## MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION STAFF REPORT

Address: 10221 Montgomery Avenue, Kensington Meeting Date: 9/6/2023

**Resource:** Contributing (Primary One) Resource **Report Date:** 8/30/2023

**Kensington Historic District** 

**Public Notice:** 8/23/2023

**Applicant:** Bruce Caswell and Lauren Deichman

(Mike Roberson/McFarland Woods, Agent) Tax Credit: N/A

Review: HAWP Staff: Rebeccah Ballo

Case Number: 1029631

**PROPOSAL:** After the fact demolition of the garage and construction of a new garage

#### **DIRECTION FROM JUNE 14, 2023 HPC HEARING**

The Historic Preservation Commission heard this case at its June 14, 2023 public hearing. The decision was deferred to a future date so that the applicant could provide additional materials to aid the HPC in their deliberations. The meeting minutes from that hearing noted the following:

"Comm. Hains moves to defer the consideration of the application to a future meeting. He requested additional information be provided including setback compliance, code requirements for the new garage, a wall check, photographic evidence and documentation of the conditions of the historic garage prior to its demolition, and a structural engineer's certification for the new garage. Comm. Galway 2nds the motion. 7-1-0

<u>Deliberations</u>: Comm. Hains makes the motion for deferral, Comm. Galway 2nds. Comm Sutton ask for a roll call vote (7-1-0)"

The applicant has returned for reconsideration. Their application has been updated to include:

- setback approvals from the Board of Appeals (Case No.A-6688, Opinion Effective April 21, 2021)
- a wall check exhibit for the new garage dated July 17, 2023
- photographs of the historic garage prior to demolition
- a structural engineers certificate for the new garage dated January 23, 2023

Additionally, staff has had the opportunity to study the new garage and proposes revised conditions of approval. The exposure for the new garage siding has been measured in the field with a 4 3/8" reveal; this is slightly larger than the 3"-4" reveal previously recommended by staff. However, it matches the reveal of the siding on the historic house and is so close to 4" that the difference is visually negligible. Staff has struck this recommended condition of approval that would have required new siding be installed. The applicant has acknowledged the difference in size for the fascia, the need to screen the pool equipment, and has discussed options for complying with the condition regarding the windows. These items are still included as staff conditions. Revised conditions of approval are included below. The previous staff report is also appended to this memo and to the applicant's updated materials; this report contains all the relevant background information and findings from the June 14th public hearing.

#### REVISED STAFF RECOMMENDATION

Staff recommends that the HPC <u>approve</u> the HAWP application <u>with five (5) six (6) conditions</u>, with final approval authority showing that all conditions have been met delegated to staff:

- 1) The applicant shall submit a corrected copy of the as-built drawings showing the new structure from all four elevations, in plan, and with accurate material notations, noting that this is "New Construction":
- 2) The single hung windows shall be 6/1 to match those from the demolished garage. The windows may be wood or aluminum clad wood, with simulated-divided-lite spacers. Final details of the windows shall be shown on the revised drawings;
- 3) The siding shall be wood, lap siding, with a reveal no greater than 3"-4";
- 4) 3) The fascia throughout shall be reduced to have a reveal no greater than 6";
- 5) 4) The pool equipment shall be screened with either four-season evergreen plantings or with wood, horizontal panels, or another small structure. Final details of the screening shall be shown on the revised drawings; and,
- 6) 5) The revised drawings shall accurately show all the proposed new hardscape, including specification materials for the pavers and handrails. This item shall be prepared for staff approval under a separate HAWP application.

under the Criteria for Issuance in Chapter 24A-8(b), (4) & (d) having found that the proposal will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A;

and with the general condition that the applicant shall present an electronic set of drawings, if applicable to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make **any alterations** to the approved plans.

Once the work is completed the applicant will <u>contact the staff person</u> assigned to this application at 301-563-3404 or <u>rebeccah.ballo@montgomeryplanning.org</u> to schedule a follow-up site visit.

**From:** Mike Roberson < <u>mike@mcfarlandwoods.com</u>>

Sent: Tuesday, August 15, 2023 3:43 PM

**To:** Bruce Caswell < <u>brucecaswell@verizon.net</u>>; HAWP < <u>HAWP@montgomeryplanning.org</u>>; Lauren

Deichman < <a href="mailto:laurencdeichman@gmail.com">laurencdeichman@gmail.com</a>>

Subject: 10221 Montgomery Avenue Kensington Maryland

#### Good afternoon,

I have attached additional documentation requested by the Historic Preservation Commission at our last review.

The items requested are-

- 1. Setback compliance-there is an existing variance for this structure included with the original HAWP submitted.
- 2. Code requirements- All inspections up to close in, were conducted and passed including all 3rd party inspections associated with Montgomery County Special Inspections Program. The close-in inspection was actually conducted and passed but was later rescinded because of the non-compliance with the HAWP.
- 3. Wall check-Attached
- 4. Photographic evidence and documentation of the damage prior to demolition. The photos of the existing garage that I have are in the previous submittal but are not specific to rotted areas. They are subject to interpretation, but I believe they do show a generally dilapidated state and walls that are not structurally sheathed or braced.
- 5. Structural engineer's certification for the new garage-Attached

I have also attached an ASK from the architect showing the enclosure for the pool equipment to the rear of the garage as well as the exposure of the siding matching the existing house at 4 3/8". It is our intention to lessen the visible portion of the fascia board and to installs mullions in the windows to restore the 6 over 1 lite division.

Thank you for your time and assistance with this and let me know if you have any questions. I am hopeful we can get this resolved at the next review meeting.

Mike Roberson



--

Michael Roberson Project Manager McFarland Woods Inc 240-315-5084



#### BOARD OF APPEALS for MONTGOMERY COUNTY

Stella B. Werner Council Office Building 100 Maryland Avenue Rockville, Maryland 20850 http://www.montgomerycountymd.gov/boa/

(240) 777-6600

#### Case No. A-6688

#### PETITION OF BRUCE CASWELL AND LAUREN DEICHMAN

#### OPINION OF THE BOARD

(Hearing Date: April 14, 2021)
(Effective Date of Opinion: April 21, 2021)

Case No. A-6688 is an application by Bruce Caswell and Lauren Deichman (the "Petitioners") for a variance needed for the construction of an addition to a detached garage. The proposed construction requires a variance of 4.31 feet as it is within 0.69 feet of the left side lot line. The required setback is five (5) feet, in accordance with Section 59-4.4.9.B.2 of the Zoning Ordinance.

Due to COVID-19, the Board of Appeals held a remote hearing on the application on April 14, 2021. All participation was done via Microsoft Teams. Petitioner Bruce Caswell participated in the proceedings in support of the requested variance. He was assisted by architect Lauren Clark of GTM Architects.

Decision of the Board: Variance GRANTED.

#### **EVIDENCE PRESENTED**

- The subject property is Lot 20, Block 3, Lts 21&22 Kensington Park Subdivision, located at 10221 Montgomery Avenue in Kensington, Maryland, 20895, in the R-60 Zone. It contains an existing detached garage that encroaches on the left side setback. See Exhibits 1, 3, and 4.
- 2. The Petitioners' Statement of Justification ("Statement") indicates that the subject property contains an existing house and detached garage that were constructed in 1898, and that the Petitioners purchased the property in 2010. The Statement indicates that the property is a Contributing (Primary One) Resource in the

Kensington Historic District, and thus asserts that the proposed development contains a historically significant property or structure. The Statement states that the Historic Preservation Commission has approved the proposed modifications to the garage under Historic Area Work Permit #912864, approving two garage additions on May 27, 2020, and a 16-inch height increase on September 9, 2020. In addition, the Statement indicates that because the existing garage does not meet the required setback, it is a legal nonconforming structure. See Exhibit 3.

- 3. The Statement states that the existing dwelling on the subject property is located so close to the left side lot line as to render infeasible relocation of the existing garage to meet the required setback. It states that the requested variance is the minimum needed to allow the proposed improvements while continuing to allow passage between the garage and home. See Exhibit 3.
- 4. The Statement states that the requested variance can be granted without substantial impairment to the 2012 Kensington Sector Plan, the Intent of which, the Statement notes, is "to promote a mixed-use Town Center with pedestrian-friendly connections to the vibrant neighborhoods that define Kensington." The Statement states that the proposed construction "seeks to preserve a contributing resource to the unique identity of the Kensington Historic District." See Exhibit 3.
- 5. At the hearing, Petitioner Bruce Caswell testified that he and his wife have owned the subject property since 2010, and have lived in Kensington since 1996. He testified that they are committed to the Town and its history. Petitioner Caswell testified that their current home was built in 1898, and was sited on the left side of the three lots that comprise the subject property. He testified that he was not sure when the garage was constructed, but that he believed it was sometime in the 1920s or 1930s. Petitioner Caswell testified that after exploring their options, he and his wife decided on the proposed garage renovation, which would raise the height of the structure by 16 inches and create two small bumpouts. In response to a Board question asking if he was aware of any neighborhood opposition to his request, Petitioner Caswell testified that his neighbors were excited because the proposed renovation, which he noted had been approved by the County's Historic Preservation Commission, would improve the look of the structure from the street.
- 6. The Petitioners' architect, Lauren Clark, testified that the existing garage is smaller than a standard two-car garage. She testified that moving the structure any significant distance is impossible because of the location of the existing home. Ms. Clark testified that while the proposed changes included two additions to the garage, the main portion of garage's existing 18 foot wide footprint was not being changed. In addition, she testified that the Petitioners were increasing the height of the garage by 16 inches to accommodate a proposed lift, but that even with the proposed increase in height, the garage would still be below the 15 foot height limit. In response to a Board question, Ms. Clark testified that the Petitioners were not adding a bathroom to the garage.

#### FINDINGS OF THE BOARD

Based on the binding testimony and the evidence of record, the Board finds that the variance from the left side lot line complies with the applicable standards and requirements set forth in Section 59-7.3.2.E.2, and can be granted, as follows:

1. Section 59.7.3.2.E.2.a. one or more of the following unusual or extraordinary situations or conditions exist:

Section 59.7.3.2.E.2.a.iv. the proposed development contains a historically significant property or structure;

Based on the Statement and the testimony of Petitioner Caswell, the Board finds that the Petitioners' property is designated as a Contributing (Primary One) Resource in the Kensington Historic District, and that as a result, the Petitioners had to seek, and have received, permission from the County's Historic Preservation Commission to undertake the proposed construction involving the existing garage. See Exhibit 3. Thus the Board finds that the proposed development contains a historically significant property or structure, in satisfaction of this element of the variance test.

2. Section 59.7.3.2.E.2.b the special circumstances or conditions are not the result of actions by the applicant;

Based on the representations in the Statement and the testimony of Petitioner Caswell, the Board finds that the Petitioners purchased the subject property in 2010, long after it was constructed, and that they are not responsible for the location of the existing structures on the property or their historical significance and designation, in satisfaction of this element of the variance test.

3. Section 59.7.3.2.E.2.c the requested variance is the minimum necessary to overcome the practical difficulties that full compliance with this Chapter would impose due to the unusual or extraordinary situations or conditions on the property;

The Board finds that compliance with the left side lot line setback imposed by the Zoning Ordinance poses a practical difficulty for the Petitioners with respect to their ability to expand their existing garage while maintaining its historic character and placement. The Board notes that because of the historic designation of the subject property, any changes to the existing garage must be reviewed and approved by the Historic Preservation Commission to ensure that they do not compromise the historic significance of this property, and that the HPC has approved the proposed changes. Thus the Board finds that the variance requested from the left side lot line is the minimum needed to overcome the Petitioners' practical difficulty by allowing construction consistent with the historic nature of the subject property and its structures, as well as with the general location of the existing garage, in satisfaction of this element of the variance test.

4. Section 59.7.3.2.E.2.d the variance can be granted without substantial impairment to the intent and integrity of the general plan and the applicable master plan:

The Board finds that the proposed construction has been approved by the Historic Preservation Commission, and would continue the residential use of the property. The Board thus finds the requested variance from the left side lot line can be granted without substantial impairment to the intent and integrity of the 2012 Kensington Sector Plan, which seeks, among other things, to protect Kensington's stable residential neighborhoods and to preserve the Town's historic character.

5. Section 59.7.3.2.E.2.e granting the variance will not be adverse to the use and enjoyment of abutting or confronting properties.

The Board finds that the grant of the requested variance will not be adverse to the use and enjoyment of neighboring properties in that it would allow modest improvements, the design of which has been approved by the County's Historic Preservation Commission, to an existing garage that has been located in what is now considered the left side setback since its construction more than (or, at the very least, nearly) a century ago. In addition, the Board notes that Petitioner Caswell has testified that the proposed construction will improve the appearance of the garage from the street, and that his neighbors welcome the improvements. In light of the foregoing, the Board finds that granting the variance to allow the proposed construction will not be adverse to the use and enjoyment of neighboring properties, in satisfaction of this element of the variance test.

Accordingly, the requested 4.31 foot variance from the left side lot line is **granted**, subject to the following conditions:

- 1. Petitioners shall be bound by the testimony and exhibits of record, to the extent mentioned in this Opinion; and
  - 2. Construction shall be in accordance with Exhibits 4 and 5(a)-(b).

Based upon the foregoing, on a motion by John H. Pentecost, Chair, seconded by Bruce Goldensohn, Vice Chair, with Mary Gonzales, Richard Melnick, and Caryn Hines in agreement, the Board adopted the following Resolution:

**BE IT RESOLVED** by the Board of Appeals for Montgomery County, Maryland that the opinion stated above is adopted as the Resolution required by law as its decision on the above-entitled petition.

John H. Pentecost

Chair, Montgomery County Board of Appeals

Entered in the Opinion Book of the Board of Appeals for Montgomery County, Maryland this 21st day of April, 2021.

Barbara Jay 💛 , Executive Director

#### NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book. Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

See. Section 59-7.3.2.G.1 of the Zoning Ordinance regarding the twelve (12) month period within which the variance granted by the Board must be exercised.



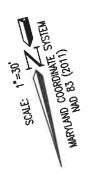


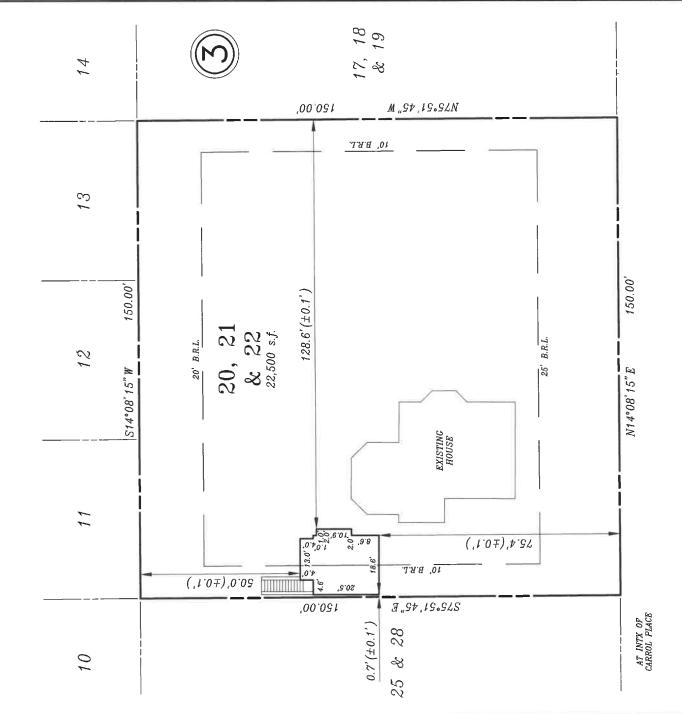
# AVENUE CHECK EXHIBIT MONTGOMERY WALL 10221

PARK BLOCK LOTS 20, 21 & 22, KENSINGTON

WHEATON (13th) ELECTION DISTRICT

MONTGOMERY COUNTY, MARYLAND





AVENUE MONTGOMERY

(50' R/W)

BRL'S FRONT: 25' SIDE: 10' REAR: 20'

THE SUBJECT PROPERTY LIES WI:
SONE X.—AREAS DIESTRAINED TO
OUTSIDE THE 0.2X ANNULL CHAN,
FLOODPLAIN AS SHOWN ON THE F
INSURANCE RATE MAD FOR MONT
COUNTY, MARYLAND, MAP NO. 240,
EFFECTIVE DATE SEPTEMBER 29,

1023167

PERMIT NUMBER:

R-60

ZONE:

FOUNDATION SURVEY: 07/14/2023 **ZONE**: surveying the the information shown hereon was obtained using accepted land surveying es; that the boundary information shown hereon was prepared without the benefit of a title report, at and the survey on which it is based were prepared under my responsible charge and are in once with comar Reg. 09.13.06.12.

Charles P. Johnson & Associates, Inc.

1751 Elton Rd., Ste. 300 Silver Spring, MD 20903-301-434-7000 Fax: 301-434-9394 S. MD - Gaithersburg, MD - Annapolis, MD - Greenbelt, MD - Frederick, MD - Fairfax, VA

(m) 2021-1284-885.20-22 1"=30Checked by Scale Date 07/17/2023 MSB Record No. Drawn by REFERENCE В Plat Book Plat No.

23

January 01/23/2023

Ms. Lauren Ibarra
GTM Architects
7735 Old Georgetown Road
Bethesda, MD 20814

RE: 10221 Montgomery Avenue

Kensington, MD 20895

Permit #: 936313

#### Dear Ms. Ibarra:

At the general contractor's request, and as the structural engineer of record on the project, we visited the site of the referenced project on December 13th, 2022. The purpose of the visit was to review the as-built garage wall framing, above ground steel framing, and the garage roof framing above the ground floor deck.

The result of our review indicated that the as-built garage wall framing, above ground steel framing, and the garage roof framing are structurally adequate and are in compliance with the structural drawings and the subsequent revisions. The as-built garage framing is capable of supporting the design loading requirements for the project.

Sincerely,

Gus Radwan, P.E.





#### HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Sandra I. Heiler Chairman

Date: June 12, 2020

#### **MEMORANDUM**

TO: Hadi Mansouri

Department of Permitting Services

FROM: Michael Kyne

Historic Preservation Section

Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #912864: Accessory structure alterations and shed construction

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved** at the May 27, 2020 HPC meeting.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Bruce Caswell and Lauren Deichman (Lauren Clark, Agent)

Address: 10221 Montgomery Avenue, Kensington

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Michael Kyne at 301.563.3403 or <a href="michael.kyne@montgomeryplanning.org">michael.kyne@montgomeryplanning.org</a> to schedule a follow-up site visit.



#### LOT COVERAGE

PROPERTY AREA: 22,500 SF ZONE: R-60

MAX LOT COVERAGE ALLOWED: 20% (4,500 SF)

SQUARE FOOTAGE

EXISTING MAIN HOUSE: 1,957 SF
EXISTING GARAGE: 372 SF
GARAGE ADDITIONS: 113 SF
NEW SHED: 120 SF
TOTAL: 2,562 SF

PROPOSED LOT COVERAGE: 11.4%

### **REVIEWED**

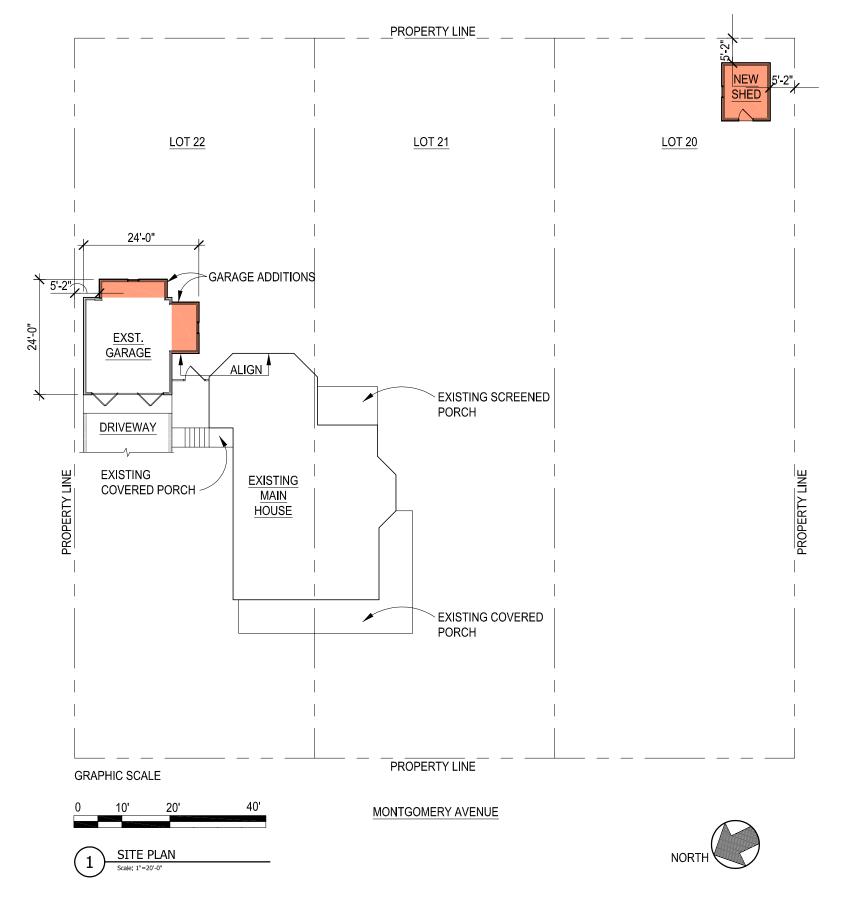
By Michael Kyne at 3:41 pm, Jun 12, 2020

