



## Development and Services Committee

Norman Jackson	Damon Jeter	Julie-Ann Dixon (Chair)	Bill Malinowski	Seth Rose
District 11	District 3	District 9	District 1	District 5

November 24, 2015 - 5:00 PM  
2020 Hampton St.

### **Call to Order**

### **Approval of Minutes**

- 1 Regular Session: October 27, 2015 [PAGES 4-8]

### **Adoption of Agenda**

### **Items for Action**

- 2 Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County [PAGES 9-13]
- 3 Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300 [PAGES 14-43]

- 4 Removal of Lien off of Property [PAGES 44-56]
- 5 Council member Jackson's Motion Regarding Unauthorized Businesses [PAGES 57-59]
- 6 Conservation Department – Hopkins Conservation Easement on Lower Richland Blvd. [PAGES 60-88]
- 7 Solid Waste - Award of Contract for a Comprehensive Audit and RFID RetroFit of All County Garbage and Recycling Roll Carts [PAGES 89-91]
- 8 Request for Easement – Hiller Road [PAGES 92-113]

**Items Pending Analysis: No Action Required**

- 9 Comprehensive Youth Program [PAGE 114]
- 10 Motion to Explore all Options for Providing County Assistance with a Public Housing Project [PAGE 115]

**Adjournment**



Special Accommodations and Interpreter Services Citizens may be present during any of the County's meetings. If requested, the agenda and backup materials will be made available in alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), as amended and the federal rules and regulations adopted in implementation thereof. Any person who requires a disability-related modification or accommodation, including auxiliary aids or services, in order to participate in the public meeting may request such modification, accommodation, aid or service by contacting the Clerk of Council's office either in person at 2020 Hampton Street, Columbia, SC, by telephone at (803) 576-2061, or TDD at 803-576-2045 no later than 24 hours prior to the scheduled meeting.

# RICHLAND COUNTY COUNCIL SOUTH CAROLINA



## DEVELOPMENT & SERVICES COMMITTEE

October 27, 2015  
5:00 PM  
County Council Chambers

*In accordance with the Freedom of Information Act, a copy of the agenda was sent to radio and TV stations, newspapers, persons requesting notification, and was posted on the bulletin board located in the lobby of the County Administration Building*

### CALL TO ORDER

Ms. Dixon called the meeting to order at approximately 5:00 PM

### APPROVAL OF MINUTES

**Regular Session: September 22, 2015** – Mr. Jackson moved, seconded by Mr. Malinowski, to approve the minutes as distributed. The vote in favor was unanimous.

### ADOPTION OF AGENDA

Mr. Malinowski moved, seconded by Mr. Jackson, to adopt the agenda as published. The vote in favor was unanimous.

### ITEMS FOR ACTION

**Removal of Lien off of Property** – Mr. McDonald stated this item was before the committee previously and deferred. A piece of property has been donated to the Atlas Road Community organization. The organization is now in ownership of the property; however, there is a lien on the property in the amount of \$2,250. The lien was placed on the property when the County demolished an old abandoned building on the property. The organization is requesting the lien be removed so they may gain clear title to the property.

Mr. Malinowski inquired if the property was donated would the owner obtain a tax deduction for the value in excess of the lien.

Mr. McDonald his understanding is the Atlas Road Community organization is a 501(c)3.

Mr. Jackson stated if you donate property to a government entity or a nonprofit organization you can write off the value of the property.

Mr. Malinowski stated the Saluda Dam, LLC goes to the tax sale and purchases a piece of property with the hopes of making a profit. They failed to do their due diligence and after obtaining the property realized there was a lien on the property; therefore, they

### Council Members Present

Julie-Ann Dixon, Chair  
District Nine

Bill Malinowski  
District One

Damon Jeter  
District Three

Norman Jackson  
District Eleven

### Others Present:

Tony McDonald  
Sparty Hammett  
Warren Harley  
Brandon Madden  
Michelle Onley  
Larry Smith  
Amelia Linder  
Roxanne Ancheta  
Ismail Ozbek  
Daniel Driggers  
Monique McDaniels  
Kim Roberts  
Geo Price  
Will Simon  
Sandra Haynes  
Kecia Lara  
Dwight Hanna  
Brad Farrar

donate the property to Atlas Road Community Center. Atlas Road Community Center also fails to do their due diligence; therefore, they request the County to forgive or satisfy the lien. In the request of action, Mr. Driggers recommends the lien not be forgiven and recommends the County recover funds from the owner or through the property closing costs.

Mr. Jackson stated he has no problem with forgiving or satisfying the lien if the property is for public use.

Mr. Malinowski stated the map provided outlines the property, but does not identify where the Atlas Road Community Center is located in relation to the property.

Mr. Jackson inquired about who owed the taxes, does it transfer with the sale or do they still owe the taxes?

Mr. McDonald the taxes actually go back 2 owners ago. The property owner prior to Saluda Dam, LLC did not pay the taxes; therefore, lost the property at a tax sale. Saluda Dam, LLC purchased the property at the tax sale and donated the property to Atlas Road.

When Saluda Dam, LLC purchased the property is cleared up the back taxes, but did not satisfy the lien.

Mr. Malinowski requested the following:

1. Where the Atlas Road Community Center is in relation to the property; and
2. What is the intended use of the property?
3. Is this a public or private nonprofit?

Mr. Malinowski moved, seconded by Ms. Dixon, to defer this item until the November committee meeting. The vote in favor was unanimous.

**Accept the roads and storm drainage “as is” in Hunters Run Subdivision (Phase I) into the County inventory for ownership and maintenance** – Mr. McDonald stated this is a subdivision where some of the roads were never brought up to County standards and deeded over. The request is for the County to take the roads “as is” and make improvements to bring them up to standard. After the improvements have been completed, the County will take the roads into the system to be maintained perpetually. There is a bond that exists that would be applied toward the reconstruction/improvement of the roads.

Mr. Malinowski requested the approximate dollar amount for the roads Council approved taking over recently.

Mr. Hammett stated the approval over approximately \$800,000 was in 2013. The funds were moved over to Roads & Drainage budget earlier in 2015 in order to repair those roads.

Mr. Malinowski inquired in there are other subdivisions with existing failures the County has been requested to take over.

Mr. Hammett stated there are a couple subdivisions. This item is different in that the County has been working to pull the bond for approximately 13 months and should more than cover the costs of the road repair. In addition, the developer that purchased the subdivision in foreclosure is not legally responsible for the roads repairs in Phase I. The developer will be responsible for Phase II and III.

Mr. Malinowski stated he would suggest following Legal’s recommendation not to take any action until the bond issue is resolved.

**Development & Services Committee**

**Tuesday, October 27, 2015**

**Page Three**

Mr. Smith stated that Mr. Simon had sent a letter of inquiry regarding the bond to the bonding company in September 2014. The matter was turned over to the Legal Department earlier this month. A follow-up letter was forwarded to the bonding company by Mr. Farrar on October 20<sup>th</sup>. Mr. Smith spoke with Mr. Parrish earlier today regarding the matter and was informed the bonding company would be back in touch tomorrow with their position.

It is Mr. Smith's position, if the County chooses to go forward with this matter, then the County could potentially be responsible for the expense.

Mr. Malinowski inquired if the County moves forward and completes the work they will not have the opportunity to collect on the bond.

Mr. Smith stated if the County moves forward without knowing the answer then the County could be walking into a situation where they assume the work is going to be covered by the bond. The risk the County runs in moving forward with the work is the bonding company coming back and giving a reason why they are not willing to go forward on the bond.

Mr. Malinowski moved, seconded by Ms. Dixon, to defer this until the Legal Department obtains a response from the bonding company.

Mr. Jackson inquired about the policy for accepting these roads.

Mr. Hammett stated the policy is the roads are to be brought up to standard before the County accepts them.

Mr. Washington inquired if the repairs would be taken from the subdivision bonds.

Mr. Hammett answered in the affirmative and further stated that if the bonding company does not feel they should pay out the bond, there are still other legal options to pursue.

Mr. Jackson made a substitute motion, seconded by Mr. Malinowski, to forward this item to Council with a recommendation that the County will move forward when the bond is satisfied.

Mr. Malinowski withdrew his motion.

Mr. Washington inquired about who is responsible for inspecting the roads.

Mr. Hammett stated the development division of Public Works does all of the inspections.

The vote in favor was unanimous.

**Tracking List of Developers for Road Construction** – Mr. McDonald stated this item originated with a motion by Mr. Malinowski to develop a list of developers who would not be able to obtain contracts or projects with the County until they have met their prior development project obligations.

Mr. Malinowski moved, seconded by Mr. Jackson, to forward to Council with a recommendation to approve the concept of this item and staff will come back with additional details at the Council Retreat. The vote in favor was unanimous.

**Amending Chapter 17 to prohibit the parking of motor vehicles in the front yard within certain residential zoning districts** – Mr. McDonald stated staff recommended referring this item to the Ordinance Review Ad Hoc Committee to be discussed in conjunction with a similar proposed ordinance amendment.

Mr. Jeter requested staff to review the City of Columbia and other counties/municipalities with ordinances that address this issue.

Mr. Malinowski inquired of Mr. Jeter if the communities that brought this matter to his attention had homeowners' associations.

Mr. Jeter replied in the affirmative.

Mr. Washington stated his understanding is this ordinance will penalize those residents that do not have garages or other locations to park their vehicles and likely do not have curbs and gutter.

Mr. Jeter stated the ordinance will not force them to get a garage. The residents could park in their driveways, but would potentially be held in violation if they are parked on the grass.

Mr. Washington suggested examining the locations to insure that an undue burden is not put on the citizens.

Mr. Jackson stated developers try to save money by building narrow roads and houses close to the road, which does not allow the residents anyplace to park. Most of the driveways only allow for one car and the residents have to park on the street. With all of the vehicles parked on the street it is difficult for through traffic to navigate safely.

Mr. Malinowski moved, seconded by Mr. Jeter, to forward this item to the Ordinance Review Ad Hoc Committee and provide the most up-to-date ordinance to Council for review.

**Pawmetto Lifeline New Program(s) Proposal** – Mr. McDonald stated this is a proposed amendment to the County's arrangement with Pawmetto Lifeline. Pawmetto Lifeline has proposed to undertake some new programs as a part of their services. Their new services would be included in their requirement to adopt out a certain number of animals per year.

Mr. Harley stated there are four (4) new programs they are implementing and requesting Council to allow them to count the animals that come from Richland County into these programs as part of their annual adoption number. The second part of the request is to allow Animal Care officers to participate on a minimal basis in the transport of animals to Pawmetto Lifeline. (i.e. when someone surrenders a litter of puppies taking them directly to Pawmetto Lifeline instead of the City shelter).

Mr. Malinowski inquired about how much Pawmetto Lifeline is doing now annually and how much is anticipated from the County to go toward that number in the future.

Ms. Denise Wilkinson stated Pawmetto Lifeline is pulling 1,800 from the City shelter. Pawmetto Lifeline receives no funding from Richland County and spends approximately \$540,000 a year providing services.

Mr. Malinowski inquired about what the City of Columbia contributes to Pawmetto Lifeline.

Mr. Harley stated to his knowledge Pawmetto Lifeline is not required to take City of Columbia animals and currently the County pays the City a \$14/per day fee to accept their animals.

Mr. McDonald stated the County did not have a formal shelter and utilized veterinary offices and other available housing for animals prior to entering into the agreement with the City of Columbia.

Ms. Haynes stated Animal Care also receives calls for goats, pigs, and horses.

Ms. Wilkinson stated Pawmetto Lifeline's new program would prevent the animals from ever going to the shelter, which in turn will save the County money since the County will not be responsible for the \$14/per day fee.

Mr. Malinowski moved, seconded by Mr. Jeter, to forward to Council with a recommendation to approve the request to allow the inclusion of Richland County residents/pets participating in the programs to be included in the 1,200 pet annual adoption minimum, and allow the minimal assistance of Animal Care. The vote in favor was unanimous.

**Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County** – Mr. Jackson moved, seconded by Mr. Malinowski, to defer to the November Committee meeting. The vote in favor was unanimous.

### **ITEMS PENDING ANALYSIS**

**Motion for the Guard to rebuild County roads through Innovative Readiness Training (IRT) Projects after they get off State active duty** – This item was held in committee.

**Motion to Explore all Options for Providing County Assistance with a Public Housing Project** – This item was held in committee.

**Motion to Pursue the Closure of Businesses Operating Without a Richland County Business License** – Mr. Jackson requested an update on this item.

Mr. Madden stated he spoke with Ms. Davis in the Business Service Center earlier this month and they are presently making those violations known through their Code Enforcement Officers.

This item was held in committee.

**Comprehensive Youth Program** – This item was held in committee.

### **ADJOURNMENT**

The meeting adjourned at approximately 5:48 PM.

The Minutes were transcribed by Michelle M. Onley, Deputy Clerk of Council



## Richland County Council Request of Action

**Subject:**

Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County

## Richland County Council Request of Action

**Subject:** Fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants along transmission line corridors in Richland County

### **A. Purpose**

County Council is requested to direct staff to move to fund and/or seek a partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County.

### **B. Background / Discussion**

On February 10, 2015, Council member Rose brought forth the following motion:

“Move to fund and/or seek a partnership with SCEG to plant indigenous flowers and plants along transmission line corridors in Richland County”

Transmission lines are high capacity power lines that bring electricity from generating stations out into communities in the county. Transmission line corridors are the areas along a transmission line right of way, which is the strip of land purchased by an energy company (SCE&G) from an individual property owner for the company to install the lines and related equipment – see attached illustration.

In some instances, the strip of land along the transmission line corridors can provide an environment that is conducive to native plant and animal life that require the type of habitat maintained beneath the transmission lines.

As such, this request to Council is to direct staff to fund and/or seek a partnership with SCE&G to plant indigenous flowers and plants to the Midlands along the transmission line corridors. This could serve as an effort to beautify the strips of land in and around the corridors of the transmission lines.

### **C. Legislative / Chronological History**

Motion by Mr. Rose – February 10, 2015

### **D. Financial Impact**

The financial impact to the County regarding this motion is unknown at this time. The cost to direct staff to explore a partnership with SCE&G is negligible.

To estimate the cost of planting the flowers and plants along the corridors will require staff to research the types of indigenous plants and flowers that can survive along the corridors, along with any costs associated with planting and maintaining the flowers. Also, there may be a cost associated with obtaining the necessary easements along the corridors to plant the flowers if staff is unable to develop a partnership with SCE&G regarding this request.

If approved, staff can research the aforementioned information and bring it back to Council for their consideration. Staff will need direction regarding the funding source for any of the costs associated with this request.

**E. Alternatives**

1. Approve the request to direct staff to move to fund and/or seek a partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County.
2. Do not approve the request to direct staff to move to fund and/or seek a partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County.

**F. Recommendation**

This recommendation was made by Mr. Rose. This is a policy decision for Council.

Recommended by: Seth Rose

Department: County Council

Date: 2/10/15

**G. Reviews**

**Finance**

Reviewed by: Daniel Driggers

Date: 2/17/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

This is a request for Council discretion. Recommendation is based on the request being out of the budget funding cycle and not the merits of the program. It may be appropriate for the request to be considered during the FY16 budget process. Approval would require the identification of a funding source.

**Support Services:**

Reviewed by: John Hixon

Date: 2/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

Although this is Council discretion, I recommend denial based on the alternatives to fund or seek partnership with SCE&G until the corridors for improvement are specified, allowing the generation of a scope of work and subsequent resource requirements. SCE&G currently maintains over 3,500 miles of transmission line that ranges from 50 feet to 500 feet in width.

Although I believe the intent to use indigenous plants is to minimize required maintenance, we would be responsible for protecting the investment and aesthetics of the sites and any additional workload, especially during the growing season, will create a major concern with our ability to properly maintain our current assets. Our facilities division currently has six employees maintaining approximately 350 acres of county owned grounds and we are requesting additional resources in the FY16 budget to maintain the new property's being brought into the county. I should also note that we do not have the specialized equipment needed to supply water to sites that are not irrigated so a program such as this may require a capital investment as well.

Perhaps a program such as the DOT uses for the wildflower patches along the interstate system could be more manageable once the breadth of the program is clearly identified, although the preparing of the planting areas each year will require substantial work prior to seeding.

**Public Works:**

Reviewed by: Ismail Ozbek

Date: 2/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

Recommend denial due to funding not being identified and scope not being defined. Staff can still be directed to explore partnerships.

**Legal**

Reviewed by: Elizabeth McLean

Date: 2/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council's discretion. I would note that the ROA requests either funding or having staff explore a partnership with SCE&G. I am unaware how the County would proceed without securing permission from SCE&G, as SCE&G would be the easement holder and not the County. Thus, the County would have no legal right to enter any power line easement area to plant without SCE&G's permission.

**Administration**

Reviewed by: Roxanne Ancheta

Date: February 19, 2015

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: It is recommended that Council direct staff to gather more information on a potential partnership with SCE&G (South Carolina Energy and Gas) to plant indigenous flowers and plants along transmission line corridors in Richland County. Once this information is obtained, including any budgetary impact on the County, the item will be brought back to Council for review and action.



## Richland County Council Request of Action

**Subject:**

Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300

## Richland County Council Request of Action

**Subject:** Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300

### A. Purpose

County Council is requested to consider Mr. Rose's motion to enact a Resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300.

### B. Background / Discussion

At the October 20, 2015 County Council meeting, Mr. Rose brought forth the following motion:

"Move to enact a resolution encouraging all utility companies that own and/or operate transmission line right of ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300. Rationale: Per the Environmental Protection Agency, "IVM is generally defined as the practice of promoting desirable, stable, low-growing plant communities-that will resist invasion by tall-growing tree species-through the use of appropriate, environmentally sound, and cost-effective control methods." An added benefit to this technique is that it offers a protective environment for wildlife to flourish. The American National Standards Institute has been in existence since 1918. Its primary goal is the "enhancement of global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and promoting their integrity." While utilities in Richland County appear to maintain their transmission right of ways using some of the techniques set forth under the ANSI standard, none of them use them all, and none of them fully follow the standard. Standards are there for a reason: because they are best practices. Richland County has hundreds of square miles of transmission right of way, and it needs to be utilized to its full capacity to promote the health of our citizens and our wildlife habitat."

The American National Standards Institute (ANSI) oversees the creation, promulgation and use of norms and guidelines that directly impact businesses in different sectors: from acoustical devices to construction equipment, from dairy and livestock production to energy distribution and the tree care industry.

ANSI A300 provides unified standards for the tree care industry. The A300 standards are divided into multiple parts, each focusing on a specific aspect of woody plant management (e.g. Pruning, IVM, etc) and are used to develop written specifications for work assignments. The standards apply to professionals who provide for or supervise the management of trees, shrubs, and other woody landscape plants, such as property managers and utility companies.

Part 7 of the ANSI A300 applies to IVM for utility rights-of-way (ROW), and provides general standards for professionals in the tree care industry as it pertains to site evaluations, vegetation control methods, herbicide application processes, etc.

At this time staff, staff is requesting Council consideration of Mr. Rose's motion.

Part 7 of the ANSI A300 is attached, along with a draft Resolution, to this request of action.

**C. Legislative / Chronological History**

There is no legislative history associated with this request.

**D. Financial Impact**

There is no financial impact associated with this request

**E. Alternatives**

1. Consider Mr. Rose’s motion and unanimously approve the Resolution.
  
2. Consider Mr. Rose’s motion and do not unanimously approve the Resolution.

**F. Recommendation**

I recommend unanimous approval of the Resolution.

Recommended by: Seth Rose  
 Department: County Council  
 Date: October 20, 2015

**G. Reviews**

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

Please be specific in your recommendation. While “Council Discretion” may be appropriate at times, it is recommended that Staff provide Council with a professional recommendation of approval or denial, and justification for that recommendation, as often as possible.

**Finance**

Reviewed by: Daniel Driggers Date: 11/3/15  
 Recommend Council approval  Recommend Council denial  
 Recommend Council discretion  
 Comments regarding recommendation:

Request is a policy decision for Council’s discretion with no financial impact.

**Legal**

Reviewed by: Elizabeth McLean Date: 11/4/15  
 Recommend Council approval  Recommend Council denial  
 Comments regarding recommendation: Policy decision left to Council’s discretion.

**Administration**

Reviewed by: Sparty Hammett Date: 11/4/15  
 Recommend Council approval  Recommend Council denial  
 Comments regarding recommendation: Council discretion.



STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**A RESOLUTION**

**A RESOLUTION ENCOURAGING ALL UTILITY COMPANIES THAT OWN AND/OR OPERATE TRANSMISSION LINE RIGHT OF WAYS IN RICHLAND COUNTY TO ADOPT INTEGRATED VEGETATION MANAGEMENT (IVM) TECHNIQUES AS SET OUT BY ANSI STANDARD A300**

WHEREAS, the mission of the American National Standards Institute (ANSI) is to enhance global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and promoting their integrity; and

WHEREAS, Integrated Vegetation Management is generally defined as the practice of promoting desirable, stable, low-growing plant communities-that will resist invasion by tall-growing tree species-through the use of appropriate, environmentally sound, and cost-effective control methods; and

WHEREAS, the ANSI standard A300 sets out Integrated Vegetation Management techniques for Utility Rights-of-Ways that are considered best practices; and

WHEREAS, Richland County has hundreds of square miles of transmission Right-of-Ways that are maintained by private utility companies; and

NOW, THEREFORE, BE IT RESOLVED by the Richland County Council that Richland County encourages all utility companies that own and/or operate transmission line Right-of-Ways in Richland County to adopt Integrated Vegetation Management (IVM) techniques as set out by ANSI standard A300.

SIGNED AND SEALED this \_\_\_ day of \_\_\_\_\_ 2015, having been duly adopted by the Richland County Council.

\_\_\_\_\_  
Torrey Rush, Richland County Council

ATTEST this \_\_\_ day of \_\_\_\_\_ 2015

\_\_\_\_\_  
Monique S. McDaniels, Clerk of Council

# Best Management Practices

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## **INTEGRATED VEGETATION MANAGEMENT FOR UTILITY RIGHTS-OF-WAY Second Edition 2014**

**Randall H. Miller**

ISBN: 978-1-881956-81-5

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## Purpose

The International Society of Arboriculture (ISA) has developed a series of Best Management Practices (BMPs) for the purpose of interpreting tree care standards and providing guidelines of practice for arborists, tree workers, and the people who employ their services.

Because trees and other plants are unique living organisms, and they—as well as the ecosystems in which they live—are variable by nature, not all practices can be successfully applied in all cases. A qualified arborist or utility vegetation manager should write or review contracts and specifications using national standards and this BMP. Departures from the standards should be made with careful consideration of the objectives and with supporting rationale.

This BMP is for the selection and application of methods and techniques for vegetation control for electric rights-of-way projects and gas pipeline rights-of-way. It also serves as a companion publication for the integrated vegetation management portion of the *American National Standard for Tree Care Operations—Tree, Shrub, and Other Woody Plant Management—Standard Practices (Integrated Vegetation Management a. Utility Rights-of-Way)* (ANSI A300, Part 7).

## Acknowledgments

### The Integrated Vegetation Management Best Management Practices Review Committee (Second Edition)

Paul Appelt, Environmental Consultants, Stoughton, Wisconsin, USA  
Jennifer Arkett, Duquesne Light Co., Pittsburgh, Pennsylvania, USA  
Richard Johnstone, Integrated Vegetation Management Partners, Inc., Newark, Delaware, USA  
Geoffrey P. Kempter, Asplundh Tree Experts, Willow Grove, Pennsylvania, USA  
Mike Neal, Arizona Public Service, Phoenix, Arizona, USA  
Chris Nowak, State University of New York, EFS, Syracuse, New York, USA  
William Rees, Baltimore Gas and Electric, Baltimore, Maryland, USA  
Matt Simons, Atlantic City Electric, Mays Landing, New Jersey, USA  
Derek Vannice, CN Utility Consulting, Sebastopol, California, USA

## Introduction

Unmanaged vegetation growing near utility rights-of-way can damage utility facilities and cause problems with safety, reliability, access, emergency service restoration, regulatory compliance, security, and lines-of-sight. It can also compromise compliance with environmental, legal, regulatory, and other requirements.

Vegetation interference with power lines is one of the most common causes of electrical outages on distribution systems, and has initiated transmission grid failures that have subjected millions of people to lengthy blackouts. Vegetation can cause electric service interruptions when it contacts overhead high voltage conductors or comes sufficiently close to create a spark-over. Vegetation and conductors can come too close together when they are blown into one another by high winds, or when lines stretch and sag due to high temperatures, heavy snow, or ice buildup (Figure 1). During dry conditions, vegetation sparking-over with power lines can start wildfires. Trees may also provide access for children, workers, and others to high voltage lines overhead, potentially resulting in direct or indirect contact that can cause serious injury or death.

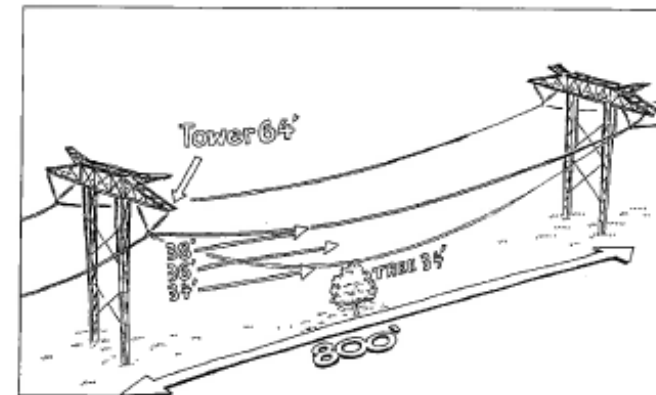


Figure 1. Line sag.

Vegetation can interfere with access to, and maintenance of, pipelines. For example, underground pipelines can be obstructed by vegetation, making it impossible to detect leaks from the ground or air.

Utilities must comply with federal, state or provincial, and local regulations that require vegetation control in proximity to electric and gas facilities. For example, in the United States, the North American Electric Reliability

Corporation (NERC) *Transmission Vegetation Management Program* standard contains clearance requirements for critical transmission lines. Moreover, the Energy Policy Act of 2005<sup>1</sup> contains provisions for electric system reliability standards, including those for vegetation management. Based on this provision, the Federal Energy Regulatory Commission has adopted the NERC *Transmission Vegetation Management Program* standard (NERC 2008), which essentially gives the NERC standard the force of law. Another important regulation is the National Electrical Safety Code (NESC [IEEE 2012]), section 218, of which requires utilities to prune or remove trees that may damage ungrounded supply conductors.

Many utilities manage millions of trees across thousands of miles (kilometers) of line. That means in every mile (1.6 km) of line, a utility can potentially have hundreds of trees, any one of which could compromise public safety and electrical service reliability. It is impossible to completely secure an electrical system from that level of exposure. Nevertheless, vegetation managers have a responsibility to make a reasonable effort to maintain vegetation to reduce risks to both the public and utilities. The integrated vegetation management (IVM) best management practices outlined in this publication are tools for use toward that objective.

The intent of this publication is to serve as a companion to ANSI A300 Part 7: *Tree, Shrub, and Other Woody Plant Maintenance—Standard Practices (Integrated Vegetation Management a. Electric Utility Rights-of-Way)* (ANSI 2012). It is designed to provide practitioners with what industry experts consider to be the most appropriate integrated vegetation management (IVM) techniques to apply to utility right-of-way projects. Integrated vegetation management best practices can also be used to fulfill other objectives, such as vegetation control on gas pipeline rights-of-way, and activities outside the scope of utility right-of-way management—including restoring ecosystems, improving wildlife habitat, preserving cultural resources, protecting successional plant species, controlling invasive weeds, and other actions. Determining the best technique for a particular project takes experience and knowledge because natural conditions are dynamic. Therefore, this publication is not intended as a substitute for the expertise of a utility vegetation manager.

<sup>1</sup> United States Congress. P.L. 109-58, enacted August 8, 2005, section 1211

A utility vegetation manager is an individual engaged in the profession of vegetation management, who through education and related training, has the competence to design, implement, or supervise an IVM program. The expertise of a utility vegetation manager contrasts with that of an arborist insofar as the utility vegetation manager focuses on ecosystems, while arborists concentrate on individual trees. For the purposes of this publication, the utility vegetation manager is a utility employee or their contract representative who will set objectives, evaluate site conditions, make decisions on action thresholds and control methods, and perform quality assurance once work is complete.

### IVM Defined

*ANSI A300 Part 7* defines IVM as a system of managing plant communities in which managers set objectives, identify compatible and incompatible vegetation, consider action thresholds, and evaluate, select, and implement the most appropriate control method or methods to achieve their established objectives. The choice of control method or methods is based on considerations of their environmental impact and anticipated effectiveness, along with site characteristics, security, economics, current land use, and other factors.

Nowak (2013) offers a more in-depth definition of IVM, as a system for controlling undesirable vegetation that is consistent with principles and practices of Integrated Pest Management (IPM), designed to achieve specific management objectives, and continually improve processes. It is used to systematically choose, justify, selectively implement, and monitor different types of vegetation management treatments. Treatment selection is based on the control method's effectiveness, economic viability, and environmental impact, along with its suitability for safety, site characteristics, security, socio-economics, and other factors. IVM uses combinations of methods to promote sustainable plant communities that are compatible with the intended use of the site, and to control, discourage, or prevent establishment of incompatible plants that may pose safety, security, access, fire hazard, utility service reliability, emergency restoration, visibility, line-of-sight requirements, regulatory compliance, environmental, or other specific concerns.

The key steps of IVM consistent with IPM are:

- 1) Gaining science-based understanding of incompatible vegetation and ecosystem dynamics;
- 2) Setting management objectives and tolerance levels based on institutional requirements and broad stakeholder input;

- 3) Selecting treatments from a variety of options, including biological, chemical, manual, mechanical, and cultural control methods—and applying them to promote desirable desired plant communities, with an emphasis on management through biological controls, and
- 4) Monitoring treatments to determine their necessity and effectiveness in creating desired plant communities and achieving management objectives. IVM is a sustainable management method for utility rights-of-way because it balances socioeconomic and environmental considerations.

IVM is not a set of rigid prescriptions based upon set time periods, repeated unselective mowing, or broadcast spraying across entire right-of-way widths without the objective of establishing diverse, compatible plant communities.

## Safety

Utility vegetation management operations can be dangerous without rigorous training and strict adherence to proper safety procedures. For that reason, utility vegetation managers need to inspire a culture of safety throughout their organizations. They should employ only qualified professionals who have demonstrated their ability to work according to accepted safe practices, or qualified trainees dedicated to learning safe work practices.

In the United States, the Occupational Safety and Health Administration (OSHA) requires employers to train their workers in electric safety<sup>2</sup>. Annex B of the *American National Standard for Arboricultural Operations—Safety Requirements* (ANSI Z133-2012) contains guidelines for standard performance and safety training for qualified line clearance arborists. OSHA 1910.269 and ANSI Z133 complement one another on governing electric safety in arboricultural operations, with OSHA 1910.269 requiring electric safety training and ANSI Z133 offering guidance on how that training should be provided.

<sup>2</sup>OSHA. United States Department of Labor. 1910.269. Electric Power Generation, Transmission and Distribution. Accessed August 2013 <[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&D\\_FYER=11-08&C=1](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&D_FYER=11-08&C=1)>

## I. Communication

Communication is essential to planning and implementing a successful vegetation management program. Proper communication should be open and interactive. It involves a formal, documented communication strategy for each phase of planning and implementation. The plan needs to entail more than just relating work instructions to vegetation crews. It should designate primary and secondary objectives and involve all stakeholders: management, other utility departments, planners, contractors, vegetation management crews, property owners, public land managers, appropriate governmental officials, members of organizations dedicated to related causes, and others.

### Internal Communication

Communication within a utility's vegetation management department needs to be clear and concise to ensure everyone understands the desired results. Specifications and performance goals should delegate decision-making authority throughout the organization.

Communication among utility decision makers, including executives, engineers, corporate communications, operations managers, vegetation management staffs, and other utility departments should include why, where, when, and how IVM projects will be conducted. The discussion should emphasize the importance of the benefits of implementing IVM best practices. This is important because people within an organization but outside of the vegetation management department can help set priorities, anticipate and prevent potential problems, expand the communication network, and provide historical perspectives. Communicating with operations staff during work can also add a margin of safety. By knowing there is a vegetation management job underway, they may be able to respond more quickly to incidents and accidents than they would if they were unaware of the project.

