



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Meeting Agenda Board of Aldermen



Tuesday, March 21, 2017

7:30 PM

Board Chambers - Room 110

7:30-7:40

A. POETRY READING, RESOLUTIONS, PROCLAMATIONS, AND ACKNOWLEDGEMENTS

1. [17-080](#) Earth Hour Resolution
PURPOSE: To adopt a resolution encouraging participation in Earth Hour on March 25th
Attachments: [Earth Hour Resolution_17](#)
2. [17-082](#) Charges Issued to Recently Appointed Advisory Board Volunteers

7:40-7:43

B. ANNOUNCEMENT OF UPCOMING MEETINGS

7:43-7:55

C. REQUESTS FROM VISITORS AND SPEAKERS FROM THE FLOOR

7:55-8:00

D. CONSENT AGENDA

1. [17-081](#) Approval of Previous Meeting Minutes of February 10, 2017, February 28, 2017 and March 5, 2017
2. [17-077](#) Request to Make an Appointment to the Human Services Advisory Commission

PURPOSE: The purpose of this item is for the Mayor and Board to make appointments to the Human Services Commission.

Attachments: [Resolution - Human Services Commission Appointment](#)
[Karen Porter - Human Services Commission Application.pdf](#)

3. [17-073](#) Approve Text Amendment of Town Code Section 14-10(a) To Prohibit the Operation of Unmanned Aerial Vehicles on Town Property

PURPOSE: The purpose of this agenda item is for the Board of Aldermen consider updating the Town Code to prohibit operation of unmanned aerial vehicles on town property.

Attachments: [Attachment 1 - Ordinance amending 14-10 drones 2-23-2017](#)

E. PUBLIC HEARING

8:00-8:45

1. [17-074](#) Public Hearing on 60% Review of the Martin Luther King Jr Park Construction Design

PURPOSE: The purpose of this agenda item is to provide the Mayor, Board members and community an opportunity to review the 60% construction plans for Martin Luther King Jr Park.

Attachments: [Attachment A - Resolution](#)

[Attachment B 2017.03.14 - 60% DD Plan Rendering](#)

[Attachment C Set A-2017.03.14 MLK Park 60% DD](#)

[Attachment D Set B-2017.03.14 MLK Park 60% DD](#)

[Attachment E Set C-2017.03.14 MLK Park 60% DD](#)

8:45-9:15

2. [17-079](#) Consideration of Stage 2 Traffic Calming on Blueridge Road

PURPOSE: The purpose of this agenda item is for the Board of Aldermen to consider the proposed design for Stage 2 traffic calming measures on Blueridge Road.

Attachments: [Attachment A - Resolution Blueridge Road Traffic Calming](#)

[Attachment B - Blueridge survey response summary](#)

[Attachment C - Blueridge map](#)

[Attachment D - TAB Recommendation](#)

[Attachment E - Board of Aldermen flyer](#)

9:15-9:45

3. [17-078](#) Consideration of Stage 2 Traffic Calming on Tallyho Trail

PURPOSE: The purpose of this agenda item is for the Board of Aldermen to consider the proposed design for Stage 2 traffic calming measures on Tallyho Trail.

Attachments: [Attachment A - Resolution Tallyho Trail Traffic Calming](#)
[Attachment B - Tallyho survey response summary](#)
[Attachment C - Tallyho map](#)
[Attachment D - TAB Recommendation](#)
[Attachment E - Board of Aldermen flyer](#)

9:45-10:00

F. **OTHER MATTERS - TIME DEPENDENT - MAY BE CONTINUED TO FUTURE MEETING**

1. [17-054](#) Consideration of an Application for Affordable Housing Funding from CASA

PURPOSE: The purpose of this item is for the Board to consider approving an application for funding out of the Affordable Housing Special Revenue Fund.

Attachments: [Attachment A - Resolution](#)
[Attachment B- Funding Application](#)
[Attachment C- CASA Ten Year Development History](#)
[Attachment D- Qualifications of the Developer](#)

G. MATTERS BY BOARD MEMBERS

H. MATTERS BY TOWN MANAGER

I. MATTERS BY TOWN ATTORNEY

10:00-10:20

J. CLOSED SESSION - NCGS 143-318.11(a)(3)



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Agenda Item Abstract

File Number:17-080

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Earth Hour Resolution

PURPOSE: To adopt a resolution encouraging participation in Earth Hour on March 25th

DEPARTMENT: Planning

CONTACT INFORMATION: Randy Dodd 919 918-7326

INFORMATION: Earth Hour, sponsored by World Wildlife Fund, has cemented itself as an effective and annual/ongoing voluntary environmental action, with hundreds of millions of people coming together to respond to climate change by doing something quite simple such as turning off their lights or hosting an event to help raise awareness of climate change. While the global lights out remains an impactful visual call-out, its true impact is being seen in areas and communities fighting climate change on an everyday basis. In its tenth year, Earth Hour 2016 broke records of mass participation, mobilizing a record-breaking 178 countries and territories with: over 10,000 landmarks and monuments switching off their lights; hundreds of thousands of signatures collected online for climate petitions; and enormous outreach via social media. A few examples of previous Earth Hour actions include: hundreds of millions of people became “everyday Super Heroes” for the planet (2014); the “I Will If You Will” campaign, with more than 200,000 individuals accepting a challenge, and astronaut André Kuipers observing the lights off event from the International Space Station (2012); polling in the United States showed that an estimated 90,000,000 Americans participated in “lights out”, including iconic landmarks such as Mount Rushmore, the Las Vegas Strip, the Empire State Building and Niagara Falls (2010). Celebrity Earth Hour ambassadors have included South African Archbishop Desmond Tutu, former New Zealand Prime Minister Helen Clark, President of Vietnam Nguyễn Minh Triết, and London Mayor Boris Johnson. Sydney's Herald Sun equated the power savings in the Sydney central business district to "taking 48,613 cars off the road for 1 hour." More information about Earth Hour, including how Earth Hour began, what has been accomplished, and what is in store for 2017, is available at www.earthhour.org.

FISCAL & STAFF IMPACT: There is no fiscal or staff impact.

RECOMMENDATION: It is recommended that the Board adopt the attached resolution.

A RESOLUTION FOR PARTICPATION IN EARTH HOUR ON MARCH 25th
Resolution No. /2017-

WHEREAS, March 25th, 2016, 8:30-9:30 PM has been designated as “Earth Hour” by the World Wildlife Fund as a reminder that, by working together, people can make a positive impact in the fight against climate change;

WHEREAS, Carrboro is joining with others across the country and around the world to raise awareness and demonstrate commitment to addressing climate change by supporting “Earth Hour,” and;

WHEREAS, “Earth Hour” , the largest event of its kind in the world, involves something quite simple such as turning off lights or holding an event for one hour, and otherwise raising awareness and building a global commitment;

WHEREAS, Carrboro has joined Cities for Climate Protection; adopted a climate protection resolution and earlier this year unveiled a Community Climate Action Plan;

THEREFORE, the Carrboro Board of Aldermen, do hereby proclaim, March 25th, 2017 from 8:30 – 9:30 p.m. as “Earth Hour” in Carrboro and call upon all residents and businesses of Carrboro to join in supporting the aims and goals of this effort.

FURTHERMORE, the Carrboro Board of Aldermen, do hereby direct staff to send out a public service announcement to publicize “Earth Hour”.

this 21st day of March, 2017.



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Agenda Item Abstract

File Number:17-082

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

Charges Issued to Recently Appointed Advisory Board Volunteers

The following charges will be issued:

- 1) Valerie Merriweather, Recreation and Parks Commission
- 2) David Gange, Economic Sustainability Commission
- 3) Victoria Rovine, Arts Committee
- 4) Danny Schuster, Appearance Committee



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Agenda Item Abstract

File Number:17-077

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Request to Make an Appointment to the Human Services Advisory Commission

PURPOSE: The purpose of this item is for the Mayor and Board to make appointments to the Human Services Commission.

DEPARTMENT: Town Clerk

CONTACT INFORMATION: Cathy Dorando, 918- 7309

INFORMATION: The Human Services Advisory Commission currently has one vacant seat eligible for appointment. Tai Ayankoya has resigned from the Human Services Commission, creating an open seat and Karen Porter would like to be appointed. Andrea Tanner is the current chair of the Human Services Advisory Commission and has contacted the applicant to confirm interest. The applicant has also been attending the recent meetings of the Commission. The attached resolution will appoint Karen Porter to the Human Services Advisory Commission if the Board chooses.

FISCAL & STAFF IMPACT: N/A

RECOMMENDATION: It is recommended that the Mayor and Board adopt the attached resolution.

ATTACHMENT A

**A RESOLUTION MAKING AN APPOINTMENT TO THE
HUMAN SERVICES ADVISORY COMMISSION**

NOW, THEREFORE, THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO
APPOINTS THE FOLLOWING APPLICANT(S) TO THE HUMAN SERVICES ADVISORY
COMMISSION;

Name	Term Expiration
Karen Porter	2/2021

Section 2. This resolution shall become effective upon adoption.

Catherine Dorando

From: Catherine Dorando
Sent: Thursday, December 08, 2016 4:04 PM
To: Catherine Dorando
Subject: FW: Online Form Submittal: Advisory Board Application

From: noreply@civicplus.com [mailto:noreply@civicplus.com]
Sent: Wednesday, December 07, 2016 8:08 PM
To: Catherine Dorando
Subject: Online Form Submittal: Advisory Board Application

Advisory Board Application

Name	Karen Porter
Date	12/7/2016
Address1	222 Old Fayetteville Rd
Address2	B104
City	Carrboro
State	NC
Zip	27510
Is this address located within the corporate limits of the Town of Carrboro?	Yes
Telephone	610-344-99
Email Address	Karenporteresq@gmail.com
Date of Birth	5/29/1947
Race	White
Sex	Female
Occupation	Lawyer (retired), Visiting & Adjunct Professor (in retirement)
Are you a registered Orange County Voter?	Yes

Length of Residence in Orange County	4 months
Length of Residence in the Town of Carrboro	4 months
I wish to be considered for appointment to the following committee/board(s) (Do Not Select More Than Three):	Animal Control Board of Appeals, Human Services Commission, Greenways Commission
Other (advisory board not listed):	N/A
Advisory Board Preference	1. Human Services 2. Animal Control Board of Appeals
*Employer/Self Employed	Not currently employed
Number of Years Employed	N/A
* Provide examples of how you are involved in the promotion of travel and tourism in the Town of Carrboro.	N/A
Community Activities/Organizational Memberships	During my 39-year legal career in Pennsylvania, I was involved in numerous civic, legal, religious, and political activities. For example: As a mother, I taught Sunday School for 13 years, developed an elementary school foreign language program, was a swimming stroke-and-turn judge for 5 years, served as a Cub Scout den leader for 5 years, and taught property law at public elementary schools for the bar association, among other activities. As a citizen, for example, I worked in the Kerry and (two) Obama presidential campaigns, founded and directed (for 12 years) the 1,000-member Chester County Peace Movement, and served on the boards of the (Philadelphia) National Conference of Christians & Jews and the ACLU, among other activities. In my profession, I wrote textbooks in my areas of expertise: business law, insurance regulation, and legal writing and oral advocacy and was Assistant Dean at Temple Law School and adjunct professor at Villanova Law School. In retirement, I have taught Anglo-American law to Russian lawyers 3 months a year (for six years) in Russia and 2 months a year to international lawyers at the University of

Delaware and one semester at Widener Law School and have taught International Communications Law to graduate students at Arcadia University. For the past 2 years I have been Clerk of the Board for Friends House Moscow (Quakers), which has involved constant evaluation of numerous grant applications for human services for Russians (funded by US, British, and German sources), making the Human Services Board position my number one choice. My 20 years at the Insurance Institute of America and previous experience as corporate counsel for Blue Cross in Philadelphia gave me a passion for healthcare and health law. Expecting future challenges to healthcare in this country, I want to turn my attention to volunteer work in providing human services, focusing on healthcare. I also love this community and want to be involved, as I always have been in the past. I moved here because my son and his wife live here, and I love it. I particularly love the Greenways, my third choice. However, for the past 12 years I have rescued homeless dogs, including several seniors (difficult to place) and am devoted to animals - my second choice. In the Animal Control slot, I could also apply my legal skills.

Experience to Aid You in Working on Advisory Boards

I think the answer above details my qualifications. I have strong legal and evaluative skills, work well with others, and care very much about my community. As a new community member, I might bring some fresh insights. I love Carrboro and want to bring my lengthy and varied experiences to help the town achieve its goals.

Reasons You Wish to be Appointed

I have spent a lot of time abroad (Russia) in the past 6 years, but I am "settling in" here and believe my country and community need me more now. My passion has been teaching future leaders (lawyers) in Russia and working with Moscow Quakers, all in an effort to help build their as-yet-to-be-developed civil society. I think my country needs me more now as our own civil society faces new challenges. Working in my local community is of great importance to me, and I think I have a lot to contribute.

Have you ever served on any Town of Carrboro Committee or Board?

No

If yes, which one(s)?

N/A

Are you currently serving on a Town Board or Committee?

No

If yes, are you applying

No

for a third consecutive term?

If yes, please describe how you meet one, or more, of the following exceptions noted below.

N/A

*Members of the Board of Adjustment, Environmental Advisory Board, Human Services Advisory Commission, and Transportation Advisory Board may be reappointed to successive terms without limitation (Sections 15-29(c), 15-45(c) 3-7(d), 3-24(c))

Email not displaying correctly? [View it in your browser.](#)



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Agenda Item Abstract

File Number:17-073

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Approve Text Amendment of Town Code Section 14-10(a) To Prohibit the Operation of Unmanned Aerial Vehicles on Town Property

PURPOSE: The purpose of this agenda item is for the Board of Aldermen consider updating the Town Code to prohibit operation of unmanned aerial vehicles on town property.

DEPARTMENT: Recreation and Parks

CONTACT INFORMATION: Anita Jones-McNair 919-918-7381, amcnair@townofcarrboro.org <<mailto:amcnair@townofcarrboro.org>> and Wendell Rodgers 919-918-7371, wrodgers@townofcarrboro.org <<mailto:wrodgers@townofcarrboro.org>>

INFORMATION: Almost weekly when staff visits Anderson Park they observe park patrons flying drones on ballfields and the large multipurpose field. During those visits staff will ask patrons to refrain from flying drones in the park. We feel updating the ordinance to specifically mention drones and posting signage will assist in educating the public.

The code currently reads -

Section 14-10 Certain Recreational Activities Generally Prohibited (a) Subject to subsection (b), no person on town property may engage in horseback riding, hitting golf balls, model airplane flying, archery, overnight camping or other recreational activities that may tend to damage or disrupt the use of town property or pose a hazard to other occupants. (b) The provisions of subsection (a) shall not apply to persons engaged in the activities described therein while participating in events or programs authorized by the town, so long as such activities are conducted only at the locations and times authorized.

The change would reflect the following. Update is in **bold** text.

(a) Subject to subsection (b), no person on town property may engage in horseback riding, hitting golf balls, model airplane flying, **unmanned aerial vehicles (commonly referred to as "drones"**, archery, overnight camping or other recreational activities that may tend to damage or disrupt the use of town property or pose a hazard to other

Agenda Date: 3/21/2017

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occupants.

FISCAL & STAFF IMPACT: Minimal staff impact associated with updating the Town Code. PW staff can create and install signage. The estimated cost for signs is \$150 for approximately 3-4 signs.

RECOMMENDATION: Staff recommends that the Board of Aldermen adopt the Town Code change provided in Attachment A.

**AN ORDINANCE AMENDING TOWN CODE SECTION 14-10(a) TO PROHIBIT THE
OPERATION OF UNMANNED AERIAL VEHICLES ON TOWN PROPERTY**

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

Section 1. Subparagraph (a) of Town Code Section 14-10 is amended to read as follows:

(a) Subject to subsection (b), no person on town property may engage in horseback riding, hitting golf balls, model airplane flying, **unmanned aerial vehicles (commonly referred to as “drones”**, archery, overnight camping or other recreational activities that may tend to damage or disrupt the use of town property or pose a hazard to other occupants.

Section 2. All provisions of any town ordinance in conflict with this ordinance are repealed.

Section 3. This ordinance shall become effective upon adoption.

The foregoing ordinance, having been submitted to a vote, received the following vote and was duly adopted this ____ day of _____, 2017.

Ayes:

Noes:

Absent or Excused:



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Agenda Item Abstract

File Number:17-074

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Public Hearing on 60% Review of the Martin Luther King Jr Park Construction Design

PURPOSE: The purpose of this agenda item is to provide the Mayor, Board members and community an opportunity to review the 60% construction plans for Martin Luther King Jr Park.

DEPARTMENT: Recreation and Parks

CONTACT INFORMATION: Anita Jones-McNair - 919-918-7381, amcnair@townofcarrboro.org [<mailto:amcnair@townofcarrboro.org>](mailto:amcnair@townofcarrboro.org) and Wendell Rodgers - 919-918-7371, wrodgers@townofcarrboro.org [<mailto:wrodgers@townofcarrboro.org>](mailto:wrodgers@townofcarrboro.org)

INFORMATION: Staff is working with Stewart Engineering Inc. on developing the construction design for Martin Luther King Jr Park. On February 6th the 30% construction plans were presented to the Recreation and Parks Commission and community. Jennifer Wagner, Program Manager will present the 60% construction plans based on information and feedback to date. See attached documents.

FISCAL & STAFF IMPACT: Staff is currently working with Stewart Inc. on the construction drawings for the park. The approved budget is \$150,000.

RECOMMENDATION: Staff recommends that the Board of Aldermen receive the 60% construction design, accept public comment, and adopt the attached resolution.

A RESOLUTION PROVIDING FURTHER DIRECTION ON THE MARTIN LUTHER KING,
JR. PARK CONSTRUCTION DESIGN PROJECT

WHEREAS, the Carrboro Board of Aldermen have reviewed the 60% construction design drawings and held a public hearing to receive comment on the proposed design.

NOW, THEREFORE BE IT RESOLVED BY THE CARRBORO BOARD OF ALDERMEN,
THAT:

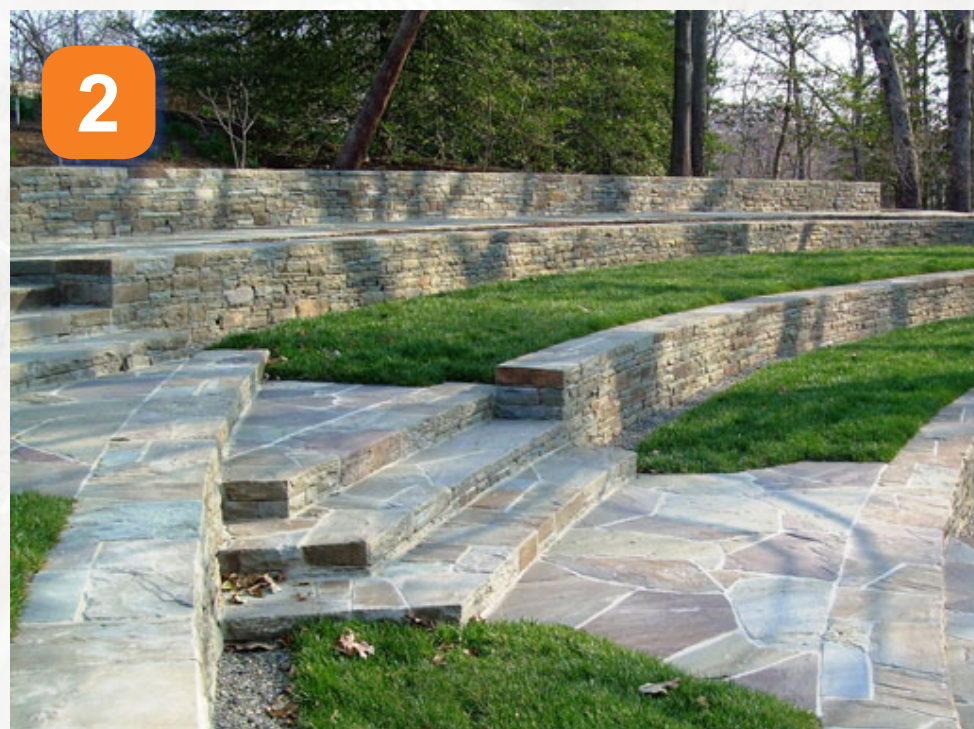
Section 1: Staff and the consultant are authorized to proceed with the current direction of the plans as presented or to include the following modifications:

- 1.
- 2.
- 3.
- 4

Section 2. This resolution becomes effective upon adoption.



RAINWATER HARVESTING



AMPHITHEATER SEATING



YOUTH CYCLING AREA



EXERCISE STATIONS



NATURAL PLAYGROUND



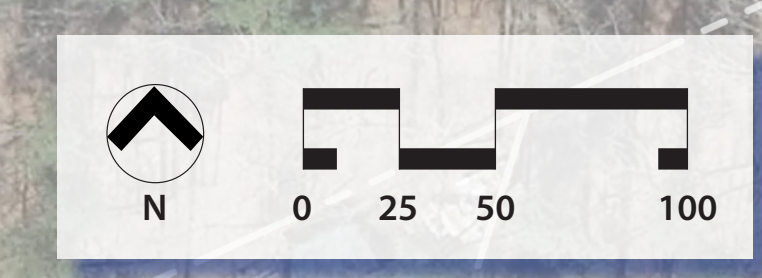
POLLINATOR GARDENS

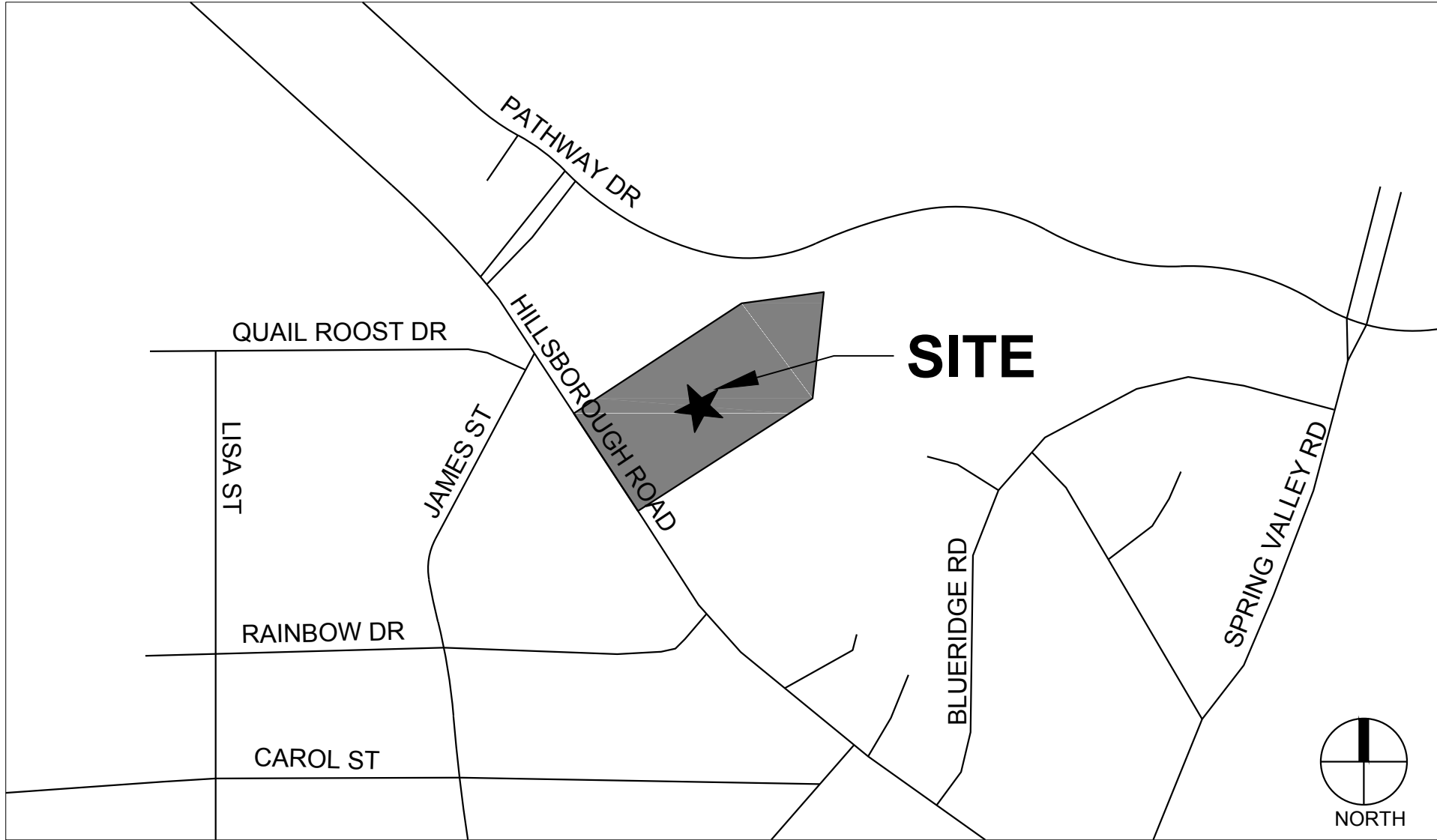


GREEN ROOF



CONSTRUCTED WETLAND





VICINITY MAP
SCALE: 1" = 500'

MARTIN LUTHER KING, JR PARK

1120 HILLSBOROUGH RD
CARRBORO, NC 27516

TOWN OF CARRBORO
60% DESIGN DEVELOPMENT
OWNER REVIEW

SUMMARY INFORMATION		
PROJECT NAME:	MARTIN LUTHER KING, JR PARK	
SITE ADDRESS:	1120 HILLSBOROUGH ROAD	
COUNTY:	ORANGE	
PARCEL PIN #:	9779-31-1977	
PARCEL OWNER:	TOWN OF CARRBORO	
PARCEL AREA:	10.12 Ac	
TOTAL DISTURBED/ PROJECT AREA:	6.26 Ac	
CURRENT ZONING:	R-15	
EXISTING LAND USE:	PARK	
PROPOSED USE:	PARK	
RIVER BASIN:	CAPE FEAR ; JORDAN LAKE (UNPROTECTED)	
CONSTRUCTION TYPE:	PARK	
MAX BUILDING HEIGHT:	35'-0"	
PROPOSED BUILDING HEIGHT:		
EXISTING IMPERVIOUS AREA:	10,197 S.F.	
PROPOSED IMPERVIOUS AREA:	22,053 S.F.	
OVERALL PARKING SUMMARY		
REQUIRED PARKING	TBD	
PROVIDED PARKING	30 TOTAL	
REGULAR 9'X18' SPACES	28	
HANDICAP ACCESSIBLE SPACES	2	
BIKE PARKING	6	
UTILITIES IMPROVEMENTS QTY		
PRIVATE SEWER		
6" SEWER SERVICE	452 LF	
PRIVATE WATER		
4" WATER MAIN	403 LF	
8" FIRE LINE	179 LF	

SHEET INDEX	
C0.00	COVER SHEET
C1.00	EXISTING CONDITIONS PLAN
C2.00	DEMOLITION PLAN
C3.00	SITE PLAN
C4.00	EROSION CONTROL PLAN
C5.00	GRADING PLAN
C9.00	SITE DETAILS
C9.10	EROSION CONTROL DETAILS
L1.00	PLANTING PLAN
L2.00	PLANTING DETAILS

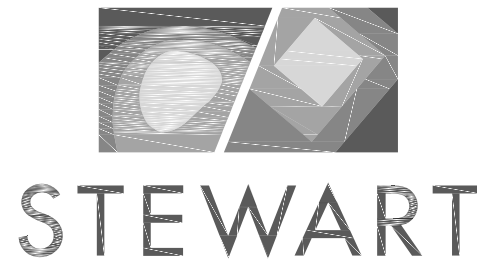


APPLICANT/OWNER



TOWN OF CARRBORO
PARKS AND RECREATION
301 WEST MAIN STREET
CARRBORO, NC 27510
CONTACT: WENDELL RODGERS
919.918.7371 (T)
WRODGERS@TOWNOFCARRBORO.ORG

CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE

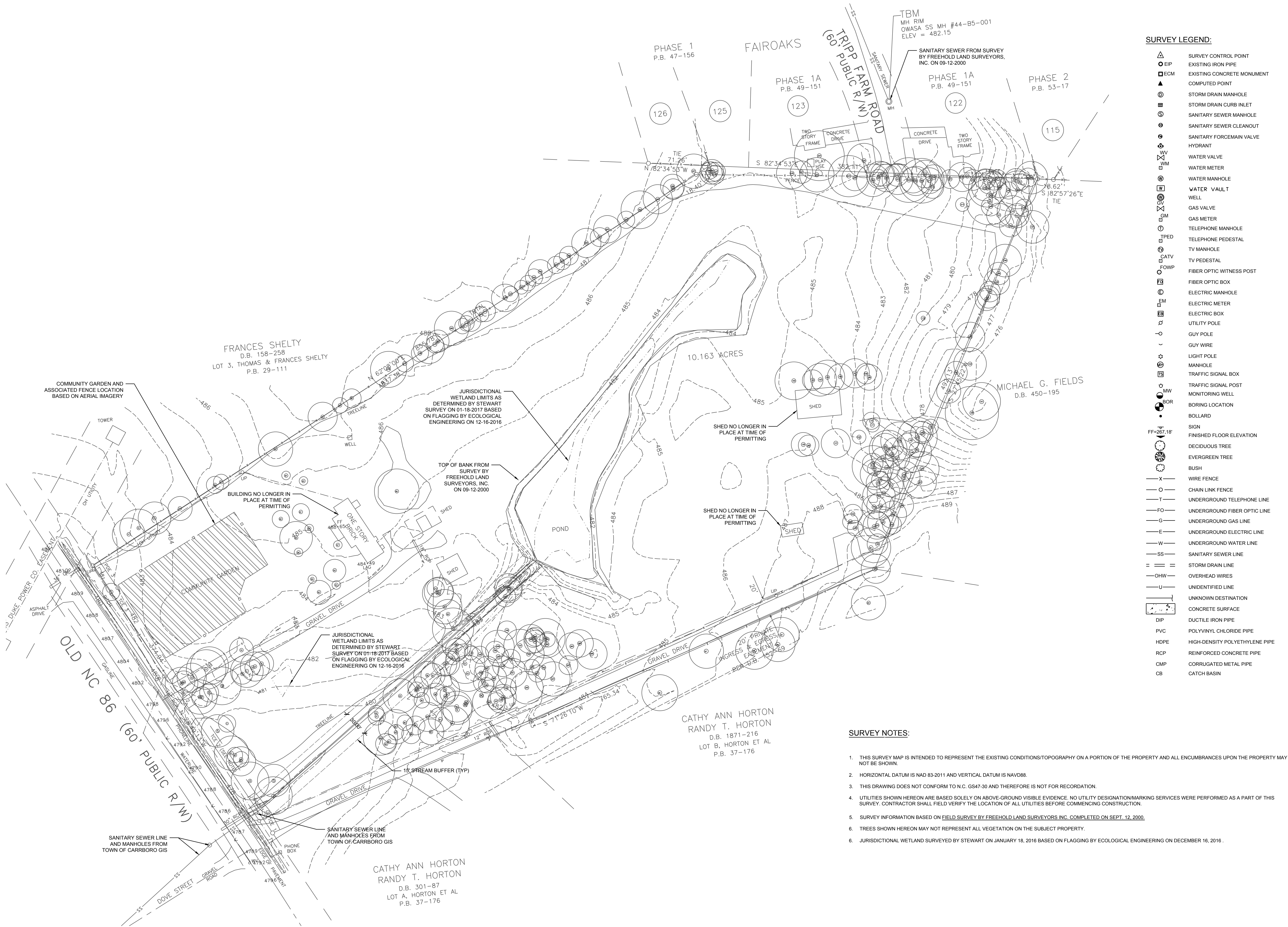


STEWART INC. - CIVIL ENGINEERING
CONTACT: JOSEPH PUCKETT, PE
CIVIL ENGINEER
919.866.4829 (T)
919.380.8752 (F)
JPUCKETT@STEWARTINC.COM

STEWART INC. - LANDSCAPE ARCHITECTURE
CONTACT: JENNIFER WAGNER, RLS
PROJECT MANAGER
919.866.4739 (T)
919.380.8752 (F)
JWAGNER@STEWARTINC.COM

Project number: C16146
Date: 02.27.2017
Drawn by: T. GULL
Designed by: T. GULL

Revisions:		
No.	Date	Description

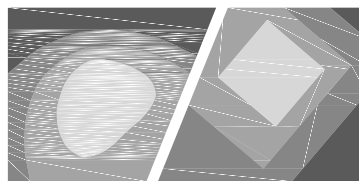


SURVEY LEGEND:

- △ SURVEY CONTROL POINT
- EIP EXISTING IRON PIPE
- ECM EXISTING CONCRETE MONUMENT
- ▲ COMPUTED POINT
- ⊕ STORM DRAIN MANHOLE
- ⊞ STORM DRAIN CURB INLET
- ⊙ SANITARY SEWER MANHOLE
- ⊗ SANITARY SEWER CLEANOUT
- ⊖ SANITARY FORCEMAIN VALVE
- ⊙ HYDRANT
- ⊙ WV WATER VALVE
- ⊙ WM WATER METER
- ⊙ WM WATER MANHOLE
- ⊙ W WATER VAULT
- ⊙ W WELL
- ⊙ G GAS VALVE
- ⊙ GM GAS METER
- ⊙ TPED TELEPHONE MANHOLE
- ⊙ TPED TELEPHONE PEDESTAL
- ⊙ TV MANHOLE
- ⊙ TV PEDestal
- ⊙ FOWP FIBER OPTIC WITNESS POST
- ⊙ FIBER OPTIC BOX
- ⊙ E ELECTRIC MANHOLE
- ⊙ EM ELECTRIC METER
- ⊙ EB ELECTRIC BOX
- ⊙ U UTILITY POLE
- ⊙ GUY POLE
- ⊙ GUY WIRE
- ⊙ LIGHT POLE
- ⊙ MANHOLE
- ⊙ TRAFFIC SIGNAL BOX
- ⊙ TRAFFIC SIGNAL POST
- ⊙ MONITORING WELL
- ⊙ BORING LOCATION
- ⊙ BOLLARD
- ⊙ SIGN
- FF=267.18' FINISHED FLOOR ELEVATION
- DECIDUOUS TREE
- EVERGREEN TREE
- BUSH
- X — WIRE FENCE
- O — CHAIN LINK FENCE
- T — UNDERGROUND TELEPHONE LINE
- FO — UNDERGROUND FIBER OPTIC LINE
- G — UNDERGROUND GAS LINE
- E — UNDERGROUND ELECTRIC LINE
- W — UNDERGROUND WATER LINE
- SS — SANITARY SEWER LINE
- SD — STORM DRAIN LINE
- OHW — OVERHEAD WIRES
- U — UNIDENTIFIED LINE
- UNKNOWN DESTINATION
- CONCRETE SURFACE
- DIP DUCTILE IRON PIPE
- PVC POLYVINYL CHLORIDE PIPE
- HDPE HIGH-DENSITY POLYETHYLENE PIPE
- RCP REINFORCED CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- CB CATCH BASIN

SURVEY NOTES:

- THIS SURVEY MAP IS INTENDED TO REPRESENT THE EXISTING CONDITIONS/TOPOGRAPHY ON A PORTION OF THE PROPERTY AND ALL ENCUMBRANCES UPON THE PROPERTY MAY NOT BE SHOWN.
- HORIZONTAL DATUM IS NAD 83-2011 AND VERTICAL DATUM IS NAVD88.
- THIS DRAWING DOES NOT CONFORM TO N.C. GS47-30 AND THEREFORE IS NOT FOR RECORDATION.
- UTILITIES SHOWN HEREON ARE BASED SOLELY ON ABOVE-GROUND VISIBLE EVIDENCE. NO UTILITY DESIGNATION/MARKING SERVICES WERE PERFORMED AS A PART OF THIS SURVEY. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION.
- SURVEY INFORMATION BASED ON FIELD SURVEY BY FREEHOLD LAND SURVEYORS INC. COMPLETED ON SEPT. 12, 2000.
- TREES SHOWN HEREON MAY NOT REPRESENT ALL VEGETATION ON THE SUBJECT PROPERTY.
- JURISDICTIONAL WETLAND SURVEYED BY STEWART ON JANUARY 18, 2016 BASED ON FLAGGING BY ECOLOGICAL ENGINEERING ON DECEMBER 16, 2016.



