

CAMINO REAL REGIONAL MOBILITY AUTHORITY BOARD RESOLUTION

WHEREAS, the Camino Real Regional Mobility Authority (CRRMA) and the Texas Department of Transportation (TxDOT) have agreed that it would be to the region's benefit to cooperatively develop the Loop 375 at I-10 (Americas Interchange) Project, which currently consists of a design-build agreement for three direct connectors;

WHEREAS, subsequent to such agreement the El Paso region secured additional funds for the design and construction two additional direct connectors (westbound to northbound (WBNB) and westbound to southbound (WBSB)) and the parties agreed that due to funding timelines the CRRMA would be responsible for all design aspects and TxDOT would be responsible for all construction aspects of the two additional direct connectors;

WHEREAS, additional funding has now become available for the eastbound to southbound (EBSB) direct connector and the parties desire to use the same design and construction approach in order to let the WBNB, WBSB and EBSB construction projects together; and

WHEREAS, the CRRMA and TxDOT will execute an amendment to the WBSB Project Development Agreement to allow the CRRMA to commence the additional design work and the CRRMA now seeks to engage its general engineering consultant to complete such additional design services;

NOW, THEREFORE, BE IT RESOLVED BY THE CAMINO REAL REGIONAL MOBILITY AUTHORITY:

THAT the Executive Director be authorized to execute **Work Authorization No. 15** with Atkins North America, Inc. (formerly known as Post, Buckley, Schuh, and Jernigan, Inc. (PBS&J)), including any additional documents or materials as may be required, for general engineering services to complete all design work necessary for the addition of an eastbound to southbound direct connector to the Loop 375 at I-10 (Americas Interchange) Project.

PASSED AND APPROVED THIS 23RD DAY OF MAY 2012.

**CAMINO REAL REGIONAL
MOBILITY AUTHORITY**

ATTEST:

Ralph Adame, Vice Chair

Susan A. Melendez, Board Secretary

APPROVED AS TO CONTENT:

Raymond L. Telles
Executive Director

WORK AUTHORIZATION NO. 15

This **Work Authorization No. 15** is made as of this ____ day of _____, 2012, under the terms and conditions established in the AGREEMENT FOR GENERAL CONSULTING ENGINEERING SERVICES, dated as of January 16, 2009 (the "Agreement"), between the Camino Real Regional Mobility Authority ("Authority") and Atkins North America, Inc. formerly known as Post, Buckley, Schuh & Jernigan, Inc. ("GEC"). This **Work Authorization No. 15** is made for the purposes identified below, consistent with the services defined in the Agreement.

This **Work Authorization No. 15** is intended to provide general engineering and related services from the GEC to the Authority relative to the completion of all design work required for the eastbound to southbound direct connector for the Loop 375 at I-10 (Americas Interchange) Project, as more fully enumerated herein. The original Americas Interchange Project currently includes the design and construction of three direct connectors and related improvements, and is scheduled for completion in January of 2013. Additional fourth and fifth direct connectors for the interchange (westbound to northbound (WBNB) and westbound to southbound (WBSB)) are currently being design by the Authority through the GEC, which shall be constructed by TxDOT upon the completion of the original three direct connectors. Funds have recently been identified for an additional, sixth direct connector (eastbound to southbound (EBSB)) in order to allow TxDOT to let the WBNB, WBSB and EBSB direct connectors together. Due to the extremely short timelines associated with such an approach, and because the GEC is currently designing the WBNB and WBSB direct connectors, the Authority and TxDOT have agreed that the Authority should provide the additional design work for EBSB through its GEC while TxDOT will be responsible for the procurement and construction aspects of all three additional direct connectors. Accordingly, the GEC services identified herein include all general engineering and related services required to provide TxDOT with a complete design of the eastbound to southbound direct connector for the Americas Interchange, as more fully defined herein.

Therefore and in consideration of the mutual covenants and agreement between the parties, the Authority and GEC hereby agree to the following.

Section A. – Scope of Services

The GEC shall provide general engineering support and related services to the Authority pursuant to and in accordance with **EXHIBIT "A"**, which is attached hereto and incorporated herein for all purposes.

Section B. - Schedule

The GEC shall not commence the performance of any services required by **EXHIBIT "A"** until the Executive Director of the Authority provides a Notice to Proceed to the GEC, but the Plans, Specifications and Estimates shall be completed within two (2) months of such notice to proceed.

