



CERTIFICATE OF APPROPRIATENESS PLACARD

for Raleigh Historic Resources

Project Description:

Renewal of previously-approved COA (146-18-CA)

*Beyond this expiration date, NC Session Law 2021-03 grants an extension to all valid development permits until 150-days after NC Executive Order 116 is rescinded.

519 E Lane St

Address

Oakwood

Historic District

Historic Property

COA-0120-2021

Certificate Number

11/12/2021

Date of Issue

5/12/2022*

Expiration Date

This card must be kept posted in a location within public view until all phases of the described project are complete. The work must conform with the code of the City of Raleigh and laws of the state of North Carolina. When your project is complete, you are required to ask for a final zoning inspection in a historic district area. Telephone the RHDC office at 832-7238 and commission staff will coordinate the inspection with the inspections Department. If you do not call for this final inspection, your Certificate of Appropriateness is null and void.

Signature, _____

Erin Morton

Raleigh Historic Development Commission

Pending the resolution of appeals, commencement of work is at your own risk.

Type or print the following:		
Applicant name: Eric Halter / Kellan Moore		
Mailing address: 519 E Lane St.		
City: Raleigh	State: NC	Zip code: 27601-1443
Date: 07/18/2021	Daytime phone #: 603-545-9697	
Email address: efhalter@gmail.com		
Applicant signature:		
<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block; margin-bottom: 5px;">Minor work</div> (staff review) – one copy Major work (COA committee review) – ten copies Additions > 25% of building sq. footage New buildings Demolition of building or structure All other Post approval re-review of conditions of approval		<div style="text-align: center;">Office Use Only</div> Transaction #: _____ File #: <u>COA-0120-2021</u> Fee: _____ Amount paid: _____ Received date: _____ Received by: _____ _____
Property street address: 519 E Lane St.		
Historic district: Oakwood		
Historic property/Landmark name (if applicable):		
Owner name: Eric Halter / Kellan Moore		
Owner mailing address: 519 E Lane St. / Raleigh		

For applications that require review by the COA Committee (major work), provide addressed and stamped envelopes for owners for all properties with 100 feet on all sides of the property, as well as the property owner.

Property Owner Name & Address	Property Owner Name & Address

I understand that all major work applications that require review by the Raleigh Historic Development Commission's COA Committee must be submitted by 4 p.m. on the date of the application deadline; otherwise, consideration will be delayed until the following committee meeting. An incomplete application will not be accepted.

Will you be applying for rehabilitation tax credits for this project? Yes <input type="radio"/> No <input checked="" type="radio"/>	Office Use Only Type of work: <u>91</u>
Did you consult with staff prior to filing the application? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Design Guidelines: please cite the applicable sections of the design guidelines (www.rhdc.org).		
Section/Page	Topic	Brief description of work (attach additional sheets as needed).
3.2/67	Additions	Construct addition within footprint of an existing porch area in the rear of the residence.

Minor Work Approval (office use only)

Upon being signed and dated below by the Planning Director or designee, this application becomes the Minor Work Certificate of Appropriateness. It is valid until 05/12/2021.

Please post the enclosed placard form of the certificate as indicated at the bottom of the card. Issuance of a Minor Work Certificate shall not relieve the applicant, contractor, tenant, or property owner from obtaining any other permit required by City Code or any law. Minor Works are subject to an appeals period of 30 days from the date of approval.

Signature (City of Raleigh) *Emi Norton* Date 11/12/2021

Supplemental Description
COA Minor Work Application
519 E Lane Street
Raleigh, NC 27601

Oakwood Historic District

This application is a request to re-approve a section of a previously approved COA, submitted on October 1, 2018 by 2SL for the current applicants, Eric Halter and Kellan Moore. The original drawings are attached to this submittal. Photos are attached showing the front of the residence and 2 photos showing the area in the rear of the house to be enclosed.

This minor application requests reapproval to enclose a section of the existing rear porch at 519 E Lane St. Page 4 of the included 2018 plans shows this area with a red label entitled "Enclose Existing Porch". This area is currently under the existing roof line.

As per Section 3.2, page 67 of the design guidelines:

1. The addition is self-support within the existing footprint of the residence
2. Character is retained since it is within the existing footprint and exterior materials will match existing materials in type and house color
3. N/A as no trees will be disturbed
4. N/A as no trees will be disturbed
5. N/A as no trees will be disturbed
6. As stated above the addition will be inconspicuous since it is the rear of the residence and within the existing building footprint.
7. See #6 above
8. See #2 and 6 above
9. As stated in #2 above and show on the submitted plans we plan to match existing building materials and colors to preserve the existing character of the structure
10. No removal of the existing structure will be done, simply an enclosure of an existing portion
11. As stated in # 1, 2 and 9 above this will not occur
12. As stated in # 1, 2 and 9 above this will not occur

Since this is a request to re-approve an previously approved plan we are submitting this as minor work that should only require staff sign-off.



November 14, 2018

John Sibert
210 E Franklin Street
Raleigh, NC 27604

RE: 146-18-CA (519 E Lane Street)— Approved with Conditions

Dear John:

Your application, 146-18-CA, which was presented at the October 25, 2018 meeting of the Certificate of Appropriateness (COA) Committee of the Raleigh Historic Development Commission, was approved as amended with the following conditions:

1. *That the front walk be replaced with concrete.*
2. *That the tree protection plan be implemented prior to construction and remain in place for the duration.*
3. *That the porch screening material be installed on the inside of the railings.*
- Met 4. *That details and specifications for the following be provided to and approved by staff prior to issuance of the blue placard:*
 - Met 11/12/21 - EM a. *Site plan noting the location and critical root zone of regulated trees with roots extending onto the property.*
 - Met 10/13/21 - EM b. *Tree protection plan*
 - Met 11/12/21 - EM c. *Manufacturer's specifications for windows, showing both section and elevation views, muntin profiles and material descriptions.*
5. *That details and specifications for the following be provided to and approved by staff prior to installation or construction:*
 - a. *Manufacturer's specifications for doors, showing both section and elevation views, and material descriptions; 2 doors shown on rear elevation. Reusing the rear door for 1 opening (photo provided 09/20/21). Pending receipt of 2nd door spec.*
 - b. *Paint color swatches from paint manufacturer.*

A draft Certified Record that describes the committee's action is enclosed. The draft will become final when the committee votes at its next meeting to approve the October minutes. Please note that you and aggrieved parties have a 20-day window for notification of intent to appeal or to file a petition to submit a request for reconsideration. *Commencement of work within the appeal period is at your own risk.*

In order to receive your blue placard, please submit condition number 4 to staff. You will then be issued the blue placard form of the certificate which is valid through April 25, 2019. Please note that all items for fulfillment of conditions should be submitted together, as each additional conditions review after the first review is subject to an additional fee. To obtain your building permit (if applicable), take the placard and this letter with you to the Office of Development Services. Please post the blue placard in public view, as indicated at the bottom of the card, while the work is in progress. For

Post Office Box 829
Raleigh, North Carolina 27602
(919) 832-7238 ph
(919) 516-2632 fax
www.rhdc.org



more information about permits, call the Office of Development Services at 919-996-2495.

