City of Washington
NORTH CAROLINA

Council Agenda
October 12, 2020 ~ 5:30pm

Due to COVID-19 precautionary measures, the Washington City Council meeting will be held as a virtual meeting.* ***All members of Council and staff will participate electronically.* ** The meeting will stream on our Vimeo channel https://vimeo.com/washingtonnc as well as Facebook https://www.facebook.com/CityOfWashingtonNC/ * Public Comment Period – Comments can be emailed to the City Clerk at cbennett@washingtonnc.gov by* ***Monday, October 12, 2020 ~ 1:00 p.m.***

Opening of Meeting

Pledge of Allegiance

Invocation

Roll Call

Approval of minutes from September 14 & 17, 2020 **(page 3)**

Approval/Amendments to Agenda

I. Consent Agenda:
   - A. Adopt – Hurricane Isiasis Budget Ordinance Amendment **(page 27)**
   - B. Adopt – Merchant Fees Budget Ordinance Amendment **(page 29)**
   - C. Adopt – Storm Water Fees Budget Ordinance Amendment **(page 32)**

II. Comments from the Public:

III. Public Hearing 6:00pm - Zoning: None

IV. Public Hearing 6:00pm- Other: None

V. Scheduled Public Appearances:
   - A. Discussion – NAACP ~ Alpha Life Enrichment Center

VI. Correspondence and Special Reports:
   - A. Memo – Accounts Receivable Write-off Policy **(page 34)**
   - B. Memo – PO's > $50,000 **(page 37)**
   - C. Memo – Electric Department Long Range Plan **(page 38)**

City of Washington
NORTH CAROLINA
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VII. Reports from Boards, Commissions and Committees: None

VIII. Appointments:
A. Appointment – Historic Preservation Commission **(page 122)**

IX. Old Business:
A. Adopt – Budget Ordinance Amendment and Capital Project Ordinance Amendment for approved Service Expansion Budget **(page 126)**

B. Adopt – Ordinance to Amend Chapter 31, Stormwater Utility **(page 135)**

C. Authorize – City Manager to Execute Engineering Agreement with Rivers and Associates for Medical District Drainage Improvements and Approve Corresponding Purchase Order **(page 143)**

X. New Business:
A. Approve – Addition of Full-time Public Works Assistant Director and Adopt Budget Ordinance Amendment **(page 144)**

B. Approve – Partnership with ElectriCities and Retail Strategies, LLC **(page 147)**

XI. Any other items from City Manager:
A. Discussion – Tree Trimming Contract
B. Discussion – License Plate Agency
C. Discussion – Halloween Protocol
D. Discussion – Electric Vehicle Charging Station Grant Opportunities

XII. Any other business from the Mayor or other Members of Council:
A. Discussion – Market Street (Councilmember Kane)

XIII. Closed Session: Under NCGS 143-318.11 (A)(3) Attorney/Client Privilege

XIV. Adjourn: Until November 9, 2020 at 5:30pm

The Washington City Council met in a regular session on Monday, September 14, 2020 at 5:30pm as a virtual meeting. Present: Donald Sadler, Mayor; Richard Brooks, Mayor Pro tem; Virginia Finnerty, Councilmember; Betsy Kane, Councilmember; William Pitt, Councilmember and Mike Renn, Councilmember. Also present: Jonathan Russell, City Manager, Franz Holscher, City Attorney and Cynthia S. Bennett, City Clerk. **The meeting was held as a virtual meeting all Council members and staff accessed the meeting remotely.*

Mayor Sadler called the meeting to order. Mayor Pro tem Brooks led the Pledge of Allegiance and delivered the invocation.

Councilmember Renn offered comments regarding his newly appointed position on the Council.

APPROVAL OF MINUTES:

By motion of Councilmember Pitt, seconded by Councilmember Brooks, Council approved the minutes of August 10, 26 & 28, 2020 as presented.

VOTE: minutes	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

APPROVAL/AMENDMENTS TO AGENDA:

By motion of Councilmember Kane, seconded by Mayor Pro tem Brooks, Council approved the agenda as presented.

VOTE: approve/amend	YES	NO
Mayor Pro tem Brooks	X	
Councilmember Finnerty	X	
Councilmember Kane	X	
Councilmember Pitt	X	
Councilmember Renn	X	

CONSENT AGENDA: NONE

COMMENTS FROM THE PUBLIC:

(comments were emailed to the City Clerk and entered into record)

I recommend to and urge the City Council to approve and appoint Dr. John Carbone to the Historic Preservation Commission at its next scheduled meeting on September 14, 2020.
Scott Campbell
213 N. Market St., Washington, NC 27889
252.362.1569

(comments were emailed to the City Clerk and entered into record)

Dear Council Members and Mr. Mayor,

The Optimist Club of Washington is ready to host soccer. The kids in our community are ready to play soccer. We would appreciate your approval for us to start playing soccer games in the next few weeks. We are starting practices this week.

We have been working hard creating guidance for safety, modifying soccer rules and doing everything we can for our program to move safely forward this fall.

Normally we would have already been playing games at this time.

Optimist Club of Washington Soccer League would like to play this fall

- *We have over 340 players signed up*
- *Parents have signed the COVID & City required waiver with our on-line registration*
- *We are having smaller number of players on teams*
- *Games will be scheduled with more time in between games*
- *We will request distancing lines for parents/players be painted from the City at the fields before games start – TBD*
- *We are working on guidance for parents and players – which is in the review stage – to be distributed in the next day or two*
    - *Regarding distancing at the fields*
    - *Not coming on the fields before game/practice times*
    - *Leaving fields when practice and games are over*
    - *Do not come to practice/games if sick*
- *We have some new rules set up help with distancing players on the field*
    - *All kicks will be in-direct kicks (except for PK) which will eliminate the "Wall" shoulder to shoulder typical setup for direct kicks*
    - *All throw-ins for 4-5-6 year olds will be kicked in*
- *Coaches have met and have guidelines*
    - *For hand sanitizing before games / practices*
    - *Taking attendance for games / practices*
    - *Notification to Optimist if a player is sick*
- *We have spoken with the Health Department and we know their guidance and rules for our concession stand (gloves and masks required)*
- *We have looked at other area leagues and their recommendations as they move forward planning for soccer games.*
    - *Raleigh NCFC soccer league is starting games*
    - *Edenton is having their Fall Soccer league – with similar rule changes and guidance that we are enacting this year*

Our goal is to get the children out and moving around in a safe and fun environment.

We appreciate the City Councils vote to reduce the fees for the field rentals. This will help us a lot. Initially, with the uncertainty if we would be able to play, we did not charge the players to register. We will be collecting minimum registration fees when we know we can play games.

I will be available during your virtual meeting tonight if you have any questions, please call me or send me the link to the meeting and I will be glad to join in.

Again, we would love to be able to tell our children and parents that we will be playing soccer games soon.

The Optimist Club is "Friend of Youth".
Regards,
Patty Peebles
President, Optimist Club of Washington
optimistclub@rsnet.org
252-944-5154 – Soccer Phone Number

(comments were emailed to the City Clerk and entered into record)
To whom it may concern,
As a parent of a child that is working through the new environment with COVID....I firmly believe they should be playing sports.
It is an avenue for so many things:
Sportsmanship
Friendship
Determination
Passion
Respect

Our children NEED physical activity and interaction with other children. Not only can they learn a game they can learn life lessons along the way.

We have responsible parents and coaches that can follow rules and play the game.

The data doesn't lie; children are at the lowest risk. This is a sport they sign up for...if parents are not comfortable with the risks, they do NOT have to sign up.

Please take my feedback into consideration and allow us to have a soccer season WITH games this year.
Thank you,
Heather Roebuck

PUBLIC HEARING – ZONING: 6:00PM NONE

PUBLIC HEARING (OTHER): 6:00PM NONE

SCHEDULED PUBLIC APPEARANCES:
ROLAND WYMAN – AIRPORT STRATEGY TEAM UPDATE

Roland Wyman reviewed the following PowerPoint presentation with City Council.

flyKOCW.com
Washington-Warren Airport
WASHINGTON, NORTH CAROLINA

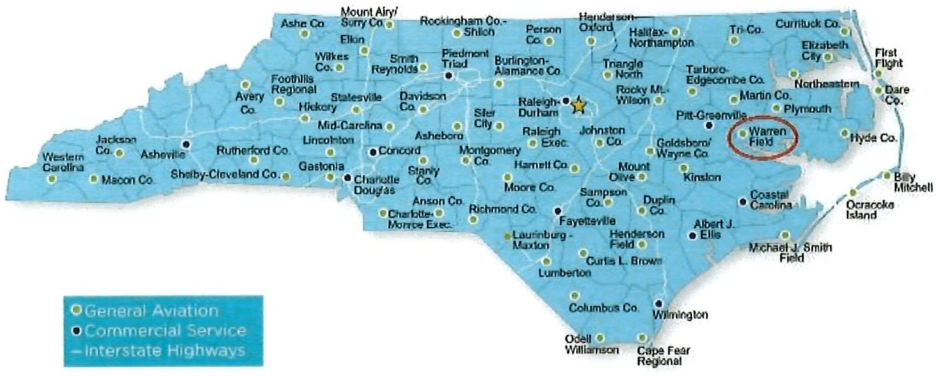
Washington-Warren Airport (OCW)
Interim Report

Airport Strategy Team
Recent Focus

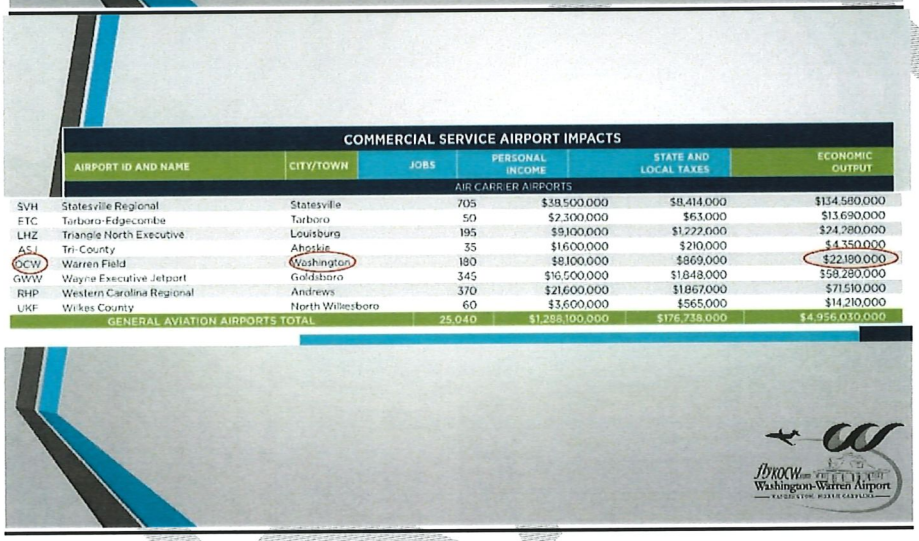
- Competitive Market Study
  - Research airports in our region to understand how we compare and where OCW fits in to the NC airport network
- Financial Analysis
  - Thoroughly understand OCW's revenue, operating costs, capital expenditures
- Review OCW's history
  - Gain a thorough understanding of the sequence of events that produced OCW *as it stands today*

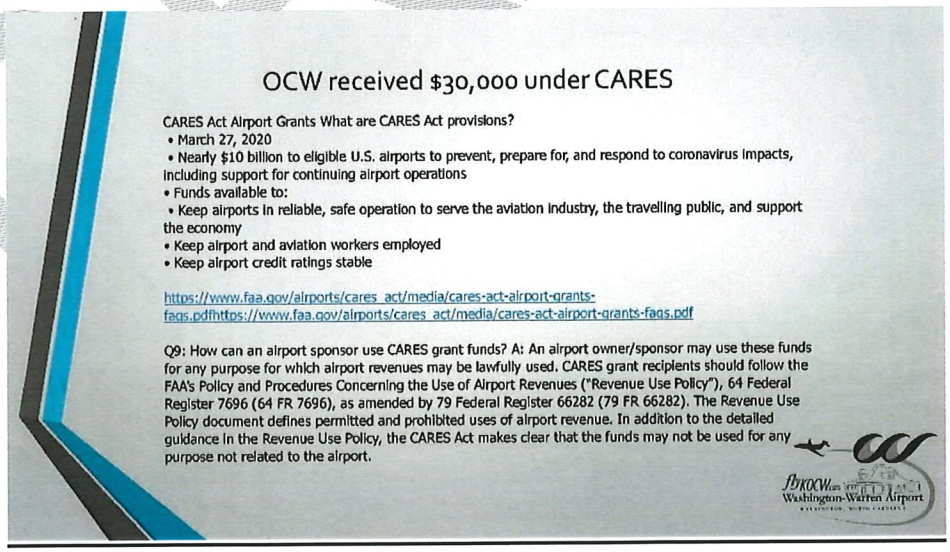
OCW is one of 72 public airports in North Carolina

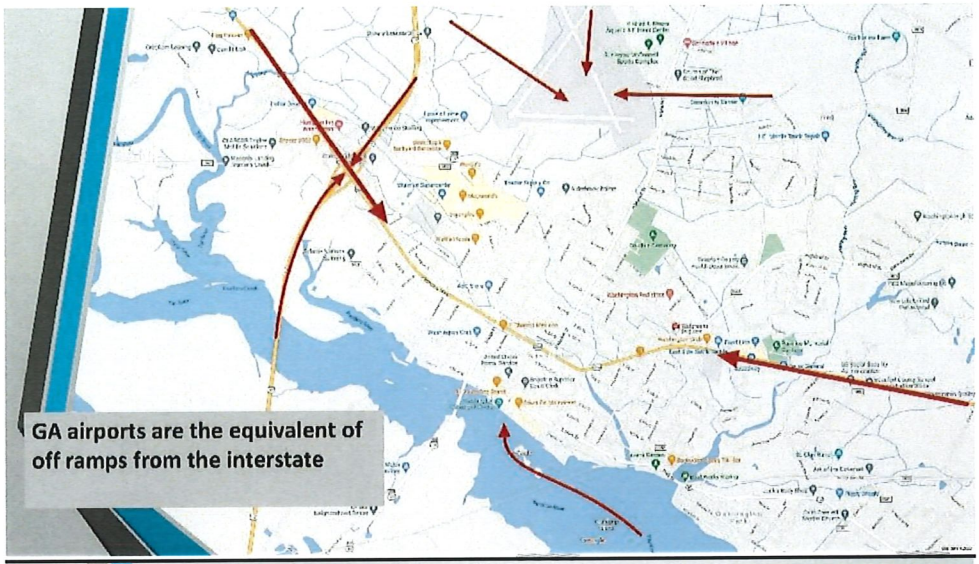
NORTH CAROLINA PUBLIC AIRPORTS




DIVISION OF AVIATION
NORTH CAROLINA
THE STATE OF AVIATION
WHAT AVIATION MEANS TO OUR ECONOMY
JANUARY 2019
"Our network of 72 publicly owned airports, and the aviation and aerospace assets that rely on them, help move our economy forward by creating jobs, supporting business growth and connecting people and companies to markets around the globe."
Bobby Walston, Director
flyKOCW.com
Washington-Warren Airport


COMMERCIAL SERVICE AIRPORT IMPACTS
AIRPORT ID AND NAME
CITY/TOWN
JOBS
PERSONAL INCOME
STATE AND LOCAL TAXES
ECONOMIC OUTPUT
AIR CARRIER AIRPORTS
SVH Statesville Regional Statesville 705 $38,500,000 $8,414,000 $134,580,000
ETC Tarboro-Edgecombe Tarboro 50 $2,300,000 $63,000 $13,690,000
LHZ Triangle North Executive Louisburg 195 $9,100,000 $1,222,000 $24,280,000
ASJ Tri-County Ahoskie 35 $1,600,000 $210,000 $4,350,000
OCW Warren Field Washington 180 $8,100,000 $869,000 $22,180,000
GWW Wayne Executive Jetport Goldsboro 345 $16,500,000 $1,848,000 $58,280,000
RHP Western Carolina Regional Andrews 370 $21,600,000 $1,867,000 $71,510,000
UKF Wilkes County North Wilkesboro 60 $3,600,000 $565,000 $14,210,000
GENERAL AVIATION AIRPORTS TOTAL 25,040 $1,288,100,000 $176,738,000 $4,956,030,000
flyKOCW.com
Washington-Warren Airport


OCW received $30,000 under CARES
CARES Act Airport Grants What are CARES Act provisions?
• March 27, 2020
• Nearly $10 billion to eligible U.S. airports to prevent, prepare for, and respond to coronavirus impacts, including support for continuing airport operations
• Funds available to:
• Keep airports in reliable, safe operation to serve the aviation industry, the travelling public, and support the economy
• Keep airport and aviation workers employed
• Keep airport credit ratings stable
https://www.faa.gov/airports/cares_act/media/cares-act-airport-grants-faqs.pdfhttps://www.faa.gov/airports/cares_act/media/cares-act-airport-grants-faqs.pdf
Q9: How can an airport sponsor use CARES grant funds? A: An airport owner/sponsor may use these funds for any purpose for which airport revenues may be lawfully used. CARES grant recipients should follow the FAA's Policy and Procedures Concerning the Use of Airport Revenues ("Revenue Use Policy"), 64 Federal Register 7696 (64 FR 7696), as amended by 79 Federal Register 66282 (79 FR 66282). The Revenue Use Policy document defines permitted and prohibited uses of airport revenue. In addition to the detailed guidance in the Revenue Use Policy, the CARES Act makes clear that the funds may not be used for any purpose not related to the airport.
flyKOCW.com
Washington-Warren Airport



North Carolina Airports
PROGRAM GUIDANCE HANDBOOK

DIVISION OF AVIATION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

APRIL 2016

The DoA has developed this guide to provide airport sponsors and other interested parties with an understanding of the DoA's programs, funding process, and requirements.

[1] An airport sponsor is a public agency such as a city or county or private owner such as an airport authority that controls a public-use airport.

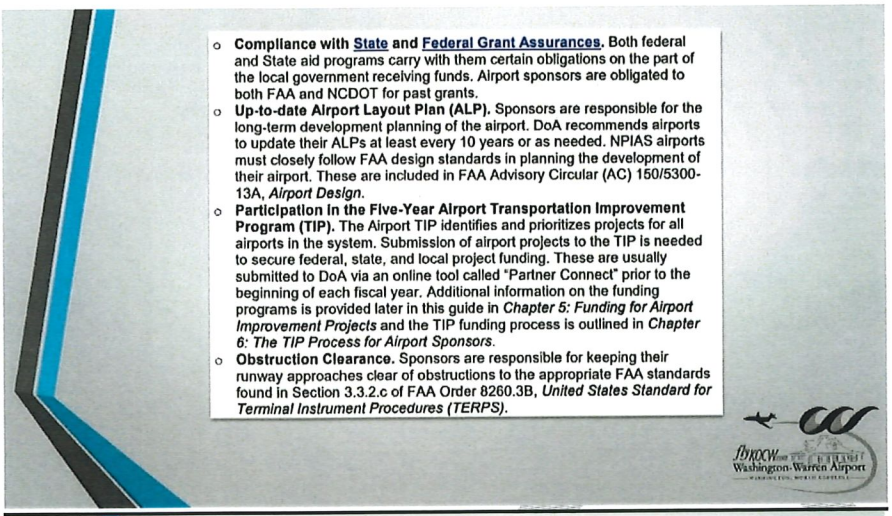
flyKOCW Washington-Warren Airport

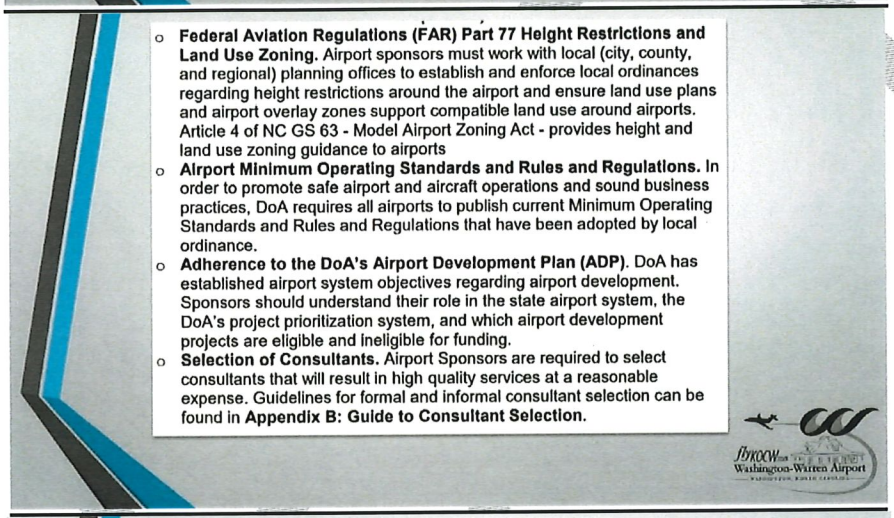
North Carolina Airports
PROGRAM GUIDANCE HANDBOOK

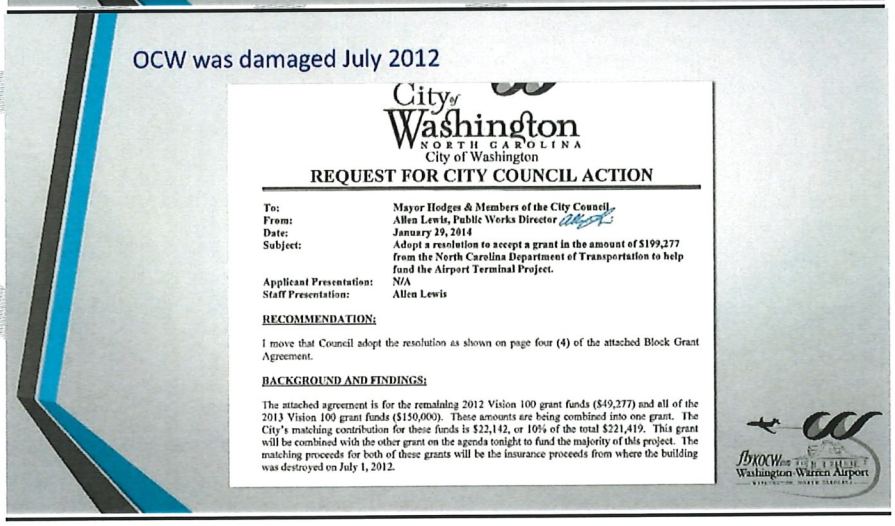
IV. Airport Sponsors

All airport sponsors in North Carolina have obligations and responsibilities to ensure the safe operation of their airports. All sponsors are responsible for the daily maintenance of their airports and supervision of operational activities as well as budgeting and financial dealings. Airports that are included in the FAA's National Plan of Integrated Airport Systems (NPIAS) are eligible for federal funding and must adhere to additional FAA and State standards and obligations. All 72 publicly-owned and operated airports in North Carolina are included in the NPIAS. There are more than 300 privately-owned airports in the State that are not included in the NPIAS.

