



**The Town of Clayton
Clayton Board of Adjustment Agenda
Wednesday, September 20, 2017 @ 6:00 PM
Council Chambers**

1. CALL TO ORDER

2. ADJUSTMENT OF THE AGENDA

3. APPROVAL OF MINUTES

- a. June 21, 2017 DRAFT Minutes
[BOA DRAFT Minutes June 21, 2017](#)

POTENTIAL ACTION: Approval of June 21, 2017 Minutes

4. OLD BUSINESS

5. NEW BUSINESS

- a. 2017-140-CUP Holy Cross Lutheran Church
Presenter: Jay McLeod
[Application 2017-140-CUP](#)
[Staff Report - Holy Cross expansion - 2017-140-CUP](#)
[Site Plan 2017-110-SP Holy Cross](#)
[Map - 2017-110-SP and 2017-140-CUP Holy Cross Lutheran Church](#)
[Neighborhood Meeting Materials 2017-110-SP Holy Cross Lutheran Church](#)
[Planning Board Approval 2017-110-SP Holy Cross](#)
[Approval Letter- Holy Cross Lutheran Site Plan - 2017-110-SP](#)

POTENTIAL ACTION: Approval of Conditional Use Permit 2017-140-CUP

6. INFORMAL DISCUSSION AND PUBLIC COMMENT

7. ADJOURN



**The Town of Clayton
Clayton Board of Adjustment Minutes
Wednesday, June 21, 2017 @ 6:00 PM
Council Chambers**

BOARD MEMBERS PRESENT:

Bobby Bunn
Mark Helmer
Johnny House
William Wenzel
Matt Evans

STAFF PRESENT:

Jay McLeod, Senior Planner
Haley Hogg, Planner
Paralee Smith, Development Services Coordinator
Christy Anastasi, Deputy Town Clerk
Merrick Parrott, Town Attorney
Council Member Lawter

MEMBERS ABSENT:

Tom Medlin
Donna White

1 CALL TO ORDER

- a) Mr. Evans, Chair, called the meeting to order at 6:01 p.m.

2 ROLL CALL

- a) Roll call was completed and a quorum was noted.

3 ADJUSTMENT OF THE AGENDA

4 APPROVAL OF MINUTES

- a) May 17, 2017 DRAFT Minutes

ACTION: Approval of May 17, 2017 Minutes

Motion: Board Member Wenzel
Second: Board Member House
Vote: Unanimous

5 OLD BUSINESS

6 NEW BUSINESS

- a) 2017-79-CUP- Economy Storage
NC PIN: 165807-68-4317
Tag: 05G02011W
Location: The project is located off NC HWY 42 W, south of Cricket Hollow Run.

Town Attorney Parrott provided information regarding Quasi-Judicial proceedings to include the type of testimony that can be considered. The Deputy Town Clerk issued the

oath via affirmation to all those wishing to offer testimony.

Ms. Hogg provided information regarding application and request 2017-79-CUP. A major site plan application (2017-80-SP) is running concurrently with this request. Ms. Hogg gave a brief history stating when the existing self-storage facility was developed on this property; a conditional use permit was not required in order to operate. However, now that the facility is proposing an expansion of the use, a conditional use is required to meet current code requirements; The applicant Economy Storage is proposing an expansion of an existing self-storage facility. The proposed property is 1.56 acres and is located at NC Hwy 42 West, South of Crickett Hollow Run. The subject property is zoned Highway-Business (B-3). In this zoning district, the use of a self-storage facility is permitted subject to the approval/issuance of a conditional use permit. Proposed is one new building totaling 6,000 sq. ft. Proposed parking is five spaces including one handicap space. The applicant is proposing to replace the existing chain link fencing along all property lines with black vinyl coated chain link fencing. A class "A" landscape buffer is proposed along Hwy 42 West and a class "C" landscape buffer is proposed along Barber Mill Road. The applicant is proposing additional landscaping throughout the development in order to meet the site interior landscape requirements. The entrance to the development off Hwy 42 West would be reconfigured to provide a turn-around area for cars that pull into the development and are not able to get through the gate. Ms. Hogg stated the applicant has adequately addressed the Findings of Fact and the use is generally compatible with the Surrounding Land Uses. Staff is recommending approval with the conditions as noted in the staff report.

The board asked for clarification on the location of the parking spaces. Ms. Hogg provided clarification by using a map of the property. The board asked for clarification on the location of the turnaround. Ms. Hogg stated the entrance to the facility would be reconfigured and the turnaround would be located at the Hwy 42 entrance. The board had concerns about the roadside slope and erosion. Ms. Hogg stated the applicant would address the roadside slope.

The applicant, Jimmy Boykin, stated the slope had been re-graded and additional landscaping would be added. Mr. Boykin stated the use of this property had been the same for over twenty years and in addition to the new building, other improvements include the addition more parking and landscaping. Board Member House asked what the hours of operation. Mr. Boykin stated the hours of operation are 24 hours per day. Customers are required to use an electronic code to enter and exit the facility. Board Member Helmer asked if there were plans for additional illumination. Mr. Boykin stated not currently. Mr. Boykin stated there did not seem to be a problem with the current lighting located around the entire property.

With there being nothing further, the Public Hearing was closed at 6:09 p.m. and the item was turned over to the board for deliberation.

ACTION: Approval of Conditional Use Permit

Motion: Board Member House

Second: Board Member Helmer

Vote: Unanimous

7 INFORMAL DISCUSSION AND PUBLIC COMMENT

a) Comprehensive Plan

Mr. McLeod stated the most updated Comprehensive Plan was provided to each board member per their request.

8 ADJOURN

a) With there nothing further, the meeting was adjourned at 6:12 p.m.

ACTION: Motion to Adjourn

Motion: Board Member Helmer

Second: Board Member Bunn

Vote: Unanimous

Matt Evans, Chair

ATTEST:

Christy Anastasi, Deputy Town Clerk



TOWN OF CLAYTON

Planning Department

111 E. Second Street, Clayton, NC 27520

P.O. Box 879, Clayton, NC 27528

Phone: 919-553-5002

Fax: 919-553-1720

CONDITIONAL USE APPLICATION

Pursuant to Article 7, Section 155.710 of the Unified Development Code, an owner of land within the jurisdiction of the Town (or a duly authorized agent) may petition the Board of Adjustment to allow a Conditional Use. Conditional Uses are uses that may be appropriate in a particular district, but has the potential to create incompatibilities with adjacent uses.

Application Fee: \$400.00.

Advertisement Fee: \$100.00.

All fees are due when the application is submitted.

APPLICATION TYPE

☒ New Conditional Use Permit

☐ Major Modification to an approved CUP

Permit Modified: _____

SITE INFORMATION

Name of Project: Holy Cross Lutheran Church Acreage of Property: 5.42 acres

County Tag #: 05F02018A NC PIN: 164800-31-0164

Address/Location: The site is located on the North side of NC Highway 42 West, and is adjacent to (West side) the existing Holy Cross Lutheran Church.

Existing Use: Vacant wooded parcel Proposed Use: Church

Is project within a Planned Development? ☒ No ☐ Yes

Planned Development District (if applicable): _____

Is project within an Overlay District?: ☐ No ☐ Yes

Overlay District (if applicable): _____

Is a site plan being concurrently submitted? ☐ No ☒ Yes

OFFICE USE ONLY

Date Received: Aug 15 2017

Amount Paid: \$ 500 -

File Number: 2017-140-CUP

TOWN OF CLAYTON
PLANNING DEPARTMENT
01/06/2016

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PROPERTY OWNER INFORMATION

Name: Holy Cross Lutheran Church of Clayton, Inc.
Mailing Address: 2920 NC Highway 42 West Clayton, North Carolina 27520
Phone Number: (919) 553 - 5670 Fax: N/A
Email Address: N/A

APPLICANT INFORMATION

Applicant: Dalton Engineering and Associates, P.A.
Mailing Address: Post Office Box 426 Clayton, North Carolina 27528
Phone Number: (919) 550 - 4740 Fax: (919) 550 - 4741
Contact Person: Jerry T. Dalton, P.E.
Email Address: jdalton@daltonengineering.com

REQUIRED INFORMATION (to be submitted with the application)

Please fill out the following checklist. The following items must accompany a Conditional Use Permit (CUP) application.

To be completed by the applicant:			To be completed by staff:		
Submit 9 copies of all materials unless otherwise noted or directed by staff	Yes	N/A	Yes	No	N/A
1. A pre-application conference was held with Town of Clayton staff. Date: _____	☒				
2. Review Fee (\$400) and Advertisement Fee (\$100)	☒				
3. Completed application	☒				
4. Owner's Consent Form	☐	☒			
5. Adjacent property owners list	☒				
6. Wastewater allocation request OR verification of wastewater allocation	☐	☐			
7. Signed and sealed traffic impact analysis (2 copies) <i>Required for projects generating at least 100 vehicle trips at peak hour. See §155.708 of the UDC.</i>	☐	☒			
8. Neighborhood meeting notice letter (1 copy) <i>See sample letter and meeting requirements included in this packet</i>	☒				
9. Set of stamped, addressed envelopes with no return address, using the adjacent property owners list (One set) <i>To be used for Town's public noticing of the Board of Adjustment hearing.</i>	☒				
10. Neighborhood meeting summary form (1 copy) <i>Form is included in this packet</i>	Must be submitted after neighborhood meeting is held and at least 10 days prior to Board of Adjustment meeting.				

Note: More information may be requested by the Planning Department depending on the project

01/06/2016

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EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

The Conditional Use Application has been submitted to the Town of Clayton Planning Department due to the Owner of the parcel, Holy Cross Lutheran Church of Clayton, Inc., requesting to expand the existing facilities of the Church. The Church's proposed improvements on the parcel include a paved parking area and a stormwater management retention pond / best management practice.

REQUIRED FINDINGS OF FACT

Section 155.710(G) of the Unified Land Development Code requires applications for a Conditional Use to address the following findings. The burden of proof is on the applicant and failure to adequately address the findings may result in denial of the application. Please attach additional pages if necessary.

1. That the application will not materially endanger the public health or safety if located where proposed and ultimately developed according to the plans as submitted.

The Church's current site ingress and egress traffic patterns are being proposed to remain unchanged. There are two existing driveways providing access to the existing paved parking area. The driveways would serve the proposed parking area as well. There are no plans to add any driveway cuts to NC Highway 42 West or to Brady Drive.

The proposed stormwater management retention pond / best management practice is being proposed to outlet into a roadside ditch of an existing N.C.D.O.T. maintained street (Brady Drive). The stormwater management pond would be designed to meet the local Stormwater Management Ordinance, and would be reviewed and approved by Johnston County Public Utilities prior to construction. The Town of Clayton and N.C.D.O.T. would review and approve an Encroachment Agreement for the proposed stormwater management pond, as well, prior to construction.

2. That the application meets all required specifications and conforms to the standards and practices of sound land use planning and the Town Code of Ordinances and other applicable regulations.

The Conditional Use Application has been submitted to the Town of Clayton Planning Department for review and comment. The parcel is currently zoned R- E, and the proposed use is allowable for the zoning as per the Town of Clayton Unified Development Ordinance.

3. That the application will not substantially injure the value of adjoining or abutting property, and will not be detrimental to the use or development of adjacent properties or other neighborhood uses.

The Church's proposed improvements on the parcel include a paved parking area and a stormwater management retention pond / best management practice. The parcel on which the improvements are proposed to be constructed is wooded. The distance from the edge of the proposed parking area to the parcel's Western property line is a minimum of 165'. A majority of that area would remain wooded, as per the project's Landscape Plan. The proposed stormwater management pond would be constructed to capture stormwater runoff from the site and outlet into an existing roadside ditch adjacent to Brady Drive. Stormwater runoff from the proposed improvements would be limited to the quantity listed in the local Stormwater Management Ordinance.

4. That the application will not adversely affect the adopted plans and policies of the Town, or violate the character of existing standards for development of the adjacent properties.

The Site Plan Application and Conditional Use Application for the proposed project has been submitted to the Town of Clayton Planning Department for review and comment. The parcel is currently zoned R - E, and the proposed use is allowable for the zoning as per the Town of Clayton Unified Development Ordinance.

APPLICANT AFFIDAVIT

I/We, the undersigned, do hereby make application and petition to the Board of Adjustment of the Town of Clayton to approve the subject Conditional Use. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Clayton, North Carolina, and will not be returned.

Dalton Engineering and Associates, P.A.

Print Name


Signature of Applicant

8/15/17

Date



**TOWN OF CLAYTON
Planning Department**

111 E. Second Street, Clayton, NC 27520

P.O. Box 879, Clayton, NC 27528

Phone: 919-553-5002

Fax: 919-553-1720

PROPERTY OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Holy Cross Lutheran Church **Address or PIN #:** NC PIN : 164800-31-0164

AGENT/APPLICANT INFORMATION:

Dalton Engineering and Associates, P.A.

(Name - type, print clearly)

Post Office Box 426

(Address)

Clayton, North Carolina 27528

(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests below*):

Conditional Use Application

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Holy Cross Lutheran Church of Clayton, Inc.

(Name - type, print clearly)

Denise L Reese

(Owner's Signature)

2920 NC Highway 42 West

(Address)

Clayton, North Carolina 27520

(City, State, Zip)

STATE OF

North Carolina

COUNTY OF

Wake

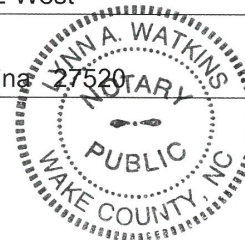
Sworn and subscribed before me Lynn A Watkins, a Notary Public for the above State and County, this the 9 day of August, 2017.

SEAL

Lynn A Watkins
Notary Public

My Commission Expires:

12-7-2021





Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-1545
Fax: 919-553-1720

*Board of Adjustment
September 20, 2017*

STAFF REPORT

Application Number: 2017-140-CUP

Project Name: Holy Cross Lutheran Church school expansion, Conditional Use

NC PIN / Tag #: 164800-31-0164 / 05f02018a
Location: 2920 NC Hwy 42 W, Clayton, NC 27520
Town Limits/ETJ: ETJ
Overlay: Thoroughfare Overlay District & Scenic Highway Overlay
Applicant: Dalton Engineering and Associates
Owner: Holy Cross Lutheran Church of Clayton, Inc.

Neighborhood Meeting: Held August 8, 2017
Public Noticing: Property posted prior to September 6, 2017
Mailed Notices mailed September 6, 2017
Published notice placed as required per Section 155.702(D)(2)(a) of the UDC

REQUEST: To operate (expand) an existing school associated with a church use on a vacant parcel.

SITE DATA:

Acreage: 5.42 acres
Present Zoning: Residential-Estate (R-E)
Existing Use: Vacant, with church use and parking on the adjacent parcel.



ADJACENT ZONING AND LAND USES:

Direction	Zoning	Existing Use
North	Residential-Estate (R-E)	Rural Residential
South	Residential-Estate (R-E)	Rural Residential
East	Residential-Estate (R-E)	Church and associated school
West	County: Agricultural Residential (AR)	Rural Residential

DEVELOPMENT DATA:

Proposed Uses:	Church school expansion
Buildings:	none to occur on this parcel; parking lot to be constructed to serve church school on adjacent parcel
Required Parking:	Church: 1 space per three seats, at 308 seats = 103 spaces School, Elem.: 1 space per employee at 27 teachers = 27 spaces School, Elem.: 1 visitor space per 50 students = 4 spaces School (general), because this school will not have buses: 1 space per 5 students = 50 spaces Total spaces required = 103+27+4+50 = 184 spaces
Proposed Parking:	190 spaces (incl. 7 handicap accessible spaces) – combined total from both parcels
Access/Streets:	Access is provided onto NC Hwy 42 from two existing entrances. A three-lane section is currently existing on this section of Hwy 42 W
Water/Sewer Provider:	Johnston County
Electric Provider:	Duke Energy
Fire Protection:	Town of Clayton Fire Department

STAFF ANALYSIS AND COMMENTARY:**Overview**

The applicant is requesting a Conditional Use Permit (with concurrent Major Site Plan application 2017-110-SP) to develop a 14,000 square foot (SF) educational building and associated parking on an existing church site, with expansion onto the adjacent vacant parcel (also owned by the church). Churches, and associated facilities (including schools), are allowable in this zoning district if approved as a Conditional Use. Since the vacant parcel does not have a church use currently permitted, expansion onto that parcel requires a Conditional Use Permit. The new building and parking lot require Major Site Plan approval. The existing driveways onto NC Hwy 42W will

continue to be used. According to the site plan, the site will ultimately serve 197 children and 27 teachers, in addition to current church facilities and services (approx. 19,550 SF in the main sanctuary building).

Findings of Fact

The conditional use and associated site plan will be supportive uses of the surrounding (primarily residential) neighborhood and will fit in well with existing uses provided that the conditions of approval for both applications are incorporated. The applicant has addressed the findings of fact in their application as well.

