

TOWN OF ASHLAND CITY Regularly Scheduled Workshop Meeting December 06, 2022 6:00 PM Agenda

Mayor: JT Smith

Vice Mayor: Gerald Greer

Council Members: Tim Adkins, Chris Kerrigan, Michael Smith, Kevin Thompson, Tony Young

CALL TO ORDER

ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF MINUTES

1. November 01, 2022 Workshop Meeting Minutes

OLD BUSINESS

- 2. Update on the Bicentennial Trail Grant
- 3. Lease Office Space for Meetings
- 4. Resolution: Updating the Purchasing Policy
- 5. Ordinance: Modify Title 7, Chapter 6 Fireworks

NEW BUSINESS

- 6. Josh Wright Contracts
- 7. Amending GNRC Grant contract #2326-05
- 8. CDBG Engineering Agreement with CSR
- 9. Resolution: Ratifying Cheatham County Growth Plan
- 10. Resolution: Updating the Wage and Salary Policy
- 11. Resolution: Adopting the Cheatham County Hazard Mitigation Plan
- 12. Ordinance: Modifying Title 11, Chapter 4, Section 11-404
- 13. Ordinance: After Hour Water Disconnects

SURPLUS PROPERTY NOMINATIONS

14. Ice Machine

EXPENDITURE REQUESTS

15. Award Bid: WWTP

OTHER

ADJOURNMENT

Those with disabilities who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding the accessibility of the meeting, should contact the ADA Coordinator at 615-792-6455, M-F 8:00 AM – 4:00 PM. The town will make reasonable accommodations for those persons.



TOWN OF ASHLAND CITY Regularly Scheduled Workshop Meeting November 01, 2022 6:00 PM Minutes

CALL TO ORDER

Mayor Smith called the meeting to order at 6:00 p.m.

ROLL CALL

PRESENT

Mayor JT Smith

Vice Mayor Gerald Greer

Councilman Tim Adkins

Councilman Chris Kerrigan

Councilman Michael Smith

Councilman Kevin Thompson

Councilman Tony Young

APPROVAL OF AGENDA

Mayor Smith asked to add the agenda item Court Room Discussion under other. A motion was made by Vice Mayor Greer, Seconded by Councilman Smith, to approve the agenda with changes. All approved by voice vote.

APPROVAL OF MINUTES

1. October 4, 2022 Workshop Meeting Minutes
A motion was made by Councilman Young, Seconded by Councilman Kerrigan, to approve the
October 4, 2022 Workshop Meeting minutes. All approved by voice vote.

UNFINISHED BUSINESS

2. Full Time Mayor Discussion

Councilman Tim Adkins asked Mr. Gary Jaeckel if he could give some insight on a full-time mayor vs a full-time city administrator based on our size. Mr. Jaeckel stated that generally elected officials do not have the qualifications, experience, or training needed to run a city. He stated that usually the only qualifications required to run for office are to be a resident over the age of 18. Mr. Jaeckel stated that a city administrator could be required to have a certain amount of experience and training. He stated that several small cities like our have part time mayors and some have full time city administrators, but not many. Mr. Jaeckel further stated that there will be hoops to jump through to pay a full-time mayor and the charter would have to be changed, but they would not have to wait for a city administrator. Councilman Adkins asked if the council would appoint and have control over firing the city administrator. Mr. Jaeckel stated that they would, that it would be like the recorder and city attorney. Councilman Adkins asked if he saw cities our size with full time mayors and Mr. Jaeckel stated that he does not. Councilman Adkins asked if he thought we needed either of them. Mr. Jaeckel stated that the city administrator would be a better option. Ms. Noe stated that the charter would have to be amended because city administrator was removed from the charter not long ago.

- 3. Noise Ordinance Discussion
 - Mr. Nicholson stated that he is still working on this and will need until next month. Ms. Noe asked the board for direction on the changes. Councilman Smith asked if the new committee could handle this, and Ms. Noe stated they could with some direction. She stated to ask for a deferral at the council meeting.
- 4. Parking in Town Discussion

Councilman Thompson stated that he had previously mentioned a lot for sale at Vine and Cumberland to use as a parking area for the downtown district. He stated that they are asking \$1.5 million, and it is zoned Z1. Councilman Thompson stated that there could be used for a parking garage. He stated that this is just one area and that there are other options to look into. Councilman Greer asked about the garage for the County jail. Mr. Biggers stated that it was just a parking lot. Councilman Kerrigan stated we needed to find out what they are doing first.

- Page 2 -

- 5. Resolution: Establishing a Memorial Dedications Policy
 Mr. Clark stated that this is for a final review of the policy for memorial benches and trees.
- 6. Ordinance: General Sessions Term Date
 Ms. Noe stated that this is for a second and final reading. She stated that this is for a dead date
 on all charges and the date is June 30, 2024.
- 7. Ordinance: Modify Title 7, Chapter 6 Fireworks
 Ms. Noe stated that there has been a lot of back and forth on this and that there has not been a
 decision made on the time and dates. She stated that the current ordinance has the dates listed
 as June 20th July 5th and December 10 January 2nd. After much discussion, the council
 decided that they would like to leave the dates the same and extend the hours on July 4th from
 10:00 p.m. to 10:30 p.m. and on New Year's Eve from 12:30 a.m. to 1:00 a.m.

NEW BUSINESS

- 8. Ashland City Liquor and Wine Package Liquor Application
 Ms. Martin stated that this application is for Ashland City Liquor and Wine, the store across from
 the new fire hall. She stated that there has been a change in ownership, and they are seeking
 their certificate of compliance.
- 9. Josh Wright Presentation At this time, Mr. Wright presented his proposal for the new park behind the berm. Councilman Adkins asked how many acres this was. Mr. Clark stated around 150 acres. Mr. Wright proposed a splash pad, outdoor pool, restrooms, a pond with a walking trail, RV camp, softball and baseball quads with concessions in the middle, tennis courts, picnic area, grass seated amphitheater, handicap accessible playground, and six soccer/multipurpose fields. Mr. Clark stated that it is a lot, and it will not happen overnight. he stated it may take five to ten years to complete. Councilman Smith asked if we were looking at phases and Mr. Wright stated they are. Mr. Wright stated that the next thing to think about it what would happen to Johns Park when the fields are moved here. He stated that it could be a new senior center/ multipurpose center. Councilman Smith asked about flooding since it is in a flood plain. Mr. Wright stated that the park would flood, but they are wanting to design this with very few building structures and leave as mostly sports fields. Councilman Adkins asked what the next steps are. Mr. Wright stated that he would make a full color plan that could be used for marketing and grants and then come
- 10. Sign Ordinance Discussion Councilman Thompson stated that we should have people come before the board for approval of signs before they purchase them. He stated that when businesses have been cited for their signs, they say that the City did it. Councilman Thompson stated that it should apply to the City as well. Mr. Nicholson stated that the ordinance reads that the City is exempt and that he included pictures of signs at intersections to give an idea of what it would look like if we allowed
- 11. Lindy Murff Exercise Contract Combined with agenda item #12.

up with a phasing plan.

12. Barbara Batson Exercise Contract
Ms. Batts stated that she would like to combine agenda items 11 and 12. She stated that these are both contracts for the exercise instructors at the senior center to continue teaching the programs.

them. He stated that he does not want our City to look like that.

- 13. Independent Contractor Agreement Ms. Martin stated that this is an agreement for an officer that was a previous employee of ours to continue instructing the traffic school class until another instructor is trained. Ms. Noe stated that it should state \$250.00 per class instead of bi-weekly. Councilman Kerrigan asked if there was anyone in mind and Ms. Hollingsworth stated there was not. Ms. Noe asked for it to state a minimum of four (4) hours per class.
- 14. Resolution: Updating the Purchasing Policy Ms. Bowman stated that MTAS has come back with some changes, and she will ask for this to be deferred.
- 15. Resolution: Violent Crime Funding Chief Ray stated that this is for a grant that would help fund active shooter kits and cameras for the park.

SURPLUS PROPERTY NOMINATIONS

None.

EXPENDITURE REQUESTS

16. Upgraded Vehicle for Parks

Mr. Clark stated that Mr. Sampson asked for a Ford Ranger in this budget and when he called to order it, they were on backorder. He stated they are now in stock, but the price for a Ranger is only \$4,000.00 cheaper than a full-size F-150 so he would like to ask for the extra money to upgrade.

OTHER

Mayor Smith stated that we can no longer use the meeting room at the County after December, and we are going to be without a place for court. He stated that he spoke with Mr. Marrow who owns the old Dollar General by Walmart, and he is willing to lease the space to us for \$4,000.00 per month. Mayor Smith stated that it is 10,000 sq foot and we could partition areas off and hold all meetings and court there. He stated we need a place since it will be at least another two years before City Hall is built. Ms. Bowman stated that we could not go in and start working, we would have to move services there. Councilman Kerrigan asked if it was in the budget and Ms. Bowman stated it is not. Councilman Adkins asked if there would be an agreement. Ms. Bowman stated there would be a lease agreement and a budget amendment.

ADJOURNMENT

MAYOR JT SMITH

A motion was made by Councilman K	errigan, Seconde	ed by Vice Mayor G	reer, to adjourn th	ne meeting.
All approved by voice vote and the me	eeting adjourned	at 7:34 p.m.		-

CITY RECORDER ALICIA MARTIN, CMFO

LEASE AGREEMENT

Ashland City, TN

THIS LEASE AGREEMENT (the "Lease") made as of _______, 2022, by and between **OWEN PLACE PARTNERS**, a Tennessee General Partnership with a mailing address of 1113 Haverhill Drive, Brentwood, Tennessee 37027 ("Landlord"), and **THE TOWN OF ASHLAND CITY, TENNESSEE**, a Tennessee municipality, with its principal office and place of business located at 233 Tennessee Waltz Parkway, Suite 103, Ashland City, TN 37015 ("Tenant").

WITNESSETH:

WHEREAS, Tenant desires to lease certain premises containing approximately 10,000 rentable square feet, commonly known as Suite 128, located in the building situated at 232 Hutton Place, Ashland City, Tennessee 37015 (the "Building"), together with all other improvements therein, including all easements, rights of way and appurtenances thereto (hereinafter, collectively referred to as the "Leased Premises"); and

WHEREAS, Landlord desires to lease to Tenant the Leased Premises on the terms and conditions contained in this Lease.

NOW, THEREFORE, for valuable consideration and the mutual covenants herein contained, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

ARTICLE I TERM

- **I.1** Landlord does hereby demise and lease unto Tenant, and Tenant does hereby take and hire from Landlord, the Leased Premises upon the terms and conditions set forth in this Lease.
- (the "Commencement Date") and be for a period of approximately two (2) years from the Commencement Date and expiring on December 31, 2024 (the "Expiration Date"). In addition, the Lease Term shall include any and all renewals and extensions of this Lease. "Lease Year" as used in this Lease, means a period of twelve (12) consecutive calendar months, or a portion thereof falling within the Term, with the first Lease Year commencing with the first day of the first full calendar month beginning on or after the Commencement Date and each subsequent Lease Year commencing on each anniversary during the Term of the first day of the first Lease Year. If the Commencement Date is on a day other than the first day of a calendar month, the period from the Commencement Date to the beginning of the first full calendar month of the Lease Term shall be treated as if it were part of the first Lease Year under this Lease for all purposes. The payment of rent as set forth below shall commence on the Commencement Date.
- **I.3** Tenant shall have the option to renew the Lease for up to two additional one (1) year terms, which may be exercised at the sole discretion of Tenant. To exercise any such

renewal option, Tenant must give written notice to Landlord not less than three (3) months prior to the expiration of the current term then in effect. Upon such timely notice, the Lease shall thereupon be extended for an additional one (1) year term. The renewal terms shall be subject to the terms and conditions of this Lease; provided that Base Rental shall be as provided in the Article below as applicable. Upon failure by Tenant to timely exercise any right to renew the Lease, all further renewal rights of Tenant shall immediately terminate.

ARTICLE II RENT

II.1 During the initial Lease Term (Years 1 through 2) (the "**Initial Lease Term**") of this Lease, Tenant shall pay to Landlord as rent a base amount as follows (the "**Base Rental**" or "**Rent**") based on 10,000 square feet:

Years 1-2: \$48,000.00 annually \$4,000.00 monthly

- II.2 Rent shall be payable in monthly installments to Landlord at the address set forth in the introductory paragraph above due on the first day of each month without notice. All Rent or other payments due hereunder, if not paid within ten (10) days of the due date, shall incur a 10% late fee. Rent shall first become due and payable on the Commencement Date. If the Commencement Date is on a day other than the first day of a calendar month or if the Lease Term ends on a day other than the last day of a calendar month, Rent shall likewise be apportioned pro-rata on a per diem basis for the partial calendar month.
- **II.3** For the renewal terms, the Base Rental payable for each such extended term shall be as follows:

Years 3: \$50,400.00 annually \$4,200.00 monthly

Years 4: \$51,600.00 annually \$4,300.00 monthly

ARTICLE III MAINTENANCE AND REPAIRS

III.1 Landlord, at Landlord's expense, shall maintain in compliance with all applicable laws, ordinances, and restrictions of record and in good condition, repair and replace, the roof, foundation, load bearing walls, exterior walls and all other structural elements of the Building and improvements located on the Leased Premises, and the stormwater drainage system, conduits for water, plumbing, and electricity up to the point of connection at the Premises, common areas, driveways and walkways. To the extent known by Tenant, Tenant shall give Landlord written notice of any repairs or replacements required by Landlord pursuant to this paragraph, after which Landlord shall have a reasonable period of time to complete the required repairs or replacements; provided, however Landlord shall complete any such repairs or replacements within thirty (30) days following receipt of written notice from Tenant, except in the event of an emergency when Landlord shall immediately complete any such repairs or replacements. Notwithstanding the above, Tenant shall have the right to perform any required maintenance,

- Page 6 -

repairs and replacements to any portion of the building or improvements located on the Leased Premises provided that Tenant has obtained Landlord's prior written approval, which approval or disapproval shall be given within thirty (30) days following Tenant's written request therefor; provided, however, in the event of an emergency, Landlord shall immediately provide its approval or disapproval. In the event Landlord fails to respond within thirty (30) days or immediately in the event of an emergency, Landlord shall be deemed to have granted its consent to Tenant to perform the repairs. In the event Tenant completes any such repairs, Tenant shall be entitled to offset the cost from the immediately succeeding Rent payments. Notwithstanding the foregoing, Landlord represents and warrants to Tenant that, as of the Commencement Date, the HVAC system and all other building systems (including mechanical and electrical) located upon the Leased Premises are in good and sufficient working order for Tenant to engage in its Permitted Use. For purposes of this Section, emergency shall mean any condition or set of conditions which, under Tenant's reasonable judgment, present a risk to the health or safety of any occupant or invitee or imminent material damage to property at the Leased Premises.

- III.2 In the exercise of its obligations under this paragraph Landlord shall use all reasonable efforts not to adversely affect the ingress and/or egress to the Leased Premises or to interrupt the operation of Tenant's business at the Leased Premises. In the event that ingress and/or egress is materially affected or Tenant's business is unreasonably interrupted so as to negatively impact the ability of Tenant to conduct its regular business operations, and either such interference or interruption continues for at least three (3) days, Rent shall abate for the period during which such condition shall continue beyond the first three (3) days until such condition is remedied.
- III.3 Except only those repairs for which Landlord is responsible under this Article, Tenant, at Tenant's cost and expense, shall maintain in good repair and condition all other interior parts of the Leased Premises and used in conjunction with the Permitted Use, ordinary wear and tear for the Permitted Use and loss by fire or other casualty excepted. Tenant shall maintain a semi-annual services agreement for the maintenance of the HVAC systems by a reputable service company. Tenant shall be responsible for all repairs of the HVAC systems during the Lease Term, including during any renewal term.

ARTICLE IV ALTERATIONS AND IMPROVEMENTS

IV.1 Tenant will not make or permit anyone to make any alterations, additions, improvements or other changes (collectively, the "**Improvements**"), structural or otherwise, in or to the Leased Premises without the prior written consent of Landlord, which consent shall not be unreasonably withheld, delayed or conditioned; however, Tenant shall have the right, without obtaining Landlord's consent, to perform any such Improvements to the Leased Premises that do not permanently affect the building's or other improvements' systems or structure and cost less than \$10,000. Any Improvements shall be made at Tenant's expense. At the time Landlord's approval of any Improvements is sought, Tenant shall submit to Landlord, plans and specifications for such Improvements with a statement of the estimated cost of such work. The Improvements shall be completed in a good and workmanlike manner with new and good materials and workmanship. Tenant shall not be required to remove the Improvements or to restore the Leased Premises to its original condition at the end of the Lease Term.

- Page 7 -

- **IV.2** All Improvements which are made by or on behalf of Tenant, whether real or personal, shall be Tenant's property. Tenant may, but shall not be required to, remove its Improvements upon expiration or termination of this Lease, as long as Tenant repairs any material physical damage resulting from such removal. In the event Tenant elects to not remove any of the Improvements, then such improvements shall remain on the real property upon expiration or termination of the Lease and shall become the property of Landlord.
- **IV.3** Tenant shall have no authority to cause or permit a mechanic's, construction or other lien to arise or be perfected with respect to the Leased Premises or any part thereof. If any mechanic's, construction or other lien is filed against the Leased Premises, or any part thereof, by reason of Tenant's acts or omissions or because of a claim against Tenant, then Tenant shall cause such lien to be canceled and discharged of record or bonded over within thirty (30) days, and Tenant will promptly and expressly notify Landlord of same within 24 hours of satisfaction of lien at issue. Further, Tenant shall indemnify and hold Landlord harmless from and against any loss which Landlord may sustain by reason of any such liens being filed against the Leased Premises; including any reasonable attorney's fees paid by Landlord as related to such lien.

ARTICLE V SIGNS AND FURNISHINGS

V.1 Tenant shall have the right to install signage on the front of the Leased Premises. Except for the aforementioned, no sign, advertisement or notice referring to Tenant shall be inscribed, painted, affixed or otherwise displayed on any part of the exterior of the Building (including Tenant's windows and doors) that has not been approved by Landlord. Approval shall not be unreasonably withheld. All of Tenant's signs shall be (a) installed after Tenant has obtained, at Tenant's sole cost and expense, all permits, approvals, and licenses required therefor, and delivered copies thereof to Landlord, and (b) at Tenant's sole cost and expense, installed, maintained, repaired and replaced in a first-class manner. Landlord reserves the right to affix, install and display signs, advertisements and notices on any part of the exterior or interior of the Leased Premises to sell or lease the Leased Premises during the six (6) month period immediately prior to the expiration of the Lease Term if notice to renew has not been provided pursuant to the terms of this Lease.

ARTICLE VI OWNERSHIP AND POSSESSION

VI.1 Landlord represents and warrants that Landlord is the sole owner in fee simple of the Leased Premises, has good and marketable title thereto, has full right to lease the Leased Premises for the Lease Term. Tenant shall have the right to peacefully occupy, use and enjoy the Leased Premises during the Lease Term and any extensions thereof, subject to the terms of this Lease, provided Tenant pays the Rent and other sums herein required to be paid by Tenant and performs all of Tenant's covenants and agreements herein contained. Additionally, Landlord agrees to use its best efforts at all times to not obstruct the means of ingress and egress between the Leased Premises and a public street or public highway and, in exercising Landlord's rights and performing Landlord's obligations under this Lease, Landlord shall use its commercially reasonable efforts to not limit or impair Tenant's business operations, nor the Premises parking area availability for Tenant and its customers, nor the access to or visibility of the storefront of

the Premises. Notwithstanding the foregoing, Tenant acknowledges that buildings will be constructed on the outparcels in front of the shopping center.

VI.2 Upon not less than twenty-four (24) hours prior notice (except in the case of an emergency, where no notice is required), Landlord or its agents or representatives shall have the right to enter into and upon any part of the Leased Premises from time to time at reasonable hours to inspect the same as Landlord may deem necessary or desirable. Landlord further reserves the right to show the Leased Premises to prospective tenants or brokers during the last six (6) months of the Lease Term, if notice to renew has not been provided, and to prospective purchasers or mortgagees at all reasonable times, provided that prior notice is given to Tenant in each case, and Tenant's use and occupancy of the Leased Premises shall not be materially inconvenienced. Tenant shall not be entitled to any abatement or reduction of Rent by reason of the exercise of the foregoing rights on the part of Landlord.

ARTICLE VII PERMITTED USES

- **VII.1** Tenant shall use and occupy the Leased Premises solely for operation of office and official Town of Ashland City business uses (the "**Permitted Use**"). Tenant shall not occupy or use the Leased Premises, or permit any portion of the Leased Premises to be occupied or used, for (i) any retail operations, or (ii) business or purpose that is unlawful, or permit anything to be done that would in any way increase the rate of fire or liability or any other insurance coverage on the Building and/or its contents. Tenant acknowledges that a breach of the foregoing shall be an immediate event of default and shall entitle Landlord to any and all remedies available to it at law or equity; specifically including, but not limited to, injunctive relief.
- **VII.2** Tenant's employees shall have access to the Premises seven (7) days per week, twenty-four (24) hours per day.

ARTICLE VIII LAWS, REGULATIONS AND RULES OF BUILDING

VIII.1 Tenant shall comply with all applicable laws, ordinances, rules and regulations relating to the use, condition or occupancy of the Leased Premises. Otherwise, Landlord shall comply with all applicable laws, ordinances, rules and regulations relating to the use, condition or occupancy of the Building.

ARTICLE IX INTENTIONALLY OMITTED

ARTICLE X WAIVER OF CLAIMS AND INDEMNITY

X.1 Tenant shall protect, indemnify and save Landlord and its officers, agents, servants and employees harmless from and against any and all obligations, liabilities, costs, damages, claims and expenses of whatever nature arising from injury to persons or damage to property on the Leased Premises arising out of or in connection with Tenant's use or occupancy of the Leased Premises, or arising from an act or negligence of Tenant, or its agents, contractors,

servants, employees, or invitees, but only to the extent that all such obligations, liabilities, costs, damages, claims and expenses are not covered by the insurance required to be maintained by Landlord and Tenant and are not caused by the negligent or willful misconduct of Landlord or its contractors, agents or employees.

- **X.2** Landlord shall protect, indemnify and save Tenant and its officers, agents, partners and employees harmless from and against any and all obligations, liabilities, costs, damages, claims and expenses of whatever nature arising from injury to persons or damage to property on the Leased Premises arising out of any negligent or intentional act or willful misconduct of Landlord, or its agents, contractors, servants, employees or invitees, but only to the extent that all such obligations, liabilities, costs, damages, claims and expenses are not covered by the insurance required to be maintained by Landlord and Tenant hereunder.
- **X.3** The indemnification obligations under this Article shall survive the expiration or termination of this Lease with respect to matters arising in or attributable to the Lease Term.

ARTICLE XI DAMAGE OR DESTRUCTION

- If the Leased Premises are totally or partially damaged or destroyed from any cause, thereby rendering the Leased Premises totally or partially inaccessible or unusable, Landlord shall diligently restore and repair the Leased Premises to substantially the same condition it was in prior to such damage; provided however, that if in Landlord's reasonable judgment such repairs and restoration cannot be completed within six (6) months after the occurrence of such damage or destruction (taking into account the time needed for effecting a satisfactory settlement with any insurance company involved, removal of debris, preparation of plans and issuance of all required governmental permits), or if such damage or destruction occurred within one (1) years prior to the expiration of the Lease Term, then Landlord or Tenant shall have the right, at its sole option, to terminate this Lease by giving written notice of termination to the other within forty-five (45) days after the occurrence of such damage or destruction. If this Lease is terminated in accordance with the above procedure, then Base Rental payable hereunder shall be apportioned and paid to the date of said damage or destruction. If this Lease is not terminated as a result of such damage or destruction, then until such repair and restoration of the Leased Premises are substantially complete and the Leased Premises are returned to a tenantable condition, the Base Rental shall be abated as to that portion of the Leased Premises which is unsuitable for occupancy by Tenant. If this Lease is not terminated as a result of such damage or destruction, then except as otherwise specified in Section 11.2. Landlord shall bear the cost and expenses of such repair and restoration of the Leased Premises (but not in excess of actual insurance proceeds received by Landlord).
- **XI.2** Notwithstanding anything above to the contrary, it shall be Tenant's sole responsibility to repair, restore or replace any trade fixtures, furnishings, equipment or personal property belonging to Tenant to substantially their same condition prior to such damage or destruction

ARTICLE XII CONDEMNATION

XII.1 If the whole or a substantial part (as hereinafter defined) of the Leased Premises, or the use or occupancy of the Leased Premises, shall be condemned or taken by eminent domain by any governmental authority or other entity for any public or quasi-public use or purpose (including a sale thereof under threat of such condemnation or taking), then this Lease shall terminate on the date of taking, and all Rent payable hereunder shall be apportioned as of such date.

If less than a substantial part of the Leased Premises, or if the use or occupancy of less than a substantial part of the Leased Premises, is condemned or taken by eminent domain by any governmental or other entity for any public or quasi-public use or purpose (including a sale thereof under threat of such condemnation or taking), then this Lease shall continue in full force and effect as to the portion of the Leased Premises not so condemned or taken, except that as of the date of taking, Tenant shall not be required to pay Base Rental and Additional Rental with respect to the portion of the Leased Premises condemned or taken (and an appropriate allocation of Base Rental and Additional Rental shall be made with respect to the portion of the Leased Premises so condemned or taken). For purposes of this Section, a substantial part of the Leased Premises shall be considered to have been condemned or taken if more than twenty percent (20%) of the rentable area of the Leased Premises is rendered unusable as a result of such condemnation or taking.

XII.2 Landlord and Tenant shall each be entitled to compensation for the appropriation of their respective interests in such taking. The compensable interest of each shall be determined by the law of the state in which the Leased Premises are located, and if allowed under such state law, Tenant may make and pursue its own separate award and claim for compensation and damages.

ARTICLE XIII DEFAULT

XIII.1 Should (A) default be made by Tenant in the payment of the Rent herein reserved, or any part thereof, when and as herein provided, and such default shall continue for five (5) days after written notice thereof from Landlord to Tenant, (B) Tenant default in the performance, fulfillment or observance of any of Tenant's other covenants, conditions or agreements herein contained, and such default shall continue for twenty (20) days after written notice thereof from Landlord to Tenant; provided, however, that if the nature of the default is such that it cannot be cured within twenty (20) days, Tenant shall not be deemed in default provided Tenant has promptly commenced the cure and diligently pursues the cure to completion thereafter, or (C) Tenant becomes the subject of voluntary or involuntary proceedings under the federal or state bankruptcy statutes in effect from time to time, then Landlord may thereafter, without further notice or demand, (i) terminate Tenant's right to possession without terminating this Lease and enter the Leased Premises and take full and absolute possession thereof, without such re-entry causing a forfeiture of the Rent or other charges to be paid or the covenants to be performed by Tenant hereunder for the full Lease Term, and Landlord shall thereafter lease or sublease the Leased Premises for such rent as Landlord may reasonably obtain, crediting Tenant with the rent so obtained after deducting the reasonable costs Landlord incurs by such re-entry, leasing or subleasing, with Tenant paying the shortfall between the rent obtained by Landlord and the Rent, if any, as the Rent becomes due and payable, or (ii) terminate this Lease and

reenter and take full and absolute possession of the Leased Premises free from any further right or claim by or against Tenant.

XIII.2 Tenant shall give Landlord written notice of any default by Landlord in the performance of any covenant or obligation to be kept or performed hereunder, and if such default continues for a period of thirty (30) days after receipt by Landlord of a written notice from Tenant specifying such default, then and in such event, Tenant, at its election, may take any action as is reasonably necessary to cure such default and thereafter deduct the amount so spent from Rent due or to become due hereunder. Notwithstanding any provision herein to the contrary, in the event Landlord fails to perform any obligation hereunder which materially and adversely impairs the Tenant's business operations in the Premises, or renders the Premises untenantable, in excess of three (3) business days, thereafter, in addition to any remedies provided at law or equity to Tenant, all Base Rent shall abate on a per diem basis from the date of such default until the date of cure. All such remedies shall be cumulative and in addition to all other remedies available to Tenant under applicable law.

ARTICLE XIV CONDITION OF PREMISES

XIV.1 Tenant accepts the Leased Premises in its present condition.

ARTICLE XV HOLDING OVER

XV.1 If Tenant retains possession of the Leased Premises or any part thereof after the expiration of the Lease Term, then Tenant shall be deemed a tenant of the Leased Premises from month-to-month subject to all the terms and provisions hereof, except as to the term of this Lease and except that Tenant shall pay Rent for each month after the expiration of the Lease Term at a rate of one hundred fifty percent (150%) of the Rent payable on the last month of the Lease Term, computed on a daily basis for each day that Tenant remains in possession. Except for the Lease Term and the increased Rent, all other terms and conditions of this Lease shall remain in full force and effect during the holdover period. Landlord's acceptance of Rent from Tenant in such event shall not alter the status of Tenant as a month-to-month tenant whose occupancy of the Leased Premises may be terminated by Landlord at any time upon thirty (30) days prior written notice.

ARTICLE XVI INSURANCE

XVI.1 Tenant shall, at all times during the Lease Term, maintain and pay for a policy or policies of Commercial General Liability Insurance against claims for bodily injury, personal injury and property damage based upon or arising out of its ownership, use, occupancy or maintenance of the Leased Premises in a combined single limit of not less than One Million and No/100 Dollars (\$1,000,000.00). Such insurance shall be issued by a company or companies authorized to do business in the State in which the Leased Premises is located. Tenant shall maintain such additional insurance policies which Tenant determines are reasonable and customary for its operations at the Leased Premises. The liability policies held by Tenant with

- Page 12 -

respect to the Leased Premises shall name Landlord as an additional insured. Tenant shall, prior to taking possession of the Leased Premises, deliver to Landlord certificates evidencing the insurance referred to above, and Tenant shall deliver to Landlord certificates evidencing said insurance within twelve (12) days of initial delivery of said evidence of insurance consecutively in this manner for the entire term of this Lease.

- **XVI.2** Landlord shall obtain and keep in force a policy or policies of insurance insuring against "all risks" in the full insurable replacement cost of the Leased Premises, and such other insurance, if any, customarily maintained by owners of buildings comparable to the building located on the Leased Premises.
- **XVI.3** Landlord and Tenant each hereby waive any and every claim for recovery from the other for any and all loss of or damage to the Leased Premises or to the contents thereof, which loss or damage is covered (or is required hereunder to be covered) by valid and collectible physical damage insurance policies.

ARTICLE XVII SUBORDINATION AND ATTORNMENT

XVII.1 Tenant agrees to, and will upon written demand by Landlord, execute such documents as may be required to subordinate the rights and interests of Tenant created by this Lease to the lien of any mortgage, deed of trust, ground lease or other instrument at any time placed upon the Leased Premises, provided that any such mortgagee, trustee, ground Landlord or other party shall first be required to recognize Tenant's interest in the Leased Premises, and shall provide that in the event of foreclosure of any such instruments, this Lease shall remain in full force and effect barring breach or default by Tenant, the intent and purpose of this paragraph being that Tenant will agree to attorn to the mortgagee, trustee, ground Landlord or other party as Landlord in the event of foreclosure provided Tenant may continue to use and occupy the Leased Premises during the Lease Term as long as Tenant makes the rental payments provided for under this Lease to Landlord or its successors or assigns, and performs all of the other terms and obligations imposed upon Tenant by this Lease.

ARTICLE XVIII BROKERS

XVIII.1 Landlord and Tenant each represent and warrant to the other that neither of them has employed or dealt with any broker, agent or finder in connection with this Lease. Each party agrees to indemnify and hold harmless the other from any claim or claims, and costs and expenses, including attorneys' fees, incurred by the indemnified party in conjunction with any such claim or claims of any other broker or brokers to a commission in connection with this Lease as a result of the actions of the indemnifying party.

ARTICLE XIX ASSIGNMENT AND SUBLETTING

XIX.1 Except as set forth herein, Tenant shall not assign, transfer, mortgage or otherwise encumber this Lease or all or substantially all or any of Tenant's rights hereunder or sublet any

- Page 13 -

of the Leased Premises or experience a change in control, without obtaining the prior written consent of Landlord, which consent shall not be unreasonably withheld.

- **XIX.2** Notwithstanding anything to the contrary contained herein, and provided Tenant is not in default hereunder, Tenant may, without obtaining the prior written consent of Landlord, assign or otherwise transfer this Lease, or any part thereof, or any interest hereunder, to any affiliate of Tenant. Tenant shall, by notice in writing, advise Landlord of its intention to assign this Lease, or any part thereof, or to sublet or license part or all of the Leased Premises for the balance or any part of the Lease Term. Tenant's notice shall state the name and address of the proposed assignee, subtenant, or licensee and a copy of the proposed assignment, sublease or license shall be delivered to Landlord with Tenant's notice thirty (30) days prior to the proposed commencement date of subsequent assignee, subtenant, or licensee.
- XIX.3 If at any time during the Lease Term, Tenant desires to transfer, assign or sublet any of the Leased Premises, then in connection with Tenant's request to Landlord for Landlord's consent thereto, Tenant shall give notice to Landlord in writing of the identity of the proposed assignee or subtenant and its business, the terms of the proposed assignment or subletting, the commencement date of the proposed assignment or subletting and shall pay a \$1,000 transfer fee to Landlord. Tenant shall also transmit therewith the most recent financial statement or other evidence of financial responsibility of such assignee or subtenant and a certification executed by Tenant and such proposed assignee or subtenant stating whether or not any premium or other consideration is being paid for the proposed assignment or sublease.
- XIX.4 Any subletting, licensing or assignment hereunder shall not release or discharge Tenant of or from any liability, whether past, present or future, under this Lease, and Tenant shall continue to be fully liable thereunder. Any subtenant, licensee or assignee shall agree in a form satisfactory to Landlord to comply with and be bound by all of the terms, covenants, conditions, provisions and agreements of this Lease to the extent of the space sublet, licensed or assigned, and Tenant shall deliver to Landlord within twenty-four (24) hours after execution, an executed copy of each such sublease, license or assignment. Any sale, assignment, mortgage, transfer, licensing or subletting of this Lease which is not in compliance with the provisions of this paragraph shall be of no effect and void.

ARTICLE XX ENVIRONMENTAL PROVISIONS

- **XX.1** Landlord recognizes that Tenant in the normal and ordinary course of its business may use and utilize Hazardous Materials (defined below). Tenant agrees to comply with all legal requirements applicable to the use, utilization, handling, storage and transportation on the Leased Premises of any Hazardous Materials used in the normal and ordinary course of their business.
- **XX.2** Tenant covenants and agrees to indemnify, defend and hold Landlord harmless from any and all claims, losses, liabilities, penalties, costs or expenses of any kind or nature whatsoever, including without limitation, attorney, consultant and expert fees which may at any time during or after Tenant's occupancy, be asserted or imposed against Landlord and which Landlord establishes arise out of and are caused by the Release, threatened Release or migration of Hazardous Materials onto, under, from or upon the Leased Premises occurring during the

- Page 14 -

Lease Term or any extension and caused by Tenant or by any of Tenant's employees, agents, contractors, invitees, subtenants, or licensees (hereinafter collectively referred to as the "**Tenant Parties**"). Landlord shall fully cooperate with Tenant in responding to any such claim, order or other legal action.

"Hazardous Materials" means (A) pollutants, contaminants, pesticides, petroleum or petroleum products, radioactive substances, solid wastes or hazardous or extremely hazardous. special, dangerous, or toxic wastes, substances, chemicals or materials within the meaning of any Environmental Law, including any "hazardous substance" as defined in or under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C., Sec. 9601, et seq., as amended and reauthorized ("CERCLA"), and any "hazardous waste" as defined in or under the Resource Conservation and Recovery Act, 42 U.S.C., Sec. 6902, et seg. ("RCRA"), and all amendments thereto and reauthorizations thereof; and (B) any other pollutants, contaminants, hazardous, dangerous or toxic chemicals, materials, wastes or other substances, including any industrial process or pollution control waste or asbestos, which pose a hazard to the environment or the health and safety of any person. "Release" means any spill, discharge, leach, leak, emission, escape, injection, dumping, pouring, emptying, disposal or other release of any materials, wastes or substances into the environment, whether or not notification or reporting to any governmental authority was or is required, including any Release which is subject to Environmental Laws. "Environmental Laws" means all federal, state and local statutes, regulations, ordinances, rules and policies, all court and administrative orders and decrees, all arbitration awards, and the common law, which pertain to environmental or natural resource matters or contamination of any type whatsoever.

ARTICLE XXI UTILITIES

XXI.1 Landlord represents and warrants to Tenant that the Leased Premises presently are directly served by sewer, stormwater drainage system, water, gas, electricity, telephone and internet. Tenant shall pay for all sewer, water, gas, electricity and telephone and internet services used exclusively by Tenant in or about the Leased Premises during the Lease Term, and shall pay all sewer use fees or similar charges made or imposed with respect to or against the Leased Premises during the Lease Term. Landlord shall not be liable in the event of any interruption or failure of utilities or any other service to the Leased Premises, unless caused by Landlord's, its contractors' or employees' negligence or willful misconduct; in which event, Rent reserved hereunder shall abate during the period of any such interruption or failure.

ARTICLE XXII OBLIGATION TO MITIGATE

XXII.1 Landlord and Tenant will each have the duty and obligation to mitigate, in a reasonable manner, any and all damage that may or will be caused or suffered by virtue of the other's defaults under, or violating, any of the terms and conditions of this Lease.

ARTICLE XXIII INTENTIONALLY OMITTED

- Page 15 -

ARTICLE XXIV GENERAL PROVISIONS

- **XXIV.1** This Lease may not be altered or amended, except by an instrument in writing signed by both Landlord and Tenant. Tenant agrees that it shall execute such further amendments to this Lease as may be reasonably requested by any future holder of a first mortgage on the Leased Premises, provided such amendments do not materially and adversely affect the interest of Tenant hereunder.
- **XXIV.2** This Lease shall be binding upon and inure to the benefit of the successors and assigns of Landlord, and to the extent assignment may be approved by Landlord hereunder, Tenant's successors and assigns.
- **XXIV.3** The pronouns of any gender shall include the other genders, and either the singular or the plural shall include the other.
- **XXIV.4** This Lease shall be governed, construed and enforced in accordance with the laws of the State of Tennessee.
- **XXIV.5** This Lease, including the Exhibits attached hereto, contains and embodies the entire agreement of the parties hereto with respect to the subject matter hereof and supersedes all prior agreements, negotiations, letters of intent, proposals, representations, warranties, understandings and discussions between the parties hereto with respect to the subject matter hereof. Any representation inducement, warranty, understanding or agreement that is not contained in this Lease shall not be of any force or effect.
- **XXIV.6** Any payment or notice required or permitted hereunder shall be deemed to have been duly made or given when personally delivered or received via the United States mail, or express mailed with a widely recognized, reputable overnight carrier, postage prepaid, and addressed to Landlord at the address specified in the preamble, and to Tenant at the address specified in the preamble until the commencement of the Lease Term and thereafter at the address of the Building, or to such other address as either party may have previously furnished in writing to the other party.
- **XXIV.7** Nothing contained in this Lease shall be construed as creating a partnership or joint venture of or between Landlord and Tenant, or to create any other relationship between the parties hereto other than that of landlord and tenant.
- **XXIV.8** Time is of the essence with respect to each of Tenant's obligations under this Lease.
- **XXIV.9** This Lease may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document.
- **XXIV.10** This Lease shall not be recorded except upon the request of Landlord or Tenant, whereupon Landlord and Tenant shall execute, in recordable form, a short form memorandum of this Lease. Such memorandum may be recorded at the expense of the party

requesting the recordation in the land records of the jurisdiction in which the Leased Premises are located.

XXIV.11 The provisions of this Lease are severable, such that the invalidity, illegality or unenforceability of a provision shall not affect the validity, legality or enforceability of the remaining provisions. Should any provision be determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, such provision shall be amended immediately by Landlord and Tenant in such a manner to make it valid, legal and enforceable, but keeping it as close to its original meaning as possible.

XXIV.12 This Lease may be delivered by facsimile transmission or by e-mail delivery of a ".pdf' format data file and the signature thereon shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf' signature page were an original thereof.

[Signature page to follow.]

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the day and date first written above.

LANDLORD:				
OWEN PLACE PARTNERS				
By:				
Name:	Rick Morrow			
Title:	Partner			
TENANT:				
	OWN OF ASHLAND CITY			
By:				
Name:				
Title:				

4810-7855-4332.2

RESOLUTION# 2022-

A RESOLUTION BY THE MAYOR AND COUNCIL OF THE TOWN OF ASHLAND CITY UPDATING SECTION 3 OF THE PURCHASING POLICES AND PROCEDURES

WHEREAS, Section 31 of the City Charter of the Town of Ashland City, states the Mayor and City Council shall set purchasing procedures which shall be in compliance with Tennessee purchasing laws.

NOW, THEREFORE BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF ASHLAND CITY, TENNESSEE, that the following be declared the official purchasing procedures for the Town of Ashland City.

The Town of Ashland City's purchasing policy is based on The Municipal Purchasing Law of 1983 and amended with The Town of Ashland City's policies to suit the city's purchasing needs.

DEPARTMENT MAKING PURCHASE RESPONSIBILITIES: The procurement process is a combined effort between the using department or agency and accounts payable. The responsibilities of the using department and/or agencies include:

- Allow ample lead-time for the Purchasing Department to process bid/proposal requests, issuance of purchase orders, execution of contract documents and any other task performed by the Purchasing Department.
- Plan purchases in advance to eliminate avoidable urgent or emergency situations.
- Ensure funds have been allocated and approved by the City Council.
- Advise in writing, of issues or dissatisfaction as soon as they arise with any vendor's performance related to terms, conditions, specifications and performance of their contracts or purchase orders.
- Inform accounts payable of purchases when state, federal or grant funds will be used.
- Ensure that the purchasing policy is followed by all personnel prior to any purchase.
- Entering requisitions for all purchases while ensuring that all proper backup is attached during requisition entry.
- Ensure that proper internal controls are in place for all purchasing transactions.

Section 1. Purchasing Agent. Except as otherwise provided in this policy, all orders for supplies, materials, equipment, and services shall be assigned a PO (Purchase Order) number by the purchasing agent. The purchasing agent will verify that all requirements for purchase have been completed. Once such requirements have been verified, the purchase may be approved and acquired by the purchasing agent or his/her designee. **The purchasing agent is not held**

accountable for purchases made without following the proper steps in this purchasing manual. The department head will be held accountable for this action, and he/she will be responsible for documenting by email or signed invoice that they are aware the purchase was not made in compliance with this policy prior to the purchasing agent paying the invoice.

- **Section 2.** Requirements for Purchase. As stated in Section 1, the purchasing agent will verify the requirements for the purchase have been completed. Those requirements are as follows:
 - a.) No invoice for supplies, materials, or equipment shall be accepted for payment until such supplies, materials, etc., have been received and inspected by the department head or authorized town employee to verify the products are in acceptable condition.
 - b.) After the inspection of delivered items, the department head or the authorized town employee must obtain the proof of delivery, bills of lading, delivery tickets, and other papers related to the purchase, including all warranty cards, and submit those papers with the invoice for payment. If no proof of delivery can be obtained, the employee must turn in a Missing Proof of Delivery Affidavit and submit with payment.
 - c.) Standardizing supplies and materials that can be bought in large quantities can save a great deal of money. Thus, department heads should adopt as standards the minimum number of quantities, sizes, and varieties of commodities consistent with successful operation. Where practical, materials and supplies should be bought based on requirements for a six-month period.
 - d.) The Town is exempt from the payment of excise taxes imposed by the federal government, and suppliers should be requested to deduct the amount of such taxes from their bids, quotations, and invoices. If the purchasing agent sees taxes charged to the invoice, he or she may request the town employee which made the purchase to contact the vendor and request a credit for the tax amount charged.
- **Section 3.** Purchase Orders (PO) Requirements: A purchase requisition lets the accounts payable/finance department know, in detail, what the using department needs. A PO, as defined in this resolution, shall be completed by the purchasing agent per the following criteria:
 - a) If the purchase is appropriated through the annual budget and more than \$500.
 - b) If the item is a capital good.

c) If the vendor requests a purchase order or if the department head feels it is necessary.

How to Prepare a Requisition to a Purchase Order:

A requisition must be completed before a purchase is made, except when stated otherwise!

A properly processed purchase requisition must contain the following information:

- Date issued The date the requisition is prepared.
- Date wanted State a definite delivery date. "AT ONCE, ASAP, and RUSH" are vague instructions and don't give the purchasing department sufficient information. Prepare far enough in advance to avoid emergencies.
- Department The complete name of using department
- Department head Signature of the department head
- To be delivered to Be specific. If vague or indefinite, confusion may result in costly delays.
- Item number Numerical order of items listed.
- Quantity The number required.
- Unit Dozen, lineal feet, gallons, etc.
- Description Give a clear description of the items, including size, color, type, etc. If the purchase is of a technical nature, specifications should be attached to the requisition. If the item cannot be described without a great amount of detail, a brief description should be given, followed by a trade name and model number of an acceptable item "or approved equal." Requisitions must not give specifications that will favor one supplier to the exclusion of any others.

NOTE: Incomplete information in this area will result in the requisition being returned to the using department for clarification.

- Account to be charged Complete budgetary code.
- Unit price Price for each individual item.
- Amount A total of quantity times unit price.
- The requisitioner shall not split orders to avoid any provision of the city code or charter, this manual, or any policy established by the city, nor shall requisitions be submitted for the sole purpose of using up budgetary balances.

If a PO is required, the purchasing agent will convert the requisition only after being completed by the requestor and approved by the department head or his/her designee. The purchasing agent shall forward a copy of each PO to the requestor or department representative and place a copy of the PO in the purchasing file. If the finance officer says there is not enough in the budget account, it will be referred to the purchasing agent, who will notify the department head in the absence of the Finance Director.

Material Ordering Report

The material receiving report form is designed to inform that an item(s) of a particular order has been received.

• When Prepared:

This form is completed immediately upon receipt of materials, supplies, or services.

• Who Prepares:

The person receiving the merchandise.

• How to Prepare:

A proper material receiving report must contain the following information:

- ❖ Purchase order number The number from the purchase order on which the items were ordered. If not purchased from a purchase order, the following still applies.
- ❖ From Name of vendor
- ❖ Material received by Person receiving the item
- ❖ Date received Date the goods are received
- Quantity Number of items received
- Description Brief statement describing item(s)
- ❖ Price Unit price from the purchase order
- ❖ Per Unit measure (foot, lb., etc.)
- ❖ Amount Amount equal to quantity times unit cost
- ❖ Freight charge Amount (if any) charged for delivery

When any item(s) is not in satisfactory condition, a statement about the condition of the item(s) must be made in the description column. There is no need to write anything in this column if the item is undamaged.

Section 4. Purchases Costing Less Than \$3,000: The department head, after appropriation through the budget, is expected to obtain the best price and service available for purchases estimated from \$0.01 to three thousand dollars (\$3,000.00) and is exempt from the quote and bid requirements. These purchases follow all rules preceding section 4. All contracts or agreements must be presented to council and signed by the appropriate parties before the purchase is made.

Section 5. Purchases and Contracts Costing \$3,000.01 to \$9,999.99

a) All purchase of supplies, equipment, services, and contracts estimated to be more than three thousand and one cent (\$3,000.01) but less than nine thousand, nine hundred, ninety-nine dollars and ninety-nine cents (9,999.99), shall be unadvertised, but require a minimum of three written quotes and should include an explanation if not awarded to the lowest responsive quote. All contracts or agreements must be presented to council and signed by the appropriate parties before the purchase is made.

- b) A written record of quotes shall be established and available for public inspection showing that required quotes were obtained by one of the following methods:
 - ❖ Handwritten quotes from the vendors themselves
 - Email quotes from the vendors themselves
 - Quotes taken directly from the vendor's website
 - Fax

These documents must state:

- ❖ The vendor's/contractor's/company's name, address, phone number,
- The person's name and title or position giving the quote.
- ❖ The price, including delivery, and
- ❖ A complete description of the product or service provided. On-line quotations may be used provided the above information is included.

These quotes shall be kept on file with the purchase order.

No purchase shall be made without the required quotes and if a purchase happens to be made without the quotes, the department head will be asked to have a written reason why the purchase was made without the required quotes.

- c) The purchaser shall obtain a copy of the vendor's liability and workers compensation insurance policies showing coverage amounts for contracts involving construction or other service where the public or contractor's employees could be adversely impacted by the provision of the service. A copy of the policy shall be kept on file by the purchasing agent. The purchasing agent shall also verify budget account balances prior to issuing approval to purchase.
- d) The purchaser shall make all efforts to obtain the vendor's W9.

Section 6. Purchases and Contracts Costing \$10,000.00 to \$14,999.99

All purchases made between ten thousand dollars (\$10,000.00) and fourteen thousand nine hundred ninety-nine dollars and ninety-nine cents (\$14,999.99) shall follow all the purchase requirements preceding and including section 5 with the addition of getting permission of the purchase from City Council. All contracts must be presented to council and signed by the appropriate parties before the purchase is made.

Section 7. Purchasing and Contracts Costing over \$15,000.00 – Competitive Bidding All purchases of supplies, equipment, services, and contracts estimated to be more than fifteen thousand dollars (\$15,000), shall follow the procurement rules for competitive bidding as follows:

a) The expenditure request shall be taken to the City Council for review and approval to start the bidding process. The expenditure request will be presented by the mayor, department head, purchasing agent, city recorder, or the finance director at the next regularly scheduled or special called meeting of City Council.

- b) The City Council shall have the authority to approve or disapprove the expenditure request to comply with the annual budget, or for any reason it deems it is in the public interest. The reason for denial shall be stated and recorded in the meeting minutes. Upon denial, the City Council shall supply direction as to how to handle the situation that prompted the expenditure request. (See section 8 of this resolution for Rejection of Bids)
- c) If approved, the department head shall deliver to the city recorder or purchasing agent a written requisition for the items to be purchased. Such request shall include a description of the items, specifications for the items, an estimated cost of the items, recommended sources and shall include the budget line-item code to which the purchase is to be charged.
- d) All requisitions approved by the City Council shall be signed by the mayor and department head.
- e) The department head or employee making the purchase shall follow procedures set forth in the sealed bid requirements in section 8 of this resolution.

Section 8. Contracts over \$15,000.00 – Sealed Bids Once City Council has approved the expenditure request over fifteen thousand dollars (\$15,000.00) the following procedures must be done to obtain the bid(s)

All purchases and contracts to be more than fifteen thousand dollars (\$15,000), require sealed bids to be submitted to Town of Ashland City: City Hall, Attention: City Recorder prior to a specified bid due date and time. The bids from responsive bidders shall be publicly opened by the City Recorder and read aloud. The City Recorder will prepare a summary of the bids and provide the bids and summary for presentation to City Council. All such bids shall be submitted for award at the next regularly scheduled City Council meeting or special-called meeting together with the recommendation from the department head or purchasing agent as to the best selection for contract performance.

The following polices shall apply to sealed bids:

- a) Plans, specifications, and estimates for any public works project exceeding \$25,000 must be prepared by a registered architect or engineer as required by TCA 62-2-107.
- b) Notice inviting bids shall be published in the council approved newspaper, as required by law, at least ten days (10) preceding the last day to receive bids. The newspaper notice shall contain a general description of the good(s) or services to be

- procured, and the date, time, and place for opening bids. This shall be submitted by the City Recorder
- c) In addition to publication in the required newspaper, the City Recorder may take other actions deemed appropriate to notify all prospective bidders of the invitation to bid, including, but not limited to, advertisement on community bulletin boards, the Town's website, in professional journals and electronic media.
- d) The City Recorder shall keep a record of all open orders and bids submitted in competition for all PO's as required by the ordinance for bidding, including a list of the bidders, the amount bid by each, the method of solicitation and bidding, and Title VI compliance. All records shall be open to public inspection and maintained in the recorder's office. At a minimum, the bid file shall contain the following information on qualifying orders:
 - ❖ Request to start bid procedures the requisition if applicable.
 - ❖ A copy of the bid advertisement if applicable.
 - ❖ A copy of the bid item specification if applicable.
 - ❖ A list of bidders including Title VI bidders and their responses.
 - ❖ A copy of the PO.
 - ❖ A copy of the invoice.
 - ❖ A copy of the signed and dated receiver.
 - Statement if lowest bidder is not awarded.
- e) No bids received after the time and date advertised will be accepted. All late bids will be returned unopened to the vendor explaining the policy. This includes bids that are postmarked after specified time.
- f) No telephone bids will be accepted.
- g) The purchasing department or council may request a sample product as part of the bid. If this is stated on the bid proposal form, the vendor is required to comply with this request.
- h) Mistakes in bids detected prior to bid opening may be corrected by the bidder withdrawing the original bid and submitting a revised bid prior to the bid opening date and time.
- i) City Recorder may require the bidders submit a bid bond or other acceptable guarantee equal to five (5) percent of the bid to ensure that the lowest responsible bidder selected by the board enters a contract.

j) Should it be found, after bids have opened, that a product has been offered with an alternative specification and that this product would be better for the city to use, all bids for that item may be rejected and specification redrawn to allow all bidders an equal opportunity to submit bids on the alternate item.

Section 9. Considerations in Determining Bid Awards. The following criteria shall be considered in determining bid awards:

- The ability of the bidder to perform the contract or provide the material or service required.
- Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference.
- The character, integrity, reputation, judgment, experience, and efficiency of the bidder.
- The previous and existing compliance by the bidder with laws and ordinances relating to the contract or service.
- The quality of performance of previous contracts or services, including the quality of such contracts or services in other municipalities, or performed for private sector contractors.
- Compliance with all specifications in the solicitation for bids.
- The ability to obtain and maintain any requisite bid bonds or performance bonds.
- Total cost of the bid, including life expectancy of the commodity, maintenance costs, and performance.
- When a bid results in a tie, one in which two or more vendors bid identical items at the same unit cost, the winning bidder amount tie bids may be determined by one of the following:
 - Discount allowed
 - Delivery schedule
 - Previous vendor performance
 - Vendor location
 - Trade-in value offered
- When the lowest bid is not awarded, a full and complete statement of the reason shall be prepared by purchasing agent, department head, City Recorder or City Council and kept on file with the documents related to the bidding.

Section 10. Exemption from Competitive Procurement Process.

The following purchases, leases and lease purchases shall be exempt from the foregoing competitive procurement process. The Purchasing Agent, or his/her authorized designee, prior to purchase, shall approve all such purchases to be awarded pursuant to any of the exceptions in this subsection, except as may otherwise be provided herein pertaining to emergency purchases.

- Sole Source Purchases: Sole source of supply, or proprietary products, as determined after a thorough search for suppliers for the goods or services by the director or department head, under the direction and in consultation with the Purchasing Agent
- **Emergency Purchases**: Emergency purchases with the subsequent approval by one of the following: (1) City Recorder (3) Finance Director, or (3) the mayor. All such emergency purchases shall be reported in writing.
- Purchases from Government Instrumentalities: Purchases from instrumentalities created by two (2) or more cooperating governments.
- **Purchases from Nonprofit Corporations**: Purchases from nonprofit corporations whose purpose, or one of whose purposes, of which is to provide goods or services specifically to municipalities.
- Purchases from Governmental Agencies: Purchases, leases, and lease-purchases from any federal, state, or local governmental unit or agency.
- Purchases from Other Governmental Units: Purchases through other units of governments as authorized by the Municipal Purchasing Law of 1983 as amended.
- Tennessee State Industries: Purchases from Tennessee State Industries shall be exempt.
- **Professional Services:** Purchases and contracts for legal services, fiscal agents, financial advisor services, accounting services, training services, architects, engineers, surveyors, property appraisers, construction contract management services, property and liability insurance advisor services, medical or health insurance advisor services, or retirement/pension, or other employee benefit advisor services, information management services, and similar services by licensed or professional persons or groups of high ethical standards shall be made pursuant to the provisions of state law of general application, to include Tennessee Code Annotated (T.C.A.) § 12-3-1209 and T.C.A. § 12-4-107, as may be amended. Professional service contracts shall be awarded based on recognized competence and integrity; the City may interview eligible vendors to determine the capabilities of such vendors. The City will enter a negotiated contract with the professional service provider.
- **Repairs:** For repair services or parts for damaged, inoperable, or less than fully operable equipment, three (3) or more written quotes (estimates) shall be required. If the actual cost of the repairs exceeds the lowest quote (estimate) due to unanticipated repairs that could not have been reasonably foreseen, the additional cost above the quote (estimate) shall be approved on an emergency purchase basis.
- Fuels: The purchase of fuels, fuel products, or perishable commodities.
- **Used equipment:** Purchases of used or secondhand articles shall be in accordance with state law of general application to include T.C.A. § 12-3-1202 as may be amended.
- **Change orders**: Change orders to existing construction or improvement contracts within established budgetary limits.

Section 11. Rejection of Bids. The City Council shall have the authority to reject all bids or parts of bids when the public interest will be served thereby. City Council shall reject all bids or parts of bids where the supplier has been specifically excluded from bidding work by unanimous vote. The Town shall not accept a bid from a vendor or contractor who is in default on a contract or on the payment of taxes, licenses, fees, or other monies of whatever nature that may be due the Town by said vendor or contractor. City Council has the right to deny any bid where family or friends of town employees will directly be involved in the project or the project will benefit the town employee's family member, unless the vendor is a sole source provider, meaning the work is not able to be done by any other company.

Section 12. Making Emergency Purchases.

• Purpose:

Emergency purchases are a way to respond to an unforeseen circumstance; not the failure to recognize the need for a product or service during budgeting. Emergency purchases are to be made by departments only when normal functions and operations of the department would be hampered by submitting a requisition in the regular manner, or when property, equipment, or life(s) are endangered through unexpected circumstances and materials, services, etc., and are needed immediately.

• Who Makes Emergency Purchases:

Emergency purchases, either verbal or written, may be made directly by the using department without competitive bids, provided sufficient funds are available and necessary approvals have been secured.

• How to Make Emergency Purchases:

After determining a true emergency exists, the following procedure should be followed:

- Notify the Finance Director and or the mayor of the need and nature of the emergency. They will give verbal approval and the department making the emergency purchase (using department) shall complete a handwritten emergency purchase form.
- ❖ Using department must make sound judgment about price when making emergency purchases of materials and supplies and for labor or equipment. Orders should be placed with who have a good track record with the department.
- Suppliers shall furnish sales tickets, delivery slips, invoices, etc.., for the supplies or services rendered. Terms of the transactions, indicating price and other data, shall be shown.
- ❖ As soon as the purchase is complete, on the same or following business day, the using department must:
 - Give the accounts payable department a complete requisition with a description of the emergency showing approval by the department head and mayor.
 - Give the accounts payable department all paperwork pertaining to the emergency purchase that the supplier has furnished.

• Emergency Purchases General Information:

Emergency purchases are costly and should be kept to a minimum. Avoiding emergency orders will save the city money.

