### IMPROVEMENT OF THE INTERSECTION OF SR 60 & 43RD AVENUE

# PROFESSIONAL CIVIL ENGINEERING & STRUCTURAL ENGINEERING SERVICES

AMENDMENT NO. 8 TO THE PROFESSIONAL ENGINEERING/LAND SURVEYING SERVICES AGREEMENT BETWEEN ARCADIS US, Inc. (fka ARCADIS G&M, Inc.), Inc. AND INDIAN RIVER COUNTY, FLORIDA.

This is an amendment to the existing Engineering Services Agreement (AGREEMENT) dated September 6, 2005 between ARCADIS US, Inc. (ENGINEER) and Indian River County (COUNTY). This amendment addresses changes in "Section I – Project Limits and Description", "Section III - Scope of Services", and "Section V - Compensation".

## **Amendment Description**

This Amendment includes the following:

"SECTION I - PROJECT LIMITS AND DESCRIPTION" is being modified to incorporate the following:

Consultant services are required for the preparation of road design plans; bridge plans; permit applications and utility relocations associated with the construction of SR 60 / 43<sup>rd</sup> Avenue Intersection Improvements.

ARCADIS US, Inc., was contracted to design the widening of 43<sup>rd</sup> Avenue from 26<sup>th</sup> Street to 18<sup>th</sup> Street. The Florida Department of Transportation (FDOT) is acquiring the right of way parcels and license agreements required for the construction of the project. As a result of the right of way acquisition negotiations with the property owners, FDOT has requested plan revisions to address property owner's comments and desires. ARCADIS will revise the plans to address the FDOT's requests. The plan revisions are summarized as follows:

- Add ditch bottom inlets, handrails, and a license agreement along the frontage of parcels 113 and 114 at station 2568+70 +/-.
- Revise the driveway and grading at the TD Bank parcel to eliminate the requirement for license agreement.
- Revise the driveway layout and grading for the driveway for the Nino's parcel on 43<sup>rd</sup> Avenue to eliminate the requirement for the license agreement and to eliminate the "Do Not Enter" signage.
- Revise the driveways for the Mobil gas station to provide for 24' wide driveways.
- Coordinate with FDOT for possible driveway revisions at the shopping center on SR 60 at station 2645+00 +/-.
- Obtain survey information for the stormwater drainage system on 43<sup>rd</sup> Avenue along the frontage of the Pat O'Connell Plaza site and revise the plans to address impacts to the drainage system.

- Revise the plans to add a gravity wall and handrail or fencing at the Pinewoods Animal Hospital site.
- Revise the plans to add a handrail along the sidewalk at the Cumberland farms site.
- Revise the drainage inlets and driveways at the Szechuan Palace site to provide for an additional driveway.
- Eliminate the license agreement and driveway layout and grading at the 7-11 site.
- Increase the width of the license agreement along the Dodgertown site between station 136+50 and 141+50 +/-.
- Show all license agreements on the cross sections.

Arcadis has provided utility coordination services for the project to show existing utility facilities on the plans and to coordinate with the utility companies for the relocation of their facilities and to address potential utility conflicts. Additional utility coordination will be provided as requested by the County to show existing and proposed underground utilities on the cross sections sheets. The location of the underground facilities will be based on information provided by the utility companies. In addition, the culvert at the IRFWCD canal on the south side of 26th Street will be extended to provide for 40 feet of clearance between the face of curb and the end of the pipe.

The following plan sheets will be modified:

- Cover Sheet
- Quantities and General Notes
- Construction Plans
- Cross Sections
- Signing and Pavement Marking Plans

The work included in Amendment No. 8 is in accordance with the existing AGREEMENT dated November 6, 2005 between ARCADIS US, Inc. (ENGINEER) and Indian River County (COUNTY).