Consistency with Adopted Plans:

- **Comprehensive Plan 2040**
The request is consistent. Churches and associated facilities (including schools) are supportive of surrounding and future residential uses.
- **Unified Development Code**
The proposed development is consistent with and meets the applicable requirements of the Unified Development Code (UDC), so long as the Conditional Use Permit is approved and all Conditions of Approval are met.

Compatibility with Surrounding Land Uses

The site is located on the outside boundary Clayton's ETJ, and is primarily surrounded by vacant or rural residential uses. Churches are compatible and supportive of surrounding residential uses.

Site Design

The site design expands the parking lot in a logical manner, while adding in a school building over top of existing asphalt and gravel parking areas. The displaced parking is accounted for in an expanded asphalt parking area to the west. Pedestrian access between buildings and the parking is safe and efficient. Stormwater is proposed to be handled by a large, linear retention pond on the rear property line. This will involve clearing and grading along that border, which may be in conflict with the landscape buffering recommendation below.

Landscaping and Buffering

This site is within the Thoroughfare Overlay District, and enhanced landscaping buffers are required along the NC Hwy 42 frontage. Existing vegetation is used to meet site interior landscaping requirements.

In general, a church (and associated institutional-type facilities, such as schools) are a use that are typically found in the Office-Institutional zoning district. The Unified Development Code requires a Class B landscape buffer along all property lines adjacent to Residential-Estate (R-E) zoning. The buffer is intended to mitigate the effects on neighbors of more intense institutional-type development (overhead lights in parking lot, noise, views of large parking lots, etc.). (Note that the western border is adjacent to the County's Agricultural-Residential (A-R) zoning, which is equivalent (for the purposes of this discussion) to R-E zoning. The recommendation is for a Class B buffer to be required along all property boundaries.

Access/Streets/Pedestrian

The site is accessed via two existing driveways onto NC Hwy 42 W; one ingress and one egress. Pedestrian access would be enhanced by a sidewalk connection to and along the highway frontage. The impending widening of NC Hwy 42 West cautions that fee-in-lieu of sidewalk along that frontage might be more effective than the church installing sidewalk at the current time. Otherwise, any newly poured sidewalk might get destroyed during the road widening. Fee-in-lieu could be transferred to NCDOT during their roadway design process, with sidewalk installation occurring at the time of the expansion.

Water/Wastewater

N/A, as the site is served by Johnston County Public Utilities.

Recreation and Open Space

N/A.

Environmental

A stormwater pond is used to mitigate the additional impervious surfaces.

Signs

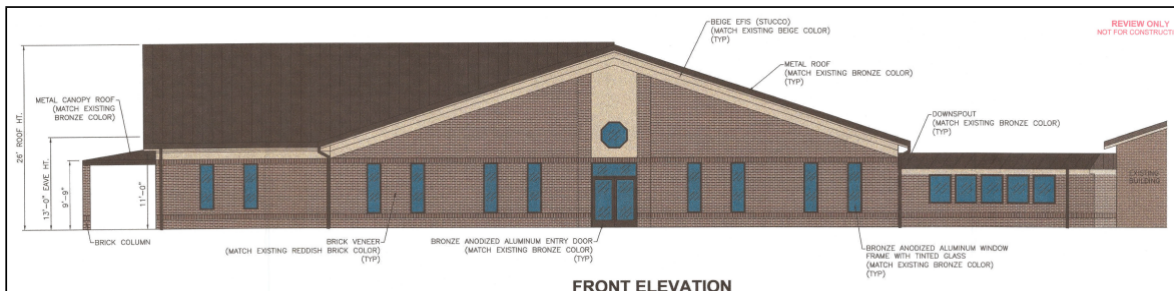
No monument signs are requested at this time. Signage already exists on site for the church. Any new signage will require a sign permit.

Garbage / Recycling

A dumpster court is not shown on the plans. It is assumed that garbage and recycling will be handled in roll out containers. Screening will be required, per §155.402(G)(2).

Architecture/Design

The architecture of the proposed school expansion is consistent with what is currently existing in the sanctuary building on site.

**Waivers/Deviations/Variances from Code Requirements**

- Given the impending expansion of NC Hwy 42 W, fee-in-lieu is recommended for the sidewalk improvements along that frontage.

CONSIDERATIONS:

- The Board of Adjustment approves Conditional Use Permits.
- The Planning Board approves Major Site Plans, although those site plans may be modified by Conditions of Approval per the Conditional Use Permit.
- The Major Site Plan associated with this project (2017-110-SP) has been approved by Planning Board, contingent upon approval of this Conditional Use Permit.

FINDINGS:

When considering a Conditional Use Permit application, The Board of Adjustment shall consider specific Findings of Fact. A Conditional Use which fails to meet any of these Findings shall be deemed adverse to the public interest and shall not be approved. The applicant has addressed the Findings expressly established by Chapter 155.710 (G) of the UDC. The applicant's Findings of Fact are incorporated into the record as an attachment to the Staff Report.

STAFF RECOMMENDATION:

Staff recommends approval with conditions.

CONDITIONS:

If approved, staff recommends the following conditions:

1. The development of the site is limited to the site design and uses approved by the Planning Board. Modifications to the approved site plan shall require review and approval in accordance with § 155.707 of the Unified Development Code.
2. The development of the site is limited to the uses and conditions of this Conditional Use Permit (2017-140-CUP). Modifications to the approved Conditional Use Permit shall require review and approval in accordance with §155.710 of the Unified Development Code.
3. Following Board approvals, three copies of the Final Site Plan, Landscape Plan, and Architectural Elevations meeting the requirements of the Conditions of Approval shall be submitted to Planning Department for final approval. The following items shall be recorded on the plans before they receive final approval from the Planning Department:
 - a. Any Conditions of Approval for either the Site Plan (2017-110-SP) or Conditional Use Permit (2017-140-CUP) shall be recorded on either the site plan sheet or cover page, and shall be binding upon the land and development.
 - b. Sidewalk and crosswalk ramps shall be required across the entire frontage of NC Hwy 42 West. Fee-in-lieu is required and sidewalk shall be installed with the widening of NC Hwy 42 West. Fee-in-lieu is allowed for sidewalk along the NC Hwy 42 frontage.
 - c. Sidewalk access shall be extended from the frontage along NC Hwy 42 to the buildings on site.
 - d. A Class B landscaping buffer shall be shown along all property lines adjacent to R-E or A-R zoning districts (rural agricultural or large-lot, rural residential zoning). Retention areas must be located interior to and outside of the required landscaping buffer. Existing vegetation (trees, shrubs) are encouraged to be used to meet the landscaping buffer requirements.

4. A Conditional Use Permit shall be required prior to the site plan being valid or “approved”, and prior to any grading, site clearing, or issuance of building permits.
 5. A recombination of the two parcels shall be required prior to the issuance of any building permits.
 6. Site clearing or grading shall be limited to the building and parking areas and the stormwater treatment areas.
-

ATTACHMENTS:

- 1) Application
- 2) Staff Report Map
- 3) Neighborhood Meeting Materials
- 4) Site Plan

CONSTRUCTION PLAN
FOR
HOLY CROSS LUTHERAN CHURCH
TOWN OF CLAYTON - JOHNSTON COUNTY, NC

INDEX TO DRAWINGS

- SHEET 1..... COVER SHEET
SHEET 2..... EXISTING CONDITIONS SHEET
SHEET 3..... SITE PLAN
SHEET 4..... GRADING AND SEDIMENT & EROSION CONTROL
SHEET 5..... PARKING LOT GRADING PLAN
SHEET 6..... UTILITY PLAN
SHEET 7..... SEDIMENT & EROSION CONTROL DETAILS
SHEET 8..... SITE AND STORMWATER DETAILS
SHEET 9..... DRY POND DETAIL
SHEET 10..... WATER LINE DETAILS
SHEET 11..... LANDSCAPE PLAN
SHEET A-1..... FLOOR PLAN
SHEET A-1A... BUILDING USAGE PLAN
SHEET A-2..... BUILDING ELEVATION
SHEET A-3..... BUILDING ELEVATION
SHEET L 1..... LIGHTING PROPOSAL (PROVIDED BY OTHERS)

ENGINEER

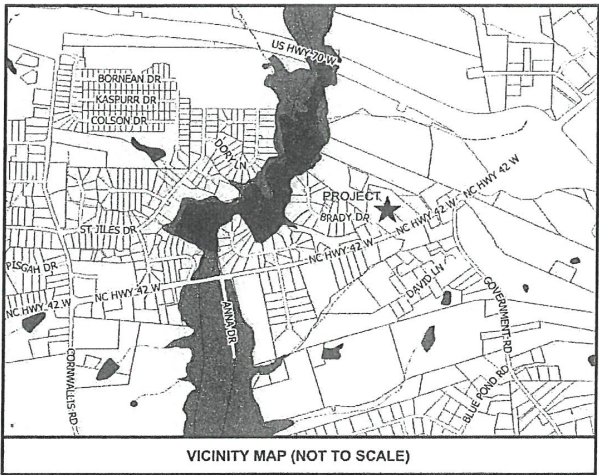
DALTON ENGINEERING AND ASSOCIATES, P. A.
446 EAST MAIN STREET P. O. BOX 426
CLAYTON, NC 27520 CLAYTON, NC 27528
(919) 550-4740 - FAX (919) 550-4741

SURVEYOR

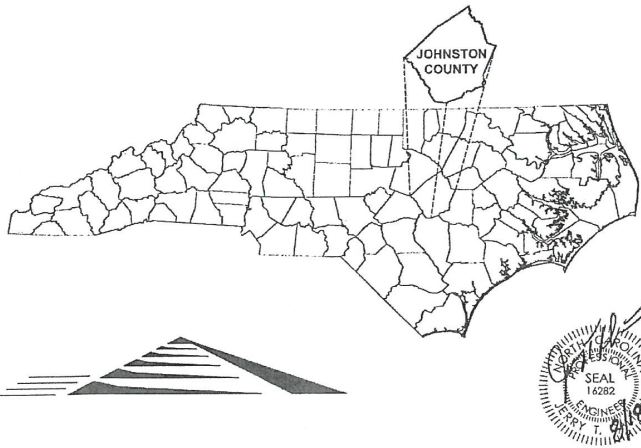
TRUE LINE SURVEYING, P. C.
205 WEST MAIN STREET
CLAYTON, NC 27520
(919) 359-0427

OWNER

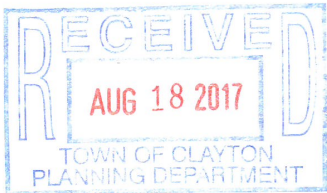
HOLY CROSS LUTHERAN
CHURCH OF CLAYTON INC.
29220 N.C. HIGHWAY 42 WEST
CLAYTON, NC 27520
(919) 553-5670



VICINITY MAP (NOT TO SCALE)



Dalton Engineering
and Associates, P. A.



NOTES:

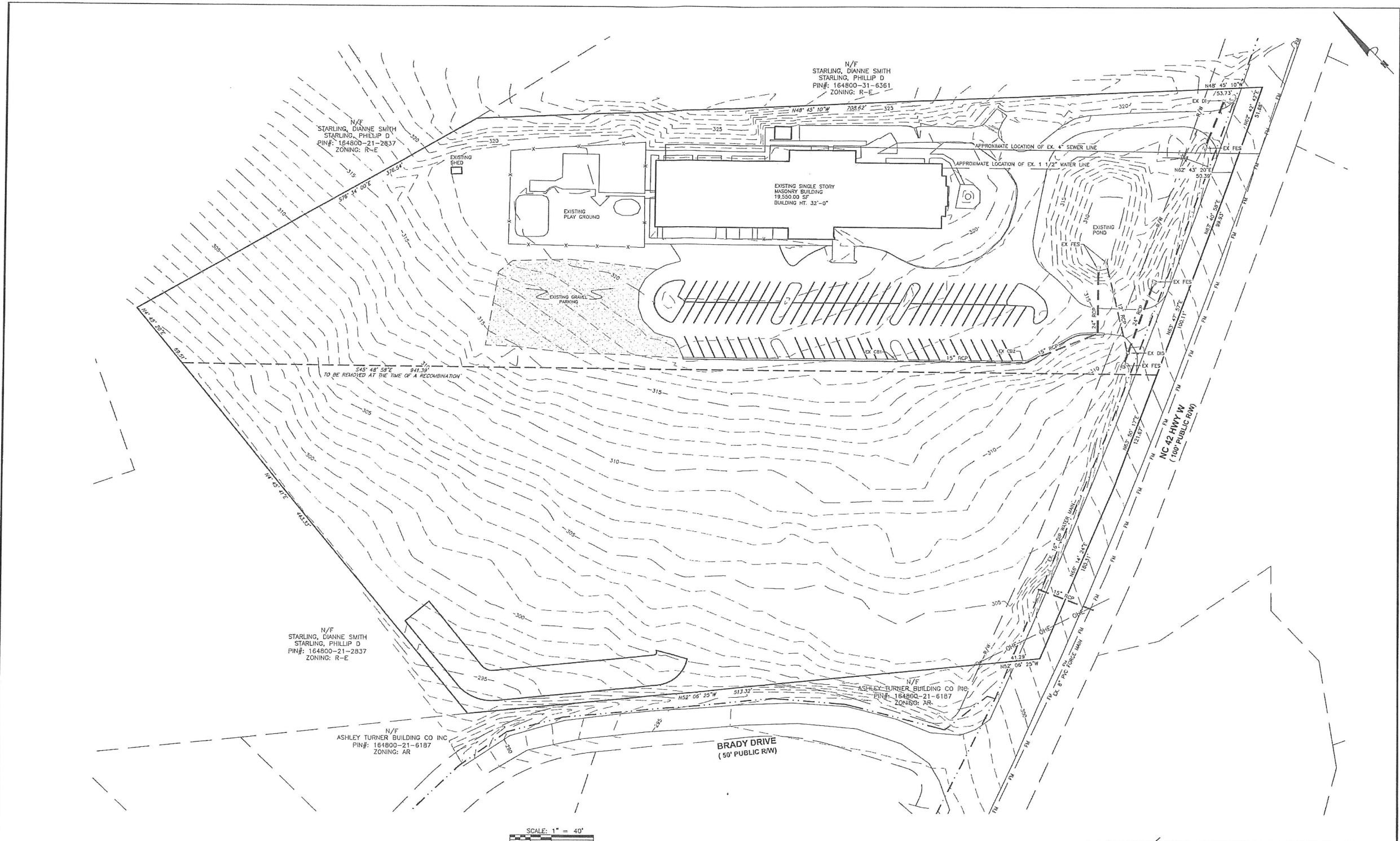
1. ALL DRAINAGE STRUCTURES INCLUDING OUTFALL DITCHES OUTSIDE OF THE PROPOSED RIGHT OF WAY ARE TO BE ENCLOSED WITHIN A PERMANENT PUBLIC DRAINAGE EASEMENT.
2. ALL SURVEY INFORMATION/DATA SHOWN, AND/OR REPRESENTED, IN THE CONSTRUCTION DRAWINGS HAS BEEN PROVIDED BY A PROFESSIONAL LAND SURVEYOR AND IS NOT THE WORK OF DALTON ENGINEERING AND ASSOCIATES, P.A.
3. IT'S THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO PROVIDE DRAWINGS TO THE VARIOUS UTILITY PROVIDERS, SUCH AS DUKE ENERGY, CENTURYLINK, SPECTRUM, PIEDMONT GAS, ETC.
4. AERIAL PHOTOGRAPHY PROVIDED BY NC ONEMAP

NOTES:

DALTON ENGINEERING AND ASSOCIATES, P.A. OWNS, AND HAS THE RIGHT TO, ALL DIGITAL INFORMATION (DWG's) CONTAINED IN THESE CONSTRUCTION DRAWINGS. THAT INFORMATION MAY BE SHARED WITH THE OWNER, SURVEYOR, CONTRACTOR OR OTHER DIRECTLY INVOLVED WITH THIS PROJECT, FOR THE PURPOSE OF WORK RELATED TO ONLY THIS PROJECT. THAT INFORMATION SHALL NOT BE SHARED WITH ANY OTHER PERSON AND/OR FIRM, WITHOUT THE WRITTEN CONSENT OF DALTON ENGINEERING AND ASSOCIATES, P.A.

REVISION 002: ADDRESS TOWN OF CLAYTON TRC REVIEW COMMENTS 8/18/17
REVISION 001: ADDRESS TOWN OF CLAYTON TRC REVIEW COMMENTS 7/28/17

Job: 16021 Date: 6/30/17 Revision: 002
File: 16021_Master Drawn: RVM Sheet: 1 OF 15



CALL BEFORE YOU DIG!
NORTH CAROLINA LAW REQUIRES NOTIFICATION OF THE UNDERGROUND FACILITY OWNER NOT LESS THAN TWO (2) BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO EXCAVATION OR DEMOLITION
North Carolina One-Call Center, Inc.
www.ncoccc.org
1-800-632-4949

EXISTING CONDITIONS
FOR
HOLY CROSS LUTHERAN CHURCH
CLAYTON TOWNSHIP - JOHNSTON COUNTY, N.C.

