TOWN of
WAKE FOREST

Wake Forest Planning Board
Meeting Agenda
September 8, 2026 at 6:00 PM
All items listed are for discussion and possible action.

Notice

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 (ADA), the Town of Wake Forest will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. For individuals with impaired hearing, special equipment is available for use during meetings in the Town Hall board chambers. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of Town of Wake Forest should contact the office of ADA Coordinator Mickey Rochelle at 919-435-9455 or Town Clerk Ella Dowtin at 919-435-9432 as soon as possible, but no later than 48 hours before the scheduled event.

Cable & Online Broadcast of Planning Board Meetings

All Planning Board meetings are broadcast live on WFTV 10 beginning at 6 p.m. Meetings are also aired online on the Public Meetings Portal on the Town of Wake Forest website. Archived meeting videos are also provided and available for one year after the original air date.

Meeting Agendas

The Planning Board meeting agenda is available to be viewed and downloaded by noon on the Friday prior to the third Tuesday of each month. Citizens may request copies of the agenda or submit questions concerning agenda items by calling the Deputy Town Clerk's office at 919-435-9432. Citizens may also receive a copy of each month's agenda via email by enrolling in the free E-Notifier subscription service.

Public Hearings

When an agenda item is denoted as a Public Hearing, persons attending shall be permitted to address the Board of Commissioners regarding the item under consideration with those speaking in favor first and those against speaking second. Proponents and opponents shall each be given three minutes of time to speak and may choose to allow one speaker to utilize the time. In the event either proponent(s) or opponent(s) have not designated a speaker to represen the view, each speaker will be allowed three minutes each to express his/her comments, ideas, concerns, expressions, and desires. Only comments on a Public Hearing will be allowed during this time.

Public Comment

During the Public Comment period, anyone wishing to address the Board of Commissioners concerning an issue or topic that is not a public hearing item or an agenda item should complete and submit the Board of Commissioner Public Comment Form on the Town website. Then, during the Public Comment portion of the meeting, Mayor Jones will recognize you and invite you to the podium at which time you will have three minutes to speak. Thank you for your cooperation.

1. Call to Order

2. Adoption of Agenda

3. Approval of Minutes

3.A Approval of Minutes

07-14-2026 Planning Board Minutes Draft.pdf
08-11-2026 Planning Board Minutes Draft.pdf

4. Presentations

5. Old Business with Public Comment

6. Old Business

7. New Business with Public Comment

7.A Consideration of LEGISLATIVE CASE RZ-24-03, Franklin Street Townes Common Area, a conditional district rezoning filed by Caroline Krause-Iafrate on behalf of Franklin Street Townes, LLC, to rezone a 4.81-acre parcel located at 0 Franklin Park Avenue, being Wake County Tax PIN 1840571129, from Residential Mixed-Use (RMX) to Residential Mixed-Use Conditional District (RMX-CD).
RZ-24-03 Staff Report.pdf
Attachment A - Neighborhood Meeting Materials.pdf
Attachment B - Application.pdf
Attachment C - Maps.pdf
Attachment D - Franklin Street Apartments Master Plan.pdf
Attachment E - Franklin Street Town Homes Master Plan.pdf
Attachment F - Franklin Street Town Homes Construction Drawings.pdf
Exhibit 1 - Proposed Master Plan.pdf

8. New Business

9. Staff Comments

10. Planning Board Comments

11. Adjournment

PLANNING BOARD AGENDA ITEM REPORT

Agenda Item No.: 2026-981
Submitted by: Ella Dowtin,Planning
Submitting Department: Planning
Meeting Date:September 8, 2026

Subject
Approval of Minutes

Recommendation:

item Summary:

ATTACHMENTS:

- 07-14-2026 Planning Board Minutes Draft.pdf
- 08-11-2026 Planning Board Minutes Draft.pdf

Wake Forest Planning Board
Minutes

The Wake Forest Planning Board met on **Tuesday, July 14, 2026,** at **6:00 p.m.** in the Board Room at Wake Forest Town Hall, 301 S Brooks Street.

Planning Board Members present: Matt Davis, Elaine Sheppard, Adam Redler, Richard Adams, Heather Bradley, Brandon Panameno, and Mark Moore.

Planning Board Members absent:

Staff Members present: Planning Director Jennifer Currin, Development Services Manager Patrick Reidy, Planner II-Development Services Rayvon Walker, Town Clerk Evelyn Wright, and Deputy Town Clerk Ella Dowtin.

1. Call to Order

Chair Matt Davis called the meeting to order at 6:00 p.m. and introduced the agenda.

2. Adoption of Agenda

ACTION:
Motion by Member Elaine Sheppard to approve the agenda as presented.
Seconded by Member Richard Adams.
Motion carried 7-0.

3. Approval of Minutes

ACTION:
Motion by Member Mark Moore to approve minutes from February 10, 2026, and March 18, 2026, as presented.
Seconded by Member Adam Redler.
Motion carried 7-0.

4. Presentations

None at this time.

5. Old Business with Public Comment

None at this time.

6. Old Business

None at this time.

7. New Business with Public Comment

7.A Consideration of LEGISLATIVE CASE RZ-25-03, 3832 Rogers Rd Rezoning, a rezoning request filed by Michael Birch, to rezone 2.98 acres located at 3832 Rogers Rd, being Wake County Tax PIN(s) 1749884789, from Residential-30 (R-30) to Neighborhood Mixed-Use Conditional District (NMX-CD).

Planner II Rayvon Walker presented the staff report on the RZ-25-03 rezoning at 3832 Rogers Rd.

Attorney Michael Birch presented on behalf of applicants Donald Eddins, John Eddins, and Brenda Denton in favor of rezoning 2.98 acres located at 3832 Rogers Rd.

Traffic Engineer Lyle Overcash at Kimley Horn presented the traffic report.
The applicant's traffic engineer presented findings from the Traffic Impact Analysis (TIA), concluding that the proposed office/daycare development would generate fewer than 1,000 daily vehicle trips and would not significantly impact roadway capacity.

Discussion
The Board discussed the current traffic congestion, left-turn movement, school traffic, daycare peak-hour traffic, pedestrian connections, development frontage, and the possibility of traffic cutting through the adjacent residential neighborhood.

Public comments opened.

<u>Public Comments</u>
Kenneth Christie – 1111 Golden Poppy Court – Wake Forest, NC
Jim Hill – 3825 Wild Meadow Lane - Wake Forest, NC
Doug Woods – 1112 Golden Poppy Ct. - Wake Forest, NC
Robert Pettyjohn – 3816 Rogers Rd. - Wake Forest, NC

Thomas Dement – 1408 Heritage Links Dr. - Wake Forest, NC

Public comments closed.

Discussion
The Board further discussed TIA, missing conceptual site plan materials, and impact on adjacent residential development.

ACTION:
Motion by Member Adam Redler to deny the rezoning for legislative case RZ-25-03, as proposed, finding it inconsistent with the Comprehensive Plan.
Seconded by Member Richard Adams.
Motion carried 7-0.

8. New Business

None at this time.

9. Staff Comments

Planning Director Jennifer Currin advised the Board of a potential meeting on August 11, 2026, and asked members to reserve the date.

10. Planning Board Comments

None at this time.

11. Adjournment

ACTION:
Motion by Member Elaine Sheppard to adjourn the meeting at 7:21 pm.
Seconded by Member Adam Redler.
Motion carried 7-0.

Duly approved in open session this 8th day of September 2026.

Ella Dowtin Deputy Town Clerk	Matt Davis Planning Board Chair

Wake Forest Planning Board
Minutes

The Wake Forest Planning Board met on **Tuesday, August 11, 2026,** at **6:00 p.m.** in the Board Room at Wake Forest Town Hall, 301 S Brooks Street.

Planning Board Members present: Matt Davis, Elaine Sheppard, Adam Redler, Richard Adams, Heather Bradley.

Planning Board Members absent: Brandon Panameno and Mark Moore.

Staff Members present: Planning Director Jennifer Currin, Projects and Programs Manager Kari Grace, Long Range Planning Meeting Brad West, and Deputy Town Clerk Ella Dowtin.

1. Call to Order

Chair Matt Davis called the meeting to order at 6:00 p.m. and introduced the agenda.

2. Adoption of Agenda

ACTION:
Motion by Member Elaine Sheppard to approve the agenda as presented.
Seconded by Member Richard Adams.
Motion carried 5-0.

3. Approval of Minutes

None at this time.

4. Presentations

4.A Sustainability Plan Draft Recommendations Presentation

Projects and Programs Manager Kari Grace presented the draft recommendations for the

Sustainability Plan.

Discussion
The Board discussed how to translate sustainability recommendations into practical regulations and policies, including establishing standards for solar installations, addressing utility interconnection and building code requirements, and incorporating sustainability-related requirements and Covenants, Conditions, and Restrictions (CCR) stipulations divisions. The Board also discussed addressing HOA-related barriers, promoting the use of rain barrels, and improving the clarity and accessibility of Town information and processes to help residents better understand and navigate sustainability initiatives.

5. Old Business with Public Comment

None at this time.

6. Old Business

None at this time.

7. New Business with Public Comment

7.A Wake Forest Comprehensive Transportation Plan 2026 Amendments
Approve

Long Range Planning Manager Brad West presented the Comprehensive Transportation Plan Amendments for approval. Staff noted that this was an interim, minor update and we anticipate a major update in 3 years. Mr. West provided an overview of the greenway, MUP, roadway, and transit modifications.

Public comments opened.

Public Comments
Margaret Watkins – 407 Belmellen Ct. – Wake Forest, NC

Public comments closed.

Discussion
The Board discussed transportation project priorities, including the Forestville Road and Rogers Branch Road widening projects, noting that Forestville Road serves as a major artery for commuters traveling into and out of Town. Members raised concerns about the

lower priority assigned to Forestville Road and the use of outdated traffic data. The Board also discussed the need to periodically reassess project priorities and consider moving lower-priority projects to higher priority as transportation needs change.

ACTION:
Motion by Member Richard Adams to approve Wake Forest Comprehensive Transportation Plan 2026 Amendments as presented.
Seconded by Member Elaine Sheppard.
Motion carried 5-0.

8. New Business

None at this time.

9. Staff Comments

Planning Director Jennifer Currin reminded Board Members of the Sustainability Plan Open House scheduled for August 27. Two sessions will be offered: a daytime session from 11:00 a.m. to 1:00 p.m. at the Community House and an evening session from 6:00 p.m. to 8:00 p.m. at the Center for Active Aging. Board members are required to attend one of the sessions and are encouraged to invite friends, family, and colleagues to participate.

The Planning Director also requested that Board members provide as much advance notice as possible when they are unable to attend meetings to help ensure that quorum is maintained.

10. Planning Board Comments

None at this time.

11. Adjournment

ACTION:
Motion by Member Elaine Sheppard to adjourn the meeting at 7:17 pm.
Seconded by Member Heather Bradley.
Motion carried 5-0.

Duly approved in open session this 8th day of September 2026.

Ella Dowtin Deputy Town Clerk	Matt Davis Planning Board Chair

PLANNING BOARD AGENDA ITEM REPORT

Agenda Item No.: 2026-967-
Submitted by: Tim Richards,Planning
Submitting Department: Planning
Meeting Date:September 8, 2026

Subject
Consideration of LEGISLATIVE CASE RZ-24-03, Franklin Street Townes Common Area, a conditional district rezoning filed by Caroline Krause-Iafrate on behalf of Franklin Street Townes, LLC, to rezone a 4.81-acre parcel located at 0 Franklin Park Avenue, being Wake County Tax PIN 1840571129, from Residential Mixed-Use (RMX) to Residential Mixed-Use Conditional District (RMX-CD).

Recommendation:

item Summary:

ATTACHMENTS:

- RZ-24-03 Staff Report.pdf
- Attachment A - Neighborhood Meeting Materials.pdf
- Attachment B - Application.pdf
- Attachment C - Maps.pdf
- Attachment D - Franklin Street Apartments Master Plan.pdf
- Attachment E - Franklin Street Town Homes Master Plan.pdf
- Attachment F - Franklin Street Town Homes Construction Drawings.pdf
- Exhibit 1 - Proposed Master Plan.pdf

Staff Report
Case RZ-24-03: Franklin Street Townes Common Area

Meeting Date	September 8, 2026
Requested Actions	Consideration of the following items related to the Conditional Zoning request for Franklin Street Townes Common Area: 1. Conduct a public comment session. 2. Make a recommendation whether to rezone 4.81 acres on the Town of Wake Forest Zoning Map from Residential Mixed-Use to Residential Mixed-Use Conditional District.
Case Manager	Tim Richards, Senior Planner - Development Services

PUBLIC MEETINGS

Neighborhood Meeting	Public Comment Session	Public Hearing
November 15, 2024 *(See Attachment A)*	September 8, 2026	October 6, 2026

CASE INFORMATION

Applicant/Developer/ Property Owner	Caroline Krause-Iafrate Franklin Street Townes, LLC PO Box 414 Wake Forest, NC 27588-0414
Location	Northeast corner of South Franklin Street and 98 Bypass
Address	0 Franklin Park Avenue
Wake County Tax PIN(s)	1840571129
Acreage	4.81 acres
Zoning	Existing: Residential Mixed-Use (RMX) Proposed: Residential Mixed-Use Conditional District (RMX-CD)
Land Use	Existing: Common area in mostly built-out townhome development

	Proposed: Common area in townhome development
Corporate Limits	This application is located in the Town's corporate limits.

See Attachment B for a copy of the application and Attachment C for Aerial, Zoning, and Land Use Maps.

SURROUNDING LAND USES AND ZONING

	Land Use	Zoning
North	Open space	Residential Mixed-Use (RMX)
South	Open space	Residential Mixed-Use (RMX)
East	Open space	Open Space (OS)
West	Commercial, Single-Family detached dwellings	Conditional Use Residential Mixed-Use (CU RMX)
The proposed land use is generally **compatible** with surrounding land uses. The proposed zoning is generally **compatible** with surrounding zoning. *See Attachment C for associated maps.*		

ZONING CASE HISTORY

In February of 2014, The Board of Commissioners approved a Master Plan submitted by Franklin Street Apartments, LLC, for a 108-unit multifamily development called Franklin Street Apartments, to be located on the northeast quadrant of the 98 Bypass and South Franklin Street. The Master Plan included a pool and clubhouse in a central amenity area fronting on South Franklin Street (see Attachment D). The process used for the review and approval of the Master Plan was quasi-judicial in nature. In October of 2014, Franklin Street Apartments, LLC, submitted to the Town a new Master Plan application for a townhome development on the same location called Franklin Street Townes.

In February of 2015, the Board of Commissioners approved the Franklin Street Town Homes Master Plan, a 61-unit townhome development. The Master Plan includes a pool and clubhouse in the amenity area fronting on South Franklin Street in the northmost portion of the development (see Attachment E). The process used for the review and approval of the Master Plan was quasi-judicial in nature.

In November of 2015, the Franklin Street Townes construction drawings were approved (see Attachment F). The construction drawings include the pool and clubhouse and provide open space calculations showing how those amenities contribute to required improved open space for the development. Following approval of the construction drawings, the developer proceeded with developing the site.

In November of 2021, after communication from Planning staff regarding the need to make the amenity area improvements, the developer informed staff that the developer did not intend to move forward with the construction of a pool and clubhouse as shown on the approved Master Plan.

In communications with the developer between May and November of 2022, staff informed the applicant of the various development approval processes available to the applicant to obtain approval of a revised plan for the amenity area. All processes presented to the developer required approval of the modified amenity area by the Board of Commissioners, since the original approval of the Master Plan was by the Board of Commissioners. The developer has elected to proceed by requesting a rezoning of the common area in the development (parcel PIN 1840571129) to a conditional district, with a new corresponding Master Plan showing a 10'x10' prefabricated canopy, playground area, and landscaping in the amenity area to meet the UDO standards for park space in the Residential Mixed-Use zoning district (see Exhibit 1). The developer has put forward as the sole condition in the proposed RMX-CD conditional district that development of the parcel shall be in accordance with the corresponding Master Plan (see Attachment B).

MASTER PLAN ANALYSIS

Open Space	Required:	14,440 square feet
	Proposed:	95,431 square feet
	Summary:	*The proposed Master Plan* **complies** *with the minimum open space percentage requirement in the UDO.*
Park Space	Required:	5,776 square feet
	Proposed:	7,140 square feet
	Summary:	*The proposed Master Plan* **complies** *with the minimum park space percentage requirement in the UDO*.

COMPREHENSIVE PLAN CONSISTENCY

Community Plan (2022)	This area site is designated as a Downtown Edge area in the Downtown Area Plan portion of the Community Plan (page 58 of the plan) and is further designated a Mixed Residential area within the Downtown Edge area (pages 60-61 of the plan). In that Mixed Residential area, the plan's recommendation is that existing townhome developments should be maintained.
Downtown Plan (2024)	The Downtown Plan is not applicable to the zoning map amendment request.
Comprehensive Transportation Plan (2019)	The Comprehensive Transportation Plan is not applicable to the zoning map amendment request.

Historic Preservation Plan (2022)	The Historic Preservation Plan is not applicable to the zoning map amendment request.
Northeast Neighborhood Plan (2021)	The Northeast Neighborhood Plan is not applicable to the zoning map amendment request.
Park, Recreation, and Cultural Resources Master Plan (2024)	The Parks, Recreation, and Cultural Recourses Master Plan is not applicable to the zoning map amendment request.
Public Art Vision Plan (2009)	The Public Art Vision Plan is not applicable to the zoning map amendment request.

STAFF RECOMMENDATION

Staff's recommendation is that the Planning Board make a recommendation to the Board of Commissioners whether to approve or deny the requested rezoning, and provide a comment on the proposed rezoning's consistency with the Comprehensive Plan, as required by the UDO and NCGS 160D.

ATTACHMENTS

Attachment A: Neighborhood Meeting Information
Attachment B: Application
Attachment C: Maps
Attachment D: Franklin Street Master Plan
Attachment E: Franklin Street Town Homes Master Plan
Attachment F: Franklin Street Town Homes Construction Plans

EXHIBITS

Exhibit 1: Proposed Master Plan

Neighborhood Meeting

Re: Franklin Street Townes Park Space

Dear Neighboring Property Owner and Current Resident,

There will be an informational meeting to discuss a proposed change to the Franklin Street Townes park space. The Town of Wake Forest requires a neighborhood meeting and notice to the owners of property and Homeowners Associations within 500 feet of the property.

The meeting details are as follows:

Friday, November 15, 2024
5:30-6:30pm
Joyner Community Center, Walker Room
701 Harris Road, Wake Forest, NC. 27587

No Food or Drinks are permitted in the Walker Room

The property consists of 6.63 acres and is located at the corner of S. Franklin Street and Dr. Calvin Jones Highway. The property is currently zoned RMX (Residential Mixed Use). The proposed request seeks to rezone that property from RMX to RMX-CD solely for the purpose of changing the common/park space area to a community garden. While the request is for a Conditional District, the request does not change the underlying base zoning district.

The property has been substantially developed with 55 of 61 townhomes constructed consisting of 10 of 11 buildings. The proposed change does not change the number of townhomes or townhome buildings, as noted above, it is limited to the change in the community common/park space.

A summary of the meeting will be provided to the Planning Department. For more information regarding the change, please contact Patrick Reidy (preidy@wakeforestnc.gov. 919-435-9515) with the Town of Wake Forest Planning Department.

If you have any questions regarding the meeting, please contact Project Manager, at FranklinTownes.WF@gmail.com (919-906-6468).

Franklin Street Townes, LLC

Neighborhood Meeting

Re: Franklin Street Townes Park Space

Dear Neighboring Property Owner and Current Resident,

There will be an informational meeting to discuss a proposed change to the Franklin Street Townes park space. The Town of Wake Forest requires a neighborhood meeting and notice to the owners of property and Homeowners Associations within 500 feet of the property.

The meeting details are as follows:

Wednesday, February 19, 2025
5:30-6:30pm
Holiday Inn Express
11400 Common Oaks Drive
Raleigh, NC. 27614

No Food or Drinks are permitted in the meeting room

The property consists of 6.63 acres and is located at the corner of S. Franklin Street and Dr. Calvin Jones Highway. The property is currently zoned RMX (Residential Mixed Use). The proposed request seeks to rezone that property from RMX to RMX-CD solely for the purpose of changing the undeveloped common/park space area. While the request is for a Conditional District, the request does not change the underlying base zoning district.

The change being considered is to a community garden or playground/dog run, or converting the existing common/park space into a square. All are permitted park types under the UDO, however, the Town must ultimately approve of any change.

The property has been substantially developed with 55 of 61 townhomes constructed consisting of 10 of 11 buildings. The proposed change does not change the number of townhomes or townhome buildings, as noted above, it is limited to the change in the community common/park space.

A summary of the meeting will be provided to the Planning Department. For more information regarding the change, please contact Patrick Reidy (preidy@wakeforestnc.gov. 919-435-9515) with the Town of Wake Forest Planning Department.

If you have any questions regarding the meeting, please contact Project Manager, at FranklinTownes.WF@gmail.com (919-906-6468).

Franklin Street Townes, LLC

Neighborhood Meeting - Rescheduled from February 19th

Re: Franklin Street Townes Park Space

Dear Neighboring Property Owner and Current Resident,

There will be an informational meeting to discuss a proposed change to the Franklin Street Townes park space. The Town of Wake Forest requires a neighborhood meeting and notice to the owners of property and Homeowners Associations within 500 feet of the property.

The meeting details are as follows:

Thursday, March 6, 2025
5:30-6:30pm
Holiday Inn Express
11400 Common Oaks Drive
Raleigh, NC 27614

No Food or Drinks are permitted in the meeting room

The property consists of 6.63 acres and is located at the corner of S. Franklin Street and Dr. Calvin Jones Highway. The property is currently zoned RMX (Residential Mixed Use). The proposed request seeks to rezone that property from RMX to RMX-CD solely for the purpose of changing the undeveloped common/park space area. While the request is for a Conditional District, the request does not change the underlying base zoning district.

The change being considered is to a community garden or playground/dog run, or converting the existing common/park space into a square. All are permitted park types under the UDO, however, the Town must ultimately approve of any change.

The property has been substantially developed with 55 of 61 townhomes constructed consisting of 10 of 11 buildings. The proposed change does not change the number of townhomes or townhome buildings, as noted above, it is limited to the change in the community common/park space.

A summary of the meeting will be provided to the Planning Department. For more information regarding the change, please contact Patrick Reidy (preidy@wakeforestnc.gov. 919-435-9515) with the Town of Wake Forest Planning Department.

If you have any questions regarding the meeting, please contact Project Manager, at FranklinTownes.WF@gmail.com (919-906-6468).

Franklin Street Townes, LLC

MEETING MINUTES

Franklin Street Townes, Neighborhood Meeting, November 15, 2024

The purpose of this meeting is to discuss the changes to the Neighborhood Park. This meeting is required since the Wake Forest Planning Department is requiring the change to be made through a Conditional Rezoning process.

There was a question if the Rezoning Process place any more burdens/requirements on the Community. It does not, it is simply the process that the Town is requiring that we go through in order to make the change to the park area. The zoning technically changes from RMX to RMX-CD, but there are no additional requirements placed on the Community as a result. This could have been done through an Administrative process, which would we don't believe would change the zoning. If you wish to confirm, you can contact Patrick Reidy at the Town of Wake Forest Planning Dept.

There are only a few park types that are set forth in the Unified Development Ordinance (UDO) that meet the community's requirement for a permitted park. These are a larger Park/ Greenways (which does not apply as our park spaces is too small), a Green, a Square, a Playground and a Community Garden.

With the input from the HOA Leadership Team, we presented the Community Garden with a Pavilion to the Town and that is the site plan that was mailed out to you. We also added 2 parking spaces to the site plan since that was a concern raised by the Leadership Team as well. This type of park will reduce the cost of maintenance for the community significantly (many in attendance were nodding in agreement) and increase the flexibility/usability of the for a variety of activities and throughout the year. The design of the Community Garden is very much in line, even much nicer with more amenities with the pavilion, than the Community Garden at Gateway Commons which was approved by Patrick Reidy - he is the same Town staff member who has been assigned to our community.

There was a concern that the Community Garden will require more maintenance over time than what the residents would like and that there are costs associated with that maintenance. Can additional park types be considered? There are additional park types under the UDO.

They each have their own requirements, such as size. The Park/Greenway (Section 7.5.1A) won't work as it is too large, the Green (Section 7.5.1B) or dog park, is also too large at 1/2 acre required size. The Square, Playground and Community Garden (Sections 7.5.1 C, D, and E would be the permitted park types we could explore.

There was a question if the area between the existing buildings be considered a Square and then allow for the area by Franklin Park Ave be used for parking? We would have to look at the size of the area by the buildings since a Square has to be at least 1/4 acre. We will look at that and some of the other suggestions raised, such as a small dog park, playground area, and have another meeting to discuss additional options for the Community's park space. We just need to keep in mind that the park must meet the requirements of the UDO.

MEETING MINUTES

Franklin Street Townes, Neighborhood Meeting, March 6, 2025
(rescheduled from February 19, 2025)

The purpose of this meeting was to discuss potential park options for the community and to advance the completion of the development.

At the previous neighborhood meeting in November 2024, residents requested an evaluation of alternative park types beyond the originally proposed community garden. Several suggestions were made, including:

- A playground area with open space that could also function as a dog run.
- Designating the existing space between buildings as a Square to meet open space requirements.
- Converting the open space along Franklin Park Avenue into additional parking.

A sketch of the proposed playground/dog park was included in the meeting notice.

During the meeting, discussion centered on maintenance responsibilities, including trash and recycling collection as well as pet station supplies. It was clarified that the community would be responsible for maintaining these areas. A proposed playground structure was also presented, which would meet all required safety standards and include approved mulch and edging for protection.

Regarding the Square, it was noted that the space between the buildings exceeds ¼ acre, meeting the minimum size requirement under the UDO. However, from the applicant's perspective, converting any of the proposed park space into additional parking likely does not align with the Town's preference for green space. Additionally, while parking expansion was considered, it was explained that the layout would result in only a few additional spaces, as maneuverability and access requirements would reduce the net gain in parking

A member of the HOA Board mentioned a prior discussion with the Town's Senior Planner, Patrick Reidy, who had suggested considering a pickleball or basketball court rather than a community garden. The applicant has worked with Town staff on this proposal and kept staff informed on the progress and proposed options for the park space, and there is agreement that non-active recreation is required. However, since the applicant is now proposing a playground, the discussion of a basketball or pickleball court is less relevant. The applicant also believes that the proposed playground and dog run provides a better community space and more flexibility, compared to other options.

Concerns were raised about potential noise from a basketball or pickleball court, as such facilities tend to generate continuous sound that carries throughout the area. Additionally, a resident noted that such amenities could attract non-residents, increasing maintenance demands on the community while potentially limiting residents' enjoyment of the space.

Another topic of discussion was pedestrian access to the park space. There were comments from either Planning or Engineering suggesting that a sidewalk connection was needed between the park space and the sidewalk on S Franklin. However, it was clarified that only one sidewalk connection is required, which is already provided near 801 S Franklin. The park space was intentionally designed without a direct connection to S Franklin to maintain privacy for residents and their guests while allowing for additional landscaping to screen the area from the main road.

Following the discussion and input from the community, the applicant has elected to move forward with a playground park type (Section 7.5.1D of the UDO) with an accompanying pavilion. Under the UDO, playgrounds may include an open shelter. The playground structure will be installed in a neutral color, and the area will be fenced. The park will also include required amenities such as a trash and recycling receptacles, bike racks, and benches. A walkway will be provided leading to the pavilion.

The meeting concluded with discussions on potential parking improvements within the community and along S Franklin. Additionally, there was interest in re-engaging with the Town regarding a potential reduction of the speed limit on S Franklin from 35 mph back to 25 mph.

ND:4929-2665-2970, v. 2

Neighborhood Meeting ~~2/19/25~~ 3/6/25

Name	Address	Contact Information - Email/Phone	Franklin St Property Owner	Franklin St Tenant	Other Community Member
Michael Kennely	906 Laurel Gate Dr	[redacted]	✓		
Sarah Murray	911 S. Franklin	[redacted]	x		
JODI DESKUS	817 S. FRANKLIN	[redacted]	x		
Melissa Espinal	815 Towne's Park St.		x		

Neighborhood Meeting ~~[illegible]~~ 3/6/25

Name	Address	Contact Information - Email/Phone	Franklin St Property Owner	Franklin St Tenant	Other Community Member
Paul Smith	808 Old Magnolia WF				X
Melissa Flores	908 Laurel Gate Dr.		✓		
Edward Quintero	908 Laurel Gate Dr.		✓		
Sara Lind	907 S Franklin St		✓		
S. Felton	808 Laurel Gate		✓		

Neighborhood Meeting ~~2/19/25~~ 3/6/25

Name	Address	Contact Information - Email/Phone	Franklin St Property Owner	Franklin St Tenant	Other Community Member
JOANNE DOUGLAS	809 OLD MAGNOLIA LA. / WE				X
Steve Pinkham	adj S. Franklin St		X		
Lynette Spencer	847 Townes Park St.		X		

Neighborhood Meeting - 11/15/2024

Name	Address	Contact Information - Email/Phone	Franklin St Property Owner	Franklin St Tenant	Other Community Member
Shaun Murray	911 S. Franklin St	[redacted]	X		
Sarah Murray	911 S. Franklin St		X		
Stephen Wiry	903 S. Franklin				

Neighborhood Meeting - 11/15/2024

Name	Address	Contact Information - Email/Phone	Franklin St Property Owner	Franklin St Tenant	Other Community Member
JOHN DOUGLAS	809 OLD MAGNOLIA LA WF				✓
Daniel Marino	821 S Franklin St		✓		
Catherine + Brian Hyey	915 S. Franklin St.		✓		
Heather Holding	902 Laurel Gate Dr.		✓		
Kathleen Dell	900 Laurel Gate		✓		
Bad. F	808 " "		✓		

Neighborhood Meeting - 11/15/2024

Name	Address	Contact Information - Email/Phone	Franklin St Property Owner	Franklin St Tenant	Other Community Member
Paul Smith	808 Old Magnolia				X
Sara Lind	807 S Franklin St		X		
Steven Pinkham	917 S. Franklin St.		X		
Gizeti Aaditzone	805 S. Franklin St.		X		
Melissa Flores	908 Laurel Gate Dr.		✓		
Edward Quintero	908 Laurel Gate Dr.		✓		

Robert. Hulbert
803 Townes Park St.
Wake Forest, NC 27587

Brian Wilson
807 Townes Park St.
Wake Forest, NC 27587

Preeti Sharma
1055 Evening Shade Ave
Roseville, NC. 27571

Melissa Espinal
815 Townes Park St.
Wake Forest, NC 27587

Zach Pleasants
819 Townes Park St.
Wake Forest, NC 27587

Steve Helderman
60 Scotts Pine Circle
Wake Forest, NC. 27587

Jordan Jares
839 Townes Park St.
Wake Forest, NC 27587

LaKiesha Sanni
843 Townes Park St.
Wake Forest, NC 27587

Lynette Spencer
847 Townes Park St.
Wake Forest, NC 27587

Scott Bickford
50 Hartwood Lane
Youngsville, NC 27596

Bobby Spinks
855 Townes Park St.
Wake Forest, NC 27587

Kalkidan Kebede
859 Townes Park St.
Wake Forest, NC 27587

Kevin Thomas Jr.
923 S. Franklin St.
Wake Forest, NC 27587

Kevin & Sheila Simone
7621 Dolphin Turn St
Willow Springs, NC 27592

Brian & Catherine Hyzy
915 S. Franklin St.
Wake Forest, NC 27587

Shawn & Sarah Murray
911 S. Franklin St.
Wake Forest, NC 27587

Sara Lind
907 S. Franklin St.
Wake Forest, NC 27587

Stephen Wray
903 S. Franklin St.
Wake Forest, NC 27587

Bogier Clinical
901 Townes Park St.
Wake Forest, NC 27587

Vijay Veluri
14755 Bunker Hill Ct
Frisco, TX 75035

Suresh Parimi
1344 Magnolia Bend Loop
Cary, NC 27519

Trustee, David Butler Trust
2519 McGowan Court
Wake Forest, NC. 27587

Rebecca Helms
917 Townes Park St.
Wake Forest, NC 27587

Sonal Singh
108 Melling Place
Cary, NC 27519

Kathleen Bell
900 Laurel Gate Dr
Wake Forest, NC 27587

Open Door
410 North Scottsdale, Ste. 1600
Tempe, AZ 85288

Srinivasan Iyer
104 Shurling Place
Cary, NC 27519

Michael Kennely
906 Laurel Gate Dr
Wake Forest, NC 27587

Edward Quintero
908 Laurel Gate Dr
Wake Forest, NC 27587

NC Innovative Properties
111 W Jones St
Savannah, GA 31401

Robert Meyer
5807 Faringdon Place
Raleigh, NC. 27609

Paul Johnson
849 S. Franklin St.
Wake Forest, NC 27587

Town of Wake Forest
C/o Eric Spence
PO Box 17803
Raleigh, NC 27619

Elizabeth Jemo
805 S. Franklin St.
Wake Forest, NC 27587

Joseph Marranca
853 S. Franklin St.
Wake Forest, NC 27587

Deacons Ridge HOA, Inc
C/o Sentry Management
2180 W State Road 434, Ste. 5000
Longwood, FL 32779

Jonathan & Helen Thomas
525 Myrna Lane
Wake Forest, NC 27587

Steven Le
1305 Heritage Hills Way
Wake Forest, NC 27587

American IRA, LLC
137 Broad Street
Asheville, NC. 28801

Jodi Deskus
817 S. Franklin St.
Wake Forest, NC 27587

Ngamy Le
3102 Rocky Lane
Ontario, CA 91761

Rp Hv Lakeside, LLC
Reader Partners, LLC
5850 T G Lee Blvd, Ste. 200
Orlando, FL. 32822

Dan Marino
821 S. Franklin St.
Wake Forest, NC 27587

Cameron Green
820 Laurel Gate Drive
Wake Forest, NC 27587

Heath Ridge Village HOA
PO Box 20969
Raleigh, NC. 27619

Darren Demille
7608 Ballard Hill Lane
Cary, NC 27519

Crow's Landing, LLC
PO Box 2916
Boone, NC 28607

Stephen Coad
1632 Denton Ct
Folsom, CA. 95630

Angela Montoya
829 S. Franklin St.
Wake Forest, NC 27587

Blue Skye Management, LLC
7413 Six Forks Rd, Ste. 186
Raleigh, NC. 27615

Msd2 Wake Forest, LLC
165 Mariner Pointe Lane
Mooresville, NC 28117

Kenneth Bradford
833 S. Franklin St.
Wake Forest, NC 27587

Kalwinder Bolla
209 Forbes Rd
Wake Forest, NC 27587

Franklin Street Townes, LLC
PO Box 414
Wake Forest, NC 27588

Brooke Boyd
837 S. Franklin St.
Wake Forest, NC 27587

Sadi Felton
808 Laurel Gate Drive
Wake Forest, NC 27587

Sandeep Reddy
1501 Sierra Glen Circle
Apex, NC 27502

Amanda Mirakaj
845 S. Franklin St.
Wake Forest, NC 27587

Kenneth Bourque
PSC 88 Box 2343
APO AE 09821-0024

Surya Vattikuti
451 Garfield Ave
Mineola, NY 11501

Lloyd Blevins, Jr.
PO Box 877
Wake Forest, NC 27588

Andre Bessette
717 E Holding Ave
Wake Forest, NC 27587

John Charchar
308 Yellow Poplar Ave
Wake Forest, NC 27587

Krystal Garcia
713 E Holding Ave
Wake Forest, NC 27587

Theodore Ford
521 Roycroft Drive
Wake Forest, NC 27587

Mary Doyle
313 Yellow Poplar Ave
Wake Forest, NC 27587

Jameel Henderson
517 Roycroft Drive
Wake Forest, NC 27587

Big Wheel Realty, LLC
7020 Hasentree Way
Wake Forest, NC. 27587

Marilyn Allen
804 Old Magnolia Lane
Wake Forest, NC 27587

Chad Wentz
529 Roycroft Drive
Wake Forest, NC 27587

Daniel Amend
517 Walters Dr
Wake Forest, NC 27587

Edward Douglas
809 Old Magnolia Lane
Wake Forest, NC 27587

Dale Eyrolles
3678 Creekbend Drive
Wake Forest, NC 27587

Wake County Attorney's Office
PO Box 550
Raleigh, NC 27602

Lela McCarson
816 Old Magnolia Lane
Wake Forest, NC 27587

Franklin Street Townes HOA
PO Box 919
Wake Forest, NC 27588

Joseph Clark
709 E Holding Ave
Wake Forest, NC 27587

Charlene Hargrove
805 Silver Linden Lane
Wake Forest, NC 27587

Cady Construction Co, INC
847 Wake Forest Business Park
Ste. 101
Wake Forest, NC 27587

Deborah Quinones
320 Yellow Poplar Ave
Wake Forest, NC. 27587

Mareta Davidson
817 Silver Linden Lane
Wake Forest, NC 27587

Randall Felton
1501 Beaver Tan Ct
Wake Forest, NC 27587

Langstein Preizler
525 Roycroft Drive
Wake Forest, NC 27587

Lee Spell
704 E Holding Ave
Wake Forest, NC 27587

Huggy Bear, LLC
3336 White Oak Rd
Raleigh, NC 27609

Michael Travis
616 Walters Drive
Wake Forest, NC. 27587

James Lovelace
701 E Holding Ave
Wake Forst, NC 27587

Holding Village HOA
8480 Honeycutt Rd, Ste. 200
Raleigh, NC 27615

John Fidgeon
1005 Hialeah Ct
Wake Forest, NC 27587

Jessica Zito
705 E Holding Ave
Wake Forest, NC 27587

Miguel Delgado
712 E Holding Ave
Wake Forest, NC 27587

Ashley Edwards
600 Watch Hill Lane
Wake Forest, NC 27587

Nancy Consolo
709 Deacons Ridge St
Wake Forest, NC 27587

Jason Loeback
304 Yellow Poplar Ave
Wake Forest, NC 27587

Robert McCormack
612 Watch Hill Lane
Wake Forest, NC 27587

Rafah Younus
604 Watch Hill Lane
Wake Forest, NC 27587

Joshua Sheffield
305 Yellow Poplar Ave
Wake Forest, NC 27587

Town of Wake Forest
401 Elm Ave
Wake Forest, NC 27587

Health Ridge Village HOA, Inc
123 S White Street
Wake Forest, NC 27587

Marie Sultzbach
321 Yellow Poplar Ave
Wake Forest, NC 27587

Louis Berman
301 Yellow Poplar Ave
Wake Forest, NC 27587

Dwight Springthorpe II
701 Deacons Ridge St
Wake Forest, NC 27587

Paul Smith
808 Old Magnolia Lane
Wake Forest, NC 27587

Stephanie Liles
317 Yellow Poplar Ave
Wake Forest, NC 27587

Jacqueline Tayman
713 Deacons Ridge St
Wake Forest, NC 27587

James Haney
813 Old Magnolia Lane
Wake Forest, NC 27587

Shawn Brown
805 Old Magnolia Lane
Wake Forest, NC 27587

Emily Whitaker
608 Watch Hill Lane
Wake Forest, NC 27587

Julia Poandl
820 Old Magnolia Lane
Wake Forest, NC 27587

Steven LIneberry
812 Old Magnolia Lane
Wake Forest, NC 27587

900 Franklin Center Condo & Franklin Center Assn, INC
900 S Franklin ST
Wake Forest, NC 27587

Owen Davis
813 Silver Linden Lane
Wake Forest, NC 27587

Joseph Gaglione Jr.
818 Old Magnolia Lane
Wake Forest, NC 27587

Lee Evans
705 Deacons Ridge St
Wake Forest, NC 27587

Belinda Cook
685 E Holding Ave
Wake Forest, NC 27587

Reba Palmer
809 Silver Linden Lane
Wake Forest, NC 27587

Alexander Ann, Trustee
616 Nelson Place
Westbury, NY 11590

F Mitchell Carl
716 E Holding Ave
Wake Forest, NC 27587

Stephanie Denicola
819 Silver Linden Lane
Wake Forest, NC 27587

Harriett Weinstock
314 Sugar Maple Ave
Wake Forest, NC 27587

4

Brenda Briggs
309 Sugar Maple Ave
Wake Forest, NC 27587

Melissa Denicloa
708 Montville Ct
Wake Forest, NC 27587

Victoria Narron
700 Deacons Ridge St
Wake Forest, NC 27587

Virgina Jolley
324 Sugar Maple Ave
Wake Forest, NC 27587

Katherine Weber
311 Sugar Maple Ave
Wake Forest, NC 27587

Richard Netherby
618 S Allen Rd
Wake Forest, NC 27587

Derek Vanhorn
704 Deacons Ridge ST
Wake Forest, NC 27587

Christopher Wisnieski
708 Deacons Ridge ST
Wake Forest, NC 27587

Town of Wake Forest-Planning Dept
301 S Brooks St
Wake Forest, NC 27587

Olga Gaffney
14947 Lefferts Blvd
South Ozone Park , NY 11420

Thomas Vucelich Sr
107 Joanne Ct
Evans City, PA 16033

Louise Keeler
921 Flash Drive
Rolesville, NC 27571

Crystal Burton
301 Sugar Maple Ave
Wake Forest, NC 27587

David Bole Sr
704 Montville Ct
Wake Forest, NC 27587

Ralph Tebault
640 Deacons Ridge St
Wake Forest, NC 27587

Conditional District Rezoning Application

(Conditional District Rezoning - Planning Board Workflow)

Town of Wake Forest, NC
301 S. Brooks St.
Wake Forest, NC 27587-2932
TEL (919) 435-9510 | FAX (919) 435-9539

Project Overview #1432398

Project Title: Franklin Street Townes Rezoning
Application Type: Conditional District Rezoning
Workflow: Conditional District Rezoning - Planning Board
Jurisdiction: Town of Wake Forest (Wake County)
State: NC
County: Wake

Submittal Requirements

Please review the checklist below, which identifies what must be submitted with this application. You will be asked to upload the required documents after you have finished entering your application information. A complete application must be submitted in order for the application to be deemed complete and routed for review. Missing items will result in the application being declined and returned to you for revision.

VIEW CONDITIONAL DISTRICT REZONING SUBMITTAL CHECKLIST

Please confirm that you have reviewed the associated submittal checklist for this application and that you will submit all documents required on the submittal checklist: Yes

Pre-Application Meeting

Has a pre-application conference been held?: Yes

*Note: This type of project requires a pre-application conference be completed prior to official submittal. If this has not been completed, please return to the home screen and select **Pre-Application Conference** from the application type drop down list in order to schedule your required meeting.*

Pre-Application Conference Date: 05/30/2024
Staff Member Met With: Patrick Rediy
Pre-application Conference Project Number: SP-13-03

Address & Basic Site Information

Please Note:
In some cases, a parcel address may not verify. In the event that our system is unable to verify the address you enter, please submit the project as an *Unverified Parcel* and provide zoning and land use information as requested below. For verified addresses, the zoning and land use information will be added to the application automatically (you do not need to provide it below).

Project Address or PIN:

- 1840571129 (Unverified)

Tax PIN:

- 0 FRANKLIN PARK AVE., WAKE FOREST, NC 27587 (Unverified)

Acreage: 4.81

Name of Existing Development/Subdivision (if applicable--for reference only): Franklin Street Town Homes

For unverified addresses/parcels only, please provide below 1) the current use of the parcel, 2) the zoning district(s) it is in, and 3) any overlay districts that apply. Reference the zoning map and the overlay districts map on the town's website.

Current Use & Zoning (required only if address/parcel is unverified):
Current zoning is RMX. Use is Townhomes.

*Note: Projects falling outside the limits of the Town or ETJ will be required to submit an annexation petition in conjunction with their project submittal. In this case, please return to the home screen and select **Annexation Petition** from the application type drop down.*

Test_GIS_Map:

GIS Site Information (Automatically Generated - Not Available for Unverified Addresses)

Parcel Area:

Wake Forest (WF):

Base District:

In SH2-O Overlay:

In TND Overlay:

In HL-O Overlay:

In National Register of Historic Places:

Current Use:

Planning and Zoning:

In SH1-O Overlay:

In Water Supply Watershed Protection Overlay:

In SF Overlay:

In MVCP-O Overlay:

In Flood Hazard Area:

Additional Zoning Information

Currently a Conditional District?: Yes

Currently a Conditional Use?: No

Is there an existing Special Use Permit for the Property?: No

Case Number of related site plan (if applicable): SD-14-09

Case Numbers of other related approvals (if applicable):

Project Contacts

Please enter all project contacts related to your application.

This is an important step to ensure all members of the applicant team receive email notifications associated with the project which may include comments, requested revisions, scheduled meetings or hearings, and final decisions. This also informs Town staff of the team members assigned role with the project.

Project Contact - Applicant
Caroline Krause-lafrate
Franklin Street Townes, LLC
PO Box 414
Wake Forest, NC 2841227588
P:919-390-7810
wakedev@icloud.com

Project Contact - Property Owner
Caroline Krause-lafrate
Franklin Street Townes, LLC
PO Box 414
Wake Forest, NC 2841227588
P:919-390-7810
wakedev@icloud.com

Project Contact - Developer
Caroline Krause-lafrate
Franklin Street Townes, LLC
PO Box 414
Wake Forest, NC 2841227588

Project Contact - Engineer
Gary Walston
Bass, Nixon & Kennedy, Inc.
6310 Chapel Hill Road, Ste. 250
Raleigh, NC 27607

P:919-390-7810
wakedev@icloud.com

P:919-851-4422
garry.walston@bnkinc.com

Project Contact - Attorney
Clint Cogburn
Ward and Smith, P.A.
PO Box 2020
Asheville, NC 28802
P:828-348-6012
chcogburn@wardandsmith.com

Transportation Impact Analysis

As per Section 6.11.1 of the UDO is the project required to provide a Traffic Impact Analysis (TIA)?: No

Was the TIA reviewed in a separate permit prior to this application?:

Project Number:

For projects requiring a TIA, a separate TIA application must be submitted in conjunction with this application. Please review the TIA submittal checklist and submit a ***Transportation Impact Analysis Review*** application in IDT.

If the request is to a Conditional District (CD), this application should be accompanied by a master plan that includes land use, existing conditions, buildings, lots, etc. per Chapter 15 of the UDO. In addition, please provide a narrative of the proposed use and list any proposed conditions.

Project Type: Residential

Proposed Conditional Zoning District: RMX-CD, Residential Mixed-Use

Proposed Land Use:
Townhomes - The only change is subjecting the project to the revised site plan.

Proposed Number of Lots: 61

Number of Buildings: 11

Number of Single-Family Lots: 61

Number of Townhome Lots: 61

Number of Multi-Family Units: 0

Total Number of Dwelling Units: 61

Number of Stories: 2

Square Footage of All Buildings (non-residential): 0

Plan Information - Conditional Rezoning

Description of Request:
This request seeks to rezone the subject property to the same underlying zoning district, but as a conditional district. The purpose of this request is because a prior master plan for the project reflected a common area with a pool and clubhouse. Subsequently, to provide a more flexible and user-friendly common space, the Applicant changed that common area to a community garden (as reflected on the site plan) with a pavilion/gathering space, bicycle racks, and a pet waste station. The remainder of the project from a use and design perspective remains unchanged (subject to addressing minimal staff comments). Please note that the location, area, dimensions, and configuration of the common space remains

Initial Proposed Conditions Offered by Applicant:
The use will be consistent with the revised site plan submitted with the conditional district rezoning application.

unchanged. Moreover, almost the entirety of the project, including all but one of the townhome structures, has been fully developed. The only remaining items are the final townhome structure (the design, location, and plan for which remain unchanged in this request) and the common area.

This request is narrow and targeted to facilitate the change to the common area as the remainder of the project has previously been approved and, as such, is vested. In an effort to promote clarity, the Applicant is incorporating the attached site plan to the request.

Justification of Consistency with Comprehensive Plan:

The revised site plan for the townhome development aligns well with the comprehensive plan's goals and policies. The transition from a pool and clubhouse to a community garden, pavilion/gathering space, bicycle racks, and a pet waste station fosters a more sustainable and community-oriented environment. The community garden and pavilion promote community interaction within the townhome development. The bicycle racks encourage sustainable transportation, aligning with the community plan goals to reduce traffic and pollution. The community garden enhances the local green space and provides for less impervious surface than a pool or clubhouse.

