

AGENDA
SPECIAL TRANSPORTATION AND ROAD IMPROVEMENT COMMITTEE
Village of Hoffman Estates
September 28, 2015

Immediately Following Finance

| | | |
|-----------------|--------------------------------------|-------------------------------|
| Members: | Gary Stanton, Chairperson | Anna Newell, Trustee |
| | Karen Mills, Vice Chairperson | Gary Pilafas, Trustee |
| | Gayle Vandenberg, Trustee | Michael Gaeta, Trustee |
| | | William McLeod, Mayor |

I. Roll Call

NEW BUSINESS

1. Request:
 - a. Approval of an Intergovernmental Agreement with Pace Suburban Bus for design engineering services of a pedestrian overpass of I-90 for the Pace Park & Ride; and
 - b. Authorization to approve Supplement #2 to the contract with Crawford, Murphy, and Tilly, Inc. of Aurora, IL for design engineering services of the pedestrian overpass at a cost not to exceed \$653,556.31.

II. Adjournment

**COMMITTEE AGENDA ITEM
VILLAGE OF HOFFMAN ESTATES**

SUBJECT: Request:

- a. Approval of an Intergovernmental Agreement with Pace Suburban Bus for design engineering services of a pedestrian overpass of I-90 for the Pace Park & Ride; and
- b. Authorization to approve Supplement #2 to the contract with Crawford, Murphy, and Tilly, Inc. of Aurora, IL for design engineering services of the pedestrian overpass at a cost not to exceed \$653,556.31

MEETING DATE: September 28, 2015

COMMITTEE: Special Transportation and Road Improvement

FROM: Michael Hankey

PURPOSE: Approvals of an Intergovernmental Agreement (IGA) with Pace, the Suburban Bus Division of the Regional Transportation Authority, (Pace) and a second supplement to the Phase II design engineering services contract with Crawford, Murphy, and Tilly, Inc. (CMT) for the pedestrian overpass of I-90 are requested.

DISCUSSION: Pace is currently designing the Park & Ride facility to be built in the northeast quadrant of the I-90 / Barrington Road interchange. The Illinois Tollway's current construction on the full interchange includes accommodations for the bus drop off areas along the bus ramp on I-90 and pedestrian access under the new ramps on the east side of Barrington Road to link to the Park and Ride on the north as well as a Kiss & Ride drop off / pick up area on the south. The I-90 bus stops and the Park & Ride are planned to be completed towards the end of 2016 to coincide with the completion of the Illinois Tollway's widening and reconstruction of I-90. The Village is the lead agency for the interchange design having previously approved contracts with Crawford, Murphy, and Tilly, Inc. engineers.

To complement the I-90 bus stops, Park & Ride, and Kiss & Ride, Pace will be constructing a pedestrian overpass of I-90 to link the transit facilities on the north and south. Pace will fund the design and construction of the overpass. The design will include elevators, stairs, and an enclosed structure, supported by a center pier in the median of I-90. The Illinois Tollway specified the elements of the design which will be similar to the pedestrian overpasses at their mainline toll plazas. A key timing element for

DISCUSSION: (Continued)

construction is to complete the pedestrian overpass design in time so that a center support pier in the median of I-90 can be installed next year when the inside lanes and median are under construction. This center pier would be included in a Tollway contract for the mainline construction work. A separate Tollway project would cover construction of the balance of the pedestrian overpass components. In order to meet the Tollway's schedule and expedite design, the pedestrian overpass design would be added to the Village's contract with CMT for the Barrington Road bridge and interchange design. Time is of the essence for CMT to start the design as the Tollway needs plans for the center pier by the end of this year in order to build it in 2016.

There are two items recommended for approval. The first is the IGA between Pace and the Village regarding costs for the design engineering work of the pedestrian overpass. The second is approval of a supplement to the contract with CMT for this design work. The Illinois Tollway and Pace will separately enter into an agreement for the construction of the pedestrian overpass. The Village may have some involvement in this agreement for enforcement, emergency response, and aesthetic design features to complement the Barrington Road bridge design. If needed, the IGA for construction will be presented to the Village Board at a later date.

A copy of the IGA prepared by Pace for the design of the pedestrian overpass is attached. This document has been reviewed by staff and legal counsel. The terms call for Pace to pay all the cost of the overpass design. Payments will be made to coincide with main milestones in the development of these design plans. The Village will administer the CMT contract and supplement. Pace will be invoiced by the Village for all the costs related to design. The contract supplement is attached for consideration. This document includes the scope of services which has been approved by Pace and the Tollway.

FINANCIAL IMPACT:

There is no cost to the Village for the design services included in the contract supplement. Per the IGA, Pace will pay all the cost for CMT's design work. The Village will invoice Pace per the schedule in the IGA.

RECOMMENDATION:

Request:

- a. Approval of an Intergovernmental Agreement with Pace for design engineering services of the pedestrian overpass of I-90 for the Pace Park & Ride; and
- b. Authorization to approve Supplement #2 to the contract with Crawford, Murphy, and Tilly, Inc. of Aurora, IL for design engineering services of the pedestrian overpass at a cost not to exceed \$653,556.31. The full cost will be paid by Pace, requiring no Village funds.

Intergovernmental Agreement Approval Request
(NB#1a)

Supporting Document

INTERGOVERNMENTAL AGREEMENT
BY AND BETWEEN
THE VILLAGE OF HOFFMAN ESTATES AND
PACE, THE SUBURBAN BUS DIVISION OF THE
REGIONAL TRANSPORTATION AUTHORITY

This Agreement, entered in to this _____ day of _____, 2015 between the Village of Hoffman Estates (Village), 1900 Hassell Road, Hoffman Estates, Illinois 60169 and Pace, The Suburban Bus Division of the Regional Transportation Authority (Pace), 550 West Algonquin Road, Arlington Heights, Illinois 60005, concerns the design engineering of a pedestrian bridge that spans the Jane Addams Memorial Tollway (I-90) at Barrington Road.

This Agreement is made with recognition of the following by the parties. This Intergovernmental activity is encouraged by Article VII Constitution of the State of Illinois §10, and authorized by 5 ILCS 220/3. The parties share the goal of improvements to be made to the Jane Addams Memorial Tollway (I-90), specifically the Barrington Road Interchange. Pace is a party to an Intergovernmental Agreement, with the Illinois State Toll Highway Authority, in which it agreed, for the Barrington Road Interchange.:

B: PACE agrees to perform preliminary and final design engineering, obtain necessary surveys, and prepare the final plans and specifications for the PACE IMPROVEMENTS. During the design and preparation of the plans and specifications, PACE shall submit the plans and specifications to the ILLINOIS TOLLWAY for its review and comment at the following stages of plan preparation:

30% Complete

60% Complete

90% Complete (pre-final)

100% Complete (final)

Village has retained Crawford, Murphy & Tilly Inc. to provide design engineering services for the Barrington Road bridge and Barrington Road full interchange and proposes to supplement its contract with Crawford Murphy & Tilly Inc. to add design and construction engineering assistance services for the pedestrian overpass of I-90 to serve Pace service and stops, park & ride, and kiss & ride facilities to include the scope of work reflected in Exhibit A to this Agreement.

Therefore, in consideration of the mutual promises of the parties, contained in this Agreement, the parties agree as follows.

1. Village shall supplement its contract/agreement with Crawford, Murphy, Tilly, Inc. to add design and construction engineering assistance services for the pedestrian overpass of I-90 at Barrington Road to serve Pace service on I-90, its bus stops, park & ride, and kiss & ride facilities, with the project scope as contained in Exhibit A.
2. Village agrees to submit such plans and specifications for such pedestrian overpass of I-90 at Barrington Road, to the Illinois State Toll Highway Authority, with a copy to Pace, for Authority's review and comment; when 30% complete; when 60% complete; when 90% complete; and when 100% complete.
3. Pace agrees to pay the cost of such design engineering services, to a maximum of \$653,556.31, to Village as follows:
 - a. \$163,389.07 upon submission by Crawford, Murphy Tilly, Inc. of plans and specifications at 30% complete, to the Illinois State Toll Highway Authority for its review and comment;
 - b. \$163,389.07 upon submission by Crawford, Murphy, Tilly, Inc. of plans and specifications at 60% complete, to the Illinois State Toll Highway Authority for its review and comment;
 - c. \$163,389.07 upon submission by Crawford, Murphy, Tilly Inc. of plans and specifications at 90% complete, to the Illinois State Toll Highway Authority for its review and comment;
 - d. \$163,389.10 upon submission by Crawford, Murphy Tilly, Inc. of plans and specifications at 100% complete, to the Illinois State Toll Highway Authority for its review and comment.
4. The parties agree that this Agreement contains the full understanding and agreements of the parties and no prior agreements, whether written or oral, are valid or enforceable; and may not be modified except in writing and executed by the parties.
5. All documents, notices and other communications related to this Agreement shall be in writing and shall be personally delivered; delivered by overnight mail delivery; or delivered by electronic mail delivery to the parties at:

To the Village of Hoffman Estates:
Village of Hoffman Estates
Development Services
1900 Hassell Road
Hoffman Estates, Illinois 60169
Attn: Michael Hankey, Director of Transportation
and Engineering Division
michael.hankey@hoffmanestates.org

To Pace:
Pace
550 West Algonquin Road
Arlington Heights, Illinois 60005
Attn: Executive Director
T.J.Ross@pacebus.com

In Witness Thereof, the parties have executed this Agreement on the dates indicated.

