotiation and avoids claims and delays.

ID/IQ provides a timely response to preservation and maintenance needs on an as-needed basis as the time frame for procuring each project is drastically reduced. ID/IQ contracts can be limited in scope. The scope of work for each ID/IQ Contract can be tailored to the type of asset for which work is required.

Federal legislation allows all highway bridges to be eligible for federal-aid funding. The FHWA Special Experimental Project No 14 (SEP-14) may be used to evaluate promising non-traditional contracting techniques.

Proposal

INDOT requests \$1,000,000 of federal funds to fund ID/IQ contracts for bridge preservation and maintenance activities under the SEP-14 "Alternative Contracting" program. The \$1M request will fund the initial year of the Pilot Program in the Greenfield District. Throughout the course of the first year of the Pilot Program, INDOT will coordinate with FHWA to evaluate the effectiveness of the program. Assuming that INDOT and FHWA are satisfied with the results of the program at the end of the year, INDOT will request an additional \$6,000,000 to fund individual ID/IQ contracts in each of the 6 INDOT Districts. The following provides the criteria for the program:

- FHWA 1273 will be included in all ID/IQ bid documents.
- INDOT will bid two ID/IQ Contracts in the Greenfield District. One Bridge Preservation ID/IQ Contract, and one Pavement Preservation ID/IQ Contract
- Each ID/IQ contract will have a scheduled completion date of one year from the date of award.
- Each contract will include a provision to extend the contract for one additional term (the contract award amount and a completion date one year from approval).
- Each extension is to be mutually agreed upon between the Department and the contractor.
- The general scope of the ID/IQ contracts will be for bridge and pavement preservation activities. Based on the success of the pilot program, INDOT may explore the use of ID/IQ for the preservation of other highway assets that may be explored within the program and subject to the concurrence of FHWA.

Schedule

- INDOT has identified the activities that will be included in the CTC.
- INDOT will use Federal Funds for the associated consulting fees to be paid to the ID/IQ consultant to prepare the CTC. Once finalized, INDOT will solicit bids through its traditional bidding process. Each contract will be awarded to the lowest, responsive, responsible bidder. We expect to have the CTC ready for Letting by August 2015.
- The ID/IQs will be administered in accordance with Federal Highway Administration and INDOT guidelines for the Federal Bridge Preventative Maintenance Program.

Evaluation

INDOT will review and evaluate the following during the pilot ID/IQ program:

- Time to complete the ID/IQ bid documents
- Time for bidding and award execution
- Responsiveness of contractors
- Cost to perform the work
- Ability to handle scope changes
- Contractor's ability to complete each Job Order in a timely manner
- Quality of work delivered

Reporting

- The INDOT ID/IQ Program Manager will submit an annual status report to FHWA.
- The INDOT ID/IQ Program Manager will submit a final evaluation report to FHWA within four months after completion of the pilot program.

INDOT ID/IQ Annual Program Report

Program Review Year: Calendar Year 2015

Program Status: Ready for Letting (Letting Date: 2/17/16)

Year-End Summary

1. Issued Notice to Proceed to the Job Order Contracting Consultant in August 2015
2. Construction Task Catalog was developed with the first draft available in November 2015
3. Disadvantaged Business Enterprise (DBE) Goal was set at 7% for the contracts based on precedent for similar work-type participation in prior design-bid-build contracts
4. Developed Process and Personnel Summary Documents to guide implementation and potential future contracts
5. Letting Date is scheduled for February 17, 2016

