RESOLUTION AMENDING AUTHORIZATION OF FY2023 PURCHASES OF COMPUTER HARDWARE, SOFTWARE, AND INFORMATION TECHNOLOGY CONTRACT SERVICES FOR THE AGENCY

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and non-profit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, NCTCOG staff annually reviews and determines anticipated computer hardware, software and information technology contract services needs for the upcoming year; and,

WHEREAS, the FY2023 purchase of Computer Hardware, Software and Information Technology Contract Services was originally approved in September 2022; and,

WHEREAS, the requirements for information technology purchases have varied from the originally anticipated purchases necessitating a modification of the authorization amounts for vendors from the original authorization; and,

WHEREAS, the North Central Texas Council of Governments will comply with federal and state regulations regarding contracting and procurement.

NOW, THEREFORE, BE IT HEREBY RESOLVED THAT:

Section 1. The NCTCOG Executive Board amends the purchase of Computer Hardware, Software, and Information Technology Contract Services, consistent with Attachment A, in an amount not to exceed $5,200,000.

Section 2. The Executive Director or designee is authorized to execute contractual agreements consistent with Attachment A, in the name of the North Central Texas Council of Governments.

Section 3. The Executive Director or designee is authorized to increase contract amounts for purchase categories in Attachment A, up to a maximum of twenty-five percent (25%), subject to the total authorized amount contained in Section 1.

Section 4. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that the resolution was adopted by the Executive Board of the North Central Texas Council of Governments on March 23, 2023.

Chris Hill, Secretary-Treasurer
North Central Texas Council of Governments
County Judge, Collin County
## Attachment A

<table>
<thead>
<tr>
<th>#</th>
<th>Category</th>
<th>Vendor(s)</th>
<th>Original Authorization</th>
<th>Requested Authorization</th>
<th>Change in Authorization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Client Devices and Accessories:</strong> Includes the cost of all printers,</td>
<td>CDWG, Dell, SHI</td>
<td>$600,000</td>
<td>$600,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>computers, tablets, monitors, accessories, and associated warranties.</td>
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<tr>
<td></td>
<td>These items are typically purchased off a cooperative purchasing contract.</td>
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<tr>
<td>2</td>
<td><strong>Client Productivity Software and Software as a Service:</strong> Includes the</td>
<td>Carahsoft, Cartovista,</td>
<td>$198,000</td>
<td>$198,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>cost of client productivity and collaboration software or software as a</td>
<td>CDWG, Insight</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>service. This includes Adobe, Smartsheet, Zoom, and other productivity</td>
<td></td>
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<td></td>
<td>software, and associated services and support. These items are typically</td>
<td></td>
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<tr>
<td></td>
<td>purchased off a cooperative purchasing contract.</td>
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</tr>
<tr>
<td>3</td>
<td><strong>Smartsheet Advanced:</strong> Includes the cost of Smartsheet premium</td>
<td>Carahsoft</td>
<td>$210,000</td>
<td>$210,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>features, including secure request management, application integrations,</td>
<td></td>
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<td></td>
<td>and project, program, and process management. These items are typically</td>
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<tr>
<td></td>
<td>purchased off a cooperative purchasing contract.</td>
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</tr>
<tr>
<td>4</td>
<td><strong>Network, Internet, and Voice Equipment and Services:</strong> Includes the</td>
<td>CDWG, DataVox, Flair</td>
<td>$300,000</td>
<td>$300,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>cost of equipment for the network routers, switches, firewalls, access</td>
<td>Data Systems, SHI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>points, or enterprise voice and data network equipment and associated</td>
<td></td>
<td></td>
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<td></td>
<td>warrants and software maintenance. These items are typically purchased</td>
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<td></td>
<td>off a cooperative purchasing contract.</td>
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<tr>
<td>5</td>
<td><strong>Data Center and Infrastructure Equipment:</strong> Includes the cost of</td>
<td>CDWG, FreeIT, UDI/Converged</td>
<td>$425,000</td>
<td>$425,000</td>
<td>$ -</td>
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<tr>
<td></td>
<td>replacing, upgrading, or purchasing new data center server, storage, and</td>
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<td></td>
<td>data protection equipment, including any warranties or software</td>
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<tr>
<td></td>
<td>maintenance contracts. These items are typically purchased off a</td>
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<tr>
<td></td>
<td>cooperative purchasing contract.</td>
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<tr>
<td>6</td>
<td><strong>Cabling and Wiring Services:</strong> Includes the cost of cabling services,</td>
<td>NCS</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>installing patch panels and equipment racks, and testing existing</td>
<td></td>
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<tr>
<td></td>
<td>cabling and wiring. This will be purchased off a cooperative purchasing</td>
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<tr>
<td></td>
<td>contract.</td>
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<tr>
<td>7</td>
<td><strong>Internet, Telephone, and Wide Area Network Services:</strong> Includes the</td>
<td>TxDIR</td>
<td>$300,000</td>
<td>$300,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>cost for Internet and telephone connectivity for the Agency and the cost</td>
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<tr>
<td></td>
<td>of the wide area network connectivity required for the Workforce</td>
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<td></td>
<td>Department. This will be purchased off a cooperative purchasing contract.</td>
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</tr>
<tr>
<td>8</td>
<td><strong>Financial System Software Maintenance:</strong> Includes the maintenance of</td>
<td>Deltek</td>
<td>$175,000</td>
<td>$175,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>Deltek financial software. This is a sole source purchase.</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td><strong>Transportation Modeling Software:</strong> Includes the maintenance of</td>
<td>Caliper</td>
<td>$80,000</td>
<td>$80,000</td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>Caliper Transcad Modeling and add-ons software. This is a sole source</td>
<td></td>
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<tr>
<td></td>
<td>purchase.</td>
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<tr>
<td></td>
<td><strong>Laserfiche Software and Support</strong>: Includes the cost of Laserfiche software and maintenance, and the cost of support services for the Laserfiche software and related technologies. This will be purchased off a cooperative purchasing contract.</td>
<td>MCCI</td>
<td>$230,000</td>
<td>$230,000</td>
<td>$ -</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>11</td>
<td><strong>Website Licensing, Migrations and Support</strong>: Includes the cost of licensing and related services for the main NCTCOG website and other websites on the Kentico platform. This will be purchased off a cooperative purchasing contract.</td>
<td>BlueModus, SHI</td>
<td>$285,000</td>
<td>$285,000</td>
<td>$ -</td>
</tr>
<tr>
<td>12</td>
<td><strong>Security Software, Services, and Hardware</strong>: Includes funds for the maintenance, support, and associated services for security hardware and software. Typically purchased off a cooperative purchasing agreement.</td>
<td>Carahsoft, ePlus, Kudelski Security, SHI, General Datatech, Optiv</td>
<td>$512,000</td>
<td>$642,000</td>
<td>$130,000</td>
</tr>
<tr>
<td>13</td>
<td><strong>Security Service Edge</strong>: Secures access to the web, cloud services, and private applications. Capabilities include access control, threat protection, data security, security monitoring, and acceptable-use control. This will be purchased off a cooperative purchasing contract.</td>
<td>ePlus</td>
<td>$75,000</td>
<td>$75,000</td>
<td>$ -</td>
</tr>
<tr>
<td>14</td>
<td><strong>Microsoft Enterprise Agreement Increase</strong>: Costs for software licenses and cloud services purchased off of the Microsoft Enterprise Agreement. The amount is in addition to the $1,725,000 approved in FY2021 bringing the total to $2,025,000. This will be purchased off the DIR cooperative purchasing agreement.</td>
<td>SHI</td>
<td>$300,000</td>
<td>$300,000</td>
<td>$ -</td>
</tr>
<tr>
<td>15</td>
<td><strong>Microsoft Software Support Services</strong>: Includes the cost of the Microsoft annual support contract, and consulting services on Microsoft technologies such as System Center Configuration Manager, SQL Database software, Office 365, and Windows Server. Typically purchased off a cooperative purchasing agreement.</td>
<td>Microsoft, Planet Technologies, SHI</td>
<td>$300,000</td>
<td>$500,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>16</td>
<td><strong>Web/Application Development Software and Services</strong>: Includes funds for the maintenance, support, and associated services for web and application development. Typically purchased off a cooperative purchasing agreement and/or existing services contract.</td>
<td>BlueModus, Eixsys, SHI, Webhead</td>
<td>$360,000</td>
<td>$780,000</td>
<td>$420,000</td>
</tr>
</tbody>
</table>

**TOTAL AUTHORIZATIONS:**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>$4,450,000</strong></td>
<td><strong>$5,200,000</strong></td>
<td><strong>$750,000</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESOLUTION AUTHORIZING THE GREENVILLE WORKFORCE CENTER LEASE EXTENSION

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and non-profit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, NCTCOG, in its capacity as the Administrative Entity and designated Grant Recipient/Fiscal Agent of the North Central Texas Workforce Development Board, currently has a lease agreement with Hunt County, expiring May 31, 2023, for the operation of a 9,141 square foot workforce center located on the 2nd and 3rd floors of the Greenville Exchange Building located at 2500 Stonewall Street, Greenville, Texas; and,

WHEREAS, NCTCOG staff recommends extending the current Greenville Center lease for two (2) years to allow for post-pandemic customer traffic patterns to stabilize and for staff to develop a strategic and comprehensive approach to where and how many stand-alone centers are located throughout the 14-County region; and,

WHEREAS, the landlord has agreed to a two (2) year lease extension at an average price per square foot not to exceed $20.12 which includes base rent, taxes, insurance, common area maintenance and electric but excludes janitorial amounts; and,

WHEREAS, NCTCOG staff recommend entering into a lease extension agreement at the current location due to the favorable price, location, square footage, and termination option with 90-day notice to the landlord.

NOW, THEREFORE, BE IT HEREBY RESOLVED THAT:

Section 1. A lease extension between NCTCOG and Hunt County for the Greenville Workforce Center, for a two (2) year term and at an average price per square foot not to exceed $20.12 (including base rent, taxes, insurance, common area maintenance and electric but excluding janitorial amounts), be and is hereby approved.

Section 2. The Executive Director or designee is authorized to execute necessary agreements with Hunt County in the name of the North Central Texas Council of Governments.

Section 3. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that this resolution was adopted by the Executive Board of the North Central Texas Council of Governments on March 23, 2023.

