TOWN OF SMITHFIELD PLANNING BOARD AGENDA PACKET



Chairman: Stephen Upton

Vice-Chairman: Daniel Sanders

Members:

Mark Lane Eddie Foy Ashley Spain Teresa Daughtry

Michael Taylor

Mark Helmer, Senior Planner Julie Edmonds, Administrative Assistant

Meeting Date: Thursday, September 7, 2017

Meeting Time: 6:00 p.m.

Meeting Place: Council Chambers, Smithfield Town Hall

AGENDA PLANNING BOARD REGULAR MEETING SEPTEMBER 7, 2017 MEETING TIME: 6:00 PM TOWN HALL

Call to Order.

Identify voting members

Approval of the minutes for August 10, 2017

Public Hearings

TX-17-04 Town of Smithfield Planning Department is requesting to amend the Unified Development Ordinance:

- Section 1.3.4.3 Modification to subdivision exemptions to include divisions of property in accordance with a probated will or in accordance with intestate succession under Chapter 29 of the N.C. General Statutes per Session Law 2017-10.
- Section 1.8.7.1 Added statute of limitations for land use violation enforcement per Session Law 2017-10.
- o **Section 10.84.4** Added an exemption of Small Wireless Communication Infrastructure from local government review and approval per House Bill 310.
- Appendix A Added definitions related to small wireless communication and the watershed protection overlay modifications.
- Sections 10.90.2, 10.90.6.2.3, 10.90.7.2.2, 10.90.7.2.3, 10.90.8, 10.90.9 and 10.90.16 To allow for projects in the watershed protection overlay districts to utilize the "high density option" to increase impervious surfaces up to 70 percent with the utilization of approved engineered stormwater devices as permitted by NCGS 143-214.5 and Title 15A of the North Carolina Administrative Code (NCAC) subchapter 02B.

Old Business

New Business

<u>SP-17-09 Tire and Wheels Service Shop</u>: The applicant is requesting site plan approval of an automotive tire and wheel shop on property within a B-3 (Business) zoning district and located at 2301 South Brightleaf Boulevard.

<u>SP-17-11 Rob's Hydraulics:</u> The applicant is requesting site plan approval of a heavy equipment sales and service facility on property within a B-3 (Business) zoning district and located within the 3500 block of US Business Highway 70 West.

Site Plan Review Training

Adjournment

DRAFT

Smithfield Planning Board Minutes Thursday, August 10, 2017 6:00 P.M., Town Hall, Council Chambers

Members Present:

Members Absent:
Teresa Daughtry

Chairman Stephen Upton Vice-Chairman Daniel Sanders Michael Taylor Mark Lane Eddie Foy Ashley Spain

Staff Absent:

Mark Helmer, Senior Planner
Julie Edmonds, Administrative Assistant

CALL TO ORDER

Staff Present:

Mr. Upton asked the board if anyone had amendments to the agenda. There were none. Mr. Upton then gave a brief purpose of the Planning Board to the audience. He reminded everyone that the recommendation from the Planning Board would meet before Town Council on September 5th, 2017 at 7pm.

INTRODUCTION OF MICHAEL TAYLOR

Michael Taylor came forward and was sworn in as a Planning Board Member by Mr. Steve Upton.

APPROVAL OF MINUTES FROM July 13, 2017

Eddie Foy made a motion, seconded by Daniels Sanders to approve the minutes as written. Unanimous.

APPROVAL TO OPEN THE PUBLIC HEARING

Ashley Spain made a motion, seconded by Mark Lane to open the Public Hearing. Unanimous.

Public Hearings:

After all persons given testimony were duly sworn, Mr. Upton opened the public hearing.

CUP-17-08 Theron Lee McLamb:

Mr. Helmer stated the applicant is requesting a conditional use permit to construct and operate a recreational vehicle park that will accommodate 148 RV sites and 48 rental cabins on 30.15 acres of land located within a B-3 (Business) zoning district. The properties considered for approval are generally bound to the north by CSX Railway, south by Equity Park Subdivision,

east by Magnolia Drive and west by Pine Acres Subdivision. The properties are further identified as Johnston County Tax ID# 15L11008K and 15O99002H. Included in your packet is an area map highlighting the subject property. RV parks are a permitted use within the B-3 zoning district with a valid Conditional Use Permit. The Future Land Use Plan has identified this being reasonable for commercial development. There will be amenities located toward the entrance to include a swimming pool, retail sales, restroom facilities and a playground. There is one access point being proposed on Magnolia Drive. Six parking spaces will be available at the entrance, adjacent to the welcome center. There will be a 50 foot landscape buffer with fence on the western property line and along the northern property line. Utilities are located within the right-of-way of Magnolia Drive to include water, sewer and electric. The property will qualify for a freestanding sign. The applicant has submitted a preliminary site plan. The site has one way drive aisles for pull thru sites, around the perimeter there will be back in sites. There will be two areas within this site to accommodate small cabins, the northeast corner, as well as the southern portion of the plan. A dog park will be located toward the center of the property. The applicant has shown a utility plan that would tie into existing Town of Smithfield water, sewer and electric. There will be a sewer main extension into the property to include water and sewage.

Mr. Daniel Sanders asked if an RV park business is a new thing coming into a B-3/ residential zoning district.

Mark Helmer said RV parks are everywhere and each community has to decide what zoning districts they want these parks to be in. Some allow them in residential zoning districts and some like the Town of Smithfield allow them in commercial zoning districts.

Mr. Daniel Sanders asked if the NCDOT has said anything about this project.

Mr. Helmer said Magnolia Dr. which is the street the applicant is proposing to have access to, is maintained by the Town of Smithfield, so any driveway permitting would be done by the Town of Smithfield, not NCDOT.

Mr. Foy asked if there was going to be a detention pond.

Mr. Helmer said currently there isn't one planned.

Mr. Foy asked where the rain water would go.

Mr. Helmer said that question is best suited for the engineer.

Mr. Foy asked what kind of condition Magnolia Drive was in. Was it repaved when Venture Drive was repaved and is Magnolia Drive the only entrance to this proposed RV Park?

Mr. Helmer said no, Magnolia Drive wasn't part of the Venture Drive repaving project and Magnolia is the only entrance in the current plan.

Mr. Lane asked if there were setbacks on the cabins.

Mr. Helmer said yes and no, our current ordinance doesn't have standards for that but our current UDO does address a minimum of 20 feet from one cabin to another. It does appear the current plan does meet those standards.

Mr. Sanders asked if the water runoff was going to go into the Town of Smithfield drainage or go down beside the railroad.

Mr. Helmer stated that question would be best suited for the engineer.

Mr. Spain asked if the landscape buffer also included a fence.

Mr. Helmer stated yes a fence is shown on the plan.

Mr. Sanders asked if the fence and shrubbery would cut down on noise from running generators.

Mr. Helmer said each site would have electric hook-ups, so the need for a generator would be significantly reduced. The facility may have regulations against the use of generators as well.

Mr. Lane asked what kind of land was between the proposed RV Park and Pine Acres Subdivision.

Mr. Helmer said that area has existing vegetation and the first 50 feet could be used to satisfy the buffer requirements if the trees are in good condition.

Mr. Sanders asked if there were any wetlands in that area.

Mr. Helmer said he wasn't aware of any delineated wetlands. The Comprehensive Plan did show some land that was wet but it may be poorly draining soil. That question would be best suited for the applicant.

Dan Simmons came forward introduced himself and began by stating the size of the largest RV site would be about 2,950 sq. feet and 2550 sq. feet for the smallest. The UDO states the minimum is 2000 sq. feet so we have exceeded that. Each space will have water, electric, sewer, Wi-Fi and cable TV. This is to be a first class family oriented KOA park. There will be designated quiet times; no noise will be allowed or you will be made to leave. The area between Pine Acres and the proposed RV Park is immature pine trees. The plan is the leave them there and allow them to act as a buffer as well as add shrubs, a screened opaque fence that can't be seen through and a knock down gate which is required by Duke Energy. This allows them access to power lines and the Fire Department or EMS in case emergency. The knock down gate would be kept locked at all times. Storm water will not go through Pine Acres it will go where is naturally goes now. It is split in two directions, part goes to the railroad and part goes to the pond that John Shallcross built. We will look into expanding that pond or we

will install a new facility that meets the Town of Smithfield Storm Water Ordinance. Roads within the park will be chip-seal. Each site will have a fire-pit, picnic table and a grill. We have to meet KOA standards and they're very strict. We have to be competitive with what's around here. Mr. Simmons designed Raleigh Oaks in Four Oaks off Hwy 701. It is considered a 4-Star RV park. The RV Park they've proposed in Smithfield will provide a safe, fenced in family oriented place for people to stay. It will bring business to the area by shopping and dining. The RV today is either a 5th wheel or an enclosed motor home. You're talking about someone spending in excess of \$100,000. The people you're getting in are people that can afford to do that. The 48 cabins will be treated just like a motel room; occupants will pay motel tax on them when they rent them out. Some of these cabins have kitchens, some do not. Linens would be provided by the owner. Two commercial laundry areas will also be provided for the cabins.

Mr. Sanders asked if anyone had gotten approval from CSX to allow the rain water to run along the railroad.

Mr. Simmons said the rainwater is going there now. They can't stop from where water is going today. The Town of Smithfield Ordinance requires us to detain the first 2 inches of rainfall. The bulk of the site will go toward the pond and into the storm water drain system on Magnolia Drive into the pond the developers of I-95 plaza built. We are looking back at those calculations to see how much of this area was taken into account when that pond was built.

Mr. Foy asked if the 48 cabins would be used for long-term stays.

Mr. Simmons asked what you would consider long-term.

Mr. Foy said maybe a couple months. I don't want to see undesirable people take up in these cabins on a long-term basis and create trouble.

Mr. Simmons said you have people who travel and work in pipeline type work and would stay a couple months. They foresee people renting these cabins that would be respectful and follow the rules. This is not like renting a house, you don't give them 30 days, you put them out right then.

Mr. Upton asked if the amenities for the sites have paved driveways.

Mr. Simmons said yes they will have the chip seal.

Mr. Upton asked how traffic would be impacted.

Mr. Simmons said he didn't foresee a tremendous traffic impact. Your typical RV isn't near as heavy as these big trucks transporting stone that's been running up and down Venture Drive.

Mr. Upton asked if a traffic impact study had been done for this proposed RV Park.

Mr. Simmons said no, a traffic impact study hasn't been done. He also designed the KOA in New Bern. It is similar in size and similar in the amount of cabins to the one we're proposing here. They don't have a tremendous traffic problem, you have people in and out but it is staggered. If you look at the entrance, we can put 4 or 5 in there at one time waiting to get their assignment.

Mr. Upton asked is the RV Park would be managed and monitored by KOA.

Mr. Simmons said it has to meet KOA standards given to them to go by in operation and amenities.

Mr. Foy asked if the only entrance and exit would be located at Magnolia Drive.

Mr. Simmons said yes that is the only entrance and exit. You don't need more than one entrance, you need to control who is coming in and going out.

Mr. Sanders asked what would be underneath the RV's for long-term use.

Mr. Simmons said each RV would be sitting on the chip-seal pavement not dirt and stabilizers would be used to hold them in place.

Mr. Lane asked if the noise restrictions for the RV Park would stop at 11pm.

Mr. Simmons said yes it is proposed to be 11:00 pm but this is a conditional use permit. If the Town of Smithfield decides it needs to be 10:00 pm then we will comply.

Mr. Mike McLamb came forward and made a statement. He said obviously a lot of people are interested in this project. His job is two-fold, it is to inform people of what their goal is and get feedback. We want our project to be unharming. Mr. McLamb was born and raised in Smithfield and owns a business in town as well. He said this project isn't being done by someone out of the area. If someone has a concern he wants to know it. Mr. McLamb is a local business owner; this project has his name on it, he is not entering into this lightly and he doesn't want any junk out there.

Mr. McLamb hired a consultant, David Goren to get some advice and insight on developing this RV Park. Mr. McLamb had a feasibility survey done and Mr. Goren stated the proposed RV Park would be a strong enhancement to the Smithfield community and would be a welcome addition to the development that is taking place around the Carolina Outlet Mall. The park will appeal to travelers along I-95 as a stopping point on a longer trip.

Mr. Upton asked what jurisdiction the Town of Smithfield has on the KOA's or the park since it is going to be developed here in town.

Mr. Helmer said once the site plan is approved and the permitting process begins there will be a team of inspectors who inspect the construction of the project to ensure it is being built to the

approved plan. After construction we have an enforcement program that will continue to monitor and maintain the property.

Mr. Lane asked Mr. McLamb where he was with the quiet zone with CSX.

Mr. McLamb said they haven't pursued that yet. The first step would be for the Town of Smithfield to submit a quiet zone application to CSX.

Mr. Foy asked what the plan would be for enforcing security inside the RV Park.

Mr. McLamb said they would have security patrolling inside park. One of the reasons he chose KOA is due to their policies and procedures. They have ongoing training; operate and oversee 500 RV Parks.

Stephanie Avery from 318 Pine Street came forward to express her concerns. Her first concern is the location of this RV Park. She said it is in a floodplain zone. If trees are cut down the rain water will present flooding problems. She is also concerned how this water run-off will impact the town's sewer system. Yes we want more businesses and income but think about the social and environmental impact you will have on the community.

Tony Nixon from 8 Cedar Drive came forward to express a few concerns he and his neighbors have. They aren't opposed to Mr. Mclamb developing his land; certainly as a land owner you have that right. They're opposed to the type of business that would be going in there without some kind of buffering such as office and industrial not just a 50 ft. buffer. They feel RV Parks could have a negative effect on water quality from spills of gasoline or diesel and even septic spillage into the water system. Pollution from the water run-off is another concern. Residents worry about their safety due to the increased traffic. They are concerned about the extra noise and traffic. An RV Park like this would destroy the tranquility that these residents currently enjoy. Ask yourselves how do we have ordinances against mobile homes in the city, yet have an RV Park next to an established neighborhood within the city limits. Would you want this in your backyard?

Mr. Foy asked Mr. Nixon how much of a buffer would be necessary in order for him to be in favor of this project.

Mr. Nixon said there isn't any amount of buffer that would be acceptable to have an RV Park beside their neighborhood.

Matthew Clancy from 320 Dogwood Street came forward to say he doesn't understand what the draw is to someone wanting to build an RV Park in a location such as this. He stated there were way too many RV sites proposed for a 30 acre parcel of land. He said nothing about this project would compel him to visit. He doesn't see it as a family oriented establishment. He sees this as an opportunity for someone to slide some affordable housing in not a campground.

Flora Grantham from 400 Dogwood Street came forward to speak. She said her house is at the end of that street and she'd be highly affected by this RV Park. She asked why a dog park was proposed but not a pond or recreation for humans. Ms. Grantham stated the leaves fall off the trees that are in the proposed 50 foot buffer and would not help keep out noise. Dogwood Street ends with a cul-de-sac, it is a place where people have built their houses, and it is not a commercial area. She stated the Planning Board agreed years ago to install a privacy fence from the Waffle House all the way down to the movie theatre and it isn't hasn't been put in. People still wander around and walk through each other's yard because those fences haven't been installed. She hears big rig trucks running their engines all night long while parked at the movie theatre. A 50 foot buffer will not keep noise out; those trucks are a perfect example. We do not want this near our neighborhood.

Oliver Johnson from 405 Ash Street spoke about his concerns. The size and intensity of the proposed RV Park would be detrimental to the Pine Acres community. Decreased property values, increased noise, increased crime and increased environmental issues are all reasons he doesn't want this park. Citizens and property owners have a right to quiet enjoyment of their properties. The additional noise, lights, traffic and safety and security issues associated with this RV Park would adversely impact that right.

Debbie Stanley of 404 Oak Street asked how traffic was impacted by the KOA RV Park in New Bern that Mr. Dan Simmons built. Is there a Carolina Outlet Center? Are there eateries or hotels surrounding this RV Park?

Mr. Simmons said one side of the RV Park is residential and the other is commercial. Restaurants are around this RV Park, it is not as intense as the Carolina Outlet Center.

Ms. Stephanie Avery asked if Mr. Simmons or Mr. McLamb planned to conduct a traffic impact study.

Mr. Simmons said right now there aren't plans to conduct a traffic impact analysis but the market study indicated that this area would accommodate the traffic and the flow that was coming in.

Mr. Foy said actually you did a market study based on the fact that so many people were coming and going and this would help you to decide if the area could support a KOA RV Park.

Mr. Simmons said yes that is correct.

Mr. Foy said the thing I am thinking about is there will only be one entrance and exit for the campground and in all fairness I am not sure how that traffic coming and going on that side will affect Pine Acres. That is why I asked so many questions about the water issue. That is the biggest issue I have. I can't tell you I am completely satisfied but if they have to meet DWQ standards then you might be able to get me there. I am still concerned about all this traffic coming in and out of this one location.

Mr. Simmons said Raleigh Oaks in Four Oaks off Hwy 701 has almost 200 locations in there plus all the cabins. It has one entrance in and out on Hwy 701 and it is a lot busier than Venture Drive.

Mr. Nixon stepped forward again saying you have to live there to know what's going on. The traffic pattern at the Outlet Center now is already confusing with the traffic circle. Add someone pulling an RV or boat behind them and that will pose more problems. On a daily basis people come into Pine Acres that have missed the entrance to the Outlet Center. Therefore you're going to be bringing RV's into the neighborhood just to turn around. Kobe Japanese Steak House has already been approved to be built on the corner of Dogwood and Hwy 70 Business that will already increase traffic at the subdivision entrance.

Mr. Lane said whether we agree or not, we have standards to go by. If we pass or deny this project, it doesn't mean we are personally for or against it.

Eddie Foy made a motion to close the public hearing for CUP-17-08 seconded by Daniel Sanders and move to the Finding of Fact for a conditional use permit.

The Smithfield Planning Board shall recommend and the Town Council of the Town of Smithfield shall decide the matter of this Conditional Use Permit Application by motion and vote on each of the following four findings of fact.

1. Based on evidence and testimony presented it is the finding of the Planning Board that the application, if approved, will not materially endanger the public health or safety if located where proposed and developed according to the plans as submitted and approved. or is approved with the following stated conditions.

Mr. Sanders-**Denial** Applicant Failed to Address Storm water Issue for this project.

Mr. Lane: **Approval** with Conditions: Noise must stop at 10pm and a Traffic Impact Study done. Mr. Foy: **Approval** with Conditions: Noise must stop at 10pm and a Traffic Impact Study done.

Mr. Spain: **Approval** Mr. Taylor: **Approved**

2. Based on evidence and testimony presented it is the finding of the Planning Board that the application, if approved, meets all required specifications and conforms to the standards and practices of sound land use planning and the Town of Smithfield Unified Development Ordinance or other applicable regulations or is approved with the following additional stated conditions.

Mr. Sanders- **Denial**: Applicant failed to address storm water and the sound problems that would arise.

Mr. Lane: **Approval** Mr. Foy: **Approval** Mr. Spain: **Approval** Mr. Taylor: **Approval**

3. Based on the evidence and testimony presented it is the finding of the Planning Board that the application, if approved, will not substantially injure the value of adjoining or abutting property and will not be detrimental to the use or development of adjacent properties or other neighborhood uses or is approved with the following additional stated conditions.

Mr. Sanders: **Denial**- Will substantially injure the value of property.

Mr. Foy: **Denial**- Not enough evidence to satisfy him that property value wouldn't be injured. Mr. Upton: **Denial**- Based on applicant failing to prove project wouldn't injure property values.

Mr. Taylor: **Denial**- Additional noise could potentially injure home values.

Mr. Lane: **Approval** Mr. Spain: **Approval**

4. Based on the evidence and testimony presented it is the finding of the Planning Board that the application, if approved, would not adversely affect the adopted plans and policies of the Town of Smithfield, or violate the character of existing standards for development of the adjacent properties or is approved with the following additional stated conditions.

Mr. Sanders: **Denial**- Proposed Park would adversely affect the adopted plans and policies of the Town of Smithfield, or violate the character of existing standards for development of the adjacent properties.

Mr. Foy: **Approved**Mr. Upton: **Approved**Mr.Taylor: **Approved**Mr.Lane: **Approved**Mr. Spain: **Approved**

Mr. Sanders made a motion for the denial of CUP-17-08, seconded by Mr. Foy.

4 to 3 vote to recommend denial.

Based upon satisfactory compliance with the above stated four findings and fully contingent upon full incorporation of all statements entered into the record by the testimony of the applicant and applicant's representative;

Chairman Steve Upton stated CUP-17-08 has been recommended for denial by the Planning Board and will move to Town Council on September 5, 2017.

Old Business:

No Report

New Business:

Our next Planning Board Meeting is scheduled for September 7, 2017.

Daniel Sanders made a motion to adjourn, seconded by Eddie Foy. Unanimous.

Submitted this 11th day of August, 2017.

Julie Edmonds Administrative Assistant Planning Department



Request for Planning Board Action

Public Hearing:

Application for Unified Development Ordinance Text

Amendment TX-17-04

Date: 9/7/2017

Subject: Unified Development Ordinance Text Amendments

Department: Planning

Presented by: Steven L. Medlin, AICP, Interim Planning Director

Presentation: Public Hearing

Issue Statement

The Unified Development Ordinance needs to be amended to incorporate changes mandated by the North Carolina State Legislature and to allow for greater impervious surfaces in watershed protection areas as authorized by the General Statutes.

Financial Impact

There will be no financial impact to the Town.

Action Needed

To review the document, hold a public hearing and make a decision for Unified Development Ordinance text amendment.

Recommendation

The Planning Department recommends approval of the proposed amendments to Sections 1.3, 1.8, 10.82, 10.90 and Appendix A of the Unified Development Ordinance; and recommends that the Town Council approve a consistency statement declaring the request is consistent with the Town of Smithfield Comprehensive Growth Management Plan and that the request is reasonable and in the public interest.

Annroved:	П	City Manager	□ City	Attorney
π	_			THE PROPERTY

Attachments:

- 1. Staff Report
- 2. Ordinance



Staff Report

Public Hearing:

Application for Unified Development Ordinance Text Amendment TX-17-04

The Planning Department initiated a review of recent legislative changes enacted by the North Carolina General Assembly and identified necessary changes to the Unified Development Ordinance (UDO). In addition staff was asked to evaluate the inclusion of text, allowed by the General Statutes, to permit properties within watershed protection overlay areas to take advantage of the "high density option" which will allow greater impervious surface amounts. The staff has identified modifications necessary to the following Sections of the UDO: Articles 1.3, 1.8, 10.82, 10.90 and Appendix A.

Summary of the text amendments include:

Section 1.3.4.3 – Modification to subdivision exemptions to include divisions of property in accordance with a probated will or in accordance with intestate succession under Chapter 29 of the N.C. General Statutes per Session Law 2017-10.

Section 1.8.7.1 – Added statute of limitations for land use violation enforcement per Session Law 2017-10.

Section 10.84.4 – Added an exemption of Small Wireless Communication Infrastructure from local government review and approval per House Bill 310.

Sections 10.90.2, 10.90.6.2.3, 10.90.7.2.2, 10.90.7.2.3, 10.90.8, 10.90.9 and 10.90.16 – To allow for projects in the watershed protection overlay districts to utilize the "high density option" to increase impervious surfaces up to 70 percent with the utilization of approved engineered stormwater devices as permitted by NCGS 143-214.5 and Title 15A of the North Carolina Administrative Code (NCAC) subchapter 02B.

Appendix A – Added definitions related to small wireless communication and the watershed protection overlay modifications.

DRAFT ORDINANACE # TX 17-04

AN ORDINANCE TO AMEND THE TOWN OF SMITHFIELD UNIFIED DEVELOPMENT ORDINANCE REGARDING RECENT LEGISLATIVE CHANGES AND ADDITION OF WATERSHED PROTECTION OVERLAY HIGH DENSITY OPTION

WHEREAS, the Smithfield Town Council wishes to amend certain provisions in the Unified Development Ordinance by making changes to bring the ordinance into compliance with recent legislation and to add the opportunity to utilize the "high density option" for properties within the watershed protection overlay areas; and

WHEREAS, it is the objective of the Smithfield Town Council to have the UDO promote regulatory efficiency and consistency and the health, safety, and general welfare of the community;

NOW, THEREFORE, be it ordained that the following Articles are amended to make the following changes set forth in the deletions (strikethroughs) and additions (underlining) below:

PART 1

[Revise paragraph 1.3.4.3 to add additional exemption language as specified by the General Statutes.]

Section 1.3.4 Exemptions.

[Paragraphs not listed remain unchanged]

1.3.4.3. The following are not subject to the Subdivision Regulations of this Ordinance (Article 10, Part X):

- The combination or recombination of portions of previously subdivided and recorded lots where
 the total number of lots is not increased and the resultant lots are equal to or exceed the
 standards of the municipality as shown on its subdivision regulations.
- The division of land into parcels greater than ten acres where no street right-of-way dedication is involved.
- The public acquisition by purchase of strips of land for the widening or opening of streets or for public transportation system corridors.
- The division of a tract in single ownership whose entire area is no greater than two acres into
 not more than three lots, where no street right-of-way dedication is involved and where the
 resultant lots are equal to or exceed the standards of the municipality, as shown in its
 subdivision regulations.
- The division of a tract into parcels in accordance with the terms of a probated will or in accordance with intestate succession under Chapter 29 of the General Statutes.

And

[Add Section 1.8.7 related to statute of limitations for land use violations as mandated by the General Statutes.]

1.8.7. Statute of Limitation for Land Use Violations

- **1.8.7.1** Any enforcement action for a violation of a land use statute, ordinance, or permit must be taken within five years from the earlier of the occurrence of the following:
 - a. The facts constituting the violation are known to the governing board, an agent, or employee of the Town.
 - b. The violation can reasonably be determined from the public record of the Town.

This standard does not limit the remedy of injunction for conditions that are actually injurious or dangerous to the public health or safety.

- **1.8.7.2** Any enforcement action for a violation of a land use statute, ordinance, or permit must be taken within seven years from the earlier of the occurrence of the following:
 - a. The violation is apparent from a public right-of-way.
 - b. The violation is in plain view from a place to which the public is invited.

This standard does not limit the remedy of injunction for conditions that are actually injurious or dangerous to the public health or safety.

And

[Revise Section 10.84.4 to make compliant with the General Statutes.]

