

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

OPERATIONS PERMIT

PERMIT # WRP-008375-2018

APPLICATION DATE: 10/25/2018

BLDG. PERMIT#: RBPR-006598-2018

PIN: 0771952601

RECORDED: Yes

TOWNSHIP: 18 - Swift Creek

JURISDICTION: Wake County

ZONING: R-40W

APPLICANT: Karla Carder
1426 Wall RD

BUSINESS PHONE: (919) 569-2535

HOME PHONE:

MOBILE PHONE: (240) 299-7665

HD USE: 101A CONVENTIONAL ONE-FAMILY HOUSE

EXISTING USE:

SITE ADDRESS: 2133 GARDENBROOK DR

SUBDIVISION: SANCTUARY @ YATES MILL PH 1

LOT: 36

ACRES: 0.69

DIRECTIONS: From Raleigh

Turn right to merge onto I-40 W toward I-440 N

Take exit 295 for Gorman St

Turn left onto Gorman St (signs for Tryon Rd)

Turn right onto Tryon Rd

Turn left onto Yates Mill Pond Rd

Continue on Theys Rd. Drive

Turn Right onto Pine Drive

Turn Right onto Gardenbrook Drive

Systems defined as either type III-b, III-g with a pump, IV, V or VI, in accordance with the North Carolina administrative code 15A NCAC 18a .1961, table V as adopted by reference in the "Regulations Governing Wastewater Treatment Dispersal Systems in Wake County", requires Wake County Environmental Services to conduct periodic inspections of the system type pursuant to 15A NCAC 18a. 1961 (j). Fees for these inspections will be charged as per the approved Fee Schedule. In addition, all systems are to be operated and maintained as specified in 15A NCAC 18A .1961. This permit is based in part on information provided by the homeowner and/or his/her representative in the application submitted for this permit. The Environmental Health Specialist is not responsible for false or misleading information contained in the application. The environmental health specialist is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him/her in the application. Neither Wake County nor the Environmental Health Specialist warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

OPERATION PERMIT VALID FOR: No Expiration

INSTALLED BY: BRANTLEY, CORY - 1036 - IV

PROPRIETARY SYSTEM: EZ1203HG - EZFlow EZ 1203H Geo **PRETREATMENT SYSTEM:**

SYSTEM TYPE INSTALLED: III B

OPERATION PERMIT: STATUS: Issued

ISSUED BY: Alexander Merrell

ISSUED DATE: 12/12/2019

SEPTIC TANK: David Brantley & Sons - STB-323 - 1250 gallons **DATE OF MANUFACTURE:** 09/18/2019 **FILTER:** GAG SIM/TECH - STF-110

GREASE TRAP:

DATE OF MANUFACTURE:

FILTER:

DOSING PUMP TANK: Brantley - PT-2124 - 1312

DATE OF MANUFACTURE: 06/02/2019

FILTER:

gal - 21.5 gal/in

CC1: 999,805

ETM1: 0

CC2:

ETM2:

RECIRCULATION TANK:

DATE OF MANUFACTURE:

CC1:

ETM1:

CC2:

ETM2:

SEPTIC TANK ELEVATION: 14.50

GREASE TRAP ELEVATION:

DOSING PUMP TANK ELEVATION: 14.98

RECIRCULATION TANK ELEVATION:

DISTRIBUTION DEVICE ELEVATION: 2

INSTALLED TRENCH DEPTH	INSTALLED AGGREGATE DEPTH	INSTALLED TRENCH LENGTH	INSTALLED TRENCH BOTTOM ELEVATION
24	12	75	8.08333
24	12	80	7.375
24	12	80	6.58333
24	12	80	6.41667
24	12	65	5.66667

ACTUAL PRESSURE HEAD: 2

ACTUAL FLOW RATE: 33

ACTUAL DOSE VOLUME: 194

SPECIFIC OPERATION REQUIREMENTS:

-4 bedroom, 480 GPD system

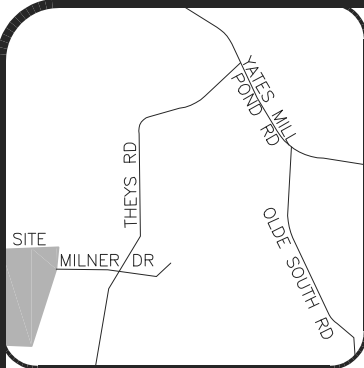
-Initial system is Pump to Pressure Manifold to 5 accepted status trenches

-Repair system is pump to pressure manifold

ISSUED BY:



DATE: 12/12/2019



VICINITY MAP (NTS)

LEGEND

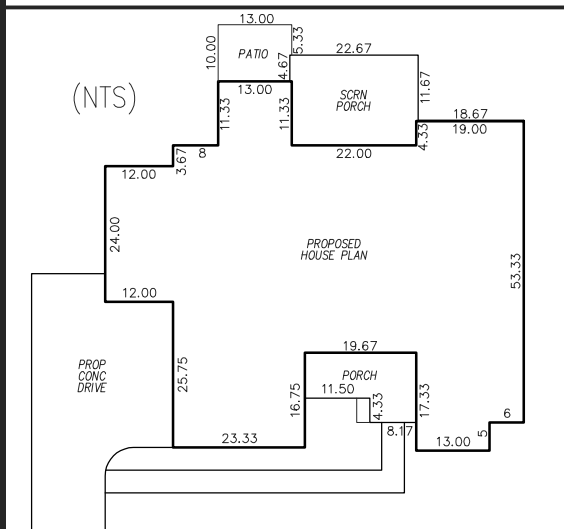
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SHAWN T. RUMBERGER, PLS L-4909 DATE

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PLAT NORTH
 B.M. 2018, PG. 1579-1582



IMPERVIOUS AREA

HOUSE 4,031 SQ.FT.
 DRIVE 1,634 SQ.FT.
 WALK 245 SQ.FT.
 PATIO 129 SQ.FT.

TOTAL 6,039 SQ.FT.
 MAX. ALLOW 9,000 SQ.FT.

SETBACKS

FRONT 20'
 SIDE 10'
 REAR 15'
 SIDE STREET 20'

GRAPHIC SCALE



1 inch = 50 ft.

GARDENBROOK DRIVE
 50' PUBLIC R/W

PRELIMINARY
PLOT PLAN

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C2	N 14°11'44" E	25.56'	255.00'	25.57'

REVISION: FLIPPED HOUSE TO LEFT HAND GARAGE AND MOVED HOUSE BACK TO SIT 70' FROM THE FRONT PROPERTY LINE PER REQUEST 08-20-18 CKR

PROJECT:
 18-001 SANCTUARY @ YATES MILL
 DRAWN BY:
 CKR
 SCALE:
 1"=50'
 DATE:
 07-23-18

FOR
 IMPERIAL HOMES
 2133 GARDENBROOK DRIVE
 LOT 36 SANCTUARY @ YATES MILL SUBDIVISION
 SWIFT CREEK TWP., WAKE CO., NC
 B.M. 2018, PG. 1579-1582



ECLS
 GLOBAL
 U.S. VETERAN-OWNED
 19 N MCKINLEY ST
 COATS, NC 27521
 910.897.3257 ECLSGLOBAL.COM
 910.897.2329 (FAX) CO#C-4175

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CONSTRUCTION AUTHORIZATION PERMIT

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Contractors shall install system on contour. See attached SITE PLAN for wastewater system design and well location. No underground utilities, water lines or sprinklers systems may be located in the original system, or permit areas. A septic tank filter with two risers for access is required. The wastewater system shall not be covered or placed into use until inspected by the Wake County Department of Environmental Services and Operations Permit issued. An Accepted Status System may be used in place of conventional system, if it can be placed in the permitted/authorized trench footprint (except reduction in line length and/or number as allowed for in approval) and the installation in accordance with the accepted system approval, without unauthorized product alteration. If permit required use of an Accepted Status System, substitution with another accepted status system may be made, as long as no changes are necessary in the location of each nitrifications line (including any increase in line length), trench depth or effluent distribution method. If changes are necessary, prior approval by this office is required before system installation. Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