Section 13. Suspension and Debarment of Vendors. The Finance Director may suspend or debar a vendor for cause, the right of a vendor to be included on a vendor list, and any bid/proposal response from that vendor rejected.

<u>Suspension</u> - A vendor may be suspended for a period not to exceed two (2) years as determined by the Finance Director based upon, but not limited to, the following:

- Default or failure to fully comply with the conditions, specifications, drawings, or terms of a quote, bid, proposal or contract with the City;
- Vendor commits any fraud or misrepresentation in connection with a quote, bid, proposal or contract;
- Vendor is charged by a court of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract (of any kind) or in the performance of such contract or subcontract;
- Vendor is charged by a court with any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a city contractor;
 - ❖ If charges are dismissed or the vendor is found not guilty, the suspension shall be lifted automatically upon written notification and proof of the final court disposition provided by the vendor;
- Vendor becomes insolvent, has proceedings in bankruptcy instituted against, compounds its debts, or assigns over its estate or effects for payment thereof, or has a receiver or trustee appointed over its property;
- Vendor violates the ethical standards set forth in local, state or federal law;
- Vendor is found to have colluded in order to receive business from the City;
- Default on the payment of taxes, licenses or other monies lawfully due to the City;
- Or any other cause the Finance Director determines to be so serious and compelling as to materially and adversely affect the capability of the vendor to function as a city contractor.

<u>Debarment</u> - A vendor may be permanently debarred for the following:

- Default or failure to fully comply with the conditions, specifications, drawings, or terms of a quote, bid, proposal or contract with the City on more than one occasion.
- Conviction by a court of law for the commission of those offenses in connection with the vendor's enterprise as stated in sections 3 and 4 of the Suspension section above. If the conviction or judgment is reversed through the appellate process, the debarment shall be

removed immediately upon written notification and proof of the final court disposition provided by the vendor.

Section 14. Petty Cash. To buy items that cost less than \$50.00 from businesses that don't issue invoices or charge accounts, a petty cash fund must be set up by the finance director. The department head is solely responsible for any withdrawals from this account. All receipts or requests for monies from this fund must contain the departmental code and be signed by the department head and receipt given to accounting payable.

This fund should be used only if other purchasing methods are not applicable. The finance officer may establish more detailed procedures for the use of the petty cash fund.

Section 15. <u>Items Covered by Warranty or Guarantee.</u> The city buys many items that have a warranty or guarantee for a certain length of time, such as tires, batteries, water heaters, roofs, and equipment. Before these items are repaired or replaced, the warranty should be used. The purchasing department shall maintain an active current file with complete information on such warranties or guarantees. All copies of warranties must be remitted to accounts payable department with the invoice indicating date of receipt.

Section 16. <u>Signatures Required.</u> Contracts, applications for title, tax exemption certificates, agreements, and contracts shall not be signed by any city employee other than City Recorder and Mayor. No contract shall be executed or signed before taking the contract before council for approval. Contracts and Agreements must be signed by Mayor after council approval.

Section 17. Sale of Surplus Property. When a department head determines there is surplus equipment or material in the department, he or she shall notify the City Recorder in writing. A listing of surplus equipment that includes purchase date, amount, and current condition should be provided to the governing body for approval of disposal. Items with an estimated value of less than \$300 should be disposed in cooperation with the department head. Items with an estimated value of more than \$300 should be sold at public auction or advertised for bidding after approval from the governing body. Such equipment or materials will be sold to the highest bidder. With approval of the governing body, surplus equipment or material may also be transferred from one department to another. The transferring department must be sure the finance officer is informed of the transfer or sale.

Section 18. <u>City Credit Card Policy</u>. A credit card policy was passed in August 2021. All employees with a city credit card are required to read the resolution and sign the policy stating they acknowledge and will comply.

Section 19. General Purchasing Information.

• Federal Excise Tax

The city is exempt from the payment of excise taxes imposed by the federal government, and suppliers should be requested to deduct the amount of such taxes from their bids, quotations, and invoices.

Purchasing Enough Supplies

It is in the best interest of the department to order supplies in "bulk" to cover at least 6 months of operation and all purchasing requirements still apply.

• Standardization Requirements

Standardizing supplies and materials that can be bought in large quantities can save a great deal of money. Thus, department heads should adopt as standards the minimum number of quantities, sizes, and varieties of commodities consistent with successful operation. Where practical, materials and supplies should be bought based on requirements for a six-month period.

• Inspection of Deliveries

No invoices for supplies, materials, or equipment shall be accepted for payment until such supplies, materials, etc., have been received and inspected by the department head.

• Correspondence with Suppliers

Copies of any correspondence with suppliers concerning prices, adjustments, or defective merchandise shall be forwarded to the accounting department. All invoices, bills of lading, delivery tickets, and other papers relating to purchases shall be sent to the accounting department.

Claims

The department doing the purchase shall prosecute all claims for shortages, breakages, or other complaints against either shipper or carrier in connection with shipments.

• Public Inspection of Records

City Hall shall keep a complete record of all quotations, bids, and purchase orders. Such records shall be open to public inspection.

Designee

When a position such as purchasing agent, finance director, or department head is mentioned, their assistants or designees are acceptable substitutes if they have written permission to do so.

Section 20. Conflict of Interest

- Grant contracts will reference all requirements applicable to that grant project.
- No employee, officer, agent, any member of an employee's immediate family or his or her partner shall have any financial interest or a tangible personal benefit in the profit of any contract, service or other work performed for the City. He/she shall not personally profit directly or indirectly from any contract, purchase, sale or service between the City

and any person or company. A conflict of interest would also arise when the parties indicated herein are employed or about to be employed by a person or company wishing to do business with the City. Any member listed in this section violating provisions of this rule shall be subject to appropriate disciplinary action including termination.

- "Direct Interest," means any contract with the employee himself or with any business in which the employee is the sole proprietor, a partner, or the person having an ownership interest in the business.
- "Indirect Interest" means any contract in which the employee has no direct interest however a spouse, partner or relative has an interest in the contract. A conflict of interest exists if the spouse, partner or relative commingle their assets.
- No employee, officer or agent of the Town of Ashland City may participate in the selection, award or administration of a contract supported by a federal award if he or she has a real or apparent conflict of interest.

Section 21. <u>Vehicle Insurance Claims</u> When a city vehicle has been involved in a wreck and will need repair, it is the responsibility of the department head to contact the City Recorder with all information in a timely manner so a claim can be submitted. When making payments to vendors for these repairs, it is required to complete the Vehicle Insurance Claim form and submit it with payment to accounts payable.

Section 22. Legal Status Provisions

Liability for Excess Purchases

This resolution shall authorize the purchase of materials and supplies and the procurement of contracts for which funds have been appropriated in the annual budget or which have been authorized and lawfully funded by the City Council. The Town shall have no liability for any purchase made in violation of this resolution.

Additional Forms and Procedures

The purchasing agent is hereby authorized and directed to develop such forms and procedures as are necessary to comply with this resolution.

• Interpretation

Words herein in the singular number shall include the plural, the present tense shall include the future, and the masculine gender shall include the feminine and neuter.

Severability

Should any section, paragraph, sentence, clause, or phrase of this resolution or its application to any person or circumstance be declared unconstitutional or invalid for any reason or should any portion of this ordinance be pre-empted by State or Federal law or regulation, such decision or legislation shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

•	Repeal
_	Itepean

All previously passed ordinances or resolutions, parts of ordinances or resolutions, which are inconsistent with the provisions of this ordinance or resolution are hereby repealed to the extent of such inconsistency.

• Effective Date

This resolution shall be effective immediately after final passage, the public welfare requiring it.

Approved as to Legality and Form:			
	Jennifer Noe, City Attorney		
Passed:			
· · · · · · · · · · · · · · · · · · ·	City Describer Alicia Martin CMEO		
Mayor JT Smith	City Recorder Alicia Martin, CMFO		

I, hereby acknowledge receipt of the Town of
Ashland City Purchasing Policy. I agree to accept responsibility for adherence to the Purchasing Policy.
Responsibilities include:
 Allow ample lead-time for the Purchasing Department to process bid/proposal requests issuance of purchase orders, execution of contract documents and any other task performed by the Purchasing Department. Plan purchases in advance to eliminate avoidable urgent or emergency situations.
 Ensure funds have been allocated and approved by the City Council.
 Advise in writing, of issues or dissatisfaction as soon as they arise with any vendor's performance related to terms, conditions, specifications and performance of their contracts or purchase orders. Inform accounts payable of purchases when state, federal or grant funds will be used.
 Ensure that the purchasing policy is followed by all personnel prior to any purchase. Entering requisitions for all purchases while ensuring that all proper backup is attached during requisition entry. Ensure that proper internal controls are in place for all purchasing transactions.
The requisitioner shall not split orders to avoid any provision of the city code or charter, this manual, or any policy established by the city, nor shall requisitions be submitted for the sole purpose of using up budgetary balances.
The purchasing agent is not held accountable for purchases made without following the proper steps in this purchasing manual. The department head will be held accountable for this action, and he/she will be responsible for documenting by email or signed invoice that they are aware the purchase was not made in compliance with this policy prior to the purchasing agent paying the invoice.
Purchases made without following the proper steps in this purchasing manual may result in disciplinary action up to and including termination in accordance with Town of Ashland City personnel policy, in addition to any criminal penalties that may apply.
Employee Signature:
Department:

Finance Director:

Date: _____



EXPENDITURE REQUEST

Date of Request: Department: Budget GL:		Employee:				
		Department Head Approval:				
		-				
Brief description of	need for expenditure red	quest:				
	Description	Price	Per	Total Price		
Quantity	Description	Price	FEI	IOCALFICE		
Vendor Name:						
Council Approval D)ate:					



EMERGENCY EXPENDITURE PURCHASE

Date of Request: Department: Budget GL:		Employee:				
		Department Head Approval:				
		Mayor Approval:				
Brief description	of why this is an emerg	gency purchase: _				
Quantity	Description		Price	Per	Total Price	
Vendor Name: _						
Vendor Address	:					
Council Notifica	tion Date:					



MISSING PROOF OF DELIVERY OR RECIEPT OF PURCHASE (not invoice) AFFIDAVIT

When a receipt or proof of delivery is lost or otherwise unavailable and all measures to obtain a copy have been exhausted, this form must be completed.

It should be signed by the employee who made the purchase and/or the employee's supervisor / department head.

Location of expense:		
Business Name and address OR Tyler Vendor #	Date of purchase	Amount
Expense Line Item Payable:		
The receipt was (check applicable):		
· Lost · Never Received	Other:	
The form of payment I used (check applic	cable):	
· Credit Card · Invoice Pay		
Detailed Reason for Transaction AND des		
(If a meal purchase, please list ALL people	le present):	
I understand that a Missing Receipt Affidavit shou basis.	uld be used on rare occasions and may not be used	on a routine
I hereby certify that the original receipt was information above is complete and accurate.	accidentally destroyed, lost, or unobtainable	e and that the
Signature of purchaser:		
Supervisor / Department Head:		
Date:		



Material Ordering Report Town of Ashland City

Date purchased then date received:	
Amount of Purchase:	
(specify if freight was charged)	
Accounting Expense Code:	
Reason for Purchase/Description,	
Quantity etc.,	
Purchase Type:	
(card, invoice, other)	
PO Number	
Please attach receipts or invoices.	

REMINDERS:

- a) <u>Federal Excise Tax</u>. The Town is exempt from the payment of excise taxes imposed by the federal government, and suppliers should be requested to deduct the amount of such taxes from their bids, quotations, and invoices.
- b) <u>Correspondence with Suppliers.</u> Copies of any correspondence with suppliers concerning prices, adjustments, and defective merchandise shall be forwarded to the purchasing agent. All invoices, bills of lading, delivery tickets, and other papers related to purchases shall be sent to the purchasing agent.
- c) <u>Purchasing from an Employee.</u> It shall be the policy of the Town, not to purchase any goods or services from any employee or close relative of any Town employee or Town City Council member without the prior approval of the City Council.
- **d)** Purchases Costing Less Than \$3,000.00. The department head, after appropriation through the budget, is expected to obtain the best prices and services available for purchases estimated to be less than \$3,000.00 (ALL contracts must be approved and signed by Council unless State Contract)
- e) Purchases and Contracts Costing \$3,000.01 to \$9,999.99. All purchases of supplies, equipment, services, and contracts estimated to be more than three thousand (\$3,000) but less than nine thousand nine hundred, ninety-nine dollars and ninety-nine cents (\$9,999.99), shall be unadvertised, but 3 written quotes are required and if not awarded to the lowest responsive bidder, a written explanation should be submitted with the 3 quotes.

Authorized Buyer Signature:		
-----------------------------	--	--



MATERIAL RECEIVING REPORT FORM

Purchase Order Nu	mber:			
Department:				
Quantity	Description	Price	Per	Total Price
Freight Charge:				
Total Charges:				
Materials Receive	d:			
Employee:				
Date:				

ORDINANCE #598

An Ordinance modifying Title 7, Chapter 6 Fireworks for the Town of Ashland City, Tennessee.

WHEREAS, the Town has determined that for the public safety of its citizens and to protect property that it is in the Town's best interest to modify Title 7, Chapter 6.

NOW THEREFORE, BE IT ORDAINED, by the Council of the Town of Ashland City, Tennessee that Title 7, Chapter 6 shall be amended by adding Section 7-604 as follows:

FIREWORKS

7-604. <u>Discharge of fireworks restricted.</u> The discharge of fireworks shall be allowed within the corporate city limits of the Town of Ashland City and are restricted as follows:

- (1) The discharge of fireworks is restricted except for the following days: June 20th thru July 5th and December 10th thru January 2nd. Fireworks may not be discharged after 10:00p.m except for July 5th shall be at 12:30 am and January 1st shall be at 12:30 am.
- (2) If there is a drought or any other concern as to the public safety of the citizens, the Mayor along with the Fire Chief may prevent the use of fireworks during the time period set out above. In the event that fireworks are prohibited during this time, the mayor along with the Fire Chief shall designate another time period whereas fireworks may be discharged.
- (3) The discharge of fireworks shall be restricted on City properties and shall be in compliance with Tennessee Code Annotated Title 68 Chapter 104.

Date of effect. This ordinance shall take effect from and after its final passage, the public welfare requiring it.

L st reading	
^{2nd} reading	
Mayor	
City Recorder	



Standard Form of Agreement Between Owner and Architect

AGREEMENT made as of the twenty-eighth in the year Two thousand nineteen (In words, indicate day, month and year.)

day of June

BETWEEN the Architect's client identified as the Owner: (Name, legal status, address and other information)
The Town of Ashalnd City, Tennessee
101 Court Street
Ashland City, Tennessee 37015

This document has important legal consequences.
Consultation with an attorney is encouraged with respect to its completion or modification.

and the Architect:
(Name, legal status, address and other information)
Joshua A. Wright Architect
8061 Highway 41 A
Cedar Hill, Tennessee 37032

for the following Project:
(Name, location and detailed description)
A new Fire Station for the Town of Ashland City
North Main Street, Ashland City, Tennessee

The Owner and Architect agree as follows.

TABLE OF ARTICLES

1	INITIAL INFORMATI	ON
---	-------------------	----

- 2 ARCHITECT'S RESPONSIBILITIES
- 3 SCOPE OF ARCHITECT'S BASIC SERVICES
- 4 SUPPLEMENTAL AND ADDITIONAL SERVICES
- 5 OWNER'S RESPONSIBILITIES
- 6 COST OF THE WORK
- 7 COPYRIGHTS AND LICENSES
- 8 CLAIMS AND DISPUTES
- 9 TERMINATION OR SUSPENSION
- 10 MISCELLANEOUS PROVISIONS
- 11 COMPENSATION
- 12 SPECIAL TERMS AND CONDITIONS
- 13 SCOPE OF THE AGREEMENT

ARTICLE 1 INITIAL INFORMATION

§ 1.1 This Agreement is based on the Initial Information set forth in this Section 1.1.

(For each item in this section, insert the information or a statement such as "not applicable" or "unknown at time of execution.")

§ 1.1.1 The Owner's program for the Project:

(Insert the Owner's program, identify documentation that establishes the Owner's program, or state the manner in which the program will be developed.)

The program has been schematically established between owner and architect by means of a feasibility study that has been executed under a previous contract.

§ 1.1.2 The Project's physical characteristics:

(Identify or describe pertinent information about the Project's physical characteristics, such as size; location; dimensions; geotechnical reports; site boundaries; topographic surveys; traffic and utility studies; availability of public and private utilities and services; legal description of the site, etc.)

The project is approximately 15,000 square feet.

A geotechnical report has been performed under a separate contract with CSR Engineering. (Under a separate contract) Also, an existing survey, utilities availabilty and a legal description of the site have been performed by CSR Engineering. (Under a separate contract)

ITEM # 6.

§ 1.1.3 The Owner's budget for the Cost of the Work, as defined in Section 6.1: (Provide total and, if known, a line item breakdown.)

The owner's budget for this project shall be \$3,000,000.00

- § 1.1.4 The Owner's anticipated design and construction milestone dates:
 - .1 Design phase milestone dates, if any:

To be determined at a later date and agreed upon by all parties.

- .2 Construction commencement date:To be determined at a later date and agreed upon by all parties.
- .3 Substantial Completion date or dates:

To be determined at a later date and agreed upon by all parties.

.4 Other milestone dates:

To be determined at a later date and agreed upon by all parties.

§ 1.1.5 The Owner intends the following procurement and delivery method for the Project: (Identify method such as competitive bid or negotiated contract, as well as any requirements for accelerated or fast-track design and construction, multiple bid packages, or phased construction.)

Competitive bid

§ 1.1.6 The Owner's anticipated Sustainable Objective for the Project: (Identify and describe the Owner's Sustainable Objective for the Project, if any.)

Not applicable

§ 1.1.6.1 If the Owner identifies a Sustainable Objective, the Owner and Architect shall complete and incorporate AIA Document E204TM—2017, Sustainable Projects Exhibit, into this Agreement to define the terms, conditions and services related to the Owner's Sustainable Objective. If E204—2017 is incorporated into this agreement, the Owner and Architect shall incorporate the completed E204—2017 into the agreements with the consultants and contractors performing services or Work in any way associated with the Sustainable Objective.

§ 1.1.7 The Owner identifies the following representative in accordance with Section 5.3: (List name, address, and other contact information.)

Chuck Walker 101 Court Street Ashland City, Tennessee

§ 1.1.8 The persons or entities, in addition to the Owner's representative, who are required to review the Architect's submittals to the Owner are as follows:

(List name, address, and other contact information.)

Chuck Walker 101 Court Street Ashland City, Tennessee

§ 1.1.9 The Owner shall retain the following consultants and contractors:

(List name, legal status, address, and other contact information.)

.1 Geotechnical Engineer:

CSR Engineering 1116 Main Street Pleasant View, Tennessee

.2 Civil Engineer:

CSR Engineering 1116 Main Street Pleasant View, Tennessee

.3 Other, if any:
(List any other consultants and contractors retained by the Owner.)

§ 1.1.10 The Architect identifies the following representative in accordance with Section 2.3: (List name, address, and other contact information.)

Joshua A. Wright, AIA 8061 Highway 41 A Cedar Hill, Tennessee 37032 931-217-0479

Init.

- Page 44 -

§ 1.1.11 The Architect shall retain the consultants identified in Sections 1.1.11.1 and 1.1.11.2: (List name, legal status, address, and other contact information.)

§ 1.1.11.1 Consultants retained under Basic Services:

.1 Structural Engineer:

CSR Engineering 1116 Main Street Pleasant View, Tennessee

.2 Mechanical Engineer:

Neville Engineering, LLC 414 McNally Drive Suite 200 Nashville, Tennessee 37211

.3 Electrical Engineer:

Parsons Engineering 4751 Trousdale Drive Suite 202 Nashville, Tennessee 37220

§ 1.1.11.2 Consultants retained under Supplemental Services:

Sprinkler Designer T-K Engineering Company, Inc 2787 Highway 31 West White House, Tennessee 37188

§ 1.1.12 Other Initial Information on which the Agreement is based:

- § 1.2 The Owner and Architect may rely on the Initial Information. Both parties, however, recognize that the Initial Information may materially change and, in that event, the Owner and the Architect shall appropriately adjust the Architect's services, schedule for the Architect's services, and the Architect's compensation. The Owner shall adjust the Owner's budget for the Cost of the Work and the Owner's anticipated design and construction milestones, as necessary, to accommodate material changes in the Initial Information.
- § 1.3 The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203TM—2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.
- § 1.3.1 Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203TM—2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202TM—2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's

sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 ARCHITECT'S RESPONSIBILITIES

- § 2.1 The Architect shall provide professional services as set forth in this Agreement. The Architect represents that it is properly licensed in the jurisdiction where the Project is located to provide the services required by this Agreement, or shall cause such services to be performed by appropriately licensed design professionals.
- § 2.2 The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.
- § 2.3 The Architect shall identify a representative authorized to act on behalf of the Architect with respect to the Project.
- § 2.4 Except with the Owner's knowledge and consent, the Architect shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Architect's professional judgment with respect to this Project.
- § 2.5 The Architect shall maintain the following insurance until termination of this Agreement. If any of the requirements set forth below are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect as set forth in Section 11.9.
- § 2.5.1 Commercial General Liability with policy limits of not less than NA (\$) for each occurrence and (\$) in the aggregate for bodily injury and property damage.
- § 2.5.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Architect with policy limits of not less than NA (\$) per accident for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles, along with any other statutorily required automobile coverage.
- § 2.5.3 The Architect may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella liability insurance policies result in the same or greater coverage as the coverages required under Sections 2.5.1 and 2.5.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.
- § 2.5.4 Workers' Compensation at statutory limits.
- § 2.5.5 Employers' Liability with policy limits not less than NA (\$) each employee, and (\$) policy limit.
- § 2.5.6 Professional Liability covering negligent acts, errors and omissions in the performance of professional services with policy limits of not less than One million (\$1,000,000.00) per claim and One million (\$1,000,000.00) in the aggregate.
- § 2.5.7 Additional Insured Obligations. To the fullest extent permitted by law, the Architect shall cause the primary and excess or umbrella polices for Commercial General Liability and Automobile Liability to include the Owner as an additional insured for claims caused in whole or in part by the Architect's negligent acts or omissions. The additional insured coverage shall be primary and non-contributory to any of the Owner's insurance policies and shall apply to both ongoing and completed operations.
- § 2.5.8 The Architect shall provide certificates of insurance to the Owner that evidence compliance with the requirements in this Section 2.5.

ARTICLE 3 SCOPE OF ARCHITECT'S BASIC SERVICES

- § 3.1 The Architect's Basic Services consist of those described in this Article 3 and include usual and customary structural, mechanical, and electrical engineering services. Services not set forth in this Article 3 are Supplemental or Additional Services.
- § 3.1.1 The Architect shall manage the Architect's services, research applicable design criteria, attend Project meetings, communicate with members of the Project team, and report progress to the Owner.
- § 3.1.2 The Architect shall coordinate its services with those services provided by the Owner and the Owner's consultants. The Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of, services and information furnished by the Owner and the Owner's consultants. The Architect shall provide prompt written notice to the Owner if the Architect becomes aware of any error, omission, or inconsistency in such services or information.
- § 3.1.3 As soon as practicable after the date of this Agreement, the Architect shall submit for the Owner's approval a schedule for the performance of the Architect's services. The schedule initially shall include anticipated dates for the commencement of construction and for Substantial Completion of the Work as set forth in the Initial Information. The schedule shall include allowances for periods of time required for the Owner's review, for the performance of the Owner's consultants, and for approval of submissions by authorities having jurisdiction over the Project. Once approved by the Owner, time limits established by the schedule shall not, except for reasonable cause, be exceeded by the Architect or Owner. With the Owner's approval, the Architect shall adjust the schedule, if necessary, as the Project proceeds until the commencement of construction.
- § 3.1.4 The Architect shall not be responsible for an Owner's directive or substitution, or for the Owner's acceptance of non-conforming Work, made or given without the Architect's written approval.
- § 3.1.5 The Architect shall contact governmental authorities required to approve the Construction Documents and entities providing utility services to the Project. The Architect shall respond to applicable design requirements imposed by those authorities and entities.
- § 3.1.6 The Architect shall assist the Owner in connection with the Owner's responsibility for filing documents required for the approval of governmental authorities having jurisdiction over the Project.

§ 3.2 Schematic Design Phase Services

- § 3.2.1 The Architect shall review the program and other information furnished by the Owner, and shall review laws, codes, and regulations applicable to the Architect's services.
- § 3.2.2 The Architect shall prepare a preliminary evaluation of the Owner's program, schedule, budget for the Cost of the Work, Project site, the proposed procurement and delivery method, and other Initial Information, each in terms of the other, to ascertain the requirements of the Project. The Architect shall notify the Owner of (1) any inconsistencies discovered in the information, and (2) other information or consulting services that may be reasonably needed for the Project.
- § 3.2.3 The Architect shall present its preliminary evaluation to the Owner and shall discuss with the Owner alternative approaches to design and construction of the Project. The Architect shall reach an understanding with the Owner regarding the requirements of the Project.
- § 3.2.4 Based on the Project requirements agreed upon with the Owner, the Architect shall prepare and present, for the Owner's approval, a preliminary design illustrating the scale and relationship of the Project components.
- § 3.2.5 Based on the Owner's approval of the preliminary design, the Architect shall prepare Schematic Design Documents for the Owner's approval. The Schematic Design Documents shall consist of drawings and other documents including a site plan, if appropriate, and preliminary building plans, sections and elevations; and may include some combination of study models, perspective sketches, or digital representations. Preliminary selections of major building systems and construction materials shall be noted on the drawings or described in writing.
- § 3.2.5.1 The Architect shall consider sustainable design alternatives, such as material choices and building orientation, together with other considerations based on program and aesthetics, in developing a design that is consistent with the

Init.

AIA Document B101TM – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010/29475 , as not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completic

Owner's program, schedule and budget for the Cost of the Work. The Owner may obtain more advanced sustainable design services as a Supplemental Service under Section 4.1.1.

- § 3.2.5.2 The Architect shall consider the value of alternative materials, building systems and equipment, together with other considerations based on program and aesthetics, in developing a design for the Project that is consistent with the Owner's program, schedule, and budget for the Cost of the Work.
- § 3.2.6 The Architect shall submit to the Owner an estimate of the Cost of the Work prepared in accordance with Section 6.3.
- § 3.2.7 The Architect shall submit the Schematic Design Documents to the Owner, and request the Owner's approval.

§ 3.3 Design Development Phase Services

- § 3.3.1 Based on the Owner's approval of the Schematic Design Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Design Development Documents for the Owner's approval. The Design Development Documents shall illustrate and describe the development of the approved Schematic Design Documents and shall consist of drawings and other documents including plans, sections, elevations, typical construction details, and diagrammatic layouts of building systems to fix and describe the size and character of the Project as to architectural, structural, mechanical and electrical systems, and other appropriate elements. The Design Development Documents shall also include outline specifications that identify major materials and systems and establish, in general, their quality levels.
- § 3.3.2 The Architect shall update the estimate of the Cost of the Work prepared in accordance with Section 6.3.
- § 3.3.3 The Architect shall submit the Design Development Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, and request the Owner's approval.

§ 3.4 Construction Documents Phase Services

- § 3.4.1 Based on the Owner's approval of the Design Development Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Construction Documents for the Owner's approval. The Construction Documents shall illustrate and describe the further development of the approved Design Development Documents and shall consist of Drawings and Specifications setting forth in detail the quality levels and performance criteria of materials and systems and other requirements for the construction of the Work. The Owner and Architect acknowledge that, in order to perform the Work, the Contractor will provide additional information, including Shop Drawings, Product Data, Samples and other similar submittals, which the Architect shall review in accordance with Section 3.6.4.
- § 3.4.2 The Architect shall incorporate the design requirements of governmental authorities having jurisdiction over the Project into the Construction Documents.
- § 3.4.3 During the development of the Construction Documents, the Architect shall assist the Owner in the development and preparation of (1) procurement information that describes the time, place, and conditions of bidding, including bidding or proposal forms; (2) the form of agreement between the Owner and Contractor; and (3) the Conditions of the Contract for Construction (General, Supplementary and other Conditions). The Architect shall also compile a project manual that includes the Conditions of the Contract for Construction and Specifications, and may include bidding requirements and sample forms.
- § 3.4.4 The Architect shall update the estimate for the Cost of the Work prepared in accordance with Section 6.3.
- § 3.4.5 The Architect shall submit the Construction Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, take any action required under Section 6.5, and request the Owner's approval.

§ 3.5 Procurement Phase Services

§ 3.5.1 General

The Architect shall assist the Owner in establishing a list of prospective contractors. Following the Owner's approval of the Construction Documents, the Architect shall assist the Owner in (1) obtaining either competitive bids or negotiated proposals; (2) confirming responsiveness of bids or proposals; (3) determining the successful bid or proposal, if any; and, (4) awarding and preparing contracts for construction.

Init.

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010229475 , is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its complete

ITEM # 6.

§ 3.5.2 Competitive Bidding

§ 3.5.2.1 Bidding Documents shall consist of bidding requirements and proposed Contract Documents.

§ 3.5.2.2 The Architect shall assist the Owner in bidding the Project by:

- facilitating the distribution of Bidding Documents to prospective bidders;
- .2 organizing and conducting a pre-bid conference for prospective bidders;
- preparing responses to questions from prospective bidders and providing clarifications and interpretations .3 of the Bidding Documents to the prospective bidders in the form of addenda; and,
- .4 organizing and conducting the opening of the bids, and subsequently documenting and distributing the bidding results, as directed by the Owner.

§ 3.5.2.3 If the Bidding Documents permit substitutions, upon the Owner's written authorization, the Architect shall, as an Additional Service, consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective bidders.

§ 3.5.3 Negotiated Proposals

§ 3.5.3.1 Proposal Documents shall consist of proposal requirements and proposed Contract Documents.

§ 3.5.3.2 The Architect shall assist the Owner in obtaining proposals by:

- facilitating the distribution of Proposal Documents for distribution to prospective contractors and requesting their return upon completion of the negotiation process;
- organizing and participating in selection interviews with prospective contractors; .2
- preparing responses to questions from prospective contractors and providing clarifications and interpretations of the Proposal Documents to the prospective contractors in the form of addenda; and,
- participating in negotiations with prospective contractors, and subsequently preparing a summary report of the negotiation results, as directed by the Owner.

§ 3.5.3.3 If the Proposal Documents permit substitutions, upon the Owner's written authorization, the Architect shall, as an Additional Service, consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective contractors.

§ 3.6 Construction Phase Services

§ 3.6.1 General

§ 3.6.1.1 The Architect shall provide administration of the Contract between the Owner and the Contractor as set forth below and in AIA Document A201TM–2017, General Conditions of the Contract for Construction. If the Owner and Contractor modify AIA Document A201-2017, those modifications shall not affect the Architect's services under this Agreement unless the Owner and the Architect amend this Agreement.

§ 3.6.1.2 The Architect shall advise and consult with the Owner during the Construction Phase Services. The Architect shall have authority to act on behalf of the Owner only to the extent provided in this Agreement. The Architect shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, nor shall the Architect be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect shall be responsible for the Architect's negligent acts or omissions, but shall not have control over or charge of, and shall not be responsible for, acts or omissions of the Contractor or of any other persons or entities performing portions of the Work.

§ 3.6.1.3 Subject to Section 4.2 and except as provided in Section 3.6.6.5, the Architect's responsibility to provide Construction Phase Services commences with the award of the Contract for Construction and terminates on the date the Architect issues the final Certificate for Payment.

§ 3.6.2 Evaluations of the Work

§ 3.6.2.1 The Architect shall visit the site at intervals appropriate to the stage of construction, or as otherwise required in Section 4.2.3, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine, in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect shall keep the Owner reasonably informed about the progress and quality of the portion of the Work

Init.

AIA Document B101™ - 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the terms of AIA Documents on Demand® Order No. 2010229475 under the law. This document was created on 06/28/2019 09:21:38 s not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its complet

9

completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work.

§ 3.6.2.2 The Architect has the authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect shall have the authority to require inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 3.6.2.3 The Architect shall interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests shall be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 3.6.2.4 Interpretations and decisions of the Architect shall be consistent with the intent of, and reasonably inferable from, the Contract Documents and shall be in writing or in the form of drawings. When making such interpretations and decisions, the Architect shall endeavor to secure faithful performance by both Owner and Contractor, shall not show partiality to either, and shall not be liable for results of interpretations or decisions rendered in good faith. The Architect's decisions on matters relating to aesthetic effect shall be final if consistent with the intent expressed in the Contract Documents.

§ 3.6.2.5 Unless the Owner and Contractor designate another person to serve as an Initial Decision Maker, as that term is defined in AIA Document A201–2017, the Architect shall render initial decisions on Claims between the Owner and Contractor as provided in the Contract Documents.

§ 3.6.3 Certificates for Payment to Contractor

§ 3.6.3.1 The Architect shall review and certify the amounts due the Contractor and shall issue certificates in such amounts. The Architect's certification for payment shall constitute a representation to the Owner, based on the Architect's evaluation of the Work as provided in Section 3.6.2 and on the data comprising the Contractor's Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to (1) an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, (2) results of subsequent tests and inspections, (3) correction of minor deviations from the Contract Documents prior to completion, and (4) specific qualifications expressed by the Architect.

§ 3.6.3.2 The issuance of a Certificate for Payment shall not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 3.6.3.3 The Architect shall maintain a record of the Applications and Certificates for Payment.

§ 3.6.4 Submittals

§ 3.6.4.1 The Architect shall review the Contractor's submittal schedule and shall not unreasonably delay or withhold approval of the schedule. The Architect's action in reviewing submittals shall be taken in accordance with the approved submittal schedule or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time, in the Architect's professional judgment, to permit adequate review.

§ 3.6.4.2 The Architect shall review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the Contractor's responsibility. The Architect's review shall not constitute approval of safety precautions or construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

- § 3.6.4.3 If the Contract Documents specifically require the Contractor to provide professional design services or certifications by a design professional related to systems, materials, or equipment, the Architect shall specify the appropriate performance and design criteria that such services must satisfy. The Architect shall review and take appropriate action on Shop Drawings and other submittals related to the Work designed or certified by the Contractor's design professional, provided the submittals bear such professional's seal and signature when submitted to the Architect. The Architect's review shall be for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect shall be entitled to rely upon, and shall not be responsible for, the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals.
- § 3.6.4.4 Subject to Section 4.2, the Architect shall review and respond to requests for information about the Contract Documents. The Architect shall set forth, in the Contract Documents, the requirements for requests for information. Requests for information shall include, at a minimum, a detailed written statement that indicates the specific Drawings or Specifications in need of clarification and the nature of the clarification requested. The Architect's response to such requests shall be made in writing within any time limits agreed upon, or otherwise with reasonable promptness. If appropriate, the Architect shall prepare and issue supplemental Drawings and Specifications in response to the requests for information.
- § 3.6.4.5 The Architect shall maintain a record of submittals and copies of submittals supplied by the Contractor in accordance with the requirements of the Contract Documents.

§ 3.6.5 Changes in the Work

§ 3.6.5.1 The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Subject to Section 4.2, the Architect shall prepare Change Orders and Construction Change Directives for the Owner's approval and execution in accordance with the Contract Documents.

§ 3.6.5.2 The Architect shall maintain records relative to changes in the Work.

§ 3.6.6 Project Completion

§ 3.6.6.1 The Architect shall:

- .1 conduct inspections to determine the date or dates of Substantial Completion and the date of final completion;
- .2 issue Certificates of Substantial Completion;
- .3 forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract Documents and received from the Contractor; and,
- .4 issue a final Certificate for Payment based upon a final inspection indicating that, to the best of the Architect's knowledge, information, and belief, the Work complies with the requirements of the Contract Documents.
- § 3.6.6.2 The Architect's inspections shall be conducted with the Owner to check conformance of the Work with the requirements of the Contract Documents and to verify the accuracy and completeness of the list submitted by the Contractor of Work to be completed or corrected.
- § 3.6.6.3 When Substantial Completion has been achieved, the Architect shall inform the Owner about the balance of the Contract Sum remaining to be paid the Contractor, including the amount to be retained from the Contract Sum, if any, for final completion or correction of the Work.
- § 3.6.4 The Architect shall forward to the Owner the following information received from the Contractor: (1) consent of surety or sureties, if any, to reduction in or partial release of retainage or the making of final payment; (2) affidavits, receipts, releases and waivers of liens, or bonds indemnifying the Owner against liens; and (3) any other documentation required of the Contractor under the Contract Documents.
- § 3.6.6.5 Upon request of the Owner, and prior to the expiration of one year from the date of Substantial Completion, the Architect shall, without additional compensation, conduct a meeting with the Owner to review the facility operations and performance.

ARTICLE 4 SUPPLEMENTAL AND ADDITIONAL SERVICES

§ 4.1 Supplemental Services

§ 4.1.1 The services listed below are not included in Basic Services but may be required for the Project. The Architect shall provide the listed Supplemental Services only if specifically designated in the table below as the Architect's responsibility, and the Owner shall compensate the Architect as provided in Section 11.2. Unless otherwise specifically addressed in this Agreement, if neither the Owner nor the Architect is designated, the parties agree that the listed Supplemental Service is not being provided for the Project.

(Designate the Architect's Supplemental Services and the Owner's Supplemental Services required for the Project by indicating whether the Architect or Owner shall be responsible for providing the identified Supplemental Service. Insert a description of the Supplemental Services in Section 4.1.2 below or attach the description of services as an exhibit to this Agreement.)

Supplemental Services	Responsibility (Architect, Owner, or not provided)
§ 4.1.1.1 Programming	Architect
§ 4.1.1.2 Multiple preliminary designs	Architect
§ 4.1.1.3 Measured drawings	Architect
§ 4.1.1.4 Existing facilities surveys	Owner
§ 4.1.1.5 Site evaluation and planning	Architect, Civil, and Owner
§ 4.1.1.6 Building Information Model management responsibilities	Not applicable
§ 4.1.1.7 Development of Building Information Models for post construction use	Not applicable
§ 4.1.1.8 Civil engineering	Owner to coordinate with Architect
§ 4.1.1.9 Landscape design	Owner to coordinate with Architect
§ 4.1.1.10 Architectural interior design	Architect
§ 4.1.1.11 Value analysis	Not applicable
§ 4.1.1.12 Detailed cost estimating beyond that required in Section 6.3	Not applicable
§ 4.1.1.13 On-site project representation	Architect
§ 4.1.1.14 Conformed documents for construction	Architect
§ 4.1.1.15 As-designed record drawings	Architect
§ 4.1.1.16 As-constructed record drawings	Not applicable
§ 4.1.1.17 Post-occupancy evaluation	Architect
§ 4.1.1.18 Facility support services	Not applicable
§ 4.1.1.19 Tenant-related services	Not applicable
§ 4.1.1.20 Architect's coordination of the Owner's consultants	Architect
§ 4.1.1.21 Telecommunications/data design	Owner to coordinate with Architect
§ 4.1.1.22 Security evaluation and planning	Owner to coordinate with Architect
§ 4.1.1.23 Commissioning	Not applicable
§ 4.1.1.24 Sustainable Project Services pursuant to Section 4.1.3	Not applicable
§ 4.1.1.25 Fast-track design services	Not applicable
§ 4.1.1.26 Multiple bid packages	Not applicable
§ 4.1.1.27 Historic preservation	Not applicable
§ 4.1.1.28 Furniture, furnishings, and equipment design	Owner to coordinate with Architect
§ 4.1.1.29 Other services provided by specialty Consultants	Not applicable
§ 4.1.1.30 Other Supplemental Services	Not applicable

Supplemental Services	Responsibility (Architect, Owner, or not provided)

§ 4.1.2 Description of Supplemental Services

§ 4.1.2.1 A description of each Supplemental Service identified in Section 4.1.1 as the Architect's responsibility is provided below.

(Describe in detail the Architect's Supplemental Services identified in Section 4.1.1 or, if set forth in an exhibit, identify the exhibit. The AIA publishes a number of Standard Form of Architect's Services documents that can be included as an exhibit to describe the Architect's Supplemental Services.)

Not applicable

§ 4.1.2.2 A description of each Supplemental Service identified in Section 4.1.1 as the Owner's responsibility is provided below.

(Describe in detail the Owner's Supplemental Services identified in Section 4.1.1 or, if set forth in an exhibit, identify the exhibit.)

§ 4.1.3 If the Owner identified a Sustainable Objective in Article 1, the Architect shall provide, as a Supplemental Service, the Sustainability Services required in AIA Document E204TM—2017, Sustainable Projects Exhibit, attached to this Agreement. The Owner shall compensate the Architect as provided in Section 11.2.

§ 4.2 Architect's Additional Services

The Architect may provide Additional Services after execution of this Agreement without invalidating the Agreement. Except for services required due to the fault of the Architect, any Additional Services provided in accordance with this Section 4.2 shall entitle the Architect to compensation pursuant to Section 11.3 and an appropriate adjustment in the Architect's schedule.

- § 4.2.1 Upon recognizing the need to perform the following Additional Services, the Architect shall notify the Owner with reasonable promptness and explain the facts and circumstances giving rise to the need. The Architect shall not proceed to provide the following Additional Services until the Architect receives the Owner's written authorization:
 - .1 Services necessitated by a change in the Initial Information, previous instructions or approvals given by the Owner, or a material change in the Project including size, quality, complexity, the Owner's schedule or budget for Cost of the Work, or procurement or delivery method;
 - .2 Services necessitated by the enactment or revision of codes, laws, or regulations, including changing or editing previously prepared Instruments of Service;
 - .3 Changing or editing previously prepared Instruments of Service necessitated by official interpretations of applicable codes, laws or regulations that are either (a) contrary to specific interpretations by the applicable authorities having jurisdiction made prior to the issuance of the building permit, or (b) contrary to requirements of the Instruments of Service when those Instruments of Service were prepared in accordance with the applicable standard of care;
 - .4 Services necessitated by decisions of the Owner not rendered in a timely manner or any other failure of performance on the part of the Owner or the Owner's consultants or contractors;
 - .5 Preparing digital models or other design documentation for transmission to the Owner's consultants and contractors, or to other Owner-authorized recipients;
 - .6 Preparation of design and documentation for alternate bid or proposal requests proposed by the Owner;

- .7 Preparation for, and attendance at, a public presentation, meeting or hearing;
- .8 Preparation for, and attendance at, a dispute resolution proceeding or legal proceeding, except where the Architect is party thereto;
- .9 Evaluation of the qualifications of entities providing bids or proposals;
- .10 Consultation concerning replacement of Work resulting from fire or other cause during construction; or,
- .11 Assistance to the Initial Decision Maker, if other than the Architect.
- § 4.2.2 To avoid delay in the Construction Phase, the Architect shall provide the following Additional Services, notify the Owner with reasonable promptness, and explain the facts and circumstances giving rise to the need. If, upon receipt of the Architect's notice, the Owner determines that all or parts of the services are not required, the Owner shall give prompt written notice to the Architect of the Owner's determination. The Owner shall compensate the Architect for the services provided prior to the Architect's receipt of the Owner's notice.
 - .1 Reviewing a Contractor's submittal out of sequence from the submittal schedule approved by the Architect;
 - .2 Responding to the Contractor's requests for information that are not prepared in accordance with the Contract Documents or where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared coordination drawings, or prior Project correspondence or documentation;
 - .3 Preparing Change Orders and Construction Change Directives that require evaluation of Contractor's proposals and supporting data, or the preparation or revision of Instruments of Service;
 - .4 Evaluating an extensive number of Claims as the Initial Decision Maker; or,
 - .5 Evaluating substitutions proposed by the Owner or Contractor and making subsequent revisions to Instruments of Service resulting therefrom.
- § 4.2.3 The Architect shall provide Construction Phase Services exceeding the limits set forth below as Additional Services. When the limits below are reached, the Architect shall notify the Owner:
 - .1 Three (3) reviews of each Shop Drawing, Product Data item, sample and similar submittals of the Contractor
 - .2 Ten (10) visits to the site by the Architect during construction
 - .3 Ten (10) inspections for any portion of the Work to determine whether such portion of the Work is substantially complete in accordance with the requirements of the Contract Documents
 - .4 Three (3) inspections for any portion of the Work to determine final completion.
- § 4.2.4 Except for services required under Section 3.6.6.5 and those services that do not exceed the limits set forth in Section 4.2.3, Construction Phase Services provided more than 60 days after (1) the date of Substantial Completion of the Work or (2) the initial date of Substantial Completion identified in the agreement between the Owner and Contractor, whichever is earlier, shall be compensated as Additional Services to the extent the Architect incurs additional cost in providing those Construction Phase Services.
- § 4.2.5 If the services covered by this Agreement have not been completed within eighteen (18) months of the date of this Agreement, through no fault of the Architect, extension of the Architect's services beyond that time shall be compensated as Additional Services.

ARTICLE 5 OWNER'S RESPONSIBILITIES

- § 5.1 Unless otherwise provided for under this Agreement, the Owner shall provide information in a timely manner regarding requirements for and limitations on the Project, including a written program, which shall set forth the Owner's objectives; schedule; constraints and criteria, including space requirements and relationships; flexibility; expandability; special equipment; systems; and site requirements.
- § 5.2 The Owner shall establish the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1; (2) the Owner's other costs; and, (3) reasonable contingencies related to all of these costs. The Owner shall update the Owner's budget for the Project as necessary throughout the duration of the Project until final completion. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Architect. The Owner and the Architect shall thereafter agree to a corresponding change in the Project's scope and quality.

- § 5.3 The Owner shall identify a representative authorized to act on the Owner's behalf with respect to the Project. The Owner shall render decisions and approve the Architect's submittals in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.
- § 5.4 The Owner shall furnish surveys to describe physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions, and other necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.
- § 5.5 The Owner shall furnish services of geotechnical engineers, which may include test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.
- § 5.6 The Owner shall provide the Supplemental Services designated as the Owner's responsibility in Section 4.1.1.
- § 5.7 If the Owner identified a Sustainable Objective in Article 1, the Owner shall fulfill its responsibilities as required in AIA Document E204TM–2017, Sustainable Projects Exhibit, attached to this Agreement.
- § 5.8 The Owner shall coordinate the services of its own consultants with those services provided by the Architect. Upon the Architect's request, the Owner shall furnish copies of the scope of services in the contracts between the Owner and the Owner's consultants. The Owner shall furnish the services of consultants other than those designated as the responsibility of the Architect in this Agreement, or authorize the Architect to furnish them as an Additional Service, when the Architect requests such services and demonstrates that they are reasonably required by the scope of the Project. The Owner shall require that its consultants and contractors maintain insurance, including professional liability insurance, as appropriate to the services or work provided.
- § 5.9 The Owner shall furnish tests, inspections and reports required by law or the Contract Documents, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.
- § 5.10 The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.
- § 5.11 The Owner shall provide prompt written notice to the Architect if the Owner becomes aware of any fault or defect in the Project, including errors, omissions or inconsistencies in the Architect's Instruments of Service.
- § 5.12 The Owner shall include the Architect in all communications with the Contractor that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect.
- § 5.13 Before executing the Contract for Construction, the Owner shall coordinate the Architect's duties and responsibilities set forth in the Contract for Construction with the Architect's services set forth in this Agreement. The Owner shall provide the Architect a copy of the executed agreement between the Owner and Contractor, including the General Conditions of the Contract for Construction.
- § 5.14 The Owner shall provide the Architect access to the Project site prior to commencement of the Work and shall obligate the Contractor to provide the Architect access to the Work wherever it is in preparation or progress.
- § 5.15 Within 15 days after receipt of a written request from the Architect, the Owner shall furnish the requested information as necessary and relevant for the Architect to evaluate, give notice of, or enforce lien rights.

ARTICLE 6 COST OF THE WORK

§ 6.1 For purposes of this Agreement, the Cost of the Work shall be the total cost to the Owner to construct all elements of the Project designed or specified by the Architect and shall include contractors' general conditions costs, overhead

Init.

- Page 55 -

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010229475 , a so not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completi

and profit. The Cost of the Work also includes the reasonable value of labor, materials, and equipment, donated to, or otherwise furnished by, the Owner. The Cost of the Work does not include the compensation of the Architect; the costs of the land, rights-of-way, financing, or contingencies for changes in the Work; or other costs that are the responsibility of the Owner.

§ 6.2 The Owner's budget for the Cost of the Work is provided in Initial Information, and shall be adjusted throughout the Project as required under Sections 5.2, 6.4 and 6.5. Evaluations of the Owner's budget for the Cost of the Work, and the preliminary estimate of the Cost of the Work and updated estimates of the Cost of the Work, prepared by the Architect, represent the Architect's judgment as a design professional. It is recognized, however, that neither the Architect nor the Owner has control over the cost of labor, materials, or equipment; the Contractor's methods of determining bid prices; or competitive bidding, market, or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from the Owner's budget for the Cost of the Work, or from any estimate of the Cost of the Work, or evaluation, prepared or agreed to by the Architect.

§ 6.3 In preparing estimates of the Cost of Work, the Architect shall be permitted to include contingencies for design, bidding, and price escalation; to determine what materials, equipment, component systems, and types of construction are to be included in the Contract Documents; to recommend reasonable adjustments in the program and scope of the Project; and to include design alternates as may be necessary to adjust the estimated Cost of the Work to meet the Owner's budget. The Architect's estimate of the Cost of the Work shall be based on current area, volume or similar conceptual estimating techniques. If the Owner requires a detailed estimate of the Cost of the Work, the Architect shall provide such an estimate, if identified as the Architect's responsibility in Section 4.1.1, as a Supplemental Service.

§ 6.4 If, through no fault of the Architect, the Procurement Phase has not commenced within 90 days after the Architect submits the Construction Documents to the Owner, the Owner's budget for the Cost of the Work shall be adjusted to reflect changes in the general level of prices in the applicable construction market.

§ 6.5 If at any time the Architect's estimate of the Cost of the Work exceeds the Owner's budget for the Cost of the Work, the Architect shall make appropriate recommendations to the Owner to adjust the Project's size, quality, or budget for the Cost of the Work, and the Owner shall cooperate with the Architect in making such adjustments.

§ 6.6 If the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services is exceeded by the lowest bona fide bid or negotiated proposal, the Owner shall

- .1 give written approval of an increase in the budget for the Cost of the Work;
- .2 authorize rebidding or renegotiating of the Project within a reasonable time;
- .3 terminate in accordance with Section 9.5:
- .4 in consultation with the Architect, revise the Project program, scope, or quality as required to reduce the Cost of the Work; or,
- .5 implement any other mutually acceptable alternative.

§ 6.7 If the Owner chooses to proceed under Section 6.6.4, the Architect shall modify the Construction Documents as necessary to comply with the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services, or the budget as adjusted under Section 6.6.1. If the Owner requires the Architect to modify the Construction Documents because the lowest bona fide bid or negotiated proposal exceeds the Owner's budget for the Cost of the Work due to market conditions the Architect could not reasonably anticipate, the Owner shall compensate the Architect for the modifications as an Additional Service pursuant to Section 11.3; otherwise the Architect's services for modifying the Construction Documents shall be without additional compensation. In any event, the Architect's modification of the Construction Documents shall be the limit of the Architect's responsibility under this Article 6.

ARTICLE 7 COPYRIGHTS AND LICENSES

§ 7.1 The Architect and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use on the Project.

§ 7.2 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the reserved rights of the Architect and the Architect's consultants.

Init.

- § 7.3 The Architect grants to the Owner a nonexclusive license to use the Architect's Instruments of Service solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner substantially performs its obligations under this agreement, including prompt payment of all sums due pursuant to Article 9 and Article 11. The Architect shall obtain similar nonexclusive licenses from the Architect's consultants consistent with this Agreement. The license granted under this section permits the Owner to authorize the Contractor, Subcontractors, Sub-subcontractors, and suppliers, as well as the Owner's consultants and separate contractors, to reproduce applicable portions of the Instruments of Service, subject to any protocols established pursuant to Section 1.3, solely and exclusively for use in performing services or construction for the Project. If the Architect rightfully terminates this Agreement for cause as provided in Section 9.4, the license granted in this Section 7.3 shall terminate.
- § 7.3.1 In the event the Owner uses the Instruments of Service without retaining the authors of the Instruments of Service, the Owner releases the Architect and Architect's consultant(s) from all claims and causes of action arising from such uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Architect and its consultants from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's use of the Instruments of Service under this Section 7.3.1. The terms of this Section 7.3.1 shall not apply if the Owner rightfully terminates this Agreement for cause under Section 9.4.
- § 7.4 Except for the licenses granted in this Article 7, no other license or right shall be deemed granted or implied under this Agreement. The Owner shall not assign, delegate, sublicense, pledge or otherwise transfer any license granted herein to another party without the prior written agreement of the Architect. Any unauthorized use of the Instruments of Service shall be at the Owner's sole risk and without liability to the Architect and the Architect's consultants.
- § 7.5 Except as otherwise stated in Section 7.3, the provisions of this Article 7 shall survive the termination of this Agreement.

ARTICLE 8 CLAIMS AND DISPUTES

§ 8.1 General

- § 8.1.1 The Owner and Architect shall commence all claims and causes of action against the other and arising out of or related to this Agreement, whether in contract, tort, or otherwise, in accordance with the requirements of the binding dispute resolution method selected in this Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Architect waive all claims and causes of action not commenced in accordance with this Section 8.1.1.
- § 8.1.2 To the extent damages are covered by property insurance, the Owner and Architect waive all rights against each other and against the contractors, consultants, agents, and employees of the other for damages, except such rights as they may have to the proceeds of such insurance as set forth in AIA Document A201–2017, General Conditions of the Contract for Construction. The Owner or the Architect, as appropriate, shall require of the contractors, consultants, agents, and employees of any of them, similar waivers in favor of the other parties enumerated herein.
- § 8.1.3 The Architect and Owner waive consequential damages for claims, disputes, or other matters in question, arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement, except as specifically provided in Section 9.7.

§ 8.2 Mediation

- § 8.2.1 Any claim, dispute or other matter in question arising out of or related to this Agreement shall be subject to mediation as a condition precedent to binding dispute resolution. If such matter relates to or is the subject of a lien arising out of the Architect's services, the Architect may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by binding dispute resolution.
- § 8.2.2 The Owner and Architect shall endeavor to resolve claims, disputes and other matters in question between them by mediation, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of this Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of a complaint or other appropriate demand for binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is

Init.

- Page 57 -

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible inder the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010229475 , a not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completic

stayed pursuant to this section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 8.2.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 8.2.4 If the parties do not resolve a dispute through mediation pursuant to this Section 8.2, the method of binding dispute resolution shall be the following:

(Check the appropriate box.)

M	Arbitration pursuant to Section 8.3 of this Agreement
\overline{V}	Litigation in a court of competent jurisdiction
	Other: (Specify)

If the Owner and Architect do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, the dispute will be resolved in a court of competent jurisdiction.

§ 8.3 Arbitration

§ 8.3.1 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement, any claim, dispute or other matter in question arising out of or related to this Agreement subject to, but not resolved by, mediation shall be subject to arbitration, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Agreement. A demand for arbitration shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the arbitration.

§ 8.3.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

§ 8.3.2 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement, shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

§ 8.3.3 The award rendered by the arbitrator(s) shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 8.3.4 Consolidation or Joinder

§ 8.3.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 8.3.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

- Page 58 -

§ 8.3.4.3 The Owner and Architect grant to any person or entity made a party to an arbitration conducted under this Section 8.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Architect under this Agreement.

§ 8.4 The provisions of this Article 8 shall survive the termination of this Agreement.

ARTICLE 9 TERMINATION OR SUSPENSION

§ 9.1 If the Owner fails to make payments to the Architect in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Architect's option, cause for suspension of performance of services under this Agreement. If the Architect elects to suspend services, the Architect shall give seven days' written notice to the Owner before suspending services. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, the Owner shall pay the Architect all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 9.2 If the Owner suspends the Project, the Architect shall be compensated for services performed prior to notice of such suspension. When the Project is resumed, the Architect shall be compensated for expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 9.3 If the Owner suspends the Project for more than 90 cumulative days for reasons other than the fault of the Architect, the Architect may terminate this Agreement by giving not less than seven days' written notice.

§ 9.4 Either party may terminate this Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

§ 9.5 The Owner may terminate this Agreement upon not less than seven days' written notice to the Architect for the Owner's convenience and without cause.

§ 9.6 If the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall compensate the Architect for services performed prior to termination, Reimbursable Expenses incurred, and costs attributable to termination, including the costs attributable to the Architect's termination of consultant agreements.

§ 9.7 In addition to any amounts paid under Section 9.6, if the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall pay to the Architect the following fees:

(Set forth below the amount of any termination or licensing fee, or the method for determining any termination or licensing fee.)

.1 Termination Fee:

Percentage of work completed

.2 Licensing Fee if the Owner intends to continue using the Architect's Instruments of Service: \$10,000.00

§ 9.8 Except as otherwise expressly provided herein, this Agreement shall terminate one year from the date of Substantial Completion.

§ 9.9 The Owner's rights to use the Architect's Instruments of Service in the event of a termination of this Agreement are set forth in Article 7 and Section 9.7.

ARTICLE 10 MISCELLANEOUS PROVISIONS

§ 10.1 This Agreement shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 8.3.

§ 10.2 Terms in this Agreement shall have the same meaning as those in AIA Document A201–2017, General Conditions of the Contract for Construction.

§ 10.3 The Owner and Architect, respectively, bind themselves, their agents, successors, assigns, and legal representatives to this Agreement. Neither the Owner nor the Architect shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement, including any payments due to the Architect by the Owner prior to the assignment.

§ 10.4 If the Owner requests the Architect to execute certificates, the proposed language of such certificates shall be submitted to the Architect for review at least 14 days prior to the requested dates of execution. If the Owner requests the Architect to execute consents reasonably required to facilitate assignment to a lender, the Architect shall execute all such consents that are consistent with this Agreement, provided the proposed consent is submitted to the Architect for review at least 14 days prior to execution. The Architect shall not be required to execute certificates or consents that would require knowledge, services, or responsibilities beyond the scope of this Agreement.

§ 10.5 Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, a third party against either the Owner or Architect.

§ 10.6 Unless otherwise required in this Agreement, the Architect shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the Project site.

§ 10.7 The Architect shall have the right to include photographic or artistic representations of the design of the Project among the Architect's promotional and professional materials. The Architect shall be given reasonable access to the completed Project to make such representations. However, the Architect's materials shall not include the Owner's confidential or proprietary information if the Owner has previously advised the Architect in writing of the specific information considered by the Owner to be confidential or proprietary. The Owner shall provide professional credit for the Architect in the Owner's promotional materials for the Project. This Section 10.7 shall survive the termination of this Agreement unless the Owner terminates this Agreement for cause pursuant to Section 9.4.

§ 10.8 If the Architect or Owner receives information specifically designated as "confidential" or "business proprietary," the receiving party shall keep such information strictly confidential and shall not disclose it to any other person except as set forth in Section 10.8.1. This Section 10.8 shall survive the termination of this Agreement.