- **10.84.4.** Exempt From All Approval Processes. The following are exempt from all Town of Smithfield zoning approval processes and requirements, unless located within the Historic District Overlay:
 - **10.84.4.1.** Removal or replacement of transmission equipment on an existing wireless tower or base station that does not result in a substantial modification as defined in this Ordinance.
 - **10.84.4.2.** Ordinary Maintenance of existing Wireless Facilities and Wireless Support Structures. Nothing in this section requires an application and approval for routine maintenance or limits the performance of routine maintenance on wireless support structures and facilities, including in kind replacement of wireless facilities.
 - **10.84.4.3.** Wireless Facilities, including Small Wireless Facilities, placed on existing or replacement Utility Poles subject to the following limitation.
 - <u>10.84.4.3.1</u> Each new Small Wireless Facility in the public right-of-way shall not extend more than 10 feet above the utility pole, or the wireless support structure on which it is collocated.
 - **10.84.4.4.** COWs placed for a period of not more than one hundred twenty (120) days at any location within the Town of Smithfield or in response to a declaration of an emergency or a disaster by the Governor.

10.84.4.5. Non-tower wireless communications facilities are permitted by right in all zoning districts in a right-of-way.

And

[Revise Section 10.92.2 to correct the authority citations, Sections 10.90.6 and 10.90.7 to authorize the usage of the high density option in watershed overlay districts, and add Section 10.90.16 to allow for utilization of cluster subdivisions.]

[Paragraphs not listed remain unchanged]

10.90.2. Authority.

Statutory authority for this section is derived from North Carolina General Statutes Chapter 160A-381, Article 8, Section 174, and Chapter 143, Article 21, which delegates the responsibility to local governments to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

10.90.6. Development Regulations - WS-IV-CA District.

The following regulations shall apply within the WS-IV-CA:

10.90.6.1. Allowed Uses.

10.90.6.1.1. Agricultural uses subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation, and Trade Act of 1990. Agriculture activities conducted after January 1, 1993 shall maintain a minimum ten foot vegetative buffer, or equivalent control as determined by the Soil and Water Conservation Commission, along all perennial waters indicated on the most recent versions of USGS 1:24,000 scale topographic or as determined by other reliable sources. Animal operations greater than 100 animal units shall employ Best Management Practices by July 1, 1994 recommended by the Soil and Water Conservation Commission

10.90.6.1.2. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality.

10.90.6.1.3. Residential uses.

10.90.6.1.4. Expansions to existing nonresidential development in accordance with Section 10.90.9.

10.90.6.2. Density and Built-Upon Limits.

10.90.6.2.1. Single-Family Residential. Where neither public water or sewer are available, the minimum lot size shall be 40,000 square feet, or as determined by the Johnston County Division of Environmental Health. Where either public water or sewer, or both, are available, the minimum lot size shall be ½ acre or 21,780 square feet.

10.90.6.2.2. All Other Residential Development. Development shall not exceed 24% built upon area on a project by project basis <u>unless the High Density Option is utilized</u>. For the purpose of calculating the built upon area, total project area shall include the gross acreage in the tract on which the project is to be developed.

<u>10.90.6.2.3. High Density Option.</u> Impervious surfaces may be increased up to a maximum of 70% subject to the following requirements:

<u>10.90.6.2.3.1.</u> Stormwater Control Requirements. Where development proposes intensity greater than 24% engineered stormwater controls shall be used to control stormwater runoff from the first inch of rainfall in order to meet water quality concerns. <u>10.90.6.2.3.1.</u> Ownership, Design, and Maintenance of Engineered Stormwater Controls.

- 1. Unless otherwise approved, ownership of the engineered stormwater controls shall remain with the property owner or a property owner's association, which shall be responsible for the continued care and maintenance of such controls.
- 2. Engineer stormwater controls shall be designed and constructed in accordance with standards and specifications established by the Town of Smithfield.
- 3. Except as allowed in paragraph c below, no building permit shall be issued for a site proposed for development, until:
 - a. <u>UDO Administrator has approved plans and specifications for the proposed engineered stormwater controls and the property owner has entered into an Agreement and Covenants or Operation and Maintenance Agreement with the Town in accordance with the terms established by the Town; and</u>
 - b. The property owner has posted a performance bond, other surety instrument, or other payment satisfactory to the Town in an amount determined by the UDO Administrator as appropriate to assure construction, maintenance, repair, and/or reconstruction necessary for adequate performance of the engineered stormwater controls.
 - c. <u>For multi-family projects, building permits may be issued; but</u> <u>construction drawing approval, or water and sewer permit approval,</u> <u>shall be withheld until compliance with paragraphs a and b above.</u>
 - d. The Agreement and Covenants or Operation and Maintenance
 Agreement required under paragraph a, above, may be required prior
 to site plan or preliminary plat approval.
- 4. No certificate of compliance/occupancy shall be issued for any structure constructed within a site proposed for development, other than as allowed below, until the UDO Administrator has approved construction of the engineered stormwater controls and after review and approval of "as-built" drawings. Notwithstanding this requirement, the UDO Administrator may allow for delay in approval of construction of stormwater controls and submission and approval of as-built drawings for single family housing and other developments requiring multiple certificates of occupancy.

10.90.7. Development Regulations - WS-IV-PA District.

The following regulations shall apply within the WS-IV-PA:

10.90.7.1. Allowed Uses.

10.90.7.1.1. Agricultural, subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation, and Trade Act of 1990.

10.90.7.1.2. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality.

10.90.7.1.3. Residential development.

10.90.7.1.4. Nonresidential development, excluding storage of toxic and hazardous materials unless a spill containment plan is implemented.

10.90.7.2. Density and Built-Upon Limits.

10.90.7.2.1. Single-Family Residential. Where neither public water or sewer are available, the minimum lot size shall be 40,000 square feet, or as determined by the Johnston County Division of Environmental Health. Where either public water or sewer, or both, are available, the minimum lot size shall be ½ acre or 21,780 square feet.

10.90.7.2.2. All Other Residential Development and Nonresidential Development.

Development shall not exceed 24% built upon area on a project by project basis <u>unless the High Density Option is utilized</u>. For the purpose of calculating the built upon area, total project area shall include the gross acreage in the tract on which the project is to be developed.

<u>10.90.7.2.3.</u> High Density Option. Impervious surfaces may be increased up to a maximum of 70% subject to the following requirements:

<u>10.90.7.2.3.1.</u> Stormwater Control Requirements. Where development proposes intensity greater than 24% engineered stormwater controls shall be used to control stormwater runoff from the first inch of rainfall in order to meet water quality concerns. <u>10.90.7.2.3.1.</u> Ownership, Design, and Maintenance of Engineered Stormwater Controls.

- 1. <u>Unless otherwise approved, ownership of the engineered stormwater controls shall remain with the property owner or a property owner's association, which shall be responsible for the continued care and maintenance of such controls.</u>
- 2. Engineer stormwater controls shall be designed and constructed in accordance with standards and specifications established by the Town of Smithfield.
- 3. Except as allowed in paragraph c below, no building permit shall be issued for a site proposed for development, until:
 - a. <u>UDO Administrator has approved plans and specifications for the proposed engineered stormwater controls and the property owner has entered into an Agreement and Covenants or Operation and Maintenance Agreement with the Town in accordance with the terms established by the Town; and</u>
 - b. The property owner has posted a performance bond, other surety instrument, or other payment satisfactory to the Town in an amount determined by the UDO Administrator as appropriate to assure construction, maintenance, repair, and/or reconstruction necessary for adequate performance of the engineered stormwater controls.
 - c. For office, institutional, commercial, industrial and multi-family projects, building permits may be issued; but construction drawing approval, or water and sewer permit approval, shall be withheld until compliance with paragraphs a and b above.
 - d. The Agreement and Covenants or Operation and Maintenance

 Agreement required under paragraph a, above, may be required prior
 to site plan or preliminary plat approval.
- 4. No certificate of compliance/occupancy shall be issued for any structure constructed within a site proposed for development, other than as allowed below, until the UDO Administrator has approved construction of the engineered stormwater controls and after review and approval of "as-built" drawings. Notwithstanding this requirement, the UDO Administrator may allow for delay in approval of construction of stormwater controls and submission and approval of as-built drawings for single family housing and other developments requiring multiple certificates of occupancy.

10.90.8. Impervious Surface Transfer Credit

The impervious surface limit provisions of this section can be exceeded through an impervious surface credit transfer. Credit for the impervious surfaces allowed on one or more parcels

("donor parcels") can be transferred to non-contiguous parcels ("receiving parcels"), such that the amount of impervious surface available for a development project would be the total of what is normally allowed on the receiving parcel plus what is transferred from the donor parcel(s). Impervious surface credit transfer is subject to the following provisions:

- **a.** The donor parcel and receiving parcel shall be located within the same water supply watershed.
- **b.** The impervious surface credit transfer shall not be from a donor parcel in Protected Area to a receiving parcel in Critical Area.
- c. The portion of the donor parcel which is restricted from development as part of the impervious surface credit transfer shall remain in a vegetated or natural state or used for crop production or pasture provided that best management practices (BMPs) as developed by the Soil and Water Conservation District are utilized. The portion of the donor site restricted from development shall be protected from all future development through use of a permanent conservation easement in favor of either:
- (1) Town of Smithfield; or
- (2) A land trust or similar conservation-oriented non-profit organization with legal authority to accept such easements (the organization shall be bona fide and in perpetual existence and the conveyance instruments shall contain an appropriate provision for retransfer to the Town in the event the organization becomes unable to carry out its functions). If the entity accepting the easement is not the Town then a third right of enforcement favoring the Town shall be included in the easement.
- <u>d.</u> The impervious surface credit transfer shall be reviewed and approved through use of the site plan process.
- **e.** The donor parcel shall be deemed appropriate for acceptance by the Town under the Town of Smithfield Review Criteria for Acceptance of Conservation Easements for Impervious Surface Transfer.

10.90.89. Buffer Areas Required.

For all new development activities proposed within the WS-IV-CA or WS-IV-PA Districts, a minimum 50 foot vegetative buffer is required, <u>unless the High Density Option is utilized in which case the minimum buffer will be 100 foot</u>, adjacent to all perennial waters as indicated on the most recent versions of USGS 1:24,000 (7.5 minute) scale topographic maps or as determined by other reliable sources. Vegetation within such buffers shall remain undisturbed except as may be necessary to accommodate any of the following uses:

- 10.90.89.1. Boat docks, ramps, piers, or similar structures.
- **10.90.89**.**2.** Reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places.
- 10.90.89.3. Roads, provided they cross the buffer at a horizontal angle of at least 60 degrees.
- 10.90.89.4. Other public projects, where no practical alternative exists.

10.90.16. Cluster Subdivisions.

<u>Cluster development is allowed in all Watershed Areas under the following conditions:</u>

a. Minimum lot sizes are not applicable to single family cluster development projects; however, the total number of lots shall not exceed the number of lots allowed for single family detached developments in Sections 10.90.6.2.1 and 10.90.7.2.1. Density or built-upon area for the project shall not exceed that allowed for the critical area, balance of watershed or protected area,

- whichever applies.
- b. All built-upon area shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.
- c. <u>Areas of concentrated density development shall be located in upland area and away, to the</u> maximum extent practicable, from surface waters and drainage ways.
- d. The remainder of the tract shall remain in a vegetated or natural state. The title to the open space area shall be conveyed to an incorporated homeowners association for management; to the Town of Smithfield for preservation as a park or open space; or to a conservation organization for preservation in a permanent easement. Where a property association is not incorporated, a maintenance agreement shall be filed with the property deeds.

<u>Cluster developments that meet the applicable low density requirements shall transport stormwater runoff by vegetated conveyances to the maximum extent practicable.</u>

And

[Revise Section (Appendix) A – Definitions, to incorporate new definitions related to wireless communication, watershed protection ordinance and General Statute changes.] [Definitions not listed remain unchanged]

Act of God

An event, such as an earthquake, tornado or hurricane, that is caused by natural forces and cannot be prevented or foreseen.

<u>Adjacent</u>

Property abutting directly on the boundary of, touching, or sharing a common point.

Affiliate

A person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another person.

Agriculture

The use of land for agricultural purposes, including farming, dairying, pasturage, agriculture, horticulture, floriculture, viticulture, forestry, and animal and poultry husbandry and the necessary accessory uses for packing, treating, or storing the produce; provided, however, that the operation of any such accessory uses shall be secondary to that of normal agricultural activities and provided further that the above uses shall not include the commercial feeding of garbage or offal to swine or other animals. The use of waters for stock watering, irrigation, and other farm purposes.

Airport

A place where aircraft can take off and land, be repaired, take on or discharge passengers or cargo, be stored or refueled.

<u>Antenna</u>

<u>Communication equipment that transmits, receives, or transmits and receives electromagnetic radio signals used in the provision of all types of wireless communication services.</u>

Antenna array

A single or group of antenna(s) and their associated mounting hardware, transmission lines, or other appurtenances which share a common attachment device such as a mounting frame or mounting support structure for the sole purpose of transmitting or receiving electromagnetic waves.

Base Station

A station at a specific site authorized to communicate with mobile stations, generally consisting of radio receivers, antennas, coaxial cables, power supplies, and other associated electronics.

Best Management Practices (BMP)

A structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.

Buffer

An area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer is measured landward from the normal pool elevation of impounded structures and from the bank of each side of streams or rivers.

Building

Any structure built for support, shelter, or enclosure for any occupancy or storage.

Any structure having a roof supported by columns or by walls, and intended for shelter, housing or enclosure of persons, animals or property. The connection of two buildings by means of an open porch, breezeway, passageway, carport or other such open structure, with or without a roof, shall not be deemed to make them one building.

Building Code

The North Carolina State Building code and any other uniform building, fire, electrical, plumbing, or mechanical codes adopted by a recognized national code organization together with State or local amendments to those codes enacted solely to address imminent threats of destruction of property or injury to persons.

Building permit

An official administrative authorization issued by the Johnston County Inspections Department prior to beginning construction consistent with the provisions of G.S. 160A-417.

Built-upon area

Built-upon areas shall include that portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel areas (e.g. roads, parking lots, paths), recreation facilities (e.g. tennis courts), etc. (Note: Wooden slatted decks and the water area of a swimming pool are considered pervious.)

Cemetery

A place used or to be used and dedicated or designated for interment of human remains or pet animal remains.

Cluster Development

Cluster development means the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project including minimizing stormwater runoff impacts. This term includes nonresidential development as well as single-family residential and multi-family developments. For the purpose of this ordinance, planned unit developments and mixed use development are considered as cluster development.

Collocation

The placement, installation, maintenance, modification, operation, or replacement of wireless facilities on, under, within, or on the surface of the earth adjacent to existing structures, including utility poles, town utility poles, water towers, buildings, and other structures capable of structurally supporting the attachment of wireless facilities in compliance with applicable codes. The term "collocation" does not include the installation of new utility poles, Town utility poles, or wireless support structures.

Communication facility

The set of equipment and network components, including wires and cables and associated facilities used by a communication service provider to provide communication services.

Communication service

<u>Cable service as defined in 47 U.S.C. § 522(6), information service as defined in 47 U.S.C. § 153(24), telecommunications service as defined in 47 U.S.C. § 153(53), or wireless services.</u>

Communication service provider

A cable operator as defined in 47 U.S.C. § 522(5); a provider of information service, as defined in 47 U.S.C. § 153(24); a telecommunications carrier, as defined in 47 U.S.C. § 153(51); or a wireless provider.

Critical Area

The area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed. The critical area is defined as extending either one-half mile from the normal pool elevation of the reservoir in which the intake is located or to the ridge line of the watershed (whichever comes first); or one-half mile upstream from the intake located directly in the stream or river (run-of-the-river), or the ridge line of the watershed (whichever comes first). Local governments may extend the critical area as needed. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the critical area if these landmarks are immediately adjacent to the appropriate outer boundary of one-half mile.

Customary Home Occupations

Any use conducted entirely within a dwelling and carried on by the occupants thereof, which use is clearly incidental and secondary to the use of the dwelling for residential purposes and does not change the character thereof. Provided further that no mechanical equipment is installed or used except as is normally used for domestic or professional purposes, and that not over twenty-five percent (25%) of the total floor space of any structure is used for the occupation. No home occupation shall be conducted in any accessory building except for the storage and service of a vehicle that is driven off site, such as a service repair truck, delivery truck, etc.

Eligible facilities request

A request for modification of an existing wireless tower or base station that involves collocation of new transmission equipment or replacement of transmission equipment but does not include substantial modification.

Engineered stormwater control

A structural BMP used to reduce pollution or peak flow rates to downstream properties and receiving waters in order to achieve water quality or water quantity control.

Equipment compound

An area surrounding or near the base of a wireless support structure within which a wireless facility is located.

Erosion

The wearing away of land surface by the action of wind, water, gravity or any combination thereof.

Existing Development

Those projects that are built or those projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of this ordinance based on at least one of the following criteria:

- (1) <u>substantial expenditures of resources (time, labor, money) based on a good faith reliance upon</u> having received a valid local government approval to proceed with the project, or
- (2) <u>having an outstanding valid building permit as authorized by the General Statutes (G.S. 160A-385.1), or</u>
- (3) <u>having an approved site specific or phased development plan as authorized by the General Statutes (G.S. 160A-385.1).</u>

Existing Lot (Lot of Record)

A lot which is part of a subdivision, a plat of which has been recorded in the Office of the Register of Deeds prior to the adoption of this ordinance, or a lot described by metes and bounds, the description of which has been so recorded prior to the adoption of this ordinance.

Fall zone

The area in which a wireless support structure may be expected to fall in the event of a structural failure, as measured by engineering standards.

Family Subdivision

Family subdivision means a division of a tract of land: (a) to convey the resulting parcels, with the exception of parcels retained by the grantor, to a relative or relatives as a gift or for nominal consideration, but only if no more than one parcel is conveyed by the grantor from the tract to any one relative; or (b) to divide land from a common ancestor among tenants in common, all of whom inherited by intestacy or by will.

High Density Option

One of two approaches available for development in the Watershed Protection Overlays. The high density option relies on imperious surface limits and engineered stormwater controls to minimize risk of water pollution.

Industrial Development.

Any non-residential development that requires an NPDES permit for an industrial discharge and/or requires the use or storage of any hazardous material for the purpose of manufacturing, assembling, finishing, cleaning or developing any product or commodity.

Landfill

A facility for the disposal of solid waste on land in a sanitary manner in accordance with Chapter 130A Article 9 of the N.C. General Statutes. For the purpose of this ordinance this term does not include composting facilities.

Micro wireless facility

A small wireless facility that is no larger in dimension than 24 inches in length, 15 inches in width, and 12 inches in height and that has an exterior antenna, if any, no longer than 11 inches.

Minor Variance (Watershed)

A variance from the minimum statewide watershed protection rules that results in a relaxation, by a factor of up to five (5) percent of any buffer, density or built-upon area requirement under the high density option; or that results in a relaxation, by a factor of up to ten (10) percent, of any management requirement under the low density option.

Nonconforming Lot of Record (Watershed)

A lot described by a plat or a deed that was recorded prior to the effective date of local watershed protection regulations (or their amendments) that does not meet the minimum lot size or other development requirements of the statewide watershed protection rules.

Non-residential Development

All development other than residential development, agriculture and silviculture.

Protected Area

The area adjoining and upstream of the critical area of WS-IV watersheds. The boundaries of the protected area are defined as within five miles of and draining to the normal pool elevation of the reservoir or to the ridgeline of the watershed; or within 10 miles upstream and draining to the intake located directly in the stream or river or to the ridgeline of the watershed.

Residential Development

Buildings for residence such as attached and detached single-family dwellings, apartment complexes, condominiums, townhouses, cottages, etc. and their associated outbuildings such as garages, storage buildings, gazebos, etc. and customary home occupations.

Residuals

Any solid or semi-solid waste generated from a wastewater treatment plant, water treatment plant or air pollution control facility permitted under the authority of the Environmental Management Commission.

Right-of-Way (Town)

A right-of-way owned, leased, or operated by the Town of Smithfield, including any public street or alley that is not part of the State highway system.

Search ring

The area within which a wireless support facility or wireless facility must be located in order to meet service objectives of the wireless service provider using the wireless facility or wireless support structure.

Small wireless facility

A wireless facility that meets both of the following qualifications:

- a) Each antenna is located inside an enclosure of no more than six cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its elements, if enclosed, could fit within an enclosure of no more than six cubic feet.
- b) All other wireless equipment associated with the facility has a cumulative volume of no more than 28 cubic feet. For the purposes of this ordinance, the following types of ancillary equipment are not included in the calculation of equipment volume: electric meters, concealment elements, telecommunications demarcation boxes, ground based enclosures, grounding equipment, power transfer switches, cut-off switches, vertical cable runs for the connection of power and other services, or other support structures.

Substantial modification, wireless facilities

The mounting of a proposed wireless facility on a wireless support structure that substantially changes the physical dimensions of the support structure. A mounting is presumed to be a substantial modification if it meets any one or more of the criteria listed below. The burden is on the Town to demonstrate that a mounting that does not meet the listed criteria constitutes a substantial change to the physical dimensions of the wireless support structure.

- a. <u>Increasing the existing vertical height of the structure by the greater of (i) more than ten percent (10%) or (ii) the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet.</u>
- b. Except where necessary to shelter the antenna from inclement weather or to connect the antenna to the tower via cable, adding an appurtenance to the body of a wireless support structure that protrudes horizontally from the edge of the wireless support structure the greater of (i) more than 20 feet or (ii) more than the width of the wireless support structure at the level of the appurtenance.
- c. <u>Increasing the square footage of the existing equipment compound by more than 2,500 square feet.</u>

Toxic Substance

Any substance or combination of substances (including disease causing agents), which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression in reproduction or growth) or physical deformities in such organisms or their off spring or other adverse health effects.

Utility pole

A structure that is designed for and used to carry lines, cables, wires, lighting facilities, or small wireless facilities for telephone, cable television, electricity, lighting, or wireless services.

Water Dependent Structure

Any structure for which the use requires access to or proximity to or citing within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.

Watershed

The entire land area contributing surface drainage to a specific point (e.g. the water supply intake.)

Watershed Administrator

<u>The UDO Administrator who is the official or designated person of the Town of Smithfield responsible</u> for administration and enforcement of this ordinance.

Watershed Variance

A permission to develop or use property granted by the Board of Adjustment relaxing or waiving a water supply watershed management requirement adopted by the Environmental Management Commission that is incorporated into this ordinance.

Water tower

A water storage tank, a standpipe, or an elevated tank situated on a support structure originally constructed for use as a reservoir or facility to store or deliver water.

Wireless facility

Equipment at a fixed location that enables wireless communications between user equipment and a communications network, including (i) equipment associated with wireless communications and (ii) radio transceivers, antennas, wires, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration. The term includes small wireless facilities. The term shall not include any of the following:

- a. The structure or improvements on, under, within, or adjacent to which the equipment is collocated.
- b. Wireline backhaul facilities.
- c. Coaxial or fiber-optic cable that is between wireless structures or utility poles or Town utility poles or that is otherwise not immediately adjacent to or directly associated with a particular antenna.

Wireless infrastructure provider

Any person with a certificate to provide telecommunications service in the State who builds or installs wireless communication transmission equipment, wireless facilities, or wireless support structures for small wireless facilities but that does not provide wireless services.

Wireless provider

A wireless infrastructure provider or a wireless services provider.

Wireless services

Any services, using licensed or unlicensed wireless spectrum, including the use of Wi-Fi, whether at a fixed location or mobile, provided to the public using wireless facilities.

Wireless services provider

A person who provides wireless services.

Wireless support structure

A new or existing structure, such as a monopole, lattice tower, or guyed tower that is designed to support or capable of supporting wireless facilities. A utility pole or Town utility pole is not a wireless support structure.

PART 2 That the Unified Development Ordinance shall be renumbered as necessary to accommodate these changes.
PART 3 That these amendments of the Unified Development Ordinance shall become effective upon adoption.
Duly adopted this the 3rd day of October 2017.
M. Andy Moore, Mayor
ATTEST
Shannan L. Williams, Town Clerk



PLANNING DEPARTMENT

Steven L. Medlin, AICP, Interim Planning Director

Notice Of Public Hearing

Notice is hereby given that a public hearing will be held before the Planning Board of the Town of Smithfield, N.C., on Thursday, September 7, 2017 at 6:00 P.M., in the Town Hall Council Chambers located at 350 East Market Street to consider adoption of amendments to the Unified Development Ordinance (UDO). The Town initiated an update of its current Unified Development Ordinance to accomplish the following:

- Make modifications to bring the UDO into compliance with recent changes to the N.C.
 General Statutes in the following areas:
 - Section 1.3.4.3 Modification to subdivision exemptions to include divisions of property in accordance with a probated will or in accordance with intestate succession under Chapter 29 of the N.C. General Statutes per Session Law 2017-10.
 - o **Section 1.8.7.1** Added statute of limitations for land use violation enforcement per Session Law 2017-10.
 - o **Section 10.84.4** Added an exemption of Small Wireless Communication Infrastructure from local government review and approval per House Bill 310.
 - o **Appendix A** Added definitions related to small wireless communication and the watershed protection overlay modifications.
- Make provision for the ability to increase impervious surface limitations and to utilize cluster subdivision standards in watershed protection areas.
 - Sections 10.90.2, 10.90.6.2.3, 10.90.7.2.2, 10.90.7.2.3, 10.90.8, 10.90.9 and 10.90.16 To allow for projects in the watershed protection overlay districts to utilize the "high density option" to increase impervious surfaces up to 70 percent with the utilization of approved engineered stormwater devices as permitted by NCGS 143-214.5 and Title 15A of the North Carolina Administrative Code (NCAC) subchapter 02B.

The public is encouraged to attend the public hearing to obtain additional information and to have the opportunity to comment on the draft ordinance. The Smithfield Town Council may adopt the Unified Development Ordinance following the public hearing. A copy of the draft ordinance may be reviewed at the Town of Smithfield Planning Department, 350 East Market Street, Smithfield, NC, during normal office hours. A copy of the ordinance may be purchased from the Town for the cost of copying. If you have questions, please contact Mark Helmer, Senior Planner, at 919/934-2116, extension 1112.

All interested persons are encouraged to attend. To accommodate disabilities and to comply with ADA regulations, please contact the town office if you need assistance. Further inquiries regarding this matter may be directed to the Smithfield Planning Department at (919) 934-2116 or online at www.smithfield-nc.com.

Run "Legal Ad" in the Smithfield Herald on 8/23/17 and 8/30/17



Request for Planning Board Action

Business
Agenda SP-17-09
Item:

Date: 9/7/17

Subject: Department: Presented by: Presentation:	SP-17-09 Tires and Wheels Service Shop Planning Mark E. Helmer, AICP Senior Planner
• •	icant is requesting preliminary site plan review and approval enter on property located within a B-3 (Business) zoning
Financial Impact: none	
-	Board is requested to review the preliminary site plan for Smithfield Unified Development Ordinance minimum
condition that all Unified Deve	staff recommends approval of the site plan with the elopment Ordinance standards are met prior to issuance of suance of a valid zoning permit.
Approved: □ City Manager □	City Attorney
Attachments:	



Staff Report

Business
Agenda SP-17-09
Item:

History

On December 2, 2016, the Smithfield Town Council approved CUP-16-12 to allow Amalia Felix Mireles to construct an automotive repair facility with tire sales and service on property located within the B-3 (Business) zoning district. The property which received the conditional use permit is located on the southwest corner of Wal-Pat Road and South Brightleaf Boulevard and further identified as Johnston County Tax ID# 15A61047D.

