

**TENTATIVE AGENDA & MEETING NOTICE  
BOARD OF COUNTY COMMISSIONERS**

**TUESDAY, MAY 6, 2025  
5:30 P.M.**

**WATAUGA COUNTY ADMINISTRATION BUILDING  
COMMISSIONERS' BOARD ROOM**

<b>TIME</b>	<b>#</b>	<b>TOPIC</b>	<b>PRESENTER</b>	<b>PAGE</b>
5:30	1	CALL REGULAR MEETING TO ORDER		
	2	APPROVAL OF MINUTES: April 1, 2025, Regular Meeting April 1, 2025, Closed Session		1
	3	APPROVAL OF THE MAY 6, 2025, AGENDA		13
5:35	4	PUBLIC COMMENT – Will last up to 1-hour dependent on number of speakers	CHAIRMAN EGGERS	15
5:40	5	PUBLIC HEARING TO ALLOW CITIZEN COMMENT ON A PROPOSAL TO REPEAL A 2024 AMENDMENT TO THE WATAUGA COUNTY BUILDING CODE ORDINANCE WHICH ADDED THE WORDING “AND ALL APPENDICES THEREIN”	CHAIRMAN EGGERS	17
5:45	6	WATAUGA MEDICS MERGER REQUEST	MR. CRAIG SULLIVAN	63
5:50	7	OLD COVE CREEK SCHOOL FACILITY FEASIBILITY STUDY AND CONCEPT PLAN	MR. JUSTIN CHURCH	73
5:55	8	APPALACHIAN STATE UNIVERSITY REQUEST FOR NC HWY 105 PROPERTY RELEASE	MR. J. J. BROWN	79
6:00	9	BID AWARD REQUEST FOR ADMINISTRATION HVAC	MR. ROBERT MARSH	89
6:05	10	EMERGENCY SERVICES MATTERS	MR. WILL HOLT	
		A. Resolution Opposing House Bill 675: EMT Personnel Credentialing Modifications and House Bill 219: Counties/Franchise Ambulance Service		95
		B. Resolution Opposing Senate Bill 257: Current Operations Appropriations Act of 2025		97
		C. Resolution Supporting House Bill 695: Support VIPER/Assist 911 Operations/Dispatch		99
		D. Hurricane Helene Update		101
		E. Powder Horn Site Tree Removal and Construction Driveway Request		109
6:10	11	BOARD OF EQUALIZATION AND REVIEW (E&R) COMPENSATION	MR. TYLER RASH	115

TIME	#	TOPIC	PRESENTER	PAGE
6:15	12	MISCELLANEOUS ADMINISTRATIVE MATTERS	MR. DERON GEOUQUE	
		A. Presentation of the FY 2026 Capital Improvement Plan (CIP)		117
		B. Presentation of the Manager’s FY 2026 Recommended Budget		119
		C. Proposed Valle Crucis School Change Order		121
		D. Civil Design Services for Proposed Solid Waste Convenience Center at Landfill Road		123
		E. Proposed Property & Liability Insurance and Workers Compensation Renewals Request		133
		F. Request to Amend the “Not to Exceed” Amount in DebrisTech’s Notice to Proceed		141
		G. Boards and Commissions		145
		H. Announcements		149
6:20	13	BREAK		149
6:25	14	CLOSED SESSION Attorney/Client Matters per, G. S. 143-318.11(a)(3)		154
7:00	15	ADJOURN		

**AGENDA ITEM 2:**

**APPROVAL OF MINUTES:**

April 1, 2025, Regular Meeting

April 1, 2025, Closed Session

**DRAFT**

**MINUTES**

**WATAUGA COUNTY BOARD OF COMMISSIONERS  
TUESDAY, APRIL 1, 2025**

The Watauga County Board of Commissioners held a regular meeting, as scheduled, on Tuesday, April 1, 2025, at 5:30 P.M. in the Commissioners’ Board Room located in the Watauga County Administration Building, Boone, North Carolina.

Chairman Eggers called the meeting to order at 5:30 P.M. The following were present:

- PRESENT:**
- Braxton Eggers, Chairman
  - Todd Castle, Vice-Chairman
  - Emily Greene, Commissioner
  - Tim Hodges, Commissioner
  - Ronnie Marsh, Commissioner
  - Nathan Miller, County Attorney
  - Deron Geouque, County Manager
  - Anita J. Fogle, Clerk to the Board

Commissioner Hodges opened with a prayer and Commissioner Greene led the Pledge of Allegiance.

**APPROVAL OF MINUTES**

Chairman Eggers presented the March 18, 2025, regular meeting and closed session minutes.

Vice-Chairman Castle, seconded by Commissioner Greene, moved to approve the March 18, 2025, regular meeting minutes as presented.

VOTE: Aye-5  
Nay-0

Vice-Chairman Castle, seconded by Commissioner Greene, moved to approve the March 18, 2025, closed session minutes as presented.

VOTE: Aye-5  
Nay-0

**APPROVAL OF AGENDA**

Chairman Eggers called for additions and/or corrections to the April 1, 2025, agenda.

County Manager Geouque requested to add the following:

Add under Library Matters:

- D. Proposed Uniform Guidance Procurement Policy for NC - Mr. Deron Geouque

After Library Matters:

- Proposed Proclamation Designating April 2025 as “Sexual Assault Awareness Month”
- Proposed Proclamation Designating April 27 through May 3, 2025, as Resilient & Thriving Communities Week

Expand Agenda Item 9 to Tax Matters adding the following items:

- B. Unpaid Real Estate Tax Bills
- C. Proposed Resolution Establishing the Watauga County Board of Equalization & Review
- D. Board of Equalization and Review (E&R) Schedule

Add Boards and Commissions Under Miscellaneous Administrative Matter to include a first reading of Mr. Jeff Greene for the Watauga Medical Center Board of Trustees.

County Attorney Miller requested to add that 29 CVS 117, Lisa Miller, to be discussed under Attorney/Client.

Commissioner Hodges, seconded by Commissioner Marsh, moved to approve the April 1, 2025, agenda as amended.

VOTE: Aye-5  
Nay-0

**PUBLIC COMMENT**

There was no public comment.

**LIBRARY MATTERS**

***A. Proposed Proclamation for National Library Week***

Monica Caruso, Watauga County Library, presented and read a proposed Proclamation for National Library Week.

Commissioner Greene, seconded by Vice-Chairman Castle, moved to adopt the proclamation as presented.

VOTE: Aye-5  
Nay-0

***B. Library Renovation Report***

Ms. Monica Caruso stated that plans were now for the Library to renovate the space they have rather than add onto the building. A grant application was submitted and requests have been made to the County through the Capital Improvement Plan to support the project. An estimate has been received from VPC Builders as well. Ms. Caruso introduced Mr. John Arnaud, Architect, who

presented the plan for the renovation. The report was given for information only and, therefore, no action was required.

***C. Proposed Capital Project Ordinance for Library Renovation Project***

County Manager Geouque presented a proposed Project Ordinance for the Establishment and Maintenance of Funds for the Library Renovation Project which was necessary as the project would span more than one fiscal year.

Commissioner Marsh, seconded by Commissioner Hodges, moved to approve the project ordinance as presented.

VOTE: Aye-5  
Nay-0

***D. Proposed Uniform Guidance Procurement Policy for North Carolina***

County Manager Geouque presented a proposed Uniform Guidance Procurement Policy for North Carolina as required by the grant for the Library renovation project.

Commissioner Hodges, seconded by Commissioner Eggers, moved to approve the project ordinance as presented.

VOTE: Aye-5  
Nay-0

**PROPOSED PROCLAMATION DESIGNATING APRIL 2025 AS “SEXUAL ASSAULT AWARENESS MONTH”**

Ms. Kellie Bass, Prevention Outreach Manager with OASIS, Inc. (Opposing Abuse with Service, Information and Shelter) presented and read a proposed proclamation naming April 2025 as “Sexual Assault Awareness Month” in Watauga County.

Commissioner Greene, seconded by Vice-Chairman Castle, moved to adopt the proclamation as presented.

VOTE: Aye-5  
Nay-0

**PROPOSED PROCLAMATION DESIGNATING APRIL 27 THROUGH MAY 3, 2025, AS RESILIENT & THRIVING COMMUNITIES WEEK**

Ms. Jessica Yates, Policy/Prevention Committee with the Watauga Compassionate Community Initiative, presented and read a proclamation naming April 27 through May 3, 2025, as “Resilient & Thriving Communities Week” in Watauga County.

Vice-Chairman Castle, seconded by Commissioner Marsh, moved to adopt the proclamation as presented.

VOTE: Aye-5  
Nay-0

### **PROPOSED CHANGE ORDER FOR COMPLEX FENCING REPAIRS**

Mr. Robert Marsh, Watauga County Maintenance Director, requested approval of a change order in the amount of \$14,857 for fence repairs on ball fields. The change order was to allow for the addition of two (2) gates and about forty feet of fencing that was open and would now be enclosed.

Commissioner Hodges, seconded by Chairman Eggers, moved to approve the change order from Mountain Fence and Deck in the amount of \$14,857.

VOTE: Aye-5  
Nay-0

### **PROPOSED RESOLUTION IN SUPPORT OF NORTH CAROLINA SENATE BILL 248**

On behalf of Ms. Amy Shook, Watauga County Register of Deeds, who had a prior commitment, Commissioner Hodges presented and read a proposed resolution in support of North Carolina Senate Bill 248. The Bill would alleviate the burdens placed on adopted individuals by allowing them to obtain their birth records from their local Register of Deeds.

Commissioner Greene, seconded by Commissioner Marsh, moved to adopt the resolution as presented.

VOTE: Aye-5  
Nay-0

### **EMERGENCY SERVICES MATTERS:**

#### ***A. Request for Public Safety Radio System Civil, Tower, & Construction Work***

Mr. Will Holt, Emergency Services Director, requested authorization for ETS to perform the civil, engineering, and existing tower assessment work in the amount of \$621,460.25 for the public safety radio system. The scope of work would cover seven towers with the largest expense being the construction of the Rich Mountain tower. Adequate funds were budgeted to cover the expense.

Vice-Chairman Castle, seconded by Commissioner Hodges, moved to authorize the expenditure of \$621,460.25 to ETS for civil, engineering, and existing tower assessment work as presented by Mr. Holt.

VOTE: Aye-5  
Nay-0

## ***B. Hurricane Helene Update***

Mr. Will Holt, Emergency Services Director, provided the following Hurricane Helene update:

*“I would like to offer a brief update on the status of recovery in Watauga County from the Emergency Services perspective. Before going any further, I would like to personally express my deep gratitude to the multitude of individuals and organizations that have stepped up to lead the way in various aspects of recovery including rebuilding of our citizen’s personal property and businesses. A few key points:*

- *County staff continue to work with our insurance provider on coverage limits and settlements. We have started to receive determination letters and coverage approvals for several properties with clarification requested on some projects.*
- *Right-of-Way debris removal continues and new debris placement ended March 2<sup>nd</sup>. An extension has been discussed for the ROW process due to the contractor needing more time to remove what is existing in the ROW now.*
- *Waterway and private property debris removal operations with the Corps of Engineers (USACE) has been approved and have begun. Aerostar and TetraTech are leading the intake process, Right of Entry acquisition, and site assessments for the Private Property Debris Removal (PPDR) program. Bering Strait is the prime contractor for the actual debris removal work.*
- *Staff completed over 600 assessments on waterways to give multiple State and federal partners access to raw data to determine eligibility for Category A (USACE debris removal), EWP, or other potential programs being discussed. At time of this report, a total of 412 sites have been approved by FEMA. We appreciate the incredible work of our Soil and Water staff and those who partnered with them in this process.*
- *The OSBM/NCEM Private Road and Bridge program has been partially funded through HB47. This program is designed to duplicate the success seen in the southwest part of the State during the 2022 TS Fred floods, however continued funding will be critical to long term success.*
- *Hagerty Consulting is on the ground and working with staff to complete PA projects*
- *As a point of success, DSA and the DRC teams have largely completed their work in Watauga County but will have staff available for any issues that arise. The DRC is transitioning to a Multi-Agency Resource Center (MARC) as FEMA continues to plan for long-term recovery. Teams registered thousands of individuals and helped put more than \$19M at time of report into the hands of our citizens to begin their recovery.*
- *The deadline for organizations to apply for Public Assistance (PA) and individuals to apply for assistance (IA) have both been extended to April 7<sup>th</sup>, 2025*

*The Emergency Services Department is grateful for the partnership with our local, State, and federal partners specifically as they focus efforts to get money flowing into our community to restore what was lost and also build an even more resilient future.”*

The report was given for information only; therefore, no action was required at this time.

## **TAX MATTERS**

### ***A. Tax Management Associates, Inc., Business Personal Property Audit Services Contract***

Mr. Tyler Rash, Tax Administrator, requested approval of additional funds in the amount \$23,400 to Tax Management Associates for property auditing services. The amount was listed in the budget as \$2,600 and should have been listed at \$26,000. Once the audits were completed the additional revenue would be received to cover the additional expense. The additional funds would come from the administrative contingency fund.

Commissioner Greene, seconded by Commissioner Hodges, moved to approve the additional amount of \$23,400 to Tax Management Associates for property auditing services.

VOTE: Aye-5  
Nay-0

### ***B. Unpaid Real Estate Tax Bills***

Mr. Tyler Rash, Tax Administrator, requested authorization to advertise the listing of delinquent tax bills that were liens on real property. Mr. Rash stated that, per the County Attorney, he would also check the ad rates with the High Country Press.

Vice-Chairman Castle, seconded by Commissioner Marsh, moved to order the Tax Administrator to advertise the liens as requested.

VOTE: Aye-5  
Nay-0

### ***C. Proposed Resolution Establishing the Watauga County Board of Equalization & Review***

Mr. Tyler Rash, Tax Administrator, discussed the scheduling of the FY 2025 Board of Equalization and Review (E&R). The Board may create a special Board of Equalization and Review that will serve this spring. In previous years, the Board of E&R incorporated the County Manager as an alternate member. A proposed resolution was presented for consideration should the Board wish to appoint itself and the County Manager (as an alternate member) to the Board of E&R.

Commissioner Greene, seconded by Vice-Chairman Castle, moved to adopt the Resolution Establishing the Watauga County Board of Equalization and Review as the five-member County Commissioners, each having one vote, and the County Manager, to serve as an alternate member

VOTE: Aye-5  
Nay-0

### ***D. Board of Equalization and Review (E&R) Schedule***

Mr. Tyler Rash, Tax Administrator, stated that the recommended convening date for the Board of Equalization and Review was Thursday, April 24, 2025, and the Adjournment was recommended

for Friday, May 9, 2025, at 5:00 P.M. Mr. Rash requested meeting dates for the Board of E&R be set as well.

After discussion, Commissioner Marsh, seconded by Commissioner Greene, moved to:

- set the convening date as April 24, 2025 at 9:00 A.M. in the Commissioners Conference Room
- set the adjournment date as May 9, 2025, at 5:00 P.M. in the Commissioners Conference Room
- Schedule Board of E&R meeting dates for April 28 & 29, and May 5 & 6, 2025, from 9:00 A.M. until 5:00 P.M. as needed in the Commissioners Conference Room

VOTE: Aye-5  
Nay-0

### **MISCELLANEOUS ADMINISTRATIVE MATTERS**

#### ***A. Proposed Valle Crucis School Change Order #5***

County Manager Geouque requested approval of Change Order #5 for the Valle Crucis Elementary School in the amount of \$39,488.12. The County Manager stated that the County was still running a negative change order amount and the adoption of this change order will bring the amount to \$246,111.29.

Chairman Eggers, seconded by Commissioner Hodges, moved to adopt Change Order #5 for Valle Crucis School as presented.

VOTE: Aye-5  
Nay-0

#### ***B. Resolution to Partner with The Town of Boone Establishing a Bridge to Link County and Town Properties Located at Brookshire Park and Ted Mackorell Soccer Complex***

County Manager Geouque presented a proposed resolution that supports partnering with the Town of Boone regarding building a bridge at the Brookshire Park and Ted Mackorell Soccer Complex connecting to the Town's property.

Vice-Chairman Castle, seconded by Commissioner Greene, moved to adopt the resolution as presented.

VOTE: Aye-5  
Nay-0

#### ***C. Resolution to approve North Carolina Cashflow Loan Agreement and Promissory Note***

County Manager Geouque requested approval of a resolution for the North Carolina Cashflow Loan Agreement and Promissory Note. The program would allow the County to use the monies

to front payment of Hurricane Helene damages until FEMA reimbursements are received. The County was currently eligible for \$895,477.60 with a 0% interest rate. The loan was interest free and would be a significant tool in the County's cashflow management.

Vice-Chairman Castle, seconded by Commissioner Hodges, moved to adopt the resolution as presented.

VOTE: Aye-5  
Nay-0

***D. Proposed Amendment to SDR Contract***

County Manager Geouque state that SDR, the County's contractor for right-of-way debris removal, had requested an increase in the "not to exceed" amount of their contract from \$2 million to \$3.8 million. During discussion as to the reason for the large increase in the "not to exceed" amount, Commissioner Marsh expressed concerns that the County would be billed the full amount. County Manager Geouque stated that the projected amount at the beginning of the project was \$5.3 million and Debris Tech was monitoring to ensure that SDR was only billing for time worked.

After discussion, Chairman Eggers, seconded by Commissioner Hodges, moved to approve to increase the "not to exceed" amount by an additional \$1.8 million in the SDR contract for debris removal.

VOTE: Aye-4(Eggers, Castle, Greene, Hodges)  
Nay-1(Marsh)

***E. Public Hearing Request to Allow Citizen Comment on the Potential Repealing of the Fire Appendices***

County Manager Geouque stated that, per commissioner request, a public hearing has been requested for May 6, 2025, to allow for citizen comment on the potential to repeal the fire appendices.

Vice-Chairman Castle, seconded by Commissioner Marsh, moved to schedule a public hearing on May 6, 2025, at 5:30 P.M. to allow for citizen comment on the potential to repeal the fire appendices.

VOTE: Aye-5  
Nay-0

***F. April Meeting Schedule***

County Manager Geouque recommended, due to the upcoming holiday, cancelling the second meeting in April. Should a meeting be necessary, a special called meeting could be scheduled. If canceled, the next regular meeting would be on Tuesday, May 6, 2025, at 5:30 P.M.

Commissioner Marsh, seconded by Vice-Chairman Castle, moved to cancel the April 15, 2025 meeting.

VOTE: Aye-5  
Nay-0

### ***G. Announcements***

County Manager Geouque announced the following:

- Caldwell Community College and Technical Institute (CCC&TI) invites the Board to attend their 60<sup>th</sup> Anniversary Sunset Celebration on Tuesday, April 29, 2025 from 5:00 to 7:00 P.M. at the Watauga Campus Student Services Center located on Community College Drive, Boone. Anita will be happy to RSVP on your behalf.
- The UNC School of Government will present an Ethics for Elected Officials course via Zoom on Thursday, May 22, 2025, from 10:00 A.M. to 12:00 P.M. The course will be live and will be broadcast in the Commissioners' Board Room. The course is required to be taken by all Commissioners by December 2025. A group registration will be done for those who plan to attend in the Board Room and separate registrations will be done for those who will need to view it from a different location. Please let Anita know if you can attend.

### ***H. Boards and Commissions***

County Manager Geouque stated that Mr. Jeff Greene was unanimously approved to be submitted for consideration of appointment to the Watauga Medical Center Board of Trustees. This was a first reading and, therefore, no action was required.

### **CLOSED SESSION**

At 6:46 P.M., Commissioner Marsh, seconded by Commissioner Hodges, moved to enter Closed Session to discuss Attorney/Client Matters, per G. S. 143-318.11(a)(3), including discussion of 29 CVS 117, and Land Acquisition, per G. S. 143-318.11(a)(5)(i).

VOTE: Aye-5  
Nay-0

Commissioner Greene, seconded by Commissioner Marsh, moved to resume the open meeting at 7:35 P.M.

VOTE: Aye-5  
Nay-0

At 7:35 P.M. Chairman Eggers declared a recess.

At 8:19 P.M., Commissioner Greene, seconded by Vice-Chairman Castle, moved to reconvene the meeting.

At 8:19 P.M., Commissioner Marsh, seconded by Commissioner Hodges, moved to re-enter Closed Session to continue to discuss Attorney/Client Matters, per G. S. 143-318.11(a)(3), including discussion of 29 CVS 117, and Land Acquisition, per G. S. 143-318.11(a)(5)(i).

VOTE: Aye-5  
Nay-0

Vice-Chairman Castle, seconded by Commissioner Hodges, moved to resume the open meeting at 9:36 P.M.

VOTE: Aye-5  
Nay-0

**ADJOURN**

Commissioner Hodges, seconded by Chairman Marsh, moved to adjourn the meeting at 9:37 P.M.

VOTE: Aye-5  
Nay-0

Braxton Eggers, Chairman

ATTEST: Anita J. Fogle, Clerk to the Board

Blank Page

**AGENDA ITEM 3:**

**APPROVAL OF THE MAY 6, 2025, AGENDA**

Blank Page

**AGENDA ITEM 4:**

**PUBLIC COMMENT**

**MANAGER'S COMMENTS:**

Public Comment will last up to 1-hour dependent upon the number of speakers.

Blank Page

**AGENDA ITEM 5:**

**PUBLIC HEARING TO ALLOW CITIZEN COMMENT ON A PROPOSAL TO REPEAL A 2024 AMENDMENT TO THE WATAUGA COUNTY BUILDING CODE ORDINANCE WHICH ADDED THE WORDING “AND ALL APPENDICES THEREIN”**

**MANAGER’S COMMENTS:**

Per commissioner request, a public hearing has been scheduled for May 6, 2025 to allow citizen comment on the potential repeal of the fire appendices.

After the public hearing is closed, the Board may repeal the fire appendices, schedule a work session, remand to the Planning Board for discussion and consideration, establish a committee to review and make recommendations, or take any other action they deem appropriate.

Staff seeks direction from the Board.

**PUBLIC SERVICE ANNOUNCEMENT**

**PUBLIC HEARING NOTICE**

The Watauga County Board of Commissioners will hold a public hearing to allow citizen comment on a proposal to **repeal** a 2024 amendment to the Watauga County Building Code Ordinance which added the wording “and all appendices therein.”

**The proposal would repeal the amendment by removing the wording from the Watauga County Building Code Ordinance as below:**

Section 1-2.1 Fire Code Adopted

On July 1, 1991, or other date established by the North Carolina building code council, the Standard Fire Prevention code – 1988 edition **and all appendices therein** as adopted by the Building Code Council and as amended ...

The public hearing will be held on Tuesday, May 6, 2025, at 5:30 P.M. in the Commissioners’ Board Room located in the Watauga County Administration Building at 814 West King Street, Boone, North Carolina. Interested parties are encouraged to attend. For information or questions please call 828-264-4235.

Braxton Eggers, Chairman  
Watauga County Board of Commissioners



***Part VII—Appendices***

**APPENDIX A  
BOARD OF APPEALS**

**Deleted.**



## APPENDIX B

# FIRE-FLOW REQUIREMENTS FOR BUILDINGS

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION B101 GENERAL

**B101.1 Scope.** The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

### SECTION B102 DEFINITIONS

**B102.1 Definitions.** For the purpose of this appendix, certain terms are defined as follows:

**FIRE-FLOW.** The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

**FIRE-FLOW CALCULATION AREA.** The floor area, in square feet (m<sup>2</sup>), used to determine the required fire flow.

### SECTION B103 MODIFICATIONS

**B103.1 Decreases.** The fire chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

**B103.2 Increases.** The fire chief is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

**B103.3 Areas without water supply systems.** For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the *fire code official* is authorized to utilize NFPA 1142 or the *International Wildland-Urban Interface Code*.

### SECTION B104 FIRE-FLOW CALCULATION AREA

**B104.1 General.** The fire-flow calculation area shall be the total floor area of all floor levels within the *exterior walls*, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

**B104.2 Area separation.** Portions of buildings which are separated by *fire walls* without openings, constructed in accordance with the *International Building Code*, are allowed to be considered as separate fire-flow calculation areas.

**B104.3 Type IA and Type IB construction.** The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

**Exception:** Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

### SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

**B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.** The minimum fire-flow and flow duration requirements for one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

**B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.** The minimum fire-flow and flow duration for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.2 and B105.1(2).

**TABLE B105.1(1)  
REQUIRED FIRE-FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES**

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0-3,600	Section 903.3.1.3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	500	1/2
3,601 and greater	Section 903.3.1.3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	1/2 value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 gallon per minute = 3.785 L/m.

**TABLE B105.1(2)**  
**REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2**

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) <sup>b</sup>	FLOW DURATION (hours)
Type IA and IB <sup>a</sup>	Type IIA and IIIA <sup>a</sup>	Type IV and V-A <sup>a</sup>	Type IIB and IIIB <sup>a</sup>	Type V-B <sup>a</sup>		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	4
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.

**TABLE B105.2**  
**REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES**

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the <i>International Fire Code</i>	25% of the value in Table B105.1(2) <sup>a</sup>	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the <i>International Fire Code</i>	25% of the value in Table B105.1(2) <sup>b</sup>	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

a. The reduced fire-flow shall be not less than 1,000 gallons per minute.

b. The reduced fire-flow shall be not less than 1,500 gallons per minute.

**B105.3 Water supply for buildings equipped with an automatic sprinkler system.** For buildings equipped with an approved *automatic sprinkler system*, the water supply shall be capable of providing the greater of:

1. The *automatic sprinkler system* demand, including hose stream allowance.
2. The required fire-flow.

**SECTION B106  
REFERENCED STANDARDS**

ICC	IBC—15	International Building Code	B104.2,
			Tables
ICC	IFC—15	International Fire Code	B105.1(1) and B105.2
ICC	IWUIC—15	International Wildland- Urban Interface Code	B103.3
ICC	IRC—15	International Residential Code	Table B105.1(1)
NFPA	1142—12	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103.3



## APPENDIX C

## FIRE HYDRANT LOCATIONS AND DISTRIBUTION

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION C101 GENERAL

**C101.1 Scope.** In addition to the requirements of Section 507.5.1 of the *International Fire Code*, fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed or moved into the jurisdiction.

### SECTION C102 NUMBER OF FIRE HYDRANTS

**C102.1 Minimum number of fire hydrants for a building.** The number of fire hydrants available to a building shall be not less than the minimum specified in Table C102.1.

### SECTION C103 FIRE HYDRANT SPACING

**C103.1 Hydrant spacing.** Fire apparatus access roads and public streets providing required access to buildings in accordance with Section 503 of the *International Fire Code* shall be provided with one or more fire hydrants, as determined by Section C102.1. Where more than one fire hydrant is

required, the distance between required fire hydrants shall be in accordance with Sections C103.2 and C103.3.

**C103.2 Average spacing.** The average spacing between fire hydrants shall be in accordance with Table C102.1.

**Exception:** The average spacing shall be permitted to be increased by 10 percent where existing fire hydrants provide all or a portion of the required number of fire hydrants.

**C103.3 Maximum spacing.** The maximum spacing between fire hydrants shall be in accordance with Table C102.1.

### SECTION C104 CONSIDERATION OF EXISTING FIRE HYDRANTS

**C104.1 Existing fire hydrants.** Existing fire hydrants on public streets are allowed to be considered as available to meet the requirements of Sections C102 and C103. Existing fire hydrants on adjacent properties are allowed to be considered as available to meet the requirements of Sections C102 and C103 provided that a fire apparatus access road extends between properties and that an easement is established to prevent obstruction of such roads.

TABLE C102.1  
REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS <sup>a, b, c, f, g</sup> (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT <sup>d, f, g</sup>
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more <sup>e</sup>	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

- Reduce by 100 feet for dead-end streets or roads.
- Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.
- Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
- Reduce by 50 feet for dead-end streets or roads.
- One hydrant for each 1,000 gallons per minute or fraction thereof.
- A 50-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.
- A 25-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2 or 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*.

**SECTION C105  
REFERENCED STANDARDS**

ICC	IFC—15	International Fire Code	C101.1, C103.1, Table C102.1
ICC	IRC—15	International Residential Code	Table C102.1

## APPENDIX D

# FIRE APPARATUS ACCESS ROADS

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION D101 GENERAL

**D101.1 Scope.** Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the *International Fire Code*.

### SECTION D102 REQUIRED ACCESS

**D102.1 Access and loading.** Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other *approved* driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

### SECTION D103 MINIMUM SPECIFICATIONS

**D103.1 Access road width with a hydrant.** Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm), exclusive of shoulders (see Figure D103.1).

