



**OFFICIAL AGENDA
BOARD OF ADJUSTMENTS & APPEALS
CITY OF STARKVILLE, MISSISSIPPI
MEETING OF THURSDAY, APRIL 04, 2019
2ND FLOOR CITY HALL – COMMUNITY DEVELOPMENT,
110 WEST MAIN STREET, 12:00 PM**

- I. CALL TO ORDER
- II. ROLL CALL
- III. CONSIDERATION OF THE OFFICIAL AGENDA
- IV. NEW BUSINESS

AA 19-01 REQUEST BY HENRY PILKINTON FOR AN ADMINISTRATIVE APPEAL FROM THE DECISION OF THE BUILDING OFFICIAL IN REGARDS TO THE CONSTRUCTION CLASSIFICATION AND APPLICABLE REQUIREMENTS FOR A BUILDING LOCATED AT 805 UNIVERSITY DRIVE IN AN T-5 ZONING DISTRICT WITH THE PROPERTY #101C-00-005.00

- V. ADJOURN



THE CITY OF STARKVILLE
PLANNING DEPARTMENT
BOARD OF ADJUSTMENTS & APPEALS
CITY HALL, 110 WEST MAIN STREET
STARKVILLE, MISSISSIPPI 39759

STAFF REPORT

To: Members of the Board of Adjustments & Appeals
From: Emily Corban, Assistant City Planner (662-323-2525 ext. 3138)
Subject: AA 19-01 Request by Henry Pilkinton for an Administrative Appeal from the decision of the Building Official in regards to the construction classification and applicable requirements for a building located at 805 University Drive in an T-5 zoning district with the property #101C-00-005.00
Date: April 4, 2019

The purpose of this report is to provide information regarding an Administrative Appeal by Henry Pilkinton for an appeal of the decision of the Building Official for a building located at 805 University Drive in an T-5 zone with the property #101C-00-005.00.

Please see the following attachments:

Attachment 1- aerial imagery of the subject property

Attachment 2- zoning of the subject property

Attachment 3- 1/2/19 Building Permit Application- This is the original building permit application submitted by Mr. Pilkinton.

Attachment 4- 3/20/19- Building Permit Application- This is the second building permit application submitted by Mr. Pilkinton.

Attachment 5- Building Department Narrative- This attachment contains a timeline of the events leading up to this administrative appeal

Attachment 6- 2012 International Residential Building Code- This document submitted by the Building Department includes some relevant highlighted sections of the 2012 International Building Code that this building would have to comply with if classified as a residential structure. This list is not a comprehensive list of all residential requirements.

ADMINISTRATIVE APPEAL FROM:

The applicant is requesting relief from the decision of the Building Official in regards to the classification of the structure as residential and the subsequent requirements of the adopted residential building code.

Below are some relevant sections of City of Starkville Code of Ordinances. The first section outlines the procedural requirements in the Code of Ordinances for an administrative appeal. The second section outlines building and building regulation requirements in the Code of Ordinances.

SECTION 1: PROCEDURAL SECTIONS OF THE STARKVILLE CODE OF ORDINANCES:

Chapter 2- Administration, Section VI. Board of Adjustments and Appeals

Sec. 2-161. - Establishment.

The City of Starkville hereby establishes a Board of Adjustments and Appeals which shall be a quasi-judicial body and separate from the Planning and Zoning Commission.

Sec. 2-169. - Regular meetings.

The board of adjustments and appeals shall hold its regular meeting during the fourth week of each month and shall hold other meetings as deemed necessary and appropriate. The board shall set the schedule of its meetings and application deadlines prior to the beginning of the calendar year. Meetings to hear administrative appeals shall be held at the call of the chairman of the board of adjustments and appeals within ten calendar days of receipt of the application. All meetings shall be open to the public.

Sec. 2-172. - Authority.

(a) In exercising the powers and duties listed in this article, the board of adjustments and appeals may, so long as such action is in conformity with the terms of this article, modify, reverse or affirm, wholly or in part, the order, requirement, decision, or determination made by the city planner; and, to that extent, the board shall have the powers of the city planner from whom the appeal is taken.

(b) A two-thirds (5-2) majority vote by the board of adjustments and appeals shall be necessary to modify or reverse any order, requirement, decision, or determination of the city planner or building official. Appeal of a decision of the board of adjustments and appeals shall be the mayor and board of aldermen.

Sec. 2-175. - Administrative appeals.

(a) Application. All applications for variances shall be in the form required and provided by the city planner. Such application shall be submitted to the city planner together with the fee established by resolution of the board of aldermen. A "completed application" shall include the application form, the applicable fee and all information necessary to render determinations related to the variance request.

(b) Date of hearing. The hearing shall be held at the call of the chairman of the board of adjustments and appeals within ten calendar days of receipt of the application.

(c) Appearance and presentation.

(1) The applicant seeking action by the board of adjustments and appeals and any other party desiring to be heard upon the application may appear in person, by agent or by attorney.

(2) The applicant shall be entitled to make an initial presentation respecting the request and, at the conclusion of presentations or statements by all other parties, shall be entitled to offer a statement in rebuttal to such presentations if the applicant so desires.

(3) The chairman of the board of adjustments and appeals may, at the commencement of the hearing upon each request or at any time during such hearing, require that parties desiring to make a presentation identify themselves and may specify the time to be allowed each such party within which to make such presentation.

(d) Action. Action by the board of adjustments and appeals shall be announced by the chairman of the board of adjustments and appeals immediately following the vote determining such action and shall thereafter be embodied in a written order prepared by the city planner and executed by the chairman of the board of adjustments and appeals, the city planner, or the building official. Such written order shall be incorporated into the minutes of the meeting at which such action occurred.

