



-Town of Waynesville, NC

Board of Aldermen Regular Meeting

Town Hall, 9 South Main Street, Waynesville, NC 28786

Date: April 14, 2020 Time: 6:30 p.m.

The agenda and all related documentation may be accessed electronically at www.waynesvillenc.gov.

Click on "Government/Mayor & Board" to download materials for town board meetings.

Consider the environment ♦ Conserve resources ♦ Print only when necessary

The Town of Waynesville provides accessible facilities, programs and services for all people, in compliance with the Americans with Disabilities Act (ADA). Should you need assistance or accommodation for this meeting, please contact the Town Clerk at:

(828) 452-2491 eward@waynesvillenc.gov

A. CALL TO ORDER - Mayor Gary Caldwell

1. Welcome/Calendar/Announcements
2. Adoption of Minutes

Motion: To approve the minutes of the March 24th, 2020 regular meeting as presented (or as corrected)

B. PRESENTATION

3. Presentation by Dr. Peter Bates, Forest Stewards
 - Dr. Peter Bates, Western Carolina University

C. NEW BUSINESS

4. Bid submission for Street Paving for the Town
 - Lisa Burnett, Purchasing Supervisor

Motion: Award annual contract for street paving to WNC Paving, Inc. in the amount of \$253,000.00, with the option for an additional two-year renewal

5. Municipal Building Roof
 - Julie Grasty, Asset Services Manager

Motion: To award the bid for the Municipal Building Roof in the amount of \$ 29,950.00 ARS Construction Services

6. Pavement Condition Survey RFQ Results
- Jeff Stines, Interim Public Services Director

Motion: Award contract to LaBella Associates in the amount of \$17,400.

7. N. C. Water Warn (North Carolina Water and Wastewater Agency Response Network)
- Jeff Stines, Interim Public Services Director

Motion: To approve the Town of Waynesville to be a member of NC Water Warn

8. Chestnut Walk Tank – Site Work Bid
- Jeff Stines, Interim Public Services Director
 - Ben Turnmire, Finance Director

Motion: Award contract to ACMI in the amount of \$187,540.

Motion: To approve the budget amendment in the amount of \$17,000 to completely fund the contract to include the site work

COMMUNICATIONS FROM STAFF

9. Town Attorney Report
- Town Attorney, Bill Cannon

10. Manager's Report
- Manager Rob Hites

D. COMMUNICATIONS FROM THE MAYOR AND BOARD

E. ADJOURN



TOWN OF WAYNESVILLE

PO Box 100
 16 South Main Street
 Waynesville, NC 28786
 Phone (828) 452-2491 • Fax (828) 456-2000
www.waynesvillenc.gov

CALENDAR April 2020

2020	
Tuesday April 28	Board of Aldermen Meeting – Regular Session
Tuesday May 12	Board of Aldermen Meeting – Regular Session
Monday May 25	Town Offices Closed – Memorial Day
Tuesday May 26	Board of Aldermen Meeting – Regular Session
Sunday June 2	First UMC Pig Pickin
Tuesday June 9	Board of Aldermen Meeting – Regular Session
Tuesday June 23	Board of Aldermen Meeting – Regular Session
Friday July 3	Town Offices Closed – Independence Day
Tuesday July 14	Board of Aldermen Meeting – Regular Session
Tuesday July 28	Board of Aldermen Meeting – Regular Session
Saturday August 1	Sarge’s 15 th Annual Downtown Dog Walk
Tuesday August 11	Board of Aldermen Meeting – Regular Session
Sunday August 23	First UMC Back to School Bash
Sunday August 23	Drug Epidemic Awareness Walk – Walk Across America
Tuesday August 25	Board of Aldermen Meeting – Regular Session
Monday September 7	Town Offices Closed – Labor Day
Tuesday September 8	Board of Aldermen Meeting – Regular Session
Tuesday September 22	Board of Aldermen Meeting – Regular Session
Tuesday October 13	Board of Aldermen Meeting – Regular Session
Tuesday October 27	Board of Aldermen Meeting – Regular Session
Thursday October 31	First UMC Trunk or Treat
Tuesday November 10	Board of Aldermen Meeting – Regular Session
Wednesday November 11	Town Offices Closed – Veterans Day
Tuesday November 24	Board of Alderman Meeting- Regular Session
November 26 & 27th	Town Offices Closed – Thanksgiving Holidays
Tuesday December 8	Board of Aldermen Meeting – Regular Session
December 24, 25 & 28th	Town Closed – Christmas Holidays
Saturday June 5, 2021	Oasis Shriners Spring Celebration Parade

Board and Commission Meetings – April 2020

ABC Board	ABC Office – 52 Dayco Drive	April 21st 3 rd Tuesdays 10:00 AM
Board of Adjustment	Town Hall – 9 S. Main Street	April 7th 1 st Tuesdays 5:30 PM
Downtown Waynesville Association	UCB Board Room – 165 North Main	April 23rd 4 th Thursdays 12 Noon
Firefighters Relief Fund Board	Fire Station 1 – 1022 N. Main Street	Meets as needed; <i>No meeting currently scheduled</i>
Historic Preservation Commission	Town Hall – 9 S. Main Street	April 1st 1 st Wednesdays 2:00 PM
Planning Board	Town Hall – 9 S. Main Street	April 20th 3 rd Mondays 5:30 PM
Public Art Commission	Town Hall – 9 S. Main Street	April 9th 2 nd Thursdays 4:00 PM
Recreation & Parks Advisory Commission	Rec Center Office – 550 Vance Street	April 15th 3 rd Wednesdays 5:30 PM
Waynesville Housing Authority	Waynesville Towers – 65 Church Street	April 14th 2 nd Tuesday 3:30 PM

BOARD/STAFF SCHEDULE

--	--	--

MINUTES OF THE TOWN OF WAYNESVILLE BOARD OF ALDERMEN
Regular Meeting
March 24, 2020

THE WAYNESVILLE BOARD OF ALDERMEN held its regular meeting on Tuesday, March 24, 2020 at 6:30 p.m. in the board room of Town Hall, 9 South Main Street, Waynesville, NC.

A. CALL TO ORDER REGULAR MEETING

Mayor Gary Caldwell called the meeting to order at 6:30 pm with the following members present:

Mayor Gary Caldwell
Mayor Pro Tem Julia Freeman
Alderman Jon Feichter
Alderman Chuck Dickson
Alderman Anthony Sutton – attended remotely via Skype

The following staff members were present:

Rob Hites, Town Manager
Amie Owens, Assistant Town Manager
Eddie Ward, Town Clerk
Bill Cannon, Town Attorney
Ben Turnmire, Finance Director
Jeff Stines, Interim Public Services Director

The following media representatives were present:

Becky Johnson, The Mountaineer
Cory Valliancort, Smoky Mountain News

1. Welcome/Calendar/Announcements

Mayor Caldwell welcomed everyone and reminded them of the following Calendar events that have been canceled:

April 4th - Gateway to the Smokies Half Marathon – moved to October 25th
May 3rd - Drug Epidemic Walk – moved to August 23rd
May 9th – Whole Bloomin’ Thing – canceled for 2020

2. Adoption of Minutes

A motion was made by Alderman Jon Feichter, seconded by Alderman Anthony Sutton, to approve the minutes of the March 10, 2020 regular meeting as presented. The motion carried unanimously.

B. PUBLIC COMMENT

Pastor Mark Golden quoted scripture and prayed for the Town Board and the citizens during this time of uncertainty.

C. NEW BUSINESS

3. Alliance Auto Gas Agreement

- Interim Public Services Director, Jeff Stines

Jeff Stines, Interim Public Services Director, stated that in 2014 the Town of Waynesville moved forward with an alternative fuel option for various fleet vehicles. This included the purchase of several new vehicles for various departments as well as propane conversion kits for these vehicles. He said this allows these vehicles to run on both gasoline as well as propane. The program allows the Town of Waynesville to purchase propane at a much lower rate than gasoline. Mr. Stines referred the Board to the comparison sheets in their agenda packets from Fiscal Year 2019 as well as the inventory of fleet related to propane from the beginning of the program until now.

Town Attorney Bill Cannon said there needed to be a legal entity in the contract and asked who the legal entity of the contract was, Alliance Auto Gas or Blossman Gas. Mr. Stines explained that the contract would be with Alliance Auto Gas, and Blossman Gas is the supplier.

Mayor Caldwell asked Mr. Stines to research the cost of gasoline versus propane. Mr. Stines said he will get those numbers to the Board.

Alderman Jon Feichter said that the environmental aspect of using propane is the attraction, even if they are the same in cost.

A motion was made by Alderman Jon Feichter, seconded by Alderman Anthony Sutton, to move forward with Fuel Supply Agreement (5 years) with Alliance Auto Gas to purchase propane for equipped vehicles, after the Town Attorney has determined the legal entity in the contract. The motion carried unanimously.

D. COMMUNICATION FROM STAFF

4. Town Attorney Report

- Attorney, Bill Cannon

Attorney Cannon told the Board that the last advertisement on the Hazel Street property will be in the Mountaineer on April 1st and should mean this process will be coming to an end.

5. Manager's Report

- Town Manager, Rob Hites

a. Approval of Design Build Bid with Bolton Construction

Manager Hites stated that the Board chose Bolton Construction and their HVAC engineer to carry out a Design-Build project for replacement of the dehumidification system in the pool area of the recreation center. Bolton's concept is to replace the existing unit located in the second floor of the center with two (2) forty-ton outdoor units. Using two units will permit one unit to partially dehumidify the air while the companion unit is being repaired, if necessary. The units will be venting through two windows in the rear of the pool area. They will be connected to the exiting duct work. Manager Hites told the Board that the building code requires that the old unit be flushed of freon and removed. Two new sections of ductwork will be added to the current duct system to make it more efficient. The five existing floor level exhaust fans will be tested for efficiency and repaired if necessary. When operating properly the fans will help eliminate the chlorine fumes generated at the pool level. He said that if the Board wishes to paint the duct work in the pool, Bolton has added an \$18,178.00 option. The new ductwork is unpainted. They also quoted a \$4,860.00 addition to replace the existing duct hangers if necessary. The base bid to remove the old unit and install two new units is \$732,926.00.

Mr. Mark Bolton of Bolton Construction, explained to the Board that because of the location of the current equipment, his company would cut the equipment into sections and remove it from the building to free up the space. He said the perimeter ductwork that is still in place could be used. He said there would be two new units installed outside the building and take two windows out in order to bring the new ductwork in for fresh air, and tie into the existing duct system. Mr. Bolton explained to the Board that they would be inspecting the existing duct hangers and clips for corrosion, and if needed, they would be replaced.

Alderman Dickson asked what the advantage of painting the new ductwork would be. Mr. Bolton said the only reason for painting it would be cosmetic, and it was not a necessity. The consensus of the Board was to leave the ductwork unpainted with the option to paint later, and to replace the straps because it is a safety issue.

Mr. Bolton stated that the work could begin immediately since the Recreation Center is closed at this time.

A motion was made by Alderman Jon Feichter, seconded by Alderman Julia Freeman, to approve the quote from Bolton for the base bid and replacement of the hangers and authorize the staff to prepare and execute a contract. The motion carried unanimously.

b. Request for an extension of SOC Contract- McGill Engineering

Manager Hites told the Board that the Town is having a difficult time negotiating a Special Order of Consent (SOC) for the Wastewater Treatment Plant. The Town sent the Department of Environmental Quality (NC DEQ) an in-depth SOC application in August and they responded with a paragraph of comments three months later. The issue we are having is that our local office is requesting limits on Total Suspended Solids, and Fecal Coliform and additional flow that the plant cannot meet while it is under construction. If we violate those limits, we will be fined \$1,000 per day. The Town extended Forrest Westall's contract several months ago under the belief that we could wrap this up after discussing our predicament with the staff in Raleigh. While we have made some progress, the Regional office continues to insist on conditions that we know we cannot meet. If we accept the flows they are requesting, we will run out of approved flows within a year and must request additional flow for every hookup. This includes Clyde, Lake Junaluska and Junaluska Sanitary District. Mr. Westall is requesting a second contract amendment of \$5,000 to permit him to continue our negotiation. Without a Special Order of Consent in place we will have to undertake our project under our current chemical limits and flows, and DEQ will have to approve every hookup without additional flows being permitted.

A motion was made by Alderman Jon Feichter, seconded by Alderman Anthony Sutton, to negotiate the Special Order of Consent in the amount of \$5,000.00. The motion passed unanimously.

c. Request of Matt Haynes of Giles Chemical to construct a device to warn and slow drivers approaching a pedestrian crosswalk on Commerce Street

Mr. Matt Haynes, Director of Operations for Giles Chemical, explained to the Board that employees of Giles must make regular trips to the loading and dumpster area across Commerce Street from their plant. Giles operates a three-shift operation and they have encountered incidents where their employees have nearly been hit by vehicles traveling along Commerce Street. He is requesting that the Town join with them in installing devices that would alert motorists to the presence of pedestrians. This would include a raised and marked section of pavement for the safety of their employees. This crosswalk will serve as a physical and visual deterrent for motorists that are traveling the Commerce Street area. Mr. Haynes explained to the Board that Giles will partner in the cost of the project up to \$7,500.00.

A motion was made by Alderman Jon Feichter, seconded by Alderman Anthony Sutton, to approve the crosswalk and partner with Giles, in an amount not to exceed \$15,000.00, for the project. The motion carried unanimously.

E. COMMUNICATIONS FROM THE MAYOR AND BOARD

6. Water Disconnection During the COVID-19 Outbreak
 - Alderman Jon Feichter

Alderman Jon Feichter stated that one of the things that certain companies such as Duke Energy and PSNC Gas Company are doing during the Coronavirus Pandemic is eliminating disconnection for non-payment. After discussing the possibility of this being done for the Town with Manager Hites and Finance Director Ben Turnmire, Alderman Feichter said he would like to do this for the citizens of Waynesville. He said he fully realized the financial implications this would cause for the Town, but he was very concerned for the citizens and how this would affect their pocketbooks. He said he was open for suggestions about how long the period would be for waiving disconnections.

Finance Director Turnmire explained to the Board that if the disconnections were waived, it would affect the Water Fund about 3 – 5% each month. He said this would be mainly for residential accounts, and there will be loss of revenue from commercial accounts because restaurants are not operating at this time and are just paying the base rate each month.

Alderman Feichter said he felt there would be citizens who are not working now that will not be able to pay their bill, but he did not feel that suspending disconnection would not cause a flood of non-payments. While this crisis is going on, Alderman Feichter stated that fees cannot be waived.

Alderman Anthony Sutton, who attended the meeting remotely, agreed that the Town should offer some relief for individuals; however, over the next three months there is a potential for a \$275,000.00 loss. In offering no disconnections, the citizens will need to understand that late fees and penalty fees will not be waived, and it will have to be paid eventually, possibly through a payment plan.

Finance Director Turnmire reminded the Board that during this Pandemic the Town will be impacted through a loss of revenue, and we need to think about expenses as well. He said that internally the Town was doing everything to minimize expenses, but we do have obligations that will have to be met. Another point to consider is that since people are having to stay home, they are using more power and water for longer periods of time, so their bills will increase. The longer the Town allows disconnections, the harder it will be for customers to catch up on their bills. He said that payment plans are on a case by case basis. Mr. Turnmire added that anything that is done with disconnections will be impact this fiscal year, and the Town needs to operate as a business and follow our budget.

Alderman Feichter suggested that the Town cease disconnections as of the date the Town declared the State of Emergency. Disconnections that were scheduled prior to that date will be determined for each individual case.

Assistant Manager Amie Owens suggested that in sixty days we would know more about the financial impact from the pandemic and use that number as a starting place for the disconnections. She said that if the Board decided to follow through with the suspension of disconnections, the Ordinance would need to be updated to reflect the utilities disconnect section. She added that if all members of the Board agree to stop disconnections, it could go into effect immediately.

A motion was made by Alderman Chuck Dickson, seconded by Alderman Jon Feichter to adopt the updated Ordinance as written, except for waiver of fees, to reflect that during a State of adopting measures to suspend disconnections in the form of a Resolution. The motion passed unanimously.

A motion was made by Alderman Chuck Dickson, seconded by Alderman Jon Feichter to suspend disconnection of newly delinquent utilities pertaining to the Declaration of the State of Emergency enacted on March 15, 2020 for a period of sixty (60) days, at which time Manager Hites or Finance Director Turnmire will report back to the Board. The motion passed unanimously.

7. Homelessness Task Force
 - Alderman Jon Feichter

Alderman Dickson said that he thought the Homelessness Task Force was fine with the number of people on the Task Force the way it is. He said he did not feel there is a need for more people.

Alderman Julia Freeman agreed with Alderman Dickson. She is happy with the way it is composed now and does not feel that there is a need for more people on the Task Force.

Alderman Anthony Sutton said he did not feel that anyone needed to be added, and it is adequate as it is.

Alderman Feichter said his interests was not in a specific locale, but that there is a significant point of view that is missing in the Task Force. He said there are people who live next door to Pathways and their views are not being represented. In order to craft a solution that is accepted by everybody, then all points of view need to be included. He said there is nothing to lose by including two additional members with that perspective.

Alderman Jon Feichter made a motion that the Board appoint two new members to the Homelessness Task Force. There was no second to the motion – motion failed.

Alderman Dickson told the Board that he had spoken with Mr. Bill Guy from the Open Door. Mr. Guy said that they were giving food to the homeless that are using their services, and this was giving the Open Door an estimate of the number of homeless in the areas. The concern that Mr. Guy has is that the homeless have nowhere to use the restroom because all bathrooms have

been closed. Alderman Dickson said this is a need that needs to be addressed and asked if anyone had a solution.

Alderman Feichter addressed the Resolution that had been adopted by Buncombe County in reference to limiting the number of people in an assembly to 50 because of the Corona Virus. He feels that the County should adopt this policy as well as the Town. The concern is trying to flatten the curve by limiting assemblies of more than ten people. He urged the Mayor and Board to issue a stay-at-home policy for the Town.

Manager Hites explained that at this time the County and Town would be satisfied with the Governor's regulations. The Mayor has the right to declare other rights for the Town.

Alderman Dickson said he agreed that we need to be conscious of the danger of the virus, but he believed that we need to go with what the Governor has put in place as to the amount of people allowed in an assembly.

Alderman Anthony Sutton said that since there were no confirmed cases in Haywood County he felt that we need to follow the orders in place by the Governor.

Alderman Julia Freeman stated that she felt we need to follow the Governor's instructions.

Alderman Anthony Sutton was in agreement that we need to follow the Governor's instructions and they may change at any minute.

F. CLOSED SESSION

8. Enter closed session to discuss potential acquisition of property under NC General Statute §143-318.11(a)(5)

Alderman Chuck Dickson made a motion, seconded by Alderman Julia Freeman to enter into closed session under NC General Statute § 143.318.11(a)(5)(i) to consider the price or other material terms of a contract or proposed contract for the acquisition of real property by purchase, option, exchange or lease and NC General Statute § 143.318.11(a)(3) Attorney/Client Privilege. The motion carried unanimously.

Due to concerns related to social distancing, audience members were asked to leave the Board Room rather than the Board convening to the smaller conference room. During the clearing of the room Becky Johnson, reporter from the Mountaineer, questioned information that would be discussed in closed session and challenged that a part of the discussion related to an environmental report should be conducted in open session.

Alderman Julia Freeman made a motion, seconded by Alderman Chuck Dickson to return to open session at 8:23 p.m. The motion carried unanimously.

Manager Hites explained that the environmental study that was conducted as part of the due diligence for the property that the Town was considering purchasing. There were two specific concerns that were addressed – the compaction study to determine if the subsoil could withstand the weight of the building, parking and traffic on the site and an environmental level 1 study to assess if there were any contaminants or pollutants. He noted that for the compaction study, seven (7) test pits were dug to nine (9) feet deep. It was discovered that the soil was not compactible to five feet; meaning that five feet of soil would have to be removed and replaced in order to have a buildable site. This would be approximately 51,000 square feet of soil removal. The environmental level 1 study did not indicate any contaminants in the upper layers of soil; however, since the entire surrounding properties were superfund sites, the engineer recommended a level 2 study which would allow for analysis of any additional chemicals or pollutants.

Alderman Anthony Sutton asked if this soil removal would be for the entire site. Manager Hites responded that this was only for approximately 1.5 acres where a 15,000 sq. ft one story building, parking and drive ups would be.

Alderman Chuck Dickson made a motion, seconded by Alderman Julia Freeman to return to closed session at 8:26 p.m., as previously noted under NC General Statute § 143.318.11(a)(5)(i) and NC General Statute § 143.318.11(a)(3). The motion carried unanimously.

Alderman Chuck Dickson made a motion, seconded by Alderman Julia Freeman to return to open session at 8:41 p.m. The motion carried unanimously.

Alderman Jon Feichter noted that many organizations were allowing work from home and were conducting meetings via conference calls and or videoconferencing. He explained that he had recommended a service called Zoom as a method to conduct meetings remotely and to continue to observe social distancing per the CDC recommendations. Alderman Feichter noted that Manager Hites had explained that while it is possible to do so, there had to be a way for citizens to hear the proceedings. With this product there was a way for citizens to join a conference call and Manager Hites added that staff would most likely be on site in the board room in case there were individuals who wished to listen there.

Alderman Jon Feichter made a motion, seconded by Alderman Anthony Sutton to hold the next two regularly scheduled Board of Aldermen meetings via electronic means. The motion carried unanimously.

There was discussion related to how citizens could comment at these electronic meetings. Assistant Manager Owens explained that there was a way for participants to indicate that they wished to speak, but if there was a large number of participants, it may be difficult to identify everyone. Alderman Chuck Dickson noted that public comment is not required at all meetings, only at least one if multiple meetings are held in a month. He suggested the possibility of allowing

the comments at the second meeting to give time for staff to become familiar with the electronic meeting format.

Alderman Chuck Dickson made a motion, seconded by Alderman Julia Freeman to exclude public comment from the first electronic meeting, but have it as part of the second meeting. The motion carried unanimously.

Alderman Chuck Dickson made a motion, seconded by Alderman Jon Feichter to exercise the termination clause in the property purchase agreement for the Toler property. The motion carried unanimously.

G. ADJOURN

With no further business, Alderman Anthony Sutton made a motion, seconded by Alderman Julia Freeman to adjourn the meeting at 8:54 p.m. The motion carried unanimously.

ATTEST:

Gary Caldwell, Mayor

Robert W. Hites, Jr. Town Manager

Eddie Ward, Town Clerk

**TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: April 14, 2020**

SUBJECT: Presentation by Forest Steward Dr. Peter Bates

AGENDA INFORMATION:

Agenda Location:	Presentation
Item Number:	B3
Department:	Administration
Contact:	Rob Hites, Town Manager
Presenter:	Dr. Peter Bates

BRIEF SUMMARY: Dr. Bates will present his annual update on the watershed and recommend activities for the Spring and Fall.

MOTION FOR CONSIDERATION: Consider Dr. Bates' recommendations

FUNDING SOURCE/IMPACT: Dr. Bates organization "Forest Stewards" contracts with the Town to provide forest and water quality assessment and management within the Water Shed.

ATTACHMENTS: None

MANAGER'S COMMENTS AND RECOMMENDATIONS: Listen to the report and recommendations and act on the items Dr. Bates requests the Board to act upon.

Update on Forest Stewardship Activities in the Waynesville Watershed
Forest Stewards
April 7, 2020

Presented by Pete Bates
Department of Geosciences and Natural Resources, WCU
Forest Stewards, Inc.

The following report summarizes key accomplishments for 2019/2020 and proposed activities for 2020/2021. Many of these were reviewed during a stewardship tour of the watershed conducted in July of 2019 that was attended by Waynesville town staff, representatives from the conservation easement holders (Conservation Trust for NC and Southern Appalachians Highlands Conservancy), Forest Stewards staff, and the local media. The Tour Handout as it contains additional information that is referred to in this report.

For background information on conservation easement areas in the watershed, forest & land management history, and an overview of the approach to forest stewardship in the watershed see *Tour Handout pages 3-7*.

CONTINUED MONITORING OF WATER QUALITY. Dr. Jerry Miller (Dept. of Geosciences and Natural Resources) is overseeing water quality monitoring activities in the Waynesville watershed and provides the following summary (see *Tour Handout pages 11 to 19* for additional information).

Highlights

- Monitoring within the watershed began in March, 2007 and has continued to the present time. It is now one of the most intensively monitored watersheds in North Carolina – 10s of thousands of turbidity measurements and 100s of suspended sediment samples have been analyzed over the past 12 years.
- Water quality in the watershed is excellent.
- Preliminary analyses show that forest treatments have not affected water quality within the Watershed. More detailed analyses are currently underway, and depending on current events, will be finished by the end of the summer.
- Future monitoring will continue to focus on a site along Lower Allen Branch downstream of an area of selected timber harvests, and on Old Bald Creek, downstream of ongoing and planned treatment activities.

Overview of Water Quality Monitoring Activities

We have been monitoring water quality in the Waynesville Watershed since March, 2007. These monitoring activities are intended to: (1) provide baseline data that can be used to assess changes in water quality through time, (2) assess alterations in water quality, if any, that are related to forest treatment programs, and (3) gain a better understanding the controls on water quality within small, high-gradient, headwater basins in the southern Appalachians and that characterize much of Haywood County.

The initial monitoring site was located along Allen Creek (often referred to on maps as Allen Branch). The site was selected as it captured runoff from a large portion of the basin (~24 %), and was relatively easy to access by means of an off-road vehicle. The site was instrumented with high tech, highly automated systems including a YSI multi-parameter 6600 sonde equipped to monitor basic water quality parameters including temperature, pH, specific conductivity, dissolved oxygen and turbidity. Turbidity (reported in NTUs) is a measure of water clarity and provides insights into the amount of suspended matter (sediment) within the water. North Carolina State regulations pertaining to

the effects of sediment on biota are based on turbidity. A pressure transducer was also installed to record variations in water levels, which were then used to determine discharge (the volume of flow that passes a given point in the river in a given amount of time). Discharge was recorded because most water quality parameters change with flow conditions. Sediment loads, for example, tend to increase during floods. All of these data were recorded on a datalogger (computer chip) at 5 minute intervals, and are subsequently transferred to a laptop computer on a regular (~weekly) basis where they can then be manipulated and analyzed. Water quality samples at the site were also collected using a 24-bottle ISCO automated sampler. The sampler was set up to collect water from the stream during flood events, allowing for the analysis of suspended sediment concentrations (SSC) during both low- and high-water conditions. SSC is a more precise method than turbidity of measuring the amount of sediment in the water, but is more difficult and time consuming to collect. In addition, the data possesses a lower sampling resolution through time as turbidity is collected continuously at 5-minute intervals.

Since 2007, the number and location of sampling sites in the watershed have changed. Both the number and location of sampling was altered to ensure the collection data in areas either proposed for treatment, or that were treated. The locations of these sites are shown on Figure 1, whereas the instrumentation installed at the sites and the period of monitoring are summarized in Table 1. After several years of sampling at Allen Creek #1 (our initial site), our focus emphasized turbidity and SSC because the data showed that water quality with regards to the other parameters was excellent (see below). It is important to note that 10s of thousands of turbidity measurements and 100s of SSC samples have been collected in the watershed, making it one of the most intensively monitored watersheds in the North Carolina.

Water Quality Monitoring Results

Pre-treatment Baseline Data: The data collected between 2007 and 2014, prior to selective timber harvests in the watershed, were analyzed in detail and published in the professional journal *Water*. Water quality within the Watershed at all sites was found to be excellent. As expected, the amount of sediment in the water was limited during low-flow (base flow) conditions. At the Allen Creek #1 site, for example, nearly 85 % of the more than 250 samples collected between March 2007 and July 2010 during low flow exhibited concentrations <5 mg/L, whereas more than 99 % exhibited concentrations less than 10 mg/L. In most instances, the highest SSC values were measured during or immediately after peak flood flows. The analysis of 1051 water samples from Allen Creek #1 showed that more than 90% of the samples exhibited sediment concentrations below 30 mg/L, whereas only 2.3 % exhibited values exceeding 100 mg/L. Peak SSC values at the Old Bald Creek #1 and Cherry Cove sites were similar only reaching values in excess of 280 mg/L. More than 75 % of the samples from these sites were below 50 mg/L. The duration over which relatively high sediment concentrations occur is also an important measure of water quality with regards to the impacts of sediment on aquatic biota. Relatively high SSC values at all three sites tended to be short-lived; typically, SSC during floods declined to values less than 50 mg/L within 10 hours of a precipitation event, and SSC values exceeding 25 mg/L rarely lasted for more than 24 hours.

Turbidity values were also found to be exceptionally low for all monitoring sites. At the Allen Creek site, the majority of turbidity values measured at five minute increments between March 2007 and September 2011 were below 30 NTU, and more than 75% of the time turbidity measurements were below 10 NTU. Similarly, more than 95 % of the values measured at Cherry Cove and Old Bald #1 were below 20 NTU. As expected, the highest turbidity values occurred near or at peak flood flows, and turbidity levels tended to rapidly decline to near background values. As a result, relatively high

turbidity values were short-lived, as shown by the analysis of 69 flood events at the Allen Creek site between March 2007 and July 2010. Turbidity remained above 10 NTU on average, for less than 1.2 hours. During all floods, turbidity decreased below 50 NTU within 25 minutes.

Post-Treatment Data: A preliminary analysis of post-treatment data from Old Bald sites #1 and #2, and lower Allen Creek site (Fig. 1) indicate that water quality has remained unchanged. For example, at the Lower Allen Creek #2 site, while slightly higher turbidity values were measured during two flood than prior to selective timber harvests, turbidity values remained low and were statistically similar to pre-treatment values.

A more detailed analysis of the data collected between 2015 and December, 2019 is currently underway. We had hope, with the help of three undergraduate students from WCU, to complete the analysis by May. However, recent events have delayed our completion date. We now hope to have the analysis completed by the end of the summer.

Future Water Quality Monitoring Activities

Currently, four sites are being monitored within the watershed, one located along Lower Allen Creek (#2) (downstream of an area of selected timber harvests). Three additional sites are being monitored along Old Bald Creek, downstream of areas proposed for upcoming treatments. Monitoring at these sites typically occurs from around the April 1 through November 1. Monitoring during the winter months has proven difficult because of access issues (e.g., snow covered roads), and below freezing temperatures at night which inhibits the collection of water samples. Given the current stay-in-place order, we intend to re-start sampling in the watershed at the beginning of May.

MONITORING AND CONTROL OF NON-NATIVE INVASIVE PLANT SPECIES (NNIS) (See map on *Tour Handout page 20*). We continue to monitor and treat NNIS throughout the Waynesville watershed. To date most occurrences have been in areas around the reservoir that were heavily disturbed during reservoir construction. A summary of our findings to date include:

- As in all Western North Carolina forests today, non-native invasive plants (NNIP) are a serious and expanding threat to the integrity of forest communities in the Waynesville Watershed.
- NNIP are most abundant at lower elevations near the dam and surrounding the reservoir due to the history of intensive land disturbance and greater introduction of NNIP seed in these areas.
- We believe that NNIP cannot be eradicated from the Watershed, but they can be managed where they pose the greatest threat to regeneration of canopy tree species.
- Forest Stewards has been monitoring and working to control the spread of NNIP since the 2014 white pine harvest by conducting annual surveys in the white pine dominated areas surrounding the reservoir and working to check the spread of the most threatening species.
- The herbicide used for control has been *Triclopyr* (Brand name - *Pathfinder*) with mixing & spraying done to ensure that chemicals do not enter streamside zones.
- Surveys of NNIP species to date have found:
 - Ailanthus, Autumn olive, Barberry, Burning bush, English ivy, Japanese honeysuckle, Japanese stilt grass, multiflora rose, Oriental bittersweet, Paulownia, and Privet
- Control treatments to date have focused on:
 - Oriental bittersweet (of highest concern as it can quickly overtop tree canopies), along with Barberry, Burning bush, Paulownia, Multiflora rose, Japanese honeysuckle

- We propose that before any future timber harvest in other areas of the watershed, a pre-harvest inventory be done for the presence of NNIP and treatments applied as appropriate. Also, post-harvest monitoring and targeted control is recommended, particularly in the case of oriental bittersweet.

CONTINUOUS FOREST INVENTORY (See map on *Tour Handout page 27*). In 2008/09, 202 continuous forest inventory plots (FIA) were established in the Waynesville watershed. The intention was to remeasure the plots approximately once every decade to monitor changes in forest condition over time. Currently, approximately 2/3 of the original plots have been remeasured. Our goal is to complete re-measurement during 2020/2021 and begin analyses of the results.