Chris Hill, Secretary/Treasurer
North Central Texas Council of Governments
County Judge, Collin County
## Exhibit A - Greenville Workforce Center
Comparison Chart - Retail & Office Properties
Provided by Avston Young February 17, 2023

<table>
<thead>
<tr>
<th>Building Picture</th>
<th>Building Address/Name</th>
<th>Bldg Size (sf)</th>
<th>Avail Space (sf)</th>
<th>% Leased</th>
<th>Avg. Base Rate ($/sf)</th>
<th>Rate Type</th>
<th>OPEX* ($/sqf)</th>
<th>Gross Rate Inc. E &amp; J ($/sqf)</th>
<th>Parking Ratio</th>
<th>TI Allowance ($/sf)</th>
<th>Yr. Built</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Greenville Promenade NWC Wesley St &amp; Kari Ln" /></td>
<td>Greenville Promenade NWC Wesley St &amp; Kari Ln</td>
<td>216,360</td>
<td>4,500</td>
<td>98%</td>
<td>$27.00</td>
<td>NNN</td>
<td>$7.50</td>
<td>$34.50</td>
<td>6.00/1.000</td>
<td>Negotiable</td>
<td>1982</td>
</tr>
<tr>
<td><img src="image" alt="Morris Plaza - Bldg 2 2608 Eastland St" /></td>
<td>Morris Plaza - Bldg 2 2608 Eastland St</td>
<td>6,281</td>
<td>4,000</td>
<td>36%</td>
<td>$18.00</td>
<td>NNN</td>
<td>$6.50</td>
<td>$24.50</td>
<td>5.57/1,000</td>
<td>Negotiable</td>
<td>1985</td>
</tr>
<tr>
<td><img src="image" alt="Town South Shopping Center 5013-5101 Wesley" /></td>
<td>Town South Shopping Center 5013-5101 Wesley</td>
<td>108,382</td>
<td>26,100</td>
<td>75%</td>
<td>$16.50</td>
<td>NNN</td>
<td>$7.50</td>
<td>$24.00</td>
<td>5.67/1,000</td>
<td>Negotiable</td>
<td>1971</td>
</tr>
<tr>
<td><img src="image" alt="Greenville Exchange Building (Current Location) 2500 Stonewall St" /></td>
<td>Greenville Exchange Building (Current Location) 2500 Stonewall St</td>
<td>32,100</td>
<td>0</td>
<td>100%</td>
<td>$19.52</td>
<td>Full Service</td>
<td>$2.00</td>
<td>$21.52</td>
<td>Garage &amp; Street</td>
<td>$0.00</td>
<td>1930's</td>
</tr>
<tr>
<td><img src="image" alt="Henson Building 2411 Wesley St" /></td>
<td>Henson Building 2411 Wesley St</td>
<td>22,336</td>
<td>4,467</td>
<td>80%</td>
<td>$15.00</td>
<td>Net of E &amp; J</td>
<td>$3.50</td>
<td>$18.50</td>
<td>5.67/1,000</td>
<td>$0.00</td>
<td>1928</td>
</tr>
</tbody>
</table>

*Average Gross Rate ($/sf): $24.60*

*OPEX includes Taxes, Insurance, CAM, Utilities ($1.50 PSF) & Janitorial ($2.00 PSF)
RESOLUTION AUTHORIZING AGREEMENTS WITH THE COLLABORATIVE ADAPTIVE SENSING OF THE ATMOSPHERE (CASA WX) PROGRAM

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and non-profit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, CASA WX installs, operates, and maintains a system of weather radars in North Central Texas, providing time-sensitive, high-resolution weather data at neighborhood precisions levels to member jurisdictions and regional partners; and,

WHEREAS, the CASA WX membership program, administered by the NCTCOG Emergency Preparedness Department, is the primary funding mechanism for CASA WX in North Central Texas; and,

WHEREAS, North Central Texas Council of Governments is the appropriate agency to act on behalf of its member local governments to assist in advocating for the region.

NOW, THEREFORE, BE IT RESOLVED THAT:

Section 1. Agreements between NCTCOG and the CASA WX program, as represented by UMass and CSU, for maximum five (5) year terms and with a cumulative amount not to exceed $1,180,000, be and are hereby approved.

Section 2. The Executive Director or designee is authorized to execute agreements necessary to carry out the initiatives described herein in the name of the North Central Texas Council of Governments.

Section 3. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that this Resolution was adopted by the Executive Board of the North Central Texas Council of Governments on March 23, 2023.

Chris Hill, Secretary-Treasurer
North Central Texas Council of Governments
County Judge, Collin County
COLLABORATION AGREEMENT

BETWEEN THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND COLORADO STATE UNIVERSITY

This Collaboration Agreement (the "Agreement"), including Appendices A and B, is made and entered into as of January 1, 2023 ("Effective Date") by and between the Board of Governors of the Colorado State University System acting by and through Colorado State University ("CSU") located at 601 Howes St, Suite 500, Fort Collins, CO 80523-2002, and the North Central Texas Council of Governments ("NCTCOG"), a Texas political subdivision and non-profit corporation with offices at 616 Six Flags Drive, Centerpoint Two, Arlington, Texas 76011.

RECITALS:

WHEREAS, CSU is a partnering academic institution of the Engineering Research Center for Collaborative Adaptive Sensing of the Atmosphere ("CASA"), which is a graduated National Science Foundation Engineering Research Center, with UMass as the lead University; and

WHEREAS, NCTCOG is an association of local governments that serves the 16-county region of North Central Texas, which is centered around the two urban centers of Dallas and Fort Worth. This area experiences severe weather events such as flash flooding, severe storms and tornadoes during 9 out of 12 months each year; and

WHEREAS, CASA and NCTCOG entered into a Master Agreement on January 3, 2013 and renewed the Master Agreement from January 3, 2018 – 2022, and NCTCOG supported the relocation of CASA’s radar test bed system to the Dallas Fort Worth area ("CASA DFW Urban Demonstration Network"); and

WHEREAS, NCTCOG and CASA are committed to continued collaboration to maintain and expand the CASA DFW Urban Network as part of the "CASA Living Lab for Severe Weather Warning Systems" focusing on the boundary layer, to detect and forecast severe wind, tornado, hail, ice, flash flood hazards, and human-made hazards; to demonstrate impacts-based, high-resolution warnings and forecasts for a range of public and private decision-makers; to prove value of collaborative, adaptive X-band radar networks to existing and future sensors, products, performance metrics, and decision-making; and assess optimal combinations of observing system; to develop replicable public/private/local model for regional sensor acquisition, deployment and ops; and are entering into a Master Agreement effective January 1, 2023, for continued collaboration over the next five year period;

NOW, THEREFORE, the parties hereby agree as follows:

ARTICLE I
OBLIGATIONS
During the term of this Agreement, NCTCOG will provide funding to CSU for agreed to projects as Task Orders. The specific scopes of work, budgets, invoicing terms and any additional terms specific to the project will be incorporated into Task Orders under this Agreement. All Task Orders will be subject to the terms of this Agreement. Task Order #01 is included here in Appendix A.

CSU will assign a Principal Investigator for each project who will work with the CASA Project Manager in preparation of proposals, budgets, schedules and milestones, and reporting associated with NCTCOG funding allocations as described in each amendment.

Principal Investigator at CSU will be responsible for timely completion of the work identified in the Scope of Work and deliverables as described in each amendment and providing written reports in support of the funding allocations from the NCTCOG.

CSU must notify NCTCOG of impending travel plans related to any funding/amendments before travel expenses are incurred and obtain permission for travel. To be reimbursed for travel agreed upon by NCTCOG, CSU shall provide the information required in Appendix B, “Travel Reimbursement Policy.” It is acknowledged CSU must also follow its own institutional travel policy/procedures as outlined at http://busfin.colostate.edu/Forms/FRP/Travel/FPI_5-1_Travel.pdf.

CSU agrees to allow NCTCOG access to its records relating to all work funded under the Collaboration Agreement upon request during business hours during the period of this Agreement and for 3 years after termination. CSU agrees to provide reasonable requests for contract records and supportive documents as may be required from time to time to satisfy state/federal agencies and auditors with oversight authority on this project.

ARTICLE II
INSURANCE & LIABILITY

Each Party is responsible, through its worker’s compensation policy or other coverage (including self insurance), for any personal injury (including death) that could result to its employees or agents coming upon any premises for the purpose of installing, deploying or operating the CASA Living Lab for Severe Weather Warning Systems. In addition, all parties to this agreement shall, to the full extent allowed by law, be responsible and able to assume liability for its own wrongful or negligent acts or omissions, or those of its officers, agents or employees in performance under this Agreement.

ARTICLE III
TERM; TERMINATION

The initial term of this Agreement will be one (1) year from the Effective Date, which is signified when duly signed by officials from all parties to the contract. Thereafter, the Agreement can be renewed for additional one (1) year terms by mutual agreement of the parties for up to five years, whichever occurs first. Funding of Annual scopes of work will require an issuance of an executed Task Order detailing the scope of work and budget. Any party may terminate its participation under this Agreement or any Task Order upon sixty (60) days advance written notice to the other parties. In the event of termination, compensation to CSU will be in accordance with Article V.

ARTICLE IV
Page 2 of 10
FINANCIAL COMMITMENT

Additional terms and conditions associated with NCTCOG’s specific funding allocations to CSU shall be incorporated annually into Appendix A, Budget and Scope of Work, of this Collaboration Agreement. Appendix A will include a specific scope of work for annual use of funds and a line item budget.

ARTICLE V
AVAILABILITY OF FUNDING

This Agreement and all claims, suits, or obligations arising under or related to this Agreement are subject to and limited to the receipt and availability of funds which are received from the funding agencies by NCTCOG dedicated for the purposes of this Agreement. CSU understands that NCTCOG is a voluntary association of local governments and often funding is dependent on outside agencies. As such, if funding is not available for the CASA project or the NCTCOG loses funding during the term of this Agreement, this Agreement in the sole discretion of NCTCOG shall terminate. NCTCOG will use its best efforts to secure acceptable funding and agrees to communicate to CSU a failure of funding as soon as possible. If terminated by NCTCOG for lack of funding, all costs incurred and any non-cancelable obligations by CSU for the work will be paid by NCTCOG through the date of termination, but in no case will payment exceed the total agreed upon for performance of any Task Order that is cancelled.

ARTICLE VI
INDEMNIFICATION

Colorado State University agrees to take responsibility for any and all claims, damages and liability incurred as a result of any alleged negligent act or omission of their employees, which occurred or is alleged to have occurred during the performance of their duties within the scope of their employment unless such acts or omissions are willful and wanton. Claims against CSU shall be subject to the limitations of the Colorado Governmental Immunity Act, CRS 24-10-101 et seq.