Section C. - Compensation

In return for the performance of the obligations identified within this **Work Authorization No. 15**, the Authority shall pay to the GEC an amount not to exceed SEVEN HUNDRED TWENTY FOUR THOUSAND SIX HUNDRED TWENTY SIX AND 00/100 DOLLARS (\$724,626.00), based on the Fee Estimate Summary, which is attached hereto for all purposes as **EXHIBIT "B"**, dated May 23, 2012. Compensation shall be made in accordance with the Agreement. Invoices shall be provided by the GEC in accordance with **EXHIBIT "C"**, which is attached hereto and incorporated herein for all purposes.

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority: Camino Real Regional Mobility
Authority

GEC: Atkins North America, Inc. (formerly
Post, Buckley, Schuh & Jernigan, Inc.)

Signature: _____
By: Raymond L. Telles
Title: Executive Director
Date: _____

Signature: _____
By: _____
Title: _____
Date: _____

CAMINO REAL RMA (the "Authority")**EXHIBIT A****WORK AUTHORIZATION NO. 15****ATKINS (the "GEC")****SERVICES TO BE PROVIDED BY THE GEC****INTRODUCTION**

The scope of this **Work Authorization No. 15** covers the services requested of the Authority's General Engineering Consultant (GEC) for the development of the Plans, Specifications and Estimates for the eastbound to southbound direct connector of the interchange between I-10 and LP 375 in El Paso, Texas, commonly referred to as the Americas Interchange. Such contemplated work is referred to herein as the Project. The services requested herein are in support of Amendment No. 1 to the Project Development Agreement between the Texas Department of Transportation (TxDOT) and the Authority originally executed with an effective date of March 22, 2012. The original scope of the Project Development Agreement included the Plans, Specifications and Estimates for the westbound to southbound direct connector of the Americas Interchange. Amendment No. 1 to the Project Development Agreement will add the eastbound to southbound direct connector to the scope originally contemplated. The following tasks further define the work efforts to be performed.

1. TASK 1 DESIGN PHASE SERVICES**A. PRODUCTION MANAGEMENT AND QUALITY CONTROL**

The GEC will provide staff to manage, review and coordinate development of the Project design. This staff will manage the production team to the delivery schedule providing the deliverables defined below. The GEC will develop and maintain a staffing plan for consistency and appropriate levels of Project staffing. Activities included in this task include:

- **Pre Design Conference**

The GEC will develop Project specific geometric and drainage criteria and summarize in a Design Summary Report (DSR) which shall form the basis of the design and development of the Plans, Specifications, and Estimate (PS&E). The Project design will be based upon the FHWA approved Americas Interchange schematic, the existing schematic. The DSR along with the existing schematic will be reviewed in a pre design conference to establish the Project scope. Attendees shall include the CRRMA, the GEC and TxDOT.

- **Project Schedule**

The GEC will develop and maintain a Project schedule that is used to communicate milestones with the Project team, CRRMA and TxDOT. The Project schedule will be developed based upon a June 2012 notice to proceed and an August PS&E submittal.

- **Production of Design**

The GEC will deliver the following design submittals to TxDOT:

- 30% preliminary plan review consisting of:
 - plans depicting profile, and superelevation information for each roadway
 - proposed typical sections showing existing and proposed horizontal dimensions, cross slopes, location of profile grade line, pavement layer thickness and composition, earthen slopes, right of way lines
 - bridge, and retaining wall layouts
 - hydraulic studies and drainage area maps
 - plan location and text of proposed mainlane guide signs that includes lane lines or arrows indicating the number of lanes
 - special specifications identified
 - exceptions identified
- OTS working set of plans for design oversight (over the shoulder review/non hold point)
- District Design Review (DDR) immediately preceding 100% submittal.
 - Set of plans for District review. Comments to be addressed prior to 100% submittal
- 100% final plan review consisting of:
 - seven copies of the final set of plans, specifications, and engineer's estimate (PS&E)
 - revisions to the preliminary design submission previously approved by TxDOT summarized or highlighted
 - signed and sealed statement certifying plans and specifications as part of final submittal
- Post 100% Schematic Update
 - updated schematic based upon Americas Gateway Builder's schematic to show the three direct connectors built by AGB and the three being built by others
- **Design Quality Control / Design Quality Assurance**

The GEC team will develop the design using a quality program made up of:

 - Design Quality Control (DQC)

The actions of the design team in examining, verifying and checking design elements and calculations to determine the correctness and accuracy of the design.
 - Design Quality Assurance (DQA)

Independent reviews performed by the design team utilizing personnel independent from the original design.

B. GEOTECHNICAL

The GEC will develop a geotechnical boring plan to complete the Project design. A geotechnical report will be compiled for the borings, material analysis and foundation recommendations for bridges, retaining walls, high mast lighting and overhead sign bridges. Geotechnical data will be provided on bridge P&P sheets as typically provided for El Paso District standards.