APPROVED

Montgomery County

Historic Preservation Commission

Sandral. Xkiler

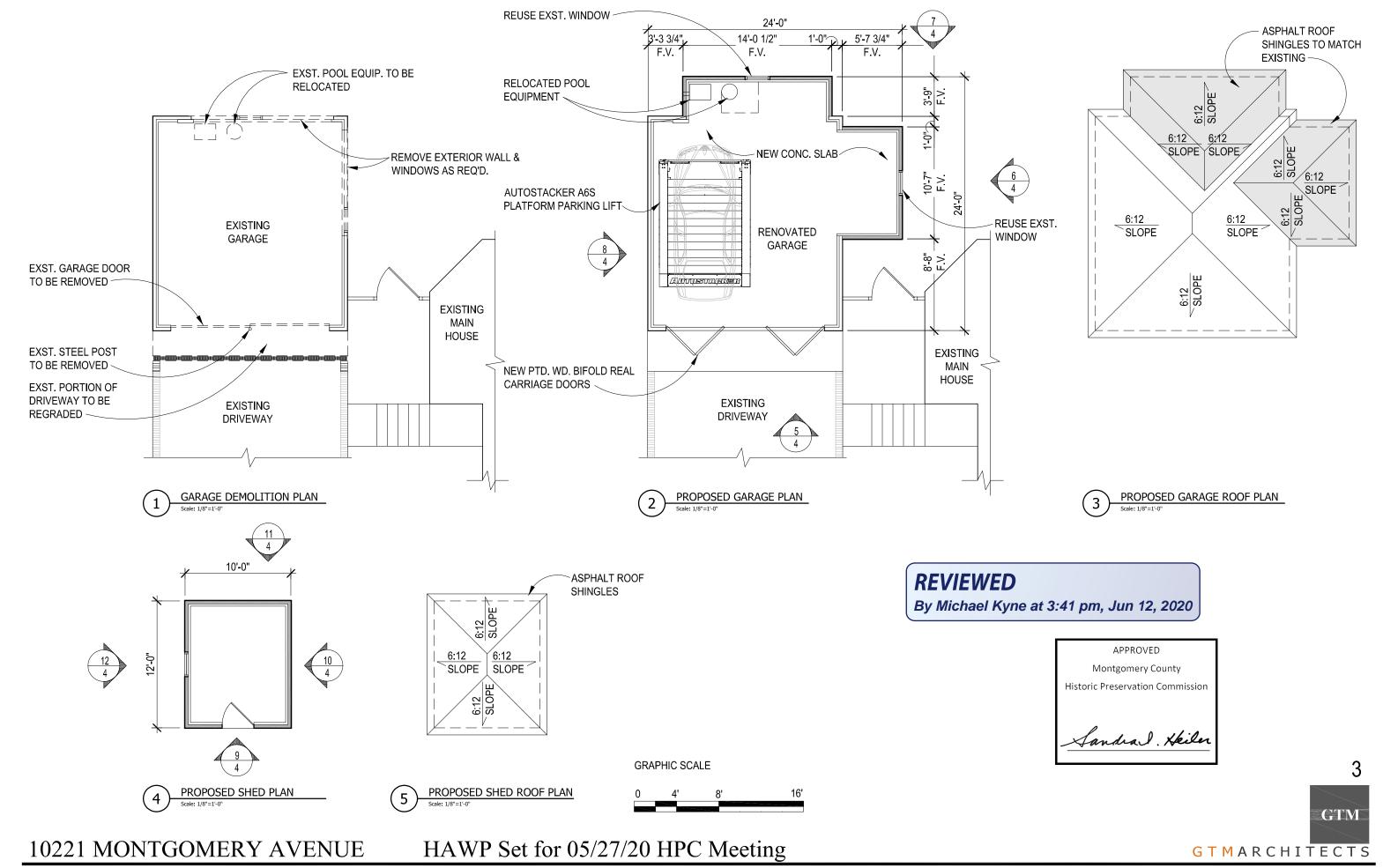


GTM

10221 MONTGOMERY AVENUE

HAWP Set for 05/27/20 HPC Meeting

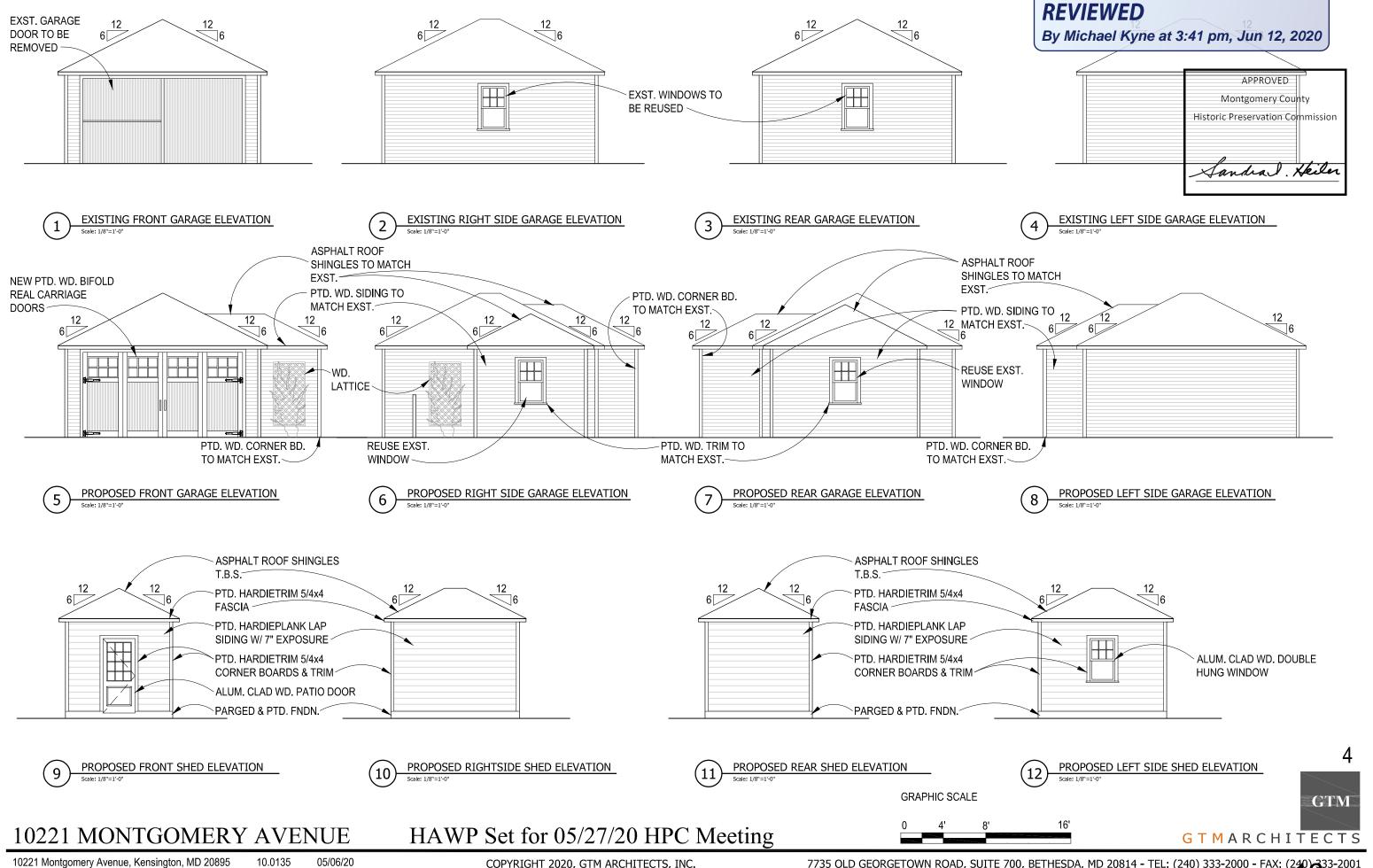
05/06/20



10221 Montgomery Avenue, Kensington, MD 20895

10.0135

05/06/20



To: Historic Preservation Commission

**From:** Michael Kyne, Planner Coordinator, Historic Preservation

Subject: Staff Item – Revision to HAWP #31/06-20G for 10221 Montgomery Avenue,

Kensington (Contributing (Primary One) Resource, Kensington Historic District)

Date: September 9, 2020

#### Background:

The application for accessory structure alterations and shed construction was approved at the May 27, 2020 HPC meeting. The approval included the following alterations to the original detached garage at the northeast (rear/left) side of the historic house:

- Replacement of the concrete slab.
- Replacement of the existing sliding garage door with wood bifold carriage-style garage doors.
- Construction of one new addition at the south (right) side of the garage.
  - o 5'-7 3/4" x 10'-7".
  - o Painted wood siding to match the existing.
  - o Painted wood corners to match the existing.
  - o Asphalt shingle roofing to match the existing.
  - o An existing window on the south (right) elevation will be reused.
- Construction of one new addition at the east (rear) of the garage.
  - o 3'-9" x 14'- ½".
  - o Painted wood siding to match the existing.
  - o Painted wood corners to match the existing.
  - Asphalt shingle roofing to match the existing.
  - o An existing window on the east (rear) elevation will be reused.
- Installation of wood lattice on the west (front) and south (right) elevations of the garage.

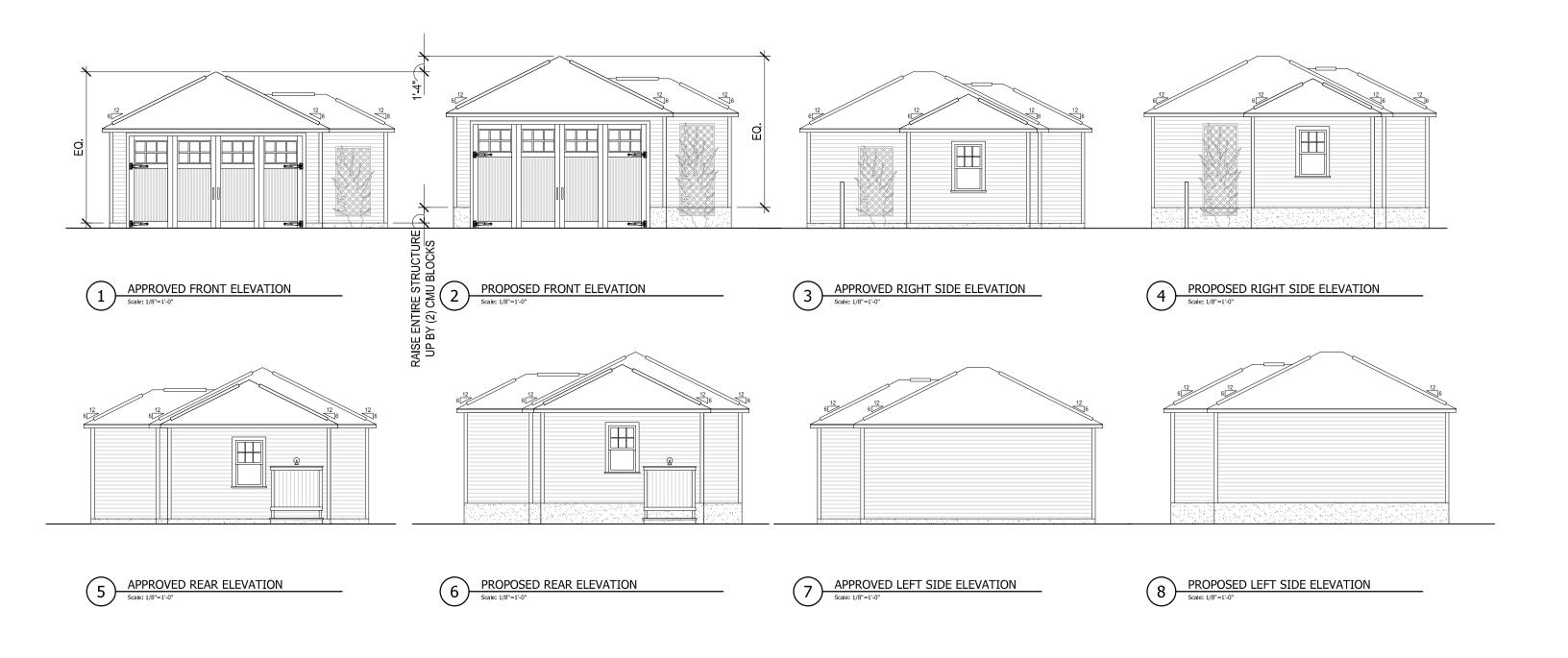
#### Proposal:

The applicants propose to increase the height of the garage by 1'-4" by adding a CMU block foundation (two blocks high at 8" high per block). This revision is being proposed to accommodate two car lifts inside the garage.

**Recommendation:** Staff recommends approval of this Staff Item.

**HPC Decision:** 

PROPOSED REVISIONS INCLUDE RAISING ENTIRE WOOD STRUCTURE UP BY (2) 8" CMU BLOCKS @ FOUNDATION TO ACHIEVE GREATER HEAD HEIGHT WHILE PRESERVING EXISTING WALL & ROOF STRUCTURE & SIDING



10221 MONTGOMERY AVENUE

Proposed HAWP Revisions



**GRAPHIC SCALE** 



From: Sackett, James
To: Ballo, Rebeccah

**Subject:** FW: 10221 Montgomery Ave

**Date:** Monday, January 23, 2023 1:00:34 PM

Attachments: IMG 2152.jpg

IMG 2151.jpg IMG 2146.jpg IMG 2149.jpg IMG 2141.jpg IMG 2150.jpg IMG 2142.jpg IMG 2145.jpg IMG 2143.jpg IMG 2148.jpg

**[EXTERNAL EMAIL]** Exercise caution when opening attachments, clicking links, or responding.

From: Virts, Joshua < Joshua. Virts@montgomerycountymd.gov>

Sent: Monday, January 23, 2023 12:41 PM

To: Sackett, James < James. Sackett@montgomerycountymd.gov>

**Cc:** Burch, David <David.Burch@montgomerycountymd.gov>; Shupp, Jeremy

<Jeremy.Shupp@montgomerycountymd.gov>

Subject: 10221 Montgomery Ave

Attached are photos of new garage at 10221 Montgomery Ave . The garage is reflected on the plans under permit number 964606 as well as a separate permit (936313) for the garage and addition to the garage. The existing Garage was in complete disrepair so the contractor decided to replace the structure.

Joshua Virts
Residential Inspector/ Code Compliance
Montgomery County DPS
2425 Reedie Drive 7th Floor
Cell 202-731-0113

Joshua Virts
Residential Inspector/ Code Compliance
Montgomery County DPS
2425 Reedie Drive 7th Floor
Cell 202-731-0113

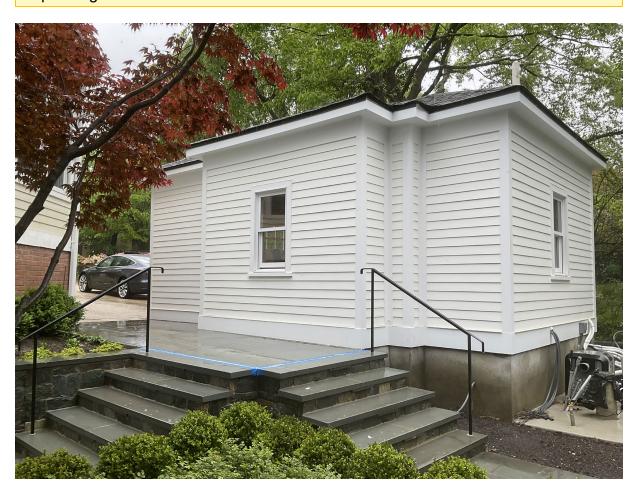


For more helpful Cybersecurity Resources, visit: https://www.montgomerycountymd.gov/cybersecurity

From: To:

Mike Roberson Ballo, Rebeccah 10221 Montgomery Avenue Kensington Friday, April 28, 2023 5:12:30 PM Subject: Date:

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.









Hi Rebeccah,

Photos of new garage.

Thanks

--

Michael Roberson Project Manager McFarland Woods Inc 240-315-5084



# **APPLICATION FOR** HISTORIC AREA WORK PERMIT HISTORIC PRESERVATION COMMISSION 301.563.3400

DATE ASSIGNED\_\_\_\_

Date

FOR STAFF ONLY:

HAWP#\_

#### **APPLICANT:**

Name:			-mail:	
Address:			City:	Zip:
Daytime Phone: _			ax Account No.:	
AGENT/CONTACT	T (if applicable	<b>e</b> ):		
Name:		E	-mail:	
Address:			Dity:	Zip:
Daytime Phone: _			Contractor Registra	tion No.:
LOCATION OF BU	JILDING/PREM	IISE: MIHP # of Historic	Property	
map of the easen Are other Plannin	nent, and docur g and/or Hearir Variance, Recor ormation.	mentation from the Easeing Examiner Approvals /rd Plat, etc.?) If YES, incl	ment Holder suppo Reviews Required a ude information on	as part of this Application?
Town/City:		Nearest Cross	Street:	
Lot:	Block:	Subdivision:	Parcel:	_
for proposed we be accepted for New Const Addition Demolition Grading/Ex I hereby certify the	ork are submit review. Check ruction kcavation hat I have the a d that the const	Deck/Porch Fence Hardscape/Landsca Roof uthority to make the fore	on. Incomplete A Shed, Solar Tree r ape Windo Other egoing application, plans reviewed and	pplications will not /Garage/Accessory Structure

Signature of owner or authorized agent

# HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFING [Owner, Owner's Agent, Adjacent and Confronting Property Owners] Owner's mailing address Owner's Agent's mailing address Adjacent and confronting Property Owners mailing addresses

Adjacent and Confronting Properties:

Kensington, MD 20895

10225 Montgomery Ave

10213 Montgomery Ave

10210 Kensington Parkway

10208 Kensington Parkway

10206 Kensington Parkway

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:
Description of Work Proposed: Please give an overview of the work to be undertaken:

Work Item 1:		
Description of Current Condition:	Proposed Work:	
Work Item 2:		
Description of Current Condition:	Proposed Work:	
Work Item 3:		
Description of Current Condition:	Proposed Work:	

# HISTORIC AREA WORK PERMIT CHECKLIST OF APPLICATION REQUIREMENTS

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Exc avation/Land scaing	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*





255 Rockville Pike, 2nd Floor Rockville, MD 20850-4166

Phone: 311 in Montgomery County or (240)777-0311

Fax: (240)777-6262

http://www.montgomerycountymd.gov/permittingservices

#### **ADDITIONS AND ALTERATIONS**

### **ARCHITECTURAL AND STRUCTURAL REVIEWS**

A/P#: 964606

Building Address: 10221 MONTGOMERY AVE KENSINGTON MD 20895

Reviewer: M. STUP

Approval Date: 10/06/21

Applicable Code: IRC Edition/Year: 2018

Sprinklers: YES NO IF THE EXISTING HOUSE HAS A SPRINKLER SYSTEM

Stories above grade:

Floor or Roof Trusses: YES NO

Energy Compliance: Prescriptive ResCheck Performance

Mechanical Permit Required: YES NO

#### **GENERAL COMMENTS**

- 1. The project has been reviewed for code compliance and approved for permit under the 2018 IRC as amended by Montgomery County.
- 2. Issuance of the building permit does not prevent inspectors from requiring corrections when deficiencies are discovered.
- **3.** Executive regulation 4-15 AM II requires that the final building inspection be approved before occupancy and the issuance of the Use & Occupancy Permit.
- **4.** Separate Electrical and Mechanical trade permits are required. Electrical Work shall be in compliance with the 2017 National Electrical Code as amended.
- **5.** Provide the approved 2018 IECC compliance report at the time of framing inspection.
- **6.** Radon control methods shall be installed in accordance with Appendix F of the adopted 2018 IRC.
- 7. Smoke alarms shall be installed in accordance with section R314 of the 2018 IRC.
- 8. Carbon Monoxide alarms shall be installed in accordance with section R315 of the 2018 IRC.
- 9. Basements, habitable attics and every sleeping room shall have at least one opening with a clear opening of 5.7 square feet in accordance with section R310.2 of the 2018 IRC Changes or modifications to these plans may require resubmittal with additional permit fees. No changes shall be made to the approved set of construction plans.