STEWART

421 FAYETTEVILLE ST., SUITE 400
RALEIGH, NC 27601
T 919.380.8750

FIRM LICENSE # C-1051
www.stewartinc.com
PROJECT # C16146

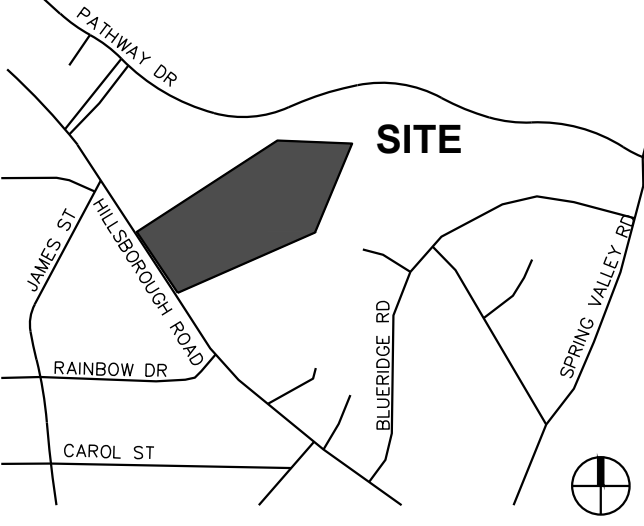
Client:

TOWN OF CARRBORO
301 W. MAIN STREET
CARRBORO, NC 27510
T: (919) 918-7364
F: (919) 918-4475

Project:

MARTIN LUTHER
KING, JR.
PARK

Vicinity map:



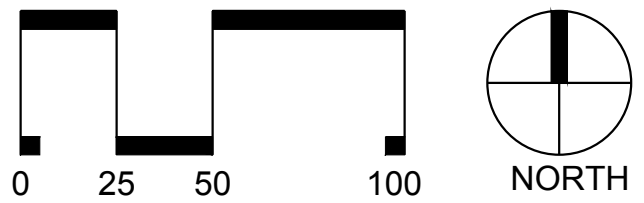
Seal:

PRELIMINARY - DO NOT
USE FOR CONSTRUCTION

Issued for:

60% DESIGN
DEVELOPMENT

No.	Date	Description



SCALE: 1"=50'

Title:

EXISTING
CONDITIONS

Project number: --- Sheet:

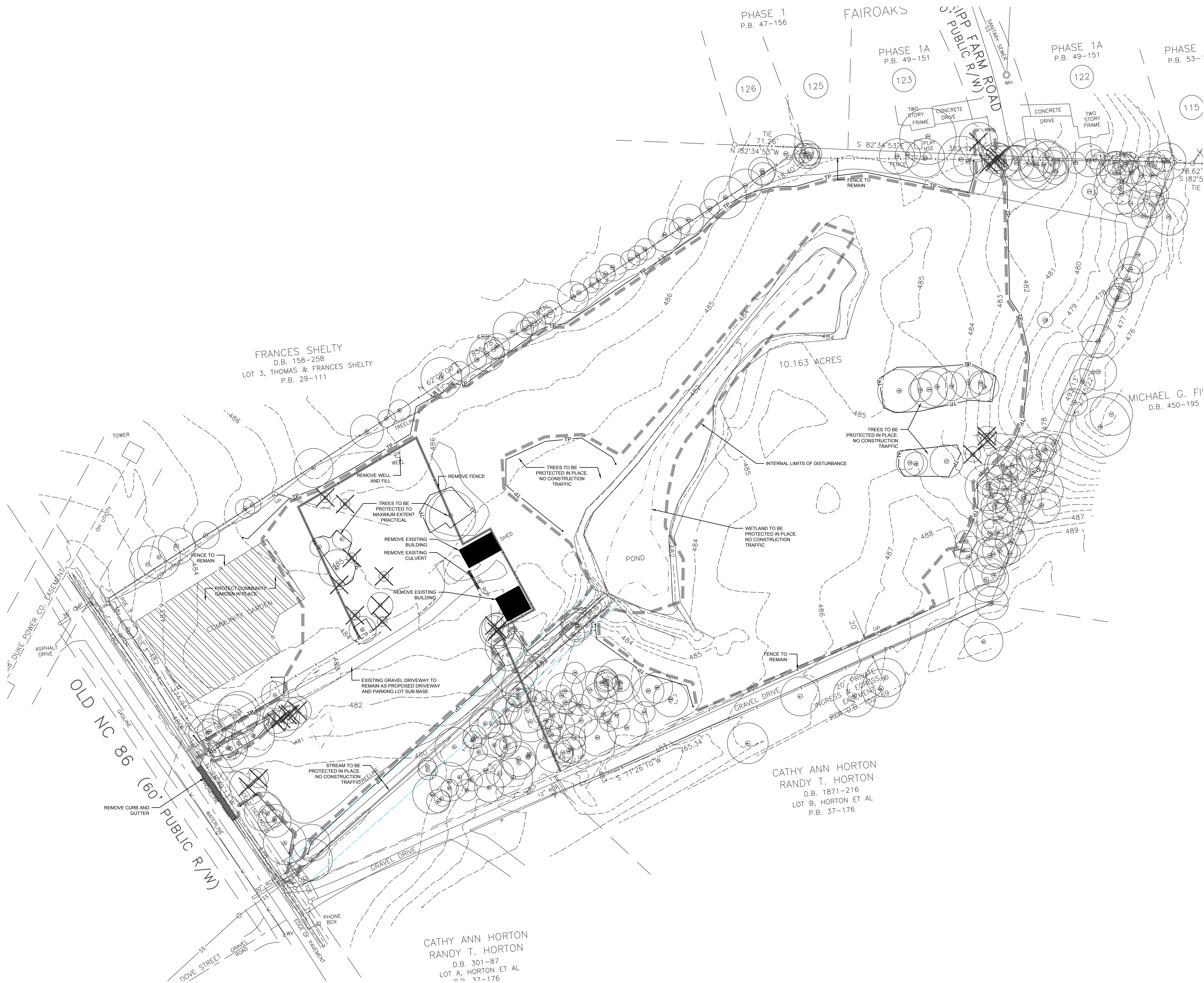
Date: 03.10.2017

Drawn by: NBC

Approved by: JLW

C1.00

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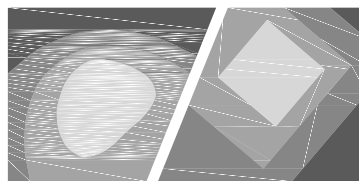


DEMOLITION LEGEND

- REMOVE BUILDING
- W REMOVE WATER LINE
- SS REMOVE SANITARY SEWER LINE
- REMOVE STORM DRAINAGE
- REMOVE FENCE
- TP TREE PROTECTION FENCE
- LIMITS OF DISTURBANCE
- COORDINATE LIGHT POLE REMOVAL
- REMOVE TREE
- REMOVE TREELINE
- REMOVE CURB & GUTTER
- REMOVE SIGN

DEMOLITION NOTES:

- REFER TO SHEET C3.00 FOR GENERAL NOTES.
- CLEANOUTS AND WATER VALVES LOCATED IN AREAS OF DEMOLITION OR SUBSEQUENT CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND RAISED TO BE FLUSH WITH NEW GRADE.
- ANY UTILITY SERVICES SHOWN TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY PROVIDER. CONTRACTOR IS RESPONSIBLE FOR APPROPRIATE SEQUENCING OF UTILITY DEMOLITION WITH THE RESPECTIVE UTILITY AGENCIES.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES PRIOR TO BEGINNING DEMOLITION OPERATIONS. NOTIFY "NORTH CAROLINA ONE CALL" (TELEPHONE 1-800-632-4949) AT LEAST 48 HOURS PRIOR TO START OF DEMOLITION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL."
- CLEAN SOILS SHALL BE UTILIZED FOR BACKFILL. COMPACTION OF THESE SOILS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ALL SUBGRADE MATERIALS DIRECTLY ASSOCIATED WITH ITEMS TO BE REMOVED.
- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF LEGALLY OFF-SITE UNLESS OTHERWISE NOTED ON THIS PLAN.
- REFER TO LANDSCAPE AND EROSION CONTROL DRAWINGS FOR TREE PROTECTION PLAN AND REQUIREMENTS.
- ALL DEMOLITION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL JURISDICTIONAL CODES OR REQUIREMENTS.
- TREE PROTECTION FENCING SHALL BE IN PLACE PRIOR TO BEGINNING DEMOLITION.
- EROSION CONTROL PERMIT SHALL BE OBTAINED AND ONSITE PRIOR TO BEGINNING DEMOLITION.
- ITEMS DESIGNATED TO BE SALVAGED AND/OR RE-USED SHALL BE REMOVED BY THE CONTRACTOR AND PROVIDED TO THE OWNER. COORDINATE STORAGE LOCATION WITH OWNER'S REPRESENTATIVE.
- WHERE UTILITIES ("TO BE REMOVED") IMPACT THE FOOTPRINT OF THE NEW BUILDING, THE CONTRACTOR SHALL EXECUTE AND REMOVE AN ADDITIONAL 2 FEET OF SOILS TO EITHER SIDE OF THE PIPE, AND 1 FOOT BELOW. CLEAN SUITABLE SOIL SHALL BE UTILIZED FOR BACKFILL AND COMPACTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DEMOLITION AND SUBSEQUENT CONSTRUCTION OF STORM DRAINAGE PIPING SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES REMOVED DO NOT IMPACT DRAINAGE UPSTREAM OF THE SYSTEM. PROVISIONS SHALL BE MADE TO MAINTAIN STORM WATER DRAINAGE PATTERNS DURING CONSTRUCTION.
- DEMOLITION AND SUBSEQUENT CONSTRUCTION OF UTILITIES (WATER, SEWER, ETC) SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES REMOVED DO NOT IMPACT OR MINIMIZE SERVICE INTERRUPTION TO EXISTING FACILITIES TO REMAIN. PROVISIONS SHALL BE MADE TO MAINTAIN SERVICE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGES TO THE EXISTING SIDEWALK AND CURB AND GUTTER AS A RESULT OF CONSTRUCTION ACTIVITY AND TRAFFIC. CONTRACTOR SHALL MAINTAIN A PRE-CONSTRUCTION VIDEO OR PHOTO DOCUMENTATION TO SHOW NO DAMAGES OCCURRED.
- ALL MATERIALS, FURNISHINGS, UTILITIES, AND PAVEMENT THAT ARE NOT SCHEDULED TO BE DEMOLISHED AND ARE DAMAGED BY THE CONTRACTOR AS A RESULT OF THE DEMOLITION OR CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- WHERE UTILITIES ARE SHOWN TO BE "REMOVED", CONTRACTOR SHALL INCLUDE NECESSARY PLUG OR VALVES TO ENSURE UTILITY LINES TO REMAIN WILL CONTINUE TO BE IN SERVICE. COORDINATE NECESSARY SHUT DOWN AND REMOVAL WITH THE LOCAL JURISDICTION OR UTILITY OWNER.
- CONTRACTOR SHALL PROVIDE PEDESTRIAN INGRESS / EGRESS TO ALL EXISTING PARKING LOTS AND PATHS OF PEDESTRIAN TRAVEL THROUGHOUT THE CONSTRUCTION PERIOD.



STEWART

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PROJECT # C16146

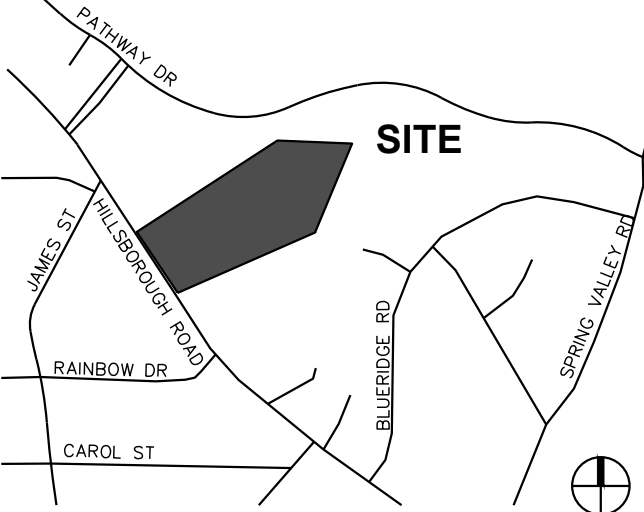
Client:

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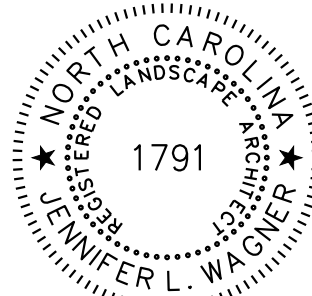
Project:

MARTIN LUTHER
KING, JR.
PARK

Vicinity map:



Seal:

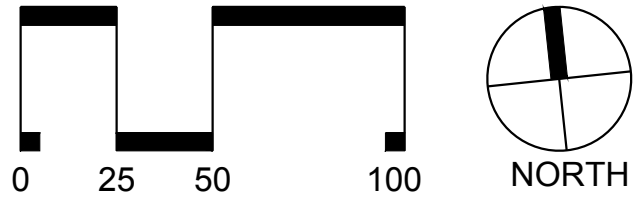


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DEVELOPMENT

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SCALE: 1"=50'

Title:

DEMOLITION PLAN

Project number: C16146 Sheet:

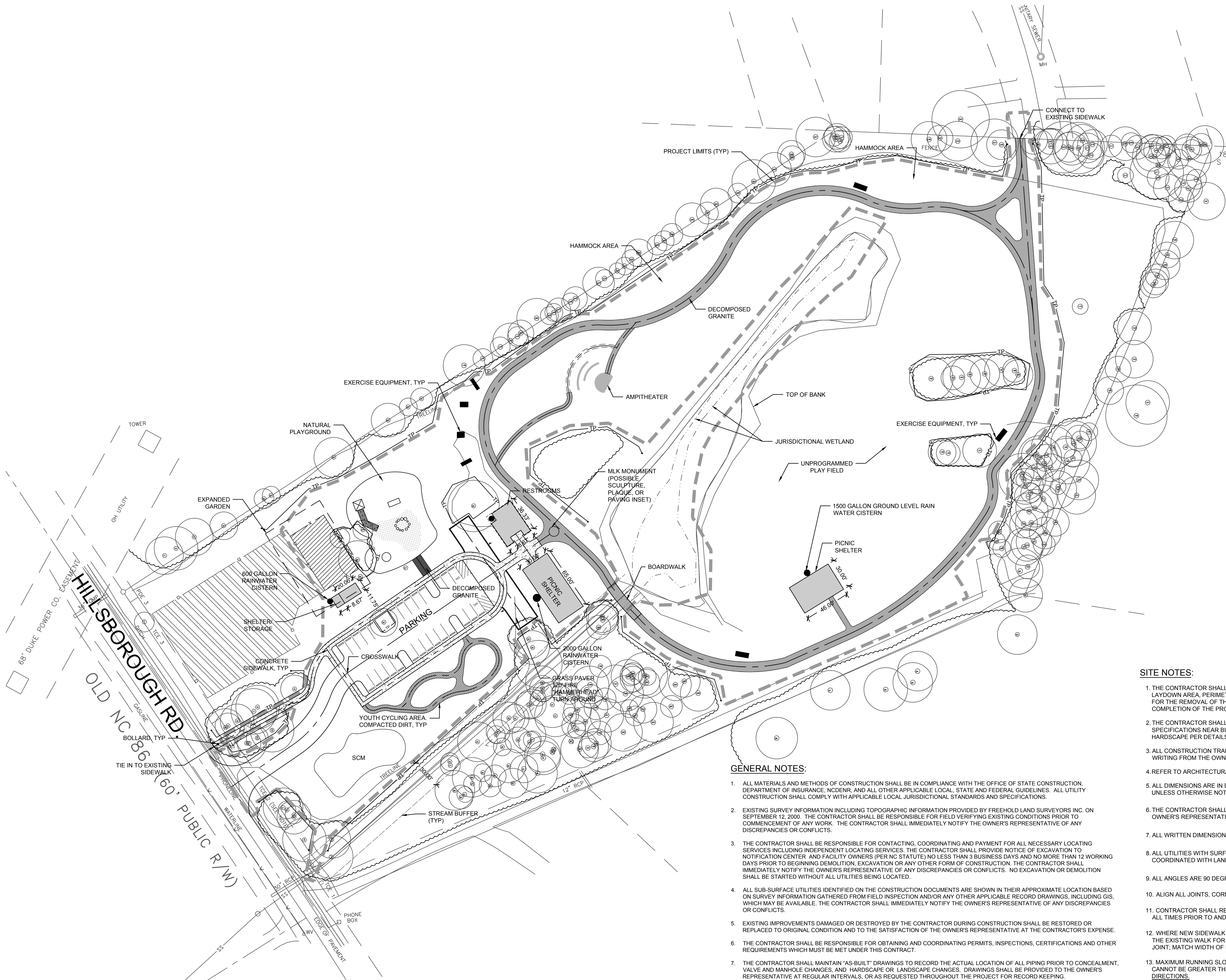
Date: 03.10.2017

Drawn by: TPG

Approved by: JLW

C2.00

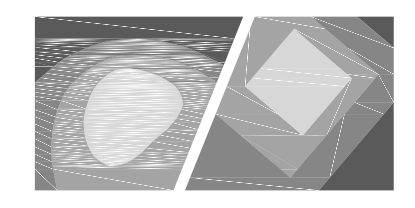
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- SITE LEGEND**
- PROPOSED BUILDING
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED HEAVY DUTY PAVEMENT
 - PROPOSED STOP BAR
 - PROPOSED 6' WIDE STANDARD CROSSWALK
 - PROPOSED SIGN
 - PROPOSED ADA PARKING SPACE
 - PROPOSED KEYSTONE WALL
 - PROPOSED WHEEL STOP
 - PROPOSED DECOMPOSED GRANITE TRAIL
 - PROPOSED COMPACTED DIRT TRACK
 - PROPOSED TREELINE
 - PROPOSED FENCE
 - PROPOSED VEHICLE GATE (X' WIDE)
 - PROPOSED LIGHT
 - PROPOSED BIKE RACK
 - PROPOSED BENCH
 - PROPOSED BOLLARD
 - LIMITS OF DISTURBANCE

- SITE NOTES:**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE CONSTRUCTION LAYDOWN AREA, PERIMETER FENCE, AND ASSOCIATED GATES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REMOVAL OF THE CONSTRUCTION LAYDOWN AREA PERIMETER FENCE AND ASSOCIATED GATES AT THE COMPLETION OF THE PROJECT.
 2. THE CONTRACTOR SHALL REFERENCE THE DESIGN PLANS FOR DIMENSIONS, JOINT LOCATIONS, AND INLAY SPECIFICATIONS NEAR BUILDINGS AND IN COURTYARDS. CONTRACTOR SHALL PROVIDE JOINTS IN WALKWAYS AND HARDSCAPE PER DETAILS OR AS INDICATED ON LANDSCAPE/HARDSCAPE PLAN SHEETS.
 3. ALL CONSTRUCTION TRAFFIC SHALL ENTER SITE FROM HILLSBOROUGH ROAD UNLESS OTHERWISE APPROVED IN WRITING FROM THE OWNER'S REPRESENTATIVE FOR AN ALTERNATE POINT OF ACCESS.
 4. REFER TO ARCHITECTURAL PLANS FOR BUILDING INFORMATION.
 5. ALL DIMENSIONS ARE IN DECIMAL FEET TO OUTSIDE FACE OF BUILDINGS, TO CENTERLINES, AND/OR FACE OF CURB UNLESS OTHERWISE NOTED.
 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATES AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO ANY CONSTRUCTION.
 7. ALL WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE FROM DRAWINGS.
 8. ALL UTILITIES WITH SURFACE ACCESS SHALL BE LOCATED WITHIN THE PAVING PATTERN AND SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. REFER TO LAYOUT DRAWINGS.
 9. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED.
 10. ALIGN ALL JOINTS, CORNERS, AND EDGES AS SHOWN
 11. CONTRACTOR SHALL REFER TO AND COORDINATE WITH ARCHITECTURAL, STRUCTURAL, AND MEP DRAWINGS AT ALL TIMES PRIOR TO AND DURING CONSTRUCTION.
 12. WHERE NEW SIDEWALK ADJOINS EXISTING WALK, PROVIDE EXPANSION JOINT BY DRILLING INTO THE FACE OF THE EXISTING WALK FOR PLACEMENT OF DOWELS. TIE NEW SIDEWALKS INTO NEAREST EXISTING PAVEMENT JOINT; MATCH WIDTH OF EXISTING WALKWAY.
 13. MAXIMUM RUNNING SLOPE FOR WALKING SURFACES CANNOT BE GREATER THAN 1:20 AND CROSS SLOPES CANNOT BE GREATER THAN 1:48. HANDICAP SPACES SURFACE SLOPES SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS.
 14. SIGHT TRIANGLES - NOTHING OVER 30" HIGH SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLES.
 15. THE SITE SHALL BE FULLY STABILIZED (90% COVERAGE) PRIOR TO ISSUANCE OF A BUILDING CERTIFICATE OF OCCUPANCY OR PROJECT APPROVAL.
 16. HANDICAP RAMPS SHALL BE INSTALLED PER THE PLANS AND SPECIFICATIONS AND THE NC BUILDING CODE. A MAXIMUM SLOPE OF 1/12 FOR 6-FEET AND A MAXIMUM CROSS SLOPE OF 1:48 SHALL BE PROVIDED. IF EXISTING CONDITIONS PRECLUDE THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION
 17. THE TESTING AGENCY SHALL BE RESPONSIBLE FOR PROVIDING THE ASPHALT AND CONTRACTOR CERTIFICATION MEMO TO NCDOT FOR ALL ROADWAY IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY.

- GENERAL NOTES:**
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE OFFICE OF STATE CONSTRUCTION, DEPARTMENT OF INSURANCE, NC DENR, AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES. ALL UTILITY CONSTRUCTION SHALL COMPLY WITH APPLICABLE LOCAL JURISDICTIONAL STANDARDS AND SPECIFICATIONS.
 2. EXISTING SURVEY INFORMATION INCLUDING TOPOGRAPHIC INFORMATION PROVIDED BY FREEHOLD LAND SURVEYORS INC. ON SEPTEMBER 12, 2000. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL PROVIDE NOTICE OF EXCAVATION TO NOTIFICATION CENTER AND FACILITY OWNERS (PER NC STATUTE) NO LESS THAN 3 BUSINESS DAYS AND NO MORE THAN 12 WORKING DAYS PRIOR TO BEGINNING DEMOLITION, EXCAVATION OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS. NO EXCAVATION OR DEMOLITION SHALL BE STARTED WITHOUT ALL UTILITIES BEING LOCATED.
 4. ALL SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS, INCLUDING GIS, WHICH MAY BE AVAILABLE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
 5. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COORDINATING PERMITS, INSPECTIONS, CERTIFICATIONS AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT.
 7. THE CONTRACTOR SHALL MAINTAIN "AS-BUILT" DRAWINGS TO RECORD THE ACTUAL LOCATION OF ALL PIPING PRIOR TO CONCEALMENT, VALVE AND MANHOLE CHANGES, AND HARDSCAPE OR LANDSCAPE CHANGES. DRAWINGS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE AT REGULAR INTERVALS, OR AS REQUESTED THROUGHOUT THE PROJECT FOR RECORD KEEPING.
 8. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THERE OF SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S REPRESENTATIVE.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY EXISTING UTILITY LINES REQUIRED TO COMPLETE ANY PORTION OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE COORDINATION AND COSTS OF THE RELOCATION AND ASSOCIATED WORK.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH CAUSED BY THE CONTRACTOR. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY BASIS.
 11. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
 12. ROADWAYS (TEMPORARY OR PERMANENT) MUST BE CAPABLE OF SUPPORTING FIRE FIGHTING APPARATUS (65,000 LBS) DURING ALL PHASES OF CONSTRUCTION ONCE VERTICAL CONSTRUCTION HAS BEGUN.



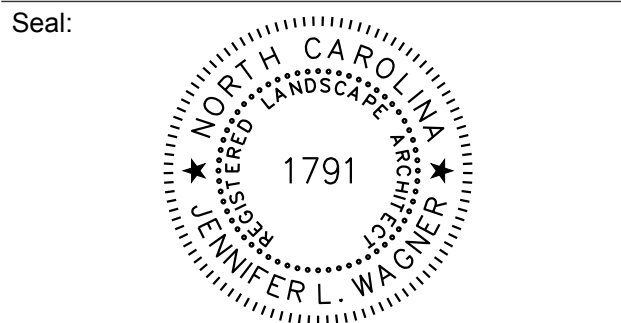
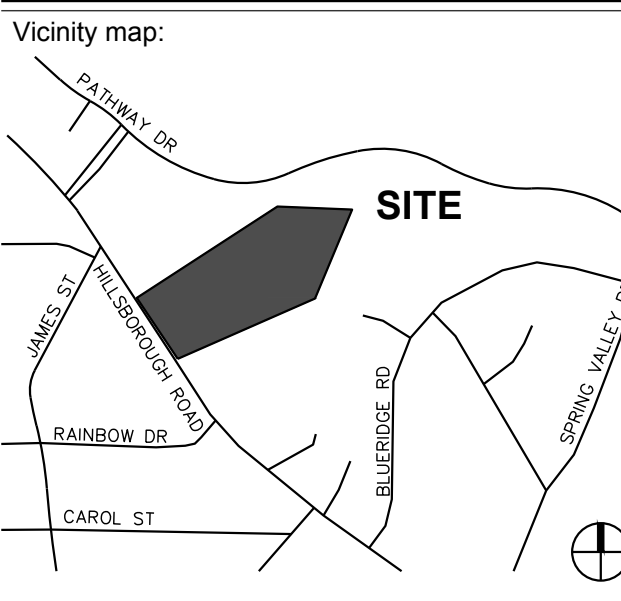
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Project:

**MARTIN LUTHER
KING, JR.
PARK**

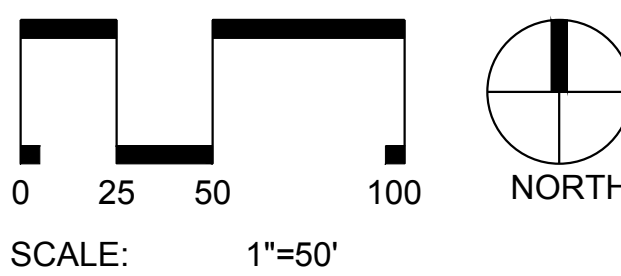


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SITE PLAN

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C3.00

2. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN BEST LOCATION BASED ON FIELD CONDITIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
5. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTIONS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
6. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
7. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE LIMITS OF DISTURBANCE (L.O.D.) SHALL BE PERMITTED. THE L.O.D. SHALL BE MAINTAINED BY THE ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
8. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
9. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOMMODATE FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
10. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COPIES OF THE WRITTEN INSPECTION REPORTS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE TWICE PER WEEK AND AFTER RAINS OF GREATER THAN 0.5" RAIN GAUGE REQUIRED ON SITE.
11. ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR FOURTEEN DAYS SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
12. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY EIGHT (48) HOURS FOLLOWING A STORM EVENT.
13. AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
14. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
15. WHEN STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE A MINIMUM THICKNESS OF 2 TO 3 INCHES.
16. INTERIM SLOPES MAY BE GRADED TO A MAXIMUM SLOPE OF 2:1 (HORIZONTAL: VERTICAL); CUT SLOPES SHALL BE LIMITED TO A MAXIMUM SLOPE OF 1.5:1.
17. THE SURFACE OF AREAS SLOPES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL THAT ARE TO RECEIVE INTERIM FILL SHALL BE PLOWED, FURROWED, TILLED OR BROKEN UP PRIOR TO PLACING FILL SO THAT FILL MATERIAL WILL BOND WITH EXISTING " SURFACE. INTERIM FILL SHALL BE PLACED AS SPECIFIED FOR PERMANENT PLANS AND IN LIFTS NOT GREATER THAN 6".
18. PROVIDE DUST CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, WETTING DOWN TO CONTROL DUST ON SITE, IN ORDER TO PREVENT ANNOYANCE/AND OR DAMAGE TO ADJACENT SITES. CALCIUM CHLORIDE OR ANY OTHER CHEMICAL MATERIAL MAY NOT BE USED ON SUBGRADES OF AREAS TO BE SEEDED OR PLANTED.
19. SEDIMENT LADEN RUNOFF FROM EXCAVATIONS SHALL NOT BE PUMPED DIRECTLY TO STORM DRAINAGE.
20. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (INCIDENT OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
21. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION EROSION AND SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
22. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM: THE PERSON RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES IS REQUIRED TO INSPECT THE PROJECT AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCQS 113A-54.1 AND 15A NCAC 48B 0131 TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FORM http://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.XTLM

1. TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT. OR OBTAIN A GRADING PERMIT THEN TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE
2. TREE PROTECTION FENCING SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH, AS FOLLOWS: "NO TRESPASSING/TREE PROTECTION AREA/PROHIBIDO ENTRAR / ZONA PROTECTORA PARA LOS ARBOLES."
3. PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE ON THE TREE ROOTS OUTSIDE OF THE TREE SAVE AREA. THIS SHALL OCCUR AT THE SAME TIME THAT OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FURTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE.
4. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED TREE AREA.
5. TREE PROTECTION AREA: EQUALS ONE FOOT OF RADIUS FOR EVERY INCH OF DIAMETER OF EXISTING TREES, OR SIX FOOT RADIUS, WHICHEVER IS GREATER. NO DISTURBANCE ALLOWED WITHIN THIS AREA.

1. OBTAIN GRADING PERMIT.
2. DETERMINE AND MARK LIMITS OF DISTURBANCE.
3. A PRECONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ARCHITECT, ENGINEER, AND CONTRACTOR SHALL BE PRESENT TO SATISFY REQUIREMENTS.
4. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCE, PERIMETER EROSION CONTROL DEVICES AND ALL REQUIRED BASINS AND TRAPS.
5. SCHEDULE SITE INSPECTION.
6. UPON APPROVAL TO PROCEED BY THE EROSION CONTROL INSPECTOR, HARVEST ANY TIMBER.
7. CONSTRUCT REMAINING EROSION CONTROL MEASURES AS REQUIRED.
8. REMOVE AND/OR STORE TOPSOIL.
9. BEGIN GRADING OPERATIONS.
10. CLEAN SEDIMENT BASINS/TRAPS WHEN ONE-HALF FULL.
11. ALL STREETS SURROUNDING THE PROJECT SHALL BE KEPT CLEAN AT ALL TIMES.
12. PLACE TEMPORARY SEEDING ON ALL DISTURBED AREAS THAT WILL BE IDLE 14 DAYS OR LONGER.
13. PERMANENT SURFACE STABILIZATION SHALL BE INSTALLED FOR ALL AREAS WITHIN 14 DAYS AFTER FINAL GRADE HAS BEEN REACHED. AS NECESSARY, FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH AND MAINTAIN A VIGOROUS STAND OF GRASS.
14. AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT TRAPPING MEASURES AND DISPOSE BY MEANS DEEMED ACCEPTABLE BY THE ENGINEER. SCHEDULE SITE INSPECTION. UPON APPROVAL BY THE EROSION CONTROL INSPECTOR, REMOVE TEMPORARY EROSION CONTROL MEASURES, SMOOTH AREA AND APPLY APPROPRIATE STABILIZATION.
15. STORMWATER PERMIT INSPECTION REPORTS SHALL BE PERFORMED BY THE CONTRACTOR UNTIL NOTIFIED OTHERWISE BY THE EROSION CONTROL INSPECTOR.

1. INSPECTOR REFERS TO LOCAL JURISDICTION (NC DENR OR LOCAL) LAND QUALITY INSPECTION OR THIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE additional SEDIMENTATION AND EROSION CONTROL MEASURES AS DETERMINED NECESSARY BY THE INSPECTOR.
2. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION EROSION AND SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
3. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM. THE PERSON RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES IS REQUIRED TO INSPECT THE PROJECT AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-51 AND 15A NCAC 04.03131 TO MAKE SURE THAT THE APPROPRIATE EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. THE NOTIFICATION REPORT FORM IS AVAILABLE AS A MODEL SPREADSHEET FORM
[HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML](http://www.dlr.enr.state.nc.us/PAGES/SEDIMENTATION_NEW.HTML)

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
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 ADMIXTURE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTPACK 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 MORE THAN 80% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LINE, FERTILIZER AND SEEDING RATES.
9. CONSULT S&E ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL, 3 INCHES DEEP OVER ADVERSE SOIL, CONDITIONED, 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 ALL AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL. (SEE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, REASONABLY UNIFORM 4 TO 6 INCHES DEEP SEEDBED IS PREPARED.
6. SEED ON A FRESHLY PREPARED SEED BED 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 RESEEDING WITHIN THE PLANTING SEASON. IF POSSIBLE, IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 50% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES AND LANDSCAPING PLANS.
10. SEE LANDSCAPING PLANS FOR PERMANENT SEEDING, MULCHING, AND FERTILIZING RATES. ALL AREAS NOT DESIGNATED TO RECEIVE PLANTS SHALL BE SEEDED PER THE LANDSCAPING PLANS.

AGRICULTURAL LIMESTONE: 2 TONS/ACRE
FERTILIZER: 1,000 LBS/ACRE - 10-10-10
SUPERPHOSPHATE: 500 LBS/ACRE - 20% ANALYSIS
MULCH: 2 TONS/ACRE - SMALL GRAIN STRAW
ANCHOR: ASPHALT EMULSION AT 300 GALS/ACRE

DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - MAR 1	TALL FESCUE	300 LBS/ACRE
	AND ABRUZZI RYE	25 LBS/ACRE
MAR 1 - APR 15	TALL FESCUE	300 LBS/ACRE
NOV 1 - JUN 30	MULLED COMMON BERMOUDAGRASS	25 LBS/ACRE
JUL 1 - AUG 15	TALL FESCUE AND ***BROWNTOP MILLET	120 LBS/ACRE 35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
SLOPES (3:1 to 2:1)		
DATE	TYPE	PLANTING RATE
MAR 1 - JUN 1	***BROWNTOP MILLET	90 LBS/ACRE
(MAR 1 - APR 15)	ADD TALL FESCUE	120 LBS/ACRE (MAR 1 - JUN 30)
	OR ADD MULLED COMMON BERMOUDAGRASS	25 LBS/ACRE
JUN 1 - SEP 1	TALL FESCUE AND ***BROWNTOP MILLET	120 LBS/ACRE 35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
SEP 1 - MAR 1	ANNUAL RYE AND TALL FESCUE ADD ABRUZZI RYE	70 LBS/ACRE 120 LBS/ACRE 25 LBS/ACRE
		(NOV 1 - MAR 1)

***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.

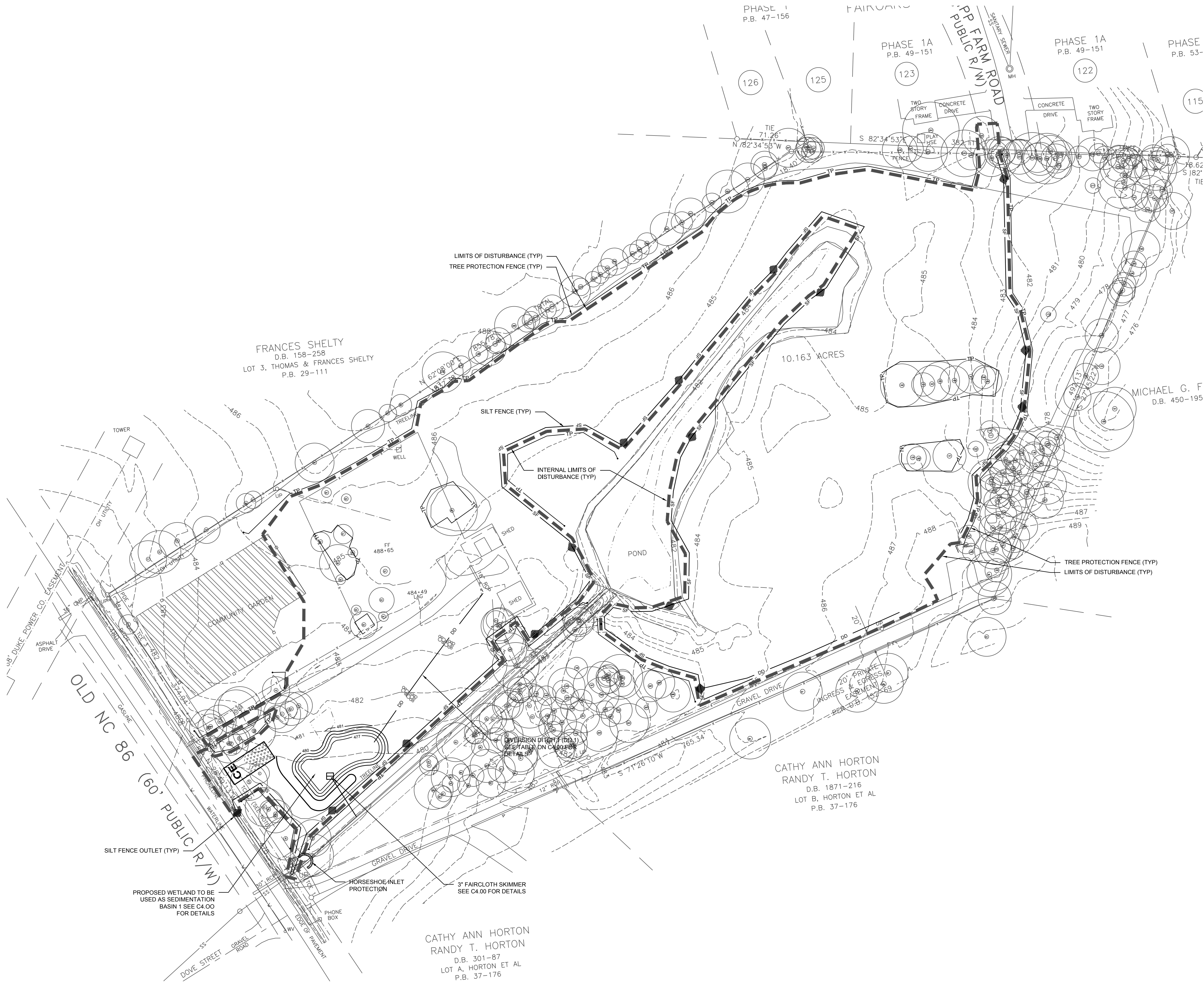
SEDIMENTATION BASIN SIZING																				
BASIN ID	BASIN GEOMETRY										OUTLET		SKIMMER CHARACTERISTICS			SURFACE AREA (SF)		VOLUME (CF)		DEWATERING TIME
	BOTTOM		TOP		SURFACE		DAM HEIGHT	SIDE SLOPES	STORAGE DEPTH	STONE WIDTH	SIDE SLOPES	SIZE	HEAD	ORIFICE	REQUIRED	PROVIDED	REQUIRED	PROVIDED		
	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH														
Sed Basin 1	13.0 ft	38.0 ft	31.0 ft	56.0 ft	25.0 ft	50.0 ft	4.5 ft	2.1	3.0 ft	4.0 ft	2.1	3.0 in	0.3 ft	1.00 in	958	2,207.00	2,196.00	2,202.00	2 days	
Sed Basin 2	13.0 ft	38.0 ft	31.0 ft	56.0 ft	25.0 ft	50.0 ft	4.5 ft	2.1	3.0 ft	4.0 ft	2.1	3.0 in	0.3 ft	0.75 in	864	1,250.00	1,980.00	2,616.00	4 days	

Channel	Bottom Width (Y)	Sideslope (M)	Top Width (W)	Lining	Channel Depth (FT)	Velocity
DD-01	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.65 FT	4.31 FT/S
DD-02	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.7 FT	4.42 FT/S
DD-03	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.65 FT	2.97 FT/S
DD-04	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.45 FT	3.29 FT/S

TOTAL AREA OF DISTURBANCE
5.86 AC



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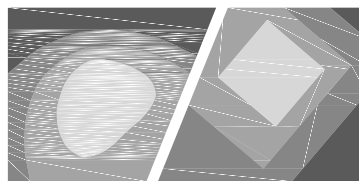


EROSION CONTROL LEGEND

- SF SILT FENCE
- TP TREE PROTECTION
- DD DIVERSION DITCH
- LIMITS OF DISTURBANCE
- HORSE SHOE INLET PROTECTION
- SILT FENCE OUTLET
- CHECK DAM
- FLARED END SECTION (FES)
- SEDIMENT TRAP
- RIPRAP DISSIPATER
- CE TEMPORARY CONSTRUCTION ENTRANCE
- 100 YR FLOOD ELEV.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA EROSION CONTROL SPECIFICATIONS

TOTAL AREA OF DISTURBANCE
5.86 AC



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Project:

MARTIN LUTHER
KING, JR.
PARK

Vicinity map:



Seal:

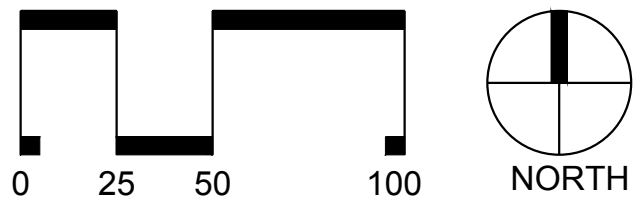


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SCALE: 1"=50'

Title:

EROSION CONTRL
PHASE 1

Project number: --- Sheet:

Date: 03.10.2017

Drawn by: NBC

Approved by: JWP

C4.01

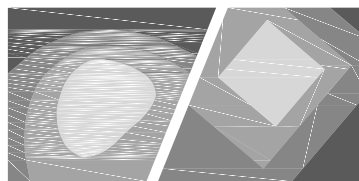
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EROSION CONTROL LEGEND

- SF SILT FENCE
- TP TREE PROTECTION
- DD DIVERSION DITCH
- LIMITS OF DISTURBANCE
- HORSE SHOE INLET PROTECTION
- SILT FENCE OUTLET
- CHECK DAM
- FLARED END SECTION (FES)
- SEDIMENT TRAP
- RIPRAP DISSIPATER
- TEMPORARY CONSTRUCTION ENTRANCE
- 100 YR FLOOD ELEV.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA EROSION CONTROL SPECIFICATIONS



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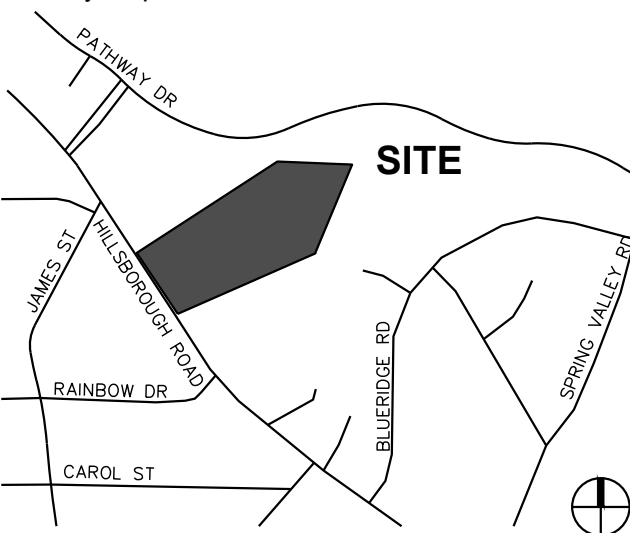
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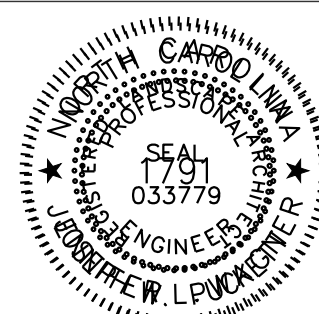
Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

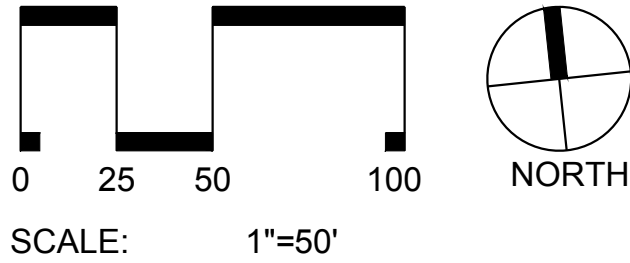


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No.	Date	Description



Title:

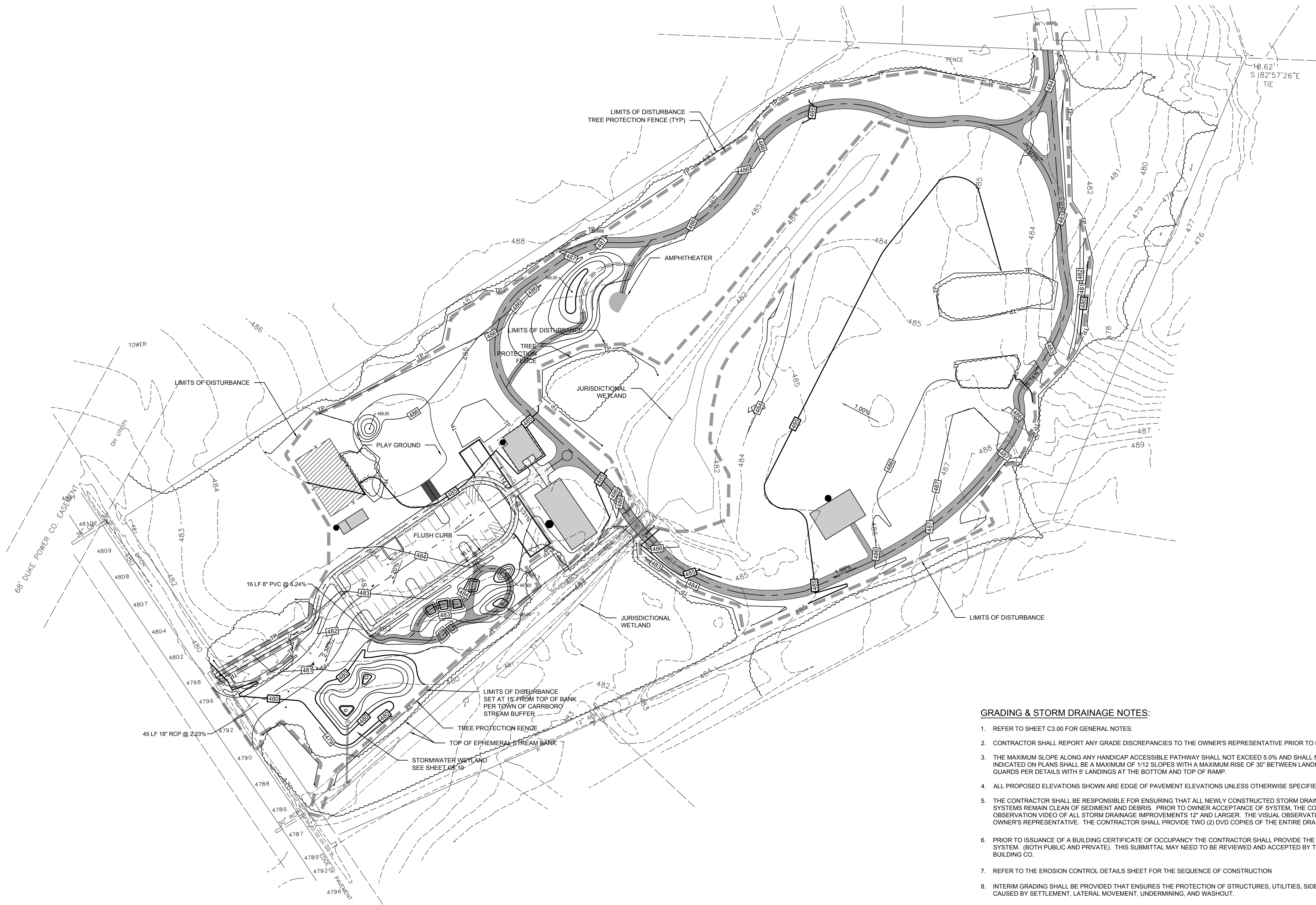
EROSION CONTROL PHASE 2

Project number: --- Sheet:
Date: 03.10.2017
Drawn by: CJJ
Approved by: JWP

C4.02

TOTAL AREA OF DISTURBANCE
5.86 AC

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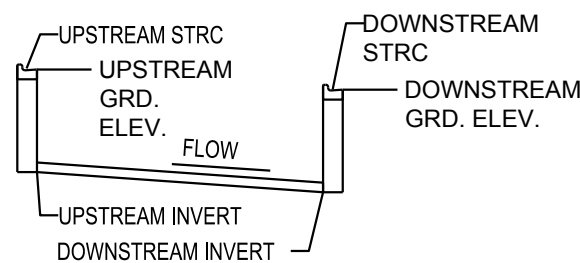


GRADING LEGEND

- 200 PROPOSED MAJOR CONTOUR
- 200 PROPOSED MINOR CONTOUR
- 200 EXISTING MAJOR CONTOUR
- 200 EXISTING MINOR CONTOUR
- PROPOSED STORM DRAINAGE
- PROPOSED AREA DRAIN
- 44.50 PROPOSED ELEVATION
- RIPRAP DISSIPATOR
- FLOW DIRECTION
- LIMITS OF DISTURBANCE

STORM DRAINAGE NETWORK

- TYPE CODE:
- AD = AREA DRAIN
 - FES = FLARED END
 - SECTION
 - JB = JUNCTION BOX
 - RI = RISER
- TYPE CODE:
- L-AD = AREA DRAIN
 - L-JB = JUNCTION BOX



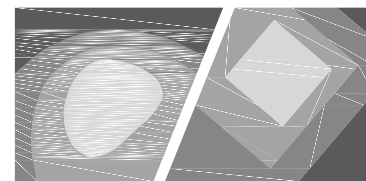
NOTES:

- STRUCTURES WITHIN NCDOT RIGHT-OF-WAY SHALL BE TO NCDOT STANDARDS.
- STRUCTURES NOT WITHIN RIGHT OF WAY SHALL EITHER ALL BE TO NCDOT STANDARDS OR SHALL ALL BE TO LOCAL JURISDICTIONAL STANDARDS
- ALL STORM PIPES TO BE CLASS III RCP UNLESS OTHERWISE NOTED.

GRADING & STORM DRAINAGE NOTES:

- REFER TO SHEET C3.00 FOR GENERAL NOTES.
- CONTRACTOR SHALL REPORT ANY GRADE DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
- THE MAXIMUM SLOPE ALONG ANY HANDICAP ACCESSIBLE PATHWAY SHALL NOT EXCEED 5.0% AND SHALL NOT EXCEED A 2.0% CROSS SLOPE. HANDICAP RAMPS INDICATED ON PLANS SHALL BE A MAXIMUM OF 1/12 SLOPES WITH A MAXIMUM RISE OF 30" BETWEEN LANDINGS. NON-CURB CUT RAMPS SHALL HAVE HANDRAILS AND GUARDS PER DETAILS WITH 5' LANDINGS AT THE BOTTOM AND TOP OF RAMP.
- ALL PROPOSED ELEVATIONS SHOWN ARE EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL NEWLY CONSTRUCTED STORM DRAINAGE IMPROVEMENTS AND RECEIVING STORM DRAINAGE SYSTEMS REMAIN CLEAN OF SEDIMENT AND DEBRIS. PRIOR TO OWNER ACCEPTANCE OF SYSTEM, THE CONTRACTOR SHALL COORDINATE AND PROVIDE A VISUAL OBSERVATION VIDEO OF ALL STORM DRAINAGE IMPROVEMENTS 12" AND LARGER. THE VISUAL OBSERVATION SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE TWO (2) DVD COPIES OF THE ENTIRE DRAINAGE VISUAL OBSERVATION.
- PRIOR TO ISSUANCE OF A BUILDING CERTIFICATE OF OCCUPANCY THE CONTRACTOR SHALL PROVIDE THE OWNER WITH THE VIDEO INSPECTION OF THE STORM SEWER SYSTEM. (BOTH PUBLIC AND PRIVATE). THIS SUBMITTAL MAY NEED TO BE REVIEWED AND ACCEPTED BY THE LOCAL JURISDICTION PRIOR TO THE ISSUANCE OF THE BUILDING CO.
- REFER TO THE EROSION CONTROL DETAILS SHEET FOR THE SEQUENCE OF CONSTRUCTION
- INTERIM GRADING SHALL BE PROVIDED THAT ENSURES THE PROTECTION OF STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, AND WASHOUT.
- INTERIM GRADING SHALL BE PROVIDED TO DIRECT WATER AWAY FROM BUILDINGS AND PREVENT PONDING.
- TIE ROOF LEADERS WHERE POSSIBLE TO UNDERGROUND STORM SYSTEM. CONTRACTOR TO FIELD VERIFY LOCATE AND INSTALL WHERE POSSIBLE OR AS SHOWN ON PLANS. WHERE ROOF LEADERS DAYLIGHT AT GRADE A SPLASH BLOCK APPROVED BY THE OWNER'S REPRESENTATIVE SHALL BE INSTALLED.
- MAXIMUM SLOPE ACROSS ANY HANDICAPPED PARKING SPACE AND AISLE SHALL NOT EXCEED 2% IN ANY DIRECTION.
- PROPOSED CONTOURS ARE APPROXIMATE. SPOT ELEVATIONS AND ROADWAY PROFILES SHALL BE USED IN CASE OF DISCREPANCY.
- PLACE BACKFILL AND FILL MATERIALS IN LAYER NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. PLACE BACKFILL AND FILL MATERIALS EVENLY ON ALL SIDES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 FOR EACH LAYER OF BACKFILL OR FILL MATERIAL UP TO TWO FEET OF FINISHED GRADE. COMPACT SOIL TO NOT LESS THAN 98 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 FOR EACH LAYER OF BACKFILL OR FILL MATERIAL FOR THE FINAL TWO FEET.
- SITE GRADING IMMEDIATELY ADJACENT TO FOUNDATION OF BUILDING SHALL SLOPE NOT LESS THAN 1/20 AWAY FOR MINIMUM DISTANCE OF 10 FEET. ALTERNATIVE METHOD SHALL BE PROVIDED TO DIVERT WATER AWAY FROM FOUNDATION VIA SWALES SLOPED AT A MINIMUM OF 2% OR IMPERVIOUS SURFACES SLOPED AWAY A MINIMUM OF 2% AWAY FROM BUILDING.
- CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF EXISTING MANHOLES, METERS, VALVES, ETC. AS REQUIRED TO MEET NEW FINISHED GRADES.
- CONTRACTOR SHALL SLOPE GRADES TO ASSURE POSITIVE STORMWATER FLOW TO KEEP WATER FROM POOLING ALONG CURBS AND WALLS.
- TOP OF WALL ELEVATIONS INDICATE THE ELEVATION AT THE TOP OF THE CAP, UNLESS OTHERWISE NOTED.
- BOTTOM OF WALL ELEVATIONS INDICATE THE ELEVATION OF THE FINISHED GRADE.

STRUCTURE TABLE			
STRUCTURE NAME	STRUCTURE STATION	STRUCTURE RIM	INVERTS
BMP RISER	???	481.55	INV OUT: 477.49 12" RCP (HW#1)
HW#1	???	478.90	INV IN: 477.17 12" RCP (BMP RISER)



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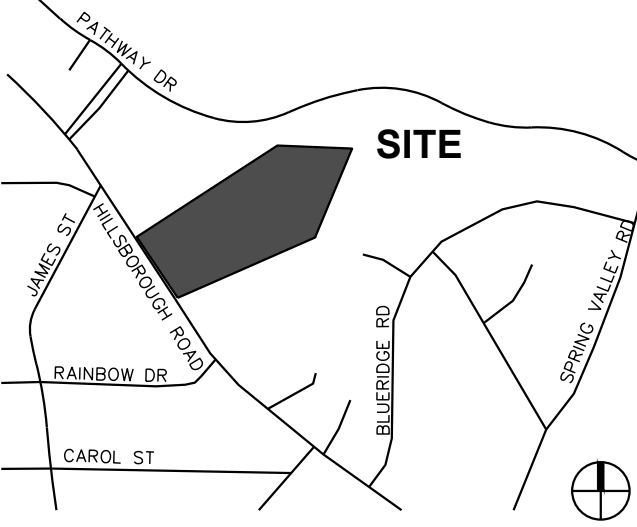
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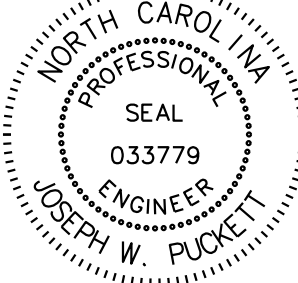
Project:

MARTIN LUTHER
KING, JR.
PARK

Vicinity map:



Seal:

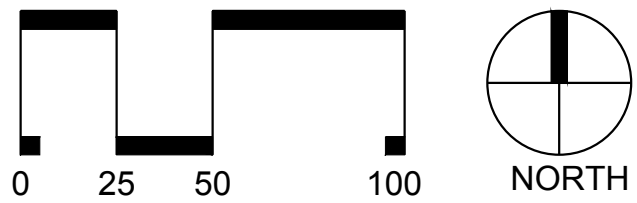


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SCALE: 1"=50'

Title:

GRADING PLAN

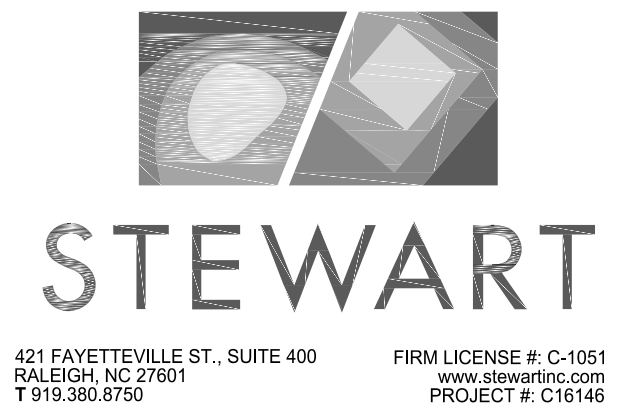
Project number: --- Sheet:

Date: 03.10.2017

Drawn by: NBC

Approved by: JWP

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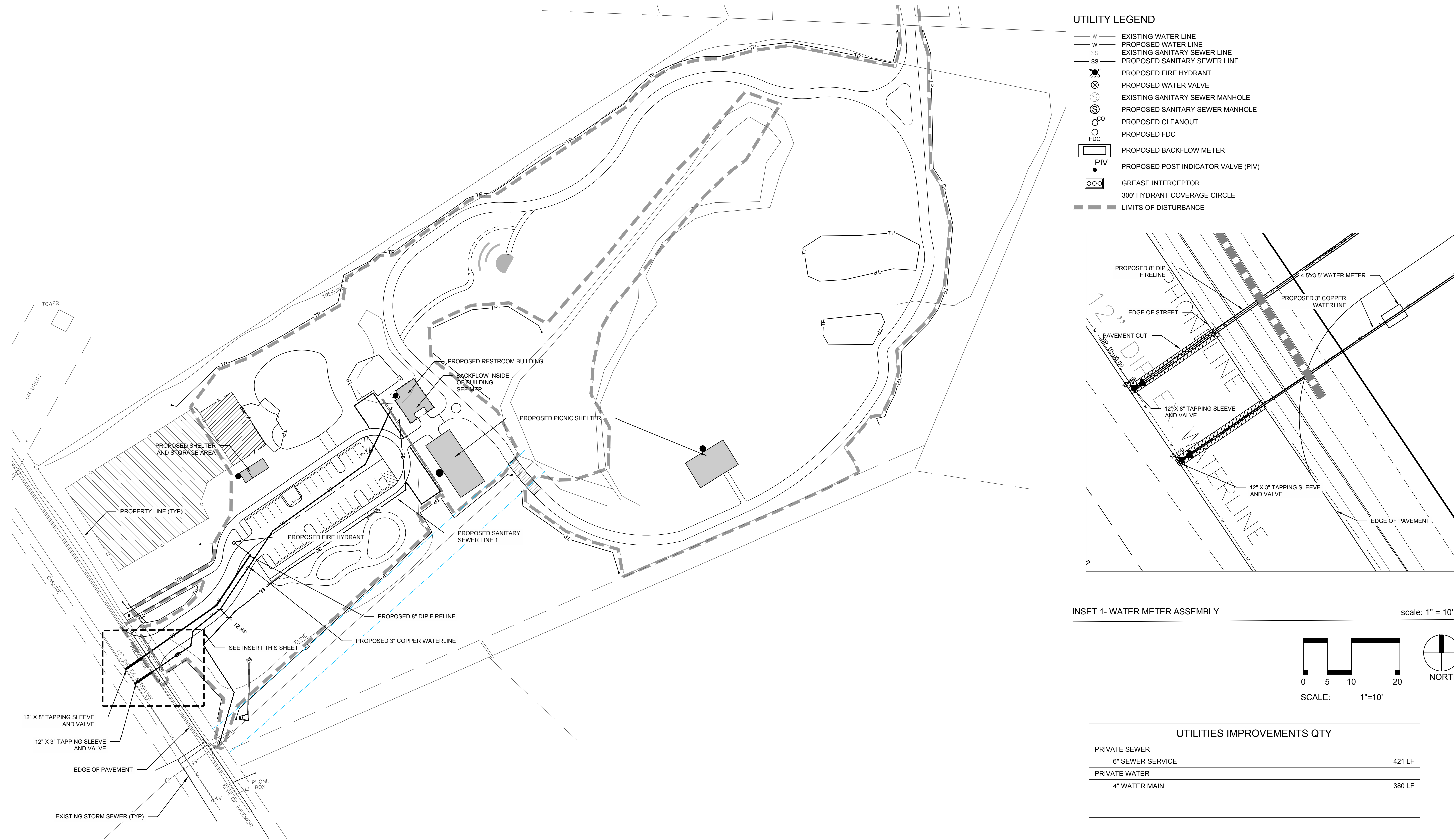
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SCM DETAILS

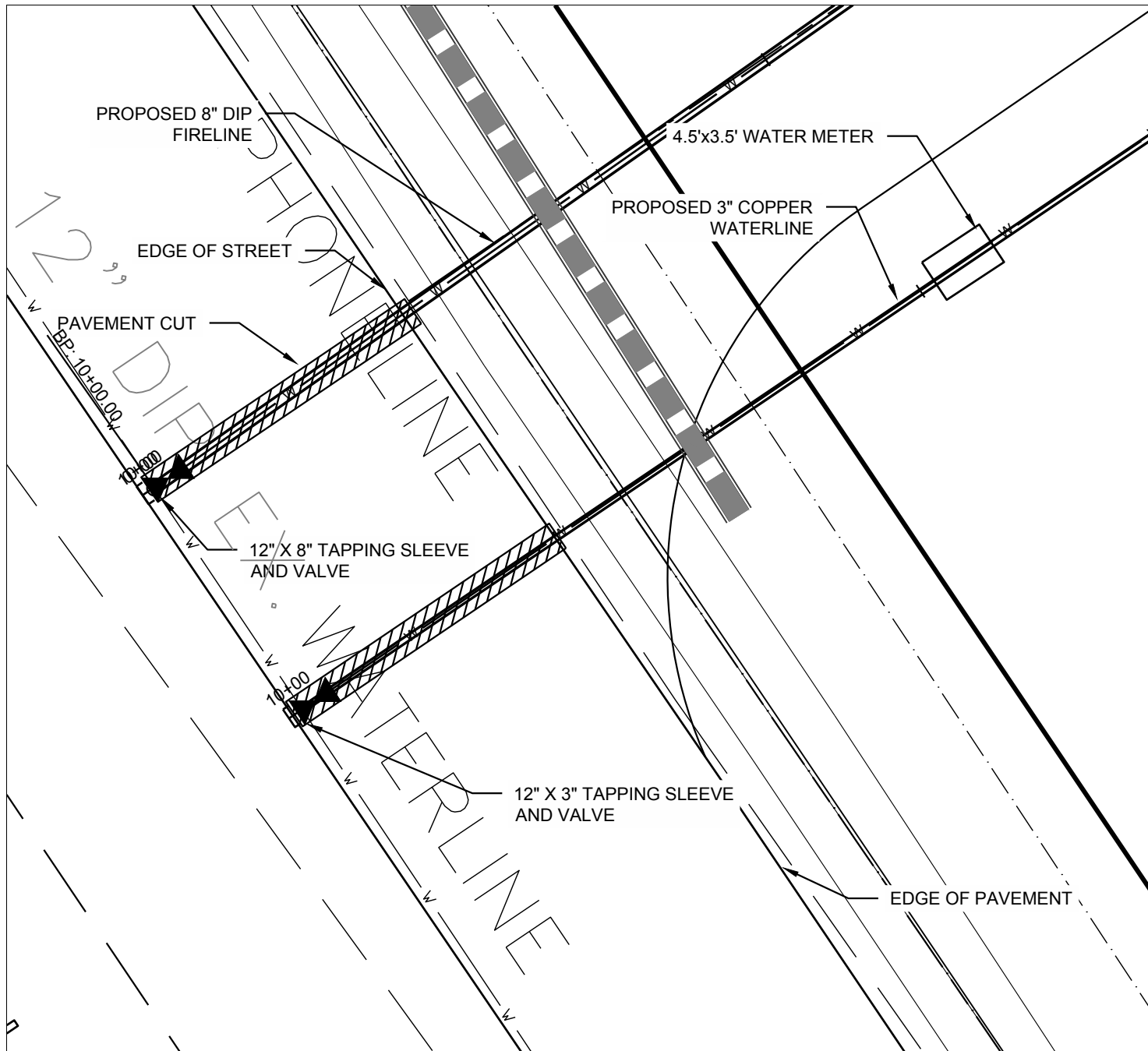
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Drawn by: NBC
Approved by: JWP

C5.11

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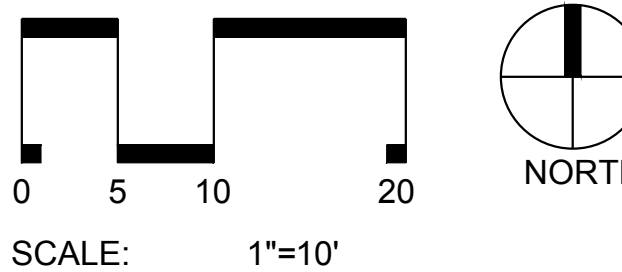


- UTILITY LEGEND**
- W — EXISTING WATER LINE
 - W — PROPOSED WATER LINE
 - SS — EXISTING SANITARY SEWER LINE
 - SS — PROPOSED SANITARY SEWER LINE
 - ⊗ — PROPOSED FIRE HYDRANT
 - ⊗ — PROPOSED WATER VALVE
 - ⊗ — EXISTING SANITARY SEWER MANHOLE
 - ⊗ — PROPOSED SANITARY SEWER MANHOLE
 - ⊗ — PROPOSED CLEANOUT
 - ⊗ — PROPOSED FDC
 - — PROPOSED BACKFLOW METER
 - — PROPOSED POST INDICATOR VALVE (PIV)
 - — GREASE INTERCEPTOR
 - — 300' HYDRANT COVERAGE CIRCLE
 - — LIMITS OF DISTURBANCE



INSET 1- WATER METER ASSEMBLY

scale: 1" = 10'



UTILITIES IMPROVEMENTS QTY	
PRIVATE SEWER	
6" SEWER SERVICE	421 LF
PRIVATE WATER	
4" WATER MAIN	380 LF

UTILITY NOTES:

- REFER TO SHEET C3.00 FOR GENERAL NOTES.
- UNLESS OTHERWISE NOTED, ALL MANHOLES SHALL BE PRE-CAST CONCRETE STRUCTURES.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF UNDERGROUND UTILITIES (WATER, SEWER, STORM, ELECTRICAL, GAS, OR OTHER) FOR THIS PROJECT WITH THE BUILDING PLANS. THE UTILITY CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE INSTALLATION OF ALL UTILITY SERVICES TO WITHIN FIVE (5) FEET OF THE BUILDING CONNECTION POINT.
- THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON SITE AND UTILITY PROVIDERS DURING CONSTRUCTION TO ENSURE SMOOTH TRANSITION BETWEEN DISCIPLINES.
- THE CONTRACTOR SHALL COORDINATE ALL PEDESTRIAN AND VEHICULAR INTERRUPTIONS WITH OWNER'S REPRESENTATIVE AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INSIDE THE PUBLIC RIGHT OF WAY PRIOR TO RECEIPT AND COMPLIANCE WITH ALL APPLICABLE NCDOT PERMITS. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FLAGGERS AND TRAFFIC CONTROL DURING ALL WORK INSIDE THE PUBLIC RIGHTS OF WAY.
- THE CONTRACTOR SHALL NOT RE-USE ANY FIRE HYDRANT REMOVED AS PART OF THIS PROJECT. ANY FIRE HYDRANT SHOWN TO BE REMOVED OR RELOCATED SHALL BE REPLACED WITH A NEW FIRE HYDRANT MEETING THE LOCAL JURISDICTIONAL REQUIREMENTS AND STANDARDS.

- ALL EXISTING SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS WHICH MAY BE AVAILABLE. DEPTHS OF EXISTING UTILITIES SHOWN IN PROFILE VIEWS ARE BASED ON STANDARD ASSUMPTIONS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, DEPTH, SIZE AND MATERIAL OF ANY AND ALL SUB-SURFACE CONDITIONS REFERENCED IN THESE PLANS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- ELEVATIONS OF UTILITIES ARE GIVEN TO THE EXTENT OF INFORMATION AVAILABLE, WHERE ELEVATIONS ARE NOT GIVEN AT POINTS OF EXISTING UTILITY CROSSINGS, SUCH ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND REPORTED TO THE ENGINEER, WHEN UNKNOWN LINES ARE EXPOSED, THEIR LOCATIONS AND ELEVATIONS SHALL ALSO BE REPORTED TO THE ENGINEER.
- UNDERGROUND UTILITIES SHOWN ON THIS PLAN SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OF PARKING AREA, DRIVES, CURBS AND GUTTER OR CONCRETE WALKS / PADS. IF UTILITIES SHOWN ON THIS PLAN CANNOT BE INSTALLED PRIOR TO INSTALLATION OF IMPERVIOUS (ASPHALT / CONCRETE) CONDUIT SHALL BE INSTALLED FOR THE "FUTURE" UTILITY INSTALLATION.
- AS-BUILT DOCUMENTATION REQUIREMENTS: PRIOR TO APPROVAL FROM LOCAL JURISDICTION OR ENGINEER THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS (IN BOTH PAPER AND ELECTRONIC FORMAT (CAD / PDF)) PREPARED AND SEALED BY A PROFESSIONAL LAND SURVEYOR SHOWING ALL UTILITY INSTALLATION. HORIZONTAL AND VERTICAL INFORMATION SHALL BE PROVIDED FOR WATER, SEWER, STORM INCLUDING ALL STRUCTURES, VALVES, HYDRANTS, AND OTHER APPURTENANCES.

PROPOSED UTILITY SEPARATION:

- WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT HORIZONTAL SEPARATION IN WHICH CASE:
 - THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR
 - THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE OF A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
- CROSSING A WATER MAIN OVER A SEWER, WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION, IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
- CROSSING A WATER MAIN UNDER A SEWER, WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

SEPARATION OF SANITARY SEWERS AND STORM SEWERS:

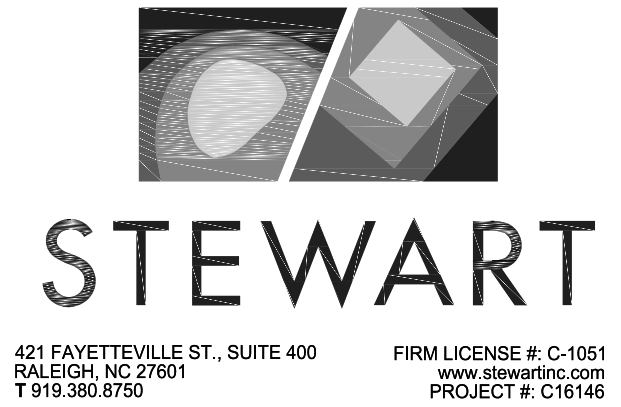
- A 24" VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN STORM SEWER AND SANITARY SEWER LINES OR BOTH THE SANITARY AND THE STORM LINES SHALL BE CONSTRUCTED OF FERROUS MATERIALS.

SEWER NOTES:

- SANITARY SEWER CLEANOUTS LOCATED IN PAVEMENT AREAS SHALL BE HEAVY DUTY TRAFFIC BEARING CASTINGS.
- UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES ARE 4' DIA.
- MANHOLES LOCATED IN PAVEMENT, CONCRETE OR OTHER TRAFFIC AREAS SHALL BE SET AT GRADE. MANHOLES LOCATED IN OTHER AREAS (I.E. GRASS OR WOODED AREAS) SHALL HAVE THEIR RIMS RAISED SIX INCHES ABOVE THE SURROUNDING GRADE. MANHOLES SUBJECT TO POSSIBLE WATER INFILTRATION SHALL HAVE WATERTIGHT, BOLTED LIDS.
- MINIMUM REQUIRED SLOPES FOR SEWER SERVICES:
 - 4" SEWER SERVICE - 2.00% SLOPE
 - 6" SEWER SERVICE - 1.00% SLOPE
 - 8" SEWER SERVICE - 0.50% SLOPE
- UNLESS OTHERWISE NOTED, LOCATE SANITARY SERVICE CLEANOUTS AT ALL HORIZONTAL OR VERTICAL CHANGES IN DIRECTION. MAXIMUM SPACING BETWEEN CLEANOUTS SHALL BE 75 FEET.
- SEWER LINES LESS THAN 3 FEET OF COVER SHALL BE CLASS 50 DUCTILE IRON PIPE. SEWER LINES WITH GREATER THAN 3 FEET OF COVER SHALL BE AS NOTED BELOW:
 - 4" SEWER SERVICE - SCH 80
 - 6" SEWER SERVICE - SCH 80
 - 8" SEWER SERVICE - SDR-35
- SEWER LINES UNDER CONSTRUCTION SHALL BE PROTECTED FROM DIRT, DEBRIS OR OTHER CONTAMINANTS ENTERING THE NEW SYSTEM. A MECHANICAL PLUG SHALL BE UTILIZED BOTH IMMEDIATELY UPSTREAM OF THE NEW CONSTRUCTION AND AT THE FIRST MANHOLE DOWNSTREAM IN THE EXISTING SYSTEM. EXISTING STRUCTURES, PIPING AND APPURTENANCES SHALL BE PROTECTED FROM ANY INFLOW OF WATER, DIRT OR DEBRIS DUE TO NEW CONSTRUCTION CONNECTING TO OR IN THE VICINITY OF THE EXISTING SYSTEM. CONTRACTOR TO REMOVE DEBRIS AND PLUG PRIOR TO OCCUPANCY.
- ALL MANHOLES COVERS SHALL BE PAINTED TO LOCAL JURISDICTIONAL REQUIREMENTS.

WATER NOTES:

- AS INDICATED, ALL WATERLINES SHALL BE DUCTILE IRON PIPE MEETING THE REQUIREMENTS OF ANSI/AWWA C151 PRESSURE CLASS 350 OR SOFT COPPER TYPE K PIPE PER ASTM B88. IF PVC WATERLINE IS INDICATED ON THE PLANS IT SHALL MEET THE REQUIREMENTS OF AWWA C-200, CLASS 200.
- ALL WATERLINES SHALL HAVE A MINIMUM OF 3.5 FEET OF COVER.
- TESTING NOTES:
 - TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA C 600. MINIMUM TEST PRESSURE SHALL BE 100 PSI FOR DOMESTIC AND 500 PSI FOR FIRE PROTECTION.
 - TWO SAMPLES FOR BACTERIOLOGICAL SAMPLING SHALL BE COLLECTED AT LEAST 24 HOURS APART. IF CONTAMINATION IS INDICATED, THEN THE DISINFECTION PROCEDURE AND TESTING SHALL BE REPEATED UNTIL SATISFACTORY RESULTS ARE OBTAINED.
- THE CHLORINE IN HEAVILY CHLORINATED WATER FLUSHED FROM MAINS NEEDS TO BE NEUTRALIZED BEFORE DISCHARGE. CONTRACTORS SHALL NEUTRALIZE HEAVILY CHLORINATED WATER FLUSHED FROM MAINS PRIOR TO DISCHARGE OR TRANSPORT ALL HEAVILY CHLORINATED WATER OFFSITE FOR PROPER DISPOSAL.
- PAINT VALVE COVERS, FIRE HYDRANTS AND OTHER WATER APPARATUS TO MEET THE LOCAL JURISDICTIONAL REQUIREMENTS.



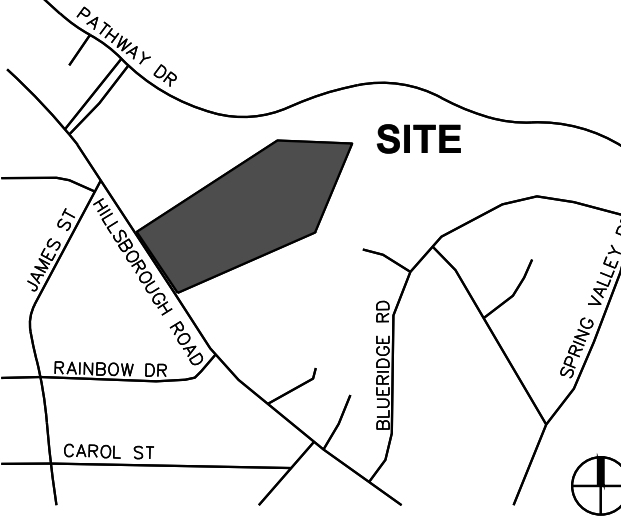
Client:

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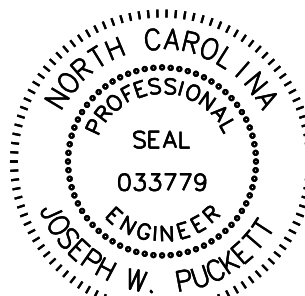
Project:

MARTIN LUTHER
KING, JR.
PARK

Vicinity map:



Seal:

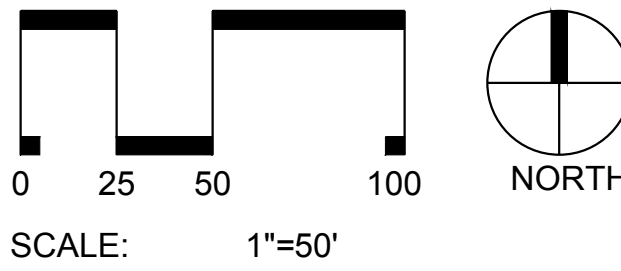


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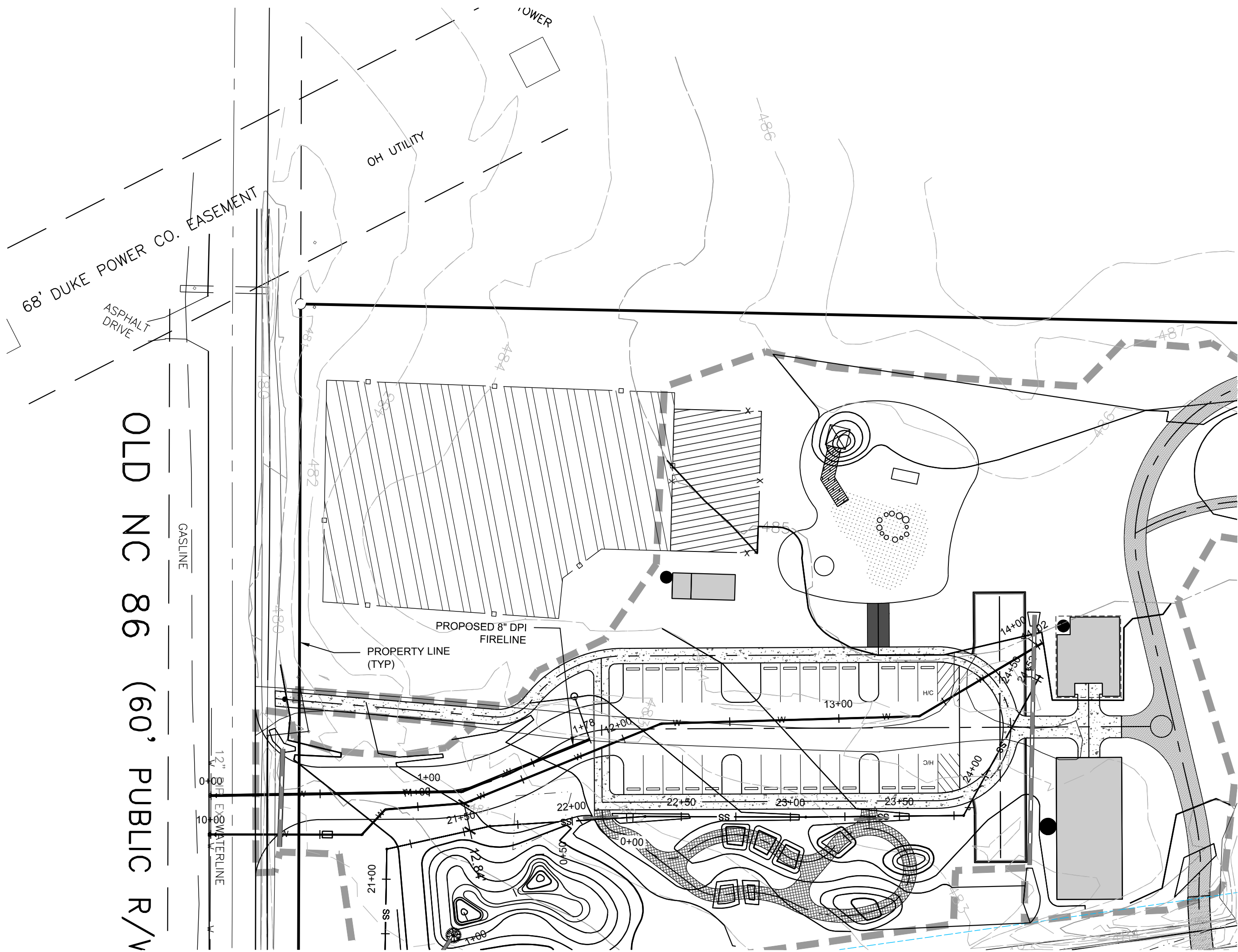
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UTILITY PLAN