Communication among utility vegetation managers, contract general foremen, supervisors, and workers should be both written and verbal. Written instructions ought to include the information needed to successfully complete a project, including specifications, policies and procedures, details about known stakeholders, locations of environmentally or culturally sensitive areas, applicable laws and regulations, and any other considerations of consequence. Debriefings should be planned to review challenges and lessons learned for future projects.

## Communication with External Stakeholders

Public land managers, property owners, regulators, interest groups, and other affected parties often have legitimate concerns in utility vegetation management activities. It is important to communicate with them about the need for, benefits of, and science behind IVM to clarify expectations. Members of the vegetation management team, including crew members, should know the facts about the program, and be prepared to answer basic questions and refer more complex issues through proper channels. Communication should begin well in advance of work and involve listening to and understanding people's specific concerns. Modifications may be implemented to address legitimate issues, and these secondary objectives may be achieved provided those changes do not sacrifice primary management objectives of safety, reliability, and access.

Affected property owners and known stakeholders should be notified of upcoming work. Notification can be electronic or by mail, public notice, door hanger, personal visit, or other manner. In some cases, the best approach uses a combination of methods. Notification should include a brief explanation of when work is planned, why it needs to be done, its general location, a description of the project (e.g., mowing, herbicide, manual or other method), potential crew types, crew numbers, and other information that might help people understand the job. If property owners cannot be met in person, electronic or written notices may be used that contain contact numbers for use by those who need more information. In most cases, notification can be a proactive effort that informs stakeholders of the benefits of an IVM program.

Work on governmentally-managed property can involve administrative procedures that take months of advance work, including navigating through permit processes and the concerns of specialists who have responsibility for stewardship over public lands. Vegetation managers should educate land specialists on how IVM helps balance stewardship considerations with the need for providing safe, reliable service.

## 2. Planning and Implementation

ANSI A300, Part 7 offers a systematic way of planning and implementing a vegetation management program. It is applicable to distribution as well as transmission projects and consists of six elements:

1. Set Objectives
2. Evaluate the Site
3. Define Action Thresholds
4. Evaluate and Select Control Methods
5. Implement Control Methods
6. Monitor Treatment and Quality Assurance

Decisions are required in setting objectives, defining action thresholds, and evaluating and selecting control methods. The process is cyclical (Figure 2), because managing dynamic systems is ongoing. Managers must have the flexibility to adjust their plans at each stage as new information becomes available and circumstances evolve.

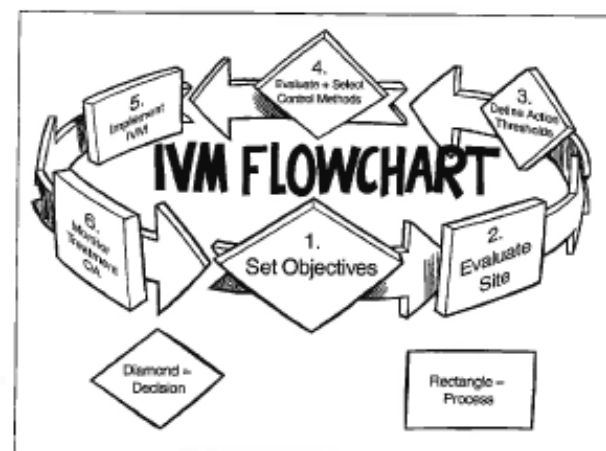


Figure 2. A300 Part 7 IVM flowchart.



## Set Objectives

Objectives should be clearly defined and documented by the vegetation manager and be based on the intended purpose and use of the site. They should be SMART: specific, measurable, attainable, realistic, and timely. It is best to establish objectives that are precise and explain exactly what needs to be done, who needs to do it, and where it needs to be done. The objectives are measurable so progress can be impartially determined. Unattainable or irrelevant goals are pointless, and timeliness requires deadlines to drive completion of the goal (Duran 1981).

Examples of objectives for electric utilities can include promoting safety, preventing outages caused by vegetation growing into transmission facilities and minimizing them from trees growing outside the right-of-way, maintaining regulatory compliance, protecting structures and security, restoring electric service during emergencies, maintaining access and clear lines of sight, protecting the environment, and facilitating cost effectiveness. Metrics should be applied to each goal. For instance, a dollar per mile or acre goal could be set for a particular control method's cost effectiveness.

Objectives for pipelines can involve safety, route identification, testing, encroachments, and maintenance and inspection, particularly aerial and ground patrol needed for leak detection. Route identification is particularly important for underground facilities, which are only identified by above-ground markers or valves, and measuring stations adjacent to the pipeline, which can be easily hidden by unmaintained vegetation that has become overgrown. On gas pipeline rights-of-way, it's often best to select smaller, lower-growing plant species that are typically more sensitive to gas than larger, taller-growing trees in order to facilitate early gas leak detection. Border zone (see *Wire-border Zone Concept*) species could be selected that do not interfere with access for inspection, maintenance, or cause root obstruction. Tree roots may interfere with underground pipelines by compromising the coating integrity of some lines (Stedman and Brockbank 2012). A comparison of electric and pipeline rights-of-way concerns is presented in Table 1.

Objectives should be based on site factors, such as vegetation type, in addition to human, equipment, and financial resources. Objectives will vary from utility to utility and project to project, depending on line voltage or pipeline capacity and criticality, as well as logistical, topographical, environmental, fiscal, social, and political considerations. However, where it is appropriate, the overriding focus should be on environmentally-sound, cost-effective control of species that could potentially conflict with the facility, while promoting compatible, early successional, sustainable, plant communities.

**Table 1. Electric vs. pipeline rights-of-way concerns (adapted from Appelt and Gartman 2004)**

Electric rights-of-way	Pipeline rights-of-way
Electric right-of-way identification is obvious with lines and tall structures	Pipeline right-of-way identification for underground facilities is by markers, valves, and measuring stations that are easily obstructed by vegetation
Tree height under and to the side of lines, as well as distance to the side, effects safety and reliability	Trees block access and obstruct views
	Root intrusion (integrity of pipeline coating)

## Site Evaluations

Site evaluations are used to assess field conditions for planning purposes. Planning can range from establishing programmatic strategies to setting detailed, tactical operational requirements for individual projects. The data can be applied to establishing or modifying objectives, setting budgets, or determining human, material and equipment resource requirements. Careful preparation is needed to ensure that valuable time and resources are directed toward obtaining useful information, but not wasted collecting unnecessary details. Site evaluations can identify a variety of factors, including potential safety issues, applicable regulations, workload, line or pipe type, voltage and criticality, funding, labor and equipment resource availability, height of the wire from the ground, right-of-way width, land ownership and use, fire risk, vulnerable or protected areas, presence of species of concern, water resources, archeological or cultural sites, topography, soils, and other matters.

Evaluations provide information on site characteristics that exist at the time an assessment is conducted. On dynamic systems such as those associated with IVM, information can quickly become out-of-date; meaning regularly-scheduled updates are required. Schedules should be based on anticipated vegetation growth, line design and construction, predominate species of vegetation, environmental factors, political considerations, budgetary parameters, and operational issues.

## Work Load Evaluations

Workload evaluations are inventories of vegetation that could have a bearing on management objectives. Depending on those objectives and available resources, utilities can either conduct comprehensive or point sample evaluations. Workload assessments can collect data on an array of vegetation characteristics, such as location, height, density, species, size, condition,

tree risk, and clearance from conductors. Evaluations should be conducted considering voltage, conductor sag from ambient temperatures and loading, and the potential influence of wind on line sway.

### **Comprehensive Evaluations**

Comprehensive evaluations account for all vegetation that could potentially affect management objectives. Program level comprehensive evaluations can be made of all target vegetation on a system, while project level evaluations focus on vegetation relevant to a specific job. Comprehensive evaluations provide the advantage of supplying a complete set of data upon which to base management decisions. On the other hand, comprehensive surveys can be impractical for utilities with large numbers of trees, limited human and financial resources, or both.

### **Tree Risk Assessment**

Utilities should conduct assessments to identify trees or tree parts that could fail and threaten their facilities. Large numbers of trees managed by utilities present challenges in tree risk assessment and risk mitigation. Utilities often manage hundreds of trees for each mile (1.6 km) of right-of-way. Given the constraints that resource limitations can impose, it is unreasonable to expect them to monitor every tree that could potentially conflict with utility facilities, identify all those with existing defects that pose an unacceptable level of risk, and proactively remedy the risks they present. Moreover, utilities may be hindered from reducing potential tree risks by property owner opposition. The only plausible course of action is for utilities to manage risk rather than eliminate it (UAA 2009).

Utilities should develop and implement plans for patrolling and inspecting trees that could affect their facilities on a regularly scheduled basis. Standard inspections cover the strike zone, and identify trees with obvious defects among those trees sufficiently tall to hit facilities should they fall. FAC-003 (NERC 2008) requires North American utilities to inspect designated lines annually<sup>3</sup>. Evaluations may be conducted by ground, air, or both. Aerial inspections may be made using light detection and ranging (LiDAR [UAA 2009]). These inspections serve as level 1, or limited visual assessments. Level 1 assessments are conducted from a specified perspective to identify

trees among a large population that have an imminent or probable likelihood of failure (Smiley, Matheny, and Lilly 2011).

If an initial level 1 assessment identifies a need for greater scrutiny, utilities may specify more detailed inspections or patrols, including a level 2, or basic assessment (Smiley, Matheny, and Lilly 2011). For utility application, a level 2 assessment is a detailed, 360-degree, ground-based visual inspection of the above-ground portion of a tree and its surrounding site to identify structural defects that could affect utility facilities. For the sake of efficiency, level 1 and level 2 assessments can be conducted simultaneously for trees requiring additional scrutiny.

Trees that have been identified as posing an unacceptable level of risk require an abatement plan. Each utility should have a plan and procedure in place for assessing and addressing high-risk trees, which specifies responsibility for prescribing and executing the plan (UAA 2009). When trees that pose an imminent threat to subject transmission facilities are identified, FAC-003 (NERC 2008) requires transmission owners to notify the appropriate switching authority that vegetation is likely to cause an outage at any moment.

Utility arborists interested in more detailed tree risk assessment information are directed to the *Utility Best Management Practices Tree Risk Assessment and Abatement for Fire-prone States and Provinces in the Western Region of North America* (UAA 2009) and the International Society of Arboriculture's *Best Management Practices: Tree Risk Assessment* (Smiley, Matheny, and Lilly 2011).

### **Point Sample Evaluations**

Point sampling offers an alternative for utilities for which comprehensive inventories are impractical. While point sampling is inappropriate for hazard tree mitigation, it is cost effective, and has a proven track record for reasonable accuracy for other types of workload evaluation. It can be used to project the total amount of work from a representative sample. A common method involves dividing a management area (a system or project) into equal-sized units and selecting a random sample sufficient to statistically represent the total work quantity. Random selection eliminates the chance of bias on the part of the investigator. Every plant or plant community of interest within each selected area is inventoried, with collected data used to forecast the total workload.

### **Define Action Thresholds**

Vegetation managers shall define action thresholds that initiate implementation of control methods to achieve management objectives. Action thresholds

<sup>3</sup> Lines 200 kV or greater or those designated by a planning coordinator as an element of an interconnection reliability operating limit or by the Western Electricity Coordinating Council (WECC) as an element of a major designated by or as an element of a WECC major critical path (NERC 2008).

are vegetation height, density, location, or condition targets that trigger specific control methods. Since thresholds will vary from utility to utility and project to project, they should be set by a utility vegetation manager. Thresholds should be established in advance to meet objectives and be based on the results of site evaluations. A cycle based on an established period of time is often not an appropriate action threshold, because changes in growth rates, facility use, and land development will affect when vegetation needs to be controlled. Consequently, inspection and maintenance schedules should be based on existing vegetation, expected growth rates, past control methods, and action thresholds.

### **Minimum Clearances**

Minimum clearance requirements may be established by regulatory oversight, or by individual utilities, to achieve management objectives. When establishing minimum clearances for energized conductors, practitioners must at least consider:

- the potential growth of vegetation
- the combined movement of vegetation and conductors in high wind
- sag of conductors due to elevated temperatures or icing

Vegetation managers must be aware that IVM requires a broader, more preventative approach than simply maintaining minimum clearances.

The objective of most IVM programs includes preventing the establishment of incompatible vegetation. Trees that have grown to the point where spark-over or an interruption to service is likely at any moment indicate a breakdown of the IVM program. Action thresholds in IVM are used to determine when incompatible vegetation control is necessary long before it has the potential to violate minimum clearance requirements or cause a service interruption. Using an IVM approach is both economically and environmentally sound because preventing establishment of incompatible vegetation is both less costly and less intrusive than removing or pruning large, established trees.

### **Evaluate and Select Control Methods**

Control methods are the processes through which managers achieve objectives. The most suitable control methods are those that best achieve management objectives at a particular site. Many cases call for a combination of methods. Managers have a variety of controls from which to choose, including manual, mechanical, chemical (herbicide and tree growth regulators), biological, and cultural options. The ultimate objective is to maintain

a desirable plant community with available tools, emphasizing biological and ecological control.

### **Manual Control Methods**

Manual methods are performed by workers using hand-carried tools, such as chain saws, handsaws, pruning shears, and other devices to control incompatible vegetation. The advantage of manual techniques is that they are selective and can be applied where others may not be appropriate. On the other hand, manual techniques can be inefficient, less safe, more intrusive, more expensive, and not as environmentally friendly as other methods.

### **Mechanical Control Methods**

Mechanical controls are done using machines. They are efficient and cost effective, particularly for clearing dense vegetation during initial right-of-way establishment or for reclaiming neglected or overgrown rights-of-way. On the other hand, machines may have a greater negative environmental impact than other control methods. Mechanical control methods can be nonselective; destroy compatible vegetation; disturb sensitive areas such as wetlands, archeologically rich localities or developed areas; establish a seedbed for and dispersal of incompatible plants through ground agitation; and carry seasonal restrictions to prevent harm to nesting wildlife and the environment. Machines can leave behind petroleum products from normal operations, leaks, and spills. Furthermore, heavy equipment use can be risky to use on steep terrain, where it can be unstable and contribute to erosion. To safely achieve desired end results, machinery must be properly maintained and run by skilled equipment operators.



Figure 3. Tractor-mounted mower.

### Machine Types

There are many machines that can be used for IVM. Machines efficiently remove undesirable vegetation on large-scale operations, such as initial right-of-way clearing or reclamation. Examples include:

- *Mowers* (Figures 3 and 4) not only remove and grind brush, but they can also fell small trees. Grinding and scattering improves aesthetics, facilitates debris decomposition, reduces fuel loads, and minimizes fire hazard. Appropriate timing and frequency can affect plant community development.
- *Shears* are whole tree removal devices mounted on heavy equipment. Shears can fell, lift, and stack trees (Figure 5).



Figure 4. Excavator-mounted mower.

- Mechanized *pruning* can be done with all-terrain vehicles equipped with an extendable boom (commonly 75 ft or 25 m) that can extend a circular saw blade (Figure 6). It can also be done with an array of blades slung beneath a helicopter. These devices can prune trees quickly and efficiently. However, it can be difficult to be precise with mechanized pruning equipment. Wounds that result are inappropriate for landscape or high-value trees. Consequently, mechanical pruning equipment use should be limited to rural or remote areas.



Figure 5. Feller-buncher.

- *Aerial lifts* can provide production efficiencies and safety. They can be mounted on a variety of chassis, from trucks to all-terrain vehicles, which can work off road (Figure 7).



Figure 6. Mechanical pruner.

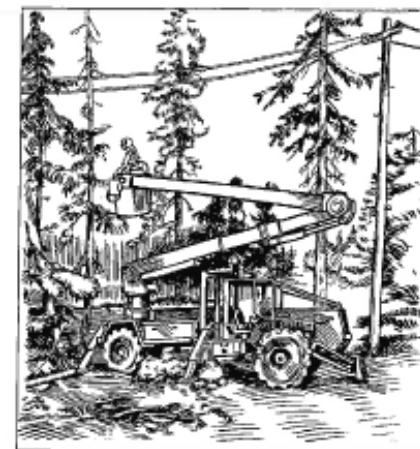


Figure 7. Off-road aerial lift.

### Chemical Control Methods

Chemicals must be applied by qualified applicators according to label directions. Applicators are not only required to read and comply with label instructions, but also all other laws and regulations pertaining to chemical use. Label instructions for personal protective equipment (PPE) are particularly important. Most commonly used herbicide formulations only require long-sleeved shirts, long pants, and shoes and socks. Some formulations require resistant gloves and protective eye wear. Preference should be given to using chemicals that minimize risk to humans and the environment. Emphasis shall also be given to techniques that reduce the amount of material applied over time.

### Tree Growth Regulators

Tree growth regulators (TGRs) are substances designed to reduce growth rates by interfering with natural plant processes. By slowing growth rates of some fast-growing species, TGRs can be helpful where removals or cover type conversion are prohibited or impractical, such as in urban forest applications. TGRs have not been demonstrated to be economically effective on large-scale, rural transmission facilities; however, they have proven useful in specific locations primarily on distribution lines

## Herbicides

Herbicides control plants by interfering with specific botanical biochemical pathways. There are a variety of herbicides, each of which affect plants in different ways and behave variously in the environment, depending on the formulation and characteristics of the active ingredient. While appropriate herbicide use reduces the need for future intervention, misused herbicides can carry environmental risks due to drift, leaching, and volatilization.

When properly applied, herbicides are effective and efficient, while minimizing soil disturbance and enhancing plant and wildlife diversity. Herbicide application can benefit wildlife by improving forage as well as escape and nesting cover. In some instances, noxious weed control is a desirable objective on utility rights-of-way that can be satisfied through herbicide treatment.

Herbicide use can control individual plants that are prone to re-sprout or sucker after removal. When trees that re-sprout or sucker are removed without herbicide treatment, dense thickets develop—impeding access, swelling workloads, increasing costs, blocking lines-of-site, and degrading wildlife habitat (Figure 8). Treating suckering plants allows compatible early successional species to dominate the right-of-way and out-compete incompatible species, ultimately reducing work.

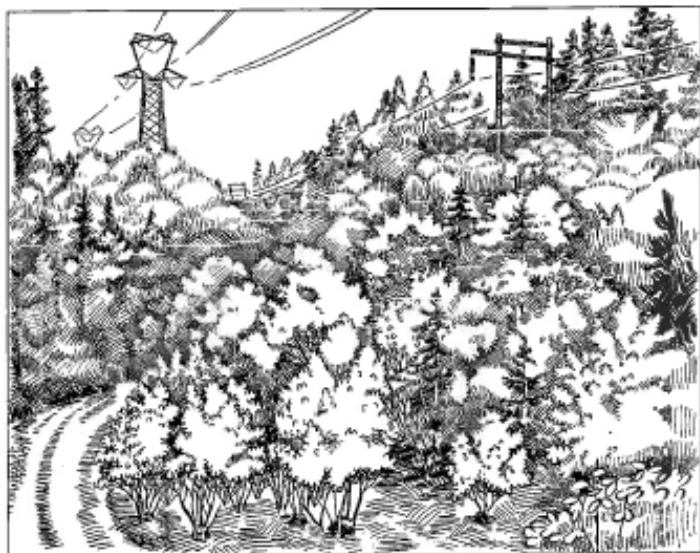


Figure 8. Sprouting from cut stumps.

## Closed Chain of Custody

Traditionally, herbicides have been supplied in concentrated forms in non-returnable containers. This requires handling open containers of concentrate on job sites for mixing and loading. Advances in chemistry and application methods have significantly reduced the volume of herbicide solutions applied. These advances have made it practical to adopt a closed chain of custody concept in which ready-to-use and diluted concentrate formulations are utilized in closed delivery systems (Figure 9)—a practice that further protects the applicator and environment (Goodfellow and Holt 2011).

The closed chain of custody concept includes herbicide shipping, distribution, storage, and mixing, and includes returning empty containers for refilling and reuse. It involves four cycles (Goodfellow and Holt 2011):

- *Container cycle*: supply containers are returned, refilled, and reused
- *Integrity cycle*: closed connections at the transfer points between supply containers, mix tank, and application equipment
- *Documentation cycle*: a container tracking system that establishes an auditable record documenting movement of herbicides and containers
- *Herbicide cycle*: use of customer blends containing the required active ingredient and adjuvants



Figure 9. An interlocking valve connection between fill hose and backpack is preferred.

The Utility Arborist Association (UAA) and ISA have produced best management practices for closed chain of custody for herbicides in the utility vegetation management industry (Goodfellow and Holt 2011). Readers are encouraged to consult these best practices for further information on the subject.

### Selectivity

Herbicides can be selective or nonselective depending on their type. Selective herbicides only control specific kinds of plants when applied according to the label. For example, synthetic auxins are a class of selective herbicides that control broadleaved plants, but do not harm grass species. By contrast, nonselective herbicides work on both broadleaved plants and grasses.

Application techniques can be either selective or nonselective. Selective applications are used against specific plants or pockets of plants. Nonselective techniques target areas rather than individual plants (see *Herbicide Application Methods*). Nonselective use of nonselective herbicides eliminates all plants in the application area. Nonselective use of a selective herbicide controls treated plants that are sensitive to the herbicide, without affecting plants with low sensitivity. Selective use of either would only control targeted vegetation. Selective use is preferable unless target vegetation density is high.

### Herbicide Application Methods

Herbicide application methods are categorized by the quantity of herbicide used, the character of the target, vegetation density, and site parameters. Dyes can be used in the herbicide mix to mark areas that have been treated. Application methods include individual stem, broadcast, and aerial treatments.

### Individual Stem Treatment

Individual stem treatments are selective applications. They include stump, basal, injection, frill (hack and squirt), selective foliar, and side-pruning applications (Table 2). Because they are applied selectively, proper individual

**Table 2. Herbicide treatment methods.**

Individual Stem	Broadcast	Aerial
Stump	High volume foliar	Fixed wing
Basal	Low volume foliar	Rotary wing
Injection	Cut stubble	
Frill	Bare ground	
Selective foliar (low and high volume)		
Sidepruning		

stem applications work well to avoid damage to sensitive or off target plants. However, this treatment is impractical for large areas or for sites dominated by undesirable species.

Stump applications are a common individual stem treatment in which herbicides are applied to the cut stump surface around the cambium and top side of the bark (Figure 10).

Water-based formulations require immediate stump treatment, while vegetable oil-based herbicides can be put on hours, days, or even weeks after cutting.

Injection involves injecting herbicide into a tree, while frill treatments consist of herbicide application into wounds made in the trunk. Injections or frill treatments are especially useful against large incompatible trees to be left standing for wildlife.

Basal applications often use an herbicide in a vegetable oil carrier applied to the base and encircling stems and the root collars (Figure 11). The vegetable oil penetrates the bark, carrying the herbicide into the plant. Although basal applications can be made year round, dormant treatment is often best on deciduous



**Figure 10. Stump treatments are a common individual stem treatment where herbicides are applied to the cut stump surface around the cambium and top side of the bark.**



**Figure 11. Basal application**

plants, when they do not have foliage that can obstruct access to individual stems and are not covered by snow or ice.

Selective foliar applications are done by spraying foliage and shoots of specific target plants (Figure 12). They can be either low or high volume treatments. For low volume applications, comparatively high concentrations of herbicide active ingredient are made in lower volumes of water than would be used with high volume treatment. Foliar applications are only made during the active growing season, normally late spring to early fall.



Figure 12. Selective foliar application.

Chemical side pruning is a technique where non-translocatable herbicides are applied to foliage of specific branches growing toward the electric facility, causing them to defoliate and eventually be shed by the tree.

### **Broadcast Treatment**

Broadcast treatments are nonselective because they control all plants sensitive to a particular herbicide in a treatment area. They can provide a degree of selectivity if used with selective herbicides. Even then, broadcast treatments do not differentiate between compatible and incompatible plants that the herbicide controls. Broadcasting is particularly useful to control large infestations of incompatible vegetation (including invasive species) in rights-of-way or along access roads.

Broadcast techniques include high- or low-volume foliar, cut-stubble, and bare-ground applications. High-volume foliar applications are similar to high-volume selective foliar applications. The difference is that broadcast high-volume foliar treatments target a broad area of incompatible species rather than individual plants or pockets of plants. Low-volume foliar treatments are applied similarly, but with specialized nozzles and thin inversion formulations that minimize volume and spray drift.

Cut-stubble applications are made (using either high- or low-volume broadcast treatments) over areas that have just been mowed. Bare-ground treatments are used for clearing all plant material in a prescribed area, such as in substations or around poles, to protect against fire. Bare-ground applications are usually granular or liquid applications following mechanical removal of vegetation, or used as a pre-emergent in maintaining graveled areas, such as substation enclosures.

### **Aerial Treatments**

Aerial treatments are made by helicopter (rotary wing) or small airplane (fixed wing). Rotary wing aircraft provide the most accuracy, because helicopters can hover, are more maneuverable, and can fly more slowly than airplanes. However, airplanes are less expensive to operate than helicopters. Aerial control methods are nonselective, but may provide a level of selectivity if used with proper herbicides. Aerial applications can be useful in remote or difficult-to-access sites, and can be quick and cost effective, especially if large areas need to be treated. They can also be used where incompatible vegetation dominates a right-of-way or vegetation height limits ground-based treatments. The primary disadvantage of aerial application is that it carries the threat of off-target drift. To limit drift, work must be performed under low-wind conditions with specialized nozzles and formulations.

### **Biological Control Methods**

Biological control is management of vegetation by establishing and conserving compatible, stable plant communities, using plant competition, animals, insects, or pathogens. For example, some plants, including certain grasses, release chemicals that suppress other plant species growing around them. Known as allelopathy, this characteristic can serve as a type of biological control against incompatible species. Promoting wildlife populations is also a form of biological control. Birds, rodents, and other animals can encourage compatible plant communities by eating seeds or shoots of undesirable plants.

A biological control known as cover-type conversion provides a competitive advantage to short-growing, early successional plants, allowing them to thrive and successfully compete against unwanted tree species for sunlight, essential elements, and water. Early successional plant communities are relatively stable and tree-resistant. This control method reduces the amount of work, including herbicide application, with each successive treatment. While it is a type of biological control, cover-type conversion may require the use of one or more other control methods—such as manual, mechanical, herbicide, or cultural—depending on conditions.

Tree-resistant communities are often created in two stages. The first involves nonselectively clearing the right-of-way of undesirable trees using the best applicable control method or combination of methods. The second stage involves developing a tree-resistant plant community using selective techniques, including herbicide applications, that opens an area to sunlight and encourages an often long-dormant seed reservoir of compatible species to germinate. In the long run, this type of biological control is the most desirable method, at least where it can be done effectively.

### **Cultural Control Methods**

Cultural methods modify habitat to discourage incompatible vegetation and establish and manage desirable, early successional, and other compatible plant communities. Examples of cultural control include seeding, planting low-growing crops, and establishing pastures, prairies, compatible landscapes, and other managed areas. Fertilization and irrigation are techniques that may be used to help establish low-growing, compatible plant communities.

### **Engineering Solutions**

While they are not vegetation control methods, engineering solutions can provide relief from vegetation-power line conflicts. They can include relocating, reconstructing, or burying lines. The disadvantage of engineering solutions is that they are often unaffordable for adjacent property owners or not cost-effective for utilities and their ratepayers. They can also have detrimental environmental impacts if inappropriately applied (Goodfellow 1995).

### **Wire-Border Zone Concept**

The wire-border zone concept is a management philosophy that can be applied through cultural control. W.C. Bramble and W.R. Byrnes developed the concept in the mid-1980s out of research begun in 1952 on a transmission right-of-way in the Pennsylvania State Game Lands 33 Research and Demonstration project (Yahner and Hutnick 2004).

The wire zone is the section of a utility transmission right-of-way under the wires and extending on both sides to a specified distance (Bramble, Yahner and Byrnes 1992). The standard way to establish the wire zone is by a set measure (e.g., 10 ft [3 m] or another length) on each side of the wires. Goodfellow (2013) suggests demarcating the wire zone under the wires at a distance equal to 60% of phase-to-phase spacing on the border side of the outside conductors. The wire zone is managed to promote a low-growing plant community dominated by grasses, herbs, and small shrubs (e.g., under 3 ft [1 m] in height at maturity).

The border zone is the remainder of the right-of-way (Figure 13). It is managed to establish small trees and tall shrubs (under 25 ft [7.5 m] in height at maturity). The concept may be modified to accommodate side slope (Figure 14). When properly managed, diverse, tree-resistant plant communities develop in wire and border zones. These plant communities not only protect the electric facility and reduce long-term maintenance, but also enhance wildlife habitat, forest ecology, and aesthetic values.



Figure 13. Wire-border zone.

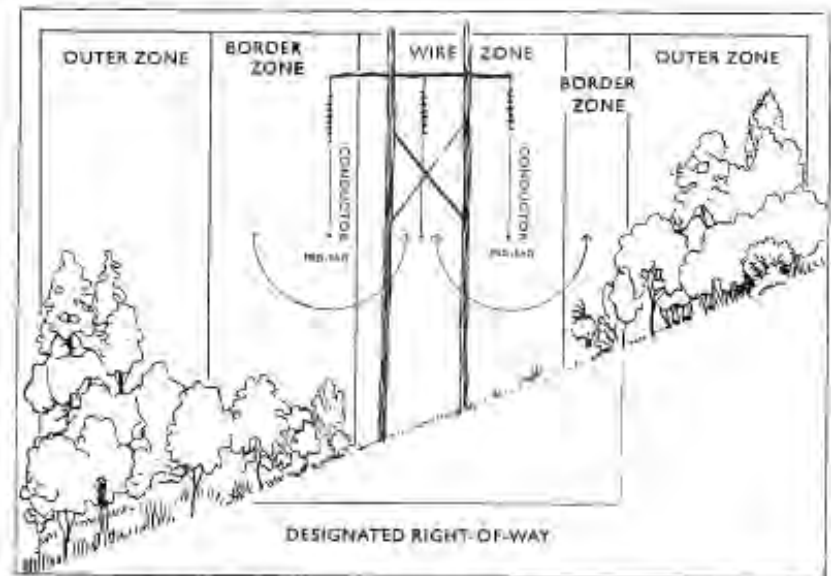


Figure 14. Modification of wire-border zone for side slope.



Although the wire-border zone concept is a best practice in many instances, it is not necessarily universally suitable. For example, standard wire-border zone prescriptions may be unnecessary where lines are high off the ground, such as across low valleys or canyons. One way to accommodate topography changes is to vary zones based on wire height. For example, vertical zones could be established over low valleys, or canyon bottoms, or other areas where conductors are high above the ground (e.g., 100 ft [30 m], or height managers deem appropriate for a specific region), where only a few trees are likely to be tall enough to conflict with the lines (Figure 15). In those instances, trees that potentially interfere with transmission lines can be removed selectively on a case-by-case basis. In areas where the wire is lower, perhaps between 50-100 ft (15-30 m) over the ground, a border zone community could be developed throughout the right-of-way. Where the line is lower, less than 50 ft (15 m) off the ground, for example, managers could apply a full wire-border zone prescription. These modifications have many advantages. Removing fewer trees in valleys and canyons has environmental benefits. Streams often course through the valleys and canyons where lines are likely to be elevated. Leaving timber or border zone communities in valley and canyon bottoms helps shelter this valuable riparian habitat (see *Stream Protection*). It also has economic benefits, as unnecessarily removing trees is a waste of money.

Strict adherence to wire-border zone methodology may also be inappropriate in some fire protection jurisdictions, where border zone establishment is often discouraged out of concern it could provide ladder fuels to the adjacent forest. In these and other cases, management objectives could call for a perennial meadow or prairie plant community throughout the right-of-way. Meadows and

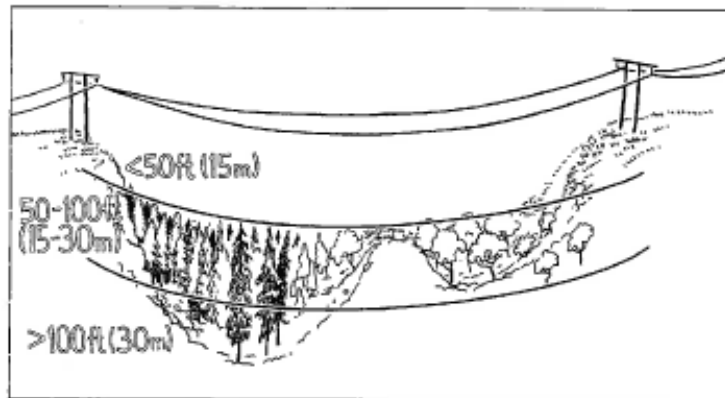


Figure 15. Wire-border zone for elevation of wire off ground.

prairies are legitimate, tree-resistant plant communities that can be established through IVM. The wire-border zone concept is a useful tool in situations where it meets management objectives as determined by utility vegetation managers.

