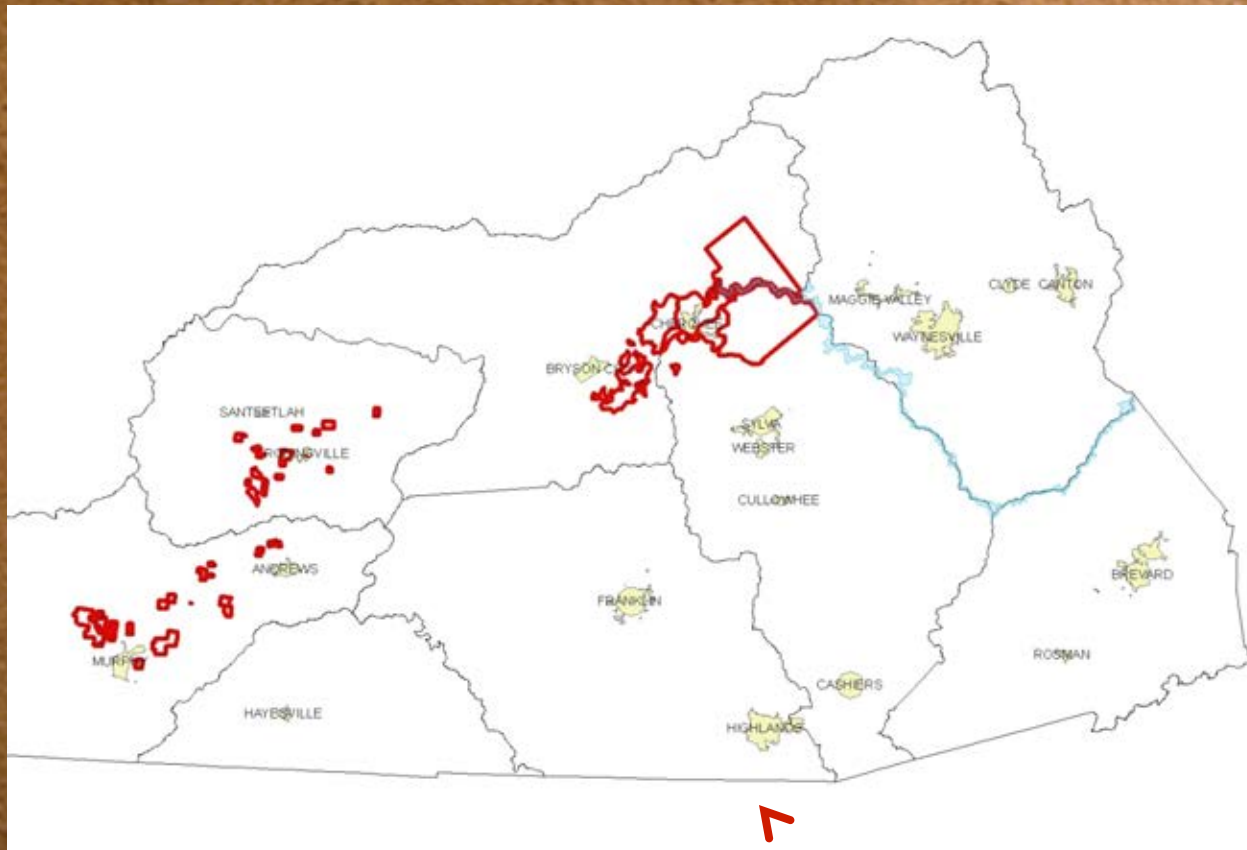


Eastern Band of Cherokee Indians

EBCI Facility Retrofit Project



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Project Overview

- Energy efficient implementations
- Seven Tribally owned/leased facilities
- Modified to cover 9 Buildings
- Reduction of energy consumption by at least 30%
- Reduction of air pollutants and GHG emissions



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Cherokee Fairgrounds & Exhibit Building

545 Tsali Boulevard Cherokee, NC



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Implementations

- Replacement of HVAC units
- Routine HVAC maintenance schedule
- Install programmable thermostats
- Adjust insulation
- Replace fluorescent lighting
- Insulate hot water heater pipes



Reductions

- Savings of at least \$7,460 per year
- Energy savings of 236 million BTU' s per year
- 3615 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 1,707,000 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)



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Cherokee Historical Association

564 Tsali Boulevard Cherokee, NC



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Implementations

- Replace/mechanical overhaul of HVAC units
- Install programmable thermostats
- Replace fluorescent lighting
- Occupancy sensors
- Flush valve replacements
- Replace faucet aerators