Underpin entirety of existing house; create finished space in portion of underpinned cellar; construct addition to house at cellar level only



# CASWELL DEICHMAN RESIDENCE

## PLAT DATA

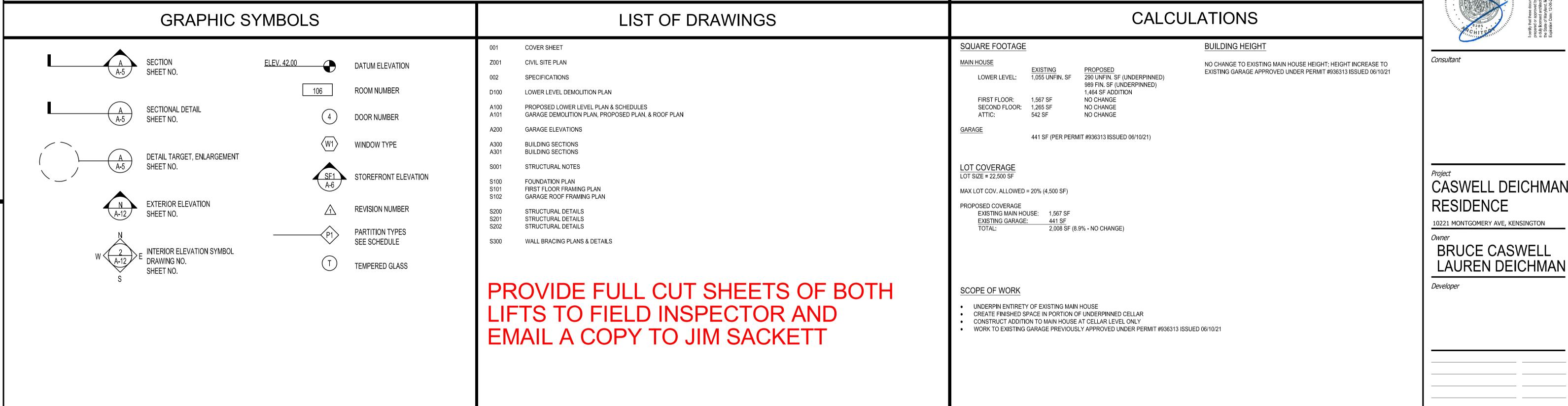
BLOCK 3 LOT 20 SUBDIVISION 15: LTS 21 & 22 KENSINGTON PARK

**ZONED R-60** 

GTMARCHITECTS

7735 OLD GEORGETOWN ROAD BETHESDA, MD 20814 (240)333-2000 (240)333-2001 FAX WWW.GTMARCHITECTS.COM

10221 MONTGOMERY AVE. KENSINGTON, MD 20895



**ABBREVIATIONS** 

JANITOR'S CLOSET

JUNCTION BOX

LAVATORY
LEFT HAND
LENGTH
LIBRARY
LINEAR FEET
LONG LEG HORIZONTAL

LONG LEG VERTICAL

PERSONAL COMPUTER PHASE PLASTIC LAMINATE

**BRUCE CASWELL** LAUREN DEICHMAN Developer PROJECT INFORMATION PERMIT SET 08/16/21 RADWAN ASSOCIATES Issue Description Date CONTACT: GUS RADWAN 8609 WESTWOOD CENTER DRIVE, SUITE 110 VIENNA, VA 22182 (703) 790-8435 radwaninc@aol.com GTM Project No

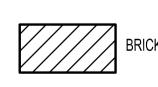
20.0135 RJV Drawn By AS NOTED

Sheet Title

**COVER SHEET** 

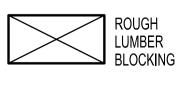
# MATERIAL SYMBOLS

CONCRETE

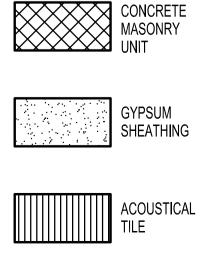












ADJUSTABLE AIR CONDITIONING ELECTRIC, ELECTRICAL AIR HANDLING AIR HANDLING UNIT ALTERNATE
ALTERNATE CURRE ENGINEER EXISTING EXPANSION EXPANSION JOIN CABINET
CATALOG
CEILING
CENTERLINE
CERAMIC TILE
CLOSET
COLUMN
COMPANY
CONCRETE
CONCRETE
CONCRETE MASONG

CUBIC FEET
CUBIC FEET PER MINUT

DEPIARTMENT
DEPTH
DETAIL
DIAGONAL
DIAMETER
DIMENSION
DISHWASHER
DOOR
DOWN
DRAWING
DRINKING FOUNTAIN

FEET PER MINUTE FIRE RATED GALLONS PER MINUTE GALVANIZED GENERAL CONTRACTOR GYPSUM WALLBOARD

HORIZONTAL

INFORMATION

HOT WATER HEATER

INSULATED, INSULATION

MECHANICAL
MEDIUM
MEZZANINE
MINIMUM
MISCELLANEOUS NOT IN CONTRACT NOT TO SCALE NUMBER

P LAM

SOUND TRANSMISSION STAND PIPE STAINLESS STEEL SUSPENDED CEILING

PLATE PLUMBING PLYWOOD POLYVINYL CHLORIDE

REFRIGERATOR REINFORCING REQUIRED RESILIENT RETURN AIR REVISION RIGHT HAND ROOM ROUGH OPENING

VESTIBULE

WALLBOARD

WELDED WIRE FABRIC WIDTH

PREFAB PREFIN PRELIM

GTM ARCHITECTS CONTACT: LAUREN CLARK 7735 OLD GEORGETOWN ROAD BETHESDA, MD 20814 (240) 333-2028 (240) 333-2001 FAX

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CHARLES P. JOHNSON & ASSOCIATES CONTACT: RICH INGRAM 1751 ELTON ROAD SILVER SPRING, MD 2090 (301) 434-7000 (301) 434-9394 FAX ringram@cpja.com

**GENERAL CONTRACTOR** 

7370 MACARTHUR BLVD.

matt@mcfarlandwoods.com

GLEN ECHO. MD 20812

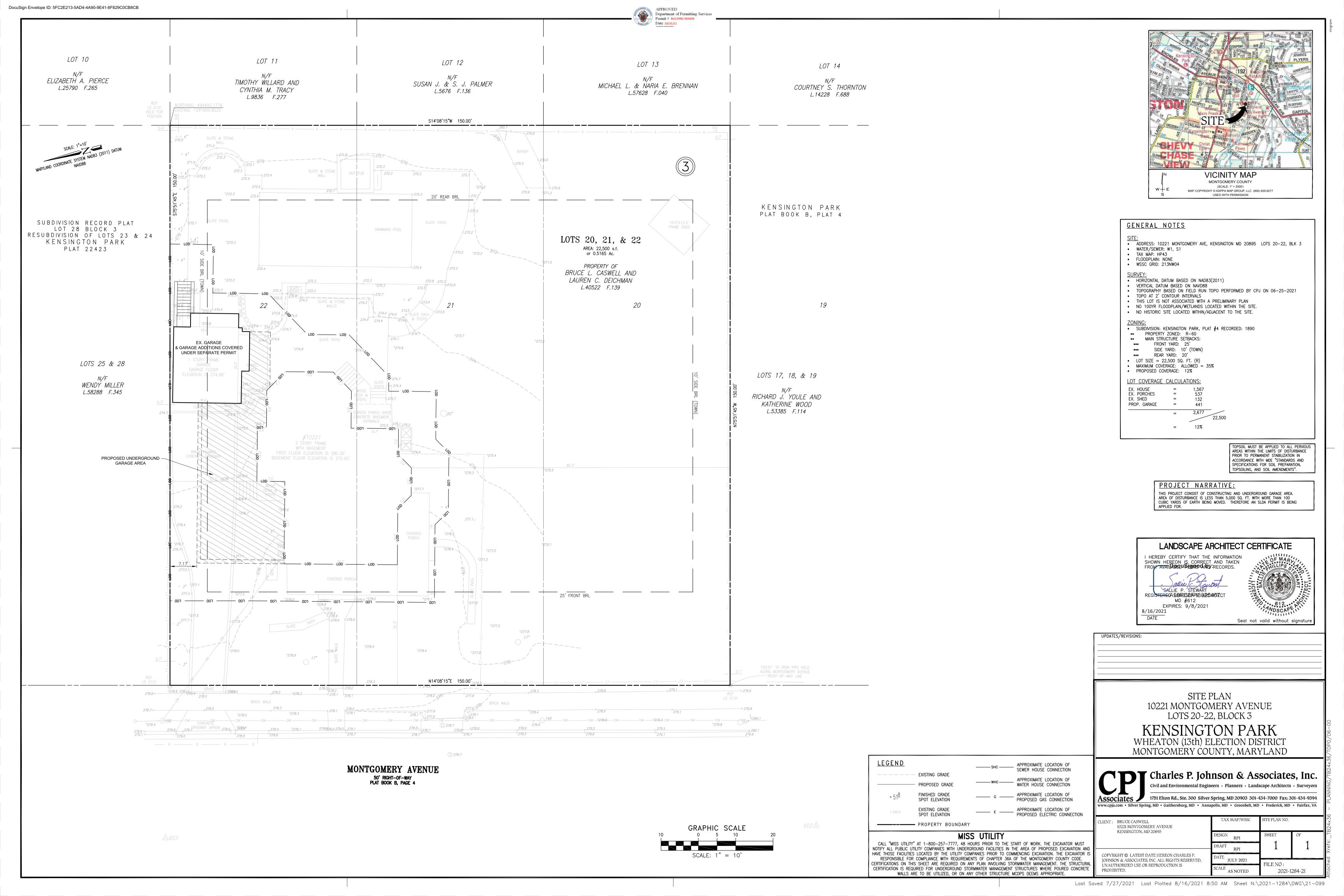
(301) 229-3553

MCFARLAND WOODS, INC.

CONTACT: MATT MCFARLAND

PLANS PREPARED BASED ON THE FOLLOWING CODES: 2018 ICC INTERNATIONAL RESIDENTIAL CODE 2018 ICC INTERNATIONAL ENERGY CONSERVATION CODE

Sheet No.



#### SPECIFICATIONS FOR RESIDENTIAL CONSTRUCTION The purpose of the following specifications is to establish the level of quality required for both materials and workmanship. These notes are intended as a general outline; specific and additional requirements are indicated on the drawings. The contractor should also note that not all of the items mentioned below may apply to the project. GENERAL REQUIREMENTS 1. All work shall conform to the International Residential Code (IRC), 2018 edition and all applicable sections of the Montgomery County code direction. for single family construction and applicable building codes including (but not limited to) IECC 2018. 2. The General Contractor shall stake off area of new construction and designate trees and shrubs for removal as required. Protect all landscaping beyond the areas of construction. 3. The General Contractor shall coordinate phasing and time limits for new construction with the Owner, so as to establish an acceptable payment schedule related to the status of the project. to prevent bonding between the two materials. Any permits required for the project shall be obtained by the General Contractor, unless informed otherwise by the Architect that the permit 7. Curing: Exposed concrete surfaces shall be sealed with an approved chemical curing compound within one hour of the final troweling. has been obtained. 5. The General Contractor shall store materials and equipment in a safe and suitable place during the construction process. The Owner is not 8. Reinforcing steel: Reinforcing steel for the ties shall be intermediate grade deformed billet steel conforming to ASTM spec. A615-40. All responsible for any losses of material. All debris shall be periodically removed from the site so as to not create a physical or visual hazard to the Owner. 7. The General Contractor shall be licensed in Montgomery County, Maryland, and shall guarantee the project labor and materials for a period 9. Reinforcement designated as "continuous" shall lap 36 bar diameters at splices unless noted otherwise. of one year after the Architect determines the work to be substantially complete, as per county laws. The General Contractor shall provide competent daily supervision of the project. The General Contractor shall notify the related authorities for inspection of the work as related to the specific areas required by the county. 11. Footings: 10. The General Contractor shall Carry Workmen's Compensation Insurance for every person employed by him on the premises and shall maintain such insurance in full force during the entire time of this contract. The General Contractor shall carry Comprehensive General and Automotive Liability Insurance of \$25,000 to \$50,000 minimum. These requirements can be amended by the Owner if specified by the 11. All drawings, specifications, and copies furnished by the Architect are the documents for the construction of this project only and shall not be 12. Anchor bolts: set anchor bolts or approved straps as shown. Bolts for wood sill plates shall be ½" in diameter and project 8" into concrete; used in any other circumstance. 12. The General Contractor shall carefully study the contract documents and report to the Architect any error, omission, or inconsistency they 13. The General Contractor shall provide and pay for all labor, materials, equipment, tools, machinery and other facilities and services necessary 1. Brick shall conform to ASTM C-62. Mortar shall conform to federal specifications SS-C-18IE-type II. Lay brick only when outside for proper execution and completion of the work, and shall guarantee no mechanic liens against the project at completion. 14. The Contract Sum is stated in the agreement and is the total amount payable by the Owner, which designates the addition, deletion, or antifreeze admixture will not be acceptable revision to the contract. The Change Order must also designate the change in the original contract sum. 15. At least seven days before the date of each progress payment established by the agreement, the General Contractor shall submit to the Architect and Owner an itemized application designating which portion of the work has been completed. 16. The Contractor shall verify dimensions prior to construction, and all discrepancies shall be brought to the attention of the Architect so that masonry. Set bolts or straps 12" max. from end of any plate. clarifications can be made. The Contractor shall field verify all dimensions related to existing conditions. Written dimensions take precedence 4. CMU walls shall have horizontal wire joints reinforcement at 16" O.C. vertically, or as indicated. over scaled sizes. Do not scale drawings to determine missing dimensions. 17. The Contractor shall be responsible to have new utility line services (gas, electric, telephone) installed to the house connection/meter location. 6. Brick Veneer: . Every care shall be taken during demolition to protect the house by means of temporary supports and braces as necessary to prevent any structural failure during removal and replacement of existing structural members. Provide through-wall flashing above all unsheltered openings. Flashing shall be end-dammed at all terminations. 2. Temporary walls and dust barriers shall be installed as necessary to prevent circulation of dirt and dust into portions of the house that are not part of the work. All dashed walls, fixtures, windows, etc., are to be removed. See Demolition Sheets for additional information. Conduct all demolition operations in compliance with applicable codes and ordinances. Coordinate demolition with work of subcontractors. Maintain the existing structure in a watertight condition at all times. Reference standard; federal specification W-B-790A, Type I, Grade D, Style 2 Provide the necessary enclosures to allow the owner to maintain comfortable temperatures within the occupied portions of the home during **GENERAL STRUCTURAL NOTES** . Work shall be done in accordance with the International Residential Code (IRC), 2018 Edition. 10. Unless noted otherwise, tool all joints concave. 2. The design gravity live loads are as follows: Roof load (snow): 30 LL + 15 DL = 45 PSF Living Spaces: (1st Floor) 40 LL + 15 DL = 55 PSF Sleeping Spaces: (2nd Floor) 30 LL + 15 DL = 45 PSF Exterior Decks: 60 LL + 15 DL = 75 PSF Live Load Deflection Limitation for floors and stairs shall be L/360 Live Load Deflection Limitation for roofs shall be L/240 1. The foundation for the structure has been designed for the assumed bearing pressure of 1,500 PSF. This is to be verified by the contractor prior to the footings being poured. It is also assumed that there is no water condition present. Basement walls have been designed for an assumed equivalent fluid pressure of 55 PSF. L 3-1/2 X 3-1/2 X 1/4 Excavations for spread footings and continuous footings shall be cleaned and hand tamped to a uniform surface. L 3-1/2 X 3-1/2 X 5/16 Slabs on grade shall be underlaid by a minimum of 4" of granular material having a maximum aggregate size of 1.5 inches and no more than L 4 X 3-1/2 X 1/4 2% fines. Prior to placing the granular material, the floor subgrade shall be properly compacted, proofrolled, free of standing water, mud, and L 4 X 3-1/2 X 5/16 frozen soil. Before placement of concrete, a vapor barrier shall be placed on top of the granular fill. L 5 X 3-1/2 X 5/16 Bottoms of all exterior footings shall be 2'-6" minimum below finished grade. Footings shall project a minimum of 12" into undisturbed existing L 6 X 4 X 3/8 natural ground having allowable bearing capacity stated. Depths of footings subject to change if soil conditions are other than assumed. Note: For openings greater than 8'-0", consult with Architect and Engineer. **ENERGY CONSERVATION** 1. The following provisions for thermal resistance meet or exceed the requirements stipulated by the 2018 International Energy Conservation Code (IECC), climate zone 4A. These values are the minimum acceptable. See drawings for specific values required for the project. Insulation Extreme fiber stress in bending Ceiling (of uppermost story) R-49, or R-38 continuous Compression parallel to the grain Vaulted Ceiling R-49 w/lesser of 500 sf or 20% of total insulated ceiling area R-30 Modulus of Elasticity Shear Stress R-20 or 13+5 (exterior) Frame walls (with storm window or double glazing) Equal to wall below Rim Joists Floors over unheated spaces (including floor overhangs) minimum thick. Masonry walls (enclosed heated R-13 or R-10 continuous living areas applicable R-10 Slab on grade (heated space) 24" Perimeter Insulation U-0.32 SHGC-0.40 Windows Double 2 x 4 Up to 3'-0" Doors See section R402.3.4 Double 2 x 6 Up to 4'-0" Air Infiltration Double 2 x 8 Up to 5'-0" Provide $\frac{1}{4}$ " x 5.5" compressible sill sealer between foundation wall and all sill plates. Double 2 x 10 Up to 7'-0" Windows: Not exceeding three tenths (0.3) CFM of sash crack Double 2 x 12 Up to 8'-0" Sliding glass doors: not exceeding three tenths (0.3) CFM per square foot of door area Swinging doors: Not exceeding five tenths (0.5) CFM per square foot of door area. Provide 1" compressible sill sealer between Building thermal envelopes shall be tested per IECC R402.4.1.2 and verified as having air leakage not to exceed 3 air changes Recessed lighting in the thermal envelope shall comply with IECC R402.4.4 Systems duct and piping installation shall comply with IECC R403 including Whole-House Mechanical Ventilation system Contractor. TERMITE CONTROL SOIL TREATMENT Treat soil with Bayer Corporation, Premise 75, in strict accordance with manufacturer's recommendations. Remove all extraneous sources of wood cellulose and other edible materials such as wood debris, tree stumps and roots, stakes, formwork, 13. All plywood shall be APA span rated. Use exterior grade plywood wherever edge of face will be exposed to weather. Interior plywood and construction waste wood from soil within and around foundations. Loosen, rake, and level soil to be treated except previously compacted exposed to weather during construction shall be Exposure I min. Slabs-on-Grade and Basement Slabs: Under ground-supported slab construction, including footings, building, slabs, and attached slabs as an overall treatment. Treat soil materials before concrete footings and slabs are placed. Foundations: Adjacent soil including soil along the entire inside perimeter of foundation walls, along both sides of interior partition spacing of roof structure members is 24" O.C., roof sheathing shall be $\frac{5}{8}$ " plywood ( $\frac{3}{4}$ " where roofing is slate or tile). Provide "H" walls, around plumbing pipes and electric conduit penetrating the slab, and around interior column footers, piers, and chimney clips at butt joints of roof sheathing. bases; also along the entire outside perimeter, from grade to bottom of footing. Avoid soil washout around footings. Crawlspaces: Soil under and adjacent to foundations as previously indicated. Treat adjacent areas including around entrance platform, porches, and equipment bases. Apply overall treatment only where attached concrete platform and porches are on fill or 12" on center. ground. Crawlspaces used as plenum spaces strictly follow manufacturer's recommendedations. Along driplines of roof overhangs without gutters.

Where condensate lines from mechanical equipment drip or drain to soil.

At plumbing penetrations through ground-supported slabs. Other sites and locations as determined by licensed installer.

## WARRANTY

Special Warranty: Manufacturer's standard form, signed by Applicator and Contractor certifying that termite control work, consisting of applied termiticide treatment, will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during warranty period of five (5) years from Substantial Completion, re-treat soil and repair or replace damage caused by termite infestation.

All concrete construction shall conform to the latest A.C.I. code 332.

2. Concrete shall have natural sand fine aggregates and normal weight coarse aggregates conforming to ASTM C33, Type 1 Portland Cement conforming to ASTM 150, and shall have a minimum 28-day compressive strength (F/C) as follows: • F/C = 2,500 PSI for footings, interior slabs on grade (except garages) and fill in concrete blocks

• F/C = 3,000 PSI for foundation walls exposed to weather.

• F/C = 3,500 PSI for drives, porches, walks, steps, and garage slabs. F/C = 4,000 PSI for precast concrete units.

All poured in place concrete exposed to weather conditions, including the garage floor, shall be air entrained by 6% of concrete volume. No calcium chloride or other admixtures shall be used except as approved in writing by the Owner.

4. Slabs on grade: except where otherwise noted, shall be min. 4" thick, reinforced with 6x6 W1.4xW1.4 WWF Lap mesh 6" in each Slab shall be placed on a layer of 6 mil polyethylene over a 4" layer of washed gravel. Refer to drawings for location of thermal insulation. 5. Concrete finish: Exposed exterior steps, stoops and slabs shall first have a steel trowel finish and then a very light broom finish. Exposed

interior and garage shall receive a steel trowel finish. 6. Expansion joints: Non-organic, Owner approved, expansion joint material shall be cast in place where slabs abut masonry or concrete walls

Curing compound label shall state that its use will not interfere with adhesion of subsequent floor finishes. other reinforcing steel shall conform to ASTM spec. A615-60. Welded wire fabric to conform to ASTM A-185. Fabric shall be supplied in flat sheets and lapped to mesh at splices. All reinforcing shall be detailed, fabricated and installed in accordance with the latest detailing manual A.C.I. 315.

10. Horizontal footing and walls: reinforcement shall be continuous and shall have 90 degree bends and extensions, or corner bars of equivalent size lapped 36 bar diameters, at corners and intersections.

Bottom of footings shall extend a minimum of 2'-6" below any surface subject to freezing: footings shall extend at least 12" into undisturbed soil or set on controlled compacted fill. Depth of footing subject to change if soil conditions are other than assumed. Bearing value of soil is assumed to be 1,500 PSF with no water condition present. Minimum bearing value of controlled fill shall be RADON DETECTION AND TREATMENT certified by a licensed geotechnical engineer.

set straps or bolts 12" max from end of any plate and 6'-0" max O.C. spacing, unless shown otherwise.

temperature is 45° F and rising. Protect all work from cold and frost and ensure that mortar will cure without freezing. Calcium chloride and

2. Bearing steel and wood beams shall be supported on solid masonry piers as indicated. Other structural members (lintels, etc.) shall be supported on 8" of solid masonry. All beams and lintels shall have minimum horizontal bearing of 4". 3. Anchor bolts: Set anchor bolts or approved anchor straps as required. Bolts for wood sill plates shall be ½" diameter and project 16" into

5. Provide 4" solid masonry on all sides of joists or beams entering masonry party walls.

Secure brick veneer with 16 GA hot-dipped zinc coated wall ties at 16" O.C. horizontally and vertically. Provide flashing at first course above grade, at lintels, sills and elsewhere as shown. Provide  $\frac{3}{16}$ " diameter tube weeps or cellular plastic head joint-type weeps at 24" O.C.

Install high-density polyethylene or polyester cavity drainage material, equal to "mortar net," above all flashing. Material shall be 4. Provide Whole-House ventilation system to comply with IECC R403.5 sized to fill the width of the cavity.

Vapor permeable weather-resistive barriers: two-ply asphalt saturated Kraft Grade D breather type sheathing paper. Basis of design is FortifiberΦ / two-ply super jumbo texΦ 60 minute

 Moisture vapor transmission: 35 grams minimum; ASTM E 96 Water resistance: 150 minutes (Professional), ASTM D 779 C.M.U.'s to have water repellent block admixture; 'Dry-Block' by W.R. Grace recommended. Exterior mortar to have water repellent admixture.

11. Fully bed in mortar face shells and webs of first course of CMU. 12. All masonry joints shall be fully filled with mortar, including head joints.

Structural steel shall conform to ASTM A36 Steel beams shall conform to ASTM A572 Grade 50.

