



Development Services Customer Service Center One Exchange Plaza 1 Exchange Plaza, Suite 400 Raleigh, North Carolina 27601 Phone 919-996-2495 eFax 919-996-1831

Raleigh Historic Development Commission - Certificate of Appropriateness (COA) Application

RALEIGH HISTORIC DEVELOPMENT COMM Minor Work (staff review) – 1 Major Work (COA Committee of Most Major Work Application of Contributing History Post Approval Re-review of Co	copy review) – 13 copies tions % of Building Square Footage coric Resource		For Office Use Only Transaction # 482912 File # 129-16. CA Fee 147 Amt Paid 147 w/ck Check # 11 C Rec'd Date 8/8/16 Rec'd By ACH
If completing by hand, please u	se BLACK INK. Do not use blue	e, red, any other color,	or pencil as these do not photocopy.
Property Street Address 503 Cutler St	reet, Raleigh, NC 27603		
Historic District Boylan Heights			
Historic Property/Landmark name (if app	licable)		
Owner's Name M. Riana Smith		xi =	
Lot size .16 acre	(width in feet) 50.80		(depth in feet) 144.50
For applications that require review by the state of the	an 1980		d, stamped envelopes to owners of all properties within the width of public streets or alleys:
Rodger and Anne Nobling – 5	08 Cutler Street	Community	Alt. for Supportive Abodes – PO Box 12545, Raleigh
501 Cutler Street – Thomas a	nd Erin Burkert	50	4 Boylan Ave – Daniel and Lisa Shaughnessy
507 Cutler Street – Curtis Yates / 425	Cutler St. – Bruce Keene	−2544 Mad	ison Rd, Cincinnati, OH. – Julia Bird and Ilhami Sezer
422 and 502 Cutler Street – Daniel	and Elizabeth Dunbar	509 Cutle	St – Sara Wood / 511 Cutler Street – David Maurer
PO Box 550, Raleigh NC – Wake Cou	unty Attorney's Office		418 S. Boylan Ave – Adryon Clay
4121 Redington Dr., Raleigh –	Derrick Weaver		3820 Doeskin Dr. – Karen Freidrich
I understand that all applications that requi	re review by the commission's	Certificate of Appropris	steness Committee must be submitted by 4:00 p.m. on the

Page 1 of 3

application deadline; otherwise, consideration will be delayed until the following committee meeting. An incomplete application will not be accepted.

Type or print the follo	owing:			N
Applicant Riana	Smith			
Mailing Address 913	1 Paverstone Drive, Suite F			
City Raleigh		State NC		Zip Code 27615
Date 8/7/2016		Daytime Phone	919-817-1589	
Email Address ria	na.smith1127@gmail.com	-		
Signature of Applican	· Reano	sull		
	And the second			
		Minor Wo	ork Approval (office use only)	
Upon being signed and	d dated below by the Plann	ing Director or des	ignee, this application becomes the Mino	or Work Certificate of Appropriateness. It is
valid until	Please pos	t the enclosed plac	card form of the certificate as indicated at	t the bottom of the card. Issuance of a Minor
Work Certificate shall	not relieve the applicant, c	ontractor, tenant,	or property owner from obtaining any oth	her permit required by City Code or any law.
Minor work projects n	ot approved by staff will be	e forwarded to the	Certificate of Appropriateness Committe	e for review at the next scheduled meeting.
10% 1940				
Signature			Dat	te
Project Categories (ch				
Project Categories (ch		· ·		(Office Use Only)
☐ Exterior Alt☐ Addition	eration			(Office Use Only) Type of Work
☐ Exterior Alt	eration	*		AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt☐ Addition	eration			AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt☐ Addition☐ New Constr☐ Demolition	eration	tation tax credits f	for this project?	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt☐ Addition☐ New Constr☐ Demolition	eration	itation tax credits f	for this project?	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt☐ Addition☐ New Constr☐ Demolition☐ Will you be applying f	eration	tation tax credits f	for this project?	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes	eration	tation tax credits f	for this project?	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes	eration	tation tax credits f	for this project?	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes ☐ No	eration ruction or state or federal rehabili		for this project?	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes ☐ No	eration ruction or state or federal rehabili		guidelines (www.rhdc.org).	AND CONTRACTOR OF THE CONTRACT
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes ☐ No Design Guidelines Plea	eration ruction or state or federal rehabili ase cite the applicable secti		guidelines (www.rhdc.org). Brief Des COA has been issued for construction of	Type of Work 90, 47 cription of Work a new two-story home and detached garage.
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes ☐ No Design Guidelines Plea	eration ruction or state or federal rehabili ase cite the applicable section	ions of the design ຄູ	guidelines (www.rhdc.org). Brief Des COA has been issued for construction of Application is for requests related to init plan; (ii) construct a retaining wall at rea	Type of Work 90, 47 cription of Work a new two-story home and detached garage. ial application to: (i) approve master landscape or of property and knee wall at the front; (iii)
☐ Exterior Alt ☐ Addition ☐ New Constr ☐ Demolition Will you be applying f ☐ Yes ☐ No ☐ Design Guidelines Plea	eration ruction or state or federal rehabili ase cite the applicable secti	ions of the design ຄູ	guidelines (www.rhdc.org). Brief Des COA has been issued for construction of Application is for requests related to init plan; (ii) construct a retaining wall at rea	Type of Work 90, 47 cription of Work a new two-story home and detached garage. ial application to: (i) approve master landscape or of property and knee wall at the front; (iii) or of metal roof accent and garage doors, and