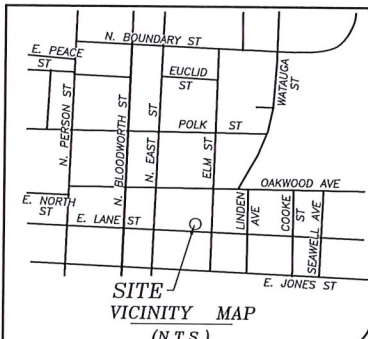
When your project is complete, you are required to ask for a final zoning inspection. Call the Raleigh Historic Development Commission office at 919-832-7238 or email rhdc@rhdc.org and the commission staff will coordinate an inspection. If you do not call for this final inspection, your Certificate of Appropriateness is null and void. If you have any questions concerning your application, please contact the commission office.

On behalf of the commission, thank you for your positive efforts in making these proposed changes, thereby enhancing the Oakwood Historic District.

Sincerely,

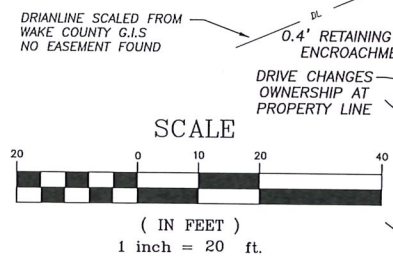
A handwritten signature in dark ink that reads "Nick Fountain" followed by a stylized flourish or initials.

Nick Fountain, Chair
Certificate of Appropriateness Committee



FLOOD CERTIFICATION
 THIS WILL CERTIFY THAT THE SUBJECT PROPERTY
 () IS or (X) IS NOT located in a SPECIAL FLOOD HAZARD AREA
 as determined by the Department of Housing and Urban
 Development, or as shown on the FLOOD INSURANCE RATE MAP.

340243 1704 J
 COMMUNITY # PANEL SUFFIX
 N/F ALAN & MARY JURKOWSKI D.B. 6945, PG 230
 N/F GERALD MCCRAIN D.B. 5338, PG 415
 PROFESSIONAL LAND SURVEYOR

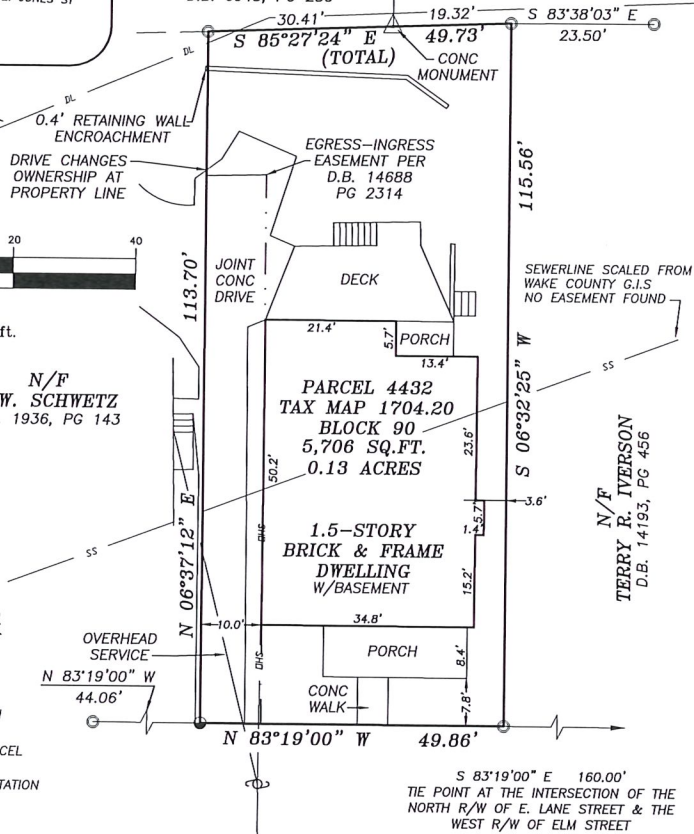


- LEGEND**
- EXISTING IRON PIPE
 - NEW IRON PIPE
 - NAIL FOUND
 - ⊗ COMPUTED CORNER
 - POWER BOX
 - TELE
 - ⊗ CATV
 - ⊗ LIGHT POLE
 - ⊗ UTILITY POLE
 - ⊗ FIRE HYDRANT

NOTE:
 THIS PROPERTY DOES NOT LIE WITHIN
 2000' OF A N.C.G.S. MONUMENT.
 THIS SURVEY IS OF AN EXISTING PARCEL
 OR PARCELS OF LAND.
 UTILITIES SHOWN ARE FOR REPRESENTATION
 ONLY AND NOT TO BE USED FOR
 PROPERTY LINE LOCATION
 ALL CREEKS, EASEMENTS, BUFFERS,
 FLOOD LIMITS & SETBACKS TAKEN
 FROM D.B. 14688, PG 2314.

N/F
 R.W. SCHWETZ
 D.B. 1936, PG 143

D.B. 14688, PG 2314



E. LANE STREET (PUBLIC R/W)

I, Jeffrey H. Davis, PLS, certify this map was drawn under my supervision from an actual survey made under my supervision;
 and that the error of closure as calculated by latitudes and departures is 1/10,000+; that the boundaries not surveyed
 are shown as broken lines plotted from information found in Book -; Page -; that this map was prepared in
 accordance with G.S. 47-30 amended.


Witness my original signature, registration number and seal this
 29TH day of JUNE 2018.

Signed *Jeffrey H. Davis*

Seal



C.N. = 26361 B.O.M. D.B. 14688 PAGE 2314 WAKE CO. REG.	KELLAN S. MOORE ERIC F. HALTER	
	PARCEL 4432 TAX MAP 1704.20, BLOCK 90 519 E. LANE STREET RALEIGH NORTH CAROLINA	
	DATE: 06-29-2018	A-22511
	SCALE: 1" = 20'	