3. All steel angles, lintels, beams, columns, etc. are to be shop primed with red lead or red oxide primer or approved equal. Structural steel at or below grade shall be painted with two coats on an asphaltic base paint and protected with a minimum of 2" solid masonry or concrete. 4. For all openings or recesses in brick or brick-faced masonry walls not specifically detailed, provide one steel angle for each 4" of wall

thickness. Provide lintels according to the schedule below: Masonry Opening Up to 3'-0" 3'-1" to 4'-0" 4'-1" to 5'-0" 5'-1" to 6'-0" 6'-1" to 7'-0" 7'-1" to 8'-0"

1. Unless otherwise noted on drawings, all structural wood members shall be #2 Southern Pine or equal, with the following combination of unit 1.200 PSI

1.000 PSI 565 PSI Compression perpendicular to the grain 1,500,000 PSI

2. Manufactured joists and trusses (if shown on drawings) must be designed and certified by a licensed engineer and submitted to the Architect and local building department for approval. 3. Roof rafters and/or trusses shall be connected at each bearing point with one prefab-90 PSI galvanized rafter tie (hurricane clip) by

Simpson or approved equal. Similarly, floor joists and trusses shall be connected with one prefabricated joist hanger. Each anchor shall be 18 GA Gypsum Wallboard: 4. Provide double joists under all parallel partitions, at joists that support headers, and at headers that support joists. Use joist hangers where

All joists and rafters shall be rigidly braced at intervals not exceeding 8'-0". Double study at header bearing, double joists and rafters at all openings according to schedule below (unless noted otherwise on drawings): 2.

All double headers and joists shall be joined with a minimum of two rows of 16 d nails 12" on center. Provide blocking, banding, crush blocks, stiffeners, or rim joists, as required, at joist ends.

Floor joists shall have a minimum bearing of 2" on framed walls. All beams shall have minimum bearing of 4" bearing on all supports. Provide moisture protection to end of beams pocketed into masonry walls.

9. Wood joists, studs, and beams shall not be cut or notched unless authorized by the Architect. Drilled holes shall be centered at mid-depth of the member and the hole diameter shall not exceed  $\frac{1}{3}$  the actual depth of the member. No holes shall be drilled within 2' from the ends or within the middle  $\frac{1}{3}$  of the span. Provide 4" clear between holes. 10. Existing conditions shall be verified by the Contractor. Any existing damaged wood members shall be identified and replaced by the

11. Contractor shall be responsible for providing necessary bracing and shoring of existing members and walls while altering the structure. 12. Provide 2x4 intermediate blocking at all bearing and non-bearing partitions.

Exterior wall sheathing shall be  $\frac{1}{2}$ " plywood unless noted otherwise. Subflooring shall be 3/4" tongue and groove plywood, glued and screwed to the floor joists as per APA recommendations. Where spacing of roof structure members is 16" O.C., roof sheathing shall be  $\frac{1}{2}$ " plywood ( $\frac{3}{4}$ " where roofing is slate or tile). Where

14. MICRO-LAM L.V.L. (laminated veneer lumber) beams shall be manufactured by Trus Joist MacMillan or approved equal. Beams shall be installed according to manufacturer's recommendations. When fastening two or more beams together, provide a minimum of two rows of 16 d nails Vinyl Tile:

15. TJI Floor Joists are to be manufactured by Trus Joist MacMillan or approved equal. Install per manufacturer's recommendations. 16. The following wood elements are to be pressure treated with preservative: Sill plates resting on concrete or masonry walls.

Sill plates resting on concrete slabs on grade. Joists which enter concrete or masonry walls and have less than  $\frac{1}{2}$ " clearance on tops, sides, and ends. Sleepers resting directly on concrete slabs.

Exterior porch and deck framing, decking, and stairs. 17. Fasteners, hangers, and metal accessories used in pressure treated wood construction shall be type 304 or 316 stainless steel. Treated lumber shall not be placed in contact with aluminum flashing or other aluminum components.

18. Exterior Wood Trim: All exterior wood trim shall be clear pine or redwood. All trim shall be primed on both sides prior to installation. All outside corners shall be mitered. No butt joints will be accepted

19. Exterior Synthetic Trim shall be "AZEK," with traditional smooth surface. Fasteners, joint cement, and installation procedures shall be in accordance with manufacturer's recommendations. 20. Siding: Refer to drawings for type specified.

Cement board shall be non-asbestos fiber-cement material complying with ASTM Standard Specification C1186 Grade II, Type A. Materials shall be equal to those manufactured by James Hardie Building Products. Wood siding and sidewall Shingles shall be kiln dried Western Red Cedar, "Clear V.G. Heart" grade for clear and transparent stain

finishes, and "A Clear" grade for semi-transparent stain or opaque finishes. Semi-transparent stain or opaque finish shall be applied in strict accordance to manufacturer's recommendations; including, but not limited to, substrate preparation and primer/sealer application to all wood surfaces (6-sides). Fasteners shall generally be type 304 stainless steel, but shall be type felts in accordance with manufacturer's instructions. 21. Coordinate all floor and wall framing with ductwork. Refer to mechanical notes.

22. Folding Attic Access Ladder shall be 22 ½" x 44" with self-trimming flange, pre-finished door panel, and gas-piston counterbalance. The door 7. panel shall have continuous integral weatherstripping, R-10 insulation, and two key operated locking pins to draw the door tight. Ladder steps 8. Top of flue shall be 2'-0" above any part of structure within 10'-0" of flue. shall be pine, doweled to pine stringers. Contact Resource Conservation Technology at 410-366-1146. Additional insulation hood shall be 9. provided to meet required insulation value per IECC R402.2.4.

The Contractor shall provide a venting system consisting of a minimum of 3" diameter ABS, PVC or equivalent gas-tight plumbing pipe inserted into the sub-slab gravel base (at all new concrete slabs). A 'T' fitting or equivalent method shall be used to ensure that the pipe opening remains with the sub-slab permeable material. The pipe shall terminate at least 12" above the high side of the roof penetration. Contractor shall coordinate location of pipe with Architect prior to installing the pipe. Install, per IRC, 2018 edition, Appendix F 'Radon Control Methods.'

3. The Contractor shall provide any other measures as required by local codes.

#### VENTILATION

Where attics are indicated to be ventilated, they are to be vented in one of the following ways (refer to drawings for specifics): Continuous ridge venting and continuous soffit venting. Ridge vent shall be by Cor-A-Vent or approved equal. Continuous screen 7. soffit vents shall be a minimum of 2" wide. Circular louver vents between each rafter may be used at the soffit if shown on the

Screen louvers or vents with an open area equal to one square foot for every 300 square feet of attic space. 2. Provide foundation vents for all crawl spaces. Refer to drawings for locations. Venting for appliances and exhaust fans:

exterior shall be approved by Architect prior to installation. Provide exhaust fans for bathrooms, etc., as shown on drawings. Location of ductwork and vent on exterior shall be approved by Architect prior to installation. Ducts within unconditioned spaces shall be insulated to prevent condensation.

#### MOISTURE PROTECTION

1. Appropriate sealants shall be selected for each substrate depending upon location (interior or exterior), humidity, moisture conditions, and traffic conditions. Use primers as required. Color of caulking shall be coordinated with adjacent materials and must be approved by Architect prior to application.

Joint fillers shall be used: To control the depth of sealants in joints.

To meet the requirements for resilient separations in horizontal joints in floor, pavements, patios, sidewalks, and other light traffic 6. Ductwork will be galvanized sheet metal and flex. 4. Bond breakers shall be used to prevent adhesion to more than two surfaces.

Masonry foundations shall be parged to a thickness of  $\frac{3}{4}$ " minimum.

thickness shall be minimum 60 mil. Installation and substrate preparation shall be per manufacturer's recommendations. Reinforce corners 2. and concrete cold joints by embedding fiberglass fabric around corners and across joints in accordance with manufacturer's recommendations. Install subsurface drainage composite similar to CETCO "Aquadrain IOX" over the cured membrane. Footing drains shall be min. 4" in diameter and installed on the exterior of all foundations.

All flashing shall be installed according to the building code. An eave flashing strip of 40 mil. self-adhering rubberized asphalt sheet membrane shall be applied to extend from the edge of the roof to a point 24" min. inside the interior wall line of the structure, and at all All membrane roofing to be approved by Architect prior to installation.

10. All roof shingles to be approved by Architect prior to installation.

11. Asphalt shingle roofs with slopes from 2 in 12 to 4 in 12 shall have two layers of #15 roofing felt applied in accordance with with the International Residential Code. Flashing"

Through-wall and other concealed flashing shall be a composite of fiberglass fabric, 5 oz. copper and asphalt, equal to York Exposed flashing shall be 16 oz. copper.

13. Painted aluminum drip strips shall be installed at the eave and rake edges of the roof sheathing for shingle roofs, and above window and door 3 14. Exterior Insulation and Finish Systems (EIFS) shall be equal to Dryvit, Residential MD System, with Dryvit drainage mat installed between the 5. Steam Unit: "Mr. Steam model #MS-150, 6kw or approved equal. Provide the following connections: water inlet 3/8" NPT, steam outlet NPT, secondary weather barrier and the insulation board.

Cedar roof shingles shall be No. 1. Blue Label, red cedar, Install over "Cedar Breather" by Benjamin Obdyke Inc. and 30# felts in accordance with manufacturer's instructions. 16. Standing seam roofing shall be 16 ounce copper with water-tight standing seams. For slopes greater than 3 in 12 provide #30 roofing felt

underlayment on solid sheathing. For slopes 3 in 12 or less provide self-adhering 40 mil ice and water guard membrane over the entire area to receive standing seam roofing.

Gypsum wallboard shall be ASTM C-36 as follows:

Regular ( $\frac{1}{2}$ "): except where noted. Water resistant ( $\frac{1}{2}$ "): at bathroom ceilings and walls that are not tiled. Durock interior tile backer board ( $\frac{1}{2}$ "): at all surfaces that have tile.

Flat trim shall be clear pine or approved equal.

Gypsum boards shall have tapered edges to accommodate joint reinforcement. Provide edge corner beads, trim, taping, and joint compounds as required for the proper completion of the job. Materials shall be by U.S. Gypsum or approved equal.

4. Finishing requirements: For typical walls and ceilings provide a Level 4 Finish as defined by the Gypsum Association. For surfaces noted to receive semi-gloss or gloss paint provide a Level 5 Finish as defined by the Gypsum Association.

Hardwood Flooring: Unless noted otherwise, provide wood strip flooring where shown on the drawings. Wood strip flooring to be oak. Where abutting existing floor, new floor shall match existing in size and grain. Elsewhere, oak shall be "clear"

grade, in accordance with the national Oak Flooring Manufacturer's Association. Install flooring in strict accordance with the recommendation of the National Oak Flooring Manufacturer's Association. After the floors have been sanded, the flooring contractor shall apply a minimum of four stain and urethane samples in two foot by two foot areas on the floor for the owner to review. The owner shall have a minimum of two days to make a selection.

Ceramic Tile: Provide ceramic tile and accessories in accordance with the Tile Council of American Specifications 137.1, in colors and patterns to be specified by the owner. Setting materials: comply with pertinent recommendations contained in the Tile Council of America "Handbook for Ceramic Tile Installation."

Installation: comply with ANSI A108.1, ANSI A108.2, and the "Handbook for Ceramic Tile Installation" of the Tile Council of America. Extend tile into recesses and under equipment and fixtures to form a complete covering without interruptions. Terminate tile neatly at obstruction, edges, and corners, without disruption of pattern or joint alignment. Align joints when adjoining tiles on floor, base, trim, and walls are the same size.

Layout tile work and center the tile fields in both directions in each space or on each wall area. Replacement reserve: Contractor shall furnish to the Owner one unopened box of additional tiles for future repairs and maintenance work.

Provide carpeting as indicated on the drawings. Refer to allowances on schedule sheet. Installation of all vinyl composition tile (VCT) shall be done in a manner which conforms with:

ASTM E 648, ASTM E 84, AND ASTM E 662.

Replacement reserve: Contractor shall furnish Owner with one unopened box of additional tile for future repairs and maintenance. All paint and primers to be Benjamin Moore or approved equal. Refer to schedule for colors and types. All surfaces to be painted shall receive one primer coat and two finish coats.

All paint shall be applied according to manufacturer's recommendations. Architectural Woodwork and Trim: All millwork trim and molding shall be installed accordingly to the quality of standards of the Architectural Woodwork Institute (AWI). All interior trim and millwork shall conform to AWI "custom standards."

All corners of trim and siding are to be mitered, except inside corners of interior running trim which shall be coped. Exposed end grains will

not be accepted All millwork and trim shall be installed by craftsmen with experience in work of this type. All work shall be first class in every regard and consistent with the best practices of the trade.

#### FIRE AND LIFE SAFETY 1 Stairs

7¾" max rise

6'-8" min head room

Height of handrails shall be continuous, 34" (min) to 38" (max) above finished stair treads. Handrails required at stairs with 3 or

Guardrails shall be 36" (min) to 42" (max) above finished floor.

2. Provide a clear window opening of 5.7 square feet with no less than 20" clear wide and 24" clear high for sleeping area. The sill of this windows shall be no more than 44" above the finished floor. Provide safety glass in all exterior doors, storm doors, sliding glass doors, shower doors, and tub enclosures above and adjacent to spas and

tubs and where the glass is closer than 18" to the floor and exceeds 9 square feet in area. Ground metal siding.

Smoke detectors shall be provided on every floor, in each bedroom and in each hall outside of bedrooms, and integrated with the electrical system with battery backup. 316 for coastal applications. Install wood siding and shingle products over "Cedar Breather" by Benjamin Obdyke Inc. and 30# 6. If a fuel-burning appliance, fireplace, or attached garage is present, an interconnected battery back up carbon monoxide alarm or detector

must be installed outside all sleeping areas and on all floors. If fuel-buring appliance or fireplace is present in any sleeping area, an interconnected carbon monoxide alarm or detector must also be installed in that room as required per local jurisdiction. Flues shall be class B except solid fuel flues, which shall be class A.

Interior finish of walls and ceiling shall have a flame spread rating not greater than Class III. 10. Carpeting shall meet federal regulation DOC FF-1.

11. Prefab fireplaces shall be (U.L.) rated and installed according to manufacturer's specifications. 12. Provide outside air for combustion in all prefab and masonry fireplaces.

#### **ELECTRICAL AND LIGHTING NOTES**

1. Electrical contractor shall size and arrange all circuits in accordance with the National Electric Code as well as all local codes. Service to be

Wall outlets are to be mounted 1'-6" above finished floor unless noted otherwise. Switches are to be mounted 4'-0" above finished floor unless noted otherwise.

Mounting heights are to the vertical center of the equipment to the finished elevation of the floor. All new switch and outlet styles are to be approved by Owner prior to installation

Provide hardwired smoke detectors on all floors, located as per Montgomery County Code. Electrician shall locate all fixtures, switches, outlets, etc. prior to running wiring. Owner, Architect, and Electrician to meet at a mutually agreed

upon time to review locations. The purpose of which is to allow for possible relocation prior to wiring. 8. Owner is allowed to add an additional ten (10) items (switches, cable, phone, outlet, etc., or any combination) at no additional charge to the

9. Contractor shall determine, based on an on-site review of existing and proposed electrical systems, whether an electrical service heavy-up will be required, and shall include the costs of all required upgrades in their Contract Amount.

Provide door bell, transformer, and chime for front door and where indicated. In lieu of Owner's selection otherwise, price shall be based on Provide venting to the exterior as per manufacturer's recommendations for all appliances. Location of ductwork and vent on the following: Illuminated Button - Destination Lighting product number 15921; Transformer - 16V; Chimes - Teiber Model CTSB-or STPW-, in Owner's choice of finish. Verify all selections and mounting locations with Owner prior to purchasing.

1. All work shall be done in accordance with the International Residential Code (IRC), 2018 Edition, as well as IECC 2018 and other local codes. 2. Contractor shall submit all duct layouts and air handler locations (and thermostat locations) to the Owner and the Architect for approval prior to the commencement of framing. No extras will be given for any modification required to the framing due to ductwork. All exterior unit locations to be coordinated with Owner and Architect.

4. Air conditioners shall be Energy Star rated and shall have a minimum 13 SEER rating with two zones each. Gas furnaces shall have a minimum Annual Fuel Utilization Efficiency rating of 90%. 5. Equipment will be Carrier or approved equal.

7. Registers and return grilles are Hart & Cooley or equal.

Waterproof all below grade foundation walls with a polymer-modified asphalt emulsion similar to CETCO "Strataseal." Dry/ cured membrane 1. All work shall be done in accordance with the International Residential Code (IRC), 2018 Edition, as well as IECC 2018 and other local codes. Contractor shall provide riser diagrams as required for permit, and shall submit to the Architect proposed locations of all waste and supply lines prior to the commencement of framing. No extras will be given for any modification required to the framing due to plumbing lines.

Provide cast iron at vertical waste lines. Install water heater and reserve tank per requirements of the house with recirculate system.

Provide drain pans under all water heaters and washing machines, and pipe the pan to the sanitary drain upstream of a trap. Contractor shall make a count of existing and proposed fixtures to determine whether a water or sewer upgrade will be required, and shall include the costs of all required upgrades in his Contract Amount. The count of existing fixtures shall be based on an on-site inspection. 6. Provide cast iron at vertical waste lines.

## 7. Locate plumbing clean out plugs in bottom $\frac{1}{3}$ " of wall, typical.

Wall construction: Provide ceramic tile over dryset or latex Portland cement mortar bond coat over tile backer board over Dow insulation board over 2x4 studs. Ceiling construction: Same as walls, provide continuous sloped ceiling (½" per foot), and provide rounded inside corner tile at joint between

Insulate all walls, ceiling, and floor adjacent to steam shower. Steam shower to be watertight, including a watertight shower door.

drain 3/8" NPT. Follow all manufacturer's specifications.

#### I **G T M** A R C H I T E C T S

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Consultant

CASWELL DEICHMAN

L0221 MONTGOMERY AVE, KENSINGTON

## BRUCE CASWELL LAUREN DEICHMAN

Developer

PERMIT SET 08/16/21 Date Issue Description

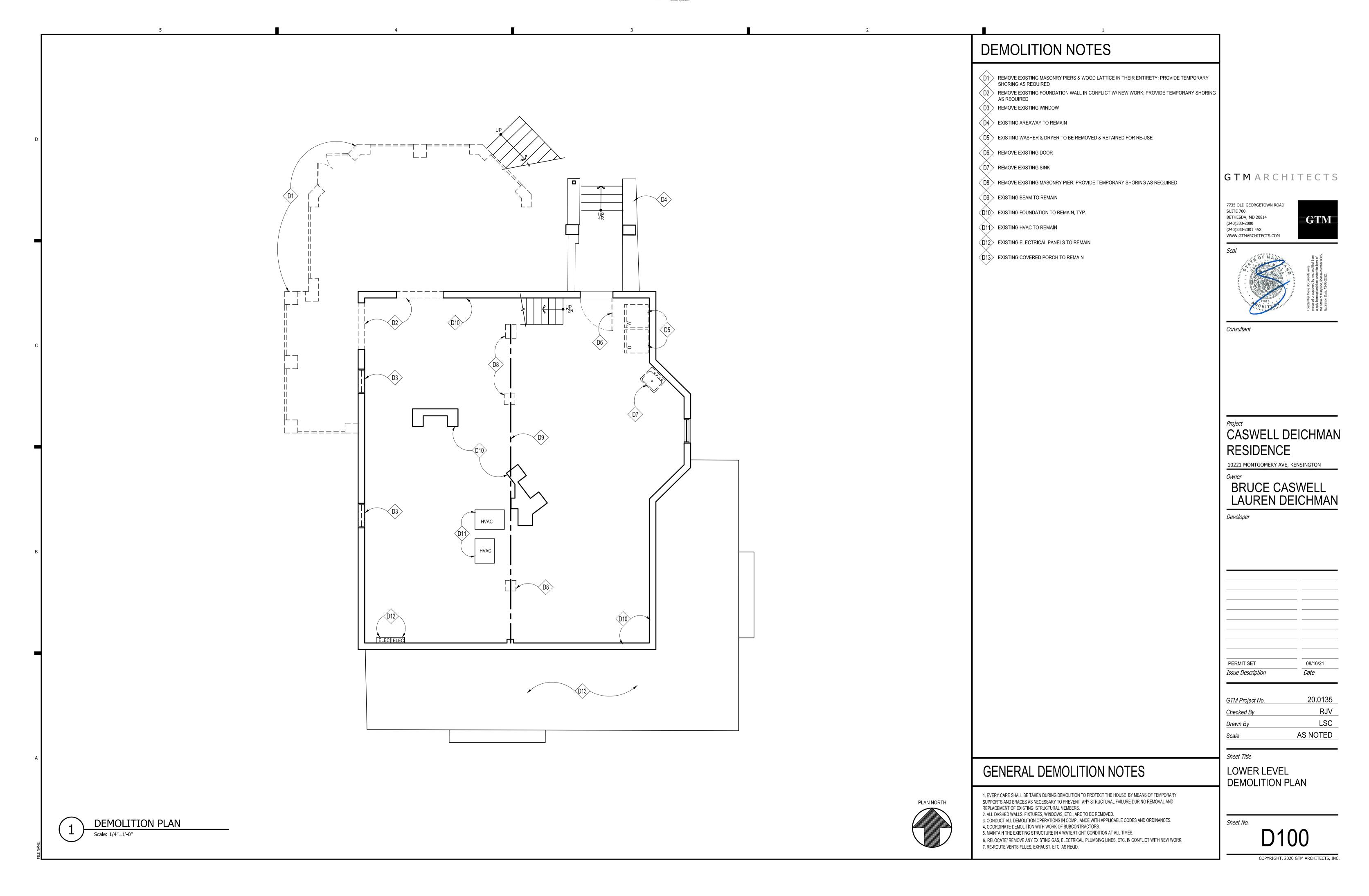
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**SPECIFICATIONS** 