TO BE COMPLETED BY APPLICANT				TO BE COMPLETED BY CITY STAFF		
neres		YES	N/A	YES	NO	N/A
graphic i be sure y	-1/2 " x 11" sheets with written descriptions and drawings, photographs, and other information necessary to completely describe the project. Use the checklist below to your application is complete. York (staff review) – 1 copy				Ð	
Major W	ork (COA Committee review) – 13 copies			\perp \vee		
1.	Written description. Describe clearly and in detail the nature of your project. Include exact dimensions for materials to be used (e.g. width of siding, window trim, etc.)					
2.	Description of materials (Provide samples, if appropriate)					
3.	Photographs of existing conditions are required.					
4.	Paint Schedule (if applicable)					/
5.	<u>Plot plan</u> (if applicable). A plot plan showing relationship of buildings, additions, sidewalks, drives, trees, property lines, etc., must be provided if your project includes any addition, demolition, fences/walls, or other landscape work. Show accurate measurements. You may also use a copy of the survey you received when you bought your property. Revise the copy as needed to show existing conditions and your proposed work.	d		/		
6.	Plan drawings Elevation drawings showing the new façade(s). Dimensions shown on drawings and/or graphic scale. 8-1/2" x 11" reductions of full-size drawings. If reduced size is so small as to be illegible, make 8-1/2" x 11" snap shots of individual drawings on the big sheet.	Ā		√		
7.	Stamped envelopes addressed to all property owners within 100 feet of property not counting the width of public streets and alleys. (Required for Major Work)			$\sqrt{}$		
8.	Fee (See Development Fee Schedule)	M				

Riana Smith 503 Cutler Street Raleigh, NC 27603 Historic Boylan Heights 919-817-1589

REQUEST TO CONSTRUCT RETAINING WALL, APPROVE LANDSCAPE PLAN, MODIFIY PRIOR COA REGARDING ROOF DETAIL, AND APPROVAL OF COMPATIABLE SUBSTITE MATERIALS.

The primary residence and garage as designed and approved by the Commission (File 121-15-CA and 121-16-CA), is a two-story craftsmen-style home, with a detached garage that is consistent and compatible with the characteristic district features and surrounding residencies.

2.3 Landscape Plan. The proposed landscape plan — includes the following plantings: (i) one Flowering Dogwood tree at the left rear of the lot; (ii) 4 Japanese Ansie Trees at the corners of the primary residence; (iii) 23 Cape Cod Inkberry Holly shrubs along the left and right elevations of the primary residence, interspersed with Spring Bouquet Laurustinus shrubs, both white flowering; (iv) 4 Tea Shrubs on the front elevation (two on each side of the steps); (v) 1 Hydrangea planted at the rear- right elevation; (vi) 3 Dwarf English Laurel shrubs planted at the rear of the house on either side of the rear deck steps; (vii) 7 Dwarf Yaupon Holly shrubs planted on the left elevation along the garage foundation wall; and (viii) 23 Sky Pencil Holly scrubs planted along the right elevation — from the garage foundation to the end of the retaining wall. Mulch will be added underneath the shrubs and around the trees to create clean line for the landscape plan and maintenance. The numbers of shrubs and trees to be planted is approximate based on the size of available species. Fescue sod is to be planted in the remaining open yard areas around the residence.