PRELIMINARY PLANNING FOR POTENTIAL STEWARDSHIP TREATMENTS IN THE OLD BALD-STEESTACHEE FOCUS AREA (see *Tour Handout page 33* for map of this area). This area is where some of the last major logging was conducted by the town in the 1980's, and represents an area well-suited to continued forest restoration activities. We highlight 3 proposed activities in this report, but note others are discussed in the Tour Handout.

Implementation of prescribed burning (*Tour Handout pages 21 and 31*). Nearly a century of fire suppression has resulted in many fire-adapted and fire-tolerant species (e.g., yellow pines, oak, and hickories) being replaced by fire-intolerant species (e.g., maples and birches) changing overall forest structure and species composition. Fire suppression has also created a build-up of forest fuels that could create dangerous wildfire conditions. We believe it would be wise to begin the process of conducting prescribed burns in areas where fire-adapted communities once existed. These are drier sites typically found on ridges and south and west facing slopes. The NC Forest Service has a program that would allow them to conduct prescribed burns at no cost to the town.

Conduct a “day-lighting” harvest of high-risk trees along the main forest road that transects the Old Bald Creek drainage. (*Tour Handout page 27* for map of road network). This road is part of a system of well-designed forest roads built throughout the watershed nearly 70 years ago, with engineering support from the US Forest Service. We believe maintaining the road infrastructure would be a wise investment for the town to protect access throughout the watershed. Harvesting high-risk trees along this road will allow more sunlight to reach the roadbed to facilitate drying, preempt future treefall from uprooting the roadbed or blocking the road after major storms, and generate income that could be used to upgrade undersized and collapsed culverts that exist in some areas.

Begin removal of the white pine plantation on the south-facing slopes along Steestachee Creek that is approaching economic maturity (*Tour Handout pages 23 and 24*). This area was clearcut and planted to white pine nearly 40 years ago. The roads are still in place from that harvest, which would allow for the pine removal to be done with minimal ground disturbance. Harvest of these relatively short-lived pine will preempt their biological decline and will allow for the release of an existing cohort of hardwood pole timber dominated by oaks. This would lead to restoration of the mesic oak-hickory forest type that is naturally adapted to these slopes. We anticipate this harvest would generate some income for the town while nurturing site-adapted forest types in the watershed, as recommended in the forest management plan.

The items listed above would build upon the early restoration work done at lower elevations around the reservoir in the past decade. Once successfully completed they could be expanded in subsequent years to other portions of the watershed to maintain a diverse and resilient forest cover, which is the best way to guarantee continued high quality water flowing from the watershed. All proposed restoration and stewardship activities were discussed with conservation easement holders on-site during the July 25 field visit

**Forest Stewardship Tour – Waynesville Watershed
July 25, 2019**

Agenda

9:00: Meet at water treatment plant

- Introductions
- Overview of watershed history and forest stewardship strategy

9:30 Arrive at Stop 1 (2014 white pine harvest unit)

- Continuous forest inventory (Pete Bates)
- Review of 2014 harvest (Pete Bates)
- Review of non-native invasive plant monitoring and control (Craig Breedlove)

10:10 Arrive at Stop 2 (water quality monitoring station on Old Bald Creek)

- Review of water quality monitoring (Jerry Miller)

10:30 Arrive at Stop 3 (Old Bald/Steestachee divide)

- Introduction of Old Bald/Steestachee project area (Pete Bates)
- Proposed prescribed burn (Pete Bates and Matthew Hooper)
- Proposed road maintenance (Pete Bates)

11:15 Arrive at Stop 4 (1982 clearcut unit)

- History of 1982 clearcut and forest conversion project (Paul Carlson)
- Proposed future treatments in Old Bald/Steestachee project area (Pete Bates)

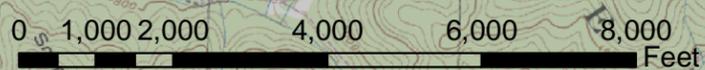
12:45 Arrive at dam

- Lunch and further discussion

Map 3. Waynesville Watershed Conservation Easement Areas

Easement Areas

- No Easement: 570 acres
- Forever Wild: 690 acres
- Working Forest: 7,340 acres



USGS Hazelwood
Sam Knob
Tuckasegee
and Waynesville Quads

Prepared by:
Western Carolina
Forest Sustainability Initiative

Partial History of Forest & Land Management on the Waynesville Watershed

1900: Quinlan-Monroe Lumber Co. secured right to harvest timber on 9000 acres on the head of Allen's Creek. In 1901 began removing 5 million board feet (MMBF) of timber per year.

1923: Town of Waynesville purchased 2043 acres in the Watershed; presumably by then the accessible timber stock had been cut out.

1926: Town gained right to purchase an additional 5000 to 6000 acres which it did.

1923 -1945: No timber was cut in the Watershed.

1945: TVA & NCFS recommended that Town initiate Forest Management in the Watershed.

1945 – 1958: 13.37 MMBF timber cut (about 1 MMBF/yr) & contractors built 65 miles of woods roads using techniques developed by USFS at Coweeta Hydrological Laboratory in Macon Co.

1958: Inventory by Commercial Foresters Inc found 20.68 MMBF timber. Proposed a 10-yr plan which included hiring a watershed foreman & purchase equipment to patrol watershed, to maintain 50 miles of forest roads annually, and to conduct timber stand improvement activities.

1977 – 1980: Town builds Dam and Reservoir on Allen's Creek upstream of Rocky Branch.

1980: New Forest Management Plan for Watershed done by Wilson & Assoc. Then Barry Wilson was retained as town's consulting forester during 1980's to implement plan.

1981 – 1987: Two contracts were entered to harvest timber in watershed. Also significant areas of unproductive slope-land were clearcut and replanted with white pine.

1990's: Town purchased the remaining 690 acres of private property on the northeast side of the watershed with State of NC support.

2005: Town of Waynesville conveyed a "forever wild" conservation easement over those 690 acres to the State of NC under which no timber management is allowed.

2005: Over the rest of the property draining into the reservoir (not including the Rocky Branch drainage) the Town conveyed a "working forest" conservation easement which is monitored by the Conservation Trust for NC and the Southern Appalachian Highlands Conservancy.

2006 - 2008: Town entered agreement with Western Carolina University to develop a forest management plan & initiate monitoring of forest condition and water quality in the watershed.

2014: Under supervision of WCU's Forest Stewards, white pine plantations were thinned on lower slopes surrounding the reservoir.

Forest Stewardship in the Waynesville Watershed
Forest Stewards, Inc.
Cullowhee, NC

The development southern Appalachian forests was largely driven by 2 forces

- Site characteristics: edaphic factors that control nutrients, moisture, temperature, and light.
- Forest disturbances that interrupt plant succession and favor early-successional species and communities. Two of the most common disturbances in the southern Appalachians were
 - Storms: (wind and ice) that created forest openings ranging from < 1 acre to 10's of acres in size.
 - Fires of varying intensity that burned across large areas. On drier sites fires occurred at frequencies of 1 to 2 fires per decade.
- The result was a complex mosaic of diverse forest communities across the landscape

Over the past 150 years, forests in the Waynesville watershed have experienced a shift in disturbance patterns that mirrors what has happened throughout the region.

- It has undergone multiple periods of extensive timber harvesting. These large, relatively uniform disturbances have homogenized the forest.
- Fire has largely been eliminated by active fire suppression leading to a reduction in fire-adapted species and communities (key examples: oaks, hickories, and yellow pines)

Forest management goal for the Waynesville watershed: maintain a healthy forest to protect water quality.

Forest stewardship strategy for the Waynesville watershed

1. Create and maintain a diversity of naturally occurring forest communities across the landscape.
 - a. Diversity represents the best strategy against present and future stresses
 - b. Diversity is defined as variation in species composition and age class distribution
2. Enhance forest diversity by implementing stewardship treatments in selected areas to shift patterns of forest development away from what is happening in surrounding areas.
3. Implement treatments at a scale that represents natural disturbance patterns (not more than 2% of the area annually).
4. Strategically locate treatments to consider of topography and existing access.
5. Monitor and control non-native invasive plants where possible.
6. Continuously monitor water quality

STOP 1: 2014 White Pine Harvest Summary

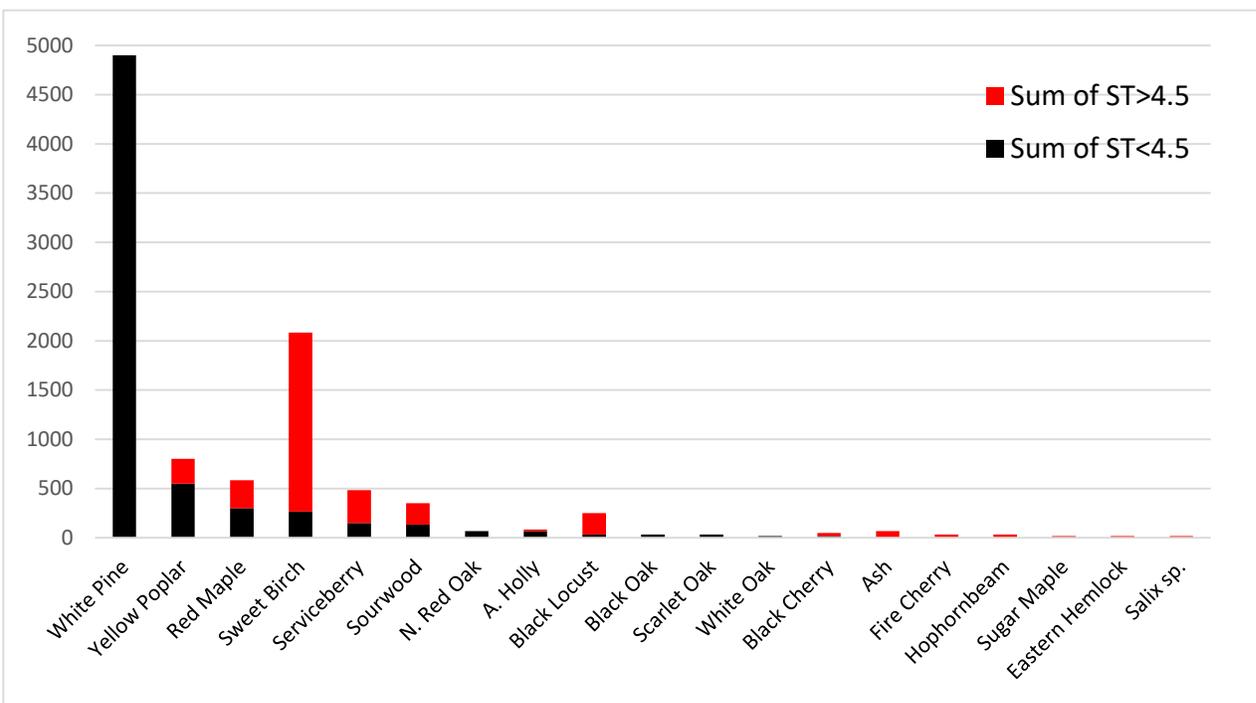


Preharvest stand condition – note closed forest with minimal understory vegetation

Postharvest stand condition in 2019: The table at the right shows overstory density (stems/ac) by species and crown class (Codominant, Intermediate, and overtopped)

The figure below shows regeneration density (stems/ac) by species and height class (< 4.5 ft and > 4.5 ft)

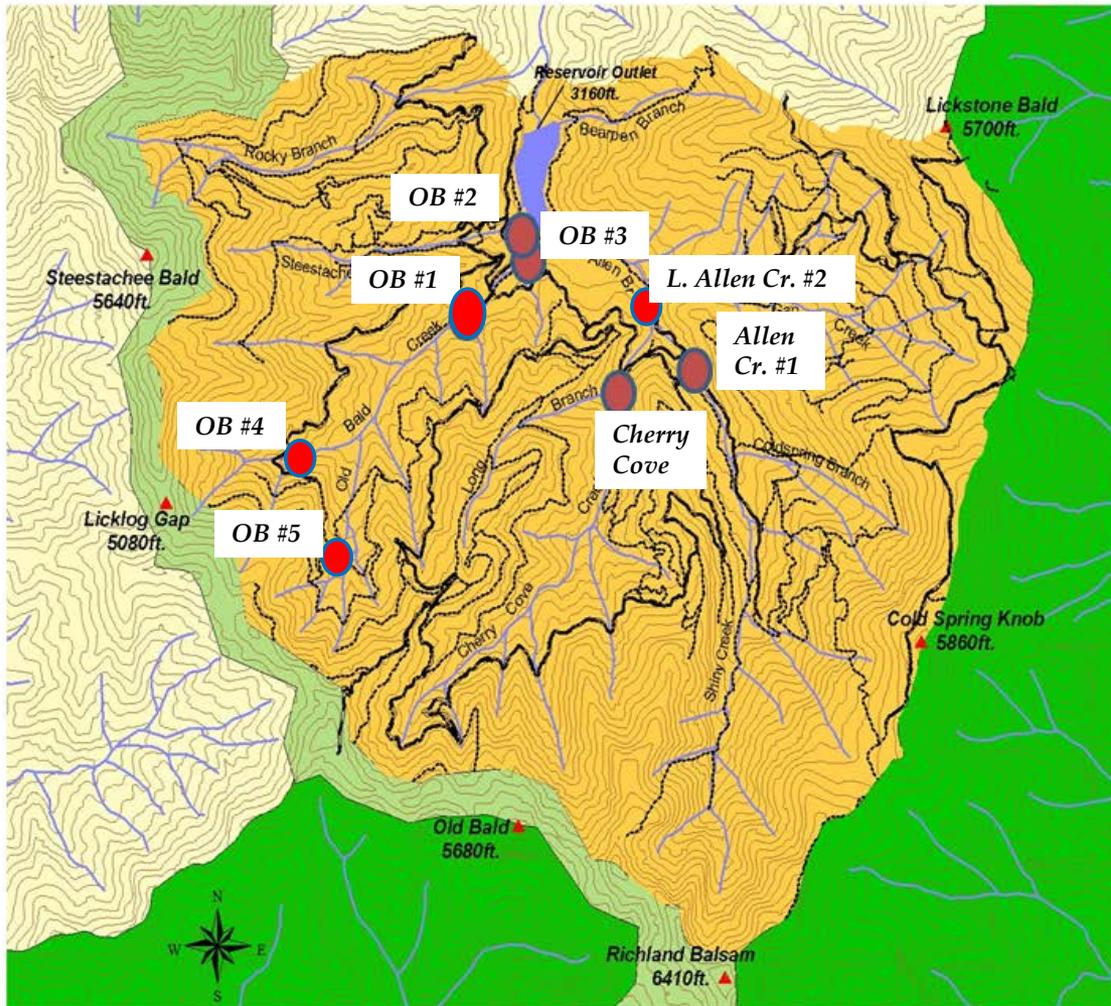
Species	C	I	O	Total
White Pine	83	20	0	103
Yellow Poplar	0	0	3	3
Red Maple	0	0	3	3
Sourwood	0	0	3	3
Total	83	20	10	113



Stop 2

Water Quality Monitoring

Waynesville Municipal Watershed



Legend

Ownership

- NPS
- USFS
- Private
- Municipal Watershed**
Approximately 8,600 acres

200ft. Contour Intervals

Principal Access Roads
GPS verified - July 2002

Unimproved Forest Roads
Unconfirmed as of July 2002

Primary Streams
USGS Quadrangles

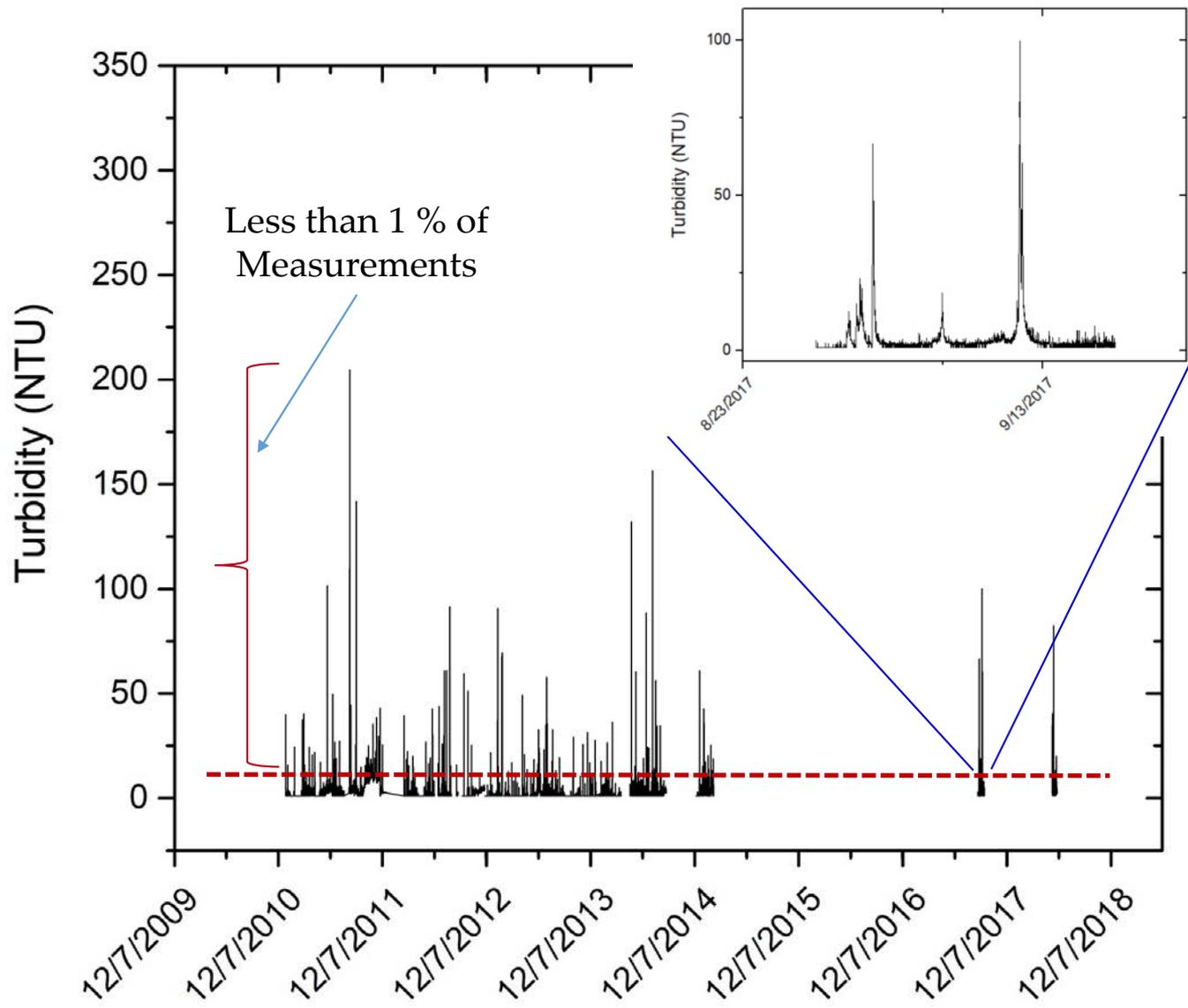
Active Sites

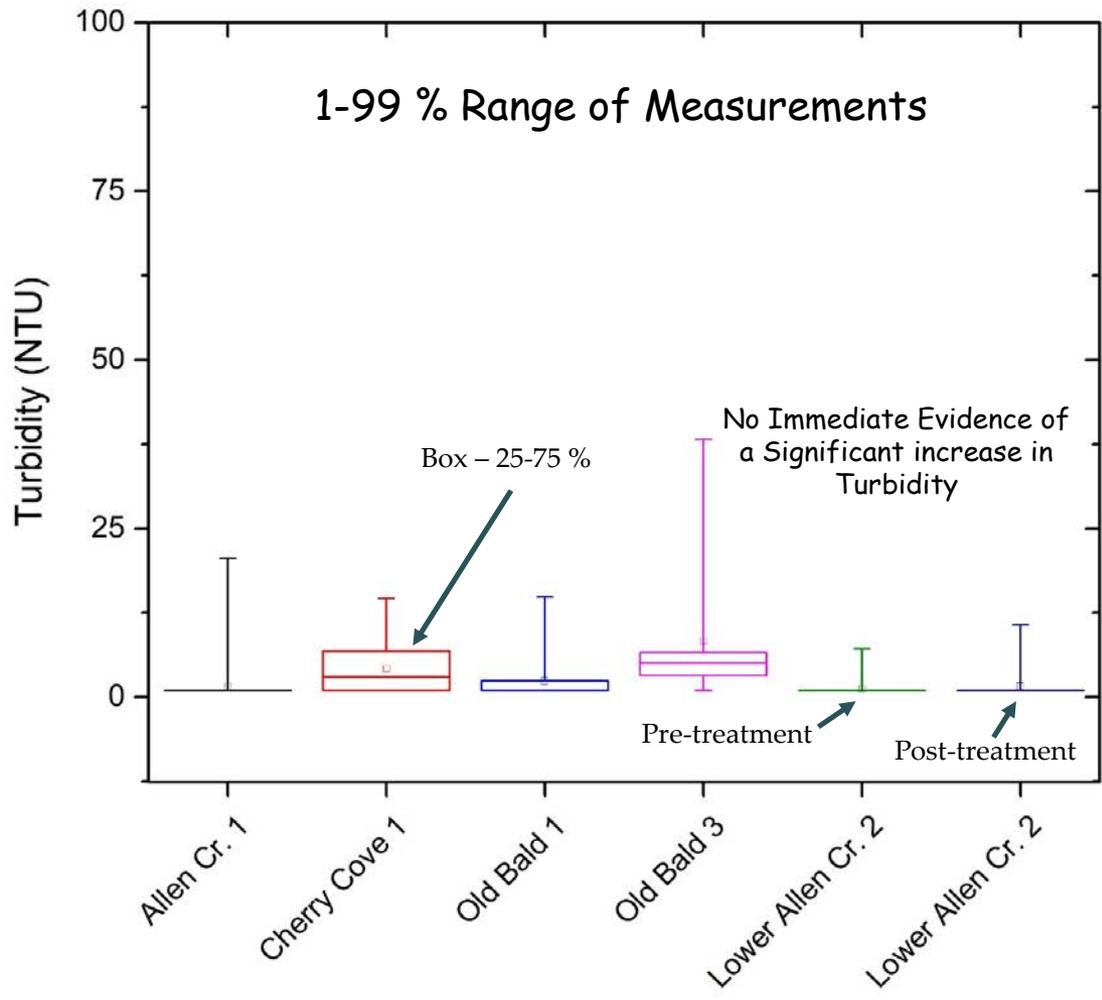


Little Tennessee Sustainable Forestry Partnership
- Western Carolina University -
Created August 6, 2002

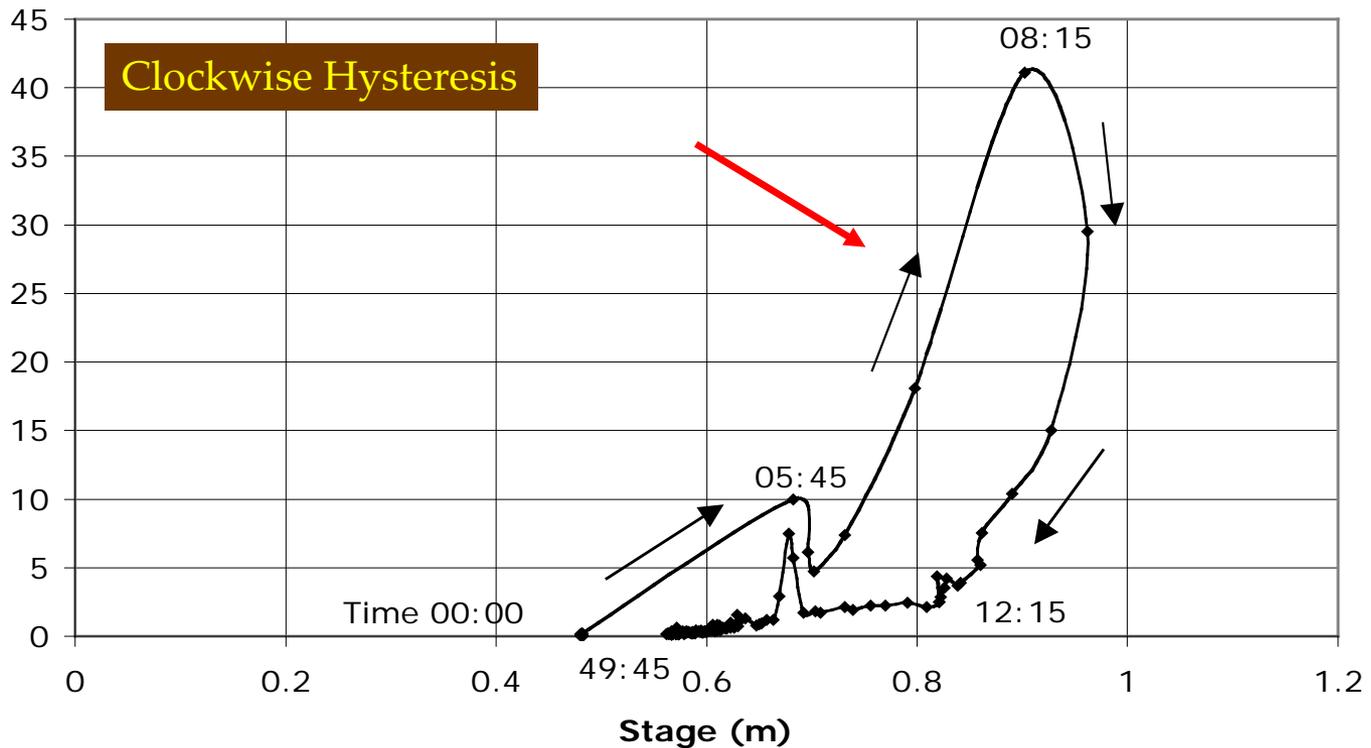
Current and Past Monitoring Sites (Since 2007)

Site	Period of Monitoring	Parameters
Allen Cr. #1	March 2007 – Sept. 2011	Discharge, SSC, Turb., Temp., Dissolve O ₂ , Spec. Cond.
Lower Allen Cr. #2*	Dec. 2013-P	Discharge, Turb., Temp.
Cherry Cove	July 2008-2010	Discharge, SSC, Turb, Temp
Old Bald #1*	July 2008-P	Discharge, SSC, Turb, Temp
Old Bald #2	June 2010-April 2016	Discharge, SSC., Temp
Old Bald #3	June 2010-April 2016	Discharge, SSC, Turb, Temp
Old Bald #4*	May 2016 - Present	Discharge, SSC
Old Bald #5*	May 2016 - Present	Discharge, SSC
*Active Sites		

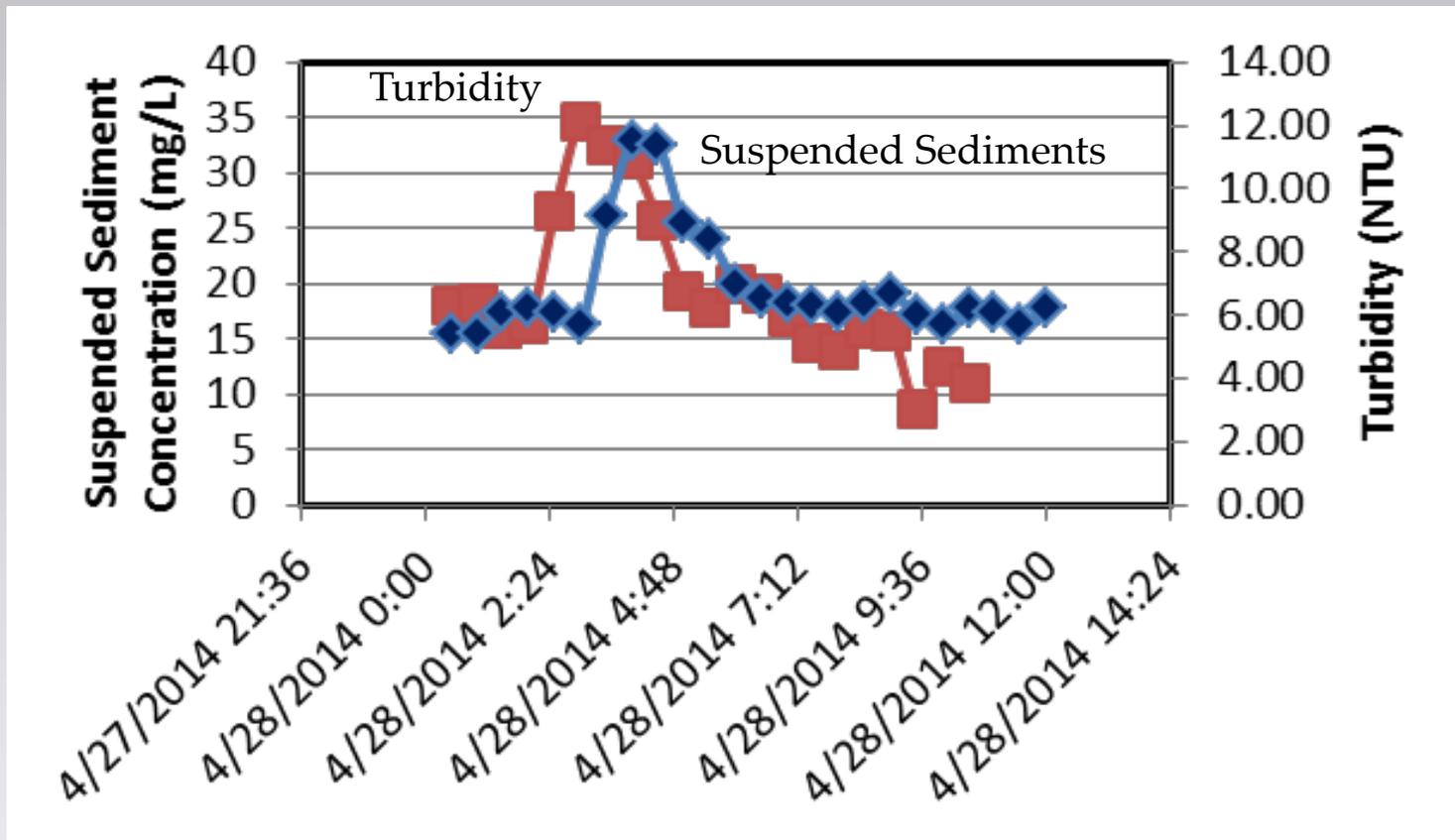




Storm 8, Allen Branch, Turbidity (NTU) plotted against Stage (m)