REVISION 002: ADDRESS TOWN OF CLAYTON TRC REVIEW COMMENTS 8/18/17
REVISION 001: ADDRESS TOWN OF CLAYTON TRC REVIEW COMMENTS 7/28/17

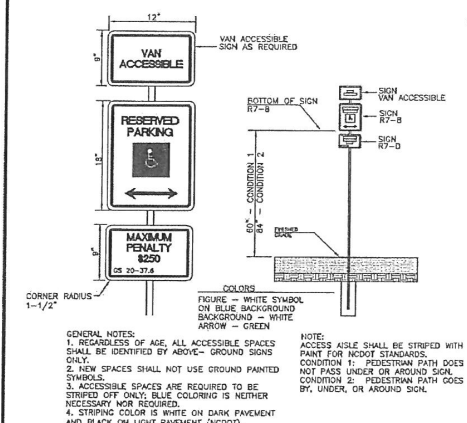


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446 East Main Street
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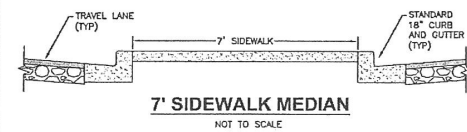
Job: 16021	Date: 6/30/17	Revision: 002
File: 16021_Master	Drawn: RVM	Sheet: 2 OF 15

CHURCH USE		PRE-SCHOOL, DAYCARE & OFFICE	
CHURCH: 1 SPACE PER 3 SEATS	308 SEATS / 3 = 103 PARKING	EMPLOYEE: 1 SPACE PER 5 EMPLOYEES	30 EMPLOYEES / 5 = 6 PARKING
OR		SCHOOL: 1 SPACE FOR EVERY 50 STUDENTS	92 STUDENTS / 50 = 2 PARKING
1 SPACE PER 200 SQ. FT. FOR THE PRINCIPAL PLACE OF WORSHIP, WHICHEVER IS GREATER.	4,544 SF / 200 = 23 PARKING	DAYCARE: 1 SPACE PER 5 PERSON PLUS DROP OFF STALL	105 PERSONS / 5 = 21 PARKING PLUS 1 DROP OFF = 1 PARKING
		OFFICE: 1 SPACE PER 300 SF	1,800 SF / 300 SF = 6 SPACES
PARKING SPACES REQUIRED: 103 SPACES		PARKING SPACES PROVIDED: 36 SPACES	
TOTAL PARKING SPACES PROVIDED: 190 SPACES			

	CURRENTLY	PROPOSED
PRE-SCHOOL AND DAY CARE EMPLOYEES	23	30
PRE-SCHOOL STUDENTS	32	32
BEFORE-AFTER SCHOOL	40	60
DAY CARE CHILDREN	75	105

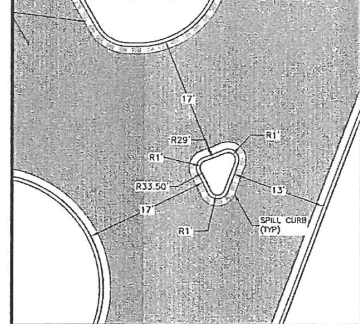
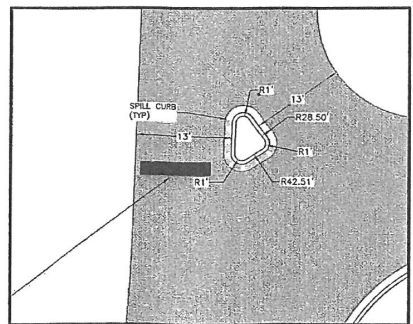
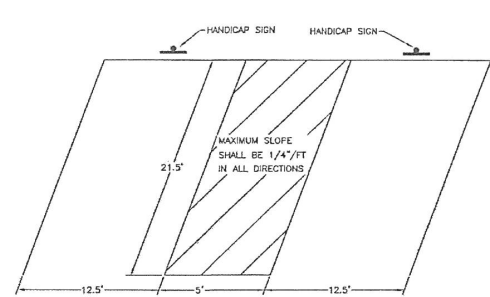
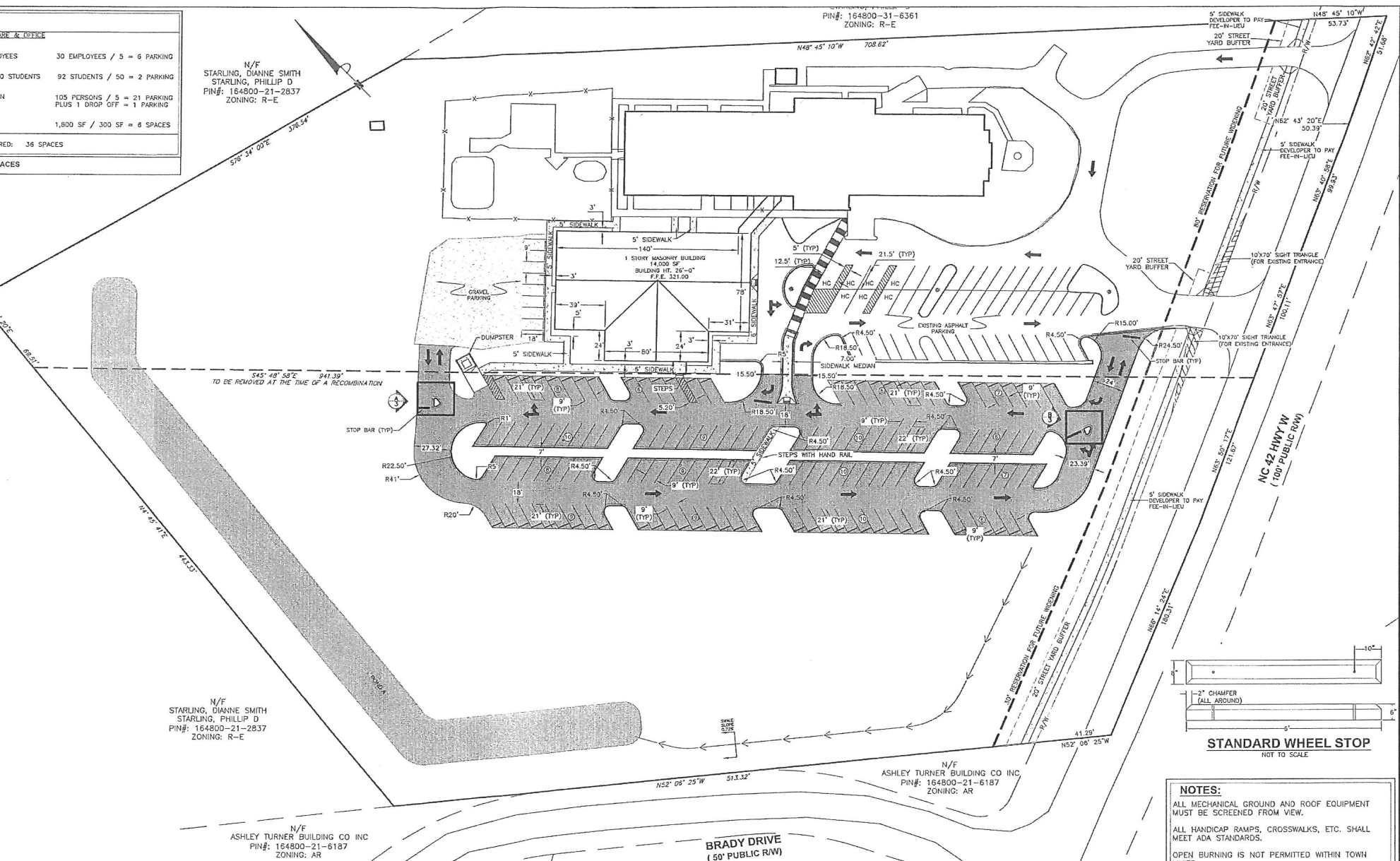


SITE DATA TABLE	
DEVELOPMENT NAME:	HOLY CROSS LUTHERAN CHURCH OF CLAYTON INC.
SCHOOL HOURS OF OPERATION:	MON-FRI 6:30AM - 6:30PM
SITE ADDRESS:	2920 NC HWY 42 WEST
PARCEL PIN:	164800-31-3246, 164800-31-0164
EXISTING USE:	CHURCH (164800-31-3246) 5,414 AC VACANT (164800-31-0164) 5,424 AC
PROPOSED USE:	EDUCATIONAL, PARKING
TOTAL LOT ACREAGE:	10.83 AC (47154.8 SF)
PROPERTY LOCATED IN TOWN LIMITS:	NO
ZONING DISTRICT:	R-E
OVERLAY DISTRICT:	THOROUGHFARE OVERLAY DISTRICT AND SCenic HIGHWAY OVERLAY DISTRICT
STREET YARD WIDTH:	
LOT FRONTAGE, LESS DRIVEWAYS & POND X 4	438.33 LF
AVERAGE REQUIRED WIDTH	20LF
TOTAL AREA REQUIRED	8,766.6 SF
PHASE 1 CONSTRUCTION	
HEATED SF:	14,000 SF
FLOOR AREA RATIO:	0.310
BUILDING COVERAGE:	31.10%
MAXIMUM BUILDING HEIGHT:	26'-0" (SEE PLAN)
IMPERVIOUS AREA:	59,141 SF (11.36%)
UTILITIES	
WATER SYSTEM OWNER:	JOHNSTON COUNTY PUBLIC UTILITIES
SEWER SYSTEM OWNER:	JOHNSTON COUNTY PUBLIC UTILITIES
ELECTRICAL PROVIDER:	DUKE ENERGY
B-3 BUILDING SETBACKS REQUIRED:	
FRONT:	15'
SIDE INTERIOR:	15'
SIDE STREET:	25'
REAR:	30'



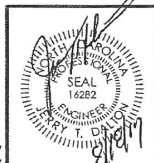
CALL BEFORE YOU DIG!
NORTH CAROLINA LAW REQUIRES NOTIFICATION OF THE UNDERGROUND FACILITY OWNER NOT LESS THAN TWO (2) BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO EXCAVATION OR DEMOLITION

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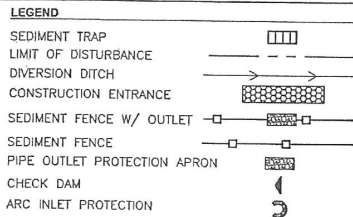
NOTES:
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A SIGN APPLICATION IS REQUIRED FOR ANY SIGNAGE ON SITE.

PRELIMINARY PLAN
FOR
HOLY CROSS LUTHERAN CHURCH
CLAYTON TOWNSHIP - JOHNSTON COUNTY, N.C.



Dalton Engineering and Associates, P. A.	
448 East Main Street P.O. Box 426 Clayton, NC 27520	
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REVISION 002: ADDRESS TOWN OF CLAYTON TRC REVIEW COMMENTS 9/18/17
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NOTES

EFFECTIVE EROSION CONTROL MEASURES SHALL BE INITIATED PRIOR TO THE COMMENCEMENT OF GRADING, EXCAVATION OR OTHER OPERATIONS THAT WILL DISTURB THE NATURAL PROTECTION. THE EROSION CONTROL DETAILS SHOWN HEREIN ARE FOR THE CONTRACTOR'S REFERENCE. THE DETERMINATION OF WHICH DETAIL IS APPLICABLE AS THE WORK PROGRESSES SHALL BE AS SHOWN ON THE PLANS OR MADE BY THE ENGINEER.

ALL DITCHES, CHANNELS, ETC. SHALL BE STABILIZED ACCORDING TO THE GROUND STABILIZATION SCHEDULE.

THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO AVOID THE SILTING OF ADJACENT STREAMS OR OTHER WATER COURSES DUE TO THE CONSTRUCTION OF THIS PROJECT.

THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES IN A GOOD WORKING STATE OF REPAIR UNTIL THEIR USE IS NO LONGER WARRANTED. ALL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT. PRIOR TO THE REMOVAL OF ANY DEVICE, THE CONTRACTOR SHALL CONTACT JOHNSTON COUNTY PUBLIC UTILITIES FOR AN INSPECTION.

THE CONTRACTOR IS REFERRED TO THE DETAILED SPECIFICATIONS FOR A DESCRIPTION OF ADDITIONAL EROSION CONTROL MEASURES TO BE APPLIED.

SILT FENCE AND/OR ALTERNATE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED BELOW DISTURBED AREAS AS NEEDED TO PREVENT SEDIMENT LOSSES.

NC PIN # 164800-31-3246, 164800-31-0164

DISTURBED AREA = 6.87 ACRES

CONSTRUCTION SEQUENCE

1. PRIOR TO THE START OF LAND DISTURBING ACTIVITIES, CONTACT CARLOS BAGLEY WITH JOHNSTON COUNTY PUBLIC UTILITIES AT (919) 209-8333.
2. INSTALL RAIN GAUGE ON SITE.
3. INSTALL THE CONSTRUCTION ENTRANCE PRIOR TO THE START OF CONSTRUCTION.
4. INSTALL SEDIMENT FENCE.
5. CLEAR THE AREAS NECESSARY TO INSTALL SEDIMENT TRAPS AND THE TEMPORARY DIVERSIONS.
6. TRAPS AND DIVERSIONS SHOULD BE SEEDED, MULCHED, AND ANCHORED IMMEDIATELY UPON CONSTRUCTION.
7. STRIP AND STOCKPILE TOPSOIL. INSTALL SEDIMENT FENCE AROUND THE LOWER HALF OF ALL STOCKPILED STRIPPINGS.
8. ROUGH GRADE THE ROADWAY AND INSTALL STORM DRAIN.
9. FINE GRADE AND PAVE THE STREET.
10. FERTILIZE, SEED, STRAW, AND TACK ROADSIDE SHOULDERS AND DITCHES.
11. INSTALL ROADSIDE DITCH LINING MATERIAL.
12. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EVERY SIGNIFICANT RAINFALL EVENT DURING THE CONSTRUCTION PROCESS.
13. DEVELOPER SHALL CONTACT ENGINEER FOR THE REMOVAL OF THE SEDIMENT TRAPS.

CHANNEL SCHEDULE											
Channel	Street	BOTTOM WIDTH (FT)	SIDE SLOPE (H:V)	CHANNEL GRADE (P)	ACTUAL CHANNEL LENGTH	FROM STATION	TO STATION	SIDE OF ROADWAY FROM C&G	PERMANENT LINING	TEMPORARY LINING	
A	SWALE A	2	3:1	0.72	80	0+00	0+80	0	Grass	S75	
A	SWALE A	2	3:1	1.16	377	0+80	4+57	0	Grass	S75	

Sediment Trap Calculations

Project:	HOLY CROSS LUTHERAN CHURCH	Design Yr:	1
Project #:	16021	Design Yr:	2
Calculated By:	RVM	Design Yr:	7.5
Date:	04/06/17	Design Yr:	

Trap #	DA (Ac)	Undisturbed Area (Ac)	Disturbed Area (Ac)	C	Intensity	CFS	Volume	Surface Area	Size (ft)	Actual	Actual Vol	Skimmer	Wt
1	2.90	2.90	0.00	0.50	7.5	10.88	3.220	4.731	3	31	171	5.501	15.993
													8"

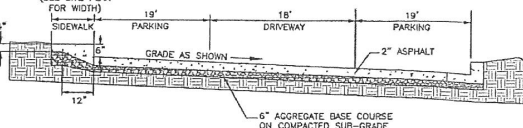
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SOME WATER, SANITARY SEWER, ELECTRIC, TELEPHONE AND CABLE SERVICES COULD EXIST ALONG THE CONSTRUCTION ROUTE THAT MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PROPER UTILITY IN ADVANCE TO LOCATE THESE SERVICES.