The plants and sod were selected based on the fact the lot is shaded, with wet soil conditions. The proposed shrubs and trees, while visually pleasing, do not require significant direct sunlight, are hardy, easy to maintain, and also tolerate wet soil conditions well. In addition, to address any concerns regarding the fact the primary residence foundation wall runs perpendicular into the garage retaining wall, the Japanese Ansie trees, proposed for planting in this area, grow to heights of at least 6 feet, and will act to camouflage the connection between the two structures and further emphasis the detachment of the primary residence from the garage, as well as the height of the garage foundation from Cutler Street. Finally, due to the limited space between the garage and the property line on the right elevation between (503 and 507 Cutler) – the Sky Pencil Holly is proposed, as it will grow sufficiently in height to camouflage the retaining wall, as well as not encroach over the property line of 507 Cutler. Pictures of the proposed shrubs and trees, along with a plot plan showing the location, height, and plant key of the plantings is attached with this application.

<u>2.4 Retaining Wall</u>. Due to the drainage issues with the lot and the height of the garage (in conjunction with the primary residence to achieve an ADA-accessible residence) a retaining wall is needed on the right side elevation, to support the garage and driveway. The proposed retaining wall would extend approximately 25-30 feet from the end of the foundation wall of the garage

towards the alley, and would have a simple black wrought iron fence on top of the wall running that same length. The retaining wall will be approximately 5 to 6 feet tall at its highest point, constructed of the same materials approved for the primary residence and garage - cement block, covered with stucco. The retaining wall will also be painted the same color as the foundation stucco of the primary residence and garage, so as to blend seamlessly. The retaining wall will not be visible from the left elevation – only the wrought-iron railing. The retaining wall is necessary to ensure the structural integrity of the garage, as well as to be used in conjunction with the drainage plan, to avoid forcing runoff onto the lower lot at 507 Cutler Street. There is also an existing retaining wall of similar height and proportion at 435 Cutler, which visible from Cabarrus Street.

2.4 Knee Wall. Pursuant to the condition set forth in 013-16-CA, the visible foundation at the front corners of the house are to be no more than 15% higher than the average visible foundation of the houses on either side. In order to comply with this requirement, and based on the grade and elevations of the lot, a knee wall will need to be constructed at the left corner of the primary residence. The proposed knee wall is approximately 2 feet in height and 18 feet long. Due to the proposed landscape plan, only about half of the knee wall would be visible. The knee wall would be constructed of the same materials approved for the primary residence and garage (cement block, covered with stucco, and painted to the same color as the primary residence foundation wall).

<u>2.6 Garage Doors</u>. Currently, the only material approved by the Commission for garage doors this applicant is aware of is wood and smooth faced steel. Applicant requests the approval of the use of Extira as a compatible substitute material for use on exterior panels for the two new garage doors, which doors face the rear alleyway. This material is similar to Miratec, or fiberglass, other smooth surface substitute materials approved by the Commission for use on the rear areas of a primary residence and accessory structures. Extira is smooth surface, paintable, and would hold up to the weather and sun exposure better and longer, with less maintenance, than wood garage doors. The specifications for the materials are provided with the application.

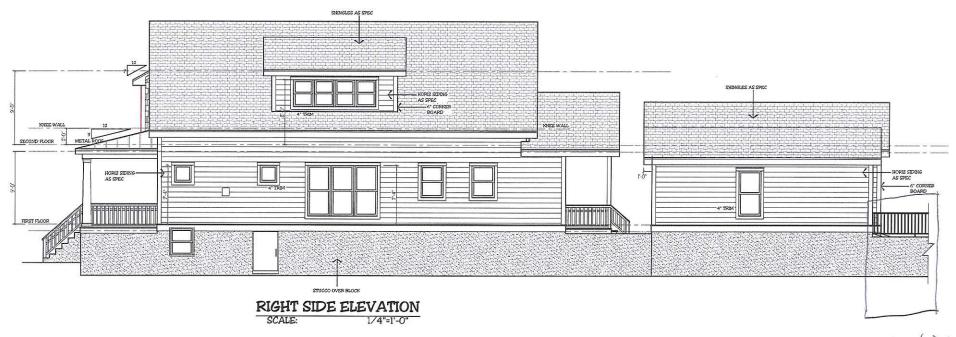
Finally, the proposed garage door design is a carriage-style garage door designed with six square-panel glass inserts, over two vertical panels, painted the same white as the trim, and black hardware. Carriage-style garage doors are found throughout Boylan Heights, so is in keeping with the character of the district. The design proof is provided with the application. The garage doors are to be manufactured by Wood Creations of NC.

3.5 Eve Detail - Roof: The elevations initially submitted and approved in File 121-15-CA did not reflect the boxed soffit at the end of the rake that would appear when constructed according to the construction detail sheet (which was submitted with the initial application). When the soffit detail is constructed as drawn, then the soffit must be boxed-out at the end where the gable comes down to meet with it. The updated elevations submitted reflect the boxed soffit (eave) detail – at the rake. A boxed soffit is an architectural detail commonly found in historical homes of the type in and around Boylan Heights, so would its inclusion with the house is compatible with the characteristic district features and surrounding residencies. Moreover, this is a minor detail on the house, and this detail correction does not change the previously approved roofline, nor is it a visible change from the left or right elevation, only the front and rear.