**D103.2 Grade.** Fire apparatus access roads shall not exceed 10 percent in grade.

**Exception:** Grades steeper than 10 percent as *approved* by the fire chief.

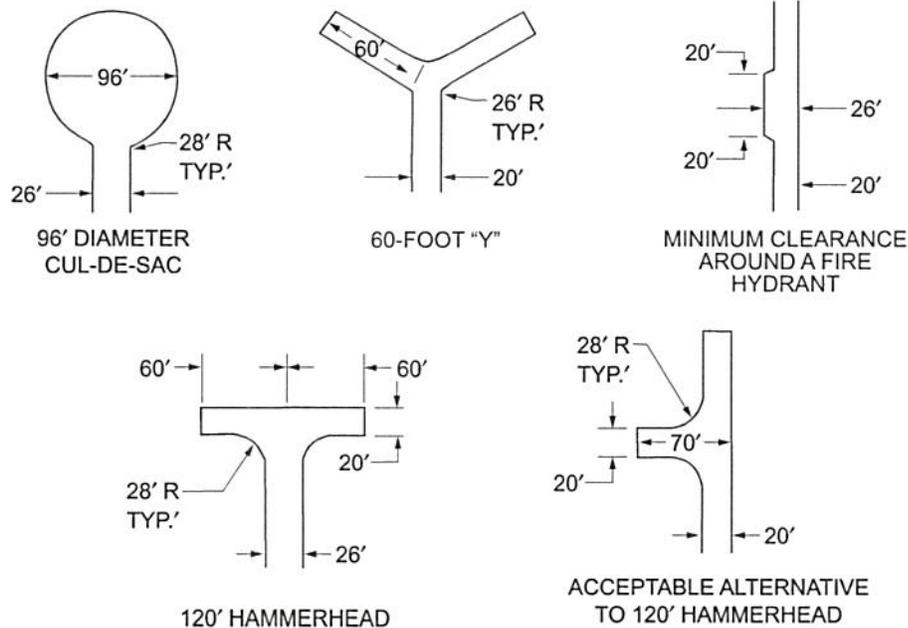
**D103.3 Turning radius.** The minimum turning radius shall be determined by the *fire code official*.

**D103.4 Dead ends.** Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

**TABLE D103.4  
REQUIREMENTS FOR DEAD-END  
FIRE APPARATUS ACCESS ROADS**

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
501-750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
Over 750		Special approval required

For SI: 1 foot = 304.8 mm.



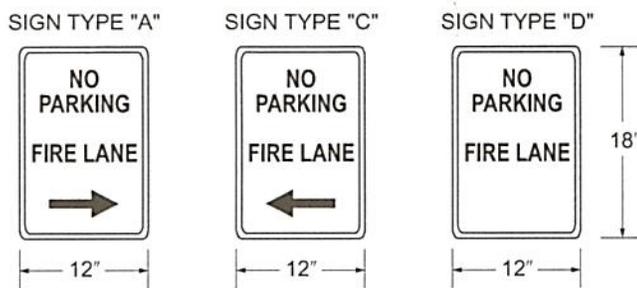
For SI: 1 foot = 304.8 mm.

**FIGURE D103.1  
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND**

**D103.5 Fire apparatus access road gates.** Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3658 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

**D103.6 Signs.** Where required by the fire code official, fire apparatus access roads shall be marked with permanent NO PARKING—FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.



**FIGURE D103.6  
FIRE LANE SIGNS**

**D103.6.1 Roads 20 to 26 feet in width.** Fire lane signs as specified in Section D103.6 shall be posted on both sides of fire apparatus access roads that are 20 to 26 feet wide (6096 to 7925 mm).

**D103.6.2 Roads more than 26 feet in width.** Fire lane signs as specified in Section D103.6 shall be posted on one

side of fire apparatus access roads more than 26 feet wide (7925 mm) and less than 32 feet wide (9754 mm).

**SECTION D104  
COMMERCIAL AND INDUSTRIAL DEVELOPMENTS**

**D104.1 Buildings exceeding three stories or 30 feet in height.** Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have at least two means of fire apparatus access for each structure.

**D104.2 Buildings exceeding 62,000 square feet in area.** Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m<sup>2</sup>) shall be provided with two separate and approved fire apparatus access roads.

**Exception:** Projects having a gross building area of up to 124,000 square feet (11 520 m<sup>2</sup>) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

**D104.3 Remoteness.** Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

**SECTION D105  
AERIAL FIRE APPARATUS ACCESS ROADS**

**D105.1 Where required.** Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

**D105.2 Width.** Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

**D105.3 Proximity to building.** At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

**D105.4 Obstructions.** Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the fire code official.

**SECTION D106****MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS**

**D106.1 Projects having more than 100 dwelling units.** Multiple-family residential projects having more than 100 *dwelling units* shall be equipped throughout with two separate and *approved* fire apparatus access roads.

**Exception:** Projects having up to 200 *dwelling units* may have a single *approved* fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with *approved automatic sprinkler systems* installed in accordance with Section 903.3.1.1 or 903.3.1.2.

**D106.2 Projects having more than 200 dwelling units.** Multiple-family residential projects having more than 200 *dwelling units* shall be provided with two separate and *approved* fire apparatus access roads regardless of whether they are equipped with an *approved automatic sprinkler system*.

**D106.3 Remoteness.** Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

**SECTION D107  
ONE- OR TWO-FAMILY****RESIDENTIAL DEVELOPMENTS**

**D107.1 One- or two-family dwelling residential developments.** Developments of one- or two-family dwellings where the number of *dwelling units* exceeds 30 shall be provided with two separate and *approved* fire apparatus access roads.

**Exceptions:**

1. Where there are more than 30 *dwelling units* on a single public or private fire apparatus access road and all *dwelling units* are equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3 of the *International Fire Code*, access from two directions shall not be required.
2. The number of *dwelling units* on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the *fire code official*.

**D107.2 Remoteness.** Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

**SECTION D108  
REFERENCED STANDARDS**

ASTM	F2200—13	Standard Specification for Automated Vehicular Gate Construction	D103.5
ICC	IFC—15	International Fire Code	D101.1, D107.1
UL	325—02	Door, Drapery, Gate, Louver, and Window Operators and Systems, with Revisions through June 2013	D103.5



## APPENDIX E

# HAZARD CATEGORIES

*This appendix is for information purposes and is not intended for adoption.*

### SECTION E101 GENERAL

**E101.1 Scope.** This appendix provides information, explanations and examples to illustrate and clarify the hazard categories contained in Chapter 50 of the *International Fire Code*. The hazard categories are based upon the DOL 29 CFR. Where numerical classifications are included, they are in accordance with nationally recognized standards.

This appendix should not be used as the sole means of hazardous materials classification.

### SECTION E102 HAZARD CATEGORIES

**E102.1 Physical hazards.** Materials classified in this section pose a *physical hazard*.

**E102.1.1 Explosives and blasting agents.** The current UN/DOT classification system recognized by international authorities, the Department of Defense and others classifies all *explosives* as Class 1 materials. They are then divided into six separate divisions to indicate their relative hazard. There is not a direct correlation between the designations used by the old DOT system and those used by the current system nor is there correlation with the system (high and low) established by the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF). Table 5604.3 of the *International Fire Code* provides some guidance with regard to the current categories and their relationship to the old categories. Some items may appear in more than one division, depending on factors such as the degree of confinement or separation, by type of packaging, storage configuration or state of assembly.

In order to determine the level of hazard presented by *explosive materials*, testing to establish quantitatively their *explosive* nature is required. There are numerous test methods that have been used to establish the character of an *explosive material*. Standardized tests, required for finished goods containing *explosives* or *explosive materials* in a packaged form suitable for shipment or storage, have been established by UN/DOT and BATF. However, these tests do not consider key elements that should be examined in a manufacturing situation. In manufacturing operations, the condition and/or the state of a material may vary within the process. The in-process material classification and classification requirements for materials used in the manufacturing process may be different from the classification of the same material where found in finished goods depending on the stage of the process in which the material is found. A classification methodology must be used that recognizes the hazards commensurate with the appli-

cation to the variable physical conditions as well as potential variations of physical character and type of *explosive* under consideration.

Test methods or guidelines for hazard classification of energetic materials used for in-process operations shall be *approved* by the *fire code official*. Test methods used shall be DOD, BATF, UN/DOT or other *approved* criteria. The results of such testing shall become a portion of the files of the jurisdiction and be included as an independent section of any Hazardous Materials Management Plan (HMMP) required by Section 5605.2.1 of the *International Fire Code*. Also see Section 104.7.2 of the *International Fire Code*.

Examples of materials in various Divisions are as follows:

1. Division 1.1 (High *Explosives*). Consists of *explosives* that have a mass explosion hazard. A mass explosion is one that affects almost the entire pile of material instantaneously. Includes substances that, where tested in accordance with *approved* methods, can be caused to detonate by means of a blasting cap where unconfined or will transition from *deflagration* to a *detonation* where confined or unconfined. Examples: dynamite, TNT, nitroglycerine, C-3, HMX, RDX, encased *explosives*, military ammunition.
2. Division 1.2 (Low *Explosives*). Consists of *explosives* that have a projection hazard, but not a mass explosion hazard. Examples: nondetonating encased *explosives*, military ammunition and the like.
3. Division 1.3 (Low *Explosives*). Consists of *explosives* that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard. The major hazard is radiant heat or violent burning, or both. Can be deflagrated where confined. Examples: smokeless powder, propellant *explosives*, display fireworks.
4. Division 1.4. Consists of *explosives* that pose a minor explosion hazard. The *explosive* effects are largely confined to the package and no projection of fragments of appreciable size or range is expected. An internal fire must not cause virtually instantaneous explosion of almost the entire contents of the package. Examples: squibs (nondetonating igniters), *explosive* actuators, *explosive* trains (low-level detonating cord).
5. Division 1.5 (Blasting Agents). Consists of very insensitive *explosives*. This division comprises substances that have a mass explosion hazard, but are so

insensitive that there is very little probability of initiation or of transition from burning to *detonation* under normal conditions of transport. Materials are not cap sensitive; however, they are mass detonating where provided with sufficient input. Examples: oxidizer and liquid fuel slurry mixtures and gels, ammonium nitrate combined with fuel oil.

6. Division 1.6. Consists of extremely insensitive articles that do not have a mass *explosive* hazard. This division comprises articles that contain only extremely insensitive detonating substances and that demonstrate a negligible probability of accidental initiation or propagation. Although this category of materials has been defined, the primary application is currently limited to military uses. Examples: Low vulnerability military weapons.

*Explosives* in each division are assigned a compatibility group letter by the Associate Administrator for Hazardous Materials Safety (DOT) based on criteria specified by DOT 49 CFR. Compatibility group letters are used to specify the controls for the transportation and storage related to various materials to prevent an increase in hazard that might result if certain types of *explosives* were stored or transported together. Altogether, there are 35 possible classification codes for *explosives*, e.g., 1.1A, 1.3C, 1.4S, etc.

#### E102.1.2 Compressed gases. Examples include:

1. Flammable: acetylene, carbon monoxide, ethane, ethylene, hydrogen, methane. Ammonia will ignite and burn although its flammable range is too narrow for it to fit the definition of "Flammable gas."

For binary mixtures where the hazardous component is diluted with a nonflammable gas, the mixture shall be categorized in accordance with CGA P-23.

2. Oxidizing: oxygen, ozone, oxides of nitrogen, chlorine and fluorine. Chlorine and fluorine do not contain oxygen but reaction with flammables is similar to that of oxygen.
3. *Corrosive*: ammonia, hydrogen chloride, fluorine.
4. Highly toxic: arsine, cyanogen, fluorine, germane, hydrogen cyanide, nitric oxide, phosphine, hydrogen selenide, stibine.
5. Toxic: chlorine, hydrogen fluoride, hydrogen sulfide, phosgene, silicon tetrafluoride.
6. Inert (chemically unreactive): argon, helium, krypton, neon, nitrogen, xenon.
7. Pyrophoric: diborane, dichloroborane, phosphine, silane.
8. Unstable (reactive): butadiene (unstabilized), ethylene oxide, vinyl chloride.

#### E102.1.3 Flammable and combustible liquids. Examples include:

1. Flammable liquids.

Class IA liquids shall include those having *flash points* below 73°F (23°C) and having a *boiling point* at or below 100°F (38°C).

Class IB liquids shall include those having *flash points* below 73°F (23°C) and having a *boiling point* at or above 100°F (38°C).

Class IC liquids shall include those having *flash points* at or above 73°F (23°C) and below 100°F (38°C).

#### 2. Combustible liquids.

Class II liquids shall include those having *flash points* at or above 100°F (38°C) and below 140°F (60°C).

Class IIIA liquids shall include those having *flash points* at or above 140°F (60°C) and below 200°F (93°C).

Class IIIB liquids shall include those liquids having *flash points* at or above 200°F (93°C).

#### E102.1.4 Flammable solids. Examples include:

1. Organic solids: camphor, cellulose nitrate, naphthalene.
2. Inorganic solids: decaborane, lithium amide, phosphorous heptasulfide, phosphorous sesquisulfide, potassium sulfide, anhydrous sodium sulfide, sulfur.
3. Combustible metals (except dusts and powders): cesium, magnesium, zirconium.

#### E102.1.5 Combustible dusts and powders. Finely divided solids that could be dispersed in air as a dust cloud: wood sawdust, plastics, coal, flour, powdered metals (few exceptions).

#### E102.1.6 Combustible fibers. See Section 5202.1.

#### E102.1.7 Oxidizers. Examples include:

1. Gases: oxygen, ozone, oxides of nitrogen, fluorine and chlorine (reaction with flammables is similar to that of oxygen).
2. Liquids: bromine, hydrogen peroxide, nitric acid, perchloric acid, sulfuric acid.
3. Solids: chlorates, chromates, chromic acid, iodine, nitrates, nitrites, perchlorates, peroxides.

#### E102.1.7.1 Examples of liquid and solid oxidizers according to hazard.

Class 4: ammonium perchlorate (particle size greater than 15 microns), ammonium permanganate, guanidine nitrate, hydrogen peroxide solutions more than 91 percent by weight, perchloric acid solutions more than 72.5 percent by weight, potassium superoxide, tetranitromethane.

Class 3: ammonium dichromate, calcium hypochlorite (over 50 percent by weight), chloric acid (10 percent maximum concentration), hydrogen peroxide solutions (greater than 52 percent up to 91 percent), mono-(trichloro)-tetra-(monopotassium di-

chloro)-penta-s-triazinetrione, nitric acid, (fuming - more than 86 percent concentration), perchloric acid solutions (60 percent to 72 percent by weight), potassium bromate, potassium chlorate, potassium dichloro-s-triazinetrione (potassium dichloro-isocyanurate), potassium perchlorate (99 percent), potassium permanganate (greater than 97.5 percent), sodium bromate, sodium chlorate, sodium chlorite (over 40 percent by weight) and sodium dichloro-s-triazinetrione anhydrous (sodium dichloro-isocyanurate anhydrous).

Class 2: barium bromate, barium chlorate, barium hypochlorite, barium perchlorate, barium permanganate, 1-bromo-3-chloro-5, 5-dimethylhydantoin, calcium chlorate, calcium chlorite, calcium hypochlorite (50 percent or less by weight), calcium perchlorate, calcium permanganate, calcium peroxide (75 percent), chromium trioxide (chromic acid), copper chlorate, halane (1, 3-di-chloro-5, 5-dimethylhydantoin), hydrogen peroxide (greater than 27.5 percent up to 52 percent), lead perchlorate, lithium chlorate, lithium hypochlorite (more than 39 percent available chlorine), lithium perchlorate, magnesium bromate, magnesium chlorate, magnesium perchlorate, mercurous chlorate, nitric acid (more than 40 percent but less than 86 percent), perchloric acid solutions (more than 50 percent but less than 60 percent), potassium peroxide, potassium superoxide, silver peroxide, sodium chlorite (40 percent or less by weight), sodium perchlorate, sodium perchlorate monohydrate, sodium permanganate, sodium peroxide, sodium persulfate (99 percent), strontium chlorate, strontium perchlorate, thallium chlorate, urea hydrogen peroxide, zinc bromate, zinc chlorate and zinc permanganate.

Class 1: all inorganic nitrates (unless otherwise classified), all inorganic nitrites (unless otherwise classified), ammonium persulfate, barium peroxide, hydrogen peroxide solutions (greater than 8 percent up to 27.5 percent), lead dioxide, lithium hypochlorite (39 percent or less available chlorine), lithium peroxide, magnesium peroxide, manganese dioxide, nitric acid (40 percent concentration or less), perchloric acid solutions (less than 50 percent by weight), potassium dichromate, potassium monopersulfate (45 percent  $\text{KHSO}_5$  or 90 percent triple salt), potassium percarbonate, potassium persulfate, sodium carbonate peroxide, sodium dichloro-s-triazinetrione dihydrate, sodium dichromate, sodium perborate (anhydrous), sodium perborate monohydrate, sodium perborate tetra-hydrate, sodium percarbonate, strontium peroxide, trichloro-s-triazinetrione (trichloroisocyanuric acid) and zinc peroxide.

**E102.1.8 Organic peroxides.** Organic peroxides contain the double oxygen or peroxy (-o-o) group. Some are flammable compounds and subject to explosive decomposition. They are available as:

1. Liquids.

2. Pastes.
3. Solids (usually finely divided powders).

#### **E102.1.8.1 Classification of organic peroxides according to hazard.**

Unclassified: Unclassified organic peroxides are capable of *detonation* and are regulated in accordance with Chapter 56 of the *International Fire Code*.

Class I: acetyl cyclohexane sulfonyl 60-65 percent concentration by weight, fulfonyl peroxide, benzoyl peroxide over 98 percent concentration, t-butyl hydroperoxide 90 percent, t-butyl peroxyacetate 75 percent, t-butyl peroxyisopropylcarbonate 92 percent, diisopropyl peroxydicarbonate 100 percent, di-n-propyl peroxydicarbonate 98 percent, and di-n-propyl peroxydicarbonate 85 percent.

Class II: acetyl peroxide 25 percent, t-butyl hydroperoxide 70 percent (with DTBP and t-BuOH diluents), t-butyl peroxybenzoate 98 percent, t-butyl peroxy-2-ethylhexanoate 97 percent, t-butyl peroxyisobutyrate 75 percent, t-butyl peroxyisopropylcarbonate 75 percent, t-butyl peroxy-pivalate 75 percent, dybenzoyl peroxydicarbonate 85 percent, di-sec-butyl peroxydicarbonate 98 percent, di-sec-butyl peroxydicarbonate 75 percent, 1,1-di-(t-butylperoxy)-3,5,5-trimethylcyclohexane 95 percent, di-(2-ethylhexyl) peroxydicarbonate 97 percent, 2,5-dimethyl-2,5-di (benzoylperoxy) hexane 92 percent, and peroxyacetic acid 43 percent.

Class III: acetyl cyclohexane sulfonal peroxide 29 percent, benzoyl peroxide 78 percent, benzoyl peroxide paste 55 percent, benzoyl peroxide paste 50 percent peroxide/50 percent butylbenzylphthalate diluent, cumene hydroperoxide 86 percent, di-(4-butylcyclohexyl) peroxydicarbonate 98 percent, t-butyl peroxy-2-ethylhexanoate 97 percent, t-butyl peroxyneodecanoate 75 percent, decanoyl peroxide 98.5 percent, di-t-butyl peroxide 99 percent, 1,1-di-(t-butylperoxy)3,5,5-trimethylcyclohexane 75 percent, 2,4-dichlorobenzoyl peroxide 50 percent, diisopropyl peroxydicarbonate 30 percent, 2,5-dimethyl-2,5-di-(2-ethylhexanolyperoxy)-hexane 90 percent, 2,5-dimethyl-2,5-di-(t-butylperoxy) hexane 90 percent and methyl ethyl ketone peroxide 9 percent active oxygen diluted in dimethyl phthalate.

Class IV: benzoyl peroxide 70 percent, benzoyl peroxide paste 50 percent peroxide/15 percent water/35 percent butylphthalate diluent, benzoyl peroxide slurry 40 percent, benzoyl peroxide powder 35 percent, t-butyl hydroperoxide 70 percent, (with water diluent), t-butyl peroxy-2-ethylhexanoate 50 percent, decumyl peroxide 98 percent, di-(2-ethylhexyl) peroxydicarbonate 40 percent, laurel peroxide 98 percent, p-methane hydroperoxide 52.5 percent, methyl ethyl ketone peroxide 5.5 percent active oxygen and methyl ethyl ketone peroxide 9 percent active oxygen diluted in water and glycols.

Class V: benzoyl peroxide 35 percent, 1,1-di-*t*-butyl peroxy 3,5,5-trimethylcyclohexane 40 percent, 2,5-di-(*t*-butyl peroxy) hexane 47 percent and 2,4-pentanedione peroxide 4 percent active oxygen.

#### E102.1.9 Pyrophoric materials. Examples include:

1. Gases: diborane, phosphine, silane.
2. Liquids: diethylaluminum chloride, di-ethylberyllium, diethylphosphine, diethylzinc, dimethylarsine, triethylaluminum etherate, tri-ethylbismuthine, tri-ethylboron, trimethylaluminum, trimethylgallium.
3. Solids: cesium, hafnium, lithium, white or yellow phosphorous, plutonium, potassium, rubidium, sodium, thorium.

#### E102.1.10 Unstable (reactive) materials. Examples include:

Class 4: acetyl peroxide, dibutyl peroxide, dinitrobenzene, ethyl nitrate, peroxyacetic acid and picric acid (dry) trinitrobenzene.

Class 3: hydrogen peroxide (greater than 52 percent), hydroxylamine, nitromethane, paranitroaniline, perchloric acid and tetrafluoroethylene monomer.

Class 2: acrolein, acrylic acid, hydrazine, methacrylic acid, sodium perchlorate, styrene and vinyl acetate.

Class 1: acetic acid, hydrogen peroxide 35 percent to 52 percent, paraldehyde and tetrahydrofuran.

#### E102.1.11 Water-reactive materials. Examples include:

Class 3: aluminum alkyls such as triethylaluminum, isobutylaluminum and trimethylaluminum; bromine pentafluoride, bromine trifluoride, chlorodiethylaluminum and diethylzinc.

Class 2: calcium carbide, calcium metal, cyanogen bromide, lithium hydride, methylchlorosilane, potassium metal, potassium peroxide, sodium metal, sodium peroxide, sulfuric acid and trichlorosilane.

Class 1: acetic anhydride, sodium hydroxide, sulfur monochloride and titanium tetrachloride.

#### E102.1.12 Cryogenic fluids. The cryogenics listed will exist as *compressed gases* where they are stored at ambient temperatures.

1. Flammable: carbon monoxide, deuterium (heavy hydrogen), ethylene, hydrogen, methane.
2. Oxidizing: fluorine, nitric oxide, oxygen.
3. *Corrosive*: fluorine, nitric oxide.
4. Inert (chemically unreactive): argon, helium, krypton, neon, nitrogen, xenon.
5. Highly toxic: fluorine, nitric oxide.

#### E102.2 Health hazards. Materials classified in this section pose a *health hazard*.

##### E102.2.1 Highly toxic materials. Examples include:

1. Gases: arsine, cyanogen, diborane, fluorine, germane, hydrogen cyanide, nitric oxide, nitrogen dioxide, ozone, phosphine, hydrogen selenide, stibine.

2. Liquids: acrolein, acrylic acid, 2-chloroethanol (ethylene chlorohydrin), hydrazine, hydrocyanic acid, 2-methylaziridine (propylenimine), 2-methyl-acetonitrile (acetone cyanohydrin), methyl ester isocyanic acid (methyl isocyanate), nicotine, tetranitromethane and tetraethylstannane (tetraethyltin).

3. Solids: (aceto) phenylmercury (phenyl mercuric acetate), 4-aminopyridine, arsenic pentoxide, arsenic trioxide, calcium cyanide, 2-chloroacetophenone, aflatoxin B, decaborane(14), mercury (II) bromide (mercuric bromide), mercury (II) chloride (*corrosive* mercury chloride), pentachlorophenol, methyl parathion, phosphorus (white) and sodium azide.

##### E102.2.2 Toxic materials. Examples include:

1. Gases: boron trichloride, boron trifluoride, chlorine, chlorine trifluoride, hydrogen fluoride, hydrogen sulfide, phosgene, silicon tetrafluoride.

2. Liquids: acrylonitrile, allyl alcohol, alpha-chlorotoluene, aniline, 1-chloro-2,3-epoxypropane, chloroformic acid (allyl ester), 3-chloropropene (allyl chloride), *o*-cresol, crotonaldehyde, dibromomethane, diisopropylamine, diethyl ester sulfuric acid, dimethyl ester sulfuric acid, 2-furaldehyde (furfural), furfural alcohol, phosphorus chloride, phosphoryl chloride (phosphorus oxychloride) and thionyl chloride.

3. Solids: acrylamide, barium chloride, barium (II) nitrate, benzidine, *p*-benzoquinone, beryllium chloride, cadmium chloride, cadmium oxide, chloroacetic acid, chlorophenylmercury (phenyl mercuric chloride), chromium (VI) oxide (chromic acid, solid), 2,4-dinitrotoluene, hydroquinone, mercury chloride (calomel), mercury (II) sulfate (mercuric sulfate), osmium tetroxide, oxalic acid, phenol, *P*-phenylenediamine, phenylhydrazine, 4-phenylmorpholine, phosphorus sulfide, potassium fluoride, potassium hydroxide, selenium (IV) disulfide and sodium fluoride.

##### E102.2.3 Corrosives. Examples include:

1. Acids: Examples: chromic, formic, hydrochloric (muriatic) greater than 15 percent, hydrofluoric, nitric (greater than 6 percent, perchloric, sulfuric (4 percent or more).
2. Bases (alkalis): hydroxides-ammonium (greater than 10 percent), calcium, potassium (greater than 1 percent), sodium (greater than 1 percent); certain carbonates-potassium.
3. Other *corrosives*: bromine, chlorine, fluorine, iodine, ammonia.

**Note:** *Corrosives* that are oxidizers, e.g., nitric acid, chlorine, fluorine; or are *compressed gases*, e.g., ammonia, chlorine, fluorine; or are water-reactive, e.g., concentrated sulfuric acid, sodium hydroxide, are *physical hazards* in addition to being *health hazards*.

## SECTION E103 EVALUATION OF HAZARDS

**E103.1 Degree of hazard.** The degree of hazard present depends on many variables that should be considered individually and in combination. Some of these variables are as shown in Sections E103.1.1 through E103.1.5.

**E103.1.1 Chemical properties of the material.** Chemical properties of the material determine self reactions and reactions that could occur with other materials. Generally, materials within subdivisions of hazard categories will exhibit similar chemical properties. However, materials with similar chemical properties could pose very different hazards. Each individual material should be researched to determine its hazardous properties and then considered in relation to other materials that it might contact and the surrounding environment.

**E103.1.2 Physical properties of the material.** Physical properties, such as whether a material is a solid, liquid or gas at ordinary temperatures and pressures, considered along with chemical properties will determine requirements for containment of the material. Specific gravity (weight of a liquid compared to water) and vapor density (weight of a gas compared to air) are both physical properties that are important in evaluating the hazards of a material.

**E103.1.3 Amount and concentration of the material.** The amount of material present and its concentration must be considered along with physical and chemical properties to determine the magnitude of the hazard. Hydrogen peroxide, for example, is used as an antiseptic and a hair bleach in low concentrations (approximately 8 percent in water solution). Over 8 percent, hydrogen peroxide is classed as an oxidizer and is toxic. Above 90 percent, it is a Class 4 oxidizer “that can undergo an explosive reaction when catalyzed or exposed to heat, shock or friction,” a definition that incidentally also places hydrogen peroxide over 90-percent concentration in the unstable (reactive) category. Small amounts at high concentrations could present a greater hazard than large amounts at low concentrations.

**E103.1.3.1 Mixtures.** Gases—toxic and highly toxic gases include those gases that have an  $LC_{50}$  of 2,000 parts per million (ppm) or less when rats are exposed for a period of 1 hour or less. To maintain consistency with the definitions for these materials, exposure data for periods other than 1 hour must be normalized to 1 hour. To classify mixtures of *compressed gases* that contain one or more toxic or highly toxic components, the  $LC_{50}$  of the mixture must be determined. Mixtures that contain only two components are binary mixtures. Those that contain more than two components are multicomponent mixtures. Where two or more hazardous substances (components) having an  $LC_{50}$  below 2,000 ppm are present in a mixture, their combined effect, rather than that of the individual substance components, must be considered. In the absence of information to the contrary, the effects of the hazards present must be considered as additive. Exceptions to the above rule could be made when there is a good reason to believe

that the principal effects of the different harmful substances (components) are not additive.