Line	Station	Inlet Area	Total Area	Runoff Coeff	Inlet C	Total C	Inlet Time	Time to Peak	Peak Flow	Total Flow	Adverse Flow	Total Flow	Peak Flow	Velocity	Length	Pipe Size	Pipe Slope	Inlet Elevation	Inlet Depth	HQ Elevation	HQ Depth	Grnd Elevation
CB-D-1	CB-D-1	0.17	0.17	0.83	0.14	0.14	5	5	7.4	1.04	0	1.04	11.77	3.51	103.924	15	3.32	329.65	306.3	310.05	306.53	314.87
CB-D-2	FES-D-1	0.18	0.18	0.79	0.13	0.27	5	7	6.7	1.21	0	1.21	9.29	3.03	76.073	15	2.39	306	304.18	316.93	304.72	312.02
CB-D-3	FES-B-1	0.19	0.19	0.87	0.17	0.17	5	5	7.4	1.22	0	1.22	16.58	3.19	64.401	15	6.59	312.4	308.14	312.96	308.59	316.91
CB-D-4	FES-C-1	0.08	0.08	0.82	0.07	0.07	5	5	7.4	0.48	0	0.48	13.82	2.48	76.153	15	4.58	311.09	309.2	313.96	308.47	317.31
DA-1	DA-1	0.09	0.09	0.8	0.08	0.08	5	5	7.4	0.6	0	0.6	4.56	2.13	122.927	15	0.5	316.43	315.8	316.73	316.23	319.8
DA-2	DA-2	0.16	0.16	0.82	0.13	0.13	5	5	7.4	0.97	0	0.97	2.54	2.88	53	12	0.51	312.02	316.75	317.44	317.29	322.5
DA-3	DA-3	0.13	0.13	0.85	0.11	0.24	5	5.7	7.1	1.73	0	1.73	2.5	3.39	36.646	12	0.49	316.05	316.47	317.36	317.1	323.5
DA-4	DA-4	0.01	0.01	0.9	0.01	0.25	5	6	7.1	1.77	0	1.77	4.58	3.09	113.246	15	0.5	316.37	315.8	316.91	316.31	320.81
DA-5	DA-5	0.01	0.01	0.9	0.01	0.34	5	9.2	6.2	2.11	0	2.11	3.78	3.17	128.469	15	0.34	315.4	314.96	316.07	315.63	318.19

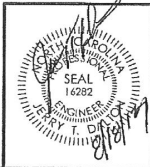


TYPICAL SECTION PARKING & ACCESS DRIVE

NOT TO SCALE

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GRADING AND SEDIMENT & EROSION CONTROL FOR HOLY CROSS LUTHERAN CHURCH CLAYTON TOWNSHIP - JOHNSTON COUNTY, N.C.

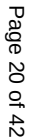


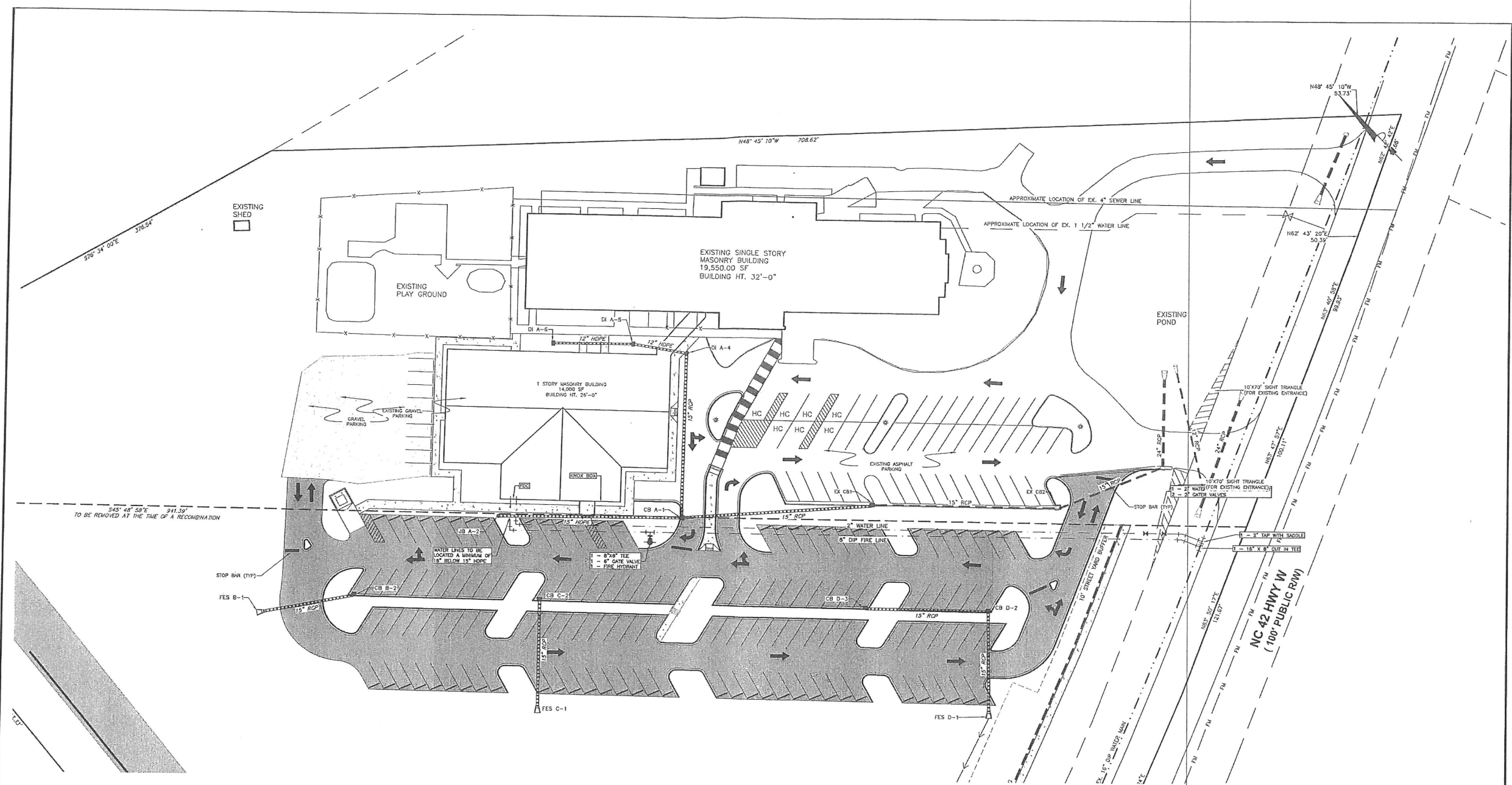
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Job: 16021 Date: 6/30/17 Revision: 002
File: 16021_Master Drawn: RVM Sheet: 4 OF 15





NOTES:

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UTILITY NOTE:

ADDITIONAL SEWAGE GENERATED BY THE PROJECT WILL BE DIVERTED TO EXISTING SEWER SYSTEM (SEPTIC TANK). FINAL DESIGN WILL BE SUBMITTED FOR THE UTILITY PLAN SUBMITTAL PHASE.

SCALE: 1" = 20'

**UTILITY PLAN
FOR
HOLY CROSS LUTHERAN CHURCH
CLAYTON TOWNSHIP - JOHNSTON COUNTY, N.C.**

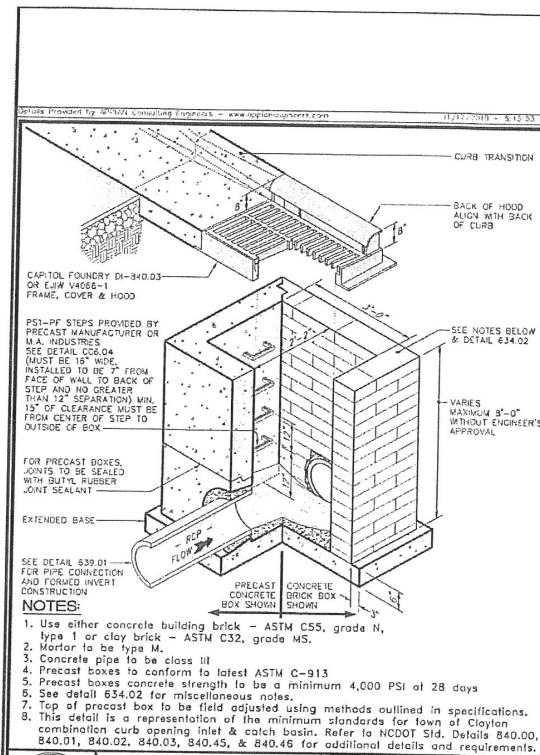
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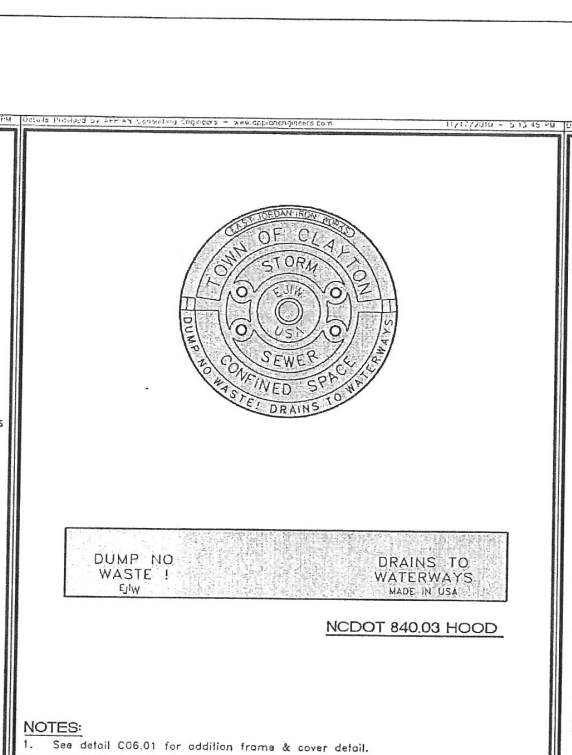
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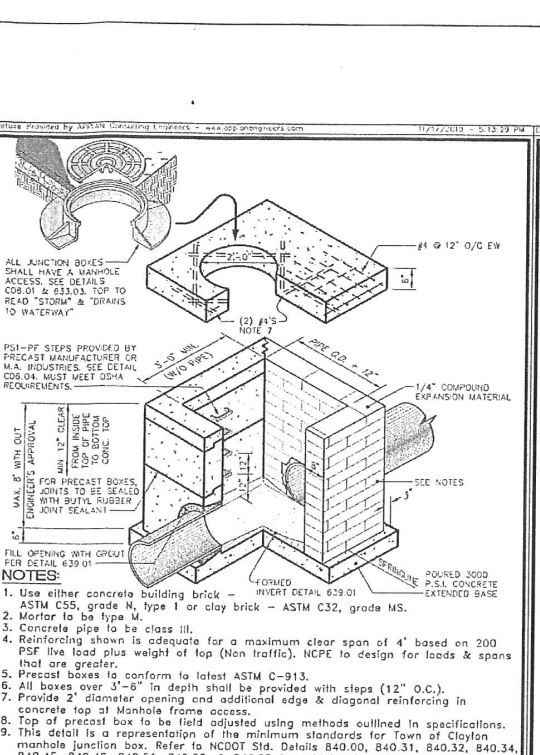
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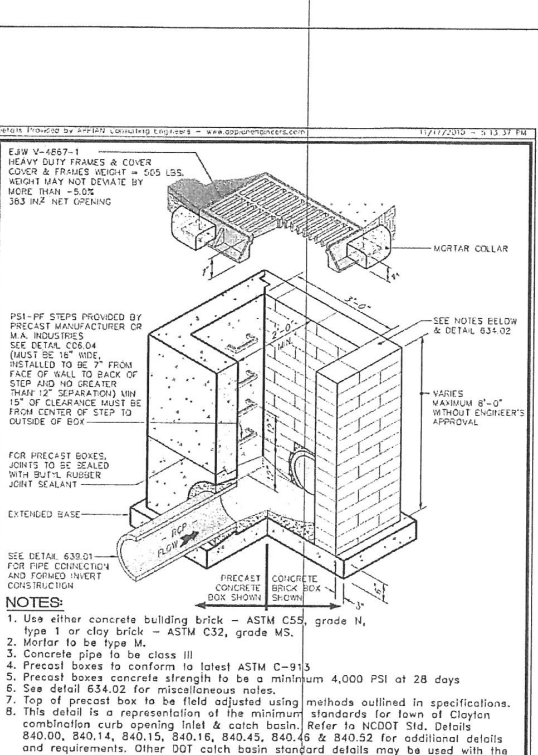
TOWN OF CLAYTON
TYPICAL CATCH BASIN AND CURB INLET WITH HOOD
 SCALE: Not To Scale
 SHEET: 1 OF 1
 REVISIONS: July 2010



TOWN OF CLAYTON
STANDARD STORM DRAINAGE COVERS
 SCALE: Not To Scale
 SHEET: 1 OF 1
 REVISIONS: July 2010



TOWN OF CLAYTON
TYPICAL JUNCTION BOX DETAIL
 SCALE: Not To Scale
 SHEET: 1 OF 1
 REVISIONS: July 2010

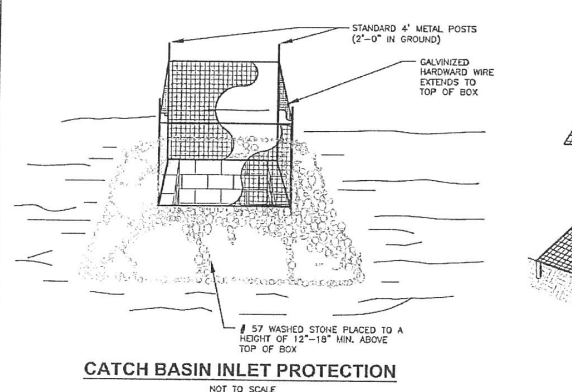


TOWN OF CLAYTON
TYPICAL DROP INLET DETAIL
 SCALE: Not To Scale
 SHEET: 1 OF 1
 REVISIONS: July 2010

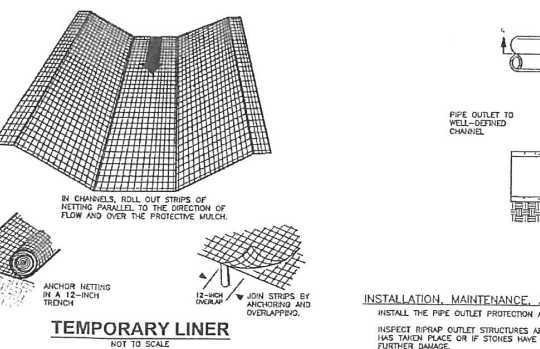
Drainage Structures Notes:
 Unless more stringent requirements are called for on referenced NCDOT standard details, the following shall apply:

1. Boxes may be reinforced masonry, masonry, precast concrete or cast-in-place reinforced concrete.
2. Any non-standard box (non-standard meaning not shown in this manual), is to be designed by a NC Professional Engineer and approved by the Town Engineer.
3. The maximum height of an unreinforced masonry drainage structure with 8" walls shall be limited to 8'-0" from invert of the outlet pipe to the top of the casting. Depths greater than 8'-0" shall have walls 12" thick. Basins over 12' in total depth shall be designed by a NC Professional Engineer and approved by the Town Engineer. Four inch walls are not allowed on drainage structures. Bottom slab on structures shall be reinforced when box depth exceeds 8 ft.
4. Steps are to be provided on all basins deeper than 36".
5. Steps are to be PS1-PF as manufactured by M. A. Industries or an approved equal. Locate on non-pipe walls. Steps shall meet OSHA requirements.
6. Mortar in masonry boxes is to be type M.
7. Clay brick structures are not allowed.
8. Concrete pipe is to be minimum class III.
9. Concrete building brick is to meet ASTM C-55, Grade N, Type 1 and must be NCDOT standard.
10. All cast-in-place or precast concrete drainage structures located in paved areas accessible to truck loadings to be designed to meet AASHTO HS 20-44 loading. See manufacturers details for wall, top and bottom thickness.
11. Inside of boxes shall allow for 6" of clearance on both sides of pipe. The dimension shown on the structures in this manual are minimum dimensions. For boxes with greater dimensions, either corbel walls, add a reinforced concrete top slab or lengthen box by adding additional grates & frames. Top and bottom slabs to be designed by NC Professional Engineer and approved by the Town Engineer for H20 loading.
12. Maximum horizontal span of an 8" thick wall shall not exceed 8' for boxes of 8 feet or less in depth and 10 feet for boxes 12 feet or less in depth.

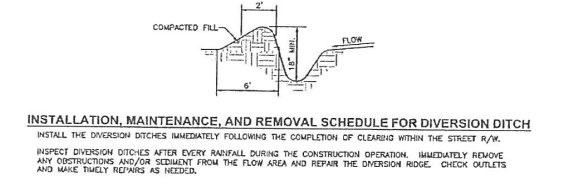
TOWN OF CLAYTON
DRAINAGE STRUCTURES NOTES
 SCALE: Not To Scale
 SHEET: 1 OF 1
 REVISIONS: July 2010



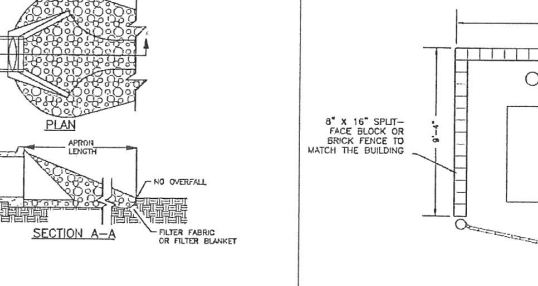
CATCH BASIN INLET PROTECTION
 NOT TO SCALE



INSTALLATION, MAINTENANCE, AND REMOVAL SCHEDULE FOR DIVERSION DITCH
 INSTALL THE DIVERSION DITCHES IMMEDIATELY FOLLOWING THE COMPLETION OF CLEARING WITHIN THE STREET R/W.
 INSPECT DIVERSION DITCHES AFTER EVERY RAINFALL DURING THE CONSTRUCTION OPERATION. IMMEDIATELY REMOVE ANY OBSTRUCTIONS AND/OR SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CHECK OUTLETS AND MAKE TRUCKY REPAIRS AS NEEDED.
 DIVERSION DITCHES, WHICH DURING THE ROUGH-GRADING PROCESS ARE CONVERTED INTO ROADSIDE DITCHES, ARE CONSIDERED PERMANENT STRUCTURES AND SHALL REMAIN FOLLOWING THE COMPLETION OF CONSTRUCTION.