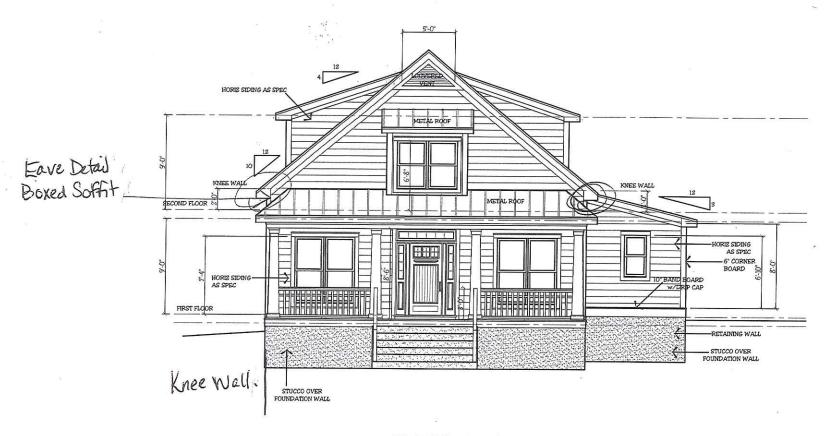
3.5 Tin Roof Accent. As originally approved in COA 121-15-CA, the primary residence includes tin/metal accents over the front window of the second story, as well as the front porch. The manufacture of the metal roof is Coastal Metal Service. The metal roof color is Acrylic Coated Galvalume, constructed of 26 gage metal, with standing seam detail, and ridge caps. The metal roofing material also has striations in the pans, which applicant understands has not yet been approved as a compatible substitute material, which approval is hereby requested.

The purpose of manufacturing the metal roof with these striations is to avoid what is referred to in the industry as "oil canning." "Oil canning" occurs when a metal roof bows due to heat and cooling, and as a consequence no longer lays flat or flush to the roof frame. These striations are tiny bends or crimps that are added to make the metal more rigid. This results in the metal staying flatter and more true to its original shape. The metal roof material is otherwise the same in all other material respects of the flat seam metal roof, and is an improved manufacturing process that results in the material looking better for longer, thereby requiring less maintenance to try and correct the issue. There is very little of this material used on the house. Based on the pitch/slope of the front porch and window accent, these striations are barely visible, if at all, from the sidewalk, and really on when viewed close-up. Pictures taken looking down on the front porch showing the striations are attached, as well as from various other street points to reflect the visibility of the same.

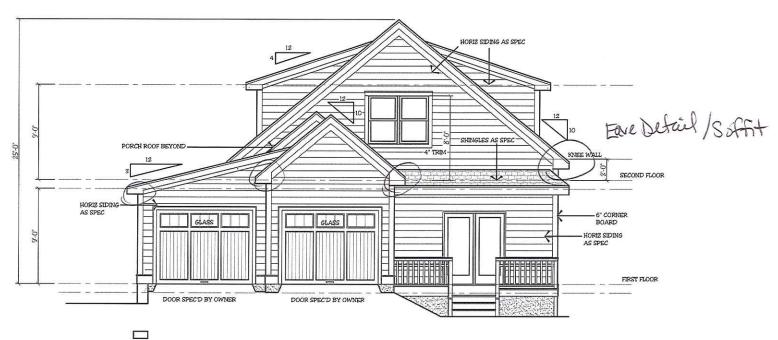
**Elevation drawings are also attached showing the proposed retaining walls, modification to the eave detail, plot plan, landscape plan, as well as pictures of the current condition of the construction at the site.



requested retaining wall of wrongerfiron fence above

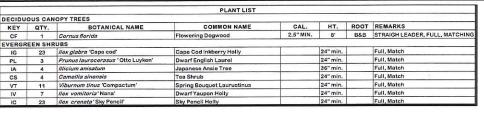


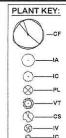
FRONT ELEVATION SCALE: 1/4"=1'-0"