Project number: C16146 Sheet:
Date: 03.15.2017
Drawn by: CJJ
Approved by: JWP

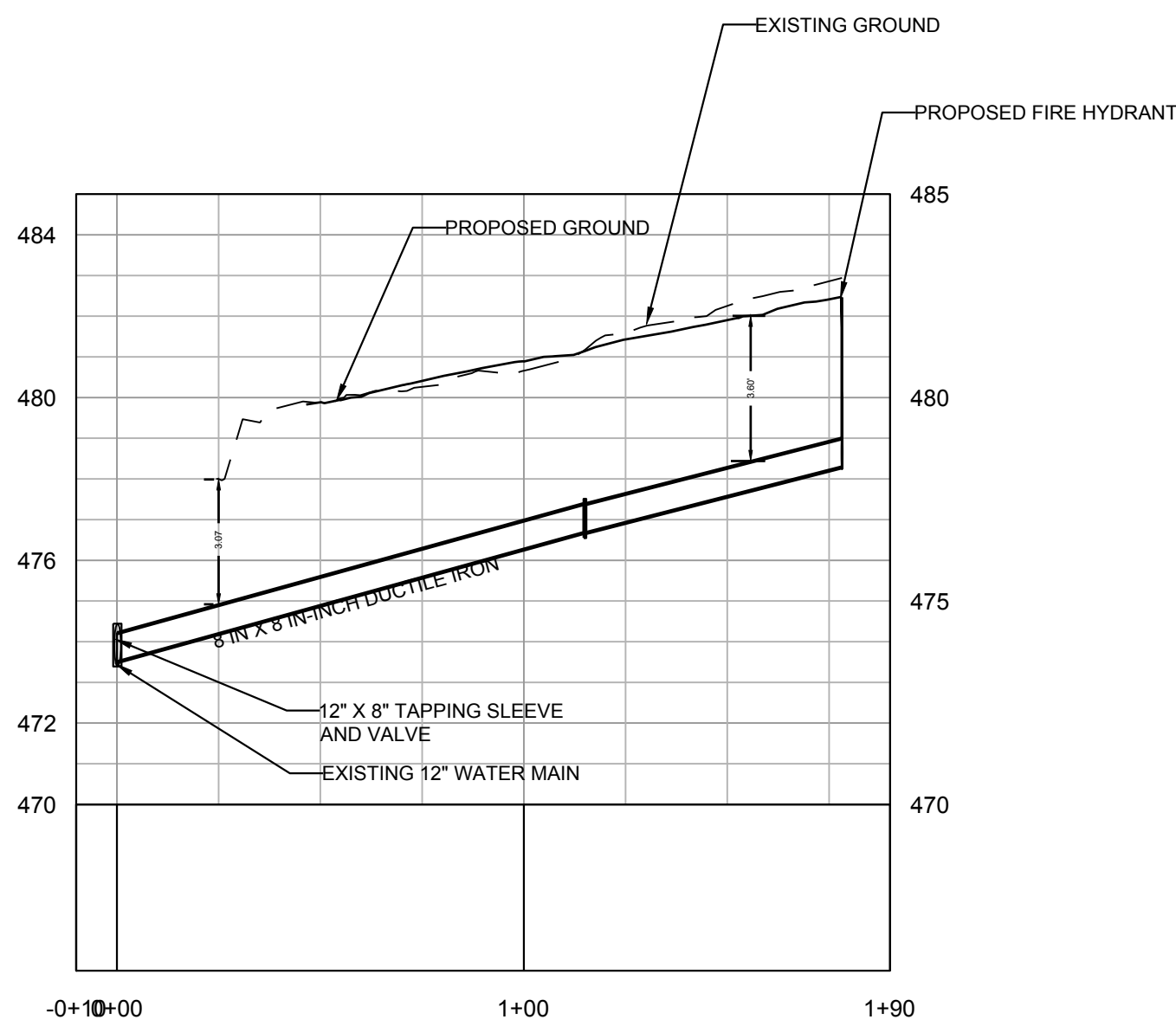
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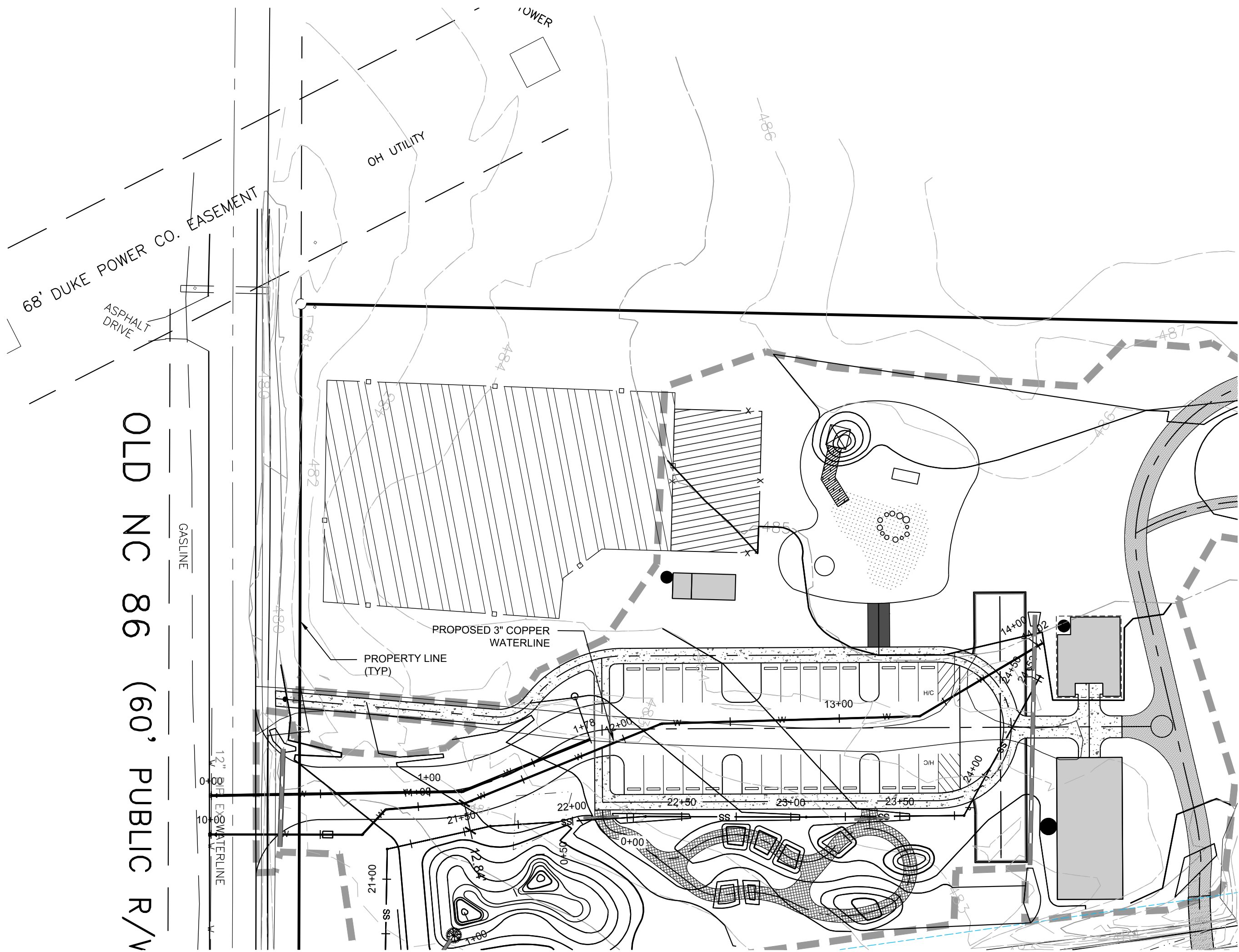
PLAN VIEW - PROPOSED 8" DIP FIRELINE
SCALE: H: 1"=40', V: 1"=4'

STA 00+00 - 1+78.19



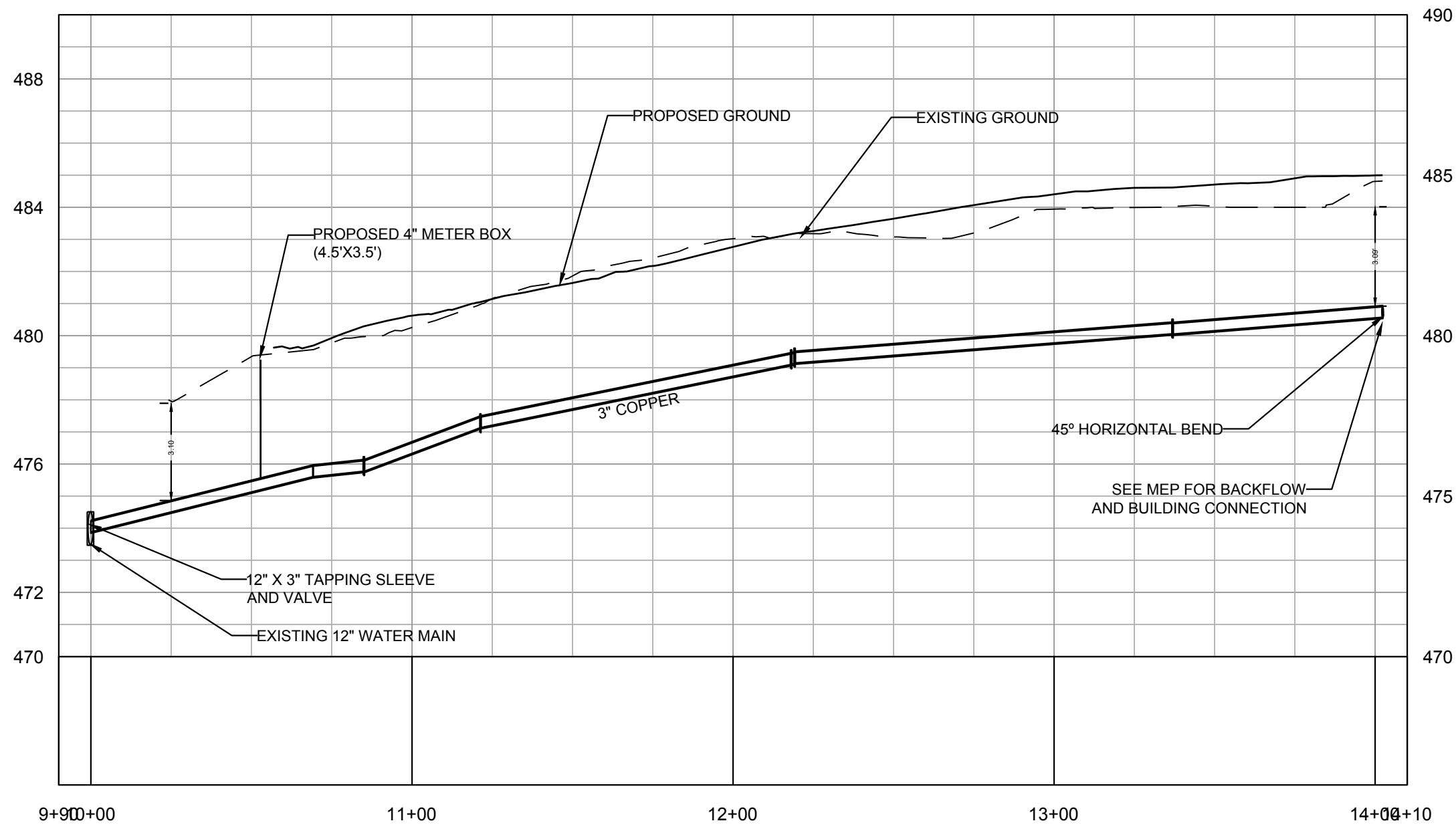
PROFILE VIEW - PROPOSED 8" DIP FIRELINE
SCALE: H: 1"=40', V: 1"=4'

STA 0+00 - 1+78.19



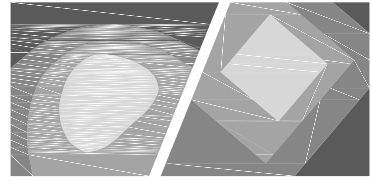
PLAN VIEW - PROPOSED 4" DIP WATERLINE
SCALE: H: 1"=40', V: 1"=4'

STA 10+00 - 14+02.34



PROFILE VIEW - PROPOSED 4" DIP WATERLINE
SCALE: H: 1"=40', V: 1"=4'

STA 10+00 - 14+02.34



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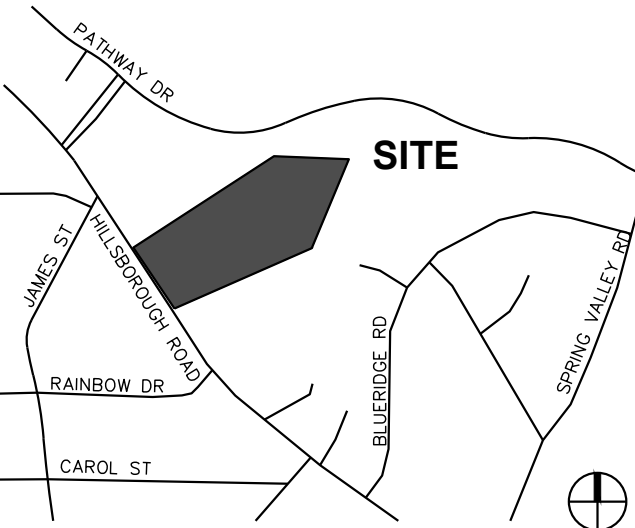
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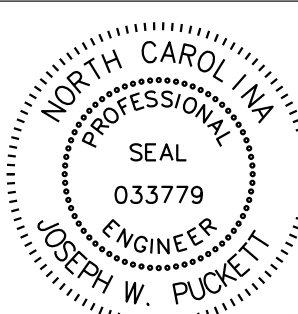
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Vicinity map:



Seal:

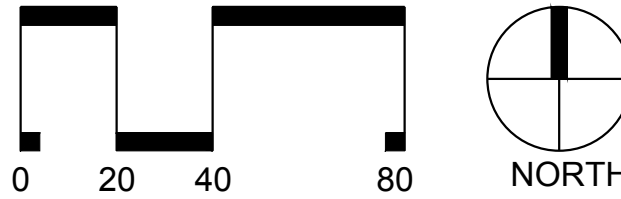


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SCALE: 1"=40'

Title:

UTILITY PROFILES

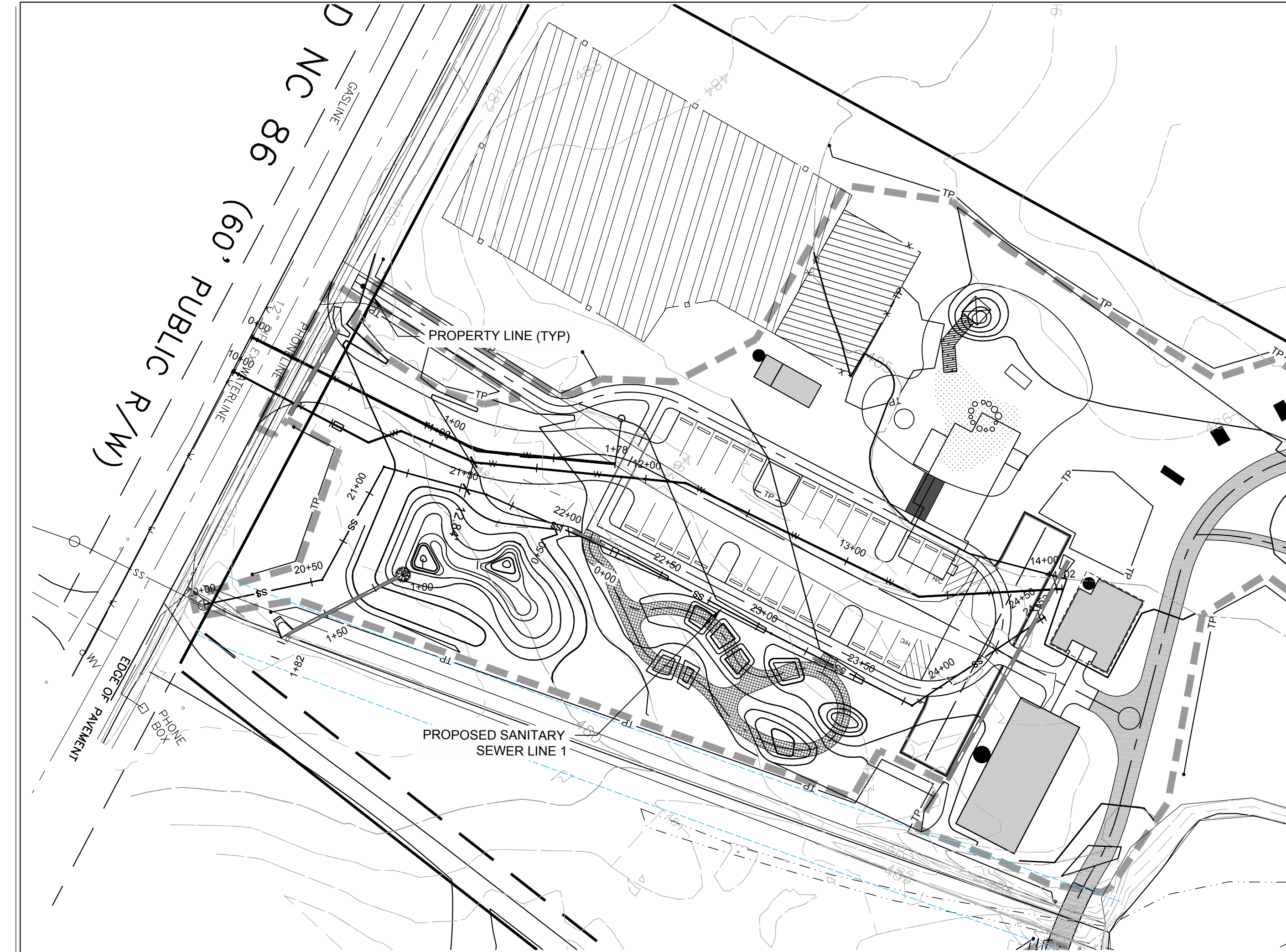
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Date: 03.15.2017

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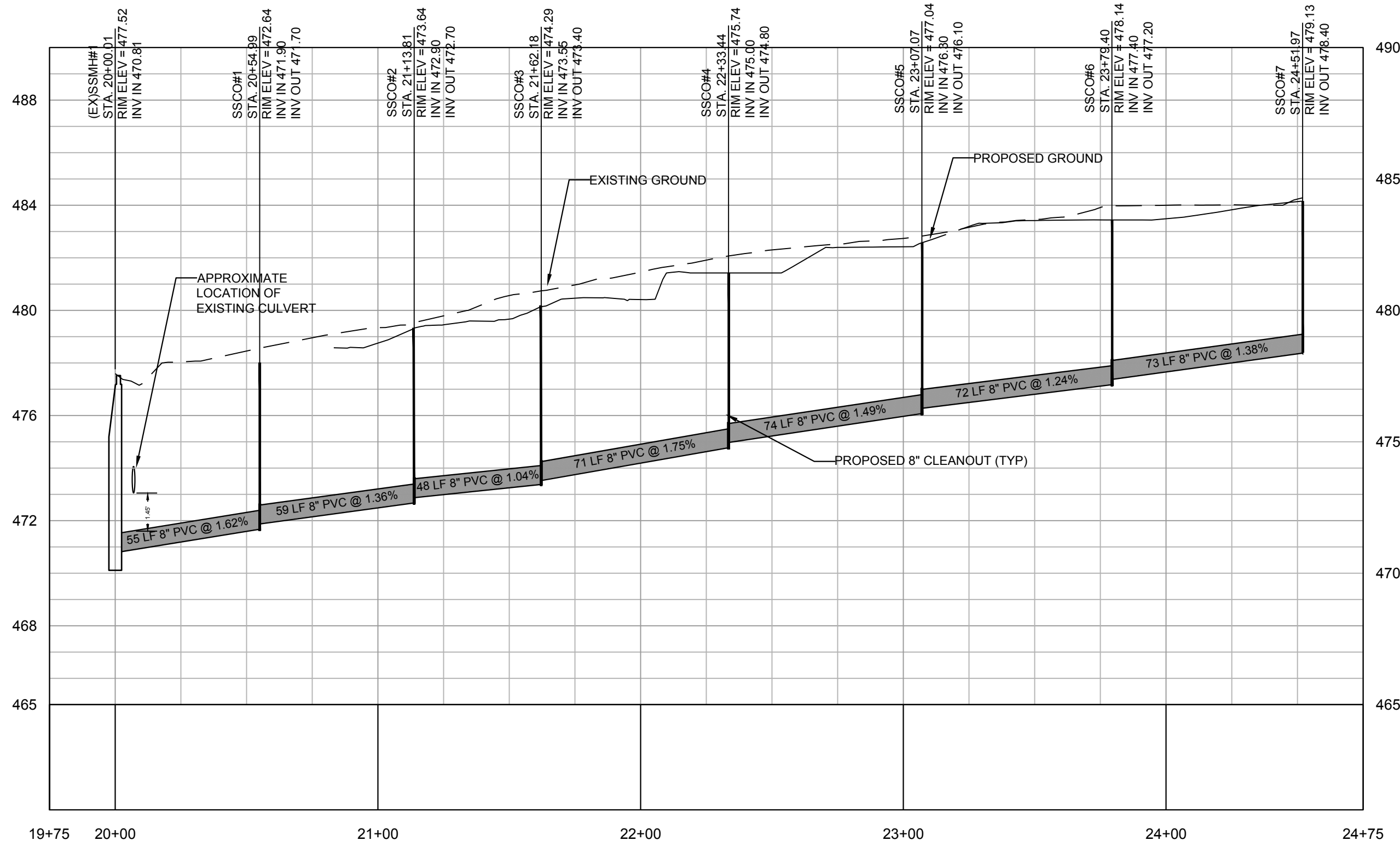
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PLAN VIEW - PROPOSED SANITARY SEWER SERVICE 1
SCALE: H=1"=40'

STA 20+00 - 24+51.97

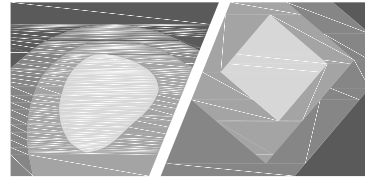
NORTH



PROFILE VIEW - PROPOSED SANITARY SEWER SERVICE
SCALE: H=1"=40', V=1"=4'

STA 20+00 - 24+51.97

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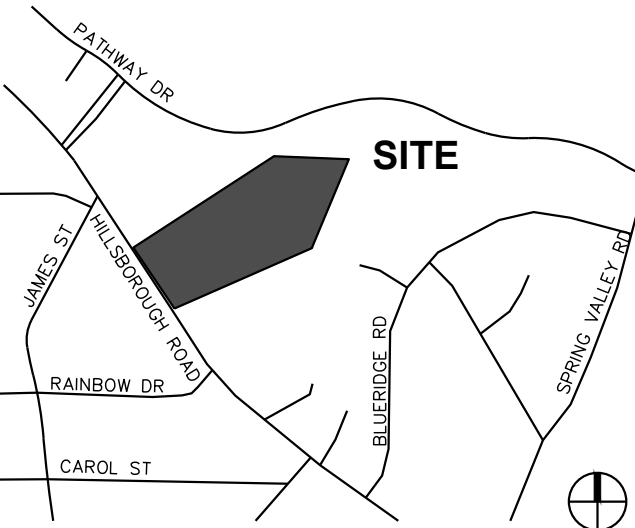
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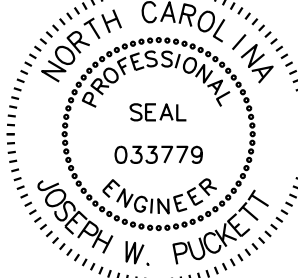
Project:

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KING, JR.
PARK

Vicinity map:



Seal:

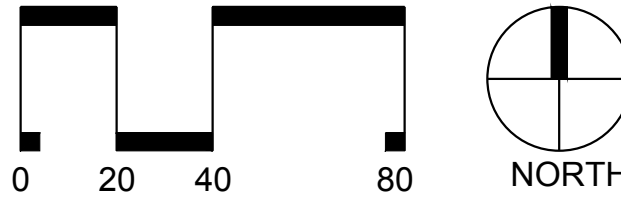


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1	02.21.2017	60% DD



SCALE: 1"=40'

Title:

UTILITY PROFILES

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C6.11



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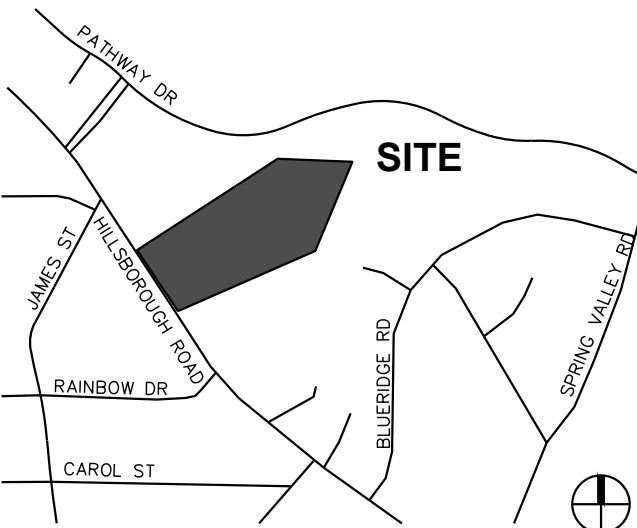
Client:

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Project:

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Vicinity map:



Seal:



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SITE DETAILS

Project number: C14020 Sheet:

Date:

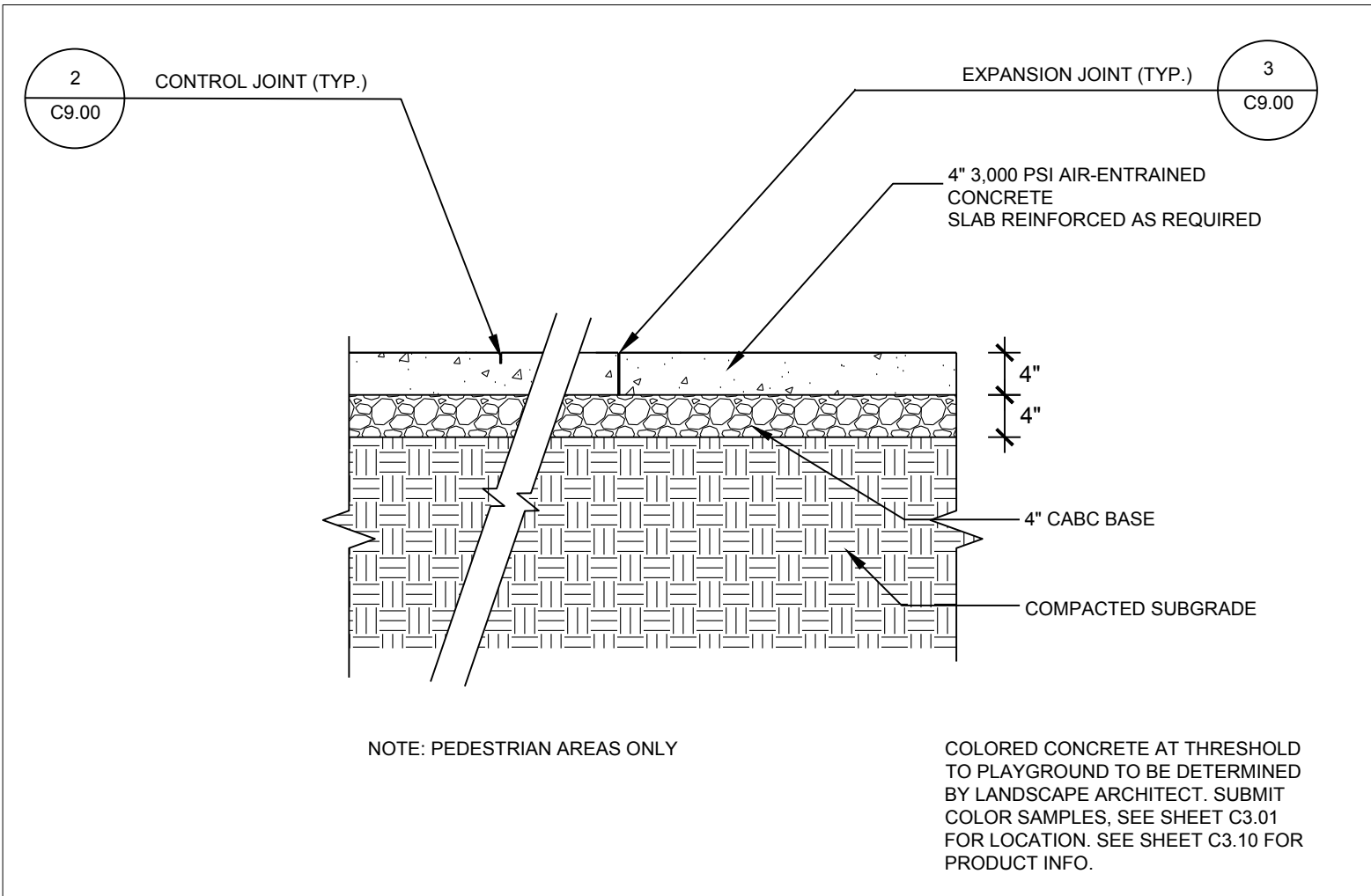
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Approved by:

TPG

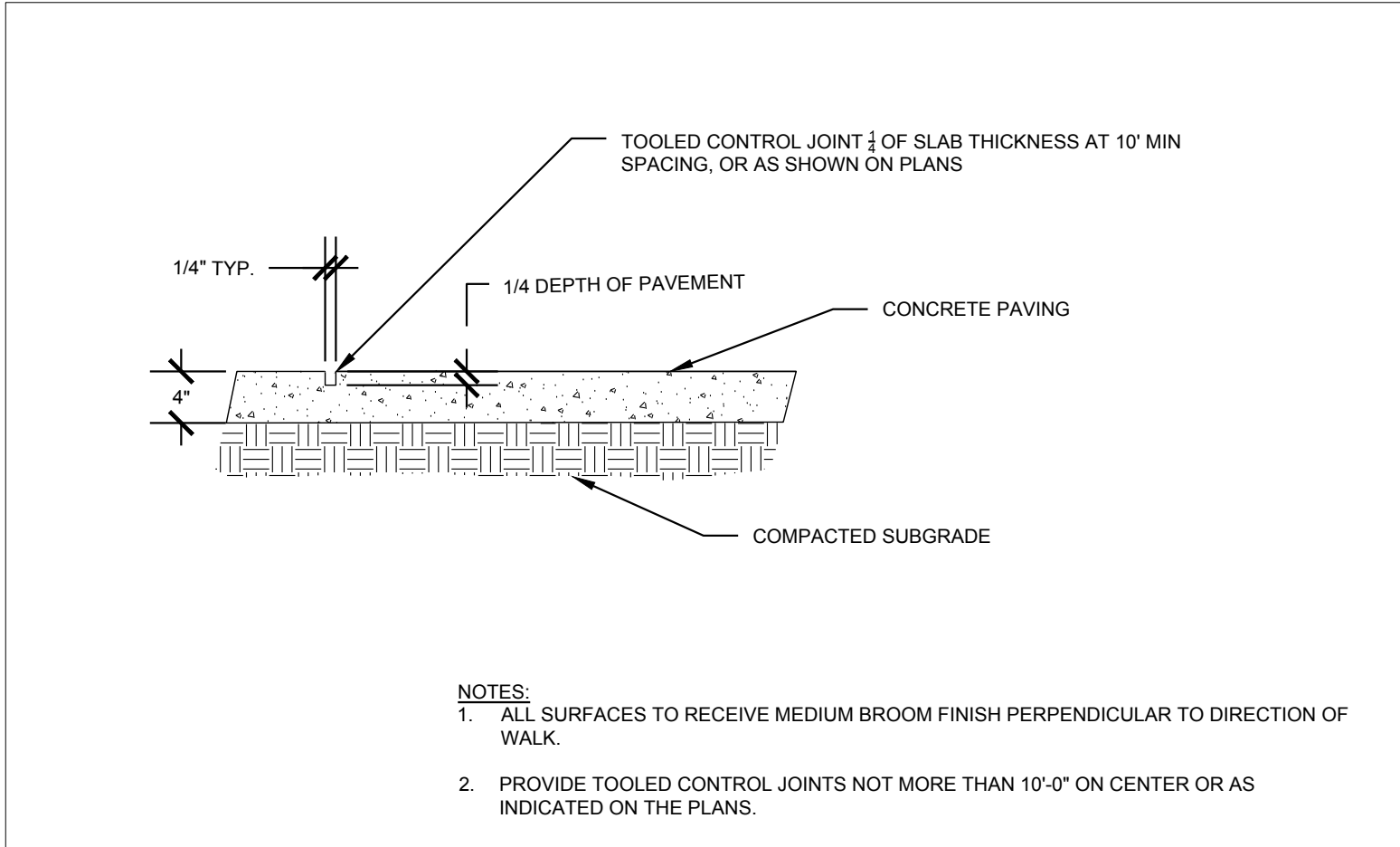
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C9.00



1 4" CONCRETE SIDEWALK
SECTION

3/4" = 1'-0"

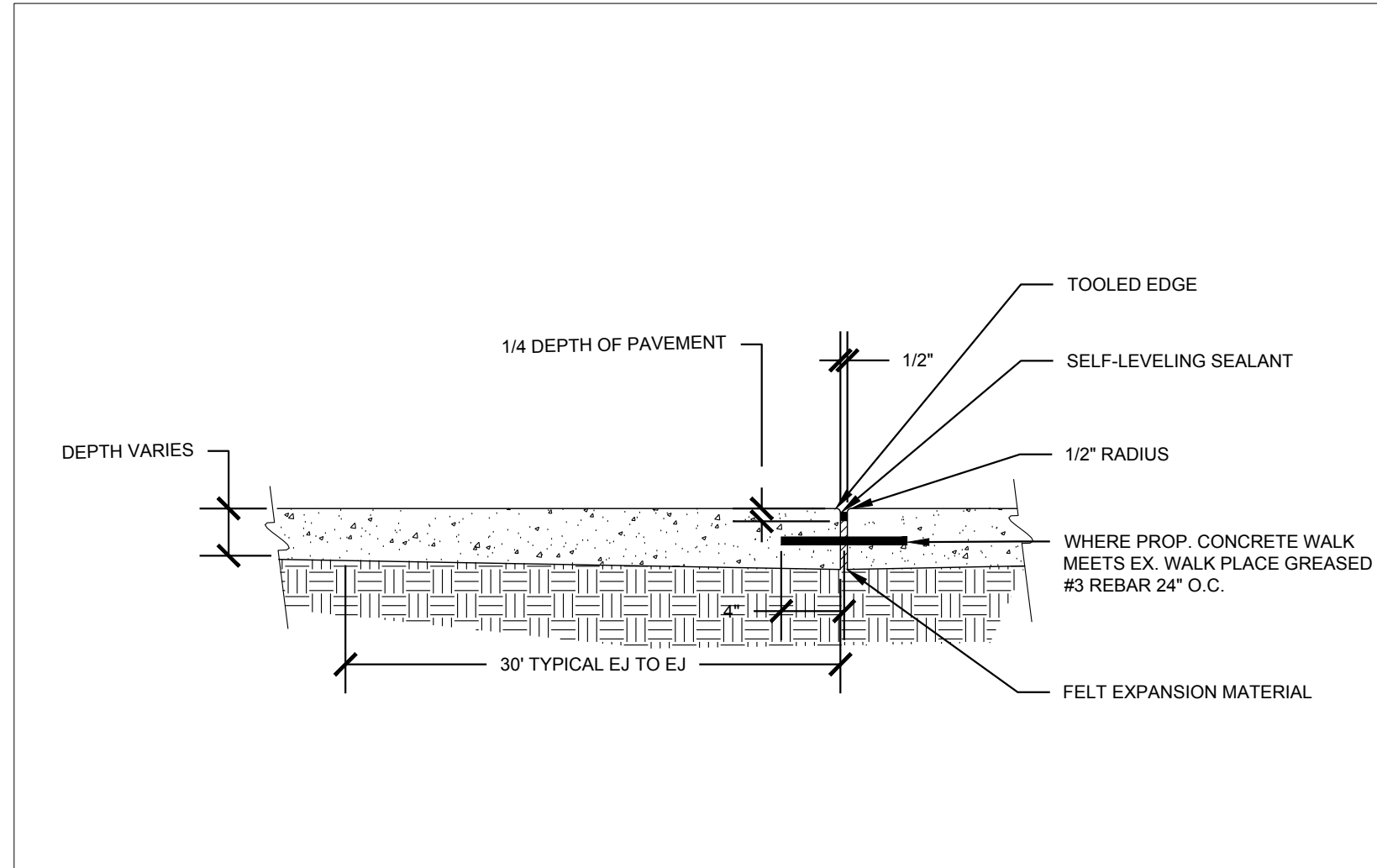


2 CONTROL JOINT - SIDEWALK
SECTION

NTS

3 EXPANSION JOINT - SIDEWALK
SECTION

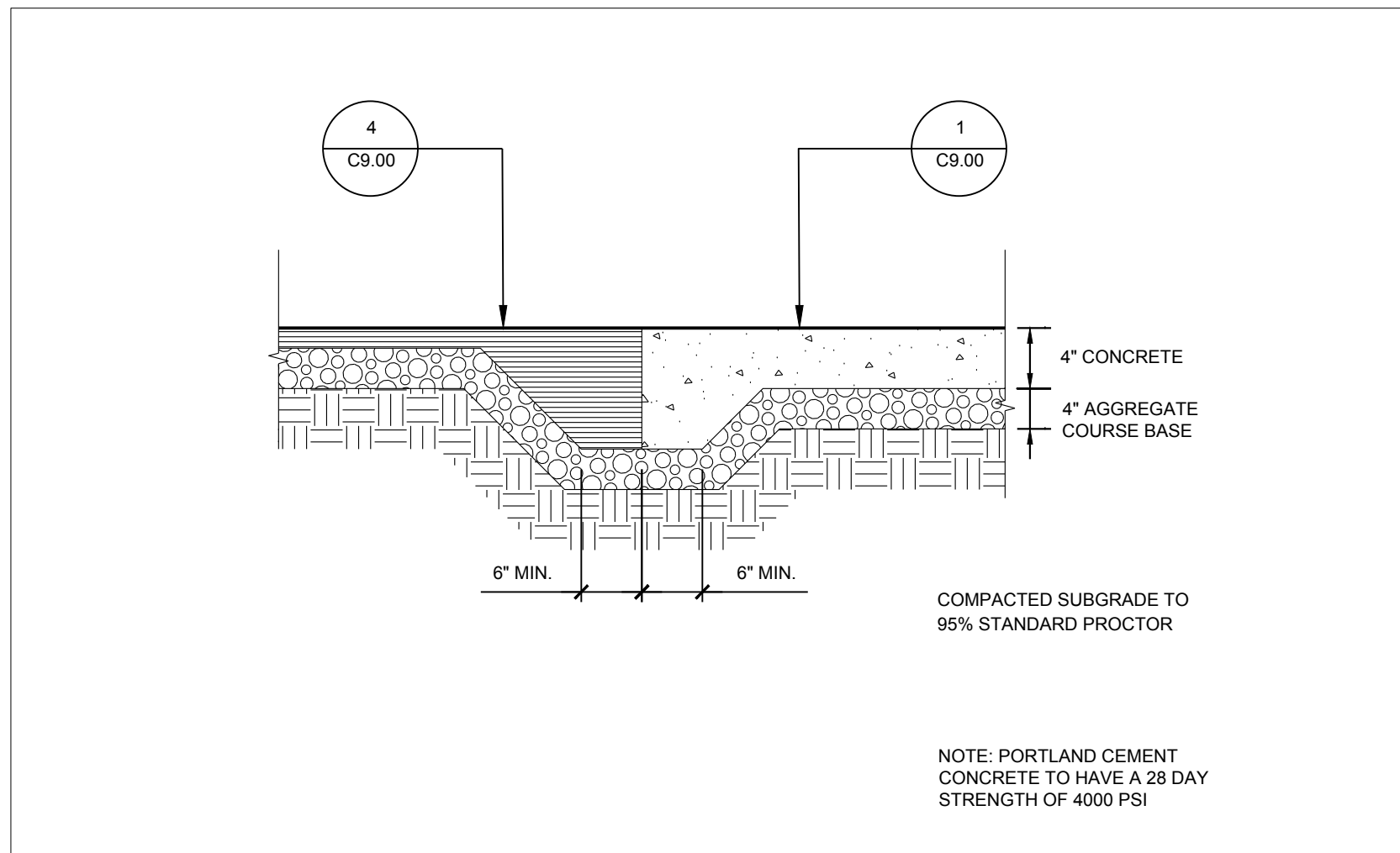
3/4" = 1'-0"



	SURFACE COURSE	INTERMEDIATE COURSE	STONE
PAVEMENT TYPE	S9.5B	I19.0B	ABC
STND. DUTY	3"	--	6"
HVY. DUTY	2"	2.5"	8"

