



December 22, 2015

Project No.: C15-0029

New Construction for Ascension Parish Fire District 3 Station #34

ADDENDUM # 01

The following information shall be considered part of the Contract Documents for the above referenced project and shall take precedence over any conflicting statements contained therein. Revise all other notes, schedules, specifications and drawings as required.

GENERAL

1. Clarification – All questions must be submitted in writing to Mollie Burke at mburke@domain-dsgn.com
2. Clarification – The address of the project is 18345 Bluff Road Prairieville, LA 70769.
3. Clarification – This project design is based off of the prototypical design of Fire District 3 Station #33 located at 38492 Duplessis Rd. Contractors are encouraged to visit this site and may set up appointments to walk through the building. Please call 693-6663 to schedule a time.
4. Clarification – The Architect's Statement of Probable Costs is \$1.45 million.
5. Clarification – See attached Sign-In Sheet from the mandatory Pre Bid meeting.
6. Clarification – See attached Soils Report.
7. Completion Time – The Bidder hereby fully agrees to commence the Work under this Contract on a date specified by the Owner as specified in Article 8 of Supplementary Conditions and to substantially complete the Project within **210** days from Notice to Proceed.
8. Liquidated Damaged – The Bidder hereby further agrees to pay Liquidated Damages per day for each consecutive calendar day which the Work is not complete beginning with the first day beyond the Completion Time stated above. The Contractor and his Surety shall be liable and shall pay to the Owner the sum specified herein as fixed, agreed, and liquidated damages for each consecutive calendar day (Saturdays, Sundays, and all holidays included), of delay until the Work is Substantially Completed in accordance with the definition specified in the General Conditions of the Contract for Construction. See attached chart for Liquidated Damages associated with Project Cost.
9. Required Attachments with Bid:
 - a. Bid Form

ADDENDUM

- b. Bid Bond/Form 00360
- c. Non Collusion Affidavit 00340
- d. Attestation Clause
- e. Corporate Resolution
- f. Contractor Information Form 00315

10. Required by Lowest Bidder 48 Hours after Bids Accepted:

- a. List of Sub-Contractors
- b. Preliminary Construction Schedule
- c. List of Substitutions
- d. Schedule of Values
- e. Performance Bond

11. Clarification – See attached Insurance Requirements.

12. Clarification – Contractor shall be responsible for all temporary utility fees.

13. Clarification – Contractor shall provide a 4' x 8' project identification sign with rendering (digital file supplied by Architect), project name, Contractor, Owner, Architect, and Parish Council Members. Sign to be verified with Architect and Owner prior to ordering.

14. Clarification – Contractor shall provide the Radio Alert System and installation in their price. Attached is the list of equipment needed for full installation, with the exception of the Motorola XTL2500 Ascension Parish Standard Configuration, which shall be provided by the Fire Department. One preferred vendor with experience installing for this Fire Department is EMCO Technologies, Attn: Vaughn Bourgeois (225-925-8900). Contractor to include an additional \$500 allowance for additional equipment needed that may not be on this list.

15. Clarification – All phone lines shall be VOIP. The contractor to include the wiring to go from the demarcation point to each outlet with CAT6E wiring in his bid, and shall be coordinated with the owner-selected service provider. The demarcation point shall be in Supply Room (109).

16. Clarification – All four overhead doors in Engine Room 114 shall have an operating switch located by the door itself on the driver's side (left side of door). A second operating switch shall be located in Radio Room 107 at Door 107-1.

17. Clarification – On Sheet M1.1, provide battery operated carbon monoxide detectors next to AC-1 and AC-2 thermostats on wall.

18. Clarification – Sheet 2.0:

- a. For IT service, provide 1" conduit with pull string from main electrical service to the IT service provider utility pole. Provide metallic marker tape and bury a minimum 24" below grade. Coordinate exact location with service provider. Approximate distance of underground conduit shall be 150'.

- b. Exact location of electrical power provider underground utility service to be coordinated by Contractor with the power company.
- 19. Clarification – The smoke exhaust removal system shall be linked to the overhead doors, so that as the doors are opened, they shall be started automatically.
- 20. Clarification – Contractor to include low-e coating on all windows and storefront glazing.
- 21. Clarification – All exposed steel shall be galvanized and painted.
- 22. Clarification – All testing, including T&B of HVAC will be contractor provided.
- 23. Clarification – Contractor shall minimize roof penetrations and direct all vents to go through wall whenever possible.
- 24. Clarification – Prior approvals will be accepted until January 5th, 2016.
- 25. Clarification – No substitutions will be considered after bid acceptance unless Contractor can show extenuating circumstances.
- 26. Clarification – It is the Contractor’s responsibility to include connections to all public utilities and bring to building.

PRIOR APPROVALS

Items listed below are approved manufacturers. It is still the contractor’s responsibility to provide a product equal to the specifications by that approved manufacturer.

Equipment Item

084113 Aluminum-Framed Entrances and Storefronts

Manufacturer

Manko – 2450 Series

Coral Architectural
Products – FL300T

End of Addendum No. One



8316 Kelwood Avenue
 Baton Rouge, LA 70806
 225-216-3770 / 225-216-3771 FAX

noland & wong + domain design architecture

Tuesday, December 22, 2015 at 2:00 pm
 14517 Hwy 73, Prairieville, LA 70769

New Construction of Ascension Parish Fire District 3 Station #34
 Bluff Rd, Prairieville, LA
 Domain Project No. C15-0029

Sign-in Sheet for Pre-bid Conference Attendees

Name	Representing	Phone & FAX	E-mail address
Edwin Sanchez	J.F. Juge Const	225-677-5480, 225-677-8417	beverly @ jug jugconst.com
Brent Walsh	Block Construction	225-362-0770 - 225-279-2324	bwalsh@Blockcompanies.com
Benton Foret	Foret Contracting Group	985-447-5296 - 985-449-4060	gyoung@foretgroup.com
PAOLO ROSALES	ANK CONSTRUCTION, LLC	225.766.5133 225.766.6276	PAOLO@ANK-CONSTRUCTION.COM
Elsa DeLeon	Galy States	504 985-960-1818 504-330-8869	ELMANRIQUE@yaho.com Elsa AC.jend@bellSouth.net
Chin Henry	Bonnacant const.	985-395-6441	BCCI@cox-interact.com
Ciro MANRIQUEZ	C&R Contracting Services, Com	504 225-279-5343	C&R Contracting Services
SCOTT DEUMIRE	DEUMIRE CONST	225 769-2948 267-2565	rgoudeau@deumite.com