#### Pipe zone-border zone

The wire-border zone concept can be modified to meet IVM objectives on many pipeline rights-of-way (Figure 16). The height and type of vegetation should meet management objectives. Over the pipe zone, native prairie forbs and grasses may be encouraged. Dense, low-growing, gas-sensitive, green cover could also be introduced into the pipe zone if desired. Taller-growing, compatible vegetation can be managed on the edges of the pipeline right-of-way, where it will not interfere with maintenance or pipe integrity. If prairie or other grasses are so tall that they interfere with testing or maintenance, a narrow path directly over the pipe can be mowed, without disturbing the remainder of

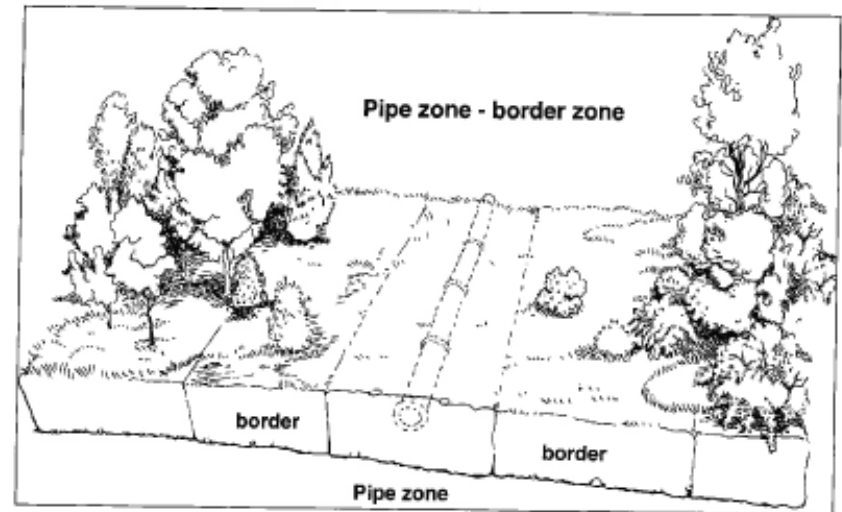


Figure 16. Pipe-border zone.

the right-of-way. This would result in the need for periodic strip-mowing, with low economic and environmental costs and greater benefits for certain wildlife species (Stedman and Brockbank 2012, Johnstone 2012).

#### Implement Control Methods

All laws and regulations governing IVM practices and specifications written by utility vegetation managers must be followed. Integrated vegetation manage-

ment control methods should be implemented on regular work schedules, which are based on established objectives and completed assessments. Work should progress systematically, using control measures determined to be best for varying conditions at specific locations along a right-of-way. Some considerations used in developing schedules include the importance and type of line, vegetation clearances, workloads, growth rate of predominant vegetation, geography, accessibility, and in some cases, time elapsed since the last scheduled work.

### ***Initial Clearing and Reclamation***

Initial clearing of new and reclaiming of neglected rights-of-way requires nonselective techniques, at least in areas dominated by incompatible vegetation. Subsequent projects on those rights-of-way can selectively target incompatible plants, working toward cover-type conversion.

### ***Clearances***

The system operator should establish and document appropriate clearance distances or vegetation heights to be achieved at the time of work. A utility vegetation manager should determine appropriate vegetation conditions, including clearances, throughout the system. Following work, vegetation on the right-of-way should consist of a height and species mix that meets management objectives, including reducing electric and gas safety and service-reliability threats, protecting the environment, and controlling costs. Achieving mandated minimum vegetation clearance distances (such as the minimum vegetation clearance distance [MVCD] in FAC-003 [NERC 2008]), while technically in compliance with regulations, is not in and of itself a best management practice. Nor should it be used as a limitation for managing vegetation on a right-of-way, or evaluating the efficacy of IVM operations. Doing so would allow the establishment of incompatible trees on the right-of-way, which would require periodic topping or severe pruning. In addition to creating unacceptable ongoing risk to facilities, tree maintenance operations can unnecessarily place workers at risk. Managers should bear in mind that clearances are just one objective out of many. The best practice is to remove incompatible trees, encourage compatible vegetation, and ensure—through ongoing monitoring and maintenance—that trees do not become established in these areas or have opportunities to violate minimum clearance requirements.

### ***Debris Disposal***

Debris such as logs and slash that result from IVM operations should be handled in a manner compatible with adjoining land use, terrain, aesthetics, wildlife habitat, and fire risk. Logs may be recoverable for firewood or

timber products, and are often best left for the property owner or as wildlife habitat. Slash can be placed into piles, windrowed along rights-of-way edges, or lopped and scattered. Some jurisdictions may limit the height and length of slash piles. Neither slash nor logs should be placed below the high water mark of streams or other bodies of water, unless requested by a competent authority. Logs should not be moved from the work site if they are likely to be infested with an epidemic-causing disease or insect pest. Where appropriate (e.g., in remote areas or in wildlife management areas), dead standing timber that cannot strike the line or violate mandated minimum clearance requirements can be left as wildlife habitat.

### ***Monitor Treatment and Quality Assurance***

An effective IVM program must have documented processes to evaluate results. Evaluations can involve quality assurance while work is underway and after it is completed. Monitoring for quality assurance should begin shortly after work begins to correct any possible miscommunication or misunderstanding on the part of crew members. Early and consistent observation and evaluation also provides an opportunity to modify the plan, if necessary, in time for a successful outcome.

Utility vegetation management programs should have systems and procedures in place for documenting and verifying that vegetation management work was completed to specifications. Post-control reviews can be comprehensive or based on a statistically representative sample. The results should be compared to objectives, referencing the baseline surveys completed earlier in the planning process. A review of environmental, customer, archeological, or other outcomes may also be necessary, along with property owner and stakeholder surveys. This final review can identify additional work to be completed or highlight opportunities for improved management. The first step in the IVM process of planning and setting objectives then begins again (Figure 2).

### ***Record Keeping***

Records are necessary for quality assurance and future planning. The type of information needed is best determined by the utility vegetation manager. Relevant data commonly includes details on land ownership, the date of pre-notification, and access routes. Records should be digitized and reflect dates of communication, names of stakeholders, and the nature of discussions with them, including any commitments. Records should also be maintained on the type and voltage of line or pipeline capacity, along with work dates,

methods, and location. Where appropriate, records should be maintained on threatened and endangered species and other considerations.

Herbicide records are required by law. Applicators should identify themselves, note the herbicide trade name, the active ingredient, and in the United States, the EPA number. Applicators also need to track the amount of herbicide applied, the location of the application, weather conditions at the time of treatment, how many trees or acres were treated, and other relevant factors.

### 3. IVM Application

#### **Environmental Protection**

##### ***Species of Concern***

Vegetation management should not disturb or harm species of concern (i.e., rare, threatened, endangered, or otherwise protected species). Utility vegetation managers need to obey appropriate guidelines and regulations. Often, simple adjustments can be made to protect sensitive species without compromising desired outcomes.

##### ***Wetlands***

Wetlands should be worked using suitable control methods. If herbicides are to be applied, only those labeled for use over water may be used in wetlands.

##### ***Stream Protection***

To protect streams, incompatible vegetation may need to be selectively pruned or removed, or treated with appropriate herbicide to gradually establish a compatible riparian plant community. Equipment may only use existing or designated stream crossings.

##### ***Buffers***

Stream crossings of right-of-way corridors, surface water supply reservoirs, and drinking water wells and springs need to be protected by buffers. Buffers should retain as much compatible vegetation as possible. If herbicides are needed within the buffer, only those appropriate for the site should be applied. Machine work should be avoided in buffers as equipment may leak or spill petroleum products, causing pollution or erosion. Utility vegetation managers, working along with competent authorities, should determine appropriate distances for particular buffers.

##### ***Archeological or Cultural Sites***

Vegetation management activities should not disturb known archaeological or cultural sites. When necessary, archeological sites should be located and marked, and a plan established to adequately protect them during work. Field data inventories of known sites should be kept on file. Practices that won't damage the sites, such as manual cutting and backpack or aerial herbicide applications, should be considered for use at these locations.

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## 4. Tree Pruning and Removal

Pruning for clearance of trees within pipeline and electric transmission rights-of-way is generally inconsistent with IVM management objectives. However, it may be necessary in rare cases involving legal restrictions. Electric distribution lines are often maintained with pruning as a part of an overall IVM strategy. When pruning is necessary, it should be conducted according to the most current version of the ANSI A300, Part 1: *Tree, Shrub, and Other Plant Management—Standard Practices (Pruning)* and ISA's *Best Management Practices: Utility Pruning of Trees* (Kempter 2004). Structurally unsound or dead trees located off the right-of-way in remote areas may be left for wildlife by reducing them in height so they will no longer strike the electric facility should they fall.

## 5. Summary

Integrated vegetation management—as presented in ANSI A300 Part 7 (ANSI 2012), and when implemented according to principles established by the work of peer-reviewed researchers, long-standing demonstration projects, and successful utility programs—offers a systematic way of planning and implementing a comprehensive, cost-effective, environmentally-sound vegetation management program that meets primary utility objectives and addresses legitimate stakeholder concerns. It consists of six elements:

1. Set Objectives
2. Evaluate the Site
3. Define Action Thresholds
4. Evaluate and Select Control Methods
5. Implement Control Methods
6. Monitor Treatment and Quality Assurance

Managers should select control options to best promote management objectives. Tree-resistant plant communities can be a desirable objective to reduce long-term workloads and costs because, once established, they out-compete incompatible plants. When effectively applied, IVM is a systematic, preventive strategy that results in site-specific treatments to meet management objectives. A sound program includes documented processes to evaluate results, which should involve both monitoring for quality assurance while work is underway and after it is completed. However, the overriding focus should be on environmentally-sound, cost-effective control of species that potentially conflict with the electric facility, while promoting compatible, early successional, sustainable plant communities.

## 6. Glossary

**abatement plan**—a process for reducing vegetation risk.

**action thresholds**—a point at which the level of incompatible plant species, density, height, location, or condition threatens the stated management objectives and requires implementation of a control method(s).

**allelopathy**—the production of chemicals by one plant species that can suppress or kill other species.

**ANSI A300**—the *American National Standard for Tree Care Operations—Tree, Shrub, and Other Woody Plant Management—Standard Practices*. American national arboricultural consensus standard series for tree care operations.

**biological methods**—management of vegetation by establishment and conservation of compatible, stable plant communities using plant competition, allelopathy, animals, insects, or pathogens. Cover-type conversion is a type of biological control.

**best management practices**—in the context of utility vegetation management, a best management practice is the most effective, safe, economical, and environmentally-sound procedure or procedures for maintaining utility rights-of-way. *Best Management Practices* is also the title of a series of booklets produced and published by the International Society of Arboriculture, which serve as companion documents to the ANSI A300 series.

**border zone**—a section of a transmission or pipeline right-of-way that extends from the wire or pipe zone to the right-of-way edge. The border zone is managed to promote a low-growing plant community of forbs, tall shrubs, and low-growing trees below a specified height (e.g., 25 ft or 7.5 m).

**brush**—standing woody stems (live or dead) less than 4 in (10 cm) in diameter at breast height (4.5 ft [1.35 m]).

**bulk transmission**—see *transmission lines*.

**chemical control methods**—management of incompatible vegetation through the use of herbicides or growth regulators.

**closed chain of custody**—an end-to-end process of documented ownership for herbicides, adjuvants, and containers from manufacturer through application, and the return of returnable, reusable containers to a customer blender for refilling and reuse (Goodfellow and Holt 2011).

**compatible vegetation**—vegetation that is desirable or consistent with the intended use of the site. For example, plant species that will never grow sufficiently close to violate minimum clearance distances with electric conductors.

**cover-type conversion**—a type of biological control where a stable, tree-resistant plant community is developed using selective techniques that opens an area to sunlight and encourages desirable plants to out-compete undesirable vegetation in a right-of-way.

**cultural methods**—management of vegetation through alternative use of the right-of-way that precludes growth of incompatible vegetation through establishment of crops, pastures, prairies, parks, successful cover-type conversion, or other managed landscape.

**debris**—material such as slash, logs, or chips left after right-of-way clearing or maintenance operations.

**distribution lines**—high voltage lines generally energized between 4kV and 22kV, but can range from 600v to 35kV. Distribution lines usually serve commercial and residential customers.

**early-successional plant communities**—plant communities that first develop following disturbance. Succession is the replacement of one plant community by another. Cover-type conversion in a utility context inhibits successional progress past an early stage.

**frilling**—a method of herbicide application where tools are used to remove the bark of target woody plants, and herbicide is applied to the wound.

**hack and squirt**—see *frilling*.

**hazard tree**—a tree that has been assessed and found to be likely to fail and cause an unacceptable degree of injury, damage, or disruption. Hazard trees pose a high or extreme risk (Smiley, Matheny and Lilly 2011).

**herbicide**—a pesticide used to kill, slow, or suppress plant growth by interfering with botanical pathways.

**imminent threat**—a vegetation condition that could cause damage or interruption of service to overhead energized facilities or pipelines at any moment.

**incompatible vegetation**—vegetation that is undesirable, unsafe, or interferes with the intended use of the site.

**integrated pest management (IPM)**—an ecologically-based strategy for long-term damage prevention caused by pests using a combination of techniques

**integrated vegetation management (IVM)**—a system of managing plant communities based in IPM, where managers identify compatible and incompatible vegetation, consider action thresholds, evaluate control methods, and select and implement controls to achieve specific objectives. The choice of control methods is based on the anticipated effectiveness, environmental impact, site characteristics, safety, security, economics, and other factors.

**ISA**—International Society of Arboriculture.

**kV**—1000 volts.

**level 1 or limited visual tree risk assessment**—periodic, visual assessment of trees within the strike zone, in order to identify obvious defects that could cause a tree or tree part to fall directly on an overhead high-voltage conductor. Level 1 assessments are conducted from a specified perspective such as foot, vehicle, or aerial patrol to identify a tree or trees among a population that have an imminent or probable likelihood of failure (Smiley, Matheny and Lilly 2011).

**level 2 or basic tree risk assessment**—detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (Smiley, Matheny and Lilly 2011).

**line**—a distribution or transmission electric facility including wire, poles, and attachments.

**logs**—woody stems greater than 6 in (15 cm) in diameter that result from tree or large branch removal.

**low-growing plant community**—a population of plants that have a low mature height (e.g., 3 ft [1 m] or less). Examples include grasses, shrubs, forbs, and herbs. Low-growing plant communities can often effectively compete with trees and tall-growing shrubs for sunlight, essential elements, and moisture. Once established, low-growing plant communities are relatively self-sustaining and can be maintained with a minimum of intervention.

**maintenance cycle**—planned length of time that must be maintained between vegetation management activities.

**manual methods**—vegetation cutting or removal using tools carried by hand.

**mechanical methods**—vegetation removal using machines such as mowers, rubber-tire or tracked tractors, or excavators.

**minimum vegetation clearance distance (MVCD)**—a calculated minimum distance stated in feet (or meters) to prevent spark-over, for various altitudes and operating voltages, that is used in the design of transmission facilities. Keeping vegetation from entering this space will prevent transmission outages.

**National Electrical Safety Code® (NESC)**—a standard in the United States covering basic provisions for safeguarding persons from hazards resulting from installation, operation, or maintenance of conductors and equipment in electric supply stations, overhead and underground electric supply, and communication lines. It also contains work rules for construction, maintenance and operations of electric supply, and communication lines and equipment.

**nonsselective management**—method of controlling vegetation without regard to whether or not the vegetation is desirable or undesirable.

**pipe zone-border zone**—an adaptation of the wire-border zone concept for pipeline rights-of-way. The pipe zone is an inspection area corresponding to the wire zone and is comprised of low-growing species (Stedman and Brockbank 2012).

**right-of-way**—a corridor of land used for a specific purpose such as an electric transmission or pipe line. (plural: rights-of-way.)

**right-of-way reclamation**—establishing IVM on a right-of-way that has not been managed to the full extent of its easement or ownership rights and intended purpose. Reclamation usually involves initial nonsselective control techniques.

**risk**—the combination of the likelihood of an event and the severity of the potential consequences. In the context of IVM, risk is the likelihood of trees, tree parts, or other vegetation falling onto—or growing into—utility facilities, causing damage and/or interrupting utility services, combined with the severity of the potential consequences.

**selective management**—methods used to target undesirable vegetation while retaining desirable vegetation.

**slash**—non-standing debris less than 6 in (15 cm) in diameter left after right-of-way clearing operations.

**spark-over**—a luminous discharge of electricity through a gap between two conductive objects (e.g., a power line and a tree).

**specification**—in the context of IVM, a document containing detailed, measurable plans and requirements needed for an effective vegetation management program. Must be written by a utility vegetation manager.

**stakeholder**—a person or group that has a legitimate interest in a project or organization.

**strike zone**—360-degree area around a tree equal to that tree's height. Constitutes a space upon which a tree could fall if it failed.

**subtransmission lines**—high-voltage lines generally energized between 69 and 161 kV. They can be as low as 35 kV. Subtransmission lines connect bulk transmission substations to industrial customers or distribution substations.

**transmission lines**—high voltage lines that are critical to regional electric reliability. They are generally energized between 230 kV and 765 kV, although some transmission lines are energized as low as 69 kV. Transmission lines connect generation and bulk transmission substations.

**transmission grid**—interconnection of transmission lines used to deliver electricity from power plants to transmission substations or to transfer electricity to other utilities or regions.

**tree growth regulator (TGR)**—chemical that can be applied to trees that slows terminal growth by reducing cell elongation.

**utility vegetation manager**—a professional with the proper experience, education, and training to successfully establish or supervise an integrated vegetation management program.

**wetland**—land where water saturation is the dominant factor determining the nature of soil development and the types of plant and animal communities living in and on the soil.

**windrow**—in the context of utility vegetation management, slash or debris raked or stacked in a row to the side of a right-of-way. The term evokes a row of hay raked up to dry before being rolled or baled.

**wire zone**—section of a utility transmission right-of-way directly under the wires, and extending to a utility specified distance (e.g., 60% of phase spacing; 10 ft or 3 m) on each side. The wire zone is typically managed to sustain a low-growing forb, grass, herb, and shrub plant community.

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## About the Author

**Randall H. Miller** is Director of Vegetation Management at PacifiCorp. He is currently Chair Elect of the TREE Fund Board of Trustees. He has served as President of the Utility Arborist Association, on the Editorial Board of the Journal of *Arboriculture & Urban Forestry*, the International Society of Arboriculture's Certification Test Committee, as Chair of the Edison Electric Institute Vegetation Management Task Force, President of the Oregon Urban and Community Forest Council and as a member of Utah Community Forest Council Board.

He joined PacifiCorp in 1993, and has been their System Forester since 1999. He earned his bachelor's degree in horticulture from the University of Wisconsin-Madison and master's degree in urban forestry from the University of Wisconsin-Stevens Point. He is an ISA Certified Arborist® and an ISA Certified Arborist Utility Specialist™. He received the 2001 ISA Pacific Northwest Chapter Utility Arborist Award, the 2005 ISA R.W. Harris Author's Citation, the 2007 Utility Arborist Association President's Award, the 2007 ISA Pacific Northwest Chapter President's Award, and the 2008 Utah Chapter Distinguished Service Award. He has over 60 arboricultural-related writing credits to date.

## Richland County Council Request of Action

**Subject:**

Removal of Lien off of Property

**Notes:**

At the October Development & Services Committee meeting, the Committee deferred this item and directed Staff to provide the following information to Council prior to bringing this item back for their consideration: A map to illustrate the location of the Atlas Road Community in relation to the property located at 1420 Joe Frazier Court; Atlas Road Community Organization's plan for utilizing the property located at 1420 Joe Frazier Court; and clarification on whether the Atlas Road Community Organization is a public or private nonprofit organization. As directed, included in the agenda packet is a map illustrating the location of the Atlas Road Community in relation to the property located at 1420 Joe Frazier Court and a letter from the Atlas Road Community Organization describing their plan for utilizing the property and a description of their organization as a public nonprofit organization.

# ATLAS ROAD COMMUNITY ORGANIZATION

2401-B HARLEM STREET, COLUMBIA, SC 29209 (803) 695-1002

November 9, 2015

Richland County Council  
Development and Services Committee  
2020 Hampton Street  
Columbia, SC 29204

Atlas Road Community Organization is now the proud owner of 1420 Smith Street, Columbia, SC 29209 (parcel tax map # R13516-03-03 located). We acquired this property that we may have a mini-park (a passive recreational space) in which it is long overdue in our community. This letter is to address the concerns stated by the Development and Services Committee on October 27, 2015.

Founded in 1992, the Atlas Road Community Organization is a public nonprofit organization. To utilize the property as a recreational space, the first step of the plan is to secure the property through a quit-claim deed, which we have already completed, and now lien removal through this process. Next, we will procure an engineering firm to create a preliminary design for the property. Any building facility on the property will be opened to the public. Currently, maintenance will be addressed by the Atlas Road Community Organization, unless future arrangements are established. Also, fundraising and grants will be explored for funding opportunities.

This special parcel will be reserved for playground equipment and park benches where our Seniors may enjoy watching the children play. We may also have outside events. Currently, our children play in the streets, where automobiles travel from time to time, not giving the children much time to move out of the way of danger. This is an accident waiting to happen. We have no certain place to hold outside events, at this time.

It is our mission statement: (A) To enhance the livability of the residents by establishing and maintaining an open line of communication and liaison between the neighbors, government agencies, businesses, and other neighborhoods. (B) To improve an open process by which all members of the neighborhood may involve themselves in the affairs of the neighborhood. (C) To perform all of the activities related to said purpose, to enjoy all the powers granted, and engage in any lawful activity for which this corporation may be organized.

It is our duty to encourage our residents to involve themselves in activities that may improve their health. Also, with the mini-park in this neighborhood, we hope this will entice many residents to walk more by going to and from visiting the mini-park; communicate more with other; and a chance to get out of the house more. A place to go away from home, yet, not far from home.

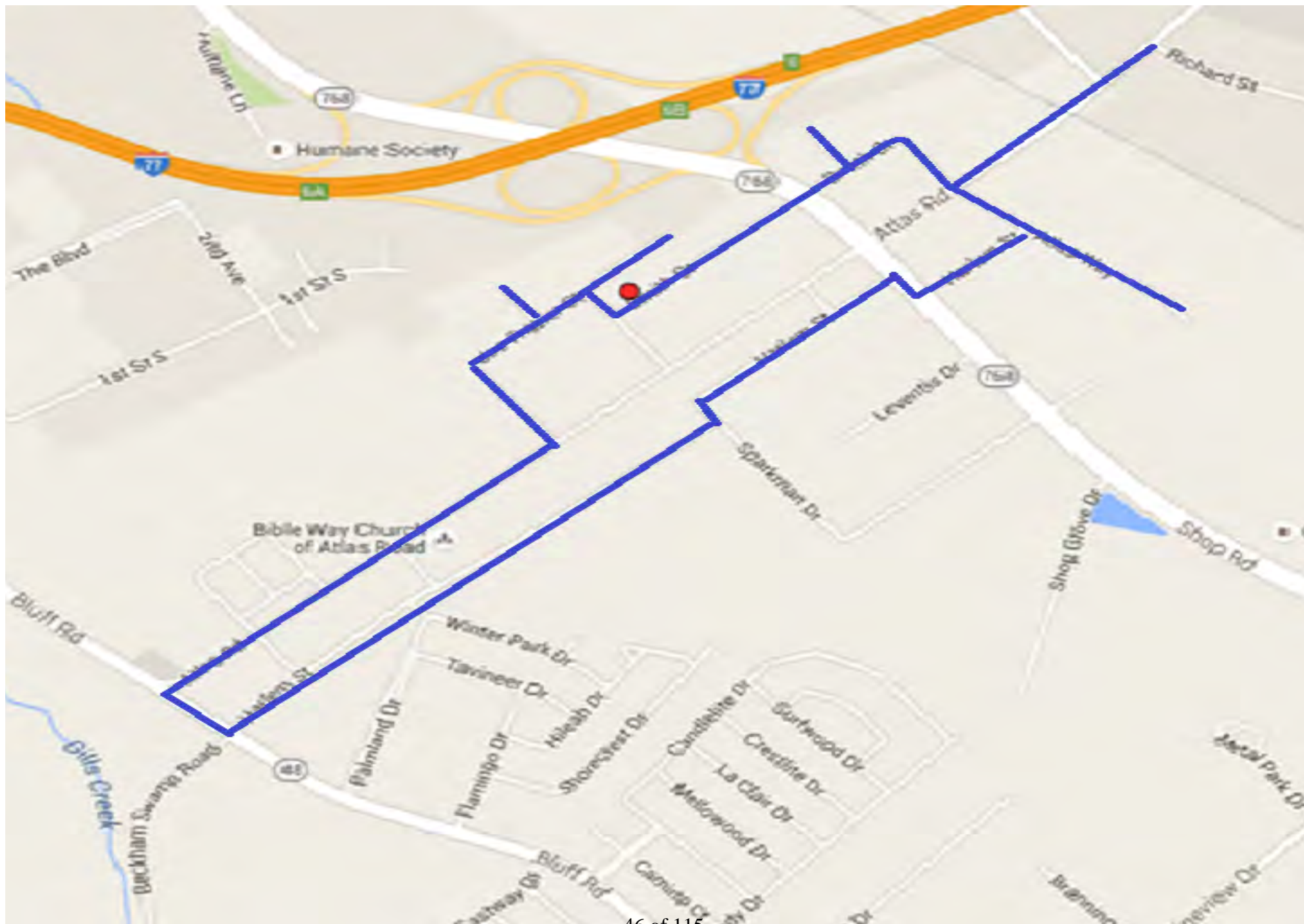
While the other property, 2045 Smith Street, (parcel tax map # 13516-03-21), Columbia, SC 29209, will serve as our community house (office and meeting place), storage, and parking. As we were told that we need a building in order to have a mailbox there. We want to use 2045 Smith Street for our mailing address.

Please assist us in our achievement to enhance our neighborhood. Thanking you in advance for your consideration and cooperation.

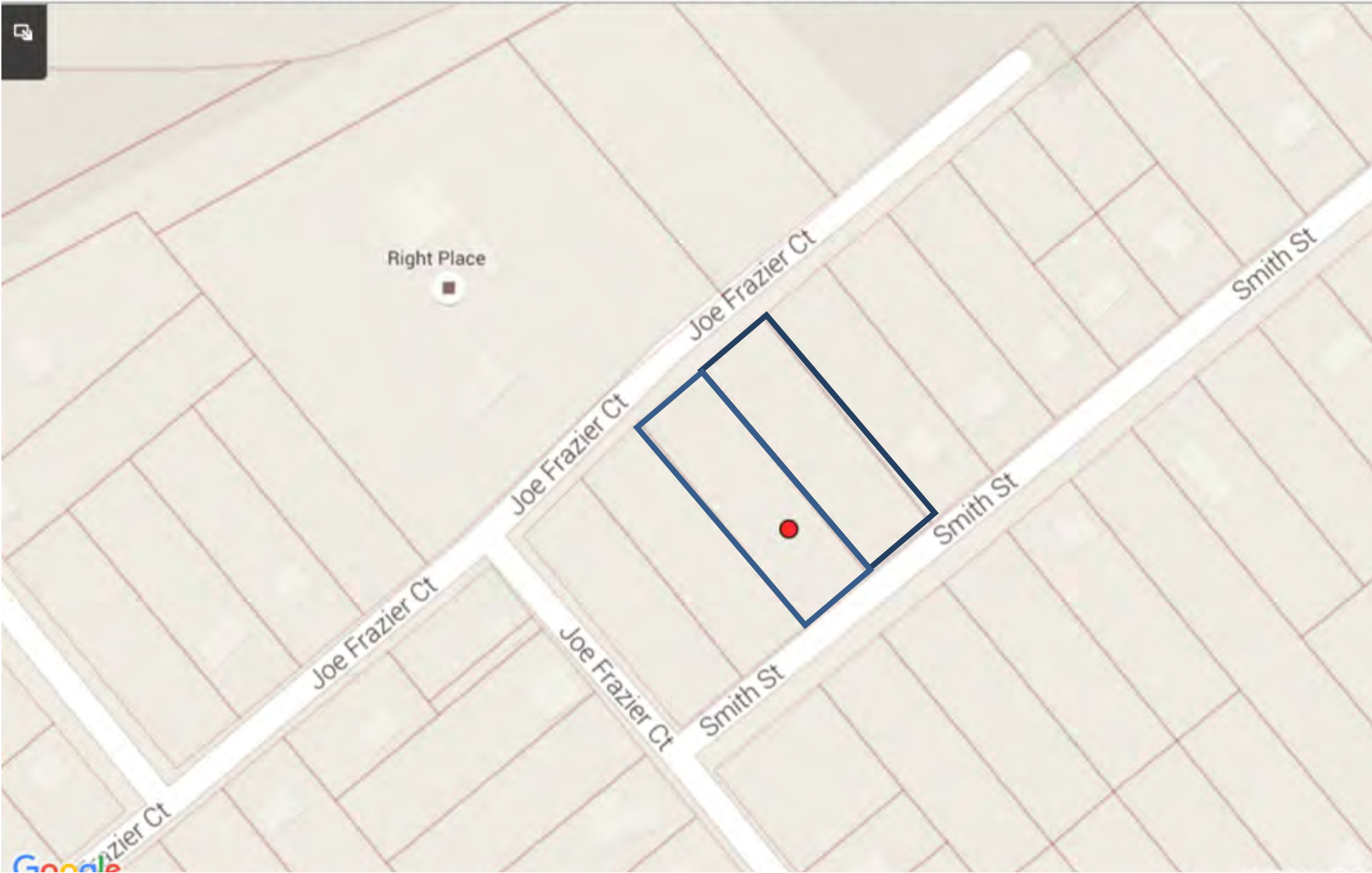
Respectfully yours,

  
Glen Davis  
President

Map of Property – The portions outlined in blue are the boundaries of the Atlas Road Community. The red dot is the property located at 1420 Joe Frazier Court.



Closer view of properties at 2045 Smith St. and 1420 Joe Frazier Ct.



# Richland County Council Request of Action

**Subject:** Removal of Lien off of Property

**A. Purpose**

Council is requested to approve removing the lien off of the property located at 1420 Joe Frazier Court., (Parcel # R13516-03-03) contingent on the property owner donating the land to the Atlas Road Community Organization.

**B. Background / Discussion**

At the October 12, 2015 Council meeting, Mr. Washington brought forth the following motion:

“To have Richland County remove the lien off of the property located at 1420 Joe Frazier Court contingent on the property owner donating the land to the Atlas Road Community Organization”

The property located at 1420 Joe Frazier Court – see attached map – is currently owned by the Atlas Road Community Organization.

The previous owner, Carolyn Smith, forfeited the property due to failing to pay the associated property taxes.

Saluda Dam, LLC purchased the property in March 2014 in a tax sale.

Saluda Dam, LLC deeded – see attached deed – the property to the Atlas Road Community Organization in June 2015 for \$5. However, there were two (2) existing County liens on that property for mitigating the unsafe condition of the property – see attached. There was an unsafe structure located on the property that was demolished by the County through the County’s unsafe housing program on June 29, 2008.

The lien dated June 30, 2008, in the amount of \$2,250, is the assessment fee for the County demolishing the structure that was located on the property.

The lien dated February 1, 2008, in the amount of \$100, is the assessment fee for the County performing the title search for the property

Currently, there are no structures located on the property.

This is a policy decision for Council.

**C. Legislative / Chronological History**

- October 12, 2015 – motion brought forth by Mr. Washington

**D. Financial Impact**

The financial impact of this request to the County would be the potential loss of the total amount of the liens is \$2,350.

**E. Alternatives**

1. Approve to have Richland County remove the lien off of the property located at 1420 Joe Frazier Court, (Parcel # R13516-03-03)
2. Do not approve to have Richland County remove the lien off of the property located at 1420 Joe Frazier Court, (Parcel # R13516-03-03).



## F. Recommendation

This is a policy decision of Council.