(e) Appeal. An appeal of a decision by the board of adjustments and appeals shall be made within ten calendar days of the rendition of the decision. Appeals shall be made in writing to the city's chief administrative officer for placement on the agenda of the board of aldermen for consideration at its next regularly scheduled meeting. Appeals of the decision by the board of aldermen shall be to a court of competent jurisdiction consistent with state statutes. The appellant is responsible for providing a verbatim transcript of the hearing before the board of aldermen, including all exhibits, the transcribed testimony of witnesses, and the findings of the board of aldermen.

(Ord. No. 2007-6, § II, 8-21-07)

SECTION 2: BUILDING CODE SECTIONS OF THE STARKVILLE CODE OF ORDINANCES:

Chapter 26-Buildings and Building Regulations, Sec. 26-1.-Technical codes-Adoption.

For the purpose of establishing uniform rules and regulations this body hereby adopts those certain Codes for building, plumbing, gas, electrical, fire prevention, mechanical, property maintenance and swimming pool and spa, all being incorporated herein by reference and specifically identified as follows:

2011 edition of the National Electric Code, as amended.

2012 edition of the International Building Code.

2012 edition of the International Residential Code.

2012 edition of the International Fire Code.

2012 edition of the International Mechanical Code.

2012 edition of the International Plumbing Code.

2012 edition of the International Fuel Gas Code.

2012 edition of the International Property Maintenance.

2012 edition of the International Swimming Pool and Spa Code.

Said Codes are adopted in their entirety, save and except such portions which are hereinafter deleted, replaced, or modified. Said Codes are hereby adopted by reference and are incorporated herein as fully as if set out at length herein. The provisions of said Codes shall be controlling in the construction, alteration, and repair, including any and all

improvements which by their nature fall under the provisions of the Codes herein enumerated, of any and all buildings and structures which are situated within the corporate limits of the City of Starkville, Mississippi, from and after the effective date of this article.

Sec. 26-3. - Same—Deletions, additions, and modifications generally.

(a) The provisions of this chapter shall be administered and enforced by a building/codes official, or his designated representatives, and, as appropriate, the fire chief, the fire inspector, or their designated representatives.

(b) The provisions of this chapter dealing with appeals shall be administered and enforced by the board of adjustments and appeals (BOAA) as set forth in [Section 112](#) of the International Building Code.

(c) The method of appointment and the term of office of the board of adjustments and appeals shall be established by the Mayor and Board of Aldermen of the City of Starkville, Mississippi.

(d) Any person violating any provision of this chapter shall be fined, upon conviction, in accordance with the resolution as periodically adopted by the board of aldermen and the cost of court for each offense. Each day such violation continues shall constitute a separate offense.

When the valuation of the proposed construction exceeds \$50,000.00, a plan is required to be submitted by any code, and a plan-checking fee shall be paid to the city at the time of submitting plans and specifications for checking said plan.

(1) Construction permits: The fee schedule for permits as required for construction activities shall be adopted and amended periodically by the board of aldermen and are adopted herein by reference.

Sec. 26-29. - Remedies for violations of article.

In case any building or other structure is erected, constructed, reconstructed, repaired, altered, converted or maintained, or any building, structure or land used, in violation of this article, the building/codes official or any other appropriate authority or any adjacent or neighboring property owner who would be specially damaged by such violation, in addition to other remedies, may institute injunction, mandamus or other appropriate action or proceeding to prevent such unlawful erection, construction, reconstruction, alteration, repair, conversion, maintenance, or use, to correct or abate such violations or to prevent occupancy of such a building, structure or land.

Sec. 26-30. - Modifications to codes.

The building/codes official shall have the power to modify any of the provisions of the ICC codes upon application in writing by the owner or lessee, or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of such code, provided that the spirit of the code shall be observed, public safety secured, and substantial justice done. The particulars of such modification when granted or allowed and the decision of the building/codes official thereon shall be entered upon the records of the department and a signed copy shall be furnished the applicant.

Sec. 26-31. - Appeals.

Whenever the building/codes official shall disapprove an application or refuse to grant a permit applied for, or when it is claimed that the provisions of the codes do not apply or that the true intent and meaning of the code has been misconstrued or wrongly interpreted, the applicant shall appeal from the decision of the building/codes official to the board of adjustments and appeals within 30 days from the date of the decision appealed.

Sec. 26-34. - Permits required.

It shall be unlawful for any person to do or perform any electrical work within this city without first obtaining a business license and an electrical permit in the same manner and under the same conditions as provided for building permits.

It shall be unlawful for any person to do or perform any plumbing or gas work within this city without first obtaining a business license and a plumbing or gas permit in the same manner and under the same conditions as provided for building permits.

Sec. 26-35. - Bond.

All persons, except public utility companies operating under a franchise, before doing any electrical wiring in the city, shall furnish the city a good surety bond, in the sum of \$5,000.00, as a guarantee that electrical wiring installed by them or by their employees shall be in accordance with the requirements of this article. It is further conditioned that such persons shall, without further cost to the person for whom the work was done, remedy any defective or faulty work and replace any inferior or substandard material installed by them or by their employees and found by the electrical inspector as not conforming with the requirements of this article. Such bond as is furnished shall be liable for the correction of the faulty work or for the replacement of the inferior or substandard material, and any additional cost arising from the abovementioned causes. The bond required by this section shall expire on January 1 next following its approval by the city clerk, and thereafter on January 1 of each year a new bond, in form and substance as required by this section, shall be given by each person to cover all such work to be done during the year.

No license for plumbing shall be issued under the provisions of this article until the applicant therefor has executed and delivered to the city clerk a good and sufficient bond in the penal sum of \$2,000.00, with surety, contracted and conditioned for the faithful performance of all such work entered into or contracted for, in strict accordance and compliance with the provisions of this article. The bond required by this section shall expire on January 1 next following its approval by the city clerk, and thereafter on January 1 of each year a new bond, in form and substance as required by this section, shall be given by each person to cover all such work to be done during the year.