C. SUPPLEMENTAL SURVEY

The GEC will utilize existing project control points provided by TxDOT and will provide topographical survey required for the design of the Project. Portions of the EBNB direct connector being constructed by Americas Gateway Builders (AGB) that are complete prior to the 30% submittal will be surveyed to determine the as-built location of that portion of the EBNB direct connector (bent) that the EBSB direct connector will tie to. In addition any drainage, roadway or signage changes that AGB has completed will be surveyed and utilized as part of the design.

The GEC will provide:

- Survey Control Sheets
- Project supplemental topo
- Verify horizontal and vertical survey control
- Acquire survey data along the proposed EBSB direct connector alignment, to include LP375 SBFR and IH10 EBFR
- Provide survey control sheets
- Provide digital terrain model (DTM) of the area surveyed
- Provide triangulated irregular network (TIN) file

D. UTILITY SUE AND COORDINATION

The GEC will review the schematic, the existing utility information from the interchange project, meet with the utility companies and perform additional Level C SUE for the Project design limits. It is assumed that any utilities found to be in conflict will be relocated prior to construction, unless agreed to by the Authority and TxDOT that the interest of the Project and public would be better served if the utility were relocated during construction. The GEC will incorporate the utility information into the roadway plans. The GEC will not be responsible for utility agreements.

The GEC will provide:

- Illustrate existing utility locations on Roadway Plan sheets
- Illustrate existing utility crossings on Roadway Profile sheets
- List of Utility Contacts

E. ROADWAY DESIGN

The GEC will provide:

- Verification that schematic fits within existing ROW
- Basic project plan sheets (title, index, layout, etc)
- Existing and proposed typical sections
- Horizontal geometry, alignment and superelevation data
- Roadway plans and profile
- Grading and details
- Miscellaneous details
- Demolition plans.

F. DRAINAGE DESIGN

The GEC will provide:

- Drainage area maps
- Storm drain plan and profile sheets
- Culvert plan and profile sheets
- Runoff, inlet, storm sewer, culvert and ditch calculations
- Storm water pollution prevention plan sheets
- National flood insurance program coordination (Local Floodplain Administrator).

G. STRUCTURAL DESIGN

The GEC will provide:

- Bridge layouts, based on concrete girders
- Final design calculations and details
- Interior bent details, framing plans, and a slab plan
- Drainage inlet details
- Miscellaneous details
- Soil boring logs
- Standard details
- Aesthetics to match details currently being developed by Americas Gateway Builders.

H. RETAINING WALL DESIGN

It is assumed that no retaining walls will be needed for this project.

I. SIGNING AND PAVEMENT MARKINGS

The GEC will provide:

- Signing and pavement markings layouts
- Overhead sign structures elevations & foundations
- Large sign detail sheets
- Small sign summary sheets
- Large sign summary sheets.

J. TRAFFIC CONTROL PLAN

The GEC will provide:

- Preliminary construction sequencing concept plan
- Traffic control typical sections for each stage
- TCP overview plans
- Advanced warning sign layouts
- Detailed traffic control plan sheets including temporary drainage
- Detailed sequence of construction and narrative by phase and step
- Detour layout sheets
- Attendance at a safety review meeting to present proposed traffic handling scheme to TxDOT's safety review committee.

K. ILLUMINATION AND ITS

The illumination provided by the existing highmast lighting in the southwest cloverleaf is assumed to be sufficient to provide light for the EBSB direct connector. It is assumed that there will be no new traffic management or ITS systems or devices required for this Project. The GEC will provide:

- A lighting level layout plan based on the existing highmast lighting
- Layout plans for those sections of the existing ITS system affected by the Project
- Identification of potential utility conflicts and resolve with utility company.

L. QUANTITY SUMMARY

The GEC will tabulate quantities and prepare summary sheets for the following:

- traffic control (per phase)
- roadway
- drainage items
- bridges
- removals
- pavement markings
- small/large signs
- illumination
- ITS
- erosion control and SW3P.

M. STANDARDS, SPECIFICATIONS, AND ESTIMATE

The GEC will:

- Revise and sign and seal any TxDOT standards that require modification for the Project
- Identify all other relevant TxDOT standards for the Project
- Provide non-standard details required for the Project
- Prepare a tabulation of all applicable specifications, special specifications and special provisions.
- Prepare and provide project general notes
- Prepare project cost estimate.