ARTICLE VII
FORCE MAJEURE

It is expressly understood and agreed by the Parties to this Agreement that, if the performance of any provision of this Agreement is delayed by force majeure, defined as reason of war, civil commotion, act of God, governmental restriction, regulation or interference, fire, explosion, hurricane, flood, failure of transportation, court injunction, pandemic, or any circumstances which are reasonably beyond the control of the Party obligated or permitted under the terms of this Agreement to do or perform the same, regardless of whether any such circumstance is similar to any of those enumerated herein, the Party so obligated or permitted shall be excused from doing or performing the same during such period of delay, so that the period of time applicable to such requirement shall be extended for a period of time equal to the period of time such Party was delayed. Each Party must inform the other in writing within reasonable time of the existence of such force majeure.

ARTICLE VIII
SEVERABILITY
In the event any one or more of the provisions contained in this Agreement shall be for any reason held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision(s) hereof, and this Agreement shall be revised so as to cure such invalid, illegal, or unenforceable provision(s) to carry out as near as possible the original intents of the Parties.

ARTICLE IX
ASSIGNMENT

This Contract may not be assigned by either Party without the prior written consent of the other Party.

ARTICLE X
GOVERNING LAW/VENUE

Each Amendment or Modification shall be governed by and construed in accordance with the laws that have been negotiated and agreed upon by all parties for that specific scope of work and accompanying budget.

ARTICLE XI
LIMITATION OF LIABILITY AND PAYMENT

In no event shall either party be liable for special, consequential, incidental, indirect or punitive loss, damages or legal expenses arising out of or relating to this Agreement, whether arising from breach of contract or warranty, or arising in tort, strict liability, by statute or otherwise, even if it has been advised of their possible existence or if such loss, damages or legal expenses were reasonably foreseeable.

Invoices shall be emailed to Amanda Everly at Amanda.Everly@fortworthtexas.gov, and shall contain the following certification statement: “I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays reported are for the purposes set forth in the award documents.” A report including summary of work performed, deliverables completed, services provided, and supporting expenditure receipts are required for all invoices.

Payment shall be submitted within 30 days to:
Colorado State University
Sponsored Programs
500 University Services Center
2002 Campus Delivery
Fort Collins, CO 80523-2002

ARTICLE XII
CONFLICT OF INTEREST

During the term of this Contract, and all extensions hereto and for a period of one (1) year thereafter, neither party shall, without the prior written consent of the other, directly or indirectly, whether for its own account or with any other persons or entity whatsoever, employ, solicit to employ or endeavor to entice away any person who is employed by the other party. Provided,
however, that this clause does not apply to situations where an employee of a party voluntarily
seeks employment for a publicly advertised position of the other party.

ARTICLE XIII
NOTICE CLAUSE

Notice from one Party to another Party regarding this Agreement shall be in writing and shall be
delivered to the addresses shown below:

If to NCTCOG:
North Central Texas Council of Governments
Attn: Maribel Martinez, Dir. Emergency Preparedness
616 Six Flags Drive
P. O. Box 5888
Arlington, Texas 76005-5888

If to CSU:
Executive Director
Colorado State University
Attn: Michael Lang, Senior Research Administrator
601 Howes Street, Room 408
Fort Collins, CO 80523-2002

Tel: 970-491-5570
Email: Michael.Lang@colostate.edu

The above contact information may be modified without requiring an amendment to the
Agreement.

ARTICLE XIV
AMENDMENT OR MODIFICATION CLAUSE

This Agreement may be amended only by a written amendment executed by all Parties.

ARTICLE XV
DISPUTE RESOLUTION

The parties to this Agreement agree to the extent possible and not in contravention of any
applicable State or Federal law or procedure established for dispute resolution, to attempt to
resolve any dispute between them regarding this Agreement informally through voluntary
mediation, arbitration or any other local dispute mediation process before resorting to litigation.

ARTICLE XVI
COUNTERPARTS; ENTIRE AGREEMENT

This Agreement and any amendment hereto may be executed in counterparts, and all such
counterparts taken together shall be deemed to constitute one and the same instrument. This
Agreement embodies the entire understanding of the Parties with respect to the subject matter
herein, and any prior or contemporaneous representations, either oral or written, are hereby
superseded. No amendments or changes to this Agreement shall be effective unless made in
writing and signed by authorized representatives of the parties.
ARTICLE XVII
CONTRACTUAL RELATIONSHIP

It is understood and agreed that the relationship described in this Agreement between the Parties is contractual in nature and is not to be construed to create a partnership of joint venture or agency relationship between the parties. Nor shall any Party be liable for any debts incurred by the other Party in the conduct of such other Party's business or functions.

[NEXT PAGE IS SIGNATURE PAGE]
IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Agreement to be executed by their authorized representatives as set forth below.

COLORADO STATE UNIVERSITY
FORT COLLINS, CO

By ____________________________  By ____________________________
Name  William W. Moseley  Name  V. Chandrasekar
Title  Pre-award Manager  Title ___________________________________
Date ____________________________ Date ____________________________

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

By ____________________________
Name  Mike Eastland
Title  Executive Director
Date ____________________________
APPENDIX A
Task Order #01 to Collaboration Agreement Dated January 1, 2023
2023 BUDGET AND SCOPE OF WORK

Appendix A is for the Task Order, outlining the Budget and Scope of Work for the each successive year under the Collaboration Agreement between the North Central Texas Council of Governments (NCTCOG) and Colorado State University (CSU), dated January 1, 2023.

SCOPE OF WORK

Performance Period: January 3, 2023 – December 31, 2023

Principal Investigator: V. Chandrasekar

1. Radar Operations, Trouble Shooting and Maintenance. CSU engineers will remotely monitor installed radars, diagnose operational issues, and travel, if necessary, for radar repairs or upgrades.

2. Radar Testing for Operations. CSU will test and validate various radar signals to validate them in the operating range. This may include the naturally occurring rain target.

3. Salaries and Wages Roughly three months of support for engineering staff, and signal testing staff working on the project is included.

2023 BUDGET

<table>
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<tr>
<th>Line Item</th>
<th>Description</th>
<th>Requested Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel Costs</td>
<td>Radar Staff including test engineer and hardware engineer</td>
<td>$33,333</td>
</tr>
<tr>
<td>Direct Costs Total</td>
<td></td>
<td>33,333</td>
</tr>
<tr>
<td>F&amp;A Charges</td>
<td>Financial Management and Administration</td>
<td>11,667</td>
</tr>
</tbody>
</table>
| TOTAL         |                                                       | 45,000           

Except to the extent specifically amendment herein, all other terms and conditions contained in the Master Agreement shall be and remain in full force and effect.

[NEXT PAGE IS SIGNATURE PAGE]
IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Task Order to be executed by their authorized representatives as set forth below.

COLORADO STATE UNIVERSITY
FORT COLLINS, CO

By ________________________________
Name  William W. Moseley
Title  Pre-award Manager
Date  ________________________________

By ________________________________
Name  V. Chandrasekar
Title  ________________________________
Date  ________________________________

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

By ________________________________
Name  Mike Eastland
Title  Executive Director
Date  ________________________________
APPENDIX B
TRAVEL REIMBURSEMENT POLICY

Reimbursement for travel agreed upon by NCTCOG requires the following:

- UMASS/CSU travel Expense Report with the following information provided (in the Description or Comments section or on a separate page):
  - Destination – City
  - Purpose – Clearly defined (= How does this reimbursement request relate to a NCTCOG contract, grant, or project?)
  - Departure Time & Date
  - Return Time & Date
- NCTCOG will not pay for meals. Attach detailed receipts for all travel expenses to include hotel, airfare, rental car, gas for rental car, parking, and tolls, if applicable.
- If requesting mileage reimbursement for use of an employee’s personal vehicle for mileage to/from airport, a Google map must be included showing the printed route and mileage. Privately owned vehicle mileage will be reimbursed at current GSA rates (https://fmx.cpa.state.tx.us/fm/travel/travelrates.php). GSA Mileage rates change annually. It is incumbent on the traveler to know current GSA rates.

NCTCOG does not reimburse for food, drink, alcohol purchases or tips/gratuities.

Per diem is calculated based on the U.S. General Services Administration. (https://fmx.cpa.state.tx.us/fm/travel/travelrates.php). Per diem rates may change monthly in some locations. If the rate for your destination is not included on the GSA list, a maximum reimbursable rate for per diem (lodging, meals, and incidental expenses) shall be consistent with the Standard Rate for Per Diem in Texas provided by the GSA. It is incumbent on the traveler to know current GSA rates.

Ask for the government rate on hotel stays.

NCTCOG will only reimburse actual, eligible expenses with corresponding receipts up to the GSA per diem rate.
MASTER AGREEMENT

BETWEEN THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE UNIVERSITY OF MASSACHUSETTS AMHERST

This Master Agreement (the "Agreement"), including Appendices A-E, is made and entered into as of January 2, 2023 ("Effective Date") by and between the University of Massachusetts Amherst ("UMass"), located at 100 Venture Way, Suite 201, Hadley, MA 01035-9450, representing the Paros Center for Atmospheric Sensing which operates the Center for Collaborative Adaptive Sensing of the Atmosphere ("CASA"), and the North Central Texas Council of Governments ("NCTCOG"), a Texas political subdivision and non-profit corporation with offices at 616 Six Flags Drive, Centerpoint Two, Arlington, Texas 76011.