flyKOCW Washington-Warren Airport


Compliance with State and Federal Grant Assurances. Both federal and State aid programs carry with them certain obligations on the part of the local government receiving funds. Airport sponsors are obligated to both FAA and NCDOT for past grants.
Up-to-date Airport Layout Plan (ALP). Sponsors are responsible for the long-term development planning of the airport. DoA recommends airports to update their ALPs at least every 10 years or as needed. NPIAS airports must closely follow FAA design standards in planning the development of their airport. These are included in FAA Advisory Circular (AC) 150/5300-13A, Airport Design.
Participation in the Five-Year Airport Transportation Improvement Program (TIP). The Airport TIP identifies and prioritizes projects for all airports in the system. Submission of airport projects to the TIP is needed to secure federal, state, and local project funding. These are usually submitted to DoA via an online tool called "Partner Connect" prior to the beginning of each fiscal year. Additional information on the funding programs is provided later in this guide in Chapter 5: Funding for Airport Improvement Projects and the TIP funding process is outlined in Chapter 6: The TIP Process for Airport Sponsors.
Obstruction Clearance. Sponsors are responsible for keeping their runway approaches clear of obstructions to the appropriate FAA standards found in Section 3.3.2.c of FAA Order 8260.3B, United States Standard for Terminal Instrument Procedures (TERPS).
KOCW
Washington-Warren Airport


Federal Aviation Regulations (FAR) Part 77 Height Restrictions and Land Use Zoning. Airport sponsors must work with local (city, county, and regional) planning offices to establish and enforce local ordinances regarding height restrictions around the airport and ensure land use plans and airport overlay zones support compatible land use around airports. Article 4 of NC GS 63 - Model Airport Zoning Act - provides height and land use zoning guidance to airports
Airport Minimum Operating Standards and Rules and Regulations. In order to promote safe airport and aircraft operations and sound business practices, DoA requires all airports to publish current Minimum Operating Standards and Rules and Regulations that have been adopted by local ordinance.
Adherence to the DoA's Airport Development Plan (ADP). DoA has established airport system objectives regarding airport development. Sponsors should understand their role in the state airport system, the DoA's project prioritization system, and which airport development projects are eligible and ineligible for funding.
Selection of Consultants. Airport Sponsors are required to select consultants that will result in high quality services at a reasonable expense. Guidelines for formal and informal consultant selection can be found in Appendix B: Guide to Consultant Selection.
KOCW
Washington-Warren Airport


OCW was damaged July 2012
City of Washington
NORTH CAROLINA
City of Washington
REQUEST FOR CITY COUNCIL ACTION
To: Mayor Hodges & Members of the City Council
From: Allen Lewis, Public Works Director
Date: January 29, 2014
Subject: Adopt a resolution to accept a grant in the amount of $199,277 from the North Carolina Department of Transportation to help fund the Airport Terminal Project.
Applicant Presentation: N/A
Staff Presentation: Allen Lewis
RECOMMENDATION:
I move that Council adopt the resolution as shown on page four (4) of the attached Block Grant Agreement.
BACKGROUND AND FINDINGS:
The attached agreement is for the remaining 2012 Vision 100 grant funds ($49,277) and all of the 2013 Vision 100 grant funds ($150,000). These amounts are being combined into one grant. The City's matching contribution for these funds is $22,142, or 10% of the total $221,419. This grant will be combined with the other grant on the agenda tonight to fund the majority of this project. The matching proceeds for both of these grants will be the insurance proceeds from where the building was destroyed on July 1, 2012.
KOCW
Washington-Warren Airport

STATE AID TO AIRPORTS BLOCK GRANT
BETWEEN
THE N. C. DEPARTMENT OF TRANSPORTATION,
AN AGENCY OF THE STATE OF NORTH CAROLINA
AND
CITY OF WASHINGTON

AIRPORT: WARREN FIELD

PROJECT NO: 36237.38.13.1

THIS AGREEMENT made and entered into this the _____ day of _____, 20_____, by and between the NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (hereinafter referred to as "Department") and the CITY OF WASHINGTON, the owners of WARREN FIELD (hereinafter referred to as "Sponsor").

A-3. The Sponsor agrees to operate, maintain, and control the Airport in a safe and serviceable condition for a minimum of twenty (20) years following the date of this Agreement and shall immediately undertake, or cause to be undertaken, such action to correct safety deficiencies as may be brought to its attention by the Department.

A-4. The Sponsor agrees that any land purchased, facilities constructed, or equipment acquired under this Agreement shall not be sold, swapped, leased or otherwise transferred from the control of the Sponsor without written concurrence of the Department.

A-5. The Sponsor agrees that the state share of any land purchased, facilities constructed, or equipment acquired under this Agreement shall be credited to the Department in a manner acceptable to the Department in the event such land, facilities or equipment are subsequently disposed of through sale or lease.

A-6. Insofar as it is within its power and reasonable, the Sponsor shall, either by the acquisition and retention of property interest, in fee or easement, or by appropriate local zoning action, prevent the construction of any object which may constitute an obstruction to air navigation under the appropriate category of Federal Air Regulation Part 77, 14 CFR 77.

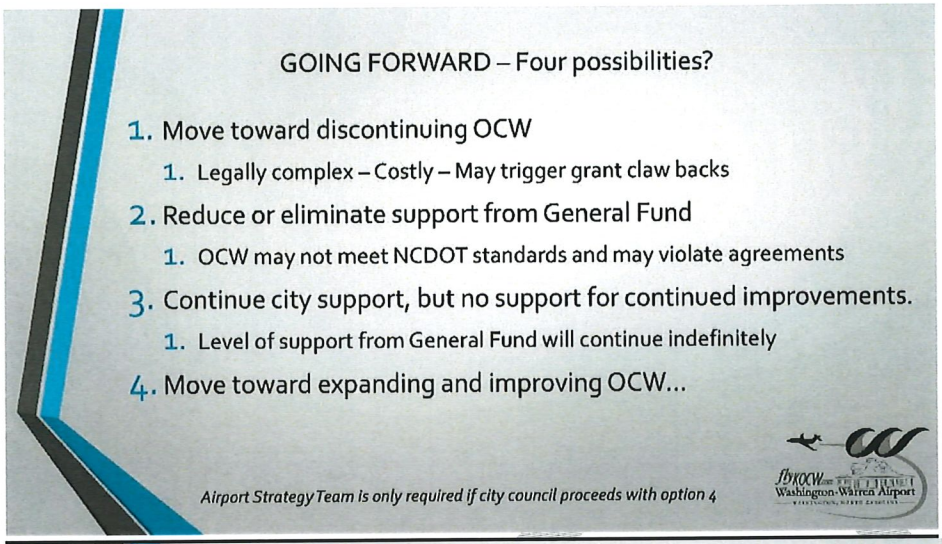
A-7. Insofar as it is within its power and reasonable, the Sponsor shall, restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and taking off of aircraft and the noise produced by such operations by adoption of zoning laws, by acquisition and the retention of property interest, in fee or easement.

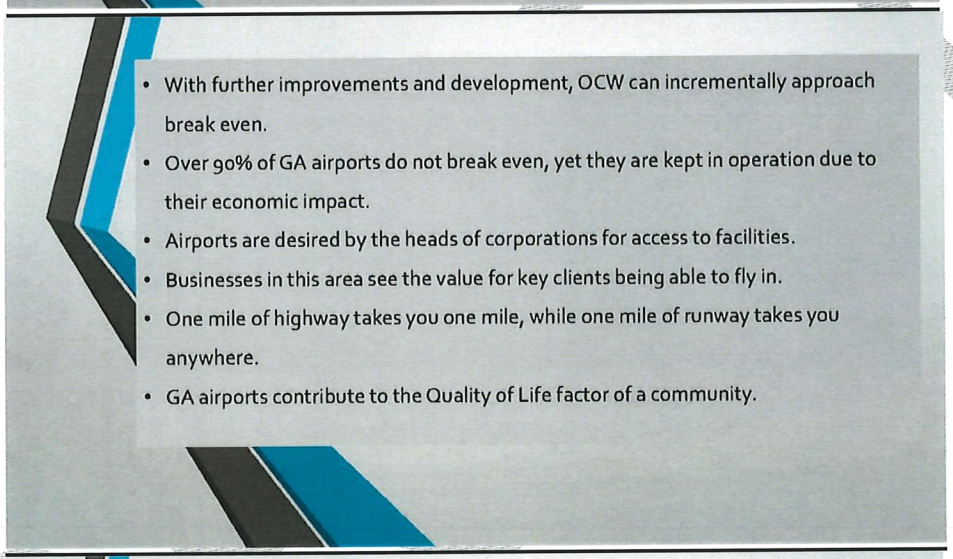
flyKOCW Washington-Warren Airport

- There have been other grants, but only one was required for the purposes of this presentation.
- At some point, after building the new terminal, the city moved to improve OCW.
- An experienced airport manager was hired October 2017 to implement upgrades
- OCW facilities had degraded over time and several could not be leased.
- OCW has been improved in recent years – more leases are in place.
- Fuel sales (prior to Covid) have increased and margins have been maintained.
- We have a waiting list of 15 aircraft for hangars if the city or private investors make hangars available. (Mayor Hodges was working on this)
- The most recent milestone - Runway

flyKOCW Washington-Warren Airport

flyKOCW Washington-Warren Airport


GOING FORWARD – Four possibilities?
1. Move toward discontinuing OCW
1. Legally complex – Costly – May trigger grant claw backs
2. Reduce or eliminate support from General Fund
1. OCW may not meet NCDOT standards and may violate agreements
3. Continue city support, but no support for continued improvements.
1. Level of support from General Fund will continue indefinitely
4. Move toward expanding and improving OCW...
Airport Strategy Team is only required if city council proceeds with option 4
flyKOCW
Washington-Warren Airport


• With further improvements and development, OCW can incrementally approach break even.
• Over 90% of GA airports do not break even, yet they are kept in operation due to their economic impact.
• Airports are desired by the heads of corporations for access to facilities.
• Businesses in this area see the value for key clients being able to fly in.
• One mile of highway takes you one mile, while one mile of runway takes you anywhere.
• GA airports contribute to the Quality of Life factor of a community.


Future Corporate Hangars – How OCW can grow and contribute
flyKOCW
Washington-Warren Airport

TRACY MAYO – STREET PAVING (request moved to October by Tracy Mayo)

CORRESPONDENCE AND SPECIAL REPORTS:

MEMO –BUDGET TRANSFER (accepted as presented)

The Budget Officer reallocated appropriations among various departmental totals of expenditures within authorized funds. NCGS 159-15 states that this shall be reported to the Council at its next regular meeting and be entered in the minutes.

FROM:	*010-6126-7400*	*Capital Outlay*	*$58,016*
TO:	*010-6125-7400*	*Capital Outlay*	*$34,684*
	010-6124-7400	*Capital Outlay*	*$23,332*

For the purpose of: Re-class projects not complete appropriation

MEMO – PO'S > $50,000

(accepted as presented)

The following budgeted purchase orders that are in excess of $50,000 have been issued:

Amount	***Vendor***	***Description***
$162,624.00	*The Soundside Group*	*Annual IT contract*
$450,000.00	*John Lucas Tree Expert Co.*	*Tree trimming-contract services*
$51,366.00	*Shannon Chemical Corp.*	*Treatment chemicals*
$88,500.00	*Water Guard, Inc.*	*Treatment chemicals*
$155,250.00	*Rivers & Associates Inc.*	*Professional services for assessment of water system*
$105,000.00	*Sawyer's Residential*	*Bulkhead Phase 2 & 3*
$105,152.00	*David Franklin Conway*	*Waste holding basin # 1 rehab*
$300,000.00	*Pitt Country Mart*	*Fuel for pumps 1 & 3*
$100,000.00	*Pitt Country Mart*	*Fuel for pump 2*
$75,000.00	*Potter Oil & Tree Co., Inc.*	*Generator fuel*
$227,783.00	*Cargill Inc.*	*Treatment chemicals*
$212,868.92	*Gametime*	*PS Jones Memorial Park*
$68,925.00	*Earl Malpass*	*Airport operation*

REPORTS FROM BOARDS, COMMISSIONS & COMMITTEES:

REPORT – BROWN LIBRARY *(accepted as presented)*

Synopsis of Brown Library Board of Trustees Meeting August 20, 2020

The Board of Trustees met at 4:00pm virtually. Trustees present were Steve Moler, Leesa Jones, Laura Toth and Joanna Rieg along with Sandra Silvey, Librarian; Stephen Farrell, Reference Specialist/Genealogy; Jonathan Russell, City Manager; and Betsy Kane, Council Liaison.

Sandra Silvey, Librarian, introduced new Reference Specialist, Stephen Farrell to the board. She also shared an update on the online reference usage by library patrons.

Trustees discussed beginning to prepare for the 110th birthday of the library in March 2021. There was also discussion on honoring Mayor Mac Hodges from the library. No decisions made. Trustees also discussed what to do when we are able to gather. This includes our goals, issues and direction for the library. Much of the discussion centered on the expansion of the library.

Meeting adjourned at 5:00 PM.

APPOINTMENTS:

APPOINTMENT – HISTORIC PRESERVATION COMMISSION

Councilmember Finnerty asked to continue this item as she is obtaining additional applications. Council, by consensus, continued this appointment.

ASSIGNMENT – COUNCIL LIAISONS

Mayor Sadler presented the following assignments of Council liaisons.

Planning Board	William Pitt
Board of Adjustment	Richard Brooks
Historic Preservation	Virginia Finnerty
Library Board	Betsy Kane
Housing Authority	Mike Renn
Recreation Committee	Richard Brooks
*Tourism Development Authority	Virginia Finnerty
Human Relations Council	Mike Renn
Electric Utilities Advisory Commission	Betsy Kane
Airport Advisory Committee	Mike Renn
Animal Control Board	Mike Renn
Waterfront Docks Advisory Committee	Donald Sadler

*Indicates a Voting Seat

ORGANIZATIONS WITH COUNCIL ASSIGNED REPRESENTATIVE SERVING ON BOARD

Economic Development Advisory Board	Donald Sadler
Washington Harbor District Alliance	Betsy Kane
NCEMPA	William Pitt (Jonathan Russell – Alternate)
Mid-East Commission	William Pitt
Hwy. 17 Association	William Pitt
Partnership for the Sounds	Donald Sadler
Mayor's Association	Donald Sadler
Chamber of Commerce	Donald Sadler

OLD BUSINESS:

ADOPT – GRANT PROJECT ORDINANCE FOR DRINKING WATER ASADRA WTP EMERGENCY GENERATOR

BACKGROUND AND FINDINGS: The City recently applied for funding through the State's Drinking Water ASADRA program to replace the shared load management generator with a dedicated backup power generator at the water treatment plant. The State awarded the City $409,160 with $102,290 being principal forgiveness and $306,870 being low interest loan.

By motion of Councilmember Pitt, seconded by Mayor Pro tem Brooks, Council adopted the grant ordinance to fund the Drinking Water ASADRA WTP Emergency Generator project.

(copy attached)

VOTE: WTP Generator	YES	NO
Mayor Pro tem Brooks	X	
Councilmember Finnerty	X	
Councilmember Kane	X	
Councilmember Pitt	X	
Councilmember Renn	X	

ADOPT – GRANT PROJECT ORDINANCE FOR GOLDEN LEAF STORMWATER GRANT

BACKGROUND AND FINDINGS: The City recently applied for funding through the Golden Leaf Foundation to assist with addressing Stormwater drainage issues in the Medical District area (15th St, 12th St, Brown St. intersection). The Golden Leaf Foundation awarded the City $3,030,000 in grant funds for this project.

Councilmember Kane encouraged staff to look into options besides bigger pipes sending water downstream.

By motion of Councilmember Finnerty, seconded by Councilmember Kane, Council adopted the grant ordinance for the Golden Leaf Stormwater Grant.

(copy attached)

VOTE: Golden Leaf	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

ADOPT – GRANT PROJECT ORDINANCE FOR PUMP STATION FLOOD PROTECTION AND SEWER REHAB PROJECT

BACKGROUND AND FINDINGS: The City recently applied for funding through the State's Clean Water State Revolving Fund (CWSRF) to protect the sewer pump station located at Short Drive and to perform sewer pipe lining on the Runyon Creek outfall line. The CWSRF awarded the City a low interest loan in the amount of $2,500,500. The Short Drive pump station often is inundated during tropical storm events and this project will reduce the severity of damage during those events. The rehab work on the Runyon Creek outfall line will significantly reduce inflow and infiltration on that area thus reducing the flow at the wastewater treatment plant.

Councilmember Finnerty inquired about the loan interest rate and Mr. Russell noted it would potentially be less than 1%.

By motion of Councilmember Renn, seconded by Councilmember Kane, Council adopted the grant ordinance to fund the Pump Station Flood Protection and Sewer Rehab project.

(copy attached)

VOTE: Sewer Rehab	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

ADOPT – GRANT PROJECT ORDINANCE AND BUDGET ORDINANCE AMENDMENT FOR THE WASHINGTON WETLANDS BOARDWALK RECONSTRUCTION PHASE I

BACKGROUND AND FINDINGS: The City was awarded a grant in the amount of $280,560.00, with a match of $200,000.00 and $1,000.00 in-kind, to complete phase I of the reconstruction for the Wetlands Boardwalk.

By motion of Councilmember Finnerty, seconded by Mayor Pro tem Brooks, Council adopted the Grant Project Ordinance and Budget Ordinance Amendment for the Washington Wetlands Boardwalk Reconstruction Phase I.

(copy attached)

Councilmember Pitt inquired when phase 2 would start and Mr. Russell explained probably at least 18 months, depending on funding.

VOTE: Boardwalk	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

APPROVE – REPAIRS AND ADOPT BUDGET ORDINANCE AMENDMENT FOR DECTRON AND AUTHORIZE RECREATION DEPARTMENT TO MOVE FORWARD WITH HIRING ENGINEER/OBTAINING BIDS TO REPLACE DECTRON

BACKGROUND AND FINDINGS: The Dectron unit is 22 years old. It was installed improperly and has never worked correctly. The City researched opportunities for replacement and a company promised to rebuild from the inside out. The rebuild guaranteed all new machine parts and only leave the old outer shell. The rebuild was never completed to staffs satisfaction and we didn't pay the final invoices. We continue to find parts that were not replaced as we continue to have service calls for the unit. The continued repairs are costly and it would serve the City better to replace the unit. Typically, those units are expected to work for 15-20 years. We are beyond its life expectancy. The longer the unit is down, the more moisture the facility continues to hold. The moisture deteriorates the fitness equipment, the building and especially all of the electronics (i.e. phones, computers, copies, and fitness equipment computers).

By motion of Councilmember Finnerty, seconded by Mayor Pro tem Brooks, Council approved the repairs and budget ordinance amendment for the Dectron at the Moore Aquatic & Fitness Center in the amount of $20,922.00.

(copy attached)

Council offered consensus for staff to move forward with hiring an engineer and to move forward with obtaining bids to replace the Dectron unit.

VOTE: Dectron repairs	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

ADOPT – BUDGET ORDINANCE AMENDMENT FOR 2020 COMMUNITY WASTE REDUCTION AND RECYCLING GRANT AWARD

BACKGROUND AND FINDINGS: The North Carolina Department of Environmental Quality has awarded the City of Washington a total of $24,000.00 in grant funds with a cash match of $5,601 to purchase recycling receptacles and recycling signage. The purchased items will be placed at Festival Park, Susiegray McConnell Sports Complex, and participating Beaufort County Schools. The purpose of this project is to promote proper recycling. This agreement is effective from 07/01/2020 to 06/30/2021, inclusive of those dates.

By motion of Councilmember Finnerty, seconded by Councilmember Kane, Council adopted a Budget Ordinance Amendment to execute the 2020 Community Waste Reduction and Recycling Grant award.

(copy attached)

VOTE: Recycling	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

ADOPT –GRANT PROJECT ORDINANCE AMENDMENT FOR PS JONES MEMORIAL PARK PROJECT

BACKGROUND AND FINDINGS: Previous Council action did not include appropriation of the City contribution portion of said project.

By motion of Councilmember Kane, seconded by Mayor Pro tem Brooks, Council adopted a Grant Project Ordinance Amendment to appropriate funding for PS Jones Memorial Park project.

(copy attached)

VOTE: PS Jones Park	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

AUTHORIZE – CITY MANAGER TO EXECUTE CORONAVIRUS RELIEF FUNDS CONTRACT WITH BEAUFORT COUNTY AND ADOPT BUDGET ORDINANCE AMENDMENT

BACKGROUND AND FINDINGS: The State of North Carolina received funds as part of the Corona virus Relief Fund established under the federal CARES Act and North Carolina HB 1043/S.L. 2020-4 appropriated $150 million of those funds to be distributed to county governments based on their population with each county receiving a base distribution of $250,000. The distribution to Beaufort County was $1,926,644 of which $346,045.99 was allocated to the City of Washington for reimbursement of eligible expenditures.

By motion of Councilmember Renn, seconded by Councilmember Finnerty, Council authorized the City Manager to execute a Coronavirus Relief Funds Contract with Beaufort County and adopt a budget ordinance amendment.

(copy attached)

VOTE:CARES funding	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

ADOPT – BUDGET ORDINANCE AMENDMENT TO FUND A FLOOD INSURANCE POLICY FOR THE ESTUARIUM

BACKGROUND AND FINDINGS: Council approved flood insurance coverage for the Estuarium in prior years and this expenditure was not included in the current budget.

By motion of Mayor Pro tem Brooks, seconded by Councilmember Kane, Council adopted a Budget Ordinance Amendment to fund a flood insurance policy for the Estuarium.

(copy attached)

VOTE: flood insurance	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

NEW BUSINESS:

APPROVE – REQUEST BY RAY MIDGETT & LEESA JONES TO APPLY FOR MARKER GRANT

Ray Midgett and Leesa Jones joined the meeting and presented their request at this time.

Dear Mayor and Members of City Council:

Subject: Permission to Apply for a Marker Grant

The purpose of this letter is to share grant information with the City Council of Washington, N.C. and receive approval to apply for a historic marker grant.

The grant is provided by the William G. Pomeroy Foundation, an organization committed to the preservation of community history and to the support for families facing a blood cancer diagnosis. Since 2006, this Foundation has funded over 1,100 signs in the U.S. There is no charge to the grantee (or the City where the sign is located) for the historic sign itself. There is a minimal charge (under $100) for the installation of the sign, for which payment will be shared by the Historic Port of Washington Project and the Washington Waterfront Underground Railroad Museum, joint sponsors of this initiative. The person that we selected to highlight on the marker is Hull Anderson, the successful shipbuilder and landowner in 1800s Washington.