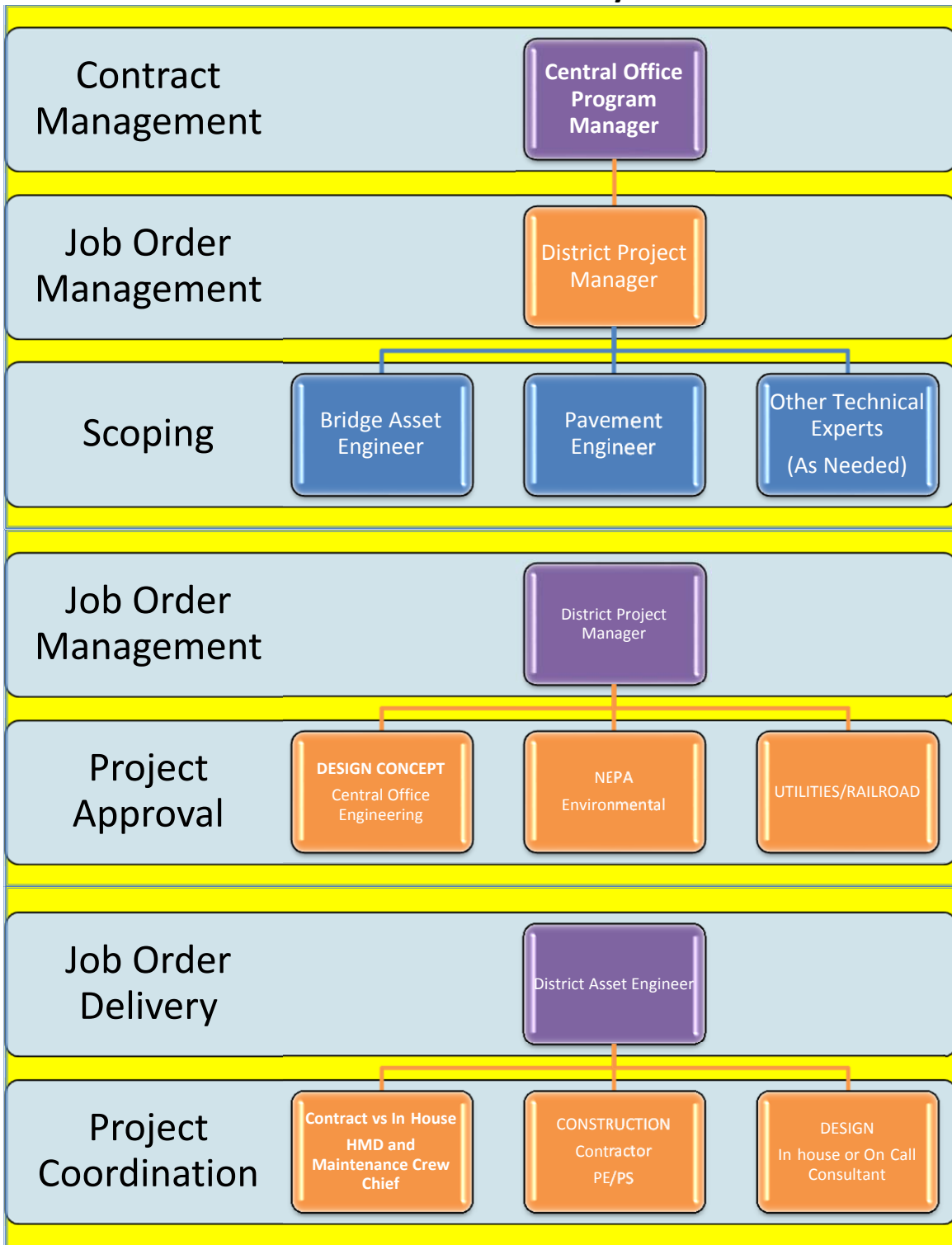
2015 IDIQ Program Details

1. JOC Consultant
 - a. Construction Task Catalog (CTC) was developed as an extensive list of materials, labor types, and work types.
 - i. Lessons Learned: N/A
 - ii. Projections of potential changes for next year: Will evaluate viability of an extensive catalog aiming to be exhaustive for entirety of potential work on all contracts versus a series of catalogs that are specific to the work-type defined in each contract
 - b. The integration of the CTC with Sitemanager (AASHTOWARE) was determined to be too problematic to attempt.
 - i. Lessons Learned: The Job Order Estimates will be developed in a two phase process. The first phase will be the development of the contractors estimate through the CTC. The second phase will involve INDOT personnel translating the project scope into traditional INDOT pay items for entry into Sitemanager. The INDOT Pay Items are needed in SiteManager to trigger material testing requirements.
 - ii. Projections of potential changes for next year: On-going evaluation of the process. Documentation of itemized pay items subcategorized under the traditional INDOT pay items.
2. DBE Goals
 - a. The DBE Goal is established as 7% for the Contract. It is anticipated that the DBE Participation will fluctuate for each Job Order, therefore the goal will only be applied for the overall contract.
 - i. Lessons Learned: A list of potential work items that have historically been opportunities for DBE participation were furnished with the Contract advertisements. The Affirmative Action Certification Form was revised to indicate that the contractor should list potential DBE's based on the advertised potential work types. The INDOT Project Manager will audit each Job Order for DBE participation. The cumulative attained DBE participation will be monitored as a percentage through the duration of the contract.
 - ii. Projections of potential changes for next year: Since the ID/IQ Contracts will function as a working relationship, the DBE Participation will be considered throughout the life of the contract. If the cumulative DBE participation is

lagging below the goal, then meetings will be held with the contractor to help identify opportunities to catch up to the goal through upcoming job orders.

3. Implementation Guide (Included as Pages 9 – 12 of this document)