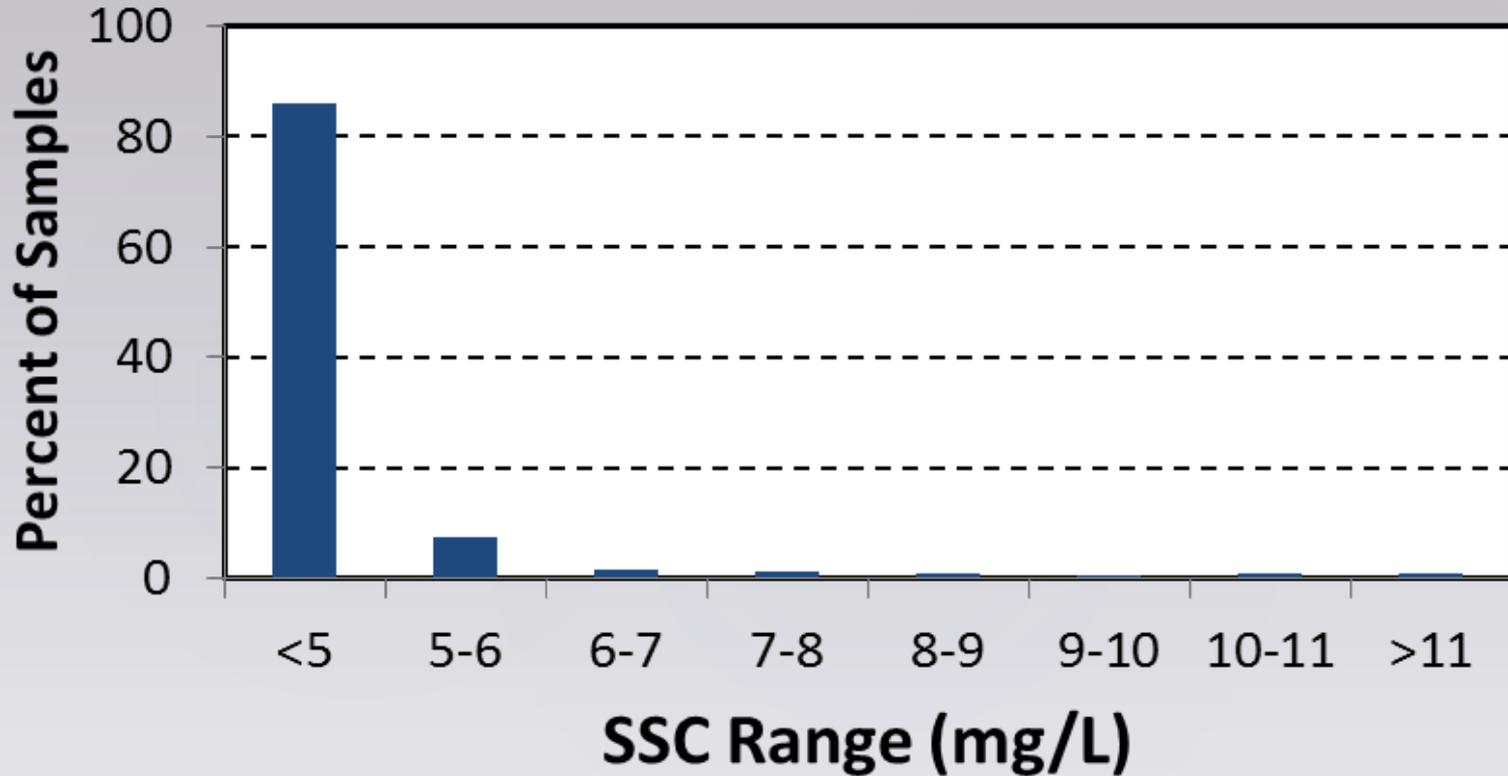


Old Bald Creek #2

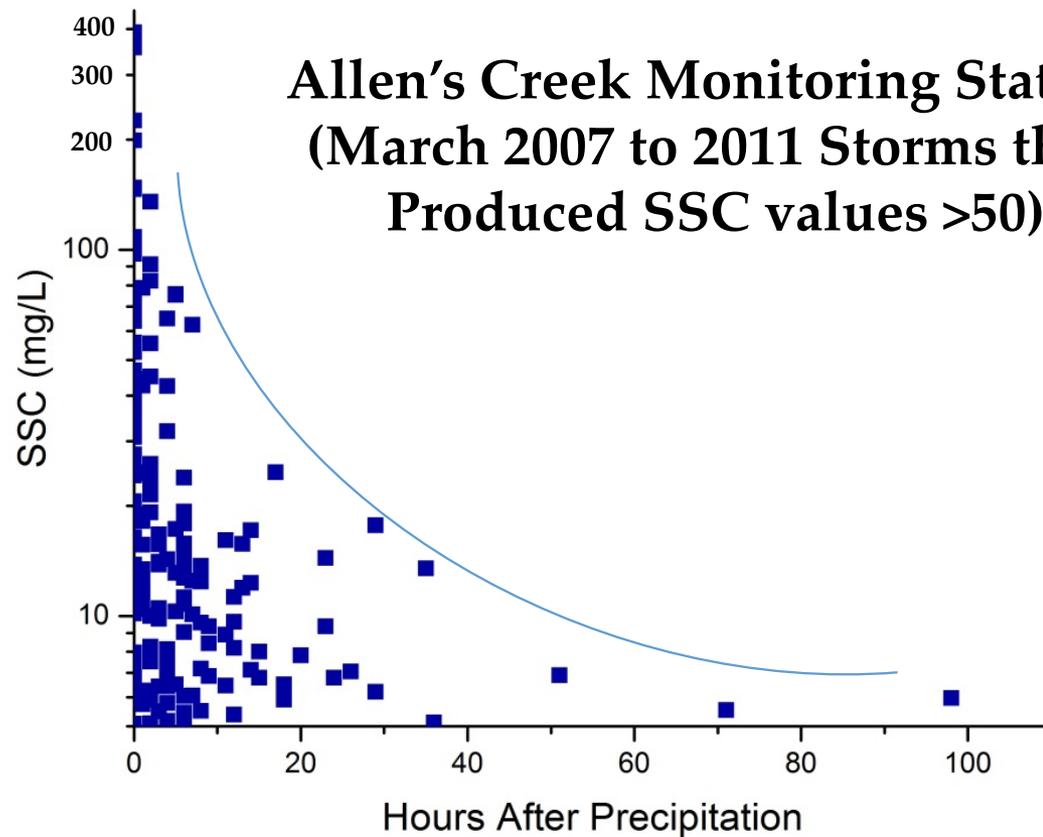


Different timing of peaks may indicated that source of turbidity and sediment differ

**Allen Creek #1
(March 2007 to September , 2011)**

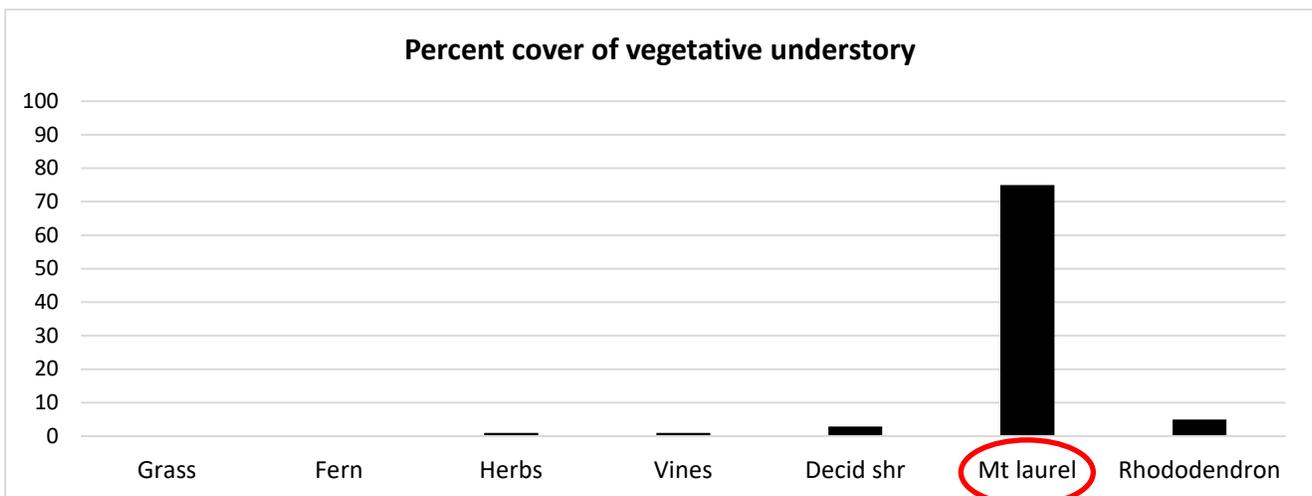
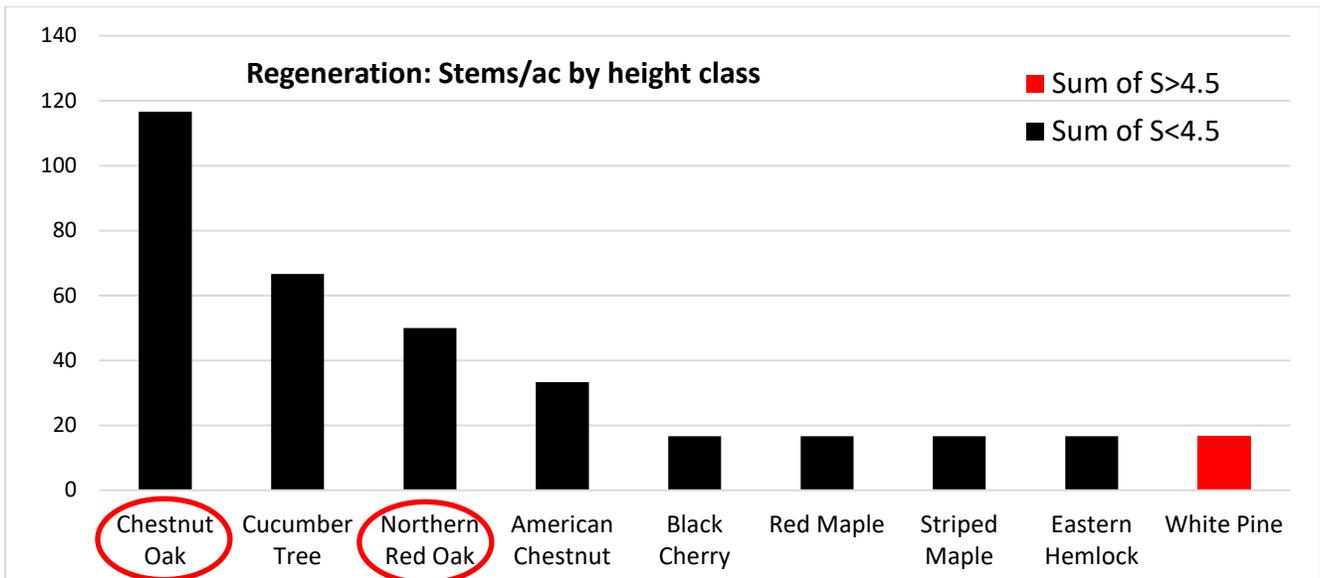


Nearly 85 % of the samples exhibited concentrations <5 mg/L; more than 99 % exhibited concentration <10 mg/L.



STOP 3: Current forest condition of proposed prescribed burn unit

Overstory: Stems/acre by species and crown class position.				
Species	Dom/Codom	Intermediate	Overtopped	Total
Red Maple	46.7	36.7	106.7	190.0
Chestnut Oak	36.7	6.7	6.7	50.0
Sourwood	13.3	40.0	40.0	93.3
Sassafras	6.7	3.3	6.7	16.7
Northern Red Oak	6.7	0	0	6.7
White Oak	6.7	0	0	6.7
Scarlet Oak	3.3	0	0	3.3
Hickory	0	0	6.7	6.7
Flowering Dogwood	0	3.3	6.7	10.0
Silverbell	0	0	3.3	3.3
Blackgum	0	0	6.7	6.7
Grand Total	120.0	90.0	183.3	393.3



STOP 4A: CTR demonstration in Mixed Hardwood – White Pine Forests

Overall stand characteristics

Overstory: Stems/ac by species and crown position				
Species	C	I	O	Total
Red Maple	24	34	91	150
Chestnut Oak	42	43	51	136
White Pine	45	13	17	75
Scarlet Oak	20	18	4	43
Black Oak	13	3	2	18
Black Locust	6	11	0	17
Northern Red Oak	1	6	0	7
Hickory	4	3	0	7
Black Cherry	2	0	0	2
Yellow Poplar	2	0	0	2
White Oak	0	0	0	0
Total	160	132	165	457

Total BA = 143 ft²/ac

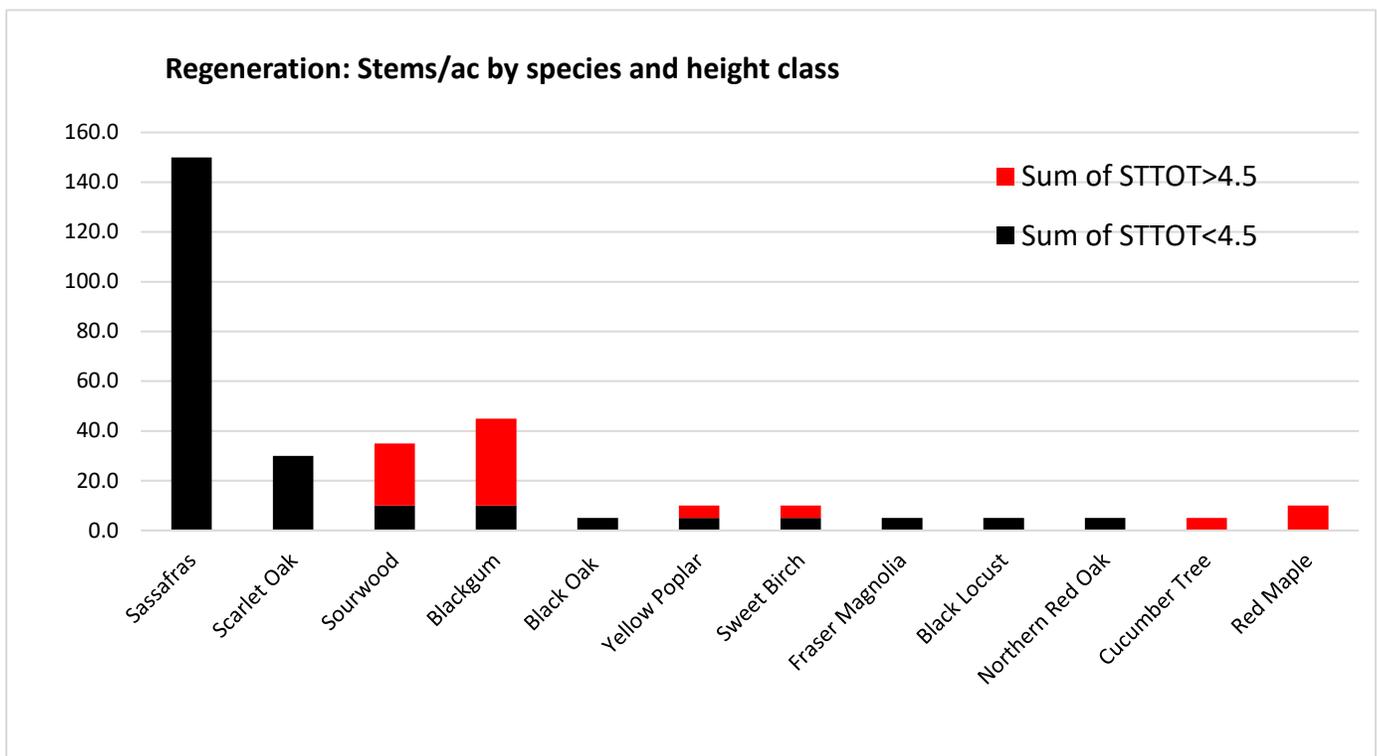
Characteristics in 3-acre proposed demonstration unit

Crown competition by species				
Species	Free-to-grow	Suppressed	Total	% Suppressed
Red Maple	35	79	114	69.3
Chestnut Oak	25	11	36	30.6
Eastern White Pine	16	12	28	42.9
Sourwood	2	20	22	90.9
Yellow Poplar	16	5	21	23.8
Sweet Birch	8	7	15	46.7
Silverbell	3	8	11	72.7
Black Oak	6	4	10	40
Northern Red Oak	4	4	8	50
Hickory	3	3	6	50
Serviceberry	1	4	5	80
Striped Maple	0	3	3	100
Fraser Magnolia	0	2	2	100
Blackgum	1	1	2	50
Black Locust	1	1	2	50
Scarlet Oak	1	0	1	0
White Oak	0	1	1	100
Grand Total	122	165	287	57.5

STOP 4B: White pine forest regeneration harvests and thinning

Overstory: Stems/ac by species and crown position				
Species	C	I	O	Total
White Pine	120	32	7	159
Red Maple	13	28	0	41
Scarlet Oak	11	18	7	36
Chestnut Oak	6	7	0	13
Northern Red Oak	0	0	11	11
White Oak	0	0	11	11
Total	150	84	38	272

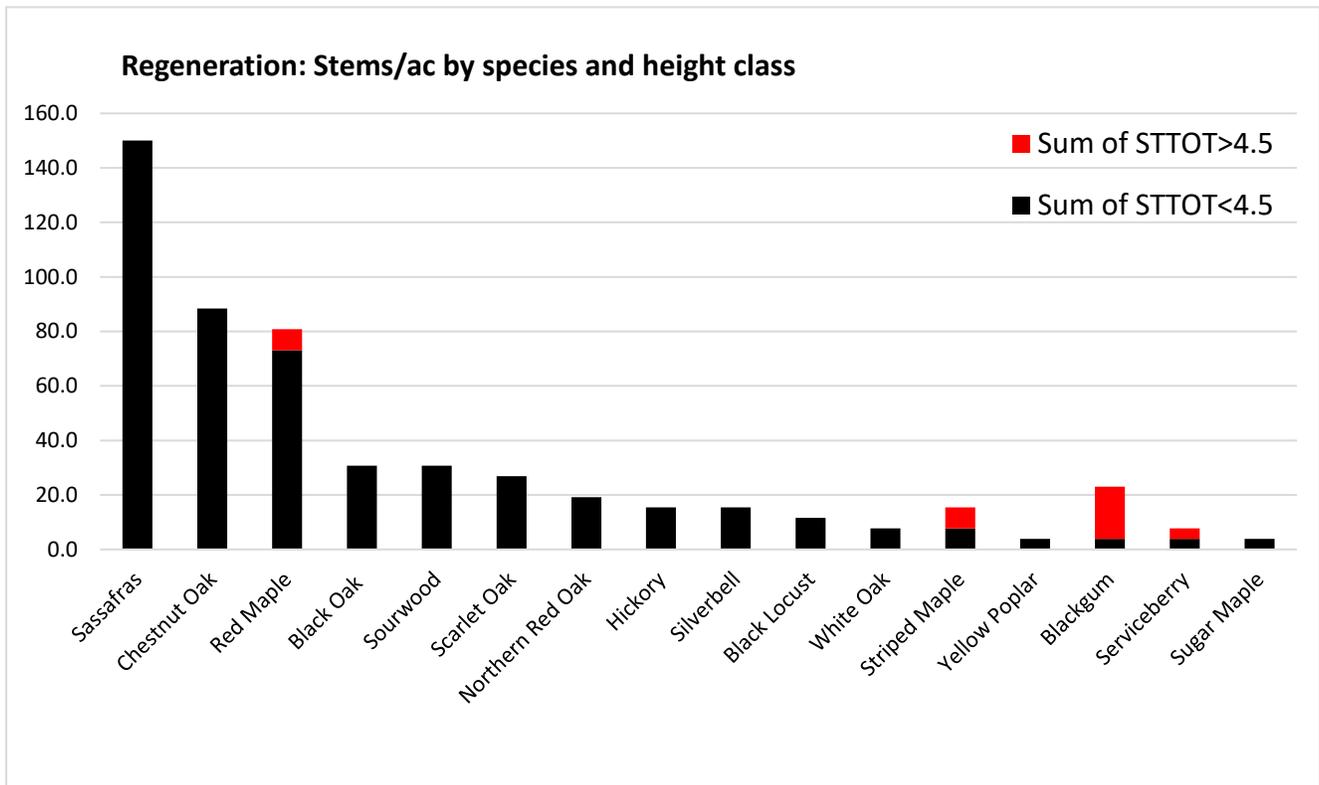
Overstory: BF vol/ac by species	
Species	Vol/ac
White Pine	7663
Scarlet Oak	0
White Oak	0
Northern Red Oak	0
Chestnut Oak	0
Red Maple	0
Total	7663



STOP 4C: Mixed White Pine – Hardwood Forests Thinning

Overstory: Stems/ac by species and crown position				
Species	C	I	O	Total
White Pine	88	39	25	152
Red Maple	5	57	0	61
Scarlet Oak	14	12	11	36
Chestnut Oak	15	8	4	27
Yellow Poplar	1	10	12	23
Hickory	4	1	0	5
White Oak	0	2	0	2
Black Oak	1	0	0	1
Total	127	128	52	307

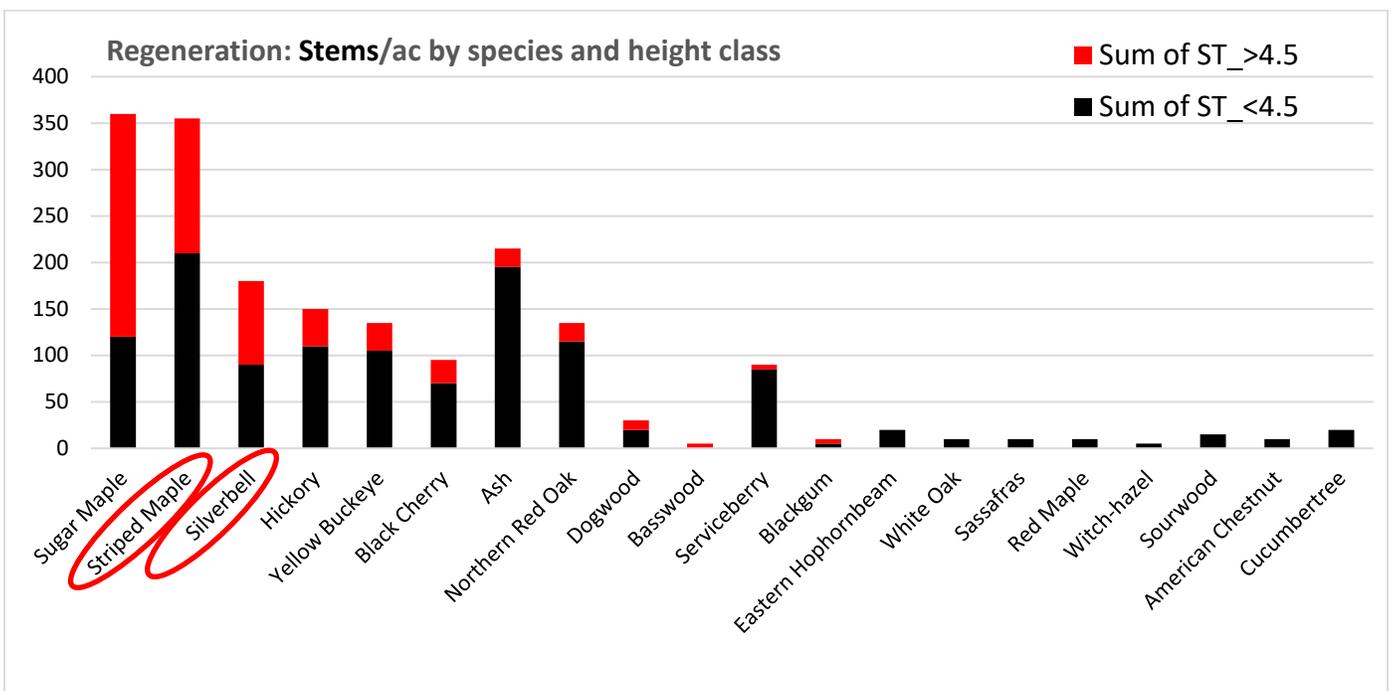
Overstory: BF vol/ac by species	
Species	BF/ac
White Pine	7181
Scarlet Oak	31
Black Oak	23
Hickory	0
White Oak	0
Yellow Poplar	0
Chestnut Oak	0
Red Maple	0
Total	7234



STOP 4D: Understory treatments in mesic forests

Overstory: Stems/ac by species and crown class.				
Species	C	I	O	Total
Silverbell	11	19	34	64
Red Maple	11	8	32	51
Yellow-poplar	31	1		32
Sugar Maple		3	12	15
Yellow Buckeye		1	11	12
Striped Maple			10	10
Sweet Birch	4	2	1	7
Black Cherry	4		2	6
Yellow Birch	1	1	2	4
Hickory		1	2	3
Basswood	1		1	2
Eastern Hophornbeam			2	2
Black Locust	1			1
Dogwood			1	1
White Oak	1			1
Cucumbertree			1	1
Total	65	36	111	212

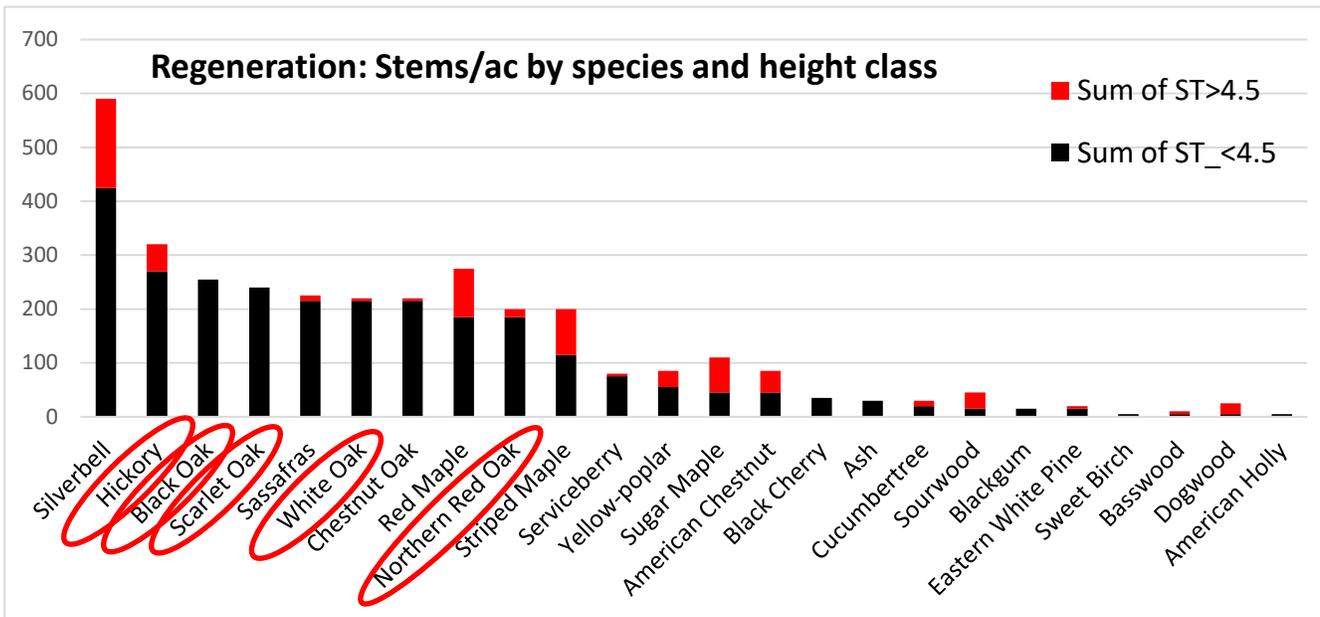
Overstory: BF vol/ac by species	
Species	BF/ac
Yellow-poplar	6033
Red Maple	1200
Black Cherry	241
Total	7594



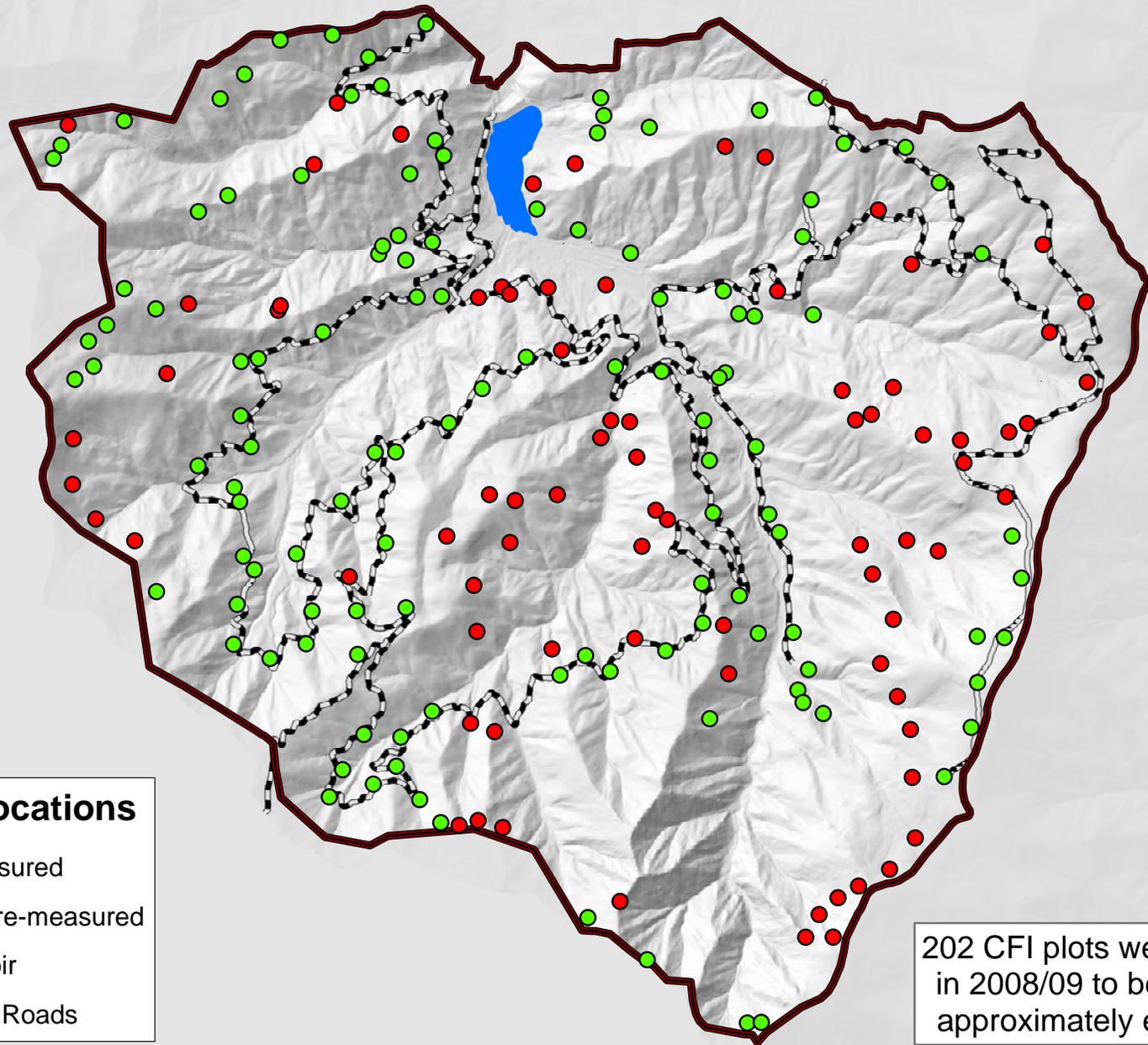
STOP4E: Oak shelterwood unit

Overstory: Stems/ac by species and crown position				
Species	C	I	O	Total
Red Maple	6	10	16	32
Hickory	2	10	3	15
Silverbell	1	4	6	11
Black Oak	9	0	0	9
Sweet Birch	2	4	0	6
White Oak	3	3	0	6
Yellow-poplar	6	0	0	6
Scarlet Oak	5	0	0	5
Chestnut Oak	4	1	0	5
Sourwood	0	4	0	4
Striped Maple	0	0	4	4
Dogwood	0	0	3	3
Blackgum	0	0	2	2
American Holly	0	0	2	2
Sugar Maple	0	0	1	1
Basswood	0	0	1	1
Black Cherry	1	0	0	1
Ash	0	1	0	1
Eastern Hemlock	0	0	1	1
American Beech	0	0	1	1
Northern Red Oak	1			1
Total	40	37	40	117

Overstory: BF volume/ac by species and grade				
Species	1	2	3	Total
Yellow-poplar	389	1006		1395
Scarlet Oak	486		293	779
Red Maple			355	355
Northern Red Oak		260		260
White Oak	164	75		239
Black Cherry	154			154
Hickory	38	96		134
Black Oak		75		75
Total	1231	1512	648	3391