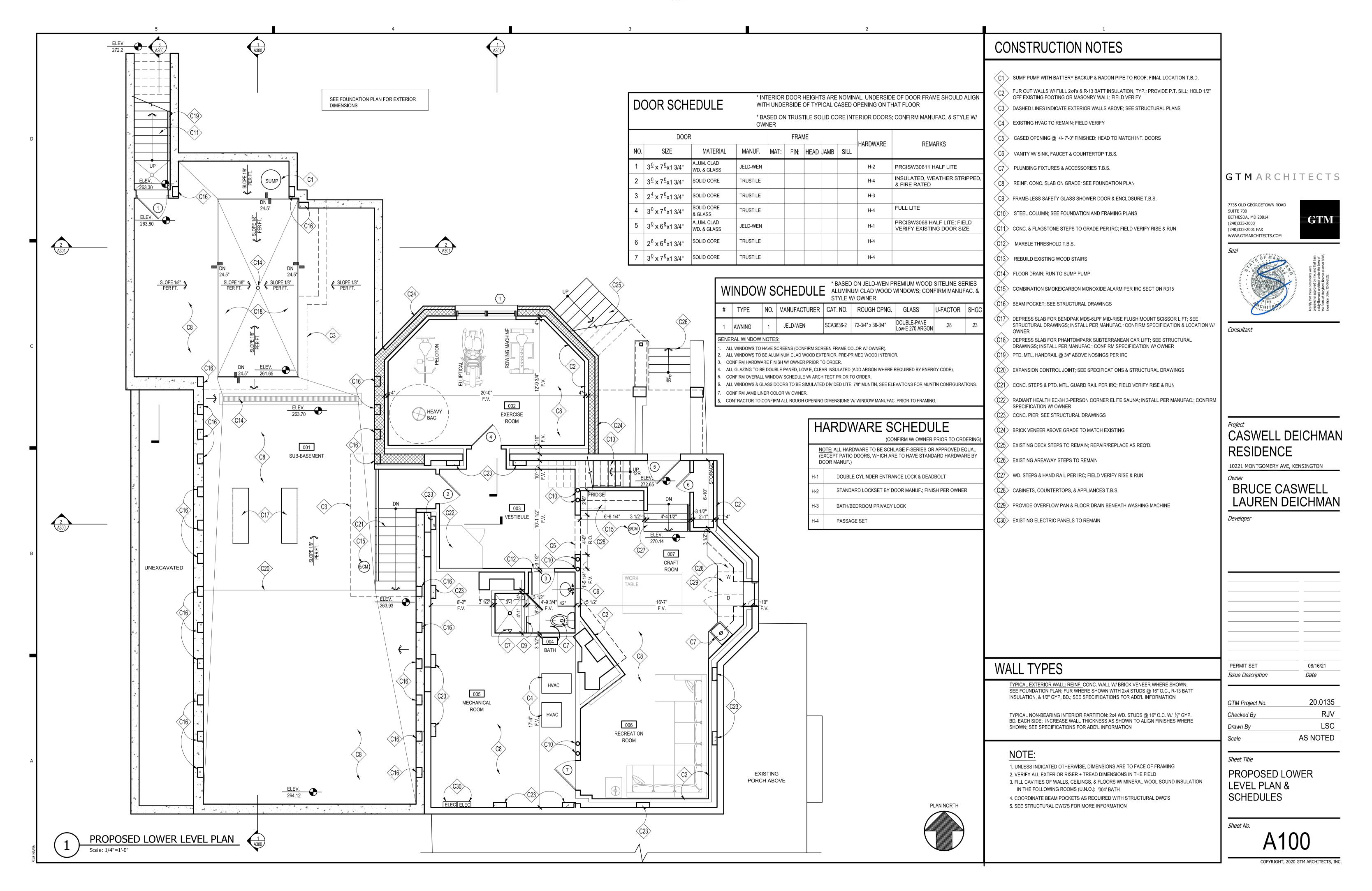
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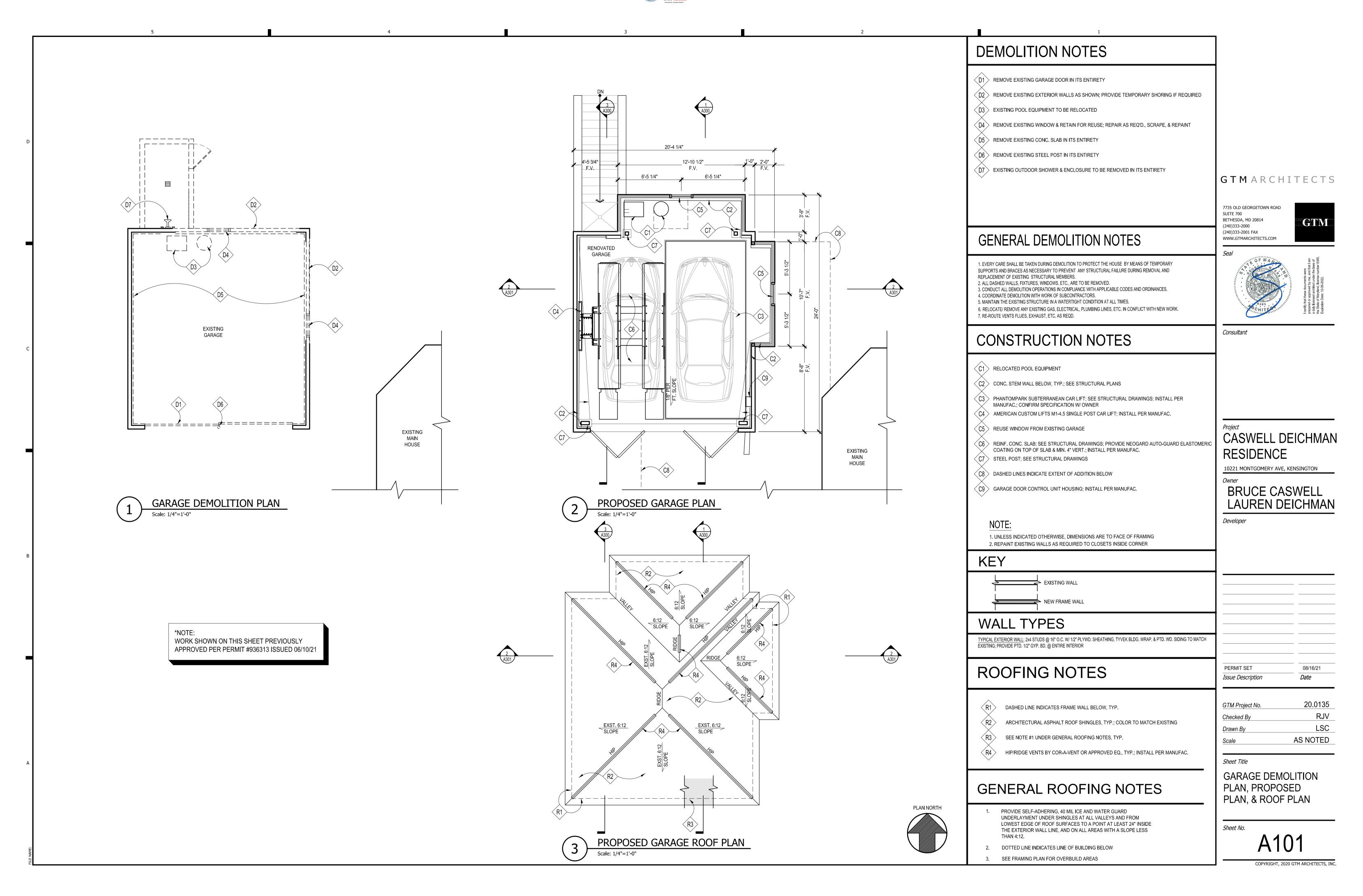
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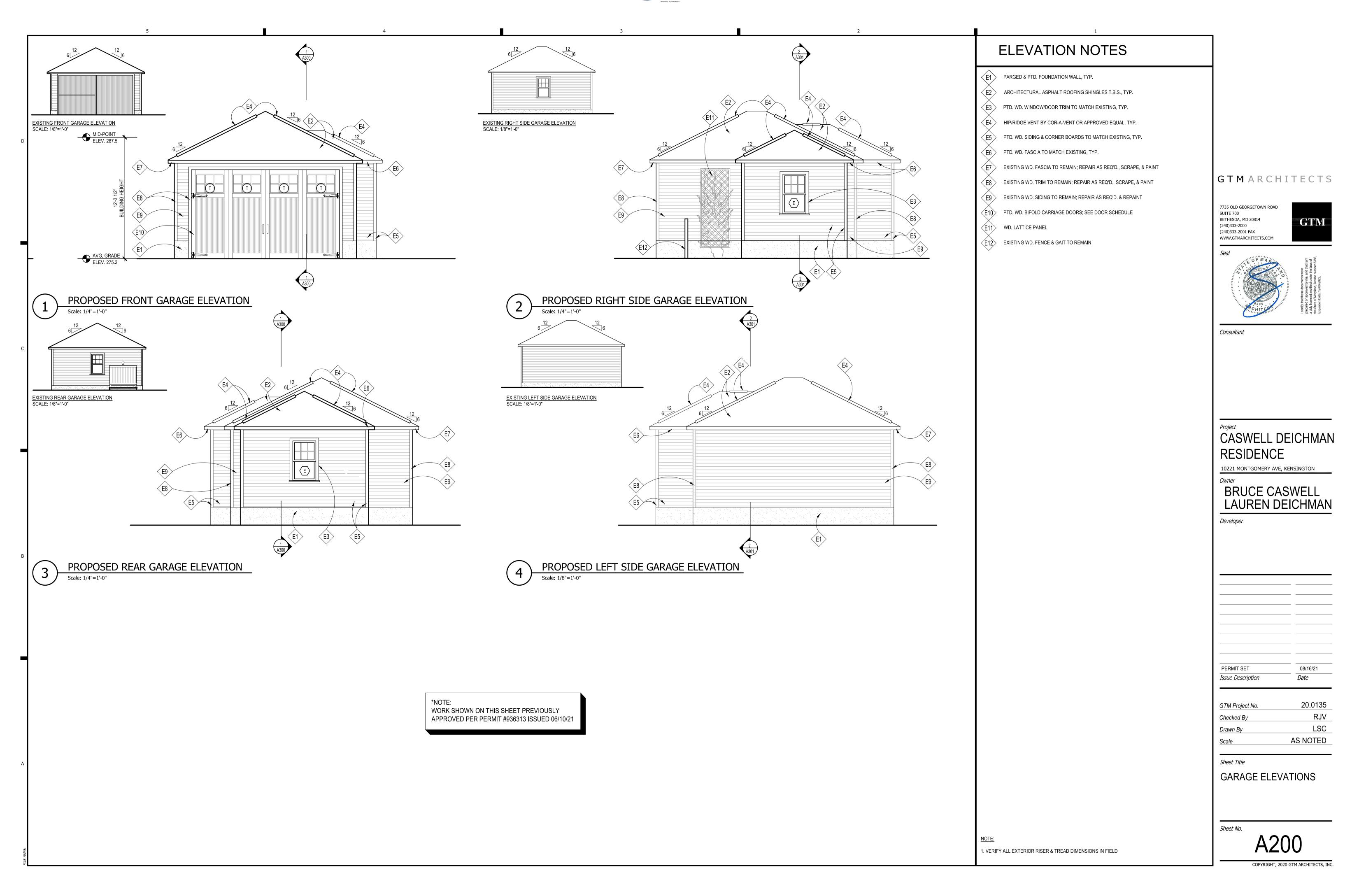


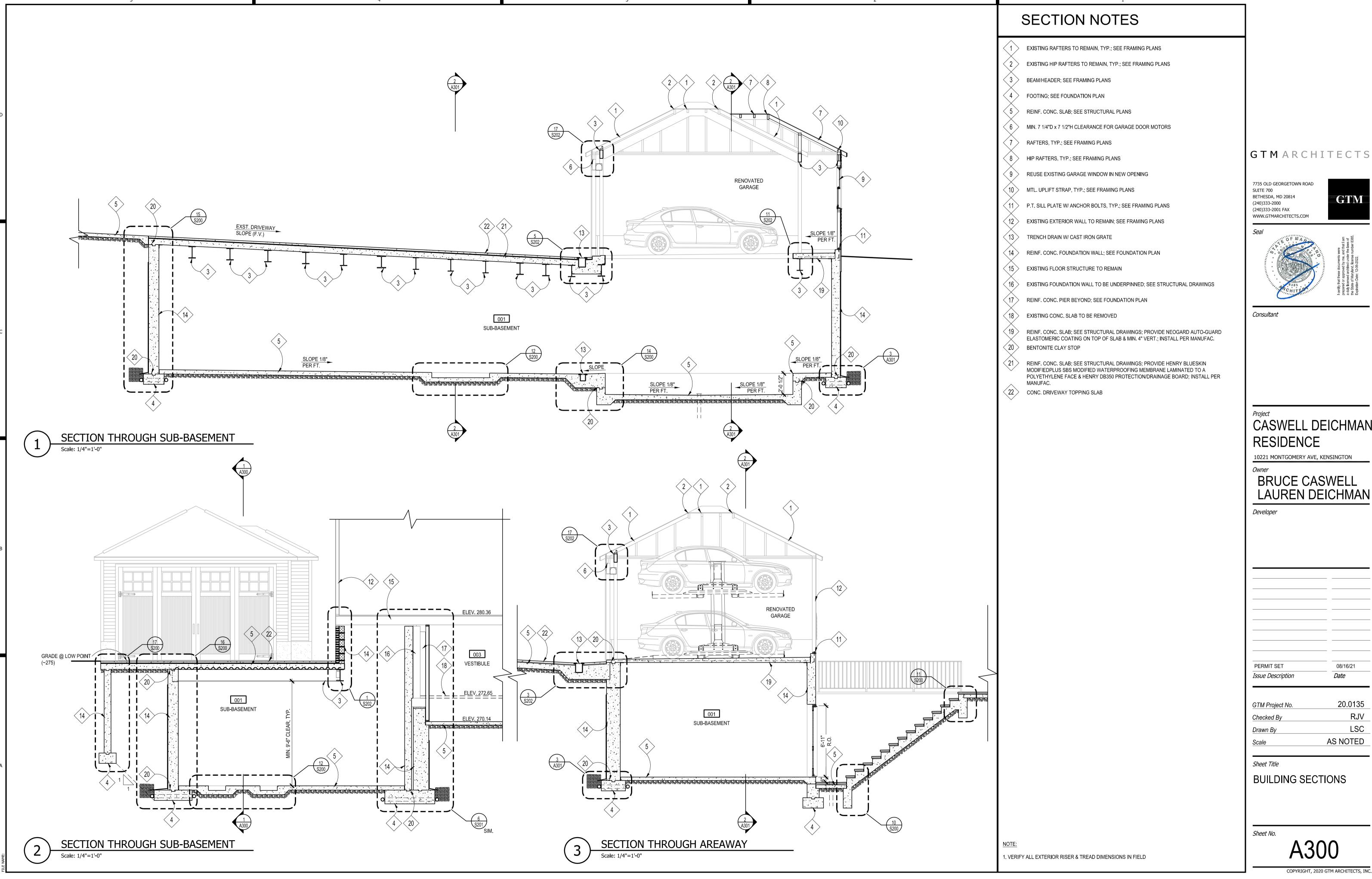












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CASWELL DEICHMAN RESIDENCE

10221 MONTGOMERY AVE, KENSINGTON

BRUCE CASWELL LAUREN DEICHMAN

Developer

PERMIT SET 08/16/21 Date

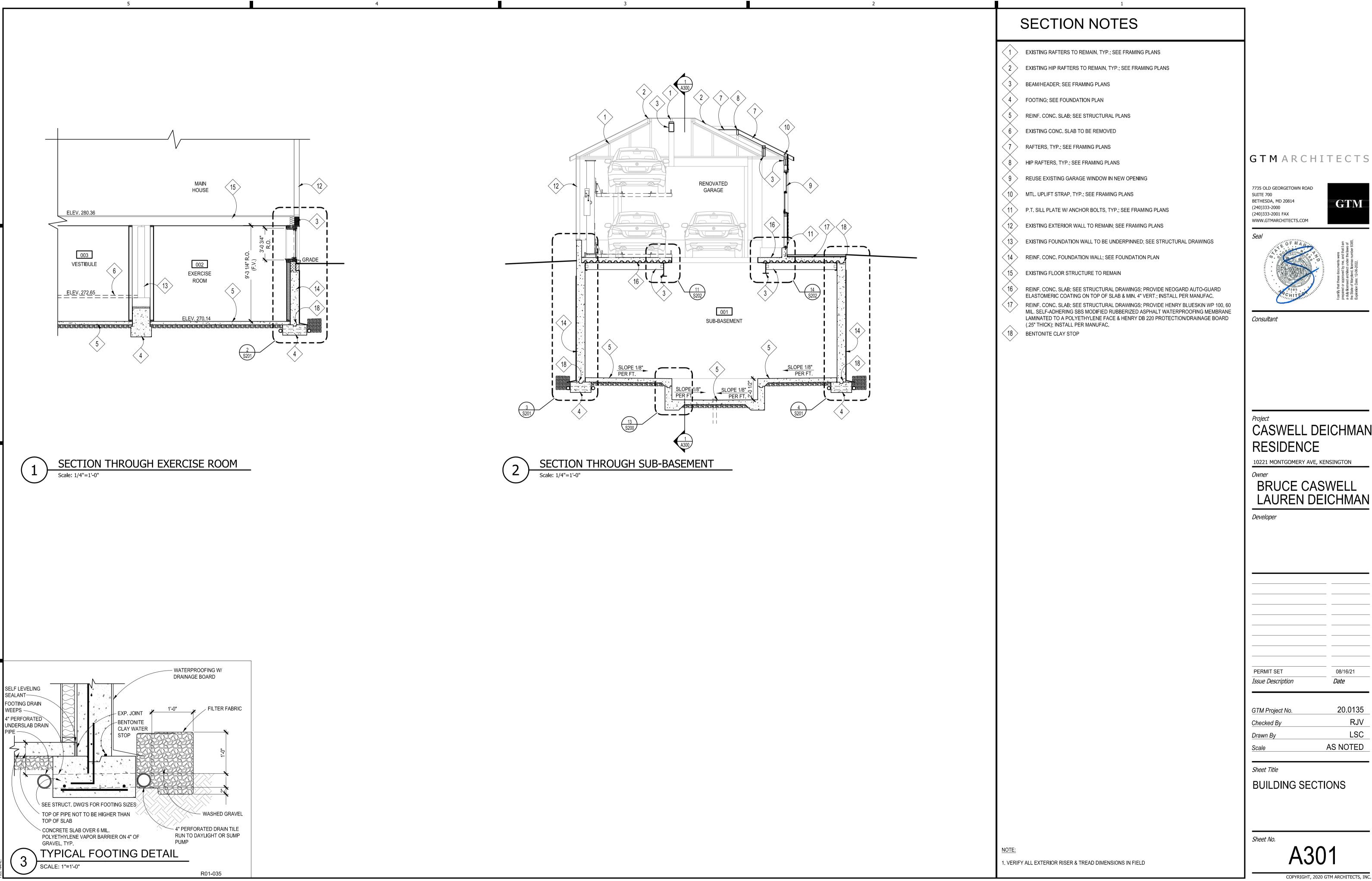
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Sheet Title

**BUILDING SECTIONS** 

Sheet No.

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CASWELL DEICHMAN

10221 MONTGOMERY AVE, KENSINGTON

BRUCE CASWELL LAUREN DEICHMAN

08/16/21 Date

20.0135 RJV AS NOTED

A301



#### STRUCTURAL NOTES

#### A. GENERAL

1. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE IRC 2018 CODE FOR ONE AND TWO FAMILY DWELLINGS. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE IRC 2018 CODE.

2. THE DESIGN GRAVITY LIVE LOADS ARE AS FOLLOWS:

ROOF SNOW LOAD: 30 PSF
RESIDENTIAL FLRS: 40 PSF
SLEEPING ROOMS: 30 PSF
BALCONIES: 60 PSF
GARAGE FLR: 50 PSF
SLAB ON GRADE: 125 PSF

DRIVEWAY DECK: 250 PSF & 8000 LBS WHEEL LOAD

3. WIND LOADS:

BASIC WIND SPEED (3 SEC GUST): 115 MPH WIND EXPOSURE FACTOR: "B"
WIND PRESSURE MAIN BUILDING: 20 PSF WIND PRESSURE COMPONENTS/CLADDING: 18 PSF NET WIND UPLIFT ON ROOF: 12 PSF

4. EARTHQUAKE DESIGN DATA:

SEISMIC DESIGN CATEGORY: "B"

5. METHODS, PROCEDURES, AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF THE CONSTRUCTION.

6. INDIVIDUAL STRUCTURAL COMPONENTS ARE DESIGNED TO SUPPORT LOADS IN THEIR FINALLY ERECTED POSITION AS PART OF THE TOTAL COMPLETED STRUCTURE. PROVIDE TEMPORARY GUYING AND BRACING AS REQUIRED UNTIL ALL CONSTRUCTION, FLOOR, ROOF AND WALL SHEATHING AFFECTING LATERAL STABILITY IS COMPLETED.

7. THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. REFERENCE MUST BE MADE TO ALL BID DOCUMENTS AS WELL AS THE GEOTECHNICAL REPORT. DISCREPANCIES SHALL BE RESOLVED BEFORE PROCEEDING WITH THE CONSTRUCTION AND SHOP FABRICATION. CONTRACTOR TO COORDINATE THE WORK OF ALL TRADES AND MAKE NECESSARY FIELD MEASUREMENTS.

#### B. FOUNDATIONS

1. THE CONTRACTOR SHALL PERFORM SITE STRIPPING, EXCAVATIONS, FOOTING CONSTRUCTION, PREPARATION OF THE SUBGRADE FOR THE SLAB ON GRADE, AND PLACEMENT OF BACKFILL MATERIALS IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT, AND UNDER DIRECT SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL INCLUDE THE SOILS REPORT AS PART OF THE BID DOCUMENTS.

2. THE FOUNDATION FOR THE STRUCTURE HAS BEEN DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 2500 PSF TO BE FIELD VERIFIED BY THE GEOTECHNICAL ENGINEER.

3. BASEMENT WALLS HAVE BEEN DESIGNED FOR AN ASSUMED ALLOWABLE EQUIVALENT FLUID PRESSURE OF 60 PCF TO BE FIELD VERIFIED. RETAINING WALLS HAVE BEEN DESIGNED FOR AN ASSUMED ALLOWABLE EQUIVALENT FLUID PRESSURE OF 45 PCF. A GRAVITY DRAINAGE SYSTEM IS REQUIRED TO PREVENT THE BUILD—UP OF HYDROSTATIC PRESSURE ON THE BASEMENT WALLS. THIS SYSTEM SHALL CONSIST OF A DRAIN BOARD, SAND BACKFILL, AND AN INTERCEPTOR — COLLECTOR SYSTEM AT THE TOP OF THE WALL FOOTING COLLECTED INTO SUMPS FOR DISCHARGE.