Village of Hoffman Estates

by: _____

Title: _____

Date: _____

Pace

by _____

Title: Executive Director _____

Date: _____

EXHIBIT A

Estimating Data and Project Scope

**Phase II Design
Pedestrian Bridge Over Jane Addams Tollway (I-90) at Barrington Road
in Cook County
for the
Village of Hoffman Estates, Pace Suburban Bus and the Illinois Tollway**

September 21, 2015

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

GENERAL PROJECT INFORMATION & FEATURES

Scope of services assumes that there will be two separate sets of contract documents prepared for this project. Contract 1 will be provided to the Tollway inside lane/median contract via addendum and construction revisions with four submittals for Contract 2 (Concept 30%, Preliminary 60%, Pre-final 90% and Final).

Contract 1 refers to the advanced contract that will include the I-90 median pier of the pedestrian bridge.

Contract 2 includes the remainder of the proposed pedestrian bridge improvements required to complete the outside elements (piers, building, etc.) to accommodate the connection to the proposed Pace and Tollway interchange improvements.

Pedestrian Bridge Crossing of Jane Addams Tollway (I-90) near Barrington Road:

- The pedestrian bridge will be designed in accordance with the Tollway Structure Design Manual and be consistent with previously constructed Tollway walkway over their facilities at various Plazas including the Elgin Toll Plaza (Plaza 9) on the Jane Addams Tollway (I-90) and Plaza 88 on the Ronald Reagan Tollway near Dekalb.
- Current scope/man-hours estimate does not include design of transit elements regarding previously designed park n' ride, kiss n' ride parking lots, access drives or crossings at Tollway ramps, etc. However, these facilities will be coordinated with Pace's contracts for the Pk n' Ride and Kiss n' Ride facilities currently being designed, including but not limited to utility connections.
- Improvements will be in accordance with the Tollway's Design Section Engineering Manual and in accordance with IDOT's BDE Manual.
- Presumed that Contract 1 items will be included in the Tollway's I-15-4233 contract for inside lane/median construction currently out for bid and Contract 2 items will be bid separately on a Tollway letting.

Preliminary Estimated Construction Cost:

- \$5 million (Includes Both Contracts 1 & 2)

Project Limits: (Detailed Project Limits Map Included as Attachment "A")

- Pedestrian path/touchdown points both north and south of the BRT lanes being constructed as part of the I-90 mainline and Barrington Road interchange improvements.

Estimated Structural Features:

- Pedestrian bridge over I-90
 - Center Pier at I-90 (to be included via addendum into the Tollway inside mainline construction contract)
 - 1 Each

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

-Outside piers and building housing components for the elevator/stairs and BRT lane canopies (or shelters) as determined by Pace in the early stages of design development.

2 Each

-Overpass connecting the outside piers with the center pier (Approx. 250')

Estimated Building/Architectural Features:

- Elevators, stairs, HVAC, electrical, lighting, signing
- Aesthetic elements to coincide with the Barrington Road Bridge monumentation and lighting
- Climate controlled building and pedestrian walkway facility (Minimum of 50 degrees in the winter and maximum of 80 degrees in the summer)
- Elevator to accommodate emergency services equipment
- As design details are being developed, plumbing will currently be provided for maintenance purposes. (Should the agencies determine that bathrooms are to be incorporated, this will be identified prior to the preliminary submittal for Contract 2.)

Design/Construction Schedule (as attached and as summarized below):

- Assumes notice-to-proceed for design of October 1, 2015
- Contract 1 pay items and quantities will be included in the addendum for Tollway Contract I-15-4233. Plans to follow post bid as construction revisions.
- Contract 2 to be advertised for bid in April 2016 with a bid date no later than early June 2016.
- CMT Design Contract will essentially be open for the duration of the construction period thru the end of 2016 and early 2017 to account for Construction Support Services (Item 18 of this contract scope.)
- Contractors will reach substantial completion which means the opening of the facilities for use by the end of 2016 with an overall completion of the spring of 2017 for landscaping and other punch list items.

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

| <u>PRELIMINARY INDEX OF SHEETS (Contract 1)</u> | <u># OF SHEETS</u> |
|--|---------------------------|
| (Assumed to be provided as an addendum to the Tollway's inside mainline contract anticipated for an NTP in Dec 2015/Jan 2016) | |
| Cover Sheet | 0 |
| Signature Sheet | 0 |
| Index of Sheets | 0 |
| General Notes & Commitments | 0 |
| Standards | 0 |
| Summary of Quantities | 1 |
| Utility Relocation Matrix | 0 |
| Typical Sections | 1 |
| Schedule of Quantities | 0 |
| Alignment, Ties, and Benchmarks | 0 |
| Pedestrian Bridge Plan and Profile | 1 |
| Construction Staging and Maintenance of Traffic | 1 |
| Erosion and Sediment Control | 1 |
| Drainage Plan and Profile | 1 |
| Removal Plans | 1 |
| Structural Plans | |
| -G,P and E | 1 |
| -Gen Notes/Index | 1 |
| -Bill of Mtls | 1 |
| -Staging Det | 1 |
| -Pier Details | 2 |
| -Boring Log | 1 |
| Tollway Details | 0 |
| Miscellaneous Details | 1 |
| Cross Sections | <u>1</u> |
| Total Sheets | 16 |

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

| <u>PRELIMINARY INDEX OF SHEETS (Contract 2)</u> | <u># OF SHEETS</u> |
|---|---------------------------|
| Cover Sheet/Signature Sheet | 1 |
| Index of Sheets | 1 |
| General Notes & Commitments | 1 |
| Mixture Requirements & Highway Standards | 0 |
| Suggested Construction Schedule - Maintenance of Traffic | 1 |
| Utility Plan Relocation Matrix | 1 |
| Summary of Quantities | 2 |
| Typical Sections | 2 |
| Schedule of Quantities | 0 |
| Site Plan | 1 |
| Alignment, Ties, and Benchmarks | 1 |
| Pedestrian Bridge Plan and Profile | 2 |
| Pedestrian Path Plan and Profile – Connect to Pace Facilities | 2 |
| Construction Staging and Maintenance of Traffic | 4 |
| Erosion and Sediment Control | 4 |
| Drainage Plan and Profile | 4 |
| Grading Plan | 4 |
| Right-of-Way Plans | 0 |
| Removal Plans | 2 |
| Structural Plans | |
| -General, Plan and Elevation | 1 |
| -Gen Structural Notes/Index | 2 |
| -North Service Building Plans | 4 |
| -Bridge Plans | 3 |
| -South Service Building Plans | 4 |
| -Bridge Framing Elevations | 2 |
| -Bridge Framing Details | 4 |
| -North Service Building Sections and Details | 2 |
| -Bracing Details | 3 |
| -Bridge Sections | 2 |
| -Center Pier Details | 2 |
| -Bridge Details | 4 |
| -Floating Bearing Details | 1 |
| -South Service Building Sections and Details | 2 |
| -Boring Logs | 1 |
| Building/Architectural Plans | 10 |
| Building/Architectural Details | 4 |
| Interior Electrical Plans | 6 |
| Interior Electrical Details | 2 |
| HVAC Plans | 6 |
| HVAC Details | 2 |
| Exterior Architectural Features/Elements Plan | 2 |

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

| | |
|---|------------|
| Exterior Architectural Features/Elements Details | 2 |
| Landscaping Plans | 2 |
| Roadway Signing Plans | 2 |
| Exterior Lighting Plans – Pedestrian Path Connections | 4 |
| Tollway Details | 1 |
| Miscellaneous Details | 1 |
| Cross Sections – Near Piers/Buildings | 4 |
| Total Sheets | 118 |

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

TASK ITEM SUMMARY: (Tasks summary applies to both Contract 1 and Contract 2)

1. DATA COLLECTION

- A. Obtain, log and review record plan information, and any other correspondence related to the project. Includes maintaining a log of information.
- B. Includes two additional trips to inspect and photograph project site.
- C. Obtain and review other consultant (HDR for mainline and Ciorba for Pace pk n ride) computer files to be utilized for design.
- D. Review available utility information.
- E. Obtain and Review Geotechnical Reports from I-90 Corridor DSE (HDR)

2. SUPPLEMENTAL FIELD SURVEYS

Note: Surveys of existing roadways to utilize lane and shoulder closures.

Additional surveys will be performed only as needed to assist in the design of the Pedestrian Bridge. Existing and record drawing surveys performed by Tollway DSE will be reviewed. Any missing survey data between DSE surveys/record drawing info and previous Barrington Road Interchange surveys will be part of the supplemental surveys. Survey work may include establishing horizontal and vertical control, topographic/dtm surveys, drainage surveys, utility surveys, staking of borings and alignments and boundary surveys.