These elements collectively support the comprehensive plans objectives of creating vibrant, healthy, and sustainable communities.

March 11, 2026

Town of Wake Forest
Planning Department
c/o Tim Richards, AICP, CZO, Senior Planner
301 S Brooks Street
Wake Forest, NC 27587

VIA EMAIL @ trichards@wakeforestnc.gov

Reference: Franklin Street Town Homes Conditional Rezoning
Project Address: 0 Franklin Park Ave., Wake Forest, NC 27587; 1840571129

Proposed Zoning Conditions

Dear Mr. Richards:

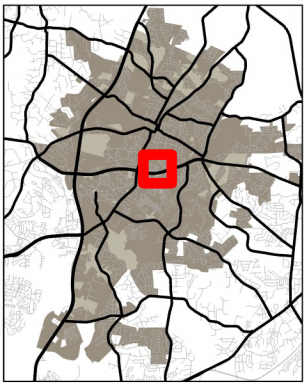
The proposed zoning conditions for the Franklin Street Town Homes project, Town of Wake Forest, are listed below:

1. The development of the site shall be in accordance with the approved Master Plan.

Sincerely,

Caroline Iafrate, Manager
Franklin Street Townes, LLC

D:4912-8622-3510, v. 1

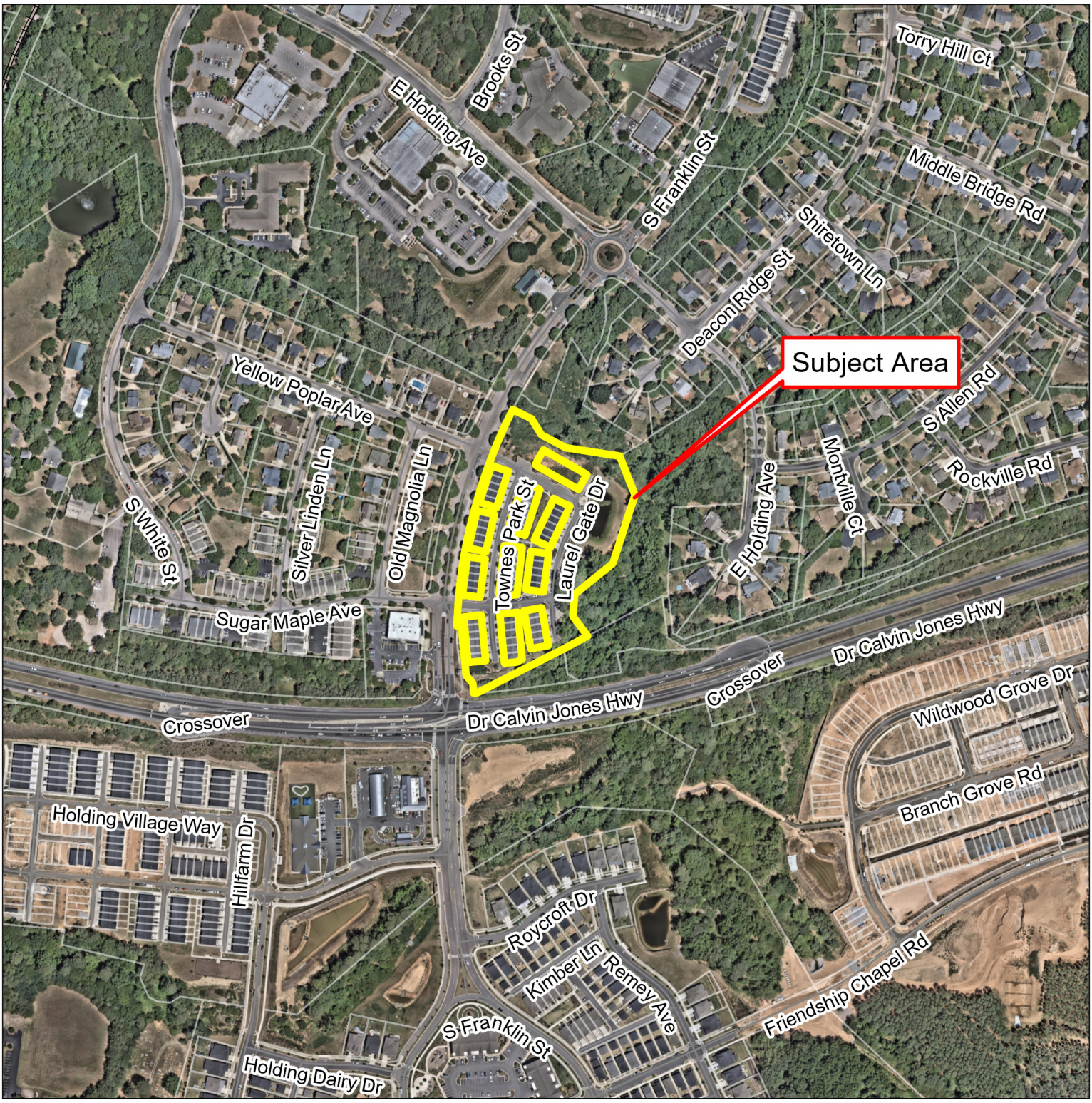


Aerial Photograph

WAKE FOREST

RZ-24-03
Franklin Street Townes Common Area
Wake County PIN: 1840571129

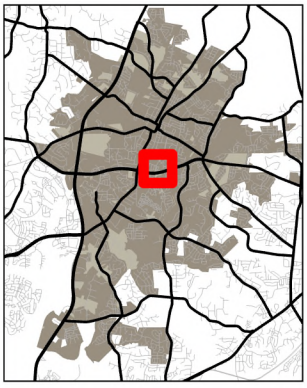
8/25/2026



Please note that this map is intended for illustrative purposes only. For specific inquiries regarding zoning boundaries, contact the Town Wake Forest Planning Department at 919-435-9510.

0 500 1,000 1,500 Feet

N W E

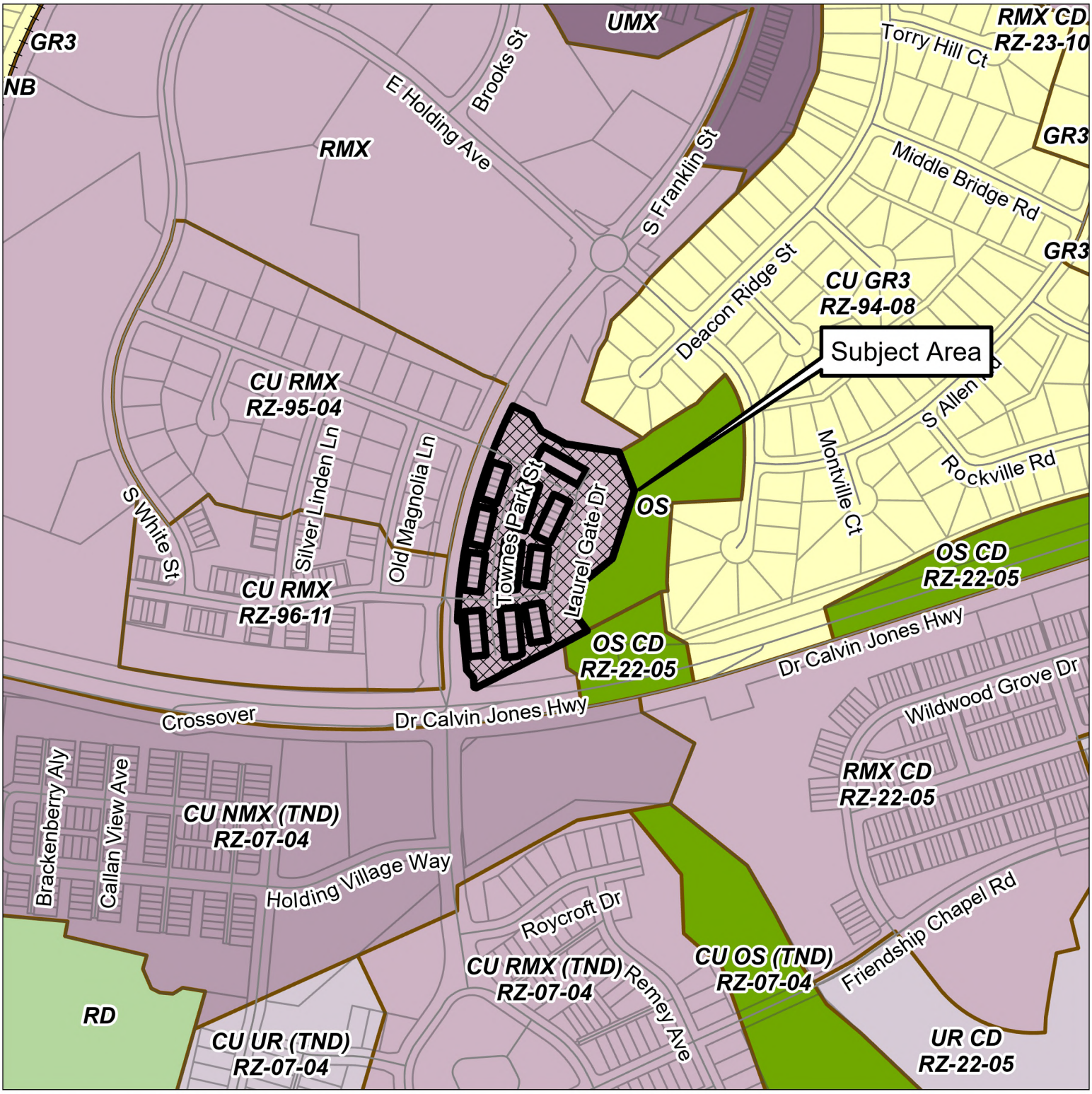


Zoning

WAKE FOREST

RZ-24-03
Franklin Street Townes Common Area
Wake County PIN: 1840571129

8/25/2026



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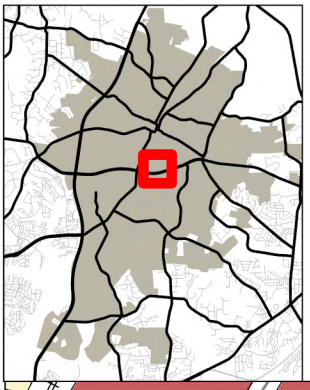
0 500 1,000 1,500 Feet

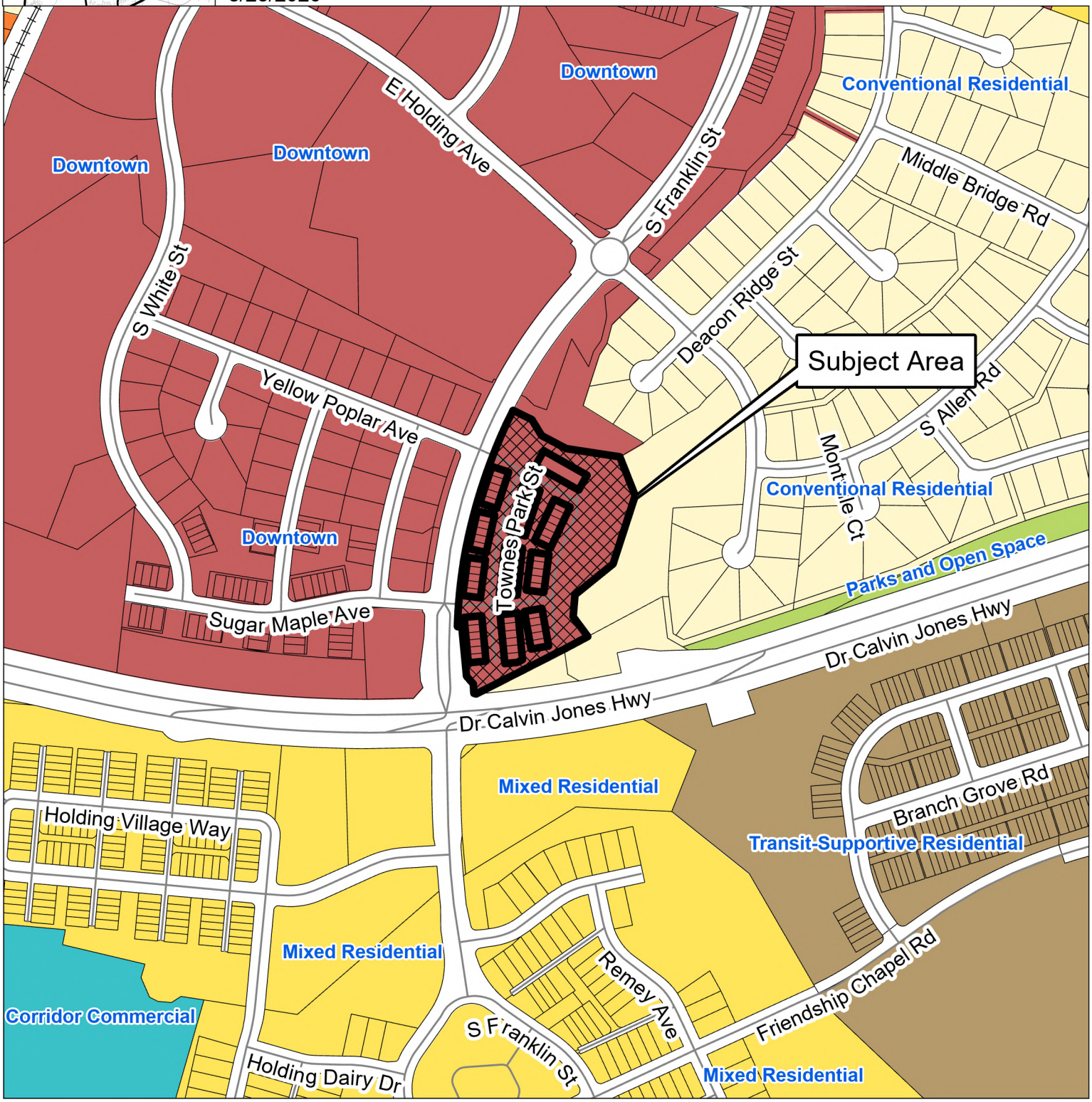


Land Use Plan

WAKE FOREST

RZ-24-03
Franklin Street Townes Common Area
Wake County PIN: 1840571129

8/25/2026



Please note that this map is intended for illustrative purposes only. For specific inquiries regarding zoning boundaries, contact the Town Wake Forest Planning Department at 919-435-9510.

0 500 1,000 1,500 Feet

N W S

TOWN *of*
WAKE FOREST

301 S. Brooks Street
Wake Forest, NC 27587
t 919.435.9400

www.wakeforestnc.gov

ORDER APPROVING SITE MASTER PLAN (MAJOR)

Special Use Request No.:	SP-13-04
Date Issued:	February 18, 2014
Petitioner / Owner:	Franklin Street Apartments, LLC 3650 Rogers Road, Suite 329 Wake Forest NC 27587 marc.capcity@yahoo.com 919-314-7797
Property Location:	Near the intersection of S. Franklin Street and Dr. Calvin Jones Highway
Tax Pin:	1840-57-1108
Property Size:	6.63 acres
Development Name:	Franklin Street Apartments, LLC
Zoning:	RMX, Residential Mixed Use (SH2-0)

The Wake Forest Board of Commissioners considered your request on February 18, 2014 for Master Plan Approval (Major) for a 108 multi-family unit development. **The Wake Forest Board of Commissioners voted 4-1 to approve your request for, based on the submitted plan and the following findings of fact:**

Finding 1: **The plan is consistent with the adopted plans and policies of the Town,** in that the proposed site master plan plan is consistent with the applicable recommendations of the Wake Forest Pedestrian Plan, NC-98/Dr. Calvin Jones Highway Corridor Plan, and the Wake Forest Transportation Plan.

Finding 2: **The plan complies with all applicable requirements of the Wake Forest Unified Development Ordinance,** the proposed site master plan meets the requirements of the Unified Development Ordinance with regard to parking, landscaping, storm water and erosion control, and buffering.

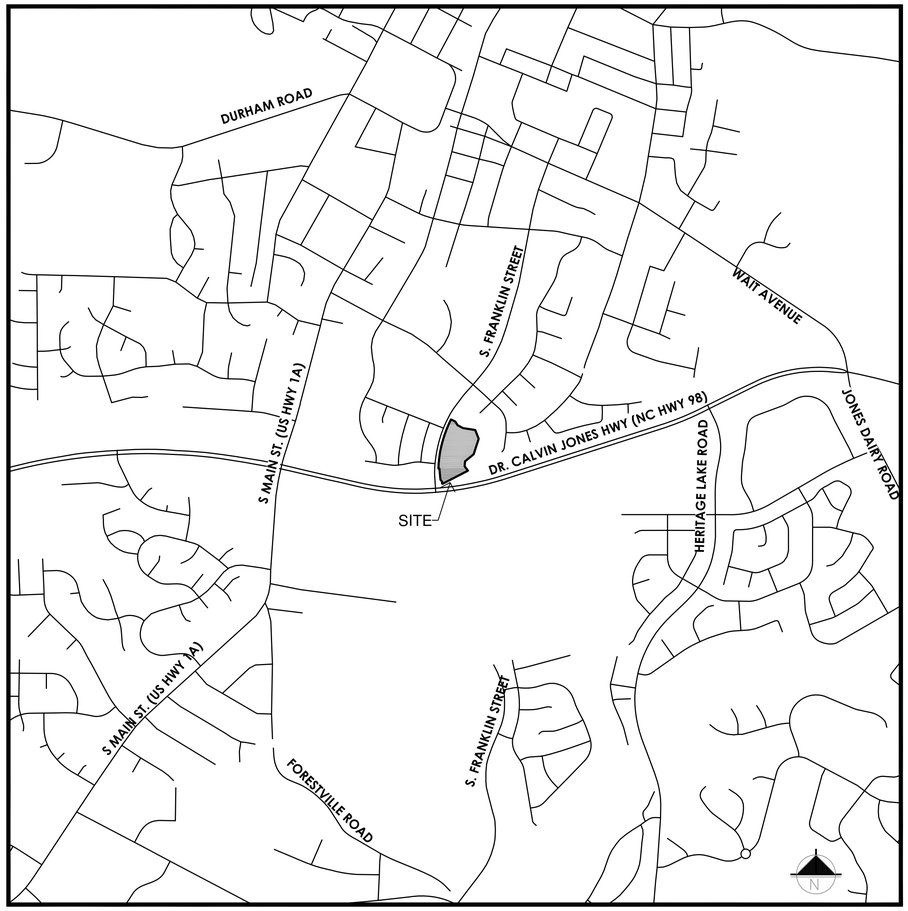
Finding 3: **There exists adequate infrastructure (transportation & utilities) to supports the**

plans as proposed, in that the proposed plan includes the extension of public utilities, and is located on an existing major thoroughfare.

Finding 4: **The application will not be detrimental to the use or development of adjacent properties or other neighborhood uses,** in that the proposed multi-family development is a permitted land use in the RMX Zoning District, and has been designed to provide a pedestrian-scaled streetscape on Franklin Street and utilize natural open space areas to conform with the existing open space area abutting the property to the east.

Mayor

February 18, 2014
Date



LOCATION MAP SCALE: 1" = 1000'

Franklin Street Apartments

Master Plan & Site Plan Submittal

DESIGN TEAM

LANDSCAPE ARCHITECT
Cline Design Associates, PA
125 N. Harrington Street
Raleigh, NC 27603
(919) 833-6413
(919) 836-1280 fx.

CIVIL ENGINEER
Bass, Nixon & Kennedy, Inc.
Consulting Engineers
6310 Chapel Hill Rd. Ste. 250
Raleigh, NC 27607
P: (919) 851-4422
F: (919) 570-1362

ARCHITECT
TightLines Designs
119 E Harget St.
Raleigh, NC 27607
P: (919) 834-3600

Franklin Street Apartments
Master Plan & Development Plan Submittal
Wake Forest, NC

OWNER & DEVELOPER	Franklin Street Apartments, LLC	
CONTACT:	Marc Iafrate	
ADDRESS:	3650 Rogers Road, Ste 329 Wake Forest, NC 27587	
PHONE:	919.314.7797	
EMAIL:	Marc.capcity@yahoo.com	
	SURVEYED:	APPROVED:
	DRAWN: CT	DATE: 04 April 2013
	CHECKED: MWL/JBM	SCALE: 1" = 40'

LISTS OF SHEETS & REVISIONS

NO.	TITLE	DATE	DESCRIPTION
	COVER	01-14-2014	
SD0.10	EXISTING CONDITIONS		
SD1.00	SITE PLAN	01-13-2014	REVISIONS PER TOWF COMMENTS
SD1.01	OPEN SPACE PLAN	12-04-2013	REVISIONS PER TOWF COMMENTS
SD3.0	UTILITY LAYOUT PLAN	01-13-2013	REVISIONS PER TOWF COMMENTS
SD4.0	GRADING & DRAINAGE PLAN	01-13-2014	REVISIONS PER TOWF COMMENTS
LP1.00	LANDSCAPE PLAN	01-13-2014	REVISIONS PER TOWF COMMENTS

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING AND ZONING BOARD

DATE _____

APPROVAL BY THE WAKE FOREST BOARD OF COMMISSIONERS

DATE _____

BNK TREE TYPE ABBREVIATIONS

APPLE	–	AP
ASH	–	AS
BEECH	–	BE
BLACK WALNUT	–	BW
BRADFORD PEAR	–	BP
BURFORD HOLLY	–	BH
CATALPA	–	CP
CEDAR	–	CR
COTTONWOOD	–	CW
CRABAPPLE	–	CA
CREPE MYRTLE	–	CM
CYPRESS	–	CY
DOGWOOD	–	DW
ELM	–	EL
GUM	–	GM
HACKBERRY	–	HB
HICKORY	–	HK
HOLLY	–	HY
IRONWOOD	–	IW
LIGUSTRUM	–	LG
LOCUST	–	LC
MAGNOLIA	–	MG
MAPLE	–	MP
MIMOSA	–	MM
PEAR	–	PR
PECAN	–	PC
PERSIMMON	–	PS
REDTIP	–	RT
PINE	–	PN
POPLAR	–	PP
REDBUD	–	RB
RED OAK	–	RO
SOURWOOD	–	SW
SWEETBAY	–	SB
SYCAMORE	–	SY
WALNUT	–	WN
WAX MYRTLE	–	WM
WHITE OAK	–	WO
WILD CHERRY	–	WC
WILLOW	–	WW
ZELKOVA	–	ZA

NOTE:
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3) ALL STREETS ARE PUBLIC RIGHTS-OF-WAY UNLESS SHOWN OTHERWISE.
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5) NO TITLE SEARCH PERFORMED FOR THIS SURVEY.
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NOTE:
THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON OBSERVED ABOVE GROUND STRUCTURES, FIELD MARKINGS AND DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, FIELD LOCATIONS AND THE TYPE OF UTILITIES/STRUCTURES SHOULD BE VERIFIED.

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	1550.00	178.35	S23°33'33"W	178.26
C2	1551.54	29.16	S20°07'25"W	29.16
C3	1550.00	480.22	S10°42'32"W	478.30
C4	1096.20	2.64	N64°14'34"E	2.64
C5	4465.54	16.49	S85°28'59"W	16.49

LINE TABLE

LINE	BEARING	LENGTH
L1	N88°06'11"W	13.16
L2	N05°28'06"W	111.66
L3	N05°20'43"W	39.37
L4	N40°52'19"W	31.47
L5	N03°59'03"W	28.65

NOW OR FORMERLY
DEACONS RIDGE HOMEOWNERS ASSOC, INC.
PIN: 1840-57-5445
DB 14440, PG 829
BM 1997, PG 523

NOW OR FORMERLY
HUGGY BEAR, LLC
PIN: 1840-66-0542
DB 13812, PG 3

NOW OR FORMERLY
ALF HOLDING VILLAGE, LLC
PIN: 1840-44-5364
DB 14433, PG 2087

NOW OR FORMERLY
NVNG, LLC.
PIN: 1840-57-1692
DB 6709, PG 456
BM 1996, PG 925

SOUTH FRANKLIN STREET
VARIABLE WIDTH PUBLIC R/W

YELLOW POPLAR AVE.
50' PUBLIC R/W

SUGAR MAPLE AVE.
50' PUBLIC R/W

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

SCALE IN FEET
0 15 30 60 90 120

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BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBLA (C-0267)

NO.	DATE	DESCRIPTION	BY
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1	4-2-13	TOWF REVIEW COMMENTS	J.J.

REVISIONS

JOB NO. 12183 | DATE 4-5-13 | DRAWN BY J.JONES

EXISTING CONDITIONS PLAN

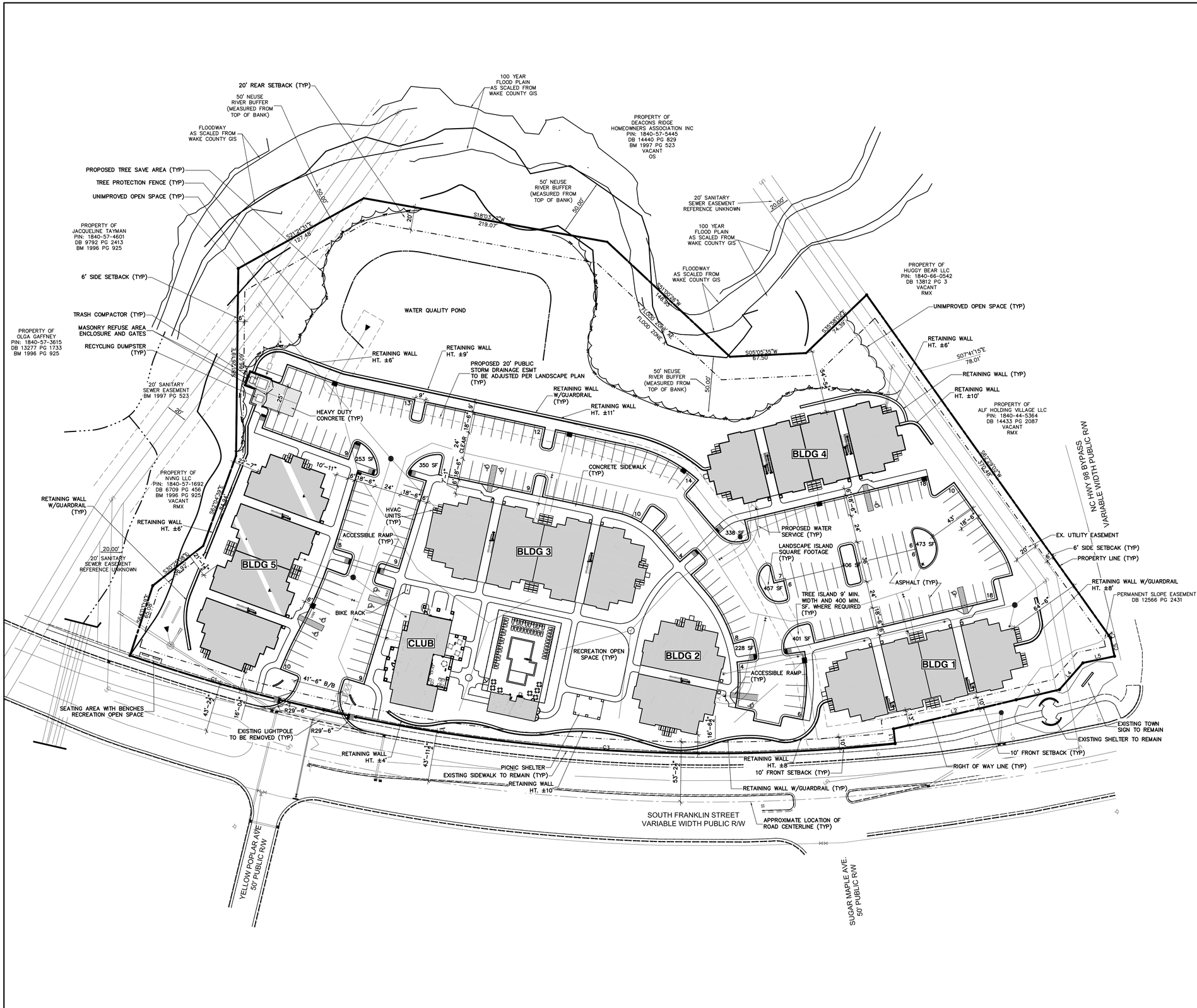
SCALE: 1" = 30'

FRANKLIN STREET APARTMENTS

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET SD0.10 OF 46

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION



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Survey Notes 03

1. ALL DIMENSION ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED

2. THE DEVELOPMENT SHALL MEET THE STANDARDS OF THE RENAISSANCE PLAN, OVERALL DESIGN AND APPEARANCE STANDARD, AND TOWN CENTER AREA AS REQUIRED IN ARTICLE VI, SECTION 9 OF THE WAKE FOREST ZONING ORDINANCE.

3. PHASES: THE PROJECT IS EXPECTED TO BE COMPLETED IN TWO PHASES. THE FIRST PHASE WILL BE BUILDINGS 1, 2 AND 3 AND THE CLUBHOUSE/POOL AS NOTED ON THE SITE PLAN. THE SECOND PHASE WILL BE BUILDINGS 4 AND 5. IT IS EXPECTED THAT CONSTRUCTION FOR PHASE 1 WILL BEGIN IN THE FALL OF 2013, PENDING ALL NECESSARY APPROVALS FROM THE TOWN OF WAKE FOREST. IT IS EXPECTED THAT CONSTRUCTION ON PHASE 2 WILL BEGIN 8-12 MONTHS FOLLOWING THE COMPLETION OF PHASE 1.

4. COMMON AREAS: THE COMMON AREAS AND OPEN SPACE WILL BE PROFESSIONALLY MAINTAINED AND SUPERVISED BY THE ON-SITE MANAGEMENT TEAM. THIS INCLUDES LAWN MAINTENANCE AND INSTALLING AND MAINTAINING LANDSCAPING, PARKING ISLANDS, COMMON AREAS AND OTHER RECREATION AREAS LOCATED ON THE PROPERTY.

5. ENTIRE SITE IS LOCATED IN THE SPECIAL HIGHWAY OVERLAY (SH2-O) OF 1000 LF. MEASURED FROM NC HIGHWAY 98 RIGHT-OF-WAY.

Site Notes 02

OWNER/DEVELOPER: FRANKLIN STREET APARTMENTS, LLC
3650 ROGERS ROAD, STE. 329.
WAKE FOREST, NC 27587
(919) 314-7797

SURVEYOR: BASS, NIXON AND KENNEDY
6310 CHAPEL HILL ROAD, STE 250
RALEIGH, NC 27607
(919) 851.4422

PIN: 1840-57-1108-000
TRACT AREA: 6.63 AC
CURRENT ZONING: RMX (RESIDENTIAL MIXED USE)
OVERLAY DISTRICTS: DR. CALVIN JONES HIGHWAY OVERLAY (SH2-O)
CURRENT USE: VACANT
PROPOSED USE: MULTI-FAMILY APARTMENTS
NUMBER OF BUILDINGS: 6 [PHASE I=(4), PHASE 2=(2)]
PROPOSED NUMBER OF UNITS: 108 DWELLING UNITS
ALLOWABLE DENSITY: 24 DWELLING UNITS PER ACRE
PROPOSED DENSITY: ±16.29 DWELLING UNITS PER ACRE (108 DU. / 6.63 AC.= 16.29)
MAX. BLDG HEIGHT: 6 STORIES
PROPOSED MAX BLDG HEIGHT: 40'(3 STORIES)
PROPOSED BLDG AREA
BLDG 1: 9,572 SF
BLDG 2: 5,936 SF
BLDG 3: 12,001 SF
BLDG 4: 9,597 SF
BLDG 5: 12,001 SF
CLUBHOUSE: 4,376 SF
POOLHOUSE: 774 SF

BUILDING TABULATION	1BD	2BD	3BD	TOTAL
CLUB	–	–	–	–
BLDG 1	10	10	–	20
BLDG 2	–	12	–	12
BLDG 3	–	18	6	24
BLDG 4	14	14	–	28
BLDG 5	–	18	6	24
TOTAL UNITS	24	72	12	108
TOTAL BEDROOMS	24	144	36	204
		TOTAL		54,282 SF

SETBACKS
FRONT: MIN 6', MAX 18'
SIDE: 6'
REAR: 3'

STREETYARD: 30-50' (98 BYPASS)

SO. FRANKLIN STREET: 856 LF

IMPERVIOUS AREA: SEE GRADING PLAN

PARKING REQUIRED: 162 SPACES
108 DU X [1.5 SPACE/DU] =162
PARKING PROPOSED: 196 SPACES
2 VAN HC SPACES AND 9 REG. HC SPACES

BICYCLE PARKING REQUIRED: 4 RACKS
[1 RACK/40 REQ. PARKING SP.] = 162 X 1/40 = 4.05
BICYCLE PARKING PROPOSED: 6 RACKS (CLASS III)

OPEN SPACE (RMX ZONING)
RECREATION OPEN SPACE REQUIRED: 18,772 SF TOTAL
IMPROVED: 4,332 SF IMPROVED
288,803 SF X 2%= 5,776 SF
LESS 25% – 1,444 SF
TOTAL IMPROVED 4,332 SF
UNIMPROVED: 14,440 SF UNIMPROVED
288,803 SF X 5%= 14,440 SF
TOTAL REQUIRED 18,772 SF

RECREATION OPEN SPACE PROVIDED: 52,608 SF (18.2%)
RECREATION SPACE PROPOSED: 25,106 SF (8.7%)
UNIMPROVED SPACE EXISTING: 27,502 SF (9.5%)
TOTAL PROVIDED 52,608 SF (18.2%)

Preliminary Site Plan 04

Scale: 1" = 40'

Site Calculations 01

Scale: 1" = 40'

CLINE DESIGN
125 N. Harrington St.
Raleigh, NC 27603
919/833-6413
919/836-1280 FAX
ClineDesignAssoc.com

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Franklin Street Apartments, LLC

Franklin Street Apartments

Wake Forest, North Carolina

Development Plan Submittal

Not For Construction

Not For Construction

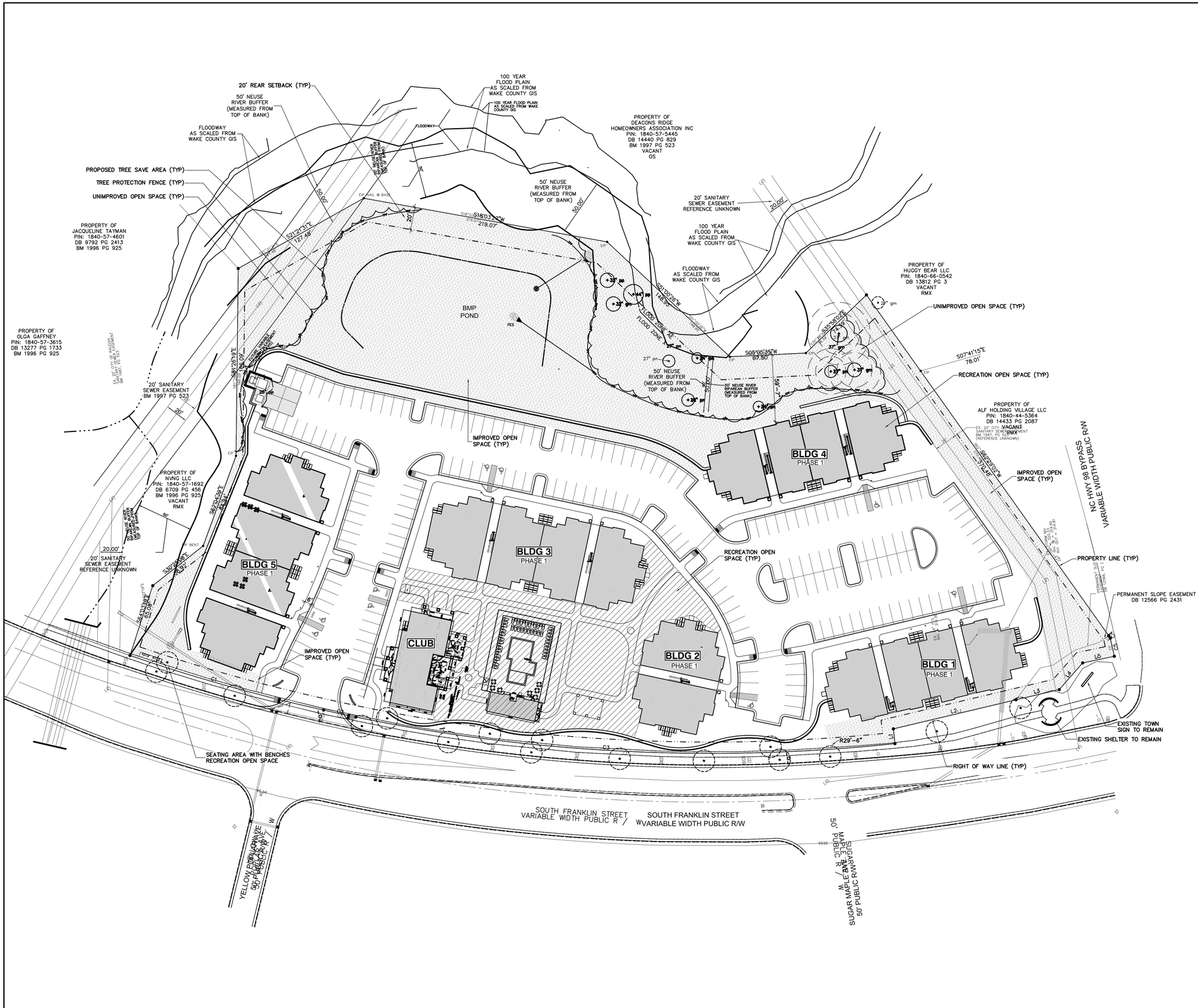
PROJECT: 012077
DATE: 04.04.2013

REVISIONS:	DATE
TOWF Comments	07.03.13
TOWF Comments	12.04.13
TOWF Comments	01.13.14

DRAWN BY: SP/CT
CHECKED BY: MWL/JBM

Preliminary Site Plan

SD1.00



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Scale: 1" = 40'

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Scale: 1" = 40'

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Development Plan Submittal

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TOWF Comments	07.03.13
TOWF Comments	12.04.13

DRAWN BY: CT
CHECKED BY: MWL

Open Space Plan

SD1.01

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ATTENTION CONTRACTORS

The ***Construction Contractor*** responsible for the extension of water sewer, and/or reuse, as approved in these plans, is responsible for ***contacting*** the ***Public Works Department*** at ***(919) 996-6810*** and the ***Public Utilities Department*** at ***(919) 857-4540*** at least ***twenty four hours*** prior to beginning any of their construction.

Failure to notify both ***City Departments*** in advance of beginning construction, will result in the issuance of ***monetary fines***, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for ***Inspection***, ***Install a Downstream Plug***, have ***Permitted Plans*** on the ***Jobsite***, or any other ***Violation*** of ***City of Raleigh Standards*** will result in a ***Fine and Possible Exclusion*** from future work in the ***City of Raleigh***.

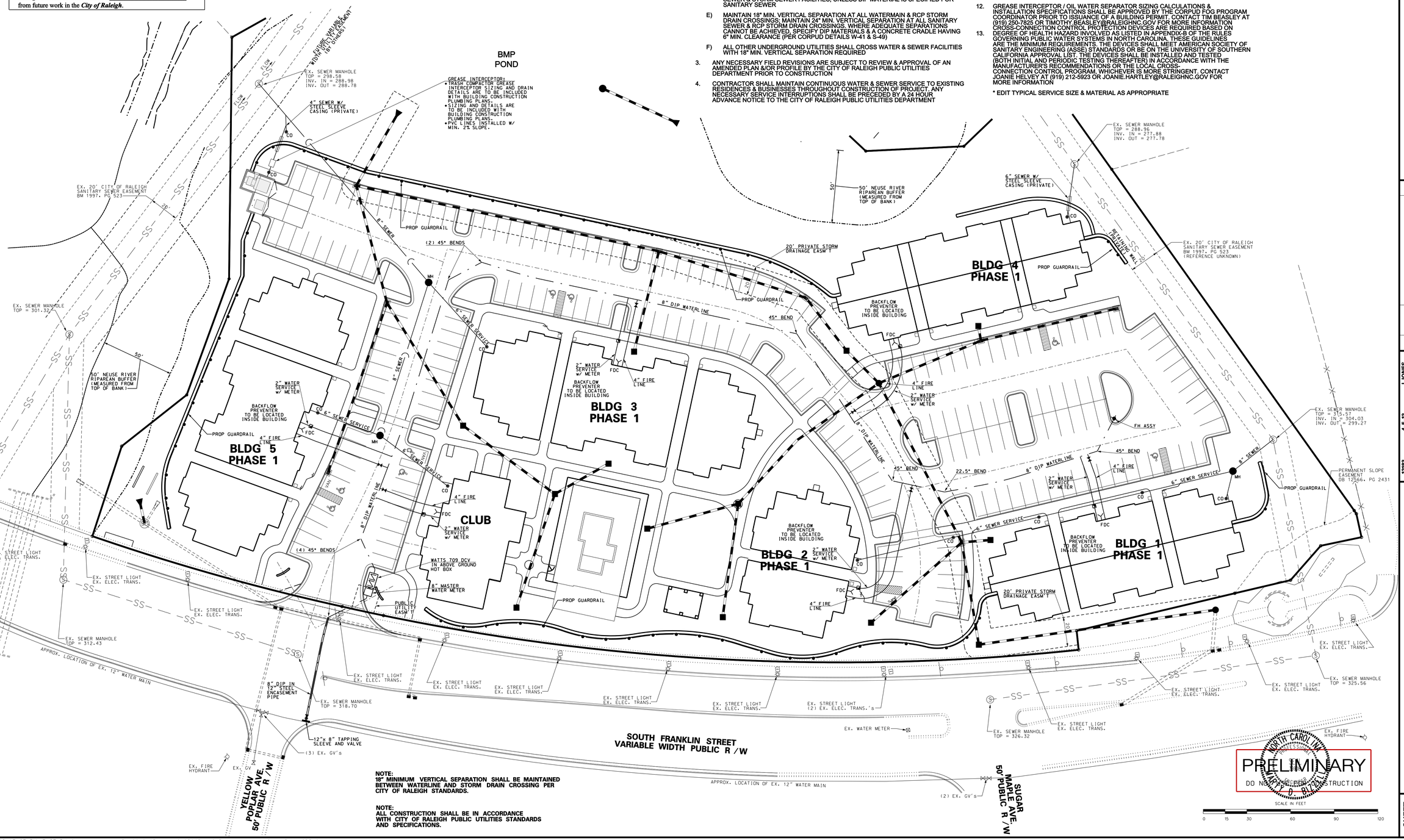
NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF WAKE FOREST, AND UNLESS SPECIFIED, DEFERS TO THE NCDOT STANDARDS AND SPECIFICATIONS

STANDARD UTILITY NOTES (AS APPLICABLE):

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:
   - A) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL
   - B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINE DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER
   - C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS
   - D) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
   - E) MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49)
   - F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE
7. INSTALL ¾" COPPER* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE
8. INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION
12. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 250-7825 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION
13. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HELVEY AT (919) 212-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION

* EDIT TYPICAL SERVICE SIZE & MATERIAL AS APPROPRIATE

ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT
BEFORE YOU DIG!
CONTACT ONE-CALL CENTER
1-800-632-4949



NOTE:
18" MINIMUM VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN WATERLINE AND STORM DRAIN CROSSING PER CITY OF RALEIGH STANDARDS.

NOTE:
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019070 DAVID L. BASS
PRELIMINARY
DO NOT USE FOR CONSTRUCTION

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CONSULTING ENGINEERS
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REVISIONS

JOB NO. 12183 DATE 4-5-13 DRAWN BY J.JONES

SCALE: 1" = 30'

PRELIMINARY UTILITY PLAN

FRANKLIN STREET APARTMENTS

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET SD3.0 OF 49

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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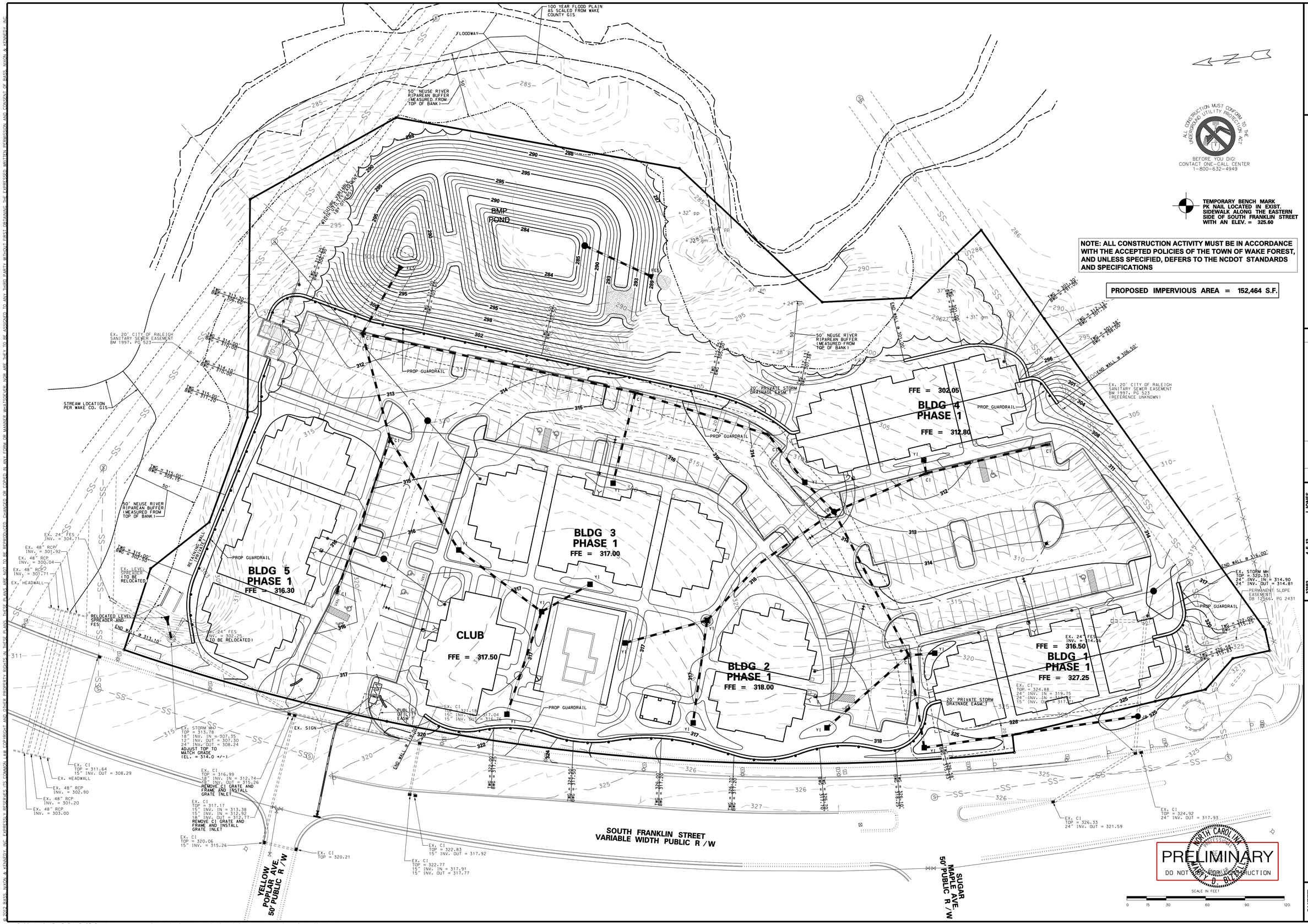

ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT

BEFORE YOU DIG!
CONTACT ONE-CALL CENTER
1-800-632-4949

TEMPORARY BENCH MARK
PK NAIL LOCATED IN EXIST. SIDEWALK ALONG THE EASTERN SIDE OF SOUTH FRANKLIN STREET WITH AN ELEV. = 325.60

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF WAKE FOREST, AND UNLESS SPECIFIED, DEFERS TO THE NCDOT STANDARDS AND SPECIFICATIONS

PROPOSED IMPERVIOUS AREA = 152,464 S.F.