Attachment 1
AA 19-01 Aerial



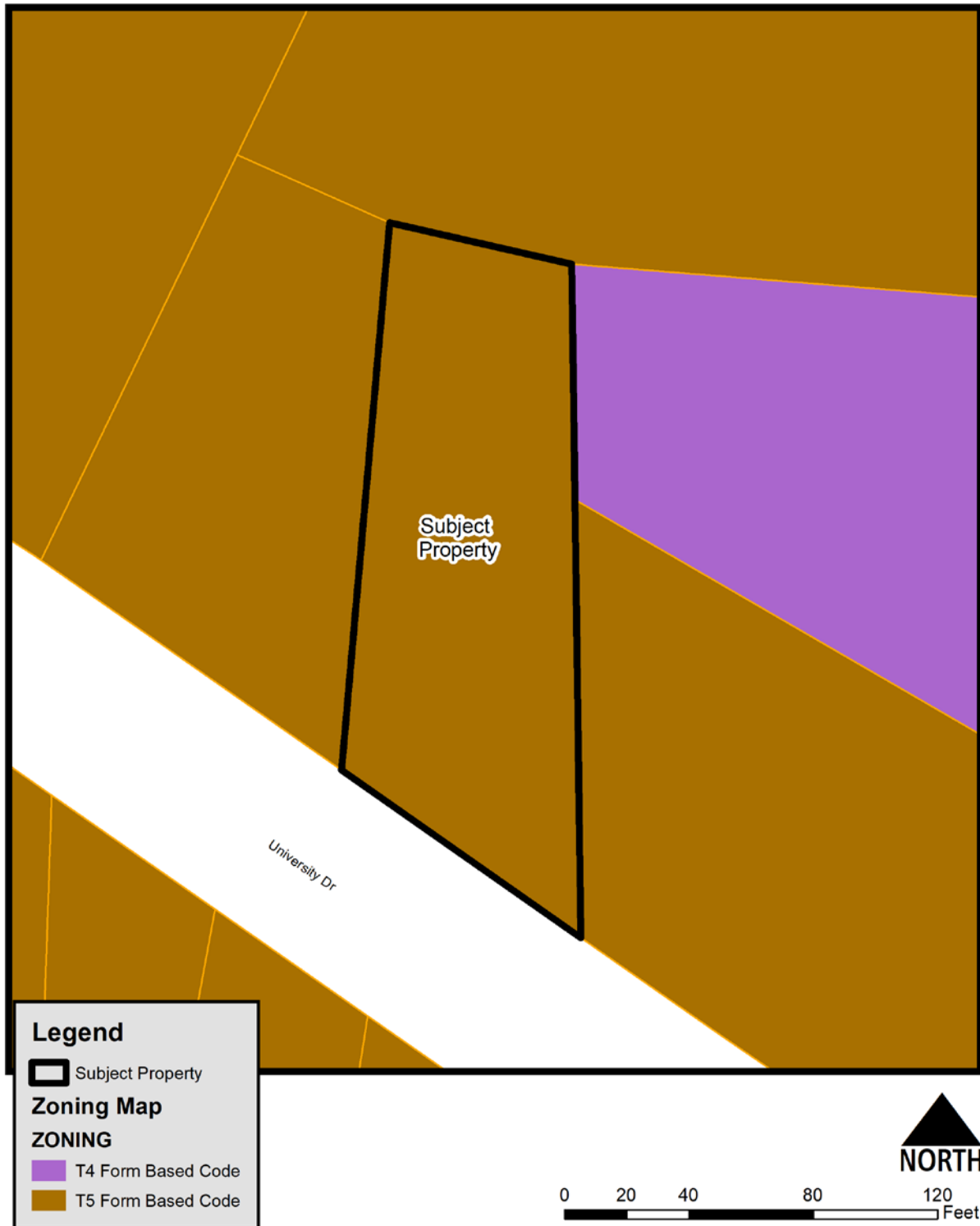
Legend

 Subject Property

0 20 40 80 120
Feet



Attachment 2
AA 19-01 Zoning



Attachment 3- 1/2/19 Building Permit Application



SINGLE-FAMILY RESIDENTIAL BUILDING PERMIT APPLICATION

City of Starkville Building Department

City Hall, 101 E. Lampkin Street

Starkville, Mississippi 39759-2944

Phone: (662) 323-8012 Fax: (662) 323-4143

e-mail: buildingdept@cityofstarkville.org

Project Street Address/Location	<u>805 University Drive</u>		
Subdivision		Lot Number	
Owner's Name	<u>Henry C. Pilkinton</u>	Address	<u>1055 Greenbriar dr</u>
Phone Number	<u>662-251-4774</u>	Cellular Number	<u>same</u>
Contractor's Name	<u>Vic Pitts</u>	Address	
Phone Number	<u>662-418-3073</u>	License Number	

Estimated Construction Valuation \$ 8500.⁰⁰ Permit Cost \$ _____

Type of Project: ☐ New ☐ Addition ☐ Alteration ☐ Combination Addition/Alteration ☐ Repair ☐ Demolition

Square Footage: Gross _____ Living (Heated/Cooled) Area _____ Basement _____

Patios/Decks _____ Porches/Garage/Storage _____ Lot Area _____

Electrical Service Panel Size: ☐ 100 amp ☐ 125 amp ☐ 150 amp ☐ 200 amp ☐ Other _____

Number of Stories: ☐ Single ☐ 2 Stories ☐ 3 Stories ☐ Other _____

Foundation: ☐ Concrete Slab ☐ Concrete Piers ☐ Masonry Piers ☐ Treated Wood ☐ Other _____

Description of Work _____

Is property located within the 100-year floodplain? ☐ Yes ☐ No Elevation Certificate Required? ☐ Yes ☐ No

The City of Starkville's Floodplain Ordinance requires the lowest floor elevation to be at least 2 feet above the Base Flood Elevation.