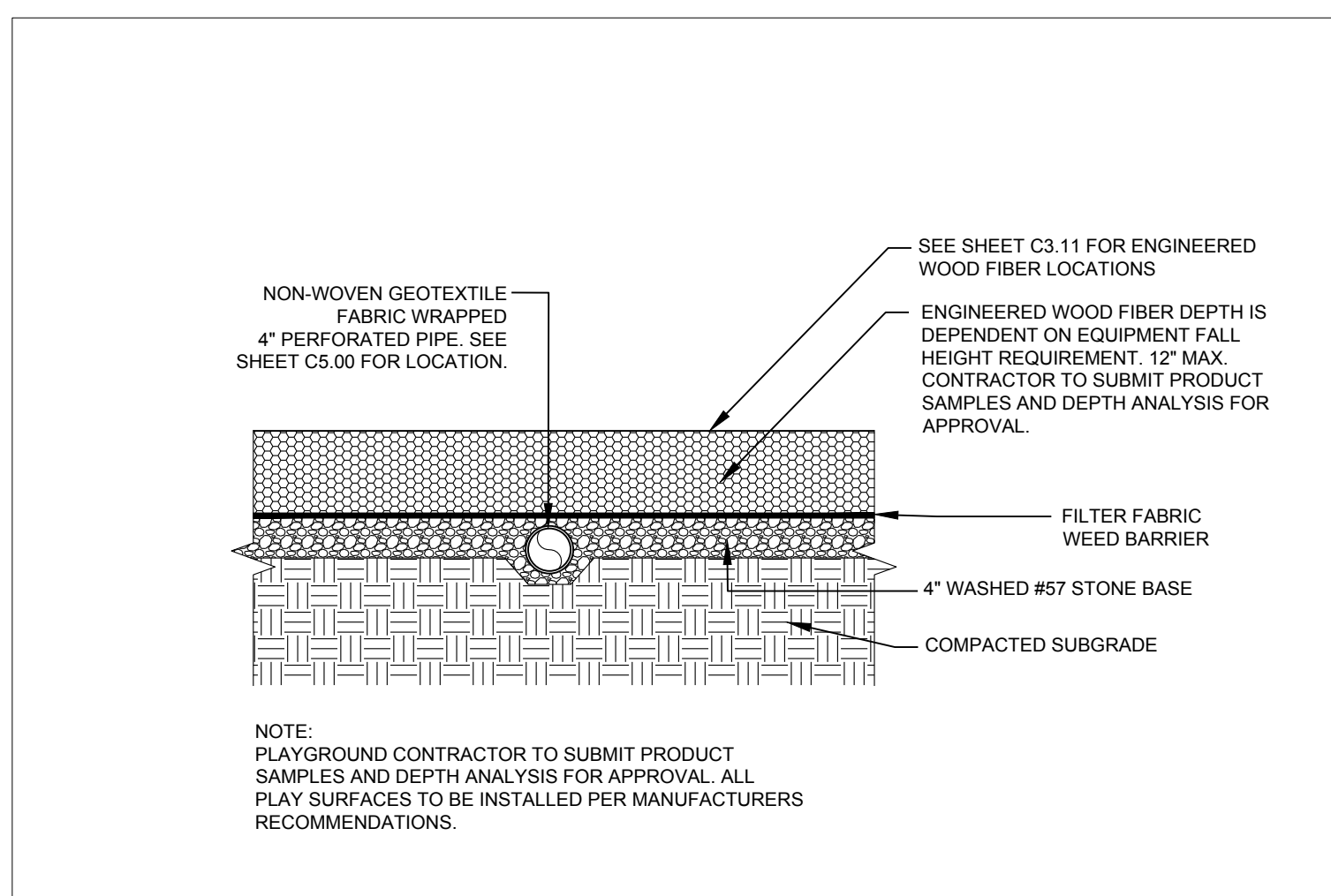
4 ASPHALT PAVING
SECTION

3/4" = 1'-0"



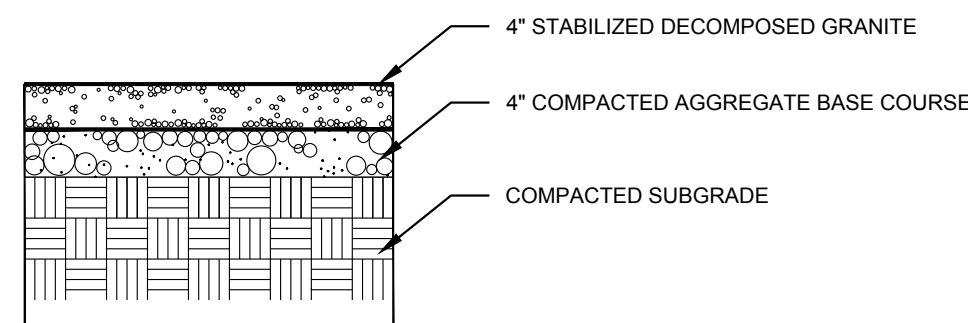
5 EDGING - SIDEWALK TO ASPHALT
SECTION

3/4" = 1'-0"



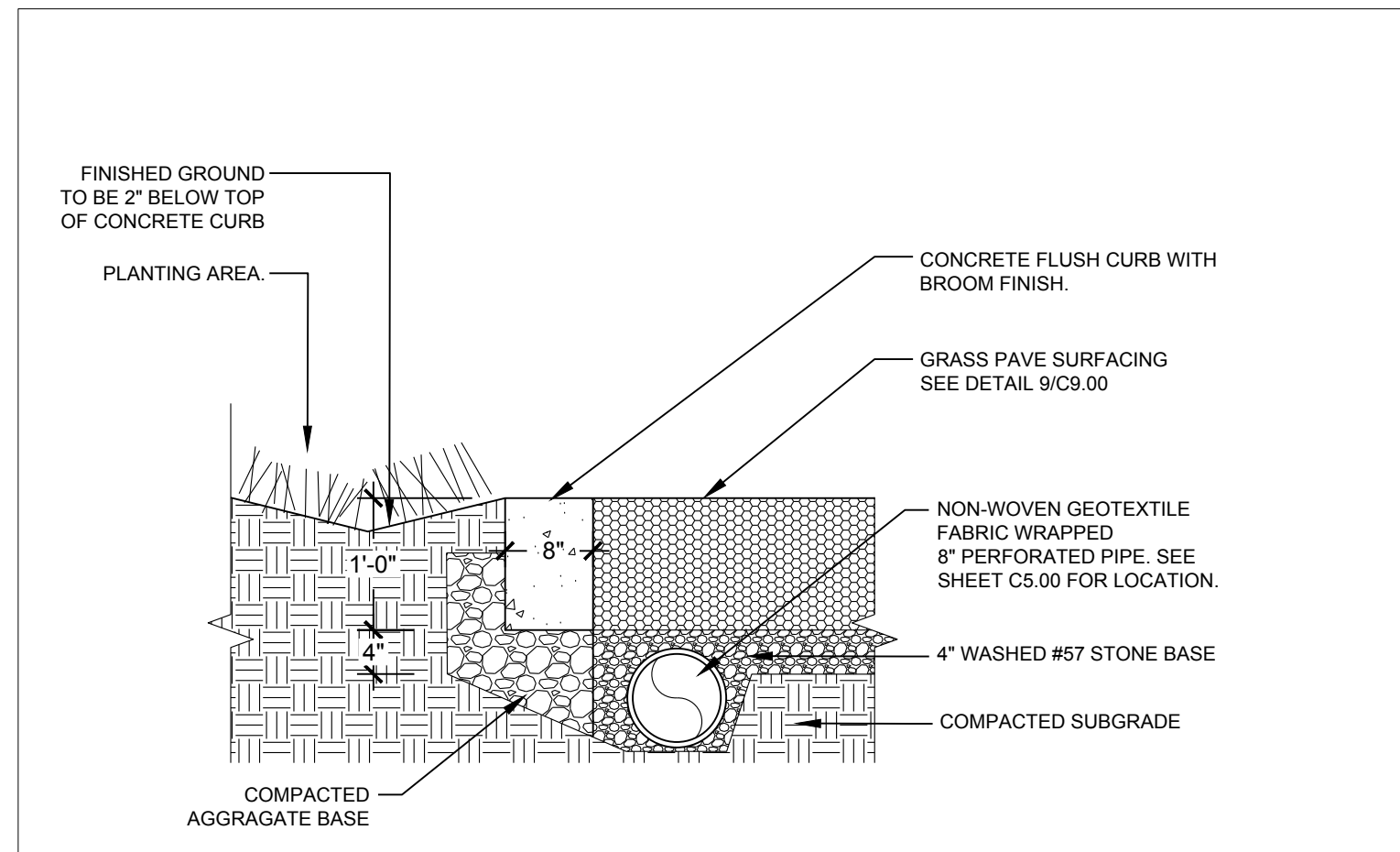
6 ENGINEERED WOOD FIBER SURFACING
SECTION

3/4" = 1'-0"



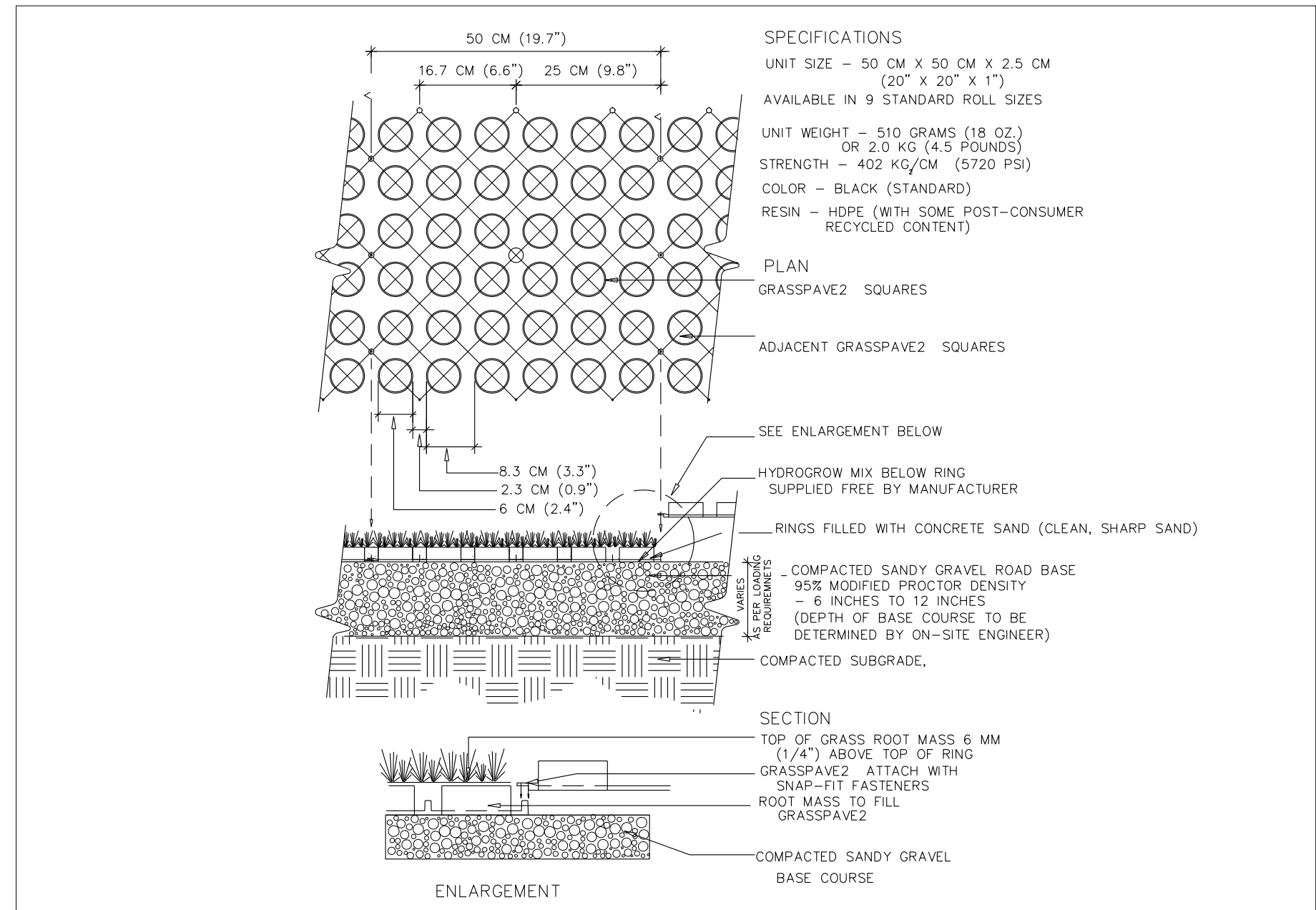
7 DECOMPOSED GRANITE PATH WITH STABILIZER
SECTION

3/4" = 1'-0"



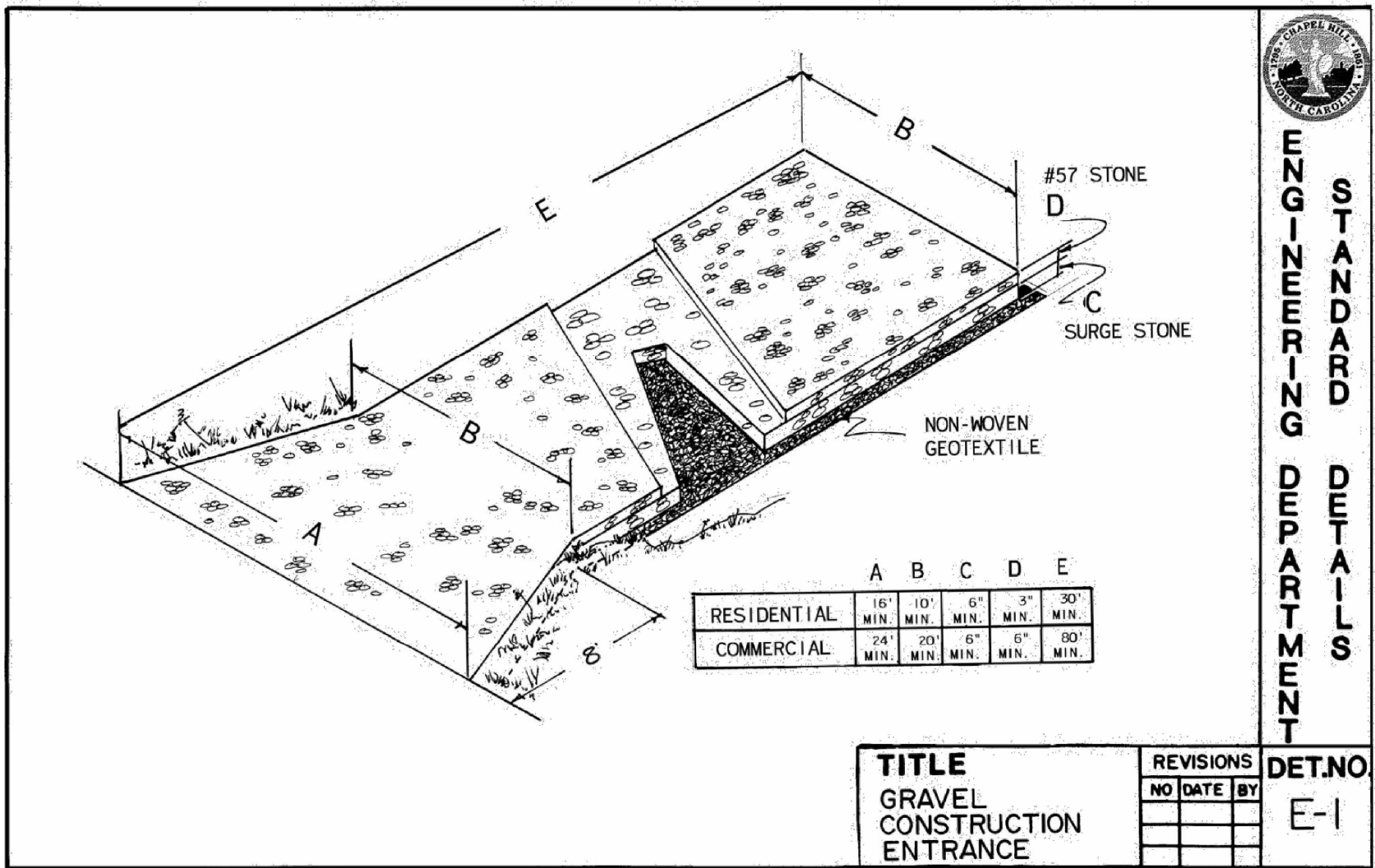
8 CIP FLUSH CURB
SECTION

3/4" = 1'-0"



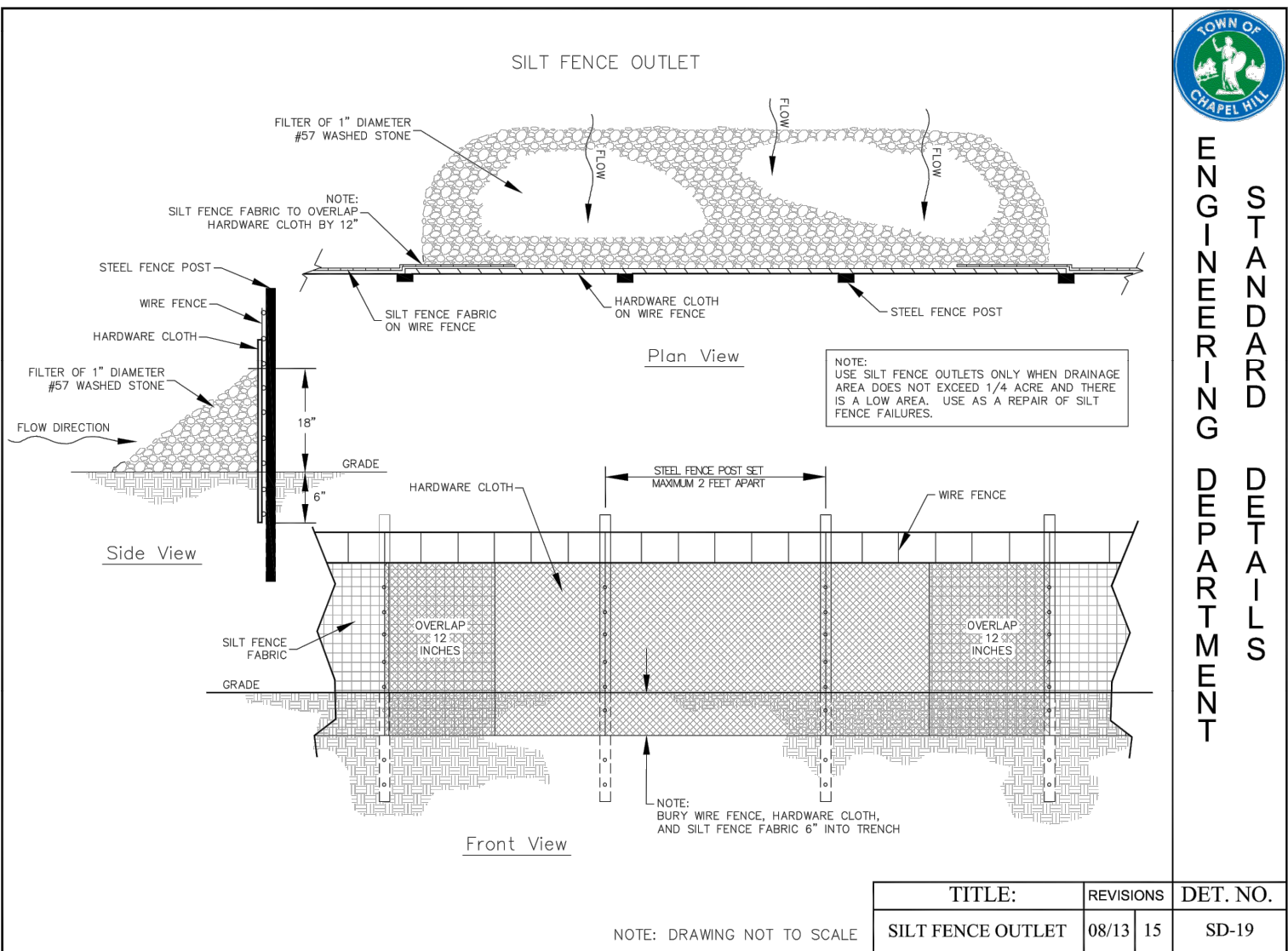
9 GRASS PAVE
SECTION

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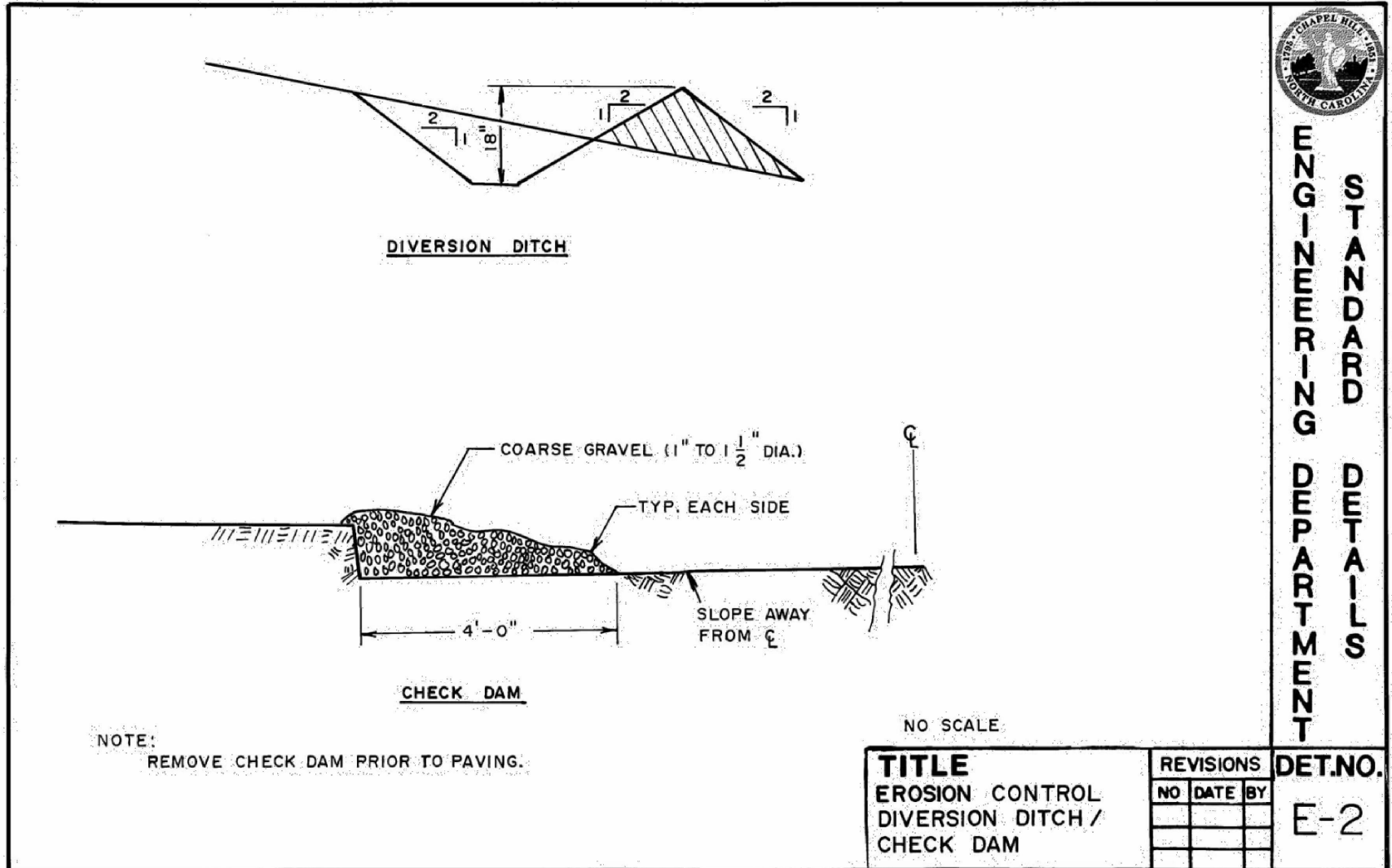
1 CONSTRUCTION ENTRANCE
PLAN

NTS



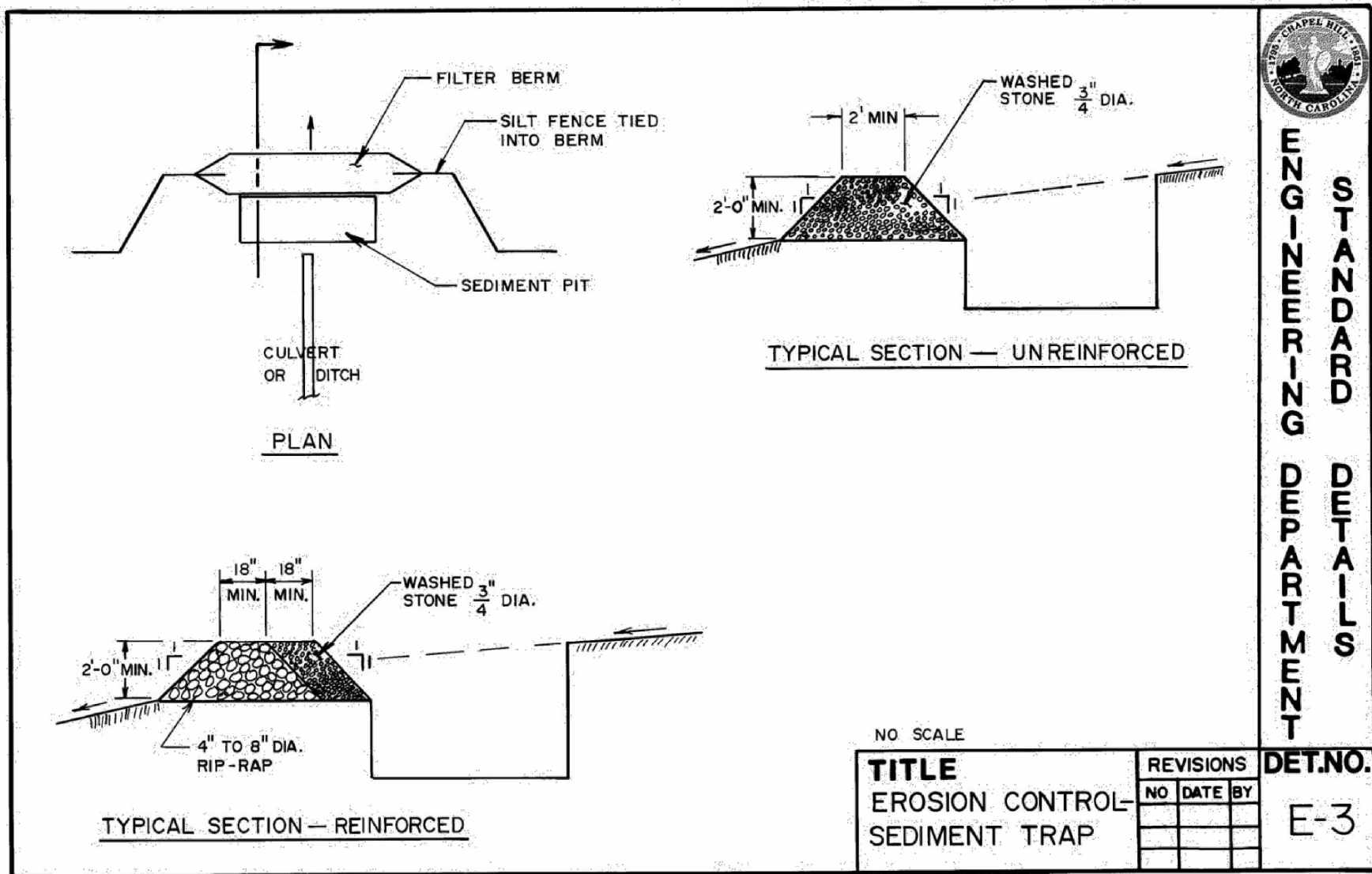
4 SILT FENCE OUTLET
SECTION

NTS



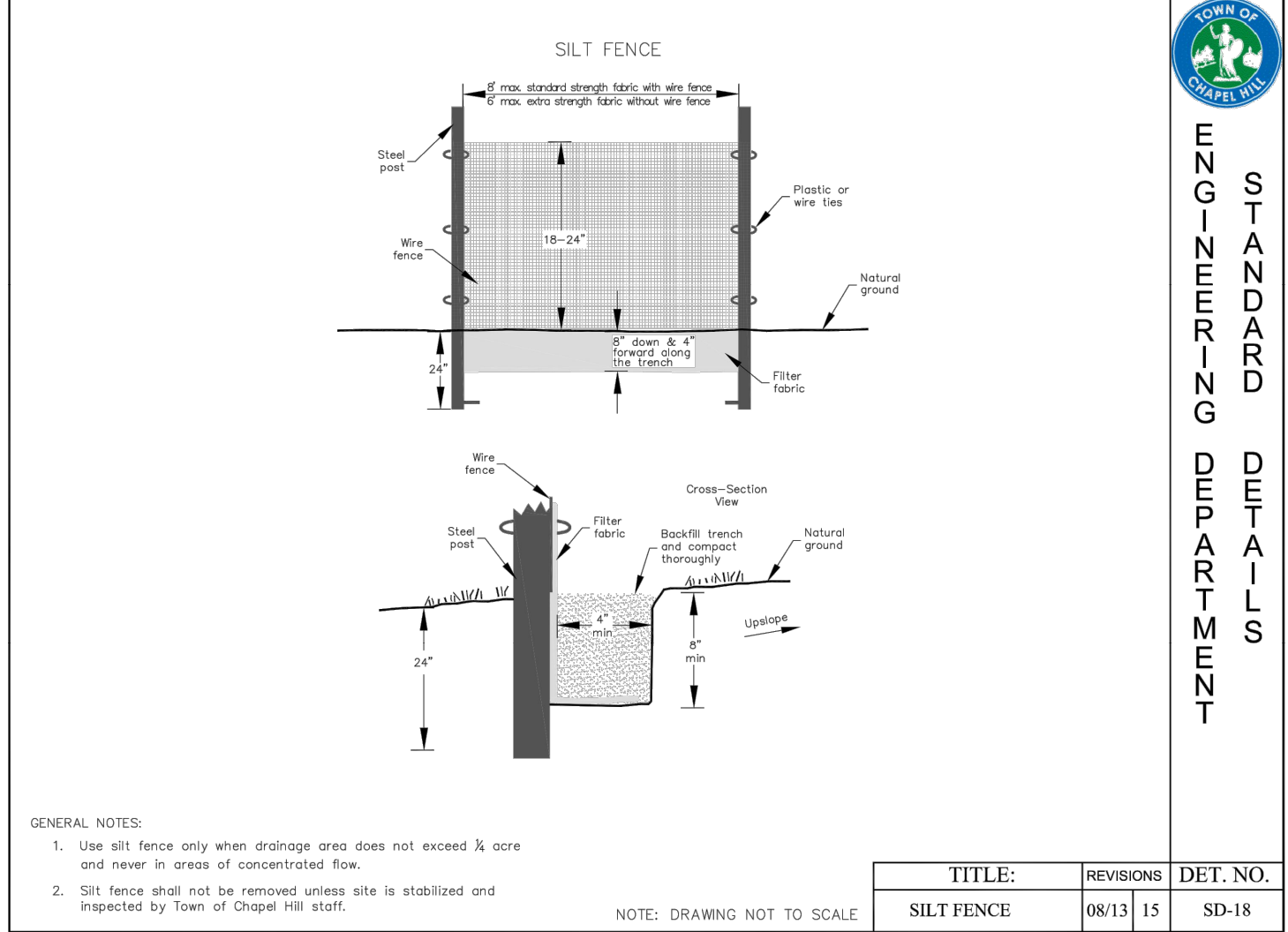
2 DIVERSION DITCH
SECTION

NTS



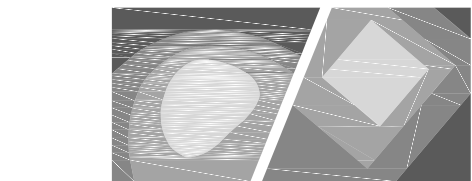
5 SEDIMENT TRAP
SECTION

3/8" = 1'-0"



3 SILT FENCE
SECTION

NTS



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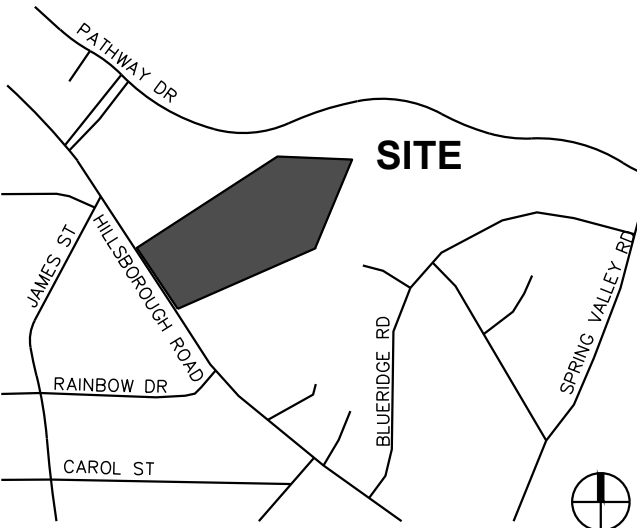
Client:

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Project:

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PARK

Vicinity map:



Seal:



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No. Date Description

SCALE: N.T.S.

Title:

EROSION CONTROL
DETAILS

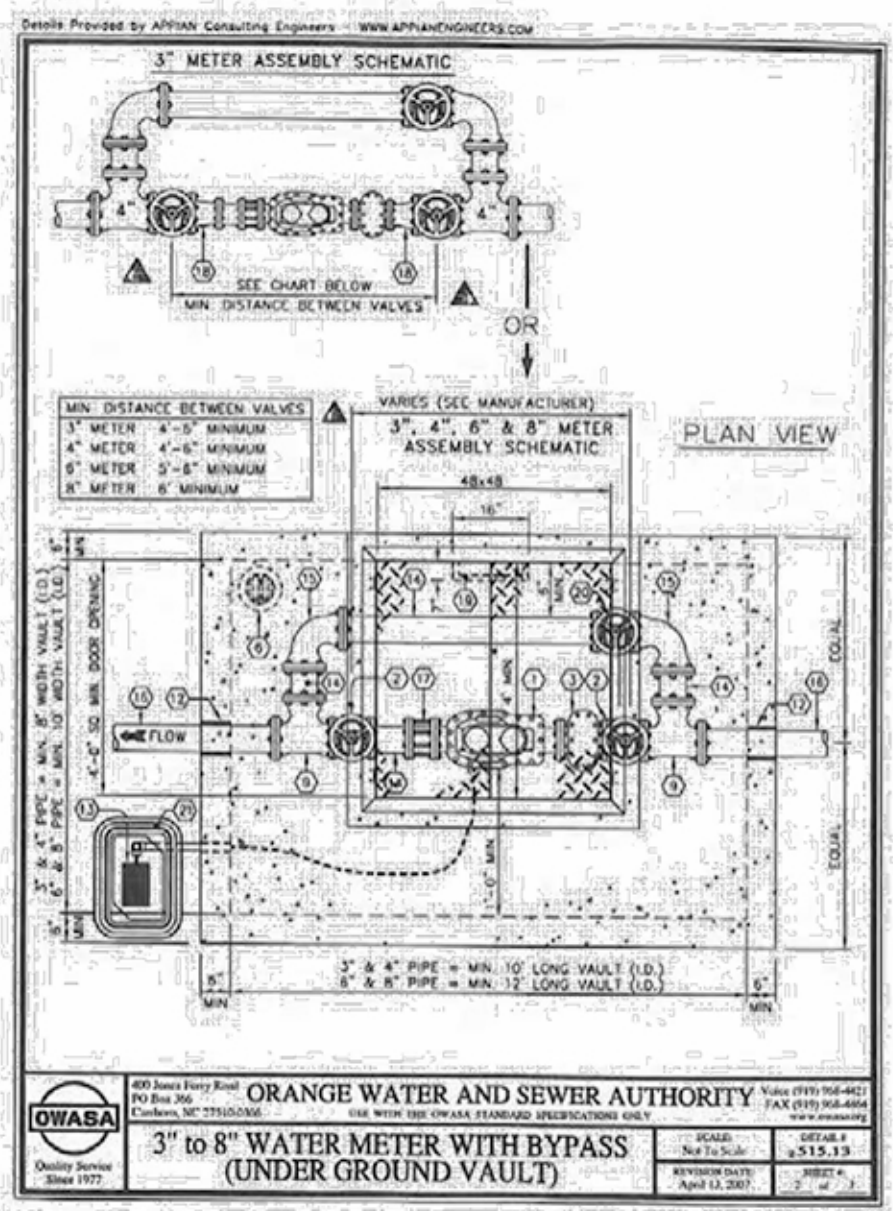
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Date: 03.03.2017

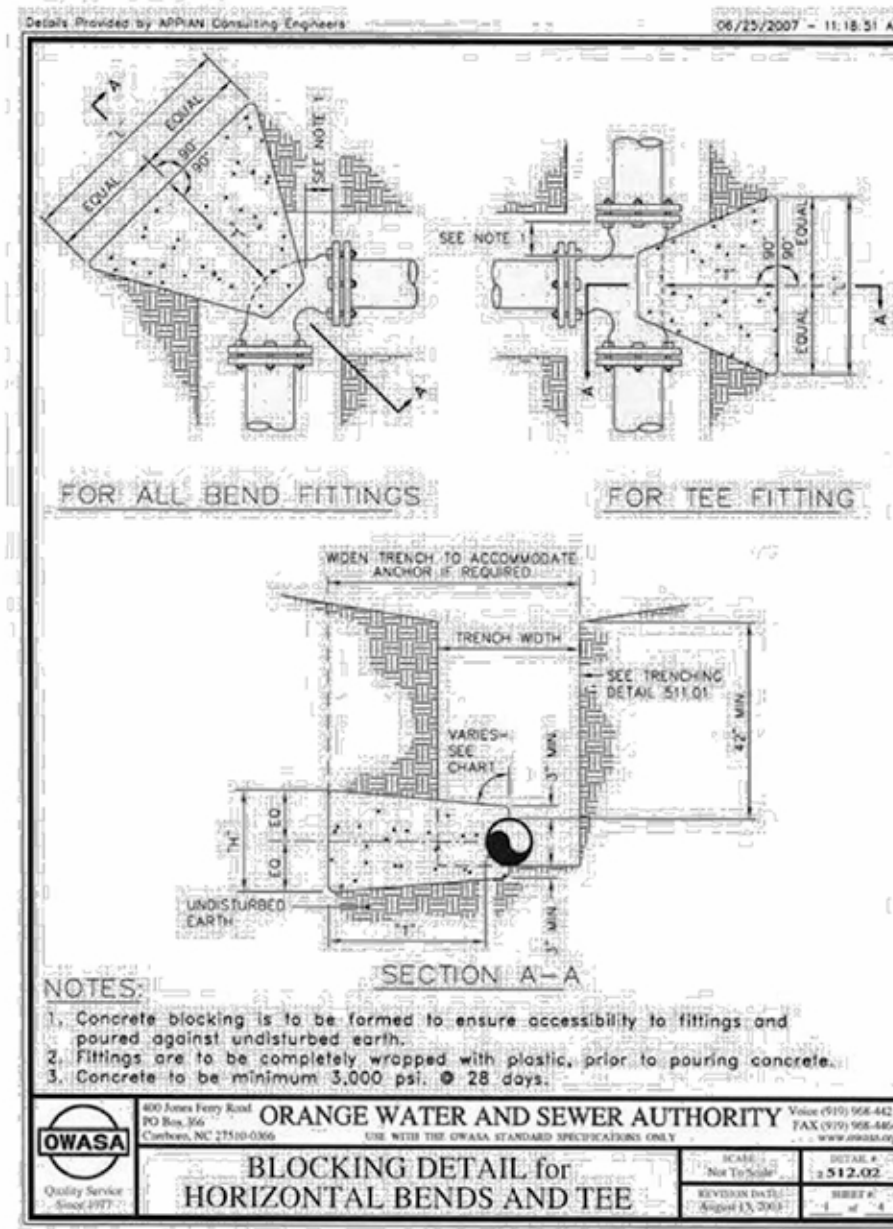
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Approved by: JLW