On August 8, 2017, BRL Engineering submitted a site plan for an automotive repair facility. The site plan as submitted generally meets the requirements of the UDO and provides paved parking, required landscaping, and one access point on South Brightleaf Boulevard.

Key site elements

- 2,830 square foot building
- Paved parking provided as required by current development standards.
- Access provided by one proposed driveway to be permitted by NCDOT.
- Required landscape yards
- Public utilities connections
- Screened dumpsters

Site Data

Proposed Project Name: Site Plan For Tires & Wheels Service Shop

Current Property Owner Of Record: Amalia Felix Mireles

Developer/Applicant: Amalia Felix Mireles

Zoning: B-3

Existing Use, Vacant Block Building (To Be Demolished), Remaining Open Lot

Proposed Use: Commercial - Auto Maintenance / Repair & Future Office/Lease Space

Electricity Provider: Town Of Smithfield

Total Boundary Area = 1.621 Ac

Area In Existing NCDOT ROW = 0.192 Ac

Buildable Site Area = 1.429 Ac

Existing Building/Structure Sq. Ft. = 2,930 Sq. Ft. +/.

Proposed Building/Structure Sq. Ft. = 2,800 Sq. Ft.

+ 3,250 Sq. Ft (Max Future Bldgs)

Parking Spaces Required = 4 Current Proposed (1 Space Per Bay X 4 Bays At Front Max)

Parking Spaces Provided= 49

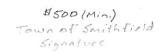
Handicap Spaces Required = 2
Handicap Spaces Provide = 2
Existing Impervious Area 0.428 Ac (18,660 Sq. Ft.)
Proposed Impervious Area = 0.913 Ac {39,751 Sq. Ft.} - Includes Current + Future (3,250 Max Sq. Ft. Future Bldgs)
(33,701 Sq. Ft. - Remaining Vehicular Areas)
Net New/Additional Impervious Area = .485 Ac (21,091 Sq. Ft)
Stormwater: < 0.5 Ac New Impervious - No Attenuation Required
Nitrogen Not Calculated

The Planning Department recommends approval of the preliminary site plan with the condition that all minimum requirements of the Town of Smithfield Unified Development Ordinance are met to include required landscaping, parking, and access prior to final site plan approval and permitting.



APPLICATION FOR SITE PLAN/SUBDIVISION REVIEW

Date Submitted: 8/7/17	NCPIN: 168320-91-1779	
Applicant: Amalia Felix Mireles	Property Owner:Same as Applicant	
Address: 10517 US 70 Highway West	Address: Same as Applicant	
Clayton, NC 27520		
Project Contact: Alfonio Iler	Phone: 919 553-5557	
Phone: 919 320-4831	Fax:	
Fax:2314 S. Brightleaf Blvd.	Zoning: B-3	
Location: Smithfield, NC 25777	Linear Footage of Proposed Streets:N/A	
No. of Lots Proposed: No. of Lots Proposed:	Average Lot Sizes:N/A	
Existing Impervious Surface Area:0.428_Ac	Proposed Impervious Surface Area:0.913 Ac	(0.485 New)
Total Acreage 1.429 Ac. (Clear of R/W) Project Name: Site Plan for Tires & W	Total Disturbed Area: 1.32 Ac.	
Street Name(s):		
Street Name(s):(Continue on add	litional sheet, if necessary)	
Estimate of Water Allocation Required:		
Estimate of Sewer Allocation Required:		
Type of Project: (check one)		
Exempt Subdivision Minor Subdivision Major Subdivision Recombination (Su X Site Plan (Submit 6	(Submit 2 paper copies) (Submit 6 paper copies) bmit 2 paper copies)	
Application Fee:		
Major Subdivision (\$250.00) + \$5.00 a lot (\$25	00 min)	
Site Plan (\$150.00) + \$50.00 an acre (\$200.00 min	n)(\$150 + 1.429 Ac x \$50/Ac) \$221.45	
File Number	Total \$221.4	<u> </u>





Development/Site Name: Site Plan for	Tires & Wheels Se	ervice Shop
Owner/Developer Name: Amalia Felix	Mireles	
Address: 10517 US 70 Highway	West	
Phone: 919 320-4831	Contact Person: Alfonzo	o ller
Fore	No. of acres to be disturbed:	1.32 Ac.
alfon ź oiler@aol.com	No. of acres in development:	1.429 Ac. (Clear of R/W)
Type of Development: (circle one)	Fee	
Residential Non-Residential		e (\$500 minimum) e (\$500 minimum)
I hereby certify that all information contained we complete to the best of my knowledge and control ordinance and storm water design criteria. The facilities on this site.	onforms to the Town of Smit	hfield's Storm Water Management
Amalia Felix Mireles Type or Printed Name Signature of Owner/Developer	Date	14/17
I assume responsibility for inspections, maintenance responsibility for inspections and maintenance responsibility for inspection and mainte		
Amalia Felix Mireles		
Type or Printed Name Amal 8 cl		3 / 4 / 7 Date
*Signature / Acting as an agent for: Amalia Felix M	lireles	Date
Acting as an agent for.		

*Note: Responsibility for the continued operation and maintenance of the storm water facilities can be assumed from the developer by an individual landowner or Home Owner's Association. In the event that a Home Owner's Association assumes responsibility, the signature shall be of an individual acting as an agent for the Home Owner's Association.

Submit the completed application along with detailed plans, Inspection and Maintenance Agreement, easements, supporting design information and the associated fee to:

Storm Water Administrator, Town of Smithfield PO Box 761 350 East Market Street Smithfield, NC 27577

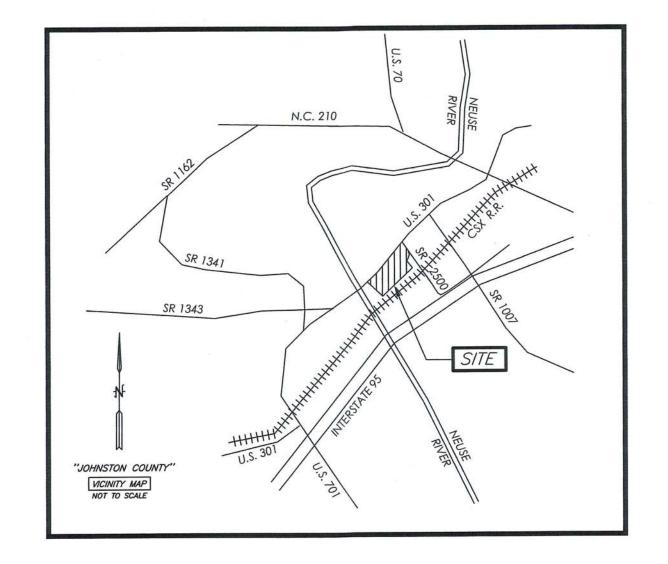
CONSTRUCTION DRAWINGS

CIVIL/SITE DESIGN PLANS FOR

SITE PLAN FOR TIRES & WHEELS SERVICE SHOP

TOWN OF SMITHFIELD, NC

AUGUST 7, 2017



OWNER/DEVELOPER:

AMALIA FELIX MIRELES 10517 US 70 HIGHWAY WEST CLAYTON, NC 27520

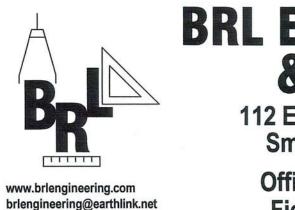
CONTACT: ALFONZO ILER
TEL: 919 320-4831 (M)
EMAIL: alfonzoiler@aol.com

SHEET INDEX

SHEET TITLE	SHEET No.	Ô
NOTES, LEGEND, AND BRIEF SPECIFICATIONS	1	
EXISTING CONDITIONS & DEMOLITION PLAN	2	
CURRENT SITE PLAN / OVERALL LAYOUT & UTILITY PLAN (WATER/SEWER SERV	/ICES)3	
OVERALL GRADING / EROSION CONTROL / SURFACE DRAINAGE PLAN	4	
FINAL SURFACES / PAVING PLAN	5	
DETAIL SHEETS	D1 - D4	
*SEPARATE LANDSCAPE PLAN (BY OTHERS)		

FINAL DRAWING - FOR
REVIEW PURPOSES ONLY
(NOT RELEASED FOR CONSTRUCTION)





BRL ENGINEERING & SURVEYING

112 East Johnston Street Smithfield, NC 27577

Office: (919) 989-9300 Field: (919) 631-6934

7

BYRD SURVEYING, PA

112 EAST JOHNSTON STREET
SMITHFIELD, NC 27577
PHONE: 919 989-9300
FAX: 919 989-9301

LEGEND, SYMBOLS, ABBREVIATIONS

EVICTIVIO		DDODOCED
EXISTING		PROPOSED
Ex	WATERLINE — (ALL SIZES)	v
DXH0	BLOWOFF	>40
₩-ф-	HYDRANT	**
\bowtie	VALVE	M
D	REDUCER	
0	METER	•
	SEWERLINE (ALL SIZES)	sz
0	MANHOLE	
0	CLEANOUT	•
EX-S	TORM DRAINAGE (ALL SIZES)	
	CATCH BASIN	
	DROP INLET/YARD INLE	T 🔯

OTHER SYMBOLS

--- GAS --- GAS LINE (UNDERGROUND)

STREAM/CREEK/RIVER

____ DITCH/CHANNEL

- UG-E --- UG-E - UNDERGROUND ELECTRIC/POWER LINE

--- US-COM UNDERGROUND COMMUNICATION LINE

POWER/UTILITY POLE

LIGHT POLE / AREA LIGHT

POWER/UTILITY POLE W/LIGHT

OVERHEAD POWER/UTILITY LINE

PROP. DITCHES/SWALES and LININGS
PROP. DITCH/SWALE (ROADSIDE/MINOR
——×××× -> —— PROP. DITCH/SWALE w/N.A.G. S75 SINGL——××× —— SINGLE STRAW TEMP. LINING OR EQUAL
—
- -> - -> - PROP. DITCH/SWALE - ->>- ->> - W/LINING AS SPECIFIED
SEE PLANS FOR REQUIRED DITCH/SWALE SECTIONS

- -»-	- ->> - PROP. DITCH/SWALE - ->>- W/LINING AS SPECIFIED
SEE	PLANS FOR REQUIRED DITCH/SWALE SECTIONS
—TD	-> — TEMP. DIVERSION DITCH - USE N.A.G. S75 ->> — TEMP. LINING UNLESS OTHERWISE SPECIFIED
——PD ——PD	-> PERM. DIVERSION DITCH - USE N.A.G. S75> TEMP. LINING UNLESS OTHERWISE SPECIFIED
SEE E	EROSION DETAILS FOR DIVERSION DITCH SECTIONS

	OTHER TERMINOLOGY
"MSB	L" = MINIMUM SETBACK LINE
"MH"	= MANHOLE ("SS" = SANITARY SEWER)
"c/o	= CLEANOUT
"WM"	= WATER METER
"WV"	= WATER VALVE
"GV"	= GATE VALVE
"BV"	= BUTTERFLY VALVE
	= FIRE HYDRANT
"BFP	= BACKFLOW PREVENTER
"RPZ	' = REDUCED PRESSURE BFP
"DCV	A" = DOUBLE CHECK VALVE ASSEMBLY BF
"CB"	= CATCH BASIN (NCDOT - TYP)
"DI"	= DROP INLET (NCDOT - TYP)
"YI"	= YARD INLET
"d/s	= DOWNSPOUT
"DIP"	= DUCTILE IRON PIPE
"PVC	" = POLYVINYL CHLORIDE PIPE
"PE"	= POLYETHYLENE PIPE
	E" = HIGH-DENSITY POLYEHTYLENE PIPE

"RCP" = REINFORCED CONCRETE PIPE

"PP/L" = POWER POLE W/LIGHT

"F/C" = FACE OF CURB (AT FLOW LINE)

"PP" = POWER POLE

"LP" = LIGHT POLE

"B/C" = BACK OF CURE

OVERALL PROJECT INFO

GENERAL NOTES

Refer to Site Plan / Overall Layout (Sheet 2); for general notes and special notes for overall project.

SPECIAL NOTES - HANDICAP ACCESSIBILITY

SPECIAL NOTES - ACCESSIBILITY FOR SITE CONSTRUCTION

Any construction for handicap accessibility related to this plan shall conform to ADA Regulations, 2010 Standards (made up of "Title II" 28CFR 35.51 or "Title III" 28CFR Part 36, Subpart D, as applicable; plus "2004 ADAAG" at 36CFR Part 1191, appendices B&D); construction shall also comply with ICC/ANSI 117.1, latest version; whichever is more stringent. Any accessible construction related to transportation facilities shall conform to USDOT ADA Standards for Transportation Facilities, 2006.

L. Accessible Parking Spaces - Material: Accessible Parking Spaces shall be paved using either asphalt or concrete, equivalent in thickness and base material to that of the surrounding paved parking spaces. If surrounding spaces are not paved, then asphalt shall be a minimum of 2-inches thick using Superpave surface course material and appropriate compacted stone base material; and concrete shall be a minimum of 4-inches thick using 3500 psi minimum strength concrete and appropriate compacted stone base

2. Location & Maximum Slopes for Accessible Parking Spaces: Locate accessible parking spaces as indicated on plan; OR when final building footprint and location are not known or when location of building entrances are changed, then locate accessible spaces as close to an accessible building entrance as practical (and closer than any other typical parking spaces). Accessible Parking Spaces and adjacent aisles shall not exceed 2.0% slope in any direction in accordance with ICC/ANSI 117.1, Section 502.5, latest version. All other requirements for Accessible Parking Spaces shall comply with 2010 ADA/2004 ADAAG Section 208, OR, ICC/ANSI 117.1, Section 502; as

3. Accessible Route: A paved accessible route shall be provided from accessible parking spaces to an accessible building entrance. Designated Accessible Routes shall be located in accordance with 2010 ADA/2004 ADAAG Section 206.2.1 & 206.2.2. Designated Accessible Routes shall not exceed 5.0% longitudinal slope or 2.0% cross-slope in accordance with 2010 ADA/2004 ADAAG Section 402.2 & 403.3. All other requirement for Accessible Routes shall comply with 2010 ADA/2004 ADAAG Section 206 & 402, OR, ICC/ANSI 117.1, Section 402; as applicable. Designated Accessible Routes shall be striped when required by local building inspections.

4. Field Construction of Final Slopes: Accessible parking spaces and routes within the site shall be provided and constructed in accordance with the above standards. CONTRACTOR shall give special attention to required grades and slopes during construction, and ensure that the required maximum slopes are not exceeded. In general, proposed grades and contours were set in order to meet the required standards. However, because of the detail in construction required to achieve these requirements in the field, the CONTRACTOR shall be responsible for ensuring that staking, rough grading, base material installation, fine grading, and finish surface result in the desired finish grades & slopes along accessible routes.

5. Slopes Greater that 5.0%: Slopes exceeding 5.0% in accessible areas shall be considered "Ramps" or "Curb Ramps" and shall be constructed accordingly. Some Ramps or Curb Ramps may be identified on the plans.

6. Curb Ramps: Curb Ramps shall be constructed in accordance with all requirements of 2010 ADA/2004 ADAAG Section 406, OR, ICC/ANSI 117.1, Section 406; as applicable.

7. Ramps: Ramps shall be constructed in accordance with all requirements of 2010 ADA/2004 ADAAG Section 405, OR, ICC/ANSI 117.1,

8. See also detail sheets for accessibility details...

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

(NOT RELEASED FOR CONSTRUCTION)



BRIEF SPECS - OVERALL SITE GRADING/EARTHMOVING and FINAL SURFACES

CONSTRUCTION NOTES/SPECIFICATIONS SITE GRADING

(ie. BUILDINGS, VEHICULAR/STREETS, OR MASS GRADING)

NOTE: Grading on this site pertains mainly to parking/vehicular area grading with related drainage/utility excavations to the lines/profiles/sections as indicated in the Drawings.

1. STRUCTURAL GRADING & BASES - MATERIALS & METHODS: CONTRACTOR shall be responsible for all earth material and base materials moved and used in ALL graded areas (particularly for this Site... parking/vehicular area grading; and any other general graded areas not specified elsewhere). CONTRACTOR shall ensure that all material for such areas (whether from on-site or hauled-in) is suitable for the intended use. Compaction for both subgrade and base materials in paved vehicular areas shall be in accordance with current NCDOT standards, or as specified in a separate site-specific geotechnical report (see Special Note ii. below). Any work in existing NCDOT right-of-way shall be in accordance with the NCDOT Standards, as well as the provisions of an applicable NCDOT permit or encroachment (this also applies to work in ANY OTHER applicable utility/right-of-way and their applicable standards, permits, or encroachments). For grading in areas outside of paved vehicular areas or building pads, compaction shall be 95% standard proctor compacted in 6-inch lifts, unless otherwise specified, or unless stated otherwise in a site-specific geotechnical report.

. TESTING (COMPACTION): Quality Control (Field-Testing): CONTRACTOR shall provide for proof-rolling and standard independent field testing for compaction of subgrades and stone bases for all vehicular areas (streets, parking, etc.) and building pads/foundations; and provide the same for any other graded areas in conformance with these specifications or any referenced standards as applicable (see previous Note 1). CONTRACTOR shall provide to ENGINEER a certified copy of proof-rolling & compaction test results from the independent testing firm. OWNER/Developer or ENGINEER will not perform, or be responsible for providing, any field testing on this

SPECIAL NOTES FOR ALL GRADING & EXCAVATIONS:

i. EXCAVATIONS and Related SOIL/SUBSURFACE INVESTIGATIONS or Other DESIGN STUDIES: Excavations: Excavation work (for grading AND/OR trenching) may be considered CLASSIFIED for rock material and unsuitable soil when a specific clause or provision has been provided in the Construction Documents or Contract; ALL other excavation shall be considered UNCLASSIFIED. For this project, refer to contract between OWNER and CONTRACTOR.

SOIL/SUBSURFACE INVESTIGATIONS or Other DESIGN STUDIES: • Site Soil Borings and/or Geotechnical Report: To the ENGINEER's knowledge, there have been NO pre-construction investigations made using soil borings to confirm the existence or non-existance of rock, poor soils, or other possible soil conditions below the surface, OR to classify soil types. Therefore, there have been NO site-specific engineered designs or recommendations made regarding soil structures, subgrades, building pads, pavement bases or even pavement thickness. All design and construction for such materials shall be in accordance with appropriate standards; or acceptable industry practice.

 Sub-surface Utility Locations or Other Sub-surface Investigations:
 CONTRACTOR is responsible for locating underground utilities and other facilities prior to construction, and the protection of utilities during construction. To the ENGINEER's knowledge, there have been NO pre-construction investigations made using excavations, pipeline-locating equipment or ground-penetrating technology to determine a precise location (either horizontal or vertical) for utilities or other possible hazards below the surface. Where evidence of utilities or other facilities was evident at the surface; such evidence was field located by the Project Surveyor and indicated on the Plans (see Existing Conditions Survey for site features and conditions). The discovery of any unknown/unforeseen facilities or conditions in the field shall be reported immediately to the ENGINEER; and additional time, services, or expenses may be required to make appropriate adjustments.

QUANTITIES: CONTRACTOR shall estimate all earthwork quantities based on the lines/profiles/sections in these drawing and/or existing/proposed contours as applicable and shall bid any lump sum work or provide overall pricing according to his own take-offs. ENGINEER has NOT performed a separate takeoff for earthwork or other quantities. For design of site grades, ENGINEER has set the finish grades to minimize earthwork as much as practical (which does not take into consideration unknown soil conditions, or other detailed conditions such as topsoil depths, unsuitable soils, final surfaces and base materials, etc.); and ENGINEER makes no representation regarding exact earthwork quantities or a balanced site. CONTRACTOR shall make request to ENGINEER if any adjustment to grades are anticipated or necessary in order to try and balance earthwork, or to reduce import or waste material. If adjustments are requested, CONTRACTOR shall give specific information regarding the extent and degree of any grade changes or other changes to the plan. Otherwise, CONTRACTOR shall be responsible for all import or waste material as needed to bring the site to finish grade.

i. EROSION CONTROL: This site disturbes GREATER than 1.0 acre; and therefore, an erosion control plan is required by the state erosion control authority (NCDEQ). Refer to the approved Erosion Control Plan for all required erosion devices. In addition, CONTRACTOR shall provide any/all erosion measures as needed to keep sediment contained on-site, in accordance with NC Sedimentation & Erosion Control

. FINAL TOPSOIL & SEEDING: All denuded areas left exposed shall be stabilized within a short time frame to prevent erosion in accordance with the Ground Stabilization Requirements in the Erosion Control Plan (when applicable); or otherwise according to an approved seasonal mix, with a final straw mulch and tack coat. Final/permanent seeding cover shall be as coordinated between OWNER and CONTRACTOR (and in accordance with the seeding schedule in the Erosion Control Plan, when

Topsoil shall be spread appropriately in areas for final seeding and INCLUDED as part of normal grading operations, in order to facilitate grass growth for permanent seeding; or plant growth in any landscaped areas. (Stockpile any topsoil for later use in areas indicated on Plan, or otherwise as coordinated with OWNER).

. WASTE MATERIAL: Any usable waste material remaining after finished grades have been established may be distributed in appropriate areas within the limits of disturbance, when authorized by OWNER and ENGINEER. Excess material not utilized on-site shall be disposed of by CONTRACTOR. Notify the appropriate permitting authority upon any grading beyond the limits of disturbance (esp. NC Div. of Land Resources if applicable for erosion control and/or local health department if applicable for septic systems).

CONSTRUCTION NOTES/SPECIFICATIONS - ASPHALT & CONCRETE MATERIAL & METHODS

. STANDARD DESIGNS: Materials, cross-sections, thicknesses, and other specific designs for asphalt and/or concrete pavements (and even pedestrian/sidewalk pavements) on this Plan are based on NCDOT standards or designs, or other accepted standards or details. See typical sections or details in these plans, or refer to NCDOT standards, or appropriate reference standard. Any other asphalt, concrete, or other structural materials as may be used on this project have not been designed or engineered; and CONTRACTOR is responsible for any special design or engineering related to other such structural materials.

2. STANDARD CONSTRUCTION MATERIAL & METHODS: CONTRACTOR is responsible for all asphalt and concrete pavement materials and related construction methods on site. All asphalt and concrete pavement materials and methods on this site shall be in accordance with current NCDOT Standards. Any work in existing NCDOT right-of-way shall be in accordance with the NCDOT Standards, as well as the provisions of an applicable NCDOT permit or encroachment (this also applies to work in ANY OTHER applicable utility/right-of-way and their applicable standards, permits, or encroachments).

3. TESTING: Quality Control (Field-Testing): CONTRACTOR shall provide for standard independent field testing for density of asphalt, concrete strength, slump tests, or other field tests; AND in conformance with the above-referenced standards as applicable. OWNER/Developer or ENGINEER will not perform, or be responsible for providing, any field testing on this Project. Quality Assurance: CONTRACTOR shall be responsible for assuring that all produced, pre-fabricated, and pre-manufactured products and materials are suffient for the intended use and tested according the required NCDOT standard, or otherwise according to an accepted industry standard; AND CONTRACTOR shall provide certifications and other documentation verifying such product testing upon request by ENGINEER.

4. QUANTITIES: CONTRACTOR shall estimate all asphalt and concrete quantities based on typical sections or other dimensions as called for on the Plans, as well as the existing and proposed profile grades and/or contours, and shall bid any lump sum work or provide overall pricing according to his own take-offs. ENGINEER has not performed a separate take-off for asphalt, concrete or other quantities.

5. OTHER SURFACE MATERIALS: N/A

BRIEF SPECS - STORM DRAINAGE

NOTE: There are no specific storm drainage culverts, structures, or piping directly related to this project. All proposed drainage is surface drainage via sheet flow or curb flow and will be directed to nearby natural drainage. This specification may be a redundancy but is included here in case it is needed in the field.

STORM DRAINAGE GRADING

1. STRUCTURAL GRADING & BASES - MATERIALS & METHODS: CONTRACTOR shall be ponsible for all earth material and base materials moved and used for storm drainage grading, pipe trenching and backfilling. CONTRACTOR shall ensure that all material for such areas (whether from on-site or hauled-in) is suitable for the intended use. Compaction for subgrades, trench bases, or backfill, shall be in accordance with current NCDOT Standards. Any work in existing NCDOT right-of-way shall be in accordance with the NCDOT Standards, as well as the provisions of an applicable NCDOT permit or encroachment (this also applies to work in ANY OTHER applicable utility/right-of-way and their applicable standards, permits, or encroachments).

2. TESTING (COMPACTION): Quality Control (Field-Testing): No field-testing (compaction testing) for storm drainage is required, UNLESS required by an applicable encroachment or part of an agency approval; in which case CONTRACTOR shall provide for such testing with an independent/certified testing firm. OWNER/Developer or ENGINEER will not perform, or be responsible for providing any field testing on this Project. IF HOWEVER, insufficient products, material or methods are suspected in the field and ENGINEER orders a field test; then CONTRACTOR shall provide for such testing; however, if test passes then CONTRACTOR may credit the charge for testing to the OWNER on a

SEE ALSO "SPECIAL NOTES FOR ALL GRADING & EXCAVATIONS" UNDER OVERALL GRADING/ EARTHMOVING WHICH ALSO APPLIES TO STORM DRAINAGE GRADING, TRENCH EXCAVATION &

CONSTRUCTION NOTES/SPECIFICATIONS - STORM DRAINAGE MATERIALS & METHODS

1. STANDARD DESIGNS: Materials, thicknesses, cross-sections, and other specific designs for storm drainage structures & piping; including concrete (whether cast-in-place or pre-cast); block; brick; castings; pipe material; and any other storm drainage material on this Plan are based on NCDOT standard details or designs, or other accepted standards or details. See typical sections or details in these plans, or refer to NCDOT standards, or appropriate reference standard. Any other structural materials or products (which are not standard or not detailed in the plans or specs) have not been designed or engineered; and CONTRACTOR or Supplier is responsible for any special design or engineering related to other such structural materials.

2. STANDARD CONSTRUCTION MATERIAL & METHODS: CONTRACTOR is responsible for all storm drainage materials and related construction methods on site. All storm drainage materials and methods on this site shall be in accordance with current NCDOT Standards. Any work in existing NCDOT right-of-way shall be in accordance with the NCDOT Standards, as well as the provisions of an applicable NCDOT permit or encroachment (this also applies to work in ANY OTHER applicable utility/right-of-way and their applicable standards, permits, or encroachments).