"SECTION III – SCOPE OF SERVICES" is being modified to incorporate the following: 30% and 60%, and 90% plans have been submitted to the County. Engineer will prepare revised 90%, and 100% plans. The plan modifications will consist of the following:

The Roadway set of plans shall consist of the following:

|   | 30% | 60% | 90% | 100% |
|---|-----|-----|-----|------|
| Cover Sheet                             |     |     |     | X    |
| Typical Sections                        |     |     |     | X    |
| Summary of Quantities and General Notes |     |     |     | X    |

| Details                                       | X |
|---|---|
| Plan and Profile Sheets (40 scale)            | X |
| Cross Sections at 100 ft interval             | X |
| Signage & Pavement Marking Plans (40 scale)   | X |
| Intersection Plan & Details                   | X |
| Stormwater Pollution Prevention Plans (SWPPP) | X |
| Computation Book                              | X |
| Construction Cost Estimate and Quantities     | X |

## "SECTION IV - TIME FOR COMPLETION" is being modified to incorporate the following:

## 1. Project shall be completed as follows:

a. The time for completion of the 100% design drawings for the plan revisions requested by FDOT shall be one (1) month from the date of execution of this ADDENDUM. Utility coordination work will be as requested by the county and will be completed within six (6) months from the date of execution of this ADDENDUM.

## 2. Deliverables - The ENGINEER shall provide the COUNTY:

- a. Three (3) 11" x 17" paper signed and sealed of the 100% plans. Also, a pdf format set of the plans on a cd.
- b. FINAL five (5) 24" x 36" paper signed and sealed "hardcopy", AutoCad drawing file and PDF formats on CD.
- c. Work Product shall be prepared and supplied in State Plane geometry (NAD83 2007 adjustment if applicable); digital versions are to be prepared and submitted so that the COUNTY or other consultants can readily use it for the design and analysis of the area, as defined. It shall contain all information necessary for third-party surveyor to independently recreate and/or utilize the survey work. It is acknowledged all final products become property of Indian River COUNTY and will be available for use by the public at large.

## "SECTION V - COMPENSATION" is being modified to incorporate the following:

The COUNTY agrees to pay and the ENGINEER or agrees to accept for services rendered pursuant to this Agreement fees in accordance with the following:

## A. Professional Services Fee

 The basic compensation mutually agreed upon by the ENGINEER and the COUNTY follows:

## The following is a summary of costs:

| Roadway Design  | Charge Associated with<br>This Amendment | New Total<br>Compensation |
|---|--|---------------------------|
| Geotechnical Services (Tierra)  | \$0.00                                   | \$35,487.50               |
| Engineering(ARCADIS)  | \$29,500.00                              | \$342,297.03              |
| Signal Plans(SIMMONS & WHITE Inc.)  | \$0.00                                   | \$31,488.41               |
| Stormwater Pollution Prevention Plans (ARCADIS)   | \$0.00                                   | \$9,022.92                |
| Permitting(ARCADIS)   | \$0.00                                   | \$33,090.00               |
| Surveying   |  |                           |
| Design Survey(ARCADIS)  | \$1,313.20                               | \$65,003.60               |
| Right of Way Survey and Map(ARCADIS)  | \$0.00                                   | \$20,386.40               |
| Structural Design   |  |                           |
| Structural Design for SR 60 over Main Relief Canal bridge (Bridge Design Associates, Inc.)                  | \$0.00                                   | \$76,060.00               |
| Structural Design for 43 <sup>rd</sup> Avenue over Main Relief Canal bridge(Bridge Design Associates, Inc.) |  | \$67,604.00               |

## Landscape & Lighting Plans

| Landscape Architectural Services\$0.00 (Roy-Fisher Associates, Inc.)                                  | \$31,486.00  |
|---|--------------|
| Lighting Plans\$0.00 (Techno Engineering)   | \$39,835.00  |
| Public Involvement  |              |
| Public Workshop Meeting\$0.00   | \$6,180.00   |
| Contamination Screening Evaluation Report\$0.00   | \$9,750.00   |
| Conceptual Commercial Area Improvement Plan\$0.00   | \$11,700.00  |
| TOTAL LUMP SUM FEE\$30,813.20   | \$779,390.86 |
| ALLOWANCES  |              |
| Sketch and Legal Descriptions\$0.00 (ARCADIS)   | \$50,000.00  |
| Soft Dig for Utility Locations\$0.00  | \$20,000.00  |
| Appraisal\$0.00 (Callaway & Price) (For 27 parcels)   | \$121,500.00 |
| Land Planner\$0.00 (Moyle, Flanigan, Katz, Raymond & Sheehan) (Hourly not to exceed at \$175.00/hour) | \$20,000.00  |
| Market Analysis   | \$20,000.00  |
| Eminent Domain Business Damage Assessment   | \$40,000.00  |
| Cure Plans  | \$56,000.00  |