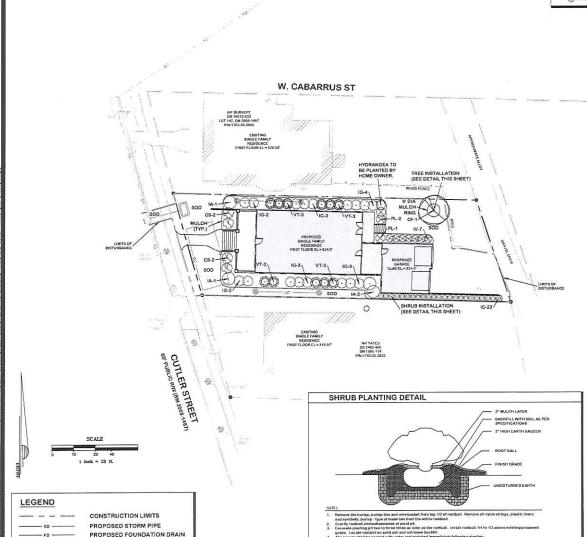


REAR ELEVATION
SCALE: 1/4"=1'-0"









CHORD BEARING

CHORD LENGTH

ARCLENGTH

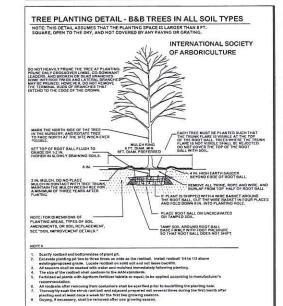
CURVE RADIUS

GENERAL PLANTING NOTES:

- ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES AND SHALL MEET ALL STANDARDS AS STATED IN THE LATEST EDITION OF 'AMERICAN STANDARD FOR NURSERY STOCK'
- PLANT LIST QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN THE EVENT OF QUANTITY DISCREPANCIES, THE DRAWINGS SHALL TAKE PRECEDENCE.
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER OR LANDSCAPE DESIGNER.
- CONTRACTOR SHALL HAVE UTILITY COMPANY LOCATE ALL UTILITIES PRIOR TO DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES INCURRED BY HIS/HER WORK.
- METHODS OF TREE STAKING INDICATED ON THE DRAWINGS ARE SUGGESTIONS ONLY. THE LANDSCAPE CONTRACTOR SHALL USE WHATEVER METHOD HE DEEMS FIT, HOWEVER HE WILL BE HELD LIABLE FOR ANY DAMAGES CAUSED TO TREES BY IMPROPER STAKING METHODS (OR ABSENCE OF STAKING) AND IS RESPONSIBLE FOR UPRIGHTING AND REPLANTING TREES WHICH ARE BLOWN OVER.
- ALL AREAS NOT SHOWN AS HARD SURFACES, PLANT BED, MULCHED OR UNDISTURBED AREAS, SHALL BE SODDED AS LAWN WITH TALL TURF TYPE
- FESCUE FOR ALL AREAS AND WITHIN RIGHT OF WAY UP TO THE ROAD. ALL LANDSCAPE BEDS CONTAIN TRIPLE SHREDDED HARDWOOD MULCH
- ALL LANDSCAPE BEDS SHALL HAVE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.
- ALL PLANT BEDS SHALL BE TREATED WITH PRE-EMERGENT WEED CONTROL (I.E. TREFLON GRANULES).
- ALL PLANTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND SHALL BE VIGOROUS, HEALTHY MATERIAL FREE OF PESTS AND DISEASE.
- 11. VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE PLANTING CONTRACTOR, AND THE TOTAL QUANTITIES SHALL BE REQUIRED ON THE PLANTING PLAN.

 12. OWNERS SHALL MAINTAIN ALL PLANT BEDS AND PLANT MATERIAL IN
- GOOD HEALTH, AND ANY DEAD, UNHEALTHY OR MISSING PLANTS SHALL BE REPLACED WITH THE SAME PLANT MATERIAL ORIGINALLY SPECIFIED
- 13. PLANT MATERIAL ON THIS SITE MUST BE INSTALLED IN CONFORMANCE WITH THE GENERAL PLANTING NOTES AND DETAILS ON THIS PLAN OR TO THE STANDARDS OF THE CITY OF RALEIGH.

 14. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED PERMITS
- AND LICENSES TO PERFORM THE REQUIRED WORK.