For binary mixtures where the hazardous component is diluted with a nontoxic gas such as an inert gas, the  $LC_{50}$  of the mixture is estimated by use of the methodology contained in CGA P-20. The hazard zones specified in CGA P-20 are applicable for DOTn purposes and shall not be used for hazard classification.

**E103.1.4 Actual use, activity or process involving the material.** The definition of handling, storage and use in *closed systems* refers to materials in packages or containers. Dispensing and use in open containers or systems describes situations where a material is exposed to ambient conditions or vapors are liberated to the atmosphere. Dispensing and use in *open systems*, then, are generally more hazardous situations than handling, storage or use in *closed systems*. The actual use or process could include heating, electric or other sparks, catalytic or reactive materials and many other factors that could affect the hazard and must therefore be thoroughly analyzed.

**E103.1.5 Surrounding conditions.** Conditions such as other materials or processes in the area, type of construction of the structure, fire protection features (e.g., *fire walls*, sprinkler systems, alarms, etc.), occupancy (use) of adjoining areas, normal temperatures, exposure to weather, etc., must be taken into account in evaluating the hazard.

**E103.2 Evaluation questions.** The following are sample evaluation questions:

1. What is the material? Correct identification is important; exact spelling is vital. Check labels, MSDS, ask responsible persons, etc.
2. What are the concentration and strength?
3. What is the physical form of the material? Liquids, gases and finely divided solids have differing requirements for spill and leak control and containment.
4. How much material is present? Consider in relation to permit amounts, *maximum allowable quantity per control area* (from Group H occupancy requirements), amounts that require detached storage and overall magnitude of the hazard.
5. What other materials (including furniture, equipment and building components) are close enough to interact with the material?
6. What are the likely reactions?
7. What is the activity involving the material?
8. How does the activity impact the hazardous characteristics of the material? Consider vapors released or hazards otherwise exposed.
9. What must the material be protected from? Consider other materials, temperature, shock, pressure, etc.
10. What effects of the material must people and the environment be protected from?
11. How can protection be accomplished? Consider:
  - 11.1. Proper containers and equipment.

- 11.2. Separation by distance or construction.
- 11.3. Enclosure in cabinets or rooms.
- 11.4. Spill control, drainage and containment.
- 11.5. Control systems-ventilation, special electrical, detection and alarm, extinguishment, explosion venting, limit controls, exhaust scrubbers and excess flow control.
- 11.6. Administrative (operational) controls-signs, ignition source control, security, personnel training, established procedures, storage plans and emergency plans.

Evaluation of the hazard is a strongly subjective process; therefore, the person charged with this responsibility must gather as much relevant data as possible so that the decision will be objective and within the limits prescribed in laws, policies and standards.

It could be necessary to cause the responsible persons in charge to have tests made by qualified persons or testing laboratories to support contentions that a particular material or process is or is not hazardous. See Section 104.7.2 of the *International Fire Code*.

**SECTION E104  
REFERENCED STANDARDS**

CGA (2009)	P-20—	Standard for Classification of Toxic Mixtures	E103.1.3.1
CGA (2008)	P-23—	Standard for Categorizing Gas Mixtures Containing Flammable and Nonflammable Components	E102.1.2
ICC	IFC—15	International Fire Code	E101.1, E102.1.1, E102.1.8.1, E103.2

## APPENDIX F

# HAZARD RANKING

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION F101 GENERAL

**F101.1 Scope.** Assignment of levels of hazards to be applied to specific hazard classes as required by NFPA 704 shall be in accordance with this appendix. The appendix is based on application of the degrees of hazard as defined in NFPA 704 arranged by hazard class as for specific categories defined in Chapter 2 of the *International Fire Code* and used throughout.

**F101.2 General.** The hazard rankings shown in Table F101.2 have been established by using guidelines found within NFPA 704. As noted in Section 4.2 of NFPA 704, there could be specific reasons to alter the degree of hazard assigned to a specific material; for example, ignition temperature, flammable range or susceptibility of a container to rupture by an internal combustion explosion or to metal failure while under pressure or because of heat from external fire. As a result, the degree of hazard assigned for the same material can vary when assessed by different people of equal competence.

The hazard rankings assigned to each class represent reasonable minimum hazard levels for a given class based on the use of criteria established by NFPA 704. Specific cases of use or storage may dictate the use of higher degrees of hazard in certain cases.

### SECTION F102 REFERENCED STANDARDS

ICC	IFC—15	International Fire Code	F101.1
NFPA	704—12	Identification of the Hazards of Materials for Emergency Response	F101.1, F101.2

**TABLE F101.2  
FIRE FIGHTER WARNING PLACARD DESIGNATIONS BASED ON HAZARD CLASSIFICATION CATEGORIES**

HAZARD CATEGORY	DESIGNATION
Combustible liquid II	F2
Combustible liquid IIIA	F2
Combustible liquid IIIB	F1
Combustible dust	F4
Combustible fiber	F3
Cryogenic flammable	F4, H3
Cryogenic oxidizing	OX, H3
Explosive	R4
Flammable solid	F2
Flammable gas (gaseous)	F4
Flammable gas (liquefied)	F4
Flammable liquid IA	F4
Flammable liquid IB	F3
Flammable liquid IC	F3
Organic peroxide, UD	R4
Organic peroxide I	F4, R3
Organic peroxide II	F3, R3
Organic peroxide III	F2, R2
Organic peroxide IV	F1, R1
Organic peroxide V	None
Oxidizing gas (gaseous)	OX
Oxidizing gas (liquefied)	OX
Oxidizer 4	OX4
Oxidizer 3	OX3
Oxidizer 2	OX2
Oxidizer 1	OX1
Pyrophoric gases	F4
Pyrophoric solids, liquids	F3
Unstable reactive 4D	R4
Unstable reactive 3D	R4
Unstable reactive 3N	R2
Unstable reactive 2	R2
Unstable reactive 1	None
Water reactive 3	W3
Water reactive 2	W2
Corrosive	H3, COR
Toxic	H3
Highly toxic	H4

F—Flammable category.  
 R—Reactive category.  
 H—Health category.  
 W—Special hazard: water reactive.  
 OX—Special hazard: oxidizing properties.

COR—Corrosive.  
 UD—Unclassified detonable material.  
 4D—Class 4 detonable material.  
 3D—Class 3 detonable material.  
 3N—Class 3 nondetonable material.

## APPENDIX G

# CRYOGENIC FLUIDS—WEIGHT AND VOLUME EQUIVALENTS

*This appendix is for information purposes and is not intended for adoption.*

### SECTION G101 GENERAL

**G101.1 Scope.** This appendix is used to convert from liquid to gas for *cryogenic fluids*.

**G101.2 Conversion.** Table G101.2 shall be used to determine the equivalent amounts of *cryogenic fluids* in either the liquid or gas phase.

**G101.2.1 Use of the table.** To use Table G101.2, read horizontally across the line of interest. For example, to determine the number of cubic feet of gas contained in 1.0 gallon (3.785 L) of liquid argon, find 1.000 in the column entitled "Volume of Liquid at Normal *Boiling Point*." Reading across the line under the column entitled "Volume of Gas at NTP" (70°F and 1 atmosphere/14.7 psia), the value of 112.45 cubic feet (3.184 m<sup>3</sup>) is found.

**G101.2.2 Other quantities.** If other quantities are of interest, the numbers obtained can be multiplied or divided to obtain the quantity of interest. For example, to determine the number of cubic feet of argon gas contained in a volume of 1,000 gallons (3785 L) of liquid argon at its normal *boiling point*, multiply 112.45 by 1,000 to obtain 112,450 cubic feet (3184 m<sup>3</sup>).

**TABLE G101.2  
WEIGHT AND VOLUME EQUIVALENTS FOR COMMON CRYOGENIC FLUIDS**

CRYOGENIC FLUID	WEIGHT OF LIQUID OR GAS		VOLUME OF LIQUID AT NORMAL BOILING POINT		VOLUME OF GAS AT NTP	
	Pounds	Kilograms	Liters	Gallons	Cubic feet	Cubic meters
Argon	1.000	0.454	0.326	0.086	9.67	0.274
	2.205	1.000	0.718	0.190	21.32	0.604
	3.072	1.393	1.000	0.264	29.71	0.841
	11.628	5.274	3.785	1.000	112.45	3.184
	10.340	4.690	3.366	0.889	100.00	2.832
	3.652	1.656	1.189	0.314	35.31	1.000
Helium	1.000	0.454	3.631	0.959	96.72	2.739
	2.205	1.000	8.006	2.115	213.23	6.038
	0.275	0.125	1.000	0.264	26.63	0.754
	1.042	0.473	3.785	1.000	100.82	2.855
	1.034	0.469	3.754	0.992	100.00	2.832
	0.365	0.166	1.326	0.350	35.31	1.000
Hydrogen	1.000	0.454	6.409	1.693	191.96	5.436
	2.205	1.000	14.130	3.733	423.20	11.984
	0.156	0.071	1.000	0.264	29.95	0.848
	0.591	0.268	3.785	1.000	113.37	3.210
	0.521	0.236	3.339	0.882	100.00	2.832
	0.184	0.083	1.179	0.311	35.31	1.000
Oxygen	1.000	0.454	0.397	0.105	12.00	0.342
	2.205	1.000	0.876	0.231	26.62	0.754
	2.517	1.142	1.000	0.264	30.39	0.861
	9.527	4.321	3.785	1.000	115.05	3.250
	8.281	3.756	3.290	0.869	100.00	2.832
	2.924	1.327	1.162	0.307	35.31	1.000
Nitrogen	1.000	0.454	0.561	0.148	13.80	0.391
	2.205	1.000	1.237	0.327	30.43	0.862
	1.782	0.808	1.000	0.264	24.60	0.697
	6.746	3.060	3.785	1.000	93.11	2.637
	7.245	3.286	4.065	1.074	100.00	2.832
	2.558	1.160	1.436	0.379	35.31	1.000
LNG <sup>a</sup>	1.000	0.454	1.052	0.278	22.968	0.650
	2.205	1.000	2.320	0.613	50.646	1.434
	0.951	0.431	1.000	0.264	21.812	0.618
	3.600	1.633	3.785	1.000	82.62	2.340
	4.356	1.976	4.580	1.210	100.00	2.832
	11.501	5.217	1.616	0.427	35.31	1.000

For SI: 1 pound = 0.454 kg, 1 gallon = 3.785 L, 1 cubic foot = 0.02832 m<sup>3</sup>, °C = [(°F)-32]/1.8, 1 pound per square inch atmosphere = 6.895 kPa.

a. The values listed for liquefied natural gas (LNG) are "typical" values. LNG is a mixture of hydrocarbon gases, and no two LNG streams have exactly the same composition.

## APPENDIX H

# HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) AND HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) INSTRUCTIONS

*The provisions contained in this appendix are adopted as part of this code.*

## SECTION H101 HMMP

### H101.1 Part A (See Example Format in Figure 1).

1. Fill out items and sign the declaration.
2. Part A of this section is required to be updated and submitted annually, or within 30 days of a process or management change.

### H101.2 Part B—General Facility Description/Site Plan (See Example Format in Figure 2).

1. Provide a site plan on 8½ by 11 inch (215 mm by 279 mm) paper, showing the locations of all buildings, structures, outdoor chemical control or storage and use areas, parking lots, internal roads, storm and sanitary sewers, wells and adjacent property uses. Indicate the approximate scale, northern direction and date the drawing was completed.

### H101.3 Part C—Facility Storage Map—Confidential Information (See Example Format in Figure 3).

1. Provide a floor plan of each building identified on the site plan as containing hazardous materials on 8½-inch by 11-inch (215 mm by 279 mm) paper, identifying the northern direction, and showing the location of each storage and use area.
2. Identify storage and use areas, including hazard waste storage areas.
3. Show the following:
  - 3.1. Accesses to each storage and use area.
  - 3.2. Location of emergency equipment.
  - 3.3. Location where liaison will meet emergency responders.
  - 3.4. Facility evacuation meeting point locations.
  - 3.5. The general purpose of other areas within the building.
  - 3.6. Location of all aboveground and underground tanks to include sumps, vaults, below-grade treatment systems, piping, etc.
  - 3.7. Show hazard classes in each area.
  - 3.8. Show locations of all Group H occupancies, control areas, and exterior storage and use areas.
  - 3.9. Show emergency exits.

## SECTION H102 HMIS

### H102.1 Inventory statement contents.

1. HMIS Summary Report (see Example Format in Figure 4).
  - 1.1. Complete a summary report for each control area and Group H occupancy.
  - 1.2. The storage summary report includes the HMIS Inventory Report amounts in storage, use-closed and use-open conditions.
  - 1.3. Provide separate summary reports for storage, use-closed and use-open conditions.
  - 1.4. IBC/IFC Hazard Class.
  - 1.5. Inventory Amount. [Solid (lb), Liquid (gal), Gas (cu ft, gal or lbs)].
  - 1.6. IBC/IFC Maximum Allowable Quantity per control area (MAQ). (If applicable, double MAQ for sprinkler protection and/or storage in cabinets. For wholesale and retail sales occupancies, go to Tables 5003.11.1 and 5704.3.4.1 of the *International Fire Code* for MAQs.)
2. HMIS Inventory Report (see Example Format in Figure 5).
  - 2.1. Complete an inventory report by listing products by location.
  - 2.2. Product Name.
  - 2.3. Components. (For mixtures specify percentages of major components if available.)
  - 2.4. Chemical Abstract Service (CAS) Number. (For mixtures list CAS Numbers of major components if available.)
  - 2.5. Location. (Identify the control area or, if it is a Group H occupancy, provide the classification, such as H-2, H-3, etc.)
  - 2.6. Container with a capacity of greater than 55 gallons (208 L). (If product container, vessel or tank could exceed 55 gallons, indicate yes in column.)
  - 2.7. Hazard Classification. (List applicable classifications for each product.)
  - 2.8. Stored. (Amount of product in storage conditions.)

2.9. Closed. (Amount of product in use-closed systems.)

2.10. Open. (Amount of product in use-open systems.)

Facilities that have prepared, filed and submitted a Tier II Inventory Report required by the U.S. Environmental Protection Agency (USEPA) or required by a state that has secured USEPA approval for a similar form shall be deemed to have complied with this section.

**SECTION H103  
EMERGENCY PLAN**

1. Emergency Notification. (See Example Format in Figure 6.)
2. Where OSHA or state regulations require a facility to have either an Emergency Action Plan (EAP) or an Emergency Response Plan (ERP), the EAP or ERP shall be included as part of the HMMP.

**SECTION H104  
REFERENCED STANDARDS**

ICC	IBC—15	International Building Code	H102.1
ICC	IFC—15	International Fire Code	H102.1

**FIGURE 1  
HAZARDOUS MATERIALS MANAGEMENT PLAN  
SECTION I: FACILITY DESCRIPTION**

1. Business Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_

2. Person Responsible for the Business  
Name: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_

3. Emergency Contacts:

Name:	Title:	Home Number:	Work Number:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

4. Person Responsible for the Application/Principal Contact:  
Name: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_

5. Principal Business Activity:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

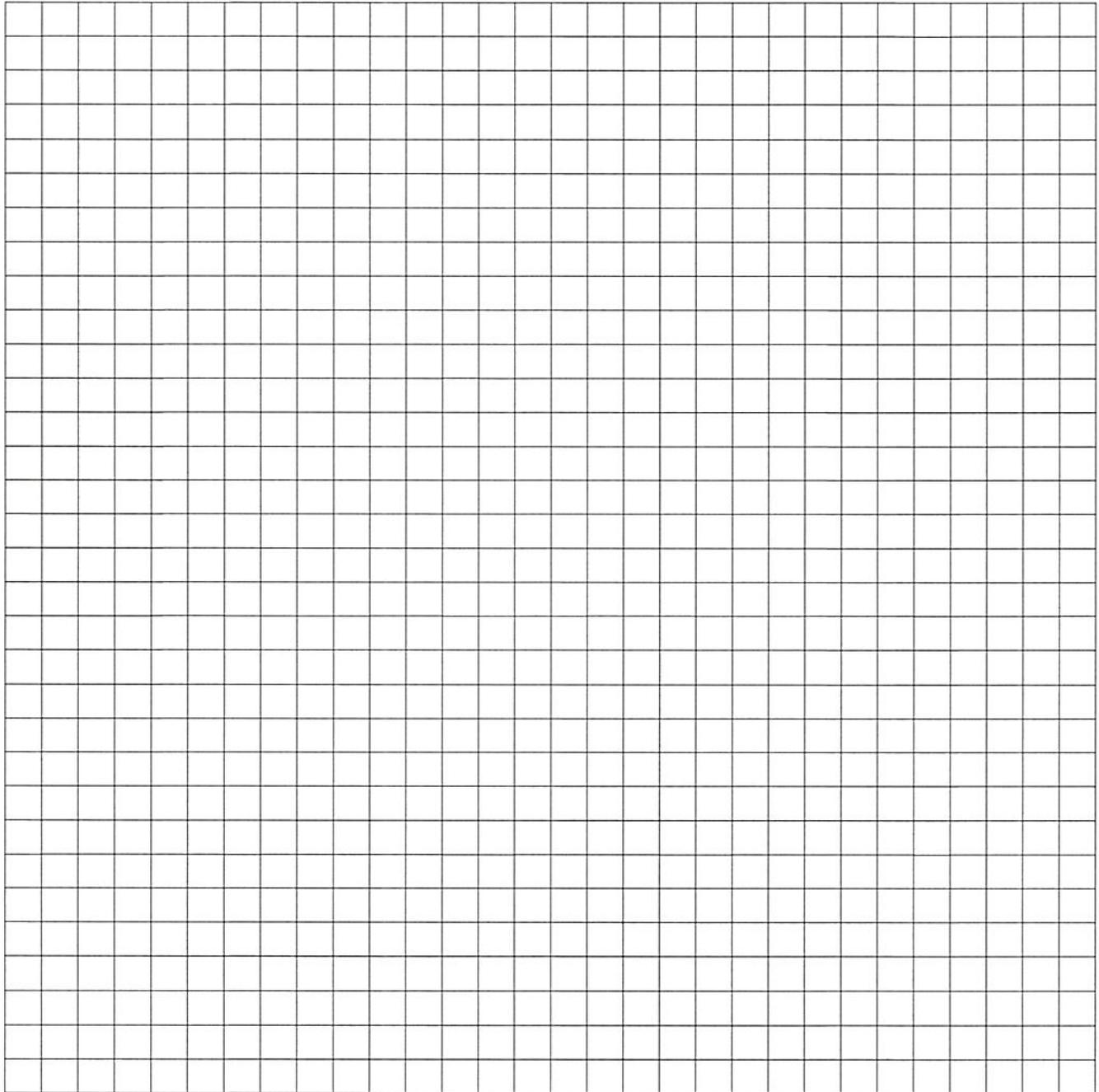
6. Number of Employees: \_\_\_\_\_

7. Number of Shifts: \_\_\_\_\_  
a. Number of Employees per Shift:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Hours of Operation: \_\_\_\_\_



**FIGURE 3**  
**HAZARDOUS MATERIALS MANAGEMENT PLAN SECTION I: FACILITY DESCRIPTION PART C—FACILITY MAP**



<b>Business Name</b>	<b>Date</b>
<b>Address</b>	<b>Page of</b>

**FIGURE 4**  
**SECTION II—HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) HMIS SUMMARY REPORT<sup>a</sup> (Storage<sup>b</sup> Conditions)<sup>c</sup>**

IBC/IFC HAZARD CLASS	HAZARD CLASS (Abbrev)	INVENTORY AMOUNT			IBC/IFC MAXIMUM ALLOWABLE QUANTITY <sup>d</sup>		
		Solid (lb)	Liquid (gal)	Gas (cu ft, gal, lb)	Solid (lb)	Liquid (gal)	Gas (cu ft, gal, lb)
Combustible Liquid	C2		5			120	
	C3A					330	
	C3B		6			13,200	
Combustible Fiber	Loose/Baled						
Cryogenics, Flammable	Cryo-Flam					45	
Cryogenic, Oxidizing	Cryo-OX					45	
Flammable Gas	FLG						
(Gaseous)				150			1,000
(Liquefied)						30	
Flammable Liquid	F1A					30	
	F1B & F1C		5			120	
Combination (1A, 1B, 1C)			5			120	
Flammable Solid	FLS				125		
Organic Peroxide	OPU				0		
	OP1				5		
	OP2				50		
	OP3				125		
	OP4				NL		
	OP5				NL		
Oxidizer	OX4				0		
	OX3				10		
	OX2				250		
	OX1				4,000		

- a. Complete a summary report for each control area and Group H occupancy.
  - b. Storage = storage + use-closed + use-open systems.
  - c. Separate reports are required for use-closed and use-open systems.
  - d. Include increases for sprinklers or storage in cabinets, if applicable.
- (This is an example; add additional hazard classes as needed.)

**FIGURE 5**  
**SECTION II — HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) HMIS INVENTORY REPORT**  
*(Sort Products Alphabetically by Location of Product and then Alphabetically by Product Name)*

Product Name (Components) <sup>c</sup>	CAS Number	Location <sup>a</sup>	Container > 55 gal <sup>b</sup>	Haz Class 1	Haz Class 2	Haz Class 3	Stored (lbs)	Stored (gal)	Stored (gas) <sup>d</sup>	Closed (lbs)	Closed (gal)	Closed gas <sup>d</sup>	Open (lbs)	Open (gal)
<b>ACETYLENE</b> (Acetylene gas)	74-86-2	Control Area 1		FLG	UR2				150					
<b>BLACK AEROSOL SPRAY PAINT</b> (Mixture)	Mixture	Control Area 1		A-L3			24							
<b>GASOLINE, UNLEADED</b> (Gasoline-Mixture) Methyl-t-Butyl-Ether-15% Diisopropyl Ether-7% Ethanol-11% Toluene-12% Xylene-11%	8006-61-9 1634-04-4 108-20-3 64-17-5 108-88-3 1330-20-7	Control Area 1		F1B				5						
<b>MOTOR OIL-10W40</b> (Hydrotreated Heavy Paraffinic Distillate-85%; Additives-20%)	64742-54-7 Mixture	Control Area 1		C3B				3						
<b>DIESEL</b> (Diesel-99-100%; Additives)	68476-34-6 Proprietary	Control Area 2	Yes	C2				225						
<b>TRANSMISSION FLUID</b> (Oil-Solvent-Neutral; Performance Additives)	64742-65-0	Control Area 2		C3B				3						
<b>OXYGEN, GAS</b> (Oxygen)	7782-44-7	H-3		OXG					5,000					

a. Identify the control area or, if it is a Group H occupancy, provide the classification, such as H-2, H-3, etc.

b. If the product container, vessel or tank could exceed 55 gallons, indicate yes in the column.

c. Specify percentages of main components if available.

d. In cubic feet, gallons or pounds.

(This is an example; add additional hazard classes as needed.)

**FIGURE 6  
HAZARDOUS MATERIALS MANAGEMENT PLAN  
SECTION III: EMERGENCY PLAN**

1. In the event of an emergency, the following shall be notified:

a. Facility Liaison

Name	Title	Home Number	Work Number
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

b. Agency

Agency	Contact	Phone Number
Fire Department	_____	_____
LEPC	_____	_____
Other	_____	_____

**APPENDIX I**  
**FIRE PROTECTION SYSTEMS—NONCOMPLIANT CONDITIONS**

**Deleted.**



## APPENDIX J

# BUILDING INFORMATION SIGN

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION J101 GENERAL

**J101.1 Scope.** New buildings shall have a building information sign(s) that shall comply with Sections J101.1.1 through J101.7. Existing buildings shall be brought into conformance with Sections J101.1 through J101.9 when one of the following occurs:

1. The fire department conducts an annual inspection intended to verify compliance with this section, or any required inspection.
2. When a change in use or occupancy has occurred.

**Exceptions:**

1. Group U occupancies.
2. One- and two-family dwellings.

**J101.1.1 Sign location.** The building information sign shall be placed at one of the following locations:

1. Upon the entry door or sidelight at a minimum height of 42 inches (1067 mm) above the walking surface on the address side of the building or structure.
2. Upon the exterior surface of the building or structure on either side of the entry door, not more than 3 feet (76 mm) from the entrance door, at a minimum

height of 42 inches (1067 mm) above the walking surface on the address side of the building or structure.

3. Conspicuously placed inside an enclosed entrance lobby, on any vertical surface within 10 feet (254 mm) of the entrance door at a minimum height of 42 inches (1067 mm) above the walking surface.
4. Inside the building's fire command center.
5. On the exterior of the fire alarm control unit or on the wall immediately adjacent to the fire alarm control unit door where the alarm panel is located in the enclosed main lobby.

**J101.1.2 Sign features.** The building information sign shall consist of all of the following:

1. White reflective background with red letters.
2. Durable material.
3. Numerals shall be Roman or Latin numerals, as required, or alphabet letters.
4. Permanently affixed to the building or structure in an approved manner.

**J101.1.3 Sign shape.** The building information sign shall be a Maltese cross as shown in Figure J101.1.3.

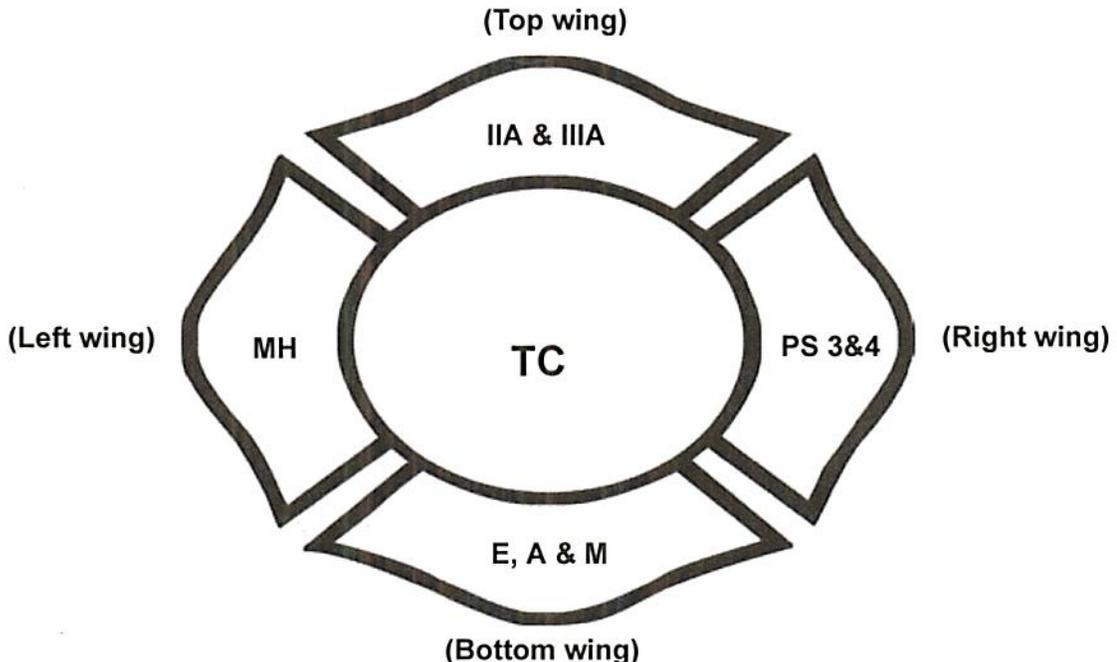


FIGURE J101.1.3  
EXAMPLE OF COMPLETED BUILDING INFORMATION SIGN

**J101.1.4 Sign size and lettering.** The minimum size of the building information sign and lettering shall be in accordance with the following:

1. The width and height shall be 6 inches by 6 inches (152 mm by 152 mm).
2. The height or width of each Maltese cross wing area shall be 1<sup>1</sup>/<sub>8</sub> inches (29 mm) and have a stroke width of 1/2 inch (13 mm).
3. The center of the Maltese cross, a circle or oval, shall be 3 inches (76 mm) in diameter and have a stroke width of 1/2 inch (6 mm).
4. All Roman numerals and alphabetic designations, shall be 1<sup>1</sup>/<sub>4</sub> inch (32 mm) height and have a stroke width of 1/4 inch (6 mm).

**J101.2 Sign designations.** Designations shall be made based upon the construction type, content, hazard, *fire protection systems*, life safety and occupancy. Where multiple designations occur within a classification category, the designation used shall be based on the greatest potential risk.