PRELIMINARY
DO NOT USE FOR CONSTRUCTION
D. BYRON BUTLER
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL 026361

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBLA (C-0267)

NO.	DATE	DESCRIPTION	BY
4	12-4-13	TOWF REVIEW COMMENTS	JCT
3	8-23-13	TOWF REVIEW COMMENTS	J.J.
2	7-8-13	TOWF REVIEW COMMENTS	J.J.
1	4-4-13	TOWF REVIEW COMMENTS	J.J.

REVISIONS

JOB NO. 12183 DATE 4-4-13 DRAWN BY J.JONES

GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

FRANKLIN STREET APARTMENTS

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET SD4.0 OF 50

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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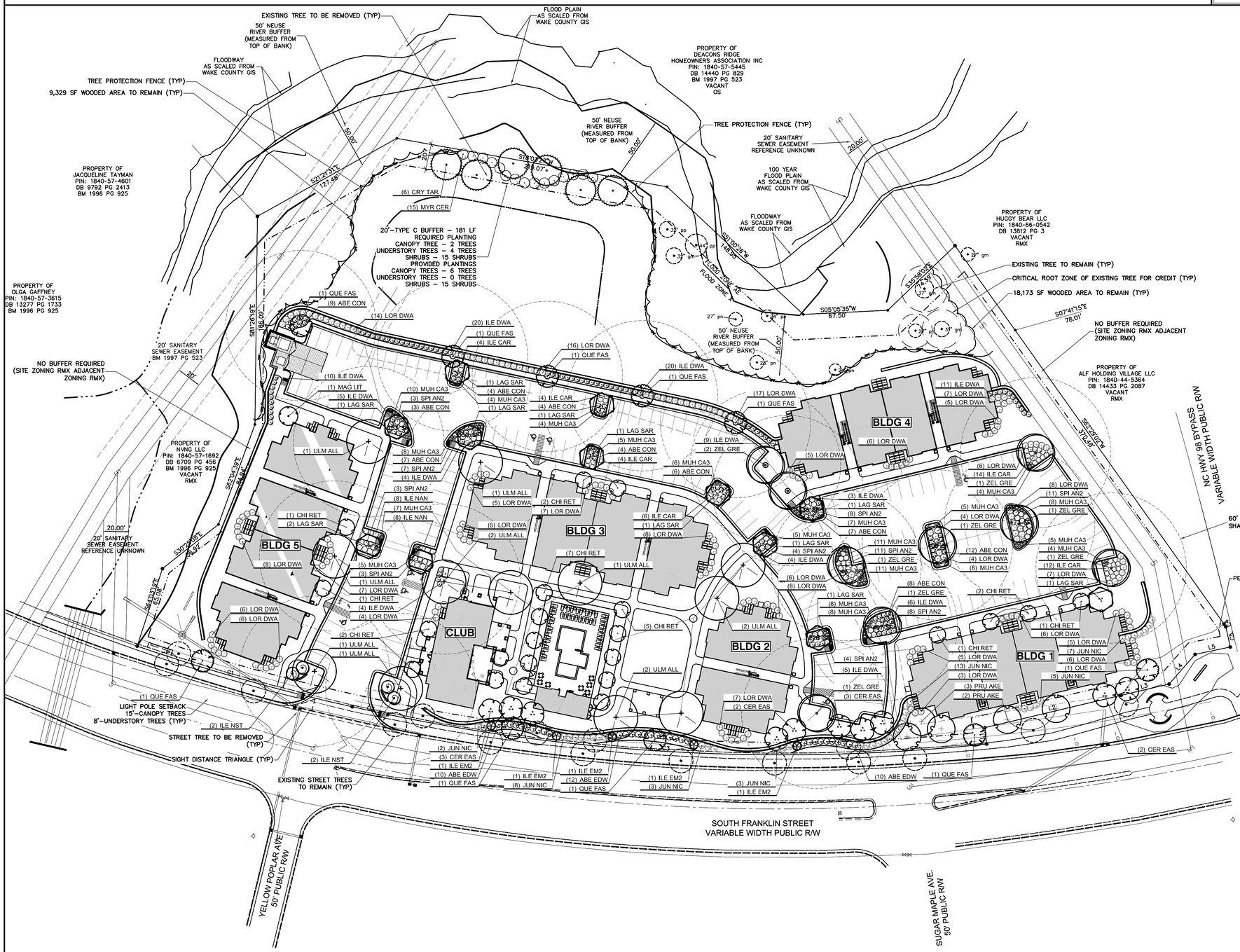
PLANT SCHEDULE OVERALL

TREES	QTY	BOTANICAL NAME	COMMON NAME	CAL.	HT.	SPR.	REMARKS
CER EAS	10	CERCIS CANADENSIS 'FOREST PANSY' PP#2556	FOREST PANSY REDBUD	2–2.5" CAL.	8'–10'	6'–8'	FULL, MATCHED. 3 TRUNK MIN.
CHI RET	22	CHIONANTHUS RETUSUS	CHINESE FRINGE TREE	1.5"	8'–10'	5'–6'	FULL HEAD, LIMBED UP
CRY TAR	6	CRYPTOMERIA JAPONICA 'TARHEEL BLUE'	JAPANESE CEDAR	–	8–10'	4–6'	FULL, MATCHED SPECIMENS
ILE NST	4	ILEX X ATTENUATA 'NELLIE R. STEVENS'	NELLIE STEVENS HOLLY	–	6'–8'	4–6'	FULL, MATCHED,
ILE EM2	5	ILEX X 'EMILY BRUNER'	EMILY BRUNER HOLLY	–	6'	3'	FULL, MATCHED
LAG SAR	12	LAGERSTROEMIA FAURIEI 'SARAH'S FAVORITE'	SARAH'S FAVORITE CRAPE MYRTLE	–	8'–10'	6'–8'	FULL HEAD, LIMBED UP, 3 TRUNK MIN.
MAG LIT	1	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM MAGNOLIA	2"	8'–10'	6'–8'	FULL TO GROUND, MATCHED
PRU AKE	5	PRUNUS X YEDOENSIS	YOSHINO CHERRY	2" CAL MIN	12'–14'	5'–6'	FULL, MATCHED
QUE FAS	10	QUERCUS ROBUR 'FASTIGIATA'	PYRAMIDAL ENGLISH OAK	2.5"	12'–14'	5'–6'	FULL, MATCHED
ULM ALL	12	ULMUS PARVIFOLIA 'UPMTF'	BOSQUE® LACEBARK ELM	2" CAL MIN	12'–14'	6'–8'	FULL, MATCHED
ZEL GRE	9	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2.5" MIN.	14–16'	10–12'	FULL, MATCHED

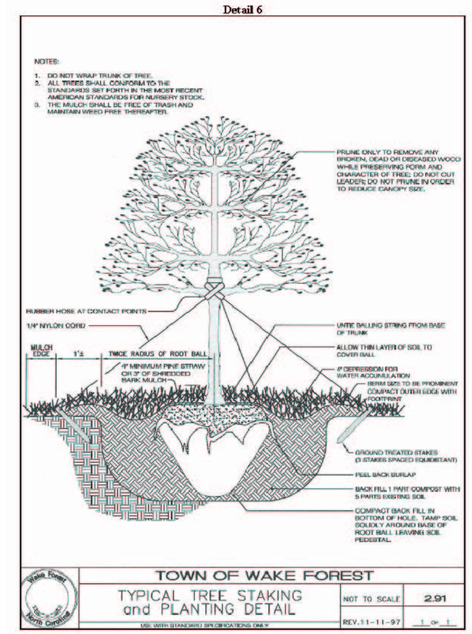
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	HT.	SPR.	REMARKS
ABE EDW	32	ABELIA GRANDIFLORA 'EDWARD GOUCHER'	GLOSSY ABELIA	24–30"	24"–30"	FULL, 5' OC,
ABE CON	64	ABELIA X GRANDIFLORA 'CONFETTI' TM	VARIEGATED ABELIA	18"–24"	18"–24"	FULL, 4' OC.
ILE CAR	44	ILEX CORNUTA 'CARISSA'	CARISSA HOLLY	18–24"	12–18"	FULL, 4' OC
ILE DWA	101	ILEX CORNUTA 'DWARF BURFORD'	DWARF BURFORD HOLLY	24"–30"	18–24"	FULL, 5' OC.
ILE NAN	16	ILEX VOMITORIA 'NANA'	DWARF YAUPON	18"–24"	18"–24"	FULL, 5' OC
JUN NIC	41	JUNIPERUS CHINENSIS 'NICK'S COMPACT'	'NICK'S COMPACT' JUNIPER	36"–42"	36"–42"	FULL, 5' OC
LOR DWA	201	LOROPETALUM CHINENSE RUBRUM 'RUBY'	DWARF RUBY FRINGE FLOWER	24–36"	20–28"	FULL, 5' OC.
MUH CA3	133	MUHLENBERGIA CAPILLARIS	PINK MUHLY	10–16"	10"–12"	FULL, 2' OC.
MYR CER	15	MYRICA CERIFERA	WAX MYRTLE	38"	24"	FULL
SPI AN2	62	SPIRAEA X BUMALDA 'ANTHONY WATERER'	ANTHONY WATERER SPIRAEA	18"–24"	18"–24"	FULL, 4' OC.

Plant Schedule 05



Preliminary Landscape Plan 04

Scale: 1" = 40'



Tree Planting Detail 03

THE OWNERS OF THE PROPERTY AND THEIR AGENTS, HEIRS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE INSTALLATION, PRESERVATION, AND MAINTENANCE OF ALL PLANTING AND PHYSICAL FEATURES SHOWN ON THIS PLAN. THE OWNERS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE VEGETATION, INCLUDING BUT NOT LIMITED TO:

1. FERTILIZATION (OPTIONAL).
2. PRUNING WITHIN LIMITS (APPLICANT MUST DEFINE LIMITS).
3. PEST CONTROL.
4. MULCHING.
5. MOWING (IF ANY).
6. PROTECTION OF THE ROOT ZONES FROM EQUIPMENT, CONSTRUCTION AND RELATED MATERIALS, ETC.
7. METHOD OF IRRIGATION.
8. OTHER CONTINUING MAINTENANCE OPERATIONS.

FAILURE TO MAINTAIN ALL PLANTINGS IN ACCORDANCE WITH THIS PLAN MAY CONSTITUTE A VIOLATION OF THIS ORDINANCE AND MAY RESULT IN FINES

Landscape Maintenance Statement 02

SECTION 8 TREE PROTECTION, BUFFERS & LANDSCAPING
*MIN TREE PLANTING SIZE: 2" CAL
*MIN SHRUB PLANTING SIZE: 18" HT. OR SPR.

8.3.1 MINIMUM CANOPY COVERAGE
REQUIRED ____ 29 TREES
288,803 SF /10,000 SF= 28.8 TREES
PROVIDED ____ 31 TREES

8.6.1 STREET TREE REQUIREMENTS
REQUIRED ____ 18 TREES
[1 CANOPY TREE/50 LF] [865/50= 17.12]
(TOTAL 913'–DRIVEWAY 57' = 856 LF)
STREET TREES TO BE REMOVED ____ 3 TREES
EXISTING STREET TREES TO REMAIN ____ 16 TREES
PROVIDED ____ 5 TREES

8.7 VEHICULAR USE AREA
8.7.1 SCREENING –
*OFF–STREET PARKING, LOADING AND SERVICE AREAS
*EVERGREEN PLANTING, 8' WIDE, MAX 5' OC, 4' WITHIN 3 YEARS
PROVIDED SCREENING
EVERGREEN PLANTING PER REQUIREMENTS

8.7.2 LANDSCAPING –
A. PLANTING AREA SIZE – 1 CANOPY TREE = 400 SF PLANTING AREA
2 CANOPY TREE = 700 SF PLANTING AREA
B. PLANTINIG WIDTH – 9' MIN.
D. MINIMUM SPACING – ALL SPACES WITHIN 60' OF A CANOPY TREE
PROVIDED
CANOPY TREES, EVERGREEN SHRUBS AND GROUNDCOVER ISLAND PLANTING

Landscape Calculations 01

CLINE DESIGN
125 N. Harrington St.
Raleigh, NC 27603
919/833-6413
919/836-1280 FAX
ClineDesignAssoc.com

Franklin Street Apartments, LLC
Franklin Street Apartments
Wake Forest, North Carolina

Development Plan Submittal

Not For Construction

Not For Construction

PROJECT: 012077
DATE: 04.04.2013

REVISIONS:	DATE
TOWF Comments	07.03.13
TOWF Comments	12.04.13
TOWF Comments	01.13.14

DRAWN BY: SP/CT
CHECKED BY: MWL/JBM

Preliminary Landscape Plan

LP 1.00

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February 25, 2015

Franklin Street Apartments, LLC
ATTN: Marc Iafrate
3650 Rogers Road, Suite 329
Wake Forest NC 27587

RE: Case No. SD-14-09: Franklin Street Townhomes
Wake Co. Tax Pin No. 1840-57-1108

To Whom It May Concern:

This letter is official notification that on Tuesday, February 24, 2015 the Wake Forest Board of Commissioners voted to approve case number SD-14-09 based on the findings of fact listed in the official staff report. The approval consists of a major Subdivision Master Plan for the Franklin Street Townhomes development, which is a 61 unit multi-family subdivision (townhomes) on 6.63 acres of land located near the intersection of S. Franklin Street and Dr. Calvin Jones Highway. An approved copy of this plan attached.

Approval of a Subdivision Master Plan shall be valid for 2 years from the date of approval. Subdivisions may be phased according to a schedule established by the applicant. If the approved Subdivision Master Plan provides for multiple phases within the subdivision, a Subdivision Construction Plan approval for any one phase shall extend the Subdivision Master Plan approval for all other phases for a period of 2 years from the date of the Subdivision Construction Plan approval for that phase. If a Subdivision Construction Plan approval has not been obtained prior to the end of this 2 year period, the Subdivision Master Plan approval shall become void.

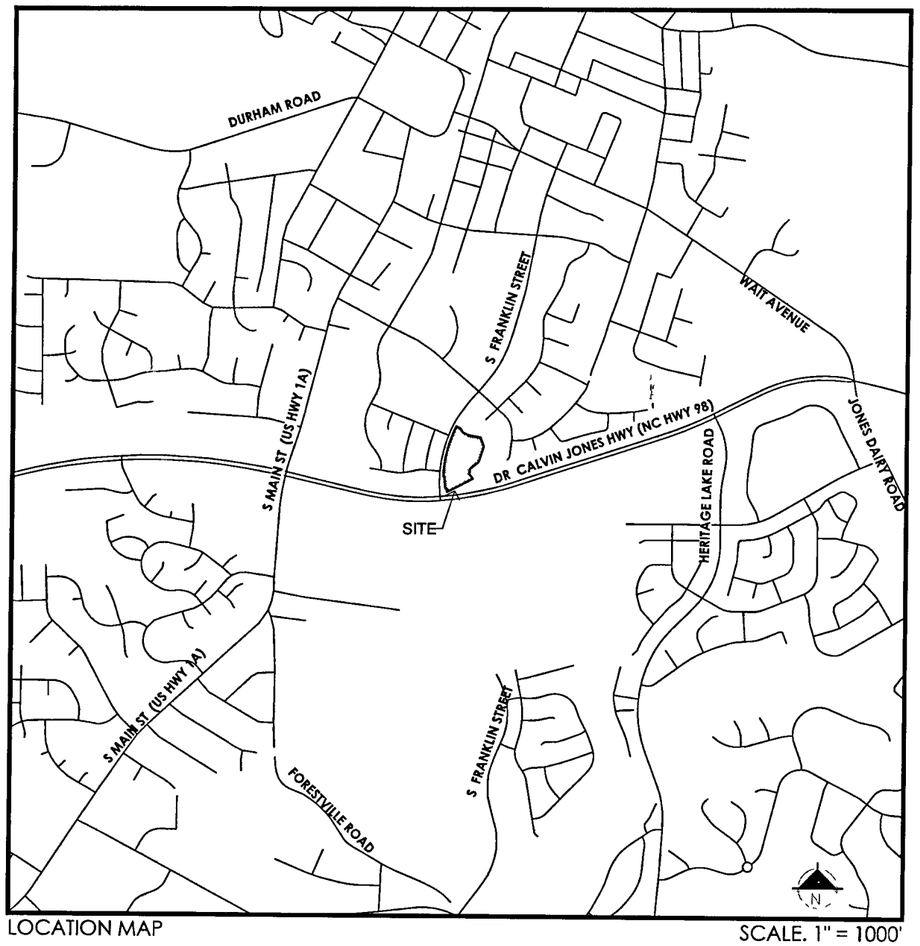
Should you have any questions, please advise (919) 435-9517 or cyokley@wakeforestnc.gov.

Sincerely,

Charlie Yokley

Charlie Yokley, AICP
Senior Planner

Attachment(s)



LOCATION MAP

SCALE. 1" = 1000'

Franklin Street Town Homes

Major Subdivision Review Submittal

DESIGN TEAM

ARCHITECT & LANDSCAPE ARCHITECT
Cline Design Associates, PA
125 N Harrington Street
Raleigh, NC 27603
(919) 833-6413
(919) 836-1280 fx

CIVIL ENGINEER
Bass, Nixon & Kennedy, Inc
Consulting Engineers
6310 Chapel Hill Rd Ste 250
Raleigh, NC 27607
P (919) 851-4422
F (919) 570-1362

Franklin Street Townhomes
Master Plan & Development Plan Submittal
Wake Forest, NC

OWNER & DEVELOPER	Franklin Street Townes, LLC Marc Iafrate	
CONTACT	3650 Rogers Road, Ste 329	
ADDRESS	Wake Forest, NC 27587 919 314 7797	
PHONE	Marc capcity@yahoo com	
EMAIL·		
	SURVEYED	APPROVED
	DRAWN CT	DATE 02 OCTOBER 2014
	CHECKED MWL	SCALE 1" = 40'

LISTS OF SHEETS & REVISIONS

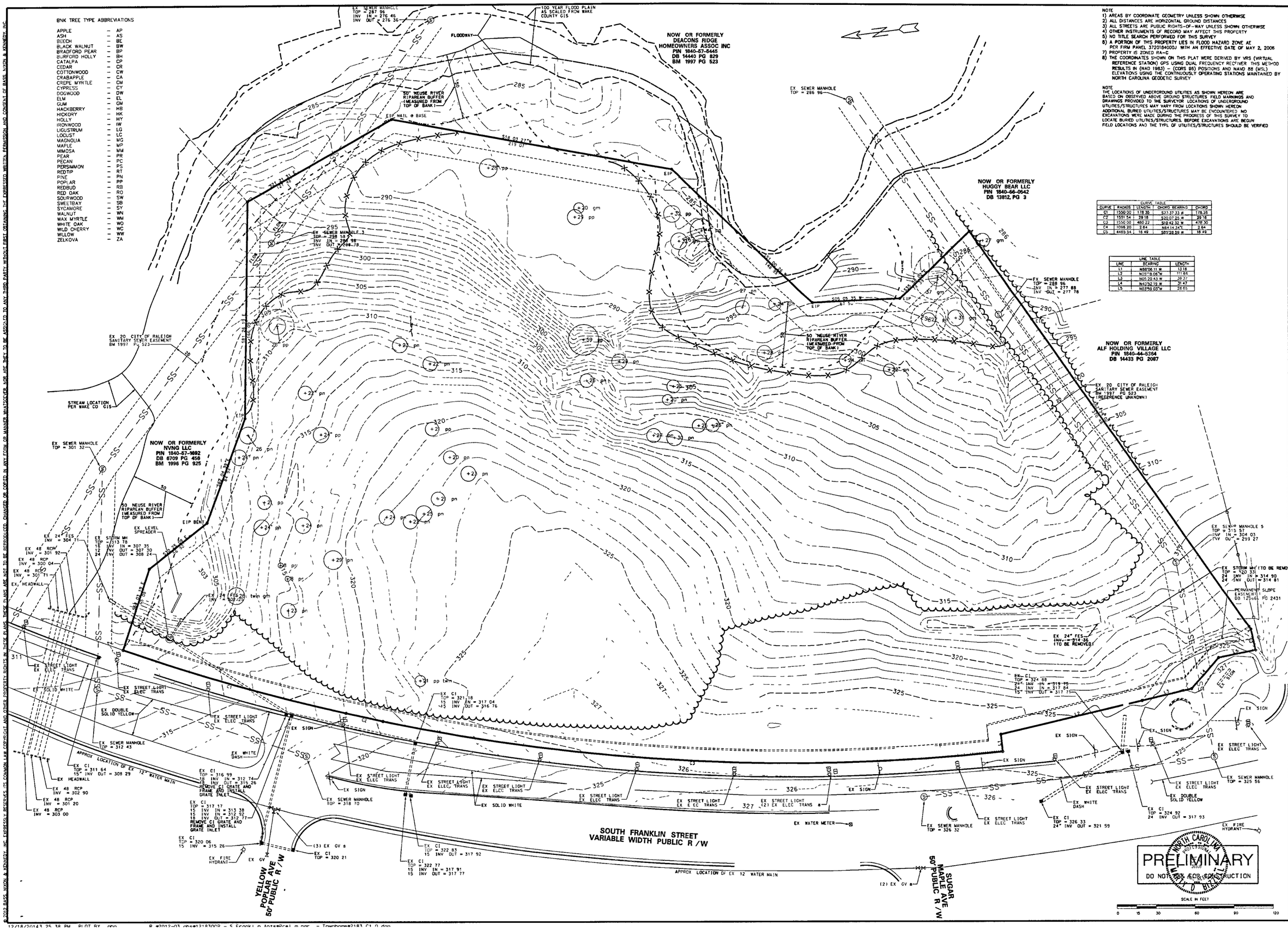
NO	TITLE	DATE	DESCRIPTION
	COVER		
SD0 10	EXISTING CONDITIONS	12 22 2014	
SD1 00	SITE PLAN	12 22 2014	TOWF COMMENTS
SD1 01	OPEN SPACE PLAN	12 22 2014	TOWF COMMENTS
SD3 0	UTILITY LAYOUT PLAN	12 22 2014	TOWF COMMENTS
SD4 0	GRADING & DRAINAGE PLAN	12 22 2014	TOWF COMMENTS
LP1 00	LANDSCAPE PLAN	12 22 2014	TOWF COMMENTS

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING AND ZONING BOARD

DATE _____

APPROVAL BY THE WAKE FOREST BOARD OF COMMISSIONERS

DATE _____



BNK TREE TYPE ABBREVIATIONS

APPLE	–	AP
ASH	–	AS
BEECH	–	BE
BLACK WALNUT	–	BW
BRADFORD PEAR	–	BP
BURFORD HOLLY	–	BH
CATALPA	–	CP
CEDAR	–	CR
COTTONWOOD	–	CW
CRABAPPLE	–	CA
CREPE MYRTLE	–	CM
CYPRESS	–	CY
DOGWOOD	–	DW
ELM	–	EL
GUM	–	GM
HACKBERRY	–	HB
HICKORY	–	HK
HOLLY	–	HY
IRONWOOD	–	IW
LIGUSTRUM	–	LG
LOCUST	–	LC
MAGNOLIA	–	MG
MAPLE	–	MP
MIMOSA	–	MM
PEAR	–	PR
PECAN	–	PC
PERSIMMON	–	PS
REDTIP	–	RT
PINE	–	PN
POPLAR	–	PP
REDBUD	–	RB
RED OAK	–	RO
SOURWOOD	–	SW
SWEETBAY	–	SB
SYCAMORE	–	SY
WALNUT	–	WN
WAX MYRTLE	–	WM
WHITE OAK	–	WO
WILD CHERRY	–	WC
WILLOW	–	WW
ZELKOVA	–	ZA

NOTE
1) AREAS BY COORDINATE GEOMETRY UNLESS SHOWN OTHERWISE
2) ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES
3) ALL STREETS ARE PUBLIC RIGHTS-OF-WAY UNLESS SHOWN OTHERWISE
4) OTHER INSTRUMENTS OF RECORD MAY AFFECT THIS PROPERTY
5) NO TITLE SEARCH PERFORMED FOR THIS SURVEY
6) A PORTION OF THIS PROPERTY LIES IN FLOOD HAZARD ZONE AE PER FIRM PANEL 3720184000J WITH AN EFFECTIVE DATE OF MAY 2, 2006
7) PROPERTY IS ZONED RA-C
8) THE COORDINATES SHOWN ON THIS PLAT WERE DERIVED BY VRS (VIRTUAL REFERENCE STATION) GPS USING DUAL FREQUENCY RECEIVER THIS METHOD RESULTS IN (NAD 1983) – (CORS 96) POSITIONS AND NAVD 88 (MSL) ELEVATIONS USING THE CONTINUOUSLY OPERATING STATIONS MAINTAINED BY NORTH CAROLINA GEODETIC SURVEY

NOTE
THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON OBSERVED ABOVE GROUND STRUCTURES FIELD MARKINGS AND DRAWINGS PROVIDED TO THE SURVEYOR LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN FIELD LOCATIONS AND THE TYPE OF UTILITIES/STRUCTURES SHOULD BE VERIFIED

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	1550.00	178.35	S23.37.33.W	178.26
C2	1551.54	29.16	S20.07.22.W	29.16
C3	1550.00	480.22	S10.42.32.W	478.30
C4	1096.20	2.64	N84.14.34.E	2.64
C5	4469.34	16.49	S67.28.56.W	16.49

LINE TABLE

LINE	BEARING	LENGTH
L1	N88.06.11.W	13.18
L2	N05.18.06.W	111.65
L3	N05.20.43.W	39.37
L4	N42.52.19.W	31.47
L5	N03.59.05.W	28.65

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE (919)851-4422 OR (800)354 1879 FAX (919)851-8968
CERTIFICATION NUMBERS NCBELS (C-0110), NCBLA (C 0287)

NO	DATE	DESCRIPTION	BY
2	12-18-14	2nd TOWF & COR COMMENTS	
1	11-6-14	1st TOWF & COR COMMENTS	

REVISIONS

JOB NO 03-12183 | DATE 10-2-14 | DRAWN BY J TYUS

EXISTING CONDITIONS PLAN

SCALE 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST WAKE COUNTY NORTH CAROLINA

RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET SD0 10 OF

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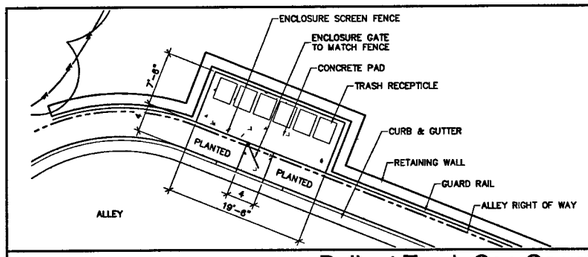
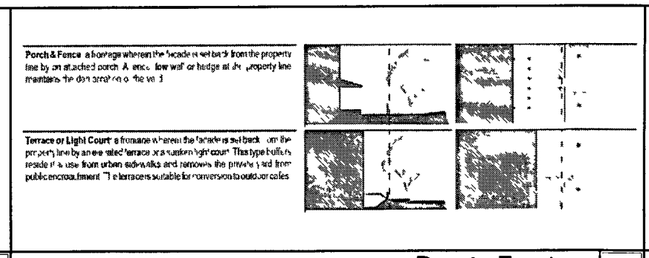
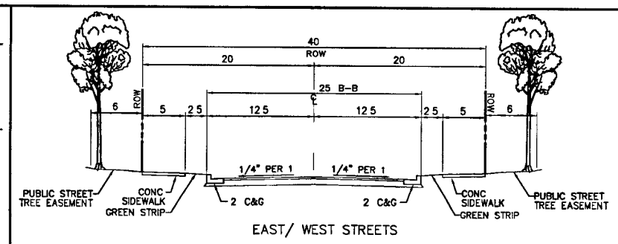
12/18/2014 3:25:38 PM PLOT BY ccm



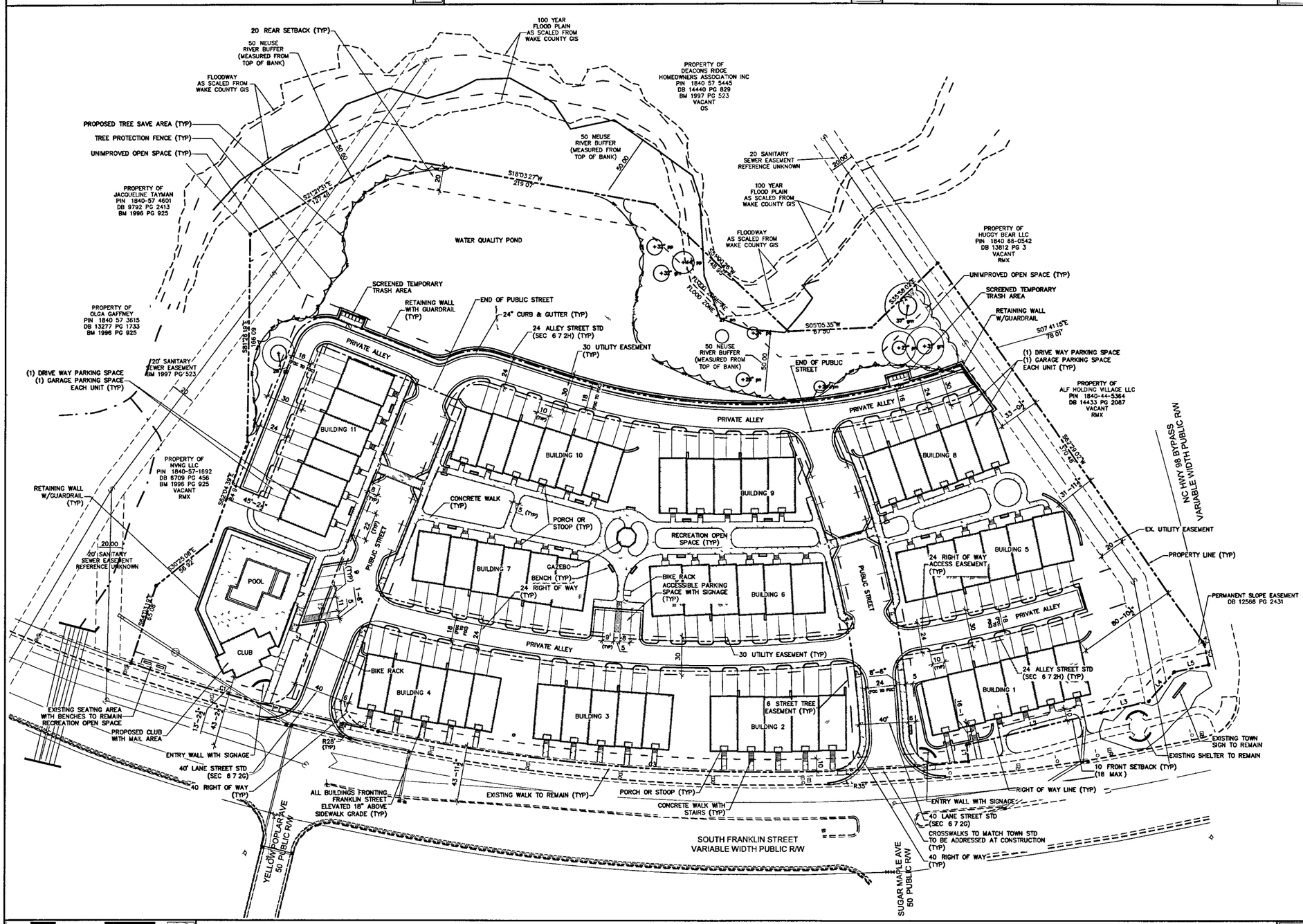
Rollout Trash Can Corral 07



Private Frontage 06



Public Street Section 05



Site Plan 04

Scale 1 = 40

Survey Notes 03

1 ALL DIMENSION ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED

2 THE DEVELOPMENT SHALL MEET THE STANDARDS OF THE RENAISSANCE PLAN OVERALL DESIGN AND APPEARANCE STANDARD AND TOWN CENTER AREA AS REQUIRED IN ARTICLE VI SECTION 9 OF THE WAKE FOREST ZONING ORDINANCE.

3 PHASES. THE PROJECT IS EXPECTED TO BE COMPLETED IN TWO PHASES. THE FIRST PHASE WILL BE BUILDINGS 1 2 AND 3 AND THE CLUBHOUSE/POOL AS NOTED ON THE SITE PLAN THE SECOND PHASE WILL BE BUILDINGS 4 AND 5 IT IS EXPECTED THAT CONSTRUCTION FOR PHASE 1 WILL BEGIN IN THE FALL OF 2013, PENDING ALL NECESSARY APPROVALS FROM THE TOWN OF WAKE FOREST IT IS EXPECTED THAT CONSTRUCTION ON PHASE 2 WILL BEGIN 8-12 MONTHS FOLLOWING THE COMPLETION OF PHASE 1

4 COMMON AREAS. THE COMMON AREAS AND OPEN SPACE WILL BE PROFESSIONALLY MAINTAINED AND SUPERVISED BY THE ON-SITE MANAGEMENT TEAM THIS INCLUDES LAWN MAINTENANCE AND INSTALLING AND MAINTAINING LANDSCAPING, PARKING ISLANDS, COMMON AREAS AND OTHER RECREATION AREAS LOCATED ON THE PROPERTY

5 ENTIRE SITE IS LOCATED IN THE SPECIAL HIGHWAY OVERLAY (SH2-O) OF 1000 LF MEASURED FROM NC HIGHWAY 98 RIGHT-OF-WAY

Site Notes 02

OWNER/DEVELOPER FRANKLIN STREET APARTMENTS LLC
3650 ROGERS ROAD STE 329
WAKE FOREST NC 27587
(919) 314-7797

SURVEYOR BASS NIXON AND KENNEDY
6310 CHAPEL HILL ROAD STE 250
RALEIGH NC 27607
(919) 851 4422

PIN 1840-57-1108-000
TRACT AREA 6 63 AC
CURRENT ZONING RMX (RESIDENTIAL MIXED USE)
OVERLAY DISTRICTS DR CALVIN JONES HIGHWAY OVERLAY (SH2-O)
CURRENT USE VACANT
PROPOSED USE TOWN HOME
NUMBER OF BUILDINGS 11
PROPOSED NUMBER OF UNITS 61 DWELLING UNITS
ALLOWABLE DENSITY 24 DWELLING UNITS PER ACRE
PROPOSED DENSITY 10 DWELLING UNITS PER ACRE (61 DU / 6 63 AC = 9 20)

MAX. BLDG HEIGHT 35
PROPOSED BUILDING HEIGHT 35

SETBACKS
FRONT MIN 10 MAX 18'
SIDE 0
REAR 5

STREETYARD 30-50 (98 BYPASS)

SO FRANKLIN STREET 915 LF

IMPERVIOUS AREA SEE GRADING PLAN

PARKING REQUIRED 92 SPACES
61 DU X [1 5 SPACE/DU] =91 5
PARKING PROPOSED ±147 SPACES
1 VAN HC SPACE AND 1 REG HC SPACE

BICYCLE PARKING REQUIRED 3 SPACES
[1 RACK/40 REQ PARKING SP] = 92 X 1/40 = 2.3
BICYCLE PARKING PROPOSED 4 SPACES (CLASS III)

OPEN SPACE (RMX ZONING)
RECREATION OPEN SPACE REQUIRED 20 216 SF TOTAL
IMPROVED 5,776 SF
288,803 SF X 2%= 5 776 SF

UNIMPROVED 14,440 SF UNIMPROVED
288 803 SF X 5%= 14 440 SF
TOTAL REQUIRED 20 216 SF

RECREATION OPEN SPACE PROVIDED 55 455 SF (19 1%)
RECREATION SPACE PROPOSED 24 057 SF (8 3%)
UNIMPROVED SPACE EXISTING 31,398 SF (10.8%)
TOTAL PROVIDED 55 455 SF (19 1%)

IMPROVED OPEN SPACE PROVIDED 69 777 SF (24 0%)

Site Calculations 01

Scale 1 = 40

CLINE DESIGN
125 N Harrington St.
Raleigh, NC 27603
919/833 6413
919/836 1280 FAX
ClineDesignAssoc com

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Franklin Street Townes, LLC
Franklin Street Town Homes
Wake Forest, North Carolina

Major Subdivision Review Submittal

Not For Construction

Not For Construction

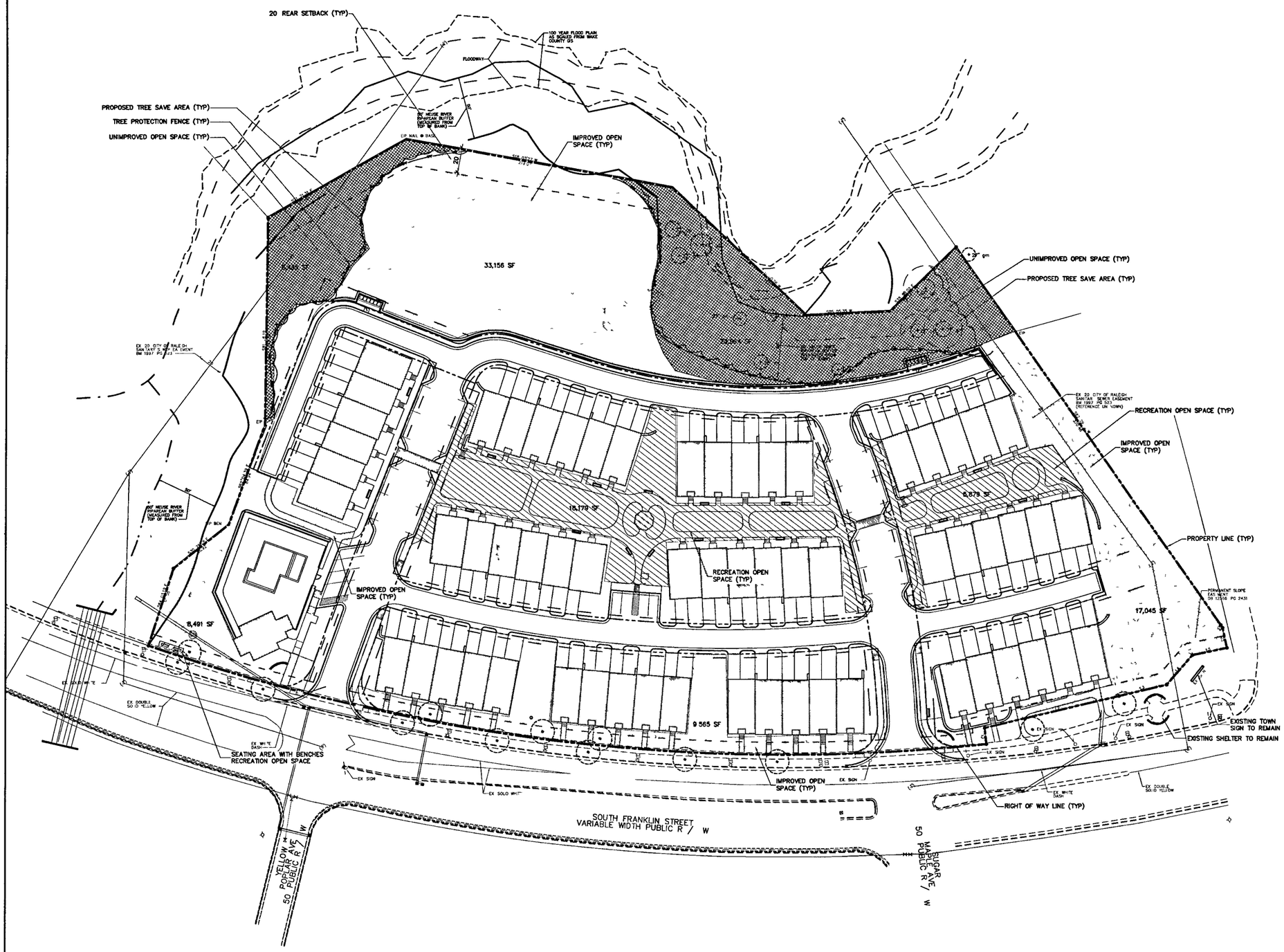
PROJECT 012077
DATE 10 02 2014

REVISIONS	DATE
TOWF Comments	11 07 14
TOWF Comments	12 09 14

DRAWN BY CT
CHECKED BY MWL

Site Plan

SD1.00



40 20 0 40 80

Open Space Plan 04

Scale 1 = 40

1 ALL DIMENSION ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED

2. THE DEVELOPMENT SHALL MEET THE STANDARDS OF THE RENAISSANCE PLAN OVERALL DESIGN AND APPEARANCE STANDARD AND TOWN CENTER AREA AS REQUIRED IN ARTICLE VI SECTION 9 OF THE WAKE FOREST ZONING ORDINANCE

3 PHASES. THE PROJECT IS EXPECTED TO BE COMPLETED IN TWO PHASES. THE FIRST PHASE WILL BE BUILDINGS 1 2 AND 3 AND THE CLUBHOUSE/POOL AS NOTED ON THE SITE PLAN THE SECOND PHASE WILL BE BUILDINGS 4 AND 5 IT IS EXPECTED THAT CONSTRUCTION FOR PHASE 1 WILL BEGIN IN THE FALL OF 2013 PENDING ALL NECESSARY APPROVALS FROM THE TOWN OF WAKE FOREST IT IS EXPECTED THAT CONSTRUCTION ON PHASE 2 WILL BEGIN 8-12 MONTHS FOLLOWING THE COMPLETION OF PHASE 1

4 COMMON AREAS THE COMMON AREAS AND OPEN SPACE WILL BE PROFESSIONALLY MAINTAINED AND SUPERVISED BY THE ON-SITE MANAGEMENT TEAM THIS INCLUDES LAWN MAINTENANCE AND INSTALLING AND MAINTAINING LANDSCAPING, PARKING ISLANDS, COMMON AREAS AND OTHER RECREATION AREAS LOCATED ON THE PROPERTY

5 ENTIRE SITE IS LOCATED IN THE SPECIAL HIGHWAY OVERLAY (SH2-O) OF 1000 LF MEASURED FROM NC HIGHWAY 98 RIGHT-OF-WAY

Site Notes 03

OPEN SPACE (RMX ZONING)
RECREATION OPEN SPACE REQUIRED _____ 20 216 SF TOTAL
IMPROVED _____ 5 776 SF
288,603 SF X 2%= 5 776 SF

UNIMPROVED _____ 14,440 SF UNIMPROVED
288 603 SF X 5%= 14 440 SF
TOTAL REQUIRED 20 216 SF

RECREATION OPEN SPACE PROVIDED _____ 55 455 SF (19 1%)
RECREATION SPACE PROPOSED _____ 24 057 SF (8 3%)
UNIMPROVED SPACE EXISTING _____ 31,398 SF (10.8%)
TOTAL PROVIDED 55 455 SF (19 1%)

IMPROVED OPEN SPACE PROVIDED _____ 69 777 SF (24 0%)

Site Calculations 02

RECREATION SPACE PROPOSED _____ 24 057 SF

UNIMPROVED SPACE EXISTING _____ 31 398 SF

IMPROVED OPEN SPACE PROVIDED _____ 69 777 SF

Legend 01

CLINE DESIGN

125 N Harrington St
Raleigh, NC 27603
919/833 6413
919/836 1280 FAX
ClineDesignAssoc.com

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Franklin Street Townes, LLC
Franklin Street Town Homes
Wake Forest, North Carolina

Major Subdivision Review Submittal

Not For Construction

Not For Construction

PROJECT 012077
DATE 10 02 2014

REVISIONS	DATE
TOWF Comments	11 07 14
TOWF Comments	12 09 14

DRAWN BY CT
CHECKED BY MWL

Open Space Plan

SD1.01

ATTENTION CONTRACTORS

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Failure to notify both *City Departments* in advance of beginning construction will result in the issuance of *monetary fines* and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure

Failure to call for *Inspection Install a Downstream Plug* have *Permitted Plans* on the *Jobsite* or any other *Violation* of *City of Raleigh Standards* will result in a *Fine and Possible Exclusion* from future work in the *City of Raleigh*

NOTE ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF WAKE FOREST, AND UNLESS SPECIFIED, DEFERS TO THE NCDOT STANDARDS AND SPECIFICATIONS

NOTES

1 **18" MINIMUM VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN WATERLINE AND STORM DRAIN CROSSING PER CITY OF RALEIGH STANDARDS**

2 **ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH PUBLIC UTILITIES STANDARDS AND SPECIFICATIONS**

3 **BUILDINGS FRONTING ON FRANKLIN STREET WILL BE ELEVATED AT LEAST 18" ABOVE THE GRADE OF THE SIDEWALK.**

STANDARD UTILITY NOTES (AS APPLICABLE)

1 ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS DETAILS & SPECIFICATIONS (REFERENCE CORPUD HANDBOOK CURRENT EDITION)

2 UTILITY SEPARATION REQUIREMENTS

A) A DISTANCE OF 100 SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS HOWEVER THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25 FROM A PRIVATE WELL OR 50 FROM A PUBLIC WELL

B) WHEN INSTALLING WATER &/OR SEWER MAINS THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10 IF THIS SEPARATION CANNOT BE MAINTAINE DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18 ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER

C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10 ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS

D) 5 0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER

E) MAINTAIN 18 MIN VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS, MAINTAIN 24 MIN VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6 MIN CLEARANCE (PER CORPUD DETAILS W-41 & S-49)

F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18 MIN VERTICAL SEPARATION REQUIRED

3 ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION

4 CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT

5 3 0 MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS 4 0 MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS

6 IT IS THE DEVELOPER S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE

7 INSTALL ¾ COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2 X2 WATERLINE EASEMENT IMMEDIATELY ADJACENT NOTE IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE

8 INSTALL 4 PVC* SEWER SERVICES @ 1 0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM

9 PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1 0 ABOVE THE NEXT UPSTREAM MANHOLE

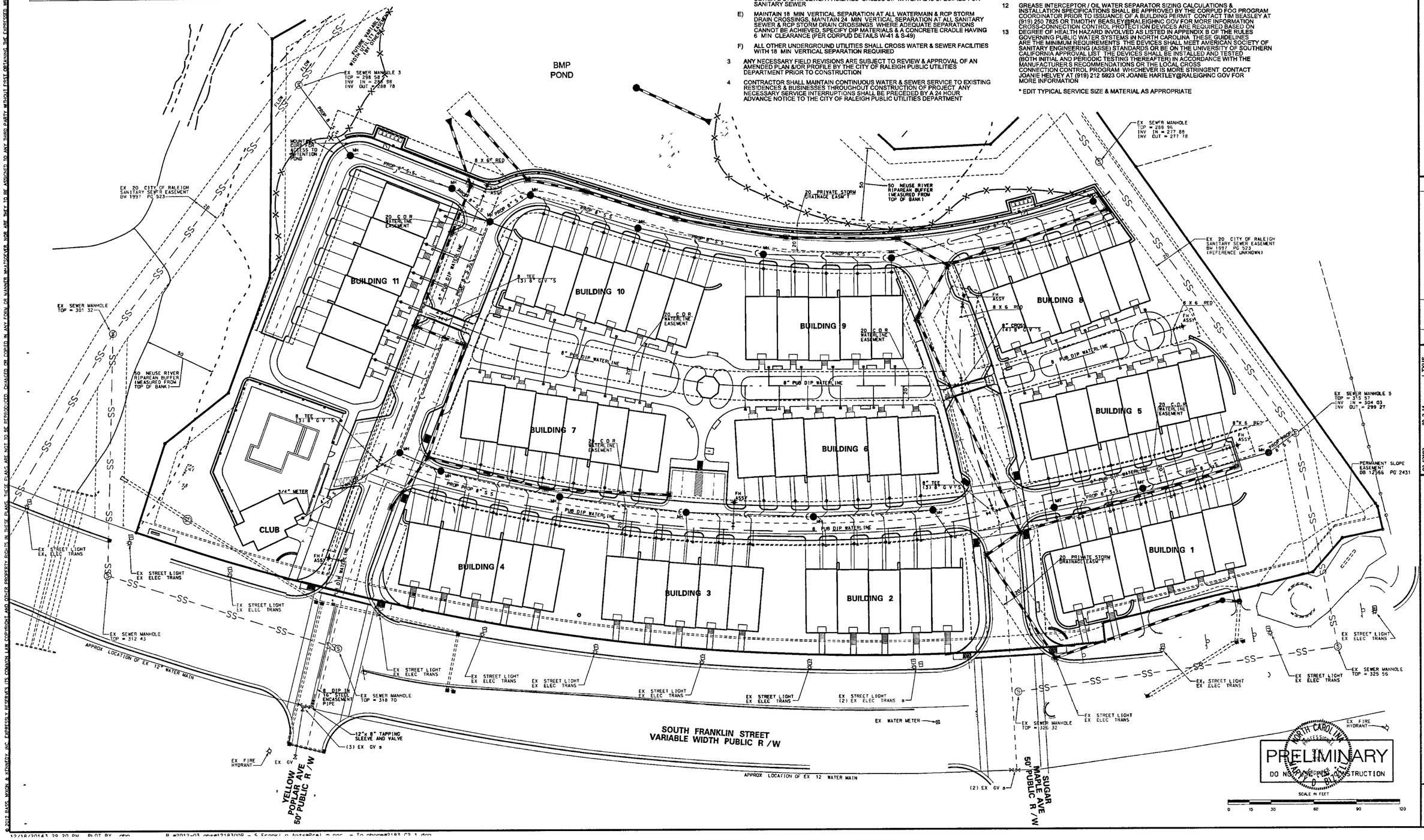
10 ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ USACE &/OR FEMA FOR ANY RIPARIAN BUFFER WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION

11 NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION

12 GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT CONTACT TIM BEASLEY AT (919) 250 7825 OR TIMOTHY BEASLEY@RALEIGHNC GOV FOR MORE INFORMATION

13 CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER S RECOMMENDATIONS OR THE LOCAL CROSS CONNECTION CONTROL PROGRAM WHICHEVER IS MORE STRINGENT CONTACT JOANIE HELVEY AT (919) 212 5923 OR JOANIE HARTLEY@RALEIGHNC GOV FOR MORE INFORMATION

* EDIT TYPICAL SERVICE SIZE & MATERIAL AS APPROPRIATE



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE (919)851-4422 OR (800)354-1879 FAX (919)851-8968
CERTIFICATION NUMBERS NCBELS (C-0110), NCBLA (C-0267)

NO	DATE	DESCRIPTION	BY
2	12-18-14	2nd TOWF & COR COMMENTS	
1	11-6-14	1st TOWF & COR COMMENTS	

REVISIONS

03-12183 JOB NO | 10-2-14 DATE | J TYUS DRAWN BY

PRELIMINARY UTILITY PLAN

SCALE 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST WAKE COUNTY NORTH CAROLINA

SHEET SD3 0 OF

RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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12/18/2014 3 29 20 PM PLOT BY dpo

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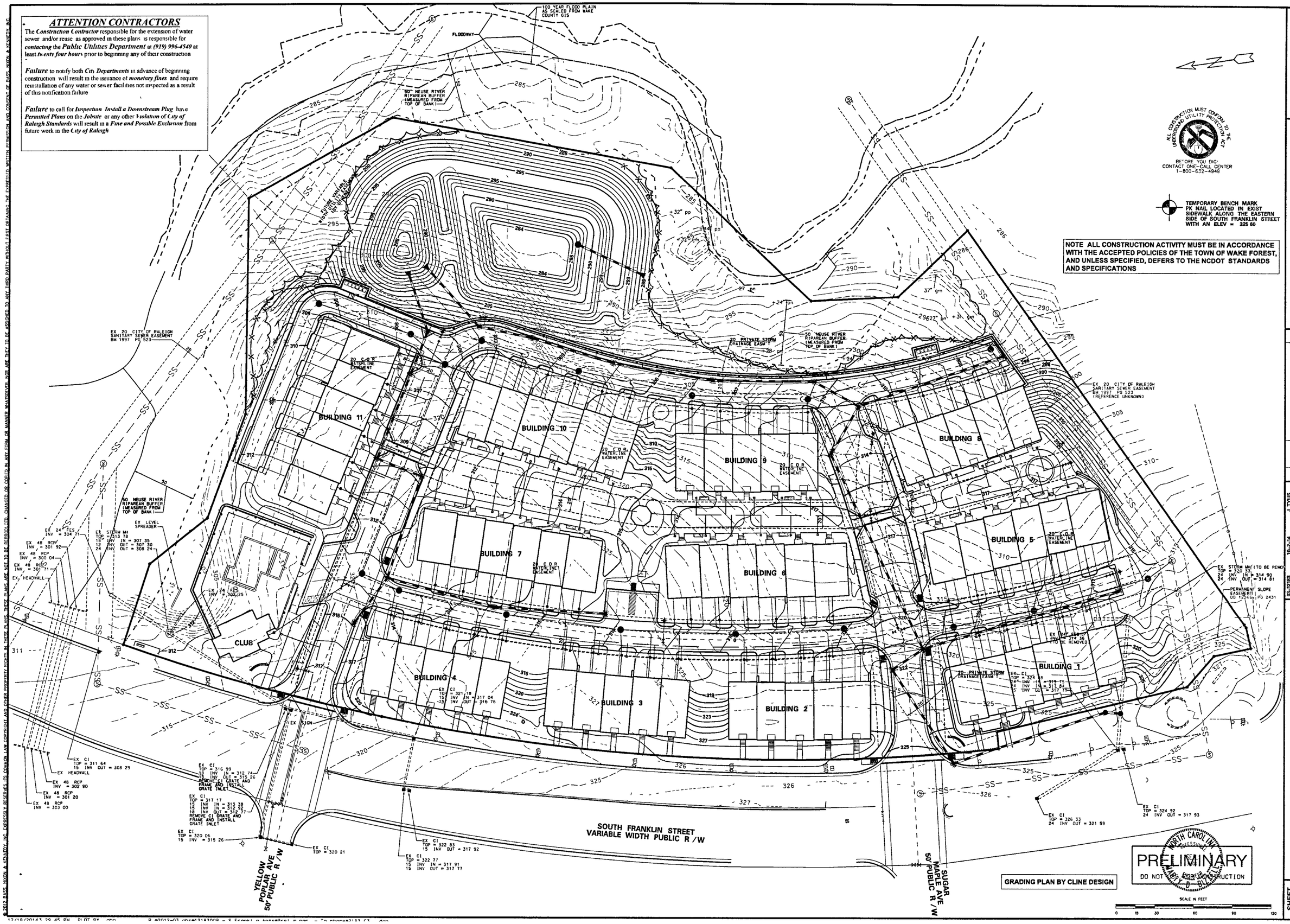

BNK

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE (919)851-4422 OR (800)354-1879 FAX (919)851-9968
CERTIFICATION NUMBERS NCBELS (C-0110), NCBLA (C-0267)

NO	DATE	DESCRIPTION	BY
2	12-19-14	2nd TOWF & COR COMMENTS	
1	11-6-14	1st TOWF & COR COMMENTS	

REVISIONS

JOB NO 03-12183 | DATE 10-2-14 | DRAWN BY J TYUS

GRADING AND DRAINAGE PLAN

SCALE 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST WAKE COUNTY NORTH CAROLINA

RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET **SD4 0** OF **58**

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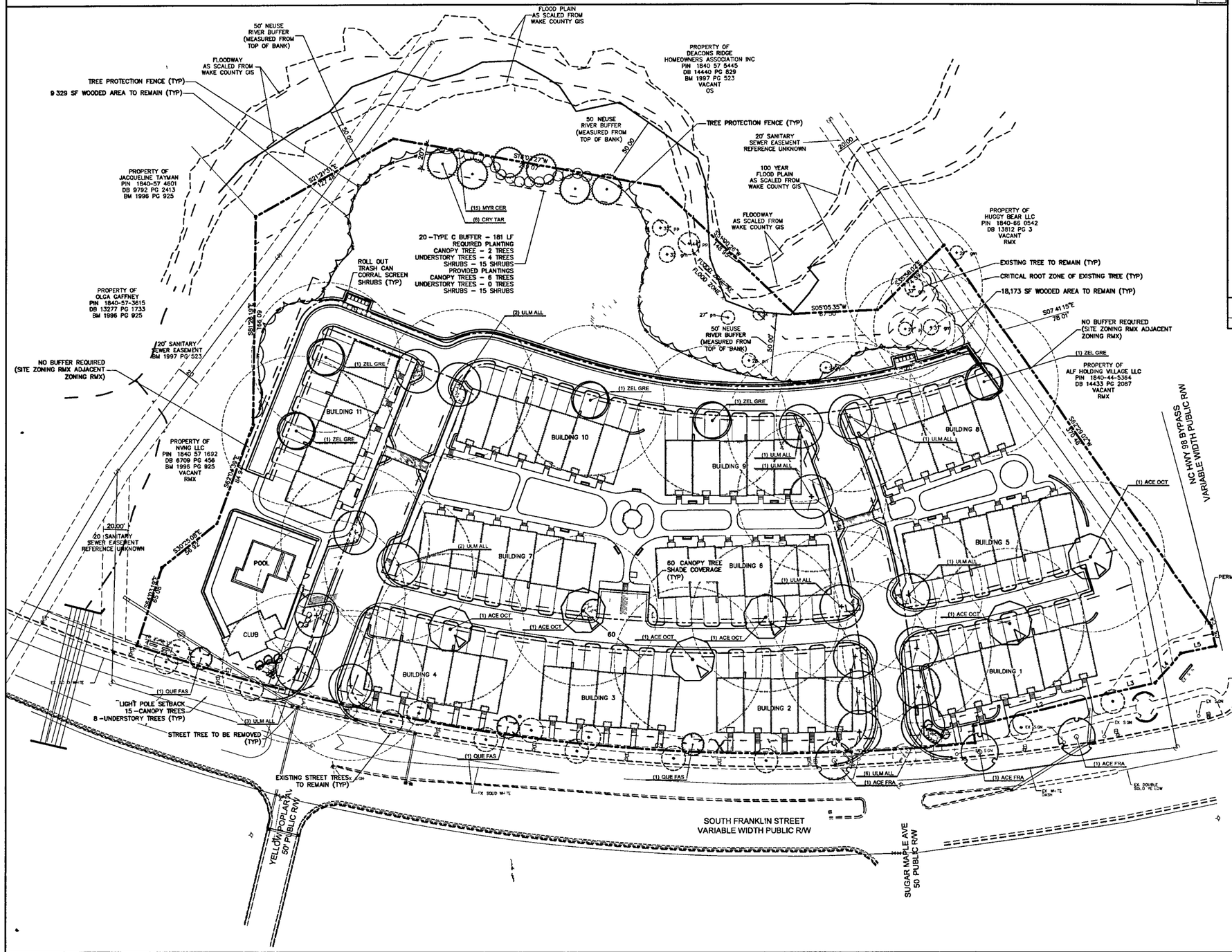
PLANT SCHEDULE OVERALL

TREES	QTY	BOTANICAL NAME	COMMON NAME	CAL.	HT.	SPR.	REMARKS
ACE FRA	3	ACER RUBRUM 'FRANKSRED' TM	RED SUNSET MAPLE	2.5" MIN	14-16	7-8	
ACE OCT	8	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	2.5" MIN	12-14	6-8	FULL HEAD MATCHED
CRY TAR	6	CRYPTOMERIA JAPONICA 'TARHEEL BLUE'	JAPANESE CEDAR	--	8-18	4-5	FULL MATCHED SPECIMENS
ILE FES	5	ILEX X FESTINE PP#9446	FESTIVE HOLLY	--	6-8	4-5	FULL MATCHED
QUE FAS	3	QUERCUS ROBUR FASTIGIATA	PYRAMIDAL ENGLISH OAK	2.5"	12-14	5-6	FULL MATCHED
ULM ALL	18	ULMUS PARVIFOLIA 'UPMTF'	BOSQUEIR LACEBARK ELM	2" CAL MIN	12-14	6-8'	FULL MATCHED
ZEL GRE	5	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2.5" MIN	14-16	18-12'	FULL MATCHED

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	HT.	SPR.	REMARKS
DIS EME	7	DISTYLIUM X EMERALD HEIGHTS PPAF	EMERALD HEIGHTS DITSYLIUM	18-24	18-24	FULL
ILE DWA	4	ILEX CORNUTA DWARF BURFORD	DWARF BURFORD HOLLY	24"-36"	18"-24	FULL MATCHED
ILE COM	48	ILEX CRENATA COMPACTA	DWARF JAPANESE HOLLY	18"-24	18"-24	FULL
MUH CAS	11	MUHLENBERGIA CAPILLARIS	PINK MUHLY	18-15"	18"-12"	FULL, 2 OC
MYR CER	15	MYRICA CERIFERA	WAX MYRTLE	38'	24	FULL

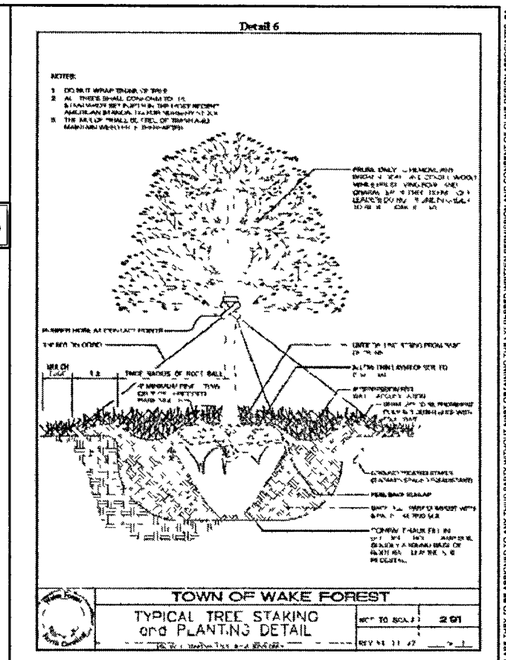
Plant Schedule 05



Preliminary Landscape Plan 04

Scale 1 = 40

Detail 6



Tree Planting Detail 03

THE OWNERS OF THE PROPERTY AND THEIR AGENTS HEIRS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE INSTALLATION PRESERVATION AND MAINTENANCE OF ALL PLANTING AND PHYSICAL FEATURES SHOWN ON THIS PLAN THE OWNERS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE VEGETATION INCLUDING BUT NOT LIMITED TO-

1 FERTILIZATION (OPTIONAL)
2 PRUNING WITHIN LIMITS (APPLICANT MUST DEFINE LIMITS)
3 PEST CONTROL
4 MULCHING
5 MOWING (IF ANY)
6 PROTECTION OF THE ROOT ZONES FROM EQUIPMENT CONSTRUCTION AND RELATED MATERIALS, ETC.
7 METHOD OF IRRIGATION
8 OTHER CONTINUING MAINTENANCE OPERATIONS

FAILURE TO MAINTAIN ALL PLANTINGS IN ACCORDANCE WITH THIS PLAN MAY CONSTITUTE A VIOLATION OF THIS ORDINANCE AND MAY RESULT IN FINES

Landscape Maintenance Statement 02

SECTION 8 TREE PROTECTION BUFFERS & LANDSCAPING
*MIN TREE PLANTING SIZE. 2" CAL
*MIN SHRUB PLANTING SIZE. 18 HT OR SPR

8 3 1 MINIMUM CANOPY COVERAGE
REQUIRED ____ 29 TREES
288 803 SF /10 000 SF= 28 8 TREES
PROVIDED ____ 31 TREES

8 6 1 STREET TREE REQUIREMENTS (S FRANKLIN STREET)
REQUIRED ____ 17 TREES
[1 CANOPY TREE/50 LF] [836/50= 16 72]
(TOTAL 913 -DRIVEWAY 77 = 836 LF)
STREET TREES TO BE REMOVED ____ 6 TREES
EXISTING STREET TREES TO REMAIN ____ 13 TREES
PROVIDED ____ 6 TREES

8 7 VEHICULAR USE AREA

8 7 2 LANDSCAPING -
A. PLANTING AREA SIZE - 1 CANOPY TREE = 400 SF PLANTING AREA
2 CANOPY TREE = 700 SF PLANTING AREA
B PLANTING WIDTH - 9 MIN
D MINIMUM SPACING - ALL SPACES WITHIN 60 OF A CANOPY TREE

PROVIDED
CANOPY TREES, EVERGREEN SHRUBS AND GROUNDCOVER

Landscape Calculations 01

CLINE DESIGN
125 N Harrington St.
Raleigh NC 27603
919/833 6413
919/836 1280 FAX
ClineDesignAssoc.com

Franklin Street Townes, LLC
Franklin Street Town Homes
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Major Subdivision Review Submittal

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PROJECT 012077
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DRAWN BY CT
CHECKED BY MWL

Preliminary Landscape Plan

LP 1.00

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FRANKLIN STREET TOWN HOMES

CONSTRUCTION SUBMITTAL
TOWN OF WAKE FOREST,
WAKE COUNTY, NORTH CAROLINA

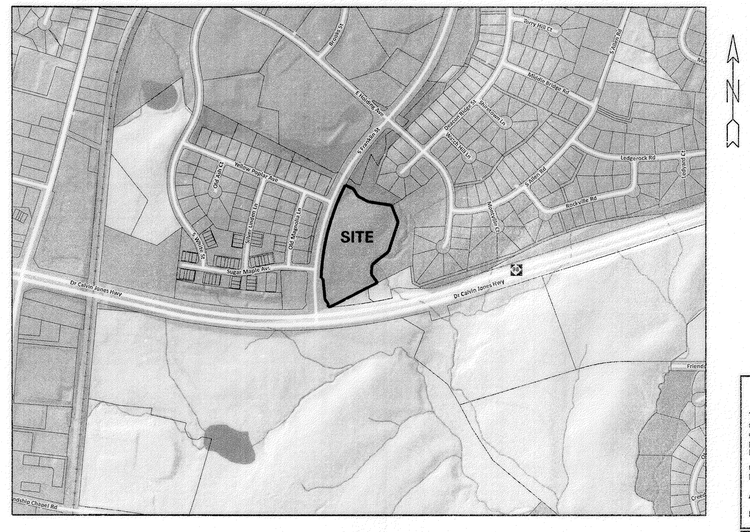
SYMBOLS AND ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
ALUM	ALUMINUM
ASSY	ASSEMBLY
B-B	BACK TO BACK
BOA	BLOW-OFF ASSEMBLY
C&G	CURB AND GUTTER
CFS	CUBIC FEET PER SECOND
CI	CURB INLET
C/L	CENTER LINE
CO	CLEAN OUT
COM	COMMUNICATION
CONC	CONCRETE
CT	COURT
CU	COPPER
DCV	DOUBLE CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE
DEFL	DEFLECTION
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DRAIN	DRAINAGE
DR	DRIVE
EASE	EASEMENT
ELEC	ELECTRIC
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FES	FLARED END SECTION
FH	FIRE HYDRANT
FM	FORCE MAIN
FT	FEET
FT/SEC	FEET PER SEC
GALV	GALVANIZED
GV	GATE VALVE
HCR	HANDICAP RAMP
INV	INVERT
L	LENGTH
LF	LINEAR FEET
LP	LIGHT POLE
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
OHE	OVERHEAD ELECTRIC
PAVE	PAVEMENT
PERM	PERMANENT
PP	POWER POLE
PVC	POLYVINYL CHLORIDE
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
RPZ	REDUCED PRESSURE ZONE
RT	RIGHT
S	SLOPE
SS	SANITARY SEWER
STA	STATION
T	TANGENT
TDD	TEMPORARY DIVERSION DITCH
TELE	TELEPHONE
TSB	TEMPORARY SEDIMENT BASIN
TSD	TEMPORARY SLOPE DRAIN
UG	UNDERGROUND
W	WIDTH
W/L	WATER LINE
WM	WATER METER
YI	YARD INLET

	EXISTING CURB INLET
	EXISTING DROP INLET / YARD INLET
	EXISTING FLARED END SECTION
	EXISTING FIRE HYDRANT
	EXISTING BLOW-OFF ASSEMBLY
	EXISTING GATE VALVE
	EXISTING REDUCER
	EXISTING WATER METER
	EXISTING MANHOLE / JUNCTION BOX
	EXISTING CLEAN OUT
	EXISTING POWER POLE
	EXISTING GUY WIRE
	EXISTING TELEPHONE PEDESTAL
	EXISTING LIGHT POLE / AREA LIGHT
	EXISTING SIGN
	NEW CURB INLET
	NEW GRATE INLET/YARD INLET
	NEW FLARED END SECTION
	NEW FIRE HYDRANT
	NEW BLOW-OFF ASSEMBLY
	NEW GATE VALVE
	NEW REDUCER
	NEW WATER METER
	NEW TEE
	NEW PLUG
	NEW MANHOLE
	NEW CLEAN OUT
	NEW SIGN
	IRON PIPE
	BENCHMARK
	BLOCK AND GRAVEL INLET PROTECTION
	SILT FENCE INLET PROTECTION
	EXCAVATED INLET PROTECTION
	SEDIMENT BASIN
	RISER BASIN
	ROCK DAM
— — G — —	EXISTING GAS LINE
— — COM — —	EXISTING COMMUNICATIONS LINE
— —UT— —	EXISTING UNDERGROUND TELEPHONE
— —UE— —	EXISTING UNDERGROUND ELECTRIC
— — OHE — —	EXISTING OVERHEAD ELECTRIC
— — W — —	EXISTING WATER LINE
—FM—	EXISTING SANITARY SEWER FORCE MAIN
— —SS— —	EXISTING SANITARY SEWER
	EXISTING STORM DRAINAGE
	NEW STORM DRAINAGE
	STREAM
	NEW WATER LINE
	NEW SANITARY SEWER
—FM—	NEW SANITARY SEWER FORCE MAIN
— G —	NEW GAS MAIN
— GL —	GRASSED LINED DITCH/CHANNEL
— JM —	JUTE MATTING LINED DITCH/CHANNEL
— P —	PYRAMAT LINED DITCH/CHANNEL
— C —	LIMITS OF CUT SLOPE
— F —	LIMITS OF FILL SLOPE
	SILT FENCE
—TF—X—TF—	TREE FENCE
	COMBINATION SILT/ TREE FENCE
	DIVERSION DITCH

SHEET INDEX

SHEET No.	SHEET TITLE
—	COVER SHEET
C1.0	EXISTING CONDITIONS PLAN
C1.1	SITE PLAN
C1.2	OPEN SPACE PLAN
C2.1	UTILITY PLAN
C3.1	GRADING AND DRAINAGE PLAN
C3.2	EROSION CONTROL PLAN PHASE I
C3.3	EROSION CONTROL PLAN PHASE II
C3.4	STORM DRAINAGE CALCULATIONS
C3.5	STORMWATER WETPOND NO. 1 PLAN AND DETAILS
C4.1	STREET A & SEWER OUTFALL A PLAN AND PROFILE
C4.2	STREET B & C PLAN AND PROFILE
C5.1	DETAILS
C5.2	DETAILS
C5.3	DETAILS
C5.4	DETAILS
C5.5	DETAILS
L1.1	LANDSCAPE PLAN
L1.2	LANDSCAPE DETAILS


SITE
Dr Calvin Jones Hwy
Dr Calvin Jones Hwy
Jobsite Closed Rd
Friendly Rd
Independence Rd
Independence Ct
Independence Dr
Independence Pl
Independence Ln
Independence Cir
Independence Way

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

BNK TREE TYPE ABBREVIATIONS

APPLE	–	AP
ASH	–	AS
BEECH	–	BE
BLACK WALNUT	–	BW
BRADFORD PEAR	–	BP
BURFORD HOLLY	–	BH
CATALPA	–	CP
CEDAR	–	CR
COTTONWOOD	–	CW
CRABAPPLE	–	CA
CREPE MYRTLE	–	CM
CYPRESS	–	CY
DOGWOOD	–	DW
ELM	–	EL
GUM	–	GM
HACKBERRY	–	HB
HICKORY	–	HK
HOLLY	–	HY
IRONWOOD	–	IW
LIGUSTRUM	–	LG
LOCUST	–	LC
MAGNOLIA	–	MG
MAPLE	–	MP
MIMOSA	–	MM
PEAR	–	PR
PECAN	–	PC
PERSIMMON	–	PS
REDTIP	–	RT
PINE	–	PN
POPLAR	–	PP
REDBUD	–	RB
RED OAK	–	RO
SOURWOOD	–	SW
SWEETBAY	–	SB
SYCAMORE	–	SY
WALNUT	–	WN
WAX MYRTLE	–	WM
WHITE OAK	–	WO
WILD CHERRY	–	WC
WILLOW	–	WW
ZELKOVA	–	ZA

NOTE:
1) AREAS BY COORDINATE GEOMETRY UNLESS SHOWN OTHERWISE.
2) ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.
3) ALL STREETS ARE PUBLIC RIGHTS-OF-WAY UNLESS SHOWN OTHERWISE.
4) OTHER INSTRUMENTS OF RECORD MAY AFFECT THIS PROPERTY.
5) NO TITLE SEARCH PERFORMED FOR THIS SURVEY.
6) A PORTION OF THIS PROPERTY LIES IN FLOOD HAZARD ZONE AE PER FIRM PANEL 3720184000J, WITH AN EFFECTIVE DATE OF MAY 2, 2006.
7) PROPERTY IS ZONED RA-C
8) THE COORDINATES SHOWN ON THIS PLAT WERE DERIVED BY VRS (VIRTUAL REFERENCE STATION) GPS USING DUAL FREQUENCY RECEIVER. THIS METHOD RESULTS IN (NAD 1983) – (CORS 96) POSITIONS AND NAVD 88 (MSL) ELEVATIONS USING THE CONTINUOUSLY OPERATING STATIONS MAINTAINED BY NORTH CAROLINA GEODETIC SURVEY.

NOTE:
THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON OBSERVED ABOVE GROUND STRUCTURES, FIELD MARKINGS AND DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, FIELD LOCATIONS AND THE TYPE OF UTILITIES/STRUCTURES SHOULD BE VERIFIED.

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	1550.00	178.35	S23°37'43"W	178.26
C2	1551.54	29.16	S20°07'25"W	29.16
C3	1550.00	480.22	S10°42'32"W	478.30
C4	1096.20	2.64	N64°14'34"E	2.64
C5	4465.54	16.49	S85°28'59"W	16.49

LINE TABLE

LINE	BEARING	LENGTH
L1	N88°06'11"W	13.16
L2	N05°28'05"W	111.66
L3	N05°20'43"W	39.37
L4	N42°52'18"W	31.47
L5	N03°59'03"W	28.65

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/4/15
PUBLIC WORKS DEPARTMENT	DATE 11-2-15
EROSION AND SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE 11-5-15
PLANNING DEPARTMENT	DATE 10/26/15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE 11/4/15
URBAN FORESTER	DATE

BNK

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	REVISIONS	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

JOB NO. 03-12183 DATE 9-15-15 DRAWN BY J.TYLIS

EXISTING CONDITIONS PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET C1.0

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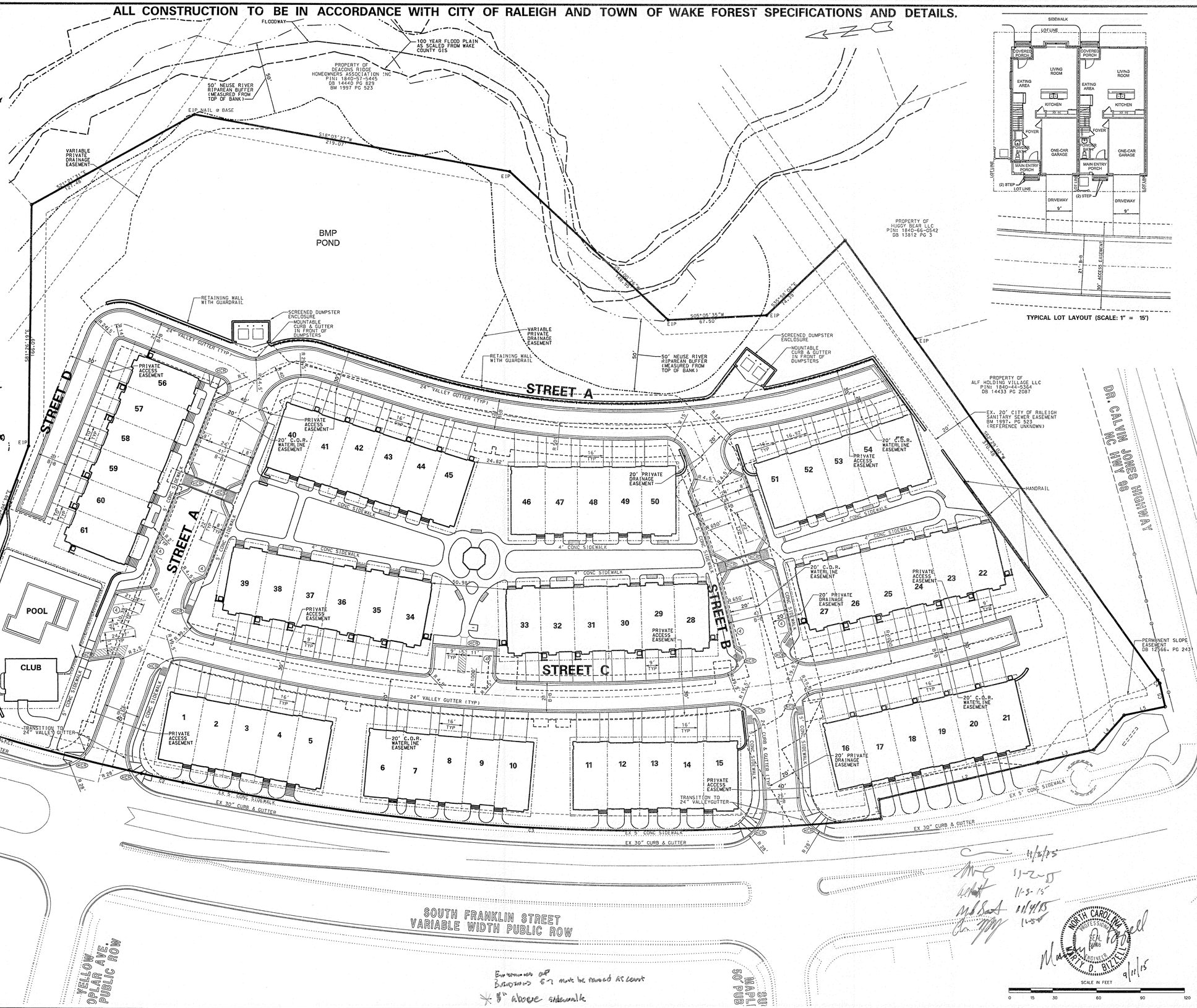
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

OWNER/DEVELOPER	FRANKLIN STREET APARTMENTS, LLC 3650 ROGERS ROAD, STE. 329. WAKE FOREST, NC 27587 (919) 314-7797
SURVEYOR	BASS, NIXON AND KENNEDY 6310 CHAPEL HILL ROAD, STE 250 RALEIGH, NC 27607 (919) 851.4422
PIN	1840-57-1108-000
TRACT AREA	6.63 AC
CURRENT ZONING	RMX (RESIDENTIAL MIXED USE)
OVERLAY DISTRICTS	DR. CALVIN JONES HIGHWAY OVERLAY (SH2-O)
CURRENT USE	VACANT
PROPOSED USE	TOWN HOME
NUMBER OF BUILDINGS	11
PROPOSED NUMBER OF UNITS	61 DWELLING UNITS
ALLOWABLE DENSITY	24 DWELLING UNITS PER ACRE
PROPOSED DENSITY	10 DWELLING UNITS PER ACRE (61 DU. / 6.63 AC.= 9.20)
MAX. BLDG HEIGHT	35'
PROPOSED BUILDING HEIGHT	35'
SETBACKS	
FRONT	MIN 10', MAX 18'
SIDE	0'
REAR	5'
FRONTAGE TYPE	TERRACE & LIGHT COURT
STREETYARD	30-50' (98 BYPASS)
SO. FRANKLIN STREET	915 LF
IMPERVIOUS AREA	SEE GRADING PLAN
PARKING REQUIRED	92 SPACES 61 DU X [1.5 SPACE/DU] =91.5
PARKING PROPOSED	±147 SPACES 1 VAN HC SPACE AND 1 REG. HC SPACE
BICYCLE PARKING REQUIRED	3 SPACES [1 RACK/40 REQ. PARKING SP.] = 92 X 1/40 = 2.3
BICYCLE PARKING PROPOSED	4 SPACES (CLASS III)
OPEN SPACE (RMX ZONING)	
RECREATION OPEN SPACE REQUIRED	20,216 SF TOTAL
IMPROVED	5,776 SF 288,803 SF X 2%= 5,776 SF
UNIMPROVED	14,440 SF UNIMPROVED 288,803 SF X 5%= 14,440 SF
TOTAL REQUIRED	20,216 SF
RECREATION OPEN SPACE PROVIDED	55,455 SF (19.1%)
RECREATION SPACE PROPOSED	24,057 SF (8.3%)
UNIMPROVED SPACE EXISTING	31,398 SF (10.8%)
TOTAL PROVIDED	55,455 SF (19.1%)
IMPROVED OPEN SPACE PROVIDED	69,777 SF (24.0%)



TYPICAL LOT LAYOUT (SCALE: 1" = 15')

Entrances off Buildings 6-7 must be removed as count
* 8" above sidewalk

11/2/15
11-2-15
11-3-15
11/4/15
11-5-15
9/11/15

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025165 JEFFREY D. BIZZELL

BNK

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NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-12183	DATE 9-11-15	DRAWN BY J.TYUS	

SITE PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET **C1.1**

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UNIMPROVED OPEN SPACE

IMPROVED OPEN SPACE

OPEN SPACE CALCULATIONS (RMX ZONING)

OPEN SPACE REQUIRED:

IMPROVED:
288.803 SF X 2% = 5.776 SF

UNIMPROVED:
288.803 SF X 5% = 14.440 SF

TOTAL REQUIRED = 20.216 SF (MINUS 25%) = 15.162 SF

OPEN SPACE PROVIDED:

IMPROVED = 95.220 SF
UNIMPROVED = 25.346 SF

TOTAL PROVIDED = 120.566 SF

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NO.	DATE	DESCRIPTION	BY
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1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO.	03-12283
DATE	9-11-15
DRAWN BY	J. TYUS

OPEN SPACE PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C1.2

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

ATTENTION CONTRACTORS

The ***Construction Contractor*** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for ***contacting*** the ***Public Utilities Department*** at ***(919) 996-4540*** at least ***twenty four hours*** prior to beginning any of their construction.

Failure to notify both ***City Departments*** in advance of beginning construction, will result in the issuance of ***monetary fines***, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for ***Inspection, Install a Downstream Plug***, have ***Permitted Plans*** on the ***Jobsite***, or any other ***Violation*** of ***City of Raleigh Standards*** will result in a ***Fine and Possible Exclusion*** from future work in the ***City of Raleigh***.

ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT

BEFORE YOU DIG! CONTACT ONE-CALL CENTER 1-800-632-4949

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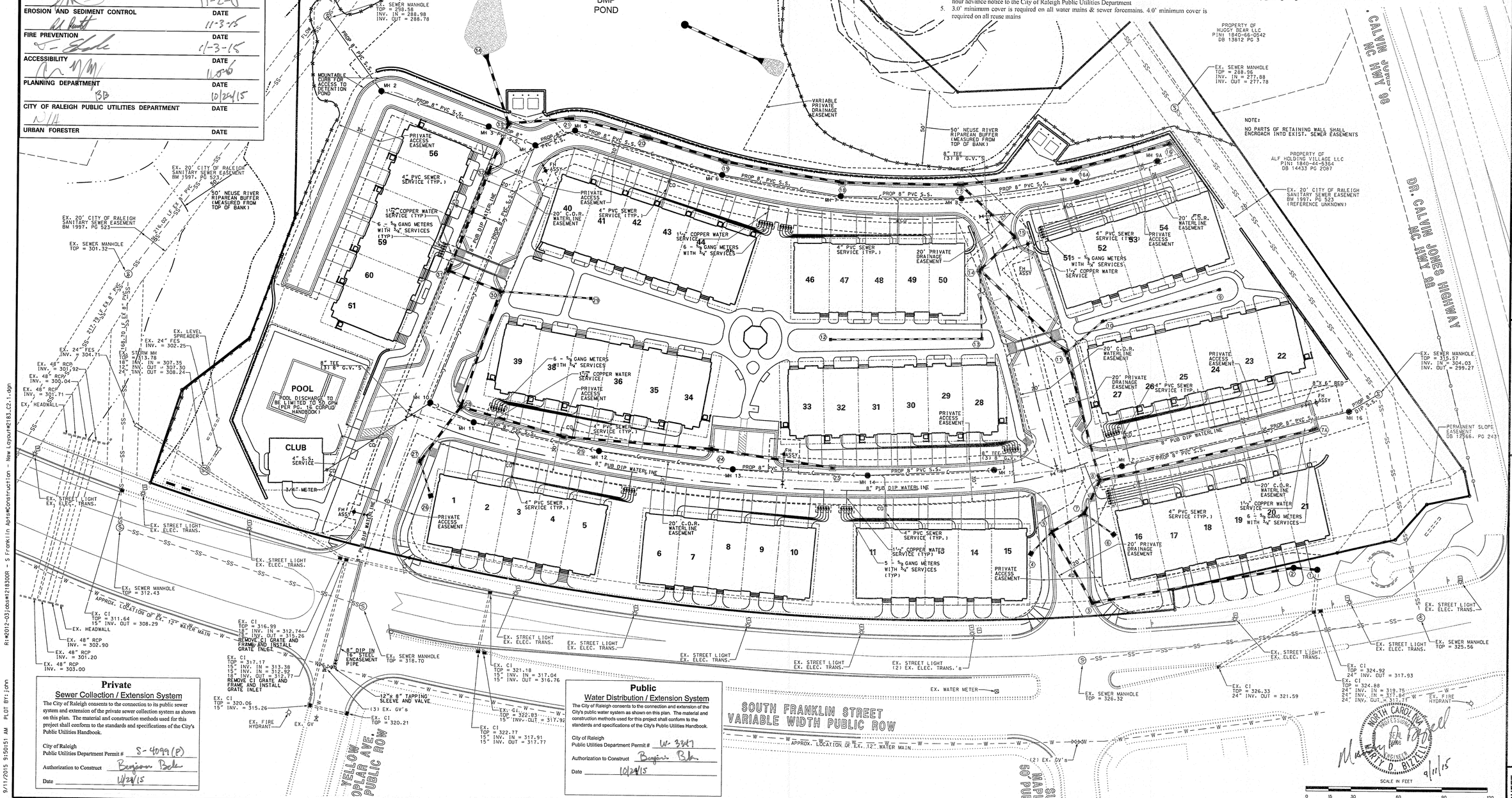
ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE 11-3-15
ACCESSIBILITY	DATE 11-3-15
PLANNING DEPARTMENT	DATE 10/26/15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

NOTES:

1. 18" MINIMUM VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN WATERLINE AND STORM DRAIN CROSSING PER CITY OF RALEIGH STANDARDS.
2. BUILDINGS FRONTING ON FRANKLIN STREET WILL BE ELEVATED AT LEAST 18" ABOVE THE GRADE OF THE SIDEWALK.



Private
Sewer Collection / Extension System

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # S-4099(P)
Authorization to Construct Benjamin Bode
Date 10/28/15

Public
Water Distribution / Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # W-3347
Authorization to Construct Benjamin Bode
Date 10/28/15

STANDARD UTILITY NOTES (as applicable):

1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition)
2. Utility separation requirements:
   a) A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well
   b) When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter
   c) Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specifications
   d) 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer
   e) Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 24" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W-41 & S-49)
   f) All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction
4. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24 hour advance notice to the City of Raleigh Public Utilities Department
5. 3.0' minimum cover is required on all water mains & sewer forcemains. 4.0' minimum cover is required on all reuse mains
6. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure
7. Install ¾" copper* water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. *NOTE: It is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure*
8. Install 4" PVC* sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum
9. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole
10. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
11. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction
12. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the CORPUD FOG Program Coordinator prior to issuance of a Building Permit. Contact Tim Beasley at (919) 996-2334 or timothy.beasley@raleighnc.gov for more information
13. Cross-connection control protection devices are required based on degree of health hazard involved as listed in Appendix-B of the Rules Governing Public Water Systems in North Carolina. These guidelines are the minimum requirements. The devices shall meet American Society of Sanitary Engineering (ASSE) standards or be on the University of Southern California approval list. The devices shall be installed and tested (both initial and periodic tesing thereafter) in accordance with the manufacturer's recommendations or the local cross-connection control program, whichever is more stringent. Contact Joanie Hartley at (919) 996-5923 or joanie.hartley@raleighnc.gov for more information

NOTE:
NO PARTS OF RETAINING WALL SHALL ENCROACH INTO EXIST. SEWER EASEMENTS

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CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-12183 | DATE 9-11-15 | DRAWN BY J. TYUS

UTILITY PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET C2.1

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019681 MARK D. BITZILI 9/11/15

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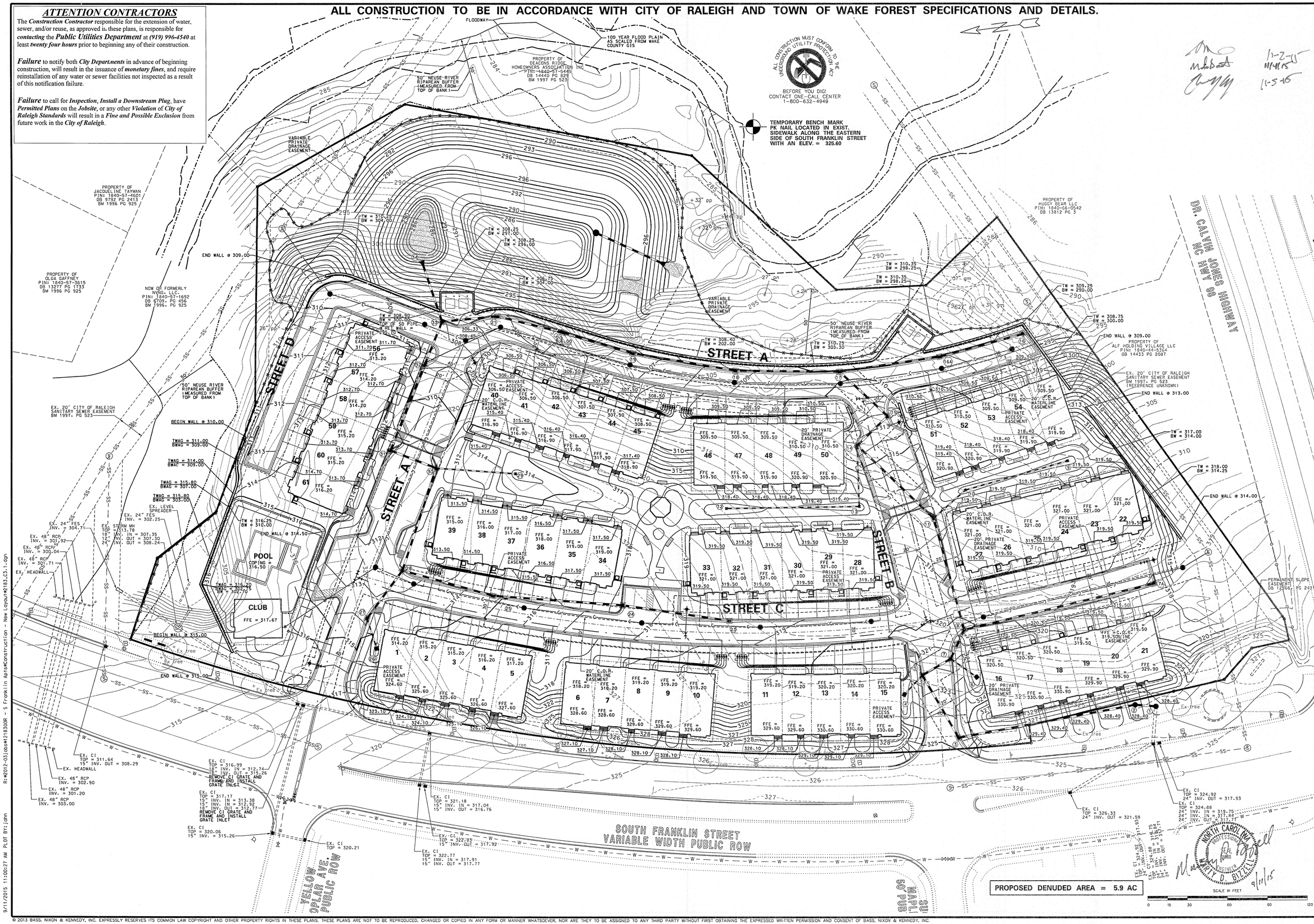

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NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-12283 DATE 9-11-15 DRAWN BY J.TYLIS

GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET C3.1

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

SEDIMENT BASIN	1
TYPE	STD. SEDIMENT TRAP
DRAINAGE AREA	5.28 AC
DENUDED AREA	5.28 AC
C-VALUE	0.7
Q_2	21.85 CFS
Q_{10}	34.85 CFS
VOL REQUIRED	9504 CF
VOL PROVIDED	69114 CF
SA REQUIRED	11326 SF
SA PROVIDED	14682 SF
SIZE	SEE PLAN
DEPTH	9 FT
WEIR LENGTH	10 FT
SKIMMER?	YES
NOTES:	USE DETENTION POND FOR TEMP. SEDIMENT STORAGE

* NOTE: VOLUME REQUIRED (CF) = 1800 * DRAINAGE AREA (AC)
SURFACE AREA REQUIRED (SF) = 325 * Q_{10} (CFS)

PROPOSED DENUDED AREA = 5.9 AC

ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT
BEFORE YOU DIG! CONTACT ONE-CALL CENTER 1-800-632-4949

TEMPORARY BENCH MARK
PK NAIL LOCATED IN EXIST. SIDEWALK ALONG THE EASTERN SIDE OF SOUTH FRANKLIN STREET WITH AN ELEV. = 325.60

PROP TREE/SILT COMBINATION FENCE
SILT FENCE OUTLET DEVICE (TYP)
PROP TREE PROTECTION FENCE
BAFFLES (3)
PROP SILT FENCE
TEMPORARY SPOIL PILE
25' X 50' X 6" DEEP TEMP GRAVEL CONSTRUCTION ENTRANCE (SEE DETAIL)
SOUTH FRANKLIN STREET VARIABLE WIDTH PUBLIC ROW
DR. CALVIN JONES HIGHWAY NC HWY 98
100 YEAR FLOOD PLAIN AS SCALED FROM WAKE COUNTY GIS
50' NEUSE RIVER RIPARIAN BUFFER (MEASURED FROM TOP OF BANK)
EX. 20' CITY OF RALEIGH SANITARY SEWER EASEMENT BM 1997, PG 523

SCALE IN FEET: 0 15 30 60 90 120

11/2/15
11-2-15
11/4/15
11-5-15
9/11/15

NORTH CAROLINA PROFESSIONAL SEAL 022665 ENGINEER HARRY D. BITZELL

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NO.	DATE	DESCRIPTION	BY
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1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-2183 DATE 9-11-15 DRAWN BY J.TYLUS

PHASE I EROSION CONTROL PLAN

SCALE: 1" = 30'

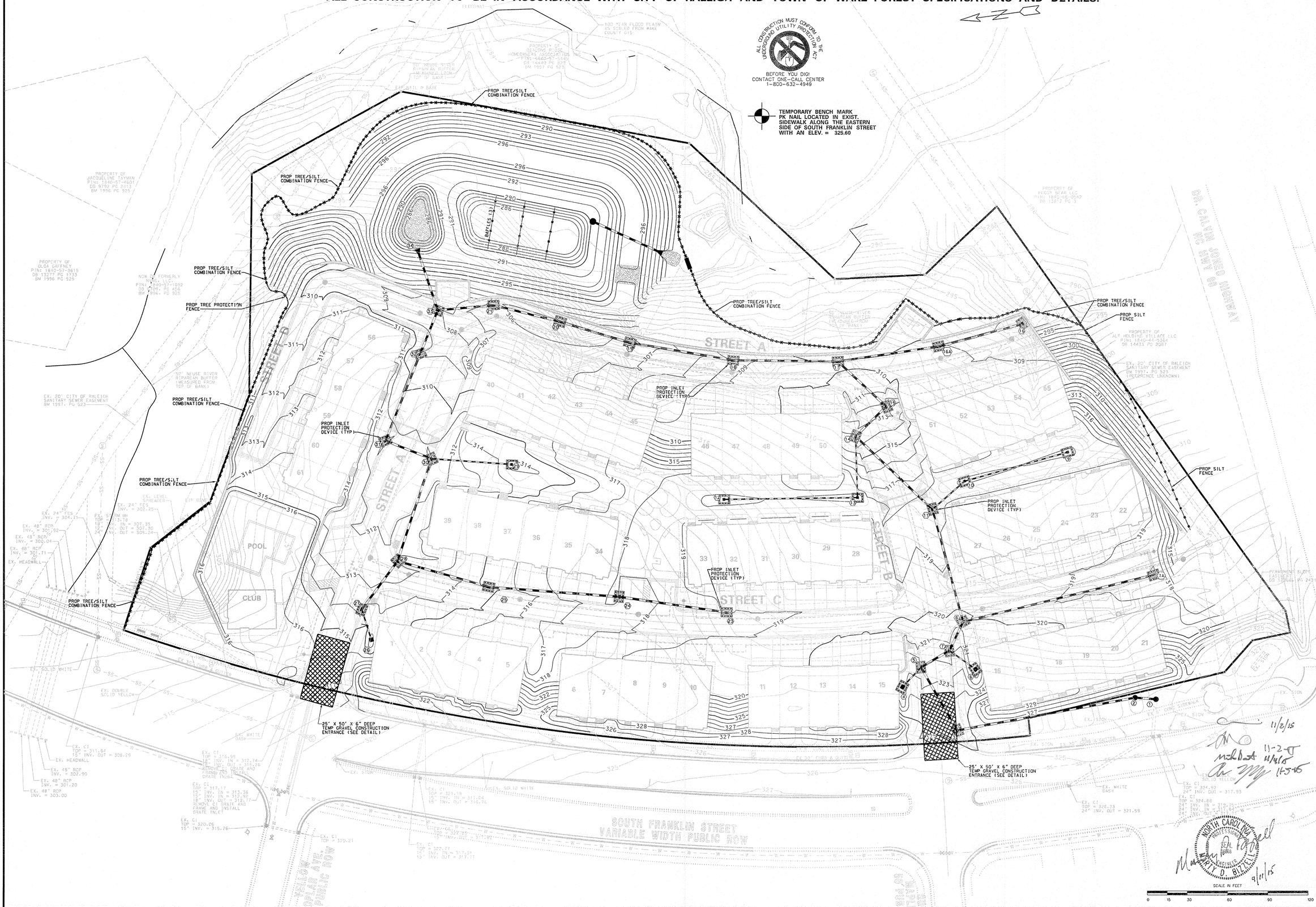
FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C3.2

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.