FIRM Panel Number _____ Base Flood Elevation _____ Lowest Floor Elevation _____

SUB-CONTRACTOR INFORMATION

Plumbing	Phone
Electrical	Phone
Mechanical	Phone
Other	Phone

The Permittee Hereby Certifies That:

I understand that in consideration for the issuance of the requested building permit, that I, the permittee, shall assume total responsibility for final cleanup of all trash, debris, and other construction materials or residue generated as a result of this permit. I also assume total responsibility for the removal of said debris and materials from the site and all public property and street right-of-way prior to final inspection.

Permittee is responsible for the following:

1. Contacting all utility providers regarding any location, relocation or abandonment of any utilities.
2. Contacting all utility providers prior to building under or near any electrical lines.
3. Insuring that no structure is built on any easement.
4. Complying with any restrictive covenants that apply to this property.
5. Complying with all applicable codes, ordinances and regulations.
6. Providing a current copy of applicable State contractor license to the Building Department.
7. Paying a re-inspection fee for any re-inspections required as a result of the work not being ready for inspection or not being in conformance with the applicable code when inspected.
8. Posting the issued building permit card and one set of approved plans on the jobsite at all times.

Submittal of this application is for review purposes only—2 sets of plans must accompany application.

I hereby acknowledge that I have read this application and state that all the information provided is true and correct to the best of my knowledge and that I will abide by the above conditions.

Submitted by *Sony C. Talbot* Date 1-2-2019

Property owners acting as their own contractor are required to complete a notarized "Homeowner Certificate of Compliance" and submit it along with this permit application.

DO NOT WRITE IN THIS AREA—FOR OFFICE USE ONLY

Permit Fee Calculations:

Valuation _____

Valuation _____

Sub-Total _____

Plan Check Fee _____

Erosion Control _____

Plumbing Inspections _____

Sewer Inspection _____

Sub-Total _____

Gas Inspection _____

Electrical Inspections _____

Inspection Sub-Total _____

Total \$ _____

Water & Sewer Tap Fees:

_____ " Water Meter _____

_____ " Water Meter _____

_____ " Sewer Tap _____

Total \$ _____

Payment Type:

Cash / Check # _____

Receipt # _____

Permit # _____

Attachment 4- 3/20/19- Building Permit Application



SINGLE-FAMILY RESIDENTIAL BUILDING PERMIT APPLICATION

City of Starkville Building Department

City Hall, 101 E. Lampkin Street

Starkville, Mississippi 39759-2944

Phone: (662) 323-8012 Fax: (662) 323-4143

e-mail: buildingdept@cityofstarkville.org

Project Street Address/Location <u>805 UNIVERSITY DRIVE</u>	
Subdivision _____	Lot Number _____
Owner's Name <u>Henry Pilkinton</u>	Address <u>1055 GREENBRIAR DR - COLUMBUS</u>
Phone Number <u>-</u>	Cellular Number <u>662-251-4774</u>
Contractor's Name <u>VICK PITTS</u>	Address _____
Phone Number <u>418-3673</u>	License Number _____

Estimated Construction Valuation \$ 20,000.00 Permit Cost \$ _____

Type of Project: ☐ New ☐ Addition ☐ Alteration ☐ Combination Addition/Alteration ☒ Repair ☐ Demolition

Square Footage: Gross 144 Living (Heated/Cooled) Area _____ Basement _____

Patios/Decks _____ Porches/Garage/Storage 144 Lot Area ± 16,000 sq ft

Electrical Service Panel Size: ☐ 100 amp ☐ 125 amp ☒ 150 amp ☐ 200 amp ☐ Other _____

Number of Stories: ☐ Single ☐ 2 Stories ☐ 3 Stories ☐ Other _____

Foundation: ☒ Concrete Slab ☐ Concrete Piers ☐ Masonry Piers ☐ Treated Wood ☐ Other _____

Description of Work REPAIRING EXISTING EXTERIOR - REPLACING INTERIOR
PLUMBING - SHOWER - TOILET - SINK REWORKED ELECTRICAL

Is property located within the 100-year floodplain? ☐ Yes ☒ No Elevation Certificate Required? ☐ Yes ☐ No

The City of Starkville's Floodplain Ordinance requires the lowest floor elevation to be at least 2 feet above the Base Flood Elevation.

FIRM Panel Number _____ Base Flood Elevation _____ Lowest Floor Elevation _____

SUB-CONTRACTOR INFORMATION

Plumbing _____	Phone _____
Electrical _____	Phone _____
Mechanical _____	Phone _____
Other _____	Phone _____

RECEIVED
MAR 20 2019
[Signature]

The Permittee Hereby Certifies That:

I understand that in consideration for the issuance of the requested building permit, that I, the permittee, shall assume total responsibility for final cleanup of all trash, debris, and other construction materials or residue generated as a result of this permit. I also assume total responsibility for the removal of said debris and materials from the site and all public property and street right-of-way prior to final inspection.

Permittee is responsible for the following:

1. Contacting all utility providers regarding any location, relocation or abandonment of any utilities.
2. Contacting all utility providers prior to building under or near any electrical lines.
3. Insuring that no structure is built on any easement.
4. Complying with any restrictive covenants that apply to this property.
5. Complying with all applicable codes, ordinances and regulations.
6. Providing a current copy of applicable State contractor license to the Building Department.
7. Paying a re-inspection fee for any re-inspections required as a result of the work not being ready for inspection or not being in conformance with the applicable code when inspected.
8. Posting the issued building permit card and one set of approved plans on the jobsite at all times.

Submittal of this application is for review purposes only—2 sets of plans must accompany application.