**J101.3 Construction type (top wing).** The construction types shall be designated by assigning the appropriate Roman numeral, and letter, placed inside the top wing of the Maltese cross. The hourly rating provided is for the structural framing in accordance with Table 601 of the *International Building Code*,

CONSTRUCTION TYPE	FIRE-RESISTANCE RATING
IA—Noncombustible	3 Hours
IB—Noncombustible	2 Hours
IIA—Noncombustible	1 Hour
IIB—Noncombustible	0 Hours
IIIA—Noncombustible/combustible	1 Hour
IIIB—Noncombustible/combustible	0 Hours
IV—Heavy timber (HT)	HT
VA—Combustible	1 Hour
VB—Combustible	0 Hours

**J101.4 Fire protection systems (right wing).** The *fire protection system* shall be designated by determining its level of protection and assigning the appropriate designation to the right wing of the Maltese cross. Where multiple systems are provided, all shall be listed:

- AS Automatic sprinkler system installed throughout
- DS Dry sprinkler system and designated areas
- FA Fire alarm system
- FP Fire pump
- FW Fire wall and designated areas
- PAS Pre-action sprinkler system and designated floor
- PS Partial automatic sprinkler system, and designate floor
- CES Chemical extinguishing system and designated area
- CS Combination sprinkler and standpipe system

- S Standpipe system
- NS No system installed

**J101.5 Occupancy type (bottom wing).** The occupancy of a building or structure shall be designated in accordance with the occupancy classification found in Section 302.1 of the *International Building Code* and the corresponding designation shall be placed in the bottom wing of the Maltese cross. Where a building or structure contains a mixture of uses and occupancies; all uses and occupancies shall be identified.

- A Assembly
- B Business
- E Educational
- F Factory or Industrial
- H High Hazard
- I Institutional
- M Mercantile
- R Residential

**J101.6 Hazards of content (left wing).** The hazards of building contents shall be designated by one of the following classifications as defined in NFPA 13 and the appropriate designation shall be placed inside the left wing of the Maltese cross:

- LH Light hazard
- MH Moderate hazard
- HH High hazard

**J101.7 Tactical considerations (center circle).** The center circle shall include the name of the local fire service and when required the letters TC for tactical considerations. Where fire fighters conduct preplan operations, a unique situation(s) for tactical considerations shall be identified and the information provided to the fire dispatch communications center to further assist fire fighters in identifying that there is special consideration(s) for this occupancy. Special consideration designations include, but are not limited to:

1. Impact-resistant drywall.
2. Impact-resistant glazing, such as blast or hurricane-type glass.
3. All types of roof and floor structural members including but not limited to post-tension concrete, bar joists, solid wood joists, rafters, trusses, cold-formed galvanized steel, I-joists and I-beams; green roof with vegetation, soil and plants.
4. Hazardous materials (explosives, chemicals, plastics, etc.).
5. Solar panels and DC electrical energy.
6. HVAC system; and smoke management system for pressurization and exhaust methods.
7. Other unique characteristic(s) within the building that are ranked according to a potential risk to occupants and fire fighters.

**J101.8 Sign classification maintenance, building information.** Sign maintenance shall comply with each of the following:

1. Fire departments in the jurisdiction shall define the designations to be placed within the sign.
2. Fire departments in the jurisdiction shall conduct annual inspections to verify compliance with this section of the code and shall notify the *owner*, or the *owner's* agent, of any required updates to the sign in accordance with fire department designations and the *owner*, or the *owner's* agent, shall comply within 30 days.
3. The owner of a building shall be responsible for the maintenance and updates to the sign in accordance with fire department designations.

**J101.9 Training.** Jurisdictions shall train fire department personnel on Sections J101.1 through J101.9.

**SECTION J102  
REFERENCED STANDARDS**

ICC	IBC—15	International Building Code	J101.3, J101.5
NFPA	13—13	Installation of Sprinkler Systems	J101.6



APPENDIX K  
**CONSTRUCTION REQUIREMENTS FOR  
EXISTING AMBULATORY CARE FACILITIES**

Deleted.



## APPENDIX L

## REQUIREMENTS FOR FIRE FIGHTER AIR REPLENISHMENT SYSTEMS

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

### SECTION L101 GENERAL

**L101.1 Scope.** Fire fighter air replenishment systems (FARS) shall be provided in accordance with this appendix. The adopting ordinance shall specify building characteristics or special hazards that establish thresholds triggering a requirement for the installation of a FARS. The requirement shall be based upon the fire department's capability of replenishing fire fighter breathing air during sustained emergency operations. Considerations shall include:

1. Building characteristics, such as number of stories above or below grade plane, floor area, type of construction and fire-resistance of the primary structural *frame* to allow sustained fire-fighting operations based on a rating of not less than 2 hours.
2. Special hazards, other than buildings, that require unique accommodations to allow the fire department to replenish fire fighter breathing air.
3. Fire department staffing level.
4. Availability of a fire department breathing air replenishment vehicle.

### SECTION L102 DEFINITIONS

**L102.1 Definitions.** For the purpose of this appendix, certain terms are defined as follows:

**FIRE FIGHTER AIR REPLENISHMENT SYSTEM (FARS).** A permanently installed arrangement of piping, valves, fittings and equipment to facilitate the replenishment of breathing air in self contained breathing apparatus (SCBA) for fire fighters engaged in emergency operations.

### SECTION L103 PERMITS

**L103.1 Permits.** Permits shall be required to install and maintain a FARS. Permits shall be in accordance with Sections L103.2 and L103.3.

**L103.2 Construction permit.** A construction permit is required for installation of or modification to a FARS. The construction permit application shall include documentation of an acceptance and testing plan as specified in Section L105.

**L103.3 Operational permit.** An operational permit is required to maintain a FARS.

### SECTION L104 DESIGN AND INSTALLATION

**L104.1 Design and installation.** A FARS shall be designed and installed in accordance with Sections L104.2 through L104.15.

**L104.2 Standards.** Fire fighter air replenishment systems shall be in accordance with Sections L104.2.1 and L104.2.2.

**L104.2.1 Pressurized system components.** Pressurized system components shall be designed and installed in accordance with ASME B31.3.

**L104.2.2 Air quality.** The system shall be designed to convey breathing air complying with NFPA 1989.

**L104.3 Design and operating pressure.** The minimum design pressure shall be 110 percent of the fire department's normal SCBA fill pressure. The system design pressure shall be marked in an approved manner at the supply connections, and adjacent to pressure gauges on any fixed air supply components. Pressure shall be maintained in the system within 5 percent of the design pressure.

**L104.4 Cylinder refill rate.** The FARS shall be capable of refilling breathing air cylinders of a size and pressure used by the fire department at a rate of not less than two empty cylinders in 2 minutes.

**L104.5 Breathing air supply.** Where a fire department mobile air unit is available, the FARS shall be supplied by an external mobile air connection in accordance with Section L104.14. Where a fire department mobile air unit is not available, a stored pressure air supply shall be provided in accordance with Section L104.5.1. A stored pressure air supply shall be permitted to be added to a system supplied by an external mobile air connection provided that a means to bypass the stored pressure air supply is located at the external mobile air connection.

**L104.5.1. Stored pressure air supply.** A stored pressure air supply shall be designed based on Chapter 24 of NFPA 1901 except that provisions applicable only to mobile apparatus or not applicable to system design shall not apply. A stored pressure air supply shall be capable of refilling not less than 50 empty breathing air cylinders of a size and pressure used by the fire department.

**L104.5.2. Retrofit of external mobile air connection.** A FARS not initially provided with an external mobile air connection due to the lack of a mobile air unit shall be retrofitted with an external mobile air connection where a mobile air unit becomes available. Where an external mobile air connection is provided, a means to bypass the

stored pressure air supply shall be located at the external mobile air connection. The retrofit shall be completed not more than 12 months after notification by the *fire code official*.

**L104.6 Isolation valves.** System isolation valves that are accessible to the fire department shall be installed on the system riser to allow piping beyond any air cylinder refill panel to be blocked.

**L104.7 Pressure relief valve.** Pressure relief valves shall be installed at each point of supply and at the top or end of every riser. The relief valve shall meet the requirements of CGA S-1.3 and shall not be field adjustable. Pressure relief valves shall discharge in a manner that does not endanger personnel who are in the area. Valves, plugs or caps shall not be installed in the discharge of a pressure relief valve. Where discharge piping is used the end shall not be threaded.

**L104.8 Materials and equipment.** Pressurized system components shall be *listed* or *approved* for their intended use and rated for the maximum allowable design pressure in the system. Piping and fittings shall be stainless steel.

**L104.9 Welded connections.** Piping connections that are concealed shall be welded.

**L104.10 Protection of piping.** System piping shall be protected from physical damage in an *approved* manner.

**L104.11 Compatibility.** Fittings and connections intended to be used by the fire department shall be compatible with the fire department's equipment.

**L104.12 Security.** Connections to a FARS shall be safeguarded from unauthorized access in an *approved* manner.

**L104.13 Fill stations.** Fire fighter air replenishment fill stations shall comply with Section L104.13.1 through L104.13.3.

**L104.13.1 Location.** Fill stations for refilling breathing air cylinders shall be located as follows:

1. Fill stations shall be provided at the fifth floor above and below the ground level floor and every third floor level thereafter.
2. On floor levels requiring fill stations, one fill station shall be provided adjacent to a required exit stair at a location designated by the *fire code official*. In buildings required to have three or more exit stairs, additional fill stations shall be provided at a ratio of one fill station for every three stairways.

**L104.13.2 Design.** Fill stations for breathing air cylinders shall be designed to meet the following requirements:

1. A pressure gauge and pressure-regulating devices and controls shall be provided to allow the operator to control the fill pressure and fill rate on each cylinder fill hose.
2. Valves controlling cylinder fill hoses shall be slow-operating valves.
3. A separate flow restriction device shall be provided on each fill hose.

4. A method shall be provided to bleed each cylinder fill hose.

5. The fill station shall be designed to provide a containment area that fully encloses any cylinder being filled and flexible cylinder fill hoses, and directs the energy from a failure away from personnel. Fill stations shall be designed to prohibit filling of cylinders that are not enclosed within the containment area.

**Exception:** Where required or *approved* by the fire chief, fill stations providing for the direct refilling of the fire fighters' breathing air cylinders using Rapid Intervention Crew/Company Universal Air Connection (RIC/UAC) fittings shall be used in lieu of cylinder fill stations that utilize containment areas.

**L104.13.3 Cylinder refill rate.** Fill stations shall be capable of simultaneously filling two or more empty breathing air cylinders equivalent to those used by the fire department to the cylinders' design pressure within 2 minutes.

**L104.14 External mobile air connection.** An external mobile air connection shall be provided for fire department mobile air apparatus where required by Section L104.5 to supply the system with breathing air.

**L104.14.1 Location.** The location of the external mobile air connection shall be accessible to mobile air apparatus and *approved* by the fire chief.

**L104.14.2 Protection from vehicles.** A means of vehicle impact protection in accordance with Section 312 shall be provided to protect mobile air connections that are subject to vehicular impact.

**L104.14.3 Clear space around connections.** A working space of not less than 36 inches (914 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height shall be provided and maintained in front of and to the sides of external mobile air connections.

**L104.15 Air monitoring system.** An *approved* air monitoring system shall be provided. The system shall automatically monitor air quality, moisture and pressure on a continual basis. The air monitoring system shall be equipped with not less than two content analyzers capable of detecting carbon monoxide, carbon dioxide, nitrogen, oxygen, moisture and hydrocarbons.

**L104.15.1 Alarm conditions.** The air monitoring system shall transmit a supervisory signal when any of the following levels are detected:

1. Carbon monoxide exceeds 5 ppm.
2. Carbon dioxide exceeds 1,000 ppm.
3. An oxygen level below 19.5 percent or above 23.5 percent.
4. A nitrogen level below 75 percent or above 81 percent.
5. Hydrocarbon (condensed) content exceeds 5 milligrams per cubic meter of air.

6. The moisture concentration exceeds 24 ppm by volume.
7. The pressure falls below 90 percent of the maintenance pressure specified in Section L104.3.

**L104.15.2 Alarm supervision, monitoring and notification.** The air monitoring system shall be electrically supervised and monitored by an *approved* supervising station, or where *approved*, shall initiate audible and visual supervisory signals at a constantly attended location.

**L104.15.3 Air quality status display.** Air quality status shall be visually displayed at the external mobile air connection required by Section L104.14.

### SECTION L105 ACCEPTANCE TESTS

**L105.1 Acceptance tests.** Upon completion of the installation, a FARS shall be acceptance tested to verify compliance with equipment manufacturers' instructions and design documents. Oversight of the acceptance tests shall be provided by a registered design professional. Acceptance testing shall include all of the following:

1. A pneumatic test in accordance with ASME B31.3 of the complete system at a minimum test pressure of 110 percent of the system design pressure using oil free dry air, nitrogen or argon shall be conducted. Test pressure shall be maintained for not less than 24 hours. During this test, all fittings, joints and system components shall be inspected for leaks. Defects in the system or leaks detected shall be documented and repaired.
2. A cylinder-filling performance test shall be conducted to verify compliance with the required breathing air cylinder refill rate from the exterior mobile air connection and, where provided, a stored air pressure supply system.
3. The air quality monitoring system shall be tested to verify both of the following conditions:
  - 3.1. Visual indicators required by Section L104.15.1 function properly.
  - 3.2. Supervisory signals are transmitted as required by Section L104.15.2 for each sensor based on a sensor function test.
4. Connections intended for fire department use shall be confirmed as compatible with the fire department's mobile air unit, SCBA cylinders and, where provided, RIC/UAC connections.
5. Air samples shall be taken from not less than two fill stations and submitted to an *approved* gas analysis laboratory to verify compliance with NFPA 1989. The FARS shall not be placed into service until a written report verifying compliance with NFPA 1989 has been provided to the *fire code official*.

### SECTION L106 INSPECTION, TESTING AND MAINTENANCE

**L106.1 Periodic inspection, testing and maintenance.** A FARS shall be continuously maintained in an operative condition and shall be inspected not less than annually. Not less than quarterly, an air sample shall be taken from the system and tested to verify compliance with NFPA 1989. The laboratory test results shall be maintained on site and readily available for review by the *fire code official*.

### SECTION L107 REFERENCED STANDARDS

ASME B31.3—2012	Process Piping	L104.2.1, L105.1
CGA S-1.3—2008	Pressure Relief Device Standards – Part 3 Stationary Storage Containers for Compressed Gases	L104.7
NFPA 1901—09	Standard for Automotive Fire Apparatus	L104.5.1,
NFPA 1989—13	Breathing Air Quality for Fire Emergency Services Respiratory Protection	L104.2.2, L105.1, L106.1



APPENDIX M

**HIGH-RISE BUILDINGS—RETROACTIVE  
AUTOMATIC SPRINKLER REQUIREMENT**

**Deleted.**



**AGENDA ITEM 6:**

**WATAUGA MEDICS MERGER REQUEST**

**MANAGER'S COMMENTS:**

Mr. Craig Sullivan, Watauga Medics Owner, will request the Board approve the merger with Priority Ambulance based out of Knoxville Tennessee. The current contract with Watauga Medics expires December 31, 2025.

Staff would recommend the Board consult with the County Attorney in closed session to seek legal advice prior to any Board decision.

Staff seeks direction from the Board.

STATE OF NORTH CAROLINA  
COUNTY OF WATAUGA

AMBULANCE FRANCHISE AGREEMENT

THIS AMBULANCE FRANCHISE AGREEMENT (hereinafter "Agreement). Is made and entered onto this the 1<sup>st</sup>. day of January 2018 by and between **WATAUGA COUNTY**, a body politic, organized and existing under and by virtue of the laws of the State of North Carolina (hereinafter the County'), and **WATAUGA MEDICS, INC.**, a North Carolina corporation, (hereinafter "Franchisee").

WHEREAS, effective October 4, 1999, the Watauga County Board of Commissioners, by authority contained in NC.G.S, 153A-250, adopted titled Watauga County Ambulance Franchise Ordinance' (hereinafter "the Ordinance")' and

WHEREAS, County and Franchisee executed an Ambulance Franchise Agreement dated November 16, 2004 pursuant to the Watauga County Ambulance Franchise Ordinance, pursuant to the authority granted to the County by NCGS 153-250; and

WHEREAS, pursuant to said Ordinance, the County issued a Request For Proposal (hereinafter "the RFP") soliciting bids and specifying certain minimum conditions of any franchise to be issued pursuant thereto; and

WHEREAS, Craig J. Sullivan on behalf of Watauga Medics, Inc. submitted a written bid entitled *Bid Proposal for Watauga County Ambulance Service*' (hereinafter the Bid") pursuant to said RFP; and

WHEREAS, the County, at its November 1, 2004 meeting resolved to accept the Bid Option 3-1 contained in said bid, to wit: that the bidder will provide service (as further specified below) with the County to provide an annual subsidy of as set forth below in monthly installment;

WHEREAS, at the February 20, 2007, meeting of the Watauga County Board of County Commissioners, The County agreed to amend the agreement to clarify and restated the subsidy payment that were paid or are to be paid pursuant to the agreement; and

WHEREAS, the parties have discussed an extension of the agreement between the County and Franchisee in an effort to lock-in costs to the County and allow for the Franchisee to expand his operations to improve services in Watauga County.

NOW, THEREFORE, in consideration of the premises and the mutual benefits and obligations set forth below, the County and the Franchisee agree as follows:

1. The County does hereby grant unto Franchisee a non-exclusive franchise for the operation of an ambulance service for the provision of emergency and non-emergency medical transport services, in accordance with the Ordinance, the RFP, the bid and this Agreement for a period of seven years.

2. This franchise may not be sold, assigned or transferred nor may it in any way vest in any person, firm or corporation, other than the Franchisee and any such sale, transfer or assignment shall cause this franchise to terminate immediately, at the opinion of Watauga County.

3. Any change in legal or equitable ownership of Franchisee its corporate shares, or any of its equipment shall immediately terminate the Franchise, at the option of Watauga County.

4. The initial term of the Franchise shall be from 12:00 AM. on January 1, 2018 and through and including the 31st day of December, 2025. Either party, for any reason, may with or without cause terminate this agreement and the Franchise upon one hundred eighty (180) calendar days written notice to the other party, unless sooner terminated for reasons set forth in the Ordinance or by agreement of the parties hereto.

5. At the end of the aforesaid term, unless the parties agree otherwise in writing or either party has given notice of termination as aforesaid, the Franchise and all of the terms of this Agreement (subject to any amendments as may be entered into) shall be automatically renewed for continuing one year terms.

6. The Franchise shall provide all personnel, vehicles, supplies and equipment to provide all emergency and non-emergency ambulance service necessary in all parts of Watauga County on a 24 hour per day, 7 day per week basis, at not less than an EMT-Paramedic level of service (except so long as an agreement for such acceptable to the County is in place, the Franchise may provide ambulance service to the Flat Springs area of Avery County in exchange for Avery County's providing pursuant to agreement with Franchise ambulance service to the Town of Beech Mountain in Watauga County. It is understood that each ambulance transport that occurs in Avery county as the result of the above agreement allows the franchisee to bill the patient and to bill the County an additional \$500.00) Each ambulance of the Franchisee shall be available to render assistance to all portions of Watauga County.

7. Franchisee shall keep (3) two-wheel drive ambulances and (2) four-wheel drive ambulances fully equipped, licensed and available for emergency and non-emergency service at all times, subject to routine maintenance down time. Franchisee shall keep three of the ambulances manned and available on a 24 hour per day, 7 day per week basis and a fourth manned and available nine hours per day, Monday through Saturday (6) days per week. Beginning January 1, 2018 an additional ambulance operating 12 hours per day will also be manned and available 7 days per week. Totaling 5 ambulance operating during peak time hours and reducing to 3 ambulances manned and available during non peak times. Not less than two (2) ambulances will be kept within the County at all times for services pursuant to this Agreement, one of which will be manned and the other of which will be manned or will have personnel on call for immediate service. Each

ambulance necessary to meet the foregoing requirements shall have less than 50,000 miles on it at the time initially put in service by Franchisee. The Franchisee will immediately notify the county in writing of any additions or deletions to its inventory of operational ambulances.

8. The Franchisee shall maintain not less than two (3) bases, (2) of which will be provided by the County as set forth below. The Franchisee must bear all responsibility for finding other station(s) and the costs associated with acquiring, equipping, and maintaining such.

9. Franchisee's first base of operations will be located at the facilities owned by the County at 921 West King Street, Boone, North Carolina 28607, or such other location as may be provided by the County. The County will make available, at no charge to Franchisee, said the facilities currently located at 921 West King Street, Boone, North Carolina 28607, specifically consisting of 5,263 square feet, including a garage, offices, sleeping area and a training room. The County shall provide property and casualty hazard insurance for the structure at said location. The Franchisee must bear all utilities, maintenance, medical supplies, equipment and other necessary expenses associated with said facilities provided by the County. Franchisee's obligation to provide maintenance to the structure shall be limited to repairs of ordinary wear and tear to the reasonable satisfaction of the County. Franchisee's two propane heaters and the lift located in the bay area of the building shall remain the property of Franchisee, so long as Franchisee repairs any damage to the building caused by their removal.

10. The County will provide a second base of operations, on the western end of the County to be located at US Hwy 421 & US Hwy 321 North, Vilas, North Carolina 28692 with similar arrangement as above.

11. The Franchisee shall maintain a 3rd base to be located at 133 Longvue Dr. Boone North Carolina and the Franchisee shall be solely responsible for providing all things necessary for operations of the service at the 3<sup>rd</sup>. base. Franchisee shall be solely responsible for providing all things necessary for operation of the service at the 3<sup>rd</sup>. base, including but not limited to the building, utilities, maintenance, medical supplies, equipment and necessary operational expenses associated with the facilities.

12. Each ambulance used by Franchisee must be in compliance with all applicable Federal, State, and local laws relating to personnel, health, safety, equipment, vehicle design, and sanitation. Franchisee shall keep the County provided with a copy of the current State certification for each ambulance owned or operated by Franchisee.

13. The Franchisee shall be responsible for all future capital purchase and all operational, including (but not limited to) salaries, employee benefits and expenses, insurance, mobile operational costs, and all other fees, expenses, and charges necessary to remain in compliance with the County's ordinance and the franchise granted to the Franchisee.

14. The Franchisee shall provide the county with a list of all of its equipment which is in service, on not less than an annual basis, and the Franchisee shall assure that all of its equipment in use will be removed from service once it becomes obsolete or needs to be replaced due to normal wear and tear.

15. Each ambulance of Franchisee shall be equipped with a multi-channel radio capable of talking to dispatch centers and other agencies. Frequencies shall be assigned by the Communications Center designated by the County. Franchisee shall relay all ambulance movements to the Communications Center designated by the County, via two-way radio.

16. The Franchisee shall assure that its EMS personnel have access to operational Franchisee-issued pagers, or other communication devices along with accurate phone lists are on file to notify said personnel if the regular squads of the Franchisee are unable to handle the volume of calls that may come in from time to time.

17. The Franchisee shall at all times meet the following performance standards:

- a. The average emergency response time for an ambulance, calculated on a Monthly basis, shall not exceed ten minutes.
- b. The Franchisee shall place no required ambulance in service for initial operation that has more than 50,000 miles.

18. The Franchisee shall not allow any paramedic to practice in Watauga County until he or she has passed an oral examination given by a panel approved by the Medical Director along with any other reasonable standards as set forth by the Medical Director. It will be the responsibility of the County to coordinate with the Franchisee to ensure a qualified Medical Director remains active in the system.

19. The Franchisee shall enter into and assure the existence of mutual aid agreements with ambulance services in counties adjoining Watauga County to provide assistance in the event of disaster or other special need, said agreements to be at the sole expense of the Franchisee. Additionally, the Franchisee shall implement and keep in place a Reserve Program, creating a county-wide manpower bank to be available in the event of a disaster or other special need. All training will be open to Reserves and any other individuals with NC Basic Credential, or higher, who also meet Franchisees other reasonably developed standards. The Franchisee shall make all reasonable efforts to provide "ride time" to said reserves, to keep their skills current.

20. Franchisee shall enter into mutual aid agreements to have and make available assistance of and to all volunteer rescue squads in the County when requested by the County, the Franchisee or the volunteer rescue squads.

21. The Franchisee shall make its resources available to Watauga County Emergency Management Office during its emergency activities, and during any declared State of Emergency shall work in conjunction with the Emergency Operations Center.

22. The Franchisee shall oversee a First Responder program, which the Franchisee assist the local fire departments with the needs of the program. The Franchisee shall assist in the development and implementation of operating guidelines for the program, and shall restock the supplies (not to include capital equipment or any drugs such as epi pens) used in the services of the First Responder program. Further, the Franchisee shall coordinate continuing education requests and other training for all First Responders, as appropriate, All of the foregoing shall be provided to the program and First Responders at no cost to the First Responders or their sponsoring agency or agencies, all with no additional cost to the County.

23. The Franchisee shall operate on a fee for services basis, and shall only issue the following charges (when incurred) at the following rates, which are hereby approved by the County:

- |    |  |          |
|----|--|----------|
| a. | Rates for BLS calls:                     | \$300.00 |
| b. | Rates for ALS calls: (non-emergency)     | \$325.00 |
|    | (Emergency)                              | \$415.00 |
|    | ALS II:                                  | \$550.00 |
| c. | Charge per mile:                         | \$9.50   |
| d. | Waiting time per hour (after first hour) | \$25.00  |
| e. | No transport calls:                      |          |

A charge of \$50.00 is authorized for no transport calls when Franchisee responds to assist patients who just need assistance or patients who have initiated a 911 call and have changed their mind once Franchisee arrived. No charge under this subsection may be assessed when a 911 call is made by a bystander without the request of the injured party.

No other fees, expenses, or charges may be made without prior Resolution of the County's Board of Commissioners approving such. *It will be acceptable as the allowable rates for service as set forth each year by Medicare, Medicaid and Private insurance are adjusted to make minor changes in charges to maximize the reimbursement rates available with the County Managers approval.*

24. The Franchisee shall be responsible for billing and collection of its fees, charges and expenses. The Franchisee must submit for payment from, third party payers and accept assignment of Medicare and Medicaid Franchisee shall maintain accurate records of all charges and reimbursements from Medicare and other sources of all charges pursuant to the forgoing authorized increases, and shall compile and maintain such information in a form useful to the County, which information shall be shared from time to time with the County, as the County may desire.

25. Franchisee shall maintain all records required by Sect XII of the Ordinance and shall submit to the County by the 15<sup>th</sup>. of the month following each quarter a data sheet containing all of the information specified in subsection f of said Section of the Ordinance. The Franchisee shall submit an annual report containing all of the

information required by said Section and further specified by subsection g of said Section by the 15<sup>th</sup>. day of the month following the last quarter of each year. The Franchisee shall maintain the aforesaid records in an organized fashion, and allow the county full access to said information as the County deems appropriate. By the 15<sup>th</sup>. of May of each year, the Franchisee shall submit to the County manager a budget of how it intends to spend the County's funds in the upcoming fiscal year, and within ninety (90) days of the end of the Franchisee's fiscal year, the Franchisee shall furnish the County a full and complete certified audit of Franchisee's operations conducting by a CPA in accordance with generally accepted auditing standards of Franchisee's operations, which shall include a fully audited financial statement of the Franchisee. The Franchisees fiscal year shall be from 1 January to 31 December of each year.

26. Each year, Franchisee shall provide the County a detailed explanation of its billing policies, sufficient to allow County to fully understand the billing methods and practices of the Franchisee.

27. Franchisee shall fully allow the County to inspect all records, premises and equipment of the Franchisee at any time in order to confirm and insure compliance with the ordinance and the franchise granted herein.

28. In providing ambulance service as described herein the Franchisee shall comply with all laws of the United States, the State of North Carolina and the County of Watauga, including rules and regulations promulgated by the Medical Care Commission and the NC Medical Board, and resolutions and ordinances of the Watauga County Board of Commissioners. Further, the Franchisee shall abide by all applicable US and North Carolina Labor laws, including, but not limited to, Occupational Safety and Health regulations, Fair Labor Standards Act and the Americans with Disabilities Act and regulations pursuant thereto. The County shall have the right to inspect all records pertaining to these labor laws and ensure compliance by the Franchisee. The Franchisee shall maintain records on all employee training conducted pursuant to Occupational Safety and Health regulations and shall make these available to the County upon request

29. Franchisee shall maintain in place an escrow account, a surety bond, an irrevocable letter of credit, or other guarantee or undertaking satisfactory to the County attorney, in an amount equal to the amount of the contract subsidy applicable to any one hundred eighty (180) day period following the date such obligation may arise to assure payment to the County for any liability of the Franchisee to the County arising out of this Agreement, of the Ordinance, or of Franchisee's operation, and to pay for any substitute performance the County may cause to be provided upon Franchisees default in performance hereunder or under the Ordinance.