- A. Horizontal & Vertical Control: Existing Horizontal Control previously established along the I-90 mainline corridor in State Plane NAD83 datum will be used to establish additional control within the project limits.

Existing Vertical Control previously established along the I-90 mainline corridor in NAVD88 datum will be used to establish additional benchmarks within the project limits.

- B. Topographic & DTM Surveys (Assume no Aerial Mapping): Topographic & DTM Surveys will be performed within the project limits to identify above ground visible features (roadways, entrances, curb, mailboxes, manholes, fences, utility poles & valves, buildings, etc.). Sufficient survey shots will be taken to develop a Geopak "TIN" file.
- C. Drainage Surveys: Surveys of drainage manholes, inlets, and sanitary manholes to show invert elevations, pipe size and direction of flow to next structure. Entry into confined spaces is not included in this proposal.
- D. Utility Surveys: Attend joint field meeting with utility companies and survey the location of marked underground utility lines.
- E. Boring Staking: Roadway and/or Structure borings will be marked in the field with a stake and the ground elevation or survey crews will locate borings already taken for location and elevation.
- F. Alignments: Set & Cross-Tie alignment points in the field.
- G. Pick-Up Surveys
- H. Download and Process Survey Data
- I. Traffic Control Coordination
- J. Combine with Previous Survey data, From Interchange Design

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Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

- K. Create and Manipulate the TIN
- L. Cutting of existing cross sections

3. GEOTECHNICAL INVESTIGATIONS

Note: Traffic control is included in the scope, man-hours and direct costs (as needed)

- A. Call JULIE and Illinois Tollway to clear onsite utilities.
- B. Layout boring locations.
- C. Provide drill-rig, 2-man crew and field engineer. ATV drill-rig will be used where required.
- D. A total of 6 soil borings (total lineal footage = 480 feet) will be performed as follows:
 - 6 bridge structure borings to estimated depth of 80 feet. If bedrock is encountered prior to 80 feet, a 10-ft bedrock core (NX-size) will be obtained (one per substructure).
- E. The geotechnical laboratory testing will include the following tests:
 - Visual classification (all samples)
 - Water content testing (all samples)
 - Rimac strength testing (on intact cohesive samples – in field with IDOT modified Rimac).
 - Grain-size/hydrometer and Atterberg testing (on select samples).
 - Consolidation testing (on select samples).
 - Unconfined compressive strength (on select samples).
 - Consolidation-undrained tri-axial testing (on select samples).
 - Organic content testing (on select samples).
- F. Geotechnical Report: Report will be prepared under the direct supervision of a Registered Professional Engineer. Below is a summary of the reports that will be prepared as part of the geotechnical program:

- Structure report for bridge.

Information that will be included in the geotechnical reports:

- Soil conditions
- Ground water elevations
- Site preparation recommendations
- Foundation recommendations
- Lateral support recommendations
- Slope Stability analysis
- Copies of boring logs, core logs, test results and location diagram
- Recommendations relative to any unusual design or construction techniques which may be required due to subsurface conditions

Assumptions Made for Scope Purposes:

- No snow removal included in this proposal.
- No RR liability insurance coverage needed for project.
- No landscape repair or clearing/grubbing included in this proposal.
- No fence repair included in this proposal.
- Final boring locations will be determined after a review of access and overhead and underground utilities have been identified.

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Pedestrian Bridge over I-90

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Additional Information: Hand auger borings will be performed in locations inaccessible by a drill rig and on slopes to determine embankment fill conditions. Hand auger borings will be extended to a depth of 15 feet or auger refusal. Soil samples will be obtained at 2.5-ft intervals to a depth of 30 feet (5.0-intervals thereafter) and sampled with a 2.0-in diameter split spoon. Select samples will be obtained with 3-inch diameter Shelby tubes. Deeper boreholes on pavement (borings on pavement that are deeper than 20-feet) will be grouted. Shallower borings, deeper borings off of pavement, and pavement cores will be backfilled with soil cuttings and patched upon completion. A field engineer/geologist will log samples, including testing cohesive samples using a Rimac testing device.

Final boring locations will be determined after a review of access and overhead and underground utilities have been identified.

4. ENVIRONMENTAL

- A. Permitting: The permitting process through the COE for jurisdictional wetlands is understood to be included in the Tollway's overall I-90 permit for the mainline and interchange construction. No effort is anticipated by CMT for this item.

5. DRAINAGE DESIGN

- A. Open and closed drainage conveyance design
- B. Design of detention facilities is not anticipated.
- C. Revisions to previously designed facilities in the Tollway median and outside pier/building areas

6. EROSION CONTROL DESIGN

- A. Temporary and permanent erosion and sediment control for all construction zones.
- B. Revisions to previously designed facilities in the Tollway median and outside pier/building areas—Preparation of SWPPP

7. BARRIER WARRANT ANALYSIS (BWA)

- A. Develop Areas of Concern (including exhibits) (with CMT)
- B. Analyze at median pier and outside pier/building locations
- C. Prepare BWA submittal, including site plans and calculations (to be reviewed by Tollway personnel)
- D. Prepare Final BWA report at all locations with disposition of comments
- E. Coordination with Tollway barrier warrant reviewers/Submit on eBuilder

8. TYPE, SIZE & LOCATION DRAWINGS

- A. Type, Size & Location (TS&L) Drawings and Structure Report will be prepared for the following structural elements:
 - 1. Pedestrian bridge over I-90

TS&L drawings will include the required structural specifications, plan and elevation layout of proposed structure and other pertinent design information. The TS&L's will

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Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

be based on soil borings as well as plan and profile sheets and roadway cross-sections and any other pertinent information. The TS&L's will be submitted to the Illinois Tollway.

- B. Coordination with the Illinois Tollway
- C. Address preliminary TS&L review comments from the Illinois Tollway. Review comments will be incorporated into the final TS&L. This will become the basis for the final bridge PS&E.

9. PREFINAL/FINAL STRUCTURE PLANS

- A. A Plan Development Outline (PDO) will be prepared for the pedestrian bridge and associated access structures to be designed.
- B. Pre-final structure plans will be prepared and when complete submitted to the Tollway. This submittal shall include plans, specifications, design calculations, quantity calculations and a consultant fact sheet. The following structural plans are anticipated at this time:

Pedestrian Bridge over I-90 (Jane Addams Tollway) Plans

- 1. General Plan & Elevation
 - 2. General Notes, Bill of Material & Details
 - 3. North Service Building Plans
 - 4. Bridge Plans
 - 5. South Service Building Plans
 - 6. Bridge Framing Elevations
 - 7. Bridge Framing Details
 - 8. North Service Building Sections and Details
 - 9. Bracing Details
 - 10. Bridge Sections
 - 11. Center Pier Details
 - 12. Bridge Details
 - 13. Floating Bearing Details
 - 14. South Service Building Sections and Details
 - 15. Boring Logs
- C. Structural plans will be inserted into the appropriate Contract Plan set.

10. CIVIL PLANS

A detailed breakdown of proposed plan sheet count for Contract 1 and Contract 2 is presented on page 2 and 3 of this scope. Plan sheets will generally meet the requirements of the Illinois Tollway. The following is a general description of sheet layout and content that will be presented.

- A. Cover Sheet
- B. Signature Sheet
- C. Index of Sheets
- D. General Notes & Commitments
- E. Mixture Requirements & Highway Standards
- F. Suggested Construction Schedule – Maintenance of Traffic
- G. Utility Plan Relocation Matrix

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Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

- H. Summary of Quantities – Listing of all pay items
- I. Schedule of Quantities – Sheet will include select quantity calculation schedules for the following items:
 - 1. Earthwork
 - 2. Seeding
 - 3. Erosion Control
 - 4. Removals
 - 5. Drainage & Culverts
 - 6. Pipe Underdrains & Outlets
 - 7. Signing
 - 8. Guardrail
- J. Status of Utilities to be Adjusted – One sheet, CMT will complete a schedule table of possible utility conflicts and provide to others who will provide utility information and coordinate relocations.
- K. Typical Sections – Existing and proposed sections will be prepared for the median and outside Tollway mainline areas
- L. Site Plan – Overall layout of project
- M. Alignment Ties and Benchmarks – Plan sheet(s) will be prepared to show the centerline break points and curve information, horizontal control points and vertical benchmarks. The design coordinates for each point will be provided along with station and offsets. Field survey swing ties and control points will also be included for re-establishing any lost or obliterated points.
- N. Pedestrian Path Plan and Profile – Sheets will be prepared at 1"=50'
- O. Construction Staging and Maintenance of Traffic Control – Staging and MOT sheets for I-90 mainline (coordinated with the I-90 I-11-4017 DSE), shall be prepared as follows:
 - 1. A key map plan sheet showing the overall staging section shall be prepared.
 - 2. Typical sections will be created to show stage construction details, including pavement widening/new construction and traffic/lane configurations.
 - 3. Plan sheets will be developed at the same scale as the plan and profile sheets to show interim connections and drainage work required to construct the project in stages while maintaining traffic.
- P. Temporary Erosion Control – Sheets will be prepared as needed for staged construction at 1"=50'.
- Q. Drainage Plan and Profile – Sheets will be prepared at 1"=50'
- R. Grading Plan – Sheets will be prepared at 1"=50' and will include proposed contours for grading near the bridge construction areas
- S. Removal Plan – Sheets will be prepared at 1"=50'
- T. Pavement Marking Plans – NOT INCLUDED
- U. Landscaping Plans – Two sheets per quadrant for landscaping detail plans
- V. Lighting Plans – Lighting plans and details will be prepared at 1"=50' scale.
Photometric calculations are included in the scope of services.
- W. Illinois Tollway Details – Applicable standard details will be included in plan set.
- X. Miscellaneous Details – Details will be prepared for items not covered by Tollway, Pace or IDOT Standards and included with the construction plans.
- Y. Cross sections will be prepared as needed and include the following information:
 - a. Proposed profile elevation.
 - b. Proposed ditch elevations.