I hereby acknowledge that I have read this application and state that all the information provided is true and correct to the best of my knowledge and that I will abide by the above conditions.

Submitted by

Henry C. Peltz

Date

3-20-2019

Property owners acting as their own contractor are required to complete a notarized "Homeowner Certificate of Compliance" and submit it along with this permit application.

DO NOT WRITE IN THIS AREA—FOR OFFICE USE ONLY

Permit Fee Calculations:

Valuation _____

Valuation _____

Sub-Total _____

Plan Check Fee _____

Erosion Control _____

Plumbing Inspections _____

Sewer Inspection _____

Sub-Total _____

Gas Inspection _____

Electrical Inspections _____

Inspection Sub-Total _____

Total \$ _____

Water & Sewer Tap Fees:

_____ " Water Meter

_____ " Water Meter

_____ " Sewer Tap

Total

\$ _____

Payment Type:

Cash / Check # _____

Receipt # _____

Permit # _____

Attachment 5- Building Department Narrative

Building Department Timeline:

On January 2, 2019 Mr. Henry Pilkinton applied for a building permit to replace part of one wall and siding that had water damage as well as to patch the roof on a building located at 805 University Dr. in a T-5 zone. The estimated construction valuation on the permit was \$8,500.

The Building Official Joyner Williams then had a conversation with Mr. Pilkinton to discuss the scope of work he intended to perform. Based on that conversation Mr. Williams believed he had the intention of doing more work than what was stated in the original building permit application and that there was a need for an inspector to go out to the site. Mr. Williams then instructed a building inspector (Emmanuel Moore) to meet with Mr. Pilkinton at 805 University Dr. to get a better understanding of the situation.

On January 8, 2019 Mr. Moore met with Mr. Pilkinton and his contactor Vick Pitts. He explained that his only intention was to replace the siding and shingles on the building. He then said he might need to replace part of the bottom sill plate and a few studs around the bottom due to rot or termite damage.

Mr. Moore then reminded Mr. Pilkinton that he would be receiving a permit for replacing the siding and shingles only. Mr. Moore advised them not to do any other work without an additional permit. Mr. Moore instructed him that once they started removing the siding not to replace any framing members. Mr. Moore gave him my card and told him to call me so Mr. Moore could inspect the damage and decide on a course of action. However, Mr. Pilkinton never called Mr. Moore.

On February 14, 2019, Mr. St. Louis was called to inspect the subject property for a rough-in electrical/plumbing at 11:00 AM where he noticed the electrical meter base, weather head, and disconnect was already installed and hooked up.

On March 1, 2019, while out on inspections Mr. Moore noticed that approximately 75% of the building at 805 University Dr. had been

demolished and then rebuilt in a new configuration. Plumbing had been added to the first floor to accommodate a bathroom and kitchenette area which also included wiring for a garbage disposal. The concrete floor had been busted out and new sewer lines had been installed. Rough-in plumbing and mechanical for HVAC was also installed.

On March 4, 2019, Mr. Pilkinton was contacted and informed that a Stop Work Order was being placed on his building for working without proper permits. He was then asked to make an application for a new permit containing the unpermitted work that was already done to the building.

On March 20, 2019, Mr. Pilkinton submitted an application to repair/remodel an existing building located at 805 University Dr. Mr. Pilkinton described the building as a Storage/Game Day building for Tailgate use only. The estimated construction valuation on the permit was \$20,000. The two story building's dimensions are 8'-3"x17' (140.25 sq. ft.). Mr. Pilkinton stated that he has owned the property since 2003 and has never used it as a residence or rental property.

At the time that Mr. Pilkinton applied for this permit, approximately 75% of the structure had been removed and reconstructed. He was informed by the Building Official Joyner Williams that the presence of plumbing, electrical, mechanical, and other improvements requires that the building department treat the structure as habitable structure. All residential dwellings must conform to the City of Starkville Residential Building Codes and Code of Ordinances.

The original structure was a legal nonconforming structure that could receive a permit for minor repairs only, not to demolish 75% of building and to remodel the interior to make it a habitable space which is what has occurred in this case. The other 75% of new construction must conform to the City of Starkville Building Codes and Ordinances.

With the possibility of the building becoming a rental or sold as an investment property, we must protect the citizens of Starkville. Mr. Pilkinton

did not obtain a building permit for the framing, electrical wiring, plumbing or HVAC. He was not given permission nor did he indicate his intention to install a bedroom or kitchen area in the building.

Mr. Pilkinton was instructed several times not to change the structure of the building in order to avoid this situation.

It is the building department's findings that the shed/storage building that was a legal nonconforming structure that does not exist anymore. Due to all the major changes, the classification has changed from a legal nonconforming accessory building to a residential dwelling.

Therefore the following must apply:

- City of Starkville Code of Ordinances
- 2012 International Residential Code
- 2012 International Plumbing Code
- 2012 International Mechanical Code
- 2012 International Energy Code
- 2011 National Electrical Code

Mr. Pilkinton has stated that he will not spend the funds necessary for the building to conform to our Codes.

Attachment 6- 2012 International Residential Building Code

Codes for Board 2012 International Residential Building Code

PERMITS REQUIRED:

Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the 2012 IRC, or to cause any such work to be done, shall first make application to the building official and obtain the required permit. (R105.1)

ANCHOR BOLTS:

Foundation anchorage. Sill plates and walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with anchor bolts

1. Must be a minimum ½ inch in diameter spaced a maximum of 6 foot on center with 7 inches minimum embedment and be within 12 inches of corners, openings, or breaks in the plate or not less than 7 bolt diameters from each end of the plate.
2. There must be 2 bolts minimum per section of plate. A nut and washer shall be tightened on each bolt to the plate. (R403.1.6 and Table R603.3.1)

ARC-FAULT CIRCUIT-Interrupter Protection 210.12.