RECITALS:

WHEREAS, CASA was the Engineering Research Center for Collaborative Adaptive Sensing of the Atmosphere at the University of Massachusetts Amherst, which is a graduated National Science Foundation Engineering Research Center, with the University of Massachusetts Amherst as the lead University and The Board of Governors of the Colorado State University System, by and through Colorado State University, Fort Collins, CO and the Board of Regents of the University of Oklahoma, Norman, OK are partnering academic institutions; and CASA’s activities will now be incorporated into the Paros Center for Atmospheric Research; and

WHEREAS, NCTCOG is an association of local governments that serves the 16-county region of North Central Texas, which is centered around the three urban centers of Dallas, Fort Worth and Arlington. This area experiences severe weather events such as flash flooding, severe storms and tornadoes during 9 out of 12 months each year; and

WHEREAS, CASA and NCTCOG entered into a Memorandum of Understanding on May 26, 2011, and subsequently a Master Agreement from January 3, 2013 to January 2, 2018 and renewed that Master Agreement from 2018 - 2022 to explore the financial and political means by which NCTCOG could support CASA to relocate its radar test bed system to the Dallas Fort Worth area ("CASA DFW Urban Demonstration Network"); and

WHEREAS, to support Operations, CASA and its academic and industry collaborators secured and provided seven weather radars to be part of the CASA DFW Urban Demonstration Network; CASA and NCTCOG identified sites for installation of the radars; NCTCOG and selected sites entered into written agreements for sites to a) host the radars, and b) cover on-going hosting costs; the radar network was installed and operated by CASA during periods of precipitation, and real-time and archived data was delivered on a password-protected website; and

WHEREAS, to support Operations, NCTCOG established the CASA WX Executive Council, which meets periodically to discuss how the region can work with and utilize CASA; and the CASA joint Leadership Team, which meets to make strategic decisions on
items impacting the CASA DFW Urban Demonstration Project; and

WHEREAS, to support Operations, NCTCOG set up the CASA WX Membership Program; and

WHEREAS, funds currently raised by NCTCOG through the CASA WX Membership Program support part of annual Operations costs, and the remainder of the Operations costs are supported through funds raised by CASA; and

WHEREAS, NCTCOG and CASA are committed to continued collaboration to maintain and expand the CASA Urban Network as part of the “CASA Living Lab for Severe Weather Warning Systems” focusing on the boundary layer, to detect and forecast severe wind, tornado, hail, ice, flash flood hazards, and human-made hazards; to demonstrate impacts-based, high-resolution warnings and forecasts for a range of public and private decision-makers; to prove value of collaborative, adaptive X-band radar networks to existing and future sensors, products, performance metrics, and decision-making; to develop replicable public/private/local models for regional sensor acquisition, deployment and ops; and

WHEREAS, over the next five years, NCTCOG and CASA intend to transition the financial Operational onus away from local jurisdictions and rely more on private industry commitments and/or sustainable public/private partnerships;

NOW, THEREFORE, the parties hereby enter into a new Master Agreement and agree as follows:

ARTICLE I
LEADERSHIP

1. NCTCOG commits that the CASA WX Executive Council will continue to meet periodically to direct regional CASA priorities and strategies.

2. The joint Leadership Team established by NCTCOG and CASA will continue to meet periodically to make strategic decisions on items such as engagement of funding agencies, marketing activities, deployment and operational priorities, allocation of funds, engagement of new stakeholders, and expansion of the network, including additional sensors.

3. NCTCOG will designate a Project Manager and CASA will dedicate personnel time to execute the decisions (“Project Management”) made by the Executive Council and the Leadership Team.

4. CASA will continue to be responsible for making technical decisions related to radar operations, maintenance and repairs, and for setting its research agenda and priorities for Demonstration Projects.

ARTICLE II
OPERATIONS

1. Operations include Project Management, Radar Network Operations, and Data User Engagement as described below.

2. Project Management includes
   a. Coordination of project activities; development and execution of funding amendments and/or other contractual documents.
   b. Coordination of fund-raising activities such as identification of new funding opportunities, proposal and grant writing, and development of marketing material such as press releases and videos.
   c. Management of all Radar Network Operations activities described below.

3. Radar Network Operations include
   a. Coordination of tasks related to the installation and setup of new radars. This includes oversight to ensure timely installation and testing of radars, including scheduling of activities between site hosts, contractors, CASA and NCTCOG personnel. It includes the deployment of computing and networking equipment and installation of software and network-level testing. This involves coordination with various radar providers and radar sites on equipment requirements and installation and testing schedules. It includes the testing of network connections and data rates and testing remote operation of radars.
   b. Running of the radar network, on a best efforts basis, when precipitation occurs or when convective initiation is expected. During periods of operation, radars will continuously scan the atmosphere, focusing on the most threatening areas as they develop. Each radar will send data to a central location where CASA weather data (“CASA Data”) will be created. CASA Data will be displayed on a password-protected website, maintained by CASA, overlaid on a map, with the capability of zooming down to the neighborhood, and even to the street level. CASA Data include near real-time and archived radar reflectivity, radar radial velocity, rain rate and accumulation, and hail identification. Radar Network Operations include the development, integration, testing and operationalization of various data reports, functions and capabilities from the installed radars on the CASA WX website. This includes the addition of data report pages for new radar sites, addition of new radar sites to the existing network products. It includes the development of archived cases (movies) that can be used for user engagement.
   c. Monitoring system function while the radars run and addressing most operating issues remotely via the Internet. The CASA radars all have sufficient built-in test features that the radar conditions will be known all the time to the operations engineers. Based on this, there is a three tier maintenance plan. The first tier is to fix things remotely, while the second tier is to request a local person to physically flip a switch to reset the system.
The third tier of maintenance involves engineers traveling to the radar site and repairing or installing parts.

d. Ongoing maintenance and repairs of installed radars. This involves working with universities, sites and radar vendors to identify supplies and equipment needed to minimize down-time for repairs; timely purchase, testing and shipping of parts and working with engineers to schedule repair activity. It includes the maintenance of licenses required for operations.

4. Data User Engagement includes

a. Conducting activities required to retain and increase the number of users of weather data. This includes the identification and engagement of new data users and conducting user needs assessment. It includes website and product training to familiarize users with the project and the data products.

5. The cost of Operations as described above is included in Appendix B, Long-Term Budget Estimates & Financial Commitments and successful conduct is contingent on availability of adequate funds to meet these costs.

ARTICLE III
FINANCIAL COMMITMENT

1. Over the next five years, the Project Manager will work with the CASA WX Executive Council to securing funds to support Operations as described in Article II, Operations, with CASA supporting. The NCTCOG and CASA commit to using their best efforts to raise funds for support of Operations, as described in Appendix A, Budget and Statement of Work, and Appendix B, Long-Term Budget Estimates & Financial Commitments.

2. NCTCOG commits, in conjunction with CASA, to continue to facilitate a CASA funding subcommittee to identify ongoing funding sources for Operations. NCTCOG will continue to administer its CASA WX Membership Program set up to provide access to CASA data to participating jurisdictions, for non-commercial use only, in consideration for an annual fee or financial support via credit into the network. The goal is to discontinue the jurisdiction membership program after year 1 and move towards private sector funding. Funds raised through the CASA WX Membership Program and the funds received from private sector partners will be used to support Operations, as described in Appendix A, Budget and Statement of Work, and Appendix B, Long-Term Budget Estimates & Financial Commitments. NCTCOG will continue to be responsible for determining the fee structure, invoicing of members, and collection of fees and resolution of other membership related issues. Over the next five years, NCTCOG's primary CASA focus is to reduce local jurisdiction funding of CASA operations. The Project Manager will work with the CASA WX Executive Council continue to support CASA in seeking funds for Demonstration Projects that directly benefit CASA WX members in good standing as well as finding private sector partnerships to take the burden off local jurisdictions for the financial support for the CASA project.
3. CASA commits to assist with the operational funding transition from NCTCOG jurisdictions to sustainable public/private partnerships, writing and submitting proposals for same, and negotiating contracts for funding Demonstration Projects with direct benefit(s) to CASA WX members in good standing. NCTCOG commits to pursuing additional sources of Operations funds such as private sector firms to increase the sustainability of the network.

4. CASA and NCTCOG jointly commit to pursuing other sources of funding such as FEMA grants, charitable foundations, economic development grants, storm water agencies and corporate giving.

**ARTICLE IV**

**CASA DATA OWNERSHIP AND LICENSING**

1. Ownership of radar systems technology and software used to generate the CASA Data resides with and will remain with the entities owning same at the time of this contract. Ownership of any inventions or copyrighted works created in the course of the work contemplated by this Agreement will be determined in accordance with any assignment obligations of the inventors and/or creators, and otherwise in accordance with applicable and prevailing law.

2. On behalf of CASA, UMass hereby grants NCTCOG a non-exclusive license to rights in and to the CASA Data, for the purpose of making CASA Data available for non-commercial use. Use is to be limited to CASA WX Program members in good standing for non-commercial use (with no sublicense rights) during the term of this Master Agreement. UMass and CASA make no representation or warranty as to whether rights or licenses of other parties may be needed, or whether such rights or licenses are or may be available.

3. CASA and its university and industry partners are providing CASA data on an “as is” basis, without warranties of any kind, express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, freedom from contamination by malware and non-infringement of third party proprietary rights, all of which are disclaimed.

4. In no event will CASA and its university and industry partners be liable to NCTCOG or sub-licensees for damages of any kind, including without limitation any special, direct, indirect, incidental, or consequential damages even if they have been advised of the possibility of such damages.

**ARTICLE V**

**RELATIONSHIP WITH HOST SITES**

1. NCTCOG commits to maintaining the existing agreements with host jurisdictions that have provided sites for CASA radars and taking necessary actions to modify or terminate agreements if site commitments are not met or if site actions otherwise interfere with CASA operations.

2. NCTCOG and CASA WX Executive Council want to expand the size of the radar
network if sites and resources become available for the acquisition, maintenance and sustainment of additional radars.

3. NCTCOG will enter into written agreements with new host jurisdictions providing sites for CASA radars. Those agreements will secure commitments and acknowledgments by the hosts for the following:

i. Hosts will meet the site requirements (e.g. dimensions, field of view, infrastructure), provided to the NCTCOG by CASA (Appendix C).

ii. Hosts will be responsible for identifying, securing and paying contractors, in accordance with Federal and Texas state payment requirements, for installation of the radars at their sites. Installation shall be by bonded and insured contractors only and shall name the University of Massachusetts Amherst as an additional insured. CASA will hold NCTCOG harmless for designating authority to subcontractors. Installation at various sites will follow one of the basic configurations provided to the NCTCOG by CASA (Appendix C), though there may be some additional site-specific requirements. Hosts should commit to securing $25,000 - $75,000 for installation of each radar (Appendix C).

iii. Hosts will commit to covering the on-going costs for hosting a radar site (including but not limited to electricity, network connectivity, in-kind support for CASA technician, security, accessibility). These requirements have been provided to the host sites and NCTCOG by CASA (Appendix C).

iv. Hosts will handle all applicable zoning restrictions to ensure timely start of operation.

v. Hosts will acknowledge and agree that the radars are the property of the radar provider, unless purchased by a host jurisdiction, as identified in the host site agreement. Hosts will not remove the radar from the host site or take any action that is inconsistent with preserving the integrity of the radar unit.