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

- c. Ditch flow arrows.
- d. Existing utility information.
- e. Limits of stage construction.
- f. Excavation and embankment by construction stage.
- g. Limits of topsoil excavation and placement.
- h. Removal limits of unsuitable material.
- i. Sub base, shoulder and pavement structures.
- j. Proposed known Tollway mainline and Pace park n' ride improvements

11. ARCHITECTURAL/BUILDING PLANS

- A. Preliminary Design/Concepts—Obtain agency buy-in before proceeding
- B. Schematic Design of the Building layout and configurations—Obtain agency comments and adjust based on comments before proceeding with plan development
- C. Plan Design and Identification of Building Features and Materials—Present materials and aesthetic features for agencies prior to proceeding with contract plans and specifications
- D. Preparation of Pre-Final and subsequent Final Plan Drawing Development

12. ELECTRICAL PLANS

- A. Perform load Calculations and Sizing for elements based on agency needs and preliminary design
- B. Coordination with Com Ed for new service
- C. Perform lighting photometrics and develop layout
- D. Prepare preliminary, pre-final and final plan sheets
- E. Address review comments and provide disposition at each submittal stage

13. PLUMBING/HVAC PLANS

- A. Develop HVAC design based on agency desires for building use. (Includes plan development at each stage.)
- B. Develop Plumbing design based on agency desires for building use. (Includes plan development at each stage.)
- C. Present equipment options and gain agency concurrence
- D. Present controls and automation and gain agency concurrence
- E. Bathroom facilities are currently not included but Pace and agencies to consider prior to the preliminary submittal.

14. SPECIFICATIONS AND QUANTITIES

- A. The specifications and quantities will be prepared for pre-final and final plan submittals on both Contract Plan sets.
- B. Summary of Quantities – Perform quantity computations for all pay items.
- C. Special Provisions will be prepared for pay items requiring a special provision.
- D. An estimate of time will be prepared for the primary pay items and the anticipated construction staging method.
- E. An estimate of cost will be prepared in unit price format for proposed pay items.

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

15. PROGRESS MEETINGS / FIELD CHECKS / COORDINATION

- A. Includes five progress meetings with the Village/Pace/Tollway (Including their DSE-Design Section engineer-HDR) to review and discuss the project status. Includes one review meeting after each milestone submittal.
- B. Includes coordination and at least one (1) meetings with each utility company. The following is a list of owners of existing facilities within the project limits:
 - 1. JAWA (Watermain)
 - 2. ComEd (Electrical)
 - 3. Nicor (Natural Gas)---Will require multiple meetings with Nicor to gain concurrence and acceptance of improvements in vicinity of existing Nicor facilities.
 - 4. AT&T (Fiber/Telephone)
 - 5. Village of Hoffman Estates
 - 6. G4S Technology LLC
- C. Assist and provide verbage for inclusion within HDR addendum preparation
- D. Includes a field check and review by the project team after each of the milestone plan submittals
- E. Includes coordination with the Tollway during development of the structure plans.
- F. Includes preparation time prior to each meeting.
- G. Includes meeting minutes for each meeting.
- H. Coordination with transit agencies: Pace, Metra and RTA (as needed)
- I. Project Invoicing/Review of sub-consultant invoices
- J. Sub-consultant Management/Coordination
- K. Disposition of Pace/Tollway Review Comments

16. QUALITY MANAGEMENT PLAN

- A. Preparation of Consultant Quality Plan (CQP)
- B. A Quality Assurance Review of each milestone deliverable (TS&L's and PS&E's) shall be prepared and completed in accordance with the CQP.
- C. A Constructability Review shall be completed on the preliminary and prefinal plans.
- D. The project principal shall monitor and conduct CQP implementation meetings with the PM to assure conformance with the approved plan.

17. ADMINISTRATION / PROJECT MANAGEMENT

- A. Includes conducting external and internal project Kick-Off meetings for the design phase.
- B. Includes preparation of monthly progress reports and narratives.
- C. Personnel planning, scheduling, budget control monitoring.
- D. Internal project team meetings will be conducted throughout the duration of the project.
- E. Posting of submittals to Tollway's eBuilder project management system

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

- F. Project close out.
- G. Project Bid Period Support

18. CONSTRUCTION PHASE SERVICES

- A. On-Site Construction Management (CM) services not included. It is presumed that the agencies (Pace or Tollway) will contract separately for the onsite CM services. In addition, no time is allotted for CMT's sub-consultants, Geo-Services and 2IM are included. CMT Services as designer will be limited to the following tasks:
 - 1. Meeting Attendance (Assume an initial kick-off or pre-con meeting and eight subsequent onsite meetings attended by up to two people. Attendance on a regular/weekly basis is not included.)
 - 2. Consultation During Construction/RFI's/NCR's (An assumption of 20 RFI's (at 2 hrs per) and phone call/e-mail correspondence (4 hrs/wk x 24 weeks) is included for estimating purposes.)
 - 3. Shop Drawing/Construction Reviews (An assumption of up to 50 submittals (at 4 hrs per review) of shop drawings for project components is estimated which includes resubmittals as necessary.)
 - 4. Site Visits (Assume eight (8) visits by one person.)
 - 5. Construction Plan Revisions (by DSE) (An assumption of 2 sets of construction revisions for up to 6 plan revisions per each (at 8 hrs/sht) is being used for estimating purposes.)

ITEMS TO BE COMPLETED AND DELIVERABLES TO BE PREPARED BY DESIGN TEAM (For contracts 1 and 2)

T,S and L (30% Concept of Bridge)

- 1. Four (4) full-size and eight (8) quarter-size copies of the Bridge Type, Size and Location (T,S and L) Drawings (**Contract 1-Center Pier, Contract 2-Outside structures**)

Contract 1

- 1. Two (2) full-size and thirty (30) half-size copies of the PreFinal Plans
- 2. Two (2) full-size and thirty (30) half-size copies of the Final Plans

Contract 2

- 3. The Concept (30 %) will not require any plan sheets but will be submitted as text and exhibits only.
- 4. Two (2) full-size and thirty (30) half-size copies of the Preliminary Plans
- 5. Two (2) full-size and thirty (30) half-size copies of the Prefinal Plans

SCOPE OF WORK

Pedestrian Bridge over I-90

VILLAGE OF HOFFMAN ESTATES/PACE/ILLINOIS TOLLWAY

6. Two (2) full-size and thirty (30) half-size copies of the Final Plans
7. Quantity Calculations (Contract 2)
8. Electronic Transfer of Design Files and eBuilder postings
9. Two (2) copies of the Preliminary, Pre-Final and Final Barrier Warrant Analysis

Tollway Requirements

15 hard copies & 10 CD's for each of the submittals

Village Requirements

1 Set at all submittals (1 CD at Final will be provided.)

Pace Requirements

2 Sets at all submittals. (1 CD at Final will be provided.)

Utility Companies

6 copies at each submittal

Other

(5 internal sets for miscellaneous distribution.)

ITEMS TO BE OBTAINED FROM (TOLLWAY, VILLAGE and Pace (If Available))

1. Go By Plans of Tollway Plaza Crossings
2. Record Drawing plans of Ongoing Mainline Construction in the Vicinity (From Tollway DSE.).
3. Record Drawing or final design documents for Pace's Park n Ride facilities
4. All additional utility information, including Tollway ITS, coordinated to date including plan view locations and/or elevations within the project limits. (Tollway, Village and Pace)
5. Any Electronic file updates when modified for adjacent projects along I-90 and Barrington Road.