30. The Franchisee agrees and acknowledges that the above-referenced facilities of the County located at 921 West King Street, Boone, North Carolina are fully adequate facilities for the housing of their base operation at said location.

31. For the period of this agreement, the County shall prepay to Franchisee an annual subsidy in monthly installments as follows:

Jan. 1, 2017 – Dec. 31, 2017 \$968,258.28

Jan. 1, 2018 – Dec. 31, 2018 \$1,188,258.28 (*Increase for additional 12 hour crew. CPI adjustment will be waived*)

Jan. 1, 2019 - Dec. 31, 2019 Previous Years Amount + CPI adjustment

Jan. 1, 2020 – Dec. 31, 2020 Previous Years Amount + CPI adjustment

Jan. 1, 2021 – Dec. 31, 2021 Previous Years Amount + CPI adjustment

Jan. 1, 2022- Dec. 31, 2022 Previous Years Amount + CPI adjustment

Jan. 1, 2023- Dec. 31, 2023 Previous Years Amount + CPI adjustment

Jan. 1, 2024 - Dec. 31, 2024 Previous Years Amount + CPI adjustment

Jan. 1, 2025 – Dec. 31, 2025 Previous Years Amount + CPI adjustment

This amount to be adjusted by the CPI as explained below. Each year thereafter the previous years amount will be adjusted as explained below.

- a. 60 percent of the adjustment shall reflect the annual increase or decrease of the Consumer Price Index (CPI), South Urban Size C, as published by the US Department of Labor, Bureau of Labor Statistics.
- b. 20 percent of the adjustment shall reflect the annual increase or decrease of the CPI, Medical Care Services as published by the US Department of Labor, Bureau of Labor Statistics.
- c. 20 percent of the adjustment shall reflect the annual increase or decrease of the CPI, Transportation, as published by the US Department of Labor, Bureau of Labor Statistics.

In the event the CPI components produce a negative adjustment once totaled, the Subsidy amount will not be adjusted. In the event the CPI components produce a percentage greater than 6% up to 10% (For example, if the CPI escalator is computer at 7.4% the annual increase would be 6.7% or  $6\% + .50 \times 1.4\% = 6.7\%$ . Any amount over 10% will not be considered for adjustment ie the maximum adjustment will be 8% or  $6\% + .50\% \times 4 = 8\%$ ).

32. The County will calculate the adjustment based upon the most recent November annual report of Franchisee as compared to the report of the previous November. (For example, the January 1, 2015 adjustment will reflect the CPI changes between November 2013 and November 2014.)

33. Franchisee shall at all times during the existence of the Franchise, keep in full force and effect the insurance coverage as required by Section X of the Ordinance entitled “Insurance” and all insurance required by law, including liability insurance on its vehicles and workers’ compensation coverage for its personnel. Franchisee shall provide proof of coverage to the county and to assure that each insurance policy contains provisions that assure that the County receives at least 90 days prior notice from each carrier of any lapses, cancellations, denials, changes or limitations in coverage. The County shall be shown as an additional insured on all of Franchisee’s liability insurance.

34. The Franchisee shall indemnify and hold harmless the County and its officers and employees from and against all suits, actions, liability, claims, demands, judgments,

recoveries or expenses, including court costs and attorney's fees, against or incurred by the County on account of or in any way connected with or arising from any claim of injury, loss or damage which arises out of or is in any manner connected with Franchisee's operations; including, but not limited to any claim or injury, loss or damage, suit, action, liability, claim, demand, judgment, recovery, or expense caused or alleged to be caused in whole or in part by any negligent act, omission, error, professional error, mistake, accident or other fault of the Franchisee, any subcontractor of the Franchisee, or an officer, employee or agent of the Franchisee.

35. Franchisee is to provide ambulance service as an independent contractor and neither Franchisee nor any of its personnel shall be an employee, agent or representative of the County in any way.

36. The Franchisee and its agents, contractors and subcontractors shall not discriminate on the basis of race, color, creed, national origin, ancestry, age, sex, religion or disability in any policy or practice and Franchisee shall assure that any agreements or practices it enters into or engages in expressly provide for such nondiscrimination.

37. This Agreement is entered into pursuant to the RFP which Franchisee acknowledges; to the Ordinance and all amendments as may be made thereto, which Franchisee is and will remain familiar with and agrees to fully abide by; to the bid by Watauga Medics, Inc., and to the County's resolutions of November 1, 2004 accepting said bid. Except to the extent this Agreement imposes standards above the minimum standards specified in the Ordinance, in the event of any inconsistency among or between the foregoing, the Ordinance shall control and as between this Agreement and the RFP, the Bid, and the Resolution, this Agreement shall control, but all of the terms of the aforesaid documents not inconsistent with the other documents shall remain in and have full force and effect.

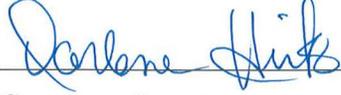
38. Should any portion of this Agreement be ruled or determined invalid, such invalidity shall not effect the enforceability of the remaining portions hereof. This Agreement shall not be amended or modified except in writing, signed by all parties hereto, with the County's consent to such modification to be only by prior resolution of its Board of Commissioners.

IN TESTIMONY WHEREOF, the said parties hereto have hereunto caused this instrument to be signed in their names by their duly authorized officers.

WATAUGA COUNTY  
By:   
Chairman- Watauga County  
Board of Commissioners

WATAUGA MEDICS INC.  
by:   
President

Attest:   
Clerk to the Board

  
Corporate Secretary

Blank Page

**AGENDA ITEM 7:**

**OLD COVE CREEK SCHOOL FACILITY FEASIBILITY STUDY AND CONCEPT PLAN**

**MANAGER’S COMMENTS:**

Mr. Justin Church, BREC, will present the feasibility study and concept plan for the Old Cove Creek School facility. Estimated cost for the project including architecture and engineering services is \$1,508,000. Funds would come from insurance, FEMA reimbursements, grants, Watauga County TDA, and administrative contingency.

Board action is required to approve the plan as presented and contract with BREC to be responsible for architecture, engineering, bid documents and bidding, construction documents and administration, and permitting. The Board would further direct staff and the County Attorney to draft and execute a contract with BREC.



April 23, 2025

Watauga County Maintenance  
 Attn: Robert Marsh  
 274 Winklers Creek Rd. Suite B  
 Boone, NC 28607

RE: Old Cove Creek School Sports Facility Feasibility Study and Concept Plan – Watauga County, NC

To Whom it May Concern,

### 1. Introduction

Blue Ridge Environmental Consultants, PA (BREC), a Stratus-owned company and licensed NC Professional Engineering Firm, is pleased to present this Feasibility Study and Concept Plan for the redevelopment and repair of the Old Cove Creek School Sports Facility in Sugar Grove, North Carolina. With a strong understanding of the site's legacy and its importance to the community, this effort seeks to restore, enhance, and modernize recreational opportunities while ensuring regulatory compliance, cost efficiency, and long-term sustainability.

### 2. Site History

Old Cove Creek School is a historically significant site with deep community roots in Watauga County. The surrounding grounds have long served as a hub for youth sports and recreational activities. Over time, wear, environmental changes, and increased usage have highlighted the need for revitalization of the park infrastructure, drainage, and amenities to meet modern standards and to increase public enjoyment. The recent damages of Hurricane Helene have caused immense damage to the site. This document is in response to that event.

### 3. Facility Components and Anticipated Costs

BREC has developed a **concept plan** and **preliminary construction estimate** using regional cost data, existing site conditions, and materials assumptions. A high-level estimate is found below the concept design to help guide funding and phasing decisions.

COMPONENT	COST	REPAIR OR MITIGATION
Trail - Asphalt	\$59,000	Repair
Exercise Equipment	\$18,000	Enhancement
Creek Access	\$2,000	Repair
ADA Fishing Pier	\$22,000	Enhancement
Benches	\$12,000	Repair
Wildlife Viewing Area	\$3,000	Enhancement
Stage Area	\$42,000	Enhancement
Athletic Field -SOD	\$100,000	Repair
Playground	\$100,000	Repair
Basketball Court	\$45,000	Repair
Pickleball Courts	\$50,000	Repair
Picnic Shelter	\$50,000	Enhancement
Restroom Facility	\$100,000	Enhancement
Parking Areas	\$250,000	Enhancement
Stream Restoration/Bank Stabilization	\$335,000	Mitigation/Repair
Stormwater System	\$60,000	Repair
Rough Site Grading and Reseeding	\$75,000	Repair

<b>TOTAL</b>	<b>\$1,323,000</b>
--------------	--------------------

#### 4. Professional Fees and Soft Costs

BREC proposes to **self-perform all professional design services** under a consolidated lump sum fee, which includes the following disciplines:

- Civil Engineering
- Hydraulic Engineering
- Structural Engineering
- Electrical Engineering
- Plumbing Engineering
- Architecture

#### **Total Lump Sum Fee: \$185,000**

This includes design bid documents, final construction documents, and permitting.

#### 5. Anticipated Final Design Requirements

Final construction documents will require collaboration across the following disciplines:

- Civil Engineering (site layout, grading, utilities)
- Hydraulic Engineering (stormwater/floodplain coordination)
- Structural Engineering (pavilion, foundations)
- Electrical Engineering (lighting, outlets, infrastructure)
- Plumbing Engineering (wellhouse, fixtures)
- Architecture (layout refinement, ADA compliance, community use considerations)

#### 6. Entitlement and Permitting

It is anticipated that the following permits will be required for construction:

- **Floodplain Development Permit** – Watauga County
- **Section 401 Water Quality Certification** – NC Division of Water Resources
- **Section 404 Permit** – U.S. Army Corps of Engineers
- **Erosion Control Permit** – NCDEQ (Note: Watauga County has a local program but cannot approve work on County projects)
- **Building Permits** – Structures, Electrical, Plumbing

**Permitting Duration Estimate:** *Up to 60 days from submittal*

#### 7. Timeline

If authorized in **May 2025**, the following schedule is proposed:

- **Bid Document Completion:** August 1, 2025
- **Construction Award:** Late September 2025
- **Grading/Earthwork Completion:** By Christmas 2025 – With Limited Public Access and Usage
- **Planned Facility Reopening:** May 2026

This timeline ensures optimal weather conditions for major construction and allows time for planting and surface finishing prior to spring opening.

#### 8. Construction Options

BREC is prepared to support Watauga County in evaluating and coordinating construction delivery methods. The County may consider one of the following models:

- **Design-Bid-Build** (traditional and competitive, slower delivery)
- **Construction Manager at Risk (CMAR)** (collaborative, cost-control oriented)
- **Design-Build** (fast-track, single-contract solution)

Each method has trade-offs related to control, speed, and pricing. We are available to help the County evaluate and select the most appropriate delivery method.

Sincerely,



Derek Goddard – President  
BREC, PA  
1520 Meadowview Dr.  
Wilkesboro, NC 28697



Blank Page

**AGENDA ITEM 8:****APPALACHIAN STATE UNIVERSITY REQUEST FOR NC HWY 105 PROPERTY  
RELEASE****MANAGER'S COMMENTS:**

Mr. JJ Brown, Executive Vice Chancellor, Chief Operating Officer for Appalachian State University, will request the Board release a portion of the App105 Property (formally the old Watauga High School property). The request is related to the development of off-campus apartments at the App 105 site. Appalachian State University (Endowment) is requesting from the County a partial release from the Deed of Trust of approximately 18.84 acres of the 74.634-acre site. The balance of 55.794 acres and the improvements (~26M to date – softball, tennis, track and field, etc.) made on the property since the 2017 purchase would remain subject to the lien of the Deed of Trust.

The Bank providing the loan for the project is requiring a release of the deed of trust for the project area in order to close (scheduled for May 15, 2025). After negotiations, staff and officials of the County and University staff agreed to accelerate the installments of the repayment schedule from 15 years to 7 years in exchange for the release. A draft document for discussion and possible consideration is included.

Board action is required to accept the agreement as presented.

**DRAFT****MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding (this “Memorandum”) is made as of the \_\_\_\_ day of \_\_\_\_\_, 2025 (the “Effective Date”), by and between Watauga County, Boone, North Carolina (the “County”) and the Board of Trustees of the Endowment Fund of Appalachian State University (the “Endowment”).

**WITNESSETH:**

**WHEREAS**, on September 29, 2017, the Endowment purchased from the County a 74.634-acre parcel of land (the “Property”) located in Boone, North Carolina, as more particularly described in that deed recorded in Book of Record 1940, Page 400, Watauga County Public Registry; and

**WHEREAS**, the Endowment’s purchase of the Property was financed, in part, by a purchase money loan (the “Loan”) pursuant to a promissory note (the “Note”) in the amount of \$15,475,000 to the County and secured by that certain North Carolina Purchase Money Deed of Trust (the “Deed of Trust”) recorded in Book of Record 1940 Page 407, Watauga County Public Registry; and

**WHEREAS**, the Endowment desires to ground lease an approximately 18.84-acre portion of the Property as more particularly described on Exhibit A attached hereto (the “Ground Lease Property”) in connection with a student housing facility to be developed thereon (the “Student Housing Project”); and

**WHEREAS**, the lender financing the development of the Student Housing Project requires that the Ground Lease Property be released from the Deed of Trust, but the remainder of the Property (the “Remaining Property”) will remain subject to the Deed of Trust; and

**WHEREAS**, the County is willing to release the Ground Lease Property provided that the Endowment makes, or causes to be made, a partial prepayment of the Loan in the amount of \$1,075,000 within thirty (30) days of the delivery of the partial release and thereafter makes, or causes to be made, annual payments of the Loan in the amount of the lesser of (i) \$1,600,000 and (ii) the remaining balance of the Loan.

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements of the parties, contained herein, the parties agree as follows:

1. Partial Release of Ground Lease Property. The County agrees that the County shall execute and deliver to the Endowment a partial release (the “Partial Release”) of the Ground Lease Property from the Deed of Trust, the form of which is attached hereto as Exhibit B, prior to the close of the financing of the development of the Student Housing Project.
2. Payment to County Upon Delivery of the Partial Release. The Endowment agrees that within thirty (30) days from the County’s execution and delivery to the Endowment of the Partial Release, the Endowment will pay, or cause to be paid, to the County \$1,075,000, which amount

## DRAFT

will be considered a partial prepayment under the Note and credited towards the remaining balance of the Loan.

3. Increased Payments of Loan. The Endowment agrees that beginning on July 1, 2025, and upon each subsequent payment due date thereafter under the Note, the Endowment will pay, or cause to be paid, to the County the lesser of (i) \$1,600,000 and (ii) the remaining balance of the Loan. The first \$800,000 of this payment will be the annual payment due under the Note, and any amount more than the first \$800,000 will be considered a partial prepayment under the Note. The entirety of these payments will be credited towards the remaining balance of the Loan. A schedule of these payments is shown on Exhibit C attached hereto.
4. Counterparts; Electronic Signatures. This Memorandum may be executed in separate counterparts. It shall be fully executed when each party has signed at least one (1) counterpart, even though no one (1) counterpart contains all the signatures. This Memorandum may be executed by facsimile signatures or electronic signatures (such as an executed .pdf document emailed by a party), and each counterpart executed and transmitted by facsimile or email shall have the same force and effect as an originally executed document.
5. No Waiver. The failure of either party to insist in any instance upon the strict performance of any of the terms and conditions set forth in this Memorandum shall not be construed as a waiver of the same in any other instance.
6. Amendments. This Memorandum may not be amended except by writing signed by all parties against whom enforcement of such amendment is sought.
7. Governing Law. This Memorandum shall be governed by North Carolina law, without regard to conflict of laws principles. Each of the parties hereto hereby irrevocably consents and submits to the jurisdiction and venue of the state or federal courts located within the State of North Carolina.
8. Entire Agreement. This Memorandum and any documents incorporated specifically by reference herein represent the entire agreement between the parties and supersede any other written statements or agreements.

*[Signature Page Follows]*

**DRAFT**

**IN WITNESS WHEREOF**, the authorized representatives of the parties have executed this Memorandum as of the date first written above.

**Board of Trustees of the Endowment  
Fund of Appalachian State University**

**Watauga County, Boone, North Carolina**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: Heather Norris \_\_\_\_\_

Name: \_\_\_\_\_

Title: Chancellor \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: John Adams \_\_\_\_\_

Title: Interim Chief Financial Officer \_\_\_\_\_

Date: \_\_\_\_\_

**DRAFT**

EXHIBIT A

GROUND LEASE PROPERTY

**DRAFT**

EXHIBIT B

FORM OF PARTIAL RELEASE

**STATE OF NORTH CAROLINA**

**PARTIAL RELEASE**

**(N.C.G.S. §45-36.22)**

**COUNTY OF WATAUGA**

**(This instrument should be indexed as a “subsequent instrument” pursuant to N.C. G.S. 161-14.1)**

The security instrument that is the subject of this Partial Release is identified as follows:

Type of Security Instrument: North Carolina Purchase Money Deed of Trust

Original Grantor(s): Board of Trustees of the Endowment Fund of Appalachian State University

Original Secured Party(ies): Watauga County, Boone, North Carolina

Recording Data: The Security Instrument is recorded in Book 1940 at Page 407 in the Office of the Register of Deeds for Watauga County, North Carolina.

The person or persons signing this Partial Release is the secured creditor.

The following described property or interest in property (and no other) is released from the lien of the Security Instrument:

**See Exhibit A attached hereto and incorporated herein by reference.**

This Partial Release shall apply only to so much of the real property described herein, and that as to the remainder of said real property encumbered by the Security Instrument, the Security Instrument shall remain in full force and effect.

This Partial Release is not intended, nor is it to be construed, as evidence of satisfaction of the indebtedness evidenced and secured by the Security Instrument.

[Signature page follows.]

**DRAWN BY AND RETURN TO:  
Appalachian State University  
Attn: Associate General Counsel  
PO Box 32126  
Boone, NC 28608**

**DRAFT**

**[SIGNATURE PAGE TO PARTIAL RELEASE]**

Date: \_\_\_\_\_, 2025

**WATAUGA COUNTY, BOONE, NORTH  
CAROLINA,**

By: \_\_\_\_\_  
Name:  
Title:

STATE OF NORTH CAROLINA

COUNTY OF \_\_\_\_\_  
*(Place of Acknowledgement)*

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she signed the foregoing document: \_\_\_\_\_.

Date: : \_\_\_\_\_, 2025

\_\_\_\_\_  
Notary Public  
Printed or Typed Name \_\_\_\_\_

(Official Seal)

My commission expires: \_\_\_\_\_

**DRAFT**

## EXHIBIT C

## SCHEDULE OF PAYMENTS

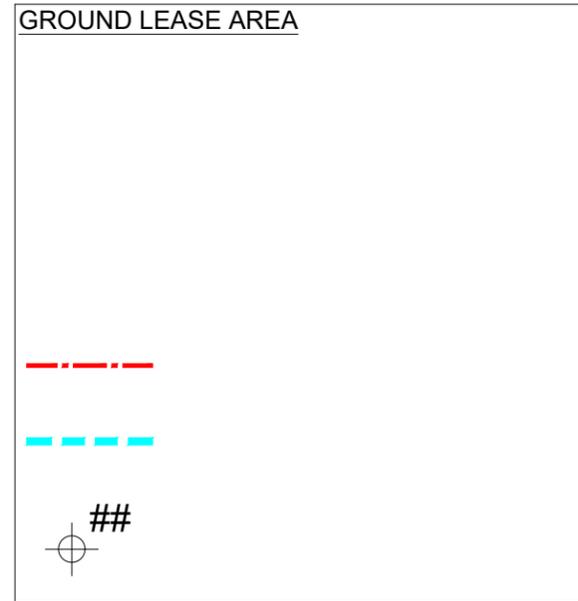
<b>Payment Date</b>	<b>Total Payment Amount</b>	<b>Annual Payment Amount</b>	<b>Prepayment Amount</b>	<b>Remaining Loan Balance</b>
				\$13,075,000
June 2025	\$1,075,000	\$0	\$1,075,000	\$12,000,000
July 1, 2025	\$1,600,000	\$800,000	\$800,000	\$10,400,000
July 1, 2026	\$1,600,000	\$800,000	\$800,000	\$8,800,000
July 1, 2027	\$1,600,000	\$800,000	\$800,000	\$7,200,000
July 1, 2028	\$1,600,000	\$800,000	\$800,000	\$5,600,000
July 1, 2029	\$1,600,000	\$800,000	\$800,000	\$4,000,000
July 1, 2030	\$1,600,000	\$800,000	\$800,000	\$2,400,000
July 1, 2031	\$1,600,000	\$800,000	\$800,000	\$800,000
July 1, 2032	\$800,000	\$800,000	\$0	\$0

# NORTHING/EASTING POINT SCHEDULE

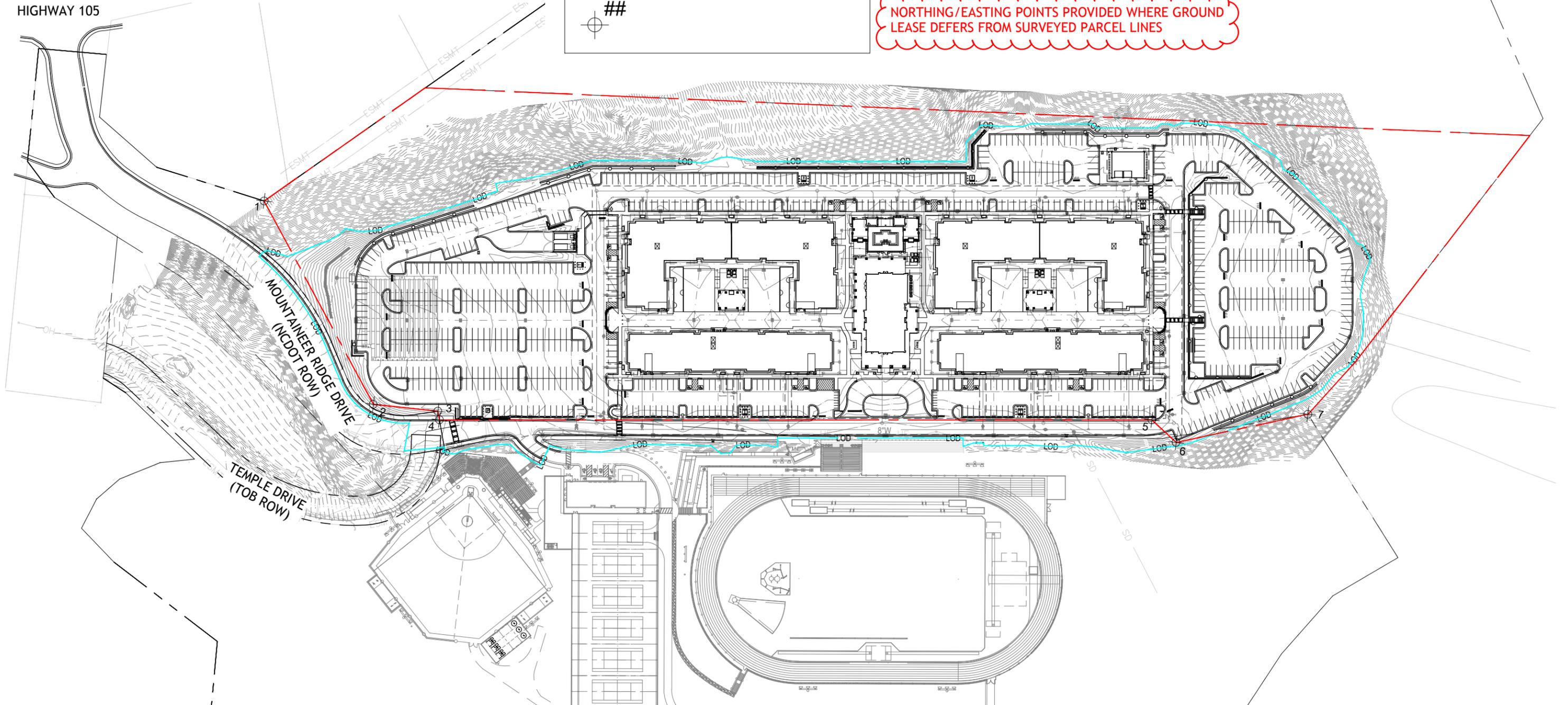
## GROUND LEASE EXHIBIT

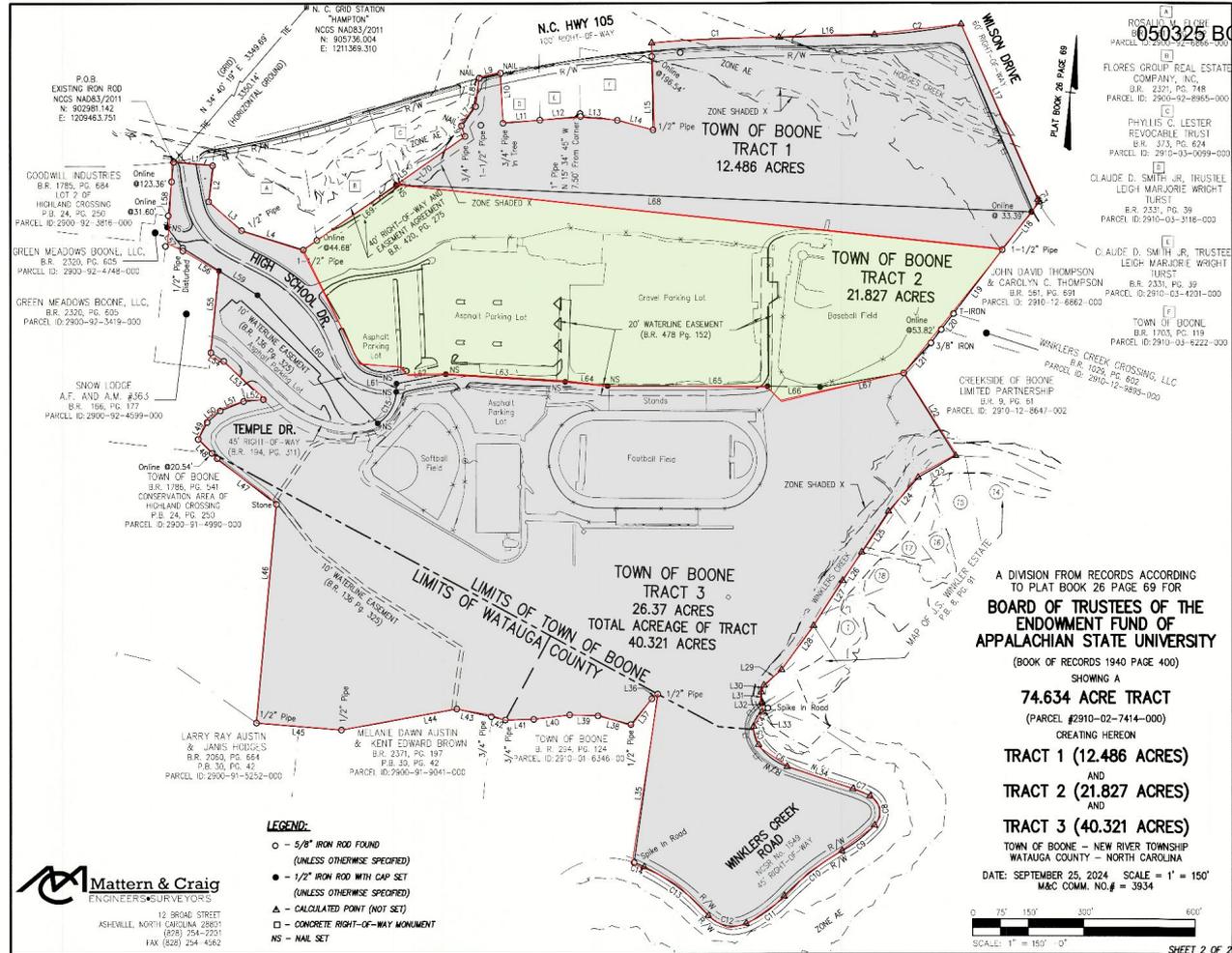
### APPALACHIAN STATE UNIVERSITY - LOT 105 STUDENT HOUSING

POINT	DESCRIPTION	NORTHING	EASTING
1		N 902785.699600	E 1209838.068500
2		N 902492.105481	E 1210042.136796
3		N 902492.738974	E 1210142.950942
4		N 902479.739723	E 1210146.841690
5		N 902604.773587	E 1211246.092369
6		N 902574.326041	E 1211287.453055
7		N 902640.804600	E 1211485.860900



NORTHING/EASTING POINTS PROVIDED WHERE GROUND LEASE DEFERS FROM SURVEYED PARCEL LINES





- Requested Area of Release
- Area Remaining subject to Deed of Trust

A DIVISION FROM RECORDS ACCORDING TO PLAT BOOK 26 PAGE 69 FOR

**BOARD OF TRUSTEES OF THE ENDOWMENT FUND OF APPALACHIAN STATE UNIVERSITY**

(BOOK OF RECORDS 1940 PAGE 400)

SHOWING A

**74.634 ACRE TRACT**  
(PARCEL #2910-02-7414-000)

CREATING HEREON

**TRACT 1 (12.486 ACRES)**  
AND  
**TRACT 2 (21.827 ACRES)**  
AND  
**TRACT 3 (40.321 ACRES)**

TOWN OF BOONE - NEW RIVER TOWNSHIP  
WATAUGA COUNTY - NORTH CAROLINA

DATE: SEPTEMBER 25, 2024 SCALE = 1" = 150'  
M&C COMM. NO. # = 3934

**Mattern & Craig**  
ENGINEERS/SURVEYORS

12 BRAD STREET  
ASHEVILLE, NORTH CAROLINA 28801  
(828) 254-2201  
FAX (828) 294-4362



**AGENDA ITEM 9:**

**BID AWARD REQUEST FOR ADMINISTRATION HVAC**

**MANAGER'S COMMENTS:**

Mr. Robert Marsh, Maintenance Director, will request the Board award a contract to Edmisten Heating & Cooling in the amount of \$26,136 for air conditioning equipment at the Watauga County Administration Building. Two bids were received with Edmisten Heating & Cooling being the lowest responsive bidder.