NOT FOR CONSTRUCTION



GRADING DRAWING SHEET _-1.0

GROUP, PA CONSULTING NOUGENSE NUMBER C-2211

N E E R I N G (1) Parestone Date State E 19 845-4399 | Far 919 845-439

N 29 8 BST

PLAN

PLOT PLAN STORM DRAINAGE

య

STREET

CUTLER

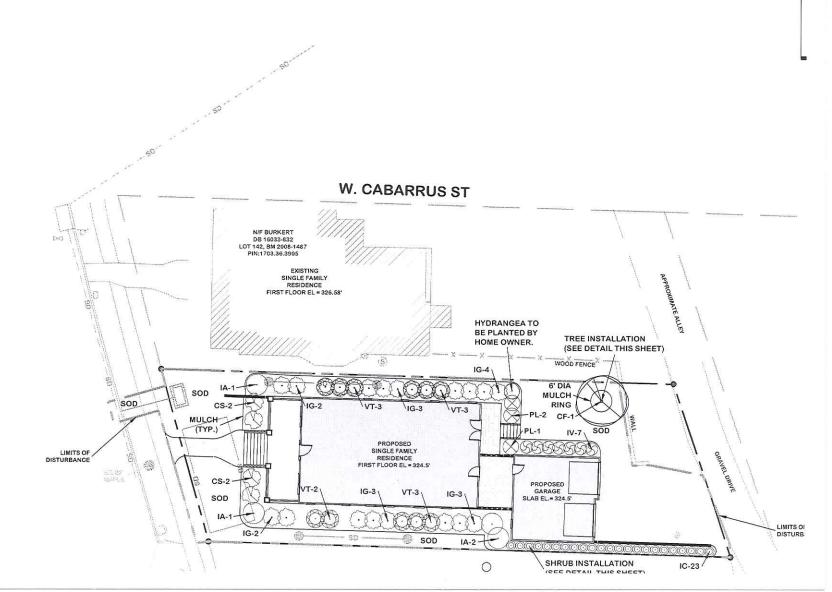
533

5

ZZ

PROJECT NUMBER 313-15

FOR REVIEW ONLY



Cornus florida (15'-30' tall by 15'-30' wide at maturity)



Ilex glabra 'Cape Cod' (8' tall by 5' wide at maturity)



Camellia sinensis (6' tall by 6' wide at maturity)



Viburnum tinus 'Compactum' (5' tall by 5' wide at maturity)



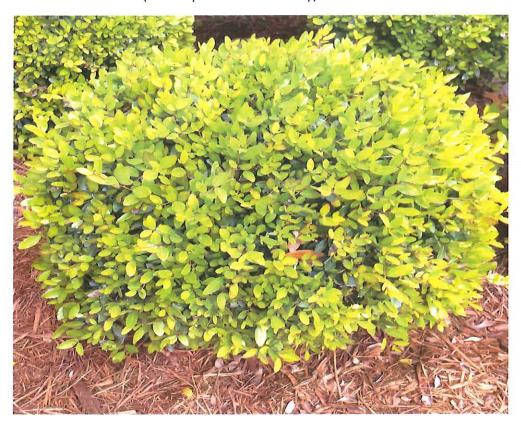
Prunus laurocerasus 'Otto Luyken' (4' tall by 6' wide at maturity)



Illicium anisatum (Pyramidal-9' tall by 7' wide at maturity)

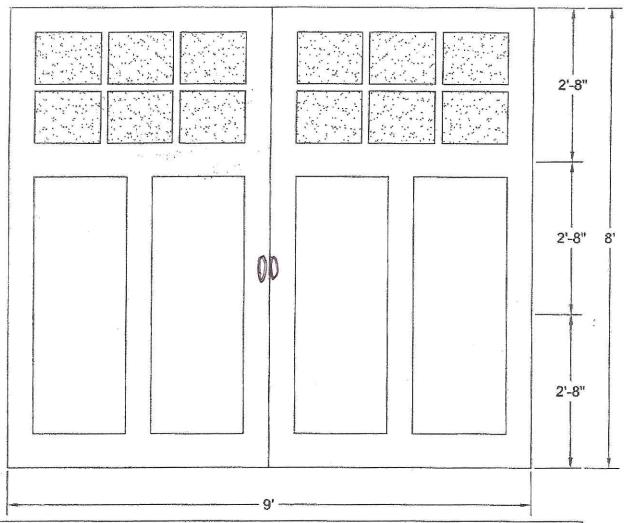


Ilex vomitoria 'Nana" (3' tall by 5' wide at maturity)



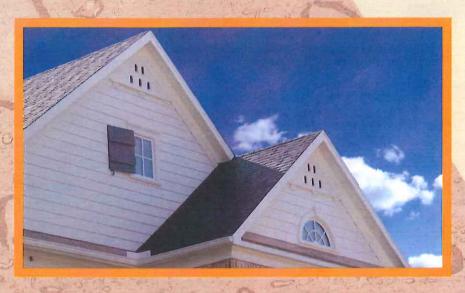
Ilex crenata 'Sky Pencil' (10' tall by 2.5' wide at maturity)