Our joint organizations believe that this historic marker will beautify the waterfront and attract tourists to our cherished city. More details are provided on page two.

The William G. Pomeroy Foundation requires permission from the City prior to awarding the historic community grant. Both Leesa Jones, Executive Director of the Washington Waterfront Underground Railroad Museum and Ray Midgett, President of the Historic Port of Washington will be attending the City Council Meeting on September 14 to answer questions.

We look forward to sharing additional information and gaining your approval during the next City Council meeting. We appreciate your support of this exciting opportunity as we are planning our grant application submission before the due date of October 2, 2020.

If you have questions, please contact Leesa Jones at leesawisdom@aol.com. Thank you!

Regards,

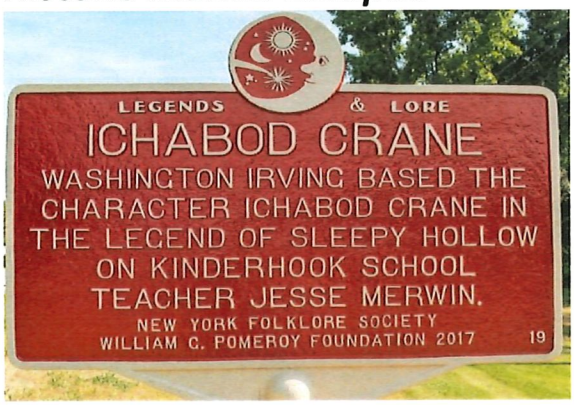
Leesa P. Jones
Executive Director
Washington Waterfront Underground Railroad Museum

Ray Midgett
President
Historic Port of Washington Project

Contact information:

William G. Pomeroy Foundation
492 E. Brighton Avenue, Syracuse, NY 13210
Phone: 315-913-4060
Email: info@wgpfoundation.org
https://www.wgpfoundation.org/

Historic Marker Sample:



Marker Design Guidelines: The color of Legends & Lore markers are deep red with light beige lettering and border. Markers are 18" x 32" cast aluminum with a 7' aluminum pole. The title line allows 15 characters and the five body lines can have 27 characters each, including spaces and punctuation. The bottom lines will state: Historic Port of Washington and the Washington Waterfront Underground Railroad Museum. William G. Pomeroy Foundation 2020. Recommend the marker is ground in a 3-foot hole with cement.

Hull Anderson:

Hull Anderson, who acquired his shipbuilding skills as a slave, built a thriving shipyard in the early 1800s, just west of Bridge Street. (Matt Debnam/Daily News)

By motion of Councilmember Kane, seconded by Councilmember Finnerty, Council endorsed the application and placement for the requested historic marker on the Washington waterfront/Stewart Parkway.

VOTE:	YES	NO
Mayor Pro tem Brooks	X	
Councilmember Finnerty	X	
Councilmember Kane	X	
Councilmember Pitt	X	
Councilmember Renn	X	

ADOPT – ORDINANCE TO AMEND CHAPTER 18, SECTION 132 – LOADING AND SPECIAL PURPOSE ZONES

BACKGROUND AND FINDINGS: The Public Works Department received a request from the owner of Carryout by Chrislyn, Chrislyn Wedderien, to designate a loading zone in front of her business. The business currently has no dedicated parking and customers have to park on the street or in the parking lot across the street. Since the business is carry out, customers are parked for short durations and granting this request would help accommodate those customers. One designated loading zone

By motion of Councilmember Finnerty, seconded by Councilmember Kane, Council adopted an ordinance to amend Chapter 18, Section 132-Loading and special purpose zones in reference to the Loading zone request outlined in the attached ordinance, with an effective date of September 15, 2020.

(copy attached)

VOTE: loading zones	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

APPROVE – RENAMING FESTIVAL PARK TO MAC HODGES FESTIVAL PARK

BACKGROUND AND FINDINGS: The City of Washington, Washington-Beaufort County Chamber of Commerce, Washington Tourism Development Authority and the Washington Harbor District Alliance have discussed renaming Festival Park in memory of Mac Hodges. After speaking to his family, they have suggested and we agree upon, Mac Hodges Festival Park. The name change has also been approved by the Parks and Recreation Trust Fund.

By motion of Councilmember Finnerty, seconded by Mayor Pro tem Brooks, Council approved the renaming of Festival Park to Mac Hodges Festival Park in memory of the late Mayor Mac Hodges.

VOTE: Mac Hodges F.P.	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

AUTHORIZE – MID-EAST COMMISSION GRANT ADMINISTRATION

BACKGROUND AND FINDINGS: Excellent track record with Mid-East and they have assisted the City clean up poorly administered grants on more than one occasion.

By motion of Councilmember Kane, seconded by Mayor Pro tem Brooks, Council authorized the use of the Mid-East Commission to write and administer all of the City's grants with the exception of those City staff will administer and aviation grants through Talbert and Bright.

VOTE: mid-east	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt	x	
Councilmember Renn	x	

APPROVE – CUSTOMER SERVICE SWITCH BOARD & FACILITY ATTENDANT

BACKGROUND AND FINDINGS: As the City of Washington continues to face the unknowns of COVID-19, the City's top priority is to maintain essential services for our community while protecting the health and safety of our residents and employees. To continue providing services to the public the current part-time facility attendant was temporarily transferred to City Hall making doing business safer and more secure for everyone. The position allows staff to be notified when a customer is in need of services and provides limited access to the building, but providing the public face-to-face interaction. The position will also operate the switchboard for incoming calls and continue to monitor and control entrance to City Hall. This position will report to the Utilities Business Manager, since the addition of this position will provide the public with enhanced customer service process and complement our mission of providing excellent customer service.

Council, by consensus tabled this item for additional review due to COVID-19.

APPROVE – PERSONNEL POLICY REVISION ARTICLE VII, EMPLOYEE BENEFITS, SECTION 5 RETIREE INSURANCE BENEFITS

BACKGROUND AND FINDINGS: The rising healthcare costs for retirees threaten their overall financial wellbeing. Most retirees live on a fixed income, and many of them don't have significant savings for retirement. Without careful plam1ing, ballooning healthcare costs in retirement can leave retirees financially vulnerable. Retiree benefits can be an important source of coverage for people retiring before Medicare eligibility. Current policy provides retiree insurance benefits with 30 years of service. Proposal would change the threshold to retiring with monthly benefit from the NC Local Government Retirement System and 10 years of service with the City. This benefit would be a great recruiting and retention tool by providing a benefit that could be used to recruit employees from private industry.

Council by consensus agreed to table this item for additional research will bring this back at a future meeting with 20/25/30 year retirement levels.

DISCUSS/APPROVE – EXPANSION BUDGET

The City Manager explained Council had asked for the expansion budget to be revisited in September and due to COVID-19, there would be no major concerns financially if this items were approved.

By motion of Councilmember Kane, seconded by Councilmember Finnerty, Council approved the expansion budget excluding 1, 5, 6, 9, 10, 12, 16, 22 & 23. Motion carried 4-1 with Councilmember Pitt opposing.

VOTE: all items but 1, 5,6,9,10,12,16, 22, 23	YES	NO
Mayor Pro tem Brooks	x	
Councilmember Finnerty	x	
Councilmember Kane	x	
Councilmember Pitt		X
Councilmember Renn	x	

Council continued their discussion regarding the expansion budget and asked for and received additional clarification.

By motion of Councilmember Renn, seconded by Mayor Pro tem Brooks, Council authorized all employees would receive COVID-19 hazard pay on a tiered bases with all employees and Council receiving the lowest tier and award pay at higher levels in the tier depending on degree of exposure.

VOTE: Hazard Pay	YES	NO
Mayor Pro tem Brooks	X	
Councilmember Finnerty	X	
Councilmember Kane	X	
Councilmember Pitt	X	
Councilmember Renn	X	

ANY OTHER ITEMS FROM CITY MANAGER:

UPDATE – GLASS RECYCLING OPTIONS

The City Manager provided an update on glass recycling options, noting one of the vendors is in Jacksonville and another vendor in Wilson, we would have to sort glass first at a rate of $25 per ton. Glass is currently going to landfill as our vendor no longer accepts glass. Councilmember Kane noted we need to continue research on ways to offer residential glass recycling.

DISCUSSION – SMALLWOOD TRAFFIC CALMING

The City Manager reviewed this issues with traffic in Smallwood noting the area is being use as a cut through. We are currently soliciting additional information from residents in the neighborhood. Councilmember Kane noted several residents have formed a committee through their Smallwood Facebook page and have identified a couple of problem streets. They would like to do similar testing with creating a walking lane with cones or temporary paint and create something to narrow the intersections.

Council directed staff to review options and carry out temporary test projects with low cost or already available products. If funding or permanent options are needed this could come back to Council for additional review. The City Manager explained staff is currently looking into this and we will provide a formal report in the next few months.

UPDATE – ADA INVENTORY

The City Manager said Mid-East is assisting us with the ADA Inventory project. There is currently a new staff member with Mid-East working on this project. We will develop a list of intersections that are not ADA compliant and we will present to Council in the near future.

UPDATE – RAIN BARREL PROPOSAL ANALYSIS

Staff will do additional analysis of rain barrels in neighboring communities.

HALLOWEEN GUIDELINES

The City Manager explained we are currently working on ideas to allow Trick or Treating to take place in order to prevent spread of virus. Councilmember Kane discussed trick or treating in downtown Washington and potential safety problems she sees with the event.

SOCCER

The City Manager explained in regard to allowing soccer, the State is putting the decision on municipalities. We would like Council to weigh in on allowing soccer to have games in fall. Public comments were presented to Clerk and forwarded to Council earlier and included in minutes. The Parks and Recreation Director stated soccer would operate the same as softball/baseball. Council and staff continued their discussions regarding soccer and the concerns regarding COVID-19.

This item was tabled for additional discussion at Thursday's at work session.

ANY OTHER BUSINESS FROM THE MAYOR OR OTHER MEMBERS OF COUNCIL:

DISCUSSION – ESSENTIAL ELECTRIC UTILITY CUSTOMERS ~ COUNCILMEMBER PITT

Councilmember Pitt stated we have a large senior population. We should have a priority list created and make every effort to get the power back on to those on the list faster.

DISCUSSION – ELECTRIC VEHICLE CHARGING STATIONS ~ COUNCILMEMBER PITT

Councilmember Pitt reviewed a presentation regarding electric vehicle charging stations and asked staff to seek grant funding for at least one charging station, maybe in the downtown area.

Mayor Sadler congratulated Councilmember Pitt for being the week 4 winner for the mask wearing contest.

CLOSED SESSION: NONE

ADJOURN

By motion of Councilmember Pitt, seconded by Councilmember Kane, Council adjourned the meeting at 7:50pm until Thursday, September 17, 2020 at 3:00pm for a work session. The meeting will be held virtually.

(subject to approval of City Council)

s/Cynthia S. Bennett, MMC
City Clerk

The Washington City Council met in a work session on Thursday, September 17, 2020 at 3:00pm as a virtual meeting. Present: Donald Sadler, Mayor; Richard Brooks, Mayor Pro tem; Virginia Finnerty, Councilmember; Betsy Kane, Councilmember; William Pitt, Councilmember and Mike Renn, Councilmember. Also present: Jonathan Russell, City Manager, Franz Holscher, City Attorney and Cynthia S. Bennett, City Clerk.

**The meeting was held as a virtual meeting all Council members and staff accessed the meeting remotely.*

Mayor Sadler called the meeting to order.

City Manager, Jonathan Russell reviewed the format of the meeting with Council.

Discussion: Goal Setting

Discussion: Project Review

Discussion: Historic Preservation Commission

Mr. Russell reviewed goals from the March 3, 2020 meeting.

Goal setting/Project Review

1. Improve Stormwater/Drainage Throughout City To Reduce Flooding – awarded $3million gold leaf grant for this
2. Broadband infrastructure improvement
3. Evaluate employee salaries to improve recruitment and retention – in process
4. Prioritize new police station project
5. City wide economic development
6. Improve sidewalk connectivity – working with RPO & Council previously set aside $200,000 in the budget to move this project forward and we are on our way with this project.
7. Improve bike lane access – working on with RPO

Council asked for and received updates regarding funding possibilities to alleviate flooding in the inner city (Bridge St., 13th Van Norden, Trade St. etc.).

Council discussed economic development efforts in the City including but not limited to: additional restaurant, development of under used land/vacant buildings, jobs. The City Manager will reach out to Retail Strategies and ElectriCities for assistance.

Council discussed the need for a future action item to fund improvements to crosswalks in the City. (Market/15th St. etc.).

Councilmembers discussed the need to address 15th Street traffic concerns.

HISTORIC PRESERVATION COMMISSION

The City Manager asked Council for direction on how they would like the Historic Preservation Commission to address Certificate of Appropriates requests. They have guidelines to go by and have a dedicated staff person at the city.

Councilmembers discussed the comments they are receiving from residents of the Historic District regarding the guidelines as well as comments regarding how the Commission applies said guidelines, which some have noted they are applied inconsistently. Discussion continued.

Mayor Sadler assigned Council members Virginia Finnerty and Mike Renn, City Manager Jonathan Russell and other appropriate staff members to a committee to review the guidelines and bring back a report to Council. The City Manager will make sure a series of meetings (via zoom) will be initiated to allow for public input.

OTHER ITEMS OF INTEREST FROM COUNCIL

Sadler

1. City Manager resume the weekly update on Friday afternoon
2. Vehicles in yard that are junked vehicles – increase code enforcement
3. Yard clean up – increase code enforcement
4. Clarification regarding stormwater fees ~ City Manager provided updates on these fees.
5. City website – lack of diversity – it should reflect the makeup of the community

Renn

1. What is the completion status on streetscape? Mr. Russell said we're still on schedule for the end of October to be substantially complete.
2. Do we have anyone from staff that can evaluate to make sure they're on schedule? Adam Waters, Public Works Director is on site every day and there is a $1,000 per day penalty for liquidated damages.

Finnerty

1. Big trucks do not need to be on Main Street, Second St., Third St. or any other low tonnage roads. Staff will work with Director Drakeford to look at this to make it enforceable as those streets are not designed for tractor trailer traffic.

Brooks

1. Concerned with flooding and drainage in the City.

Kane

1. 15th Street Update – The City Manager provided an update regarding scheduling additional meetings with the potential consultants, the project was put on hold due to COVID.

Pitt

1. Since we met with county, what's our relationship with county? What relationship do we want to build with our state and federal leaders? Council should serve on National League of Cities
2. Website – lacks diversity
3. Has concerns about mask wearing, stated Council needs to wear their mask. City needs to produce masks with city logo on it.
4. Everyone should complete the census

ADJOURN

By motion of Councilmember Kane, seconded by Councilmember Renn, Council adjourned the meeting at 4:50 pm until Monday, October 12, 2020 at 5:30pm.

(subject to approval of City Council)

s/Cynthia S. Bennett, MMC
City Clerk

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To: Mayor Sadler & Members of City Council
From: Matt Rauschenbach, CFO/Assistant City Manager
Date: October 1, 2020
Subject: Hurricane Isiasis Budget Ordinance Amendment
Staff Presentation:

RECOMMENDATION:

I move that the City Council adopt a Budget Ordinance Amendment to provide funds for the preparation and recovery of Hurricane Isiasis.

BACKGROUND AND FINDINGS:

Four outside contractors assisted our electric staff in the restoration of electrical service in the aftermath of Hurricane Isiasis. FEMA has not declared the storm reimbursable at this time.

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT

Requires appropriation

SUPPORTING DOCUMENTATION

Budget Ordinance Amendment

AN ORDINANCE TO AMEND THE BUDGET ORDINANCE OF THE CITY OF WASHINGTON, N.C. FOR THE FISCAL YEAR 2020-2021

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That the following accounts of the Electric Fund revenue budget be increased or decreased by the respective amounts indicated:

035-3991-9910	Fund Balance Appropriated	$ 94,775

Section 2. That the following accounts of the Electric Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the preparation and recovery of Hurricane Isiasis:

035-6612-5730	Hurricane Expense	$ 83,811
035-7222-0201	Salaries- Overtime	338
035-7222-0500	FICA	26
035-7222-0700	Retirement	35
035-7230-0201	Salaries- Overtime	457
035-7230-0500	FICA	35
035-7230-0700	Retirement	47
035-7251-0201	Salaries- Overtime	573
035-7251-0500	FICA	44
035-7251-0700	Retirement	59
035-8370-0201	Salaries- Overtime	178
035-8370-0500	FICA	14
035-8370-0700	Retirement	19
035-8375-0201	Salaries- Overtime	235
035-8375-0500	FICA	18
035-8375-0700	Retirement	25
035-8380-0201	Salaries- Overtime	7,517
035-8380-0500	FICA	575
035-8380-0700	Retirement	769
	Total	$94,775

Adopted this the 12th day of October, 2020.

MAYOR

ATTEST:

CITY CLERK

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To: Mayor Sadler & Members of City Council
From: Matt Rauschenbach, CFO/Assistant City Manager
Date: September 13, 2020
Subject: Merchant Fees Budget Ordinance Amendment
Staff Presentation:

RECOMMENDATION:

I move that the City Council adopt a Budget Ordinance Amendment to distribute the credit card processing merchant fees to the utility funds.

BACKGROUND AND FINDINGS:

The General Fund has paid for these fees in prior years and distribution to the utility funds they are specifically related to is appropriate.

PREVIOUS LEGISLATIVE ACTION
N/A

FISCAL IMPACT

Requires appropriation

SUPPORTING DOCUMENTATION

Budget Ordinance Amendment

AN ORDINANCE TO AMEND THE BUDGET ORDINANCE OF THE CITY OF WASHINGTON, N.C. FOR THE FISCAL YEAR 2020-2021

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$(170,000)

Section 2. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

010-4135-4503	Credit Card Processing Fees	$(170,000)

Section 1. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$(170,000)

Section 2. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

010-4135-4503	Credit Card Processing Fees	$(170,000)

Section 3. That the following accounts of the Water Fund revenue budget be increased or decreased by the respective amounts indicated:

030-3991-9910	Fund Balance Appropriated	$12,271

Section 4. That the following accounts of the Water Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

030-6610-4503	Credit Card Processing Fees	$12,271

Section 5. That the following accounts of the Sewer Fund revenue budget be increased or decreased by the respective amounts indicated:

032-3991-9910	Fund Balance Appropriated	$12,876

Section 6. That the following accounts of the Sewer Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

032-6610-4503	Credit Card Processing Fees	$12,876

Section 7. That the following accounts of the Storm Water Fund revenue budget be increased or decreased by the respective amounts indicated:

034-3991-9910	Fund Balance Appropriated	$4,627

Section 8. That the following accounts of the Storm Water Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

034-6610-4503	Credit Card Processing Fees	$4,627

Section 9. That the following accounts of the Electric Fund revenue budget be increased or decreased by the respective amounts indicated:

035-3991-9910	Fund Balance Appropriated	$134,348

Section 10 That the following accounts of the Electric Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

035-6610-4503	Credit Card Processing Fees	$134,348

Section 11 That the following accounts of the Solid Waste Fund revenue budget be increased or decreased by the respective amounts indicated:

038-3991-9910	Fund Balance Appropriated	$5,878

Section 12 That the following accounts of the Solid Waste Fund appropriations budget be increased or decreased by the respective amounts indicated to distribute the merchant fees for credit card payments to the utility funds:

038-6610-4503	Credit Card Processing Fees	$5,878

Adopted this the 12th day of October, 2020.

MAYOR

ATTEST:

CITY CLERK

Agenda Date: October 12, 2020

City of Washington NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To: Mayor Sadler & Members of City Council
From: Matt Rauschenbach, CFO/Assistant City Manager
Date: September 29, 2020
Subject: Storm Water Fee Budget Ordinance Amendment
Staff Presentation:

RECOMMENDATION:

I move that the City Council adopt a Budget Ordinance Amendment to provide funds for the increase in storm water fees for City owned property.

BACKGROUND AND FINDINGS:

Storm water fee increase adopted in FY 2021 budget.

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT

Requires appropriation

SUPPORTING DOCUMENTATION

Budget Ordinance Amendment

AN ORDINANCE TO AMEND THE BUDGET ORDINANCE OF THE CITY OF WASHINGTON, N.C. FOR THE FISCAL YEAR 2020-2021

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$8,448

Section 2. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts indicated to provide funds for the increase in storm water fees for City property:

010-4510-1300	Utilities	$6,624
010-4250-1300	Utilities	1,824
	Total	$8,448

Section 3. That the following accounts of the Cemetery Fund revenue budget be increased or decreased by the respective amounts indicated:

039-3991-9910	Fund Balance Appropriated	$6,816

Section 4. That the following accounts of the Cemetery Fund appropriations budget be increased or decreased by the respective amounts indicated to provide funds for the increase in storm water fees for City property:

039-4740-1300	Utilities	$6,816

Section 5. That the following accounts of the Water Fund revenue budget be increased or decreased by the respective amounts indicated:

030-3991-9910	Fund Balance Appropriated	$2,880

Section 6. That the following accounts of the Water Fund appropriations budget be increased or decreased by the respective amounts indicated to provide funds for the increase in storm water fees for City property:

030-8140-1300	Utilities	$2,880

Adopted this the 12th day of October, 2020.

MAYOR

ATTEST:

CITY CLERK

City of Washington
NORTH CAROLINA

To: Mayor Sadler & Members of City Council
From: Matt Rauschenbach, CFO/Assistant City Manager
Date: October 6, 2020
Subject: Accounts Receivable Write-off Policy

The accounts receivable write-off policy has been reviewed and updated.

City of Washington
Policy for Write-off of Uncollectible Accounts Receivable

Purpose:

Although the City has established and implemented procedures to collect delinquent amounts due, there are occasions when amounts cannot be collected.

This policy's purpose is to establish uniform methods for collecting aged accounts as well as guidelines for determining when delinquent accounts receivable should be considered an uncollectible debt and establish proper authorization for removal or write-off of the receivable from the City's balance sheet. The desired result of this policy is to fairly state the value of accounts receivable on the City's financial statements.

Scope:

This policy applies to all delinquent accounts owed to any department of the City of Washington including, but not limited to, utility charges, fees, fines, assessments, claims, damages, loans, taxes, penalties, interest, and other charges as authorized by law.

Procedure:

All or some of the following actions, when practical or available as a remedy by law, will be taken to collect outstanding account balances:

1. **Disconnection of services (utilities)**
2. **Transfer of old balances to new accounts (utilities)**
3. **Apply deposits to outstanding balances (utilities)**
4. **Demand letters**
5. **NC Debt Set Off Program**
6. **Third party collection agency**
7. **Attachment/Garnishment**
8. **Small Claims Court**
9. **Judgments**

10. Liens

11. Foreclosure

12. Close business (privilege license)

The finance department with the assistance from other departments will make every effort to collect delinquent accounts receivable amounts owed to the City. It is only after all reasonable avenues to collect the debt have been utilized and exhausted will the bad debt be considered uncollectible and qualify for write-off.