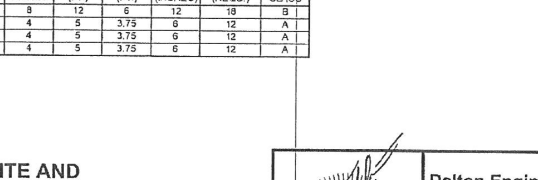


DIVERSION DITCH
 NOT TO SCALE

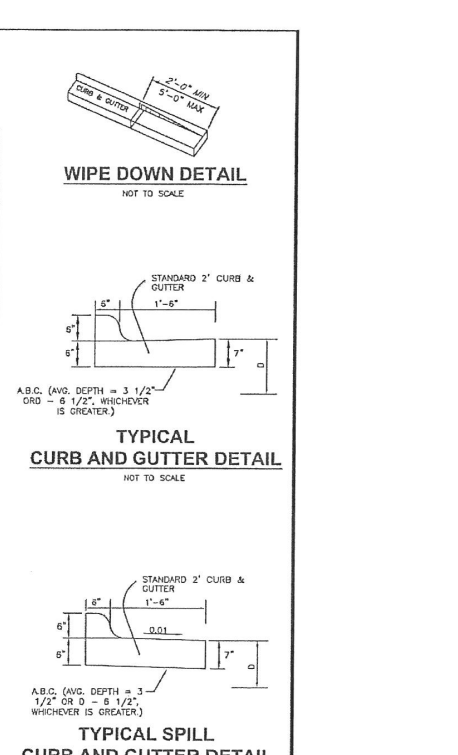


OUTLET PROTECTION SIZE CHART

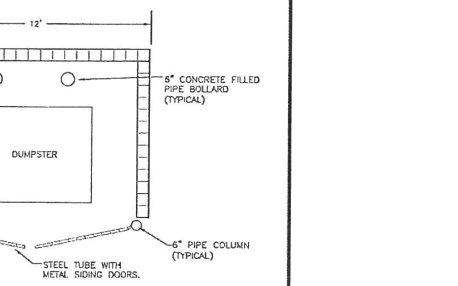
PIPE	PIPE DIA.	Q (CFS)	D50 (INCHES)	L ₁ (FT.)	W (FT.)	DMAX (INCHES)	APRON THICKNESS (REQD.)	STONE CLASS
PIPE B1	24	18.10	8	12	6	12	18	B
FES B-1	15	16.58	4	5	3.75	9	12	A
FES C-1	15	13.82	4	5	3.75	6	12	A
FES D-1	15	9.89	4	5	3.75	6	12	A



DUMPSTER ENCLOSURE DETAILS
 NOT TO SCALE



TYPICAL CURB AND GUTTER DETAIL
 NOT TO SCALE



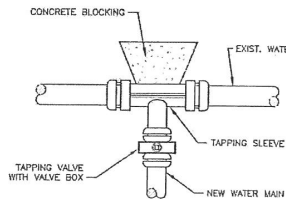
TYPICAL SPILL CURB AND GUTTER DETAIL
 NOT TO SCALE

SITE AND STORMWATER DETAILS FOR HOLY CROSS LUTHERAN CHURCH
 CLAYTON TOWNSHIP - JOHNSTON COUNTY, N.C.

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 File:16021_Master Drawn: RVM Sheet: 8 OF 15



NOTE: TAPPING SLEEVE SHALL BE FABRICATED OF TYPE 304 S.S. AND PROVIDE A 360° SEAL AROUND EXISTING PIPE WITH FULL CIRCUMFERENTIAL GASKET.

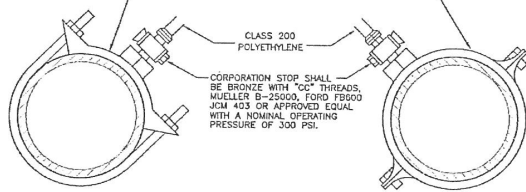
TAPPING SLEEVE & VALVE ASSEMBLY

NOT TO SCALE

NOTE: ALL TAPS 2" AND SMALLER SHALL BE MADE WITH TAPPING SADDLE. ALL TAPS LARGER THAN 2" SHALL BE MADE WITH TAPPING SLEEVE AND VALVE. NO DIRECT TAPS SHALL BE MADE.

TAPPING SADDLE SHALL BE BRASS OR BRONZE FOR "OC" THREADS, FORD S-70, MUELLER H-134, JCM 403 OR APPROVED EQUAL WITH A NOMINAL OPERATING PRESSURE OF 300 PSI.

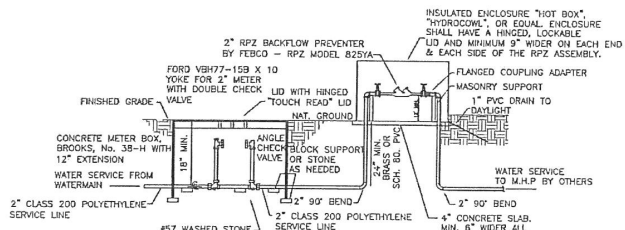
TAPPING SADDLE SHALL BE BRASS OR BRONZE FOR "OC" THREADS, FORD S-70, MUELLER H-134, JCM 403 OR APPROVED EQUAL WITH A NOMINAL OPERATING PRESSURE OF 300 PSI.



NOTE: ALL TAPS TO BE MADE ON TOP QUARTER OF MAIN.

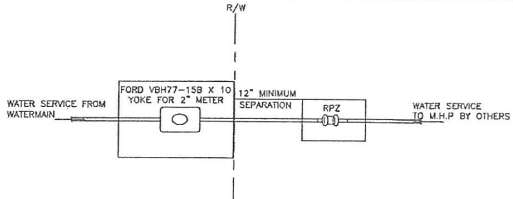
STANDARD WATER TAP DETAIL

NOT TO SCALE



SECTION

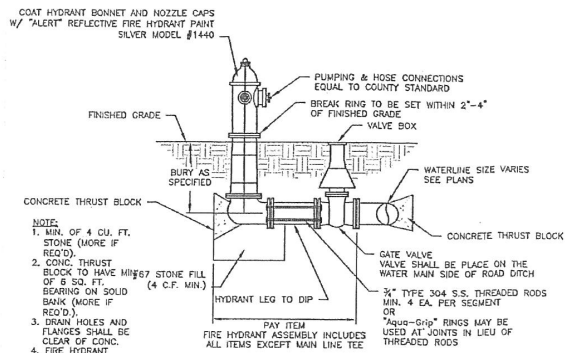
NOTE: 1) CONTRACTOR SHALL PLACE METER BOXES AS SHOWN ON SHEETS BY. 2) CONTRACTOR SHALL CENTER METER YOKE IN METER BOX.



PLAN

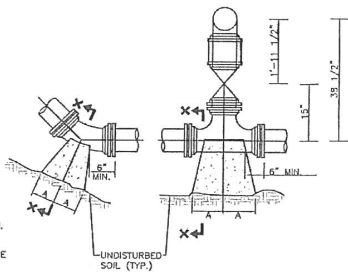
1-1/2" - 3" WATER SERVICE WITH RPZ BACK FLOW PREVENTER

NOT TO SCALE



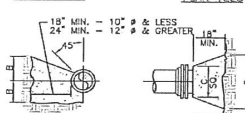
FIRE HYDRANT ASSEMBLY

NOT TO SCALE

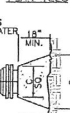


NOTES: 1. CONCRETE SHALL BE 3,000 PSI MIN. 2. CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY, THUS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL. 3. NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS. 4. ALL FITTING AND ACCESSORIES TO BE WRAPPED WITH 10 MIL. POLYETHYLENE PRIOR TO POURING BLOCKING. 5. VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.

PLAN BENDS



PLAN TEES

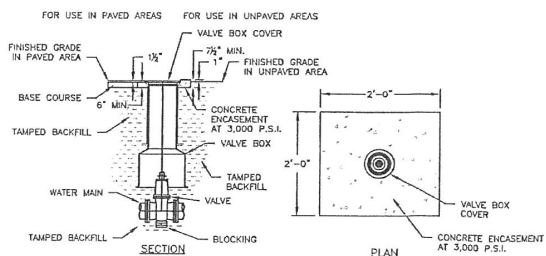


PLAN & ELEV. PLUGS

SIZE	12\"/>
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THRUST BLOCK DETAIL

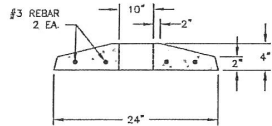
NOT TO SCALE



NOTES: 1. D.I.P. MAY BE USED FOR VALVE BOX EXTENSIONS. 2. VALVE BOX SHOULD NOT CONTACT WATER MAIN OR VALVE. 3. CONCRETE PROTECTOR RING MAY BE USED IN LIEU OF ENCASMENT IN UNPAVED AREAS.

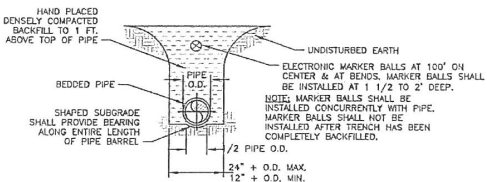
VALVE AND VALVE BOX INSTALLATION

NOT TO SCALE



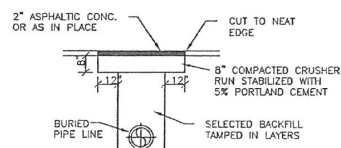
CONCRETE PROTECTOR RING

NOT TO SCALE

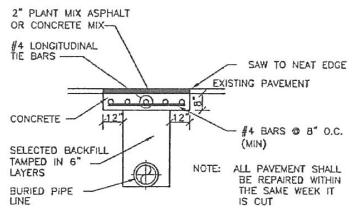


PIPE LAYING CONDITION

NOT TO SCALE



SECONDARY HIGHWAYS

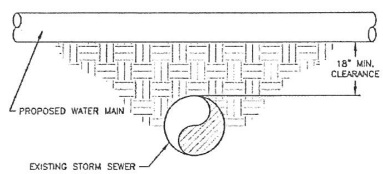


PRIMARY HIGHWAYS

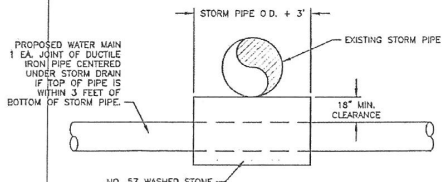
TRANSVERSE AND LONGITUDINAL CUTS

DETAILS FOR CUTTING AND REPLACING PAVEMENT

NOT TO SCALE

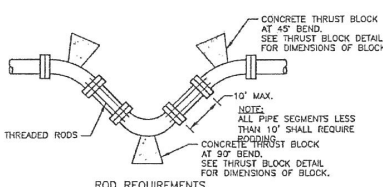


NOTE: WATER LINE SHALL BE DUCTILE IRON PIPE AT ALL AREAS WHERE MIN 12" CLEARANCE CANNOT BE MAINTAINED. INSTALL AT LEAST ONE JOINT CENTERED OVER STORM DRAIN.



STORM SEWER CROSSING DETAILS

NOT TO SCALE



ROD REQUIREMENTS

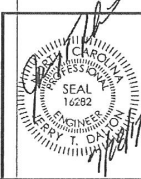
SIZE OF 45° BEND	STATIC THRUST IN POUNDS	NUMBER OF RODS REQUIRED
6"	4,328	2
8"	7,694	2
12"	17,312	2
16"	30,779	4
20"	48,091	6
24"	69,252	8

GENERAL NOTES

1. RODS AND NUTS SHALL BE OF TYPE 304 OR TYPE 316 STAINLESS STEEL. 2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.

VERTICAL BEND RODDING AND BLOCKING DETAIL

NOT TO SCALE



Dalton Engineering and Associates, P. A.

446 East Main Street
P.O. Box 426
Clayton, NC 27520

(919)550-4740
Fax (919) 550-4741

Job: 16021 Date: 6/30/17 Revision: 001
File: 16021_Master Drawn: RVM Sheet: 10 OF 15

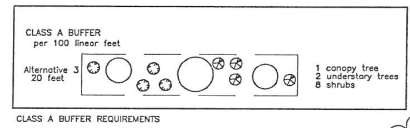
REVISION 001: ADDRESS TOWN OF CLAYTON TRC REVIEW COMMENTS 7/28/17

EXISTING PLANTS LEGEND	
○	Existing tree/shrub symbol
M	Maple/Hardwood Canopy Tree
O	Oak/Hardwood Canopy Tree
G	Gum/Hardwood Canopy Tree
EL	Elm/Hardwood Canopy Tree
CE	Red Cedar/Conifer Evergreen Tree
P	Pines/Conifer Evergreen Tree
GG	Green Giant Arborvitae/Evergreen Tree
CRY	Cryptomeria/Evergreen Tree
CM	Crape Myrtle/Hardwood Canopy Tree
LCM	Little Gem Magnolia/Evergreen Tree
RED	Redbud/Hardwood Understory Tree
NSH	Nellie Stevens Holly/Evergreen Understory Tree
JM	Japanese Maple/Hardwood Understory Tree
CH	Cherry/Hardwood Understory Tree
PL	Plum/Hardwood Understory Tree
S	Carolina Sycamore/Evergreen Tree
W	Wax Myrtle/Evergreen Screening Shrub
ABE	Abelia/Semi-evergreen Shrub
NAN	Nandina/Evergreen Shrub
DYH	Dwarf Yaupon/Evergreen Shrub
YUC	Yucca/Evergreen Succulent
AZ/SAS	Azalea, Sasanqua/Evergreen Shrubs
LEP	Loropetalum/Evergreen Shrub
DNA	Dwarf Nandina/Evergreen Shrub
VEB	Verbenia/Semi-evergreen Groundcover

SITE DATA SUMMARY

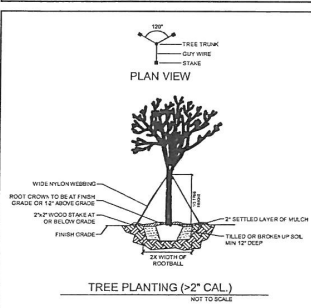
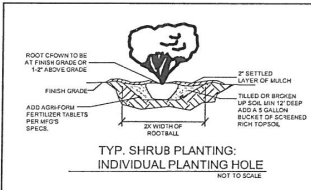
DEVELOPMENT NAME: HOLY CROSS LUTHERAN CHURCH OF CLAYTON NC
 SITE ADDRESS: 2920 NC HWY 42 WEST
 PARCEL PIN: 164800-31-3246, 164800-31-0164
 EXISTING USE: CHURCH (164800-31-3246) 5.41AC
 VACANT (164800-31-0164) 5.42AC
 PROPOSED USE: EDUCATIONAL, PARKING
 TOTAL LOT ACREAGE: 10.83 AC (47154.8 SF)
 PROPERTY LOCATED IN TOWN LIMITS: NC
 ZONING DISTRICT: R-E
 THOROUGHFARE OVERLAY DISTRICT AND SCenic HIGHWAY OVERLAY DISTRICT

STREET VADO WIDTH: 311.21 LF
 LOT FRONTAGE, LESS DRIVEWAYS: 20 LF
 AVERAGE REQUIRED WIDTH: 20 LF
 TOTAL AREA REQUIRED: 6,424.20 SF



- GENERAL PLANTING NOTES:**
- Mulch all new plant beds. Match existing bldg. mulch.
 - Warranty plantings for 1 year period following completion.
 - Prepare plant beds by removing grass, add 5" of 75% topsoil blend soil to beds, till and rake smooth. Remove large clods, roots, etc.
 - All landscaped areas shall be maintained in an attractive and healthy condition. Dead or diseased plantings shall be removed and replaced in a timely fashion.
 - Plant quantities shall be checked for accuracy by the Landscape Contractor prior to construction.
 - Match new lawn type with existing lawn type.