BARRINGTON ROAD PEDESTRIAN BRIDGE PROPOSED SCHEDULE

| ESTIMATED TIMELINE | CONTRACTUAL | DESIGN | | CONSTRUCTION | | |
|--------------------|--|--|--|-------------------------------|--|---|
| | Des Eng and IGA | Component #1 | Component #2 | Component #1 | Component #2 | |
| | | Ped Bridge Median Pier Only | Rest of Bridge/Outside Piers/Building and Tie-in to other facilities | Ped Bridge Median Pier Only | Rest of Bridge/Outside Piers/Building and Tie-in to other facilities | |
| Aug. 19, 2015 | Initial Meeting with H-E, Pace and Tollway | | | | | |
| Aug. 25, 2015 | Follow-Up Meeting with H-E, Pace and Tollway | | | | | |
| September 3, 2015 | Field walk Thru at Plaza | | | | | |
| September 9, 2015 | CMT Internal 1st Pass on Scope/MH/Cost | | | | | |
| September 10, 2015 | Send Draft Scope/MH to H-E/Pace | CMT to Provide Pay Items and Estimated Qtys to HDR for | | | | |
| September 15, 2015 | Scope/Eng Est/Const Cost Est Agreed | Incorporation/Inclusion into Addenda for 5233 | | | | |
| September 28, 2015 | Village Board Approval | | | | | |
| October 1, 2015 | Verbal NTP on Eng | CMT NTP | CMT NTP | | | |
| October 15, 2015 | | Geotechnical work | | | | |
| November 15, 2015 | | Pre-Final Submit | Concept Submittal | | | |
| December 15, 2015 | | Agency Reviews | Preliminary Submittal | | | |
| January 15, 2016 | | Final Submit | Agency Reviews | | | |
| February 1, 2016 | | Agency Reviews | Pre-Final Submit | | | |
| February 15, 2016 | | Issue Drawings to Contractor/CM/CCM | Agency Reviews | | | |
| March 1, 2016 | | | Final Submit | | | |
| April 1, 2016 | | Contractor Median Pier NTP | Advertised/Bid on Tollway Letting | Contractor NTP | Advertised/Bid | |
| May 1, 2016 | | | Advertise | Start Median Pier | Advertise | |
| June 1, 2016 | | | Open Bids Bid Evaluation Award | Complete Median Pier | Open Bids | |
| July 1, 2016 | | | | | Award | |
| August 15, 2016 | | | Contractor NTP | Inside Lane and Median Paving | Contractor NTP | |
| December 1, 2016 | TOLLWAY OPENING OF MAINLINE TRAFFIC | | | | Complete and Open Ped Bridge | SUBSTANTIAL COMPLETION TO OPEN PED BRIDGE |
| May 1, 2017 | | | | | Contract Completion Ped Bridge | |

"Exhibit D"

Route: Barrington Pedestrian Bridge Improvements

Local Agency: Village of Hoffman Estates

*Firm's approved rates on file with DOT'S Bureau of Accounting and Auditing:

Overhead Rate (OH) 162.45%
 Complexity Factor [Ⓢ] 0.00
 Calendar Days 350

Method of Compensation:

Cost Plus Fixed Fee 1 14.5%[(DL + R(DL) + OH(DL) + IHDC)]

Cost Plus Fixed Fee 2 14.5%[(DL + R(DL) + 1.4(DL) + IHDC)]

Cost Plus Fixed Fee 3 14.5%[(2.3 + R)DL + IHDC]

Cost Estimate of Consultant's Services in Dollars

| Element of Work | | CMT Man-Hours | Payroll Rate | Payroll Costs (DL) | Overhead* | Services by others | In-House Direct Costs (IHDC) | Profit | Total | % of Design Total |
|------------------------------------|--|---------------|----------------|---------------------|---------------------|--------------------|------------------------------|--------------------|---------------------|-------------------|
| Phase I Tasks | | | | | | | | | | |
| DESIGN PHASE SERVICES | | | | | | | | | | |
| 1 | Data Collection | 26 | \$44.61 | \$1,159.78 | \$1,884.07 | \$1,106.73 | \$221.00 | \$473.40 | \$4,844.99 | 0.83% |
| 2 | Supplemental Field Surveys | 16 | \$41.85 | \$669.64 | \$1,087.83 | \$0.00 | \$57.00 | \$263.10 | \$2,077.56 | 0.36% |
| 3 | Geotechnical Investigations | 8 | \$36.96 | \$295.71 | \$480.39 | \$42,000.00 | \$0.00 | \$112.53 | \$42,888.64 | 7.36% |
| 4 | Environmental | - | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | 0.00% |
| 5 | Drainage Design | 6 | \$37.00 | \$222.00 | \$360.64 | \$5,040.28 | \$0.00 | \$84.48 | \$5,707.40 | 0.98% |
| 6 | Erosion Control Design | - | \$0.00 | \$0.00 | \$0.00 | \$1,371.30 | \$0.00 | \$0.00 | \$1,371.30 | 0.24% |
| 7 | Barrier Warrant Analysis | 2 | \$46.32 | \$92.64 | \$150.49 | \$7,124.87 | \$0.00 | \$35.25 | \$7,403.25 | 1.27% |
| 8 | Structural --T,S and L | 120 | \$39.65 | \$4,758.36 | \$7,729.96 | \$0.00 | \$120.00 | \$1,828.21 | \$14,436.53 | 2.48% |
| 9 | Structural Plans | 1,212 | \$38.80 | \$47,025.97 | \$76,393.69 | \$0.00 | \$6,732.00 | \$18,871.99 | \$149,023.66 | 25.58% |
| 10 | Civil Plans (non structural/electrical/HVAC) | 1,010 | \$36.19 | \$36,553.30 | \$59,380.83 | \$0.00 | \$0.00 | \$13,910.45 | \$109,844.58 | 18.85% |
| 11 | Architectural/Building Plans | 598 | \$36.94 | \$22,092.57 | \$35,889.38 | \$0.00 | \$0.00 | \$8,407.38 | \$66,389.32 | 11.39% |
| 12 | Electrical Plans | 520 | \$36.40 | \$18,925.40 | \$30,744.31 | \$0.00 | \$0.00 | \$7,202.11 | \$56,871.82 | 9.76% |
| 13 | Plumbing/HVAC Plans | 168 | \$37.76 | \$6,343.39 | \$10,304.83 | \$0.00 | \$0.00 | \$2,413.99 | \$19,062.21 | 3.27% |
| 14 | Specifications and Quantities | 194 | \$42.35 | \$8,215.56 | \$13,346.18 | \$1,144.97 | \$1,980.00 | \$3,413.55 | \$28,100.26 | 4.82% |
| 15 | Progress Meetings/Field Checks/Coordination | 258 | \$45.53 | \$11,747.25 | \$19,083.41 | \$478.23 | \$114.00 | \$4,486.98 | \$35,909.87 | 6.16% |
| 16 | Quality Management | 48 | \$54.04 | \$2,594.11 | \$4,214.13 | \$1,008.15 | \$0.00 | \$987.20 | \$8,803.59 | 1.51% |
| 17 | Administration/Project Management | 208 | \$45.99 | \$9,566.71 | \$15,541.12 | \$1,144.97 | \$0.00 | \$3,640.64 | \$29,893.44 | 5.13% |
| Design Sub-Total | | 4,394 | \$38.75 | \$170,262.40 | \$276,591.26 | \$60,419.50 | \$9,224.00 | \$66,131.26 | \$582,628.42 | 100% |
| CONSTRUCTION PHASE SERVICES | | | | | | | | | | |
| 18 | Construction Phase Services | 536 | \$42.52 | \$22,792.82 | \$37,026.94 | \$0.00 | \$2,126.00 | \$8,982.13 | \$70,927.89 | |
| Combined Totals | | 4,930 | \$39.16 | \$193,055.22 | \$313,618.20 | \$60,419.50 | \$11,350.00 | \$75,113.39 | \$653,556.31 | |

Barrington Road Pedestrian Bridge Improvements

Summary of Workhours and Direct Costs

| Task/Item | | Total Work Hours | COST ONLY |
|---------------|--|------------------|--------------|
| 1 | Data Collection | 40 | 26 |
| 2 | Supplemental Field Surveys | 16 | 16 |
| 3 | Geotechnical Investigations | 148 | 8 |
| 4 | Environmental | 0 | 0 |
| 5 | Drainage Design | 58 | 6 |
| 6 | Erosion Control Design | 16 | 0 |
| 7 | Barrier Warrant Analysis | 82 | 2 |
| 8 | Structural --T,S and L | 120 | 120 |
| 9 | Structural Plans | 1212 | 1212 |
| 10 | Civil Plans (non structural/electrical/HVAC) | 1019 | 1010 |
| 11 | Architectural/Building Plans | 598 | 598 |
| 12 | Electrical Plans | 520 | 520 |
| 13 | Plumbing/HVAC Plans | 168 | 168 |
| 14 | Specifications and Quantities | 203 | 194 |
| 15 | Progress Meetings/Field Checks/Coordination | 264 | 258 |
| 16 | Quality Management | 60 | 48 |
| 17 | Administration/Project Management | 230 | 208 |
| 18 | Construction Phase Services | 536 | 536 |
| | | 0 | |
| Total: | | 5,290 | 4,930 |