§ 10.8.1 The receiving party may disclose "confidential" or "business proprietary" information after 7 days' notice to the other party, when required by law, arbitrator's order, or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or to the extent such information is reasonably necessary for the receiving party to defend itself in any dispute. The receiving party may also disclose such information to its employees, consultants, or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of such information as set forth in this Section 10.8.

§ 10.9 The invalidity of any provision of the Agreement shall not invalidate the Agreement or its remaining provisions. If it is determined that any provision of the Agreement violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Agreement shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Agreement.

ARTICLE 11 COMPENSATION

§ 11.1 For the Architect's Basic Services described under Article 3, the Owner shall compensate the Architect as follows:

.1 Stipulated Sum (Insert amount)

.2 Percentage Basis (Insert percentage value)

Six point five percent (6.5 %) of the Owner's budget for the Cost of the Work, as calculated in accordance with Section 11.6.

.3 Other (Describe the method of compensation)

Fee is based on current projected cost of \$3,000,000.00

§ 11.2 For the Architect's Supplemental Services designated in Section 4.1.1 and for any Sustainability Services required pursuant to Section 4.1.3, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation. If necessary, list specific services to which particular methods of compensation apply.)

Not applicable

§ 11.3 For Additional Services that may arise during the course of the Project, including those under Section 4.2, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation.)

Hourly rate

§ 11.4 Compensation for Supplemental and Additional Services of the Architect's consultants when not included in Section 11.2 or 11.3, shall be the amount invoiced to the Architect plus five percent 5 %), or as follows:

(Insert amount of, or basis for computing, Architect's consultants' compensation for Supplemental or Additional Services.)

§ 11.5 When compensation for Basic Services is based on a stipulated sum or a percentage basis, the proportion of compensation for each phase of services shall be as follows:

Schematic Design Phase	Ten percent (10	%)
Design Development Phase	Ten percent (10	%)
Construction Documents Phase	Seventy percent (70	%)
Procurement Phase	Five percent (5	%)
Construction Phase	Five percent (5	%)

Total Basic Compensation one hundred percent (100%)

§ 11.6 When compensation identified in Section 11.1 is on a percentage basis, progress payments for each phase of Basic Services shall be calculated by multiplying the percentages identified in this Article by the Owner's most recent budget for the Cost of the Work. Compensation paid in previous progress payments shall not be adjusted based on subsequent updates to the Owner's budget for the Cost of the Work.

§ 11.6.1 When compensation is on a percentage basis and any portions of the Project are deleted or otherwise not constructed, compensation for those portions of the Project shall be payable to the extent services are performed on those portions. The Architect shall be entitled to compensation in accordance with this Agreement for all services performed whether or not the Construction Phase is commenced.

§ 11.7 The hourly billing rates for services of the Architect and the Architect's consultants are set forth below. The rates shall be adjusted in accordance with the Architect's and Architect's consultants' normal review practices. (If applicable, attach an exhibit of hourly billing rates or insert them below.)

Rate (\$0.00)
\$160.00 per hour
\$100.00 per hour
\$50.00 per hour
\$30.00 per hour

§ 11.8 Compensation for Reimbursable Expenses

§ 11.8.1 Reimbursable Expenses are in addition to compensation for Basic, Supplemental, and Additional Services and include expenses incurred by the Architect and the Architect's consultants directly related to the Project, as follows:

- .1 Transportation and authorized out-of-town travel and subsistence;
- .2 Long distance services, dedicated data and communication services, teleconferences, Project web sites, and extranets;
- .3 Permitting and other fees required by authorities having jurisdiction over the Project;
- 4 Printing, reproductions, plots, and standard form documents;
- .5 Postage, handling, and delivery;
- 6 Expense of overtime work requiring higher than regular rates, if authorized in advance by the Owner;
- .7 Renderings, physical models, mock-ups, professional photography, and presentation materials requested by the Owner or required for the Project;
- .8 If required by the Owner, and with the Owner's prior written approval, the Architect's consultants' expenses of professional liability insurance dedicated exclusively to this Project, or the expense of additional insurance coverage or limits in excess of that normally maintained by the Architect's consultants;
- .9 All taxes levied on professional services and on reimbursable expenses;

- .10 Site office expenses;
- .11 Registration fees and any other fees charged by the Certifying Authority or by other entities as necessary to achieve the Sustainable Objective; and,
- .12 Other similar Project-related expenditures.

§ 11.8.2 For Reimbursable Expenses the compensation shall be the expenses incurred by the Architect and the Architect's consultants plus five percent (5 %) of the expenses incurred.

§ 11.9 Architect's Insurance. If the types and limits of coverage required in Section 2.5 are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect for the additional costs incurred by the Architect for the additional coverages as set forth below:

(Insert the additional coverages the Architect is required to obtain in order to satisfy the requirements set forth in Section 2.5, and for which the Owner shall reimburse the Architect.)

Not applicable

§ 11.10 Payments to the Architect

§ 11.10.1 Initial Payments

§ 11.10.1.1 An initial payment of

\$19,500.00 - \$6,625.00 (reimbursement from previous contract) = \$12,875.00

(\$12,875.00) shall be made upon execution of this Agreement and is the minimum payment under this Agreement. It shall be credited to the Owner's account in the final invoice.

§ 11.10.1.2 If a Sustainability Certification is part of the Sustainable Objective, an initial payment to the Architect of Not applicable

() shall be made upon execution of this Agreement for registration fees and other fees payable to the Certifying Authority and necessary to achieve the Sustainability Certification. The Architect's payments to the Certifying Authority shall be credited to the Owner's account at the time the expense is incurred.

§ 11.10.2 Progress Payments

§ 11.10.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed. Payments are due and payable upon presentation of the Architect's invoice. Amounts unpaid

thirty (30) days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Architect. (Insert rate of monthly or annual interest agreed upon.)

ten % 10%

§ 11.10.2.2 The Owner shall not withhold amounts from the Architect's compensation to impose a penalty or liquidated damages on the Architect, or to offset sums requested by or paid to contractors for the cost of changes in the Work, unless the Architect agrees or has been found liable for the amounts in a binding dispute resolution proceeding.

§ 11.10.2.3 Records of Reimbursable Expenses, expenses pertaining to Supplemental and Additional Services, and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times.

ARTICLE 12 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Agreement are as follows: (Include other terms and conditions applicable to this Agreement.)

Not applicable

ARTICLE 13 SCOPE OF THE AGREEMENT

§ 13.1 This Agreement represents the entire and integrated agreement between the Owner and the Architect and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the Owner and Architect.

§ 13.2 This Agreement is comprised of the following documents identified below:

- .1 AIA Document B101TM_2017, Standard Form Agreement Between Owner and Architect
- .2 AIA Document E203TM—2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

(Insert the date of the E203-2013 incorporated into this agreement.)

.3	Exhibits: (Check the appropriate box for any exhibits income and the appropriate box for any exhibits and the appropriate box for any exhibits and the appropriate box for any exhibits and the appropriate box for a proper approximate b	porated into this Agreement.)
	AIA Document E204 TM —2017, Sustain (Insert the date of the E204-2017 inc	nable Projects Exhibit, dated as indicated below: orporated into this agreement.)
	Not applicable	
	Other Exhibits incorporated into this (Clearly identify any other exhibits in and scopes of services identified as e.	corporated into this Agreement, including any exhibit

.4 Other documents: (List other documents, if any, forming part of the Agreement.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

ARCHITECT (Signature)

(Printed name and title)

Joshua A. Wright, Principal, TN Lic # 103962

(Printed name, title, and license number, if required)





Standard Form of Agreement Between Owner and Architect

AGREEMENT made as of the twenty-eighth in the year Two thousand nineteen (In words, indicate day, month and year.)

day of June

BETWEEN the Architect's client identified as the Owner: (Name, legal status, address and other information)
A new City Hall for the Town of Ashland City, Tennessee
101 Court Street
Ashland City, Tennessee 37015

This document has important legal consequences.
Consultation with an attorney is encouraged with respect to its completion or modification.

and the Architect:
(Name, legal status, address and other information)
Joshua A. Wright Architect
8061 Highway 41 A
Cedar Hill, Tennessee 37032

for the following Project:
(Name, location and detailed description)
A new City Hall for the Town of Ashland City
405 North Main Street, Ashland City, Tennessee

The Owner and Architect agree as follows.

TABLE OF ARTICLES

1 INITIAL II	NFORMATION
--------------	------------

- 2 ARCHITECT'S RESPONSIBILITIES
- 3 SCOPE OF ARCHITECT'S BASIC SERVICES
- 4 SUPPLEMENTAL AND ADDITIONAL SERVICES
- 5 OWNER'S RESPONSIBILITIES
- 6 COST OF THE WORK
- 7 COPYRIGHTS AND LICENSES
- 8 CLAIMS AND DISPUTES
- 9 TERMINATION OR SUSPENSION
- 10 MISCELLANEOUS PROVISIONS
- 11 COMPENSATION
- 12 SPECIAL TERMS AND CONDITIONS
- 13 SCOPE OF THE AGREEMENT

ARTICLE 1 INITIAL INFORMATION

§ 1.1 This Agreement is based on the Initial Information set forth in this Section 1.1.

(For each item in this section, insert the information or a statement such as "not applicable" or "unknown at time of execution.")

§ 1.1.1 The Owner's program for the Project:

(Insert the Owner's program, identify documentation that establishes the Owner's program, or state the manner in which the program will be developed.)

The program has been schematically established between owner and architect by means of a feasibility study that has been executed under a previous contract.

§ 1.1.2 The Project's physical characteristics:

(Identify or describe pertinent information about the Project's physical characteristics, such as size; location; dimensions; geotechnical reports; site boundaries; topographic surveys; traffic and utility studies; availability of public and private utilities and services; legal description of the site, etc.)

The project is approximately 15,000 square feet.

A geotechnical report has been performed under a separate contract with CSR Engineering. (Under a separate contract) Also, an existing survey, utilities availabilty and a legal description of the site have been performed by CSR Engineering. (Under a separate contract)

§ 1.1.3 The Owner's budget for the Cost of the Work, as defined in Section 6.1: (Provide total and, if known, a line item breakdown.)

The owner's budget for this project shall be \$3,000,000.00

- § 1.1.4 The Owner's anticipated design and construction milestone dates:
 - .1 Design phase milestone dates, if any:

To be determined at a later date and agreed upon by all parties.

- .2 Construction commencement date:To be determined at a later date and agreed upon by all parties.
- .3 Substantial Completion date or dates:

To be determined at a later date and agreed upon by all parties.

.4 Other milestone dates:

To be determined at a later date and agreed upon by all parties.

§ 1.1.5 The Owner intends the following procurement and delivery method for the Project: (Identify method such as competitive bid or negotiated contract, as well as any requirements for accelerated or fast-track design and construction, multiple bid packages, or phased construction.)

Competitive bid

§ 1.1.6 The Owner's anticipated Sustainable Objective for the Project: (Identify and describe the Owner's Sustainable Objective for the Project, if any.)

Not applicable

§ 1.1.6.1 If the Owner identifies a Sustainable Objective, the Owner and Architect shall complete and incorporate AIA Document E204TM—2017, Sustainable Projects Exhibit, into this Agreement to define the terms, conditions and services related to the Owner's Sustainable Objective. If E204—2017 is incorporated into this agreement, the Owner and Architect shall incorporate the completed E204—2017 into the agreements with the consultants and contractors performing services or Work in any way associated with the Sustainable Objective.

§ 1.1.7 The Owner identifies the following representative in accordance with Section 5.3: (List name, address, and other contact information.)

Chuck Walker 101 Court Street Ashland City, Tennessee

§ 1.1.8 The persons or entities, in addition to the Owner's representative, who are required to review the Architect's submittals to the Owner are as follows:

(List name, address, and other contact information.)

Steve Allen, Mayor of the Town of Ashland City 101 Court Street Ashland City, Tennessee

§ 1.1.9 The Owner shall retain the following consultants and contractors: (List name, legal status, address, and other contact information.)

.1 Geotechnical Engineer:

CSR Engineering 1116 Main Street Pleasant View, Tennessee

.2 Civil Engineer:

CSR Engineering 1116 Main Street Pleasant View, Tennessee

.3 Other, if any:
(List any other consultants and contractors retained by the Owner.)

§ 1.1.10 The Architect identifies the following representative in accordance with Section 2.3: (List name, address, and other contact information.)

Joshua A. Wright, AIA 8061 Highway 41 A Cedar Hill, Tennessee 37032 931-217-0479

§ 1.1.11 The Architect shall retain the consultants identified in Sections 1.1.11.1 and 1.1.11.2: (List name, legal status, address, and other contact information.)

§ 1.1.11.1 Consultants retained under Basic Services:

.1 Structural Engineer:

CSR Engineering 1116 Main Street Pleasant View, Tennessee

.2 Mechanical Engineer:

Neville Engineering, LLC 414 McNally Drive Suite 200 Nashville, Tennessee 37211

.3 Electrical Engineer:

Parsons Engineering 4751 Trousdale Drive Suite 202 Nashville, Tennessee 37220

§ 1.1.11.2 Consultants retained under Supplemental Services:

Sprinkler Designer T-K Engineering Company, Inc 2787 Highway 31 West White House, Tennessee 37188

§ 1.1.12 Other Initial Information on which the Agreement is based:

- § 1.2 The Owner and Architect may rely on the Initial Information. Both parties, however, recognize that the Initial Information may materially change and, in that event, the Owner and the Architect shall appropriately adjust the Architect's services, schedule for the Architect's services, and the Architect's compensation. The Owner shall adjust the Owner's budget for the Cost of the Work and the Owner's anticipated design and construction milestones, as necessary, to accommodate material changes in the Initial Information.
- § 1.3 The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203TM—2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.
- § 1.3.1 Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203TM—2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202TM—2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's

sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 ARCHITECT'S RESPONSIBILITIES

- § 2.1 The Architect shall provide professional services as set forth in this Agreement. The Architect represents that it is properly licensed in the jurisdiction where the Project is located to provide the services required by this Agreement, or shall cause such services to be performed by appropriately licensed design professionals.
- § 2.2 The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.
- § 2.3 The Architect shall identify a representative authorized to act on behalf of the Architect with respect to the Project.
- § 2.4 Except with the Owner's knowledge and consent, the Architect shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Architect's professional judgment with respect to this Project.
- § 2.5 The Architect shall maintain the following insurance until termination of this Agreement. If any of the requirements set forth below are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect as set forth in Section 11.9.
- § 2.5.1 Commercial General Liability with policy limits of not less than NA (\$) for each occurrence and (\$) in the aggregate for bodily injury and property damage.
- § 2.5.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Architect with policy limits of not less than NA (\$) per accident for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles, along with any other statutorily required automobile coverage.
- § 2.5.3 The Architect may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella liability insurance policies result in the same or greater coverage as the coverages required under Sections 2.5.1 and 2.5.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.
- § 2.5.4 Workers' Compensation at statutory limits.
- § 2.5.5 Employers' Liability with policy limits not less than NA (\$) each employee, and (\$) policy limit.
- § 2.5.6 Professional Liability covering negligent acts, errors and omissions in the performance of professional services with policy limits of not less than One million (\$1,000,000.00) per claim and One million (\$1,000,000.00) in the aggregate.
- § 2.5.7 Additional Insured Obligations. To the fullest extent permitted by law, the Architect shall cause the primary and excess or umbrella polices for Commercial General Liability and Automobile Liability to include the Owner as an additional insured for claims caused in whole or in part by the Architect's negligent acts or omissions. The additional insured coverage shall be primary and non-contributory to any of the Owner's insurance policies and shall apply to both ongoing and completed operations.
- § 2.5.8 The Architect shall provide certificates of insurance to the Owner that evidence compliance with the requirements in this Section 2.5.

ARTICLE 3 SCOPE OF ARCHITECT'S BASIC SERVICES

- § 3.1 The Architect's Basic Services consist of those described in this Article 3 and include usual and customary structural, mechanical, and electrical engineering services. Services not set forth in this Article 3 are Supplemental or Additional Services.
- § 3.1.1 The Architect shall manage the Architect's services, research applicable design criteria, attend Project meetings, communicate with members of the Project team, and report progress to the Owner.
- § 3.1.2 The Architect shall coordinate its services with those services provided by the Owner and the Owner's consultants. The Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of, services and information furnished by the Owner and the Owner's consultants. The Architect shall provide prompt written notice to the Owner if the Architect becomes aware of any error, omission, or inconsistency in such services or information.
- § 3.1.3 As soon as practicable after the date of this Agreement, the Architect shall submit for the Owner's approval a schedule for the performance of the Architect's services. The schedule initially shall include anticipated dates for the commencement of construction and for Substantial Completion of the Work as set forth in the Initial Information. The schedule shall include allowances for periods of time required for the Owner's review, for the performance of the Owner's consultants, and for approval of submissions by authorities having jurisdiction over the Project. Once approved by the Owner, time limits established by the schedule shall not, except for reasonable cause, be exceeded by the Architect or Owner. With the Owner's approval, the Architect shall adjust the schedule, if necessary, as the Project proceeds until the commencement of construction.
- § 3.1.4 The Architect shall not be responsible for an Owner's directive or substitution, or for the Owner's acceptance of non-conforming Work, made or given without the Architect's written approval.
- § 3.1.5 The Architect shall contact governmental authorities required to approve the Construction Documents and entities providing utility services to the Project. The Architect shall respond to applicable design requirements imposed by those authorities and entities.
- § 3.1.6 The Architect shall assist the Owner in connection with the Owner's responsibility for filing documents required for the approval of governmental authorities having jurisdiction over the Project.

§ 3.2 Schematic Design Phase Services

- § 3.2.1 The Architect shall review the program and other information furnished by the Owner, and shall review laws, codes, and regulations applicable to the Architect's services.
- § 3.2.2 The Architect shall prepare a preliminary evaluation of the Owner's program, schedule, budget for the Cost of the Work, Project site, the proposed procurement and delivery method, and other Initial Information, each in terms of the other, to ascertain the requirements of the Project. The Architect shall notify the Owner of (1) any inconsistencies discovered in the information, and (2) other information or consulting services that may be reasonably needed for the Project.
- § 3.2.3 The Architect shall present its preliminary evaluation to the Owner and shall discuss with the Owner alternative approaches to design and construction of the Project. The Architect shall reach an understanding with the Owner regarding the requirements of the Project.
- § 3.2.4 Based on the Project requirements agreed upon with the Owner, the Architect shall prepare and present, for the Owner's approval, a preliminary design illustrating the scale and relationship of the Project components.
- § 3.2.5 Based on the Owner's approval of the preliminary design, the Architect shall prepare Schematic Design Documents for the Owner's approval. The Schematic Design Documents shall consist of drawings and other documents including a site plan, if appropriate, and preliminary building plans, sections and elevations; and may include some combination of study models, perspective sketches, or digital representations. Preliminary selections of major building systems and construction materials shall be noted on the drawings or described in writing.
- § 3.2.5.1 The Architect shall consider sustainable design alternatives, such as material choices and building orientation, together with other considerations based on program and aesthetics, in developing a design that is consistent with the

Owner's program, schedule and budget for the Cost of the Work. The Owner may obtain more advanced sustainable design services as a Supplemental Service under Section 4.1.1.

- § 3.2.5.2 The Architect shall consider the value of alternative materials, building systems and equipment, together with other considerations based on program and aesthetics, in developing a design for the Project that is consistent with the Owner's program, schedule, and budget for the Cost of the Work.
- § 3.2.6 The Architect shall submit to the Owner an estimate of the Cost of the Work prepared in accordance with Section 6.3.
- § 3.2.7 The Architect shall submit the Schematic Design Documents to the Owner, and request the Owner's approval.

§ 3.3 Design Development Phase Services

- § 3.3.1 Based on the Owner's approval of the Schematic Design Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Design Development Documents for the Owner's approval. The Design Development Documents shall illustrate and describe the development of the approved Schematic Design Documents and shall consist of drawings and other documents including plans, sections, elevations, typical construction details, and diagrammatic layouts of building systems to fix and describe the size and character of the Project as to architectural, structural, mechanical and electrical systems, and other appropriate elements. The Design Development Documents shall also include outline specifications that identify major materials and systems and establish, in general, their quality levels.
- § 3.3.2 The Architect shall update the estimate of the Cost of the Work prepared in accordance with Section 6.3.
- § 3.3.3 The Architect shall submit the Design Development Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, and request the Owner's approval.

§ 3.4 Construction Documents Phase Services

- § 3.4.1 Based on the Owner's approval of the Design Development Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Construction Documents for the Owner's approval. The Construction Documents shall illustrate and describe the further development of the approved Design Development Documents and shall consist of Drawings and Specifications setting forth in detail the quality levels and performance criteria of materials and systems and other requirements for the construction of the Work. The Owner and Architect acknowledge that, in order to perform the Work, the Contractor will provide additional information, including Shop Drawings, Product Data, Samples and other similar submittals, which the Architect shall review in accordance with Section 3.6.4.
- § 3.4.2 The Architect shall incorporate the design requirements of governmental authorities having jurisdiction over the Project into the Construction Documents.
- § 3.4.3 During the development of the Construction Documents, the Architect shall assist the Owner in the development and preparation of (1) procurement information that describes the time, place, and conditions of bidding, including bidding or proposal forms; (2) the form of agreement between the Owner and Contractor; and (3) the Conditions of the Contract for Construction (General, Supplementary and other Conditions). The Architect shall also compile a project manual that includes the Conditions of the Contract for Construction and Specifications, and may include bidding requirements and sample forms.
- § 3.4.4 The Architect shall update the estimate for the Cost of the Work prepared in accordance with Section 6.3.
- § 3.4.5 The Architect shall submit the Construction Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, take any action required under Section 6.5, and request the Owner's approval.

§ 3.5 Procurement Phase Services

§ 3.5.1 General

The Architect shall assist the Owner in establishing a list of prospective contractors. Following the Owner's approval of the Construction Documents, the Architect shall assist the Owner in (1) obtaining either competitive bids or negotiated proposals; (2) confirming responsiveness of bids or proposals; (3) determining the successful bid or proposal, if any; and, (4) awarding and preparing contracts for construction.

Init.

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was created on 06/28/2019 09:21:38 under the law. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completi

§ 3.5.2 Competitive Bidding

§ 3.5.2.1 Bidding Documents shall consist of bidding requirements and proposed Contract Documents.

§ 3.5.2.2 The Architect shall assist the Owner in bidding the Project by:

- facilitating the distribution of Bidding Documents to prospective bidders;
- .2 organizing and conducting a pre-bid conference for prospective bidders;
- .3 preparing responses to questions from prospective bidders and providing clarifications and interpretations of the Bidding Documents to the prospective bidders in the form of addenda; and,
- .4 organizing and conducting the opening of the bids, and subsequently documenting and distributing the bidding results, as directed by the Owner.

§ 3.5.2.3 If the Bidding Documents permit substitutions, upon the Owner's written authorization, the Architect shall, as an Additional Service, consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective bidders.

§ 3.5.3 Negotiated Proposals

§ 3.5.3.1 Proposal Documents shall consist of proposal requirements and proposed Contract Documents.

§ 3.5.3.2 The Architect shall assist the Owner in obtaining proposals by:

- .1 facilitating the distribution of Proposal Documents for distribution to prospective contractors and requesting their return upon completion of the negotiation process;
- .2 organizing and participating in selection interviews with prospective contractors;
- .3 preparing responses to questions from prospective contractors and providing clarifications and interpretations of the Proposal Documents to the prospective contractors in the form of addenda; and,
- .4 participating in negotiations with prospective contractors, and subsequently preparing a summary report of the negotiation results, as directed by the Owner.

§ 3.5.3.3 If the Proposal Documents permit substitutions, upon the Owner's written authorization, the Architect shall, as an Additional Service, consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective contractors.

§ 3.6 Construction Phase Services

§ 3.6.1 General

§ 3.6.1.1 The Architect shall provide administration of the Contract between the Owner and the Contractor as set forth below and in AIA Document A201TM—2017, General Conditions of the Contract for Construction. If the Owner and Contractor modify AIA Document A201–2017, those modifications shall not affect the Architect's services under this Agreement unless the Owner and the Architect amend this Agreement.

§ 3.6.1.2 The Architect shall advise and consult with the Owner during the Construction Phase Services. The Architect shall have authority to act on behalf of the Owner only to the extent provided in this Agreement. The Architect shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, nor shall the Architect be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect shall be responsible for the Architect's negligent acts or omissions, but shall not have control over or charge of, and shall not be responsible for, acts or omissions of the Contractor or of any other persons or entities performing portions of the Work.

§ 3.6.1.3 Subject to Section 4.2 and except as provided in Section 3.6.6.5, the Architect's responsibility to provide Construction Phase Services commences with the award of the Contract for Construction and terminates on the date the Architect issues the final Certificate for Payment.

§ 3.6.2 Evaluations of the Work

§ 3.6.2.1 The Architect shall visit the site at intervals appropriate to the stage of construction, or as otherwise required in Section 4.2.3, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine, in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect shall keep the Owner reasonably informed about the progress and quality of the portion of the Work

Init.

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010229475 , a so not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completi

completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work.

§ 3.6.2.2 The Architect has the authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect shall have the authority to require inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 3.6.2.3 The Architect shall interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests shall be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 3.6.2.4 Interpretations and decisions of the Architect shall be consistent with the intent of, and reasonably inferable from, the Contract Documents and shall be in writing or in the form of drawings. When making such interpretations and decisions, the Architect shall endeavor to secure faithful performance by both Owner and Contractor, shall not show partiality to either, and shall not be liable for results of interpretations or decisions rendered in good faith. The Architect's decisions on matters relating to aesthetic effect shall be final if consistent with the intent expressed in the Contract Documents.

§ 3.6.2.5 Unless the Owner and Contractor designate another person to serve as an Initial Decision Maker, as that term is defined in AIA Document A201–2017, the Architect shall render initial decisions on Claims between the Owner and Contractor as provided in the Contract Documents.

§ 3.6.3 Certificates for Payment to Contractor

§ 3.6.3.1 The Architect shall review and certify the amounts due the Contractor and shall issue certificates in such amounts. The Architect's certification for payment shall constitute a representation to the Owner, based on the Architect's evaluation of the Work as provided in Section 3.6.2 and on the data comprising the Contractor's Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to (1) an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, (2) results of subsequent tests and inspections, (3) correction of minor deviations from the Contract Documents prior to completion, and (4) specific qualifications expressed by the Architect.

§ 3.6.3.2 The issuance of a Certificate for Payment shall not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 3.6.3.3 The Architect shall maintain a record of the Applications and Certificates for Payment.

§ 3.6.4 Submittals

§ 3.6.4.1 The Architect shall review the Contractor's submittal schedule and shall not unreasonably delay or withhold approval of the schedule. The Architect's action in reviewing submittals shall be taken in accordance with the approved submittal schedule or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time, in the Architect's professional judgment, to permit adequate review.

§ 3.6.4.2 The Architect shall review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the Contractor's responsibility. The Architect's review shall not constitute approval of safety precautions or construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

- § 3.6.4.3 If the Contract Documents specifically require the Contractor to provide professional design services or certifications by a design professional related to systems, materials, or equipment, the Architect shall specify the appropriate performance and design criteria that such services must satisfy. The Architect shall review and take appropriate action on Shop Drawings and other submittals related to the Work designed or certified by the Contractor's design professional, provided the submittals bear such professional's seal and signature when submitted to the Architect. The Architect's review shall be for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect shall be entitled to rely upon, and shall not be responsible for, the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals.
- § 3.6.4.4 Subject to Section 4.2, the Architect shall review and respond to requests for information about the Contract Documents. The Architect shall set forth, in the Contract Documents, the requirements for requests for information. Requests for information shall include, at a minimum, a detailed written statement that indicates the specific Drawings or Specifications in need of clarification and the nature of the clarification requested. The Architect's response to such requests shall be made in writing within any time limits agreed upon, or otherwise with reasonable promptness. If appropriate, the Architect shall prepare and issue supplemental Drawings and Specifications in response to the requests for information.
- § 3.6.4.5 The Architect shall maintain a record of submittals and copies of submittals supplied by the Contractor in accordance with the requirements of the Contract Documents.

§ 3.6.5 Changes in the Work

§ 3.6.5.1 The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Subject to Section 4.2, the Architect shall prepare Change Orders and Construction Change Directives for the Owner's approval and execution in accordance with the Contract Documents.

§ 3.6.5.2 The Architect shall maintain records relative to changes in the Work.

§ 3.6.6 Project Completion

§ 3.6.6.1 The Architect shall:

- .1 conduct inspections to determine the date or dates of Substantial Completion and the date of final completion;
- .2 issue Certificates of Substantial Completion;
- .3 forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract Documents and received from the Contractor; and,
- .4 issue a final Certificate for Payment based upon a final inspection indicating that, to the best of the Architect's knowledge, information, and belief, the Work complies with the requirements of the Contract Documents.
- § 3.6.6.2 The Architect's inspections shall be conducted with the Owner to check conformance of the Work with the requirements of the Contract Documents and to verify the accuracy and completeness of the list submitted by the Contractor of Work to be completed or corrected.
- § 3.6.6.3 When Substantial Completion has been achieved, the Architect shall inform the Owner about the balance of the Contract Sum remaining to be paid the Contractor, including the amount to be retained from the Contract Sum, if any, for final completion or correction of the Work.
- § 3.6.4 The Architect shall forward to the Owner the following information received from the Contractor: (1) consent of surety or sureties, if any, to reduction in or partial release of retainage or the making of final payment; (2) affidavits, receipts, releases and waivers of liens, or bonds indemnifying the Owner against liens; and (3) any other documentation required of the Contractor under the Contract Documents.
- § 3.6.6.5 Upon request of the Owner, and prior to the expiration of one year from the date of Substantial Completion, the Architect shall, without additional compensation, conduct a meeting with the Owner to review the facility operations and performance.

ARTICLE 4 SUPPLEMENTAL AND ADDITIONAL SERVICES

§ 4.1 Supplemental Services

§ 4.1.1 The services listed below are not included in Basic Services but may be required for the Project. The Architect shall provide the listed Supplemental Services only if specifically designated in the table below as the Architect's responsibility, and the Owner shall compensate the Architect as provided in Section 11.2. Unless otherwise specifically addressed in this Agreement, if neither the Owner nor the Architect is designated, the parties agree that the listed Supplemental Service is not being provided for the Project.

(Designate the Architect's Supplemental Services and the Owner's Supplemental Services required for the Project by indicating whether the Architect or Owner shall be responsible for providing the identified Supplemental Service. Insert a description of the Supplemental Services in Section 4.1.2 below or attach the description of services as an exhibit to this Agreement.)

Supplemental Services		Responsibility (Architect, Owner, or not provided)		
§ 4.1.1.1	Programming	Architect		
§ 4.1.1.2	Multiple preliminary designs	Architect		
§ 4.1.1.3	Measured drawings	Architect		
§ 4.1.1.4	Existing facilities surveys	Owner		
§ 4.1.1.5	Site evaluation and planning	Architect, Civil, and Owner		
§ 4.1.1.6	Building Information Model management responsibilities	Not applicable		
§ 4.1.1.7	Development of Building Information Models for post construction use	Not applicable		
§ 4.1.1.8	Civil engineering	Owner to coordinate with Architect		
§ 4.1.1.9	Landscape design	Owner to coordinate with Architect		
§ 4.1.1.10	Architectural interior design	Architect		
§ 4.1.1.11	Value analysis	Not applicable		
	Detailed cost estimating beyond that required in Section 6.3	Not applicable		
§ 4.1.1.13	On-site project representation	Architect		
§ 4.1.1.14	Conformed documents for construction	Architect		
§ 4.1.1.15	As-designed record drawings	Architect		
§ 4.1.1.16	As-constructed record drawings	Not applicable		
§ 4.1.1.17	Post-occupancy evaluation	Architect		
§ 4.1.1.18	Facility support services	Not applicable		
§ 4.1.1.19	Tenant-related services	Not applicable		
§ 4.1.1.20	Architect's coordination of the Owner's consultants	Architect		
§ 4.1.1.21	Telecommunications/data design	Owner to coordinate with Architect		
§ 4.1.1.22	Security evaluation and planning	Owner to coordinate with Architect		
§ 4.1.1.23	Commissioning	Not applicable		
§ 4.1.1.24	Sustainable Project Services pursuant to Section 4.1.3	Not applicable		
§ 4.1.1.25	Fast-track design services	Not applicable		
§ 4.1.1.26	Multiple bid packages	Not applicable		
§ 4.1.1.27	Historic preservation	Not applicable		
§ 4.1.1.28	Furniture, furnishings, and equipment design	Owner to coordinate with Architect		
§ 4.1.1.29	Other services provided by specialty Consultants	Not applicable		
§ 4.1.1.30	Other Supplemental Services	Not applicable		

(1.1:1.0
(Architect, Owner, or not provided)

§ 4.1.2 Description of Supplemental Services

§ 4.1.2.1 A description of each Supplemental Service identified in Section 4.1.1 as the Architect's responsibility is provided below.

(Describe in detail the Architect's Supplemental Services identified in Section 4.1.1 or, if set forth in an exhibit, identify the exhibit. The AIA publishes a number of Standard Form of Architect's Services documents that can be included as an exhibit to describe the Architect's Supplemental Services.)

Not applicable

§ 4.1.2.2 A description of each Supplemental Service identified in Section 4.1.1 as the Owner's responsibility is provided below.

(Describe in detail the Owner's Supplemental Services identified in Section 4.1.1 or, if set forth in an exhibit, identify the exhibit.)

§ 4.1.3 If the Owner identified a Sustainable Objective in Article 1, the Architect shall provide, as a Supplemental Service, the Sustainability Services required in AIA Document E204TM–2017, Sustainable Projects Exhibit, attached to this Agreement. The Owner shall compensate the Architect as provided in Section 11.2.

§ 4.2 Architect's Additional Services

The Architect may provide Additional Services after execution of this Agreement without invalidating the Agreement. Except for services required due to the fault of the Architect, any Additional Services provided in accordance with this Section 4.2 shall entitle the Architect to compensation pursuant to Section 11.3 and an appropriate adjustment in the Architect's schedule.

- § 4.2.1 Upon recognizing the need to perform the following Additional Services, the Architect shall notify the Owner with reasonable promptness and explain the facts and circumstances giving rise to the need. The Architect shall not proceed to provide the following Additional Services until the Architect receives the Owner's written authorization:
 - .1 Services necessitated by a change in the Initial Information, previous instructions or approvals given by the Owner, or a material change in the Project including size, quality, complexity, the Owner's schedule or budget for Cost of the Work, or procurement or delivery method;
 - .2 Services necessitated by the enactment or revision of codes, laws, or regulations, including changing or editing previously prepared Instruments of Service;
 - .3 Changing or editing previously prepared Instruments of Service necessitated by official interpretations of applicable codes, laws or regulations that are either (a) contrary to specific interpretations by the applicable authorities having jurisdiction made prior to the issuance of the building permit, or (b) contrary to requirements of the Instruments of Service when those Instruments of Service were prepared in accordance with the applicable standard of care;
 - .4 Services necessitated by decisions of the Owner not rendered in a timely manner or any other failure of performance on the part of the Owner or the Owner's consultants or contractors;
 - .5 Preparing digital models or other design documentation for transmission to the Owner's consultants and contractors, or to other Owner-authorized recipients;
 - .6 Preparation of design and documentation for alternate bid or proposal requests proposed by the Owner;

- .7 Preparation for, and attendance at, a public presentation, meeting or hearing;
- .8 Preparation for, and attendance at, a dispute resolution proceeding or legal proceeding, except where the Architect is party thereto;
- .9 Evaluation of the qualifications of entities providing bids or proposals;
- .10 Consultation concerning replacement of Work resulting from fire or other cause during construction; or,
- .11 Assistance to the Initial Decision Maker, if other than the Architect.
- § 4.2.2 To avoid delay in the Construction Phase, the Architect shall provide the following Additional Services, notify the Owner with reasonable promptness, and explain the facts and circumstances giving rise to the need. If, upon receipt of the Architect's notice, the Owner determines that all or parts of the services are not required, the Owner shall give prompt written notice to the Architect of the Owner's determination. The Owner shall compensate the Architect for the services provided prior to the Architect's receipt of the Owner's notice.
 - .1 Reviewing a Contractor's submittal out of sequence from the submittal schedule approved by the Architect:
 - .2 Responding to the Contractor's requests for information that are not prepared in accordance with the Contract Documents or where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractorprepared coordination drawings, or prior Project correspondence or documentation;
 - .3 Preparing Change Orders and Construction Change Directives that require evaluation of Contractor's proposals and supporting data, or the preparation or revision of Instruments of Service;
 - .4 Evaluating an extensive number of Claims as the Initial Decision Maker; or,
 - .5 Evaluating substitutions proposed by the Owner or Contractor and making subsequent revisions to Instruments of Service resulting therefrom.
- § 4.2.3 The Architect shall provide Construction Phase Services exceeding the limits set forth below as Additional Services. When the limits below are reached, the Architect shall notify the Owner:
 - .1 Three (3) reviews of each Shop Drawing, Product Data item, sample and similar submittals of the Contractor
 - .2 Ten (10) visits to the site by the Architect during construction
 - .3 Ten (10) inspections for any portion of the Work to determine whether such portion of the Work is substantially complete in accordance with the requirements of the Contract Documents
 - .4 Three (3) inspections for any portion of the Work to determine final completion.
- § 4.2.4 Except for services required under Section 3.6.6.5 and those services that do not exceed the limits set forth in Section 4.2.3, Construction Phase Services provided more than 60 days after (1) the date of Substantial Completion of the Work or (2) the initial date of Substantial Completion identified in the agreement between the Owner and Contractor, whichever is earlier, shall be compensated as Additional Services to the extent the Architect incurs additional cost in providing those Construction Phase Services.
- § 4.2.5 If the services covered by this Agreement have not been completed within eighteen (18) months of the date of this Agreement, through no fault of the Architect, extension of the Architect's services beyond that time shall be compensated as Additional Services.

ARTICLE 5 OWNER'S RESPONSIBILITIES

- § 5.1 Unless otherwise provided for under this Agreement, the Owner shall provide information in a timely manner regarding requirements for and limitations on the Project, including a written program, which shall set forth the Owner's objectives; schedule; constraints and criteria, including space requirements and relationships; flexibility; expandability; special equipment; systems; and site requirements.
- § 5.2 The Owner shall establish the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1; (2) the Owner's other costs; and, (3) reasonable contingencies related to all of these costs. The Owner shall update the Owner's budget for the Project as necessary throughout the duration of the Project until final completion. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Architect. The Owner and the Architect shall thereafter agree to a corresponding change in the Project's scope and quality.

Init.

- § 5.3 The Owner shall identify a representative authorized to act on the Owner's behalf with respect to the Project. The Owner shall render decisions and approve the Architect's submittals in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.
- § 5.4 The Owner shall furnish surveys to describe physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions, and other necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.
- § 5.5 The Owner shall furnish services of geotechnical engineers, which may include test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.
- § 5.6 The Owner shall provide the Supplemental Services designated as the Owner's responsibility in Section 4.1.1.
- § 5.7 If the Owner identified a Sustainable Objective in Article 1, the Owner shall fulfill its responsibilities as required in AIA Document E204TM—2017, Sustainable Projects Exhibit, attached to this Agreement.
- § 5.8 The Owner shall coordinate the services of its own consultants with those services provided by the Architect. Upon the Architect's request, the Owner shall furnish copies of the scope of services in the contracts between the Owner and the Owner's consultants. The Owner shall furnish the services of consultants other than those designated as the responsibility of the Architect in this Agreement, or authorize the Architect to furnish them as an Additional Service, when the Architect requests such services and demonstrates that they are reasonably required by the scope of the Project. The Owner shall require that its consultants and contractors maintain insurance, including professional liability insurance, as appropriate to the services or work provided.
- § 5.9 The Owner shall furnish tests, inspections and reports required by law or the Contract Documents, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.
- § 5.10 The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.
- § 5.11 The Owner shall provide prompt written notice to the Architect if the Owner becomes aware of any fault or defect in the Project, including errors, omissions or inconsistencies in the Architect's Instruments of Service.
- § 5.12 The Owner shall include the Architect in all communications with the Contractor that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect.
- § 5.13 Before executing the Contract for Construction, the Owner shall coordinate the Architect's duties and responsibilities set forth in the Contract for Construction with the Architect's services set forth in this Agreement. The Owner shall provide the Architect a copy of the executed agreement between the Owner and Contractor, including the General Conditions of the Contract for Construction.
- § 5.14 The Owner shall provide the Architect access to the Project site prior to commencement of the Work and shall obligate the Contractor to provide the Architect access to the Work wherever it is in preparation or progress.
- § 5.15 Within 15 days after receipt of a written request from the Architect, the Owner shall furnish the requested information as necessary and relevant for the Architect to evaluate, give notice of, or enforce lien rights.

ARTICLE 6 COST OF THE WORK

§ 6.1 For purposes of this Agreement, the Cost of the Work shall be the total cost to the Owner to construct all elements of the Project designed or specified by the Architect and shall include contractors' general conditions costs, overhead

Init.

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010229475 , 4 s not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completi

and profit. The Cost of the Work also includes the reasonable value of labor, materials, and equipment, donated to, or otherwise furnished by, the Owner. The Cost of the Work does not include the compensation of the Architect; the costs of the land, rights-of-way, financing, or contingencies for changes in the Work; or other costs that are the responsibility of the Owner.

- § 6.2 The Owner's budget for the Cost of the Work is provided in Initial Information, and shall be adjusted throughout the Project as required under Sections 5.2, 6.4 and 6.5. Evaluations of the Owner's budget for the Cost of the Work, and the preliminary estimate of the Cost of the Work and updated estimates of the Cost of the Work, prepared by the Architect, represent the Architect's judgment as a design professional. It is recognized, however, that neither the Architect nor the Owner has control over the cost of labor, materials, or equipment; the Contractor's methods of determining bid prices; or competitive bidding, market, or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from the Owner's budget for the Cost of the Work, or from any estimate of the Cost of the Work, or evaluation, prepared or agreed to by the Architect.
- § 6.3 In preparing estimates of the Cost of Work, the Architect shall be permitted to include contingencies for design, bidding, and price escalation; to determine what materials, equipment, component systems, and types of construction are to be included in the Contract Documents; to recommend reasonable adjustments in the program and scope of the Project; and to include design alternates as may be necessary to adjust the estimated Cost of the Work to meet the Owner's budget. The Architect's estimate of the Cost of the Work shall be based on current area, volume or similar conceptual estimating techniques. If the Owner requires a detailed estimate of the Cost of the Work, the Architect shall provide such an estimate, if identified as the Architect's responsibility in Section 4.1.1, as a Supplemental Service.
- § 6.4 If, through no fault of the Architect, the Procurement Phase has not commenced within 90 days after the Architect submits the Construction Documents to the Owner, the Owner's budget for the Cost of the Work shall be adjusted to reflect changes in the general level of prices in the applicable construction market.
- § 6.5 If at any time the Architect's estimate of the Cost of the Work exceeds the Owner's budget for the Cost of the Work, the Architect shall make appropriate recommendations to the Owner to adjust the Project's size, quality, or budget for the Cost of the Work, and the Owner shall cooperate with the Architect in making such adjustments.
- § 6.6 If the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services is exceeded by the lowest bona fide bid or negotiated proposal, the Owner shall
 - .1 give written approval of an increase in the budget for the Cost of the Work;
 - .2 authorize rebidding or renegotiating of the Project within a reasonable time;
 - .3 terminate in accordance with Section 9.5;
 - .4 in consultation with the Architect, revise the Project program, scope, or quality as required to reduce the Cost of the Work; or,
 - .5 implement any other mutually acceptable alternative.

§ 6.7 If the Owner chooses to proceed under Section 6.6.4, the Architect shall modify the Construction Documents as necessary to comply with the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services, or the budget as adjusted under Section 6.6.1. If the Owner requires the Architect to modify the Construction Documents because the lowest bona fide bid or negotiated proposal exceeds the Owner's budget for the Cost of the Work due to market conditions the Architect could not reasonably anticipate, the Owner shall compensate the Architect for the modifications as an Additional Service pursuant to Section 11.3; otherwise the Architect's services for modifying the Construction Documents shall be without additional compensation. In any event, the Architect's modification of the Construction Documents shall be the limit of the Architect's responsibility under this Article 6.

ARTICLE 7 COPYRIGHTS AND LICENSES

- § 7.1 The Architect and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use on the Project.
- § 7.2 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the reserved rights of the Architect and the Architect's consultants.

Init.

AIA Document B101™ – 2017. Copyright © 1974, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved.

WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this

AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible
under the law. This document was created on 06/28/2019 09:21:38 under the terms of AIA Documents on Demand® Order No. 2010229475 , a
s not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completi

- § 7.3 The Architect grants to the Owner a nonexclusive license to use the Architect's Instruments of Service solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner substantially performs its obligations under this agreement, including prompt payment of all sums due pursuant to Article 9 and Article 11. The Architect shall obtain similar nonexclusive licenses from the Architect's consultants consistent with this Agreement. The license granted under this section permits the Owner to authorize the Contractor, Subcontractors, Sub-subcontractors, and suppliers, as well as the Owner's consultants and separate contractors, to reproduce applicable portions of the Instruments of Service, subject to any protocols established pursuant to Section 1.3, solely and exclusively for use in performing services or construction for the Project. If the Architect rightfully terminates this Agreement for cause as provided in Section 9.4, the license granted in this Section 7.3 shall terminate.
- § 7.3.1 In the event the Owner uses the Instruments of Service without retaining the authors of the Instruments of Service, the Owner releases the Architect and Architect's consultant(s) from all claims and causes of action arising from such uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Architect and its consultants from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's use of the Instruments of Service under this Section 7.3.1. The terms of this Section 7.3.1 shall not apply if the Owner rightfully terminates this Agreement for cause under Section 9.4.
- § 7.4 Except for the licenses granted in this Article 7, no other license or right shall be deemed granted or implied under this Agreement. The Owner shall not assign, delegate, sublicense, pledge or otherwise transfer any license granted herein to another party without the prior written agreement of the Architect. Any unauthorized use of the Instruments of Service shall be at the Owner's sole risk and without liability to the Architect and the Architect's consultants.
- § 7.5 Except as otherwise stated in Section 7.3, the provisions of this Article 7 shall survive the termination of this Agreement.

ARTICLE 8 CLAIMS AND DISPUTES

§ 8.1 General

- § 8.1.1 The Owner and Architect shall commence all claims and causes of action against the other and arising out of or related to this Agreement, whether in contract, tort, or otherwise, in accordance with the requirements of the binding dispute resolution method selected in this Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Architect waive all claims and causes of action not commenced in accordance with this Section 8.1.1.
- § 8.1.2 To the extent damages are covered by property insurance, the Owner and Architect waive all rights against each other and against the contractors, consultants, agents, and employees of the other for damages, except such rights as they may have to the proceeds of such insurance as set forth in AIA Document A201–2017, General Conditions of the Contract for Construction. The Owner or the Architect, as appropriate, shall require of the contractors, consultants, agents, and employees of any of them, similar waivers in favor of the other parties enumerated herein.
- § 8.1.3 The Architect and Owner waive consequential damages for claims, disputes, or other matters in question, arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement, except as specifically provided in Section 9.7.

§ 8.2 Mediation

- § 8.2.1 Any claim, dispute or other matter in question arising out of or related to this Agreement shall be subject to mediation as a condition precedent to binding dispute resolution. If such matter relates to or is the subject of a lien arising out of the Architect's services, the Architect may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by binding dispute resolution.
- § 8.2.2 The Owner and Architect shall endeavor to resolve claims, disputes and other matters in question between them by mediation, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of this Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of a complaint or other appropriate demand for binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is

Init.

ITEM # 6.

stayed pursuant to this section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 8.2.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 8.2.4 If the parties do not resolve a dispute through mediation pursuant to this Section 8.2, the method of binding dispute resolution shall be the following: (Check the appropriate box.)

1	Arbitration pursuant to Section 8.3 of this Agreement
	Litigation in a court of competent jurisdiction
	Other: (Specify)

If the Owner and Architect do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, the dispute will be resolved in a court of competent jurisdiction.

§ 8.3 Arbitration

§ 8.3.1 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement, any claim, dispute or other matter in question arising out of or related to this Agreement subject to, but not resolved by, mediation shall be subject to arbitration, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Agreement. A demand for arbitration shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the arbitration.

§ 8.3.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

§ 8.3.2 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement, shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

§ 8.3.3 The award rendered by the arbitrator(s) shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 8.3.4 Consolidation or Joinder

§ 8.3.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 8.3.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 8.3.4.3 The Owner and Architect grant to any person or entity made a party to an arbitration conducted under this Section 8.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Architect under this Agreement.

§ 8.4 The provisions of this Article 8 shall survive the termination of this Agreement.

ARTICLE 9 TERMINATION OR SUSPENSION

§ 9.1 If the Owner fails to make payments to the Architect in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Architect's option, cause for suspension of performance of services under this Agreement. If the Architect elects to suspend services, the Architect shall give seven days' written notice to the Owner before suspending services. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, the Owner shall pay the Architect all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 9.2 If the Owner suspends the Project, the Architect shall be compensated for services performed prior to notice of such suspension. When the Project is resumed, the Architect shall be compensated for expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

§ 9.3 If the Owner suspends the Project for more than 90 cumulative days for reasons other than the fault of the Architect, the Architect may terminate this Agreement by giving not less than seven days' written notice.

§ 9.4 Either party may terminate this Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

§ 9.5 The Owner may terminate this Agreement upon not less than seven days' written notice to the Architect for the Owner's convenience and without cause.

§ 9.6 If the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall compensate the Architect for services performed prior to termination, Reimbursable Expenses incurred, and costs attributable to termination, including the costs attributable to the Architect's termination of consultant agreements.

§ 9.7 In addition to any amounts paid under Section 9.6, if the Owner terminates this Agreement for its convenience pursuant to Section 9.5, or the Architect terminates this Agreement pursuant to Section 9.3, the Owner shall pay to the Architect the following fees:

(Set forth below the amount of any termination or licensing fee, or the method for determining any termination or licensing fee.)

.1 Termination Fee:

Percentage of work completed

2 Licensing Fee if the Owner intends to continue using the Architect's Instruments of Service: \$10,000.00

§ 9.8 Except as otherwise expressly provided herein, this Agreement shall terminate one year from the date of Substantial Completion.

ITEM # 6.

§ 9.9 The Owner's rights to use the Architect's Instruments of Service in the event of a termination of this Agreement are set forth in Article 7 and Section 9.7.

ARTICLE 10 MISCELLANEOUS PROVISIONS

- § 10.1 This Agreement shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 8.3.
- § 10.2 Terms in this Agreement shall have the same meaning as those in AIA Document A201–2017, General Conditions of the Contract for Construction.
- § 10.3 The Owner and Architect, respectively, bind themselves, their agents, successors, assigns, and legal representatives to this Agreement. Neither the Owner nor the Architect shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement, including any payments due to the Architect by the Owner prior to the assignment.
- § 10.4 If the Owner requests the Architect to execute certificates, the proposed language of such certificates shall be submitted to the Architect for review at least 14 days prior to the requested dates of execution. If the Owner requests the Architect to execute consents reasonably required to facilitate assignment to a lender, the Architect shall execute all such consents that are consistent with this Agreement, provided the proposed consent is submitted to the Architect for review at least 14 days prior to execution. The Architect shall not be required to execute certificates or consents that would require knowledge, services, or responsibilities beyond the scope of this Agreement.
- § 10.5 Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, a third party against either the Owner or Architect.
- § 10.6 Unless otherwise required in this Agreement, the Architect shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the Project site.
- § 10.7 The Architect shall have the right to include photographic or artistic representations of the design of the Project among the Architect's promotional and professional materials. The Architect shall be given reasonable access to the completed Project to make such representations. However, the Architect's materials shall not include the Owner's confidential or proprietary information if the Owner has previously advised the Architect in writing of the specific information considered by the Owner to be confidential or proprietary. The Owner shall provide professional credit for the Architect in the Owner's promotional materials for the Project. This Section 10.7 shall survive the termination of this Agreement unless the Owner terminates this Agreement for cause pursuant to Section 9.4.
- § 10.8 If the Architect or Owner receives information specifically designated as "confidential" or "business proprietary," the receiving party shall keep such information strictly confidential and shall not disclose it to any other person except as set forth in Section 10.8.1. This Section 10.8 shall survive the termination of this Agreement.
- § 10.8.1 The receiving party may disclose "confidential" or "business proprietary" information after 7 days' notice to the other party, when required by law, arbitrator's order, or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or to the extent such information is reasonably necessary for the receiving party to defend itself in any dispute. The receiving party may also disclose such information to its employees, consultants, or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of such information as set forth in this Section 10.8.
- § 10.9 The invalidity of any provision of the Agreement shall not invalidate the Agreement or its remaining provisions. If it is determined that any provision of the Agreement violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Agreement shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Agreement.

ARTICLE 11 COMPENSATION

§ 11.1 For the Architect's Basic Services described under Article 3, the Owner shall compensate the Architect as follows:

.1 Stipulated Sum (Insert amount)

Percentage Basis
(Insert percentage value)

\$10,000.00 percent (6.5

%) of the Owner's budget for the Cost of the Work,

as calculated in accordance with Section 11.6.

.3 Other

(Describe the method of compensation)

Fee is based on current projected cost of \$3,000,000.00

§ 11.2 For the Architect's Supplemental Services designated in Section 4.1.1 and for any Sustainability Services required pursuant to Section 4.1.3, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation. If necessary, list specific services to which particular methods of compensation apply.)

Not applicable

§ 11.3 For Additional Services that may arise during the course of the Project, including those under Section 4.2, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation.)

Hourly rate

§ 11.4 Compensation for Supplemental and Additional Services of the Architect's consultants when not included in Section 11.2 or 11.3, shall be the amount invoiced to the Architect plus five percent 5 %), or as follows:

(Insert amount of, or basis for computing, Architect's consultants' compensation for Supplemental or Additional Services.)

§ 11.5 When compensation for Basic Services is based on a stipulated sum or a percentage basis, the proportion of compensation for each phase of services shall be as follows:

Ten percent (10	%)
Ten percent (10	%)
Seventy percent (70	%)
Five percent (5	%)
Five percent (5	%)
	Seventy percent (Seventy percent (70 Five percent (5

Total Basic Compensation one hundred percent (100%)

§ 11.6 When compensation identified in Section 11.1 is on a percentage basis, progress payments for each phase of Basic Services shall be calculated by multiplying the percentages identified in this Article by the Owner's most recent budget for the Cost of the Work. Compensation paid in previous progress payments shall not be adjusted based on subsequent updates to the Owner's budget for the Cost of the Work.

§ 11.6.1 When compensation is on a percentage basis and any portions of the Project are deleted or otherwise not constructed, compensation for those portions of the Project shall be payable to the extent services are performed on those portions. The Architect shall be entitled to compensation in accordance with this Agreement for all services performed whether or not the Construction Phase is commenced.

§ 11.7 The hourly billing rates for services of the Architect and the Architect's consultants are set forth below. The rates shall be adjusted in accordance with the Architect's and Architect's consultants' normal review practices. (If applicable, attach an exhibit of hourly billing rates or insert them below.)

Employee or Category	Rate (\$0.00)	
Architect	\$160.00 per hour	
Intern Architect	\$100.00 per hour	
Draftsman	\$50.00 per hour	
Administrative Assistant	\$30.00 per hour	

§ 11.8 Compensation for Reimbursable Expenses

§ 11.8.1 Reimbursable Expenses are in addition to compensation for Basic, Supplemental, and Additional Services and include expenses incurred by the Architect and the Architect's consultants directly related to the Project, as follows:

- .1 Transportation and authorized out-of-town travel and subsistence;
- .2 Long distance services, dedicated data and communication services, teleconferences, Project web sites, and extranets;
- .3 Permitting and other fees required by authorities having jurisdiction over the Project;
- .4 Printing, reproductions, plots, and standard form documents;
- .5 Postage, handling, and delivery;
- .6 Expense of overtime work requiring higher than regular rates, if authorized in advance by the Owner;
- .7 Renderings, physical models, mock-ups, professional photography, and presentation materials requested by the Owner or required for the Project;
- .8 If required by the Owner, and with the Owner's prior written approval, the Architect's consultants' expenses of professional liability insurance dedicated exclusively to this Project, or the expense of additional insurance coverage or limits in excess of that normally maintained by the Architect's consultants:
- 9 All taxes levied on professional services and on reimbursable expenses;

Init.

- .10 Site office expenses;
- .11 Registration fees and any other fees charged by the Certifying Authority or by other entities as necessary to achieve the Sustainable Objective; and,
- .12 Other similar Project-related expenditures.

§ 11.8.2 For Reimbursable Expenses the compensation shall be the expenses incurred by the Architect and the Architect's consultants plus five percent (5 %) of the expenses incurred.

§ 11.9 Architect's Insurance. If the types and limits of coverage required in Section 2.5 are in addition to the types and limits the Architect normally maintains, the Owner shall pay the Architect for the additional costs incurred by the Architect for the additional coverages as set forth below:

(Insert the additional coverages the Architect is required to obtain in order to satisfy the requirements set forth in Section 2.5, and for which the Owner shall reimburse the Architect.)

Not applicable

§ 11.10 Payments to the Architect

§ 11.10.1 Initial Payments

§ 11.10.1.1 An initial payment of

\$19,500.00 - \$6,625.00 (reimbursement from previous contract) = \$12,875.00

(\$12,875.00) shall be made upon execution of this Agreement and is the minimum payment under this Agreement. It shall be credited to the Owner's account in the final invoice.

§ 11.10.1.2 If a Sustainability Certification is part of the Sustainable Objective, an initial payment to the Architect of Not applicable

() shall be made upon execution of this Agreement for registration fees and other fees payable to the Certifying Authority and necessary to achieve the Sustainability Certification. The Architect's payments to the Certifying Authority shall be credited to the Owner's account at the time the expense is incurred.

§ 11.10.2 Progress Payments

§ 11.10.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed. Payments are due and payable upon presentation of the Architect's invoice. Amounts unpaid

thirty (30) days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Architect. (Insert rate of monthly or annual interest agreed upon.)

ten % 10%

§ 11.10.2.2 The Owner shall not withhold amounts from the Architect's compensation to impose a penalty or liquidated damages on the Architect, or to offset sums requested by or paid to contractors for the cost of changes in the Work, unless the Architect agrees or has been found liable for the amounts in a binding dispute resolution proceeding.

§ 11.10.2.3 Records of Reimbursable Expenses, expenses pertaining to Supplemental and Additional Services, and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times.

ARTICLE 12 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Agreement are as follows: (Include other terms and conditions applicable to this Agreement.)

Not applicable

ARTICLE 13 SCOPE OF THE AGREEMENT

§ 13.1 This Agreement represents the entire and integrated agreement between the Owner and the Architect and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the Owner and Architect.