- LAWN PREPARATION AND SEEDING NOTES:**
- Before fertilizing and seeding, the topsoil surfaces shall be trimmed and worked to true line from unsightly variation, bumps, ridges and depressions and all detrimental material, roots and stones larger than 3-inches in any diameter shall be removed from the soil.
 - Not earlier than 24 hours before seed is to be sown, the soil surface to be seeded shall be thoroughly cultivated to a depth of not less than 4-inches with a weighted disc, tiller, pulvimer or other equipment, until the surface is smooth and in an acceptable condition.
 - If the prepared surface becomes eroded as a result of rain or for any other reason, or becomes crusted before the seed is sown, the surface shall again be placed in a condition suitable for seeding.
 - Ground preparation operations shall be performed only when the ground is in a tillable and workable condition.
 - All seeded areas shall be uniformly mulched in a continuous blanket immediately after seeding. The mulch shall be applied evenly so as to permit sunlight to penetrate and the air to circulate and at the same time shade the ground, reduce erosion and conserve soil moisture. Approximately 45 percent of the ground shall be visible through the mulch blanket.
 - The Contractor shall be responsible for maintaining the proper moisture content of the soil to insure adequate plant growth until a satisfactory stand is obtained. If necessary, watering shall be performed to maintain adequate water content in the soil.
 - Seeding rate: Elite Fescue seed, 5 lbs/1000sf, 10 lbs. (5-10-15) plus 3% iron fertilizer/1000sf, 45 lbs. limestone/1000sf.



CALL BEFORE YOU DIG!

NORTH CAROLINA LAW REQUIRES NOTIFICATION OF THE UNDERGROUND FACILITY OWNER NOT LESS THAN TWO (2) BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO EXCAVATION OR DEMOLITION

North Carolina One-Call Center, Inc.
 www.ncoc.org
 1-800-632-4949

LANDSCAPE SUMMARY

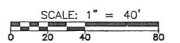
SITE DATA		CHURCH EDUCATIONAL BLDG/PARKING	
PROPOSED USE:		5.42 AC	236,095.20 SF
TOTAL LOT ACREAGE:		R E	
ZONING DISTRICT:			
LANDSCAPE DATA			
% OF SITE LANDSCAPED:			
% REQ. = 20%		47219.04 SF	
20% LANDSCAPED AREA:			
CANOPY TREE REQ. AND PROVIDED		47	
New trees planted		24	
Existing tree credit		23	
SHRUBS REQ. AND PROVIDED		94	
STREET TREES HWY 42			
Street frontage = 562 lf			
1 canopy tree/40 lf		14 canopy trees provided	
		New trees planted	8
		Existing tree credit	6
NOTE: Existing vegetation has been incorporated into the design of the development to the greatest extent possible			
BUFFER DATA			
Hwy 42 Street Type A 20 ft. Buffer		562 lf	
1 canopy trees req./100ft		6 canopy trees provided	
2 understory trees req./100ft		11 understory trees provided	
8 shrubs req./100ft		45 shrubs provided	
NO OTHER BUFFERS REQUIRED			
THOROUGHFARE DISTRICT OVERLAY (HWY. 70) 20' Depth, 11,240 sf			
1 canopy trees req./1000 sf		11 canopy trees req.	
		New trees added = 8	
		Exist. tree credit = 3	
5 shrubs req./1000 sf		55 shrubs req.	
		44 new shrubs provided	
		11 existing shrub credit	
NOTE: Existing vegetation has been incorporated into the design of the development to the greatest extent possible			

Planting Schedule

Code Name	Quantity	Common Name	Scientific Name	Planting Size
Ulp	10	Chinese Lacebark elm	Ulmus parvifolia, Lacebark Elm	2 1/2"-Cal, 8 ft. ht. min.
Colb	2	Upright Hornbeam	Carpinus betula 'Fastigiata'	2 1/2"-Cal, 8 ft. ht. min.
JED	4	Sawtooth Oak	Quercus acutissima	2 1/2"-Cal, 8 ft. ht. min.
Qumh	5	Shumard oak	Quercus shumardi	2 1/2"-Cal, 8 ft. ht. min.
Ouph	6	Willow oak	Quercus phellos	2 1/2"-Cal, 8 ft. ht. min.
Thu	7	Emerald Arborvitae, specimen	Thuja occidentalis 'Emerald'	6 ft. ht. min.
NSH	13	Nellie Stevens Holly	Ilex x 'Nellie Stevens'	6 ft. ht. min.
CMU	3	Red Crape Myrtle	Lagerstroemia 'Tuscarora'	8 ft. ht. min.
WCH	1	Weeping Cherry	Prunus subhirtella 'Pendula'	2"-Cal
RCM	2	Red Maple	Acer rubrum 'Autumn Glory'	2 1/2"-Cal, 8 ft. ht. min.
CAH	77	Carissa Holly	Ilex cornuta 'Carissa'	3-Gal, 15-18" spd. min.
IsaD	38	Dwarf Burford holly	Ilex cornuta, 'Burford Nano'	5-Gal, 30" ht. min.
DBH	18	Dwarf Burford holly	Ilex cornuta, 'Burford Nano'	3-Gal, 15-18" spd. min.
ISD	7	Dwarf Indian Hawthorn, white	Rhodaphysa indica 'Snow White'	3-Gal, 15-18" spd. min.
Osa	8	Fortune tea olive	Osmanthus fortunei	36-40" ht. min.
KRS	20	Knockout Rose, double red	Rosa 'Knockout'	3-Gal, 15-18" spd. min.
LRA	14	Little Richard Abelia	Abelia grandiflora, 'Little Richard'	3-Gal, 15-18" spd. min.
HYPS	5	Panicle hydrangea, Little Lime	Hydrangea paniculata 'Little Lime'	3-Gal, 15-18" spd. min.
RSP	8	Peach drift rose	Rosa 'Peach Blush'	3-Gal, 15-18" spd. min.
SKY	14	Sky Pencil Holly	Ilex crenata 'Sky Pencil'	5-Gal, 3-4 ft. ht.
DAY-S	53	Stella de Oro Daylily	Hemerocallis, 'Stella de Oro'	1-Gal
LEP	45	Purple Diamond Loropetalum	Loropetalum chinense, 'Purple Diamond'	3-Gal, 15-18" spd. min.

Clayton Narron, Landscape Architect
 312 South Fourth St., Smithfield, NC 27577
 Tele: 919-464-9329

6/21/17
 REV. 8/18/17



PRELIMINARY LANDSCAPE PLAN FOR HOLY CROSS LUTHERAN CHURCH
 CLAYTON TOWNSHIP - JOHNSTON COUNTY, N.C.

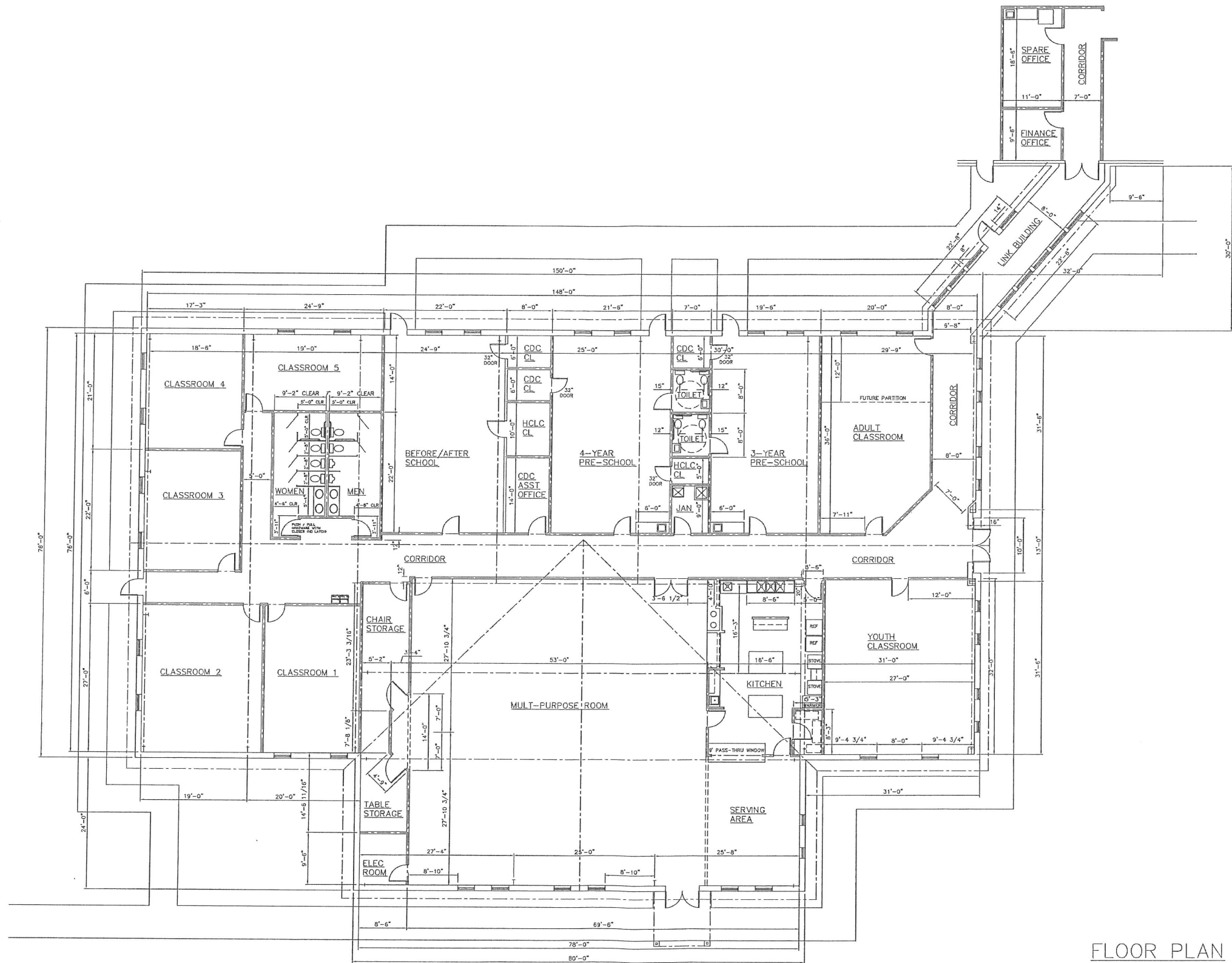
Dalton Engineering and Associates, P. A.

446 East Main Street
 P.O. Box 426
 Clayton, NC 27520

(919)550-4740
 Fax (919) 550-4741

Job: 16021 Date: 6/22/2017 Revision:
 File: 16021_LANDSCAPE Drawn: RVM Sheet: 11 OF 14

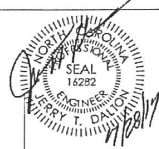
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FLOOR PLAN
SCALE: 1/8" = 1'-0"

FLOOR PLAN

BUILDING ADDITION FOR
HOLY CROSS LUTHERAN
CHURCH
2920 NC HWY 42
CLAYTON, NC 27520



**Dalton Engineering
and Associates, P. A.**
446 East Main Street
P.O. Box 426
Clayton, NC 27520
License No. C-1420
(919) 550-4740
Fax (919) 550-4741

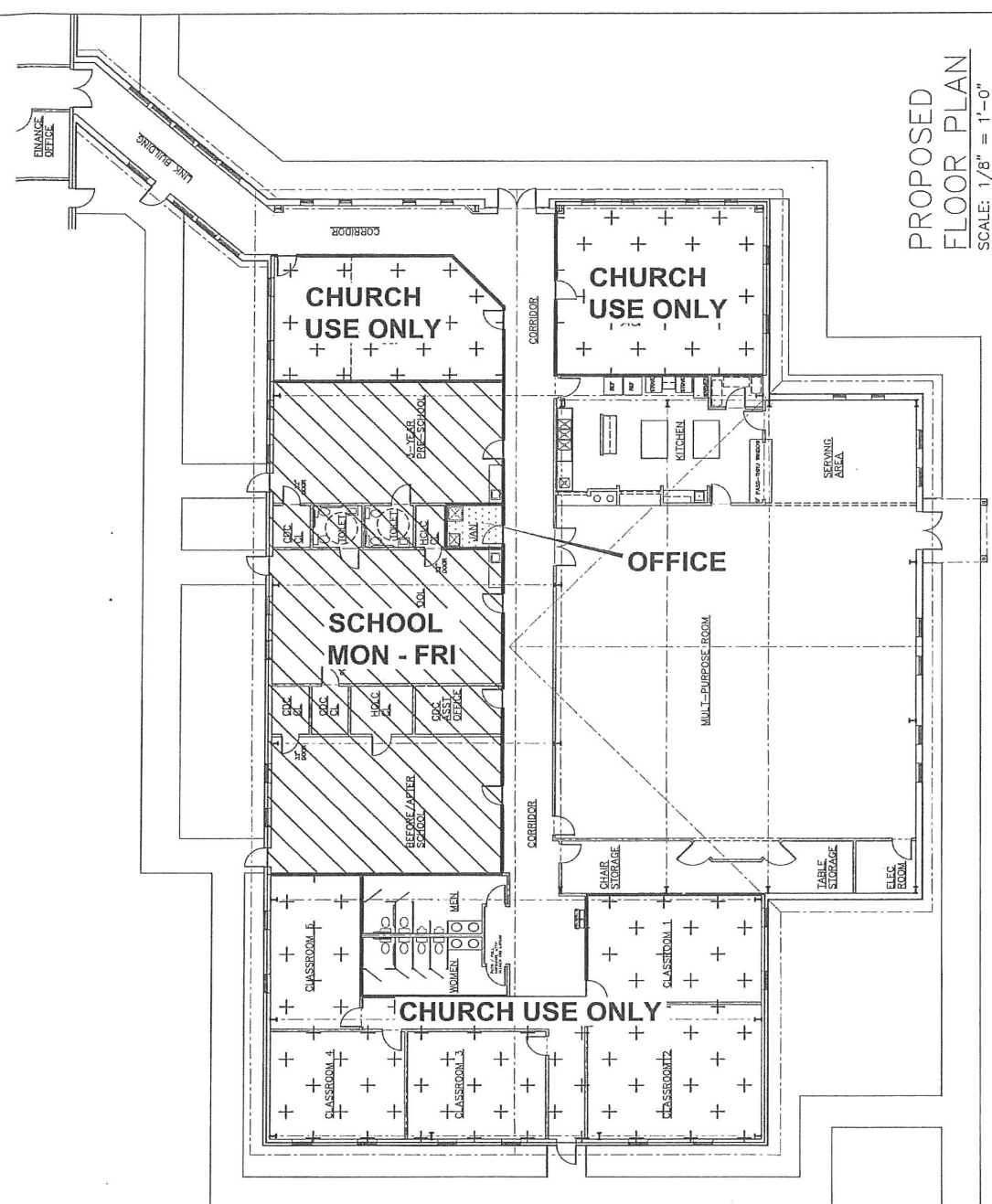
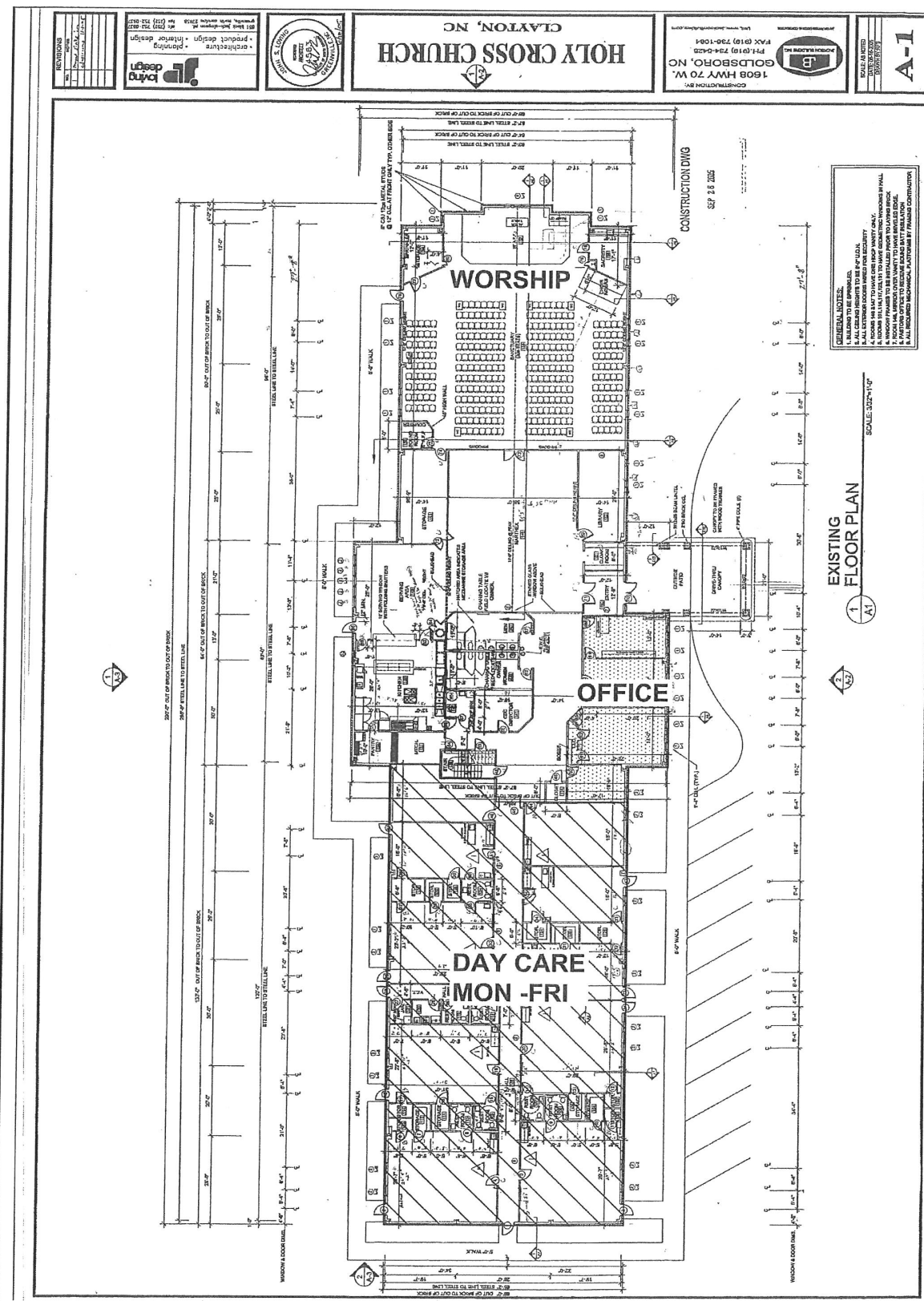
JULY 28, 2017

REVISIONS

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SHEET NO.