Barrington Road Pedestrian Bridge Improvements

Summary of Workhours and Direct Costs

| Task Item | | Total Work Hours | C/T ONLY | | |
|------------------|--|--------------------|----------|-----|-----|
| SCOPE WORK TASKS | | ESTIMATED MANHOURS | | | |
| | | Total | | | 2IM |
| | | 40 | 26 | 0 | 14 |
| A. | Obtain, log and review record plan information and any other correspondence related to the project. Includes maintaining a log of information. | | 10 | | 4 |
| B. | Includes two additional trips to inspect and photograph project site. | | 8 | | 6 |
| C. | Obtain and review other consultant (HDR for mainline and Ciorba for Pace pk n' rode) computer files to be utilized for design. | | 6 | | 4 |
| D. | Obtain and review Geotechnical Reports from I-90 Corridor DSE (HDR) | | 2 | | |
| | | 16 | 16 | 0 | 0 |
| A. | Horizontal & Vertical Control | | 0 | | |
| B. | Topographic & DTM Surveys (Assume no Aerial Mapping) | | 0 | | |
| C. | Drainage Surveys | | 0 | | |
| D. | Utility Surveys | | 4 | | |
| E. | Tree Surveys | | 0 | | |
| F. | Boring Staking | | 0 | | |
| G. | Alignments | | 0 | | |
| H. | Boundary Surveys | | 0 | | |
| I. | Pickup surveys | | 6 | | |
| J. | Download and process survey data | | 2 | | |
| K. | Traffic control coordination | | 0 | | |
| L. | Combine With Previous Survey Data. | | 0 | | |
| M. | Create and manipulate the TIN | | 2 | | |
| N. | Initial cutting of existing cross sections | | 2 | | |
| 3 | Geotechnical Investigations | 143 | 8 | 140 | 0 |
| A. | Call JULIE and Illinois Tollway to clear onsite utilities | | | 2 | |
| B. | Layout boring locations and coordination with geotech team | | 2 | | |
| | 1. Sheet Layout of Borings | | 6 | | |
| C. | Provide drill-rig, 2-man crew and field engineer. A total of xx soil borings (total lineal footage = xxxx feet) will be performed | | | 50 | |
| D. | Boring Logs/Soil Profiles | | | 37 | |
| E. | Geotechnical laboratory testing and analysis | | | 17 | |
| F. | Geotechnical Reports | | | 34 | |
| 4 | Environmental | 0 | 0 | 0 | 0 |
| A. | Permitting (Assumed to be included with Tollway permit already obtained for the I-90 corridor. No effort is anticipated.) | | | | |
| 5 | Drainage Design | 58 | 6 | 0 | 52 |

Barrington Road Pedestrian Bridge Improvements

Summary of Workhours and Direct Costs

| Task Item | | Total Work Hours | GLT ONLY | | |
|-----------|--|------------------|-------------|----------|-----------|
| A. | Open and closed drainage conveyance design | | | | 40 |
| B. | Design of detention facilities is not anticipated | | | | |
| C. | Revisions to previously designed facilities in the Tollway median and outside pier/building areas. | | | | 12 |
| | 1. Coordination Between Drainage and structural disciplines | | 6 | | |
| 6 | Erosion Control Design | 16 | 0 | 0 | 16 |
| A. | Temporary and permanent erosion and sediment control | | | | |
| | 1. Contract 1 - | | | | 4 |
| | 2. Contract 2 and prep of SWPPP | | | | 8 |
| B. | Revisions to previously designed facilities in the Tollway median and outside pier/building areas. | | | | 4 |
| 7 | Barrier Warrant Analysis | 82 | 2 | 0 | 80 |
| A. | Develop Areas of Concern, including exhibits | | | | 6 |
| B. | Analyze at median pier and outside pier/building locations. | | | | 32 |
| C. | Full BWA Report - all locations, including site plans and calculations (to be reviewed by Tollway) | | | | 30 |
| D. | Final BWA Report - all locations and response to comments (to be reviewed by Tollway) | | | | 8 |
| E. | Coordination with Tollway reviewers/Construction Revisions | | 2 | | 4 |
| | 1. Submit on eBuilder | | 4 | | |
| | | 120 | 120 | 0 | 0 |
| A. | Type, Size & Location (TS&L) Drawings and Structure Report | | | | |
| | Pedestrian Bridge over I-90 | | 90 | | |
| B. | Coordination with the Illinois Tollway | | 10 | | |
| C. | Address preliminary TS&L review comments | | 20 | | |
| | | 1212 | 1212 | 0 | 0 |
| A. | A Plan Development Outline (PDO) will be prepared | | 4 | | |
| B. | Pre-final/Final structure plans | | | | |
| | Median Pier--Contract 1 | | 172 | | |
| | Pedestrian Bridge over I-90--Contract 2 | | 962 | | |
| C. | Structural plans will be inserted into the appropriate Contract Plan set | | 74 | | |

Barrington Road Pedestrian Bridge Improvements

Summary of Workhours and Direct Costs

| Task/Item | Total Work Hours | CMT ONLY | | |
|--|------------------|------------|----------|----------|
| | 1019 | 1010 | 0 | 9 |
| A. Contract 1 (estimated 9 non structural/electrical/HVAC plan sheets) | | | | |
| 1. Pre-Final 90% | | 90 | | 0 |
| 2. Final 100% | | 40 | | 0 |
| B. Contract 2 (estimated 47 non-structural/Electrical/HVAC plan sheets) | | | | |
| 1. Concept 30% | | 80 | | |
| 2. Preliminary 60% | | 150 | | 0 |
| 3. Pre-Final 95% | | 470 | | 0 |
| 4. Final 100% | | 180 | | 0 |
| | 598 | 598 | 0 | 0 |
| A. Preliminary Design | | 70 | | |
| B. Schematic Design | | 98 | | |
| C. Design Development | | 138 | | |
| D. Pre-final/Final architectural/building plans | | 292 | | |
| | 520 | 520 | 0 | 0 |
| A. Perform Load Calculations and Sizing | | 30 | | |
| B. Coordination with Com Ed for New Service | | 24 | | |
| C. Perform lighting photometrics and develop layout | | 32 | | |
| D. Preliminary, Pre-final/Final electrical P,S and E | | | | |
| 1. Concept 30% | | 70 | | |
| 2. Preliminary 60% | | 90 | | |
| 3. Pre-Final 90% | | 160 | | |
| 4. Final 100% | | 90 | | |
| E. Review Comments and Disposition | | 24 | | |
| | 168 | 168 | 0 | 0 |
| A. HVAC design | | 60 | | |
| B. Plumbing design | | 60 | | |
| C. Equipment selection | | 24 | | |
| D. Controls and automation | | 24 | | |
| | 203 | 194 | 0 | 9 |
| A. Specifications | | | | |
| Contract 1 | | | | |
| 1. Pre-Final 95% | | 4 | | 0 |
| 2. Final 100% | | 4 | | 0 |
| Contract 2 | | | | |
| 1. Preliminary 60% | | 20 | | |
| 2. Pre-Final 90% | | 20 | | 2 |
| 3. Final 100% | | 24 | | 2 |
| B. Quantities | | | | 0 |
| Contract 1 | | | | |
| 1. Preliminary 60% | | 2 | | 1 |
| 2. Pre-Final 90% | | 4 | | 0 |
| 3. Final 100% | | 4 | | 1 |
| Contract 2 | | | | |
| 1. Concept 30% | | 10 | | |
| 2. Preliminary 60% | | 18 | | 1 |
| 3. Pre-Final 90% | | 36 | | 1 |
| 4. Final 100% | | 24 | | 1 |
| C. Estimate of time | | 8 | | 0 |
| D. Estimate of cost | | 16 | | 0 |
| | 264 | 258 | 2 | 4 |
| A. Includes five progress meetings with the Village/Pace/Tollway | | 78 | | 0 |
| B. Includes coordination and one (1) meetings with each utility company | | 12 | | 0 |
| 1. Nicor Coord Meetings (assume 3) | | 12 | | |
| C. Assist and provide verbage for inclusion within HDR addendum preparation | | 6 | | |
| D. Includes a field check and review by the project team after each of the milestone | | 22 | | |
| E. Includes coordination with the Tollway during development of the documents. | | 20 | | 4 |
| F. Preparation time prior to each meeting | | 18 | | |
| G. Meeting minutes for each meeting | | 18 | | |
| H. Coordination with transit agencies: Pace, Metra and RTA. | | 20 | | |
| I. Project Invoicing/ Review of Subconsultant Invoices | | 6 | | 0 |

Barrington Road Pedestrian Bridge Improvements

Summary of Workhours and Direct Costs

| Task/Item | Total Work Hours | C/T ONLY | | |
|--|------------------|----------|---|---|
| J. Subconsultant Management/Coordination | 20 | | 2 | |
| K. Disposition of PACE/Tollway Review Comments | 26 | | | 0 |