§ 13.2 This Agreement is comprised of the following documents identified below:

- .1 AIA Document B101TM–2017, Standard Form Agreement Between Owner and Architect
- .2 AIA Document E203TM_2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

(Insert the date of the E203-2013 incorporated into this agreement.)

.3	xhibits: Check the appropriate box for any exhibits incorporated into this Agreement.)	
	AIA Document E204 TM _2017, Sustainable Projects Exhibit, dated as indicated below (Insert the date of the E204-2017 incorporated into this agreement.)	/:
	Not applicable	
	Other Exhibits incorporated into this Agreement: (Clearly identify any other exhibits incorporated into this Agreement, including any and scopes of services identified as exhibits in Section 4.1.2.)	exhibits

.4 Other documents: (List other documents, if any, forming part of the Agreement.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

ARCHITECT (Signature)

(Printed name and title)

Joshua A. Wright, Principal, TN Lic # 103962

(Printed name, title, and license number, if required)



Init.



CONTRACT AMENDMENT COVER SHEET

Agency T	racking #	Edison ID	Contract #		Amendment #		
	AshlandSC-G			2326-05	23-1		
Grantee I	_egal Entity Name	CFDA #					
Town	Town of Ashland City - The Senior Center at Ashland City 93.044 (IIIB), 93.043 (IIID), 93.052 (III-E)						
Amendm	ent Purpose & Effect(s)			•		
Addition	of grocery program	and ARP funds					
Amendm	Amendment Changes Contract End Date: YES NO End Date: 6/30/2023						
TOTAL Contract Amount INCREASE or DECREASE per this Amendment (zero if N/A): \$37,537.50							
Funding -	_						
FY	State/Federal	Interdepartmental	Other	тот	AL Contract Amount		
2023	\$76,922.50				\$76,922.50		
					\$ 0.00		
					\$ 0.00		
					\$ 0.00		
					\$ 0.00		
TOTAL:	\$76,922.50	\$ 0.00	,	\$ 0.00	\$76,922.50		

AMENDMENT 23-1 BETWEEN THE GREATER NASHVILLE REGIONAL COUNCIL AND TOWN OF ASHLAND CITY - THE SENIOR CENTER AT ASHLAND CITY TO CONTRACT 2326-05

This Amendment is made and entered by and between the Greater Nashville Regional Council ("Agency") and Town of Ashland City - The Senior Center at Ashland City ("Grantee") where the parties entered into a contract with an Effective Date of July 1, 2022 for the provision of senior center services and evidence-based programming ("Contract"); and

Section D.2 of the July 1, 2022 contract allows written amendments to the Contract.

The Contract is amended as follows:

- 1. Section C.1. is amended by deleting the original C.1. and substituting the revised C.1., below.
 - C.1. <u>Maximum Liability</u>. In no event shall the maximum liability of the Agency under this Grant Contract exceed Seventy-Six Thousand, Nine Hundred Twenty-Two Dollars And Fifty Cents (\$76,922.50) ("Maximum Liability") for FY 2023. The Grant Budget for FY 2023, attached and incorporated hereto as Attachment B, shall constitute the maximum amount due the Grantee under this Grant Contract. The Grant Budget line-items include, but are not limited to, all applicable taxes, fees, overhead, and all other direct and indirect costs incurred or to be incurred by the Grantee.
- 2. Attachment A (Scope of Services) is amended by deleting the original Attachment A and substituting the revised Attachment A, attached and incorporated herein.
- 3. Attachment B (Grant Budget) is amended by deleting the original Attachment B and substituting the revised Attachment B, attached and incorporated herein.
- 4. Attachment D (Federal Award Identification Worksheet) is amended by deleting the original Attachment D and substituting the revised Attachment D, attached and incorporated herein.

Required Approvals. The GNRC is not bound by this Amendment until it is signed by the contract parties and approved by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of the Contract, said officials may include, but are not limited to, the GNRC, the Tennessee Commission on Aging and Disability, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

<u>Amendment Effective Date</u>. The revisions set forth herein shall be effective November 1, 2022 ("Effective Date"). All other terms and conditions of this Contract not expressly amended herein shall remain in full force and effect.

AGREED:				
TOWN OF ASHLAND CITY - THE SENIOR CENTER AT ASHLAND CITY:				
IT CMITH MAYOR OF ACHI AND CITY	DATE			
JT SMITH, MAYOR OF ASHLAND CITY	DATE			
GREATER NASHVILLE REGIONAL COUNCIL:				
MICHAEL SKIPPER, EXECUTIVE DIRECTOR	DATE			

Senior Center Scope of Services

- 1. The Grantee will operate a senior center with the purpose to facilitate the social, emotional, and physical well-being of adults aged 60 and over as a part of a comprehensive and coordinated system of community-based services and activities.
- 2. Town of Ashland City The Senior Center at Ashland City (Grantee) will comply with the administrative, program, and fiscal requirements contained in the Tennessee Commission on Aging and Disability, Program and Policy Manual, Chapter 6 as well as any relevant federal and state laws, regulations, and rules.
- 3. If the Grantee is a chartered not-for-profit corporation, the Grantee will have a governing entity that is responsible for the overall operation and fiscal integrity of the organization with a written set of bylaws that defines the governing entity and establishes its organizational structure. The governing entity is a group of individuals responsible for the administration and fiscal integrity of the Grantee and the Grantee's policy and procedures, programs, and services. The bylaws will include the roles and responsibilities of the governing entity, Grantee director, staff, participants, and fiscal integrity and responsibilities. Grantees chartered by the State of Tennessee will maintain current registration with the Secretary of State and maintain 501(c)3 status. A Grantee which is part of a city or county government will operate in accordance with policy and procedures of the city or county government. Governmental agencies will be created by statute, resolution, or ordinance.
- 4. If the Grantee is a part of city or county government, the city or county government will have policy and procedures that address the administrative and fiscal policies that govern the operation and management of the Grantee.
 - a. Title VI Civil Rights Policy of Non-discrimination regardless of race, sex, national origin, religion, or presence of disability
 - b. Fiscal Policies and Procedures: The written fiscal policies and procedures will include procedures for:
 - i. Developing and approving the budget
 - ii. Handling cash and providing receipts
 - iii. Check writing and disbursements
 - iv. Purchasing
 - v. Petty cash disbursement and replenishment
 - vi. Bank reconciliation
 - vii. Program income
 - viii. Voluntary Contribution
 - c. A facility that is accessible and barrier-free for people with disabilities
- 5. The Grantee will post the following:
 - a. Participant Grievance Procedure
 - b. Title VI Civil Rights Notice
 - c. Public Accountability Poster (800# TN Comptroller's Office)
 - d. Emergency telephone numbers
 - e. Location of First Aid Kits, extinguishers, and other supplies
 - f. Monthly Calendar of Events
- 6. The Grantee will retain records for five years plus the current year.
- 7. The Grantee will submit an annual report to the Agency by August 1 of each year.
- 8. The Grantee will administer a Satisfaction Survey and the results will be submitted to the Agency annually.
- 9. The Grantee will provide one or more of these services. These services are: health education, education/training, health screening, physical fitness/exercise, recreation, and telephone reassurance.

- 10. The center is required to have a GNRC State Health Insurance Assistance Program (SHIP) representative present SHIP information to center participants twice per fiscal year. Wherever practicable, one event should be scheduled to take place within the first six months of the contract year (July December), with the second event to take place within the last six months of the contract year (January June).
- 11. The Grantee will submit financial reports to the Agency monthly by the 8th day of the month following the month being reported. In addition, the Grantee will submit Invoices for Reimbursement (IFRs) quarterly by the 8th day of the month following the end of the quarter.
- 12. The Grantee will collect participant information using the questions on the Participant Registration Form (PRF) and will maintain service delivery program information. Together, participant information and service delivery program information are referred to as. "Data." The Grantee will do one of the following:
 - a. Enter Data into the WellSky Aging and Disability Database and submit verification reports to the Agency by 11:59 p.m. on the 10th of the following month; or
 - b. Enter Data into MySeniorCenter with appropriate assignments and submit verification reports to the Agency by 11:59 p.m. on the 4th of the following month.
- 13. If Grantee does not enter its information appropriately, as described in #12, Grantee will have a one-time grace period of five days that begins without the necessity of notice from GNRC. During the grace period, the Grantee must enter the required data in the database and submit to GNRC a compliance plan detailing the corrective action the Grantee will undertake to ensure that there are no additional failures to make timely and accurate reports. If the Grantee does not comply during the grace period, then the Grantee's non-compliance will be treated as if it a second event of non-compliance, and the liquidated damages described below will apply.

Time is of the essence with respect to the Grantee's obligations under this Grant Contract, and it is a material term of this Grant Contract that the Grantee timely fulfill its programming and reporting obligations. The Grantee understands that its failure to follow these requirements would damage GNRC and jeopardize GNRC's ability to continue conducting its operations but that it is difficult to calculate the exact dollar figure of the damage. Therefore, the parties agree that following liquidated damages provisions are not penalties and should apply to this contract:

- a. upon the second event of non-compliance with reporting obligations and for each subsequent event of non-compliance, Grantee will pay GNRC 5% of the amount it would otherwise be owed for providing services during the month for which the data was untimely.
- b. upon any failure to provide a contracted service during a month, Grantee will pay GNRC an amount equal to 25% of the total budgeted allocation
- c. The liquidated damages may be withheld by GNRC from any payment to Grantee, and damages will be cumulative for subsequent offenses.

GNRC reserves all other rights to address Grantee non-compliance.

GNRC, in its sole reasonable discretion, will consider waiving damages for good faith, de minimus errors in data reporting such as typographical matters. The failure to enter and submit reports in the required categories or fields does not constitute a de minimus error.

14. The Grantee will strive to target services and programming to meet the needs of older persons with the greatest economic or social need. The following is an estimate for yearly service delivery and targeting:

	Approximate # of Individuals Aged 60+ to be Served Yearly	Average Daily Attendance
Total Unduplicated Individuals	1093	73
Low Income	43	3
Low Income Minority	15	1
Rural	763	53
English Limitation	2	1

A-2

15. The Agency has approved the following subcontractor(s) for delivery of this service:

Name	Address	Phone #	Fax #	Email
Melinda Murff	1265 Wiley Pradue Rd	615-418-7076		Lindymurff24@gmail.com
	Ashland City, TN 37015			

Disease Prevention and Health Promotion (Title III-D) Scope of Services

- 1. In using Title III-D funding, Town of Ashland City The Senior Center at Ashland City (Grantee) will arrange for the provision of disease prevention and health promotion evidence-based programs approved by any operating division of the federal Health and Human Services.
- 2. Prior to the implementation of any programs, the Grantee will submit to the Agency for approval the following information about the proposed evidence-based program(s):
 - a. Name of the program
 - b. Location where course will be held
 - c. verification that all trainers are certified to lead the sessions according to the requirements of the program.
 - d. Total number of sessions required to maintain fidelity
- 3. During the contracting year, the Grantee will collect and maintain the following information for each evidence-based program provided and will provide this information to the Agency at least yearly:
 - a. the name of the evidence-based program implemented:
 - b. the unduplicated number of participants completing the required number of sessions;
 - c. the number of unduplicated participants who did not complete the required number of sessions; and
 - d. identification of reasons for non-completion, if available.
- 4. For any evidence-based programs, the subcontractor will submit monthly reports to the Agency that include the following, as applicable:
 - a. names of trainers who lead classes/workshops;
 - b. names of new trainers;
 - c. the total number of participants; and
 - d. sign-in sheets for each session; and
 - e. for workshops with finite number of sessions:
 - i. the start and end dates of the workshops (if applicable)
 - ii. the number of participants in each workshop (if applicable).
- 5. The Grantee will collect the participant information described in #3 and will maintain service delivery program information. Together, participant information and service delivery program information are referred to as "Data." The Grantee will do one of the following:
 - a. Enter Data into the WellSky Aging and Disability Database and submit verification reports to the Agency by 11:59 p.m. on the 10th of the following month;
 - b. Enter Data into MySeniorCenter with appropriate assignments and submit verification reports to the Agency by 11:59 p.m. on the 4th of the following month; or
 - c. if the Grantee has received written permission from the Agency to submit data directly to Agency, all data and required documentation will be submitted monthly to the Agency via email by 11:59 p.m. on the 8th day of the following month.
- 6. The Grantee will submit financial reports to the Agency monthly by the 8th day of the month following the month being reported. In addition, the Grantee will submit Invoices for Reimbursement (IFRs) quarterly by the 8th day of the month following the end of the quarter.
- 7. If Grantee does not enter the information required appropriately, as described in #5, Grantee will have a one-time grace period of five days that begins without the necessity of notice from GNRC. During the grace period, the Grantee must enter the required data in the database and submit to GNRC a compliance plan detailing the corrective action the Grantee will undertake to ensure that there are no additional failures to make timely and accurate reports. If the Grantee does not comply during the grace period, then the Grantee's non-compliance will be treated as if it a second event of non-compliance, and the liquidated damages described below will apply.

Time is of the essence with respect to the Grantee's obligations under this Grant Contract, and it is a material term of this Grant Contract that the Grantee timely fulfill its programming and reporting

obligations. The Grantee understands that its failure to follow these requirements would damage GNRC and jeopardize GNRC's ability to continue conducting its operations but that it is difficult to calculate the exact dollar figure of the damage. Therefore, the parties agree that following liquidated damages provisions are not penalties and should apply to this contract:

- a. upon the second event of non-compliance with reporting obligations and for each subsequent event of non-compliance, Grantee will pay GNRC 5% of the amount it would otherwise be owed for providing services during the month for which the data was untimely.
- b. upon any failure to begin Evidence Based Programs on or before March 31, 2023, Grantee will forfeit the opportunity to receive payment for any such programs.
- c. The liquidated damages may be withheld by GNRC from any payment to Grantee, and damages will be cumulative for subsequent offenses.

GNRC reserves all other rights to address Grantee non-compliance.

GNRC, in its sole reasonable discretion, will consider waiving damages for good faith, de minimus errors in data reporting such as typographical matters. The failure to enter and submit reports in the required categories or fields does not constitute a de minimus error.

8. The Grantee will strive to target services and programming to meet the needs of older persons with the greatest economic or social need. The following is an estimate for yearly service delivery and targeting:

	Approximate # of Individuals Aged 60+ to be Served Yearly	Average Daily Attendance
Total Unduplicated Individuals	240	17
Low Income	19	2
Low Income Minority	1	0
Rural	168	11
English Limitation	0	0

9. The Agency has approved the following subcontractor(s) for delivery of this service:

Name	Address	Phone #	Fax #	Email
Melinda Murff	1265 Wiley Pradue	615-418-		Lindymurff24@gmail.com
	Rd	7076		
	Ashland City, TN			
	37015			

Senior Center Grocery Program Scope of Services

- 1. Town of Ashland City The Senior Center at Ashland City will coordinate a program that provides boxes of groceries and household items to adults aged 60 and over.
- 2. The Grantee will identify individuals aged 60 and over, striving to target the Grocery Program to meet the needs of older persons with the greatest economic or social need. Each household may receive up to one box per month.
- 3. The Grantee will source and purchase Groceries for recipients of the Grocery Program.
- 4. The Grantee will coordinate delivery or pickup of the boxes of Groceries.
- 5. The Grantee will maintain all documentation, including receipts, as outlined in D.19 of this Grant Contract.
- 6. Agency will reimburse Grantee one-hundred and twenty-five dollars (\$125) per box of Groceries for the Grocery Program. Each box must contain at least one hundred dollars (\$100) worth of eligible items. Up to twenty-five dollars (\$25) of the total one-hundred and twenty-five dollars (\$125) per box may be utilized for expenses incurred in gathering and delivering the completed Grocery Program boxes.
- 7. The Grantee will submit financial reports to the Agency monthly by the 8th day of the month following the month being reported. In addition, the Grantee will submit any Invoice for Reimbursement (IFR) monthly by the 8th day of the month following the end of the month.
- 8. The Grantee will collect participant information using the questions on the Participant Registration Form (PRF) and will maintain service delivery program information. Together, participant information and service delivery program information are referred to as "Data." The Grantee will do one of the following:
 - a. Enter Data into the WellSky Aging and Disability Database and submit verification reports to the Agency by 11:59 p.m. on the 10th of the following month; or
 - b. Enter Data into MySeniorCenter with appropriate assignments and submit verification reports to the Agency by 11:59 p.m. on the 4th of the following month.
- 9. The Grantee will not request reimbursement for any of the following items, as these items are <u>not</u> eligible for reimbursement through the Grocery Program:
 - a. Pet food or other pet items
 - b. Lottery tickets or other gambling items
 - c. Tobacco in any form
 - d. Alcohol for consumption
 - e. Medicines/co-pays
 - f. Gift cards
 - g. Postage stamps
 - h. Money orders

Agency reserves the right to identify additional items as ineligible for reimbursement.

10. Failure to adhere to the requirements listed in this Scope or the applicable attachments may result in termination of this contract.

GRANT BUDGET

Senior Center Services

The grant budget line-item amounts below shall be applicable only to expense incurred during the following **Applicable Period: BEGIN: July 1, 2022** END: June 30, 2023

			<u> </u>	
POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1. 2	Salaries, Benefits & Taxes	\$24,342.75	\$1,668.59	\$26,011.34
4, 15	Professional Fee, Grant & Award	\$1,815.18	\$124.42	\$1,939.60
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	\$2,868.70	\$196.64	\$3,065.34
11. 12	Travel, Conferences & Meetings	\$1,038.34	\$71.17	\$1,109.51
13	Interest	\$0.00	\$0.00	\$ 0.00
14	Insurance	\$327.67	\$22.46	\$ 350.13
16	Specific Assistance To Individuals	\$1,188.06	\$81.44	\$1,269.50
17	Depreciation	\$0.00	\$0.00	\$ 0.00
18	Other Non-Personnel	\$672.69	\$46.11	\$ 718.80
20	Capital Purchase	\$7,131.61	\$488.84	\$7,620.45
22	Indirect Cost	\$0.00	\$0.00	\$ 0.00
24	In-Kind Expense	\$0.00	\$0.00	\$ 0.00
25	GRAND TOTAL	\$39,385.00	\$2,699.67	\$42,084.67

¹ Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform* Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A. (posted on the Internet at: https://www.tn.gov/finance/looking-for/policies.html).

2 Applicable detail follows this page if line-item is funded.

GRANT BUDGET LINE-ITEM DETAIL:

PROFESSIONAL FEE, GRANT & AWARD	GRANT CONRACT AMOUNT (Grantee Participation Not Included)
Professional Fees	\$1,334.05
Contracted Services	\$481.13
TOTAL	\$1,815.18

OTHER NON-PERSONNEL	GRANT CONRACT AMOUNT (Grantee Participation Not Included)
Miscellaneous	\$672.69
TOTAL	\$ 672.69

SOURCE OF FUNDS	ALN	GRANT CONRACT AMOUNT (Grantee Participation Not Included)
Federal Funds	•	
Title III-B Community Support Services	93.044	\$24,297.00
Title III-C-1 Congregate Meals Service	93.045	\$ 0.00
Title III-C-2 Home Delivered Meals Service	93.045	\$ 0.00
Title III-D Disease Prevention and Health Promotion Services	93.043	\$6,500.00
Title III-E National Family Caregiver Support Program	93.052	\$ 0.00
Title VII Long-Term Care Ombudsman Program	93.042	\$ 0.00
Title VII Elder Abuse Prevention Program	93.041	\$ 0.00
Nutrition Services Incentive Program (NSIP)	93.053	\$ 0.00
State Funds		
State Senior Centers Operations	\$8,588.00	
State Home delivered Meals	\$ 0.00	
State Homemaker	\$ 0.00	
State Caregiver	\$ 0.00	
State Guardianship		\$ 0.00
State HCBS/Options for Community Living Program		\$ 0.00
	TOTAL	\$39,385.00

GRANT BUDGET

Senior Center Services - ARP

The grant budget line-item amounts below shall be applicable only to expense incurred during the following Applicable Period: **BEGIN: July 1, 2022** END: June 30, 2023

POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1. 2	Salaries, Benefits & Taxes	\$3,787.50	\$ 0.00	\$3,787.50
4, 15	Professional Fee, Grant & Award	\$ 0.00	\$ 0.00	\$ 0.00
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	\$ 0.00	\$ 0.00	\$ 0.00
11. 12	Travel, Conferences & Meetings	\$ 0.00	\$ 0.00	\$ 0.00
13	Interest	\$ 0.00	\$ 0.00	\$ 0.00
14	Insurance	\$ 0.00	\$ 0.00	\$ 0.00
16	Specific Assistance To Individuals	\$ 0.00	\$ 0.00	\$ 0.00
17	Depreciation	\$ 0.00	\$ 0.00	\$ 0.00
18	Other Non-Personnel	\$ 0.00	\$ 0.00	\$ 0.00
20	Capital Purchase	\$ 0.00	\$ 0.00	\$ 0.00
22	Indirect Cost	\$ 0.00	\$ 0.00	\$ 0.00
24	In-Kind Expense	\$ 0.00	\$ 0.00	\$ 0.00
25	GRAND TOTAL	\$3,787.50	\$ 0.00	\$3,787.50

Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A.* (posted on the Internet at: https://www.tn.gov/finance/looking-for/policies.html).
 Applicable detail follows this page if line-item is funded.

GRANT BUDGET LINE-ITEM DETAIL:

Senior Center Services - ARP

SOURCE OF FUNDS	ALN	GRANT CONRACT AMOUNT (Grantee Participation Not Included)
Federal Funds	•	
Title III-B Community Support Services	93.044	\$ 0.00
Title III-C-1 Congregate Meals Service	93.045	\$ 0.00
Title III-C-2 Home Delivered Meals Service	93.045	\$ 0.00
Title III-D Disease Prevention and Health Promotion Services	93.043	\$ 0.00
Title III-E National Family Caregiver Support Program	93.052	\$ 0.00
Title VII Long-Term Care Ombudsman Program	93.042	\$ 0.00
Title VII Elder Abuse Prevention Program	93.041	\$ 0.00
Nutrition Services Incentive Program (NSIP)	93.053	\$ 0.00
		State Funds
State Senior Centers Operations		\$3,787.50
State Home delivered Meals		\$ 0.00
State Homemaker		\$ 0.00
State Caregiver		\$ 0.00
State Guardianship		\$ 0.00
State HCBS/Options for Community Living Program		\$ 0.00
	TOTAL	\$3,787.50

GRANT BUDGET

Grocery Program

The grant budget line-item amounts below shall be applicable only to expense incurred during the following **Applicable Period: BEGIN: July 1, 2022** END: June 30, 2023

POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1. 2	Salaries, Benefits & Taxes	\$ 0.00	\$ 0.00	\$ 0.00
4, 15	Professional Fee, Grant & Award	\$ 0.00	\$ 0.00	\$ 0.00
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	\$ 0.00	\$ 0.00	\$ 0.00
11. 12	Travel, Conferences & Meetings	\$ 0.00	\$ 0.00	\$ 0.00
13	Interest	\$ 0.00	\$ 0.00	\$ 0.00
14	Insurance	\$ 0.00	\$ 0.00	\$ 0.00
16	Specific Assistance To Individuals	\$33,750.00	\$ 0.00	\$33,750.00
17	Depreciation	\$ 0.00	\$ 0.00	\$ 0.00
18	Other Non-Personnel	\$ 0.00	\$ 0.00	\$ 0.00
20	Capital Purchase	\$ 0.00	\$ 0.00	\$ 0.00
22	Indirect Cost	\$ 0.00	\$ 0.00	\$ 0.00
24	In-Kind Expense	\$ 0.00	\$ 0.00	\$ 0.00
25	GRAND TOTAL	\$33,750.00	\$ 0.00	\$33,750.00

¹ Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A.* (posted on the Internet at: https://www.tn.gov/finance/looking-for/policies.html).

2 Applicable detail follows this page if line-item is funded.

GRANT BUDGET LINE-ITEM DETAIL:

Grocery Program

SPECIFIC ASSISTANCE TO INDIVIDUALS	
Grocery Box at \$125.00 per One Unit (Box)	
TOTAL	\$33,750.00

SOURCE OF FUNDS	ALN	GRANT CONRACT AMOUNT (Grantee Participation Not Included)
Federal Funds	•	
Title III-B Community Support Services	93.044	\$ 0.00
Title III-C-1 Congregate Meals Service	93.045	\$ 0.00
Title III-C-2 Home Delivered Meals Service	93.045	\$ 0.00
Title III-D Disease Prevention and Health Promotion Services	93.043	\$ 0.00
Title III-E National Family Caregiver Support Program	93.052	\$33,750.00
Title VII Long-Term Care Ombudsman Program	93.042	\$ 0.00
Title VII Elder Abuse Prevention Program	93.041	\$ 0.00
Nutrition Services Incentive Program (NSIP)	93.053	\$ 0.00
State Funds		
State Senior Centers Operations	\$ 0.00	
State Home delivered Meals	\$ 0.00	
State Homemaker	\$ 0.00	
State Caregiver	\$ 0.00	
State Guardianship		\$ 0.00
State HCBS/Options for Community Living Program		\$ 0.00
	TOTAL	\$33,750.00

Federal Award Identification Worksheet - OAA

Subrecipient's (Agency's) name (must match registered name in DUNS)	Greater Nashville Regional Council
Subrecipient's (Agency's) Unique Entity Identifier (UEI)	D9NSAAP96ZL6
Federal Award Identification Number (FAIN)	2201TNOASS-01
Federal award date	1/7/2022
Subaward Period of Performance Start and End Date	7/1/2022-6/30/2023
Subaward Budget Period Start and End Date	7/1/2022-6/30/2023
CFDA number and name	93.044
Total amount of federal funds obligated to the subrecipient (Agency)	\$1,567,600
Total amount of the federal award to the pass- through entity (Grantor State Agency)	\$7,825,000
Federal award project description (as required to be responsive to the Federal Funding Accountability and Transparency Act (FFATA)	IIIB: Support Services
Name of federal awarding agency	Administration for Community Living
Name and contact information for the federal awarding official	Department of Health and Human Services Administration For Community Living One Massachusetts Avenue NW Washington, DC 20001-1401
Name of pass-through entity	Tennessee Commission on Aging and Disability
Name and contact information for the pass- through entity awarding official	James Dunn 500 Deaderick St Ste 828 Nashville TN 37243
Is the federal award for research and development?	No
Indirect cost rate for the federal award (See 2 C.F.R. §200.331 for information on type of indirect cost rate)	3.9%

D-1

Federal Award Identification Worksheet - OAA

Subrecipient's (Agency's) name (must match registered name in DUNS)	Greater Nashville Regional Council
Subrecipient's (Agency's) Unique Entity Identifier (UEI)	D9NSAAP96ZL6
Federal Award Identification Number (FAIN)	2201TNOAPH-01
Federal award date	1/7/2022
Subaward Period of Performance Start and End Date	7/1/2022-6/30/2023
Subaward Budget Period Start and End Date	7/1/2022-6/30/2023
Assistance Listing number (formerly known as the CFDA number) and Assistance Listing program title.	93.043
Total amount of federal funds obligated to the subrecipient (Agency)	\$99,900
Total amount of the federal award to the pass- through entity (Grantor State Agency)	\$498,700
Federal award project description (as required to be responsive to the Federal Funding Accountability and Transparency Act (FFATA)	IIID: Preventive Health
Name of federal awarding agency	Administration for Community Living
Name and contact information for the federal awarding official	Department of Health and Human Services Administration For Community Living One Massachusetts Avenue NW Washington, DC 20001-1401
Name of pass-through entity	Tennessee Commission on Aging and Disability
Name and contact information for the pass- through entity awarding official	James Dunn 500 Deaderick St Ste 828 Nashville TN 37243
Is the federal award for research and development?	No
Indirect cost rate for the federal award (See 2 C.F.R. §200.331 for information on type of indirect cost rate)	3.9%

D-2

Federal Award Identification Worksheet - OAA

Subrecipient's (Agency's) name (must match registered name in DUNS)	Greater Nashville Regional Council
Subrecipient's (Agency's) Unique Entity Identifier (UEI)	D9NSAAP96ZL6
Federal Award Identification Number (FAIN)	2201TNOAFC-01
Federal award date	1/7/2022
Subaward Period of Performance Start and End Date	7/1/2022-6/30/2023
Subaward Budget Period Start and End Date	7/1/2022-6/30/2023
Assistance Listing number (formerly known as the CFDA number) and Assistance Listing program title.	93.052
Total amount of federal funds obligated to the subrecipient (Agency)	\$742,800
Total amount of the federal award to the pass- through entity (Grantor State Agency)	\$3,462,200
Federal award project description (as required to be responsive to the Federal Funding Accountability and Transparency Act (FFATA)	IIIE: NFCSP
Name of federal awarding agency	Administration for Community Living
Name and contact information for the federal awarding official	Department of Health and Human Services Administration For Community Living One Massachusetts Avenue NW Washington, DC 20001-1401
Name of pass-through entity	Tennessee Commission on Aging and Disability
Name and contact information for the pass- through entity awarding official	James Dunn 500 Deaderick St Ste 828 Nashville TN 37243
Is the federal award for research and development?	No
Indirect cost rate for the federal award (See 2 C.F.R. §200.331 for information on type of indirect cost rate)	3.9%

D-3

Federal Award Identification Worksheet - ARP

Greater Nashville Regional Council
D9NSAAP96ZL6
04047110000000
2101TNSSC6-00
5/3/2021
4/1/2021-9/30/2024
7/1/2022-6/30/2023
93.044
\$620,800
\$3,093,200
4 - 7 2
IIIB: Supportive Services
mer cappennes connect
Administration for Community Living
Department of Health and Human Services
Administration For Community Living
One Massachusetts Avenue NW
Washington, DC 20001-1401
Tennessee Commission on Aging and Disability
James Dunn
0400
500 Deaderick St Ste 828
Nashville TN 37243
No
3.9%

ATTACHMENT D

Federal Award Identification Worksheet – ARP

Subrecipient's (Agency's) name (must match registered name in DUNS)	Greater Nashville Regional Council
Subrecipient's (Agency's) Unique Entity Identifier (UEI)	D9NSAAP96ZL6
Federal Award Identification Number (FAIN)	2101TNPHC6-00
Federal award date	5/3/2021
Subaward Period of Performance Start and End Date	4/1/2021-9/30/2024
Subaward Budget Period Start and End Date	7/1/2022-6/30/2023
CFDA number and name	93.043
Total amount of federal funds obligated to the subrecipient (Agency)	\$59,400
Total amount of the federal award to the pass- through entity (Grantor State Agency)	\$295,867
Federal award project description (as required to be responsive to the Federal Funding Accountability and Transparency Act (FFATA)	IIID: Preventive Health
Name of federal awarding agency	Administration for Community Living
Name and contact information for the federal awarding official	Department of Health and Human Services Administration For Community Living One Massachusetts Avenue NW Washington, DC 20001-1401
Name of pass-through entity	Tennessee Commission on Aging and Disability
Name and contact information for the pass- through entity awarding official	James Dunn 500 Deaderick St Ste 828 Nashville TN 37243
Is the federal award for research and development?	No
Indirect cost rate for the federal award (See 2 C.F.R. §200.331 for information on type of indirect cost rate)	3.9%

D-5

ATTACHMENT D

Federal Award Identification Worksheet - ARP

Subrecipient's (Agency's) name (must match registered name in DUNS)	Greater Nashville Regional Council
Subrecipient's (Agency's) Unique Entity Identifier (UEI)	D9NSAAP96ZL6
Federal Award Identification Number (FAIN)	2101TNFCC6-00
Federal award date	5/3/2021
Subaward Period of Performance Start and End Date	4/1/2021-9/30/2024
Subaward Budget Period Start and End Date	7/1/2022-6/30/2023
CFDA number and name	93.052
Total amount of federal funds obligated to the subrecipient (Agency)	\$194,200
Total amount of the federal award to the pass- through entity (Grantor State Agency)	\$967,667
Federal award project description (as required to be responsive to the Federal Funding Accountability and Transparency Act (FFATA)	IIIE: NFCSP
Name of federal awarding agency	Administration for Community Living
Name and contact information for the federal awarding official	Department of Health and Human Services Administration For Community Living One Massachusetts Avenue NW Washington, DC 20001-1401
Name of pass-through entity	Tennessee Commission on Aging and Disability
Name and contact information for the pass- through entity awarding official	James Dunn 500 Deaderick St Ste 828 Nashville TN 37243
Is the federal award for research and development?	No
Indirect cost rate for the federal award (See 2 C.F.R. §200.331 for information on type of indirect cost rate)	3.9%

D-6



CSR Engineering Inc.

2010 Hwy. 49E

Pleasant View, TN 37146 Phone: (615) 212-2389 Fax: (615) 246-3815 www.csrengineers.com

November 30, 2022

Mr. Clint Biggers Public Works, Ashland City 233 TN Waltz Pkwy. Ashland City, TN 37015

REFERENCE: Proposal for CDBG (Sewer Pump) Engineering Services (Ashland City, TN)

Background

The Town of Ashland City, Tennessee was awarded Community Development Block Grant (CDBG) funding for three pump station improvements. CSR had assisted with grant submittal and is familiar with the scope of work at each of the three pump station sites. This proposal is intended to offer the services associated with the technical design of the improvements and assist the City through the grant process, and installation of the necessary items.

The following scope of work describes the services to be provided by CSR Engineering.

Scope of Work for the Services

1. Collect and Review Existing Data and Information

CSR staff will collect and review all available information and data related to the Town's existing sewer facilities. Information and data may include available system maps and asbuilts, station data, locations, elevations, pump sizes and rating curves, intake and storage tanks' location and elevation, and any known current flows for the system and zones as available. Usage/Flow estimates will be utilized where metering does not exist or is not available.

2. Hydraulic (Baseline) Model

CSR staff will develop a baseline hydraulic model of the existing stations and parent system using the information gathered above. The hydraulic model will be based upon existing line sizes, pump sizes and rating curves and elevations and the known flow information. This information will be utilized to determine the pump design and specifications needed for plans development.

- Page 111 - | ITEM # 8.

3. Preparation of Plans for Permitting and Construction

CSR staff will prepare a set of plans detailing the existing and proposed conditions at each site. CSR will also assist the Town with construction alternative consideration by comparing public works effort vs contracted services and related cost estimates for labor and materials.

4. Preparation and Submittal of Permits, Bid Documents and Bidding Assistance

5. Construction Services

- a. Inspections
- b. City Forces Assistance
- c. Project Closeout

The fee for the Services will be a lump sum fee of \$39,700. Broken down as shown following:

Items 1,2,3 (Design & Plans)	\$ 31,500
Item 4 (Permits & Bidding)	\$ 3,700
Item 5 (Construction Services)	\$ 4,500

Not included in the scope of work of the Services are easement acquisition services, other utility design, or structural, environmental or geotechnical engineering services. CSR Engineering, Inc. will provide these proposed Services in accordance with Exhibit A, General Terms and Conditions, which is attached and made a part of this Letter Agreement.

Please let us know if you have any questions or comments. If you wish for CSR to proceed according to this proposal, please provide the authorized notification of approval.

As a representative of CSR Engineering, Inc., I agree to perform or oversee the proposed work as agreed above.

SLReyn		November 30, 2022
Jason L. Reynolds, P.E. Project Manager		Date
Accepted by:	for Ashland City Public Works	 Date

EXHIBIT "A" CSR ENGINEERING, INC. GENERAL TERMS AND CONDITIONS

- 1. Relationship between Engineer and Client. Engineer shall serve as Client's professional engineering consultant for the project, described in the proposal (the "Project"). The relationship is that of a buyer and seller of professional services and it is understood that the parties have not entered into any joint venture or partnership with the other. The Engineer shall not be considered to be the agent of the Client.
- Responsibility of the Engineer. Engineer will
 perform the Services in a manner consistent with
 that standard of care and skill ordinarily exercised
 by members of the profession currently practicing
 in the same locality under similar conditions. No
 other representation, express or implied, and no
 warranty or guarantee is included or intended in
 this Agreement or in any report, opinion,
 document, or otherwise.

Notwithstanding anything to the contrary which may be contained in this Agreement or any other material incorporated herein by reference, or in any agreement between the Client and any other party concerning the Project, the Engineer shall not be responsible for the acts or omissions of the Client, or for the failure of the Client, any contractor or subcontractor, or any other engineer, architect or consultant not under contract to the Engineer to carry out their respective responsibilities in accordance with the Project documents, this Agreement or any other agreement concerning the Project.

Engineer shall determine the amounts owing to the construction contractor and recommend in writing payments to the contractor in such amounts. By recommending any payment, the Engineer will not thereby be deemed to have represented that exhaustive, continuous or detailed reviews or examinations have been made to check the quality or quantity of the contractor's work.

3. **Responsibility of the Client**. Client shall provide all criteria and full information as to his requirements for the Project, including budgetary limitations. Client shall arrange for Engineer to enter upon public and private property and obtain all necessary approvals and permits required from all

governmental authorities having jurisdiction over the Project.

Client shall give prompt written notice to the Engineer whenever Client observes or otherwise becomes aware of any development that affects the scope or timing of Engineer's services, or any defect or nonconformance in the work of any construction contractor.

Client shall examine all documents presented by Engineer, obtain advice of an attorney or other consultant as Client deems appropriate for such examinations and provide decisions pertaining thereto within a reasonable time so as not to delay the services of the Engineer.

- 4. Designation of Authorized Representatives. Each party shall designate one or more persons to act with authority in its behalf with respect to appropriate aspects of the Project. The persons designated shall review and respond promptly to all communications received from the party.
- 5. Ownership of Documents. Drawings, specifications, reports and any other documents prepared by Engineer in connection with any or all of the services furnished hereunder shall be the property of Client. Engineer shall have the right to retain copies of all documents and drawings for its files.
- 6. Reuse of Documents. All documents, including drawings and specifications furnished by Engineer pursuant to this Agreement, are intended for use on the Project only. Client agrees they should not be used by Client or others on any other project. Any reuse, without written verification or adaption by Engineer, shall be at Client's sole risk.
- 7. Opinions of Cost. Since the Engineer has no control over the cost of labor, materials, equipment or services furnished by the contractor, or over the contractor's methods of determining prices, or over competitive bidding or market conditions, the Engineer cannot and does not guarantee that proposals, bids or actual construction costs will not vary from his opinions or estimates of construction costs.

Ashland City CDBG Sewer Project November 30, 2022

- Page 4
- 8. Changes. Client reserves the right by written change order or amendment to make changes in requirements, amount of work, or engineering time schedule adjustments; and Engineer and Client shall negotiate appropriate adjustments in fee and/or schedule acceptable to both parties to accommodate any changes.
- Delays. If the Engineer's services are delayed by the Client, or for other reasons beyond the Engineer's control, for more than one year, the fee provided for in this Agreement shall be adjusted equitably.
- 10. **Subcontracts**. Engineer may subcontract portions of the services, but each subcontractor must be approved in advance by Client in writing.
- 11. Suspension of Services. Client may, at any time, by written order to Engineer, require Engineer to stop all, or any part, of the services required by this Agreement. Upon receipt of such an order, Engineer shall immediately comply with its terms and take all reasonable steps to minimize the occurrence of costs allocable to the services covered by the order. Client, however, shall pay all costs associated with suspension including all costs necessary to maintain continuity and the staff required to resume the services upon expiration of the suspension of work
 - order. Engineer will not be obligated to provide the same personnel employed prior to suspension when the services are resumed in the event the period of any suspension exceeds 30 days. Client will reimburse Engineer for the costs of such suspension and remobilization.
- 12. Termination. This Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. This Agreement may be terminated by Client upon 30 days written notice whenever Client shall determine that termination is in its best interests. Cost of termination, including salaries, overhead and fee, incurred by Engineer before the termination date shall be reimbursed by Client.
- 13. Notices. Any notice or designation required to be given by either party hereto shall be in writing and, unless receipt of such notice is expressly required by the terms hereof, it shall be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed and addressed to the party to whom such notice is directed at such party's place of business or such other address as

- either party shall hereinafter furnish to the other party by written notice as herein provided.
- 14. Liability. In the event of joint or concurrent negligence of Engineer and Client, each shall bear that portion of the loss or expense that its share of the joint or concurrent negligence bears to the total negligency (including that of third parties) which caused the personal injury or property damage.
- In the event Engineer's 15. Legal Proceedings. employees are at any time required by Client to provide testimony, answer interrogatories or otherwise provide information ("testimony") in preparation for or at a trial, hearing, proceeding on inquiry ("proceeding") arising out of the services that are the subject of this Agreement, where Engineer is not a party to such proceeding, Client will compensate Engineer for its services and reimburse Engineer for all related direct costs incurred in connection with providing such testimony. This provision shall be of no effect if the parties have agreed in a separate agreement or an amendment to this Agreement to terms which specifically supersede this provision, nor shall this provision apply in the event Client engages Engineer to provide expert testimony or litigation support, which services shall be the subject of a separate agreement or an amendment to this Agreement.
- 16. Successors and Assigns. The terms of this Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided however, that neither party shall assign this Agreement in whole or in part without the prior written approval of the other.
- 17. **Insurance**. Within the context of prudent business practices, Engineer shall maintain at all times: workmen's compensation and unemployment compensation of a form and in an amount as required by state law; comprehensive general liability with limits of at least \$1,000,000/\$1,000,000; automotive liability with limits of at least \$500,000/\$500,000; and professional liability insurance with an annual limit of at least \$1,000,000.
- 18. Information Provided by the Client. The Engineer shall indicate to the Client the information needed for rendering of services hereunder. The Engineer shall not be liable for any claims for injury or loss arising from errors, omissions or inaccuracies in documents or other information provided by the Client.

Ashland City CDBG Sewer Project November 30, 2022 Page 5

19. Subsurface Conditions and Utilities. Client recognizes that a comprehensive sampling and testing program implemented by trained and experienced personnel of Engineer or Engineer's subconsultants with appropriate equipment may fail to detect certain hidden conditions. Client also recognizes that actual environmental, geological and geotechnical conditions that Engineer properly inferred to exist between sampling points may differ significantly from those that actually exist.

Engineer will locate utilities which will affect the project from information provided by the Client and utility companies and from Engineer's surveys. In that these utility locations are based, at least in part, on information from others, Engineer cannot and does not warrant their completeness and accuracy.

20. Hazardous Materials. When hazardous materials are known, assumed or suspected to exist at a project site, Engineer is required to take appropriate precautions to protect the health and safety of his personnel, to comply with the applicable laws and regulations and to follow procedures deemed prudent to minimize physical risks to employees and the public. Client hereby warrants that, if he knows or has any reason to assume or suspect that hazardous materials may exist at the project site, he will inform Engineer in writing prior to initiation of services under this Agreement.

Hazardous materials may exist at a site where there is no reason to believe they could or should be present. Client agrees that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. Engineer agrees to notify Client as soon as practically possible should unanticipated hazardous materials or suspected hazardous materials be encountered.

- 21. Payment. Engineer shall submit statements to Client as set forth in the proposal. Payment in full shall be due within 30 days of Client's receipt of the invoice. If payments are delinquent after 30 days from Client's receipt of the invoice, the Client agrees to pay interest on the unpaid balance at the rate of one and one-half percent per month.
- 22. **Force Majeure.** Neither Client nor Engineer shall be liable for any fault or delay caused by any unforeseen contingency beyond their control,

- including, but not limited to, acts of God, wars, strikes, walkouts, fires, natural calamities, or demands or requirements of governmental agencies.
- 23. Compliance with Laws. To the extent they apply to its employees or its services, the Engineer shall comply with all applicable United States, state, and local laws, including ordinances of any political subdivisions or agencies of the United States, any state, territory or commonwealth thereof.
- 24. **Separate Provisions**. If any provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions shall be valid and binding.
- 25. **Governing Law**. This Agreement shall be governed by and construed in accordance with the laws of Tennessee.
- 26. Amendment. This Agreement shall not be subject to amendment unless another instrument is executed by duly authorized representatives of each of the parties.
- 27. Entire Understanding of Agreement. This Agreement represents and incorporates the entire understanding of the parties hereto, and each party acknowledges that there are no warranties, representations, covenants or understandings of any kind, matter or description whatsoever, made by either party to the other except as expressly set forth herein. Client and Engineer hereby agree that any purchase orders, invoices, confirmations, acknowledgments or other similar documents executed or delivered with respect to the subject matter hereof that conflict with the terms of this Agreement shall be null, void and without effect to the extent they conflict with the terms of this Agreement.

- Page 115 - ITEM # 8.

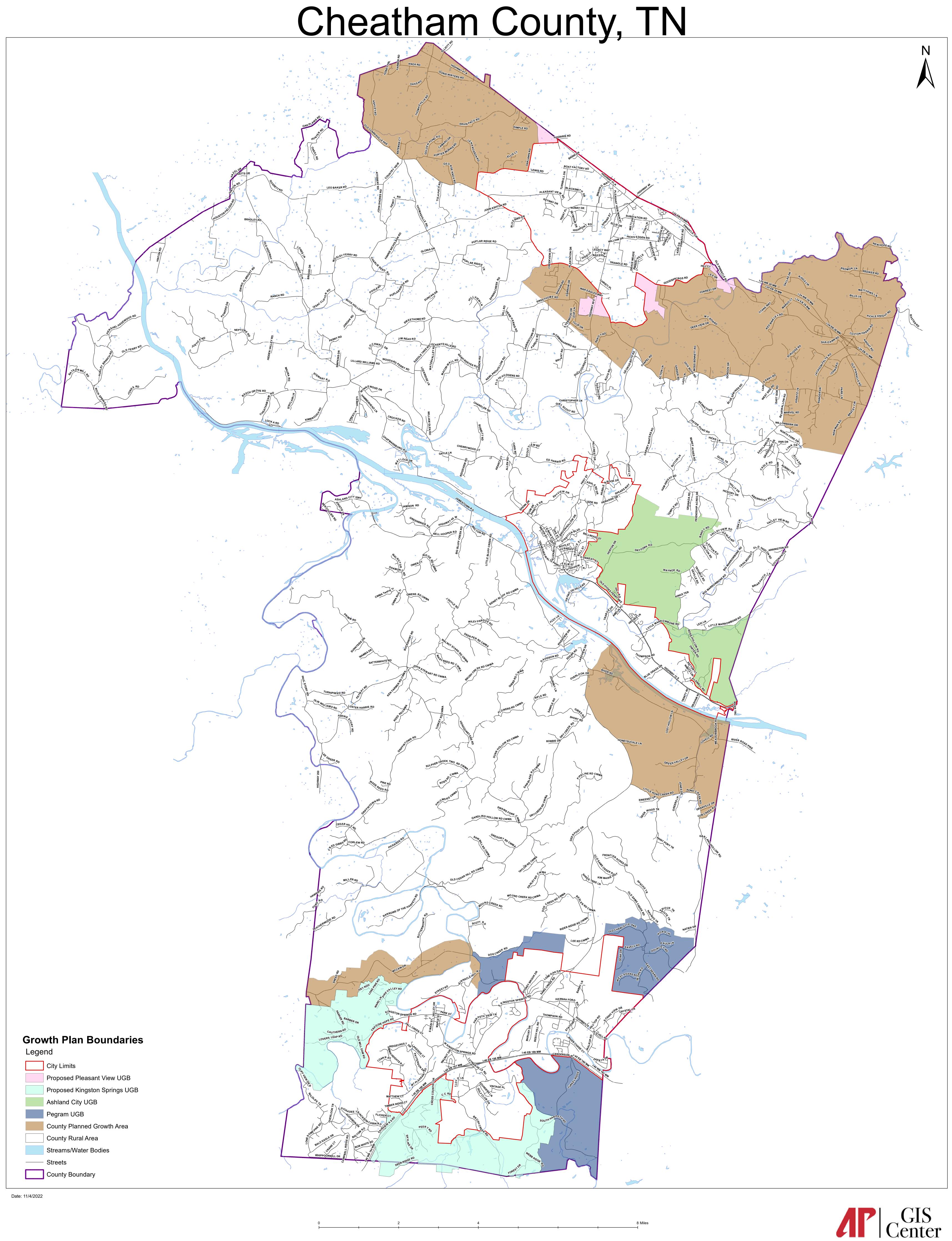
RESOLUTION NO. 2022-

A RESOLUTION OF THE TOWN OF ASHLAND CITY, TENNESSEE TO RATIFY THE AMENDMENT TO THE CHEATHAM COUNTY COMPREHENSIVE GROWTH PLAN

- **WHEREAS**, the Mayor and Council of the Town of Ashland City find it appropriate to ratify the amendment to the Cheatham County Growth Plan; and
- **WHEREAS,** notice to the public was given by the Town of Ashland City, the Town of Pegram, the Town of Pleasant View, the Town of Kingston Springs, and Cheatham County pursuant to *Tennessee Code Annotated* 6-56-101 and 6-58-104 *et seq.*; and
- **WHEREAS,** it is acknowledged that the Town of Ashland City did not make any changes to its Urban Growth Boundary.

NOW, THEREFORE BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF ASHLAND CITY, TENNESSEE hereby ratifies the amendment to the Cheatham County Growth Plan.

Approved this, 20	022.
Voting in Favor	Voting Against
Attest:	
Mayor Jeffrey Smith	City Recorder Alicia Martin, CMFO



Resolution 2022-

A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ASHLAND CITY UPDATING THE WAGE AND SALARY POLICY GOVERNING EMPLOYMENT WITH THE TOWN OF ASHLAND CITY

WHEREAS, the City Council for the Town of Ashland City has previously adopted Resolution 2022-33 and wishes to amend the policy; and

WHEREAS, the Personnel System requires that the Wage and Salary Policy shall be updated and approved by City Council.

NOW, THEREFORE BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF **ASHLAND CITY**, **TENNESSEE** that the Wage and Salary Policy, attached hereto, is hereby amended and approved, and shall become effective immediately following passage of this resolution.

Approved this day of	, 20
Voting in Favor	Voting Against
Attest:	
Mayor JT Smith	City Recorder Alicia Martin, CMFO

Town of Ashland City Wage and Salary Policy

I. Purpose

The pay plan is intended to provide fair compensation for all employees in consideration of pay ranges for other employees, general pay rates for similar employment in private establishments and other public jurisdictions in the area, cost of living data, the financial condition of the municipality and other factors. Further this plan is intended to provide guidelines for the administration of employee salaries, including starting pay rates, pay increases, promotional increases, and other salary adjustments.

II. Policy Objectives

This policy is intended to promote the following:

- A. Ensure competitive pay practices to allow the Town of Ashland City to effectively compete in the market for the talent needed to meet and exceed its performance standards.
- B. Ensure fair and unbiased treatment of employees relative to pay administration.
- C. Ensure that Town of Ashland City salary expense is consistent with taxpayers' expectations for reasonable labor costs.

III. Composition

The pay plan for the Town of Ashland City shall consist of minimum and maximum pay rates for comparable positions. The pay plan is documented in the wage & salary policy, see addendums.

IV. Maintenance of the Pay Plan

The Mayor will, from time to time, make comparative studies of all factors affecting the level of salary ranges and will recommend to the City Council such changes in the salary ranges as appear to be in order.

V. Job Descriptions

A written job description is to be developed and maintained for each position recognized by the Town of Ashland City. Job descriptions are to follow the prescribed format (see Exhibit I). Once a year job description is to be reviewed by incumbents and supervisors to ensure they are up to date. Supervisors are responsible for accurate up-to-date job documentation.

VI. Employee Classifications

1. Exempt Employees – An employee is exempt from the overtime provisions of the Fair Labor Standards Act, if they are classified as an executive, professional or administrative and meet specific criterion for exemption and must be paid at least \$684 weekly. All salaried positions are required to work a minimum of eighty (80) hours per pay period, at their office or city property, unless otherwise approved by the Mayor. Any time less than eighty (80) hours is to be made up using leave (Vacation, Sick, Flex, or Holiday leave) with prior approval by the Mayor.

- Page 119 - | ITEM # 10.

Flex Time – The City shall allow exempt employees to accumulate flex time, on a straight time basis, for extra hours worked in excess of forty (40) hours per week. Exempt employees may accumulate up to a maximum of 80 hours of flex time. These hours shall become null and void at the time employment ceases and cannot be used as a means of fulfilling a notice of resignation immediately preceding termination of employment. Salaried employees may flex their time upon approval from the Mayor. Flex time is an arrangement that allows an employee to alter the starting and/or end time of their workday or to take an entire day off. Employees are required to take flex time before using any vacation pay.

Overtime- Employees exempt from the overtime requirements of the FLSA will not receive overtime compensation but just Flex Time on a straight time basis and not at one and a half times the employee's regular rate.

Emergency Pay – The city shall provide its employees who are considered "exempt" under the Fair Labor Standards Act with emergency pay for every hour worked in excess of forty (40) hours during their normal work when responding to an officially declared local, state or federal disaster or state of emergency. Emergency pay shall only be provided for performing essential services as approved by the Mayor at his or her discretion.

Documentation – To assist the Federal Emergency Management Agency (FEMA) reimbursement process, exempt employees receiving emergency pay shall maintain accurate and detailed documentation defining the duties performed and the hours worked.

2. <u>Non-exempt Employee</u> – An employee who is not exempt from the overtime provisions of the Fair Labor Standards Act. A non-exempt employee is entitled to receive overtime for all hours worked beyond 40 in a workweek (except as FLSA allows for police officers and fire fighters.)

Overtime- When it becomes necessary for an employee to work overtime hours, regular employees, part-time employees, and temporary employees shall be paid according to the prevailing salary schedule. Overtime work will be compensated according to the FLSA provisions at a rate of 1 ½ times the employee's regular rate. Overtime work may also be paid with compensatory time at a rate of 1 ½ times the hours worked in accordance with the FLSA. Non-emergency overtime work must be authorized in advance by the Mayor or department head. Overtime for non-exempt employees is paid for hours worked over 40 per week. Exceptions are made by FLSA for police officers and fire fighters on different shifts. Overtime must be authorized in advance. Sick time is not counted as hours worked for overtime calculations.

Compensatory Time – Overtime may be paid as monetary compensation, compensatory time or any combination of money and compensatory time equivalent so long as the premium pay is at least 'time and one-half'. An employee may not accrue more than 80 hours of compensatory time. Upon termination, or promotion to exempt status an employee must be paid for compensatory time accrued. Non-exempt employees must use compensatory time before they use vacation time.

On-Call Pay- When an employee is on call, he/she will receive compensation based on the number of days in the weekend. If the employee is on call during a two-day weekend, he/she will receive a payment of forty-eight (48) dollars additional pay on their paycheck. For three-day weekends seventy-two (72) dollars on call pay and for four-day

- Page 120 - ITEM # 10.

weekends ninety-six (96) dollars on call pay. If the employee is called in to work during the on-call week, they will receive two hours on call pay calculated based on the on-call rate formula set by federal wage policy.

Call-In Pay- Employees who are called into work for emergencies, regardless of hours worked during the regularly scheduled workweek, he/she will receive call in pay based on 1 ½ times the employee's regular pay rate.

3. On-Duty – An employee is considered 'on-duty' at any time for which the City compensates the employee, which includes lunch and breaks for police officers and fire fighters. All other employees are not compensated for lunch.

VII. Pay Table

A. Number of Pay Grades

Pay is to be administered within ten classifications or pay grades.

B. Pay Ranges

Each pay grade falls within a pay range. Pay ranges are intended to furnish administrative flexibility in recognizing individual differences among positions allocated to the same class and to provide employee incentives.

C. Adjustment of Pay Table

The pay table is subject to review on an annual basis and will be adjusted if necessary to ensure that the Town's pay practices remain competitive with changes in labor market conditions. As appropriate, this review will consist of:

- -Gathering comparative salary data for benchmark jobs from published sources or direct contacts with competing employers,
- -Comparing market salary data obtained for each benchmark job with the corresponding pay range, and
- -If necessary, adjusting the pay ranges approximate market value for jobs in each pay range, or, if appropriate, amending the pay range.

D. Assignment of Positions

Each position is to be assigned to the pay grade for which best matches the competitive market value for the job. Deviations may be made if strategic business considerations dictate that certain positions (not employees) should be valued differently than their market value.

VIII. Rates of Pay

In accordance with the Fair Labor Standards Act (FLSA), no employee, whether full-time, part-time, or probationary, shall be paid less than the federal minimum wage unless they are expressly exempt from the minimum wage requirement by FLSA regulations.

A. Salary Rates

Salary ranges, as seen in Exhibit II, are intended to furnish administrative flexibility in recognizing individual differences among positions allocated to the same class and to provide employee incentives.

B. Starting Rates

The minimum rate established for a class is the normal hiring rate except in those cases where unusual circumstances (such as inability to fill the position at the hiring rate or exceptional qualifications of an applicant) appear to warrant employing an individual at a higher rate in the pay range. Any department head desiring to appoint an applicant to

start at a salary above the minimum must submit justification to the Mayor for approval. Such appointments shall be made only in exceptional cases as decided by the Mayor and/or governing body only after the current pay rates, qualifications, and skill levels of existing job incumbents are carefully considered.

C. Rates Above the Pay Range

Each pay range is intended to serve as a guideline for management for the highest pay rate the Town of Ashland City will normally pay an employee for a particular job; however, if any employee has reached the highest salary for their position they are still eligible for cost of living raises or other raises given to all employees.

D. Rates Below the Minimum

It is possible that employees' pay rates, probably for recent hires, will occasionally fall below the pay range upon adjustment of the pay table (see IV C above). Normally, the pay rates of such employees will be immediately adjusted to the new pay range at the time the new pay table becomes effective.

E. Hourly Rates

Employees paid on an hourly rate basis excluding salaried exempt employees as set out by the Department of Labor are paid for all time actually worked. The Mayor and City Council shall appropriate by budget all salaries paid by the city. Due consideration shall be given to duties performed, responsibilities, technical knowledge, and skills required to perform the work satisfactorily, the labor market, and availability of people having the desired qualifications.

IX. Timesheets

It is the responsibility of the employee to complete timesheets accurately reporting hours worked, paid time off taken, overtime, and on call pay. Any unpaid leave should be approved by the mayor or immediate supervisor and will be notated on the timesheet. Employee paychecks are issued by what is reported on the timesheet to the finance department. The immediate supervisor will review and sign the timesheet for accuracy. As stated in the Employee Manual, Section II. Employment Subsection O. Attendance, "Employees found cheating on their timesheets will be subject to immediate dismissal."

X. Pay Adjustments

A. Pay Increases

1. Eligibility

All non-probationary full-time and part-time employees in good standing whose current pay rate is within pay range are eligible for a pay increase in July each year, subject to appropriation by City Council as part of the annual budget process. Employees who have been placed on disciplinary status or who have not received a good standing annual evaluation will not receive a pay increase. For recently hired employees still on probationary status, eligibility for pay increase is to be delayed until the end of their probationary period.

Note: Jobs requiring employees earn certification per state regulations- An employee who has **not** earned certification in a job that **requires** it. The employee will be ineligible for any pay increase until after the time frame in which certification is earned as stated in the job description. In such cases an employee's pay rate would be adjusted to the appropriate pay rate once the employee receives certification.