| Landscape plans for Cure Plans (Roy-Fisher) (Allowance for 14 parce                                   | \$16,800.00                                  |                    |
|---|--|--------------------|
| Boundary Surveying  | \$0.00                                       | \$10,000.00        |
| TOTAL ALLOWANCES (Hourly Not To Exc   | eed)\$0.00                                   | \$354,300.00       |
| The AGREEMENT is hereby amended as special AGREEMENT shall remain in full force and of                |  | r sections of the  |
| This Amendment No. 8 to the AGREEMENT and constructed by the laws of the State of Flo                 |  | ll be governed by  |
| In witness whereof the parties have executed t  | his Amendment this                           | day of<br>_, 2017. |
| ARCADIS US, INC. 1500 Gateway Boulevard, Suite 200 Boynton Beach, FL. 33411  By:  Robert Lawson, P.E. | INDIAN RIVER COUNTY  By:  Board of County Co |                    |
| WITNESSED BY:   | Approved by BCC                              | <u> </u>           |
| Bonn J Ruhb   | Attest:<br>Jeffrey R. Smith, Clerk of C      | Circuit Court      |
| County Attorney Approved as to Form and Legal Sufficiency   | By:Deputy Clerk                              | k                  |
| Jason E. Brown County Administrator   |  |                    |

## ESTIMATE OF WORK EFFORT FOR ENGINEERING SR-60 & 43RD AVENUE

### Amendment 8

|                                  | 3 MAN F                          | 3 MAN FIELD CREW |        |            | PROF. SURVEYOR |        |            | / CA | D TECH.           | <b>ACTIVITY TOTAL</b> |  |
|----------------------------------|----------------------------------|------------------|--------|------------|----------------|--------|------------|------|-------------------|-----------------------|--|
| [                                | MAN                              |                  | HOURLY | MAN HOURLY |                |        | MAN HOURLY |      |                   | MAN                   |  |
|                                  | HOURS                            |                  | RATE   | HOURS      | RATE           |        | HOURS      | RATE |                   | HOURS                 |  |
| SURVEY                           | 10.0                             | \$               | 112.00 | 1.0        | \$             | 75.60  | 2.0        | \$   | 58.80             | 13.0                  |  |
|                                  | PROJECT MANAGER PROJECT ENGINEER |                  |        |            |                |        | SR. CAD    | D OI | PERATOR           | ACTIVITY TOTAL        |  |
|                                  | MAN                              |                  | HOURLY | MAN        |                | HOURLY | MAN        |      | HOURLY            | MAN                   |  |
|                                  | HOURS                            |                  | RATE   | HOURS      |                | RATE   | HOURS      |      | RATE              | HOURS                 |  |
| ALTERNATIVES<br>ANALYSIS         | •                                | \$               | 140.00 | _          | \$             | 115.00 | -          | \$   | 75.00             | -                     |  |
| DRAINAGE DESIGN &<br>ANALYSIS    |                                  |                  |        | _          |                |        | _          |      |                   |                       |  |
| ROADWAY PLANS                    | 94.0                             | \$               | 140.00 | 45.0       | \$             | 115.00 | 94.0       | \$   | 75.00             | 233.0                 |  |
| SIGNALIZATION PLANS              | **                               | \$               | 140.00 | -          | \$             | 115.00 | -          | \$   | 75.00             |                       |  |
| PERMITTING                       | 16.0                             | \$               | 140.00 | _          | \$             | 115.00 | 24.0       | \$   | 75.00             | 40.0                  |  |
| SIGNING & PAVEMENT MARKING PLANS | -                                | \$               | 140.00 | _          | \$             | 115.00 | 1.0        | \$   | 75,00             | 1.0                   |  |
| TOTALS                           | 120.0                            |                  |        | 46.0       |                |        | 121.0      |      | Lin in the second | 287.0                 |  |

|                                     | <br>            |                | <br>           | Total | Cost      |
|-------------------------------------|-----------------|----------------|----------------|-------|-----------|
| SURVEY                              | \$<br>1,120.00  | \$<br>75.60    | \$<br>117.60   |       | 1,313.20  |
| ALTERNATIVES<br>ANALYSIS            | \$<br>          | \$<br>-        | \$<br>-        | \$    | _         |
| ROADWAY PLANS                       | \$<br>13,160.00 | \$<br>5,175.00 | \$<br>7,050.00 |       | 25,385.00 |
| SIGNALIZATION PLANS                 | \$<br>          | \$<br>-        | \$<br>-        |       | -         |
| PERMITTING                          | \$<br>2,240.00  | \$<br>-        | \$<br>1,800.00 |       | 4,040.00  |
| SIGNING & PAVEMENT<br>MARKING PLANS | \$<br>-         | \$<br>-        | \$<br>75.00    |       | 75.00     |
| TOTALS                              | \$<br>16,520.00 | \$<br>5,250.60 | \$<br>9,042.60 | \$    | 30,813.20 |