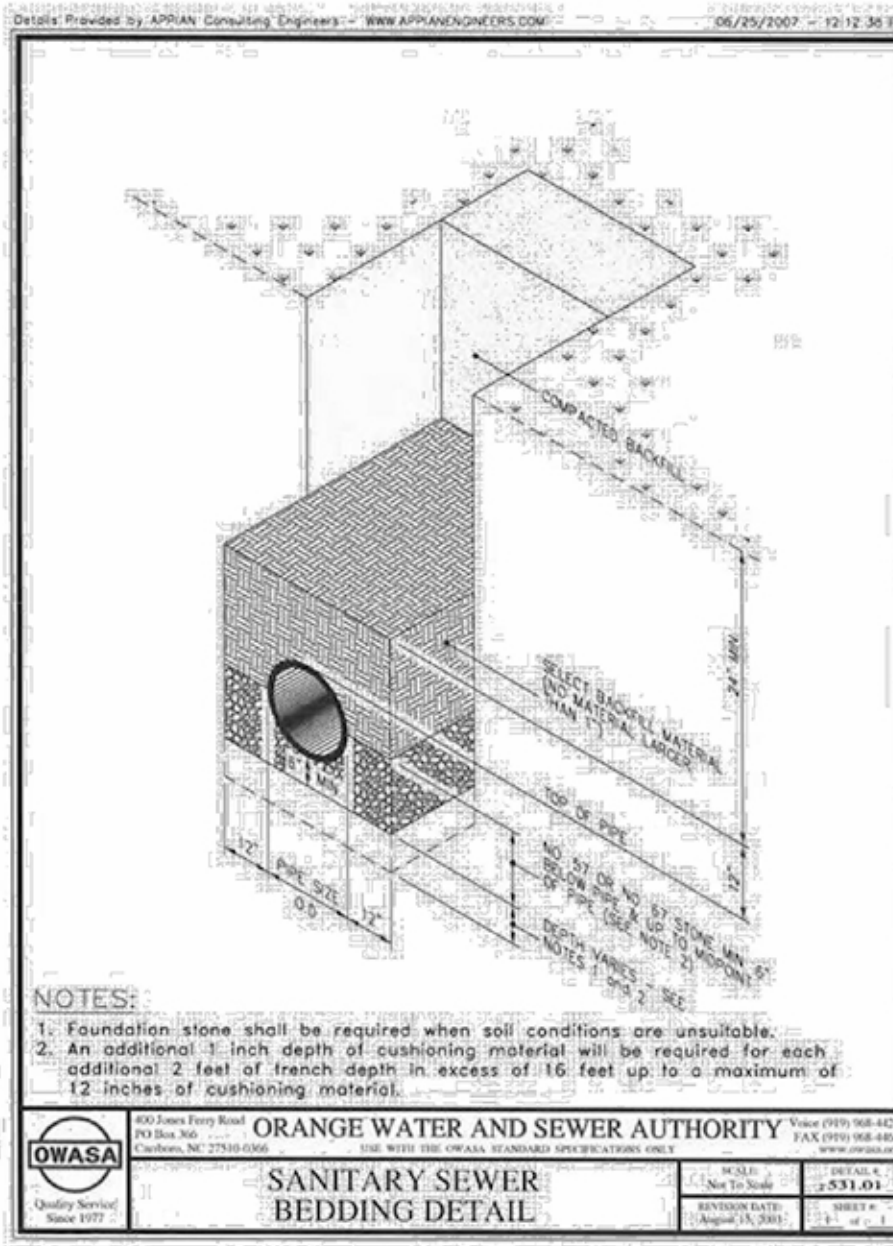
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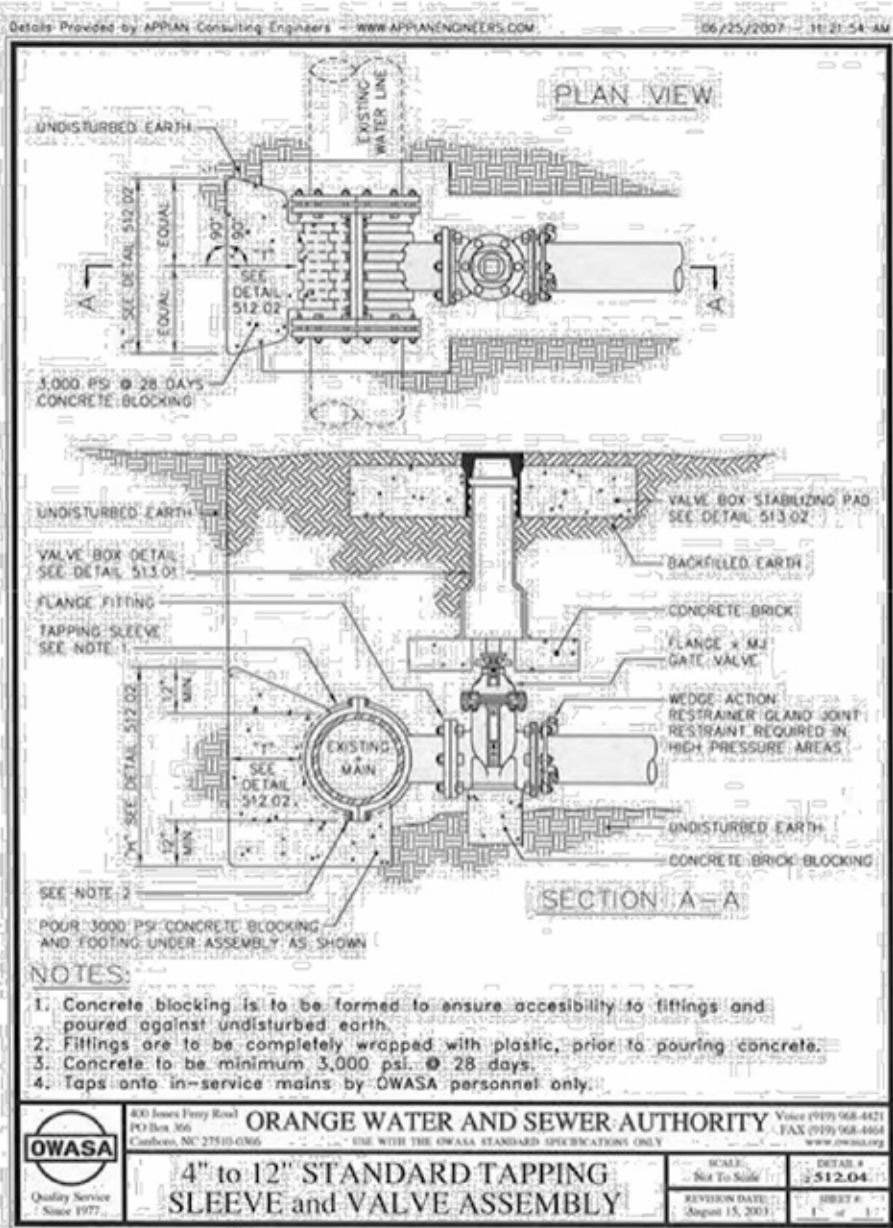
1 WATER METER PLAN NTS



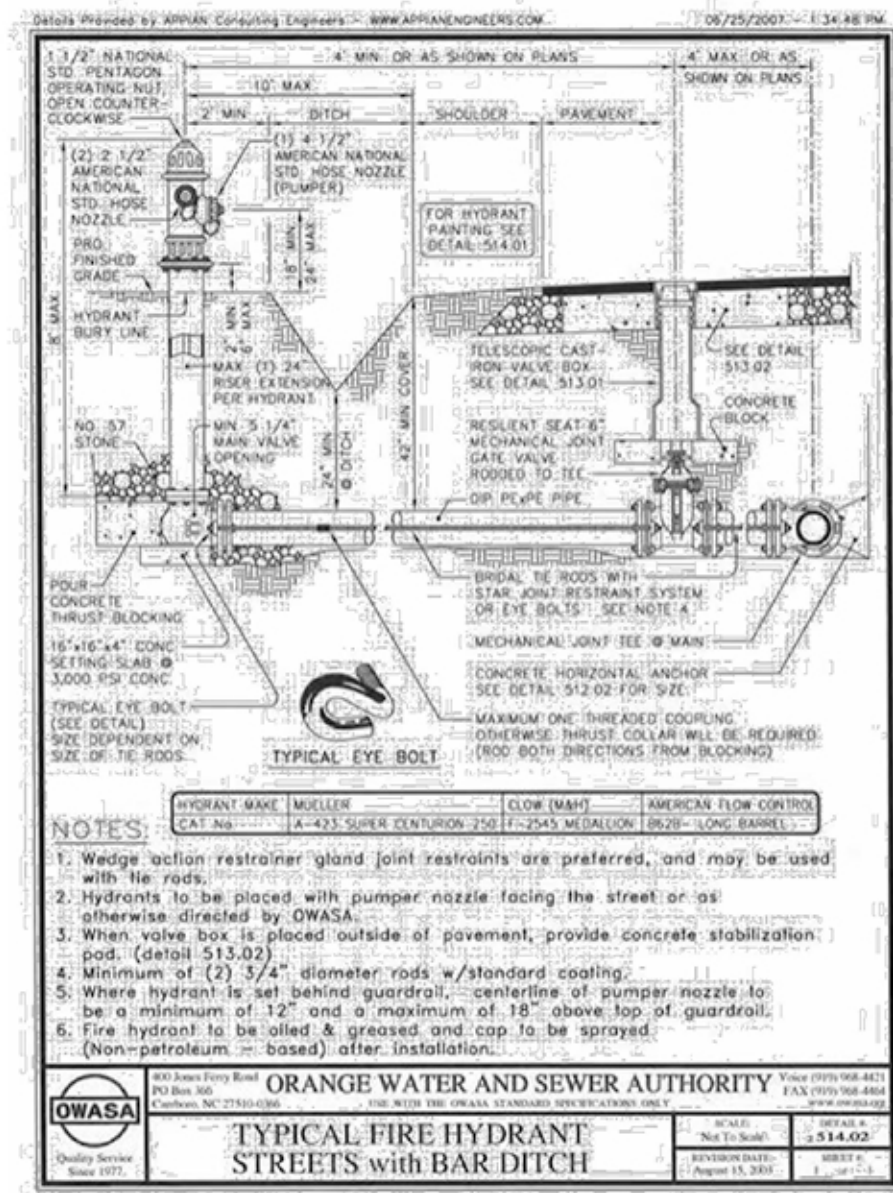
4 BLOCKING PLAN NTS



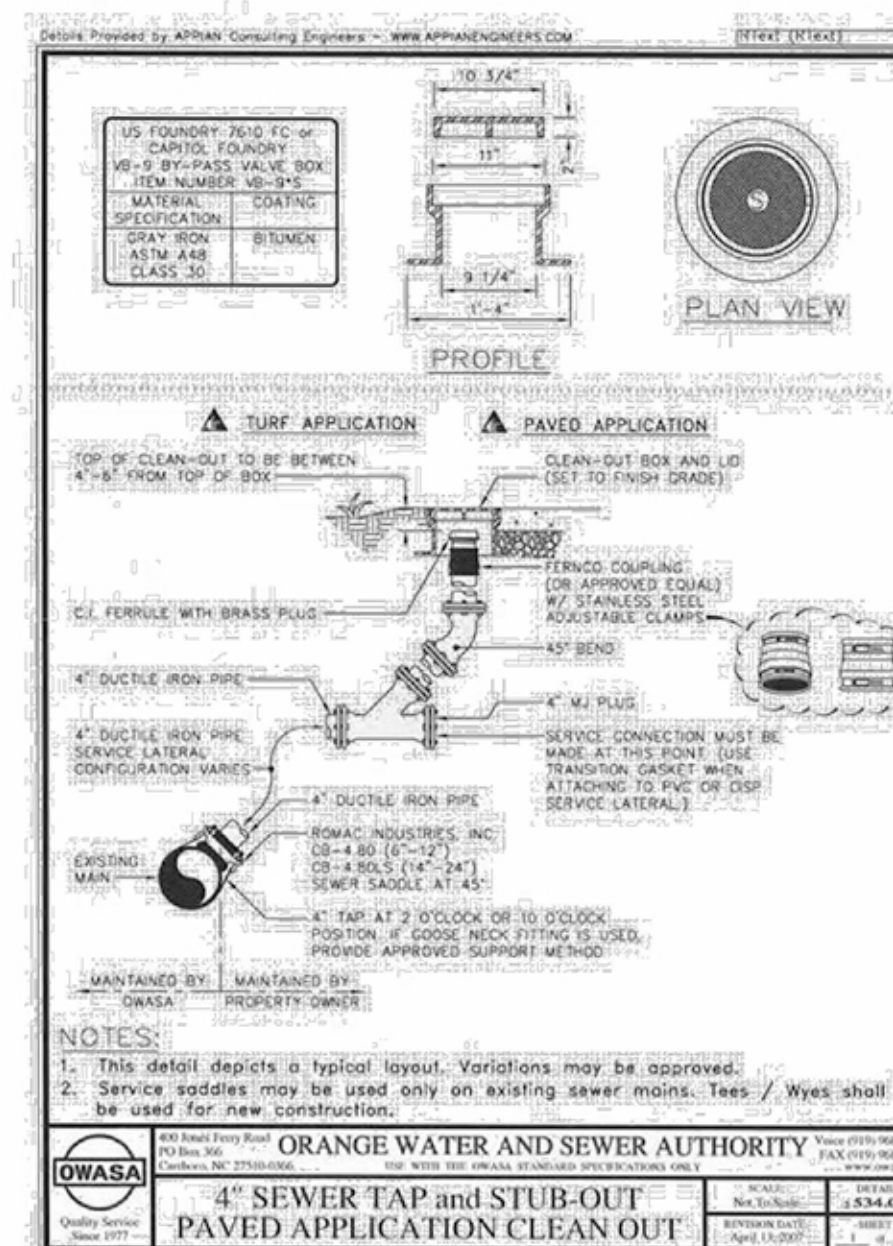
7 SANITARY SEWER BEDDING SECTION NTS



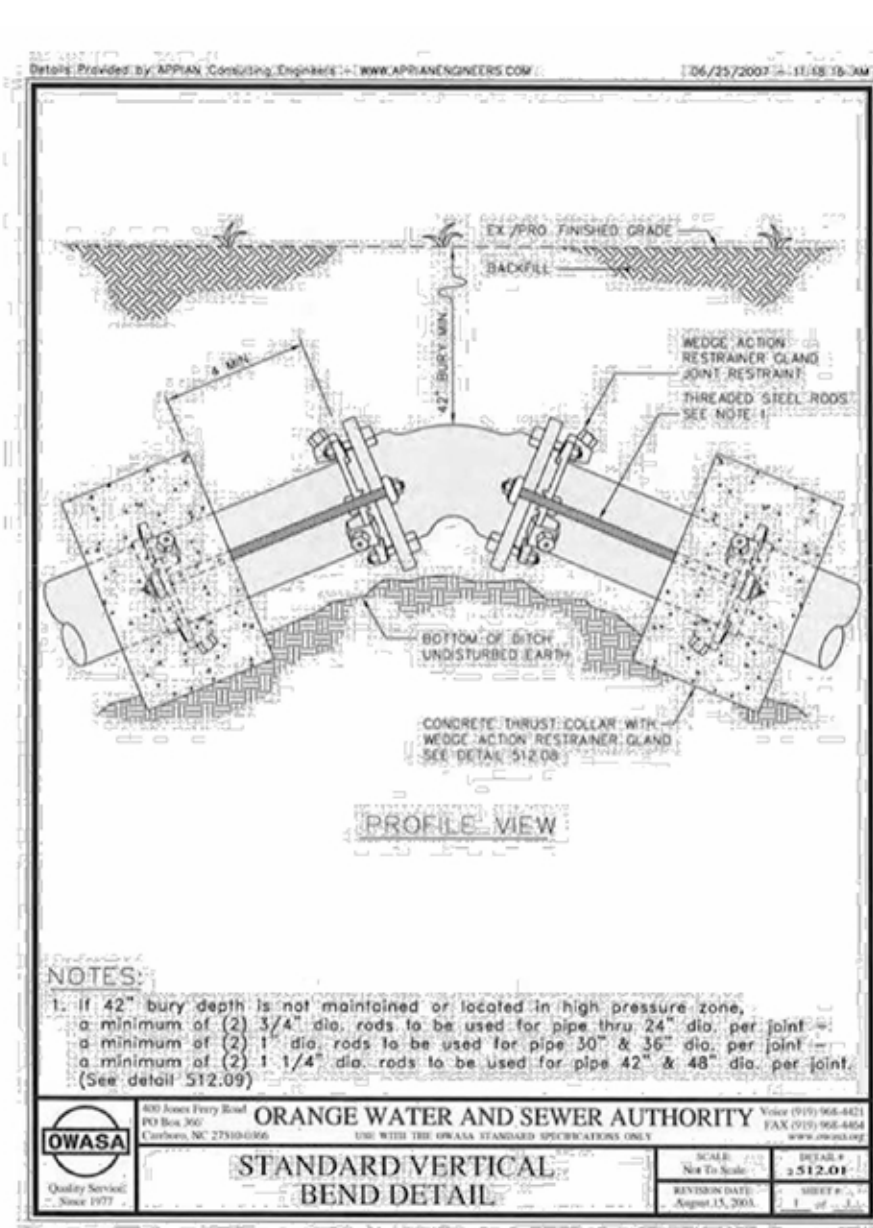
2 TAPPING SLEEVE AND VALVE PLAN NTS



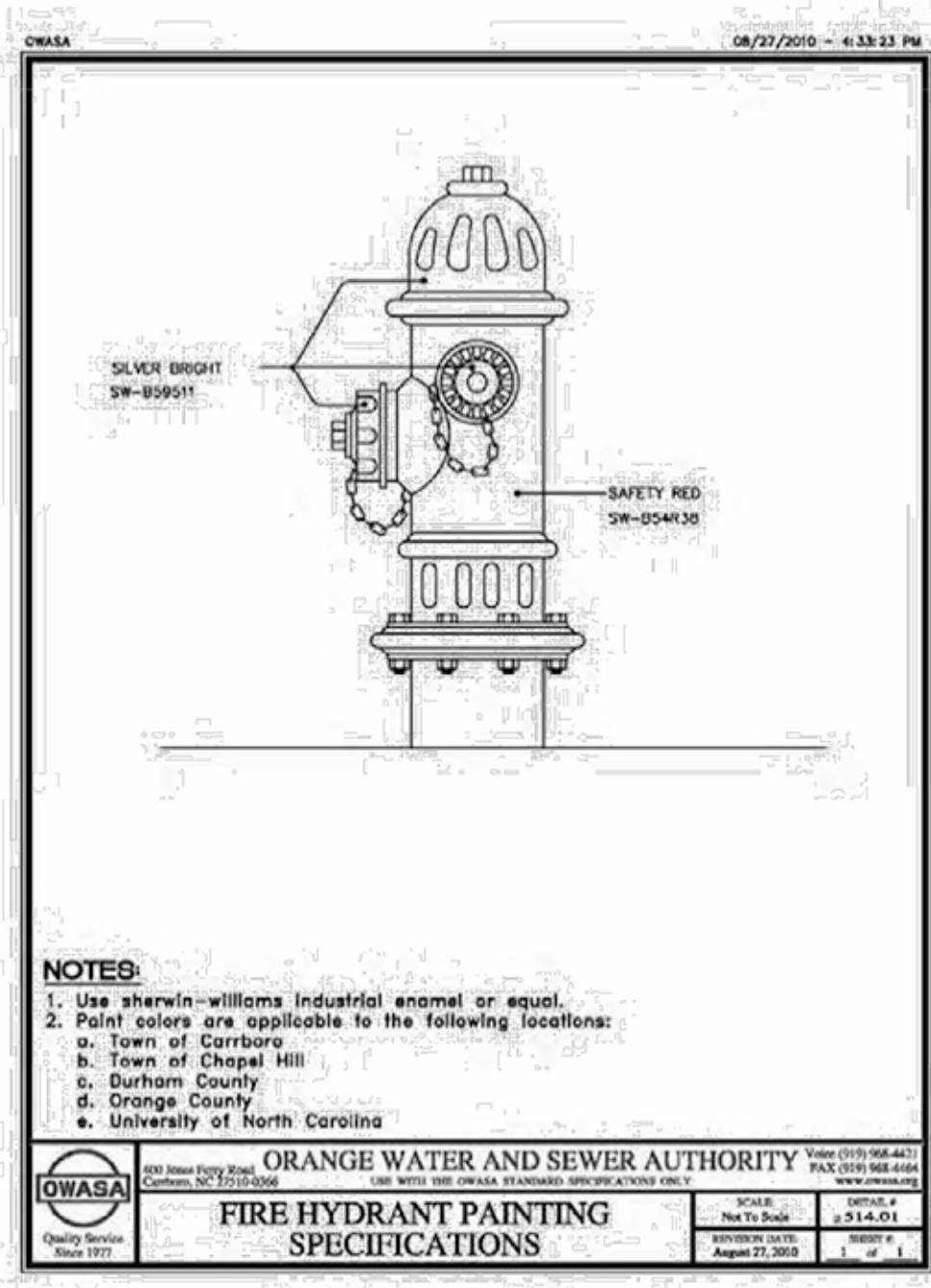
5 FIRE HYDRANT SECTION NTS



8 CLEANOUT SECTION NTS



3 WATERLINE BEND PLAN NTS

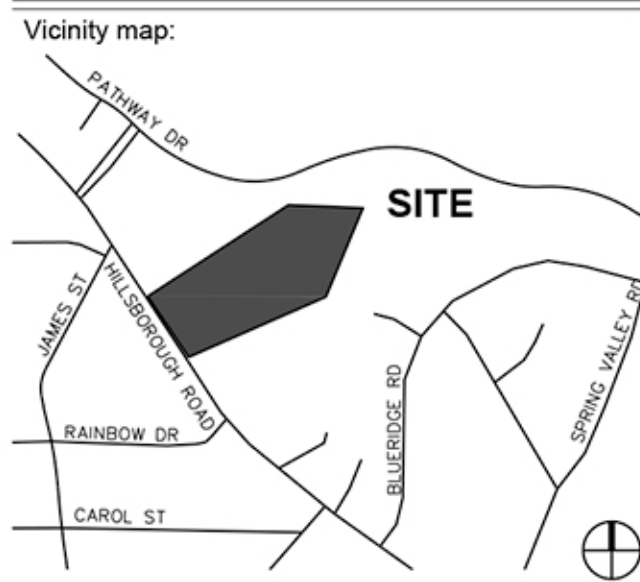


6 FIREHYDRANT PAINT SECTION NTS



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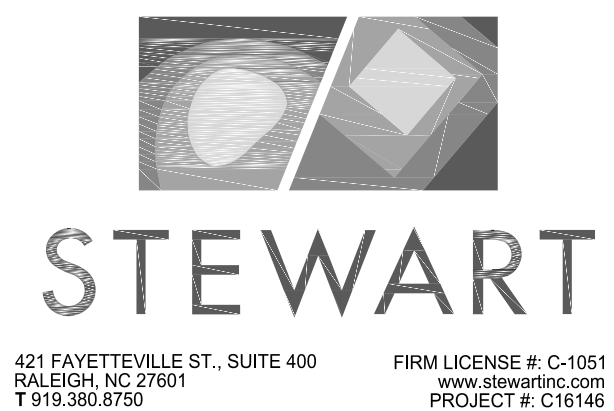
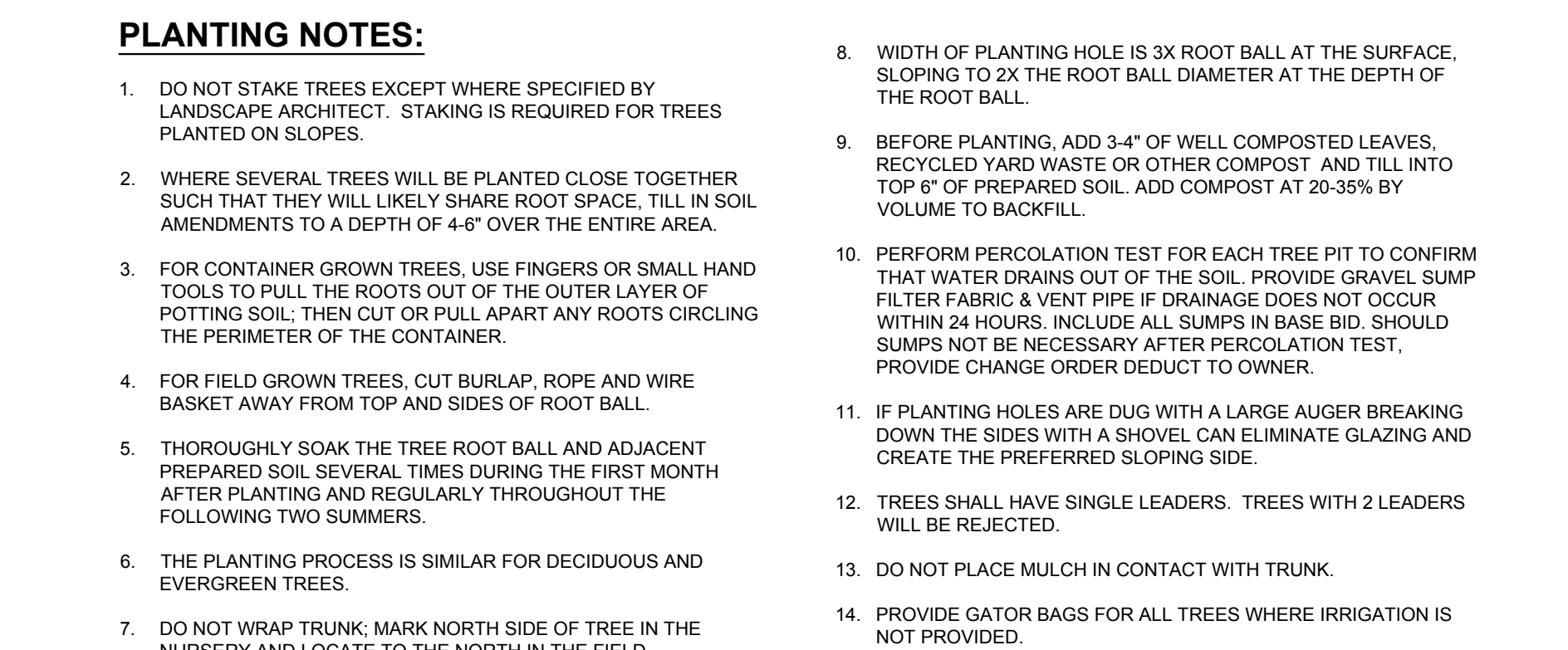
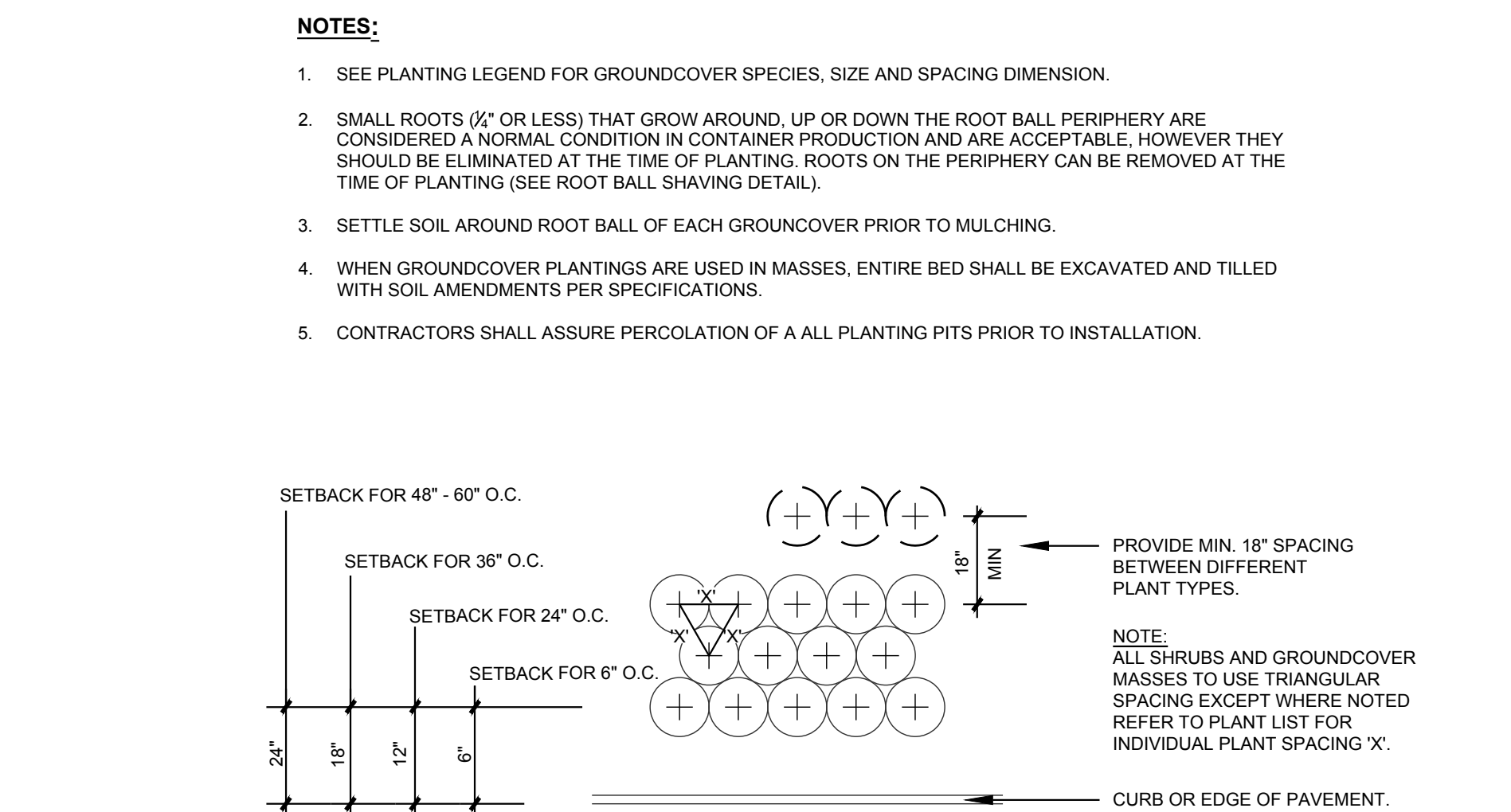
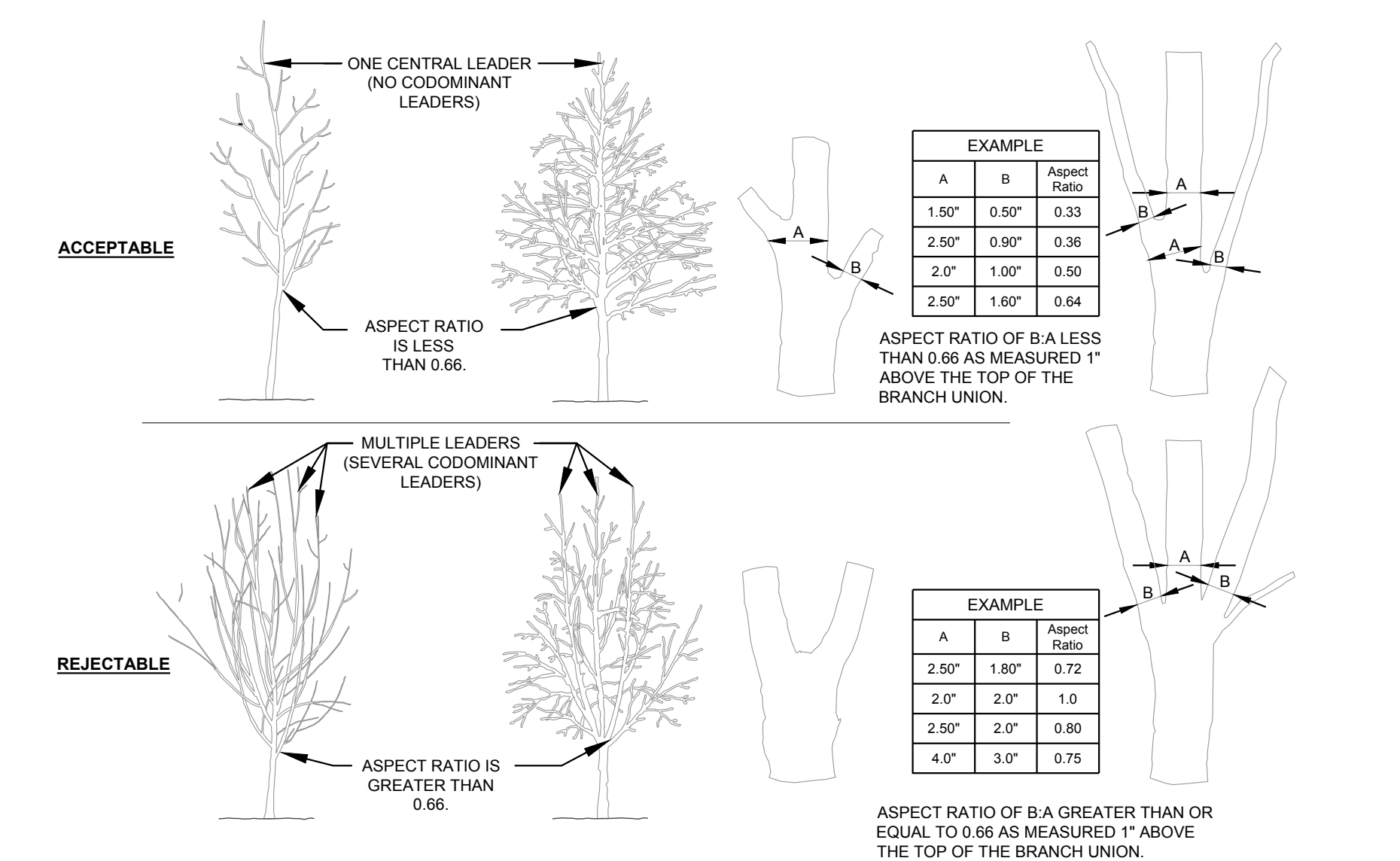
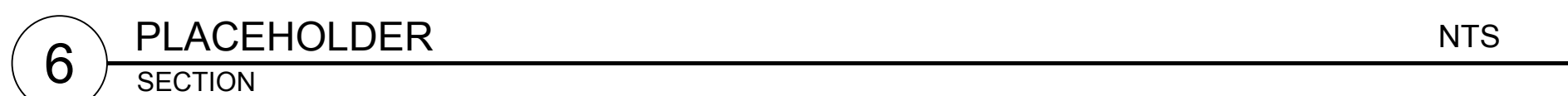
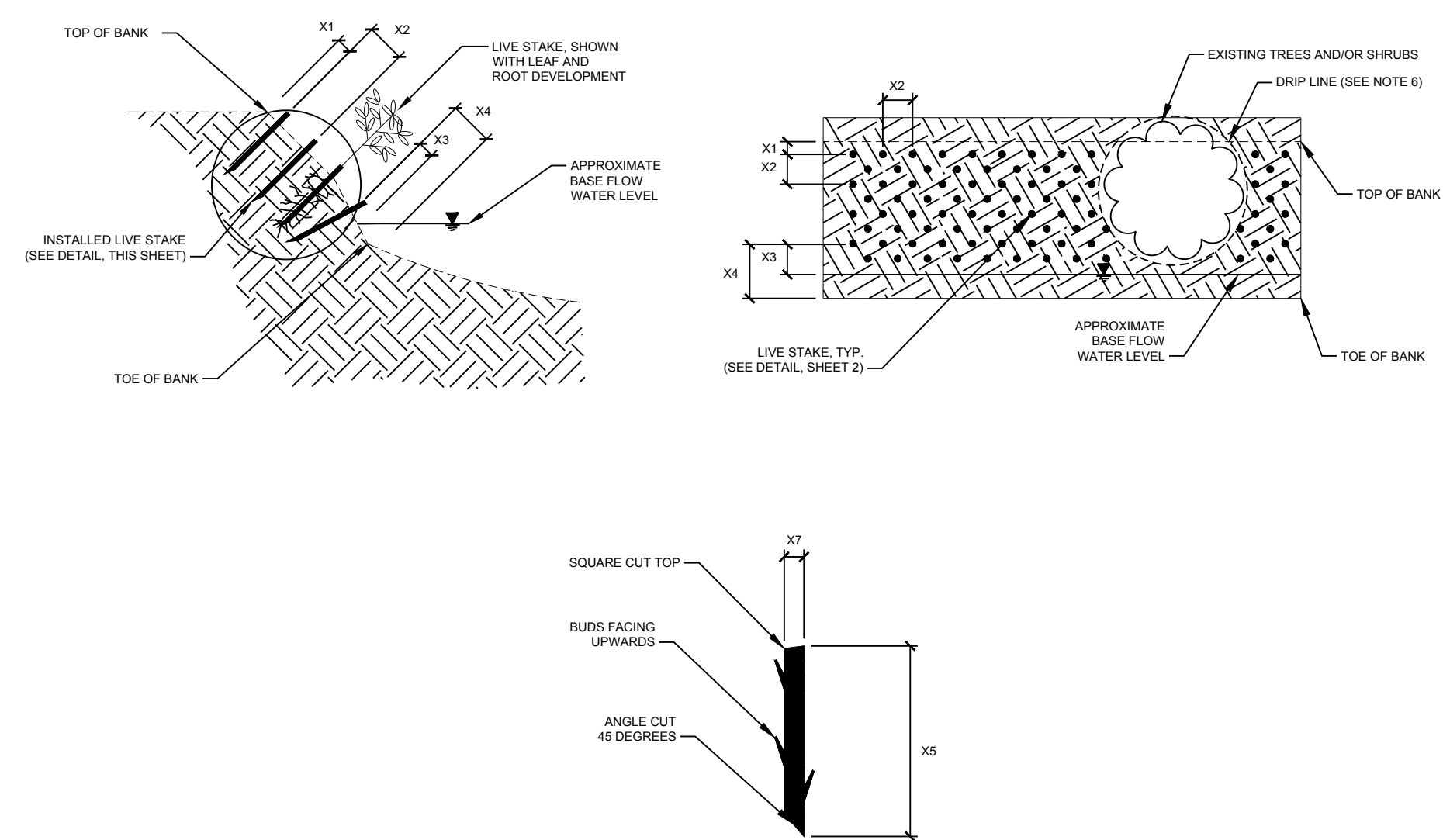
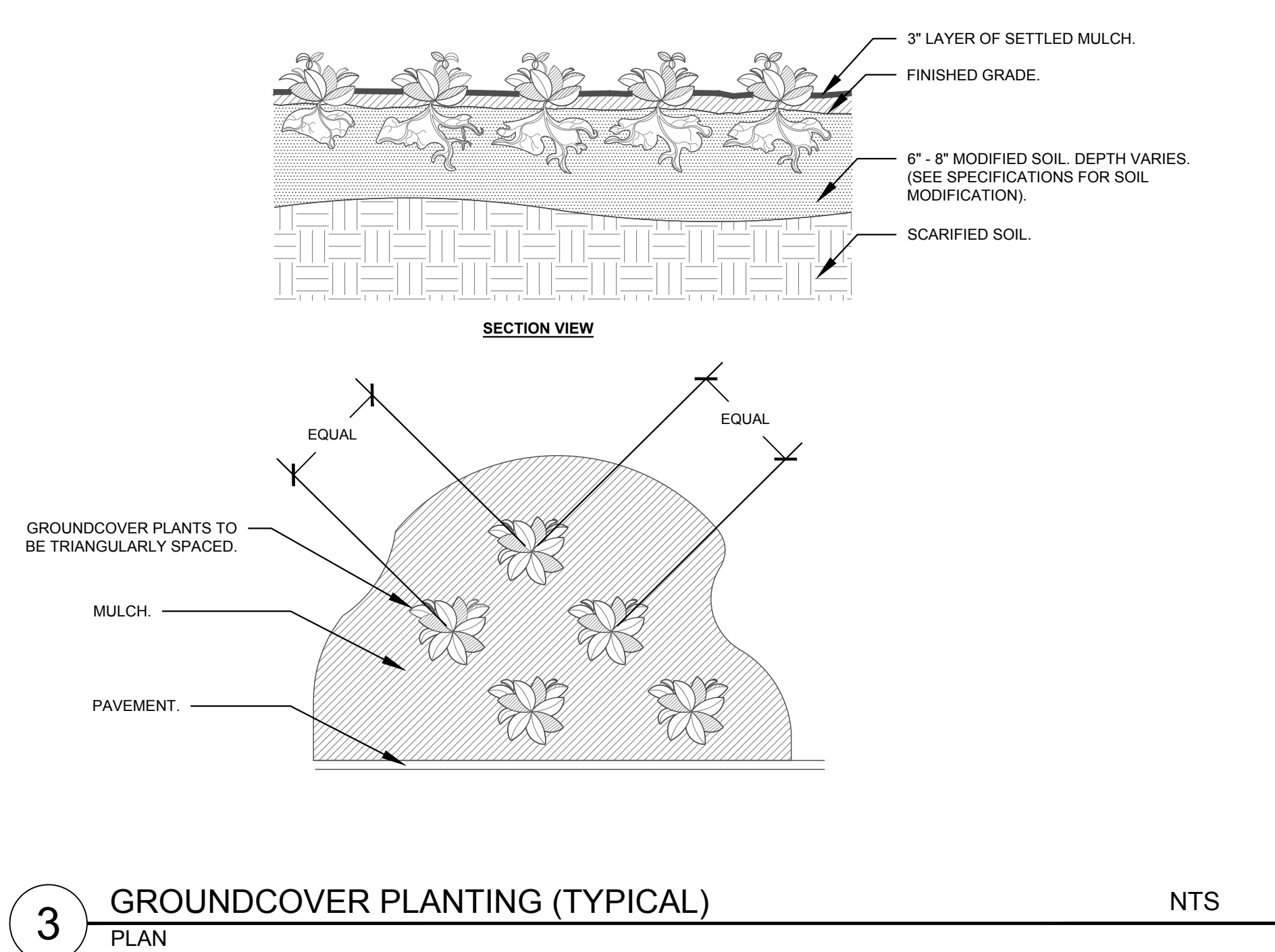
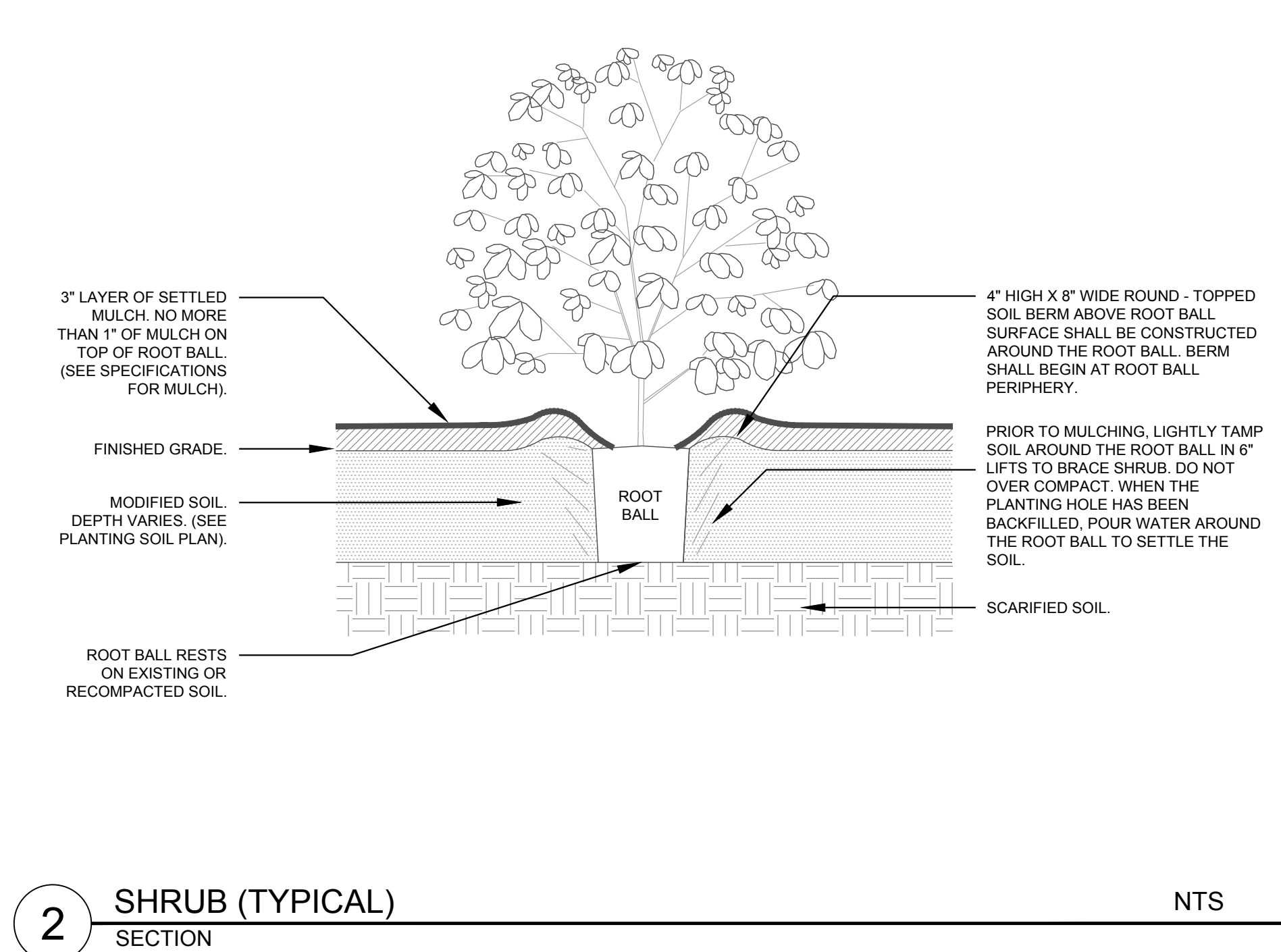
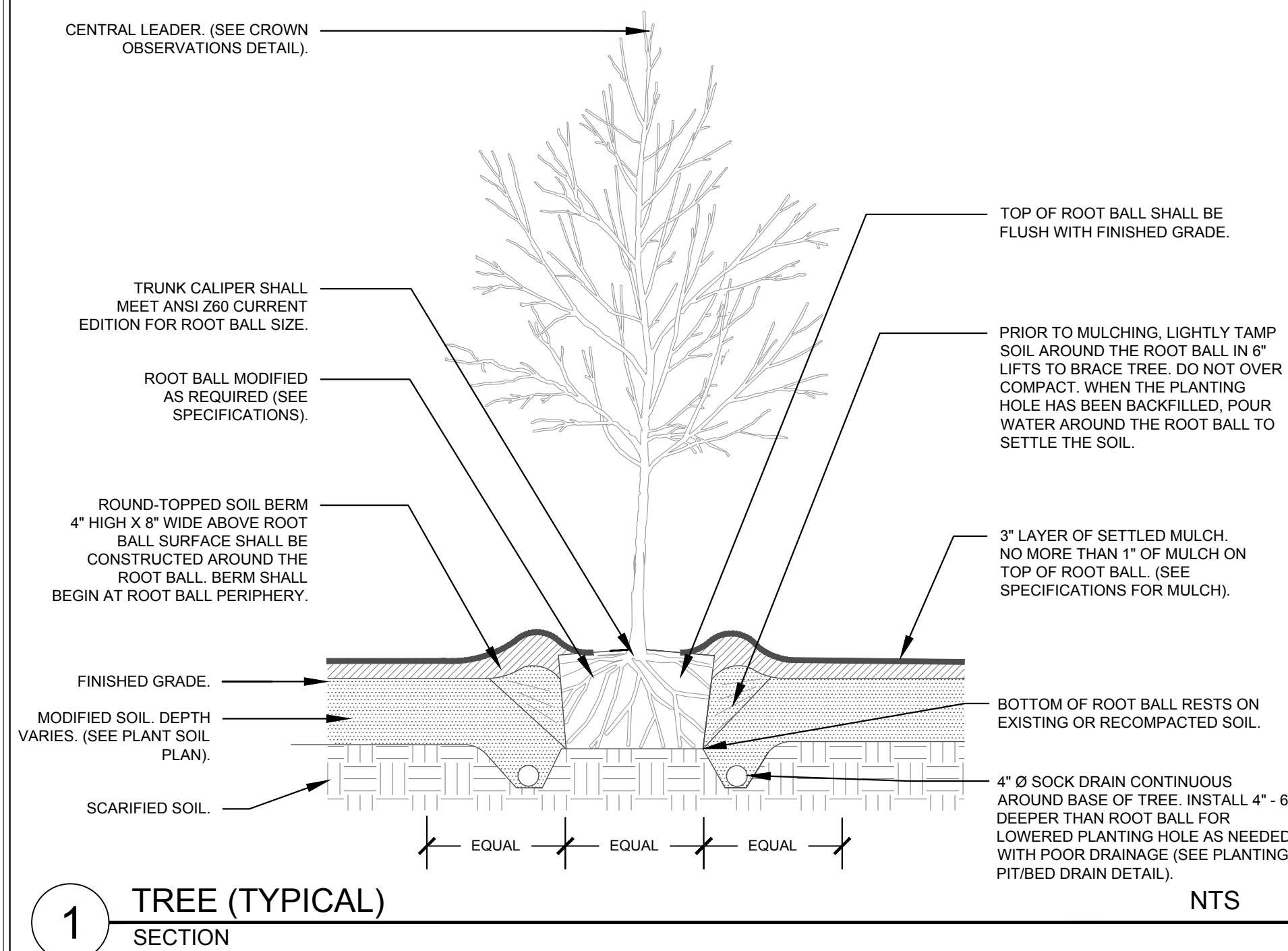
60% DESIGN DEVELOPMENT