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1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-22183 DATE 9-11-15 DRAWN BY J.TYUS

PHASE II EROSION CONTROL PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET **C3.3**

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL MARTY D. BITZELY 9/11/15

11/2/15 11-2-15 11/4/15 11-5-15

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PK NAIL LOCATED IN EXIST.
SIDEWALK ALONG THE EASTERN
SIDE OF SOUTH FRANKLIN STREET
WITH AN ELEV. = 325.60

InletID	LineID	DrainageArea (ac)	TotalArea (ac)	RunoffCoeff (C)	iSys (in/hr)	LineLength (ft)	LineSize (in)	LineSlope (%)	CapacityFull (cfs)	FlowRate (cfs)	InvertUp (ft)	InvertDn (ft)	Grnd/RimElev Up (ft)	HGLUp (ft)	HGLDn (ft)	VelAve (ft/s)	MAT'L
1	2	0.39	0.39	0.85	7.21	15.51	24	0.71	19.05	2.39	316.94	316.83	325.00	317.48	317.36	3.53	RCP
2	3	0.00	0.39	0.00	7.11	135.27	24	0.70	18.95	2.36	316.83	315.88	324.98	317.36 j	316.47	3.27	RCP
3	5	0.15	0.54	0.80	6.35	54.59	24	0.70	20.28	2.87	315.88	315.44	324.90	316.47 j	316.11	3.40	HDPE
4	5	0.02	0.02	0.75	7.21	20.00	12	1.25	4.03	0.11	319.00	318.75	322.00	319.13	318.86	1.97	HDPE
5	7	0.04	0.60	0.85	6.15	24.74	24	0.76	22.47	3.08	315.44	315.25	322.47	316.11 j	315.89	3.66	HDPE
6	7	0.03	0.03	0.75	7.21	24.00	12	1.25	3.98	0.16	317.00	316.70	320.00	317.16	316.84	2.20	HDPE
7	8	0.04	0.67	0.80	6.07	24.06	24	1.04	23.05	3.37	315.25	315.00	320.50	315.89	315.52	4.56	HDPE
7A	8	0.33	0.33	0.85	7.21	146.99	15	0.71	5.46	2.02	314.45	313.40	318.69	315.02 j	314.15	3.20	HDPE
8	11	0.03	1.03	0.50	6.01	87.87	24	0.80	20.19	5.11	313.35	312.65	321.20	314.15 j	313.51	4.16	HDPE
9	10	0.16	0.16	0.70	7.21	78.92	12	0.76	3.11	0.81	314.50	313.90	317.50	314.88	314.28	3.00	HDPE
10	11	0.01	0.17	0.60	6.85	33.02	12	0.91	3.39	0.81	313.90	313.60	317.50	314.28	313.93	3.27	HDPE
11	14	0.06	1.26	0.85	5.85	79.49	24	5.47	52.91	5.97	312.65	308.30	318.42	313.51 j	309.25	4.32	HDPE
12	13	0.12	0.12	0.65	7.21	100.01	12	1.50	4.36	0.56	310.10	308.60	318.67	310.41 j	308.99	2.33	HDPE
13	14	0.08	0.20	0.70	6.58	46.00	12	0.65	2.88	0.88	308.60	308.30	318.12	308.99	309.25	2.11	HDPE
14	15	0.12	1.58	0.85	5.74	31.98	24	5.63	53.66	7.21	308.30	306.50	313.70	309.25 j	307.47	4.83	HDPE
15	17	0.06	1.64	0.85	5.70	49.63	24	5.34	52.26	7.45	306.50	303.85	311.35	307.47 j	304.89	4.73	HDPE
16	16A	0.12	0.12	0.85	7.21	65.16	15	0.77	5.66	0.74	305.00	304.50	308.58	305.34 j	304.88	2.57	HDPE
16A	17	0.07	0.19	0.50	6.71	76.55	15	0.85	5.95	0.92	304.50	303.85	309.56	304.88 j	304.89	1.90	HDPE
17	18	0.07	1.90	0.85	5.65	78.00	24	1.35	26.24	8.49	303.85	302.80	310.27	304.89 j	303.87	5.05	HDPE
18	19	0.15	2.05	0.80	5.58	78.38	24	2.93	38.74	9.06	302.80	300.50	309.12	303.87 j	301.61	5.16	HDPE
19	20	0.21	2.26	0.65	5.51	54.46	24	1.93	31.41	9.70	300.50	299.45	306.81	301.61 j	300.63	5.21	HDPE
20	21	0.28	2.54	0.80	5.47	51.00	24	0.88	21.25	10.85	299.45	299.00	305.72	300.63	300.18	5.63	HDPE
21	33	0.01	2.55	0.90	5.44	41.98	24	7.15	60.46	10.83	299.00	296.00	306.70	300.18	296.57	10.09	HDPE
23	24	0.29	0.29	0.50	7.21	78.64	15	1.08	6.71	1.05	314.65	313.80	318.89	315.05 j	314.37	2.50	HDPE
24	25	0.22	0.51	0.70	6.78	97.92	15	2.76	10.75	2.03	313.80	311.10	318.00	314.37 j	312.10	3.31	HDPE
25	28	0.25	0.76	0.65	6.57	70.78	15	3.32	11.38	3.03	311.10	308.75	315.67	312.10 j	309.62	3.82	HDPE
26	27	0.02	0.02	0.65	7.21	28.00	12	0.71	3.01	0.09	310.10	309.90	314.00	310.22	310.28	1.00	HDPE
27	28	0.16	0.18	0.85	6.22	43.26	15	2.66	10 53	0.93	309.90	308.75	314.17	310.28 j	309.62	1.99	HDPE
28	30	0.17	1.11	0.85	6.05	81.91	15	2.20	9.57	4.56	308.75	306.95	313.00	309.62 j	307.96	4.67	HDPE
29	30	0.27	0.27	0.50	7.21	60.00	12	5.17	8.09	0.97	310.50	307.40	313.50	310.91 j	307.96	2.66	HDPE
30	31	0.20	1.58	0.80	5.98	36.82	15	1.36	7.53	6.28	306.95	306.45	311.40	307.96 j	307.55	5.70	HDPE
31	32	0.31	1.89	0.80	5.96	70.00	15	3.21	11.58	7.74	306.45	304.20	311.40	307.55 j	305.32	6.72	HDPE
32	33	0.09	1.98	0.80	5.93	35.22	15	3.69	12.41	8.12	304.20	302.90	309.35	305.32	303.64	8.89	HDPE
33	34	0.30	4.83	0.80	5.41	48.73	24	9.99	71.50	19.48	294.87	290.00	310.83	296.46	291.00	9.85	HDPE

INLET STRUCTURE 22 HAS BEEN REMOVED

11/2/15
11-2-15
11/4/15
11-5-15

NORTH CAROLINA PROFESSIONAL SEAL 030806 ENGINEER MARTY D. BIZELL
9/11/15

SCALE IN FEET
0 15 30 60 90 120

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

03-12833 JOB NO. | 9-11-15 DATE | J. TYLIS DRAWN BY

STORM DRAINAGE CALCULATIONS

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C3.4

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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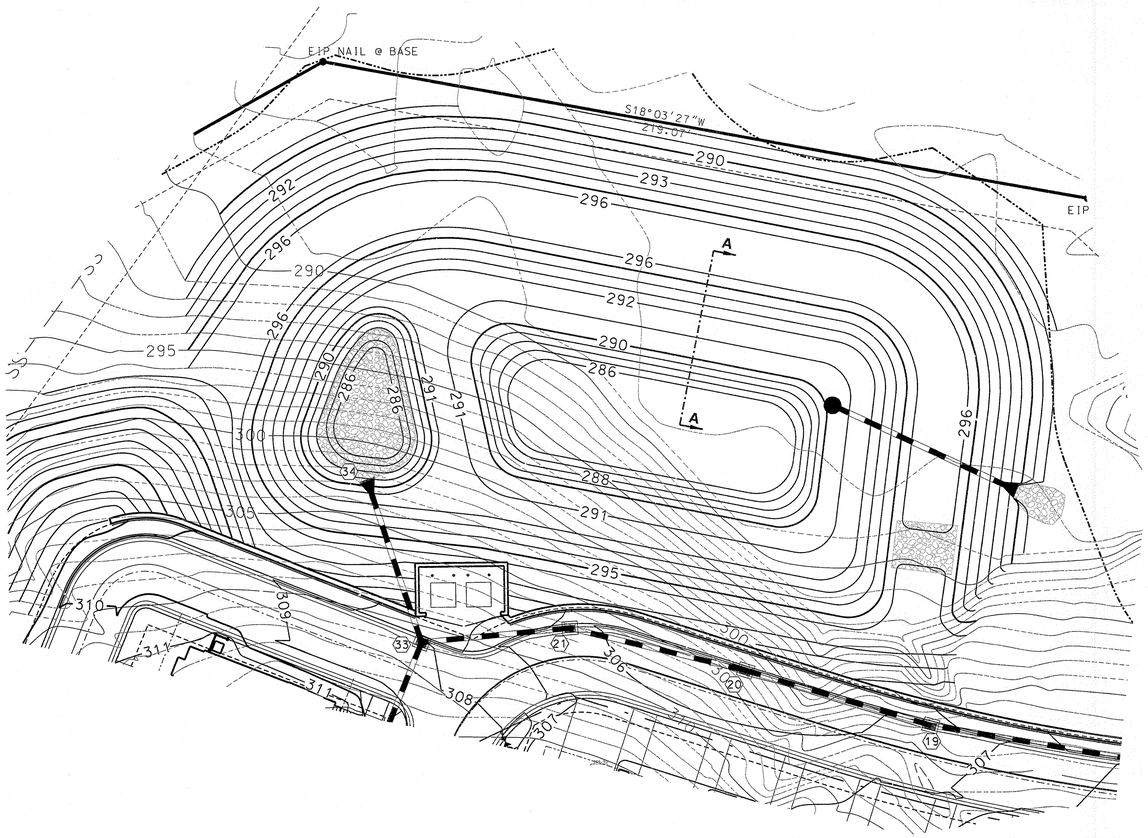
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

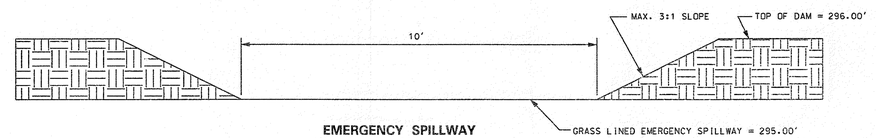


COMPACTION NOTES:

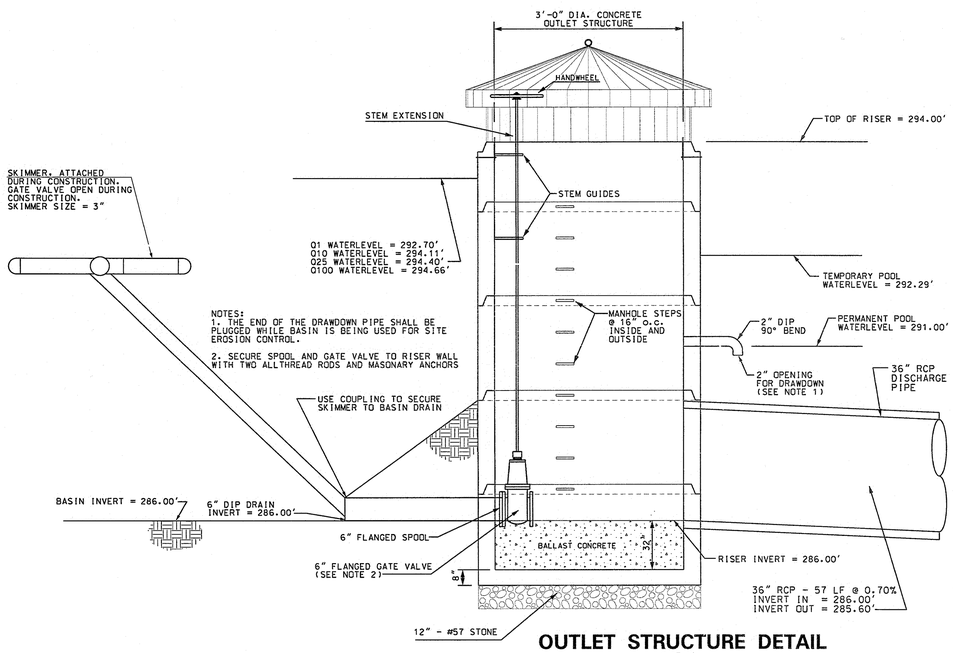
1. EMBANKMENT FILL SHALL BE PLACED IN 8 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
2. FILL AND BACKFILL PLACED AGAINST ALL STRUCTURES, CULVERTS, CONDUITS, DRAINS, ETC. SHALL BE PLACED IN 4 TO 6 INCH LIFTS AND COMPACTED USING HAND-HELD OF MANUALLY OPERATED EQUIPMENT AND COMPACTED TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
3. THE BASIN INVERT AND EMBANKMENT SHALL BE SEEDED IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND THE PLANTING PLAN BELOW WITHIN 15 DAYS OF COMPLETION OF GRADING WORK ON THE BASIN.
4. THE BASIN WILL BE USED FOR EROSION CONTROL DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE BASIN SHALL BE CLEANED OUT AND VEGETATION COVER SHALL BE ESTABLISHED PRIOR TO USE AS A WET DETENTION BASIN.
5. REFER TO SEEDING SCHEDULE ON THIS SHEET FOR STABILIZATION ABOVE PERMANENT POOL.
6. SEDIMENT CLEANED OUT FROM THE CONSTRUCTED BASIN SHALL BE DISPOSED OF OFFSITE AT A LOCATION WITH ALL REQUIRED PERMITS.

BENCHMARK
NCGS MONUMENT "STEPHENSON"
NAD 83 COORDINATES
N 688242.2554
E 2165988.640
Z 330.7966
COMBINED GRID FACTOR
0.99988499
LOCATED AT INTERSECTION
OF OLD NC 42 AND PECAN LANE

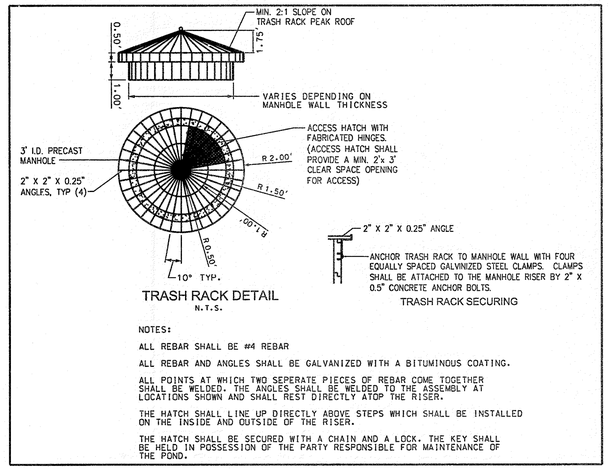
11/2/15
11-2-15
11/4/15



EMERGENCY SPILLWAY CROSS SECTION
NTS



OUTLET STRUCTURE DETAIL
N. T. S.



TRASH RACK DETAIL
N.T.S.

TRASH RACK SECURING

NOTES:

ALL REBAR SHALL BE #4 REBAR

ALL REBAR AND ANGLES SHALL BE GALVANIZED WITH A BITUMINOUS COATING.

ALL POINTS AT WHICH TWO SEPERATE PIECES OF REBAR COME TOGETHER SHALL BE WELDED. THE ANGLES SHALL BE WELDED TO THE ASSEMBLY AT LOCATIONS SHOWN AND SHALL REST DIRECTLY ATOP THE RISER.

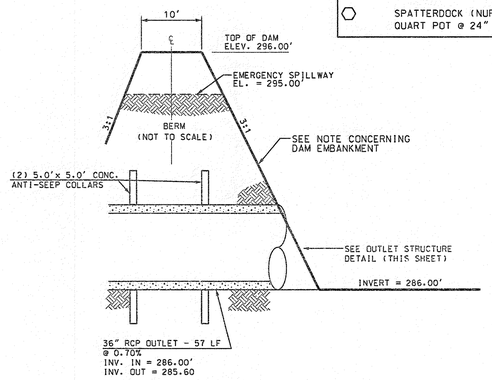
THE HATCH SHALL LINE UP DIRECTLY ABOVE STEPS WHICH SHALL BE INSTALLED ON THE INSIDE AND OUTSIDE OF THE RISER.

THE HATCH SHALL BE SECURED WITH A CHAIN AND A LOCK. THE KEY SHALL BE HELD IN POSSESSION OF THE PARTY RESPONSIBLE FOR MAINTENANCE OF THE POND.

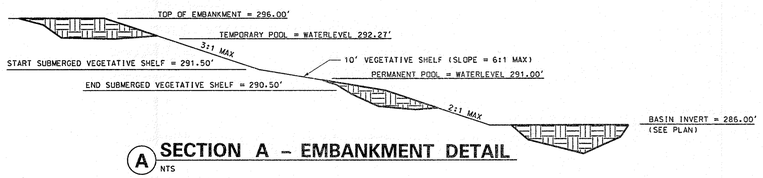
THE FOLLOWING SHALL BE PLANTED ON THE 10' VEGETATIVE SHELF:

PLANT LEGEND

- ▷ ARROW ARUM (PELTANDRA VIRGINICA) QUART POT @ 12" O.C.
- ◇ HARDSTEM BULRUSH (SCIRPUS ACUTUS) QUART POT @ 6' O.C.
- ⬡ SPATTERDOCK (NUPHAR LUTEUM) QUART POT @ 24" O.C.



WET DETENTION BASIN OUTLET
NTS



(A) SECTION A - EMBANKMENT DETAIL
NTS

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036845 BARRY D. BIZZELL
9/11/15

SCALE IN FEET
0 15 30 60 90 120

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-12183 | DATE 9-11-15 | DRAWN BY J.TYUS

STORMWATER WETPOND NO.1 PLAN AND DETAILS

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET C3.5

9/11/2015 9:56:39 AM PLOT BY: john R:\2012-03\dgn\12183DR - S Franklin Apts\Construction - New Layout\2183_C3.5.dgn

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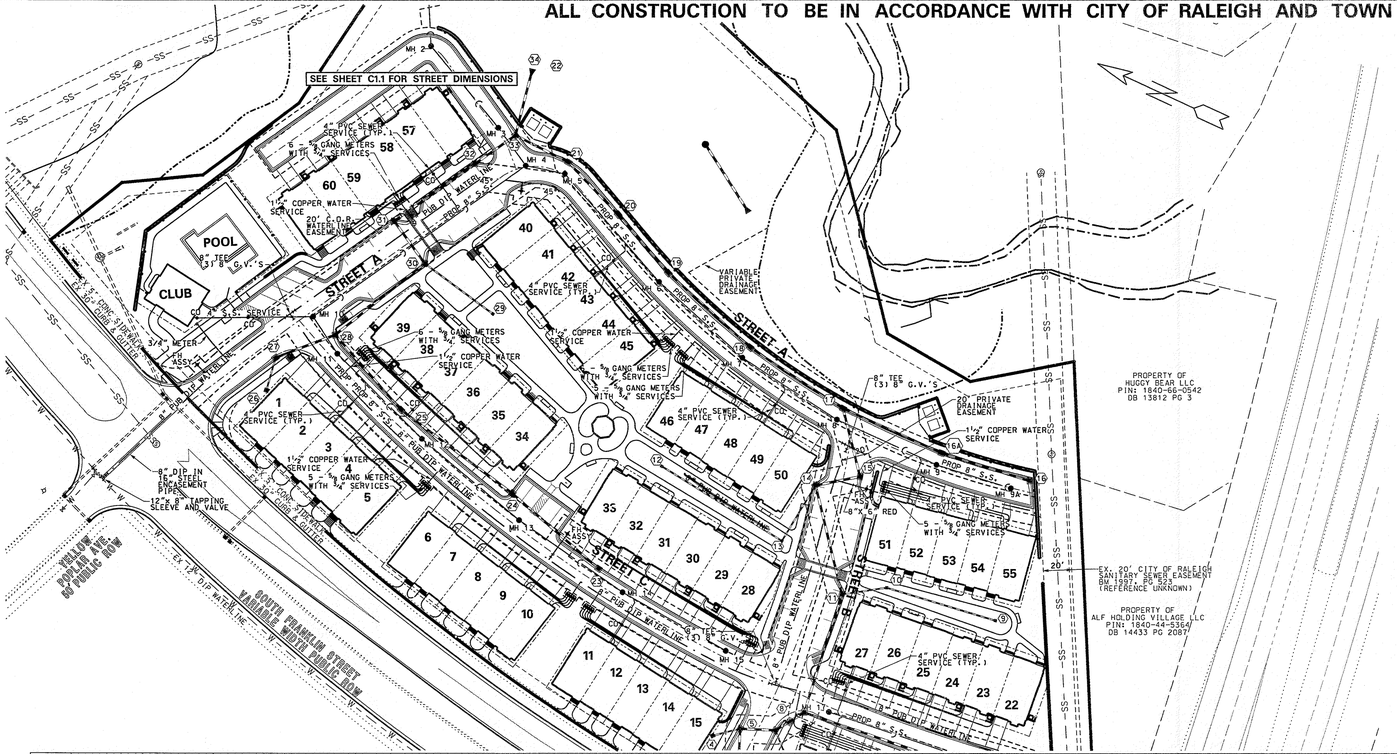
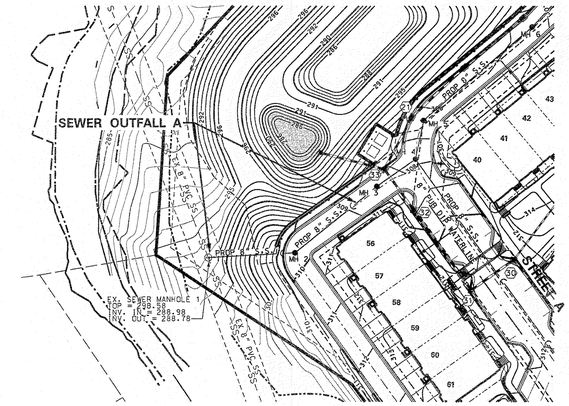
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.





IT'S THE LAW!

AS OF JANUARY 1, 1986, NORTH CAROLINA STATE LAW REQUIRES ANYONE EXCAVATING WITH MECHANICAL EQUIPMENT ON HIGHWAY RIGHTS-OF-WAY, PRIVATE UTILITY EASEMENTS, OR PUBLIC SPACES TO NOTIFY ALL UTILITIES TWO (2) WORKING DAYS PRIOR TO DIGGING.

NOTES:
ALL PIPE LENGTHS ARE MEASURED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.

CONTACT NORTH CAROLINA ONE-CALL CENTER PRIOR TO ANY CONSTRUCTION. (800) 632-4949

Private
Sewer Collection / Extension System

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

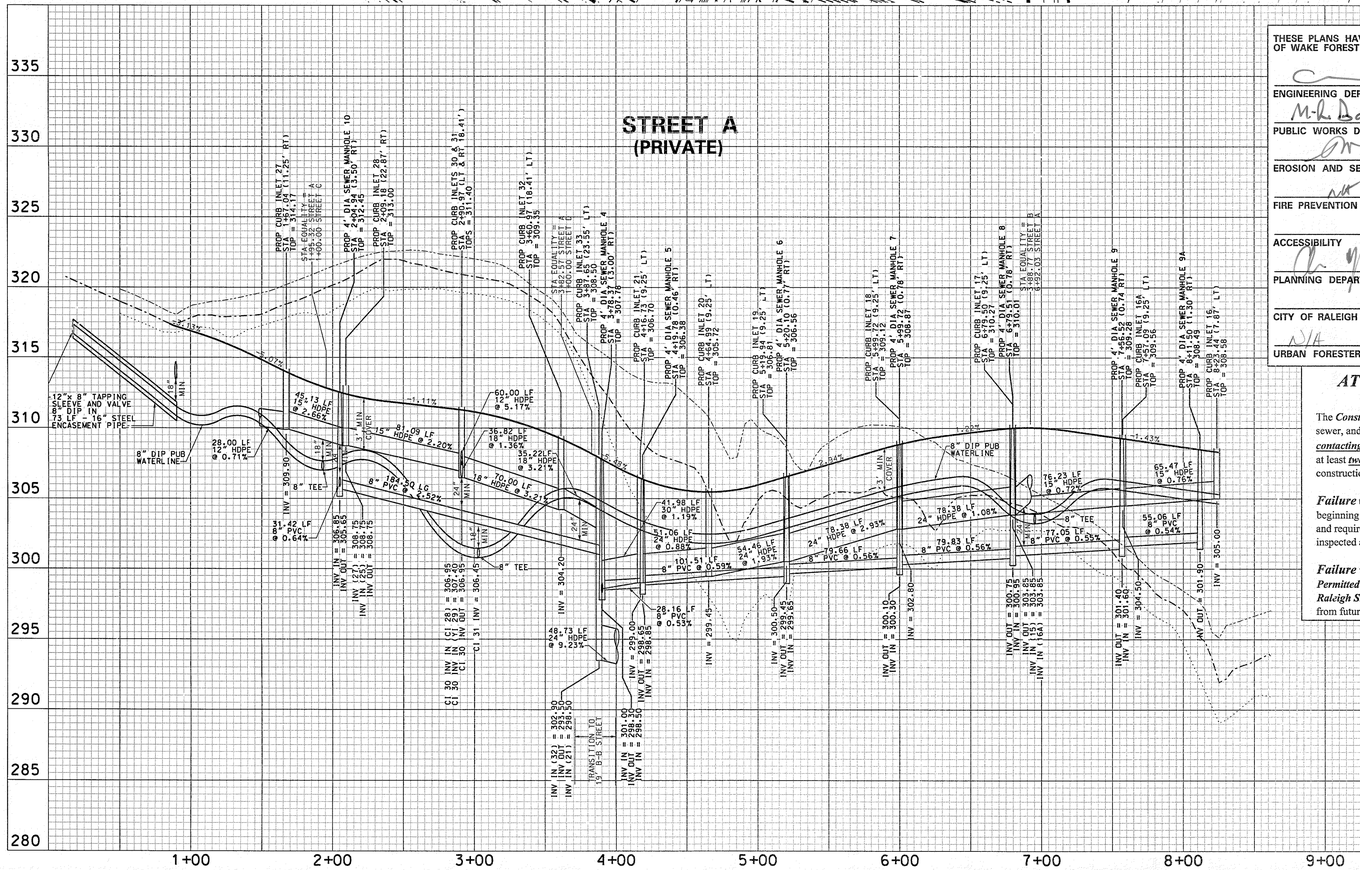
City of Raleigh
Public Utilities Department Permit # S-4099 (P)
Authorization to Construct Benjamin Barker
Date 10/26/15

Public
Water Distribution / Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # W-3341
Authorization to Construct Benjamin Barker
Date 10/29/15

LEGEND:
- PROPOSED CENTERLINE PROFILE
- EXISTING CENTERLINE PROFILE
- EXISTING PROFILE @ ROW – RIGHT
- EXISTING PROFILE @ ROW – LEFT



THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

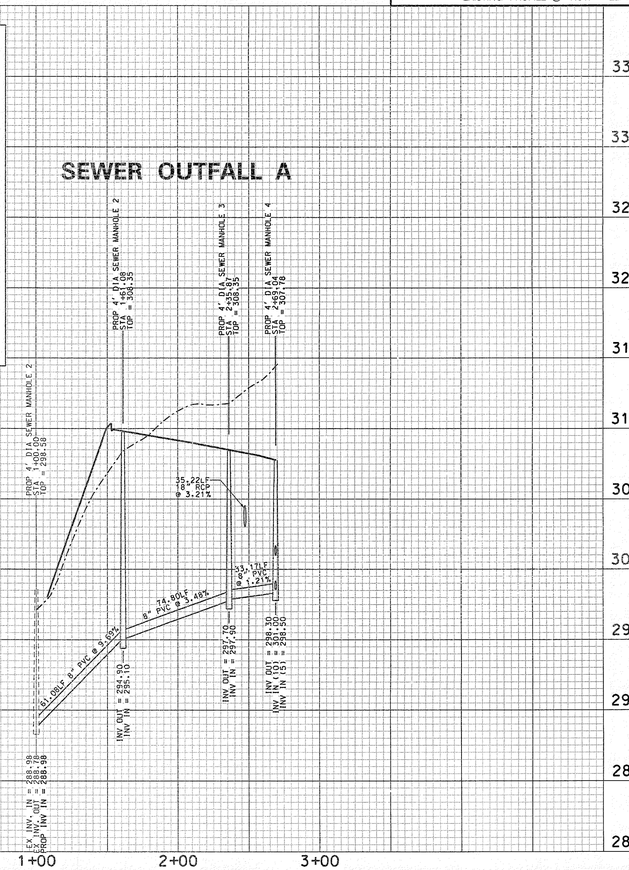
ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE 11-5-15
PLANNING DEPARTMENT	DATE 10/29/15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

ATTENTION CONTRACTORS

The ***Construction Contractor*** responsible for the extension of water sewer, and/or reuse, as approved in these plans, is responsible for ***contacting*** the ***Public Utilities Department*** at ***(919) 996-4540*** at least ***twenty four hours*** prior to beginning any of their construction.

Failure to notify both ***City Departments*** in advance of beginning construction, will result in the issuance of ***monetary fines***, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for ***Inspection***, ***Install a Downstream Plug***, have ***Permitted Plans*** on the ***Jobsite***, or any other ***Violation*** of ***City of Raleigh Standards*** will result in a ***Fine and Possible Exclusion*** from future work in the ***City of Raleigh***.



BNK

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-2283	DATE 9-11-15
DRAWN BY J. TYLIS	

STREET A & SEWER OUTFALL A PLAN AND PROFILE

SCALE: 1" = 5' VERT; 1" 50 HORZ

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C4.1

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9/11/2015 11:03:42 AM PLOT BY: john R:\2012-03\jobs\12183\DR - S Franklin Apts\Construction - New Layout\C183_C4.1.dgn

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

Private
Sewer Collection / Extension System
The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh Public Utilities Department Permit # S-4099 (P)
Authorization to Construct Benjamin Baker
Date 11/20/15

Public
Water Distribution / Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh Public Utilities Department Permit # W-3347
Authorization to Construct Benjamin Baker
Date 12/29/15

IT'S THE LAW!
AS OF JANUARY 1, 1986, NORTH CAROLINA STATE LAW REQUIRES ANYONE EXCAVATING WITH MECHANICAL EQUIPMENT ON HIGHWAY RIGHTS-OF-WAY, PRIVATE UTILITY EASEMENTS, OR PUBLIC SPACES TO NOTIFY ALL UTILITIES TWO (2) WORKING DAYS PRIOR TO DIGGING.

NOTES:
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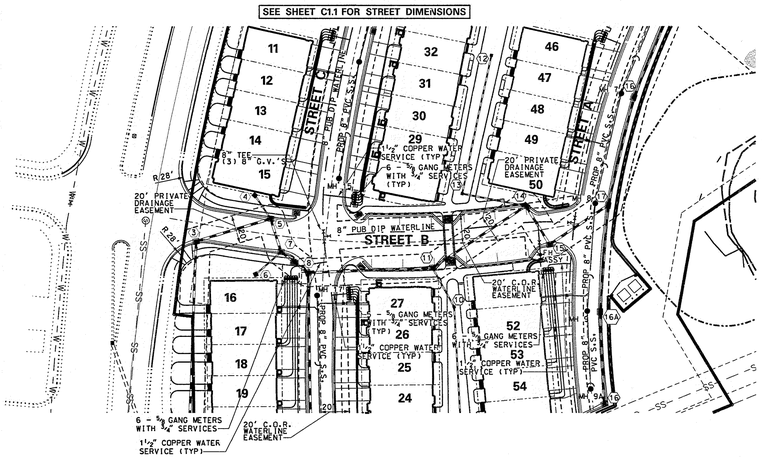
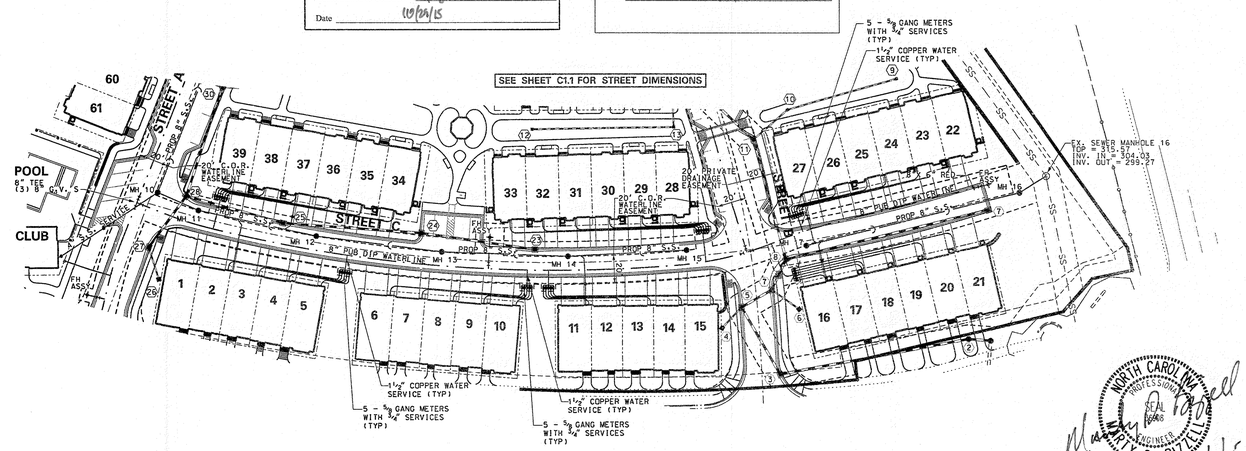
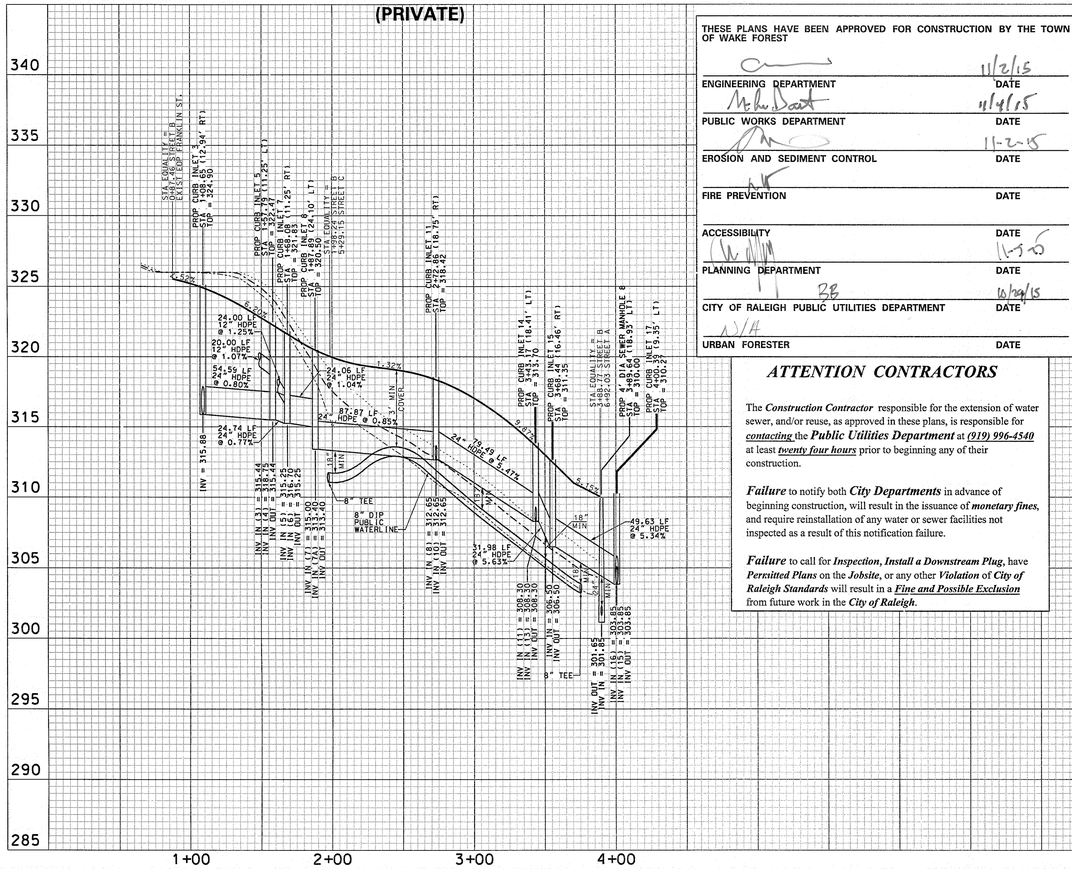




LEGEND:
- PROPOSED CENTERLINE PROFILE
- EXISTING CENTERLINE PROFILE
- EXISTING PROFILE @ ROW - RIGHT
- EXISTING PROFILE @ ROW - LEFT

STREET B
(PRIVATE)



THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE 11-3-15
PLANNING DEPARTMENT	DATE 10/29/15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

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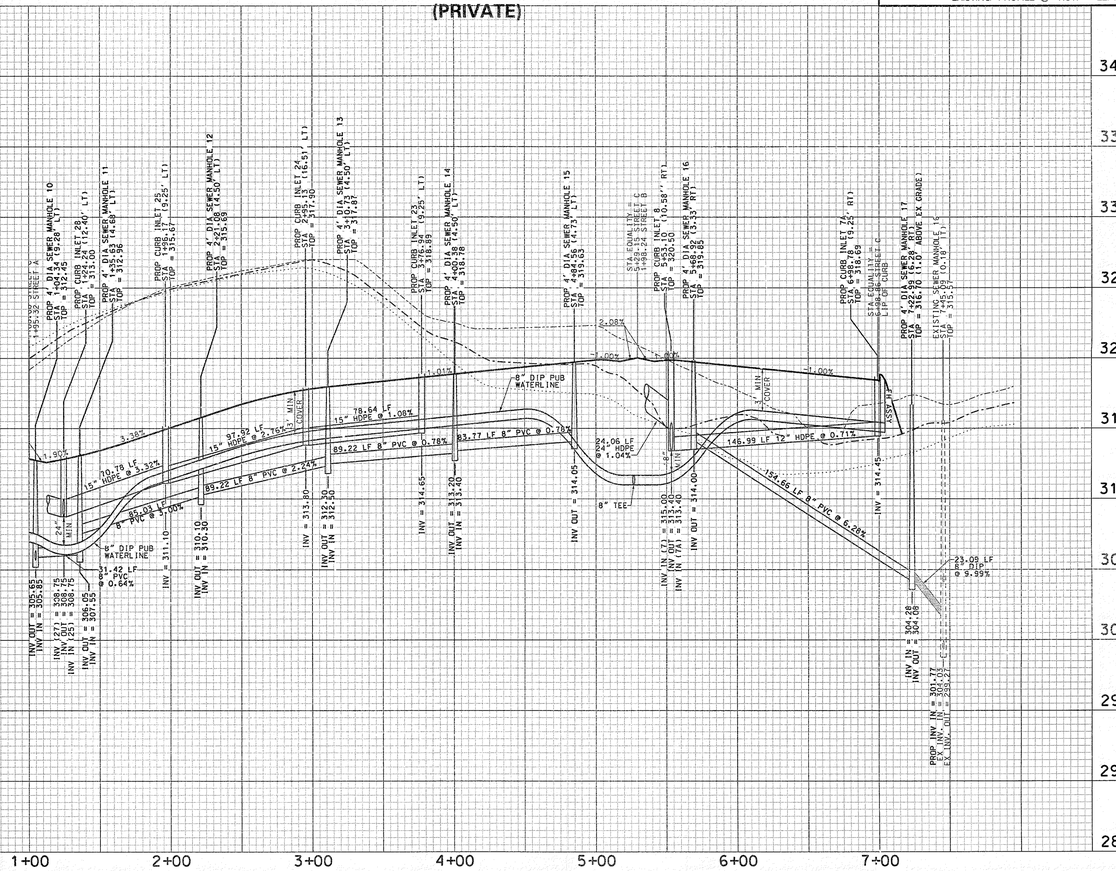
STREET C
(PRIVATE)



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CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-2283 DATE 9-11-15 DRAWN BY J. TYLIS

STREET B & C
PLAN AND PROFILE

SCALE: 1" = 5' VERT; 1" 50' HORZ

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C4.2

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

9/11/2015 11:04:14 AM PLOT BY: john R:\2012-03\jobs\2183\DR - S Franklin Apts\Construction - New Layout\2183_C4.2.dgn

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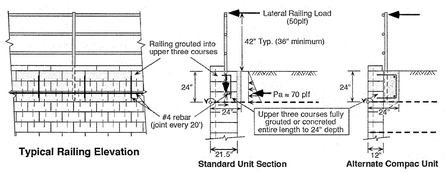
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

KEYSTONE RETAINING WALL SYSTEMS

Typical Railing Design

Direct Mount - 50 plf -Standard/Compac Units



Typical Railing Elevation — Standard Unit Section — Alternate Compac Unit

Typical Railing Design Section

Introduction

It is difficult for a railing design to satisfy structural design requirements when considering the direct mounting on or into the Keystone modular wall system. The small unit size and mass provides minimal resistance to overturning by itself so additional mass must be engaged to provide the required resistance. Modular wall units are typically not large enough to satisfy a 50 pif AASHTO/UBC lateral design loading without additional structure.

Railing Analysis

Shear resistance of Standard units (>1000 plf) and Compac units (>600 plf) exceeds the driving forces by a wide margin in gravity wall applications and is not a critical evaluation. Overturning at the top of wall (local stability) is the critical evaluation. A 50 plf or greater loading typically requires the addition of concrete and reinforcement for mass and strength.

Driving Moments **(50 plf load)**

Railing	50 plf x 5.5' arm	= 275 ft-lbs/ft
Soil	70 plf x 0.67'	= 47 ft-lbs/ft
	Total	= 322 ft-lbs/ft

Resisting Moments (units filled with grout @ 140 pcf)

2' x 2' x 140 pcf x 1.0'	= 560 ft-lbs/ft
0.33' x 0.88' x 120 pcf x 0.44'	= 15 ft-lbs/ft
Total	= 575 ft-lbs/ft

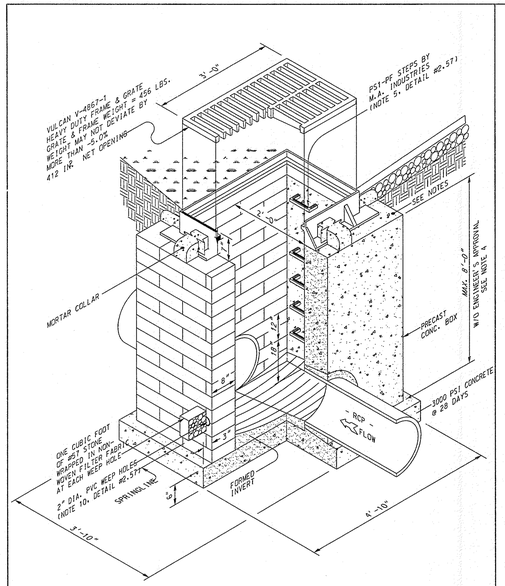
Design Note:

Keystone Standard units are always recommended in situations where railings are considered for direct mounting on the wall system.

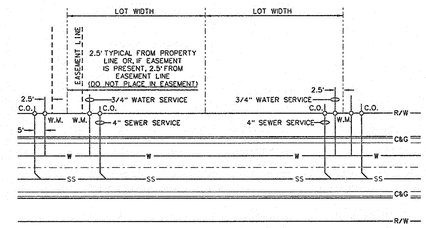
Keystone Compac units require additional reinforcement and concrete to provide the overturning mass necessary to resist design loadings. Compac unit designs should consider offset railings as a simpler and more economical alternative.

SFot = 575/322 = **1.78** < 1.50 minimum. **OK**

12/8/03 28 © 2003 Keystone Retaining Wall Systems

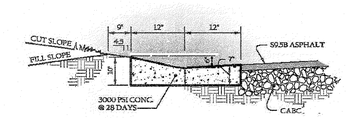


TOWN OF WAKE FOREST — 2x3 DROP INLET — USE WITH STANDARD SPECIFICATIONS ONLY — SCALE: NOT TO SCALE — DETAIL #: 2.51 — DATE: REV. 9-6-99 — SHEET #: 1 OF 1



NOTES:
1. PLACE WATER SERVICE W/REMOTE READOUT AT COMMON PROPERTY LINE W/15' OF EACH OTHER (I.E. EVERY OTHER LOT LINE HAS A W.M. ON EITHER SIDE OF LOT LINE W/12.5' OF PROPERTY LINE). THIS WILL PERMIT THE TWO SERVICES TO SHARE A TRANSMITTER FOR REMOTE READOUT.
2. SITE TOPOGRAPHY WILL BE A CONSIDERATION IN PLACEMENT OF SEWER SERVICE WHERE OUTFALL LOCATIONS MAY REQUIRE A SERVICE TO BE LOCATED OTHER THAN AT THE FRONT OF THE LOT.