2. Pay Increase Amount

- Page 122 - ITEM # 10.

The base pay rate of employees eligible to receive a pay increase will be increase as determined and at the desecration of the department head and mayor based on evaluation and merit. All pay increases will then be presented to the council for approval and justification during the annual budget appropriation process.

3. Pay Increases-Employees on Leave of Absence

Scheduled pay increases will be postponed for employees on approved non-job related medical or personal leave of absence until they return to work. Pay increases will be postponed beyond the date of return to work in cases where such absence exceeds four months (will normally be postponed one additional month for every month of leave beyond four). Pay increases will not be delayed for worker's compensation related medical leave of absence.

4. Pay Increases-Employees on Light Duty

Employees in light duty positions are eligible for a pay increase.

B. Pay Table Adjustment Increases

As indicated in IV C above, the pay table may be adjusted periodically to keep pace with the labor market. This adjustment will be effective July 1 (the beginning of the fiscal year) after receiving City Council approval voted on by resolution.

C. Longevity Payments

1. Eligibility

Full-time employees after three years of service will begin receiving a longevity payment of \$100 per year of service, subject to appropriation by City Council as part of the annual budget process.

Part-time employees after three years of service will begin receiving a longevity payment of \$50 per year of service, subject to appropriation by City Council as part of the annual budget process.

2. Payment Date

The longevity payment is to be paid in the month of November.

3. Withholdings

Longevity payments will be subject to standard tax withholding excluding retirement.

D. Promotional Increases

1. Definition of Promotion

Placement of an individual in a job which is in a pay grade that is higher than the individual's current pay grade will be considered a promotion. (Temporary job reassignments of less than six months will not normally be considered a promotion.)

2. <u>Increase Amount</u>

Upon promotion the individual's salary is to be adjusted to reflect the increased demands and responsibility of the new position. Normally, the employee's pay rate will be increased to represent at least a 5% increase over his/her current pay rate as determined appropriate by the mayor and department head.

E. Temporary Reassignment

Adjustments to pay rates of employees assigned temporarily (for less than six months) to perform work of higher-level jobs will be made at the discretion of management.

F. Lateral Job Reassignments

Reassignment from one job to another in the same pay grade will be considered a lateral move. No immediate adjustment to pay will be made.

G. Demotions or Reassignment to a Lower Pay Grade

Demotions occur when an employee is retuned or transferred to a position in a lower pay grade. Additionally, employees may voluntarily ask to move to a job in a lower pay grade, perhaps through the job posting/bidding process. If an employee was promoted and subsequently returns to the original (lower) job, his/her pay rate would be adjusted to the rate it would equal if the promotion had not occurred. Whether or not a reduction in pay should occur in other situations depends on consideration of the following:

- 1. Was the demotion related to employee's performance or to a reduction in force or organizational change?
- 2. How will the employee's pay rate compare with pay rates of other incumbents in a lower graded job or similar jobs?
- 3. How long has the employee been in the higher-level job?
- 4. What has been the Town of Ashland City's past practice in similar situations? It is often sound practice to reduce the employee's pay rate to be consistent with rates of pay of other incumbents in the new job who possess similar skills and tenure.

H. Re-Classification of Position

A review of market salary data for the purpose of adjusting the pay table or at any other time may suggest that a job should be re-classified to a higher or lower pay grade. Normally, consistent data obtained for two periods over a span of eighteen to twenty-four months are required to confirm such a trend and justify re-classification. This may occur as the job responsibilities evolve over time. Section "G" above would apply to re-classification of a job to a lower pay grade. For an employee whose position was re-classified to a higher pay grade, the employee's pay would be adjusted in the pay range closest to but no less than his/her current pay rate. Significant changes in job responsibilities within a short time period will normally be treated as a promotion.

XI. Paychecks

All employees of the Town of Ashland City shall be issued pay on a biweekly basis. If you have questions about your work time, salary or paycheck, call it to the attention of the City Clerk/Recorder Finance Director within the pay period in question or immediately thereafter. Checks are picked up from each department by department head each pay day. If you are absent on payday and wish to have someone else obtain your check for you, you may give a verbal confirmation authorizing the city to give your check to the bearer.

- **1.** <u>Final Paycheck</u> The final paycheck for a resigning employee will be made available on his/her regular payday.
- 2. <u>Lost Paychecks</u> Employees are responsible for their paychecks after they have been issued. Checks lost or otherwise missing should be reported immediately to the City Recorder so that a stop payment order may be initiated. The Recorder will determine if and when a new check should be issued to replace a lost or missing check. Cost of stop payment of check will be paid by the employee.
- 3. <u>Unclaimed paychecks</u> Paychecks not claimed by employees within ten (10) days of the date issued must be returned by the supervisor to the City Recorder.

XII. Payroll Deductions

The following deductions will be made when authorized by an employee:

1. Federal Income Tax: Federal taxes are withheld from employees' paychecks based on the number of dependents claimed by each individual. Employees are required to keep on file with the municipal government a copy of the W-4 form. In the event of changes in the employee exemption status, a revised W-4 must be filed before payroll deduction adjustments will be made.

- Page 124 - | ITEM # 10.

- 2. Social Security/Medicare: Social Security payments and deductions will be made according to the Social Security Act. The City Recorder shall keep such records and make such reports as may be required by applicable state and federal laws or regulations.
- <u>3. Other:</u> Other City authorized deductions will be made from an employee's pay only with the employee's signed consent or as required by law.
 - a. Medical insurance
 - b. Life insurance
 - c. Vision insurance
 - d. Supplemental insurance
 - e. Additional life insurance
 - f. Deferred compensation payments
 - g. Dental insurance
 - h. Child support garnishments
 - i. Any other garnishments or deductions agreed to or required by law
 - j. TCRS Retirement will be taken out of an employee paycheck after 30 day's employment at a rate of 5% of gross total per paycheck.
 - k. Any court order for garnishments or child support will be taken as ordered by the court.
 - 1. Other city-authorized deductions may be made from an employee's pay only with the employee's signed consent.

If all leave has been exhausted, an employee must make arrangements to cover any premiums or deductions not covered by the city's umbrella plan. Additional coverages being paid by the city is done as a courtesy and benefit for the employee but is not the responsibility of the city. These are the responsibility of the employee. Arrangements must be made with the City Recorder Finance Director before the leave is exhausted. The city will not continue to pay additional premiums or deductions, if the employee has made no arrangement. Any arrangement for repayment will not exceed 6 months without approval from the Mayor.

- Page 125 - | ITEM # 10.

EXHIBIT 1 The Town of Ashland City Job Description Format

JOB DESCRIPTION

Town of Ashland City (Department)

(Location)

CLASSIFICATION TITLE: (Job Title)

DEPARTMENT: (Department)

REVISION DATE: (Last date of Council Approval)
REPORTS TO: (Department Head's Title)

EMPLOYMENT STATUS: (Full time or Port time)

EMPLOYMENT STATUS: (Full-time or Part-time)
FLSA STATUS: (Exempt or Non-exempt)

PAY RANGE: (Pay Grade)

JOB SUMMARY

(A brief one or two sentence description of the purpose of the job)

ESSENTIAL DUTIES AND RESPONSIBILITIES

(Brief statements, in descending order of importance based on frequency and impact, of the essential job functions. Essential function are those:)

- (For which the position exists to perform ex: data entry operator job exists to operate computer keyboard to input data)
- (For which there are a limited number of other employees available to perform the function)
- (Highly specialized in nature requiring incumbents to be hired specifically because of the skill or ability to perform them)

QUALIFICATIONS

(Brief description of the following job requirements)

- (Education)
- (Experience)
- (Certificates, Licenses, Registrations which include time allowed to become certified)
- (Special Requirements)

REQUIRED KNOWLEDGE AND ABILITIES

(Brief description of required knowledge, skills, and abilities)

EQUIPMENT OPERATED

- (Computer, printer, various office machines (phone, calculator, copier, etc.)
- (software)
- (Microsoft Office Suites)
- (Cell phone)

WORKING CONDITIONS

- (Working conditions are in an office environment)
- (Working environment is office setting with some lifting of office supplies weighing up to 20lbs)
- (Located in a busy office, faced with constant interruptions)

USUAL PHYSICAL DEMANDS

(Brief description of requirements for lifting, walking, sitting, seeing, hearing, reaching, feeling, and talking

EMPLOYEE AWARENESS

- Implement and assure adherence to The Town of Ashland City policies and procedures regarding Equal Employment Opportunity.
- Adheres to The Town of Ashland City initiative on business ethics and conduct.
- Adheres to federal/state laws and relations regarding MSDA, OSHA and EPA compliance

Adheres to rederanstate raws and relations regarding MisDA,	OSITA and El A comphance.
nis is not necessarily an exhaustive list of all responsibilities, skills, a sociated with the job. While this is intended to be an accurate reflegant to revise the job, or to require that other, or different tasks be performanges in personnel or workload, etc.).	ection of the current job, management reserves the
MANAGEMENT APPROVAL	
Manager's Signature	// Date
EMPLOYEE UNDERSTANDING AND AGREEMENT	
Employee's Signature	/

RESOLUTION NO. 2022-

A RESOLUTION OF THE TOWN OF ASHLAND CITY, TENNESSEE ADOPTING THE CHEATHAM COUNTY HAZARD MITIGATION PLAN

- **WHEREAS,** The Town of Ashland City recognizes the threat that natural hazards pose to people and property; and
- WHEREAS, undertaking Hazard Mitigation actions before disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and
- **WHEREAS**, an adopted Hazard Mitigation Plan is required as a condition of future grant funding for mitigation projects; and
- **WHEREAS,** The Town of Ashland City participated jointly in the planning process with the other local units of government within the County to prepare the Hazard Mitigation Plan.

NOW THEREFORE BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF ASHLAND CITY, TENNESSEE, hereby adopts the Cheatham County Hazard Mitigation Plan as an official plan; and

BE IT FURTHER RESOLVED that the Cheatham County Emergency Management Agency will submit on behalf of the participating municipalities (Ashland City, Kingston Springs, Pegram, and Pleasant View) the adopted Cheatham County Mufti-jurisdiction Hazard Mitigation Plan to Federal Emergency Management Agency officials for final review and approval.

Approved this day of	, 20
Voting in Favor	Voting Against
Attest:	
Mayor Jeffery Smith	City Recorder Alicia Martin, CMFO

- Page 128 - | ITEM # 11.

Cheatham County Hazard Mitigation Plan

2022 Update



Prepared By:

Cheatham County Hazard Mitigation Committee Cheatham County Emergency Management

Assistance Provided By:

Tennessee Emergency Management Agency as part of the Tennessee Mitigation Initiative

- Page 129 - | ITEM # 11.

Executive Summary

Over the past two decades, hazard mitigation has gained increased national attention due to the large number of natural disasters that have occurred throughout the U.S. and the rapid rise in costs associated with those disaster recoveries. It has become apparent that money spent mitigating potential impacts of a disaster event can result in substantial savings of life and property. With these benefit cost ratios being extremely advantageous, the Disaster Mitigation Act of 2000 was developed as U.S. Federal legislation that reinforces the importance of pre-disaster mitigation planning by calling for local governments to develop mitigation plans (44 CFR 201).

The purpose of a local hazard mitigation plan is to identify the community's notable risks and specific vulnerabilities, and then to create and implement corresponding mitigation projects to address those areas of concern. This methodology helps reduce human, environmental, and economic costs from natural and man-made hazards through the creation of long-term mitigation initiatives.

The advantages of developing a local hazard mitigation plan are numerous and include improved post-disaster decision making, education on mitigation approaches, and an organizational method for prioritizing mitigation projects. Communities with a mitigation plan receive larger amounts of Federal and State funding to be used on mitigation projects and receive these funds faster than communities without a plan.

This 2022 update of the Cheatham County Hazard Mitigation Plan addresses Pre-Disaster Mitigation, Flood Mitigation Assistance, and Hazard Mitigation Grant Program requirements. To ensure success, each jurisdiction within the county participated in the preparation of the update, including:

- Cheatham County
- Town of Ashland City (County Seat)
- Town of Kingston Springs
- Town of Pegram
- City of Pleasant View

In reference to federal code title 44 CFR 201, an updated hazard mitigation plan is required to be re-submitted to both TEMA (State) and FEMA (Federal) for review every five years. When the plan is deemed "approval pending adoption" by FEMA (44 CFR 201.6(c)5), each of the participating jurisdictions will adopt the plan through a local resolution.

Table of Contents

List of Tables	5
List of Figures	6
1. The Planning Process	7
1.1 Purpose and Need, Authority and Statement of Problem	7
1.1.1 Purpose and Need	7
1.1.2 Authority	7
1.1.3 Statement of Problem	7
1.2 Local Methodology, Update Process, and Participation Summary	8
1.2.1 Local Government Participation	8
1.2.2 Planning Process	10
Phase I – Planning Process	10
Organize to Prepare the Plan	10
Involve the Public	11
Coordination	12
Phase II – Risk Assessment	
Identify the Hazard and Assess the Problem	
Phase III – Mitigation Strategy	
Set Goals and Review Possible Activities	
Draft an Action Plan	
Phase IV – Plan Maintenance	14
Adopt the Plan	14
Implement, Evaluate and Revise the Plan	14
1.3.1 The New Plan	14
1.3.2 2017 HMP Strategy Status	15
1.4 Plan Update	19
1.5 Multi-Jurisdictional Special Considerations	20
1.6 Adoption, Implementation, Monitoring, and Evaluation	20
1.6.1 Plan Adoption	20
1.6.2 Implementation	20
Role of the Hazard Mitigation Planning Committee in Implementation	, Monitoring, and
Evaluation	21
Maintenance	
Maintenance Schedule	21
Maintenance Evaluation Process	22
1.7 Public Participation	22
1.8 Community Data	23

TABLE OF CONTENTS

1.8.1 Location	23
1.8.2 Local Government	25
1.8.3 Development and Growth	25
1.8.4 Resources	25
1.8.5 Demographics	26
2. Hazard Identification and Risk Assessment	28
2.1 Hazard Identification	30
2.1.1 Tornadoes	31
2.1.2 Severe Weather (Thunderstorms, Wind, Lighting, Hail)	37
2.1.3 Earthquakes	49
2.1.4 Flooding	53
HAZUS	62
2.1.5 Winter Weather	68
2.1.6 Drought	73
2.1.7 Dam Failure	77
3. Mitigation Strategy	83
3.1 Mitigation Strategy	83
3.1.1 Continued Compliance with NFIP	83
3.2 Goals	83
3.2.1 Goal Setting Exercise	83
3.2.2 Resulting 2022 Plan Update Goals	84
3.3 Identification and Analysis of Mitigation Activities	84
3.3.1 Prioritization Process	84
3.4 Mitigation Action Plan.	85
4. Plan Integration and Maintenance	91
4.1 Integration into Local Planning Mechanism	91
4.2 Monitoring, Evaluating, Updating	91
4.2.1 Continued Public Involvement	92
Appendix A	i
Appendix B	Vi
Appendix C	xxxix
Annendix D	vlv

List of Tables

TABLE 1 MULTI-JURISDICTIONAL HMPC PARTICIPATION	9
TABLE 2 HMPC MEMBERS	9
TABLE 3 SUMMARY OF HPMC MEETINGS	11
TABLE 4 SUMMARY OF PUBLIC MEETING	12
TABLE 5 PLANNING MECHANISM REVIEW	13
TABLE 6 MITIGATION ACTION PROGRESS SUMMARY (2017 PLAN)	16
TABLE 7 POPULATION DATA	27
TABLE 8 PRESIDENTIAL DISASTER DECLARATION IN CHEATHAM COUNTY (1953 - 2022) *	28
TABLE 9 OVERVIEW OF UPDATES TO CHAPTER 2: HAZARD IDENTIFICATION AND RISK ASSESSMENT	29
TABLE 10 ENHANCED FUJITA SCALE	
TABLE 11 NOAA RECORDED TORNADO EVENTS (1950 – 2022)	34
TABLE 12 RISK ASSESSMENT (TORNADOES)	36
TABLE 13 TORRO HAIL INDEX (SOURCE: THE TORNADO AND STORM RESEARCH ORGANIZATION)	38
TABLE 14 NOAA RECORDED WIND EVENTS (1950 - 2022)	40
TABLE 15 NOAA RECORDED HAIL EVENTS (1950-2022)	45
TABLE 16 RISK ASSESSMENT (SEVERE WEATHER)	48
TABLE 17 RICHTER SCALE FOR EARTHQUAKES (SOURCE: USGS)	51
TABLE 18 RISK ASSESSMENTS (EARTHQUAKES)	52
TABLE 19 MAPPED FLOOD INSURANCE ZONES	55
TABLE 20 NFIP SUMMARY OF PARTICIPATING JURISDICTIONS	57
TABLE 21 NFIP POLICY DATA	57
Table 22 NFIP Loss Data	58
TABLE 23 NOAA REPORTED FLOODING EVENTS (1950 - 2022)	58
Table 24 Record Flood (May 2010)	59
TABLE 25 RISK ASSESSMENT (FLOODING)	61
TABLE 26 BUILDING EXPOSURE BY OCCUPANCY TYPE	63
TABLE 27 BUILDING EXPOSURE BY OCCUPANCY TYPE FOR 100-YR FLOOD SCENARIO	63
TABLE 28 BUILDING EXPOSURE BY OCCUPANCY TYPE FOR 500-YR FLOOD SCENARIO	63
TABLE 29 EXPECTED BUILDING DAMAGE BY OCCUPANCY FOR 100-YR FLOOD SCENARIO	64
TABLE 30 EXPECTED BUILDING DAMAGE BY OCCUPANCY FOR 500-YR FLOOD SCENARIO	64
TABLE 31 EXPECTED DAMAGE TO ESSENTIAL FACILITIES 100-YR FLOOD SCENARIO	65
TABLE 32 EXPECTED DAMAGE TO ESSENTIAL FACILITIES 500-YR FLOOD SCENARIO	65
TABLE 33 BUILDING RELATED ECONOMIC LOSS ESTIMATES FOR THE 100-YR FLOOD SCENARIO (\$ MILLIONS)	66
TABLE 34 BUILDING RELATED ECONOMIC LOSS ESTIMATES FOR THE 100-YR FLOOD SCENARIO (\$ MILLIONS)	66
TABLE 35 NOAA RECORDED WINTER WEATHER EVENTS (1950-2022)	70
TABLE 36 RISK ASSESSMENT (WINTER WEATHER)	
TABLE 37 DROUGHT CLASSIFICATION	73
TABLE 38 NOAA RECORDED DROUGHT EVENTS (1950-2022)	75
TABLE 39 RISK ASSESSMENT (DROUGHT)	76
TABLE 40 PRIVATELY OWNED DAMS (SOURCE: NATIONAL INVENTORY OF DAMS)	
TABLE 41 RISK ASSESSMENT (DAM FAILURE)	
TABLE 42 CHEATHAM COUNTY MITIGATION ACTIONS AND PROJECTS	87

List of Figures

FIGURE 1 COUNTY MAP (SOURCE: APSU GIS CENTER)	24
FIGURE 2 COUNTY BROADBAND MAP SERVED/UNSERVED AREAS (SOURCE: TN DEPT. OF ECONOMIC AND COMMUNITY DEVELOPMENT)	26
FIGURE 3 TORNADOES BY COUNTY (NWS/NOAA)	32
FIGURE 4 TORNADO TRACKS IN CHEATHAM COUNTY (SOURCE: NWS/MSSTATE.EDU)	33
FIGURE 5 TORNADO FREQUENCY BY HOUR	33
FIGURE 6 DAMAGE TO HOME AND CAR IN SE CHEATHAM COUNTY FOLLOWING THE DEC. 11, 2021, TORNADO OUTBREAK. (SOURCE: CHEATHAM COUNTY EXCHANGE)	35
FIGURE 7 AVERAGE WIND RISK (TENNESSEE HAZARD MITIGATION PLAN 2018)	38
FIGURE 9 DAMAGE IN THE COUNTY FOLLOWING THE LARGE STORM SYSTEM DEC. 11, 2021 (SOURCE: FOX 17 No NASHVILLE)	
FIGURE 10 MEAN NUMBER OF >50-KNOT WIND DAYS PER YEAR (1986-2015) (SOURCE: NOAA)	45
FIGURE 11 VIDEO OF PEGRAM HAIL EVENT APRIL 23, 2017 (SOURCE: WSMV NEWS 4 VIA FACEBOOK)	47
FIGURE 12 NEWS ARTICLE FOR JUNE 24, 2016, LIGHTING ASSOCIATED HOUSE FIRE (SOURCE: WKRN)	48
FIGURE 13 NEW MADRID FAULT LINE	50
FIGURE 14 NEW MADRID SEISMIC ZONE EARTHQUAKES (SOURCE: USGS)	50
FIGURE 15 HYPOTHETICAL LEVELS OF SHAKING FROM M7.7 EARTHQUAKE (SOURCE: USGS)	52
FIGURE 16 CHARACTERISTICS OF A FLOODPLAIN (SOURCE: FEMA)	54
FIGURE 17 100-YEAR FLOOD MAP	56
FIGURE 18 500-YEAR FLOOD MAP	57
FIGURE 20 MIDDLE TN PRECIPITATION ESTIMATES DURING THE MAY 1-2 FLOODING EVENT	60
FIGURE 21 FLOODING IN ASHLAND CITY MARCH 27-28, 2021 (SOURCE: WKRN)	61
FIGURE 22 AVERAGE SNOWFALL PER YEAR (SOURCE: NOAA)	69
FIGURE 23 HAZARD PROBABILITY MAP (WINTER WEATHER) (SOURCE: 2018	69
FIGURE 24 WINTER WEATHER DEC. 8, 2018, ASHLAND CITY (SOURCE: USA TODAY NETWORK, KELLY FISHER)	71
FIGURE 25 PALMER DROUGHT MAP	74
FIGURE 26 DROUGHT MONITOR TIME SERIES (SOURCE: NATIONAL DROUGHT MITIGATION CENTER)	75
FIGURE 27 TENNESSEE DAM FAILURE HAZARD RISK (SOURCE: 2018 TENNESSEE HAZARD MITIGATION PLAN)	78
FIGURE 28 CHEATHAM DAM	80
FIGURE 29 SAFE-T PROJECT PRIORITIZATION	85

1. The Planning Process

This chapter describes the planning process undertaken by Cheatham County in the preparation of this Hazard Mitigation Plan Update.

1.1 Purpose and Need, Authority and Statement of Problem

1.1.1 Purpose and Need

As defined by FEMA, "hazard mitigation" means any sustained action taken to reduce or eliminate the long-term risk to life and property from a hazard event. Hazard mitigation planning is the process through which hazards are identified, likely impacts determined, mitigation goals set, and appropriate mitigation strategies determined, prioritized, and implemented. The purpose of this Plan is to identify, assess, and mitigate risk to better protect the people and property of Cheatham County from the effects of natural and man-made hazards. This Plan documents the hazard mitigation planning process and identifies relevant hazards, vulnerabilities, and strategies the County and incorporated jurisdictions will use to decrease vulnerability and increase resiliency and sustainability.

This Plan demonstrates the participating communities' commitment to reducing risks from identified hazards and serves as a tool to help decision-makers direct mitigation activities and resources. This Plan will ensure the involved communities' continued eligibility for federal disaster assistance including the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP), Building Resistant Infrastructure and Communities (BRIC), and the Flood Mitigation Assistance Program (FMA).

1.1.2 Authority

This Hazard Mitigation Plan has been adopted by Cheatham County and all participating jurisdictions in accordance with the authority granted to local communities by the State of Tennessee. This Plan was updated in accordance with state and federal rules and regulations governing local hazard mitigation plans. The Plan shall be monitored and updated every five years to remain eligible for hazard mitigation grants. The following legislation was used for guidance:

- Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act or the Act), 42 U.S.C. 5165, enacted under Section 104 of the Disaster Mitigation Act of 2000 (DMA 2000) Public Law 106-390 of October 30, 2000, as implemented at 44 CFR 201.6 and 201.7 dated October 2011.
- Tennessee Code Annotated
 - o T.C.A. 58-2-106(b)(16)
 - O T.C.A. 58-2-106(b)(1)
 - O T.C.A. 58-2-103(a)(5)

1.1.3 Statement of Problem

Each year in the United States, natural disasters take the lives of hundreds of people and injure thousands more. Taxpayers pay billions of dollars annually to help communities, organizations, businesses, and individuals recover from disasters. Unfortunately, this only partially reflects the cost of disasters because additional expenses incurred by insurance companies and non-

governmental organizations are not reimbursed by tax dollars. Many natural disasters are predictable, and much of the damage caused by these events can be reduced or even eliminated.

The original Cheatham County Hazard Mitigation Plan was created and approved by FEMA in 2017. Per federal requirements stated in 44 CFR 201, all local hazard mitigation plans are required to go through a FEMA approval process every five years to remain eligible for hazard mitigation grants. This plan will be re-evaluated and updated every five years to ensure local governments are continuing to assess the hazards and risks within their communities. Each plan will consider the above stated variables as well as the resources and capabilities within the jurisdictions to ensure mitigation projects are implemented that can reduce community vulnerabilities.

This plan update has been prepared to meet requirements set forth by FEMA and the Tennessee Emergency Management Agency (TEMA) to ensure Cheatham County is eligible for funding and technical assistance from state and federal hazard mitigation programs.

1.2 Local Methodology, Update Process, and Participation Summary

44 CFR Subsection D §201.6(b): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

- 1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
- 2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process; and
- 3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

44 CFR Subsection D §201.6(c)(1): The plan shall include the following:

1) Documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

This Hazard Mitigation Plan was developed under the guidance of a Hazard Mitigation Planning Committee (HMPC). The Committee included representatives of Cheatham County, Ashland City, Kingston Springs, Pegram, Pleasant View, state agencies, and other community members.

Information in this plan will be used to help guide and coordinate mitigation activities and decisions for local land use policy in the future. Proactive mitigation planning will help reduce the cost of disaster response and recovery to communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. This plan identifies activities that can be undertaken by both the public and the private sectors to reduce risk to safety, health and property caused by natural and man-made hazards.

1.2.1 Local Government Participation

The planning regulations and guidance stress that each local government seeking FEMA approval of their mitigation plan must participate in the planning effort in the following ways:

- Participate in the process as part of the HMPC;
- Detail where within the planning area the risk differs from that facing the entire area;

- Identify potential mitigation actions; and
- Formally adopt the plan.

For the HMPC, "participation" meant the following:

- Providing facilities for meetings;
- Attending and participating in the HMPC meetings;
- Collecting and providing other requested data (as available);
- Identifying mitigation actions for the plan;
- Reviewing and providing comments on plan drafts;
- Informing the public, local officials, and other interested parties about the planning process and providing opportunity for them to comment on the plan;
- Coordinating, and participating in the public input process; and
- Coordinating the formal adoption of the plan by the appropriate governing body.

The HMPC met all the above stated participation requirements. Cheatham County, Ashland City, Kingston Springs, Pegram, and Pleasant View participated in the 2022 Plan update, as well as reviewed and provided timely comments on all draft components of the Plan. A summary of past and current community participation is shown below in *Table 1*. All participants were invited to this committee via email. Those who did not originally respond were reached out to by the EMA director via phone.

Table 1 Multi-jurisdictional HMPC Participation

Jurisdiction	2017 Participation	2022 Participation
Cheatham County	X	X
Ashland City	X	X
City of Kingston Springs	X	X
City of Pelgram	X	X
City of Pleasant View	X	X

The HMPC for the 2022 plan update included key community representatives. *Table 2* details the HMPC members, meeting dates and committee member attendance. The EMA director invited individuals who represented regional and local agencies that have authority in regulating county/city development as well as respond to the identified hazards of prime concern. An email was sent out to key stakeholders on June 2, 2022 inviting them to the meeting and emphasizing the importance of attendance. The template used for this email is located in Appendix C. These partners include jurisdictional police, fire, public works, building/codes, health departments, the county school board, elected officials and electric utility companies. All committee members provided key information to recognize and mitigate hazards of prime community concern withing the whole county and its incorporated jurisdictions. One jurisdiction, Ashland City, was unable to attend the initial public meeting. A separate meeting was set up to review the public meeting notes and discuss jurisdiction specific information on July 14, 2022. A more detailed summary of HMPC meeting dates including topics discussed and meeting locations follows in *Table 3*. Meeting signin sheets are included in Appendix C.

Table 2 HMPC Members

Name	Title	Organization	Meeting	g Dates
			6/21/2022	7/14/2022

Linda Nichols	Director	Cheatham Co. 911	X	
John Louallen	Mayor	Town of Pegram	X	
Tiffany Holder	lder Asst. Director Cheatham County EMA		X	X
Edwin Hogan	Director	Cheatham County EMA	X	X
Mark Gains	Building	Town of Pleasant View	X	
	Commissioner			
Jennifer Boyd	Admin. Assistant	Highway Dept.	X	
John Lawless	City Manager	Kingston Springs	X	
Kerry	Mayor	Cheatham County	X	
McCarver				
Kurt Sala	EHS Manager	A.O Smith	X	
Kim Kassander	Regional Planning	TEMA	X	
	Manager			
Pete Griffin	District Coordinator	TEMA	X	
Cindy Burney	Assessor	Cheatham Co.	X	
Janice Weiss		Soil and Water	X	
		Conservation		
Autumn	Middle Region	TEMA	X	X
Joanow	Planner			
Allen	Director	Ashland City Building and		X
Nicholson		Codes		
Gary Carpenter	Inspector	Ashland City Building and		X
		Codes		

1.2.2 Planning Process

The planning Process for preparing the 2022 Cheatham County Hazard Mitigation Plan update was based upon guidance put forth by FEMA. This guidance proposed a structured four-phase process as follows:

- 1) Planning Process
- 2) Risk Assessment
- 3) Mitigation Strategy
- 4) Plan Maintenance

Phase I – Planning Process

Organize to Prepare the Plan

The planning process officially began with a meeting held on June 21, 2022 at 9 AM at the Cheatham County Emergency Operations Center (100 Public Square, Suite 90 Ashland City, TN 37015). The meeting covered the scope of hazard mitigation, the purpose of planning, eligible grants, risk assessments and vulnerabilities impacting the community. During the planning process, the committee communicated through face-to-face meetings, email, and telephone conversations. The neighboring communities were given an opportunity to be involved in the planning process with email invitations for the planning process, none attended.

Sign-in sheets from the meeting are included in Appendix C. The meeting date and topics discussed are summarized below in *Table 3*. This meeting was open to the public.

Table 3 Summary of HPMC Meetings

Meeting Number	Meeting Topic	Meeting Date	Meeting Location
Meeting #1	Introduction of HMPC Members Review of Hazard Mitigation Review of the Hazard Mitigation Plan Explanation of the Planning Process Analyze the Hazard Risk Assessment Assess County Vulnerabilities Discuss County Growth Discuss Grant Program Opportunities (HMGP, BRIC, FMA) Reviewing 2016 Plan Goals (Discuss and Confirm) Discuss grant eligible projects and actions Discuss previews projects and actions Discuss and update project list	6/21/2022 09:00 AM	Cheatham County Emergency Operations Center
Meeting #2	Introduction of HMPC Members Review of Hazard Mitigation Review of the Hazard Mitigation Plan Explanation of the Planning Process Analyze the Hazard Risk Assessment Assess County Vulnerabilities Discuss County Growth Discuss Grant Program Opportunities (HMGP, BRIC, FMA) Reviewing 2016 Plan Goals (Discuss and Confirm) Discuss grant eligible projects and actions Discuss previews projects and actions Discuss and review notes from meeting #1 Discuss and update project list	7/14/2022 09:00 AM	Cheatham County Emergency Management Office

Involve the Public

Early discussions established the significance of involving the public. The HMPC agreed to an approach using established public information mechanisms and resources within the community. Public involvement activities for this plan update included public notices, stakeholder and public meeting, and the collection of public and stakeholder comments on the draft plan. Due to the nature of the public meetings, neighboring communities, agencies, utilities, academia, and other interested parties were given the opportunity to participate. The formal public meeting for this project is summarized in *Table 4*.

Table 4 Summary of Public Meeting

Meeting	Meeting Topic	Meeting	Meeting
Number		Date	Location
Meeting #1	Introduction of HMPC Members Review of Hazard Mitigation Review of the Hazard Mitigation Plan Explanation of the Planning Process Analyze the Hazard Risk Assessment Assess County Vulnerabilities Discuss County Growth Discuss Grant Program Opportunities (HMGP, BRIC, FMA) Reviewing 2016 Plan Goals (Discuss and Confirm) Discuss grant eligible projects and actions Discuss previews projects and actions Discuss and update project list	6/21/2022 09:00 AM	Cheatham County Emergency Operations Center

A public notice was on June 14, 2022 on Facebook by Cheatham County Emergency Management inviting members of the public to attend the June 21st, 2022 meeting.) Documentation to support the public outreach efforts can be found in Appendix C.

Coordination

Early in the planning process, the committee determined that the risk assessment, mitigation strategy development, and plan approval would be greatly enhanced by inviting other local partners and state to participate in the process. Coordination involved contacting these agencies through email and phone conversations. All groups and agencies were advised on how to become involved in the plan development process and were solicited asking for their assistance and input. A summary of agencies and organizations is as follows:

- Tennessee Emergency Management Agency
- Cheatham County 911 Center
- Cheatham County EMA
- Cheatham County Highway Department
- A.O Smith Manufacturing
- Soil and Water Conservation District (USDA)

Coordination with other community planning efforts was also paramount to the success of this plan. Mitigation planning involves identifying existing policies, tools, and actions that will reduce a community's risk and vulnerability to hazards. Cheatham County uses a variety of planning mechanisms such as land development regulations and ordinances to guide growth and development. Integrating existing planning efforts and mitigation policies and action strategies into this plan establishes a credible and comprehensive plan that ties into and supports other community programs.

Table 5 identifies the existing planning mechanisms that were reviewed and how they were incorporated into the 2022 Hazard Mitigation Plan Update.

Table 5 Planning Mechanism Review

Existing Planning Mechanism	Reviewed?	Method of Use in Hazard
	(Yes/No)	Mitigation Plan
State Hazard Mitigation Plan	Yes	Identifying hazards, assessing
State Hazard Willigation Flair	1 68	vulnerabilities, mitigation strategies
Local Emergency Operations Plan	Yes	Identify major capabilities
Community Data Brafile	Yes	Development trends, capability
Community Data Profile	i es	assessment
Stormwater Ordinance	Yes	Capability assessment, mitigation
Stormwater Ordinance	1 es	strategies
Building and Zoning Codes and	Yes	Different years of code regulations
Ordinances	ies	utilized in different jurisdictions
		Assessing vulnerabilities,
Land Use Maps	Yes	development trends, mitigation
		strategies
Critical Equilities Mans	Yes	Assessing vulnerabilities, mitigation
Critical Facilities Maps	i es	strategies
NOAA Archives	Yes	Analyze weather data and trends
LLC Conque Duncou	Vac	Analyze community demographic
U.S Census Bureau	Yes	data and trends

These and other documents were reviewed and considered, as appropriate, during the collection of hazard identification, vulnerability assessment, and capability assessment. Data from these plans and ordinances were incorporated into the risk assessment and hazard vulnerability sections of the plan as appropriate. The data was also used in determining the capability of the community in being able to implement certain mitigation strategies.

Phase II - Risk Assessment

Identify the Hazard and Assess the Problem

The committee completed a comprehensive effort to identify/update, document, and profile all hazards that have, or could have, an impact on the community. The committee also conducted a capability assessment to review and document the planning area's current capabilities to mitigate risk from and vulnerability to hazards. By collecting information about existing government programs, policies, regulations, ordinances, and emergency plans, the committee could assess those activities and measures already in place that contribute to mitigating some of the risks and vulnerabilities identified. A more detailed description of the risk assessment process and the results are included in Chapter 2 Hazard Identification and Risk Assessment.

Phase III – Mitigation Strategy

Set Goals and Review Possible Activities

This meeting facilitated brainstorming and discussion sessions that described the purpose and process of developing planning goals and objectives, a comprehensive range of mitigation alternatives, and a method of selecting and defending recommended mitigation actions using a series of selection criteria. This information is included in Chapter 3 Mitigation Strategy.

Draft an Action Plan

A complete first draft of the plan was prepared based on input from the meeting regarding the risk assessment, various agencies were invited to comment on this draft. Public and agency comments

were integrated into the final draft for TEMA and FEMA Region IV to review and approve, contingent upon final adoption by Cheatham County.

Phase IV - Plan Maintenance

Adopt the Plan

To secure buy-in and officially implement the plan, the plan was reviewed and adopted by the appropriate governing bodies.

Implement, Evaluate and Revise the Plan

Implementation and maintenance of the plan is critical to the overall success of hazard mitigation planning. Chapter 4 Plan Integration and Maintenance discusses incorporating the plan into existing planning mechanisms and how to address continued public involvement.

1.3 Plan Update

CFR Subchapter D §201.6(d)(3): A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within 5 years in order to continue to be eligible for mitigation project grant funding.

The 2017 Cheatham County Multi-Jurisdictional Hazard Mitigation Plan contained a risk assessment of identified hazards for the County and a mitigation strategy to address the risks and vulnerabilities from these hazards. Since that time, progress has been made by both the County and incorporated jurisdictions on implementation of the mitigation strategy with seven completed actions and one in progress. The HMPC has met over the previous five years to monitor, implement, and update the plan. This chapter includes an overview of the approach to updating the plan and identifies new analyses and information included in this plan update.

1.3.1 The New Plan

The updated plan involved a comprehensive review and revision of each section of the 2017 plan and included an assessment of the success of the County and the incorporated jurisdictions in evaluating, monitoring, and implementing the mitigation strategy outlined in the 2017 plan. Only the information and data still valid from the 2017 plan was carried forward as applicable into this update. The following requirements were addressed during this plan update process:

- Consider changes in vulnerability due to action implementation;
- Document success stories where mitigation efforts have proven effective;
- Document areas where mitigation actions were not effective;
- Document any new hazards that may arise or were previously overlooked;
- Incorporate new data or studies on hazards and risks;
- Incorporate new capabilities or changes in capabilities;
- Incorporate growth and development-related changes to inventories; and
- Incorporate new action recommendations or changes in action prioritization.
- The discussion on growth and development trends was enhanced utilizing 2020 Census data.
- Enhanced public outreach and agency coordination efforts

1.3.2 2017 HMP Strategy Status

Past Goals and Objectives Update

The following table is an updated summary of the goals and objectives from the 2016 Cheatham County Hazard Mitigation Plan. The revised 2022 goals and objectives can be found in Chapter 3 Mitigation Strategy.

Past Mitigation Actions Update

Of these 21 actions, 4 have been completed, 5 are in-progress, and 12 have not yet been started due to a variety of reasons such as changes in priorities, lack of funding, or changes to the projects themselves. 11 of these projects are still considered viable and will be carried forward or revised in this plan update. Details and the status of all previous 2017 actions are in *Table* 6.

le 6 Mitigation Action Progress Summary (2017 Plan)

	V		Current Status		Current Status 2017 Pla		7 Plan Update Fu		unding Source			J		
me	Action Description	Responsible Dept.	Location	Complete	In-Progress	Not yet Started	Delete Action	Carry Forward or Revise	HMGP	BRIC ¹	FMA	Local	Priority Score	
rol	Data Collection and modeling of existing water and sewage systems	Public Works Dept.	County- wide			X		X	X	X		X	2.9	\$3 \$5
:	Study areas prone to flooding related road closures and make improvements as necessary	Highway Dept.	County- wide			X		X	X	X	X	X	2.8	Ŋ
nts	Purchase large drainage structures to improve water flow and replace collapsed structures	Highway Dept.	County- wide			X		X	X	X		X	2.8	N
tes	Updated flood maps of region	Floodplain office	County- wide	X			X				X		2.8	Ŋ
nt	Enforce NFIP requirements for all new and existing structures in a floodplain	Building Department	County- wide		X			X				X	2.8	ľ
n	Relocate school bus garages and county highway dept.	Highway Dept.	County	X			X		X	X		X	2.6	>5
n	Buy 3 houses and 4 lots located behind the elementary school on Chestnut St.	Public Works Dept.	Ashland City			X		X	X	X		X	2.6	\$
ate rol	Partnership to build berm to prevent flooding that affects electrical substation,	Highway Dept.	Ashland City		X		X					X	2.4	>\$

C previously referred to as PDM in the 2017 Hazard Mitigation Plan

Cheatham County Hazard Mitigation Plan 2022 Update

16

- Page 144 - | ITEM # 11.

APTER 1: THE PLANNING PROCESS

city sewer plant, and largest

	businesses in jurisdiction to road access and prevent property damage												
ity	Move city water intake approx. 1 mile from Little Marrowbone Creek to Cumberland River	Public Works Dept.	Ashland City			X		X	X	X	X	2.2	\$
ity	Stormwater master plan – hydraulically identify and prioritize stream flow issues affecting life and property	Floodplain Offices	Ashland City	X			X				X		\$1
·m/]	High Winds												
nt	Enforce building codes on new and existing structures and update building codes based on best practice standards	Building Departments	County -wide		X			X			X	2.8	Ŋ
ety	Public-private partnership to create tornado safe rooms	County EM	Ashland City			X		X			X	2.6	\$
ty	Creation of Tornado Safe rooms at schools	Board of Education	All schools			X		X	X	X	X	2.6	>5
1	Mitigate utility lines by moving them underground and to areas where they will not be disturbed by falling trees	Electrical Dept.	County- wide			X		X	X	X	X	2.2	Ŋ
n ng	Place a tornado warning siren on Ashland City Fire Dept. Station 1 (Court Street)	County EM / Ashland FD	Ashland City	X			X		X	X	X	2.0	Ŋ
n ng	Place a tornado warning siren at Two Rivers Dept.	County EM/ Ashland FD	County			X		X	X	X	X	2.0	ľ

Cheatham County Hazard Mitigation Plan 2022 Update

- Page 145 - | ITEM # 11.

APTER 1: THE PLANNING PROCESS

	Station 1 (2005 Pathway Road)											
n ng	Place a tornado warning siren at 480 Thompson Park	County EM / Pegram FD	Pegram		X	X	X	X		X	2.0	Ŋ
n ng	Place a tornado warning siren on Kingston Springs Fire Dept. (Kingston Springs Road)	County EM / Kingston FD	Kingsto n Springs		X	X	X	X		X	2.0	Ŋ
on ng	Place a tornado warning siren at Pleasant View Fire Dep. (New Hope Rd)	County EM / Pleasant View FD	Pleasant View		X	X	X	X		X	2.0	N
S												
ı	Provide and Distribute Pamphlets on how to stay safe in natural hazards	County EM	County- wide	X		X	X		X	X	2.8	Ŋ
n ng	Weather radios for all homes and businesses	County EM	County- wide	X		 X	X	X		X	2.8	Ŋ

Cheatham County Hazard Mitigation Plan 2022 Update

- Page 146 - | ITEM # 11.

1.4 Plan Update

The Cheatham County Multi-Jurisdictional Hazard Mitigation Plan is organized as follows:

- Chapter 1 Planning Process
- Chapter 2 Hazard Identification and Risk Assessment
- Chapter 3 Mitigation Strategy
- Chapter 4 Plan Integration and Maintenance
- Appendix A Community Assessment
- Appendix B FEMA HAZUS
- Appendix C Planning Documents
- Appendix D References

Chapter 1 Planning Process provides an overview of the plan update process including the methodology used to update the plan and details regarding those who participated in the planning process. It also provides a community overview involving demographic data and community development.

Chapter 2 Hazard Identification and Risk Assessment is presented as three different elements: Hazard Identification, Risk Assessment, and a Vulnerability Assessment. Together, these elements serve to identify, analyze, and assess Cheatham County's overall risk to natural and technological hazards. The HRV builds on available historical data from previous occurrences, establishes hazard-by-hazard profiles, and culminates in a hazard risk priority or ranking based on conclusions about the frequency of occurrence, potential impact, spatial extent, warning time, and duration of each hazard. The HRV is designed to assist communities in seeking the most appropriate mitigation actions to pursue and implement by focusing their efforts on those hazards of greatest concern and those structures or planning areas facing the greatest risk.

Chapter 3 Mitigation Strategy consists of broad goal statements as well as specific mitigation actions for each jurisdiction participating in the planning process. This updated strategy provides the foundation for detailed mitigation action plans that link jurisdictionally specific mitigation actions to locally assigned implementation mechanisms and target completion dates. This chapter is designed to make the plan more functional through the identification of both Cheatham-term goals and near-term actions that will guide day-to-day decision-making and project implementation.

Chapter 4 Plan Integration and Maintenance includes the measures Cheatham County will take to ensure the plan's continuous implementation. The procedures also include the way the plan will be regularly monitored, reported upon, evaluated, and updated.

Appendix A includes a country travel snapshot for Cheatham County.

Appendix B includes a FEMA HAZUS for flooding in Cheatham County

Appendix C includes additional planning documentation such as meeting sign-in sheets and public notices published in local newspapers or social media outlets.

Appendix D lists the references used to compile this updated Plan including publications, web sites and other date sources.

1.5 Multi-Jurisdictional Special Considerations

Continued Compliance with the NFIP

Cheatham County and all the incorporated jurisdictions participate in FEMA's National Flood Insurance Program (NFIP). Each community enforces a flood damage prevention ordinance which regulates development within the Special Flood Hazard Area (SFHA). Additionally, as being members of FEMA's NFIP, each community requires Elevation Certificates on all new buildings and substantial improvements within the SFHA.

Natural Hazards

Most of the natural hazards identified in Section 2.1 have an impact on both the County and to the incorporated jurisdictions. The impacts differ the most with the severity within the rural and urban flooding hazard. Some storms have a larger impact on the County rather than the incorporated jurisdictions and vice versa. Therefore, the flooding section emphasizes the depth, duration, and timing of severe flooding events.

1.6 Adoption, Implementation, Monitoring, and Evaluation

1.6.1 Plan Adoption

44 CFR Subsection D §201.6(c)(5): [The plan shall include] documentation that the plan has been formally approved by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).

The purpose of formally adopting this plan is to secure buy-in, raise awareness of the plan, and formalize the plan's implementation. This plan will be adopted by the appropriate governing body for each participating community. Copies of the executed resolutions are shown below.

Note to Reviewer: Executed resolutions will be inserted when they become available.

1.6.2 Implementation

44 CFR Subsection D §201.6(c)(4): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

Implementation and maintenance of the plan is critical to the overall success of hazard mitigation planning. This section provides an overview of the overall strategy for plan implementation and maintenance.

Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government. Implementation will be accomplished by adhering to the schedules identified for each action and through constant, pervasive, and energetic efforts to network and highlight the multi-objective, win-win benefits to each program and the community. This effort is achieved through the routine actions of monitoring agendas, attending meetings, and promoting a safe, sustainable community. Additional mitigation strategies could include consistent and ongoing enforcement of existing policies and vigilant review of programs for coordination and multi-objective opportunities. Although, Cheatham County is not at this point in implementing mitigation actions, this is a major goal and effort in the next five to ten years.

Simultaneous to these efforts, it is important to maintain a constant monitoring of funding opportunities that can be leveraged to implement some of the more costly recommended actions. This will include creating and maintaining a bank of ideas on how to meet local match or participation requirements. When funding does become available, the communities will be able to capitalize on the opportunity. Funding opportunities to be monitored include special pre- and post-disaster funds, state and federal earmarked funds, benefit assessments, and other grant programs, including those that can serve or support multi-objective applications.

Elected officials, officials appointed to head community departments and community staff are charged with implementation of various activities in the plan. Recommendations will be made to modify timeframes for completion of activities, funding resources, and responsible entities. On an annual basis, the priority standing of various activities may also be changed. Some activities that are found not to be achievable may be removed from the plan entirely and activities addressing problems unforeseen during plan development may be added.

Role of the Hazard Mitigation Planning Committee in Implementation, Monitoring, and Evaluation

With adoption of this plan, each participating jurisdiction will be responsible for the plan implementation and maintenance. The HMPC identified in Section 2 of this chapter will convene annually to ensure mitigation strategies are being implemented and in compliance with the NFIP. As such, Cheatham County agrees to continue its relationship with the HMPC and:

- Act as a forum for hazard mitigation issues;
- Disseminate mitigation ideas and activities to all participants;
- Pursue the implementation of high-priority, low/no-cost recommended actions;
- Ensure hazard mitigation remains a consideration for community decision makers;
- Maintain a vigilant monitoring of multi-objective cost-share opportunities to help the community implement the plan's recommended actions for which no current funding exists;
- Monitor and assist in implementation and update of this plan;
- Report on plan progress and recommended revisions to the County Commission and City Council; and
- Inform and solicit input from the public.

The primary duty is to see the plan successfully carried out and report to the County and City Executives, TEMA, FEMA, and the public on the status of plan implementation and mitigation opportunities.

Maintenance

Maintenance Schedule

The Cheatham County Emergency Management Agency is responsible for initiating plan reviews. To monitor progress and update the mitigation strategies identified in the action plan, Cheatham County will revisit this plan annually and following hazard events. The County will submit a five-year written update to TEMA and FEMA Region IV, unless disaster or other circumstances (e.g., changing regulations) require a change to this schedule. With this plan update anticipated to be fully approved and adopted in 2022, the next plan update for the County will occur in 2027.

Maintenance Evaluation Process

Evaluation of progress can be achieved by monitoring changes in vulnerabilities identified in the plan. Changes in vulnerability can be identified by noting:

- Decreased vulnerability as a result of implementing recommended actions;
- Increased vulnerability because of failed or ineffective mitigation actions; and/or
- Increased vulnerability because of new development (and/or further annexation).

Updates to this plan will:

- Consider changes in vulnerability due to action implementation;
- Document success stories where mitigation efforts have proven effective;
- Document areas where mitigation actions were not effective;
- Document any new hazards that may arise or were previously overlooked;
- Incorporate new data or studies on hazards and risks;
- Incorporate new capabilities or changes in capabilities;
- Incorporate growth and development-related changes to infrastructure inventories; and
- Incorporate new action recommendations or changes in action prioritization.

Changes will be made to the plan during the update process to accommodate for actions that have failed or are not considered feasible after a review of their consistency with established criteria, time frame, community priorities, and/or funding resources. Actions that were not ranked high but were identified as potential mitigation activities will be reviewed as well during the monitoring and update of this plan to determine feasibility of future implementation. Updating of the plan will be by written changes and submissions, as is appropriate and necessary, and as approved by the HMPC. In keeping with the five-year update process, public meetings will be held to solicit public input on the plan and its routine maintenance. The final revised plan will be adopted by all participating jurisdictions.

1.7 Public Participation

Public involvement included press releases, stakeholder and public meetings, and the collection of public and stakeholder comments on the draft plan. The formal public meetings for this project are summarized in *Table 4* (Section 1.2.2) discussed early in this chapter. The HMPC meeting was open to the public, however no members of the public chose to attend the meeting.

A public notice was posted on the Cheatham County Emergency Management Facebook page on June 14th, 2022. Notices of the meeting were also posted at the Cheatham County Courthouse, Sycamore Square County Office building, and the Cheatham County EMA Office. Documentation to support the public outreach efforts can be found in Appendix C. Over the past five years, the community was kept involved in the planning process through the implementation of projects in the plan. However, there was no FEMA declared disaster during that time period which sparked minimal discussion on additions to the mitigation project list.

1.8 Community Data

1.8.1 Location

Located in the northern portion of middle Tennessee, Cheatham County is bordered by five other counties: Robertson, Davidson, Williamson, Dickson, and Montgomery. The county covers approximately 302 square miles. Cheatham County and its incorporated jurisdictions are characteristic of rural counties of Middle Tennessee in terms of architecture, landscape, culture, commerce, and education. The county seat, Ashland City, is approximately 20 miles from Nashville and 30 miles from Clarksville, the two largest neighboring cities to the county. The three other incorporated cities within Cheatham are: Pleasant View (to the north), Kingston Springs, (to the south), and Pegram (to the south).

Multiple main roadways travel through the county such as Interstates 24 and 40, US Highway 70, and State Highways 12, 41, 49, 155, 249. Two Rivers cut across Cheatham County: The Harpeth River and the Cumberland River. Cheatham Lake within the county is a vital part of the Cumberland River system. There are also several major creeks including Pond Creek which empties into the Harpeth River, and Sycamore Creek which empties into the Cumberland River.

The nearest international airport is BNA (approx. 27 miles) and the closest general airport is John C. Tune Airport (approx.17 miles). Cheatham County has a CSX mainline railroad that crosses the county running East to West. There is also a smaller railroad known as Nashville Western. This railroad currently runs from Nashville in Davidson County to Ashland City in Cheatham County.

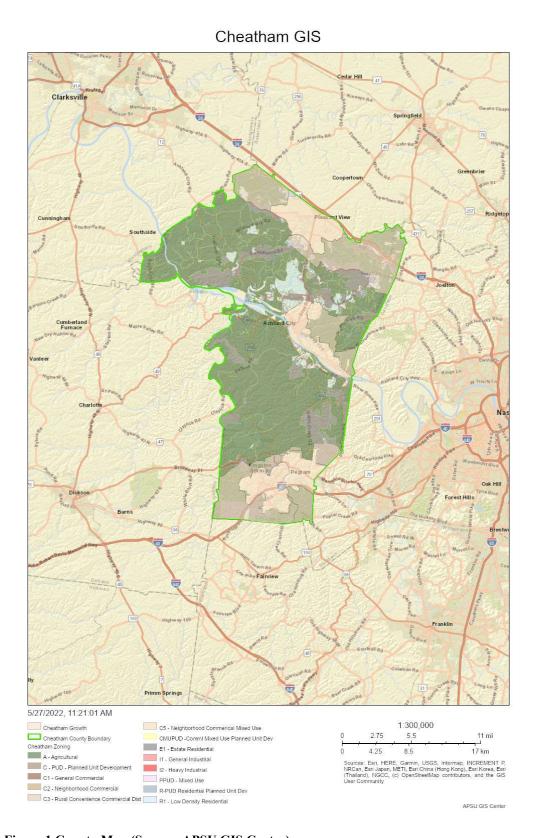


Figure 1 County Map (Source: APSU GIS Center)

1.8.2 Local Government

Cheatham County is governed by an elected County Mayor and Board of Commissioners (twelve members). The cities within Cheatham County are governed by an elected Mayor and City Council. Some governmental entities are consolidated such as the office of Economic and Community Development and the Regional Planning Commission.

1.8.3 Development and Growth

In similar fashion to the rest of Tennessee, Cheatham County, has been experiencing rapid growth over the past few years. The population of the county increased 5% between the 2010 and 2020 census and the amount of residential housing units increased by 7.2%, in the same period. The United States Census Bureau determined that the 2020 population was an estimated 41,072 individuals and 16,785 housing units were identified. Cheatham County has a focus on economic development through the Economic and Community Development board.

During the HMPC, members identified moderate growth within Pleasant View and Ashland City in the areas of residential, commercial, and industrial growth. Specific examples include a new distillery in Ashland City, as well as and industrial park along Highway 12 South. The committee did cite that residential growth was slowing but had been significant over the last 10 years, specifically in the Ashland City area. Multiple new residential developments were noted along: Arbor Loop, Peech Street, Skyview Drive, and Bell Street. Though no significant damage has occurred to these new areas of growth yet, severe rains or flooding of the Cumberland River would put them at risk, specifically the Industrial Park. Kingston Springs and Pegram have seen minimal growth in comparison to the more northern portions of the county.

1.8.4 Resources

Ashland City houses a 12-bed critical access hospital (Tri-Star Ashland City Medical Center), the only hospital within the county limits. The county is home to 2 full-time firefighters, 200 county volunteer firefighters, and 41 full time Law Enforcement officers. Pleasant View, Pegram, and Kingston Springs do not have full-time firefighters and are fully reliant on a volunteer force, however the county seat, Ashland City, does have full-time fire services under employment. During the HMPC meeting Kingston Springs and Ashland city were the only jurisdictions to identify a Public Information Officer (PIO), all other jurisdictions including the county do not have a PIO on staff or as a volunteer. Ashland City, unlike the county and other jurisdictions, has a staff grant writer to aid them in obtaining grant funding. Cheatham County School District facilities the learning of approximately 5,902 students via their system of 13 schools withing the region.

Cheatham is home to three radio stations and 5 tv networks and the main phone company in the area is AT&T. Residents in the county can either obtain internet via AT&T or Charter Communications. Communication resources, a vital component of emergency response and preparedness, is notably lacking in the more rural portions of Cheatham County. Between 2016 and 2020 only 90.3% of households had a computer and only 82.7% had broadband internet access according to the United States Census Bureau.

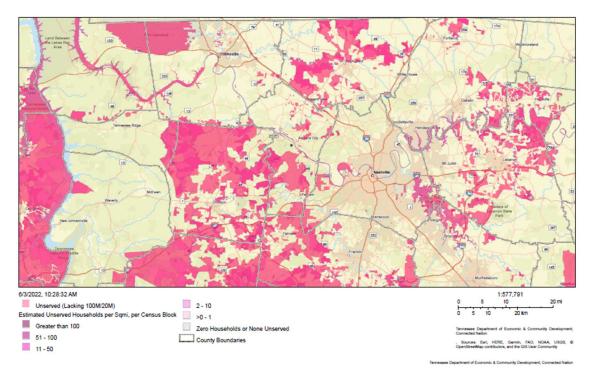


Figure 2 County Broadband Map Served/Unserved Areas (Source: TN Dept. of Economic and Community Development)

1.8.5 Demographics

Table 7 below illustrates the population data of the county according to the 2020 U.S Census. Other important demographics obtained via the U.S Census Bureau and County Health Rankings (RWJ Foundation) are presented in list form. Of the 41,072 residents living within Cheatham County:

- The median household income is \$63,988
- 8.7% live below the national poverty line
- 83% live in rural areas
- 11% are confronted with food insecurity
- 11% of the under 65 years of age population live with a disability
- 11.7% of the under 65 population do not have health insurance
- Population as of 2010 was 19.1 people per square mile

Table 7 Population Data

- Page 155 -

Table / Population Data	
Demographic	Percentage
Male	49.5%
Female	50.5%
Age	
Under 5	5.6%
Under 18	21.8%
Over 65	15.5%
Race/Ethnicity (one race)	
White (not Hispanic/Latino)	92.2%
Asian	0.4%
Black or African American	2.1%
American Indian or Alaskan Native	0.6%
Hispanic/ Latino	3.4%
Education	
High School Graduate or higher	86.6%
Bachelor's Degree or higher	20.5%

2. Hazard Identification and Risk Assessment

44 CFR Subsection D §201.6(c)(2): [The plan shall include] A risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

44 CFR Subsection D §201.6(c)(2)(i): [The risk assessment shall include a] description of the type...of all natural hazards that can affect the jurisdiction.

The Cheatham County HMPC conducted a hazard identification analysis to determine the natural and man-made hazards that threaten the County. Existing hazard data from TEMA, FEMA, the National Oceanic and Atmospheric Administration (NOAA), and other sources were examined to assess the significance of these hazards to the planning area. Significance was measured in general terms and focused on key criteria such as frequency and resulting damage, which includes deaths and injuries, as well as property and economic damage.