4. BOTTOM OF ALL FOOTINGS SHALL BE 2'-6" BELOW FROST LINE PER LOCAL REQUIREMENTS. FOOTINGS SHALL BE FURTHER LOWERED TO APPROVED BEARING ELEVATIONS AS REQUIRED BY THE FIELD GEOTECHNICAL ENGINEER. STEP DOWN FOOTINGS AS REQUIRED TO CLEAR UTILITY LINES AND FIED CONDITIONS.

5. EXCAVATIONS FOR SPREAD FOOTINGS AND CONTINUOUS WALL FOOTINGS SHALL BE CLEANED AND HAND TAMPED TO A UNIFORM SURFACE. FOOTING EXCAVATIONS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 6 MIL VISQUEEN IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HOURS OF THE FOOTING EXCAVATION.

6. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT, STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

7. SLAB ON GRADE SHALL BE UNDERLAID BY A MINIMUM OF 4 INCHES OF GRANULAR MATERIAL HAVING A MAXIMUM AGGREGATE SIZE OF 1.5 INCHES AND NO MORE THAN 2% FINES. PRIOR TO PLACING THE GRANULAR MATERIAL, THE FLOOR SUBGRADE SHALL BE PROPERLY COMPACTED, PROOFROLLED, FREE OF STANDING WATER, MUD AND FROZEN SOIL. BEFORE PLACEMENT OF CONCRETE, A VAPOR BARRIER SHALL BE PLACED ON TOP OF THE GRANULAR MATERIAL.

## C. CONCRETE

1. CONCRETE SHALL HAVE NATURAL SAND FINE AGGREGATES AND NORMAL WEIGHT COARSE AGGREGATES CONFORMING TO ASTM C33, TYPE I PORTLAND CEMENT CONFORMING TO ASTM C150, AND SHALL HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTH (Fc'):

WALLS & FOOTINGS:

3000 PSI

SLAB ON GRADE: 3500 PSI
SLAB ON METAL FORMS: 4500 PSI
DRIVEWAY STRUCTURAL SLAB: 4500 PSI

ALL EXTERIOR CONCRETE AND CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED 6% OF CONCRETE VOLUME. MAXIMUM CONCRETE SLUMP SHALL BE 4 INCHES.

2. GROUT SHALL BE NONSHRINKABLE, NON-METALLIC CONFORMING TO ASTM C827, AND SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI. PREGROUTING OF BASE PLATES WILL NOT BE PERMITTED.

3. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP-66 "DETAILING MANUAL". PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" AND CRSI "MANUAL OF STANDARD PRACTICE".

4. MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO ACI 301.

5. MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS:

FOOTINGS: SLAB ON GRADE (TOP):

PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.

6. CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS REVIEWED BY THE STRUCTURAL ENGINEER. ALL REINFORCEMENT BARS IN CONCRETE OVER FORM DECK AND DRIVEWAY STRUCTURAL SLAB SHALL BE EPOXY COATED PER ASTM A775. ALL DAMAGED EPOXY COATING SHALL BE REPAIRED PER ASTM A775. BAR SUPPORTS & TIE WIRE SHALL BE COATED WITH NON-CONDUCTIVE MATERIAL.

7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. FABRIC SHALL BE SUPPLIED IN FLAT SHEETS. FABRIC SHALL BE LAPPED TWO MESH AT SPLICES.

8. WELDING OF REINFORCEMENT BARS, WHEN ACCEPTED BY THE STRUCTURAL ENGINEER, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.4. ELECTRODES FOR SHOP AND FIELD WELDING OF REINFORCEMENT BARS SHALL CONFORM TO ASTM A233, CLASS E90XX.

9. REINFORCEMENT DESIGNATED AS "CONTINUOUS" SHALL LAP 40
BAR DIAMETERS AT SPLICES UNLESS NOTED OTHERWISE. EPOXY COATED
BARS SHALL LAP 46 BAR DIAMETERS AT LAP SPLICES UNLESS NOTED
OTHERWISE.

10. HORIZONTAL WALL & FTG REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90—DEGREE BENDS AND EXTENSION, OR CORNER BARS OF EQUIVALENT SIZE LAPPED 36 BAR DIAMETERS, AT CORNERS AND INTERSECTIONS.

11. PROVIDE 1 #4 x 3'-0" DIAGONAL BAR AT ALL RE-ENTRANT CORNERS AND AROUND RECTANGULAR HOLES IN SLABS UNLESS NOTED OTHERWISE. PLACE BAR AT MID DEPTH OF THE SLAB AND DIAGONAL TO THE CORNER WITH 1" CLEARANCE FROM THE CORNER.

## D. STEEL

1. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A572 GRADE 50 (FY = 50 KSI). STEEL PLATES & ANGLES SHALL CONFORM TO ASTM A36. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S GRADE B, OR ASTM A501. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B (FY = 46 KSI). ANCHOR BOLTS SHALL CONFORM TO ASTM A307, UNLESS NOTED OTHERWISE.

2. CONNECTION BOLTS FOR STRUCTURAL STEEL SHALL BE HIGH STRENGTH BOLTS WHICH MEET OR EXCEED THE REQUIREMENTS OF ASTM A325, TYPE N,X, OR F. BOLTS SHALL BE DESIGNED AS BEARING TYPE BOLTS. BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE "SNUG TIGHT" CONDITION AS OUTLINED IN THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED.

3. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

4. THE FABRICATOR IS RESPONSIBLE FOR THE SELECTION, DESIGN AND DETAILING OF ALL CONNECTIONS NOT FULLY DETAILED ON THE CONTRACT DRAWINGS. CONNECTIONS SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION".

5. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.1. ELECTRODES FOR SHOP AND FIELD WELDS SHALL CONFORM TO AWS A5.1 OR AWS A5.5, CLASS E70XX, LOW HYDROGEN. WELDING ELECTRODES TO BE USED FOR WELDING GALVANIZED STEEL SHALL BE E7014. AFTER WELDING, APPLY GALVANIZED PAINT TO THE AFFECTED AREAS.

6. PENETRATION, MODIFICATION, & SPLICING OF STRUCTURAL STEEL WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

7. PROVIDE STRUCTURAL STEEL WITH ONE COAT OF RUST PREVENTIVE SHOP PRIMER. TOUCH UP PAINT WHERE WELDING OR ERECTION PROCEDURE DAMAGE PAINT.

8. ALL WEATHER EXPOSED STEEL SUPPORTING MASONRY, STONE, OR PRECAST CONCRETE SHALL BE HOT DIPPED GALVANIZED. ALL WEATHER EXPOSED STRUCTURAL STEEL SHALL BE BLASTED CLEAN, AND PAINTED WITH A WEATHER RESISTANT PAINT AS SELECTED BY THE OWNER OR ARCHITECT.

9. ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL HAVE TOLERANCES, ALIGNMENT, AND LEVELNESS CONFORMING TO THE AISC REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.

#### E. MASONRY

1. MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ACI 530 "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES" AND ACI 530.1 "SPECIFICATIONS FOR MASONRY STRUCTURES".

2. CONCRETE MASONRY CONSTRUCTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'm) OF 1500 PSI ON THE NET CROSS SECTIONAL AREA AT 28 DAYS.

3. MASONRY UNITS SHALL BE GRADE N, TYPE I MEDIUM WEIGHT HOLLOW CONCRETE UNITS CONFORMING TO THE REQUIREMENTS OF ASTM C90. MASONRY UNITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON THE NET AREA AT 28 DAYS.

4. FACING BRICK SHALL CONFORM TO THE REQUIREMENTS OF ASTM C216 GRADE SW. FACING BRICK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AS DETERMINED BY ASTM C67.

5. MORTAR SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270, TYPE M OR S. TYPE M MORTAR SHALL BE USED IN BELOW GRADE APPLICATIONS AND SHALL OBTAIN AN AVERAGE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS. TYPE S MORTAR MAY BE USED IN ABOVE GRADE APPLICATIONS AND SHALL OBTAIN AN AVERAGE COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS.

6. GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A COMPRESSIVE STRENGTH OF 2500 PSI ON THE NET AREA AT 28 DAYS.

7. REINFORCEMENT SHALL CONFORM TO THE STANDARDS SPECIFIED IN THE CONCRETE NOTES. REINFORCEMENT SHALL BE LAP SPLICED A MINIMUM OF 36 BAR DIAMETER UNLESS NOTED OTHERWISE.

8. HORIZONTAL JOINT REINFORCEMENT SHALL BE USED IN THE MASONRY CONSTRUCTION. SUCH JOINT REINFORCEMENT SHALL BE PLACED AT 8 INCHES ON CENTER VERTICALLY IN WALLS BELOW GRADE AND AT 16 INCHES ON CENTER VERTICALLY IN WALLS THAT ARE ABOVE GRADE. MASONRY JOINT REINFORCING SHALL BE TRUSS TYPE ZINC COATED, COLD DRAWN STEEL WIRE CONFORMING TO ASTM A82.

9. UNLESS NOTED OTHERWISE ON PLAN, PROVIDE LOOSE ANGLE LINTELS FOR EACH 4 INCHES OF WALL THICKNESS WITH 6 INCHES MINIMUM BEARING AT EACH END.

UP TO 4'-0" L3 1/2x3 1/2x1/4
UP TO 6'-0" L5x3 1/2x5/16 (LLV)
UP TO 8'-0" L6x3 1/2x5/16 (LLV)

#### F. W00[

1. ALL LUMBER AND ITS FASTENINGS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, LATEST EDITION, BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

2. ALL FRAMING LUMBER EXCEPT SILL PLATES AND TOP & BOT BEARING WALL PLATES SHALL BE HEM-FIR, GRADE #2 OR SPRUCE-PINE-FIR, GRADE #2 OR BETTER, HAVING THE FOLLOWING MIN VALUES:

BENDING STRESS "Fb":

HORIZONTAL SHEAR "Fv":

COMP PERPENDICULAR TO GRAIN "Fc l":

COMP PARALLEL TO GRAIN "Fc II":

MODULUS OF ELASTICITY "E":

850 PSI (SINGLE MEMB USE)

135 PSI

405 PSI

1100 PSI

1,300,000 PSI

NOTE: SPRUCE-PINE-FIR (SOUTH) IS NOT ACCEPTABLE. SPRUCE-PINE-FIR MUST BE GRADED BY NLGA.

3. ALL STRUCTURAL POSTS, SILL PLATES. TOP & BOT BEARING WALL PLATES, AND EXTERIOR FRAMING LUMBER SHALL BE SOUTHERN YELLOW PINE, GRADE #2 OR BETTER, WITH THE FOLLOWING MINIMUM VALUES (BASED ON 2x12 LUMBER):

BENDING STRESS "Fb":
HORIZONTAL SHEAR "Fv":
COMP PERPENDICULAR TO GRAIN "Fc l":
COMP PARALLEL TO GRAIN "Fc II":
MODULUS OF ELASTICITY "E":

975 PSI (SINGLE MEMB USE)
175 PSI
1565 PSI
1450 PSI
1,600,000 PSI

4. ALL LVL MEMBERS SHALL BE 1.9E MICROLLAM LVL WITH THE FOLLOWING ALLOWABLE DESIGN STRESSES:

BENDING STRESS "Fb": 2600 PSI
HORIZONTAL SHEAR "Fv": 285 PSI
COMP PERPENDICULAR TO GRAIN "Fc l": 750 PSI
COMP PARALLEL TO GRAIN "Fc II": 2310 PSI
MODULUS OF ELASTICITY "E": 1,900,000 PSI

5. ALL PSL MEMBERS SHALL BE 2.0E PARALLAM PSL WITH THE FOLLOWING ALLOWABLE DESIGN STRESSES:

BENDING STRESS "Fb": 2900 PSI
HORIZONTAL SHEAR "Fv": 290 PSI
COMP PERPENDICULAR TO GRAIN "Fc l": 650 PSI
COMP PARALLEL TO GRAIN "Fc II": 2900 PSI
MODULUS OF ELASTICITY "E": 2,000,000 PSI

4. ALL WEATHER EXPOSED DIMENSION LUMBER AND SILL PLATES BEARING ON MASONRY OR CONCRETE SHALL BE PRESSURE TREATED. WEATHER EXPOSED ENDS OF MEMBERS SHALL BE TREATED WITH C.C.A.

5. ALL FREESTANDING POSTS SHALL HAVE PREFABRICATED POST CAPS AND BASE. POSTS WITHIN WALL SHALL HAVE PREFABRICATED CAP ATTACHED TO BEAM. POSTS BEARING ON MASONRY OR CONCRETE SHALL HAVE PREFABRICATED BASE. INSTALL CONNECTORS PER MANUF RECOMMENDATIONS. CONNECTORS EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND OR SHALL BE HOT DIP GALVANIZED.

6. PROVIDE SOLID WOOD BLOCKING WITH END GRAIN BEARING BETWEEN FLOOR LEVELS BELOW ALL SOLID WOOD POSTS AND MULTIPLE STUD. COLUMN CONCENTRATED LOADS SHALL BE TRANSFERRED THROUGH FLOOR LEVELS DOWN TO TOP OF CONCRETE OR MASONRY. PROVIDE SOLID WOOD BLOCKING AT SUPPORTS, ENDS OF CANTILEVERS, AND AT 8'-0" O.C. MAXIMUM OF ANY HORIZONTAL SPAN, OR AS PER MANUFACTURED MEMBER INSTALLATION INSTRUCTIONS. PROVIDE INTERMEDIATE HORIZONTAL WOOD BLOCKING AT 4'-0" MAXIMUM VERTICAL SPACING AT ALL LOAD BEARING STUD WALLS.

7. FRAMING CONNECTORS FOR JOISTS, BEAMS, TRUSSES, COLUMNS, ETC., SHALL BE BY SIMPSON STRONG—TIE COMPANY OR APPROVED EQUAL. CONNECTORS SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. CONNECTORS EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND OR SHALL BE HOT DIP GALVANIZED.

8. PROVIDE SIMPSON H2.5A UPLIFT CONNECTORS OR EQUAL AT ALL RAFTERS AND ROOF TRUSSES. REFER TO THE IRC BUILDING CODE FOR MINIMUM NAILING REQUIREMENTS FOR CONNECTING WOOD ELEMENTS. MULTIPLE BEAMS SHALL BE NAILED WITH 2 ROWS OF NAILS AT 12" O.C. MULTIPLE MEMBER STUD POSTS SHALL BE NAILED AT 6" O.C. STAGGERED.

9. DOUBLE FLOOR JOISTS UNDER NON BEARING PARTITION WALLS AND UNDER BATH TUBS PARALLEL TO THE FLOOR JOISTS. UNLESS OTHERWISE SHOWN ON KING STUDS SCHEDULE, PROVIDE DOUBLE FULL HEIGHT STUDS EACH SIDE OF WALL OPENINGS UP TO 4'-0" AND TRIPLE FULL HEIGHT STUDS EACH SIDE OF WALL OPENINGS UP TO 6'-0". MINIMUM END BEARING OF HEADERS IN BEARING WALLS SHALL BE 3" (TWO STUDS) UNLESS NOTED OTHERWISE ON PLAN.

10. WOOD JOIST AND STUDS SHALL NOT BE CUT OR NOTCHED UNLESS AUTHORIZED BY THE ENGINEER. DRILLED HOLES SHALL BE CENTERED AT MID DEPTH OF MEMBER AND THE HOLE DIA SHALL NOT EXCEED 1/3 ACTUAL DEPTH OF MEMBER. NO HOLES ARE TO BE LOCATED WITHIN 2' FROM THE ENDS OR WITHIN THE MIDDLE 1/3 OF THE SPAN. PROVIDE 4" CLEAR BETWEEN HOLES.

11. PLYWOOD WEB JOISTS (TJI), LAMINATED VENEER LUMBER (LVL), AND PARALLEL STRAND LUMBER (PSL) SHALL BE AS MANUFACTURED BY TRUS JOIST MACMILLAN OR APPROVED EQUAL. REFER TO THE MANUFACTURER RECOMMENDATION FOR INSTALLATION, CONNECTION, AND REINFORCEMENT DETAILS REQUIRED FOR THESE PRODUCTS. PROVIDE 1 3/4" MINIMUM BEARING FOR TJI JOISTS AND 3 1/2" MINIMUM BEARING FOR LVL AND PSL BEAMS. PROVIDE 1 1/4" MINIMUM TIMBERSTRAND RIM BOARD AT ALL PERIMETER WALLS AND SILL PLATES. PROVIDE WEB STIFFENERS 2x SQUASH BLOCKS AS SHOWN ON THE PROJECT DRAWINGS AND AS REQUIRED BY THE MANUFACTURER.

12. FASTEN MULTIPLE LVL MEMBERS TOGETHER AS FOLLOWS:
2 AND 3 MEMBERS 12" OR LESS: PROVIDE 2 ROWS OF 16d COMMON NAILS AT 12" O.C.
2 AND 3 MEMBERS > 12" DEEP: PROVIDE 3 ROWS OF 16d COMMON NAILS AT 12" O.C.

NAIL 3 MEMBER ASSEMBLY FROM BOTH SIDES.
FOR ONE SIDED LOADED ASSEMBLY AND 4 PIECE MEMBERS: PROVIDE
2 ROWS OF 1/2"Ø THROUGH BOLTS @ 12" O.C.
PROVIDE HEAVY DUTY FRAMING CONNECTIONS BY SIMPSON STRONG TIE
COMPANY OR APPROVED EQUAL WHEN CONNECTING LVL AND PSL
MEMBERS.

13. UNLESS OTHERWISE INDICATED, SUBFLOORING SHALL BE 3/4" T & G PLYWOOD, APA RATED STURD—I—FLOOR, ROOF SHEATHING SHALL BE 5/8" CDX PLYWOOD APA RATED, AND WALL SHEATHING SHALL BE 1/2" CDX PLYWOOD APA RATED. PROVIDE "H" CLIPS AT BUTT JOINTS OF ROOF SHEATHING.

14. ROOF TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE LOADS INDICATED ON THE DRAWINGS. SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF THE ACTUAL CONSTRUCTION.

15. MULTIPLE TRUSSES MUST BE FASTENED TO EACH OTHER IN A MANNER AS TO SHARE THE SUPERIMPOSED LOADS INCLUDING LOADS FROM HEADERS. CONNECTORS FOR TRUSSES TO BEAMS AND TRUSS GIRDERS SHALL BE DESIGNED BY THE SPECIFIED BY THE TRUSS MANUFACTURER. WOOD TRUSSES SHALL NOT BE CUT OR DRILLED UNLESS AUTHORIZED BY THE TRUSS MANUFACTURER.

## G. NOTES

1. REFER TO ARCHITECTURAL, ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL SLEEVES, ANCHORS, VENT OPENINGS, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS THAT MAY BE REQUIRED.

2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR CONCRETE AND MASONRY REINFORCING, CONCRETE MIX DESIGN, & STRUCTURAL STEEL TO THE STRUCTURAL ENGINEER FOR REVIEW.

3. GUARD RAILS, HAND RAILS AND STAIRS SHALL BE ENGINEERED BY THE STAIR AND RAILING MANUFACTURER TO MEET THE IRC CODE REQUIRED DESIGN LOAD CRITERIA. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR THE STAIR AND GUARD RAIL DESIGN SIGNED BY A PROFESSIONAL ENGINEER FOR REVIEW BY THE ARCHITECT AND ENGINEER OF RECORD.

4. ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED BY A QUALIFIED INSPECTION AGENCY IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES. THE OWNER OR CONTRACTOR SHALL HIRE AN EXPERIENCED INSPECTION AGENCY TO PERFORM ALL THE REQUIRED INSPECTION WORK AND PROVIDE ANY REQUIRED CERTIFICATIONS.