CONSTRUCTION AUTHORIZATION PERMIT VALID FOR: No Expiration

CONSTRUCTION AUTHORIZATION PERMIT: CA STATUS: Issued

BY: Alexander Aycrigg

DATE: 11/28/2018

CA VALID FOR: No Expiration

DESIGN FLOW: 480 GALLONS

BASEMENT: No

BASEMENT FIXTURES: No

SEPTIC TANK: 1200 GALLONS

SEPTIC TANK FILTER: Yes

DOSING PUMP TANK: 1200 GALLONS

DOSING PUMP TANK FILTER:

GREASE TRAP:

GREASE TRAP FILTER:

RECIRCULATION PUMP TANK:

RECIRCULATION PUMP TANK FILTER:

PROPOSED SYSTEM: 0.25 - 25% Reduction (Innovative or Accepted)

EXISTING SYSTEM:

DRAINFIELD SQ. FT: 1,200

AGGREGATE DEPTH: 12

MAX. TRENCH DEPTH: 24 INCHES

DISTRIBUTION DEVICE: PM - Pressure Manifold

TRENCH #: 4

TRENCH LENGTH: 90 FEET

TRENCH WIDTH: 36 INCHES

TOTAL TRENCH LENGTH: 360 FEET

CENTER SPACING: 9 FEET

MINIMUM SOIL COVER: 12 INCHES

PRETREATMENT:

APPROVAL #:

SUBFIELDS #:

PUMP DESIGN FLOW: 28.44

PUMP TDH:

ZONE VALVE:

ASDMS REQUIRED: No

LINE OF CREDIT REQUIRED: No

OPERATOR REQUIRED: No

P.E. SIGN OFF/ASBUILT REQUIRED: No

TRIPARTY AGREEMENT REQUIRED: No

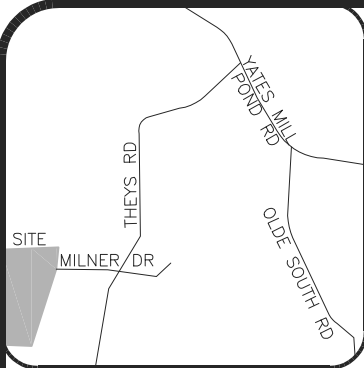
SPECIFIC CONSTRUCTION AUTHORIZATION REQUIREMENTS:

Initial is pump from a 1200 gallon septic and pump tank to a manifold and to four nitrification lines (90'x36") of accepted status product, no further reduction. Maintain all setbacks. Ensure that property lines are clearly marked prior to installation. System is 10' to any property line. Call office with any questions prior to installation.

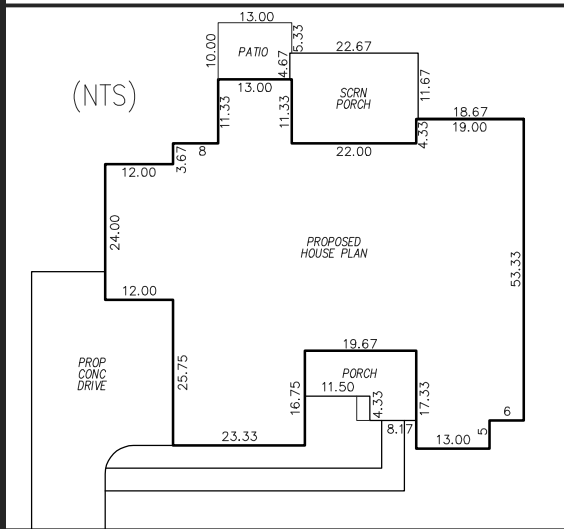
Issued By:

A handwritten signature in black ink, appearing to be a stylized name, possibly "C. Smith", written over a light gray rectangular background.

Date: 11/28/2018



VICINITY MAP (NTS)



IMPERVIOUS AREA

HOUSE 4,031 SQ.FT.
 DRIVE 1,634 SQ.FT.
 WALK 245 SQ.FT.
 PATIO 129 SQ.FT.