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Name	Representing	Phone & FAX	E-mail address
Eddie Wilson	Picon Brothers	F 225 644 6570 P 225-644 6577	eddie.wilson@PiconBrothers.com
Steve McLin	McLin Construction	phone 225-435-3006 FAX 225-435-3007 P 225 791 5346	Steve@mcLinconstruction.com
Rusty Chopin	Russell Coleman Contracting	F 225 665 0602	RCHOPIN@RCOLEMANCONTR.COM
Beau Robert	BEAURAYNE Builders	225-252-6227 225-208-1119	beau@beauraynebuilders.com
Lee Boyd	Guy Hopkins Co.	P- 225-751-2158 F- 225-751-2159	estimating@guyhopkins.com
Rosini D'AUNOY	VINGONI ENT, LLC	D-504-617-4456 F-877-224-0454	HUSKY1@BELLISOUTH.NET
Cindy Crumppitt	J. Reed Constructors	P 225-201 8824 225-201 8829	cindy@jreedconstructors.com
Hank Jenne	SBS Construction	P 225 275 9700 F 225 275 9705	hjenne@sbsworld.net



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New Construction of Ascension Parish Fire District 3 Station #34
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 Domain Project No. C15-0029

Sign-in Sheet for Pre-bid Conference Attendees

Name	Representing	Phone & FAX	E-mail address
Jared Johnson	Stuart and Co. General Contractors	P-225-293-8650 F-225-293-8651	Bid@stuartandcompany.com
Mickey Robertson	MR ENGINEERING & SURVEYING	225-293-8651 490.9592	Mickey@MRESmail.com
JOSHUA LAVIGNE	CAPITOL CONSTRUCTION	225-751-0386 (F) 225-751-0392	apittman@capconla.com
STEVEN NORTON	VINSON ENTERPRISES	727-639-5506	STEVEN@VINSONLLC.COM
Mel Bush / Keith Williams	Expert Maintenance & Const. Serv.	(225) 445-3069 225-664-3520 225-664-6872	melbush.emcs@gmail.com Ktwilliams25@gmail.com
Philip Robinson	Blount General Contractor	Philip @ blountgeneralcontractors.com	Philip @ blountgeneralcontractors.com
Mollie Burke	Domain Architecture	225-216-3770 225-216-3771	mburke@domain-dsgn.com
Mark Stewart	APPD # 3	225 673-6663	mstewart@prairievillefire.com
Michael Buturla	Domain	225 216 3770	mbuturla@domain-dsgn.com
Tim Amedee	"	"	Tamedee@domain-dsgn.com

GEOTECHNICAL INVESTIGATION REPORT

**ASCENSION PARISH
PRAIRIEVILLE FIRE DEPARTMENT
NEW FACILITY
ALLIGATOR BAYOU ROAD
PRAIRIEVILLE, LOUISIANA**

FOR

**ASCENSION PARISH GOVERNMENT
GONZALES, LA**

GULF SOUTH ENGINEERING AND TESTING FILE NO. 15-026

June 11, 2015



2201 Aberdeen Street, Suite B, Kenner, LA 70062
PN: 504.305.4401 FN: 504.305.4408 E-mail: info@gulfsoutheng.com



2201 Aberdeen Street, Suite B, Kenner, LA 70062
PN: 504.305.4401 FN: 504.305.4408 E-mail: info@gulfsoutheng.com

June 11, 2015

Ascension Parish Government
Engineering Department
42077 Churchpoint Rd.
Gonzales, LA 70737

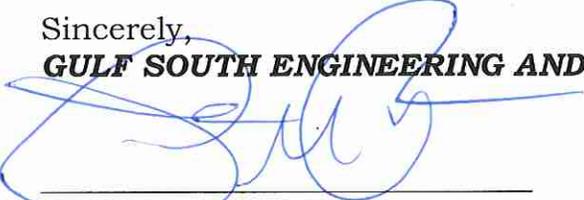
Attention: Jason Taylor, P.E.
PN: (225) 450-1386
E-mail: JTaylor@apgov.us

Re:
Geotechnical Investigation Report
Ascension Parish
Prairieville Fire Department
New Facility
Alligator Bayou Rd.
Gonzales, LA
Gulf South Engineering & Testing File No. 15-026

Dear Jason,

Please find attached our geotechnical investigation report that was completed for the referenced project. We appreciate the opportunity to serve your geotechnical needs. Please contact us should you have any questions.

Sincerely,
GULF SOUTH ENGINEERING AND TESTING, INC.



CHAD M. POCHE, P.E.
Principal/Vice President



BLAKE E. VUTERA, P.E.
Geotechnical Engineer

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FIGURE – 1 through 3

APPENDIX – Boring Logs



GEOTECHNICAL INVESTIGATION REPORT

**ASCENSION PARISH
PRAIRIEVILLE FIRE DEPARTMENT
NEW FACILITY
ALLIGATOR BAYOU RD.
PRAIRIEVILLE, LOUISIANA**

GULF SOUTH ENGINEERING AND TESTING FILE NO. 15-026

1.0 INTRODUCTION & LIMITATIONS

This report contains the results of a geotechnical investigation made at the subject site. Instructions to proceed with the investigation were received from Ascension Parish Government (Client) via approval of our proposal dated April 22, 2015.

The study included drilling four (4) soil borings and the performance of soil mechanics laboratory tests to evaluate the soil's physical characteristics. Engineering analyses were made and based on the field and laboratory test data to develop recommendations for the project.

The analyses and recommendations presented in this report are based on the provided project information and the results of the investigation. While it is not likely that conditions will differ significantly from those observed during the field investigation it is always possible that variations can occur away from the borehole location(s).

If it becomes apparent during construction that subsurface conditions differing significantly from those observed in our boring(s) are being encountered, Gulf South should be notified at once. Also, should the nature of the project change or should any of the stated assumptions be inaccurate, the recommendations provided in this report should be re-evaluated.