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17129, Expiration date: 11-06-22

Consultant

RADWAN ASSOCIATES, INC STRUCTURAL ENGINEER

8609 WESTWOOD CENTER DR., SUITE 110 VIENNA, VA 22182 (703) 790-8435 RADWANINC@AOL.COM

Project

## CASWELL-DEICHMAN GARAGE

10221 MONTGOMERY AVENUE KENSINGTON, MD 20895

Developer

| Date | PERMIT REVISIONS | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-06-2021 | 10-

Sheet Title

STRUCTURAL NOTES

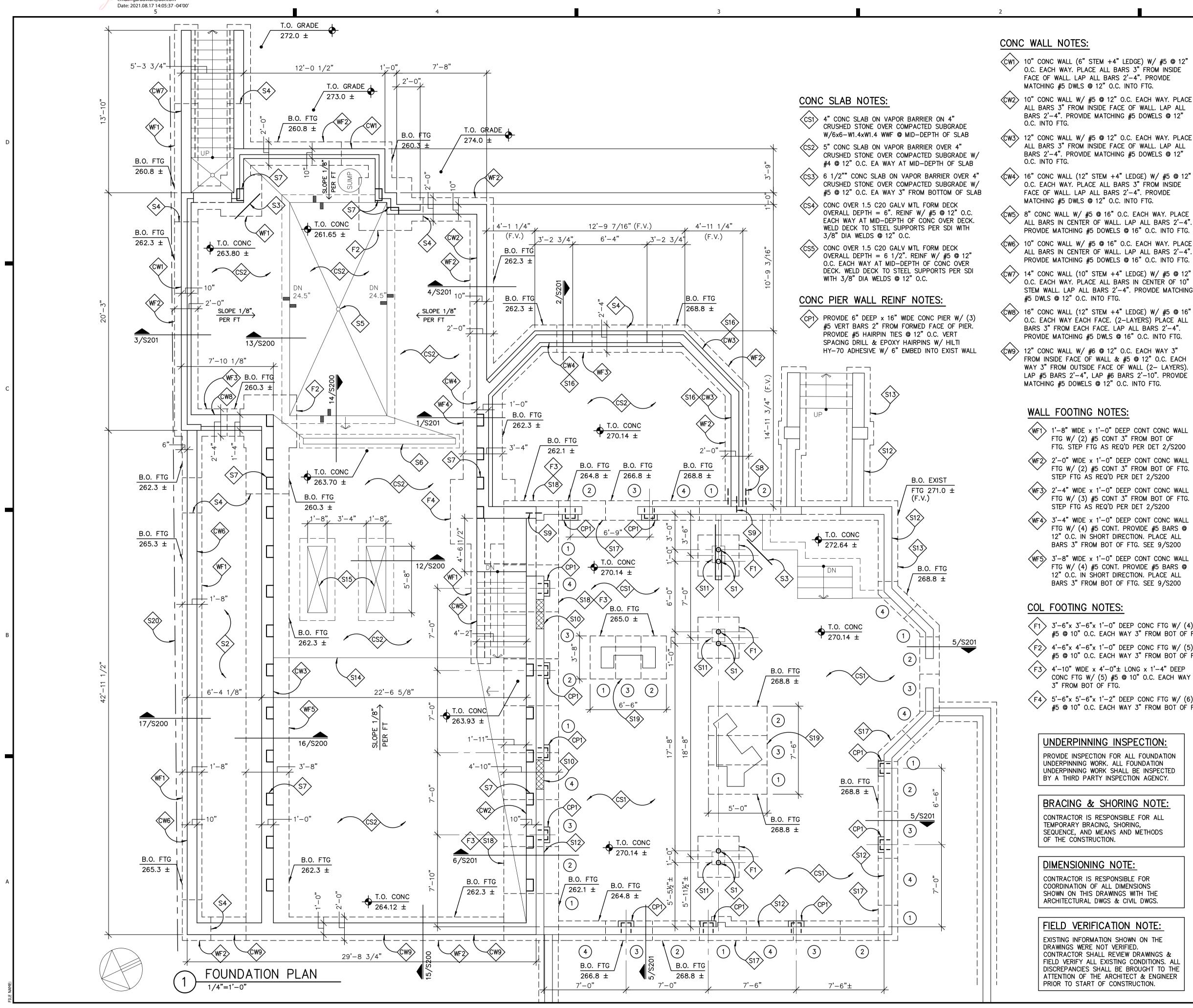
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SHEET 1

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1=48

Digitally signed by Ghassan Radwan DN: c=US, st=Virginia, l=Vienna, o=Ghassan Ghassan Radwan Radwan, cn=Ghassan Radwan,



#### CONC WALL NOTES:

- (CW1) 10" CONC WALL (6" STEM +4" LEDGE) W/ #5 @ 12" O.C. EACH WAY. PLACE ALL BARS 3" FROM INSIDE FACE OF WALL. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DWLS @ 12" O.C. INTO FTG.
- ⟨CW2⟩ 10" CONC WALL W/ #5 @ 12" O.C. EACH WAY. PLACE ALL BARS 3" FROM INSIDE FACE OF WALL. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DOWELS @ 12"
- ⟨CW3⟩ 12" CONC WALL W/ #5 @ 12" O.C. EACH WAY. PLACE ALL BARS 3" FROM INSIDE FACE OF WALL, LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DOWELS @ 12" O.C. INTO FTG.
- ⟨CW4⟩ 16" CONC WALL (12" STEM +4" LEDGE) W/ #5 @ 12" O.C. EACH WAY. PLACE ALL BARS 3" FROM INSIDE FACE OF WALL. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DWLS @ 12" O.C. INTO FTG.
- CW5 8" CONC WALL W/ #5 @ 16" O.C. EACH WAY. PLACE ALL BARS IN CENTER OF WALL. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DOWELS @ 16" O.C. INTO FTG.
- ALL BARS IN CENTER OF WALL, LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DOWELS @ 16" O.C. INTO FTG. ⟨CW7⟩ 14" CONC WALL (10" STEM +4" LEDGE) W/ #5 @ 12" O.C. EACH WAY. PLACE ALL BARS IN CENTER OF 10"
- STEM WALL. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DWLS @ 12" O.C. INTO FTG.
- CW8 16" CONC WALL (12" STEM +4" LEDGE) W/ #5 @ 16" O.C. EACH WAY EACH FACE. (2-LAYERS) PLACE ALL BARS 3" FROM EACH FACE. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DWLS @ 16" O.C. INTO FTG.
- ⟨CW9⟩ 12" CONC WALL W/ #6 @ 12" O.C. EACH WAY 3" FROM INSIDE FACE OF WALL & #5 @ 12" O.C. EACH WAY 3" FROM OUTSIDE FACE OF WALL (2- LAYERS). LAP #5 BARS 2'-4", LAP #6 BARS 2'-10". PROVIDE MATCHING #5 DOWELS @ 12" O.C. INTO FTG.

#### **WALL FOOTING NOTES:**

- WF1> 1'-8" WIDE x 1'-0" DEEP CONT CONC WALL FTG W/ (2) #5 CONT 3" FROM BOT OF FTG. STEP FTG AS REQ'D PER DET 2/S200
- WF2> 2'-0" WIDE x 1'-0" DEEP CONT CONC WALL FTG W/ (2) #5 CONT 3" FROM BOT OF FTG. STEP FTG AS REQ'D PER DET 2/S200
- WF3> 2'-4" WIDE x 1'-0" DEEP CONT CONC WALL FTG W/ (3) #5 CONT 3" FROM BOT OF FTG. STEP FTG AS REQ'D PER DET 2/S200
- WF4> 3'-4" WIDE x 1'-0" DEEP CONT CONC WALL FTG W/ (4) #5 CONT. PROVIDE #5 BARS @ 12" O.C. IN SHORT DIRECTION. PLACE ALL BARS 3" FROM BOT OF FTG. SEE 9/S200
- WF5> 3'-8" WIDE x 1'-0" DEEP CONT CONC WALL FTG W/ (4) #5 CONT. PROVIDE #5 BARS @ 12" O.C. IN SHORT DIRECTION. PLACE ALL BARS 3" FROM BOT OF FTG. SEE 9/S200

## COL FOOTING NOTES:

- $\langle F1 \rangle$  3'-6"x 3'-6"x 1'-0" DEEP CONC FTG W/ (4) #5 @ 10" O.C. EACH WAY 3" FROM BOT OF FTG
- $\langle F2 \rangle$  4'-6"x 4'-6"x 1'-0" DEEP CONC FTG W/ (5) #5 @ 10" O.C. EACH WAY 3" FROM BOT OF FTG.
- $\langle F3 \rangle$  4'-10" WIDE x 4'-0"± LONG x 1'-4" DEEP CONC FTG W/ (5) #5 @ 10" O.C. EACH WAY 3" FROM BOT OF FTG.
- $\langle F4 \rangle$  5'-6"x 5'-6"x 1'-2" DEEP CONC FTG W/ (6) #5 @ 10" O.C. EACH WAY 3" FROM BOT OF FTG.

## UNDERPINNING INSPECTION: PROVIDE INSPECTION FOR ALL FOUNDATION

UNDERPINNING WORK. ALL FOUNDATION UNDERPINNING WORK SHALL BE INSPECTED BY A THIRD PARTY INSPECTION AGENCY.

# BRACING & SHORING NOTE:

CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, SEQUENCE, AND MEANS AND METHODS OF THE CONSTRUCTION.

## **DIMENSIONING NOTE:**

CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS SHOWN ON THIS DRAWINGS WITH THE ARCHITECTURAL DWGS & CIVIL DWGS.

# | FIELD VERIFICATION NOTE:

EXISTING INFORMATION SHOWN ON THE DRAWINGS WERE NOT VERIFIED. CONTRACTOR SHALL REVIEW DRAWINGS & FIELD VERIFY ALL EXISTING CONDITIONS. AL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT & ENGINEER PRIOR TO START OF CONSTRUCTION.

## FOUNDATION PLAN NOTES:

- S1 STEEL COL SEE SHEET S101
- S2 COMPACTED FILL
- ⟨S3⟩ #4 x 3'-0" ADD'L SLAB CORNER BAR
- (S4) STEP WALL FTG SEE DET 2/S200
- (S5) FLOOR DRAIN SEE PLUMBING DWGS
- (S6) TRENCH DRAIN SEE PLUMBING DWGS
- S7 BEAM POCKET ABOVE SEE SHEET S101
- $\langle S8 \rangle$  DRILL & EPOXY (2) #5 DOWELS x 1'-6" W/ 6" EMBED INTO EXIST FTG. BOT OF NEW FTG TO MATCH BOT OF
- ⟨S9⟩ DRILL & EPOXY #5 DOWELS x 1'-6" 

  © 16" O.C. VERT SPACING W/ 6" EMBED INTO EXIST WALL
- (\$10) MASONRY INFILL TO MATCH EXIST WALL. TOOTH-IN & GROUT SOLID TO RESTORE STRUCTURAL INTEGRITY OF MASONRY WALL.
- (S11) EXIST MASONRY PIER TO BE REMOVED FIELD VERIFY LOCATION
- (S12) EXIST 8" FULL WIDTH MASONRY WALL BELOW FIELD VERIFY CONDITION
- (\$13) EXIST WALL FTG TO REMAIN INTACT
- (\$14) PROVIDE SAW-CUT OR PRE-FORMED SLAB CONTROL JOINT 1 1/4" DEEP TO CONTROL CRACK. CUT 50% OF SLAB REBAR AT THAT LOCATION JOINT LOCATIONS.
- ⟨S15⟩ 5¾" DEEP SLAB RECESS COORD W/ LIFT MANUF
- (S16> 4" BRICK +8" CMU MONOLITHIC MASONRY WALL ABOVE CONC WALL BELOW W/ FULL WIDTH HORIZ TRUSS REINF @ 8" VERT W/ #5 VERT BARS @ 16" IN CENTER OF 8' CMU. GROUT CELLS SOLID. LAP BARS 2'-4". PROVIDE MATCHING #5 DWLS @ 16" O.C. INTO CONC BELOW.
- ⟨S17⟩ PROVIDE 2'-0" WIDE x 1'-6" MIN DEEP CONC FTG UNDERPINNING AT EXIST WALL. SEE DET 5/S201 FOR REQ'D REBAR SIZE & LOCATION. LOWER BOTTOM OF UNDERPINNING AS SHOWN ON PLAN
- (S18) PROVIDE 4'-10" WIDE x 1'-4" MIN DEEP CONC FTG UNDERPINNING AT NEW & EXIST WALL. SEE DET 6/S201 FOR REQ'D REBAR SIZE & LOCATION. LOWER BOTTOM OF UNDERPINNING AS SHOWN ON PLAN
- \$19\triangleright PROVIDE CONC FTG UNDERPINNING AT EXIST CHIMNEY PER INDICATED PLAN DIMENSIONS. SEE DET 8/S201 FOR REQ'D REBAR SIZE & LOCATION. LOWER BOTTOM OF UNDERPINNING AS SHOWN ON PLAN
- \$20 PROPERTY LINE SEE CIVIL & ARCHT DWGS FOR INFO

## **UNDERPINNING NOTES:**

- 1. ALL UNDERPINNING WORK SHALL BE DONE BY A SPECIALTY CONTRACTOR EXPERIENCED AND INSURED FOR THIS TYPE OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE AS THE RESULT OF THE UNDERPINNING WORK.
- 2. ALL UNDERPINNING WORK SHALL BE INSPECTED BY A THIRD PARTY INSPECTION AGENCY. THE SOIL BEARING MATERIAL SHALL BE APPROVED BY A REGISTERED GEOTECHNICAL ENGINEER.
- 3. UNDERPINNING PIERS SHALL BE INSTALLED IN THE SEQUENCE INDICATED ON THE PLANS AND THE DETAIL. PIERS SHALL BE 4'-0" MAX AND SHALL EXTEND 1'-0" MIN INTO UNDISTURBED SOIL. NO OPEN UNDERPINNING PIT SHALL BE CLOSER THAN 12'-0" CLEAR TO ANY OTHER OPEN UNDERPINNING PIT. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. ALLOW 36 HOURS CURING PRIOR TO PLACING 2" CONTINUOUS FULL WIDTH DRYPACKING. ALLOW ANOTHER 18 HOURS BETWEEN DRYPACKING AND THE NEXT EXCAVATION SEQUENCE.

## FOUNDATION NOTES:

- 1. STEP FOOTINGS PER DETAILS ON S200 FOR UTILITY LINES AND AS REQ'D BY THE GEOTECH ENGINEER FOR APPROVED SOIL BEARING. BOTTOM OF ALL FOOTINGS SHALL BE MIN OF 2'-6" BELOW FINISH GRADE. CONTRACTOR SHALL COORDINATE BOTTOM OF FTGS WITH SITE PLAN, ARCHT DWGS & FIELD CONDITIONS.
- 2. FOUNDATION WALLS SHALL HAVE P.T. 2x6 SILL PL ANCHORED TO WALL W/ 5/8" DIA x 1'-0" BOLTS @ 32" O.C. PROVIDE DRAIN BOARD. WATER PROOFING, & 4" DIA DRAIN PIPE CONNECTED TO SUMP PUMP LOCATED BELOW THE LOWEST BASEMENT SLAB. TERMINATE DRAIN BOARD 1'-6" BELOW FINISH GRADE. TOP 18" OF SOIL SHALL BE IMPERVIOUS. SLOPE GRADE AWAY FROM WALL.

## **GENERAL NOTES:**

- . REFER TO THE ARCHT DWGS FOR DIMENSIONS, ELEVATIONS, & BALANCE OF INFORMATION. REFER TO MEP DWGS FOR ADD'L INFO ON DRAINS, UTILITY LINES, SLEEVES, & OPENINGS REQUIREMENTS.
- 2. REFER TO SOO1 FOR STRUCTURAL NOTES. REFER TO S200 THRU S202 & S301 FOR APPLICABLE DETAILS NOT REFERENCED ON PLAN. 3. REFER TO THE CIVIL DRAWINGS FOR ADD'L INFO & FINISH GRADE ELEVATIONS

Seal



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17129, Expiration date: 11-06-22

Consultant

RADWANINC@AOL.COM

RADWAN ASSOCIATES, INC STRUCTURAL ENGINEER

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Project

# **CASWELL-DEICHMAN GARAGE**

**10221 MONTGOMERY AVENUE** KENSINGTON, MD 20895

Developer

RMIT	08-16-202

Issue Description Date

GR Checked By GR Drawn By 1=48

RA-20-107

Sheet Title

RAI Project No.

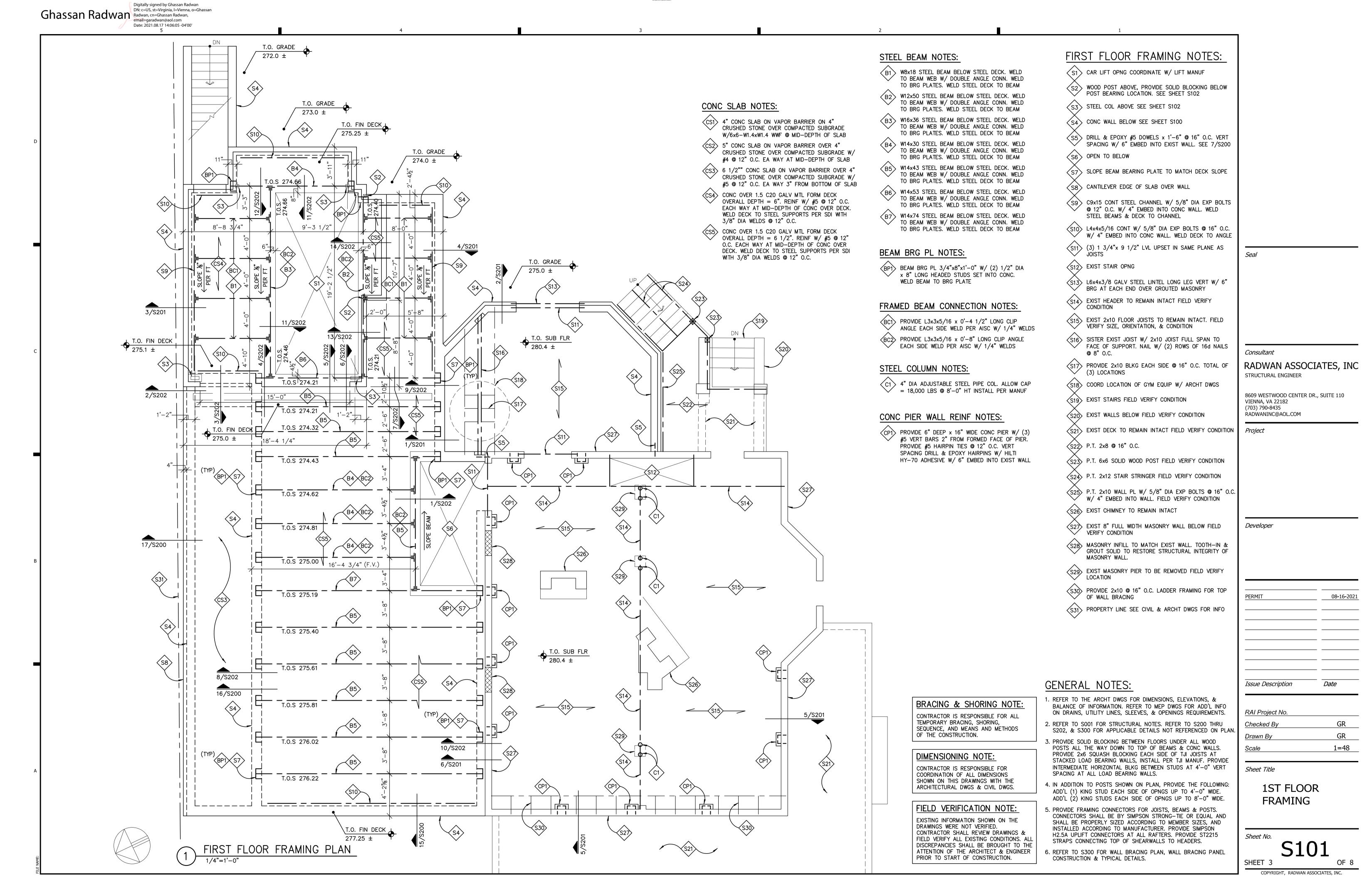
**FOUNDATION** PLAN

Sheet No.

S100 SHEET 2

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Digitally signed by Ghassan Radwan DN: c=US, st=Virginia, l=Vienna, o=Ghassan

Ghassan Radwan Radwan, Radwan, cn-Ghassan Radwan,

Date: 2021.08.17 14:06:32 -04'00' GARAGE ROOF FRAMING NOTES: TRUE 2x4 RAFTERS @ 16" O.C. TO MATCH EXIST RAFTERS RIP CUT FROM 2x6 (S2) EXIST WOOD STUD BEARING WALL BELOW FIELD VERIFY S3 EXIST ROOF RAFTERS TO REMAIN INTACT FIELD VERIFY CONDITION 19'-2 1/2" S4 EXIST HIP BEAM TO REMAIN INTACT 6'-7 1/4" 7'-3 7/8" 5'-3 3/8" S5> 2x4 STUDS @ 16" O.C. BEARING WALL BELOW. PROVIDE INTERMEDIATE HORIZ BLKG @ 4'-0" MAX VERT SPACING 19/S202 (S6) (2) 2x4 POST S7 P.T. 4x4 SOLID WOOD POST (S8) (2) 2x6 HEADER DROPPED 16/S202 17/S202 S9 TRUE (2) 2x6 HIP TO MATCH EXIST HIP RIP CUT 18/S202 FROM (2) 2x8 (2) 1 3/4"x 9 1/4" LVL HEADER UPSET BOTTOM FLUSH W/ EXIST RAFTERS (S11) 2x4 STUDS @ 16" O.C. KNEE BEARING WALL Seal (S12) TRUE (2) 2x6 RIDGE RIP CUT FROM (2) 2x8 (S13) 2x6 PLATE LAID FLAT & NAILED TO ROOF SHEATHING FRAME ELEVATION  $\langle$ S14 $\rangle$  HSS 4x4x1/4 STEEL TUBE COL W/ 5/8"x7"x7" CAP PL & 5/8"x6"x10" BASE PL. WELD COL TO UNDERSIDE OF STEEL BEAM ABOVE & STEEL BEAM BELOW. PROVIDE 2x4 NAILER PL W/ 0.15 DIA x 1½" ZINC PLATED P.A.F. @ 12" O.C. TO CONNECT STEEL COL TO STUD WALL \$15 HSS 10x4x1/4 STEEL TUBE COL W/ 5/8"x7"x1'-2" CAP PL & 5/8"x9"x1'-4" BASE PL W/ (4) 5/8" DIA HILTI HY200 ADHESIVE BOLTS W/ 7" EMBED INTO CONC. WELD COL TO UNDERSIDE OF STEEL BEAM. PROVIDE 2x4 Consultant NAILER PL W/ 0.15 DIA x 1½" ZINC PLATED P.A.F. @ 12" O.C. TO CONNECT STEEL COL TO STUD WALL  $\langle S16 \rangle$  HSS 10x4x1/4 STEEL TUBE COL W/ 5/8"x7"x1'-2" STRUCTURAL ENGINEER CAP PL & 5/8"x7"x1'-2" BASE PL. WELD COL TO UNDERSIDE OF STEEL BEAM & TOP OF STEEL BEAM 15/S202 8609 WESTWOOD CENTER DR., SUITE 110 BELOW. PROVIDE 2x4 NAILER PL W/ 0.15 DIA x 1½" ZINC PLATED P.A.F. @ 12" O.C. TO CONNECT STEEL VIENNA, VA 22182 (703) 790-8435 COL TO STUD WALL RADWANINC@AOL.COM **EXIST** (S17) HSS 10x6x1/4 WELDED STEEL FRAME W/ 1/2 DIA BUILDING ADDITION THREADED STUDS @ 24" O.C. WELDED TO TOP FLANGE Project TO RECEIVE 2x4 NAILER PL. SEE DET 3/S100 S18 HSS 10x4x1/4 STEEL BEAM W/ 1/2 DIA THREADED STUDS @ 24" O.C. WELDED TO TOP FLANGE TO RECEIVE 2x4 NAILER PL. SEE DET 2/S102 PROVIDE FULL PENETRATION WELDED MOMENT CONNECTION S20 PROVIDE 2x6 CUT TO FIT LADDER FRAMING @ 16" O.C. BETWEEN EXIST RAFTERS & TOE NAIL TO STEEL BETWEEN EXIST RAFTERS & TOE NAIL TO STEEL FRAME NAILER PLATE Developer **GENERAL NOTES:** Issue Description 1. REFER TO THE ARCHT DWGS FOR DIMENSIONS, ELEVATIONS, & BRACING & SHORING NOTE: BALANCE OF INFORMATION. REFER TO MEP DWGS FOR ADD'L INFO ON DRAINS, UTILITY LINES, SLEEVES, & OPENINGS REQUIREMENTS. RAI Project No. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, SEQUENCE, AND MEANS AND METHODS 2. REFER TO S001 FOR STRUCTURAL NOTES. REFER TO S200 THRU Checked By S202, & S300 FOR APPLICABLE DETAILS NOT REFERENCED ON PLAN. OF THE CONSTRUCTION. 3. PROVIDE SOLID BLOCKING BETWEEN FLOORS UNDER ALL WOOD POSTS ALL THE WAY DOWN TO TOP OF BEAMS & CONC WALLS. 1=48 **DIMENSIONING NOTE:** PROVIDE 2x6 SQUASH BLOCKING EACH SIDE OF TJI JOISTS AT STACKED LOAD BEARING WALLS, INSTALL PER TJI MANUF. PROVIDE INTERMEDIATE HORIZONTAL BLKG BETWEEN STUDS AT 4'-0" VERT CONTRACTOR IS RESPONSIBLE FOR Sheet Title SPACING AT ALL LOAD BEARING WALLS. COORDINATION OF ALL DIMENSIONS SHOWN ON THIS DRAWINGS WITH THE 4. IN ADDITION TO POSTS SHOWN ON PLAN, PROVIDE THE FOLLOWING: GARAGE ROOF ARCHITECTURAL DWGS & CIVIL DWGS. ADD'L (1) KING STUD EACH SIDE OF OPNGS UP TO 4'-0" WIDE. ADD'L (2) KING STUDS EACH SIDE OF OPNGS UP TO 8'-0" WIDE. FRAMING FIELD VERIFICATION NOTE: 5. PROVIDE FRAMING CONNECTORS FOR JOISTS, BEAMS & POSTS. CONNECTORS SHALL BE BY SIMPSON STRONG-TIE OR EQUAL AND EXISTING INFORMATION SHOWN ON THE SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND DRAWINGS WERE NOT VERIFIED. INSTALLED ACCORDING TO MANUFACTURER. PROVIDE SIMPSON CONTRACTOR SHALL REVIEW DRAWINGS & H2.5A UPLIFT CONNECTORS AT ALL RAFTERS. PROVIDE ST2215 Sheet No. FIELD VERIFY ALL EXISTING CONDITIONS. ALL STRAPS CONNECTING TOP OF SHEARWALLS TO HEADERS. GARAGE ROOF FRAMING PLAN

1/4"=1'-0" DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT & ENGINEER 6. REFER TO S300 FOR WALL BRACING PLAN, WALL BRACING PANEL PRIOR TO START OF CONSTRUCTION.