N. GEC OVERSIGHT

The GEC will oversee the development of the design and coordinate between other projects in the area. These services may include agreement support, attending coordination meetings with TxDOT or TxDOT's contractor or consultant on other projects and general project coordination. In addition, after a design submittal has been through the design quality control and the design quality assurance reviews, the GEC will perform a design quality oversight review. This review will:

- Audit records to verify DQC/DQA process
- Check and review compliance with schematic and DSR
- Audit design to confirm all previous review comments have been incorporated.

O. PROJECT MANAGEMENT AND ADMINISTRATION

Project management and administrative services will be provided as necessary for the successful completion of the Project. These services may include the development and implementation of any or all of the following services for the Project: progress reports, meetings, record keeping, invoicing, file management, scheduling and progress tracking.

2. TASK 2 CONSTRUCTION PHASE SERVICES

The GEC will perform the following services during the construction phase of the Project:

- Review and approval of all shop drawings and technical documents provided by the suppliers of construction elements for compliance with design plans and specifications.
- Continued utility coordination through the completion of utility relocations.
- To the extent permitted by any remaining available budget, review change orders that occur during construction phase, noting that the intent is for the TxDOT-El Paso District to design any change orders and have the GEC, as the original designer, review them.

3. LIST OF ASSUMPTIONS

A. Existing Facility

The GEC Project design will utilize the Released for Construction plans issued by Americas Gateway Builders (AGB) for tie-in to the portion of the Americas Interchange being built by AGB. Due to the timing of the Project design, a portion of the AGB design will not be constructed. Revisions required to the Project design that are caused by as-built conditions that vary from AGB design plans are not covered by this work authorization, except as may be permitted by remaining funds and subject to prior written approval of the Authority.

B. Government Agency Coordination

It is assumed that the scope of design is covered by the existing environmental clearance and associated permits for the Americas Interchange. This work authorization does not include any adjustments to the IAJR. All FHWA coordination will be through TxDOT. The scope includes coordination of detours affecting city streets with the City of El Paso and coordination of all storm water run-off with the City of El Paso (floodplain administrator) and the EPWU.

C. Services Provided by Others

This work authorization assumes the following activities will be provided by others or have already occurred:

- Development of the existing interchange schematic
- All pavement designs, including temporary pavements
- Setting of project control
- ROW acquisition
- ROW mapping revisions/updates necessitated by design
- Utility design
- Utility Agreements

- Any and all environmental inspection and or hazardous material mitigation.

D. Services During Construction

This work authorization specifically excludes all services during construction, except those listed in Task 2 above, including but not limited to:

- Construction letting
- Construction engineering and inspection services
- Materials acceptance testing
- Utility relocations.

E. Staff Labor and Overhead Rates

Hourly rates and overhead rates shown in Exhibit B are estimates or averages used for the purpose of establishing the not to exceed budget for this work authorization. The actual rates used will be in accordance with Section 4, Compensation in the Agreement.

[END OF EXHIBIT]

FEE ESTIMATE SUMMARY**Work Authorization No. 15**

<u>TASK</u>	<u>TOTAL</u>
Task 1 -Design Phase Services	\$ 681,659
Task 2 -Construction Phase Services	\$ 42,967
TOTAL	\$ 724,626

Task 1 -Design Phase Services

TASK / WORK DESCRIPTION	(Estimated Average Labor Rates)						TOTAL	
	A	B	C	D	E	F	21.00	HRS
A Production Management and Quality Control	147		32		28	21		228
B Geotechnical				25	78	4		107
C Survey			82		75	3		160
D Utility SUE & Coordination				100	30			130
E Roadway Design	63		73	114	168			418
F Drainage Design	78		115	112	230	18		553
G Structural Design	315	308	255	405	288	0		1571
H N/A								0
I Signing & Pavement Marking	65	0	72	70	129	0		336
J Traffic Control Plan	79	0	96	88	129	26		417
K Illumination & ITS	32	0	30	53	74	0		188
L Quantity Summary	15	0	21	27	25	0		88
M Standards, Specifications and Estimate	7		11	13	12			43
N Oversight Reviews	40	80	0	0	0	15		135
O Project Management & Administration	40	40	0	50	40	40		210
TOTAL DIRECT LABOR	882	428	787	1056	1304	127		4584
	% Total by Classification							
Labor Costs	\$ 72,297	\$ 26,542	\$ 40,916	\$ 43,293	\$ 40,436	\$ 2,672	\$ 2,78%	\$ 226,157
Overhead Costs	\$ 1,6225	\$ 117,302	\$ 43,064	\$ 70,242	\$ 65,608	\$ 4,336	\$ 4,336	\$ 366,939
Profit	\$ 22,752	\$ 8,353	\$ 12,876	\$ 13,624	\$ 12,725	\$ 841	\$ 841	\$ 71,171
Total Loaded Labor	\$ 212,352	\$ 77,958	\$ 120,179	\$ 127,159	\$ 118,770	\$ 7,850		\$664,267
Direct Expenses - refer to Exhibit C for reimbursement & invoicing requirements								
Plotting and Reproduction	\$ 1,133		1132.95					
Mail and Deliveries	\$ 492		492.00					
Misc Expenses	\$ -		5927.97					
Travel and Field Expenses	\$ 5,928		9838.55					
Geotechnical services	\$ 9,839							
Total Direct Expenses	\$ 17,391	2.55%						
Total	\$ 681,659							