Recommended by: Kelvin Washington

Department: County Council

Date: October 12, 2015

## G. Reviews

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

Please be specific in your recommendation. While “Council Discretion” may be appropriate at times, it is recommended that Staff provide Council with a professional recommendation of approval or denial, and justification for that recommendation, as often as possible.

### Finance

Reviewed by: Daniel Driggers

Date: 10/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

As stated in the ROA, this is a policy decision for Council. Since the additional cost added as a lien is associated with additional cost incurred by the County, my recommendation would be that Council not remove or forgive the lien. I would recommend that the County recover the funds either from the owner or through the property closing costs as the property is transferred.

### Building Services

Reviewed by: Donny Phipps

Date: 10/20/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council’s discretion

### Legal

Reviewed by: Elizabeth McLean

Date: 10/22/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council’s discretion; however, I would note that there is no reason stated as to why the community organization desires to have the liens removed. As it stands, the organization is free to use the land in any way. The only time the County would collect the money, is if the organization tried to sell the land.

### Administration

Reviewed by: Sparty Hammett

Date: 10/23/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council’s discretion

STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**NOTICE OF LIEN**

As provided by law, notice is hereby given that the party named in this lien is liable for the assessed fee for mitigating the unsafe condition located at

**1420 Joe Frazier Court, TMS# R13516-03-03.**

Along with any penalties and interest established by law for failure to correct the deficiencies and unsafe conditions made known to the party herein named by certified mail return receipt requested and posting of the subject properties. Therefore, there is a lien in favor of Richland County, South Carolina, on all property and rights belonging to this landowner for the amount of the mitigation fee, and penalties, interest and costs that may accrue as provided by law.

All of my interest ( specifically my Life Estate) in and to all certain piece, parcel or lot of land with the improvements thereon, situate, lying and being in the County of Richland, State of South Carolina, near the City of Columbia, being designated as Lot 3 of Block H, being known as 1420 Joe Frazier Court ,and bearing the Tax Map Number 13516-03-03; according to Richland County Tax Maps, measuring 150 feet, more or less, along the front and rear property lines and 125 feet, more or less, along the side property lines.

Name and Residence of Landowner: Carolyn Smith  
505 Antioch Place  
Columbia, SC 29209

Nature of Assessment: Demolition of Structure

**TOTAL: \$2550.00**

Place of Filing: Register of Deeds  
Richland County Judicial Center  
1701 Main Street  
Post Office Box 192  
Columbia, South Carolina 29202

This Notice was prepared and signed at Columbia, South Carolina, on this 30<sup>th</sup> day of June 2008.

Signature

  
Kay Bender Deputy Building Official

Book 1442-3698  
2008052194 06/30/2008 15:40:37.087 Demo Urnate Hearing  
Fee: \$0.00 County Tax: \$0.00 State Tax: \$0.00



# RICHLAND COUNTY TAX DEED

**GRANTEE'S ADDRESS:**

**220 STONERIDGE DR  
COLUMBIA, SC 29210**

**STATE OF SOUTH CAROLINA  
COUNTY OF RICHLAND**

Tax Map Number : 13516-03-03-

TO ALL WHOM THESE PRESENTS MAY CONCERN, THAT DAVID A. ADAMS, Treasurer of Richland County, having lawfully issued an execution that required the Tax Collector of Richland County to levy, by distress and sale, so much of the herein named defaulting taxpayer's estate, real, personal or both as may be sufficient to raise and collect the sum of \$ 192.83 of which \$80.00 is cost, in order to pay the taxes due on assessments against defaulting taxpayer, SMITH CAROLYN for the year(s) commencing December 31st, 2010, tax year 2011. The Richland County Tax Collector did on June 1, 2012 mail via "Certified Mail, Return Requested - Restricted Delivery" notice of delinquent TY 2011 taxes, penalties, and costs owed in the amount of \$ 192.83 and any other prior delinquent tax year(s) amount(s) owed, if any, to:

SMITH CAROLYN  
585 ANTIOCH PL  
COLUMBIA, SC 29209

With such mail notice being faulty, and as a result FRED BRANTLEY, an agent of the Richland County Treasurer / Tax Collector, did on August 15, 2012, hand levy, seize and take exclusive possession of the said property on which taxes were assessed and levied, as hereinafter described.

WHEREAS, at a public sale at the Richland County Township Auditorium on the 3<sup>rd</sup> day of December, 2012 during the usual hours of sale, after due advertisement, did sell the herein described property of SMITH CAROLYN to,

**SALUDA DAM LLC**

heirs and assigns, the purchaser(s) herein known as "Grantee(s)" and the highest bidder at such sale, for the sum of \$ 460.00 and gave a receipt for the total amount of said purchase money with duplicate warrant and endorsement therein annexed;

WHEREAS, the period of twelve months having expired from the day of said sale, and the defaulting taxpayer(s) or other party interested to redeem said property so sold, having not redeemed the same as provided by law;

NOW THEREFORE, as the undersigned Richland County Tax Collector, acting by and pursuant to the Laws of the State of South Carolina and in consideration of the sum of \$ 460.00 cash, receipt thereof is hereby acknowledged, to me in hand paid by purchaser at said sale have granted, bargained, sold and released, by these said presents to grant, bargain, sell and release unto

**SALUDA DAM LLC**

All that certain piece, parcel, lot of land, with improvements thereon, if any, situate, lying and being in the County of Richland, State of South Carolina, being shown and delineated as Lot 4, Block H being know as 1420 Frazier Ct., and bearing the Tax Map 13516, Block 03, Parcel 03 according to Richland County Tax Maps, measuring 150' feet, more or less, along the front and rear property lines and 125' feet, more or less, along the side property lines. This being the same property conveyed by deed from Sylvia Smith unto Carolyn Smith and recorded on March 4, 1997 at the Richland County ROD in Deed Book D 1368 at Page 424.

Book 1025-2504  
2014022005 03/31/2014 11:34:08 177  
Fee: \$0.00 County Tax: \$0.00 State Tax: \$0.00



TOGETHER with all and singular the rights, members, hereditaments and appurtenances to the said premises belonging or in anywise incident or appertaining.

TO HAVE AND TO HOLD, all and singular the premises hereby granted, with the appurtenances, unto the said SALUDA DAM LLC and His/Her heirs and assigns forever, according to the form, force and effect of the laws and usages of the State of South Carolina in such cases made and provided.

WITNESS my hand and seal this 26<sup>th</sup> day of March in the year of our Lord Two Thousand and Fourteen, in the two hundred and thirty-eighth year of the Sovereignty and Independence of the United States of America.



David A. Adams  
Treasurer / Tax Collector  
Richland County

Signed, sealed and delivered  
in the presence of:



Witness: Carolyn G. Phillips



Witness: Craig L. Freeman

STATE OF SOUTH CAROLINA )  
  )  
COUNTY OF RICHLAND        )

PROBATE

PERSONALLY appeared before me, Carolyn G. Phillips and made oath that she saw the above named David A. Adams, as Treasurer / Tax Collector of Richland County sign, seal and as his act and deed, deliver the within written Tax Deed and that she with Craig L. Freeman witnesses the execution thereof.

SWORN to and subscribed before me this 26<sup>th</sup> day of March, 2014



Carolyn G. Phillips



Shirley S. Tapp  
Notary Public for South Carolina  
My Commission Expires: April 11, 2021



STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**NOTICE OF LIEN**

As provided by law, notice is hereby given that the party named in this lien is liable for the assessed fee for mitigating an unsafe condition located at 1420 Joe Frazier Court TMS# R13516-03-03.

Along with any penalties and interest established by law for failure to correct the deficiencies and unsafe conditions made known to the party herein named by certified mail return receipt requested and posting of the subject properties. Therefore, there is a lien in favor of Richland County, South Carolina, on all property and rights belonging to this landowner for the amount of the mitigation fee, and penalties, interest and costs that may accrue as provided by law.

All of my interest ( specifically my Life Estate) in and to all certain piece, parcel or lot of land with the improvements thereon, situate, lying and being in the County of Richland, State of South Carolina, near the City of Columbia, being designated as Lot 3 of Block H, being known as 1420 Joe Frazier Court ,and bearing the Tax Map Number 13516-03-03; according to Richland County Tax Maps, measuring 150 feet, more or less, along the front and rear property lines and 125 feet, more or less, along the side property lines.

Name and Residence of Landowner: Carolyn Smith  
505 Antioch Place  
Columbia, SC 29209

Nature of Assessment Title Search Amount \$100.00

**TOTAL \$ 100.00**

Book 1397-1000  
2008008364 02/01/2008 11:45:05.960  
Fee:Exempt County Tax:\$0.00

Demo Unsafe Housing  
State Tax: \$0.00



Place of Filing: Register of Deeds  
Richland County Judicial Center  
1701 Main Street  
Post Office Box 192  
Columbia, South Carolina 29202

This Notice was prepared and signed at Columbia, South Carolina, on this 1<sup>st</sup> day of February, 2008.

Richland County Planning Department

A handwritten signature in cursive script, reading "Kay Bender", is written over a horizontal line.

Kay Bender

Richland County Deputy Building Official  
PO Box 192, 2020 Hampton Street  
Columbia, SC 29202

MAP ATTACHMENT

County Internet Mapping 7.2

**Parcel Information:**

<http://www.richlandmaps.com/apps/gmap/?base=satellite&taxid=R13516-03-03>

Parcel Number:	R13516-03-03
Situs Address:	1420 JOE FRAZIER CT
Primary Zoning:	MH
Secondary Zoning:	
Tax District:	1LR
NBHD Code:	083.00
Assessed Value:	4,200
Building Value:	0
Land Value:	4,200
Acreage:	0
Owner Name:	ATLAS ROAD COMMUNITY
Owner Address:	/ORGANIZATION
Owner Address:	2401 HARLEM ST
Owner City:	COLUMBIA
Owner State:	SC
Owner ZIP:	29209
Bedrooms:	0
Bathrooms:	0
Year Built:	
Heated Sq Feet:	0 ft <sup>2</sup>
Last Sale Date:	June 18, 2015
Last Sale Price:	\$5
Legal Description:	LOT 4 BLK H
Legal Description:	75X235X75X235
Legal Description:	#SU
Legal Description:	#PR

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# Richland County Council Request of Action

**Subject:**

Council member Jackson's Motion Regarding Unauthorized Businesses

## Richland County Council Request of Action

**Subject:** Council member Jackson's Motion Regarding Unauthorized Businesses

### **A. Purpose**

Council is requested to consider Council member Jackson's motion regarding unauthorized businesses and provide direction to staff.

### **B. Background / Discussion**

At the September 8, 2015 Council meeting, Mr. Jackson made the following motion:

“Review and pursue the closure of all businesses operating without Richland County business license also businesses operating as other type business than that was approved. All SOB's that violate Richland County Ordinance and State laws”

The Planning and Business Service Center Departments regularly collaborate throughout the year to facilitate and ultimately enforce compliance by the business community with the County's requirements to conduct business.

Our Business Service Center is working to ensure that all businesses operating in Richland County are doing so with the appropriate business license(s). Additionally, we encourage all Council members to forward any complaints they receive from their constituents, relative to businesses operating without a business license, to our office so the appropriate response and action can be taken.

### **C. Legislative / Chronological History**

Motion made by Mr. Jackson at the September 8, 2015 Council meeting.

### **D. Financial Impact**

The financial impact would depend upon the direction provided to Council. Closing a business will naturally have an adverse finance impact on any licenses or fees that the business might have paid, or should have paid, to the County.

### **E. Alternatives**

1. Consider Council member Jackson's and direct staff to objectively review and pursue the closure of all businesses operating in Richland County without the appropriate business license(s).
2. Consider Council member Jackson's motion, and provide direction to staff.

### **F. Recommendation**

There is no recommendation. This is at the discretion of Council.

Recommended by: Norman Jackson  
Department: Richland County Council  
Date: September 8, 2015

## G. Reviews

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

Please be specific in your recommendation. While “Council Discretion” may be appropriate at times, it is recommended that Staff provide Council with a professional recommendation of approval or denial, and justification for that recommendation, as often as possible.

### Finance

Reviewed by: Daniel Driggers

Date: 11/16/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

If significant amendments are proposed to the current ordinance, it may be beneficial to have staff provide a financial impact analysis prior to approval.

### Business Service Center

Reviewed by: Pam Davis

Date: 11/17/2015

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

I recommend that Mr. Jackson’s motion be considered, consistent with the County’s Code of Ordinances relating to business licenses, and that Council provide specific, clear, and timely direction to County staff relating to sexually oriented businesses and compliance with all applicable County ordinances.

### Legal

Reviewed by: Elizabeth McLean

Date: 11/17/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Enforcement mechanisms exist within the business license ordinance. In each case where a business in operating in violation of the ordinance, we would recommend that the department take such businesses on a case by case basis to determine the best method to achieve compliance within the existing ordinance. If Council wishes to amend the ordinance, that would need to be fully vetted.

### Administration

Reviewed by: Roxanne Ancheta

Date: November 19, 2015

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: The Business Service Center will continue to monitor businesses to ensure that they have proper licenses. If Council Members, or any other individuals, know of businesses operating without proper licenses, please notify staff for follow up and enforcement. With regards to SOB’s, Council may wish to include this as an item for discussion at its Annual Retreat.

## Richland County Council Request of Action

**Subject:**

Conservation Department – Hopkins Conservation Easement on Lower Richland Blvd.

## Richland County Council Request of Action

**Subject:** Conservation Department – Hopkins Conservation Easement on Lower Richland Blvd.

### **A. Purpose**

County Council is requested to approve a conservation easement on 60 acres of property owned by Ted Hopkins on Lower Richland Blvd.

### **B. Background / Discussion**

Richland County Conservation Commission (RCCC) recommends placing a conservation easement on 60 acres of “Oldfield” property owned by Mr. Ted Hopkins in Lower Richland.

In 2013 RCCC placed a conservation easement on 60 acres of farmland owned by Mr. Hopkins on the west side of Lower Richland Blvd. Mr. Hopkins owns several parcels between Garners Ferry and Air Base roads and wishes to increase the conserved property to include 60 acres on portions of two parcels (TMS 21800-05-16 and 21800-05-13) which are adjacent to the conservation easement in place.

RCCC is supportive of this easement because it increases permanently protected agricultural land and preserves the rural character, historic connections, scenic vista, and conservation values of the property. Development threatens the farmland due to its proximity to the urbanizing eastern edge of Columbia and its current zoning of residential, single family – medium density.

The benefits of protecting this land in perpetuity include:

- Maintaining agricultural production on prime agricultural soils - Marlboro and Dothan loamy sands
- Protecting natural habitats including an oak-hickory forest, mixed and evergreen windbreak/hedgerow woodland, open fields, and a pond that are important for wildlife habitat functions
- Preserving a portion of The Oldfield on Cabin Branch Plantation, which includes the boyhood home and probable birthplace of Gov. James Hopkins Adams
- Preserving open space for the scenic enjoyment of the public traveling on Lower Richland Blvd.
- Preserving the protective natural water quality buffer for Goose Branch, a tributary of Myers Creek

On July 27, 2015, RCCC unanimously approved placing a conservation easement on the Oldfield property. An \$833/acre purchase of development rights was negotiated for a total cost of \$50,000 which was unanimously approved by RCCC at its October 26th meeting.

### **C. Legislative / Chronological History**

This is a staff initiated request; therefore, there is no legislative history.

### **D. Financial Impact**

Funds are available in the RCCC Capital Acquisition Fund. There are no current negative tax implications to Richland County since this property is now, and will remain taxed at the agricultural rate.

**E. Alternatives**

1. Approve the request to place a conservation easement on 60 acres thus preserving the land in perpetuity for agricultural production, forestland, and wildlife habitat.
2. Do not approve the conservation easement and forfeit the opportunity to preserve the land in perpetuity and all its attendant benefits in an area facing substantial growth pressures.

**F. Recommendation**

It is recommended Council approve the request from RCCC to place a conservation easement on 60 acres owned by Mr. Ted Hopkins on Lower Richland Blvd. and purchase the development rights for a sum of \$50,000 to be paid from the RCCC Capital Acquisition Fund.

Recommended by: Quinton Epps, Director  
Department: Conservation  
Date: November 4, 2015

**G. Reviews**

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

Please be specific in your recommendation. While “Council Discretion” may be appropriate at times, it is recommended that Staff provide Council with a professional recommendation of approval or denial, and justification for that recommendation, as often as possible.

**Finance**

Reviewed by: Daniel Driggers Date: 11/9/15  
 Recommend Council approval  Recommend Council denial  
Comments regarding recommendation:

Recommendation supports approval of RCCC based on availability of funds. As stated in the recommendation, funding is suggested to come from the RCCC Capital Acquisition Fund which is the accumulated fund balance in the Conservation Commission fund. The current available fund balance in the fund is approximately \$1.0m. The source of revenue is an annual ½ mill of countywide tax levy.

**Support Services**

Reviewed by: John Hixon Date: 11/10/15  
 Recommend Council approval  Recommend Council denial  
Comments regarding recommendation:

Recommendation is based on the merits of the program and that no maintenance is required from the county to maintain the property or structures.

**Legal**

Reviewed by: Elizabeth McLean

Date: 11/16/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council's discretion.

**Administration**

Reviewed by: Sparty Hammett

Date: 11/16/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

### Hopkins - Oldfield 2 Conservation Easement



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DISCLAIMER : THIS IS A PRODUCT OF THE RICHLAND COUNTY GIS DEPARTMENT. THE DATA DEPICTED HERE HAVE BEEN DEVELOPED WITH EXTENSIVE COOPERATION FROM OTHER COUNTY DEPARTMENTS, AS WELL AS OTHER FEDERAL, STATE AND LOCAL GOVERNMENTS AGENCIES. RICHLAND COUNTY EXPRESSLY DISCLAIMS RESPONSIBILITY FOR DAMAGES OR LIABILITY THAT MAY ARISE FROM THE USE OF THIS MAP.





**THE OLDFIELD  
ON  
CABIN BRANCH PLANTATION**

**2015 DEED OF CONSERVATION EASEMENT**

STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

**DEED OF CONSERVATION EASEMENT**

**THIS DEED OF CONSERVATION EASEMENT** (the “Deed” or “Easement”) is made, granted and conveyed as of the Effective Date provided herein, by Theodore J. Hopkins Jr. (hereinafter “**Grantor**”), having an address at 141 Edisto Avenue, Columbia, South Carolina 29205, in favor of Richland County, South Carolina (hereinafter “**Grantee**”), having an address at c/o Richland County Conservation Commission, 2020 Hampton Street, Columbia, SC 29204 (**Grantor** and **Grantee** sometimes together referred to as the “**Parties**”).

**WHEREAS, Grantor** is the sole owner in fee simple of certain real property containing approximately sixty (60.0) acres in Richland County, South Carolina, included in and historically referred to as “The Oldfield” or “The Oldfield on Cabin Branch Plantation,” and more particularly described in *Exhibit A* attached hereto and incorporated herein by this reference (hereinafter the “Property” or the “Protected Property”);

**WHEREAS, Grantee** is a political subdivision of the State of South Carolina and meets the requirements of Sections 170(b)(1)(A) and 170(c)(1) of the United States Internal Revenue Code (the “Code”) and the regulations (“Treasury Regulations” or “Treas. Reg.”) promulgated thereunder by the United States Department of the Treasury; **Grantee** is a “qualified organization” as such term is defined in Section 170(h)(3)(A) of the Code; and **Grantee** is qualified to hold conservation easements under the laws of the State of South Carolina;

**WHEREAS,** the general intent of this Easement is the conservation and preservation of the Property as agricultural land and as open space and natural habitat with scenic views for the general public;

**WHEREAS,** the Property is also considered historic by virtue of its (i) comprising the northwestern portion of an 18<sup>th</sup> century, 2,700 acre plantation composed of sixteen royal grants ca. 1765 to John Hopkins (1739-1775), (ii) having been the boyhood home and probable birthplace of James Hopkins Adams (1812-1861), Governor of South Carolina, and (iii) being adjacent to the site of the family plantation home burned/destroyed February 19, 1865 by troops/foragers under the command of Gen. William T. Sherman;

**WHEREAS,** the Property is situated on the edge of the City of Columbia and other fast growing, densely populated areas; thus, absent the protection provided by the instant Easement, the area’s projected growth, current Richland County zoning of residential-medium density, development and “urban sprawl” present an imminent and direct threat to the environmental and historical integrity of the Property;

**WHEREAS,** the Property is situated between Lower Richland Boulevard, Air Base Road and Garner’s Ferry Road, and is prominently visible by the public; and notwithstanding its close proximity to the City of Columbia, the Property provides an expansive viewshed of the topography, the bucolic beauty and the agricultural and rural character of Lower Richland County and the

Central Midlands of South Carolina, as evidenced in the photographs in the Baseline Documentation;

**WHEREAS**, the Property is located in close proximity to the Cabin Branch conservation Corridor and other conservation easements held by Richland County, which easements together protect valuable conservation land space in Lower Richland County, South Carolina and serve an essential role in preserving the agricultural, rural, natural and ecological values of a substantial part of the community;

**WHEREAS**, the Property is situated on Goose Branch which is part of the Myers Creek – Cabin Branch Watershed which, upon joining Cedar Creek, is a major waterway through the Congaree National Park to the Congaree River – which area in central South Carolina is considered of international ecological importance through its designation as an International Biosphere Reserve;

**WHEREAS**, the Property is a significant ecological and agricultural resource as evidenced by (i) its consisting of prime agricultural soils (*e.g.*, Marlboro and Dothan soil types) designated by the United States Department of Agriculture Soil Conservation Service (“USDA”), (ii) its historic and productive use as a farm that has been in the same family since the adoption of the U S Constitution, as certified by the Secretary, United States Department of Agriculture which has officially recognized the Property as a “National Bicentennial Farm” and (iii) its consisting of a fifteen acre lake that is a thriving natural habitat for fish, ducks, geese and aquatic life;

**WHEREAS**, the Property has a diversity of relatively natural habitats including mixed and evergreen upland windbreak/hedgerow forests, croplands, agricultural lands, open fields and open waters, all of which can support a variety of floral and faunal species;

**WHEREAS**, the Property contains forested and non-forested lands (i) which function to provide many wildlife habitat components such as breeding grounds, nesting sites and other critical habitat for a variety of fish and wildlife species, unique habitat requirements of threatened and endangered plants and animals, and (ii) which function to provide an irrigation resource for crops and agricultural lands;

**WHEREAS**, the Property provides a diversity, quality and combination of natural habitats significant to wildlife habitat functions including feeding, nesting and roosting areas for native and migratory birds, wild turkeys and waterfowl, and also including feeding, breeding and resting areas for deer and other native large and small game and non-game animals;

**WHEREAS**, the past and present use of the Property in its natural, agricultural condition is consistent with the Conservation Purpose of this Easement inasmuch as the Property has been and is used entirely for the preservation of open space, including farming and raising of crops, as well as the preservation of water quality by providing a vital, protective buffer for Goose Branch, a tributary of the Myers Creek – Cabin Branch Watershed, the protection and preservation of which waterways and ecosystems are recommended and designated a top priority of Federal, State and local government;

**WHEREAS**, arrowheads, pieces of pottery and other ancient Indian artifacts have been discovered on the Property from time to time , giving reason for the Property’s possibly, if not probably, containing significant archeological materials and having significant archeological value;

**WHEREAS**, the natural habitat, water quality protection, prime agricultural soils, agricultural viability and productivity, archeological, open space and scenic character of the Property (collectively referred to herein as the “Conservation Values”) are of great importance to the environmental integrity of the Property, to the **Grantor**, the **Grantee**, the people of South Carolina and the nation;

**WHEREAS**, the **Parties** agree that with the careful use of conservation easements, the resources, habitat, beauty and unique ecological and agricultural character of the Property can be preserved and protected from development, while at the same time **Grantor** retains the right of continuing private ownership, use and enjoyment of the Property;

**WHEREAS**, by act of the General Assembly of the State of South Carolina, as enacted in South Carolina Code Annotated (1976, as amended) (hereinafter the “SC Code”) Section 27-8-10, *et seq.* (The South Carolina Conservation Easement Act of 1991) (hereinafter the “Act”), South Carolina recognizes and authorizes the creation of conservation restrictions and easements; and as described in SC Code Section 27-8-20, also recognizes and authorizes **Grantee** to hold conservation easements;

**WHEREAS**, the **Parties** recognize the natural, scenic, aesthetic, and special character and opportunity for enhancement of the Property; the **Parties** share the mutual intent and common purpose of the conserving, preserving and protecting the Property *in perpetuity* as “a relatively natural habitat of...fish, wildlife or plants or similar ecosystem” as that phrase is used in Code Section 170(h)(4)(A)(ii), and as “open space (including farmland and forest land)...for the scenic enjoyment of the general public...pursuant to clearly delineated...governmental conservation policy” as those phrases are used in Code Section 170(h)(4)(A)(iii) and the Treasury Regulations thereunder; and the **Parties** agree that these purposes can be accomplished by placing voluntary restrictions upon the use of the Property and by providing for the transfer from the **Grantor** to the **Grantee** of affirmative rights for the protection of the Property so as to be considered a “qualified conservation contribution” as such term is defined in Code Section 170(h) and the Treasury Regulations thereunder;

**WHEREAS**, the **Parties** agree that current and historical uses of the Property are compatible with the Conservation Purpose and Conservation Values (collectively referred to herein as “Conservation Interests”) described herein; and they intend to protect and preserve the Property and maintain the Conservation Interests therein, *in perpetuity*, in accordance with the provisions of Treas. Reg. Section 1.170A-14(g);

**WHEREAS**, the **Grantor** intends that this transaction - the deed and conveyance of this Easement, the cash consideration and the contribution herein – (i) shall be treated so that the transaction is in part a sale of the Easement and in part a contribution of the Easement, and (ii) shall be a “bargain sale transaction” or “bargain sale”;

**WHEREAS**, the cash consideration for the sale part of the Easement is Fifty thousand (\$50,000.00) dollars, the payment of which shall be made in two (2) amounts as follows: One thousand (\$1,000.00) dollars upon execution of this Easement; and Forty-nine thousand (\$49,000.00) dollars on March 5, 2016.

**NOW, THEREFORE, KNOWALL MEN BY THESE PRESENTS**, in consideration of **Grantee's** cash payment to **Grantor**, as described in the paragraph immediately above, of Fifty Thousand (\$50,000.00) Dollars with regard to the sale portion of this Easement, for no consideration with regard to the charitable contribution portion of this Easement, in consideration of the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the State of South Carolina and Sections 170(h) and 2031(c) of the Code, **Grantor** hereby voluntarily deeds and conveys to **Grantee** a conservation easement *in perpetuity* over the Property of the nature and character and to the extent hereinafter set forth (the "Easement"); and, in recognition thereof, the **Parties** declare and agree that the Property shall be held, transferred, sold, conveyed and occupied subject to the covenants, conditions, restrictions and easements hereinafter set forth, which covenants, conditions, restrictions shall be deemed to run with the land *in perpetuity* and shall be a burden on the Property *in perpetuity*.

### **STATEMENT OF CONSERVATION PURPOSE AND INTENT.**

**Conservation Purpose.** The purposes (referred to herein as the "Conservation Purpose") of this Deed and Easement, as defined in Section 170(h)(4)(A)(ii) and (iii) of the Code, shall be and are as follows:

*"The protection of a relatively natural habitat of...fish, wildlife, or plants or similar ecosystem; and*

*The preservation of open space (including farmland and forest land) where such preservation is (I) for the scenic enjoyment of the general public, or (II) pursuant to a clearly delineated Federal, State or local governmental conservation policy, and will yield a significant public benefit."*

**Intent.** The intent of the Parties is to convey, accept and maintain perpetual limitations, restrictions and conditions on the uses that may be made of the Property by way of this Easement, so that: (i) the Property is perpetually preserved and protected from development other than agricultural development; (ii) the Conservation Interests herein are enforceable *in perpetuity*, in accordance with the provisions of Treas. Reg. Section 1.170A-14(g); and (iii) the Conservation Interests are satisfied in a manner consistent with clearly delineated conservation and agricultural programs, purposes, policies and statutes.

### **GRANTEE'S WARRANTIES, REPRESENTATIONS AND CERTIFICATIONS.**

**Property Deemed Worthy of Protection for Conservation Purpose.** **Grantee** warrants, represents and certifies that it has evaluated the Property and that the Property is deemed worthy of protection in accordance with the Conservation Purpose stated herein.

**Consideration Limited to Cash Amount Paid by Grantee to Grantor.** **Grantee** warrants, represents and certifies that the cash amount of \$50,000 paid to **Grantor** constitutes the entire consideration provided by **Grantee** to **Grantor** with regard to the sale portion of this Easement. **Grantee** further warrants, represents and certifies that, (i) there has been, is and shall be no *quid pro quo*, goods, services or other consideration provided to the **Grantor** by or from the **Grantee**, its affiliates or

assigns with regard to the charitable contribution portion of this Easement and (ii) **Grantee** will provide **Grantor** with a separate letter so stating, pursuant to the requirements of Section 170(f)(8) of the Code.

**Terms of Easement in Accord with Grantee's Policies, Rules & Regulations.** **Grantee** warrants, represents and certifies that the terms of this Easement, including but not limited to the determination and amount of consideration paid by **Grantee** to **Grantor** as described herein, are pursuant to and in accordance with current policies, rules and regulations promulgated by the **Grantee**.

**Acceptance of Terms, Rights and Obligations of Easement.** By execution of this Deed, **Grantee** warrants, represents and certifies that it accepts the terms, conditions and limitations of this Easement and the rights and obligations recited herein.

**Commitment and Resources to Enforce Terms of Easement.** By accepting the terms, rights and obligations of this Easement, **Grantee** warrants, represents and certifies that **Grantee** has the commitment and resources to enforce, and will enforce the terms of this Easement.

#### **GRANTEE'S RIGHTS AND REMEDIES.**

To accomplish the purpose and intent of this Easement, the following rights and remedies are conveyed to **Grantee** by this Easement:

**Preservation and Protection of Conservation Purpose.** The right to preserve and protect the Conservation Interests of the Easement in accordance with the provisions of Treas. Reg. Section 1.170A-14(g)(5), to wit:

**Grantor's Documentation Prior to Donation.** **Grantor** shall make available to **Grantee**, prior to the time the donation is made, maps and materials sufficient to establish baseline documentation and the condition of the Property (the "Baseline Documentation") at the time of the gift. [See generally, Treas. Reg. Section 1.170A-14(g)(5)(i), and *Section 5(R)* herein.]

**Grantor's Notification to Grantee; Certain Terms of Donation.** **Grantor** shall agree to notify **Grantee**, in writing, before exercising any reserved right that may have an adverse impact on the Conservation Interests herein; and the terms of the donation shall provide for the **Grantee's** rights (i) to enter the Property at reasonable times to inspect the Property to determine if there is compliance with the terms of the donation, and (ii) to enforce the conservation restrictions by appropriate legal proceedings, including but not limited to, the right to require the restoration of the Property to its condition at the time of the donation. [See generally, Treas. Reg. Section 1.170(A)-14(g)(5)(ii) and *Sections 3(B)-(F)* herein.]

**Assurance that Use is Consistent with Conservation Interests and Prevention of Inconsistent Uses.** The right to determine that any activity on or use of the Property is consistent with the Conservation Interests of this Easement, as well as the right to prevent **Grantor** or third parties from conducting any activity or use inconsistent

with the Purposes herein. **Grantee** shall specifically have the right, and **Grantor** hereby acknowledges such right, to enforce the purpose, terms and restrictions of this conservation easement against third parties with or without the permission of the **Grantor**.

**Visual Access.** The right of visual access across the Property, *provided, however*, said right (i) shall not be construed to permit physical access by the general public to, over, across or upon the Property, (ii) shall not expand the **Grantee's** right of entry and physical access to or over the Property as described in *Section 3(D)*;

**Physical Access, Entry and Quiet Enjoyment.** The right to enter the Property in a reasonable manner and at reasonable times, solely in order to monitor compliance with the provisions of the Easement; *provided, however*, such entry shall be upon prior reasonable written notice (i.e., not less than seven days prior written notice) to **Grantor**; *provided further*, **Grantee** shall not interfere with the use and quiet enjoyment of the Property by **Grantor** or **Grantor's** guests, invitees and licensees; *provided further*, such access/entry shall be limited to **Grantee's** passage or transit over that certain easement/corridor designated "Protected Property Access/Entry," and described and illustrated on the baseline map captioned "The Oldfield on Cabin Branch Plantation" and attached to and made a part of *Exhibit A* of this Easement, which access/entry shall be a permanent, non-exclusive easement and right-of-way conveyed to **Grantee** and its successors for the purpose of providing **Grantee** access/entry from Lower Richland Boulevard to the Property; and the **Parties** hereby agree that **Grantee's** use of such access/entry shall be for the sole purpose of **Grantee's** monitoring and enforcing this Easement.