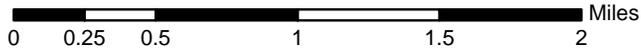
Map 1



CFI Plot Locations

- Re-measured
- Not yet re-measured
- Reservoir
- Primary Roads

202 CFI plots were established in 2008/09 to be re-measured approximately every decade.

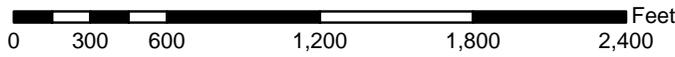
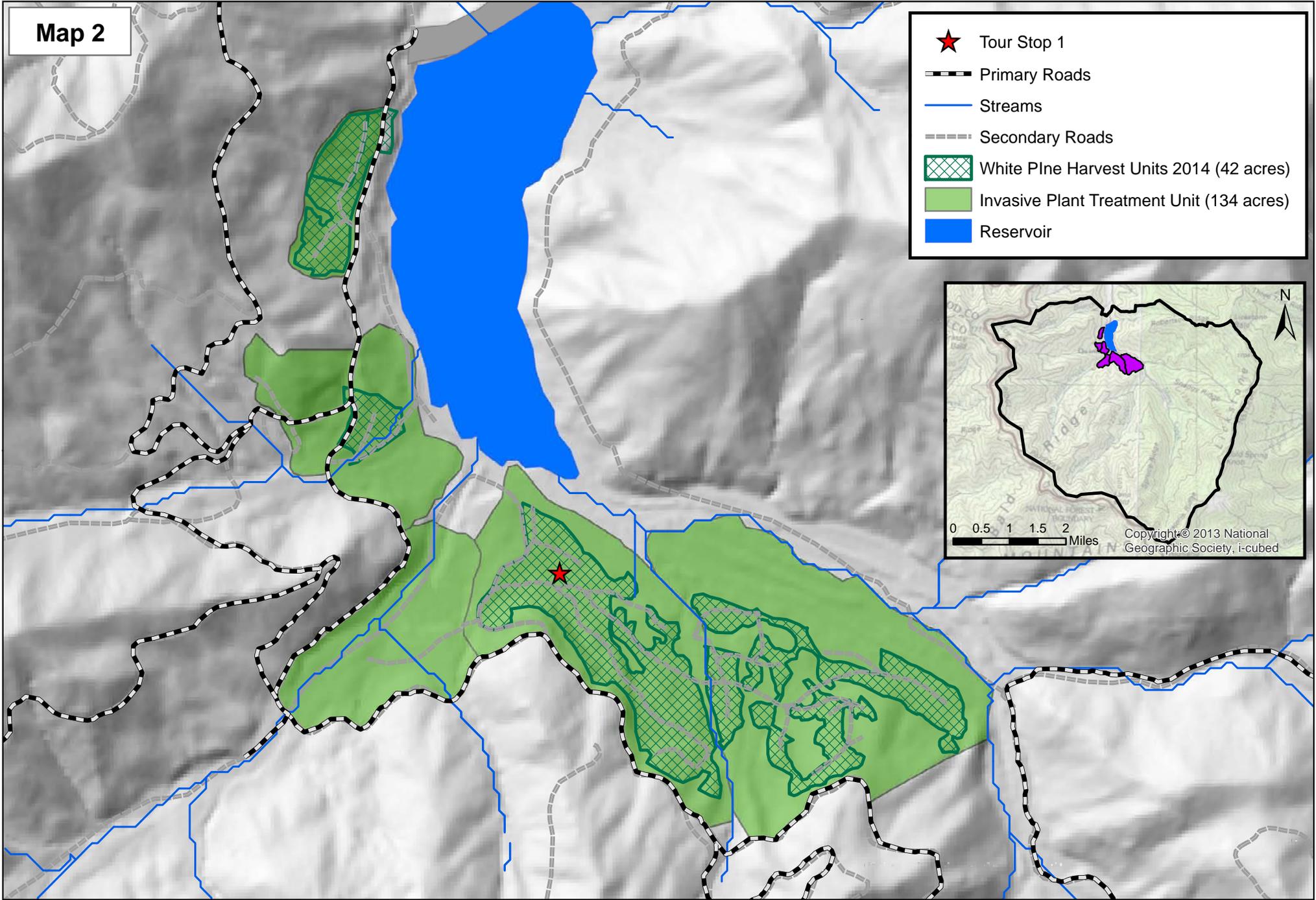
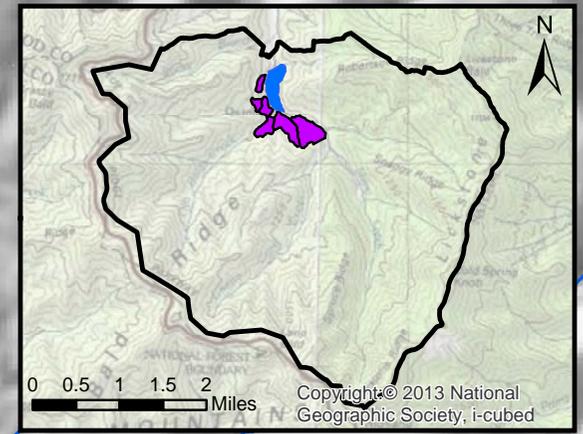


Continuous Forest Inventory Plot Locations



Map 2

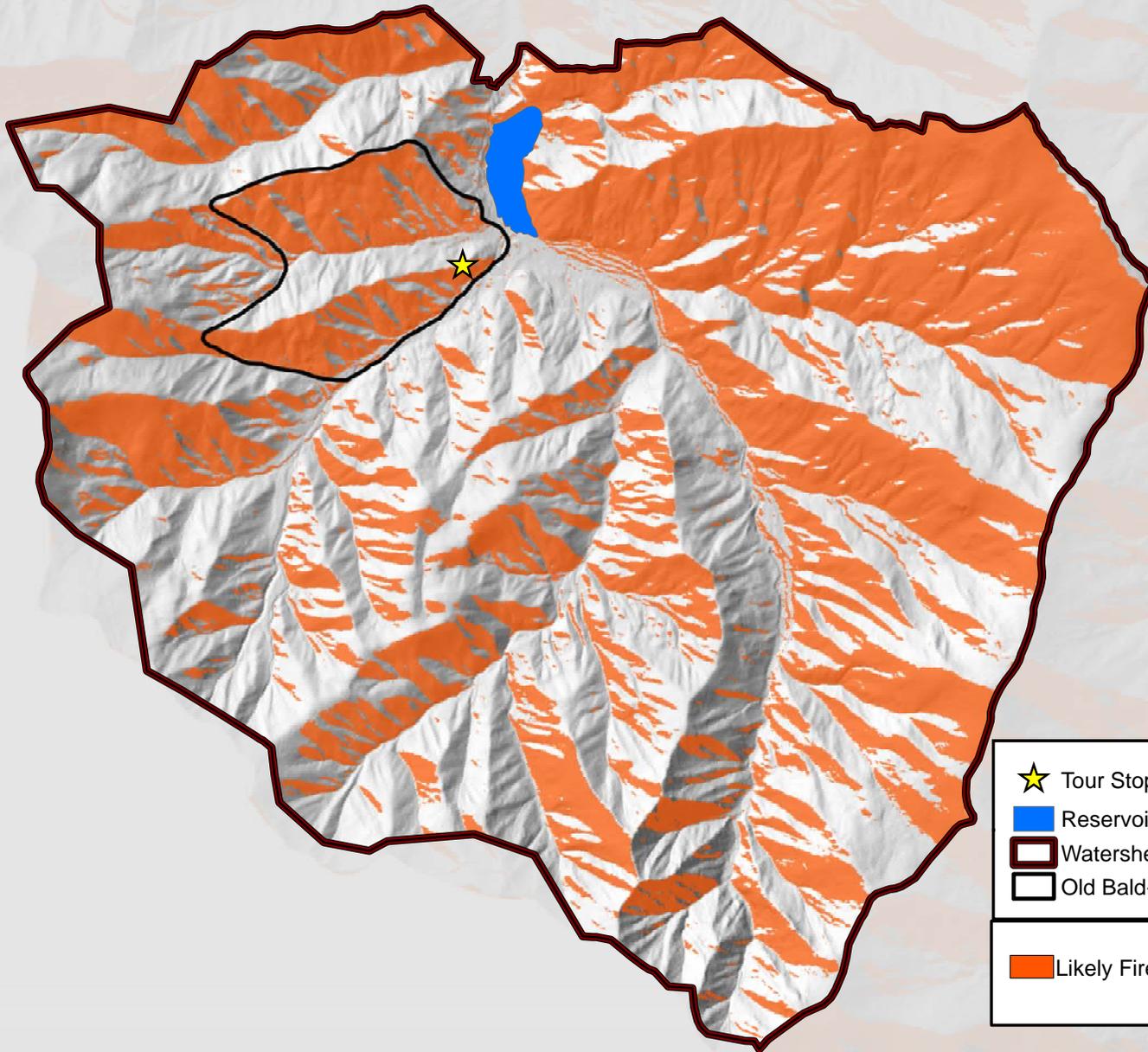
- ★ Tour Stop 1
- ▬ Primary Roads
- Streams
- - - Secondary Roads
- ▨ White Pine Harvest Units 2014 (42 acres)
- Invasive Plant Treatment Unit (134 acres)
- Reservoir



2014 White Pine Harvest Units and Invasive Plant Treatment Areas.



Map 3



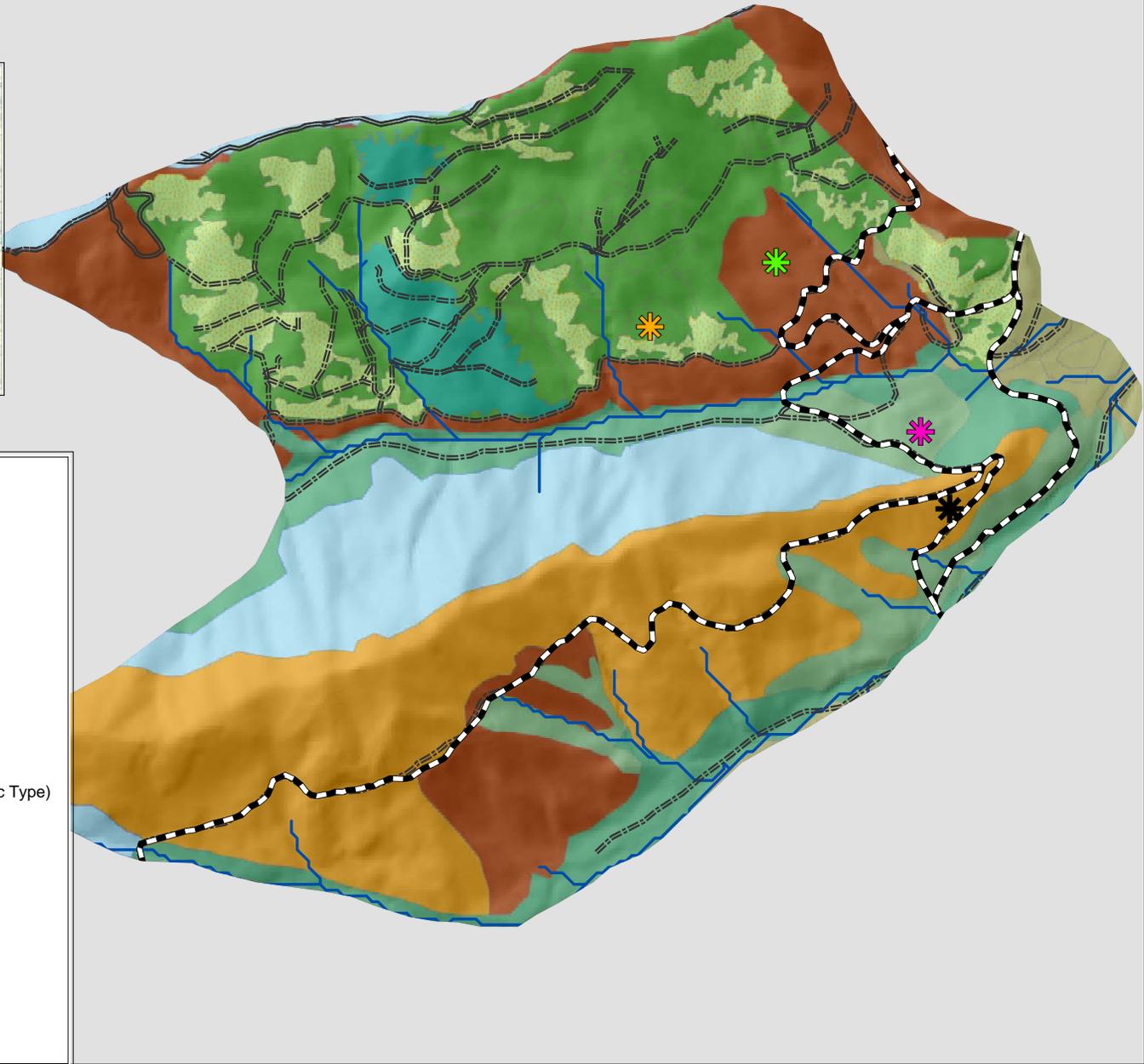
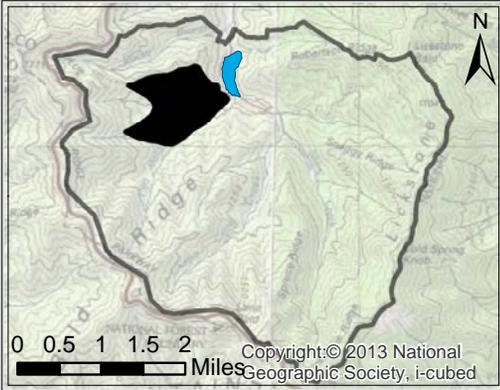
- ★ Tour Stop 3
- Reservoir
- Watershed Boundary
- Old Bald-Steestachee Project Area
- Likely Fire-Adapted Forests



Likely Fire-Adapted Forest Sites



Map 4



Potential Treatment Areas

-  Crop Tree Release
-  Oak Shelterwood
-  Understory Treatment
-  Prescribed Burn

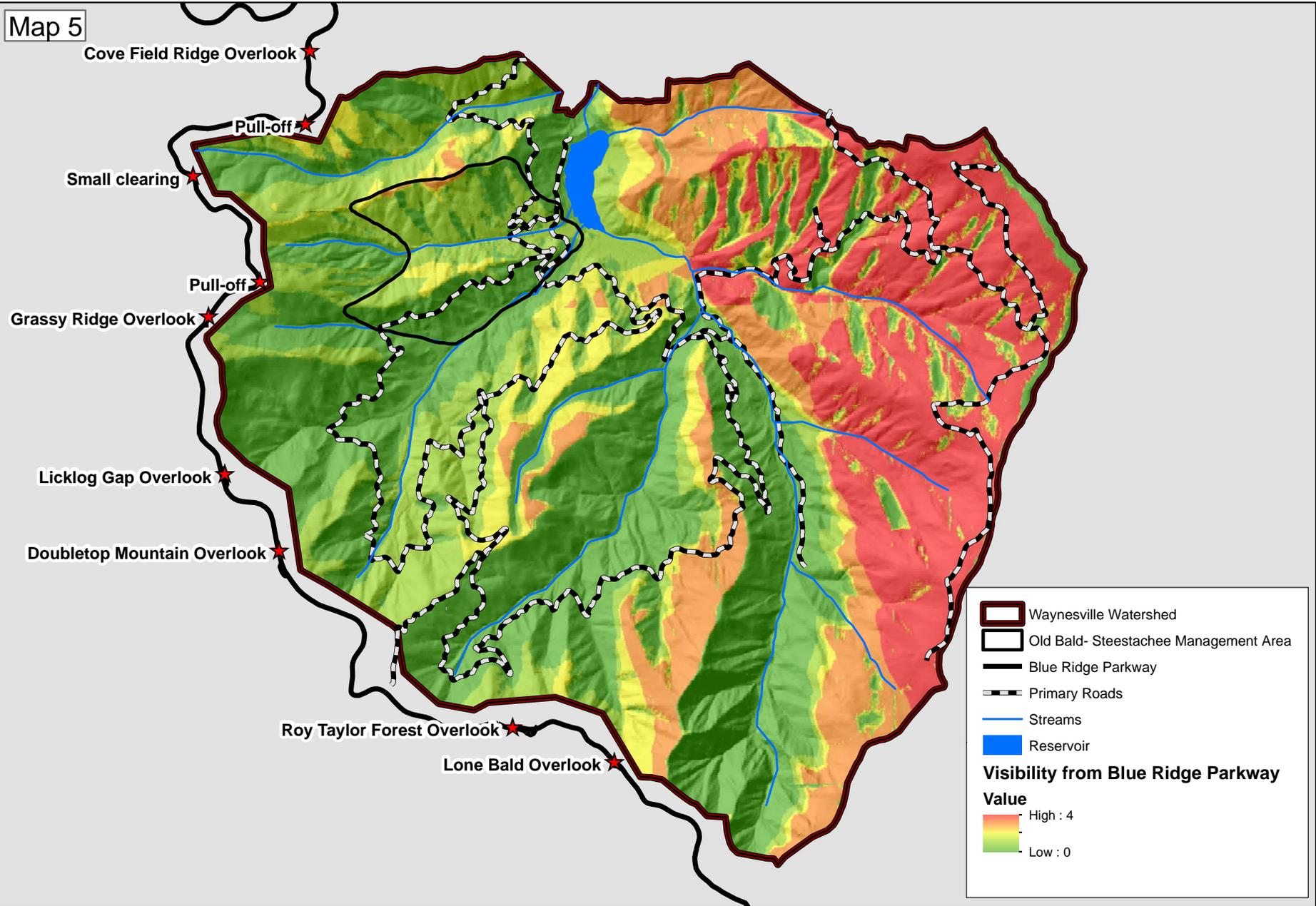
-  Primary Roads
-  Secondary Roads
-  Streams

Forest Type

-  Appalachian Montane Oak Hickory Forest (Acidic Type)
-  Chestnut Oak Forest (Xeric Ridge Type)
-  Early Successional Forest
-  Mixed Hardwood - White Pine Forest
-  Mixed White Pine - Hardwood Forest
-  Northern Hardwood Forest
-  Southern Appalachian Acid Cove Forest
-  Southern Appalachian Cove Forest
-  White Pine Forest



Map 5



**TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: April 14, 2020**

SUBJECT: Street Paving

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: C4
Department: Streets and Sanitation Division
Contact: Jeff Stines
Presenter: Lisa Burnett

BRIEF SUMMARY: Bid submission for Street Paving for the Town. This would be an annual contract with the option to renew for two additional years.

MOTION FOR CONSIDERATION: Award annual contract for street paving to WNC Paving, Inc. with the option for an additional two-year renewal.

FUNDING SOURCE/IMPACT: (must have approval by Finance Director prior to submission to the Board)

<u>Ben Turnmire</u>	<u>03-31-2020</u>
Ben Turnmire, Finance Director	Date

ATTACHMENTS: Bid Evaluation and signed bid form.

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Town of Waynesville

Bid Evaluation

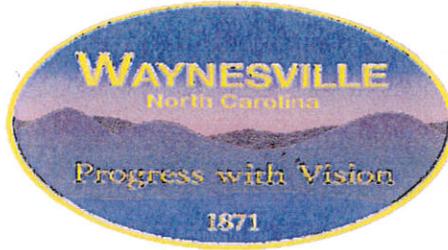
Street Paving

Bid Opening March 17, 2020

2:00:00 PM

Quantities are only estimates based on prior year Powell Bill. Actual amounts may vary.

Vendor	Asphalt Concrete Surface Course Type S9.5C 2,000 Ton	Asphalt Surface Treatment Split Seal 5,000 Sq Yard	Total Price Asphalt Surface Course Type S9.5C	Total Price Asphalt Surface Treatment Split Seal	Estimated Annual Contract Cost
WNC Paving, Inc.	\$118.00	\$3.50	\$236,000.00	\$17,500.00	\$253,500.00
Custom Paving, Inc.	\$123.50	\$5.95	\$247,000.00	\$29,750.00	\$276,750.00
Harrison Construction	\$214.00	\$4.15	\$428,000.00	\$20,750.00	\$448,750.00



Paving Bid Form

Bidder

WNC PAVING, Inc.

NC License Number

4238

Address

P.O. Box 896

City/State/Zip

WAYNESVILLE NC 28786

Contact Person

BOB WIGGINS / DANNY MITCHELL

Signature of Owner

Quote Duration

April 1, 2020 through June 30, 2021

<u>Item</u>	<u>Quantity</u>	<u>Price per Ton/Sq. Yard</u>
Asphalt Concrete Surface Course Type SF9.5.	<u>2,000 Ton</u>	<u>118.⁰⁰</u>
Asphalt Surface Treatment Split Seal	<u>5,000 Sq. Yard</u>	<u>3.⁵⁰</u>

Total Bid: \$ 253,500.⁰⁰

Town of Waynesville			
Municipal Building Roof Bid Evaluation			
March 25, 2020			
Vendor	Scope of Work	Warranty	Amount
TPO Roofing-Thermoplastic Polyolefin Membrane			
Alpha Construction	Furnish and install 60-mil TPO. Fiber insulation/walls/decking if replacement needed replaced at unit cost.	2 years on workmanship. Manufacture's Watertight Warranty additional cost.	\$ 42,772.00
The Bonitz Company	Furnish and install 1/4"cover board and John Manville 60-mil TPO (Thermoplastic Polyolefin Membrane)	15 Year	\$ 27,725.00
Duro-Last Roofing-PVC Membrane			
ARS Construction	Furnish and Install 1/2" insulation board and 50-mil Duro-Last membrane. Install custom curbs, wall and penetrations. rotted wood, deck repair and insulation replacement will be replaced at additional cost.	20 Year	\$ 29,950.00
McElrath Roofing	Install 40-mil Duro-Last membrane, flash all openings, repair skylight area. rotted wood, deck repair and insulation replacement will be replaced at additional cost.	15 Year	\$ 42,850.00
EPDM Membrane-Ethylene Propylene Diene Terpolymer			
Alpha Construction	Furnish and install 60-mil EPDM single-ply membrane roof. Fiber insulation/walls/decking if replacement needed replaced at unit cost.	2 years on workmanship. Manufacture's Watertight Warranty additional cost.	\$ 46,724.00
WNC Roofing	Furnish and Install Carlise Black 60 mil EPDM roofing, flashing, install new roof drains, install flashing around skylight. Wood decking at \$ 4.75 per square foot	20 Year	\$ 54,750.00

ACCOUSTICAL TREATMENT
ROOF DECKS
ROOFING
COMPUTER FLOORS
CARPET
FLOOR TILE

THE BONITZ COMPANY
OF CAROLINA-TENNESSEE, INC
BOX 490 ASHEVILLE, NC 28802 (828) 255-0123 FAX (828) 255-0922

ROOFING Proposal

DATE: 3/4/20

Waynesville Municipal Building

We propose to furnish all materials and labor as herein described and specified, for the above named project as follows, subject to acceptance within 30 days.

ROOFING: WE INCLUDE THE FOLLOWING MATERIALS AND LABOR:

- 1) Remove existing EPDM membrane
- 2) Install ¼” Invinsa Cover Board
- 3) Install John’s Manville 060 TPO
- 4) Flash walls pipes and curbs
- 5) 15 Year Warranty
- 6) Excludes: replacing any bad decking.

Bid: \$27,725.00

As Contractor or Subcontractors, we intend to perform our work within legally stipulated safety requirements existing at the time of our work. We will comply with all requirements insofar as our men and equipment are concerned. We will expect the general contractor to be in compliance insofar as the building is concerned.

This proposal is made subject to your acceptance or that of an authorized officer or agent, and to final approval by an authorized agent or officer of this company at Asheville, NC, after the same shall have been accepted by you, and when so accepted and finally approved, shall constitute a contract between us.

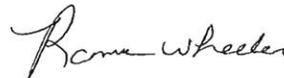
Accepted :

Respectfully submitted,

Date: _____

THE BONITZ COMPANY
OF CAROLINA-TENNESSEE, INC.

By : _____



By:

Ronnie Wheeler

Billing Address:

Approved: THE BONITZ COMPANY of
CAROLINA-TENNESSEE INC.

Meets the requirements of ASTM C 1289, Type II, Class 4, Grades 1, 2 and 3

Features and Components

High-Density Polyisocyanurate Foam Core: Closed cell polyisocyanurate foam technology provides additional insulation value, with lightweight and low water absorption characteristics.

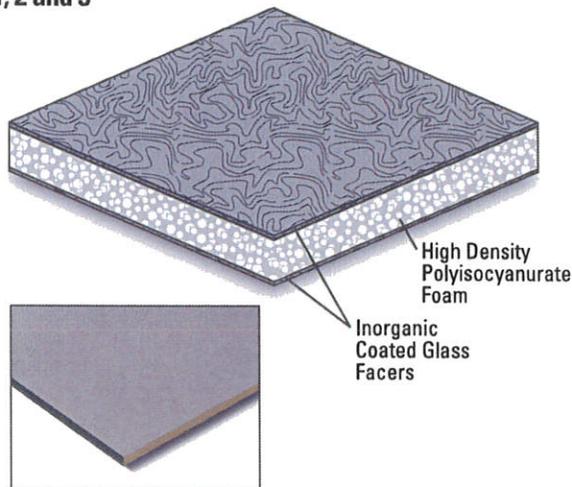
Inorganic Coated Glass Facers: (With no cellulose) Provide improved resistance to mold growth, as well as a smooth surface that performs well with self-adhering systems, and efficient adhesive application in fully adhered single ply systems.

Lightweight: Offers labor and installation efficiencies and allows more options for situations where the overall weight is a concern. This also means easy hoisting, staging and maneuvering around the roof.

Flexibility: Means less breakage during handling, and in re-cover applications it allows Invinsa to accommodate minor irregularities in existing roofs.

User Friendly: Invinsa allows easy & efficient scoring, cutting and snapping which permits fast, tight fabrication and all in a low dust environment.

Resistance To Damage: High impact, flexural and compressive strength provides a protective layer for insulation while working with the membrane above to ensure maximum performance and longevity.



Component
B Cover Board
Multi-Ply Single Ply
Type
PF Poly Foam
LT Low Thermal
HD High Density

System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP			SBS			
	HA	CA	HW	HA	CA	HW	SA	MF

Compatible with the selected Multi-Ply systems above

Single Ply	TPO				PVC			EPDM	
	MF	AD	SA	IW	MF	AD	IW	MF	AD BA

Compatible with the selected Single Ply systems above

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened IW = Induction Weld BA = Ballasted AD = Adhered

Energy and the Environment

LEED®	Recycled Content	Pre-Consumer: 3.7%
		Post-Consumer: 0%

Peak Advantage® Guarantee Information

Systems	Guarantee Term*
When used in most JM multi-ply or single ply systems	Up to 30 years

* Contact JM Technical Services for specific systems.

Codes and Approvals



Installation/Application



Urethane Adhesive



Mechanically Fastened

Refer to the Application Guides and Detail Drawings for instructions.

Packaging and Dimensions

Sizes	4' x 4' x 1/4" (1.22 m x 1.22 m x 6.35 mm)	4' x 8' x 1/4" (1.22 m x 2.44 m x 6.35 mm)
Board Weight	6 lb (2.72 kg)	12 lb (5.4 kg)
Coverage/Pallet	480 ft ²	960 ft ²
Boards/Pallet	30	30
Pallet Weight	185 lb (83.5 kg)	370 lb (167 kg)
Pallets per Truck*	192	96
Producing Locations	Cornwall, ON	Jacksonville, FL Fernley, NV

* Assumes 48' flatbed truck.

Meets the requirements of ASTM C 1289, Type II, Class 4, Grades 1, 2 and 3

Typical Physical Properties

Test	ASTM	Invinsa Roof Board
Strength	Compressive Strength, psi (kPa), <i>nom</i>	D 1621 150 psi (1,034 kPa)
	Flexural Strength Modulus of Rupture, psi (kPa), <i>nom</i> Breakload, lbf (kN), <i>nom</i>	D 1037 1500 psi (10,343 kPa) 25 lbf (0.111 Kn)
	Dimensional Stability, % Linear Change, <i>max</i>	D 2126 <1%
Moisture	Moisture Vapor Permeance, perm (ng/(Pa•s•m ²)), <i>max</i>	E 96 <1 perm, 57.5 ng/(Pa•s•m ²)
	Water Absorption, % by vol, <i>max</i>	C 209 <4%
	Surface Water Absorption, gram, <i>max</i>	C 473 <1 gram
	Mold Resistance	D 3273 Pass
Installation	Weight, lb-ft ² (kg-m ²), <i>nom</i>	N/A 0.375 lb-ft ² (1.83 kg-m ²)
	Weight per board (4' x 8'), lb (kg), <i>nom</i>	N/A 12 lb (5.4 kg) (nom)

Thermal Performance

	Thickness		Nominal R-Value (Resistance)	
	in	mm	(hr•ft ² •°F)/BTU	m ² •°C/W
	¼	6.35	1.2	0.21

Meets or exceeds the requirements of ASTM D 6878

Features and Components

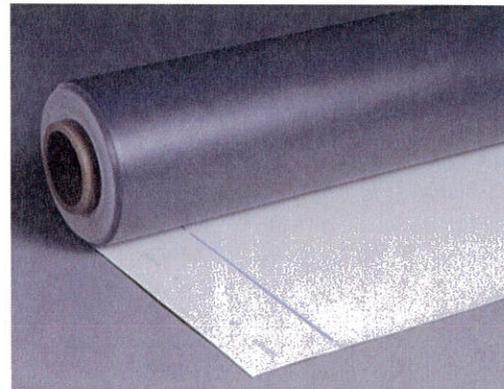
Thickness Over Scrim: Optimized and tested on a continual basis with a state-of-the-art thickness gauge to verify that the thickness valued by our customers is incorporated into the sheet.

One of the Widest Melt Windows: Promotes better welds over a wider variety of speeds and temperatures, and leads to a softer, more flexible and workable sheet.

Reinforced fabric scrim layer and top-ply thickness: Lends to durable physical properties including:

- Long-term weathering, UV resistance and heat-aging properties
- High breaking and tearing strength

Optimized TPO formulation: delivers high-performance ozone resistance, cool roof reflectivity and overall weather resistance.



Component
M
Membrane
Single Ply

Colors

Grey*	White	Tan*
-------	-------	------

*Grey and Tan lead times are subject to availability and may require an upcharge for smaller projects.

System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP	SBS
	HA CA CA HW HA CA HW SA		
Do not use with Multi-Ply systems			

Single Ply	TPO	PVC	EPDM
	MF AD MF AD MF AD BA		
Compatible with the selected Single Ply systems above			

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened AD = Adhered BA = Ballasted

Energy and the Environment

	Standard		Reflectivity	Emissivity
CRRC®	White	Initial	0.77	0.87
		3 Yr. Aged	0.70	0.86
	Tan	Initial	0.67	0.87
		3 Yr. Aged	0.62	0.90
	Gray	Initial	0.35	0.87
		3 Yr. Aged	0.34	0.90
CA Title 24	White	Pass	0.77	0.87
	Tan	Pass 3 Yr. Aged	SRI=75	
ENERGY STAR®	White	Initial	0.77	0.87
		3 Yr. Aged	0.70	
	Tan	Initial	0.67	0.87
		3 Yr. Aged	0.62	
LEED® (SRI)	White	Initial	95	
		3 Yr. Aged	85	
	Tan	Initial	81	
		3 Yr. Aged	75	
	Gray	Initial	39	
		3 Yr. Aged	37	
Recycled Content	Post-consumer	0%		
	Post-industrial	5%		

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

Peak Advantage® Guarantee Information

Product	Guarantee Term
JM TPO 60 mil	5, 10, 15, or 20 years

Codes and Approvals



Installation/Application



Refer to JM TPO application guides and detail drawings for instructions.

Packaging and Dimensions

Roll Widths	5' (1.52 m)	6' (1.83 m)	8' (2.44 m)	10' (3.05 m)	12' (3.66 m)
Roll Lengths	100' (30.48 m)				
Roll Coverage	500 ft² (46.45 m²)	600 ft² (55.74 m²)	800 ft² (74.32 m²)	1000 ft² (92.90 m²)	1200 ft² (111.5 m²)
Rolls per Pallet	8				
Pallet Weight	1384 lb (627.8 kg)	1680 lb (762.0 kg)	2200 lb (997.9 kg)	2760 lb (1251.9 kg)	3240 lb (1469.6 kg)
Pallets per Truck*	28-32	22-26	18-20	12-16	12-14
Producing Location	Scottsboro, AL				

*Assumes 48' flatbed truck and does not reflect pallets of accessories or impact of mixed sizes.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Meets or exceeds the requirements of ASTM D 6878

Tested Physical Properties

Physical Properties		ASTM Test Method	Standard for ASTM D 6878 (Min.)	JM TPO – 60 mil	
				MD*	XMD**
Strength	Breaking Strength, min, lbf (N)	D 751	220 (976)	411 (1,828)	388 (1,726)
	Elongation at Break, min %	D 751	15	27	27
	Tearing Strength, min, lbf (N)	D 751	45 (200)	92 (409)	178 (792)
	Factory Seam Strength, min, lbf (N)	D 751	66 (290)	112 (498)	
Longevity	Thickness, min, in.	D 751	+/- 10% from Nominal	0.060 (Nominal)	
	Thickness Over Scrim, min, in. (mm)	D 7635	0.015	0.027 (0.686)	
	Water Absorption, max, %	D 471	3.0	0.11	
	Brittleness Point, max, -40°F	D 2137	No Cracks	Pass	
	Ozone Resistance	D1149	No Cracks	Pass	
Heat Aged Performance	Properties after Heat Aging @ 240°F	D 573	Pass/Fail	Pass	
	Breaking Strength, % (after aging)	D 751	90	>90	>90
	Elongation, % (after aging)	D 751	90	>90	>90
	Tearing Strength, % (after aging)	D 751	60	>60	>60
	Weight Change, max, % (after aging)	D 751	±1.0	0.19	
	Linear Dimensional Change, max, % (after 6 hrs @ 158°F)	D 1204	±1.0	<0.1	
Weather Performance	Accelerated Weathering, min	G 151 & G 155	10,080 kJ/m ² •nm @ 340 nm (4,000 hrs @ 0.70 W)	>20,160 kJ/m ² (>8,000 hrs)	
	Cracking (@ 7x magnification)	G 155	No Cracks	Pass	

*MD = Machine Direction

**XMD = Cross-Machine Direction

Note: All data represents tested values.