To further focus on the list of identified hazards for this plan update, the HMPC researched past events that resulted in a federal and/or state emergency or disaster declaration in Cheatham County to identify known hazards. *Table 8* presents a list of all major disaster and emergency declarations that have occurred in Cheatham County since 1953. This tables present the foundation for identifying which hazards pose the greatest risk to the County.

Table 8 Presidential Disaster Declaration in Cheatham County (1953 - 2022) *

Declaration #	Date	Event Details	Individual Assistance	Public Assistance
459	3/22/1975	Severe Storms, Flooding	No	No
910	6/21/1991	Severe Storms, Flooding	No	No
1010	2/28/1994	Severe Winter Ice Storm, Flash	No	No
		Flooding		
1167	3/7/1997	Heavy Rain, Tornados, Flooding,	No	No
		Hail, High Winds		
1215	4/20/1998	Severe Storms, Tornados, Flooding	No	No
1275	5/12/1999	Severe Storms, Tornados, Flooding	No	Yes
1331	6/12/2000	Severe Storms, Tornados, Flooding	No	Yes
1464	5/8/2003	Severe Storms, Tornados, Flooding	Yes	Yes
3217	9/5/2005	Hurricane Katrina Evacuation	No	Yes
1634	4/5/2006	Severe Storms, Tornados	Yes	Yes
1909	5/4/2010	Severe Storm, Flooding, Straight-line	Yes	Yes
		Winds, Tornados		
4171	4/11/2014	Severe Winter Storm	No	Yes
4427	4/17/2019	Severe Storms, Flooding, Landslides,	No	Yes
		Mudslides		
4601	5/8/2021	Severe Storm, Tornados, Flooding	Yes	Yes
3576	12/13/2021	Severe Storm, Straight-line Winds,	No	No
		Tornados		
4637	1/4/2022	Severe Storm, Straight-line Winds,	Yes	Yes
		Tornados		

^{*}COVID-19 Emergency Disasters Declarations (3473, 4514) excluded from table as not relevant to natural hazard discussion.

Table 9 documents the decisions made by the HMPC as it relates to those hazards that were to be re-evaluated and/or identified, analyzed, and addressed through the updating of the Countywide update summary. Hazards were either continued, deleted, or changed as noted.

Table 9 Overview of Updates to Chapter 2: Hazard Identification and Risk Assessment

Table > Over view of opua	ites to Chapter 2. Hazaru	iuchthication and Nisk As	SCSSIIICIII
Tennessee 2018 Mitigation Strategy	Cheatham County 2017 HMP	Status	Cheatham County 2022 HMP Update
Earthquakes	Earthquakes	Continued	Earthquakes
Wildfires	N/A	Not included	N/A
Geologic Hazard	N/A	Not included	N/A
Severe Weather (thunderstorms, lighting, hail)	Tornadoes/Severe Storms	Separated between Severe Storms and Tornadoes	Severe Weather (thunderstorms, wind, lighting, hail)
Tornadoes	Tornadoes/Severe Storms	Separated between Tornadoes and Severe Weather	Tornadoes
Flooding	Flooding	Continued	Flooding
Extreme Temperatures	Freezes/ Winter Storms	Extreme Temperature is documented in Winter Weather	Winter Weather
Drought	Drought	Continued	Drought
Wildfires	N/A	Not included	N/A
Infrastructure Incidences	N/A	Not included	N/A
Communicable Disease	N/A	Not included	N/A
Dam Failures	Dam Failure	Continued	Dam Failure
Hazardous Materials Release	N/A	Not included	N/A
Terrorism	N/A	Not included	N/A

Summary of Changes in the 2022 Plan Update:

- Tornadoes and Severe Storms are documented in separate sections.
- Severe Storms has been renamed Severe Weather and includes separate sections for wind events, lighting, and hail.
- Freezes/Winter Storms are now documented as Winter Weather.

The complete list of hazards to be addressed in this 2022 Plan Update includes the following:

- Tornadoes
- Severe Weather (thunderstorms, wind, lightning & hail)
- Earthquake
- Flooding (including 100-/500-year events)
- Winter Weather
- Drought
- Dam Failure

2.1 Hazard Identification

44 CFR Subsection D §201.6(c)(2)(i): [The risk assessment shall include a] description of the...location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

44 CFR Subsection D §201.6(c)(2)(ii): [The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. Plans approved after October 1, 2008 must also address NFIP insured structures that have been repetitively damaged by floods. The plan should describe vulnerability in terms of:

A): The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;

- (B): An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate; and
- (C): Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

To begin to assess Cheatham County's risk to natural hazards and identify the community's areas of highest vulnerability, the mitigation committee had to identify which hazards have or could impact the county. This hazard identification process began with researching previous hazard events that have occurred in Cheatham County. This consisted of going through newspaper articles, Cheatham County Emergency Management Agency records, recalling personal experiences from Emergency Management staff, and analyzing hazard events that could occur in the county by reviewing scientific studies and the State of Tennessee Hazard Mitigation Plan. The following hazards have been identified as hazards of concern by the Cheatham County hazard mitigation committee within the update process. This risk assessment followed the methodology described in the FEMA publication Understanding Your Risks—Identifying Hazards and Estimating Losses (FEMA 386-2, 2002).

The hazards identified for inclusion in the Hazard Mitigation Plan 2022 Update are profiled and assessed individually in this chapter in the following format:

A. Hazard Identification

This section provides a description of the hazard followed by details specific to Cheatham County. Where available, this section also includes information on the hazard extent, seasonal patterns, speed of onset/duration, magnitude, and any secondary effects.

B. Hazard Profile

This section gauges the likelihood of future occurrences based on past events and existing data. The frequency is determined by the HMPG committee analyzing the events observed over several years. The likelihood of future occurrences is categorized into one of the classifications as follows:

- *Highly Likely* Near 100 percent chance of occurrence within the next year
- *Likely* Between 10 and 100 percent chance of occurrence within the next year (recurrence interval of 10 years or less)

- Occasional Between 1 and 10 percent chance of occurrence within the next year (recurrence interval of 11 to 100 years)
- *Unlikely* Less than 1 percent chance of occurrence within the next 100 years (recurrence interval of greater than every 100 years).

C. Vulnerability Assessment

The section inventories community assets exposed to hazard events and estimates potential losses. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on human, property, and business impacts. It is categorized into the following classifications:

- **Low** The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- *Moderate* Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium** Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- *High* Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- **Severe** Very widespread with catastrophic impact.

D. Land Use & Development Trends

This section describes changes in development that have occurred in hazard prone areas and increased or decreased vulnerability since the last plan was approved.

E. Multi-Jurisdictional Differences

This section describes differences among the jurisdictions.

F. Summary

This section provides an overall summary of the hazard and its impact on the communities

2.1.1 Tornadoes

A. Hazard Identification

Tornadoes have the potential to produce winds in excess of 200 mph (EF5 on the Enhanced Fujita Scale) and can be very expansive – some in the Great Plains have exceeded two miles in width. Prior to February 1, 2007, tornado intensity was measured by the Fujita (F) scale. This scale was revised and is now the Enhanced Fujita scale. Both scales are sets of wind estimates (not measurements) based on damage. The new scale provides more damage indicators (28) and associated degrees of damage, allowing for more detailed analysis, better correlation between damage and wind speed. It is also more precise because it considers the materials affected and the construction of structures damaged by a tornado. *Table 10* shows the wind speeds associated with the enhanced Fujita scale ratings and the damage that could result at different levels of intensity.

Table 10 Enhanced Fujita Scale

EF	3 Second	Estimated Damage
Rating	Wind Gust	
	(mph)	
0	65-85	Light Damage. Small damage to roofs, gutters, siding, tree
U	03-83	branches broker, shallow rooted trees overturned
1	86-110	Moderate Damage. Mobile homes damaged, exterior portions of
1	80-110	homes damaged or lost (i.e., roofs, doors, windows)
		Considerable Damage. Mobile homes destroyed, cars lifted, well-
2	111-135	constructed home frames shifted, and their roofs torn off, light-
		object missiles generated, large trees uprooted or snapped
		Severe Damage. Severe damage to large buildings, entire home
3	136-165	stories destroyed, trees debarked, trains overturned, heavy vehicles
		lifted and thrown, structures with weaker foundations thrown
4	166-200	Devastating Damage. Well-constructed houses and whole frame
4	100-200	houses leveled, cars thrown, small missiles generated
		Incredible Damage. Strong frame houses leveled off foundations
5	200+	and thrown, automobile sized missiles generated, high rises
		experience considerable damage and deformation

B. Hazard Profile

According to the Glossary of Meteorology (AMS 2000), a tornado is "a violently rotating column of air, pendant from a cumuliform cloud or underneath a cumuliform cloud, and often (but not always) visible as a funnel cloud." Tornadoes can appear from any direction. Most move from southwest to northeast, or west to east. Some tornadoes have changed direction amid path, or even backtracked.

Although tornadoes can occur in most locations, most of the tornado activity in the United States exists in the Mid-West and Southeast. An exact season does not exist for tornadoes; however, most occur between early spring to middle summer (February – June). The rate of onset of tornado events is rapid, giving those in danger minimal time to seek shelter. The current average lead time according to NOAA is 13 minutes. A tornado can reach wind speeds of 40 mph to 250 mph and higher. Tornadoes paths, lengths, and widths can vary greatly. The following map illustrates the frequency of tornadoes in Tennessee. Much of middle Tennessee has a high risk for tornadoes with 13 placed within Cheatham County itself during the listed time frame.

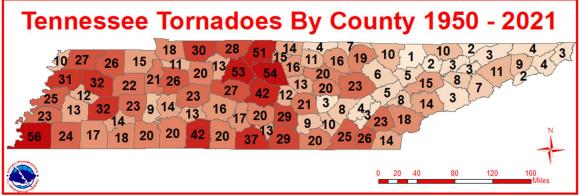


Figure 3 Tornadoes by County (NWS/NOAA)

Figure 4 illustrates the track of tornadoes through Cheatham County as recorded by the National Weather Service Nashville and the National Climatic Data Center and compiled into a visual database by Mississippi State University. *Table 5* provides a breakdown tornado frequency by hour in Cheatham County, tornadoes hit most commonly between 12pm and 4pm.

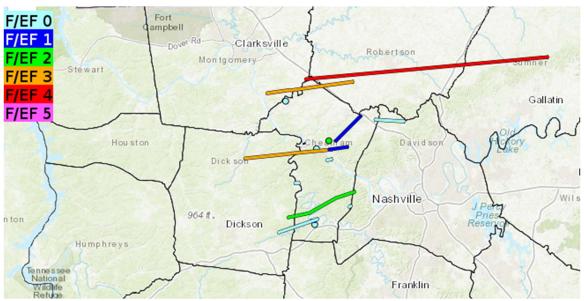


Figure 4 Tornado Tracks in Cheatham County (Source: NWS/MSState.edu)

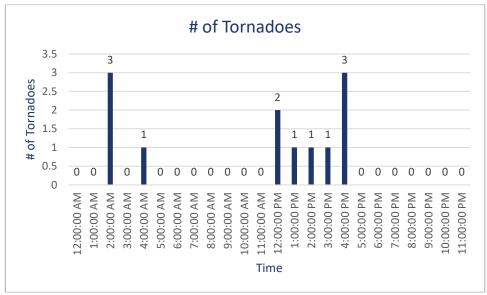


Figure 5 Tornado Frequency by Hour

Table 11 displays the tornado records for Cheatham County as recorded in the Storm Events Database by NOAA

Table 11 NOAA Recorded Tornado Events (1950 – 2022)

Taradian	Dete	Magnitude	Develop	T	Property	Crop
Location	Date	(EF Scale)	Deaths	Injuries	Damages	Damages
Countywide	4/7/1972	F2	0	0	250.0K	0.0K
Henrietta	5/18/1995	F0	0	0	5.0K	0.0K
Pegram	4/16/1998	F0	0	0	0.0K	0.0K
Kingston Springs	5/5/2003	F0	0	0	0.0K	0.0K
Ashland City	4/7/2006	F1	0	0	1.0M	0.0K
Ashland City	3/28/2009	EF1	0	0	100.0K	0.0K
Sulphur Springs	4/4/2011	EF0	0	0	2.0K	5.0K
Kingston Springs	3/2/2012	EF1	0	0	300.0K	2.0K
Craggie Hope	1/30/2013	EF0	0	0	25.0K	25.0K
Ashland City	1/30/2013	EF1	0	1	200.0K	50.0K
Pinnacle	5/4/2021	EF0	0	0	10.0K	0.0K
Bell Town	12/11/2021	EF2	0	1	1.5M	0.0K

The following narratives were obtained via the NOAA Storm Event Database. Only events resulting in injury, death, or expansive damage (greater than \$200K property/crop damage) were included as expanded narratives.

April 7, 2006 – After traveling 5.89 miles this F1 tornado destroyed one home, thirteen homes had expansive damage, and nine other buildings were moderately damaged.

March 2, 2012 – Just south of Kingston Springs a EF1 tornado touched down and snapped/uprooted multiple trees, destroyed one barn, and resulted in minor home damage.

January 30, 2013 – Two tornadoes were tracked in Cheatham County on this day, an EF0 and EF1. The EF0 touched down north of Kingston Springs and resulted in minor damage. The EF1 tornado touched down in Ashland City resulting in injuries to one individual when their windows blew in due to the storm. This tornado along with coinciding straight-line winds resulted in damage to 46 building within the city limits.

December 11, 2021 – The EF2 tornado that traveled through Cheatham County was part of much larger storm system that did major damage across the mi-south. This tornado particularly resulted in damaged to multiple home, trees, and torn down multiple power poles.

- Page 162 -



Figure 6 Damage to home and car in SE Cheatham County following the Dec. 11, 2021, tornado outbreak. (Source: Cheatham County Exchange)

Frequency/Likelihood of Future Occurrence

Likely - The best available information to determine future probability of a tornado event is to review historic frequency. According to NOAA, 12 tornadoes occurred between 1950 and 2022. Therefore, the frequency is likely.

C. Vulnerability Assessment

Vulnerability— Medium

The entirety of Cheatham County can be considered at risk to a tornado. This includes the entire County population and all critical facilities, buildings (commercial and residential), and infrastructure. Tornadoes tracked in Tennessee predominantly travel in a northeasterly direction in the state. While all assets are considered at risk from this hazard, a particular tornado would only cause damages along its specific track.

Table 12 Risk Assessment (Tornadoes)

(10.		Impacts	Vulnerability	
Jurisdiction/ Applicant	Human Property Business		$H+P+B=\#;\;\#/3=V$	
Cheatham County	4	4	3	3.67
Ashland City	4	5	4	4.33
Kingston Springs	4	4	3	3.67
Pegram	4	4	1	3
Pleasant View	4	5	4	4.33

Jurisdiction/ Applicant	Vulnerability	Probability		Risk -P=R
Cheatham County	3.67	2	5.67	Medium
Ashland City	4.33	2	6.33	Medium
Kingston Springs	3.67	2	5.67	Medium
Pegram	3	4	7.0	High
Pleasant View	4.33	2	6.33	Medium

Risk					
Low	2-3.6				
Moderate	3.7-5.2				
Medium	5.3-6.8				
High	6.9-8.4				
Severe	8.5-10				

	Human					
R	Risk of injuries and death from hazard					
1	Death very unlikely, injuries are					
	unlikely					
2	Death unlikely, injuries are minimal					
3	Death unlikely, injuries may be					
	substantial					
4	Death possible, injuries may be					
	substantial					
5	Death's probable, injuries will likely					
	he substantial					

	Amount of business damage							
1	Less than 3 businesses closed for only one							
	day							
2	More than 3 businesses closed for a week							
3	More than 3 businesses closed for a few							
	months							
4	More than 3 businesses closed indefinitely							
	or relocated							
5	A top 10 local employer closed indefinitely							

Business

	Property						
A	Amount of residential property damage						
1	Less than \$500 in damages						
2	\$500 - \$10,000 in damages						
3	\$10,000 – \$500,00 in damages						
4	\$500,000 - \$2,000,000 in damages						
5	More than \$2,000,000 in damages						

	Probability						
	Probability of hazard occurring						
1	Less than once every 10 years						
2	About once every 5 – 10 years						
3	About once every 2 – 5 years						
4	About once a year						
5	More than once a year						

D. Land Use and Development Trends

Cheatham County codes include proper wind strength and safety regulations that are consistent with state and federal regulations. While the adopted code provides adequate quality growth protection, older homes and mobile homes are highly susceptible to tornado events. There are

multiple mobile home areas in the county, but no one has ever done an official counted to see how vulnerable those areas are. Additionally, there are many incorporated jurisdictions that do not have building ordinances for the structures that reside in the area.

E. Multi-Jurisdictional Differences

All jurisdictions within Cheatham County are at equal risk for a tornado event, however historically a large portion of tornado events have taken place at or below the middle region of the county. It is also worth noting that given the large rural component of the county some tornadic events may have gone unreported.

F. Summary

The entirety of Cheatham County can be considered at risk to a tornado. This includes the entire County population and all critical facilities, buildings (commercial and residential), and infrastructure. While all assets are considered at risk from this hazard, a tornado would only cause damages along its specific track. The weakest tornadoes, EF0, can cause minor roof damage and strong tornadoes can destroy frame buildings and even badly damage steel reinforced concrete structures. Given the strength of the wind impact and construction techniques, buildings are vulnerable to direct impact, including potential destruction, from tornadoes and from wind borne debris that tornadoes turn into missiles. Structures made of light materials such as mobile homes are most susceptible to damage.

2.1.2 Severe Weather (Thunderstorms, Wind, Lighting, Hail)

A. Hazard Identification

Thunderstorms

Thunderstorms result from the rapid upward movement of warm, moist air. They can occur inside warm, moist air masses and at fronts. As the warm, moist air moves upward, it cools, condenses, and forms cumulonimbus clouds that can reach heights of greater than 35,000 ft. As the rising air reaches its dew point, water droplets and ice form and begin falling the long distance through the clouds towards Earth's surface. As the droplets fall, they collide with other droplets and become larger. The falling droplets create a downdraft of air that spreads out at Earth's surface and causes strong winds associated with thunderstorms.

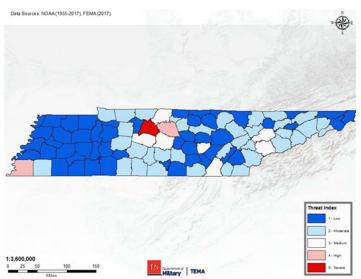
There are four ways in which thunderstorms can organize: single cell, multi-cell cluster, multi-cell lines (squall lines), and supercells. Even though supercell thunderstorms are most frequently associated with severe weather phenomena, thunderstorms most frequently organize into clusters or lines. Warm, humid conditions are favorable for the development of thunderstorms. The average single cell thunderstorm is approximately 15 miles in diameter and lasts less than 30 minutes at a single location. However, thunderstorms, especially when organized into clusters or lines, can travel intact for distances exceeding 600 miles.

Thunderstorms are responsible for the development and formation of many severe weather phenomena, posing great hazards to the population and landscape. Damage that results from thunderstorms is mainly inflicted by downburst winds, large hailstones, and flash flooding caused by heavy precipitation. Stronger thunderstorms can produce tornadoes and waterspouts.

Wind

- Page 165 -

The NCDC/NOAA divides wind events into several types including High Wind, Strong Wind, Thunderstorm Wind, and Tornadoes. For this risk assessment, the Wind hazard will include data from High Wind, Strong Wind and Thunderstorm Wind. *Figure 7* illustrates the average hazard score by county for wind risk. The wind speeds correspond with the assigned hazard scores with values ranging from 1 to 5 as shown in the table below. The highest risk areas are in Middle and East Tennessee. Cheatham County has an average hazard wind score of 1 with wind speeds less than 90 mph.



Hazard Score	Wind Speeds (mph)
1	<90
2	91-100
3	101-110
4	111-120
5	>121

Figure 7 Average Wind Risk (Tennessee Hazard Mitigation Plan 2018) Hail

Hail is associated with thunderstorms that can also bring high winds and tornados. It forms when updrafts carry raindrops into extremely cold areas of the atmosphere where they freeze into ice. Hail falls when it becomes heavy enough to overcome the strength of the updraft and is pulled by gravity towards the earth. Hailstorms occur throughout the spring, summer, and fall in the region, but are more frequent in late spring and early summer. Hailstones are usually less than two inches in diameter and can fall at speeds of 120 mph. Hail causes nearly \$1 billion in damage to crops and property each year in the United States. *Table 13* provides an overview of the typical impacts to a community as related to hailstone size.

Table 13 TORRO Hail Index (Source: The Tornado and Storm Research Organization)

Scale	Description	Max Diameter (mm)	Typical Damage
Н0	Pea	5-9	No damage
H1	Mothball	10-15	Slight general damage to crops and plants
H2	Marble	16-20	Significant damage to crops and vegetation
НЗ	Walnut	21-30	Severe damage to fruits and crops, damage to glass and plastic structures, wood and paint scored
H4	Pigeons Egg	31-40	Widespread glass damage, auto-body damage
Н5	Golf Ball	41-50	Destruction of glass, damage to tiled roofs, significant risk of injuries

Н6	Hens Egg	51-60	Grounded aircrafts dented; brick walls pitted
H7	Tennis Ball	61-75	Severe roof damage and risk of serious injury
Н8	Softball	76-90	Severe damage to aircrafts
Н9	Grapefruit	91-100	Extensive structural damage, risk of severe or fatal injuries to people caught in storm
H10	Melon	>100	Extensive structural damage, risk of severe or fatal injuries to people caught in storm

Lightning

Lightning is an electrical discharge between positive and negative regions of a thunderstorm. A lightning flash is composed of a series of strokes with an average of about four. The length and duration of each lightning stroke vary, but typically average about 30 microseconds. Lightning is one of the more dangerous weather hazards in the United States. Each year, lightning is responsible for deaths, injuries, and millions of dollars in property damage, including damage to buildings, communications systems, power lines, and electrical systems. Lightning also causes forest and brush fires, and deaths and injuries to livestock and other animals. According to the National Lightning Safety Institute, lightning causes more than 26,000 fires in the United States each year. The institute estimates property damage, increased operating costs, production delays, and lost revenue from lightning and secondary effects to be more than \$6 billion per year. Impacts can be direct or indirect. People or objects can be directly struck, or damage can occur indirectly when the current passes through or near it.

B. Hazard Profile

The entirety of Cheatham County is at risk to severe weather. Thunderstorms are most likely in the spring and summer months and during the afternoon and evening hours, but they can occur year-round and at all hours. In terms of magnitude, the NWS defines thunderstorms in terms of severity. A severe thunderstorm produces winds greater than 57 miles per hour and/or hail greater than 1 inch in diameter and/or a tornado. The NWS chose these measures of severity as parameters more capable of producing considerable damage. Hail stones can vary in diameter and in Tennessee there have been records of hail of up to 2.75 inches.

Past Occurrences

Table 14 provides High Wind, Strong Wind, and Thunderstorm Wind data reported by NOAA since 1950 for Cheatham County. The following definitions come from the NOAA Storm Data Preparation document.

- High Wind Sustained non-convective winds of 40mph or greater lasting for one hour or longer or winds (sustained or gusts) of 58 mph for any duration on a widespread or localized basis.
- Strong Wind Non-convective winds gusting less than 58 mph, or sustained winds less than 40 mph, resulting in a fatality, injury, or damage.
- Thunderstorm Wind Winds, arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 58 mph, or winds of any speed (non-severe thunderstorm winds below 58 mph) producing a fatality, injury, or damage.

Table 14 NOAA Recorded Wind Events (1950 - 2022)

able 14 NOAA Record Location	Date Date	Event Type	Deaths	Injuries	Property	Crop
					Damage	Damage
County Wide	9/8/1960	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	6/30/1966	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	5/2/1973	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	4/1/1974	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	6/25/1981	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	5/22/1982	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	7/21/1982	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	8/28/1983	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	8/28/1983	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	7/5/1985	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	7/26/1986	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	11/16/1988	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	5/26/1989	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	9/7/1990	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	3/27/1991	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	3/27/1991	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	4/9/1991	Thunderstorm Wind	0	0	0.0K	0.0K
County Wide	5/12/1992	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	9/1/1993	Thunderstorm Wind	0	0	0.5K	0.0K
Kingston Springs	5/14/1994	Thunderstorm Wind	0	0	0.5K	0.0K
Ashland	6/26/1994	Thunderstorm Wind	0	0	0.5K	0.0K
Kingston Springs	5/18/1995	Thunderstorm Wind	0	0	5.0K	0.0K
Thomasville	5/18/1995	Thunderstorm Wind	0	0	2.0K	0.0K
Ashland City	7/14/1995	Thunderstorm Wind	0	0	10.0K	0.0K
Countywide	4/20/1996	Thunderstorm Wind	0	0	1.0K	0.0K
Ashland City	5/27/1996	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	7/29/1996	Thunderstorm Wind	0	0	0.3K	0.0K
Countywide	9/27/1996	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	11/7/1996	Thunderstorm Wind	0	0	0.0K	0.0K
Southeast Section	1/4/1997	Thunderstorm Wind	0	0	0.0K	0.0K
Mt Zion	1/4/1997	Thunderstorm Wind	0	0	10.0K	0.0K
Pleasant View	5/26/1997	Thunderstorm Wind	0	0	1.0K	0.0K
Mt Zion	6/13/1997	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	6/13/1997	Thunderstorm Wind	0	0	1.0K	0.0K
Pleasant View	7/4/1997	Thunderstorm Wind	0	0	1.0K	0.0K
Henrietta	7/14/1997	Thunderstorm Wind	0	0	0.0K	0.0K
Pleasant View	7/14/1997	Thunderstorm Wind	0	0	0.0K	0.0K
Thomasville	7/14/1997	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	7/28/1997	Thunderstorm Wind	0	0	0.0K	0.0K

Ashland City	5/21/1998	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	1/17/1999	Thunderstorm Wind	0	0	0.0K	0.0K
Cheap Hill	1/17/1999	Thunderstorm Wind	0	0	0.0K	0.0K
Pleasant View	1/17/1999	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	5/5/1999	Thunderstorm Wind	0	0	10.0K	0.0K
Pleasant View	5/5/1999	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	6/4/1999	Thunderstorm Wind	0	0	0.0K	0.0K
North Portion	8/12/1999	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	2/13/2000	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	5/27/2000	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	7/12/2000	Thunderstorm Wind	0	0	0.0K	0.0K
Thomasville	8/5/2000	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	2/25/2001	Thunderstorm Wind	0	0	0.0K	0.0K
Henrietta	5/7/2001	Thunderstorm Wind	0	0	0.0K	0.0K
Cheatham (Zone)	6/4/2001	High Wind	0	0	0.0K	0.0K
Ashland City	6/21/2001	Thunderstorm Wind	0	0	0.0K	0.0K
North Portion	6/27/2001	Thunderstorm Wind	0	0	0.0K	0.0K
Countywide	11/24/2001	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	4/28/2002	Thunderstorm Wind	0	0	0.0K	0.0K
Pegram	6/25/2002	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	7/10/2002	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	5/15/2003	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	7/28/2003	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	3/20/2004	Thunderstorm Wind	0	0	0.0K	0.0K
Countywide	5/30/2004	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	5/30/2004	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	6/13/2004	Thunderstorm Wind	0	0	0.0K	0.0K
Pegram	7/4/2004	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	1/13/2005	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	5/19/2005	Thunderstorm Wind	0	0	0.0K	0.0K
Kingston Springs	5/19/2005	Thunderstorm Wind	0	0	0.0K	0.0K
Cheatham (Zone)	8/30/2005	Strong Wind	0	0	1.0K	0.0K
Countywide	11/15/2005	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	9/23/2006	Thunderstorm Wind	0	0	20.0K	0.0K
Cheatham (Zone)	1/29/2008	High Wind	0	0	25.0K	0.0K
Ashland City	6/16/2009	Thunderstorm Wind	0	0	100.0K	0.0K
Kingston Springs	6/17/2009	Thunderstorm Wind	0	0	50.0K	0.0K
Pleasant View	7/12/2009	Thunderstorm Wind	0	0	10.0K	0.0K
Oakplain	7/12/2009	Thunderstorm Wind	0	0	10.0K	0.0K
Kingston Springs	7/15/2009	Thunderstorm Wind	0	0	1.0K	0.0K
Ashland City	5/1/2010	Thunderstorm Wind	0	0	4.0K	0.0K
			-	•		

Craggie Hope	5/2/2010	Thunderstorm Wind	0	0	10.0K	0.0K
Lillamay	6/17/2010	Thunderstorm Wind	0	0	10.0K	0.0K
Pleasant View	8/12/2010	Thunderstorm Wind	0	0	40.0K	0.0K
Ashland City	4/4/2011	Thunderstorm Wind	0	0	10.0K	0.0K
Ashland City	4/4/2011	Thunderstorm Wind	0	0	125.0K	0.0K
Poplar Ridge	4/26/2011	Thunderstorm Wind	0	0	10.0K	0.0K
Poplar Ridge	5/25/2011	Thunderstorm Wind	0	0	10.0K	0.0K
Ashland City	5/25/2011	Thunderstorm Wind	0	0	0.0K	0.0K
Ashland City	6/15/2011	Thunderstorm Wind	0	0	10.0K	0.0K
Ashland City	1/23/2012	Thunderstorm Wind	0	0	5.0K	0.0K
Kingston Springs	3/2/2012	Thunderstorm Wind	0	0	150.0K	0.0K
Pinnacle	3/17/2012	Thunderstorm Wind	0	0	2.0K	0.0K
Lillamay	7/6/2012	Thunderstorm Wind	0	0	10.0K	0.0K
Mt Zion	7/19/2012	Thunderstorm Wind	0	0	40.0K	0.0K
Mt Zion	7/19/2012	Thunderstorm Wind	0	0	15.0K	0.0K
Ashland City	7/19/2012	Thunderstorm Wind	0	0	15.0K	0.0K
Chapmansboro	7/19/2012	Thunderstorm Wind	0	0	20.0K	0.0K
Pleasant View	8/16/2012	Thunderstorm Wind	0	0	1.0K	0.0K
Ashland City	1/30/2013	Thunderstorm Wind	0	0	50.0K	10.0K
Kingston Springs	1/30/2013	Thunderstorm Wind	0	0	2.0K	0.0K
Kingston Springs	1/30/2013	Thunderstorm Wind	0	0	20.0K	0.0K
Pleasant View	1/30/2013	Thunderstorm Wind	0	0	30.0K	0.0K
Neptune	3/18/2013	Thunderstorm Wind	0	0	5.0K	0.0K
Cheap Hill	3/18/2013	Thunderstorm Wind	0	0	5.0K	0.0K
Cheap Hill	4/27/2013	Thunderstorm Wind	0	0	2.0K	0.0K
Bearwallow	6/20/2013	Thunderstorm Wind	0	0	5.0K	0.0K
Bearwallow	8/8/2013	Thunderstorm Wind	0	0	1.0K	0.0K
Mt Zion	8/8/2013	Thunderstorm Wind	0	0	3.0K	0.0K
Cheatham (Zone)	10/31/2013	High Wind	0	0	10.0K	0.0K
Sycamore	12/21/2013	Thunderstorm Wind	0	0	2.0K	0.0K
Petway	12/21/2013	Thunderstorm Wind	0	0	10.0K	0.0K
Pleasant View	2/20/2014	Thunderstorm Wind	0	0	2.0K	0.0K
Lillamay	4/19/2015	Thunderstorm Wind	0	0	2.0K	0.0K
Sycamore	4/19/2015	Thunderstorm Wind	0	0	2.0K	0.0K
Poplar Ridge	6/8/2015	Thunderstorm Wind	0	0	3.0K	0.0K
Ashland City	7/2/2015	Thunderstorm Wind	0	0	10.0K	0.0K
Pleasant View	3/31/2016	Thunderstorm Wind	0	0	0.0K	0.0K
Pinnacle	4/27/2016	Thunderstorm Wind	0	0	1.0K	0.0K
Pinnacle	5/10/2016	Thunderstorm Wind	0	0	3.0K	0.0K
Pleasant View	6/15/2016	Thunderstorm Wind	0	0	1.0K	0.0K
Pinnacle	6/23/2016	Thunderstorm Wind	0	0	1.0K	0.0K
	I .	I.		L	I.	

Ashland City	7/6/2016	Thunderstorm Wind	0	0	2.0K	0.0K
Lillamay	7/6/2016	Thunderstorm Wind	0	0	3.0K	0.0K
Fox Bluff	7/8/2016	Thunderstorm Wind	0	0	2.0K	0.0K
Chapmansboro	7/8/2016	Thunderstorm Wind	0	0	1.0K	0.0K
Kingston Springs	7/8/2016	Thunderstorm Wind	0	0	1.0K	0.0K
Kingston Springs	9/10/2016	Thunderstorm Wind	0	0	3.0K	0.0K
Griffintown	3/1/2017	Thunderstorm Wind	0	0	3.0K	0.0K
Petway	3/1/2017	Thunderstorm Wind	0	0	15.0K	0.0K
Gravelotte	3/1/2017	Thunderstorm Wind	0	0	15.0K	0.0K
Kingston Springs	3/9/2017	Thunderstorm Wind	0	0	3.0K	0.0K
Fox Bluff	11/18/2017	Thunderstorm Wind	0	0	5.0K	0.0K
Cheap Hill	11/18/2017	Thunderstorm Wind	0	0	3.0K	0.0K
Chapmansboro	11/18/2017	Thunderstorm Wind	0	0	2.0K	0.0K
Sycamore	11/18/2017	Thunderstorm Wind	0	0	3.0K	0.0K
Mt Zion	11/18/2017	Thunderstorm Wind	0	0	25.0K	0.0K
Pinnacle	11/18/2017	Thunderstorm Wind	0	0	1.0K	0.0K
Sycamore	4/3/2018	Thunderstorm Wind	0	0	1.0K	0.0K
Pinnacle	4/14/2018	Thunderstorm Wind	0	0	3.0K	0.0K
Cheatham (Zone)	5/29/2018	Strong Wind	0	0	5.0K	0.0K
Cheap Hill	7/5/2018	Thunderstorm Wind	0	0	15.0K	0.0K
Ashland City	8/30/2018	Thunderstorm Wind	0	0	3.0K	0.0K
Pleasant View	6/19/2019	Thunderstorm Wind	0	0	3.0K	0.0K
Sycamore	6/21/2019	Thunderstorm Wind	0	0	1.0K	0.0K
Kingston Springs	6/21/2019	Thunderstorm Wind	0	0	1.0K	0.0K
Pinnacle	6/22/2019	Thunderstorm Wind	0	0	1.0K	0.0K
Pegram	6/27/2019	Thunderstorm Wind	0	0	1.0K	0.0K
Ashland City	4/8/2020	Thunderstorm Wind	0	0	5.0K	0.0K
Ashland City	5/3/2020	Thunderstorm Wind	0	0	150.16K	0.0K
Ashland City	8/28/2020	Thunderstorm Wind	0	0	3.0K	0.0K
Kingston Springs	8/28/2020	Thunderstorm Wind	0	0	3.0K	0.0K
Pinnacle	6/21/2021	Thunderstorm Wind	0	0	1.0K	0.0K
Greenbrier	7/31/2021	Thunderstorm Wind	0	0	2.0K	0.0K
Cheap Hill	12/6/2021	Thunderstorm Wind	0	0	3.0K	0.0K
Craggie Hope	12/11/2021	Thunderstorm Wind	0	0	10.0K	0.0K
Chapmansboro	1/1/2022	Thunderstorm Wind	0	0	3.0K	0.0K

The following narratives were obtained via the NOAA Storm Event Database and included as expanded narratives.

June 16, 2009 – Six homes and seven businesses sustained damage during this event and many tree were downed across the county. An electric pole was downed causing road closures, a steeple of a local church and radios station tower were also downed causing the radio to go off air for a short period of time. Lastly a tree fell on a car in a local business parking lost that also hit the front porch of the business causing damage to two support beams.

April 4, 2011 – Areas south and west of Ashland City sustained high levels of damage, including: a destroyed barn, roof damage to businesses, and dozens of snapped trees. Speeds were estimated to reach between 80 - 90 mph. The White Bluff area experienced a few downed trees and associated house damage.

March 2, 2012 – This wind event and associated golf ball sized hail caused significant damage to roofs, windows, and siding in the Kingston springs area.

May 3, 2020 – Trees and power lines were downed across the county causing extensive power outages. Much of middle Tennessee was affected by this storm and its winds which caused power outages and damages across the area resulting approximately \$16,671,521 in damages (\$150.16K in Cheatham County). This storm was determined to be a derecho due to the long track and straightline winds.

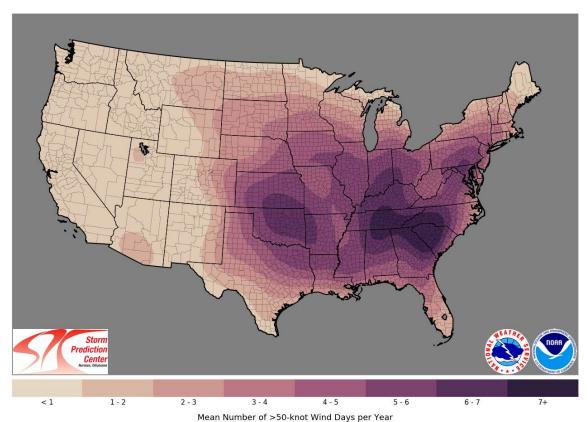
December 11, 2021 – A downburst wind blew multiple trees down in the areas of Parker Road and Craggie Hope Road. This occurred a little south of Kingston Springs were during the same storm line and EF-2 Tornado touched down.



Figure 8 Damage in the County following the large storm system Dec. 11, 2021 (Source: Fox 17 News Nashville)

Frequency/Likelihood of Future Occurrence (Wind)

Highly Likely - Based on a historical record of 156 wind events over a period of 72 years (1950-2022), the historic frequency calculates that there is a 100% chance of this type of event occurring each year.



Mean Number of >50-knot Wind Days per Year Within 25 Miles of a Point 1986 - 2015

Figure 9 Mean Number of >50-knot Wind Days per Year (1986-2015) (source: NOAA)

Table 15 NOAA Recorded Hail Events (1950-2022)

		Magnitude			Property	Crop
Location	Date	(inches)	Deaths	Injuries	Damages	Damages
Cheatham County	5/22/1982	0.75	0	0	0.0K	0.0K
Cheatham County	4/8/1983	1.75	0	0	0.0K	0.0K
Cheatham County	4/8/1983	1.75	0	0	0.0K	0.0K
Cheatham County	5/6/1984	1.75	0	0	0.0K	0.0K
Cheatham County	7/5/1985	0.75	0	0	0.0K	0.0K
Cheatham County	5/9/1988	0.75	0	0	0.0K	0.0K
Cheatham County	5/20/1989	0.75	0	0	0.0K	0.0K
Ashland City	3/31/1993	0.75	0	0	0.0K	0.0K
Ashland City	4/15/1993	0.75	0	0	0.0K	0.0K
Pleasant View	2/27/1996	1.75	0	0	0.0K	0.0K
Pleasant View	4/20/1996	1.75	0	0	0.0K	0.0K
Chapmansboro	3/28/1997	0.75	0	0	0.0K	0.0K
Ashland City	3/28/1997	1	0	0	0.0K	0.0K
Ashland City	4/16/1998	2.75	0	0	50.0K	0.0K
Cheap Hill	1/17/1999	0.75	0	0	0.0K	0.0K
Henrietta	4/19/1999	1.5	0	0	0.0K	0.0K

			_			T
Pegram	2/13/2000	0.75	0	0	0.0K	0.0K
Kingston Springs	3/25/2000	2.75	0	0	0.0K	0.0K
Kingston Springs	4/15/2001	0.75	0	0	0.0K	0.0K
Ashland City	4/6/2003	1	0	0	0.0K	0.0K
Ashland City	4/7/2006	4	0	0	0.0K	0.0K
Kingston Springs	4/7/2006	1	0	0	0.0K	0.0K
Lockertsville	3/28/2009	1	0	0	0.0K	0.0K
Greenbrier	3/28/2009	1	0	0	0.0K	0.0K
Lockertsville	3/28/2009	1	0	0	0.0K	0.0K
Kingston Springs	4/30/2009	0.88	0	0	0.0K	0.0K
Kingston Springs	5/2/2011	0.75	0	0	0.0K	0.0K
Kingston Springs	5/13/2011	1	0	0	0.0K	0.0K
Sycamore	3/14/2012	1	0	0	0.0K	0.0K
Bearwallow	3/14/2012	0.75	0	0	0.0K	0.0K
Ashland City	3/17/2012	0.88	0	0	0.0K	0.0K
Pinnacle	3/17/2012	1.25	0	0	0.0K	0.0K
Pleasant View	5/19/2012	0.88	0	0	0.0K	0.0K
Lockertsville	3/24/2013	1	0	0	0.0K	0.0K
Pinnacle	9/10/2013	0.88	0	0	0.0K	0.0K
Pleasant View	2/20/2014	1	0	0	0.0K	0.0K
Sycamore	2/20/2014	1	0	0	0.0K	0.0K
Ashland City	6/8/2015	1.75	0	0	5.0K	0.0K
Ashland City	6/8/2015	1.5	0	0	0.0K	0.0K
Oakplain	5/10/2016	1	0	0	0.0K	0.0K
Oakplain	5/10/2016	1	0	0	0.0K	0.0K
Pleasant View	5/10/2016	1.75	0	0	0.0K	0.0K
Kingston Springs	5/26/2016	0.75	0	0	0.0K	0.0K
Cheap Hill	2/7/2017	0.88	0	0	0.0K	0.0K
Pegram	4/23/2017	0.75	0	0	0.0K	0.0K
Kingston Springs	5/27/2017	1	0	0	0.0K	0.0K
Pleasant View	3/27/2021	0.88	0	0	0.0K	0.0K

The following narratives were obtained via the NOAA Storm Event Database and included as expanded narratives.

April 16, 1998 – Radio operators reported golf ball sized hail during this event however newspaper articles from the period report hail the size of baseballs. 35-50 homes were damaged due to the hail, regardless of if the hail was golf ball or baseball sized.

June 8, 2015 – Ping pong ball sized hail was reported in Ashland city as part of a larger storm system that affected large parts of middle Tennessee with associated hail and flooding.

April 23, 2017 – Hail up to the size of a dime was reported falling in Pegram supported by multiple social media reports similar to that shown in *Figure 10* below.





Hail in Pegram, TN

Tennessee weather is crazy! (But we already knew that.)
Here's a Channel 4 viewer's video of the hail in Pegram this
afternoon.

Figure 10 Video of Pegram Hail Event April 23, 2017 (Source: WSMV News 4 via Facebook)

Frequency/Likelihood of Future Occurrence

Likely - Based on a historical record of 47 hail events over a period of 72 years (1950 - 2022), the historic frequency calculates to a 10% - 100% chance of this type of event occurring each year.

Location	Date	Event Type	Deaths	Injuries	Property Damage	Crop Damage
Ashland City	6/10/2003	Lighting	0	0	0.0K	0.0K
Ashland City	6/24/2016	Lighting	0	0	250.0K	0.0K
Ashland City	7/7/2016	Lighting	0	0	250.0K	0.0K

The following narratives were obtained via the NOAA Storm Event Database and included as expanded narratives.

June 24, 2016 – A house on Annette Drive was struck by lighting and destroyed in the resulting fire.

July 7, 2016 – In similar fashion to the June 24 event a house in Annette Drive was destroyed in a fire resulting from a lightning strike.

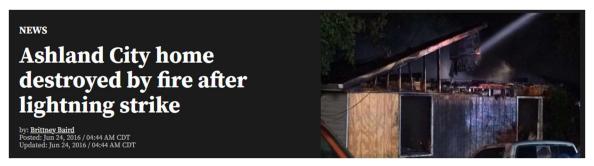


Figure 11 News Article for June 24, 2016, Lighting Associated House Fire (Source: WKRN)

Frequency/Likelihood of Future Occurrence

Occasional - Based on a historical record of 3 lighting events over a period of 72 years (1950 – 2022), the historic frequency calculates to a 1% - 10% chance of this type of event occurring each year.

C. Vulnerability Assessment

Vulnerability— Medium

Severe weather is not as spatially defined to any location in Cheatham County; therefore, the entire County is equally at risk to severe weather. The entirety of Cheatham County including all assets located within the County can be considered at risk to wind events. This includes the entire County population and all critical facilities, buildings (commercial and residential), and infrastructure.

Cheatham County uses a ranking system to determine each jurisdiction's vulnerability to severe weather (lightning, hail, wind) events. This system is based off simple arithmetic which analyzes potential impacts to determine vulnerabilities and then analyzes the probability of a severe weather event occurring to calculate risk ranking for each jurisdiction.

Table 16 Risk Assessment (Severe Weather)

	Impacts			Vulnerability	
Jurisdiction/ Applicant	Human	Property	Business	$H+P+B=\#;\;\#/3=V$	
Cheatham County	3	3	3	3	
Ashland City	4	5	3	4	
Kingston Springs	3	4	2	3	
Pegram	1	1	1	1	
Pleasant View	3	3	2	2.67	

Jurisdiction/ Applicant	Vulnerability	Probability	Risk V+P=R	
Cheatham County	3	4	7.0	High
Ashland City	4	3	7.0	High
Kingston Springs	3	2	5.0	Moderate
Pegram	1	1	2.0	Low
Pleasant View	2.67	3	5.67	Medium

Risk			
Low	2-3.6		
Moderate	3.7-5.2		
Medium	5.3-6.8		
High	6.9-8.4		
Severe	8.5-10		

Human Business

R	Risk of injuries and death from hazard				
1	Death very unlikely, injuries are				
	unlikely				
2	Death unlikely, injuries are minimal				
3	Death unlikely, injuries may be				
	substantial				
4	Death possible, injuries may be				
	substantial				
5	Death's probable, injuries will likely				
	be substantial				

Amount of business damage				
1	Less than 3 businesses closed for only one			
	day			
2	More than 3 businesses closed for a week			
3	More than 3 businesses closed for a few			
	months			
4	More than 3 businesses closed indefinitely			
	or relocated			
5	A top 10 local employer closed indefinitely			

Pr	Property			
Aı	Amount of residential property damage			
1	Less than \$500 in damages			
2	\$500 - \$10,000 in damages			
3	\$10,000 – \$500,00 in damages			
4	\$500,000 - \$2,000,000 in damages			
5	More than \$2,000,000 in damages			

Pr	Probability		
Probability of hazard occurring			
1	Less than once every 10 years		
2	About once every $5 - 10$ years		
3	About once every 2 − 5 years		
4	About once a year		
5	More than once a year		

D. Land Use & Development

Considering that the entire County is at risk to severe weather, increased development and population growth can reasonably translate to increased damages due to these types of events. The population in Cheatham County is expected to rise similarly to its surrounding counties and Tennessee overall. An increase in population will lead to an increase in the number of residential and commercial structures as well as new and/or improved infrastructure which in turn means an increase in the number and value of assets at risk to wind damage.

E. Multi-Jurisdictional Differences

The entirety of Cheatham County and the incorporated jurisdictions, including all assets located within can be considered equally at risk to severe weather events. This includes the entire population and all critical facilities, buildings (commercial and residential), and infrastructure.

F. Summary

Cheatham County is subject to severe weather hazards including thunderstorms, wind, lightning, and hail. Associated damages include impacts to utilities, residential and commercial buildings/property, and agricultural losses. High wind can cause trees to fall and potentially result in injuries or death and lightning can lead to house fires and serious injury. Hail can cause injury as well as severe property damage to homes and automobiles.

2.1.3 Earthquakes

A. Hazard Identification

An earthquake is the result of a sudden release of energy in the Earth's crust that creates seismic waves. The energy originates from a subsurface fault. A fault is a fracture or discontinuity in a volume of rock along tectonic plates. In the most general sense, the word earthquake is used to describe any event that generates seismic waves. Earthquakes are typically caused by the rupturing of geological faults. Occasionally, they are also caused by other events such as volcanic activity,

landslides, mine blasts, and nuclear tests. An earthquake's point of initial rupture is called its focus or hypocenter. The epicenter is the point at ground level directly above the hypocenter.

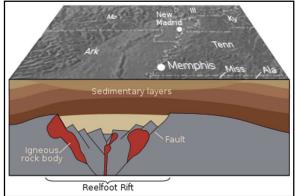


Figure 12 New Madrid Fault Line

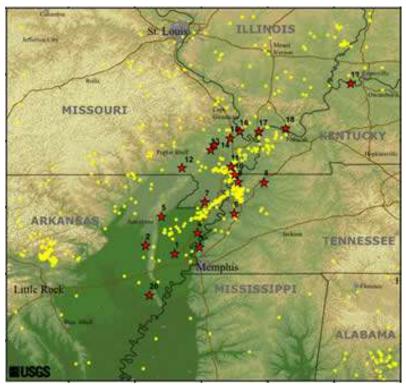


Figure 13 New Madrid Seismic Zone Earthquakes (Source: USGS)

B. Hazard Profile

At the Earth's surface, earthquakes manifest themselves by shaking and sometimes displacing the ground. The direct force of the earthquake will shake the ground and cause structures to collapse or become unstable. The shaking can also cause phenomena known as liquefaction. Liquefaction occurs when water saturated sediments are transformed by the earthquake's force into a substance that behaves like a liquid. By undermining the foundations and base courses of infrastructure, liquefaction can destroy or significantly damage a structure. In addition to direct damage caused by an earthquake, it can cause several secondary hazards. When the epicenter of a large earthquake is located offshore, the seabed may be displaced sufficiently to cause a tsunami. Earthquakes can

also trigger landslides, and occasionally volcanic activity. The shallower an earthquake, the more damage to structures it causes, all else being equal.

Frequency/Likelihood of Future Occurrence

Unlikely – Cheatham County near the major intraplate (within a tectonic plate seismic zone known as the New Madrid Seismic Zone. The New Madrid Seismic Zone is an approximately 120-milelong fault system that stretches over five states including Western Tennessee.

Historically, the zone is known for producing four of the largest North American earthquakes in recorded history, all in which would have been felt inn Cheatham County. This includes the noted three-month period between December 1811 and February 1812 that had quakes reaching Richter Scale magnitudes into the 7.0 through 8.6 ranges.

Table 17 Idented Scale for Earthquakes (Source: 0505)				
Richter Scale for Earthquakes				
Magnitudes	Description	Typical Impacts		
Less than 2.0	Micro	Not felt.		
2.0-2.9	Slight	Generally not felt, but recorded.		
2.0-3.9	Minor	Often felt, but rarely causes damage.		
4.0-4.9	Light	Noticeable shaking of indoor items, rattling noises. Significant damage unlikely.		
5.0-5.9	Moderate	Can cause major damage to poorly constructed buildings over small regions. At		
		most slight damage to well-designed buildings.		
6.0-6.9	Strong	Can be destructive in areas up to about 100 miles across in populated areas.		
7.0-7.9	Major	Can cause serious damage over larger areas.		
8.0-8.9	Great	Can cause serious damage in areas several hundred miles across.		
9.0-9.9	Epic	Devastating in areas several thousand miles across.		

Table 17 Richter Scale for Earthquakes (Source: USGS)

C. Vulnerability Assessment

Vulnerability - Low

According to a FEMA report filed in 2008, a serious earthquake in the NMSZ could result in the highest economic loss due to a natural disaster in U.S. history, causing widespread and catastrophic damage across a seven-state radius with most of the worst impacts taking place in Western Tennessee (including Cheatham County). Based on this report, a 7.7 magnitude quake in the NMSZ would result in thousands of fatalities, tens of thousands of damages to structures, and total disruption of vital infrastructure in Western Tennessee.

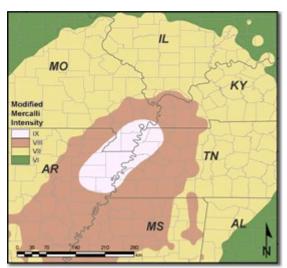


Figure 14 Hypothetical Levels of Shaking from M7.7 Earthquake (Source: USGS)

Intensity	Shaking	Description
VI	Strong	Felt by all, some heavy furniture moved, some fallen plaster, slight damage
VII	Very Strong	Damage negligible in well- built and structured buildings, slight to moderate in ordinary structures, considerable damage in poorly built structures, broken chimneys
VIII	Severe	Heavy furniture overturned, damage increased across structures, some experience partial collapse
IX	Violent	Building shifted off foundations, considerable damage across all structures. Increasing damage for less well-built structures.

Throughout the county many buildings and most infrastructure networks will be vulnerable to a quake. The risk of this is incredibly low but the nature of earthquakes is incredibly difficult to predict. There has been no recent activity with earthquakes in Cheatham County. However, the proximity to New Madrid, the committee found it essential to include this natural hazard on their plan. Following inclusion of this hazard it was found through analysis that the average risk to the county and its jurisdictions was low.

Table 18 Risk Assessments (Earthquakes)

(24	Impacts			Vulnavahility	
Jurisdiction/ Applicant	Human	Property	Business	Vulnerability <i>H+P+B=#; #/3=V</i>	
Cheatham County	2	2	4	2.67	
Ashland City	2	4	3	3	
Kingston Springs	1	1	1	1	
Pegram	1	1	1	1	
Pleasant View	2	3	3	2.67	

Jurisdiction/ Applicant	Vulnerability	Probability	Risk V+P=R	
Cheatham County	2.67	1	3.67	Low
Ashland City	3	1	4.0	Moderate
Kingston Springs	1	1	2.0	Low
Pegram	1	1	2.0	Low
Pleasant View	2.67	1	3.67	Low

Risk			
Low	2-3.6		
Moderate	3.7-5.2		
Medium	5.3-6.8		
High	6.9-8.4		
Severe	8.5-10		

	Human					
R	isk of injuries and death from hazard					
1	Death very unlikely, injuries are					
	unlikely					
2	Death unlikely, injuries are minimal					
3	Death unlikely, injuries may be					
	substantial					
4	Death possible, injuries may be					
	substantial					
5	Death's probable, injuries will likely					
	be substantial					

	Business				
	Amount of business damage				
1	Less than 3 businesses closed for only one				
	day				
2	More than 3 businesses closed for a week				
3	More than 3 businesses closed for a few				
	months				
4	More than 3 businesses closed indefinitely				
	or relocated				
5	A top 10 local employer closed indefinitely				

	Property					
A	Amount of residential property damage					
1	Less than \$500 in damages					
2	\$500 - \$10,000 in damages					
3	\$10,000 – \$500,00 in damages					
4	\$500,000 - \$2,000,000 in damages					
5	More than \$2,000,000 in damages					

	Probability					
	Probability of hazard occurring					
1	Less than once every 10 years					
2	About once every 5 – 10 years					
3	About once every 2 – 5 years					
4	About once a year					
5	More than once a year					

D. Land Use & Development

To consider the potential impact of an earthquake to be negligible would be foolhardy, if simply based upon the premise that it has never happened in the past. Impact on the utility infrastructure for an earthquake event is unknown and could range from insignificant to catastrophic.

E. Multi-Jurisdictional Differences

Due to the nature of earthquakes, Cheatham County and all incorporated jurisdictions are equally susceptible to them.

F. Summary

There is concern that a large magnitude event grows more probable with each passing day. Such an event could directly affect more that 50 percent of the state's population. Such an event, on the New Madrid Fault, could result in a catastrophic disaster which would have the potential to trigger a national response on a larger scale than any recorded earthquake event in modern United States history. The state utilizes research and damage assessment information gathered by the Central United States Earthquake Consortium (CUSEC), the University of Memphis Center for Earthquake Research Information (CERI), the Mid- America Earthquake Center (MAE) and the United States Geological Survey (USGS) to assist in development of preparedness, response, and recovery plans to safeguard communities and citizens.

2.1.4 Flooding

A. Hazard Identification

Flooding events occur when excess water from rivers and other bodies of water overflow onto riverbanks and adjacent floodplains. In addition, lower lying regions can collect water from rainfall and poorly drained land can accumulate rainfall through ponding on the surface. Floods in

Cheatham County are usually caused by rainfall but may also be caused by snowmelt and manmade incidents.

The area adjacent to a channel is the floodplain, as shown in *Figure 16*. A floodplain is flat or nearly flat land adjacent to a stream or river that experiences occasional or periodic flooding. It includes the floodway, which consists of the stream channel and adjacent areas that carry flood flows, and the flood fringe, which are areas covered by the flood, but which do not experience a strong current. Floodplains are made when floodwaters exceed the capacity of the main channel or escape the channel by eroding its banks. When this occurs, sediments (including rocks and debris) are deposited that gradually build up over time to create the floor of the floodplain. Floodplains generally contain unconsolidated sediments, often extending below the bed of the stream.

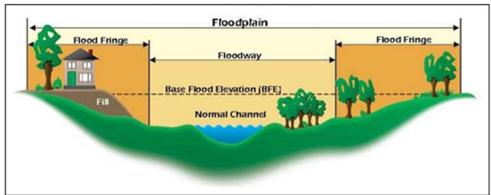


Figure 15 Characteristics of a Floodplain (Source: FEMA)

In its common usage, the floodplain most often refers to that area that is inundated by the 100-year flood, the flood that has a 1% chance in any given year of being equaled or exceeded. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program (NFIP). The 500-year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity.

Three general types of health hazards are common to flood events. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, bacteria, animal waste, and lawn, farm, and industrial chemicals. Pastures and areas where farm animals are kept, or their wastes are stored can contribute polluted waters to the receiving streams.

Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as *E. coli* and other disease-causing agents.

The second type of health problem arises after most of the water has gone. Stagnant pools can become breeding grounds for mosquitoes, and wet areas of a building that have not been properly cleaned breed mold and mildew. A building that is not thoroughly cleaned becomes a health

hazard, especially for small children and the elderly. Another health hazard occurs when ducts in a forced air system are not properly cleaned after inundation. When the furnace or air conditioner is turned on, the sediments left in the ducts are circulated throughout the building and breathed in by the occupants. If the county water system loses pressure, a boil order may be issued to protect people and animals from contaminated water.

The third problem is the long-term psychological impact of having been through a flood and seeing one's home damaged and personal belongings destroyed. The cost and labor needed to repair a flood-damaged home puts a severe strain on people, especially the unprepared and uninsured. There is also a long-term problem for those who know that their homes can be flooded again. The resulting stress on floodplain residents takes its toll in the form of aggravated physical and mental health problems.

B. Hazard Profile

Riverine flooding occurs from inland water bodies such as streams and rivers. In Tennessee, flooding is highly dependent on precipitation amounts and is highly variable within the State.