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This report has been prepared for the exclusive use of our Client. The recommendations provided in this report are site specific and are not intended for use at any other site or for any other project. This report provides recommendations for design and construction and should not be used as construction specifications.

Gulf South considers the materials testing and onsite inspection during construction an extension of our geotechnical investigation and a key component to ensuring the recommendations provided in this report are followed. For this type of project, these services may consist of earthwork testing and monitoring, asphalt or concrete testing and inspection, vibration monitoring, and steel inspection. Gulf South should be retained to provide the construction inspection services for this project.

2.0 SOIL BORINGS

Four (4) undisturbed sample type soil borings were drilled to depths of 50 feet (B-1 and B-2), 20 feet (B-3), and 8 feet (B-4) below the ground surface on May 19, 2015. The borings were made with an ATV mounted drill rig at the designated locations as approximately shown on Figure 1.

Undisturbed sampling was performed continuously or on approximate 5 foot centers in all cohesive or semi-cohesive materials with a three inch diameter thin wall tube sampler. The samples were extruded in the field, representative portions of each sample were trimmed and placed in moisture proof containers, the samples were properly labeled, and then secured for transport to the laboratory.

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When cohesionless material was encountered or when soils could not be adequately sampled by undisturbed methods, the Standard Penetration Test was performed. This test consists of driving a two inch diameter split spoon sampler a total of approximately 18 inches with a 140 lb. hammer falling 30 inches. The number of blows required to drive the sampler per 6 inch increment is recorded and gives an indication of the density of the material. The blows per foot shown on the boring log are the total of the blow counts for the final 12 inches of penetration.

3.0 LABORATORY TESTING

Soil mechanics laboratory tests were performed on samples obtained from the borings. The testing consisted of natural moisture content, unit weight, and unconfined compression (strength testing). The results of the laboratory tests are shown on the soil boring logs provided in the Appendix of this report.

4.0 SUBSOIL CONDITIONS

4.1 Subsoil Description

Reference to the borings shows there are interbedded layers of medium stiff to very stiff silty clay and clay from the ground surface to the deepest borings' termination depth of 50 feet.

4.2 Groundwater

At the time of making the borings, free water or groundwater was not encountered in any of the borings to a maximum depth of 20 feet. Groundwater can fluctuate with seasonal precipitation, drainage, and prolonged drought. If the depth to groundwater is important to construction, it should be measured at that time.

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5.0 FURNISHED INFORMATION AND FOUNDATION RECOMMENDATIONS

Furnished information indicates construction of two new structures for a new fire station off Alligator Bayou Rd. in Prairieville, LA. The structures consist for a single-story living quarters building and a double bay fire engine warehouse approximately 3,400 square feet and 6,600 square feet, respectively. The buildings will have associated roadway and parking areas. Design structural loads were not provided but are expected to be typical for these types of structures. We understand the project site may need 3 to 4 feet of fill to meet project grade requirements.

The near surface silty clay and clay soils encountered in the borings appear adequate for support of the proposed structures using shallow foundations. The footings should be placed to bear at a minimum depth of 2 feet below the ground surface or structural fill.

Structural analyses and the structural adequacy of the foundations are outside our scope of work for the project. Utilities to and from the structures should be attached to the slab using suitable hangers and flexible connections. Should the values provided in this report for bearing and settlement not be tolerable, deep foundations should be used for support.

Preliminary laboratory test results indicate the near surface soils at the site have minimal to slight shrink/swell potential. Care should be taken during and after construction to limit activities that could affect moisture within the soils below and around the foundations. By precluding surface waters from saturating the soils, the resulting volumetric movements will be minimized. In this regard, good roof and surface drainage should be assured with positive collection and runoff of these waters.

6.0 SHALLOW FOUNDATIONS

6.1 Allowable Soil Bearing Capacities

We estimate allowable soil bearing capacities of 1,000 lbs. per sq. ft. (psf) and 1,300 psf are available for design of shallow strip or square footings, respectively. These allowable soil bearing capacities assume the footings are seated in firm soils as described and encountered in the borings.

Foundation excavations should be thoroughly inspected to assure that the footings are seated in firm and well drained soil. The allowable soil bearing capacities contain a factor of safety of at least 3.0 against failure but do not preclude settlements, as will be discussed.

6.2 Estimated Settlement

Fill. The placement of fill will cause settlement of the ground surface due to the compressibility of the underlying soft clay layers. This settlement can also cause settlement in shallow and/or deep foundations (downdrag.)

We have calculated the estimated long-term settlement of the ground surface due to the placement of 3 feet to 4 feet of fill placed over an approximate 80 ft. by 80 ft. area to be on the order of 1½ to 2 inches. Our analyses are based on a unit weight of 110 pounds per cubic foot (pcf) for the fill material. Fill should be placed as far in advance of construction as possible to limit the effects of fill induced settlement. Settlement due to fill loading is independent of settlement due to structural loads.

Footings: Settlement analyses were made using applied pressures equal to 100% of the allowable soil bearing values. Long-term settlement of square footings no larger than 6 feet in width and strip footings no wider than 3 feet in width is estimated to be on the order of ½ to 1 inch. Settlement will increase

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with the size of the footing and/or loading and if larger footings are needed for support, revised settlement analyses should be made.

Slab: Long term consolidation settlement at the center of an approximate individual 80 ft. by 80 ft. flexible slab is estimated to be on the order of ½ to 1 inch using a uniform loading of up to 150 psf. The estimated settlement should occur over most of the loaded area while the edge settlements should be approximately one-half (1/2) of the center settlement and may only occur over a limited range near the perimeter. Slab settlement should be added to the estimates calculated for footings if footings are used in conjunction with the slab.

In view of the magnitude of the estimated settlement and to bridge any undetected soft or loose areas, good rigidity should be assured in the foundations to minimize the effects of differential settlements. This may be accomplished by using a post tensioned slab, a ribbed or waffle type slab, etc.

The provided settlement estimates for a flexible slab can be reduced by 15% if a rigid slab is used. Adequate steel reinforcement should be designed and included within the foundations. If the estimated settlements for shallow footings are considered prohibitive, driven piles or drilled shafts should be used for support of the structure.