NEC® 210.12(B) states that in dwelling units, All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sun rooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed arc-fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.

ATTIC ACCESS:

- Required in buildings with combustible ceilings or roof construction for attic areas that exceed 30 square feet and have vertical height of 30 inches or greater.
- Rough-framed openings shall not be less than 22 inches x 30 inches and shall be located in hallways or other readily accessible location.
- 30 inches minimum unobstructed headroom in the attic space shall be provided at some point above access opening.

CARBON MONOXIDE ALARMS

- Required in new dwellings that contain fuel-fired appliances.
- Required in dwellings with attached garages. R315.1
- Required in in existing dwellings that contain fuel-fired appliances or attached garages when work requires a permit. R315.3
- Location – Outside of each separate sleeping area in the immediate vicinity of the bedrooms. R315.1

CEILING HEIGHT:

- Minimum Height – Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and basements shall have a ceiling height of not less than 7 feet.
- Ceilings in basements without habitable spaces may project to within 6 feet, 8 inches of the finished floor; and beams, girders, ducts or other obstructions may project to within 6 feet, 4 inches of the finished floor.

- Bathrooms sloped ceilings shall have a minimum ceiling height of 6 feet, 8 inches over the fixture. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 8 inches at the showerhead. **(R305.1.2)**

ELECTRICAL EQUIPMENT LOCATION AND CLEARANCES:

- Panelboards, service equipment and similar enclosures shall not be located in bathrooms, toilet rooms and clothes closets.
- Working space shall not be designated for storage.
- Working space shall be a minimum of 30 inches wide by 36 inches deep, minimum 6 feet 6 inches height.
- Workspaces shall be provided with artificial lighting where located indoors.
- In all cases, the work space shall allow at least a 90 degree opening of equipment doors or hinged panels.
- Overhead service-drop: Open conductors and multi-conductor cables without an overall outer jacket shall have a clearance of not less than 5 feet from the sides of doors, porches, decks, stairs, ladders, fire escapes, and balconies, and from the sides and bottom of windows that open.
- Above roofs: Conductors shall have a vertical clearance of not less than 8 feet above the roof surface. The vertical clearance above the roof level shall be maintained for a distance of not less than 3 feet in all directions from the edge of the roof. If roof slope is 4/12 or greater, the minimum clearance shall be 3 feet. **(E3305)**

FINAL GRADE FOR DRAINAGE

Final Grade – Shall slope 6 inches in 10 feet, or other approved points of collection. Swales and impervious surfaces shall slope 2% if within 10 feet of the foundation. **R401.3**

FOUNDATION ELEVATION R403.1.7.3

The foundation shall be 12 inches (305 mm) plus 2% above the elevation of the street gutter on graded sites. **R403.1.7.3**

CONCRETE AND MASONRY FOOTINGS R403.1

1. **Continuous Footings in Seismic Design Category D0, D1 and D2** – Braced wall panels at exterior walls need to be supported on continuous footings. **R403.1.2**
2. **Compressive Strength** – Concrete shall have a minimum of 2,500 psi or greater compressive strength per Table R402.2. **R402.2**
3. **Clearance** – When bottom reinforcement is installed, that reinforcement shall be 3 inches clear of the bottom of the footing. **R403.1.3**
4. **Minimum Size** – The minimum width of concrete and masonry footings shall comply with Table R403.1 based on soil bearing capacity and the number of stories. **R403.1.1**
5. **Reinforcing** – Verify if steel reinforcing (horizontal or vertical) is required in the footings as part of an engineered design or based on the seismic design category. **R403.1.3**
6. **Spread Footings** – Spread footings shall be at least 6 inches (152 mm) in thickness **R403.1.1**
7. **Footing Projections** – Footing projections shall be at least 2 inches (51 mm) and shall not exceed the thickness of the footing. **R403.1.1**
8. **Minimum Depth** – Exterior footings shall be placed at least 12 inches (305 mm) below the undisturbed ground. **R403.1.4**
9. **Frost Protection** – Footings shall extend below the frost line unless they are: **R403.1.4.1**

GROUND FAULT CIRCUIT INTERRUPTERS

- **Dwelling Units** All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified in 210.8(A) (1) through (8) shall have ground-fault circuit interrupter protection for personnel.
- 1. **Bathrooms** At least one 20-ampere branch circuit shall be provided to supply bathroom receptacle outlet(s). Such circuits shall have no other outlets.
- 2. **Garages**, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use outdoors
- 3. **Crawl spaces** — at or below grade level
- 4. **Unfinished basements** — for purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like
- 5. A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.
- 6. **Kitchens**— where the receptacles are installed to serve the countertop surfaces
- 7. **Sinks** — located in areas other than kitchens where receptacles are installed within 6 ft. of the outside edge of the sink
- 8. **Boathouses, Boat Hoists** - GFCI protection shall be provided for outlets not exceeding 240 volts that supply boat hoists installed in dwelling unit locations.

HANDRAILS:

- Handrail height measured vertically from the sloped plane adjoining the tread nosing shall not be less than 34" and not more than 38". **(R311.5.6.1)**
- Handrails for stairways shall be continuous for the full length of the flight from a point directly above lowest riser of the flight. Handrail ends shall terminate in newel posts or safety terminals. **(R311.5.6.2)**
- Handrails shall be provided on at least one side of each continuous run of treads or flight with 4 or more risers. **(R311.5.6)**

HEADERS

Exterior Walls – Verify Table R502.5 (1) for girder and header spans for exterior bearing walls. **R602.7**

INSULATION TABLE N 1102.1 Minimum Insulation R Value

Ceilings R-30

Walls R-13

PLUMBING FIXTURES (TOILET, BATH AND SHOWER) SPACES

- The following minimum spaces shall be provided for fixtures: **R307**
- 1. 21 inches in front of lavatory
- 2. 21 inches in front of water closet
- 3. 15 inches from center line of water closet to wall or bathtub. Refer to IRC Section **P2705.1**
- 4. 30 inches by 30 inches for shower.
- 5. 24 inches in front of the shower opening

RECEPTACLE OUTLETS:

Appliance receptacle outlets installed for specific appliances, such as laundry equipment, shall be installed within 6 feet of the intended location of appliance.