4. CASA will work with the contractors identified (and paid for) by the site hosts, and any Internet Service provider identified in order to ensure timely installation of the radars and associated computing and networking infrastructure.

5. NCTCOG commits to providing planning and meeting support to ensure timely installation.

ARTICLE VI
INSURANCE & LIABILITY

The availability of the radars and related equipment are essential to the launch and continued operation of the CASA Living Lab for Severe Weather Warning Systems. Each CASA University or industry partner contributing a radar system is responsible for securing
insurance coverage for its radars through self-insurance or other means. However, the Parties to this Agreement acknowledge and agree that coverage for replacing any lost, stolen, or damaged radars is limited. Should any such loss occur that makes the radar inoperable, the parties will endeavor to replace or repair such radar, but any such obligation is subject to the availability of insurance proceeds or funding secured to cover such loss. Each Party is responsible, through its worker's compensation policy or other coverage (including self-insurance), for any personal injury (including death) that could result to its employees or agents coming upon any premises for the purpose of installing, deploying or operating the CASA Living Lab for Severe Weather Warning Systems. In addition, all parties to this agreement shall, to the full extent allowed by law, be responsible and able to assume liability for its own wrongful or negligent acts or omissions, or those of its officers, agents or employees in performance under this Agreement.

ARTICLE VII
TERM; TERMINATION

The initial term of this Agreement will be one (1) year from the Effective Date, which is signified when duly signed by officials from all parties to the contract. Thereafter, the Agreement can be renewed for additional one (1) year terms by mutual agreement of the parties, for up to five years or total funding of $1.5 million, whichever occurs first. Annual renewal will require an amendment detailing the scope of work and budget.

Any party may terminate its participation under this Agreement upon sixty (60) days advance written notice to the other party.

CASA operates subject to the availability of funding from its sponsors, partners, and member jurisdictions. CASA will prepare and apply for funding for Operations, Demonstration Projects, equipment, spare parts, personnel, travel and other identified needs. If funding is not available from the NCTCOG and others, this Agreement at the sole discretion of CASA shall terminate.

i) If NCTCOG is unable to meet its financial commitment to CASA as described in Appendices A and B, either party at their sole discretion may choose to terminate this agreement.

CASA will use its best efforts to secure acceptable funding and agrees to communicate to the NCTCOG a failure of funding as soon as possible. Should CASA choose to terminate the Agreement, CASA is solely responsible for the retrieval of the radars from their location, including the host sites, and associated costs with no further obligations to the NCTCOG or hosting sites. CASA shall be completely unfettered by NCTCOG or the respective host, in its efforts to retrieve the radars from the host site.

Within ninety (90) days following the expiration or early termination of the Agreement, with respect to NCTCOG funds advanced to CASA for the CASA Living Lab for Severe Weather Warning Systems under this Agreement, CASA will provide NCTCOG with a final accounting of (i) all expenses incurred in connection with the CASA Living Lab for Severe Weather Warning Systems, including expenses previously incurred for equipment, travel, and associated indirect costs. Termination of this Agreement for any reason shall not release any Party hereto from any payment obligation which, at the time of such termination, has already
ACCURED.

ARTICLE VIII
FUNDING ALLOCATIONS

Additional terms and conditions associated with NCTCOG's specific funding allocations to CASA shall be incorporated into an annual update of Appendix A of this Master Agreement, which will incorporate a specific scope of work for use of funds and a line item budget for the current calendar year. UMass shall establish a quarterly invoice system (Jan 1-March 31; April 1-June 30; July 1-September 30; and October 1-December 31). UMass shall submit an invoice and a progress report to the NCTCOG on a quarterly basis, no later than the 30th day following the end of each quarter. Invoices shall cover all eligible expenses incurred during the quarter ended (example: 1/1-3/31/18).

ARTICLE IX
AVAILABILITY OF FUNDING

This Agreement and all claims, suits, or obligations arising under or related to this Agreement are subject to and limited to the receipt and availability of funds which are received from the funding agencies by NCTCOG and CASA dedicated for the purposes of this Agreement. CASA understands that NCTCOG is a voluntary association of local governments and often funding is dependent on outside agencies. As such, if funding is not available for the CASA project or the NCTCOG loses funding during the term of this Agreement, this Agreement at the sole discretion of NCTCOG shall terminate. NCTCOG will use its best efforts to continue acceptable funding until CASA secures alternative funding sources, given reasonable efforts to do so.

ARTICLE X
TRAVEL REIMBURSEMENT

CASA must notify NCTCOG of impending travel plans related to any funding amendments before travel expenses are incurred. To be reimbursed for travel agreed upon by NCTCOG, CASA shall provide the required information stipulated in Appendix E, "Travel Reimbursement Policy."

ARTICLE XI
DOCUMENT PRODUCTION

CASA agrees to allow NCTCOG access to its records relating to all work funded under the Master Agreement upon request during business hours. CASA agrees to provide reasonable requests for contract records and supportive documents as may be required from time to time to satisfy state/federal agencies and auditors with oversight authority on this project.

ARTICLE XII
INDEMNIFICATION

CASA covenants and agrees to indemnify and hold harmless and defend and does hereby indemnify, hold harmless and defend North Central Texas Council of Governments, its officers
and employees, from and against any and all suits or claims for damages or injuries, including death, to persons or property, whether real or alleged, arising out of any negligent act or omission on the part of CASA, its officers, agents, servants, employees, or subcontractors to the extent permitted by law and CASA does hereby assume all liability for injuries, claims, expenses, costs incurred, including attorney fees and costs of litigation or suits for damages to persons, property or whatever kind or character, whether real or alleged, occurring during or arising out of the performance of this Agreement as a result of any negligent act or omission on the part of CASA, its officers, agents, servants, employees, or subcontractors to the extent permitted by law.

ARTICLE XIII
FORCE MAJEURE

It is expressly understood and agreed by the Parties to this Agreement that, if the performance of any provision of this Agreement is delayed by force majeure, defined as reason of war, civil commotion, act of God, governmental restriction, regulation or interference, fire, explosion, hurricane, flood, failure of transportation, court injunction, or any circumstances which are reasonably beyond the control of the Party obligated or permitted under the terms of this Agreement to do or perform the same, regardless of whether any such circumstance is similar to any of those enumerated herein, the Party so obligated or permitted shall be excused from doing or performing the same during such period of delay, so that the period of time applicable to such requirement shall be extended for a period of time equal to the period of time such Party was delayed. Each Party must inform the other in writing within reasonable time of the existence of such force majeure.

ARTICLE XIV
SEVERABILITY

In the event any one or more of the provisions contained in this Agreement shall be for any reason held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision(s) hereof, and this Agreement shall be revised so as to cure such invalid, illegal, or unenforceable provision(s) to carry out as near as possible the original intents of the Parties.

ARTICLE XV
ASSIGNMENT

This Contract may not be assigned by either Party without the prior written consent of the other Party.

ARTICLE XVI
GOVERNING LAW/VENUE

This Contract shall be governed by and construed in accordance with the laws of the State of Texas. The mandatory and exclusive venue for the adjudication or resolution of any dispute arising out of this Contract shall be in Tarrant County, Texas.
ARTICLE XVII
LIMITATION OF LIABILITY

In no event shall either party be liable for special, consequential, incidental, indirect or punitive loss, damages or legal expenses arising out of or relating to this Agreement, whether arising from breach of contract or warranty, or arising in tort, strict liability, by statute or otherwise, even if it has been advised of their possible existence or if such loss, damages or legal expenses were reasonably foreseeable.

ARTICLE XVIII
CONFLICT OF INTEREST

During the term of this Contract, and all extensions hereto and for a period of one (1) year thereafter, neither party, shall, without the prior written consent of the other, directly or indirectly, whether for its own account or with any other persons or entity whatsoever, employ, solicit to employ or endeavor to entice away any person who is employed by the other party.

ARTICLE XIX
NOTICE CLAUSE

Notice from one Party to another Party regarding this Agreement shall be in writing and shall be delivered to the addresses shown below:

If to NCTCOG: North Central Texas Council of Governments
Attn: Maribel Martinez, Director of Emergency Preparedness
616 Six Flags Drive
P. O. Box 5888
Arlington, Texas 76005-5888

If to CASA: University of Massachusetts/CASA
Attn: John Fillio
Assistant Director
Office of Post Award Management
100 Venture Way, Suite 201
Hadley, MA 01035
Tel: 413-545-0442

Courtesy Copy: CASA
Attn: Brenda Philips
151 Holdsworth Way
University of Massachusetts
Amherst, MA 01003

The above contact information may be modified without requiring an amendment to the Agreement.
ARTICLE XX
AMENDMENT OR MODIFICATION
CLAUSE

This Agreement may be amended only by a written amendment executed by both Parties, except that any alterations, additions, or deletions to the terms of this Agreement which are required by changes in Federal and State law or regulations are automatically incorporated into this Agreement without written amendment hereto and shall become effective on the date designated by such law or regulation.

ARTICLE XXI
DISPUTE RESOLUTION

The parties to this Agreement agree to the extent possible and not in contravention of any applicable State or Federal law or procedure established for dispute resolution, to attempt to resolve any dispute between them regarding this Agreement informally through voluntary mediation, arbitration or any other dispute mediation process before resorting to litigation.

ARTICLE XXII
COUNTERPARTS; ENTIRE AGREEMENT

This Agreement and any amendment hereto may be executed in counterparts, and all such counterparts taken together shall be deemed to constitute one and the same instrument. This Agreement embodies the entire understanding of the Parties with respect to the subject matter herein, and any prior or contemporaneous representations, either oral or written, are hereby superseded. No amendments or changes to this Agreement shall be effective unless made in writing and signed by authorized representatives of the parties.

ARTICLE XXIII
CONTRACTUAL RELATIONSHIP

It is understood and agreed that the relationship described in this Agreement between the Parties is contractual in nature and is not to be construed to create a partnership of joint venture or agency relationship between the parties. Nor shall any Party be liable for any debts incurred by the other Party in the conduct of such other Party’s business or functions.

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Agreement to be executed by their authorized representatives as set forth below.