TURNING POINT

SURVEYING PLLC

4113 JOHN S. RABOTEAU WYND
 RALEIGH, NORTH CAROLINA 27612
 FAX (800)948-0213 PH (919)781-0234
 License No: P-0121

210 East Franklin Street
 Raleigh, NC 27604
 Tel 919 833 1448
 Fax 919 833 1252
 Johns@2sdesignbuild.com

1 PLOT PLAN-EXISTING
 Scale: 1" = 30 ft

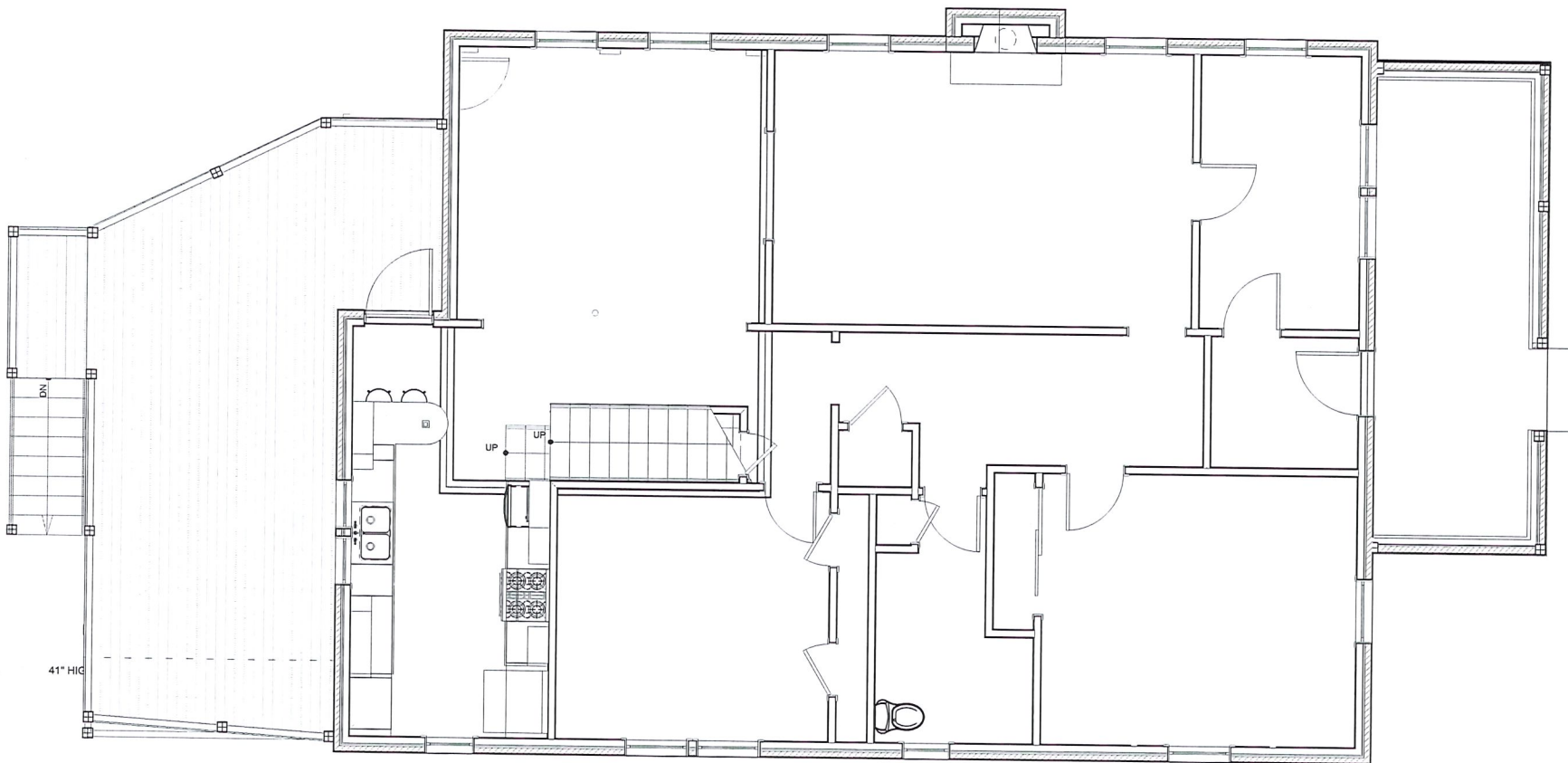
CURRENT IMPERVIOUS SURFACE CALCULATIONS:
 3027.56 SF=53% < 65% ALLOWED FOR R-10

1



HALTER/MOORE HOUSE 519 E Lane Street, Raleigh, NC 27601

10-01-2018



1 FLOOR PLAN-EXISTING
Scale: 1/8" = 1'-0"

3

NEW JELDWEN OAK
FULL VIEW 8-LIGHT
GLASS PANEL
EXTERIOR DOOR.



2

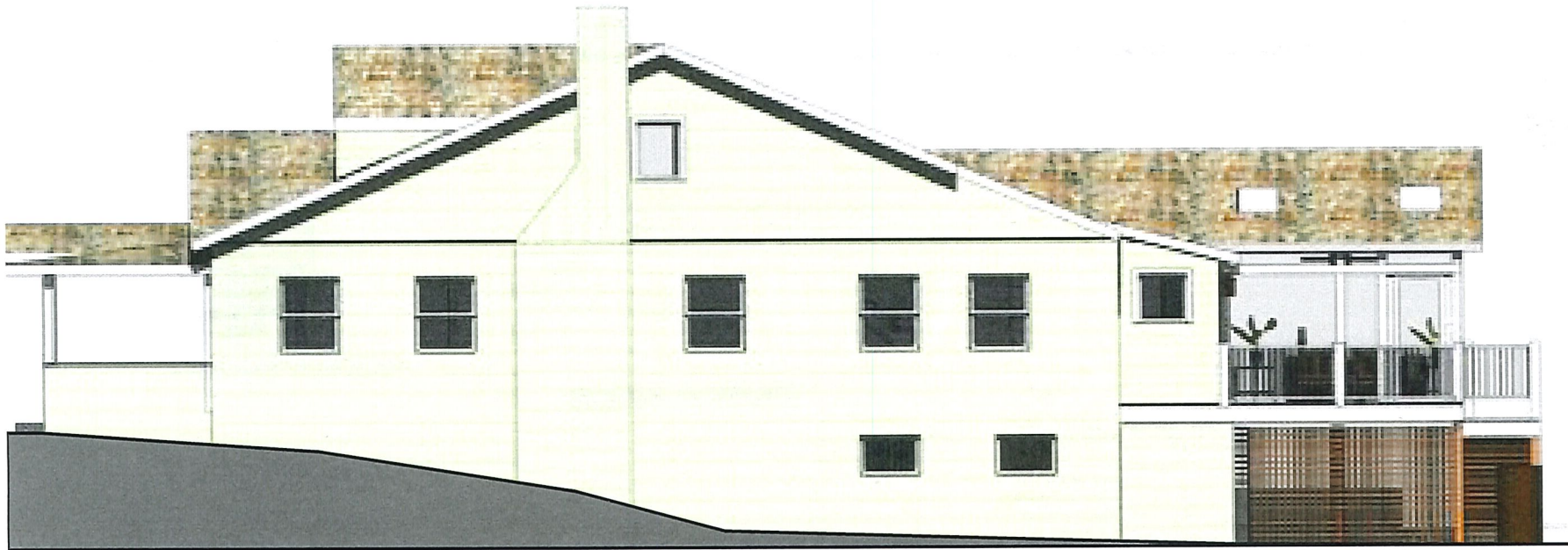
BACK ELEVATION-PROPOSED
Scale: 1/8" = 1'-0"