Board action is required to award Edmisten Heating & Cooling for HVAC replacement at the Watauga County Administration Building in the amount of \$26,136.



# WATAUGA COUNTY MAINTENANCE DEPARTMENT

---

274 Winklers Creek Road, Suite B, Boone, NC 28607 - Phone (828) 264-1430  
Fax (828) 264-1473

TO: Deron Geouque, County Manager  
FROM: Robert Marsh, Maintenance Director   
DATE: May 2, 2025  
RE: Administration Building HVAC Replacements

### BACKGROUND

Three HVAC units that are scheduled for replacement in FY 26-27 have failed. Maintenance contacted several vendors for quotes, however, was only able to obtain two vendors interested in bidding the work.

### BID RESULTS

Hickory Sheet Metal	\$46,000
Edmisten Heating & Cooling	\$26,136

### RECOMMENDATION

Staff recommends the work be awarded to the low bidder, Edmisten Heating & Cooling, in the amount of \$26,136.

**Edmisten Heating & Cooling**  
P.O. Box 3144 Boone, NC 28607  
828-264-0130

April 8, 2025

Watauga County Maintenance  
Attn: Robert Marsh/Derrick Ellison

**Ref: Watauga County Administrative Building**

Hello,

We propose to furnish the labor and material for the installation of a heat and air system at the above mentioned location:

**Unit 8**

Rheem 60,000 btu(5 ton) 14.3 SEER2 3 phase air conditioning condenser, Rheem 115,000 btu high efficienct(95%) gas furnace and Rheem coiling coil used together to give you gas heat with electric air conditioning. We will reuse the existing thermostat and inline fire sensor.

**Total Price- \$10,368.00**

**Warranty-5 years compressor, 1 year on parts, 10 years on the heat exchanger and 1 year on labor**

**Unit 5**

Rheem 36,000 btu(3 ton) 14.3 SEER2 3 phase air conditioning condenser, Rheem 70,000 btu high efficienct(95%) gas furnace and Rheem coiling coil used together to give you gas heat with electric air conditioning. We will reuse the existing thermostat and inline fire sensor.

**Total Price- \$8,748.00**

**Warranty-5 years compressor, 1 year on parts, 10 years on the heat exchanger and 1 year on labor**

**Computer Room**

Mitsubishi 12,000 btu low ambient air conditioning system with a wind baffle completely installed. This system will be controlled by a Honeywell programmable digital thermostat

**Total Price- \$7,020.00**

**Warranty-5 years parts, 7 years compressor and 1 year on labor**

**Included- All items needed to thoroughly complete the job and all permits with The Town of Boone.**

**Excluded-High voltage wiring**

We appreciate the opportunity to submit a proposal for your project. We are more than happy to answer any questions you have about this proposal. Your signature below indicates your acceptance of this proposal. Please sign and date this form, and return it as soon as possible.

Respectfully submitted,  
David Shore  
Edmisten Heating and Cooling

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

# 43Proposal

## Hickory Sheet Metal Co., Inc.

P.O. Box 2049

Hickory, North Carolina 2860

Phone: 828-322-3720 North Carolina License #2878 P/H Class 1,2,3 Fax: 828-324-0455

Proposal Submitted To:	Date: 4/22/25
Name: Derrick Ellison	Job Name: Watauga County Administration 814 W. King St. Boone, NC 28607

We hereby submit specifications and estimates for: The replacement of the split systems at your facility using Trane equipment consisting of: AC#5 5TWA4036 heat pump, S9X1B060 gas furnace and coil. AC#8 5TWA4036 heat pump, S9X1D120 gas furnace and coil. The Mini-split system will be a P- Series cooling unit.

The air distribution system will consist of the existing ductwork with modifications to adapt the new unit.

Proposal includes all equipment, removal of the existing unit, controls and other incidentals.

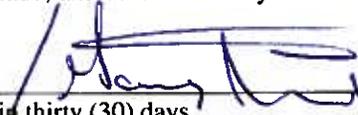
This equipment is guaranteed to be free of defects in materials and workmanship for a period of one year. The motor compressor carries a standard factory warranty of four additional years; in that, in the event of compressor failure during that period, the manufacturing will supply a new compressor with the owner paying the cost of removing the defective one and installing the new.

**Forty-Six Thousand Dollars**  
**(\$46,00.00)**

We hereby propose to furnish labor and materials— complete in accordance with the above specifications for the sum of:

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature: Gary Tennant



Note: This proposal may be withdrawn by us if not accepted within thirty (30) days.

### ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Accepted:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Blank Page

**AGENDA ITEM 10:**

**EMERGENCY SERVICES MATTERS**

- A. Resolution Opposing House Bill 675: EMT Personnel Credentialing Modifications and House Bill 219: Counties/Franchise Ambulance Service*

**MANAGER'S COMMENTS:**

Mr. Will Holt, Emergency Services Director, will request the Board adopt the resolution as presented opposing House Bill 675: EMT Personnel Credentialing Modifications and House Bill 219: Counties/Franchise Ambulance Service.

Board action is required to adopt the resolution as presented.

STATE OF NORTH CAROLINA

DRAFT

COUNTY OF WATAUGA

**A Resolution Opposing House Bill 675: EMT Personnel Credentialing Modifications and House Bill 219: Counties/Franchise Ambulance Service**

**WHEREAS**, Watauga County has a significant public interest in the provision of Emergency Medical Services (EMS); and

**WHEREAS**, Watauga County has felt the impact of the difficulty in recruiting and retaining skilled EMS professionals; and

**WHEREAS**, Watauga County currently provides EMS through a franchise agreement with a private EMS company as provided for by North Carolina General Statute; and

**WHEREAS**, House Bill 675 and House Bill 219 both directly impact Watauga County’s ability to provide EMS.

**NOW, THEREFORE, BE IT RESOLVED** the Watauga County Board of Commissioners vehemently oppose House Bill 675 and House Bill 219.

**BE IT FURTHER RESOLVED** the Commissioners strongly urge the General Assembly to speak with industry experts, County EMS staff, and the North Carolina Office of Emergency Medical Services regarding the impacts this legislation will have on all citizens in Watauga County and throughout the State on the EMS professionals who provide this critical service.

**ADOPTED** by the Board of County Commissioners on this 6<sup>th</sup>, day of May, 2025.

\_\_\_\_\_  
Braxton Eggers, Chairman  
Watauga County Board of Commissioners

**ATTEST:**

\_\_\_\_\_  
Anita J. Fogle, Clerk to the Board

**AGENDA ITEM 10:**

**EMERGENCY SERVICES MATTERS**

*B. Resolution Opposing Senate Bill 257: Current Operations Appropriations Act of 2025*

**MANAGER’S COMMENTS:**

Mr. Holt, will request the Board adopt the resolution as presented opposing Senate Bill 257: Current Operations Appropriations Act of 2025.

Board action is required to adopt the resolution as presented.

STATE OF NORTH CAROLINA

**DRAFT**

COUNTY OF WATAUGA

**Resolution Opposing Senate Bill 257: Current Operations Appropriations Act of  
2025**

**WHEREAS**, Watauga County is subject to impacts from disasters, including most recently Hurricane Helene; and

**WHEREAS**, Watauga County was supported in response by North Carolina Emergency Management (NCEM); and

**WHEREAS**, Senate Bill 257 includes revisions to NCGS 166A, removing critical authority from NCEM during a disaster and other disaster related programs; and

**WHEREAS**, Senate Bill 257 also includes revisions to NCGS143B-1726 mandating statewide radio system user fees, transferring a financial burden to public safety agencies.

**NOW, THEREFORE, BE IT RESOLVED** the Watauga County Board of Commissioners opposes Senate Bill 257 that would undo decades of relationship building and professional capacity that has been built through training and disaster response. North Carolina Emergency Management has been a critical partner through all phases of emergency management and is in the best position to continue to lead the State Emergency Response Team (SERT) during times of disaster.

**BE IT FURTHER RESOLVED** the Board strongly opposes user fees being applied to local responder agencies which are not supported by the April 2018 Program Evaluation Division Study completed by the General Assembly in 2018. Watauga County strongly supports the VIPER system, and would encourage funding of the system through State funds.

**ADOPTED** by the Board of County Commissioners on this 6<sup>th</sup>, day of May, 2025.

---

Braxton Eggers, Chairman  
Watauga County Board of Commissioners

**ATTEST:**

---

Anita J. Fogle, Clerk to the Board

**AGENDA ITEM 10:**

**EMERGENCY SERVICES MATTERS**

*C. Resolution Supporting House Bill 695: Support VIPER/Assist 911 Operations/Dispatch*

**MANAGER'S COMMENTS:**

Mr. Holt will request the Board adopt the resolution as presented supporting House Bill 695: Support VIPER/Assist 911 Operations/Dispatch.

Board action is required to adopt the resolution as presented.

STATE OF NORTH CAROLINA

DRAFT

COUNTY OF WATAUGA

**Resolution Supporting House Bill 695: Support VIPER/Assist 911 Operations/Dispatch**

**WHEREAS**, the State of North Carolina owns, operates, and partners with local public safety in use of the Voice Interoperability Plan for Emergency Responders (VIPER) system; and

**WHEREAS**, Watauga County is currently investing in a public safety radio system in conjunction with the VIPER system; and

**WHEREAS**, the VIPER system was instrumental throughout the response and immediate recovery efforts during Hurricane Helene; and

**WHEREAS**, House Bill 695 seeks to improve funding for the operation and maintenance of the VIPER system through use of existing funding mechanisms.

**NOW, THEREFORE, BE IT RESOLVED** the Watauga County Board of Commissioners strongly support House Bill 695 as it provides critical funding needed to make the VIPER system even more resilient and allow for greater interoperability and coordination between our local, regional, and State emergency services agencies.

**ADOPTED** by the Board of County Commissioners on this 6<sup>th</sup>, day of May, 2025.

\_\_\_\_\_  
Braxton Eggers, Chairman  
Watauga County Board of Commissioners

**ATTEST:**

\_\_\_\_\_  
Anita J. Fogle, Clerk to the Board

**AGENDA ITEM 10:**

**EMERGENCY SERVICES MATTERS**

*D. Hurricane Helene Update*

**MANAGER'S COMMENTS:**

Mr. Will Holt, Emergency Services Director, will provide a Hurricane Helene update. The report is information only; therefore, no action is required.



# Watauga County Emergency Services

184 Hodges Gap Rd, Suite D  
Boone, NC 28607  
Phone 828-264-4235  
Fax 828-265-7617



**Fire Marshal ♦ Emergency Management ♦ Communications**

April 30<sup>th</sup>, 2025

**To:** Board of Commissioners

**CC:** Deron Geouque, County Manager  
Anita Fogle, Clerk to the Board

**Subject:** Helene Update

Board of Commissioners,

I would like to offer a brief update on the status of recovery in Watauga County from the Emergency Services perspective. It is hard to imagine that it has been seven months since Helene struck our County and while we have made great progress we know we still have a long way to go. A few key points:

- County staff continue to work with our insurance provider, most claims have received their determination and this information has been passed along to FEMA as we work through our Public Assistance (PA) projects
- Right-of-Way debris removal continues and new debris placement ended March 2<sup>nd</sup>. We have shared multiple concerns with overall progress with the vendor. It is noted other counties are having similar or worse concerns with the same vendor and we are coordinating that flow of information with NCEM for future operations.
- Waterway and private property debris removal operations with the Corps of Engineers (USACE) has been approved and have begun. Aerostar and TetraTech are leading the intake process, Right of Entry acquisition, and site assessments for the Private Property Debris Removal (PPDR) program. Bering Strait is the prime contractor for the actual debris removal work.
- The PPDR ROE intake process concluded on May 1<sup>st</sup> with the contractor completing follow up inspections for final submission to USACE no later than May 15<sup>th</sup>. At time of report, over 900 applications have been received.
- Staff continues to coordinate weekly with USACE, Watauga County Soil and Water, NRCS, and FEMA on debris management and future steps in restoring our waterways. At time of report, over 80,000 cubic yards of debris have been removed from our waterways.
- FEMA has stood up a landslide taskforce to assist State and local governments with tracking landslide damage and potential paths forward for remediation. At time of report there are 247 mapped landslides in the County varying in size.
- The OSBM/NCEM Private Road and Bridge program has been partially funded through HB47. This program is designed to duplicate the success seen in the southwest part of the State during the 2022 TS Fred floods, however continued funding will be critical to long term success. Currently, the State has procured 10 engineering firms to assist with evaluating the thousands of applications for assistance. We are monitoring this closely as a critical path of our recovery.



# Watauga County Emergency Services

184 Hodges Gap Rd, Suite D  
Boone, NC 28607  
Phone 828-264-4235  
Fax 828-265-7617



## ***Fire Marshal ♦ Emergency Management ♦ Communications***

- Hagerty Consulting is on the ground and working with staff to complete PA projects. We currently meet bi-weekly to discuss progress and priorities and have meetings with FEMA every two weeks.
- The Multi-Agency Resource Center (MARC) remains open however use data is being monitored to ensure this is the best use of resources. We have requested the MARC stay open through the summer and will monitor continued use. Currently, the MARC averages 6-10 visits per day for various services.

The Emergency Services Department is grateful for the partnership with our local, State, and federal partners specifically as they focus efforts to get money flowing into our community to restore what was lost and also build an even more resilient future.

Respectfully,

Will Holt  
ES Director

# Right-of-Entry Emergency Response Related to Tropical Storm Helene

30 April 2025 Update

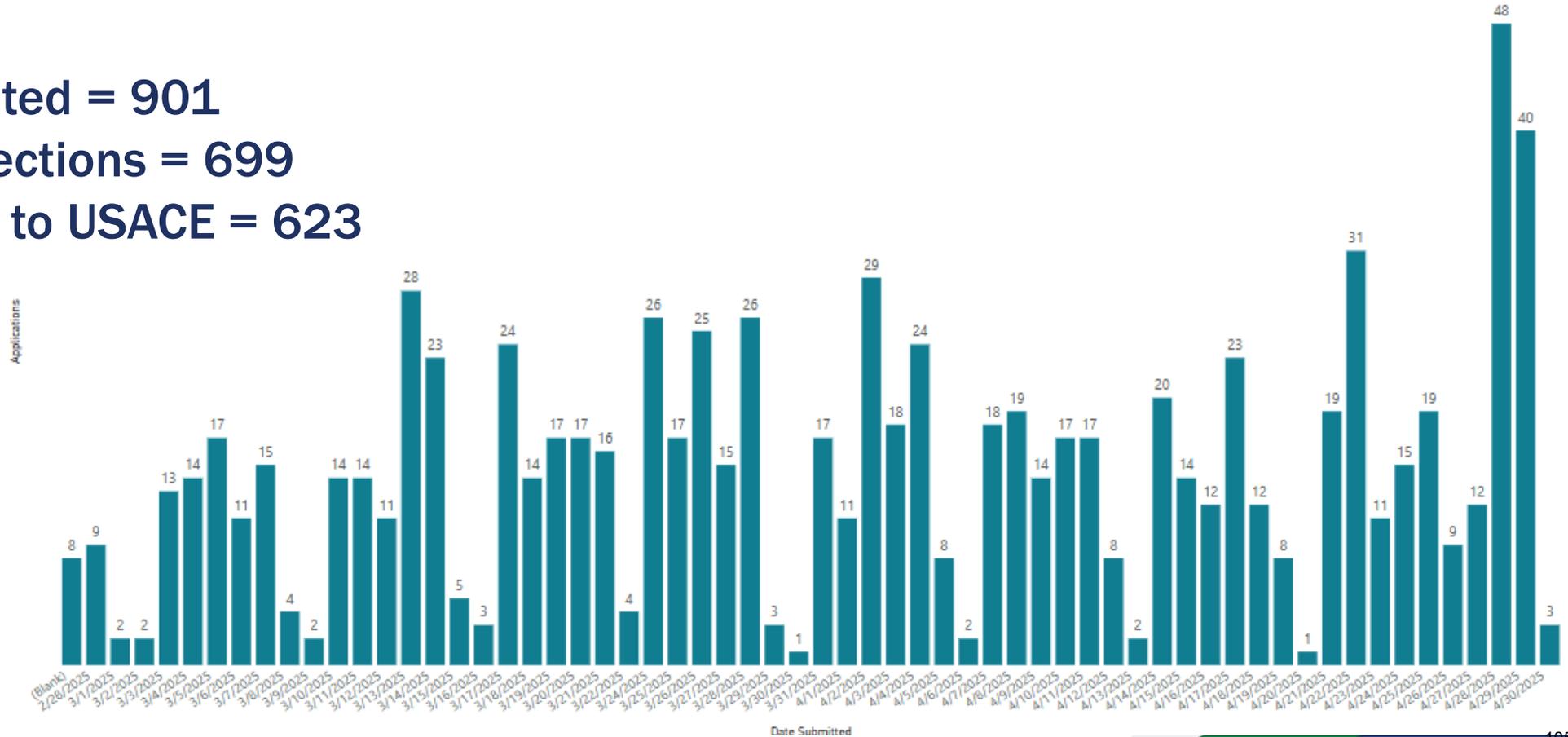
# Watauga County Update

## ROEs

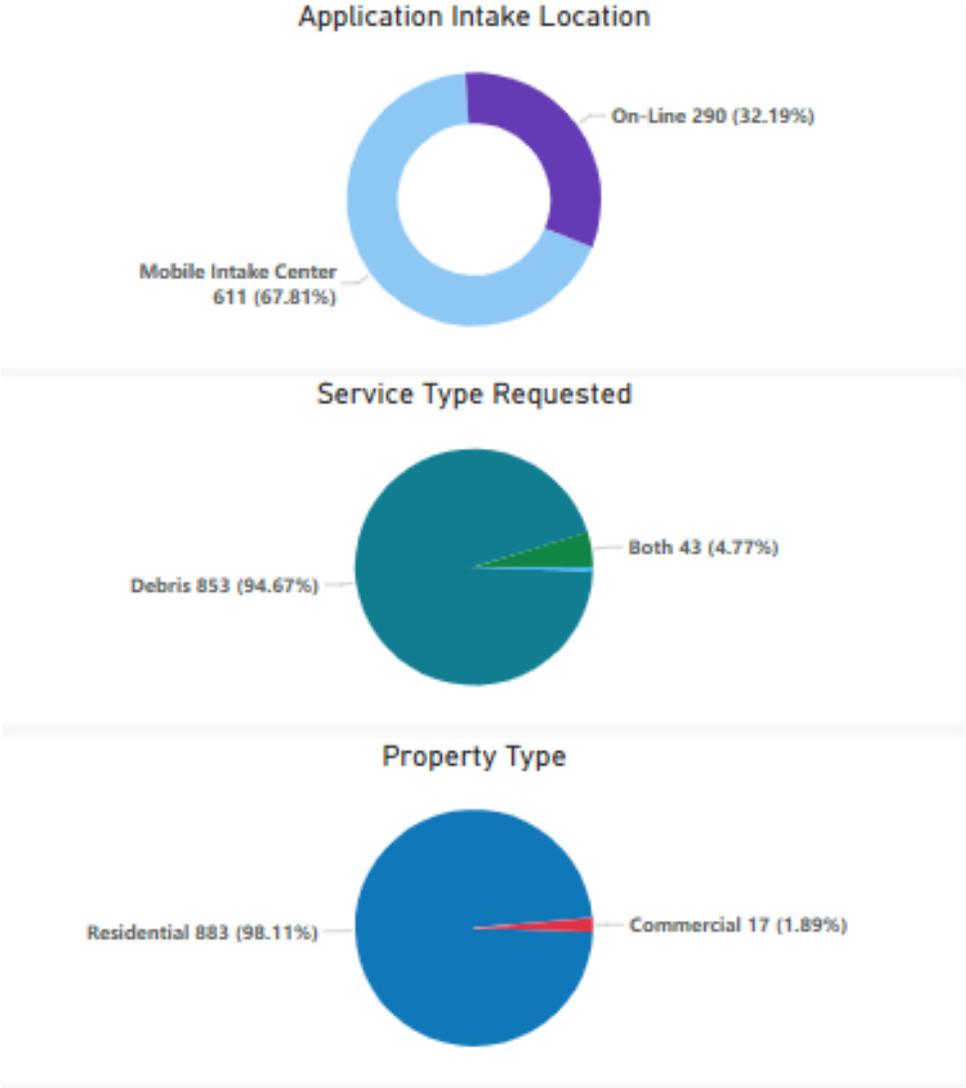
Total ROEs Initiated = 901

Completed Inspections = 699

PPDR Packages to USACE = 623



# Watauga County Update



# Discussion Topics

- PPDR application end date: **1 May 2025**
- Last PPDR application package to USACE: **15 May 2025**
- Demolitions, vehicles, vessels packages are being coordinated with Mark Cardwell, as Mark is touching base the county officials about these items

Blank Page

**AGENDA ITEM 10:**

**EMERGENCY SERVICES MATTERS**

*E. Powder Horn Site Tree Removal and Construction Driveway Request*

**MANAGER'S COMMENTS:**

Mr. Will Holt, Emergency Services Director, will request the Board approve Engineered Tower Solution's (ETS) quote for \$41,212 for tree removal at the Powder Horn site. Funds have been budgeted as part of the project.

Board action is required.



# Watauga County Emergency Services

184 Hodges Gap Rd, Suite D  
Boone, NC 28607  
Phone 828-264-4235  
Fax 828-265-7617



**Fire Marshal ♦ Emergency Management ♦ Communications**

April 25<sup>th</sup>, 2024

**To:** Board of Commissioners

**CC:** Deron Geouque, County Manager  
Anita Fogle, Clerk to the Board

**Subject:** Powder Horn Site Tree Removal and Construction Driveway Request

Board of Commissioners,

As part of the public safety infrastructure project the next step for the Powder Horn site is the removal of trees from the area as required for the footprint of the tower compound, installation of a construction driveway, and silt fencing. Attached is the quote provided by Engineered Tower Solution (ETS) for this work in the amount of \$41,212. Funds have been budgeted as part of the project.

Respectfully,

Will Holt  
ES Director

Civil Contract Itemized Quote - 19-IFB-1107066437-HDE							
Site(s) Name: Powder Horn Mountain - Clearing Only							
Contract costs - West site (fill in yellow highlighted boxes ONLY)							
		Qty. Material	Material	Total Material	Qty. Labor	Labor	Total Labor
11	Cost to apply for and obtain a building permit from the local jurisdiction (please include the Fee in your Labor cost).	N/A	N/A	N/A		\$ 500.00	\$ -
12	Cost per tree removal and disposal based on a tree with a 3' diameter. This work is not part of the SOW in the "Complete Site Installation" and "Land Clearing for 20' access road".	10	\$ 2,070.00	\$ 20,700.00	10	\$ 517.50	\$ 5,175.00
13	Cost <b>per linear foot to supply and install</b> a 7ft compound fence or 6ft fence with 2ft barbed wire. The fencing shall be of adequate grade to allow exothermic bonding (cad weld) of a ground conductor to the fence post.		\$ 51.75	\$ -		\$ 15.52	\$ -
14	Cost to <b>supply and install</b> 16-ft double gate. The gate shall be of adequate grade to allow exothermic bonding (cad weld) of a ground conductor to the gate.		\$ 2,588.00	\$ -		\$ 1,552.00	\$ -
15	Cost to <b>supply and install</b> 8' copper ground rod and 16' of #2 tinned solid conductor.		\$ 100.80	\$ -		\$ 18.00	\$ -
16	Cost to <b>supply and install</b> 10' horizontal chemically enhanced grounding rod system (per chem rod).		\$ 2,250.00	\$ -		\$ 450.00	\$ -
17	Cost <b>per square foot to supply and install</b> Geo Tech fabric for work outside the "Complete Site Installation" Scope listed above.		\$ 0.31	\$ -		\$ 0.09	\$ -
18	Cost <b>per ton to supply and install</b> #57 stone for work outside the "Complete Site Installation" Scope listed above.	15	\$ 50.40	\$ 756.00	15	\$ 18.00	\$ 270.00
19	Cost <b>per ton to supply and install</b> crush and run for work outside the "Complete Site Installation" Scope listed above.	15	\$ 50.40	\$ 756.00	15	\$ 18.00	\$ 270.00
20	Cost <b>per ton to supply and install</b> riprap for work outside the "Complete Site Installation" Scope listed above	15	\$ 50.40	\$ 756.00	15	\$ 18.00	\$ 270.00
21	Cost <b>per square yard to supply and install</b> seed and straw outside compound where required.		\$ 1.27	\$ -		\$ 0.18	\$ -
22	Cost <b>per cubic yard to supply and install</b> additional fill needed for backfill and site grading.		\$ 31.50	\$ -		\$ 18.00	\$ -
23	Cost <b>per foot to supply and install</b> of silt fencing (wire mesh & metal posts).		\$ 1.04	\$ -		\$ 1.13	\$ -
24	Cost <b>per foot to supply and install</b> silt fencing (fabric & wooden post).	300	\$ 0.95	\$ 285.00	300	\$ 1.13	\$ 339.00

25	Cost to <b>supply and install</b> COPS connector and three pole double throw switch on buildings without COPS connector. Receptacle shall be an Appleton PN ADJA20044-250.		\$ 2,700.00	\$ -		\$ 1,350.00	\$ -
26	Cost to <b>supply and plant</b> 1 landscape greenery (this could be anything from a shrub, bush, tree, etc. in any size).		\$ 18.00	\$ -		\$ 9.00	\$ -
27	Cost to <b>supply and install</b> gravel for a 25' x 40' turnaround area outside fence gate on existing or expanding site for work outside the "Complete Site Installation" Scope listed above.		\$ 1,710.00	\$ -		\$ 621.00	\$ -
28	Cost to have a licensed HVAC mechanic replace existing wall mounted WA series Bard HVAC with same series Bard supplied by owner; cost includes any materials/supplies and labor for the job.		\$ 200.00	\$ -		\$ 500.00	\$ -
29	Cost to replace a 40kW generator at an existing site per SOW		\$ 2,250.00	\$ -		\$ 2,700.00	\$ -
30	Cost to replace a 100kW generator on an existing site per SOW		\$ 2,250.00	\$ -		\$ 2,700.00	\$ -
31	Cost to replace a transfer switch for a 40kW generator per SOW		\$ 450.00	\$ -		\$ 1,350.00	\$ -
32	Cost to replace a transfer switch for a 100kW generator per SOW		\$ 450.00	\$ -		\$ 1,575.00	\$ -
33	Cost per day for a 120 ton crane		\$ 6,000.00	\$ -		\$ 750.00	\$ -
34	Cost per day for a CAT D6 (or equivalent) bulldozer		\$ 1,000.00	\$ -		\$ 215.00	\$ -
35	Cost per day for an 8,000 pound skidsteer		\$ 200.00	\$ -		\$ 79.00	\$ -
36	Cost per day for 10,000 pound Lull (or equivalent)		\$ 300.00	\$ -		\$ 60.00	\$ -
37	Cost per day for an 8,000 pound excavator		\$ 300.00	\$ -		\$ 60.00	\$ -
	<b>Optional Tasks Totals</b>			\$ 23,253.00			\$ 6,324.00
<b>Land Clearing for 20' access road</b>							
		Qty. Material	Material	Total Material	Qty. Labor	Labor	Total Labor
38	Minimal land clearing (grub roots, light brush, small trees up to 6" trunk diameter), cut/fill, and normal soil: Cost per square foot to clear.		\$ 1.30	\$ -		\$ 1.00	\$ -
39	Moderate land clearing (medium brush and trees up to 12" trunk diameter), cut/fill, and/or poor soil: Cost per square foot to clear.		\$ 1.30	\$ -		\$ 1.00	\$ -
40	Extensive land clearing (clear heavily wooded area and pull stumps), cut/fill, and steep grade, e.g. mountain site access: Cost per square foot to clear.	3200	\$ 1.30	\$ 4,160.00	3200	\$ 1.00	\$ 3,200.00
	<b>Access Road Totals</b>			\$ 4,160.00			\$ 3,200.00