Task 2 -Construction Phase Services

TOTAL DIRECT LABOR							
	% Total by Classification						
	60	60	60	60	60	60	240
Labor Costs	\$ 4,920	\$ 3,720	\$ 3,120	\$ 2,460	\$ -	\$ -	\$ 14,220
Overhead Costs	1.6225	\$ 7,983	\$ 6,036	\$ 3,991	\$ -	\$ -	\$ 23,072
Profit	12.0%	\$ 1,548	\$ 1,171	\$ 982	\$ 774	\$ -	\$ 4,475
Total Loaded Labor	\$ 14,451	\$ 10,926	\$ 9,164	\$ 7,226	\$ -	\$ -	\$41,767

Plotting and Reproduction	\$	100
Mail and Deliveries	\$	100
Misc Expenses		
Travel and Field Expenses	\$	1,000
Total Direct Expenses	\$	1,200
		2.79%

Total \$ 42,967

EXHIBIT C
Atkins Work Authorization No. 15

Invoice Reimbursement Checklist

Direct Labor/ Timesheets: The invoice must clearly identify each employee name, title, hours worked, time period of performance, task or project description, rate per hour and/or cost, and office/company location.

Transportation Costs and Reimbursable Limits: Efforts must be made to secure a *reasonable* and/or lowest rate available in the marketplace.

Airline Costs: TxDOT will only reimburse for airline costs at the Economy or Coach Class rate. Extra insurance costs are unallowable. Airline ticket "reissue or change fee" is reimbursable only if the change was at CRRMA's/TxDOT's request or change in meeting because of CRRMA and/or TxDOT.

Personal Automobile Mileage: Up to the state approved rate of **.555 cents** per mile or the current state rate applicable at the time cost is incurred. Expense report must clearly identify the dates, destinations, and purpose of trip.

Automobile Rentals: Not to exceed **\$50.00 per day** (or current State guidelines) plus applicable taxes. Extra optional insurance or rental company gasoline costs are unallowable. Weekly or Monthly rates should be used when applicable. Use of automobile rental not related to the project is unallowable. Legible itemized receipts are required.

Hotel Rates: Weekly and Monthly rates are encouraged and expected when applicable. Reimbursable costs shall not exceed **\$85.00 per day** plus applicable city/state/county taxes or current state rate applicable at the time cost is incurred.

Meals (Food Costs): Meal receipts are not required. Actual costs are allowable up to a maximum Per Diem allowance of **\$36.00 per day** or current state rate applicable at the time cost is incurred. Meals are only reimbursable with overnight lodging away from headquarters. *Tips and alcohol are not reimbursable. Per meal maximums for partial day travel are as follows: Breakfast \$8.00, Lunch \$10.00 and Dinner \$18.00 and are adjusted proportionately to a change in the current state rate.*

Other - Taxi, Bus, Limousine, Subway, etc.: Only reasonable and prudent costs (with explanations) are reimbursable. Legible itemized receipts are required. *Tips are not reimbursable.*

Entertainment Costs: Entertainment costs are not reimbursable such as: 1. Movie costs for "Pay for View" or Cable service. 2. Alcohol costs. 3. Monetary Tips (tipping) for any and all services related to all forms of travel (and/or entertainment).

Communication Costs: Long Distance telephone calls need to be identified and strictly related to work performed under this Agreement in order to be reimbursable by TxDOT. A log is preferred showing the date, person's name called, and explanation. Cell phone monthly charges are reimbursable if usage is strictly related to work performed under this Agreement. Legible itemized cell phone records are required.

Receipts: Legible itemized receipts are required for the following: 1. Hotel (lodging) costs. 2. Airfare travel costs. 3. Parking costs. 4. Automobile or Equipment Rental costs. 5. Taxi, Limousine, Bus, Subway, or other travel costs. 6. Reproduction. 7. Shipping and Handling. 8. Local Postage/Deliveries (courier services). *Tips and alcohol are not reimbursable.*

[END OF EXHIBIT]