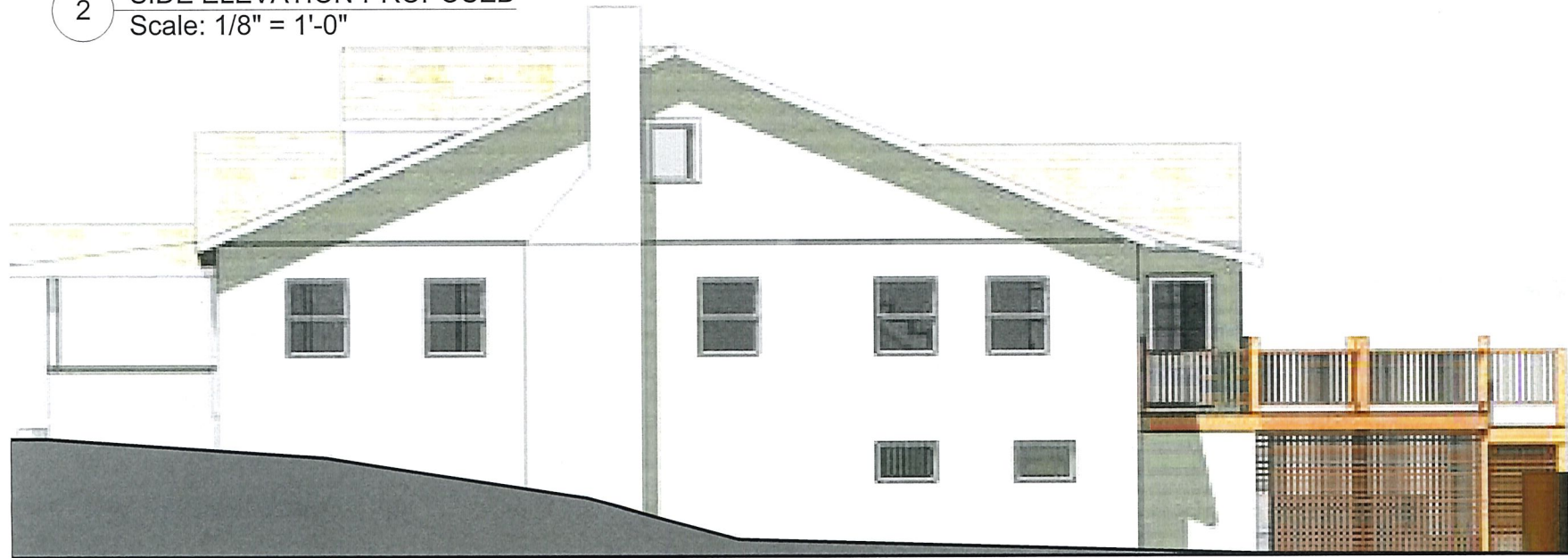
1

BACK ELEVATION-EXISTING
Scale: 1/8" = 1'-0"

7



2 SIDE ELEVATION-PROPOSED
Scale: 1/8" = 1'-0"



1 SIDE ELEVATION-EXISTING
Scale: 1/8" = 1'-0"

210 East Franklin Street
Raleigh, NC 27604
Tel: 919 833 1448
Fax: 919 833 1252
john@2slsdesignbuild.com

Home > Windows & Doors > Design Pro > Design Pro Glass Panel Exterior Door

DESIGN-PRO FIBERGLASS GLASS PANEL EXTERIOR DOOR



WAYS TO BUY THIS PRODUCT

- ADD TO SHOP OR BASKET
- ADD TO WISHLIST

Product Overview Design Options Glass Options Build & Installation

The JELD-WEN Design-Pro fiberglass door features the beautiful appearance of hardwood. Available in two configurations. Glass options include no glass, single between the glass, energy efficient, decorative, or full glass. No energy glass.

FEATURES

- ENERGY STAR Qualified Options:** yes
- Finish Options:** ready to paint or stain
- Glass Options:** energy efficient, insulating, privacy, other glass, decorative, none between the glass
- Maintenance Level:** minimal
- Product Type:** new construction and replacement
- Size:** 36" x 80" x 1 3/4" (36" x 80" x 1 3/4" for detailed specifications please contact your dealer)
- Material:** solid fiberglass
- Manufacturer:** JELD-WEN, Inc.

7" Wide Elm Bronze Outdoor Wall Light



60" Left 3 Blade Outdoor Ceiling Fan



Home > Windows & Doors > Design Pro > Design Pro Double Hung Window

W-2500 WOOD DOUBLE HUNG WINDOW



WAYS TO BUY THIS PRODUCT

- ADD TO SHOP OR BASKET
- ADD TO WISHLIST

Product Overview Design Options Glass Options Build & Installation

The JELD-WEN Design-Pro double hung window features the beautiful appearance of hardwood. Available in two configurations. Glass options include no glass, single between the glass, energy efficient, decorative, or full glass. No energy glass.

FEATURES

- Color Options:** ready to paint or stain
- Finish Options:** ready to paint or stain
- Glass Options:** energy efficient, insulating, privacy, other glass, decorative, none between the glass
- Maintenance Level:** minimal
- Product Type:** new construction and replacement
- Size:** 36" x 80" x 1 3/4" (36" x 80" x 1 3/4" for detailed specifications please contact your dealer)
- Material:** solid fiberglass
- Manufacturer:** JELD-WEN, Inc.

HAVE A QUESTION?
Our customer service team is happy to assist you.

CONTACT US



WINDOW SPECIFICATIONS:

Manufacturer: Jeld Wen

Description: W-2500 Wood Double Hung Window

Model: Standard Exterior

Grille Design: Colonial Grille

Exterior Color: Desert Sand

Wood Species: Auralast Wood (Pine)

Divided Lites: Simulated divided lights. full surround wood grilles. grilles between the glass.

Mullion Profile: Putty



210 East Franklin Street
Raleigh, NC 27604
Tel. 919 833 1448
Fax 919 833 1252
John@2slsdesignbuild.com

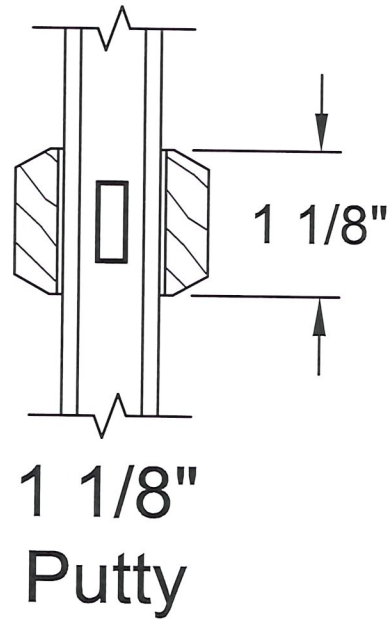
2SL

DESIGN BUILD
COLLABORATIVE

MULLION PROFILE (section):