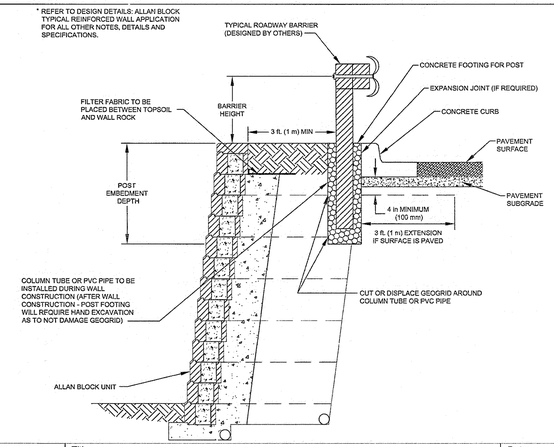
TOWN OF WAKE FOREST — TYP. WATER AND SEWER SERVICE LOCATIONS — USE WITH STANDARD SPECIFICATIONS ONLY — SCALE: NOT TO SCALE — DETAIL #: 2.5 — DATE: REV. 9-6-99 — SHEET #: 1 OF 1



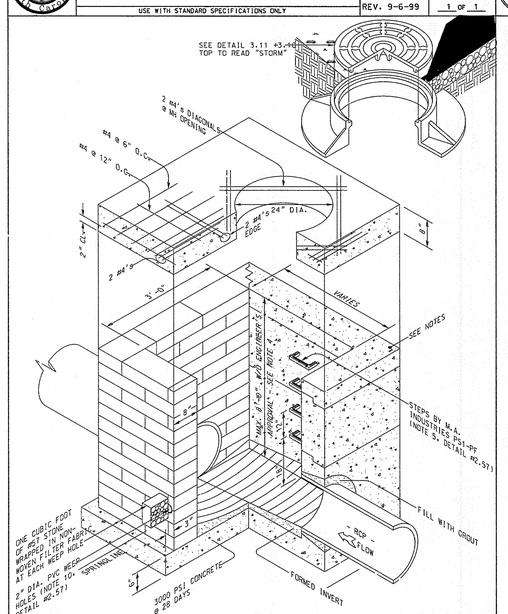
NOTES:
1. *Score curb / valley gutter at 15' O.C.*
2. *Provide 1/2" expansion joints at 90' O.C.*
3. *For transition of curb to curb opening inlet, see standard detail 2.50* From Town of Wake Forest

VALLEY GUTTER DETAIL — Scale: Not To Scale

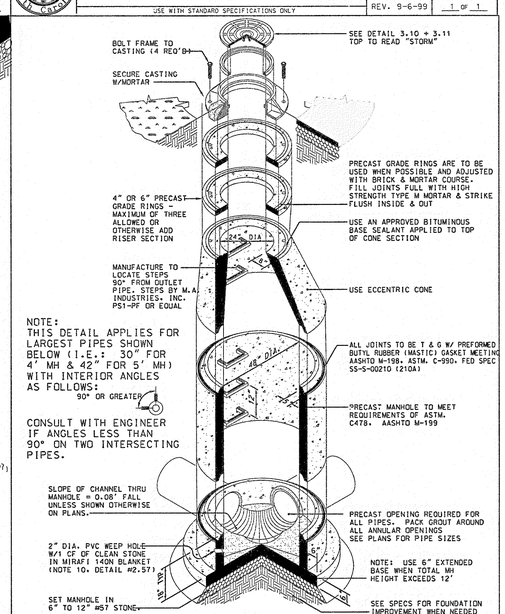
* REFER TO DESIGN DETAILS: ALLAN BLOCK TYPICAL REINFORCED WALL APPLICATION FOR ALL OTHER NOTES, DETAILS AND SPECIFICATIONS.



Designed By:	Title: IMPACT RAILING WALL SECTION	Date:
Checked By:	The purpose of this drawing is for preliminary design only. This drawing should not be used for final design or construction without the certification of a professional engineer registered in the state in which the wall will be built. The accuracy and use of details contained in this document are the sole responsibility of the user. The user must verify each detail for accuracy as they pertain to their particular project. © 2005 Allan Block	Project No:
Scale: NOT TO SCALE		Drawing No:



TOWN OF WAKE FOREST — STD. M.H. J.B. VARIABLE LENGTH — USE WITH STANDARD SPECIFICATIONS ONLY — SCALE: NOT TO SCALE — DETAIL #: 2.54 — DATE: REV. 9-6-99 — SHEET #: 1 OF 1



NOTE:
THIS DETAIL APPLIES FOR LARGEST PIPES SHOWN BELOW (I.E.: 30" FOR 4' MH & 42" FOR 5' MH) WITH INTERIOR ANGLES AS FOLLOWS:
90° OR GREATER

CONSULT WITH ENGINEER IF ANGLES LESS THAN 90° ON TWO INTERSECTING PIPES.

TOWN OF WAKE FOREST — PRECAST CONCRETE 4' DIA. MH JB — USE WITH STANDARD SPECIFICATIONS ONLY — SCALE: NOT TO SCALE — DETAIL #: 2.60 — DATE: REV. 6-28-02 — SHEET #: 1 OF 1

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE N/A
ACCESSIBILITY	DATE 11-5-15
PLANNING DEPARTMENT	DATE 11-5-15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE N/A
URBAN FORESTER	DATE

NORTH CAROLINA PROFESSIONAL SEAL 025486 ENGINEER MARTY D. BIZZELL 9/11/15

SCALE IN FEET: 0 15 30 60 90 120

BNK

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NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

03-12183 — JOB NO. — 9-11-15 DATE — J.TYLIS DRAWN BY

DETAILS

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET C5.1

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9/11/2015 11:05:00 AM PLOT BY: John R:\2012-03\dbs\12183DR - S Franklin Apts\Construction - New Layout\12183_C5.1.dgn

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

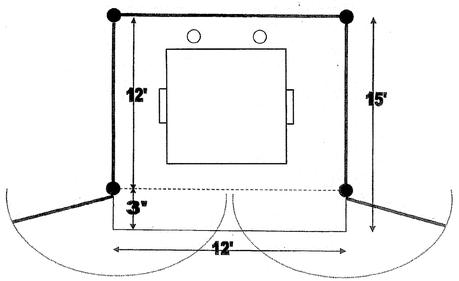
Recommendations for Corrals & Gates for Front End Container Service

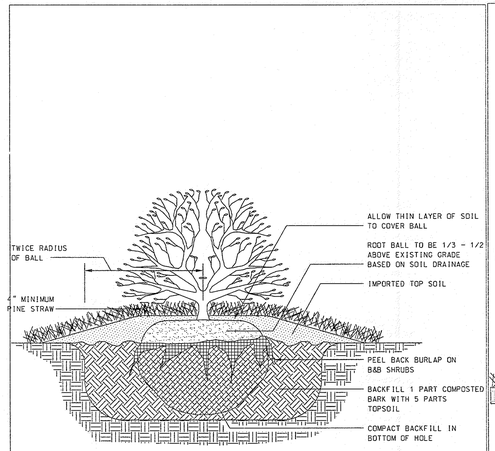
Selection of the proper site for the container is of utmost importance:

1. Access by your employees, close to where the trash is generated
2. Access by the trash truck
   A. A minimum of sixty (60) foot approach is required
   B. Evaluate the following:
      - Safety (overhead wires, limbs, drains, eaves, septic tank areas)
      - Traffic Flow
      - Parking areas (limit parking within six (6) feet on each side of corral)

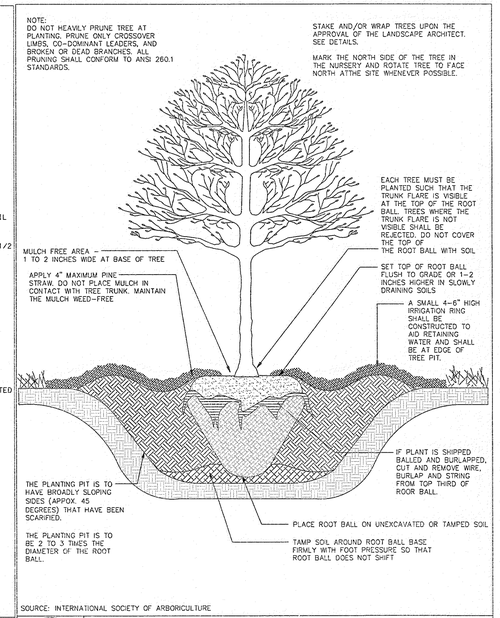
Construction of the Pad & Corral:

1. **Concrete Pad**
   A minimum of twelve (12) feet wide by fifteen (15) feet deep.
   Six (6) inch reinforced concrete (minimum of 3000 PSI).
   Concrete pad and the approach must be on the same plane.
2. **The Corral**
   Metal fencing provides the most desirable service
   Wooden slats are also utilized
3. **Gates**
   A. Three (3) hinges recommended at the bottom of the gate
   B. Metal gate handles are need to hold the gates open and closed, a hole is needed in the ground for the open position
   C. Soldier Posts are recommended for the back of the corral to prevent the container being pushed into the corral





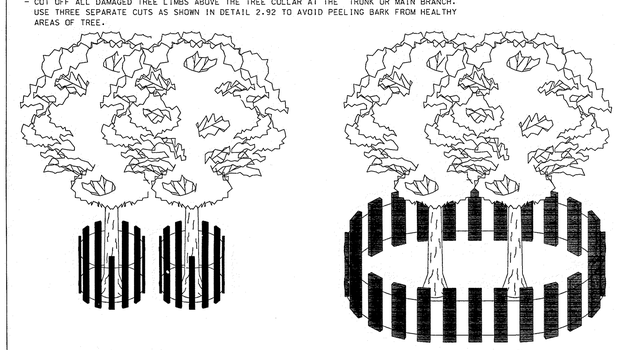
TOWN OF WAKE FOREST
TYPICAL SHRUB PLANTING DETAIL
USE WITH STANDARD SPECIFICATIONS ONLY
SCALE: NOT TO SCALE | DETAIL # 2.90
DATE: REV.11-11-97 | SHEET #: 1 OF 1



SOURCE: INTERNATIONAL SOCIETY OF ARBORICULTURE

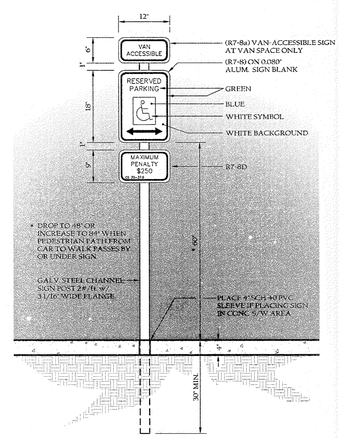
TOWN OF WAKE FOREST
TREE PLANTING DETAIL
USE WITH STANDARD SPECIFICATIONS ONLY
SCALE: NOT TO SCALE | DETAIL # 2.91
DATE: REV.8-14-07 | SHEET #: 1 OF 1

- REPAIR ROOTS BY CUTTING OFF THE DAMAGED AREAS AND PAINT THEM WITH TREE PAINT. SPREAD PEAT MOSS OR MOIST TOPSOIL OVER EXPOSED ROOTS.
- REPAIR DAMAGE TO BARK BY TRIMMING AROUND THE DAMAGED AREA AS SHOWN IN DETAIL 2.92 TAPER THE CUT TO PROVIDE DRAINAGE AND PAINT WITH TREE PAINT.
- CUT OFF ALL DAMAGED TREE LIMBS ABOVE THE TREE COLLAR AT THE TRUNK OR MAIN BRANCH. USE THREE SEPARATE CUTS AS SHOWN IN DETAIL 2.92 TO AVOID PEELING BARK FROM HEALTHY AREAS OF TREE.

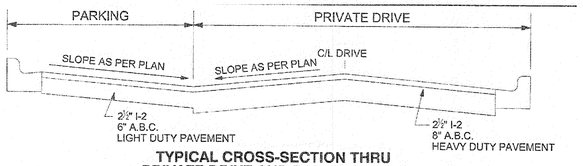


BARRIER SHOULD BE INSTALLED AT THE DRIP LINE OF TREE BRANCHES

Details Provided by APPIAN Consulting Engineers - www.appianengineers.com 03/27/2014 - 5:46:47 PM



TOWN of WAKE FOREST
TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
R7-8 HANDICAP SIGN DETAIL
Scale: Not To Scale | Detail #: 2.15
Revision Date: October, 2013 | Sheet #: 1 of 1



TYPICAL CROSS-SECTION THRU PRIVATE DRIVE AND PARKING BAYS

NOT TO SCALE

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE N/A
ACCESSIBILITY	DATE 11-3-15
PLANNING DEPARTMENT	DATE 11-5-15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE N/A
URBAN FORESTER	DATE N/A Jennifer O'Rall 11/4/15

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 026868 MARTY D. BIZZELL
9/11/15

SCALE IN FEET
0 15 30 60 90 120

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1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO. 03-12183 | DATE 9-11-15 | DRAWN BY J.TYLIS

DETAILS

SCALE: 1" = 30'

SHEET C5.2

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

TEMPORARY SEEDING SCHEDULES

Table 6.10a Temporary Seeding Recommendations for Late Winter and Early Spring

Seeding mixture

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

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.

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

Table 6.10b Temporary Seeding Recommendations for Summer

Seeding mixture

Species	Rate (lb/acre)
German millet	40

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.

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

Table 6.10c Temporary Seeding Recommendations for Fall

Seeding mixture

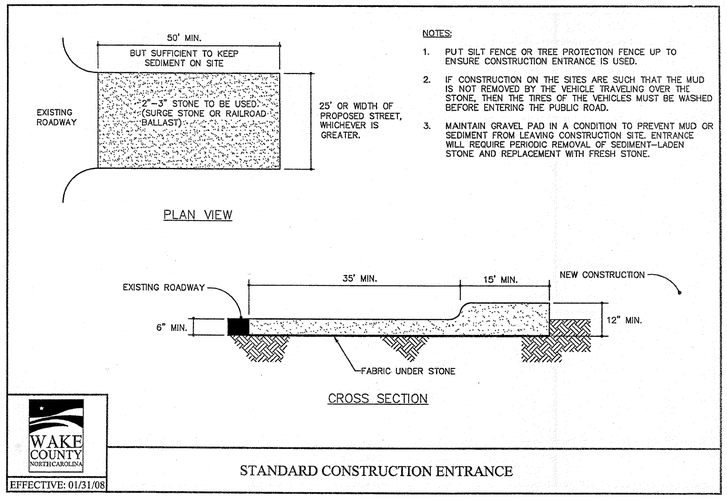
Species	Rate (lb/acre)
Rye (grain)	120

Seeding dates
Mountains—Aug. 15 - Dec. 15
Coastal Plain and Piedmont—Aug. 15 - Dec. 30

Soil amendments
Follow soil tests or apply 2,000 lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
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.

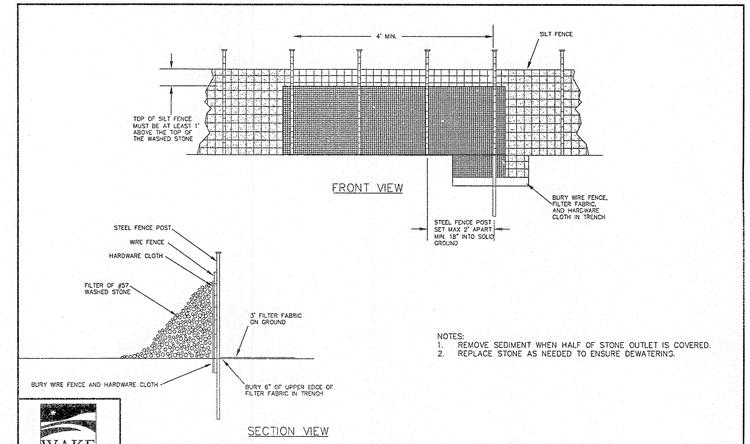
Maintenance
Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extent temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.



NOTES:
1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
2. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.
3. MAINTAIN GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING CONSTRUCTION SITE. ENTRANCE WILL REQUIRE PERIODIC REMOVAL OF SEDIMENT-LADEN STONE AND REPLACEMENT WITH FRESH STONE.

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

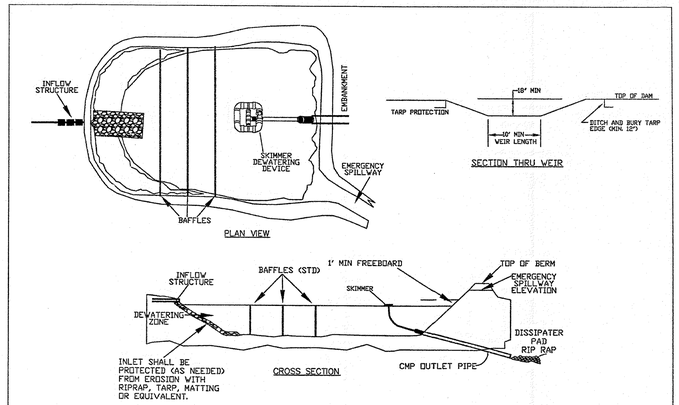
STANDARD CONSTRUCTION ENTRANCE



NOTES:
1. REMOVE SEDIMENT WHEN HALF OF STONE OUTLET IS COVERED.
2. REPLACE STONE AS NEEDED TO ENSURE DEWATERING.

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

STANDARD SILT FENCE OUTLET



NOTES:
1) BASIN SHOULD BE CLEANED OUT WHEN CAPACITY REACHES AN ELEVATION REPRESENTING THAT THE BASIN IS HALF-FULL.
2) THE TARP USED TO PROTECT THE WEIR SHALL BE THE WIDTH SPECIFIED. THE LENGTH OF THE TARP SHALL BE ACCORDING TO AVAILABLE SUPPLY. IF MULTIPLE TARPS ARE TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.
3) PROVIDE A MINIMUM OF THREE POROUS BAFFLES TO EVENLY DISTRIBUTE FLOW ACROSS THE BASIN, REDUCING TURBULENCE.
4) BAFFLE MATERIAL MUST BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR A SILT FENCE.
5) MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY AVAILABLE FOR MAINTENANCE.
6) DURING THE CONSTRUCTION PHASE OF THE PROJECT, PERMANENT STORMWATER RISER SHALL ONLY DEWATER FROM THE TOP OF PIPE.
7) POND SHALL NOT BE CONVERTED FOR STORMWATER USE UNTIL APPROVED BY ENVIRONMENTAL ENGINEER.

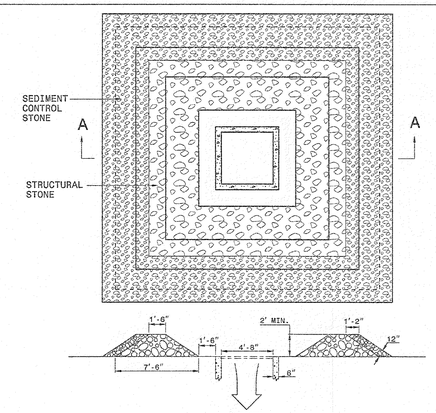
WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

STANDARD SKIMMER BASIN

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1632.01

ENGLISH STANDARD DRAWING FOR **ROCK INLET SEDIMENT TRAP TYPE A**



NOTES

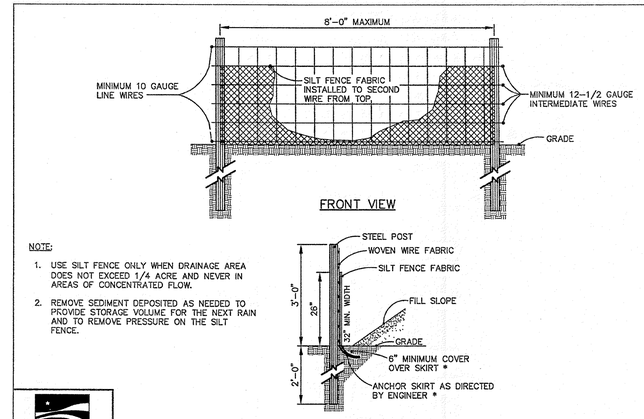
CLEAN SEDIMENT WHEN ½ FULL AND AS DIRECTED.
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
USE CLASS B STONE FOR STRUCTURAL STONE.
CONSTRUCT TOP OF BERM A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR **ROCK INLET SEDIMENT TRAP TYPE A**

1632.01



NOTE:
1. USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
2. REMOVE SEDIMENT DEPOSITED AS NEEDED TO PROVIDE STORAGE VOLUME FOR THE NEXT RAIN AND TO REMOVE PRESSURE ON THE SILT FENCE.

WAKE COUNTY NORTH CAROLINA
EFFECTIVE: 01/31/08

STANDARD TEMPORARY SILT FENCE

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE 11-3-15
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE N/A
URBAN FORESTER	DATE N/A

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER MARTY D. BIZZELL
9/11/15

SCALE IN FEET
0 15 30 60 90 120

BNK
BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBDLA (C-0267)

NO.	DATE	REVISIONS	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

JOB NO. 03-12183 DATE 9-11-15 DRAWN BY J. TYUS

DETAILS

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET **C5.3**

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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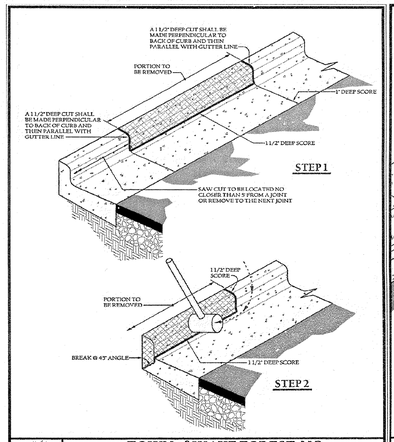
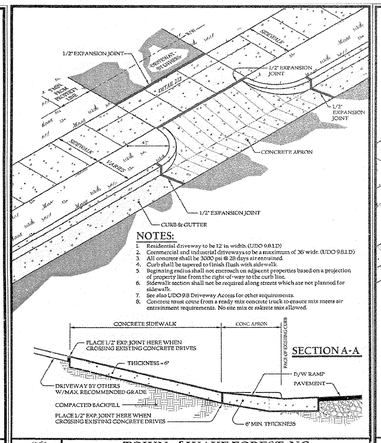
9/11/2015 11:16:38 AM PLOT BY:john R:\2012-03\jobs\12183\DOR - S Franklin Apts\Construction - New Layout\12183.C5.3.dgn

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

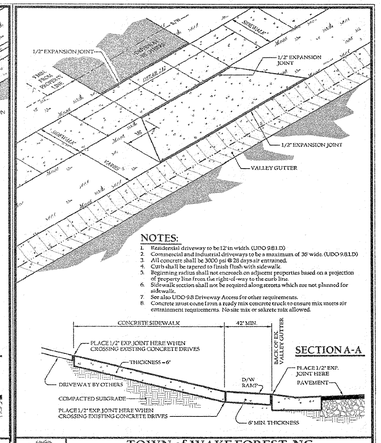


TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STREET CURB CUT FOR DRIVEWAYS ON C&G STREETS
Scale: Not To Scale | Detail # 2.08 | Revision Date: October, 2013 | Sheet # 1 of 3



NOTES:
1. Residential driveway to be 12' in width. (UDO 9.8.1.D)
2. Commercial and industrial driveways to be a maximum of 36' wide. (UDO 9.8.1.D)
3. All concrete shall be 3000 psi @ 28 days air entrained.
4. Curb shall be tapered to finish flush with sidewalk.
5. Beginning radius shall not encroach on adjacent properties based on a projection of property line from the right of way to the curb line.
6. Sidewalk section shall not be required along street which are not planned for sidewalk.
7. See also UDO 9.8 Driveway Access for other requirements.
8. Concrete must come from a ready mix concrete truck to ensure mix meets air entrainment requirements. No site mix or eskrete mix allowed.

TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STREET CURB CUT FOR DRIVEWAYS ON C&G STREETS
Scale: Not To Scale | Detail # 2.08 | Revision Date: October, 2013 | Sheet # 2 of 3



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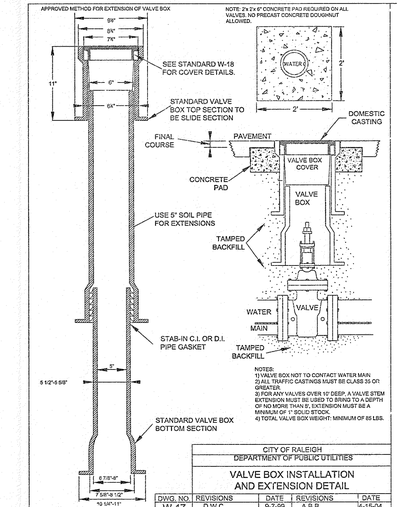
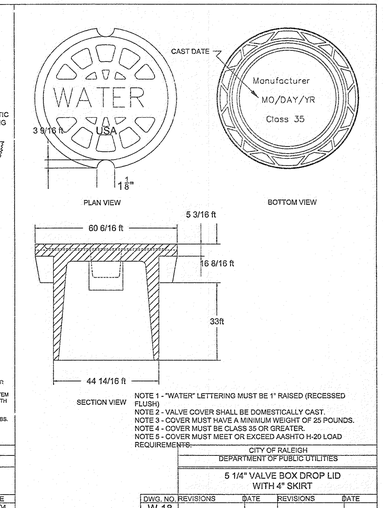
7. See also UDO 9.8 Driveway Access for other requirements.
8. Concrete must come from a ready mix concrete truck to ensure mix meets air entrainment requirements. No site mix or eskrete mix allowed.

TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
FLARED DRIVEWAY ENTRANCE TO VALLEY GUTTER
Scale: Not To Scale | Detail # 2.08 | Revision Date: October, 2013 | Sheet # 3 of 3



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
VALVE BOX INSTALLATION AND EXTENSION DETAIL

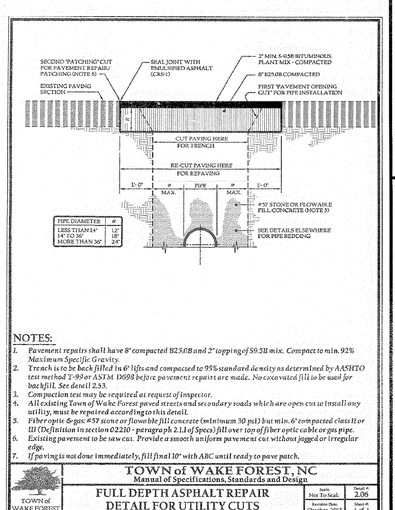
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-17	D.W.C.	9-7-99	A.B.B.	4-15-04
	RRH	8-31-00	D.H.	8-16-07



NOTE 1 - "WATER" LETTERING MUST BE 1" RAISED (RECESSED FLUSH)
NOTE 2 - VALVE COVER SHALL BE DOMESTICALLY CAST
NOTE 3 - COVER MUST HAVE A MINIMUM WEIGHT OF 25 POUNDS.
NOTE 4 - COVER MUST BE CLASS 35 OR GREATER.
NOTE 5 - COVER MUST MEET OR EXCEED AASHTO H-20 LOAD REQUIREMENTS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
5 1/4" VALVE BOX DROP LID WITH 4" SKIRT

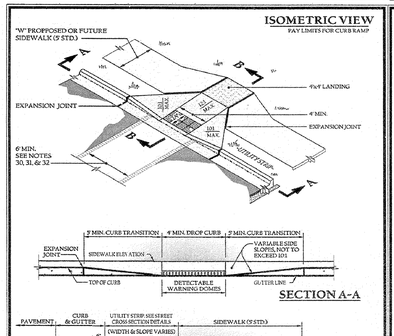
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-18				



PIPE DIAMETER	#
LESS THAN 14"	12"
14" - 24"	18"
MORE THAN 24"	24"

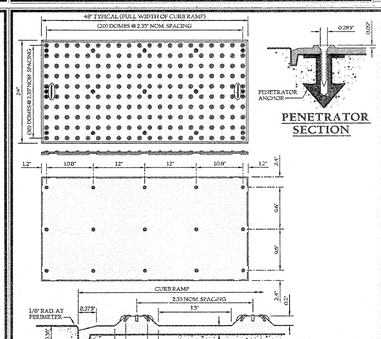
NOTES:
1. *Pavement repairs shall have 8" compacted B25.0B and 2" topping of S9.5B mix. Compact to min. 92% Maximum Specific Gravity.*
2. *Trench is to be back filled in 6" lifts and compacted to 95% standard density as determined by AASHTO test method T-99 or ASTM D698 before pavement repairs are made. No excavated fill to be used for backfill. See detail 2.53.*
3. *Compaction test may be required at request of inspector.*
4. *All existing Town of Wake Forest paved streets and secondary roads which are open cut to install any utility, must be repaired according to this detail.*
5. *Fiber optic &gas: #57 stone or flowable fill concrete (minimum 30 psi) but min. 6" compacted class II or III (Definition in section 02220 - paragraph 2.1.d of Specs) fill over top of fiber optic cable or gas pipe.*
6. *Existing pavement to be saw cut. Provide a smooth uniform pavement cut without jagged or irregular edge.*
7. *If paving is not done immediately, fill final 10" with ABC until ready to pave patch.*

TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
FULL DEPTH ASPHALT REPAIR DETAIL FOR UTILITY CUTS
Scale: Not To Scale | Detail # 2.06 | Revision Date: October, 2013 | Sheet # 1 of 1



NOTES:
1. Detectable warning domes will cover 2'-0" length and full width of the ramp flare as shown on sheet 13 of 15.

TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
SINGLE CURB RAMP WITH PROPOSED CURB & GUTTER
Scale: Not To Scale | Detail # 2.13 | Revision Date: October, 2013 | Sheet # 4 of 15



NOTES:
1. Detectable warning System. Cast in place with Penetrator anchors. See pre-approved products list.
2. Other sizes available to meet site specific requirements. Verify with Town.
3. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch minimum to 1.4 inches maximum, a top diameter of 50% of the base diameter minimum to 65% of the base diameter maximum, and a height of 0.2 inches.
4. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches minimum and 2.4 inches maximum, and a base-to-base spacing of 0.65 inches minimum, measured between the most adjacent domes on square grid.
5. Detectable warning surfaces shall extend 24 inches minimum in the direction of travel and the full width of the curb ramp, landing, or blended transition. The edge nearest the curb line shall be a minimum of 6 inches and a maximum of 8 inches from curb (ICC/ANSI A117.1 Fig C406.13.2). See notes 21 & 22.
6. See note 23, sheet 3.
7. Any NCDOT street must conform to DOT standard./ADA Curb Ramp detail B-18.05 sheet 1-4.

TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STANDARD DETECTABLE WARNING SYSTEM
Scale: Not To Scale | Detail # 2.13 | Revision Date: October, 2013 | Sheet # 15 of 15

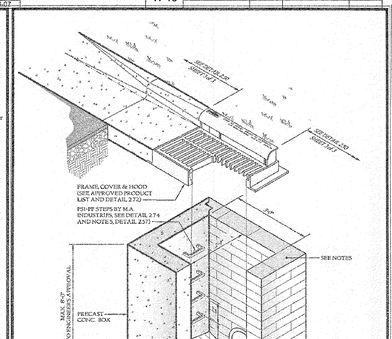
STANDARD NOTES:

1. North Carolina General Statutes 136-44.14 requires that all street curbs being constructed or reconstructed for maintenance procedures, traffic operations, repairs, correction of utilities or altered for any reason after September 1, 1973 shall provide curb ramps for the physically disabled at all intersections where both curb and gutter and sidewalks are provided and at other points of pedestrian flow.
In addition, section 228 of the 1973 Federal Aid Highway Safety Act requires provision of curb ramps on any curb construction after July 1, 1976 whether a sidewalk is proposed initially or is planned for a future date.
The Americans with Disability Act (ADA) of 1990 extends to individuals with disabilities. Comprehensive civil rights protections similar to those provided to persons on the basis of race, sex, national origin and religion under the Civil Rights Act of 1964. These curb ramps have been designed to comply with the current ADA standards (2002 ADA Standards for Accessible Design, dated September 15, 2010 & effective March 15, 2012).
2. Curb ramps are required when streets are altered for resurfacing (opening one intersection to another and includes overlay of additional material to the road surface with or without milling), reconstructed, rehabilitated or widened. Maintenance activities on streets, such as crack filling, sealing, pavement markings, surface sealing and pavement patching, are not alterations. However, if there is no block-to-block resurfacing but resurfacing is occurring as a crosswalk itself, partial resurfacing (curb-to-curb resurfacing at a crosswalk) requires the provision of curb ramps at that crosswalk.
Curb ramps are not required in the absence of a pedestrian walkway with a prepared surface nor are curb ramps required in the absence of curb, elevation or other barrier between the street and the walkway. [USDOJ July 8, 2013]
3. Curb ramps are required at all curb returns.
4. Detectable warning domes are required for curb ramps.
5. Single curb ramp at the center of the return are not permitted.
6. Dimensions assume 90° centerline intersection of streets.
7. Construct the ramp surface to be stable, firm and slip resistant. Located and construct the curb ramp type as shown in these details.
8. Curb ramps shall be constructed perpendicular to the roadway travel lane.
9. Coordinate the curb ramp and pedestrian crosswalk markings so a 4'x4' clear space at the base of the curb ramp will fall within the pedestrian crosswalk lines.
10. Set back distance from inside corner of an intersection crosswalk marking to nearest edge of travel lane is 4 feet minimum.
11. Terminate parking a minimum of 20 feet back of a pedestrian crosswalk.
12. Construct a curb ramps a minimum of 4 feet wide. Width may exceed 48".
13. Construct the running slope of the ramp at a maximum of 8.33% (1:12).
14. Allowable cross slope on sidewalks and ramps to be a maximum of 2%.
15. Construct the side flare slope to a maximum of 10% measured along the curb line.
16. Construct the counter-slope of the gutter or street at the base of the curb ramp to a maximum of 5% and maintain a smooth transition.
17. Construct landings for sidewalk at a minimum of 4'x4' with a maximum slope of 2% in any direction. Construct landings for median islands a minimum of 5'x7' with a maximum slope of 2% in any direction.
18. To use a median island as a pedestrian refuge area, median islands will be a minimum of 6 feet wide. Construct median islands to provide passage over or through the island.
19. Small channelization islands that cannot provide a 5'x5' landing at the top of a curb ramp, will be cut through level with the surface of the street.
20. Curb ramps with returned side curbs may be used only where pedestrians would not normally walk across the ramp such as where there the adjacent surface is plantings, other non-walking surface, or the side approach is substantially obstructed.
21. The typical 2'x4' truncated dome pad shall be placed with the short dimension perpendicular to the curb. See curb ramp typical details. Truncated dome pads shall abut the back of the curb (ICC/ANSI A117.1 Fig C406.13.2).
22. Curved truncated dome pads are permitted when ramp width is greater than 4 feet.
23. Color contrast required only when detectable warning plans are employed. (ADA Standards for Accessible Design, section 705, Latest Edition). Recommended Min. light reflectance contrast is 70% (American National Standard ICC/ANSI A117.1 - Standard & Commentary Section 705.3, Latest Edition). Painted surface will not be acceptable. (See note 4).
24. Place a 1/2-inch expansion joint where the concrete curb ramp joins/abuts the curb.
25. Curb ramps through median islands, single ramps at dual crosswalks or limited right-of-way situations will be handled by special details. Consult with the Town Engineer.
26. When construction is on a NCDOT Right-of-Way, construction shall conform to the latest edition of the NCDOT Roadway Standard drawings.
27. Construction of curb ramps shall conform to the latest edition of the ICC/ANSI A117, Chapter 4 Accessible Routes.

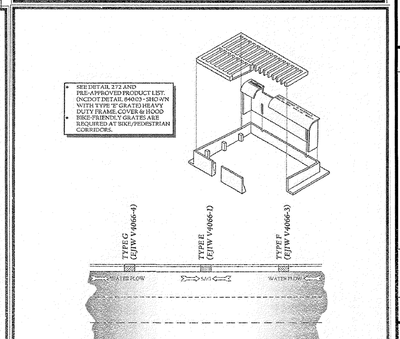
TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STANDARD NOTES FOR CURB RAMPS
Scale: Not To Scale | Detail # 2.13 | Revision Date: October, 2013 | Sheet # 14 of 15

STANDARD NOTES (continued):

28. Curb ramps shall be provided at locations as shown on these plans or as directed by the engineer. Curb ramps shall be located as indicated in these details. However, the location may be adjusted as directed by the engineer where existing light poles, fire hydrants, drop inlets, etc. Affect placement. At other locations, not less than 2 feet of full height curb shall be placed between adjacent ramps.
29. Use air entrained 3000 psi concrete with a sidewalk finish in order to obtain a rough non-skid type surface.
30. Crosswalk widths and configuration vary but must conform to traffic design standards.
31. Place the inside pedestrian crosswalk lines no closer to the intersection than would be established by bisecting the intersection radii, with an allowance of a "6x6" transversing space (2003 ICC/ANSI a117 Commentary Fig. C406.6 & 406.10) in the vehicular travel way when one ramp is installed.
32. Place all pavement markings in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration and the North Carolina Supplement to the MUTCD.
33. For asphalt greenways transition greenway to concrete to enable truncated dome placement.
34. Concrete must come from a ready mix concrete truck to ensure mix meets air entrainment requirements. No site mix or eskrete mix allowed.

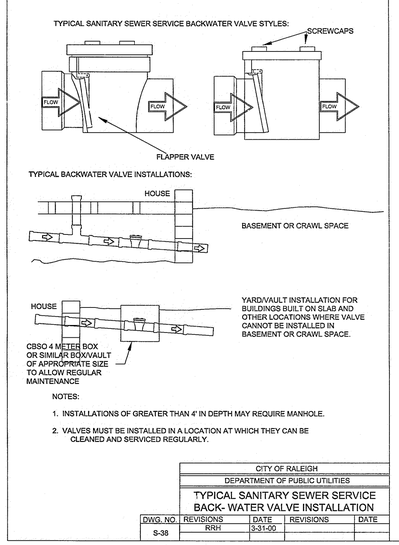


TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STD. C&G INLET W/HOOD DETAIL
Scale: Not To Scale | Detail # 2.50 | Revision Date: October, 2013 | Sheet # 1 of 3



DETAIL SHOWING TYPES OF GRATES TO BE USED ACCORDING TO WATER FLOW

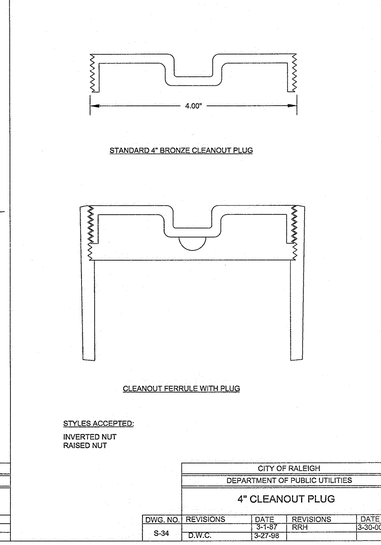
TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STD. C&G INLET W/HOOD DETAIL
Scale: Not To Scale | Detail # 2.50 | Revision Date: October, 2013 | Sheet # 2 of 3



NOTES:
1. INSTALLATIONS OF GREATER THAN 4' IN DEPTH MAY REQUIRE MANHOLE.
2. VALVES MUST BE INSTALLED IN A LOCATION AT WHICH THEY CAN BE CLEANED AND SERVICED REGULARLY.

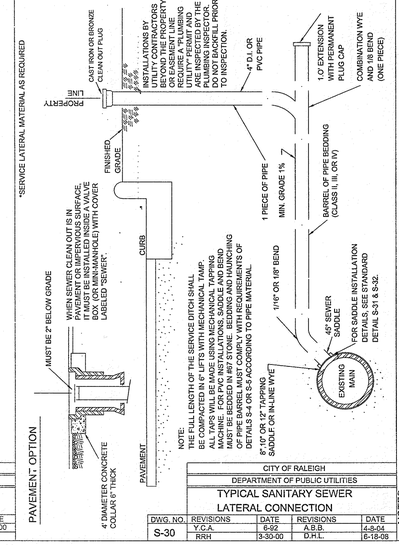
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL SANITARY SEWER SERVICE BACK- WATER VALVE INSTALLATION

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-38	RRH	3-31-00		



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
4" CLEANOUT PLUG

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-34	D.W.C.	3-1-87	RRH	3-30-00
		3-27-98		



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL SANITARY SEWER LATERAL CONNECTION

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
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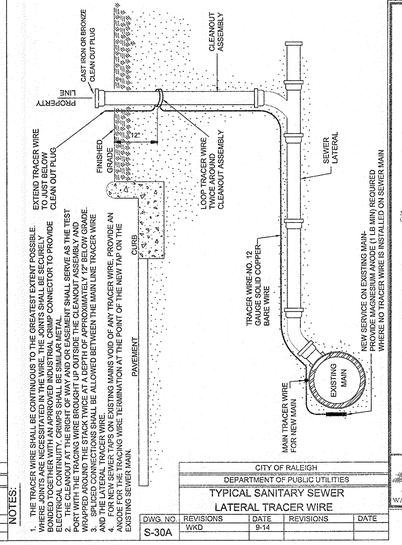
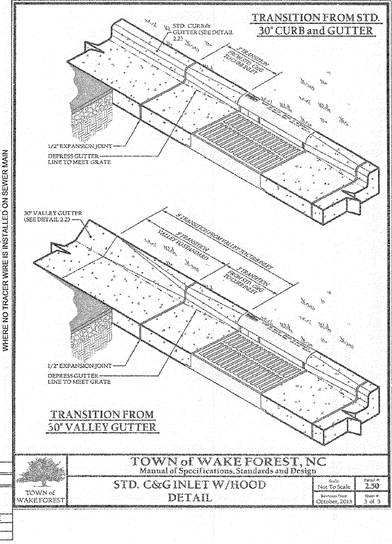
	RRH	3-30-00	D.H.L.	6-18-08



NOTES:
1. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. WIRE SPLICES ARE PERMITTED IN THE WIRE. THE JOINTS SHALL BE SECURELY BONDED TOGETHER WITH AN APPROVED INDUSTRIAL CRIMP CONNECTOR TO PROVIDE A SOLID CONNECTION. SEE DETAIL S-30 FOR DETAILS.
2. THE CLEANOUT AT THE RIGHT OF WAY AND OR EASEMENT SHALL SERVE AS THE TEST POST WITH THE TRACING WIRE BROUGHT UP OUTSIDE THE CLEANOUT ASSEMBLY AND PROVIDED WITH A SOLID COPPER CLAD STEEL WIRE TRACER WIRE TERMINATION.
3. SPLICED CONNECTIONS SHALL BE ALLOWED BETWEEN THE MAIN LINE TRACER WIRE AND THE SERVICE LATERAL.
4. FOR NEW SERVICE TAPS ON EXISTING MAINS VOID OF ANY TRACER WIRE, PROVIDE AN ANODE FOR THE TRACING WIRE TERMINATION AT THE POINT OF THE NEW TAP ON THE EXISTING SEWER MAIN.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL SANITARY SEWER LATERAL TRACER WIRE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-30A	WKD	9-14		



TOWN of WAKE FOREST, NC
Manual of Specifications, Standards and Design
STD. C&G INLET W/HOOD DETAIL
Scale: Not To Scale | Detail # 2.50 | Revision Date: October, 2013 | Sheet # 3 of 3

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION	DATE 11-3-15
ACCESSIBILITY	DATE 11-5-15
PLANNING DEPARTMENT	DATE 10/29/15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

NORTH CAROLINA PROFESSIONAL SEAL 19863 ENGINEER MARTY D. BIZZELL
9/11/15

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	DRAWN BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	5-6-15	TOWF SC COMMENTS	JBDT
		REVISIONS	BY

JOB NO.	DATE	DETAILS
03-1283	9-11-15	DRAWN BY: J. TYLIS

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

SHEET C5.4

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9/11/2015 11:19:18 AM PLOT BY: John R:\2012-03\bnk\2183000 - S Franklin Apts\Construction - New Layout\2183_C5.4.dgn

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

EASC CONSTRUCTION SEQUENCE NOTES:

1. AFTER THE PRECONSTRLCITON MEETING IS HELD. THE CONTRACTOR CAN INSTALL INITIAL EROSION CONTROL MEASURES ONLY. THIS INCLUDES BUT IS NOT LIMITED TO CONSTRUCTION ENTRANCE. SILT FENCE. PERIMETER DIVERSION DITCH. CHECK DAMS (ROCK OR WADDLE TYPE). TREE PROTECTION FENCE. EXISITNG INLET PROTECTION. SKIMMER SEDIMENT BASINS. AND SEDIMENT TRAPS. THEY MAY CLEAR ONLY AS NECESSARY TO INSTALL THESE MEASURES.

2. CONTRACTOR IS RESPONSIBLE FOR EASC WEEKLY INSTALLATION AND MAINTENANCE LOG INCLUDING DATES OF TEMPORARY/PERMANENT GROUND COVER. A RAIN GAGE. COPY OF TOWF SIGNED PLANS. REVISED SIGNED PLANS. NPDES LOG. AND CONSTRUCTION BOX MUST BE PRESENT AND EASILY ACCESSIBLE ONSITE.

3. ONCE MEASURES ARE INSTALLED. CONTRACTOR/FRO TO CALL TOWF FOR AN INITIAL INSPECTION. IF IITE PASSES INSPECTION. A CERTIFICATE OF COMPLIANCE WILL BE ISSUED. CONTRACTOR CAN NOW BEGIN CLEARING. GRUBBING. AND GRADING.

4. CONTRACTOR TO MAINTAIN ACCESS ROAD FOR EMERGENCIES AT ALL TIMES.

5. PHASE PROJECT TO LEAVE OPEN AS LITTLE GROUND AS POSSIBLE.

6. TEMPORARILY SEED. STRAW AND TACK OR HYDROSEED WITHIN 7-10 DAYS OF ANY PHASE OF GRADING. INCLUDING SLOPES. SEED BASINS AND DITCHES IMMEDITEALY AFTER CONSTRUCTION. INCLUDE TABLE:

NPDES Stormwater Discharge Permit for Construction Activities (NCG010) — NCDENR/Division of Water Quality

NEW STABILIZATION TIMEFRAMES
(Effective Aug. 3, 2011)

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
Perimeter dikes, swales, ditches, slopes	7 days	None
High-Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 50' 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' in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones.

7. PRIOR TO REMOVAL OF TEMPORARY MEASURES. TOWN MUST APPROVE REMOVAL. ALL AREAS ABOVE TEMPORARY MEASURE MUST HAVE 85% GROUND COVER.

8. TOWF CONSTRUCTION INSPECTOR WILL EVAULATE THE SITE ATLEAST ONCE A MONTH. A COPY OF THE INSPECTION FORM WILL BE EMAILED TO THE FRO. THE WEEKLY EROSION LOG AND NPDES LOG MUST BE ONSITE AND AVAILABLE FOR REVIEW.

9. IF THE SITE IS FOUND OUT OF COMPLIANCE A NOTICE OF VIOLATION WILL BE ISSUED GIVING THE CONTRACTOR/FRO 7 WORKING DAYS TO REMEDY THE PROBLEM. IF THE SITUATION IS NOT RESOLVED WITHIN THE TIME PERIOD A FINE MAY BE ISSUED.

10. IF SEDIMENT LEAVES THE SITE A FINE MAY BE ISSUED UP TO $5.000 PER DAY PER VIOLATION. IF SEDIMENT ENTERS A BUFFER. STREAM. OR WETLAND NCDWQ WILL BE NOTIFIED. THEY MAY ISSUE FINES UP TO $25.000 PER DAY PER VIOLATION.

11. CALL THE TOWN UPON COMPLETION FOR A FINAL EROSION INSPECTION. A PUNCHLIST MAY BE GENEREATED ADDRESSING ANY REMAINING ITEMS. THERE MUST BE 85% GROUNDCOVER ON THE ENTIRE SITE PRIOR TO A CERTIFICATE OF OCCUPANCY. IF THE SITE IS FOUND TO BE IN COMPLIANCE AN EROSION CERTIFICATE OF COMPLETION WILL BE ISSUED.

EROSION PERMIT NOTES:

1. A LAND DISTURBING (EASC) PERMIT IS REQUIRED FOR PROJECTS OVER 0.50 ACRE. IF MULTIPLE LOTS WITH LAND DISTURBANCE OVER 0.50 ACRE TOTAL ARE EITHER CONTIGUOUS OR NONCONTIGUOUS IN THE SAME SUBDIVISION. BEING TAKEN DOWN BY THE SAME BUILDER/OWNER . A LAND DISTURBING PERMIT IS REQUIRED. THE COST OF THE PLAN REVIEW AND PERMIT IS $400/ACRE ROUNDED UP (1.1 ACRES = 2 ACRES @ $400/ACRE = $800).

2. IF ADDITIONAL ACREAGE IS ADDED TO AN EXISTING PERMIT REVISED FORMS. PLANS. AND ANY ADDITIONAL FEES MUST BE SUBMITTED.

3. IF OWNERSHIP OF A PROPERTY HAS CHANGED A REVISED FRO MUST BE SUBMITTED.

4. IF A PROPERTY IS TAKEN OVER BY THE BANK. THE BANK SHALL CONTACT THE TOWN AND REPAIR ALL EROSION CONTROL MEASURES TO TOWN/NCDENR STANDARDS. THEY SHALL ALSO SUBMIT A NEW FRO FORM.