UNIVERSITY OF MASSACHUSETTS, AMHERST, MA
By John Fillio

Name John Fillio
Title Assistant Director, OPAM
Date 1/31/2023

By Brenda Philips

Name Brenda Philips
Title Director, CASA
Date 1/31/2023

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

By

Name Mike Eastland
Title Executive Director
Date
APPENDIX A
2023 BUDGET AND STATEMENT OF WORK

Appendix A is an annual update the Budget and Scope of Work for the MASTER AGREEMENT between the North Central Texas Council of Governments and University of Massachusetts, Amherst, dated January 2, 2023. The purpose of this Appendix A is to:

1. Close out the 2022 Budget and Scope of Work and move remaining funds to the 2023 Budget and Scope of Work
2. Provide funds from the NCTCOG CASA WX membership program in the amount of $104,826 for the following scope of work. Unused funds will be carried over to the following year.
3. Verify that once executed, this Appendix is retroactive to the Performance Period start date of January 1, 2023.

SCOPE OF WORK – University of Massachusetts, Amherst

Performance Period: January 1, 2023 – December 31, 2023

Installations. Travel to DFW for coordination of tasks related to radar installation and setup. This includes:
- Project management to ensure timely installation and testing of radars
- Scheduling of activities between site hosts, contractors, CASA and NCTCOG personnel

Operations & Maintenance. UMass will coordinate ongoing maintenance and repairs of installed radars.
- Work with universities, sites and radar vendors to identify supplies and equipment needed to minimize down-time for repairs
- Facilitate timely purchase, testing and shipping of parts
- Work with university engineers to schedule repair activity

Data User Engagement. UMass will conduct activities required (and conduct travel to DFW as needed) to increase the number of users of weather data. Activities include but are not limited to:
- Identify and engage with new data users and conduct user needs assessment.
- Website and product training to familiarize users with the project.
- Focus on engagement of private sector users of data and provide updates on related activities, plans, and intentions at least quarterly at the CASA WX Executive Council meetings.

Installation of computing and networking equipment and software
Engineer will lead the deployment of computing and networking equipment and installation of software and network-level testing. This involves:
- Coordinating with various radar providers and radar sites on equipment requirements and installation and testing schedules
- Testing of network connections and data rates
• Testing remote operation of radars

**Website Function Development & Radar Operations**
The engineer will develop, integrate, test and operationalize various data reports, functions and capabilities from the installed radars on the CASA WX website. This includes:
- Addition of data report pages for new radar sites
- Addition of new radar sites to the merged data offerings site
- Development of archived cases (movies) that can be used for demonstration and outreach.
- Customization of CASA products to meet CASA WX member needs.

An engineer will be responsible for radar network operations. This includes:
- Coordinating with NCTCOG, National Weather Service and CASA personnel to determine when to initiate radar operations
- Initiation and termination of operations and monitoring of radar health status
- Monitoring of data generation on website
- Responding to power and network outages and communicating to NCTCOG project manager

**Domestic Travel**
For CASA personnel to travel to the DFW area in accordance with applicable NCTCOG and GSA rates. See Appendix E

**Materials, Supplies & Equipment**
Purchase of various spare materials, supplies and equipment (and associated shipping costs) to support operation of the radars and minimize downtime for repairs. As budget permits, items may include but are not limited to: radar subsystem components, switching FET transistors, front-end RF switches, low noise amplifiers, local oscillators, network switches and servers.

**BUDGET (January 2, 2023 – December 31, 2023)**

<table>
<thead>
<tr>
<th>Line Item</th>
<th>Description</th>
<th>Requested Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>CASA Co-Director</td>
<td>$11,459</td>
</tr>
<tr>
<td>Fringe</td>
<td>Assessed on CASA Co-Director salary</td>
<td>$4,898</td>
</tr>
<tr>
<td>Domestic Travel</td>
<td>Includes airfare, parking, car rental, gas, lodging, (not to exceed GSA rates)</td>
<td>$4,278</td>
</tr>
<tr>
<td>Materials, Supplies &amp; Equipment</td>
<td>Various radar subsystem components, repair services</td>
<td>$6,720</td>
</tr>
<tr>
<td>Consulting Services</td>
<td>Contract to Eric Adams, including $10k in travel</td>
<td>$60,000</td>
</tr>
<tr>
<td>Direct Costs Total</td>
<td></td>
<td>$87,355</td>
</tr>
<tr>
<td>F&amp;A Charges</td>
<td>Financial Management and Administration</td>
<td>$17,471</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$104,826</strong></td>
</tr>
</tbody>
</table>
Summary of work performed, deliverables completed, services provided, and supporting expenditure receipts are required for all invoices. All other terms and conditions remain in effect.
APPENDIX B
LONG-TERM BUDGET ESTIMATES & FINANCIAL COMMITMENTS

Overall Financial Commitments for CASA Living Lab for Severe Weather Warning Systems:

Year One Annual Operations Budget Estimate

<table>
<thead>
<tr>
<th>Operations categories</th>
<th>Estimated Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Management</td>
<td>$37,800</td>
</tr>
<tr>
<td>Radar Network Operations</td>
<td>$180,800</td>
</tr>
<tr>
<td>Data User Engagement</td>
<td>$32,200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$250,800</strong></td>
</tr>
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</table>

Years One –Five Annual Financial Commitments (Best Efforts Basis)

<table>
<thead>
<tr>
<th>Year Category</th>
<th>Financial Commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NCT Region Commitment*</td>
</tr>
<tr>
<td>One</td>
<td>$169,000</td>
</tr>
<tr>
<td>Two</td>
<td>$175,000</td>
</tr>
<tr>
<td>Three</td>
<td>$200,000</td>
</tr>
<tr>
<td>Four</td>
<td>$200,000</td>
</tr>
<tr>
<td>Five</td>
<td>$200,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$944,000</strong></td>
</tr>
</tbody>
</table>

* NCT Region Commitment will be met on a best efforts basis through the CASA WX Membership Program in year one and going forward it will be through private sector partnerships that will raise funds to support Operations. Operations includes funds for CSU. $20,000 of the annual funds raised through the CASA WX Membership Program will go towards meeting NCTCOG Costs. Any money left from the NCTCOG CASA funding at the end of the year will go back into the CASA budget.

** CASA Commitment will be met on a best-efforts basis through funding from the National Mesonet Program, and additional grants that partially support operations.
APPENDIX C
RADAR SITE REQUIREMENTS & SITING OPTIONS

1. OVERVIEW

This document presents a minimal list of requirements for potential CASA radar sites in the DFW area. The site is required to house a small weather radar that shall scan over the hemisphere and provide data to users. Each installation is composed of two subsystems:

1) An electronic transmitter and digital receiver, antenna and pedestal that may be enclosed inside an opaque structure called a radome. Hereafter this is referred to as the Radar.

2) Computing equipment housed both inside the Radar Unit structure and outside. The external computing systems may be located inside an existing building, housed in a small shelter, or contained inside a weatherized box. Cabling must be run between the Radar Unit structure and the external computing systems to support Gigabit speed data transfer. Therefore the 2 subsystems should be nearly collocated.

2. SITE REQUIREMENTS

2.1 Dimensions
The proposed site(s) shall provide enough space to house an 8ft. x 8ft. x 8ft. small Radar Unit structure.

2.2 Field of view
The proposed site(s) shall provide an unobstructed 360 degree view out to the horizon and the full hemispherical view. Alternatively, it shall at least have the potential to achieve the unobstructed field of view through the use of a tower structure of no more than 25 ft. in height and 10 ft. by 10 ft. in base area.

2.3 Weight
The proposed site(s) shall be able to support a 1200 lbs. small Radar Unit structure.

2.4 Main power
The proposed site(s) shall have access to a minimum of 20 A at 110 VAC and 30 A at 220 VAC.

2.5 Communications
Required: The proposed site(s) shall have an Internet access with a minimum outbound bandwidth of 10 Mbps and inbound bandwidth of 5 Mbps.
Desirable: Additional outbound bandwidth is desirable, but not required.

2.6 Equipment housing
The proposed site(s) shall be capable of accommodating computing equipment with appropriate climate control for a rack mounted server and ancillary equipment in 8U rack space.

2.7 Space requirements
The proposed site(s) shall be able to nearly collocate the Radar Unit equipment and the Computing Equipment to minimize cable runs between the two.
2.8 Security
The proposed site(s) shall be secured as to prevent unauthorized personnel gaining access to the radar unit structure and computing equipment.

2.9 Accessibility
The proposed site(s) shall be accessible by road. There should be 24/7 access for authorized CASA personnel to service equipment.

2.10 Installation
The proposed site(s) shall have one time access to installation equipment such as cranes or forklifts.

2.11 Zoning
It is the responsibility of the site host to verify compliance with zoning regulations

2.12 Lightning protection
Radar deployment at the proposed site(s) shall require lightning protection.

2.13 Site spacing
The proposed site(s) shall be appropriately spaced to achieve optimal system performance. The average spacing should be approximately 30 km between sites.

2.14 Climate Control
The site(s) shall provide space for HVAC installations, including ductwork, to climate control the Radar Unit structure.

3. SITING OPTIONS
A candidate site may take several forms provided the requirements listed in section 2 are met. The radar may be mounted on a short tower structure (20'), a tall tower structure (70-100'), or on a rooftop. The computing equipment housing may be located within fabricated shed, a trailer, in an existing building, or in a large, secured, weatherized box. The computing equipment housing should be nearly collocated with the radar enclosure, as they will be connected by fiber optic cable.
Below are photographic examples of varied installations.

3.1 Short Tower Field Installation
3.2 Tall Tower Field Installation

In order to meet line of sight or communications requirements, a tall tower may be necessary. HVAC may be mounted on the ground or on a platform on the tower. A communications antenna may be mounted on the tower. Tall tower installations are not recommended unless a suitable tower already exists and is available or it is necessary to meet requirements.

3.3 Rooftop Installation

A rooftop installation can be a convenient option when requirements can be met. The exact site specifications may be highly variable depending on the roof, the surroundings, and the available infrastructure. In general, the use of a building will allow avoiding excessively tall towers, and provide ready access to most of the infrastructure needed (power, communications, and equipment housing).
3.4 Computer Equipment Housing

As described in the requirements, in addition to the radar and associated infrastructure, space must be provided for computer equipment including servers, data storage arrays, network routers and switches, and rack mounted UPS. This may be housed in a shed, trailer, existing building or weatherized box. An installation in an existing building will be similar to a standard server room, with equivalent HVAC and electricity requirements.

SITE PREPARATION, RADAR INSTALLATION & ONGOING EXPENSES

SITE PREPARATION & RADAR INSTALLATION

A candidate site may take several forms provided the requirements listed in site requirements document are met (Appendix B). The radar may be mounted on a short tower structure, a tall tower structure, or on a rooftop. The computing equipment housing may be located within fabricated shed, a trailer, in an existing building, or in a large, secured, weatherized box. Based on the particulars of the selected site, the cost of installation can vary.