No.	Date	Description

SCALE: N.T.S.

Title: UTILITY DETAILS

Project number: C16146 Sheet: 03.03.2017
Date: CJJ
Drawn by: JLW
Approved by: C9.30



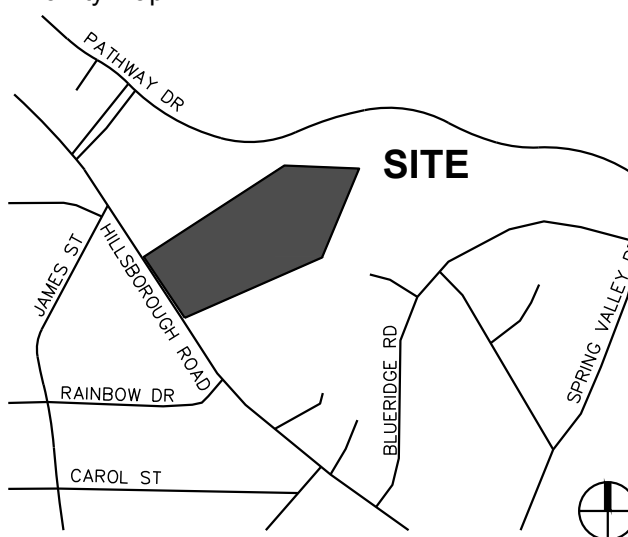
Client

TOWN OF CARRBORO
301 W. MAIN STREET
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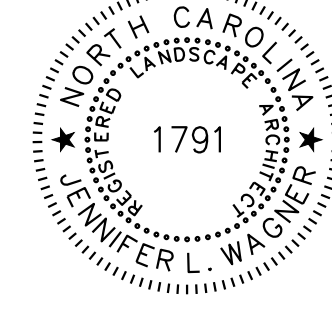
Project

MARTIN LUTHER
KING, JR.
PARK

Vicinity map



Sea



PRELIMINARY - DO NOT
USE FOR CONSTRUCTION

Issued for

60% DESIGN
DEVELOPMENT

[illegible]

SCALE: N.T.S

Title

PLANTING DETAILS

Project number: C16146 Sheet

Date: 03.10.201

Drawn by: TPO

Approved by: JLV

L2.00



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number:17-079

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Consideration of Stage 2 Traffic Calming on Blueridge Road

PURPOSE: The purpose of this agenda item is for the Board of Aldermen to consider the proposed design for Stage 2 traffic calming measures on Blueridge Road.

DEPARTMENT: Planning

CONTACT INFORMATION: Bergen Watterson, 919-918-7329, bwatterson@townofcarrboro.org
<<mailto:bwatterson@townofcarrboro.org>>; Tina Moon, 919-918-7325, cmoon@townofcarrboro.org
<<mailto:cmoon@townofcarrboro.org>>; Trish McGuire, 919-918-7327, pmcguire@townofcarrboro.org
<<mailto:pmcguire@townofcarrboro.org>>

INFORMATION: At the September 27th, 2016 meeting, the Board of Aldermen received a presentation from staff and comments from neighbors regarding traffic calming on Blueridge Road. Traffic volume, speed, and other data were collected in February 2016 and indicated that Stage 2 traffic calming measures were warranted. The Board of Aldermen directed staff to create a plan for Stage 2 traffic calming measures.

Since the September 2016 Board of Aldermen meeting, Town staff set up a table at the neighborhood potluck to discuss potential traffic calming measures and gather input. Staff created an online survey to gather input from residents who were unable to attend or did not provide comment at the potluck. A summary of responses to the paper comment cards and the online survey can be found in Attachment B.

Staff from the Planning and Public Works departments visited the site on several occasions and worked with Sungate Design to create a traffic calming plan for Blueridge Road. The plan includes two speed tables, curb extensions, road narrowing, and pavement markings. The speed tables were recommended because they are effective at lowering speeds, they have less impact on emergency access, and they can be found on other roads in the neighborhood. The curb extensions at Aberdeen Court are meant to lower the speeds of vehicles turning from Blueridge Road, where residents noted a particular speeding hazard. The road narrowing across from the Morningside intersection was proposed to slow cars at that point in the road and provide a protected area for pedestrians to walk. An illustrative map of proposed traffic calming devices can be found in Attachment C. Additional details on the proposed devices will be discussed at the meeting.

Staff recommends a pilot installation of the curb extensions and road narrowing with bollards and paint to test the effectiveness. Traffic volume and speed data will be collected again in 3-6 months after installation of

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

traffic calming devices.

The Transportation Advisory Board received this information and heard from residents at the March 16th, 2017 meeting. Their recommendation can be found in Attachment D.

FISCAL & STAFF IMPACT: Staff is working with Sungate Design and Public Works to finalize cost estimates relating to the different traffic calming measures. This information will be available at the meeting.

RECOMMENDATION: Staff recommends that the Board of Aldermen consider the resolution in Attachment A approving the proposed traffic calming plan for Blueridge Road.

A RESOLUTION RELATING TO TRAFFIC CALMING MEASURES ON BLUERIDGE ROAD

WHEREAS, the Board of Aldermen adopted the Residential Traffic Management Plan (RTMP) in June of 1996 to provide “a process for identifying and addressing existing problems related to speeding, excessive volumes, and safety on town-maintained residential streets”; and,

WHEREAS, a valid traffic calming petition, in accordance with the RTMP, was received from residents of the Blueridge Road area in August 2015 and a traffic evaluation was completed in February 2016; and,

WHEREAS, the Transportation Advisory Board made a recommendation in September 2016, which was presented to the Board of Aldermen on September 27th, 2016; and,

WHEREAS, at this meeting the Board of Aldermen adopted a resolution recommending that a plan for Stage 2 measures be completed and presented to the Transportation Advisory Board and the Board of Aldermen; and,

WHEREAS, the Transportation Advisory Board has reviewed the aforementioned Stage 2 proposal; received feedback from neighbors; and made a recommendation to the Board of Aldermen; and,

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Board approves Stage 2 traffic calming measures on Blueridge Road as proposed in the plan.

BE IT FURTHER RESOLVED that:

[Additional guidance]

1. _____
2. _____
3. _____

This is the 21st day of March in 2017

Traffic Calming on Blueridge Road

Major Concerns

General consensus on speeding as the main issue, poses particular danger for children during PM rush hour.

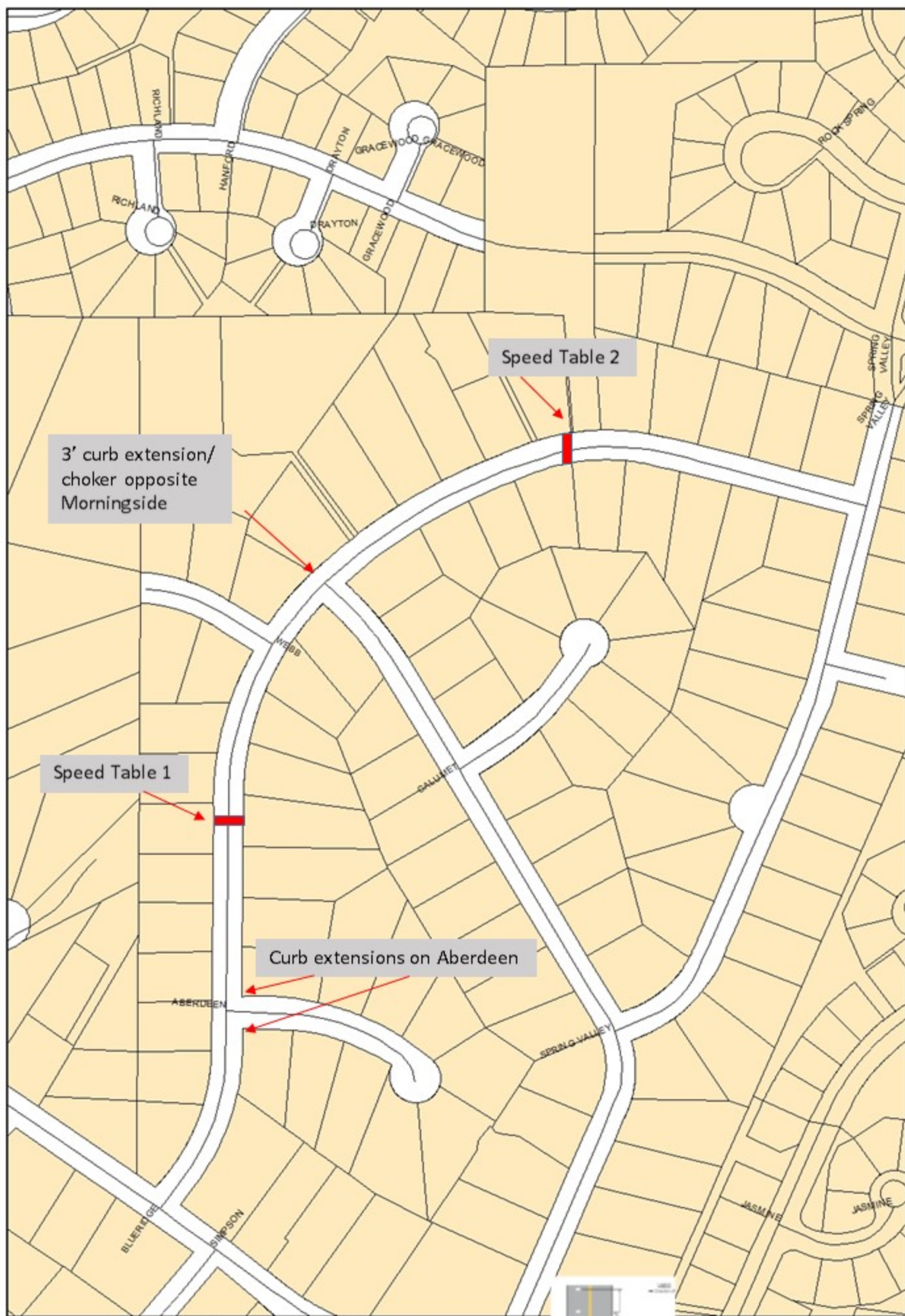
Proposed Solutions

Speed tables, humps, and chokers are suggested, though no one solution is favored over all others.

CONCERNS	SUGGESTIONS
COMMENT CARD RESPONSES	
-Walking with a child and dog-walking is often dangerous. There are a lot of kids in this neighborhood. - Sidewalks are ideal.	-Sidewalks -Speed humps -Communication with Spring Valley and neighborhoods nearby.
-I think the increased number of small children on one street and everyone is a strong argument for speed controls on Blueridge.	
-I haven't had any concerns yet. We just moved in July.	-I prefer speed tables or speed humps. Other solutions may have a negative impact when I ride a bike or pull a trailer.
-Please add speed table or hump on Blueridge Rd. This way it matches all surrounding neighborhood streets and will cut down on traffic and speeding on Blueridge.	-Speed table or bump.
-Something needs to be done, but there don't seem to be as many speeders as before. -If I had to choose, I'd choose speed tables. -Crosswalk on Hillsborough/Greensboro.	
-Between Aberdeen and Morningside cars speed up.	-Speed humps and speed tables are my preference.
-Speeding has waxed and waned over the last decade. It has always been a problem, and is close to a peak.	-Whatever is done on Blueridge should provide as strong of a disincentive to speed as the tables on Morningside and Spring Valley.
-Speeding, high traffic density.	-Chokers with a walking path. They are pretty+ don't hurt the cars.
-Traffic (after dark) with no sidewalks. Traffic is too fast. We walk our dog daily after dark.	-Chokers are attractive and less common, therefore more noticeable to car drivers.
-@7AM & 3PM on Blueridge lots of children biking/people driving to work.	-Bumps might be okay but would like other ideas as well. Prefer to skip signs (i.e. children playing) unless they use other tactics as well.
-Much too fast-school buses are the worst culprits.	
-Even with speed bumps- Spring Valley Rd has speeders.	
ONLINE RESPONSES	

<p>We mainly want to get the speed down some and make drivers more considerate of walkers and kids playing. Evening commuters are an issue as that's a time when we are often in the street with our kids - bikes, skateboards etc. The sight lines on Blueridge are an issue due to the curves and hills, but slower speeds should help with that.</p>	<p>I hope that speed tables or the like would do the trick. A stop sign on Blueridge and Morningside might help. Speed tables might work best when situated before some of the hill crests or deepest curves in the road to slow cars down before those problem areas.</p>
<p>speed of car traffic. I needed to remove a tree so I could better see to back out of my driveway. drivers who show no concern for anyone in the street.</p>	<p>only the speed hump (2) on the lower section of blue ridge. concerned about the water drainage near 203 thus the islands will not work. stop signs at morningside blueridge and stop sign at aberdeen court and blueridge. traffic calming signs traffic speed sign near 207 blueridge as that is the downhill lower portion of blueridge</p>
<p>Too fast</p>	<p>Bump or table. At least Two between hillsborough road and morning side</p>
<p>Hi Bergen, thanks for setting this up. I wrote you about Aberdeen Ct before, so I'll just copy & paste this here: Cars coming off Hillsborough onto Blueridge are usually moving fast around the wide corner. It's common for them to keep a lot of that speed to Aberdeen, and then whip around our corner still moving well above 25, right in front of our house. This is particularly true of the employees of the one business at the end of our cul de sac - they're notorious for coming in a hurry to work at various times during the day. We and the other parents on Aberdeen (there are eight kids here, among four households) often discuss it (we've spoken to the business manager as well, and they promised to ask everyone to slow down, but you know how that goes). Long story short, as you are planning the locations for the speed humps (or whichever), please consider placing one somewhere near, but before (south of), the Aberdeen intersection, to enforce that drivers coming off Hillsborough get their speed down before hooking that right.</p>	<p>Based on the powerpoint you showed of various options, speed humps and/or tables look like the obvious choice. They're (presumably) faster to install, they wouldn't interfere with street parking or cyclists, and they slow traffic more effectively than the more expensive options. If they're effective on Morningside and Spring Valley, that seems like good evidence they'd work on Blueridge, too. Chicanes sound impractical for this road - you'd need so many of them. A Mini-circle at the intersections seems very elaborate... and if it only reduces speeds by 11%, that's not very helpful - speeders doing 35 are now doing 31/32. Hardly seems worth it. Chokers look nice, but seem like more expensive, less effective speed bumps - and they block bikes. My feeling is: if there's already a proven approach right there in our subdivision, and it also happens to be the cheapest, easiest, and least obtrusive option, then the choice is simple. Some combination of humps and tables seems best by almost every measure.</p>
<p>speeding and quantity of cars at peak hours.</p>	<p>speed table or choker</p>

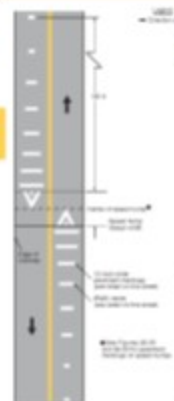
<p>Speed. One problem location is where Morningside ends at Blueridge. I propose a three (ALL WAY) way stop there. This would slow traffic at this point. During the summer months, drivers have poor visibility when turning onto Blueridge from Morningside due to the curve in both directions on Blueridge and the foliage that obscures oncoming traffic.</p>	<p>I would like to see sidewalks along Blueridge since there are many people who walk, jog and bike in this neighborhood. Sidewalks certainly would be less intrusive and would actually be a benefit for children and old folks who traverse this busy road. I don't like most of the calming measures but would not object to the hump or table. I would object to any traffic calming project in front of my house.</p>
<p>Traffic goes too fast, especially going to and from Spring Valley neighborhood (I think). There are no traffic calming measures at all on Blue Ridge. My daughter frequently plays with friends on Blue Ridge and cars just zoom by.</p>	<p>I am not sure what will be best- something effective but not too costly. Even a stop sign at Aberdeen would probably be helpful.</p>



Curb extensions on both sides of Aberdeen to slow traffic turning from Blue Ridge

Speed tables at 207/204 Blue Ridge and 315/306 Blue Ridge

Choker/ curb extension to narrow roadway at Morningside intersection





TOWN OF CARRBORO

Transportation Advisory Board

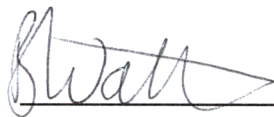
301 West Main Street, Carrboro, North Carolina 27510

THURSDAY, MARCH 16TH, 2017

Transportation Advisory Board Comments re: Traffic Calming on Blueridge Road

The Transportation Advisory Board discussed the proposed Stage 2 traffic calming measures for Blueridge Road at the March 16th, 2017 meeting. After discussing the proposed devices, survey responses, and hearing feedback from the neighbors in attendance (see following page), the TAB offers the following:

- 1) The Transportation Advisory Board recommends that the Board of Aldermen approve the plan, but allow for adjustments by the Engineer based on comments from the neighbors and feasibility of the comments.
- 2) For budgetary reasons, the final plan should include the number and type of devices that are currently proposed.

 For
Colleen Barclay

Transportation Advisory Board Chair

3/17/17

Date

Comments from Blueridge Road Residents

In attendance at TAB meeting on 3/16/2017: Jesse Cleary, Helene deFays, Josiah Egan, Gretchen Gochenauer, Bill Biggers, Dennis Efird, Anne Efird

- Mr. Efird and others would like the road narrowing device at Morningside Drive to be as wide as it can be while still allowing two-way traffic because pedestrians will walk on the inside of the curb.
- Mr. Biggers suggested moving Speed Table 1 closer to Aberdeen because cars coming off of Hillsborough Road are still speeding at that point.
- Mr. Egan shared feedback from residents on the neighborhood listserve:
 - 7 people said they are fine with the plan
 - 2 said they would like more information
 - 3 did not like the 'chokers' because pedestrians would be forced into the road (Mr. Egan and Ms. deFays explained that there was confusion among neighbors about what 'chokers' really are)
 - 1 wanted to move the speed table
 - 1 prefers stop signs
- Mr. Biggers would like the speed limit on all residential road without sidewalks to be 15mph.
- Staff received an email from Victor Rhodes Jr. saying that he approves of the speed tables. He said that he approves of the 'choker'/road narrowing opposite Morningside as long as it does not reduce Blueridge Road to one lane (it will not).



TRAFFIC CALMING ON BLUERIDGE ROAD

Transportation Advisory Board

Thursday, March 16, 2017

7:30 p.m.

Carrboro Town Hall, Room 109

Carrboro Board of Aldermen

Tuesday, March 21, 2017

7:30 p.m.

Carrboro Town Hall, Board Room

Traffic Calming Devices for Blueridge Road



Speed Hump (Source: FHWA)



Choker (Source: City of Alexandria)



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number:17-078

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Consideration of Stage 2 Traffic Calming on Tallyho Trail

PURPOSE: The purpose of this agenda item is for the Board of Aldermen to consider the proposed design for Stage 2 traffic calming measures on Tallyho Trail.

DEPARTMENT: Planning

CONTACT INFORMATION: Bergen Watterson, 919-918-7329, bwatterson@townofcarrboro.org
<<mailto:bwatterson@townofcarrboro.org>>; Tina Moon, 919-918-7325, cmoon@townofcarrboro.org
<<mailto:cmoon@townofcarrboro.org>>; Trish McGuire, 919-918-7327, pmcguire@townofcarrboro.org
<<mailto:pmcguire@townofcarrboro.org>>

INFORMATION: At the September 27th, 2016 meeting, the Board of Aldermen received a presentation from staff and comments from neighbors regarding traffic calming on Tallyho Trail. Traffic volume, speed, and other data collected in May 2016 indicated that Stage 2 traffic calming measures were warranted. The Board of Aldermen directed staff to create a proposal for Stage 2 traffic calming measures.

Since the September 2016 Board of Aldermen meeting, Town staff held a neighborhood meeting to discuss potential traffic calming measures and gather input; sixteen residents attended. Staff created an online survey to gather input from residents who were unable to attend. A summary of responses to the meeting comment cards and the online survey can be found in **Attachment B**.

Staff from the Planning and Public Works departments visited the site on several occasions and worked with Sungate Design to create a traffic calming plan for Tallyho Trail. The plan includes three speed tables, two mini-traffic circles, pavement markings and signs instructing pedestrians to walk facing traffic. Public Works will also work with property owners to ensure vegetation is trimmed so as to not impede sight distance along the road.

Tallyho Trail is a challenging road for traffic calming. It is long, narrow, windy and somewhat hilly, creating limited sight distances in some places. The road is also used by pedestrians and bicyclists. Based on these factors, staff recommends the use of speed tables because they are effective at lowering speeds, have less impact on emergency access, and were identified as the preferred device by residents who are in favor of calming traffic. For speed tables to be most effective they should be placed not more than 500 feet from one another. As this is implausible on Tallyho Trail due to the length of the road, staff is also recommending the

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

installation of mini-traffic circles at two intersections. Mini-traffic circles require drivers to slow down and maneuver around while paying attention to their surroundings. The 9-foot radius of the traffic circles still allows for 16-foot lanes on both sides. An illustrative map of proposed traffic calming devices can be found in **Attachment C**. Additional details on the proposed devices will be available at the meeting.

Staff recommends a pilot installation of the mini-traffic circles with bollards and paint to test the effectiveness. Traffic volume and speed data will be collected again in 6-12 months after installation of traffic calming devices, and subject to results of the data, staff will proceed with a more permanent installation.

The Transportation Advisory Board received this information and heard from residents at the March 16th, 2017 meeting. The Board's recommendation can be found in **Attachment D**.

FISCAL & STAFF IMPACT: Staff is working with Sungate Design and Public Works to finalize the cost estimates relating to the different traffic calming devices. This information will be discussed at the meeting.

RECOMMENDATION: Staff recommends that the Board of Aldermen consider the resolution in Attachment A approving the proposed traffic calming plan for Tallyho Trail.

A RESOLUTION RELATING TO TRAFFIC CALMING MEASURES ON TALLYHO TRAIL

WHEREAS, the Board of Aldermen adopted the Residential Traffic Management Plan (RTMP) in June of 1996 to provide “a process for identifying and addressing existing problems related to speeding, excessive volumes, and safety on town-maintained residential streets”; and,

WHEREAS, a valid traffic calming petition, in accordance with the RTMP, was received from residents of the Fox Meadows neighborhood in June 2013 and traffic evaluations were completed in September 2013 and May 2016; and,

WHEREAS, the Transportation Advisory Board made a recommendation in September 2016, which was presented to the Board of Aldermen on September 27th, 2016; and,

WHEREAS, at this meeting the Board of Aldermen adopted a resolution recommending that a plan for Stage 2 measures be completed and presented to the Transportation Advisory Board and the Board of Aldermen; and,

WHEREAS, the Transportation Advisory Board has reviewed the aforementioned Stage 2 proposal; received feedback from neighbors; and made a recommendation to the Board of Aldermen; and,

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Board approves Stage 2 traffic calming measures on Tallyho Trail as proposed in the plan.

BE IT FURTHER RESOLVED that:

[Additional guidance]

1. _____
2. _____
3. _____

This is the 21st day of March in 2017

Traffic Calming on Tallyho Trail

Major Concerns

- Speeding, sight lines, blind curves, and concern for pedestrians and cyclists on the road were the major concerns for Tallyho Trail.
- Most frequently cited problem area was the Lair Court and Tallyho crossing.
- Safety concerns are elevated during morning rush hour period (kids walking to school bus and people driving to work) due to relatively higher volume of traffic.

Proposed Solutions

- Speed humps are controversial solution, some are for while others are very much against the installation of speed humps.
- Debate over speed tables, traffic circles, chicanes or chokers as appropriate solutions.
- Popular suggestions also include cutting back on vegetation, road widening to allow for pedestrian and cyclists (either gravel shoulder or sidewalk), and increased signage.

CONCERNS	SUGGESTIONS
COMMENT CARD RESPONSES	
<ul style="list-style-type: none"> - reflectors on side of road in the curves - flashing sign (like ped x-ings) in curves - permanent radar sign 	<ul style="list-style-type: none"> - way outside box- but some sort of caution lights a pedestrian could trigger as they entered danger zones - would also love signs to help people know what side way the right for walkers
<ul style="list-style-type: none"> - vehicles speeding around the blind curves on Tallyho – especially between Lair + Bugle - also Tallyho @ Rogers sight is impaired or vehicles going North on Rogers turning left onto Tallyho- I've experienced several close calls here approaching Rogers on Tallyho 	<ul style="list-style-type: none"> - mini roundabout on key intersections, especially Tallyho + Lair, Tallyho + Bugle, Tallyho + Huntsman - speed tables on the straightaways between the sharp curves between Lair+ Bugle
<ul style="list-style-type: none"> - sight lines on curves - not enough road to share between vehicles, pedestrians and cyclists - need more space to share the road 	<ul style="list-style-type: none"> - wider road, cut vegetation on curves - opposed to numerous speed humps/tables, any solutions that reduce the width of an already slim road, any solution the prevents snow plow
<ul style="list-style-type: none"> - sight lines, cut vegetation , define shoulder, gravel shoulders - signs to say walk facing traffic 	<ul style="list-style-type: none"> - cut vegetation severely in S curves - gravel shoulders - educate all users of the road - mini circles or tables might be best - not humps
<ul style="list-style-type: none"> - being able to walk safely, especially in mornings when kids need to get to the school bus and people are driving out to get to work - school bus stops at Lair Ct- children need to either cross at blind curve or cross earlier and walk unsafely with traffic for several hundred feet 	<ul style="list-style-type: none"> - I like the combination of speed measurement signs between Rogers and Tallyho to slow people down before the hill - mini traffic circles - speed tables/humps - flashing lights for pedestrians at blind curves including Lair Ct - cutting back vegetation

	<ul style="list-style-type: none"> - more mowing of vegetation so walkers can step off - Be aware of hills/ cars gaining speed as they go downhill
- speeding and blind curves	<ul style="list-style-type: none"> - mirrors on blind curves - signage? Dangerous curves, poultry crossing - pavement markings, reflectors
<ul style="list-style-type: none"> -no real problem compare to other roads I bike on -but as a recumbent bike I cannot go over speed humps -please no speed humps 	- widening Tallyho
-pedestrians walking in road and possibly being struck	<ul style="list-style-type: none"> - gravel paths or areas where pedestrians can walk or step off of road -cut back vegetation severely - sidewalks or shoulders on road
-biggest concern is speeding	<ul style="list-style-type: none"> -speed humps/tables and/or chicanes where speeds are higher -traffic circle might work well at Hunstman
<ul style="list-style-type: none"> -speeding - cars moving into the opposite lane, and not slowing down, when approaching pedestrian or cyclist 	-maybe combination of traffic circle and speed humps
<ul style="list-style-type: none"> -between Lair Ct and Bugle Ct the S curve -Lair Ct. curve -do we need signage for each speed hump 	<ul style="list-style-type: none"> -Do NOT want 10-12 speed humps going in/out of neighborhood -blinking signage for walkers -cut back -do NOT want lighting
<ul style="list-style-type: none"> -the curve at the 1200 & 1110 feels like a particularly difficult place to go walking - I like the idea of chicanes & chokers 	- I would prefer not to use measures that would require street lights or that would prevent snow plows
ONLINE RESPONSES	
there are no problems	nothing should be done until they have sidewalks and lights in-that is the true problem
Recently I retired and have spent a lot of time in the front yard gardening and haven't noticed speeding cars or a huge increase of traffic. While there is an increase in the morning and evening, people are just going to and from work, nothing excessive.	We don't need any traffic calming devices, there isn't a problem
There are some people who are still going too fast. School buses and Fedex drivers are worst offenders. There are some who are on phones some actually are shaving on their way to out to work.	The 1400 area people tend to get rolling pretty fast but where you propose to put a calmer is on the incline, move that 50 yards west. We only need two calmers not five.

The road is too narrow and there is no place for pedestrians. Speed really is not the core issue here.	A sidewalk would be a fundamental solution to this problem.
The blind curves combined with the tall grass and overgrown trees make the road dangerous even at the speed limit. Tallyho will never be walkable and I think the neighbors who are complaining are trying to make us Parkside. It just isn't that kind of road although I do support measures to reduce excessive speeding. By the way, I've lived here for nearly 16 years and never heard complaints until ONE neighbor started complaining. I do feel for her and those who live on Tallyho but I wonder if this has been overblown.	I truly do not want speed bumps. They are ugly and they are permanent. However I appreciate that those who live on Tallyho are affected by speeders more than I am, so I would support low wide speed tables if they were nicely done. I only support adding the ones that are for 28-30 mph. Anything that is rated 20-25 is just going to cause drivers to constantly use their brakes to the detriment of their cars and the environment. I also only support putting in two, not four.
Fast driving	For those of us in the back of the neighborhood, we don't want to have too many speed bumps between our houses and Rogers Rd. But it is important to slow down traffic, so bumps that require slowing down are fine, as long as we don't have to slow down to ridiculously slow speeds.
Most of the school buses drive too fast. Delivery trucks speed as well. As do some of my neighbors. That said, my family of 2 adults does not experience the street traffic as dangerous. I find that paying attention while walking, driving or biking, and stepping off the side of the road, when I am a pedestrian, sufficient for safety. That said, if I were a parent, I would be concerned for the safety of my children.	I am opposed to chicanes, traffic circles, and chokers. The road is too narrow to accommodate any of these without becoming one-way. The street is too long to be made one-way in places, and still expect traffic to move well. I think these devices would also make the road more hazardous for bikes and pedestrian traffic. Given that we are considering stage 2 implementation, I would prefer speed tables. Installation at the base of hills and near blind curves would be most appropriate, as these are the places of greatest opportunity for speed-induced mishap. (Though, as a cyclist, I think I would find a speed-slowing device at the base of a hill rather dangerous!)
No concerns.	We do not feel that the traffic calming mechanisms proposed in the slideshow are needed. I have been here for 3 years and have never seen an issue with pedestrians being at risk due to traffic. Cars seem to always slow down and move to side of pedestrians. We feel that neighbors are respectful of individuals who are walking, running, with dogs, etc.
Biggest concern is pedestrian safety. Rush hour plus right after school is out worst times.	I'm in favor of whatever the town's traffic engineer thinks is best.

not a big deal	radar speed displays are effective speed tables OK, but do not place in front of homes
I have no concerns and I worry if you put in traffic calming measures then fire and police can't get here fast enough.	I am opposed to all of them-it is dangerous to put them in on long windy roads. Why not put in sidewalks and street lights?
When people are coming home from work seems like the worst time for traffic. At night I think people who are visiting the neighborhood do not realize that it is a residential area and they need to slow down.	sidewalks, widening the road, adding children live here signs, possibly speed bumps
Biggest concern is that there are no good places to get off the road when you're walking. There are a number of sharp curves that prevent drivers being able to readily see pedestrians. The most problematic times are in the morning and evening as residents go and come back to work.	The only way to really affect a consistent change of driver behavior is going to be with traffic calming humps. The ones that I have seen that are really annoying are in Wexford. They are too radical and numerous. The best I have seen are on Oak St in Carrboro. You have to slow to 25 but the ride over is smooth and not that noticeable at the proper speed.
Concerns: speeding; blind curves; narrow road relative to width of school buses/delivery vehicles/emergency vehicles; short sight lines; pedestrians walking in road. Problem locations: blind curves at bottom of hills (intersection with Lair Court, curve at 1300 block, curve at cut-through to Meadow Run); entrance to neighborhood at power lines; straight stretches between these curves.	I would prefer chicanes or mini traffic circles but do not think either would work given the narrowness of the road and the lack of 4-way intersections (possible exception for traffic circle: intersection of Tallyho and Bugle Ct.). As a result I am not opposed to speed tables/humps. Location: Absent any limitations I would place them at intervals roughly corresponding to where the traffic sensors were placed (1500 block, 1400 block, 1200 block, 1000 block).
The number of people that speed. In particular, large service vehicles like UPS, USPS, FedEx, dump trucks, etc. tend to honk their horns in warning as they speed (40+ mph) down the hill at Lair Ct. and past my house. I worry that I or my daughter will be hit when backing out of my driveway. Also, my son has to walk up that hill to his bus stop. I live at 1319 Tallyho Trail.	Either the speed bumps or the speed tables. I think the road is already too narrow for the other measures. I'm not sure what the best places would be. Either at the top or the bottom of that hill near Lair Ct.
My biggest concerns are the blind curves and the elevated speeds along the long, narrow, winding length of Tallyho. My family (including my two kids) frequently bicycles to & from work and school, and we often walk the neighborhood, also. I don't trust the traffic and have had problems with drivers not being responsible around pedestrians and cyclists.	I think, based on what my neighbors have told me, that the chokers would be appropriate for our neighborhood. The chicanes require lighting, which we don't have? The number of speed bumps/humps/tables that would be needed along Tallyho seems excessive enough to anger neighbors, bus drivers, delivery people, although I wouldn't personally have issues with that solution.
People driving too fast through the curvy parts where there are often pedestrians or other	Minimal interruption preferred-- not a fan of speed bumps. If necessary, then a speed table or

traffic; limited sight lines around curves; too fast around the turn to Reynard where there are more kids playing near the street or walking.	something more gradual, less bad for cars when you have to drive over it all the time. Chokers/chicanes preferred.
Biggest concern is safety of pedestrians and of children walking to the school bus and crossing the road. I used to try to walk down Tallyho Trail in the morning, but there are too many cars zooming out as people try to get to work or school. I'm especially worried about the school bus stop at Tallyho and Lair Ct because my daughter has either to cross the street at a blind curve or to cross farther up hill where she can see traffic coming and then walk with rather than against traffic.	I like the idea of a combination of speed humps or tables and mini traffic circles at a couple of intersections. These seem like they would slow down traffic without inconveniencing people who live at the far end too much. I also like the ideas suggested by my neighbors at the recent meeting: 1) work with property owners to trim branches or even cut some trees to increase visibility at blind curves, 2) keep grass along sides of road mowed so it's easier for pedestrians to step off road when a car comes, and 3) lights set up so that a pedestrian coming up to a blind curve could push a button and set off a flashing light around the curve so an approaching motorist would know to slow down and be careful.
Mornings and late afternoons are probably worse when you combine walkers with buses and cars coming and going from the neighborhood. I'm not denying there is a problem, but some of the regular walkers seem overly sensitive. Even when I'm driving speed limit or slower, they give me looks of disdain. I think, understandably since there are no sidewalks, there may be an unrealistic fear of a pedestrian being hit. Thank goodness this has never happened, and of course, it would be terrible if it did, but for some, the fear of it happening seems exaggerated. I hope the speed calming measures will help with this.	1. Sidewalks... no kidding. But these weren't an option on the power point. 2. Speed table (s). 3. Opposed to all other options. Seems the road is way too narrow for a series of chicanes, circles, chokers and humps seem like overkill. 4. I would defer to your traffic designers to decide best place to put these.
Speed. Delivery trucks, school buses. All poorly banked curves :)	Tallyho Trail is already quite narrow, so I would be opposed to any of the options that involve further narrowing. Overall, I think the speed table is the best choice. There are several curves in the road with relatively limited lines of sight, so positioning these in the curves would be good, possibly also at the bottoms of hills.
We have lived here since 1987 with two children growing up in the neighborhood. I personally haven't observed any difference in driving patterns in the nearly 30 years living in this neighborhood.	I would prefer not to see any traffic calming mechanisms put on Tallyho Trail. In the 30 years living here, I am unaware of any accidents that have occurred with pedestrians or bicycle riders in the neighborhood, and I am both of these. The least objectionable device would be the speed table. I strongly oppose all of the other options.