Exterior ← ————— → Interior

SDL Options



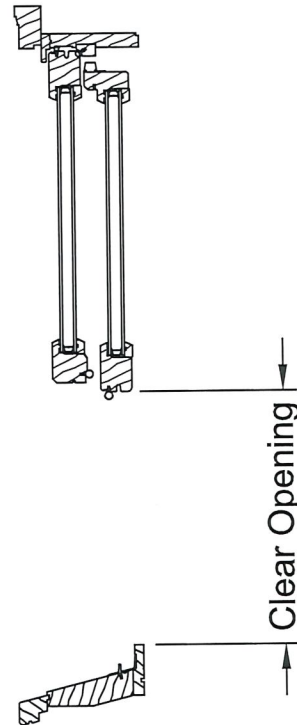
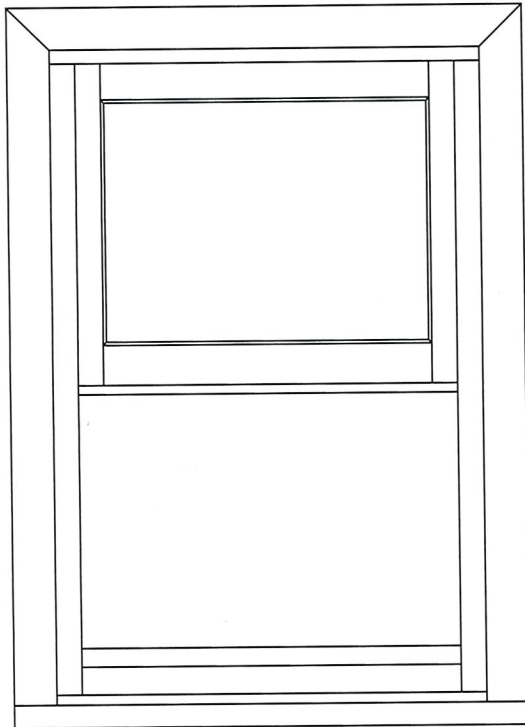
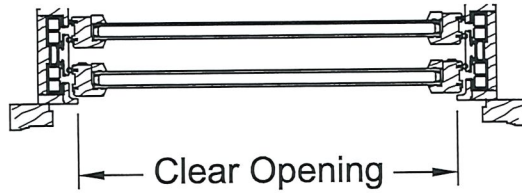
Λ

219 East Franklin Street
Raleigh, NC 27604
Tel: 919 833 1449
Fax: 919 833 1252
John@2slsdesignbuild.com

2SL

DESIGN BUILD
COLLABORATIVE

WINDOW ELEVATION:



Double-Hung (Even Divide)

Width = Frame Width - 3 3/4"

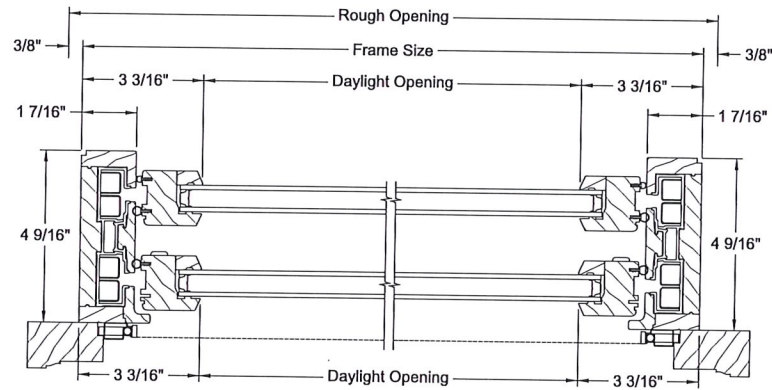
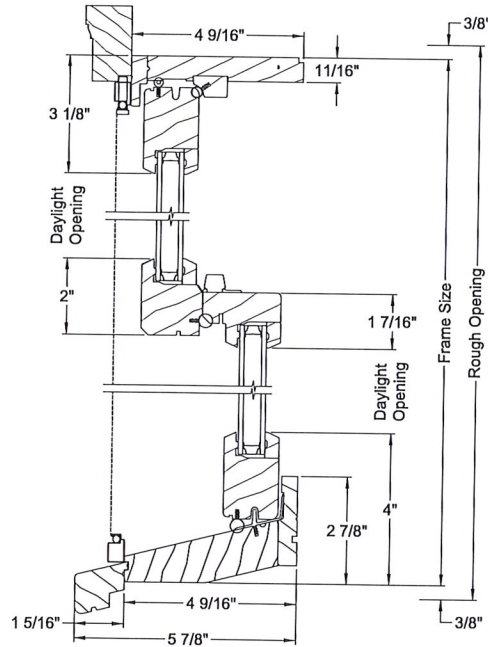
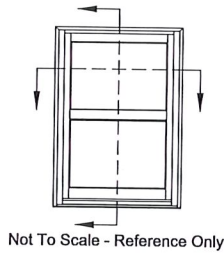
Height = (Frame Height / 2) - 2 27/32"



JELD-WEN
WINDOWS & DOORS

SITELINE®
WOOD WINDOW
DOUBLE-HUNG

OPERATOR SECTIONS



Architectural Design Manual
September 2020

Product specifications may change without notice.
Questions? Consult JELD-WEN customer service.

Scale: 3" = 1' - 0"

11

NOTES:

-DEFINITION OF CRITICAL ROOT ZONE (CRZ): WE WILL DEFINE THE CRITICAL ROOT ZONE AS A CIRCLE HAVING A RADIUS EQUAL TO THE DIAMETER OF THE TRUNK (MEASURED AT CHEST HEIGHT, OR 54" ABOVE GROUND; THIS IS ALSO KNOWN AS DBH) X 1.5", AS MEASURED FROM THE OUTSIDE OF THE TREE TRUNK, WITH THE RESULT BEING EXPRESSED IN FEET. THUS A TRUNK THAT IS 12" AT CHEST HEIGHT WILL HAVE A CRZ WITH RADIUS OF 18 FEET, AS MEASURED FROM THE OUTSIDE EDGE OF THE TRUNK.

-THE CONTRACTOR MUST SET UP TREE PROTECTION FENCING ALONG THE ASSOCIATED CRZ BOUNDARIES TO A) CLEARLY MARK THE TREE PROTECTION ZONE (TPZ) AND B) TO PROTECT THE TRUNK, BRANCHES, ROOTS, AND SOIL FROM DAMAGE DURING THIS PROJECT.

-TPZ FENCING SHALL CONSIST OF CHAIN LINK FENCE PANELS (MINIMUM HEIGHT OF 5 FEET TALL) THAT ARE EITHER MOUNTED ON STANDS OR DRIVEN INTO THE GROUND TO A DEPTH OF AT LEAST 18". EACH PANEL SHALL BE SECURELY FASTENED TO ONE ANOTHER USING DURABLE TIES THAT CANNOT BE EASILY TAMPERED WITH (SUCH AS ZIP TIES OR THICK WIRE).