<b>Culverts and Site Drainage - Cost to provide and install HDPE double wall corrugated pipe with smooth interior wall. Inlet/Outlet protection stone material and installation shall be priced using appropriate lines above.</b>							
		Qty. Material	Material	Total Material	Qty. Labor	Labor	Total Labor
41	Cost <b>per 20' section</b> to supply and install 4" culvert.		\$ 112.50	\$ -		\$ 180.00	\$ -
42	Cost <b>per 20' section</b> to supply and install 6" culvert.		\$ 193.50	\$ -		\$ 180.00	\$ -
43	Cost <b>per 20' section</b> to supply and install 8" culvert.		\$ 364.50	\$ -		\$ 180.00	\$ -
44	Cost <b>per 20' section</b> to supply and install 10" culvert.		\$ 481.50	\$ -		\$ 225.00	\$ -
45	Cost <b>per 20' section</b> to supply and install 12" culvert.		\$ 463.50	\$ -		\$ 225.00	\$ -
46	Cost <b>per 20' section</b> to supply and install 15" culvert.		\$ 621.00	\$ -		\$ 270.00	\$ -
47	Cost <b>per 20' section</b> to supply and install 24" culvert.		\$ 874.80	\$ -		\$ 315.00	\$ -
48	Cost <b>per 20' section</b> to supply and install 30" culvert.		\$ 1,503.00	\$ -		\$ 450.00	\$ -
49	Cost <b>per 20' section</b> to supply and install 36" culvert.		\$ 1,471.50	\$ -		\$ 540.00	\$ -
	<b>Culverts/Site Drainage Totals</b>			\$ -			\$ -
<b>Underground Conduit</b>							
		Qty. Material	Material	Total Material	Qty. Labor	Labor	Total Labor
50	Cost <b>per linear foot</b> to supply and install 1.5" SCH 40 underground conduit.		\$ 12.60	\$ -		\$ 7.20	\$ -
51	Cost <b>per linear foot</b> to supply and install 2" SCH 40 underground conduit.		\$ 12.60	\$ -		\$ 7.20	\$ -
52	Cost <b>per linear foot</b> to supply and install 3" SCH 40 underground conduit.		\$ 12.60	\$ -		\$ 7.20	\$ -
53	Cost <b>per linear foot</b> to supply and install 4" SCH 40 underground conduit.		\$ 14.85	\$ -		\$ 7.20	\$ -
	<b>Underground Conduit Totals:</b>			\$ -			\$ -
<b>Mobilization Cost</b>							
					Qty. Labor	Labor	Total Labor
54	Mobilization cost for a 2-man crew for <b>1/2</b> day rate					\$ 1,068.75	\$ -
55	Mobilization cost for a 2-man crew for <b>FULL</b> day rate					\$ 2,137.50	\$ -
56	Mobilization cost for a 4-man crew for <b>1/2</b> day rate					\$ 2,137.50	\$ -
57	Mobilization cost for a 4-man crew for <b>Full</b> day rate				1	\$ 4,275.00	\$ 4,275.00
	<b>Mobilization Totals:</b>	<b>N/A</b>					\$ 4,275.00
	<b>Total Job Materials cost</b>						<b>\$ 27,413.00</b>
	<b>Total Job Labor cost</b>						<b>\$ 13,799.00</b>

Blank Page

**AGENDA ITEM 11:**

**BOARD OF EQUALIZATION AND REVIEW (E&R) COMPENSATION**

**MANAGER'S COMMENTS:**

Mr. Tyler Rash, Tax Administrator, will request the Board set the compensation rate for Board of Equalization and Review at \$75 per meeting.

Board action is required to set the rate of compensation for the Board of Equalization meetings for \$75.



# MEMORANDUM

**TO: Deron T. Geouque**

**CC: Anita Fogle, Clerk to the Board**

**FROM: Tyler Rash**

**SUBJECT: 2025 Board of Equalization and Review Compensation**

**DATE: April 29<sup>th</sup>, 2025**

Pursuant to NCGS 105-322 the Watauga County Board of Equalization and Review will meet as required by law.

The Board will convene for its first meeting on Monday, April 28, 2025 at 9:00am. The Board will adjourn for the purpose of accepting applications for hearing Friday, May 9, 2025 at 5:00pm.

The member compensation needs to be set. For the past several years it has been \$75.00 per session.

Thank you.

**AGENDA ITEM 12:**

**MISCELLANEOUS ADMINISTRATIVE MATTERS**

*A. Presentation of the FY 2026 Capital Improvement Plan (CIP)*

**MANAGER’S COMMENTS:**

The County Manager will present the FY 2025-2026 Capital Improvement Plan (CIP) for your review prior to discussion during the upcoming budget work sessions. A link to the FY 2025-2026 CIP and Budget documents will be provided on the day of the meeting.

Blank Page

**AGENDA ITEM 12:**

**MISCELLANEOUS ADMINISTRATIVE MATTERS**

***B. Presentation of the Manager's FY 2026 Recommended Budget***

**MANAGER'S COMMENTS:**

The Manager will present his recommended FY 2026 Budget at the meeting and review highlights. If you have questions, please feel free to call or discuss at the budget work sessions scheduled on Thursday, May 8, 2025 beginning at 12:00 P.M. and Friday, May 9, 2025 at 9:00 A.M.

The recommended Budget will be available for public inspection on the County's website and at the County Manager's Office.

A public hearing will be held on May 20, 2025, at 5:30 P.M. to allow citizen comment on the proposed budget.

Blank Page

**AGENDA ITEM 12:**

**MISCELLANEOUS ADMINISTRATIVE MATTERS**

*C. Proposed Valle Crucis School Change Order*

**MANAGER’S COMMENTS:**

The Board previously approved the furniture bid for the Valle Crucis Elementary School in the amount of \$905,128.32. However, due to product discontinuations and manufacturer refinements an additional cost of \$8,848.41 was incurred. The total for furniture is \$913,976.73. Adequate funds are available in the project to cover the increase.

Board approval is required to accept the additional increase of \$8,848.41 for furniture at the new Valle Crucis Elementary School.



April 24, 2025

Watauga County Manager  
814 West King Street, Suite 205  
Boone, NC 28607

Attn: Mr. Deron Geouque  
County Manager

**RE: Purchase Order Adjustment – Valle Crucis School**

Dear Deron,

I'm writing regarding changes to the furniture quote for the Valle Crucis School project. Young Office, the furniture dealer, has notified us of several factors requiring a price adjustment:

1. **Product Discontinuations:** Young Office has informed us that some originally specified items have been discontinued. We've worked together to select comparable alternatives that maintain your functional and aesthetic requirements, though these replacement products have come at higher price points than the originally specified items. We worked diligently with Young to find a comparable product from a quality and lifecycle cost standpoint.
2. **Manufacturer Refinements:** One of our originally specified upholstery selections were not approved by manufacturers for application on certain furniture items, requiring us to select alternative fabrics at different price points that meet both aesthetic and performance requirements.

We deeply value our partnership on this important project and appreciate your continued trust. If you have any questions about these adjustments or would like to discuss any aspects in more detail, I'm always available to connect when it's convenient for you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Melanie Dover Goodson'.

Melanie Dover Goodson,  
Senior Certified Interior Designer

301 College Street, Suite 300  
Asheville, NC 28801  
clarknexsen.com

**AGENDA ITEM 12:**

**MISCELLANEOUS ADMINISTRATIVE MATTERS**

*D. Civil Design Services for Proposed Solid Waste Convenience Center at Landfill Road*

**MANAGER’S COMMENTS:**

As part of the scale house renovation project, the container site will be relocated to the end of Landfill Road to remove residential traffic out the commercial traffic flow at the scale house. Civil Design Concepts (CDC) has provided a proposal for civil design services for the project in the amount of \$50,590. CDC is currently providing the civil work for the new EMS Center. Adequate funds are available in the current budget to cover the related expense.

Board action is required to accept Civil Design Concepts proposal for civil services for the new container site in the amount of \$50,590.



April 27, 2025

## **PROPOSAL FOR SERVICES – EXHIBIT A**

**SUBMITTED TO:** Mr. Deron Geouque, County Manager  
Watauga County  
Deron.geouque@watgov.org

**SUBMITTED FOR:** Civil Design Services for Proposed Solid Waste Conv. Center @ Landfill Rd.  
Watauga County, North Carolina

### **I SCOPE OF SERVICES:**

Thank you for allowing us to provide you this proposal with anticipated services and projected fees for the Proposed Solid Waste Conv. Center @ Landfill Rd. project. The following is an anticipated Scope of Services detailing services anticipated by Civil Design Concepts, P.A. and its consultants.

Information provided in this Scope of Services is based on our experience with past projects and our understanding of this project based on the information we have been provided to date.

#### **A. Schematic Design:**

1. Attend project kick-off meeting with Owner and Design Team.
2. Coordinate available information and determine needs for additional information necessary to obtain approvals for the project.
3. Evaluate existing infrastructure including water, sewer, and storm.
4. Identify any improvements that may be necessary to accommodate future development.
5. Preliminary analysis of the property as it relates to roadways, parking, and utilities.
6. Submit Utility Allocations (will-serve letters) for water and sewer to the appropriate utility providers.
7. Develop Base Maps from Boundary and Topographic Survey provided in digital AutoCAD format from as-built survey information provided by registered surveyor hired by owner.
8. Refine conceptual layout of existing and proposed road configurations, building pads, rough grading, and conceptual storm drainage, water, and sewer plans.

9. Develop quantity take off and preliminary cost estimate for site work.
10. Attend Pre-application meeting with the appropriate zoning jurisdiction.
11. Attend meeting with client. Develop timeline and strategy for proceeding to the next stage of construction documents.

**B. Design Development/Planning Approvals:**

1. Once the conceptual layout of the project has been approved by the owner, we will prepare a layout for water, sewer, storm water collection and storm water detention systems.
2. Prepare design development documents to accommodate layouts and footprint as approved by the Owner to be used for obtaining planning approvals. Assist owner in obtaining Site Plan/Zoning Approvals.
3. Attend Technical Review/ Planning Board meetings, as appropriate, requesting approval from the appropriate zoning jurisdiction.
4. Attend one (1) review meeting with client. Develop timeline and strategy for proceeding with next stage construction documents.
5. Attend one (1) meeting with the appropriate AHJ to request approval, if required.
6. Correlate the existing infrastructure information collected during our preliminary investigations with the survey information generated by the project surveyor.

**C. Construction Documents: (This section indicates each of the permits that will be applied for and final plans to be issued).**

**1. Site / Staking Plan**

Refine existing site plan to incorporate changes requested by owner and comments received from any applicable TRC or planning staff review.

**2. Grading / Erosion Control / Storm Drainage Design**

- a. Design grading plan to accommodate requirements of the authority having jurisdiction (AHJ). Plan will include erosion control and storm drainage layout.
- b. Submittal of Grading, Erosion Control and Storm Water Management Plan with supporting design calculations to the AHJ to secure Grading/ Erosion Control Permit and Storm Water Discharge Permit.

**Mailing Address: P.O. Box 5432, Asheville, NC 28813**

**168 Patton Avenue Asheville, NC 28801  
 Phone 828-252-5388 Fax 828-252-5365**

**52 Walnut Street – Suite 9, Waynesville, NC 28786  
 Phone: 828-452-4410 Fax: 828-456-5455**

- c. Storm Water Collection System Plan/Design to accommodate approved site plan in accordance with the AHJ's Storm Water Management Standards (assumes a connection point is available directly at the site and that no off-site improvement or pump system is necessary).
- d. Design of Storm Water Detention System including underground piping storage system with an appropriately sized outlet control structure. Design shall include details and necessary calculations to be submitted to the AHJ for approval and issuance of a Storm Water Discharge Permit.

### **3. Storm Water Quality**

- a. Design storm water treatment system in accordance with the AHJ's Storm water Management Standards (assumes a connection point is available directly at the site and that no off-site improvement or pump system is necessary).

### **4. Water Line Service Design**

- a. Design water line service assumed to be tapped and extended from an existing line(s) directly adjacent to the site. Design may include a meter and domestic connection. Connection to project buildings will be determined with the appropriate utility. (assumes no relocations, upgrades or off-site extensions are required)

### **5. Sanitary Sewer Service Design**

- a. Design gravity sewer service to serve the proposed site. Design will include both horizontal and vertical design to be extended from an existing line assumed to be traversing the subject property (no off-site extensions or pump stations anticipated). Design will be to the appropriate Town/City Standards as well as NCDEQ Standards and Specifications.
- b. Submit full Engineering Review Document Package to the appropriate utility's Engineering Department for approval of the sewer service design. This will include design, calculations and necessary applications for approval.

## **D. Contract Administration Services**

- 1. Refine Preliminary Construction Cost Estimates for required infrastructure for budgetary purposes.
- 2. Assistance with bidding, bid tabulation and quantities as requested.
- 3. Address questions from bidders and coordinate any field / plan changes as necessary.
- 4. Review Construction Cost Estimates from prospective contractors to compare infrastructure costs with work performed on similar projects in the area.

**Mailing Address: P.O. Box 5432, Asheville, NC 28813**

**168 Patton Avenue Asheville, NC 28801  
Phone 828-252-5388 Fax 828-252-5365**

**52 Walnut Street – Suite 9, Waynesville, NC 28786  
Phone: 828-452-4410 Fax: 828-456-5455**

5. Review change orders from contractors as requested.
6. Review Applications for payment for concurrence with approved schedule of values and make recommendation to approve or deny.
7. If change order requests are made, review for legitimacy and accuracy and make recommendation to owner to deny or approve.
8. Upon Project completion assist owner in finalizing contract (Once all punch list items are completed) and releasing retainage along with securing final lien waivers.

#### **E. Construction Observation:**

The following is a list of construction observation services, which will be provided as required and on an as needed basis.

1. Attend construction meetings as requested including required pre-construction, monthly and other meetings.
2. Review shop drawings and other submittals for compliance with approved plans.
3. Periodic Inspections to determine general compliance of the work with the plans and specifications, which inspection and/or approval shall not constitute a guarantee that the work complies with the plans and specifications and will not relieve the contractor of its primary obligation to adhere to the plans and specifications. Engineer shall have no obligation as to Contractor's means or methods or compliance with OSHA or other health and safety regulations.
4. Attendance at one final inspection for each utility (water, sewer and storm water detention) to determine that the items have been installed in general conformance with the plans and specifications to prepare for final agency inspection.

## **II CLIENT RESPONSIBILITIES:**

The Client shall provide Civil Design Concepts, P.A., with base site information in AutoCAD format, building plans, program descriptions, budget or other information as may be required to complete the work, or shall agree to reimburse Civil Design Concepts, P.A. for the cost of obtaining the information required. The Client shall hold harmless and indemnify Civil Design Concepts, P.A. against injury loss or damage arising out of the negligent acts, errors or omissions arising from information supplied by others.

Further, the Client shall identify and designate one individual to act on behalf of the Client for reviews and approvals. The Client shall identify any special definitions or conditions required for invoicing for services rendered.

### **III ADDITIONAL SERVICES**

All additional work requested by the Owner will be billed on an hourly basis or a negotiated lump sum fee. Extra work will include, but not be limited to:

1. Multiple phases of construction. (This proposal assumes single-phase construction.)
2. Design of off-site utility extensions necessary to serve the project other than described.
3. Change in scope of services as defined within this proposal.
4. Corps of Engineers / Environmental permitting.
5. Changes required due to contractor error.
6. Design modifications requested by Owner after submittals.
7. Design changes due to error in base survey information.
8. Flood study/ No-rise Analysis.
9. No structural designs included.
10. No geotechnical investigation or designs included.
11. Please note that this scope assumes that we will be provided adequate base information to develop design documents and required footprint information, which includes but is not limited to:
  - a. Topographic data in two-foot intervals provided by professional land surveyor.
  - b. Finalized footprints from the architect including accessible entrance, routes, etc.
  - c. Other information determined to be necessary to complete this project's requirements.
12. Fast track packaging of construction documents.
13. Water feature mechanical or structural engineering design; fees will be negotiated as necessary.
14. Pool or spa mechanical or structural engineering design; fees will be negotiated as necessary.
15. Construction documentation for exterior lighting.
16. Site retaining wall or any other structural designs. A geotechnical engineer sub-consultant may be necessary.
17. Preliminary Geotechnical / Soils Evaluations or any Construction Materials Testing during construction
18. Dry Utility Coordination for power, phone, cable, gas or other related items
19. Topographic, location, property, subdivision, construction layout or other survey services
20. Easement acquisition assistance for any off-site easements that may be required
21. Private utility location or coordination for any utilities that are not publicly owned
22. Wetland delineation, stream identification or jurisdictional determinations as may be required for permitting through the US Army Corps of Engineers.

**Mailing Address: P.O. Box 5432, Asheville, NC 28813**

**168 Patton Avenue Asheville, NC 28801  
 Phone 828-252-5388 Fax 828-252-5365**

**52 Walnut Street – Suite 9, Waynesville, NC 28786  
 Phone: 828-452-4410 Fax: 828-456-5455**

#### IV SCHEDULE

Civil Design Concepts, P.A. will begin work upon acceptance of this proposal, unless otherwise specified, and will work to meet all reasonable schedules established by the Client.

#### V COST FOR SERVICES

Fees for the above scope of services are as follows:

<b>A.</b>	<b>Schematic Design</b>	<b>\$ 7,290</b>
<b>B.</b>	<b>Design Development /Planning Approvals</b>	<b>\$ 9,720</b>
<b>C.</b>	<b>Construction Documents</b>	<b>\$ 14,580</b>
<b>D.</b>	<b>Contract Administration</b>	<b>\$ 8,800</b>
<b>E.</b>	<b>Construction Observation</b>	<b><u>\$ 10,200</u></b>
	<b>Total</b>	<b>\$ 50,590</b>

**Actual costs at hourly rates of Civil Design Concepts, P.A. personnel assigned to project as follows:**

Principal Engineer	\$240/hr
Project Manager	\$175/hr
Senior Project Engineer	\$145/hr
Associate Project Engineer	\$110/hr
Construction Administrator	\$100/hr
Senior Civil Engineer Technician	\$100/hr
Civil Engineer Technician	\$ 90/hr
Construction Inspector	\$ 85/hr
Office Administrator	\$ 60/hr

Any work in addition to that outlined in the Scope of Services listed above will be billed on an hourly basis according to the rate schedule shown or a negotiated lump sum fee. Additional Services will only be performed under written authorization from the client. These rates are valid through December 31, 2025 at which time the client will be notified in writing of any rate changes.

Reimbursable expenses are not included in the cost of services. Reimbursable expenses shall include the following: postage, travel @ \$0.60/mi., and other incidental expenses shall be a direct charge per receipts.

Mr. Deron Geouque, County Manager / Proposed Solid Waste Conv. Center @ Landfill Rd.

April 27, 2025

Page 7 of 7

Payment for services rendered shall be made monthly, due within ten days of the receipt of invoice, for all work completed through the last pay period in the preceding month or according to a schedule provided by the Client. Any invoice outstanding for more than 30 days after receipt will be subject to an interest charge of 1-1/2% per month.

## **VI PROPOSAL DURATION**

This proposal shall be valid for thirty- (30) days. Upon acceptance, it shall become an agreement between the Client and Civil Design Concepts, P.A.

## **VII ADDITIONAL TERMS AND CONDITIONS**

Included is a copy of our Consulting Services Agreement and this Proposal for Services. If the terms of the Agreement and the Proposal are acceptable, please execute the agreement and return to our office.

When executed this Agreement may be terminated for convenience within 15 days written notice by Civil Design Concepts, P.A. or Watauga County, or if either party fails substantially to perform through no fault of the other and does not commence correction of such non-performance within 5 days of written notice and diligently complete the correction thereafter. In the event of termination, Civil Design Concepts, P.A. shall be paid for all authorized services performed and reimbursable expenses incurred to the date of notification. Any expenses incurred by Civil Design Concepts, PA. due to termination of project by Client shall be paid by Client.

**Mailing Address: P.O. Box 5432, Asheville, NC 28813**

**168 Patton Avenue Asheville, NC 28801  
Phone 828-252-5388 Fax 828-252-5365**

**52 Walnut Street – Suite 9, Waynesville, NC 28786  
Phone: 828-452-4410 Fax: 828-456-5455**

# CONSULTING SERVICES AGREEMENT

This contract entered into this 27<sup>th</sup> day of April, 2025 by and between Watauga County, NC, hereinafter called the Client, and Civil Design Concepts, P.A.;  
Witnesseth that: Whereas, the Client desires to engage Civil Design Concepts (sometimes referred to as "CDC") to provide consulting services; and,  
Whereas, the Client finds that the attached Scope of Services and terms of this agreement are acceptable; and,  
Whereas, Civil Design Concepts desires to provide said services and agrees to do so for the compensation and upon the terms and conditions as hereinafter set forth,

Now, therefore, the parties hereto do mutually agree as follows:

**1. Scope of Services:** Civil Design Concepts shall provide the services attached hereto in the Exhibit A "Proposal For Services", dated April 27, 2025, hereinafter called services. Additional services will be invoiced in accordance with the attached rate and fee schedule.

**2. Standard of Care:** Civil Design Concepts will perform its services using that degree of skill and diligence normally employed by professional engineers or consultants performing the same services at the time these services are rendered. CDC shall have the right to rely on any and all information furnished by Client without any requirement to verify same.

**3. Authorization to Proceed:** Execution of this Consulting Services Agreement will be considered authorization for Civil Design Concepts to proceed unless otherwise provided for in this Agreement or as otherwise modified by the attached project schedule.

**4. Changes in Scope:** The Client may request changes in the Scope of Services provided in this Agreement. If such changes affect Civil Design Concepts cost of or time required for performance of the services, an equitable adjustment will be made through an amendment to this Agreement. Any additional services resulting from a change in scope of services will be pre-approved by the client.

**5. Compensation:** The Client shall pay the compensation to Civil Design Concepts set forth in the Exhibit "A", Section V, "Cost For Services", as described in the proposal attached hereto. Unless otherwise provided in the Cost For Services, Civil Design Concepts shall submit invoices to the Client monthly (by the 15<sup>th</sup> day of the month) for work accomplished under this agreement and the Client agrees to make payment to Civil Design Concepts within thirty (30) days of receipt of the invoices. Client further agrees to pay interest on all accounts invoiced and not paid or objected to for a valid cause in writing within said time period at a rate of 1-1/2 percent per month (18 percent per annum), until paid. Client agrees to pay Civil Design Concepts' cost of collection of the amounts due and unpaid after sixty (60) days, including but not limited to, court costs and attorney's fees. Civil Design Concepts shall not be bound by any provision such as contained in a purchase order or wherein Civil Design Concepts waives any rights to a mechanic's lien or any provision conditioning Civil Design Concepts' right to receive payment for its work upon payment to the Client by any third party. These general conditions are notice, where required, that Civil Design Concepts shall file a lien whenever necessary to collect past due amounts. The Client agrees that failure to make payment in full within thirty (30) days, or raise any specific objection to the services rendered or charge therefore shall constitute a waiver of any such objection or claim as to any issue Client may have and the failure to make payment or raise any objection as herein required shall bar any claim against CDC in tort or contract. It is also mutually agreed that should the Client fail to make prompt payments as described herein, Civil Design Concepts reserves the right to immediately stop all work under this agreement until all accounts are brought current or terminate this agreement, in the sole discretion of CDC..

**6. Personnel:** Civil Design Concepts represents that it has, or will secure at their own expense, all personnel required to perform the services under this agreement and that such personnel will be fully qualified and adequately supervised to perform such services. It is mutually understood that should the scope of services require outside subcontracted services, Civil Design Concepts may employ those services at their discretion.

**7. Opinions or Estimates of Cost:** Any costs estimates provided by Civil Design Concepts shall be considered opinions of probable costs. These along with project economic evaluations provided by Civil Design Concepts will be on a basis of experience and judgment, but, since Civil Design Concepts has no control over market conditions or bidding procedures, Civil

Design Concepts cannot warrant that bids, ultimate construction cost, or project economics will not vary from these opinions. Based thereon, Client waives any and all claims against CDC which arise out of any opinion of probable construction cost provided.

**8. Termination:** This Agreement may be terminated for convenience by either the Client or Civil Design Concepts with 15 days written notice or if either party fails substantially to perform through no fault of the other and does not commence correction of such non performance within 5 days of written notice and diligently complete the correction thereafter. On termination, Civil Design Concepts will be paid for all authorized work performed up to the termination date plus reasonable project closeout costs.

**9. Limitation of Liability:** Civil Design Concepts liability for Client's damages will, in aggregate, not exceed \$1,000,000 for the Scope of Services referenced herein. This provision takes precedence over any conflicting provision of this Agreement or any documents incorporated into it or referenced by it. This limitation of liability will apply whether Civil Design Concepts liability arises under breach of contract or warranty; tort, including negligence; strict liability; statutory liability; or any other cause of action, and shall include Civil Design Concepts' directors, officers, employees and subcontractors. Limits of liability may be increased upon request by Client for additional fees paid.

**10. Assignability:** This agreement shall not be assigned or otherwise transferred by either Civil Design Concepts or the Client without the prior written consent of the other. Assignability of this contract will not unreasonably be withheld.

**11. Severability:** The provisions of this Consulting Services Agreement shall be deemed severable, and the invalidity or enforceability of any provision shall not affect the validity or enforceability of the other provisions hereof. If any provision of this consulting services agreement is deemed unenforceable for any reason whatsoever, such provision shall be appropriately limited, and given effect to the extent that it may be enforceable.

**12. Ownership of Documents:** CDC shall retain all ownership and common law property rights in all documents, calculations, drawings, maps (together the "Documents"). Upon full and final payment to CDC pursuant to this contract, CDC will grant a one time, nonexclusive license in the Documents for Client's use on this Project/ Client agrees that the deliverables are intended for the exclusive use and benefit of, and may be relied upon for this project only by the Client and will not be used otherwise. In the event Client fails to pay all sums when due, CDC reserves the right to withdraw its Documents from any governmental agency to which same have been submitted for the purpose of obtaining approvals or permits and Client acknowledges that it shall have no right to make any use of the Documents whatsoever unless payments are made to CDC in accordance with this Agreement. Client agrees that CDC shall have the right to obtain an injunction to restrain such use if at any time Client fails to make payments to CDC.

**13. Excusable Delay:** If performance of service is affected by causes beyond Civil Design Concepts control, project schedule and compensation shall be equitably adjusted.

**14. Indemnification:** Client agrees to indemnify, defend and hold Civil Design Concepts, its agents, employees, officers, directors and subcontractors harmless from any and all claims, and costs brought against Civil Design Concepts which arise in whole or in part out of the failure by the Client to promptly and completely perform its obligations under this agreement, and as assigned in the Exhibit A, or from the inaccuracy or incompleteness of information supplied by the Client and reasonably relied upon by Civil Design Concepts in performing its duties or for unauthorized use of the deliverables generated by Civil Design Concepts.

Client initials \_\_\_\_\_  
CDC initials PLB

15. **Choice of Law:** This Agreement shall be governed by the internal laws of the State of North Carolina.