Speed and safe walking areas are big issues. Problem areas are anywhere there is a curve -- limited visibility.	Any of the calming measures in the slides would be fine. I think the circles are not viable because the road is so narrow. Speed tables at spots where there are curves seem most economical.
Too many homeowners do NOT maintain their property, Tallyho trail is overgrown.	Cut back trees esp on the hills/curves of Tallyho Tr. Don't want speed tables. Didn't mind the real-time speed indicator.
school bus drivers sometimes are very fast. after work (from 4-7) can be worse than other times. UPS or other service vehicles are sometimes very fast. The sharper curves (see any overhead map, for example, near 1203, 1310, or 1522 Tallyho) tend to be blind, and so a car in each direction plus a bike or pedestrian do not mix well (traffic calming will not help that, really).	there is not room for any of the first three devices listed in the slideshow (chicane, mini traffic circle, choker). There could be room for either speed hump or speed table devices.
Near our house, under the Duke Power lines, there is quite a sharp curve on a hill, and people often drive too fast when they cannot see what is coming. Getting out of our driveway can be difficult.	I don't like speed bumps, but I think a chicane nearby might help!
Because we live well away from Tallyho, I only occasionally see cars traveling dangerously fast.	Because the road is already so narrow, the chicane, traffic circle or choker would be very dangerous. When I bike on Tallyho, I can build up enough speed going downhill that a speed hump could cause loss of control. Of the options presented, a speed table is probably safest for bikers and least damaging to vehicles.
Speeding is the biggest concern and unsafe driving (tail-gating, speeding up to register high speed on the speed indicator sign). Lack of sidewalks and street lights contributes to the issue at dawn and dusk. All the down hill curve spots are particular problems. We live at 1315 Tallyho and are at the end of a hill AND in a curve. We witness lots of speeding and conflicts between walkers and cyclists - though most have learned to get off the road quickly. Mornings and evenings are worst. School buses and visiting trucks often go too fast. People whose kids attend summer camp in back of neighborhood often fly to get to camp at 9:00 am in the summer. High schoolers at lunch can also be a problem. Often they may be friends of people who live in the neighborhood. People try to swing wide to avoid walkers, but then end up coming head to head with cars coming the other direction due to the limited sight lines. A plan	Speed tables are my choice. Like they have in Lake Hogan. I know that is hard for people in the back of the neighborhood who have to cross all of them, but speeding has been the burden of people in the front of the neighborhood for many years. Those of us on Tallyho Trail can't even let our children ride bikes w/o close supervision of going to a cul-de-sac because it is just too unsafe. I think the chicane and choker will not work due to the limited sight lines AND the folks that will just be clueless and not yield so you will end up playing chicken. The mini traffic circle is not appropriate for a neighborhood with no street lights - I would be will to bet cars would go right over it even with reflective markers. I deal with 2 traffic circles daily in my commute and that some folks are still totally clueless about how to use them. I prefer a speed table to a speed hump so that it is a bit easier on the cars that will traverse it a lot. As far as location, I suspect you have

that just involves educating people in the neighborhood does not work as there are many cars from outside of our neighborhood that contribute to the problem. Traffic calming measures are a must.	studies that would address this, but need to find the straight sections. One near power lines, one prior to curve in 1300 section, one near entrance to Fox Meadow run, one at top of that hill or within it, one on straight stretch prior to reaching Reynard. Would be easier to show on a map.
I prefer chicanes, chokers, and mini traffic circles to the speed humps and tables	The number of speed humps/tables required and the 'noisy' drawback were big deterrents
I have lived here since 1990 and have never heard of or seen an accident. Tallyho is by far the safest road around here. Neighbors should mow their lawns to make it easier to walk off the road	1)Widen Tallyho Trail, 2) keep the digital speed sign up all the time, 3) paint speed bump lines on the street and put up signs so people think it's a speed hump
Don't do it! It'll make the road more dangerous than it already is	Build a walking path through everyone's backyard. Or put in sidewalk, street lighting.
I would not have bought a home here in 2005 if I thought the town was going to do this	



Tallyho Trail Stage 2 Traffic Calming

Install 'walk on left facing traffic' signs in appropriate places along the road

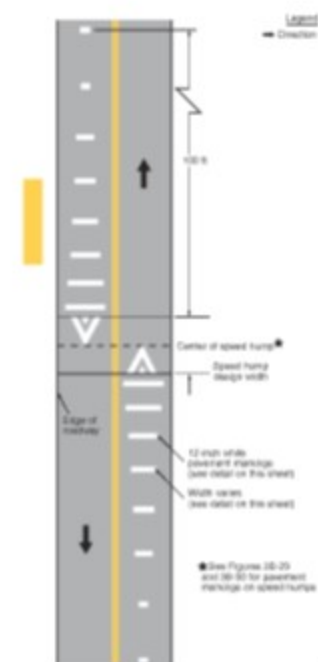


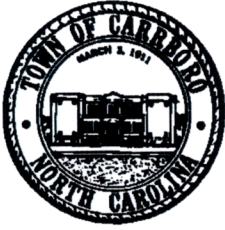
Mini traffic circles:

- Tallyho and Reynard
- Tallyho and Huntsman

Speed tables:

- 1010/1015 Tallyho Trail
- 1204/1203 Tallyho Trail
- 1322/1319 Tallyho Trail





TOWN OF CARRBORO

Transportation Advisory Board

301 West Main Street, Carrboro, North Carolina 27510

THURSDAY, MARCH 16TH, 2017

Transportation Advisory Board Comments re: Traffic Calming on Tallyho Trail

The Transportation Advisory Board discussed the proposed Stage 2 traffic calming measures for Tallyho Trail at the March 16th, 2017 meeting. After discussing the proposed devices, survey responses, and hearing feedback from the neighbors in attendance (see following page), the TAB offers the following:

- 1) The Transportation Advisory Board recommends that the Board of Aldermen approve the plan, but allow for adjustments by the Engineer based on comments from the neighbors and feasibility of the comments.
- 2) For budgetary reasons, the final plan should include a total of five traffic calming devices, which can be any combination and location of speed tables and mini traffic circles that makes the most sense based on neighbor feedback and feasibility.


For
Colleen Barclay
Transportation Advisory Board Chair

3/17/17
Date

Comments from Tallyho Trail Residents

In attendance at TAB meeting on 3/16/2017: Alan Pollock, Charlie Buckner, Peter Cada, Garrett Baker, Laura Wenzel, Michelle Wells, Alexandra Holod

- Mr. Pollock is opposed to the traffic circles – he believes that the proposed plan should be simplified and that the speed tables suffice to slow traffic.
- Mr. Buckner, Mr. Cada and Mr. Baker are concerned about the traffic circle at Tallyho and Reynard because a school bus turns around at that intersection and the traffic circle appears to impede the flow for larger vehicles.
- Ms. Wenzel thinks the traffic circle at Reynard will help slow vehicles down, especially those that cut the corner when turning from Tallyho Trail. She also suggests that the school bus that turns around on Reynard could change its route.
- Mr. Cada suggested moving the traffic circle at Reynard to the intersection of Bugle and Tallyho because the road is straighter there and there are not as many vehicles coming from Bugle.
- Mr. Cada also suggested moving Speed Table 1 closer to Bugle so it is more visible and farther away from the traffic circle (if it stays at Reynard).
- Ms. Holod suggested moving Speed Table 3 closer to Lair Court because the distance between the traffic circle at Huntsman and Speed Table 3 is large. She pointed out that the speeding was worse closer to the front of the neighborhood so the traffic calming devices should be concentrated there.
- Several in attendance suggested moving the traffic circle currently at Reynard to Lair Court.
- There was mixed sentiment among residents about whether the traffic circles should be vegetated (more visible, beautiful) or be fully paved to ensure that larger vehicles can drive over them if necessary.
- The residents, except for Mr. Pollock, are generally pleased with the number and type of devices proposed, but would like to see some locations changed if feasible.
- Staff received an email from a Shane Nye on 3/17/2016 stating that he is in full support of the proposed traffic calming plan as it is.
- Ms. Wenzel would like the pedestrian education signs implemented as soon as possible and was wondering about guidelines for number and location of such signs.
 - Mr. Baker expressed concern over the number of signs and wanted to ensure that the aesthetic of the neighborhood would not be changed with a lot of signs in the right-of-way.
- Mr. Buckner was in support of residents and Town staff trimming vegetation in the right-of-way to ensure maximum sight distances along the roadway.



TRAFFIC CALMING ON TALLYO TRAIL

Transportation Advisory Board

Thursday, March 16, 2017
7:30 p.m.
Carrboro Town Hall, Room 109

Carrboro Board of Aldermen

Tuesday, March 21, 2017
7:30 p.m.
Carrboro Town Hall, Board Room

Traffic Calming Devices for Tallyho Trail



Speed Hump (Source: FHWA)



Mini Traffic Circle (Source: NACTO)



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number: 17-054

Agenda Date: 3/21/2017

File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Consideration of an Application for Affordable Housing Funding from CASA

PURPOSE: The purpose of this item is for the Board to consider approving an application for funding out of the Affordable Housing Special Revenue Fund.

DEPARTMENT: Manager's Office, Planning

CONTACT INFORMATION: Nate Broman-Fulks, nbroman-fulks@townofcarrboro.org, 919-918-7314; Trish McGuire, pmcguire@townofcarrboro.org, 919-918-7327

INFORMATION: The Town has received an affordable housing funding application from nonprofit affordable housing provider CASA. CASA is requesting a grant of \$357,208 for land banking for two contiguous properties, 802 and 806 South Merritt Mill Road in Carrboro. This cost represents approximately 16 percent of an estimated \$2.2 million. Funding is being requested from other entities, including Orange County, the North Carolina Housing Finance Agency, and the Federal Home Loan Bank. The application for Orange County funding is due March 31st and is expected to be viewed more favorably if a funding commitment is obtained from Carrboro prior to that date. The property is currently under a contract to purchase, with the current phase coming to an end in May. After that time, CASA will be required to commit funds to maintain the right to purchase through the review and permitting processes. Requested grant funds are anticipated to be needed to complete the purchase at the time of the project's approval or May 2018, whichever occurs sooner.

Project Description:

CASA is proposing to build a 16-unit development on the two Merritt Mill parcels in Carrboro. The planned development will create at least 16, and possibly up to 36, permanently affordable rental apartments. CASA specializes in providing homes for people who have critical housing needs - people with disabilities, those who are homeless, and veterans.

At least 16 units will be for households earning less than 50 percent of area median income (AMI) with a priority for people who are homeless and/or who have disabilities. All developed units will be permanently affordable. Rents will be 30 percent of a tenant's income. CASA will accept all types of rental subsidies.

The property is zoned R-7.5 and the allowable base density based on GIS information is 11 units. The

Agenda Date: 3/21/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

additional five units could be approved under the residential density bonus for affordable housing. A special use permit would be required for development at this level; a rezoning and likely a conditional use permit would be required if additional units are proposed. A companion project is proposed for two contiguous properties located in Chapel Hill and staff have met to explore ways to maximize the consistency and physical integration of the projects. Chapel Hill's Community Design Commission review of this adjacent project is scheduled for Tuesday, March 28th.

Staff has been exploring with CASA ways that the project, if funded and approved for construction, might express a preference for providing homes for Orange County residents or employees. The waiting list for affordable housing in Orange County currently includes 300 households. This interest has been shared with Jess Brandes, Housing Developer for CASA, who has communicated understanding willingness for the project to meet the Town's interest.

Eligibility Analysis:

The application has been reviewed in relation to the application procedures and eligibility requirements specified in the Affordable Housing Fund Guidelines. The application has found to meet all requirements.

Application Procedure	Procedure Met
1) A complete description of the project, including the proposed location;	✓
2) A discussion of how the project meets the criteria of eligible uses and eligible beneficiaries	✓
3) Who the ultimate beneficiaries will be or are intended to be;	✓
4) If appropriate, documented income data for the intended recipients.	NA

Eligibility Criteria	Requirement	This Application	Criteria Met
1. Who May Apply	Nonprofit or Individual	CASA	✓
2. Eligible Use	Meet the goal of the fund: 1. Established Eligible Use, or 2. Goal/Strategy of AH Plan	1. Eligible Use C: To assist in the purchase of land for conveyance to nonprofit affordable housing agencies. 2. Goal 2.1 - Increase number of permanently affordable rental units	✓

Agenda Date: 3/21/2017

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Version: 1

3. Eligible Beneficiary	1. Home located in Carrboro 2. Owner or occupant of the property after acquisition 3. Building to have an anticipated life of at least 30 years 4. Household income of 60% of AMI and below	1. Development to be located at 802 and 806 S Merritt Mill Road in Carrboro 2. CASA will be the owner of the development 3. House to remain affordable permanently 4. The residents will have a household income of 50% AMI or below with priority given to persons who are homeless and/or have a disability	✓
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FISCAL & STAFF IMPACT: CASA is requesting \$357,208 for this project. The Affordable Housing Fund currently totals \$665,628. If the request were to be approved, there would be \$308,420 remaining in the fund.

RECOMMENDATION: Staff recommends the Board consider approving the application for funding. A resolution has been provided for the Board's use (Attachment A).

A RESOLUTION TO AWARD A GRANT TO CASA FROM THE AFFORDABLE HOUSING
SPECIAL REVENUE FUND
3-21-2017

WHEREAS, the Board of Aldermen on, June 27, 2007, by the adoption of resolution no. 244/2006-07 created the Affordable Housing Special Revenue Fund; and

WHEREAS, the creation of the fund is another way in which the Board can advance its goal of increasing and maintaining the stock of affordable housing within the Town and its planning jurisdiction; and

WHEREAS, the Affordable Housing Special Revenue Fund was designed to provide funding for numerous affordable housing activities, include banking of land and critical home repairs for Carrboro residents without the means to do it on their own; and

WHEREAS, CASA, a nonprofit organization that works to develop and manage affordable housing, providing opportunities for successful living has requested funding from the Affordable Housing Special Revenue Fund for land banking activities on properties in the Town of Carrboro; and

WHEREAS, the total request is for \$357,208; and

WHEREAS, Town Staff has reviewed the request and determined that the affordable housing activities proposed by CASA meet the eligibility requirements of the Affordable Housing Guidelines adopted by the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO:

Section 1. The Board of Aldermen approves a grant award to CASA in the amount of \$357,208 from the Affordable Housing Special Revenue Fund.

Section 2. This award is made on the condition that CASA will get the necessary approval for use of the land to carry out the affordable housing activities in their proposal dated January 20, 2017. Should CASA not secure approval for use of the land to carry out the affordable housing activities as proposed, this grant award shall become null and void.

Section 3. The Board of Aldermen authorizes the Town Manager to develop and execute an agreement as necessary to carry out the Board's action, included the noted preference for housing to be provided to Orange County residents and employees.

Section 4. Within five (5) days after this resolution is adopted, the Town Clerk shall file a copy of this resolution with the Finance Director.

Section 5. This resolution shall become effective upon adoption.



January 20, 2017

Mr. Nate Broman-Fulks
 Assistant to the Town Manager
 Town of Carrboro
 301 W. Main St.
 Carrboro, NC 27510

Dear Nate:

CASA is pleased to submit this request to the Town of Carrboro for land banking funds to support our development at Merritt Mill West. This development of 16 newly constructed units will be the single largest new construction project CASA has undertaken in our 25 year history.

We are grateful to the Town for your consideration of this request and for your commitment to affordable housing. We look forward to partnering to create 16 brand new homes for individuals who need, as we all do, the safety and stability of a permanent address.

Project Description

CASA is proposing to build a 16-unit development on Merritt Mill Road in Carrboro, and we are requesting \$357,208 from the Town of Carrboro's Affordable Housing Fund to pay for the 2.14 acres of land we are purchasing (2 adjacent lots, 802 and 806 S Merritt Mill Road). This development will create 16 permanent homes for members of our community who have critical housing needs – people with disabilities, those who are homeless and living in a tent, motel or a van, veterans who have a housing voucher but can't find a landlord who will accept it. People who know the sting of hearing "our waiting list is closed", "nothing is available", "our shelter is full."

Specifically, all units will be for households earning less than 50% of AMI with a priority for people who are homeless and/or who have disabilities. Rents will be 30% of a tenant's income. CASA will accept all types of rental subsidies. We are estimating rents for households without a housing voucher at \$150 per month, and for those with a housing voucher \$637. Utilities (electric and water) are estimated at an additional \$137 monthly cost for a one bedroom apartment.



CASA intends to begin the CUP process with Town of Carrboro Planning staff in early 2017, with the hope of undertaking construction in 2018 and project completion in 2019. Our preliminary site plan includes one 16-unit building of 1-bedroom, 1-bath apartments with associated parking.

Along with Merritt Mill West, CASA will be developing a 12-unit permanently affordable development on the Chapel Hill side of the parcel, known as Merritt Mill East, serving a similar population, likely with a focus on families.

The location of these developments are ideal. This site is 0.7 miles from downtown Carrboro, a little over 1 mile to downtown Chapel Hill, and 1.5 miles to UNC Hospital. Tenants will be right around the corner from stores and employment opportunities at the new South Green development. Around the other corner, Chapel Hill - Carrboro City Schools recently announced plans to redevelop the Lincoln Center into a bigger education campus, including a pre-K program, expanded Phoenix Academy High School, and possibly a community health clinic.

Our Request

We understand \$357,208 is an extremely significant request to the Town. We are grateful to have secured this land during a unique time for Carrboro in which you do have funds available to provide such significant support, but we are not taking that support for granted. Our total estimated development costs are nearly \$2.2 million and we're asking Carrboro for approximately 16% of that. Put another way, for every Carrboro dollar invested in Merritt Mill West, more than 5 dollars will be invested in Carrboro by other funders. We are seeking those leveraged funds from Orange County, the NC Housing Finance Agency, Federal Home Loan Bank, and community, corporate and foundation supporters. The balance will be financed through one of our banking partners.

We are making our request to Carrboro first to ask you to be our “keystone funder” – the strong center that brings together everyone else we need to make the project happen. We know from experience that a strong commitment of local dollars is critical to getting the commitments we need from others.

As we recognize that we need to obtain a Conditional Use Permit, we understand a commitment made by the Town for this funding will be a conditional commitment, pending final land-use approval.

Discussion of how the project meets the criteria of eligible uses and eligible beneficiaries

This project furthers the Town's Affordable Housing Goal 2.1: “Increase number of rental units that are permanently affordable to individuals and families earning less than 60% of AMI. 2024 goal is to have 470 affordable rental units. In 2014 there were 349 affordable rental units. This is an average annual increase of 12 units.”

This project meets the eligible use C: “To assist in the purchase of land for conveyance to nonprofit affordable housing agencies. (Land Banking)”

Who are the beneficiaries?

All units will be for households earning less than 50% of AMI with a priority for people who are homeless and/or who have disabilities. CASA has an Applicant Pool of over 300 eligible households in Orange County. The



most recent Point-in-Time Count data available (2015) of persons who are homeless in Orange County found 129 people, 19 of whom were children.

Many applicants in CASA's applicant pool are already connected to services through a government or nonprofit agency. For tenants with disabilities who are not, support services will be offered through Cardinal Innovation's network of approved behavioral health agencies. These agencies refer clients to CASA for housing by completing a rental application and providing the needed support services. CASA requests a signed Supportive Housing Referral Agreement with each application. The role of the Agreement is to ensure the applicant/tenant has access to community resources and has the support to live successfully in their permanent housing and avoid a return to homelessness. The Agreement details the expectations CASA has for what support the referring agency should provide for the tenant prior to move in, and what ongoing support should be provided during the tenant's residency in a CASA apartment.

About CASA

When CASA was created nearly 25 years ago, our express direction was to develop, own and manage rental property specifically financed for and programmatically designed to serve persons with disabilities. These persons with disabilities were disproportionately represented within the homeless community and were, and unfortunately still are, among the poorest of our neighbors. CASA's mission has grown over the years to include other households in need of high-quality, affordable rental housing including veterans and working families. CASA currently owns and operates 30 units of affordable rental housing in Carrboro: the Club Nova Apartments downtown, 3 condos in Collins Crossing, and three small units off of Hillsborough Street.

CASA's approach has always been a Housing First model – we see day in and day out the power of a permanent home to provide stability, dignity, and safety to individuals and families with complex challenges. Getting a job, accessing health care, keeping in contact with a service provider, maintaining family stability – all of these things can be next to impossible when one is homeless or at imminent risk. All are made much more achievable when one has a door to lock, a bed to sleep in, and a home address.

I want to highlight some of CASA's particularly relevant experiences and qualifications to undertake this new construction project in Carrboro:

Mission and Focus

- CASA has developed, owns and manages over 400 apartments throughout the Triangle, of which 318 are permanent supportive housing. Even as we grow and develop larger communities incorporating workforce housing, our goal continues to be to leverage those higher rents to support the inclusion of permanent supportive housing units.
- In 2016, CASA celebrated the grand opening of 12 newly constructed apartments in Durham, all permanent supportive housing. This project was the second phase of an apartment community specifically for veterans with disabilities. It was completed under budget and was fully pre-leased over a month ahead of opening.

Real Estate Development Experience

- CASA is a Community Housing Development Organization (CHDO) and we have a full-time Housing



Developer on staff. We are experienced in real estate development processes and activities in a variety of municipalities. Our Housing Developer, CFO and CEO have many years of experience successfully developing rental housing, including all the activities involved with that including but not limited to: buying and selling property, rezoning, site plan approval, board of adjustment approval, new construction, substantial rehabilitation, hiring and overseeing architects, civil engineers, general contractors, coordinating environmental reviews, and obtaining a wide variety of construction and permanent financing.

Financial Stability

- In the past 10 years alone, CASA has developed 299 units of housing utilizing a spectrum of funding sources exceeding \$24 million. These include the development of 10 units of PSH in Chapel Hill at Pritchard Avenue Apartments, 5 blighted and abandoned duplexes that we redeveloped into permanent homes for persons with disabilities. In addition, we've partnered with a for-profit LIHTC developer on 124 tax credit units in 2 projects. As a small and nimble private non-profit, we can put in place creative financing and utilize any number of funding sources to achieve our development goals, including private philanthropy.
- CASA is a responsible steward of the funds we receive and the properties we own. Over the last 20 years we have preserved 76 apartments, including all 30 of CASA's Carrboro units, that were developed by other non-profits and were at risk of being lost to those communities. CASA understands what is necessary for a property to be well maintained and to be able to meet its operating expenses. We budget for and fund annually necessary replacement reserves for every property, and we maintain \$450,000 of operating reserves, designated by our Board, to cover staff, overhead and operations in the event of a significant set-back. Because of our proven track record and financial stability, we are able to attract federal, state and private funding for our projects.

Our Supportive Housing Model

- CASA provides comprehensive and compassionate property management. Our Leasing Team consists of our Housing Director, Arnetta Adams-Brown, 4 Leasing Specialists and a Leasing Administrator. They accomplish all components of leasing our units, and do so with a specialized knowledge of tenants' rights, fair housing laws, and the special needs of people with disabilities.
- CASA provides 24-hour on-call maintenance performed by our Maintenance Team, which currently consists of our Facilities Director, Neil Ritter, 4 full-time and 1 part-time Maintenance Technicians, and 1 full-time Landscape Manager. Along with comprehensive maintenance services including building renovations, routine work-order repairs and preventive maintenance, staff conduct monthly indoor safety inspections of all units.
- Unique to CASA's approach is that our goal for every tenant is that they never become homeless again. We put this goal into action through proactive and compassionate property management in partnership with each tenant's Service Provider. We request that every tenant identify a Service Provider when they submit their application for PSH. The vast majority do. The Service Provider equips CASA with an additional intervention opportunity when a tenant may be experiencing a financial or behavioral health issue that is jeopardizing their housing. CASA meets routinely with tenants and their Service Providers when problems arise to coach and support tenants to make better choices in their housing and be better neighbors. The goal is to have sufficient communication and intervention early on when an issue arises, before it becomes a crisis.



- We have an Orange County applicant pool of over 300 households who have met the initial eligibility threshold for CASA's permanent supportive housing. When a CASA apartment becomes available, the full applicant pool is searched for matching applicants who are invited to complete Part II of the application process. Using this streamlined process to identify eligible tenants, we are able to maintain a 2% or lower vacancy rate.
- CASA involves the persons we serve in project planning by conducting an annual tenant survey. Additionally we typically have a member on our Board of Directors who has experienced homelessness; we are currently working to fill a vacancy in that role.

Housing Subsidies

We accept a variety of housing subsidies and effectively coordinate with multiple organizations in order to provide affordable housing for our tenants.

- Section 8 vouchers from Orange, Durham, Raleigh and Wake Housing Authorities
- Shelter Plus Care subsidies from Wake County and Cardinal Behavioral Health
- VASH vouchers in partnership with Durham VAMC and Durham and Wake Housing Authorities
- Key Subsidies through the NCHFA
- HUD-811 Housing Assistance Payments (HAP)
- Various short term assistance payments from the faith community, Alliance BHC, and service providers

Coordination and Collaboration

- CASA has been an active member of the Orange County Partnership to End Homelessness, with our COO Mary Jean Seyda serving as a past Chair, as well as an active member of the OC Affordable Housing Coalition. Additionally, CASA has been involved in the creation of the Chapel Hill Housing Strategy and the Rental Housing Strategy, and Mary Jean currently serves on Chapel Hill's Affordable Housing Advisory Board.
- CASA's 30 units in Carrboro house persons receiving services and assistance through a variety of community partners including Cardinal Innovations, the UNC Center for Excellence in Mental Health, Community Empowerment Fund, Housing for New Hope, and the IFC.

Please see our Development History (attached) and our Capacity/Qualifications (attached).

Thank you for your consideration.

Sincerely,



Debra K. King
CEO



Housing Development Experience

Completed in 2016

- **Denson Apartments for Veterans Phase 2**
 - 12-unit multi-family rental new construction project in Durham, NC
 - One-bedroom units will serve persons who are homeless or who have disabilities. Priority for all units is veterans
 - Services provided by Durham VAMC.
 - Funders are City of Durham, Home Depot Foundation, private donations, and bank financing for a total project cost of \$1.5 million
- **628 W Jones Street**
 - 4 one-bedroom units purchase and rehab in Raleigh
 - Project serves persons under 80% of AMI
 - Expected total cost of \$750,000. Funders are City of Raleigh and CASA equity.

Completed in 2015

- **Sherman Avenue**
 - 11 one-bedroom units purchase and rehab in Raleigh
 - Project serves persons under 40% AMI with disabilities; 2 units have a homeless requirement
 - Total cost of \$919,000. Funders are City of Raleigh and Wake County and reinvested HUD-SHP funds.
- **Sunnybrook Village**
 - 42-unit purchase and rehab in Raleigh; 18 2 bedrooms and 24 1-bedrooms
 - Project serves households 0-80% of AMI (11 units for HH under 40% with preference for persons with disabilities; 23 units for HH below 60%; 8 units for households 60-80%)
 - Total cost \$3.13 million. Funders are City of Raleigh, Wake County, North State Bank
- **Lockwood Village**
 - 60-unit tax credit development in Wilmington, NC consisting of 1 and 2 bedroom apartments developed in partnership with SNW, LLC a private development company.
 - This development has six units set aside for persons with disabilities.
 - Units are for families at 60% and below area median income.
 - Funders are the City of Wilmington, NCHFA-State and Federal Tax Credits, and CICCAR at \$8.3 million.
- **Sunnybrook Apartments Phase 2**
 - 10-unit new one-bedroom units in Raleigh
 - Project serves persons who are homeless and below 40% AMI. 2 tenants must be chronically homeless and preference is for persons with disabilities. Priority for all units is veterans
 - Services provided by Durham VAMC; all units have a project-based HUD-VASH subsidy
 - Total cost of the project \$1.14 million. Funders are HUD-SHP, Wake County, and the City of Raleigh

Completed in 2014

- **Denson Apartments for Veterans Phase 1**
 - 11-unit new construction project in Durham
 - One-bedroom units will serve persons who are homeless, with at least 1 unit reserved for a person who is chronically homeless. Priority for all units is veterans
 - Services provided by Durham VAMC, Healing with CAARE. Supportive service dollars and operating dollars are available with the HUD award
 - Funders are HUD-SHP, City of Durham, NCHFA, Home Depot Foundation, and private donations for a total project cost of \$1.49 million

Completed in 2013

- **Sunnybrook Apartments Phase 1**
 - 10-unit new construction project creating one-bedroom units in Raleigh
 - Project will serve 3 persons who are chronically homeless with disabilities and all tenants must be under 40% AMI. Priority for all units is veterans
 - Services provided by Durham VAMC, Wake County LME
 - Total cost of the project \$1.25 million. Funders are HUD-SHP, Wake County, and the City of Raleigh
- **Shirley Strobel Apartments**
 - Assumed ownership of a 12-unit apartment building in Durham after Next Step Housing, a Durham nonprofit, merged with CASA
 - These efficiency apartments serve people with disabilities

Completed in 2012

- **Cedar Street**
 - Purchase and moderate rehab of a quadraplex in downtown Cary
 - Two-bedroom units serve workers earning less than 50% AMI (2 units) and 40% AMI (2 units)
 - Funders are the Town of Cary with CDBG funds and Wake County with HOME funds totaling \$318,920

Completed in 2011

- **Club Nova Apartments**
 - Assumption of ownership of 24 efficiency units in downtown Carrboro
 - Formerly a tax-credit property, CASA refinanced this property with a loan from the NCHFA and completed renovations totaling \$101,971.
 - All 24 units have project-based Section 8 subsidy and serve persons with mental illness
- **217 W Geer Street**
 - Purchased and completely rehabilitated 1940s home into an apartment building comprised of 7 one and two-bedroom apartments located in downtown Durham.
 - Units serve Durham's workforce – households earning less than 50% of the AMI
 - Funders are City of Durham through HOME and HUD-Neighborhood Stabilization Program at \$830,000.
- **Robertson Hill**

- A nine-unit new construction project in the City of Raleigh.
- One-bedroom units serve adults with disabilities
- Large community space with full kitchen provides ample meeting space for service providers and other groups
- Funder is HUD 811 Program at \$1.3 million.

Completed in 2010

- **Chrysalis Project**
 - Purchased and rehabbed 15 two-bedroom, 4 one-bedroom apartments and one single family home located in Orange County.
 - Units serve adults of low wealth with disabilities.
 - Assumed ownership of 20 units from another non-profit who ceased operation.
 - Funders are Orange County and the Town of Chapel Hill at \$907,358.
- **George's Mews**
 - Purchased and rehabbed 26 one-bedroom apartments located in Raleigh.
 - It is a mixed use community with ten units set aside for adults earning less than 60% of the AMI, eight units for adults earning less than 40% of the AMI, and eight units for adults with disabilities who earn less than 30% of the AMI.
 - Funders are CASA, City of Raleigh, Wake County, Community Investment Corporation of the Carolinas (CICCAR) and North Carolina Housing Finance Agency (NCHFA) at \$2.2 million.

Completed in 2009

- **Carlton Apartments**
 - Purchased and rehabbed 4 one-bedroom apartments located near NC State's campus.
 - Tenants earn below 40% of the area medium income and may have a disability.
 - Funders are the City of Raleigh and Wake County at \$293,403.
- **Pritchard Avenue Apartments**
 - Purchased and rehabbed 5 duplexes (a total of 10-1 bedroom units) located in Chapel Hill for individuals who have a disabling condition or have been homeless, earning 0 – 40% of AMI.
 - Funders are Orange County and the Town of Chapel Hill at \$1.1 million.
- **Salisbury Apartments**
 - Newly constructed 10 one bedroom apartments serving persons who are chronically homeless and have a disability.
 - Funders are HUD- Supportive Housing Program (SHP) with matching funds from the City of Raleigh, Wake County, a private foundation and NCHFA at \$1.21 million.

Completed in 2008

- **Vesson Apartments**
 - Purchased and rehabbed 10 one-bedroom apartments located in Durham
 - It is a mixed use community with 4 units set aside for persons with disabilities
 - The funder is the City of Durham at \$660,486.
- **Hope Crest**
 - Newly constructed 10 one bedroom apartments serving persons who are chronically homeless with a disability.
 - Funders are HUD-SHP with matching dollars from the City of Raleigh, Wake County, NCHFA, and a private foundation at \$1.25 million.

- **Buchanan Apartments**

- Purchased and rehabbed 4 apartments for individuals with disabilities who may also be homeless.
- The funder is the City of Durham at \$326,070

Completed in 2007

- **Crest Commons**

- Purchased and rehabbed a 19 unit complex of one bedroom apartments near NC State's campus.
- These units house individuals of low wealth, many of whom have a disability.
- Funders are the City of Raleigh, Wake County and CASA at \$1 million.

- **Hester Street Apartments**

- Purchased and rehabbed 8 one bedroom units for persons with a disability in Knightdale, NC.
- Funders are Wake County, CASA and the NC Mental Health Housing Trust Fund at \$616,951.
- All 8 units have project-based Section 8 subsidy

- **Waterbrook**

- Newly constructed a 64-unit Low Income Housing Tax Credit (LIHTC) project of 1 and 2 bedroom apartments developed in partnership with SNW, LLC a private development company.
- This development has seven units set aside for persons with disabilities.
- All 64 units serve persons who are elderly at 40% and below area median income.
- Funders are the City of Raleigh, Wake County, NCHFA-State and Federal Tax Credits, and CICCER at \$6.8 million.

Completed in 2006

- **Oak Hollow**

- Newly constructed 10 two-bedroom apartments for families who are homeless and have a disability.
- Funders are HUD-SHP with matching dollars from the City of Raleigh, Wake County, NCHFA and CASA at \$1.4 million dollars.

- **Oak Hill**

- Newly constructed 14 one-bedroom apartments for adults with disabilities.
- Funders are HUD 811 at \$1.3 million.

Qualifications of the Developer

CASA's mission is to develop affordable housing and opportunities for successful living. CASA believes that all people, regardless of income, deserve a decent, safe place to call home and that people with disabilities should be allowed to choose where they will live just like everyone else.

CASA's mission is carried out by our 24 member staff: 22 full time and 2 part-time. CASA's employees have a mixture of housing expertise, business management backgrounds and supportive service experience. Our three-member management team is overseen by our Board of Directors. The experience and areas of focus of our management team are detailed below:

Debra King, Chief Executive Officer – Ms. King has been CASA's leader since 1995. As CEO, she oversees all our work creating high-quality homes for our neighbors in need, and ensuring that every one of our tenants has the opportunity to live successfully in their permanent home. Debra is a past Chair of the Wake County Partnership to End Homelessness. She also has her North Carolina Real Estate License.

Mary Jean Seyda, Chief Operations Officer – Ms. Seyda has been with CASA since 2001 and has an extensive background in homeless service program design, development and management. She is well versed in HUD regulations and oversees the day-to-day operations at CASA. Mary Jean is past Chair of Orange County's Partnership to End Homelessness. She is currently serving on the Town of Chapel Hill's Housing Advisory Board, to which she was appointed by Town Council.

Debbie White, Chief Financial Officer – Ms. White and her staff oversee all financial activities of our agency including a nearly \$4 million annual operating budget. She is responsible for the budgets for all CASA Programs and developments, monitors the expenditure of grant funds, and assures that CASA meets its financial obligations to funders, vendors, and tenants. Before joining CASA in 2005, Debbie spent twelve years in public accounting and has broad knowledge of accounting system design for both non-profit and for-profit entities.

Jess Brandes, Housing Developer – Ms. Brandes has a background in non-profit financial development and a Masters in City and Regional Planning. She serves as CASA's project manager, overseeing and coordinating development activity from project conception and funding through the completion of construction. Jess works closely with CEO Debra King to ensure that projects move forward on schedule and on budget while adhering to the development regulations of various municipalities, and the project requirements of various funders. She has worked at CASA since 2008. She has overseen the development of 7 rehab projects and 6 new construction projects.

Arnetta Adams-Brown, Housing Director – Ms. Adams-Brown has been with CASA since 2005 and came to us from the market-rate property management field. She supervises the leasing staff that has more than 30 years of experience leasing apartments for low-income households and working patiently with tenants who have disabilities. The leasing staff meet weekly to work on resolving tenant issues and ensuring funding and program compliance for CASA's 400+ apartments scattered throughout the

Triangle. These professionals communicate frequently with service providers to address tenant needs both before and after they are housed with the goal that every tenant remain successfully housed. Our Leasing Specialists also have experience administering rental subsidies.

Neil Ritter, Facilities Director – Mr. Ritter came to CASA in 2010 with 13 years of conventional housing experience working in both facilities maintenance and general contracting. Neil coordinates the day to day maintenance activity for CASA, supervising 4 maintenance technicians. He coordinates work orders (through Property Boss, property management software), make readies, on call, preventative maintenance, and vendors and provides input to all the property budgets. CASA's three maintenance technicians have over 40 years of experience and include a licensed NC building inspector.