|                    |                | _  |                      |                |
|--------------------|----------------|----|----------------------|----------------|
|                    | BY<br>ACTIVITY |    | COST FOR<br>ACTIVITY | HOURLY<br>RATE |
| SURVEY             | 13.0           | \$ | 1,313.20             | 101.02         |
| DRAINAGE ANALYSIS  |                | \$ | -                    | #DIV/0I        |
| ROADWAY PLANS      | 233.0          | \$ | 25,385.00            | 108.95         |
| UTILITIES          | -              | \$ |                      | #DIV/0!        |
| PERMITTING         | 40.0           | \$ | 4,040.00             | 101.00         |
| SIGNING & PAVEMENT |                |    |                      |                |
| MARKING PLANS      | 1.0            | \$ | 75.00                | 75.00          |
| TOTALS             | 287.0          | \$ | 30,813.20            | \$107.36       |

Average per hour

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### HIGHWAY TASK LIST

## ACTIVITY: A. ROADWAY PLANS PACKAGE

SUBACTIVITY: 1 - SURVEY

| TASK                | BASIS OF<br>ESTIMATE | NO. OF<br>UNITS | HOURS/UNIT | NO. OF<br>SHEETS | TOTAL<br>HOURS | FIELD<br>CREW | PROJECT<br>SURVEYOR | SR. CADD | REMARKS                       |
|---------------------|----------------------|-----------------|------------|------------------|----------------|---------------|---------------------|----------|-------------------------------|
| Survey Control      | HR                   | 1               | 2          |                  | 2              | 2.0           |                     |          |                               |
| 2. Location Survey  | HR                   | 1               | 9          |                  | 9              | 8.0           | 1.0                 |          | Pat o'Connell Plaza and canal |
| 3. Elevation Survey | HR                   | 11              |            |                  | 0              |               |                     |          |                               |
| 4. Drawings         | HR                   | 1               | 2          |                  | 2              |               |                     | 2.0      |                               |
| 5. QA/QC            | HR                   | 1               |            |                  | 0              |               |                     |          |                               |
| 6. Final            | HR                   | 11              |            |                  | 0              |               |                     |          |                               |
| 7.                  |                      |                 |            |                  | 0              |               |                     |          |                               |
| 8.                  |                      |                 |            |                  | 0              |               |                     |          |                               |
| 9.                  |                      |                 |            | PROGRAM.         | 0              |               |                     |          |                               |
| 10.                 |                      |                 |            |                  | 0              |               |                     |          |                               |
|                     |                      |                 |            |                  |                |               |                     |          |                               |
| SUBTOTAL THIS SHEET |                      |                 |            |                  | 13             | 10            | 1                   | 2        |                               |

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#### HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE

SUBACTIVITY: 3 - ROADWAY PLANS

| TASK                                      | BASIS OF<br>ESTIMATE | NO. OF<br>UNITS | HOURS/UNIT | NO. OF<br>SHEETS | TOTAL<br>HOURS | PROJECT<br>MANAGER | PROJECT<br>ENGINEER | SR. CADD | REMARKS |
|---|----------------------|-----------------|------------|------------------|----------------|--------------------|---------------------|----------|---------|
| 1. Key Map                                | Sheet                |                 |            |                  | 0              |                    |                     |          |         |
|   |                      |                 |            |                  |                |                    |                     |          |         |
| 2. Typical Section & Notes                | Sheet                |                 |            |                  | 0              |                    |                     |          |         |
| 3. Summary of Quantities                  | Each                 | 1               | 8 ·        | 1                | 8              | 2.0                | 2.0                 | 4.0      |         |
| 4. Plan Sheets                            | Sheet                | 15              | 6          | 15               | 90             | 21.0               | 24.0                | 45.0     |         |
| 5. Intersection Plateau Details           | Each                 |                 |            |                  | 0              |                    |                     |          |         |
| 6. Storm Water Pollution Prevention Plans | Sheet                |                 |            |                  | 0              |                    |                     |          | ·       |
| 7. Profile Sheets                         | Sheet                |                 |            |                  | 0              |                    |                     |          |         |
| 8. Drainage Revisions                     | Sheet                | 4               | 4          |                  | 16             | 4.0                | 4.0                 | 8.0      |         |
| 9. QA/QC                                  | L\$                  | 11              | 9.5        |                  | 9.5            | 9.5                |                     |          |         |
| 10. Cross-Sections                        | EA                   | 78              | 0.75       | 21               | 58.5           | 14.5               | 15.0                | 29.0     |         |
| 11. Drainage Maps                         | Ea.                  | 3               | 2          |                  | 6              | 1.0                |                     | 5.0      |         |
| 12. Summary of Drainage Structures        | Sheet                | 5               | 1          | 5                | 5              | 2.0                |                     | 3.0      |         |
| 13 FDOT Coordination                      | LS                   | 1               | 40         |                  | 40             | 40.0               |                     |          |         |
| SUBTOTAL THIS SHEET                       |                      |                 |            |                  | 233            | 94.0               | 45.0                | 94.0     |         |