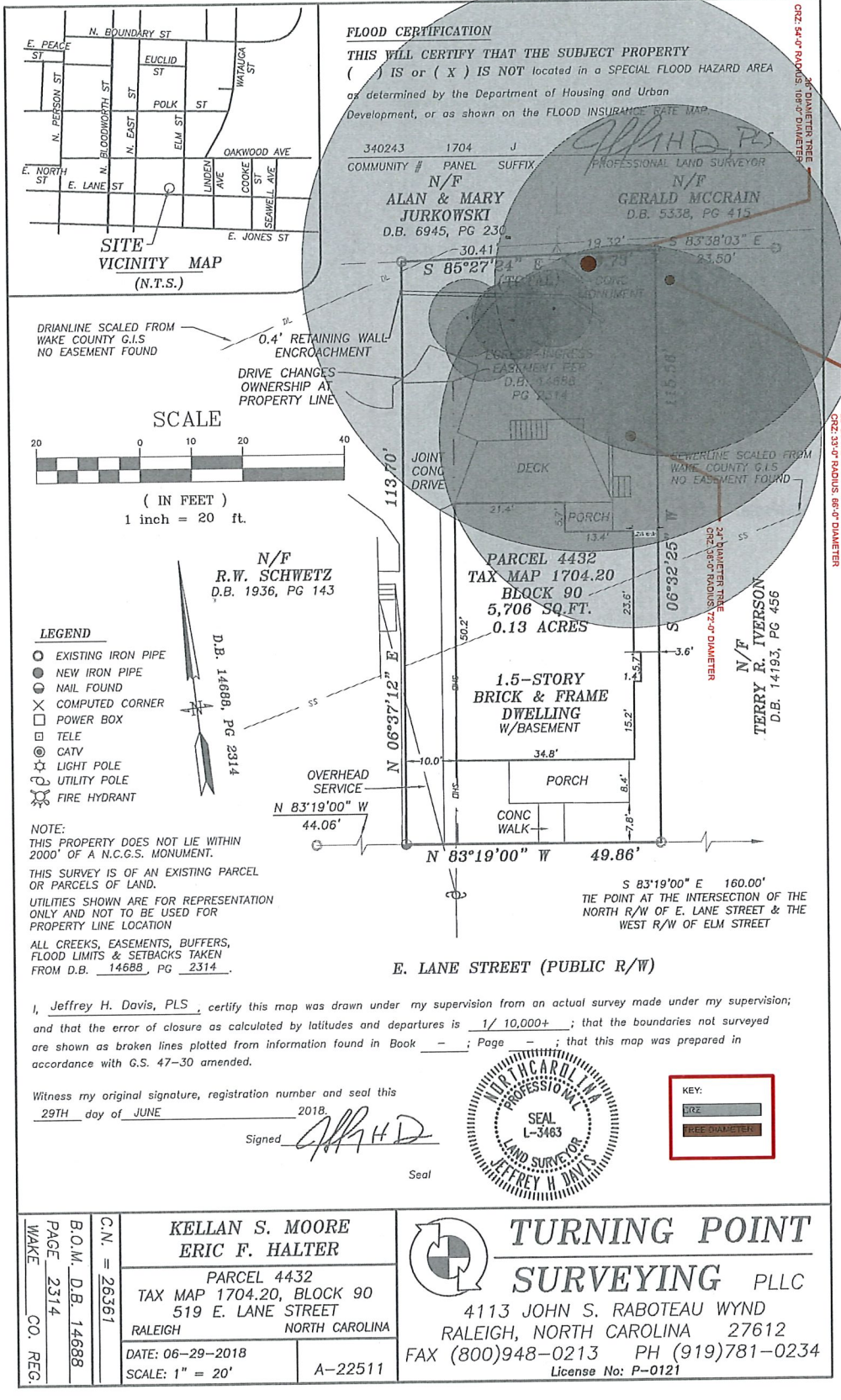
-ALL TPZs MUST REMAIN IN PLACE FOR THE FULL DURATION OF THE PROJECT.

-ANY AND ALL ACTIVITY IS PROHIBITED WITHIN THE TPZ. THIS INCLUDES (BUT IS NOT LIMITED TO) PARKING EQUIPMENT, STAGING MATERIALS, DUMPING.

-COVER ALL AREAS WITHIN THE TPZ WITH FOUR TO SIX INCHES OF ARBORIST WOOD CHIPS.

-ENSURE THAT TREES STAY ADEQUATELY WATERED THROUGHOUT THE PROJECT, PARTICULARLY IN THE HOT SUMMER MONTHS.

-TREAT FOR PESTS AS NEEDED. THIS COULD INCLUDE PREVENTATIVE TREATMENT FOR STRESSED TREES, SUCH AS PREVENTATIVE TREATMENTS FOR BORERS.