RADWAN ASSOCIATES, INC

08-16-2021

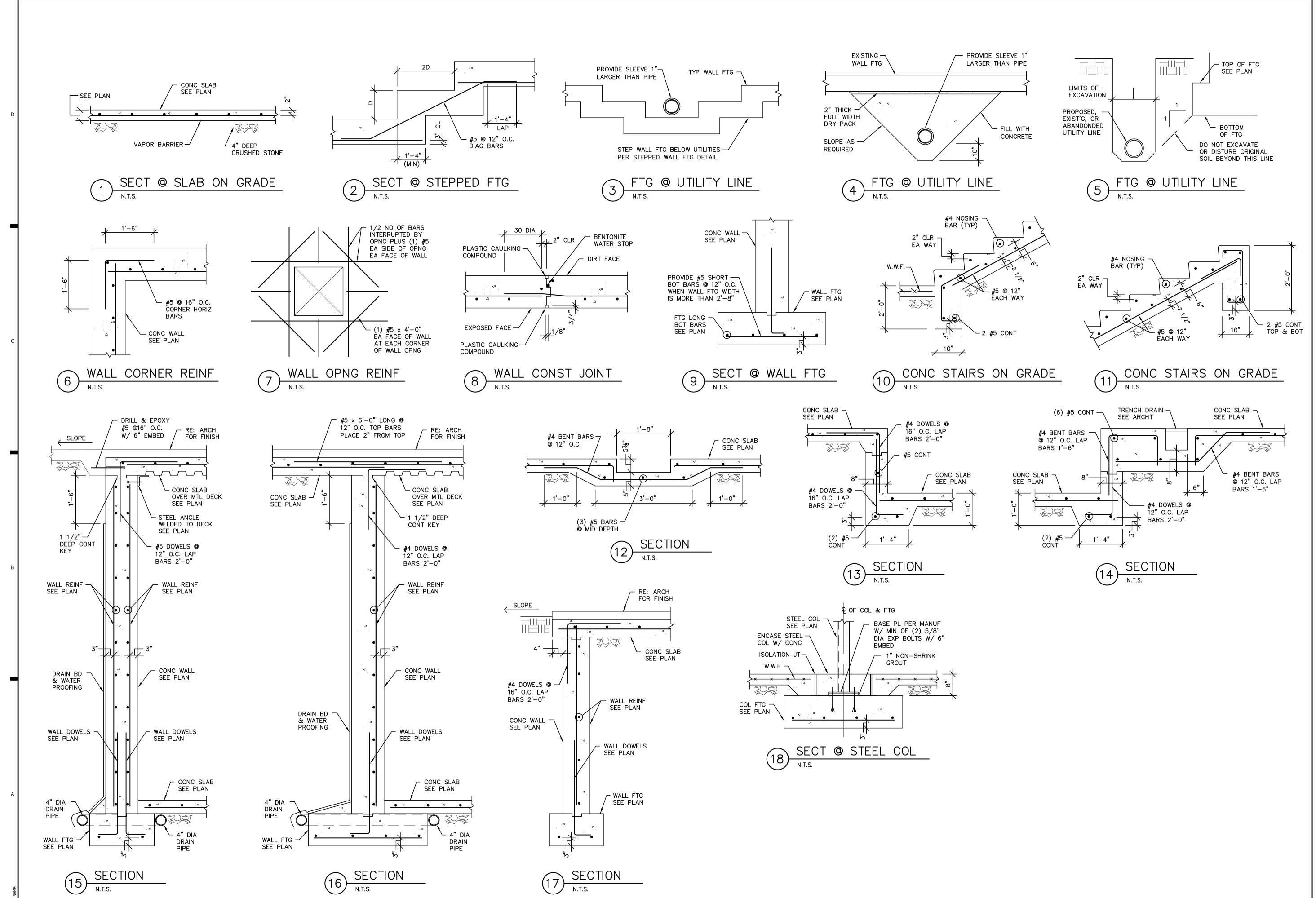
CONSTRUCTION & TYPICAL DETAILS.

SHEET 4

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Project

# CASWELL-**DEICHMAN GARAGE**

10221 MONTGOMERY AVENUE KENSINGTON, MD 20895

Developer

08-16-2021 Date Issue Description

RA-20-107 RAI Project No. GR Checked By GR Drawn By 1=16

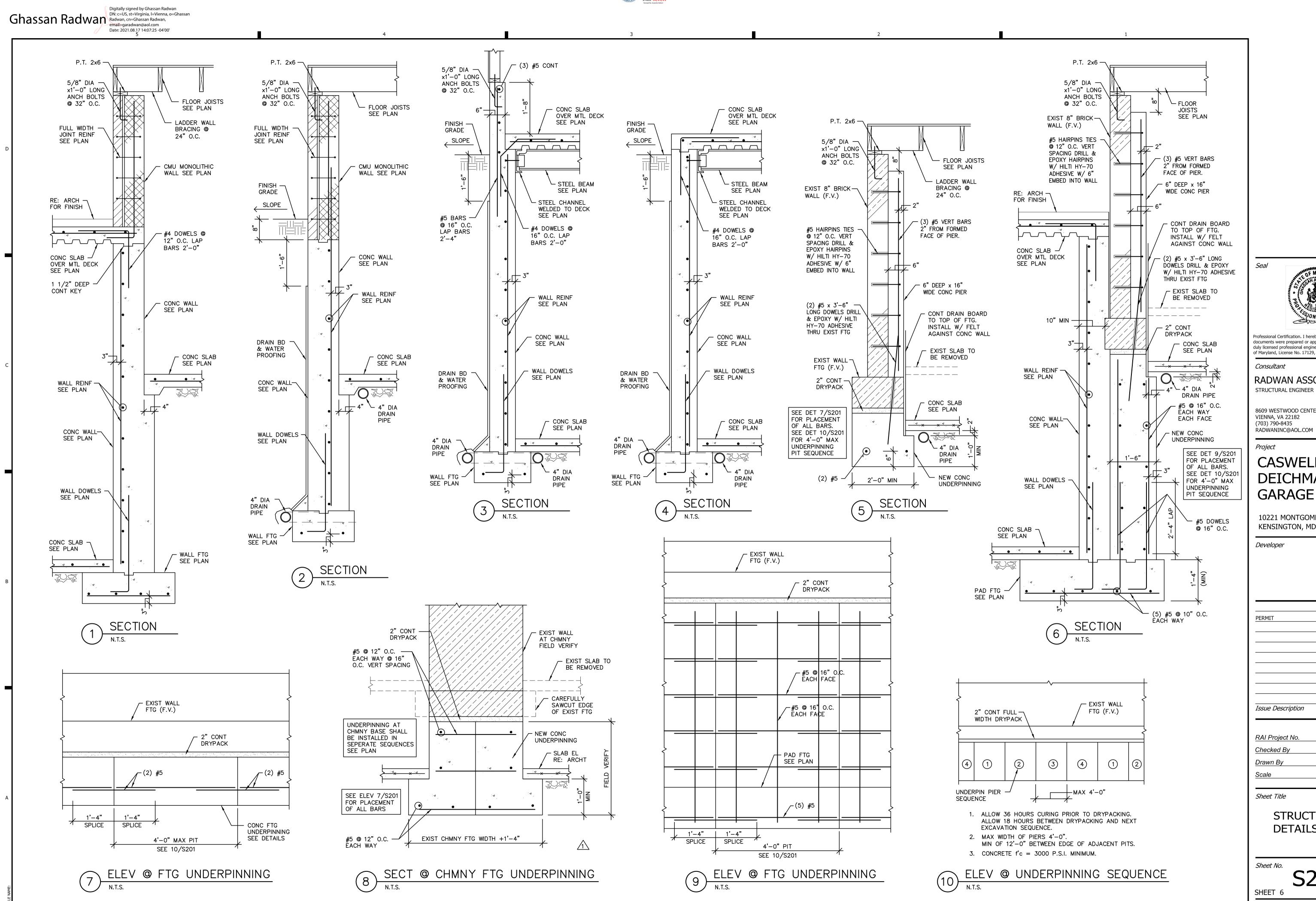
Sheet Title

STRUCTURAL **DETAILS** 

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Project

# **CASWELL-**DEICHMAN **GARAGE**

10221 MONTGOMERY AVENUE KENSINGTON, MD 20895

MIT	08-16-20

Issue Description Date

GR Checked By GR Drawn By 1=16

RA-20-107

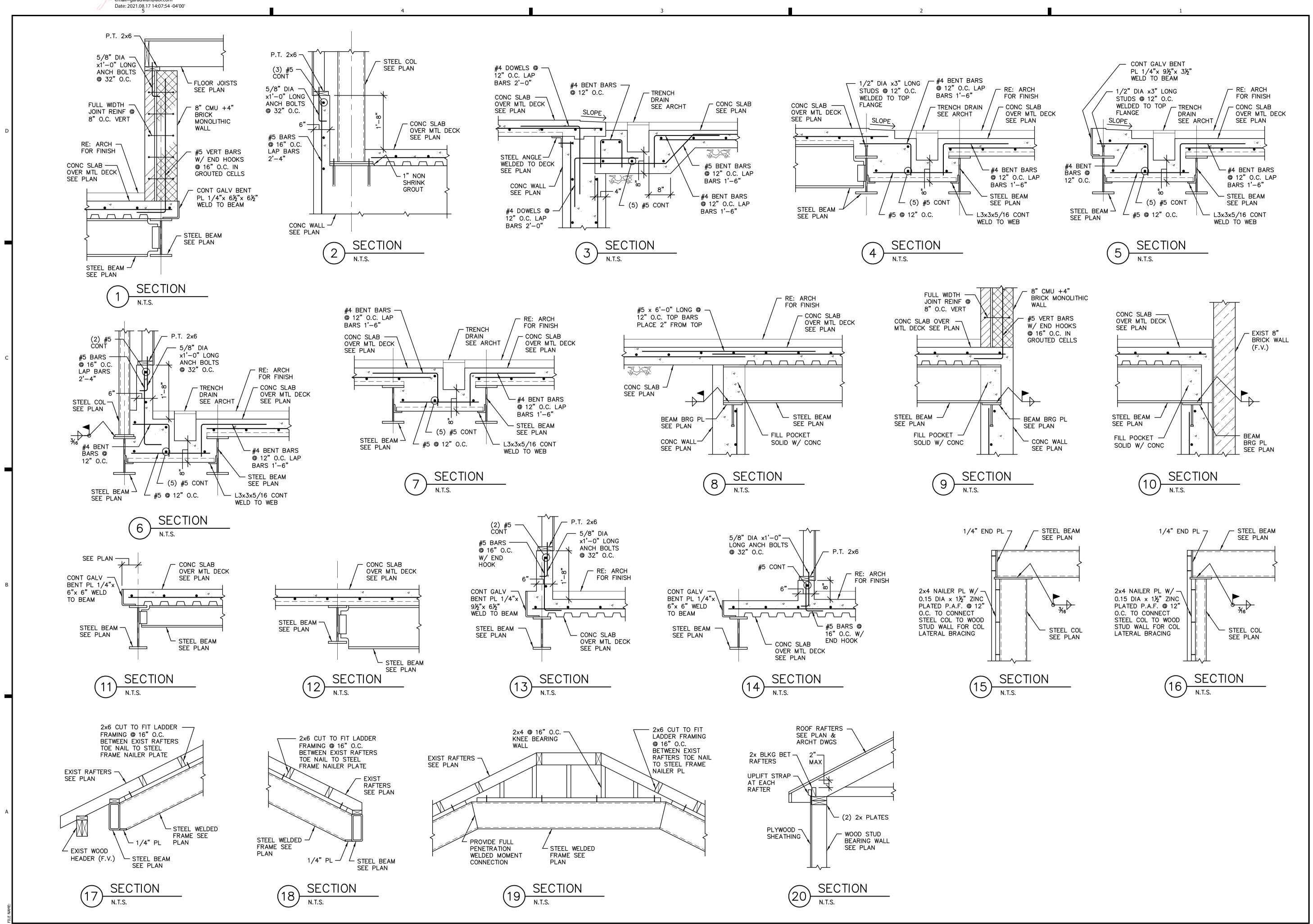
Sheet Title

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# CASWELL-DEICHMAN

10221 MONTGOMERY AVENUE KENSINGTON, MD 20895

Developer

RMIT	08-16-2021

Issue Description Date

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 GR

 Scale
 1=16

RA-20-107

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RAI Project No.

STRUCTURAL DETAILS

Sheet No.

S202

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20**'**±

CS-WSP

<cs−wsp)

⟨CS−WSPノ

BRACE

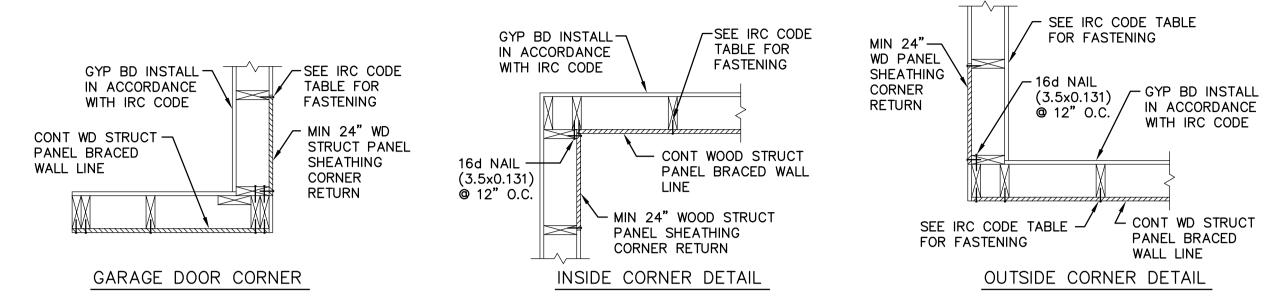
⟨CS-WSP⟩

CS-WSP>

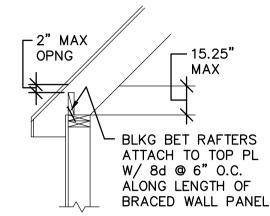
5.0'

STEEL MOMENT FRAME. REFER TO FRAMING PLANS FOR INFORMATION.

ROOF FRAMING PLAN



TYPICAL CORNER WALL BRACING DETAILS



RAFTER CONNECTION DETAIL

1ST FLR TOTAL BRACE WALL LINE LENGTH 115 MPH WIND - EXPOSURE "B"

22'

22'

20'

20'

REFER TO S300 FOR WALL BRACING ADD'L INFO

SMF\*: PROVIDED STEEL MOMENT FRAME. REFER

TO FRAMING PLANS FOR INFORMATION.

1.0

1.0

1.0

1.0

MULT BWL LENGTH LENGTH FACTOR SPACING REQ'D PROVIDED

4'

4'

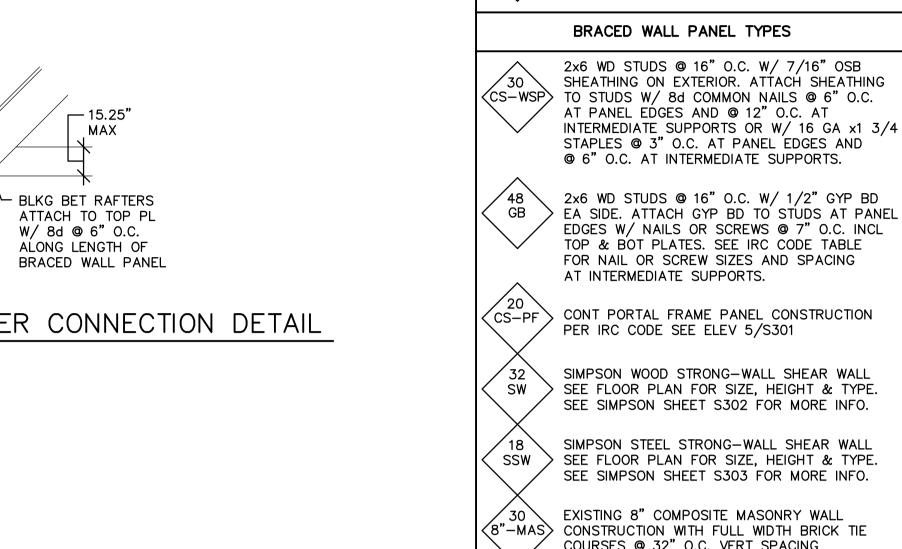
4'

SMF\*

14'

20'

16.5



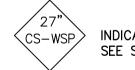
1ST FLR BRACE WALL LINE MULT FACTOR 115 MPH WIND — EXPOSURE "B"			
EAST-WEST WALLS		MULT FACTOR	
NO OF BRACED WALLS	2	1.0	
EAVE-TO-RIDGE HT	5'	0.7	
WALL HEIGHT	9'	0.95	
TOTAL MULT FACTOR		1.0	
NORTH-SOUTH WAI	NORTH-SOUTH WALLS		
NO OF BRACED WALLS	2	1.0	
EAVE-TO-RIDGE HT	5'	0.7	
WALL HEIGHT	9'	0.95	
TOTAL MULT FACTOR		1.0	

- 1. PROJECT LOCATED IS SEISMIC CATEGORY B.
- 2. BASIC WIND SPEED  $\leq$  115 MPH. 3. ALL EXTERIOR WALLS TO BE CONTINUOUSLY

4. BUILDING IS BRACED IN ACCORDANCE WITH THE IRC CODE

## BRACE PANEL LENGTH NOTES:

INDICATES TOTAL LENGTH OF PANEL



INDICATES MIN PANEL LENGTH REQ'D SEE SHEET S301

**CONVERSION** GB LENGTH = 2 x (WSP) LENGTH

## WALL BRACING NOTES:

- 1. REFER TO FRAMING PLANS FOR INFORMATION ON
- 2. REFER TO FRAMING PLANS FOR LOCATION OF PORTAL FRAME EXTENDED HEADERS TO BACK END OF WALL PANEL
- 4. "HD" INDICATES HOLD DOWN ANCHOR, "ST" INDICATES TENSION STRAP REQUIRED AT THAT LOCATION. REFER TO FRAMING PLANS FOR INFORMATION.
- 5. "SSW" INDICATES SIMPSON STRONG WALL SHEAR WALL
- 6. "SMF" INDICATES STEEL MOMENT FRAME. REFER TO

COURSES @ 32" O.C. VERT SPACING

LEGEND

/ MIN REQ'D LENGTH (INCHES) OF BRACED WALL PÄNEL

— BRACED WALL PANEL TYPE



**LENGTH** WSP LENGTH =  $0.5 \times (GB)$  LENGTH

- ADD'L PLYWOOD REQUIRED AT INTERIOR WALLS.
- 3. REFER TO S301 FOR WALL BRACING INFORMATION, PANEL CONSTRUCTION & TYPICAL DETAILS.
- PANELS. REFER TO FRAMING PLANS FOR INFORMATION.
- FRAMING PLANS FOR INFORMATION.

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Consultant

Seal

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Developer

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sue Description	Date
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rawn By	GR
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WALL BRACING PLANS & DETAILS

SHEET 8

Sheet Title

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