3. TESTING: Quality Control (Field-Testing): No field-testing of products or material for storm drainage is required, UNLESS required by an applicable encroachment or part of an agency approval; in which case CONTRACTOR shall provide for such testing. ENGINEER will not perform, or be responsible for providing, any field testing on this Project. IF HOWEVER, insufficient products, material or methods are suspected in the field and ENGINEER orders a field test; then CONTRACTOR shall provide for such testing; however, if test passes then CONTRACTOR may credit the charge for testing to the OWNER on a subsequent invoice. Quality Assurance: CONTRACTOR shall be responsible for assuring that all produced, pre-fabricated, and pre-manufactured products and materials are suffient for the intended use and tested according the required NCDOT standard, or otherwise according to an accepted industry standard; AND CONTRACTOR shall provide certifications and other documentation verifying such product testing upon request by ENGINEER.

4. QUANTITIES: CONTRACTOR shall estimate all storm drainage quantities based on details, typical sections or other dimensions as called for on the Plans, as well as the existing and proposed contours and/or profile grades, and shall bid any lump sum work or provide overall pricing according to his own take-offs. ENGINEER has not performed a separate take-off for storm drainage or other quantities.

CONSTRUCTION NOTES/SPECIFICATIONS (ie. TRENCH EXCAVATION; BACKFILL; BASIC GRADING)

> 1. STRUCTURAL GRADING & BASES - MATERIALS & METHODS: CONTRACTOR shall be responsible for all earth material and base materials moved and used for water & sewer grading, pipe trenching and backfilling. CONTRACTOR shall ensure that all material for such areas (whether from on-site or hauled-in) is suitable for the intended use. Material installation & compaction for subgrades, trench bases, or backfill, shall be in accordance with the details in these Drawings and the local utility or public works standards as applicable; or otherwise in accordance with the standard specifications or recommendations of the pipe manufacturer, for the specific pipe material being installed. Any work in existing NCDOT right-of-way shall be in accordance with the NCDOT Standards, as well as the provisions of an applicable NCDOT permit or encroachment (this also applies to work in ANY OTHER

CONSTRUCTION NOTES/SPECIFICATIONS

WATER/SEWER GRADING

(ie. TRENCH EXCAVATION; BACKFILL; BASIC GRADING)

2. TESTING (COMPACTION): Quality Control (Field-Testing): No field-testing (compaction testing) for water & sewer is required, UNLESS required by an applicable encroachment or part of an agency approval; in which case CONTRACTOR shall provide for such testing with an independent/certified testing firm. OWNER/Developer or ENGINEER will not perform, or be responsible for providing, any field testing on this Project. IF HOWEVER, insufficient products, material or methods are suspected in the field and ENGINEER orders a field test; then CONTRACTOR shall provide for such testing; however, if test passes then CONTRACTOR may credit the charge for testing to the OWNER on a

applicable utility/right-of-way and their applicable standards, permits, or encroachments).

SEE ALSO "SPECIAL NOTES FOR ALL GRADING & EXCAVATIONS" UNDER OVERALL GRADING/ EARTHWORK WHICH ALSO APPLIES TO WATER/SEWER GRADING, TRENCH EXCAVATION &

CONSTRUCTION NOTES/SPECIFICATIONS — WATER & SEWER MATERIALS & METHODS

1. STANDARD DESIGNS: Materials, thicknesses, cross-sections, and other specific designs for wat services; building sewer; related pipe material; and any other related water/sewer material on this Plan are based on Town of Smithfield standard details or designs, NC Building/Plumbing Code or other industry accepted standards or details. See typical sections or details in these plans, or refer to Town standards, or NC Building/Plumbing Code, or appropriate reference standard. Any other structural materials or products (which are not standard or not detailed in the plans or specs) have not been designed or engineered; and CONTRACTOR or Supplier is responsible for any special design or engineering related to other such structural materials.

2. STANDARD CONSTRUCTION MATERIAL & METHODS: CONTRACTOR is responsible for all water service & building sewer materials and related construction methods on site. All water & sewer materials and methods on this site shall be in accordance with current Town of Smithfield Standards, NC Building/Plumbing Code, or other industry specified standard or detail. Any work in existing NCDOT right-of-way shall be in accordance with the NCDOT Standards, as well as the provisions of an applicable NCDOT permit or encroachment (this also applies to work in ANY OTHER applicable utility/right-of-way and their applicable standards, permits, or encroachments).

 TESTING: Quality Control (Field-Testing): CONTRACTOR shall provide for field testing of water services and building sewers in accordance with Section 312 of NC Plumbing Code and Town of Smithfield Standards/Specifications. CONTRACTOR shall notify Inspector and ENGINEER in advance of field-testing to be performed and/or provide to ENGINEER a certified copy of the test results. OWNER/Developer or ENGINEER will not perform, or be responsible for providing, any field testing on this Project. No other field-testing of products or material for water services or building sewer is required, UNLESS required by an applicable encroachment or part of an agency approval; in which case CONTRACTOR shall provide for such testing. insufficient products, material or methods are suspected in the field and ENGINEER orders a field test; then CONTRACTOR shall provide for such testing; however, if test passes then CONTRACTOR may credit the charge for testing to the OWNER on a subsequent invoice. Quality Assurance: CONTRACTOR shall be responsible for assuring that all produced, pre-fabricated, and pre-manufactured products and materials are suffient for the intended use and tested according the required standard, or otherwise according to an accepted industry standard; AND CONTRACTOR shall provide certifications and other documentation verifying such product testing upon request by

4. QUANTITIES: CONTRACTOR shall estimate all water service and building sewer quantities based on details, typical sections or other dimensions as called for on the Plans, as well as the existing and proposed contours and/or profile grades, and shall bid any lump sum work or provide overall pricing according to his own take-offs. ENGINEER has not performed a separate take-off for water services

or building sewer or other quantities.

ADDITIONAL SPECIFICATIONS - WATER SERVICE

appurtenances, to serve proposed building(s) on-site. The proposed Water Service and Building Sewer shall be in accordance with the following...

BRIEF SPECS - WATER / SEWER

NOTE: Water & Sewer construction as proposed herein pertains only to a newly proposed Water Service and a newly proposed gravity Building Sewer, and related

WATER SERVICE(S) TO BUILDING(S):

(A proposed fire suppression water line is not part of these plans and shall be designed/permitted by others).

Water Service Pipe for this Project shall be Type K Copper (Town of Smithfield portion from main to right-of-way or easement) and then PVC (from Town portion to building plumbing), size as indicated on Plans (or otherwise 3/4" min. diameter), and as follows...

 PVC Pipe Material and Pipe Joints: PVC water service pipe shall be in accordance with NC Plumbing Code (ref: Sect. 605.3 & Table 605.3 for Water Service Pipe);

Plan shall be Schedule 40, ASTM D-1785 for Pressure Piping; or appropriate SDR rated pipe, ASTM 2241. (Alternate pipe material shall be approved by ENGINEER and Inspector). PVC pipe joints shall be in accordance with NC Plumbing Code (ref: Section 605.22 for PVC Pipe).

2. Copper Pipe Material and Pipe Joints: Copper water service pipe shall be in accordance with NC Plumbing Code (ref: Sect. 605.3 & Table 605.3 for Water Service Pipe); and in conformance with Town of Smithfield Standards for installation from the water main to meter or property/easement (ref: Sect. 604). Copper water service on this Plan shall be TYPE K Tubing, per approved Std. in NC Plumbing Code. (Alternate pipe material shall be approved by ENGINEER and Inspector). Copper pipe joints shall be in accordance with NC Plumbing Code (ref: Section 605.15 for Copper Tubing).

3. <u>Ductile Iron Pipe Material & Pipe Joints</u>: N/A this Plan.

4. Fittings & Joints for Fittings: Valves, bends and other pipe fittings shall be in accordance with NC Plumbing Code (ref: Sect. 605.5 & Table 605.5 for Pipe Fittings; and Sect. 6.05.7 for

5. Portion from Public Main to Meter AND Backflow Preventer: The portion of the water service from the public water main to meter shall be owned/operated by the municipality and shall be in accordance with all standards/requirements of the municipality; including the required tap, meter device, and any required testing. When backflow prevention is required; install backflow preventer as indicated on plan; or otherwise as required by the municipality or building inspector (some BFP's are allowed inside building depending on municipality or building inspector).

6. Minimum Pipe Cover: Minimum ground cover requirements for water service installation shall be 3.0'.

7. Additional Specifications: Comply with all other applicable requirements of NC Plumbing Code for water services. See also Project Technical Specifications if developed separately for

OTHER WATER NOTES/SPECIFICATIONS...

8. CONTRACTOR shall notify Building Inspections and/or Public Utilities as applicable, and ENGINEER, at least 72 hours prior to construction of water services; and sufficiently in advance of taps and field pressure testing as required. Waterline may not be accepted unless testing and other milestones are witnessed by the ENGINEER or Inspector.

9. Unless otherwise specified, waterlines adjacent to existing & proposed roadways shall be installed 5.0' from the edge of pavement, within the shoulder. Existing ditches that are disturbed shall be regraded approximately to the original dimensions and reseeded & mulched, with check dams or straw wattles appropriately spaced to impede and trap local sediment.

10. Not all waterline fittings are labeled or shown on the plan. Additional fittings or fewer fittings may be warranted in the field to facilitate the layout of the waterline. The CONTRACTOR shall perform all take-offs for quantities as necessary to account for such fittings or other

 Gate valves, backflow preventers, and/or meter locations as shown are schematic only. CONTRACTOR shall endeavor to install all valves and boxes outside of pavement areas and in accordance with the preferences of the local Inspector. Valves and boxes that must be installed in pavement shall be traffic bearing in accordance with Town & NCDOT standards.

12. When an approved erosion control plan is not required, then the CONTRACTOR shall be responsible for all necessary erosion devices that prevent sediment from affecting adjacent properties; in accordance with State of North Carolina Erosion Control Law. If an erosion control plan is required, then refer to plan for required devices.

ADDITIONAL SPECIFICATIONS - BUILDING SEWER

BUILDING SEWER FROM BUILDING(S):

Sewer Service Pipe for this Project shall be PVC, size as indicated on Plans, (or otherwise 4-inch min. diameter) and as follows...

. PVC Pipe Material and Pipe Joints: PVC sewer service pipe shall be in accordance with NC Plumbing Code (ref: Sect. 702.3 & Table 702.3 for Building Sewer Pipe); and in conformance with Town of Smithfield Standards for installation from the sewer main to property/easement (ref: Sect. 7.04). PVC sewer service on this Plan shall be SDR-35, ASTM D-3034. (Alternate pipe material shall be approved by ENGINEER and Inspector). PVC pipe joints shall be in accordance with NC Plumbing Code (ref: Section 705.14 for PVC Pipe).

2. Ductile Iron Pipe Material & Pipe Joints: None indicated this Plan, but is an "Allowable Alternate". IF USED shall comply with NC Building Code.

3. Fittings & Joints for Fittings: Pipe fittings shall be in accordance with NC Plumbing Code (ref. Sect. 702.4 & Table 702.4 and/or Sect. 706 as applicable for Pipe Fittings).

4. Cleanouts: Cleanouts shall be PVC, minimum 4-inch diameter in accordance with NC Plumbing Code (ref: Sect. 708) and any standard details of Town of Smithfield and installed as indicated on Plan and as required by Code at horizontal and vertical directional changes, on 6-inch or smaller building sewer, service lines, and private gravity lines. (Alternate material shall be approved by ENGINEER and Inspector).

5. Portion from Public Sewer to Sewer Easement: The portion of the building sewer from the public sewer main to the sewer easement shall be owned/operated by the municipality and shall be in accordance with all standards/requirements of the municipality; including the required tap, cleanout, and any required testing.

5. Minimum Pipe Cover & Sewer Grade: Minimum ground cover requirements for sewer service nstallation shall be 3.0'. Building sewer may be set on grade by CONTRACTOR as needed from the tap at the municipal main (or manhole) to the building; but shall comply with NC Plumbing Code Table 704.1. (Taps/tie-ins at municipal manholes with "drops" to the sewer invert may also require construction of a vertical inside or outside drop pipe when the drop exceeds a specified distance - coordinate with local municipality or utility).

. Additional Specifications: Comply with all other applicable requirements of NC Plumbing Code for sewer services. See also Project Technical Specifications if developed separately for

OTHER SEWER NOTES/SPECIFICATIONS..

8. CONTRACTOR shall notify Building Inspections and/or Public Utilities as applicable, and ENGINEER, at least 72 hours prior to construction of sewer services/laterals and sufficiently in advance of taps and field pressure testing as required. Sewer line may not be accepted unless testing and other milestones are witnessed by the ENGINEER or Inspector.

9. Existing ditches that are disturbed shall be regraded approximately to the original dimensions and reseeded & mulched, with check dams or straw wattles appropriately spaced to impede and

10. Not all sewer line fittings are labeled or shown on the plan. Additional fittings or fewer fittings may be warranted in the field to facilitate the layout of the sewer line. The CONTRACTOR shall perform all take-offs for quantities as necessary to account for such fittings or other appurtenances.

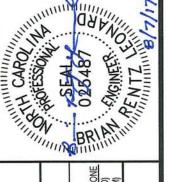
11. Sewer line appurtenances (esp. cleanouts) locations as shown are schematic only. CONTRACTOR shall endeavor to install all cleanouts outside of pavement areas and in accordance with the preferences of the local Inspector. Cleanouts that must be installed in pavement shall be traffic bearing in accordance with Town & NCDOT standards.

12. When an approved erosion control plan is not required, then the CONTRACTOR shall be responsible for all necessary erosion devices that prevent sediment from affecting adjacent properties; in accordance with State of North Carolina Erosion Control Law. If an erosion control plan is required, then refer to plan for required devices.

SURVEYING

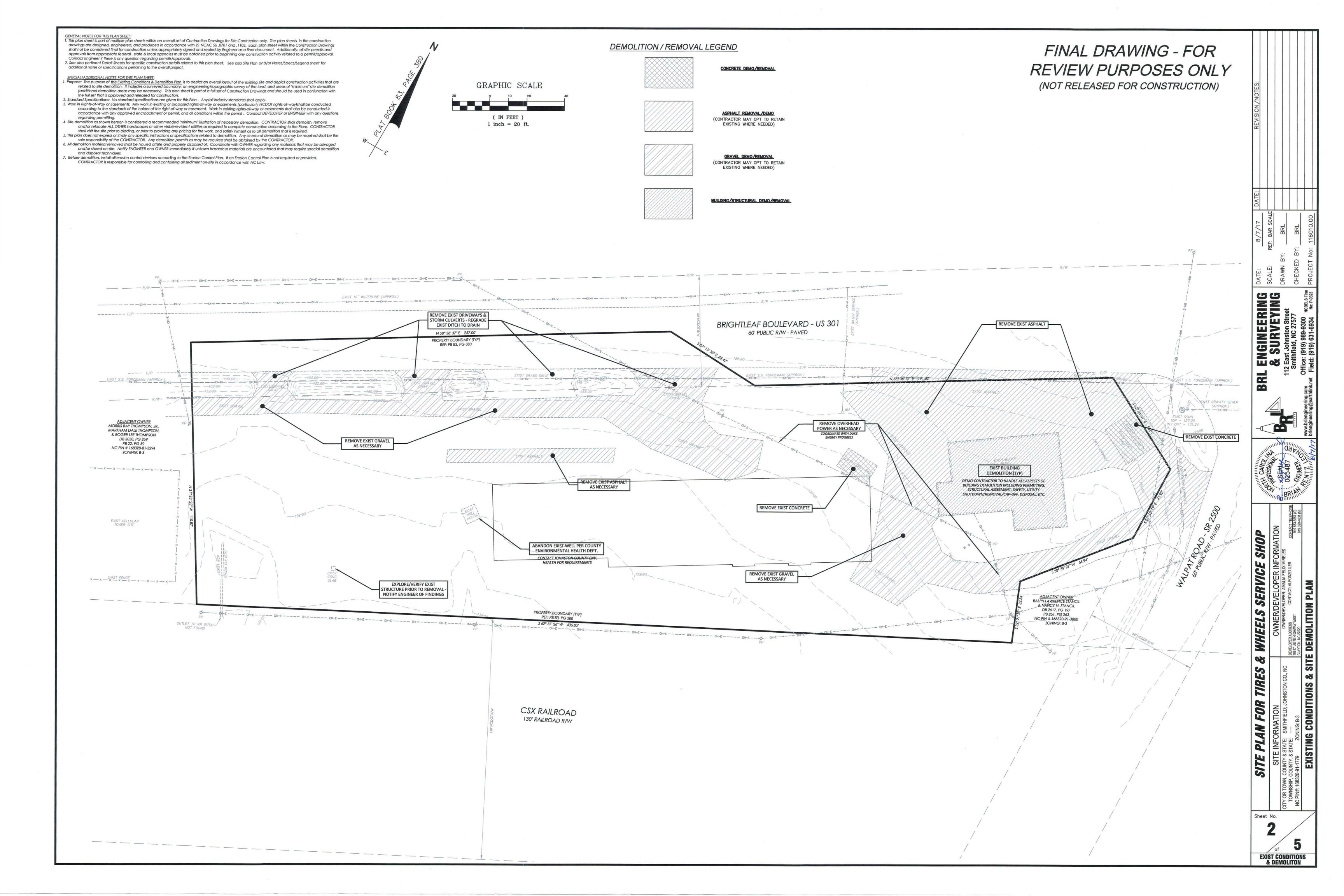
00

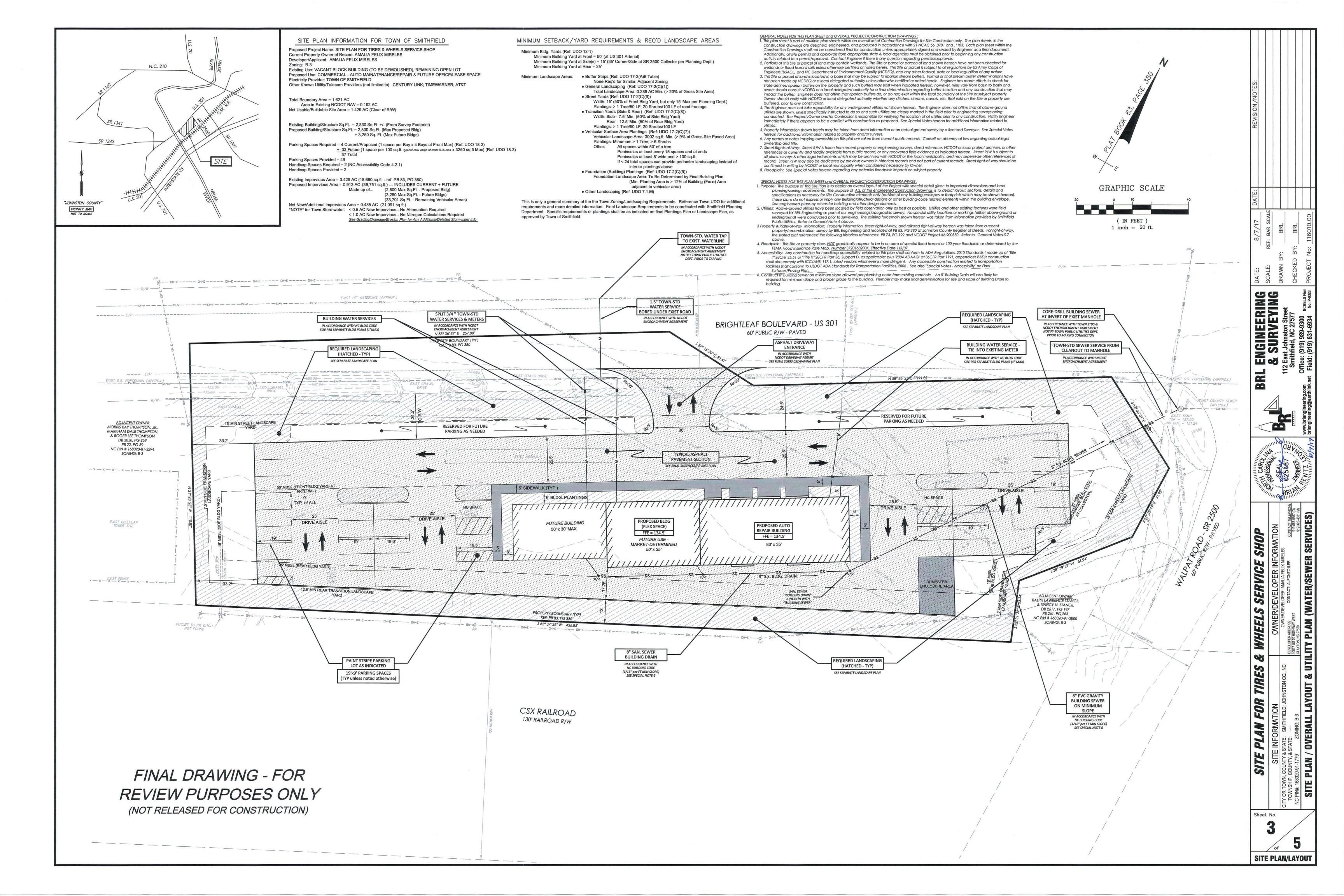


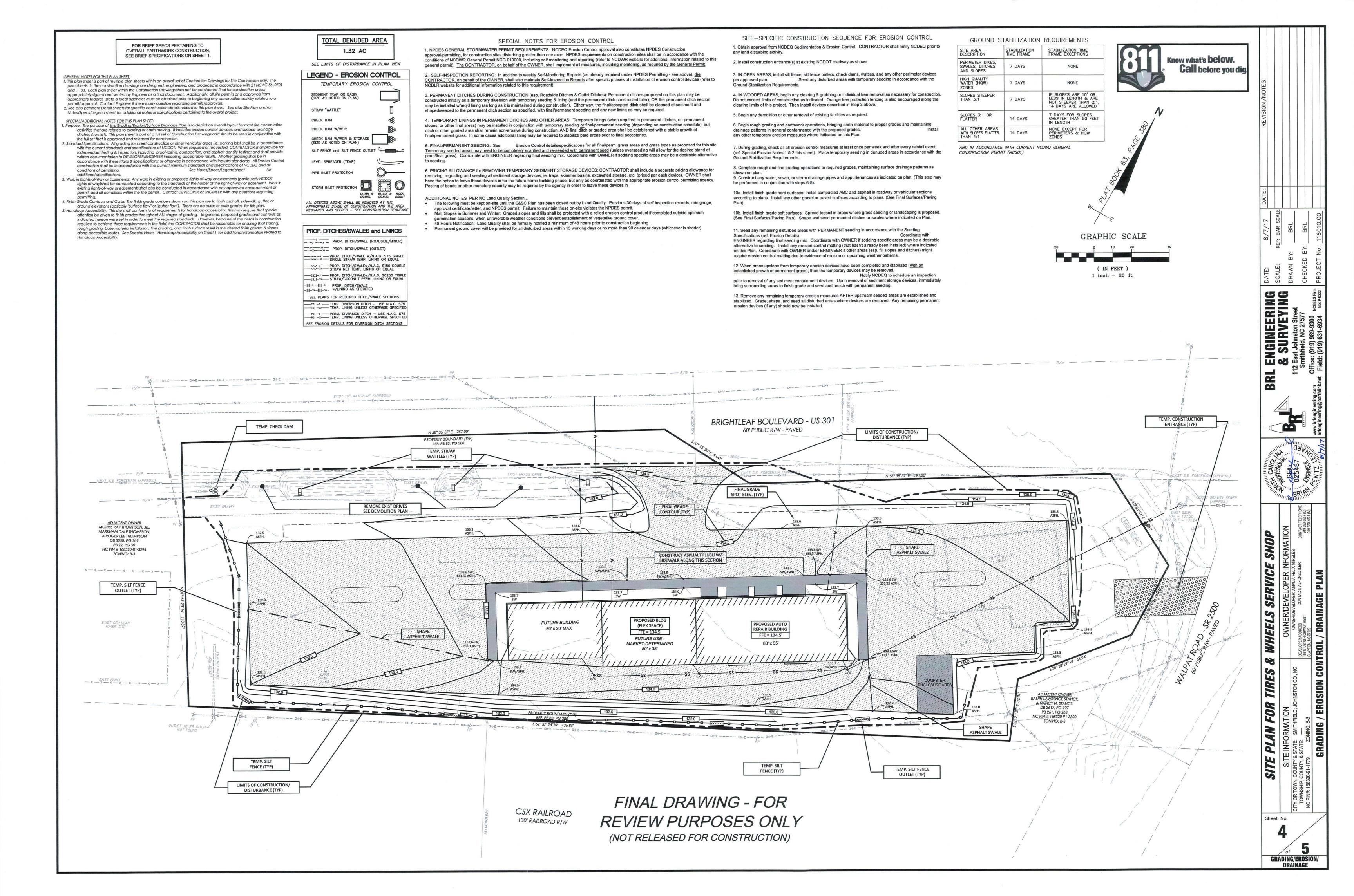


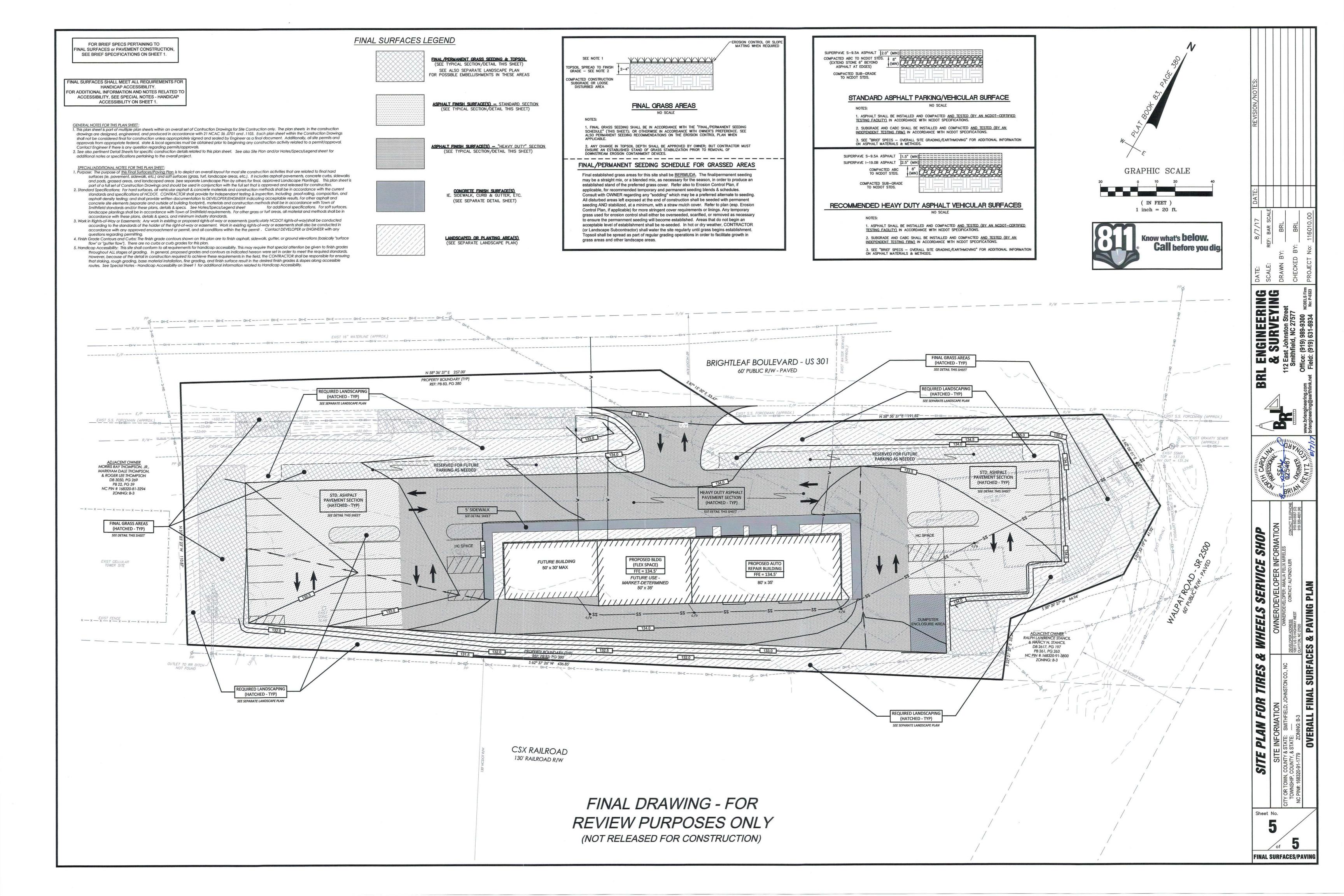
S VICE

NOTES/SPECS/LEGENE









Construction 1. Clear the entrance and exit area of all vegetation, roots, and other objec-Specifications tionable material and properly grade it.