 - a. Lessons Learned: Each step of the process is being incorporated into a master document that will serve to inform INDOT personnel how to properly administer the program.
 - b. Projections of potential changes for next year: The document will be continuously updated as the program is administered and evaluated.
4. Personnel Structure (Included as Pages 7 – 8 of this document)
 - a. Lessons Learned: A basic program personnel structure was developed to efficiently administer the program. Key personnel includes:
 - i. Technical experts to identify needs and scope the job orders
 - ii. District Project Managers to ensure proper administration of each job order
 - iii. District Construction Inspectors to inspect, measure, test, and close out each job order
 - iv. Central Office Program Manager to oversee each District Contract is administered properly, and to solicit new contracts when needed
 - b. Projections of potential changes for next year: Staffing needs will be constantly evaluated to ensure adequate, efficient oversight and administration of the program

INDOT IDIQ Process Summary Personnel Summary



INDOT IDIQ Process Summary

Personnel Summary

Personnel Roles and Responsibilities

Central Office Program Manager (COPM)

Location: Central Office

IDIQ Responsibilities:

- Coordinates Development of Construction Task Catalog
- Coordinates Federal Funding Approval and ensures inclusion into STIP and appropriate TIPs
- Performs routine audits of Job Orders to ensure appropriate approvals, work types, and documentation
-

District Project Manager (DPM)

Location: District

Reports To: District Capital Program Management Director (CPMD)

IDIQ Responsibilities:

- Assists COPM in the Development of Construction Task Catalog
- Ensures inclusion into STIP and appropriate TIPs
- Manages Job Orders to complete or ensure the completion of the appropriate approvals and documentation
- Verifies work types for each job order to ensure Federal Eligibility

Asset Engineers / Technical Experts

Location: District

Reports To: District Technical Services

IDIQ Responsibilities:

- Identifies the projects
- Performs Joint Scoping with the Contractor

Project Engineer / Project Supervisor

Location: District

Reports To: District Construction

IDIQ Responsibilities:

- Provides input into project scoping
- Performs construction inspection
- Manages all responsibilities associated with closeout of the work order