16. **Entire Agreement:** This Agreement contains all of the agreements, representations and understandings of the parties hereto and supersedes any previous understandings, commitments, proposals, or agreements, whether oral or written, and may only be modified or amended as herein provided; and as mutually agreed.

17. **Attachments to this document:** Exhibit A, "Proposal For Services"  
Dated: April 27, 2025

Watauga County, NC

Client Authorized Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address:

Civil Design Concepts, P.A.

Signature: 

Name: Patrick Bradshaw, PE

Principal

168 Patton Avenue  
Asheville, NC 28801

52 Walnut St. – Suite 9  
Waynesville, NC 28786

**AGENDA ITEM 12:****MISCELLANEOUS ADMINISTRATIVE MATTERS*****E. Proposed Property & Liability Insurance and Workers Compensation Renewals Request*****MANAGER'S COMMENTS:**

Renewal rates for property and liability insurance and workers compensation will be presented for the Board's consideration. The rate for property and liability is \$387,667 or a \$29,292 increase, and the rate for workers compensation is \$224,937; a \$6,552 increase over last year. Based on prior years' claims experience, staff is recommending continuing the property deductible at \$5,000. The Manager's recommended budget includes adequate funds to cover the insurance premiums.

Board approval is requested to accept the renewals for property and liability insurance and workers compensation from the North Carolina Association of County Commissioners (NCACC), in the amount of \$387,667 and \$224,937 respectively.



**NCACC RISK MANAGEMENT POOLS - LIABILITY AND PROPERTY**

<b>County: Watauga County</b>					
<b>RENEWAL ESTIMATE</b>					
JULY 1, 2025 to JULY 1, 2026				Date of Quote	4/23/2025
Coverage	Contract Limit	Deductible	Renewal Exposure		Contribution
Property	Insured Values	\$5,000	Total Property Values	\$128,622,500	87,880
Minimum Named Storm (All members)		\$25,000			
		\$1,000	Total Inland Marine Values	\$11,389,691	10,827
Flood, NFIP		\$500,000			
Flood/Earthquake		\$25,000		Total	
General Liability	\$2,000,000	\$0	Population	54,972	27,434
			Number of EMTs	0	0
			Total		<b>\$27,434</b>
Automobile Liability	\$2,000,000	\$0	Total # of Vehicles (Liability)	152	77,018
Excess Auto Liability					0
Physical Damage	Actual Cash Value	\$1,000	Total # of Vehicles (PD)	152	39,061
Replacement Cost	\$0		Value of Selected Veh.	\$0	\$0
			Total		<b>\$116,079</b>
Crime	\$250,000	\$1,000	Money on Premises	1	\$1,258
	\$0		Great than \$250,000	0	\$0
			Total		<b>\$1,258</b>
Public Officials Liability	\$2,000,000 per claim  \$4,000,000 annual aggregate	\$5,000 per claim	Population	54,972	31,914
			Total		<b>\$31,914</b>
Law Enforcement Liability	\$2,000,000 per occurrence  \$4,000,000 aggregate	\$5,000	Class A Employees	51	53,079
			Class B Employees	30	17,390
			Class C Employees	21	4,171
			Total		<b>\$74,640</b>
Employment Practices Liability	\$2,000,000 per claim  \$4,000,000 per aggregate	\$5,000 per claim	Population	54,972	24,635
			Total		<b>\$24,635</b>
Employee Benefits Liability	\$2,000,000	\$5,000			<b>included</b>
Environmental Impairment Liability	\$250,000 aggregate	\$0			<b>included</b>
Privacy or Security Event Liability	\$1,000,000 \$10,000,000 Pool Aggregate	\$5,000			<b>\$13,000</b>
<b>Annual Estimated Contribution</b>					<b>\$387,667</b>

**Please return this document with signed proposal. Excess cyber or overall liab on separate page(s) if applicable.**

## 2025 PROPERTY SUBLIMITS

---

\$2,500,000	ACCOUNTS RECEIVABLE	
\$5,000,000	AUTOMATIC COVERAGE	
\$2,500,000	BUSINESS INCOME AND EXTRA EXPENSE COMBINED	
\$250,000	COST OF EXTINGUISHING LANDFILL FIRES	
\$100,000	CONTINGENT TAX REVENUE INTERRUPTION	
\$250,000	CONTINGENT BUSINESS INCOME/CONTINGENT EXTRA EXPENSE	
\$2,500,000	DEBRIS REMOVAL (LESSOR OF 25% OF PROPERTY DAMAGE LOSS OR THE LIMIT SHOWN)	
\$500,000	DECONTAMINATION COSTS	
\$100,000	DEFERRED PAYMENTS	
\$10,000,000	EARTHQUAKE – SUBJECT TO A \$10,000,000 ANNUAL AGGREGATE	
\$2,500,000	ELECTRONIC DATA AND MEDIA	
\$50,000,000	EQUIPMENT BREAKDOWN, INCLUDING:	
	SPOILAGE	\$500,000
	SERVICE INTERRUPTION	\$2,500,000
	BUSINESS INTERRUPTION	\$25,000,000
	GROSS EARNINGS AND EXTRA EXPENSE	\$1,000,000
	EXPEDITING EXPENSE	\$500,000
	HAZARDOUS SUBSTANCE	\$1,000,000
	AMMONIA CONTAMINATION	\$500,000
	ELECTRONIC DATA & MEDIA	\$1,000,000
	CFC REFRIGERANTS	\$100,000
	COMPUTER EQUIPMENT	\$50,000,000
\$2,500,000	ERRORS AND OMISSIONS	
\$250,000	EVACUATION EXPENSE	
\$1,000,000	EXPEDITING EXPENSE	
\$1,000,000	EXTENDED PERIOD OF INDEMNITY (LESSER OF ACTUAL LOSS SUSTAINED FOR 180 CONSECUTIVE DAYS OR LIMIT SHOWN)	
\$1,000,000	UNSCHEDULED FINE ARTS - SUBJECT TO A MAXIMUM OF \$250,000 PER ITEM	
\$10,000,000	FLOOD - SUBJECT TO A \$10,000,000 ANNUAL AGGREGATE	
\$1,000,000	FLOOD – SUBJECT TO A \$1,000,000 ANNUAL AGGREGATE AS RESPECTS LOCATIONS SITUATED WHOLLY OR PARTIALLY WITHIN SPECIAL HAZARD ZONES FOR FLOOD	
\$2,500,000	INCREASED COST OF CONSTRUCTION	
\$2,500,000	INTERRUPTION BY CIVIL AUTHORITY	
\$100,000	LAW ENFORCEMENT ANIMAL MORTALITY	

\$2,500,000	LEASEHOLD INTEREST
\$2,500,000	MISCELLANEOUS UNNAMED PROPERTY
\$250,000	MOBILE MEDICAL EQUIPMENT
\$50,000,000	NAMED STORM – APPLICABLE TO ALL MEMBERS
\$250,000	FIBER OPTICS DISTRIBUTION LINES LOCATED MORE THAN 1,000 FEET FROM A COVERED LOCATION
\$10,000	PERSONAL PROPERTY OF OFFICERS AND EMPLOYEES OF THE PARTICIPANT
\$100,000	PROFESSIONAL FEES
\$2,500,000	PROPERTY IN COURSE OF CONSTRUCTION AND SOFT COSTS - ANY ONE COVERED PROPERTY
\$100,000	LAND AND WATER CONTAMINANT OR POLLUTANT CLEANUP. REMOVAL AND DISPOSAL - SUBJECT TO A \$500,000 ANNUAL AGGREGATE
\$2,500,000	SERVICE INTERRUPTION - PROPERTY DAMAGE AND TIME ELEMENT COMBINED
\$2,500,000	TRANSIT PROPERTY DAMAGE AND TIME ELEMENT COMBINED - PER CONVEYANCE
\$2,500,000	VALUABLE PAPERS & RECORDS & EDP MEDIA
\$2,500,000	INGRESS/EGRESS
\$100,000	LANDSCAPING, SUBJECT TO \$15,000 ANY ONE SHRUB OR TREE, CAUSED BY OR RESULTING FROM A COVERED PERIL
\$150,000	ANY ONE WATERCRAFT, \$1,500,000 ANY ONE OCCURRENCE FOR WATERCRAFT 27 FEET OR LESS IN LENGTH;
\$15,000	PIERS, DOCKS, PILINGS, BULKHEADS, AND WHARVES: ANY UNSCHEDULED LOCATION; \$100,000 MAXIMUM ANY ONE SCHEDULED LOCATION; \$250,000 ANY ONE OCCURRENCE FOR ALL LOCATIONS (SCHEDULED AND UNSCHEDULED)
\$250,000	UNSCHEDULED TUNNELS, BRIDGES, AND DAMS (EXCLUDING COVERAGE FOR THE PERILS OF EARTHQUAKE, FLOOD AND NAMED STORM)
\$10,000	UNSCHEDULED UNMANNED AIRCRAFT/UNMANNED AIRCRAFT SYSTEM - SUBJECT TO A \$50,000 ANNUAL AGGREGATE
\$100,000	UPGRADE TO GREEN



Payment Plan Available: Liability & Property Pool  
County or Entity: **Watauga County**

Quoted on: **4/23/2025**

**Annual Payment Plan\*:** **\$387,667**

*\*Total does not include excess cyber/overall liability or multi-pool/longevity incentives. See separate page(s) if applicable.*

**We appreciate your participation. To insure effective, efficient operation of your Pool we must receive payment in full no later than August 1st. A two percent late payment fee will be assessed on all amounts received after that date.**

I understand that changes made to the exposures subsequent to submission of the renewal application may result in changes to the Estimated Contribution:

Accepted by:

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Print Title \_\_\_\_\_

Date \_\_\_\_\_

This instrument has been pre-audited in the manner required by the Government Budget and Fiscal Control Act.

Financial Officer:

Signature \_\_\_\_\_

Date \_\_\_\_\_

***Please sign and return the accepted proposal by June 15th, 2025.***



County or Entity: **Watauga County**

**INCENTIVE ELIGIBILITY**

Multi-Pool Incentives can be earned by participating in both Pools. You are rewarded for your participation in our Workers Compensation and Liability & Property Pools with an incentive.

For questions regarding the Longevity Credit, please contact your underwriter.

Participation In Multiple Pools

**\$11,830**

Longevity Credit

*Percentage of Final Signed Contribution (WC & L&P)*

**3.0%**

**The contributions are established on the basis that the member remains in both pools. Should the member elect not to renew with both pools then the NCACC Risk Pools reserve the right to adjust the proposal pricing on the basis of single pool membership.**

**Please note that any applicable incentives will be applied to the Workers Compensation line for 2025-2026.**

***Please return this document with your signed proposal.***



**JULY 1, 2025 to JULY 1, 2026**

Quoted on: **4/23/2025**

**Renewal Estimate**

**EXCESS LIABILITY**

County or Entity: **Watauga County**

Excess Liability provides excess General Liability, Automobile Liability, Public Officials or Law Enforcement Liability limits. The Excess Liability comes into play when the primary limits have been exhausted. The Excess Liability allows the member to purchase a single increased limit, and use the limit where it is necessary. The Excess Liability does not increase each individual Liability limit, but is available in any covered Liability area should the need arise. The Pool's Excess Liability extends limits above the Pool's contract only.

Higher limits can be purchased in the form of the Excess Liability options as follows:

<b>EXCESS LIABILITY</b>	<b>ANNUAL CONTRIBUTION</b>	<b>SELECT LIMIT</b>
\$1,000,000 excess of \$2,000,000 underlying	<b>\$ 19,145</b>	<input type="text"/>
\$2,000,000 excess of \$2,000,000 underlying	<b>\$ 32,150</b>	<input type="text"/>
\$3,000,000 excess of \$2,000,000 underlying	<b>\$ 36,577</b>	<input type="text"/>

**EXCESS LIABILITY LIMIT ONLY APPLIES WHEN SELECTED.**

<b>Approved by:</b>	
Signature	_____
Printed Name	_____
Print Title	_____
Date	_____
This instrument has been pre-audited in the manner required by the Government Budget and Fiscal Control Act.	
Financial Officer:	
Signature	_____
Date	_____

**Please return this document with your signed proposal.**



**NCACC Risk Management Pools-Workers' Compensation  
RENEWAL ESTIMATE JULY 1, 2025 TO JULY 1, 2026**

Quoted on: **4/22/2025**

Member: **WATAUGA COUNTY**

Limits Coverage A : Workers Compensation: Statutory  
Coverage B: Employer's Liability: \$2,000,000

Class Code	Description	Annual Remuneration	Modified Rate	Modified Contribution
6217	EXCAVATION & DRIVERS	\$424,995	2.876	\$12,225
7704	FIRE MARSHALL OR INSPECTOR	\$205,113	1.741	\$3,570
7710	FIREFIGHTERS & DRIVERS PATROL OR PROTECTIVE CORPS	\$0	1.741	\$0
7720	SHERIFF'S DEPT. OFFICERS & DRIVERS	\$6,197,347	1.663	\$103,078
8810	CLERICAL	\$6,728,758	0.148	\$9,931
8831	HOSPITAL VETERINARY & DRIVERS	\$199,376	0.647	\$1,290
8835	NURSING- HOME HEALTH , PUBLIC & TRAVELING ALL EMPLO	\$294,569	1.470	\$4,330
9015	BUILDINGS - NOC	\$1,606,331	1.885	\$30,274
9061	CLUBS & SENIOR CENTERS: NOC & CLERICAL	\$185,476	0.643	\$1,193
9102	PARK NOC ALL EMPLOYEES/DRIVERS	\$1,153,496	1.153	\$13,303
9403	ASHES GARBAGE OR REFUSE COLLECTION & DRIVERS	\$181,618	3.878	\$7,044
9410	MUNICIPAL TOWNSHIP COUNTY OR STATE EMPLOYEES NOC	\$2,158,621	0.967	\$20,872
9999	VOLUNTEERS (NCACC designated class)	\$0	16.657	\$0
8810x	CLERICAL -DSS - N/A	\$1,854,687	0.148	\$2,737
9410x	MUNICIPAL TOWNSHIP COUNTY OR STATE EMPLOYEES NOC	\$1,560,579	0.967	\$15,089
<b>Total Estimated Payroll</b>		<b>\$22,750,966</b>		
<i>Subject to audit.</i>				
			<b>2025-2026 Contribution:</b>	<b>\$224,937</b>

*Please return this document with your signed proposal.*

**AGENDA ITEM 12:****MISCELLANEOUS ADMINISTRATIVE MATTERS*****F. Request to Amend the “Not to Exceed” Amount in Debris Tech’s Notice to Proceed*****MANAGER’S COMMENTS:**

The Board previously approved an amendment to the “Not to Exceed” amount for SDR’s contract regarding right-of-way debris removal. In conjunction with that amendment, Debris Tech (monitoring company as required by FEMA for reimbursement) is requesting an increase in the not to exceed amount of their contract from \$1 million to \$1.5 million. The \$1.5 million plus the \$3.8 million for SDR brings the total amount to \$5.3 million which is approximately \$1,090,781 less than the initial estimate.

Board approval is required to grant the increase to \$1.5 million in the not to exceed amount of Debris Tech’s contract.



# Watauga County Emergency Services

184 Hodges Gap Rd, Suite D  
Boone, NC 28607  
Phone 828-264-4235  
Fax 828-265-7617



**Fire Marshal ♦ Emergency Management ♦ Communications ♦ County Safety**

September 28<sup>th</sup>, 2024

Mr. Brooks Wallace, PE  
DebrisTech, LLC.  
923 Goodyear Blvd  
Picayune, MS 39466

Re: Disaster Debris Monitoring – Notice to Proceed

Dear Mr. Wallace:

Watauga County hereby authorizes DebrisTech, LLC. of Picayune, MS to proceed with disaster debris monitoring services in accordance with Independent Contractor Agreement dated August 7<sup>th</sup> 2020.

You have 48 hours from the issuance of this Notice to Proceed to provide the required certificates of insurances to Watauga County and commence monitoring activities.

With this notice to proceed, the Watauga County) and the Contractor agree to a not-to-exceed amount of \$1,000,000.00.

Sincerely,

  
Deron Geouque  
County Manager



# County of Watauga

Administration Building, Suite 205 • 814 West King Street • Boone, North Carolina 28607

**BOARD OF COMMISSIONERS**

Braxton Eggers, Chairman  
Todd Castle, Vice-Chairman  
Emily Greene  
Tim Hodges  
Ronnie Marsh

Telephone 828-265-8000  
TDD 1-800-735-2962  
Voice 1-800-735-8262

**COUNTY MANAGER**  
Deron T. Geouque

**COUNTY ATTORNEY**  
Nathan Miller

May 6, 2025

Via email: brooks@debristech.com  
DebrisTech, LLC  
Attn: Brooks Wallace, President

Re: Letter dated September 28, 2024 from Watauga County, North Carolina to DebrisTech, LLC (the "NTP Letter")

Dear Brooks,

In the NTP Letter, the estimated cost of debris removal monitoring is \$1,000,000 (the "Not to Exceed Amount"). Watauga County agrees to amend the NTP Email to increase the Not to Exceed Amount to \$1,500,000. If you are in agreement, please countersign and return a copy to me.

Sincerely,

Watauga County, NC

By: \_\_\_\_\_  
Name: Braxton Eggers  
Title: Chairman, Board of Commissioners

Acknowledged and Agreed:

DebrisTech, LLC

\_\_\_\_\_  
Brooks Wallace, President

Blank Page

**AGENDA ITEM 12:****MISCELLANEOUS ADMINISTRATIVE MATTERS*****G. Boards and Commissions*****MANAGER’S COMMENTS:****Watauga Medical Center Board of Trustees**

The Watauga Medical Center Board of Trustees has recommended Mr. Jeff Greene for appointment as a Board Trustee. Mr. Greene’s term would be effective from January 1, 2025, through December 31, 2027. This is a second reading.

**Personnel Advisory Committee**

The Watauga County Personnel Ordinance established a Personnel Advisory Committee which is comprised of five (5) persons designated by the Board, authorized to hear employee grievances, and recommend decisions to the appointing authority. The Committee consists of one (1) Commissioner, one (1) Department Head and three (3) rank and file employees. Current members and alternates of the Personnel Advisory Committee, including one (1) proposed new rank and file member (Deidre Guy, Assistant Finance Director) and two (2) proposed alternate members (Chris Marriott, Operations Services Director and Jennifer Kemp, Veterans Services Assistant) are as follows:

<b>Member</b>	<b>Position</b>	<b>Department</b>	<b>Appointment Date</b>
BCC Chairman	Commissioner Representative	BCC	12/02/2024
Angie Boitnotte	Department Head Representative	Project on Aging	12/03/2012
<b>Deidre Guy</b>	<b>Rank and File Employee Representative</b>	<b>Finance</b>	<b>05/06/2025</b>
Regina Houck	Rank and File Employee Representative	Tax	03/01/2016
Greg McGrady	Rank and File Employee Representative	Information Tech.	08/20/2019
BCC Vice-Chair	Commissioner Representative Alternate	BCC	12/02/2024
<b>Chris Marriott</b>	<b>Department Head Representative Alternate</b>	<b>Sanitation</b>	<b>05/06/2025</b>
Derrick Ellison	Rank and File Employee Representative Alternate	Maintenance	03/01/2016
Lynne Austin	Rank and File Employee Representative	Social Services	09/03/2019
<b>Jennifer Kemp</b>	<b>Regular Employee Representative Alternate</b>	<b>Veterans’ Serv.</b>	<b>05/06/2025</b>

These are first readings.

**Voluntary Farmland Preservation Program Advisory Board**

The Voluntary Farmland Preservation Program Advisory Board recommends the re-appointment of Mr. Kelly Coffey and Mr. Joe McNeil. Each are willing to continue to serve if so reappointed.

These are first readings.

March 28, 2025

Mr. Deron Geouque  
Watauga County Manager  
814 West King Street, Suite 205  
Boone, NC 28607

Dear Deron:

The Watauga Medical Center, Inc. Board of Trustees at their March 27, 2025 meeting unanimously approved submitting the following name to be considered by the Watauga County Commissioners for appointment to the Watauga Medical Center, Inc. Board of Trustees:

Jeff Greene

The appointment will be for a three-year term beginning January 1, 2025 and ending December 31, 2027.

Thank you for your assistance with this process and please contact me should you have any questions.

Sincerely,



Nathan Nipper, President & CEO  
Appalachian Regional Healthcare System, Inc.

## Personnel Advisory Committee

Watauga County has a Personnel Advisory Committee established by the Board of County Commissioners, and composed of one County Commissioner, one Department Head and three rank and file employees designated by the Board of County Commissioners, with authority to hear employee grievances and make a recommendation to the appointing authority. Each Personnel Advisory Committee seat shall also have an alternate member appointed in the case that the primary Committee Member is unable to participate in the grievance process, or has a close working or personal relationship with the grievant, or any type of conflict of interest that would prevent the committee member from being impartial.

The Personnel Advisory Committee meets only on an as needed basis to hear employee appeals.

Member	Position	Department	Appointment Date
BCC Chairman	Commissioner Representative	BCC	12/02/2024
Angie Boitnotte	Department Head Representative	Project on Aging	12/03/2012
Deidre Guy	Regular Employee Representative	Finance	05/06/2025
Regina Houck	Regular Employee Representative	Tax	03/01/2016
Greg McGrady	Regular Employee Representative	Information Tech.	08/20/2019
BCC Vice-Chair	Commissioner Representative Alternate	BCC	12/02/2024
Chris Marriott	Department Head Representative Alternate	Sanitation	05/06/2025
Derrick Ellison	Regular Employee Representative Alternate	Maintenance	03/01/2016
Lynne Austin	Regular Employee Representative Alternate	Social Services	09/03/2019
Jennifer Kemp	Regular Employee Representative Alternate	Veterans' Serv.	05/06/2025



Watauga County Soil & Water Conservation District

971 West King Street  
Boone, NC 28607  
(828) 719 - 3409

April 29, 2025

To: Watauga County Board of Commissioners

Two of the Farmland Preservation Program Board Members, the Chair, Kelly Coffey and also Joe McNeil, have terms that end this year. After bringing this to the attention of the Board of Farmland Preservation, the Board Members have recommended reappointment of both Kelly Coffee and Joe McNeil.

The Farmland Preservation Board asks that both of these leaders be approved to serve another term on the Farmland Preservation Board.

Thank you for consideration of this matter.

Michelle Kasey

Admin/Environmental Educator

Watauga County Soil & Water

---

**Board of Supervisors**

Bill Moretz  
Chris Hughes

Denny Norris, Chair

Todd Combs  
Jennie Hanifan

**AGENDA ITEM 12:****MISCELLANEOUS ADMINISTRATIVE MATTERS***H. Announcements***MANAGER'S COMMENTS:**

An Ethics for Elected Officials training course will be held via Zoom on Thursday, May 22, 2025, from 10:00 A.M. to 12:00 P.M. in the Commissioners' Board Room. The course is required to be taken by all Commissioners by December 2025. A quorum may be present for the training; however, no County business will be conducted.

The Trustees of Caldwell Community College & Technical Institute have invited the Board of Commissioners to a meeting on Wednesday, May 21, 2025, at 6:00 P.M. in the Instructional Building on the Watauga Campus.

**AGENDA ITEM 13:****BREAK**

# Ethics for Elected Officials

**Online** - *Click here to register for this course offering*

May 22, 2025



Overview



Register



Discounts &  
Scholarships



Materials



Contact

**This training will be held live on 5/22/25, online via Zoom, from 10am to 12pm.**

**Group discounts are not offered for the on-demand version.**

Under North Carolina law, members of governing boards of cities, counties, local boards of education, unified governments, sanitary districts, and consolidated city-counties are required to receive at least two (2) clock hours of ethics training within twelve months after each election or appointment to office. The ethics training requirement is an ongoing obligation, triggered by each subsequent re-election or reappointment to office.

This online training will satisfy the 2 clock hours of local ethics training required by state law for elected and appointed officials. This training **MUST** be completed within 12 months of election day and is required every time they are re-elected or appointed and reappointed to a local office.

See further instructions below and in the Preparation Checklist.

- Is your board attorney or a member of your board who is an attorney watching the webinar? The NC State Bar requires attorneys who wish to claim CLE (Continuing Legal Education) credit to purchase the webinar

separately in their name. The attorney must self-report to the State Bar for CLE credit.

What you need to know before you purchase:

A. If multiple incumbent board members need to receive their ethics training, you all should register via the group rates. Have your clerk or manager register you all as a group in a single transaction. If you need assistance, contact [registration@sog.unc.edu](mailto:registration@sog.unc.edu).

B. Who this training does NOT cover:

Individuals serving on state boards subject to the State Government Ethics Act (SGEA): Local elected officials who also serve on a state board that is subject to the State Government Ethics Act (SGEA), including local community college boards, are required to take ethics training that is offered through the State Ethics Commission. The SOG ethics-training program for local elected officials does NOT satisfy the state ethics training, and the state ethics training does NOT satisfy the local elected official ethics-training which is offered through this page. Consequently, local elected officials who also serve on a state board subject to the SGEA, must take both the state and the local ethics training programs. Officials who need to complete state ethics training should:

- Contact their board's ethics liaison for training, or
- Complete the online training available on State Board of Elections and Ethics Enforcement (formerly the State Ethics Commission)  
website: [ethics.ncsbe.gov/education/eduOnline](https://ethics.ncsbe.gov/education/eduOnline)

Local ABC Boards: For individuals who serve on a local ABC board, separate training is required. The SOG ethics training program for local elected officials does *NOT* satisfy the local ABC Board training, and the local ABC Board training does *NOT* satisfy the local elected officials ethic training. Here is the link to the webinar page for local ABC Boards.

School Boards: Please contact the NC School Boards Association for further information.

C. Board notice of a public meeting:

Boards are advised to give public notice of a special meeting for ethics training sessions if a majority of the board might be in attendance at the event. This is in keeping with the spirit of the ethics law, and out of an abundance of caution

concerning the legal requirements for board meetings.

## Purchasing the Webinar

### A. Who should purchase from your unit:

- If you want to receive the group rate, have your clerk or manager register everyone in a single transaction.
- Is your board attorney or a member of your board who is an attorney watching the webinar? The NC State Bar requires attorneys who wish to claim CLE (Continuing Legal Education) credit to purchase the webinar separately in their name, and to self-report to the State Bar for CLE credit.
- Do you have to purchase the webinars for each person watching from your board? Yes.
- Adding no-reply@sog.unc.edu and lrich@sog.unc.edu to your contacts will increase the chance of the email getting through.

Issues with purchasing? Simply email our registration department directly at [registration@sog.unc.edu](mailto:registration@sog.unc.edu) for issues with the registration/purchase process, passwords, or logging in. Provide your phone number and brief summary of your issue and someone from that department will contact you shortly. This is the fastest way to get assistance as there are multiple people in that department who can respond to you quickly.

**LELA Level:** This is a 101 Level course in the Local Elected Leaders Academy. Participating elected officials will earn 2 credits toward their Practitioner recognition certificate.

## LEAD FACULTY

---



# Caldwell Community College and Technical Institute

Office of the President

April 15, 2025

Mr. Deron Geouque  
Watauga County Manager  
814 West King Street, Suite 205  
Boone, NC 28607

Dear Mr. Geouque:

The Trustees of Caldwell Community College and Technical Institute would like to schedule a joint meeting of the College Board of Trustees, the Watauga County Board of Education and the Watauga County Commissioners on Wednesday, May 21, 2025 at 6:00 p.m. in the Instructional Building (372), room 112 on our Watauga Campus. A meal will be provided.

Please check the date and time with the Watauga County Commissioners and let my assistant, Christina Bryant, know either by e-mail: [clbryant@cccti.edu](mailto:clbryant@cccti.edu) or phone: 828-726-2240, if May 21<sup>st</sup> at 6:00 p.m. will accommodate the Watauga County Commissioner's schedule.

Sincerely,

A handwritten signature in black ink that reads "Mark J. Poarch".

Mark J. Poarch, Ed.D.  
President

Cc: Braxton Eggers, Chairman  
Watauga County Commissioners

2855 Hickory Blvd., Hudson, NC 28638 • 828.726.2210  
Email: [mpoarch@cccti.edu](mailto:mpoarch@cccti.edu) • Fax: 828.726.2300 • [www.cccti.edu](http://www.cccti.edu)

*An Equal Opportunity Educator & Employer*

**AGENDA ITEM 14:**

**CLOSED SESSION**

Attorney/Client Matters per, G. S. 143-318.11(a)(3)