Reductions

- Savings of at least \$5,978 per year
- Energy savings of 237 million BTU' s per year
- 306 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 144,400 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)



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EBCI Finance Building

45 Council House Loop Cherokee, NC



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Implementations

- Routine HVAC maintenance schedule
- Programmable thermostats
- Replace HVAC system
- Attic insulation replacement
- Seal building leaks and ceiling penetrations
- Replace fluorescent lighting
- Keep restroom exhaust fans from running nonstop





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Reductions

- Savings of at least \$3,902 per year
- Energy savings of 190 million BTU' s per year
- 222 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 105,107 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)
- 45 lbs reduction in sulfur dioxide
(SO₂-forms acid rain)



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NC Cooperative Extension

876 Acquoni Rd Cherokee, NC



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Implementations

- Adjust doors allowing air leaks
- Reinforce building envelope
- Replace single pane windows
- Routine maintenance of HVAC system

Replace fluorescent lighting with T-8 system

Provide insulation on copper hot water heater lines





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Reductions

- Savings of at least \$2,195 per year
- Energy savings of 87 million BTU's per year
- 112 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 53,040 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)
- 41 lbs reduction in sulfur dioxide
(SO₂-forms acid rain)



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Fire Station #2

2305 Old Mission Rd Cherokee, NC



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Implementations

- Routine HVAC maintenance
- Replace garage MHH' s with T50' s
- Replace T-12' s and magnetic ballasts
- Hot water piping



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Reductions

- Savings of at least \$3,324 per year
- Energy savings of 149.2 million BTU's per year
- 192 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 90,890 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)
- 71 lbs reduction in sulfur dioxide
(SO₂-forms acid rain)



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Qualla Arts and Crafts

645 Tsali Boulevard Cherokee, NC



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Implementations

- Routine maintenance schedule for HVAC
- Replace single plane windows
- Insulate/Seal attic access cover
- Weather strip doors
- Caulk window and door frames
- Replace lighting fixtures
- Replace bathroom fixtures with low flush models



Reductions

- Savings of at least \$3,819 per year
- Energy savings of 142 million BTU' s per year
- 108 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 48,354 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)



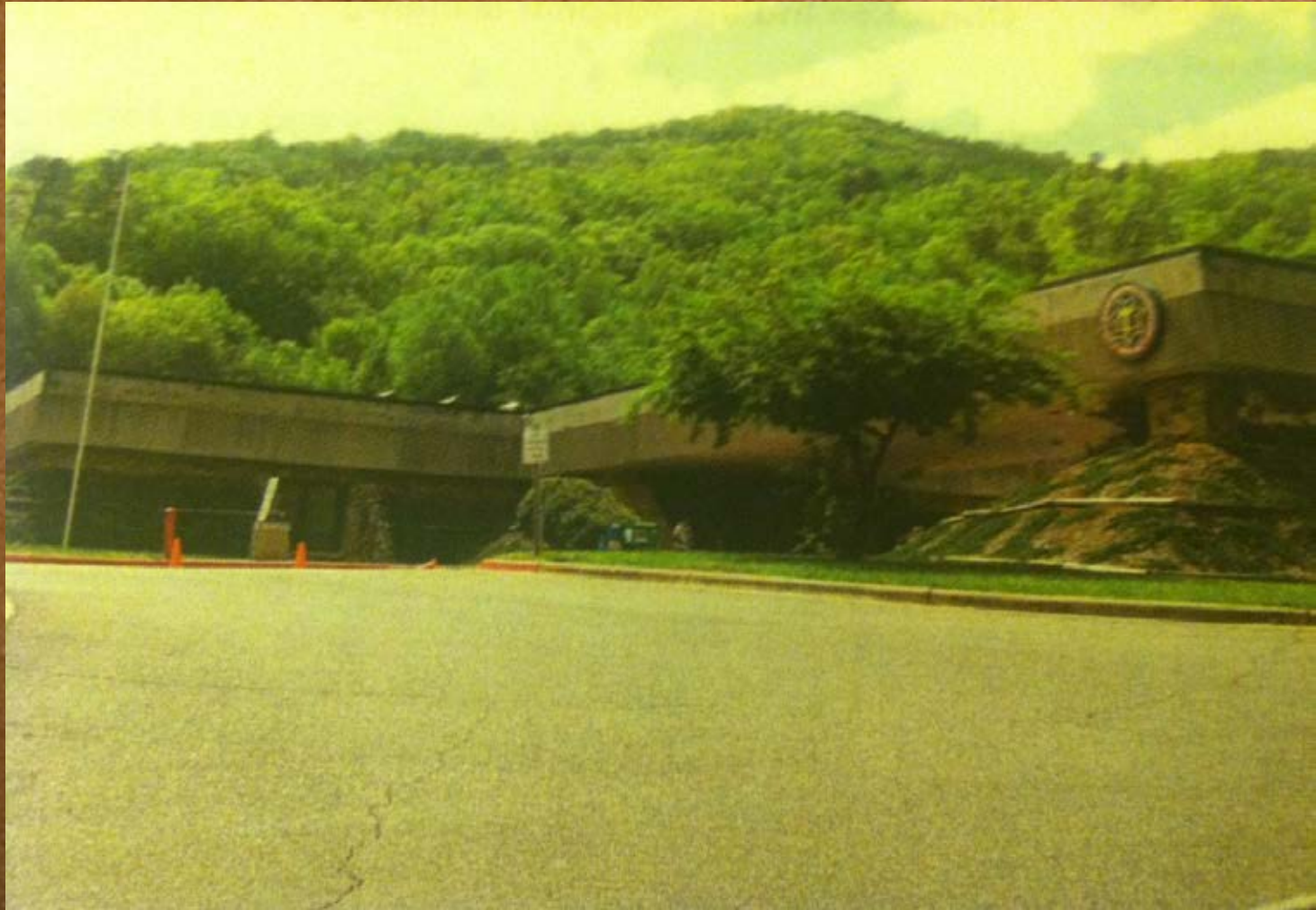
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Council House
Sequoyah Trail Cherokee, NC