INDOT IDIQ Process Summary

Job Order Contracting – Project Management Guide

JOC PHASE II PROCESS

1. Need is identified
 - a. Bridge Inspector Deficiency: WMS Tracking for Work Order
 - b. Other than Inspector, then BAE Inputs the deficiency into WMS
2. Preliminary Screening for Eligibility
 - a. Work Type = PM: Preventive Maintenance Eligibility Criteria Reviewed by BAE
 - b. Work Type = Urgent Repair: BAE Coordinates with C.O. Bridge and Bridge Maintenance Engineer
3. Joint Scope Meeting (JSM)
 - a. Required Attendees: Contractor, Asset Engineer
 - b. Optional Attendees: PE/PS, Project Manager, Real Estate, Environmental, Utilities, Railroad
 - c. Set project scope and establish quantities
4. Site Meeting #2 (Concurrent with, or after JSM)
 - a. Potential Attendees (As Required): Project Manager, Asset Engineer, Real Estate, Environmental, Utilities, Railroad
 - b. Verify no potential impacts
 - i. Major Impacts identified = cancel job order
 - ii. Minor Impacts identified = Coordinate with Project Manager and Asset Engineer to determine Job Order Feasibility and Appropriateness
5. Work Order Documents
 - a. Asset Engineer compiles Plans and Specifications
 - b. Supporting services to be provided by Consultant On-Call Design, or INDOT Design
 - c. Plans and Specifications uploaded to Project Wise as a construction change and transmitted to the PE/PS
 - d. PE/PS Submits work order documents to Contractor
6. Contractor selects Line Items from CTC, and inputs quantities into eGordian.
 - a. Submits Estimate and time request to PE/PS
7. Phase II PSE & Project Documents and Processes
 - a. Design Approval
 - b. Central Office Bridge or Pavement – Approve Repair Concept
 - c. NEPA Review / Programmatic CE compliance
 - d. Utility Review – No Impacts Found
 - e. Railroad Review – No Railroad Coordination Required
 - f. PS&E Phase 2 completed
 - i. Only Federally Eligible work/items in project scope
8. Bridge Asset Engineer Reviews Items, Quantities, Estimate, and Time Request.
 - a. Job Order Canceled: Do not proceed
 - b. Job Order Approved: Proceed
9. PE/S creates change order in Sitemanager
 - a. Change Order approval indicates notice to proceed

- b. Item creation in Site Manager triggers testing requirements
- c. The Time-set coordinated between PE/PS, Contractor, and Asset Engineer is specified as intermediate completion date in change order

10. Job Order Closeout

- a. Once the Job Order is completed, the PE/S begins the closeout procedures for the Job Order.
- b. DBE Utilization is summarized in a second phase Affirmative Action Certification Form

c. **INDOT IDIQ Process Summary**

Project Funding

1. Prior to Letting
 - a. 23 CFR 636 (D/B Process) allows Award/Letting with exceptions to the standard procedures
 - i. The Construction Task Catalog will function as the Design-Build Bid Document
 - ii. FMIS will be authorized for the full amount of the contract through an Advance Construction (AC), then a new PO and Designation Number will be created for each individual job order. The PO will draw funds from the AC.
 - iii. NEPA: 23 CFR 636 (D/B Process) allows Award/Letting without finalized NEPA document
 1. NEPA will be satisfied through a Programmatic CE that is developed for each Job Order.
 - iv. PS&E: Phased PS&E document will be used. Phase 1 will include all completed / documented items available at the Bid Letting. Phase 2 will include all necessary items that must be documented for each Job Order
 - b. Establish the Contract Cap Funding amount in FMIS with a Mother Designation Number
 - c. Add a Placeholder project in the affected MPO TIP's and the STIP for preventive maintenance work.
 - i. An alternative is to add work into each TIP through an Amendment on an as needed basis. (Not advisable for larger MPO's).
2. After Letting – (For Each Job Order)
 - a. District requests funds for each job order
 - i. Request this as a Construction Other type request in CAPWISE and include the mother Project number in the comments

INDOT IDIQ Process Summary Year End Audit and Reporting

1. Summarize Work Types Performed
 - a. Identify reasons for Contract instead of Maintenance
 - i. Maintenance does not have the Materials, Technical Expertise, or Manpower
 - ii. Coordinate with Operations
 1. Identify Training Opportunities for INDOT Maintenance Personnel
 2. Identify work types that should or should not be done with INDOT forces
2. Summarize Project Costs
 - a. Compare to historic project costs
3. Summarize Condition Values (Delta if applicable)