Supplemental Testing

Physical Properties	ASTM Test Method	Standard for ASTM D 6878 (Min.)	JM TPO – 60 mil Result
Dynamic Puncture	D 5635	N/A	Pass @ 25 Joules
Static Puncture	D 5602	N/A	Pass @ 44 lb (20 kg)
Impact Resistance of Bituminous Roofing Systems	D 3746	N/A	Pass - minor indentations
Reflectance	C 1549	N/A	78%
	E 903	N/A	80%
Emittance	C 1371	N/A	0.87
	E 408	N/A	0.96
SRI	E 1980	N/A	95
Resistance of Synthetic Polymer Material to Fungi	G 21	N/A	0 rating
Puncture Resistance (FTMS 101C, Method 2031)	N/A	N/A	371 lb (168 kg)
Moisture Vapor Transmission	E 96	N/A	0 g/m ² per 24 hours
Hydrostatic Resistance, Mullen	D 751	N/A	474 PSI (3268 kPa)
Standard Test Method for Air Permeance of Building Materials	E 2178	N/A	Pass @ <0.0005 L/(s•m ²) (Pass @ <0.0001 CFM/ft ²)

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

ARS CONSTRUCTION SERVICES

176 Wiggins Rd.
Candler, NC 28715

NC GC Lic No. 67876

Lic. Held by William H Stowers

828-283-3220



Job Name: Town of Waynesville For: _____
Job Address: 16 E. Main St. Mailing Address: _____
City, State, Zip: Waynesville, NC 28786 Phone: _____ Fax: _____
Date: 3/12/2020
Scope of Work Duro-Last Roof Recovery

Furnish and install premium 1/2" insulation board
Mechanically attach 50 mil Duro-Last custom pre-engineered roofing membrane.
Install custom curbs, walls, and penetrations to Duro-Last factory specifications.
Metal Trim provided in customers choice of standard Duro-Last color

Clean-up and dispose of all project related debris.

\$29,950.00

Furnish 20 year No Dollar Limit Factory Warranty

NOTE; THIS QUOTE GOOD FOR 30 DAYS FROM ABOVE DATE

ALL PERMIT FEES ARE EXTRA

TERMS: 50% due at signing, 50% due at completion

NOTE: Rotted wood, Deck repair, Asbestos abatement, Insulation replacement, or ANY REQUIREMENT FOR SERVICES NOT COVERED IN THE SCOPE OF WORK WILL BE AT EXTRA COST.

We authorize the above work to be done at the stated cost.

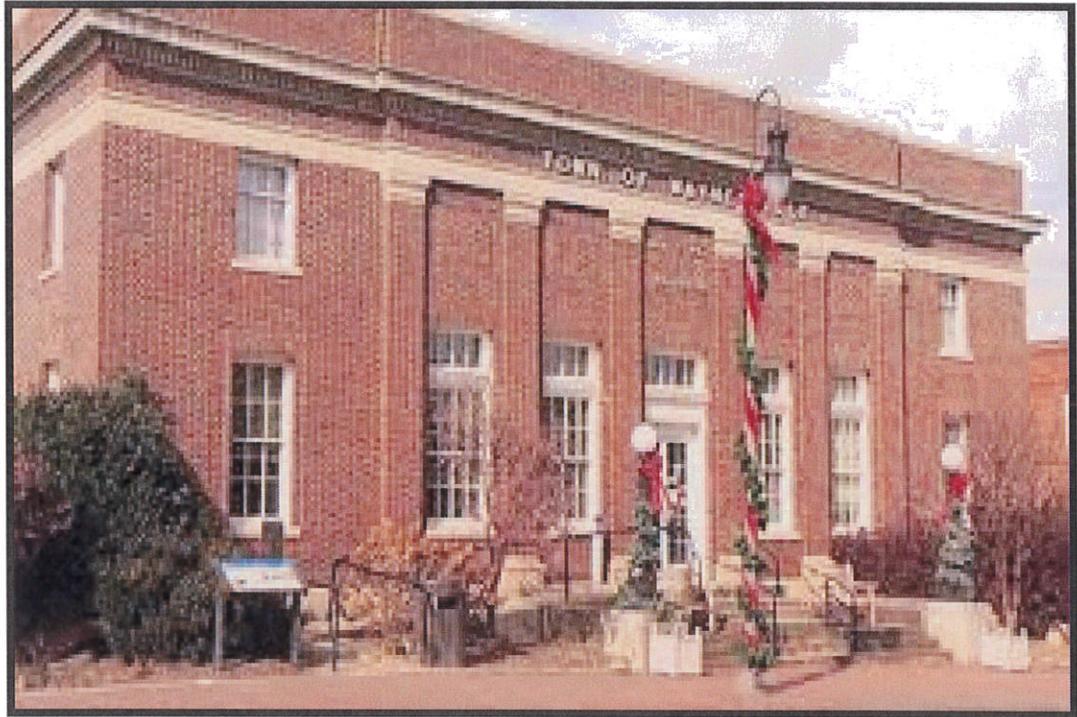
Buyers' Signature _____ Date: _____
Buyers' Signature _____ Date: _____

NO BID IS BINDING UNTIL SIGNED BY AN OFFICER OF THE COMPANY

DATE: _____ Approved: _____

ARS Construction Services

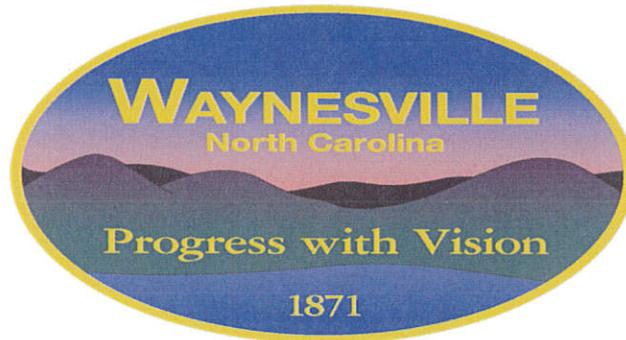
NC Licensed General Contractor #67876



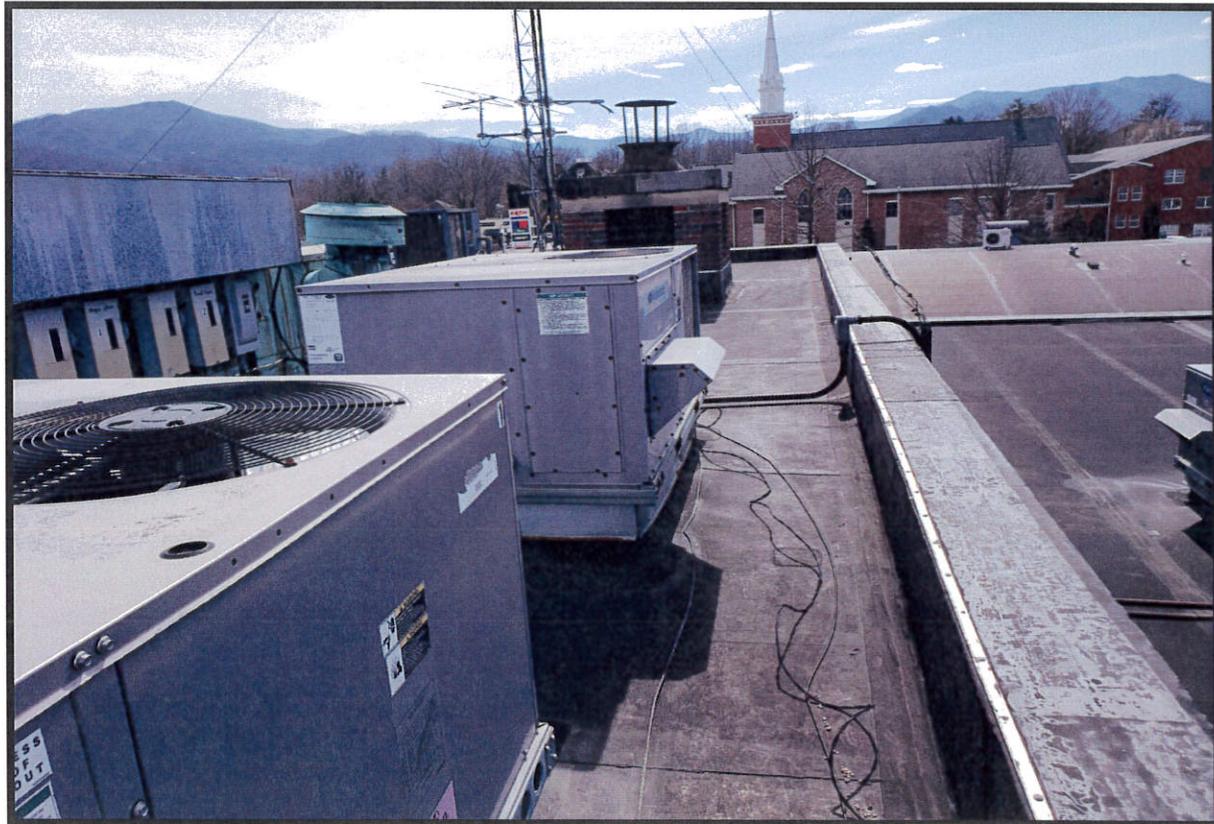
Town Of Waynesville

Waynesville, NC 28786

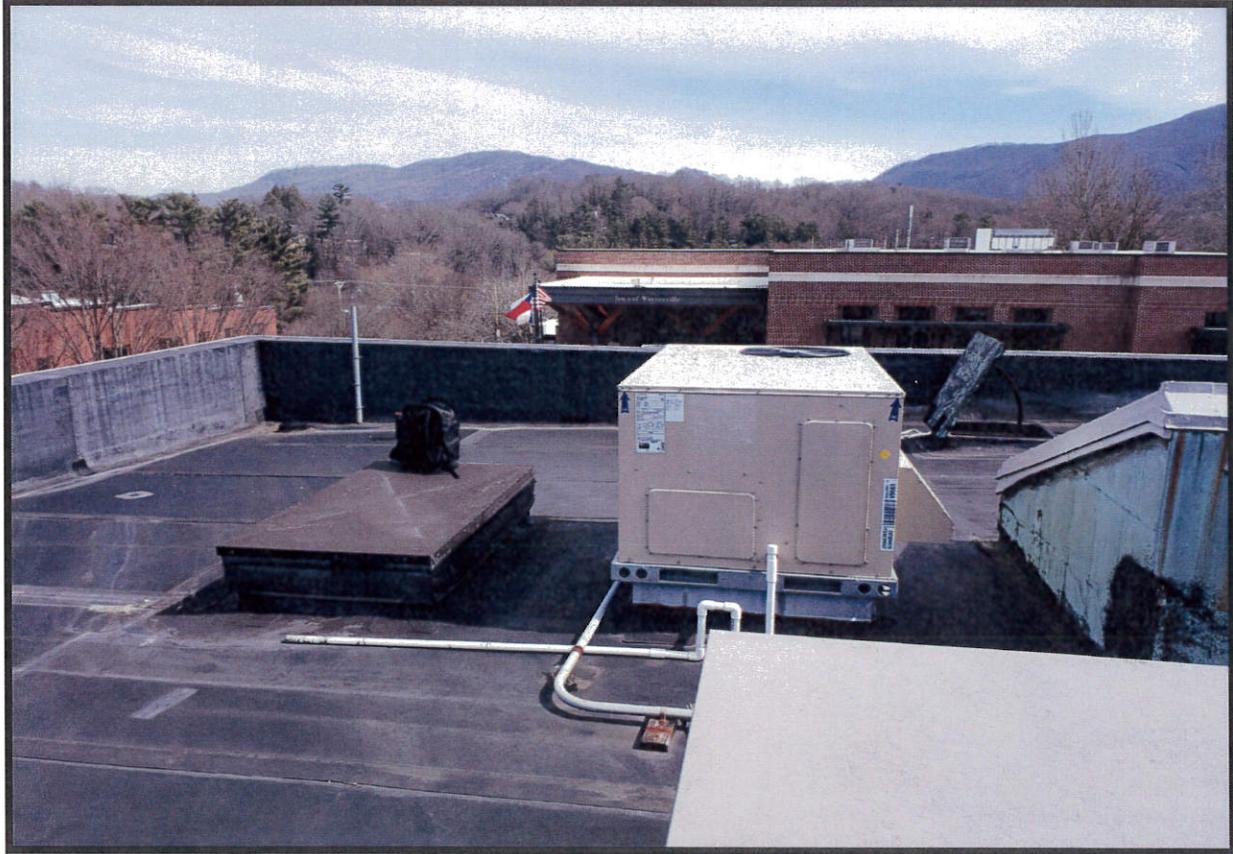
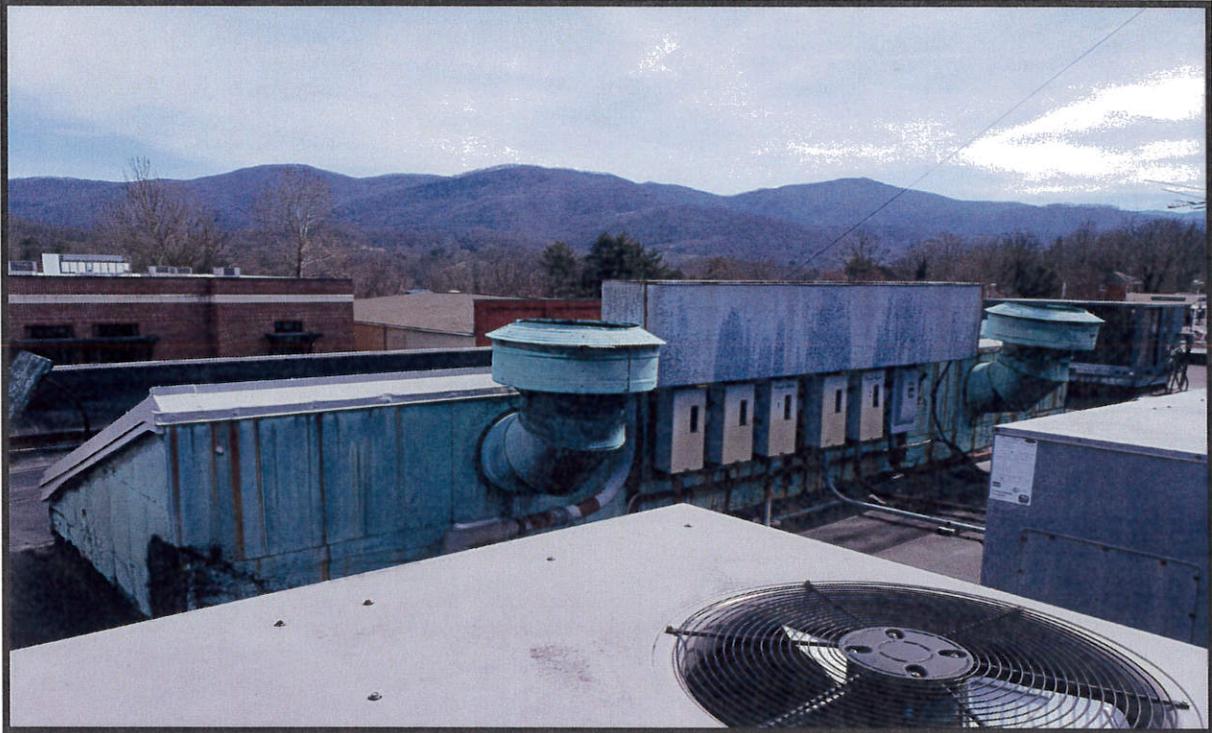
Presented By
ARS Construction Services
176 Wiggins Rd
Candler, NC 28715
828-283-3220



Overviews of your Roof



Overviews of your Roof



Overviews of your Roof



With the age of the roof it is starting to pull apart from the seams allowing water to travel throughout the roof.



Overviews of your Roof



Water has got between the walls and the material causing the parapet wall to pull apart making a water pocket.



Overviews of your Roof



Corners on the curbs have stretched apart in many areas.



TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: April 14, 2020

SUBJECT: Pavement Condition Survey RFQ Results

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: C6
Department: Public Services Department
Contact: Jeff Stines, Preston Gregg
Presenter: Jeff Stines

BRIEF SUMMARY:

Town staff solicited engineering firms in the form of RFQ (Request for Qualifications) to perform pavement condition ratings (PCR) on all town roads. The RFQ resulted in a response of nine different firms:

- McGill & Associates
- Mattern & Craig
- Summit Engineering
- SEPI Engineering
- LaBella Associates
- Vaughn & Melton
- S&ME
- Infrastructure Consulting Group
- J.M. Teague

All nine responses were adequately qualified; however only five firms were “short listed” and evaluated further (McGill, Mattern & Craig, LaBella, Vaughn & Melton, J.M. Teague). Evaluations were based on the following criteria: local presence, experience, proposed project personnel and timeliness to complete the work.

LaBella Associates ranked the highest of the five “short listed” firms. LaBella has performed the Town’s PCR study in the past; thus town staff has previous working knowledge of the proposed project personnel. They also require little to none upfront assistance in order to start working immediately on the proposed work; whereas, each other firm would require additional time and resources to get started. For these reasons, staff recommends awarding the Pavement Condition Survey of all Town streets to LaBella Associates.

MOTION FOR CONSIDERATION:

Award contract to LaBella Associates in the amount of \$17,400.

FUNDING SOURCE/IMPACT: (must have approval by Finance Director prior to submission to the Board)

Powell Bill – Professional Services (104560 – 521990) \$17,400

<u>S. Ben Turnmire</u>	<u>04/02/20</u>
Ben Turnmire, Finance Director	Date

ATTACHMENTS:

- LaBella Associates PCR Proposal

MANAGER’S COMMENTS AND RECOMMENDATIONS: Award contract to LaBella Associates as presented.



April 2, 2020

Mr. Preston Gregg, PE
Town Engineer
Town of Waynesville
129 Legion Drive
Waynesville, NC 28786

**Re: Proposal for Professional Services
Pavement Condition Survey – Town of Waynesville**

Dear Mr. Gregg:

LaBella Associates, P.C. (LABELLA) is pleased to submit our proposal to perform a GIS linked pavement condition rating survey for the Town of Waynesville. We look forward to working with you and the Town in managing the investment Waynesville has in its street system.

Scope of Work (GIS-Linked Survey):

LABELLA will perform a pavement condition survey which is linked to the Town's GIS centerline database of all asphalt pavement street segments within the Town of Waynesville owned or maintained by the Town (approximately 86 centerline miles). This will involve riding each segment and observing and quantifying pavement distresses in addition to collection of physical inventory data. The project deliverables are as follows:

- A Pavement Condition Rating (PCR) will be calculated using our pavement management software for each segment based on field observation of the following distresses: alligator cracking, block cracking, reflective cracking, rutting, raveling, bleeding, ride quality, and patching. This data will be recorded on the street centerline segment data provided by the Town with any recent/needed additions to be added by LABELLA.
- The field survey will identify errors in the Centerline database or unusual field conditions (e.g. drainage problems) in a comment field in the database product provided to the Town.
- In addition to observing surface pavement distresses, during the field survey LABELLA will quantify the following attributes for each street segment: existing curb and gutter per side (right and left), presence of sidewalk (if any) per side, asphalt height above gutter, and utility cuts. These attributes do not affect the PCR calculation, but serve to provide meaningful information to the Town.
- LABELLA will compile and summarize condition-rating data from the collected field data reflecting the Town maintained street segments. LABELLA will also provide three (3) copies of a report that will identify system pavement condition by major distress and street classification (high or low volume). The report will provide Summary Tables containing recommended maintenance activities and estimated costs by activity based on unit maintenance costs to be supplied by the Town.



- LABELLA will provide three (3) copies of a listing of street segments sorted by PCR order in addition to a report of segments by alphabetical street listing.
- LABELLA will also provide our USI-TPA Microsoft Access computer application which will allow the Town to sort the master database by PCR, street name, and to generate an estimate of maintenance costs for a specific range of PCRs. The application will also allow the Town to query the database for presence of curb and gutter, sidewalk, and asphalt height above gutter. This reporting tool will also allow the Town to generate priority lists for high and low volume streets, crack sealing, and patching, in addition to lists for resurfacing, skin patching, and joint repair.
- LABELLA will also provide the Town with a digital copy of the final GIS shape file in ESRI compatible format along with a database file containing completed pavement condition inventory data, PCRs, recommended maintenance activities and cost information for your records, along with an electronic copy of the written report and any graphs or exhibits.
- LABELLA will prepare a color-coded map showing the PCR rating (Very Good to Very Poor) of the streets within the Town.
- Upon completion of the study, LABELLA will present the results of the Pavement Condition Survey to both the Town staff and the Town Council.

This proposal makes the following assumptions:

- We estimate that the field data collection will take approximately six to seven work days depending on weather conditions.
- LABELLA will supply the Town with our repair matrix so the Town can select the maintenance activities it prefers for the various pavement distresses and severity levels.
- Waynesville will also need to provide LABELLA with current unit maintenance costs for use in our calculations. We can assist the Town by sharing recent maintenance costs for other municipalities.
- Waynesville will supply LABELLA with a current GIS centerline database (including street centerline, parcel data, Town limits, and street ownership [i.e. Town or State]) for the GIS-linked survey, a listing of new street segments added since the last survey, a listing of the high and low volume streets, and a copy of the most recent Powell Bill map. If unavailable, we will use the GIS centerline database from Alamance County.
- Waynesville maintains approximately 86 miles of streets within its corporate limits. This proposal does not include any evaluation of NCDOT streets within the Town limits.

Compensation:

LABELLA will perform the services described above for a GIS linked survey for a lump sum fee of **\$17,400**. LABELLA will invoice the Town monthly for work performed, with final payment due upon the Town's acceptance of the completed project.



Schedule:

LABELLA is available to begin this work immediately following a Notice to Proceed, and we estimate it will take approximately six weeks to complete the project after beginning the field data collection. It typically takes two to three weeks to set up the GIS application before beginning the field data collection.

Thank you for the opportunity to work with you and the Town of Waynesville. If you have any questions or need additional information, please feel free to contact us at 704-941-2139 or by email at rwilson@labellapc.com.

Sincerely,

LaBella Associates

Robert E. Wilson, P.E.
Project Manager

Accepted By: _____
Town Manager

Date: _____

**TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date:**

SUBJECT: N. C. Water Warn

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: C7
Department: Public Services
Contact: Jeff Stines
Presenter: Jeff Stines

BRIEF SUMMARY:

NC Water Warn is a program within NC that provides mutual aid in the event of a natural disaster or emergency related to the water or wastewater industry from various members (112 members) across the state. This would also aid other Municipalities from us as well if needed. This would include Staffing as well as material(s) that may be needed depending on the severity of the emergency.

MOTION FOR CONSIDERATION:

To approve the Town of Waynesville to be a member of NC Water Warn
(North Carolina Water and Wastewater Agency Response Network)

FUNDING SOURCE/IMPACT: (must have approval by Finance Director prior to submission to the Board)

Ben Turnmire, Finance Director

Date

ATTACHMENTS:

Mutual Aid and Assistance Agreement
NC Member List

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Utility	County	Region
70 East Associates, LLC	Wake	Raleigh
Athena Cedar, LLC		
Cedar Park Estates WWTP		
Brunswick County Public Utilities	Brunswick	Wilmington
Cape Fear Public Utility Authority	New Hanover	Wilmington
Charlotte Water	Mecklenburg	Mooresville
Christmount Christian Assembly	Buncombe	Asheville
City of Clinton	Sampson	NULL
City of Dunn	Harnett	Fayetteville
City of Eden	Rockingham	Winston-Salem
City of Goldsboro	Wayne	Washington
City of Graham	Alamance	Winston-Salem
City of Hendersonville Water and Sewer Department	Henderson	Asheville
City of High Point	Guilford	NULL
City of Lenoir	Caldwell	Asheville
City of Lexington	Davidson	Winston-Salem
City of Marion	McDowell	Asheville
City of Newton Public Works and Utilities	Catawba	Mooresville
City of Raleigh Public Utilities	Wake	Raleigh
City of Reidsville Public Works Department	Rockingham	Winston-Salem
City of Rocky Mount Public Utilities	Nash	Raleigh
City of Shelby Utilities	Cleveland	Mooresville
City of Thomasville	Davidson	Winston-Salem
City of Wilson	Wilson	Raleigh
Cleveland County Water	Cleveland	Mooresville
Crab Creek Valley HOA	Henderson	Asheville
Dare County Water System	Dare	Washington
Davidson Water, Inc.	Davidson	Winston-Salem
Davie County Public Utilities	Davie	Winston-Salem
Duplin County Water	Duplin	Wilmington
Eastern Pines Water Corporation	Pitt	Washington
Farm Water Works	Lee	Raleigh
Fayetteville Public Works Commission	Cumberland	Fayetteville
Franklin County	Franklin	Raleigh
Greenville Utilities Commission	Pitt	Washington
Harnett County Public Utilities	Harnett	Fayetteville
Hickory Village Mobile Home Park	Pasquotank	Washington
Highland Falls Community Association, Inc.	Macon	Asheville
Iredell Water Corporation	Iredell	Mooresville
Metropolitan Sewerage District of Buncombe Co.	Buncombe	Asheville
Mount Pisgah Academy	Yancey	Asheville
Neuse Regional Water and Sewer Authority	Lenoir	Washington
Onslow Water and Sewer Authority	Onslow	Wilmington
Orange Water and Sewer Authority	Orange	Raleigh
Rockingham County Water and Wastewater System	Rockingham	Winston-Salem

Salisbury-Rowan Utilities	Rowan	Mooresville
Sandy Point Resort and Campground	Currituck	Washington
South Granville Water and Sewer Authority	Granville	Raleigh
Sunset Drive Mobile Home Park	Moore	Fayetteville
The City of Asheville	Buncombe	Asheville
The City of Concord	Cabarrus	Mooresville
The City of Greensboro	Guilford	Winston-Salem
The City of Jacksonville	Onslow	Wilmington
Town of Ansonville Water Department	Anson	Fayetteville
Town of Banner Elk Water Services	Watauga	Asheville
Town of Bladenboro	Bladen	Fayetteville
Town of Blowing Rock Public Works	Watauga	Winston-Salem
Town of Bryson City	Swain	Asheville
Town of Carolina Beach	New Hanover	Wilmington
Town of Clyde	Haywood	Asheville
Town of Crossnore	Avery	Asheville
Town of Denton Public Works	Davidson	Winston-Salem
Town of Edenton	Chowan	Washington
Town of Elm City	Wilson	Raleigh
Town of Enfield	Halifax	Raleigh
Town of Fairmont	Robeson	Fayetteville
Town of Franklinville	Randolph	Winston-Salem
Town of Granite Falls	Caldwell	Asheville
Town of Grimesland	Pitt	Washington
Town of Harrisburg Public Works	Cabarrus	Mooresville
Town of Hertford	Perquimans	Washington
Town of Hillsborough	Orange	Raleigh
Town of Hobgood	Halifax	Raleigh
Town of Holden Beach	Brunswick	Wilmington
Town of Holly Springs Public Works Department	Wake	Raleigh
Town of Lake Waccamaw Public Utilities	Columbus	Wilmington
Town of Lansing	Ashe	Winston-Salem
Town of Magnolia		
Magnolia Municipal Corporation	Duplin	Wilmington
Town of Micro	Johnston	Raleigh
Town of Montreat	Buncombe	Asheville
Town of Mooresville Public Utilities	Iredell	Mooresville
Town of Mount Gilead	Montgomery	Fayetteville
Town of Newport	Carteret	Wilmington
Town of Oak Island	Brunswick	Wilmington
Town of Parkton	Robeson	Fayetteville
Town of Pinebluff	Moore	Fayetteville
Town of Pinetops	Edgecombe	Washington
Town of Pink Hill	Duplin	Washington
Town of Powellsville	Bertie	Washington
Town of Robersonville	Martin	Washington

Town of Rutherford College	Burke	Asheville
Town of Saratoga	Wilson	Raleigh
Town of Sharpsburg	Nash	Raleigh
Town of Snow Hill	Greene	Washington
Town of Stoneville	Rockingham	Winston-Salem
Town of Tarboro Public Works Department	Edgecombe	Raleigh
Town of Warsaw	Duplin	Wilmington
Town of Wingate	Union	Mooreville
Town of Wrightsville Beach Water and Sewer Department	New Hanover	Wilmington
Trails Property Owners Association, Arcadia U.S., Inc.	Durham	Raleigh
Trinity Farms Subdivision: Trinity Farms Corporation	Wake	Raleigh
Tyrrell County Water System	Tyrrell	Washington
Union County Water & Wastewater	Union	NULL
Water Resources Management, Inc.		
Foscoe Companies	Watauga	Asheville
Wayne Water Districts	Wayne	Washington
West Carteret Water Corporation	Carteret	Wilmington
Whitley's Mobile Home Park	Beaufort	Washington

North Carolina Water and Wastewater Agency Response Network

Mutual Aid and Assistance Agreement For Water and Wastewater Utilities

This Agreement is made and entered into by public and private Water and Wastewater Utilities in North Carolina that have, by executing this Agreement, manifested their intent to participate in an Intrastate Program for Mutual Aid and Assistance.

This Agreement is authorized under Section 160A-318 of the North Carolina General Statutes which provides that public and private Water and Wastewater Utilities may contract with each other to provide mutual aid and assistance in restoring water and sewer in the event of natural disasters or other emergencies.

ARTICLE I. PURPOSE

Recognizing that emergencies may require assistance in the form of personnel, equipment, materials, and supplies from outside the area of impact, the signatory utilities established an Intrastate Program for Mutual Aid and Assistance. Through the Mutual Aid and Assistance Program, Members coordinate response activities and share resources during emergencies whether localized to the utilities or a declared disaster. This Agreement sets forth the procedures and standards for the administration of the Intrastate Mutual Aid and Assistance Program.

ARTICLE II. DEFINITIONS

A. Authorized Official— An employee or officer of a Member that is authorized by the Member's governing board or management to:

- request assistance;
- offer assistance;
- Refuse to offer assistance or;
- Withdraw assistance under this Agreement.

B. Disaster – An emergency event that reaches a specific financial threshold related to magnitude of loss and property damage.

C. Confidential Information – Information defined NCGS 132-1.2 as confidential information or NCGS 132-1.7 as sensitive public security information.

D. Emergency— An unanticipated and/or sudden natural or manmade event that requires immediate action and is, or is likely to be, beyond the control of the services, personnel, equipment, and facilities of a Mutual Aid and Assistance Program Member.

E. Incident Command System (ICS) – A standardized on-scene emergency management system designed for use for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is the combination of facilities, equipment, personnel procedures, and communications operating within a common organization structure, designed to aid in the management of resources during incidents.

F. Indemnity – Security against hurt, loss, or damage. An exemption from incurred penalties or liabilities.¹

G. Indemnitee – A party to this Agreement that is entitled to be indemnified by another party to this Agreement pursuant to the terms of Article X.

H. Indemnitor – A party to this Agreement that is obligated to indemnify another party to this Agreement pursuant to the terms of Article X.

I. Large water and or wastewater utility— A utility that is represented with a population in excess of 10,000.

J. Member— Any public or private Water or Wastewater Utility that manifests intent to participate in the Mutual Aid and Assistance Program by executing this Agreement.

K. Mutual Aid and Assistance Agreement – A formal agreement among emergency responders to lend assistance across jurisdictional boundaries when required; either by an emergency that exceeds local resources or a disaster

L. National Incident Management System (NIMS) — A national, standardized approach to incident management and response that sets uniform processes and procedures for emergency response operations.

M. The North Carolina Water and Wastewater Agency Response Network (NCWaterWARN) - A network of public and private water and wastewater utilities united under an agreement to provide and receive mutual aid and assistance to signatories to the agreement during emergencies ranging from those that may arise from declared disasters or are specific to a single utility.

N. Period of Assistance — A specified period of time when a Provider assists a Recipient. The period commences when personnel, equipment, materials, or supplies depart from a Provider's facility and ends when the resources return to their facility (portal to portal). All protections identified in the agreement apply during this period. The specified Period of Assistance may occur during response to or recovery from an emergency, as previously defined.