2. Place the gravel to the specific grade and dimensions shown on the plans, and

3. Provide drainage to carry water to a sediment trap or other suitable outlet.

4. Use geotextile fabrics because they improve stability of the foundation in locations subject to seepage or high water table.

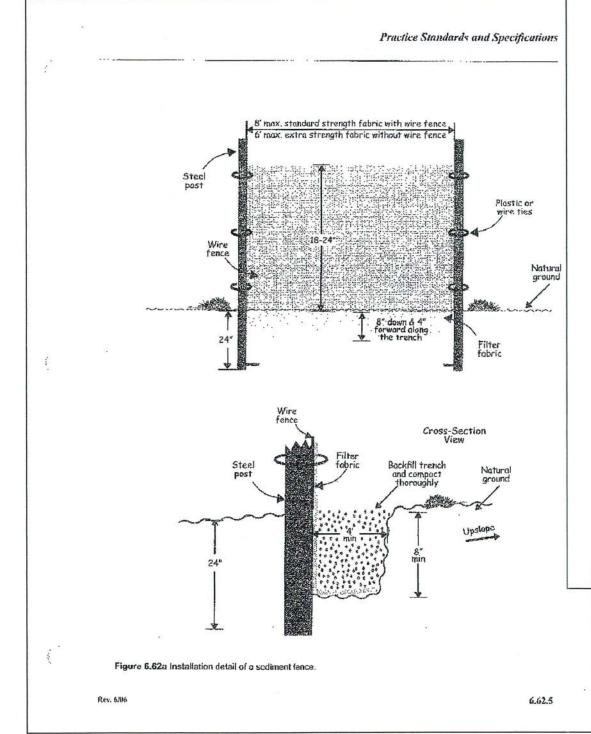
Maintenance Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

CONSTRUCTION ENTRANCE PAD DETAIL

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

(NOT RELEASED FOR CONSTRUCTION)

INSTALLATION OF NETTING AND MATTING



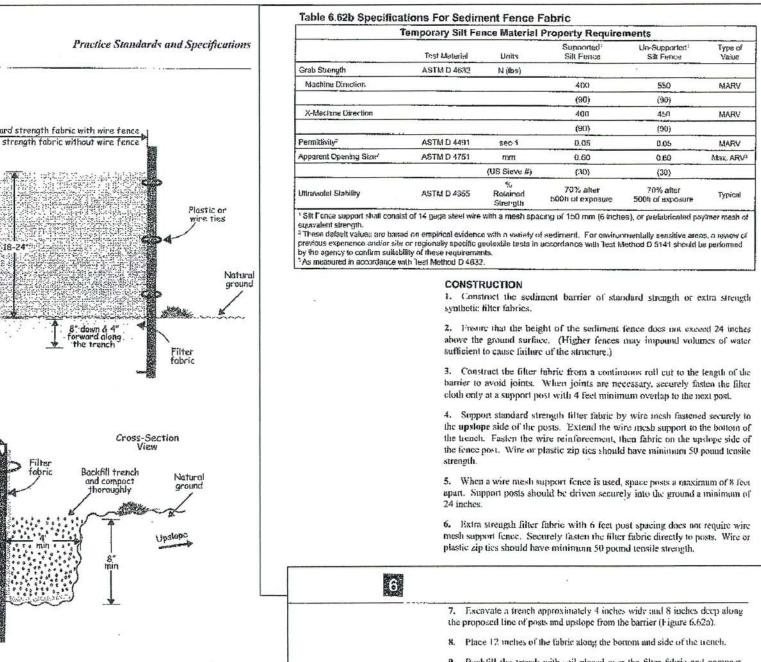
Maintenance Inspect sediment fences at least once a week and after each rainfall. Make any required repairs immediately.

> Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly.

> Remove sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid undermining the fence during cleanout.

> Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

SEDIMENT ("SILT") FENCING



9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to sitt fence performance.

10. Do not attach filter fabric to existing trees. SEDIMENT FENCE INSTALLATION USING THE SLICING METHOD

Instead of excavating a trench, placing fabric and then backfilling trench. sediment fonce may be installed using specially designed equipment that

inserts the fabric into a cut sliced in the ground with a disc (Figure 6.62b). Installation 1. The base of both end posts should be at least one foot higher than the Specifications middle of the fence. Check with a level if necessary.

. Install posts 4 feet apart in critical areas and 6 feet apart on standard 3. Install posts 2 feet deep on the downstream side of the silt fence, and

as close as possible to the fabric, enabling posts to support the fabric from upstream water pressure. 4. Install posts with the nipples facing away from the silt fabric.

5. Attach the fabric to each post with three ties, all spaced within the top 8 inches of the fabric. Attach each tie diagonally 45 degrees through the fabric.

with each puncture at least 1 inch vertically apart. Also, each tie should be positioned to hang on a post nipple when tightened to prevent sagging. 6. Wrap approximately 6 inches of fabric around the end posts and secure

7. No more than 24 inches of a 36 inch fabric is allowed above ground

8. The installation should be checked and corrected for any deviations before

9. Compaction is vitally important for effective results. Compact the soil immediately next to the silt fence fabric with the front wheel of the tractor, skid steer, or roller exerting at least 60 pounds per square inch. Compact the

upstream side first, and then each side twice for a total of 4 trips.

Installation in Channels—Excavate terminal trenches (12 inches deep and 6 inches wide) across the channel at the upper and lower end of the lined channel sections. At 25-foot intervals along the channel, anchor the RECP across the channel either in 6 inch by 6 inch trenches or by installing two closely spaced rows of anchors. Excavate longitudinal trenches 6 inches deep and wide along channel edges (above water line) in which to bury the outside RECP edges.

Note: The RECP should be placed upside down in the trench with the roll on

Once pinned and backfilled, the RECP is deployed by wrapping over the top of the trench and unrolling upstream. If the channel is wider than the provided rolls, place ends of adjacent rolls in the terminal trench, overlapping the adjacent rolls a minimum of 3 inches. Pin at 1 foot intervals, backfill, and compact. Unroll the RECP in the upstream direction until reaching the first intermittent trench. Fold the RECP back over itself, positioning the roll on the downstream side of the trench, and allowing the mat to conform to the

Then pin the RECP (two layers) to the bottom of the trench, backfill, and compact. Continue up the channel (wrapping over the top of the intermittent trench) repeating this step at other intermittent trenches, until reaching the upper terminal trench.

At the upper terminal trench, allow the RECP to conform to the trench, secure with pins or staples, backfill, compact and then bring the mat back over the top of the trench and onto the existing mat (2 to 3 feet overlap in the downstream direction), and pin at 1 foot intervals across the RECP. When starting installation of a new roll, begin in a trench or shingle-lap ends of rolls a minimum of 1 foot with upstream RECP on top to prevent uplifting. Place the outside edges of the RECP(s) in longitudinal trenches, pin, backfill, and compact.

Anchoring Devices—11 gauge, at least 6 inches length by 1 inch width staples or 12 inch minimum length wooden stakes are recommended for anchoring the RECP to the ground.

Drive staples or pins so that the top of the staple or pin is flush with the ground surface. Anchor each RECP every 3 feet along its center. Longitudinal overlaps must be sufficient to accommodate a row of anchors and uniform along the entire length of overlap and anchored every 3 feet along the overlap length. Roll ends may be spliced by overlapping 1 foot (in the direction of water flow), with the upstream/upslope mat placed on top of the downstream/ downslope RECP. This overlap should be anchored at 1 foot spacing across the RECP. When installing multiple width mats heat seamed in the factory, all factory seams and field overlaps should be similarly anchored.

Figure 6.17d Temporary Channel Liners; Washington State Department of Ecology Excavate channel to design grade and crass-section during seedbed preparation Typical installation ith erosion control blankets or turf reinforcement mats Intermittent check slot Longitudinal anchor trench Shingle-lap spliced ends or begin new roll in an intermittent check slot Prepare soil and apply seed before installing blankets, mats or other temporary channel liner system

1. Design velocities exceeding 2 ft/sec require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established 2. Grass-lined channels with design velocities exceeding 6 ft/sec should include turf reinforcement

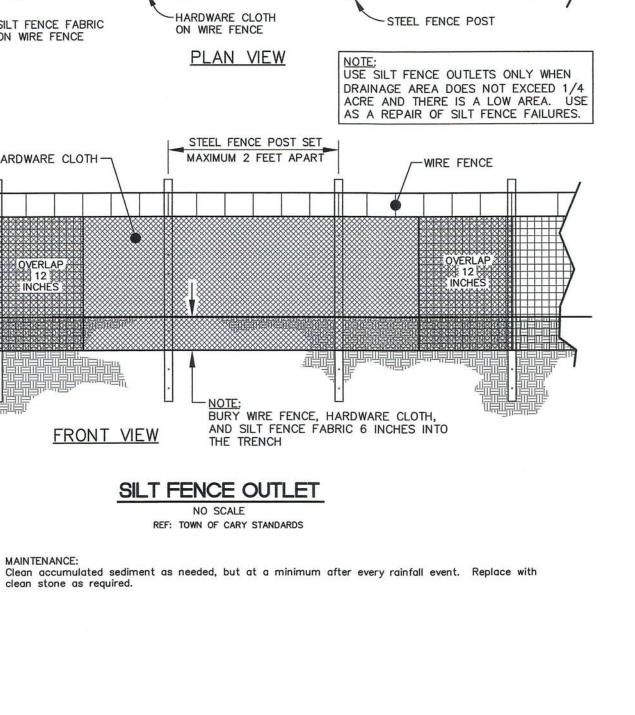


Figure 6.17e Channel Installation and Slope Installation; Washington State Ecology Department

1. Check slots to be constructed per manufacturers specifications.

2. Staking or stapling layout per manufacturers specifications.

Slope surface shall be smooth before

placement for proper sail contact.

Do not stretch blankets/matting tight-allow

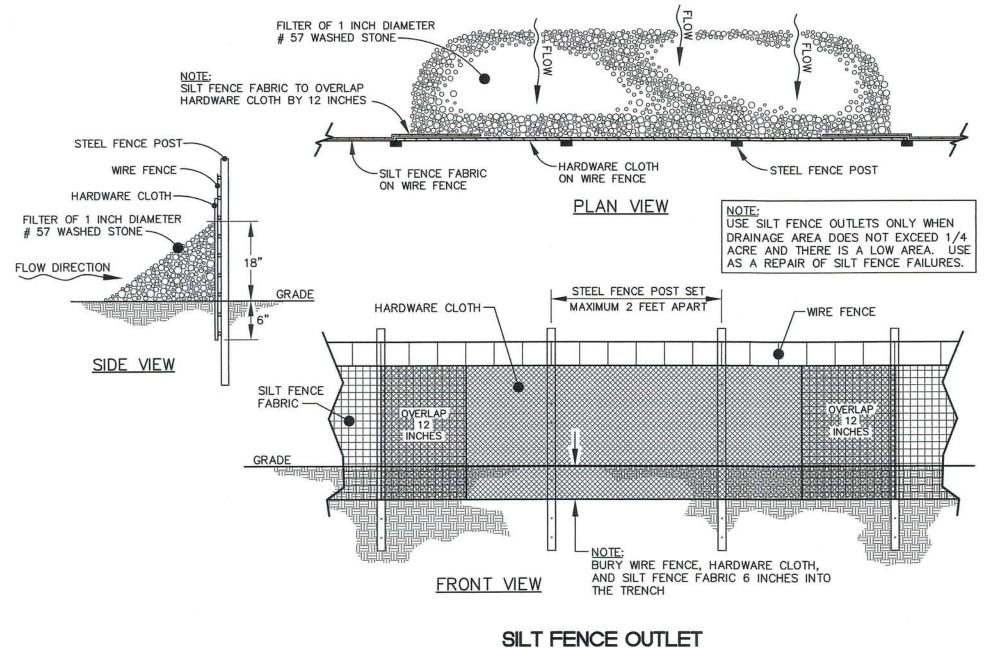
the rolls to conform to any irregularities.

For slopes less than 3H:1V, rolls

may be placed in horizontal strips.

Stapling pattern as

per manufacturers



clean stone as required

SHOP

Terminal slope and

channel anchor trench

If there is a berm at the top of

slope, anchar upslope of the berm.

Anchor in 6"x6" min. Trench

Bring material down to a level area,

turn the end under 4" and staple at 12"

Lime, fertilize, and seed before installation. Planting

of shrubs, trees, etc. should occur after installation.

and staple at 12" intervals,

SERVICE

WHEELS

TIRES

FOR

SITE

EROSION DETAILS

Construction Construction Specifications Even if properly designed, if not properly installed, RECP's will probably not function as desired. Proper installation is imperative. Even if properly installed, if not properly timed and nourished, vegetation will probably not grow as desired. Proper seed/vegetation selection is also imperative. Place the first RECP at the downstream end of the channel. Place the end of Grade the surface of installation areas so that the ground is smooth and loose. the first RECP in the terminal trench and pin it at 1 foot intervals along the When seeding prior to installation, follow the steps for seed bed preparation, bottom of the trench. soil amendments, and seeding in Surface Stabilization, 6.1. All gullies, rills, and any other disturbed areas must be fine graded prior to installation. Spread the downstream side of the bench. seed before RECP installation. (Important: Remove all large rocks, dirt clods, stumps, roots, grass clumps, trash, and other obstructions from the soil surface

> to allow for direct contact between the soil surface and the RECP.) Terminal anchor trenches are required at RECP ends and intermittent trenches must be constructed across channels at 25-foot intervals. Terminal anchor trenches should be a minimum of 12 inches in depth and 6 inches in width, while intermittent trenches need be only 6 inches deep and 6 inches wide.

Installation for Slopes—Place the RECP 2-3 feet over the top of the slope and into an excavated end trench measuring approximately 12 inches deep by 6 inches wide. Pin the RECP at 1 foot intervals along the bottom of the trench, backfill, and compact. Unroll the RECP down (or along) the slope maintaining direct contact between the soil and the RECP. Overlap adjacent rolls a minimum of 3 inches. Pin the RECP to the ground using staples or pins in a 3 foot center-to-center pattern. Less frequent stapling/pinning is acceptable on moderate slopes.

significant (1/2 inch or greater) rain fall event repair immediately.

4. If crosion occurs due to poorly controlled drainage, the problem shall be

5. Monitor and repair the RECP as necessary until ground cover is

2. Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.

fixed and the eroded area protected.

Maintenance 1. Inspect Rolled Erosion Control Products at least weekly and after each

3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.

ROLLED EROSION PRODUCTS (GENERAL)

FOR SPECIFIC ROLLED PRODUCTS, SEE DETAIL FOR "ROLLED EROSION CONTROL PRODUCTS (PROPRIETARY)"

Products designed to control crosion should be installed in accordance with manufacturer's instructions. Any mat or blanket-type product used as a protective mulch should provide cover of at least 30% of the surface where it is applied. Installation is illustrated in Figure 6.14a. 1. Apply lime, fertilizer and seed before laying the net or mat. In channels, roll out strips of netting parallel to the direction of flow and over the protective mulch. Join strips by anchoring Figure 6.14a Installation of netting and matting (modified from Va. Div. of Forestry)

Practice Standards and Specifications

wrinkles-do not stretch.

3. To secure the net, bury the upslope end in a slot or trench no less than 6 inches deep, cover with soil, and tamp firmly as shown in Figure 6.14a. Staple the net every 12 inches across the top end and every 3 ft. around the edges and bottom. Where 2 strips of net are laid side by side, the adjacent edges should be stapled down the center, every 3 ft. Do not stretch the net when applying

12 inches just below the anchor slot.

DITCH LINING INSTALLATION DETAIL (GENERAL) FOR OTHER ROLLED PRODUCTS, SEE DETAIL FOR "ROLLED EROSION CONTROL PRODUCTS (GENERAL)"

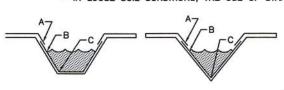
Same as for Rolled Erosion Control Products.

2. Start laying the net from the top of the channel or slope and unroll it down the grade. Allow netting to lay loosely on the soil or mulch cover but without

overlapped 3 inches and stapled together. Each strip of netting should also be

4. To join two strips, cut a trench to anchor the end of the new net. Overlap the end of the previous roll 18 inches, as shown in Figure 6.14a, and staple every

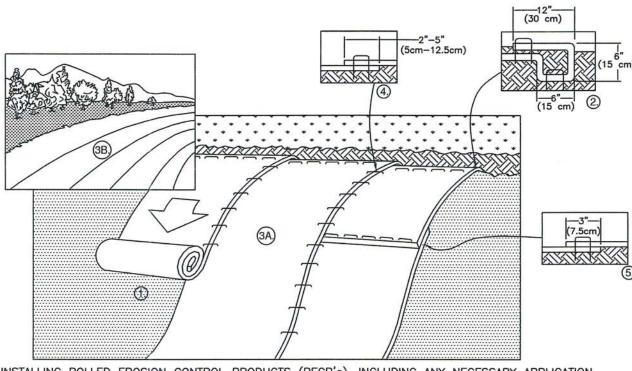
- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL—O—SEED DO NOT SEED PREPARED AREA. CELL—O—SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP'S EXTENDED BEYOND THE UP—SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMAPCT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE RECP'S.
- 3. ROLL CENTER RECP'S IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" 6" (10 CM -15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE RECP'S.
- 5. FULL LENGTH EDGE OF RECP'S AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. 6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (5 CM -12.5 CM) (DEPENDING ON RECP's TYPE) AND STAPLED.
- 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL. 8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP'S.



** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

REV. 01/05

SLOPE INSTALLATION



- 1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
- 3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKIS SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" 5" (5 CM 12.5 CM) OVERLAP DEPENDING
- 5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

Straw Wattle Installation Guide Typical Wattle Installation Guide 5et wattle in 2-3" deep trench Install with 18" or 24" Typical Wattle Spacing based on Slope Gradient Entrenchment Detail BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE, COMPACT SOIL FROM THE EXCAVATED TRENCH

- AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
- SECURE THE WATTLE WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4" (0.9 1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

North American Green Straw Wattles are a Best Management Practice (BMP) that offers an effective and economical alternative to silt fence and straw bales uidelines are provided to assist in design, installation, and structure spacing. The guidelines may require modification due to variation in soil type, rainfall intensity or duration, and amount of runoff affecting the application site.

To maximize sediment containment with the Straw Wattle, place the initial structure at the top/crest of the slope if significant runoff is expected from above. If no runoff from above is expected, the initial Straw Wattle can be installed at the appropriate distance downhill from the top/crest of the slope. The final structure should be installed at or just beyond the bottom/toe of the slope. Wattles should be installed perpendicular to the primary direction of overland flow. Straw Wattles are a temporary sediment control device and are not intended to replace rolled erosion control products (RECPs) or hydraulic erosion control products (HECPs). If vegetation is desired for permanent erosion control, North American Green recommends that RECPs or HECPs be used to provide effective immediate erosion control until vegetation is established. Straw Wattles may be used in conjunction with blankets, mats, and mulches as supplemental sediment and runoff control for these applications. Like all sediment control devices, the effectiveness of the Straw Wattle is dependent on storage capacity.

For additional installation assistance, please contact North American Green's Technical Services Department at 1 -800-772-2040 14649 Highway 41 North, Evansville, Indiana 47725 D.... 1/2000

FINAL DRAWING - FOR REVIEW PURPOSES ONLY (NOT RELEASED FOR CONSTRUCTION)

Temporary Seeding lecommendations for Late Winter and Early Spring

Table 6.10a | Seeding mixture

Rye (grain) Annual lespedeza (Kobe in Piedmont and Coastal Plain Korean in Mountains)

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding dates Mountains-Above 2500 feet: Feb. 15 - May 15

Below 2500 feet: Feb. 1- May 1 Piedmont-Jan. 1 - May 1 Coastal Plain-Dec. 1 - Apr. 15

Soil amendments Follow recommendations of soil tests or apply 2,000 lb/acre ground

agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

Temporary Seeding Recommendations for Fall

Table 6.10c | Seeding mixture Rye (grain)

Rate (lb/acre)

Coastal Plain and Piedmont—Aug. 15 - Dec. 30

ROLLED EROSION PRODUCTS (PROPRIETARY)

FOR NORTH AMERICAN GREEN PRODUCT INSTALLATION

NOTE: PLANS CALL FOR NORTH AMERICAN GREEN "OR EQUAL" PRODUCTS. ANY EQUAL PRODUCTS
SHALL BE INSTALLED ACCORDING TO THE GENERAL DETAILS INDICATED HEREON; OR ACCORDING TO

MANUFACTURER'S SPECIFICATIONS.

Follow soil tests or apply 2,000 lb/acre ground agricultural limestone

and 1,000 lb/acre 10-10-10 fertilizer.

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be

used as a mulch anchoring tool.

Maintenance Repair and refertilize damaged areas immediately. Topdress with 50 Ib/acre of nitrogen in March. If it is necessary to extent temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

Temporary Seeding Recommendations for

Table 6.10b Seeding mixture German millet

Rate (lb/acre)

Rate (lb/acre)

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding dates Mountains-May 15 - Aug. 15 Piedmont-May 1 - Aug. 15 Coastal Plain-Apr. 15 - Aug. 15

Soil amendments Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch Immediately following erosion or other damage.

SEEDING

Evenly apply seed using a cyclone seeder (broadcast), drill, cultipacker seeder, or hydroseeder. Use seeding rates given in Tables 6.10a-6.10c. Broadcast seeding and hydroseeding are appropriate for steep slopes where equipment cannot be driven. Hand broadcasting is not recommended because of the difficulty in achieving a uniform distribution.

Small grains should be planted no more than 1 inch deep, and grasses and legumes no more than 1/2 inch. Broadcast seed must be covered by raking or chain dragging, and then lightly firmed with a roller or cultipacker. Hydroseeded mixtures should include a wood fiber (cellulose) mulch.

MULCHING

The use of an appropriate mulch will help ensure establishment under normal conditions, and is essential to seeding success under harsh site conditions (Practice 6.14, Mulching). Harsh site conditions include:

- seeding in fall for winter cover (wood fiber mulches are not considered adequate for this use),
- slopes steeper than 3:1,
- · excessively hot or dry weather,
- adverse soils (shallow, rocky, or high in clay or sand), and
- areas receiving concentrated flow.

If the area to be mulched is subject to concentrated waterflow, as in channels, anchor mulch with netting (Practice 6.14, Mulching).

Maintenance Reseed and mulch areas where seedling emergence is poor, or where erosion occurs, as soon as possible. Do not mow. Protect from traffic as much as

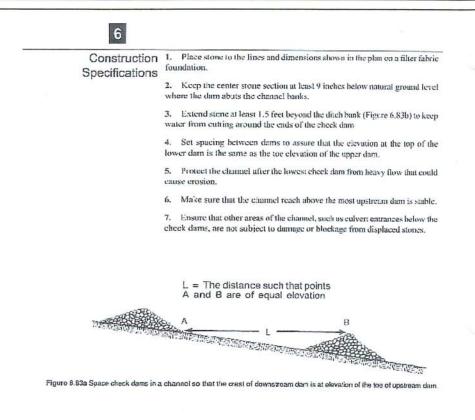
SEEDING SCHEDULE AND SEEDBED PREPARATION

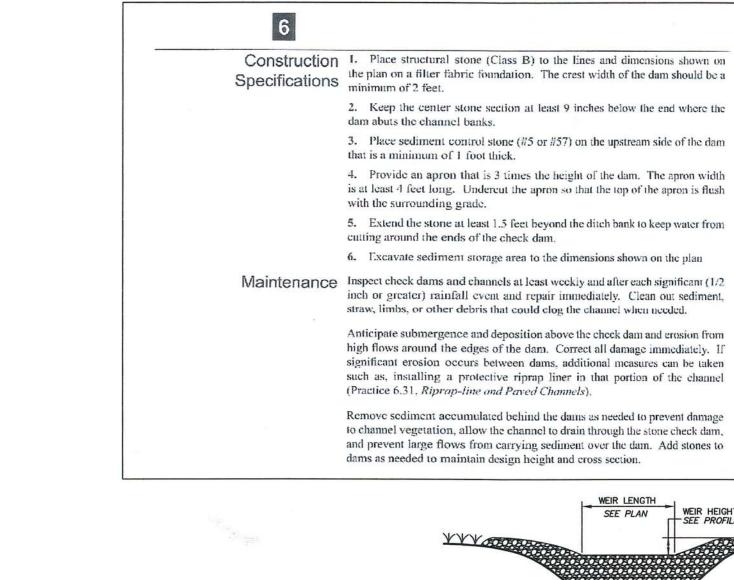
The Seeding Schedule above is a recommended minimum for all disturbed areas that are left exposed for greater than the max required time frames, as established by the state. See "Ground Stabilization Requirements" for maximum stabilization time frames for exposed areas (in accordance current NCDWQ General Construction Permit, NCG01). Seed with Temporary Seeding all disturbed areas that will be left exposed and that are scheduled to be seeded later with Permanent Seeding. Seed with Permanent Seeding all areas that are left exposed that will not be re-disturbed later. When plans call for a particular final seeding (ref; Final Seeding Schedule on the Final Surfaces Plan, Sheet 6 this project), then provide a stable and established stand of the specified grass type. If plans do not call for a particular final seeding, then provide a stable and established stand of the Permanent Seeding mixture specified here ——— Such Permanent Seeding shall be approved by the OWNER or ENGINEER prior to placement.