The Finance Director or his designee will identify, usually on an annual basis, delinquent accounts meeting one or more of the below criteria and produce a listing of accounts including name, account number, invoice date, delinquent amount due, and reason for write off.

Criteria for determining uncollectible accounts for write-off:

1. **Statute of Limitations**: The statute of limitations for collection of the debt has expired.
2. **Bankruptcy**: The account has been discharged through bankruptcy court.
3. **Deceased:** The debtor is deceased with no estate.
4. **Court Judgment Refused**: The debt cannot be substantiated in Court.
5. **Unjustifiable Cost:** The amount of the uncollectible account is less than $50 or the cost of collection exceeds the recoverable amount.
6. **Untraceable:** The customer has provided false information, left the area, or cannot otherwise be located or identified.
7. **Time Frame:** Inactive accounts 5 years or older at fiscal yearend will be written off annually to avoid overstatement of receivables.

The Finance Director shall have the authority to determine which accounts will be written off and direct the Finance staff to adjust the accounts receivable amounts accordingly. Write-offs are to be reported to the City Council in summary form and shall include the date of the write-off, the category or type of write-off (i.e. sewer assessment, electric utility, water utility, lot mowing, etc.), and the amount of the write-off. This information shall be furnished no less than one time per year.

This policy in no way shall affect the City's ability to collect or accept payments once an account has been written off. Payments received on such accounts will be recorded as revenue in a bad debt recovered account.

City of Washington
NORTH CAROLINA

To: **Mayor Sadler & Members of the City Council**
From: **Matt Rauschenbach, C.F.O.**
Date: **September 30, 2020**
Subject: **PO's > $50,000**

The following budgeted purchase orders that are in excess of $50,000 have been issued for the month:

Amount	Vendor	Description
$99,000.00	EMA Resources	Land application of biosolids
$108,180.00	Gregory Poole Equipment	Catepillar 420 Backhoe Loader
$139,951.46	White/Herring Tractor	2021 International HV513 SFA Dump Truck
$250,000.00	Eastern Aviation Fuels	Fuel Purchases for resale
$299,766.00	Rhinehart Family Company	Airpacks

City of Washington
NORTH CAROLINA

To: Mayor Sadler & Members of City Council
From: Matt Rauschenbach, CFO/Assistant City Manager
Date: September 29, 2020
Subject: Electric Department Long Range Plan

Utility Electrical Consultants updated the 10-year long-range plan for our electric system. A summary and the detailed report are attached.

City of Washington

Long Range Plan (LRP)

- Ten-Year LRP for the Electric Delivery System for the period 2020 – 2029.
- LRP is basically a construction outline for meeting the anticipated consumer growth and to continue providing efficient and reliable service.
- Load projections were based on the present NCEMPA Load Forecast. 1.5 percent growth rate from the present system non-coincident peak of 70.2 MW to 81.5 MW in 2029
- No large spot industrial load increases are included. Facilities to serve future large industrial growth should be evaluated on a case-by-case basis.
- Present delivery point, transmission, substation and distribution systems were reviewed to determine their adequacy to serve projected load growth
- Review was performed using established engineering standards and planning criteria considering thermal loading, voltages, age, physical conditions, power quality and reliability.
- Two new distribution substations. The first substation is located in the Industrial Park. The second substation is located along Highway 17 near the Washington-Warren Field Airport.
- Additional 230kV to 34.5 kV transformer and circuit exit capacity is recommended at the Main Substation for the expected substation loading including contingencies. 115 kV transmission option explored. Concluded that City should continue on the present path of using a 34.5 kV transmission system. 115 kV option is six times the cost of the 35 kV transmission option for equivalent capacity.

- Eastern extremities of 35 kV system are experiencing significant voltage fluctuations due to variations in output of solar farms. Budgets should include an engineering investigation of causes and develop solutions.
- Rebuild some aged 34.5 kV transmission facilities and add capacity.
- A few distribution line improvements will be necessary to provide ties for the new substations and in some cases to improve load balance and service quality.
- Advanced Metering Infrastructure (AMI) system recommended for both the consumer and utility to operate more efficiently
- Aged underground and aerial facilities reviewed and budgets included.
- Grand Total estimated cost in present dollars is $ 14,168,000. An annual average of $ 1,416, 800.

The Long Range Plan is intended as a guide; rather than a firm schedule for construction projects. Actual project schedules should be based upon annual reviews of the system's reliability and ability to handle the peak loads expected.

City of Washington
NORTH CAROLINA

TEN-YEAR LONG RANGE PLAN

FOR THE

ELECTRIC DELIVERY SYSTEM

2020 -2029

Utility Electrical Consultants, PC

155 US Hwy 70 West

Garner, North Carolina 27529 – 3942

(919) 821-1410

City of Washington
NORTH CAROLINA

TEN-YEAR LONG RANGE PLAN

FOR THE

ELECTRIC DELIVERY SYSTEM

2020 -2029

I hereby certify that this Long Range Plan was prepared by me or under my direct supervision and that I am a duly registered professional engineer under the laws of the State of North Carolina.
Registration No. 12348

2/26/20 Philip I Monroe
(Date) (Philip I. Monroe, PE)

NORTH CAROLINA PROFESSIONAL SEAL 012348 ENGINEER PHILIP I. MONROE

I hereby certify that this Long Range Plan was prepared by me or under my direct supervision and that I am a duly registered professional engineer under the laws of the State of North Carolina.
Registration No. 6992

03/06/20 Edward S. Thomas
(Date) (Edward S. Thomas, PE)

NORTH CAROLINA PROFESSIONAL SEAL 6992 ENGINEER EDWARD S. THOMAS

Utility Electrical Consultants, PC
155 US Hwy 70 West
Garner, North Carolina 27529 – 3942
(919) 821-1410

Washington Electric Utilities
102 E Second Street
Washington, NC 27889-1988

TABLE OF CONTENTS

TABLES, DIAGRAMS, GRAPHS AND DRAWINGS

EXHIBITS

I. EXECUTIVE SUMMARY

This Ten-Year Long Range Plan provides the City of Washington, N. C. with a construction outline for meeting the anticipated consumer growth and to continue providing efficient and reliable service to existing consumers. The plan will provide adequate and dependable service through year 2029 for a non-coincident peak load level of 81.5 MW. This represents a 1.5 percent annual growth rate from the present system non-coincident peak of 70.2 MW. Load projections were based on the present NCEMPA Load Forecast, historical data, historical trending and expected trends in the future.

The City of Washington present delivery point, transmission, substation and distribution systems were reviewed to determine their adequacy to serve projected load growth. The review was performed using established engineering standards and planning criteria contained herein considering thermal loading, voltages, age, physical conditions, power quality and reliability. Operational limits for each system component were reviewed and recommendations made where it is necessary to maintain acceptable power delivery. Many areas of the system will need upgrading to provide sufficient capacity and reliability to meet load growth.

This report provides engineering support, cost estimates, analysis and justification for the Ten-Year Long Range Plan. The construction program outlined in this report will adequately serve as a planning guide for the City of Washington staff to plan future upgrades and expansions.

The grand total estimated cost to implement recommended improvements is $14,168,000. The following Table 1 is a summary of estimated cost by substation area for each step of the Ten-Year Long Range Plan. All estimates are based on 2019 dollars.

Table 1

TEN-YEAR LONG RANGE PLAN
COST SUMMARY

SUBSTATION	Estimated Cost *(in 2019 dollars)*		
	S1 2020 -2021	**S2 2022 -2023**	**S3 2024 -2029**
Main DP	$ 484,000	$ 1,313,000	
Main Dist T3	$ -	$ 180,000	$ 160,000
Main Dist T4	$ 152,000	$ -	$ -
Wharton	$ 189,000	$ 88,000	$ -
Eastern	$ -	$ -	$ -
Slatestone	$ -	$ -	$ -
Forest Hills	$ -	$ 603,000	$ -
White Post	$ -	$ -	$ 764,000
Transmission	$ -	$ 360,000	$ 765,000
General Systemwide	$ 1,110,000	$ 1,110,000	$ 1,890,000
Proposed Industrial Park Substation	$ -	$ 2,500,000	$ -
Proposed Highway 17 Substation	$ -	$ -	$ 2,500,000
GRAND TOTAL	**$ 1,935,000**	**$ 6,154,000**	**$ 6,079,000**

10 YEAR TOTAL: $ 14,168,000

II. INTRODUCTION

Power is delivered by NCEMPA from a 230 kV Chocowinity Delivery Point with Duke-Progress. At this point the City receives the power, operates a 230 kV protection station and a 230 kV transmission line to reach the Washington Main Substation. City of Washington's electric system consists of six substations. The Main Substation contains 230 kV to 34.5 kV transformation to serve Washington's 34.5 kV transmission system. The Main Substation also contains 34.5 kV to 12.5 kV transformation to serve part of the City's distribution system. The remaining five substations are 34.5 kV to 12.5 kV distribution substations to serve the City's load in their respective areas.

The City of Washington serves approximately 1200 consumers along 390 miles of 12.47 kV distribution line and 44.4 miles of 34.5 kV transmission line. In addition to serving the five distribution substations, the 34.5 kV transmission system serves as the interconnect point for four solar farms. These solar farms have a cumulative output capacity of 27.5 MW. Several active and inactive industries are connected to the 34.5 kV transmission system in the western part of the City. These include the Industrial Park, Flanders, Coeur, Camfil, PAS, and the IDX building.

The 10-year study considers a 1.5 percent annual growth rate resulting in an increase from the present system non-coincident peak demand of 70.2 MW to 81.5 MW in year 2029. Load projections were based on the present NCEMPA Load Forecast, historical data, potential industrial load and other factors impacting growth.

Considering the projected system load growth, the existing electric system was used as the basis for the development of this Long Range Plan. The existing system was evaluated with the projected load to determine where system weaknesses were based on the engineering design criteria. Options were evaluated to determine practical and

economical construction to strengthen the system to meet load expectations. Recommended projects are designed to ensure they will be useful through their full-service life.

Projects are scheduled in three steps; two 2-year steps and one 6-year step. This schedule was selected due to the difficulty of precise scheduling for much more than a couple of years. Actual scheduling of improvements should be based upon annual reviews of the system's reliability and ability to handle the peak loads expected for the budget year. This Long Range Plan should be used as a guide; rather than a schedule, for actual construction projects.

The Long Range Plan has been prepared to provide City of Washington's management with a practical, orderly and economical long range outline for system growth and expansion. The plan is broad enough to cover most foreseeable load variations and is flexible enough to cover changing circumstances. This Long Range Plan has the following basic provisions:

a. Orderly system development to minimize waste due to early obsolescence or inadequacy of facilities.
b. As much as possible, system expansion investment that is in step with expected load growth. Maximize the use of opportunities to improve the quality of service at minimal cost.
c. Provisions for future decisions to incorporate appropriate developments in equipment design and application.

III. SUMMARY OF REPORT, CONCLUSIONS AND RECOMMENDATIONS

A. Summary

City of Washington's electric system is capable of continued quality service with gradual improvements as load growth occurs. Improvements to the transmission, substation and distribution system necessary to meet load growth are outlined in this Long Range Plan in three steps (two 2-year steps and one 6-year step). This plan is prepared for a load level of 81.5 MW expected in year 2029. For estimating long term budgets and to provide a systematic construction approach, projects are scheduled by step. However, recommended improvements should be initiated as load growth or reliability improvement requires a system improvement.

To meet future capacity and reliability needs, two new substations will be necessary. The new substations will be located in developing load centers and will reduce the size of existing substations' service areas. Additional distribution circuit backfeed capability between substations will be a significant benefit of the new substations. The first substation is located in The Industrial Park to serve large capacity loads should they develop during the Long Range Plan. The second proposed substation will be located along Highway 17 near the Washington-Warren Field Airport.

Additional 230 kV to 34.5 kV capacity is recommended at the Main Substation. This capacity is necessary to ensure adequate service is maintained for the expected substation loading. The capacity increase is also necessary to ensure sufficient capacity is available for contingencies.

Improvements will be necessary to the 34.5 kV transmission system to rebuild aged facilities. These rebuilds are necessary to ensure an expected level of service continuity.

A few distribution line improvements will be necessary to provide ties for the new substations and in some cases to improve load balance and service quality.

Replacement of conductors over 30 years has been addressed in the Long Range Plan. Presently, there are approximately 80 miles of small conductor on the system. Although there are no widespread problems with these conductors, further aging will have a reliability impact.

Aged underground system Transclosures are located within the system. These Transclosures present reliability concerns due to age. Public and operational safety is also a concern since these were designed prior to new safety provisions being written into current codes. Replacement of Transclosures is recommended in the Long Range Plan.

The recommended system improvements are made to accomplish the following:

a. Economically and orderly develop the system to minimize early obsolescence of facilities.
b. Maintain system service quality and reliability.
c. Keep investment and operating cost in line with load growth.
d. Provide a plan that can be expanded beyond the load considered in this plan.
e. Minimize environmental impact.
f. Flexibility to accommodate shifts in load patterns.

Plant investment with the improvements contained in this Long Range Plan is $14,168,000. Detailed cost estimates and scheduling are presented in section VII. LONG RANGE PLAN DISCUSSION.

Conclusion

From an examination of the present system and its ability to serve projected Long Range Plan loads the electric system will require upgrades during the ten-year period. Two new substations will be necessary to provide sufficient capacity, backfeed capability and reliability. Capacity upgrades will be necessary at the Main Substation to provide adequate capacity.

The presently used large capacity 336.4 kcmil ACSR conductor will continue to be sufficient for the 12.47 kV distribution system. However, a larger conductor will be necessary on the 34.5 kV transmission system to provide adequate capacity and voltage drop profiles for future system loading. New 34.5 kV power lines and future 34.5 kV reconductoring should utilize 556 kcmil ACSR. The 556 kcmil ACSR conductor ampacity has a 37 percent increase in load carrying capacity over the 336.4 kcmil ACSR conductor. Similarly, voltage drop on 556 kcmil ACSR conductor is 37 percent less than the voltage drop on the 336.4 kcmil ACSR conductor.

Additional capacitors will be necessary when economically justified to maintain efficiency. Aged and deteriorated distribution lines will need replacement. Aged tranclosures in the City will need to be replaced with modern padmounted transformers to improve safety and reliability.

B. General Recommendations

The system design incorporated an organized approach necessary to provide efficient and dependable service through a three-step plan of increasing loads. The following are the general recommendations made for the development of the system.

a. Adopt the Long Range Plan to be used as a guide for subsequent budget years with improvements based upon actual system reliability and load growth.
b. Evaluate and implement an Advanced Metering Infrastructure (AMI) system.
c. Continue the aged conductor evaluation and replacement program.
d. Maintain a comprehensive sectionalizing study encompassing transmission, substation and distribution devices.
e. Maintain facility inspection programs and maintain records of all inspections and maintenance.
f. Maintain clear right-of-ways along distribution and transmission lines.
g. Backup transformers should be maintained for industrial and commercial applications.
h. Sufficient power transformer capacity should be maintained for load shifts and transformer failure.
i. Establish and maintain distribution load shift capability between substations.
j. Continue expansion of 34.5 kV transmission system in lieu of initiating a 115 kV transmission system expansion.
k. Standard conductors should be 336.4 kcmil ACSR for the 12.47 kV system and 556 kcmil ACSR for the 34.5 kV system.

IV. PRESENT SYSTEM AND BASIC DATA ANALYSIS

A. Overview

A comprehensive analysis of the City of Washington's electric system was made to provide a foundation and guide for the preparation of this Long Range Plan. The analysis was also used to help formulate the planning criteria which set operating parameters for which the system would be designed. The present system analysis was based on data and system parameters through the summer of 2019.

Changes in system load growth patterns, economics and facility cost since the last Long Range Plan require a new system study to examine future load growth and system expansion. To provide an adequate review, present conditions were investigated to determine the present system capabilities. This investigation provided a basis to plan for the future.

B. Purpose of Analysis

The purpose of the present system analysis is to gather pertinent data, evaluate loading conditions and evaluate operation of the existing system. This analysis identifies the strengths and weaknesses of the electric system. The study primarily encompasses system capacity relative to thermal loading, voltage drop, system performance, service reliability, losses and operation cost. The present system analysis conclusions provide a planning basis for further study and development of the City of Washington system to meet load growth.

C. Summary of Analysis

Power is delivered by NCEMPA from a 230 kV Chocowinity Delivery Point served by Duke-Progress. This delivery point is located across the Pamlico River near Chocowinity 6.6 miles southwest of the City's Main

Substation. A City-owned 230 kV transmission line connects the delivery point to the Main Substation.

Exhibit A contains historical system load data used in the present system analysis. Exhibit B contains historical maximum kVA data from SCADA for each of the Main Substation transformers, transmission lines distribution substations and each distribution feeder. Data from both exhibits were used to determine present peak loading throughout the system.

As shown in Diagram 1 (Transmission One-Line) at the end of this section, the system contains six substations. The Main Substation contains two 230 kV to 34.5 kV transformers to serve Washington's 34.5 kV transmission system. The Main Substation also contains two 34.5 kV to 12.5 kV power transformers to serve part of the City's distribution system. The remaining five substations are 34.5 kV to 12.5 kV distribution substations to serve the City's load in their respective areas. These substations are located in the range of 2.9 to 10.4 miles from the Main Substation.

The City of Washington serves approximately 1200 consumers along 390 miles of 12.47 kV distribution line. A total of 44.4 miles of 34.5 kV transmission line is operated and maintained by to City to serve the system's five distribution substations and seven industrial sites. Along with these substations, the 34.5 kV transmission system serves as the interconnection for four solar farms. One solar farm is located near the Washington-Warren Field Airport. The other three solar farms are located near the City's White Post Substation. These solar farms have a cumulative output capacity of 27.5 MW.

Solar Farm generation has a significant impact on the 34.5 kV system during the daylight hours when there is minimal cloud cover. The three solar farms located near White Post Substation having a combined output capacity of 22.5 MW will exceed the total load on the 34.5 kV transmission line feeding White Post. This 9.3 mile 34.5 kV transmission line originates at the Main Substation and also feeds Forest Hills

Substation. At times some of this solar generation may flow back to the Main Substation and back into other areas of the electric system.

Coincident peak demands will be significantly impacted by the solar since these peaks normally occur during the hours when solar panel output is at highest. However, non-coincident peaks are impacted to a much lesser degree due to the time that the non-coincident peak typically occurs. During the winter, the non-coincident peak normally occurs on the coldest day early in the morning when sunlight is nearly nonexistent. Based upon a review of historical meter data, the summer non-coincident peak on the City's system is between 6 and 8 pm when solar contribution is relatively small.

System planning must be based upon the maximum loading that the system is expected to endure. This maximum will occur when the solar generation output is zero. No solar generation can be presumed at any time due to the time-of-day, weather or even the solar farms being switched off-line. Therefore, for purposes of this Long Range Plan analysis, non-coincident peak loading on the City's electric system facilities is without solar contributions.

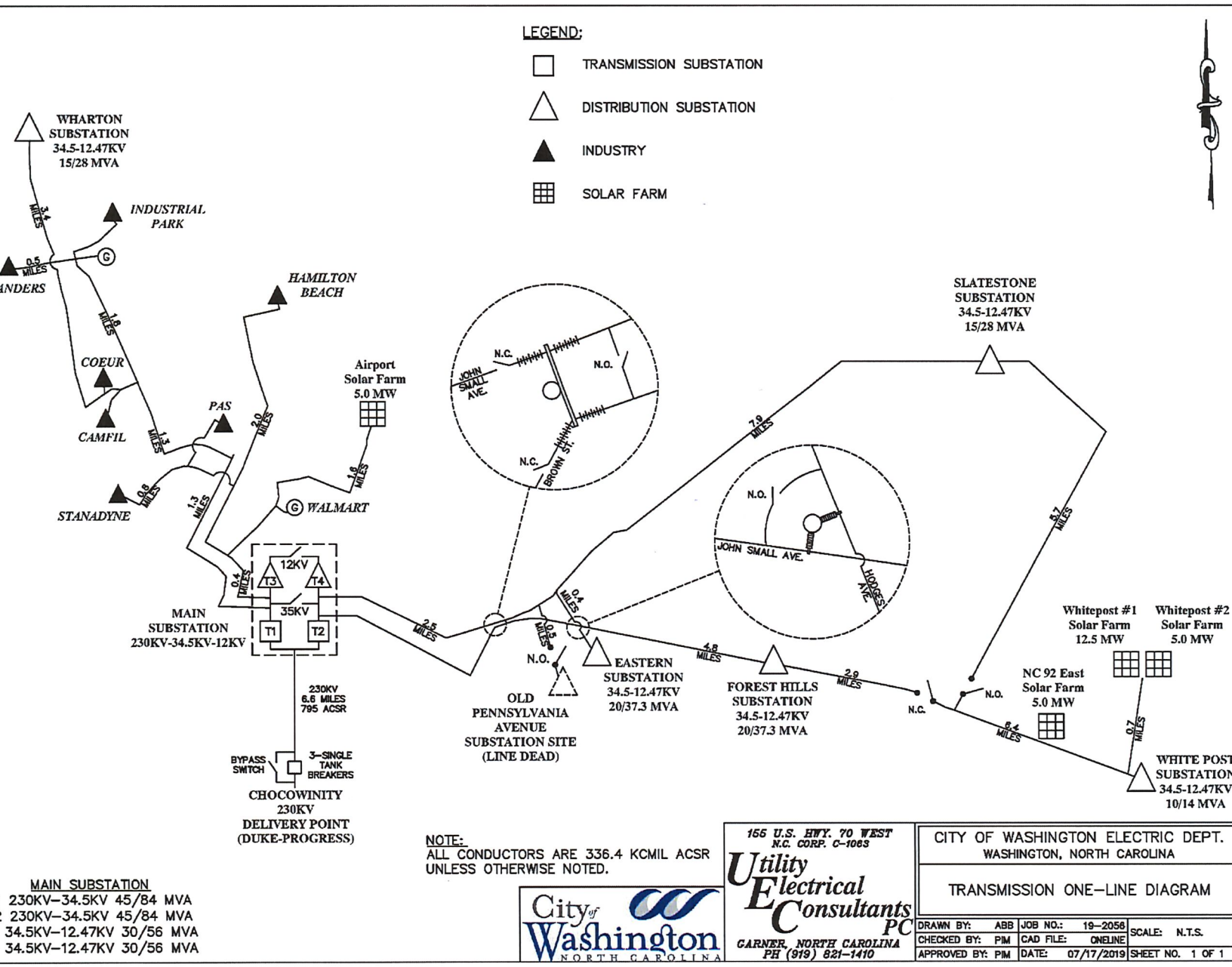
The present system analysis investigated the following:

- Voltage Stability
- Thermal Capacity
- Quality of Service
- Historical Load Growth
- Cost of Operation
- Physical Condition

Table 2 at the end of this section shows the present substation transformer peak load and the percent of transformer capacity that is used by the load.