O. Provider — A Member that responds to a request for assistance under the Mutual Aid and Assistance Program.

P. Recipient — A Member who requests assistance under the Mutual Aid and Assistance Program.

¹ Merriam-Webster. Retrieved August 22, 2007, from Merriam -Webster.com website:
<http://www.merriam-webster.com/>

Q. Small water and or wastewater Utility— A utility is represented with a population less than 10,000.

R. Private Water Utility— An entity that is not a unit of government that owns or operates a water and/or wastewater utility, whether on a for-profit or not-for-profit basis.

S. Public Utility— A unit of government that owns or operates a water and/ or wastewater utility.

ARTICLE III. ADMINISTRATION

The Mutual Aid and Assistance Program shall be administered through the North Carolina Water and Wastewater Agency Response Network (NCWaterWARN) Committee in coordination with the North Carolina Rural Water Association (NCRWA). The purpose of the NCWaterWARN Committee is to provide coordination of the Mutual Aid and Assistance Program before, during, and after an emergency. The NCWaterWARN Committee, under the leadership of an elected Chairperson, shall meet quarterly as deemed necessary by the Chair to address Mutual Aid and Assistance Program issues.

The administration of NCWaterWARN will be through the NCWaterWARN Committee. The committee shall consist of a chair and vice chair, an eastern regional section, a western regional section, and (3) At-Large members. The NCWaterWARN Committee shall consist of an eastern regional section with three (3) seats representing large and small public water and wastewater utilities and private water systems. The western regional section shall consist of three (3) seats representing large and small public water and wastewater utilities and private water systems. Also, there shall be three (3) At-Large seats for additional representatives from either large and small public water and wastewater utilities or private water systems.

NCWaterWARN regional sections are divided along the NC Department of Environmental Quality (NCDEQ) regional office areas. A map of the regional sections is included in Appendix A of this agreement.

Representatives from large and small public water and wastewater utilities and private utilities shall be elected at the NCWaterWARN Annual Meeting. Election and voting procedures will be described in the NCWaterWARN Ops Plan.

Under the leadership of the NCWaterWARN Committee Chair, NCWaterWARN Committee Members shall plan and coordinate emergency preparedness and response activities for the Mutual Aid and Assistance Program. The NCWaterWARN Committee Chair (or his/her designee) shall maintain a master list of all members of the Mutual Aid and Assistance Program.

The NCWaterWARN Committee shall elect a Chair and a Vice Chair. The first Chair and Vice Chair will serve a two (2) year term and subsequent Chairs and Vice Chairs will serve one (1) year thereafter.

The NCWaterWARN Committee shall:

- A. Convene an annual meeting for members.
- B. Provide for the development and maintenance of a database of all participating utilities through one of the members, sponsor agencies, or participating agencies or associations.

- C. Meet as a NCWaterWARN Committee at least quarterly, as needed and at the discretion of the Chair, to address and resolve concerns, create and modify procedures and any additional policy or legal issues related to NCWaterWARN.
- D. Provide for the development and maintenance of a secure website.
- E. Include an advisory board in its meetings to provide input based on the expertise of their agency.

The additional responsibilities of the Chair are described throughout the agreement. Those duties will be highlighted in the agreement for review by the NCWaterWARN Committee and the Sponsors. Those duties will be listed together in the protocols.

The NCWaterWARN shall have an advisory board that consists of representatives from partner agencies and stakeholders. Representatives to the advisory board from the respective agencies shall be named by those agencies. The advisory board is not a voting member. NCWaterWARN Advisory Board may include at least one representative from the following agencies:

- North Carolina Department of Environmental Quality; Division of Water Resources; Public Water Supply Section
- North Carolina Department of Environmental Quality; Division of Water Resources; Water Quality Regional Operations Section
- North Carolina Section of the American Water Works Association and Water Environment Association
- North Carolina Rural Water Association
- North Carolina Waterworks Operators Association
- North Carolina Emergency Management
- North Carolina League of Municipalities
- Eastern Water and Wastewater Network
- Environmental Protection Agency Region IV
- Department of Homeland Security Protective Security Advisor

Other agencies may be invited to join or have representation on the advisory board at the discretion of the NCWaterWARN Committee.

ARTICLE IV. PROCEDURES

In coordination with other response partner agencies, *the* NCWaterWARN Committee shall develop operational and planning procedures for the Mutual Aid and Assistance Program. These procedures shall be reviewed at least annually and updated as necessary.

ARTICLE V.
PRE-EVENT PLANNING

Members shall identify resources available for deployment and develop plans for housing and providing for the necessities and maintenance of personnel and equipment deployed to provide mutual aid and assistance when a request for assistance is made by the member.

In addition, Members shall provide training to their response personnel related to:

- NIMS compliance
- Mutual aid response protocols
- Required documentation for providing mutual aid and assistance and for receiving mutual aid and assistance

ARTICLE VI.
REQUESTS FOR ASSISTANCE

Member Responsibility: Members shall identify an Authorized Official and alternates, provide contact information including 24-hour access, and maintain resource information made available by the utility for mutual aid and assistance response.

In the event of an Emergency, a Member's Authorized Official may request mutual aid and assistance from a participating Member. Requests for assistance can be made orally or in writing. When made orally, the request for personnel, equipment, materials, and supplies shall be prepared in writing as soon as practicable. Requests for assistance shall be directed to the Authorized Official of the participating Member. The Chair will be notified of all activations of the agreement. Specific protocols for requesting aid shall be provided in the required procedures (Article IV).

Prospective NCWaterWARN members must, if not already active, become and maintain an active membership with the North Carolina Rural Water Association (NCRWA) and must attach proof of its membership with NCRWA to this agreement. NCWaterWARN Members must also provide written notice to the acting NCWaterWARN Chairman of its termination of membership with NCRWA which also results in termination with its membership and benefits associated with NCWaterWARN. NCWaterWARN members are responsible for completing their system's profile information, once an account is assigned, in their member account on the current NCWaterWARN platform. Failure to comply may result in both an inaccurate member directory and omission from automated NCWaterWARN communications to the membership.

Response to a Request for Assistance: After a Member receives a request for assistance, the Authorized Official evaluates whether resources are available to respond to the request for assistance. Following the evaluation, the Authorized Representative shall inform, as soon as possible, the Recipient whether it has the resources to respond. If the Member is willing and able to provide assistance, the Member shall inform the Recipient about the type of available resources and the approximate arrival time of such assistance.

Discretion of Provider's Authorized Official: Execution of this Agreement does not create any duty to respond to a request for assistance. When a Member receives a request for assistance, the Authorized Official shall have absolute discretion as to the willingness to respond and/or availability of resources. An Authorized Member's decisions on the availability of resources shall be final.

ARTICLE VII. PROVIDER PERSONNEL

National Incident Management System: When providing assistance under this Agreement, the Recipient and Provider shall be organized and shall function under the National Incident Management System if State or Federal preparedness funding is desired. *Control:* Provider personnel shall remain under the direction and control of the Provider. The Recipient's Authorized Official shall coordinate response activities with the designated supervisor(s) of the Provider(s). Whenever practical, Provider personnel must be self-sufficient for up to 72 hours.

Food and Shelter: The Recipient shall supply reasonable food and shelter for Provider personnel. If the Recipient is unable to or fails to provide food and shelter for Responding personnel, the Provider's designated supervisor is authorized to secure the resources necessary to meet the needs of its personnel. The cost for such resources should not exceed the State per diem rates for that area without further justification of good faith efforts to secure accommodations within the per diem. The Recipient remains responsible for reimbursing the Provider for all costs associated with providing food and shelter, if such resources are not provided.

Communication: The Recipient shall provide Provider personnel with radio equipment as available, or radio frequency information to program existing radio, in order to facilitate communications with local responders and utility personnel.

Status: Unless otherwise provided by law, the Provider's officers and employees retain the same privileges, immunities, rights, duties, and benefits as provided in their respective jurisdictions.

Licenses and Permits: To the extent permitted by law, Provider personnel who hold licenses, certificates, or permits evidencing professional, mechanical, or other skills shall be allowed to carry out activities and tasks relevant and related to their respective credentials during the specified Period of Assistance. Members should comply with NIMS credentialing where applicable.

Right to Withdraw: The Provider's Authorized Official retains the right to withdraw some or all of its resources at any time. Notice of intention to withdraw must be communicated to the Recipient's Authorized Official as soon as possible.

ARTICLE VIII. COST REIMBURSEMENT

Unless otherwise mutually agreed in whole or in part, the Recipient shall reimburse the Provider for each of the following categories of costs incurred while providing aid and assistance during the specified Period of Assistance. Such cost may include damage or loss to equipment.

Personnel: Provider personnel are to be paid for assigned duty during a specified Period of Assistance (refer to definition of period of assistance in Article II) according to the terms provided in their employment contracts or other conditions of employment. Either Member may require Provider's personnel to observe a rest period prior to travel back to the Provider's base of operations to ensure safety of personnel. The Provider designated supervisor(s) must keep accurate records of work performed by personnel during the specified Period of Assistance. Recipient reimbursement to the Provider must consider all personnel costs, including salaries or hourly wages, costs for fringe benefits, and indirect costs.

Equipment: The Recipient shall reimburse the Provider for the use of equipment during a specified Period of Assistance, including but not limited to, reasonable rental rates, all fuel,

lubrication, maintenance, transportation, and loading/unloading of loaned equipment. All equipment shall be returned to the Provider in similar condition to its condition at the time of the request for mutual aid and assistance. As a minimum, rates for equipment use must be based on the Federal Emergency Management Agency's (FEMA) Schedule of Equipment Rates. If a Provider uses rates different from those in the FEMA Schedule of Equipment Rates, the Provider must provide such rates in writing to the Recipient prior to supplying resources. Mutual agreement on rates other than FEMA Schedule of Equipment Rates must be reached in writing prior to dispatch of the equipment. Reimbursement for equipment not referenced on the FEMA Schedule of Equipment Rates must be developed based on actual recovery of costs. If Provider must lease a piece of equipment while its equipment is being repaired, Recipient shall reimburse Provider for such rental costs.

Materials and Supplies: The Recipient must reimburse the Provider in kind or at actual replacement cost, plus handling charges, for use of expendable or non-returnable supplies. The Provider must not charge direct fees or rental charges to the Recipient for other supplies and reusable items that are returned to the Provider in a clean, damage-free condition. Reusable supplies that are returned to the Provider with damage must be treated as expendable supplies for purposes of cost reimbursement.

Payment Period: The Provider must provide an itemized bill to the Recipient for all expenses it incurred as a result of providing assistance under this Agreement. The Provider must send the itemized bill to the authorized official not later than ninety (90) days following the end of the Period of Assistance. The Recipient must pay the bill in full on or before the one hundred eightieth (180th) day following the billing date. Unpaid bills become delinquent upon the one hundred eighty-first (181st) day following the billing date, and, once delinquent, the bill accrues interest at the rate of prime, as reported by the *Wall Street Journal*, plus two percent (2%) per annum.

Records – Each Provider and their duly authorized representatives shall have access to a Recipient's books, documents, notes, reports, papers, and records which are directly pertinent to this Agreement for the purposes of reviewing the accuracy of a cost bill or making a financial, maintenance, or regulatory audit. Each Recipient and their duly authorized representatives shall have access to a Provider's books, documents, notes, reports, papers, and records which are directly pertinent to this Agreement for the purposes of reviewing the accuracy of a cost bill or making a financial, maintenance, or regulatory audit. Such records shall be maintained and made accessible for at least three (3) years or longer where required by law.

ARTICLE IX.
DISPUTES

Any claim arising out of or relating to this agreement shall be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by any Member. The parties shall share the mediator's fee and any filing fees equally. Mediation shall be held in the County of the Providing Member if a place has not been mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court of competent jurisdiction. Claims not resolved by mediation shall be decided by a court of competent jurisdiction unless the parties mutually agree otherwise.

ARTICLE X.
LIABILITY

Each Member shall be responsible for any and all claims, demand, suits, actions, damages and causes of action related to or arising out of or in any way connected with its own actions, and the actions of its personnel, in providing mutual aid and assistance rendered or performed pursuant to the terms and conditions of this Agreement.

ARTICLE XI.
INDEMNIFICATION

To the extent permitted by applicable law, in the event of a liability, claim, demand, action, or proceeding of whatever kind or nature arises out of a specified Period of Assistance, the Members who receive and provide assistance during said Period of Assistance shall indemnify and hold harmless those other Members, NCWaterWARN Committee and Sponsor Agencies which had no involvement with the transaction or occurrence that is the subject of the aforementioned claim, action, demand, or other proceeding of whatever kind or nature is limited to execution of this Agreement.

ARTICLE XII.
WORKERS' COMPENSATION CLAIMS

Recipient shall not be responsible for reimbursing any amounts paid or due as benefits to Provider's employees under the terms of the North Carolina Workers' Compensation Act, Chapter 97 of the General Statutes, due to personal injury or death occurring during the period of time such employees are engaged in the rendering of aid and assistance under this Agreement. It is mutually understood that Recipient and Provider shall be responsible for payment of such workers' compensation benefits only to their own respective employees. Further, it is mutually understood that Provider will be entirely responsible for the payment of workers' compensation benefits to its own respective employees pursuant to G.S. 97-51.

ARTICLE XIII.
NOTICE

A Member who becomes aware of a claim or suit that in any way, directly or indirectly, contingently or otherwise, affects or might affect other Members of this Agreement shall provide prompt and timely notice to the Members who may be affected by the suit or claim. Each Member reserves the right to participate in the defense of such claims or suits as necessary to protect its own interests.

ARTICLE XIV.
CONFIDENTIAL INFORMATION

Pursuant to NCGS 132-1.7, and to the extent permitted by applicable law, any Member shall maintain in the strictest confidence and shall take all reasonable steps necessary to prevent the disclosure of any confidential information shared between Members under this Agreement. If any Member, third party, or other entity requests or demands, by subpoena or otherwise, that a Member disclose any confidential information disclosed under this Agreement, the Member shall immediately notify the owner of the confidential information and shall take all reasonable steps necessary to prevent the disclosure of any confidential information.

ARTICLE XV.
EFFECTIVE DATE

This Agreement shall be effective after both the Water and/or Wastewater Utility's authorized representative executes the Agreement and presents proof of dual membership with North Carolina Rural Water Association (NCRWA). An executed copy will be provided to the NCWaterWARN Committee Chair as soon as possible.

ARTICLE XVI.
WITHDRAWAL

A Member may withdraw from this Agreement by providing written notice of its intent to withdraw to NCWaterWARN Committee Chair. Withdrawal takes effect sixty (60) days after the NCWaterWARN Committee Chair receives notice.

Membership may be suspended or revoked by the NCWaterWARN Committee for failure to comply with the Articles of this Agreement.

**ARTICLE XVII.
MODIFICATION**

Modifications to this Agreement may be made to incorporate programmatic operational changes to support the Agreement. Modifications require a two-thirds majority vote of Members. The NCWaterWARN Committee Chair must provide written notice to all Members of proposed modifications to this Agreement sixty (60) days in advance of the vote. The NCWaterWARN Committee Chair must provide written notice to all members of approved modifications to this Agreement. Approved modifications take effect sixty (60) days after the date upon which notice of the approved modifications are sent to the Members.

No provision of this Agreement may be modified, altered, or rescinded by individual parties to the Agreement.

**ARTICLE XVIII.
SEVERABILITY**

The Members agree that if any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular term or provision held to be invalid.

**ARTICLE XIX PRIOR
AGREEMENTS**

This Agreement supersedes all prior Agreements between Members to the extent that such prior Agreements are inconsistent with this Agreement.

**ARTICLE XX. MULTIPLE
AGREEMENTS**

When multiple mutual aid and assistance agreements exist between two Members, if inconsistencies exist between the agreements, the conditions of this Agreement take precedence except by mutual written acceptance of an alternate agreement of both Members for that specific event.

**ARTICLE XXI.
PROHIBITION ON THIRD PARTIES AND ASSIGNMENT OF RIGHTS/DUTIES**

This Agreement is for the sole benefit of the Members and no person or entity must have any rights under this Agreement as a third-party beneficiary. Assignments of benefits and delegations of duties created by this Agreement are prohibited and must be without effect.

ARTICLE XXII.
INTRASTATE AND INTERSTATE MUTUAL AID AND ASSISTANCE PROGRAMS

To the extent practicable, Members of this Agreement shall participate in Mutual Aid and Assistance activities conducted under the North Carolina Statewide Mutual Aid and Assistance Agreement and the Interstate Emergency Management Assistance Compact (EMAC). Members may voluntarily agree to participate in an interstate Mutual Aid and Assistance Program for water and wastewater utilities through this Agreement if such a Program were established.

Now, therefore, in consideration of the covenants and obligations set forth in this Agreement, the Water and Wastewater Utility listed here manifests its intent to be a Member of the Intrastate Mutual Aid and Assistance Program for Water and Wastewater Utilities by executing this Agreement on this _____ day of _____ year of _____.

Legal Name of Water/Wastewater Utility: _____

Authorized Representative

Title

Please Print Name

**TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: April 14, 2020**

SUBJECT: Chestnut Walk Tank – Site Work Bid

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: C8
Department: Public Services Department
Contact: Jeff Stines, Preston Gregg, Wayne Bolin
Presenter: Jeff Stines

BRIEF SUMMARY:

Phase II bid for the Chestnut Walk Tank is for the installation and site work to be constructed in accordance with McGill & Associates engineered plans and bid documents.

One bid was received from ACMI in the amount of \$187,540.

The project was advertised for three weeks in which local contractors were also solicited to bid. ACMI was the sole bid. In order to be considered a qualified bidder for this project, a contractor must have been licensed by the North Carolina Licensing Board for General Contractors.

MOTION FOR CONSIDERATION:

Award contract to ACMI in the amount of \$187,540.

FUNDING SOURCE/IMPACT:

Water Maintenance – Capital Improvements (617121-545900).

<u>S. Ben Turnmire</u>	<u>04/02/20</u>
Ben Turnmire, Finance Director	Date

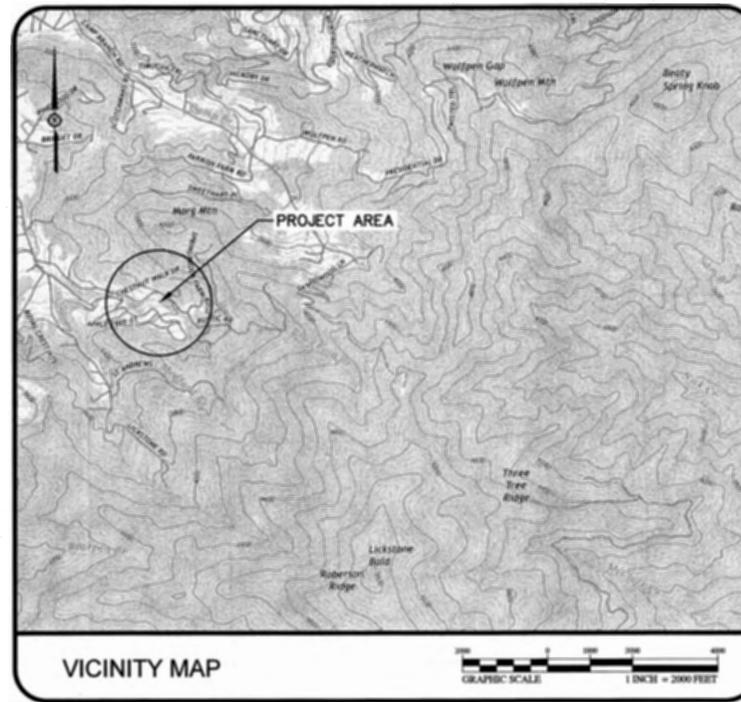
ATTACHMENTS:

- Contract Plans and Documents
- ACMI Site Work Proposal
- Budget Amendment

MANAGER’S COMMENTS AND RECOMMENDATIONS: Award contract to ACMI as presented.

CHESTNUT WALK WATER STORAGE TANK REPLACEMENT TOWN OF WAYNESVILLE

HAYWOOD COUNTY, NORTH CAROLINA



SCHEDULE OF DRAWINGS

- G-001 COVER SHEET
- G-002 GENERAL NOTES & LEGENDS
- C-101 WATER STORAGE TANK SITE PLAN
- C-102 WATER STORAGE TANK DETAILS
- C-501 MISCELLANEOUS DETAILS
- C-502 MISCELLANEOUS DETAILS
- C-503 MISCELLANEOUS DETAILS

EC 43 GENERAL EROSION CONTROL NOTES
UPDATED FOR THIS PROJECT

- FINISH GRADE TOLERANCES SHALL BE AS NOTED IN THE SPECIFICATIONS. THE ENGINEER MAY MAKE GRADE CHANGES AS REQUIRED IN THE FIELD WITHOUT EFFECTING THE UNIT BID PRICE FOR UNCLASSIFIED EXCAVATION.
- UNLESS OTHERWISE STATED, ALL FILL AREAS SHALL BE CONSTRUCTED IN LAYERS OF 8" MAXIMUM THICKNESS, WITH WATER ADDED OR SOIL CONDITIONED TO THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE ENGINEER AND COMPACTED WITH A SHEEP'S FOOT ROLLER TO A COMPACTION EQUAL TO OR GREATER THAN 95% (100% IN THE TOP 2' OF THE SUB GRADE BELOW ROADWAYS AND PARKING LOTS) OF THE DENSITY OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH THE STANDARD PROCTOR METHOD OF MOISTURE-DENSITY RELATIONSHIP TEST, ASTM D698 OR AASHTO-99 UNLESS SPECIFIED IN OTHER SPECIFICATIONS.
- ENTIRE AREA TO BE GRADED SHALL BE CLEARED AND GRUBBED. NO FILL SHALL BE PLACED ON ANY AREA NOT CLEARED AND GRUBBED.
- ALL SOIL EROSION CONTROL MEASURES REQUIRED BY THE GRADING PLAN SHALL BE PERFORMED PRIOR TO GRADING, CLEARING OR GRUBBING. ALL EROSION CONTROL DEVICES SUCH AS SILT FENCES, ETC., SHALL BE MAINTAINED IN WORKABLE CONDITION FOR THE LIFE OF THE PROJECT AND SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT ONLY ON THE ENGINEER'S APPROVAL. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO CLEARING AND GRUBBING. IF DURING THE LIFE OF THE PROJECT, A STORM CAUSES SOIL EROSION WHICH CHANGES FINISH GRADES OR CREATES "GULLIES" AND "WASHED AREAS", THESE SHALL BE REPAIRED AT NO EXTRA COST, AND ALL SILT WASHED OFF OF THE PROJECT SITE ONTO ADJACENT PROPERTY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AT NO EXTRA COST. THE CONTRACTOR SHALL ADHERE TO ANY APPROVED EROSION CONTROL PLANS WHETHER INDICATED IN THE CONSTRUCTION PLANS OR UNDER SEPARATE COVER.
- DISPOSABLE MATERIAL
 - CLEARING AND GRUBBING WASTES SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE, UNLESS SPECIFIED OTHERWISE.
 - SOLID WASTES TO BE REMOVED, SUCH AS SIDEWALKS, CURBS, PAVEMENT, ETC., MUST BE PLACED IN SPECIFIC DISPOSAL AREAS DELINEATED ON THE PLANS OR REMOVED FROM THE SITE AS REQUIRED BY THE SPECIFICATIONS. THIS MATERIAL SHALL HAVE A MINIMUM COVER OF 2'. THE CONTRACTOR SHALL MAINTAIN SPECIFIED COMPACTION REQUIREMENTS IN THESE AREAS. WHEN DISPOSAL SITES ARE NOT PROVIDED, THE CONTRACTOR SHALL REMOVE THIS WASTE FROM THE SITE AND PROPERLY DISPOSE OF IT AT HIS EXPENSE.
 - ABANDONED UTILITIES SUCH AS CULVERTS, WATER PIPE, HYDRANTS, CASTINGS, PIPE APPURTENANCES, UTILITY POLES, ETC., SHALL BE THE PROPERTY OF THE SPECIFIC UTILITY AGENCY, OR COMPANY HAVING JURISDICTION. BEFORE THE CONTRACTOR CAN REMOVE, DESTROY, SALVAGE, REUSE, SELL OR STORE FOR HIS OWN USE ANY ABANDONED UTILITY, HE MUST PRESENT TO THE OWNER WRITTEN PERMISSION FROM THE UTILITY INVOLVED.
 - IF ON SITE BURNING IS AN ACCEPTABLE METHOD OF DISPOSING OF FLAMMABLE WASTES AND WHEN BURNING IS ANTICIPATED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND MEETING GOVERNING CODES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR HIS REPRESENTATIVE AS TO THE SPECIFIC LOCATION OF BURNING.
AFTER BURNING IS COMPLETED, PURE ASH MAY BE DISPOSED OF BY MIXING WITH FILL DIRT. ALL MATERIAL NOT TOTALLY BURNED SHALL BE DISPOSED OF AS SPECIFIED IN "B" ABOVE. THE CONTRACTOR SHALL NOT HOLD UP WORK PROGRESS FOR THE PURPOSE OF WAITING FOR A "BURNING DAY".
- IN THE EVENT EXCESSIVE GROUNDWATER OR SPRINGS ARE ENCOUNTERED WITHIN THE LIMITS OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL NECESSARY UNDER DRAINS AND STONE AS DIRECTED BY THE ENGINEER. ALL WORK SHALL BE PAID BASED UPON UNIT BIDS, UNLESS SPECIFIED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ADJUSTMENT OF ALL UTILITY SURFACE ACCESSES WHETHER HE PERFORMS THE WORK OR A UTILITY COMPANY PERFORMS THE WORK.
- THE CONTRACTOR SHALL CONTROL ALL "DUST" BY PERIODIC WATERING AND SHALL PROVIDE ACCESS AT ALL TIMES FOR PROPERTY OWNERS WITHIN THE PROJECT AREA AND FOR EMERGENCY VEHICLES. ALL OPEN DITCHES AND HAZARDOUS AREAS SHALL BE CLEARLY MARKED IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL AREAS WHERE THERE IS EXPOSED DIRT SHALL BE SEEDED, FERTILIZED AND MULCHED ACCORDING TO THE SPECIFICATIONS. THE FINISHED SURFACE SHALL BE TO GRADE AND SMOOTH, FREE OF ALL ROCKS LARGER THAN 3". EQUIPMENT TRACKS, DIRT CLOUDS, BUMPS, RIDGES AND COUGES PRIOR TO SEEDING; THE SURFACE SHALL BE LOOSENED TO A DEPTH OF 2-4" TO ACCEPT SEED. THE CONTRACTOR SHALL NOT PROCEED WITH SEEDING OPERATIONS WITHOUT FIRST OBTAINING THE ENGINEER'S APPROVAL OF THE GRADED SURFACE. ALL SEEDING SHALL BE PERFORMED BY A MECHANICAL "HYDRO-SEEDER". HAND SEEDING SHALL BE AUTHORIZED ON AN AREA BY AREA APPROVAL BY THE ENGINEER.
- WHERE SPECIFIED, ALL STORM DRAIN PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE). SMOOTH WALL INTERIOR, WITH WATER TIGHT JOINTS, BACKFILLED WITH # 57 WASHED STONE UP TO MIN. 6" OVER THE TOP OF THE PIPE. HDPE PIPE USED FOR STORM DRAINAGE DETENTION SYSTEMS SHALL BE "HANGOR BLUE SEAL" OR APPROVED EQUAL.
- CONTRACTOR SHALL VERIFY ALL ELEVATIONS BEFORE INSTALLATION OF FACILITIES.
- CATCH BASINS CAST-IN-PLACE SHALL CONFORM TO THE REQUIREMENTS OF NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (LATEST EDITION) ARTICLES 840-1 THROUGH 840-3. CURB INLET CATCH BASIN SHALL CONFORM TO NCDOT STANDARD DETAILS 840.02 THROUGH 840.04. DROP INLETS SHALL CONFORM TO STANDARD DETAIL 840.14. JUNCTION BOXES SHALL CONFORM TO STANDARD DETAIL 840.31.
- CURB INLET FRAME, GRATE AND HOOD SHALL BE NEENAH R-3233D, PRODUCTS BY DEWEY BROS., U.S. FOUNDRY OR EQUAL. DROP INLET FRAME AND GRATE SHALL BE NEENAH R-3339A OR EQUAL. FIELD INLET COVER SHALL CONFORM TO NCDOT STANDARD DETAIL 840.04, OPENING FACING UPSTREAM.
- CONCRETE AND MASONRY SHALL MEET THE REQUIREMENTS OF SECTION 800 AND ALL OTHER APPROPRIATE SECTIONS OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (LATEST EDITION). CONCRETE SHALL BE CLASS A, 4000 PSI MINIMUM, MEETING THE REQUIREMENTS OF SECTION 1000. CONSTRUCTED IN ACCORDANCE WITH SECTION 825. MASONRY SHALL MEET THE REQUIREMENTS OF SECTION 1040, CONSTRUCTED IN ACCORDANCE WITH SECTION 830 AND/OR 834.
- TOPS OF PROPOSED FRAMES AND GRATES SHALL BE FLUSH WITH FINISHED GRADE.
- TINDALL PRE CAST CONCRETE BOXES ARE ACCEPTABLE ALTERNATIVES FOR PROPOSED CATCH BASINS.

W 49 GENERAL WATER NOTES
UPDATED FOR THIS PROJECT

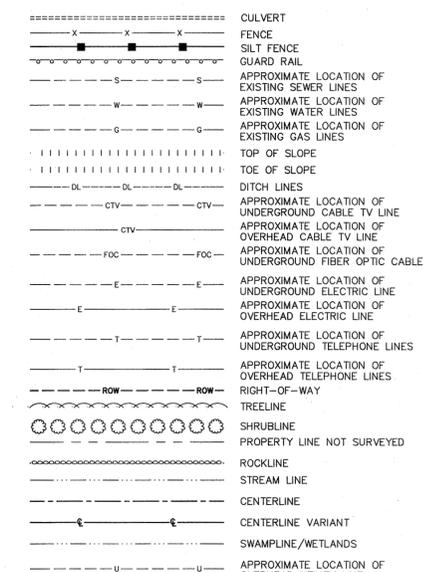
- ALL CONSTRUCTION OUTSIDE RIGHTS-OF-WAY SHALL TAKE PLACE WITHIN THE PERMANENT AND TEMPORARY ACCESS EASEMENTS SHOWN.
- CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN THE ORIGINAL SITE, OR AS NOTED.
- LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE ONLY. EXACT LOCATIONS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. AT LEAST THREE DAYS PRIOR TO CONSTRUCTION, CONTRACTOR MUST NOTIFY EXISTING UTILITY OWNERS. CALL 811 BEFORE YOU DIG.
- ALL WORK NEAR AND AROUND WATERWAYS MUST CONFORM TO THE RULES OF THE STATE OF NORTH CAROLINA.
- CONTRACTOR MUST PROVIDE EROSION CONTROL DEVICES TO CONTROL RUNOFF FROM THE CONSTRUCTION SITE. CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES THAT MAY BE LEVED DUE TO POLLUTION CREATED DURING CONSTRUCTION.
- CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY REGULATIONS PERTAINING TO CONSTRUCTION OPERATIONS.
- WATER LINES SHALL HAVE 3'-0" MINIMUM COVER UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- WATER AND SEWER LINES SHALL HAVE A MINIMUM 10' HORIZONTAL SEPARATION OR A MINIMUM 18" VERTICAL SEPARATION WITH THE WATER OVER SEWER, OR BOTH WATER AND SEWER LINES SHALL BE DUCTILE IRON PIPE 10" EITHER SIDE OF THE CROSSING.
- WATER AND STORM SEWER LINES SHALL HAVE A MINIMUM 18" SEPARATION EXCEPT UNDER NCDOT STORM DRAINS WHICH SHALL HAVE 24" VERTICAL SEPARATION. IF SEPARATION IS NOT OBTAINABLE, DUCTILE IRON PIPE SHALL BE USED FOR THE WATER LINE OR A SUPPORTING MATERIAL SUCH AS FLOWABLE FILL SHALL BE INSTALLED BETWEEN THE PIPES.
- SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- LEGAL DESCRIPTIONS FOR PROPOSED EASEMENTS BY OTHERS.
- CONTRACTOR SHALL NOTIFY THE PROPER LOCAL AUTHORITIES 24 HOURS PRIOR TO ANY ROAD BEING CLOSED FOR CONSTRUCTION, INCLUDING BUT NOT LIMITED TO LOCAL NEWSPAPER, RADIO STATION, FIRE DEPARTMENT, COUNTY SHERIFF'S DEPARTMENT, AMBULANCE, AND COUNTY EMERGENCY AGENCY. ALL TRAFFIC CONTROL SHALL CONFORM TO THE REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AFTER EXISTING BURIED UTILITIES HAVE BEEN LOCATED AND 24 HOURS PRIOR TO CONSTRUCTION.
- ALL FENCE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH LIKE MATERIALS IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH STANDARD FENCE CONSTRUCTION PRACTICES AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL FIELD LOCATE ALL BURIED TELEPHONE LINE IN CONFLICT WITH THE PROPOSED WATER LINE. WHERE NECESSARY, EXISTING BURIED TELEPHONE LINE SHALL BE TEMPORARILY MOVED DURING CONSTRUCTION OF THE PROPOSED WATER LINE AND RE-LAID AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS DURING CONSTRUCTION AND SHALL REPAIR ROADS PER REQUIREMENTS OF ROAD AUTHORITY. NO OPEN CUTS OF EXISTING ROADS SHALL BE ALLOWED EXCEPT WHERE INDICATED ON THE DRAWINGS OR WHERE SPECIFIC PERMISSION IS GRANTED BY THE ROAD AUTHORITY. SAND OR A SIMILAR MATERIAL APPROVED BY THE OWNER OR ENGINEER SHALL BE PLACED ON THE ROAD TO AID IN THE CLEAN UP AFTER CONSTRUCTION. A MINIMUM OF 2" OF SAND SHALL BE PLACED ON THE ROAD PRIOR TO STOCKPILING SPOIL MATERIAL ON THE ROAD SURFACE TO FACILITATE CLEANUP.