Barrington Road Pedestrian Bridge Improvements

Summary of Workhours and Direct Costs

| Task Item | Total Work Hours | GM ONLY | | |
|--|------------------|---------------|--------------|--------------|
| | 60 | 48 | 4 | 8 |
| A. Preparation of Consultant Quality Plan (CQP) | | 6 | | 2 |
| B. Quality Assurance Reviews | | 16 | | 3 |
| C. Constructability Reviews | | 16 | | 3 |
| D. Monitor and conduct CQP implementation/conformance meetings | | 10 | 4 | |
| | 230 | 206 | 10 | 12 |
| A. Conducting external and internal project Kick-Off meetings | | 26 | 4 | 0 |
| B. Preparation of monthly progress reports | | 18 | | |
| C. Personnel planning, scheduling, budget control monitoring | | 8 | 2 | 4 |
| D. Internal project team meetings | | 48 | 4 | 4 |
| E. Posting of submittals to Tollway's eBuilder project management system | | 12 | | |
| F. Project close out | | 8 | | |
| G. Project Bid Period Support | | 0 | | |
| 1. Respond to questions during advertisement to letting period | | 30 | | 4 |
| 2. Preparation of Addenda | | 40 | | 0 |
| 3. Prep, attend and follow-up to Pre-Bid Meetings | | 16 | | |
| 4. Review and provide analysis of project bids | | 12 | | |
| | 536 | 536 | 0 | 0 |
| A. Design Services During Construction | | | | |
| 1. Meeting Attendance | | 72 | | |
| 2. Consultation During Construction/RFI's, NCR's | | 136 | | |
| 3. Shop Drawing reviews | | 200 | | |
| 4. Site Visits | | 32 | | |
| 5. Construction Plan Revisions | | 96 | | |
| TOTAL MANHOURS= | 5,290 | 4,930 | 156 | 204 |
| | | 93.19% | 2.95% | 3.86% |
| | Total | | GM | 2IM |

AVERAGE HOURLY PROJECT RATES

FIRM
PSB
PRIME/SUPPLEMENT

Crawford, Murphy & Tilly, Inc.
N/A

DATE 09/09/15

SHEET 1 OF 4

| PAYROLL CLASSIFICATION | AVG HOURLY RATES | TOTAL PROJECT RATES | | | Data Collection | | | Supplemental Field Surveys | | | Geotechnical Investigations | | | Environmental | | | Drainage Design | | |
|------------------------------------|------------------|---------------------|---------|----------|-----------------|---------|----------|----------------------------|---------|----------|-----------------------------|---------|----------|---------------|---------|----------|-----------------|---------|----------|
| | | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg |
| | | Principal | 75.20 | 0 | | | | | | | | | | | | | | | |
| Senior Project Engineer/Manager | 59.56 | 600 | 12.17% | 7.25 | 2 | 7.69% | 4.58 | 0 | | | 0 | | | 0 | | | 0 | | |
| Project Engineer/Manager/Architect | 46.32 | 1530 | 31.03% | 14.37 | 20 | 76.92% | 35.63 | 4 | 25.00% | 11.58 | 4 | 50.00% | 23.16 | 0 | | | 2 | 33.33% | 15.44 |
| Senior Engineer | 36.11 | 622 | 12.62% | 4.56 | 0 | | | 0 | | | 0 | | | 0 | | | 2 | 33.33% | 12.04 |
| Senior Technical Manager | 39.79 | 0 | | | | | | 0 | | | 0 | | | 0 | | | 0 | | |
| Engineer | 28.57 | 1266 | 25.68% | 7.34 | 4 | 15.38% | 4.40 | 0 | | | 2 | 25.00% | 7.14 | 0 | | | 2 | 33.33% | 9.52 |
| Architect | 30.18 | 250 | 5.07% | 1.53 | | | | 0 | | | | | | | | | | | |
| Registered Land Surveyor | 41.38 | 10 | 0.20% | 0.08 | | | | 10 | 62.50% | 25.66 | | | | | | | | | |
| Senior Technician | 35.26 | 332 | 6.73% | 2.37 | 0 | | | 2 | 12.50% | 4.41 | 0 | | | | | | | | |
| Technician II | 26.65 | 254 | 5.15% | 1.37 | | | | | | | 2 | 25.00% | 6.66 | | | | | | |
| Technician I | 20.66 | 0 | | | | | | | | | | | | | | | | | |
| Clerical | 20.96 | 66 | 1.34% | 0.28 | 0 | | | | | | | | | | | | | | |
| TOTALS | | 4,930 | 100% | \$39.16 | 26 | 100.00% | \$44.61 | 16 | 100% | \$41.85 | 8 | 100% | \$36.96 | 0 | 0% | \$0.00 | 6 | 100% | \$37.00 |

**Barrington Road Pedestrian Bridge Phase 2 Improvement Project
Village of Hoffman Estates/PACE**

Development of Project Hourly Rates (IDOT Method)

Crawford, Murphy, and Tilly, Inc.

| Item | 2015 Actual Rate | 2016 Projected @ 3.0% Increase | 2017 Projected @ 3.0% Increase | | | |
|---|---|--------------------------------|--------------------------------|-------|-------|--------|
| Average Hourly Rate as a Percent of 2015 Rate | 100.0% | 103.0% | 106.1% | | | |
| Estimated Months of Contract in Given Year | 3 | 8 | 0 | 0 | 0 | 0 |
| % of Project Duration | 27.27% | 72.73% | 0.00% | 0.00% | 0.00% | 0.00% |
| Extension | 0.273 | 0.749 | 0.000 | 0.000 | 0.000 | 0.000 |
| Weighted Project Hourly Rate Multiplier | Note: Salary Adjustments are Given on January 1 of Each Year | | | | | 1.0218 |

Project Duration: October 2015 to August 2016=

11 months

**Barrington Road Pedestrian Bridge Phase 2 Improvement Project
Village of Hoffman Estates/PACE**

**Computation of Prorated
Project Hourly Rates**

Crawford, Murphy, and Tilly, Inc.

| Classification | Actual 2015 Average Hourly Rate | Weighted Hourly Rate Multiplier | Project Hourly Rates * |
|------------------------------------|--|--|---------------------------------------|
| Principal | \$73.59 | 1.0218 | \$75.20 |
| Senior Project Engineer/Manager | \$58.29 | 1.0218 | \$59.56 |
| Project Engineer/Manager/Architect | \$45.33 | 1.0218 | \$46.32 |
| Senior Engineer | \$35.34 | 1.0218 | \$36.11 |
| Senior Architect | \$36.35 | 1.0218 | \$37.14 |
| Senior Technical Manager | \$38.94 | 1.0218 | \$39.79 |
| Engineer | \$27.96 | 1.0218 | \$28.57 |
| Architect | \$29.54 | 1.0218 | \$30.18 |
| Registered Land Surveyor | \$40.50 | 1.0218 | \$41.38 |
| Senior Technician | \$34.51 | 1.0218 | \$35.26 |
| Technician II | \$26.08 | 1.0218 | \$26.65 |
| Technician I | \$20.22 | 1.0218 | \$20.66 |

Clerical

\$20.51

1.0218

\$20.96

* Rates to be applied to all project work tasks

**Barrington Road Pedestrian Bridge Phase 2 Improvement Project
Village of Hoffman Estates/PACE
Estimate of CMT Direct Costs
Crawford, Murphy, and Tilly, Inc.**

| <u>Element of Work</u> | | | |
|------------------------|---|--|-------------------|
| 1 | Data Collection | | |
| | Obtain and log data from sources | | |
| | Travel: 2 trips x 50 miles x \$.57/mile | | \$57.00 |
| | Printing: 50 pages @\$\$.10/page | | \$50.00 |
| | Mileage | | |
| | Travel: 2 trips x 50 miles x \$.57/mile | | \$57.00 |
| | Meetings with IDOT and Village of Hoffman Estates | | |
| | Travel: 2 trips x 50 miles x \$.57/mile | | \$57.00 |
| | Sub - total | | \$221.00 |
| 2 | Supplemental Field Surveys | | |
| | Mileage | | |
| | Travel: 2 trips x 50 miles x \$.57/mile | | \$57.00 |
| | Sub - total | | \$57.00 |
| 8 | Structural --T,S and L | | |
| | <u>Printing:</u> | | |
| | Pre-Final TSL | | |
| | 4 Copies--Full Size @ \$1.00/sheet x 20 sheets | | \$80.00 |
| | 8 Copies--Half Size @ \$.50/sheet x 20 sheets | | \$40.00 |
| | Sub - total | | \$120.00 |
| 9 | Structural Plans | | |
| 10 | Civil Plans (non structural/electrical/HVAC) | | |
| 11 | Architectural/Building Plans | | |
| 12 | Electrical Plans | | |
| 13 | Plumbing/HVAC Plans | | |
| | <u>Contract 1</u> | | |
| | <u>Printing:</u> | | |
| | <u>Pre-Final Plans for Addenda/issued for Construction in I-15-4233</u> | | |
| | 2 Copies--Full Size @ \$1.00/sheet x 21 sheets | | \$42.00 |
| | 30 Copies--Half Size @ \$.50/sheet x 21 sheets | | \$315.00 |
| | <u>Final Plans for Addenda/issued for Construction in I-15-4233</u> | | |
| | 2 Copies--Full Size @ \$1.00/sheet x 21 sheets | | \$42.00 |
| | 30 Copies--Half Size @ \$.50/sheet x 21 sheets | | \$315.00 |
| | <u>Contract 2</u> | | |
| | <u>Printing:</u> | | |
| | Preliminary Plans | | |
| | 2 Copies--Full Size @ \$1.00/sheet x 118 sheets | | \$236.00 |
| | 30 Copies--Half Size @ \$.50/sheet x 118 sheets | | \$1,770.00 |
| | Pre-Final Plans | | |
| | 2 Copies--Full Size @ \$1.00/sheet x 118 sheets | | \$236.00 |
| | 30 Copies--Half Size @ \$.50/sheet x 118 sheets | | \$1,770.00 |
| | Final Plans | | |
| | 2 Copies--Full Size @ \$1.00/sheet x 118 sheets | | \$236.00 |
| | 30 Copies--Half Size @ \$.50/sheet x 118 sheets | | \$1,770.00 |
| | Sub - total | | \$6,732.00 |
| 14 | Specifications and Quantities | | |
| | <u>Contract 1</u> | | |
| | <u>Printing:</u> | | |
| | <u>Pre-Final Specs for Addenda/issued for Construction in I-15-4233</u> | | |
| | 30 Copies @ \$.10/sheet x 30 sheets | | \$90.00 |
| | <u>Final Specs for Addenda/issued for Construction in I-15-4233</u> | | |
| | 30 Copies @ \$.10/sheet x 30 sheets | | \$90.00 |