The following is a summary of areas of special concern found in the present system investigation.

- Outage at the 230 kV Chocowinity Delivery Point will impact the entire City and is dependent upon Duke-Progress repair time.
- Failure along the City's 230 kV transmission line; especially the Pamlico River crossing, may result in significant repair time.
- Loading on the Main Substation 230 kV to 34.5 kV T2 transformer is 98.1 percent of its base capacity.
- With loss of one Main Substation 230 kV to 34.5 kV transformer at peak demand, the remaining transformer will be loaded to 87.7 percent of its upper fan rating or 163 percent of its base capacity.
- Wharton Substation is loaded to 79.3 percent of its base capacity.
- Main Substation 34.5 kV Circuit 514 does not presently have voltage regulators to regulate the feeder serving Forest Hills and White Post Substations.
- Contingency load shifts between 34.5 kV Highland Drive 513 (Eastern and Slatestone) and Forest Hills 514 (Forest Hills and White Post) circuits at Main Substation may result in overloaded conditions on the circuit exits at peak demand.
- Voltage conditions on most distribution circuits are reasonably good. Northern extremities of the Highway 17 and Market Street Extension areas are marginal and need further study.
- Backfeed capability among distribution circuits will need further study with load projections applied.
- Aged facilities in the transmission, aerial distribution, and underground system need to be addressed.



MAIN SUBSTATION
230KV–34.5KV 45/84 MVA
230KV–34.5KV 45/84 MVA
34.5KV–12.47KV 30/56 MVA
34.5KV–12.47KV 30/56 MVA

NOTE:
ALL CONDUCTORS ARE 336.4 KCMIL ACSR UNLESS OTHERWISE NOTED.

City of Washington NORTH CAROLINA

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N.C. CORP. C-1063
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CARNER, NORTH CAROLINA
PH (919) 821-1410

CITY OF WASHINGTON ELECTRIC DEPT.
WASHINGTON, NORTH CAROLINA

TRANSMISSION ONE–LINE DIAGRAM

DRAWN BY:	ABB	JOB NO.:	19–2056	SCALE:	N.T.S.
CHECKED BY:	PIM	CAD FILE:	ONELINE		
APPROVED BY:	PIM	DATE:	07/17/2019	SHEET NO.	1 OF 1

Table 2
PRESENT SYSTEM SUBSTATION TRANSFORMER LOADING

Substation	Present System		
	Transformer MVA OA/FA Rating	Peak MW	Percent Loading OA/FA
Main DP T1	45/84	28.1	65.7/35.2
Main DP T2	45/84	41.9	98.1/52.5
Main Dist T3	30/56	11.3	41.0/22.0
Main Dist T4	30/56	9.9	34.6/18.6
Wharton	15/28	11.3	79.3/45.8
Eastern	20/37.3	9.9	52.1/27.9
Slatestone	15/28	4.4	31.0/16.6
Forest Hills	15/28	12.5	65.9/35.1
White Post	10/14	6.1	64.7/46.2

Bold Type = Percent Loading Exceeds Planning Criteria

Based on a 95.0 percent power factor.

OA/FA Rating = Base Self Cooled 55° C/Second Stage Fan 65° MVA ratings

V. PROJECTIONS

The City of Washington's system non-coincidental peak typically occurs in the summer. During the last five years, the system peak has been during the summer except in 2018 when the system peak occurred in January. The 2018 winter peak was caused by extreme winter weather and extreme temperature conditions. Individual substation and circuit non-coincidental peak demands vary between summer and winter. However, summer is the dominant season for establishing peaks. Both winter and summer peaks were used to review each system component to ensure sufficient capacity is available to meet expected non-coincidental peak loads. As discussed in detail within IV. Present System Analysis and Basic Data Analysis section, solar farms have relatively little impact on the non-coincident peak. System planning should be based on the maximum expected load which can occur. Therefore, zero solar generation output is considered in the non-coincident projections.

The electric system is presently growing in consumers and demand at an average annual rate of 1.5 percent and expected to continue during the next ten years. This will increase the present system non-coincident peak demand from 70.2 MW to 81.5 MW in year 2029. Graph 1 shows historical and expected non-coincident peak demands.

Load projections were based on the present NCEMPA Load Forecast, historical data, economic factors, demographic factors, historical trending and expected trends in the future. A degree of uncertainty exists with any type of projections since unknown factors may occur to change the basis of the projections. Economics is one major factor that may rapidly change projections. New industrial loads are particularly difficult to predict. Therefore, it is important for the City to continually communicate with the local Economic Development office to stay abreast of potential industries. Any potential new industry not already considered in this plan should be evaluated to determine if their load expectations require updates to this study.

Present system non-coincident peaks were used as the basis of projecting each substation and circuit peak. The non-coincident load projections without improvement for each distribution substation and distribution circuit are shown in Table 3.

No large industrial load increases outside normal growth trends are included in this Long Range Plan. Future large industrial growth should be evaluated on an individual basis.

This Long Range Plan does not project new industrial load within the Industrial Park except for the recently announced Pamlico Yachtworks. This new industry plans a $12M investment to manufacture boats. Pamlico Yachtworks expects to employ approximately 207 people. With an estimated load of less than 100 kW the existing backbone electric system will be satisfactory to serve Pamlico Yachtworks. However, should industry with significant energy demands decide to locate in the Industrial Park, provisions are included in the Long Range Plan for a new substation. This new substation within the Industrial Park should be installed only when load dictates its need.

Electric vehicle charging may have some moderate impact upon the future loading of the electric system. Diversified load of a charger will range around 6.6 kW. Higher penetration will be inside residential subdivisions. This may mandate local upgrades to transformers, etc.; but little additional burden to feeders or substations. One resident out of ten within a subdivision is a reasonable vehicle charging expectation by the end of the ten-year plan. Among rural customers, penetration is generally considered to be negligible.

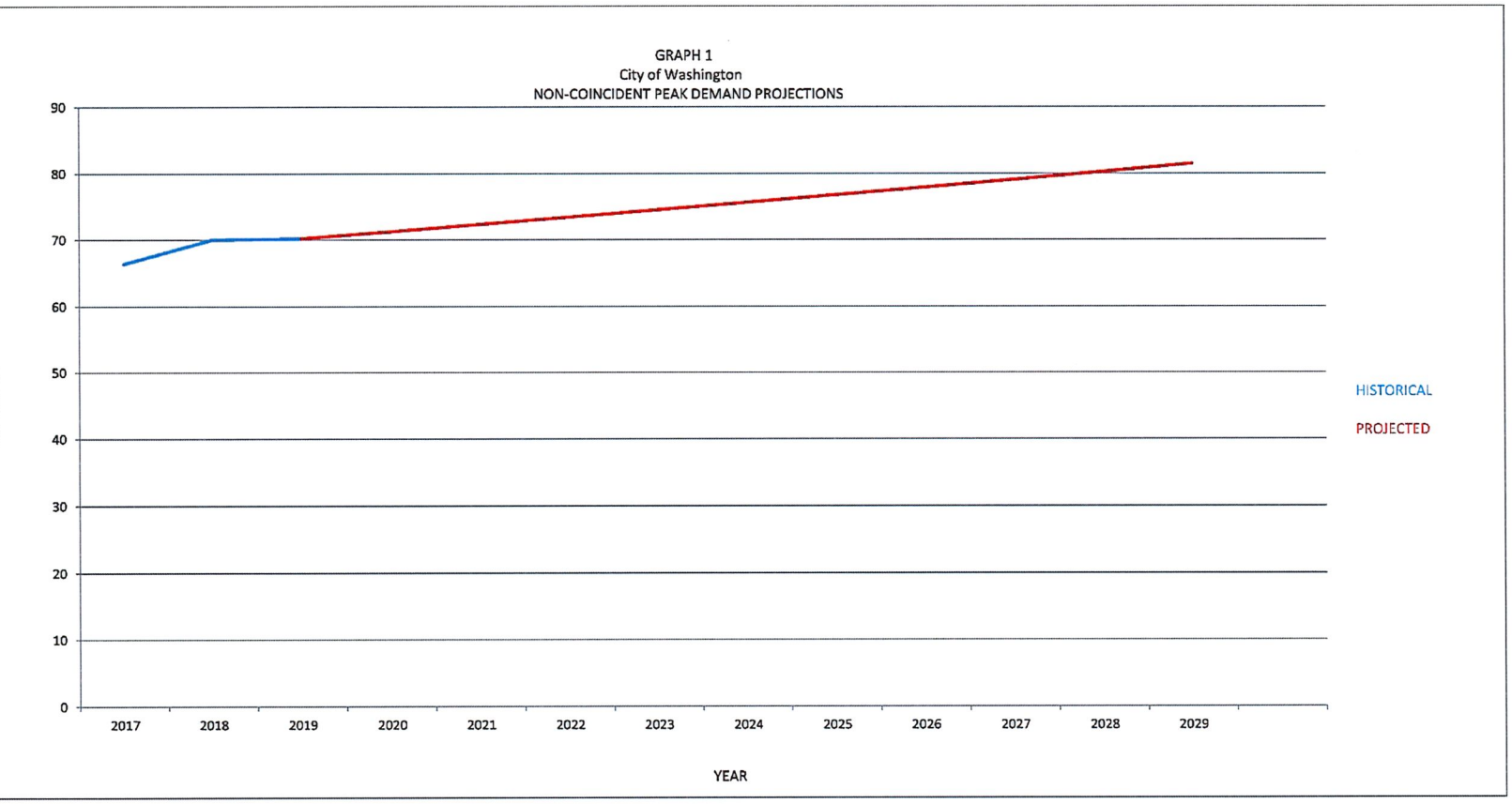

GRAPH 1
City of Washington
NON-COINCIDENT PEAK DEMAND PROJECTIONS
90
80
70
60
50
40
30
20
10
0
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
YEAR
HISTORICAL
PROJECTED

Table 3
DISTRIBUTION SUBSTATION AND CIRCUIT LOAD PROJECTIONS
W/O Improvements

Substation	Historical Peak (NCP)		Projections by Step		
	Amps	kW	**S1** 2020 - 2021	**S2** 2022 - 2023	**S3** 2024 - 2029
Main Bus T3	444	9,595	9,885	10,184	11,135
Clarks Neck - 211	59	1,275	1,313	1,353	1,480
Hwy 17 - 212	133	2,872	2,959	3,048	3,333
15th Street - 213	272	5,875	6,052	6,235	6,818
Main Bus T4	457	9,872	10,171	10,478	11,457
Market St - 214	172	3,725	3,838	3,954	4,323
2nd Street - 215	196	4,239	4,367	4,499	4,919
5th Street - 216	95	2,064	2,127	2,191	2,396
Wharton	523	11,305	11,647	11,999	13,120
Pactolus - 261	129	2,790	2,874	2,961	3,238
Hwy 264 - 262	173	3,748	3,861	3,978	4,349
Mill Road - 263	166	3,585	3,694	3,805	4,161
Grimes Loop - 264	116	2,508	2,584	2,662	2,911
Eastern	457	9,892	10,191	10,499	11,480
Penn Ave - 271	87	1,889	1,946	2,004	2,192
Washington Park = 272	52	1,122	1,156	1,191	1,302
John Small - 273	235	5,073	5,226	5,384	5,887
Hospital - 274	104	2,248	2,316	2,386	2,609
Slatestone	204	4,413	4,546	4,684	5,121
Slatestone - 121 (251)	135	2,926	3,014	3,106	3,396
Pinetown - 122 (252)	69	1,487	1,532	1,578	1,725
Forest Hills	579	12,512	12,890	13,279	14,520
River Road - 231	125	2,708	2,790	2,875	3,143
Spare (hospital) - 232	0	0	0	0	0
High School - 233	108	2,332	2,403	2,475	2,707
Douglas Crossroads - 234	161	3,476	3,581	3,689	4,034
Asbury Church - 235	185	4,000	4,120	4,245	4,642
White Post	284	6,147	6,333	6,525	7,134
Bath - 121 (241)	34	740	762	785	859
Midway - 122 (242)	81	1,757	1,810	1,864	2,039
Free Union - 123 (243)	149	3,220	3,317	3,417	3,736
Total Peak kW		63,736	65,663	67,648	73,969

VI. PLANNING CRITERIA

Planning criteria are necessary in long range planning to provide the design basis to expand and maintain the system facilities. The criteria are necessary to maintain adequate and reliable service and to meet future load growth in a cost-effective manner. Planning criteria set minimum system standards to be maintained in the Long Range Plan.

1. Non-coincident load is projected to increase from a base load of 70.2 MW to 81.5 MW within ten years. Solar output contribution is considered as zero for capacity investigations.

2. Service Reliability Goals to review Performance.
   - Single Contingency Planning where economically justifiable or to meet service requirements
   - Outage Goal of 1.0 Consumer-Hour/Consumer/Year

3. The following equipment will not normally be thermally loaded by more than the percentage shown of its base nameplate capacity rating. However, reserve capacity is contingent upon capacity necessary for load shifts from adjacent substations or circuits. Consideration will be given for equipment loading reduction when the peak demand reaches the following percentages.
   - Power Transformers in substations - 90 % of base 55° C capacity rating
   - Limit initial loading of new power transformer - 60 % of base 55° C capacity rating
   - Substation and Line Regulators - 90 % of base capacity rating
   - System Protective Devices – 90 % of capacity
   - Inter-Substation Circuits -50 % conductor thermal capacity
   - Radial circuits – 75 % conductor thermal capacity

4. Maximum voltage drop on primary distribution lines are not to exceed 8 volts (120-volt basis) with one stage of distribution line voltage regulation.

5. Transmission and sub-transmission voltage levels will between plus/minus 5 percent of normal under normal conditions and minus 10 percent under a single-contingency emergency.

6. Single-Phase tap upgrade to three-phase should be considered when the load exceeds 200 kW (28 Amps). Load larger than this level may cause coordination conflicts, cold-load pickup issues, system imbalance and increased losses.

7. A 98 percent power factor, or as high as economically justifiable, will be maintained to reduce losses, improve efficiency and minimize facility loading.

8. The conductors, 1/0 ACSR and 336.4 kcmil ACSR are presently used on the 12.5 kV distribution system. The smaller 1/0 ACSR conductor is used areas of low load levels. The larger 336.4 kcmil ACSR where load levels are significant and thermal capacity and voltage drop are considerations.

9. The present 34.5 kV transmission system conductor is 336.4 kcmil ACSR and the present 230 kV transmission conductor is 795 kcmil ACSR.

10. Unit estimates are based on 2019 present worth costs in Exhibit A. Deviations from average conditions; such as, right-of–way parameters, short length and complexity will be taken into account for estimated project cost.

11. All new transmission lines, substations, and distribution lines are defined in general locations. Actual substation sites and power line right-of- way shall be based upon land availability.

12. Consider replacement of aged overhead and underground facilities that have a reasonable chance of failure. This is necessary to maintain adequate reliability and prevent excessive or lengthy outages.

VII. POWER DELIVERY AND TRANSMISSION OPTIONS

The City of Washington presently operates a 34.5 kV transmission system to serve their distribution substations. The 34.5 kV system originates from the City's Main Substation. Power is received from the 230 kV Chocowinity Delivery Point served by Duke-Progress. The 230 kV delivery voltage transmitted via a transmission line extending from Chocowinity across Pamlico River to the Main Substation near Wilson Street. The 230 kV is stepped down to 34.5 kV with transformation in the Main Substation. This transformation consists of two 45/84 MVA transformers defined as T1 and T2. Loading at the end of the ten-year planning period will be 32.6 MVA on transformer T1 and 48.7 MVA on transformer T2. The base self-cooled (OA) 55° C capacity of the transformers will be loaded to 76.2 percent and 113.8 percent respectively. Furthermore, the system peak demand will be 85.8 MVA. In the event of a loss of one transformer at peak load the remaining transformer's upper 84 MVA second-stage forced-air cooling (FA) 65° C rating will be exceeded. This needs to be addressed in this Long Range Plan.

Expansion of the power delivery and transmission system is important to ensure a flexible, economical and reliable approach to serve the City's electric consumer base. The Plan provides adequate reliability to the City's consumers at the least cost and provide expansion to serve future load growth. The City has two basic approaches to provide adequate service. The first option, Option A, is to remain on the present path of 230 kV transformation to 34.5 kV and retaining 34.5 kV as the transmission system feeding the distribution substations. The second option, Option B, is to operate a combination system of 34.5 kV transmission and 115 kV transmission. The following provides a summary description of each option.

1. OPTION A – Retain 34.5 kV Transmission

   Option A introduces no new transmission operating voltages on the system. In order to maintain an adequate system using 34.5 kV transmission, a third transformer will be necessary at the Main Substation. This transformer will be rated at 230 kV – 34.5 kV with a capacity of 45/84 MVA. This addition will relieve loading on the existing T2 transformer reducing its base OA loading from 113.8 percent to 59.3 percent. Option A provides adequate capacity for a contingency loss of one of the three 230 kV – 34.5 kV transformers since the two remaining transformers would have a combined transformer capacity of 90/164 MVA. Option A is depicted in Drawing 3 (p-28) at the end of this section.

2. OPTION B – Expand Using 115 kV Transmission

   Option B retains the 34.5 kV transmission system and creates 115 kV transmission to parts of the City's system. The objective of Option B, as was the case with Option A, is to reduce loading on the existing T2 230 kV -34.5 kV transformer and provide for the loss of one of the transformers. In order to accomplish these goals utilizing 115 kV transmission, two 230 kV -115 kV 60/112 MVA transformers will be installed at the City's Main Substation. Two transformers are necessary to provide redundancy for transformer failure. Note that these transformers have larger capacity than the transformers within Option A. This is because Option A has three transformers with lower capacity and Option B has two transformers at a larger capacity. However, the combined equivalent capacity of both options is compatible and necessary to carry the system load with the loss of one transformer.

A new 115 kV -34.5 kV substation will be necessary adjacent to the present Eastern Substation. Two 45/84 MVA transformers would be utilized. This new 115 kV -34.5 Eastern Transmission Substation would serve the existing 34.5 kV – 12.5 kV Eastern Distribution Substation, the 34.5 kV transmission serving Slatestone Substation and the 34.5 kV transmission serving Forest Hills and White Post Substations. Approximately 3.0 miles of 115 kV 795 kcmil ACSR transmission line will connect Main Substation with the Eastern 115 kV – 34.5 kV Substation. The most practical route for this new 115 kV transmission line will be on the perimeter of the downtown business district.

In this option, the loading on the Main Substation 230 kV – 34.5 kV T2 transformer will be significantly reduced to 20.7 percent of the base OA rating. Thus, normal and contingency loading on the two existing 230 kV – 34.5 kV transformers will be adequate. Option B is depicted in Drawing 4 (p-29) at the end of this section.

While Option A is estimated to cost $1.3 million for substation costs, the estimated substation costs for Option B are approximately $6.0 million. Note that Option B also requires 3.0 miles of 115 kV line with dual (35 kV transmission and 12.5 kV) underbuild in close proximity to the Central Business District. Even without the cost and physical impact of the 115 kV line, Option B is already over four times the cost of Option A. This makes Option A as the only reasonable consideration.

Option B with 115 kV transmission will have some reduction in energy losses on the short section of existing 35 kV transmission lines between the Main Substation and the Eastern Substation. However, Option A offers reduced losses primarily due to substation transformer no-load losses. Option A has three less substation transformers than Option B. The losses on three additional substation transformers in Option B will be significant. As a result, difference in losses between the options favor Option A.

Extending 115 kV transmission into the City will bring forth additional issues to consider. Acquiring adequate right-of-way widths will be problematic. Physically constructing and maintaining 115 kV transmission within the City will be significantly more difficult than with 34.5 kV. Additional complications are introduced by the existence of existing 34.5 kV and/or 12.5 kV distribution lines along all feasible routes. This means that the 115 kV line(s) would have to be constructed above these existing lines, probably on shared structures that might reach a height of 90' or more. Furthermore, the additional impact of 115 kV construction on adjacent properties will limit the construction to a single line route; thus, requiring all maintenance work on the 115 kV to be performed under hot-line conditions. Additionally, City crews are equipped for and familiar with 34.5 kV operation and maintenance. O&M on 115 kV lines is much more difficult than similar operations on 34.5 kV lines – especially since the 34.5 kV system has multiple line routes arranged so that individual circuits can usually be deenergized for maintenance. Operating and maintaining 115 kV will add a new level of expertise required by the city's employees and require that all equipment and tools are rated for 115 kV. Finally, substantially more facilities will be introduced with 115 kV expansion. These additional facilities will cause an increase in operation and maintenance labor and cost.