- **Balconies, Decks, and Porches**

Balconies, decks and porches that are attached to the dwelling unit and are accessible from inside the dwelling shall have at least one receptacle outlet accessible from balcony, deck, or porch. The receptacle outlet shall not be located more than 6 1/2 ft. above the balcony, deck, or porch walking surface.

- **Bathroom**

At least one 20-ampere branch circuit shall be provided to supply bathroom receptacle outlet(s). Such circuits shall have no other outlets.

1. Exception: Where the 20-ampere circuit supplies a bathroom, outlets for other equipment within the same bathroom shall be permitted to be supplied in accordance with 210.23(A)(1) and (A)(2). • At least one wall receptacle outlet shall be installed, located within 36 inches of the outside edge and on the wall that is adjacent to of each lavatory basin.

- All receptacles shall have ground-fault circuit-interrupter protection.

- **Bedroom**

All circuits supplying 125-volt, single phase, 15- and 20-amp outlets in a bedroom shall be protected by an **arc-fault circuit interrupter** listed to provide protection of the entire branch circuit.

- **Foyers**

Foyers that are not part of a hallway in accordance with 210.52(H) and that have an area that is greater than 60 sq. ft. shall have a receptacle(s) located in each wall space 3 ft. or more in width and unbroken by doorways, floor-to-ceiling windows, and similar openings.

- **Guest Rooms and Guest Suites 210.18**

Guest rooms and guest suites that are provided with permanent provisions for cooking shall have branch circuits installed to meet the rules for dwelling units.

- **Hallways**

In dwelling units, hallways of 10 ft. or more in length shall have at least one receptacle outlet. As used in this subsection, the hallway length shall be considered the length along the centerline of the hallway without passing through a doorway.

- **Island Countertop Spaces**

At least one receptacle shall be installed at each island countertop space with a long dimension of 24 in. o

- **Kitchen**

1. A receptacle outlet shall be installed at each wall counter space 12 inches or wider and so that at no point along the wall line is more than 24 inches away, measured horizontally from a receptacle outlet in that space.
2. At least one receptacle outlet shall be installed at each island counter or peninsular space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater.
3. Receptacles shall not be located greater than 20 inches above the countertop and or installed in a face-up position in the countertop.
4. All receptacles that serve countertop surfaces in a kitchen shall have ground-fault circuit-interrupter protection.
5. Receptacles installed in a kitchen shall be supplied by not less than two 20-ampere small-appliance branch circuits.
6. Receptacles installed in a kitchen to serve countertop surfaces shall be supplied by not fewer than two small-appliance branch circuits, either or both of which shall also be permitted to supply receptacle outlets in the same kitchen and in other rooms specified in 210.52(B)(1).
7. Additional small appliance branch circuits shall be permitted to supply receptacle outlets in the kitchen and other rooms specified in 210.52(B) (1). No small-appliance branch circuit shall serve more than one kitchen.

- **Separate Spaces** - Countertop spaces separated by range tops, refrigerators, or sinks shall be considered as separate countertop spaces 210.52(C)(1).

- **Laundry Branch Circuits**

In addition to the number of branch circuits required by other parts of this section, at least one additional 20-ampere branch circuit shall be provided to supply the laundry receptacle outlet(s) required by 210.52(F). This circuit shall have no other outlets.

- **Peninsular Countertop Spaces**

At least one receptacle outlet shall be installed at each peninsular countertop space with a long dimension of 24 in. or greater and a short dimension of 12 in. or greater. A peninsular countertop is measured from the connecting edge.

- **Outdoor**

1. At least one receptacle outlet, accessible at grade level and not more than 6 feet 6 inches above grade, shall be installed outdoors at the front and back of each dwelling unit having direct access to grade.
2. A receptacle installed outdoors in a location protected from the weather or in other damp locations shall have an enclosure for the receptacle that is weatherproof when the receptacle cover(s) is closed and an attachment plug cap is not inserted. A receptacle shall be considered to be in a location protected from the weather where located under roofed open porches, canopies and similar structures and not subject to rain water runoff.
3. Where installed outdoors in a wet location, 15- and 20-ampere, 125- and 250-volt receptacles shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted.
4. All receptacles located in a garage shall be ground-fault circuit-interrupter protected except for a single receptacle or a duplex receptacle for two appliances located within a dedicated space for each appliance that in normal use is not easily moved from place to another, and that is cord and plug-connected.
5. Accessory buildings, crawl space, unfinished basements, bar sink, boathouse shall be GFCI protected.

(E3801, E3802)

- **Small-Appliance Branch Circuits** - In addition to the number of branch circuits required by other parts of this section, two or more 20-ampere small-appliance branch circuits shall be provided for all receptacle outlets specified by 210.52(B).

- **Spacing**

1. **Receptacles** shall be installed so that no point along the floor line in any wall space is more than 6 feet, measured horizontally, from an outlet in that space.
2. **Wall space** shall include the following any space 2 ft. or more in width (including space measured around corners) and unbroken along the floor line by doorways and similar openings, fireplaces, and fixed cabinets
3. **Floor Receptacles.** Receptacle outlets in floors shall not be counted as part of the required number of receptacle outlets unless located within 18 in. of the wall.
4. **Countertop Receptacles** installed for countertop surfaces as specified in 210.52(C) shall not be considered as part of the receptacles required by 210.52(A).