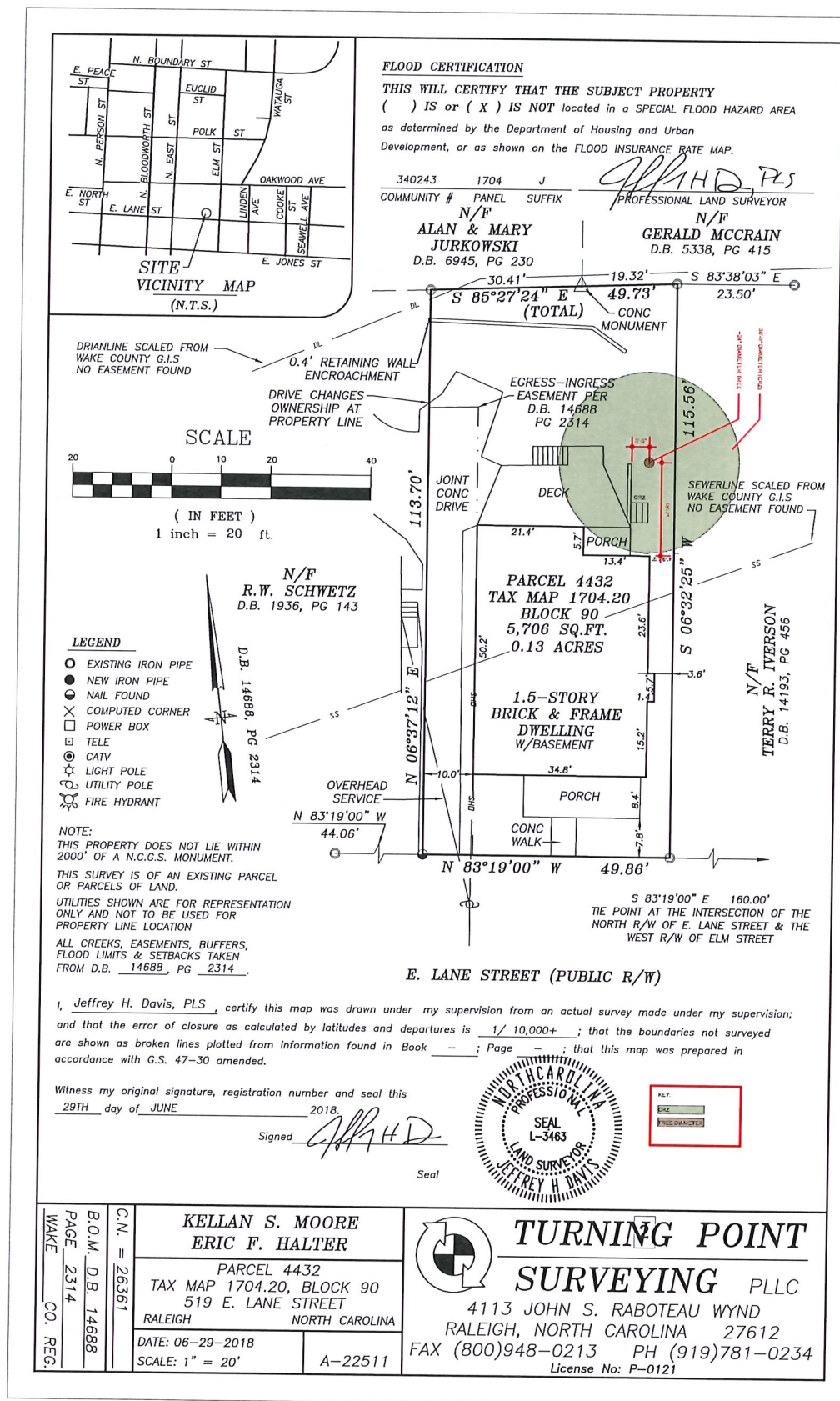
1

PLOT PLAN-EXISTING
Scale: 1" = 30'-0"

HALTER/MOORE HOUSE 519 E Lane Street, Raleigh, NC 27601

11-09-2021

2SL
DESIGN BUILD
COLLABORATIVE



NOTES:

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-TREAT FOR PESTS AS NEEDED. THIS COULD INCLUDE PREVENTATIVE TREATMENTS FOR STRESSED TREES, SUCH AS PREVENTATIVE TREATMENTS FOR BORERS.

219 East Franklin Street
Raleigh, NC 27604
Tel 919 833-1444
Fax 919 833-1252
jdavis@turningpointnc.com

2SL

DESIGN BUILD COLLABORATIVE



August 16, 2021

RE: Tree Protection Plan at 519 E Lane St

Hi Eric,

It was wonderful to meet with you today and look at your gorgeous tree! Given that all the work is being conducted on top of an existing porch, and that there is no impact whatsoever to any portion of your home's footprint (e.g., porch footers, foundation, etc) nor landscape, this tree will not experience any impacts from this project.

To solidify this, I recommend the following tree protection plan:

add this language to your contract with your builder/contractor: "All equipment and supplies shall be staged on the street or driveway. No worker nor equipment nor supplies shall leave these hardscapes. Workers shall travel from the driveway up the back steps onto the porch and shall not set foot in any natural area. Any infraction shall be penalized at \$1,000 per occurrence + costs to repair any damages incurred, should there be any."

I see no reason why your builders would want to leave the hardscapes and porch, since this is where all the work is occurring. But this gives you the extra language you need to guarantee the outcome. If this is done, the tree will be unimpacted.

Please let me know if you have any questions by emailing me at basil.camu@leaflimb.com – best of luck with this project!

Basil Camu
ISA Board Certified Master Arborist SO-7383B

511 Nowell Rd, Raleigh, NC 27607
919.787.9551 | www.leaflimb.com

Specifications – Tree Protection

Background:

A tree's root system is critical in providing it with water, nutrients, gas exchange, and structural stability. Healthy soil with plenty of pore space provides an ideal place for roots to grow by making it easy for them to access water, nutrients, and oxygen. Thus a healthy root system, along with healthy soil, are essential to the well-being of a tree as a whole. Any time that roots are damaged, soil is compacted, or soil is contaminated a tree will suffer.

The root system typically extends two to three times the distance of the edge of the canopy. The area underneath the canopy is particularly important, since there is a high concentration of roots located here. The majority of a tree's fine, absorptive roots are located near the surface so they can more easily access water, nutrients, and oxygen. When you factor in larger structural roots, nearly all of a tree's roots can be found within the upper 18-24 inches of soil. The structural roots typically do not grow deeper than 3 feet below the surface.

Definition of Critical Root Zone (CRZ)

We will define the critical root zone (CRZ) as a circle having a radius equal to the diameter of the trunk (measured at chest height, or 54" above ground; this is also known as DBH) x 1.5, as measured from the outside of the tree trunk, with the result being expressed in feet. Thus a trunk that is 12" at chest height will have a CRZ with radius of 18 feet, as measured from the outside edge of the trunk.



Specifications:

Prior to construction:

- An ISA Certified Arborist must provide an inventory of each tree within areas that will be disturbed during the project.
- The inventory must include GPS coordinates (accurate to within 7 feet), species, and diameter measured at breast height (DBH) for each tree.
- This inventory shall include live, healthy trees only. It must not include dead or hazardous trees.
- The location of each tree trunk, as well as an accurate depiction of the CRZ surrounding each trunk, must be included in the site plans.

Tree protection:

- For any tree depicted on the site plan, the contractor must set up tree protection fencing along the associated CRZ boundaries to A) clearly mark the tree protection zone (TPZ) and B) To protect the trunk, branches, roots, and soil from damage during this project.
- For multiple trees sharing CRZs, the fencing shall follow the outside border.
- The TPZ must fully encompass and enclose the CRZ/s. This must include all unpaved areas at a minimum.
- When a CRZ extends beyond the development site where no disturbance will occur (e.g., edge of neighboring private property), protection fencing is not required to extend beyond the development site. The fencing can instead follow this border.
- For areas where it is not possible to encompass the full CRZ, the contractor must enclose as much area as is reasonably possible while keeping streets and sidewalks open for public use. For example, if the TPZ was cut short by a street, the contractor would be expected to position the TPZ along the edge of the street. Or if a tree is planted in a devil-strip between road and sidewalk, the contractor would be expected to fence in this entire strip, to the point at which the fencing reaches the edge of the CRZ within that strip.
- Even where a TPZ is not able to fully encompass the CRZ, the CRZ must still be observed for many of the specifications outlined below.
- TPZ fencing shall consist of chain link fence panels (minimum height of 5 feet tall) that are either mounted on stands or driven into the ground to a depth of at least 18".
- If fencing is mounted on stands these stands must be secure (e.g., manufactured fence stands fitted to the chain link panels or blocks of concrete with holes drilled in center) such that the fencing cannot be easily moved or blown over.
- Each panel shall be securely fastened to one another using durable ties that cannot be easily tampered with (such as zip ties or thick wire).
- For any tree where no fencing is possible (such as a tree inside of a small planting well), the contractor must wrap the trunk with 2" thick wooden slats extending from the ground the first branch or 15 feet, whichever is less. These slats must not be nailed into the tree. They must be securely bound on the outside. The remainder of the exposed area within the well shall be covered with four to six inches of arborist wood chips.
- 8.5" x 11" warnings signs must be placed on all TPZs, facing outward, spaced no less than 20 feet apart. They shall clearly state "Tree protection zone" and "do not enter", at a minimum.