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### HIGHWAY TASK LIST

## ACTIVITY: A. ROADWAY PLANS PACKAGE

### SUBACTIVITY: 5 - ENV. SERVICES / PERMITS

| TASK  | BASIS OF<br>ESTIMATE | NO. OF<br>UNITS | HOURS/UNIT | NO. OF<br>SHEETS | TOTAL<br>HOURS | PROJECT<br>MANAGER | PROJECT<br>ENGINEER | SR. CADD | REMARKS |
|---|----------------------|-----------------|------------|------------------|----------------|--------------------|---------------------|----------|---------|
| Preliminary Field Review                                      | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| Agency Coordination (Pre App Meeting)                         | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 3. Establish Wetland Jurisdictional Lines                     | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 4. Agency Field Review  | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| Prepare Wetland Resouce / Dredge & Fill Permit 5. Application | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 6. Modify SJRWMD Permit                                       | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 7. Address FDOT ERC Comments                                  | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 8. FDOT coordination  | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 9. Utility coordination                                       | L.S.                 | 1               | 40         |                  | 40             | 16.0               |                     | 24.0     |         |
| 10. Health Department   | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| 11 Mitigation Coordination and Meetings                       | L.S.                 |                 |            |                  | 0              |                    |                     |          |         |
| SUBTOTAL THIS SHEET   |                      |                 |            |                  | 40             | 16                 | 0                   | 24       |         |

### **HIGHWAY TASK LIST**

### ACTIVITY: B. SIGNING & PAVEMENT MARKINGS

SUBACTIVITY: NONE

| TASK                              | BASIS OF<br>ESTIMATE | NO. OF<br>UNITS | HOURS/UNIT | NO. OF<br>SHEETS | TOTAL HOURS | PROJECT<br>MANAGER | PROJECT<br>ENGINEER | SR. CADD | REMARKS |
|-----------------------------------|----------------------|-----------------|------------|------------------|-------------|--------------------|---------------------|----------|---------|
| 1. Key Sheet                      | Sheet                |                 |            |                  | 0           |                    |                     |          |         |
| 2. General Notes                  | Sheet                |                 |            |                  | 0           |                    |                     |          |         |
| 3. Tabulation of Quantities       | Sheet                | 1               |            | 1                | 0           |                    |                     |          |         |
| 4. Plan Sheets                    | Sheet                | 1               | 1          |                  | 1           |                    |                     | 11       |         |
| 5. Guide Sign Worksheet           | EA                   | _               |            |                  | 0           |                    |                     |          |         |
| 6. Cross-Sections & Layout        | EA                   |                 |            |                  | 0           |                    |                     |          |         |
| 7. Special Marking Details        | EA                   |                 |            |                  | 0           |                    |                     |          |         |
| 8. Sign Details                   | Sheet                |                 |            |                  | 0           |                    |                     |          |         |
| 9. Metal / Concrete Pole Details  | EA                   |                 |            |                  | 0           |                    |                     |          |         |
| 10. Service Point Details         | EA                   |                 |            |                  | 0           |                    | ****                |          |         |
| 11, C.E.S. / Summary of Pay Items | L.S.                 |                 |            |                  | 0           |                    |                     |          |         |
| 12. Special Provisions            | L.S.                 |                 |            |                  | 0           |                    |                     |          |         |
| SUBTOTAL                          |                      |                 |            |                  | 1           | 0                  | 0                   | 1        |         |