A-1

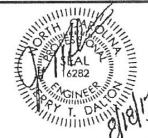


CHURCH USE		PRE-SCHOOL, DAYCARE & OFFICE	
CHURCH: 1 SPACE PER 3 SEATS	308 SEATS / 3 = 103 PARKING	EMPLOYEE: 1 SPACE PER 5 EMPLOYEES	30 EMPLOYEES / 5 = 6 PARKING
OR		SCHOOL: 1 SPACE FOR EVERY 50 STUDENTS	92 STUDENTS / 50 = 2 PARKING
1 SPACE PER 200 SQ.FT. FOR THE PRINCIPAL PLACE OF WORSHIP, WHICHEVER IS GREATER.	4,545 SF / 200 = 23 PARKING	DAYCARE: 1 SPACE PER 5 PERSON PLUS DROP OFF STALL	105 PERSONS / 5 = 21 PARKING PLUS 1 DROP OFF = 1 PARKING
		OFFICE: 1 SPACE PER 300 SF	1,800 SF / 300 SF = 6 SPACES
PARKING SPACES REQUIRED:	103 SPACES	PARKING SPACES REQUIRED:	38 SPACES
TOTAL PARKING SPACES PROVIDED: 100 SPACES			

	CURRENTLY	PROPOSED
PRE-SCHOOL AND DAY CARE EMPLOYEES	23	30
PRE-SCHOOL STUDENTS	32	32
BEFORE-AFTER SCHOOL	40	60
DAY CARE CHILDREN	75	105

BUILDING USAGE PLAN

BUILDING ADDITION FOR
HOLY CROSS LUTHERAN
CHURCH
2920 NC HWY 42
CLAYTON, NC 27520



**Dalton Engineering
and Associates, P. A.**
446 East Main Street
P.O. Box 426
Clayton, NC 27520
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(919) 550-4740
Fax (919) 550-4741

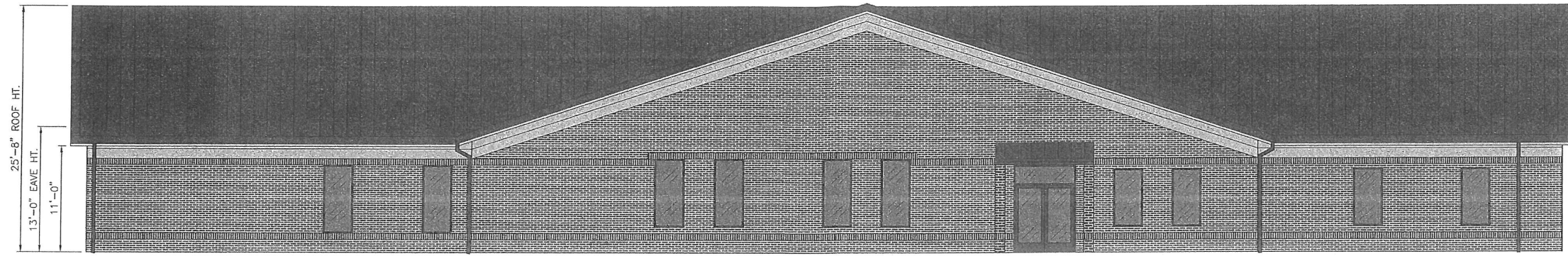
JULY 28, 2017

REVISIONS

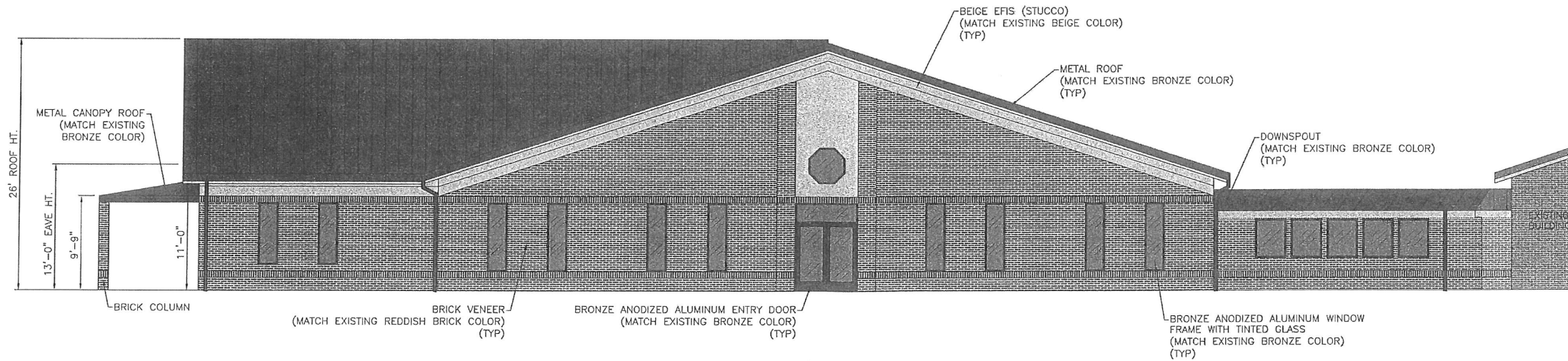
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SHEET NO.

A-1A



LEFT-SIDE ELEVATION

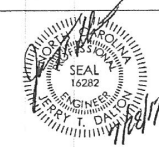


FRONT ELEVATION

BUILDING ELEVATIONS
SCALE: 3/16" = 1'-0"

BUILDING ELEVATIONS

**BUILDING ADDITION FOR
HOLY CROSS LUTHERAN
CHURCH**
2920 NC HWY 42
CLAYTON, NC 27520



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446 East Main Street
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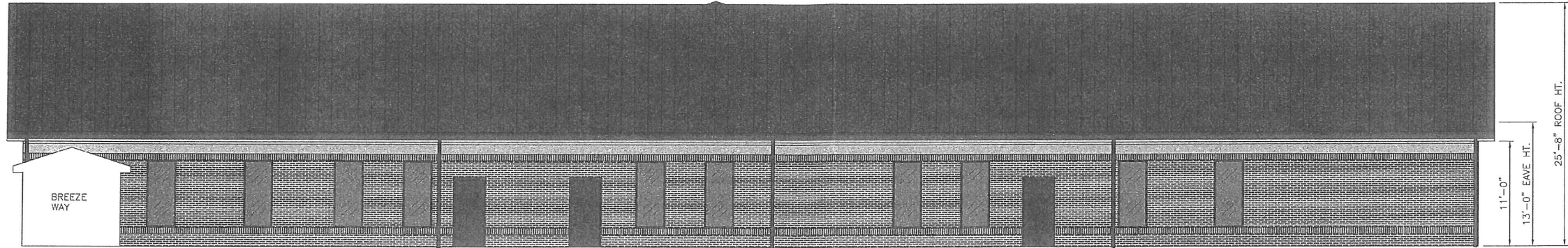
JULY 28, 2017

REVISIONS

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SHEET NO.

A-2



RIGHT-SIDE ELEVATION

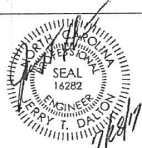


REAR ELEVATION

BUILDING ELEVATIONS
SCALE: 3/16" = 1'-0"

BUILDING ELEVATIONS

**BUILDING ADDITION FOR
HOLY CROSS LUTHERAN
CHURCH**
2920 NC HWY 42
CLAYTON, NC 27520



**Dalton Engineers
and Associates, P. A.**
446 East Main Street
P.O. Box 426
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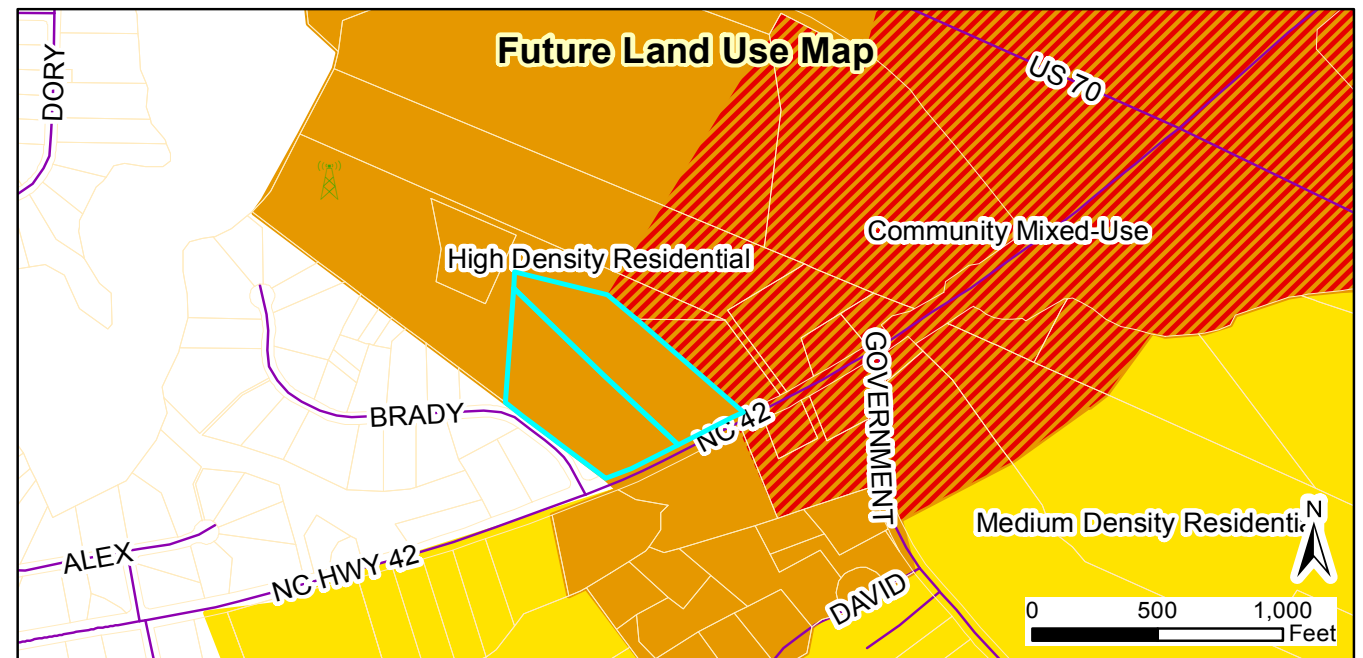
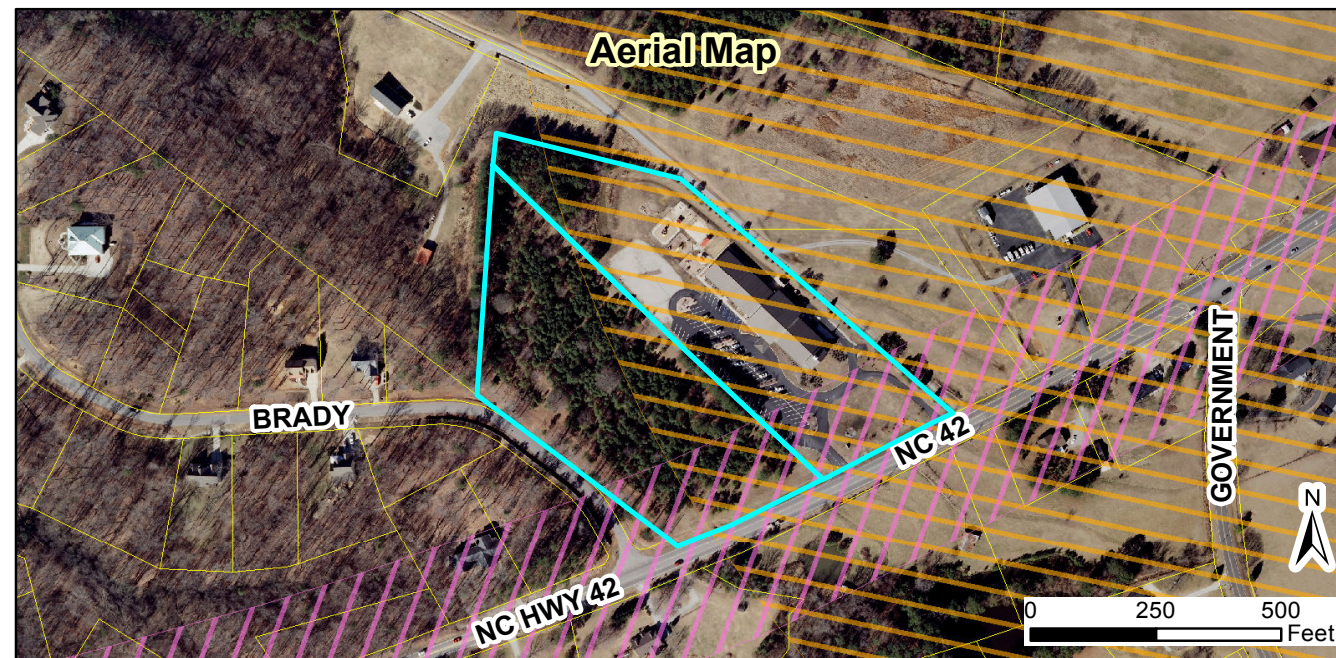
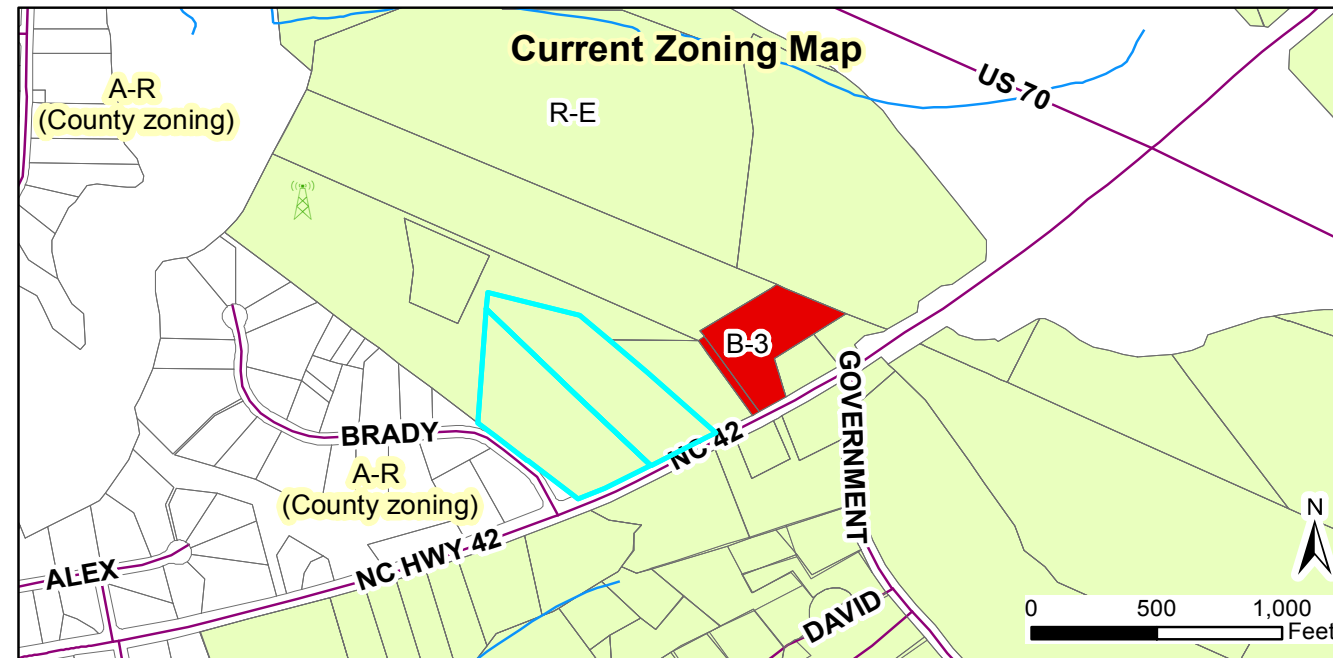
JULY 28, 2017

REVISIONS

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SHEET NO.