PROPOSED SEWER & WATER LEGEND

⊙	MANHOLE
⊙	CLEANOUT
⊙	AIR/VACUUM RELEASE VALVE
⊙	FIRE HYDRANT, VALVE AND TEE
⊙	AIR RELEASE VALVE
⊙	VALVE
⊙	BLOWOFF (DISCHARGE TO STREAM/DITCH)
⊙	BLOWOFF (TRAFFIC BEARING)
⊙	WATER METER
—	GRAVITY SEWER LINE
—	SEWER FORCE MAIN
—	WATER LINE

EXISTING CONDITIONS LEGEND

⊙ TEL	TELEPHONE PEDESTAL	△	CALCULATED POINT
⊙ ELEC	ELECTRIC PEDESTAL	⊙ IPS	1/2" REBAR SET WITH CAP
⊙ CATV	CABLE TV PEDESTAL	⊙	CONCRETE MONUMENT
⊙ SIGN	SIGN	⊙ CM-R/W	RIGHT-OF-WAY MONUMENT
⊙ CATV	UNDERGROUND CABLE TV SIGN	⊙ DOT MON	D.O.T. CONTROL POINT
⊙ UG FOC	UNDERGROUND FIBER OPTIC CABLE SIGN	⊙ RFB	REBAR FOUND
⊙ UG TCS	UNDERGROUND TELEPHONE CABLE SIGN	⊙ RRSPIKE	RAILROAD SPIKE
⊙ UG GAS	UNDERGROUND GAS LINE SIGN	⊙ PK NL	PK NAIL FOUND / SET
⊙ UG ELEC	UNDERGROUND ELECTRIC LINE SIGN	⊙ SPINDLE	SPINDLE FOUND / SET
⊙ LP	UTILITY POLE	⊙ CP/HUB	HUB & TACK SET
⊙ U	GUY WIRE ANCHOR	⊙ CP/NL GPS	CONTROL POINT NAIL SET / FOUND
⊙ TSP	TRAFFIC SIGNAL POLE	⊙ CP/NL	CONTROL POINT/NAIL SET GPS
⊙ X/R	RAILROAD CROSSING SIGNAL	⊙ CP/TEMP	CONTROL POINT TEMPORARY MARK
⊙ MH	MANHOLE	⊙ NGS METAL ROD	NATIONAL GEODETIC SURVEY METAL ROD
⊙ SSMH	SANITARY SEWER MANHOLE	⊙ NGS CM	NATIONAL GEODETIC SURVEY CONCRETE MONUMENT
⊙ SDMH	STORM DRAIN MANHOLE	⊙	TEMPORARY CONTROL POINT SET
⊙ COMMH	COMMUNICATION MANHOLE	⊙	NETWORK TRIANGULATION POINT
⊙ ELMH	ELECTRICAL MANHOLE	⊙ STAKE	STAKE FOUND
⊙ J.B.	JUNCTION BOX	⊙	INTERSTATE HIGHWAY
⊙ SPIGOT	SPIGOT/YARD HYDRANT	⊙	U.S. HIGHWAY
⊙ C.O.	SEWER CLEAN-OUT	⊙ FFE	FINISHED FLOOR ELEVATION
⊙ E.SS	ELECTRIC SERVICE STUB-OUT	⊙ MW	MONITORING WELL
⊙ G.SS	GAS SERVICE STUB-OUT	⊙ PZ	PIEZOMETER
⊙ CB	CATCH BASIN	⊙	LANDFILL GAS MONITORING PROBE
⊙ CI	CURB INLET	⊙	SURFACE WATER SAMPLING LOCATION
⊙ WM	WATER METER	⊙	LANDFILL GAS VENT
⊙ FH	FIRE HYDRANT	⊙	LANDFILL GAS COLLECTION WELLHEAD
⊙ WV	WATER VALVE	⊙	POTABLE WATER WELL
⊙ BLOWOFF VALVE	BLOW OFF VALVE	⊙ MB	MAILBOX OR PAPER BOX
⊙ G/M	GAS METER	⊙ DPB	POSTAL DROP BOX
⊙ G/V	GAS VALVE	⊙ JST DISH	SATELLITE DISH
⊙ ICV	IRRIGATION CONTROL VALVE	⊙ YARD ORNAMENT	STATUE, BIRD BATHS, ETC.
⊙ PIV	POST INDICATOR VALVE	⊙	TREES
⊙ E.AJNC	ELECTRIC JUNCTION BOX OR OUTLET	⊙	SHRUBS / BUSHES
⊙ SIG BOX	TRAFFIC SIGNAL BOX	(H)	HORIZONTAL GROUND DISTANCE
		(G)	NC STATE PLANE GRID DISTANCE



IPS	IRON PIN SET	CMU	CONCRETE MASONRY UNIT
RFB	REBAR FOUND	CPP	CORRUGATED PLASTIC PIPE
OTPF	OPEN TOP IRON PIN FOUND	DIP	DUCTILE IRON PIPE
CTIPF	CRIMPED TOP IRON PIN FOUND	E&T	ELECTRIC & TELEPHONE
CMU	CONCRETE MASONRY UNIT	FOP	FIBER OPTIC CABLE
R/W	RIGHT OF WAY	GIP	GALVANIZED IRON PIPE
CL	CENTERLINE	O/H	OVERHEAD
C	CURVE (SEE CURVE TABLE)	RCP	REINFORCED CONCRETE PIPE
PGB	POINT OF BEGINNING	U/G	UNDERGROUND
CP	CALCULATED POINT	VCP	VITRIFIED CLAY PIPE
PB	PLAT BOOK	PVC	POLYVINYL CHLORIDE PIPE
DB	DEED BOOK	FFE	FINISHED FLOOR ELEVATION
L	LINE (SEE LINE TABLE)	PG	PAGE
BLDG	BUILDING	REF	REFERENCE
CIP	CAST IRON PIPE	DOT	DEPARTMENT OF TRANSPORTATION
CMP	CORRUGATED METAL PIPE	NGS	NATIONAL GEODETIC SURVEY
CONC	CONCRETE	NCS	NORTH CAROLINA STATE PLANE
		MTR BOX	METER BOX



TANK SITE LOCATION MAP



811 Know what's below.
Call before you dig.
N.C. One-Call Center
Dial 811 or 1-800-632-4949

McGill ASSOCIATES
ENGINEERING · PLANNING · FINANCE
PH: (833) 252-0575 FIRM LICENSE # C-0459
35 BROAD STREET, ASHEVILLE, NC 28801



CHESTNUT WALK
WATER STORAGE TANK REPLACEMENT
TOWN OF WAYNESVILLE
HAYWOOD COUNTY, NORTH CAROLINA

JOB NO.: 17-00876
DATE: OCT. 2019
DESIGNED BY: MTD
CAOD BY: IMM
DESIGN REVIEW: —
CONST. REVIEW: —
FILE NAME: Design Dual
Tank-022620.dwg

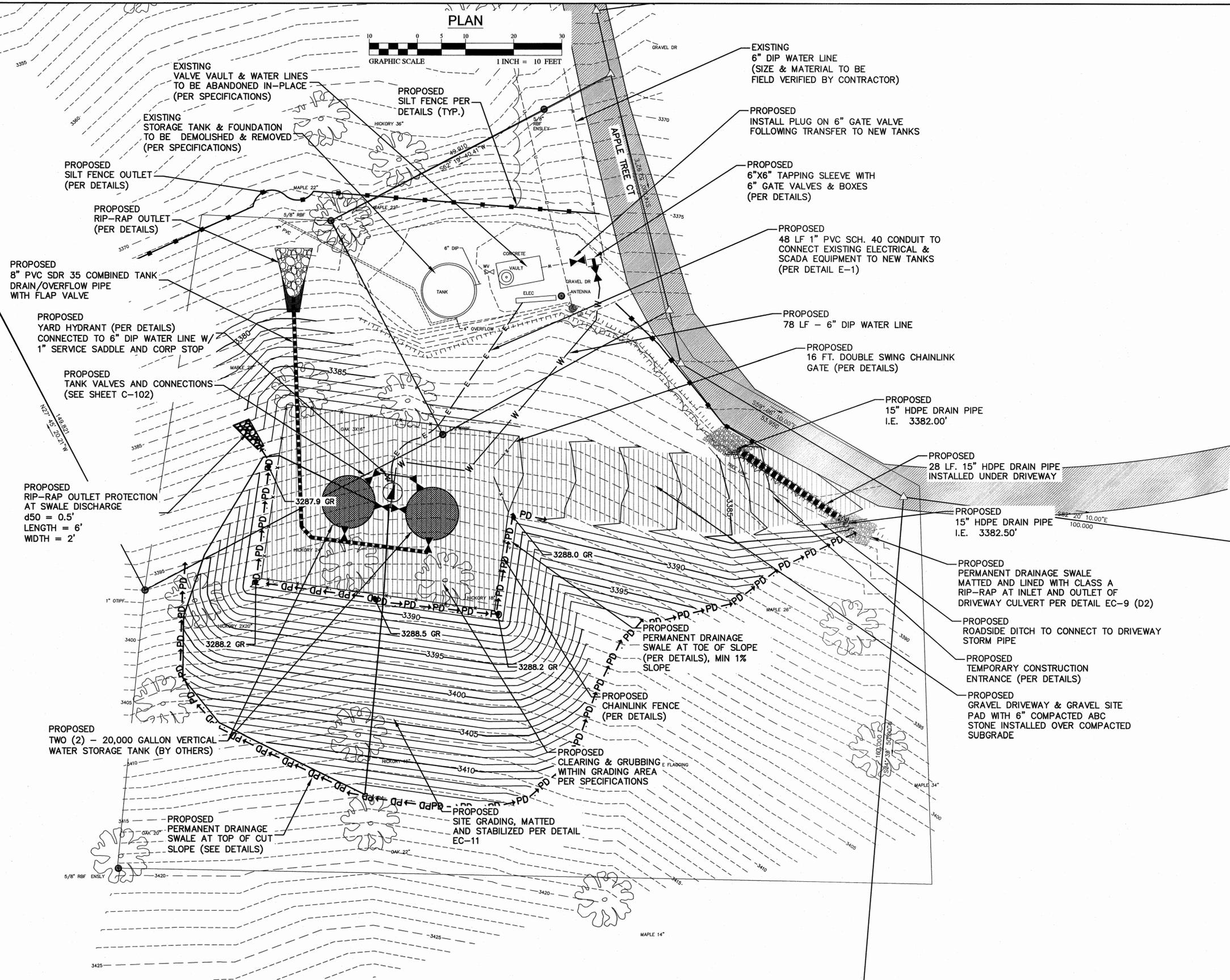
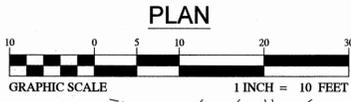
GENERAL NOTES
AND LEGENDS

SHEET
G-002

NO.	DATE	BY	REVISION DESCRIPTION

L:\Road\Drawings\001717_00276\Design\Water\Drawings\17_00276 Design Dual Tank-022620.dwg 2/27/2020 10:34 AM BRIAN WHITMAN

L:\Roadnet\Drawings\2017\17.00376\Design\Water\Drawings\17.00376 Design Dual Tank\22620.dwg 2/27/2020 10:34 AM BRUN WHITMAN

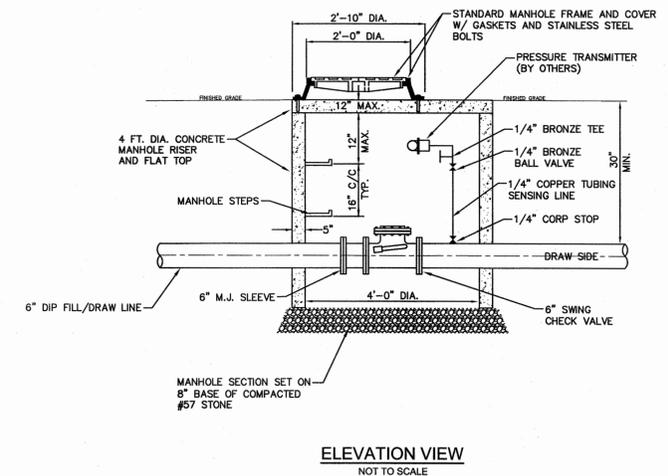
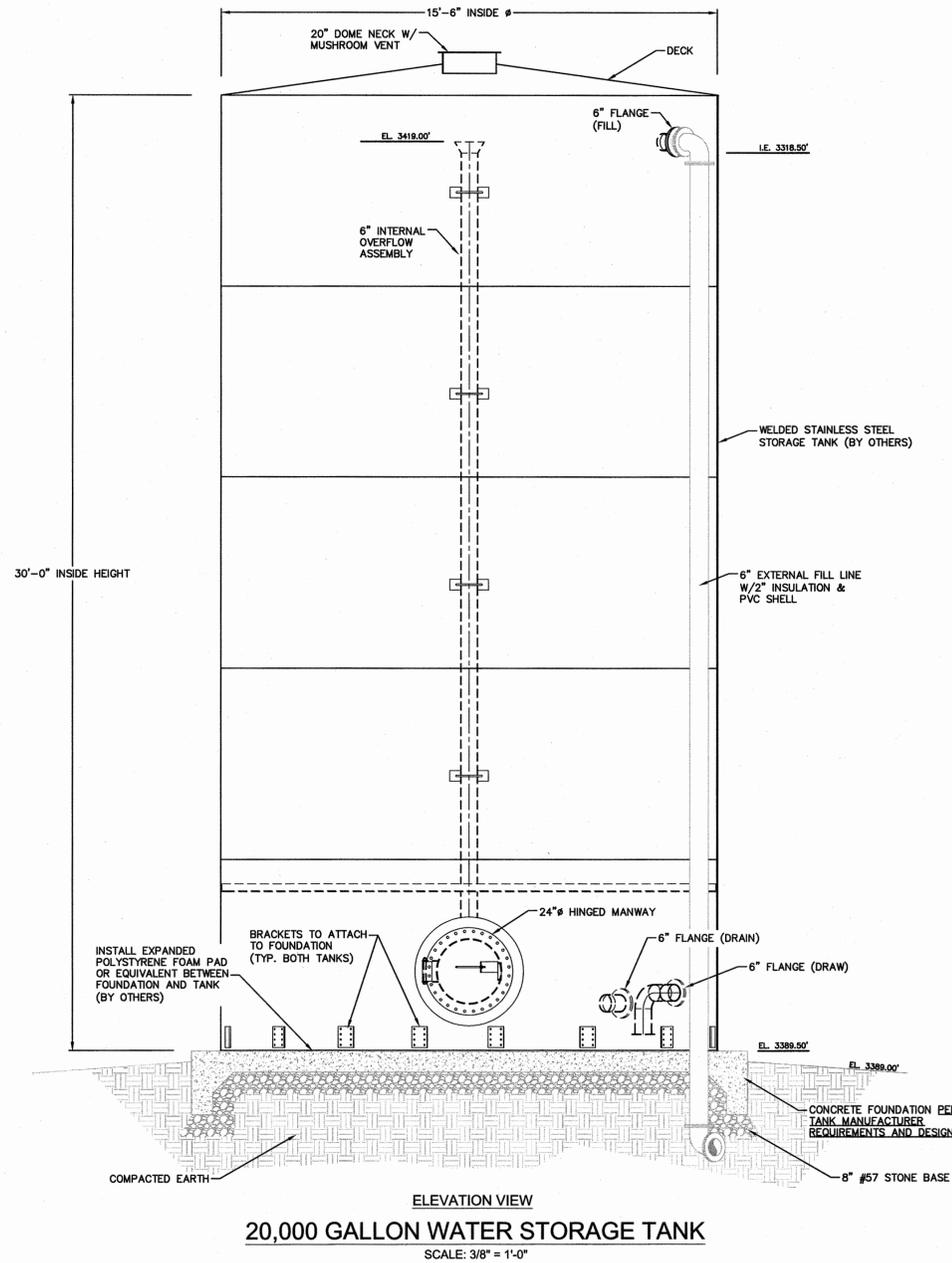
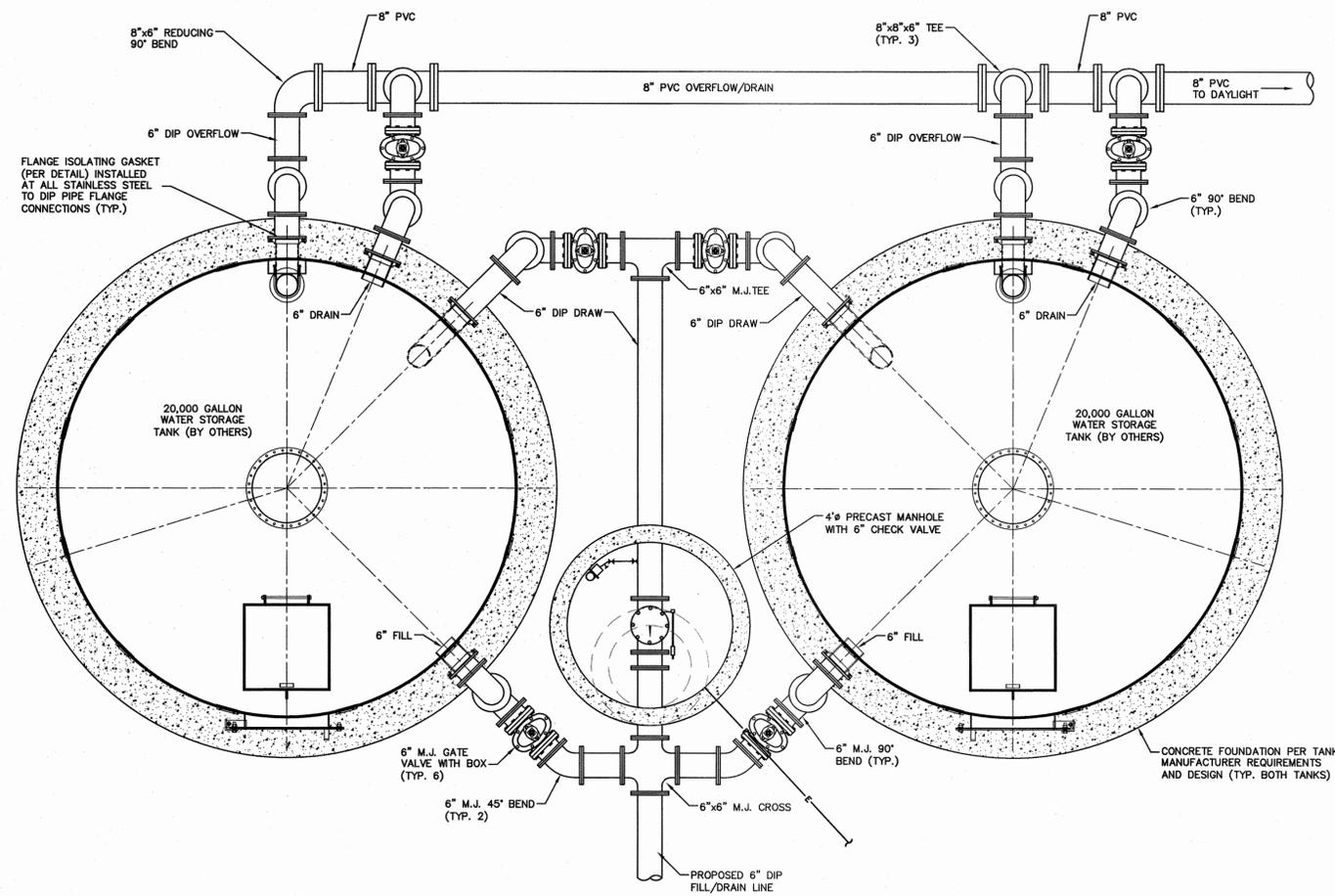
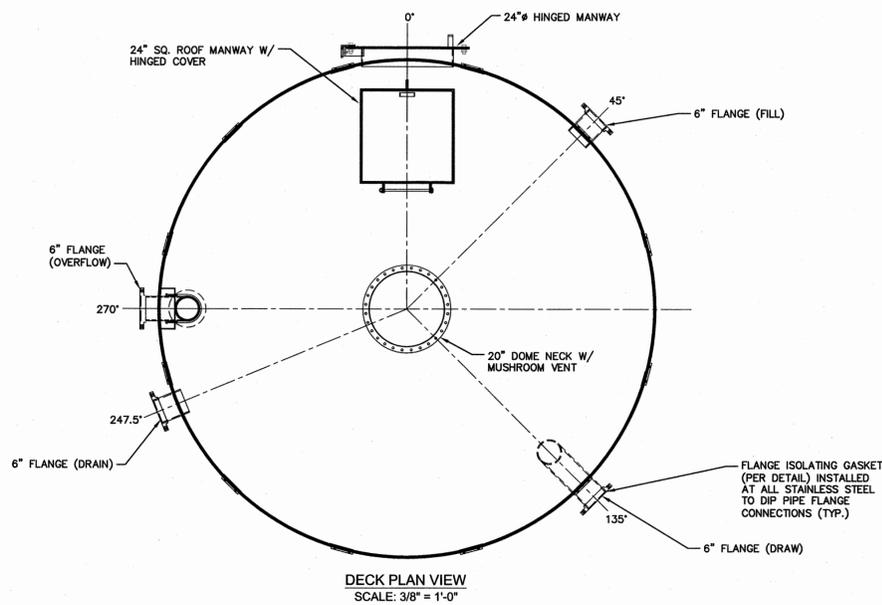


- NOTES:
1. LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE ONLY. EXACT LOCATIONS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
 2. CONTRACTOR SHALL COORDINATE WORK IN THE PROXIMITY OF UTILITY POLES WITH APPROPRIATE UTILITY COMPANIES.
 3. CONTRACTOR SHALL CONTACT ALL UTILITY PROVIDERS CONCERNING EXACT LOCATION OF EXISTING LINES PRIOR TO CONSTRUCTION. IF EXISTING UTILITY CABLES ARE ENCOUNTERED IN CONFLICT WITH PROPOSED UTILITY LINE, CONTRACTOR SHALL STRIP OUT EXISTING CABLES, INSTALL PROPOSED UTILITY LINE, & RE-INSTALL EXISTING UTILITY CABLES.

NO.	DATE	BY	REVISION DESCRIPTION



JOB NO.: 17.00376
 DATE: OCT. 2019
 DESIGNED BY: MTD
 CADD BY: MM
 DESIGN REVIEW: —
 CONST. REVIEW: —
 FILE NAME: 17.00376 Design Dual Tank-22620.dwg



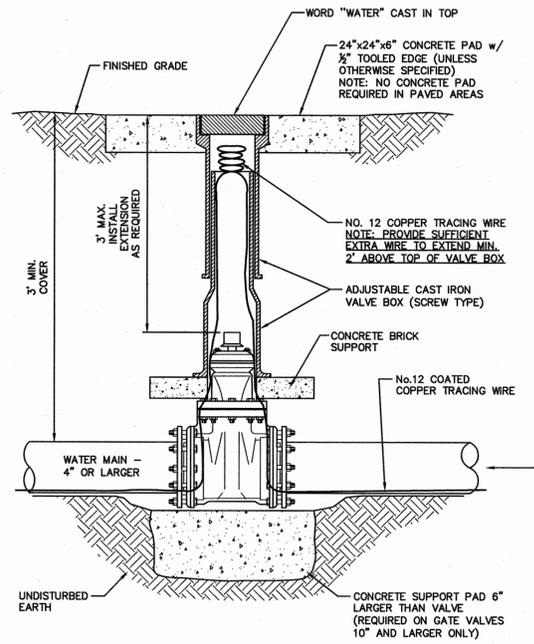
- PRECAST MANHOLE NOTES:**
1. ALL PRECAST MANHOLE COMPONENTS SHALL MEET REQUIREMENTS OF ASTM C-478, LATEST REVISION AND ASTM C-890.
 2. ALL MANHOLES SHALL BE CONSTRUCTED PLUMB.
 3. THE PRECAST SUPPLIER SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE STRUCTURE AND, WHEN REQUESTED BY THE ENGINEER, SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED STRUCTURAL ENGINEER.
 4. ALL MANHOLE GRADINGS SHOWN ON THE PLANS ARE FOR THE INVERT OF THE MANHOLE CENTER.
 5. IF MANHOLE IS SET IN LOCATION OF HIGH WATER TABLE OR UNDERGROUND WATER IS ENCOUNTERED, THE CONTRACTOR SHALL INSTALL UNDERDRAINS AND STONE AS DIRECTED IN THE FIELD BY THE ENGINEER.
 6. STEPS SHALL BE INSTALLED ON STRAIGHT SIDE OF MANHOLE.

4"Ø PRECAST MANHOLE WITH 6" CHECK VALVE

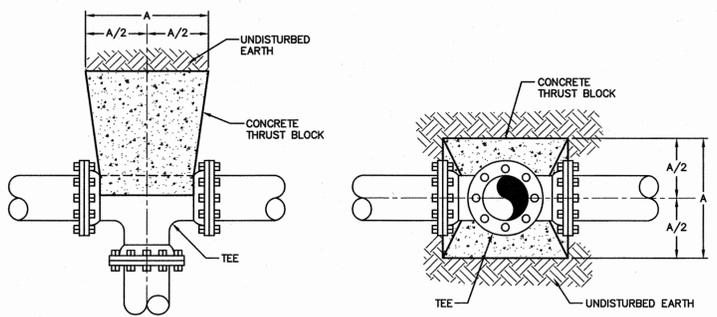
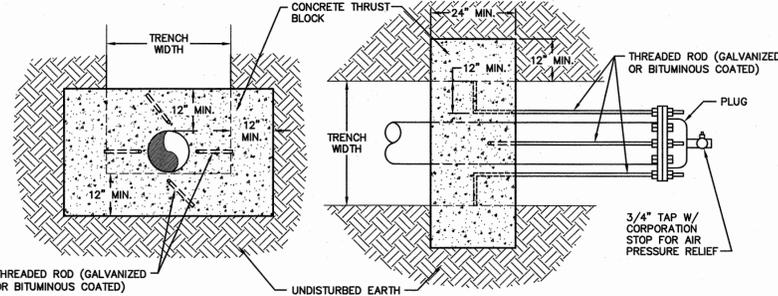
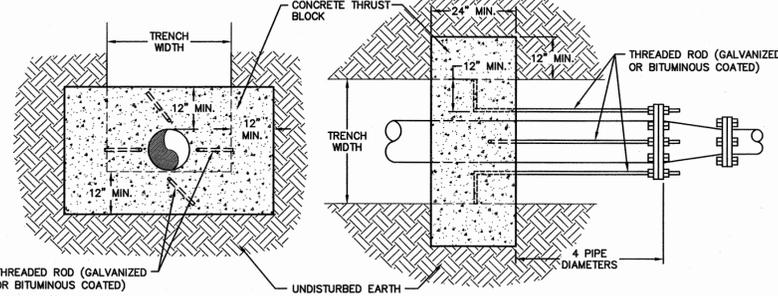
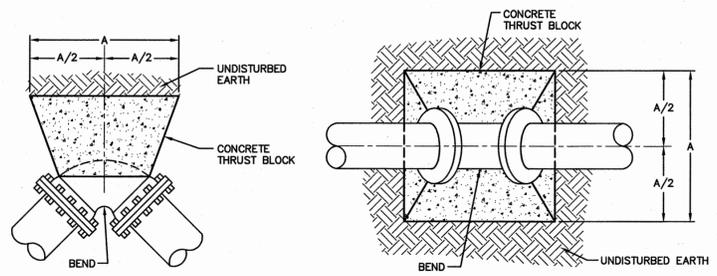
NO.	DATE	BY	REVISION DESCRIPTION



L:\Roadwork\Drawings\001717_00376\Design\Water\Drawings\17-00376 Design Dual Tank-022620.dwg 2/27/2020 10:54 AM BRIAN WHITMAN



W 12 GATE VALVE - LARGE
UPDATED FEBRUARY, 2018
NOT TO SCALE

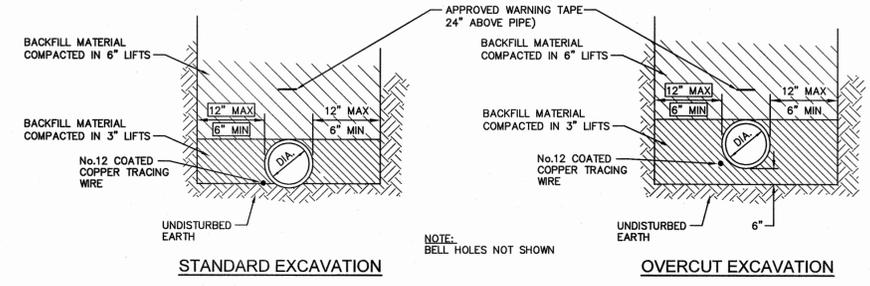


- NOTES:
- FITTING JOINTS SHALL NOT BE POURED IN CONCRETE OR HAVE CONCRETE SPILLED ON THE BOLTS OR NUTS. THE FITTING SHALL BE WRAPPED IN A LAYER OF POLYETHYLENE PLASTIC PRIOR TO POURING THE THRUST BLOCK.
 - ROD AND EYE BOLT DIAMETER SHALL BE A MINIMUM OF 3/4" AND SHALL MATCH THE SIZE OF THE BOLT PROVIDED WITH THE FITTING.
 - CONTRACTOR SHALL REPLACE FITTING BOLTS WITH THREADED ROD FOR 1/2 OF THE BOLTS SUPPLIED WITH EACH FITTING. RODS SHALL BE EQUALLY SPACED.
 - ALL DIMENSIONS SHOWN ARE IN INCHES.

SIZE	TYPE				
	11-1/4" BEND	22-1/2" BEND	45" BEND	90" BEND	TEE
2-6	12	12	12	16	14
8	12	12	16	22	18
10	12	14	20	28	22
12	12	18	24	32	28
14	14	20	28	38	32
16	16	22	32	42	36
18	18	26	36	48	40
20	20	28	40	52	44
24	24	34	46	64	54
30	30	42	58	78	66
36	36	50	70	94	80
42	40	58	80	108	92
48	46	66	90	124	104

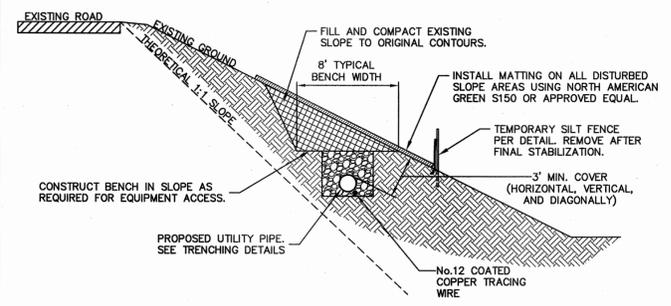
THRUST BLOCK DIMENSION "A"

W 6 THRUST BLOCKING - ALL
UPDATED MARCH, 2017
NOT TO SCALE



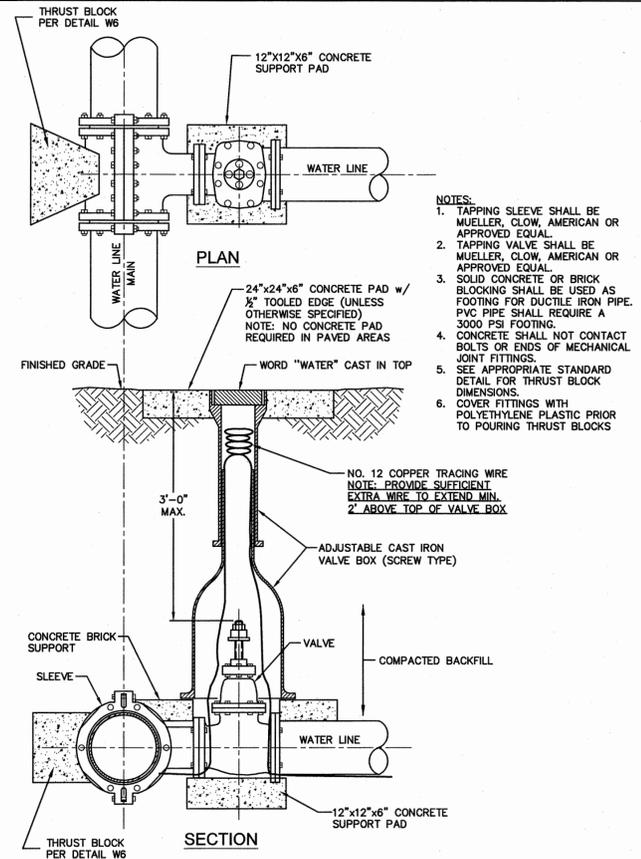
- NOTE:
- CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.
 - PAYMENT FOR ROCK EXCAVATION AND SELECT BACKFILL IN TRENCH SHALL BE FOR ACTUAL QUANTITIES AND SHALL NOT EXCEED THE WIDTH OF TRENCH SHOWN ON THIS DETAIL.