**Grantee's Remedies.** If **Grantee** determines that **Grantor** is in violation of the terms of this Easement or that a violation is threatened, the **Grantee** shall notify the **Grantor** of the violation (hereinafter, "First Notice") and request voluntary compliance. In the event that voluntary compliance is not agreed upon within sixty (60) days of receipt of First Notice, the **Grantee** shall give written notice to **Grantor** of such violation (hereinafter, "Second Notice") and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the Conservation Interests herein, to restore the portion of the Property so injured.

If **Grantor** fails to cure the violation within thirty (30) days after receipt of Second Notice thereof from **Grantee** [or under circumstances where the violation cannot reasonably be cured within a thirty (30) day period, if **Grantor** shall fail to begin curing such violation within said thirty (30) day period, or fail to continue diligently to cure such violation until finally cured], **Grantee** may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation *ex parte* as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement, including damages for the loss of the Conservation Interests, and to require the restoration of the Property to the condition that existed prior to any such injury. Without limiting **Grantor's** liability therefore, **Grantee**, in its sole discretion, may either apply any damages recovered to the cost of undertaking any

corrective action on the Property or may apply any damages recovered towards activities relating to Richland County's conservation easement program.

If **Grantee**, in its sole but reasonable discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Interests herein, **Grantee** may pursue its legal and equitable remedies under this *Section 3(E)* without prior notice to **Grantor** or without waiting for the period provided for cure to expire.

**Grantee's** rights under this *Section 3(E)* apply equally in the event of either actual or threatened violations of the terms of this Easement. **Grantor** agrees that if **Grantee's** remedies at law for any violation of the terms of this Easement are inadequate, **Grantee** shall be entitled to seek the injunctive relief described in this *Section 3(E)*, both prohibitive and mandatory in addition to such other relief to which **Grantee** may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. **Grantee's** remedies described in this *Section 3(E)* shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

If **Grantee** prevails in an action to enforce the terms of this Easement, any costs incurred by **Grantee** in enforcing the terms of this Easement against **Grantor**, including without limitation, costs of suit and reasonable attorney's fees, and any reasonable costs of restoration necessitated by **Grantor's** violation of the terms of this Easement, shall be borne by **Grantor**.

#### **GRANTOR'S RESERVED/RETAINED RIGHTS.**

The following rights, uses and activities of the **Grantor** with regard to the Property (collectively the "Reserved Rights"), some of which are currently not being exercised or conducted but which are or may be contemplated by **Grantor** for implementation in the future, shall be and hereby are specifically retained by and reserved unto the **Grantor** and the **Grantor's** successors, personal representatives, heirs, and assigns; *provided, however*, the Reserved Rights shall be exercised in a manner that is in full accordance with and subject to the provisions, limitations and restrictions of this Easement, including but not limited to the provisions which protect the Conservation Interests associated with the Property, and all applicable local, state and federal laws and regulations, including but not limited to Treas. Reg. Section 1.170(A)-14(g)(5). Therefore, subject to the Conservation Interests herein and all other provisions, limitations and restrictions of this Easement, including but not limited to *Section 4(K)* below, **Grantor** reserves/retains the following rights with regard to the Property:

**General.** The rights, uses and activities inherent in fee simple ownership of the Property, including but not limited to the right of continuing private use and enjoyment of the Property. Upon request by **Grantor**, **Grantee** shall not unreasonably withhold any document that may be requested by **Grantor**, including an estoppel certificate or compliance certificate, to certify to the best of **Grantee's** knowledge **Grantor's**



compliance with any obligation of **Grantor** contained in this Easement or otherwise to evidence the status of this Easement.

**Grant, Sale or Other Transfer of Fee Simple Interest.** The right to grant, sell or otherwise transfer fee simple interest in all or a portion of the Property, subject to the subdivision limitations in Section 4(K)(I), and to receive all of the revenues from such transfer.

**Grant, Lease or Other Transfer of Less Than Fee Simple Interest.** The right to grant, lease or otherwise transfer less than fee simple interest(s) in all or a portion of the Property and to receive all of the proceeds from such transfer.

**Non-Commercial Activities.** The right to engage in the following activities and events on the Property:

**Outdoor, Recreational and Educational Activities.** Non-commercial outdoor, recreational and educational activities and events compatible with the Conservation Interests herein, including but not limited to photography, scenic viewing, bird-watching, wildlife observation and feeding, horseback riding, field trials, camping, fishing, hunting, clay and trap field and shooting sports, swimming, boating, cycling, ropes and obstacle courses, hiking, jogging, running, cross-country, softball, volleyball, tennis, archery and other similar non-commercial outdoor events and activities that do not use impervious surfaces and are compatible with the Conservation Interests herein;

**Social, Cultural and Community Activities.** Non-commercial, social, cultural and community activities and events, including but not limited to private gatherings of families and friends.

**Development of Certain Permitted Areas, Buildings, Facilities and Structures.** The right to develop, construct and maintain certain areas, buildings, facilities and related structures on the Property (the “Permitted Structures”), as follows:

**Development Area.** One (1) site located on the west side of Parcel 2-B comprising up to but no more than one (1) acre, (the “Development Area”), which site may include agricultural buildings on pervious or impervious surface (e.g., barn, shed, utility building) and related structures on pervious or impervious surface (e.g., garage, storage building, utilities, well, pump house, dog kennel).

**Permitted Structures.** Permitted Structures must be located on the Property in such a manner as not to negatively impact that public scenic enjoyment of the Property allowed in this Easement. All Permitted Structures and their locations must receive approval from the **Grantee** prior to construction. Permitted Structures may be repaired, reasonably enlarged and replaced in their same locations.

**Minor Structures.** Minor structures intended or used for scenic viewing, bird watching, fishing, hunting (e.g., deer stands and duck blinds), or wildlife observation and feeding, are expressly permitted and are not included in the Development Area, restrictions and limitations herein; *provided, however*, **Grantee** shall be notified of their construction.

**Natural Habitat, Wildlife and Wildlife Habitat Management.** The right to engage in the following activities on the Property, in accordance with the then-current, generally accepted, scientifically-based standards and practices recommended by the U.S. Cooperative Extension Service, U.S. Natural Resources Conservation Service, or other government or private natural resource conservation and management agencies then active:

- (1) **Natural Habitat Management.** Management of habitat in its natural state, including the controlled burning of field and forest brush, the stocking of ponds and creeks, and the planting of native species; and
- (2) **Wildlife and Wildlife Habitat Management.** Management of wildlife and wildlife habitat, including non-commercial hunting and fishing activities.

**Conservation, Preservation and Mitigation Programs.** The right to engage or participate in conservation, preservation and mitigation programs existing now or permitted in the future with regard to any activity or use permitted (or restricted, as the case may be) on the Property under this Easement, including but not limited to credits or other benefits, including but not limited to endangered species credits, water quality credits, wetland mitigation and/or ground water credits. Such participation shall be subject to approval of the **Grantee** and consistent with the Conservation Interests herein.

**Agriculture and Silviculture.** The right to engage or participate in the following uses and activities on the Property:

**Farming, Agriculture and “Agricultural Use(s).”** Farming and agriculture [collectively referred to as “Agricultural Use(s)”] defined and described as follows:

“Agricultural Use(s)” is/are defined as the commercial cultivation, production (organic and conventional), planting, gathering, harvesting, storage, sale, distribution or retail marketing of crops, including but not limited to field and grain crops, fruits and citrus, horticultural specialties, trees and timber.

“Agricultural Use(s)” is/are further defined to include agricultural practices such as (i) the pasturing, grazing, feeding, breeding and raising of livestock and the boarding, stabling, exercising, riding, instructing and training of horses, equestrian teams and riders; (ii) the breeding and raising of bees and the harvesting and sale of honey.

The use of agrichemicals, consistent with Federal and State law, in connection with the aforesaid Agricultural Use(s), including but not limited to, noxious weed control, chemical fertilizers, herbicides, pesticides, fungicides and rodenticides, will be permitted, but only in those amounts and with that frequency of application necessary to accomplish agricultural activities permitted by the terms of this Easement and only in accordance with label instructions; *provided, however,* no use of agrichemicals will be made if such use would result in (i) unlawful contamination of any source of water, (ii) any significant impairment of any natural ecosystem or process on the Property, or (iii) violation or breach of federal, state and local statutes and regulations or the Conservation Interests, limitations and restrictions provided in this Easement.

**Silviculture.** Silvicultural uses and activities and the management of timberland in order to establish and maintain healthy stands of commercially viable trees (“Silviculture”) shall be permitted on the Property, including but not limited to tree farming and/or the planting, harvesting, timbering, cutting and selling of pine and hardwood trees. **Grantor** reserves the right to timber, cut,

harvest and sell any tree, in accordance with applicable county, state, and federal regulations, when it is necessary to salvage timber damaged by natural causes, when cutting is necessary to prevent further such damage or personal injury, or when a permitted structure is in danger.

**Conservation Plan.** All agricultural and silvicultural uses and activities on the Property shall be conducted in a manner consistent with a conservation plan prepared by the U.S. Department of Agriculture, Natural Resources Conservation Service, or its successor, or by a qualified conservation professional approved by the Grantee. This plan shall be provided to the Grantee and updated (i) at least once every ten (10) years, (ii) any time the basic type of agricultural or silvicultural operation changes, or (iii) when ownership of the Property changes. **Grantor** and **Grantee** recognize that changes in agricultural technologies, including accepted management practices, may result in an evolution of agricultural activities; and such changes shall be permitted as long as they are consistent with federal, state and local laws, and the perpetual protection of the Conservation Interests described in this Easement.

**Historical, Archeological and Paleontological Activities.** The right to engage in the following activities on the Property:

**Historical Study and Preservation.** Research, study, restoration and preservation of historically important land areas or historic sites.

**Archeological and Paleontological Study and Preservation.** Excavation, digs, research, study and preservation of significant archeological and paleontological sites; *provided, however*, all such excavation, study and preservation shall be conducted in accordance with the prevailing acceptable standards and principles of the science and profession of archeology and paleontology; *provided further*, any archeological or paleontological site shall, upon completion of any excavation, be returned to, or as close as possible to, its previous state, unless the site is to be maintained in an excavated condition for interpretive purposes related to education. Archeological or paleontological structures, artifacts, fossils and objects excavated or discovered on the Property shall be preserved and retained on the Property or shall be transferred, conveyed, sold or donated to a recognized and accredited museum or educational institution. **Grantor's** transfer, conveyance, sale or donation of personal property (other than archeological or paleontological structures, artifacts, fossils and objects) excavated or discovered on the Property, including objects and items of a financial nature, such as jewelry, china, silverware, coins, bullion and other forms of legal tender, shall be permitted; *provided, however*, such personal property, objects and items of a financial nature shall remain the property of **Grantor** until transferred, conveyed, sold or donated.

**Necessary, Incidental and Compatible Uses and Activities.** The right to engage in uses and activities on or adjacent to the Property, which are necessary, incidental to or

compatible with the Conservation Interests described in this Easement, including but not limited to, the following:

**Ordinary Maintenance.** Repairing and performing ordinary maintenance on the structures, access/entry ways, passageways and roadways existing, described, designated, contemplated and permitted under this Easement, without notification to or approval of the **Grantee**; and if any such structure or way shall be destroyed by fire, weather, act of God or neglect, it may be rebuilt upon notification to the **Grantee** and maintained substantially in accordance with the dimensions existing at the time of such destruction and at the same location;

**Certain Structures, Sites, Facilities and Supportive Elements.** Landscaping, designing, building and erecting, repairing, clearing, eliminating, restoring, replacing and maintaining and providing structures, sites, facilities and supportive elements, including tree/hedge/fence rows noted on the Baseline Map, as well as the following existing or future structures, areas/sites and facilities on or adjacent to the Property:

**Fences, Walls, Gates, Entrances and Exits.** Fences, walls, gates, entrances and exits, including private fences, brick walls, hedges, lanes, gateways and entrance and exit ways;

**Landscaped Areas and Sites.** Gardens, orchards, terraces and other landscaped areas and sites, together with the maintenance and improvement (*e.g.*, mowing, pruning, trimming, gardening, etc.) of landscaped areas and sites as shall be necessary;

**Mulch, Fertilizer, Fill Material and Soil Areas.** Not more than three (3) mulch, fertilizer, soil amendments such as lime, fill material, and soil areas or sites on the Property which are intended to and shall provide a location for depositing, storing or housing fill or roadway materials, soil or amended soil, minerals, fertilizers and soil nutrients for general use on the Property, *e.g.*, repairing roads, causeways and dams, and establishing and maintaining landscaped and gardened areas and sites used for non-commercial purposes; *provided, however*, the aforesaid materials, soil areas and/or sites shall not exceed in the aggregate a “ground/foundation footprint” greater than 15,000 square feet and such areas or sites must be located in the rear of the Property so as not to negatively impact the public’s scenic enjoyment of the Property;

**Signage.** Signage indicating the historic, cultural, recreational, agricultural or natural significance of the Property, including its protection under this Easement; and signage giving directional, informational, educational and safety information; *provided, however*, signs shall be placed so as to minimally impact the scenic view as seen from any public roadway; *provided further*, there shall be no billboards or other off-site advertising on the Property;

**Supportive Elements.** Supportive elements which are necessary or incidental to the reasonable, orderly and safe access to and transit on, over or through the Property, or which provide or enhance supportive safety, security and services (e.g., utilities) to or for the benefit of the Property shall be allowed upon approval by the **Grantee**, examples of which supportive elements are as follow:

**Access and Transit Ways.** Pervious access and transit ways, entranceways, gateways, passage-ways, driveways, roads, roadways, parking areas and related structures; *provided, however*, one (1) twenty feet wide pervious or impervious entranceway along the live oak avenue over and through Parcel 2-B from Lower Richland Boulevard to Parcel 2-A (indicated on the Baseline Map and referred to herein as the “Driveway”) shall be permitted to provide for reasonable, orderly and safe access to and transit over, through and upon the Property by automobiles, service vehicles, trucks, tractors, farm machinery and equipment;

**“Low Impact” Access and Transit Ways.** Pervious/permeable small vehicular and pedestrian walking/foot paths, biking paths, jogging paths, equestrian paths and related structures shall be permitted to provide for orderly and safe access to and transit over, through and upon the Property in connection with “low impact,” non-commercial, recreational and outdoor activities, including but not limited to walking, jogging, biking and horseback riding, as well as the operation and use of small electric and gasoline-powered vehicles and carts.

**Conservation Construction Activities on the Property.** Conservation construction activities, including but not limited to the following: (i) protecting, preserving, restoring, repairing, enhancing and improving natural and/or existing pond and watercourses in order to sustain and increase fish, waterfowl, other wildlife and wetland-dependent flora and fauna; and (ii) clearing vegetation and forest cover, excavating, clearing and grubbing soil on the Property, and maintaining, grading and stabilizing roadways and other open spaces and cultivating same to provide food plots and habitat for wildlife; *provided, however*, in connection with construction activities, **Grantor** shall (i) incorporate conservation practices that are consistent with the Conservation Interests of this Easement, and (ii) immediately after construction activities restore any of the Property so disturbed to a condition or state that is better than or reasonably consistent with its pre-disturbed state and consistent with the Conservation Interests of this Easement.

**Ponds, Irrigation and Water Management.** By utilizing sound irrigation and water management techniques recognized by the Parties as beneficial to agriculture, silviculture, fish, waterfowl and/or wetland-dependent flora and fauna, and in order to preserve and enhance the scenic and ecological integrity of the Property, **Grantor** reserves the right to install, maintain and operate water control structures and irrigation systems, and to restore, repair, improve and enhance existing ponds, reservoirs, wetlands, dams, dikes and ditches; *provided, however,* all such activities, irrigation and water management systems and techniques shall be subject to applicable local, state and federal statutes and regulations and shall be constructed, maintained and operated in a manner that is consistent with the provisions of *Section 4(J)(3)* above.

**Consistent and Contemplated Uses and Activities.** The right to engage in any and all acts or uses that are not expressly prohibited herein and that are consistent with the perpetual protection of the Conservation Interests of this Easement, including the right to engage in certain uses, activities and transfers, some of which are not presently being conducted but which are contemplated by Grantor for exercise in the future, including but not limited to the following:

**Division of the Property.** The Property is composed of two parcels designated “Parcel 1-C” and “Parcel 2-B” in *Exhibit A* and illustrated in the Baseline Map included therein and attached thereto. Ownership of the Property by **Grantor’s** successors shall be determined in a manner consistent with an equitable reconfiguration, partition or division of the Property; *provided, however,* successive ownership shall be such that not more than two (2) parcels comprise the entire Property (i.e., the Property now or formerly constituting all of Parcels 1-C and 2-B); *provided further,* any partition, reconfiguration, division, transfer or conveyance described in this paragraph shall be in accordance with and subject to the covenants, conditions, restrictions and limitations set forth in this Easement, which covenants, conditions, restrictions and limitations shall run with the land *in perpetuity* and shall be a burden on the Property and any improvements thereon *in perpetuity*. At a time of reconfiguration, partition or division of the Property, any reserved rights running to the full property shall be allocated to a specific parcel.

**Certain Business Uses and Activities.** The term “business” is used herein in the generally accepted context with regard to the production and sale of crops, fruits and vegetables, timber and animals (e.g., horses and cattle). Business uses and activities in connection with the farming, agriculture and silviculture activities described herein shall be permitted; *provided, however,* business uses or activities shall be compatible with local agricultural zoning ordinances.

**Utility Services and Septic Systems.** Wires, lines, pipes, cables or other facilities providing electrical, gas, water, sewer, communications, or other utility services to existing facilities, structures and the improvements permitted

herein may be installed, maintained, repaired, removed, relocated, and replaced and **Grantee** may grant easements over and under the Property for such purposes. Septic or other underground sanitary systems serving existing facilities, structures and the improvements permitted herein may be installed, maintained, repaired or improved.

### **Inconsistent, Incompatible and Prohibited Uses and Activities.**

**Industrial.** The terms “industry” or “industrial” are used in the generally accepted context of heavy, large-scale manufacturing or factory production of goods. There shall be prohibited on the Property all such industrial uses, activities or structures, and no right of passage or access through or upon the Property shall be allowed or granted if such right of passage is used in conjunction with industrial uses or activities on or near the Property.

**Confined or Concentrated Animal Feeding Operation.** The production operation of animals that concentrates large numbers of animals in relatively small and confined places, and that substitutes structures and equipment (for feeding, temperature controls, and manure management) for open land grazing or feeding, is prohibited.

**Landfill.** There shall be no temporary or permanent landfills on the Property. The retention, placing or burying of non-biodegradable, unusable or discarded items, including but not limited to glass, plastic, vehicle bodies or parts, metal, junk or any non-biodegradable refuse is prohibited; *provided, however,* biodegradable refuse generated on the Property shall be permitted as long as it is handled and disposed in accordance with federal, state and local policies, laws and regulations.

**Mining.** Mining, exploration and recovery of oil, gas, natural gas or minerals is prohibited pursuant to Section 170(h)(5)(B) of the Code.

### **GENERAL COVENANTS.**

**Grantor’s Warranty of Title.** The **Grantor** warrants and represents that **Grantor** is seized of the Property in fee simple and has good right to grant and convey this Easement, that the Property is free and clear of any and all encumbrances, except existing easements of record and prescriptive easements, if any, and that **Grantee** shall have the use of and enjoy all of the benefits derived from and arising out of this Easement, subject to the limitations, conditions and provisions herein.

**Grantor’s Environmental Warranty.** The **Grantor** warrants that it has no knowledge of a release of hazardous substances or wastes on the Property and promises to defend and indemnify the **Grantee** against all litigation, claims, demands, penalties, and damages, including reasonable attorney’s fees, arising from breach of this warranty.

**Third Party Uses and Activities.** The **Grantor** shall keep the **Grantee** reasonably informed as to uses and activities by third parties [*e.g., Grantor’s lessee(s)*] with regard to the Property. The **Grantor** shall see that third parties are fully and



properly informed as to the covenants, restrictions and limitations contained in this Easement with regard to contemplated third party uses and activities.

**Acts Beyond Grantor's Control.** Nothing contained in this Easement shall be construed to entitle **Grantee** to bring any action against **Grantor** for any injury to or change in the Property resulting from causes beyond **Grantor's** control, including, without limitation, fire, hurricane, flood, storm and earth movement, or from any prudent action taken by **Grantor** under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes.

**No Public Access.** No right of access to any portion of the Property is conveyed by this Easement, other than such access as shall be reasonably necessary for **Grantee** to monitor compliance with this Easement.

**Costs, Liabilities and Taxes.** **Grantor** retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep and maintenance of the Property, including but not limited to, clean up or remediation costs due to chemical contamination and the maintenance of general liability insurance coverage.

**(G) Extinguishment and Proceeds; Condemnation.**

(1) **Extinguishment.** If a subsequent unexpected change in the conditions surrounding the property that is the subject of the donation herein can make impossible or impractical the continued use of the property for conservation purposes, the conservation purposes can nonetheless be treated as protected in perpetuity if the restrictions contained herein are extinguished by judicial proceeding and all of the donee's proceeds (determined under the paragraph immediately following this) from a subsequent sale or exchange of the property are used by the donee organization in a manner consistent with the conservation purposes of the original contribution. If sufficient funds are not available for **Grantee** to be paid its entire proportionate share out of the proceeds, or if for any other reason **Grantee** is not paid its entire proportionate share, **Grantee** has the right to recover such deficiency (including the right to record a lien to secure its recovery of such deficiency) from the record owner of the Property at the time of such sale. In the event of extinguishment of this Easement in whole or in part, the provisions of this paragraph shall survive such extinguishment. [*See generally*, Treas. Reg. Section 1.170A-14(g)(6)(i).]

(2) **Percentage Interest in and Proportionate Share of Proceeds.** For purposes of this paragraph, the **Parties** hereto stipulate that, as of the Effective Date of this Deed, the Easement and the donation of the perpetual conservation restrictions in the Property give rise to a restricted fee interest in the Property, immediately vested in the **Grantee**, and represent a percentage interest in the fair market value of the Property (**Grantee's** percentage interest is referred to herein as **Grantee's** "proportionate share"). The percentage interests of the **Parties** shall be determined by the ratio of the

value of the Easement on the effective date of this Deed (determined pursuant to the provisions of Section 170(h) of the Code) to the value of the Property, without deduction for the value of the Easement, on the Effective Date of this Deed. The **Parties** shall include the ratio of those values with the Baseline Documentation of the Property (on file at **Grantee's** offices) and shall amend such values, if necessary, to reflect any final determination thereof by the Internal Revenue Service or court of competent jurisdiction in any appeal of the final determination by the Internal Revenue Service. For purposes of this paragraph, the ratio of the value of the Easement to the value of the Property unencumbered by the Easement shall remain constant, and **Grantee's** proportionate share of the fair market value of the Property thereby determinable shall remain constant. [*See generally*, Treas. Reg. Section 1.170A-14(g)(6)(ii).]

(3) **Condemnation.** If all or any part of the Property is taken under the power of eminent domain by public, corporate, or other authority, or otherwise acquired by such authority through a purchase in lieu of a taking, **Grantor** and **Grantee** shall join in appropriate proceedings at the time of such taking to recover the full fair market value (without regard to any diminution in value attributable to the Easement) of the interests in the Property subject to the taking and all incidental or direct damages resulting from the taking. Prior to the payment of any expenses reasonably incurred by the **Parties** to this Easement in connection with such taking, **Grantee** shall be entitled to its proportionate share from the recovered proceeds in conformity with the provisions of *Section 5(G)(2)* herein (with respect to the allocation of proceeds). The respective rights of **Grantor** and **Grantee** set forth in this paragraph shall be in addition to, and not in limitation of, any rights they may have at common law. All such proceeds used by **Grantee** shall be used by **Grantee** in a manner consistent with the Conservation Interests of this Easement as of the Effective Date of this Deed.

(H) **Limitations on Amendment.** If unforeseen circumstances arise, including any change or modification to state or federal laws or regulations especially as they relate to the Code, under which an amendment to, or modification of, this Easement would be appropriate to clarify any ambiguities or to maintain or enhance the Conservation Interests herein, **Grantor** and **Grantee** may, by mutual written agreement, jointly amend this Easement; provided that no amendment shall be allowed that will adversely affect the eligibility of this Easement as a “qualified conservation easement” under any applicable laws, including §§170(h) and 2031(c) of the Code and the Treasury Regulations thereunder. Any such amendment shall be consistent with the purposes of this Easement, shall not affect its perpetual duration, shall not permit additional development or improvements to be constructed on the Property other than development or improvements permitted by this Easement on its Effective Date, and shall not have any adverse impact on the perpetual protection of the Conservation Interests herein. **Grantor** and **Grantee** agree to a reasonable consideration of any such proposed amendment, however, neither **Grantor** nor **Grantee** shall be bound to agree to any amendment. Any such amendment shall be recorded in the official land records of Richland County, South Carolina.

- (I) **Benefits and Burdens; Successors and Assigns.** The covenants, terms, conditions, easements, benefits, and burdens of this Easement shall be binding upon and inure to the **Parties** hereto and their respective successors, personal representatives, heirs, and assigns and shall continue as a restriction running in perpetuity with the Property. An owner of the Property shall only be responsible for those violations first occurring on the Property during such owner's ownership, and while still an owner of the Property (although notwithstanding the foregoing, a subsequent owner may also be held responsible for those violations first occurring during another's prior ownership of the Property unless an estoppel or compliance certificate was obtained by such subsequent owner prior to or at the time of the transfer of the Property's ownership to such subsequent owner). In the event of a breach of the terms hereof by the owner or owners of any divided portion of the Property, no owner or owners of any other portion of the Property shall be liable for such breach. Any of the rights herein reserved to **Grantor** maybe exercised by any owner or owners from time to time.

The benefits and burdens of this Easement shall not be assignable by **Grantee**, except and unless (i) if as a condition of any assignment, **Grantee** requires that the terms and conditions of this Easement continue to be carried out in full as provided herein, (ii) the assignee has a commitment to protect and carry out the Conservation Interests herein as well as the resources to enforce the restrictions contained herein, and (iii) the assignee, at the time of assignment, qualifies under §170(h) of the Code, and applicable Treasury Regulations promulgated thereunder, and under State of South Carolina law, as an eligible donee to receive this Easement directly.

- (J) **Transfers; Incorporation by Reference.** **Grantor** agrees to incorporate by reference the terms of this Easement in any deed or other legal instrument by which **Grantor** transfers any interest in all or a portion of the Property, including, without limitation, a leasehold interest. **Grantor** shall give **Grantee** notice of any change of possession, ownership or control of the Property within thirty (30) days of such change, including without limitation notice of any transfer, lease, or sale of all or a part of the Property. The failure of **Grantor** to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

- (K) **Communication.** All notices, demands, requests, consents, approvals, offers, statements, and other instruments or communications required or permitted to be given hereunder (individually or collectively "Correspondence") shall be deemed sufficiently given or rendered only if in writing delivered personally, sent by a nationally recognized overnight courier or sent by United States Postal Service first class certified mail, postage prepaid, return receipt requested, and addressed as follows:

To Grantor:

Theodore J. Hopkins Jr.  
141 Edisto Avenue  
Columbia, SC 29205

To Grantee:

Chair  
Richland County Conservation Commission  
2020 Hampton Street  
Columbia, SC 29204

Or to such other person or place as a **Party** may designate by Correspondence as aforesaid. Correspondence by mail or overnight courier service shall be deemed given on the date of receipt as shown on the return receipt, or receipt or records of the courier service, as the case may be. In the event any such Correspondence is mailed via the United States Postal Service or shipped by overnight delivery service to a party in accordance with this paragraph and is returned to the sender as undeliverable, then such Correspondence shall be deemed to have been delivered or received on the third day following the deposit of such Correspondence in the United States Mail or the delivery of such Correspondence to the overnight delivery service.

- (L) **Effective Date of Deed and Easement.** This Deed of Conservation Easement shall take effect after the signatures of **Grantor** and **Grantee** have been affixed hereto, properly witnessed and probated, and as of the date the Deed is first recorded in the R.O.D. Office for Richland County, South Carolina, which date shall be and is referred to herein as the “Effective Date” of this Deed and Easement.
- (M) **Recordation.** This instrument shall be recorded by **Grantee** in timely fashion in the R.O.D. Office for Richland County, South Carolina, and **Grantee** may re-record it at any time as may be required to preserve the rights herein.
- (N) **Counterparts.** This Deed of Conservation Easement may be executed in several counterparts and by each **Party** on a separate counterpart, each of which when so executed and delivered shall be an original, and all of which together shall, collectively, constitute a single instrument which will not be effective until executed by all **Parties** hereto.
- (O) **Governing Law.** The interpretation and performance of this Deed of Conservation Easement shall be governed by the laws of South Carolina.
- (P) **Reasonableness Standard.** **Grantor** and **Grantee** shall follow a reasonableness standard and shall use their best efforts to make any determinations that are necessary or are contemplated to be made by them (either separately or jointly) under this Easement in a timely manner, and shall cooperate with one another and shall take all other reasonable action suitable to that end.
- (Q) **Severability; Liberal Construction.** If any provision of this Deed or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of this Deed shall not be affected thereby. Any general rule of construction to the contrary notwithstanding, if any provision in this instrument is found to be ambiguous, an interpretation consistent with the perpetual

protection of the Conservation Interests of this Deed shall be favored over any interpretation that would be inconsistent with the perpetual protection of the Conservation Interests herein. This Deed shall be construed and interpreted with the intention of conforming to the requirements of Section 170(h) of the Code and SC Code Section 27-8-10, *et seq.*

- (R) **Baseline Documentation.** The **Parties** agree that the Baseline Documentation made available to the **Grantee** provides an accurate description and representation of the Property and establishes the condition of the Property as of the Effective Date, so that (i) the Conservation Interests of this Deed and Easement are satisfactorily carried out and maintained in perpetuity, and (ii) future uses of the Property are properly monitored in order to ensure compliance with the terms therein and with Treas. Reg. Section 1.170A-14(g)(5). Following execution, the Deed and Easement, including all Exhibits attached thereto, shall be (i) recorded in the R.O.D. Office, Richland County, South Carolina and (ii) retained on file at the **Grantee's** office. The **Parties** agree that in the event a controversy arises with respect to the nature and extent of **Grantor's** use of the Property, in order to assist in the resolution of the controversy, the **Parties** may look beyond the Baseline Documentation, if necessary, to other relevant or material documents, surveys, reports and other evidence showing conditions and use of the Property as of the Effective Date of the Easement.
- (S) **Terminology.** All terms used in this Easement, regardless of the number or gender in which they are used, shall be deemed and construed to include any other number, singular or plural, and any other gender, masculine, feminine, or neuter, as the context or sense of this Easement, any Section, Subsection, or clause herein may require as if such terms had been fully and properly written in such number or gender.

TO HAVE AND TO HOLD, the said Deed and Conservation Easement, unto the said **Grantee** and its successors and assigns forever.

IN WITNESS WHEREOF, **Grantor** and **Grantee** have set their hands to multiple duplicate original copies of this Deed and Easement under seal on the day and in the year evidenced in the Probate below.

**THE REMAINDER OF THIS PAGE LEFT INTENTIONALLY BLANK**

**WITNESSES:**

**GRANTOR:**

\_\_\_\_\_  
(Witness #1)

\_\_\_\_\_  
THEODORE J. HOPKINS JR.

\_\_\_\_\_  
(Witness #2/Notary Public)

STATE OF SOUTH CAROLINA    )  
  )  
COUNTY OF RICHLAND         )

PROBATE

Before me, the undersigned notary public, personally appeared the undersigned witness, who, being sworn, deposed and said that (s)he saw Theodore J. Hopkins Jr. sign, seal and deliver the foregoing Deed of Conservation Easement, and that (s)he, together with the other witness subscribing above, witnessed the execution thereof.