5. IF A PROJECT IS NOT COMPLETE WITHIN TWO YEARS. THE PLANS MUST BE RENEWED AT $250/ACRE. A REVISED SET OF PLANS MAY BE SUBMITTED IF ACREAGE HAS ALREADY BEEN DEVELOPED AND A CERTIFICATE OF OCCUPANY HAS BEEN ISSUED.

6. AN EROSION PRECONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF WAKE FOREST PRIOR TO START OF ANY WORK. INCLUDING INSTALLATION OF EROSION CONTROL MEASURES. DEMOLITION. CUTTING TREES. AND GRUBBING. CALL ENGINEERING AT (919) 435-9443 TO SET UP A MEETING. ALL PLANS MUST BE SIGNED AND COPIES RETURNED BACK TO THE TOWN 1 WEEK PRIOR TO PRECONSTRUCTION MEETING.

7. THE FRO. GENERAL CONTRACTOR. GRADING COMPANY. AND EROSION CONTROL INSTALLER MSUT BE PRESENT AT THE PRECONSTRUCITON MEETING.

8. THE EASC PERMIT AND NPDES GENERAL STORMWATER PERMIT WILL BE GIVEN OUT AT THIS MEETING.

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

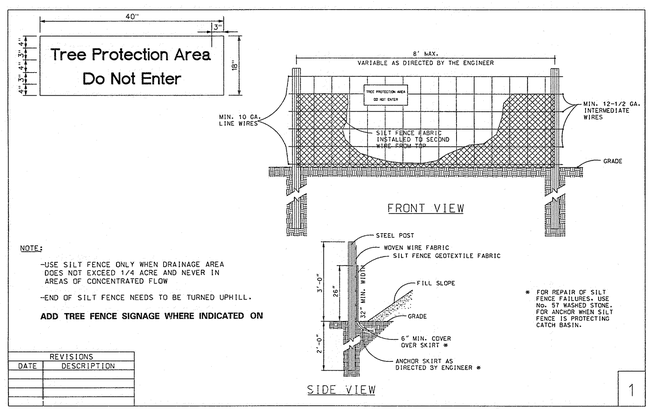
* APPLY: AGRICULTURAL LIMESTONE - 3 TONS/ACRE
FERTILIZER - 10 - 10 - 10 ANALYSIS ATB00 - 1,000 LBS./ACRE
SUPERPHOSPHATE - 500 LBS./ACRE OF 20% ANALYSIS SUPERPHOSPHATE
MULCH - 2 TONS (APPROX. 80 BALES) SMALL GRAIN STRAW/ACRE
ANCHOR - TACK WITH LIQUID ASPHALT AT 400 GALLONS/ACRE OR EMULSIFIED ASPHALT AT 300 GALLONS/ACRE.

PERMANENT SEEDING SCHEDULE

DATE	TYPE	PLANTING RATE
AUG. 15 - NOV. 1	TALL FESCUE	300 LBS./ACRE
NOV. 1 - MAR. 1	TALL FESCUE & ABRUZZI RYE	300 LBS./ACRE 25 LBS./ACRE
MAR. 1 - APR. 15	TALL FESCUE	300 LBS./ACRE
APR. 15 - JUN. 30	HULLED COMMON BERMUDAGRASS	25 LBS./ACRE
JUL. 1 - AUG. 15	TALL FESCUE AND ***BROWNTOP MILLET ***OR SORGHUM- SUDAN HYBRIDS	125 LBS./ACRE 35 LBS./ACRE 30 LBS./ACRE
	SLOPES (3:1 TO 2:1)	
MAR. 1 - JUN. 1	SERICEA LESPEDEZA (SCARIFIED) AND	50 LBS./ACRE
MAR. 1 - APR. 15	ADD TALL FESCUE	120 LBS./ACRE
MAR. 1 - JUN. 30	OR ADD WEEPING LOVEGRASS	10 LBS./ACRE
MAR. 1 - JUN. 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS./ACRE
JUN. 1 - SEP. 1	***TALL FESCUE AND ***BROWN MILLET ***OR SORGHUM- SUDAN HYBRIDS	120 LBS./ACRE 35 LBS./ACRE 30 LBS./ACRE
SEP. 1 - MAR. 1	SERICEA LESPEDEZA (HULLED-UNSCARIFIED) AND TALL FESCUE	70 LBS./ACRE 120 LBS./ACRE
NOV. 1 - MAR. 1	ADD ABRUZZI RYE	25 LBS./ACRE

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS. OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.



NOTE:

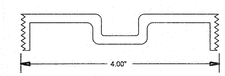
-USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW

-END OF SILT FENCE NEEDS TO BE TURNED UPHILL.

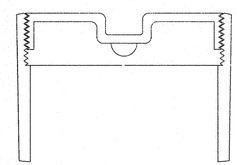
ADD TREE FENCE SIGNAGE WHERE INDICATED ON

REVISIONS	
DATE	DESCRIPTION

1



STANDARD 4" BRONZE CLEANOUT PLUG



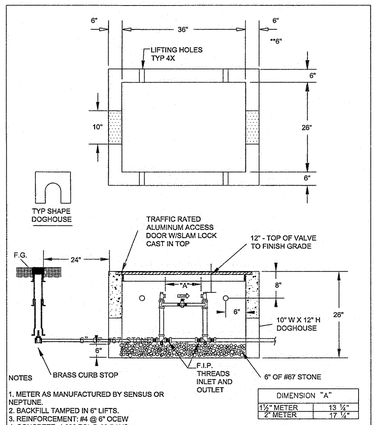
CLEANOUT FERRULE WITH PLUG

STYLES ACCEPTED:

INVERTED NUT
RAISED NUT

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
4" CLEANOUT PLUG

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-34	D.W.C.	3-1-67 3-27-98	RRH	3-30-00



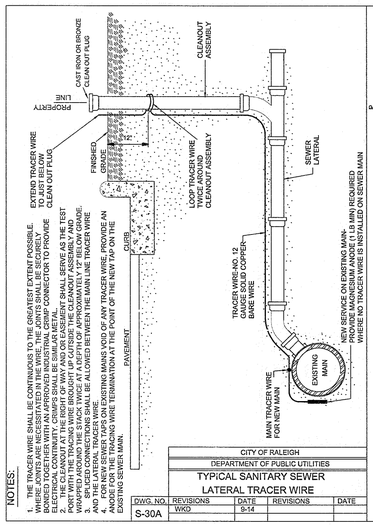
1. METER AS MANUFACTURED BY SENSUS OR NEPTUNE.
2. BACKFILL TAMPED IN 6" LIFTS.
3. REINFORCEMENT: #4 @ 6" OCEW
4. CONCRETE: 4,000 PSI @ 28 DAYS
5. ALL RPZ BACKFLOW PREVENTION DEVICES MUST BE INSTALLED PRIOR TO METER BEING SET.
6) ALL COPPER SETTERS ARE TO HAVE A BALL TYPE SHUT OFF VALVE ON BOTH SIDES OF COPPER SETTER WITH HIGH RISE BYPASS THA IS MANUFACTURED BY FORD, MUELLER, OR AY McDONALD. (NO EXCEPTIONS)

DIMENSION "A"	
1½" METER	13 ½"
2" METER	17 ½"

** TRAFFIC RATED VAULT WALL THICKNESS

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL 1 1/2"- 2" WATER METER BOX INSTALLATION

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-31	A.B.B. D.H.L.	8-17-04 6-18-08	J.P.S.	11-4-10

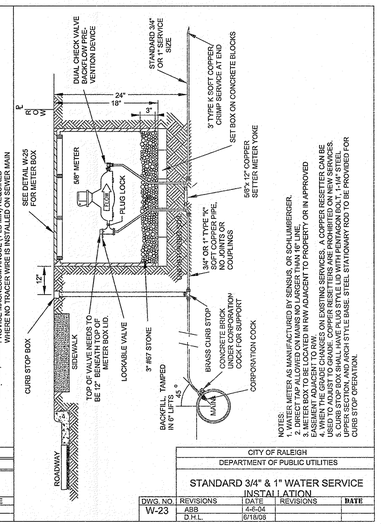


NOTES:

1. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. WHERE JOINTS ARE REQUIRED AFTER THE WIRE, THE JOINTS SHALL BE TO PROVIDE ELECTRICAL CONTINUITY. CRIMPS SHALL BE SIMILAR METAL.
2. WIRE SHALL BE 14 AWG COPPER WIRE. CLEANOUT ASSEMBLY SHALL SERVE AS THE TEST PORT WITH THE TRACING WIRE BROUGHT UP (LATERAL THE CLEANOUT ASSEMBLY AND 12" COVERED WITH 6" OF CRUSHED STONE. CLEANOUT ASSEMBLY TO BE FLUSH WITH GROUND.
3. SPLICED CONNECTIONS SHALL BE ALLOWED BETWEEN THE MAIN LINE TRACER WIRE AND THE LATERAL TRACER WIRE.
4. DAMAGE TO TRACER WIRE DURING EXISTING MAINS VOID OF ANY TRACER WIRE. PROVIDE AN ANODE FOR THE TRACING WIRE TERMINATION AT THE POINT OF THE NEW TAP ON THE EXISTING SEWER MAIN.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL SANITARY SEWER LATERAL TRACER WIRE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-30A	WKD	9-14		



NOTES:

1. WATER METER AS MANUFACTURED BY SENSUS, OR SCHLUMBERGER.
2. 3/4" TYPE K SOFT COPPER TUBING MAY BE USED FOR 3/4" SERVICE.
3. METER BOX TO BE LOCATED IN R/W ADJACENT TO PROPERTY OR IN APPROVED EASEMENT ADJACENT TO ROADWAY.
4. WHEN THE GRADE CHANGES ON EXISTING SERVICES. A COPPER RESETTER CAN BE USED TO ADJUST TO GRADE. COPPER RESETTERS ARE PROHIBITED ON NEW SERVICES.
5. CONCRETE BLOCKS SHALL BE USED TO SUPPORT METER BOX. PLACE BLOCKS UNDER UPPER SECTION, AND ARCH STYLE BASE. STEEL STATIONARY ROD TO BE PROVIDED FOR CURB STOP OPERATION.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD 3/4" & 1" WATER SERVICE INSTALLATION

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-23	ABB D.H.L.	4-6-04 6/18/09		

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE 11/2/15
PUBLIC WORKS DEPARTMENT	DATE 11/4/15
EROSION AND SEDIMENT CONTROL	DATE 11-2-15
FIRE PREVENTION N/A	DATE
ACCESSIBILITY	DATE 11-5-15
PLANNING DEPARTMENT	DATE 10/29/15
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT N/A	DATE
URBAN FORESTER	DATE

Additional details to be included in set including but not limited to
W- 2,3,4,5,6,7,9,10,12,14,15,24, 25,26,27,40
S- 4,5,20,20A,23,28,29,31,32
-BB, 10/29/15

NORTH CAROLINA PROFESSIONAL SEAL 19863 ENGINEER MARTY D. BITTLE
9/11/15

SCALE IN FEET
0 15 30 60 90 120

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	9-9-15	TOWF & COR COMMENTS	JCT
1	7-30-15	TOWF COMMENTS	JCT

REVISIONS

JOB NO.	DATE	DRAWN BY
03-12183	9-11-15	J.TYLIS

DETAILS

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C5.5

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

9/11/2015 11:20:48 AM PLOT BY:john R:\2012-03\jobs\12183\DR - S Franklin Apts\Construction - New Layout\12183.C5.5.dgn

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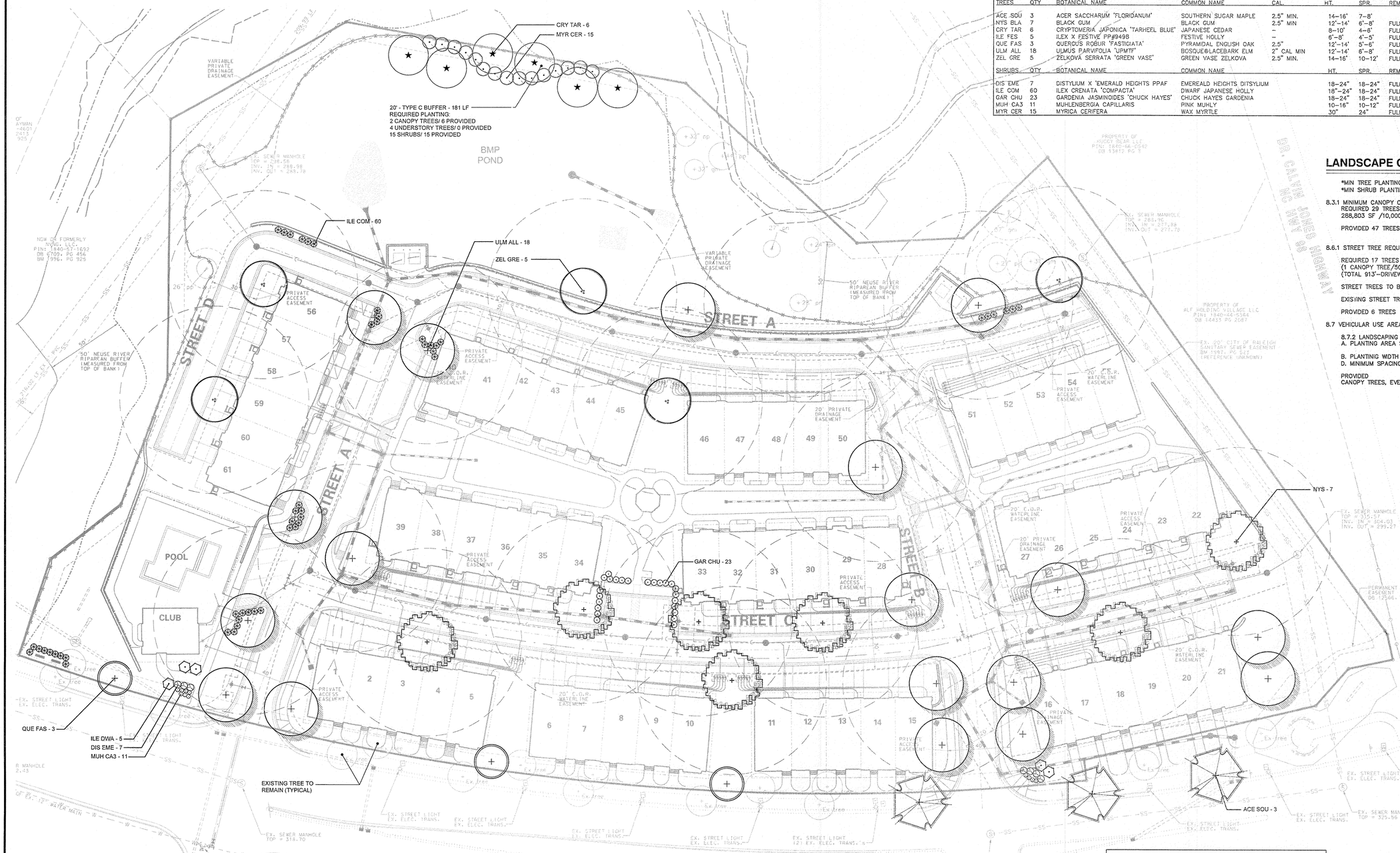

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CAL.	HT.	SPR.	REMARKS
ACE SOU	3	ACER SACCHARUM 'FLORIDANUM'	SOUTHERN SUGAR MAPLE	2.5" MIN.	14–16'	7–8'	
NYS BLA	7	BLACK GUM	BLACK GUM	2.5" MIN	12'–14'	6'–8'	FULL HEAD. MATCHED
CRY TAR	6	CRYPTOMERIA JAPONICA "TARHEEL BLUE'	JAPANESE CEDAR	–	8–10'	4–6'	FULL, MATCHED SPECIMENS
ILE FES	5	ILEX X FESTIVE PP#3498	FESTIVE HOLLY	–	6'–8'	4'–5'	FULL, MATCHED
QUE FAS	3	QUERCUS ROBUR 'FASTIGIATA'	PYRAMIDAL ENGLISH OAK	2.5"	12'–14'	5'–6'	FULL, MATCHED
ULM ALL	18	ULMUS PARVIFOLIA 'UPMTF'	BOSQUE®LACEBARK ELM	2" CAL MIN	12'–14'	6'–8'	FULL, MATCHED
ZEL GRE	5	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2.5" MIN.	14–16'	10–12'	FULL, MATCHED
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**		**HT.**	**SPR.**	**REMARKS**
DIS EME	7	DISTYLIUM X 'EMERALD HEIGHTS PPAF	EMERALD HEIGHTS DITSYLIUM		18–24"	18–24"	FULL
ILE COM	60	ILEX CRENATA 'COMPACTA'	DWARF JAPANESE HOLLY		18"–24"	18–24"	FULL
GAR CHU	23	GARDENIA JASMINOIDES 'CHUCK HAYES'	CHUCK HAYES GARDENIA		18–24"	18–24"	FULL
MUH CA3	11	MUHLENBERGIA CAPILLARIS	PINK MUHLY		10–16"	10–12"	FULL, 2' OC.
MYR CER	15	MYRICA CERIFERA	WAX MYRTLE		30"	24"	FULL

LANDSCAPE CALCULATIONS

*MIN TREE PLANTING SIZE: 2" CAL
*MIN SHRUB PLANTING SIZE: 18" HT. OR SPR.

8.3.1 MINIMUM CANOPY COVERAGE
REQUIRED 29 TREES
288,803 SF /10,000 SF= 28.8 TREES

PROVIDED 47 TREES

8.6.1 STREET TREE REQUIREMENTS (S. FRANKLIN STREET)

REQUIRED 17 TREES
(1 CANOPY TREE/50 LF: 836/50= 16.72
(TOTAL 913'–DRIVEWAY 77' = 836 LF)

STREET TREES TO BE REMOVED: 4 TREES

EXISTING STREET TREES TO REMAIN 15 TREES

PROVIDED 6 TREES

8.7 VEHICULAR USE AREA

8.7.2 LANDSCAPING –
A. PLANTING AREA SIZE – 1 CANOPY TREE = 400 SF PLANTING AREA
2 CANOPY TREE = 700 SF PLANTING AREA
B. PLANTING WIDTH – 9' MIN.
D. MINIMUM SPACING – ALL SPACES WITHIN 60' OF A CANOPY TREE

PROVIDED
CANOPY TREES, EVERGREEN SHRUBS AND GROUNDCOVER

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

	11/2/15
ENGINEERING DEPARTMENT	DATE
	11/4/15
PUBLIC WORKS DEPARTMENT	DATE
	11-2-15
EROSION AND SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
	11-5-15
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
	11/4/15
URBAN FORESTER	DATE

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT #823 PRELIMINARY STAMP
09-09-15

SCALE IN FEET
0 15 30 60 90 120

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	09-09-15	PER TOWF COMMENTS	GW
1	07-30-15	PER TOWF COMMENTS	GW

REVISIONS

JOB NO. 03-12183	DATE 06-18-15
DRAWN BY GPW	CHK BY: GPW

LANDSCAPE PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWNHOMES
FRANKLIN STREET
TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET L1.1

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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Figure 5.5 – Typical Tree Planting Detail

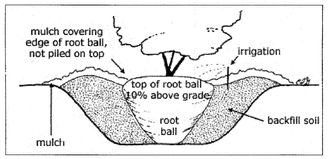


Figure 5.6 – Preferred Staking Methods

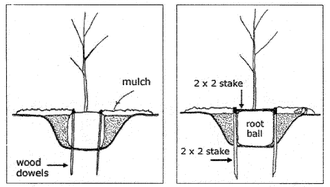
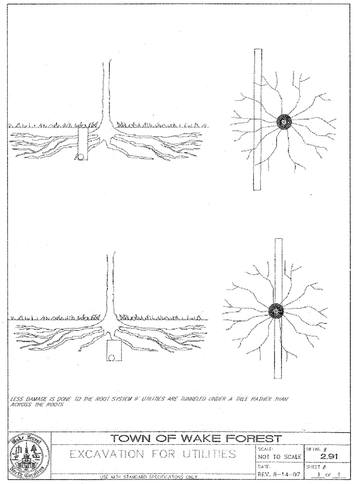


Figure 5.3 – Excavation for Utilities



5.3 PLANTING DESIGN AND INSTALLATION

Figure 5.1 – Critical Root Zone

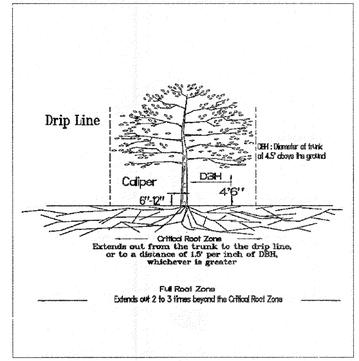


Figure 5.4 – Tree Surgery Detail

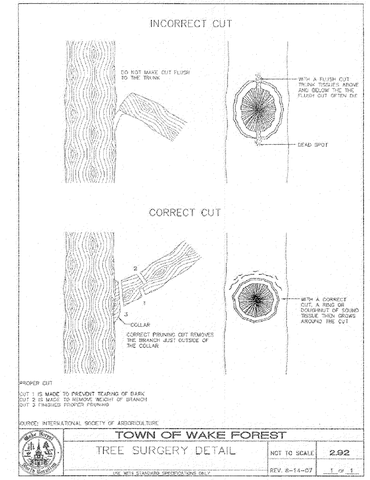
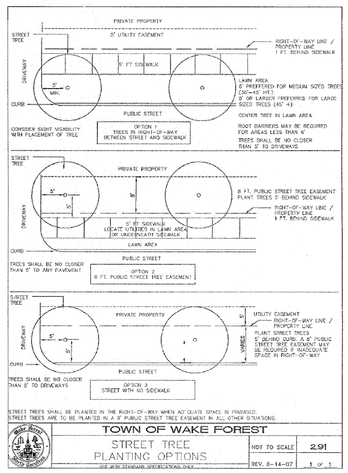


Figure 5.8 – Street Tree Planting Options



5 LANDSCAPE DESIGN & INSTALLATION
5.3 PLANTING DESIGN AND INSTALLATION

Figure 5.3 – Excavation for Utilities

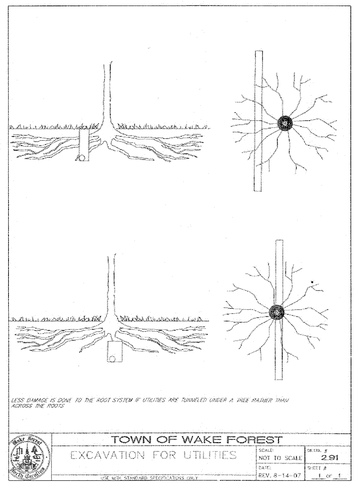


Figure 5.2 – Standard Tree Protection Detail

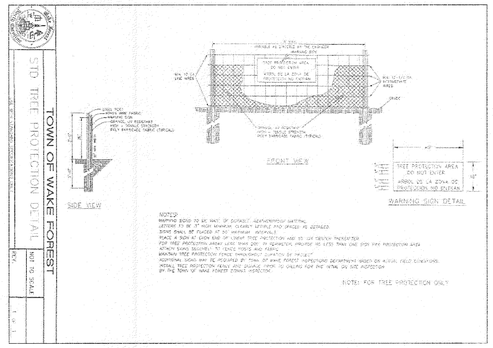
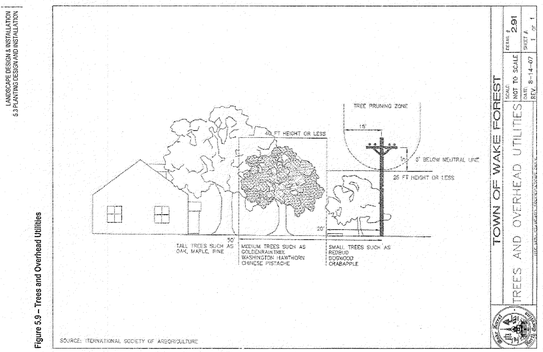


Figure 5.9 – Trees and Overhead Utilities



LANDSCAPE MAINTENANCE NOTES (8.9.2):

It shall be the responsibility of the property owner(s) or assigned caretakers to ensure that all regulated landscaped areas, buffers, fencing, and tree save areas are installed, preserved, and maintained in good growing conditions, appearance, and usefulness. Damage and disturbances to these areas shall result in vegetation replacement and/or fines and other penalties. Preservation and maintenance shall include:

1. Any dead, unhealthy, or missing vegetation, shall be replaced with vegetation that conforms to the standards of this section and the approved site and/or subdivision plan.

2. All required buffers, streetyards, vehicular use areas, tree save areas and other landscaped areas shall be free of refuse and debris, shall be treated for pest/ diseases in accordance with the approved site and/or subdivision plan, and shall be maintained as to prevent mulch, straw, dirt, or other materials from washing onto streets and sidewalks.

3. The owner(s) shall take actions to protect all plant material from damage during all facility and site maintenance operations. All plant material must be maintained in a way that does not obstruct sight distances at roadways and intersections, obstruct traffic signs or devices, and interfere with the use of sidewalks or pedestrian trails. Plant material, whether located within buffers, tree save areas, or within planted areas (required by the site and/ or subdivision plan) shall not be removed, damaged, cut or severely pruned so that their intended form is impaired. Shrubs within vehicular use areas, streetyards, and street fronts may be pruned, but must maintain at least 3 feet in height.

4. In the event that existing required vegetation located within any buffers, tree save areas, streetyards, vehicular use or other landscape areas poses an immediate or imminent threat to improved structures on private property or public property, excessive pruning or removal of the vegetation may be allowable provided authorization is obtained from the Administrator, and the performance standard of the landscape area is maintained consistent with this section. Replacement vegetation may be required as a condition of the permit.

5. In the event that any vegetation or physical element functioning to meet the standards of this section is severely damaged due to an unusual weather occurrence or natural catastrophe, or other natural occurrence, the owner may be required to replant if the requirements of the section are not being met. Replacement vegetation shall conform to the standards of this section and the approved site and/ or subdivision plan.

GENERAL NOTES

1. A/C UNITS, TRANSFORMERS AND OTHER MECHANICAL OR UTILITY EQUIPMENT, NOT SHOWN ON THE PLAN, SHALL BE SCREENED FROM VIEW EITHER BY ADJUSTING PLANTINGS SHOWN IN CLOSE PROXIMITY TO EQUIPMENT OR BY THE ADDITION OF WAX MYRTLES @ 24" HT, 5' OC (SEE GENERAL NOTES FOR EQUIPMENT ACCESSIBILITY AND PLANTING PROXIMITY, ETC.). DUMPSTER IS SCREENED FROM OFF-SITE VIEWS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO PLANTING.
3. APPLY 3" AVERAGE THICKNESS OF SHREDDED HARDWOOD MULCH EXTENDING 12" BEYOND THE EDGE OF THE PLANTING PIT OR TRENCH. DO NOT PLACE MULCH WITHIN THREE INCHES OF TRUNKS OR STEMS. ROOT FLARE MAY BE VISIBLE AT THE BASE OF ALL PLANT MATERIAL.
4. VERIFICATION OF TOTAL QUANTITIES AS SHOWN IN THE PLANT LIST AND ON THE PLAN SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY DISCREPANCIES BETWEEN PLANT LIST AND PLANTING PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
5. ALL TREES, SHRUBS, GROUNDCOVER, ETC. SHALL CONFORM TO ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
6. ALL ROOTBALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO PLANTING.
7. B&B AS LISTED UNDER "ROOT" IN THE PLANT LIST INDICATES BALLED & BURLAPPED.
8. ALL PLANTS/PLANTINGS SHALL BE MULCHED IMMEDIATELY AFTER PLANTING AND WATERED.
9. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THEY BORE TO PREVIOUS EXISTING GRADE (UNLESS OTHERWISE NOTED).
10. ALL TREES AND SHRUBS SHALL REQUIRE MULCH RINGS AT THEIR BASE IF LEFT WITHIN LAWN AREAS.
11. MULCH EDGES AND PROPOSED PLANTINGS SHALL NOT DISTURB ANY EXISTING GROUPS OF TREES TO REMAIN. EDGES ARE SHOWN FOR APPROXIMATION ONLY, BUT ARE TO INDICATE SMOOTH, CLEAN CURVES.
12. CULVERTS, RIP-RAP STRUCTURES, AND OTHER STORMWATER DEVICES SHALL BE SCREENED WITH EVERGREEN SHRUBS. IF STRUCTURES ARE NOT SHOWN ON THE PLAN, INSTALL WAX MYRTLES @ 24" HT. – 5' OC.
13. A 2' BUMPER OVERHANG, FROM THE BACK OF CURB, SHALL BE ALLOTTED FOR MATURE SHRUBS.
14. TREE PROTECTION FENCING SHALL BE MAINTAINED UNTIL ALL SITE WORK IS COMPLETED. THE FENCING SHALL BE REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY (C.O.). THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A (C.O.).
15. ALL TREES SHALL BE LOCATED A MINIMUM OF 6' FROM SIDEWALKS.

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	11/4/15 DATE
PUBLIC WORKS DEPARTMENT	11/4/15 DATE
EROSION AND SEDIMENT CONTROL	11-2-15 DATE
FIRE PREVENTION	N/A DATE
ACCESSIBILITY	11-5-15 DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	11/4/15 DATE
URBAN FORESTER	DATE

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL

PRELIMINARY

09-09-15

N

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
2	09-09-15	PER TOWF COMMENTS	GW
1	07-30-15	PER TOWF COMMENTS	GW

REVISIONS

03-12183 | 06-18-15 | GPW
JOB NO. | DATE | DRAWN BY

LANDSCAPE DETAILS

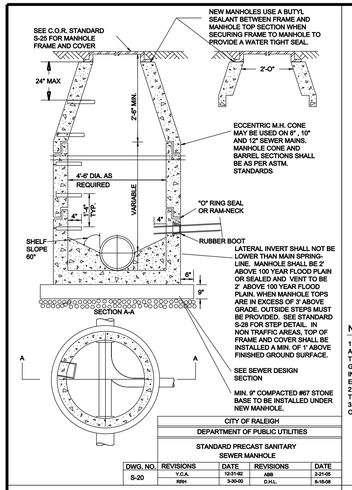
SCALE: N.T.S. | CHK BY:GPW

SHEET NAME

FRANKLIN STREET TOWNHOMES
FRANKLIN STREET
TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

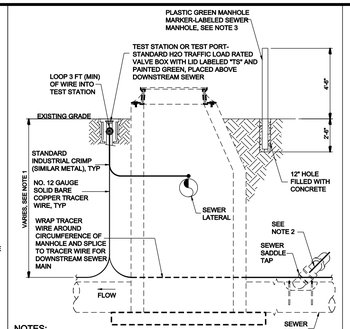
SHEET L1.2

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD PRECAST SANITARY SEWER MANHOLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20	D.W.C.	12-01-92	ABB	2-21-06
	RRH	3-30-00	D.H.L.	6-18-08

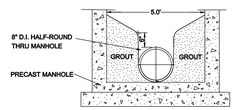


NOTES:

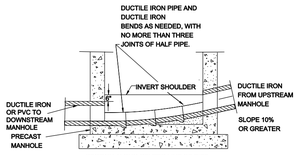
1. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE, FOR GRAVITY MA AND OR LATERAL INSTALLATIONS LESS THAN 8 FT., THE TRACING WIRE SHALL BE ATTACHED TO THE PIPE TRACER WIRE SHALL BE LAID FLAT AND SECURELY AFFIXED TO THE PIPE AT 10 FOOT INTERVALS. FOR GRAVITY MAIN AND OR LATERAL INSTALLATION DEEPER THAN 8 FT., THE TRACING WIRE SHALL BE INSTALLED AT A DEPTH OF 7-8 FT. THE WIRE SHALL BE PROTECTED FROM DAMAGE DURING THE EXECUTION OF THE WORK. NO BREAKS OF CUTS IN THE TRACER WIRE SHALL BE PERMITTED.
2. WHERE LATERAL TAPS ARE MADE BY SERVICE SADDLES, THE TRACER WIRE SHALL NOT BE ALLOWE TO TO BE PLACED BETWEEN THE SADDLE AND MAIN.
3. MANHOLE MARKERS SHALL BE PLACED ADJACENT TO MANHOLES AT THE DISCRETION OF OWNER O OWNER'S REPRESENTATIVE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
GRAVITY SEWER MAIN TRACER WIRE AND MANHOLE MARKER

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20A	MRD	08-14		



SECTION AT RIGHT ANGLE TO CENTER LINE OF PIPE

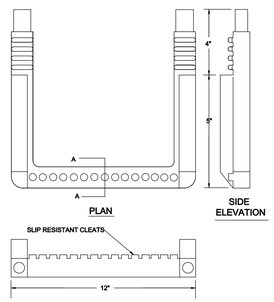


SECTION ALONG CENTER LINE OF PIPE

NOTE:
NO HORIZONTAL ALIGNMENT CHANGE CAN BE MADE WITH IN THIS MANHOLE TYPE. USE ON GRADES 10% OR GREATER.

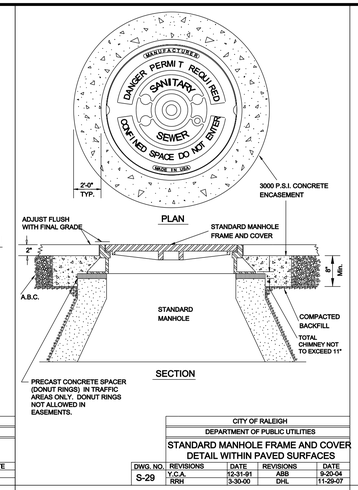
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD HIGH VELOCITY MANHOLE INVERT

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-23	Y.C.A.	3-1-87	RRH	3-30-00
		12-31-91		



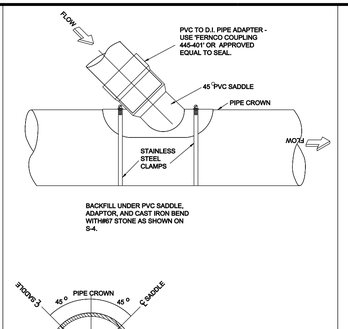
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD SLIP RESISTANT MANHOLE STEP DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-28	RRH	3-30-00		



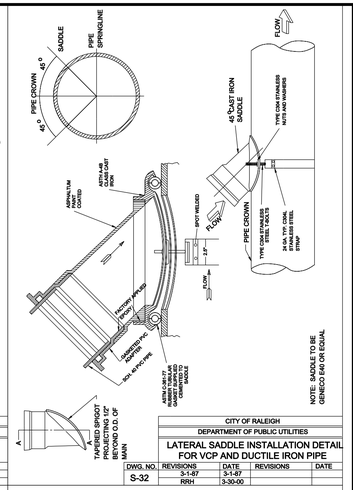
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD MANHOLE FRAME AND COVER DETAIL WITHIN PAVED SURFACES

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-29	Y.C.A.	12-31-91	ABB	9-20-04
	RRH	3-30-00	DHL	11-29-07



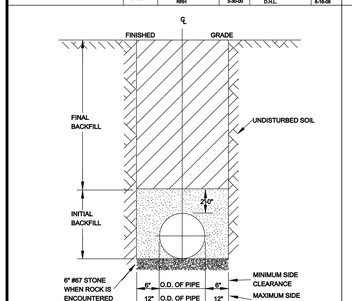
CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
LATERAL SADDLE INSTALLATION DETAIL FOR PVC PIPE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-31	RRH	3-1-87		
		3-30-00		



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
LATERAL SADDLE INSTALLATION DETAIL FOR VCP AND DUCTILE IRON PIPE

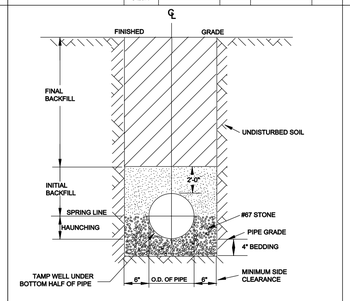
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-32	RRH	3-1-87		
		3-30-00		



NOTES:
1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.
5. ACHIEVE 90% COMPACTION IN NON-TRAFFIC AREAS, AND 95% COMPACTION IN TRAFFIC AREAS.
6. IF IN EASEMENT 4" TOPSOIL, AND 12" CLEAN SELECT FILL MAY BE REQUIRED.
7. NO BOULDERS 8" IN DIAMETER OR GREATER ALLOWED IN FINAL BACKFILL.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TRENCH BOTTOM DIMENSIONS & BACKFILLING REQUIREMENTS FOR DUCTILE IRON

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-4	D.W.C.	9-3-99		
	RRH	3-30-00		

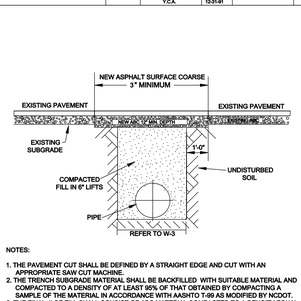


TYPICAL TRENCH BOTTOM DIMENSIONS FOR SDR 35 PVC GRAVITY PIPE

NOTES:
1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

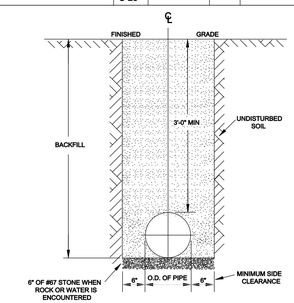
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-5	TO NOTES	3-1-87	D.W.C.	9-3-99
		7-2-92	RRH	3-30-00



NOTES:
1. THE PAVEMENT CUT SHALL BE DEFINED BY A STRAIGHT EDGE AND CUT WITH AN APPROPRIATE SAW CUT MACHINE.
2. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.
3. THE FINAL 1' OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-80 AS MODIFIED BY NCDOT.
4. THE ENTIRE THICKNESS/ VERTICAL EDGE OF CUT SHALL BE TACKED.
5. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 3" THICK.
6. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH LEVEL PATCH.
7. REFER TO CITY OF RALEIGH STANDARDS FOR TRENCHES AND PIPE BEDDING, W-3. FOR ADDITIONAL DETAILS.
8. NO HAND PATCHING ALLOWED.
9. PAVEMENT CUTS WITHIN NCDOT ROW SHALL CONFORM TO THE APPROVED ON SITE ENCROACHMENT PERMIT.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD ASPHALT PAVEMENT PATCH DETAIL

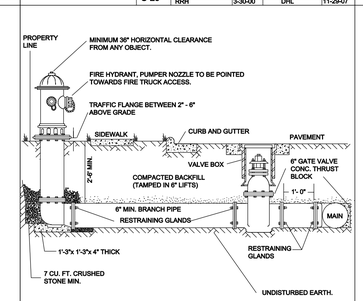
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-2	RRH	3-31-00	A.B.B.	4-16-04
	D.W.C.	11-1-99	J.P.S.	10-29-10



NOTES:
1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS.
5. ACHIEVE 95% COMPACTION IN BACKFILL.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TRENCH BOTTOM DIMENSIONS & BACKFILLING REQUIREMENTS FOR DUCTILE IRON

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-3	D.W.C.	9-3-99	ABB	2-15-05
	RRH	3-31-00	J.P.S.	10-29-10

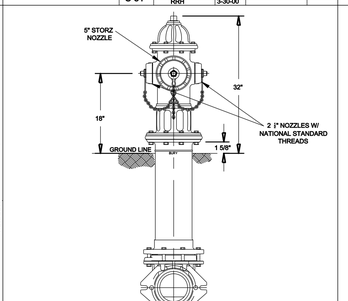


NOTES:
1. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, M&H, WATEROUS, CLOW, EAST JORDAN IRON WORKS, OR US PIPE.
2. BRANCH PIPE SHALL BE DUCTILE IRON AWWA C150-96
3. 6" GATE VALVE SHALL BE AWWA C500-86 OPEN LEFT
4. STEEL RODS AND BOLTS SHALL BE 2" HOT DIPPED GALVANIZED
5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION
RODS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CAGE SHALL BE INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.
FIRE HYDRANTS TO BE LOCATED IN ROW OR 2 FOOT EASEMENT ADJACENT TO ROW

ANYTIME SITE WORK, CONSTRUCTION, ROAD WORK, OR ANY OTHER WORK CHANGES THE GRADE OF THE FIRE HYDRANT, THE PERSON RESPONSIBLE FOR THE WORK IS RESPONSIBLE FOR ADJUSTING THE FIRE HYDRANT TO STAY WITHIN COMPLIANCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD FIRE HYDRANT INSTALLATION DETAIL

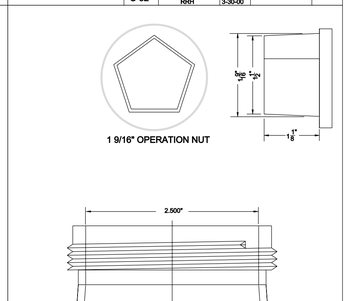
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-4	ABB	4-6-04	PAP	2/1/09
	DHL	2/14/08		



NOTES:
1. RALEIGH PUBLIC HYDRANTS SHALL BE PAINTED SOLID RED.
2. KNIGHTDALE, PUBLIC HYDRANTS SHALL BE PAINTED SOLID RED.
3. ZEBULON PUBLIC HYDRANTS SHALL BE PAINTED RED W/ SILVER BONNETS AND OPERATING NUTS.
4. WENDELL PUBLIC HYDRANTS SHALL BE PAINTED SAFETY YELLOW WITH HIGH REFLECTIVE ALUMINUM SILVER CAPS, BONNETS, AND OPERATING NUTS
4. WAKE FOREST AND GARNER PUBLIC AND PRIVATE HYDRANTS TO BE PAINTED SAFETY YELLOW W/SILVER CAPS AND OPERATING NUTS.
5. ROLESVILLE PUBLIC HYDRANTS SHALL BE PAINTED SOLID RED.
6. OPERATING NUTS NUTS ON HYDRANTS CONNECTED TO PUBLIC MAINS 12" OR LARGER SHALL BE PAINTED BLACK. OPERATING NUTS ON HYDRANTS ANY OTHER SIZE SHALL BE PAINTED SILVER.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
RALEIGH, GARNER, KNIGHTDALE, ROLESVILLE, WAKE FOREST, WENDELL & ZEBULON
STANDARD FIRE HYDRANT WITH5" STORZ PUMPER NOZZLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-5	RRH	3-1-87	ABB	7-21-06
		3-31-00	DHL	2-18-08



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
HYDRANT OPERATING NUT AND 2 1/2" OUTLET THREADS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-6	RRH	3-31-	DHL	2-18-08
	A.B.B	4-16-04	J.P.S	11-1-10

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE
PUBLIC WORKS DEPARTMENT	DATE
EROSION AND SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER MARTY D. BIZZELL
11/6/15

BNK
BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

03-14149	11-6-15	J. TYUS
JOB NO.	DATE	DRAWN BY

DETAILS

SCALE:

SHEET C5.6

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

11/6/2015 4:29:50 PM PLOT BY:john R:\2012-03jobs\#2183GOR - S Franklin Apts\Construction - New Layout\2183.C5.6.dgn

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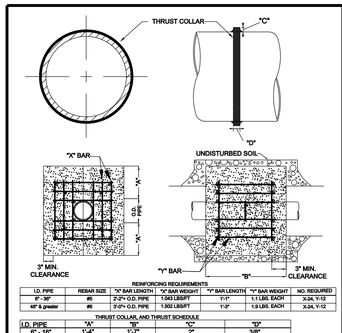


REINFORCING REQUIREMENTS

I.D. PIPE	REBAR SIZE	"X" BAR LENGTH	"X" BAR WEIGHT	"Y" BAR LENGTH	"Y" BAR WEIGHT	NO. REQUIRED
6" - 36"	#6	2'-0" O.D. PIPE	1.043 LBS/FT	1'-1"	1.1 LBS. EACH	X-24, Y-12
48" & greater	#6	2'-0" O.D. PIPE	1.502 LBS/FT	1'-3"	1.9 LBS. EACH	X-24, Y-12

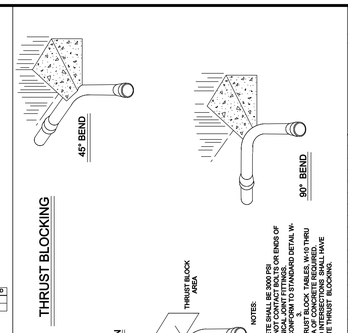
THRUST COLLAR, AND THRUST SCHEDULE

I.D. PIPE	"A"	"B"	"C"	"D"
6" - 16"	1'-4"	1'-7"	2"	3/8"
20" - 24"	1'-4"	1'-7"	3"	1/2"
30" - 36"	1'-4"	1'-7"	4"	5/8"
48" & greater	1'-8"	1'-9"	6"	7/8"

NOTES:
1. SEE STANDARD DETAIL W-9 FOR THRUST BLOCK LOCATIONS.
2. CONCRETE SHALL BE 3000 PSI AND TRANSIT MIXED.
3. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
4. TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH AS SHOWN ON STANDARD DETAIL W-3.
5. BACKFILL TAMPED IN 6" LIFTS PER STANDARD DETAIL W-3.
6. THRUST COLLAR MUST BE FACTORY WELDED ON BOTH SIDES ALONG BOTH EDGES OF COLLAR AROUND CIRCUMFERENCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
THRUST BLOCKING DESIGN DATA FOR WATER MAINS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-7	RRH	1-2-00	J.P.S.	15-1-10
	D.H.L.	6-18-08		



NOTES:
1. CONCRETE SHALL BE 3000 PSI
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. TRENCHES SHALL CONFORM TO STANDARD DETAIL W-3.
4. SEE STANDARD THRUST BLOCK TABLES, W-10 THRU W-11, FOR AREA OF CONCRETE REQUIRED.
5. ALL FITTINGS SHALL BE WRAPPED PRIOR TO CONCRETE THRUST BLOCKING.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD THRUST BLOCKING VIEWS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE 3-
W-9	D.W.C.	3-1-		31-00 6
		87 9-	D.H.L.	-18-08

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

BASED ON TEST PRESSURE OF 200 P.S.I.

ALL AREAS GIVEN IN SQUARE FEET.

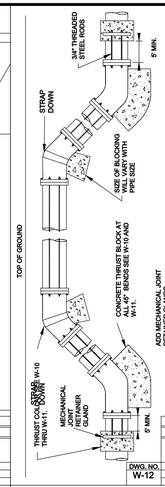
SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	VERY DRY CLAY 4000 LBS/FT²	DRY CLAY 3000 LBS/FT²	MOIST CLAY 2000 LBS/FT²	SOME MOISTURE SANDS	SOME MOISTURE GRAVEL	SOME MOISTURE DRY CLAY	SAND, CONTACT FIRM 4000 LBS/FT²	SAND, CLEAN DRY 3000 LBS/FT²	SOIL 1000 LBS/FT² CONTAMINATED	ROCK, FOOD TO DO LBS/FT²
6"											
11 1/4°	1,108	1	1	1	1	1	1	1	2	1	
22 1/2°	2,207	1	2	2	1	1	1	1	3	1	
45%	4,328	2	3	3	1	1	2	2	5	1	
90%	7,996	2	4	5	1	1	2	2	8	1	
BEND	8,655	2	3	4	1	1	1	2	6	1	
8"											
11 1/4°	1,970	1	1	2	1	1	1	1	2	1	
22 1/2°	3,922	1	2	3	1	1	1	1	4	1	
45%	7,694	2	4	5	1	1	1	2	8	1	
90%	14,215	4	8	9	2	2	2	4	15	2	
BEND	10,053	3	5	6	2	2	2	3	10	1	
12"											
11 1/4°	4,433	2	3	3	1	1	2	5	1		
22 1/2°	8,826	3	5	6	2	2	3	9	1		
45%	17,312	5	9	11	3	3	5	18	2		
90%	31,983	8	16	19	4	4	8	32	4		
BEND	22,619	6	12	14	3	3	6	23	3		
16"											
11 1/4°	7,881	2	4	5	1	1	2	8	1		
22 1/2°	15,691	4	8	10	2	2	4	16	2		
45%	30,779	8	16	19	4	4	8	31	4		
90%	56,861	15	29	35	8	8	15	57	6		
BEND	40,213	10	21	25	5	5	10	41	5		

REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.