TOTAL 6,039 SQ.FT.
 MAX. ALLOW 9,000 SQ.FT.

SETBACKS

FRONT 20'
 SIDE 10'
 REAR 15'
 SIDE STREET 20'

LEGEND

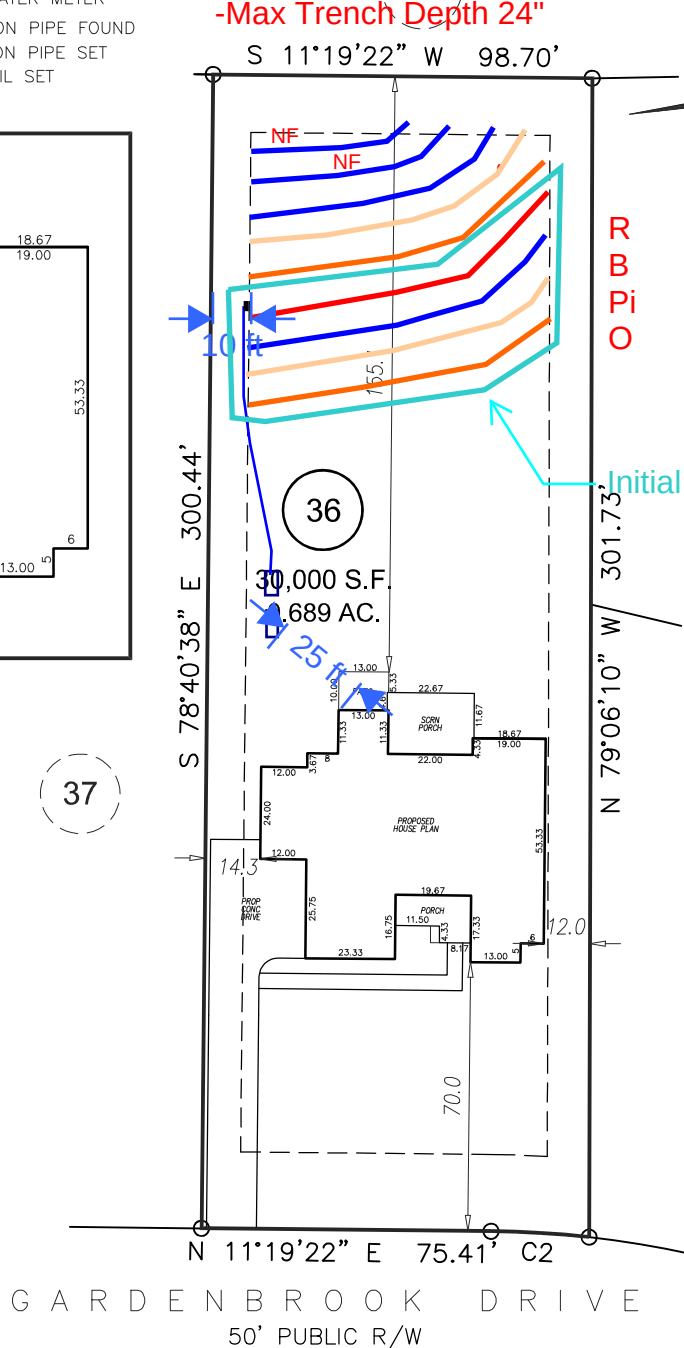
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 ○ IRON PIPE FOUND
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Construction Authorization
 -Install 1200 gallon septic
 and pump tanks
 -Install four lines (90"x36")
 of accepted status
 -Maintain all setbacks
 -Max Trench Depth 24"

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SHAWN T. RUMBERGER, PLS L-4909 DATE

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Repair is
 pressure
 manifold:
 Orange - 100'
 Pink - 100'
 Blue - 75'
 NF - 60'
 NF - 55'

Initial system

GRAPHIC SCALE



1 inch = 50 ft.