RAFTERS

- Rafters shall be framed to ridge board or to each other with a gusset plate as a tie and not less in depth than the cut end of the rafter. **R802.3**

1. **The ridge board shall be one board, the full depth of the end cut of the rafter, not two boards joined together. Any ridge board wider than a 2x12 may be joined to another board.**

- Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. **R802.3**

- Where the roof pitch is less than three units vertical in 12 units horizontal (25-percent slope), structural members that support rafters and ceiling joists, such as ridge beams, hips and valleys, shall be designed as beams. **R802.3**

- Ceiling joists and rafters shall be nailed tightly to each other and the rafter shall be nailed to the top wall plate in accordance with Table R602.3(I). **R802.3(1)**

- Ceiling joists shall be continuous and securely joined where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to the rafters. **R802.3(1)**

- Where ceiling joists are not connected to the rafters at the top wall plate, joists connected higher in the attic shall be installed as rafter ties, rafter ties shall be installed to provide a continuous tie. **R802.3(1)**

- Where ceiling joists are not parallel to rafters, rafter ties shall be installed. **R802.3(1)**
- Where ceiling joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or girder/beam designed in accordance with accepted engineering practice. **R802.3(1)**
- Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space in accordance with **Table R602.3(I)**.
- Collar ties shall be spaced not more than 4 feet on center. **R802.3.2**
- Ceiling joists lapped. Ends of ceiling joists shall be lapped a minimum of 3 inches (76 mm) or butted over bearing partitions or beams and toenailed to the bearing member.
- Where ceiling joists are used to provide resistance to rafter thrust, lapped joists shall be nailed together in accordance with **Table R802.5.1(9)** and butted joists shall be tied together in a manner to resist such thrust.

ROOM SIZES:

- Every dwelling unit shall have at least one habitable room that shall have not less than 120 square feet of gross floor area.
- Other habitable rooms shall have a floor area of not less than 70 square feet, except kitchens.
- Habitable rooms shall not be less than 7 feet in any horizontal dimension, except kitchens.
- Sloped Ceilings – Portions of a room with a sloping ceiling measuring less than 5 feet or a furred ceiling measuring less than 7 feet from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required habitable area for that room. **(R304)**

SMOKE ALARMS

- Labeling – Shall be listed and labeled per UL 217 and installed per NFPA 72.
- Location – Single- and multiple-station smoke alarms shall be installed: **R314.3**
 1. In each bedroom.
 2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
 3. On each story, including basements and habitable attics, but not including crawl spaces and uninhabitable attics.
- Power – Primary power from building wiring, along with battery-back-up, is required in new construction.
- Smoke alarms may be battery operated in remodeling or additions unless the interior finishes are removed allowing the installation of hard-wiring. **R314.4**
- Permanent Wiring – Wiring shall be permanent and without a disconnection switch other than that required for overcurrent protection. **R314.4**

STAIRWAYS:

- Minimum tread depth shall be 10 inches.
- Maximum riser height shall be 8 inches.
- Minimum headroom of 6 feet, 8 inches.
- Minimum stairway width shall be 36 inches. Handrails shall not project more than 4.5 inches on either side of the stairway and the minimum clear width at and below the handrail height, including treads and landings, shall not be less than 31.5 inches where handrail is installed and 27 inches where handrails are provided on both sides.
- There shall be a floor or landing at the top and bottom of each stairway. Exception: Not required at the top of an interior flight of stairs, provided a door does not swing over the stairs.
- Stairs shall not have a vertical rise greater than 12 feet between floor levels or landings. **(R311.7.3)**

TERMITE PRE-TREATMENT:

Chemical soil treatment is required for concrete slab on grade, under habitable structures and enclosed additions to those structures. It must be applied by a state licensed exterminator. (R318)

TRUSSES

- Drawings – Shall be approved before installation and delivered with the trusses to the job site.

R502.11.4, R802.10.1

- Engineer – Truss drawings shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed; otherwise, the truss shall be designed in accordance with approved engineering practice. **R502.11.1, R802.10.2**
- Details – Truss drawings shall include all information noted in this section. **R502.11.4, R802.10.1**
- Roof Tie-Down – Trusses shall be provided with uplift resistance according to this section. **R802.11**
- Bracing – Trusses shall be braced per drawings or in accordance with BCSI Guide. **R502.11.2, R802.10.3**
- Alterations – Trusses shall not be cut, notched, drilled, spliced or otherwise altered without the written approval of a registered design professional. **R502.11.3, R802.10.4**

WALL CONSTRUCTION

- Top Plates – Must be double, overlapped at corners, with the end joints offset by 24 inches (not necessarily over studs), not less than 2 inches deep and have the width equal to the studs. **R602.3.2**
- Studs in bearing walls limited to not more than 10 feet in height, sized and spaced to comply with **Table R602.3(5)**.
- Studs more than 10 feet in height are to comply with **Table R602.3.1**.
- Studs shall be continuous from support at the sole plate to a support at the top plate to resist loads perpendicular to the wall. The support shall be a foundation or floor, ceiling or roof diaphragm or shall be designed in accordance with accepted engineering practice. **R602.3**
- Sheathing shall be installed with long dimension parallel to studs. **R603.9.2**
- Sheathing shall cover the full vertical height of wall from the bottom of the bottom track to the top of the top track of each story. **R603.9.2**
- Plate Ties – Exterior or load-bearing walls with plates cut, drilled or notched more than 50% of the width of the plate shall have:
 1. A 16-gauge galvanized metal tie 1 1/2 inches wide, fastened across the plate at each side and extending at least 6 inches past the opening.
 2. A minimum of eight 10d nails on each side. **R602.6.1**
- Bottom (Sole) Plate – Studs shall have full bearing on plate or sill at least equal to the width of the studs. **R602.3.4**
- Interior Load-Bearing Walls – Interior load-bearing walls shall be constructed as specified for exterior walls. **R602.4**