SWORN to and subscribed before me  
this \_\_\_\_ day of \_\_\_\_\_, 2015

\_\_\_\_\_  
(Witness #1)

\_\_\_\_\_  
Notary Public for South Carolina  
My Commission Expires: \_\_\_\_\_

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## EXHIBIT A

### THE PROPERTY

For purposes of this Deed and Easement, the term “Property” is defined as the below described land areas and any improvements thereon owned by Theodore J Hopkins Jr. (the “Grantor” herein), which land areas (i) comprise approximately sixty (60) acres and (ii) are specifically designated “Parcel 1-C” and “Parcel 2-B” on the attached January 12, 2012 Baseline Map, last revised October 15, 2015 and captioned “The Oldfield on Cabin Branch Plantation,” prepared for Theodore J. Hopkins Jr. by Civil Engineering of Columbia, which Baseline Map is attached to and made a part of this Exhibit A, which Exhibit is an integral part of this Deed and Easement. The Property is a portion of and included in a total of one hundred and twenty (120) acres placed under conservation easement in 2013 and 2015, and is described as follows:

- Parcel 1-C**    Est. 33.0 acres, which is a portion of Richland County Tax Map No. 21800-05-13, and which may be further described by reference to pertinent deeds and plats.
- Parcel 2-B**    Est. 27.0 acres, which is a portion of Richland County Tax Map No. 21800-05-16, and which may be further described by reference to pertinent deeds and plats.
- Total:**        Estimated 60.0 acres



## Richland County Council Request of Action

**Subject:**

Solid Waste - Award of Contract for a Comprehensive Audit and RFID RetroFit of All County Garbage and Recycling Roll Carts

## **Richland County Council Request of Action**

**Subject:** Solid Waste - Award of Contract for a Comprehensive Audit and RFID RetroFit of All County Garbage and Recycling Roll Carts

### **A. Purpose**

County Council is requested to approve the award of a contract to BMT Services to perform work over the next few months for the purpose of conducting an audit of all Richland County roll carts. The audit will also include retrofitting all roll carts that do not contain a Radio Frequency ID (RFID) ribbon as well as obtaining a GPS reading at each curbside collection point. The amount of the contract will depend on the total number of carts found at all locations where curbside service is to be provided. Two service areas were audited earlier this year under a separate contract.

### **B. Background / Discussion**

Curbside hauler contracts are paid based on the number of garbage roll carts serviced. An audit has not been performed in recent years. The audit is needed to update our records thus ensuring their accuracy. Our records indicate we have 180,000 roll carts, garbage and recycling, in service at this time.

The GPS reading and RFID ribbon are required for the installation of the new RFID/GPS equipment planned for our hauler trucks coming in 2016 followed by the implementation of the new program for asset management and hauler tracking. In order for the asset management and tracking program to work, each roll cart must be equipped with a RFID ribbon. Some of roll carts already have ribbons assigned.

This project will also allow us to implement a new program throughout the county which improves our ability to better manage our hauler payments, manage roll cart assets and provide far better customer service to our citizens.

### **C. Legislative / Chronological History**

There is no legislative history relative this contract.

### **D. Financial Impact**

It is estimated that the cost of the audit should not exceed \$300,000. However, the Solid Waste Department has funding available for this contract in their FY16 annual budget.

### **E. Alternatives**

1. Approve the award of the contract to BMT Services.
  
2. Do not approve the award of this contract to BMT Services which would leave us with unverified data for making hauler payments and the necessary delay or scraping of our new asset management / hauler tracking program.

### **F. Recommendation**

It is recommended that Council approve the award of contract to BMT Services.

Recommended by: Rudy Curtis  
Department: Solid Waste & Recycling  
Date: November 10, 2015

## G. Reviews

(Please replace the appropriate box with a ✓ and then support your recommendation in the Comments section before routing on. Thank you!)

### Finance

Reviewed by: Daniel Driggers Date: 11/17/15  
✓ Recommend Council approval  Recommend Council denial  
Comments regarding recommendation:

Request is consistent with the budget priorities and funds are available as stated.

### Procurement

Reviewed by: Cheryl Patrick Date: 11/17/2015  
✓ Recommend Council approval  Recommend Council denial  
Comments regarding recommendation:  
Procurement was competitively bid (RC-646-B-2016) – Received 3 responses –BMT  
Services was deemed the lowest responsive and responsible bidder and approved by the  
Solid Waste Director.

### Legal

Reviewed by: Elizabeth McLean Date: 11/18/15  
 Recommend Council approval  Recommend Council denial  
Comments regarding recommendation: Policy decision left to Council's discretion.

### Administration

Reviewed by: Warren Harley Date: 11/20/15  
✓ Recommend Council approval  Recommend Council denial  
Comments regarding recommendation:

# Richland County Council Request of Action

**Subject:**

Request for Easement – Hiller Road

## Richland County Council Request of Action

**Subject:** Request for Easement – Hiller Road

**A. Purpose**

County Council is requested to grant an easement to the City of Columbia 10 feet wide and 49.79 feet in length on the County’s pump station property located on Hiller Road to construct a water main to serve the proposed Hidden Cove Subdivision on Hiller Road.

**B. Background / Discussion**

The Developer Great Southern Homes has a proposed subdivision development called Hidden Cove Subdivision located along Hiller Road in between the Richland County and Lexington County boundary line and being further identified as TMS #R00400-01-03.

The City of Columbia (COC) is requiring the Developer to loop the waterline through the Developers site from where the COC existing line stops at the entrance to the Village at Hilton on Indian Fork Road to the entrance of Ashwood Hills on Hiller Road. The City requires the waterline to be placed in a 10’ private easement outside the Hiller Road right of way. The plans have been examined and approved by the City of Columbia and a Water Supply Construction Permit was issued by SCDHEC on July 17, 2015.

The proposed development was approved by the County’s Development Review Team on September 3, 2015. The proposed sewer plan was reviewed and approved by Utilities staff and a Wastewater Construction Permit was issued by SCDHEC on October 15, 2015.

The easement is located in Richland County District one (1).

**C. Legislative / Chronological History**

This is a staff-initiated request therefore there is no legislative history.

**D. Financial Impact**

There is no financial impact associated with this request.

**E. Alternatives**

1. Approve the ordinance and request to grant easement to the City of Columbia and project will proceed.
  
2. Do not approve and the project will be delayed and will cause the developer additional cost to relocate the proposed waterline.

**F. Recommendation**

It is recommended that Council approve the request to grant easement and project will proceed.

Recommended by: Reynaldo M. Angoluan

Department: Utilities

Date: October 20, 2015

## G. Reviews

### Finance

Reviewed by: Daniel Driggers

Date: 11/18/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: The request is for Council Discretion with no financial impact.

### Procurement

Reviewed by: Cheryl Patrick

Date: 11/18/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: No Procurement activity required. This is for Council's discretion.

### Legal

Reviewed by: Elizabeth McLean

Date: 11/19/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation: Policy decision left to Council's discretion. To the extent that it appears that the City is requesting to be allowed to run a line in the County's designated service area, this seems to be consistent with statutory language which requires City to get the County's consent for such.

### Administration

Reviewed by: Sparty Hammett

Date: 11/20/15

Recommend Council approval

Recommend Council denial

Comments regarding recommendation:

STATE OF SOUTH CAROLINA  
COUNTY COUNCIL FOR RICHLAND COUNTY  
ORDINANCE NO. \_\_\_\_\_-15HR

AN ORDINANCE AUTHORIZING AN EASEMENT TO CITY OF COLUMBIA, SOUTH CAROLINA FOR A WATER MAIN ACROSS LAND OWNED BY RICHLAND COUNTY; SPECIFICALLY A PORTION OF TMS # 01404-01-03.

Pursuant to the authority granted by the Constitution of the State of South Carolina and the General Assembly of the State of South Carolina, BE IT ENACTED BY RICHLAND COUNTY COUNCIL:

SECTION I. The County of Richland and its employees and agents are hereby authorized to grant an easement for a water main to City of Columbia, South Carolina across a portion of Richland County TMS #01404-01-03, as specifically described in the Easement, which is attached hereto and incorporated herein.

SECTION II. Severability. If any section, subsection, or clause of this ordinance shall be deemed unconstitutional or otherwise invalid, the validity of the remaining sections, subsections, and clauses shall not be affected thereby.

SECTION III. Conflicting Ordinances. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION IV. Effective Date. This ordinance shall be enforced from and after \_\_\_\_\_.

RICHLAND COUNTY COUNCIL

By: \_\_\_\_\_  
Torrey Rush, Chair

Attest this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
S. Monique McDaniels  
Clerk of Council

RICHLAND COUNTY ATTORNEY'S OFFICE

\_\_\_\_\_  
Approved As To LEGAL Form Only  
No Opinion Rendered As To Content

First Reading:  
Second Reading:  
Public Hearing:  
Third Reading:

STATE OF SOUTH CAROLINA )  
COUNTY OF RICHLAND )

EASEMENT

For and in consideration of the sum of one (\$1.00) dollar, each to the other paid, the receipt of which is hereby acknowledged, COUNTY OF RICHLAND (also hereinafter referred to as "Grantor") does hereby grant unto the CITY OF COLUMBIA (also hereinafter referred to as "Grantee"), its successors and assigns, a permanent, exclusive easement **ten (10) feet in width**, together with the right of ingress and egress at all times for the purpose of constructing, operating, reconstructing and maintaining a water main and with the right to remove shrubbery, trees and other growth from the easement area provided that the property will be restored as nearly as practicable to its original condition upon completion of the construction and any trees which must be removed shall be moved from the premises, and any damaged shrubbery will be replaced with the same variety from nursery stock, said easement to run through the property which grantor owns or in which grantor has an interest, situate, lying and being:

In the State of South Carolina, County of Richland, near the town of Hilton, located along S/S of Hiller Road, Chapin, SC 29036, and being further identified as a portion of Richland County tax map number 01404-01-03, as shown on tax maps prepared by the office of the Richland County Tax Assessor, 2015 Edition.

A permanent, exclusive easement for a water main, ten (10) feet in width; said easement beginning at the southeastern property corner of the subject property; thence extending therefrom in a southwesterly direction parallel to and abutting the common boundary of the southeastern property line of the subject property and the outer perimeter of the northwestern right-of-way of Hiller Road (S-40-702), for a distance of forty-nine and seventy-nine hundredths (49.79) feet to intersect the southwestern property corner of the subject property; thence terminating. Be all measurements a little more or less.

This easement being more clearly shown and delineated on an easement drawing for Off-Site Water For Hidden Cove, drawing 7 of 9, dated June 30, 2015, prepared by Associated E & S, Inc., for the City of Columbia, South Carolina, and being on file in the office of the Department of Utilities and Engineering, City of Columbia, South Carolina under City File #334-21.

A copy of said easement drawing being attached hereto and made a part hereof as Exhibit "A".

HMG  
EASEMENT #7 OF 9

APPROVED AS TO FORM

NR 8 25 15  
Legal Department City of Columbia, SC



TO HAVE AND TO HOLD the aforesaid rights to the Grantee, its successors and assigns, as aforesaid, forever.

And the Grantor does hereby bind the Grantor and Grantor's successors and assigns to warrant and forever defend all and singular the said premises unto the Grantee, its successors and assigns against the Grantor and Grantor's successors and assigns and against every person whomsoever lawfully claiming, or to claim, the same or any part thereof.

WITNESS the hand and seal of the Grantor by the undersigned this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

WITNESSES:

COUNTY OF RICHLAND

\_\_\_\_\_  
(1<sup>st</sup> Witness Signature) BY: \_\_\_\_\_  
(Signature)

NAME: \_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(2<sup>nd</sup> Witness Signature) TITLE: \_\_\_\_\_  
(Print Title)

STATE OF \_\_\_\_\_ )

ACKNOWLEDGMENT

COUNTY OF \_\_\_\_\_ )

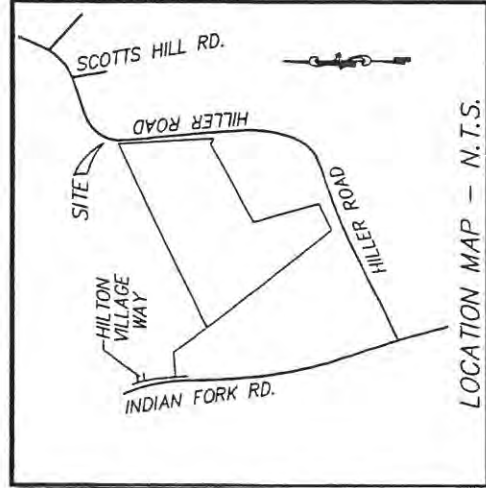
The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2015 by \_\_\_\_\_  
(Name & Title of Officer)  
of \_\_\_\_\_ on behalf of the within-named Grantor.  
(City & State)

\_\_\_\_\_  
(Notary's Signature)

NOTARY PUBLIC FOR THE STATE OF \_\_\_\_\_  
(State)

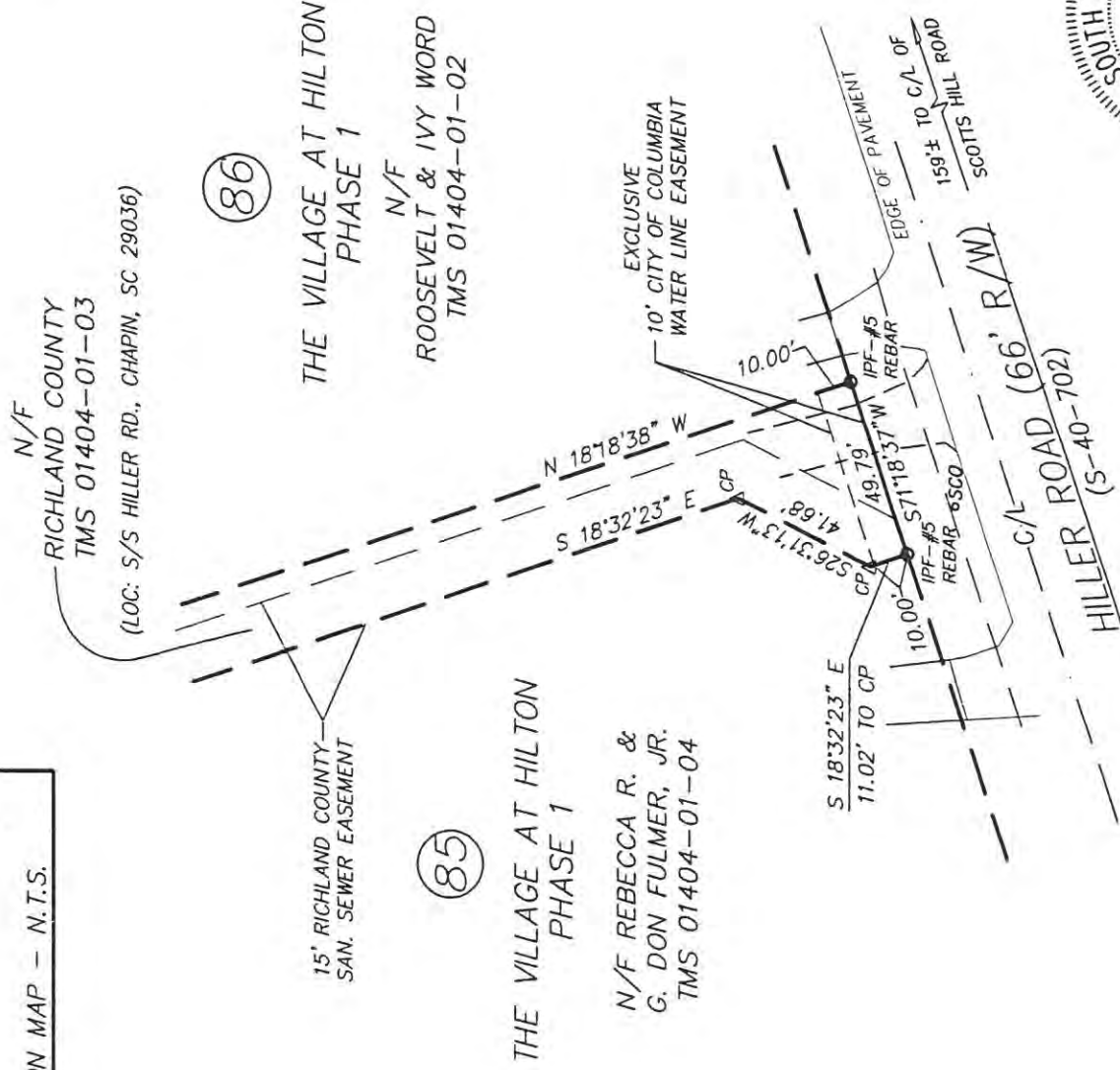
MY COMMISSION EXPIRES: \_\_\_\_\_  
(Date)

**EXHIBIT**



- CP = CALCULATED POINT
- IPF = IRON PIN FOUND
- IPS = IRON PIN SET
- TMS = TAX MAP SHEET
- R/W = RIGHT OF WAY
- N/F = NOW OR FORMERLY
- O/H = OVERHEAD
- WM = WATER METER
- PP = POWER POLE
- TB = TELEPHONE BOX
- CTV = CABLE TV

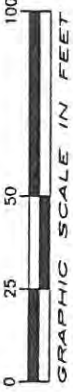
OWNER:  
 COUNTY OF RICHLAND  
 2020 HAMPTON STREET  
 COLUMBIA, SC 29201



OFF-SITE WATER FOR HIDDEN COVE  
 WATER LINE EASEMENT PLAT PREPARED FOR  
**CITY OF COLUMBIA**

SITE LOCATED IN RICHLAND COUNTY, NEAR HILTON, SOUTH CAROLINA

SCALE: 1" = 50'



DATE: JUNE 30, 2015

REFERENCES:

1. RICHLAND COUNTY TAX MAP 01404; 2015 EDITION

CERTIFICATION:

I HEREBY STATE THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR SURVEYING IN SOUTH CAROLINA AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS "B" SURVEY AS SPECIFIED THEREIN.

LARRY W. SMITH, S.C.P.L.S. NO. 3724

**ASSOCIATED E & S, INC.**

A 79-15 g 800 VIOLET STREET, WEST COLUMBIA, SOUTH CAROLINA, 29169 - PH. 791-1550

**ATTORNEY CERTIFICATION**

I, \_\_\_\_\_, an attorney licensed to practice in the State of \_\_\_\_\_ do hereby certify that I supervised the execution of the attached Off-Site Water Easement 7 of 9 for – Hidden Cove with County of Richland as Grantor and the City of Columbia, as Grantee this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_

State Bar Number: \_\_\_\_\_



# CITY OF COLUMBIA

## Department of Utilities and Engineering Division of Engineering

P.O. Box 147 | Columbia, South Carolina 29217  
Phone: 803-545-3400 Fax: 803-988-8199

September 28, 2015

Re: **Revision** - Proposed Water Main Construction  
Plans for Hidden Cove Subdivision; (Hillier Road);  
Power Engineering; Plans dated June 23, 2015;  
City File #334-21 (R-1)

Great Southern Homes  
Attn: Scott Morrison  
90 N. Royal Tower Drive  
Irmo, SC 29063

Dear Mr. Morrison:

**The revisions to the above referenced plans received September 28, 2015 are approved with the conditions of our previous approval letter dated June 29, 2015 remaining in effect.**

The following are the approved revisions:

1. Revisions as shown on the above referenced plans showing an adjustment to the waterline to avoid the utility poles, guy wires and the wall at the entrance to Ashwood subdivision. A fire hydrant was also added at the entrance to Ashwood Subdivision.

Should you require additional information, please feel free to contact Denny Daniels at 545-3243.

Yours very truly,

Denny Daniels  
Utility Reviewer

Cc: David Par P.E., Power Engineering



# CITY OF COLUMBIA

## Department of Utilities and Engineering

### Division of Engineering

P.O. Box 147 | Columbia, South Carolina 29217

Phone: 803-545-3400 Fax: 803-988-8199

June 29, 2015

Re: Proposed Water Main Construction Plans for Hidden Cove Subdivision; (Hillier Road); Power Engineering; Plans dated June 23, 2015; City File #334-21

Great Southern Homes  
Attn: Scott Morrison  
90 N. Royal Tower Drive  
Irmo, SC 29063

Dear Mr. Morrison:

The referenced plans received June 23, 2015 have been examined and are approved with the following exceptions and provisions:

1. Service to property outside the City limits which is not contiguous shall not be provided until a Declaration of Covenant, in such form as approved by the City of Columbia Legal Department, has been properly executed for public recording. The Declaration of Covenant must include, as an exhibit, a current copy of the recorded deed for the property and shall run with the land. Water service to all properties outside of the corporate limits of Columbia is provided subject to approval by Columbia City Council and such rules, regulations and policies as City Council may from time to time establish or amend. Please contact Special Services at 803-545-3400 for more information regarding the Declaration of Covenant.
2. Initial and continued delivery of water service to this property is subject to such ordinances, policies, rules and regulations as the City of Columbia may, from time to time, adopt or amend.
3. All work and materials must conform to City Specifications, latest revision at beginning of construction, and City and County Regulations.
4. The developer must provide the City Engineer forty-eight (48) hours notice prior to beginning construction. It is requested that this notice be given to Angelia Jones at 545-3247. Once the developer's contractor provides a work notice and the City confirms all preconstruction requirements have been met (permits, insurance, etc.), the contractor **must** hold an on-site pre-construction conference with the City inspector (Jeff Jeffers) **prior to** performing any work on the project. The purpose of this meeting is to allow the contractor and **inspector** to review the plans and approval letter, as well as discuss concerns either party may have. **This is a**

**mandatory meeting, no exceptions!** The contractor shall call the inspector at 803-600-8431 to schedule the meeting. The best time to contact the inspector is from 8:00 a.m. - 9:30 a.m.

5. The developer through his engineer must provide the project contractor a copy of this approval letter which must be maintained on the site until construction is completed (permit to operate issued).
6. In the event any of the work related to water on this project is to be performed within public street or road rights-of-way or in an existing City easement by other than City of Columbia forces, indemnification of the City in accordance with **Chapter 11, Article III, Section 11-71** of the City Code is required. Proof of insurance must be provided prior to beginning construction. Should additional information regarding this be required, please contact Ms. Susan Leitner at 545-3250.
7. All grading of areas where water lines are approved for construction must be completed prior to installation of the pipe. If for any reason the grades are changed, thereby reducing the required minimum cover over these lines, the developer shall bear the expense of correcting line depth to that specified by current City Regulations.
8. The developer through his engineer is responsible for conducting final inspections of systems to be deeded to the City for operation and maintenance. Inspections must be coordinated with the Department of Engineering Inspector.
9. The proposed water plans have been submitted to the South Carolina Department of Health and Environmental Control for permitting under the Delegated Review Program.
10. Post hydrants shall be installed on all dead end water mains greater than 200 feet in length. All post hydrants must meet current City Regulations (Part 16, Standard Detail). Where dead-end mains 8" or larger occur, they shall be provided with a hydrant for flushing purposes.
11. The developer shall be responsible for installation of individual services off of the proposed main(s). The developer/builder shall be responsible for maintaining the accessibility, visibility and functionality of all water service lines and water meter boxes until the water meter is installed by the City of Columbia. If the aforementioned requirements are violated, the developer/builder shall be held responsible for all associated costs for installation of new service connection at his own expense including but not limited to the payment for the new tap fee. The City may require the developer/builder to hire an independent contractor to install a new tap, meter box and associated appurtenances solely at his own cost. The developer must obtain a prior approval from City before allowing the contractor to install a tap on the City's active water main. Service will be provided following City acceptance of the water, DHEC granting a permit to operate and the owner's application, execution of Item #1, and payment of appropriate fees.

12. Static pressure will exceed 75 psi at elevations below pipe elevation 434 feet mean sea level. The developer shall be responsible for providing pressure-reducing devices to protect building plumbing systems.
13. The proposed water mains must be deeded to the City of Columbia prior to final acceptance of the system(s) for operation and maintenance.
14. The proposed water mains must be installed in private easements, which must be dedicated exclusively to the City of Columbia. They shall be, granted prior to final acceptance for operation and maintenance by the City and prior to the date the final plat for the subdivision is recorded. All easements required by the City must be shown on the record drawings and the final plat. A copy of the final plat must be submitted with the record drawings.
15. All easements shall be, granted prior to final acceptance of the water mains for operation and maintenance by City and prior to the date the final plat for the subdivision is recorded. All easements required by the City must be shown on the record drawings and the final plat. A copy of the final plat must be submitted with the record drawings. The City has experienced tremendous difficulties with destruction of existing water service fixtures. Therefore, if after payment of tap fees, the City of Columbia forces cannot locate the meter box for services, the developer and/or builder and/or owner will be required to pay an additional tap fee to the City of Columbia in order to facilitate a location/repair of existing service fixtures.
16. For projects being developed under bond, the bonded plat showing all utility easements to be granted to the City of Columbia must be submitted for approval. These easements must be dedicated exclusively to the City prior to final approval of the bonded plat and the selling of individual lots.
17. All water mains below 434 MSL pipe elevation must be ductile iron pipe.
18. All water mains within 15 feet of a proposed or existing building structure must be ductile iron pipe.
19. All water mains 12" and larger shall be ductile iron pipe.
20. **Please note their shall be an 8" water tee installed at the stub location at Ashwood Hill Drive instead of the 8" 90 fitting that is proposed. For more information feel free to contact me.**
21. The City of Columbia reserves the right to request additional easements as needed for access, ingress, egress, operation, maintenance and repair of the utilities to be conveyed to this City of Columbia for this project.
22. Construction plan approval is valid for only three (3) years. In the event improvements have not been completed within that time, plans

must be submitted for approval and shall be subject to ordinances and regulations in effect on that date.

Should you require additional information, please feel free to contact Denny Daniels at 545-3243.

Yours very truly,



Joseph D. Jaco, P.E.  
Director of Utilities and Engineer

DD/dd

cc: David Parr, P.E., Power Engineering (emailed copy)



# Water Supply Construction Permit Bureau of Water



RECEIVED

JUL 27 2015

POWER ENGINEERING CO., INC.

Permission is Hereby Granted To:

GS JACOBS CREEK LLC  
10511 TWO NOTCH RD  
ELGIN SC 29045

for the construction of a distribution system in accordance with the construction plans, specifications, design calculations and the SCDHEC Construction Permit Application signed by David B Parr, Professional Engineer, S.C. Registration Number: 15898.

**Project Name:** HIDDEN COVE S/D **County:** Richland  
**Location:** NEAR INTERSECTION OF HILLER AND INDIAN FORK ROAD

**Project Description:** Installation of approximately 7578 LF of 8" water line, 183 LF of 4" water line, 6 fire hydrants and all necessary appurtenances to serve 72 lots.

**Service By:** Water will be provided by the Columbia City Of (System Number: 4010001).

#### Special Conditions:

1. All construction and materials for this project must conform to the Standard Specifications for the City of Columbia.
2. This construction permit is being issued based on the technical review being provided by the Columbia City Of under the Delegated Review Program. An approval to place in operation will not be granted if there are certain deficiencies that are noted regarding the requirements of R.61-58.

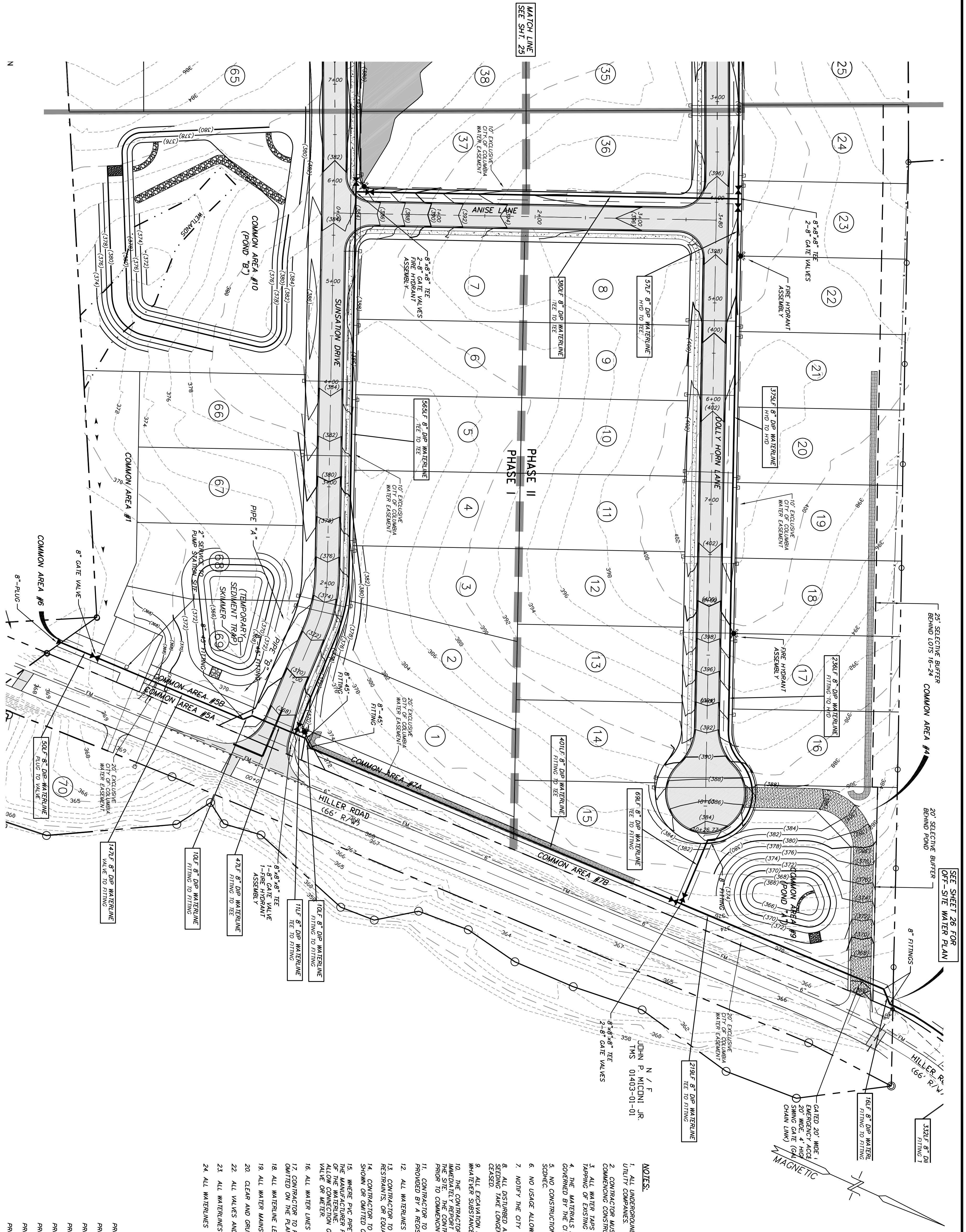
In accepting this permit, the owner agrees to the admission of properly authorized persons at all reasonable hours for the purpose of sampling and inspection.

