## GEOTECHNICAL AND MATERIALS TESTING SERVICES FOR OSCEOLA COUNTY SCHOOL FOR THE ARTS AND MIDDLE SCHOOL CC

# EXHIBIT A

### SCOPE OF SERVICES

**DESCRIPTION OF SERVICE**: Represent the school district as its consultant in Geotechnical Engineering and Materials Testing matters. Anticipated services could include but are not limited to the following:

- 1. Design services for selected construction projects listed, which pertain to the Geotechnical portion of the project. (i.e. If soil borings indicate design changes are needed, Consultants will provide recommendations for possible corrections).
- 2. Review and comment on educational specifications, design submittals, and construction documents prepared by other Consultants.
- 3. Review, inspect, and report on specific areas of construction as requested.
- 4. Provide support with school site analysis, educational specification preparation, construction project budgeting, etc. (i.e. If changes are needed to the original design, the Consultants shall provide cost comparisons for the various recommendations they offered on how to correct the situation).
- 5. The Consultants will be required to investigate, identify, analyze, and make recommendations with costs for specific school facility problems or needs assigned on selected project(s).
- 6. Consultants will be required to provide technical support by the use of other Consultants when specialized areas of expertise are needed.
- 7. Provide technical support in architectural matters to the Facilities and Maintenance Department.

## SITE WORK SERVICES

The Consultant will be responsible for pre-construction environmental site assessments including phase I & II environmental assessments, wetland delineations, and surveys for threatened and endangered species, permitting, and coordination of remediation and mitigation efforts, if warranted.

The Consultant will be responsible for clearing and grubbing observations prior to proofrolling and filling operations, observing proofrolling operations for compliance, and conducting laboratory tests for moisture density relationship and classification.

The Consultant will be required to conduct subgrade and fill soil density tests on each foot of lift of fill. Pipe backfill density test will be performed in accordance with Standard Test Frequencies. (1 test per 300 lf per 12" lift of backfill and 1 test per 12" lift at structures, unless otherwise specified)

The Consultant's asphalt base and wearing surface construction monitoring will consist of temperature tests (one for every 5 trucks), sampling for classification (one for every 500 tons), and core samples (one for every 300 lf) for thickness and density testing. The Consultant will also be required to note any irregularities in the construction techniques utilized. The School District Representative(s) must be notified immediately of any irregularities in the construction techniques utilized.

Site concrete testing will include subgrade soil in-place density tests, one (1) set of 3 cylinders for every 1,000 lf of curb and sidewalk and one for every 50 cubic yards for all other site concrete. (unless otherwise specified)

Retaining walls will have in-place density tests conducted within footing excavations.

Foundation wall, grade beam backfill soil density tests will be conducted for every foot of fill for each 100 LF.

#### FOUNDATIONS

The Consultant will be required to perform in-place density tests on foundation soil subgrade at a frequency of 1 test for every third column pad and 1 test for every 100 lf of footing unless otherwise specified. The Consultant will be required to inspect reinforcement and footing size per project approved drawings.

#### CONCRETE

The Consultant's personnel performing concrete testing must have a minimum ACI Level I certification with a minimum of two years experience.

The Consultant will review concrete mix design submittals for compliance within the Contract documents. All concrete placement will be monitored by the Consultant to verify that air temperature at the point of placement in the structure are within acceptable limits outlined in the project specifications, inspect concrete upon arrival to verify that the proper concrete mix number, type of concrete, and concrete strength is being placed at the proper location, record any water added and note if it exceeds that allowed in the mix design. The Consultant must report any irregularities that occur with the concrete at the job site to the School District Representative(s).

The Consultant will record the slump, temperature and air content at the beginning of concrete placement for each batch and for each set of test cylinders made: one (1) set of four (4) test cylinders will be molded at frequencies no less than the following (unless otherwise specified):

Foundation walls - one (1) set for each 150 cubic yards or fraction thereof.

Grade Beams/Pile Caps - one (1) set for each 100 cubic yards or fraction thereof.

Floors - one (1) set for each 5,000 square feet or floor area.

Columns - one (1) set for each 100 cubic yards or fraction thereof with a minimum of two (2) sets per floor.

Cylinders will be tested for compressive strength; 1 at 7 days, 2 at 28 days and 1 hold cylinder. In addition, one (1) additional cylinder per set will be molded for formed slab and pan joist floors to evaluate the concrete strength at the time of form stripping. The Consultant will be required to inspect proper welding of precast panel connection to structure for size, type, and quality.

## MASONRY

#### Prism Tests-

Prism tests in accordance with ASTM E-447 will be conducted for each 5,000 square foot of wall. The compressive strength prism will be assembled by the Consultant with the actual materials planned in the work.

#### Mortar Tests-

Mortar tests (ASTM C-780) will be run for each 5,000 square foot of load bearing masonry but not less than one (1) strength test for each day's operations for each class of wall. (unless otherwise specified)

### Grout Prisms-

Grout prisms will be molded for each 50 cubic yards of grout but not less than one (1) set for each day's operation and tested for compressive strength, (1 at 7 days and 2 at 28 days). (unless otherwise specified)

### STEEL

Consultant's personnel performing testing and inspection for structural steel shall be an AWS Certified Weld Inspector (CWI) for visual inspection and have the appropriate certifications for non-destructive testing.