	CUS	STOM OVERHEAD	000	R - RIAN	A
QUANITY	SIZE	MATERIAL		WIND LOAD	GLASS
1	9' X 8'	J	7 5	130 MPH	SQUARE GLASS TOP













From the Makers of MIRATEC®







Put Extira to Work on Your Next Project

- Treated exterior wood composite panel
- Sanded two sides; smooth, unprimed surface
- Moisture, rot, and termite resistant; treated with zinc borate
- No added formaldehyde
- One piece solid substrate not laminated
- Can be used for virtually any non-structural paint grade application, including exterior millwork, door and window parts, signage, garage doors and other architectural components
- Extira has a Class C fire rating; Flame spread 120; Smoke developed 95
- LEED Credits Supported: Indoor Environmental Quality 4.4
- 5-year warranty



Extira is made in the U.S.A.
 by CMI, the makers of





The Best Alternative to a Variety of Other Products

	Extira	WDF	Plywood	MDO	PVC
Price \$	\$\$	\$	\$	\$\$	\$\$\$\$
Moisture Resistance	Good	Poor	Poor	Good	Best
Rot Resistance	Best	None	None	None	Best
Weathering ³	Good	Poor	Poor	Good	Best
UV Resistance ³	Good	Good	Best	Good	Poor ²
Warranty	5 Year	30 Days	None	Varies	5-year to Lifetime ¹
Machineability 🔛	Good	Varies	Poor	Poor	Best
Paintability ³	Best	Best	Good	Best	Poor

¹ Non-transferrable

² PVC generally has trouble accepting darker shades of paint

³ Ratings reflect uncoated material ranking. Extira must be field finished before use.

Extira is a Revolutionary Product that Performs Better than Wood or MDF...

EXTIRA VS. MDF

	EXTIRA	MDF
Composition	Wood, phenolic resins, zinc borate, water repellent and other ingredients	Wood, urea formaldehyde resin
Manufacturing Process	Proprietary, patented steam injection technology using TEC™ manufacturing process	Pressed between hot platens
Benefits	Consistent density	Not uniformly dense throughout
	Moisture, rot and termite resistance	No termite or rot protection
	Exterior performance	MR MDF offers moisture resistance for interior use only
Warranty	5 years	30 days
Application	Exterior	Interior

...Extira is Stronger and Performs Longer.

	Extira 3/4"	Medex¹ 3/4"	Norbord ¹ MR 3/4"	MR 50 Grade 110 per ANSI 208.2-2002	Natural Wood
Thickness Swell (TS)	3.5%	3%	8.0%	5% max	NA
Advanced Bond Integrity (% strength retention)	90%	Not Published	20%³	50% min	NA
Termite Resistance (10 is the highest score)	7.9 out of 10 (3 year exposure) ²	None	None	None	None, 0.0
Rot Resistance (0 is the highest score)	1.0 weight loss ² (3 year exposure) ²	None	None	None	None, 5.0

¹ published material

Moisture resistant: As measured by ASTM D1037 for water absorption and thickness swelling.

Rot resistant: As measured by AWPA E-16 Field Test for Evaluation of Wood Preservatives To Be Used Out of Ground Contact: Horizontal Lap-Joint Method.

Termite resistant: As measured by AWPA E-7 Standard Method of Evaluating Wood Preservatives by Field Tests with Stakes.



² Independent testing per AWPA E-7 and AWPA E-16

³ Cycle Testing: Published as Immersion in water for 3 days, freezing in air at 10°F for 1 day, exposure to air at 158°F for 3 days.



With Five Thicknesses and Three Panel Sizes, Extira Measures Up to Any Project.

Choose from a	variety	of size	es and	thickr	esses
Size (nominal)		Thickness (+/-0.005")			
	1/2"	5/8"	3/4"	1″	1-1/4"
4' x 8' (49" x 97")	0,	•	•	•	•
4' x 16' (49" x 194")	•	•	•	•	•
2' x 16' (25" x 194")	•	•	•	•	•

Finishing Recommendations

Extira is a wood based composite that must be primed and painted before being exposed to the outdoors. You may want to use adhesives or lamination to affix other materials to Extira. Because CMI makes wood composite panels and not adhesives, primers or other materials, CMI cannot guarantee the performance or compatibility of any material to Extira. CMI regularly tests materials at the CMI research and development testing laboratory and performs testing with the manufacturers of popular primers and adhesives. Visit www.extira.com for updates on compatible materials and techniques. Qualification of all materials and their end use are the responsibility of the end user. CMI has no liability for primers, paints, adhesives or any other treatment of Extira.

Extira is Environmentally Friendly

No old growth timber is used to make Extira; instead, managed forestland thinning residuals are used. To source field thinnings, loggers cut down smaller trees and underbrush to allow the remaining trees to grow better and fuller. This process is a basic principle of sound logging practices and it helps promote reforestation.