6.3 Site Preparation & Fill Materials

Prior to construction, the foundation areas should be stripped of all vegetation, debris, soft or loose surface soils, deleterious materials, etc., and should be well drained. Subsequent to stripping, the foundation areas should be proof rolled using a heavy wheeled vehicle. Typically, a 12-inch depth is adequate for proper clearing and grubbing. However, for wooded sites, this depth may be greater and could be up to 24 to 36 inches to remove roots and organic matter.

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Any “soft” soils noted during the proof rolling or observed within excavations should be removed to a depth where stiffer soils are encountered or to a minimum depth of 2 feet. Excavated soils should be replaced with controlled-compacted structural fill. If fill is needed, the area should be brought to grade using a clean, select, fill material free from debris or organic matter.

A cohesionless soil described as clean sand with less than 10% passing the U.S. No. 200 Sieve may be used for fill. Alternatively, a lean, silty or sandy clay (CL - USCS Classification) may be used for fill. The clay fill should have a Liquid Limit of less than 40 and a Plasticity Index (PI) of less than 20.

6.4 Fill Placement and Compaction

Fill should be placed in 10 to 12 inch loose lifts. Minimum compaction criteria of a dry density at least equal to 95% of its maximum, as determined by the Standard Proctor compaction test (ASTM D698), should be used for fill that will support foundations.

6.5 Vibrations

Vibrations due to construction should be expected and monitored. In general, vibrations should be limited to about 0.25 inch/sec. (average peak particle velocity) at all existing nearby sensitive structures. Construction should be stopped if peak values exceed about 0.5 in./sec.

7.0 DEEP FOUNDATIONS

Deep foundations may be used as an alternative to shallow footings. If deep foundations are used, all loads from the structure, including floor loads, should be supported on deep foundations.

7.1 Allowable Shaft Load Capacities

Analyses have been made to determine the estimated allowable shaft load capacities for drilled, cast-in-place, concrete shafts. Allowable shaft load capacities are provided on Figure 2.

The allowable shaft load capacities presented on Figure 2 provide for a 2-foot cutoff below the existing ground surface, assume the shafts are vertical, and do not include the weight of the shaft. The provided compression capacities contain an estimated factor of safety of 2 against failure of a single shaft through the soil. The provided tension capacities contain an estimated factor of safety of 3 against failure. The capacities also include a limiting adhesion value based on load tests in geologically similar soils.

The analyses for shaft capacities are based on a soil-shaft relationship only. The structural capacity of the shafts and their connections to transmit these loads should be determined by a structural engineer.

7.2 Shaft Installation

Based on the groundwater observations made during the field exploration, casing or slurry displacement techniques do not appear necessary during the installation of drilled shafts at the site. An experienced drilled shaft contractor should be contacted to determine the proper installation techniques in this area.

Slurry, if used, should be introduced within five feet of starting the shaft, regardless if casing is used in conjunction with the slurry installation. The contractor performing the slurry displacement method should be qualified and experienced in this method of installing shafts.

The concrete for the shafts should be placed as soon as possible after the excavations are completed. No excavation should be allowed to remain open for more than 1 hour. The concrete should be tremied into place by pumping.

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The concrete mix (water to cement ratio) should be proportioned to achieve the necessary design strength while allowing a slump of 6 to 8 inches (or approved mix design) during concrete placement. There have been problems with both casing withdrawal and shaft integrity and capacity when concrete with a slump of less than 6 inches was used. A program of on-site quality control by a qualified geotechnical technician is strongly recommended during shaft installation.

7.3 Estimated Settlement of Shaft Foundations

Preliminary settlement analyses were made for shafts foundations based on the proved design loads. Settlement of shaft supported footings using the recommended shaft load capacities in single widely spaced rows or in clusters of up to 4 to 6 shafts is estimated to be on the order of 1 inch or less. Shaft spacing should be designed in accordance with the criteria outlined in Figure 3.

Settlement will increase with the size of the shaft cluster and, if larger clusters of closely spaced shafts are needed for support, detailed settlement analyses should be made. These estimates are based on a loading of 100% of the allowable values.

Our estimates do not include the elastic deformation of the shafts, which should be added to the settlement estimates. Elastic deformation of the shafts may be estimated at 67% of the static column strain of a shaft acting as a column. In the event any of our assumptions are not valid, Gulf South should be contacted to evaluate the potential effects on settlement of shaft foundations.

8.0 PAVEMENTS

Flexible (asphalt) or rigid (concrete) surface paving for driveways and parking will be constructed at the site. Based upon our understanding of the proposed facility usage, we anticipate that the paved areas will be used primarily by automobiles and light loaded trucks with an occasional passage of a delivery type vehicle and/or garbage collection vehicle. Our design does not account for construction traffic. Concrete paving should be used at dumpster pads and parking areas or driveways for fire engine vehicle/s.

The subgrade should first be prepared in accordance with the recommendations of this report. Base course and pavement materials should conform to the requirements of LA DOTD Standard Specifications, latest edition.

8.1 Flexible Pavement

For flexible pavements, an asphalt surface thickness of at least three (3) inches is recommended for design for lightly loaded traffic areas. The base course beneath the asphalt surface should consist of at least twelve (12) inches of crushed stone or soil-cement. A geotextile paving fabric is recommended between base materials and the natural subgrade if crushed stone is used.

We recommend the asphalt courses be placed as late as possible in the project so that the effects of settlement can be reduced. Proper drainage during and after construction is essential to the success of flexible asphaltic pavement systems.

Flexible pavements are susceptible to failures due to poor surface and subsurface drainage. Asphalt pavement generally requires surface sealing with a thin (½ inch) hot mix asphaltic concrete or an asphalt slurry seal at a 4 to 5

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year interval to maintain a good pavement system because the local climate tends to weaken and oxidize the surface.

8.2 Rigid Pavement

For rigid pavements, the pavement surface for driveway and parking areas subjected to lightly loaded traffic should consist of at least five (5) inches of concrete. The dumpster pad and fire engine parking or driveway areas should consist of at least eight (8) inches of concrete.

Upon completion of subgrade preparation, a minimum six (6) inch thick layer of crushed stone or soil/cement is recommended for the base course. A geotextile fabric should be placed beneath the pavement joints, at a minimum.

The provided concrete thickness assumes an ultimate flexural strength for the concrete of at least 600 psi or 4,000 psi compressive strength. Expansion and construction joints should be doweled or keyed for good transfer of load and should be well sealed to prevent the intrusion or surface waters into the pavement base and natural subgrade.