P R E L I M I N A R Y
 P L O T P L A N

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C2	N 14°11'44" E	25.56'	255.00'	25.57'

REVISION: FLIPPED HOUSE TO LEFT HAND GARAGE AND MOVED HOUSE BACK TO SIT 70' FROM THE FRONT PROPERTY LINE PER REQUEST 08-20-18 CKR

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 18-001 SANCTUARY @ YATES MILL
 DRAWN BY:
 CKR
 SCALE:
 1"=50'
 DATE:
 07-23-18

FOR
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 2133 GARDENBROOK DRIVE
 LOT 36 SANCTUARY @ YATES MILL SUBDIVISION
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WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES

4 TAP PRESSURE MANI-TEE DESIGN

Name: Imperial Custom Homes P.I.N. #: 0771952601 D#: WRP-8375

Address: 2133 Gardenbrook Dr Subdiv: The Sanctuary Lot#: 36

of BDR: 4 Daily Flow: 480 gal/day L.T.A.R.: 0.30 gal/day/sq.ft

Septic Tank: 1200 gals Pump Tank: 1200 gals Sq. Foot: 1080 Stone Depth: AS

Number of Taps: 4 Length of Trenches: 360 ft(See Tap Chart for Details)

Depth of Trenches: 24 in Manifold Length: 42 in

Manifold Diameter: 2in sch 40pvc Mani-Tee Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: 0 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 1.32 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft Elevation Head: 6.00 ft

Total Head: 9.32 ft Pump to Deliver: 28.44 gals/min at 9.32 ft head

Dosing Volume: 176 gals,

Drawdown: 176 gals divided by 20 gals/in = 8.8 inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

TAP CHART

Bench Mark		is = 100.00	set at					Design Head:	2	
Pump tank elev.			100.00	Pump elev.	95.00			Manifold elev.	101.00	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	
1			100.00	90	1/2in SCH 40	7.11	120.00	270	0.444	
2			100.00	90	1/2in SCH 40	7.11	120.00	270	0.444	
3			100.00	90	1/2in SCH 40	7.11	120.00	270	0.444	
4			100.00	90	1/2in SCH 40	7.11	120.00	270	0.444	
		total	feet =	360	gal/min =	28.44		LTAR =	0.30	
% of Dose Vol.		75		Des. Flow	480			(ltar + 5%)	0.32	
Dose Volume		176		Pump Run=	16.88			(ltar W/ INOV)	0.40	
Dose Pump Time		6.17		Tank Gal/IN	20			(ltar + 5%)	0.42	
Drawdown in Inches		8.8		Elev. Head	6.00					
Supply Line Length										
Comments:										

Hydraulic Profile

Manifold Elevation	101.00	0
Pump tank elev.	100.00	2
Pump elev.	95.00	0

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IMPROVEMENT PERMIT

PERMIT #: WRP-008375-2018

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Permit is subject to revocation if the Site Plan or Plat changes or the intended use changes.

*Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

IP VALID FOR: No Expiration AS PER GS 130A-335 (f)

DESIGNED BY:

SYSTEM LAYOUT: Staff

SITE CLASSIFICATION: Provisionally Suitable

IP STATUS: Issued

BY: Alexander Aycrigg

DATE: 11/28/2018

NUMBER OF BEDROOMS: 4

OR TOTAL NUMBER OF OCCUPANTS:

PERMITTED DESIGN FLOW: 480 GPD

BASEMENT: No

BASEMENT PLUMBING: No

WASTEWATER STRENGTH: Domestic

SYSTEM TYPE: III B

LTAR: 0.33

EXISTING SYSTEM UTILIZED:

PRETREATMENT STRENGTH REQUIRED:

EASEMENT FOR WW SYSTEM ASSOCIATED WITH PARCEL: No

MAXIMUM TRENCH DEPTH: 24 INCHES

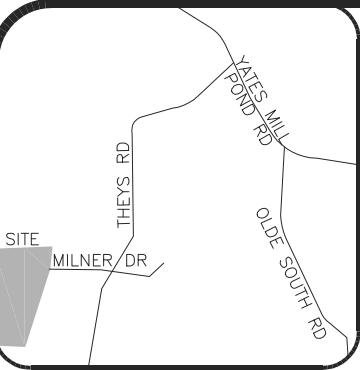
PUMP REQUIRED: Yes

SPECIFIC SYSTEM REQUIREMENTS: Initial is pump to equal length lines, repair is PM. Both are 0.33 LTAR. 24" Max Trench Depth.