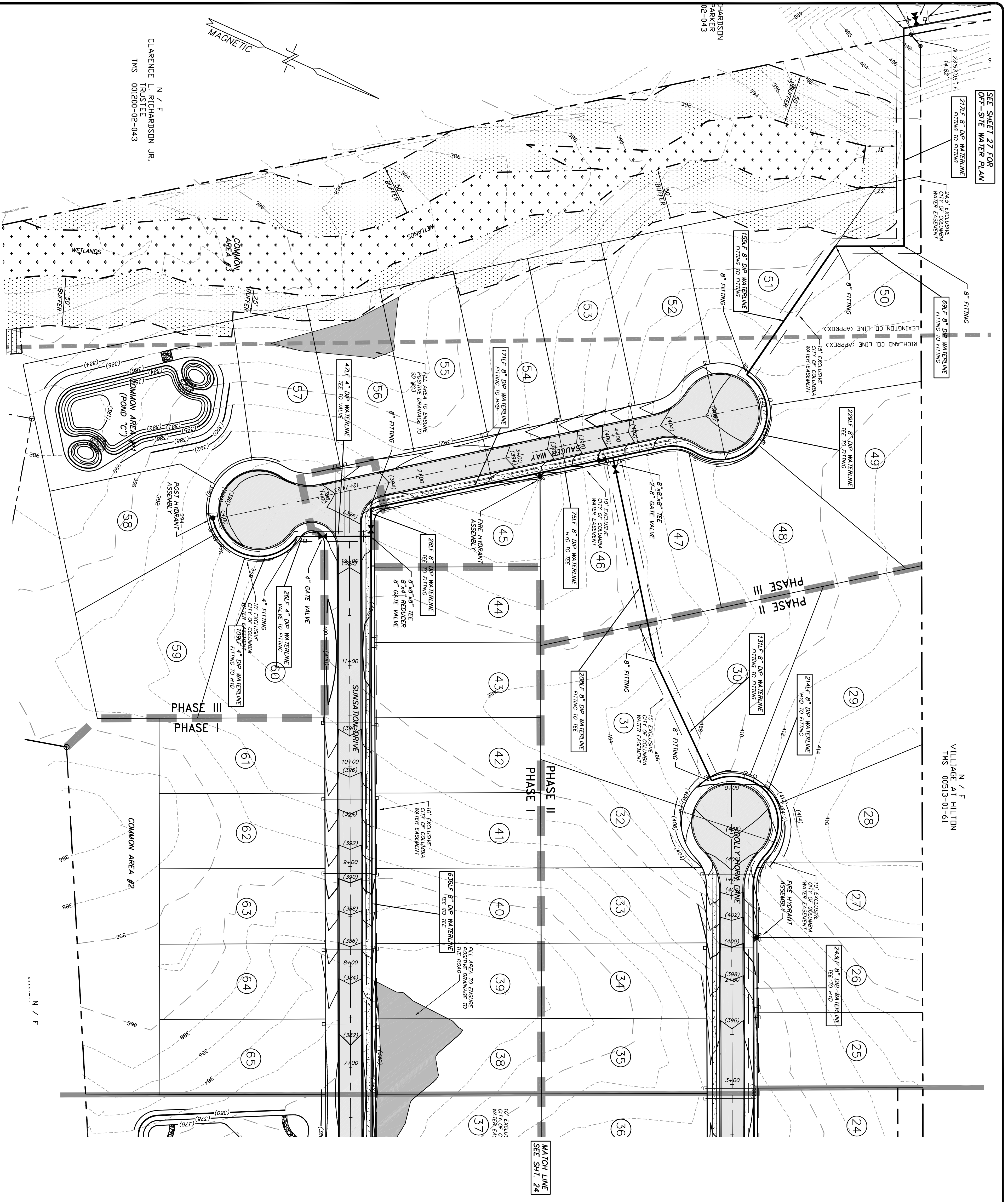
*NOTE: This is a permit for construction only and does not constitute State Department of Health and Environmental Control approval, temporary or otherwise, to place the system in operation. An Approval to Place in Operation is required and can be obtained following the completion of construction by contacting the COLUMBIA EQC OFFICE at 803-896-0620. Additional permits may be required prior to construction (e.g., stormwater).*

**Permit Number:** 30532-WS  
**Date of Issue:** July 17, 2015  
**Expiration Date:** Construction must be completed and the Approval to Place in Operation granted prior to July 17, 2018 or this permit will expire.

Ann R. Clark, Director  
Stormwater, Construction, and Agriculture  
Permitting Division

BMC(DRP)





SEE SHEET 27 FOR  
OFF-SITE WATER PLAN

N / F  
VILLAGE AT HILTON  
TMS 00313-01-61

GRAPHIC SCALE  
( IN FEET )  
1 inch = 50 ft.

N / F  
CLARENCE L. RICHARDSON JR.  
TMS  
001200-02-043

**FLOOD STATEMENT:**  
THE FEDERAL INSURANCE RATE MAP, PANEL #4500720020 K, DATED SEPTEMBER 29, 2010, HAS BEEN REVIEWED AND THE PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD AREA.

**REFERENCE:**  
TOPOGRAPHIC AND WETLAND BOUNDARY INFORMATION TAKEN FROM A SURVEY PREPARED BY ASSOCIATED E & S, INC. POWER ENGINEERING COMPANY ASSUMES NO RESPONSIBILITY FOR THE SURVEY BOUNDARY, TOPOGRAPHIC OR WETLANDS INFORMATION ON THE SURVEY.

**WATER PROVIDER:** CITY OF COLUMBIA  
P.O. BOX 147  
COLUMBIA, SC 29217  
PHONE: (803) 345-3400

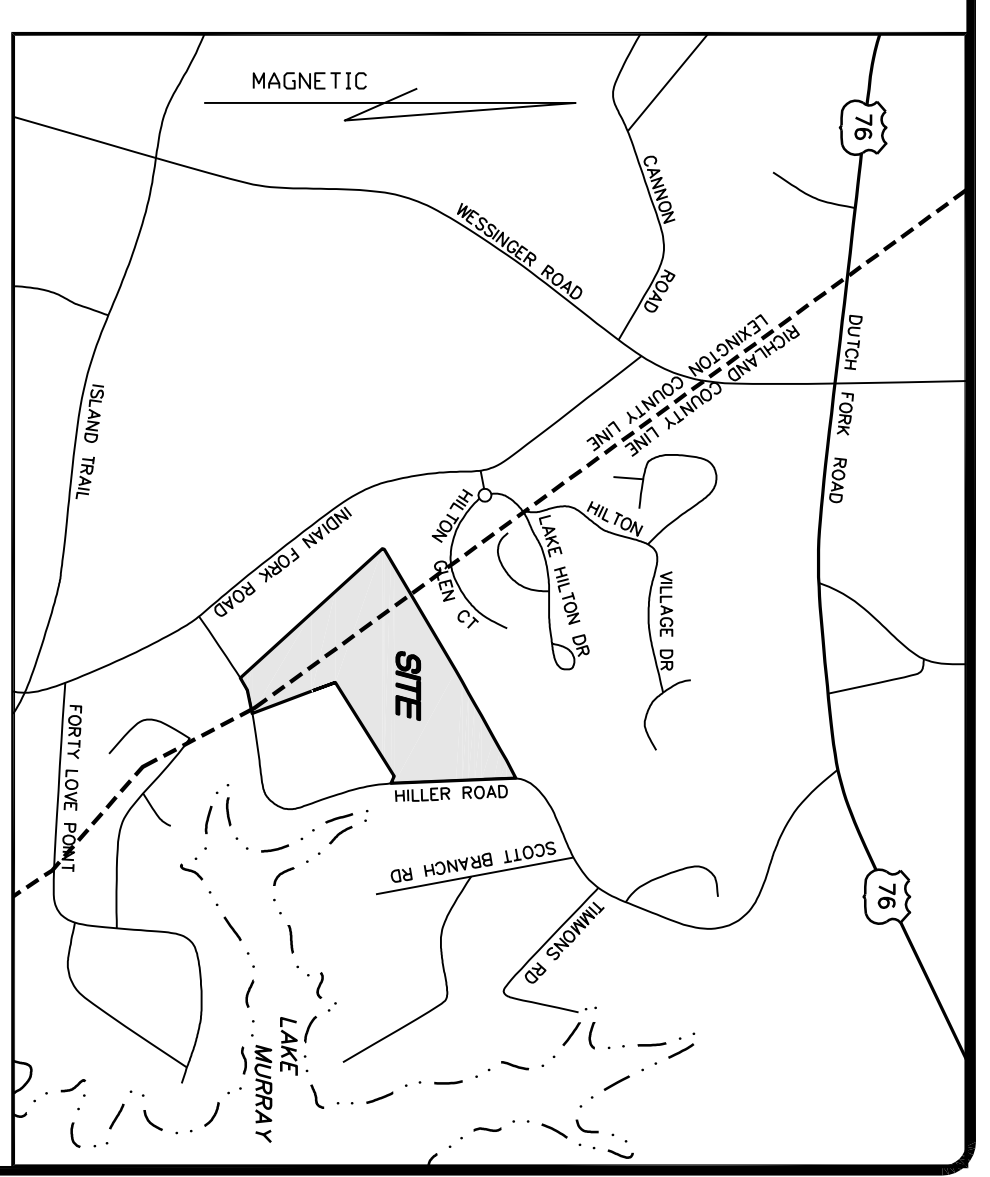
**OWNER:** GREAT SOUTHERN HOMES  
ATTN: SCOTT MORRISON  
90 N. ROYAL TOWER DRIVE  
COLUMBIA, SC 29169  
PHONE: (803) 699-4274  
scott.morrison@gshhomes.com

**ENGINEER:** POWER ENGINEERING COMPANY, INC.  
3229 SUNSET BLVD., SUITE 41  
WEST COLUMBIA, S.C. 29169  
PHONE: (803) 216-8777  
E-MAIL: pep@powereng.net

**TAX MAP AND ZONING INFORMATION**

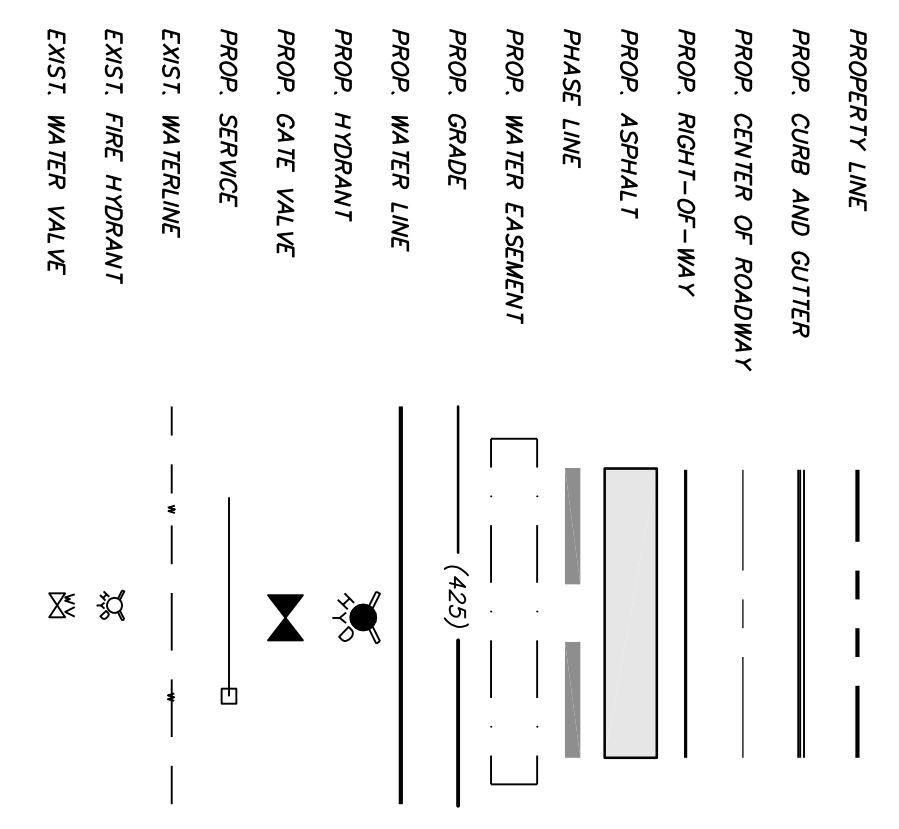
TMS #R00400-01-03  
ZONED: RS-LD

**SITE INFORMATION**  
TOTAL AREA = 37± ACRES  
TOTAL LOTS = 69  
MINIMUM LOT SIZE = 12,005 SQ. FT.  
AVERAGE LOT SIZE = 14,167 SQ. FT.  
(EXCLUDING LOTS 70 AND 71)



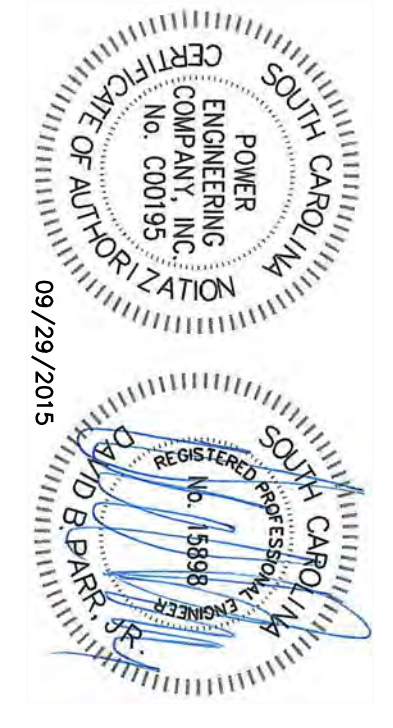
SEE NOTES ON SHEET 24

**LEGEND**



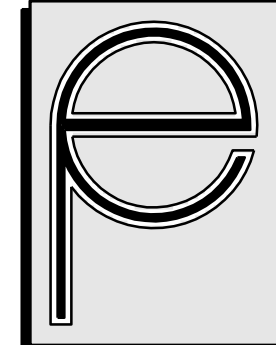
**NOTE:**  
NO VALVES, HYDRANTS, MANHOLES OR STRUCTURES ALLOWED IN ROADWAY.

**NOTE:**  
ALL WATERLINES TO BE DUCTILE IRON PIPE.



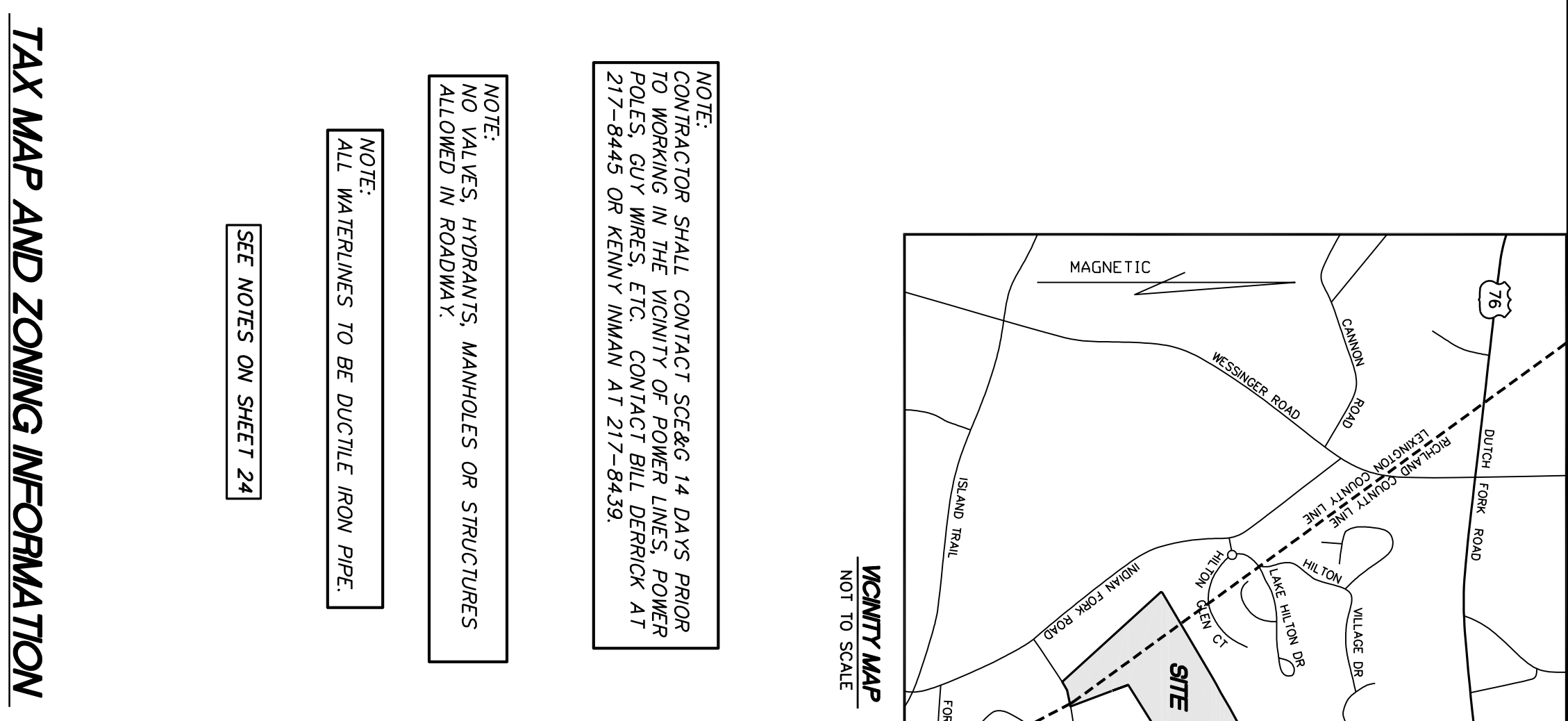
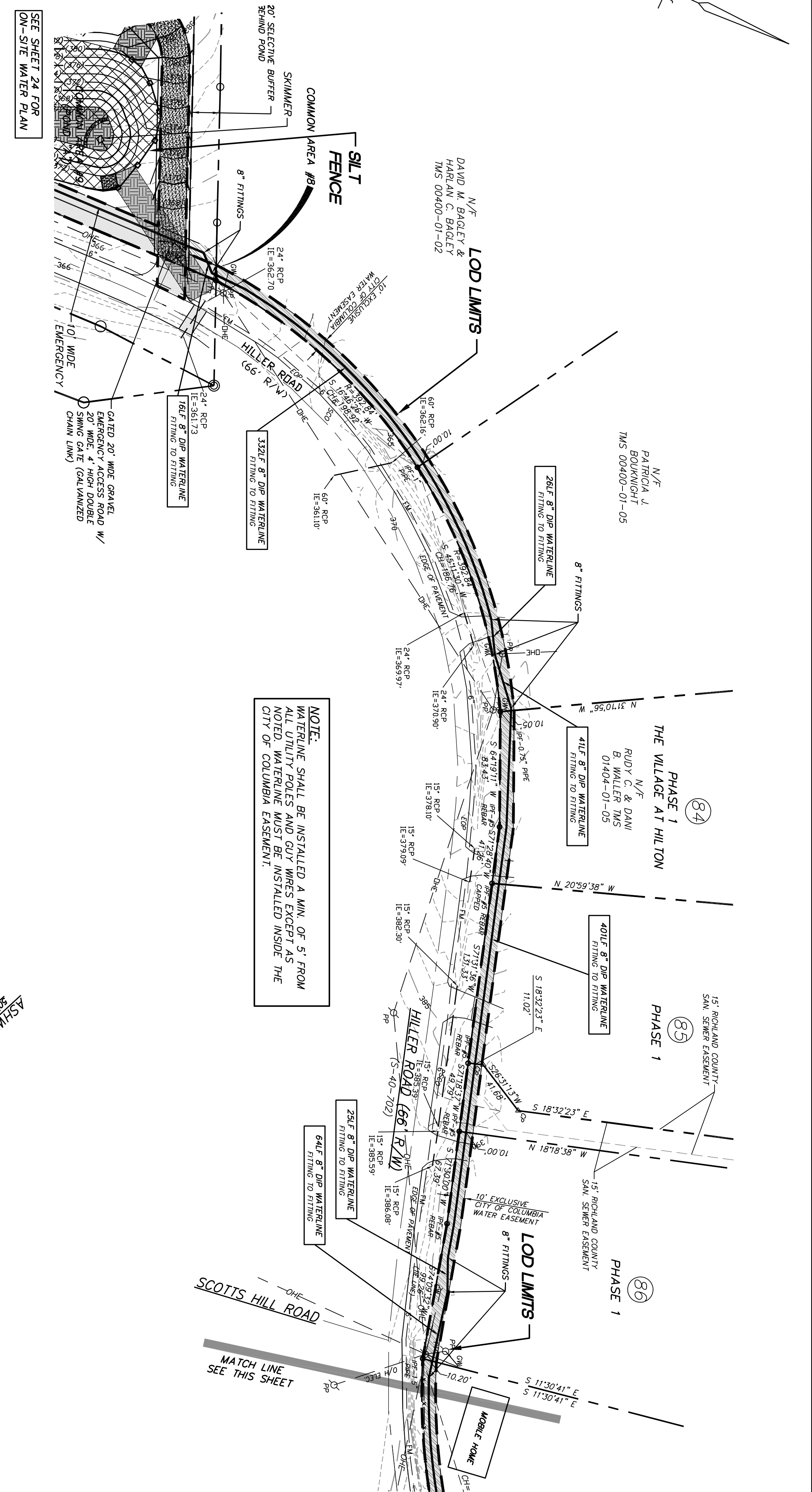
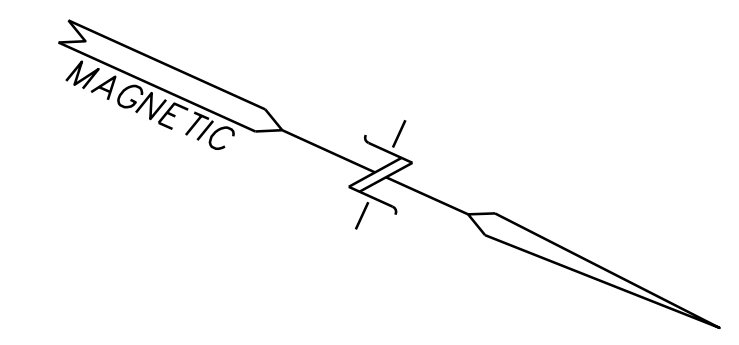
REVISIONS	BY
REVISIONS PER COUNTY	D.H.C.
06/16/15	
REVISIONS BETWEEN DAILY	D.H.C.
07/09/15	
REVISIONS BETWEEN	D.H.C.
08/20/15	

PREPARED BY  
**POWER ENGINEERING COMPANY, INC.**  
ENGINEERS - PLANNERS - SURVEYORS  
COLUMBIA, SC CHARLOTTE, NC



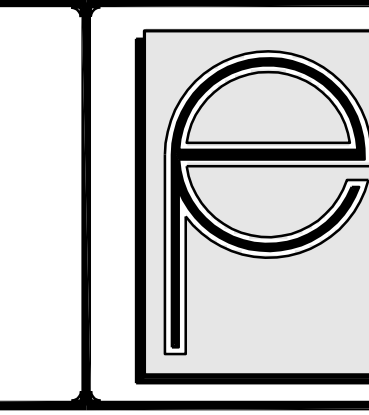
**GREAT SOUTHERN HOMES**  
**HIDDEN COVE SUBDIVISION**  
**WATER DISTRIBUTION PLAN**  
RICHLAND COUNTY, NEAR HILTON, SOUTH CAROLINA

DRAWN	D.H.C.
CHECKED	D.B.P.
DATE	08-10-2015
SCALE	1" = 50'
JOB NO.	3653
SHEET	25
OF SHEETS	38



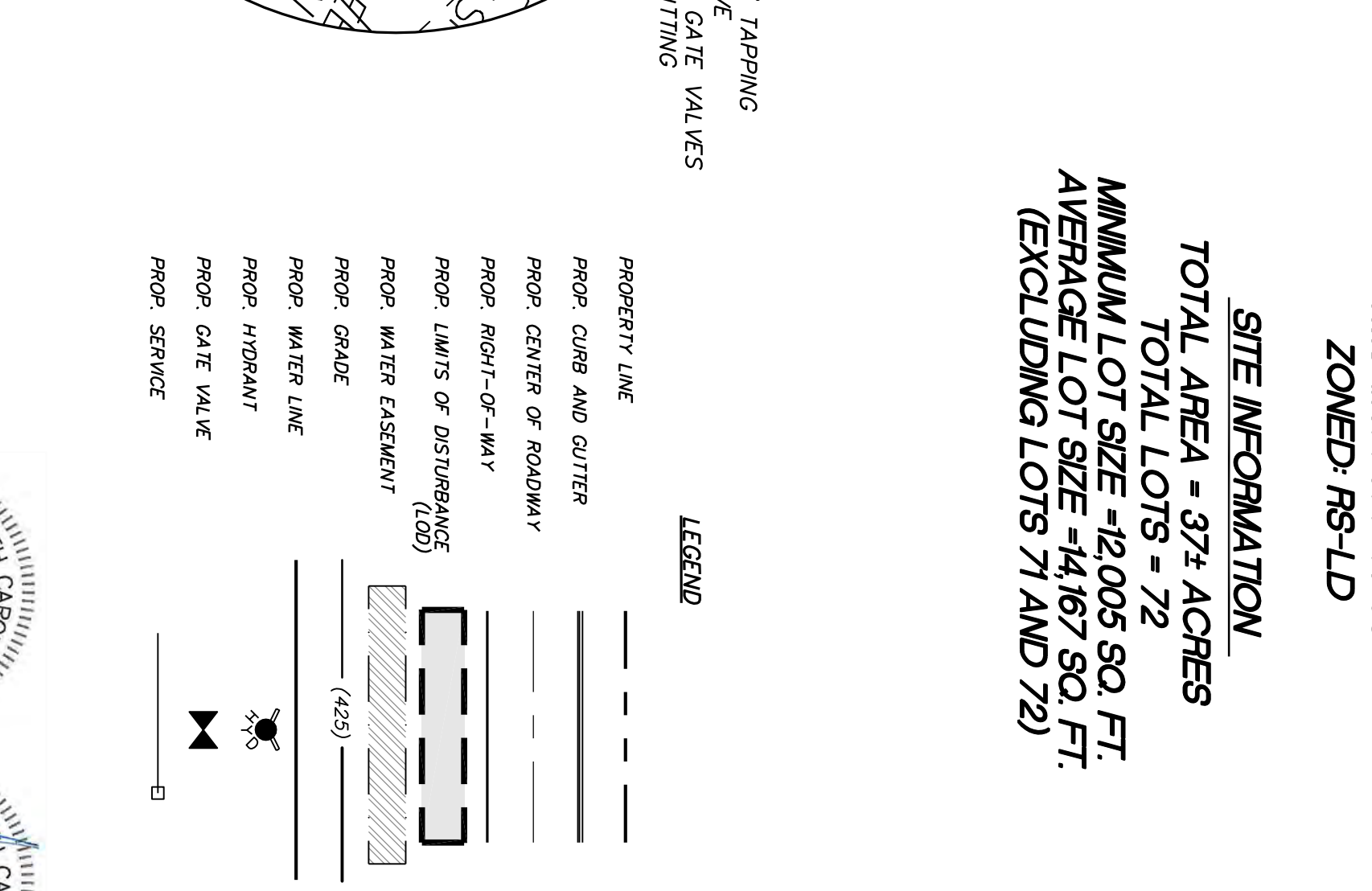
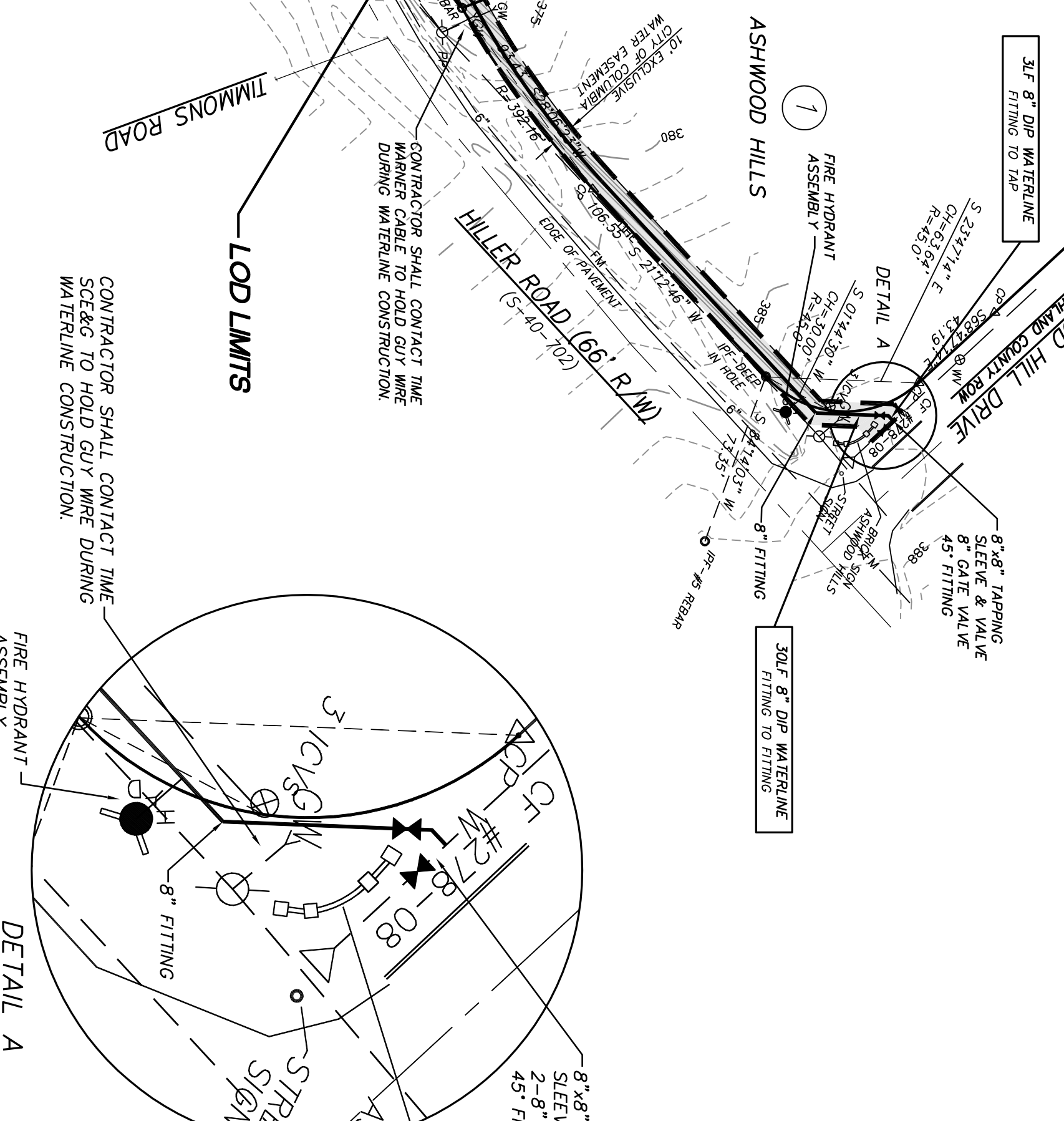
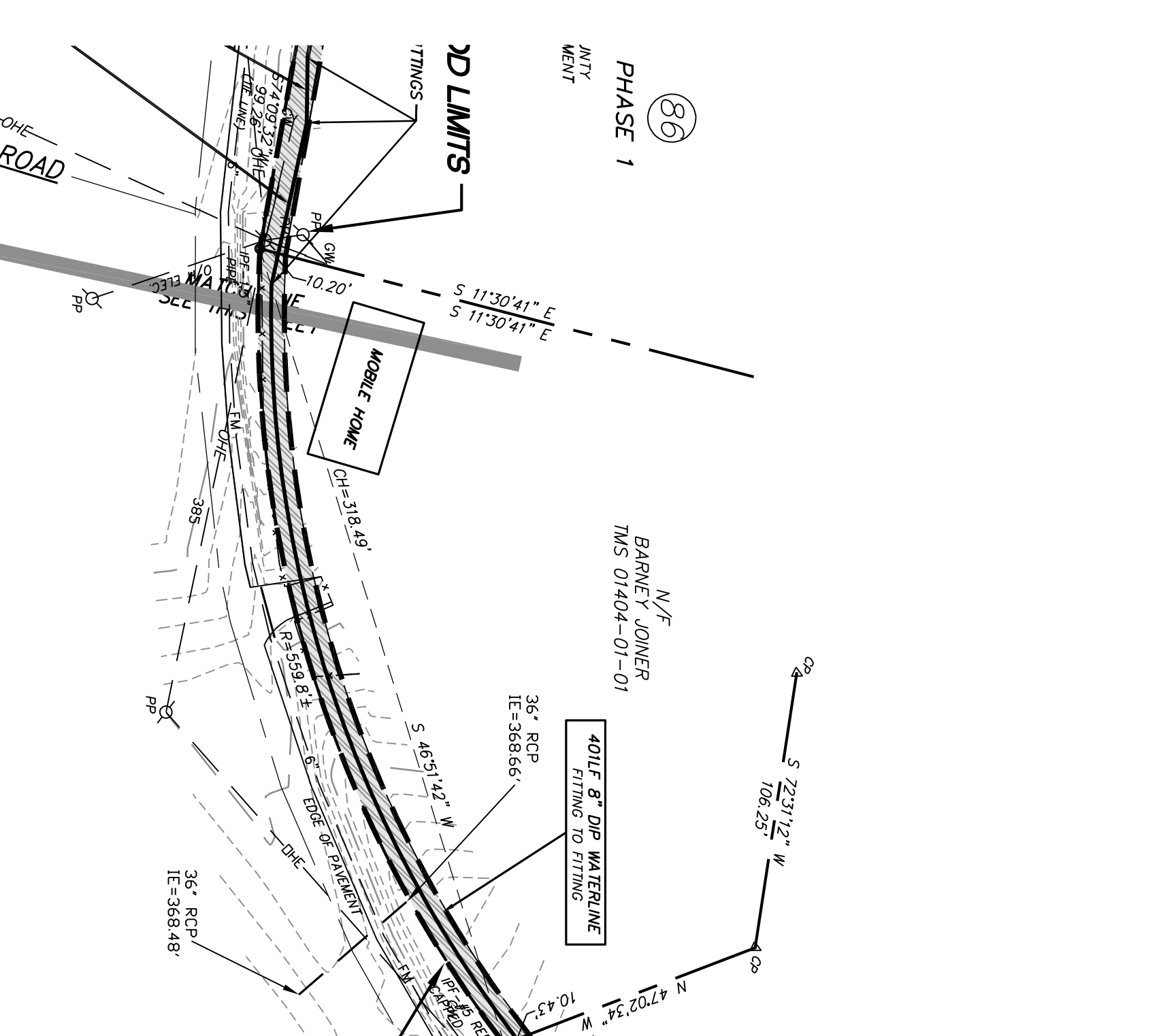
REVISIONS	BY
ADD DRIVEWAY CROSSINGS 05-20-15	D.H.C.
REVISIONS PER COUNTY 08/16/15	D.H.C.
ADDED TORA, STORM DRAIN POWERLINES & FENCES	D.H.C.
REVISED WATERLINE LOCATION TO AVOID UTILITY POLES & OTHER OBSTACLES 08/18/15	D.H.C.