HAZUS is a regional multi-hazard loss estimation model that was developed by FEMA and National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state, and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

Table 19 Mapped Flood Insurance Zones

Flood Hazard	
Area	Description
HAZUS (100-yr)	Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Mandatory flood insurance purchase requirements and floodplain management standards apply.
HAZUS (500-yr)	500-year flood zone is a moderate flood hazard area and is an area between the limits of the base flood and the 0.2- percent-annual-chance (or 500-year) flood. Mandatory flood insurance is not required.
Non-highlighted Areas	Minimal risk areas outside the 1-percent and .2 percent-annual-chance floodplains.

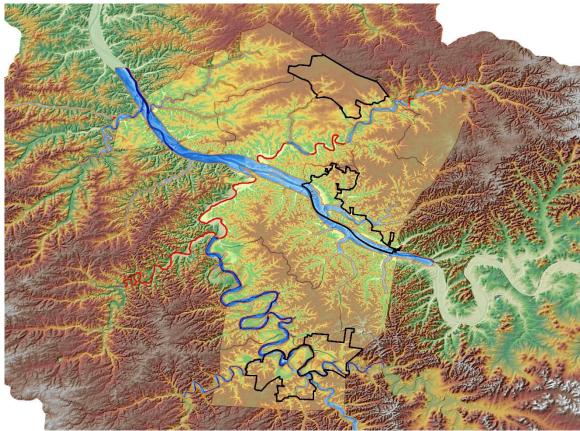


Figure 16 100-year Flood Map

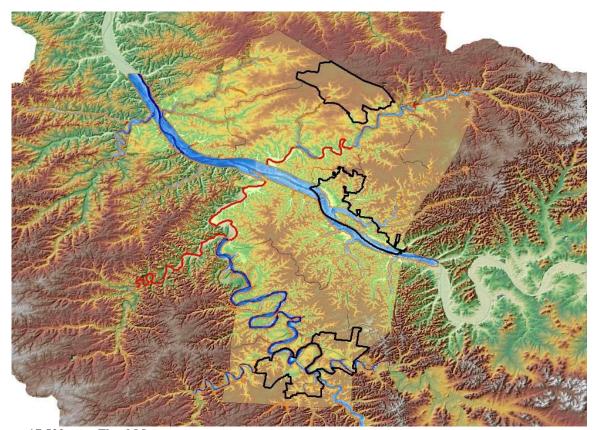


Figure 17 500-year Flood Map

Table 20 NFIP Summary of Participating Jurisdictions

Jurisdiction	NFIP	CID Number	Repetitive Loss	Severe Repetitive Loss
Cheatham County (Unincorporated)	Participating	470026	11	0
Ashland City	Participating	470027	5	1
Kingston Springs	Participating	470289	0	0
Pegram	Participating	470291	0	0
Pleasant View	Participating	470428	0	0

Table 21 NFIP Policy Data

- Page 185 -

NFIP Policy Data for Cheatham County						
Jurisdiction	Policies In-Force	Insurance In-Force Whole \$	Written Premium In-Force			
Cheatham County (Unincorporated)	251	\$60,568,600	\$209,015			
Ashland City	175	\$51,087,000	\$204,984			
Kingston Springs	33	\$9,980,000	\$22,919			
Pegram	51	\$15,152,700	\$31,359			
Pleasant View	4	\$1,225,000	\$1,676			

Policies In-force: number of NFIP flood insurance policies
Insurance In-force whole \\$: value of building and contents insured by the NFIP

Written Premium In-force: total premiums paid for NFIP insurance policies

According to the National Flood Insurance Program, repetitive flood loss is defined as a facility or structure that has experienced two or more insurance claims of at least \$1,000 in any given 10-year period since 1978. Within the NFIP, repetitive flood loss properties are usually considered the most vital structures to mitigate. The chart below provides a summary of repetitive losses for Cheatham County.

Table 22 NFIP Loss Data

NFIP Loss Data for Cheatham County							
Jurisdiction	Total Losses	Closed Loses	Open Loses	CWOP Loses	Total Payments		
Cheatham County (Unincorporated)	390	390	0	390	\$16,055,174		
Ashland City	91	91	0	91	\$7,086,143		
Kingston Springs	8	8	0	8	\$805,612		
Pegram	42	42	0	42	\$1,877,607		
Pleasant View	0	0	0	0	0		

<u>Total Losses</u>: number of flood insurance claims filled by policyholders <u>Closed Losses</u>: number of flood insurance claims paid to policyholders

Open Losses: claims that are still being processed CWOP Losses: claims that were "closed without payment" Total Payments: total dollars paid to policyholders

Table 23 NOAA Reported Flooding Events (1950 - 2022)

Location	Date	Event Type	Deaths	Injuries	Property Damage	Crop Damage
Ashland City	12/16/1996	Flash Flood	0	0	0.0K	0.0K
Countywide	3/1/1997	Flash Flood	0	0	0.0K	0.0K
Countywide	3/2/1997	Flash Flood	0	0	0.0K	0.0K
Countywide	3/2/1997	Flash Flood	0	0	1.0M	0.0K
Countywide	3/2/1997	Flash Flood	0	0	50.0K	0.0K
Countywide	3/5/1997	Flash Flood	0	0	0.0K	0.0K
Ashland City	6/13/1997	Flash Flood	0	0	0.0K	0.0K
Countywide	4/16/1998	Flash Flood	0	0	0.0K	0.0K
Pleasant View	5/26/1998	Flash Flood	0	0	0.0K	0.0K
Pleasant View	6/10/1998	Flash Flood	0	0	0.0K	0.0K
Countywide	1/23/1999	Flash Flood	0	0	0.0K	0.0K
Pegram	5/25/2000	Flash Flood	0	0	100.0K	0.0K
Pegram	2/16/2001	Flash Flood	0	0	0.0K	0.0K
South Portion	11/29/2001	Flash Flood	0	0	0.0K	0.0K
Ashland City	1/24/2002	Flash Flood	0	0	0.0K	0.0K
Countywide	3/17/2002	Flash Flood	0	0	0.0K	0.0K
Cheatham (Zone)	3/17/2002	Flood	0	0	0.0K	0.0K
Ashland City	3/20/2002	Flash Flood	0	0	0.0K	0.0K
Countywide	5/7/2003	Flash Flood	0	0	0.0K	0.0K

Ashland City	6/15/2003	Flash Flood	0	0	0.0K	0.0K
Ashland City	12/7/2004	Flash Flood	0	0	1.0K	0.0K
Ashland City	4/2/2009	Flash Flood	0	0	1.0K	0.0K
Kingston Springs	5/9/2009	Flash Flood	0	0	25.0K	0.0K
Pleasant View	5/2/2010	Flood	0	0	12.5M	1.0K
Kingston Springs	4/27/2011	Flash Flood	0	0	1.0K	0.0K
Craggie Hope	4/27/2013	Flash Flood	0	0	0.0K	0.0K
Ashland City	2/2/2016	Flash Flood	0	0	20.0K	0.0K
Lockertsville	2/3/2016	Flood	0	0	5.0K	0.0K
Doddsville	7/7/2016	Flash Flood	0	0	10.0K	0.0K
Lillamay	7/2/2017	Flash Flood	0	0	0.0K	0.0K
Craggie Hope	8/31/2017	Flash Flood	0	0	0.0K	0.0K
Poplar Ridge	9/1/2017	Flash Flood	0	0	10.0K	0.0K
Shacklett	11/5/2018	Flash Flood	0	0	0.0K	0.0K
Pegram	2/6/2019	Flash Flood	1	0	99.43K	0.0K
Sulphur Springs	2/23/2019	Flash Flood	0	0	148.5K	0.0K
Craggie Hope	7/12/2020	Flash Flood	0	0	5.0K	0.0K
Lockertsville	2/28/2021	Flash Flood	0	0	0.0K	0.0K
Kingston Springs	3/27/2021	Flash Flood	0	0	213.72K	0.0K
Sulphur Springs	3/28/2021	Flood	1	0	0.0K	0.0K

The following narratives were obtained via the NOAA Storm Event Database. Only events resulting in injury, death, or expansive damage (greater than \$200.0K property/crop damage) were included as expanded narratives.

March 2, 1997 – Widespread flooding occurred throughout the county resulting in damage to approximately 250 homes and businesses. Many roads were closed due to flooding and a bridge was washed out near Ashland City.

May 2, 2010 – This was a 500-year flood event resulting from rainfall accumulation in the Harpeth River System according to the Cheatham County Emergency Management Agency. The county saw approximately 17 inches of rainfall over a 3 day period in May 2010. This heavy rainfall event resulted in flood damage to 550 residential and commercial buildings and multiple state, county, and federal roads. The May 1-2 storm and subsequent flooding is one of the most expensive natural disasters to occur in Cheatham County.

Table 24 Record Flood (May 2010)

Location	New Record	Old Record	Date of Old Record	Flood Stage
Harpeth River (Kingston Springs)	38 Feet	33.2 Feet	January 7, 1946	20 Feet

CoCoRaHS and COOP Weekend Rainfall Totals 05/01/10 - 05/02/10

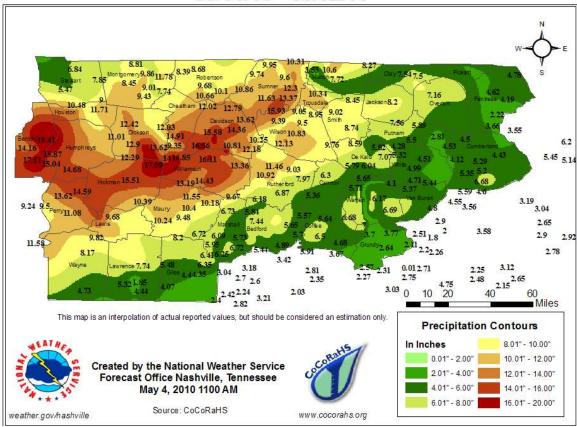


Figure 18 Middle TN Precipitation Estimates during the May 1-2 Flooding Event

February 6, 2019 – Massive Flooding occurred along Pond Creek Road creating an impassable situation in many areas as the road was underwater. This flood event resulted in the death of one 53-year-old individuals as they were swept away while walking a flooded bridge in their driveway. Another individual had to be rescued from the hood of their car at Pond Creek Road and Green Valley Drive.

March 27-28, 2021 – The Harpeth River in Kingston Springs again reached extremely high levels creating at 35.36 feet on March 28th just a few feet shy of the 2010 record. Multiple roads were flooded including West Kingston Springs Road, Highway 70, Pinnacle Hill Road, and Tennessee Waltz Parkway. One fatality is attributed to this event after a 65-year-old individual drowned after driving around high water barricades.



Figure 19 Flooding in Ashland City March 27-28, 2021 (Source: WKRN)

Frequency/Likelihood of Future Occurrence

Likely - By definition, the 100-year flood event is the flood that has a 1% chance in any given year of being equaled or exceeded. The 500-year flood event has a 0.2% chance of being equaled or exceeded in any given year. Based on a historical record of 39 flood events over a period of 77 years (1950 - 2022), the likelihood of a flood type event will occur semi-annually or annually.

C. Vulnerability Assessment

Vulnerability – Medium

During the HMPC meeting flooding was cited as a repetitive hazard in the county and jurisdictions. Discussion of commonly flood prone areas took place as did mention of improvements that have already been made to mitigate risk such as the almost complete Public-Private Partnership Berm and residential homes being elevated to the 500-year flood standard. Future projects were also discussed at this time and can be found in Section 3.4, the Mitigation Action Plan.

Cheatham County uses a ranking system to determine each jurisdiction's vulnerability to flooding events. This system is based off simple arithmetic which analyzes potential impacts to determine vulnerabilities and then analyzes the probability of a flood event occurring to calculate a flood risk ranking for each jurisdiction. The average across jurisdiction provides an overall vulnerability assessment.

Table 25 Risk Assessment (Flooding)

Jurisdiction/ Applicant Impacts

	Human	Property	Business	Vulnerability H+P+B=#; #/3=V
Cheatham County	4	4	4	4
Ashland City	2	5	3	3.33
Kingston Springs	2	4	2	2.67
Pegram	5	4	3	4
Pleasant View	2	3	2	2.33

Jurisdiction/ Applicant	Vulnerability	Probability	Į	Risk V+P=R
Cheatham County	4	2	6.0	Medium
Ashland City	3.33	2	5.33	Medium
Kingston Springs	2.67	2	4.67	Moderate
Pegram	4	3	7.0	High
Pleasant View	2.33	3	5.33	Medium

Ris	k
Low	2-3.6
Moderate	3.7-5.2
Medium	5.3-6.8
High	6.9-8.4
Severe	8.5-10

Н	Human				
Ri	sk of injuries and death from hazard				
1	Death very unlikely, injuries are				
	unlikely				
2	Death unlikely, injuries are minimal				
3	Death unlikely, injuries may be				
	substantial				
4	Death possible, injuries may be				
	substantial				
5	Death's probable, injuries will likely				
	be substantial				

Βι	ısiness				
Aı	Amount of business damage				
1	Less than 3 businesses closed for only one				
	day				
2	More than 3 businesses closed for a week				
3	More than 3 businesses closed for a few				
	months				
4	More than 3 businesses closed indefinitely				
	or relocated				
5	A top 10 local employer closed indefinitely				

Pr	operty
Aı	nount of residential property damage
1	Less than \$500 in damages
2	\$500 - \$10,000 in damages
3	\$10,000 – \$500,00 in damages
4	\$500,000 - \$2,000,000 in damages
5	More than \$2,000,000 in damages

Pr	obability
Pr	obability of hazard occurring
1	Less than once every 10 years
2	About once every 5 – 10 years
3	About once every 2 – 5 years
4	About once a year
5	More than once a year

HAZUS

Methodology

A Level I HAZUS analysis was completed using a probabilistic risk assessment for the 100-yr and 500-yr return periods. The Level I vulnerability assessment is presented below by return period.

Building Inventory (General Building Stock)

HAZUS estimates that there are 15,988 buildings in the region which have an aggregate total replacement value of \$3,722 million. The tables below present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively.

Table 26 Building Exposure by Occupancy Type

Cheatham County (Study Region)							
Occupancy Type	Exposure (\$1000)	Percent Total					
Agricultural	12,043	0.3%					
Commercial	308,733	8.3%					
Education	55,042	1.5%					
Government	20,401	0.5%					
Industrial	253,335	6.8%					
Religion	65,005	1.7%					
Residential	3,007,026	80.8%					
Total	3,721,585	100%					

Table 27 Building Exposure by Occupancy Type for 100-yr Flood Scenario

100-year River Flood Scenario							
Occupancy Type	Exposure (\$1000)	Percent Total					
Agricultural	4,520	0.3%					
Commercial	127,072	9.0%					
Education	20,280	1.4%					
Government	3,923	0.3%					
Industrial	192,796	13.6%					
Religion	22,233	1.6%					
Residential	1,047,293	73.9%					
Total	1,418,117	100%					

Table 28 Building Exposure by Occupancy Type for 500-yr Flood Scenario

500-yr River Flood Scenario							
Occupancy Type	Exposure (\$1000)	Percent Total					
Agricultural	4,751	0.3%					
Commercial	132,293	8.9%					
Education	27,025	1.8%					
Government	3,923	0.3%					
Industrial	195,374	13.2%					
Religion	23,714	1.6%					
Residential	1,091,903	73.8%					
Total	1,478,983	100%					

Essential Facility Inventory

HAZUS indicates that there is one hospital in the region with a total capacity of twelve beds. There are seventeen schools, thirteen fire stations, four police station and one emergency operation center.

General Building Stock Damage

For the 100-year flood scenario, HAZUS estimates that about 590 buildings will be at least moderately damaged. This is over 28% of the total number of buildings in the scenario. There are an estimated 277 buildings that will be destroyed completely. *Table 29* below summarizes the expected damage by general occupancy type for the buildings in the County during a 100-yr flood scenario.

Table 29 Expected Building Damage by Occupancy for 100-yr Flood Scenario

% Damaged	1-10	Ŋ	11-20		21-30		31-40		41-50		>50%	
Occupancy	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Agricultural	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	1	100	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0	0	0	0
Government	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Religion	0	0	0	0	0	0	0	0	0	0	0	0
Residential	15	2	83	14	74	12	80	13	75	12	277	46
Total	15		84		74	1	80		75	5	277	

For the 500-year flood scenario, HAZUS estimates that about 693 buildings will be at least moderately damaged. This is over 21% of the total number of buildings in the scenario. There are an estimated 378 buildings that will be destroyed completely. *Table 30* below summarizes the expected damage by general occupancy type for the buildings in the County during a 500-yr flood scenario.

Table 30 Expected Building Damage by Occupancy for 500-yr Flood Scenario

% Damaged	1-10	V	11-20		21-30		31-40		41-50		>50%	
Occupancy	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Residential	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0	0	0	0
Government	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Religion	0	0	0	0	0	0	0	0	0	0	0	0
Residential	14	2	72	10	69	10	79	11	95	13	378	53

Total 14 72 69 79 95 378	Total	14	72	69	79	95	
--------------------------------------	-------	----	----	----	----	----	--

Essential Facility Damage

Table 31 and *Table 32* summarize the expected damage to essential facilities following a 100-yr and 500-yr flood, respectively. Both scenarios analyzed determine that on the day of the event all 12 beds in the local hospital would be available for use.

Table 31 Expected Damage to Essential Facilities 100-yr Flood Scenario

	, and the second	Number of Facilities				
Classification	Total	At Least Moderate Substantial		Loss of Use		
EOC	1	0	0	0		
Fire Stations	13	0	0	0		
Hospitals	1	0	0	0		
Police Stations	4	0	0	0		
Schools	17	0	0	0		

Table 32 Expected Damage to Essential Facilities 500-yr Flood Scenario

		Number of Facilities					
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use			
EOC	1	0	0	0			
Fire Stations	13	0	0	0			
Hospitals	1	0	0	0			
Police Stations	4	0	0	0			
Schools	17	1	0	1			

Debris Generation

100-year Scenario

The model estimates that a total of 16,978 tons of debris will be generated. Of the total amount, Finishes comprises 30% of the total, Structure comprises 36% of the total, and Foundation comprises 34%. If the debris tonnage is converted into an estimated number of truckloads, it will require 680 truckloads (@25 tons/truck) to remove the debris generated by the flood.

500-year Scenario

The model estimates that a total of 31,313 tons of debris will be generated. Of the total amount, Finishes comprises 27% of the total, Structure comprises 38% of the total, and Foundation comprises 35%. If the debris tonnage is converted into an estimated number of truckloads, it will require 853 truckloads (@25tons/truck) to remove the debris generated by the flood.

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters.

100-year Scenario

The model estimates 1,125 households (or 3,375 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 354 people (out of a total population of 39,105) will seek temporary shelter in public shelters.

500-year Scenario

The model estimates 1,237 households (or 3,712 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 370 people (out of a total population of 39,105) will seek temporary shelter in public shelters

Building Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood. Total building-related losses were \$256.17 million in the 100-year flood scenario and \$305.98 million in the 500-yr flood scenario. *Table 33* and *Table 34* provide a summary of the losses associated with the building damage in each scenario

Table 33 Building Related Economic Loss Estimates for the 100-yr Flood Scenario (\$ Millions)

Category	Area	Residential	Commercial	Industrial	Other	Total
h 0	Building	119.74	13.01	5.68	3.14	141.57
Building Loss	Content	60.67	29.45	11.22	10.73	112.07
3uildir Loss	Inventory	0.00	0.86	1.58	0.09	2.53
I	Subtotal	180.41	43.32	18.48	13.96	256.17
	Income	0.62	20.03	0.19	3.39	24.22
s ion	Relocation	25.96	4.05	0.17	1.51	31.69
Business Interruption	Rental Income	8.66	3.08	0.02	0.20	11.95
B	Wage	1.45	20.01	0.32	13.10	34.88
	Subtotal	36.69	47.16	0.70	18.20	102.74
Т	Total	217.10	90.48	19.18	32.16	358.91

Table 34 Building Related Economic Loss Estimates for the 100-yr Flood Scenario (\$ Millions)

Category	Area	Residential	Commercial	Industrial	Other	Total
n III	Building	142.32	16.57	7.19	4.01	170.10

	Content	71.29	34.81	14.15	12.46	132.72
	Inventory	0.00	1.01	1.96	0.11	3.08
	Subtotal	213.61	52.39	23.30	16.59	305.89
	Income	0.71	23.15	0.24	3.96	28.06
sion	Relocation	29.50	4.69	0.21	1.75	36.14
Business Interruption	Rental Income	9.83	3.57	0.03	.22	13.65
B	Wage	1.69	23.61	0.38	14.78	40.45
	Subtotal	41.73	55.02	.86	20.70	118.30
Total		255.34	107.42	24.16	37.29	424.20

D. Land Use and Development

All future development within the floodplain may be considered at risk. An increase in population will likely result in an increase in buildings and infrastructure. New development in unincorporated areas could potentially occur in areas prone to flooding and increase vulnerabilities and potential losses; however, most of the current land use regulations require the consideration of flooding during the development process.

E. Multi-Jurisdictional Differences

Flooding effects all jurisdictions differently, that is why it is important to document the depth, duration, and time that flooding occurred. These differences are documented in past occurrences to demonstrate the toll that flooding can take on both the rural and urban areas of the county. Due to the topography of Cheatham County with its rolling hills and deep valleys, flood events are prone to occur on the streams located within the county.

Roads that consistently flood in Cheatham County:

- Tennessee Waltz Parkway (Ashland City)
- Old Clarksville Pike (Harris Farm Subdivision)
- Chapmansboro Road
- Deerfield Drive
- Pond Creek Road
- Little Pond Creek Road
- Fairgrounds Road
- Goose Bay Road
- S. Harpeth Road
- Lakeside Drive
- Cumberland Drive
- Lockertsville Road
- Cedar Hill Road
- West Kingston Springs
- East Kingston Springs Road
- Lloyd Lane

- Link Avenue
- South Main Street
- Spring Street
- Spring Creek Crossing
- Highway 49
- Highway 12 S & Highway 12 N
- Highway 70

Waterways that are prone to flooding in Cheatham:

- Harpeth River System
- Spring Creek
- Stratton Lake Area

F. Summary

Severe flooding has the potential to inflict significant damage in Cheatham County. The total economic loss estimated for the 100-year riverine flood is \$358.91 million. The total economic loss estimated for the 500-year riverine flood is \$424.20 million. Residential, commercial, and public buildings, as well as critical infrastructure such as transportation, water, energy, and communication systems may be damaged or destroyed by flood waters. During a flood event, chemicals and other hazardous substances may end up contaminating local water bodies. Flooding kills animals and in general disrupts the ecosystem. Snakes and insects may also make their way to the flooded areas

2.1.5 Winter Weather

- Page 196 -

A. Hazard Identification

A freeze occurs when temperatures are below 32 degrees Fahrenheit for an extended period, typically taking place overnight. These temperatures can damage agricultural crops, burst water pipes, and create layers of "black ice." Winter storms are events that can range from a few hours of moderate snow to blizzard-like circumstances that can affect driving conditions and impact communications, electricity, and other services. In Cheatham County, all jurisdictions are vulnerable to freezes and moderate winter storms in varying degrees, but not to the severity level seen in much of the northern U.S. Mean snowfall per year is from 6-12" annually average mean snowfall per year is below in *Figure 22*.

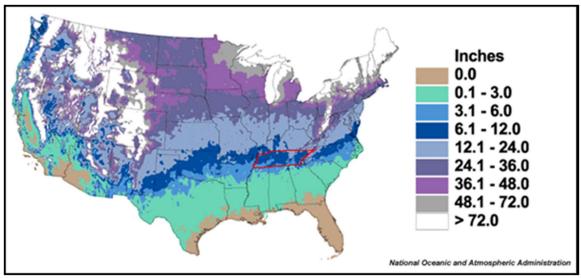
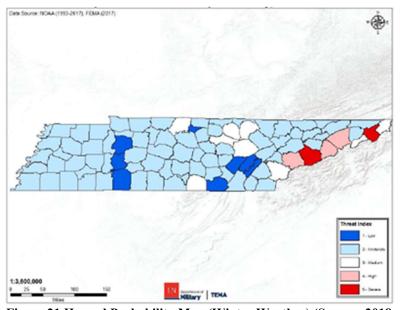


Figure 20 Average Snowfall per Year (Source: NOAA)

B. Hazard Profile

The following figure provides winter storm event information for Cheatham County. The threat index for Cheatham County is 2 (Moderate).



Threat Index	Hazard Score
Low	1
Moderate	2
Medium	3
High	4
Severe	5

Figure 21 Hazard Probability Map (Winter Weather) (Source: 2018 Tennessee Hazard Mitigation Plan)

Based on NOAA's data, winter storms in Tennessee can cost up to \$5,000,000 in property damage, and \$5,000,000 in crop damage in 1 impact. The average winter storm event will cause \$22,722 in property damage, \$10,020 in crop damage, kill 0.01 people, and injure 0.04 people.

Table 35 NOAA Recorded Winter Weather Events (1950-2022)

Table 35 NOAA Record	uca winter wea	ither Events (1930-202)			Property	Crop
Location	Date	Event Type	Deaths	Injuries	Damage	Damages
Cheatham (Zone)	1/6/1996	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	1/6/1996	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	12/24/1998	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	12/4/2002	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	12/22/2004	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	3/7/2008	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	12/16/2008	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/7/2010	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/14/2010	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	12/24/2010	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/9/2011	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/20/2011	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/7/2011	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/9/2011	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/12/2012	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/15/2013	Winter Weather	0	0	5.0K	0.0K
Cheatham (Zone)	12/9/2013	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	3/2/2014	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	1/23/2015	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/16/2015	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	2/18/2015	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/20/2015	Winter Storm	0	0	50.0K	0.0K
Cheatham (Zone)	3/4/2015	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	1/21/2016	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	2/8/2016	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/10/2016	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/6/2017	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	3/11/2017	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/12/2018	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/15/2018	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	12/8/2018	Winter Weather	0	0	5.0K	0.0K
Cheatham (Zone)	1/19/2019	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/6/2020	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/6/2021	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	2/17/2021	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	1/2/2022	Winter Weather	0	0	0.0K	0.0K
Cheatham (Zone)	1/6/2022	Winter Storm	0	0	0.0K	0.0K
Cheatham (Zone)	1/16/2022	Winter Weather	0	0	0.0K	0.0K

The following narratives were obtained via the NOAA Storm Event Database. Only events resulting property/crop damage were included as expanded narratives.

January 15, 2013 – Freezing rain accumulated to approximately one-tenth an inch resulting in the doing of several trees at the intersection of Sams Creek Road and U.S. Highway 70.

February 20, 2015 – Snow and sleet precipitation accumulated to approximately half an inch in the afternoon and was followed by freezing rain of about a quarter of an inch. This additional accumulation resulted in multiple power lines and trees being downed. A gas pump awning near I-24 on Maxey Road collapsed due to the weight of the snow, ice, and sleet accumulation. According to the Ashland City Times, multiple schools were dealing with water damage from ice accumulating on roofs.

December 8, 2018 – Scattered power outages affected the northern most parts of Cheatham County due to snow accumulations of approximately one tenth an inch knocking down trees and power lines.



Figure 22 Winter Weather Dec. 8, 2018, Ashland City (Source: USA Today Network, Kelly Fisher)

Frequency/Likelihood of Future Occurrence

Occasional - The probability of Cheatham County and its municipalities experiencing an extreme winter weather event is difficult to predict but based on historical record of winter weather events since 1950, it can reasonably be assumed that this type of event can occur however infrequently; 38 events over a 72-year period. Therefore, the HMPC calculated that there is the occasional probability that this type of event will occur each year.

C. Vulnerability Assessment

Vulnerability - Medium

In the county, road traveling conditions, electrical lines, and agricultural functions are some of the most vulnerable features. Cheatham County uses a ranking system to determine each jurisdiction's vulnerability to freezes/winter storm events. This system is based off simple arithmetic which

analyzes potential impacts to determine vulnerabilities and then analyzes the probability of a freeze/winter storm event occurring to calculate a risk ranking for each jurisdiction and an overall average risk ranking for the entire county and included jurisdictions.

In evaluating the risk of winter storms, jurisdictions viewed incidents that impacted day-to-day business as opposed to all incidents indicated by the NOAA Storm Database. vulnerability and risk assessments are below.

Table 36 Risk Assessment (Winter Weather)

,		Impacts	Vulnerability	
Jurisdiction/ Applicant	Human	Property	Business	$H+P+B=\#;\;\#/3=V$
Cheatham County	2	2	3	2.33
Ashland City	4	5	3	4
Kingston Springs	1	1	1	1
Pegram	4	4	1	3
Pleasant View	2	3	2	2.33

Jurisdiction/ Applicant	Vulnerability	Probability	Risk V+P=R	
Cheatham County	2.33	3	5.33	Medium
Ashland City	4	3	7.0	High
Kingston Springs	1	4	5.0	Moderate
Pegram	3	4	7.0	High
Pleasant View	2.33	2	4.33	Moderate

Risk			
Low	2-3.6		
Moderate	3.7-5.2		
Medium	5.3-6.8		
High	6.9-8.4		
Severe	8.5-10		

H	uman
Ri	sk of injuries and death from hazard
1	Death very unlikely, injuries are
	unlikely
2	Death unlikely, injuries are minimal
3	Death unlikely, injuries may be
	substantial
4	Death possible, injuries may be
	substantial
5	Death's probable, injuries will likely
	be substantial

Bu	ısiness
Aı	mount of business damage
1	Less than 3 businesses closed for only one
	day
2	More than 3 businesses closed for a week
3	More than 3 businesses closed for a few
	months
4	More than 3 businesses closed indefinitely
	or relocated
5	A top 10 local employer closed indefinitely

Pr	Property	
Aı	Amount of residential property damage	
1	Less than \$500 in damages	
2	\$500 - \$10,000 in damages	
3	\$10,000 – \$500,00 in damages	
4	\$500,000 - \$2,000,000 in damages	
5	More than \$2,000,000 in damages	

Pi	obability		
Pr	obability of hazard occurring		
1	Less than once every 10 years		
2	About once every 5 – 10 years		
3	About once every 2 – 5 years		
4	About once a year		
5	More than once a year		

D. Land Use and Development

Throughout the county many buildings and most infrastructure networks can be vulnerable to winter storm impacts. Many of these structures wouldn't receive direct impacts from winter storms

but they could receive indirect impacts such downed electrical lines that cut off electricity to the structures, frozen pipelines that crack, destroyed agriculture crops, and customers not being able to access travels to the structures due to ice covered roads.

E. Multi-Jurisdictional Differences

Due to the nature of winter conditions, Cheatham County and the incorporated jurisdictions are equally susceptible to winter weather conditions.

F. Summary

Cheatham County and the incorporated jurisdictions are equally vulnerable to winter weather. Extreme snow, ice or sleet can affect people's health and safety. Therefore, it is important to have proper measurements in place to prevent critical structure from being vulnerable to cut off electricity during below freezing temperatures.

2.1.6 Drought

A. Hazard Identification

Drought is a deficiency in precipitation over an extended period. It is a normal, recurrent feature of climate that occurs in virtually all climate zones. The duration of droughts varies widely. There are cases when drought develops relatively quickly and lasts a very short time, exacerbated by extreme heat and/or wind, and there are other cases when drought spans multiple years, or even decades. Studying the paleoclimate record is often helpful in identifying when long-lasting droughts have occurred. Common types of droughts are detailed below in *Table 37*.

Table 37 Drought Classification

Type	Details
Meteorological	Meteorological Drought is based on the degree of dryness (rainfall deficit) and the
Drought	length of the dry period.
Agricultural Drought	Agricultural Drought is based on the impacts to agriculture by factors such as rainfall deficits, soil water deficits, reduced ground water, or reservoir levels needed for irrigation.
Hydrological Drought	Hydrological Drought is based on the impact of rainfall deficits on the water supply such as stream flow, reservoir and lake levels, and ground water table decline.
Socioeconomic Drought	Socioeconomic drought is based on the impact of drought conditions (meteorological, agricultural, or hydrological drought) on supply and demand of some economic goods. Socioeconomic drought occurs when the demand for an economic good exceeds supply as a result of a weather-related deficit in water supply.

B. Hazard Profile

The wide variety of disciplines affected by drought, its diverse geographical and temporal distribution, and the many scales drought operates on make it difficult to develop both a definition to describe drought and an index to measure it. Many quantitative measures of droughts have been developed in the United States, depending on the discipline affected, the region being considered, and the application. Several indices developed by Wayne Palmer, as well as the Standardized Precipitation Index, are useful for describing the many scales of drought.

The U.S. Drought Monitor provides a summary of drought conditions across the United States and Puerto Rico. Often described as a blend of art and science, the map is updated weekly by

combining a variety of data-based drought indices and indicators and local expert input into a single composite drought indicator.

The **Standardized Precipitation Index** (SPI) is a way of measuring drought that is different from the Palmer Drought Index (PDI). Like the PDI, this index is negative for drought, and positive for wet conditions. But the SPI is a probability index that considers only precipitation, while Palmer's indices are water balance indices that consider water supply (precipitation), demand (evapotranspiration) and loss (runoff).

The **Palmer Drought Severity Index** (PDSI) devised in 1965, was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to calculate water supply and demand, incorporates soil moisture, and is considered most effective for unirrigated cropland. It primarily reflects Cheatham-term drought and has been used extensively to initiate drought relief. It is more complex than the SPI and the Drought Monitor.

According to the PDSI map shown in *Figure 25*, Middle Tennessee has a relatively low risk for drought hazard. However, drought cannot be confined to geographic or political boundaries and some areas may experience more severe drought events than what is shown on the map.

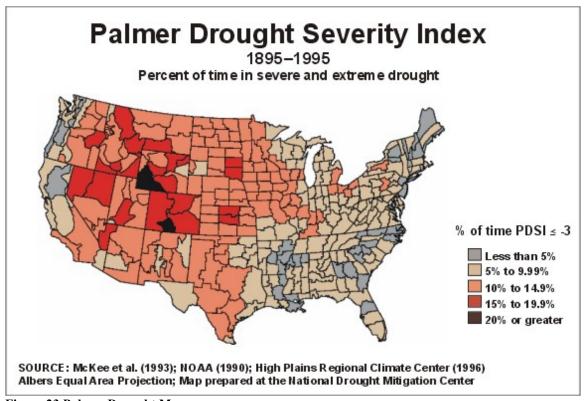


Figure 23 Palmer Drought Map

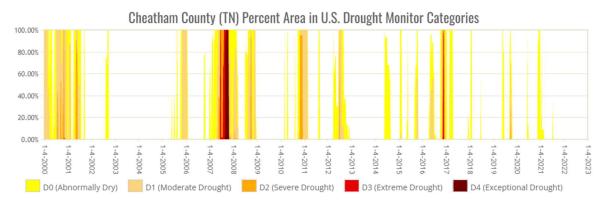


Figure 24 Drought Monitor Time Series (Source: National Drought Mitigation Center)

Figure 26 above illustrates drought conditions within Cheatham County between 2000 and 2022. According to the National Drought Mitigation Center the last period of Extreme Drought (D4) occurred in 2007. D4 (extreme drought) is categorized by browning grass, low lake levels, municipality water restrictions, and increased water prices. Whereas D0 (abnormally dry) conditions consist of hard ground and declining agriculture ponds and creeks. Table 38 below lists times of drought as recorded by NOAA.

Table 38 NOAA Recorded Drought Events (1950-2022)

Location	Date	Deaths	Injuries	Property Damages	Crop Damages
Cheatham (Zone)	5/1/2007	0	0	0.0K	0.0K
Cheatham (Zone)	6/1/2007	0	0	0.0K	0.0K
Cheatham (Zone)	7/1/2007	0	0	0.0K	0.0K
Cheatham (Zone)	8/1/2007	0	0	0.0K	0.0K
Cheatham (Zone)	9/1/2007	0	0	0.0K	0.0K
Cheatham (Zone)	10/1/2007	0	0	0.0K	0.0K
Cheatham (Zone)	11/2/2010	0	0	0.0K	0.0K
Cheatham (Zone)	12/1/2010	0	0	0.0K	0.0K
Cheatham (Zone)	7/3/2012	0	0	0.0K	0.0K
Cheatham (Zone)	11/1/2016	0	0	0.0K	0.0K
Cheatham (Zone)	12/1/2016	0	0	0.0K	0.0K
Cheatham (Zone)	9/25/2019	0	0	0.0K	0.0K
Cheatham (Zone)	10/1/2019	0	0	0.0K	0.0K

Expanded narratives of a few select events are detailed below.

2007 – This drought event began in May of 2007 and lasted until approximately October of the same year. This drought event effected much of Middle Tennessee, including all surrounding counties: Robertson, Davidson, Williamson, Dickson, and Montgomery. Many reports of poor/low quality crops were made, dairy cows were producing 20% less milk, fish were dying by the thousands and numerous ponds, creeks, streams, and some wells were drying up. Tennessee crop losses in 2007 approximated around \$750 million. Some counties/cities had to implement water restrictions at various points throughout the drought period.

Frequency/Likelihood of Future Occurrence

Occasional - The probability of Cheatham County and its municipalities experiencing a drought event can be difficult to quantify but based on historical record of 13 droughts since 2007, it can reasonably be assumed that this type of event has occurred every few years.

C. Vulnerability Assessment

Low - The occurrence and potential cost of damage to life and property is very minimal to nonexistent.

Cheatham County is vulnerable to drought however estimated potential losses are inherently difficult to calculate because drought tends to cause little damage to the built environment. Therefore, it is assumed that whereas all buildings and facilities in the planning area would technically be exposed to the drought hazard, there is no significant vulnerability to these buildings on a structural level. Potential drought losses can be calculated in terms of the value of agriculture in the County which is perhaps most vulnerable to drought. According to the USDA, the net income for agriculture is around \$2.6 million. Population growth could contribute directly to this hazard, as an increased number of users pull from the available water supply within the region. Drought can also increase the County's vulnerability to wildfires. Dry, hot, and windy weather combined with dry vegetation and a spark -- either through human intent, accident, or lightning -- can start wildfire.

Table 39 Risk Assessment (Drought)

		Impacts	Vulnerability	
Jurisdiction/ Applicant	Human	Property	Business	H+P+B=#; #/3=V
Cheatham County	1	1	2	1.33
Ashland City	2	4	2	2.67
Kingston Springs	1	1	1	1
Pegram	1	1	1	1
Pleasant View	1	2	2	1.67

Jurisdiction/ Applicant	Vulnerability	Probability		Risk T+P=R
Cheatham County	1.33	2	3.33	Low
Ashland City	2.67	1	3.67	Low
Kingston Springs	1	1	2.0	Low
Pegram	1	1	2.0	Low
Pleasant View	1.67	1	2.67	Low

Ris	k
Low	2-3.6
Moderate	3.7-5.2
Medium	5.3-6.8
High	6.9-8.4
Severe	8.5-10

H	Human		
Ri	Risk of injuries and death from hazard		
1	Death very unlikely, injuries are		
	unlikely		
2	Death unlikely, injuries are minimal		

Business				
Aı	mount of business damage			
1	Less than 3 businesses closed for only one			
	day			
2	More than 3 businesses closed for a week			

3	Death unlikely, injuries may be	3
	substantial	
4	Death possible, injuries may be	4
	substantial	
5	Death's probable, injuries will likely	4
	be substantial	

3	More than 3 businesses closed for a few
	months
4	More than 3 businesses closed indefinitely
	or relocated
5	A top 10 local employer closed indefinitely

Pr	Property		
Aı	nount of residential property damage		
1	Less than \$500 in damages		
2	\$500 - \$10,000 in damages		
3	\$10,000 – \$500,00 in damages		
4	\$500,000 - \$2,000,000 in damages		
5	More than \$2,000,000 in damages		

Pr	Probability							
Pr	Probability of hazard occurring							
1	Less than once every 10 years							
2	About once every 5 – 10 years							
3	About once every 2 – 5 years							
4	About once a year							
5	More than once a year							

D. Land Use and Development

According to the National Drought Mitigation Center, how we use land affects our vulnerability to drought. In general, land use patterns that maintain the integrity of watersheds and that have a smaller paved footprint result in greater resilience in the face of drought. The projected increase in population will possibly result in an increase in buildings and infrastructure which leads to increased impervious area. An increase in population may also put increasing pressure on water and other natural resources, particularly during periods of drought. Therefore, future development could have an impact on drought vulnerability in Cheatham County.

E. Multi-Jurisdictional Differences

Due to the nature of drought, Cheatham County and the incorporated jurisdictions are equally susceptible to drought conditions.

F. Summary

Cheatham County and all incorporated jurisdictions are equally vulnerable to drought. The historic frequency calculates that there is a significant chance of this type of event occurring each year. Drought can affect people's health and safety. Examples of drought impacts on society include anxiety or depression about economic losses, conflicts when there is not enough water, reduced incomes, fewer recreational activities, higher incidents of heat stroke, and even loss of human life. Drought conditions can also provide a substantial increase in wildfire risk. As plants and trees wither and die from a lack of precipitation, increased insect infestations, and diseases—all of which are associated with drought—they become fuel for wildfires. Periods of drought can equate to more wildfires and more intense wildfires, which affect the economy, the environment, and society in many ways such as by destroying neighborhoods, crops, and habitats.

2.1.7 Dam Failure

A. Hazard Identification

A dam is a barrier across flowing water that obstructs, directs, or slows down the flow, often creating a reservoir, lake, or impoundments. Most dams have a section called a spillway or weir, over or through, which water flows, either intermittently or continuously. According to Tennessee

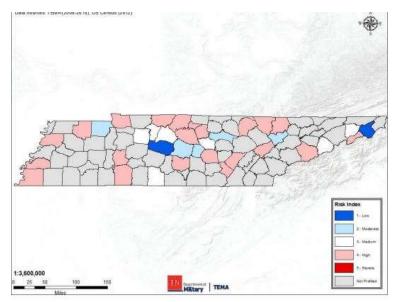
Safe Dams Program, a dam is a structure that is at least 20 feet high or can impound at least 30 acre-feet of water.

Dams fail in two ways, a controlled spillway release done to prevent full failure, or the partial or complete collapse of the dam itself. In each instance an overwhelming amount of water, and potentially debris, is released. Dam failures are rare, but when they occur can cause loss of life, and immense damage to infrastructure and the environment.

Common reasons for dam failure are the following:

- Sub-standard construction materials/techniques
- Spillway design error
- Geological instability caused by changes to water levels during filling or poor surveying
- Sliding of a mountain into the reservoir
- Poor maintenance, especially of outlet pipes (Extreme inflow)
- Human, computer, or design error
- Internal erosion, especially in earthen dams.
- Earthquakes

As illustrated below, Cheatham County is at Medium Risk for a dam failure event according to the 2018 Tennessee Hazard Mitigation Plan.



Threat Index	Hazard Score
Low	1
Moderate	2
Medium	3
High	4
Severe	5

Figure 25 Tennessee Dam Failure Hazard Risk (Source: 2018 Tennessee Hazard Mitigation Plan)

B. Hazard Profile

Dam failures can occur with little warning. Intense storms may produce a flood in a few hours or even minutes from upstream locations. A dam failure can occur within hours of the first signs of breaching. Although the floodwaters will drain, the area will be affected by flooding from the dam failure for days to weeks and the destruction will affect the area for years. Tennessee has a total of 1200 dams and levees within its borders with 660 of them being state regulated. Roughly 93% are earth dams that are less than 50 feet in height, 40 of these dams are made of concrete, and 37 of the state's dams are over 100 feet tall. 64% of the state's dams are privately owned, 15% locally,

12% by the state, 8% federally, and 1% public utility. Of those, 148 are considered a high-hazard potential with 207 a significant hazard, and 305 a low hazard. Most the State's high hazard potential dams are privately owned. Stratton Lake Dam was specifically identified as a hazard due to its proximity and topography as related to Ashland City, however due to the privately-owned nature of the dam little can be done to mitigate the risk without the private owner's involvement and cooperation.

Table 40 Privately Owned Dams (Source: National Inventory of Dams)

Dam Name	Risk	State-Regulated?	Purpose
Dilliard	High	No	Other
Stratton Lake	High	No	Other
Parks Significant		No	Unknown
Craig Lake	Low	No	Fish & Wildlife Pond, Fire Protection Stock, Small Fishpond, Recreation
Golf Club	Low	Yes	Other
Tillis #1	Low	No	Fire Protection Stock, Small Fishpond
Half Moon			Recreation
Lake	Low	No	
Tillis #2	Low	No	Fire Protection Stock, Small Fishpond

The largest dam in the county is Cheatham dam located on the Cumberland River about 9 miles downstream from the county seat (Ashland City). Cheatham Lock and Dam was authorized by Congress in 1946 visa Public Law 525 as part of the Rivers and Harbors Act. The dam was established as a navigation project to enhance the development of the Cumberland River Basin. Public Law 396 authorized the Dam to include hydroelectric capabilities and began to produce power from this process sin 1959.

The lock chamber is 800-foot long and 110-foot wide. During normal lake levels, the lock will lift a boat 26-foot from the river below the dam to the lake above the dam. The lock releases over 17 million gallons of water each time is emptied.

Due to geological conditions in the area, the site selected for construction presented unique challenges on designing the project. This is the only lock in the Nashville District that was designed to flood; the lock walls had to be built according to the elevations of the surrounding land. Thus, create a design so that flood waters could flow over the structure with minimal damage when waters receded.



Figure 26 Cheatham Dam

The lock has been submerged on several occasions, but the historical record-breaking flood of May 2010 submerged the lock and operations building in water almost fifteen feet deep. This far exceeded the designed limits for the structure and caused the Nashville District to perform a complete electrical overhaul and hydraulic rehab of the lock. Temporary repairs and clean-up were made, and the lock was able to reopen to navigation traffic under restricted operation approximately 14 days after the waters receded. It was the middle of June 2010 before the lock returned to 24-hour operations.

Following the May 2010 flooding, the Army Corps of Engineers began a nearly \$600 million rehabilitation effort on Kentucky's Wolf Creek Dam, a nearly mile-long structure located on the Cumberland River upstream from Nashville, designed to mitigate cascading flood events, including those that may affect the Cheatham Lock and Dam.

Representatives from the Corps of Engineers actively participated in the development of the 2016 Hazard Mitigation Plan in order to facilitate situational awareness for all members of the HMPC as related to dam safety and possible associated hazards (i.e., flooding). Though they were invented to the 2022 HMP 2022 Update meeting, no representatives from the U.S. Army Corps of Engineers chose to attend.

Dam failures are an infrequent occurrence. Most dam failures that have occurred in the state have involved small agricultural privately-owned dams. There have been no previous occurrences of dam failure in Cheatham County. This makes predicting future probability difficult. In Tennessee,

there are more than 1,200 dams and significant dam failures occur on an average of less than once every 40 years.

Frequency/Likelihood of Future Occurrence

Unlikely- Complete dam failure can be triggered by heavy rainfall, earthquakes, and flooding. With several areas in the county increasing in population and infrastructure (both public and private), this could lead to damage to a significant amount of infrastructure, property values, and commerce disruption.

C. Vulnerability Assessment

Vulnerability— Low

Throughout the county many buildings and infrastructure networks would be vulnerable to dam failure. The risk of this is incredibly low but the nature of mechanics of a dam failure is incredibly difficult to predict. Therefore, the committee found it essential to include this natural hazard on their plan even though the average risk analysis found the hazard to be ranked low risk.

Table 41 Risk Assessment (Dam Failure)

		Impacts	Vulnerability		
Jurisdiction/ Applicant	Human	Property	Business	H+P+B=#; #/3=V	
Cheatham County	4	5	5	4.67	
Ashland City	4	5	5	4.67	
Kingston Springs	1	1	1	1	
Pegram	1	1	1	1	
Pleasant View	1	1	1	1	

Jurisdiction/	V/L	D., b - b 2124		Risk	Risk		
Applicant	Vulnerability	Probability	V+P=R		Low	2-3.6	
Cheatham County	4.67	1	5.67	Medium	Moderate	3.7-5.2	
Ashland City	4.67	2	6.67	Medium	Medium	5.3-6.8	
Kingston Springs	1	1	2.0	Low	High	6.9-8.4	
Pegram	1	1	2.0	Low	Severe	8.5-10	
Pleasant View	1	1	2.0	Low			

H	Human								
Ri	Risk of injuries and death from hazard								
1	Death very unlikely, injuries are								
	unlikely								
2	Death unlikely, injuries are minimal								
3	Death unlikely, injuries may be								
	substantial								
4	Death possible, injuries may be								
	substantial								
5	Death's probable, injuries will likely								
	be substantial								

Bu	ısiness							
Aı	mount of business damage							
1	Less than 3 businesses closed for only one							
	day							
2	More than 3 businesses closed for a week							
3	3 More than 3 businesses closed for a few							
	months							
4	More than 3 businesses closed indefinitely							
	or relocated							
5	A top 10 local employer closed indefinitely							

Pr	Property									
Aı	Amount of residential property damage									
1	Less than \$500 in damages									
2	\$500 - \$10,000 in damages									

Pr	Probability							
Pr	Probability of hazard occurring							
1	Less than once every 10 years							
2	About once every 5 – 10 years							

	3	\$10,000 - \$500,00 in damages	3	About once every $2-5$ years
Ī	4	\$500,000 - \$2,000,000 in damages	4	About once a year
Ī	5	More than \$2,000,000 in damages	5	More than once a year

D. Land Use and Development

Under the Tennessee Safe Dams Act, a dam is defined as any structure that is at least 20 feet high or that can impound at least 30 acre-feet of water. Dams are assigned hazard potential categories that reflect the threat to life and property in the event of a failure. Safety inspections of dams are performed by Safe Dams staff in increments dependent upon their hazard potential category. Those categories and coinciding safety inspection timeline are as follows:

- High Hazard one year
- Significant Hazard two years
- Low Hazard three years

The responsibility of building and maintaining a dam rests solely with the owner. As a dam owner, you are liable for the water stored behind your dam. A dam failure, resulting in an uncontrolled release of the reservoir, can have a devastating effect on people and property downstream. Additionally, a dam failure could mean loss of a vital resource to you. Therefore, proper construction, operation, maintenance, repair, and rehabilitation of a dam are key elements in preventing a failure, limiting your liability, and maintaining your water resource.

E. Multi-Jurisdictional Differences

Cheatham Dam is located in the middle of the county, four privately owned dams are located in the southern most port of the county, and four of the privately owned dams are located in the mid-northern portion of the county near Ashland City. Due to the spread-out nature of the dam locations all regions of Cheatham are at risk for this hazard. It is noteworthy that Dillard, a high hazard dam, is located south of Kingston Springs and Stratton Lake, a high hazard dam, is located with in Ashland City limits.

F. Summary

To improve public safety and resilience, the risk and consequences of dam failure must be lowered. Progress requires better planning for mitigating the effects of failures; increased regulatory oversight of the safety of dams; improving coordination and communication across governing agencies; and the development of tools, training, and technology. Dam failures not only risk public safety, they also can cost our economy millions of dollars in damages. Failure is not just limited to damage to the dam itself. It can result in the impairment of many other infrastructure systems, such as roads, bridges, and water systems. When a dam fails, resources must be devoted to the prevention and treatment of public health risks as well as the resulting structural consequences.

3. Mitigation Strategy

Requirement §201.6(c)(3): [The plan shall include] a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.

This section describes the mitigation strategy process and mitigation action plan for Cheatham County and the incorporated jurisdictions Hazard Mitigation Plan Update.

3.1 Mitigation Strategy

The results of the planning process, the risk assessment, the goal setting, and the identification of mitigation actions led to the mitigation strategy and mitigation action plan for this HMP. Section 3.2 identifies the goals and objectives of this plan and Section 3.4 details the new mitigation action plan.

3.1.1 Continued Compliance with NFIP

Given the flood hazards in the planning area, an emphasis will be placed on continued compliance with the NFIP. The following steps will be taken by each participating community to meet or exceed the following minimum requirements as set by the NFIP:

- Issuing or denying floodplain development/building permits
- Inspecting all development to ensure compliance with the local ordinance
- Maintaining records of floodplain development
- Assisting in the preparation and revision of floodplain maps
- Helping residents obtain information on flood hazards, floodplain map data, flood insurance and proper construction measures

3.2 Goals

Requirement §201.6(c)(3)(i): [The mitigation strategy section shall include a] description of mitigation goals to reduce or avoid vulnerabilities to the identified hazards.

Chapter 2 documents the various natural hazards and associated risks that threaten Cheatham County and the incorporated jurisdictions including the vulnerability to structures, infrastructure, and critical facilities. The intent of goal setting is to identify areas where improvements to existing capabilities (policies and programs) can be made so that community vulnerability is reduced. Goals are also necessary to guide the review of possible mitigation measures. Mitigation goals need to reflect community priorities and should be consistent with other plans in the community.

<u>Goals</u> are general guidelines that explain what is to be achieved. They are usually broad-based policy type statements, Cheatham term and represent global visions. Goals help define the benefits that the plan is trying to achieve.

3.2.1 Goal Setting Exercise

In 2016, the HMPC agreed upon the goals for their hazard mitigation plan. It was decided that the goals from the 2016 plan should be carried over into the 2022 plan. They still reflect the current hazards and current conditions in the community.

3.2.2 Resulting 2022 Plan Update Goals

At the end of the exercise, the HMPC agreed upon three general goals for planning efforts. Those goals are as follows:

Goal 1: Protect the Lives and health of citizens from the effects of natural hazards.

Goal 2: Emphasize mitigation planning to decrease vulnerability to new and existing structures.

Goal 3: Encourage public support and commitment to hazard mitigation, by communicating mitigation benefits.

3.3 Identification and Analysis of Mitigation Activities

In order to identify and select mitigation projects to support the mitigation goals, each hazard identified in Section 2.1 Hazard Identification was evaluated. The HMPC then analyzed viable mitigation options that supported the identified goals and objectives. The HMPC reviewed a PowerPoint presentation and handout covering potential mitigation actions for each of the hazards

Requirement §201.6(c)(3): [The plan shall include] a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.

identified.

The HMPC was also provided with FEMA's *Mitigation Ideas* guidance document dated January 2013 which provides example mitigation actions organized by natural hazard. The HMPC was instructed to consider both future and existing buildings in evaluating possible mitigation actions and to also consider including projects from other plans and studies within the community. A facilitated discussion then took place to examine and analyze the options. This discussion was followed by a brainstorming session that generated a list of preferred mitigation actions by hazard.

3.3.1 Prioritization Process

The prioritization process was important as most mitigation projects represent a large investment of financial and personal resources. By evaluating each project's degree of feasibility and the level of costs versus benefits, Cheatham County was able to determine which projects should include based on need and available funding and time.

The HMPC used the SAFE-T method to prioritize these projects. This approach was adopted from the successful methodology used by other counties in FEMA Region 4. This rating system uses five variables to evaluate the overall feasibility and appropriateness of each project. *Figure 29* further explains this method.

	Project Prioritization Meth	od: SA	FE-T
	Variable	Value	Description
S	Societal: The public must support the overall	1	Low community priority, few societal benefits
	implementation strategy and specified mitigation	2	
	actions. The projects will be evaluated in terms of community acceptance and societal benefits.		Moderate community acceptance/priority
		3	High community
			acceptance/priority
A	Administrative: The projects will be evaluated for anticipated staffing and maintenance	1	High staffing, outside needed
	requirements to determine if the jurisdiction has the personnel and administrative capabilities	2	Some staffing, help may be needed
	necessary to implement the project or whether	3	Low staffing, no outside
	outside help will be needed.		help needed
F	Financial: The projects will be evaluated on their general cost-effectiveness and whether additional	1	Somewhat cost-effective
	outside funding will be required.	2	Moderately cost-effective
		3	Very cost-effective
E	Environmental: The projects will be evaluated for any immediate or long-term environmental	1	Many environ. impacts, possibly long-term
	impacts caused by their construction or operation.	2	Some environ. Impacts, some possibly long-term
		3	Few, if any, environ. impacts
Т	Technical: The projects will be evaluated on their	1	Other actions are needed
	ability to reduce losses in the long-term, whether		or short-term fix
	there are secondary impacts, and whether the	2	Other actions may be
	proposed project solves the associated problem or		needed for long-term fix
	if additional components are necessary.	3	Other actions not needed, long-term fix

Figure 27 SAFE-T Project Prioritization

The process of identification and analysis of mitigation alternatives allowed the HMPC to come to a consensus and to prioritize recommended mitigation actions. The HMPC discussed the contribution of the action to saving lives or property as first and foremost, with additional consideration given to the benefit-cost aspect of a project; however, this was not a quantitative analysis. The team agreed that prioritizing the actions collectively enabled the actions to be ranked in order of relative importance and helped steer the development of additional actions that meet the more important objectives while eliminating some of the actions which did not garner much support. The cost-effectiveness of any mitigation alternative will be considered in greater detail through performing benefit-cost project analyses when seeking FEMA mitigation grant funding for eligible actions associated with this plan.

3.4 Mitigation Action Plan

Requirement §201.6(c)(3)(iii): [The mitigation strategy section shall include an] action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

The Mitigation Action Plan was developed to present the recommendations developed by the HMPC for how the communities can reduce the risk and vulnerability of people, property, infrastructure, and natural and cultural resources to future disaster losses. Emphasis was placed on both future and existing development. The action plan summarizes who is responsible for implementing each of the prioritized actions as well as when and how the actions will be implemented. It should be clarified that the actions included in this mitigation strategy are subject to further review and refinement; alternatives analyses; and reprioritization due to funding availability and/or other criteria. Cheatham County and the incorporated jurisdictions are not obligated by this document to implement any or all of these projects. Rather this mitigation strategy represents the desires of the community to mitigate the risks and vulnerabilities from identified hazards.