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Cherokee Indian Hospital



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Ginger Lynn Welch

810 Acquoni Rd Cherokee, NC



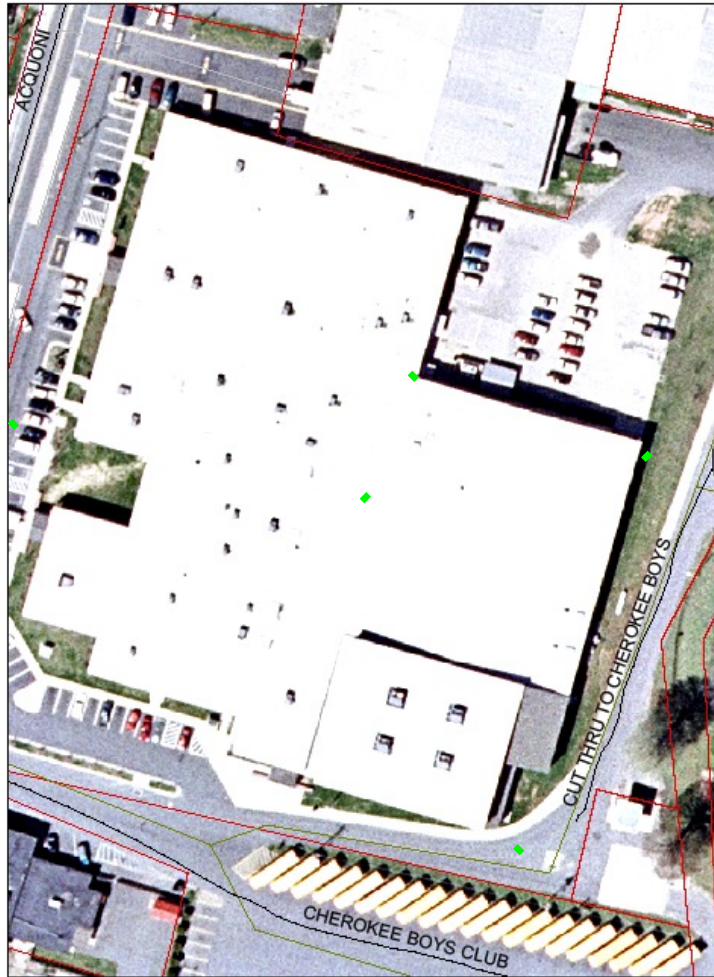
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Implementations

- Routine HVAC maintenance
- Repair leaking conditioned air fiber distribution ducts
- Programmable thermostats
- Replace lighting with T-8's and electronic ballasts
- Occupancy sensors
- Delamping
- Pool covers
- Solar heating systems
- Efficient lighting



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Reductions

- Savings of at least \$37,330 per year
- 2,138 lbs reduction in nitrous oxides
(NO_x-precursor to ozone pollution)
- 1,010,000 lbs reduction in carbon dioxide
(CO₂-greenhouse gas)
- 787 lbs reduction in sulfur dioxide
(SO₂-forms acid rain)



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Questions



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