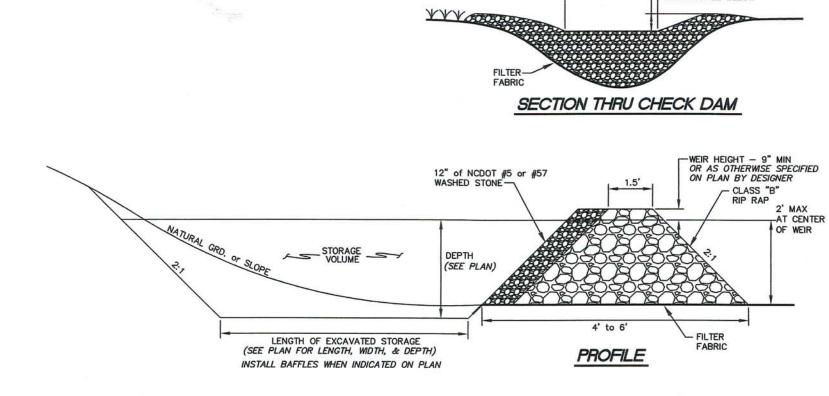
Practice Standards and Specifications 12" of NCDOT #5 or #57 Cross-Section View Figure 6.83b Stone check dam stone should be placed over the channel banks to keep water from culting around the Maintenance Inspect check dams and channels at least weekly and after each significant (1/2 inch or greater) rainfall event and repair immediately. Clean out sediment.

straw, limbs, or other debris that could clog the channel when needed. Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam. Correct all damage immediately. If significant erosion occurs between darrs, additional measures can be taken such as, installing a protective riprap liner in that portion of the channel

Remove sediment accumulated behind the dams as needed to prevent damage to channel vegetation, allow the channel to crain through the stone check dam, and prevent large flows from carrying sediment over the dam. Add stones to dams as needed to maintain design height and cross section



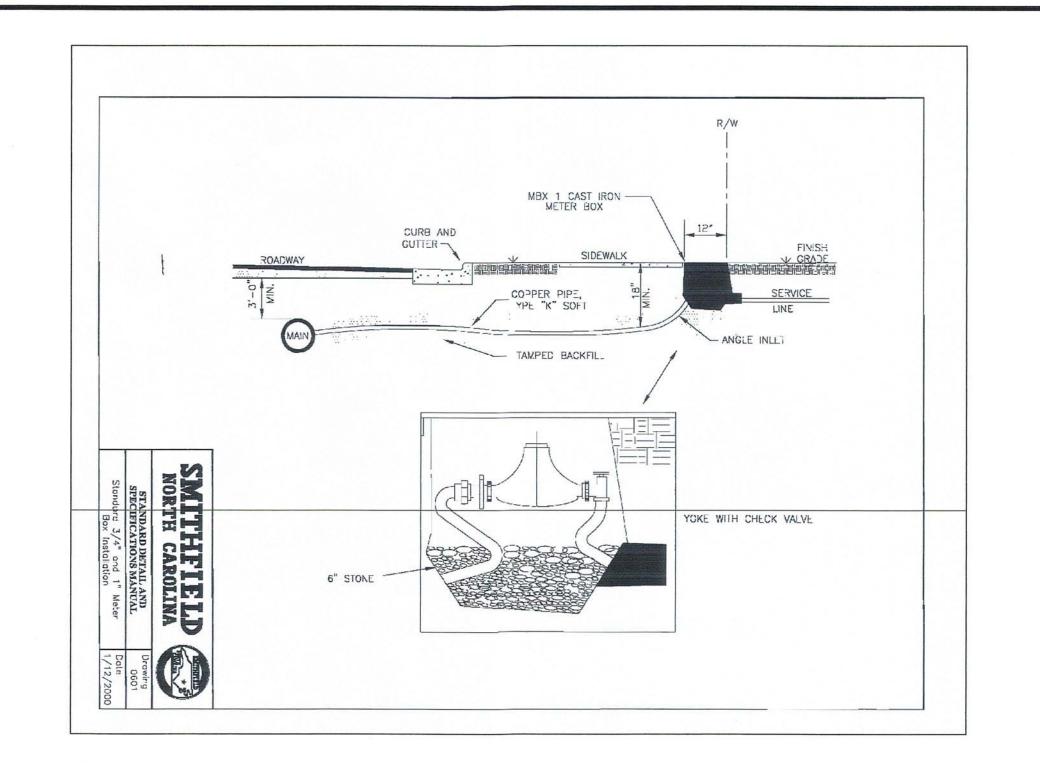


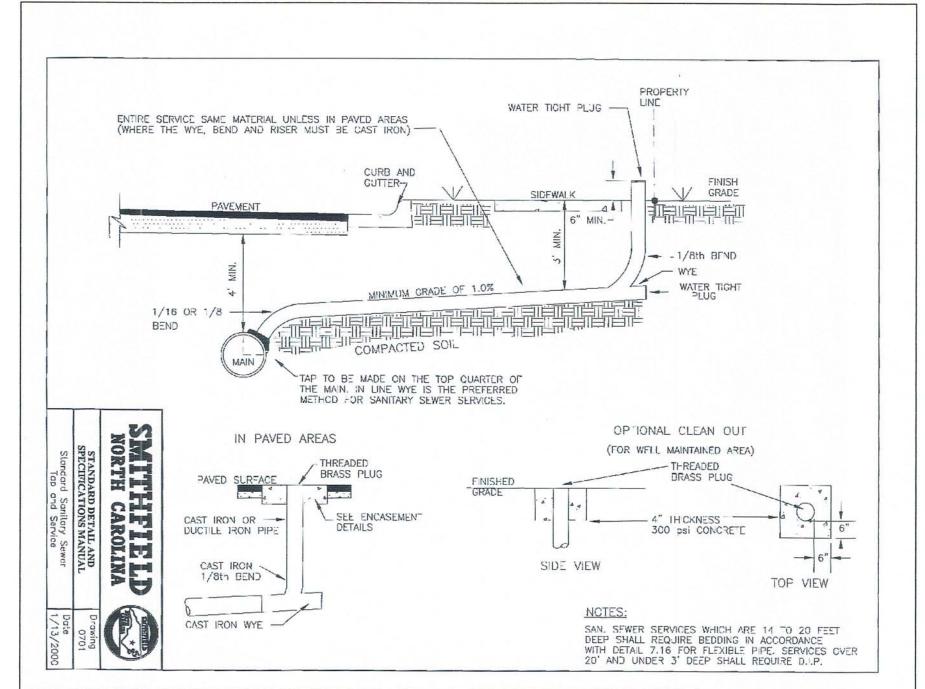


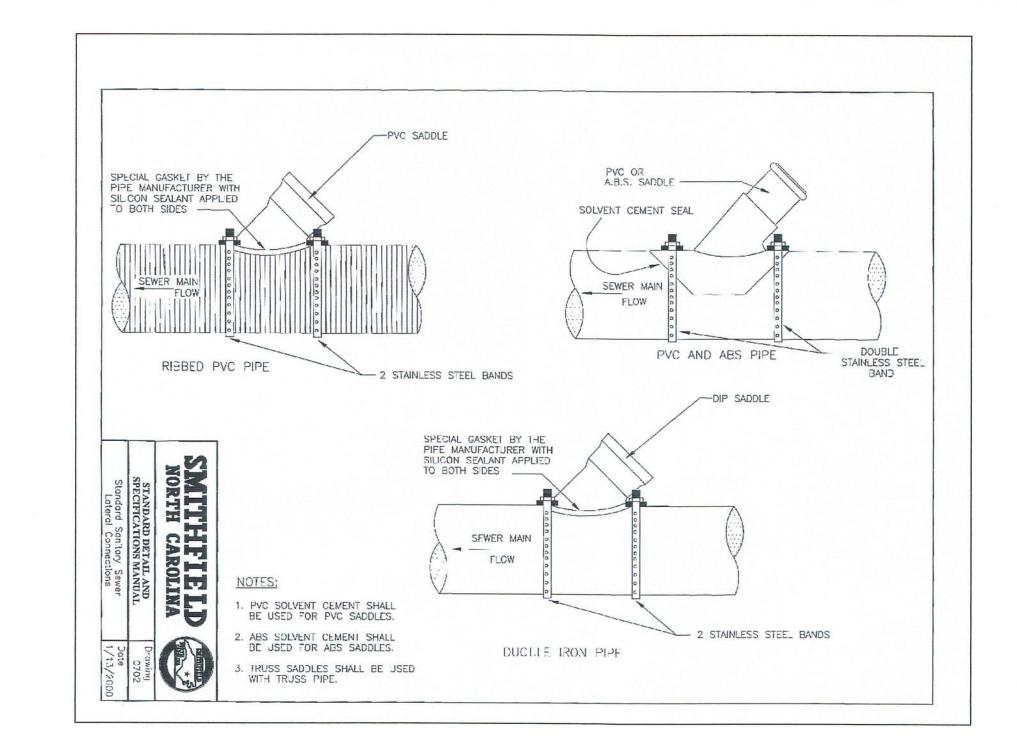
CHECK DAM WITH WEIR AND SEDIMENT STORAGE SHO SERVICE

FOR

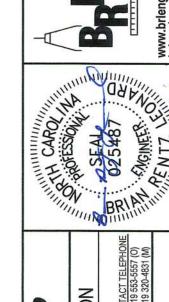
EROSION DETAILS







FINAL DRAWING - FOR REVIEW PURPOSES ONLY (NOT RELEASED FOR CONSTRUCTION)

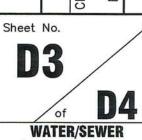


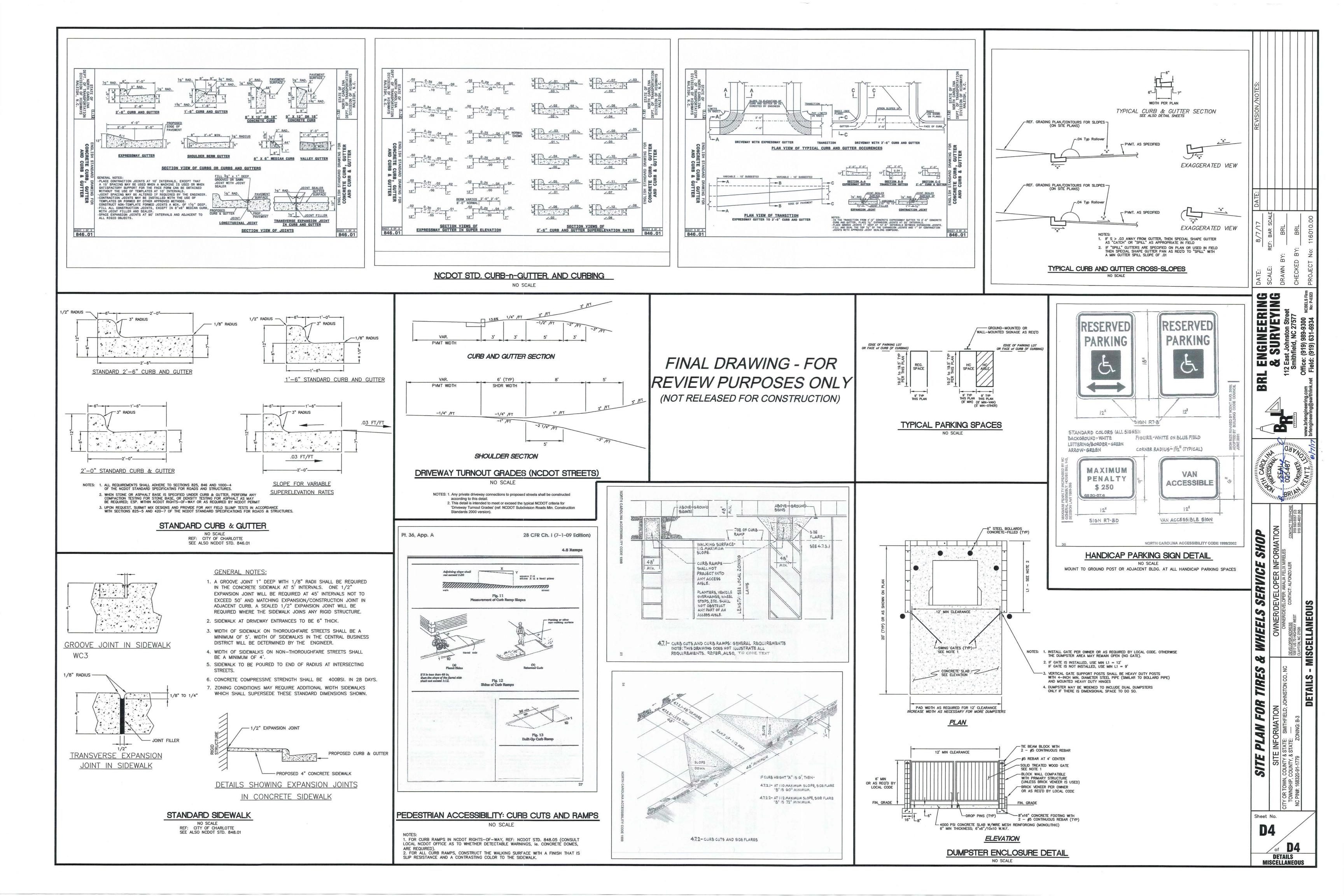
SITE PLAN FOR TIRES & WHEELS SERVICE SHOP

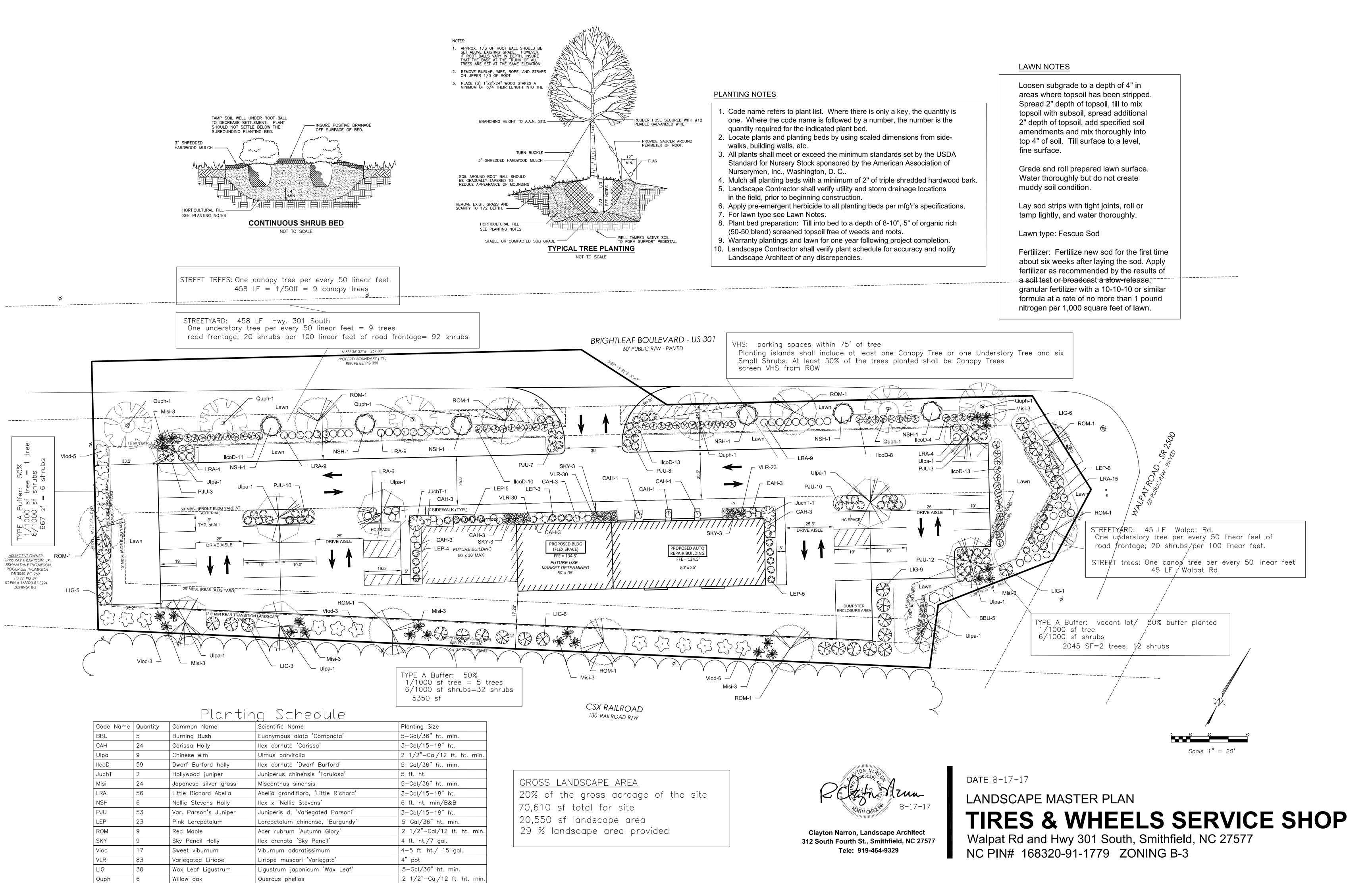
SITE INFORMATION

OWNER/DEVELOPER INFORMATION

OWNER/DEVELOPER: AMALIA FELIX MIRELES









Request for Planning Board Action

Business
Agenda SP-17-11
Item:

Date: 9/7/17

Subject: Department: Presented by: Presentation:	SP-17-11 Contactor with outdoor sales and storage Planning Mark E. Helmer, AICP Senior Planner
9	draulics Inc. is requesting site plan review and approval of a property located within a B-3 (Business) zoning district.
Financial Impact: none	
•	g Board is requested to review the site plan for compliance Inified Development Ordinance minimum development
condition that all Unified Deve	g staff recommends approval of the site plan with the elopment Ordinance standards are met prior to issuance of suance of a valid zoning permit.
Approved: □ City Manager □	l City Attorney
Attachments:	
Attachments:	



Staff Report

Business
Agenda SP-17-11
Item:

History

On April 24, 2017, the Smithfield Town Council adopted an ordinance that allows for contractors yards with outdoor storage within the B-3 (Business) and (LI) Light Industrial zoning district as a permitted use by right providing all other minimum developments standards are met to include landscaping, screening of outdoor storage and landscape buffer requirements.

On August 3, 2017, Rob's Hydraulics submitted a site plan for a contractor yard with outdoor display of heavy equipment for sale. The site plan as submitted generally meets the requirements of the UDO and provides paved parking, required landscaping, a stormwater management plan and two proposed access points on US Business Highway 70. Given the nature of the products for sale, a waiver of the requirement for asphalt and landscaping in the area to be designated for display of products for sale would be prudent.

Key site elements

- 10,800 square foot building
- Paved parking is provided as required by current development standards.
- Access provided by two proposed driveways to be permitted by NCDOT.
- Required landscape yards
- Use of existing vegetation for required buffers where adjacent to residential land uses and zoning districts should be encouraged were practical
- Public utilities connections
- Gravel display area for products for sale
- Area suitable for screened storage
- Screened dumpsters
- Storm water management detention facility with BMP level spreader

Site Data

Name: Rob's Hydraulics Inc. (Contact: Rob Lynch)

Address: 7765 Pitt St./PO Box 636 Grimesland, NC 27837

Telephone: 252-752-1500

Project Name: Rob's Hydraulics Address: TBD Hwy 70 Smithfield, NC

Tax ID: 4668486 Zoning: B-3 Total Lot Area = 14.42 acres

Existing Use: Vacant Proposed Use: Construction Equipment Sales

Total Proposed Building Area: 10,800 sf

Max Building Height: 40' Setbacks- Along Hwy 70: 50' Along Hickory Dr. 30'

Required Parking: 10 Spaces (Includes 1 HC Space)

Existing Impervious Surface= 0 sf

Total Proposed Impervious Surface: 115,922 sf (2.661 ac.) Lot will be subdivided. Project will be on approx. 5.77 ac. tract

Building: 10,800 sf Gravel: 95,981 sf Office/Sales: 9,600 sf Storage: 1,200 sf Sidewalk: 1,658 sf Asphalt Pavement: 6,283 sf Covered Wash Area: 1,200 sf

The Planning Department recommends approval of the preliminary site plan with the condition that all minimum requirements of the Town of Smithfield Unified Development Ordinance are met to include landscaping, parking, access, and stormwater management prior to final site plan approval and permitting.



APPLICATION FOR SITE PLAN/SUBDIVISION REVIEW.

Date Submitted:	NCPIN:168505-18-6872
Applicant: Rob's Hydraulics	Property Owner: _Early Bird Investments, LLC
Address: 7765 Pitt St./PO Box 636	Address: 736 Cherry Street Suite 200
Grimesland, NC 27837	Chattanooga, TN 37402
Project Contact: Rob Lynch	Phone:
Phone: 252-752-1500	Fax:
Fax: None	Zoning: B-3
Location: HWY 70 Business (Address TBD)	Linear Footage of Proposed Streets: 0
No. of Lots Proposed:	Average Lot Sizes: N/A
Existing Impervious Surface Area: <u>0 sf (vac</u> ant)	Proposed Impervious Surface Area: 2.661 acres
Total Acreage 5.77 acres Project Name: Rob's Hydraulics	Total Disturbed Area: 5.74 acres
Street Name(s): N/A (Continue on add	litional sheet, if necessary)
Estimate of Water Allocation Required: 500 g	
Estimate of Sewer Allocation Required: 500	
Type of Project: (check one)	3P~
Exempt Subdivision Minor Subdivision	
Application Fee:	
Major Subdivision (\$250.00) + \$5.00 a lot (\$250.00) total Number of Lots x \$5.00/let	00 min)
Site Plan (\$150.00) + \$50.00 an acre (\$200.00 min	1)
File Number	Total\$ 43 0.00



Development/Site Name: Rob's Hydraulics Owner/Developer Name: Rob's Hydraulics, Inc. Address: PO Box 636 Phone: 252-752-1500 Contact Person: Rob Lynch Fax: None No. of acres to be disturbed: 5.74 rob@robshydraulics.com No. of acres in development: 5.76 Type of Development: (circle one) Fee \$30/acre (\$500 minimum) Residential \$75/acre (\$500 minimum) Non-Residential I hereby certify that all information contained within this Storm Water Management Application is accurate and complete to the best of my knowledge and conforms to the Town of Smithfield's Storm Water Management Ordinance and storm water design criteria. The Town of Smithfield has the right to inspect all storm water facilities on this site. Rob Lynch Type or Printed Name I Patrice Shully to for Signature of Owner/Developer Ross Lynch I assume responsibility for inspections, maintenance and operation of all storm water facilities/Best Management Practices in accordance with the Inspection and Maintenance Agreement enclosed and with the Storm Water Management Permit. Rob Lynch Type or Printed Name

*Note: Responsibility for the continued operation and maintenance of the storm water facilities can be assumed from the developer by an individual landowner or Home Owner's Association. In the event that a Home Owner's Association assumes responsibility, the signature shall be of an individual acting as an agent for the Home Owner's Association.