The Consultant's specialized steel inspector will be required to perform shop and field inspections in accordance with the project specifications, as required.

Shop inspections will be performed at designated fabrication shops for designated periods of time determined in consultation with the Architect, Engineer, and the School District's Representative.

The Consultant will perform field inspection testing in accordance with the following:

- 1. Obtain the planned erection procedure, and review with the Erectors supervisory personnel.
- 2. Verify field welding procedures and obtain welder certificates.
- 3. Check steel as received in the field for possible shipping damage, workmanship, and piece marking.
- 4. Check joint preparation and fit up, backing strips, and run-out plates for welded moment connections and column splices.
- 5. Check preheating to assure proper temperature, uniformity, and thoroughness through the full material thickness.
- 6. Review welding sequence.
- 7. Visually inspect all field welding for size, length, and quality.
- 8. Perform bolt torque tests on at least 10% of the high strength bolted connections but not less than two (2) bolts selected at random in the connection and visual; inspect all bearing type bolts to verify that the bolts are snug tight.
- 9. Perform visual inspections on deck welds and screw placement in accordance with the project's documents.
- 10. Verify proper bearing at joist supports.

#### **ROOFING INSTALLATION INSPECTION**

During the insulating and membrane construction, the Consultant will be required to have a full-time Level III roofing inspector on-site to verify construction in accordance with the project documents. During flashing installation, providing the roofing contractor is providing quality work, the Consultant will be required to provide part-time inspection.

#### ADDITIONAL AREAS OF TESTING

The Consultant will be required to mold cubes in accordance with ASTM C-109 on the non-shrink grout for base plates and bearing plates. One (1) set of four (4) cubes will be made for every ten (10) base plates and bearing plates but not less than one (1) set for each days operation. In addition, one (1) set will be made for each days operation of grouting wall panels.

The Consultant will provide thickness measurements, in accordance with UL design specifications, on the sprayed-on fireproofing and sample the material at each floor, for each days operation, and verify oven dry density.

# SPECIAL INSPECTION (THRESHOLD INSPECTION) SERVICES

- 1. All threshold inspection services will be provided in accordance with Florida Statute 553.
- 2. Threshold inspection services will be in strict accordance with the project's threshold inspection plan.

### EXHIBIT B

## PROJECT CONSTRUCTION BUDGET

Owner has entered into a GMP Agreement with the Construction Manager for a total Construction Cost of **TBD**. Geotechnical and Materials Testing Firm will take care of work within cost parameters set forth by Owner and CM. Geotechnical and Materials Testing Firm to request any construction cost breakdown necessary to complete its scope of work, from the Owner.

### EXHIBIT C

### **PROJECT SCHEDULE**

Owner has entered into a GMP Agreement with the Construction Manager for a total Project schedule, including an opening of **TBD**. Geotechnical and Materials Testing Firm will coordinate with the Owner and CM to take care of the work within the schedule parameters.

## EXHIBIT D

## SCHEDULE OF PROGRESS PAYMENTS AND HOURLY RATES

Not to Exceed Fee for Basic Services shall be established and paid in accordance with the Contract and this Exhibit as follows:

Billing and Payment shall be at completion phases of work established by Purchase Order or Work Order, and per the Project Proposal (Attachment 1), on a monthly basis. Geotechnical and Materials Testing Firm shall invoice on Purchase Orders issued by Owner.

## EXHIBIT E

#### CONSULTANT REIMBURSABLE EXPENSE GUIDELINES

#### TRAVEL

All expenses related to travel, including without limitation train, mileage, air, etc., shall be subject to all laws, policies, and guidelines for the State of Florida and the School Board in connection with eligibility for reimbursement and limitations for dollar amount for such reimbursement. For the purpose of this Agreement the ARCHITECT/ENGINEER, including consultants, agents, etc., shall be deemed to be limited to the same extent as a School Board employee, by the affirmations, laws, regulations, that govern eligibility for travel reimbursement and amount of reimbursement

#### **Current Mileage Rate: \$.45**

No other expenses or costs will be reimbursed, without prior written authorization received from the Owner.

# EXHIBIT F

# **KEY EMPLOYEES**

Identify team members responsible for this project and their areas of responsibility.

<u>Member</u>

<u>Title</u>

**Responsibility** 

# EXHIBIT G

# TRUTH IN NEGOTIATION CERTIFICATE

The wage	rates an	d other fact	ual unit cos	sts supp	orting the co	mpensation	under the Co	ontract
between	the	School	Board	of	Osceola	County,	Florida	and
	dated							
are accura	ate, com	plete and c	current as	of the	time of ent	ering into th	ne contract.	This
Certificate	is execu	ited in Com	pliance wit	h Sectio	on 287.055 (5	5) (a) of the F	lorida Statut	es.
DATED th	nis	_day of	2	007.				
By:								
STATE O	F FLOR	IDA						
COUNTY	OF							
BEFORE	ME, the	undersigned	d authority	, persoi	ally appeare	d		as its
					_, who, after	first being du	uly sworn, d	eposes
and says th	hat the f	oregoing Tr	uth In Neg	otiation	Certificate i	s true and co	rrect to the	best of
his/ her kn	owledge	, informatio	n and belie	ef.				
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Notary Pul	blic (prii	nted name)						
Personally	known	to me		· or	has produced	lidentificatio	)n	

Personally known to me \_\_\_\_\_; or has produced identification Type of identification produced: