THE STATE OF SOUTH CAROLINA
In the Court of Appeals

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SC Court of Appeals

APPEAL FROM CHARLESTON COUNTY
Court of Common Pleas

The Honorable Jennifer B. McCoy, Circuit Court Judge

Case No.: 2018-CP-10-3307

The Charleston County School District.....Appellant,

v.

Charleston County, South Carolina; The Charleston County Board of Zoning Appeals; and Joel Evans in his capacity as Director of the Charleston County Zoning and Planning Department.....Respondents

RECORD ON APPEAL

VOLUME III of III (Pages 799-1047)

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ATTORNEYS FOR APPELLANT

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McCULLOUGH • KHAN, LLC
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May 25, 2018

VIA E-MAIL ONLY
Joel Evans, AICP
Planning Director
Charleston County Zoning & Planning Department
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Re: Letter in Support of Appeal from Zoning Administrator
Case Number: BZA 04-18-00258
School Bus Parking Lot Site Plan Approval (James Island Elementary)
Case ZSPR-5-16-00059

Dear Joel:

I hope this letter finds you well. My firm represents the Charleston County School District (the "District"). This letter contains facts and legal authority in support of the District's appeal from your office's February 28, 2018 decision to revoke the site plan approval for a centralized school bus parking lot at the new James Island Elementary School (the "Parking Lot").

Pursuant to the BZA's Rules of Procedure and the County's longstanding practice, please forward this letter to the BZA members in advance of the June 4, 2018 hearing and make sure the letter and the exhibits are made part of the official record. Additionally, please make sure all documents and communications relevant to this matter including, but not limited to, those identified in my FOIA request dated May 8, 2018 be included in the official record.[1] This includes, of course, everything relevant to the "record of administrative decision" pursuant to Section 3.13.5, ZLDR, which the County is required to file with the BZA as part of this appeal.

Background Facts

The District owns certain real property located in Charleston County commonly known as James Island Elementary School located at 1872 S. Grimball Road on James Island and zoned S-3, Special Management District (TMS # 334-07-00-047) (the "Property"). The Property's zoning allows for a school principal use, the County permitted a school to be built on the Property, and the school is operating today. The district plans to build and use the Parking Lot to park, fuel, and provide routine maintenance on approximately thirty-eight (38) school buses in its regional fleet. These buses will serve James Island Elementary School as well as other area District schools.

[1] As of this submission, no documents have been received pursuant to this FOIA.

Approximately two-thirds of these buses are state owned; the rest are owned by Durham who services the District pursuant to contract.

On or about February 9, 2017, the County granted both zoning and site plan review approval for the Parking Lot on the Property (the "Site Plan Approval"). ***See*** **Site Plan Approval and Related Documents attached as Exhibit A and incorporated by reference.** This approval came after months of coordination and collaboration with the County on complying with the ZLDR. Among other things, the Site Plan Approval states "[t]he site plan for the above referenced project [James Island Elementary School Bus Parking Facility on TMS # 334-07-00-047) is Approved by the Zoning and Planning Department." The Site Plan Approval goes on to state as follows:

> This project will be held in the "TO BE PERMITTED" file for one year. If the permit has not been obtained within that time, and there has been no communication with this office regarding this project, then the project will no longer be eligible to receive a permit. If the applicant wishes to receive a permit after that time, the review process will need to be repeated.

Relying on the Site Plan Approval and other permit approvals obtained from the County and other governmental agencies,[2] over the next twelve months the District diligently pursued design and construction efforts, kept the County abreast of these activities, and engaged in substantial public outreach to address neighbor concerns and answer questions. To date, the District has spent approximately $360,000.00 on design and other pre-construction expenses and hosted three public meetings at James Island Elementary School and Fort Johnson Middle School. ***See*** **Development Cost Affidavit and Accounting Records attached as Exhibit C and incorporated by reference.** The Parking Lot is ready to go out for bid.

On or about February 9, 2018, the District's consultant sought approval for a one-year permit extension per the terms of the Site Plan Approval. ***See*** **Extension Request attached as Exhibit D and incorporated by reference.** The County's response to this request was "[y]es, I will get that updated and to you next week." *Id.* However, by letter dated February 28, 2018 the County reversed course and denied the extension request. ***See*** **Approval Revocation Letter attached as Exhibit E and incorporated by reference.**

Per the Approval Revocation Letter, the County determined that a permit extension was not appropriate because the District "has not demonstrated a hardship that would be cause to delay the project or that diligent pursuit has been made to start development, as described in the documents submitted for Site Plan Review." Moreover, although your office originally considered the Parking Lot to be a legal, by-right accessory use on the Property, there appears to have been a reversal on that point. From our conversations, it appears the County's new position is that only those buses needed to serve James Island Elementary are allowed to be parked on site, thus precluding the Parking Lot.

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[2] On January 26, 2017, Charleston County issued a stormwater permit for the Parking Lot. ***See*** **Stormwater Permit Documents attached as Exhibit B and incorporated by reference.**

These interpretations and enforcement actions under the ZLDR are the subject of the instant and timely administrative zoning appeal to the BZA. ***See*** **Administrative Appeal Application attached as Exhibit F and incorporated by reference.** The District requests the BZA order County staff honor the Site Plan Approval, confirm the Parking Lot to be a legal, by-right "accessory use," and grant all other necessary final approvals for the Parking Lot.

Standard of Review

The BZA has the authority "to hear and decide appeals where it is alleged there is error in an order, requirement, decision, or determination made by an administrative official in the enforcement of the zoning ordinance." S.C. CODE ANN. § 6-29-800(A)(1). The District has standing to assert this appeal because it has been aggrieved by one or more decisions of the County's zoning administrator. S.C. CODE ANN. § 6-29-800(B).

In hearing the instant appeal, the BZA has broad authority to revisit the factual and legal issues presented. S.C. CODE ANN. § 6-29-800(E) ("In exercising the above power, the board of appeals may, in conformity with the provisions of this chapter, reverse or affirm, wholly or in part, or may modify the order, requirements, decision, or determination, and to that end, has all the powers of the officer from whom the appeal is taken and may issue or direct the issuance of a permit."). Interpreting S.C. CODE ANN. § 6-29-800(E), the South Carolina Supreme Court has observed "few restrictions encumber the scope of the Board's authority." *Clear Channel Outdoor v. City of Myrtle Beach,* 372 S.C. 230, 642 S.E.2d 565 (2007).

The BZA's standard of review in this matter is *de novo.* This means the BZA may take a fresh look at the facts and render its own interpretation of the ZLDR in line with state law. The BZA need not grant any deference to County staff in rendering its decision. *Mikell v. Cty. of Charleston,* 386 S.C. 153, 158, 687 S.E.2d 326, 329 (2009) (citing *Eagle Container, LLC v. Cty. of Newberry,* 379 S.C. 564, 568, 666 S.E.2d 892, 894 (2008)). ("Although great deference is accorded the decisions of those charged with interpreting and applying local zoning ordinances, a broader and more independent review is permitted when the issue concerns the construction of an ordinance.")

Arguments in Support of Appeal

I. Vested Rights

Vested rights protect development approval recipients from the application of subsequently enacted zoning regulations and reinterpretations that would frustrate or impede development completion. Once the County granted the Site Plan Approval, the District secured a vested right to proceed with the Parking Lot. The District relied on the Site Plan Approval and committed substantial funds and other resources to moving the project forward. For these reasons, County staff lacked authority to revoke the Site Plan Approval either for the reasons cited in the Approval Revocation Letter or the County's reinterpretation of "accessory use."

In response to the General Assembly's passage of the Vested Rights Act, S.C. CODE ANN. § 6-29-1510, *et seq.* (the "VRA"), the County adopted its own Vested Rights Ordinance on June

21, 2005 (the "VRO"). ***See*** **VRO attached as Exhibit G and incorporated by reference.** The VRO defines "vested right" as follows:

> [T]he right to **undertake and complete the development** of property arising under the terms and conditions of a **site specific development plan** in conjunction with this ordinance and in conformity with the Charleston County Zoning and land Development Regulations Ordinance and upon final approval by the county.

Section 2(G), VRO. (Emphasis added). The VRA's definition of "vested right" essentially mirror's the VRO's, which of course it must. *See*, S.C. CODE ANN. § 6-29-1520(1). "Site specific development plan," in turn, is defined as "an application approved by the appropriate governing body **which describes with reasonable certainty the types and density or intensity of uses for specific property**." Section 2(F), VRO. (Emphasis added). The VRA defines "site specific development plan" to include, among other things, a "preliminary or general development plan." S.C. CODE ANN. § 6-29-1520(10). "Approval" is defined as "[a] final review and approval in accordance with its established procedures by Charleston County of a site specific development plan." "A vested right in a site specific development plan shall not attach until all plans have been received, approved and all fees paid in accordance with the procedure outlined in the [ZLDR], as amended." Section 3(B), VRO. Vested rights are "established for **two years** upon the final approval of a site-specific development plan." S.C. CODE ANN. § 6-29-1530(A)(1); Section 3(A), VRO. (Emphasis added).[3]

The Site Plan Approval constitutes a "site specific development plan" both under the VRO and VRA. Among other things, the Site Plan Approval qualifies as a "preliminary or general development plan," and it received "approval" from the County after several months of close coordination and resolution. This means the District has a vested right to proceed with further permitting and construction in line with the "types and density or intensity of uses" reflected by the Site Plan Approval. The County, when it granted the Site Plan Approval, recognized "the proposed project complies with all applicable provisions of this Ordinance." Section 3.7.7, ZLDR (site plan approval criteria). This includes, of course, zoning compliance. By granting the Site Plan Approval, the County recognized the Parking Lot to be a lawful, by-right "accessory use" on the Property. Otherwise, it would not have and could not have approved it. This fact is central to the District's vested rights argument.

Both the Approval Revocation Letter and the County's accessory use reinterpretation violate the District's vested rights. Neither the District's alleged failure to demonstrate a "hardship" nor commence construction within a year (both of which the District denies) dislodges the District's constitutionally protected vested rights.[4] These are legally improper and irrelevant grounds under both the VRA and the VRO.

Additionally, there is no one year expiration for vested rights. Under both the VRA and the VRO, vested rights are good for, at minimum, two years. In this case, that time period has yet to

[3] Both the VRA and the VRO require local governments grant five one-year extensions of vested rights. S.C. CODE ANN. § 6-29-1530(A)(2)(b), -1540(7); Section 3(A), VRO.

[4] Proving a "hardship" is a requirement for obtaining a variance and has no relevance to vested rights.

run, as the Site Plan Approval was granted on February 9, 2017. Therefore, the County had no authority to issue to Approval Revocation Letter on February 28, 2018.

For the above reasons, the County erred by issuing the Approval Revocation Letter and reinterpreting accessory use vis-à-vis the Parking Lot. Therefore, the BZA should reverse the County and order the Site Plan Approval reinstated, confirm the Parking Lot's status as a lawful, by-right accessory use on the Property, and direct the Parking Lot proceed through final permitting.

II. Time Limit on Site Plan Approval

Apart from the vested rights analysis, the ZLDR does not authorize the County to place *any* time limit on site plan approvals, much less a one-year "to be permitted" approval. The County invented this condition. In the absence of ZLDR-based authority, the County erred by placing a one-year time limitation on the Site Plan Approval and requiring the District to seek a one year extension in the first place. As discussed, the Site Plan Approval's "shelf life" is governed by the above vested rights analysis.

The ZLDR does place certain "approval lapse" periods on certain development approvals. *See, e.g.,* Section 3.6.9, ZLDR (one year for special exceptions); Section 3.8.6, ZLDR (six months for zoning permit if building permit not issued); Section 3.10.10, ZLDR (one year for variances). However, the ZDLR does not contain any approval lapse period for site plan approvals. *See* Article 3.7, ZLDR ("Site Plan Review"). ***See* ZLDR Excerpts attached as Exhibit H and incorporated by reference.** This reflects clear legislative intent that site plan approvals shall have no approval lapse period.

As such, the County lacks authority to impose and enforce an approval lapse period with respect to the Site Plan Approval. *See, e.g.* Section 2.4.3(C) (the Planning Director's authority is restricted to enforcing the terms of the ZLDR as written). Specifically, the County had no authority to place the following condition on the Site Plan Approval:

> This project will be held in the "TO BE PERMITTED" file for one year. If the permit has not been obtained within that time, and there has been no communication with this office regarding this project, then the project will no longer be eligible to receive a permit. If the applicant wishes to receive a permit after that time, the review process will need to be repeated.

Moreover, there is no discussion of a "hardship" and how that relates to the Site Plan Approval validity. Therefore, these conditions are null, void, and of no legal effect whatsoever.

South Carolina's appellate courts have time and again held that land use regulations must be strictly construed in favor of property rights and property owners. The South Carolina Court of Appeals recently noted:

> It is a well-founded principle of law that "statutes or ordinances in derogation of natural rights of persons over their property are to be strictly construed as they are in derogation of the common law right to use private property so as to realize its

> highest utility and should not be impliedly extended to cases not clearly within their scope and purpose. It follows that the terms limiting the use of the property must be liberally construed for the benefit of the property owner."

Helicopter Solutions, Inc. v. Hinde, 414 S.C. 1, 13, 776 S.E.2d 753 (Ct. App. 2015) (citing *Purdy v. Moise,* 223 S.C. 298, 302, 75 S.E.2d 605, 607 (1953)); *Keane v. Hodge,* 292 S.C. 459, 465, 357 S.E.2d 193, 196 (Ct. App. 1987) (holding that while "[l]ocal governments have wide latitude to enact ordinances regulating what people can do with their property," they "must draft their ordinances so that people can have a clear understanding as to what is permitted and what is not. Otherwise, we must construe such ordinances to allow people to use their property so as to realize its highest utility.") Simply put, this means the ZLDR should and must be strictly construed in favor of property rights – not regulation.

The County erred by inventing and enforcing a one year approval lapse period and placing other conditions on the Site Plan Approval. No such authority exists in the ZLDR. For this reason, the BZA should order the Site Plan Approval be reinstated and the Parking Lot be allowed to proceed through final permitting.

III. Interpretation of "Accessory Use"

The Site Plan Approval is based on the County's original recognition that the Parking Lot is a lawful, by-right accessory use on the Property. Otherwise, the Site Plan Approval would not have been approved. Section 3.7.7, ZLDR (As a condition for site plan approval, "the proposed project complies with all applicable provisions of this Ordinance.") However, it appears County has revisited and reversed its accessory use position,[5] now contending only those buses serving James Island Elementary can be located on site. The District believes the County's original position on the matter was the correct one.

The ZLDR defines "accessory use" as "[a] use customarily incidental and subordinate to the principal use of a zoning lot or of a structure. An accessory use is located on the same zoning lot as the principal use, except in the cases of off-street parking, temporary manufactured housing parks, temporary real estate sales office and temporary construction facilities." **See Article 12.1, ZLDR attached as Exhibit I and incorporated by reference.** The Parking Lot is both "customarily incidental" and "subordinate" to the Property's school principal use.

Not only is the proposed use "customarily incidental," but state law actually mandates school buses be centrally parked. S.C. CODE ANN. § 59-67-300 ("State owned school buses must be parked overnight and during the school day in a location that is central to the area in which the school buses are operated"); ***See* South Carolina Department of Education School Bus Centralized Parking Policy attached as Exhibit J and incorporated by reference.** Centralization refers both to geography and the consolidation of regional buses at one overnight

[5] It appears the County's reversal was motivated, at least in part, by public comment and political lobbying efforts. Although the public has a statutorily authorized role in certain zoning related decisions (i.e. variances, special exceptions, re-zonings, etc.), the interpretation of the ZLDR is a wholly staff-level, administrative function. It is entirely inappropriate and unlawful for a staff-level, administrative decision to be influenced by the public.

parking location. The policy specifically states "[l]ots should not be closer than 10 miles unless the number of buses parked at a single location is greater than 25." These standards are required to, among other things, (1) assure on-time student pick up; (2) assure student safety; (3) assure bus security; (4) improve district management of drivers and buses; (5) save money; and (6) provide better bus service. County staff's new position that only school buses used by a particular school qualify as an accessory use conflicts with the aforementioned state mandates. If school buses are to be allowed on school property, then they must be centrally parked to comply with state law. Not surprisingly, this reflects actual local and statewide practice. ***See* State Bus Requirements Affidavit attached as Exhibit K and incorporated by reference (citing examples).**

As one would imagine, the state also places a variety of technical and design requirements on bus parking lots. ***See* Planning for School Bus Safety on School Sites and School Bus Parking Lots attached as Exhibit L and incorporated by reference.** As such, the Property was not randomly selected for the Parking Lot. ***See* Site Selection Affidavit attached as Exhibit M and incorporated by reference.** Rather, it was carefully selected by the District and its team to comply with state law and address the District's needs. Presently, the region's school buses are located at Camp Road Middle School, a temporary location which is detrimental to the District's mission. The Property is the only area in the region that will meet the state's planning and technical requirements for a bus parking lot, and if the Parking Lot is not developed the District will be substantially negatively impacted. This lends further support to the District's position that the Parking Lot is "customarily incidental" to the Property's principal school use, and thus meets the definition of "accessory use" under the ZLDR.

Therefore, County staff's interpretation departs from what is "customarily incidental" in this context. Moreover, County staff's interpretation of "accessory use" in this context is legally preempted by state law on this issue because it conflicts with state law, regulation, and policy. *See South Carolina State Ports Authority v. Jasper County*, 368 S.C. 388, 400-01, 629 S.E.2d 624 (2006) ("Conflict preemption occurs when the ordinance hinders the accomplishment of the statute's purpose or when the ordinance conflicts with the statute such that compliance with both is impossible.").

As for whether the Parking Lot is "subordinate" to the school, it is hard to imagine how a parking lot of thirty-eight school buses can be considered more impactful than an elementary school with hundreds of children and far more vehicles associated with parents, teachers, and other staff. This is a parking lot, not a repair yard or an intense industrial use. The sole use is for overnight parking, fueling, and minimal maintenance. All such functions are required for bus parking lots by state law, specifically the legal and policy documents enclosed herewith. Strict requirements are placed on the Parking Lot's operation both by state and local regulations. Lastly, the District has performed noise, pollution, and traffic studies, which all demonstrate the minimal impact to surrounding properties. ***See* Technical Studies attached as Exhibits N and incorporated by reference.** The evidence overwhelmingly supports the view that the Parking Lot is subordinate to the school and, therefore, a qualifying accessory use under the ZLDR.

Based on the foregoing, County staff misinterpret the ZLDR and potentially violated state law by declaring the Parking Lot not to be an accessory use. This, of course, directly contradicts

the County's original position on the issue, which enabled the Site Plan Approval to be issued in the first place. The County got it right the first time, and that decision should stand.

Conclusion

Based on the above, the District respectfully requests the BZA order the County honor the Site Plan Approval, declare the Parking Lot a legal, by-right "accessory use" for the Property, and grant all other necessary final approvals for the Parking Lot consistent with the District's vested rights. Should you have any questions, please do not hesitate to contact me.

Sincerely yours,

MCCULLOUGH KHAN, LLC



Ross Appel, Esq.

Enclosures – as stated

cc: Jennifer Werking (via e-mail)
Sally Brooks (via e-mail)
Joe Dawson, Esq. (via e-mail)
Bernard Ferrara, Esq. (via e-mail)

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Lonnie Hamilton, III
Public Services Building
4045 Bridge View Drive
North Charleston, SC 29405-7464

SITE PLAN REVIEW
PROJECT STATUS REPORT

TO: Jeff Webb **EMAIL: JEFFW@ADCENGINEERING.COM**

DATE: February 9, 2017 **TMS: 334-07-00-047**

FROM: Stephen Risse **PROJECT: James Is. Elem. School Bus Parking Facility**

The site plan for the above referenced project is Approved by the Zoning and Planning Department. **It is your responsibility as the Site Plan Review contact person to notify the contractor of the following:**

_X_ **Approved** – Please notify the contactor/responsible party that a Zoning Permit is required prior to any land disturbance and/or site improvements.

_X_ Please notify Stephen Risse, at 202-7200 to inspect the required tree barricades three **(3) days prior to receiving your zoning permit.** If required as part of the Site Plan Review approval.

___ Please bring the information as requested on the following page(s) with you to enable you to obtain the zoning permit.

___ Please bring in to the Zoning Department ____ copies of the final set of plans and ___ copies of the new approved recorded plat.

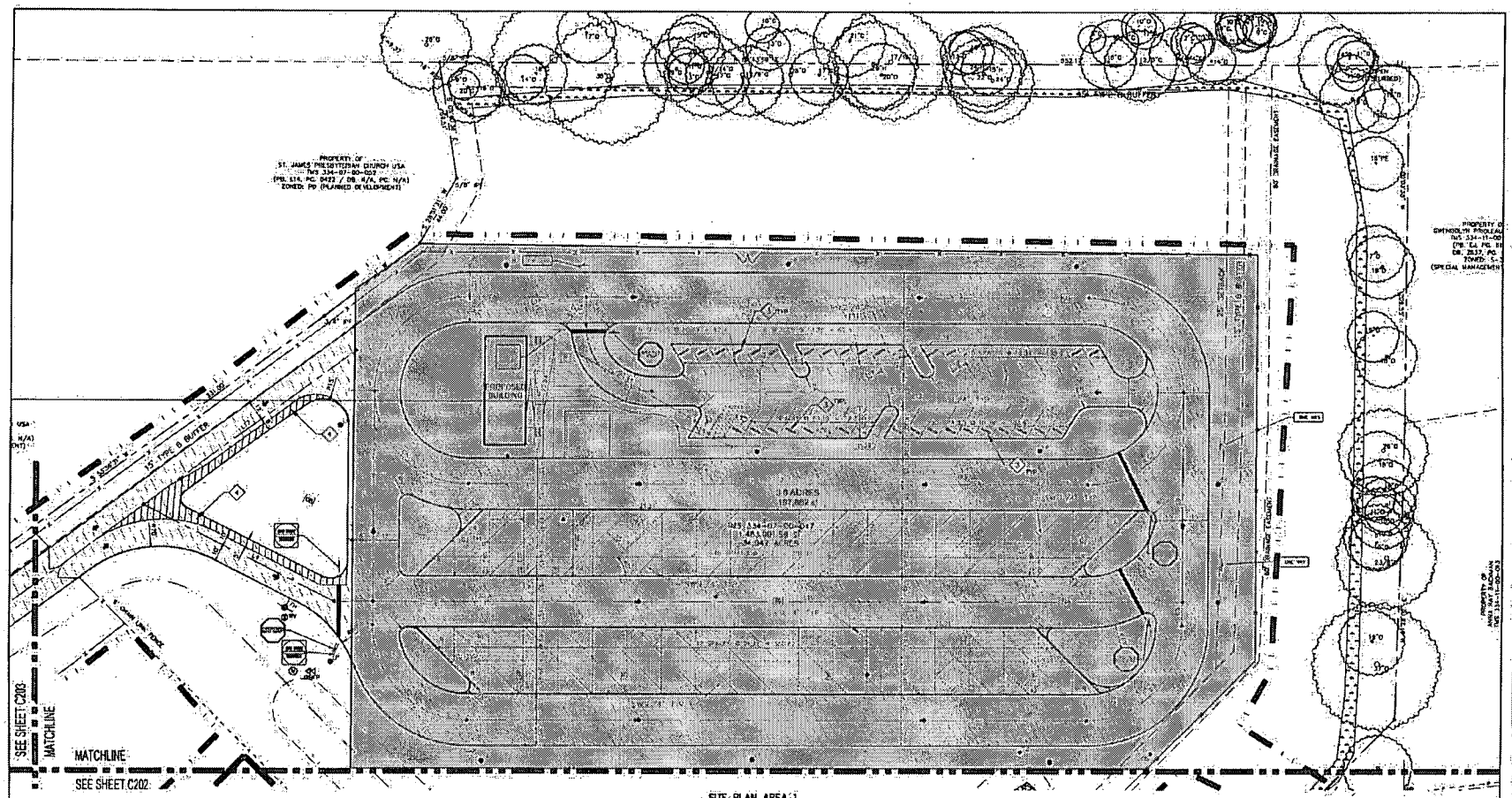
_X_ Please notify Stephen Risse, at 202-7200 when the project is complete and ready for a final inspection. **All landscaping must be installed, dumpsters enclosed, and parking lot striping or wheel stops installed. Allow five working days prior to your request for the Certificate of Occupancy for this inspection.**

This project will be held in the "TO BE PERMITTED" file for one year. If the permit has not been obtained within that time, and there has been no communication with this office regarding this project, then the project will no longer be eligible to receive a permit. If the applicant wishes to receive a permit after that time, the review process will need to be repeated.

Any changes in the Site Plan after it is approved must be reviewed by the Site Plan Review Committee prior to the change.

EXHIBIT
A

808



SITE PLAN AREA 1
SCALE 1" = 30'

GENERAL NOTES:

1. SEE SHEET C001 FOR CIVIL NOTES AND ABBREVIATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR ALL WORK SHOWN, UNLESS SPECIFICALLY INDICATED OTHERWISE.
3. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF THE PROJECT.
4. ALL PROJECT STAKEOUT SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR TO BE PAID FOR BY THE CONTRACTOR. FOR STAKEOUT, DO NOT RELY SOLELY ON THE PHYSICAL SCALE AS SHOWN IN DRAWINGS. REFER TO THE GIVEN DIMENSIONS, SYMBOL LEGEND, KEYNOTES, AND REFERENCED DETAILS FOR CORRECT STAKEOUT.
5. ALL CONTRACTORS/SUBCONTRACTORS/PERSON THAT WILL BE ENGAGED IN LAND DISTURBING ACTIVITIES SHALL COMPLY WITH ALL EROSION CONTROL AND STORMWATER POLLUTION PREVENTION REQUIREMENTS CONTAINED THROUGHOUT THE DRAWINGS, SPECIFICATIONS AND PERMITS.

KEYNOTES: ◇

1. TAPER CURB TO FLUSH OVER 2' HORIZONTALLY.
2. INSTALL 24" CURB AND GUTTER IAW DETAIL F/C620.
3. INSTALL CONCRETE WHEEL STOP IAW DETAIL I/C620.
4. INSTALL 4" YELLOW THERMOPLASTIC STRIPING 2' ON CENTER AT 45° ANGLE IAW DETAIL J/C621.
5. TIE NEW PAVEMENT INTO EXISTING PAVEMENT IAW DETAIL H/C620.

CIVIL LEGEND – SITE

- STANDARD DUTY ASPHALT PAVEMENT – INSTALL IAW DETAIL A/C620.
- HEAVY DUTY ASPHALT PAVEMENT – INSTALL IAW DETAIL B/C620.
- SCDOT RIGHT-OF-WAY ASPHALT PAVEMENT – INSTALL IAW DETAIL C/C620.
- CONCRETE PAVEMENT/SIDEWALK – INSTALL IAW DETAIL G/C620.
- HEAVY DUTY CONCRETE PAVEMENT – INSTALL IAW DETAIL D/C620.

JOINT LEGEND:

- CONTRACTION JOINT – INSTALL IAW DETAIL E/C621.
- REINFORCED SLAB – INSTALL IAW DETAIL D/C620.

- INTERIOR TRAFFIC ARROW – INSTALL IAW DETAIL G/C621.
- ACCESSIBLE PARKING SPACE AND AISLE – IAW DETAIL A/C621.
- SIDEWALK RAMP – INSTALL IAW DETAIL E/C620.
- STOP BAR – INSTALL IAW DETAIL I/C621.
- DOUBLE YELLOW SOLID LINE / 4" WIDE EACH – INSTALL IAW DETAIL J/C621
- DYSL/4" SINGLE YELLOW DASHED LINE / 4" WIDE – INSTALL IAW DETAIL J/C621
- SYDL/4" SINGLE WHITE DASHED LINE / 4" WIDE – INSTALL IAW DETAIL J/C621
- SWSL/4" SINGLE WHITE SOLID LINE / 4" WIDE – INSTALL IAW DETAIL J/C621
- SWSL/12" SINGLE WHITE SOLID LINE / 12" WIDE – INSTALL IAW DETAIL J/C621

- NEW TRAFFIC SIGN – INSTALL PER PLAN AND IAW DETAILS G/C621, F/C621 & D/C621.
- CHAIN LINK FENCE – SEE LANDSCAPE PLANS.
- LIMITS OF CONSTRUCTION/LIMITS OF DISTURBANCE

CONTRACTOR SHALL CONTACT 811 FOR LOCATIONS OF ALL UTILITIES AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.
811 Know what's below. Call before you dig.

HORIZONTAL SCALE
0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

CONSTRUCTION DOCUMENTS

Charleston County School District
North Charleston, South Carolina

JAMES ISLAND
BUS PARKING LOT

CHARLESTON COUNTY
SOUTH CAROLINA

SOUTH CAROLINA ADC ENGINEERING INC. No. 00253

ADC
ENGINEERING SPECIALISTS
1224 YEAMANS HALL ROAD
HANAHAN, SC 29410
843-566-0161
fax 843-566-0162
ADCENGINEERING.COM

CONTRACTOR SHALL CONTACT 811 (1-800-922-4555) FOR LOCATIONS OF ALL UTILITIES AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.
811 Know what's below. Call before you dig.

DATE	4/7/2017
ADC PROJECT #	15211
DESIGNED	WVD
CHECKED	JSW
DRAWN	WVD
REVISION	

SITE PLAN AREA 1

C201

SHEET ___ OF ___

CHARLESTON COUNTY
SOUTH CAROLINA

Zoning and Planning Department
Joel H. Evans, AICP, PLA
Zoning & Planning Director
Lonnie Hamilton III Public Services Building
4045 Bridge View Drive
North Charleston, SC 29405
843.202.7200

Letter of Intent to Establish a Business

First Name: Jeffrey	*Last Name:* Borowy
Mailing Address: 3999 Bridge View Drive, North Charleston, SC 29405	
Email Address: jeffrey_borowy@charleston.k12.sc.us	*Home/Cell Phone #:* (843) 566-8138

Subject Property Information

Address (include suite #): 1872 Grimball Road, James Island, SC 29412	
Is this your residence? ☐ Yes ☒ No	*Number of Employees:* 40
Days of Operation: Monday - Friday	*Hours of Operations:* 6:00 A.M. - 6:00 P.M.
Proposed Name of Business:	

Please provide a detailed explanation of the proposed use:

This project proposes to construct a new bus parking facility, with employe parking and support facility. The support facility consists solely of a manufactured office building for administrators. Drivers will check in and out of the facility as they arrive and leave for the day. Maintenance will be performed at an off-site location.

Signature: [signature] Date: 4/7/2016

OFFICIAL USE ONLY

Zoning District:	Taken In By:
TMS#:	Date:
Home Occupation: ☐ Yes ☐ No	Vacant for more than two years: ☐ Yes ☐ No
Overlay District: ☐ Yes ☐ No	Name of Overlay District:
Approved: ☐ Yes ☐ No By:	Date:

Joel H. Evans, AICP, PLA
Zoning & Planning Director

CHARLESTON COUNTY
SOUTH CAROLINA

843.202.7200
1.800.524.7832
Fax: 843.202.7222
Lonnie Hamilton, III
Public Services Building
4045 Bridge View Drive
North Charleston, SC 29405-7464

PERMIT APPLICATION: RESTRICTIVE COVENANTS AFFIDAVIT

I, Jeffrey Borowy [Print], have reviewed the restrictive covenants applicable to Parcel Identification Number(s) 334-07-00-047, located at (address) 1872 Grimball Rd, James Island, SC 29412, and the proposed permit application is not contrary to, does not conflict with, and is not prohibited by any of the restrictive covenants, as specified in South Carolina Code of Laws, Section 6-29-1145.

[Signature] 4/7/2011 [Date]

JEFFREY BOROWY
[Print Name]

Explanation:
Effective July 1, 2007, South Carolina Code of Laws Section 6-29-1145 requires local governments to inquire in the permit application, or in written instructions provided to the applicant, if a tract or parcel of land is restricted by a recorded covenant that is contrary to, conflicts with or prohibits an activity for which a permit is being sought.
[Section 6-29-1145 is copied on the back of this page]

For Staff Use Only:

Received by _____ Date _____ Application Number _____

Application for Appeal of Administrative Decision

County of Charleston
Board of Zoning Appeals

Public Services Building
Planning Department
4045 Bridge View Drive
North Charleston, SC 29405
Phone 843-202-7200
Fax 843-202-7222

This application must be complete and submitted in person to the Planning Department in order to appeal a zoning related decision of the Zoning Administrator. The applicant shall receive a copy of this completed form at the time the application is filed. Please read the entire form prior to completing the application. Additional pages may be attached. **A decision of the Zoning Administrator shall be reversed if it is found to be in error, per Section 3.13.8 of the *Charleston County Zoning and Land Development Regulations Ordinance (ZLDR).***

Appellant Name: Charleston County School District (Jeff Borowy, COO)

Mailing Address: 3999 Bridge View Drive

City, State, Zip: North Charleston, SC 29405 Daytime Phone: 566-1975

Subject Property Address: 1872 S. Grimball Road, Charleston, SC 29412

1) Decision which is being appealed:
February 28, 2018 decision, Case ZSPR-5-16-00059

2) Reason(s) appellant believed the decision to be in error:
See attached sheet.

3) Appellant contends that the correct interpretation of the *Charleston County Zoning and Land Development Regulations Ordinance* as applied to the property is:
School bus parking lots are an accessory use to schools and CCSD has demonstrated hardship required for an extension.

4) Appellant requests the following relief:
Extension to the Zoning and Planning Site Plan review approval dated February 9, 2017.

Appellant Signature [signature] Date 4-18-2018

FOR OFFICE USE ONLY:

Application #: BZA-04-18-00258 Zoning District: S-3

Date Filed: 4/18/18 Fee Paid ($250): $250 Check #3371

TMS#: 334-07-00-047 Zoning Officer: [signature]

Planning Department
Lonnie Hamilton, III
Public Services Building
4045 Bridge View Drive
North Charleston, SC 29405-7464
Phone: (843) 202-7200 Fax: (843)202-7222

Application for
BZA - Appeals
Receipt

Plan Number: BZA-04-18-00258 Date: 04/18/2018

Receipt Number: TRC-132994-18-04-2018

Applicant: CHARLESTON COUNTY SCHOOL DISTRICT
Attn: JEFF BOROWY
3999 BRIDGE VIEW DR
N. CHARLESTON, SC 29405
Phone: 8435661975

Property location:

1872 S GRIMBALL RD
CHARLESTON, SC 29412
TMS # : 3340700047

Describe Work:

APPELLANT CONTENDS, "SCHOOL BUS PARKING LOTS ARE AN ACCESSORY USE TO SCHOOLS"

INVOICE FEES

INVOICE DATE	FEE NAME	FEE AMOUNT	BALANCE DUE
04/18/2018	BZA Appeals Fee	$ 250.00	$0.00

PAYMENT DATE	AMOUNT RECEIVED	AMOUNT APPLIED	CHANGE	PAY TYPE
04/18/2018	$ 250.00	$ 250.00	$ 0.00	Check# 3371

INVOICE TOTAL:	**$250.00**
TOTAL PAYMENTS :	**$250.00**
TOTAL CHANGE:	**$0.00**
TOTAL DUE:	**$0.00**

IT IS UNDERSTOOD AND AGREED BY THE UNDERSIGNED THAT THE APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE A PRIVILEGE TO VIOLATE THE ORDINANCE OF THE COUNTY OF CHARLESTON; AND THAT ANY ALTERATION OR CHANGE FROM THIS PERMIT APPLICATION WITHOUT THE APPROVAL OF THE PLANNING OFFICIAL SHALL CONSTITUTE SUFFICIENT GROUNDS FOR THE REVOCATION OF ANY APPLICATION. THIS PERMIT APPLICATION IS EXPRESSLY CONDITIONED UPON THE ACCURACY OF THE INFORMATION SUBMITTED BY THE APPLICANT. APPLICATION PERMIT WORK WILL BE VOIDED IF WORK IS NOT STARTED WITHIN SIX (6) MONTHS OR IF WORK IS STOPPED FOR A PERIOD OF SIX (6) MONTHS.

SIGNATURE OF OWNER. CONTRACTOR, AGENT

Approved by Jael H Evans

PLANNING DIRECTOR

Site Plan Review Application

County of Charleston
Planning Department

Planning Department
4045 Bridge View Drive
North Charleston, SC 29405
Phone 843-202-7200
Fax 843-202-7222

CHARLESTON COUNTY
SOUTH CAROLINA

This application must be complete and submitted in person to the Planning Department in order to apply for Site Plan Review. Please read the entire form prior to completing the application. The applicant shall receive a copy of this completed form at the time the application is filed. Please fold all information in complete individual packages approximately 8½" X 11" prior to submitting and REFERENCE THE PARCEL I.D. NUMBER ON ALL SUBMITTALS AND RE-SUBMITTALS.

1) Four copies of Current Approved and Recorded Plat showing present boundaries of property.
2) A Letter of Intent signed by the applicant or property owner(s) stating the name of business, intended use of parcel/building, hours of operation, number of employees, etc.
3) Restrictive Covenants Affidavit(s) signed by the applicant or current property owner(s).
4) Four copies of an accurate, legible Site Plan drawn to Engineers Scale must be attached. The site plan must show property dimensions, dimensions, and locations of all existing and proposed structures and improvements, parking areas, Grand trees (Any tree measuring 24 inches or greater diameter breast height (DBH) except Pine tree and Sweet Gum tree (*Liquidamber styraciflua*) species.), wetlands (properties containing DHEC-OCRM Critical Line areas must contain an up to date DHEC-OCRM signature on the site plan or plat), holding basins and buffers when applicable. Upon Site Plan approval, you will submit two sets of construction drawings for building plan review.
5) Current letter of water and wastewater availability.
6) StormWater Application – submit to Zoning Dept. (Application Type to be determined during Site Plan Review process).
7) Fee: see current Fee Schedule - check made out to "Charleston County" or cash.

Applicant Name: Charleston County School District - Jeffrey Borowy

Mailing Address: 3999 Bridge View Drive

City, State, Zip Code: North Charleston, SC 29405

Phone #: (843) 566-8138 Fax #:

Email address: jeffrey_borowy@charleston.k12.sc.us

Owner's Name: Charleston County School Districty Phone #: (843) 566-8138

Project Name/Description: James Island Elementary School Bus Parking Facility

Subject Property Address: 1872 South Grimball Rd., James Island T.M.S. # 334-07-00-047

South Carolina, 29412

Applicant Signature 4/7/2016 Date

OFFICE USE ONLY

ZSPR-

Application date:

Zoned/Overlay: /

Flood Zone: Panel:

Plat book/page: /

Plat date Acreage:

Special Exception Required

Public Water/Well (circle one)

Sewer/Septic Tank (circle one)

FEE:

Address Verified:

Meeting Day & Date

Time

Submittals
05/16/2016 Initial

CHARLESTON COUNTY
SOUTH CAROLINA

843.202.7200
1.800.524.7832
Fax:843.202.7222
Lonnie Hamilton, III
Public Services Building
4045 Bridge View Dr.

Joel H. Evans, PLA, AICP
Zoning/Planning Department Director

May 26, 2016

SITE PLAN REVIEW APPLICATION COMMENTS

Application #: **ZSPR-05-16-00059**

TMS #: **334-07-00-047**

Site Plan Review- New - Site Work Only [

CONTACTS	Name	Company	Address
Applicant	JEFF WEBB	A.D.C. ENGINEERING SPECIALISTS	1226 Yeamans Hall Rd Hanahan, SC 29410

Charleston County Planning and Zoning Staff inspected and evaluated this application for compliance with the ***Charleston County Zoning and Land Development Regulations***. This application has been determined to be incomplete at this time. No further processing of this application shall occur until the deficiencies are corrected. Once the application is revised it may be resubmitted without the payment of additional fees, provided it is resubmitted within 6 months of the date the application was returned to the applicant. Applications resubmitted more than 6 months after the date the application was returned as incomplete shall require repayment of applicable fees.

The following requirements need to be addressed prior to approval:
5/16/2016

1 .a. You are showing more landscape than is required by the County in the planted buffers. The buffers sh be placed at the edge of the property, and the existing vegetation can count towards the required plantin

b. Note the method of irrigation for the landscaping on the plant schedule and details sheet.

c. There is a landscape island in the employee parking lot that appears to be missing its landscaping. Please update the landscaping in that tree island.

d. Provide a Photometric plan for the site lighting noting that none of the site exceeds the 12 foot candle l set by the County.

e. Provide SCDOT and Charleston County Stormwater approvals when available. - - General deficienies

If you have any question concerning these comments contact the Planning Department (202-7200) and refer to your application number.

Sincerely,

Stephen Risse
Planner I

Submittals
05/16/2016 Initial
08/15/2016 Resubmittal

Joel H. Evans, PLA, AICP
Zoning/Planning Department Director

CHARLESTON COUNTY
SOUTH CAROLINA

843.202.7200
1.800.524.7832
Fax:843.202.7222
Lonnie Hamilton, III
Public Services Building
4045 Bridge View Dr.
North Charleston, SC 29405-7464

August 31, 2016

SITE PLAN REVIEW APPLICATION COMMENTS

Application #: **ZSPR-05-16-00059**

TMS #: **334-07-00-047**

Site Plan Review- New - Site Work Only Development

CONTACTS	Name	Company	Address
Applicant	JEFF WEBB	A.D.C. ENGINEERING SPECIALISTS	1226 Yeamans Hall Rd Hanahan, SC 29410

Charleston County Planning and Zoning Staff inspected and evaluated this application for compliance with the ***Charleston County Zoning and Land Development Regulations***. This application has been determined to be incomplete at this time. No further processing of this application shall occur until the deficiencies are corrected. Once the application is revised it may be resubmitted without the payment of additional fees, provided it is resubmitted within 6 months of the date the application was returned to the applicant. Applications resubmitted more than 6 months after the date the application was returned as incomplete shall require repayment of applicable fees.

The following requirements need to be addressed prior to approval:
Date of comments: **8/15/2016**

Review Department - Zoning and Planning

1. c. There is a landscape island in the employee parking lot that appears to be missing its landscaping. Please update the landscaping in that tree island.

   e. Provide SCDOT and Charleston County Stormwater approvals when available. - - General deficiencies

If you have any question concerning these comments contact the Planning Department (202-7200) and refer to your application number.

Sincerely,

Stephen Risse
Planner I

Ross Appel

From: Stephen Risse <SRisse@charlestoncounty.org>
Sent: Tuesday, September 13, 2016 9:55 AM
To: York Dilday
Subject: RE: adc 15214: FW: Charleston County Site Plan review comments.

Follow Up Flag: Follow up
Flag Status: Flagged

York,
Looks like you were able to fill in the tree island, so all we are waiting on is the SCDOT and Stormwater approvals. I'll update my notes in the computer to show that you took care of the tree island.
Thanks,

- Stephen

Stephen Risse
Planner 1
Charleston County Zoning & Planning Department
4045 Bridgeview North Charleston 29405
www.charlestoncoutny.org
Email. SRisse@charlestoncounty.org
Desk. 843.202.7240

From: York Dilday [mailto:YorkD@adcengineering.com]
Sent: Thursday, September 01, 2016 10:00 AM
To: Stephen Risse
Subject: RE: adc 15214: FW: Charleston County Site Plan review comments.

Stephen,

Attached are the revised drawings with the updated tree island. I will provide the SCDOT and Stormwater approvals when we receive them.

If you have any questions or comments feel free to call.

York Dilday, P.E, LEED GA
Project Engineer
Site Services

ENGINEERING SPECIALISTS
1226 YEAMANS HALL ROAD
HANAHAN, SC 29410
direct 843-735-5196
fax 843-566-0162
ADCENGINEERING.COM

From: Stephen Risse [mailto:SRisse@charlestoncounty.org]
Sent: Wednesday, August 31, 2016 9:18 AM

To: Jeff Webb <JeffreyW@adcengineering.com>
Subject: Charleston County Site Plan review comments.

Jeff,
I have reviewed the revised plans you sent us. It looks like you were able to take care of most of the items we discussed in our last meeting. One I tem I did not see resolution on was the landscaping in the tree islanding in the parking lot. I say in your response letter that you had marked it as "revised per comment" but I wasn't able to see any changes on the plan for that parking island. My plans showed that it still does not have any planting on it. Besides that one landscape island, I think we are just waiting on SCDOT and stormwater approvals.
I've attached my revised comments above. If you have any questions about what we are looking for feel free to reach me here at srisse@charlestoncounty.org
Thanks,

- Stephen

Stephen Risse
Planner 1
Charleston County Zoning & Planning Department
4045 Bridgeview North Charleston 29405
www.charlestoncoutny.org
Email. SRisse@charlestoncounty.org
Desk. 843.202.7240

4045 Bridge View Dr.
North Charleston, SC 29405-7464
Phone: 843.202.7600
Fax 843.202.7601

Permit

Permit # **STRM-12-16-00502**
Type: **Stormwater - Site Construction**
Work Class: **Type III - 5.0 acres or greater**
ACTIVE Issue Date: **1/26/2017**

February 23, 2017

A.D.C. ENGINEERING SPECIALISTS
Attn: JEFF WEBB
1226 YEAMANS HALL RD
HANAHAN, SC 29410

RE: 1872 S GRIMBALL RD
TMS #: 334-07-00-047

Dear: JEFF WEBB

A review of the above referenced project has been completed and determined that compliance with our Stormwater Management Ordinance and Program has been met. Tl letter serves as notification of final approval from the Public Works Department. Our approval does not constitute an approval to begin construction. You must contact the County's Planning Department, who will issue the permit required to begin work.

The Public Works Department will be conducting site inspections periodically on your project to check for compliance with the Stormwater Management Ordinance, the approv construction documents, and the Stormwater Management Plan.

Sincerely,

Chris Wannamaker, P.E.
Stormwater Program Manager

cc: Charleston County Planning and Zoning Department

EXHIBIT
tabbies
B

dhec
Healthy People. Healthy Communities.

December 22, 2016

JEFFREY BOROWY
CHARLESTON COUNTY SCHOOL DISTRICT
3999 BRIDGE VIEW DR
CHARLESTON SC 29405-7472

RE: JAMES ISLAND ELEMENTRY SCHOOL BUS PARKING FACILITY, Charleston County
File number: 10-01-09-03A
NPDES Coverage Number: SCR10AI74

Dear Jeffrey Borowy:

The Department of Health and Environmental Control (Department or DHEC) has received approval of and the Notice of Intent for the above-referenced project from **CHARLESTON COUNTY MS4.** Based on your submission of this documentation and in accordance with the NPDES General Permit for Stormwater Discharges from Construction Activities SCR100000 (CGP), this project has been granted coverage under the CGP on **December 22, 2016.** This project's general permit coverage number is **SCR10AI74.** The total disturbed area for this site is **8 acres.**

See attached DHEC Office of Ocean and Coastal Resource Management (DHEC-OCRM) certification dated August 12, 2016 for additional conditions related to the Coastal Zone Consistency determination.

Because this project is part of a larger common plan for development or sale (LCP), all applications for future land-disturbing activities that are part of this LCP (phases, outparcels, etc.) should include the above-referenced file number (10-01-09-03A), NPDES coverage number (SCR10AI74), and project name JAMES ISLAND ELEMENTARY SCHOOL.

An as-built survey(s), signed and sealed by a S.C. Licensed Land Surveyor, should be submitted to **CHARLESTON COUNTY MS4** for all detention structure(s) on this site. The survey(s) should show grades, contours, and depths for all structure(s) and should include the elevations and dimensions of all outlet structures, including but not limited to pipes, orifices, risers, weirs, and emergency spillways. A statement signed by the project's S.C. Registered Engineer indicating that the structure(s) was installed and is operating as shown on approved plans and in approved calculations is required. If the elevations or dimensions of the structures listed above do not match those used in the approved plans, provide a certification statement signed by the project's S.C. Registered Engineer indicating that the structure, as built, will function as shown in approved calculations. A new analysis of the structure (routing) may be necessary.

The CGP can be downloaded at the following website: http://www.scdhec.gov/Environment/docs/CGP-permit.pdf or you may request a copy from us via email (stormwatercgp@dhec.sc.gov). You are responsible for ensuring your contractor(s) complies with the approved SWPPP and the minimum requirements of the CGP. Also, you are responsible for overall compliance with the Storm Water Management and Sediment Reduction Act of 1991 (1991 Act), SC Pollution Control Act, and the Federal Clean Water Act (CWA). Failure to comply with the approved SWPPP or applicable statutes and regulations may result in enforcement actions.

You must notify this DHEC EQC Regional Office prior to starting any land-disturbing activity. The address and telephone number of the EQC office are as follows:

Charleston EQC Office
1362 MCMILLAN AVE STE 300
CHARLESTON SC 29405-2048

Inspections of this site must be performed by qualified personnel as described in Section 4.2.E of the CGP.

You should be aware that this approval is only applicable for the Stormwater Pollution Prevention Plan (SWPPP) that was submitted for this project. Any additional construction or land disturbing activity beyond the scope of the approved plans is not authorized. Any future work for this project not shown on the stamped, approved plans will require that you submit another site plan for review and approval. All major modifications require review and approval by **CHARLESTON COUNTY MS4**; the Department must be notified in writing by **CHARLESTON COUNTY MS4** of the approval of major modifications if the disturbed area changes. Minor modifications to the approved SWPPP may be made by the SWPPP preparer and do not require review and approval by the Department; these changes should be signed and dated by the SWPPP preparer. If you have a question about whether a modification is major or minor, contact the Coastal Stormwater Permitting Section at (843) 953-0200.

A copy of the stamped, approved SWPPP (including a copy the CGP, contractor certifications, inspection records, rainfall data, etc), NOI, and CGP coverage letter from DHEC must be retained and available at the construction site (or accessible within 30 minutes during normal business hours) from the date of commencement of construction activities to the date of final stabilization. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance at the construction site.

All contractors who will conduct land-disturbing activities at the site must complete a Contractor Certification Form. Annual Blanket Utility Providers must provide a copy of their annual blanket registration information. You are also responsible for listing all contractors in the SWPPP and for holding a pre-construction conference with each contractor before they can conduct land-disturbing activity at the site.

The Department may conduct periodic inspections of your site. Any violations found during these inspections may result in enforcement action.

This NPDES coverage should be terminated by the permittee when one of the conditions listed in Section 5.1 of the CGP has been met. You must submit a Notice of Termination (NOT) to cancel your NPDES coverage under the CGP. Please see section 5.1 of the CGP for additional information required to be submitted with the NOT.

You are responsible for obtaining any other federal, state, or local permit that may be required for this project. In particular, any permits through the U.S. Army Corps of Engineers for the placement of fill material in Waters of the United States. Please note we have not sent a copy of this letter to any county or city building official. You must send a copy of this letter to these agencies, if necessary.

If material excavated during construction activities leaves the site, a mine operating permit may be needed. You are responsible for contacting the Mining and Reclamation Section to determine if a mining permit is required for the site. The Mining and Reclamation Section can be reached at (803)898-1362 or via e-mail at AskMines@dhec.sc.gov.

Please see the enclosed "Notice of Appeal Procedure" document for information about the procedures for appealing this NPDES coverage.

If you have any questions or cannot access the referenced websites, please call me at 843-953-0238.

Sincerely,

Richard V Geer
Bureau of Water, Coastal Stormwater Permitting
1362 McMillan Ave, Suite 400, Charleston SC 29405

cc: Jeffrey K Webb PE—ADC ENGINEERING INC
ec: Chris Wannamaker PE—CHARLESTON COUNTY MS4
Region 7, Charleston EQC Office

4045 Bridge View Dr.
North Charleston, SC 29405-7464
Phone: 843.202.7600
Fax 843.202.7601

CONDITIONAL PERMIT

Issue Date: NOT ISSUED
Permit # STRM-12-16-00502
Type: Stormwater - Site Construction
Work Class: Type III - 5.0 acres or greater

December 13, 2016

A.D.C. ENGINEERING SPECIALISTS
Attn: JEFF WEBB
1226 YEAMANS HALL RD
HANAHAN, SC 29410

RE: James Island Bus Parking
TMS #: 334-07-00-047

Dear: JEFF WEBB

A review of the above referenced project has been completed and determined that compliance with our Stormwater Management Ordinance and Program has been met. However, due to additional documentation and/or permits needed from other Federal, State or Local agencies, a Conditional Permit is being issued.

This permit does not constitute in any shape or form an approval to begin construction. Upon receipt of all needed documents and/or permits, a Final MS4 Permit may be issued.

If we can be of further service, please let us know.

Sincerely,

Chris Wannamaker

Chris Wannamaker, P.E.
Stormwater Program Manager

cc: Charleston County Planning and Zoning Department

D H E C

PROMOTE. PROTECT. PROSPER.
South Carolina Department of Health and Environmental Control

6817

CZC-16-0571

NOTICE OF INTENT (NOI)

For Coverage(s) of Primary Permittees Under South Carolina NPDES General Permit For Stormwater Discharges From Construction Activities SCR100000

(Maintain As Part of On-Site SWPPP)

For Official Use Only
File Number: 10-01-09-03A
Permit Number: SCR10A174
Submittal Package Complete: _____

*Submission of this Notice of Intent constitutes notice that the Applicant identified in Section II intends to be authorized as a Primary Permittee in the state of South Carolina under NPDES General Permit SCR1000000. **Fees required for review and NPDES coverage of each application type are as listed on page 2 of the Instructions.***

SOUTH CAROLINA
DEPT OF HEALTH AND ENVIRONMENTAL CONTROL
ENVIRONMENTAL QUALITY CONTROL
STORMWATER PERMITTING SECTION
APPROVED - FOR CONSTRUCTION ONLY
DHEC PERMIT #: SCR10A174
FILE #: 10-01-09-03A
DATE ISSUED: 12/22/2016
BY: [signature]

Date: March 28, 2016
Project/Site Name: James Island Elementary School Bus Parking Facility **County:** Charleston
(Modification or Change of Information Only) **Prior Approved NPDES Permit or File Number:** _____

Do you want this project to be considered for the Expedited Review Program (ERP)? ☐ **Yes** or ☐ **No (See Instructions)**

I. Notice of Intent (NOI) Application Type(s)

A. **Project (Application/Review) Type(s)** (Select ALL that apply):
☑ New Project (Initial Notification) ☐ Ongoing Project: ☐ Permitted or ☐ Un-Permitted
☐ Late Notification ☐ Low Impact Development (LID) or Project Design Above Regulatory Requirements
☐ New Owner/Operator or Company Name Change **(see instructions, attach Form A (Transfer of Ownership))**
☐ Major Modification: **(see instructions, attach Form B (Major Modifications))**
☑ MS4 Project Review
☐ Ocean and Coastal Resource Management (OCRM) Review
☐ Change of Information/Other (Specify): _____

B. If Applicable, identify the entity designated as **MS4 Reviewer and MS4 Operator** (i.e., Lexington County, City of Greer, etc.): **MS4 Reviewer** Charleston County **MS4 Operator** Charleston County

II. Primary Permittee Information ☐ Change of Information

☐ Person or ☑ Company | If a Company, are you a ☐ Lending Institution or ☐ Government Entity?
Company EIN (if applicable): EIN: 57-6000322

A. **Primary Permittee Name:** Charleston County School District - Jeffrey Borowy
Mailing Address: 3999 Bridge View Dr. City: North Charleston State: SC Zip: 29405
Phone: (843) 566-8138 Fax: _____ Email Address: jeffrey_borowy@charleston.k12.sc.us

B. **Contact /ODSA Name** (if different from above OR if owner is a company): Charleston County Sc[illegible] Jeffrey Borowy
Mailing Address: SAME City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ Email Address: _____

C. **Property Owner Name** (if different from above): _____
Mailing Address: _____ City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ Email Address: _____

RECEIVED
MAY 6 2016
Stormwater Construction & Industrial Permitting Division

III. Comprehensive Stormwater Pollution Prevention Plan (C-SWPPP) Preparer Information ☐ Change of Information

A. **C-SWPPP Preparer Name:** Jeff Webb, P.E.
B. **Registered Professional** ☑ Engineer ☐ Landscape Architect ☐ Tier B Land Surveyor **S. C. Registration #:** 22839
C. **Company/Firm Name:** ADC Engineering, Inc. **S. C. COA # :** 00293
Mailing Address: 1226 Yeamans Hall Road City: Hanahan State: SC Zip: 29410
Phone: 843-566-0161 Fax: 843-566-0162 Email Address: jeffw@adcengineering.com

IV. Project/Site Information ☐ Change of Information

A. **Type of Construction Activity(ies)** (Select ALL that apply):
☐ Commercial ☐ Industrial ☑ Institutional ☐ Mass Grading ☐ Linear ☐ Utility/Infrastructure
☐ Residential: Single-family ☐ Residential: Multi-family ☐ Multi-use (Commercial & Residential)
☐ Site Preparation (No New Impervious Area) ☐ Other (Specify) _____

B. **Site Address/Location** (street address, nearest intersection, etc.) 1872 South Grimball Road
City/Town (if in limits): _____ Zip Code: 29412
Latitude: 32 ° 42 ' 15 " N Longitude: -78 ° 56 ' 25 " W (Source): ☐ GPS ☑ Web Site: epa.gov/enviro
Tax Map Number (s) (List all): 334-07-0-047

DHEC 2617 (10/2012)

C. Is this site located on **Indian Land?** ☐ Yes ☑ No

D. **Proposed Start Date:** 05/01/2015 **Proposed Completion Date:** 09/01/2015

E. **Disturbed Area** (nearest tenth of an acre): 8.0 **Total Area** (acres): 34.4

F. **Modification Only:** (nearest tenth of an acre): **Disturbed Area: Current (Approved) Area:** _____
Disturbed Area Change (Increase Only): _____ **Total Disturbed Area (After Change):** _____

G. Is this project part of a **Larger Common Plan for Development or Sale (LCP)?** ☑ Yes ☐ No
LCP/ Overall Development Name: James Island Elementary School Check here if this is the **First Phase.** ☐

Previous State Permit/File Number: 10-01-08-03 **Previous NPDES Coverage Number:** SCR10 _____

H. Any **Flooding Problems** exist downstream of or adjacent to this site? ☐ Yes ☐ No (If yes, provide detailed description of flooding problems and applicable floodway/flood zone information in the C-SWPPP).

I. Active **S.C. DHEC Warning Notice, Notice to Comply or Notice of Violation** for this site or LCP? ☐ Yes ☑ No

J. List Relevant **State and Federal Environmental Permits or Approvals** applied for or obtained for this site (e.g., **RCRA, USACOE, Nationwide**, etc.). **If None, list None.**
None

K. **Any Waiver(s)/Variances/Exceptions Requested for this Project?** (If yes, identify below and include **Waiver Request and Justifications** in the C-SWPPP for each proposed request).

1. Small Construction Activity Waiver(s) From NPDES permitting **(Section 1.4 & Appendix B)?** ☐ Yes ☑ No
If yes, identify requested waiver: ☐ Rainfall Erosivity Waiver ☐ TMDL Waiver ☐ Equivalent Analysis Waiver

2. Detention Waiver **(72-302(B))?** ☐ Yes ☑ No | 3. Other (Specify): _____

V. Waterbody Information (Attach additional sheet(s) as needed) ☐ Change of Information

A. **Receiving Waterbody(s) (RWB) Information** (List the nearest and next nearest receiving waterbodies to which the sites stormwater discharges will drain. If stormwater discharges drain to multiple waterbodies, list all such waterbodies).

1. Name of Receiving Waterbodies (RWB)	2. Distance to RWB (feet)	3. Classification of RWB
a. Nearest: Grimball Canal	100	FW
b. Next Nearest: Stono River	5500	SFH
c. Coastal Zone ONLY: Coastal Receiving Water (CRW): Stono River	5500	Not Applicable
d. Other Waterbodies:		

B. **Waters of the U.S. / State Information** (Attach additional sheet(s) as needed)

Waters of the U.S./ State	1. On the site?	2. Delineated/ Identified?	3. Impacts?	4. Amount of Impacts
a. Jurisdictional wetlands	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No	____ Ac
b. Non-jurisdictional wetlands	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No	____ Ac
c. Other Water(s): _____	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No	____ Ac ____ Feet
d. Coastal Zone ONLY: Direct Critical Area:	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No	____ Ac ____ Feet

5. **If yes for impacts in B.3**, describe each impact and activity, and list all permits (e.g., USACOE Nationwide Permit, DHEC General Permit) and certifications that have been applied for or obtained for each impact:

C. **S.C. Navigable Waters (SCNW) Information (Section 2.6.5)** The Department will address any issues related to State Navigable Waters' Program under SC Regulation 19-450 during the review of the C-SWPPP for activities that will **NOT** require a 404 permit or a 401 certification. (Attach additional sheet(s) as needed).

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1. **Are S. C. Navigable Waters (SCNW) on the site:** ☐ Yes ☑ No
a. If **no**, do not complete this question. Proceed to Section D (Impaired Waterbodies).
b. If **yes**, provide the name of S.C. Navigable Waters (SCNW) on the site: _____

2. If **yes for C.1**, will construction activities cross over or occur in, under, or thru the SCNW? ☐ Yes ☐ No
If yes, describe SCNW activities (e.g., road crossing, sub-aqueous utility line, temporary or permanent structures, etc.) and proceed to Section C.3: _____

3. Identify permits providing coverage of SCNW activities proposed for your site. If NONE, list none.

Permits/Certifications	Permit or Certification No.	Corresponding Covered SCNW Activity(ies)
a. DHEC General/ Other DHEC Permit	None	
b. USACOE **404 Permit or 401 Certification**	None	
c. **SCNW Permit** If applied for or issued, identify **Date applied for or issued:**	None	☐ **All Activities** or ☐ **Some Activities (Describe):**

d. **If a SCNW Permit has NOT been applied for** provide an additional plan sheet that shows plan and profile views (drawn to scale) of the SCNW and associated activities. Include a description of all proposed activities on this plan.

D. **Impaired Waterbodies Information** (Attach additional sheet(s) as needed)

1. 303(d) Listed Impaired Waterbodies

a. Name of **Nearest DHEC Water Quality Monitoring Stations (WQMS)(s)** that receives stormwater from your construction site and/or thru an MS4 and the **Name of the Corresponding Waterbody?**		b. **Is this WQMS(s) listed on the most current 303(d) List?** If No, proceed to Section 2 of this table. If Yes, complete items c thru f.	c. List the pollutant(s) identified as "CAUSES" of the impairment	d. Will any pollutants causing the impairment be present in your site's construction stormwater discharges?	e. If **yes for d**, list the **"USE SUPPORT"** impairment(s) affected by the pollutant(s) identified in c.
Nearest DHEC WQMS(s)	**Corresponding Waterbody**				
11-03	Stono River	☐Yes ☑ No		☐Yes ☐ No	
11-05	Stono River	☐Yes ☑ No		☐Yes ☐ No	
		☐Yes ☐ No		☐Yes ☐ No	

f. If **yes for d** above, **will use of the BMPs proposed for your project ensure the site's discharges will NOT contribute to or cause further WQS violations for the impairment(s) listed in c?** ☐Yes ☐ No
(NOTE: If no for f, this site is NOT eligible for coverage under the CGP). See Instructions.

2. TMDL Impaired Waterbodies

a. Name of **Nearest DHEC Water Quality Monitoring Stations (WQMS)(s)** that receives stormwater from your construction site and/or thru an MS4?	b. Has a TMDL(s) been developed for this WQMS(s)? If No, identify as such below and proceed to Section VI. If Yes, complete items c thru f of this table.	c. If **yes for b**, what pollutants are listed as "CAUSES" or causing the impairment?	d. If **yes for b**, has the standard been **"ATTAINED" or "Fully Supported"** for the impairment(s)?	e. If **no for d (Not Attained)**, will any pollutants causing the impairment be present in your site's construction stormwater discharges?
N/A	☐Yes ☐ No		☐Yes ☐ No	☐Yes ☐ No
	☐Yes ☐ No		☐Yes ☐ No	☐Yes ☐ No
	☐Yes ☐ No		☐Yes ☐ No	☐Yes ☐ No

f. If **yes for e** above, **are your discharges consistent with the assumptions and requirements of the TMDL(s)?** ☐Yes ☐ No
(NOTE: If no for f, this site is NOT eligible for coverage under the CGP). See Instructions.

VI. Signatures and Certifications DO **NOT** SIGN IN BLACK INK! **Read the Certifications below (in entirety). Provide date, printed name, and signatures below.** If you are a **New Owner/Operator**, as Primary Permittee you must also sign and date the applicable Comprehensive SWPPP Acceptance & Compliance Agreement below.

C-SWPPP PREPARER: "One copy of the C-SWPPP, all specifications and supporting calculations, forms, and reports are herewith submitted and made a part of this application. I have placed my signature and seal on the design documents submitted signifying that I accept responsibility for the design of the system. Further, I certify to the best of my knowledge and belief that the design is consistent with the requirements of Title 48, Chapter 14 of the Code of Laws of SC, 1976 as amended, pursuant to Regulation 72-300 et seq. (if applicable), and in accordance with the terms and conditions of SCR100000." **(This should be the person identified in Section III).**

Jeff Webb, P.E. — **Printed Name of C-SWPPP Preparer**
Signature of C-SWPPP Preparer
22830 — **S. C. Registration #**

PRIMARY PERMITTEE: "I or I (on behalf of my company and its contractors and agents), as the case may be, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that DHEC enforcement actions may be taken if the terms and conditions of the C-SWPPP are not met and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"I or I (on behalf of my company and its contractors and agents), as the case may be, also hereby certify that all land-disturbing construction and associated activity pertaining to this site shall be accomplished pursuant to and in keeping with the terms and conditions of the approved plans and SCR100000. I also certify that a responsible person will be assigned to the project for day-to-day control. I hereby grant authorization to the to S. C. Department of Health and Environmental Control (DHEC) and/or the local implementing agency the right of access to the site at all times for the purpose of on site inspections during the course of construction and to perform maintenance inspections following the completion of the land-disturbing activity." **(See Section 122.22 of S.C. Reg. 61-9 for signatory authority information.)** Having understood the above information, I am signing this certification as Primary Permittee to the aforementioned NPDES general permit."

JEFFREY BOROWY — **Printed Name of Primary Permittee**
Signature of Primary Permittee
DEPUTY FOR CAPITAL PROGRAMS — **Title/Position**
4/6/2016 — **Date Signed**

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MAY 6 – 2016
Stormwater, Construction & Agricultural Permitting Division

DHEC 2617 (10/2012)

dhec
Healthy People, Healthy Communities.

Coastal Zone Consistency Certification- **Modification**

To: Richard Geer, BOW Coastal Stormwater Permitting Section
Wayne Stokes, BOW Construction Permitting Section
From: Jeannie Lewis, OCRM Coastal Zone Consistency Section
Cc: York Dilday, P.E.; Jennifer Papa, ADC Engineering
Applicant: Charleston County School District
Project Name: James Island Elementary School Bus Parking Facility
Site location: 1872 Grimball Road, James Island, Charleston County
CZC #: CZC-16-0571
PN#: NPDES SCR10AI74; **WS Not Assigned**
Date: **August 12, 2016 Modification**; Original Issue July 31, 2016

The Coastal Zone Consistency (CZC) staff of the Office of Ocean and Coastal Resource Management (OCRM) reviewed the above referenced state Coastal Zone Consistency project request detailing the management of stormwater for the site preparation/demolition to construct new bus and car parking lots at the James Island Elementary School. **The project also includes a new connection to water supply, approximately 350 LF of 6" water main with any appurtenances. The modification of this certification is to cover the new water supply lines.** An estimated 8.0 acres of a 34.4 acre tract will be disturbed. There are inland wetlands onsite, which are jurisdictional and no impacts are proposed.

We hereby certify that the above referenced project is **Consistent** with the Guidelines for Evaluation of All Projects and the Policy Guidelines for: (1) Transportation Facilities (*Parking/Roads*), (2) Stormwater Management (*Runoff*) Policies contained in the S.C. Coastal Zone Management Program provided that the following conditions are included in the permit and adhered to by the applicant.

1. In the event that any historic or cultural resources and/or archaeological materials are found during the course of work, the applicant must notify the State Historic Preservation Office and the South Carolina Institute of Archaeology and Anthropology. Historic or cultural resources consist of those sites listed in the National Register of Historic Places and those sites that are eligible for the National Register.

Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal materials.

2. The applicant must demonstrate that storage of the first ½ inch of run-off from the entire site or storage of the first one (1) inch of run-off through retention, detention, or infiltration systems, from the built upon portion of the property, whichever is greater.

3. Upon completion of construction activities, all disturbed undeveloped areas, including those impacted for access, must be immediately stabilized.

This certification shall serve as the final ***State*** DHEC OCRM Coastal Zone Consistency approval for the work described above but does not alleviate the applicant's responsibility to obtain other required local, state or federal approvals.

South Carolina Board of Health and Environmental Control

Guide to Board Review

Pursuant to S.C. Code Ann. § 44-1-60

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation or settlement discussions during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference. In matters pertaining to decisions under the South Carolina Mining Act, appeals should be made to the South Carolina Mining Council.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR) and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15) calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after 5:00 p.m.
2. RFRs shall be in writing and should include, at a minimum, the following information:
   - The grounds for amending, modifying, or rescinding the staff decision;
   - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
   - the relief requested;
   - a copy of the decision for which review is requested; and
   - mailing address, email address, if applicable, and phone number(s) at which the requestor can be contacted.
3. RFRs should be filed in person or by mail at the following address:
   South Carolina Board of Health and Environmental Control
   Attention: Clerk of the Board
   2600 Bull Street
   Columbia, South Carolina 29201
   Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).
4. The filing fee may be paid by cash, check or credit card and must be received by the 15th day.
5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR
6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor. All personal and financial identifying information will be redacted from the RFR and accompanying documentation before the RFR is released to the Board, Department staff or the public.
7. If an RFR pertains to an emergency order, the Clerk will, upon receipt, immediately provide a copy of the RFR to all Board members. The Chairman, or in his or her absence, the Vice-Chairman shall based on the circumstances, decide whether to refer the RFR to the RFR Committee for expedited review or to decline in writing to schedule a Final Review Conference. If the Chairman or Vice-Chairman determines review by the RFR Committee is appropriate, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response and RFR Committee review will be provided on an expedited schedule defined by the Chairman or Vice-Chairman.
8. The Clerk will email the RFR to staff and Office of General Counsel and request a Department Response within eight (8) working days. Upon receipt of the Department Response, the Clerk will forward the RFR and Department Response to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within a twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review

Conference. Contested case guidance will be included within the letter.
NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

9. If the RFR is to be considered by the RFR Committee, the Clerk will notify the Presiding Member of the RFR Committee and the Chairman that further review is requested by the Board. RFR Committee meetings are open to the public and will be public noticed at least 24 hours in advance.
10. Following RFR Committee or Board consideration of the RFR, if it is determined no Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Conference. Contested case guidance will be included within the letter.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.
2. The Clerk will request Department staff provide the Administrative Record.
3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publically noticed and should:
   - include the place, date and time of the Conference;
   - state the presentation times allowed in the Conference;
   - state evidence may be presented at the Conference;
   - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
   - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.
4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. Final Review Conference and Decision

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:
   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff [15 minutes]
   - Rebuttal by Requestor(s) [10 minutes]

     Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.
2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the Conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the Conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at the conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court or in matters pertaining to decisions under the South Carolina Mining Act, to request a hearing before the South Carolina Mining Council,. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

STATE OF SOUTH CAROLINA)
) AFFIDAVIT
COUNTY OF CHARLESTON)

PERSONALLY APPEARED BEFORE ME, Reginald McNeil, who, upon being duly sworn, deposes and says:

1. I am over the age of eighteen (18) and competent to make this Affidavit.

2. I am the Executive Director of Capital Programs for the Charleston County School District (the "District").

3. In my role as Executive Director of Capital Programs, I have direct involvement in and knowledge of the District's plans to build a centralized school bus parking lot at James Island Elementary School (the "Parking Lot").

4. On or about February 9, 2017 and after substantial coordination and review, Charleston County granted both zoning and site plan approval for the Parking Lot.

5. In reliance on this approval, the District spent approximately $360,000.00 on design and other pre-construction expenses. **See Accounting Records, attached as Exhibit 1.**

6. Rather than rushing forward towards construction after obtaining the site plan approval, the District hosted three public meetings at James Island Elementary School and Fort Johnson Middle School.

7. In response to the public feedback, the District ordered a pollution and noise study at the approved site to factualize community concerns.

8. Since February 9, 2017 to the present and prior, the District has steadfastly been committed to developing the Parking Lot at James Island Elementary School. The decision to locate the facility in this location has been made pursuant to state law, regulation, policy, and the District's informed decision based on the available evidence and circumstances.



9. If the District is unable to proceed with developing the Parking Lot at James Island Elementary School, the District stands to have wasted the aforementioned financial resources incurred in reliance on the approved site plan. Moreover, the development process will have to begin anew somewhere else at great inconvenience and expense to the District and the students and teachers it serves. This would constitute a substantial hardship to the District.

Reginald McNeil

SWORN TO BEFORE ME THIS 25th
DAY OF May, 2018

Tatiena Haskell
NOTARY PUBLIC FOR
THE STATE OF SOUTH CAROLINA

MY COMMISSION EXPIRES: 3/27/2024

EXHIBIT 1
Design & Pre-construction Expenses

Category (cost code)	Committed	Expended to Date
Design	$139,663.16	$124,991.00
Environmental/Noise/Traffic Studies	$40,199.00	$33,241.80
Other	$225,585.87	$201,406.64
TOTAL	$405,448.03	$359,639.44

Begin forwarded message:

From: York Dilday <YorkD@adcengineering.com>
Date: February 9, 2018 at 6:52:53 PM EST
To: "rholt@ccorpusa.com" <rholt@ccorpusa.com>
Cc: "jchristian@ccorpusa.com" <jchristian@ccorpusa.com>, Jeff Webb <JeffreyW@adcengineering.com>, Jennifer Papa <JenniferP@adcengineering.com>
Subject: Fwd: ADC 15214: James Is. Elem. School Bus Parking Approval Extension

Got an update from the County. They will send an updated approval next week.

Sent from my iPhone 7

Begin forwarded message:

From: Sally Brooks <SBrooks@charlestoncounty.org<mailto:SBrooks@charlestoncounty.org>>
Date: February 9, 2018 at 5:03:10 PM EST
To: York Dilday <YorkD@adcengineering.com<mailto:YorkD@adcengineering.com>>
Subject: RE: ADC 15214: James Is. Elem. School Bus Parking Approval Extension

Hey,

Yes, I will get that updated and to you next week.

Sally

From: York Dilday [mailto:YorkD@adcengineering.com]
Sent: Tuesday, February 06, 2018 4:22 PM
To: Sally Brooks <SBrooks@charlestoncounty.org<mailto:SBrooks@charlestoncounty.org>>
Cc: Jennifer Papa <JenniferP@adcengineering.com<mailto:JenniferP@adcengineering.com>>
Subject: ADC 15214: James Is. Elem. School Bus Parking Approval Extension

Sally,

We received Planning approval for the James Is. Elem. School Bus Parking Facility (TMS - 334-07-00-047) almost a year ago and the project was stuck in limbo for a while.
The School District wants like to move forward with the project and would like to request a one year extension on the approval.
Are you the person I need to speak with to have this approved?

I have attached the approval letter. Please call me if we need to discuss anything.
Thank you.

If you have any questions or comments feel free to call.

York Dilday, P.E., LEED GA
Project Manager
Site Services
<image001.png>
1226 YEAMANS HALL ROAD
HANAHAN, SC 29410
direct 843-735-5196 / cell 843-607-1010/ office 843-566-0161
ADCENGINEERING.COM<http://ADCENGINEERING.COM>



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Joel H. Evans, AICP, PLA
Zoning & Planning Director

CHARLESTON COUNTY
SOUTH CAROLINA

Phone: 843.202.7200
Fax: 843.202.7222
Lonnie Hamilton, III
Public Services Building
4045 Bridge View Drive
North Charleston, SC 29405-7464

February 28, 2018

York Dilday, P.E., LEED GA
1226 Yeamans Hall Rd
Hanahan, SC 29410

Dear Mr. Dilday,

The Charleston County Zoning and Planning Department has reviewed your request for an extension to the Zoning and Planning Site Plan Review Approval dated February 9, 2017, for Case ZSPR-5-16-00059, TMS 334-07-00-047.

The Approval dictated that the project would require a Zoning Permit for land disturbance and/or site improvements, once the site inspection for tree protection compliance had been requested and approved by Zoning Staff. The Approval also stated the project would hold a status of "To Be Permitted" for one year.

As of February 7, 2018, upon receipt of your extension request, the Charleston County Zoning and Planning Department had not been contacted to request the site inspection or the Permit. The Planning Director has determined that the Applicant has not demonstrated a hardship that would be cause to delay the project or that diligent pursuit has been made to start development, as described in the documents submitted for Site Plan Review. Thus, the extension of this Approval has been denied, and the project is no longer eligible to receive a Permit. If the Applicant wishes to pursue the project further, the Site Plan Review process will need to be repeated.

Thank you,

Sally Brooks, PLA, ISA

EXHIBIT
tabbies
E

Application for Appeal of Administrative Decision

County of Charleston
Board of Zoning Appeals

Public Services Building
Planning Department
4045 Bridge View Drive
North Charleston, SC 29405
Phone 843-202-7200
Fax 843-202-7222

CHARLESTON COUNTY SOUTH CAROLINA

This application must be complete and submitted in person to the Planning Department in order to appeal a zoning related decision of the Zoning Administrator. The applicant shall receive a copy of this completed form at the time the application is filed. Please read the entire form prior to completing the application. Additional pages may be attached. **A decision of the Zoning Administrator shall be reversed if it is found to be in error, per Section 3.13.8 of the *Charleston County Zoning and Land Development Regulations Ordinance (ZLDR).***

Appellant Name: Charleston County School District (Jeff Borowy, COO)

Mailing Address: 3999 Bridge View Drive

City, State, Zip: North Charleston, SC 29405 Daytime Phone: 566-1975

Subject Property Address: 1872 S. Grimball Road, Charleston, SC 29407

1) Decision which is being appealed:
February 28, 2018 decision, Case ZSPR-5-16-00059

2) Reason(s) appellant believed the decision to be in error:
See attached sheet.

3) Appellant contends that the correct interpretation of the *Charleston County Zoning and Land Development Regulations Ordinance* as applied to the property is:
School bus parking lots are an accessory use to schools and CCSD has demonstrated hardship required for an extension.

4) Appellant requests the following relief:
Extension to the Zoning and Planning Site Plan review approval dated February 9, 2017.

Appellant Signature _____ Date 4-18-2018

FOR OFFICE USE ONLY:

Application #: _____ Zoning District: _____

Date Filed: _____ Fee Paid ($250): _____

TMS#: _____ Zoning Officer: _____

EXHIBIT F

F:/BZA/Forms/Appeals App
Revised 06-15-10

Item # 2:

Reason(s) appellant believe the decision to be in error:

Regarding Case ZSPR-5-16-00059, the original Zoning and Planning Site Plan Review Approval was granted on February 9, 2017 upon review of CCSD's submission. No site plans have changed since that submission. On February 6, 2018, CCSD (ADC Engineering on CCSD's behalf) requested an extension of the approval. An email from the planning staff, Sally Brooks, on February 9, 2018 indicated in an email response, "Yes, I will get that updated and to you next week." The next communication from County Planning staff came in the form of a letter dated February 28, 2018, denying the extension. CCSD staff followed up with Walt Smalls and Joel Evans to determine what the cause for denial. CCSD was informed during that meeting that the zoning approval and ordinance had been "reinterpreted" and that our bus parking plans were no longer approved.

There are two areas the appellant believes the zoning decision to be in error:

1) The extension denial letter from February 28, 2018 states CCSD has "not demonstrated a hardship or that diligent pursuit has been made to start the development." CCSD believes this is not accurate.

   Following the February 2017 approval, CCSD embarked upon a schedule of public meetings, design work, and environmental studies for the bus parking area on the James Island Elementary School parcel (TMS # 334-07-00-047).

   CCSD held 3 public meetings specifically for this project, beyond regular Board of Trustees meetings, following the approval. They were open, public meetings held at James Island Elementary School and Fort Johnson Middle School. The dates of these meetings were:

   1. March 22, 2017
   2. April 17, 2017
   3. October 30, 2017

   CCSD responded to concerns voiced by some residents in these meetings of noise, pollution, and traffic congestion. CCSD was under no obligation to conduct these noise and pollution studies but did so as a good neighbor and good faith effort for the community. CCSD conducted an air dispersion study, a decibel level study, and a traffic impact analysis. These studies showed no significant impact to any surrounding properties.

   CCSD has also spent a considerable amount of funds on design and construction management fees for this project. To date, just over $365,000 has been spent. The designs for the site are finished and can be bid immediately.

2) The zoning administrator reinterpreted existing zoning ordinance to deny this specific project extension due to external pressure. The original plans have not changed since our initial approval. After the denial was given CCSD staff was told the zoning ordinance had been reinterpreted to mean that more than half of the buses would need to serve James Island Elementary in order to qualify for the extension. This was not a condition of the original approval. The reinterpretation is targeted at CCSD's property and project specifically and limits the ability of a public governmental organization to serve our constituency. Additionally, the

zoning decision is in conflict with the State of South Carolina's Central Bus Parking Policy (Reference Act 0079 of 2007, Session 177, Section 59-67-300. That policy specifically states "Lots should not be closer than 10 miles unless the number of buses parked at a single location is greater than 25." In order to comply with this, CCSD must have all of the James Island schools buses parked in the same lot.

Ord #1393

Adopted 6/21/05

AN ORDINANCE PROVIDING FOR THE

ESTABLISHMENT OF A VESTED RIGHT

TO DEVELOP PROPERTY IN CHARLESTON COUNTY.

WHEREAS, the General Assembly in Act 287 of 2004 provided that local governments may establish a procedure providing for a vesting of rights in certain site specific development plans; and

WHEREAS, the Act called for Local Governments to enact land development ordinances or regulations implementing the provisions of the legislation on or before July 1, 2005; and

WHEREAS, Charleston County desires to implement the provisions of Act 287 of 2004 on or before July 1, 2005.

NOW THEREFORE BE IT ORDAINED BY THE COUNTY COUNCIL FOR CHARLESTON COUNTY, SOUTH CAROLINA DULY ASSEMBLED THAT THE FOLLOWING ORDINANCE IS HEREBY ADOPTED:

1. TITLE/INCORPORATION OF FINDINGS. This ordinance shall be known as the VESTED RIGHTS ORDINANCE. The recitals above are hereby incorporated herein as findings of fact for the adoption of this ordinance.

2. DEFINITIONS:

A. County shall mean the unincorporated area of the county.

B. Approved means a final review and approval in accordance with its established procedures by Charleston County of a site specific development plan. Phased development plans remain subject to review of all phases prior to being vested.

C. Landowner means an owner of a legal or equitable interest in real property including heirs, devisees, successors and assigns and personal representatives of the owner. It may include a person holding a valid option to purchase real property pursuant to a contract with the owner to act as his agent or representative for purposes of submitting a proposed development plan.



D. Land development ordinances are those ordinances which address the development of land and may include, but are not limited to, the Charleston County Zoning and Land Development Regulations Ordinance.

E. Phased development plan means an approved development plan submitted to the County by a landowner that shows the types and density or intensity of uses for a specific property or properties to be developed in stages.

F. Site specific development plan means an application approved by the appropriate governing body which describes with reasonable certainty the types and density or intensity of uses for specific property.

G. Vested right means the right to undertake and complete the development of property arising under the terms and conditions of a site specific development plan in conjunction with this ordinance and in conformity with the Charleston County Zoning and land Development Regulations Ordinance and upon final approval by the county.

3. VESTED RIGHTS:

A. A vested right is established for two years upon the final approval of a site specific development plan. Such vested right shall receive five one year extensions upon proper application submitted as specified in "C" below by the landowner in each year that an extension is desired.

B. A vested right in a site specific development plan shall not attach until all plans have been received, approved and all fees paid in accordance with the procedure outlined in the Charleston County Zoning and Land Development Regulations Ordinance, as amended. All administrative appeals must be resolved in favor of the applicant before a vested right attaches. Upon approval, such vested right must attach prior to the issuance of a building permit but not later than authorization to proceed with investments in infrastructure.

C. A complete application consistent with the provisions of Section 3.1.4 of the Charleston County Zoning and Land Development Regulations Ordinance, as amended, shall be submitted to the Planning Director on forms available at the Planning Department at least 15 days prior to the expiration of the established vested right as described in "A" above, and any extensions of the vested right

as described in "A" above. Upon receipt of a complete application for an extension of the two year vested right the Planning Director shall grant a one year extension, up to a maximum of five annual extensions, to the vested right in a site specific development plan.

D. No vested rights are established for phased development plans, including approved or conditionally approved phased development plans. An approved or conditionally approved site specific development plan is required prior to approval with respect to each phase of a phased development plan.

E. A vested site specific development plan may be amended if the amendment conforms to, or does not cause greater nonconformity with, the then current provisions of the county zoning, planning and land development ordinances, county code sections, or regulations. Approval or conditional approval of an amendment does not re-set or re-start the expiration period of a previously vested right.

F. The Charleston County Board of Zoning Appeals does not have the authority to grant a vested right and no such right shall accrue as a result of their decisions.

G. For purposes of this section, the landowner's rights are considered vested in the types of land use and density or intensity of uses defined in the development plan and the vesting is not affected by later amendment to a zoning ordinance or land-use or development regulation if the landowner:

(1) Obtains, or is the beneficiary of, a significant affirmative government action that remains in effect allowing development of a specific project;

(2) Relies in good faith on the significant affirmative government action; and

(3) Incurs significant obligations and expenses in diligent pursuit of the specific project in reliance on the significant affirmative government action.

H. For the purposes of this section, the following are significant affirmative governmental actions allowing development of a specific project:

(1) County Council has accepted exactions or issued conditions that specify a use related to a zoning amendment consistent with the provisions contained in the Charleston

County Zoning and Land Development Regulations, as amended;

(2) County Council has approved an application for a rezoning for a specific use consistent with the provisions contained in the Charleston County Zoning and Land Development Regulations, as amended;

(3) County Council has approved an application for a density or intensity of use consistent with the provisions contained in the Charleston County Zoning and Land Development Regulations, as amended;

(4) the Board of Zoning Appeals has granted a special exception or use permit with conditions consistent with the provisions contained in the Charleston County Zoning and Land Development Regulations, as amended;

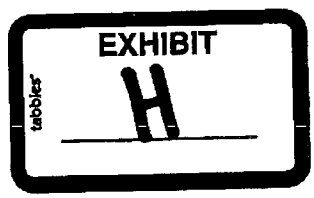
(5) the Board of Zoning Appeals has approved a variance consistent with the provisions contained in the Charleston County Zoning and Land Development Regulations, as amended;

(6) the Planning Commission has approved a preliminary subdivision plat, site plan, or plan of phased development for the landowner's property and the applicant diligently pursues approval of the final plat or plan consistent with the provisions contained in the Charleston County Zoning and Land Development Regulations, as amended; or

(7) the Planning Director has approved a final subdivision plat, site plan, or plan of phased development for the landowner's property consistent with the provisions contained in the Charleston County Zoning and Land Development Regulations, as amended.

4. EFFECTIVE DATE

A. This ordinance shall take effect on June 30, 2005.


EXHIBIT
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CHAPTER 3 | DEVELOPMENT REVIEW PROCEDURES

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ARTICLE 3.1 GENERAL

The general provisions of this Section apply to all development applications and procedures under this Chapter unless otherwise stated.

§3.1.1 Authority to File Applications

Applications for review and approval under this Chapter may be initiated by: (1) petition of all the owners of the property that is the subject of the application; (2) the owners' authorized agents; or (3) Review and Decision-Making Bodies.

Effective on: 11/20/2001, as amended

§3.1.2 Form of Application

Applications required under this Chapter shall be submitted in a format and in such numbers as required by the official responsible for accepting the application. Application submittal requirements and format information shall be available to the public in the Planning Department.

Effective on: 11/20/2001, as amended

§3.1.3 Filing Fees

Applications shall be accompanied by the fee amount that has been established by the County Council for the respective type of application. Fees shall not be required for applications initiated by authorized Review or Decision-Making Bodies.

Effective on: 11/20/2001, as amended

§3.1.4 Application Completeness and Submission Deadlines

A. Applications required under this Ordinance shall be considered complete only if they are submitted in the required format, include all mandatory information and are accompanied by the established fee.

B. Applications for consideration by the Board of Zoning Appeals shall be submitted no later than 12:00 p.m. on the Friday, six (6) weeks prior to the regularly scheduled Board of Zoning Appeals meeting, unless otherwise provided in this Ordinance or

as directed by the Chairman of the Board of Zoning Appeals. Application filing deadlines and Board of Zoning Appeals meeting dates are available at the Planning Department. Within 15 days of submittal of the application, staff will determine if the application is complete and can be scheduled for the next available Board of Zoning Appeals meeting. The requirements for applications deemed incomplete by the Planning Director are listed in Section 3.1.4(D) below.

C. Applications for consideration by the Planning Commission shall be submitted no later than 12:00 p.m. on the Friday, six (6) weeks prior to the regularly scheduled Planning Commission meeting, unless otherwise provided in this Ordinance or as directed by the Chairman of the Planning Commission. Application filing deadlines and Planning Commission meeting dates are available at the Planning Department. Within 15 days of submittal of the application, staff will determine if the application is complete and can be scheduled for the next available Planning Commission meeting. The requirements for applications deemed incomplete by the Planning Director are listed in Section 3.1.4(D) below.

D. Any application that is determined to be incomplete shall, within 15 days of its submittal, be returned to the applicant along with an explanation of the application's deficiencies. Fees shall not be refunded. No further processing of the application shall occur until the deficiencies are corrected. Once the deficiencies are corrected, the application may be resubmitted without the payment of additional fees, provided that it is resubmitted within six months of the date that the application was returned to the applicant. Applications resubmitted more than six months after the date that the application was returned as incomplete shall require repayment of applicable fees, provided, however, that the Planning Director may approve extensions of up to one (1) year from the date that any Development of County Significance application was returned as incomplete without requiring repayment of applicable fees.

Effective on: 11/20/2001, as amended

§3.1.5 Application Submittal

A. Whenever the procedures of this Ordinance expressly state that applications are to be submitted after a "pre-application conference," applicants shall be responsible for scheduling and attending such meetings. When pre-application conferences are required, an application shall not be accepted until the pre-application conference has been conducted, and any errors or omissions noted in review of the application for completeness have been addressed by the applicant.

B. Until an application is deemed complete pursuant to this Article, all related materials shall be treated as proprietary information.

Effective on: 11/20/2001, as amended

§3.1.6 Notices

A. **Content**

All notices with the exception of Posted Notices required under this Ordinance shall: (1) indicate the date, time and place of the public hearing or date of action that is the subject of the notice; (2) describe the property involved in the application by street address and, if required, by legal description; (3) describe the nature, scope and purpose of the application or proposal; and (4) indicate where additional information on the matter can be obtained. Posted Notices under this Ordinance shall indicate time and place and indicate where any additional information on the subject of the notice can be obtained.

[Commentary—References to "days" are to Charleston County Government work days, unless otherwise indicated.]

Table 3.1.6, Notices

Procedure	Review [R], Decision-Making [DM] And Appeal [A] Bodies				Notices See Section 3.1.6			
	Staff	PC	CC	BZA	News	Post	Neighbor	Parties in Interest & Community Interest
***Comprehensive Plan* Amendments**	R	R	DM		✓			✓
Ordinance Text Amendments	R	R	DM		✓			✓
Zoning Map Amendments	R	R	DM		✓	✓	✓	✓
Planned Development (PD) Zoning Map Amendment	R	R	DM		✓	✓	✓	✓
Special Exceptions	R			DM	✓	✓	✓	✓
Site Plan Review	DM			A				
Variances	R			DM	✓	✓	✓	✓
Written Interpretations	DM			A				
Public Project Review	R	DM			✓			✓
Appeals of Zoning-Related Administrative Decisions				DM	✓	✓	✓	✓

Table 3.1.6, Notices								
Procedure	Review [R], Decision-Making [DM] And Appeal [A] Bodies				Notices See Section 3.1.6			
	Staff	PC	CC	BZA	News	Post	Neighbor	Parties in Interest & Community Interest
Appeals of Subdivision-Related Administrative Decisions		**DM**			✓			✓

Notes:
In cases where no Appeal Body is shown or where the County Council is shown as final Decision-Making Body, appeals shall be taken to the Circuit Court of Charleston County, as provided by law.
R = Review Body [Responsible for Review and Recommendation]
DM = Decision-Making Body [Responsible for Final Decision to Approve or Deny]
A = Authority to hear and decide appeals of Decision-Making Body's action Neighbor *and Community Interest* notice is a courtesy notice; failure to provide will not invalidate any action taken.

B. **Types**

1. **Newspaper Notice**

When the provisions of this Ordinance require that "Newspaper Notice" be provided, the official responsible for accepting the application shall ensure that notice is published in a newspaper of general circulation in the county. Unless otherwise expressly provided in state statutes or this Ordinance, the first required newspaper notice shall be published at least 15 calendar days before the public hearing, meeting, or date of action that is the subject of the notice. Newspaper Notice shall indicate the time and place or date of action that is the subject of the notice, describe the property involved in the application by street address and, if required, by legal description, describe the nature, scope and purpose of the application or proposal.

2. **Post**ed Notice

When the provisions of this Ordinance state that "Posted Notice" should be provided, the official responsible for accepting the application shall post the notice on the subject property in a manner that makes the notice clearly visible to neighboring residents and passers-by from each public street bordering the subject property. Unless otherwise expressly provided in state statutes or this Ordinance, Posted Notice shall be in place at least 15 calendar days before the public hearing, meeting, or date of action that is the subject of the notice. Once the notice has been posted, the owner(s) of the subject property are responsible for notifying the Planning Department in writing if the Posted Notice is removed or damaged prior to the public hearing, meeting or date of action that is the subject of the notice. Failure to notify the Planning Department in writing of removed or damaged Posted Notice may result in rescheduling of the public hearing and a delay in decision from the decision-making body.

3. **Neighbor Notice**

When the provisions of this Ordinance require that "Neighbor Notice" be provided, the official responsible for accepting the application shall mail notice to the applicant and all property owners within 300 feet of the subject property. Ownership information shall be obtained from the County Assessor's Office. Unless otherwise expressly provided in state statutes or this Ordinance, required Neighbor Notices shall be deposited in the U.S. mail at least 15 calendar days before the public hearing, meeting, or date of action that is the subject of the notice. Failure to provide this notice will not invalidate any action taken.

4. **Parties in Interest**

When the provisions of this Ordinance require that notice be sent, the following "Parties in Interest" shall be notified: the applicant and the owner of the property (if other than applicant). Parties in Interest shall mean any individual, associations, corporations or others who have expressed an interest in writing in an application pending before the Planning Department and that has been received by the Planning Director. It is the responsibility of the Parties in Interest to provide updated contact information to the Planning Department. The Planning Department will keep the Parties in Interest contact information on file for one year from the initial date received.

5. **Community Interest Notice**

When the provisions of this Ordinance require that "Community Interest Notice" be provided, the official responsible for accepting the application shall provide written notice to any individual, group or organization that has submitted a written statement of interest to the Planning Director. When Community Interest Notice is required, courtesy notice will be provided to the Planning Director of any municipality within the Planning Area of the subject tract. Community Interest Notice is a courtesy notice; failure to provide this notice will not invalidate any action taken.

C. **Constructive Notice**

Minor defects in a notice shall not impair the notice or invalidate proceedings pursuant to the notice if a bona fide attempt has been made to comply with applicable notice requirements. In all cases, however, the requirements for the timing of the notice and for specifying the date, time and place of a hearing and the location of the subject property shall be strictly construed. If questions arise regarding the adequacy of notice, Review and Decision-Making Bodies shall make formal findings regarding whether there was substantial compliance with the notice requirements of this Ordinance.

Effective on: 11/20/2001, as amended

§3.1.7 Action by Decision-Making Bodies

Unless otherwise expressly stated, Decision-Making Bodies shall be authorized to approve, approve with conditions or deny applications and permit requests based on compliance with the applicable review and approval criteria. Decision-Making Bodies shall also be authorized to refer an application back to a review body or to defer action while additional information is being obtained.

Effective on: 11/20/2001, as amended

§3.1.8 Inaction by Review and Decision-Making Bodies

When a Review or Decision-Making Body fails to take action on an application within the time required, such inaction shall be interpreted as a recommendation of approval of the application, respectively. Time frames for action may be extended if the applicant consents to the extension. When a Review Body fails to take action on an application within the time required, the Decision-Making Body shall be free to proceed with its own action on the matter without further awaiting the recommendation of the Review Body.

Effective on: 11/20/2001, as amended

§3.1.9 Conditions of Approval

Unless otherwise expressly stated, Decision-Making Bodies shall be authorized to impose conditions of approval as allowed by law. Conditions may be those deemed necessary to reduce or minimize any potential adverse impact upon other property in the area or to carry out the general purpose and intent of this Ordinance. All conditions must relate to a situation created or aggravated by the proposed use and be roughly proportional to the impact of the approved use or activity.

Effective on: 11/20/2001, as amended

§3.1.10 Approval Criteria: Burden of Persuasion

In all cases, the applicant shall have the burden of establishing that an application complies with applicable approval criteria.

Effective on: 11/20/2001, as amended

§3.1.11 Public Hearings

A public hearing for which proper notice was given may be continued to a later date without again complying with the notice requirements of this Ordinance, provided that the continuance is set for a certain date and time and the date and time is announced at the public hearing.

Effective on: 11/20/2001, as amended

§3.1.12 Successive Applications

A. **Time Limit**

If a final Decision-Making Body denies an application for a Zoning Map Amendment, Planned Development or Special Exception use, an application for the same or more intensive zoning, development or use on the subject parcel, whether the parcel is in its original configuration, expanded or reduced in area, shall not be accepted for 12 months from the date that the Decision-Making Body acted to deny the application.

B. **Waivers**

The time limit of Section 3.1.12A notwithstanding, Decision-Making Bodies may, after receipt of written petition by the property owner, waive the waiting period requirement by a 2/3 vote of members present and voting. If the time limit is waived, the Decision-Making Body shall give written notice to the Planning Director, directing staff to process the application. All resubmissions shall be processed as new applications, with prescribed fees. All documents and fees required for the respective type of application shall be included with the new application. Denial of the application shall be final and the 12-month waiting period shall be met before further consideration of a similar application on the subject property.

C. **Applications Withdrawn Before Public Hearing Notice**

Withdrawal of an application by the applicant before advertisement of any public hearing and before any required signs have been posted on the subject property shall be considered a termination of the application. Although no fees shall be refunded, reapplication in such cases shall not be subject to the 12-month waiting period.

D. **Applications Withdrawn After Public Hearing Notice**

Withdrawals of applications that occur after advertisement of any public hearing or after any required signs have been posted on the subject property shall be treated the same as a denied application. Application processing shall terminate upon receipt of written notice from the applicant or owner. Reapplication shall be subject to a 12-month waiting period unless a waiver is granted in accordance with Section 3.1.12B of this Chapter.

E. **Requests for Postponements of Applications, Reconsiderations of Applications, and Reconsiderations of Conditions of Approval to the Board of Zoning Appeals**

Requests for postponements of applications from Board of Zoning Appeals Public Hearings must be made in writing by the applicant. Such requests received after advertisement of any public hearing or after any postings on the subject property shall be subject to all applicable fees as listed in the fee schedule approved by County Council. An application is deemed withdrawn if it is postponed for more than one (1) year from the date it was scheduled to be heard. If an application is deemed withdrawn, the applicant must submit a new application in compliance with Section 3.1.4, Application Completeness and Submission Deadlines, of this Ordinance, and all applicable fees must be paid. For requests for reconsiderations of applications or reconsiderations of conditions of approval to the Board of Zoning Appeals the applicant must file a reconsideration request. If the BZA decides to reconsider an application or conditions of approval, the applicant shall file the applicable Appeal, Special Exception, or Zoning Variance application fee prior to being scheduled for a BZA Public Hearing.

F. **Requests for Postponements of Applications to the Planning Commission**

Requests for postponements of all applications from Planning Commission meetings, with the exception of subdivision applications, must be made in writing and the letter must be signed by both the property owner(s) and the applicant(s). Postponement requests received within ten (10) calendar days of the Planning Commission meeting for which the application is scheduled shall be considered withdrawn. An application that is postponed for more than one (1) year from the date it was scheduled to be heard is deemed withdrawn. If an application is deemed withdrawn, the applicant must submit a new application in compliance with Section 3.1.4, Application Completeness and Submission Deadlines, of this Ordinance, and all applicable fees must be paid. The Planning Commission may waive the required fees when the request for postponement is made due to extenuating circumstances as determined in the sole discretion of the Planning Commission.

Effective on: 11/20/2001, as amended

§3.1.13 Vested Rights

The provisions of the Charleston County Vested Rights Ordinance, Ordinance Number 1393, shall apply.

Effective on: 11/20/2001, as amended

ARTICLE 3.6 SPECIAL EXCEPTIONS

§3.6.1 Application Filing

A. Applications for Special Exceptions shall be submitted to the Planning Director on forms available in the Planning Department.

B. Upon submission of a Special Exception application, no additional Special Exception applications shall be accepted for the subject property until the original application has been withdrawn or the Decision-Making Body has rendered its final decision and all applicable time limits on refiling have expired.

C. Special Exception applications shall comply with Section 3.1.4, Application Completeness and Submission Deadlines, of this Ordinance.

D. No application for a Special Exception shall be accepted as complete unless it includes the required fee and the following information:

1. Completed Special Exception application signed by the current property owner(s).
2. Applicant's letter of intent explaining the proposed use and how it meets the Approval Criteria of Section 3.6.5.
3. Site plan drawn to an engineer's scale showing the property dimensions, dimensions and locations of existing and proposed structures and improvements, parking areas, Grand trees, wetlands (properties containing DHEC-OCRM Critical Line areas must contain an up to date DHEC-OCRM signature on the site plan or plat), holding basins and buffers when applicable. However, if the property was developed before April 21, 1999, no site improvements have been made since

April 21, 1999, and the proposed use does not require site improvements, as determined by the Planning Director, the applicant may submit an aerial photograph printed to engineer's scale showing the property lines, locations of existing structures and improvements, parking areas, etc. as the site plan. One 24 x 36 copy and twenty (20) reduced 11 x 17 copies shall be submitted.

4. A copy of a legible approved and recorded plat.
5. Restrictive covenants affidavit(s) signed by the applicant or current property owner(s) in compliance with State law.
6. Any other information that the Planning Director determines is necessary to make an informed decision as to whether the application complies with the standards required by Article 3.6.

E. All proposed Special Exception uses, except placement of Manufactured Housing, shall satisfy the Site Plan Review process. Applicants shall attend at least one (1) Site Plan Review meeting prior to submitting the application for Special Exception.

Effective on: 11/20/2001, as amended

§3.6.2 Public Hearing Notice

Newspaper, Neighbor, Parties in Interest and Posted notice of the Board of Zoning Appeals' public hearing shall be provided in accordance with the requirements of Section 3.1.6 of this Chapter.

Effective on: 11/20/2001, as amended

§3.6.3 Planning Director Review and Report

The Planning Director shall review each proposed Special Exception in light of the Approval Criteria of Section 3.6.5 of this Chapter, and if deemed necessary, distribute the application to other agencies and reviewers. Based on the results of those reviews, the Planning Director shall provide a report on the proposed Special Exception to the Board of Zoning Appeals.

Effective on: 11/20/2001, as amended

§3.6.4 Board of Zoning Appeals Hearing and Decision

A. The Board of Zoning Appeals shall hold at least one (1) public hearing on the proposed Special Exception. Within a reasonable time after the close of the public hearing, the Board of Zoning Appeals shall approve, approve with conditions or deny the proposed Special Exception based on the Approval Criteria of Section 3.6.5.

B. A majority of the Board of Zoning Appeals constitutes a quorum.

C. A majority of the members present and voting are required to approve a Special Exception.

Effective on: 11/20/2001, as amended

§3.6.5 Approval Criteria

A. Special Exceptions may be approved only if the Board of Zoning Appeals finds that the proposed use:

1. Is consistent with the recommendations contained in the Charleston County *Comprehensive Plan* and the character of the underlying zoning district "Purpose and Intent";
2. Is compatible with existing uses in the vicinity and will not adversely affect the general welfare or character of the immediate community;
3. Adequate provision is made for such items as: setbacks, buffering (including fences and/or landscaping) to protect adjacent properties from the possible adverse influence of the proposed use, such as noise, vibration, dust, glare, odor, traffic congestion and similar factors;
4. Where applicable, will be developed in a way that will preserve and incorporate any important natural features;
5. Complies with all applicable rules, regulations, laws and standards of this Ordinance, including but not limited to any use conditions, zoning district standards, or Site Plan Review requirements of this Ordinance; and
6. Vehicular traffic and pedestrian movement on adjacent roads shall not be hindered or endangered.

B. In granting a Special Exception, the Board of Zoning Appeals may attach to it such conditions regarding the location, character, or other features of the proposed building or structure as the Board may consider advisable to protect established property values in the surrounding area or to promote the public health, safety, or general welfare.

Effective on: 11/20/2001, as amended

§3.6.6 Final Decision and Orders

Final decisions and orders of the Board must be in writing and be filed in the Office of the Planning Director as a public record. Final decisions shall be available for public inspection during regular office hours. All findings of fact and conclusions of law

must be separately stated in final decisions or orders of the Board which must be delivered to parties in interest by certified mail. As a courtesy notice, the orders of the Board may be sent via U.S. mail to persons on the Neighborhood notice list.

Effective on: 11/20/2001, as amended

§3.6.7 Notice of Decision

The written final decision shall be mailed to all parties in interest by certified mail and published once in a newspaper of general circulation in the County.

Effective on: 11/20/2001, as amended

§3.6.8 Appeals

Any person with a substantial interest in a decision of the Board of Zoning Appeals or any officer, board, or bureau of the county may appeal a final decision of the Board of Zoning Appeals to the Circuit Court of Charleston County. Appellants shall file with the Court Clerk a written petition plainly and fully setting forth how such decision is contrary to law. Such appeal shall be filed within 30 calendar days after the decision of the Board of Zoning Appeals is mailed.

Effective on: 11/20/2001, as amended

§3.6.9 Lapse of Approval

An approved Special Exception shall lapse and be of no further effect twelve (12) months after the date that the Special Exception was approved by the Board of Zoning Appeals unless a complete application of a Zoning Permit is submitted in accordance with Article 3.8, or if no Zoning Permit is required, unless construction or development has commenced and is being diligently pursued.

One one-year extension of a Special Exception approval may be allowed if construction or development has commenced and is being diligently pursued. Applications for extensions of Special Exception approvals shall be submitted to the Planning Director on forms available in the Planning Department at least fifteen (15) days prior to the expiration of the Special Exception approval.

Effective on: 11/20/2001, as amended

ARTICLE 3.7 SITE PLAN REVIEW

§3.7.1 Applicability

Except as expressly exempted in Section 3.7.4, the Site Plan Review procedures shall apply to any of the following: (A) new development, redevelopment and property improvements that increase by more than 25 percent the area devoted to vehicular use, or the gross floor area of buildings; (b) any change in use to a more intensive use, as determined by the Planning Director; and (c) any earth disturbing activity greater than or equal to 5,000 square feet. The entire site shall be brought into compliance with all applicable Ordinance standards at the time of Site Plan Review.

Effective on: 11/20/2001, as amended

§3.7.2 Definitions

For the purposes of this Section, a change in use to a more intensive use shall include any occupancy of a building that has not been occupied by a business for more than two (2) years as determined by County records or other reasonable investigation.

Effective on: 11/20/2001, as amended

§3.7.3 Limited Site Plan Review

The Limited Site Plan Review Procedure applies to all property improvements that are not listed in Section 3.7.1 above, as determined by the Planning Director. The Limited Site Plan Review Procedure is intended to ensure that these property improvements are in compliance with all applicable sections of this Ordinance. The Limited Site Plan Review Procedure does not require formal Site Plan Review application.

Effective on: 11/20/2001, as amended

§3.7.4 Exemptions

Applications for placement of manufactured housing units and proposals for single family residential development on existing approved and recorded plats shall be expressly exempt from the Site Plan Review procedures of this Section.

Effective on: 11/20/2001, as amended

§3.7.5 Applications

Applications for Site Plan Review shall be submitted to the Planning Director on forms available in the Planning Department. Upon submission of an application for Site Plan Review, no additional applications for Site Plan Review shall be accepted for the subject property until the original application has been withdrawn or the Decision-Making Body has rendered its final decision and all applicable time limits on refilling have expired.

Effective on: 11/20/2001, as amended

§3.7.6 Review and Action Site Plan Review Committee

The Site Plan Review Committee shall review each Site Plan application in light of the applicable Approval Criteria of Section 3.7.7. The Site Plan Review Committee consists of representatives from the Planning Department, Department of Public Works, South Carolina Department of Health and Environmental Control (DHEC), Department of Transportation, Corps of Engineers, and Office of Coastal Resource Management and other departmental representatives as deemed necessary by the Planning Director, each of whom addresses the issues relevant to their respective department's responsibilities. The Site Plan Review Committee provides a recommendation to the Zoning and Planning Director to approve or deny the Site Plan application.

Effective on: 11/20/2001, as amended

§3.7.7 Approval Criteria

A Site Plan application may not be approved unless the Planning Director finds that the proposed project complies with all applicable provisions of this Ordinance.

Effective on: 11/20/2001, as amended

§3.7.8 Appeals

Appeals shall be processed in accordance with the procedures of Article 3.13 of this Chapter. Applications for Appeals of approved site plans shall clearly state the error in any order, requirement, decision or determination that was made by the administrative official when approving the site plan.

Effective on: 11/20/2001, as amended

§3.7.9 Amendments

The procedure for amending a Site Plan shall be the same as required for the original approval.

Effective on: 11/20/2001, as amended

ARTICLE 3.8 ZONING PERMITS

§3.8.1 Applicability

Except as expressly exempted in Section 3.8.2 of this Chapter, a Zoning Permit shall be required before any of the following activities:

A. The issuance of a building permit under the Charleston County Building Code;

B. Excavation preparatory to constructing a structure for which a building permit is required;

C. Improving any zoning lot by grading, filling, or surfacing, or by constructing a driveway in conjunction with the construction of a single family residence, or by constructing or enlarging parking areas containing more than six parking spaces;

D. Change in the use classification of any part of a structure or lot, including any increase in the number of families or dwelling units occupying a building or lot;

E. Installation of any sign (on-premises or off-premises);

F. Moving of any house or mobile home;

G. Prior to obtaining a business license;

H. Any earth disturbing activity; or

I. Clearing and grubbing, including and grading, drainage, or the construction of roads or utilities in a subdivision.

J. Prior to issuance of a Zoning Permit, a pre-construction planning conference for tree preservation, as specified in Article 9.4, shall be held with the Planning Director's representative, the applicants, and any parties deemed appropriate for the purpose

of determining if there is a need for additional tree protection techniques and for designating placement of tree barricades, construction employee parking, temporary construction offices, and dumpsters.

K. Agricultural uses shall be subject to the applicable provisions of Article 9.4, Tree Protection and Preservation.

Effective on: 11/20/2001, as amended

§3.8.2 Exemptions

A. **Agriculture**

A Zoning Permit shall not be required with respect to any parcel of land being used for a bona fide, principal agricultural use as of April 21, 1999, including: farming, dairying, pasturage, agriculture, horticulture, floriculture, venticulture, animal and poultry husbandry, forestry, and other uses or enterprises customarily carried on in the field of general agriculture, including the necessary accessory uses for packing, treating, or storing of produce, in any zoning district. The operation of any accessory use shall be secondary to that of the normal agricultural activity.

B. **Utility Lines**

A Zoning Permit shall not be required for a service connection with established electric distribution or transmission lines, water lines, sewer, gas or other pipelines, provided that such facilities shall comply with all other applicable standards of this Ordinance. Installation of new main or distribution trunk lines for water, sewer or gas shall not be exempt.

C. **Fences**

A Zoning Permit shall not be required for the installation of any fence that is less than six (6) feet in height and exempt from Charleston County Building Code requirements, as amended, except those made of brick, stone, or concrete. Fence installation must also comply with the vision clearance requirements of Section 4.2.3 of this Ordinance.

D. **Accessory Structures**

A Zoning Permit shall not be required for the placement of one, one-story detached accessory structure used as a tool or storage shed, playhouse, or similar accessory structure, provided the building footprint does not exceed 120 square feet. In the event that one detached accessory structure already exists on the subject property, a Zoning Permit is required for any additional detached accessory structure. Detached accessory structures must also comply with all applicable standards of the Zoning and Land Development Regulations Ordinance.

Effective on: 11/20/2001, as amended

§3.8.3 Application Filing

Applications for Zoning Permits shall be filed with the Planning Director on forms available in the Planning Department. Zoning Permit applications shall include the following information:

A. For all new construction or changes in building footprint, applications shall include a site plan drawn to engineer's scale that shows proper dimensions, dimensions and locations of all existing and all proposed: structures and accessories; setbacks; driveways; access(es) to public rights-of-way; private rights-of-way and/or ingress/egress easements; public easements that exist on the property; and wetlands/OCRM Critical Line, if applicable;

B. Applications shall include an approved, recorded plat indicating new County Parcel ID Number or if an approved, recorded plat is not available, the application shall include a Charleston County Parcel Boundary Map showing the subject parcel, surrounding properties, and County Parcel ID Number;

C. Proposed construction, including accessory uses and structures, if occurring on more than one abutting lot of record, shall not be placed on property lines and must meet all setback requirements;

D. Applications shall include paid receipt(s) from local providers for public water and/or sewer, or a letter from the utility company stating the fee(s) have been paid. If water and/or sewer service is not available, a well and/or septic tank permit final approval from SC DHEC shall be required;

E. Applications shall include an approved tree survey showing Grand trees (24" DBH or greater, except pine trees) in the footprint, or within 20 feet, of any proposed construction as required by this Ordinance unless the applicant provides a signed statement indicating no protected trees will be affected;

F. For all structures requiring a new address (e.g., new building construction, power poles, irrigation systems, or accessory structures with electrical service), written address confirmation must be obtained from the Planning Department. A site plan showing the location of all proposed and all existing: structure(s); access(es) to public rights-of-way; private rights-of-way and/or ingress/egress easements; and public easements that exist on the property, is required for address confirmation; and

G. Commercial, Multifamily, Office, Industrial and other nonresidential uses require Site Plan Review approval prior to an application for a Zoning Permit.

H. The requirements listed below apply to all Zoning Permit applications for new construction of structures, with the exception of additions/renovations to existing structures that are legally permitted and new construction of accessory structures, located on properties which access from an existing or proposed ingress/egress easement or private right-of-way as shown on an approved, recorded plat.

a. Prior to issuance of Zoning Permits for land development activities other than construction of ingress/egress easements or private rights-of-way and installation of required street signs, all ingress/egress easements and private rights-of-way shall be: constructed in the location shown on the approved, recorded plat; constructed to comply with the International Fire Code, as adopted by County Council, from their point of connection to an existing publicly owned and maintained right-of-way to lot(s) proposed for development; and inspected pursuant to Section A.2.7 of this Ordinance.

b. The Director of the Zoning and Planning Department may allow use of a portion of an ingress/egress easement or private right-of-way that was constructed prior to July 18, 2017 that cannot comply with the width clearance requirements of the International Fire Code when: (1) the Director determines that moving the ingress/egress easement or private right-of-way to a different location is not possible due to site constraints, property size, Grand Trees, wetlands, etc.; (2) the applicant submits letters from the providers of emergency services for the subject properties stating they can access all properties utilizing the ingress/egress easement or private right-of-way; and (3) all future portions of the ingress/egress easement or private right-of-way comply with the International Fire Code.

c. The landowner/developer shall submit construction plans to the Public Works Department demonstrating compliance with the requirements of this Ordinance.

d. If any portion of an ingress/egress easement or private right-of-way was constructed prior to submittal of Zoning Permit applications for development of any parcel(s) that use the ingress/egress easement or private right-of-way for access, the landowner/developer shall submit documentation to the Public Works Department to verify that the previously constructed ingress/egress easement or private right-of-way exists in the location shown on the approved, recorded plat and shall coordinate with the Public Works Department to have the ingress/egress easement, private right-of-way, and any required street signs inspected prior to submittal of applications for Zoning Permits. If any portion of an ingress/egress easement or private right-of-way was not constructed in the location shown on the approved, recorded plat, a new plat showing the existing location of the ingress/egress easement or private right-of-way must be submitted to the Zoning and Planning Department for approval and recording pursuant to Chapter 8, Subdivision Regulations, of this Ordinance, and the inspection process described above shall apply. Alternatively, the ingress/egress easement or private right-of-way may be constructed in the location shown on the approved, recorded plat that exists at the time of development plan submittal. Any portion(s) of the ingress/egress easement or private right-of-way that has not been constructed as required by this Ordinance must comply with the applicable sections of this Ordinance.

e. Upon approval of roadway and/or drainage construction plans by the Public Works Department, the landowner/developer may submit a Zoning Permit application for construction of the ingress/egress easement, private right-of-way, and/or drainage, as well as installation of required street signs, if applicable, to the Zoning and Planning Department. The landowner/developer must submit written documentation of the approval of the roadway construction plans by the Public Works Department as part of the Zoning Permit application submittal.

f. Upon issuance of a Zoning Permit for construction of the ingress/egress easement, private right-of-way, and/or drainage, as well as for installation of required street signs, such work may commence. Upon completion, the landowner/developer must coordinate with the Public Works Department to have the roadway and/or drainage construction inspected pursuant to Section A.2.7 of this Ordinance.

g. No other Zoning Permits shall be issued for the property until the ingress/egress easement, private right-of-way, and/or drainage, and any required street signs, have been inspected and approved by the Public Works Department pursuant to Section A.2.7 of this Ordinance. After the County inspection and approval, the landowner/developer may submit a Zoning Permit application(s) for subsequent land development activities to the Zoning and Planning Department. The landowner/developer must submit written documentation of the approval of the roadway and/or drainage inspection by the Public Works Department as part of the first Zoning Permit application submittal following approval of the roadway construction inspection.

Effective on: 11/20/2001, as amended

§3.8.4 Planning Director Review and Action

A. When an application is made for a Zoning Permit for improvements and uses that comply with all requirements of this Ordinance, the Planning Director shall issue a Zoning Permit and return a signed copy of the application, including plan, to the applicant within ten (10) working days of receipt of the application.

B. When the Planning Director receives a Zoning Permit application for improvements or uses that do not comply with all requirements of this Ordinance, the Planning Director shall deny the Zoning Permit application, and within ten days of receipt of the application, return the application, including plan, to the applicant along with written notice of the denial. The written notice shall state the reasons for the denial and cite the sections of this Ordinance with which the application does not comply.

C. When a Zoning Permit application includes a request for a Variance or an Appeal of an Administrative Decision, the Planning Director shall transmit such application, together with all supporting information, within 30 working days of receipt of the application, to the Board of Zoning Appeals for their review. Upon receipt of a written order from the Board of Zoning Appeals, the Planning Director shall complete the ordered action within ten working days of receipt of the order.

Effective on: 11/20/2001, as amended

§3.8.5 Effect of Permit Issuance

A. After a Zoning Permit is issued for construction requiring a building permit, the Building Inspection Services Director shall issue a building permit when the requirements of the Building Codes have been met.

B. After a Zoning Permit is issued for a use or construction not requiring a building permit, the applicant may proceed to carry out the improvement described in the approved Zoning Permit application.

Effective on: 11/20/2001, as amended

§3.8.6 Lapse of Approval

A. A Zoning Permit issued for construction that requires a building permit shall lapse and be of no further effect if a building permit is not issued within six months of the date of issuance of the Zoning Permit.

B. A Zoning Permit issued for use or construction that does not require a building permit shall lapse and be of no further effect if the authorized development has not commenced within six months, or if after the development has commenced, the work is suspended or abandoned for a period of more than one year.

C. Zoning Permit extensions, for periods of up to 90 days, shall be approved by the Planning Director. No more than six 90-day extensions will be allowed. An application for a Zoning Permit extension shall be submitted to the Planning Director prior to the expiration of the Zoning Permit.

Effective on: 11/20/2001, as amended

§3.8.7 Administrative Permits

A. **Temporary Zoning Permits**

1.The Planning Director may issue a Temporary Zoning Permit not to exceed a one-year period, provided such uses are in compliance with and are authorized by this Ordinance. Permits for permanent installation shall be obtained simultaneously with the Temporary Zoning Permit.

2.Temporary Zoning Permits may be issued for temporary installation of the following if located on the same zoning lot as the permanent installation:

a. Manufactured housing unit installation to be used as a residence while the permanent residential structure is being built;

b. Temporary office for construction office or security guard quarters;

c. Temporary structure for commercial use while construction of the permanent structure is in progress; and

d. Temporary power permits for construction of permitted uses.

3.A Temporary Zoning Permit may be issued by the Planning Director to move a single family detached home, modular home, or manufactured home to a lot of record, subject to the following:

a. The lot on which the home is placed must be zoned for residential use;

b. The lot on which the home is placed must comply with all requirements for the applicable zoning district;

c. An application for a Temporary Zoning Permit shall be completed by the owner of the property on a form established by the Planning Director prior to movement of the home;

d. The home will not be occupied until a certificate of occupancy is issued after a complete Zoning and Building permit application has been approved and all requirements of this Ordinance have been complied with; and

e. The Temporary Zoning Permit is valid for a period not to exceed thirty (30) days from the date the permit is issued.

The Temporary Zoning Permit may be renewed by the Planning Director if the applicant provides documentation indicating they have submitted a complete application for a Zoning Permit and Building Permit.

The home must be removed within fifteen (15) days after the Temporary Zoning Permit expires. Failure to comply is a violation of this Ordinance and is subject to the provisions of Article 11, Violations, Penalties and Enforcement.

All regulatory agencies may inspect at any time for safety and non-movement of the temporary placement and require further installation safeguards in compliance with these regulations.

B. **Renewal of Temporary Zoning Permits**

1. Renewal of Temporary Zoning Permits may be granted for one additional year when construction is being diligently pursued, and it is evident that progress is being made in construction. Extensions beyond the renewal shall be processed as a Special Exception.
2. The temporary use of a manufactured housing unit as an accessory dwelling unit as per Chapter 6 of this Ordinance may be renewed annually subject to the criteria listed in Section 6.6.1, Accessory Uses and Structures Allowed, of Article 6.6 Temporary Uses.
3. Administrative review and renewal of a Special Exception for an accessory dwelling unit shall occur every five years and will be contingent upon confirmation by the Planning Director that the structure complies with the accessory dwelling provisions of this Ordinance.

C. **Minor Repair Permits**

If an application for a Zoning Permit is to effect only minor repairs, the Planning Director shall be authorized to waive the requirement for an approved plat, site plan and/or septic tank approval. The work to be performed shall be clearly defined in the Zoning Permit.

D. **Emergency Permits**

1. **Individual**

When a use, structure or building has been damaged or destroyed by fire, flood, wind or other act of God, and strict compliance with Zoning Permit requirements will impair the health and safety of the affected individuals or the security of the premises, the Planning Director may declare an emergency condition and grant a temporary Administrative Permit in accordance with the following requirements:

a. If the use, structure or building complies with all applicable requirements of this Ordinance, a nonrenewable, temporary Administrative Permit shall be issued for a period not to exceed one year.

b. If the use, structure or building is a legal nonconformity, and less than 50 percent of the appraised value has been damaged or destroyed, a nonrenewable, temporary Administrative Permit shall be issued for a period not to exceed one year.

c. If the use, structure or building is a legal nonconformity, and 50 percent or more of the appraised value has been damaged or destroyed, only emergency housing or the use of manufactured housing units for the conduct of emergency business operations while relocation efforts are in progress shall be allowed. The nonrenewable, temporary Administrative Permit shall be issued for a period not to exceed six (6) months.

2. **Community**

Where a major disaster affects the health, safety or welfare of the general public and compliance with Zoning Permit requirements will delay remedial action, the Planning Director shall be authorized, upon approval of the County Administrator, to waive Zoning Permit requirements for a specified period of time.

Effective on: 11/20/2001, as amended

ARTICLE 3.9 CERTIFICATES OF OCCUPANCY

§3.9.1 Applicability

No structure or zoning lot or part thereof for which a Zoning Permit has been issued shall be used or occupied until the Building Inspection Services Director has, after final inspection, issued a Certificate of Occupancy indicating that the use or structure complies with all applicable requirements of the Zoning Permit and this Ordinance. This Certificate of Occupancy may be combined with or made a part of the Certificate of Occupancy required under the Building Code. The issuance of a Certificate of Occupancy shall not be construed as waiving any provision of this Ordinance or the applicable Zoning Permit.

Effective on: 11/20/2001, as amended

§3.9.2 Utility Connections

A. Electric or gas utility companies or cooperatives shall not provide their respective utility until receipt of an approved Certificate of Occupancy.

B. Temporary electrical power permits shall require authorization from the Planning Director prior to such services being provided by the utility companies.

Effective on: 11/20/2001, as amended

ARTICLE 3.10 ZONING VARIANCES

§3.10.1 Applicability; Limitations

The Board of Zoning Appeals shall be authorized to approve Zoning Variances to any zoning-related dimensional, design or performance standard set forth in this Ordinance, provided that the Approval Criteria of Section 3.10.6 are met and provided that such Zoning Variance does not have the effect of:

A. Permitting a use, activity, business or operation that is not otherwise allowed by the Use Regulations of the underlying zoning district;

B. Allowing the physical extension of a Nonconforming Use, except as expressly allowed in Chapter 10;

C. Increasing the density of a residential use above that permitted by the underlying district;

D. Varying the sign regulations of this Ordinance;

E. Varying or waiving the Subdivision Regulations contained in Chapter 8; or

F. Varying or waiving any other standard of this Ordinance that is expressly stated as being ineligible for a Zoning Variance.

Effective on: 11/20/2001, as amended

§3.10.2 Application Filing

A. Applications for Zoning Variances shall be submitted to the Planning Director on forms available in the Planning Department.

B. Zoning Variance applications shall comply with Section 3.1.4, Application Completeness and Submission Deadlines, of this Ordinance.

C. No Application for a Zoning Variance shall be accepted as complete unless it includes the required fee and the following information:

1. Completed Zoning Variance Application signed by the current property owner(s).
2. Applicant's letter of intent explaining the requested Zoning Variance and how it meets the Approval Criteria of Section 3.10.6.
3. Site plan drawn to engineers scale showing the property dimensions, dimensions and locations of existing and proposed structures and improvements, parking areas, Grand trees, wetlands (properties containing DHEC-OCRM Critical Line areas must contain an up to date DHEC-OCRM signature on the site plan or plat), holding basins and buffers when applicable. One 24 x 36 copy and twenty (20) reduced 11 x 17 copies shall be submitted.
4. A copy of a legible approved and recorded plat.
5. Restrictive covenants affidavit(s) signed by the applicant or current property owner(s) in compliance with state law.
6. Any other information that the Planning Director determines is necessary to make an informed decision as to whether the application complies with the standards required by Article 3.10.

D. All proposed Zoning Variances, except single family residential development, shall satisfy the Site Plan Review process. Applicants shall attend at least one (1) Site Plan Review meeting prior to submitting an application for a Zoning Variance.

E. Separate applications and fees shall be filed for more than one Variance request to each requirement of this Ordinance. If an applicant requests a Variance for removal of more than one Protected/Grand tree, each additional Protected/Grand Tree shall require an additional fee.

Effective on: 11/20/2001, as amended

§3.10.3 Public Hearing Notice

Newspaper, Neighbor, Parties in Interest and Posted notice of the Board of Zoning Appeals' public hearing shall be provided in accordance with the requirements of Section 3.1.6 of this Chapter.

Effective on: 11/20/2001, as amended

§3.10.4 Planning Director Review and Report

The Planning Director shall review each proposed Zoning Variance in light of the Approval Criteria of Section 3.10.6, and if deemed necessary, distribute the application to other agencies and reviewers. The Planning Director shall provide a report on the proposed Zoning Variance to the Board of Zoning Appeals.

Effective on: 11/20/2001, as amended

§3.10.5 Board of Zoning Appeals Hearing and Decision

A. The Board of Zoning Appeals shall hold at least one (1) public hearing on the proposed Zoning Variance. Within a reasonable time after the close of the public hearing, the Board of Zoning Appeals shall approve, approve with conditions or deny the proposed Zoning Variance based on the Approval Criteria of Section 3.10.6.

B. A majority of the Board of Zoning Appeals constitutes a quorum.

C. At least 2/3 of the members present and voting are required to approve a Zoning Variance.

Effective on: 11/20/2001, as amended

§3.10.6 Approval Criteria

A. The Board of Zoning Appeals has the authority to hear and decide appeals for a Zoning Variance when strict application of the provisions of this Ordinance would result in unnecessary hardship.

B. A Zoning Variance may be granted in an individual case of unnecessary hardship if the Board of Zoning Appeals makes and explains in writing the following findings:

1. There are extraordinary and exceptional conditions pertaining to the particular piece of property;
2. These conditions do not generally apply to other property in the vicinity;
3. Because of these conditions, the application of this Ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property;
4. The authorization of a variance will not be of substantial detriment to adjacent property or to the public good, and the character of the zoning district will not be harmed by the granting of the variance;
5. The Board of Zoning Appeals shall not grant a variance the effect of which would be to allow the establishment of a use not otherwise permitted in a zoning district, to extend physically a Nonconforming Use of land, or to change the zoning district boundaries shown on the Official Zoning Map. The fact that property may be utilized more profitably if a Zoning Variance is granted shall not be considered grounds for granting a Zoning Variance.
6. The need for the variance is not the result of the applicant's own actions; and
7. Granting of the variance does not substantially conflict with the *Comprehensive Plan* or the purposes of this Ordinance.

C. In granting a variance, the Board of Zoning Appeals may attach to it such conditions regarding the location, character, or other features of the proposed building or structure as the Board may consider advisable to protect established property values in the surrounding area or to promote the public health, safety, or general welfare.

Effective on: 11/20/2001, as amended

§3.10.7 Final Decisions and Orders

Final decisions and orders of the Board must be in writing and be filed in the Office of the Planning Director as a public record. Final decisions shall be available for public inspection during regular office hours. All findings of fact and conclusions of law must be separately stated in final decisions or orders of the Board which must be delivered to parties in interest by certified mail. As a courtesy notice, the orders of the Board may be sent via U.S. mail to Neighborhood notice list.

Effective on: 11/20/2001, as amended

§3.10.8 Notice Of Decision

The written final decision shall be mailed to all parties in interest by certified mail and published once in a newspaper of general circulation in the County.

Effective on: 11/20/2001, as amended

§3.10.9 Appeals

Any Person with a substantial interest in a decision of the Board of Zoning Appeals or any officer, board, or bureau of the county may appeal a final decision of the Board of Zoning Appeals to the Circuit Court of Charleston County. Appellants shall file with the Court Clerk a written petition plainly and fully setting forth how such decision is contrary to law. Such appeal shall be filed within 30 calendar days after the decision of the Board of Zoning Appeals is mailed.

Effective on: 11/20/2001, as amended

§3.10.10 Lapse of Approval

An approved Zoning Variance shall lapse and be of no further effect twelve (12) months after the date that the Zoning Variance was approved by the Board of Zoning Appeals unless a complete application of a Zoning Permit is submitted in accordance with Article 3.8 of this Chapter, or if no Zoning Permit is required, unless construction or development has commenced and is being diligently pursued.

One one-year extension of a Zoning Variance approval may be allowed if construction or development has commenced and is being diligently pursued. Applications for extensions of Zoning Variance approvals shall be submitted to the Planning Director on forms available in the Planning Department at least fifteen (15) days prior to the expiration of the Zoning Variance approval.

Effective on: 11/20/2001, as amended

ARTICLE 3.13 APPEALS OF ZONING-RELATED ADMINISTRATIVE DECISIONS

§3.13.1 Authority

The Board of Zoning Appeals shall be authorized to hear and decide appeals only on zoning-related matters where it is alleged there is an error in any order, requirement, decision or determination made by an administrative official in the administration or enforcement of any of the zoning-related regulations of this Ordinance. The Board of Zoning Appeals shall have no authority to hear or decide appeals from administrative decisions made pursuant to the Subdivision Regulations of Chapter 8.

Effective on: 11/20/2001, as amended

§3.13.2 Right to Appeal

Appeals of Administrative Decisions on zoning-related matters may be filed by any officer, board, or bureau of the county, or by any person with a substantial interest in a decision of an administrative official.

Effective on: 11/20/2001, as amended

§3.13.3 Application Filing; Timing

Applications for Appeals of Administrative Decisions on zoning-related matters shall be submitted to the Planning Director on forms available in the Planning Department. Appeals of Administrative Decisions to grant or deny a Zoning Permit shall be filed within 30 calendar days from the date of the Administrative Decision.

Effective on: 11/20/2001, as amended

§3.13.4 Effect of Filing

Any permits, decisions or determinations which are the subject of an appeal shall be temporarily suspended upon filing a complete application for an appeal, unless the official responsible for issuing the permit or making the decision or determination which is being appealed certifies to the Board of Zoning Appeals, after the appeal is filed, that because of facts stated in the certification, a stay would cause immediate peril to life or property. In such case, action upon any such permits, decisions or determinations shall not be stayed other than by a restraining order, which may be granted by the Board of Zoning Appeals or by a court of record upon proper notice and hearing. However, in the absence of a certification that a stay would cause immediate peril to life or property, any work purported to be undertaken pursuant to an appealed permit, decision or determination after actual notice of the appeal has been received shall be subject to Chapter 11, Violations, Penalties, and Enforcement, of this Ordinance.

Effective on: 11/20/2001, as amended

§3.13.5 Record of Administrative Decision

The official whose decision is being appealed shall transmit to the Board of Zoning Appeals all papers constituting the record upon which the action appealed is taken.

Effective on: 11/20/2001, as amended

§3.13.6 Public Hearing Notice

Newspaper, Neighbor, Parties in Interest and Posted Notice of the Board of Zoning Appeals' public hearing shall be provided in accordance with the requirements of Section 3.1.6 of this Chapter.

Effective on: 11/20/2001, as amended

§3.13.7 Board of Zoning Appeals Review and Action

A. The Board of Zoning Appeals shall hold at least one public hearing on the appeal, and within a reasonable time following the close of the public hearing, take final action based on the procedures and requirements of this Section.

B. In exercising the appeal power, the Board of Zoning Appeals shall have all the powers of the official from whom the appeal is taken, and the Board of Zoning Appeals may reverse or affirm, wholly or in part, or may modify the decision being appealed.

C. If the Board of Zoning Appeals determines that it is necessary to obtain additional evidence in order to resolve the matter, it shall remand the appeal to the official from whom the appeal is taken, with directions to obtain such evidence and to reconsider the decision in light of such evidence, and to that end shall have all the powers of the officer from whom the

appeal is taken and may issue or direct issuance of a permit. The Board of Zoning Appeals in execution of the duties specified in this Chapter may subpoena witnesses and in case of contempt may certify this fact to the circuit court having jurisdiction.

D. A quorum of the Board of Zoning Appeals shall be achieved when the number of members in attendance equals more than ½ of the total membership of the Board of Zoning Appeals. At least 2/3 of the members present and voting shall be required to reverse any order, requirement, decision, or determination of any administrative officer or agency.

Effective on: 11/20/2001, as amended

§3.13.8 Approval Criteria; Findings Of Fact

An appeal shall be sustained only if the Board of Zoning Appeals finds that the administrative official erred. The decision of the Board of Zoning Appeals shall be accompanied by specific, written findings of fact and conclusions of law clearly stating the reason for the decision. Those written findings shall be delivered to parties in interest by certified mail, published once in a newspaper of general circulation in the county, and permanently filed in the Planning Department.

Effective on: 11/20/2001, as amended

§3.13.9 Appeals

Any person with a substantial interest in a decision of the Board of Zoning Appeals or any officer, board, or bureau of the county may appeal a final decision of the Board of Zoning Appeals to the Circuit Court of Charleston County. Appellants shall file with the Court Clerk a written petition plainly and fully setting forth how such decision is contrary to law. Such appeal shall be filed within 30 calendar days after the decision of the Board of Zoning Appeals is mailed.

Effective on: 11/20/2001, as amended

ARTICLE 6.5 ACCESSORY USES AND STRUCTURES

§6.5.1 Accessory Uses and Structures Allowed

Permitted uses and approved Special Exception uses shall be deemed to include accessory uses and structures that are necessarily and customarily associated with, and appropriate, incidental, and subordinate to the allowed principal use.

A. Accessory Uses

An accessory use is a use customarily incidental and subordinate to the principal use of a zoning lot or of a structure. Accessory uses shall be subject to the same regulations as apply to principal uses in each zoning district, unless otherwise expressly stated.

B. Accessory Structures and Buildings

An accessory structure is a structure that is detached from a principal structure and customarily incidental and subordinate to the principal structure. Accessory structures include, but are not limited to, swimming pools, fences, and detached accessory buildings (dwellings, barns, garages, sheds, gazebos). If any accessory building is attached to a principal building with a roof supported by columns or walls, it shall be deemed part of the principal building provided the attachment is a minimum of 4 feet in width with a minimum length to width ratio of 4:1. In such cases, the structure shall comply with the setback requirements of the applicable zoning district.

Effective on: 11/20/2001, as amended

§6.5.2 Time Establishment

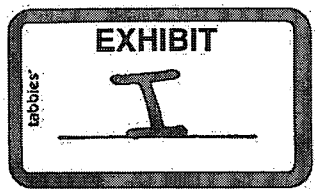
Unless otherwise expressly permitted in this Ordinance, no accessory use shall be established and no accessory structures shall be allowed on the subject parcel until after all required permits and approvals for the principal use or activity have been obtained and there are no current zoning and/or building code violations on the property.

Effective on: 11/20/2001, as amended

§6.5.3 Residential Accessory Uses

The following uses and structures shall be allowed as accessory uses and structures to allowed Residential uses:

A. Fences and walls;
B. Garages, carports and off-street parking areas;
C. Gate houses and guard houses;
D. Home occupations, subject to Section 6.5.11;
E. Playhouses, patios, cabanas, porches, gazebos and incidental household storage buildings
F. Radio and television receiving antennas or dishes;
G. Recreational and play facilities for the use of residents;
H. Solar collectors, subject to Section 6.5.18;
I. Tennis courts, swimming pools, hot tubs, and related mechanical equipment;
J. Accessory Dwelling Units, subject to Section 6.5.9;
K. Barns and farming-related structures even if the subject parcel does not contain a primary structures or use, provided that no agricultural or farm-related structure on a parcel of one acre or less in an R-4, M-8, or M-12 district shall exceed 250 square feet in area;
L. The selling of sweetgrass baskets is allowed as an accessory use in all Agricultural Zoning Districts and in RR-3, S-3, and R-4 Zoning Districts; and
M. Other necessary and customary uses determined by the Planning director to be appropriate, incidental and subordinate to the principal use of the property, subject to compliance with any standards contained within this Ordinance.



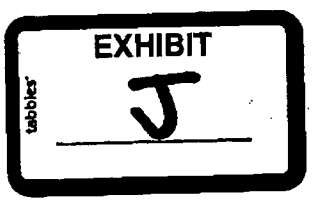
South Carolina Department of Education
School Bus Centralized Parking Policy

Reference Act 0079 of 2007, Session 177, Section 59-67-300

State-owned school buses must be parked overnight and during the school day in a location that is central to the area in which the school buses are operated. The Department of Education shall grant a waiver to the requirements of this section if a waiver is requested by the district superintendent in compliance with Department of Education policies.

Policy

One Hundred Percent of state-owned buses must comply with centralized overnight and midday parking unless a waiver is requested in writing by the District and approved by the SDE.



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SDE Centralized Parking Policy

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  - **Only Good For One School Year**
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  - **Driver Attendance Record**
  - **Excellent History of Pre- and Post-Trip Inspection & Defect Reporting**
  - **Free At-fault Accidents – 5 years**
  - **Park-out Site Approved**

SDE Staff Waiver Review

- **For Individual Bus Route**
  - **Submit to County Supervisor**
  - **Area Supervisor Approval**
- **For Other Waiver Requests**
  - **Submit to County Supervisor**
  - **Area Supervisor Approval**

What Happens if a District Proceeds to Implement a Waiver Request After the SDE has Denied the Waiver Request

- **District Must Assume All Repercussions Because Bus is Operating Without SDE Authority**
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Appendix of Waiver Request Forms

- **Application Cover Sheet – Overnight Park-out Waiver**
  - **Agreement – Overnight Park-out Waiver**

- **Application Cover Sheet – Midday Park-out Waiver**
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  - **Agreement – Midday Another School Waiver**

SDE CENTRALIZED PARKING POLICY

One Hundred Percent of state-owned buses must comply with centralized overnight and midday parking unless a waiver is requested in writing by the District and approved by the SDE.

Why Centralized Parking of School Buses is Necessary

Assures On-Time Student Pick Up

- District supervisory staff can more readily oversee and manage bus drivers and vehicles.
- District supervisors can directly monitor when buses leave and return from their routes. (In addition to student safety improvements, driver work time can be monitored, providing a more accurate payroll record.)
- When a regular driver does not show for work, a substitute driver can be immediately assigned.
- Quicker repair response when buses have mechanical problems; gets buses on the road on schedule.
- Spare buses are parked at central lots providing an immediate replacement should a bus need repair.

Assures Student Safety

- Buses more likely to be on-time, reducing the amount of time students must stand on the side of the road waiting for the bus.
- District personnel can verify the condition of each bus numerous times during the day and night, avoiding the possibility of a bus being missing for hours without their knowledge.
- Should a sleeping student be left on a bus, the bus will end its route in a centralized parking facility; the bus will be parked in an area with other district staff.
- The district can better manage pre- and post-trip inspection processes and records.

Assures Bus Security

- The area can more easily be fenced, locked, and lighted.
- Secure locations offer better protection from possible terrorist threats.
- Many situations resulting in damages to or by buses arise from parking at private homes.
- District liability can decrease because children are not being allowed to play on buses or around them.

Improved District Management of Drivers and Buses

- **Reduces the opportunity for damage to private property on which a bus is parked (e.g., bus fluid leaks, weight of bus cracks driveways and culverts, bus hits objects).**
- **Allows the district to institute better management of cameras and video systems, radios, phones, and other district equipment used on the buses.**
- **Drivers are less likely to use a school bus for unauthorized personal trips/stops.**
- **More flexibility in assigning drivers to routes; route assignments need not be made based on where the drivers live. Districts can reassign drivers to deal with personnel, student behavior, or other issues.**

Saves Money

- **Evaluation of SC District Routing Data verifies that centralized parked buses compared to buses out-parked have less deadhead miles.**
- **Centralized parking virtually eliminates mileage for drivers returning home midday, thus creating a savings of several $100,000s.**
- **Even if deadhead miles were to increase cost, this is well offset by the safety and security gains.**

Better Bus Servicing

- **Reduced late starts and breakdowns on route. The district supervisory personnel will be able to quickly identify maintenance issues and failures before the bus leaves a centralized parking lot.**
- **Reduces the opportunity for bus damage and delayed operation time that occurs with parking in private property (nails in tires, hitting limbs and other objects, and lights and other battery dependent systems being left on).**
- **Buses are better ready for route and permit service because the SDE can service, fuel, and repair buses even when school is not in session (district holidays).**
- **The SDE does not have enough personnel to effectively and efficiently repair school buses when they are parked out at more than 1,700 home locations.**

Known Conflicts With District Services

No Driver Transport Assistance

- **Driver have no transport to and from home.**
- **Drivers have no transport to and from other district work locations.**
- **The SDE will allow managed shuttle service for drivers using a school bus fleet vehicle.**

Lost Time at Second District Job

- **Drivers required to park at centralized lots may be further away from their second district job than before centralized parking was established. This travel time may reduce time participating in their second job.**

Cost of Additional Driver Time

- **In limited situations, additional drive time may be required when starting and/or ending a route at a centralized lot versus the driver's home or second job location.**
- **Midday park-outs at second district job location may resolve this issue.**

Students Service Data Analysis to Support Need

- **The SDE Service Call data indicates districts with centralized parking have an AM bus breakdown rate of 0.76% (these breakdowns would normally cause the bus to be delayed in starting the first morning route). This rate equals 3 buses out of every 400 operating. However, centrally parked buses allow spare buses to be immediately available to the driver and, in many cases, a mechanic can be on duty at the parking facility to make an immediate repair resulting in the elimination of the delay caused by this 0.76% rate.**
- **The SDE Service Call data indicates districts with buses parked at the driver's home have AM bus breakdowns rate of 1.11% (these breakdowns result in the bus being delayed in starting the first morning route). This rate equals 4.4 buses out of every 400 operating. Since these buses are not centrally parked, spare buses are not available to the driver, and a mechanic is many miles away.**
- **This AM breakdown rate of 1.11% and other SDE data indicate that, on an average school day, buses parked at a bus driver's home overnight would result in an average 3,177 students missing some classroom instruction daily. Furthermore, most of these students will be standing on the side of highways for an extra 10 to 30 minutes waiting for the bus to arrive, greatly exposing the children to highway traffic dangers.**
- **When these late students arrive to class, the teacher must alter their lesson plan to catch them up, causing an instructional disruption for all other students in the class.**
- **This data will be updated for the most recent school year and new data added.**

Requirements of Policy

Buses Must be Parked on a Safe Hard Surface Parking Area

- ***State law has long required hard surface school bus parking areas to be provided by the school districts. The State provides school construction funds that may be used for this purpose.***
- ***State Regulation 43-80-L reads: "The school district shall provide for safe loading and unloading of students and a suitable concrete or asphalt-paved area for the parking and servicing of buses during the school hours. The parking and service area shall be located and designed to insure that vehicular traffic, students, or unauthorized personnel are not in or around parked buses during the school day and shall be in compliance with all safety and fire regulations."***
- **Bus maintenance service will only occur when the bus is parked on a hard surface.**

What Defines a Centralized Parking Facility

- **The number of different lots will depend on the geographic size and shape of the area being served, and the number of buses assigned to the district. Many districts need only one parking lot but, for districts covering a large attendance area, may be able to justify several parking locations (multiple lot examples: Greenville, Charleston, Lexington One, Aiken, Chesterfield).**
- **If a district has multiple lots, the lots should not have fewer than 8 buses and have no less than 20% of the buses assigned to the district. County Supervisors may approve a satellite parking facility with less than 8 buses with the approval of the Director of Maintenance; this is usually done for security and school evacuation purposes.**
- **Lots should not be closer than 10 miles to each other unless the number of buses parked at a single location is greater than 25.**
- **The midday parking location may be different than overnight parking location if approved; however, these locations must be consistent day after day.**

Design of a Parking Facility

- **Private vehicles, other district support vehicles, and vehicles owned by the bus drivers must be parked separate from the area used to service the SDE school buses. Some form or barrier must be used to divide these traffic movements.**
- **District-owned vehicles must not be parked commingled with the state-owned school buses, unless these buses are under service contract with the SDE.**
- **The driveways/travelways in a bus parking area may only be used by official school transportation vehicles (buses and bus service equipment). Vehicles not associated with the student transportation program must be excluded from these driveways (fire safety).**
- **The design of the parking area must park buses side-by-side; end-to-end parking is not allowed.**
- **The hard surface area required per parked bus must equal a minimum area of approximately 12 X 40 feet.**
- **Travelways must be durable and generally smooth but do not have to be hard surface; except when the parking area is leased from the SDE, the access roadway from parking area to the road access must be hard surface.**
- **A school bus parked for fueling cannot be located with 50 feet of an occupied building or within 10 feet of a property line.**
- **Motor vehicle traffic patterns in areas of fuel dispensing shall be designed to inhibit movement of vehicles that are not being fueled from passing through the dispensing area.**
- **When a secure area is not provided, barriers shall be provided to prevent vehicular or pedestrian movement within 10 feet of the fueling area. The barrier shall state that fueling is taking place. The barrier may be a portable cone.**
- **Transition plans can be arranged with districts, but in every case buses must be parked on a hard surface when being serviced; the SDE is not responsible for moving buses to a hard surface location.**
- **It is recommended for pedestrian safety that some form of fencing be installed separating the vehicle and bus parking area from students, teachers, and campus visitors.**

Required Security for Districts to Manage Liability of Bus Damage at Parking Locations

- **Security must be equal to or better than that available at the SDE bus shop parking areas.**
  - **The circumferential fencing equivalent is measured in type (strength) and height (shop minimum 6'5"). The fence must have a top security layer (3 strand barbwire or equal).**
  - **Access gate equivalent is measured in type (strength) and height (shop minimum 6').**
  - **Gate lock equivalent is measured in type (strength) and security.**
  - **Lighting equivalent is measured in level of illumination (minimum set by local shop).**
- **Shop security facilities equivalents can be achieved by the use of 24/7 personnel security. The level of manpower required depends on size of the parking facility. Video camera systems may be used as an equivalent option.**
- **School Bus keys must be secured at a location away from the bus.**

When Requesting a Centralized Bus Parking Waiver

- **Districts must attest and explain that a waiver request will:**
  - **Improve student safety;**
  - **Improve service delivery to students (get students to school on time for scheduled instruction);**
  - **Reduce cost of service; and**
  - **Not unduly impair vehicle maintenance service.**

- **Waiver Requirements for an Individual Bus Route**
  - **The Waiver Application Package must include a completed Application Cover Sheet.**
  - **The Waiver Application Cover Sheet and other information must document the change in the bus route and schedule, and compare it to the proposed non-centralized parking location.**
  - **Waivers can only be submitted on an individual bus basis.**
  - **The Waiver Application package must include a completed district (signed) current Route Plan (R-16 & R-17) for the bus and related routes.**
  - **A waiver is only valid for one school year for an assigned driver. (If driver or residence parking location changes, waiver is void.)**
  - **Waiver Application Package must include the Overnight Park-out Agreement, the Midday Park-out Agreement, and/or the Midday Park-out At Another School Agreement.**
  - **Agreement Requirements (Overnight Park-out, Midday Park-out, the Midday Park-out At Another School).**

- **The Application package must include an Agreement which addresses the following concerns.**
  - **The district must confirm that the driver has an excellent attendance record.**
  - **The SDE bus shop staff confirms that the driver has an excellent history of pre-trip inspection and defect reports.**
  - **The SDE verifies that the driver is free of at-fault accidents/incidents in past 5 years.**
  - **The SDE investigates the site where the vehicle will be parked to ensure there is adequate space and that there are no obstructions or other potential hazards in the proximity.**

SDE Staff Review Waiver Requests

For Individual Bus Route

County Supervisor

- **The Review starts with a properly completed Waiver Application (which must show the physical street address for the proposed bus overnight parking location).**
- **The Waiver Application must have attached the school bus route information based on the district completed (signed) current Route Plan (this must include the R-16 & R-17).**
- **The Application package must include the appropriate signed Park-out Agreement.**
- **Once the review is completed, a recommendation to approve the Waiver Request is confirmed by the County Supervisor's signature on the Application.**

Area Supervisor Approval

- **Starts with the recommendation for approval by the County Supervisor.**
- **Completes a review of the process used by the County Supervisor.**
- **Approval of the Waiver Request is confirmed by the Area Supervisor's signature on the Application.**

For Other Waiver Requests

District requests to vary from the requirements of the Policy related to Hard Surface, Safety, and Size are handled as follows.

County Supervisor

- **The Review starts with a written letter, memorandum, or other similar document format request explaining the nature of the compliance issue and the alternative proposed.**
- **A meeting will be held with the district designated official to answer questions.**
- **A recommendation to approve the Waiver Request is confirmed by the County Supervisor's signature on the written request.**

Area Supervisor Approval

- **Starts with the recommendation for approval by the County Supervisor.**
- **Completes a review of the process used by the County Supervisor.**
- **Approval of the Waiver Request is confirmed by the Area Supervisor's signature on the Application.**

What Happens if a District Proceeds to Implement a Waiver Request After the SDE has Denied the Waiver Request.

- **Should the District implement an SDE non-approved park-out or other violation of the Policy, the district must accept the following responsibilities.**
  - **All related safety and school attendance repercussions.**
  - **Reimburse the SDE for all bus mileage above that if centralized parked (mileage will be billed to district at actual cost).**
  - **Reimburse the SDE for all bus maintenance service calls at the unapproved park-out location and along any unapproved route segment prior to the bus arriving at the first student stop (or after last stop in the afternoon). Additionally, these service calls will only be responded to after all buses centrally parked or with waivers have been addressed.**
  - **In this case, midday driver returning home will NOT be granted the state funded 5 miles per one-way trip distance.**
  - **In compliance with other SDE financial policy - should the district fall more than 90 days past due on payment of these costs, the SDE will withhold district funds.**

Appendix of Waiver Forms

OVERNIGHT PARK-OUT WAIVER
APPLICATION COVER SHEET

The School District: _____

Requests For School Year: _____

The Overnight Park-out Waiver At This Street Address Location: _____
_____
_____

For SDE Bus Identification Number: _____

Operated By Bus Driver: _____

Providing Student Transportation Service for the Following Routes:
Route Identification Number(s): _____
_____
_____
_____
_____

By the signature affixed below, the District certifies that the Park-out location:

1. **Improves service to the students compared to the centralized parking location;**
2. **Improves student transportation safety compared to the centralized parking location;**
3. **Does not impair the ability of the SDE to service, maintain, and repair the bus compared to the centralized parking location; and,**
4. **Does not increase the cost of student transportation compared to the centralized parking location.**

(Justification for the above four questions must be provided on the back side of this form.)

The District certifies that the requested waiver will not violate state and Federal laws, regulations, or guidelines.

_____
Authorized Official District Signature

Date: _____

This Cover sheet must be accompanied by: A completed district (signed) current Route Plan (R-16/-17) for the bus and related routes, and a completed and signed "Agreement for Park-Out."

Is a Midday park-out being requested? Yes _____ No _____. If Yes, a Midday Parking Waiver request must be submitted including an R-63.

_____ _____
Signature Recommending County Supervisor ***Signature Area Supervisor Approving***
Date: _____ ***Date:*** _____

The above Area Supervisor signature approves the associated Agreement for Park-Out.

R-99

Back Side of R-99

Certification Justifications

1. **Improves service to the students compared to the centralized parking location.**

2. **Improves student transportation safety compared to the centralized parking location.**

3. **Does not impair the ability of the SDE to service, maintain, and repair the bus compared to the centralized parking location.**

4. **Does not increase the cost of student transportation compared to the centralized parking location.**

(Local School District or Contractor)

Agreement for Vehicle Overnight Park-Out

This agreement between the **State Department of Education,** referred to as the "state," and the _____ referred to as "the district," and between the district and the individual whose name is printed and signed below, referred to as "the driver," allows a state vehicle to be parked overnight and/or on weekends at a location away from one of the district's centralized parking facilities.

This document spells out the continuing responsibilities the driver must fulfill in order to maintain this agreement. The responsibilities listed below are considered binding upon the district and driver. Failure to fulfill any one or more of the responsibilities shall be considered grounds for immediate revocation or suspension of the agreement. In addition to the state and district's right to revoke or suspend this agreement, the district may also decide that additional disciplinary actions are warranted up to and including termination of employment. The decision regarding any additional discipline beyond revocation/suspension of this agreement is based upon the circumstances and severity of the driver's actions as determined solely by the district. The state may terminate this agreement at any time by giving written notice of termination to the district, and the district may terminate this agreement at any time by giving written notice of termination to the driver.

This agreement can be reevaluated at any time by either party, and supersedes all prior agreements regarding vehicles parked off-site. In addition to any provisions contained herein, the district and driver agree to comply with any local laws or ordinances regarding parking of commercial or school vehicles in the location at which the driver resides.

DRIVER RESPONSIBILITIES

1. *Driver shall park vehicle only in the exact, district-approved off-site location at the address listed below (district must provide detailed route description to park-out location and attach copy to this agreement):*

2. *Unless otherwise authorized by district*, driver shall use the vehicle only within the following restrictions: *directly* from the off-site parking location to the beginning of the assigned route; *directly* from the end of the last afternoon assigned route to the state-approved off-site parking location listed above; and on specifically assigned district business which includes transporting students.
3. *Driver shall be responsible to immediately report ANY and ALL damage incidents, accidents, and unexplained damage. The driver shall present the vehicle for inspection and maintenance at the location and time as directed.*
4. *Driver shall be responsible to immediately report in writing ANY and ALL vehicle defects. Defects are to be reported in writing on state approved "Pre-Trip Inspection" form which is to be turned in to the supervisor as soon as possible. The defect must be noted on the "Pre-Trip Inspection" form, and the vehicle must be left at the designated maintenance location immediately after the defect is noted and must remain at this location until the repair of the defect is completed unless instructed otherwise by the shop supervisor.*

5. *Driver shall not transport any passengers at any time, except as authorized by the district.*
6. *Driver shall call district dispatcher or their supervisor by radio or telephone at least thirty (30) minutes before each run (morning) to "check-in."* Fulfilling this important responsibility allows the district and state to respond efficiently to breakdowns and other unforeseen events.
7. The vehicle must be brought back to the designated maintenance location by the driver in time for use on regular run if driver calls in sick or is otherwise unavailable to work, whether in morning, midday, or afternoon.
8. Driver shall provide ample time during fueling for shop personnel to check fluids, condition of vehicle, etc. If a replacement vehicle is needed for the driver to take home, the district will attempt to provide an alternative, although this cannot be guaranteed under all circumstances.
9. Driver shall promptly provide the park-out vehicle to the shop personnel as directed. Vehicles held Out Of Service (OOS) will be replaced by spare vehicles if possible and will remain OOS until released by the shop supervisor to the district. The district will notify the driver when the vehicle is available for pick up.
10. The driver is responsible to assure that the vehicle is operational 30 minutes prior to the scheduled route departure time. The vehicle must be parked with the engine access toward the access road at all times to insure easy shop access in the event it must be serviced on-site.
11. The district/contractor and driver acknowledge that damage to the park-out location created by the school bus is not the responsibility and liability of the state.
12. The driver must comply with the state idling procedures.
13. All electrical systems on the bus must be in the off position when the bus is not running.

Failure to fulfill any one or more of the responsibilities listed above shall be considered grounds for immediate revocation or suspension of the agreement.

The parties agree to this document by signing, on the date indicated, below.

Name of Driver (printed)	Signature of Driver	Date
Designated District Official (printed)	Designated District Official (signed)	Date

The State approves this Agreement with the Approval of the associated Waiver Application request.

MIDDAY PARKING WAIVER
APPLICATION COVER SHEET

The School District: _____

Requests For School Year: _____

The Midday Parking Waiver At This Street Address Location: _____
_____
_____

For SDE Bus Identification Number: _____

Operated By Bus Driver: _____

Providing Student Transportation Service for the Two Routes Immediately Before and After the Midday Parking:
Route ID Number(s): Before: _____
After: _____

By the signature affixed below, the District certifies that the Midday location:

1. **Improves service to the students compared to the centralized parking location;**
2. **Improves student transportation safety compared to the centralized parking location;**
3. **Does not impair the ability of the SDE to service, maintain, and repair the bus compared to the centralized parking location; and,**
4. **Does not increase the cost of student transportation compared to the centralized parking location.**

(Justification for the above four questions must be provided on the back side of this form.)

The District certifies that the requested waiver will not violate state and Federal laws, regulations, or guidelines.

_____
Authorized Official District Signature

Date: _____

This Cover sheet must be accompanied by:
A completed district (signed) FY current Route Plan (R-16, R-17 & R-63) for the bus and related routes.
If this Waiver is approved by the State Department of Education, the "Agreement for Midday Parking" must be completed and signed prior to the execution of the school bus park-out.

_____
Signature Recommending County Supervisor ***Signature Area Supervisor Approving***
Date: _____ ***Date:*** _____
The above Area Supervisor signature approves the associated Agreement for Park-Out.

R-99Mid

Back Side of R-99Mid

Certification Justifications

1. **Improves service to the students compared to the centralized parking location.**

2. **Improves student transportation safety compared to the centralized parking location.**

3. **Does not impair the ability of the SDE to service, maintain, and repair the bus compared to the centralized parking location.**

4. **Does not increase the cost of student transportation compared to the centralized parking location.**

(Local School District or Contractor)

Agreement for Vehicle Midday Parking

This agreement between the **State Department of Education,** referred to as the "state," and the _____ referred to as "the district/contractor," and between the district/contractor and the individual whose name is printed and signed below, referred to as "the driver," allows a state vehicle to be parked midday and/or on weekends at a location away from one of the district's centralized parking facilities**.**

This document spells out the continuing responsibilities the driver must fulfill in order to maintain this agreement. The responsibilities listed below are considered binding upon the district/contractor and driver. Failure to fulfill any one or more of the responsibilities shall be considered grounds for immediate revocation or suspension of the agreement. In addition to the state and district/contractor's right to revoke or suspend this agreement, the district/contractor may also decide that additional disciplinary actions are warranted up to and including termination of employment. The decision regarding any additional discipline beyond revocation/suspension of this agreement is based upon the circumstances and severity of the driver's actions as determined solely by the district/contractor. The state may terminate this agreement at any time by giving written notice of termination to the district/contractor, and the district/contractor may terminate this agreement at any time by giving written notice of termination to the driver.

This agreement can be reevaluated at any time by either party, and supersedes all prior agreements regarding vehicles parked midday. In addition to any provisions contained herein, the district/contractor and driver agree to comply with any local laws or ordinances regarding parking of commercial or school vehicles in the location designated.

DRIVER RESPONSIBILITIES

1. *Driver shall park vehicle only in the exact, district/contractor-approved off-site location at the address listed below (driver must provide detailed route description to drivers home and attach copy to this agreement):*

_____

_____

2. *Unless otherwise authorized by district/contractor*, driver shall use the vehicle only within the following restrictions: *directly* from the approved parking location to the beginning of the assigned route; *directly* from the end of the assigned route to this or another district/contractor-approved parking location; and on specifically assigned district business which includes transporting students.

3. *Driver shall be responsible to immediately report ANY and ALL damage incidents, accidents, and unexplained damage. The driver shall present the vehicle for inspection at the location and time as directed.*

4. *Driver shall be responsible to immediately report in writing ANY and ALL vehicle defects. Defects are to be reported in writing on state approved "Pre-Trip Inspection" form which is to be turned in to the driver's supervisor immediately after completing the morning routes. Defects must be noted on the "Pre-Trip Inspection" form and the vehicle must be left at the designated maintenance location immediately as soon as possible after the defect is noted and must remain at this location until the repair of the defect is completed unless instructed otherwise by the shop supervisor.*

5. *Driver shall not transport any passengers at any time, except as authorized by the district/contractor.*
6. *Driver shall maintain the vehicle report sheets on a daily basis, and turn sheets in weekly to the designated district/contractor person.*
7. *Driver shall call dispatcher or their supervisor by radio or telephone at least thirty (30) minutes before each run (morning, midday, and afternoon) to "check in."* Fulfilling this important responsibility allows the district/contractor and state to respond efficiently to breakdowns and other unforeseen events.
8. The vehicle must be brought back to the designated maintenance location by the driver in time for use on regular run if driver calls in sick or is otherwise unavailable to work, whether in morning, midday, or afternoon.
9. Driver shall provide ample time during fueling for shop personnel to check fluids, condition of vehicle, etc. If a replacement vehicle is needed for the driver to take home, the district/contractor will attempt to provide an alternative, although this cannot be guaranteed under all circumstances.
10. Driver shall promptly provide the park-out vehicle to the shop personnel as directed. Vehicles held Out Of Service (OOS) will be replaced by spare vehicles if possible and will remain OOS until released by the shop supervisor to the district/contractor. The district/contractor will notify the driver when the vehicle is available for pick up.
11. The driver is responsible to assure that the vehicle is operational 30 minutes prior to the scheduled route departure time. The vehicle must be parked with the engine access toward the access road at all times to insure easy shop access in the event it must be serviced on-site.
12. The district/contractor and driver acknowledge that damage to the park-out location created by the school bus is not the responsibility and liability of the state.
13. The driver must comply with the state idling procedures.
14. All electrical systems on the bus must be in the off position when the bus is not running.

The parties agree to this document by signing, on the date indicated, below.

Name of Driver (printed)	Signature of Driver	Date

Designated District Official (printed)	Designated District Official (signed)	Date

The State approves this Agreement with the Approval of the associated Waiver Application request.

(Local School District or Contractor)

Agreement for Vehicle Midday Park-Out at Other School Site

This agreement between the **State Department of Education,** referred to as the "state," and the _____ referred to as "the district/contractor," and between the district/contractor and the individual whose name is printed and signed below, referred to as "the driver," allows a state vehicle to be parked midday at a school district employment location away from one of the district's centralized parking facilities.

This document spells out the continuing responsibilities the driver must fulfill in order to maintain this agreement. The responsibilities listed below are considered binding upon the district/contractor and driver. Failure to fulfill any one or more of the responsibilities shall be considered grounds for immediate revocation or suspension of the agreement. In addition to the state and district/contractor's right to revoke or suspend this agreement, the district/contractor may also decide that additional disciplinary actions are warranted up to and including termination of employment. The decision regarding any additional discipline beyond revocation/suspension of this agreement is based upon the circumstances and severity of the driver's actions as determined solely by the district/contractor. The state may terminate this agreement at any time by giving written notice of termination to the district/contractor, and the district/contractor may terminate this agreement at any time by giving written notice of termination to the driver.

This agreement can be reevaluated at any time by either party, and supersedes all prior agreements regarding vehicles parked midday. In addition to any provisions contained herein, the district/contractor and driver agree to comply with any local laws or ordinances regarding parking of commercial or school vehicles in the location designated.

DRIVER RESPONSIBILITIES

1. *Driver shall park vehicle only in the exact, district/contractor-approved off-site location at the address listed below (school street address).*

2. *Unless otherwise authorized by district/contractor*, driver shall use the vehicle only within the following restrictions: *directly* from the approved parking location to the beginning of the assigned route; *directly* from the end of the assigned route to this or another district/contractor-approved parking location; and on specifically assigned district business which includes transporting students.
3. *Driver shall be responsible to immediately report ANY and ALL damage incidents, accidents, and unexplained damage. The driver shall present the vehicle for inspection at the location and time as directed.*
4. *Driver shall be responsible to immediately report in writing ANY and ALL vehicle defects. Defects are to be reported in writing on state approved "Pre-Trip Inspection" form which is to be turned in to the driver's supervisor immediately after completing the morning routes. Defects must be noted on the "Pre-Trip Inspection" form and the vehicle must be made available to the designated maintenance location as soon as possible after the defect is noted and must remain at this location until the repair of the defect is completed unless instructed otherwise by the shop supervisor.*
5. *Driver shall not transport any passengers at any time, except as authorized by the district/contractor.*
6. *As directed by the district/contractor, the driver shall maintain the vehicle report sheets on a daily basis, and turn sheets in weekly to the designated district/contractor person.*

7. *Driver shall call dispatcher or their supervisor by radio or telephone at least five (5) minutes before each run (midday and afternoon) to "check in."* Fulfilling this important responsibility allows the district/contractor to respond efficiently to unforeseen events.
8. Driver, or other designated driver, shall provide ample time during fueling for shop personnel to check fluids, condition of vehicle, etc. If a replacement vehicle is needed for the driver to take to the midday parking location, the district/contractor will attempt to provide an alternative, although this cannot be guaranteed under all circumstances.
9. Driver shall promptly provide the park-out vehicle to the shop personnel as directed. Vehicles held Out Of Service (OOS) will be replaced by spare vehicles if possible and will remain OOS until released by the shop supervisor to the district/contractor. The district/contractor will notify the driver, or district designated driver, when the vehicle is available for pick up.
10. The driver is responsible to assure that the vehicle is operational prior to the scheduled route departure time. The vehicle must be parked at the midday parking location with the engine access toward the access road to insure easy shop access in the event the vehicle must be serviced on-site.
11. The district/contractor and driver acknowledge that damage to the park-out location created by the school bus is not the responsibility and liability of the state.
12. The driver must comply with the state idling procedures.
13. All electrical systems on the bus must be in the off position when the bus is not running.

The parties agree to this document by signing, on the date indicated, below.

Name of Driver (printed)	Signature of Driver	Date
Designated District Official (printed)	Designated District Official (signed)	Date

The State approves this Agreement with the Approval of the associated Waiver Application request.

H:\USERS\TRN\Central Parking\South Carolina Department of Education Policy.doc

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

AFFIDAVIT

PERSONALLY APPEARED BEFORE ME, William Scott, who, upon being duly sworn, deposes and says:

1. I am over the age of eighteen (18) and competent to make this Affidavit.

2. I am the Executive Director of Transportation for the Charleston County School District (the "District").

3. In my role as Executive Director of Transportation, I have direct involvement in and knowledge of the District's plans to build a centralized school bus parking lot at James Island Elementary School (the "Parking Lot").

4. The decision to locate the Parking Lot at James Island Elementary School was not arbitrarily made. Instead, it was made after long and careful consideration of the laws, regulations, policies, guidelines, market forces, and District needs relevant to this situation.

5. Specifically, the decision to locate the Parking Lot at James Island Elementary School is based on, among other things, S.C. Code Ann. § 59-67-300 ("State owned school buses must be parked overnight and during the school day in a location that is central to the area in which the school buses are operated"); South Carolina Department of Education School Bus Centralized Parking Policy; Planning for School Bus Safety on School Sites and School Bus Parking Lots; and the facts and circumstances bearing on the District's decision making.

6. Based on my experience and knowledge of school district practices around the state and the country, it is customarily incidental to locate a centralized school bus parking facility next to an operating school. In fact, it would be a violation of the above-mentioned authorities to locate only those buses serving James Island Elementary School at said school.



The State Department of Education requires South Carolina School Districts to utilize centralized parking. Any waivers for the centralized parking regulations, must show that it: improves safety, service, reduces costs, and enhances maintenance service. Running multiple bus parking facilities on James Island does not meet any of these criteria.

7. Additionally, based on my experience and knowledge of school district practices around the state and the country, centralized parking lots of this nature are subordinate in terms of intensity and impact to the principal school use on the property.

8. It is my professional opinion that the Parking Lot is an accessory use, as defined in the Charleston County Zoning and Land Development Regulations, to James Island Elementary School.

William Scott

SWORN TO BEFORE ME THIS 23rd
DAY OF May, 2018

Tortiena Haskell
NOTARY PUBLIC FOR
THE STATE OF SOUTH CAROLINA

MY COMMISSION EXPIRES: 3/27/2024

PLANNING FOR SCHOOL BUS SAFETY ON SCHOOL SITES
AND
SCHOOL BUS PARKING LOTS

School Site Student Loading & Unloading & School Bus Parking Lot

1. In the selection of school sites and location of school bus parking lots, major consideration must be given to the safety of pupils riding school buses both on campus and on the adjacent roads surrounding the school site. School buses must be able to use the roads in and around the school site, and therefore the public highways and intersections leading to and from the school must be adequately designed to accommodate buses. High-density traffic flow near school bus drives that are due to the proximity of freeways, periodic commercial traffic, or massive commuter traffic from industrial plants and other large employers should be avoided. It is required that the school board and district staff solicit the help of the South Carolina Department of Transportation (SCDOT) Traffic Engineering Division, and the South Carolina Department of Education's Office of School Facilities and the Office of Transportation in evaluating and selecting possible sites.

School Site Student Loading & Unloading

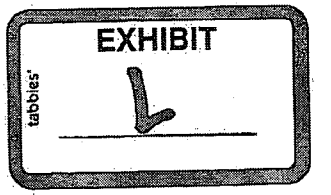
2. The location of the student occupied building on a site should be determined to provide a safe means of access to the area, and ingress and egress for all pupils to the site. When the school district is considering a school site, the state, county, and local roads servicing the area should be of adequate width to safely accommodate school buses. Pupil loading or unloading on school buses and private vehicles must always occur on the school site, at least fifty feet away from an access highway.

School Site Student Loading & Unloading

3. All on-site school bus loop traffic should be a one-way traffic flow, with the service door side (right side) of the bus always next to the school's loading and unloading zone.

School Bus Parking Lot

4. The design of the school bus parking facility must recognize that the facility is not only to park school buses but also to service the school buses in the space that the bus is parked. The servicing includes fueling (which will likely occur every day at some part of the parking lot), school bus inspection and school bus repair. These services (fueling and lubrication) and repairs (tire changes and minor component repair or replacement) require technicians to work on the front and/or rear of the school buses; this requires service vehicles (service trucks, lubrication vehicles and 1,600 gallon fuel tanker trucks) to be parked at the front and rear of the school bus (sometimes at the same time). There also may be a need to use a wrecker to move a bus out of the park area; the wreckers must be able to access the parked school bus from the front or rear.



School Bus Parking Lot

5. The design of school bus parking lots must allow for the parking and servicing/repair of school buses (state owned route buses, state owned spare buses, district owned school buses), the parking of school bus driver private vehicles (at least 1 private vehicle for each school bus parked), the parking of administrative vehicles, the parking of cars for visitors and the construction of a school transportation building to train and dispatch the drivers and provide office space for the administrative/supervisory/training/routing staff. In some situations, based on the needs of the district, the parking facility may also include a maintenance garage and a fueling station.

School Site Student Loading & Unloading & School Bus Parking Lot

6. The design of roadway access to the school site and school bus parking lot must comply with SCDOT requirements.

School Site Student Loading & Unloading

7. School bus loading and unloading should be separated from the traffic flow associated with student, parent/visitor, teacher and administrative parking and service delivery. Vehicular traffic (students, parent/visitors, teachers and administrative traffic and service delivery), other than school buses, should never be allowed to operate near where school buses are loading or unloading. The traffic flow on a school campus should never be designed or constructed to allow non-school bus vehicle to pass or load adjacent to a school bus that is in the school's loading/unloading zone.

School Site Student Loading & Unloading & School Bus Parking Lot

8. Student and parent/visitor parking areas should be separated from each other and separated from bus loops, bus parking areas and service deliveries.

School Site Student Loading & Unloading

9. Whenever possible, the school buildings used by students should not be situated on the site so that they are completely encircle by roads or traffic movement. Areas that pupils must cross to engage in activities outside the buildings should be free of all vehicular traffic and parking areas.

School Site Student Loading & Unloading & School Bus Parking Lot

10. All school bus drives entering into or exiting from main highways should have a minimum 40-foot radius turn on the inner edge of pavement. Within the school site, roads should have at least a 40-foot radius on inner edge of pavement on all curves. At least a 100-foot tangent section should be provided between reverse curves. In order to minimize driveway entrance and exit widths, island construction may be required. Driveway openings must conform to state and local requirements. The S.C. Department of Transportation must approve driveway openings on all roadways.

School Site Student Loading & Unloading & School Bus Parking Lot

11. Mountable curbing, with suitable drainage, should be constructed on all roads utilized by school buses within the school site. Mountable curbing is necessary to avoid damage to school bus tire sidewalls created by regular curbing. Consideration should be given to Department of Transportation performance specifications. The S.C. Department of Transportation shall determine the minimum road width for one-way loop traffic and for two-way traffic. Pavement width may need to be wider in curves.

School Site Student Loading & Unloading & School Bus Parking Lot

12. If a school bus parking facility is located on a school campus, the parking lot should provide adequate parking spaces for the school bus fleet that is required to serve the students assigned to the school. All school bus parking areas shall have a designated parking location approved by the South Carolina Department of Education's Office of Transportation.

School Site Student Loading & Unloading

13. Care should be exercised in the placement of all non-school bus parking locations to eliminate pedestrians crossing the school bus traffic pattern and parking area to access school buildings and facilities.

School Site Student Loading & Unloading & School Bus Parking Lot

14. Prior to designing and laying out roads and parking lots, architects should be knowledgeable of the following items:
    a. Total number of pupils and school personnel assigned to the school
    b. Number of present and projected pupils to be transported by school bus
    c. Number of present and projected buses needed to serve assigned students
    d. Number of present and projected buses to be parked at this location (state and district owned).
    f. Type of school schedule
        (1) Staggered opening and closing times
        (2) Single opening and closing times
    g. Extra-curricular activities that would necessitate use of school buses, increase the number of school buses parked at the school and the additional guest parking that these activities will create.
    h. Any special facilities or services that will be a part of the parking facility (offices, garage bays and fueling stations).

School Site Student Loading & Unloading & School Bus Parking Lot

15. When school bus parking is located on school grounds it is desirable to orient the buses in the parking lot to prevent glare from the buses' reflective surfaces of windows, doors, and windshields from being transmitted to the pupils in the classroom.

School Site Student Loading & Unloading & School Bus Parking Lot

16. Attention should be given in planning school bus parking, loading, and unloading areas to assure that backing a school bus will never occur and students are never permitted to walk between or behind school buses during loading or unloading, and while they are parked. Backing of buses in existing parking facilities should be avoided.

School Site Student Loading & Unloading

17. Sidewalk access to the school site and on the school site should be designed to eliminate student crosswalks in front of the buses loading and unloading areas.

School Site Student Loading & Unloading

18. Plans for school construction may include student canopies at school bus loading and unloading areas. Canopies are considered especially advantageous for loading and unloading students with physical disabilities and especially for students in wheelchairs. The height of the canopy must accommodate a school bus at least 128 inches high. Each canopy support post adjacent to the driveway curb should have a three-foot minimum setback from the curb to minimize the possibility of crushing a pupil between the support post and an arriving school bus. The location of supports for the canopies and other structures must not restrict the operation of school bus wheelchair lifts used for loading and unloading students with disabilities.

School Site Student Loading & Unloading & School Bus Parking Lot

19. For drive and parking areas that will be utilized by school buses, the type of pavement and base should conform to S.C. Department of Education's Office of Transportation specifications.

SCDE RECOMMENDED MINIMUM PREPARATION AND SURFACE PAVING SPECIFICATIONS FOR SCHOOL BUS PARKING AREAS

MINIMUM FLEXIBLE PAVEMENT THICKNESS RECOMMENDATIONS			
VEHICLE TYPE	**LAYERS**	**MATERIAL**	**THICKNESS (INCHES)**
SCHOOL BUS TYPE VEHICLE	A	ASPHALTIC CONCRETE SURFACE COURSE	2.5
	B	ASPHALTIC CONCRETE BINDER COURSE	2.5
	C	GRADED AGGREGATE (STONE) BASE COURSE	8
	D	PROPERLY PREPARED SUBGRADE	12

SCDE RECOMMENDED MINIMUM PREPARATION AND SURFACE PAVING SPECIFICATIONS FOR SCHOOL BUS PARKING AREAS

MINIMUM RIGID PAVEMENT THICKNESS RECOMMENDATIONS			
VEHICLE TYPE	**LAYERS**	**MATERIAL**	**THICKNESS (INCHES)**
SCHOOL BUS TYPE VEHICLE	A	PORTLAND CEMENT CONCRETE	6
	B	GRADED AGGREGATE (STONE) BASE COURSE	6
	C	PROPERLY PREPARED SUBGRADE	12

School Site Student Loading & Unloading & School Bus Parking Lot

20. All school bus parking areas must be in compliance with SBE Regulation 43-80-L

The school district shall provide for safe loading and unloading of students and a suitable concrete or asphalt-paved area for the parking and servicing of buses during the school hours. The parking and service area shall be located and designed to insure that vehicular traffic, students, or unauthorized personnel are not in or around parked buses during the school day and shall be in compliance with all safety and fire regulations.

School Bus Parking Lot

21. The school bus parking area must be designed to park buses side-by-side; end-to-end parking is not allowed in new or re-designed facilities. The side-by-side parking should be allow for easy entrance and exit by a large school bus (15 X 40 feet) using parking spaces that are aligned at about an 135 degree angle to the traffic lane.

School Bus Parking Lot

a. The school bus parking stall for each bus must be 15 X 40 feet for a regular route school bus and 18 X 40 feet for a school bus that has a wheelchair lift.

School Site Student Loading & Unloading & School Bus Parking Lot

b. All roads within the school site should be graded to avoid configurations that could impair a motorist's vision. It is suggested that a maximum 5% grade be allowed on all roads and, at entrance and exit points a maximum 2% grade be allowed. School bus parking areas must be a maximum of 1% grade.

School Site Student Loading & Unloading & School Bus Parking Lot

24. Should the school bus parking area have a slope greater than 1%, the bus parking design must have the parked bus's fuel intake on the up-hill side of the bus.

School Bus Parking Lot

25. Private vehicles, vehicles owned by the bus drivers, must be parked separate from the area used to service the SCDE school buses. The access for private vehicle parking areas must not pass though the school bus parking area (between the buses or within 15 feet of the parked buses).

School Bus Parking Lot

26. The driveways/travelways in a bus parking area may only be used by official school transportation vehicles (buses and bus service equipment). Vehicles not associated with the student transportation program must be excluded from these driveways. See attached State Fire Marshal fueling requirements.

School Bus Parking Lot

27. District-owned vehicles, including school buses, must not be parked among the state-owned school buses, unless these buses are under contract with the SCDE to receive service/maintenance.

School Bus Parking Lot

28. The school bus parking lot must be designed, to allow the grouping of four or more buses, this grouping allows the state-owned buses receiving fuel on the same day to be parked next to each other and fueling to be provided efficiently.

School Site Student Loading & Unloading & School Bus Parking Lot

29. Blind corners and intersections must be eliminated. Trees and shrubbery planted on the school site must not obstruct a motorist's or pedestrian's vision.

School Site Student Loading & Unloading

30. Loading and unloading facilities serving students with disabilities may require access ramps and handrails.

School Site Student Loading & Unloading & School Bus Parking Lot

31. Plans for roads and loading areas should accommodate emergency vehicles which must have access to the school or parked vehicles at all times.

School Site Student Loading & Unloading & School Bus Parking Lot

32. Where necessary, traffic control devices should be provided to assist school traffic to enter and exit the traffic flow on access highways.

School Bus Parking Lot

33. The school bus parking lot must comply with the following to avoid school bus damage reimbursement for buses damaged while parked due to vandalism.
    a. Security must be equal to or better than that available at the SCDE bus shop.
    b. The circumferential fencing equivalent is measured in type (strength) and height (shop minimum 6'5") and the fence must have a top security layer (3 strand barbwire).
    c. Access gate equivalent is measured in type (strength) and height (shop minimum 6').
    d. Gate lock equivalent is measured in type (strength) and security.
    e. Lighting equivalent is measured in level of illumination (minimum set by local shop).

Proper Disbursement by Fuel Vehicles for School Buses

The **2009 International Fire Code (IFC)** and the **2007 National Fire Protection Association (NFPA) Standard No. 30A** establishes codes and standards for fire protection. The Office of State Fire Marshal's has adopted these codes, and by reference through the IFC has adopted the 2007 NFPA 385.

NFPA 385 Standard for Tank Vehicles for Flammable and Combustible Liquids is the standard that includes requirements for the unloading of tank vehicles. Per (2007) NFPA 385 section 9.2.1, loading and unloading of tank vehicles shall only be done in "approved locations".

At a meeting on May 24, 2006 with the State Fire Marshal, Michael Platt, the proper disbursement of fuel by a fuel vehicle (fuel tanker) to South Carolina public school buses was discussed. At this meeting representing the State Department of Education was Donald Tudor, CDPT, Director, Office of Transportation, Marshal Casey, Assistant Director Maintenance and Training, Office of Transportation, Alex James, AIA, Director, Office of School Facilities, and Steven Jenkins, PE, CBO, of the Office of School Facilities. In this meeting it was decided that NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages would be used as a basis for determining what an "approved location" would be.

Adopted and referenced standards establish the following:

1. Loading and unloading of tank vehicles shall be done only in approved locations [based on (2007) NFPA 385 section 9.2.1].

2. Mobile fueling shall not take place within 15 feet of buildings, property lines, combustible storage or storm drains [based on (2009) IFC 3406.5.4.5 (6.)].

Per the above "approved location" decision for school facilities, the following also apply (Standard editions and section numbers have been changed to reflect those in effect for 2011):

1. No part of the tank vehicle should be within 50 feet of an important building (i.e. any occupied school building) [based on (2008) NFPA 30A Table 4.3.2.4].

2. The dispensing devices *(fuel nozzle)* shall be 10 or more feet from the property lines [based on (2008) NFPA 30A 6.2.1(1)].

4. The nozzle, when the hose is fully extended, will not reach within 5 feet of building openings (*any part of the building*) [based on (2008) NFPA 30A 6.2.1(4)].

Consequently, a fuel vehicle with a 50 foot hose shall be no closer than 55 feet to the school building or 60 feet from the property line (see above 6.2.1 (1)).

5. Mobile fueling shall not take place within 15 feet of buildings, property lines, combustible storage or storm drains [based on (2009) IFC 3406.5.4.5 (6.)].

6. Motor vehicle traffic patterns at motor fuel dispensing facilities (*or fuel vehicle*) shall be designed to inhibit movement of vehicles that are not being fueled from passing through the dispensing area [based on (2008) NFPA 30A 6.3.7].

When a secure area is not provided, barriers shall be provided to prevent vehicular or pedestrian movement within 10 feet of the fueling area. The barrier shall state that fueling is taking place. The barrier may be a portable cone.

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

AFFIDAVIT

PERSONALLY APPEARED BEFORE ME, Sean Hughes, who, upon being duly sworn, deposes and says:

1. I am over the age of eighteen (18) and competent to make this Affidavit.

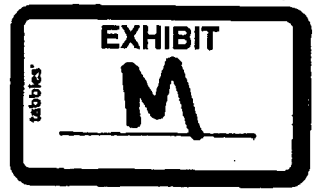
2. I am the Director of Operational Planning for the Charleston County School District (the "District").

3. In my role as Director of Operational Planning, I have direct involvement in and knowledge of the District's plans to build a centralized school bus parking lot at James Island Elementary School (the "Parking Lot").

4. The decision to locate the Parking Lot at James Island Elementary School was not arbitrarily made. Instead, it was made after long and careful consideration of the laws, regulations, policies, guidelines, market forces, and District needs relevant to this situation.

5. Specifically, the decision to locate the Parking Lot at James Island Elementary School is based on, among other things, S.C. Code Ann. § 59-67-300 ("State owned school buses must be parked overnight and during the school day in a location that is central to the area in which the school buses are operated"); South Carolina Department of Education School Bus Centralized Parking Policy; Planning for School Bus Safety on School Sites and School Bus Parking Lots; and the facts and circumstances bearing on the District's decision making.

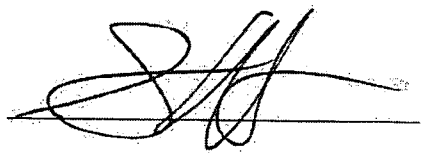
6. Based on my experience and knowledge of school district practices around the state and the country, it is customarily incidental to locate a centralized school bus parking facility next to an operating school. There are several current examples within Charleston County School District including the bus lot at St. Johns High School on Johns Island within the



County's jurisdiction, the bus lot at Northwoods Middle School in the City of North Charleston, and the bus lot at Cario Middle School in Mount Pleasant. In fact, it would be a violation of the above-mentioned authorities to locate only those buses serving James Island Elementary School at said school.

7. Additionally, based on my experience and knowledge of school district practices around the state and the country, centralized parking lots of this nature are subordinate in terms of intensity and impact to the principal school use on the property.

8. It is my professional opinion that the Parking Lot is an accessory use, as defined in the Charleston County Zoning and Land Development Regulations, to James Island Elementary School.



Sean Hughes, LEED AP

SWORN TO BEFORE ME THIS 24th
DAY OF May, 2018

Tartiena Haskell
NOTARY PUBLIC FOR
THE STATE OF SOUTH CAROLINA

MY COMMISSION EXPIRES: 3/27/2024

NOISE EXPOSURE EVALUATION

Proposed James Island Bus Parking Lot
James Island, Charleston County, South Carolina

March 24, 2017
Terracon Project No. ES177065

Prepared for:

Charleston County School District
c/o Cumming Corp
North Charleston, South Carolina

Prepared by:

Terracon Consultants, Inc.
Savannah, Georgia

EXHIBIT
N

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials

Terracon

March 24, 2017

Charleston County School District
C/o Cumming Corp
3820 Faber Place Drive
North Charleston, South Carolina 29405

Attn: Mr. Rick Holt

Re: Noise Exposure Evaluation
Proposed James Island Bus Parking Lot
James Island, Charleston County, South Carolina
Terracon Project No. ES177065

Dear Mr. Holt:

Terracon Consultants, Inc. (Terracon) has completed a Noise Exposure Evaluation for the above-referenced project. The Noise Exposure Evaluation was completed in accordance with Terracon Proposal No. PES177065 dated February 22, 2017 and Charleston County School District Purchase Order No. 01702273 issued March 7, 2017.

If you have any questions concerning this report, please contact us at (912) 629 4000.

Sincerely,
Terracon Consultants, Inc.

R. Luke Bragg, P.E.
Project Engineer

William S. Anderson, III, P.E.
Senior Principal

Enclosures
cc: 1 – Client (1 electronic copy)
1 – File (1 electronic copy)

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APPENDIX A: FIGURES

Figure 1 Site Vicinity Map

Figure 2 Existing Noise Levels

Figure 3 Projected Noise Levels

APPENDIX B: FIELD DATA DOCUMENTATION

NOISE EXPOSURE EVALUATION

Proposed James Island Bus Parking Lot
James Island, Charleston County, South Carolina

Terracon Project No. ES177065
March 24, 2017

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) has completed this Noise Exposure Evaluation on behalf of the Charleston County School District c/o Cumming Corp for the proposed bus parking lot in James Island, Charleston County, South Carolina. A Site Vicinity Map has been prepared as Figure 1 in Appendix A.

The project site is detailed on Figure 2 in Appendix A. The site is bound to the north by undeveloped, wooded land; to the east by residential properties and Nathanial Drive; to the south by a limited vegetative buffer, vacant land, and an unnamed pond; and to the west by James Island Elementary School. The project involves the construction of a parking lot with 35 spaces designated for buses, 39 spaces for employee vehicles, and 2 van accessible parking spaces. The parking lot will also feature one-way access lanes, a small building structure, and a propane filling station. A two-lane roadway connected to school's northern parking lot will provide access to the proposed bus parking lot. The proposed bus parking lot surfaces will be paved with heavy duty concrete for the bus parking spaces, heavy duty asphalt for the one-way access lanes, and standard duty asphalt for the employee/van accessible spaces.

1.1 Purpose

The purpose of this Noise Exposure Evaluation is to determine existing noise levels at the proposed bus parking lot boundaries for a 24-hour period. The existing noise levels, along with anticipated facility usage information, was then used to estimate and plot the expected acoustic levels of the proposed development.

1.2 Noise Overview

Noise is typically defined as unwanted or undesirable sound. The basic parameters of noise include intensity, frequency content, and variation with time. Noise intensity is determined by the level of sound, which is expressed in units of decibels (dB). The range of normally encountered sound on the decibel scale can be expressed by values between 0 dB and 120 dB. On a relative basis, a 3-dB change in sound level generally represents a barely perceptible change in a common outdoor setting. A 5-dB positive change represents a "noticeable" change and a 10-dB

positive change is typically perceived as a doubling in volume. Similarly, a 10-dB decrease in noise levels is perceived as a 50% reduction in volume.

The frequency of noise is related to the tone or pitch of the sound and is expressed in terms of cycles per second or hertz (Hz). The human ear can detect a wide range of frequencies from about 20 Hz to 17,000 Hz. However, because the sensitivity of human hearing varies with frequency, the A-weighting system is commonly used. A-weighting is applied to instrument-measured sound levels in an effort to account for the relative loudness perceived by the human ear, as the ear is less sensitive to low audio frequencies. A-weighting is employed by arithmetically adding a table of values, listed by octave or third-octave bands, to the measured sound pressure levels in dB. The resulting octave band measurements are logarithmically added to provide a single A-weighted value describing the sound and the units are written as dB(A). The A-weighted sound level is widely accepted as a proper unit for describing environmental noise and has been adopted as the unit of measure by the Occupational Safety and Health Administration (OSHA), the American Conference of Governmental Industrial Hygienists (ACGIH), the Federal Highway Administration (FHWA), and the U.S. Environmental Protection Agency (EPA). Examples of common A-weighted sound levels are illustrated on the following page.

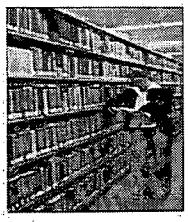
Because environmental noise fluctuates from moment to moment, it is common practice to condense all of this information into a single value known as the equivalent sound level (Leq). The Leq is a measure of the average sound energy during a specified period of time. The Leq is defined as the constant level that, over a given period of time, transmits the same amount of acoustical energy to a receiver as the actual time-varying sound. Peak 1-hour Leq is another metric that provides the worst case equivalent hourly noise level for a given time period. An additional metric includes the maximum sound level, which is the A-weighted, root mean squared (RMS) highest detected sound level, slow time constant (time constant = 1 second) for a given measurement interval.

Noise Scale: Common Sound Levels



Common Outdoor Sound Levels	Noise Level dB (A)	Common Indoor Sound Levels
	110	Rock Band
B-747-200 Takeoff at 2 mi.	100	Inside Subway Train (New York)
Gas Lawn Mower at 3 ft.		
Diesel Truck at 150 ft.		
DC-9-30 Takeoff at 2 mi.	90	
		Food Blender at 3 ft
		Garbage Disposal at 3 ft.
Noisy Urban Daytime	80	Shouting at 3 ft.
B-757 Takeoff at 2 mi.	70	Vacuum Cleaner at 10 ft Four lane road at 50 feet
Commercial Area		
	60	Normal Speech
Quiet Urban Daytime	50	Large Business Office Dishwasher Next Room
Quiet Urban Nighttime Quiet Suburban Nighttime	40	Small Theatre, Large Conference Room (Background)
	30	Library, Bedroom at night, Concert Hall (Background)
Quiet Rural Nighttime	20	
	10	Broadcast & Recording Studio
	0	Threshold of Hearing







SOURCE:
Draft EIS/EIR LAX Proposed Master Plan Improvements, Los Angeles, CA
U.S. Dept. of Transportation, FAA
January 2001

1.3 Scope of Work

Pursuant to the completion of the Noise Exposure Evaluation, Terracon's scope of work included a visual and physical assessment of the subject property and the collection of sound level measurements. Noise monitoring was conducted at four boundary locations for a 24-hour period. The existing noise levels, along with anticipated facility usage information, were then used to estimate and plot the expected acoustic impact of the proposed development. A detailed discussion of Terracon's field procedures and sound level measurements are included in the sections below.

2.0 FIELD ACTIVITIES

2.1 Sound Level Data Collection

Continuous noise monitoring at the boundaries of the project area was initiated on March 21, 2017. Noise monitoring locations are indicated on Figure 2 in Appendix A. Sound levels were collected using a laboratory calibrated Quest Technologies ANSI Type II SoundPro Model SE sound level meter. Data from the sound level meters was digitally imported utilizing the 3M™ Detection Management Software and processed utilizing Microsoft Excel.

2.2 Observed Noise Sources

During the collection of existing sound levels, a log was kept noting the time of day, meteorological conditions, and measurement locations (see Appendix B). Noise sources at each measurement location were also noted. At the onset of noise monitoring, noise sources consisted of bus traffic, overhead airplane traffic, and children playing at the nearby school. In general, noise at the subject site is largely governed by ambient sounds (such as birds, wind, etc.) and vehicle traffic on nearby roadways. Photographs of the sound level meter locations and output from the sound level meters are presented in Appendix B.

3.0 EXISTING NOISE LEVELS

Noise monitoring was conducted at the four locations shown on Figure 2 in Appendix A. Sound levels were recorded for an approximate 24-hour period at Location 1 (March 21, 2017 – 8:42 AM through March 22, 2017 – 7:42 AM). Sound levels at Location 2, Location 3, and Location 4 were recorded on March 21, 2017 from approximately 9:00 AM through 8-10:00 PM.

Sound level results are presented on the table below. Leq refers to the average sound level for the specified interval. The highest average hourly sound level is reported as Peak Hour Leq. The

corresponding 1-hour interval is presented along with the Peak Hour Leq measurement. The maximum recorded A-weighted sound level is recorded as the Las Max. Time intervals are presented as 7:00 AM – 10:00 PM (Locations 1 through 4), and 10:00 PM – 7:00 AM (Location 1 only). The 7:00 AM – 10:00 PM is typical for 'daytime' measurements and 10:00 PM – 7:00 AM is typical for 'nighttime' measurements.

Table 3.1 Existing Noise Measurement Results

Location	Time Interval	Leq	Peak Hour Leq		Las Max	
1	7:00 AM – 10:00 PM	50.41	52.60	(2:42 PM – 3:42 PM)	76.80	(12:42 PM)
	10:00 PM – 7:00 AM	50.23	55.00	(10:42 PM – 11:42 PM)	81.00	(12:42 AM)
2	7:00 AM – 10:00 PM	52.25	56.35	(12:30 PM – 1:30 PM)	77.30	(9:50 AM)
3	7:00 AM – 10:00 PM	54.62	59.95	(12:30 PM – 1:30 PM)	82.30	(9:50 AM)
4	7:00 AM – 10:00 PM	53.59	57.81	(2:51 PM – 3:51PM)	82.50	(11:01 AM)

Noise levels recorded as A-weighted decibels (dBA).

As shown in Table 3.1 above, the equivalent sound levels during the 'daytime' interval (7:00 AM – 10:00 PM) are consistent and differ only by a maximum of 4.21 dBA. The 'daytime' equivalent sound levels are also consistent with those recorded at Location 1 during the 'nighttime' interval (10:00 PM – 7:00 AM). The highest average hourly sound levels (peak hour Leq) ranged from 52.60 dBA (Location 1, 2:42 PM – 3:42 PM) to 59.95 dBA (Location 3, 12:30 PM – 1:30 PM). A maximum sound level of 82.50 dBA was recorded at 11:01 AM at Location 4. It should be noted that peak hour Leq and maximum sound levels are the result of natural phenomena and/or off-site noise sources.

4.0 PROJECTED NOISE LEVELS

Projected worst case noise levels were determined utilizing guidance from the Federal Transit Administration (FTA), U.S. Department of Transportation document entitled *"Transit Noise and Vibration Impact Assessment"* (FTA-VA-90-1003-06, May 2006). The proposed bus parking lot was regarded as a stationary noise source, specifically a transit center. As indicated in the FTA guidance document, a transit center utilizes a reference condition of 20 buses in a peak activity hour with a reference sound exposure level (SEL) of 101 dBA 50 feet from the source area.

The hourly equivalent sound level, $L_{eq}(h)$ at 50 feet from a stationary source area may be calculated utilizing the equation below:

$$L_{eq}(h) = SEL_{ref} + C_N - 35.6$$

Where:

$L_{eq}(h)$ = hourly equivalent sound level at 50 feet, dBA

SEL_{ref} = reference sound exposure level at 50 feet, dBA

C_N = volume adjustment, dBA

As previously stated, the reference condition for a transit center consists of 20 buses in a peak activity hour. The proposed bus parking lot will feature 35 parking spaces. As a conservative measure, it is assumed that 35 buses operate in the parking lot during the peak hour which occurs between 5:30 AM and 6:30 AM. As such, the following volume adjustment is made in order to account for variances from the reference condition:

$$C_N = 10 \log\left(\frac{N_B}{20}\right)$$

Where:

C_N = volume adjustment, dBA
N_B = number of buses per hour

The $L_{eq}(h)$ at 50 feet from the approximate source area of the proposed bus parking lot was calculated as following:

$$L_{eq}(h) = SEL_{ref} + \left[10 \log\left(\frac{N_B}{20}\right)\right] - 35.6$$

$$L_{eq}(h) = 101 + \left[10 \log\left(\frac{35}{20}\right)\right] - 35.6$$

$$L_{eq}(h) = 67.83\ dBA\ at\ 50\ feet$$

The Inverse Square Law was used to determine the decay of noise over distance. The Inverse Square Law states that in a free field (i.e. a flat surface without obstructions), a doubling of the distance from a noise source reduces the sound pressure level by 6 dBA. The equation is an idealization given that various sites may feature changes in topography, barriers such as walls or dense vegetation, and/or reflective surfaces such as buildings; however it is a logical estimate of sound pressure level changes over distance. This equation is shown below.

$$L_{p2} = L_{p1} - \left[20log\frac{R_2}{R_1}\right]$$

Where:

L_{p2} = sound pressure level at location 2 (dBA)
L_{p1} = sound pressure level at location 1 (dBA)
R_2 = distance from source to location 2 (dBA)
R_1 = distance from source to location 1 (dBA)

Estimated sound levels determined using the Inverse Square Law are indicated in Table 4.1 below. For each iteration, the sound pressure level at location 1, L_{p1}, was 67.83 dBA at a distance, R_1, of 50 feet.

Table 4.1 Projected Noise Levels vs. Distance

Distance from Source (feet)	L_{eq} (dBA)	Change from Reference Condition[1] (dBA)
50	67.83	--
60	66.25	-1.58
70	64.91	-2.92
80	63.75	-4.08
90	62.72	-5.11
100	61.81	-6.02
110	60.98	-6.85
120	60.23	-7.60
130	59.53	-8.30
140	58.89	-8.94
150	58.29	-9.54
160	57.73	-10.10
170	57.20	-10.63
180	56.70	-11.13
190	56.23	-11.60
200	55.79	-12.04
210	55.37	-12.46
220	54.96	-12.87
230	54.58	-13.26
240	54.21	-13.62
250	53.85	-13.98
260	53.51	-14.32
270	53.18	-14.65
280	52.87	-14.96
290	52.56	-15.27
300	52.27	-15.56

[1]The reference condition equals the hourly equivalent sound level at 50 feet as calculated above.

Projected sound levels for the worst case hour (i.e. 5:30 AM – 6:30 AM) were contoured as shown on Figure 3 (Appendix A) utilizing the data from Table 4.1 above. Noise levels in the immediate vicinity of the proposed bus parking lot at the worst case hour are projected to be approximately 65 dBA and decay over distance. During the peak hour, the residents to the east of the proposed bus parking lot could experience noise levels ranging from 50-55 dBA.

As previously indicated, the equivalent sound levels recorded during the 'daytime' interval (7:00 AM – 10:00 PM) were consistent between the various noise monitoring locations. The 'daytime' equivalent sound levels were also consistent with those recorded at Location 1 during the 'nighttime' interval (10:00 PM – 7:00 AM). An equivalent sound level of 47.80 dBA (approximated

to 48 dBA) was recording during the 5:30 AM – 6:30 AM interval, which is assumed to be the worst case hour for the proposed bus parking lot. Given the consistency of the noise data and the absence of on-site sources, it is logical to assume that the 5:30 AM – 6:30 AM interval equivalent sound level recorded at Location 1 would be similar to that recorded at the other locations. Projected noise level increases at each measurement location during the 5:30 AM – 6:30 AM interval have been tabulated below:

Table 4.2 Projected Worst-Case Noise Level Increases

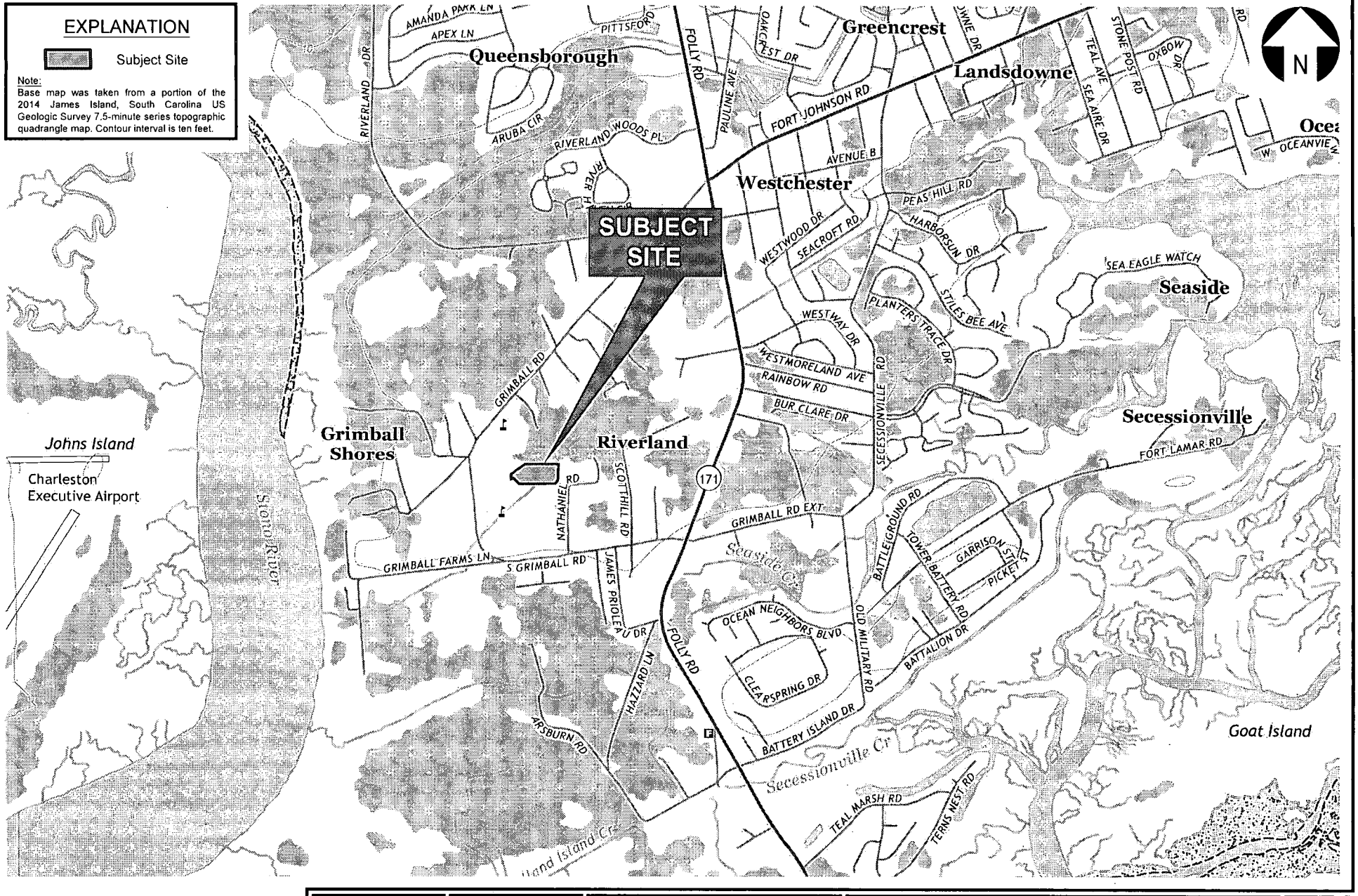
Location	Projected Noise Level (dBA)	Approximate Increase from Existing Condition[1] (dBA)
1	62	14
2	53	5
3	56	8
4	64	16

[1]The hourly equivalent sound level of 48 dBA at 5:30 AM – 6:30 AM.

Bus traffic to and from the proposed parking lot is anticipated to be varied outside of the peak hour. As such, noise levels outside of the worst-case hour are anticipated to be similar the levels recorded during March 21-22, 2017. Intermittent bus traffic throughout the day is not anticipated to cause noise levels that approach or exceed the worst-case, peak hour projections.

APPENDIX A

FIGURES



Project Mngr:	RLB	Project No.	ES177065
Drawn By:	VMG	Scale:	1" = 2,000'
Checked By:	RLB	File Name:	ES177065.dwg
Approved By:	WSA	Date:	March 22, 2017

Terracon
Consulting Engineers & Scientists
2201 Rowland Avenue Savannah, Georgia 31404
Phone (912) 629 4000 Fax. (912) 629 4001

GENERAL VICINITY / TOPOGRAPHIC MAP

Noise Exposure Evaluation
Proposed James Island Bus Parking Lot
James Island, Charleston County, South Carolina

Figure 1

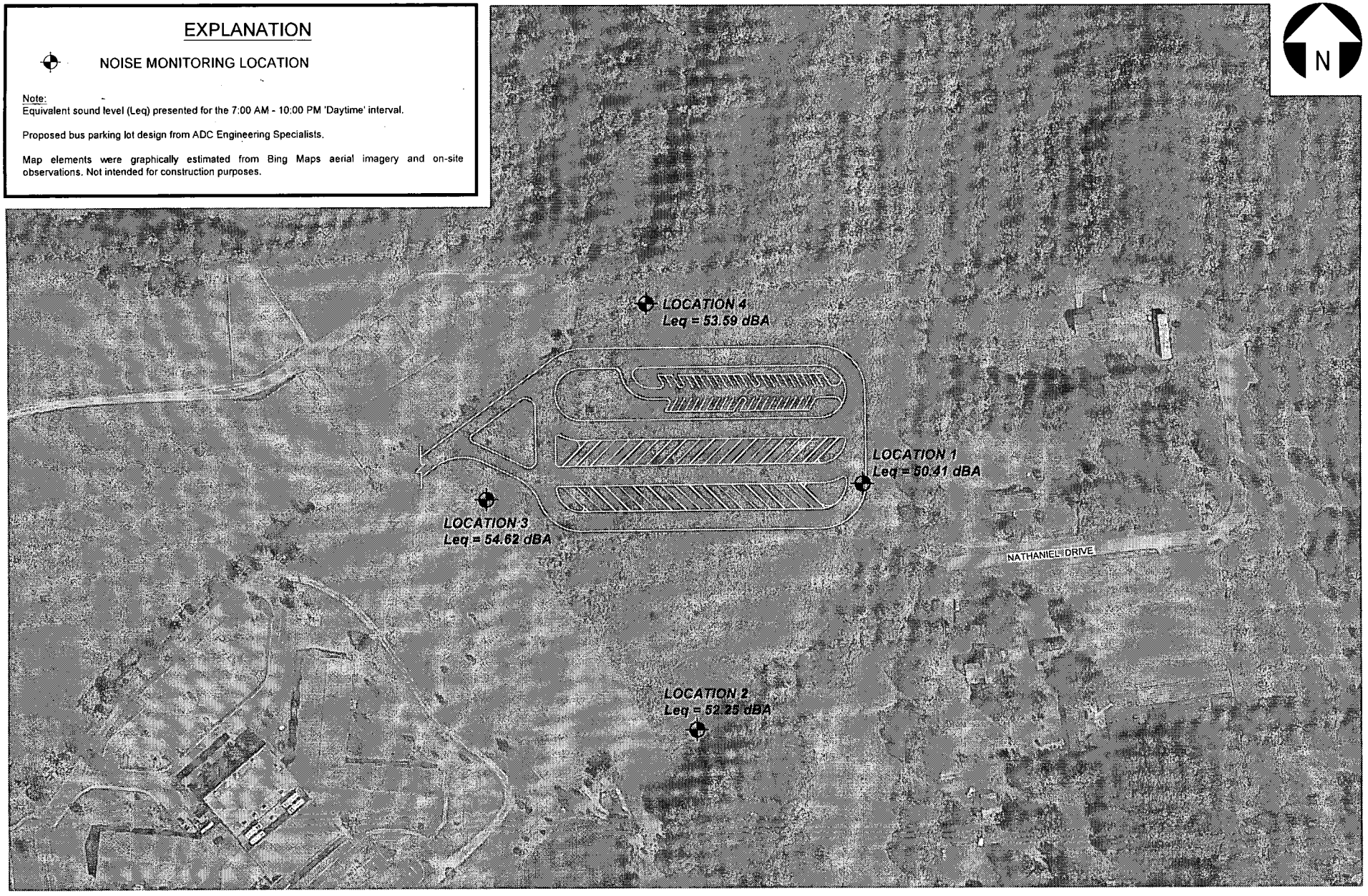
EXPLANATION

NOISE MONITORING LOCATION

Note:
Equivalent sound level (Leq) presented for the 7:00 AM - 10:00 PM 'Daytime' interval.

Proposed bus parking lot design from ADC Engineering Specialists.

Map elements were graphically estimated from Bing Maps aerial imagery and on-site observations. Not intended for construction purposes.



0 100' 200'

1" = 200'
SCALE IN FEET

Project Mngr:	RLB
Drawn By:	VMG
Checked By:	RLB
Approved By:	WSA

Project No.	ES177065
Scale:	1" = 200'
File Name:	ES177065.dwg
Date:	March 22, 2017

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Phone (912) 629 4000 Fax. (912) 629 4001

EXISTING NOISE LEVELS

Noise Exposure Evaluation
Proposed James Island Bus Parking Lot
James Island, Charleston County, South Carolina

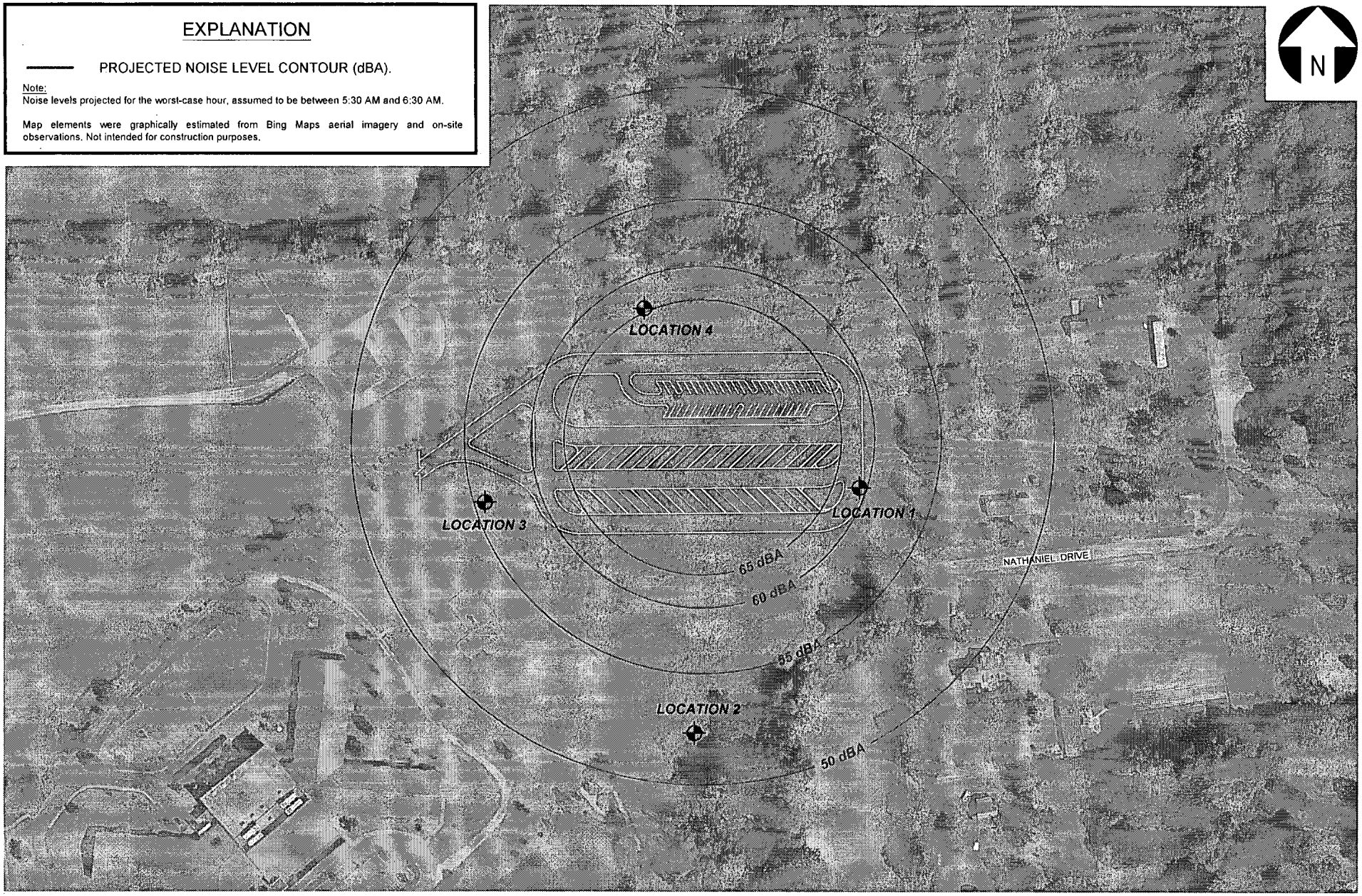
Figure 2

EXPLANATION

PROJECTED NOISE LEVEL CONTOUR (dBA).

Note:
Noise levels projected for the worst-case hour, assumed to be between 5:30 AM and 6:30 AM.

Map elements were graphically estimated from Bing Maps aerial imagery and on-site observations. Not intended for construction purposes.



0 100' 200'
1" = 200'
SCALE IN FEET

Project Mngr:	RLB
Drawn By:	VMG
Checked By:	RLB
Approved By:	WSA

Project No.	ES177065
Scale:	1" = 200'
File Name:	ES177065.dwg
Date:	March 22, 2017

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PROJECTED NOISE LEVELS

Noise Exposure Evaluation
Proposed James Island Bus Parking Lot
James Island, Charleston County, South Carolina

Figure 3

APPENDIX B

FIELD DATA DOCUMENTATION

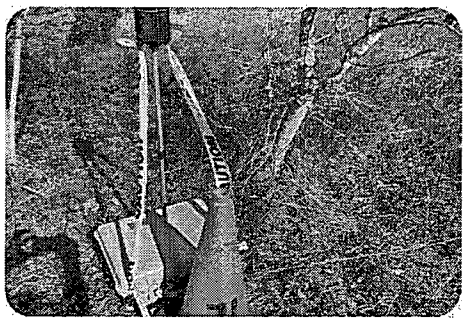
NOISE EXPOSURE EVALUATION
Terracon Project No. ES167065

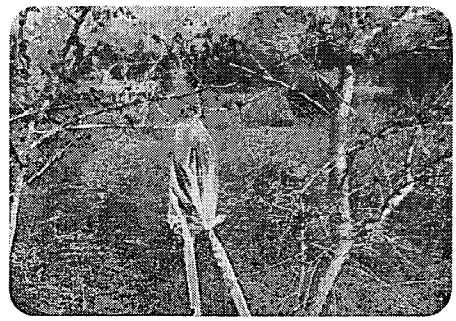
FIELD NOTES
Monitoring Period: 2/21/2017 - 2/22/2017
Conducted by : TAC Covington, III
Measurement ID: **Location 1**

Equipment and Data Collection
Quest Technologies ANSI Type II SoundPro Model SE Sound Level Meter with outdoor kit.
Noise measurements collected at 1-minute intervals

Latitude, Longitude
32.704, -79.973

Site Location
East of the proposed bus parking lot.





Location 1 Session Report

3/23/2017

Information Panel

Name	S011_BHJ050014_23032017_103729
Start Time	3/21/2017 7:42:38 AM
Stop Time	3/22/2017 7:57:06 AM
Device Name	BHJ050014
Model Type	SoundPro DL
Device Firmware Rev	R.13B
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	50.6 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	C
Response	2	SLOW			

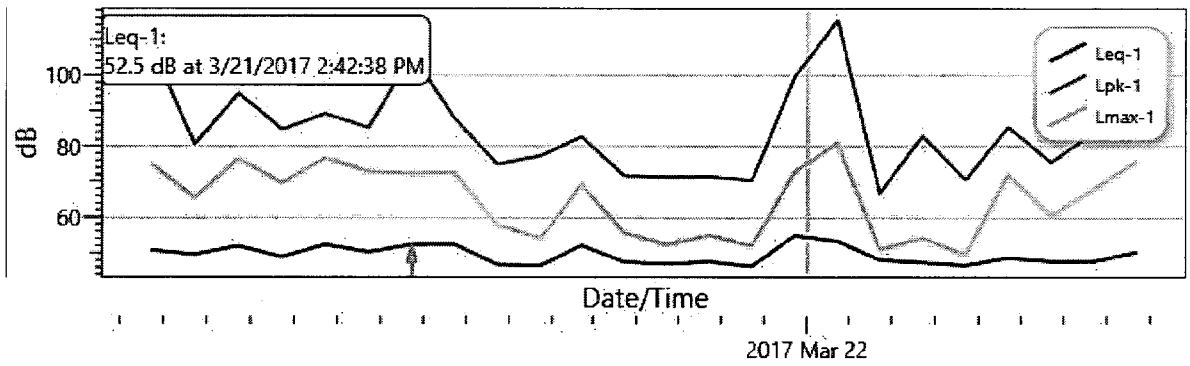
Logged Data Table

Date/Time	Leq-1	Lmax-1	Lmin-1
3/21/2017 8:42:38 AM	50.9	75.2	45
9:42:38 AM	49.7	65.7	45.4
10:42:38 AM	52.1	76.6	45.1
11:42:38 AM	49	69.8	44.8
12:42:38 PM	52.5	76.8	45.3
1:42:38 PM	50.4	73	44.9
2:42:38 PM	52.5	72.4	45.1
3:42:38 PM	52.6	72.7	45.3
4:42:38 PM	46.9	58	45
5:42:38 PM	46.6	54.2	45.1
6:42:38 PM	52.3	69.5	45.2
7:42:38 PM	47.6	55.7	45.1
8:42:38 PM	47.1	52.5	45.2
9:42:38 PM	47.7	55.1	45.3

10:42:38 PM	46.4	52.1	44.9
11:42:38 PM	55	72.9	45.3
3/22/2017 12:42:38 AM	53.5	81	44.8
1:42:38 AM	48.2	51.1	44.7
2:42:38 AM	47.5	54.3	44.6
3:42:38 AM	46.7	49.7	44.6
4:42:38 AM	48.8	72.1	44.8
5:42:38 AM	47.8	60.5	45
6:42:38 AM	47.8	68.1	45.1
7:42:38 AM	50.4	76	45

Logged Data Chart

S011_BHJ050014_23032017_103729: Logged Data Chart



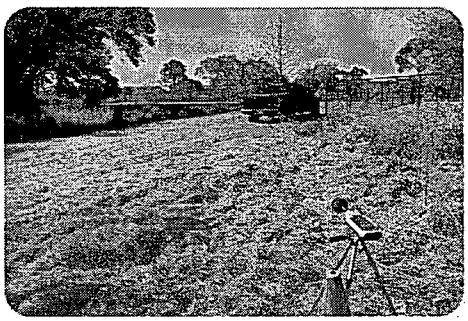
NOISE EXPOSURE EVALUATION
Terracon Project No. ES177065

FIELD NOTES
Monitoring Period: 3/21/2017 - 3/22/2017
Conducted by : TAC Covington, III
Measurement ID: **Location 2**

Equipment and Data Collection
Quest Technologies ANSI Type II SoundPro Model SE Sound Level Meter.
Noise measurements collected at 1-minute intervals

Latitude, Longitude
32.703, -79.974

Site Location
South of the proposed bus parking lot.





Location 2 Session Report - 1

3/23/2017

Information Panel

Name	S013_BIQ090012_23032017_112545
Start Time	3/21/2017 9:03:55 AM
Stop Time	3/21/2017 3:36:47 PM
Device Name	BIQ090012
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	52.4 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	C
Response	2	FAST			

Logged Data Table

Date/Time	Leq-1	Lmin-1	Lmax-1
3/21/2017 9:04:55 AM	49.9	45.6	55.4
9:05:55 AM	51	47	59.1
9:06:55 AM	47.6	45.5	50.4
9:07:55 AM	47	45.3	50.6
9:08:55 AM	47.8	46.3	49.9
9:09:55 AM	47.1	46	49
9:10:55 AM	50.3	46	57.2
9:11:55 AM	47.7	46.1	50.1
9:12:55 AM	46.6	45.5	48.1
9:13:55 AM	47	45.4	49.7
9:14:55 AM	47	45.7	50.7
9:15:55 AM	51.5	46.2	57.5
9:16:55 AM	50.3	46.9	53.9
9:17:55 AM	48.4	46.7	52.5

9:18:55 AM	47.3	46.6	48.5
9:19:55 AM	47.9	45.9	53.4
9:20:55 AM	46.3	45.6	47.8
9:21:55 AM	46	45.4	46.6
9:22:55 AM	47	45.6	48.3
9:23:55 AM	47.2	45.6	50.5
9:24:55 AM	50.3	46.8	55
9:25:55 AM	49.5	46.7	51.9
9:26:55 AM	49.2	47.1	53.6
9:27:55 AM	49.7	47	54.5
9:28:55 AM	50.1	46.2	58.2
9:29:55 AM	50.7	46.8	58
9:30:55 AM	48.7	46.9	51.5
9:31:55 AM	49.7	47	52.5
9:32:55 AM	50.4	47.5	52.6
9:33:55 AM	48.4	47.2	51.2
9:34:55 AM	48.6	47.1	52.1
9:35:55 AM	48.9	47.2	54.3
9:36:55 AM	49.4	47.4	55.1
9:37:55 AM	49	47.3	51.2
9:38:55 AM	48.4	47.5	49.9
9:39:55 AM	49.9	47.5	57.6
9:40:55 AM	51.9	47.5	63.7
9:41:55 AM	52.6	47.8	59.8
9:42:55 AM	49.5	47.5	54.1
9:43:55 AM	49.4	47.4	52.6
9:44:55 AM	48.8	47.2	50.8
9:45:55 AM	53.1	48	61.5
9:46:55 AM	49.7	46.9	52.9
9:47:55 AM	48.4	47.2	51.4
9:48:55 AM	49.9	47.5	53.3
9:49:55 AM	52.2	48.9	57.4
9:50:55 AM	52.4	49.8	56.7
9:51:55 AM	51.4	48.2	58
9:52:55 AM	49.5	47	52.9
9:53:55 AM	53.4	48.5	61.2
9:54:55 AM	55.7	47.1	63.1

9:55:55 AM	54.9	46.4	66.9
9:56:55 AM	55.9	47.5	68.2
9:57:55 AM	58.5	48.4	70.4
9:58:55 AM	49.9	47.6	56.4
9:59:55 AM	49.4	47.6	53.6
10:00:55 AM	47.6	46.5	48.6
10:01:55 AM	47.8	46.6	50.5
10:02:55 AM	47.8	46.2	51.3
10:03:55 AM	47.7	46.3	50.9
10:04:55 AM	48.6	47.4	52.1
10:05:55 AM	48.5	47.1	51.6
10:06:55 AM	48.1	47.1	51.8
10:07:55 AM	48	47.1	48.9
10:08:55 AM	47.5	46.6	48.8
10:09:55 AM	47.4	45.5	53.4
10:10:55 AM	46.7	45.7	49.2
10:11:55 AM	47.3	46.5	49.9
10:12:55 AM	49	46.7	53.6
10:13:55 AM	49.9	48.3	53
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10:17:55 AM	49.5	47.3	52.8
10:18:55 AM	56.8	48.5	64.3
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10:29:55 AM	48.8	48.2	50.5
10:30:55 AM	52.1	48.2	57.5
10:31:55 AM	50.1	48.3	53.4

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10:56:55 AM	48.2	46.7	51.4
10:57:55 AM	47.4	46.4	49.4
10:58:55 AM	47.2	45.3	50.1
10:59:55 AM	46.6	45.6	50.7
11:00:55 AM	56.2	45.6	68.3
11:01:55 AM	62	46.9	72.6
11:02:55 AM	47.6	46.7	49.7
11:03:55 AM	47.7	46.8	50.6
11:04:55 AM	46.9	45.8	48.7
11:05:55 AM	47.4	45.8	54.2
11:06:55 AM	47.5	46	52.5
11:07:55 AM	46.6	45.4	49.1
11:08:55 AM	47	45.4	50.1

11:09:55 AM	48.1	47.1	52.1
11:10:55 AM	47.2	46.6	48.5
11:11:55 AM	47.2	46.4	49.4
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11:13:55 AM	47.1	46.4	47.8
11:14:55 AM	47.5	46.2	50.8
11:15:55 AM	47.3	46.4	52.3
11:16:55 AM	62.8	46.9	72.2
11:17:55 AM	49.4	47.6	52.4
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11:19:55 AM	47.9	46.8	49.3
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11:23:55 AM	47.8	46.3	50.9
11:24:55 AM	47.7	46.6	48.9
11:25:55 AM	47.7	46.9	48.8
11:26:55 AM	47.4	46.5	48.7
11:27:55 AM	47.4	46.3	48.8
11:28:55 AM	52.5	47.4	58.8
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11:32:55 AM	47.9	45.8	50.2
11:33:55 AM	49.2	47.5	54.1
11:34:55 AM	49.9	47.2	54.2
11:35:55 AM	47.7	46.7	49.6
11:36:55 AM	47.2	46	49
11:37:55 AM	46.9	46	48.4
11:38:55 AM	47.4	45.7	51.4
11:39:55 AM	46.9	45.8	48.9
11:40:55 AM	49.9	46.3	53.8
11:41:55 AM	54.3	47.5	61.7
11:42:55 AM	52	47	60.5
11:43:55 AM	47.5	46.7	48.8
11:44:55 AM	47.1	46.3	48.2
11:45:55 AM	46.5	45.7	47.3

11:46:55 AM	46.4	45.7	48.7
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11:59:55 AM	48.6	47.7	49.5
12:00:55 PM	48.7	48.1	49.6
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12:02:55 PM	51.6	47.2	57.2
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12:55:55 PM	52.7	48.1	58.1
12:56:55 PM	53.6	48	61.2
12:57:55 PM	52.2	47.5	59.8
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12:59:55 PM	58.5	49.3	68.4

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1:42:55 PM	49.4	47.5	53.6
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1:44:55 PM	51.4	47	63.1
1:45:55 PM	48.3	45.7	54.7
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2:00:55 PM	47.3	46.6	48.8
2:01:55 PM	48.4	46.5	50.5
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2:04:55 PM	50.1	47.3	56.2
2:05:55 PM	48.6	46.8	55.6
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2:09:55 PM	46.8	45.7	50
2:10:55 PM	50.6	46.3	59.7
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2:12:55 PM	49.1	47	53.6
2:13:55 PM	47.8	46.8	49.3

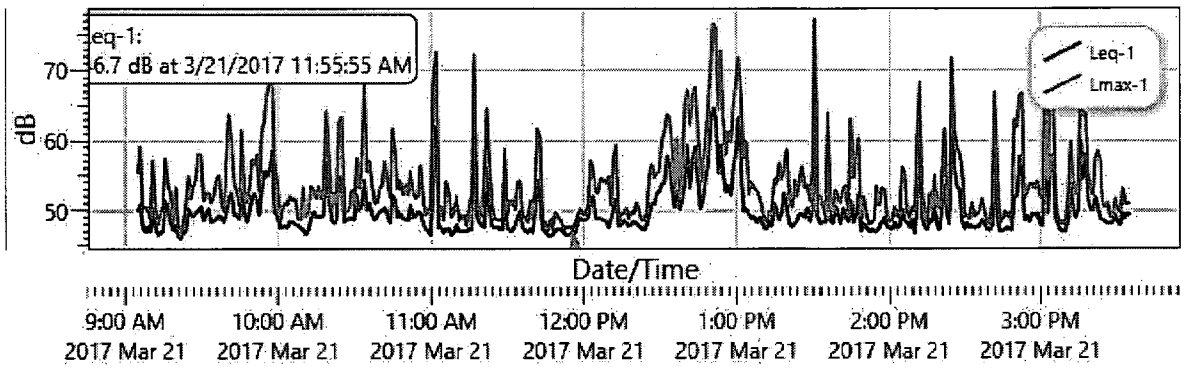
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2:16:55 PM	48.5	47.1	50.2
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2:18:55 PM	48	46.6	50.9
2:19:55 PM	47.3	45.6	50.4
2:20:55 PM	50.8	47.8	54.6
2:21:55 PM	53.5	48.3	61.7
2:22:55 PM	49.4	47.4	51.4
2:23:55 PM	48	47	49.8
2:24:55 PM	63.5	47.4	71.8
2:25:55 PM	56.1	47.9	61.8
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2:27:55 PM	53	46.7	58.2
2:28:55 PM	48.5	46.2	55.9
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2:32:55 PM	47.9	46.8	51.2
2:33:55 PM	47.5	46	49.2
2:34:55 PM	47.8	46.5	49.5
2:35:55 PM	47.7	46.6	50.2
2:36:55 PM	48.7	47.1	51.7
2:37:55 PM	48.2	47.1	50
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2:39:55 PM	47.2	46.5	48.1
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2:45:55 PM	47.3	46.2	49.9
2:46:55 PM	47.6	46.8	49.2
2:47:55 PM	47.4	46.4	49.7
2:48:55 PM	47.2	46.5	48.1
2:49:55 PM	52	46.3	63
2:50:55 PM	52	47.1	62

2:51:55 PM	57.8	46.9	66.4
2:52:55 PM	55.2	45.9	66.8
2:53:55 PM	48.6	46.3	51.7
2:54:55 PM	49.2	46.9	52.5
2:55:55 PM	48.4	47	53.7
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3:01:55 PM	59.5	48.5	66.6
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3:03:55 PM	57.9	47.4	69.2
3:04:55 PM	57.7	48.5	68.4
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3:08:55 PM	47	46.1	48.5
3:09:55 PM	47.1	46.1	48
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3:13:55 PM	49	47.1	52.4
3:14:55 PM	50	46.8	53.6
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3:17:55 PM	58	50.5	63.8
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3:19:55 PM	50.1	48.2	53.2
3:20:55 PM	50	48.1	52.3
3:21:55 PM	51.9	47.4	57.5
3:22:55 PM	50.5	47.1	58.5
3:23:55 PM	48.8	46.4	57.1
3:24:55 PM	48.6	47.4	50.6
3:25:55 PM	48.6	47.5	50.6
3:26:55 PM	48.1	46.7	51.2
3:27:55 PM	48.1	47.2	49.1

3:28:55 PM	48.3	47.6	49.4
3:29:55 PM	49.5	47.5	51.8
3:30:55 PM	48.4	47.1	50.3
3:31:55 PM	47.9	46.8	49.7
3:32:55 PM	49.6	47.6	53.2
3:33:55 PM	49	47.4	51
3:34:55 PM	49.6	48.2	51
3:35:55 PM	49.3	47.9	51.1

Logged Data Chart

S013_BIQ090012_23032017_112545: Logged Data Chart



Location 2 Session Report - 2

3/23/2017

Information Panel

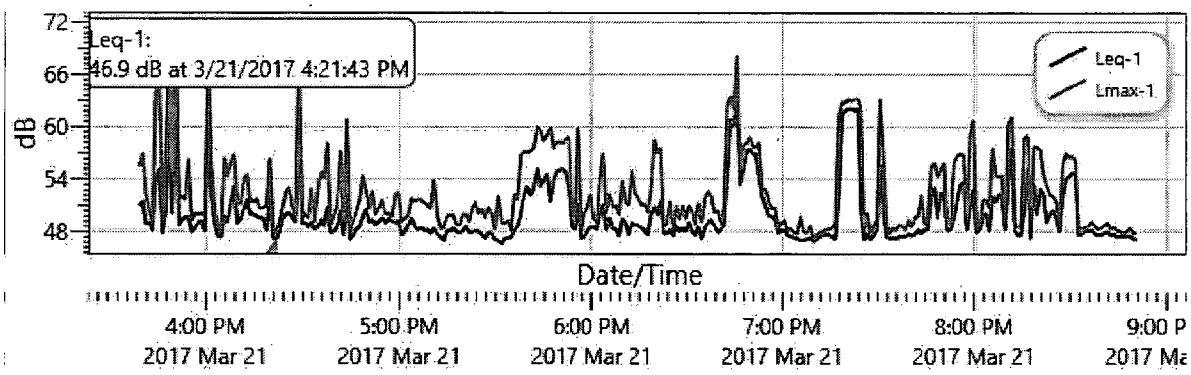
Name	S014_BIQ090012_23032017_112546
Start Time	3/21/2017 3:38:43 PM
Stop Time	3/21/2017 8:51:27 PM
Device Name	BIQ090012
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	52 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	C
Response	2	FAST			

Logged Data Chart

S014_BIQ090012_23032017_112546: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lmax-1	Lmin-1
3/21/2017 3:39:43 PM	50.9	55.4	49.4
3:40:43 PM	51.4	56.9	48.7
3:41:43 PM	48.8	52.2	47.1

Date/Time	Leq-1	Lmax-1	Lmin-1
3:42:43 PM	49	50.3	48.3
3:43:43 PM	48.1	49.1	47.4
3:44:43 PM	54.1	64	47.3
3:45:43 PM	55.1	64.7	47.5
3:46:43 PM	47.8	49.3	46.8
3:47:43 PM	50.2	57.3	47.3
3:48:43 PM	60.9	68.6	47.5
3:49:43 PM	50.1	55.2	46.8
3:50:43 PM	62.5	71.9	48.9
3:51:43 PM	48.7	51.8	47.5
3:52:43 PM	49.2	52	47.4
3:53:43 PM	49.6	51.6	47.9
3:54:43 PM	49.5	56.2	46.9
3:55:43 PM	47.9	49.2	46.6
3:56:43 PM	48.4	50	47
3:57:43 PM	49	50	47.3
3:58:43 PM	49.1	49.9	47.9
3:59:43 PM	48	50.1	47.3
4:00:43 PM	60	69.1	48.4
4:01:43 PM	51.8	56.3	48.9
4:02:43 PM	49.1	50.8	48
4:03:43 PM	47.4	48.5	46.8
4:04:43 PM	47.3	47.9	46.4
4:05:43 PM	49.7	56.4	46.9
4:06:43 PM	49.1	54.3	47.1
4:07:43 PM	51.1	55.8	48.3
4:08:43 PM	53.1	56.8	49.4
4:09:43 PM	48.9	51.5	47.9
4:10:43 PM	49.4	51.1	48.2
4:11:43 PM	50.5	53.8	48
4:12:43 PM	51.5	54.5	49.5
4:13:43 PM	49.9	51.4	48.7
4:14:43 PM	49.9	51.4	48.3
4:15:43 PM	49.7	51.7	48.2
4:16:43 PM	49.5	50.5	48.5
4:17:43 PM	49.5	50.7	47.9
4:18:43 PM	48.1	50.8	46.8

Date/Time	Leq-1	Lmax-1	Lmin-1
4:19:43 PM	51.7	56.3	47
4:20:43 PM	47.3	48.3	46.8
4:21:43 PM	46.9	47.8	46.2
4:22:43 PM	47.9	48.9	46.5
4:23:43 PM	49.3	50.5	47.9
4:24:43 PM	49.9	52.4	48.2
4:25:43 PM	50.1	53	48.2
4:26:43 PM	49.6	50.8	48.3
4:27:43 PM	49.1	49.9	47.2
4:28:43 PM	60.5	68.2	47.6
4:29:43 PM	48.9	50.4	46.4
4:30:43 PM	48.9	49.8	47.2
4:31:43 PM	48.5	49.4	47.6
4:32:43 PM	49	52.8	47.9
4:33:43 PM	48.2	49.1	47.2
4:34:43 PM	48.5	53	46.9
4:35:43 PM	49.3	54.7	46.5
4:36:43 PM	48.6	54.1	46.1
4:37:43 PM	50.7	58.1	47.2
4:38:43 PM	47.8	48.8	47.2
4:39:43 PM	48	49.7	47.2
4:40:43 PM	48.5	50.8	47.5
4:41:43 PM	50.2	57.1	47.9
4:42:43 PM	47.6	49.4	46.4
4:43:43 PM	52.1	60.8	46.6
4:44:43 PM	47	48	46.1
4:45:43 PM	47.5	49.1	46.4
4:46:43 PM	48.3	50.2	47.1
4:47:43 PM	48.4	51.5	46.9
4:48:43 PM	49.7	54.3	46.9
4:49:43 PM	50.5	52.7	49.4
4:50:43 PM	49	50.6	47
4:51:43 PM	49.3	52.5	47.3
4:52:43 PM	48.7	49.9	46.7
4:53:43 PM	49.1	50.7	47.3
4:54:43 PM	49.5	51.5	47.9
4:55:43 PM	48.9	49.9	47.2

Date/Time	Leq-1	Lmax-1	Lmin-1
4:56:43 PM	49.4	50	47.8
4:57:43 PM	49.1	49.6	47.9
4:58:43 PM	49	52.1	47.6
4:59:43 PM	49.1	52.5	46.8
5:00:43 PM	47.6	49.1	45.9
5:01:43 PM	47.9	49.4	46.6
5:02:43 PM	48.7	49.8	46.7
5:03:43 PM	49.5	51.7	48
5:04:43 PM	48.6	51.4	46.7
5:05:43 PM	48.1	51.6	45.8
5:06:43 PM	48.4	51.6	46.4
5:07:43 PM	48.1	51.2	46.4
5:08:43 PM	48.2	51	46.4
5:09:43 PM	47.7	50.5	46.2
5:10:43 PM	48.3	53.8	46.6
5:11:43 PM	47.7	49.9	46.6
5:12:43 PM	47.3	48.3	45.6
5:13:43 PM	46.9	48.4	45.8
5:14:43 PM	48	49.7	46.3
5:15:43 PM	48	49.8	45.6
5:16:43 PM	48.3	49.8	46.4
5:17:43 PM	47.9	48.7	46.3
5:18:43 PM	47.8	48.7	45.8
5:19:43 PM	48	49.9	46.7
5:20:43 PM	48.6	49.9	47.2
5:21:43 PM	47.8	49.1	46.3
5:22:43 PM	47.9	50.5	46.3
5:23:43 PM	48	51.3	46.3
5:24:43 PM	48	50	46.6
5:25:43 PM	47.6	50.5	46.2
5:26:43 PM	47.2	49.5	46.2
5:27:43 PM	47.8	50.7	46.3
5:28:43 PM	47.8	50	46.8
5:29:43 PM	47	48.2	45.6
5:30:43 PM	46.9	52	45.5
5:31:43 PM	46.5	49	45.7
5:32:43 PM	47.2	48.9	46.3

Date/Time	Leq-1	Lmax-1	Lmin-1
5:33:43 PM	47.2	49.2	46
5:34:43 PM	47.3	48.1	46.4
5:35:43 PM	48.1	52.2	46.8
5:36:43 PM	48.6	51.7	47
5:37:43 PM	50	56.8	46.8
5:38:43 PM	52.2	57.1	45.9
5:39:43 PM	53.1	57	46.9
5:40:43 PM	52.1	57.2	46.8
5:41:43 PM	53.1	57.6	46.6
5:42:43 PM	55.1	60	47.2
5:43:43 PM	53.1	59.5	46.5
5:44:43 PM	53.9	58.4	46.9
5:45:43 PM	54.5	59	47.2
5:46:43 PM	51.5	59.9	46.8
5:47:43 PM	53.8	57.5	46.8
5:48:43 PM	54.9	58.2	47.1
5:49:43 PM	55	58.3	46
5:50:43 PM	55.1	58.1	46.8
5:51:43 PM	54.7	58.6	47
5:52:43 PM	52.8	58.8	47.8
5:53:43 PM	48.6	50.4	47.9
5:54:43 PM	48.2	49.7	47.3
5:55:43 PM	51.1	59.8	46.6
5:56:43 PM	47.2	48	46.4
5:57:43 PM	47.4	50	46.7
5:58:43 PM	47.9	50.7	46.8
5:59:43 PM	48.5	52.2	47.3
6:00:43 PM	48.5	49.5	47.4
6:01:43 PM	48.2	49.1	47.4
6:02:43 PM	49.9	53.6	47.4
6:03:43 PM	51	56.9	47.6
6:04:43 PM	48.2	50.2	46.9
6:05:43 PM	49.5	52.3	47.1
6:06:43 PM	48.3	50.8	46.2
6:07:43 PM	48.2	50.9	46.4
6:08:43 PM	47.5	49.9	46.6
6:09:43 PM	49.4	53.7	46.9

Date/Time	Leq-1	Lmax-1	Lmin-1
6:10:43 PM	48.9	51.2	47
6:11:43 PM	47.6	51.1	46.6
6:12:43 PM	48.9	54.9	46.2
6:13:43 PM	48.7	52.4	46.7
6:14:43 PM	48.6	51.7	47
6:15:43 PM	48.4	51	46.4
6:16:43 PM	47.9	51.1	46.3
6:17:43 PM	47.6	50.2	46.5
6:18:43 PM	49.9	52.7	46.9
6:19:43 PM	50.8	58.5	47.2
6:20:43 PM	49.9	57	46.4
6:21:43 PM	51.4	57.5	47
6:22:43 PM	47.8	48.6	46.9
6:23:43 PM	47.7	48.9	46.9
6:24:43 PM	48.2	51.4	47.1
6:25:43 PM	47.5	48.3	47
6:26:43 PM	48.7	50.9	47.1
6:27:43 PM	48	49.4	47.2
6:28:43 PM	48.3	50.9	47
6:29:43 PM	48	49.4	47.1
6:30:43 PM	49	50.9	47
6:31:43 PM	47.9	50.3	46.7
6:32:43 PM	47.6	48.8	46.9
6:33:43 PM	48.5	51.2	47.4
6:34:43 PM	47.2	49.1	46.5
6:35:43 PM	48.5	51.8	46.8
6:36:43 PM	49	52.6	47.6
6:37:43 PM	49.3	52	47.9
6:38:43 PM	48.6	50.1	47.2
6:39:43 PM	47.9	50.4	47
6:40:43 PM	48.2	48.9	47.5
6:41:43 PM	48.7	50.6	47.4
6:42:43 PM	54.3	62.4	47.3
6:43:43 PM	60.8	63.4	59.8
6:44:43 PM	60.2	62.1	50.3
6:45:43 PM	62.8	68.1	49.9
6:46:43 PM	53.4	55.2	52.2

Date/Time	Leq-1	Lmax-1	Lmin-1
6:47:43 PM	55.1	57.9	48.7
6:48:43 PM	57.2	58.1	54.1
6:49:43 PM	57.4	58.8	50.6
6:50:43 PM	56.9	57.8	50.5
6:51:43 PM	56.9	57.6	54.7
6:52:43 PM	54.4	58.2	48
6:53:43 PM	51.9	52.7	51.2
6:54:43 PM	50.9	52.8	47.3
6:55:43 PM	49.8	51.5	48.8
6:56:43 PM	49.7	50.6	48.9
6:57:43 PM	49.3	50.7	47.5
6:58:43 PM	47.8	48.3	47.3
6:59:43 PM	48.1	48.9	47.5
7:00:43 PM	48.1	49.3	47.4
7:01:43 PM	47.6	48	47.1
7:02:43 PM	47.4	48.3	46.9
7:03:43 PM	47.3	47.9	46.9
7:04:43 PM	47.2	47.7	46.5
7:05:43 PM	47	49.7	46.6
7:06:43 PM	47	47.9	46.4
7:07:43 PM	47.1	47.9	46.7
7:08:43 PM	47.3	48.6	46.7
7:09:43 PM	46.8	47.2	46.4
7:10:43 PM	47.1	47.6	46.5
7:11:43 PM	47.4	47.8	47
7:12:43 PM	47.6	48	47.3
7:13:43 PM	47.7	48.2	47
7:14:43 PM	47.6	48.2	47.1
7:15:43 PM	47.4	48.4	46.9
7:16:43 PM	47.1	48.9	46.7
7:17:43 PM	52.1	61.2	47
7:18:43 PM	61.7	62.8	60.6
7:19:43 PM	61.8	62.7	61.1
7:20:43 PM	62.1	63.2	61.5
7:21:43 PM	62.1	62.9	61.4
7:22:43 PM	61.9	63.2	61.4
7:23:43 PM	62	63.2	61

Date/Time	Leq-1	Lmax-1	Lmin-1
7:24:43 PM	50.2	62	46.5
7:25:43 PM	47.1	47.9	46.7
7:26:43 PM	47.7	50	46.9
7:27:43 PM	47.1	47.6	46.9
7:28:43 PM	47.6	48.7	46.9
7:29:43 PM	48.1	49.3	47.1
7:30:43 PM	55.5	63.1	47.3
7:31:43 PM	50.2	56.8	47
7:32:43 PM	47.4	48.8	46.9
7:33:43 PM	47.2	47.7	46.8
7:34:43 PM	47.3	48.4	46.7
7:35:43 PM	47.2	48.1	46.7
7:36:43 PM	47.3	48.7	46.5
7:37:43 PM	47.5	48.6	46.7
7:38:43 PM	47.4	48.1	46.7
7:39:43 PM	47.7	49.3	47
7:40:43 PM	47.5	48.5	46.6
7:41:43 PM	47.7	49.6	47
7:42:43 PM	48.2	49.7	47
7:43:43 PM	47.8	52.1	46.4
7:44:43 PM	48.2	48.9	47.2
7:45:43 PM	48.2	49.4	47.4
7:46:43 PM	52.2	55.4	47.5
7:47:43 PM	53	55.8	47.7
7:48:43 PM	49.6	54.2	48
7:49:43 PM	52.4	55.1	47.7
7:50:43 PM	51.9	55.8	47.5
7:51:43 PM	48.1	48.6	47.2
7:52:43 PM	48.2	49	47.4
7:53:43 PM	49.4	55.8	47.3
7:54:43 PM	51.4	56.7	46.8
7:55:43 PM	53.4	56.9	47.2
7:56:43 PM	53.5	56.8	47.8
7:57:43 PM	48.2	49.1	47.2
7:58:43 PM	50.7	59.1	47.2
7:59:43 PM	52.7	60.7	47.5
8:00:43 PM	47.9	48.4	47.5

Date/Time	Leq-1	Lmax-1	Lmin-1
8:01:43 PM	48.2	48.7	47.7
8:02:43 PM	49.7	51.6	47.8
8:03:43 PM	50	51.6	48.2
8:04:43 PM	48.1	50.8	47.4
8:05:43 PM	51.9	57.5	47.4
8:06:43 PM	51.4	54.3	47.9
8:07:43 PM	52.3	54.3	48
8:08:43 PM	52	54.4	47.8
8:09:43 PM	48.2	48.9	47.6
8:10:43 PM	54.1	60.2	47.5
8:11:43 PM	57.4	61.1	47.7
8:12:43 PM	48	48.4	47.4
8:13:43 PM	47.6	48.6	47.1
8:14:43 PM	47.5	48.6	46.9
8:15:43 PM	50.7	58.6	47.3
8:16:43 PM	55.1	59	47
8:17:43 PM	47.2	47.8	46.9
8:18:43 PM	53.4	57.7	46.8
8:19:43 PM	50	57.7	46.5
8:20:43 PM	52.9	57.4	46.9
8:21:43 PM	52.2	54.5	46.7
8:22:43 PM	49	53.3	46.7
8:23:43 PM	49.9	52.2	47.5
8:24:43 PM	50.4	52.1	47.3
8:25:43 PM	49.5	51.4	47.4
8:26:43 PM	48	48.7	47.1
8:27:43 PM	51.7	55.5	47.2
8:28:43 PM	53.9	57	47.5
8:29:43 PM	54.3	56.5	48.7
8:30:43 PM	54.7	56.6	48.4
8:31:43 PM	54.6	56.3	47.3
8:32:43 PM	47.6	48.1	47.1
8:33:43 PM	47.7	48.3	47.3
8:34:43 PM	48	48.5	47.5
8:35:43 PM	48.1	48.6	47.6
8:36:43 PM	48.2	49.1	47.4
8:37:43 PM	47.7	48.7	47

Date/Time	Leq-1	Lmax-1	Lmin-1
8:38:43 PM	47.6	48.2	47.1
8:39:43 PM	47.6	48.4	47
8:40:43 PM	47.8	48.7	47.1
8:41:43 PM	48	49	47.3
8:42:43 PM	47.6	48.3	47.2
8:43:43 PM	47.7	48.5	47.1
8:44:43 PM	47.3	48.1	46.3
8:45:43 PM	47.5	48	46.8
8:46:43 PM	47.4	47.8	46.9
8:47:43 PM	47.5	48	47.1
8:48:43 PM	47.5	48.4	47
8:49:43 PM	47.1	47.7	46.8
8:50:43 PM	47.1	47.9	46.5

NOISE EXPOSURE EVALUATION
Terracon Project No. ES177065

FIELD NOTES
Monitoring Period: 3/21/2017 - 3/22/2017
Conducted by : TAC Covington, III
Measurement ID: **Location 3**

Equipment and Data Collection
Quest Technologies ANSI Type II SoundPro Model SE Sound Level Meter.
Noise measurements collected at 1-minute intervals

Latitude, Longitude
32.704, -79.975

Site Location
West of the proposed bus parking lot.





Location 3 Session Report - 1

3/23/2017

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	57.5 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	C
Response	2	FAST			

Information Panel

Name	S070_BGI070015_23032017_124944
Start Time	3/21/2017 9:10:25 AM
Stop Time	3/21/2017 3:22:15 PM
Device Name	BLI050006
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Logged Data Table

Date/Time	Leq-1	Lmax-1	Lmin-1
3/21/2017 9:11:25 AM	77.8	95	48
9:12:25 AM	61.8	78.8	47
9:13:25 AM	48.5	51	47
9:14:25 AM	54.4	62.3	47
9:15:25 AM	52.3	58.5	48.1
9:16:25 AM	53.1	59	49
9:17:25 AM	49.2	51.2	47.9
9:18:25 AM	49.1	50.7	47.9
9:19:25 AM	48.2	48.8	47.6
9:20:25 AM	47.1	48.6	46.1
9:21:25 AM	46.8	47.9	45.9
9:22:25 AM	46.7	49	45.6
9:23:25 AM	46.3	47.4	45.4
9:24:25 AM	48.2	52.3	46.1

9:25:25 AM	48.2	50.3	47.1
9:26:25 AM	48	50.5	47
9:27:25 AM	48.3	49.2	47.4
9:28:25 AM	47.7	51.2	46.1
9:29:25 AM	47.6	50.3	46.4
9:30:25 AM	50.6	63.6	46.6
9:31:25 AM	47.4	48.9	46.5
9:32:25 AM	49.2	52.6	46.4
9:33:25 AM	49.3	52.7	48
9:34:25 AM	50.8	57.3	48.7
9:35:25 AM	50.9	54.5	48.2
9:36:25 AM	49.8	52.7	47.6
9:37:25 AM	50.1	53	48.4
9:38:25 AM	48.4	50.2	47.2
9:39:25 AM	53.1	62.4	47.9
9:40:25 AM	52.5	58.4	47.9
9:41:25 AM	57.1	68.5	48.6
9:42:25 AM	51.4	57.2	48.6
9:43:25 AM	57.5	72.5	48.4
9:44:25 AM	52.2	63.4	47.6
9:45:25 AM	50.4	56.1	47.8
9:46:25 AM	51.2	56.2	48.1
9:47:25 AM	50.1	55.5	47.5
9:48:25 AM	51.7	59.1	47.7
9:49:25 AM	56.6	67.9	51.1
9:50:25 AM	67.1	82.3	52.1
9:51:25 AM	53.9	61.1	50.9
9:52:25 AM	54.6	65.4	49.3
9:53:25 AM	56.7	61.2	51.5
9:54:25 AM	59.3	68.4	50.4
9:55:25 AM	52.3	59.2	48.3
9:56:25 AM	55.9	67.3	48.5
9:57:25 AM	54.7	67.7	48.9
9:58:25 AM	54.9	63.7	49.6
9:59:25 AM	54.5	61.9	49.5
10:00:25 AM	53.2	61.9	47.9
10:01:25 AM	52.3	57.2	48.1

10:02:25 AM	55.7	65.3	48.8
10:03:25 AM	55.7	62.2	49.3
10:04:25 AM	55.2	62.7	49.9
10:05:25 AM	55.4	61.5	49.8
10:06:25 AM	54.4	61.8	48.5
10:07:25 AM	49.3	52.8	47.6
10:08:25 AM	49.3	52.4	46.7
10:09:25 AM	47.4	49.6	46.7
10:10:25 AM	47.2	48.6	46.1
10:11:25 AM	51.9	58.8	46.4
10:12:25 AM	50.4	54.4	47.6
10:13:25 AM	50.6	52.7	49.3
10:14:25 AM	50.7	53.8	49.6
10:15:25 AM	50.2	51.8	48.8
10:16:25 AM	48.9	51.1	46.8
10:17:25 AM	49	53.4	47.2
10:18:25 AM	57.7	66.9	48
10:19:25 AM	55.3	64.6	48.9
10:20:25 AM	49.8	52.6	48.2
10:21:25 AM	49.7	51.7	47.9
10:22:25 AM	49.9	53.9	48.5
10:23:25 AM	51.7	57.8	49.2
10:24:25 AM	57.9	65.4	48.8
10:25:25 AM	49.8	51.9	47.2
10:26:25 AM	48.5	51.7	47.1
10:27:25 AM	49.9	52.4	47.1
10:28:25 AM	50.5	52.8	48.1
10:29:25 AM	50.7	52.9	49.2
10:30:25 AM	50.7	56.6	48.8
10:31:25 AM	51.5	55.2	49.2
10:32:25 AM	50.1	53.3	47.5
10:33:25 AM	51	59.1	47.6
10:34:25 AM	49.4	54.4	47.3
10:35:25 AM	49	50.6	47.2
10:36:25 AM	50.2	53.3	48.6
10:37:25 AM	50.5	52	49.3
10:38:25 AM	51.5	54.7	49.4

10:39:25 AM	52.6	58	49.6
10:40:25 AM	53.1	61.5	49.2
10:41:25 AM	52.2	59.1	48.9
10:42:25 AM	56.9	66.1	48.8
10:43:25 AM	54.9	62.8	49.3
10:44:25 AM	55.8	62	48
10:45:25 AM	54.6	61.9	49.9
10:46:25 AM	55.6	62	50.2
10:47:25 AM	56.9	63.7	51.6
10:48:25 AM	56.9	63.9	50.8
10:49:25 AM	58.7	71.5	48.9
10:50:25 AM	60.6	72.5	49
10:51:25 AM	57	65.9	51.7
10:52:25 AM	55	62.4	49.2
10:53:25 AM	57.6	62.2	51.8
10:54:25 AM	56.5	63.6	52
10:55:25 AM	53.9	62.9	49.9
10:56:25 AM	53.5	63.4	47
10:57:25 AM	51.3	58.1	46.8
10:58:25 AM	48.3	51.2	46.4
10:59:25 AM	48.7	52.8	46.8
11:00:25 AM	47.9	53	46.4
11:01:25 AM	67.3	79.4	47.7
11:02:25 AM	48	49	47.3
11:03:25 AM	48.5	49.8	47.8
11:04:25 AM	47.8	52.8	45.8
11:05:25 AM	46.9	48.2	46.1
11:06:25 AM	46.4	47.6	45.8
11:07:25 AM	46.6	47.4	46.1
11:08:25 AM	47	49	45.7
11:09:25 AM	48.2	49.5	47.6
11:10:25 AM	48.9	49.9	47.8
11:11:25 AM	48.7	50.4	47.7
11:12:25 AM	48.9	50.1	46.8
11:13:25 AM	50.2	55.2	46.5
11:14:25 AM	51.2	58.1	47.2
11:15:25 AM	50.7	58.6	47.2

11:16:25 AM	67.2	77.2	47.9
11:17:25 AM	51.2	56.5	48.9
11:18:25 AM	49.1	53.3	47.8
11:19:25 AM	52.5	61.6	48.4
11:20:25 AM	55.3	67.7	47.5
11:21:25 AM	61.1	70.1	47.8
11:22:25 AM	57.5	64.5	48.6
11:23:25 AM	56.4	64.4	48
11:24:25 AM	52.3	57	49.6
11:25:25 AM	54.9	63	49.7
11:26:25 AM	51.4	57.2	48.5
11:27:25 AM	54	61.7	49.5
11:28:25 AM	55.6	63.4	50.2
11:29:25 AM	53.8	60.8	49.1
11:30:25 AM	54.7	62.2	48.8
11:31:25 AM	56.1	64.9	50
11:32:25 AM	54.8	61.9	47.9
11:33:25 AM	56.1	65.1	50.5
11:34:25 AM	57.1	62.8	50.1
11:35:25 AM	56	68.5	49.5
11:36:25 AM	53.8	61.4	49.4
11:37:25 AM	56	62.1	49.6
11:38:25 AM	58.9	65.5	49.5
11:39:25 AM	52.9	57.4	48.7
11:40:25 AM	56.5	64.7	49.9
11:41:25 AM	54	59.1	49.7
11:42:25 AM	54.6	59.1	50.3
11:43:25 AM	49.2	51.7	47.6
11:44:25 AM	48	48.9	46.6
11:45:25 AM	46.9	49.5	46
11:46:25 AM	46.7	47.6	46
11:47:25 AM	47.3	48.2	46.1
11:48:25 AM	47.6	49.1	46.6
11:49:25 AM	50.5	53.7	47.9
11:50:25 AM	55.5	62	48.8
11:51:25 AM	59.2	64	53.6
11:52:25 AM	58.7	64.8	50.3

11:53:25 AM	59.4	64.6	52.8
11:54:25 AM	57.6	62.4	51.8
11:55:25 AM	58.5	63.5	52.2
11:56:25 AM	59.8	66.1	54.6
11:57:25 AM	58.3	64.6	53.6
11:58:25 AM	54.2	60.9	48.3
11:59:25 AM	49.6	51.1	48.4
12:00:25 PM	50	53.7	48.3
12:01:25 PM	48.4	52.8	47.2
12:02:25 PM	48.7	54.6	46.3
12:03:25 PM	53	57.8	50.1
12:04:25 PM	49.6	54.5	46.7
12:05:25 PM	49.9	53.7	47.5
12:06:25 PM	50.4	53.5	48.7
12:07:25 PM	49.3	51.4	47.9
12:08:25 PM	49.1	50.6	48.1
12:09:25 PM	49.4	52.1	47.2
12:10:25 PM	48.6	50.6	47.4
12:11:25 PM	47.8	50	46.6
12:12:25 PM	48.4	52	46.6
12:13:25 PM	49.2	53.4	47.2
12:14:25 PM	48.8	49.7	47.9
12:15:25 PM	49.4	51.4	48
12:16:25 PM	49.6	52.2	48.4
12:17:25 PM	47.6	49.1	46.6
12:18:25 PM	47.3	49	46.4
12:19:25 PM	48.2	50.5	47
12:20:25 PM	48.1	50.8	46.1
12:21:25 PM	48	49.3	46.3
12:22:25 PM	48.8	50.1	47.9
12:23:25 PM	49.4	53.5	47.9
12:24:25 PM	50.2	53.9	48.3
12:25:25 PM	48.2	50	47
12:26:25 PM	49	53.2	47.1
12:27:25 PM	52.5	65.6	48
12:28:25 PM	48.9	52.1	47.2
12:29:25 PM	51.4	54.3	48.9

12:30:25 PM	52.3	58.3	49.7
12:31:25 PM	51.4	56	48.9
12:32:25 PM	51.7	55.2	49.9
12:33:25 PM	52.3	57.9	47.7
12:34:25 PM	56.9	66.6	49.1
12:35:25 PM	60	67.5	52.1
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12:45:25 PM	57.3	64.7	49.8
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12:47:25 PM	52.9	58.3	48.8
12:48:25 PM	50.5	55.5	48.4
12:49:25 PM	64.1	73.9	47.5
12:50:25 PM	52.6	58.8	48.9
12:51:25 PM	53.5	61.4	48.9
12:52:25 PM	53.1	59	49.7
12:53:25 PM	52.6	60.1	49.9
12:54:25 PM	53.5	58.8	50.4
12:55:25 PM	52.2	56	49.6
12:56:25 PM	53.4	62.6	48.6
12:57:25 PM	54.2	62	48.3
12:58:25 PM	53.8	61.7	49.5
12:59:25 PM	54.8	62	49.7
1:00:25 PM	53.5	59.2	49
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1:02:25 PM	59.2	64.7	50.5
1:03:25 PM	55.1	59.3	51.8
1:04:25 PM	54.6	57.6	51.5
1:05:25 PM	60.1	68.2	49.5
1:06:25 PM	50.1	55.1	47.9

1:07:25 PM	49.3	51.5	47.6
1:08:25 PM	48.3	56.2	46.6
1:09:25 PM	48.6	50	47.5
1:10:25 PM	49.3	51.6	47.9
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1:12:25 PM	49	50.3	47.8
1:13:25 PM	49.2	50.4	47.9
1:14:25 PM	52.7	58.1	48.5
1:15:25 PM	54.8	57.9	51
1:16:25 PM	50.3	54.4	48.5
1:17:25 PM	50.8	54.8	48.7
1:18:25 PM	52	55.8	48.3
1:19:25 PM	51.2	54.8	49
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1:21:25 PM	49	53.1	46.8
1:22:25 PM	47.5	48.6	46.6
1:23:25 PM	50.4	58.1	46.9
1:24:25 PM	51.4	57.1	47.1
1:25:25 PM	49.6	54.7	47.1
1:26:25 PM	50	53.9	48.1
1:27:25 PM	51.9	56	49.3
1:28:25 PM	50.7	55.5	48.8
1:29:25 PM	50.5	55.3	48.3
1:30:25 PM	65.5	75.9	48.2
1:31:25 PM	51.3	55.7	48.6
1:32:25 PM	50.5	56.4	48.3
1:33:25 PM	49.2	50.7	47.5
1:34:25 PM	49.7	51.9	48.3
1:35:25 PM	59.2	66.9	48.4
1:36:25 PM	52.3	60.1	49.8
1:37:25 PM	50.9	53.9	48.3
1:38:25 PM	49.4	51.8	47.4
1:39:25 PM	51.6	58.7	48.2
1:40:25 PM	49.9	55.7	47.7
1:41:25 PM	51.5	59.9	48
1:42:25 PM	53.1	56.3	48.9
1:43:25 PM	49.5	51.2	48.6

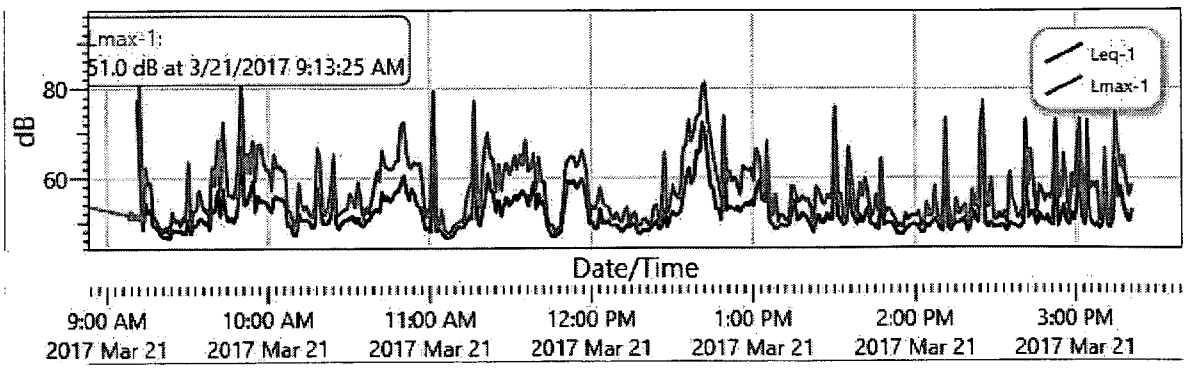
1:44:25 PM	49.4	51.8	48.5
1:45:25 PM	48.6	55.9	46.7
1:46:25 PM	48.2	52.4	46.9
1:47:25 PM	55.9	64.3	46.6
1:48:25 PM	49.1	51.2	47.7
1:49:25 PM	49.9	52.9	48
1:50:25 PM	49.8	53	48.5
1:51:25 PM	49.6	51.7	48
1:52:25 PM	48.7	50.7	47.6
1:53:25 PM	47.2	48.7	46.1
1:54:25 PM	47.4	49.5	46.4
1:55:25 PM	47.2	48.7	46.5
1:56:25 PM	48.1	51.8	46.7
1:57:25 PM	48.6	50.3	47.1
1:58:25 PM	49.2	51.3	48.3
1:59:25 PM	49.5	51.3	48.3
2:00:25 PM	49.4	51.4	48.1
2:01:25 PM	48.4	52.3	46.6
2:02:25 PM	47.5	49	46.7
2:03:25 PM	47.7	49.8	46.4
2:04:25 PM	49.4	54.4	46.9
2:05:25 PM	48.9	51.1	47.2
2:06:25 PM	49.9	51.6	49.1
2:07:25 PM	50.7	58.2	48.6
2:08:25 PM	49.7	51.4	48.6
2:09:25 PM	48.4	50.6	46.4
2:10:25 PM	47.8	49.2	46.7
2:11:25 PM	64	73.3	47.1
2:12:25 PM	48.8	53.5	46.7
2:13:25 PM	48	49.4	46.6
2:14:25 PM	49.1	50	47.6
2:15:25 PM	49.9	55.2	47.8
2:16:25 PM	49.7	51.6	48.9
2:17:25 PM	50.4	52.6	49
2:18:25 PM	50.9	54	47.3
2:19:25 PM	47.7	49.4	46.8
2:20:25 PM	48.4	51.2	46.7

2:21:25 PM	52.5	57.4	48.1
2:22:25 PM	51	53.5	48.9
2:23:25 PM	49.8	53	48.4
2:24:25 PM	60.4	72.4	48.8
2:25:25 PM	66.2	77.5	47.3
2:26:25 PM	49.3	56.5	46.9
2:27:25 PM	48.8	53.3	47.2
2:28:25 PM	49.9	59.9	46.8
2:29:25 PM	48.7	50.7	47
2:30:25 PM	49	50.3	47.9
2:31:25 PM	48.8	52	47.6
2:32:25 PM	49.3	50.9	47.5
2:33:25 PM	49	52.1	47.2
2:34:25 PM	47.9	49.8	46.7
2:35:25 PM	49.8	61.3	46.9
2:36:25 PM	49.2	55.2	47
2:37:25 PM	49.3	53.6	47.4
2:38:25 PM	48.7	50.9	47.7
2:39:25 PM	48.6	51.3	47.6
2:40:25 PM	49.6	53.4	47.9
2:41:25 PM	63.3	73.1	48.2
2:42:25 PM	50.9	58.3	47.9
2:43:25 PM	52.1	66.3	46.9
2:44:25 PM	52.1	57.6	48.9
2:45:25 PM	49.4	52.2	47.8
2:46:25 PM	51.9	58.3	48.3
2:47:25 PM	50.6	57	47.9
2:48:25 PM	50.3	54.6	48.3
2:49:25 PM	51.4	56.2	47.7
2:50:25 PM	49.6	55.4	47.3
2:51:25 PM	49.2	57.3	46.9
2:52:25 PM	63.6	73.2	46.5
2:53:25 PM	49	55	46.5
2:54:25 PM	51.3	55.8	48.2
2:55:25 PM	53.8	65.4	48.3
2:56:25 PM	50.3	58.1	47.4
2:57:25 PM	49.3	51.5	47.3

2:58:25 PM	51.9	60.9	47.7
2:59:25 PM	50.4	57.8	47.5
3:00:25 PM	53.3	63.5	46.9
3:01:25 PM	63.5	73.4	47.8
3:02:25 PM	51.1	57.2	48.1
3:03:25 PM	49.3	51.1	48.2
3:04:25 PM	63.8	73	48.9
3:05:25 PM	51.2	57.4	48.3
3:06:25 PM	49.8	58.8	46.8
3:07:25 PM	49	58	47.2
3:08:25 PM	49.7	59.1	47.1
3:09:25 PM	48.5	50.4	47
3:10:25 PM	49.7	51.9	48.5
3:11:25 PM	57.5	66.8	49
3:12:25 PM	49.3	51.4	48.4
3:13:25 PM	48.7	50.2	47.3
3:14:25 PM	50.7	57.9	46.7
3:15:25 PM	64	75.4	47.5
3:16:25 PM	55.7	67.1	47.8
3:17:25 PM	58.2	62.5	51.7
3:18:25 PM	53.9	64.9	50.1
3:19:25 PM	51.4	59.3	49.4
3:20:25 PM	50.2	55.9	48.4
3:21:25 PM	52.9	58.6	48.2

Logged Data Chart

S070_BGI070015_23032017_124944: Logged Data Chart



Location 3 Session Report - 2

3/23/2017

Information Panel

Name	S071_BGI070015_23032017_124945
Start Time	3/21/2017 3:26:01 PM
Stop Time	3/21/2017 8:41:04 PM
Device Name	BLI050006
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	51.9 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	C
Response	2	FAST			

Logged Data Table

Date/Time	Leq-1	Lmax-1	Lmin-1
3/21/2017 3:27:01 PM	51.3	58.7	48.4
3:28:01 PM	51.7	56.9	49.2
3:29:01 PM	52.8	58.9	49.3
3:30:01 PM	51	55.2	47.4
3:31:01 PM	49.7	53.4	47.8
3:32:01 PM	50	59	47.5
3:33:01 PM	49.4	56.5	47.4
3:34:01 PM	50.4	56.5	47.2
3:35:01 PM	52.8	60.9	48.4
3:36:01 PM	51.3	63.1	47.6
3:37:01 PM	51.2	57.9	48.5
3:38:01 PM	53.6	61.8	48.3
3:39:01 PM	52.4	58.3	49.6
3:40:01 PM	50.9	59.2	47.7

3:41:01 PM	51.9	56.8	48.5
3:42:01 PM	52.2	62.6	47.6
3:43:01 PM	50.5	56.1	48.9
3:44:01 PM	51.4	60	48.7
3:45:01 PM	63.1	72.8	48.3
3:46:01 PM	48.6	51.8	46.8
3:47:01 PM	50.6	57.6	46.9
3:48:01 PM	64.6	73.5	47.4
3:49:01 PM	56.4	66.4	47.2
3:50:01 PM	66.5	76.7	48.5
3:51:01 PM	51.4	56.7	48.2
3:52:01 PM	53.1	65	48.3
3:53:01 PM	50.9	54.3	49
3:54:01 PM	50	54.4	47
3:55:01 PM	48.4	53.2	46.7
3:56:01 PM	48.5	52.2	46.9
3:57:01 PM	49	50.9	47.8
3:58:01 PM	49.4	50.9	47.6
3:59:01 PM	50.6	52.7	49
4:00:01 PM	60.5	70.7	48.9
4:01:01 PM	54	62.8	49.7
4:02:01 PM	49.7	52.3	47.8
4:03:01 PM	47.8	49.5	46.6
4:04:01 PM	48.2	50.2	47
4:05:01 PM	47.6	48.7	46.8
4:06:01 PM	50.1	52.6	48.3
4:07:01 PM	48.9	50.8	47.7
4:08:01 PM	52.4	56.5	48.7
4:09:01 PM	51.7	57	48
4:10:01 PM	48.8	51	46.8
4:11:01 PM	48	48.8	47.2
4:12:01 PM	48.5	50	47.1
4:13:01 PM	49.6	52.5	46.7
4:14:01 PM	49.7	51.8	47.2
4:15:01 PM	49	50.2	47.7
4:16:01 PM	49.1	51.1	47.8
4:17:01 PM	48.9	51.8	47.6

4:18:01 PM	47.7	49.6	46
4:19:01 PM	50.2	59.2	46
4:20:01 PM	51.4	59.2	47.1
4:21:01 PM	47.6	48.9	46.7
4:22:01 PM	49.9	53.2	47.3
4:23:01 PM	49.1	50.8	47.6
4:24:01 PM	48.7	50.9	47.6
4:25:01 PM	48.6	51.1	47.5
4:26:01 PM	47.6	49.3	45.9
4:27:01 PM	47.2	48.7	46.4
4:28:01 PM	48.9	56.2	46.7
4:29:01 PM	63.8	72.4	46.6
4:30:01 PM	47.8	50.6	46.1
4:31:01 PM	48.4	49.5	47.4
4:32:01 PM	48.5	50.2	47.4
4:33:01 PM	48.8	51	47.6
4:34:01 PM	48	50.4	45.9
4:35:01 PM	47.5	49.8	46.4
4:36:01 PM	46.9	49.3	46
4:37:01 PM	51.8	64.7	46.6
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4:39:01 PM	49.3	53.2	48.3
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4:41:01 PM	49	51.3	47.7
4:42:01 PM	47.5	49.4	46.1
4:43:01 PM	50.1	57.1	46.2
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4:45:01 PM	47.8	51	46.5
4:46:01 PM	48.1	50	46.5
4:47:01 PM	49.2	53.8	47.6
4:48:01 PM	48.6	50.1	47.7
4:49:01 PM	49	51.7	47.7
4:50:01 PM	47.7	50	46.2
4:51:01 PM	46.7	48.1	46
4:52:01 PM	47.7	51	46.2
4:53:01 PM	48.4	53.5	46.2
4:54:01 PM	52.5	61.9	47.2

4:55:01 PM	56.1	64.1	48.3
4:56:01 PM	55.2	64.1	48.3
4:57:01 PM	55.1	64.2	47.7
4:58:01 PM	51.6	64.1	46.6
4:59:01 PM	51.9	64	47.6
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5:01:01 PM	50.9	62.7	46.1
5:02:01 PM	50.5	62.9	45.6
5:03:01 PM	47.6	49.6	46.1
5:04:01 PM	46.7	47.6	45.9
5:05:01 PM	47.1	52.3	45.4
5:06:01 PM	46.5	48.8	45.4
5:07:01 PM	47.3	51.1	45.4
5:08:01 PM	46	49.8	45.2
5:09:01 PM	46.1	48.4	45.2
5:10:01 PM	46.4	47.8	45.6
5:11:01 PM	46.6	48.5	45.6
5:12:01 PM	46.7	48.4	45.5
5:13:01 PM	46.4	47.6	45.5
5:14:01 PM	46.5	50.2	45
5:15:01 PM	46.4	48.8	45
5:16:01 PM	47.3	49.3	46
5:17:01 PM	46.7	49.5	45.3
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5:22:01 PM	58.3	63	51.9
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5:26:01 PM	57.1	64	46.4
5:27:01 PM	54.5	62.1	46.8
5:28:01 PM	47.2	49.6	46.2
5:29:01 PM	46.9	48.9	45.9
5:30:01 PM	47.2	48.8	46
5:31:01 PM	47.7	51.3	46.2

5:32:01 PM	47.5	52.6	46.3
5:33:01 PM	47.2	53	45.4
5:34:01 PM	46.5	49.9	45.3
5:35:01 PM	46.5	48.2	45.5
5:36:01 PM	47.5	49.6	46.4
5:37:01 PM	48.4	50.2	46.6
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5:40:01 PM	48.1	49.2	46.8
5:41:01 PM	47.4	49.1	46.4
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5:43:01 PM	47.6	50.4	46.5
5:44:01 PM	47.1	49.6	46.4
5:45:01 PM	47	48	46.5
5:46:01 PM	47.5	48.8	46.5
5:47:01 PM	47.3	48.2	46.5
5:48:01 PM	47.6	48.6	46.5
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5:51:01 PM	48.9	50.9	47.2
5:52:01 PM	51.7	63.5	47.8
5:53:01 PM	50.9	57	47.5
5:54:01 PM	49.2	52.3	47.5
5:55:01 PM	47.1	49.4	45.9
5:56:01 PM	48.7	50.8	47
5:57:01 PM	48.5	50	46
5:58:01 PM	49.1	51.4	47
5:59:01 PM	48.2	49.7	46.4
6:00:01 PM	48.7	50	46.9
6:01:01 PM	47.6	51.2	46.2
6:02:01 PM	48.7	53	46.5
6:03:01 PM	50	54.6	46.7
6:04:01 PM	48.3	53.8	46.8
6:05:01 PM	49.9	54.5	46.2
6:06:01 PM	48.1	52.7	46.4
6:07:01 PM	47.8	53.9	46.3
6:08:01 PM	48.6	54.5	46.4

6:09:01 PM	48.7	54.1	46.8
6:10:01 PM	50.8	53.8	47.8
6:11:01 PM	47.5	50	46.5
6:12:01 PM	48.5	50.6	46.5
6:13:01 PM	47.5	48.8	46.6
6:14:01 PM	48.7	54.5	47
6:15:01 PM	48.9	52.7	47
6:16:01 PM	49.4	53.5	47.5
6:17:01 PM	48.8	52.8	47.6
6:18:01 PM	48	49.2	47.3
6:19:01 PM	48.4	49.4	47.4
6:20:01 PM	48.8	51.6	47.6
6:21:01 PM	49.7	53.4	47.4
6:22:01 PM	49.7	52.3	47.8
6:23:01 PM	48.1	49.3	47.5
6:24:01 PM	48.5	51.4	47.5
6:25:01 PM	49.5	55.5	47.6
6:26:01 PM	52	57.4	47.5
6:27:01 PM	52.4	56.8	48.4
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6:30:01 PM	48.5	52.2	47.7
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6:37:01 PM	49.1	53.7	46.9
6:38:01 PM	49.1	53.4	47.3
6:39:01 PM	48.1	50.4	47.1
6:40:01 PM	47.8	48.3	47
6:41:01 PM	48.7	49.9	47.8
6:42:01 PM	48.5	49.7	47.3
6:43:01 PM	56.5	63.2	47.3
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7:07:01 PM	51.4	52.2	50.5
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7:10:01 PM	53.2	54	51.2
7:11:01 PM	51.5	53.7	47
7:12:01 PM	51.5	52.4	50.1
7:13:01 PM	51.4	51.9	50.5
7:14:01 PM	51.5	52.2	50.5
7:15:01 PM	51.3	52	49.2
7:16:01 PM	51.2	51.9	49
7:17:01 PM	51.6	52.7	50.3
7:18:01 PM	51.6	53.6	48.5
7:19:01 PM	51.5	52.2	50.6
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7:21:01 PM	48.6	53.6	46.3
7:22:01 PM	49.4	52.6	47.2

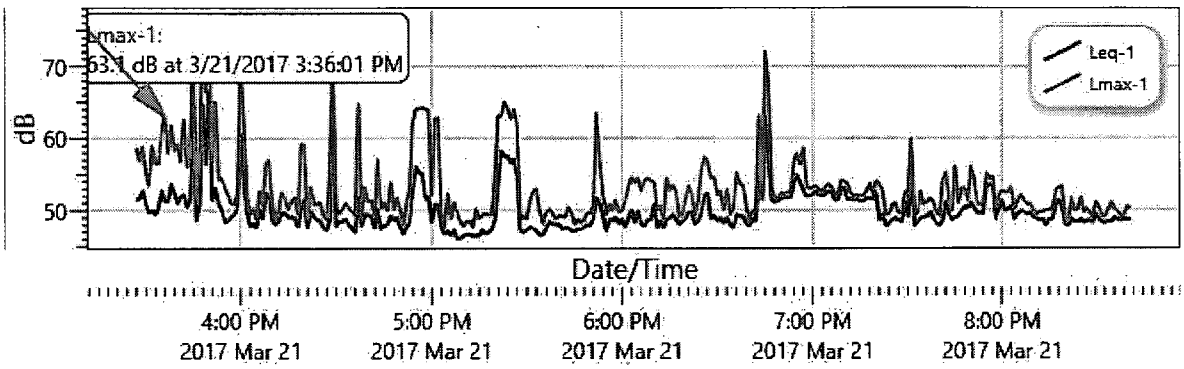
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7:27:01 PM	48.6	49.5	47.4
7:28:01 PM	48.4	49.7	46.6
7:29:01 PM	51.1	52.5	47.6
7:30:01 PM	49.1	51.8	46.9
7:31:01 PM	55	59.9	47.5
7:32:01 PM	47.9	49.4	47.2
7:33:01 PM	48.3	49.5	47
7:34:01 PM	48.8	52.6	47.9
7:35:01 PM	49	50.8	47.4
7:36:01 PM	49.1	51.1	47.2
7:37:01 PM	49.7	51.6	47.3
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7:40:01 PM	47.9	49.2	47
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7:44:01 PM	48.6	49.8	47.8
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7:46:01 PM	49.1	51	48.1
7:47:01 PM	49.9	53	48.7
7:48:01 PM	50.5	53	48.7
7:49:01 PM	50.3	51.3	48.8
7:50:01 PM	51	56	47.9
7:51:01 PM	50.3	54.4	48.2
7:52:01 PM	49.5	50.8	47.4
7:53:01 PM	49.6	50.9	47.8
7:54:01 PM	49.5	50.6	48
7:55:01 PM	53.4	55.1	49.7
7:56:01 PM	53.5	54.3	52.5
7:57:01 PM	53.3	54.7	49.2
7:58:01 PM	48.7	50.4	46.7
7:59:01 PM	50.3	52	47.5

8:00:01 PM	51.3	52.7	49.1
8:01:01 PM	49.8	52.4	47.2
8:02:01 PM	50.1	52.6	47.9
8:03:01 PM	50.6	53.2	48.8
8:04:01 PM	48.7	50.1	47.8
8:05:01 PM	49.3	51.1	47.9
8:06:01 PM	49.9	52.1	48.5
8:07:01 PM	49.7	51.3	48.3
8:08:01 PM	49.3	50.8	47.8
8:09:01 PM	49.6	50.9	47.8
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8:14:01 PM	47.9	50	46.5
8:15:01 PM	48.7	49.9	47.4
8:16:01 PM	48.7	50.3	47
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8:18:01 PM	51.3	53.1	47.7
8:19:01 PM	50.4	53.3	47.7
8:20:01 PM	48	48.7	47.3
8:21:01 PM	47.9	48.7	47.1
8:22:01 PM	48.8	51.7	47.1
8:23:01 PM	48.4	49.8	47.4
8:24:01 PM	48.3	50.1	47.2
8:25:01 PM	48.7	51.7	47
8:26:01 PM	48.2	49.6	47
8:27:01 PM	48.5	50.2	47.2
8:28:01 PM	48.6	49.6	47.6
8:29:01 PM	48.2	49.1	47.4
8:30:01 PM	49.4	51.1	47.5
8:31:01 PM	48.7	50.4	47.5
8:32:01 PM	48.3	49.1	47.4
8:33:01 PM	48.2	49	47
8:34:01 PM	48.4	50	47.3
8:35:01 PM	48.4	51	47
8:36:01 PM	48.9	50.2	47.7

8:37:01 PM	48.7	49.8	47.3
8:38:01 PM	48.5	49.1	47.6
8:39:01 PM	48.8	49.3	48.2
8:40:01 PM	48.6	50.5	47.6
8:41:01 PM	48.8	50.2	47.6

Logged Data Chart

S071_BGI070015_23032017_124945: Logged Data Chart



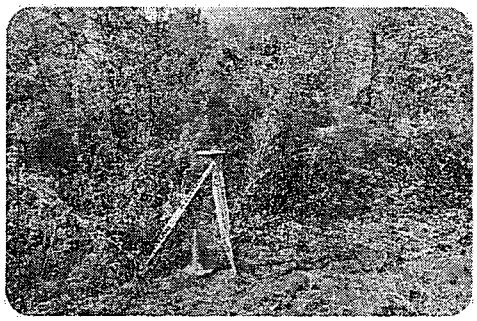
NOISE EXPOSURE EVALUATION
Terracon Project No. ES177065

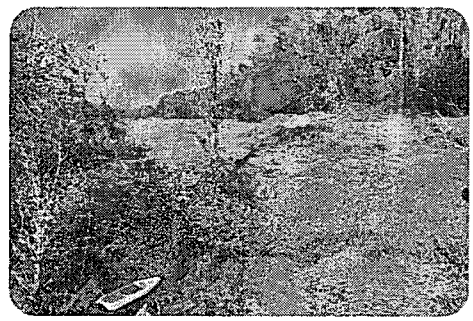
FIELD NOTES
Monitoring Period: 3/21/2017 - 3/22/2017
Conducted by : TAC Covington, III
Measurement ID: **Location 4**

Equipment and Data Collection
Quest Technologies ANSI Type II SoundPro Model SE Sound Level Meter.
Noise measurements collected at 1-minute intervals

Latitude, Longitude
32.705, -79.974

Site Location
North of the proposed bus parking lot.





Location 4 Session Report - 1

3/23/2017

Information Panel

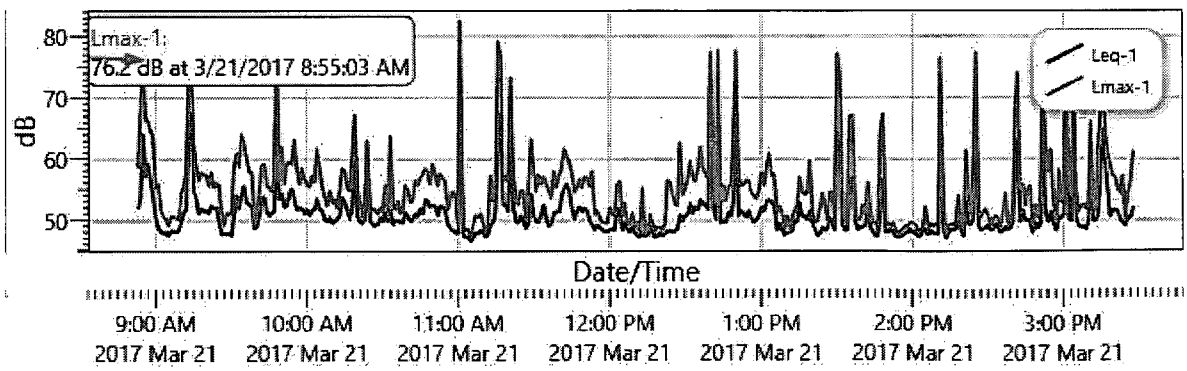
Name	S002_BGI070015_23032017_105003
Start Time	3/21/2017 8:52:04 AM
Stop Time	3/21/2017 3:28:08 PM
Device Name	BGI070015
Model Type	SoundPro DL
Device Firmware Rev	R.13E
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	54.9 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	C
Response	2	FAST			

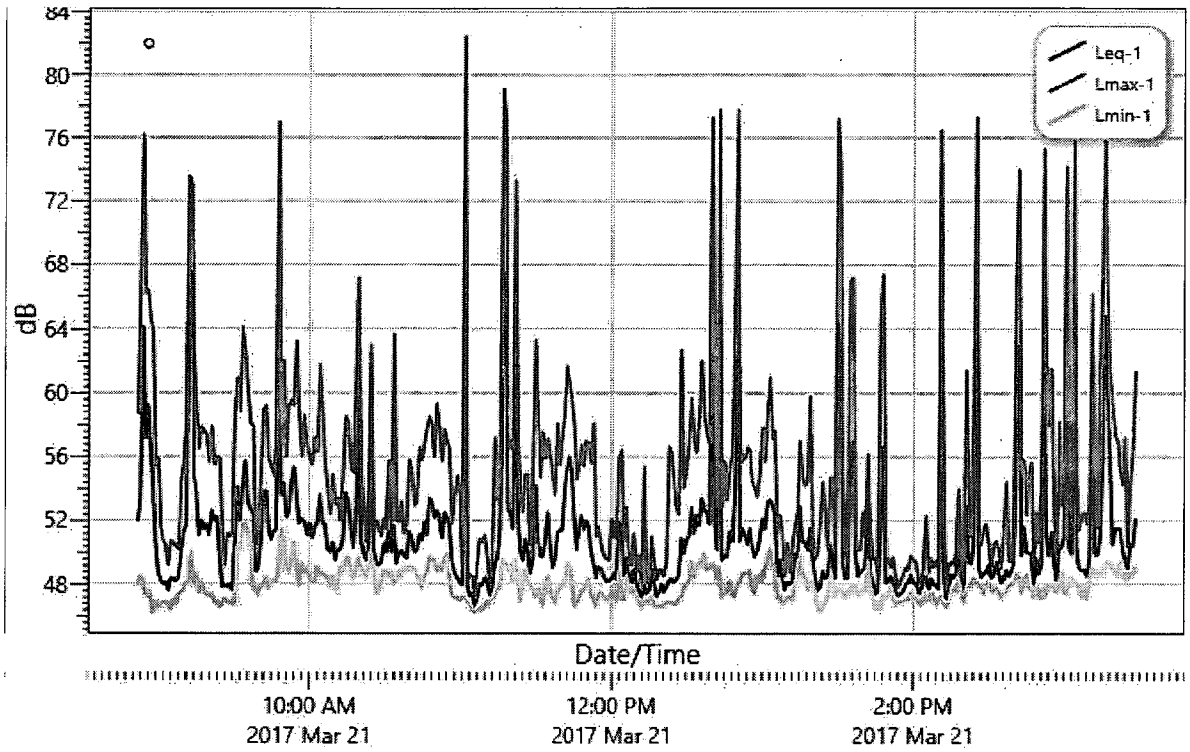
Logged Data Chart

S002_BGI070015_23032017_105003: Logged Data Chart



Logged Data Chart

S002_BGI070015_23032017_105003: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lmax-1	Lmin-1
3/21/2017 8:53:04 AM	51.9	58.6	47.9
8:54:04 AM	53.4	66.4	48.5
8:55:04 AM	64.1	76.2	48.3
8:56:04 AM	57.2	66.2	47.3
8:57:04 AM	59.2	66.4	47.3
8:58:04 AM	56.7	64.7	47.6
8:59:04 AM	54	63.8	46.2
9:00:04 AM	50.6	55.4	46.8
9:01:04 AM	48.7	55.9	46.5
9:02:04 AM	48.2	51.7	46.7
9:03:04 AM	48	50.7	46.8
9:04:04 AM	48.1	50.4	46.8
9:05:04 AM	47.6	49.2	46.7
9:06:04 AM	48.4	50.7	46.4
9:07:04 AM	48.3	50.6	47

Date/Time	Leq-1	Lmax-1	Lmin-1
9:08:04 AM	48.2	50.4	46.7
9:09:04 AM	48.4	50.2	47.3
9:10:04 AM	49.9	54.5	47.5
9:11:04 AM	51.3	55.5	47.6
9:12:04 AM	51.7	58.1	48.1
9:13:04 AM	65.7	73.6	48.1
9:14:04 AM	67.5	73	50
9:15:04 AM	54.8	62.8	47.9
9:16:04 AM	53.7	59.2	48.7
9:17:04 AM	51.1	56.5	47.5
9:18:04 AM	52	57.9	48.2
9:19:04 AM	51.5	57.6	47.6
9:20:04 AM	51.7	57.3	47.3
9:21:04 AM	51.1	55.6	47.3
9:22:04 AM	52.6	57.9	47.4
9:23:04 AM	52	55.5	46.9
9:24:04 AM	52.2	56	47
9:25:04 AM	49.8	55.9	46.5
9:26:04 AM	47.8	51.2	46.8
9:27:04 AM	47.9	49.2	47.1
9:28:04 AM	47.8	51.2	46.8
9:29:04 AM	48	51	46.9
9:30:04 AM	47.6	51.3	46.7
9:31:04 AM	51	59.1	46.8
9:32:04 AM	54.1	60.9	50.4
9:33:04 AM	52	58.8	50.2
9:34:04 AM	54.2	64.1	51.8
9:35:04 AM	55.7	62.6	51.8
9:36:04 AM	53.1	60.2	51.1
9:37:04 AM	52.7	58.1	51.2
9:38:04 AM	52.4	57.9	47.8
9:39:04 AM	48.8	50.5	47.7
9:40:04 AM	48.9	51.7	47.3
9:41:04 AM	50.6	54.3	47.9
9:42:04 AM	53.6	58.9	47.9
9:43:04 AM	53.9	59.2	48.4
9:44:04 AM	51.4	55.8	47.7

Date/Time	Leq-1	Lmax-1	Lmin-1
9:45:04 AM	50.8	55.4	48.1
9:46:04 AM	51.3	54.8	48.2
9:47:04 AM	51.4	57.3	48.1
9:48:04 AM	62.1	77	48.7
9:49:04 AM	53.6	56.7	51.4
9:50:04 AM	54.3	62	50.8
9:51:04 AM	52.2	56	49.1
9:52:04 AM	52.4	59.2	48.7
9:53:04 AM	54.3	59.5	49.5
9:54:04 AM	55.3	59.2	50.6
9:55:04 AM	53.5	63.2	49.2
9:56:04 AM	51.8	58.4	47.9
9:57:04 AM	52.1	56	49.3
9:58:04 AM	51.9	58.6	48.7
9:59:04 AM	51.1	56.8	49
10:00:04 AM	51.8	56	48.6
10:01:04 AM	50.9	55.5	48.1
10:02:04 AM	51.6	57.2	48.1
10:03:04 AM	51.9	56.3	49.1
10:04:04 AM	53.6	61.8	48.6
10:05:04 AM	51.9	58.9	48.7
10:06:04 AM	51.7	55.7	48.5
10:07:04 AM	50.2	53.9	48.4
10:08:04 AM	50	52.4	47.8
10:09:04 AM	50.6	54.9	48.5
10:10:04 AM	49.5	53	47.6
10:11:04 AM	50.1	53.4	47.6
10:12:04 AM	50.2	52	49.1
10:13:04 AM	50.8	54.8	48.7
10:14:04 AM	53.7	58.5	49.5
10:15:04 AM	53.1	58.1	49.7
10:16:04 AM	51.5	55.3	48.8
10:17:04 AM	50.3	55	48.3
10:18:04 AM	52	60.2	48.7
10:19:04 AM	59.7	67.2	49.6
10:20:04 AM	50.8	55	49.1
10:21:04 AM	49.9	53	48.7

Date/Time	Leq-1	Lmax-1	Lmin-1
10:22:04 AM	49.5	50.7	48.4
10:23:04 AM	50.6	53.5	49.1
10:24:04 AM	56.6	63	49.9
10:25:04 AM	50.2	51.2	49.2
10:26:04 AM	49.3	52	47.4
10:27:04 AM	49.2	51.6	47.5
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10:32:04 AM	50	51.2	48.7
10:33:04 AM	51.6	63.7	48
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10:35:04 AM	49.9	51.9	48.8
10:36:04 AM	50.1	53.2	48.4
10:37:04 AM	49.8	51.2	49
10:38:04 AM	49.6	51.8	48.8
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10:40:04 AM	50.7	54.9	49
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10:57:04 AM	48.7	53.7	47.1
10:58:04 AM	48.4	54.8	47.2

Date/Time	Leq-1	Lmax-1	Lmin-1
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11:01:04 AM	70.3	82.5	47.2
11:02:04 AM	47.9	49	46.9
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11:04:04 AM	47.4	48.5	46.4
11:05:04 AM	46.6	47.3	46.2
11:06:04 AM	47	49	46.5
11:07:04 AM	48	50.8	46.5
11:08:04 AM	47.9	50.6	46.4
11:09:04 AM	48.4	51.1	46.5
11:10:04 AM	48.2	49.8	47
11:11:04 AM	47.3	48.1	46.7
11:12:04 AM	47.7	48.8	47.1
11:13:04 AM	49.3	57.2	47.1
11:14:04 AM	49.6	53.3	47.7
11:15:04 AM	51.6	55.7	47.7
11:16:04 AM	67.5	79.1	49.5
11:17:04 AM	63.2	77	49.3
11:18:04 AM	52.6	56.5	48.9
11:19:04 AM	52.6	57	49.2
11:20:04 AM	51.5	56.4	48.2
11:21:04 AM	62.8	73.3	49.5
11:22:04 AM	52.2	57.5	48.4
11:23:04 AM	50	53.4	46.9
11:24:04 AM	49.5	52.5	47.7
11:25:04 AM	50.8	54.9	48.9
11:26:04 AM	50.1	54.9	48.2
11:27:04 AM	48.7	50.5	47.8
11:28:04 AM	49.7	55.3	47.7
11:29:04 AM	54.2	63.3	47.2
11:30:04 AM	50.9	58.5	47.6
11:31:04 AM	49.8	54.7	47.7
11:32:04 AM	49.7	57.5	46.7
11:33:04 AM	50.9	55.9	47.8
11:34:04 AM	52.5	57.1	48.5
11:35:04 AM	50.2	56	47.6

Date/Time	Leq-1	Lmax-1	Lmin-1
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11:37:04 AM	49.5	53.6	46.8
11:38:04 AM	51.2	58.1	47.6
11:39:04 AM	51.4	55.5	47.6
11:40:04 AM	51.4	57.3	48
11:41:04 AM	54	58.7	47.9
11:42:04 AM	55.3	61.7	49.3
11:43:04 AM	56	60.7	49.2
11:44:04 AM	54.9	59.7	48.7
11:45:04 AM	52.2	58.1	46.6
11:46:04 AM	50.2	54.6	46.7
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11:54:04 AM	48.4	51	46.6
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11:57:04 AM	48.5	49.8	47.2
11:58:04 AM	48.2	49.6	47
11:59:04 AM	48.2	49.5	47.1
12:00:04 PM	48.4	52.1	47.5
12:01:04 PM	48.7	51	47.2
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12:03:04 PM	51.9	55.8	48.8
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12:05:04 PM	48.5	50.8	47
12:06:04 PM	49.6	52.8	48.5
12:07:04 PM	48.6	49.5	48
12:08:04 PM	48.1	49.2	47.5
12:09:04 PM	48.9	51.2	47.7
12:10:04 PM	48	48.8	47.3
12:11:04 PM	47.5	49.8	46.9
12:12:04 PM	47.2	47.9	46.5

Date/Time	Leq-1	Lmax-1	Lmin-1
12:13:04 PM	47.9	55.4	47
12:14:04 PM	47.4	48.1	46.9
12:15:04 PM	47.6	48.5	46.8
12:16:04 PM	48.9	51	47.3
12:17:04 PM	48	49.4	46.7
12:18:04 PM	47.2	48.3	46.6
12:19:04 PM	47.5	48.9	46.6
12:20:04 PM	48	48.9	46.6
12:21:04 PM	47.5	48.5	46.6
12:22:04 PM	47.8	49.3	46.9
12:23:04 PM	48.3	56.6	46.8
12:24:04 PM	48.3	56.2	46.8
12:25:04 PM	48.1	54.3	46.8
12:26:04 PM	48.3	52.8	46.7
12:27:04 PM	48.6	52.4	47
12:28:04 PM	50.9	62.7	47.2
12:29:04 PM	49.9	54.1	47.7
12:30:04 PM	50.8	55.1	48
12:31:04 PM	51	57	48.1
12:32:04 PM	52.8	59.7	49.4
12:33:04 PM	51.2	57.3	48.4
12:34:04 PM	52.3	56.3	49.2
12:35:04 PM	51.7	58.3	49.4
12:36:04 PM	53.4	62	49.1
12:37:04 PM	52.7	58.5	49.9
12:38:04 PM	52.5	57.5	48.9
12:39:04 PM	51.8	56.9	49
12:40:04 PM	66.2	77.3	49.1
12:41:04 PM	52.2	61.5	49.2
12:42:04 PM	50.2	52.9	48.3
12:43:04 PM	66.4	77.8	49
12:44:04 PM	49.5	52.8	47.2
12:45:04 PM	49.8	55.7	47.5
12:46:04 PM	49.7	53.3	47.5
12:47:04 PM	51.3	55.4	48.2
12:48:04 PM	50.7	56	47.4
12:49:04 PM	54.1	64.8	47.2

Date/Time	Leq-1	Lmax-1	Lmin-1
12:50:04 PM	66.4	77.8	48.1
12:51:04 PM	50.7	57	48
12:52:04 PM	51.5	55.7	48.6
12:53:04 PM	51.1	55.9	48.7
12:54:04 PM	50.5	56.6	48.7
12:55:04 PM	51.5	56.4	48.9
12:56:04 PM	50.3	54.4	47.5
12:57:04 PM	49.7	54.1	47.4
12:58:04 PM	50.1	53.5	48.3
12:59:04 PM	50.9	55.1	48.6
1:00:04 PM	52.1	57.8	48.2
1:01:04 PM	51.5	55.7	49.1
1:02:04 PM	53.2	58.9	49.6
1:03:04 PM	53.3	61	50.2
1:04:04 PM	53	57.2	49.4
1:05:04 PM	52.4	57.6	48.9
1:06:04 PM	48.5	51.2	47.1
1:07:04 PM	49.5	52.3	47.3
1:08:04 PM	48.4	51.4	46.7
1:09:04 PM	47.6	48.5	46.8
1:10:04 PM	48.1	50.6	47.2
1:11:04 PM	48	48.8	47.2
1:12:04 PM	48.2	50.4	46.9
1:13:04 PM	49.9	51.6	48.2
1:14:04 PM	49.7	52.4	48.3
1:15:04 PM	52.9	57	49.9
1:16:04 PM	50.7	54.8	48.5
1:17:04 PM	50.6	54.2	48.6
1:18:04 PM	50.2	54.5	47.6
1:19:04 PM	51.5	59.8	48.1
1:20:04 PM	49.4	51.2	48.1
1:21:04 PM	48.5	49.6	47.5
1:22:04 PM	47.6	49.9	46.7
1:23:04 PM	47.8	51.8	46.3
1:24:04 PM	48.8	54.4	46.5
1:25:04 PM	48.4	52.5	46.8
1:26:04 PM	48.5	50.2	47.3

Date/Time	Leq-1	Lmax-1	Lmin-1
1:27:04 PM	50.5	54.7	48.5
1:28:04 PM	49.6	54.6	48.3
1:29:04 PM	48.4	50.2	47.3
1:30:04 PM	64.3	77.2	47.7
1:31:04 PM	60.5	74.1	47.7
1:32:04 PM	49.3	55.2	47.5
1:33:04 PM	48.4	50.4	47.2
1:34:04 PM	48.4	49.4	47.5
1:35:04 PM	56	67	47.4
1:36:04 PM	56.9	67.2	47.9
1:37:04 PM	49.9	51.1	47.9
1:38:04 PM	48.5	50.2	47.3
1:39:04 PM	48.7	50.2	47.6
1:40:04 PM	48.9	52.5	47.6
1:41:04 PM	49.1	51	47.6
1:42:04 PM	52.9	56.2	49.5
1:43:04 PM	48.7	51.3	47.9
1:44:04 PM	48.1	49.6	47.2
1:45:04 PM	47.4	49.6	46.5
1:46:04 PM	47.5	48.8	46.7
1:47:04 PM	52	64.4	46.4
1:48:04 PM	56.6	67.4	47.3
1:49:04 PM	48.1	49.3	47.1
1:50:04 PM	48.2	49.6	47.3
1:51:04 PM	48.5	49.1	48
1:52:04 PM	48.2	49.7	47.5
1:53:04 PM	47.5	48.6	46.7
1:54:04 PM	47.3	47.8	46.9
1:55:04 PM	47.4	48.2	46.9
1:56:04 PM	47.6	48.6	46.9
1:57:04 PM	48	49.1	47.1
1:58:04 PM	48.1	48.9	47
1:59:04 PM	48.6	49.8	47.5
2:00:04 PM	48.1	49.6	47.3
2:01:04 PM	48.1	49.4	47.2
2:02:04 PM	47.5	48.1	46.8
2:03:04 PM	47.4	48.3	46.7

Date/Time	Leq-1	Lmax-1	Lmin-1
2:04:04 PM	48.4	49	47.6
2:05:04 PM	48.5	52.3	46.9
2:06:04 PM	47.7	48.7	47.1
2:07:04 PM	48.4	49.6	47.6
2:08:04 PM	48	49.1	47.3
2:09:04 PM	47.9	49.5	46.7
2:10:04 PM	47.7	49.3	47
2:11:04 PM	66.2	76.5	47.3
2:12:04 PM	48.8	53	47
2:13:04 PM	47.1	47.7	46.6
2:14:04 PM	47.9	49.2	46.9
2:15:04 PM	48.6	49.4	47.7
2:16:04 PM	48.4	49.3	47.7
2:17:04 PM	48.7	49.9	47.6
2:18:04 PM	50.9	54	48.3
2:19:04 PM	48.5	49.3	47.5
2:20:04 PM	47.5	48.5	46.9
2:21:04 PM	52.9	61.4	47.9
2:22:04 PM	49.4	54.2	47.9
2:23:04 PM	49.3	51	47.8
2:24:04 PM	50.5	58.6	48.4
2:25:04 PM	67.7	77.3	48.1
2:26:04 PM	49	50.5	48.1
2:27:04 PM	48.4	50.5	47.7
2:28:04 PM	48.6	51.5	47.4
2:29:04 PM	48.8	51.8	48
2:30:04 PM	49.2	50.6	48.2
2:31:04 PM	48.4	49.2	47.6
2:32:04 PM	48.6	50.5	47.6
2:33:04 PM	49.4	50.7	47.8
2:34:04 PM	48.8	50.2	47.6
2:35:04 PM	48.1	49	47.2
2:36:04 PM	48.3	51.1	47.5
2:37:04 PM	48.9	54.4	47.5
2:38:04 PM	48.5	49.5	47.9
2:39:04 PM	48.8	49.5	48
2:40:04 PM	49.4	52.7	48

Date/Time	Leq-1	Lmax-1	Lmin-1
2:41:04 PM	56	67.1	48.7
2:42:04 PM	63	74	48.5
2:43:04 PM	49.8	55.1	47.5
2:44:04 PM	51.6	55.8	48.3
2:45:04 PM	50	52.4	48.6
2:46:04 PM	50	55.1	47.7
2:47:04 PM	49.9	55.6	47.8
2:48:04 PM	48	49.2	47.2
2:49:04 PM	49.6	52.5	47.9
2:50:04 PM	48.7	50.6	47.5
2:51:04 PM	49.3	54.2	47.1
2:52:04 PM	65.5	75.3	47.7
2:53:04 PM	51	62.5	47.3
2:54:04 PM	49.8	58	47.9
2:55:04 PM	51.3	61.5	47.9
2:56:04 PM	49.4	52.9	47.8
2:57:04 PM	48.3	50	47.5
2:58:04 PM	50.5	58.2	47.9
2:59:04 PM	50.3	53	48.8
3:00:04 PM	50.9	55.7	47.5
3:01:04 PM	64.5	74.2	47.4
3:02:04 PM	50.3	55.4	48.1
3:03:04 PM	49.9	54.2	48.4
3:04:04 PM	65.6	76.4	48
3:05:04 PM	50.4	54.8	48
3:06:04 PM	49	51.4	47.9
3:07:04 PM	48.9	52.3	47.2
3:08:04 PM	48.9	52.5	47.6
3:09:04 PM	48.5	51.8	47.1
3:10:04 PM	49.7	53	48.5
3:11:04 PM	57.4	66.2	49
3:12:04 PM	50	55.3	48.6
3:13:04 PM	49.8	51.6	48.8
3:14:04 PM	50.7	61	48.6
3:15:04 PM	55.9	67.1	48.6
3:16:04 PM	64.8	76.1	49.2
3:17:04 PM	59.5	66	49.4

Date/Time	Leq-1	Lmax-1	Lmin-1
3:18:04 PM	55.9	61.2	49.3
3:19:04 PM	50.5	59.2	49.1
3:20:04 PM	51.5	57.4	48.8
3:21:04 PM	51.5	57	48.6
3:22:04 PM	51.5	55.1	49.4
3:23:04 PM	50.1	54.3	48.8
3:24:04 PM	49.6	57.2	48.3
3:25:04 PM	49	50.4	48.3
3:26:04 PM	50.5	54.4	48.8
3:27:04 PM	50.4	56.3	48.6
3:28:04 PM	52.2	61.4	49.1

Location 4 Session Report - 2

3/23/2017

Information Panel

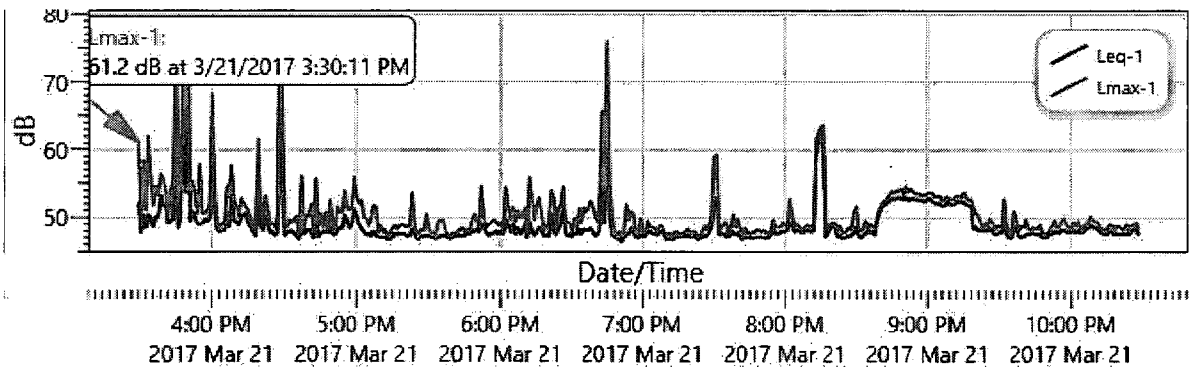
Name	S003_BGI070015_23032017_105004
Start Time	3/21/2017 3:29:11 PM
Stop Time	3/21/2017 10:28:25 PM
Device Name	BGI070015
Model Type	SoundPro DL
Device Firmware Rev	R.13E
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	51.6 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	C
Response	2	FAST			

Logged Data Chart

S003_BGI070015_23032017_105004: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lmax-1	Lmin-1
3/21/2017 3:30:11 PM	52.3	61.2	47.4
3:31:11 PM	47.9	49.7	46.8
3:32:11 PM	50.4	58.4	46.7

Date/Time	Leq-1	Lmax-1	Lmin-1
3:33:11 PM	48.6	51.2	47.2
3:34:11 PM	50.6	62	47.1
3:35:11 PM	50.1	56.1	47.6
3:36:11 PM	48.7	51.9	47
3:37:11 PM	50.1	54.6	48.1
3:38:11 PM	50.2	53.4	48
3:39:11 PM	53.2	56.5	50.1
3:40:11 PM	51.9	55.8	49.4
3:41:11 PM	51.8	53.8	48.6
3:42:11 PM	49.2	50.3	48.4
3:43:11 PM	49.6	54.2	48.3
3:44:11 PM	49.8	55.2	48.4
3:45:11 PM	65.6	77.1	48.1
3:46:11 PM	48.6	52.5	47.7
3:47:11 PM	49.7	55.5	47.9
3:48:11 PM	66	75.8	48
3:49:11 PM	53.8	62.8	47.8
3:50:11 PM	69	79	49
3:51:11 PM	49.6	53.8	47.8
3:52:11 PM	50.9	55.4	48.2
3:53:11 PM	50.1	53	48.8
3:54:11 PM	49.2	50.7	48.2
3:55:11 PM	49.1	57.9	48
3:56:11 PM	49.2	50.7	48
3:57:11 PM	49.8	50.7	48
3:58:11 PM	49.5	51.2	47.8
3:59:11 PM	50	52	48.6
4:00:11 PM	59.6	68.3	48.4
4:01:11 PM	51.3	55.2	49
4:02:11 PM	48.4	49.4	47.9
4:03:11 PM	48	48.7	47.4
4:04:11 PM	48.2	49.2	47.5
4:05:11 PM	48.2	49.3	46.9
4:06:11 PM	50.7	54.7	48.3
4:07:11 PM	48.7	53.1	47.9
4:08:11 PM	53.3	57.7	49.8
4:09:11 PM	49.6	52.5	48.4

Date/Time	Leq-1	Lmax-1	Lmin-1
4:10:11 PM	49.4	51.8	48.5
4:11:11 PM	49	50.2	48.3
4:12:11 PM	50.2	52.9	48.5
4:13:11 PM	50.5	52.4	49.6
4:14:11 PM	50.6	51.6	49.5
4:15:11 PM	49.2	51	48.1
4:16:11 PM	48.7	49.9	47.2
4:17:11 PM	47.8	48.4	47.2
4:18:11 PM	47.4	48.7	46.5
4:19:11 PM	54.1	61.6	47
4:20:11 PM	48.9	52	47.3
4:21:11 PM	48.2	50	47.3
4:22:11 PM	50.3	53.2	48.3
4:23:11 PM	48.9	51.1	47.7
4:24:11 PM	47.9	49.1	47.2
4:25:11 PM	47.9	49.1	47.2
4:26:11 PM	47.4	48.6	46.8
4:27:11 PM	47.8	50.4	47
4:28:11 PM	66	76.4	47.2
4:29:11 PM	52.5	66.3	46.6
4:30:11 PM	47.4	49.4	46.7
4:31:11 PM	47.8	48.7	47.2
4:32:11 PM	48	49.8	47.2
4:33:11 PM	48.2	49.3	47.4
4:34:11 PM	47.8	49.7	46.8
4:35:11 PM	47.5	50.2	46.6
4:36:11 PM	46.8	47.6	46.5
4:37:11 PM	50	56.2	46.9
4:38:11 PM	47.7	48.6	46.9
4:39:11 PM	48.1	50.5	47.4
4:40:11 PM	48.3	50.3	47.6
4:41:11 PM	48	52	47.3
4:42:11 PM	47	48.2	46.5
4:43:11 PM	49.9	55.8	46.7
4:44:11 PM	47.2	48.9	46.7
4:45:11 PM	47.8	50.6	46.6
4:46:11 PM	47.9	48.6	47.1

Date/Time	Leq-1	Lmax-1	Lmin-1
4:47:11 PM	48.1	50.8	47.2
4:48:11 PM	47.9	48.4	47.3
4:49:11 PM	48.7	52.6	47.3
4:50:11 PM	47.6	48.5	46.9
4:51:11 PM	47.5	48.3	46.9
4:52:11 PM	48.1	51.7	47.1
4:53:11 PM	48.6	50.9	47.6
4:54:11 PM	48.5	50.8	47.6
4:55:11 PM	50.4	54	48.2
4:56:11 PM	49.5	51.3	47.8
4:57:11 PM	48.5	51.2	47.4
4:58:11 PM	49.3	51.7	48.3
4:59:11 PM	51.3	56	49
5:00:11 PM	50.3	53	47
5:01:11 PM	49	52.2	46.8
5:02:11 PM	48.5	52.6	46.7
5:03:11 PM	47.9	50.1	46.9
5:04:11 PM	47.5	49.9	46.4
5:05:11 PM	47.7	48.8	46.9
5:06:11 PM	47.3	49.8	46.7
5:07:11 PM	48.1	51.9	46.7
5:08:11 PM	47.5	51.7	46.7
5:09:11 PM	47.2	47.9	46.7
5:10:11 PM	47.2	48.8	46.6
5:11:11 PM	47.1	47.8	46.8
5:12:11 PM	47.2	48.3	46.6
5:13:11 PM	46.8	47.4	46.3
5:14:11 PM	46.8	47.5	46.5
5:15:11 PM	47.2	48.6	46.4
5:16:11 PM	47.7	48.9	46.8
5:17:11 PM	47.5	48.3	46.8
5:18:11 PM	47.7	48.8	47
5:19:11 PM	47.7	49.1	47
5:20:11 PM	47.6	48.8	46.8
5:21:11 PM	47.3	48.6	46.9
5:22:11 PM	47.4	48.9	46.7
5:23:11 PM	48.4	53.7	46.9

Date/Time	Leq-1	Lmax-1	Lmin-1
5:24:11 PM	47.6	48.9	46.7
5:25:11 PM	46.8	47.8	46.2
5:26:11 PM	46.9	47.7	46.3
5:27:11 PM	47.4	48.3	46.6
5:28:11 PM	47.2	48.2	46.8
5:29:11 PM	47.4	50.6	46.7
5:30:11 PM	47.4	48.4	46.6
5:31:11 PM	47.2	47.8	46.7
5:32:11 PM	47.1	47.8	46.4
5:33:11 PM	46.9	47.6	46.5
5:34:11 PM	47.1	49.4	46.2
5:35:11 PM	47.5	49.7	46.6
5:36:11 PM	47.3	49.6	46.6
5:37:11 PM	47.5	48.2	46.9
5:38:11 PM	47.1	47.5	46.7
5:39:11 PM	46.9	47.3	46.5
5:40:11 PM	47.2	47.8	46.9
5:41:11 PM	47.3	47.7	46.9
5:42:11 PM	47.6	48	47
5:43:11 PM	47.3	48.3	46.5
5:44:11 PM	47.5	48.6	46.9
5:45:11 PM	47.4	47.9	46.9
5:46:11 PM	47.8	48.2	47.4
5:47:11 PM	47.6	48.2	47
5:48:11 PM	48	49.7	46.9
5:49:11 PM	48.1	50.6	47
5:50:11 PM	48.4	49.6	47.5
5:51:11 PM	47.9	48.6	47.3
5:52:11 PM	49.1	54.7	47
5:53:11 PM	48.7	50	47.5
5:54:11 PM	47.9	48.7	47
5:55:11 PM	47.4	49	46.7
5:56:11 PM	47.8	49.3	46.8
5:57:11 PM	47.7	49.7	46.7
5:58:11 PM	48.1	49.6	47.3
5:59:11 PM	47.7	48.9	46.7
6:00:11 PM	48	49.3	47.1

Date/Time	Leq-1	Lmax-1	Lmin-1
6:01:11 PM	47.6	48.4	46.9
6:02:11 PM	49.8	54.5	46.9
6:03:11 PM	48.9	51.4	47.2
6:04:11 PM	47.9	49.7	47.1
6:05:11 PM	49.2	51.6	47.2
6:06:11 PM	47.6	49.4	46.9
6:07:11 PM	48.6	51.1	46.7
6:08:11 PM	47.7	50	47
6:09:11 PM	48	50.6	46.5
6:10:11 PM	49.2	51.4	47
6:11:11 PM	47.1	47.9	46.7
6:12:11 PM	49.5	55.9	46.8
6:13:11 PM	48.1	52.4	46.6
6:14:11 PM	47.4	49.8	46.8
6:15:11 PM	48.2	52	47
6:16:11 PM	48.6	53	47
6:17:11 PM	48.1	50.6	46.8
6:18:11 PM	47.4	48.2	46.7
6:19:11 PM	47.5	48.7	46.9
6:20:11 PM	47.3	49.5	46.5
6:21:11 PM	50.5	54	46.5
6:22:11 PM	48	53	46.8
6:23:11 PM	47.5	48.1	46.9
6:24:11 PM	48.3	51.3	46.9
6:25:11 PM	49.3	51.9	47.4
6:26:11 PM	51.5	54.6	48.6
6:27:11 PM	47.8	49.5	46.9
6:28:11 PM	47.4	49.4	46.8
6:29:11 PM	47.6	49.1	46.8
6:30:11 PM	47.2	47.9	46.8
6:31:11 PM	47.8	49.9	46.7
6:32:11 PM	47.6	48.5	47.1
6:33:11 PM	48.4	51.3	47.3
6:34:11 PM	47.6	49.3	46.9
6:35:11 PM	48.4	51.5	47.1
6:36:11 PM	48.2	50.8	47.2
6:37:11 PM	48.2	51.2	47.2

Date/Time	Leq-1	Lmax-1	Lmin-1
6:38:11 PM	48.5	52.5	47.3
6:39:11 PM	48.1	51.8	47.1
6:40:11 PM	47.4	50.2	46.6
6:41:11 PM	47.6	49.4	46.8
6:42:11 PM	48.3	53.9	47.1
6:43:11 PM	58.2	65.7	47.1
6:44:11 PM	49.3	54.9	46.7
6:45:11 PM	65.8	76	48.5
6:46:11 PM	50.5	55	47
6:47:11 PM	47.6	50.5	46.8
6:48:11 PM	47.2	47.9	46.4
6:49:11 PM	47	47.5	46.3
6:50:11 PM	46.9	48	46.5
6:51:11 PM	46.5	47.1	46.2
6:52:11 PM	47.1	48.1	46.3
6:53:11 PM	47.6	52	46.9
6:54:11 PM	47.7	49.7	47.2
6:55:11 PM	48.6	50.9	47.4
6:56:11 PM	47.9	50.7	46.7
6:57:11 PM	47.3	47.9	46.9
6:58:11 PM	47.1	47.5	46.7
6:59:11 PM	47.5	49.9	46.7
7:00:11 PM	47.3	47.8	46.9
7:01:11 PM	47.4	47.7	46.8
7:02:11 PM	48.1	49.5	47.1
7:03:11 PM	48	48.7	47.2
7:04:11 PM	47.8	48.6	46.8
7:05:11 PM	47.7	48.5	47
7:06:11 PM	47.5	48	46.8
7:07:11 PM	48	48.9	47.2
7:08:11 PM	48	48.9	47.2
7:09:11 PM	47.6	48	47.1
7:10:11 PM	46.8	47.4	46.4
7:11:11 PM	47.1	47.7	46.6
7:12:11 PM	46.8	47.2	46.3
7:13:11 PM	46.9	47.9	46.2
7:14:11 PM	47.4	48	47

Date/Time	Leq-1	Lmax-1	Lmin-1
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7:19:11 PM	47.6	48.4	47
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7:21:11 PM	47.3	48	46.7
7:22:11 PM	47.6	48.1	47
7:23:11 PM	46.9	47.4	46.5
7:24:11 PM	46.9	47.3	46.6
7:25:11 PM	47.2	48	46.6
7:26:11 PM	47.4	48.8	46.8
7:27:11 PM	47.4	48.4	46.9
7:28:11 PM	47.9	49.1	47
7:29:11 PM	48.6	50.3	47.7
7:30:11 PM	52	58.9	47.2
7:31:11 PM	53	59.4	46.7
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7:33:11 PM	47.8	48.6	46.8
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7:41:11 PM	47.2	48.5	46.7
7:42:11 PM	46.9	47.3	46.5
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7:49:11 PM	47.2	48.2	46.8
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7:51:11 PM	47.2	48.2	46.7

Date/Time	Leq-1	Lmax-1	Lmin-1
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7:53:11 PM	47.2	47.7	46.8
7:54:11 PM	47.6	48.2	46.8
7:55:11 PM	48.4	49.8	47.3
7:56:11 PM	47.7	48.7	47.3
7:57:11 PM	47.8	48.6	47.2
7:58:11 PM	47.8	48.6	47.2
7:59:11 PM	48.1	49.4	47.5
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8:01:11 PM	48.2	48.9	47.9
8:02:11 PM	49.2	52.8	48.1
8:03:11 PM	49.2	50.3	48.1
8:04:11 PM	48	48.8	47.5
8:05:11 PM	48.2	49.2	47.4
8:06:11 PM	48.2	48.7	47.6
8:07:11 PM	47.9	48.3	47.4
8:08:11 PM	48	48.5	47.4
8:09:11 PM	48.2	49	47.6
8:10:11 PM	48.2	48.9	47.8
8:11:11 PM	48	48.6	47.4
8:12:11 PM	48.2	49.2	47.6
8:13:11 PM	59.2	61.7	47.8
8:14:11 PM	61.9	62.5	60.8
8:15:11 PM	62.6	63.5	61.8
8:16:11 PM	59	63.7	46.9
8:17:11 PM	47.3	48.5	46.5
8:18:11 PM	47.9	48.9	46.7
8:19:11 PM	48.5	49.2	48.2
8:20:11 PM	48.9	49.4	48.3
8:21:11 PM	48.7	49.4	46.9
8:22:11 PM	47.3	48.2	46.6
8:23:11 PM	47.6	48.9	46.8
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8:25:11 PM	47.1	47.9	46.5
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8:28:11 PM	47.6	48.3	46.9

Date/Time	Leq-1	Lmax-1	Lmin-1
8:29:11 PM	47.9	50.8	47
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8:31:11 PM	47.5	48.6	46.8
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8:44:11 PM	52.6	53.4	52.1
8:45:11 PM	52.9	54	52.3
8:46:11 PM	52.7	53.5	52.1
8:47:11 PM	52.9	54.1	52.2
8:48:11 PM	53.1	54	52.1
8:49:11 PM	52.9	54.4	52.2
8:50:11 PM	52.7	53.2	52.3
8:51:11 PM	53.1	54.7	52.1
8:52:11 PM	52.6	53.8	51.7
8:53:11 PM	52.8	54.4	52.2
8:54:11 PM	52.9	53.9	52.2
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8:59:11 PM	52.4	53.3	51.8
9:00:11 PM	52.8	53.7	52.2
9:01:11 PM	52.9	53.8	52.2
9:02:11 PM	52.5	53.7	50.8
9:03:11 PM	52.2	53.1	50.2
9:04:11 PM	52.2	53.2	51.6
9:05:11 PM	52.2	53.3	51.6

Date/Time	Leq-1	Lmax-1	Lmin-1
9:06:11 PM	51.8	52.6	51.2
9:07:11 PM	51.8	52.7	51.3
9:08:11 PM	52.4	53.2	51.9
9:09:11 PM	52.3	52.8	51.7
9:10:11 PM	51.9	52.8	51
9:11:11 PM	52	52.8	51.2
9:12:11 PM	52.3	53.2	51.7
9:13:11 PM	52.6	53.2	52
9:14:11 PM	52.4	52.9	51.6
9:15:11 PM	52.4	53.8	51.7
9:16:11 PM	52	53	50.2
9:17:11 PM	51.9	52.6	51.2
9:18:11 PM	51.9	52.8	51.2
9:19:11 PM	48.4	51.8	47.6
9:20:11 PM	48.7	50.5	47.9
9:21:11 PM	48.2	50.5	47.4
9:22:11 PM	48.4	49.3	47.3
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9:35:11 PM	47	47.5	46.7
9:36:11 PM	48.8	51	47.2
9:37:11 PM	48.4	50	47.4
9:38:11 PM	47.4	48	46.8
9:39:11 PM	47.2	48.8	46.6
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9:50:11 PM	47.3	47.9	46.8
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10:07:11 PM	48.5	49.2	47.9
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10:18:11 PM	47.6	48.1	47
10:19:11 PM	47.9	48.8	47.2

Date/Time	Leq-1	Lmax-1	Lmin-1
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10:23:11 PM	47.8	49.2	47.1
10:24:11 PM	47.6	48.1	47
10:25:11 PM	48	49	47.3
10:26:11 PM	48.4	48.9	47.9
10:27:11 PM	48.5	49.4	47.6
10:28:11 PM	47.5	48.3	47

Terracon

March 24, 2017

Charleston County School District
c/o Cumming Corp
3820 Faber Place Drive
North Charleston, SC 29405

Attn: Rick Holt
P: (843) 203 2900

Re: Air Dispersion Modeling Services
Proposed James Island Bus Parking Lot
Charleston, South Carolina
Terracon Project No. N4177017

Dear Mr. Holt:

Please find enclosed the Air Dispersion Modeling Report for the proposed James Island Bus Parking Lot (32.704233°N, 79.973867°W) for the Charleston County School District. The air dispersion model was performed to estimate the pollutant risk from exposure to particulate matter, carbon monoxide, and nitrogen oxides concentrations from idling school buses. The air dispersion modeling was performed using AERMOD, which is a USEPA preferred model that estimates annual and hourly average of typical air pollutants dispersed from diesel engines.

1.0 PROJECT INFORMATION

The information utilized to perform the model runs are provided in the table below:

Control Pathway	
Pollutant – Particulate Matter with diameter less than 10 microns (PM_{10})	■ 24 hours averaging time ■ Annual averaging time
Pollutant – Carbon Monoxide (CO)	■ 1 hour averaging time ■ 8 hours averaging time
Pollutant – Nitrogen Oxides (NO_X)	■ Annual averaging time
Source Pathway	
Number of buses[1]	35 buses proposed
Emission Rates (g/s) [2]	■ PM 0.027757 ■ CO 0.773646 ■ NO_X 1.17566
UTM Coordinates (m, m)	596253, 3618980
Release Height (m)	0.6
Gas Exit Temperature (K)	366
Stack Inside Diameter (m)	0.1

Gas Exit Velocity (m/s)	0.001
Type of fuel used	Diesel fuel
Idling time	20 minutes/day
Meteorological Data	
Surface Met Data	Charleston Station# 13880
Upper Air Data	Charleston Station# 13880
Data Period	1986 – 1990 (based on the modeling guidance issued by South Carolina Department of Health and Environmental Control (SC DHEC), Bureau of Air Quality, as data for most recent years is not available)
Anemometer Height (m)	6.1 (Based on SC DHEC guidance)
Receptor Information	
Residents living nearby school	1000 m x 1000 m grid with the school as center

[1] *Based on the guidance provided by South Carolina Department of Health and Environmental Control, Bureau of Air Quality, sources that emit same pollutant with similar parameters located within 100 meters of each other may be analyzed by treating all the emissions as coming from a single representative source.*

[2] *Emission factors were obtained from Air & Waste Management Association (AWMA) technical paper on "Idle Emissions from Heavy-Duty Diesel and Natural Gas Vehicles"*

2.0 WIND ROSE DIAGRAM

A wind rose diagram graphically represents how wind speed and direction are typically distributed at a particular location during a particular period of time.

Based on the meteorological data for Charleston, South Carolina; the predominant wind direction is southwest (SW) and northeast (NE).

It is important to note that the majority of the residences are located on the southeast (SE) side of the school. Therefore, the concentration levels of the pollutants are likely lower in the direction of the residences located to the southeast. The wind rose diagram for Charleston, South Carolina for a data period of 1986 to 1990 is provided in **Appendix A** of this report.

The model results are based on the meteorological data for the entire data period (1986-1990) which includes days with predominant wind directions and also calm winds. At any given receptor, the concentration of pollutants varies each day depending on the wind velocity, wind direction, ambient temperature, atmospheric stability and mixing height. However, those concentrations will always be less than the maximum observed concentrations presented in the table in next section.

3.0 ANALYSIS OF RESULTS

The concentration estimates of the pollutants obtained as a result of performing the model are summarized in the table below:

Pollutant	Averaging Period[1]	South Carolina Ambient Air Quality Standards ($\mu g/m^3$)[2]	Model Results ($\mu g/m^3$)[3]	Concentration at fence line on east ($\mu g/m^3$)		
				FL #1	FL #2	FL #3
Particulate Matter with diameter less than 10 microns (PM_{10})	24-hour	150	9.34	8.58	3.06	1.03
	Annual	50	1.26	1.23	0.26	0.06
Carbon Monoxide	1-hour	40,000	3233	3233	911	328.26
	8-hour	10,000	746	661.79	244.17	84.49
Nitrogen Oxides	Annual	100	53.5	52.18	11.07	2.42

[1] Pollutants have standards for both long-term (annual) and short-term (1hr/8hr/24hr) averaging times. The short-term standards are designed to protect against acute, or short-term health effects, while the long-term standards are established to protect against chronic health effects. It is important to note that the long-term standards are smaller than the short-term standards because the concentrations are averaged over a period of time.

[2] Ambient Air Quality Standards that apply for outdoor air. These are primary standards that are designed to protect human health, including sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases.

[3] The maximum concentration occurs within the school property boundary.

From the above table, it may be noted that the modeled results of the pollutants are all well below the ambient air quality standards.

The concentration contours of the pollutants are included in **Appendix B** of this report.

It is important to note that the worst case scenarios as described below have been utilized for every parameter and therefore, the actual emissions should be significantly lower than the modeled emissions.

Worst Case Scenarios

- Proposed number of buses (35) are assumed compared to the number of buses that are currently being operated (27);
- Diesel is assumed to be the fuel on all buses even though propane is being used on some of the buses; and
- All parking spaces were combined as a single source and it was assumed to be located close to the school property boundary and therefore the resulting emissions outside the school boundary are over estimated.

3.1 Understanding Contour Maps

24-hour particulate matter emissions contour

The highest particulate concentration observed was 9.34 $\mu g/m^3$. As indicated on the figure below, the maximum concentration occurs within the property boundary of the school. The concentrations then dropping from 9 $\mu g/m^3$ to 7 $\mu g/m^3$ within the yellow contour. Similarly, the concentrations further drop from 7 $\mu g/m^3$ to 3 $\mu g/m^3$ (dark green contour) as you move away from the source and eventually diffusing to 0.9 $\mu g/m^3$ (green contour), 0.5 $\mu g/m^3$ (blue contour), and to less than 0.15 $\mu g/m^3$ (grey contour).

The X and Y axis show the Universal Transverse Mercator (UTM) coordinates of the source. This is the standard way of showing the location when using the AERMOD model.

Note: The particulate contour map provided below was selected to explain how the concentration maps are read. The concentration contour maps for carbon monoxide and nitrogen oxides are included in **Appendix B**.



4.0 IMPACT ON NEIGHBORING PROPERTIES

As shown on the contour maps, the highest concentrations for all the pollutants obtained from the model occur within the school property boundary as shown in **Appendix B.** The emissions quickly dissipate to lower concentrations moving further away from the fence line as follows:

- The 24-hour particulate matter emissions decrease to less than 10% (0.9 µg/m³) of the highest modeled concentration (9.34 µg/m³) within 1,000 feet from the source.
- The annual particulate matter emissions decrease to less than 7% (0.08 µg/m³) of the highest modeled concentration (1.26 µg/m³) within 900 feet from the source.
- The 1-hour carbon monoxide emissions decrease to less than 13% (400 µg/m³) of the highest modeled concentration (3233 µg/m³) within 700 feet from the source.

- The 8-hour carbon monoxide emissions decrease to less than 13% (90 $\mu g/m^3$) of the highest modeled concentration (746 $\mu g/m^3$) within 800 feet from the source.
- The annual nitrogen oxides emissions decrease to less than 20% (10 $\mu g/m^3$) of the highest modeled concentration (53.5 $\mu g/m^3$) within 500 feet from the source.

Based on the air modeling results, it may be concluded that the emissions are well below the ambient air quality standards.

If you have any questions, please call Matthew Silveston at 843-277-8410.

Sincerely,
Terracon Consultants, Inc.