The City has inquired about the benefit of an emergency standby 115 kV point-of-delivery (POD) with Dominion Energy. Activation of an alternate POD during an emergency would have to be handled by Duke Progress. Since the 'emergency' would most likely be created by an

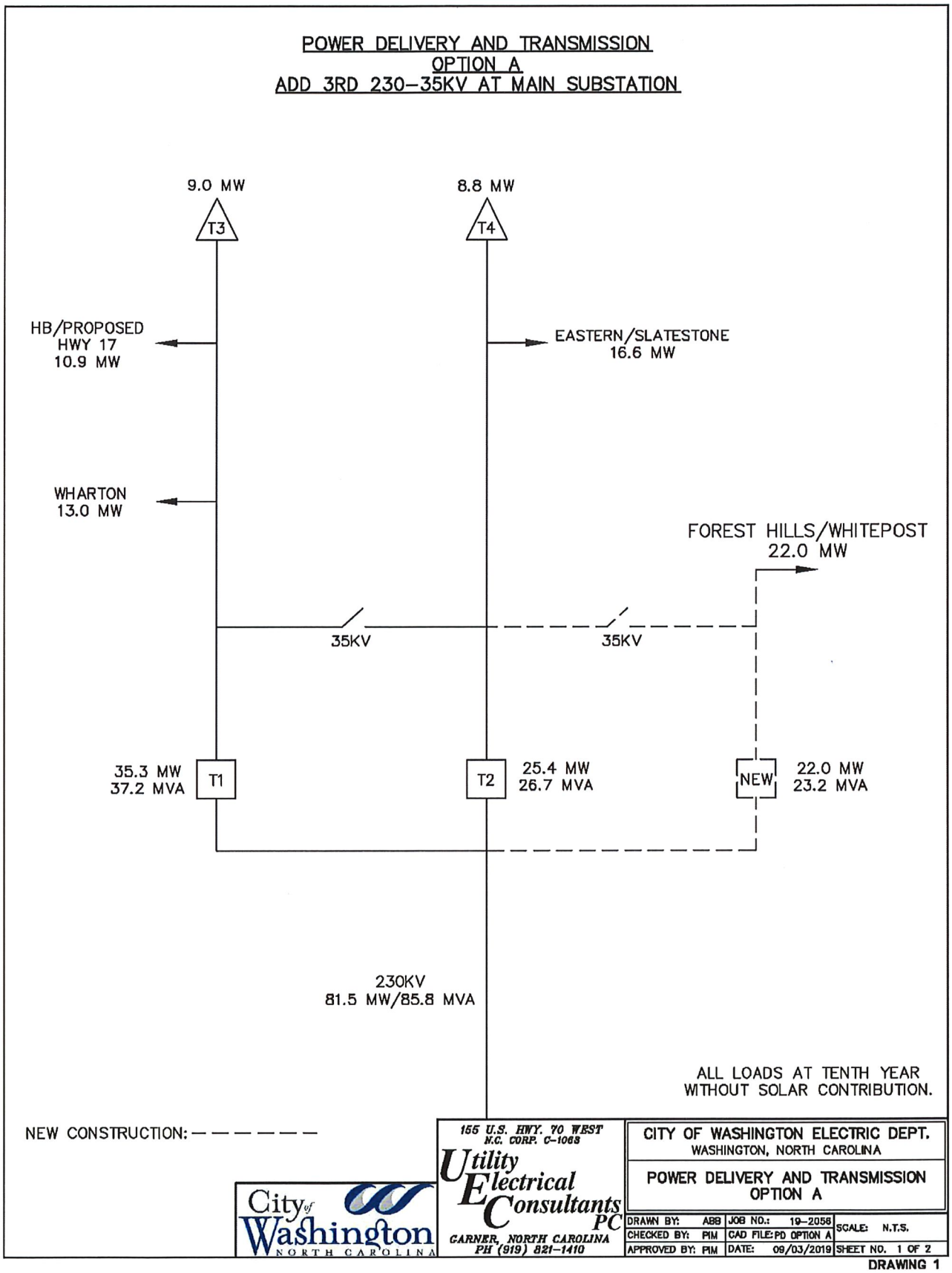
outage of the Duke 230 kV into the Chocowinity DP -- which has two directions of feed available -- Duke would be prioritizing their resources to returning the 230 kV source to service since it feeds many customers in addition to Washington. Second, the area conditions which remove both 230 kV feeds to Chocowinity would also most likely have had a similar effect on the Dominion 115 kV line -- which is less structurally sound. And, the switching process would be complex and involve both the Duke and Dominion Transmission System Operating Centers as well as their transmission field operating personnel, all of which would already be extremely busy in such a circumstance. Furthermore, Duke and Dominion would require a 'visible open point' between the two systems. This could well require replacing a set of 115 kV jumpers when the line is needed. This jumper work would require a 115 kV-qualified bucket crew that would be far more valuable elsewhere on the Dominion or Duke systems at that time and under the circumstances.

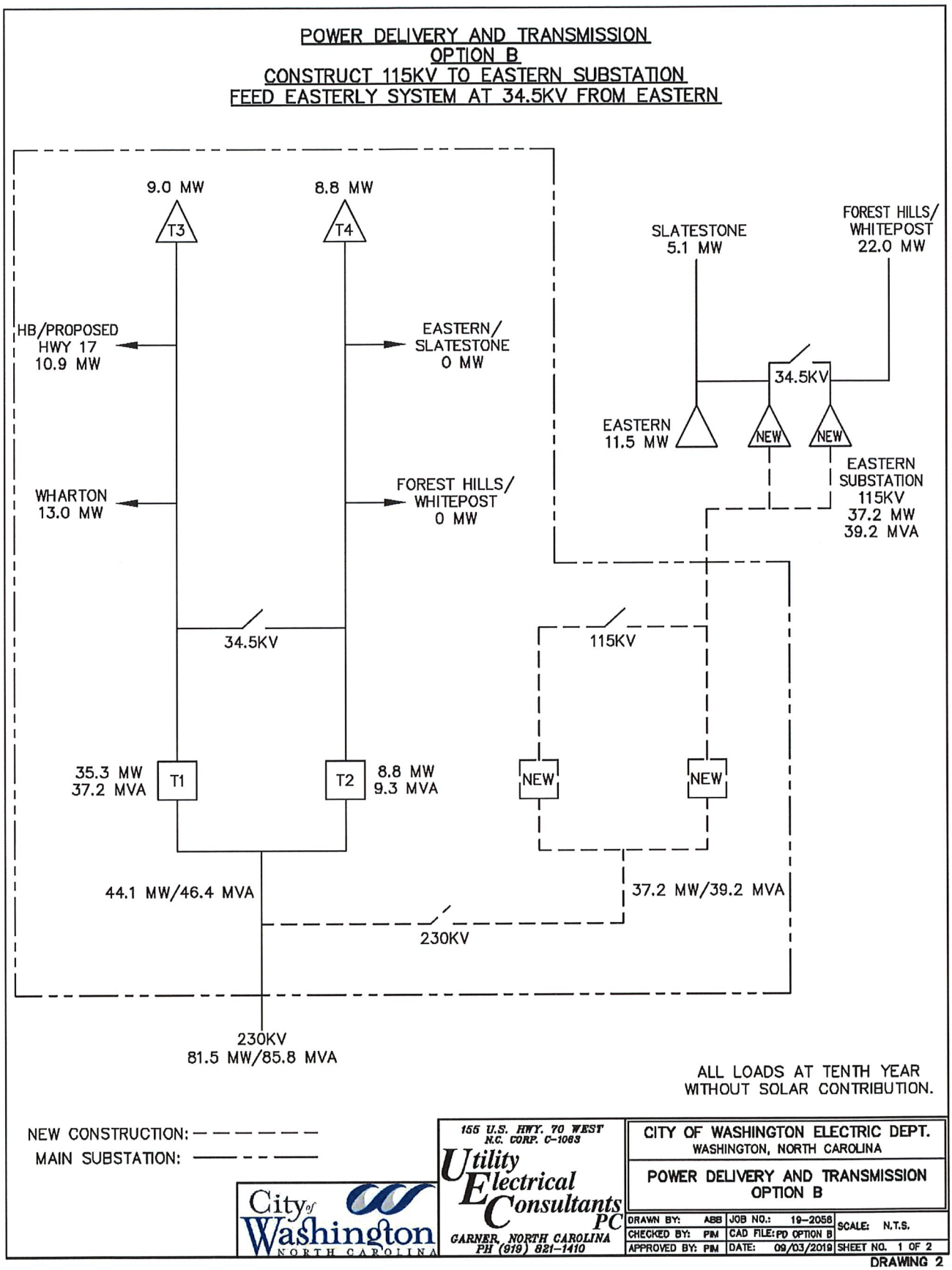
Dominion would most likely have a significant cost to reestablish the existing 115 kV tap to a satisfactory operating condition. Since the segment of line is for a facility that would not be normally revenue-producing, the City would most likely have to pay the total cost for all upgrades. In addition to that Dominion would likely ask for annual operations and maintenance costs for this line in perpetuity and cost for emergency transfers.

Of course, Duke and Dominion would have to initially work out an operating agreement for this arrangement. According to NCEMPA, Dominion has not expressed interest in moving forward with this type of POD.

It has been concluded within this section that the City should continue on its present path of maintaining a 34.5 kV transmission system. This option provides an economical expansion with a reasonable level of capacity and reliability to meet future load requirements. Since expansion of 115 kV into the City's system has been shown to be an ineffective solution during the scope of this plan, a 115 kV emergency standby POD cannot be economically established.

The 34.5 kV option is reasonably adaptable for load growth beyond this ten-year LRP timeframe. The next expansion step beyond the next ten years would be to add a third 34.5 kV feeder to serve the eastern part of the system. A possible route for this feeder would be to tap the 34.5 kV transmission line serving the Airport solar farm. From that tap point a 34.5 kV transmission feeder would need to be constructed along 15th Street tying into existing 34.5 kV near Highway 264. Therefore, the 12.5 kV distribution upgrade recommended along 15th Street in this Long Range Plan should be constructed for future 34.5 kV overbuild.


POWER DELIVERY AND TRANSMISSION
OPTION A
ADD 3RD 230–35KV AT MAIN SUBSTATION
9.0 MW
T3
8.8 MW
T4
HB/PROPOSED
HWY 17
10.9 MW
EASTERN/SLATESTONE
16.6 MW
WHARTON
13.0 MW
FOREST HILLS/WHITEPOST
22.0 MW
35KV
35KV
35.3 MW
37.2 MVA
T1
T2
25.4 MW
26.7 MVA
NEW
22.0 MW
23.2 MVA
230KV
81.5 MW/85.8 MVA
ALL LOADS AT TENTH YEAR
WITHOUT SOLAR CONTRIBUTION.
NEW CONSTRUCTION: – – – – – –
155 U.S. HWY. 70 WEST
N.C. CORP. C-1068
Utility Electrical Consultants PC
CARNER, NORTH CAROLINA
PH (919) 821-1410
CITY OF WASHINGTON ELECTRIC DEPT.
WASHINGTON, NORTH CAROLINA
POWER DELIVERY AND TRANSMISSION
OPTION A
DRAWN BY: ABB
JOB NO.: 19-2056
SCALE: N.T.S.
CHECKED BY: PIM
CAD FILE: PD OPTION A
APPROVED BY: PIM
DATE: 09/03/2019
SHEET NO. 1 OF 2
DRAWING 1

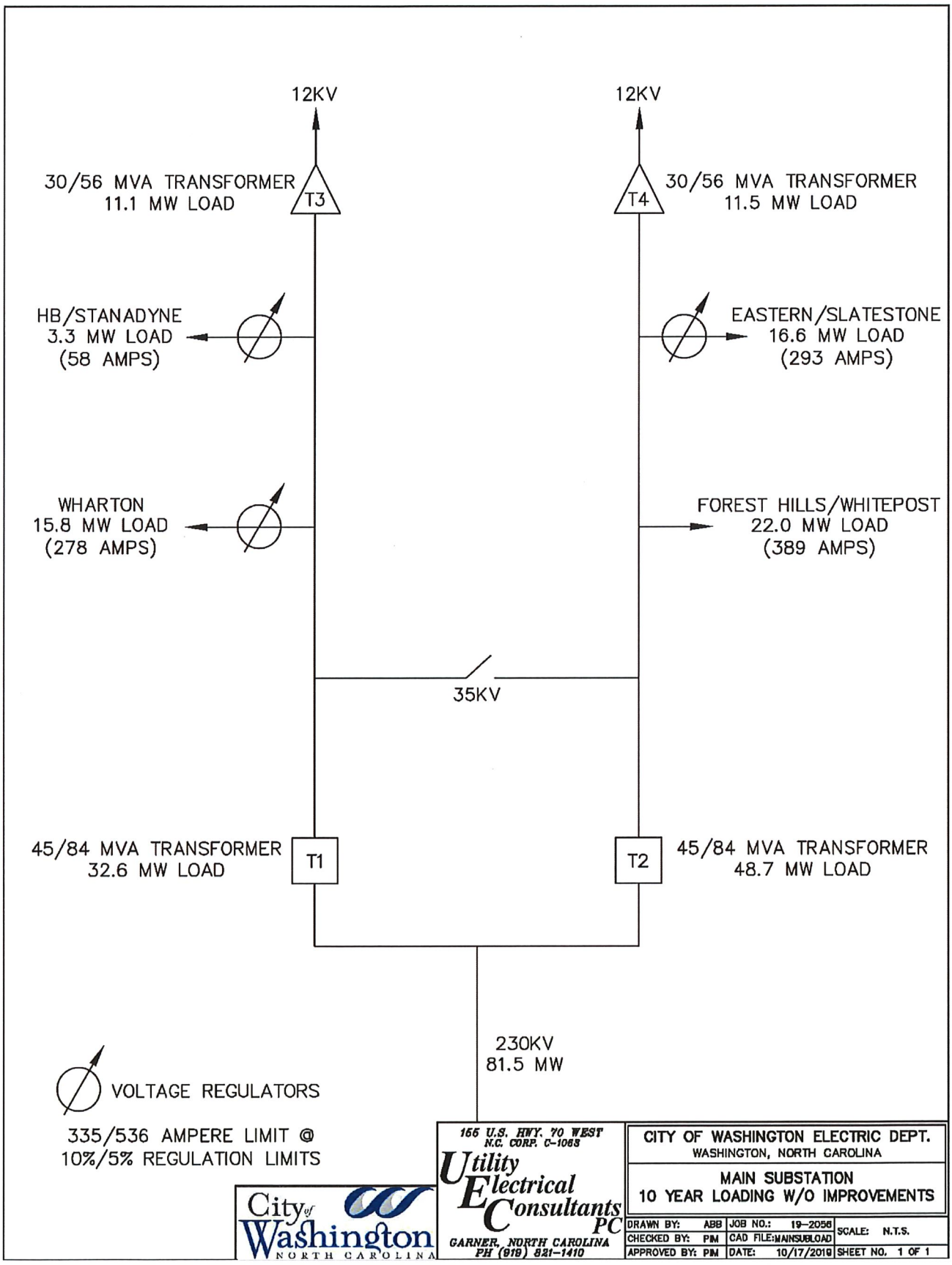

POWER DELIVERY AND TRANSMISSION
OPTION B
CONSTRUCT 115KV TO EASTERN SUBSTATION
FEED EASTERLY SYSTEM AT 34.5KV FROM EASTERN
9.0 MW
T3
8.8 MW
T4
SLATESTONE
5.1 MW
FOREST HILLS/
WHITEPOST
22.0 MW
HB/PROPOSED
HWY 17
10.9 MW
EASTERN/
SLATESTONE
0 MW
34.5KV
EASTERN
11.5 MW
NEW
NEW
EASTERN
SUBSTATION
115KV
37.2 MW
39.2 MVA
WHARTON
13.0 MW
FOREST HILLS/
WHITEPOST
0 MW
34.5KV
115KV
35.3 MW
37.2 MVA
T1
T2
8.8 MW
9.3 MVA
NEW
NEW
44.1 MW/46.4 MVA
37.2 MW/39.2 MVA
230KV
230KV
81.5 MW/85.8 MVA
ALL LOADS AT TENTH YEAR
WITHOUT SOLAR CONTRIBUTION.
NEW CONSTRUCTION:
MAIN SUBSTATION:
155 U.S. HWY. 70 WEST
N.C. CORP. C-1063
Utility Electrical Consultants PC
GARNER, NORTH CAROLINA
PH (919) 821-1410
CITY OF WASHINGTON ELECTRIC DEPT.
WASHINGTON, NORTH CAROLINA
POWER DELIVERY AND TRANSMISSION
OPTION B
DRAWN BY: ABB
JOB NO.: 19-2056
SCALE: N.T.S.
CHECKED BY: PIM
CAD FILE: PD OPTION B
APPROVED BY: PIM
DATE: 09/03/2019
SHEET NO. 1 OF 2
DRAWING 2

VIII. RECOMMENDED LONG RANGE PLAN DISCUSSION

Several improvements are recommended in this Ten Year Long Range Plan. Utilizing the system projections set forth in Section V and the planning criteria set forth in Section VI the system was evaluated for deficiencies that would occur with the system peak loading within the tenth year.

The city presently operates a 34.5 kV transmission system to serve its outlying distribution substations. A comprehensive study was undertaken during the preparation to this Long Range Plan to evaluate 115 kV as a transmission option. A 115 kV system will cost significantly more than a 34.5 kV system. Additionally, 115 kV transmission will present greater construction challenges and operating difficulties than 34.5 kV transmission. Because of the differences, it has been concluded that the City continue operating their transmission system solely utilizing 34.5 kV. This operating voltage provides the City a cost-effective means of expanding the system to provide adequate capacity, flexibility and reliability to meet future load requirements. Details of the study are presented in Section VII - Power Delivery and Transmission Options.

Main 230 kV – 34.5 kV Substation will have some loading issues in this Long Range Plan. Drawing 3 (p-31) shows peak loading in the Main Substation within ten years.

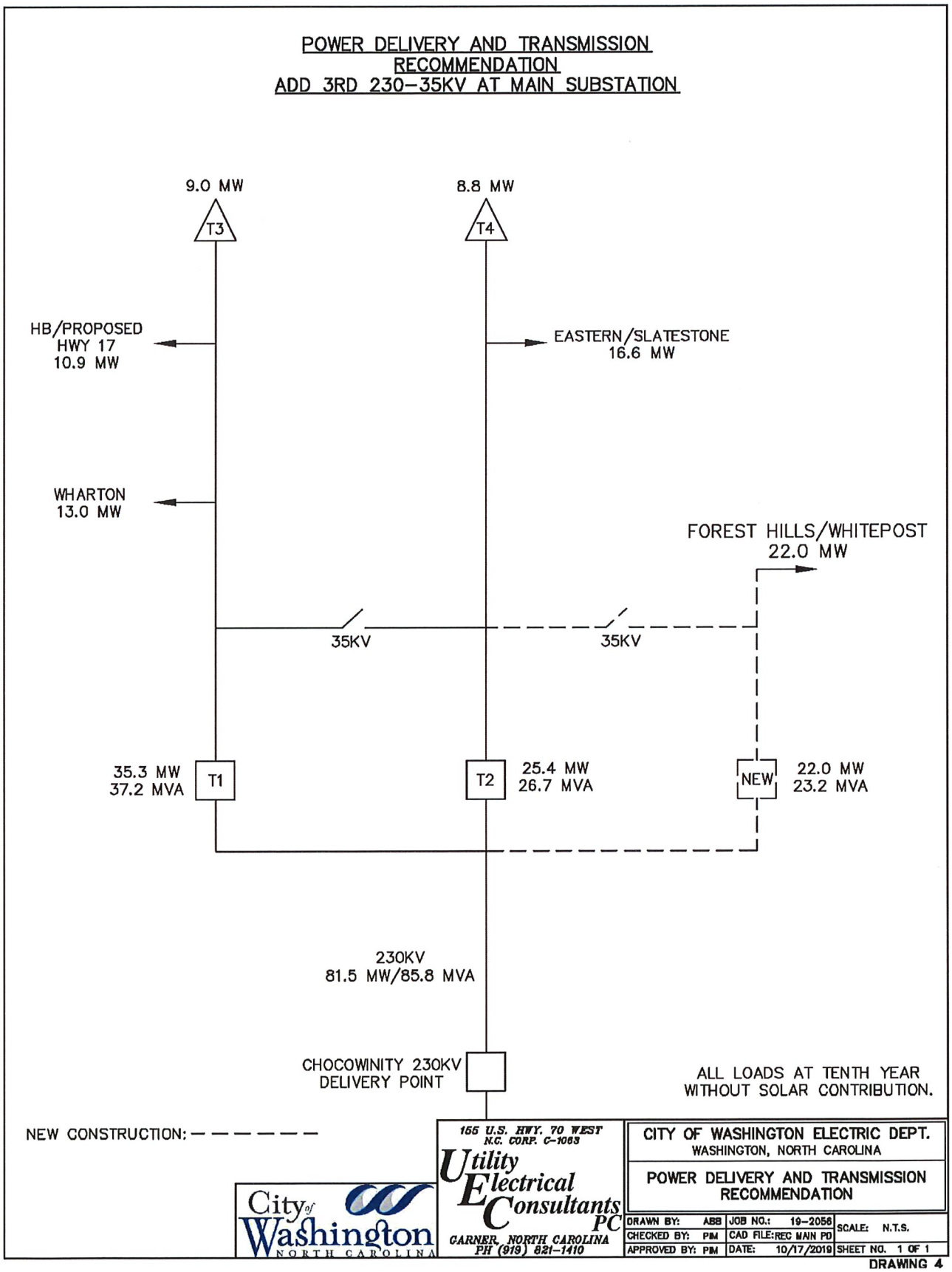

12KV
12KV
30/56 MVA TRANSFORMER
11.1 MW LOAD
T3
T4
30/56 MVA TRANSFORMER
11.5 MW LOAD
HB/STANADYNE
3.3 MW LOAD
(58 AMPS)
EASTERN/SLATESTONE
16.6 MW LOAD
(293 AMPS)
WHARTON
15.8 MW LOAD
(278 AMPS)
FOREST HILLS/WHITEPOST
22.0 MW LOAD
(389 AMPS)
35KV
45/84 MVA TRANSFORMER
32.6 MW LOAD
T1
T2
45/84 MVA TRANSFORMER
48.7 MW LOAD
230KV
81.5 MW
VOLTAGE REGULATORS
335/536 AMPERE LIMIT @
10%/5% REGULATION LIMITS
155 U.S. HWY. 70 WEST
N.C. CORP. C-1068
Utility Electrical Consultants PC
GARNER, NORTH CAROLINA
PH (919) 821-1410
City of Washington
NORTH CAROLINA
CITY OF WASHINGTON ELECTRIC DEPT.
WASHINGTON, NORTH CAROLINA
MAIN SUBSTATION
10 YEAR LOADING W/O IMPROVEMENTS
DRAWN BY: ABB
JOB NO.: 19-2056
SCALE: N.T.S.
CHECKED BY: PIM
CAD FILE: MAINSUBLOAD
APPROVED BY: PIM
DATE: 10/17/2019
SHEET NO. 1 OF 1

The 45 MVA OA rating for Transformer T2 will be exceeded by 13.9 percent at 95 percent power factor. Main Substation T2 transformer loading issue is discussed in the evaluation of Power Delivery and Transmission Options in Section VII. A third 230 kV -34.5 kV 45/84 MVA transformer will be required during Step 3. This transformer addition is depicted in Drawing 4 (p-34) Power Delivery and Transmission Recommendation. This addition will relieve loading on the existing transformer T2 reducing its base OA percent loading from 113.9 percent to 59.3 percent.

Additionally, the third 230 kV -34.5 kV transformer provides adequate capacity for a contingency loss of one of the three 230 kV – 34.5 kV transformers. With only two transformers, the one remaining transformer must carry the ten-year system peak projection of 81.5 MW. At 95 percent power factor 81.5 MW translates to 85.8 MVA of load. This load will exceed the 84 MVA 65° C second-stage forced-air cooling (FA) rating of a single 230 kV -34.5 kV transformer. But, with two remaining transformers as with the three transformer recommendation, the combined base OA rating of the two remaining transformers is 90 MVA which provides ample capacity. Having a third transformer will allow continued service to the City during the transformer repair time of one of the three transformers. It is important to recognize that power transformer failures tend to result in lengthy repair times.