**Barrington Road Pedestrian Bridge Phase 2 Improvement Project
Village of Hoffman Estates/PACE**

Estimate of CMT Direct Costs

Contract 2

Printing:

| | | |
|---------------------------------------|--|----------|
| Preliminary Specs | | |
| 30 Copies @ \$0.10/sheet x 200 sheets | | \$600.00 |
| Pre-Final Specs | | |
| 30 Copies @ \$0.10/sheet x 200 sheets | | \$600.00 |
| Final Plans | | |
| 30 Copies @ \$0.10/sheet x 200 sheets | | \$600.00 |

Sub - total \$1,980.00

15 Progress Meetings/Field Checks/Coordination

Mileage

Travel: 4 trips x 50 miles x \$.57/mile \$114.00

Sub - total \$114.00

18 Construction Phase Services

1 Meeting Attendance

Mileage

Travel: 4 trips x 50 miles x \$.57/mile \$114.00

3 Shop Drawings

Printing:

| | | |
|---|--|------------|
| Shop Drawing Prints | | |
| 2 Copies--Full Size @ \$1.00/sheet x 100 sheets | | \$200.00 |
| 30 Copies--Half Size @ \$.50/sheet x 100 sheets | | \$1,600.00 |

4 Site Visits

Mileage

Travel: 8 trips x 50 miles x \$.57/mile \$228.00

5 Construction Revisions

Printing:

| | | |
|--|--|---------|
| Construction Revision Plans | | |
| 2 Copies--Full Size @ \$1.00/sheet x 12 sheets | | \$24.00 |
| 10 Copies--Half Size @ \$.50/sheet x 12 sheets | | \$60.00 |

Sub - total \$2,126.00

TOTAL DIRECT COSTS \$ 11,350.00

Contract Supplement Approval Request
(NB#1b)

Supporting Document

AGREEMENT FOR SUPPLEMENTAL PROFESSIONAL SERVICES

THIS AGREEMENT made between the Village of Hoffman Estates, Illinois, whose address is 1900 Hassell Road, Hoffman Estates, Ill 60169 hereinafter called the **CLIENT** and Crawford, Murphy & Tilly, Inc., Consulting Engineers, 550 Commons Drive, Suite 116, Aurora, Illinois 60504, hereinafter called the **ENGINEER**.

WITNESSETH, that whereas the **CLIENT** desires the following described professional engineering, land surveying or architectural services:

Engineering Services to design a Pedestrian Bridge over I-90 near Barrington Road which will connect Pace Park n' Ride facilities on the north and south sides of the Jane Addams Tollway (I-90) in accordance with the attached Scope of Services document.

NOW THEREFORE, the **ENGINEER** agrees to provide the above described services and the **CLIENT** agrees to compensate the **ENGINEER** for these services in the manner checked below:

- On a time and expense basis in accordance with the Cost Plus Fixed Fee method of payment as detailed in the attached documents. Reimbursable direct expenses will be invoiced at cost. Professional or Subconsultant services performed by subconsultants will be invoiced at cost.
- At the lump sum amount of \$_____.

IT IS MUTUALLY AGREED THAT, payment for services rendered shall be made monthly in accordance with invoices rendered by the **ENGINEER**.

IT IS FURTHER MUTUALLY AGREED:

The **CLIENT** and the **ENGINEER** each binds himself, his partners, successors, executors, administrators and assignees to each other party hereto in respect to all the covenants and agreements herein and, except as above, neither the **CLIENT** nor the **ENGINEER** shall assign, sublet or transfer any part of his interest in this **AGREEMENT** without the written consent of the other party hereto. This **AGREEMENT**, and its construction, validity and performance, shall be governed and construed in accordance with the laws of the State of Illinois. This **AGREEMENT** is subject to the General Conditions attached hereto.

IN WITNESS WHEREOF, the parties hereto have affixed their hands and seals this ____ day of _____, 2015.

CLIENT:

Village of Hoffman Estates, Illinois
(Client Name)

(Signature)

(Name and Title)

ENGINEER:

CRAWFORD, MURPHY & TILLY, INC.

(Signature)

Kevin D. Nelson, Vice President
(Name and Title)

CMT Job No. 15201-09-00

STANDARD GENERAL CONDITIONS
Crawford, Murphy & Tilly, Inc.

1. Standard of Care

In performing its professional services hereunder, the **ENGINEER** will use that degree of care and skill ordinarily exercised, under similar circumstances, by members of its profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the **ENGINEER'S** undertaking herein or its performance of services hereunder.

2. Reuse of Document

All documents including Drawings and Specifications prepared by **ENGINEER** pursuant to this Agreement are instruments of service. They are not intended or represented to be suitable for reuse by **CLIENT** or others on extensions of the Project or on any other project. Any reuse without written verification or adaptation by **ENGINEER** for the specific purpose intended will be at **CLIENT'S** sole risk and without liability or legal exposure to **ENGINEER**; and **CLIENT** shall indemnify and hold harmless **ENGINEER** from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom.

3. Termination

This Agreement may be terminated by either party upon seven days prior written notice. In the event of termination, the **ENGINEER** shall be compensated by the client for all services performed up to and including the termination date, including reimbursable expenses, and for the completion of such services and records as are necessary to place the **ENGINEER'S** files in order and/or to protect its professional reputation.

4. Parties to the Agreement

The services to be performed by the **ENGINEER** under this Agreement are intended solely for the benefit of the **CLIENT**. Nothing contained herein shall confer any rights upon or create any duties on the part of the **ENGINEER** toward any person or persons not a party to this Agreement including, but not limited to any contractor, subcontractor, supplier, or the agents, officers, employees, insurers, or sureties of any of them.

5. Construction and Safety

The **ENGINEER** shall not be responsible for the means, methods, procedures, techniques, or sequences of construction, nor for safety on the job site, nor shall the **ENGINEER** be responsible for the contractor's failure to carry out the work in accordance with the contract documents.

6. Payment

Payment for services rendered shall be made monthly in accordance with invoices rendered by the **ENGINEER**. If payment is to be on a lump sum basis, monthly payments will be based on the portion of total services completed during the month. Invoices, or any part thereof, which are not paid within 30 days after the date of issue shall bear interest at the rate of 1-1/2% for each month or fraction thereof from the date 30 days after issue to time of payment. **CLIENT** will pay on demand all collection costs, legal expenses and attorneys' fees incurred or paid by **ENGINEER** in collecting payment, including interest, for services rendered.

7. Indemnification for Release of Pollutants

If this project does not involve pollutants, this provision will not apply. This provision may not be deleted if the project involves pollutants.

If, due to the nature of the service covered under this Agreement including the potential for damages arising out of the release of pollutants, **CLIENT** agrees that in the event of one or more suits or judgments against **ENGINEER** in favor of any person or persons, or any entity, for death or bodily injury or loss of or damage to property or for any other claimed injury or damages arising from services performed by **ENGINEER**, **CLIENT** will indemnify and hold harmless **ENGINEER** from and against liability to **CLIENT** or to any other persons or entities irrespective of Engineer's compensation and without limitation. It is understood that the total aggregate liability of **ENGINEER** arising from services performed by **ENGINEER** shall in no event exceed \$50,000 or the total compensation received under this agreement whichever is greater, no matter the number of or amount of such claims, suits, or judgments.

8. Risk Allocation – Check box if this provision does not apply.

The total liability, in the aggregate, of the **ENGINEER** and **ENGINEER'S** officers, directors, employees, agents and consultants, and any of them, to **CLIENT** and anyone claiming by, through or under **CLIENT**, for any and all injuries, claims, losses, expenses or damages arising out of the **ENGINEER'S** services, the project or this agreement, including but not limited to the negligence, errors, omissions, strict liability or breach of contract of **ENGINEER** or **ENGINEER'S** officers, directors, employees, agents or consultants, or any of them, shall not exceed the total compensation received by **ENGINEER** under this agreement, or the total amount of \$50,000, whichever is greater.