A-3



Request:
2017-110-SP, Holy Cross Lutheran Church school expansion.
2017-140-CUP, Holy Cross Lutheran Church school Conditional Use.

Applicant: Dalton Engineering and Associates
 Property Owners: Holy Cross Lutheran Church of Clayton, Inc.
 Parcel ID: 164800-31-3246 and 164800-31-0164
 Tag #: 05f02018 and 05f02018a

Staff Report Map



Document Path: O:\PLANNING\SITE PLANS\Major Site Plans\2017\2017-110-SP Holy Cross Lutheran Church expansion\Maps\Map - Holy Cross Lutheran expansion - 2017-110-SP.mxd

Legend

- 100-yr Flood Zone
- Thoroughfare Overlay
- Scenic Highway Overlay
- Watershed Protection Overlay
- Site

08/07/2017
 Produced by: TOC Planning
 Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.

NEIGHBORHOOD MEETING SUMMARY FORM

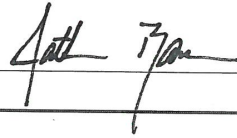
FILL OUT THE FOLLOWING:

Application: Holy Cross Lutheran Church

Date of Mailing: 7/17/17

I hereby attest that letters were mailed to the addresses listed on the Adjacent Property Owners List (attached) ten days prior to the Neighborhood Meeting:

Printed Name: Jonathan Barnes

Signature: 

Date of Meeting: 8/08/17

Time of Meeting: 6:30 p.m.

Location of Meeting: Dalton Engineering and Associates, P.A. 446 East Main Street Clayton, North Carolina

Meeting Summary/Minutes: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

There were a total of seven individuals that attended the Neighborhood Meeting for subject project. Topics that were asked about or discussed included the location of the proposed improvements (building, parking area, and stormwater management pond), the landscaping and buffering that would be required, and ingress and egress locations to the Church. I unfortunately made a mistake and did not have the current Landscape Plan available for viewing; a copy of a previous Landscape Plan was displayed at the Neighborhood Meeting which showed more clearing adjacent to the proposed improvements than what is currently being shown on the Site Plan. This has apparently caused some concern for some adjacent Land Owners. A copy of the revised Landscape Plan is included in the current Site Plan package.

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: Holy Cross Lutheran Church

Application: Major Site Plan Application

Location/Date: Dalton Engineering and Associates, P.A. - 446 East Main Street Clayton, NC / 08/08/17

	NAME	ADDRESS
1	Jonathan Barnes	446 East Main Street Clayton, NC
2	Eric Guevin	167 Brady Dr Clayton NC
3	Valerie Guevin	167 Brady Dr. Clayton
4	Leonard Pomrehn	105 Brady Dr. Clayton
5	Suzanne Pomrehn	105 Brady Dr. Clayton
6	Johnny Smith	2850 NC Hwy 42 W
7	Phil Starling	2900 NC 42 West
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Jonathan Barnes

From: Kenneth Wilson [alacrity8686@gmail.com]
Sent: Tuesday, August 22, 2017 11:38 AM
To: Jonathan Barnes
Cc: austinpondownersassociation@gmail.com
Subject: Holy Cross Lutheran Church - Major Site Plan concern
Attachments: 170822LutheranChurchConstruction.pdf

Mr Barnes,

Attached is my concern regarding the building addition for the Lutheran church. I look forward to visiting with you Monday night.

Regards,
Ken Wilson
910-297-0795

NEIGHBORHOOD MEETING SUMMARY FORM

FILL OUT THE FOLLOWING:

Application: Holy Cross Lutheran Church - Major Site Plan

Date of Mailing: 07/17/17

I hereby attest that letters were mailed to the addresses listed on the Adjacent Property Owners List (attached) ten days prior to the Neighborhood Meeting:

Printed Name: Jonathan Barnes Signature: _____

Date of Meeting: 08/08/17 Time of Meeting: 6:30 p.m.

Location of Meeting: Dalton Engineering and Associates, P.A. - 446 East Main Street Clayton, NC

Meeting Summary/Minutes: provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.

My concern is the confluence of the two drainage channels at 185 Brady Dr. Several times of the past few years, this area and immediately below have reached capacity. What will be done to improve flow with the addition of runoff? Can the drainage be rerouted to the channel along SR42?

Ken Wilson

185 Brady Dr

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

Jonathan Barnes

From: Charles Williams [chw47353@gmail.com]
Sent: Wednesday, August 23, 2017 10:04 AM
To: Jay McLeod
Cc: David DeYoung; Haley Hogg; Leonard Pomrehn; George Jusaite; Jonathan Barnes
Subject: RE: Holy Cross Church development

Mr. McLeod,

Thank you very much. This is good news – indeed, removing all the trees didn't seem to have a plausible purpose.

Where is the Planning Board meeting on August 28th?

Thank you,

Charles Williams

Sent from Mail for Windows 10

From: Jay McLeod
Sent: Wednesday, August 23, 2017 9:54 AM
To: Charles Williams
Cc: David DeYoung; Haley Hogg; Leonard Pomrehn; George Jusaite; Jonathan Barnes (jbarnes@daltonengineering.com)
Subject: RE: Holy Cross Church development

Mr. Williams,

Please find attached the most current site plan that has been submitted to the Planning Dept. for the Holy Cross Lutheran Church school expansion. It does show (on page 10, Landscaping Sheet) that the majority of the woodlands will remain. It is my understanding that the drawing shared at the neighborhood meeting, where the entirety of the woods were shown as converted to "Lawn", was a mistake, and that clearcutting is not intended. Per the plans, tree clearing and grading would be required on the areas planned for the parking lot, school building, and the expanded stormwater pond.

Johnston County Environmental Health Dept. reviews and approves sedimentation, erosion control, and stormwater permits on behalf of the Town of Clayton. They are responsible for ensuring that work proceeds in accordance with applicable regulations, and that applicable performance criteria are met (for instance, with regard to post-development stormwater runoff).

I do not think these plans will answer all of your questions, but I hope they answer some. I encourage you to continue your conversation with the engineering firm, and also to attend the Planning Board meeting on August 28th to express your concerns. There will also be an associated Conditional Use Permit heard at the September 20th Board of Adjustment meeting. Both are public meetings, and open to anyone to attend.

Thanks,
Jay McLeod, AICP
Senior Planner

TOWN OF CLAYTON
111 East Second Street | PO Box 879 | Clayton NC 27528
Direct (919) 359-9335 | Office (919) 553-5002
jwmcleod@townofclaytonnc.org

From: Charles Williams [mailto:chw47353@gmail.com]
Sent: Wednesday, August 23, 2017 8:47 AM
To: Jonathan Barnes (jbarnes@daltonengineering.com) <jbarnes@daltonengineering.com>
Cc: David DeYoung <DDeYoung@townofclaytonnc.org>; Jay McLeod <jwmcleod@townofclaytonnc.org>; Haley Hogg <hhogg@townofclaytonnc.org>; Leonard Pomrehn <austinpondownersassociation@gmail.com>; George Jusaites <gjusaites@aol.com>
Subject: Holy Cross Church development

Jonathan Barnes

Dalton Engineering & Associates

446 E Main St, Clayton, NC 27520

Dear Mr. Barnes,

Thank you for the opportunity to comment on the proposed clear-cutting and property development at Holy Cross Lutheran church. One of the homeowners whom you invited to a meeting at your offices has shared the materials you provided with his neighbors and with the larger Austin Pond community. As a resident of Brady Drive, with property adjoining Austin Pond, and a member of the Austin Pond Owners Association Board, I wish to share with you my concerns that the development as planned may have significant deleterious effects on both our properties on Brady Drive and on Austin Pond, which is not only a recreational facility for all its neighbors but also an endangered species habitat.

I certainly support the erection of a school for the furtherance of the mission of Holy Cross Lutheran church. I wish to express the hope, however, that the development can be done without forcing all of its potential negative effects on the Church's immediate neighbors and on Austin Pond.

The entire Holy Cross property, as well as land for a fair distance to the north of it, slopes in the direction of Brady Drive and ultimately Austin Pond. At present, the stand of trees on the 5.7 acres that will be clear-cut acts as a buffer for runoff from that land. After all the trees are removed, there may be 15-20 acres of property, driveways, parking lots and, for a time, construction sites for the school and parking lot, that will drain directly down Brady Drive into the pond. Indeed, your plan is to facilitate that by placing a pipe that will direct all the runoff off the church property and onto that of its neighbors.

Obviously, a number of questions arise:

- Have you estimated the volume of water that will flow off this newly opened drainage onto Brady Drive in a major storm? Will your pipe and the Brady Drive culverts have sufficient capacity? I can well imagine that with rain of the volume we recently experienced in Hurricane Matthew, or even recent

thunderstorms, that they could well be overwhelmed. Have you calculated the possibility of erosion of the culverts and the piping under Brady Drive, or the effect of water flowing across Brady Drive? It seems likely the culverts were planned for the Bluffs of Austin Pond, and not for an additional large acreage to the north.

- I have certainly not trespassed onto Church property to walk the proposed path of the retention pond, but from Brady Drive it appears as if it may slope in our direction. Will this excavation then actually retain significant amount of runoff, or will it serve as a culvert to drive it in the direction of your pipe and Brady Drive?
- Will the stretch of trees immediately adjacent to Brady Drive where it parallels the property line drain into the proposed retention system, or drain directly across Brady Drive?
- If the retention pond does capture all runoff from the entire site, will there be adequate filtration to prevent additional loads of sediment from being carried into the Pond?
- Beyond the question of whether there is actual retention, and whether or not there is adequate carrying capacity, have you adequately accounted for the contamination of the runoff from such a large area:
 - mud and sediment from the clearcutting operation itself and the construction of the new school and parking lot;
 - water from the two parking lots that will include automotive pollutants, and potentially airborne pollutants (especially when NC 42 is widened, and Highway 70 immediately north becomes Interstate 42, there is likely to be increased automotive exhaust and diesel particulate deposition, not to mention whatever pollutants result from the likely increased development at the intersection.
 - the proposed lawn, and existing lawn that drains in the same direction, will possibly be fertilized and/or treated with insecticide, which will then run off into the Pond.

Since all the runoff is intended to leave the Clayton ETJ and flow into the planning jurisdiction of Johnston County, I would like to know if all relevant jurisdictions have been provided the opportunity to review the planned development and its potential impacts. I confess I don't know the respective jurisdictions and how they may be coordinated between the Clayton ETJ and other authorities:

- Will Johnston County have the opportunity to review the impacts of the development on the Bluffs of Austin Pond and the Pond itself?
- Will Johnston County or North Carolina authorities review these plans for their impact on the endangered dwarf wedge mussel habitat of Whitewater Creek, Austin Pond and downstream?
- Brady Drive is a state-maintained road. Has the NC DOT been consulted as to use of their right-of-way easements and the impacts on the drainage and structural integrity of Brady Drive?
- The Forest Practice Guidelines Related to Water Quality call for a buffer zone of trees – a streamside management zone (SMZ) -- for wooded areas adjacent to a stream that are being cut. This 5.7 acres of trees isn't immediately adjacent to Whiteoak Creek, but it is immediately adjacent to channels that flow directly into its Austin Pond impoundment. Will the Forest Practice Guidelines be applied, and if so by whom?

- Pursuant to the NC Sedimentation Pollution Control Act of 1973, will an erosion and sedimentation control plan be filed, and if so by whom will it be reviewed?

Again, my concern is not with the planned construction of a school. I wholly applaud that. My concern is with the clearcutting and its impacts on Holy Cross's neighbors and the environment. I think we all on Brady Drive and in the Austin Pond community would like to be assured that measures are being taken to mitigate all these impacts. I'm not a civil engineer, but I would be pleased by seeing things like:

- Assurances that there is adequate capacity in the storm-water retention system to prevent overflow or erosion of the drainage system of Brady Drive
- Filtration and/or other measures to prevent siltation and pollutants from the lawns and parking lots from flowing into Austin Pond
- Potentially, a strip of trees retained to the immediate north of Brady Drive, along the edge of the Holy Cross property. This could serve as a buffer to mitigate the flow of water and contaminants across Brady Drive. It could also have the added benefit of mitigating noise and light pollution on properties along the north of Brady Drive, when the planned expansion/upgrading of both Highways 42 and 70 bring with them the inevitable gas station, service, convenience and other development that will occur at the intersection.

Thank you for your time and attention to these concerns. I look forward to seeing you at the public hearing on August 28th.

Best Regards,

Charles Williams
353 Brady Drive
Clayton, NC

**TOWN OF CLAYTON
PLANNING BOARD WRITTEN DECISION
MAJOR SITE PLAN:**

**Holy Cross Lutheran Church
2017-110-SP**

On August 28, 2017 the Planning Board heard the above-referenced request and made the following ~~vote~~^{vote}: ~~recommendation~~:

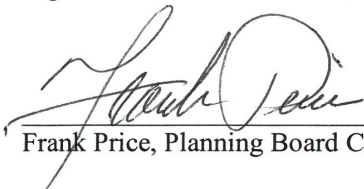
- ☐ Approve the request;
- ☒ Approve the request with conditions; *per staff report.*
- ☐ Approve the request with the following additional and/or modified conditions:

- ☐ Deny the request.

Additional notes (if applicable):

Decision(s) made while in regular session.

Signed:



Frank Price, Planning Board Chair



Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

August 29, 2017

Dalton Engineering & Assoc.
c/o Jerry Dalton
PO Box 426
Clayton, NC 27528
Email: jdalton@daltonengineering.com

Re: 2017-110-SP, Holy Cross Lutheran Church, school expansion - Major Site Plan

Parcel ID Number: 167800-29-8988

Address: 2920 NC Hwy 42 W

TAG: 05f02018 and 05f02018a

Dear Mr. Dalton,

At their regular meeting on August 28, 2017, the Clayton Planning Board approved the above referenced major site plan subject to the following conditions of approval:

1. The development of the site is limited to the site design and uses approved by the Planning Board. Modifications to the approved site plan shall require review and approval in accordance with § 155.707 of the Unified Development Code.
2. The development of the site is limited to the uses and conditions of an associated Conditional Use Permit (2017-140-CUP). Modifications to the approved Conditional Use Permit shall require review and approval in accordance with §155.710 of the Unified Development Code.
3. Following Board approvals, three copies of the Final Site Plan, Landscape Plan, and Architectural Elevations meeting the requirements of the Conditions of Approval shall be submitted to Planning Department for final approval. The following items shall be recorded on the plans before they receive final approval from the Planning Department:
 - a. Any Conditions of Approval for either the Site Plan (2017-110-SP) or Conditional Use Permit (2017-140-CUP) shall be recorded on either the site plan sheet or cover page.
 - b. Bicycle racks shall be required per the UDC, and shall be shown on the plans.
 - c. Parking calculations in the Site Data Table shall be updated to reflect the calculations in this staff report. Because the school will not be bussing students, the calculations in this staff report are more reflective of what will likely occur, similar to drop-off and pick-up patterns of a commercial daycare.

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- d. Dumpster, trash, and/or recycling areas shall be shown on the plans and screened appropriately, per §155.402(G)(2). Any screening walls or fences surrounding such areas shall match the materials of the primary building.
 - e. The appropriate landscaping buffers (Thoroughfare Overlay District, Class A street yard buffer) shall be extended across the entire NC Hwy 42 W frontage (both parcels).
 - f. A Class B landscaping buffer shall be shown along all property lines adjacent to R-E or A-R zoning districts (rural agricultural or large-lot, rural residential zoning).
4. A Conditional Use Permit shall be required prior to this site plan being valid or “approved”, and prior to any grading, site clearing, or issuance of building permits.
 5. All roof mounted and ground mechanic equipment must be completely screened from view.
 6. A Zoning Compliance Permit shall be required prior to issuance of any building permits.
 7. If required, utility construction plans shall be approved by the Public Works Department prior to issuance of building permits.
 8. All signage shall require a sign permit from the Planning Department and shall meet standards of the Unified Development Code.
 9. A site/landscape inspection by the Planning Department shall be required prior to issuance of a certificate of occupancy. All site improvements shall be installed prior to the site inspection.

Since this application is also subject to the approval of an associated Conditional Use Permit (2017-140-CUP), the final approval of these plans will be contingent upon the outcome of that application. Until that application is concluded, please hold off on delivering a final set of plans for stamping. Ultimately, if both applications are approved, the plans will need to have both sets of conditions of approval recorded on them.

Thank you for your cooperation in the review and approval process for this project. If you should have any questions regarding this matter please feel free to contact the Planning Department.

Sincerely,


Jay McLeod, AICP
Senior Planner

Cc:

- File folder: 2017-110-SP