VRaman
Veena Raman
Project Engineer

For VRaman
Neal McElveen
Senior Associate

Matthew L. Silveston
Senior Principal

APPENDIX A

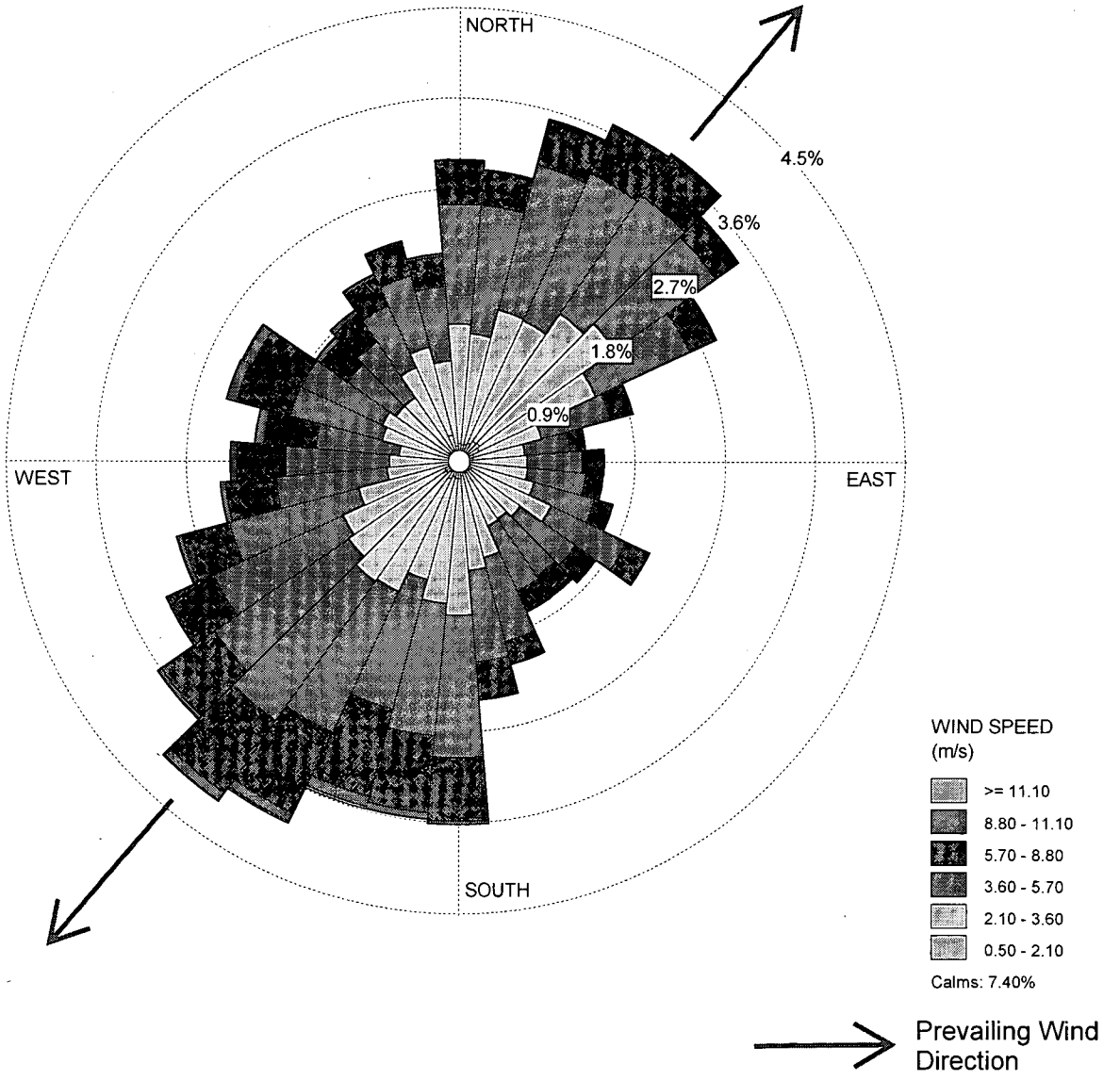
WIND ROSE DIAGRAM

WIND ROSE PLOT:

Station #13880 - CHARLESTON/INT'L ARPT, SC

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/1986 - 00:00 **End Date: 12/31/1990 - 23:00**	**Terracon Consultants, Inc.**	
		MODELER: **Veena Raman**	
	CALM WINDS: **7.40%**	TOTAL COUNT: **43748 hrs.**	
	AVG. WIND SPEED: **3.70 m/s**	DATE: **2/14/2017**	PROJECT NO.: **N4177017**

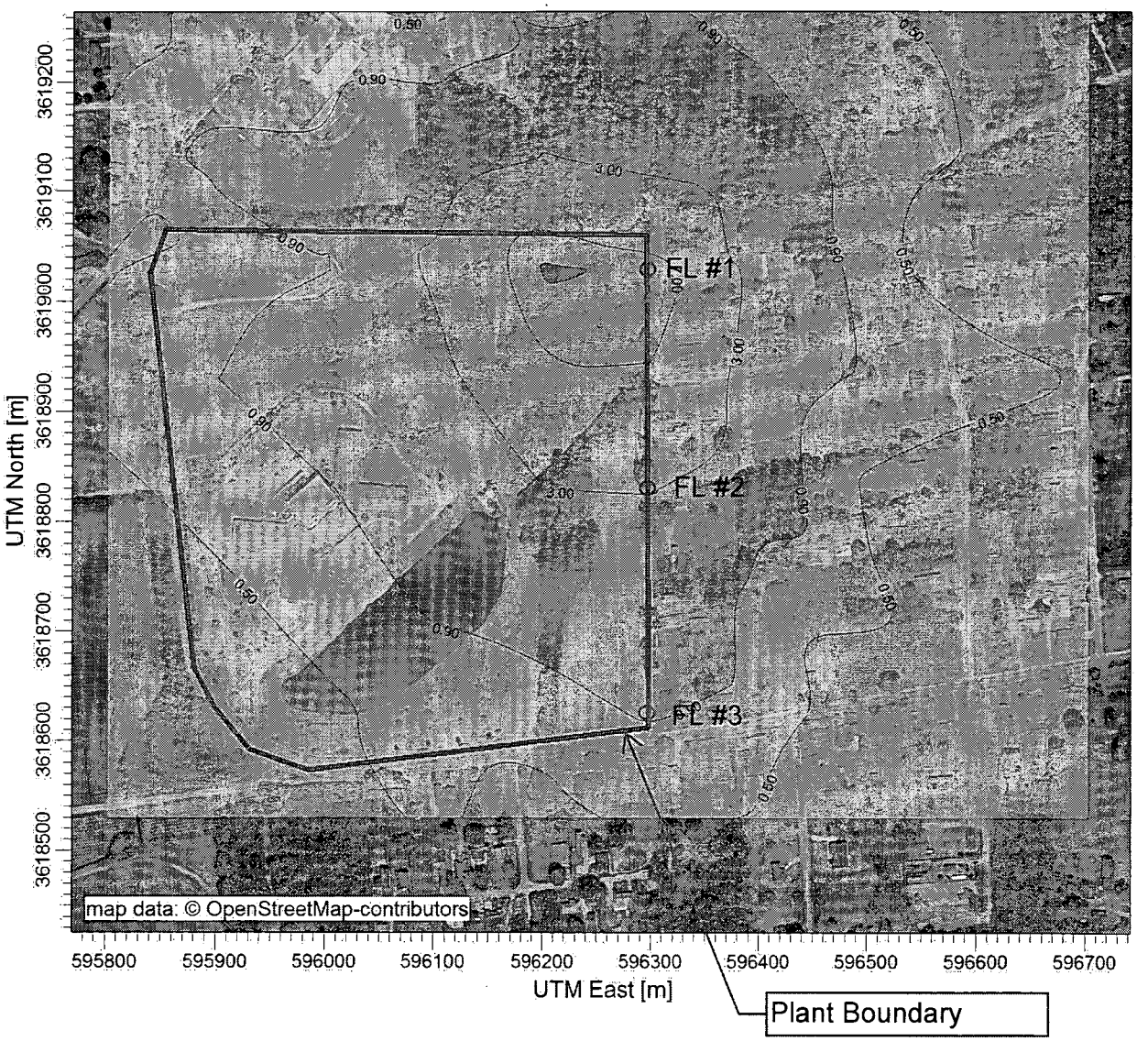
WRPLOT View - Lakes Environmental Software

Terracon

APPENDIX B

PM_{10} 24-HOUR CONCENTRATION CONTOUR
PM_{10} ANNUAL CONCENTRATION CONTOUR

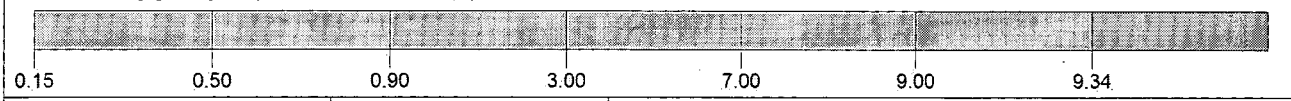
PROJECT TITLE:
C:\Lakes\AERMOD View\Charleston\Charleston.isc



PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL

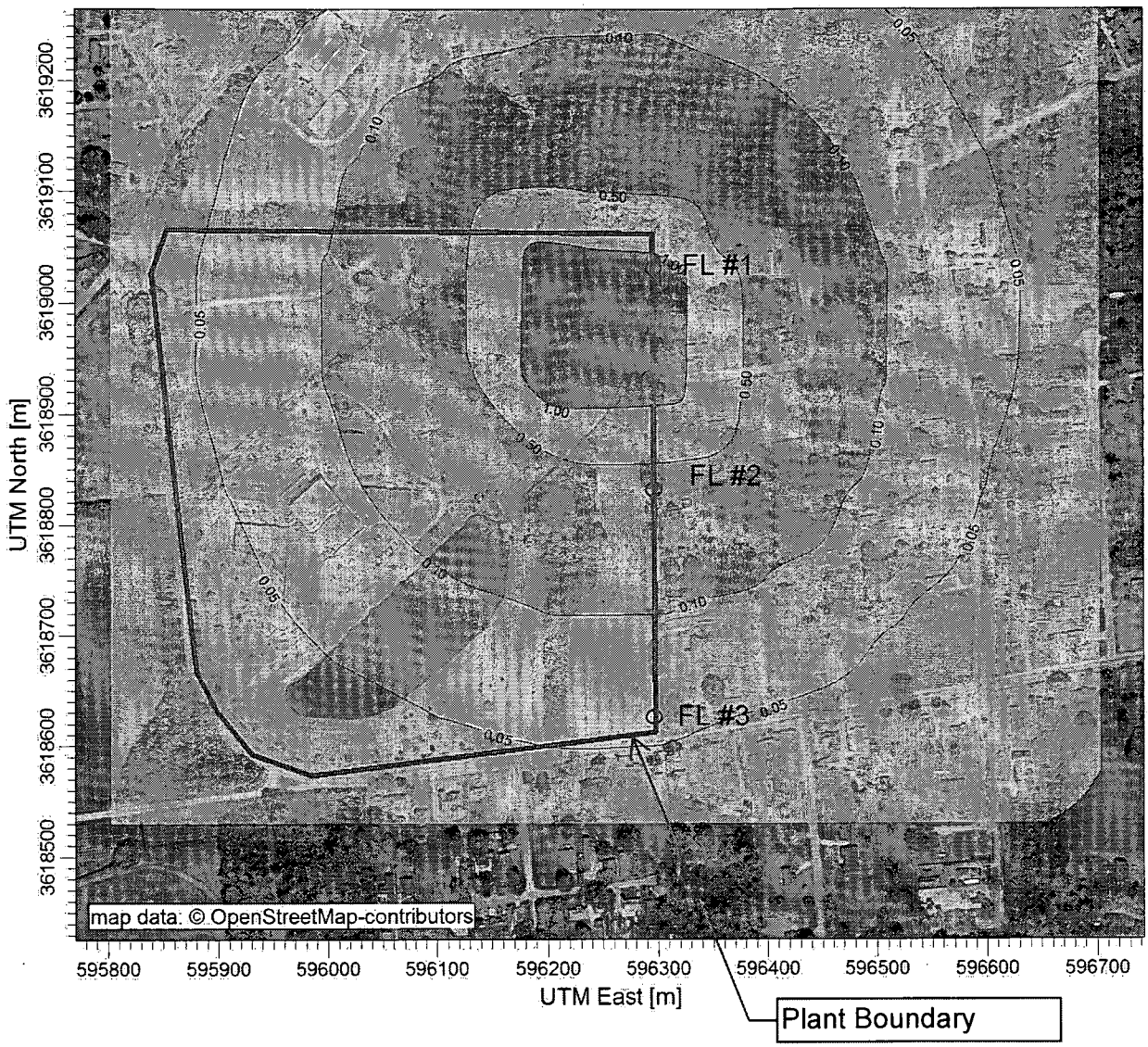
ug/m^3

Max: 9.34 [ug/m^3] at (596203.00, 3619030.00)



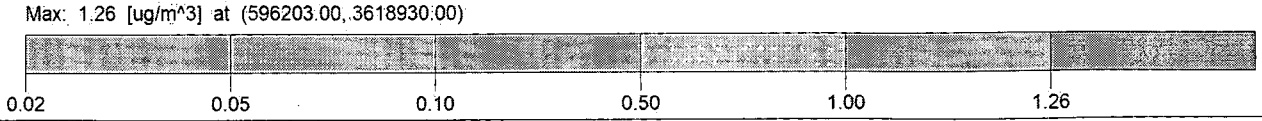
COMMENTS:	SOURCES: 1	COMPANY NAME: Terracon Consultants, Inc.	
	RECEPTORS: 108	MODELER: Veena Raman	
	OUTPUT TYPE: Concentration	SCALE: 1:6,113 (0 — 0.2 km)	
	MAX: 9.34 ug/m^3	DATE: 2/15/2017	PROJECT NO.: N4177017

PROJECT TITLE:
C:\Lakes\AERMOD View\Charleston\Charleston.isc



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

Max: 1.26 [ug/m^3] at (596203.00, 3618930.00)

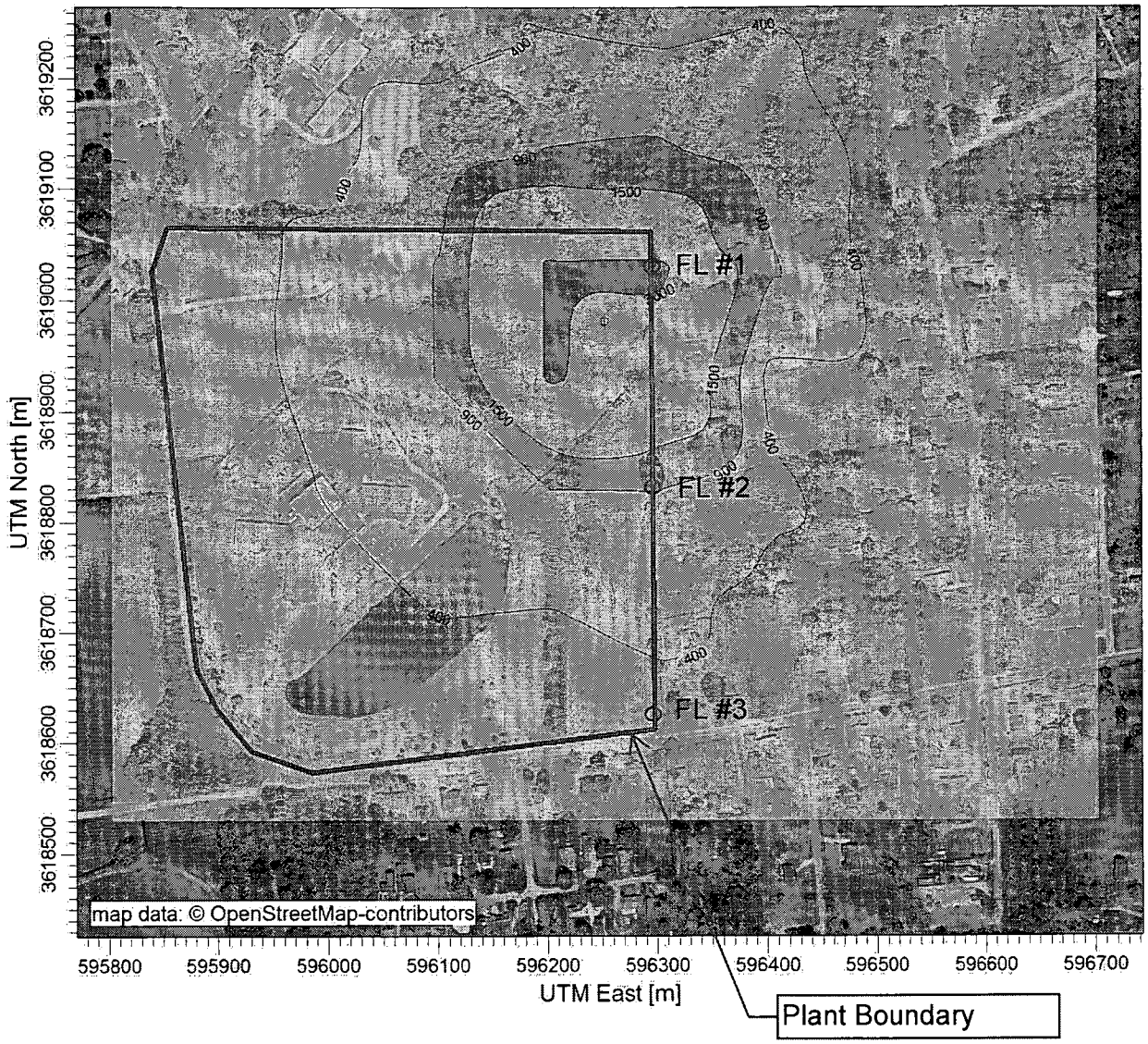


COMMENTS:	SOURCES:	COMPANY NAME:	
	1	Terracon Consultants, Inc.	
	RECEPTORS:	MODELER:	
	108	Veena Raman	
	OUTPUT TYPE:	SCALE: 1:6,113	
	Concentration	0 0.2 km	
	MAX:	DATE:	PROJECT NO.:
	1.26 ug/m^3	2/15/2017	N4177017

Terracon

CO 1-HOUR CONCENTRATION CONTOUR
CO 8-HOUR CONCENTRATION CONTOUR

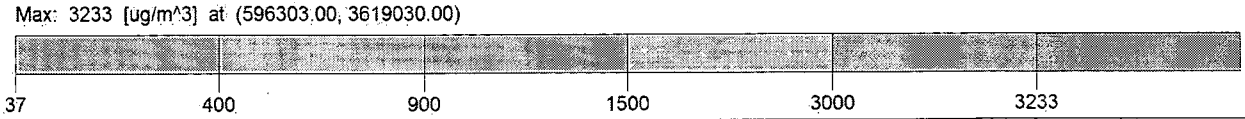
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C:\Lakes\AERMOD View\Charleston\Charleston.isc



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

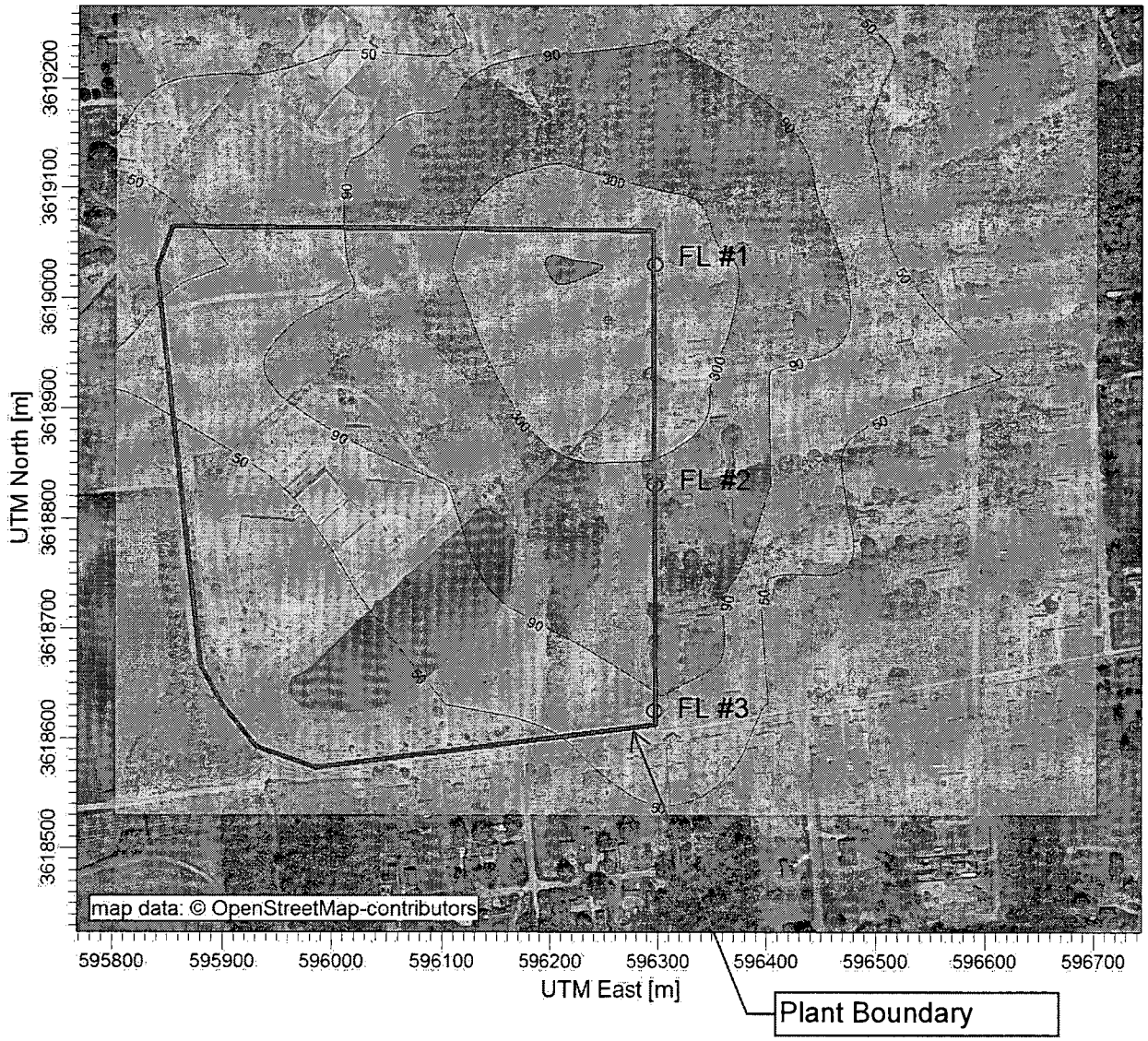
ug/m^3

Max: 3233 [ug/m^3] at (596303.00, 3619030.00)



COMMENTS:	SOURCES: 1	COMPANY NAME: Terracon Consultants, Inc.	
	RECEPTORS: 108	MODELER: Veena Raman	
	OUTPUT TYPE: Concentration	SCALE: 1:6,112 (0 — 0.2 km)	
	MAX: 3233 ug/m^3	DATE: 2/15/2017	PROJECT NO.: N4177017

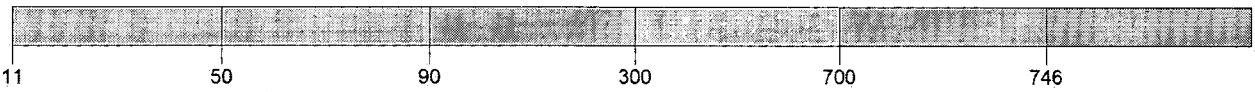
PROJECT TITLE:
C:\Lakes\AERMOD View\Charleston\Charleston.isc



PLOT FILE OF HIGH 1ST HIGH 8-HR VALUES FOR SOURCE GROUP: ALL

ug/m^3

Max: 746 [ug/m^3] at (596203.00, 3619030.00)

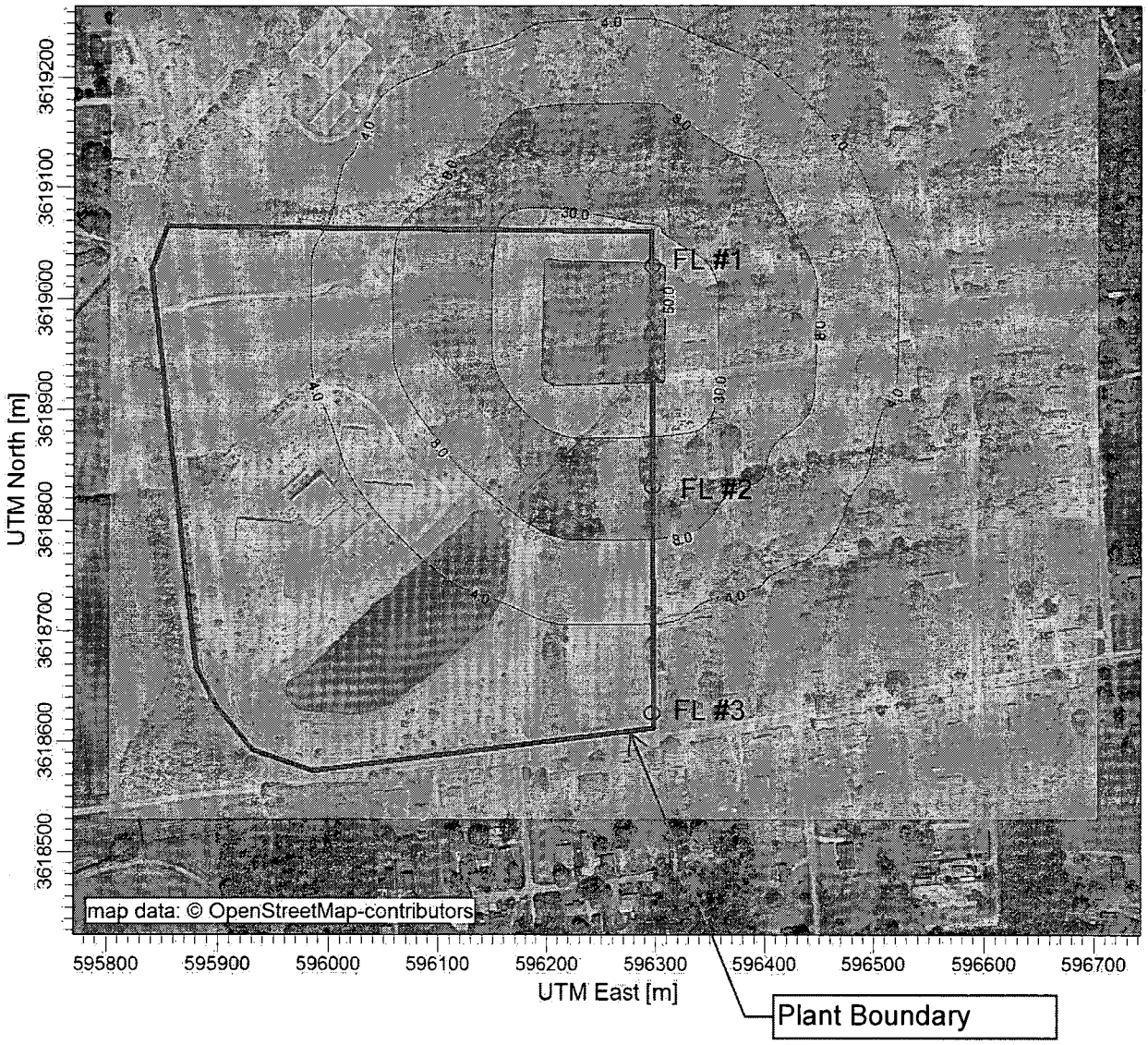


COMMENTS:	SOURCES: 1	COMPANY NAME: Terracon Consultants, Inc.	
	RECEPTORS: 108	MODELER: Veena Raman	
	OUTPUT TYPE: Concentration	SCALE: 1:6,135 0 0.2 km	
	MAX: 746 ug/m^3	DATE: 2/15/2017	PROJECT NO.: N4177017

Terracon

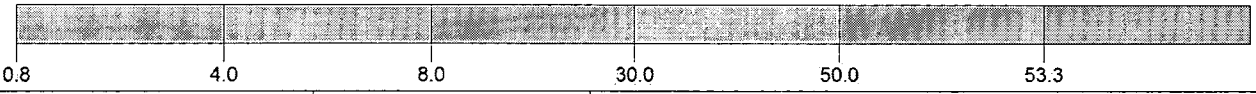
NO_X ANNUAL CONCENTRATION CONTOUR

PROJECT TITLE:
C:\Lakes\AERMOD View\Charleston\Charleston.isc



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

Max: 53.3 [ug/m^3] at (596203.00, 3618930.00)



COMMENTS:	SOURCES: 1	COMPANY NAME: Terracon Consultants, Inc.	
	RECEPTORS: 108	MODELER: Veena Raman	
	OUTPUT TYPE: Concentration	SCALE: 1:6,113 (0 — 0.2 km)	
	MAX: 53.3 ug/m^3	DATE: 2/15/2017	PROJECT NO.: N4177017

Traffic Impact Analysis

Bus Storage Facility on S. Grimball Road James Island, SC

Prepared for:
ADC Engineering

© Bihl Engineering, LLC 2016

BIHL ENGINEERING

Traffic Impact Analysis
Bus Storage Facility on S. Grimball Road
James Island, SC

Prepared for:
ADC Engineering

Prepared by:
Bihl Engineering, LLC
304 Meeting Street, Suite D
Charleston, SC 29401
Mail: PO Box 31318
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(843) 637-9187

January 2016

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1.0 Executive Summary

The proposed bus storage facility will be located on Grimball Road, north of James Island Elementary School on James Island, SC and is proposed to serve 38 buses. The proposed development will be accessed via a new full access driveway north of the James Island Elementary School. Bus drivers arrive in the morning beginning at 6:00 AM, park their personal vehicles at the lot, and take the buses on their morning routes. Once the routes are complete, the buses will be housed at the lot; this is typically complete by 9:30 AM. Similar to the morning procedure, at 1:00 PM the drivers arrive for the afternoon routes with the last driver leaving for the day at 5:30 PM. The proposed development is assumed to be completed by 2016.

This report presents the trip generation, distribution, traffic analyses, and any recommendations for transportation improvements required to meet anticipated traffic demands.

The South Carolina Department of Transportation (SCDOT) is in the process of installing a traffic signal at Folly Road at S. Grimball Road/Grimball Road Ext. The traffic signal is in the right of way acquisition phase.

Existing conditions analysis shows that study area intersections are currently operating at LOS C or better during AM and PM peak hour conditions with the exception of Folly Road at S. Grimball Road/Grimball Road Ext. which operates at LOS F in both the AM and PM peak hour conditions.

With the signalization of Folly Road at S. Grimball Road/Grimball Road Ext., future condition analysis shows that study area intersections operate acceptably in the 2016 No Build and 2016 Build AM and PM peak hour conditions. Therefore the project is expected to have limited impact on the surrounding transportation network.

Capacity analysis reports are included in the **Appendix**.

Based on the general concepts provided, it is assumed that most of the site traffic utilizes the travel path of Grimball Road to Folly Road via the new traffic signal. This access point has the potential to cause conflict with James Island Elementary School traffic due to its proximity to the elementary school entrance, however, it is expected that a majority of the activity at the bus storage lot would be complete prior to the peak of the elementary school pick-up and drop-off. If the installation of the traffic signal at Folly Road at S. Grimball Road/Grimball Road Ext. is delayed, the buses can use the existing traffic signal at Folly Road at Grimball Road/Fort Johnson Road until installation is complete to assist in turning left to travel northbound on Folly Road.

Note that results in this report are based solely on traffic studies and are considered input into final design considerations. The final design will be determined by the project roadway engineer after other design elements (such as, but not limited to, utilities, stormwater, etc.) are taken into consideration.

2.0 Introduction

The proposed bus storage facility will be located on Grimball Road, north of James Island Elementary School on James Island, SC and is proposed to serve 38 buses. The proposed development will be accessed via a new full access driveway north of the James Island Elementary School. Bus drivers arrive in the morning beginning at 6:00 AM, park their personal vehicles at the lot, and take the buses on their morning routes. Once the routes are complete, the buses will be housed at the lot; this is typically complete by 9:30 AM. Similar to the morning procedure, at 1:00 PM the drivers arrive for the afternoon routes with the last driver leaving for the day at 5:30 PM. The proposed development is assumed to be completed by 2016.

3.0 Inventory

3.1 Study Area

The study area includes the following existing intersections:

- S. Grimball Road/Grimball Road Ext. at Folly Road
- Grimball Road/Fort Johnson Road at Folly Road

Figure 1 shows the site location and **Figure 2** shows the conceptual plan.

3.2 Existing Conditions

Roadways in the project vicinity include Folly Road, S. Grimball Road/Grimball Road, Grimball Road Ext., and Fort Johnson Road. Existing roadway laneage for the study area intersections is shown on **Figure 3**.

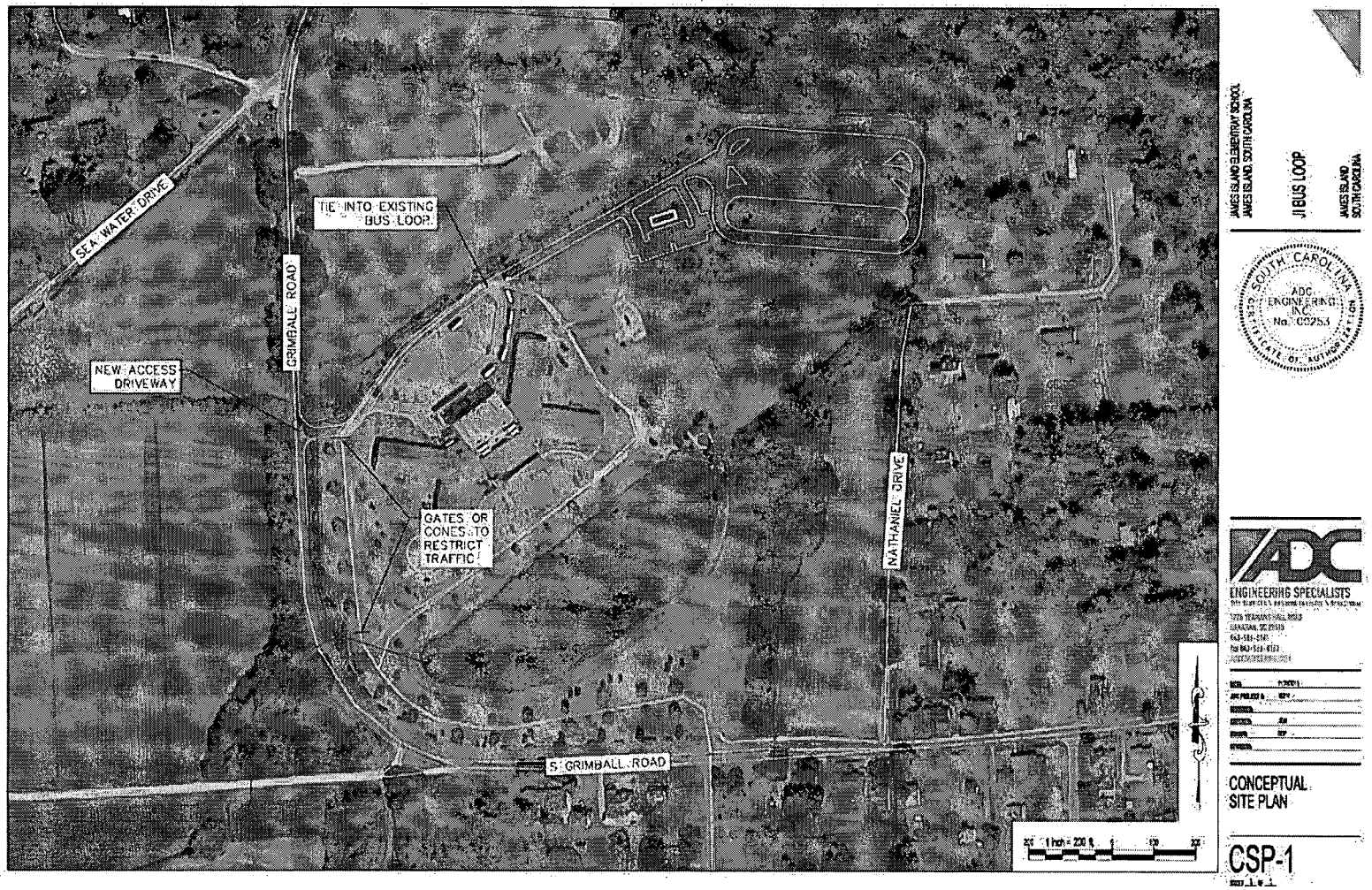
Folly Road is a four-lane roadway with bike lanes in the vicinity of the project. Per SCDOT 2014 Annual Average Daily Traffic (AADT) counts, Folly Road just south of S. Grimball Road, has 12,400 vehicles per day (vpd). Folly Road just north of S. Grimball Road, has 12,900 vpd. The posted speed limit is 45 mph in the vicinity of the project.

Grimball Road is a two-lane roadway in the vicinity of the project. Per SCDOT 2014 AADT counts, Grimball Road has 5,300 vpd.



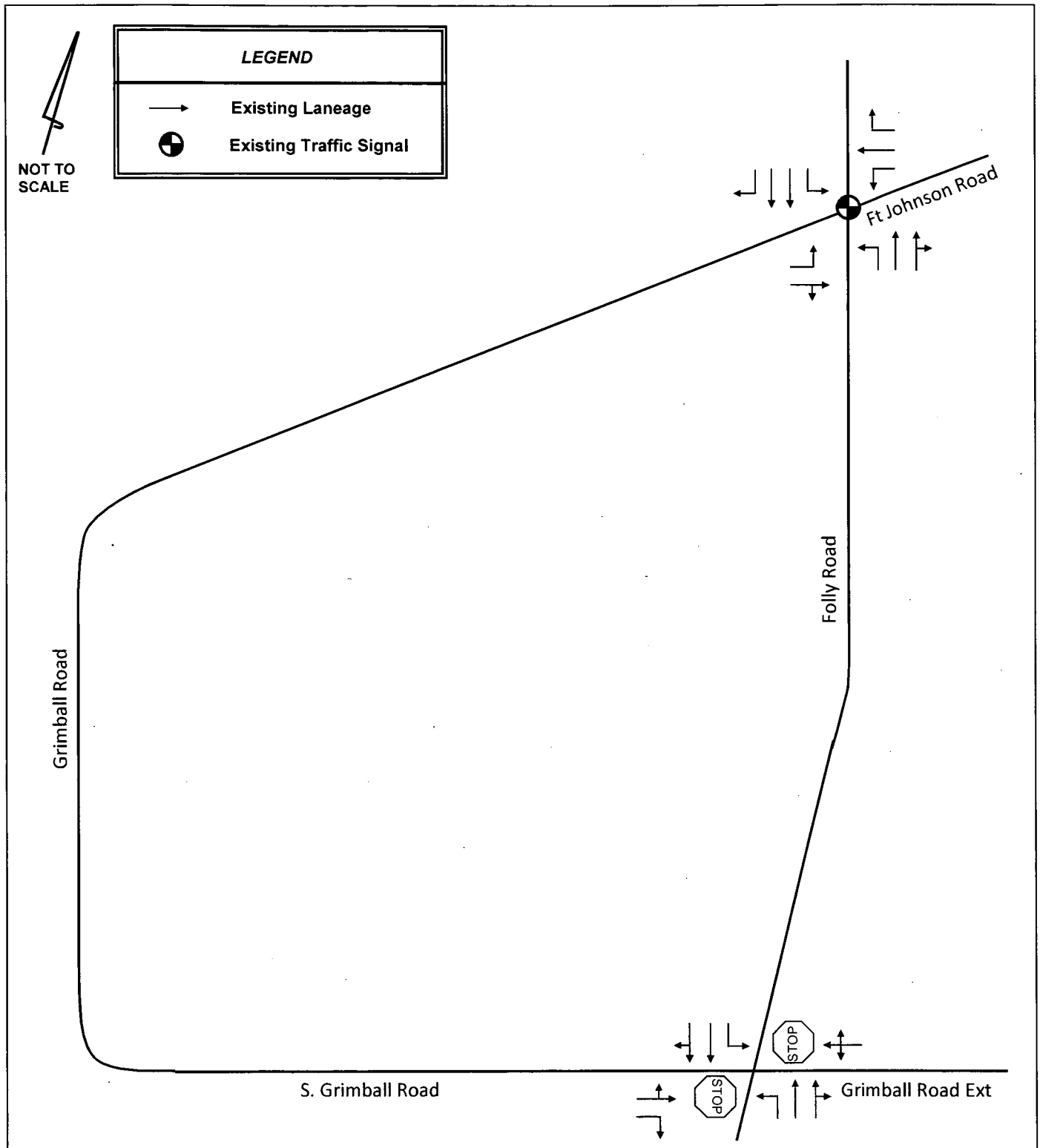
LEGEND
Project Site

BIHL ENGINEERING	Bus Storage Facility Traffic Impact Analysis	Site Location	Figure 1



Source: ADC Engineering Specialists

Figure 2: Conceptual Plan



BIHL ENGINEERING	Bus Storage Facility Traffic Impact Analysis	Existing Laneage	Figure 3

S. Grimball Road, Grimball Road Ext., and Fort Johnson Road are all two-lane roadways with posted speed limits of 35 mph in the vicinity of the project.

James Island Elementary School is located on S. Grimball Road across from Carla Street. There is a school speed zone of 25 mph during school pick-up/drop-off hours in the vicinity of the school.

4.0 Traffic Generation

The traffic generation potential of the proposed development was determined using information from the Charleston County School District regarding the expected bus storage facility operations. Bus drivers arrive in the morning beginning at 6:00 AM, park their vehicles at the lot, and take the buses on their morning routes. Once the routes are complete, the buses will be housed at the lot; this will typically be complete by 9:30 AM. Similar to the morning procedure, at 1:00 PM the drivers arrive for the afternoon routes with the last driver leaving for the day at 5:30 PM.

Table 1 summarizes the daily and peak hour trips associated with the proposed site.

Table 1:
Trip Generation

Land Use and Intensity	ITE Land Use Code[1]	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Bus Facility	Local Data	304	76	38	38	76	38	38
	New Trips	**304**	**76**	**38**	**38**	**76**	**38**	**38**

The proposed bus storage facility is projected to generate 76 new trips during the AM peak hour (38 entering and 38 exiting) and 76 new trips during the PM peak hour (38 entering and 38 exiting).

5.0 Site Traffic Distribution

The proposed project traffic was assigned to the surrounding roadway network. The directional distribution and assignment were based on knowledge of the area and existing traffic patterns. The following general trip distribution was applied to the project trips:

- 55% to/from Folly Road from the north
- 10% to/from Folly Road from the south

- 30% to/from Fort Johnson Road from the east
- 5% to/from Grimball Road Ext. from the east

The detailed distributions for study area intersections are shown in **Figure 4.**

6.0 Traffic Volumes

6.1 2015 Existing Traffic

Peak hour intersection turning movement counts were performed in April 2015 and September 2015 from 7 AM to 9 AM and from 2:30 PM to 6 PM at the following intersections:

- S. Grimball Road/Grimball Road Ext. at Folly Road
- Grimball Road/Fort Johnson Road at Folly Road

The turning movement count data is included in the **Appendix** and the AM and PM peak hour existing traffic volumes are shown in **Figure 5**.

6.2 2016 No Build Traffic

Historic growth is the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area. Historically, based on SCDOT data, traffic has experienced flat or negative growth over the past six years (2009 – 2014) in the project vicinity. To be conservative, a 2% per year growth was used in the analysis.

The 2016 No Build traffic volumes include existing traffic grown to the buildout year. **Figure 6** and **Figure 7** show the 2016 No Build AM and PM peak hour traffic volumes.

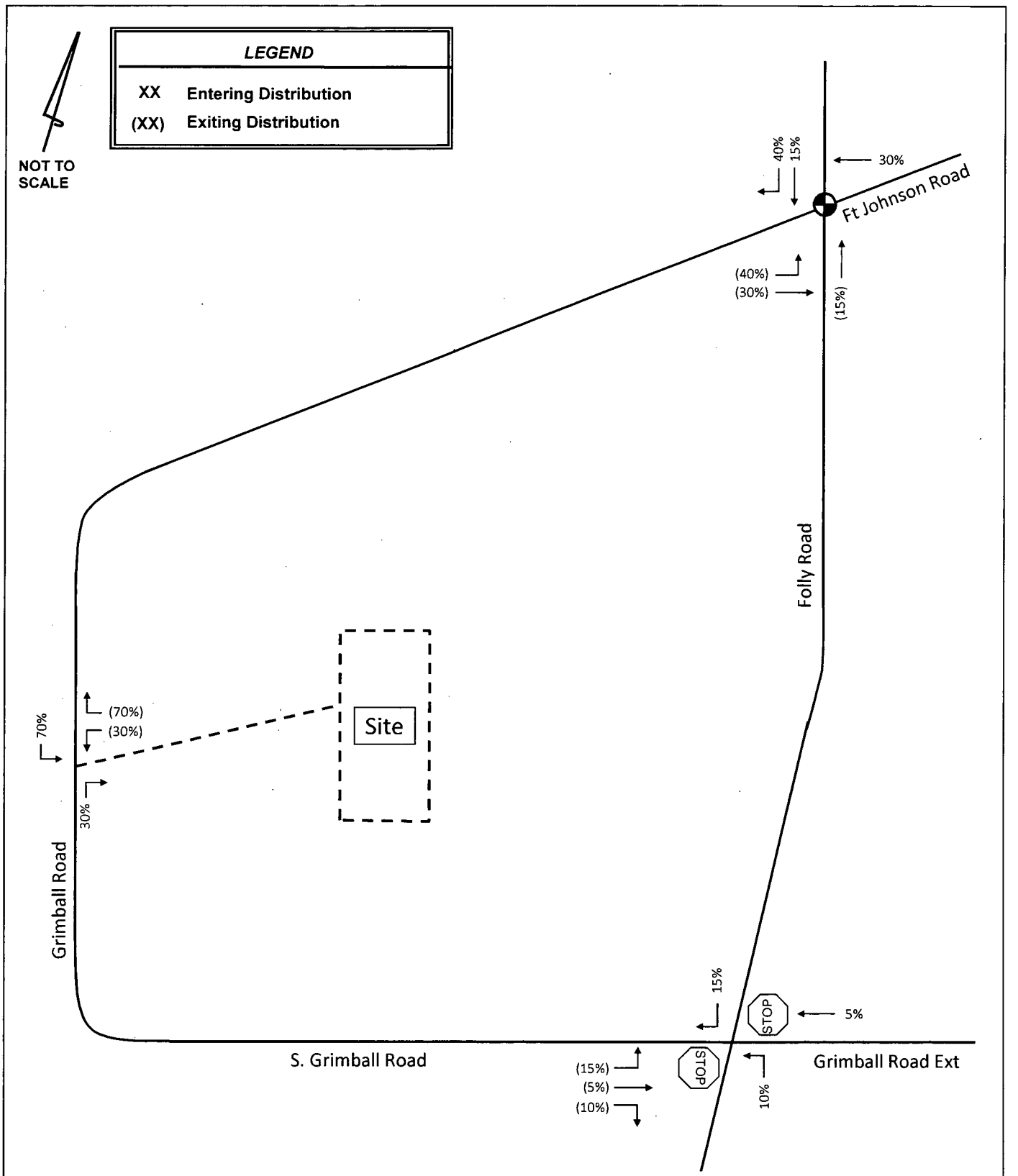
6.3 Project Traffic

The AM peak hour and PM peak hour projected project trips were assigned based on the trip distribution discussed in **Section 5.**

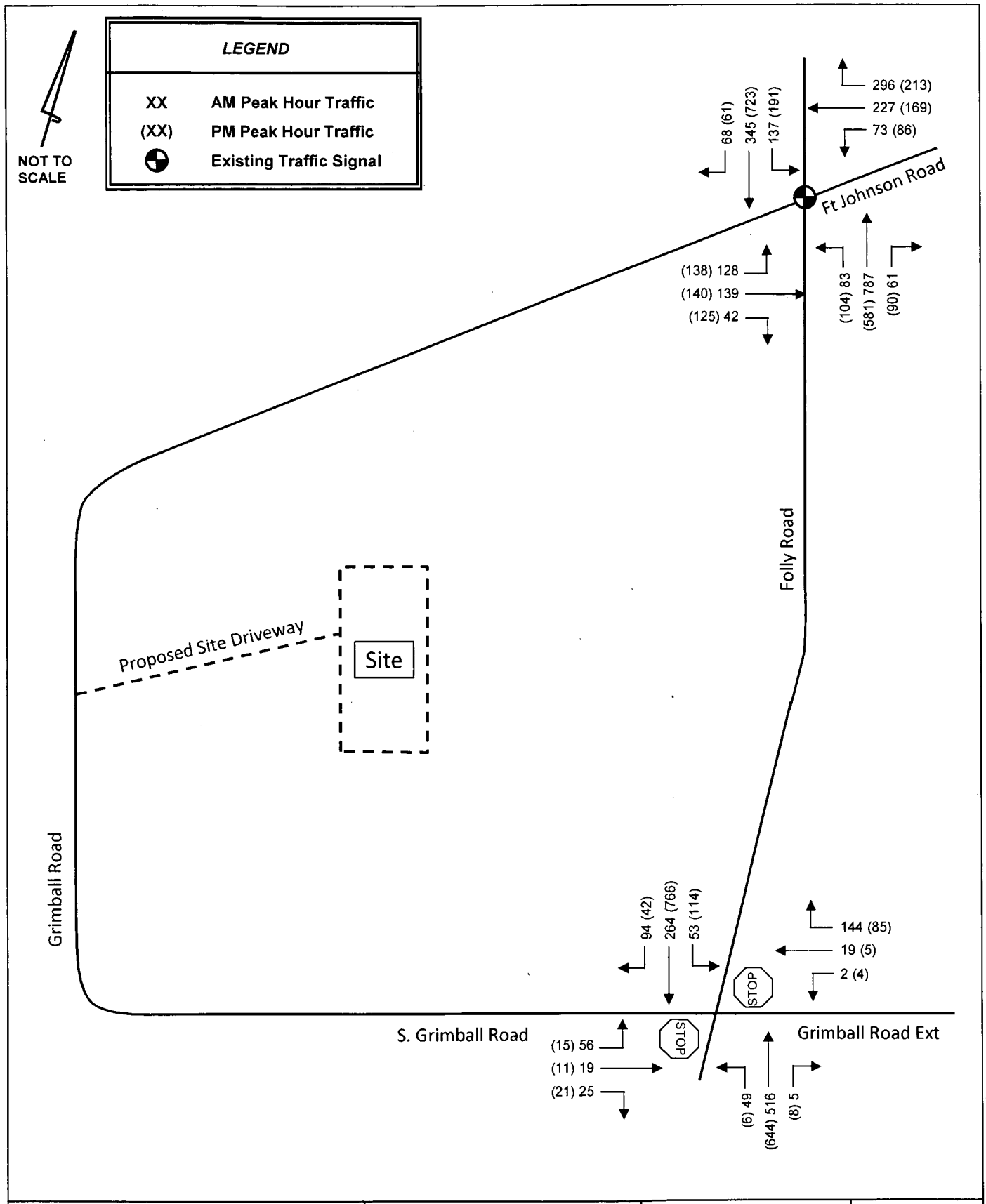
6.4 2016 Build Traffic

The total traffic volumes include the 2016 No Build traffic and the proposed development traffic at buildout. The 2016 AM peak hour and PM peak hour total traffic volumes are shown in **Figure 6** and **Figure 7**, respectively.

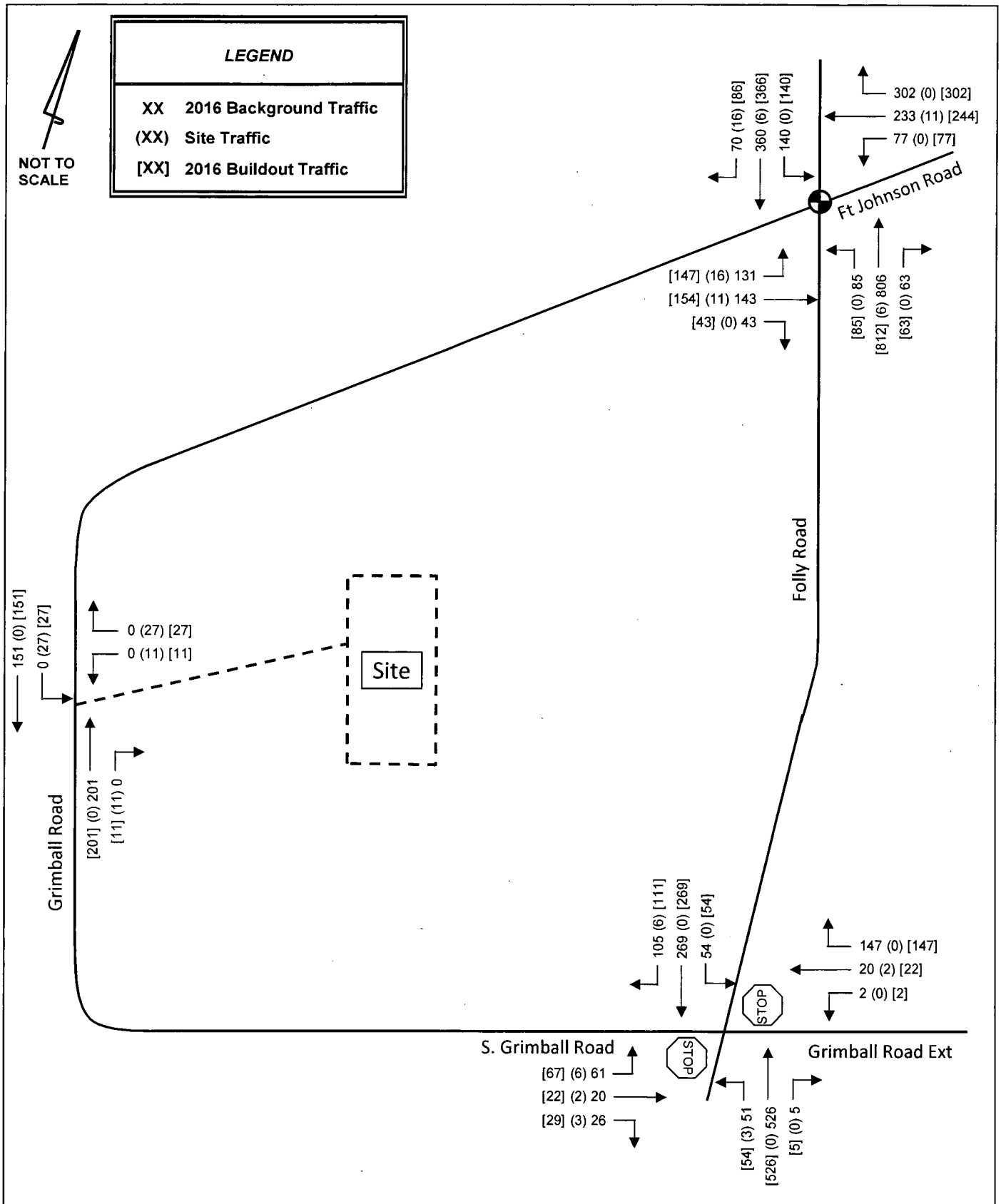
Intersection volume development worksheets are included in the **Appendix.**



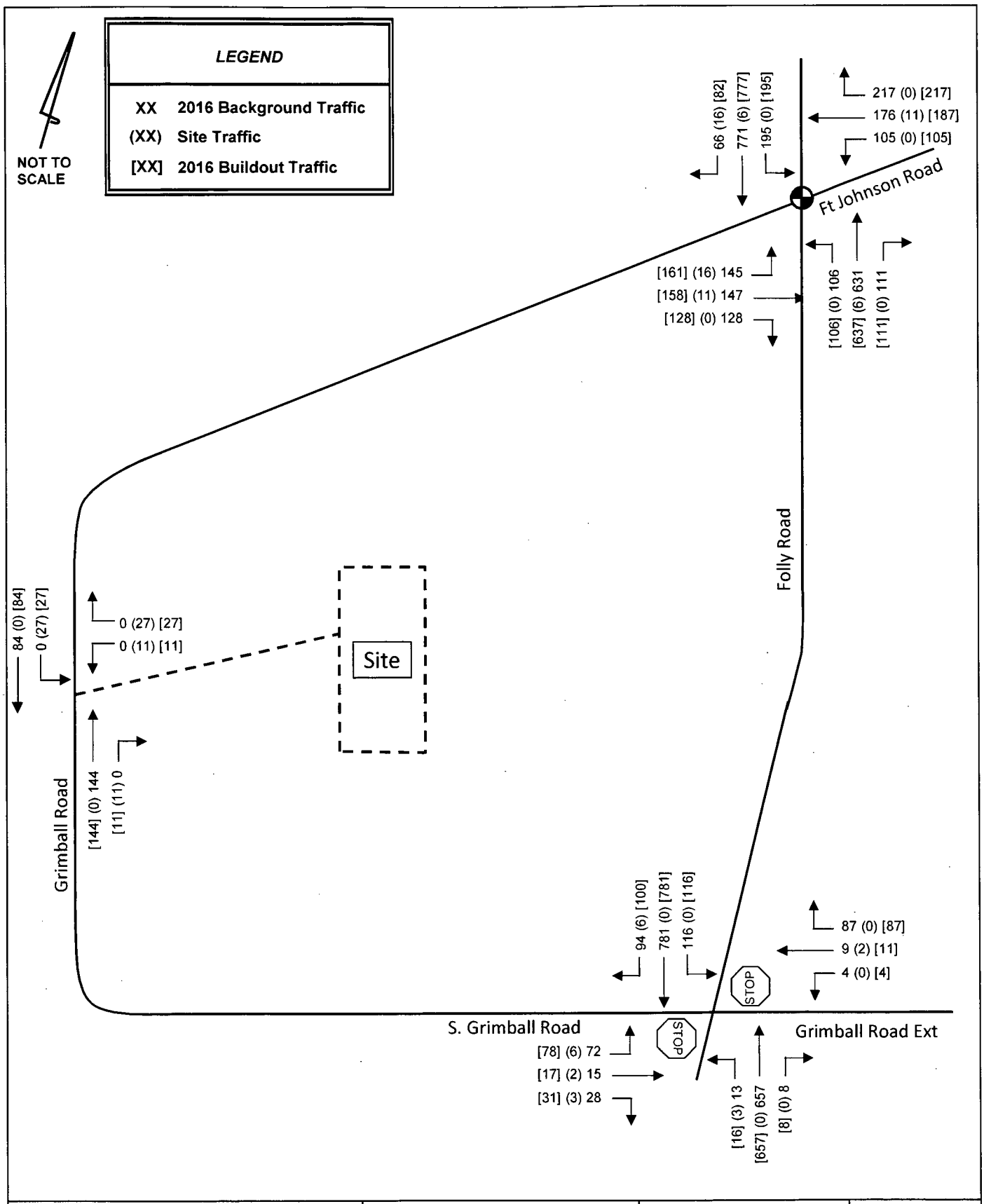
BIHL ENGINEERING	Bus Storage Facility Traffic Impact Analysis	Trip Distribution	Figure 4



BIHL ENGINEERING	Bus Storage Facility Traffic Impact Analysis	Existing Traffic Volumes	Figure 5



BIHL ENGINEERING	Bus Storage Facility Traffic Impact Analysis	2016 AM Peak Traffic Volume	Figure 6



BIHL ENGINEERING	Bus Storage Facility Traffic Impact Analysis	2016 PM Peak Traffic Volume	Figure 7

7.0 Capacity Analysis

Capacity analyses were performed for the AM and PM peak hours for the 2015 Existing, 2016 No Build and 2016 Build conditions using the Synchro Version 9 software to determine the operating characteristics of the adjacent roadway network and the impacts of the proposed project. The analyses were conducted with methodologies contained in the *2010 Highway Capacity Manual* (Transportation Research Board, December 2010).