Table 42 Cheatham County Mitigation Actions and Projects

Mitigation		Responsible	Current Status		ıs	Summary of Progress To-	Funding Sources				Priority	Estimated	New or Existing
Action Number	Action Description	Department	Complete	In- progress	Not yet Started	Date	HMGP	BRIC	FMA	Local	Score	Cost	Infrastructure
Severe W	eather (Severe Storm, Wint	er Storm, Tornad	oes)										
1.1.1	Bury utility lines to mitigate risk from heavy winds, tornadoes, freezes and falling debris	Town of Kingston Springs			х	New Project, 3-5 year timeframe	X	X		X	12	1M per mile	Existing
1.1.2	Bury utility lines to mitigate risk from heavy winds, freezes and falling debris	Town of Pegram			х	New Project, 3-5 year timeframe	Х	Х		Х	12	1M per mile	Existing
1.1.3	Bury utility lines to mitigate risk from heavy winds, freezes and falling debris	Town of Ashland City			х	New Project, 3-5 year timeframe	Х	Х		Х	12	1M per mile	Existing
1.2.1	Replacement of traffic light cables to mast arms to mitigate risk from heavy winds, tornadoes, and falling debris.	Town of Kingston Springs			х	New Project, 1-3 year timeframe	X	X		X	12	20K each	Existing
1.2.2	Replacement of traffic light cables to mast arms to mitigate risk from heavy winds, tornadoes, and falling debris.	Town of Pegram			х	New Project, 1-3 year timeframe	X	X		X	12	20K each	Exiting
1.2.3	Replacement of traffic light cables to mast arms to mitigate risk from heavy winds, tornadoes, and falling debris.	City of Pleasant View			X	New Project, 1-3 year timeframe	X	X		X	12	20K each	Existing
1.2.4	Replacement of traffic light cables to mast arms to mitigate risk from heavy winds, tornadoes, and falling debris.	Town of Ashland City			Х	New Project, 1-3 year timeframe	X	Х		X	12	20K each	Existing
1.3.1	Generators & Transfer Switches at wastewater pump stations throughout the town	Town of Kingston Springs			х	New Project, 1-3 year timeframe	X	Х		Х	14	10K (each unit)	Existing

Mitigation Action Number	Action Description	Responsible Department	Current Status			Summary of Progress To-	Funding Sources				Priority	Estimated	New or Existing
			Complete	In- progress	Not yet Started	Date	HMGP	BRIC	FMA	Local	Score	Cost	Infrastructure
1.3.2	Generators & Transfer Switches at wastewater pump stations throughout the town	Town of Pegram											
1.3.3	Generator & transfer switch at Main Sewage Treatment Center	Town of Pegram			х	New Project, 1-3 year timeframe	Х	Х		Х	14	10K	Existing
1.3.4	Generator & transfer switch at Main Sewage Treatment Center	Town of Kingston Springs			х	New Project, 1-3 year timeframe	Х	Х		Х	14	10K	Existing
1.3.5	Generator & transfer switch at Water Plant	Town of Pegram			х	New Project, 1-3 year timeframe	X	Х		Х	14	10K	Existing
1.3.6	Generator & transfer switch at Water Plant	Town of Kingston Springs			Х	New Project, 1-3 year timeframe	X	Х		X	14	10K	Existing
1.3.7	Generator needed at new Fire Station location	Cheatham County EMA			х	New Project 1-3 year timeframe	X	Х		X	14	10K	New
1.3.8	Generator needed for Critical Infrastructure	Town of Ashland City			Х	New Project, 1-3 year timeframe	X	Х		X	14	10K	Both
1.4.1	Tornado Warning System (2 Sirens)	City of Pleasant View			х	New Project, 2-4 year timeframe	X	X		X	11	30K each	New
1.4.2	Tornado Warning System	Town of Kingston Springs			х	New Project, 1-3 year timeframe	X	Х		Х	11	30K each	Existing
1.4.3	Tornado Warning System	Town of Pegram			Х	New Project, 1-3 year timeframe	Χ	Х		Х	11	30K each	Existing
1.4.4	Tornado Warning System	Town of Ashland City			х	New Project, 1-3 year timeframe	X	Х		X	11	30K each	Existing
1.4.5	Tornado Warning System	Cheatham County EMA			х	New Project, 1-3 year timeframe	X	Х		Х	11	30K each	Existing
1.5.1	Windproof film on schools	Cheatham County School EMA			х	New Project 1-3 year timeframe	X	X		X	13	250K	Existing
1.5.2	Retrofit Schools for Tornado safety (Safe Rooms/Hardened Hallways)	Cheatham, County EMA			х	Carried Over from 2016 plan	Х	Х		Х	13	\$1M	Existing
1.5.3	Public-Private partnership to create tornado safe rooms	Ashland City			х	Carried Over from the 2016 plan	Х	Х		Х	13	\$1M	Both
1.6.1	Enforce building codes on new and existing structures and update building codes	Building Department			х	Carried Over from 2016 plan				Х	13	N/A	New & Existing

Mitigation		Responsible	Cu	ırrent Statı	ıs	Summary of Progress To-		Funding:	Sources		Priority	/ Estimated	New or Existing
Action Number	Action Description	Department	Complete	In- progress	Not yet Started	Date	HMGP	BRIC	FMA	Local	Score	Cost	Infrastructure
	as needed to reflect best practices												
Flooding													
2.1.1	Culverts and drainage structures throughout the county to improve water flow, mitigate flood risk, and replace collapsed structures	Cheatham County Highway Dept. / Cheatham County EMA			х	Carried Over from 2016 plan	Х	Х	X	Х	10	N/A	Both
2.2.1	Study areas prone to flooding and inundation mapping of high risk dams	Cheatham County EMA			х	Carried over from 2016 plan	Х	X	X	X	13	N/A	N/A
2.3.1	Enforce NFIP requirements for all new and existing structures in the floodplain	Building Department			х	Carried over from 2016 plan				Х	9	N/A	New & Existing
2.4.1	Stormwater Mitigation (Identify and prioritize stream flow issues affecting life and property, make improvements as needed)	Town of Pegram			Х	New Project, 2-4 year timeframe	X	X	Х	X	11	N/A	New & Existing
2.4.2	Stormwater Mitigation (Identify and prioritize stream flow issues affecting life and property, make improvements as needed)	Town of Kingston Springs			х	New Project, 2-4 year timeframe	X	X	Х	X	11	N/A	New & Existing
2.5.1	Property acquisition of repetitive loss and severe repetitive loss properties	Town of Ashland City			Х	Carried over from 2016 plan, property acquisition as needed			Х	Х	12	N/A	Existing
2.6.1	Move the city water intake approximately 1 mile from Little	Town of Ashland City			Х	Carried over from the 2016 plan	Х	Х		Х	10	\$3M	Existing

Mitigation		Responsible	Cu	rrent Statu	ıs	Summary of Progress To-		Funding S	Sources		Priority	Estimated	New or Existing
Action Number	Action Description	Department	Complete	In- progress	Not yet Started	Date	HMGP	BRIC	FMA	Local	Score	Cost	Infrastructure
	Marrowbone Creek to Cumberland River												
All Hazards	S												
3.1.1	Installment of two Mesonet Systems within the county to mitigation hazards and study storm patterns and risk	Cheatham County EMA			х	New Project, 3-5 year timeframe	X	X		Х	14	\$25,000 per Mesonet Unit	New
3.2.1	Weather radios to be distributed to all homes and businesses	Cheatham County EMA		Х		Carried over from 2016 plan	Х	Х		Х	15	Cost per Radio	New
3.3.1	Provide and distribute pamphlets on natural hazard safety and mitigation to the public	Cheatham County EMA		Х		Carried over from 2016 plan, this is a continuous action the County performs throughout the year at social events and in office	X	X		X	12	15K	New & Existing

4. Plan Integration and Maintenance

Requirement §201.6(c)(4): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

This section provides an overview of the overall strategy for plan integration and maintenance and outlines the method and schedule for monitoring, evaluating, and updating the plan. The section also discusses incorporating the plan into existing planning mechanisms and how to address continued public involvement.

4.1 Integration into Local Planning Mechanism

An important implementation mechanism that is highly effective and low-cost is incorporation of the Hazard Mitigation Plan recommendations and their underlying principles into other plans and mechanisms. Where possible, plan participants will use existing plans and/or programs to implement hazard mitigation actions. As previously stated, mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development. This plan builds upon the momentum developed through previous and related planning efforts and mitigation programs and recommends implementing actions, where possible, through these other program mechanisms. These existing mechanisms include:

- Building and Zoning Codes
- Emergency Management Plans
- Ordinances
- Flood/stormwater management plans
- Other plans, regulations, and practices with a mitigation focus

Those involved in these other planning mechanisms will be responsible for integrating the findings and recommendations of this plan with these other plans, programs, etc., as appropriate. Implementation, incorporation into existing planning mechanisms will be done through the routine actions of:

- Monitoring other planning/program agendas;
- Attending other planning/program meetings;
- Participating in other planning processes; and
- Monitoring community budget meetings for other community program opportunities.

The successful implementation of this mitigation strategy will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community. Efforts should continuously be made to monitor the progress of mitigation actions implemented through other planning mechanisms and, where appropriate, their priority actions should be incorporated into updates of this Hazard Mitigation Plan.

4.2 Monitoring, Evaluating, Updating

For the Hazard Mitigation Plan update review process, the Cheatham County Emergency Management Agency will be responsible for facilitating, coordinating, and scheduling reviews and maintenance of the plan. The review of the Hazard Mitigation Plan will be conducted as follows:

• The Cheatham County Emergency Management Agency will be responsible for leading

the meeting to review the plan.

- Notices will be emailed to the members of the HMPC, federal, state, and local agencies, non-profit groups, local planning agencies, and representatives of business interests, neighboring communities, and others advising them of the date, time, and place for the review.
- Local City officials will be notified by email or phone call.
- Prior to the review, department heads and others tasked with implementation of the various activities will be queried concerning progress on each activity in their area of responsibility and asked to present a report at the review meeting.
- A copy of the current plan will be available for public comment.
- After the review meeting, a status report will be developed outlining implementation of projects over the past year.

Criteria for Annual Reviews

The criteria recommended for annual reviews will include the following:

- Community growth or change in the past year.
- The number of substantially damaged or substantially improved structures by flood zone.
- The renovations to public infrastructure including water, sewer, drainage, roads, bridges, gas lines, and buildings.
- Natural hazard occurrences that required activation of the Emergency Operations Center (EOC) and whether the event resulted in a presidential disaster declaration.
- Natural hazard occurrences that were not of a magnitude to warrant activation of the EOC or a federal disaster declaration but were severe enough to cause damage in the community or closure of businesses, schools, or public services.
- The dates of hazard events descriptions.
- Documented damages due to the event.
- Closures of places of employment or schools and the number of days closed.
- Road or bridge closures due to the hazard and the length of time closed.
- Assessment of the number of private and public buildings damaged and whether the damage was minor, substantial, major, or if buildings were destroyed. The assessment will include residences, mobile homes, commercial structures, industrial structures, and public buildings, such as schools and public safety buildings.
- Review of any changes in federal, state, and local policies to determine the impact of these policies on the community and how and if the policy changes can or should be incorporated into the Hazard Mitigation Plan. Review of the status of implementation of projects (mitigation strategies) including projects completed will be noted. Projects behind schedule will include a reason for delay of implementation.

4.2.1 Continued Public Involvement

Continued public involvement is imperative to the overall success of the plan's implementation. The update process provides an opportunity to solicit participation from new and existing stakeholders and to publicize success stories from the plan implementation and seek additional public comment. The plan maintenance and update process will include continued public and stakeholder involvement and input through attendance at designated committee meetings, web postings, press releases to local media, and through public hearings.

Public Involvement Process for Annual Reviews

The public will be notified via the Cheatham County website or any other form of well publicized social platform (i.e., local newspaper, Facebook, Twitter).

Public Involvement for Five-year Update

When the HMPC reconvenes for the five-year update, they will coordinate with all stakeholders participating in the planning process—including those that joined the committee since the planning process began—to update and revise the plan. In reconvening, the HMPC will develop a plan for public involvement and will be responsible for disseminating information through a variety of media channels detailing the plan update process. As part of this effort, public meetings will be held, and public comments will be solicited on the plan update draft.

APPENDIX A

County Overview



QUICK FACTS

County Seat	Ashland City
Year Incorporated	1859
Land Area in Square Miles (County)	302
Water Area in Square Miles (County)	5
Latitudo	NIDCO 1C ACL

LatitudeN36° 16.45'LongitudeW87° 03.85'Elevation438'Market RegionNashvilleDistance From Nashville15 milesDistance From Clarksville20 milesTime ZoneCentral

County Website www.cheathamcountytn.gov
Additional Incorporated Cities

Additional Incorporated Citie within the County

rithin the County Kingston Springs, Pegram, Pleasant View

Unincorporated Cities Chapmansboro

COUNTY POPULATION

	County
2010 (Census)	39,105
2019 Population	41,947
2019 Median Age	41.1
2024 Population Projection	43,608
Annual Growth Rate	0.78%
(2019-2024 Projected)	

Source: ESRI CLIMATE

Annual Average Temperature	58.1° F
Average High Temperature	70.9° F
Average Low Temperature	45.4° F
Annual Average Precipitation	50.09"
Annual Average Snowfall	2.2"
Prevailing Winds	Southerly
Mean Length of Freeze-Free Pe	riod (days) 180-220

COUNTY TAX STRUCTURE

LOCAL	<u>County</u>	
Property Taxes (2019)		
• Rate per \$100 value	\$2.4766	
• Rural (Special Fire Dist.)	\$ 0.215	
Ratio of Assessment		
 Residential and Farm 	25%	
 Commercial/Industrial 	40%	
• Personal (Equipment)	30%	
Total Local Assessment (2018)	\$816,101,717	
Hotel-Motel Tax	5%	
Motor Vehicle Tax Rate	\$51.00	
Source: Tennessee Comptroller of the Treasur Source: County Technical Assistance Service, U		

STATE

Sales Tax

- 4% tax on food and food ingredients
- 7% on all other tangible personal property unless specifically exempted

Local Sales Tax Rate

· 2.00% County

Local and State Sales Tax Collected (FY2019)

• \$29,905,904

Income Tax

- Personal: 2% on Interest & Dividends for the 2019 tax year
- Corporate Excise Tax: 6.5% of Tennessee taxable income
- Franchise Tax: .25% of the greater of the Tennessee portion of net worth or the book value of real and tangible property in Tennessee. The minimum tax is \$100
- Unemployment Tax: New employers is typically 2.7% (based on occupation) of first \$7,000

Source: Tennessee Department of Revenue

2020 COMMUNITY DATA PROFILE

EDUCATION

District Name	Cheatham County
Type of Public School System	County
District Grades Served	Pre-K-12
Number of Schools	13
Number of Classroom Teachers	415
Number of Administrators	19
Additional Teachers and Staff	68
Total Number of Students	5,902
GRADES (2018-2019)	
Pre-K-4	2,060
5-8	1,938
9-12	1,870
Riverside Academy K-12	34
Number of High School Graduat	es (2018-19) 408
Graduation Rate	91.1%
Educational Attainment with a D	Degree 29.2%
(Adults Age 25+)	

Source: Tennessee Department of Education

REGIONAL HIGHER EDUCATIONAL INSTITUTIONS (within 30 miles)

Graduates 2017-2018

419 • TN College of Applied Technology Dickson Austin Peay State University Clarksville 2,348 · Nashville State Community College Dickson 1,283 (plus several in Nashville)

Source: National Center for Education Statistics

FastTrack Job Training

Assistance Program Available Yes

Source: Tennessee Department of Economic and Community Development

GOVERNMENT

GOVERNING BODY

Mayor and County Commissioners Meets 3rd Monday at 6:00 p.m. Cheatham County Courthouse

Fire Department

 Full-time fire fighters in county 	2
County volunteers	200
Fire stations in county	14
County fire trucks	4239

Law Enforcement

• Full-time police officers in county & sheriff	41
County patrol cars	44
nsurance Rating	9
Zoning Regulations	Yes
Planning Commission	Yes
ndustrial Development Corp.	Yes

TRANSPORTATION

AIR SERVICE

Nearest General Aviation John C. Tune Airport Location Identifier JWN Distance from City 17 miles 5,500 feet Runway Length Surface Lighting Asphalt MIRL/PAPI 100LL/Jet A Fuel Repairs Major Storage Hangar, Tie Down Transportation Taxi, Rental and Courtesy Car

Nearest Commercial Service Nashville International Airport Location Identifier BNA

Distance from Ashland City 27 miles

BNA serves 440 flights daily in more than 50 nonstop markets. BNA is served by 14 airlines, including international carriers Air Canada, WestJet and soon British Airways. Starting May 2018, British Airways will fly nonstop between Nashville and London Heathrow.

HIGHWAYS

U.S. Highways State Highways 12, 41, 49, 155, 249 Nearest Interstate Interstate 24 and 40

COMMON CARRIERS

Air Freight Companies None Motor Freight Companies 3 Terminal Facilities None Bus Services

Inter-City RTA in Pleasant View

Local No Carrier Service No

RAILROADS SERVED BY

CSX Transportation and Nashville & Western

NAVIGABLE WATERWAYS

Cumberland River Channel Depth 9 feet Nearest Port Facility Nashville Miles from Port 20

COMMUNICATIONS

Newspapers The Ashland Times

The Tennessean

Exchange

So. Cheatham Advocate **Telephone Companies** T&TA

Radio Stations 20 local, WQSV AM790

Television Networks 5

Cable Service Available Yes

275 (31 basic service) Channels Provider Charter Communications

Internet Service Available

Provider AT&T and Charter Communications

Yes

Fiber Optics Available

Charter Business Provider

CHEATHAM COUNTY, TENNESSEE

2020 COMMUNITY DATA PROFILE

COMMUNITY FACILITIES

Health Care		Recreation	
Doctors	8	Libraries	1
Dentists	4	Parks	4
Hospitals	1	Golf Courses	1
Beds	8	(Public & Private)	
Clinics	2	Swimming Pools (Public & Private)	1
Nursing Homes	2		
Beds	175	Country Clubs	0
Retirement Homes	0	Theaters	0
Beds	0	Bowling Alleys	0
Residential Care/	1	Hotels & Motels	2
Assisted Living		Rooms	47
Beds	85	Bed & Breakfasts	1
Religious Organizat	<u>ions</u>	Largest Meeting Ro	om
Protestant	34	Capacity	100
Catholic	1		
Jehovah's Witness	1	Restaurants	20
Seventh Day Advent	ist 1		
Latter Day Saints	0	<u>Other</u>	
		Ball fields, senior ce	
Day Care Centers	11	historic trail, campir	-
Day Care Homes	7	canoeing and boatir	ng.

FINANCIAL INSTITUTIONS

Type of Institution	# of Institutions	# of Branches	<u>Deposits</u>
Commercial Banks	4	10 \$	522,894,000
Savings Institutions	0		
Credit Unions	1	1	\$6,701,984
Total	5	11	
Countywide Comb	oined Deposits	\$529,595,984	

(Deposits for June 30, 2019)

Source: Federal Deposit Insurance Corporation and National Credit Union Administration

INDUSTRIAL SUPPORT SERVICES

<u>Service</u>	Location	Distance (Miles)
Tool & Die	Local	
Heat Treating	Nashville	20
Foundry	Nashville	20
Heavy Hardware	Nashville	20
Sheet Metal	Local	
Lubricants	Nashville	20
Welding Supplies	Nashville	20
Abrasives		

SELECTED ECONOMIC INDICATORS

2018 ANNUAL AVERAGES

Labor Force	County	Labor Market Area*
Civilian Labor Force	21,460	688,350
Employment	20,870	669,120
Unemployment	590	19,230
Unemployment Rate	2.7%	3.0%

^{*} Labor Market Area is defined as **Cheatham**, Davidson, Dickson, Montgomery, Robertson and Williamson Counties in Tennessee.

2019 EMPLOYED POPULATION (AGE 16+) BY INDUSTRY

Agriculture/Mining	1.0%
Construction	12.3%
Manufacturing	12.5%
Wholesale Trade	2.6%
Retail Trade	9.0%
Transportation/Utilities	8.1%
Information	1.3%
Finance/Insurance/Real Estate	5.5%
Services	41.7%
Public Administration	5.9%
Source: ESRI	

MANUFACTURING IN AREA (Annual Averages 2018)

Number of Units 44
Ann. Avg. Employment 2,275
Ann. Avg. Weekly Wage \$1,182

Source: Lennessee Department of Labor and Workforce Development

PER CAPITA PERSONAL INCOME

Year 2019 Amount \$26,985

Source: ESRI

MEDIAN HOUSEHOLD INCOME

Year 2019 Amount \$57,562

Source: ESRI

AVERAGE HOME SALES

Year 2018
Number of Homes Sold 624
Average Cost \$231,763
Source: Tennessee Housing Development Agency

RETAIL SALES

Year 2018 Amount \$ 352,581,228 Source: Tennessee Department of Revenue

NATURAL RESOURCES

Minerals: Limestone

Timber: Hardwoods (Oak and Poplar)

AGRICULTURAL

Crops: Tobacco, Hay, Corn, Soybean Livestock: Cattle

CHEATHAM COUNTY, TENNESSEE

2020 COMMUNITY DATA PROFILE

UTILITIES

GAS - ASHLAND CITY Local Distributor Phone Piedmont Natural Gas Company 615.734.0665 Website www.piedmontng.com

GAS - KINGSTON SPRINGS Local Distributor Phone Website

Greater Dickson Gas Authority 615.441.2830 http://gdga.com/

GAS - PLEASANT VIEW Local Distributor Phone

Website

Clarksville Gas & Water Company 931.645.7400 www.clarksvillegw.com/gas

WATER - ASHLAND CITY Water Supplier

Phone Website

Ashland City Water Department 615.792.4211 www.ashlandcity.net

WATER - KINGSTON SPRINGS
Water Supplier Second So. Cheatham Utility
Phone 615.952.3094 www.secondsouthcheatham.com Website

WATER - PLEASANT VIEW Water Supplier Phone Website

Pleasant View Utility District 615.746.5315

www.secondsouthcheatham.com

SEWER - ASHLAND CITY Sewer Provider Phone Ashland City Sewer Department 615.792.4211 Website www.ashlandcity.net

SEWER - KINGSTON SPRINGS Sewer Provider k Phone 6 Kingston Springs Wastewater 615.746-5315 Website www.kingstonsprings.net

SEWER - PLEASANT VIEW Sewer Provider Phone Website Pleasant View Utility District 615.746.5315 www.pvudwater.com

ELECTRICITY Source Company Tennessee Valley Authority

LOCAL POWER COMPANIES Electric Provider Phone Cumberland Electric Mem. Corp. 615.792.5651

Website www.cemc.org

Dickson Electric Department 615.446.9051 Electric Provider Phone Website www.dicksonelectric.com

MAJOR INDUSTRIAL MANUFACTURERS/DISTRIBUTION

Firm	Product or Service	Total Employees	Union	Phone Number
AO Smith Water Products Co.	Temperature control systems	1,500	None	615.792.4371
Trinity Marine Products	Barges & deck fittings	300	None	615.792.4320
Madison Mill, Inc.	Wood products and millwork	120	None	615.351.3079
Gate Precast Inc.	Precast concrete panels	110	None	615.792.4871
Caraustar Inc.	Fiberboard folding cartons	70	None	615.952.4300
Rogers Manufacturing Corp.	Trusses, wooded roof	50	None	615.792.8722
Lu, Inc.	Guardrail fabrication & installation	35	None	615.952.5501
Steele SaddleTree, LLC	Wooden saddle trees	30	None	615.792.7171
United Structural Systems, Inc.	Foundation/Structure repair	30	None	615.746.5225
International Paper Ashland City Sheet Plant	Chipboard boxes	25	None	615.792.9967
American Wire & Cable Co.	Electrical appliance wire	15	None	615.792.7831
Pioneer Log Systems, Inc.	Custom log home kits	15	None	615.952.5647
Pleasant View Manufacturing	Steel fabricating	15	None	615.746.5777
QC Industrial Solutions	Packaging distribution	15	None	615.247.8720

For information on industrial sites and available industrial buildings contact:

Robert T. Bibb **Executive Director**

Middle TN Industrial Development Association 2108 Westwood Avenue Nashville, Tennessee 37212 Phone: 615.269.5233 Fax: 615.269.5184 mtida@mtida.org www.mtida.org

Jerome Terrell Economic Dev. Director

Cheatham County Joint Economic & Community Development Board 108 North Main Street Ashland City, TN 37015 Phone: 615.792.2379 Fax: 615.792.5001

jerometerrell@cheathamconnect.com www.cheathamconnect.com

Kerry R. McCarver **County Mayor**

100 Public Square, Suite 105 Ashland City, TN 37015 Phone: 615.792.4316 Fax: 615.792.2001

kerry.mccarver@cheathamcountytn.gov www.cheathamcountytn.gov



MTIDA represents the Local Electric Power and Natural Gas Distributors located in the 40 county region of Middle Tennessee

CHEATHAM COUNTY, TENNESSEE

The information contained herein was obtained from sources we consider reliable. We can not be responsible, however, for errors or change in information.

Updated June 2020

APPENDIX B

HAZUS Supplement (100-yr/500-yr)



Hazus: Flood Global Risk Report

Region Name: Cheatham_County

Flood Scenario: Cheatham_County_100yr_Flood

Print Date: Wednesday, April 27, 2022

Disclaimer:

- Page 228 -

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.







Table of Contents

	Section	Page #	
-	General Description of the Region	3	
	Building Inventory		
	General Building Stock	4	
	Essential Facility Inventory	5	
	Flood Scenario Parameters	6	
	Building Damage		
	General Building Stock	7	
	Essential Facilities Damage	9	
	Induced Flood Damage	10	
	Debris Generation		
	Social Impact	10	
	Shelter Requirements		
	Economic Loss	12	
	Building-Related Losses		
	Appendix A: County Listing for the Region	15	
	Annuadiy B: Beginnel Benulation and Building Value Date	16	





Flood Global Risk Report

Page 2 of 16



General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Tennessee

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is approximately 307 square miles and contains 1,185 census blocks. The region contains over 15 thousand households and has a total population of 39,105 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 15,988 buildings in the region with a total building replacement value (excluding contents) of 3,722 million dollars. Approximately 93.14% of the buildings (and 80.80% of the building value) are associated with residential housing.





Flood Global Risk Report

Page 3 of 16



Building Inventory

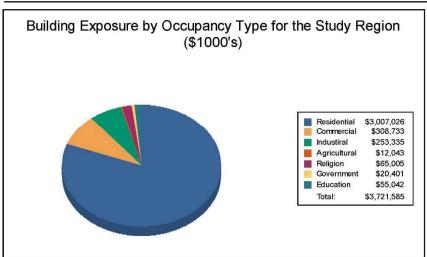
General Building Stock

Hazus estimates that there are 15,988 buildings in the region which have an aggregate total replacement value of 3,722 million dollars. Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1

Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure (\$1000)	Percent of Total
Residential	3,007,026	80.8%
Commercial	308,733	8.3%
Industrial	253,335	6.8%
Agricultural	12,043	0.3%
Religion	65,005	1.7%
Government	20,401	0.5%
Education	55,042	1.5%
Total	3,721,585	100%





RiskMAP
Increasing Resilience Together

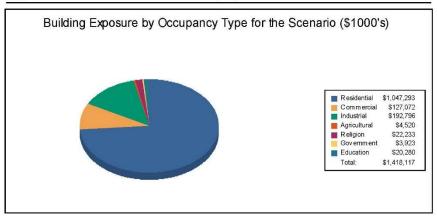
Flood Global Risk Report

Page 4 of 16



Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure (\$1000)	Percent of Total
Residential	1,047,293	73.9%
Commercial	127,072	9.0%
Industrial	192,796	13.6%
Agricultural	4,520	0.3%
Religion	22,233	1.6%
Government	3,923	0.3%
Education	20,280	1.4%
Total	1,418,117	100%



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 12 beds. There are 17 schools, 13 fire stations, 4 police stations and 1 emergency operation center.





Flood Global Risk Report

Page 5 of 16



Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name: Cheatham_County

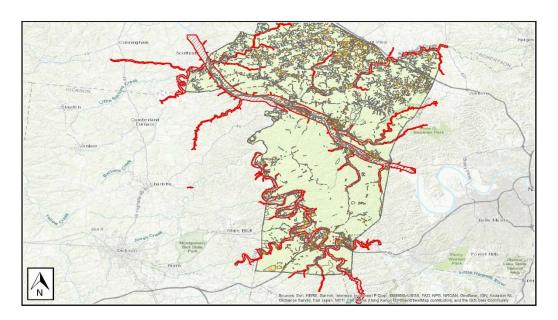
Scenario Name: Cheatham_County_100yr_Flood

Return Period Analyzed: 100

Analysis Options Analyzed: No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure







Flood Global Risk Report

Page 6 of 16

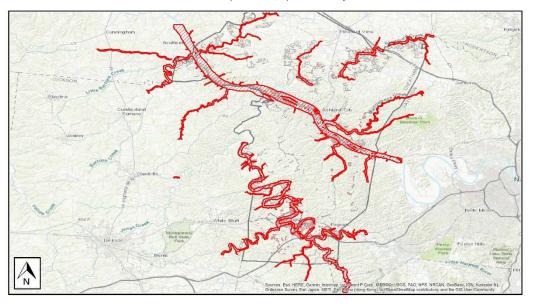


Building Damage

General Building Stock Damage

Hazus estimates that about 590 buildings will be at least moderately damaged. This is over 28% of the total number of buildings in the scenario. There are an estimated 277 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = \$300K) Overview Map





RiskMAP
Increasing Resilience Together

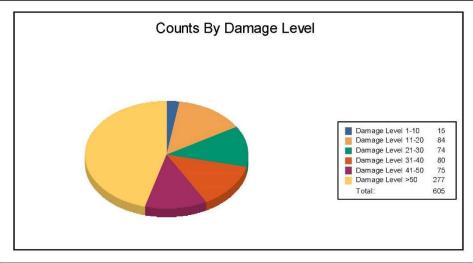
Flood Global Risk Report

Page 7 of 16



Table 3: Expected Building Damage by Occupancy

	1-	-10	11	-20	21	-30	31	-40	41	-50	>5	0
Occupancy	Count	(%)										
Agriculture	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	1	100	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0	0	0	0
Government	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Religion	0	0	0	0	0	0	0	0	0	0	0	0
Residential	15	2	83	14	74	12	80	13	75	12	277	46
Total	15		84		74		80		75		277	







Flood Global Risk Report

Page 8 of 16



Table 4: Expected Building Damage by Building Type

Building	1-1	10	11-	20	21-	30	31-	40	41-	50	>5	0
Туре	Count ((%)	Count (%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	34	100
Masonry	0	0	2	12	2	12	4	24	1	6	8	47
Steel	0	0	0	0	0	0	0	0	0	0	0	0
Wood	15	3	81	14	74	13	78	14	75	13	239	43





Flood Global Risk Report

Page 9 of 16

 $\mathbf{X}\mathbf{V}$



Essential Facility Damage

Before the flood analyzed in this scenario, the region had 12 hospital beds available for use. On the day of the scenario flood event, the model estimates that 12 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

Facilities

Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Emergency Operation Centers	1	0	0	0
Fire Stations	13	0	0	0
Hospitals	1	0	0	0
Police Stations	4	0	0	0
Schools	17	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

- (1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.
- (2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.





Flood Global Risk Report

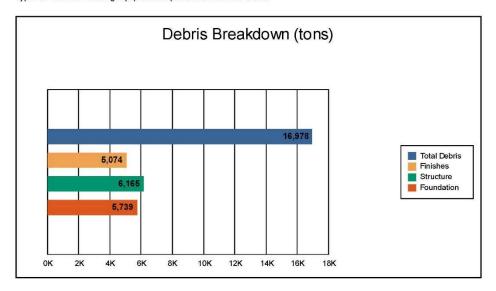
Page 10 of 16



Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.



The model estimates that a total of 16,978 tons of debris will be generated. Of the total amount, Finishes comprises 30% of the total, Structure comprises 36% of the total, and Foundation comprises 34%. If the debris tonnage is converted into an estimated number of truckloads, it will require 680 truckloads (@25 tons/truck) to remove the debris generated by the flood.





Flood Global Risk Report

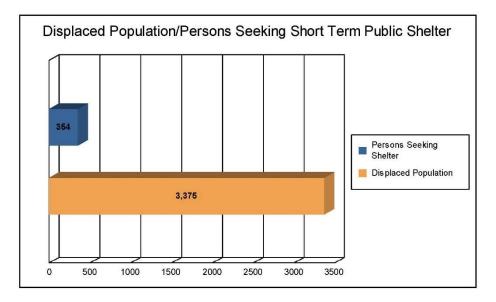
Page 11 of 16



Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 1,125 households (or 3,375 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 354 people (out of a total population of 39,105) will seek temporary shelter in public shelters.







Flood Global Risk Report

Page 12 of 16



Economic Loss

The total economic loss estimated for the flood is 358.91 million dollars, which represents 25.31 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 256.17 million dollars. 29% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 60.49% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.





Flood Global Risk Report

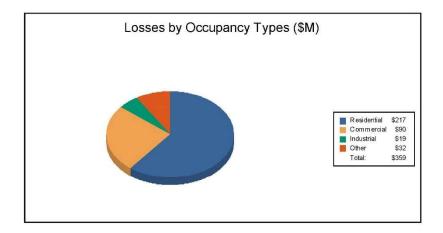
Page 13 of 16



Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Агеа	Residential	Commercial	Industrial	Others	Total
Building Los	<u>ss</u>					
	Building	119.74	13.01	5.68	3.14	141.57
	Content	60.67	29.45	11.22	10.73	112.07
	Inventory	0.00	0.86	1.58	0.09	2.53
	Subtotal	180.41	43.32	18.48	13.96	256.17
Business In	terruption_					
	Income	0.62	20.03	0.19	3.39	24.22
	Relocation	25.96	4.05	0.17	1.51	31.69
	Rental Income	8.66	3.08	0.02	0.20	11.95
	Wage	1.45	20.01	0.32	13.10	34.88
	Subtotal	36.69	47.16	0.70	18.20	102.74
ALL	Total	217.10	90.48	19.18	32.16	358.91





RiskMAP
Increasing Resilience Together

Flood Global Risk Report

Page 14 of 16



Appendix A: County Listing for the Region

Tennessee

- Cheatham



RiskMAP
Increasing Resilience Together

Flood Global Risk Report

Page 15 of 16



Appendix B: Regional Population and Building Value Data

Building Value (thousands of dollars)

	Population	Residential	Non-Residential	Total
Tennessee	7			
Cheatham	39,105	3,007,026	714,559	3,721,585
Total	39,105	3,007,026	714,559	3,721,585
Total Study Region	39,105	3,007,026	714,559	3,721,585



RiskMAP
Increasing Resilience Together

Flood Global Risk Report

Page 16 of 16



Hazus: Flood Global Risk Report

Region Name: Cheatham_County

Flood Scenario: Cheatham_County_500yr_Flood

Print Date: Wednesday, April 27, 2022

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.







Table of Contents

Page #		Section
3	Description of the Region	General
	Inventory	Building
4	General Building Stock	
5	Essential Facility Inventory	
6	cenario Parameters	Flood S
	Damage	Building
7	General Building Stock	
9	Essential Facilities Damage	
10	Flood Damage	Induced
	Debris Generation	
10	npact	Social In
	Shelter Requirements	
12	ic Loss	Econom
	Building-Related Losses	
15	x A: County Listing for the Region	Append
16	x B: Regional Population and Building Value Data	Append





Flood Global Risk Report

Page 2 of 16



General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Tennessee

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is approximately 307 square miles and contains 1,185 census blocks. The region contains over 15 thousand households and has a total population of 39,105 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 15,988 buildings in the region with a total building replacement value (excluding contents) of 3,722 million dollars. Approximately 93.14% of the buildings (and 80.80% of the building value) are associated with residential housing.





Flood Global Risk Report

Page 3 of 16



Building Inventory

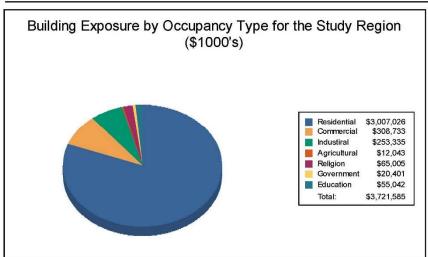
General Building Stock

Hazus estimates that there are 15,988 buildings in the region which have an aggregate total replacement value of 3,722 million dollars. Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1

Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure (\$1000)	Percent of Total 80.8%		
Residential	3,007,026			
Commercial	308,733	8.3%		
Industrial	253,335	6.8%		
Agricultural	12,043	0.3%		
Religion	65,005	1.7%		
Government	20,401	0.5%		
Education	55,042	1.5%		
Total	3,721,585	100%		





RiskMAP
Increasing Resilience Together

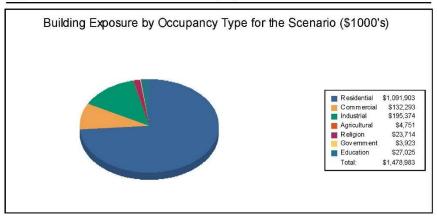
Flood Global Risk Report

Page 4 of 16



Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure (\$1000)	Percent of Total		
Residential	1,091,903			
Commercial	132,293	8.9%		
Industrial	195,374	13.2%		
Agricultural	4,751	0.3%		
Religion	23,714	1.6%		
Government	3,923	0.3%		
Education	27,025	1.8%		
Total	1,478,983	100%		



Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 12 beds. There are 17 schools, 13 fire stations, 4 police stations and 1 emergency operation center.





Flood Global Risk Report

Page 5 of 16



Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name: Cheatham_County

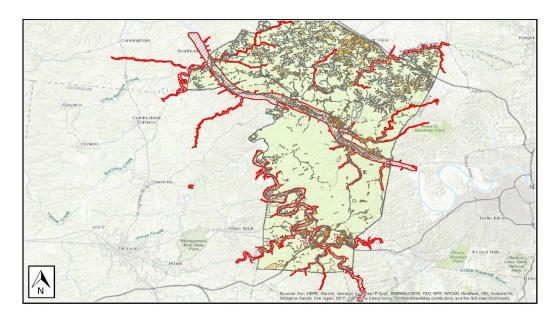
Scenario Name: Cheatham_County_500yr_Flood

Return Period Analyzed: 500

Analysis Options Analyzed: No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure







Flood Global Risk Report

Page 6 of 16

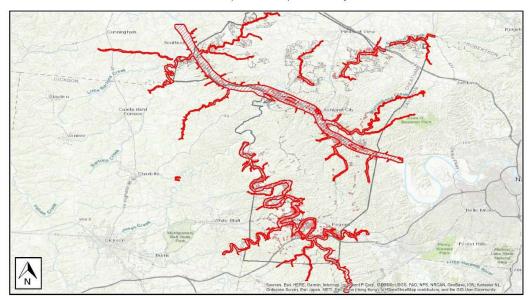


Building Damage

General Building Stock Damage

Hazus estimates that about 693 buildings will be at least moderately damaged. This is over 21% of the total number of buildings in the scenario. There are an estimated 378 buildings that will be completely destroyed. The definition of the 'damage states' is provided in the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = \$300K) Overview Map







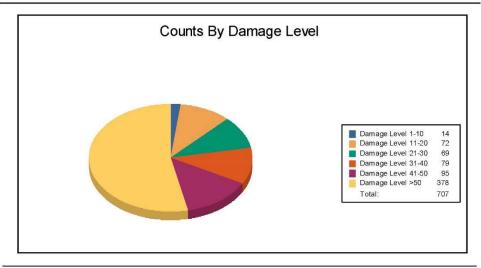
Flood Global Risk Report

Page 7 of 16



Table 3: Expected Building Damage by Occupancy

Occupancy	1-10		11-20		21-30		31-40		41-50		>50	
	Count	(%)										
Agriculture	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0	0	0	0
Government	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Religion	0	0	0	0	0	0	0	0	0	0	0	0
Residential	14	2	72	10	69	10	79	11	95	13	378	53
Total	14		72		69		79		95		378	







Flood Global Risk Report

Page 8 of 16



Table 4: Expected Building Damage by Building Type

Building	1-10 Count (%)		11-20 Count (%)		21-30 Count (%)		31-40 Count (%)		41-50 Count (%)		>50 Count (%)	
Туре												
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	43	100
Masonry	0	0	2	10	1	5	1	5	2	10	15	71
Steel	0	0	0	0	0	0	0	0	0	0	0	0
Wood	14	2	70	11	69	11	79	12	93	14	324	50





Flood Global Risk Report

Page 9 of 16



Essential Facility Damage

Before the flood analyzed in this scenario, the region had 12 hospital beds available for use. On the day of the scenario flood event, the model estimates that 12 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

Facilities

Classification	Total	At Least Moderate	At Least Substantial	Loss of Use	
Emergency Operation Centers	1	0	0		
Fire Stations	13	0	0	0	
Hospitals	1	0	0	0	
Police Stations	4	0	0	0	
Schools	17	1	0	1	

If this report displays all zeros or is blank, two possibilities can explain this.

- (1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.
- (2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.





Flood Global Risk Report

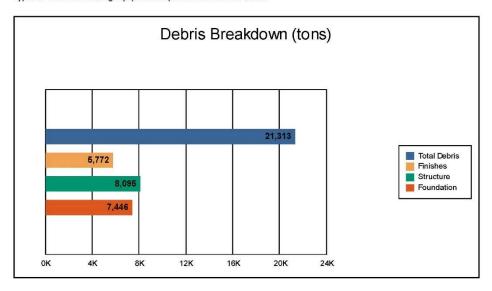
Page 10 of 16



Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.



The model estimates that a total of 21,313 tons of debris will be generated. Of the total amount, Finishes comprises 27% of the total, Structure comprises 38% of the total, and Foundation comprises 35%. If the debris tonnage is converted into an estimated number of truckloads, it will require 853 truckloads (@25 tons/truck) to remove the debris generated by the flood.





Flood Global Risk Report

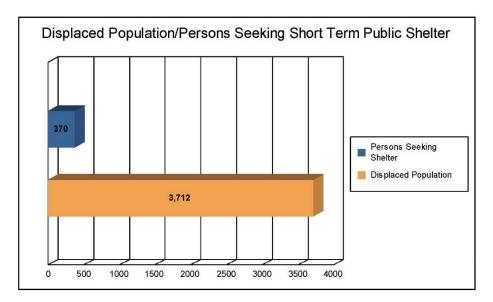
Page 11 of 16



Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 1,237 households (or 3,712 of people) will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 370 people (out of a total population of 39,105) will seek temporary shelter in public shelters.







Flood Global Risk Report

Page 12 of 16



Economic Loss

The total economic loss estimated for the flood is 424.20 million dollars, which represents 28.68 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 305.89 million dollars. 28% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 60.19% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.





Flood Global Risk Report

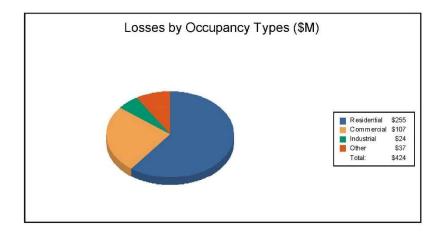
Page 13 of 16



Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Los	SS					
57-041 6411 100 0 1170-44	Building	142.32	16.57	7.19	4.01	170.10
	Content	71.29	34.81	14.15	12.46	132.72
	Inventory	0.00	1.01	1.96	0.11	3.08
	Subtotal	213.61	52.39	23.30	16.59	305.89
Business In	terruption					
	Income	0.71	23.15	0.24	3.96	28.06
	Relocation	29.50	4.69	0.21	1.75	36.14
	Rental Income	9.83	3.57	0.03	0.22	13.65
	Wage	1.69	23.61	0.38	14.78	40.45
	Subtotal	41.73	55.02	0.86	20.70	118.30
ALL	Total	255.34	107.42	24.16	37.29	424.20





RiskMAP

Flood Global Risk Report

Page 14 of 16



Appendix A: County Listing for the Region

Tennessee

- Cheatham



RiskMAP
Increasing Resilience Together

Flood Global Risk Report

Page 15 of 16



Appendix B: Regional Population and Building Value Data

Building Value (thousands of dollars)

	Population	Residential	Non-Residential	Total	
Tennessee	1				
Cheatham	39,105	3,007,026	714,559	3,721,585	
Total	39,105	3,007,026	714,559	3,721,585	
Total Study Region	39,105	3,007,026	714,559	3,721,585	



RiskMAP
Increasing Resilience Together

Flood Global Risk Report

Page 16 of 16

APPENDIX C

Planning Documentation

Meeting Sign-In

Sign-In Sheet

Cheatham County Hazard Mitigation Planning June 21, 2022

Name	, Title	Department	Email address
Luda Nichels	Druter	Cheathan Co. 911	Sentence of the Control of the Contr
John Loveiller	mayor	Taxin of Faran	John & John Locallen. cor
Tillany Holder	HSSI Director	Cheatham Co Ema	tittoni holdecechoode
Edition Hogan	Director	Cheatham Co EMA	Edwa. hagan e County of the state of the sta
Mark Gains	Building Comm.	Tows of P.V.	Choodham County
Jennifer Boyd	Holmin. Assistant	Huy Dept	iennifer. boyd@cchur.co
JOHN LAWLESS	LITY MANAGER	KINGSTON SPIZINGS	LAWLESS O KINGSTONSPRINGS
KERRY R. M. Corver	CHATHAM Major	CITEMTHAM CO.	Kerry. MccAwer a chesten cuts
Kurt Sala	EHS Manager	A.O. Smith	Karry. MccAnver (a chartementy KJ Sala a) hotwater.com
Kim Kassander	Regional Opining Alam	TENIA	Kighberly, Kassander Oth, any
PETEGRIAGO	District Cookdina	WR TEMA	Kimberly, Kassander Otn. GOV Peter. GRIVEN ETW. GOV
Cind y Burney Janua Welss	District Coordina Assessor Soil & Worker Conser	Chestham Co.	Cirdy Burney & Cot. tn. 90
Janice Welss	Soil & Worker Conser	vation—	Cindy, Burney Ocot, In. go janke Wisse Usda. gov
Awron Janow	Middle 120gion Plan	MOD TEMA	autumn- joanow @ smail.co
	U		100000

ITEM # 11.

Sign In Sheet Character Mitigation Planning Meeting#2 Date: 7-14-268

Name	Title	Department	Email Address	Phone Numb
Autumn Joanow	Middle Region Plannon	LTEMA	autumn. joanow (2)+	n.20V
Allen Nicholson	Middle Region flamour Ashland City Building Co	odes Directon	anicholsonBashlandch	votr.gov 6/5-7/2-4
bary Carpenter	Inspector	Abhland City BLDGE Codes	orangentera assign City	to en (1013) 519-
Tiljany Holder Edwin Hogan	Asst Director	CC EMA +	iffany holdere Cheatha	ucountyto gov (615)
Edisin Hogan	Diactor	CC 2MA 8	iffany holdere Cheatha Jwin hogan e Cheatha	incounty to gov (US
			0	
-				

Page \ of \

Meeting Public Notice Copy

CHEATHAM COUNTY HAZARD MITIGATION PLANNING MEETING

DATE: TUESDAY JUNE 21, 2022 TIME: 9:00 AM

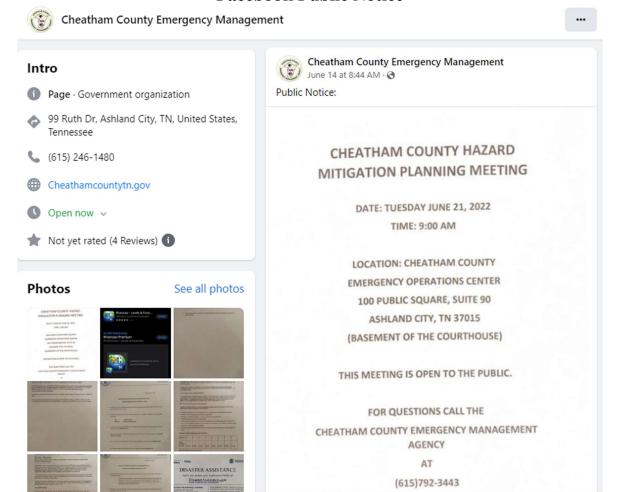
LOCATION: CHEATHAM COUNTY
EMERGENCY OPERATIONS CENTER
100 PUBLIC SQUARE, SUITE 90
ASHLAND CITY, TN 37015
(BASEMENT OF THE COURTHOUSE)

THIS MEETING IS OPEN TO THE PUBLIC.

FOR QUESTIONS CALL THE
CHEATHAM COUNTY EMERGENCY MANAGEMENT
AGENCY

AT (615)792-3443

Facebook Public Notice



Email Template to Stakeholders



CHEATHAM COUNTY EMERGENCY MANAGEMENT AGENCY

Director

EDWIN HOGAN

(615) 792-3443

June 2, 2022

Dear

It is time once again for the Cheatham County Emergency Management Agency to update our Multi-Jurisdictional Hazard Mitigation Plan (this includes the towns of Ashland City, Kingston Springs, Pegram, and Pleasant View). We will host our first meeting on June 21, 2022 in the county Emergency Operations Center 100 Public Square in Ashland City (basement of the courthouse). The meeting will take place at 9:00am. Please make sure someone from your department/town attends this important meeting. Without an updated Mitigation Plan, Cheatham County and the towns of Ashland City, Kingston Springs, Pegram, and Pleasant View will not be eligible to receive any mitigation grant funding.

We look forward to seeing you on June 21, 2022 at 9:00am in the EOC. If you have any questions, please call us at (615)792-3443.

Sincerely,

EMA Director

100 PUBLIC SQUARE • SUITE 90 • ASHLAND CITY, TN 37015

APPENDIX D

References

Reference List

State of Tennessee, Hazard Mitigation Plan, 2018.

Cheatham County Hazard Mitigation Plan Update, 2016.

IPCC, 2014. Climate Change 2014: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

IPCC, 2007a. Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor, and H. L. A-2 EC 1165-2-212 1 Oct 11 Miller, eds.). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

IPCC, 2007b. IPCC Fourth Assessment Report Annex 1: Glossary. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor, and H. L. Miller, eds.). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

IPCC, 2007c. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden and C. E. Hanson, eds.). Cambridge University Press, Cambridge, UK.

National Oceanic and Atmospheric Agency (NOAA). (2022, February). *Storm events database*. National Centers for Environmental Information. Retrieved June 9, 2022, from https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=47%2CTENNESSEE

U.S. Bureau of the Census, Census 2020. https://www.census.gov/quickfacts/fact/table/cheathamcountytennessee/PST045221

Federal Emergency Management Agency, State Disaster Declarations, https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties

Federal Emergency Management Agency, Floodplain Management https://www.fema.gov/floodplain-management

National Oceanic and Atmospheric Agency, What is a Drought Fact Sheet, October 2012.

Global Climate Change Impacts in the United States. Karl, T.R., J. M. Melillo, and T. C. Peterson (eds.). United States Global Change Research Program. Cambridge University Press, New York, NY, USA. 2009.

Middle Tennessee Industrial Development Association, *Cheatham County Data Profile*, https://www.mtida.org/regions-listings/southern-middle-region/Cheatham-county

University of Wisconsin Population Health Institute, County Health Rankings, https://www.countyhealthrankings.org/explore-health-rankings/use-data/explore-your-snapshot

Mississippi State University, NWS Nashville Tornado Database, https://www.midsouthtornadoes.msstate.edu/index.php?cw=ohx

National Drought Mitigation Center, U.S. Drought Monitor, https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx

The Tornado and Storm Research Organization, TORRO Index, https://www.torro.org.uk/research/hail/hscale

Association of State Dam Safety Officials, Dam Failures and Incidents https://www.damsafety.org/dam-failures



CHEATHAM COUNTY EMERGENCY MANAGEMENT AGENCY

Director

EDWIN HOGAN

(615) 792-3443

November 29, 2022

Dear Mayor JT Smith,

FEMA recently approved Cheatham County's Hazard Mitigation Plan (pending adoption) which includes the Town of Ashland City, Kingston Springs, Pegram, and Pleasant View. The county and four towns must adopt this plan by resolution to be sent to FEMA.

Once the plan has been adopted by the county and towns, it will be in effect for five years.

Please let me know when the plan has been adopted by Town of Ashland City, and our office will forward it to FEMA.

Thank you for your help in this matter.

Sincerely,

Edwin Hogan

EMA Director/County Fire Chief

U.S. Department of Homeland Security Region 4 3005 Chamblee Tucker Road Atlanta, GA 30341



November 10, 2022

Mr. Doug Worden State Hazard Mitigation Officer Tennessee Emergency Management Agency 3041 Sidco Drive Nashville, TN 37204

Reference: Cheatham County Hazard Mitigation Plan

Dear Mr. Worden:

The Federal review of the draft Cheatham County Hazard Mitigation Plan for compliance with the planning requirements contained in 44 CFR §201.6 is complete. The plan is compliant with Federal requirements, subject to formal community adoption.

For our office to issue formal approval of the plan, the jurisdiction(s) must submit adoption documentation. Upon receipt of the adoption resolution(s) to our office, we will issue formal approval of the Cheatham County Hazard Mitigation Plan. Once approved, please submit a final copy of the Plan, without draft notations and track changes.

If you or any plan participant need assistance, please do not hesitate to contact Darlene Booker, of my staff, at (770) 220-5404.

Sincerely,

Kristen M. Martinenza, P.E., CFM Branch Chief, Risk Analysis Branch

Kriste M. Matery

FEMA Region 4

ORDINANCE#

AN ORDINANCE OF THE TOWN OF ASHLAND CITY AMENDING TITLE 11, CHAPTER 4 OF THE MUNICIPAL CODE DELETING SECTION 11-404 IN ITS ENTIRETY

WHEREAS, the Mayor and City Council have determined there is no longer a need for this paragraph; and

WHEREAS, it is the Town of Ashland City Mayor and City Council's specific intention to delete paragraph 11-404 in its entirety; and

WHEREAS, the guidelines for fireworks will be defined in Title 7, Chapter 6 of the Municipal Code.

NOW, THEREFORE BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF ASHLAND CITY, TENNESSEE, that Title 11, Chapter 4, Paragraph 11-404 be deleted in its entirety as follows:

CHAPTER 4

FIREARMS, WEAPONS AND MISSILES

SECTION

- 11-401. Discharge of air guns, spring guns, etc.
- 11-402. Throwing missiles.
- 11-403. Discharge of firearms.
- 11-404. Exception.
- 11-401. Discharge of air guns, spring guns, etc. It shall be unlawful for any person to fire or discharge any air gun or air pistol, spring gun or spring pistol, or any other device or firearm which is calculated or intended to propel or project a bullet, pellet, air or similar projectile, within the city limits, so as to endanger life, limb or property of any other resident of the city. (1973 Code, § 10-213, as replaced by Ord. #149, April 1996)
- 11-402. Throwing missiles. It shall be unlawful for any person to throw any stone, snowball, bottle, club, brick-bats or any other missile from slings, by hand or otherwise within the city, so as to endanger life, limb, or property of any citizen. (1973 Code, § 10-214, as replaced by Ord. #149, April 1996)
- 11-403. Discharge of firearms. It shall also be unlawful for any unauthorized person to discharge a firearm within the municipality. An unauthorized person is defined as a person who does not comply with the Tennessee Wildlife Resource Agency guidelines or does not comply with any state or federal laws pertaining to hunting or the discharging of a firearm. (1973)

Code, § 10-212, modified, as replaced by Ord. #149, April 1996)

11-404. Exception. This section shall not apply to the discharge of fireworks for the following days:

June 20, through July 7_{th} from 10:00 A.M. until 10:00 P.M. and December 10_{th} through January 4_{th} from 10:00 A.M. to 10:00 P.M. with the exception of January 1_{st} which shall be until 12:30 A.M. (as added by Ord. #249, May 2002)

BE IT FURTHER ORDAINED, this Ordinance shall be effective twenty (20) days after the final passage, to the public welfare requiring it.

First Reading: <u>December 13, 2022</u>	
Second Reading: <u>January 10, 2023</u>	
ATTEST:	
Mayor JT Smith	City Recorder Alicia Martin, CMFO

- Page 272 - | ITEM # 12.

ORDINANCE

AN ORDINANCE BY THE MAYOR AND CITY COUNCIL OF THE TOWN OF ASHLAND CITY, TENNESSEE TO AMEND TITLE 18, CHAPTER 1, SECTION 18-107(1) OF THE MUNICIPAL CODE DELETING AFTER HOURS RATES

NOW, THEREFORE BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE TOWN OF ASHLAND CITY, TENNESSEE, that the following shall apply and be put into effect immediately upon proper passage of this ordinance.

18-107. Water and sewer scheduled rates and charges.

(1) The charges and/or rates for water and sewer and/or water and sewer services provided and furnished by the Town of Ashland City, Tennessee, to its inhabitants, and to all users of such water and sewer services, for each and every calendar month of the year, are hereby adopted, fixed, and established as set forth in the following schedule, to-wit:

	WATE	SEWER RATES	
	Inside City Limits	Outside City Limits	ALL
Base Charge (minimum fee)	\$13.29	\$24.94	\$13.29
ALL RATES ARE PER 1,000 GALLONS			
First gallon used to last gallon	\$8.75	\$9.48	\$8.75

The water and sewer rates may be adjusted each budgeting cycle to meet the operational requirements including expenses and debt service obligations.

Flat Rate Sewer- Monthly	\$8.00
Non-refundable Application Fee-owner	\$50.00
Landlord Rental Property Fee (1 month	\$0 reconnection fee; pays billing and usage
allowance)	only
Non-refundable Application Fee-renter	\$100.00
Residential STEP fee- monthly	\$9.50
Commercial STEP fee- monthly	10% of combined water and sewer total
Returned check	Amount allowable by State Law
Reconnection Fee- inside city limits	\$50.00
Reconnection Fee- outside city limits	\$75.00
After Hours Reconnection Fee- inside city limits	\$75.00
After Hours Reconnection Fee- outside city	
limits	\$ 100.00

Industrial rates outside of the industrial park sewer system may be charged at the rate listed above but be charged on the number of gallons of sewer versus number of gallons of water if the industrial user installs a dedicated line to the plant with an appropriate manhole for testing of the sewer and approval of the line by the Town of Ashland City.

- Page 273 - | ITEM # 13.

BE IT FURTHER ORDAINED, that the public welfare requiring it.	ese rates shall take effect July 1, 2022 after its final passage, the
1 st reading Public hearing 2 nd reading	
Jeffrey Smith, Mayor	Alicia Martin, CMFO/City Recorder

- Page 274 - | ITEM # 13.

TOWN OF ASHLAND CITY

CONTRACT 321: WASTEWATER TREATMENT PLANT

BID DATE: 12/1/2022 BID TIME: 11:00 A.M. , C.S.T.

Name	Company	Phone/ Email
haleb Huling	LEL	Khuling e cecincom
Ricky Colley	CEC	roakeya cecinc.com
Brian Stinson	Town of A.C.	bstins. @ ashlad Citytn.go-
Zilly Harry	Town y A. C.	Sharris @ ashland Cityta.gov
Steve Lewis	WEO Const.	bids @ wocc, com
Mark Goulet	TNEMEC / XYPEX	Mark @ NexGeN-CR. COM
Josh Yoder	Reeves Young	Syoder @ recres pung. com
t. J. J. S.	Mayor	jtsmith @ ashlandcitytn.gor
Went Wes Ferman	C GC	nwisterman ecesin, com
DaleBouman	Town of AC Francial Director	abournan@ashlandcitytn.gov
0		

TOWN OF ASHLAND CITY

CONTRACT 321 – WASTEWATER TREATMENT PLANT

BID DATE AND TIME:

DECEMBER 1, 2022; 11:00 AM

		Pre-Approved Manufacturers					
Bidder	Total Base Bid	Influent LS Screen	Septage Receiving Station	Plant Pumping Station	Digester Aeration System	Chem Feed Pumping	System Integration
Haren Construction Co., Inc. TN License 2260							
MEB General Contractors, Inc. TN License 76648							
Quinn Construction Corp. TN License 13678							
Reeves Young, LLC TN License 70709	Å 30,745,000.00	Vulcan	Jwc	Fl:te	Sanitare	hatsun Marloc	M.R.
Smith Contractors, Inc. TN License 27927							
W & O Construction Co., Inc. TN License 8039	#31,623,500.co	Vulcin	JWC	Flite	SSI	Uatsun Marlow	M.R. Systms