8.3 Pavement Materials and Construction

Poor site conditions will develop unless good drainage is provided throughout the project duration. Proper site drainage should be maintained prior to, during, and after construction. Providing drainage during the construction process will facilitate construction by reducing the potential for compaction problems. Maintaining the drainage after construction will improve the life of the pavement by avoiding water softening of the foundation soils.

Prior to pavement construction, the site should be stripped of all debris, vegetation, etc., and proof rolled with a heavy wheeled vehicle to detect any "soft" spots. Any soft spots should be undercut at least 1 foot and backfilled with a structural sand fill. The geotextile fabric should be a nonwoven fabric with an apparent opening size (AOS) smaller than a U.S. No. 70 sieve.

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The stone should be compacted to a dry density at least equal to 95 percent of its maximum as determined by the Modified Proctor compaction test (ASTM D1557), or to a minimum relative density of 75 percent in accordance with ASTM D4253 and D4254. In-place density measurements should be taken to assure that this degree of compaction is achieved. The stone may be placed and compacted in maximum 8 inch loose lifts and it should meet LA DOTD specifications (610 limestone or equivalent).

Lime treatment of the subgrade soils should be expected if soil cement is used for the base. Lime and soil cement mix designs should be performed prior to construction. Typically, lime and cement percentages of 8% to 12% should be expected.

The methods, means, and sequence of construction are the responsibility of the contractor. It should be noted that our recommendations regarding concrete and material thicknesses are based on the assumed traffic loading conditions. Appropriate measures should be taken by the contractor to assure the integrity and performance of the pavements during and after construction.

9.0 CLOSING

Gulf South is available to answer any questions you may have concerning this report. Should additional analyses be required or requested, additional fees may be necessary.

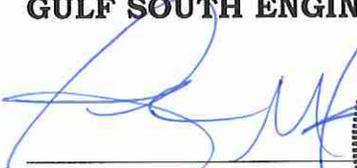
As previously discussed, Gulf South considers the materials testing and onsite inspection during construction an extension of our geotechnical investigation. Gulf South should be retained to provide the construction inspection services.

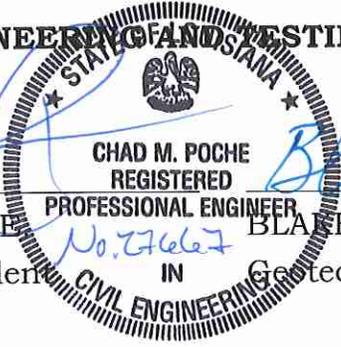
ASCENSION PARISH GOVERNMENT

We appreciate the opportunity to provide this report and look forward to working with you again in the future.

Sincerely,

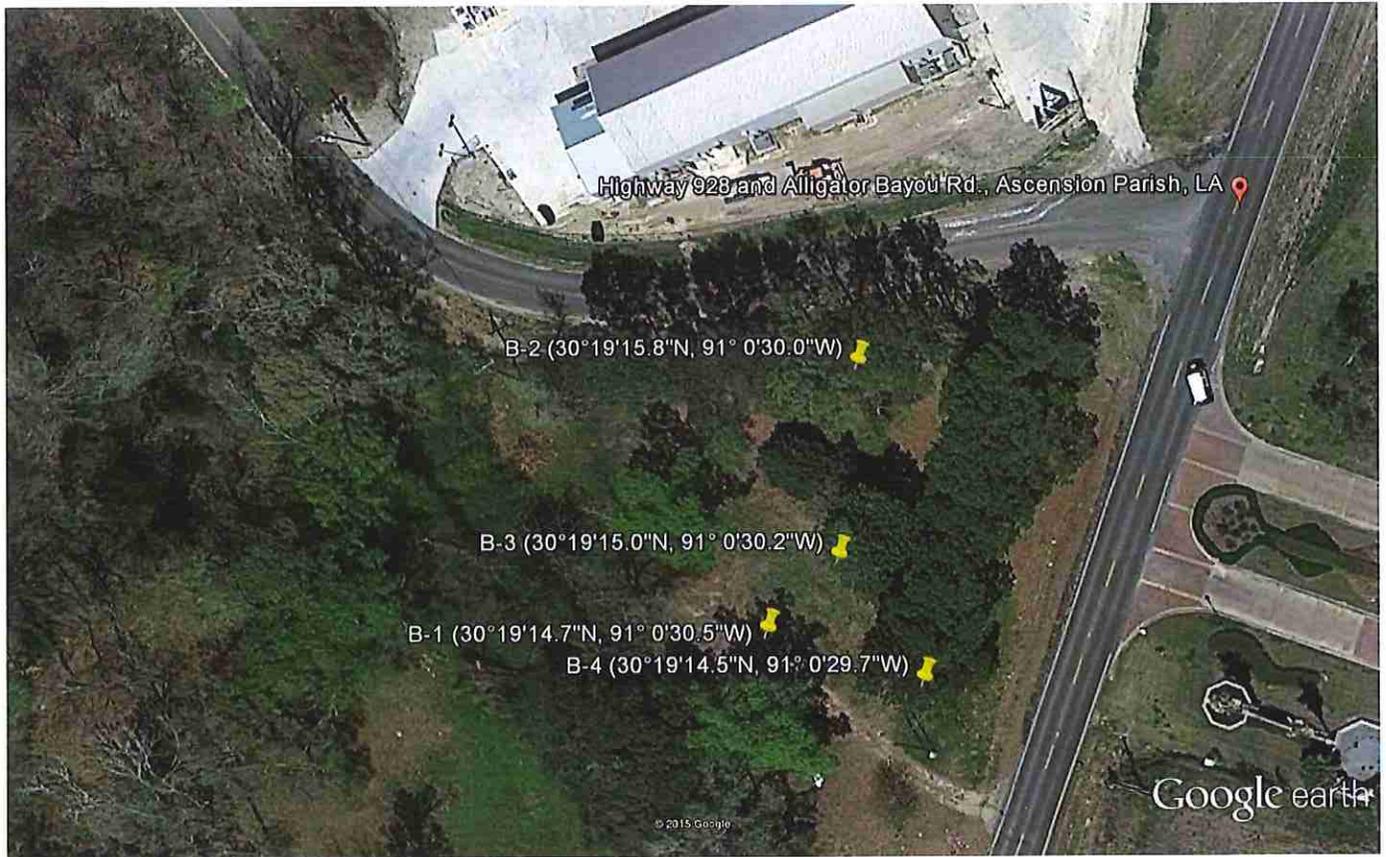
GULF SOUTH ENGINEERING AND TESTING, INC.