- All TPZs must be inspected by an ISA Certified Arborist prior to demolition/grading/construction. He/she must provide written verification that all TPZs meet the required standards before any demolition/grading/construction may begin.
- All TPZs must remain in place for the full duration of the project.
- Once TPZs are in place and have been approved in writing by an ISA Certified Arborist, any and all activity is prohibited within the TPZ. This includes (but is not limited to) parking equipment, staging materials, dumping chemicals/products of any kind, disturbing soil, cutting roots, grading, staging dirt, and so forth.
- Authorized officials (e.g., ISA Certified Arborist, City Inspectors, Site Manager) may enter the TPZs when on official business. But all other workers and individuals must be strictly prohibited from entering the TPZs.
- Recommended but not required: fine workers/sub-contractors upon entering the TPZs without permission or official business.

Recommended but not required: Tree care/preservation within the TPZs:

- Cover all areas within the TPZ with four to six inches of arborist wood chips.
- Ensure that trees stay adequately watered throughout the project, particularly in the hot summer months.
- Treat for pests as needed. This could include preventative treatments for stressed trees, such as preventive treatments for borers.

For trees that are especially vulnerable (identified as such by an ISA Certified Arborist)

- De-compact the soil to a depth of eight to ten inches using an air tool.
- Cover the entire TPZ with four to six inches of arborist wood chips.
- Ensure the tree receives adequate water.
- Apply a plant growth regulator to promote root development.
- Apply preventative treatments for borers and Phytophthora.
- Monitor these trees on a monthly basis for signs of disease or decline.
- Continue monitoring and treatments for one growing season following the end of the project.

Pruning:

- If there is a possibility of a truck or large piece of equipment damaging a tree's branch, this branch shall be tied back.
- If tying it back is not possible, the branch shall be pruned in advance to eliminate the possibility of being torn, which could cause irreparable harm to the tree.
- All pruning must be completed in strict accordance with ANSI A300 Pruning Standards under the oversight of an ISA Certified Arborist.
- Most notably among these standards, all pruning cuts must be made just outside of the branch collar without causing damage the branch collar itself.

Removal of and replacement of asphalt, curbing, sidewalks, and other hardscapes:

- When removing hardscape within a CRZ, the hardscape must be broken into manageable pieces using a jackhammer or pick.
- All pieces must be hand loaded into a truck/loader/equipment.
- The truck/loader/equipment must remain outside of the CRZ at all times. No equipment larger than a hand tool shall enter the CRZ.
- Do not remove base rock in which tree roots are growing.
- Where there are exposed roots, lay down arborist wood chips or untreated burlap and soak them to protect the roots. Do so within 1 hour. The wood chips/burlap shall be kept damp until the new surface is applied.
- When replacing hardscapes, alternatives must be considered, e.g., grinding edges of raised hardscape (beveling), suspended/raised systems, ramping, lifted slab with pliable paving, routing around roots, flexible/rubberized paving, bridging, curved/offset pathways, permeable concrete, pavers, gravel, etc.
- If no alternatives are feasible, contractor shall abide by the root pruning standards outlined below.
- Sidewalks only: If an alternative is not feasible remove the sidewalk, grind roots only as approved by the ISA Certified Arborist and replace sidewalk using #3 dowels at the expansion joint and a wire mesh reinforcement within 10-feet or less from the tree.

Cutting roots & trenching:

- Anywhere the grade will be lowered, cuts will be made, trenches will be dug, or other activities will be required that involve disturbing soil or roots within the CRZ, the trees must undergo root pruning prior to the commencement of work.
- All root pruning work must be completed under the supervision of an ISA Certified Arborist.
- Before you begin, contact utility companies prior to digging or trenching if you suspect utility lines are present.
- Along the line of the cut/trench/etc., use an air tool powered by compressed air in order to create a root pruning trench. The trench shall be 12" deep and 2" wide, at a minimum. Greater depth or width may be required to make the root pruning cuts, pending the specifications of the project.
- Cleanly cut any root between .5 inches and 2 inches in diameter along the demolition side of the trench using a sharp cutting tool. Acceptable tools include sharp lopping shears, hand pruners, knives, and handsaws.
- All cuts for roots 2 inches and greater must first be reviewed and approved by the project ISA Certified Arborist before any cuts can be made. Then cuts shall be made under his/her supervision. These cuts should be avoided where possible.
- Do not remove more than 25% of the tree's entire root structure.
- Once root pruning is complete, clearly mark the location of the cuts with flags so it is obvious for future parties where the pruning cuts were made, refill the trench with excavated soil and/or good quality top soil, mulch the area with arborist wood chips (two



to four inches deep), and water thoroughly. This shall be done within 2 hours of making the cuts, to prevent the roots from drying out.

- If the trench is to remain open, cover the exposed roots with arborist wood chips and/or layers of untreated burlap within 1 hour. Then water the wood chips/burlap to ensure roots stay damp until the trench is backfilled.
- Do not trench a line that is closer than 6 x DBH (as measured in feet) from the tree trunk. To do so will result in destabilizing the structural integrity of the tree.
- Root pruning work should be avoided during hot, dry months whenever possible.
- If activities outlined above are for the purposes of installing drainage, utilities, irrigation lines, etc. the contractor shall consider tunneling/boring as an alternative to making cuts. At a minimum, contractor shall tunnel/bore underneath roots that are larger than 2 inches.
- Roots located outside of the CRZ that are larger than two inches in diameter and that have been cut, torn, or exposed due to construction activities must be cleanly cut to sound wood located within the soil.

Grading:

- No grading is permitted within the CRZ.
- Any grade changes outside of the CRZ must not significantly alter drainage to the tree.

During construction:

- An ISA Certified Arborist must inspect all TPZs and provide a report to the owner's project manager on a monthly basis.
- If at any time any equipment is required inside of a TPZ, it must be approved by an ISA Certified Arborist and the CRZ must be covered in no less than six inches of arborist wood chips with $\frac{3}{4}$ " plywood on top before any equipment enters the TPZ. This must remain in place for the duration that the equipment is within the TPZ.

In the event of damage:

- If any construction damage does occur, document the damage immediately. This must include photos at a minimum.
- Report damage to the owner's project manager, relevant contractor, and the ISA Certified Arborist within 8 hours.
- Under the recommendation of those in charge, plus the input of the ISA Certified Arborist, perform remedial and/or injury mitigation actions as soon as possible, since some treatments may be time-sensitive. Such actions may include soil decompaction, irrigation, radial trenching, chemical clean up, etc.
- The treatment of trunk wounds depends on the extent of damage. If 50 percent or more of the bark has been removed around the entire trunk, the tree will not likely survive and shall be removed. If only a patch of bark has been removed, use a sharp knife to cleanly cut off the loose bark to a place on the stem where it is firmly attached. DO NOT make the wound any larger than necessary.