The third 230 kV -34.5 kV transformer should be installed by the end of Step 2. While the ten-year load projections are reasonable, a totally unexpected burst of economic good fortune could cause contingency loading concerns with only two transformers. The existing transformers are approximately 40 years old. Thermal stressing the winding insulation on "older" transformers by operating at the 65° C limits introduces additional uncertainty. Because of this concern the 45/84 MVA transformers should be limited at or near the second-stage forced-air cooling at 55° C during first stage contingencies. This will limit the capacity to 75 MVA instead of the 84 MVA 65° C second-stage forced-

air capacity. Details of this transformer loading issue is discussed in Appendix C "230 kV – 35 kV Transformer Loading". Total system load at the end of Step 2 will exceed this 75 MVA limitation. A second concern is the age of the existing transformers. The age of these transformers increases the probability of extended transformer maintenance and/or transformer failure. Therefore, the City needs to be prepared for the transformer loss contingency and address the issue by the end of Step 2 (year 2023). Engineering should begin immediately to allow sufficient time for design, procurement, installation and energization in 2023.


POWER DELIVERY AND TRANSMISSION
RECOMMENDATION
ADD 3RD 230-35KV AT MAIN SUBSTATION
9.0 MW
T3
8.8 MW
T4
HB/PROPOSED
HWY 17
10.9 MW
EASTERN/SLATESTONE
16.6 MW
WHARTON
13.0 MW
FOREST HILLS/WHITEPOST
22.0 MW
35KV
35KV
35.3 MW
37.2 MVA
T1
T2
25.4 MW
26.7 MVA
NEW
22.0 MW
23.2 MVA
230KV
81.5 MW/85.8 MVA
CHOCOWINITY 230KV
DELIVERY POINT
ALL LOADS AT TENTH YEAR
WITHOUT SOLAR CONTRIBUTION.
NEW CONSTRUCTION:
155 U.S. HWY. 70 WEST
N.C. CORP. C-1063
Utility Electrical Consultants PC
GARNER, NORTH CAROLINA
PH (919) 821-1410
City of Washington NORTH CAROLINA
CITY OF WASHINGTON ELECTRIC DEPT.
WASHINGTON, NORTH CAROLINA
POWER DELIVERY AND TRANSMISSION
RECOMMENDATION
DRAWN BY: ABB
JOB NO.: 19-2056
SCALE: N.T.S.
CHECKED BY: PIM
CAD FILE: REC MAIN PD
APPROVED BY: PIM
DATE: 10/17/2019
SHEET NO. 1 OF 1
DRAWING 4

Two new distribution substations are recommended in the Long Range Plan. The first is located at the Industrial Park to serve future large industrial load which may develop in the Park. No industry is known at this time to require the substation. The City should construct the Industrial Park Substation only when load dictates its need. The second new substation is located near the former Hamilton Beach along Highway 17. Highway 17 Substation is recommended to improve loading, voltage conditions and backfeed capability within the area it will serve. The substation will improve operating conditions of Wharton Substation, Main T3 and T4 Distribution Substations, and the Industrial Park. Table 4 Substation Data and Changes Recommended reflects the new substations, the Main Substation transformer addition and resulting substation loadings. Substation changes recommended along with substation peak MW demands with and without improvements are shown in Table 4.

Table 4
SUBSTATION DATA AND CHANGES RECOMMENDED

	System Meter Point	Main DP T1	Main DP T2	Main Dist T3	Main Dist T4	Wharton	Eastern
esent System							
kV	230	230 - 34.5	230 - 34.5	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 12.47
MW	70.2	28.1	41.9	9.6	9.9	11.3	9.9
MVA	73.9	29.6	44.1	10.1	10.4	11.9	10.4
Transf MVA	---	45/84	45/84	30/56	30/56	15/28	20/37.3
EP 1 (2020-2021)							
kV	230	230 - 34.5	230 - 34.5	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 12.47
MW w/o Imp	72.3	28.9	43.2	9.9	10.2	11.6	10.2
MW with Imp	72.3	28.9	43.2	9.9	10.2	11.6	10.2
Transf MVA	---	45/84	45/84	30/56	30/56	15/28	20/37.3
EP 2 (2022-2023)							
kV	230	230 - 34.5	230 - 34.5	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 12.47
MW w/o Imp	74.5	29.8	44.5	10.2	10.5	12.0	10.5
MW with Imp	74.5	**27.9**	**25.7**	10.2	10.5	12.0	10.5
Transf MVA	---	45/84	45/84	30/56	30/56	15/28	20/37.3
EP 3 (2024-2029)							
kV	230	230 - 34.5	230 - 34.5	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 12.47
MW w/o Imp	81.5	32.6	48.7	11.1	11.5	13.1	11.5
MW with Imp	81.5	**35.3**	**25.4**	**9.0**	**8.8**	**10.3**	11.5
Transf MVA	---	45/84	45/84	30/56	30/56	15/28	20/37.3

BOLD TYPE INDICATES CHANGES RECOMMENDED

OA/FA Rating = Base Open Air 55° C/Second Stage Fan 65° MVA ratings

Sheet 1 of 3

Table 4
SUBSTATION DATA AND CHANGES RECOMMENDED

	Slatestone	Forest Hills	White Post	Hamilton Beach	Flanders Filters	**Proposed Industrial Park**	**Proposed Main DP T5**
esent System							
kV	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 0.48	34.5 - 0.48		
MW	4.4	12.5	6.1	0.0	1.4	0.0	0.0
MVA	4.6	13.2	6.5	0.0	1.5	0.0	
Transf MVA	15/28	20/37.3	10/14	2-2.5	2-2.5		
EP 1 (2020-2021)							
kV	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 0.48	34.5 - 0.48		
MW w/o Imp	4.5	12.9	6.3	0.0	1.4	0.0	0.0
MW with Imp	4.5	12.9	6.3	0.0	1.4		
Transf MVA	15/28	20/37.3	10/14	2-2.5	2-2.5		
EP 2 (2022-2023)							
kV	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 0.48	34.5 - 0.48	**34.5 - 12.47**	**230 - 34.5**
MW w/o Imp	4.7	13.3	6.5	0.0	1.4	**UK**	**0.0**
MW with Imp	4.7	13.3	6.5	0.0	1.4		**20.2**
Transf MVA	15/28	20/37.3	10/14	2-2.5	2-2.5	**15/28**	**50/93**
EP 3 (2024-2029)							
kV	34.5 - 12.47	34.5 -12.47	34.5 - 12.47	34.5 - 0.48	34.5 - 0.48	**34.5 - 12.47**	**230 - 34.5**
MW w/o Imp	5.1	14.5	7.1	0.0	1.4	**UK**	**22.0**
MW with Imp	5.1	14.5	7.1	0.0	1.4		**22.0**
Transf MVA	15/28	20/37.3	10/14	2-2.5	2-2.5	**15/28**	**50/93**

BOLD TYPE INDICATES CHANGES RECOMMENDED

OA/FA Rating = Base Open Air 55° C/Second Stage Fan 65° MVA ratings

Sheet 2 of 3

Table 4
SUBSTATION DATA AND CHANGES RECOMMENDED

	Proposed Highway 17 T1						
esent System							
kV							
MW	0.0						
MVA	0.0						
Transf MVA							
EP 1 (2020-2021)							
kV							
MW w/o Imp	0.0						
MW with Imp							
Transf MVA							
EP 2 (2022-2023)							
kV							
MW w/o Imp	0.0						
MW with Imp							
Transf MVA							
EP 3 (2024-2029)							
kV	**115 - 12.47**						
MW w/o Imp	**0.0**						
MW with Imp	**7.6**						
Transf MVA	**15/28**						

BOLD TYPE INDICATES CHANGES RECOMMENDED

OA/FA Rating = Base Open Air 55° C/Second Stage Fan 65° MVA ratings

Sheet 3 of 3

Several additional projects are recommended in the Main Substation. The 34.5 kV underground circuit exits in the substation are 750 kcmil aluminum cable nominally rated for 450 amperes. Table 5 shows the loading without improvements on each Main Substation 34.5 kV transmission circuit exit for each Long Range Plan Step. The two exits feeding the western part of the system will be adequate through the Long Range Plan. However, the two circuit exits feeding the eastern part of the system will need capacity upgrades to provide sufficient capacity. Circuit Exit 513 feeds Eastern and Slatestone Substations and will have 293 amperes of load in year ten. Circuit Exit 514 feeds Forest Hills and White Post Substations and will have 389 amperes of load in year ten. A detailed engineering analysis of these underground circuit exits is recommended to assess the cable environment and operating conditions.

Table 5
34.5 kV TRANSMISSION FEEDER LOADING
w/o Improvements

Feeder Data	34.5 kV Transmission Feeders			
	Wharton (511)	Hamliton Beach (512)	Eastern Slatestone (513)	Forest Hills White Post (514)
Present System				
Conductor *	336.4	336.4	336.4	336.4
Ampacity	530	530	530	530
Peak kW	13,576	3,292	14,311	19,011
Peak Amps	239	58	252	335
Loading	45.2%	11.0%	47.6%	63.3%
Step 1 (2020 - 2021)				
Conductor *	336.4	336.4	336.4	336.4
Ampacity	530	530	530	530
Peak kW	13,987	3,292	14,743	19,586
Peak Amps	246	58	260	345
Loading	46.5%	10.9%	49.0%	65.1%
Step 2 (2022 - 2023)				
Conductor *	336.4	336.4	336.4	336.4
Ampacity	530	530	530	530
Peak kW	14,410	3,292	15,189	20,178
Peak Amps	254	58	268	355
Loading	47.9%	10.9%	50.5%	67.1%
Step 3 (2024 - 2029)				
Conductor *	336.4	336.4	336.4	336.4
Ampacity	530	530	530	530
Peak kW	15,756	3,292	16,608	22,064
Peak Amps	278	58	293	389
Loading	52.4%	10.9%	55.2%	73.3%

* *Conductor type is 336.4 kcmil ACSR*

The normal peak loading does not exceed the circuit exit cable rating. However, the City must be concerned with contingency load shifts between the two circuit exits feeding east. The transmission lines served by the two circuit exits are intertied to provide the means for operations personnel to continue electric service Continuity during maintenance and emergencies. It can be reasonable expected that one or more substations be shifted from its normal transmission line to its alternate transmission line. Many times the reasons for these load shifts are lengthy. Load shifts between the two transmission lines will cause on overload of the circuit exit during peak demands. Adding parallel 750 kcmil aluminum cable is recommend to double the circuit exit rating to provide adequate capacity.

An estimate of cost has been included to add capacitors to the distribution system. New capacitors should be added to maintain at least a 98 percent power factor as system load increases. Additionally, an estimate of cost is included for system sectionalizing. It is important for system reliability and system operation to maintain up-to-date coordination of protective devices within the system. Properly placed and sized protective devices will minimize the number of consumers impacted by an outage and enhance the system operator's ability to sectionalize power lines during outages.

Cost estimates for general conductor replacements are included in the Long- Range Plan. The City operates approximately 80 miles of small conductor that is over 30 years old. Conductor, crossarms and poles on these lines will continue to deteriorate which will eventually cause reliability issues. Continuation of a conductor replacement program using a systematic approach is recommended to maintain reasonable reliability to the consumers served by the lines. Each section of aged power line should be prioritized based upon condition and the number of consumers served. The old prioritized lines should then be replaced accordingly to improve reliability using a strategy which maintains a financial and operational balance.

Cost estimate budgets for underground (URD) installations are included to replace problematic cable and facilities of the URD distribution system. The city should continue replacing URD cable based on cable fault history or the condition of the concentric neutral. Concentric neutral corrosion will cause accelerated cable failures and stray voltage conditions on the system resulting in consumer complaints and in some cases more serious problems. In addition to general URD replacements a total of 16 transclosures with the underground system are recommended to be replaced with modern padmount transformers. The Transclosures are well beyond their useful lives and present challenging situations to operating personnel.

Advanced Metering Infrastructure (AMI) system projects have demonstrated substantial impacts and benefits for consumers and utilities. Through two-way communication the smart meters in the AMI system offers real time data for both the consumer and utility to operate more efficiently. AMI systems can be tied to the Customer Information System (CIS), Outage Management System (OMS), Distribution Management System (DMS) and the Billing System. Direct interconnect between computer software systems provide a wealth of data for the utility to manage and operate the electric system in real time. Utilities make more timely and accurate bills while reducing truck rolls and labor. Outages may be detected, isolated and dispatched faster, even direct to the first responder via tablet computer. Many utilities utilize the smart meters to monitor system voltages ensuring system voltages remain within acceptable limits.

An AMI system will offer the City the ability to establish many other programs. Remote connect and disconnect is one of these programs which can lead to considerable saving. Some other programs include tamper and theft detection, pre-pay metering and enables the City to proactively identify and notify a consumer of unusual usage patterns in advance of billing.

The City should begin a detailed study of the available AMI systems. Through this AMI study along with a pilot project the City can determine which system offers the most benefits operationally and financially. Although our consideration is for the electric department, a combined AMI system with the water department should be considered in the evaluation. Many municipalities have combined meter reading systems. For purposes of this Long Range Plan each department would be responsible for their own fair share of the cost. Estimated costs contained herein are for the electric department only. A total budget for the electric department of $ 1,100,000 is included in this Long Range Plan to implement and deploy an AMI project within the entire electric system.

The following summarizes each of the site-specific major distribution, substation and transmission system project recommended in the Long-Range Plan. The projects are discussed by substation area where applicable.

Main Delivery Point Substation T1 & T2

Step 1 Recommendations Main Delivery Point Substation T1 & T2

MN-1 and MN-2: Upgrade both the Forest Hills/White Post 34.5 kV feeders exit number 514 and Eastern/Slatestone exit number 513 to parallel 750 kcmil Aluminum underground cables. These two cable upgrades are necessary to increase capacity that will be sufficient for 34.5 kV transmission system contingency load shifts.

MN-3: Install voltage regulation on the Forest Hills/White Post 34.5 kV feeder number 514 to maintain stable voltages on the transmission line within industry acceptable tolerances.

Begin engineering for the third transformer ASAP to energize in Step 2.

Step 2 Recommendations Main Delivery Point Substation T1 & T2

MN-4: In order to maintain an adequate capacity using the 34.5 kV transmission system and provide adequate reliability a third power transformer will be necessary at the Main Substation. This transformer will be rated at 230 kV – 34.5 kV with a capacity of 45/84 MVA. This addition will relieve thermal loading on the existing transformer T2 by reducing its OA loading from 113.8 percent to 59.3 percent. This addition also provides adequate capacity for a contingency loss of one of the three 230 kV – 34.5 kV transformers.

Step 3 Recommendations Main Delivery Point Substation T1 & T2

No Recommendations during Step 3 within the Main Distribution Substation T1 & T2 Substation areas.

Main Distribution Substation T3

Step 1 Recommendations Main Delivery Point Substation T3

No Recommendations during Step 1 within the Main Distribution Substation T3 Substation area.

Step 2 Recommendations Main Distribution Substation T3

MT3-1: Upgrade the 15th Street distribution power line to three-phase 336.4 kcmil ACSR. This will complete a three-phase distribution tie between Bridge Street and Highland Drive which will improve balanced loading of circuits in the uptown circuits and facilitate contingency load shifts. As discussed in Section VII – "Power Delivery and Transmission Options" the upgrade should be constructed for future 34.5 kV overbuild.

Step 3 Recommendations Main Distribution Substation T3

***MT3-2*:** A three-phase 336.4 kcmil ACSR 12.5 kV distribution tie is recommended along Springs Road extending from Highway 17 to Market Street. This tie will allow the Proposed Highway 17 Substation to pick up the Market Street area and relieve loading on Main Distribution Substation T4 and its Market Street Circuit 214. The tie will also improve voltage conditions on Market Street Extension North and will provide an excellent means for backfeed in the area.

Main Distribution Substation T4

Step 1 Recommendations Main Distribution Substation T4

MT4-1: Multiphasing the distribution power line along Dan Taylor Road from Cherry Road to Market Street is recommended. Three-phase 336.4 kcmil ACSR is recommended. This multiphasing will complete a 12.5 kV three-phase tie between Main Distribution Substation T4 and Slatestone Substation. When the proposed Highway 17 Substation is constructed in Step 3 the City will have a strong tie between all three substations.

Step 2 & Step 3 Recommendations Main Distribution Substation T4

No Recommendations during Step 2 & 3 within the Main Distribution Substation T4 Substation area.

Wharton Substation

Step 1 Recommendations Wharton Substation

WH-1: Multiphase the single-phase distribution tap along NC Highway 171 to three-phase 1/0 ACSR. The tap presently has more than 40 consumers which will cause coordination problems and load imbalance on the existing three-phase system.

Step 2 Recommendations Wharton Substation

WH-2: A three-phase 336.4 kcmil ACSR 12.5 kV distribution tie is recommended along Leggett Road extending from Page Road to Highway 264. This tie will extend through the Industrial Park and tie the Wharton Substation with Proposed Highway 17 Substation. This tie will strengthen the City's overall reliability to the Industrial Park and surrounding areas.

Step 3 Recommendations Wharton Substation

No Recommendations during Step 3 within the Wharton Substation area.

Eastern Substation

Step 1, Step 2, Step 3 Recommendations Eastern Substation

No Recommendations during Steps 1, 2 and 3 within the Eastern Substation area.

Forest Hills Substation

Step 1 Recommendations Forest Hills Substation

No Recommendations during Step 1 within the Forest Hills Substation area.

Step 2 Recommendations Forest Hills Substation

FH-1: Multiphasing the Asbury Church Road distribution power line is recommended from Magnolia School Road to River Road. Three-phase 336.4 kcmil ACSR is recommended. This 12.5 kV upgrade will significantly enhance service to the heavily loaded southeastern River Road area. The City will have the ability to split the load between the new Asbury Church upgrade and the Magnolia School Road feeder.

FH-2: Presently the City has an old three-phase distribution feeder paralleling the Pamlico River. Many of its spans cross swamps, canals and fields with poles situated in some of the swamps and fields. Not only does the power line present reliability problems, restoration crews have major difficulties reaching these areas, particularly during inclement weather. The recommended solution to this situation is to construct a three-phase 336.4 kcmil ACSR feeder along River Road. This feeder will have to be constructed joint-use with the existing Tideland EMC circuit presently existing along River Road. The River Road joint-use circuit will extend from North Shores Road to River Acres Road. Prior to removing the old three-phase feeder a few single phase taps along roads extending to the river will be needed to refeed consumers along the Pamlico River. These single-phase taps will originate from the new River Road feeder.

Step 3 Recommendations Forest Hills Substation

No Recommendations during Step 3 within the Forest Hills Substation area.

Slatestone Substation

Step 1, Step 2, Step 3 Recommendations Slatestone Substation

No Recommendations during Steps 1, 2 and 3 within the Slatestone Substation area.

White Post Substation

Step 1 & Step 2 Recommendations White Post Substation

No Recommendations during Steps 1 & 2 within the White Post Substation area.

Step 3 Recommendations White Post Substation

***WP-1*:** A three-phase 336.4 kcmil ACSR 12.5 kV distribution tie line is recommended along Free Union Church Road extending from Highway 32 to Highway 264. Presently, the northern area of the Slatestone Substation and the northern and eastern areas of White Post Substation has very little backfeed capability except under light loading periods. This distribution tie will significantly enhance the City's ability to minimize outage time during emergencies and for maintenance operations.

Proposed New Substations

IND-1: Industrial Park Substation is proposed within the Industrial Park during Step 2. Load projections in this Long-Range Plan do not support the need for this substation. New industrial consumers are very difficult to predict. But when industries announce their intentions on locating in an area the turnaround time is typically short. Therefore, the Industrial Park Substation is proposed for the potential arrival of an industry requiring the substation capacity infrastructure. As stated earlier, the Industrial Park Substation should only be constructed when load supports its need.

HWY17-1: Highway 17 Substation is proposed during Step 3 near the Hamilton Beach building to serve the developing load center of Highway 17 and Highway 264. Project MT3-1; Springs Road Tie will provide a distribution feeder extending from Highway 17 to Market Street. This distribution tie will allow Highway 17 Substation to feed the north Market Street areas relieving voltage issues during peak demand. Highway 17 Substation will also relieve the loading on Wharton Substation and its circuits. This load shift is particularly important to the northern Highway 17 service areas which have voltage issues at peak load. Highway 17 Substation will reduce loading of Wharton Substation, Main Distribution Substation T3 and Main Distribution Substation T4 by approximately 2.8, 2.1 and 2.7 MW respectively. Additionally, Highway 17 Substation will provide a strong backfeed with Wharton Substation, Main Distribution Substation T3, Main Distribution Substation T4 and Slatestone Substation.

Transmission System

Step 1 Recommendations Transmission System

No Recommendations during Steps 1 & 2 within the transmission System.

Step 2 Recommendations Transmission System

TR-1: Age and condition necessitates the rebuild of the 34.5 kV transmission line between Eastern Substation and Forest Hills Substation. This rebuild is necessary to maintain the integrity of the system and maintain a high level of reliability. An underbuild 12.5 kV circuit presently exist on this section. The line should be rebuilt double circuit with 556 kcmil ACSR on the 34.5 kV circuit and 336.4 kcmil ASCR on the 12.5 kV circuit.

Possible Improvements for Solar Impacts:

There has been some discussion during the preparation of this Long Range Plan about the potential need for an express 34.5 kV feeder for the three solar farms located near White Post Substation. This need had not been completely ruled with the completion of this Plan. Prior to designing and constructing Project TR-1 between Eastern and White Post Substations the solar effects should be closely examined. *If an express feeder is needed TR-1 will need to be triple circuit; double circuit 34.5 kV and single circuit 12.5 kV.*

Step 3 Recommendations Transmission System

***TR-2*:** Age and condition necessitates the rebuild of the 34.5 kV transmission line along West 5th Street from Clarks Neck Road to the Industrial Park. This rebuild is necessary to maintain the integrity of

the system and maintain a high level of reliability. An underbuild 12.5 kV circuit presently exists on this section. The line should be rebuilt double circuit with 556 kcmil ACSR on the 34.5 kV circuit and 336.4 kcmil ASCR on the 12.5 kV circuit.

TR-3: Age and condition necessitates the rebuild of the 34.5 kV transmission line from West 15 Street Extension to Hamilton Beach for the Proposed Highway 17 Substation. This rebuild is necessary to maintain the integrity of the system and maintain a high level of reliability. An underbuild 12.5 kV circuit presently exists on this section. The line should be rebuilt double circuit with 556 kcmil ACSR on the 34.5 kV circuit and 336.4 kcmil ASCR on the 12.5 kV circuit.

TR-4: Age and condition necessitates the rebuild of the 34.5 kV transmission line along West 5th Street from Plymouth Street to East 9th Street. This rebuild is necessary to maintain the integrity of the system and maintain a high level of reliability. An underbuild 12.5 kV circuit presently exists on this section. The line should be rebuilt double circuit with 556 kcmil ACSR on the 34.5 kV circuit and 336.4 kcmil ASCR on the 12.5 kV circuit.