CHAD M. POCHE, P.E.
Principal/Vice President

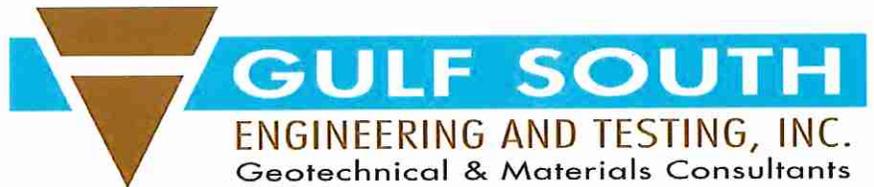

CHAD M. POCHE
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING


BLAKE E. VUTERA, P.E.
Geotechnical Engineer

FIGURES



Gulf South File 15-026



**AP - Prairieville Fire
Dept. Buildings
Alligator Bayou Rd.
Prairieville, LA**

**For
Ascension Parish
Government
Gonzales, LA**

BORING PLAN

Figure No. 1

GEOTECHNICAL INVESTIGATION

**ASCENSION PARISH
PRAIRIEVILLE FIRE DEPARTMENT
NEW FACILITY
ALLIGATOR BAYOU RD.
PRAIRIEVILLE, LOUISIANA**

GULF SOUTH ENGINEERING AND TESTING PROJECT NO. 15-026

ALLOWABLE SHAFT LOAD CAPACITIES

DRILLED, CAST IN PLACE, CONCRETE SHAFTS

SHAFT SIZE	SHAFT TIP EMBEDMENT BELOW GROUND SURFACE IN FEET	ESTIMATED ALLOWABLE SINGLE SHAFT LOAD CAPACITIES IN TONS COMPRESSION FACTOR OF SAFETY = 2 TENSION FACTOR OF SAFETY = 3	
		COMPRESSION	TENSION
12-inch Diameter	10	8	5
	15	10	6
	20	12	8
	25	14	10
14-inch Diameter	10	10	6
	15	13	8
	20	15	10
	25	18	12
16-Inch Diameter	10	12	8
	15	16	11
	20	19	13
	25	23	15

Minimum Pile/Shaft Spacing

$$SP = 0.05 L_1 + 0.025 L_2 + 0.0125 L_3$$

SP (ft.) = Center to center spacing of piles/shafts = (Min. 3.0 ft.)

L_1 = Pile/Shaft penetration in ft. up to 100 ft.

L_2 = Pile/Shaft penetration in ft. from 101 to 200 ft.

L_3 = Pile/Shaft penetration in ft. from 201 to 300 ft.

Allowable Group Capacity*

$$Q_a = \frac{P * L * c}{FSF} + \frac{2.6 * q_u * (1 + 0.2 w/b) * A}{FSB}$$

P = Average perimeter of pile/shaft group (ft.)

L = Length of piles/shafts in group (ft.)

c = Average (weighted) shear strength ($\frac{1}{2} q_u$) of soil throughout pile/shaft length (lbs./sq. ft.)

q_u = Unconfined compressive strength of soils below pile tips (lbs./sq.ft.)

w = Width of pile/shaft group at tip (ft.)

b = Length of pile/shaft group at tip (ft.)

A = Area of pile/shaft group at tip (sq. ft.)

FSF = Factor of safety for friction area = 2

FSB = Factor of safety for tip area = 3

*In no case should the cumulative single pile/shaft load capacity of the group be exceeded.

APPENDIX

(BORING LOGS)

Boring No. B-1

Project: Ascension Parish
 Prairieville Fire Dept. Building
 Alligator Bayou Rd.
Location: Prairieville, LA
Client: Ascension Parish Government
 Gonzales, LA

GSE&T File No.: 15-026
Date: 5/19/2015
Technician: L.Porter
Rig Type: ATV
Driller: TRI
Page: 1 of 1

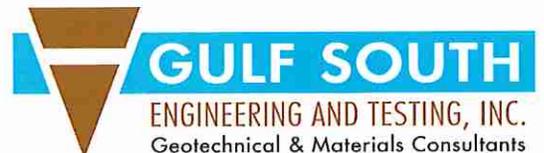
Depth (Feet)	Sample	(Field Test) PP/SPT	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	LL (%)	PI (%)	Passing No. 200 (%)	TYPE	Coord.: 30° 19' 14.7" N; 91° 0' 30.5" W
0		1.00 (PP)	0.984	24.4	120					Medium Stiff brown SILTY CLAY (CL) with root, trace wood
		0.75 (PP)	0.856	26.8	122	43	23			
5		1.25 (PP)	1.316	25.7	122					Stiff brown and gray SILTY CLAY (CL)
		2.00 (PP)	1.733	20.3	130	34	17			
10		3.25 (PP)	3.586	20.3	126					Very Stiff gray and tan CLAY (CH) with silt layers
		4.25 (PP)	3.526	24.1	125					
20		2.00 (PP)	1.955	28.9	122					Medium Stiff to Stiff light gray and tan SILTY CLAY (CL) with trace organic material
		3.50 (PP)		21.0						
		0.75 (PP)	0.509	29.5	121					
35		2.75 (PP)		42.7						Stiff to Very Stiff gray CLAY (CH)
40		1.50 (PP)	1.562	24.0	125					Stiff light gray SILTY CLAY (CL)

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-25 ft.
- Rotary Wash Depths = 25-50 ft.
- Ground water = not encountered



Boring No. B-1

Project: Ascension Parish
 Prairieville Fire Dept. Buildings
 Alligator Bayou Rd.
Location: Prairieville, LA
Client: Ascension Parish Government
 Gonzales, LA

GSE&T File No.: 15-026
Date: 5/19/2015
Technician: L.Porter
Rig Type: ATV
Driller: TRI
Page: 1 of 1