ISSUED BY:

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DATE: 11/28/2018



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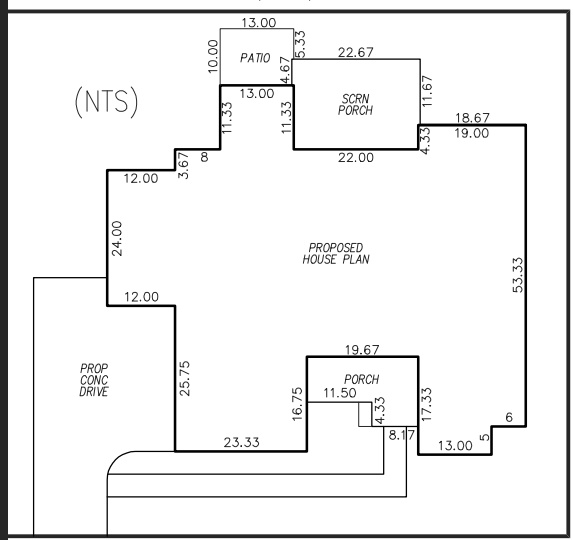
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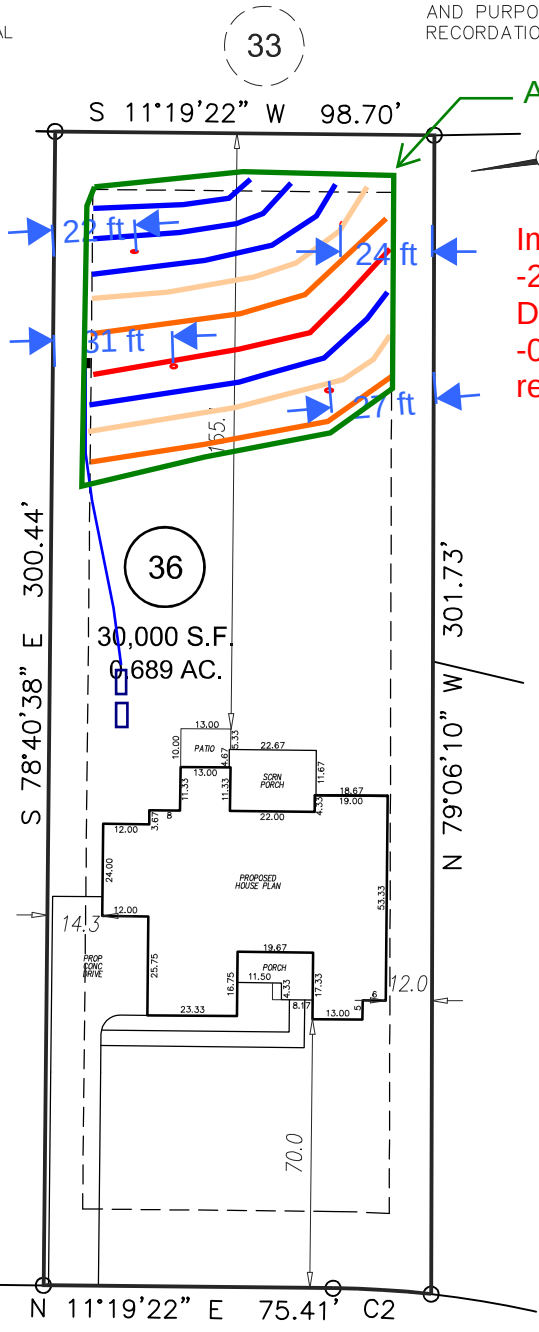
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 SIDE 10'
 REAR 15'
 SIDE STREET 20'



Area 1

Improvement Permit
 -24" Max Trench
 Depth
 -0.3 LTAR initial and
 repair

GRAPHIC SCALE



1 inch = 50 ft.

GARDENBROOK DRIVE
 50' PUBLIC R/W

**PRELIMINARY
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