USE 6" - 90 BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
THRUST BLOCKING DESIGN QUANTITY TABLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-10	D.W.C.	-25-99		



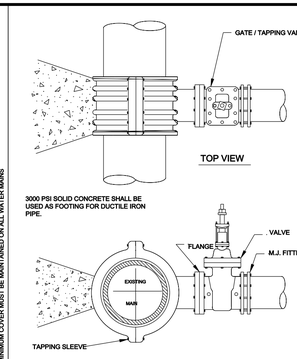
ROD REQUIREMENTS

SIZE OF 45 BEND	STATIC THRUST IN POUNDS	NO. OF RODS REQUIRED
4"	2,328	2
6"	7,694	4
8"	13,682	4
12"	17,312	4
16"	30,779	8
24"	69,252	8

GENERAL NOTES:
1. ALL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. SEE STANDARD REACTION BLOCK TABLES, W-10 AND W-11 FOR AREA OF CONCRETE REQUIRED.
4. MUST USE DUCTILE IRON FITTINGS WHERE NECESSARY.
5. A MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD VERTICAL BEND

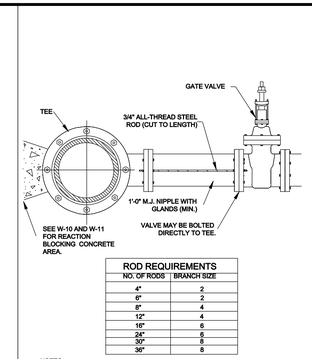
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-12	ABB	4-6-04	J.P.S.	11-1-10
	D.H.L.	6-18-08		



NOTES:
1. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
2. SEE STANDARD REACTION BLOCK TABLES, W-10 AND W-11 FOR AREA OF CONCRETE REQUIRED.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
4" - 24" STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-14	Y.C.A.	12-31-91	RRH	3-31-00
	D.W.C.	9-7-99	J.P.S.	11-1-10



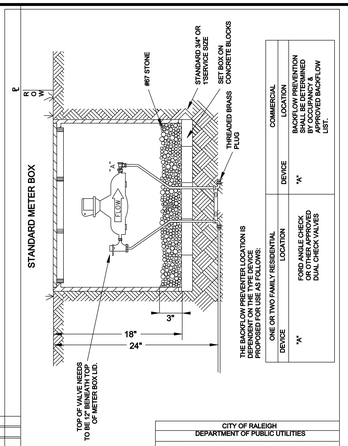
ROD REQUIREMENTS

NO. OF RODS	BRANCH SIZE
4"	2
6"	2
8"	4
12"	4
16"	6
24"	6
30"	8
36"	8

NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. SEE STANDARD THRUST BLOCK TABLES W-10 AND W-11 FOR CONCRETE.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
4. THIS RODDING REQUIREMENT DOES NOT APPLY TO FIRE HYDRANTS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
VALVE RESTRAINT AT TEES AND CROSSES FOR LINES (4"-24")

DWG. NO.	REVISIONS	DATE 3-	REVISIONS	DATE
W-15	RRH	31-00	D.H.L.	6-18-08
	A.B.B.	4-19-04	J.P.S.	11-1-10



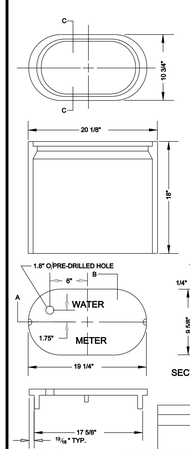
	COMMERCIAL
DEVICE	"A"
LOCATION	BACKFLOW PREVENTION SHALL BE DETERMINED BY CITY OF RALEIGH APPROVED BACKFLOW LIST.

THE BACKFLOW PREVENTED LOCATION IS DEPENDENT ON THE TYPE SERVICE PROPOSED FOR USE AS FOLLOWS:

	ONE OR TWO FAMILY RESIDENTIAL
DEVICE	"A"
LOCATION	FORD ANGLE CHECK VALVE AND FORD DUAL CHECK VALVES

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
ONE OR TWO FAMILY DWELLINGS BACKFLOW PREVENTION/ METER ASSEMBLY INSTALLATION

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-24	Y.C.A.	12-31-91	D.H.L.	6/18/08
	A.B.B.	4-7-04	J.P.S.	11/4/10



SECTION C-C

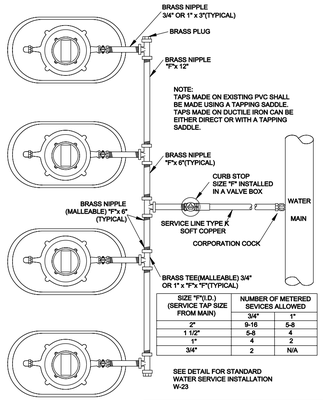
NOTES:
1. COVER WEIGHT: 13 LBS +/- 5%
2. LIDS TO BE COATED WITH BITUMINOUS COAL TAR COATING
3. HOLE SHALL BE FITTED WITH A METAL GROMMET

SECTION B-B

SECTION A-A

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
WATER METER BOX DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-25	D.W.C.	11-3-99	ABB	1-20-05
	RRH	3-31-00	J.P.S.	11-4-10



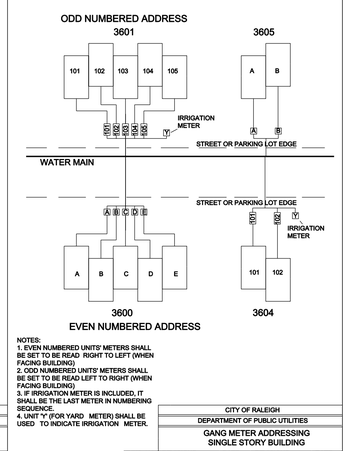
NOTE:
TAPS MADE ON EXISTING PVC SHALL BE MADE USING A TAPPING SADDLE. TAPS MADE ON DUCTILE IRON CAN BE EITHER DIRECT OR WITH A TAPPING SADDLE.

SIZE "P"(I.D.) (SERVICE TAP SIZE FROM MAIN)	NUMBER OF METERED SEVICES ALLOWED	
	3/4"	1"
2"	9-16	5-8
1 1/2"	5-8	4
1"	4	2
3/4"	2	N/A

SEE DETAIL FOR STANDARD WATER SERVICE INSTALLATION W-23

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD GANG METER ASSEMBLY

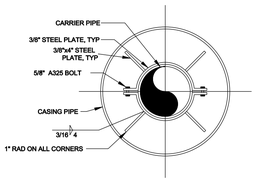
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-26	METERED SERV.	4-1-92	D.W.C.	11-19-99
	Y.C.A.	12-31-91	J.P.S.	11-4-10



NOTES:
1. EVEN NUMBERED UNITS' METERS SHALL BE SET TO BE READ RIGHT TO LEFT (WHEN FACING BUILDING)
2. ODD NUMBERED UNITS' METERS SHALL BE SET TO BE READ LEFT TO RIGHT (WHEN FACING BUILDING)
3. IF IRRIGATION METER IS INCLUDED, IT SHALL BE THE LAST METER IN NUMBERING SEQUENCE.
4. UNIT "Y" (FOR YARD METER) SHALL BE USED TO INDICATE IRRIGATION METER.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
GANG METER ADDRESSING SINGLE STORY BUILDING

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-27	RRH	3-31-00		
	ABB	6-17-04		



NOTE:
1) USE A MINIMUM OF TWO SPIDERS PER PIPE JOINT ONE FOURTH OF THE PIPE JOINT LENGTH IN FROM BOTH THE BELL AND SPIGOT ENDS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
PIPE ALIGNMENT GUIDE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-40	RRH	3-31-00		
	A.B.B.	4-16-04		

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT	DATE
PUBLIC WORKS DEPARTMENT	DATE
EROSION AND SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER MARTY D. BIZZELL
11/6/15

BNK
BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

JOB NO. 03-14149 | DATE 11-6-15 | DRAWN BY J. TYUS

DETAILS

SCALE:

SHEET C5.7

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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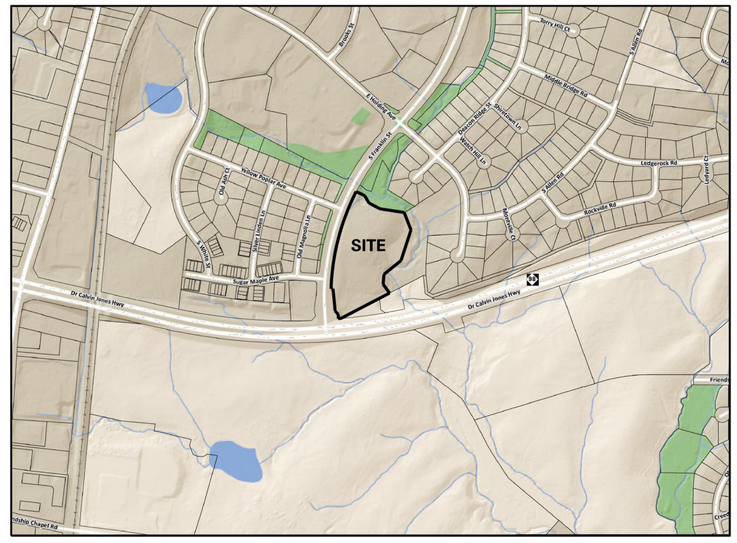
FRANKLIN STREET TOWN HOMES

CONDITIONAL REZONING MASTER PLAN SUBMITTAL
RZ–24–03 /SP–13–03–01
TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SYMBOLS AND ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
ALUM	ALUMINUM
ASSY	ASSEMBLY
B-B	BACK TO BACK
BOA	BLOW-OFF ASSEMBLY
C&G	CURB AND GUTTER
CFS	CUBIC FEET PER SECOND
CI	CURB INLET
C/L	CENTER LINE
CO	CLEAN OUT
COM	COMMUNICATION
CONC	CONCRETE
CT	COURT
CU	COPPER
DCV	DOUBLE CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE
DEFL	DEFLECTION
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DRAIN	DRAINAGE
DR	DRIVE
EASE	EASEMENT
ELEC	ELECTRIC
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FES	FLARED END SECTION
FH	FIRE HYDRANT
FM	FORCE MAIN
FT	FEET
FT/SEC	FEET PER SEC
GALV	GALVANIZED
GV	GATE VALVE
HCR	HANDICAP RAMP
INV	INVERT
L	LENGTH
LF	LINEAR FEET
LP	LIGHT POLE
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
OHE	OVERHEAD ELECTRIC
PAVE	PAVEMENT
PERM	PERMANENT
PP	POWER POLE
PVC	POLYVINYL CHLORIDE
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
RPZ	REDUCED PRESSURE ZONE
RT	RIGHT
S	SLOPE
SS	SANITARY SEWER
STA	STATION
T	TANGENT
TDD	TEMPORARY DIVERSION DITCH
TELE	TELEPHONE
TSB	TEMPORARY SEDIMENT BASIN
TSD	TEMPORARY SLOPE DRAIN
UG	UNDERGROUND
W	WIDTH
W/L	WATER LINE
WM	WATER METER
YI	YARD INLET

	EXISTING CURB INLET
	EXISTING DROP INLET / YARD INLET
	EXISTING FLARED END SECTION
	EXISTING FIRE HYDRANT
	EXISTING BLOW-OFF ASSEMBLY
	EXISTING GATE VALVE
	EXISTING REDUCER
	EXISTING WATER METER
	EXISTING MANHOLE / JUNCTION BOX
	EXISTING CLEAN OUT
	EXISTING POWER POLE
	EXISTING GUY WIRE
	EXISTING TELEPHONE PEDESTAL
	EXISTING LIGHT POLE / AREA LIGHT
	EXISTING SIGN
	NEW CURB INLET
	NEW GRATE INLET/YARD INLET
	NEW FLARED END SECTION
	NEW FIRE HYDRANT
	NEW BLOW-OFF ASSEMBLY
	NEW GATE VALVE
	NEW REDUCER
	NEW WATER METER
	NEW TEE
	NEW PLUG
	NEW MANHOLE
	NEW CLEAN OUT
	NEW SIGN
	IRON PIPE
	BENCHMARK
	BLOCK AND GRAVEL INLET PROTECTION
	SILT FENCE INLET PROTECTION
	EXCAVATED INLET PROTECTION
	SEDIMENT BASIN
	RISER BASIN
	ROCK DAM
— G —	EXISTING GAS LINE
— COM —	EXISTING COMMUNICATIONS LINE
—UT—	EXISTING UNDERGROUND TELEPHONE
—UE—	EXISTING UNDERGROUND ELECTRIC
— OHE —	EXISTING OVERHEAD ELECTRIC
— W —	EXISTING WATER LINE
FM	EXISTING SANITARY SEWER FORCE MAIN
—SS—	EXISTING SANITARY SEWER
	EXISTING STORM DRAINAGE
	NEW STORM DRAINAGE
	STREAM
	NEW WATER LINE
	NEW SANITARY SEWER
FM	NEW SANITARY SEWER FORCE MAIN
G	NEW GAS MAIN
GL	GRASSED LINED DITCH/CHANNEL
JM	JUTE MATTING LINED DITCH/CHANNEL
P	PYRAMAT LINED DITCH/CHANNEL
C	LIMITS OF CUT SLOPE
F	LIMITS OF FILL SLOPE
	SILT FENCE
—TF—X—TF—	TREE FENCE
	COMBINATION SILT/ TREE FENCE
	DIVERSION DITCH



VICINITY MAP

1" = 500'

SITE DATA

OWNER/DEVELOPER	FRANKLIN STREET TOWNES, LLC PO BOX 414 WAKE FOREST, NC 27588–0414 (919)314–7797
SURVEYOUR	BASS, NIXON AND KENNEDY, INC. 6310 CHAPEL HILL ROAD, STE. 250 RALEIGH, NC 27607 (919) 851–4422
PIN:	1840–57–1129
TOTAL DEVELOPMENT AREA:	6.63 AC.
PARCEL AREA TO BE REZONED:	4.82 AC.
CURRENT ZONING	RMX (RESIDENTIAL MIXED USE)
OVERLAY	DR. CALVIN JONES HIGHWAY OVERLAY (SH2–O)
CURRENT USE	TOWNHOMES AND VACANT
PROPOSED USE	TOWNHOMES
NUMBER OF BUILDINGS	11
PROPOSED NUMBER OF UNITS	6 PROPOSED PLUS 55 EXISTING
ALLOWABLE DENSITY	24 DWELLING UNITS/ACRE
PROPOSED DENSITY	10 DWELLING UNITS/ACRE (61 DU./6.63 AC. = 9.20)
MAX. BLDG. HEIGHT	35'
PROPOSED BUILDING HEIGHT	35'
SETBACKS	
FRONT	MIN. 0', MAX. 18'
SIDE	0'
REAR	5'
FRONTAGE TYPE	TERRACE & LIGHT COURT
STREETYARD	30'–50' (98 BYPASS)
SO. FRANKLIN STREET	915
IMPERVIOUS AREA	SEE GRADING PLAN
PARKING REQUIRED (61 DU X (1.5 SPACE/DU) = 91.5	92 SPACES
PARKING PROPOSED (1 VAN HC SPACE AND 1 REG. HC SPACE	230 SPACES
BICYCLE PARKING REQUIRED (1 RACK / 40 REQ. PARKING SP.) = 92 x $\frac{1}{40}$ = 2.3	3 SPACES
BICYCLE PARKING PROPOSED	4 SPACES (CLASS III)

DEVELOPER /APPLICANT:
FRANKLIN STREET TOWNS, LLC
MARC IAFRATE
3650 ROGERS ROAD
SUITE 329
WAKE FOREST, NC 27587

CONTACT: marc.capcity@yahoo.com
PHONE: 919–314–7797

ENGINEERS:
BASS, NIXON AND KENNEDY, INC.
6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NORTH CAROLINA 27607
TELEPHONE: (919) 851–4422
FAX: (919) 851–8968

CONTACT: MARTY D. BIZZELL, PE, CPESC

EMAIL: marty.bizzell@bnkinc.com

PREPARED BY:

BNK
BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NORTH CAROLINA 27607
TELEPHONE: (919)851–4422
www.BNKinc.com
CERTIFICATION NUMBERS: NCBELS (C–0110)
NCBOLA (C–0267)

SHEET INDEX

SHEET No.	SHEET TITLE
—	COVER SHEET
C1.0	EXISTING CONDITIONS PLAN
C1.1	SITE PLAN
C1.2	OPEN SPACE PLAN
C2.1	UTILITY PLAN
C3.1	GRADING AND DRAINAGE PLAN
L1.1	LANDSCAPE AND LIGHTING PLAN
L1.2	LANDSCAPE DETAILS

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING BOARD

DATE_____

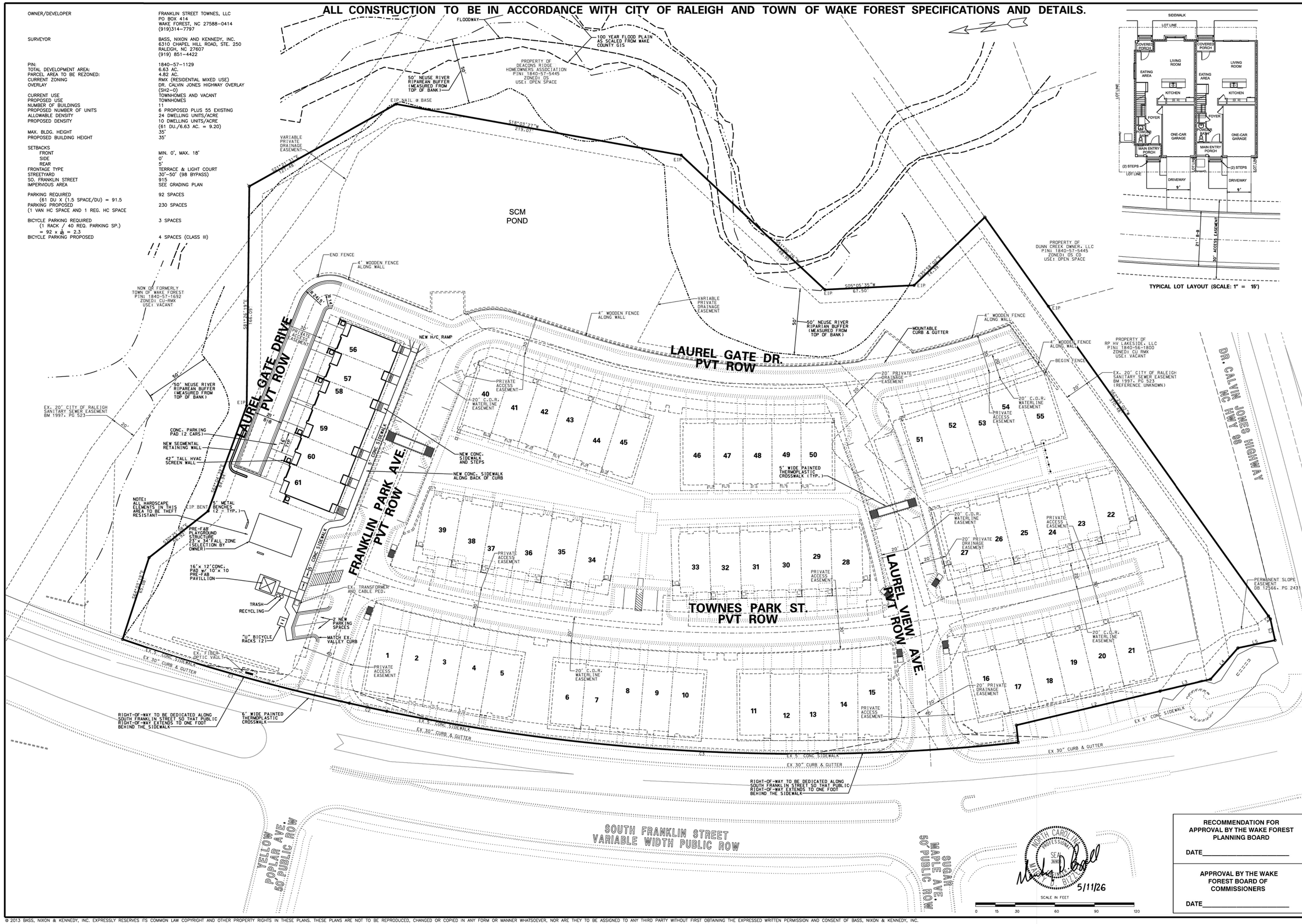
APPROVAL BY THE WAKE FOREST BOARD OF COMMISSIONERS

DATE_____

4/22/2026 6:53:44 AM PLOT BY:jeremy R:\2012-03\jobs\121830R - S Franklin Apts\CIVIL\Construction - New Layout\2183_Cover.dgn

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

OWNER/DEVELOPER	FRANKLIN STREET TOWNES, LLC PO BOX 414 WAKE FOREST, NC 27588-0414 (919)314-7797
SURVEYOR	BASS, NIXON AND KENNEDY, INC. 6310 CHAPEL HILL ROAD, STE. 250 RALEIGH, NC 27607 (919) 851-4422
PIN:	1840-57-1129
TOTAL DEVELOPMENT AREA:	6.63 AC.
PARCEL AREA TO BE REZONED:	4.82 AC.
CURRENT ZONING	RMX (RESIDENTIAL MIXED USE)
OVERLAY	DR. CALVIN JONES HIGHWAY OVERLAY (SH2-O)
CURRENT USE	TOWNHOMES AND VACANT
PROPOSED USE	TOWNHOMES
NUMBER OF BUILDINGS	11
PROPOSED NUMBER OF UNITS	6 PROPOSED PLUS 55 EXISTING
ALLOWABLE DENSITY	24 DWELLING UNITS/ACRE
PROPOSED DENSITY	10 DWELLING UNITS/ACRE (61 DU./6.63 AC. = 9.20)
MAX. BLDG. HEIGHT	35'
PROPOSED BUILDING HEIGHT	35'
SETBACKS	
FRONT	MIN. 0', MAX. 18'
SIDE	0'
REAR	5'
FRONTAGE TYPE	TERRACE & LIGHT COURT
STREETYARD	30'-50' (98 BYPASS)
SO. FRANKLIN STREET	915
IMPERVIOUS AREA	SEE GRADING PLAN
PARKING REQUIRED (61 DU X (1.5 SPACE/DU) = 91.5	92 SPACES
PARKING PROPOSED (1 VAN HC SPACE AND 1 REG. HC SPACE	230 SPACES
BICYCLE PARKING REQUIRED (1 RACK / 40 REQ. PARKING SP.) = 92 x $\frac{1}{40}$ = 2.3	3 SPACES
BICYCLE PARKING PROPOSED	4 SPACES (CLASS III)



TYPICAL LOT LAYOUT (SCALE: 1" = 15')

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING BOARD

DATE_____

APPROVAL BY THE WAKE FOREST BOARD OF COMMISSIONERS

DATE_____

NORTH CAROLINA PROFESSIONAL SEAL 36906 ENGINEER BILLY D. BOYD

5/11/26

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
CERTIFICATION NUMBERS: NCBELS (C-0110); NCBOLA (C-0267)

NO.	DATE	DESCRIPTION	BY
5	5-11-26	PER TOWN COMMENTS	J.J.
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2	4-10-25	PER TOWN COMMENTS	J.J.
1	7-3-24	PER TOWN COMMENTS	J.J.

REVISIONS

JOB NO. 03-12193	DATE 3-14-24	DRAWN BY J.JONES

SITE PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C1.1

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

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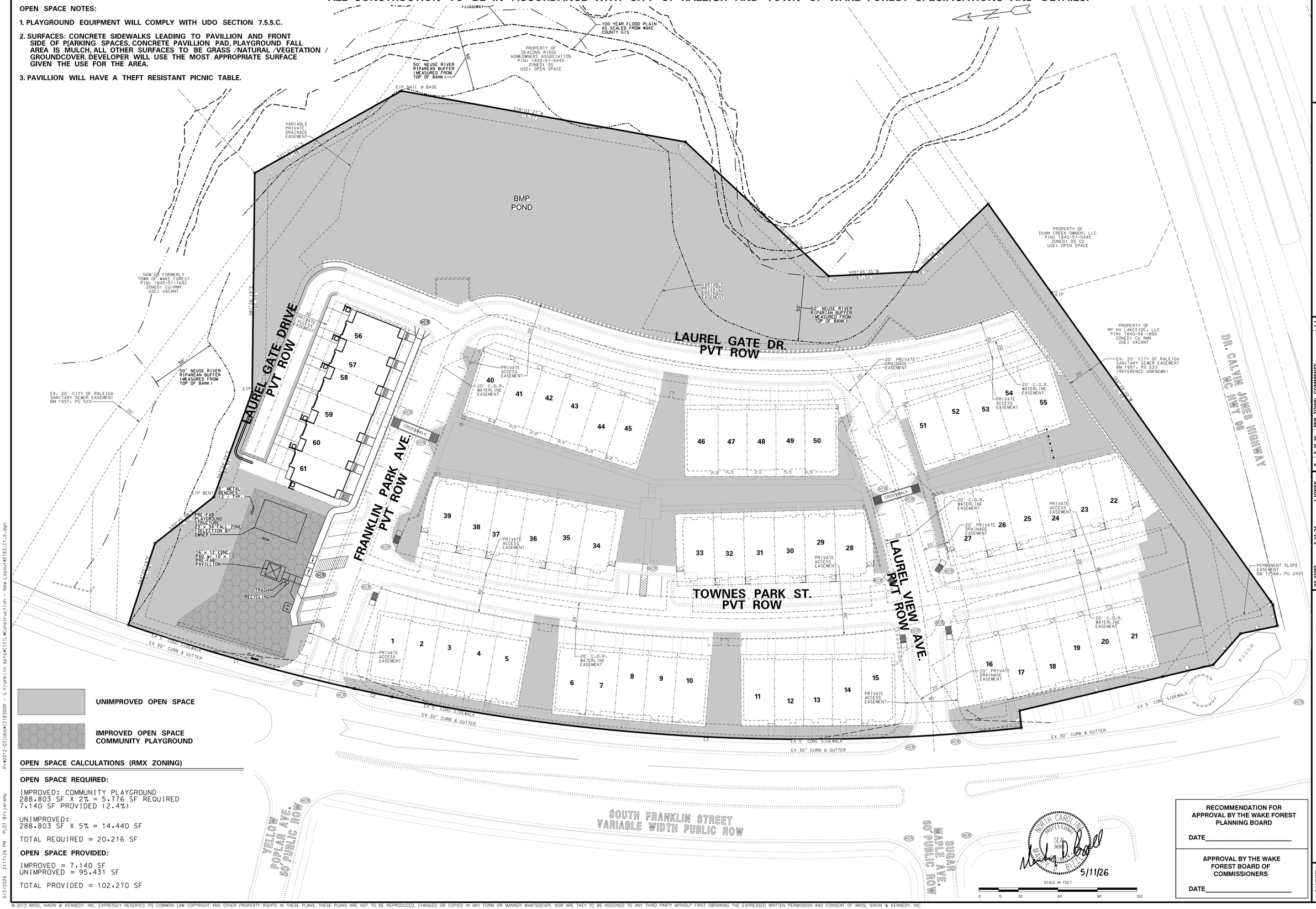
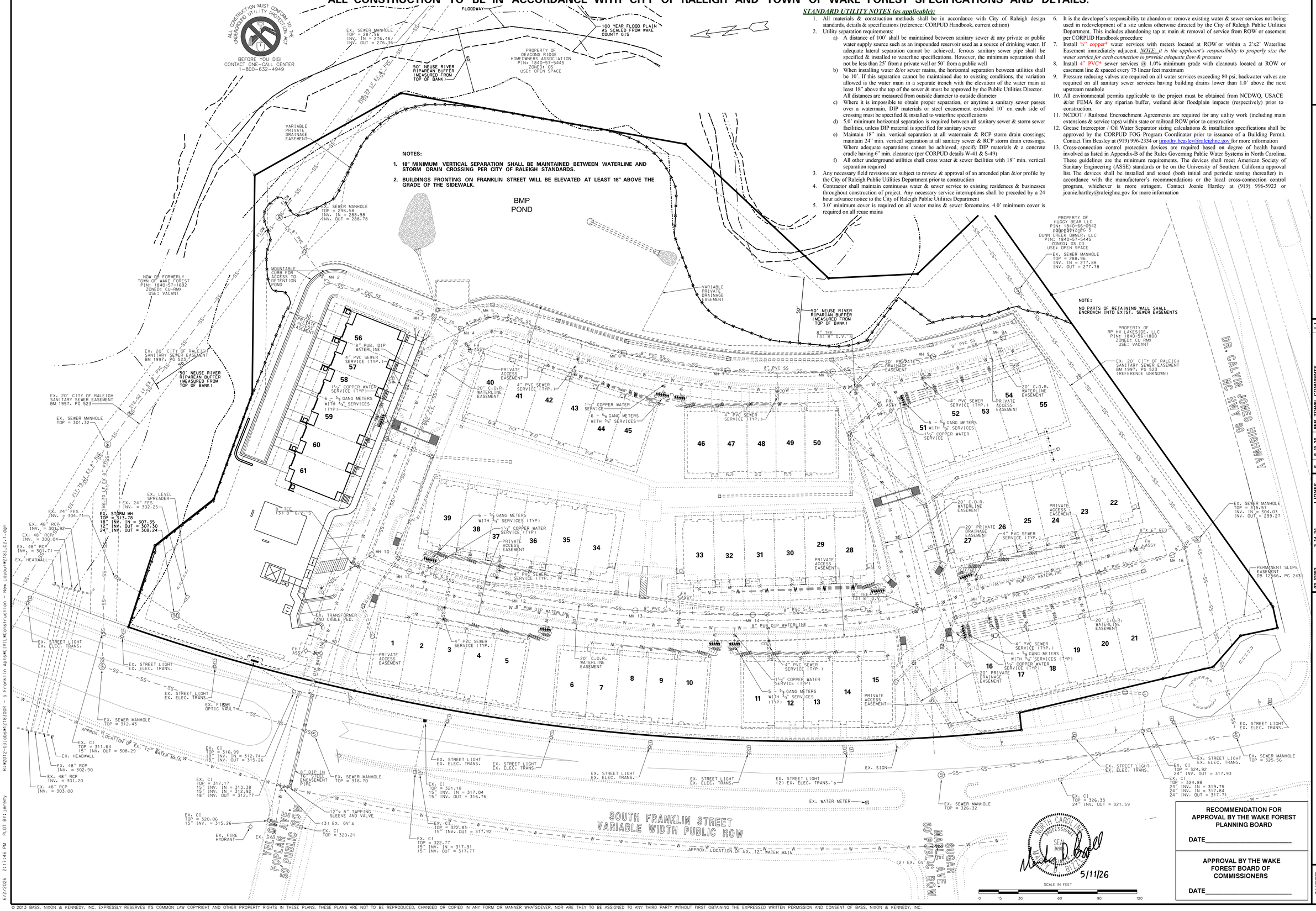
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.

OPEN SPACE NOTES:

1. PLAYGROUND EQUIPMENT WILL COMPLY WITH UDO SECTION 7.5.5.C.
2. SURFACES: CONCRETE SIDEWALKS LEADING TO PAVILLION AND FRONT SIDE OF P[ARKING SPACES, CONCRETE PAVILLION PAD, PLAYGROUND FALL AREA IS MULCH, ALL OTHER SURFACES TO BE GRASS /NATURAL /VEGETATION / GROUNDCOVER. DEVELOPER WILL USE THE MOST APPROPRIATE SURFACE GIVEN THE USE FOR THE AREA.
3. PAVILLION WILL HAVE A THEFT RESISTANT PICNIC TABLE.


BMP POND
LAUREL GATE DRIVE PVT ROW
LAUREL GATE DR. PVT ROW
FRANKLIN PARK AVE. PVT ROW
TOWNES PARK ST. PVT ROW
LAUREL VIEW AVE. PVT ROW
DR. CALVIN JONES HIGHWAY NC HWY 98
SOUTH FRANKLIN STREET VARIABLE WIDTH PUBLIC ROW
YELLOW POPLAR AVE. 50' PUBLIC ROW
SUGAR MAPLE AVE. 50' PUBLIC ROW
100 YEAR FLOOD PLAIN AS SCALED FROM WAKE COUNTY GIS
PROPERTY OF DEACONS RIDGE HOMEOWNERS ASSOCIATION PIN: 1840-57-5445 ZONED: OS USE: OPEN SPACE
PROPERTY OF DUNN CREEK OWNER, LLC PIN: 1840-57-5445 ZONED: OS CD USE: OPEN SPACE
PROPERTY OF RP HV LAKESIDE, LLC PIN: 1840-56-1800 ZONED: CU-RMX USE: VACANT
NOW OR FORMERLY TOWN OF WAKE FOREST PIN: 1840-57-1692 ZONED: CU-RMX USE: VACANT
50' NEUSE RIVER RIPAREAN BUFFER (MEASURED FROM TOP OF BANK)
VARIABLE PRIVATE DRAINAGE EASEMENT
EX. 20' CITY OF RALEIGH SANITARY SEWER EASEMENT BM 1997, PG 523
EX. 20' CITY OF RALEIGH SANITARY SEWER EASEMENT BM 1997, PG 523 (REFERENCE UNKNOWN)
PERMANENT SLOPE EASEMENT DB 12566, PG 2431
PRIVATE ACCESS EASEMENT
20' C.O.R. WATERLINE EASEMENT
20' PRIVATE DRAINAGE EASEMENT
CROSSWALK
5' METAL BENCHES (2 - TYP.)
PRE-FAB PLAYGROUND STRUCTURE 23' x 34' FALL ZONE (SELECTION BY OWNER)
16' x 12' CONC. PAD W/ 10' x 10' PRE-FAB PAVILLION
TRASH
RECYCLING
EX 30" CURB & GUTTER
EX 5' CONC SIDEWALK
S18°03'27"W 213.00'
S05°05'35"W 67.50'
S81°26'19"E 166.05'
S05°28'00"E 14.00'
S05°28'00"E 44.00'
S05°28'00"E 44.00'
S05°28'00"E 44

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CITY OF RALEIGH AND TOWN OF WAKE FOREST SPECIFICATIONS AND DETAILS.



STANDARD UTILITY NOTES (as applicable):

1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition)
2. Utility separation requirements:
   a) A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well
   b) When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter
   c) Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specifications
   d) 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer
   e) Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 24" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W-41 & S-49)
   f) All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction
4. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24 hour advance notice to the City of Raleigh Public Utilities Department
5. 3.0' minimum cover is required on all water mains & sewer forcemains. 4.0' minimum cover is required on all reuse mains
6. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure
7. Install ¾" copper* water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. *NOTE: it is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure*
8. Install 4" PVC* sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum
9. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole
10. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
11. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction
12. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the CORPUD FOG Program Coordinator prior to issuance of a Building Permit. Contact Tim Beasley at (919) 996-2334 or timothy.beasley@raleighnc.gov for more information
13. Cross-connection control protection devices are required based on degree of health hazard involved as listed in Appendix-B of the Rules Governing Public Water Systems in North Carolina. These guidelines are the minimum requirements. The devices shall meet American Society of Sanitary Engineering (ASSE) standards or be on the University of Southern California approval list. The devices shall be installed and tested (both initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross-connection control program, whichever is more stringent. Contact Joanie Hartley at (919) 996-5923 or joanie.hartley@raleighnc.gov for more information

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING BOARD

DATE_____

APPROVAL BY THE WAKE FOREST BOARD OF COMMISSIONERS

DATE_____

NORTH CAROLINA PROFESSIONAL SEAL 36905 ENGINEER
5/11/26

BNK
BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
TELEPHONE: (919)851-4422 OR (800)354-1879 FAX: (919)851-8968
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REVISIONS

JOB NO.	DATE	DRAWN BY
03-12183	3-14-24	J.JONES

UTILITY PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C2.1

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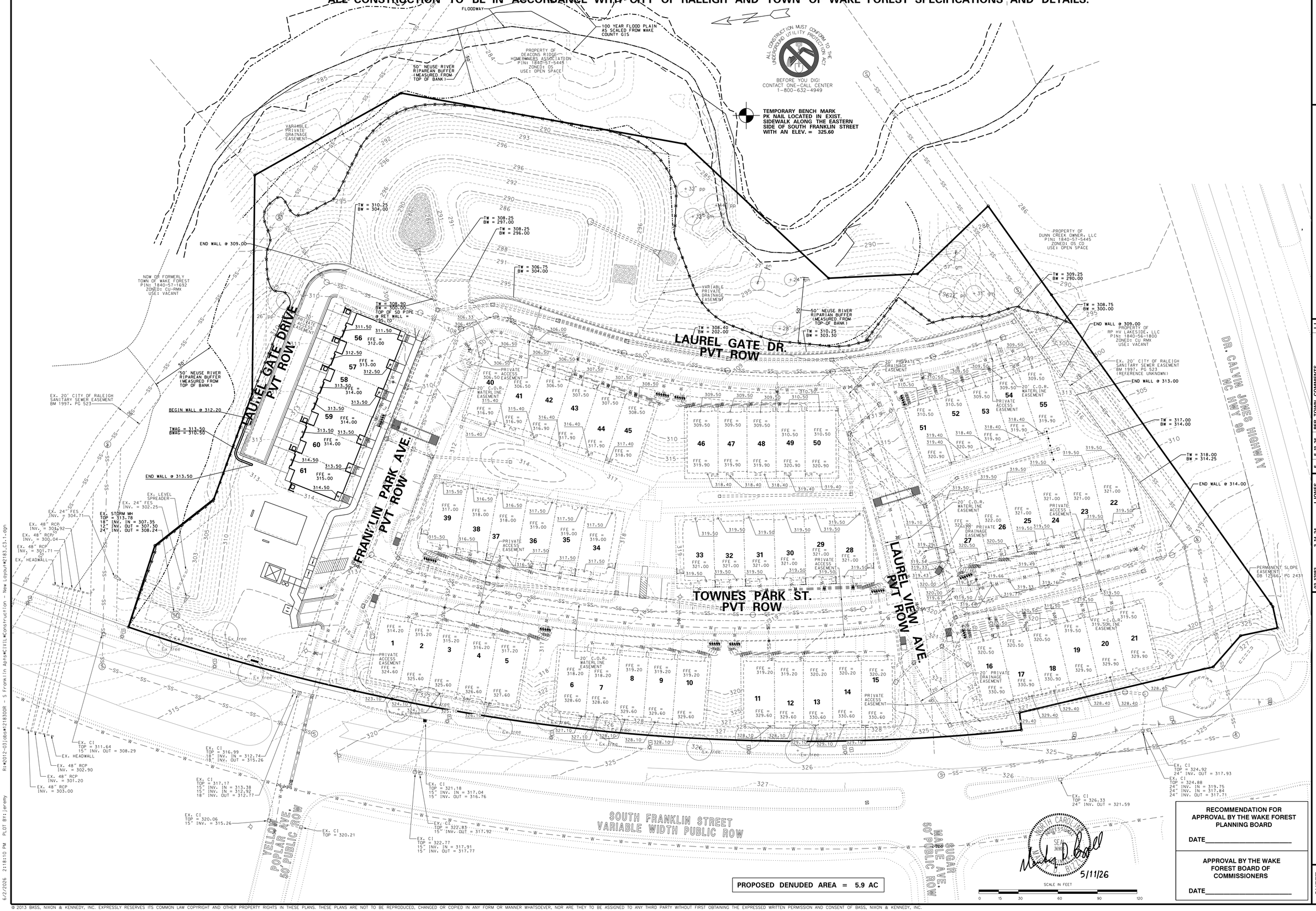

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING BOARD

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REVISIONS

JOB NO. 03-12183 DATE 3-14-24 DRAWN BY J.JONES

GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

FRANKLIN STREET TOWN HOMES

TOWN OF WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET C3.1

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

6/2/2026 2:18:10 PM PLOT BY:Jeremy R:\2012-03\Jobs\#2183DOR - S Franklin Apts\CIVIL\Construction - New Layout\2183.C3.1.dgn

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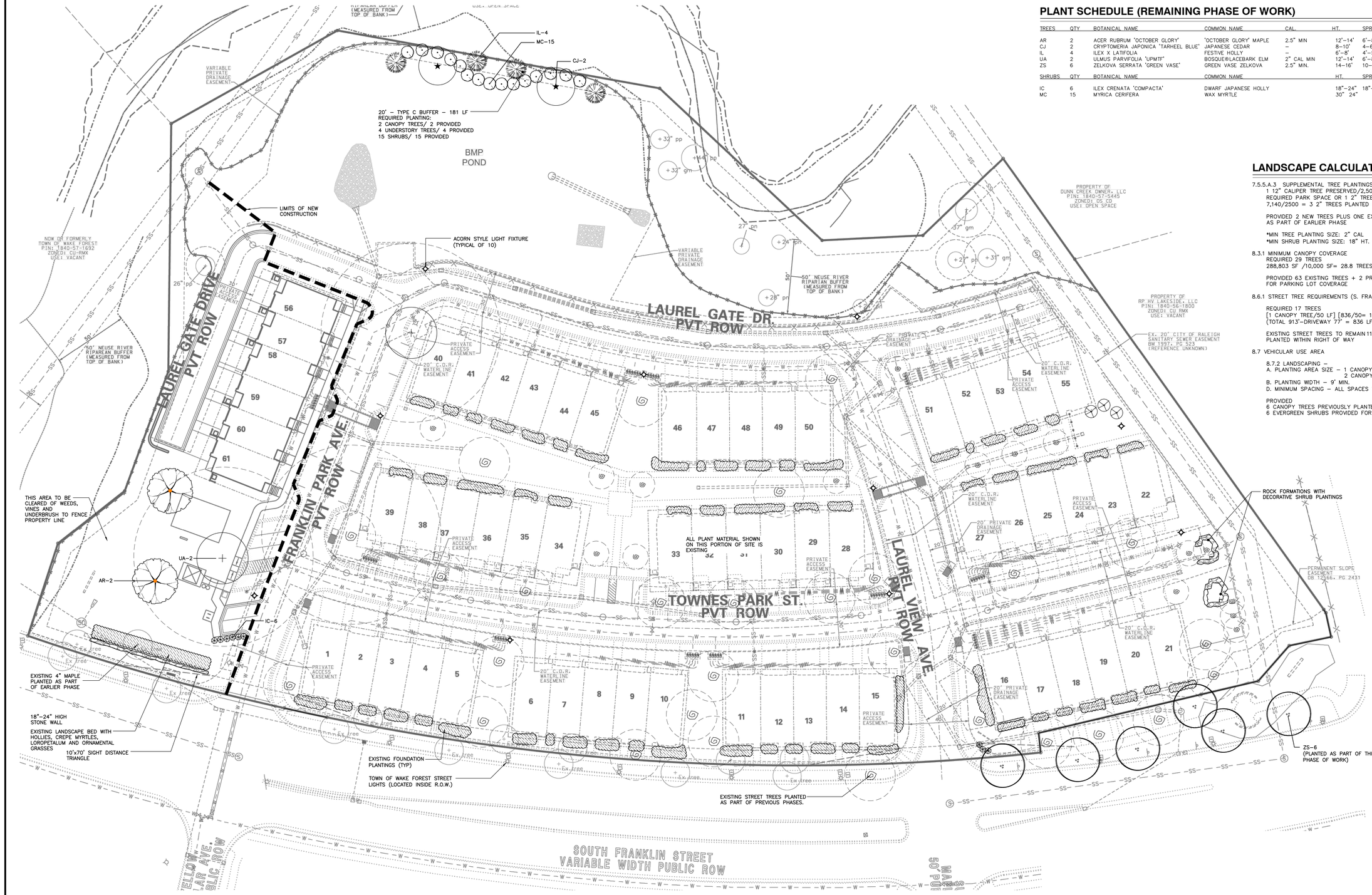

PLANT SCHEDULE (REMAINING PHASE OF WORK)

TREES	QTY	BOTANICAL NAME	COMMON NAME	CAL.	HT.	SPR.	REMARKS
AR	2	ACER RUBRUM 'OCTOBER GLORY'	'OCTOBER GLORY' MAPLE	2.5" MIN	12'–14'	6'–8'	FULL HEAD, MATCHED
CJ	2	CRYPTOMERIA JAPONICA 'TARHEEL BLUE'	JAPANESE CEDAR	–	8–10'	4–6'	FULL, MATCHED SPECIMENS
IL	4	ILEX X LATIFOLIA	FESTIVE HOLLY	–	6'–8'	4'–5'	FULL, MATCHED
UA	2	ULMUS PARVIFOLIA 'UPMTF'	BOSQUE®LACEBARK ELM	2" CAL MIN	12'–14'	6'–8'	FULL, MATCHED
ZS	6	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2.5" MIN.	14–16'	10–12'	FULL, MATCHED

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	HT.	SPR.	REMARKS
IC	6	ILEX CRENATA 'COMPACTA'	DWARF JAPANESE HOLLY	18"–24"	18"–24"	FULL
MC	15	MYRICA CERIFERA	WAX MYRTLE	30" 24"		FULL

LANDSCAPE CALCULATIONS

7.5.5.A.3 SUPPLEMENTAL TREE PLANTINGS
1 12" CALIPER TREE PRESERVED/2,500 S.F. OF REQUIRED PARK SPACE OR 1 2" TREE PLANTED
7,140/2500 = 3 2" TREES PLANTED IN PARK AREA

PROVIDED 2 NEW TREES PLUS ONE EXISTING TREE PLANTED AS PART OF EARLIER PHASE

*MIN TREE PLANTING SIZE: 2" CAL
*MIN SHRUB PLANTING SIZE: 18" HT. OR SPR.

8.3.1 MINIMUM CANOPY COVERAGE
REQUIRED 29 TREES
288,803 SF /10,000 SF= 28.8 TREES REQ'D/ 65 PROV.

PROVIDED 63 EXISTING TREES + 2 PROPOSED CANOPY TREES FOR PARKING LOT COVERAGE

8.6.1 STREET TREE REQUIREMENTS (S. FRANKLIN STREET)

REQUIRED 17 TREES
[1 CANOPY TREE/50 LF] [836/50= 16.72]
(TOTAL 913'–DRIVEWAY 77' = 836 LF)

EXISTING STREET TREES TO REMAIN 11 TREES + 6 NEW TREES PLANTED WITHIN RIGHT OF WAY

8.7 VEHICULAR USE AREA

8.7.2 LANDSCAPING –
A. PLANTING AREA SIZE – 1 CANOPY TREE = 400 SF PLANTING AREA
2 CANOPY TREE = 700 SF PLANTING AREA
B. PLANTING WIDTH – 9' MIN.
D. MINIMUM SPACING – ALL SPACES WITHIN 60' OF A CANOPY TREE

PROVIDED
6 CANOPY TREES PREVIOUSLY PLANTED PLUS 2 NEW CANOPY TREES, AND 6 EVERGREEN SHRUBS PROVIDED FOR FINAL PHASE OF CONSTRUCTION

BNK EX TREE TYPE ABBREVIATIONS

APPLE	–	AP
ASH	–	AS
BEECH	–	BE
BLACK WALNUT	–	BW
BRADFORD PEAR	–	BP
BURFORD HOLLY	–	BH
CATALPA	–	CP
CEDAR	–	CR
COTTONWOOD	–	CW
CRABAPPLE	–	CA
CREPE MYRTLE	–	CM
CYPRESS	–	CY
DOGWOOD	–	DW
ELM	–	EL
GUM	–	GM
HACKBERRY	–	HB
HICKORY	–	HK
HOLLY	–	HY
IRONWOOD	–	IW
LOCUST	–	LC
MAGNOLIA	–	MG
MAPLE	–	MP
MIMOSA	–	MM
PEAR	–	PR
PECAN	–	PC
PERSIMMON	–	PS
REDTIP	–	RT
PINE	–	PN
POPLAR	–	PP
REDBUD	–	RB
RED OAK	–	RO
SOURWOOD	–	SW
SWEETBAY	–	SB
SYCAMORE	–	SY
WAX MYRTLE	–	WM
WHITE OAK	–	WO
WILD CHERRY	–	WC
WILLOW	–	WW
ZELKOVA	–	ZA

PRELIMINARY
05-11-26

SCALE IN FEET
0 15 30 60 90 120

RECOMMENDATION FOR APPROVAL BY THE WAKE FOREST PLANNING BOARD
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REVISIONS

JOB NO. 03-12183 DATE 03-15-24 DRAWN BY GPW

LANDSCAPE & LIGHTING PLAN

SCALE: 1" = 30' CHK BY:GPW

FRANKLIN STREET TOWNHOMES
S. FRANKLIN STREET
WAKE FOREST, WAKE COUNTY, NORTH CAROLINA

SHEET L1.1

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