Radar installation will take place with the assistance of licensed, bonded and insured contractors. CASA will help develop the work statements for the RFPs that may need to be issued. These contractors will be tasked with:
1. Determination of best installation structure (short or tall tower vs. rooftop).
2. Design and fabrication of mating structure (if needed).
3. Design and preparation of structure foundation (as needed)
4. Move of radars from workshop to sites and installation on structure.
5. Fencing, lightning protection, grounding, ductwork, electrical, HVAC, communication cabling (as needed).

Cost of installation at each site will vary depending on site characteristics. The table below show a representative budget for a rooftop installation on a low-rise building with no significant obstructions, such as high parapets (hence no tower required) and high speed internet available nearby.

<table>
<thead>
<tr>
<th>Category</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural engineering (simple rooftop install)</td>
<td>$6,000</td>
</tr>
<tr>
<td>Air conditioning unit (for radome-based units)</td>
<td>$4,000</td>
</tr>
<tr>
<td>Ductwork</td>
<td>$6,000</td>
</tr>
<tr>
<td>Electrical work</td>
<td>$4,000</td>
</tr>
<tr>
<td>Fiber/Data cabling</td>
<td>$5,000</td>
</tr>
<tr>
<td>Crane rental for installation</td>
<td>$10,000</td>
</tr>
<tr>
<td>Steel support fabrication (simple structure)</td>
<td>$6,000</td>
</tr>
<tr>
<td>Roof penetrations and patching</td>
<td>$5,500</td>
</tr>
<tr>
<td>Lightning protection</td>
<td>$3,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$50,000</strong></td>
</tr>
</tbody>
</table>

BANDWIDTH

A 10 Mbps guaranteed (wired or wireless) service will be required between the radar sites and the DROCC. The host site may also need to provide and install communication equipment (such
as a dish antenna) on site. In addition, the host site should be able to provide support throughout the period of operations (troubleshooting, repairs, etc.).

ELECTRICITY

Based on our experience with existing metered sites in North Texas, individual radar sites drew up electricity costs of about $1,500/ year.
GROUND SUPPORT

CASA engineers will require technical assistance/ground support in order to cost effectively operate the radar network. This involves short trips to the radar sites required for some local troubleshooting/maintenance. Problems with the radars can usually be diagnosed and fixed remotely over the network, but sometimes hardware resets are required to be done on site. We estimate sites needing to provide a level of in-kind support of $1,000/year.
APPENDIX D
TRAVEL REIMBURSEMENT POLICY

To be reimbursed for travel agreed upon by NCTCOG, the following must be provided:

- UMASS travel Expense Report with the following information provided (in the Description or Comments section or on a separate page):
  - Destination – City
  - Purpose – Clearly defined (= How does this reimbursement request relate to a NCTCOG contract, grant, or project?)
  - Departure Time & Date
  - Return Time & Date
- NCTCOG will not pay for meals. Attach detailed receipts for all travel expenses to include hotel, airfare, rental car, gas for rental car, parking, and tolls, if applicable.
- If requesting mileage reimbursement for use of an employee’s personal vehicle for mileage to/from airport, a Google map must be included showing the printed route and mileage. Privately owned vehicle mileage will be reimbursed at current GSA rates (https://fmx.cpa.state.tx.us/fm/travel/travelrates.php). GSA Mileage rates change annually. It is incumbent on the traveler to know current GSA rates.

NCTCOG does not reimburse for food, drink, alcohol purchases or tips/gratuities.

The per diem is calculated based on the U.S. General Services Administration.
(https://fmx.cpa.state.tx.us/fm/travel/travelrates.php). Per diem rates may change monthly in some locations. If the rate for your destination is not included on the GSA list, a maximum reimbursable rate for per diem (lodging, meals, and incidental expenses) shall be consistent with the Standard Rate for Per Diem in Texas provided by the GSA. It is incumbent on the traveler to know current GSA rates.

Ask for the government rate on hotel stays.

NCTCOG will only reimburse actual, eligible expenses with corresponding receipts up to the GSA per diem rate.
RESOLUTION ENDORSING AN AGREEMENT WITH TARRANT COUNTY COLLEGE DISTRICT FOR URBAN SEARCH AND RESCUE TRAINING AND EXERCISES

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and non-profit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, the North Central Texas Council of Governments seek to address regional emergency preparedness priorities such as planning, training, and exercise; and,

WHEREAS, NCTCOG is the appropriate entity to coordinate the aforementioned assistance and wishes to engage Tarrant County College District (TCCD) to conduct training and exercises in the North Central Texas Region; and,

WHEREAS, NCTCOG has complied with federal and State regulations regarding contract and procurement proceedings.

NOW, THEREFORE, BE IT HEREBY RESOLVED THAT:

Section 1. The NCTCOG Executive Board endorses an agreement between NCTCOG and Tarrant County College District to provide Urban Search and Rescue training and exercises, for a maximum five (5) year term and in an amount not to exceed $250,000.

Section 2. The Executive Director or designee is authorized to execute an agreement with Tarrant County College District in the name of the North Central Texas Council of Governments consistent with the approval herein.

Section 3. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that the Executive Board of the North Central Texas Council of Governments adopted this resolution on March 23, 2023.

Chris Hill, Secretary-Treasurer
North Central Texas Council of Governments
County Judge, Collin County
MASTER INTERLOCAL AGREEMENT

THIS MASTER INTERLOCAL AGREEMENT (Agreement), made and entered into pursuant to the Texas Interlocal Cooperation Act, Chapter 791, Texas Government Code (the Act), by and between the North Central Texas Council of Governments, hereinafter referred to as "NCTCOG," having its principal place of business at 616 Six Flags Drive, Arlington, TX 76011, and Tarrant County College District, a local government, a state agency, or a non-profit corporation created and operated to provide one or more governmental functions and services, hereinafter referred to as "Participant," having its principal place of business at 4801 Marine Creek Parkway, Fort Worth, Texas.

WHEREAS, NCTCOG is a regional planning commission and political subdivision of the State of Texas operating under Chapter 391, Texas Local Government Code; and

WHEREAS, pursuant to the Act, NCTCOG is authorized to contract with eligible entities to perform governmental functions and services, including the purchase of goods and services; and

WHEREAS, in reliance on such authority, NCTCOG has instituted a cooperative purchasing program under which it contracts with eligible entities under the Act; and

WHEREAS, Participant has represented that it is an eligible entity under the Act, that it is authorized to enter into this agreement on March 23, 2023, and that it desires to contract with NCTCOG on the terms set forth below.

NOW, THEREFORE, NCTCOG and the Participant do hereby agree as follows:

ARTICLE 1: LEGAL AUTHORITY
The Participant represents and warrants to NCTCOG that (1) it is eligible to contract with NCTCOG under the Act for the purposes recited herein because it is one of the following: a local government, as defined in the Act (a county, a municipality, a special district, or other political subdivision of the State of Texas or any other state, or a combination of two or more of those entities, a state agency (an agency of the State of Texas as defined in Section 771.002 of the Texas Government Code, or a similar agency of another state), or a non-profit corporation created and operated to provide one or more governmental functions and services, and (2) it possesses adequate legal authority to enter into this Agreement.

THIS CONTRACT AND AGREEMENT is entered into by and between the governmental agencies shown below as contracting parties, pursuant to the authority granted and in compliance with the provisions of "The Interlocal Cooperation Act," Texas Government Code, Chapter 791.
ARTICLE 2: SCOPE OF SERVICES

The Participant will develop and deliver to NCTCOG, multiple trainings and exercises. These activities will take place at Tarrant County College Northwest Campus Fire Service Training Center located at 4801 Marine Creek Parkway, Fort Worth, Texas.

The Participant will provide:

- The necessary forms and documentation required by the Texas Office of the Governor (OOG) to meet State Homeland Security Program (SHSP) grant requirements such as training submission forms, environmental historical preservation (EHP) forms, or others as deemed necessary.

- Monitoring and tracking of student participation and generate course evaluation forms and course completion certifications for students who successfully complete the course work.
  - Course outline – prior to course
  - Rosters for each day of training – after course completion
  - Course evaluation forms from each student – after course completion
  - Course completion certificates for each student – after course completion

- Certified instructors and all necessary course and exercise materials and supplies.

- Direct instruction to students enrolled in the courses.

- Lumber, course materials, supplies, tools, equipment, and/or utilities needed for the delivery of trainings and exercises.
  - Item descriptions to NCTCOG for Homeland Security Grant eligibility approval at least two weeks prior to purchase.
  - Copy of receipts to NCTCOG for audit records.

- Maintenance of all said equipment, tools, and supplies - until consumed or at end of useful life and make same available for use by regional teams for future training and exercises.

- Compliance with OOG equipment inventory and control requirements as applicable for capital and controlled assets; make applicable inventory/records available for audit purposes as requested by NCTCOG, the OOG, or other authorized entity acting on behalf of the Department of Homeland Security, the State of Texas, or the NCTCOG.

NCTCOG will provide:

- Guidance on OOG equipment inventory and control requirements as applicable for capital and controlled assets.

- Supply the Participant with necessary forms required by the OOG to meet SHSP grant requirements such as training submission forms, EHP forms, or others as deemed necessary.

- Management of grants for training, invoicing, and reimbursement processes.
ARTICLE 3: PAYMENTS
NCTCOG has been awarded a grant from the State of Texas Office of the Governor, Homeland Security Grants Division for the funding of this training. Services performed shall be billed lump sum upon completion. NCTCOG will remit payment to the Participant once all required documentation has been provided and upon receipt of all funds from the OOG once they appear available through the State Comptroller’s website. Payment is dependent on approval of the funding request to the OOG. NCTCOG will pay to the Participant the fees outlined in each respective Statement of Work, in a total amount not to exceed $250,000 (two hundred and fifty thousand dollars) for the term of the Agreement, inclusive of any and all optional renewals.

ARTICLE 4: PERFORMANCE PERIOD
This Agreement shall be effective when signed by the last party whose signing makes the Agreement fully executed and will remain in full force and effect for one (1) year. This Agreement shall automatically renew for four (4) successive one-year terms unless sooner terminated in accordance with Article 6 below. Any modification of this Agreement must comply with the requirements of Article 5 below.

ARTICLE 5: CHANGES AND AMENDMENTS
This Agreement may be amended only by a written amendment executed by both parties, except that any alternations, additions, or deletions to the terms of this Agreement which are required by changes in Federal and State law or regulations are automatically incorporated into this Agreement without written amendment hereto and shall become effective on the date designated by such law or regulation. NCTCOG reserves the right from time to time to make changes in the scope of products and services offered.