Capacity of an intersection or roadway is the maximum number of vehicles that can pass over a particular road segment or through a particular intersection during a specified time, typically an hour. Capacity is described by Level-of-Service (LOS) for the operating characteristics of a road segment or intersection. LOS is defined as a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F being the worst. LOS D is the typically accepted standard for signalized intersections in urban and suburban areas.

For signalized intersections, LOS is defined for the overall intersection operation. LOS for a two-way stop-controlled (TWSC) intersection is determined by the delay of the poorest performing minor approach, as LOS is not defined for TWSC intersections as a whole. It is typical for stop sign-controlled side streets and driveways on major streets to experience longer delays during peak hours while the majority of the traffic moving through the intersection experiences little or no delay.

Capacity analyses were performed for the 2015 Existing, 2016 No Build, and 2016 Build traffic conditions for the following intersections:

- S. Grimball Road/Grimball Road Ext. at Folly Road
- Grimball Road/Fort Johnson Road at Folly Road
- Grimball Road at new Access Road north of James Island Elementary School (Build condition only)

SCDOT is currently in the right-of-way acquisition phase for the construction of a traffic signal at the intersection of S. Grimball Road/Grimball Road Ext. at Folly Road, For this analysis, it was assumed that this intersection would be signalized by the 2016 Build conditions

Table 2 summarizes the level of service (LOS) and control delay (average seconds of delay per vehicle) for the study intersections with 2015 Existing, 2016 No Build, and 2016 Build conditions for the AM and PM peak hours.

Table 2:
Level of Service and delay (average seconds per vehicle)[1]

Intersection	Traffic Control[2]	Existing Conditions		2016 No Build Conditions		2016 Build Conditions	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
S. Grimball Rd./Grimball Rd. Ext. at Folly Rd.	U/S (future, assumed)	F (65.4) - EB	F (68.1) - EB	C (31.8)	C (22.3)	D (38.3)	C (26.1)
Grimball Rd./Fort Johnson Rd. at Folly Rd.	S	C (22.9)	C (23.6)	C (34.4)	C (25.4)	D (35.9)	C (26.4)
Grimball Rd. at Site Driveway	U	-	-	-	-	B (11.6) - WB	B (10.6) - WB

1. For unsignalized intersections, the level of service of the poorest performing minor approach is reported.
2. S = Signalized, U = Unsignalized
3. N/A = not applicable

If the installation of the traffic signal at Folly Road at S. Grimball Road/Grimball Road Ext. is delayed, the buses can use the existing traffic signal at Folly Road at Grimball Road/Fort Johnson Road until installation is complete to assist in turning left to travel northbound on Folly Road.

Existing conditions analysis shows that study area intersections are currently operating at LOS C or better during AM and PM peak hour conditions with the exception of Folly Road at S. Grimball Road/Grimball Road Ext. which operates at LOS F in both the AM and PM peak hour conditions.

With the signalization of Folly Road at S. Grimball Road/Grimball Road Ext., future condition analysis shows that study area intersections operate acceptably in the 2016 No Build and 2016 Build AM and PM peak hour conditions. Therefore the project is expected to have limited impact on the surrounding transportation network.

Capacity analysis reports are included in the **Appendix**.

8.0 Conclusion

The proposed bus storage facility will be located on Grimball Road, north of James Island Elementary School on James Island, SC and is proposed to serve 38 buses. The proposed development will be accessed via a new full access driveway north of the James Island Elementary School. The proposed development is assumed to be completed by 2016.

Traffic analysis shows that, with signalization of the Folly Road at S. Grimball Road/Grimball Road Ext., all study area intersections are expected to operate acceptably during both the AM and PM peak hour conditions.

Appendix

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
S Grimball Grimball Extra at Folly Road 2-4 PM
Location
S Grimball Road and Folly Road, Charleston , SC
Performed By
Ben
Date
Thursday, September 10, 2015

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1213	
% Bank 1	% Bank 2
96.9%	2.1%
% Bank 3	% Bank 4
0.7%	0.3%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:15 AM	0	14	1	2	0	0	17	0	1	1	33	0	0	35	0	10	145	2	0	0	157	0	9	44	36	0	0	89	298	0
7:30 AM	0	21	9	3	0	0	33	0	0	13	48	0	0	61	0	24	126	0	0	0	150	0	8	54	40	0	0	102	346	0
7:45 AM	0	14	6	19	0	0	39	0	1	5	30	0	0	36	0	11	96	1	0	0	108	0	18	64	12	0	0	94	277	0
8:00 AM	0	7	3	1	0	0	11	0	0	0	33	0	0	33	0	4	136	2	0	0	144	0	13	87	4	0	0	104	292	0

Vehicle Movement Summary

Movement / Details	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	56	19	25	0	0	100	0	2	19	144	0	0	165	0	49	505	5	0	0	559	0	48	249	92	0	0	389	1213	0
PHF	-	0.67	0.53	0.33	-	-	0.64	-	0.50	0.37	0.75	-	-	0.68	-	0.51	0.87	0.63	-	-	0.89	-	0.67	0.72	0.58	-	-	0.94	0.88	-
% Bank 1	0.0%	97.4%	87.5%	88.1%				0.0%	100.0%	87.5%	95.2%				0.0%	100.0%	97.9%	100.0%				0.0%	94.3%	97.4%	96.1%					
% Bank 2	0.0%	0.0%	0.0%	2.4%				0.0%	0.0%	0.0%	3.2%				0.0%	0.0%	1.4%	0.0%				0.0%	5.7%	2.4%	2.0%				**Need a custom report?**	
% Bank 3	0.0%	0.0%	6.3%	7.1%				0.0%	0.0%	12.5%	1.6%				0.0%	0.0%	0.5%	0.0%				0.0%	0.0%	0.2%	2.0%				**Contact: support@portablestudies.com**	
% Bank 4	0.0%	2.6%	6.3%	2.4%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.2%	0.0%				0.0%	0.0%	0.0%	0.0%					

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
S Grimball Road and Folly Road, 2-6 PM
Location
S Grimball Road and Folly Road, Charleston , SC
Performed By
BK
Date
Thusday, April 23, 2015 and Thursday, September 10, 2015

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
1721	
% Bank 1	% Bank 2
0.0%	81.4%
% Bank 3	% Bank 4
18.6%	0.0%
Pedestrians Volume	
4	

Peak Hour Data

Time Period	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:15 PM	0	3	2	3	0	0	8	0	1	0	22	0	0	23	0	1	172	5	0	0	178	0	32	193	11	0	0	236	445	0
4:30 PM	0	5	2	3	0	0	10	0	2	1	20	2	0	23	0	1	132	0	1	0	133	0	27	213	7	0	0	247	413	3
4:45 PM	0	5	5	6	0	0	16	0	0	4	21	0	0	25	0	3	177	1	0	0	181	0	26	183	7	0	0	216	438	0
5:00 PM	0	2	2	9	1	0	13	0	1	0	22	0	0	23	0	1	163	2	0	0	166	0	29	177	17	0	0	223	425	1

Vehicle Movement Summary

Movement / Details	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	15	11	21	1	0	47	0	4	5	85	2	0	94	0	6	644	8	1	0	658	0	114	766	42	0	0	922	1721	4
PHF	-	0.75	0.55	0.58	0.25	-	0.73	-	0.50	0.31	0.97	0.25	-	0.94	-	0.50	0.91	0.40	0.25	-	0.91	-	0.89	0.90	0.62	-	-	0.93	0.97	0.33
% Bank 1	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					
% Bank 2	0.0%	0.0%	0.0%	0.0%				0.0%	100.0%	100.0%	60.0%				0.0%	0.0%	82.4%	0.0%				0.0%	100.0%	83.3%	0.0%					
% Bank 3	0.0%	0.0%	0.0%	100.0%				0.0%	0.0%	0.0%	40.0%				0.0%	0.0%	17.6%	0.0%				0.0%	0.0%	16.7%	0.0%					
% Bank 4	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

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Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Bus Facility S Grimball Road
Location
Grimball - Ft Johnson at Folly Road 7-9 AM
Performed By
Date
29-Apr-15

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
2342	
% Bank 1	% Bank 2
93.5%	2.2%
% Bank 3	% Bank 4
4.3%	0.0%
Pedestrians Volume	
0	

Peak Hour Data

Time Period	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:15 AM	0	25	33	10	0	0	68	0	12	39	76	0	0	127	0	13	217	12	0	0	242	0	23	63	20	0	0	106	543	0
7:30 AM	0	35	48	7	0	0	90	0	22	53	70	0	0	145	0	21	226	16	0	0	263	0	44	79	15	0	0	138	636	0
7:45 AM	0	38	36	11	0	0	85	0	18	65	66	0	0	149	0	20	172	18	0	0	210	0	40	89	14	0	0	143	587	0
8:00 AM	0	27	18	11	0	0	56	0	20	64	82	0	0	166	0	24	166	15	0	0	205	0	26	107	16	0	0	149	576	0

Vehicle Movement Summary

Movement / Details	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	125	135	39	0	0	299	0	72	221	294	0	0	587	0	78	781	61	0	0	920	0	133	338	65	0	0	536	2342	0
PHF	-	0.82	0.70	0.89	-	-	0.83	-	0.82	0.85	0.90	-	-	0.88	-	0.81	0.86	0.85	-	-	0.87	-	0.76	0.79	0.81	-	-	0.90	0.92	-
% Bank 1	0.0%	97.5%	75.0%	57.1%				0.0%	80.0%	76.9%	98.9%				0.0%	28.6%	33.3%	100.0%				0.0%	96.6%	12.5%	98.3%					
% Bank 2	0.0%	0.8%	0.0%	28.6%				0.0%	0.0%	0.0%	0.0%				0.0%	71.4%	33.3%	0.0%				0.0%	0.0%	50.0%	0.0%				**Need a custom report?**	
% Bank 3	0.0%	1.7%	25.0%	14.3%				0.0%	20.0%	23.1%	1.1%				0.0%	0.0%	33.3%	0.0%				0.0%	3.4%	37.5%	1.7%				**Contact: support@portablestudies.com**	
% Bank 4	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary

Count Name
Grimball Road - Fort Johnnson Road at Folly Road 2-6 PM
Location
Grimball Road - Fort Johnnson Road at Folly Road, Charleston, SC
Performed By
BK
Date
April 29, 2015 and September 15, 2015

Notes

U = U Turn L = Left Turn T = Thru R = Right Turn
P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2
Veh = Total Vehicles for Approach

Peak Hour Volume	
2612	
% Bank 1	**% Bank 2**
0.0%	51.7%
% Bank 3	**% Bank 4**
48.3%	0.0%
Pedestrians Volume	
1	

Peak Hour Data

Time Period	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:30 PM	0	29	42	34	0	0	105	0	24	34	41	0	0	99	0	27	124	19	0	0	170	0	61	179	20	0	0	260	634	0
4:45 PM	0	28	42	28	0	0	98	0	25	40	39	0	0	104	0	20	109	9	0	0	138	0	61	220	22	0	0	303	643	0
5:00 PM	0	33	40	37	1	0	110	0	22	46	43	0	0	111	0	31	121	19	0	0	171	0	61	227	8	0	0	296	688	1
5:15 PM	0	27	48	40	0	0	115	0	18	39	38	0	0	95	0	30	109	17	0	0	156	0	70	189	22	0	0	281	647	0

Vehicle Movement Summary

Movement / Details	Eastbound Approach							Westbound Approach							Northbound Approach							Southbound Approach							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	117	172	139	1	0	428	0	89	159	161	0	0	409	0	108	463	64	0	0	635	0	253	815	72	0	0	1140	2612	1
PHF	-	0.89	0.90	0.87	0.25	-	0.93	-	0.89	0.86	0.94	-	-	0.92	-	0.87	0.93	0.84	-	-	0.93	-	0.90	0.90	0.82	-	-	0.94	0.95	0.25
% Bank 1	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					
% Bank 2	0.0%	50.0%	0.0%	0.0%				0.0%	0.0%	0.0%	66.7%				0.0%	50.0%	55.6%	0.0%				0.0%	50.0%	100.0%	0.0%				**Need a custom report?**	
% Bank 3	0.0%	50.0%	0.0%	0.0%				0.0%	100.0%	100.0%	33.3%				0.0%	50.0%	44.4%	0.0%				0.0%	50.0%	0.0%	100.0%				**Contact: support@portablestudies.com**	
% Bank 4	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Default Comments
Change These in The Preferences Window
Select File/Preference in the Main Scree
Then Click the Comments Tab

File Name : folly @ grimball-ft johnson
Site Code : 09092015
Start Date : 9/9/2015
Page No : 1

Groups Printed- Unshifted

	Folly Rd From North				Fort Johnson Rd From East				Folly Rd From South				Grimball Rd From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
02:00 PM	42	160	20	1	19	28	31	0	24	143	14	1	31	31	15	0	560
02:15 PM	36	142	22	1	26	19	38	0	22	148	19	0	30	34	26	0	563
02:30 PM	43	147	18	0	18	24	55	0	31	167	16	0	30	18	19	2	588
02:45 PM	46	154	11	0	17	24	52	1	31	152	12	0	37	30	30	1	598
Total	167	603	71	2	80	95	176	1	108	610	61	1	128	113	90	3	2309
03:00 PM	58	164	9	0	18	33	46	0	28	153	26	0	50	34	39	0	658
03:15 PM	41	172	20	0	30	41	59	0	22	151	22	0	19	32	32	0	641
03:30 PM	48	183	12	1	18	42	56	0	29	133	19	0	29	35	24	0	629
03:45 PM	43	194	19	2	18	43	49	0	18	134	21	0	37	35	24	0	637
Total	190	713	60	3	84	159	210	0	97	571	88	0	135	136	119	0	2565
Grand Total	357	1316	131	5	164	254	386	1	205	1181	149	1	263	249	209	3	4874
Apprch %	19.7	72.7	7.2	0.3	20.4	31.6	48	0.1	13.3	76.9	9.7	0.1	36.3	34.4	28.9	0.4	
Total %	7.3	27	2.7	0.1	3.4	5.2	7.9	0	4.2	24.2	3.1	0	5.4	5.1	4.3	0.1	

INTERSECTION VOLUME DEVELOPMENT

S. Grimball Road/Grimball Road Ext. at Folly Road
AM PEAK HOUR

Description	Folly Road Northbound			Folly Road Southbound			S. Grimball Road Eastbound			Grimball Road Ext. Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2015 AM Volumes	49	516	5	53	264	94	56	19	25	2	19	144
Heavy Vehicle %		2.0%			5.7%			5.0%			2.4%	
Peak Hour Factor		0.89			0.94			0.66			0.69	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
	1					9	4	1	0		1	
2016 Background Traffic	51	526	5	54	269	105	61	20	26	2	20	147
New Project Trips												
Trip Distribution IN	10%					15%					5%	
Trip Distribution OUT							15%	5%	10%			
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	3	0	0	0	0	6	6	2	3	0	2	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	3	0	0	0	0	6	6	2	3	0	2	0
2016 Buildout Total	**54**	**526**	**5**	**54**	**269**	**111**	**67**	**22**	**29**	**2**	**22**	**147**

PM PEAK HOUR

Description	Folly Road Northbound			Folly Road Southbound			S. Grimball Road Eastbound			Grimball Road Ext. Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2015 PM Volumes	6	644	8	114	766	42	15	11	21	4	5	85
Heavy Vehicle %		2.6%			1.8%			0.0%			8.5%	
Peak Hour Factor		0.91			0.93			0.75			0.94	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
	7					51	57	4	7		4	
2016 Background Traffic	13	657	8	116	781	94	72	15	28	4	9	87
New Project Trips												
Trip Distribution IN	10%					15%					5%	
Trip Distribution OUT							15%	5%	10%			
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	3	0	0	0	0	6	6	2	3	0	2	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	3	0	0	0	0	6	6	2	3	0	2	0
2016 Buildout Total	**16**	**657**	**8**	**116**	**781**	**100**	**78**	**17**	**31**	**4**	**11**	**87**

INTERSECTION VOLUME DEVELOPMENT

Grimball Road/Fort Johnson Road at Folly Road
AM PEAK HOUR

Description	Folly Road Northbound			Folly Road Southbound			Grimball Road Eastbound			Fort Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2015 AM Volumes	83	787	61	137	345	68	128	139	42	73	227	296
Heavy Vehicle %		1.2%			2.5%			3.2%			1.5%	
Peak Hour Factor		0.88			0.91			0.85			0.89	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
		3	1		8	1	0	1		3	1	
2016 Background Traffic	85	806	63	140	360	70	131	143	43	77	233	302
New Project Trips												
Trip Distribution IN					15%	40%					30%	
Trip Distribution OUT		15%					40%	30%				
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	6	0	0	6	16	16	11	0	0	11	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	6	0	0	6	16	16	11	0	0	11	0
2016 Buildout Total	**85**	**812**	**63**	**140**	**366**	**86**	**147**	**154**	**43**	**77**	**244**	**302**

PM PEAK HOUR

Description	Folly Road Northbound			Folly Road Southbound			Grimball Road Eastbound			Fort Johnson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2015 PM Volumes	104	581	90	191	723	61	138	140	125	86	169	213
Heavy Vehicle %		2.5%			1.2%			3.2%			3.2%	
Peak Hour Factor		0.91			0.93			0.78			0.92	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
		38	19		34	4	4	4		17	4	
2016 Background Traffic	106	631	111	195	771	66	145	147	128	105	176	217
New Project Trips												
Trip Distribution IN					15%	40%					30%	
Trip Distribution OUT		15%					40%	30%				
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	6	0	0	6	16	16	11	0	0	11	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	6	0	0	6	16	16	11	0	0	11	0
2016 Buildout Total	**106**	**637**	**111**	**195**	**777**	**82**	**161**	**158**	**128**	**105**	**187**	**217**

s:\project files\092002_15 bus facility on s grimball rd\[bus facility on s grimball rd link.xls]Int #2 (1) *5/25/2018 12:30*

INTERSECTION VOLUME DEVELOPMENT

Grimball Rd at Site Driveway
AM PEAK HOUR

Description	Grimball Road Northbound			Grimball Road Southbound			- Eastbound			Site Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2015 AM Volumes		197			148							
Heavy Vehicle %		2.8%			2.4%						2.0%	
Peak Hour Factor		0.61			0.67						0.90	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2016 Background Traffic	0	201	0	0	151	0	0	0	0	0	0	0
New Project Trips												
Trip Distribution IN			30%	70%								
Trip Distribution OUT										30%		70%
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	0	11	27	0	0	0	0	0	11	0	27
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	11	27	0	0	0	0	0	11	0	27
2016 Buildout Total	**0**	**201**	**11**	**27**	**151**	**0**	**0**	**0**	**0**	**11**	**0**	**27**

PM PEAK HOUR

Description	Grimball Road Northbound			Grimball Road Southbound			- Eastbound			Site Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2015 PM Volumes		141			82							
Heavy Vehicle %		5.0%			5.5%						2.0%	
Peak Hour Factor		0.55			0.80						0.90	
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2016 Background Traffic	0	144	0	0	84	0	0	0	0	0	0	0
New Project Trips												
Trip Distribution IN			30%	70%								
Trip Distribution OUT										30%		70%
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	0	11	27	0	0	0	0	0	11	0	27
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	11	27	0	0	0	0	0	11	0	27
2016 Buildout Total	**0**	**144**	**11**	**27**	**84**	**0**	**0**	**0**	**0**	**11**	**0**	**27**

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	83	787	61	137	345	68	128	139	42	73	227	296
Future Volume (veh/h)	83	787	61	137	345	68	128	139	42	73	227	296
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	94	894	69	151	379	75	151	164	49	82	255	0
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	522	1430	110	328	1593	713	281	402	120	308	543	462
Arrive On Green	0.05	0.43	0.43	0.07	0.45	0.45	0.29	0.29	0.29	0.29	0.29	0.00
Sat Flow, veh/h	1774	3330	257	1774	3539	1583	1120	1378	412	1164	1863	1583
Grp Volume(v), veh/h	94	475	488	151	379	75	151	0	213	82	255	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1817	1774	1770	1583	1120	0	1790	1164	1863	1583
Q Serve(g_s), s	2.6	18.8	18.8	4.2	5.9	2.5	11.5	0.0	8.6	5.5	10.1	0.0
Cycle Q Clear(g_c), s	2.6	18.8	18.8	4.2	5.9	2.5	21.6	0.0	8.6	14.1	10.1	0.0
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	522	760	780	328	1593	713	281	0	522	308	543	462
V/C Ratio(X)	0.18	0.63	0.63	0.46	0.24	0.11	0.54	0.00	0.41	0.27	0.47	0.00
Avail Cap(c_a), veh/h	577	760	780	346	1593	713	371	0	666	402	693	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	20.0	20.0	15.1	15.2	14.3	35.0	0.0	25.6	31.3	26.2	0.0
Incr Delay (d2), s/veh	0.2	3.9	3.8	1.0	0.4	0.3	1.6	0.0	0.5	0.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	9.9	10.2	2.1	3.0	1.1	3.7	0.0	4.3	1.8	5.3	0.0
LnGrp Delay(d),s/veh	13.3	23.9	23.8	16.1	15.6	14.6	36.6	0.0	26.1	31.7	26.8	0.0
LnGrp LOS	B	C	C	B	B	B	D		C	C	C	
Approach Vol, veh/h		1057			605			364			337	
Approach Delay, s/veh		22.9			15.6			30.5			28.0	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.6	45.1		33.3	9.7	47.0		33.3
Change Period (Y+Rc), s	5.5	6.5		7.0	5.5	6.5		7.0
Max Green Setting (Gmax), s	7.0	30.5		33.5	7.0	30.5		33.5
Max Q Clear Time (g_c+I1), s	6.2	20.8		23.6	4.6	7.9		16.1
Green Ext Time (p_c), s	0.0	5.4		2.6	0.0	8.8		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	56	19	25	2	19	144	49	516	5	53	264	94
Future Vol, veh/h	56	19	25	2	19	144	49	516	5	53	264	94
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	140	-	-	-	200	-	-	205	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	69	69	69	89	89	89	94	94	94
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	6	6	6
Mvmt Flow	85	29	38	3	28	209	55	580	6	56	281	100

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	858	1140	190	961	1187	293	381	0	0	585	0	0
Stage 1	444	444	-	693	693	-	-	-	-	-	-	-
Stage 2	414	696	-	268	494	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.54	6.54	6.94	4.14	-	-	4.22	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.52	4.02	3.32	2.22	-	-	2.26	-	-
Pot Cap-1 Maneuver	246	195	810	211	187	703	1174	-	-	959	-	-
Stage 1	555	566	-	400	443	-	-	-	-	-	-	-
Stage 2	578	434	-	714	545	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	140	175	810	162	168	703	1174	-	-	959	-	-
Mov Cap-2 Maneuver	140	175	-	162	168	-	-	-	-	-	-	-
Stage 1	529	533	-	381	422	-	-	-	-	-	-	-
Stage 2	362	414	-	606	513	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	65.4	18.6	0.7	1.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1174	-	-	147	810	500	959	-	-
HCM Lane V/C Ratio	0.047	-	-	0.773	0.047	0.478	0.059	-	-
HCM Control Delay (s)	8.2	-	-	83.9	9.7	18.6	9	-	-
HCM Lane LOS	A	-	-	F	A	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	4.8	0.1	2.6	0.2	-	-

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	104	581	90	191	723	61	138	140	125	86	169	213
Future Volume (veh/h)	104	581	90	191	723	61	138	140	125	86	169	213
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1881	1881	1881	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	114	638	99	205	777	66	177	179	160	93	184	0
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.78	0.78	0.78	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	1	1	1	3	3	3	3	3	3
Cap, veh/h	350	1185	184	406	1507	674	356	278	249	221	571	485
Arrive On Green	0.06	0.39	0.39	0.09	0.42	0.42	0.31	0.31	0.31	0.31	0.31	0.00
Sat Flow, veh/h	1757	3042	471	1792	3574	1599	1183	899	803	1027	1845	1568
Grp Volume(v), veh/h	114	367	370	205	777	66	177	0	339	93	184	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1761	1792	1787	1599	1183	0	1702	1027	1845	1568
Q Serve(g_s), s	3.5	14.6	14.6	6.1	14.5	2.2	12.1	0.0	15.5	7.7	6.9	0.0
Cycle Q Clear(g_c), s	3.5	14.6	14.6	6.1	14.5	2.2	19.0	0.0	15.5	23.2	6.9	0.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	350	683	686	406	1507	674	356	0	527	221	571	485
V/C Ratio(X)	0.33	0.54	0.54	0.51	0.52	0.10	0.50	0.00	0.64	0.42	0.32	0.00
Avail Cap(c_a), veh/h	433	683	686	434	1507	674	423	0	624	280	676	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.6	21.2	21.2	15.4	19.2	15.7	31.1	0.0	26.8	36.8	23.8	0.0
Incr Delay (d2), s/veh	0.5	3.0	3.0	1.0	1.3	0.3	1.1	0.0	1.7	1.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	7.6	7.7	3.0	7.4	1.0	4.1	0.0	7.5	2.3	3.5	0.0
LnGrp Delay(d),s/veh	16.1	24.2	24.2	16.4	20.5	16.0	32.2	0.0	28.5	38.1	24.2	0.0
LnGrp LOS	B	C	C	B	C	B	C		C	D	C	
Approach Vol, veh/h		851			1048			516			277	
Approach Delay, s/veh		23.2			19.4			29.8			28.8	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.6	41.6		34.8	10.7	44.4		34.8
Change Period (Y+Rc), s	5.5	6.5		7.0	5.5	6.5		7.0
Max Green Setting (Gmax), s	9.5	28.5		33.0	9.5	28.5		33.0
Max Q Clear Time (g_c+I1), s	8.1	16.6		21.0	5.5	16.5		25.2
Green Ext Time (p_c), s	0.1	7.0		3.4	0.1	7.0		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Intersection													
Int Delay, s/veh	4.1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Traffic Vol, veh/h	15	11	21	4	5	85	6	644	8	114	766	42	
Future Vol, veh/h	15	11	21	4	5	85	6	644	8	114	766	42	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	140	-	-	-	200	-	-	205	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	73	73	73	94	94	94	91	91	91	93	93	93	
Heavy Vehicles, %	2	2	2	9	9	9	3	3	3	2	2	2	
Mvmt Flow	21	15	29	4	5	90	7	708	9	123	824	45	

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1461	1821	434	1390	1839	358	869	0	0	716	0	0
Stage 1	1091	1091	-	725	725	-	-	-	-	-	-	-
Stage 2	370	730	-	665	1114	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.68	6.68	7.08	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.68	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.68	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.59	4.09	3.39	2.23	-	-	2.22	-	-
Pot Cap-1 Maneuver	90	77	570	96	69	619	765	-	-	880	-	-
Stage 1	229	289	-	367	412	-	-	-	-	-	-	-
Stage 2	622	426	-	399	268	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	64	66	570	67	59	619	765	-	-	880	-	-
Mov Cap-2 Maneuver	64	66	-	67	59	-	-	-	-	-	-	-
Stage 1	227	249	-	364	408	-	-	-	-	-	-	-
Stage 2	519	422	-	306	231	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	68.1	20.3	0.1	1.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	765	-	-	65	570	334	880	-	-
HCM Lane V/C Ratio	0.009	-	-	0.548	0.05	0.299	0.139	-	-
HCM Control Delay (s)	9.7	-	-	113.6	11.7	20.3	9.8	-	-
HCM Lane LOS	A	-	-	F	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.3	0.2	1.2	0.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	20	26	2	20	147	51	526	5	54	269	105
Future Volume (veh/h)	61	20	26	2	20	147	51	526	5	54	269	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1810	1810	1900	1863	1900	1863	1863	1900	1792	1792	1900
Adj Flow Rate, veh/h	92	30	39	3	29	213	57	591	6	57	286	112
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.69	0.69	0.69	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	2	2	2	2	2	2	6	6	6
Cap, veh/h	95	25	665	26	70	466	479	1808	18	371	1214	465
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	116	57	1538	0	162	1078	983	3589	36	787	2410	923
Grp Volume(v), veh/h	122	0	39	245	0	0	57	291	306	57	200	198
Grp Sat Flow(s),veh/h/ln	173	0	1538	1239	0	0	983	1770	1856	787	1703	1630
Q Serve(g_s), s	0.0	0.0	2.1	0.0	0.0	0.0	4.9	13.7	13.7	6.5	9.3	9.6
Cycle Q Clear(g_c), s	60.5	0.0	2.1	60.5	0.0	0.0	14.5	13.7	13.7	20.2	9.3	9.6
Prop In Lane	0.75		1.00	0.01		0.87	1.00		0.02	1.00		0.57
Lane Grp Cap(c), veh/h	120	0	665	562	0	0	479	891	935	371	858	821
V/C Ratio(X)	1.02	0.00	0.06	0.44	0.00	0.00	0.12	0.33	0.33	0.15	0.23	0.24
Avail Cap(c_a), veh/h	120	0	665	562	0	0	479	891	935	371	858	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	49.2	0.0	23.2	27.3	0.0	0.0	23.7	20.6	20.7	26.6	19.5	19.6
Incr Delay (d2), s/veh	86.7	0.0	0.0	0.5	0.0	0.0	0.5	1.0	0.9	0.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.9	6.4	0.0	0.0	1.4	6.9	7.3	1.5	4.5	4.4
LnGrp Delay(d),s/veh	136.1	0.0	23.2	27.9	0.0	0.0	24.2	21.6	21.6	27.5	20.2	20.3
LnGrp LOS	F		C	C			C	C	C	C	C	C
Approach Vol, veh/h		161			245			654			455	
Approach Delay, s/veh		108.7			27.9			21.8			21.1	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		75.0		65.0		75.0		65.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		70.5		60.5		70.5		60.5
Max Q Clear Time (g_c+I1), s		16.5		62.5		22.2		62.5
Green Ext Time (p_c), s		7.4		0.0		7.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	20	26	2	20	147	51	526	5	54	269	105
Future Volume (veh/h)	61	20	26	2	20	147	51	526	5	54	269	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1810	1810	1900	1863	1900	1863	1863	1900	1792	1792	1900
Adj Flow Rate, veh/h	92	30	39	3	29	213	57	591	6	57	286	112
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.69	0.69	0.69	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	2	2	2	2	2	2	6	6	6
Cap, veh/h	95	25	665	26	70	466	479	1808	18	371	1214	465
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	116	57	1538	0	162	1078	983	3589	36	787	2410	923
Grp Volume(v), veh/h	122	0	39	245	0	0	57	291	306	57	200	198
Grp Sat Flow(s),veh/h/ln	173	0	1538	1239	0	0	983	1770	1856	787	1703	1630
Q Serve(g_s), s	0.0	0.0	2.1	0.0	0.0	0.0	4.9	13.7	13.7	6.5	9.3	9.6
Cycle Q Clear(g_c), s	60.5	0.0	2.1	60.5	0.0	0.0	14.5	13.7	13.7	20.2	9.3	9.6
Prop In Lane	0.75		1.00	0.01		0.87	1.00		0.02	1.00		0.57
Lane Grp Cap(c), veh/h	120	0	665	562	0	0	479	891	935	371	858	821
V/C Ratio(X)	1.02	0.00	0.06	0.44	0.00	0.00	0.12	0.33	0.33	0.15	0.23	0.24
Avail Cap(c_a), veh/h	120	0	665	562	0	0	479	891	935	371	858	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	49.2	0.0	23.2	27.3	0.0	0.0	23.7	20.6	20.7	26.6	19.5	19.6
Incr Delay (d2), s/veh	86.7	0.0	0.0	0.5	0.0	0.0	0.5	1.0	0.9	0.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.9	6.4	0.0	0.0	1.4	6.9	7.3	1.5	4.5	4.4
LnGrp Delay(d),s/veh	136.1	0.0	23.2	27.9	0.0	0.0	24.2	21.6	21.6	27.5	20.2	20.3
LnGrp LOS	F		C	C			C	C	C	C	C	C
Approach Vol, veh/h		161			245			654			455	
Approach Delay, s/veh		108.7			27.9			21.8			21.1	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		75.0		65.0		75.0		65.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		70.5		60.5		70.5		60.5
Max Q Clear Time (g_c+I1), s		16.5		62.5		22.2		62.5
Green Ext Time (p_c), s		7.4		0.0		7.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	106	631	111	195	771	66	145	147	128	105	176	217
Future Volume (veh/h)	106	631	111	195	771	66	145	147	128	105	176	217
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1881	1881	1881	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	116	693	122	210	829	71	186	188	164	114	191	0
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.78	0.78	0.78	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	1	1	1	3	3	3	3	3	3
Cap, veh/h	319	1090	192	365	1429	639	376	299	261	237	607	516
Arrive On Green	0.06	0.37	0.37	0.09	0.40	0.40	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1757	2980	524	1792	3574	1599	1176	910	794	1015	1845	1568
Grp Volume(v), veh/h	116	407	408	210	829	71	186	0	352	114	191	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1751	1792	1787	1599	1176	0	1704	1015	1845	1568
Q Serve(g_s), s	3.7	17.3	17.3	6.5	16.3	2.5	12.7	0.0	15.7	9.6	7.0	0.0
Cycle Q Clear(g_c), s	3.7	17.3	17.3	6.5	16.3	2.5	19.6	0.0	15.7	25.4	7.0	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	319	641	641	365	1429	639	376	0	561	237	607	516
V/C Ratio(X)	0.36	0.64	0.64	0.57	0.58	0.11	0.50	0.00	0.63	0.48	0.31	0.00
Avail Cap(c_a), veh/h	399	641	641	386	1429	639	420	0	625	275	676	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.1	23.6	23.6	17.3	21.1	17.0	29.9	0.0	25.5	36.3	22.6	0.0
Incr Delay (d2), s/veh	0.7	4.6	4.7	1.9	1.7	0.4	1.0	0.0	1.7	1.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	9.2	9.2	3.3	8.4	1.2	4.2	0.0	7.6	2.8	3.6	0.0
LnGrp Delay(d),s/veh	17.8	28.2	28.3	19.2	22.8	17.3	31.0	0.0	27.2	37.8	22.9	0.0
LnGrp LOS	B	C	C	B	C	B	C		C	D	C	
Approach Vol, veh/h		931			1110			538			305	
Approach Delay, s/veh		26.9			21.8			28.5			28.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	39.4		36.6	10.9	42.5		36.6
Change Period (Y+Rc), s	5.5	6.5		7.0	5.5	6.5		7.0
Max Green Setting (Gmax), s	9.5	28.5		33.0	9.5	28.5		33.0
Max Q Clear Time (g_c+I1), s	8.5	19.3		21.6	5.7	18.3		27.4
Green Ext Time (p_c), s	0.1	6.2		3.5	0.1	6.7		2.3

Intersection Summary			
HCM 2010 Ctrl Delay		25.4	
HCM 2010 LOS		C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	15	28	4	9	87	13	657	8	116	781	94
Future Volume (veh/h)	72	15	28	4	9	87	13	657	8	116	781	94
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1743	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	99	21	38	4	10	93	14	722	9	125	840	101
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.94	0.94	0.94	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	9	9	9	3	3	3	2	2	2
Cap, veh/h	104	18	481	27	40	268	345	2241	28	440	2012	242
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	188	58	1583	0	133	884	587	3545	44	722	3182	383
Grp Volume(v), veh/h	120	0	38	107	0	0	14	357	374	125	467	474
Grp Sat Flow(s),veh/h/ln	246	0	1583	1017	0	0	587	1752	1837	722	1770	1795
Q Serve(g_s), s	0.0	0.0	2.4	0.0	0.0	0.0	1.7	13.2	13.2	13.5	18.5	18.5
Cycle Q Clear(g_c), s	42.5	0.0	2.4	42.5	0.0	0.0	20.2	13.2	13.2	26.7	18.5	18.5
Prop In Lane	0.82		1.00	0.04		0.87	1.00		0.02	1.00		0.21
Lane Grp Cap(c), veh/h	122	0	481	335	0	0	345	1108	1161	440	1119	1135
V/C Ratio(X)	0.99	0.00	0.08	0.32	0.00	0.00	0.04	0.32	0.32	0.28	0.42	0.42
Avail Cap(c_a), veh/h	122	0	481	335	0	0	345	1108	1161	440	1119	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	55.9	0.0	34.8	37.2	0.0	0.0	17.9	11.9	11.9	18.1	12.9	12.9
Incr Delay (d2), s/veh	77.1	0.0	0.1	0.5	0.0	0.0	0.2	0.8	0.7	1.4	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	1.1	3.1	0.0	0.0	0.3	6.6	6.9	2.9	9.3	9.4
LnGrp Delay(d),s/veh	133.0	0.0	34.9	37.8	0.0	0.0	18.1	12.7	12.6	19.4	13.8	13.8
LnGrp LOS	F		C	D			B	B	B	B	B	B
Approach Vol, veh/h		158			107			745			1066	
Approach Delay, s/veh		109.4			37.8			12.7			14.5	
Approach LOS		F			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		93.0		47.0		93.0		47.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		88.5		42.5		88.5		42.5
Max Q Clear Time (g_c+I1), s		22.2		44.5		28.7		44.5
Green Ext Time (p_c), s		16.9		0.0		16.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	85	812	63	140	366	86	147	154	43	77	244	302
Future Volume (veh/h)	85	812	63	140	366	86	147	154	43	77	244	302
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1792	1792	1792	1810	1810	1900	1863	1863	1863
Adj Flow Rate, veh/h	96	912	71	149	389	91	223	233	65	112	354	0
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.66	0.66	0.66	0.69	0.69	0.69
Percent Heavy Veh, %	2	2	2	6	6	6	5	5	5	2	2	2
Cap, veh/h	512	1570	122	304	1672	748	221	448	125	256	612	520
Arrive On Green	0.04	0.47	0.47	0.06	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3328	259	1707	3406	1524	994	1362	380	1077	1863	1583
Grp Volume(v), veh/h	96	485	498	149	389	91	223	0	298	112	354	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1817	1707	1703	1524	994	0	1742	1077	1863	1583
Q Serve(g_s), s	3.9	27.9	27.9	6.3	9.2	4.5	23.9	0.0	19.4	13.2	22.1	0.0
Cycle Q Clear(g_c), s	3.9	27.9	27.9	6.3	9.2	4.5	46.0	0.0	19.4	32.6	22.1	0.0
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	512	835	857	304	1672	748	221	0	573	256	612	520
V/C Ratio(X)	0.19	0.58	0.58	0.49	0.23	0.12	1.01	0.00	0.52	0.44	0.58	0.00
Avail Cap(c_a), veh/h	521	835	857	402	1672	748	221	0	573	256	612	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	26.9	26.9	20.6	20.5	19.3	60.8	0.0	38.1	51.3	39.0	0.0
Incr Delay (d2), s/veh	0.2	2.9	2.8	1.2	0.3	0.3	62.4	0.0	0.8	1.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	14.3	14.6	3.0	4.4	2.0	12.4	0.0	9.5	4.0	11.5	0.0
LnGrp Delay(d),s/veh	17.9	29.8	29.7	21.8	20.8	19.6	123.2	0.0	38.9	52.4	40.3	0.0
LnGrp LOS	B	C	C	C	C	B	F		D	D	D	
Approach Vol, veh/h		1079			629			521			466	
Approach Delay, s/veh		28.7			20.9			75.0			43.2	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	73.0		53.0	11.3	75.7		53.0
Change Period (Y+Rc), s	5.5	7.0		7.0	5.5	7.0		7.0
Max Green Setting (Gmax), s	16.5	58.0		46.0	6.5	68.0		46.0
Max Q Clear Time (g_c+I1), s	8.3	29.9		48.0	5.9	11.2		34.6
Green Ext Time (p_c), s	0.2	9.9		0.0	0.0	11.5		4.3

Intersection Summary			
HCM 2010 Ctrl Delay		38.3	
HCM 2010 LOS		D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	22	29	2	22	147	54	526	5	54	269	111
Future Volume (veh/h)	67	22	29	2	22	147	54	526	5	54	269	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1810	1810	1900	1863	1900	1863	1863	1900	1792	1792	1900
Adj Flow Rate, veh/h	102	33	44	3	32	213	61	591	6	57	286	118
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.69	0.69	0.69	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	2	2	2	2	2	2	6	6	6
Cap, veh/h	95	25	676	26	77	469	467	1782	18	364	1177	474
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	114	56	1538	0	175	1067	977	3589	36	787	2371	956
Grp Volume(v), veh/h	135	0	44	248	0	0	61	291	306	57	203	201
Grp Sat Flow(s),veh/h/ln	170	0	1538	1242	0	0	977	1770	1856	787	1703	1624
Q Serve(g_s), s	0.0	0.0	2.3	0.0	0.0	0.0	5.4	13.9	13.9	6.6	9.6	9.9
Cycle Q Clear(g_c), s	61.5	0.0	2.3	61.5	0.0	0.0	15.3	13.9	13.9	20.5	9.6	9.9
Prop In Lane	0.76		1.00	0.01		0.86	1.00		0.02	1.00		0.59
Lane Grp Cap(c), veh/h	120	0	676	572	0	0	467	878	922	364	845	806
V/C Ratio(X)	1.13	0.00	0.07	0.43	0.00	0.00	0.13	0.33	0.33	0.16	0.24	0.25
Avail Cap(c_a), veh/h	120	0	676	572	0	0	467	878	922	364	845	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	48.9	0.0	22.7	26.7	0.0	0.0	24.6	21.2	21.3	27.4	20.2	20.3
Incr Delay (d2), s/veh	120.2	0.0	0.0	0.5	0.0	0.0	0.6	1.0	1.0	0.9	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	1.0	6.4	0.0	0.0	1.5	7.0	7.4	1.5	4.6	4.6
LnGrp Delay(d),s/veh	169.1	0.0	22.7	27.2	0.0	0.0	25.2	22.3	22.2	28.3	20.8	21.0
LnGrp LOS	F		C	C			C	C	C	C	C	C
Approach Vol, veh/h		179			248			658			461	
Approach Delay, s/veh		133.1			27.2			22.5			21.8	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		74.0		66.0		74.0		66.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		69.5		61.5		69.5		61.5
Max Q Clear Time (g_c+I1), s		17.3		63.5		22.5		63.5
Green Ext Time (p_c), s		7.5		0.0		7.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	11	27	201	11	27	151
Future Vol, veh/h	11	27	201	11	27	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	61	61	67	67
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	12	30	330	18	40	225

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	645	339	0	0	348	0
Stage 1	339	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	437	703	-	-	1211	-
Stage 1	722	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	420	703	-	-	1211	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	1211	-
HCM Lane V/C Ratio	-	-	0.072	0.033	-
HCM Control Delay (s)	-	-	11.6	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	85	812	63	140	366	86	147	154	43	77	244	302
Future Volume (veh/h)	85	812	63	140	366	86	147	154	43	77	244	302
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1792	1792	1792	1810	1810	1900	1863	1863	1863
Adj Flow Rate, veh/h	96	912	71	149	389	91	223	233	65	112	354	0
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.66	0.66	0.66	0.69	0.69	0.69
Percent Heavy Veh, %	2	2	2	6	6	6	5	5	5	2	2	2
Cap, veh/h	512	1570	122	304	1672	748	221	448	125	256	612	520
Arrive On Green	0.04	0.47	0.47	0.06	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1774	3328	259	1707	3406	1524	994	1362	380	1077	1863	1583
Grp Volume(v), veh/h	96	485	498	149	389	91	223	0	298	112	354	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1817	1707	1703	1524	994	0	1742	1077	1863	1583
Q Serve(g_s), s	3.9	27.9	27.9	6.3	9.2	4.5	23.9	0.0	19.4	13.2	22.1	0.0
Cycle Q Clear(g_c), s	3.9	27.9	27.9	6.3	9.2	4.5	46.0	0.0	19.4	32.6	22.1	0.0
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	512	835	857	304	1672	748	221	0	573	256	612	520
V/C Ratio(X)	0.19	0.58	0.58	0.49	0.23	0.12	1.01	0.00	0.52	0.44	0.58	0.00
Avail Cap(c_a), veh/h	521	835	857	402	1672	748	221	0	573	256	612	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	26.9	26.9	20.6	20.5	19.3	60.8	0.0	38.1	51.3	39.0	0.0
Incr Delay (d2), s/veh	0.2	2.9	2.8	1.2	0.3	0.3	62.4	0.0	0.8	1.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	14.3	14.6	3.0	4.4	2.0	12.4	0.0	9.5	4.0	11.5	0.0
LnGrp Delay(d),s/veh	17.9	29.8	29.7	21.8	20.8	19.6	123.2	0.0	38.9	52.4	40.3	0.0
LnGrp LOS	B	C	C	C	C	B	F		D	D	D	
Approach Vol, veh/h		1079			629			521			466	
Approach Delay, s/veh		28.7			20.9			75.0			43.2	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	73.0		53.0	11.3	75.7		53.0
Change Period (Y+Rc), s	5.5	7.0		7.0	5.5	7.0		7.0
Max Green Setting (Gmax), s	16.5	58.0		46.0	6.5	68.0		46.0
Max Q Clear Time (g_c+I1), s	8.3	29.9		48.0	5.9	11.2		34.6
Green Ext Time (p_c), s	0.2	9.9		0.0	0.0	11.5		4.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	22	29	2	22	147	54	526	5	54	269	111
Future Volume (veh/h)	67	22	29	2	22	147	54	526	5	54	269	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1810	1810	1900	1863	1900	1863	1863	1900	1792	1792	1900
Adj Flow Rate, veh/h	102	33	44	3	32	213	61	591	6	57	286	118
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.69	0.69	0.69	0.89	0.89	0.89	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	2	2	2	2	2	2	6	6	6
Cap, veh/h	95	25	676	26	77	469	467	1782	18	364	1177	474
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	114	56	1538	0	175	1067	977	3589	36	787	2371	956
Grp Volume(v), veh/h	135	0	44	248	0	0	61	291	306	57	203	201
Grp Sat Flow(s),veh/h/ln	170	0	1538	1242	0	0	977	1770	1856	787	1703	1624
Q Serve(g_s), s	0.0	0.0	2.3	0.0	0.0	0.0	5.4	13.9	13.9	6.6	9.6	9.9
Cycle Q Clear(g_c), s	61.5	0.0	2.3	61.5	0.0	0.0	15.3	13.9	13.9	20.5	9.6	9.9
Prop In Lane	0.76		1.00	0.01		0.86	1.00		0.02	1.00		0.59
Lane Grp Cap(c), veh/h	120	0	676	572	0	0	467	878	922	364	845	806
V/C Ratio(X)	1.13	0.00	0.07	0.43	0.00	0.00	0.13	0.33	0.33	0.16	0.24	0.25
Avail Cap(c_a), veh/h	120	0	676	572	0	0	467	878	922	364	845	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	48.9	0.0	22.7	26.7	0.0	0.0	24.6	21.2	21.3	27.4	20.2	20.3
Incr Delay (d2), s/veh	120.2	0.0	0.0	0.5	0.0	0.0	0.6	1.0	1.0	0.9	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	1.0	6.4	0.0	0.0	1.5	7.0	7.4	1.5	4.6	4.6
LnGrp Delay(d),s/veh	169.1	0.0	22.7	27.2	0.0	0.0	25.2	22.3	22.2	28.3	20.8	21.0
LnGrp LOS	F		C	C			C	C	C	C	C	C
Approach Vol, veh/h		179			248			658			461	
Approach Delay, s/veh		133.1			27.2			22.5			21.8	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		74.0		66.0		74.0		66.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		69.5		61.5		69.5		61.5
Max Q Clear Time (g_c+I1), s		17.3		63.5		22.5		63.5
Green Ext Time (p_c), s		7.5		0.0		7.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	106	637	111	195	777	82	161	158	128	105	187	217
Future Volume (veh/h)	106	637	111	195	777	82	161	158	128	105	187	217
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1881	1881	1881	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	116	700	122	210	835	88	206	203	164	114	203	0
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.78	0.78	0.78	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	1	1	1	3	3	3	3	3	3
Cap, veh/h	310	1068	186	358	1401	627	375	318	257	235	620	527
Arrive On Green	0.06	0.36	0.36	0.10	0.39	0.39	0.34	0.34	0.34	0.34	0.34	0.00
Sat Flow, veh/h	1757	2985	520	1792	3574	1599	1163	945	764	1001	1845	1568
Grp Volume(v), veh/h	116	411	411	210	835	88	206	0	367	114	203	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1752	1792	1787	1599	1163	0	1709	1001	1845	1568
Q Serve(g_s), s	3.7	17.7	17.7	6.5	16.7	3.2	14.5	0.0	16.3	9.8	7.4	0.0
Cycle Q Clear(g_c), s	3.7	17.7	17.7	6.5	16.7	3.2	21.8	0.0	16.3	26.1	7.4	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	310	627	627	358	1401	627	375	0	574	235	620	527
V/C Ratio(X)	0.37	0.66	0.66	0.59	0.60	0.14	0.55	0.00	0.64	0.49	0.33	0.00
Avail Cap(c_a), veh/h	389	627	627	377	1401	627	411	0	627	265	676	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.6	24.2	24.3	17.8	21.7	17.6	30.4	0.0	25.3	36.3	22.3	0.0
Incr Delay (d2), s/veh	0.7	5.1	5.2	2.2	1.9	0.5	1.3	0.0	1.9	1.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	9.5	9.5	3.4	8.6	1.5	4.8	0.0	8.0	2.8	3.8	0.0
LnGrp Delay(d),s/veh	18.3	29.4	29.4	20.0	23.6	18.1	31.7	0.0	27.2	37.9	22.6	0.0
LnGrp LOS	B	C	C	B	C	B	C		C	D	C	
Approach Vol, veh/h		938			1133			573			317	
Approach Delay, s/veh		28.0			22.5			28.8			28.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.1	38.7		37.2	11.0	41.8		37.2
Change Period (Y+Rc), s	5.5	6.5		7.0	5.5	6.5		7.0
Max Green Setting (Gmax), s	9.5	28.5		33.0	9.5	28.5		33.0
Max Q Clear Time (g_c+I1), s	8.5	19.7		23.8	5.7	18.7		28.1
Green Ext Time (p_c), s	0.1	6.0		3.3	0.1	6.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	17	31	4	11	87	16	657	8	116	781	100
Future Volume (veh/h)	78	17	31	4	11	87	16	657	8	116	781	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1743	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	107	23	42	4	12	93	18	722	9	125	840	108
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.94	0.94	0.94	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	9	9	9	3	3	3	2	2	2
Cap, veh/h	106	18	548	27	50	289	308	2089	26	401	1859	239
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	170	53	1583	0	144	835	583	3545	44	722	3155	406
Grp Volume(v), veh/h	130	0	42	109	0	0	18	357	374	125	471	477
Grp Sat Flow(s),veh/h/ln	222	0	1583	978	0	0	583	1752	1837	722	1770	1791
Q Serve(g_s), s	0.0	0.0	2.5	0.0	0.0	0.0	2.5	14.7	14.7	15.1	20.9	20.9
Cycle Q Clear(g_c), s	48.5	0.0	2.5	48.5	0.0	0.0	23.3	14.7	14.7	29.8	20.9	20.9
Prop In Lane	0.82		1.00	0.04		0.85	1.00		0.02	1.00		0.23
Lane Grp Cap(c), veh/h	124	0	548	366	0	0	308	1033	1082	401	1043	1056
V/C Ratio(X)	1.05	0.00	0.08	0.30	0.00	0.00	0.06	0.35	0.35	0.31	0.45	0.45
Avail Cap(c_a), veh/h	124	0	549	366	0	0	308	1033	1082	401	1043	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	54.0	0.0	30.7	33.3	0.0	0.0	22.6	14.8	14.8	22.5	16.1	16.1
Incr Delay (d2), s/veh	94.5	0.0	0.1	0.5	0.0	0.0	0.4	0.9	0.9	1.7	1.2	1.2
Initial Q Delay(d3),s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	1.1	3.0	0.0	0.0	0.4	7.3	7.6	3.2	10.4	10.7
LnGrp Delay(d),s/veh	148.9	0.0	30.8	33.7	0.0	0.0	23.0	15.7	15.7	24.2	17.3	17.3
LnGrp LOS	F		C	C			C	B	B	C	B	B
Approach Vol, veh/h		172			109			749			1073	
Approach Delay, s/veh		120.0			33.7			15.9			18.1	
Approach LOS		F			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		87.0		53.0		87.0		53.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		82.5		48.5		82.5		48.5
Max Q Clear Time (g_c+I1), s		25.3		50.5		31.8		50.5
Green Ext Time (p_c), s		16.8		0.0		16.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	11	27	144	11	27	84
Future Vol, veh/h	11	27	144	11	27	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	55	55	80	80
Heavy Vehicles, %	2	2	5	5	6	6
Mvmt Flow	12	30	262	20	34	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	445	272	0	0	282	0
Stage 1	272	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.16	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.254	-
Pot Cap-1 Maneuver	571	767	-	-	1258	-
Stage 1	774	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	554	767	-	-	1258	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	690	1258	-
HCM Lane V/C Ratio	-	-	0.061	0.027	-
HCM Control Delay (s)	-	-	10.6	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Katie Nacy

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2018CP1003307

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THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM CHARLESTON COUNTY
Court of Common Pleas

The Honorable Jennifer B. McCoy, Circuit Court Judge

Case No. 2018-CP-10-3307

The Charleston County School District.....Appellant,

v.

Charleston County, South Carolina; The Charleston County Board of Zoning Appeals; and Joel Evans in his capacity as Director of the Charleston County Zoning and Planning Department.....Respondents.

CERTIFICATE OF APPELLANT

The undersigned counsel for the Appellant hereby certifies the Record on Appeal contains all materials presented to the lower court or tribunal and proposed to be included by any of the parties and not any other material pursuant to Rules 210(c) and (g), SCACR.

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8/30, 2019

THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM CHARLESTON COUNTY
Court of Common Pleas

The Honorable Jennifer B. McCoy, Circuit Court Judge

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SC Court of Appeals

Case No. 2018-CP-10-3307

The Charleston County School District.....Appellant,

v.

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