Depth (Feet)	Sample	(Field Test) PP/ SPT	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	LL (%)	PI (%)	Passing No. 200 (%)	TYPE	Coord.: 30° 19' 14.7" N; 91° 0' 30.5" W
										Description of Stratum
40										Stiff light gray SILTY CLAY (CL)
45		2.75 (PP)		29.7						Stiff gray CLAY (CH)
50		1.50 (PP)	1.450	37.0	114.0					Boring completed at 50 feet below ground surface
55										
60										
65										
70										
75										
80										

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-25 ft.
- Rotary Wash Depths = 25-50 ft.
- Ground water = not encountered



Boring No. B-2

Project: Ascension Parish
 Prairieville Fire Dept. Buildings
 Alligator Bayou Rd.
Location: Prairieville, LA
Client: Ascension Parish Government
 Gonzales, LA

GSE&T File No.: 15-026
Date: 5/19/2015
Technician: L.Porter
Rig Type: ATV
Driller: TRI
Page: 1 of 1

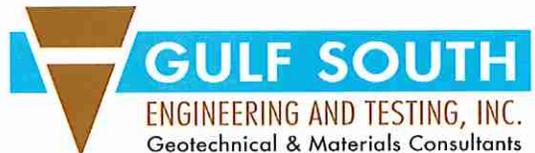
Depth (Feet)	Sample	(Field Test) PP/SPT	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	LL (%)	PI (%)	Passing No. 200 (%)	TYPE	Coord.: 30° 19' 15.8" N; 91° 0' 30.0" W
										Description of Stratum
0		1.00 (PP)	1.178	26.3	120	56	35			Stiff brown CLAY (CH) with roots
1.25		1.25 (PP)	1.351	25.4	121					Stiff brown SANDY CLAY (CL)
2.00		2.00 (PP)	2.173	20.6	129	53	34			Very Stiff to Hard light gray and tan CLAY (CH)
4.00		4.00 (PP)	4.259	18.6	129					
4.00		4.00 (PP)	3.885	23.0	128					
4.50		4.50 (PP)		26.4						
15		1.50 (PP)	1.658	30.3	121					Stiff to Very Stiff light gray and tan SILTY CLAY (CL) with sand pockets
20		2.00 (PP)	2.247	23.4	130					
25		1.75 (PP)	1.352	32.9	118					Stiff light gray and brown CLAY (CH) with silt layers
30		2.50 (PP)		42.2						
35		2.50 (PP)	1.735	21.7	126					Stiff light gray SILTY CLAY (CL) with sand pockets
40		3.00 (PP)		26.4						

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = 20-50 ft.
- Ground water = not encountered



Boring No. B-2

Project: Ascension Parish
 Prairieville Fire Dept. Buildings
 Alligator Bayou Rd.
Location: Prairieville, LA
Client: Ascension Parish Government
 Gonzales, LA

GSE&T File No.: 15-026
Date: 5/19/2015
Technician: L.Porter
Rig Type: ATV
Driller: TRI
Page: 1 of 1

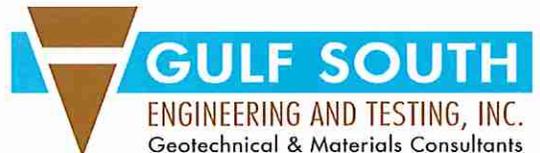
Depth (Feet)	S a m p l e	(Field Test) PP/ SPT	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	LL (%)	PI (%)	Passing No. 200 (%)	T Y P E	Coord.: 30° 19' 15.8" N; 91° 0' 30.0" W
										Description of Stratum
40										Stiff light gray SILTY CLAY (CL) with sand pockets
45	■	0.50 (PP)	0.569	28.8	125					Medium Stff light gray SANDY CLAY (CL)
50	■	2.50 (PP)		26.6						Medium Stiff to Stiff gray CLAY (CH)
55										Boring completed at 50 feet below ground surface
60										
65										
70										
75										
80										

Sample Legend:

- Core (Shelby Tube)
- ▨ Standard Penetration (SPT)
- No Recovery
- ▤ Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = 20-50 ft.
- Ground water = not encountered



Boring No. B-3

Project: Ascension Parish
 Prairieville Fire Dept. Buildings
 Alligator Bayou Rd.
Location: Prairieville, LA
Client: Ascension Parish Government
 Gonzales, LA

GSE&T File No.: 15-026
Date: 5/19/2015
Technician: L.Porter
Rig Type: ATV
Driller: TRI
Page: 1 of 1

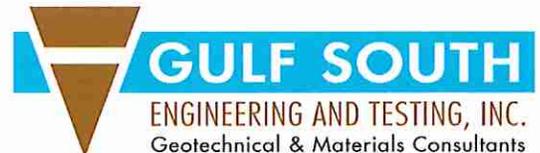
Depth (Feet)	Sample	(Field Test) PP/SPT	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	LL (%)	PI (%)	Passing No. 200 (%)	TYPE	Coord.: 30° 19' 15.0" N; 91° 0' 30.2" W
										Description of Stratum
0	Core	0.75 (PP)	0.755	25.3	119				CL	Medium Stiff brown SILTY CLAY (CL) with roots
	Core	2.25(PP)	0.824	27.4	115	45	24			
5	Core	2.00 (PP)		26.4						
	Core	2.00 (PP)	1.828	19.2	130				CL	Stiff to Very Stiff light gray and tan SILTY CLAY (CL) with roots, organic material, sand layers
	SPT	16 b/f (3-7-9)		19.4						
10	Core	3.25 (PP)	3.837	18.3	132					
	Core	3.50 (PP)		22.0					CH	Stiff to Very Stiff gray CLAY (CH) with silt pockets
15	Core	2.50 (PP)		29.4						
20	Boring completed at 20 feet below ground surface									
25										
30										
35										
40										

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = n/a
- Ground water = not encountered



Boring No. B-4

Project: Ascension Parish
 Prairieville Fire Dept. Buildings
 Alligator Bayou Rd.
Location: Prairieville, LA
Client: Ascension Parish Government
 Gonzales, LA

GSE&T File No.: 15-026
Date: 5/19/2015
Technician: L.Porter
Rig Type: ATV
Driller: TRI
Page: 1 of 1