ARTICLE 6: TERMINATION PROCEDURES
NCTCOG or the Participant may cancel this Agreement for any reason and at any time upon thirty (30) days written notice by certified mail to the other party to this Agreement.

ARTICLE 7: APPLICABLE LAWS
NCTCOG and the Participant agree to conduct all activities under this Agreement in accordance with all applicable rules, regulations, and ordinances and laws in effect or promulgated during the term of this Agreement.

ARTICLE 8: DISPUTE RESOLUTION
The parties to this Agreement agree to the extent possible and not in contravention of any applicable state or federal law or procedure established for dispute resolution, to attempt to resolve any dispute between them regarding this Agreement informally through voluntary mediation, arbitration or any other local dispute mediation process before resorting to litigation.
ARTICLE 9: MISCELLANEOUS

a. This Agreement has been made under and shall be governed by the laws of the State of Texas. Venue and jurisdiction of any suit or cause of action arising under, or in connection with, this Agreement shall lie exclusively in Tarrant County, Texas.

b. The persons executing this Agreement hereby represent that they have authorization to sign on behalf of their respective entities.

c. This Agreement and the rights and obligations contained herein may not be assigned by either party without the prior written approval of the other party to this Agreement.

d. All parties agree that should any provision of this Agreement be determined to be invalid or unenforceable, such determination shall not affect any other term of this Agreement, which shall continue in full force and effect.

e. To the extent that either party to this Agreement shall be wholly or partially prevented from the performance within the term specified of any obligation or duty placed on such party by reason of or through strikes, stoppage of labor, riot, fire, flood, acts of war, insurrection, accident, order of any court, act of God, or specific cause reasonably beyond the party’s control and not attributable to its neglect or nonfeasance, in such event, the time for the performance of such obligation or duty shall be suspended until such disability to perform is removed; provided, however, force majeure shall not excuse an obligation solely to pay funds.

f. This Agreement and any attachments/addendums, as provided herein, constitute the complete agreement between the parties hereto, and supersede any and all oral and written agreements between the parties relating to matters herein.

THIS INSTRUMENT HAS BEEN EXECUTED IN TWO ORIGINALS BY THE PARTIES HERETO AS FOLLOWS:

<table>
<thead>
<tr>
<th>North Central Texas Council of Governments</th>
<th>Tarrant County College District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Preparedness Department</td>
<td>1500 Houston Street, Fort Worth, Texas 76102</td>
</tr>
<tr>
<td>616 Six Flags Drive, Arlington, Texas</td>
<td>Name of Participant Agency</td>
</tr>
<tr>
<td>76011</td>
<td>NAME AND TITLE OF AUTHORIZED OFFICIAL OR DESIGNEE</td>
</tr>
</tbody>
</table>

| R. Michael Eastland                      | Name and Title of Authorized Official or Designee |
| NCTCOG Executive Director or Designee    |                                                     |

| Signature                                | Signature                                           |
| Date                                     | Date                                                |
RESOLUTION AUTHORIZING AGREEMENTS FOR RECEIPT OF FUNDS FROM THE US DEPARTMENT OF ENERGY

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and non-profit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, NCTCOG has been designated as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth Metropolitan Area by the Governor of the State of Texas in accordance with federal law; and,

WHEREAS, the Regional Transportation Council (RTC), comprised primarily of local elected officials, is the regional transportation policy body associated with NCTCOG, and has been and continues to be a forum for cooperative decisions on transportation; and,

WHEREAS, the Dallas-Fort Worth region is in nonattainment of the federal air quality standard for ozone and NCTCOG is actively involved in the development and implementation of the State Implementation Plan for air quality; and,

WHEREAS, the RTC is committed to the development and implementation of policies, projects, and programs to improve air quality and reduce emissions that create ozone; and,

WHEREAS, in October 1993, the NCTCOG Executive Board authorized NCTCOG to apply to the US Department of Energy (DOE) for designation as a Clean Cities Coalition, and DOE approved this designation on July 25, 1995; and,

WHEREAS, on May 23, 2019, the Executive Board endorsed NCTCOG's redesignation as the host organization for the Dallas-Fort Worth (DFW) Clean Cities Coalition, and DOE approved the redesignation request effective November 19, 2019; and,

WHEREAS, additional funds are available through DOE contracting agents to continue supporting work performed by the DFW Clean Cities Coalition; and,

WHEREAS, DOE is proposing to provide funding to support one year of work beginning April 2023, with an option to extend for four additional years; and,

WHEREAS, Subtask 3.03 of the Fiscal Year (FY) 2022 and FY2023 Unified Planning Work Program for Regional Transportation Planning includes implementation of air quality initiatives.

NOW, THEREFORE, BE IT HEREBY RESOLVED THAT:

Section 1. NCTCOG is authorized to enter into agreements with the Department of Energy's contracting agents and accept funding in the amount of approximately $750,000 to support the Dallas-Fort Worth Clean Cities Coalition Program over an anticipated five-year period.
Section 2. These funds will be incorporated into the appropriate fiscal year budget(s) and Unified Planning Work Program.

Section 3. The Executive Director or designee is authorized to execute necessary agreements in the name of the North Central Texas Council of Governments to carry out the initiatives described herein.

Section 4. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that this resolution was adopted by the Executive Board of the North Central Texas Council of Governments on March 23, 2023.

Chris Hill, Secretary/Treasurer
North Central Texas Council of Governments
County Judge, Collin County
RESOLUTION AUTHORIZING SUBMITTAL TO FEDERAL RAILROAD ADMINISTRATION CORRIDOR IDENTIFICATION AND DEVELOPMENT PROGRAM

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and non-profit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, NCTCOG has been designated as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth Metropolitan Area by the Governor of the State of Texas in accordance with federal law; and,

WHEREAS, the Regional Transportation Council (RTC), comprised primarily of local elected officials, is the regional transportation policy body associated with NCTCOG, and has been and continues to be a forum for cooperative decisions on transportation; and,

WHEREAS, Mobility 2045: The Metropolitan Transportation Plan for North Central Texas – 2022 Update, the region’s long-range transportation plan, includes grade-separated high-speed rail recommendations between Fort Worth and Dallas as well as the portion of a Dallas to Houston passenger rail corridor within the Dallas-Fort Worth Metropolitan Area; and,

WHEREAS, the RTC has established policy TR3-011 within Mobility 2045 – 2022 Update for high-speed rail system interoperability within the North Central Texas region, colloquially referred to as a “one-seat” ride system; and,

WHEREAS, in May 2022, the Federal Railroad Administration (FRA), on behalf of the United States Department of Transportation (USDOT), began soliciting expressions of interest in the Corridor Identification and Development Program; and,

WHEREAS, NCTCOG submitted an expression of interest for the Fort Worth to Dallas High-Speed Rail Corridor in August 2022, and the Texas Department of Transportation submitted an expression of interest for several intercity passenger rail corridors in the state, including renewed service between Dallas and the Houston Amtrak Station, in October 2022; and,

WHEREAS, in December 2022, FRA announced the solicitation of corridor proposals and funding opportunity for the Corridor Identification and Development Program; and,

WHEREAS, on February 9, 2023, the RTC approved submittal of a combined Fort Worth to Houston High-Speed Rail Corridor application under the Corridor Identification and Development Program.
NOW, THEREFORE, BE IT HEREBY RESOLVED THAT:

Section 1. The NCTCOG Executive Board authorizes submittal of the Fort Worth to Houston High-Speed Rail Corridor application under FRA Corridor Identification and Development Program.

Section 2. NCTCOG is authorized to receive up to $500,000 to advance project development through the FRA Corridor Identification and Development Program.

Section 3. These funds will be incorporated into the appropriate fiscal year budget(s) and Unified Planning Work Program.

Section 4. The Executive Director or designee is authorized to execute necessary agreements in the name of the North Central Texas Council of Governments to carry out the initiatives described herein.

Section 5. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that this resolution was adopted by the Executive Board of the North Central Texas Council of Governments on March 23, 2023.

Chris Hill, Secretary/Treasurer
North Central Texas Council of Governments
County Judge, Collin County
RESOLUTION AUTHORIZING AGREEMENTS WITH TXDOT FOR NCTCOG TO PROVIDE TECHNICAL ASSISTANCE TO THE TXDOT DALLAS AND FORT WORTH DISTRICTS

WHEREAS, the North Central Texas Council of Governments (NCTCOG) is a Texas political subdivision and nonprofit corporation organized and operating under Texas Local Government Code Chapter 391 as the regional planning commission for the 16-county North Central Texas region; and,

WHEREAS, NCTCOG is a voluntary association of, by, and for local governments established to assist in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development; and,

WHEREAS, NCTCOG has been designated as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth Metropolitan Area by the Governor of the State of Texas in accordance with federal law; and,

WHEREAS, the Regional Transportation Council (RTC), comprised primarily of local elected officials, is the regional transportation policy body associated with NCTCOG, and has been and continues to be a forum for cooperative decisions on transportation; and,

WHEREAS, the Fiscal Year (FY) 2022 and FY2023 Unified Planning Work Program Subtask 5.01 provides for corridor studies and environmental studies to support the Texas Department of Transportation’s planning and project development activities; and,

WHEREAS, the Texas Department of Transportation Fort Worth and Dallas Districts have requested NCTCOG to continue providing technical assistance for corridors throughout the region.

NOW, THEREFORE, BE IT HEREBY RESOLVED THAT:

**Section 1.** An agreement with the Texas Department of Transportation for technical assistance activities to support the TxDOT Dallas District in the amount of approximately $300,000 is hereby approved.

**Section 2.** An agreement with the Texas Department of Transportation for technical assistance activities to support the TxDOT Fort Worth District in the amount of approximately $300,000 is hereby approved.

**Section 3.** These funds shall be incorporated into the appropriate fiscal year budgets and Unified Planning Work Program.

**Section 4.** The Executive Director or designee is authorized to execute agreements necessary to carry out this program in the name of the North Central Texas Council of Governments.
Section 5. This resolution shall be in effect immediately upon its adoption.

Andrew Piel, President
North Central Texas Council of Governments
Councilmember, City of Arlington

I hereby certify that this resolution was adopted by the Executive Board of the North Central Texas Council of Governments on March 23, 2023.

Chris Hill, Secretary/Treasurer
North Central Texas Council of Governments
County Judge, Collin County