Termite Resistance	7.9 out of 1	0		
(10 is the highest score)	(3 year exposure)			
Rot Resistance	1.0			
(0 is the highest score)	(3 year exp	osure)		
Advanced Bond Integrity (% strength retention)	90%			
Density	47 lb/ft ³	0.753 g/cm ²		
MOR	3660 psi	25.2 MPa		
MOE	357 kpsi	2461 MPa		
Internal Bond	116 psi	800 kPa		
Direct Screw Withdrawal				
Face	330 lbf	150 kgf		
Edge	325 lbf	147 kgf		
24-Hour Soak				
% Thickness Swell	3.5%			

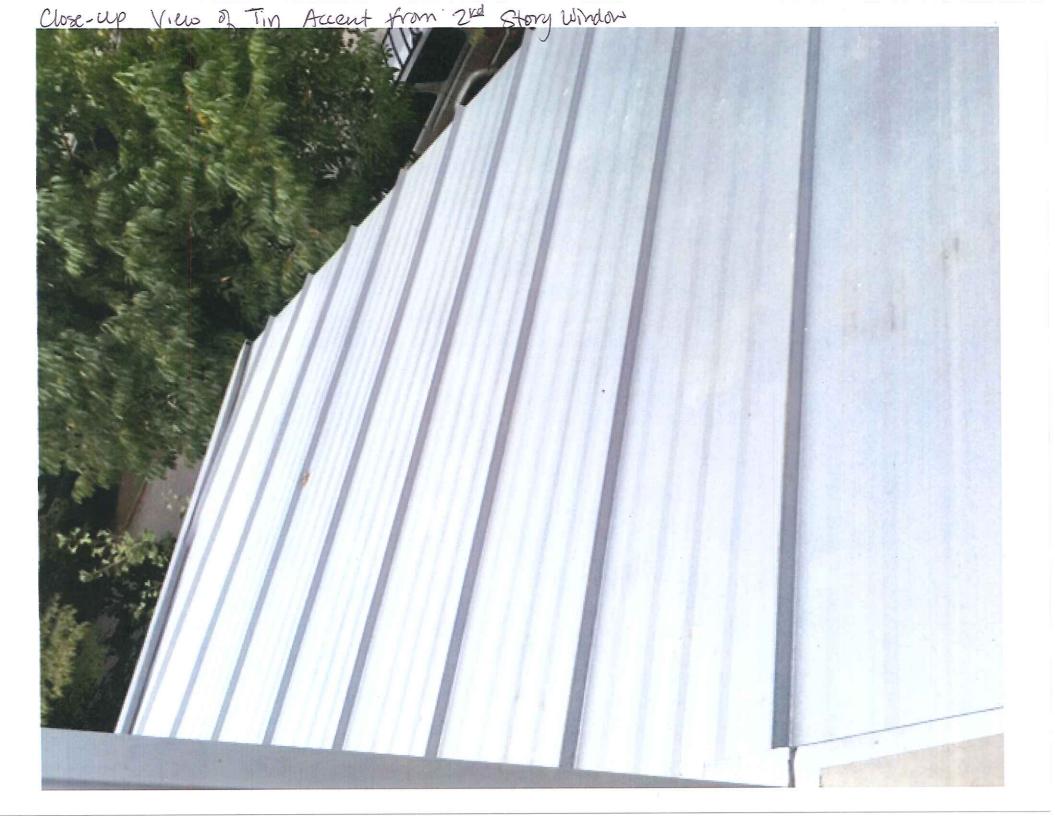






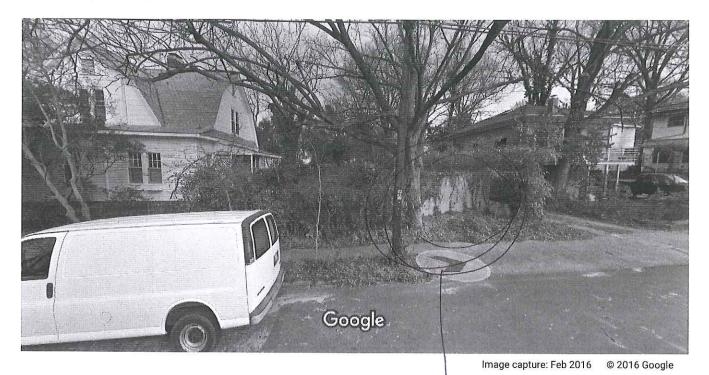








Google Maps W Cabarrus St



Raleigh, North Carolina

Street View - Feb 2016

 \mathcal{H}_{Vd}

W Leno

Retaing/Wall-435 Centler St.