Depth (Feet)	Sample	(Field Test) PP/SPT	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	LL (%)	PI (%)	Passing No. 200 (%)	TYPE	Coord.: 30° 19' 14.5" N; 91° 0' 29.7" W
0		1.75 (PP)		26.6						Stiff brown SILTY CLAY (CL) with sand pockets
		2.00 (PP)	1.472	23.5	121					
5		2.00 (PP)	1.297	26.2	123					
		1.50 (PP)		16.5						Stiff to Very Stiff gray SILTY CLAY (CL)
10										Boring completed at 8 feet below ground surface
15										
20										
25										
30										
35										
40										

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-8 ft.
- Rotary Wash Depths = n/a
- Ground water = not encountered



SOIL BORING LOG - DESCRIPTION OF TERMS AND SYMBOLS

Depth (Feet)	S a m p l e	Field Test (PP or SPT)	Comp. Strength (tsf)	Water Content (%)	Wet Density (pcf)	Atterberg Limits		T Y P E	Description of Stratum
						LL (%)	PI (%)		
0									
5	--	Core (Shelby Tube)							<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Field Test (PP or SPT): Pocket penetrometer (PP) results in tsf or standard penetration test (SPT) results</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Comp. Strength: Value based on peak strength in tsf determined by an unconfined compressive strength test unless noted otherwise</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Water Content (%): As determined in general accordance with ASTM D2216</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Wet Density (PCF): As determined in general accordance with ASTM D2937</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Atterberg Limits (LL and PI): Atterberg limits as determined in general accordance with ASTM D4318. LL = Liquid Limit; PI = Plasticity Index (LL-PL)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Description of Stratum: Classifications are based on visual observations and laboratory test results (where available) as well as judgment by a geotechnical engineer (where appropriate)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Type: Misc. Fill - limestone, bricks, broken concrete, etc.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Type: USCS Classification - High plasticity clay (CH)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Type: USCS Classification - Low plasticity clay (CL)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Type: USCS Classification - Low or high plasticity silt (ML or MH)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Type: USCS Classification - Silty or clayey sand or gravel, well graded or poorly graded sand or gravel (SM, SC, SW, SP, GM, GC, GW, GP)</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Type: USCS Classification - Organic clay or silt, peat (OL, OH, PT) or Wood</div>
10	X	15 b/f (7-6-9)							<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Standard Penetration Test (SPT): No. of blows per last foot of driving (blows per six inch increments) or PSS = Pushed Split Spoon</div>
15	--	No Recovery							
15		Auger Sample							
20									
25									
30									
35									
40									

Sample Legend:

- Core (Shelby Tube)
- Standard Penetration Test (SPT)
- No Recovery
- Auger Sample

Comments/Notes:

General notes or comments regarding boring and data





GULF SOUTH
ENGINEERING AND TESTING, INC.
Geotechnical & Materials Consultants

2201 Aberdeen Street, Suite B • Kenner LA 70062

504-305-4401 / 504-305-4408 fax / gulfsoutheng.com

Article C - SCHEDULE OF LIQUIDATED DAMAGES

Contract Amount	L.D. Per Day
Up to \$100,000	\$ 100
\$100,000 to \$300,000	\$ 175
\$300,000 to \$500,000	\$ 200
\$500,000 to \$600,000	\$ 250
\$600,000 to \$800,000	\$ 400
\$800,000 to \$1,000,000	\$ 600
\$1,000,000 to \$2,000,000	\$ 700
\$2,000,000 to \$4,000,000	\$ 800
\$4,000,000 to \$6,000,000	\$ 1200
\$6,000,000 to \$8,000,000	\$ 1600
\$8,000,000 to \$10,000,000	\$ 1800
\$10,000,000 to \$12,000,000	\$ 2000
\$12,000,000 to \$15,000,000	\$ 2300
Above \$15,000,000	To be determined

Insurance Coverage shall be provided by the Contractor amounts not less than the following:

1. Worker's Compensation, including death benefits, in the statutory amount(for the State of Louisiana), including Waiver of Subrogation in favor of the Owner. The Contractor, shall require that all Subcontractors provide Worker's Compensation insurance for all of the latter's employees, unless such employees are covered by the protection afforded by the Contractor.

2. Comprehensive General Liability, (including Contractual and Products Liability). If the General Liability coverage's are provided by a Commercial General Liability Policy on a claims-made basis, the Policy Date or Retroactive Date shall predate the Contract; the termination date of the policy or applicable extended reporting period shall be no earlier than the termination date of coverage's required to be maintained after final payment, certified in accordance with Subparagraph 9.10.2.

Minimum limits of liability:

Bodily Injury: \$1,000,000.00

Property Damage: \$100,000.00/ \$200,000.00

3. Owner's and Contractor's Protective Liability in the name of the Owner, and the Architect. Minimum limits of liability:

Bodily Injury: \$1,000,000.00

Property Damage: \$100,000.00/\$200,000.00

4. Motor Vehicle Liability. Minimum limits:

Bodily Injury: \$1,000,000.00

Property Damage: \$100,000.00/\$200,000.00

5. Builder's Risk: "All Risk" (Standard ISO form as approved by State of Louisiana) in an amount equal to 100% of the Value of the Contract Sum written in the name of the General Contractor and Owner as their interest may appear.

6. Umbrella Policy: The Contractor shall procure and maintain during the life of the Contract, in excess of all other insurance requirements, an Umbrella Policy in the minimum amount of \$1,000,000.00.

QTY	DESCRIPTION
1	CDM1250, VHF, 25 watt mobile radios
1	Control station power supplies
1	Desktop tray without speaker
1	VHF 1/4 wave antenna
1	Chrome nut
1	Mobile to base antenna mount
1	Speaker Amplifiers
2	Two pack phono plugs
Re: Dwgs	Ceiling mount speakers
Re: Dwgs	Ceiling speaker mounts
Re: Dwgs	Horn speakers
Re: Dwgs	Speaker wire
Re: Dwgs	Coax cable
1	PL259
1	N-Female Connector
1	N-Male connector
1	Mini-U connector
10	Jumper coax
1	Lightning arrestor
1	3/8" ground kit
1	24 volt relay
1	SMD7-83, Omni directional base antenna
1	Control Station power supply
1	Desktop tray
1	PD46, Antenna mount
Provided by Fire Station	Motorola XTL2500 Ascension Parish Standard Configuration