PREPARED BY  
**POWER ENGINEERING COMPANY, INC.**  
 ENGINEERS - PLANNERS  
 COLUMBIA, SC



**REFERENCE:** TOPOGRAPHIC AND WETLAND BOUNDARY INFORMATION TAKEN FROM A SURVEY PREPARED BY ASSOCIATED E & S, INC. POWER ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE BOUNDARY, TOPOGRAPHIC OR WETLAND INFORMATION ON THE SURVEY.

**FLOOD STATEMENT:** THE FEDERAL INSURANCE RATE MAP PANEL #450079G000 K, DATED SEPTEMBER 29, 2010, HAS BEEN REVIEWED AND THE PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD AREA.



**TAX MAP AND ZONING INFORMATION**  
 TMS #R00400-01-03  
 ZONED: RS-LD

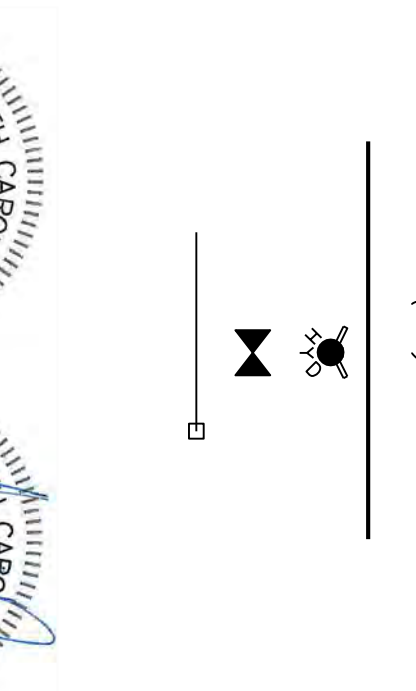
**SITE INFORMATION**  
 TOTAL AREA = 37± ACRES  
 TOTAL LOTS = 72  
 MINIMUM LOT SIZE = 12,005 SQ. FT.  
 AVERAGE LOT SIZE = 14,167 SQ. FT. (EXCLUDING LOTS 71 AND 72)

**LEGEND**

PROPERTY LINE	---
PROP. CURB AND GUTTER	---
PROP. CENTER OF ROADWAY	---
PROP. RIGHT-OF-WAY	---
PROP. LIMITS OF DISTURBANCE (LOD)	---
PROP. WATER EASEMENT	---
PROP. GRADE	---
PROP. WATER LINE	---
PROP. WATER LINE	---
PROP. GATE VALVE	---
PROP. SERVICE	---

**GREAT SOUTHERN HOMES**  
**HIDDEN COVE SUBDIVISION**  
**WATER DISTRIBUTION PLAN**  
 RICHLAND COUNTY, NEAR HILTON, SOUTH CAROLINA

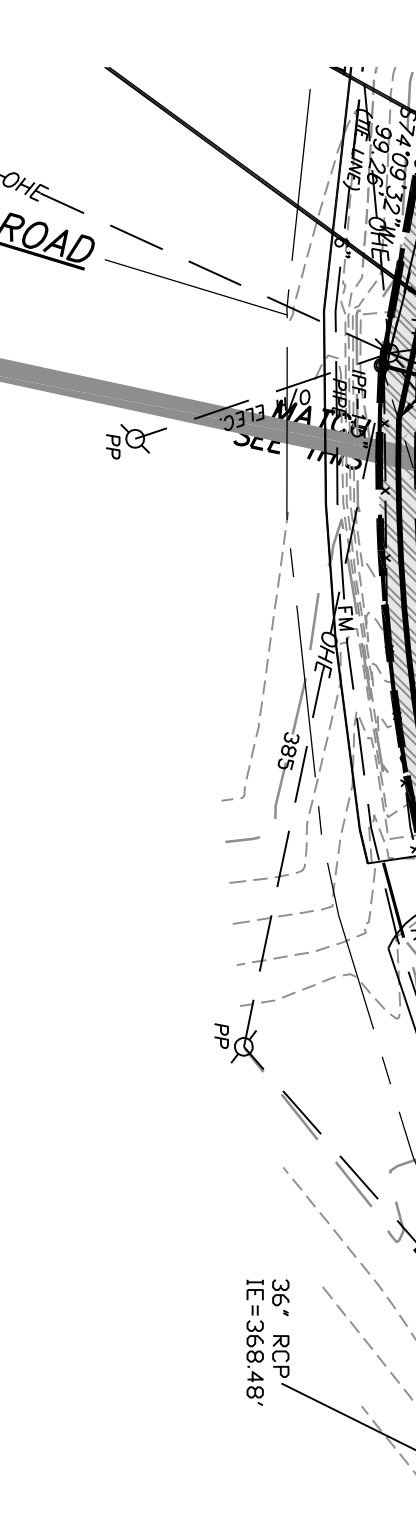
DRAWN	D.H.C.
CHECKED	D.B.B.
DATE	08-10-2015
SCALE	1" = 50'
JOB NO.	3653
SHEET	26
OF SHEETS	38

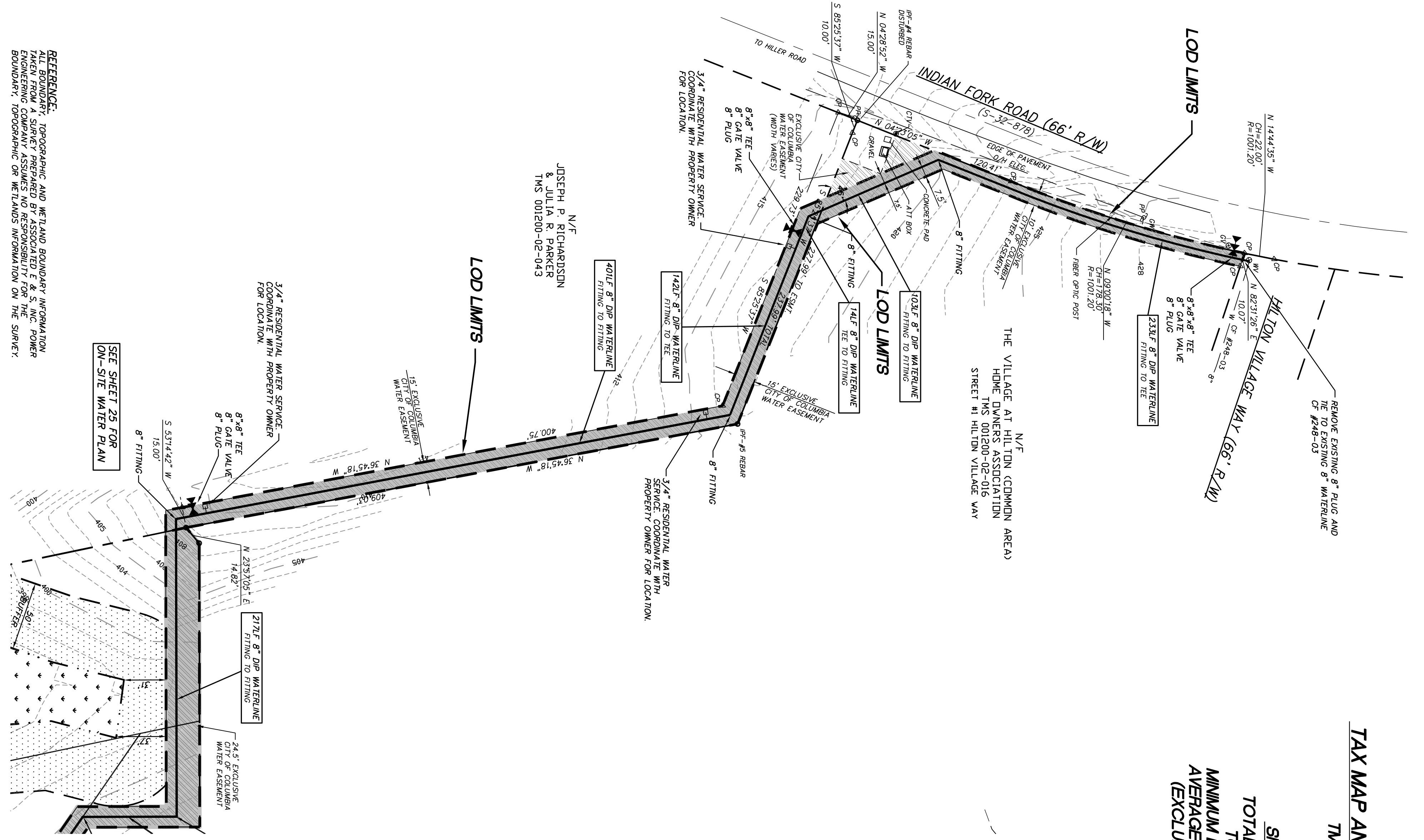
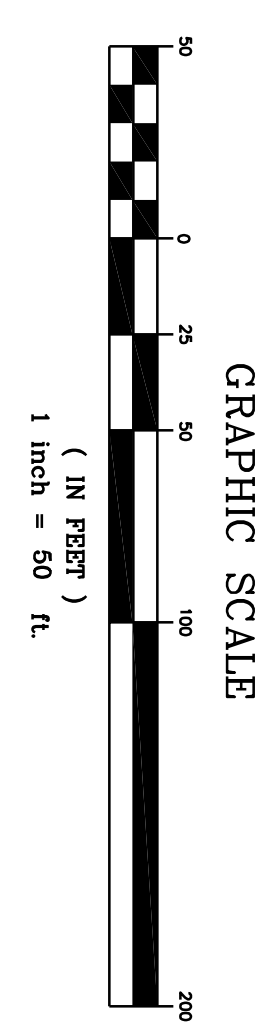
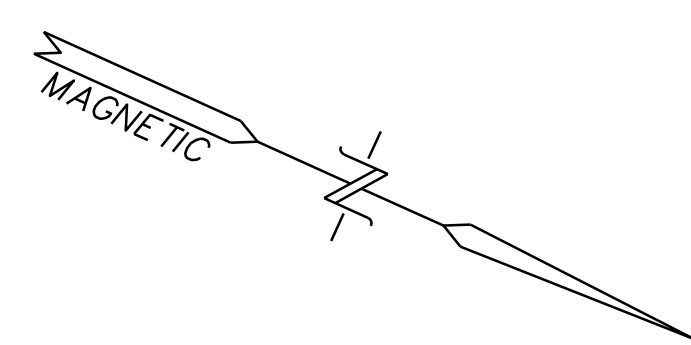


**ENGINEER:** POWER ENGINEERING COMPANY, INC.  
 3229 SUNSET BLVD., SUITE A  
 WEST COLUMBIA, S.C. 29399  
 PHONE: (803) 216-8070  
 FAX: (803) 216-8070  
 EMAIL: doc@powereng.net

**OWNER:** GREAT SOUTHERN HOMES  
 ATTN: SCOTT MORRISON  
 1400 SC 29065  
 PHONE: (803) 599-4734  
 scottmorrison@greatsouthernhomes.com

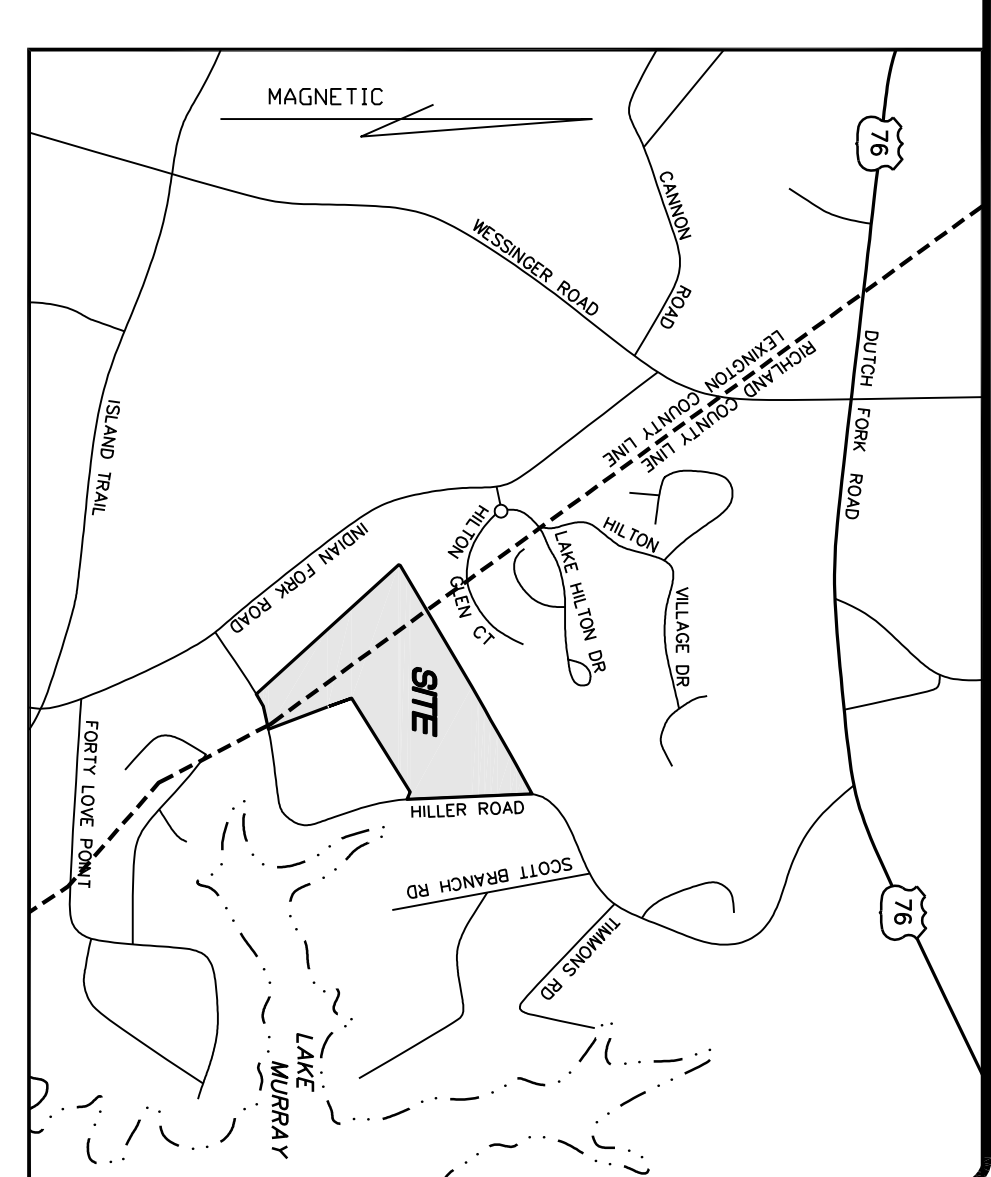
**WATER PROVIDER:** CITY OF COLUMBIA  
 P.O. BOX 147  
 29217  
 PHONE: (803) 545-3400



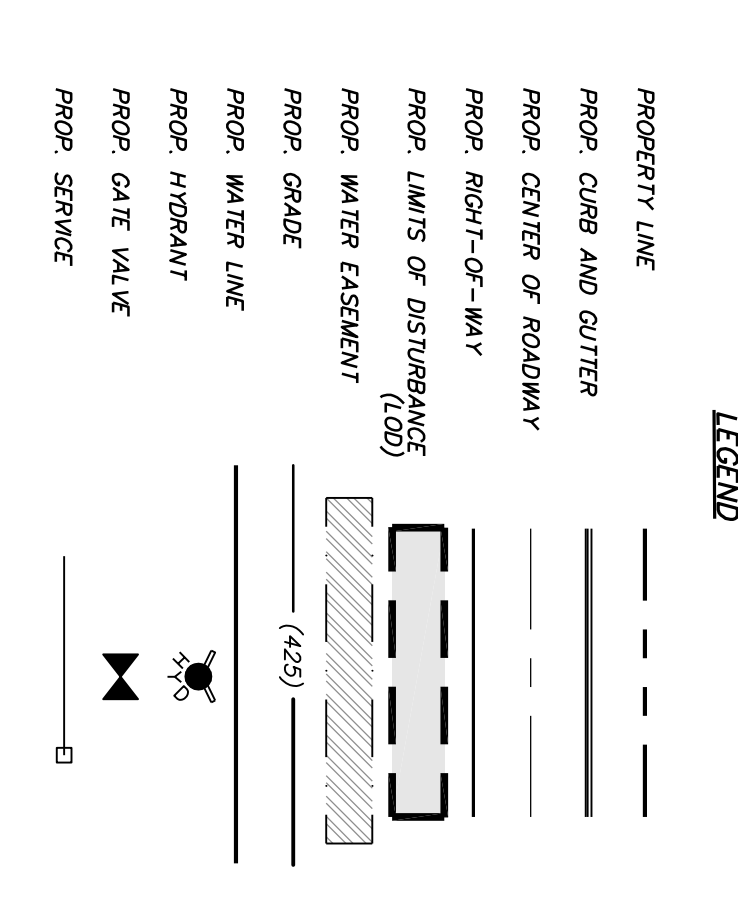


**TAX MAP AND ZONING INFORMATION**  
TMS #R0400-01-03  
ZONED: RS-LD

**SITE INFORMATION**  
TOTAL AREA - 37 1/2 ACRES  
TOTAL LOTS - 72  
MINIMUM LOT SIZE - 12,005 SQ. FT.  
AVERAGE LOT SIZE - 14,167 SQ. FT.  
(EXCLUDING LOTS 71 AND 72)

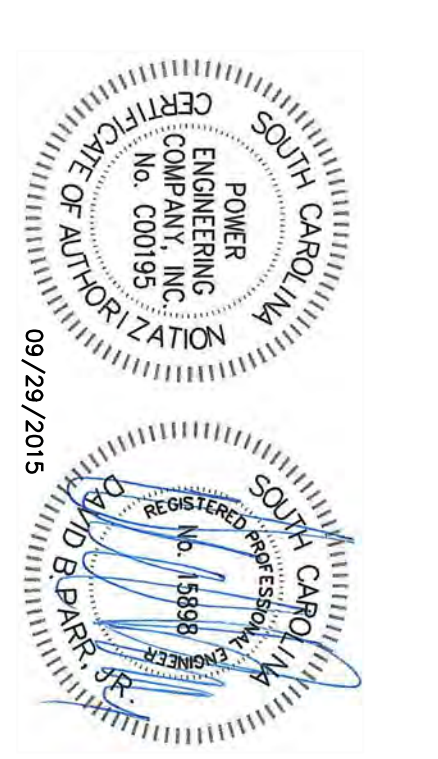


- NOTES:**
1. ALL UNDERGROUND LOCATIONS ARE APPROXIMATE PER DRAWINGS AND LOCATIONS SUPPLIED BY VARIOUS UTILITY COMPANIES.
  2. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. 72 HOURS BEFORE COMMENCING CONSTRUCTION CONTACT UTILITIES AT 1-800-922-0980 FOR UNDERGROUND UTILITIES LOCATION.
  3. ALL WATER TAPS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO COORDINATE ALL TAPPING OF EXISTING WATERLINES WITH THE CITY OF COLUMBIA.
  4. THE MATERIALS AND CONSTRUCTION OF ALL WATER SYSTEM FACILITIES IN THIS PROJECT SHALL BE GOVERNED BY THE CITY OF COLUMBIA STANDARD SPECIFICATIONS.
  5. NO CONSTRUCTION ALLOWED UNTIL CONSTRUCTION PERMITS ARE RECEIVED FROM THE CITY OF COLUMBIA AND SCDHEC.
  6. NO USAGE ALLOWED UNTIL OPERATION PERMITS ARE RECEIVED FROM CITY OF COLUMBIA AND SCDHEC.
  7. NOTIFY THE CITY OF COLUMBIA 72 HOURS BEFORE COMMENCING CONSTRUCTION.
  8. ALL DISTURBED AREAS TO BE SEED AS SOON AS PRACTICALLY POSSIBLE, BUT IN NO CASE SHALL THE SEEDING TAKE LONGER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.
  9. ALL EXCAVATION FOR THIS PROJECT IS UNCLASSIFIED. WHEN EXCAVATING REMOVE ALL MATERIALS OF WASTE SUBSTANCE ENCOUNTERED.
  10. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONSTRUCTION DOCUMENTS AND SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCIES OR OMISSIONS DISCOVERED ON THE PLANS OR AT ANY TIME DURING CONSTRUCTION. THE ENGINEER WILL FIELD MEASUREMENTS TO VERIFY THAT ALL LOCATIONS ARE CORRECT PRIOR TO COMMENCING CONSTRUCTION.
  11. CONTRACTOR TO PROVIDE THE ENGINEER AS-BUILTS OF THE WATER SYSTEM AS-BUILT INFORMATION TO BE PROVIDED BY A REGISTERED LAND SURVEYOR IN DIGITAL FORMAT.
  12. ALL WATERLINES SHALL HAVE 36" (MIN.) COVER.
  13. CONTRACTOR TO USE FITTINGS AS NECESSARY. ALL FITTINGS SHALL BE INSTALLED WITH METALLIC RESTRAINTS, OR EQUAL.
  14. CONTRACTOR TO PROVIDE THURST BLOCKS FOR ALL CONNECTIONS OR CHANGES IN DIRECTION WHETHER SHOWN OR OMITTED ON THE PLANS.
  15. WHERE PVC PIPE IS USED, A CONTINUOUS #12 GAUGE BLUE INSULATED COPPER TRACER WIRE, APPROVED BY THE WATER UTILITIES DEPARTMENT, SHALL BE INSTALLED WITH THE WATERLINE AT A MINIMUM OF 6" ABOVE THE WATERLINE. THE TRACER WIRE SHALL TERMINATE AT EACH VALVE OR METER AND BE ARRANGED TO ALLOW CONNECTION OF EQUIPMENT FOR TRACKING THE PIPE AND PREVENT INTERFERENCE OF OPERATING THE VALVE OR METER.
  16. ALL WATER LINES SHALL GENERALLY BE LAID 3.5' FROM THE PROPERTY LINE OR AS SHOWN.
  17. CONTRACTOR TO PROVIDE A WATER SERVICE LINE AND METER BOX TO EACH LOT WHETHER SHOWN OR OMITTED ON THE PLANS UNLESS OTHERWISE NOTED.
  18. ALL WATERLINE LENGTHS ARE APPROXIMATE.
  19. ALL WATER MAINS SIZE ARE LABELED.
  20. CLEAR AND GRAD AS NECESSARY FOR INSTALLATION OF THE WATERLINE.
  21. ALL VALVES AND BLOWOFFS SHALL BE PLACED OUTSIDE OF PAVED AREAS.
  22. ALL WATERLINES SHALL HAVE A 10' EASEMENT CENTERED ON THE PIPE UNLESS OTHERWISE NOTED.
  23. ALL WATERLINES SHALL HAVE A 10' EASEMENT CENTERED ON THE PIPE UNLESS OTHERWISE NOTED.
  24. ALL WATERLINES TO BE DUCTILE IRON PIPE (DIP).



**OWNER:** GREAT SOUTHERN HOMES  
ATTN: SCOTT MORRISON  
901 N. ROYAL TOWER DRIVE  
COLUMBIA, SC 29207  
PHONE: (803) 599-4734  
scott.morrison@greatsouthernhomes.com

**ENGINEER:** POWER ENGINEERING COMPANY, INC.  
3229 SUNSET BLVD., SUITE A  
WEST COLUMBIA, S.C. 29169  
PHONE: (803) 216-2777  
FAX: (803) 216-2777  
EMAIL: [don@powereng.net](mailto:don@powereng.net)



REVISIONS	BY
REVISIONS PER COUNTY	D.H.C.
6-23-15	DBP
8-10-15	DBP
ADDED 1050 STORM DRAIN POWERLINES & FENCES	D.H.C.
07/29/15	D.H.C.
ADDED 1050 STORM DRAIN LOT 50 AND BUTTER	D.H.C.
09-18-15	D.H.C.
5-22-15	D.H.C.
ENRAGED 1050 STORM DRAIN	D.H.C.
10-19-15	D.H.C.

PREPARED BY  
**POWER ENGINEERING COMPANY, INC.**  
ENGINEERS - PLANNERS  
COLUMBIA, SC

**GREAT SOUTHERN HOMES**  
**HIDDEN COVE SUBDIVISION**  
**WATER DISTRIBUTION PLAN**  
RICHLAND COUNTY, NEAR HILTON, SOUTH CAROLINA

DRAWN	D.H.C.
CHECKED	D.B.P.
DATE	09-10-2015
SCALE	1" = 50'
JOB NO.	3653
SHEET	27



November 12, 2014

Power Engineering, Inc.  
Attn: David Parr  
138 Westpark Blvd  
Columbia, SC, 29210

**RE: Hiller Road Subdivision**  
**RCF # SD14-079**  
**TMS # 00400-01-03**  
**73 lots/ 37 acres**

Dear Mr. Parr:

Please be advised the Sketch Plan entitled "Hiller Road Subdivision", dated 10/1/2014 with revisions through 11/3/2014, is **approved**.

**The following items must be addressed on the preliminary plans:**

*Andrea Bolling, Floodplain Coordinator (803-576-2150):*

1. Approved for concept. Agreement with the wetland delineations shown on the plans will need to be provided from the Army Corps of Engineers with the preliminary plan submittal.

The following is noted for informational purposes:

1. Upon written notice of sketch plan approval for a phase, the applicant shall have a two (2) year vested right to proceed with the development of the approved subdivision phase under the regulations that are in place at the time of subdivision approval. Failure to submit an application for preliminary plan approval within this two (2) year period shall render the sketch plan approval void. **Approval of the above-referenced sketch plan will expire on November 12, 2016.** However, the applicant may apply to the planning department for a one (1) year extension of this time period no later than 30 days and no earlier than 120 days prior to the expiration of the sketch plan approval.
2. Preliminary plans may now be submitted as project type Major Subdivision Preliminary via eTrakit at <http://etrakit.rcgov.us/etrakit3/>

Sincerely,

Carroll Williamson  
Land Development Administrator



September 03, 2015

POWER ENGINEERING COMPANY  
138 Westpark Blvd  
Columbia, SC 29210

**RE: Hidden Oaks Subdivision**  
**RCF # SD15-030**  
**TMS # R00400-01-03**

Dear POWER ENGINEERING COMPANY:

The above referenced project entitled "**Hidden Oaks Subdivision**", dated **5/10/2015 with revisions through 8/18/2015**, has been reviewed and APPROVED in accordance with Section 26 of the Richland County Land Development Code.

Sincerely,

Staff  
Richland County Development Services

Richland County Internet Mapping 7.2

Parcel Information:

<http://www.richlandmaps.com/apps/gmap/?base=satellite&taxid=R01404-01>  
 Parcel Number: R01404-01-03  
 Situs Address: S/S HILLER RD  
 Primary Zoning: PDD  
 Secondary Zoning:  
 Tax District: 6UD  
 NBHD Code: 118.19  
 Assessed Value: 600  
 Building Value: 0  
 Land Value: 600  
 Acreage: 0.260  
 Owner Name: COUNTY OF RICHLAND  
 Owner Address: 2020 HAMPTON STREET  
 Owner Address:  
 Owner City: COLUMBIA  
 Owner State: SC  
 Owner ZIP: 29201  
 Bedrooms: 0  
 Bathrooms: 0  
 Year Built:  
 Heated Sq Feet: 0 ft<sup>2</sup>  
 Last Sale Date: October 2, 2002  
 Last Sale Price: \$0  
 Legal Description: PUMP STATION  
 Legal Description: 50X41.7X214X37.3X70.4X--X40.2X  
 Legal Description: 32.4X47.1X195.8  
 Legal Description: #SU THE VILLAGE @ HILTON PH 1

Pointer: 34.132758, -81.293492

7:54 AM  
10/12/2015



# Wastewater Construction Permit Bureau of Water



PROJECT NAME: <b>HIDDEN COVE SUBDIVISION</b>	COUNTY: <b>RICHLAND</b>
LOCATION: Near the intersection of Hiller Grove Road and Indian Fork Road	

**PERMISSION IS HEREBY GRANTED TO:** GS-JACOBS CREEK LLC  
90 N ROYAL TOWER DR  
IRMO SC 29063

for the construction of a sanitary sewer system in accordance with the construction plans, specifications, design calculations and the Construction Permit Application signed by David Parr, Registered Professional Engineer, S.C. Registration Number: 15898.

**PROJECT DESCRIPTION:** Approximately 3647 LF of 8" PVC gravity sewer, 21 manholes, one duplex pump station and 27 LF of 4" force main to serve 70 residential lots.

**TREATMENT FACILITY:** The wastewater will be discharged to the RICHLAND COUNTY UTILITIES & SERVICES (NPDES permit SC0046621) at a design flow rate of 21000 gallons per day (GPD).

**STANDARD CONDITION:**

**NOTE:** In accepting this permit, the owner agrees to the admission of properly authorized persons at all reasonable hours for the purpose of sampling and inspection. This is a permit for construction only and does not constitute DHEC approval, temporary or otherwise, to place the system in operation. An Approval to Place in Operation is required and can be obtained following the completion of construction by contacting the COLUMBIA EQC OFFICE at 803-896-0620. Additional permits may be required prior to construction (e.g., Stormwater).

**SPECIAL CONDITIONS:**

1. This construction permit is being issued based on the technical review being provided by the RICHLAND COUNTY PUBLIC WORKS under the Delegated Review Program. An approval to place in operation will not be granted if there are certain deficiencies that are noted regarding the requirements of R.61-67.

<b>PERMIT NUMBER:</b>	<b>39147-WW</b>
<b>ISSUANCE DATE:</b>	<b>October 14, 2015</b>
<b>EXPIRATION DATES:</b>	Construction must be completed and the Approval to Place in Operation granted prior to <b>October 14, 2018</b> or this permit will expire.

*Ann R. Clark*  
Ann R. Clark, Director  
Stormwater, Construction, and Agriculture  
Permitting Division

GBA (DRP)

## Richland County Council Request of Action

**Subject:**

Comprehensive Youth Program

**Notes:**

Staff and the Clerk's Office are working in conjunction with the Sheriff's Department, Magistrate's Office, Solicitor's Office and the Alvin S. Glenn Detention Center to develop a plan of action regarding a comprehensive youth program. Once completed, Staff and the Clerk's Office will report this information back to the Committee for their review and action.

## Richland County Council Request of Action

**Subject:**

Motion to Explore all Options for Providing County Assistance with a Public Housing Project

**Notes:**

At the September 9, 2015 Richland County Council meeting, Mr. Rose brought forth the following motion:

“Move to have staff explore all options to provide County assistance with an important public housing project. The Columbia Housing Authority (CHA) completed its Choice Neighborhood Plan in August, 2014. HUD awarded the Planning Grant to CHA in 2012 for this project. The CHA plans to demolish Gonzales Gardens (GG) and Allen-Benedict Court (ABC) public housing communities as soon as funding is available. In preparation for losing 520 units, the CHA is currently identifying housing to purchase so GG/ABC residents can be relocated. CHA purchased a 123 units at Village at Rivers Edge. CHA plans to acquire and/or construct an additional 127 units of housing in the near future, but that still leaves the need for 270 more units for relocation purposes.”

Staff is working to identify possible funding options pertaining to Mr. Rose’s motion. Staff will bring this item to the Committee for their consideration at a future Committee meeting.