Submit the completed application along with detailed plans, Inspection and Maintenance Agreement, easements, supporting design information and the associated fee to:

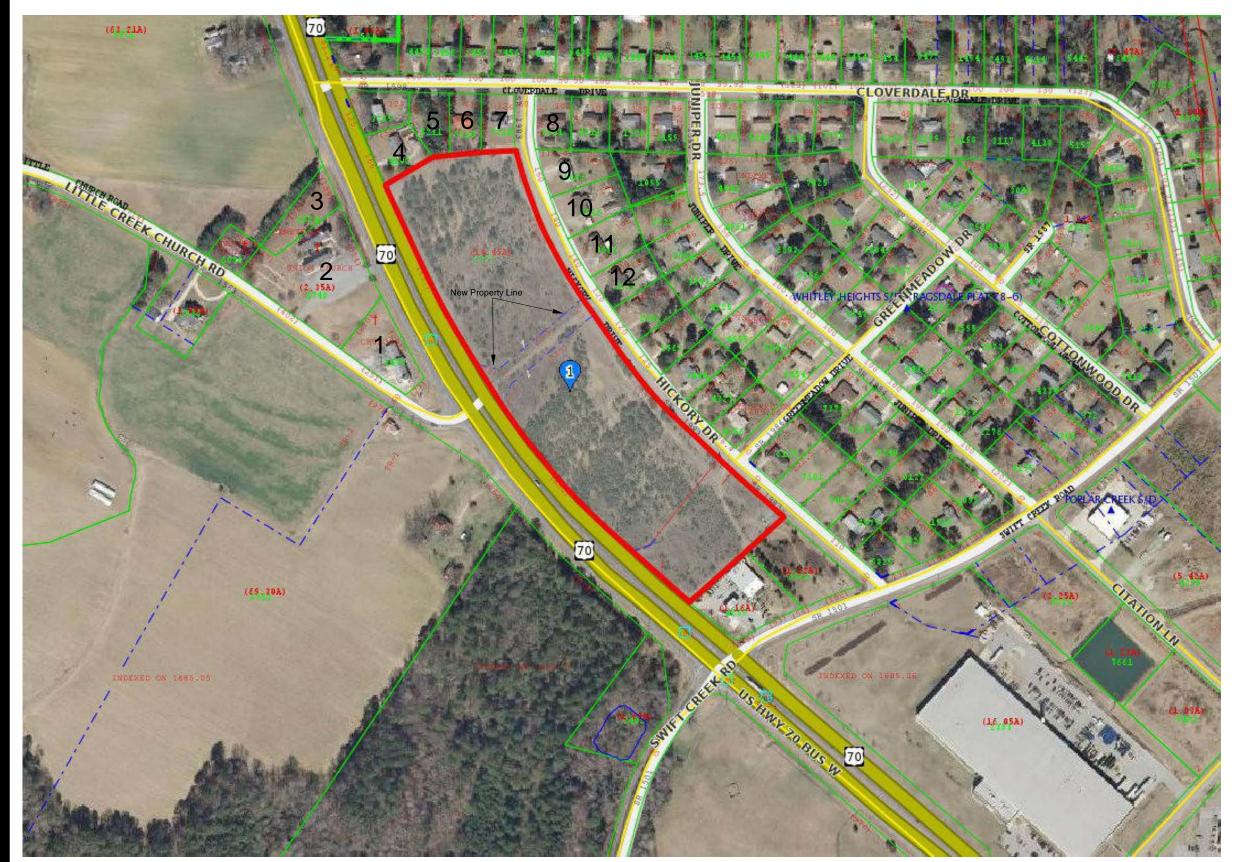
Storm Water Administrator, Town of Smithfield PO Box 761 350 East Market Street Smithfield, NC 27577

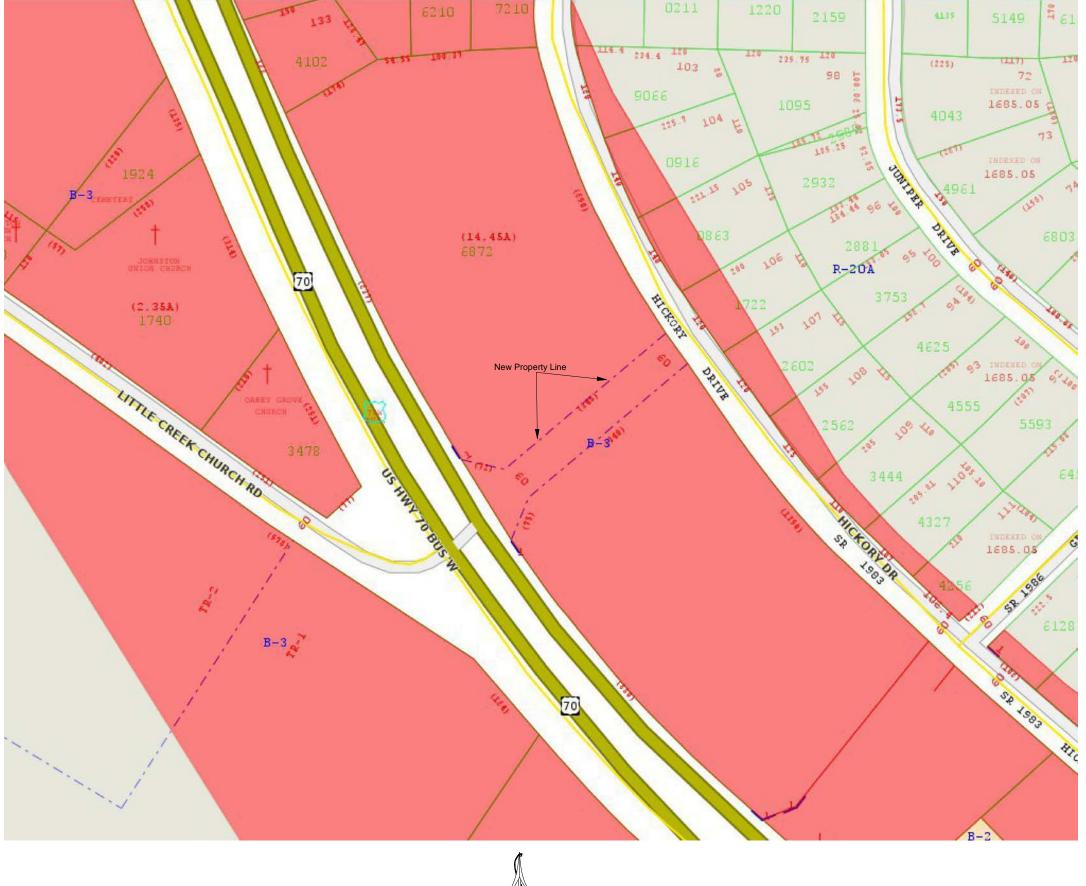
Acting as an agent for: Rob Lynch

If you have any questions or need more information, contact the SW Administrator at 919-934-2116.

ROB'S HYDRAULICS HWY 70 (ADDRESS TBD) SMITHFIELD, NC

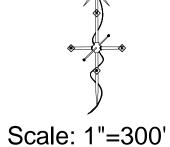
ADJACENT PROPERTY OWNERS





ZONING MAP

Scale: 1"=150'



Adjacent Property Owner Information

- 1. Oakey Grove Church US 70 BUS Hwy W, Clayton, NC 27520-6827
- 2. Johnston Union Church US 70 BUS Hwy W, Clayton, NC 27520-6827
- 3. Cemetary US 70 BUS Hwy W, Clayton, NC 27520-6827
- . David and Jennifer Johnson 3600 US 70 BUS Hwy W, Clayton, NC 27520-6827
- 5. David and Jennifer Johnson 3600 US 70 BUS Hwy W, Clayton, NC 27520-6827
- 6. Steven and Jewel Eller 113 Cloverdale Dr., Clayton NC 27520-6800

- 7. Israel Arellano 115 Cloverdale Rd., Clayton NC 27520-0000
- 8. Theda Tiffany 203 Cloverdale Dr., Clayton NC 27520-9789
- 9. Abraham Hernandez and Maria Guerrero 108 Hickory Dr., Clayton NC 27520-9710
- 10. Edward and Linda McLeod P.O. Box 2143 Smithfield, NC 27577-0000
- . Roger and Ruth Matthews P.O. Box 461 Smithfield, NC 27577-0000
- 12. Algernon and Patricia Parker 120 Hickory Dr., Clayton NC 27520-0000

NOTE: ALL ADJACENT PROPERTIES ZONED B-3. PORTIONS OF THE PROPERTIES TO THE EAST (ACROSS HICKORY DRIVE) ARE ZONED R-20. CURRENT USE FOR PROPERTIES 1-3 IS 'CHURCH' **CURRENT USE FOR PROPERTIES 4-12 IS 'RESIDENTIAL'**

Special Conditions of Approval Approval Stamping

Applicant Information

Name: Rob's Hydraulics Inc. (Contact: Rob Lynch)

Address: 7765 Pitt St./PO Box 636 Grimesland, NC 27837 Telephone: 252-752-1500

Project Information

Project Name: Rob's Hydraulics Tax ID: 4668486

Pin Number: 168505-18-6872 Deed Book/Page: 3114/359 Address: TBD Hwy 70

Smithfield, NC

Zoning: B-3

Total Lot Area = 14.42 acres¹

Existing Use: Vacant

Proposed Use: Construction Equipment Sales

Total Proposed Building Area: 10,800 sf Office/Sales: 9,600 sf Storage: 1,200 sf Max Building Height: 40'

Setbacks- Along Hwy 70: 50' Along New Road: 35

Along Hickory Dr.: 35'

Required Parking: 10 Spaces²(Includes 1 HC Space) Existing Impervious Surface= 0 sf

Total Proposed Impervious Surface: 115,922 sf (2.661 ac.) Building: 10,800 sf Gravel: 95,981 sf Sidewalk: 1,658 sf Asphalt Pavement: 6,283 sf

Covered Wash Area: 1,200 sf % Impervious: 46.1%

¹Lot will be subdivided. Project will be on approx. 5.77 ac. tract ²Based on 1 Space per 1000 sf of Floor Area

Note: Site is located within Environmentally Sensitive Area

Page Index

Sheet 1 Cover Sheet

Sheet 2 Existing Conditions

Sheet 3 Site Plan

Sheet 4 Utility Plan

Sheet 5 Grading Plan

Sheet 6 Erosion Control Plan

Sheet 7 Stormwater Plan

Sheet 8 Landscaping Plan

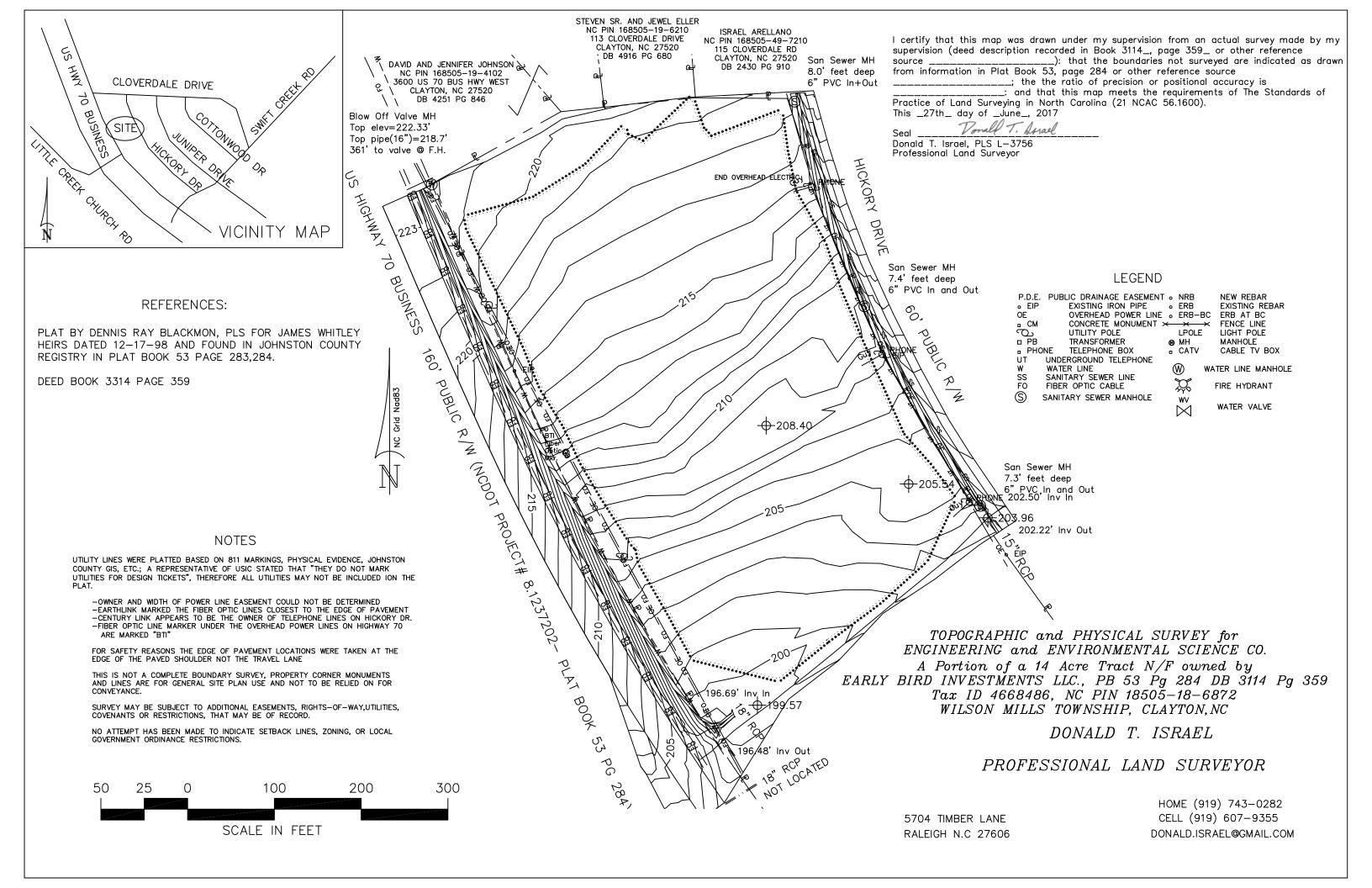
Sheet 9 Erosion Control & Stormwater Details

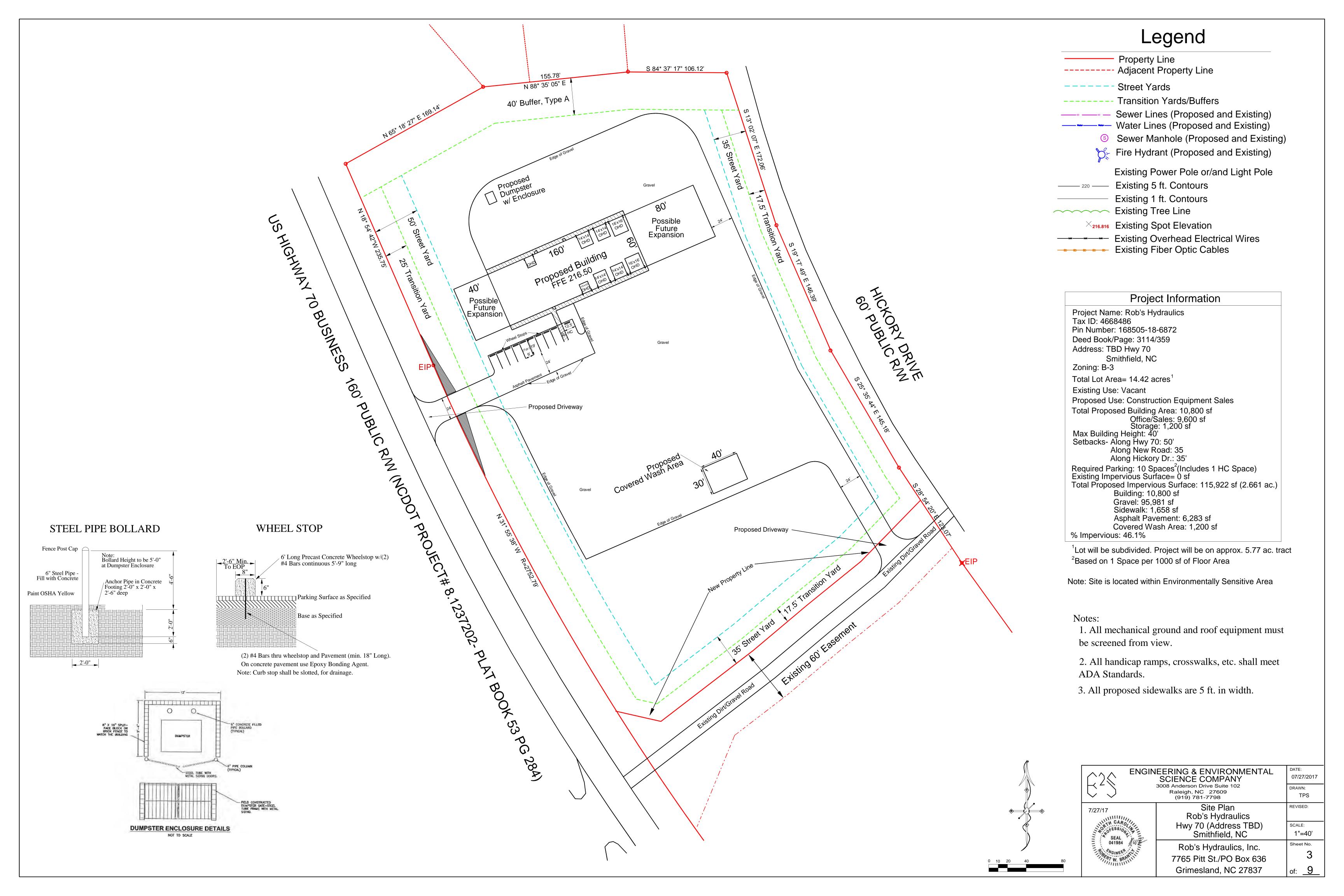


ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 Anderson Drive Suite 102 Raleigh, NC 27609

Sheet No.

of: 9





Legend **Property Line** ----- Adjacent Property Line San Sewer MH Street Yards 8.0' feet deep TOP elev=222.33 ---- Transition Yards/Buffers 6" PVC In+Out " Top pipe (16")=218.7" Top 217.621' ——————— Sewer Lines (Proposed and Existing) ———— Water Lines (Proposed and Existing) **Utility Notes:** Sewer Manhole (Proposed and Existing) Fire Hydrant (Proposed and Existing) 1. ALL WATER LINES SHALL HAVE A FINAL COVER DEPTH OF 3'-0" IN NON TRAFFIC AREAS AND 4'-0" IN TRAFFIC AREAS UNLESS SPECIFICALLY NOTED OTHERWISE. Existing Power Pole or/and Light Pole Guy 2. ALL SEWER LINES SHALL HAVE A FINAL COVER DEPTH OF 3'-0" IN NON TRAFIC AREAS AND 5'-0" MINIMUM IN TRAFFIC AREAS UNLESS SPECIFICALLY NOTED OTHERWISE. Dumpster Dumpster —— 220 — Existing 5 ft. Contours Existing 1 ft. Contours 3. CABLE TV SERVICE ROUTING IS NOT PART OF THIS PLAN. Existing Tree Line 4. EXISTING MANHOLES SHOULD BE FIELD VERIFIED FOR RIMS AND Possible 5. ALL WORK SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE STATE MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, ×216.816 Existing Spot Elevation HGHNR Future Expansion BUILDING CODE, ENERGY CONSERVATION, HANDICAP ACCESSIBILITY, ----- Existing Overhead Electrical Wires NATIONAL ELECTRICAL CODES AND NATIONAL FIRE PROTECTION ASSOCIATION CODES AND THOSE ADOPTED BY THE AUTHORITIES HAVING Existing Fiber Optic Cables San Sewer MH 6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, 7.4' feet deep CERTIFICATIONS, EQUIPMENT, ETC. THAT MAY BE REQUIRED. 6" PVC In and Out 7. SEE ARCHITECTURAL PLANS FOR DETAILS OF BUILDINGS AND BUILDING Top 209.28' DIMENSIONS 70 8. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS /METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS. Possible BUSINESS Future Expansion 9. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS: FINAL RULE 29CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING 5' IN DEPTH. 10. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL 11. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED PRIOR APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONSTRUCITON SHALL WAVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATE EQUIPMENT. 160 12. CONTRACTORS SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. Proposed Sewer Tap PUBLIC DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE Invert 198.29 (Approx.) PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER 13. LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE OR SCHEMATIC. THE LOCATIONS ARE BASED ON ACTUAL FIELD SURVEYS AND THE BEST AVAILABLE RECORDS. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND UNDERGROUND STRUCTURES AND VERIFY REQUIRED COVER AND CLEARANCES PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICTS TO THE ENGINEER. 14. ALL SANITARY SEWER SERVICES AND STORM DRAIN PIPING 8" DIAMETER OR SMALLER SHALL BE SCH. 40 PVC WITH ADHESIVE WELDED /San Sewer MH DINTS, UNLESS SPECIFIED OTHERWISE. MINIMUM SLOPES ON SANITARY 7.3' feet deep SEWER SERVICES 4" -1/4"/FT, 6" - 1/8"/FT., 8" - 1/16"/FT. 6" PVC In and Out 15. WATER SERVICE LINES SHALL BE 2" PVC PIPE TO CONFORM WITH: NSF 61, ASTM D1785, ASTM D2241, AND ASTM D2672. ALL WATER SERVICE PIPE INSTALLED UNDERGROUND AND OUTSIDE OF THE STRUCTURE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 PSI. -15" RCP 16. WATER PIPING SHALL BE CONNECTED TO BUILDING STUBS. VERIFY LOCATIONS PRIOR TO BEGINNING WATER PIPE INSTALLATION. 202.50' Inv In 202.22' Inv Out 17. WASTE PIPING SHALL BE CONNECTED TO BUILDINGS STUBS, VERIFY LOCATIONS AND INVERTS PRIOR TO BEGINNING ANY WASTE PIPE 18. CONTRATOR SHALL CONTACT NORTH CAROLINA "ONE CALL" AT 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENTLY. 8.1237202 19. ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH JOHNSTON COUNTY AND TOWN OF SMITHFIELD STANDARDS AND SPECIFICATIONS. 20. SITE UTILITY CONTRACTOR TO PROVIDE WATER, SANITARY SEWER, AND ROOF DRAIN LEADERS TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR SHALL COORDINATE SITE PLAN CONNECTIONS WITH THE ARCHITECTUAL BUILDING PLANS. 21. SANITARY SEWER SERVICES SHALL BE PVC SCHEDULE 40, UNLESS SPECIFIED OTHERWISE. CLEANOUTS SHALL BE PLACED NO MORE THAN 100' APART. CLEANOUTS LOCATED IN PAVEMENT AREAS SHALL BE HEAVY DUTY TRAFFIC RATED CONSTRUCTION. 22. CONNECTION OF SANITARY SEWER SERVICES TO AN EXISTING MANHOLE SHALL COMPLY WITH THE TOWN OF SMITHFIELD STANDARDS INCLUDING CORE DRILL FOR OPENING INTO MANHOLE AND INSTALLING WITH FLEXIBLE BOOT. IF PAVEMENT CUT IS REQUIRED, CONTRACTOR SHALL PATCH PAVEMENT WITH A SECTION TO MATCH EXISTING PAVEMENT: 3" 1-2 , 8" ABC OR BETTER 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND/OR RELOCATION OF ALL EXISTING UTILITIES IN COORDINATION WITH THE APPROPRIATE UTILITY, AGENCY, OR COMPANY. 24. THE GENERAL CONTRACTOR SHALL CONFIRM ALL NEW UTILITY TAP LOCATIONS WITH THE UTILITY OWNERS 25. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING. -18" RCP 26. ALL CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH CURRENT JOHNSTON COUNTY AND TOWN OF SMITHFIELD STANDARD SPECIFICATIONS AND DETAILS. 196.69' Inv In 196.48' Inv Out **ENGINEERING & ENVIRONMENTAL** 27. A CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL ALL UTILITIES TO THE SITE HAVE BEEN INSTALLED. 3008 Anderson Drive Suite 102 28. NATURAL GAS ROUTING IS NOT PART OF THIS PLAN. 7/27/17 SEAL 041984

07/27/2017

TPS

DRAWN:

REVISED:

SCALE:

1"=40'

Sheet No.

SCIENCE COMPANY

Raleigh, NC 27609

Utility Plan

Rob's Hydraulics Hwy 70 (Address TBD)

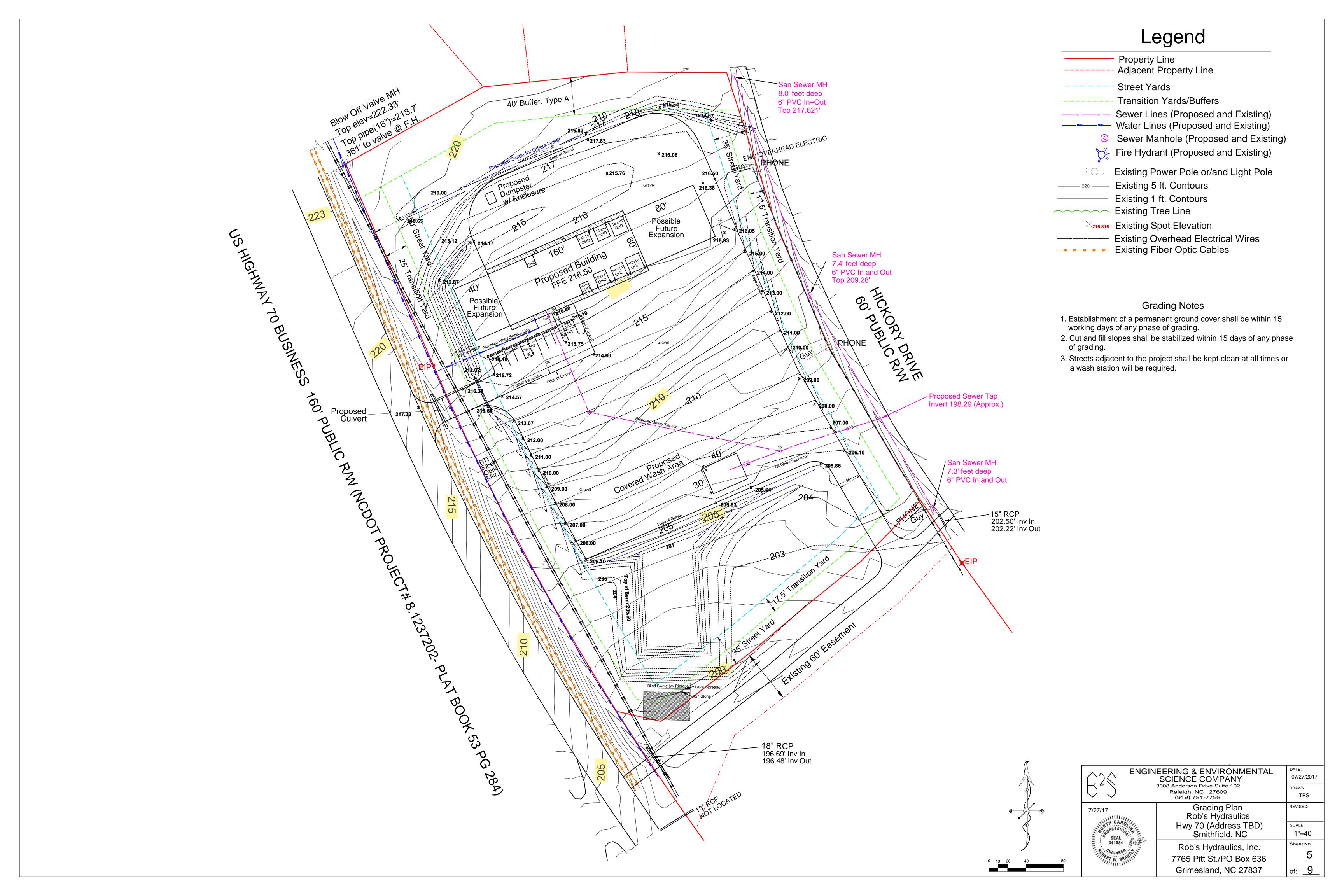
Smithfield, NC

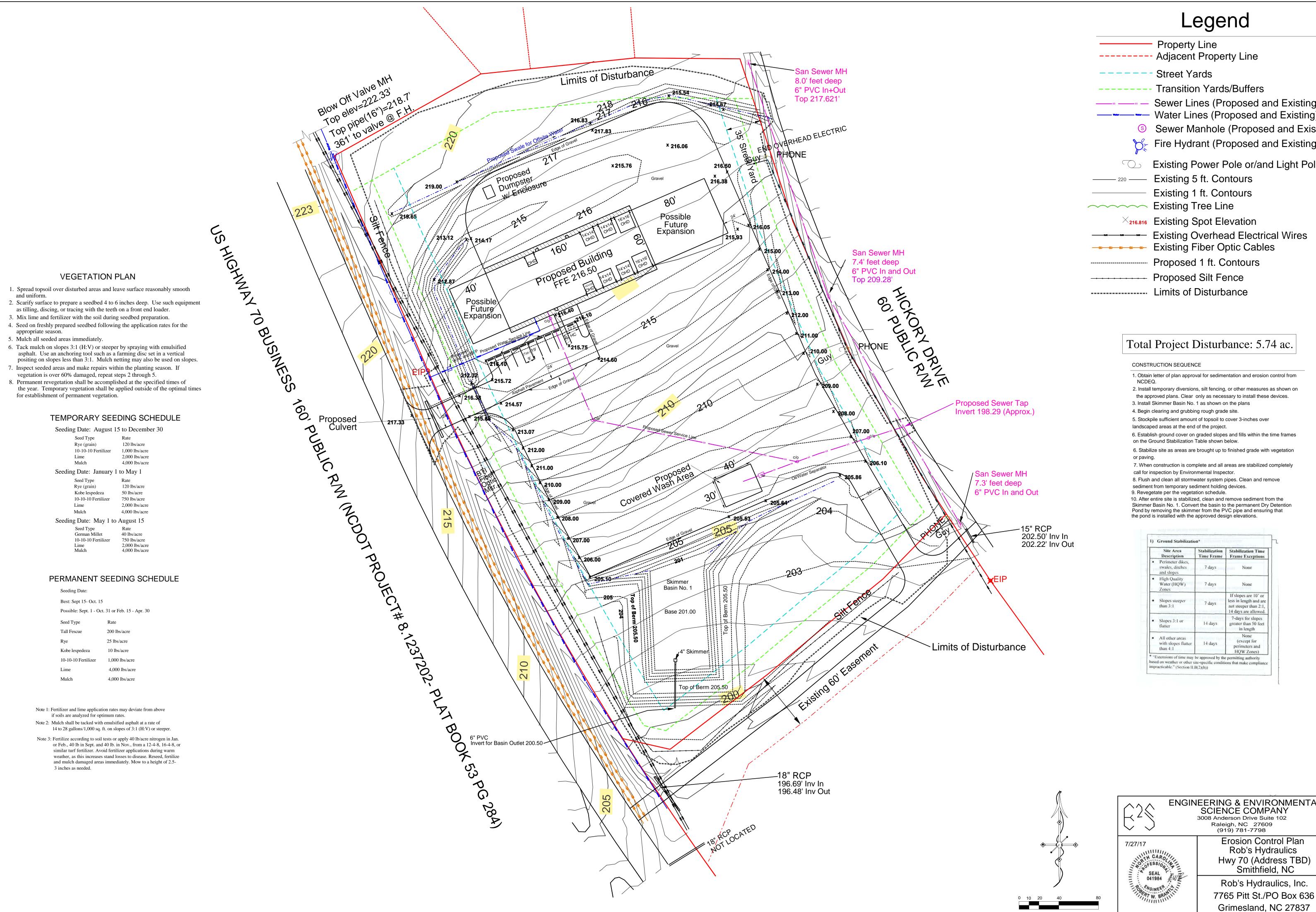
Rob's Hydraulics, Inc.