W 1 WATER LINE TRENCHING
UPDATED FEBRUARY, 2018
NOT TO SCALE



- NOTE:
- SILT FENCE SHALL BE INSTALLED PRIOR TO BEGINNING BENCH CONSTRUCTION.
 - CONTRACTOR SHALL MINIMIZE BENCH WIDTH AND DEPTH TO MAXIMUM EXTENT PRACTICAL.
 - NO EXCAVATION SHALL BE ALLOWED BELOW THE THEORETICAL 1:1 SLOPE.
 - UTILITY PIPE SHALL BE INSTALLED IN TRENCH WITH TOP OF PIPE LOCATED 1'-0" MINIMUM BELOW CONSTRUCTED BENCH.
 - 3'-6" MINIMUM PIPE COVER REQUIRED FOR 2:1 FINISHED SLOPES. SEE PLANS FOR REQUIRED PIPE ELEVATION.
 - EXCAVATED MATERIAL SHALL BE STOCKPILED UP-SLOPE OF TEMPORARY SILT FENCE OR TEMPORARILY REMOVED FROM WORK AREA.
 - BACKFILL AND STABILIZATION REQUIRED WITHIN 5 WORKING DAYS AFTER SEWER PIPE TESTING AND ACCEPTANCE BY OWNER.
 - BACKFILL SHALL BE FREE OF DEBRIS AND ORGANIC MATERIALS. SEE SPECIFICATIONS FOR ADDITIONAL BACKFILL AND COMPACTION REQUIREMENTS.
 - SEE PLANS AND SPECIFICATIONS FOR RE-VEGETATION OF DISTURBED AREA REQUIREMENTS.
 - EROSION CONTROL MATTING SHALL BE DEGRADABLE AND RATED FOR 2:1 SLOPE MINIMUM.

W 4 TRENCH ON BENCHED SLOPE
UPDATED FEBRUARY, 2018
NOT TO SCALE

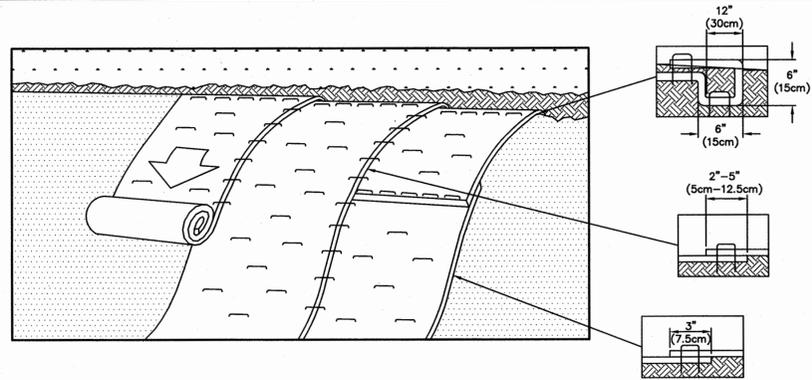


W 8 TAPPING SLEEVE AND VALVE WITH BOX
UPDATED FOR THIS PROJECT
NOT TO SCALE



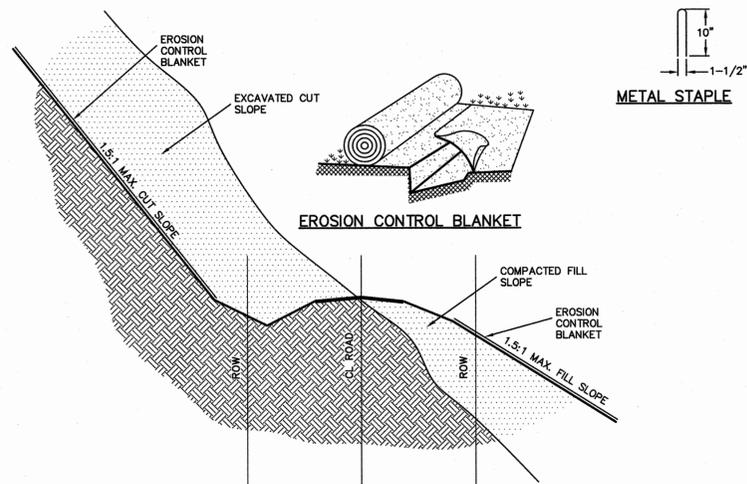
JOB NO.: 17-00376
DATE: OCT. 2019
DESIGNED BY: MTD
CADD BY: MM
DESIGN REVIEW: MM
CONST. REVIEW: MM
FILE NAME: 17-00376 Design-Dual
Tank-22-2620.dwg

NO.	DATE	BY	REVISION DESCRIPTION

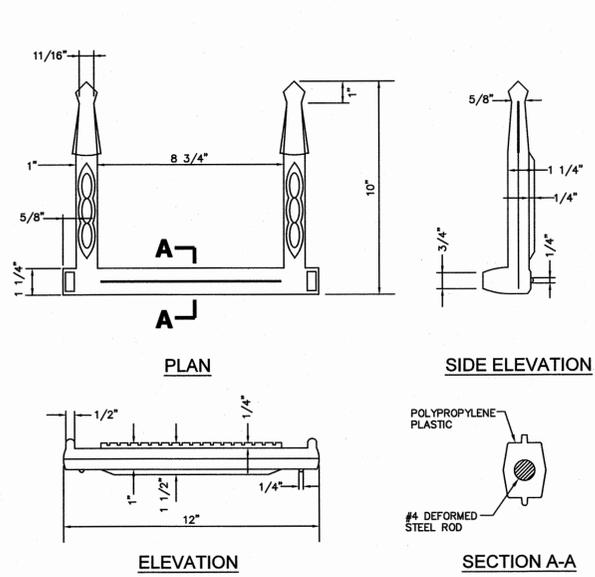


NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S DOWN OR HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING AND SPACING STAPLES/STAKES IN APPROPRIATE LOCATIONS PER MANUFACTURER RECOMMENDATIONS.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPliced DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.
6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
7. INSTALLATION OF MATTING SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS.
8. SEE GRADING PLAN FOR LOCATIONS O CUT AND FILL SLOPES.
9. MATTING SHALL BE : NORTH AMERICAN GREEN SC250, AMERICAN EXCELSIOR EROSION CONTROL BLANKET, OR EQUAL. INSTALL ON ALL DISTURBED SLOPES (CHOSEN PRODUCT MUST BE RATED FOR SLOPES OF 1:1). SEE PLAN FOR PRODUCT TYPE THAT MAY BE SPECIFIED
10. ALLOW 3" MIN. OVERLAP BETWEEN PARALLEL STRIPS.
11. BURY THE TOP OF THE MAT IN A TRENCH 4" OR MORE IN DEPTH. TAMP THE TRENCH FULL SOIL. SECURE WITH ROW OF STAPLES, 10" SPACING, 4" DOWN FROM THE TRENCH. OVERLAP END OF TOP STRIP 4" AND STAPLE.

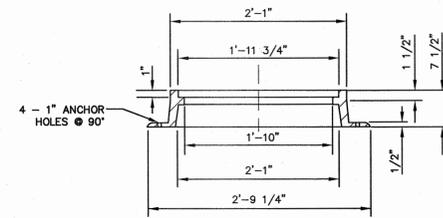
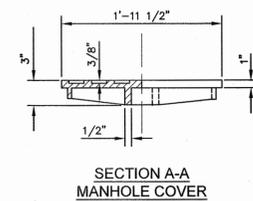
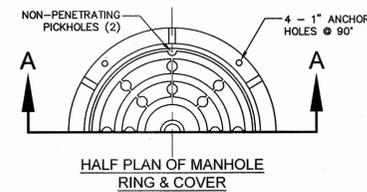


EC 11 SLOPE MATTING INSTALLATION
UPDATED FOR THIS PROJECT
NOT TO SCALE



CONSTRUCTION NOTES 1. ALL STEPS SHALL PROTRUDE A MINIMUM OF 5" AND A MAXIMUM OF 7" FROM INSIDE FACE OF STRUCTURE WALL. 2. STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS OF THE PROPOSED STEPS AND HAS RECEIVED PRIOR WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SAID STEPS.

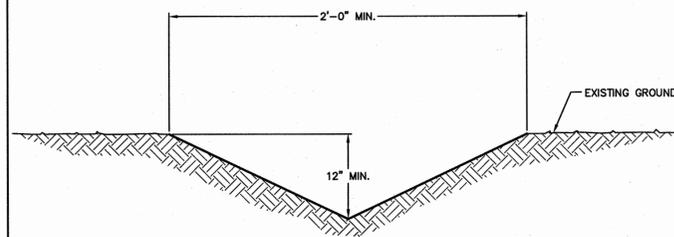
MANHOLE STEPS



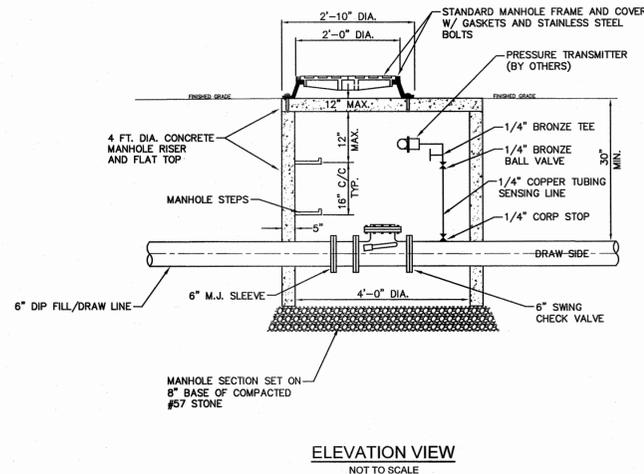
NOTE: TRAFFIC BEARING RING AND COVER. MINIMUM WEIGHT 315 POUNDS

MANHOLE RING AND COVER

S 1 PRECAST CONCRETE MANHOLE DETAILS
UPDATED FOR THIS PROJECT
NOT TO SCALE



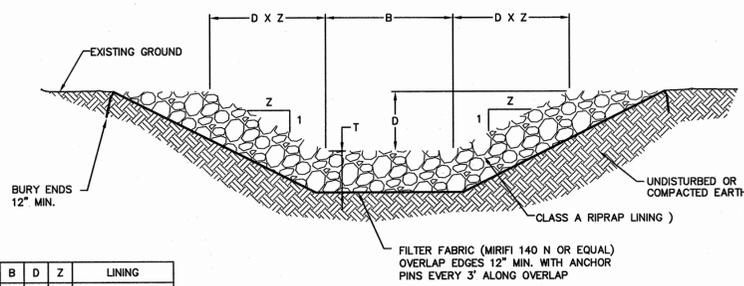
EC 7 PERMANENT DRAINAGE SWALE
UPDATED FOR THIS PROJECT
NOT TO SCALE



PRECAST MANHOLE NOTES:

1. ALL PRECAST MANHOLE COMPONENTS SHALL MEET REQUIREMENTS OF ASTM C-478, LATEST REVISION AND ASTM C-890.
2. ALL MANHOLES SHALL BE CONSTRUCTED PLUMB
3. THE PRECAST SUPPLIER SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE STRUCTURE AND, WHEN REQUESTED BY THE ENGINEER, SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED STRUCTURAL ENGINEER.
4. ALL MANHOLE GRADES SHOWN ON THE PLANS ARE FOR THE INVERT OF THE MANHOLE CENTER.
5. IF MANHOLE IS SET IN LOCATION OF HIGH WATER TABLE OR UNDERGROUND WATER IS ENCOUNTERED, THE CONTRACTOR SHALL INSTALL UNDERDRAINS AND STONE AS DIRECTED IN THE FIELD BY THE ENGINEER.
6. STEPS SHALL BE INSTALLED ON STRAIGHT SIDE OF MANHOLE.

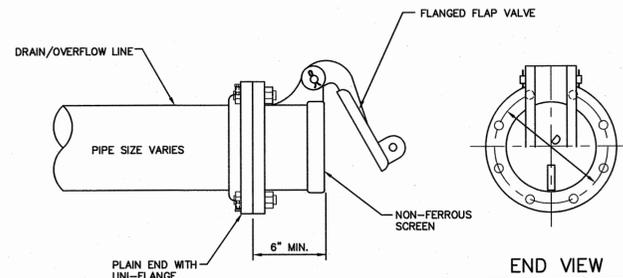
4Ø PRECAST MANHOLE WITH 6" CHECK VALVE



NO.	T	B	D	Z	LINING
D1	8"	1'	1'	1'	CLASS A RIPRAP
D2	8"	3'	1'	1'	CLASS A RIPRAP

EC 9 PERMANENT SWALE w/ RIP RAP STABILIZATION
UPDATED FOR THIS PROJECT
NOT TO SCALE

NOTE:
1. REFERENCE NCEQ LAND QUALITY SECTION DESIGN MANUAL: 6.31



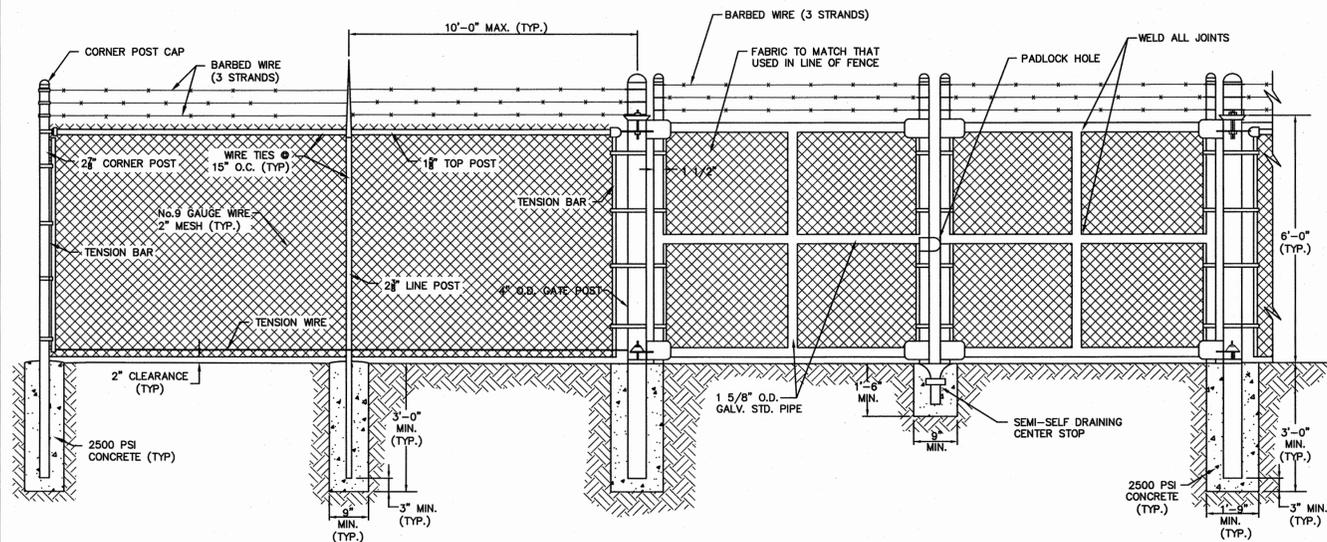
M 23 FLAP VALVE DETAIL
UPDATED MARCH, 2017
NOT TO SCALE

NO.	DATE	BY	REVISION DESCRIPTION

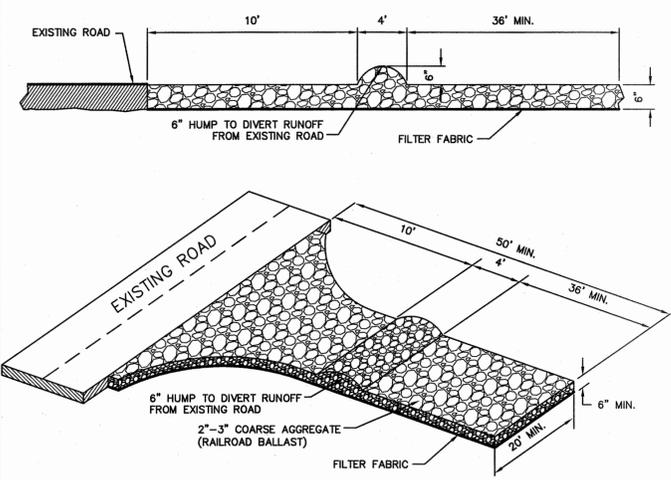


JOB NO.: 17-00376
DATE: OCT. 2019
DESIGNED BY: MTD
CADD BY: IMM
DESIGN REVIEW: ---
CONST. REVIEW: ---
FILE NAME: 17-00376 Design Dual
Tank-c226260.dwg

L:\BroadstreetDrawings\2017\17-00376\Design\Water\Drawings\17-00376 Design Dual Tank-c226260.dwg 2/27/2020 10:34 AM BRIAN WRIGHTMAN

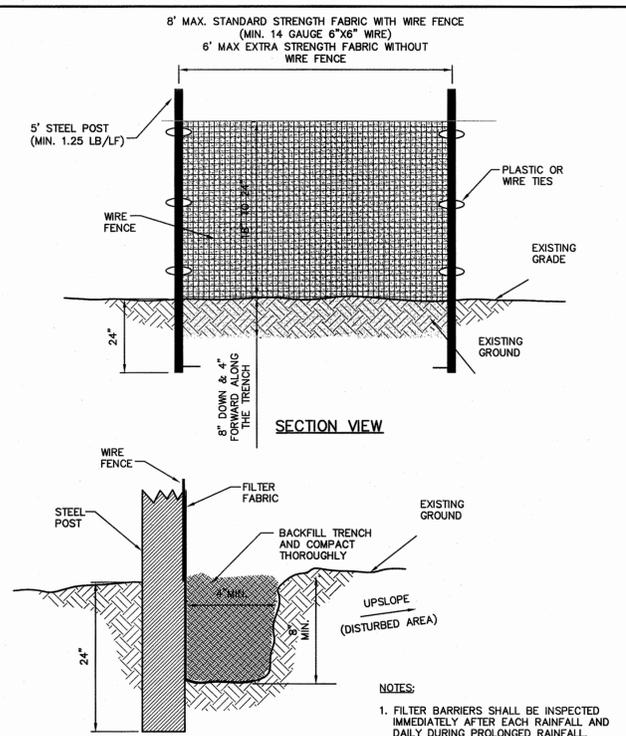


M 29 CHAIN LINK FENCE and DOUBLE GATE
 UPDATED MARCH, 2017
 NOT TO SCALE



- NOTES:**
1. A STABILIZED PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM AN EXISTING ROAD.
 2. STONE TO BE 2 - 3 INCH WASHED STONE RAILROAD BALLAST.
 3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 4. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
 5. WHEN NECESSARY WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.
 6. REFERENCE NCDQ LAND QUALITY SECTION DESIGN MANUAL: 6.06.

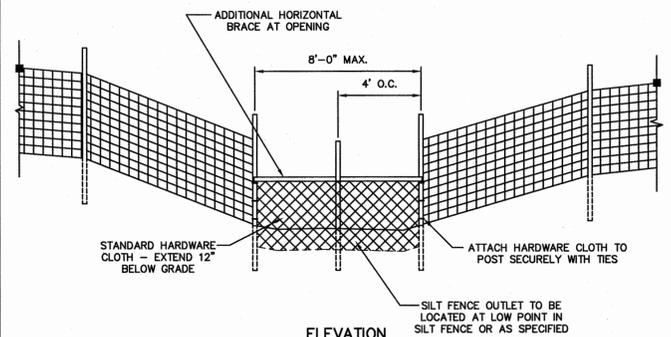
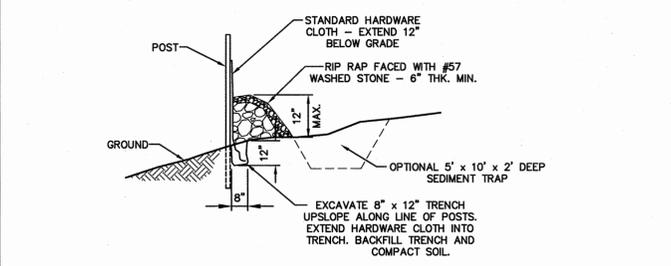
EC 24 TEMPORARY CONSTRUCTION ENTRANCE
 UPDATED MARCH, 2017
 NOT TO SCALE



SLOPE	SLOPE LENGTH(FT)	MAXIMUM AREA(SQFT)
<2%	100	10,000
2 TO 5%	75	7,500
5 TO 10%	50	5,000
10 TO 20%	25	2,500
>20%	15	1,500

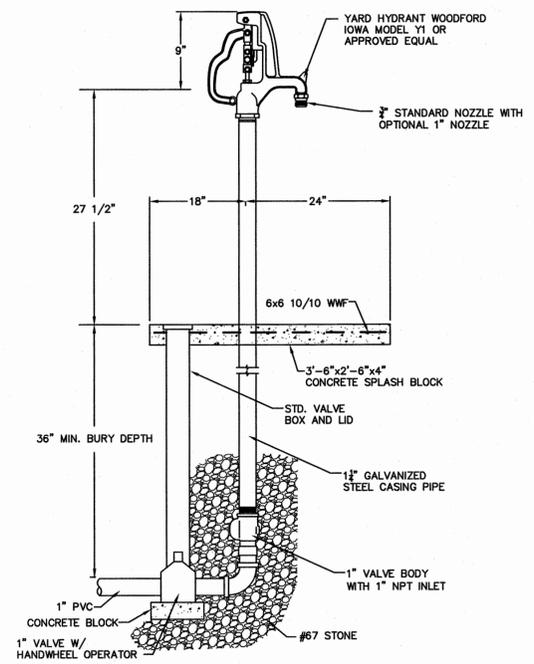
- NOTES:**
1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. REPAIR SHALL BE MADE AS NECESSARY.
 2. FABRIC SHALL BE REPLACED PROMPTLY IF FOUND TO BE IN DISREPAIR.
 3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.
 4. REFERENCE NCDQ LAND QUALITY SECTION DESIGN MANUAL: 6.62.

EC 1 SILT FENCE
 UPDATED MARCH, 2017
 NOT TO SCALE

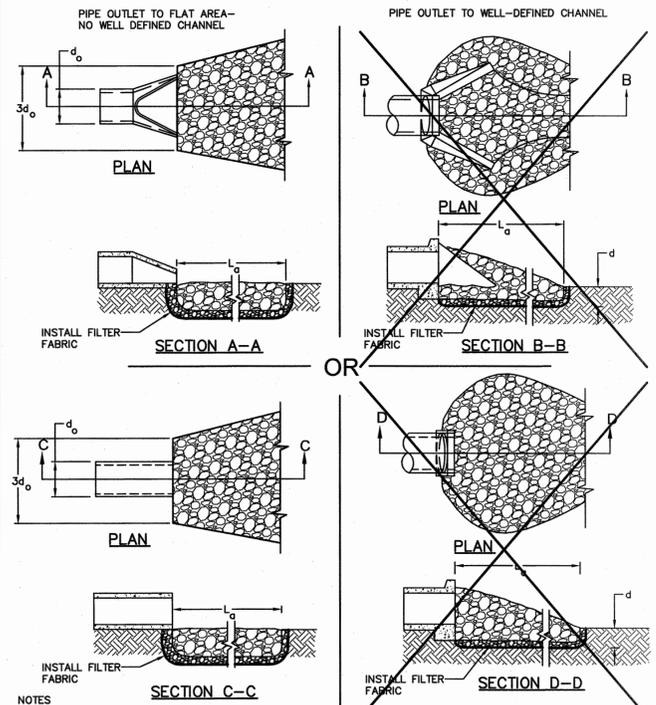


- NOTES:**
1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. REPAIR SHALL BE MADE AS NECESSARY.
 2. FABRIC SHALL BE REPLACED PROMPTLY IF FOUND TO BE IN DISREPAIR.
 3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.
 4. SILT FENCE OUTLETS SHALL BE LOCATED AT LOW POINTS IN CONTINUOUS RUNS OF SILT FENCE.

EC 2 SILT FENCE - OUTLET
 UPDATED MARCH, 2017
 NOT TO SCALE



W 44 YARD HYDRANT
 UPDATED MARCH, 2017
 NOT TO SCALE

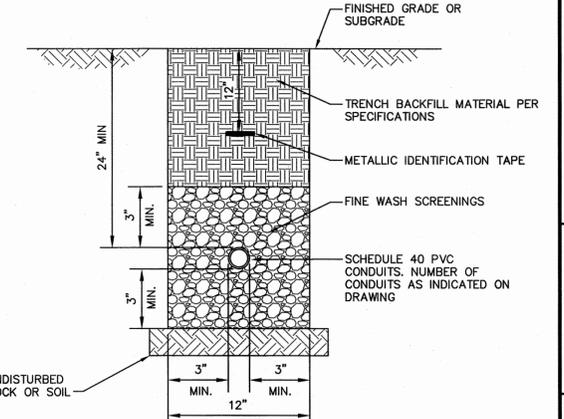


- NOTES:**
1. L_a IS THE LENGTH OF THE RIPRAP APRON
 2. d_o = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6"
 3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
 4. FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
 5. REFERENCE NCDQ LAND QUALITY SECTION DESIGN MANUAL: 6.41.

RIPRAP APRON SIZING

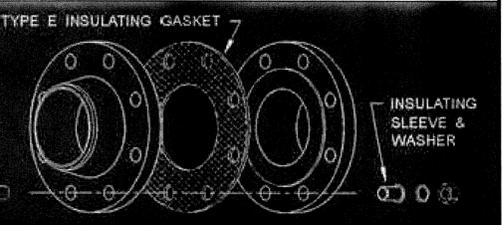
OUTLET No.	PIPE DIAMETER (D _o)	3 x D _o	APRON LENGTH (L _a)	APRON WIDTH (W=D _o +L _a)	RIPRAP SIZE (d ₅₀ THICKNESS)
ALL PIPES	8"	2'	15'	15.7'	12" (CLASS B)

EC 17 PIPE OUTLET PROTECTION
 UPDATED MARCH, 2017
 NOT TO SCALE



- NOTES:**
1. ALL TRENCHING, BEDDING, AND BACKFILLING BY THE SITE CONTRACTOR.
 2. ELECTRICAL CONDUIT AND CONDUCTORS SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
 3. CONTRACTOR TO RESTORE SITE TO EXISTING CONDITION.

E 1 TYPICAL SITE ELECTRICAL TRENCH DETAIL
 NOT TO SCALE



FLANGE ISOLATING GASKET DETAIL
 NOT TO SCALE

NO.	DATE	BY	REVISION DESCRIPTION



L:\Broadmead\Drawings\2017\17.00376\Design\Water\Drawings\17.00376 Design Dual Tank-c22620.dwg 2/27/2020 10:34 AM BRIAN WHITMAN



A.C.M.I

**353 Paradise Mtn. Rd.
Canton NC, 28716
(828) 400- 5424**

PROPOSAL

March 12, 2020

Attention:

**Preston Gregg, PE
Town of Waynesville
Waynesville, NC**

Re: Site work for the Chestnut Walk Water Tank

Mr. Gregg,

ACMI, Inc. appreciates and thanks you for the opportunity to submit this Firm Proposal to for the site work on the Chestnut Walk Water Tank project. This proposal and the prices contained herein are based on the contract approval. The quote includes all necessary labor, supervision, tools, and expendables per the Summary of Work. This proposal is valid for a period of thirty (30) days from the date of this letter.

The quote contains the following:

1. Cover Letter
2. Proposal Scope and Quoted Cost
3. Attachment A- Proposal Bases and Clarifications

Thank you once again for the opportunity to submit this quotation. If you have any questions or work scope clarifications please don't hesitate to call us.

Nathan Ashe

Nathan Ashe

** This document contains confidential and proprietary information. Its contents shall not be copied or distributed to third parties without the express written permission of ACMI*

PROPOSAL SCOPE AND PRICING

PROPOSAL SCOPE

SCOPE

- Install a 30'x18'x24" foundation with 3 mats of #6 rebar
- Install the 8" PVC drain from the overflow and tank drain
- Install the 6" fill/drain piping with the valves, check valves, valve boxes, and yard hydrant per drawing #C-101 & C-102
- Install a 1" PVC Conduit for the electrical & Scada system
- Remove all the necessary trees/debris from the site
- Grading, sloping, erosion control matting, seeding, filter fabric fencing
- Install 15" Culvert at entrance
- Install Chain Link fence with a double door gate
- Gravel entrance drive and inside the fenced in area

PRICE COST INCLUDING SUPERVISION, DIRECT LABOR, SUPPORT LABOR, IDENTIFIED MATERIAL, AND RENTAL EQUIPMENT:

CHESTNUT WALK SITE PROPOSAL FOR ONE TANK

One Hundred Fifty-Four Thousand Five Hundred & Forty U.S. DOLLARS

(\$187,540.00)

Attachment A

ACMI **BUDGET PROPOSAL BASES AND CLARIFICATIONS**

Should conditions arise delaying this project that are not in the direct control of ACMI, then an adjustment in price will be submitted to the customer for approval which will reflect the delay(s).

Quoted scope of work is based on The Town of Waynesville providing the following:

- Access to the construction site and parking area
- Unobstructed access to the work site
- Site safety orientation material
- Site representative to coordinate work and final review of drawings and job specification
- Testing, abatement, and removal of any contaminated or hazardous materials discovered in the process of work
- Furnish electrical power of needed equipment.
- Lockout of system, including disassemble and assemble of required system tie-ins
- Site testing and permits to perform scope of work
- Initial cleaning of the area, to access work area
- All data material, MTR's and engineered designed calculation
- Written authorization for any additional work that will require an approved Price Adjustment

ACMI to provide to following:

- Indirect Labor: Superintendent
- Direct Labor and Support Labor: Craft Foreman, Fire Watch
- Tools, safety equipment, and consumables for craft labor
- All equipment needed
- All materials for the project

Mr. Gregg, Thank you once again for the opportunity to submit this proposal. ACMI looks forward to working with you.

Sign and Date

Ashe Construction & Maintenance: *Nathan L Ashe* .

Town of Waynesville: _____.

Ordinance No. O-06-20

Amendment No. 11 to the 2019-2020 Budget Ordinance

WHEREAS, the Board of Aldermen of the Town of Waynesville, wishes to amend the 2019-2020 Budget Ordinance.

NOW, THEREFORE, BE IT ORDAINED by the Board of Aldermen of the Town of Waynesville that the 2019-2020 Budget Ordinance be amended as follows:

Water Fund:

Increase the following revenues:

613900-493992	Fund Balance Appropriated	\$17,000.00
---------------	---------------------------	-------------

	Total Water Fund revenue increase	\$17,000.00
--	-----------------------------------	-------------

Increase the following appropriations:

617121-545900	Capital Improvements	\$17,000.00
---------------	----------------------	-------------

	Total Water Fund appropriation increase	\$17,000.00
--	---	-------------

Adopted this 14th day of April 2020.

Town of Waynesville

Gary Caldwell
Mayor

Attest:

Eddie Ward
Town Clerk

Approved As To Form:

Bill Cannon
Town Attorney