7765 Pitt St./PO Box 636

Grimesland, NC 27837

(919) 781-7798





———— Water Lines (Proposed and Existing) Sewer Manhole (Proposed and Existing) Fire Hydrant (Proposed and Existing) Existing Power Pole or/and Light Pole

1. Obtain letter of plan approval for sedimentation and erosion control from

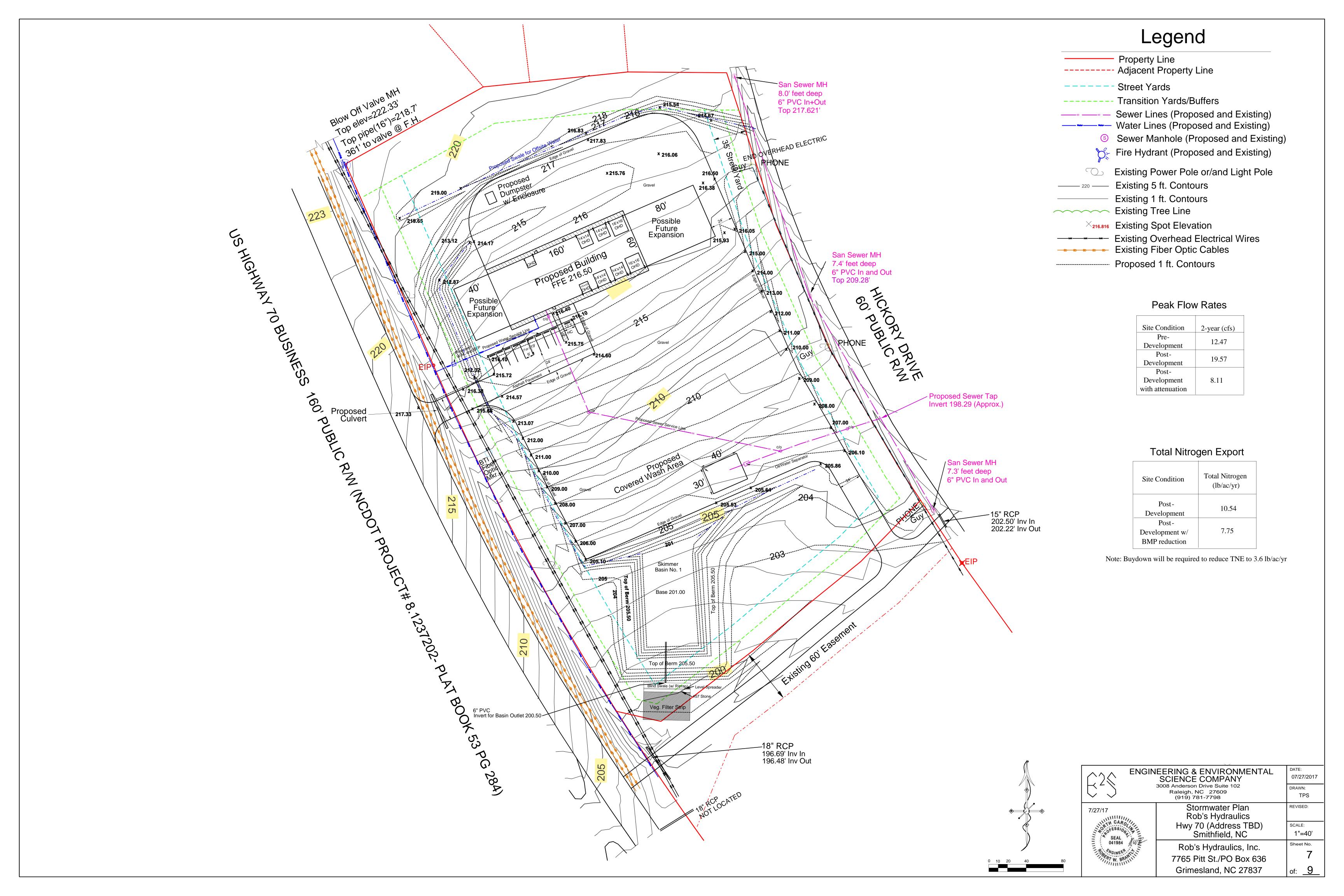
2. Install temporary diversions, silt fencing, or other measures as shown on

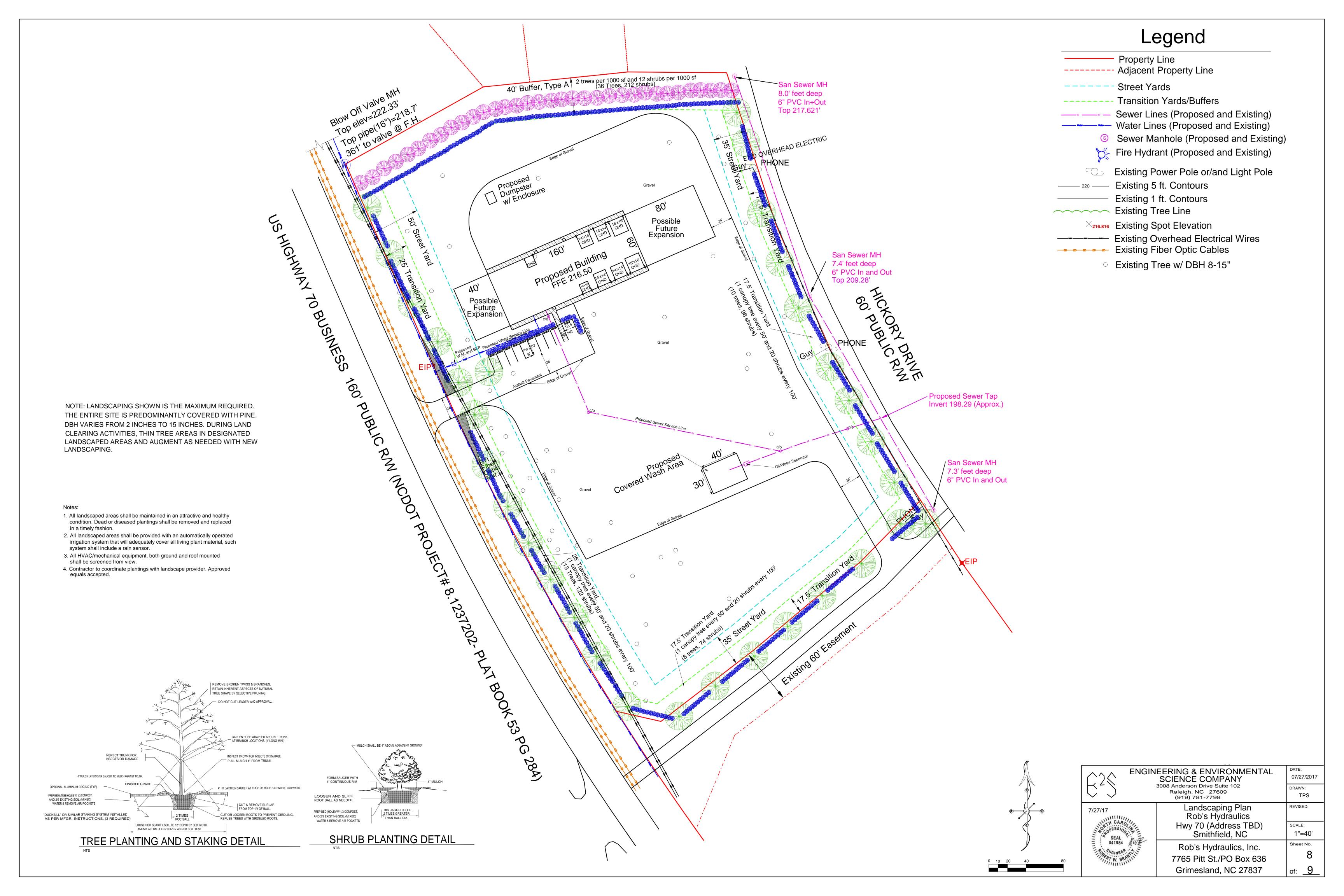
6. Stabilize site as areas are brought up to finished grade with vegetation

Pond by removing the skimmer from the PVC pipe and ensuring that

	Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
•	Perimeter dikes, swales, ditches and slopes	7 days	None
•	High Quality Water (HQW) Zones	7 days	None
•	Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
•	Slopes 3:1 or flatter	14 days	7-days for slopes greater than 50 feet in length
•	All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

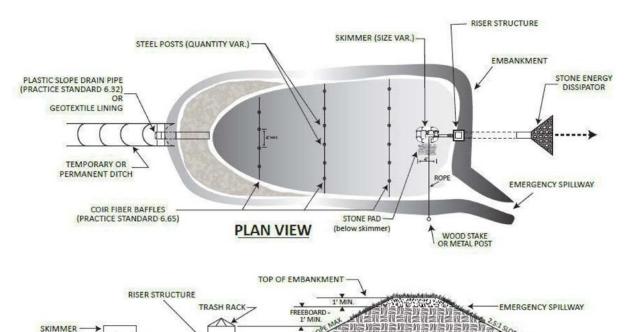
ENGINEERING & ENVIRONMENTAL 07/27/2017 SCIENCE COMPANY 3008 Anderson Drive Suite 102 DRAWN: Raleigh, NC 27609 TPS REVISED: Erosion Control Plan Rob's Hydraulics Hwy 70 (Address TBD) SCALE: Smithfield, NC 1"=40' Sheet No. Rob's Hydraulics, Inc.

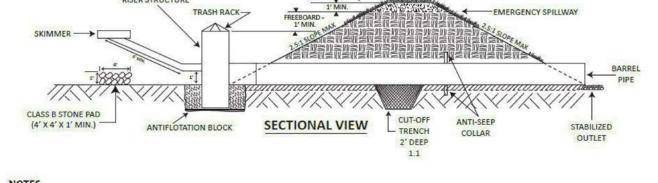




EROSION CONTROL DETAILS

SKIMMER BASIN DETAIL





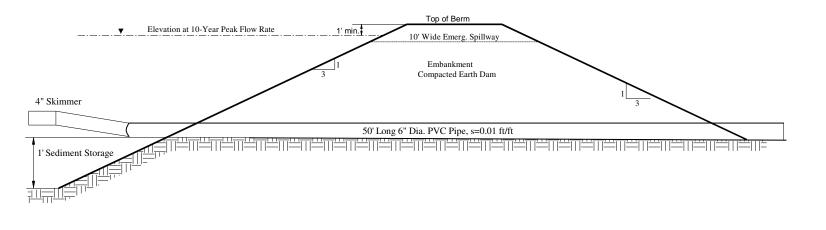
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES. 2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH PRACTICE STANDARD 6.65. 3. INSTALL SKIMMER AND COUPLING TO RISER STRUCTURE OR DIRECTLY INTO EMBANKMENT 1 FT. FROM BOTTOM OF BASIN. NOT TO SCALE 4. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT. BETWEEN THE SKIMMER AND COUPLING.

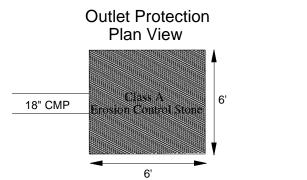
SEDIMENT BASIN SCHEDULE Design Elevations (ft. EL)													
Basir	Aran	Weighted Average CN	Inflow Q ₁₀ ⁽¹⁾ , cfs	Surface A Required	rea, sq. ft.	Area Dist., acre	Storage Volu Required ⁽³⁾	me, Cubic Ft.	Skimmer Orifice, inches	Inlet Invert of 6" Pipe	Outlet Invert of 6" Pipe	Crest of Secondary Spillway	Top of Berm
1	5.395	91	30.30	6,425	6,640	4.155	7,479	24,958	4	201.00	200.50	204.00	205.50
10-vear	10-year peak flow rate is based on calculations using the Rational Method Example Calculation for 10 Year Peak Flow Rate								te				

(1)10-year peak flow rate is based on calculations using the Rational Method

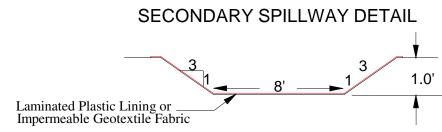
(2) Required Surface Area for Skimmer Basins based on 325 sf per cfs of Q10 peak inflow. C=0.30 for grass (3) Required Volume is based on 1800 cf/ac. of disturbed area C=0.5 for graded soils C=0.95 for impervious areas C avg=(0.5*1.494+0.95*2.66+0.30*1.24)/5.395=0.68 I=5.39 in/hr for 10-yr storm, Tc=15 min.

Skimmer Basin No. 1 Outlet Structure Cross-Section (NTS)



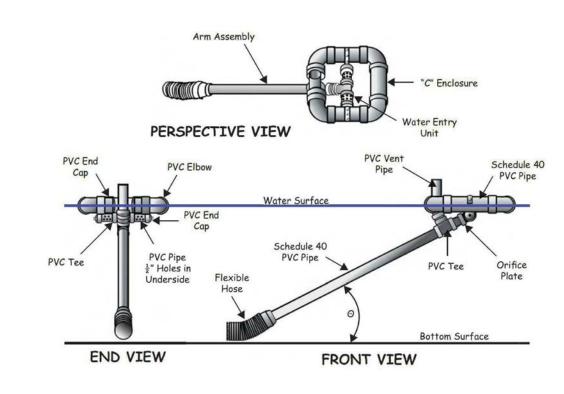


Note: Use 12" thick Class A Erosion Control Stone

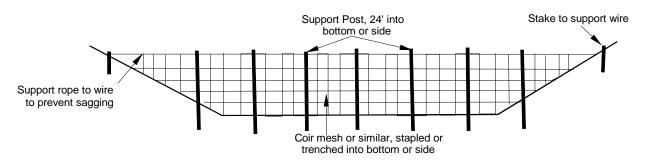


Q=(0.68)(5.39)(5.395)=19.77 cfs

SKIMMER DETAIL



CROSS-SECTION BAFFLE (NTS)



Porous Baffle Specifications

- 1. Grade the basin so that the bottom is at equal elevation.
- 2. Steel posts shall be driven to at least 24 inches below ground surface and spaced at 4 ft. centers. 3. Top of fabric shall be at least 6 inches above stone spillway elevation and 2 inches lower than
- 4. Bottom and sides of fabric shall be anchored in a 6 inch trench of pinned with 8 inch long erosion
- 5. The baffles shall be composed of coir fiber matting with the following specifications.

Coir Fiber Mat Specifications 100% cocount fiber (coir) twine woven into high strength matrix Thickness: 0.30 in. minimum Tensile Strength: 1348x 626 lf/ft minimum Elongation: 34% x 38% maximum lexibility (mg-cm): 65030 x 29590 Flow velocity: Observed 11 ft/sec Weight: 20 oz/SY

Note: Porous baffles are to be tied back into basin embankments

Size: 6.6 x 164 ft (120 SY)

Open Area (measured): 50%

"C" Factor: 0.002

Basin Maintenance

Inspect skimmer sediment basins at least weekly and after each significant (one half inch or greater) rainfall event and repair immediately. Remove sediment and restore the basin to its original dimensions when sediment accumulates to one-half the height of the first baffle. Pull the skimmer to one side so that the sediment underneath it can be excavate Excavate the sediment from the entire basin, not just around the skimmer or the first cell. Make sure vegetation growing in the bottom of the basin does not hold down the

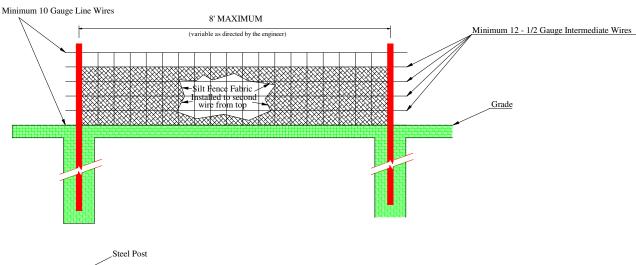
Repair the baffles if they are damaged. Re -anchor the baffles if water is flowing underneath or around them.

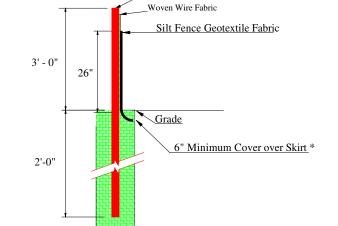
If the skimmer is clogged with trash and there is water in the basin, usually jerking on the rope will make the skimmer bob up and down and dislodge the debris and restore flow. If this does not work, pull the skimmer over to the side of the basin and remove the debris. Also check the orifice inside the skimmer to see if it is clogged; if so remove the debris.

If the skimmer arm or barrel pipe is clogged, the orifice can be removed and the obstruction cleared with a plumber's snake or by flushing with water. Be sure and replace the orifice before repositioning the skimmer.

Check the fabric lined spillway for damage and make any re quired repairs with fabric that spans the full width of the spillway. Check the embank ment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement. Make all necessary repairs immediately. Remove all trash and other debris from the skimmer and

Silt Fence Details





Silt Fence Specifications

- 1. Steel posts shall be a minimum of 5 ft. long, weigh a minimum of 1.3 lb/ft, and have projections to aid in fastening the wire or fabric. Steel posts shall also have a metal plate welded near the bottom such that when the post is driven to the proper depth, the plate will be below the ground level for added stability.
- 2. Woven Wire Fence shall conform to the requirements of ASTM A 116, Class I zinc coating for wire. The fence shall be at least 32 in. high and shall have at least 6 line (horizontal) wires. Stay (vertical) wires shall be spaced 12 in. apart. The top and bottom wires shall be 10 gage. All other wires shall be 12 1/2 gage.
- 3. Filter Fabric shall be composed of fibers consisting of long chain synthetic polymers composed of at least 85% by weight of polyolefins, polyesters, or polyamides. The fibers shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other. The filter fabric shall be free of any treatment or coating which might adversely alter its physical properties after installation. The fabric shall be free of defects or flaws which significantly affect its physical and/or filtering properties. The fabric shall have a minimum width of 36 inches.

The filter fabric shall be furnished with suitable wrapping for protection against moisture and extended ultraviolet prior to placement.

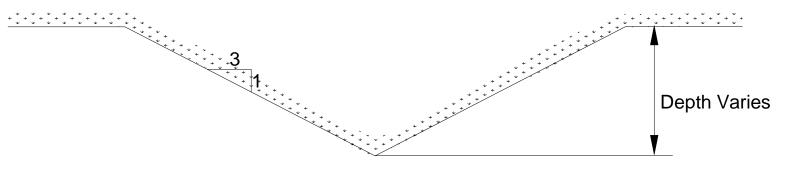
PROPERTY*	TEST METHOD	REQUIRED VALUE
Tensile Strength	ASTM D 4632	400 Newtons (90lb)
Elongation	ASTM D 4632	<50% - fabric self supporting
		≥ 50% - fabric requires woven
		wire backing
Apparent Opening Size (AOS)**	ASTM D 4751	0.84 millimeter (U.S. Sieve #20
Permitivity	ASTM D 4491	0.01 Sec. ⁻¹
Ultraviolet Stability (retained	ASTM D 4355	70%
strength after 500hrs of		
ultraviolet exposure)		

4. A 6 in. x 6 in. trench shall be dug on the upstream side of the silt fence. The silt fence shall line the trench and extend up the posts for the remainder of the fabric width. The trench shall then be backfilled and tamped. Silt fence fabrics shall be spliced together only at supporting posts with a minimum of 6 in. of overlap and in such a manner to prevent silt from passing between the two ends. At the time of installation, the fabric will be rejected if it has any defects, deterioration, or other damage incurred during manufacture,

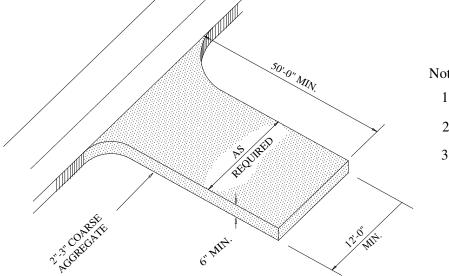
Silt Fence Maintenance Considerations

- 1. Inspect silt fences at least once a week and after each rainfall. Make any required repairs immediately. 2. Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly.
- 3. Remove the sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid undermining the fence during cleanout.
- Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it
 after the contributing drainage area has been properly stabilized.

Vegetated Swale Detail (Typ.)

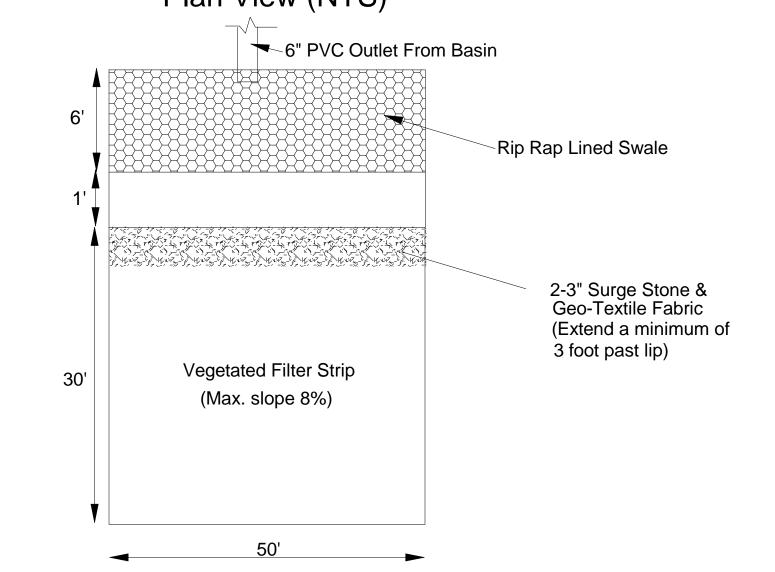


CONSTRUCTION ENTRANCE/EXIT



- 1. Clear the entrance/exit area of all vegetation, roots and other objectionable material.
- 2. Place 2-3" coarse aggregate.
- 3. Maintenance Considerations: Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

Level Spreader and Vegetated Filter Strip Plan View (NTS)



ention	Rasin	Outlet	Structure	Cross-Section	n (NTS

Rip Rap outlet protection and energy dissipater Class B 2-3" Surge Stone & Geo-Textile Fabric 18" thick with filter fabric (Extend a minimum of Flow within forebay of level spreader one foot past lip)_ 6" PVC Outlet From Basin Vegetated Filter Strip (Max. slope 8%) Swale Filter Fabric 4000 psi concrete

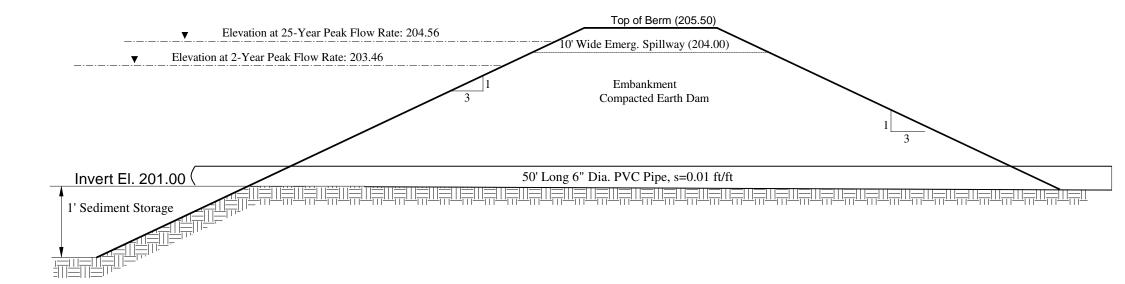
Level Spreader Detail

Inspect the level spreader after every rainfall until vegetation is established and properly make any needed repairs after the area has been stabilized. Make periodic inspections and keep vegetation in a healthy, vigorous condition.

(Fiber Reinforced)

Dry Detention Basin Outlet Structure Cross-Section (NIS)

STORMWATER DETAILS



	EERING & ENVIRONMENTAL SCIENCE COMPANY	DATE: 07/27/2017
	3008 Anderson Drive Suite 102 Raleigh, NC 27609	DRAWN: TPS
<u> </u>	(919) 781-7798	
7/27/17	Erosion Control & Stormwater Details	REVISED:
William,	Rob's Hydraulics	
TO SESSION AND	Hwy 70 (Address TBD)	SCALE:
SEAL SEAL	Smithfield, NC	NTS
041984	Rob's Hydraulics, Inc.	Sheet No.
ON GINE WAR	7765 Pitt St./PO Box 636	9

Grimesland, NC 27837