IX. COST ESTIMATES

Cost estimates for each substation area, transmission system and systemwide recommendations follow:

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Main Delivery Point Substation T1 & T2

PRESENT VOLTAGE AND CAPACITY

230 kV - 34.5 kV — Two 45/84 MVA Transfomers

LOAD PROJECTIONS NCP MW

		Step 1	Step 2	Step 3
	T1 W/O Improvements	28.9	29.8	32.6
	T1 With Improvements	28.9	27.5	35.3
	T2 W/O Improvements	43.2	44.5	48.7
	T2 With Improvements	43.2	25.7	25.4
Proposed	T5 W/O Improvements	0.0	0.0	22.0
Proposed	T5 With Improvements	0.0	20.2	22.0

STEP 1 (2020 -2021) RECOMMENDATIONS

MN-1	Upgrade FH/WP 34.5 kV 750 Al feeder exit to parallel 750 AL.	$200,000
MN-2	Upgrade EA/SL 34.5 kV 750 Al feeder exit to parallel 750 AL.	$200,000
MN-3	Install voltage regulation on FH/WP feeder	$84,000
	Total Step 1	$484,000

STEP 2 (2022 -2023) RECOMMENDATIONS

MN-4	Install Main Sub T5 transformer. 230 kV - 34.5 kV 45/84 MVA	$1,313,000
	Total Step 2	$1,313,000

STEP 3 (2024 -2029) RECOMMENDATIONS

	NONE	$0
	Total Step 3	$0

GRAND TOTAL MAIN DELIVERY POINT SUBSTATION T1 **$1,797,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Main Distribution Substation T3

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV 30/56 MVA Transfomer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	9.9	10.2	11.1
With Improvements	9.9	10.2	9.0

STEP 1 (2020 -2021) RECOMMENDATIONS

NONE		$0
	Total Step 1	$0

STEP 2 (2022 -2023) RECOMMENDATIONS

MT3-1	15th Street Upgrade to Three-Phase 336.4 kcmil ACSR Construct for future 34.5 kV overbuild From Bridge St to Highland Drive	1.2 Mile	$180,000
	Total Step 2		$180,000

STEP 3 (2024 -2029) RECOMMENDATIONS

MT3-2	Springs Road Tie for Proposed Hwy 17 Sub From Highway 17 to Market Street Three-Phase 336.4 kcmil ACSR	2.0 Mile	$160,000
	Total Step 3		$160,000

GRAND TOTAL MAIN DISTRIBUTION SUBSTATION T3 **$340,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Main Distribution Substation T4

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV 30/56 MVA Transfomer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	10.2	10.5	11.5
With Improvements	10.2	10.5	8.8

STEP 1 (2020 -2021) RECOMMENDATIONS

MT4-1	Multiphase Dan Taylor Road From Cherry Road to Market Street Three-Phase 336.4 kcmil ACSR	1.9 Mile	$152,000
		Total Step 1	$152,000

STEP 2 (2022 -2023) RECOMMENDATIONS

NONE		$0
	Total Step 2	$0

STEP 3 (2024 -2029) RECOMMENDATIONS

NONE		$0
	Total Step 3	$0

GRAND TOTAL MAIN DISTRIBUTION SUBSTATION T4 **$152,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Wharton Substation

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV — 15/28 MVA Transformer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	11.6	12.0	13.1
With Improvements	11.6	12.0	10.3

STEP 1 (2020 -2021) RECOMMENDATIONS

WH-1	NC Hwy 171 Multiphasing to Three-Phase 1/0 ACSR	2.7 Mile	$189,000
		Total Step 1	$189,000

STEP 2 (2022 -2023) RECOMMENDATIONS

WH-2	Leggett Road Tie from Page Road to Hwy 264 Three-Phase 336.4 kcmil ACSR	1.1 Mile	$88,000
		Total Step 2	$88,000

STEP 3 (2024 -2029) RECOMMENDATIONS

	NONE		$0
		Total Step 3	$0

GRAND TOTAL WHARTON SUBSTATION **$277,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Eastern Substation

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV — 20/37.3 MVA Transfomer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	10.2	10.5	11.5
With Improvements	10.2	10.5	11.5

STEP 1 (2020 -2021) RECOMMENDATIONS

NONE	$0
Total Step 1	$0

STEP 2 (2022 -2023) RECOMMENDATIONS

NONE	$0
Total Step 2	$0

STEP 3 (2024 -2029) RECOMMENDATIONS

NONE	$0
Total Step 3	$0

GRAND TOTAL EASTERN SUBSTATION **$0**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Forest Hills Substation

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV 15/28 MVA Transfomer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	12.9	13.3	14.5
With Improvements	12.9	13.3	14.5

STEP 1 (2020 -2021) RECOMMENDATIONS

NONE		$0
	Total Step 1	$0

STEP 2 (2022 -2023) RECOMMENDATIONS

FH-1	Multiphase Asbury Church Road From Magnolia School Road to River Road Three-Phase 336.4 kcmil ACSR	1.0 Mile	$80,000
FH-2	River Road Refeed Project From North Shores Road to River Acres Road Three-Phase 336.4 kcmil ACSR Joint use with Tideland EMC and Single-Phase Taps	3.2 Mile JU 1.5 Mile taps	$448,000 $75,000
	Total Step 2		$603,000

STEP 3 (2024 -2029) RECOMMENDATIONS

NONE		$0
	Total Step 3	$0

GRAND TOTAL FOREST HILLS SUBSTATION **$603,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Slatestone Substation

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV 15/28 MVA Transfomer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	4.5	4.7	5.1
With Improvements	4.5	4.7	5.1

STEP 1 (2020 -2021) RECOMMENDATIONS

NONE $0

Total Step 1 $0

STEP 2 (2022 -2023) RECOMMENDATIONS

NONE $0

Total Step 2 $0

STEP 3 (2024 -2029) RECOMMENDATIONS

NONE $0

Total Step 3 $0

GRAND TOTAL SLATESTONE SUBSTATION **$0**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

White Post Substation

PRESENT VOLTAGE AND CAPACITY

34.5 kV - 12.47 kV 10/14 MVA Transfomer

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	6.3	6.5	7.1
With Improvements	6.3	6.5	7.1

STEP 1 (2020 -2021) RECOMMENDATIONS

NONE

Total Step 1 $0

STEP 2 (2022 -2023) RECOMMENDATIONS

NONE

Total Step 2 $0

STEP 3 (2024 -2029) RECOMMENDATIONS

WP-1	Free Union Church Tie From Highway 32 to Highway 264 Three-Phase 336.4 kcmil ACSR	5.6 Mile	$784,000

Total Step 3 $784,000

GRAND TOTAL WHITE POST SUBSTATION **$784,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Proposed Industrial Park Substation

PRESENT VOLTAGE AND CAPACITY

NONE

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	0	0	UK
With Improvements	0	UK	UK

STEP 1 (2020 -2021) RECOMMENDATIONS

	NONE	$0
	Total Step 1	$0

STEP 2 (2022 -2023) RECOMMENDATIONS

IND-1	Install Proposed Industrial Park Substation 34.5 kV - 12.47 kV 15/28 MVA	$2,500,000
	Total Step 2	$2,500,000

STEP 3 (2024 -2029) RECOMMENDATIONS

	NONE	$0
	Total Step 3	$0

GRAND TOTAL PROPOSED INDUSTRIAL PARK SUBSTATION **$2,500,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Proposed Highway 17 Substation

PRESENT VOLTAGE AND CAPACITY

NONE

LOAD PROJECTIONS NCP MW

	Step 1	Step 2	Step 3
Without Improvements	0	0	0
With Improvements	0	0	7.6

STEP 1 (2020 -2021) RECOMMENDATIONS

NONE		$0
	Total Step 1	$0

STEP 2 (2022 -2023) RECOMMENDATIONS

NONE		$0
	Total Step 2	$0

STEP 3 (2024 -2029) RECOMMENDATIONS

Hwy17-1	Install Proposed Highway 17 Substation 34.5 kV - 12.47 kV 15/28 MVA	$2,500,000
	Total Step 3	$2,500,000

GRAND TOTAL PROPOSED HIGHWAY 17 SUBSTATION **$2,500,000**

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Transmission System

STEP 1 (2020 -2021) RECOMMENDATIONS				
	NONE			0
			Total Step 1	$0
STEP 2 (2022 -2023) RECOMMENDATIONS				
TR-1	Highway 264 From Eastern Sub to Forest Hills Sub 34.5 kV 556 kcmil ACSR 12.5 kV 336.4 kcmil ACAR	2.4 Miles		$360,000
			Total Step 2	$360,000
STEP 3 (2024 -2029) RECOMMENDATIONS				
TR-2	West 5th Street From Clarks Neck Road to Industrial Park 34.5 kV 556 kcmil ACSR 12.5 kV 336.4 kcmil ACSR	2.2 Miles		$330,000
TR-3	Hamilton Beach Tap From West 15 Street Ext to Hamilton Beach for Proposed Highway 17 Sub 34.5 kV 556 kcmil ACSR 12.5 kV 336.4 kcmil ACSR	1.1 Miles		$165,000
TR-4	West 5th Street From Plymouth Street to East 9th Street 34.5 kV 556 kcmil ACSR 12.5 kV 336.4 kcmil ACSR	1.8 Miles		$ 270,000
			Total Step 3	$765,000
GRAND TOTAL TRANSMISSION				$1,125,000

2020 -2030 LONG RANGE PLAN
RECOMMENDATIONS AND COST ESTIMATE

Systemwide Recommendations

STEP 1 (2020 -2021) RECOMMENDATIONS		
Conductor Replacement		240,000
Sectionalizing		44,000
Capacitors		16,000
Transclosures	Quantity 2	60,000
Underground Replacement		200,000
Advanced Metering Infrastructure (AMI)		550,000
Total Step 1		$1,110,000
STEP 2 (2022 -2023) RECOMMENDATIONS		
Conductor Replacement		$240,000
Sectionalizing		$44,000
Capacitors		$16,000
Transclosures	Quantity 2	$60,000
Underground Replacement		$200,000
Advanced Metering Infrastructure (AMI)		$550,000
Total Step 2		$1,110,000
STEP 3 (2024 -2029) RECOMMENDATIONS		
Conductor Replacement		$750,000
Sectionalizing		$132,000
Capacitors		$48,000
Transclosures	Quantity 12	$360,000
Underground Replacement		$600,000
Total Step 3		$1,890,000
GRAND TOTAL SYSTEMWIDE RECOMMENDATIONS		**$4,110,000**

EXHIBITS

Exhibit A *(sheet 1 of 2)*

SYSTEM HISTORICAL DATA

Month	NCP Kw DP + SOLAR	CP kW	SEPA kW	Billed kW	Metered kWh	Generation kWh	SEPA kWh	Billed kWh
JAN14	65,019	53,616	2,703	50,913	27,392,167	2,041,892	230,377	29,203,682
FEB14	54,400	46,236	2,703	43,533	22,011,120	2,273,819	129,761	24,155,178
MAR14	56,802	46,834	2,703	44,131	20,982,893	3,869,143	136,279	24,715,757
APR14	37,480	29,014	2,703	26,311	14,689,000	4,568,117	142,722	19,114,395
MAY14	55,603	49,039	2,703	46,336	17,878,875	5,557,261	142,722	23,293,414
JUN14	62,733	55,490	2,703	52,787	22,111,000	5,201,025	139,500	27,172,525
JUL14	66,289	53,383	2,703	50,680	24,452,697	5,148,817	234,498	29,367,016
AUG14	60,061	53,250	2,703	50,547	23,305,227	4,609,928	195,390	27,719,765
SEP14	65,401	57,500	2,703	54,797	21,213,678	3,739,455	208,351	24,744,782
OCT14	42,601	32,299	2,703	29,596	15,282,681	4,975,230	149,240	20,108,671
NOV14	50,632	45,747	2,703	43,044	19,118,962	3,107,323	129,761	22,096,524
DEC14	49,378	40,758	2,703	38,055	21,632,522	2,909,325	221,612	24,320,235
	666,399	**563,166**	**32,436**	**530,730**	**250,070,822**	**48,001,335**	**2,060,213**	**296,011,944**
JAN15	61,564	55,528	2,703	52,825	24,250,203	3,300,344	211,947	27,338,600
FEB15	67,838	60,488	2,703	57,785	25,090,227	3,114,924	129,761	28,075,390
MAR15	52,223	44,437	2,703	41,734	18,206,058	4,229,561	142,797	22,292,822
APR15	36,888	34,087	2,703	31,384	13,518,886	4,809,258	142,722	18,185,422
MAY15	53,740	43,606	2,703	40,903	16,677,105	5,586,193	136,204	22,127,094
JUN15	68,471	59,425	2,703	56,722	24,295,030	5,256,401	149,315	29,402,116
JUL15	64,934	59,686	2,703	56,983	26,148,174	5,243,931	224,684	31,167,421
AUG15	66,660	56,002	2,703	53,299	24,092,861	4,887,772	205,055	28,775,578
SEP15	60,573	49,898	2,703	47,195	21,102,744	3,763,721	215,094	24,651,371
OCT15	38,401	30,339	2,703	27,636	15,668,035	3,881,175	149,240	19,399,970
NOV15	47,436	40,162	2,703	37,459	16,620,009	3,147,424	139,350	19,628,083
DEC15	41,998	37,755	2,703	35,052	18,371,163	2,661,130	221,612	20,810,681
	660,726	**571,413**	**32,436**	**538,977**	**244,040,495**	**49,881,834**	**2,067,781**	**291,854,548**
JAN16	58,425	50,970	2,703	48,267	24,109,959	3,343,864	202,358	27,251,465
FEB16	57,305	45,324	2,703	42,621	20,554,283	3,683,351	136,204	24,101,430
MAR16	45,042	35,329	2,703	32,626	15,903,366	4,740,550	149,240	20,494,676
APR16	42,969	35,261	2,703	32,558	13,914,010	5,307,196	136,204	19,085,002
MAY16	46,327	40,081	2,703	37,378	16,374,454	4,377,708	142,722	20,609,440
JUN16	57,603	50,339	2,703	47,636	21,432,570	5,015,207	142,722	26,305,055
JUL16	70,000	59,312	2,703	56,609	27,964,803	5,317,287	201,908	33,080,182
AUG16	68,248	58,868	2,703	56,165	27,963,387	4,904,621	224,684	32,643,324
SEP16	57,675	47,983	2,703	45,280	22,067,970	3,811,734	214,944	25,664,760
OCT16	44,291	38,302	2,703	35,599	15,086,227	4,036,309	136,204	18,986,332
NOV16	46,261	40,966	2,703	38,263	16,888,584	3,796,633	142,797	20,542,420
DEC16	53,565	46,516	2,703	43,813	21,892,868	2,967,463	205,654	24,654,677
	647,711	**549,251**	**32,436**	**516,815**	**244,152,481**	**51,301,923**	**2,035,641**	**293,418,763**

Exhibit A *(sheet 2 of 2)*

SYSTEM HISTORICAL DATA

Month	NCP Kw DP + SOLAR	CP kW	SEPA kW	Billed kW	Metered kWh	Generation kWh	SEPA kWh	Billed kWh
JAN17	63,508	56,761	2,703	54,058	21,472,933	3,024,118	205,579	24,291,472
FEB17	47,867	40,138	2,703	37,435	15,170,948	4,299,199	129,761	19,340,386
MAR17	52,111	43,720	2,703	41,017	17,456,059	4,814,206	149,240	22,121,025
APR17	47,840	44,877	2,703	42,174	14,579,352	5,094,933	129,761	19,544,524
MAY17	54,146	45,131	2,703	42,428	17,463,815	5,000,484	149,240	22,315,059
JUN17	58,580	51,545	2,703	48,842	21,867,026	4,791,229	142,722	26,515,533
JUL17	66,402	58,299	2,703	55,596	27,081,656	5,026,500	205,130	31,903,026
AUG17	65,683	57,326	2,703	54,623	25,131,844	4,411,259	224,758	29,318,345
SEP17	53,228	47,984	2,703	45,281	19,909,937	4,325,536	205,130	24,030,343
OCT17	49,132	43,601	2,703	40,898	16,747,515	4,224,053	142,722	20,828,846
NOV17	41,327	36,913	2,703	34,210	17,021,808	3,595,972	142,722	20,475,058
DEC17	56,309	49,170	2,703	46,467	22,941,207	2,986,182	199,211	25,728,178
	656,133	**575,465**	**32,436**	**543,029**	**236,844,100**	**51,593,671**	**2,025,976**	**286,411,795**
JAN18	73,360	65,973	2,703	63,270	27,689,868	3,582,678	221,612	31,050,934
FEB18	51,507	44,760	2,703	42,057	16,502,055	3,229,754	136,054	19,595,755
MAR18	47,179	40,688	2,703	37,985	18,826,999	4,566,452	142,722	23,250,729
APR18	36,145	31,753	2,703	29,050	13,576,573	5,022,755	136,204	18,463,124
MAY18	52,429	46,695	2,703	43,992	19,086,485	4,447,797	149,240	23,385,042
JUN18	66,286	57,597	2,703	54,894	23,645,666	4,882,743	136,279	28,392,130
JUL18	63,957	54,908	2,703	52,205	24,814,654	4,284,592	214,944	28,884,302
AUG18	66,035	56,174	2,703	53,471	26,305,086	4,804,380	224,684	30,884,782
SEP18	61,060	55,824	2,703	53,121	23,730,618	4,109,615	195,390	27,644,843
OCT18	53,462	49,371	2,703	46,668	17,486,515	4,318,724	149,240	21,655,999
NOV18	48,991	43,166	2,703	40,463	17,381,603	3,075,206	142,722	20,314,087
DEC18	49,655	42,477	2,703	39,774	20,637,767	2,753,936	202,358	23,189,345
	670,066	**589,386**	**32,436**	**556,950**	**249,683,889**	**49,078,632**	**2,051,449**	**296,711,072**

Exhibit B

HISTORICAL MAXIMUM KVA DATA FROM SCADA

			230-34.5 kV		34.5-12.5 kV		34.5 kV Feeders			
	POD	DP	T1	T2	T3	T4	Flanders	Ham Beach	Highland Dr	Forest Hills
Month/year	CHOC,MTR KVA	CHOC,B1 kVA	MAIN,T1 KVA	MAIN,T2 KVA	MAIN,T3 kVA	MAIN,T4 kVA	MAIN,511 kVA	MAIN,512 kVA	MAIN,513 kVA	MAIN,514 kVA
JAN 2016	61843	61332	26020	34430	12309	8399	10558	2853	11113	14763
JAN 2017	63085	52832	25380	37040	11560	8391	11046	2826	12010	16824
JAN 2018	74579	73993	29560	44130	13827	10383	12883	3361	14320	20012
FEB 2016	56955	56588	22900	33400	11053	7567	9485	2329	11149	14621
FEB 2017	51307	51002	22360	28530	10554	7340	9924	1921	10389	10675
FEB 2018	57145	57174	23660	32960	10762	8063	10483	2901	15064	10383
JULY 2016	65451	65094	26820	37650	12409	10274	11012	3465	14667	13732
JULY 2017	62722	62590	25790	35670	11880	10392	11580	2924	13845	12212
JULY 2018	65553	65551	27210	37010	9134	9158	14291	0	13818	14437
AUG 2016	64462	64057	26960	36620	12228	9795	11486	3228	14403	13452
AUG 2017	63157	61710	24840	36690	11351	9722	11341	3312	14015	13804
AUG 2018	66178	66107	26860	37950	9146	10076	14105	0	13843	14147

Running approximately 94 % pf in Summer and 97 % in Winter according to power bills

Main 512 spare breaker put in service in 2018. Spare breaker was not set up to provide SCADA Data for July and August 2018

Load shift from Main ckt 211 to Warton ckt 264 early 2018

Exhibit B

HISTORICAL MAXIMUM KVA DATA FROM SCADA

Main Distribution Sub 12.47 kV

Month/year	MAIN 211 kVA	MAIN 212 kVA	MAIN 213 kVA	MAIN 214 kVA	MAIN 215 kVA	MAIN 216 kVA
JAN 2016	4164	2631	5099	3457	2664	1990
JAN 2017	4176	2630	4721	2915	3411	2049
JAN 2018	4842	3023	5634	3479	4261	2173
FEB 2016	4150	2301	4418	3029	2636	1806
FEB 2017	3848	2550	4023	2342	2754	2047
FEB 2018	3708	2186	4227	2650	2935	1879
JULY 2016	3891	2432	6184	3722	4227	1933
JULY 2017	3882	2368	5733	3650	4290	2069
JULY 2018	1251	2408	5763	3485	3935	1944
AUG 2016	3897	2448	6140	3493	3973	1909
AUG 2017	3461	2116	5681	3639	3798	1921
AUG 2018	1342	2403	5335	3921	4462	1975

Running approximately 94 % pf in Summer and 97 % in Winter according to power bills

Load shift from Main ckt 211 to Warton ckt 264 early 2018

Exhibit B

HISTORICAL MAXIMUM KVA DATA FROM SCADA

	Forest Hills Sub 12.47 kV							White Post Sub 12.47 kV			
Month/year	FRHL BUS kVA	FRHL,231 kVA	FRHL,232 kVA	FRHL,233 kVA	FRHL,234 kVA	FRHL,235 kVA		WHPO BUS kVA	WHPO 121 kVA	WHPO 122 kVA	WHPO 123 kVA
JAN 2016	10680	2550	8	2360	3008	3106		4509	648	1265	2356
JAN 2017	11710	2491	0	2239	3370	3442		2928	441	904	1652
JAN 2018	13170	2851	0	2455	3658	4210		6471	779	1849	3389
FEB 2016	9640	2253	8	1948	2363	3235		4635	545	1206	2665
FEB 2017	9460	2051	0	2082	2816	2727		3881	528	1195	2039
FEB 2018	9730	2388	0	2173	2589	2942		4403	576	1303	2352
JULY 2016	9700	2422	0	1977	1969	3226		4962	741	1414	2568
JULY 2017	9500	2309	0	2330	1752	3258		4943	721	1441	2584
JULY 2018	10620	2450	0	2085	2366	3216		4877	674	1287	2451
AUG 2016	9900	2358	0	1922	2233	3225		4993	797	1532	2392
AUG 2017	9770	2342	0	1880	2124	3354		4527	646	1396	2248
AUG 2018	10750	2411	0	2183	2595	3191		4914	704	1324	2436

Running approximately 94 % pf in Summer and 97 % in Winter according to power bills

Exhibit B

HISTORICAL MAXIMUM KVA DATA FROM SCADA

	Slatetone Sub 12.47 kV				Wharton Sub 12.47 kV						Eastern Sub 12.47 kV				
Month/year	SLTS,BUS KVA	SLTS,121 kVA	SLTS,122 kVA		WHAR BUS kVA	WHAR 261 kVA	WHAR 262 KVA	WHAR 263 KVA	WHAR 264 kVA		EAST BUS kVA	EAST,271 KVA	EAST,272 KVA	EAST,273 KVA	EAST,274 KVA
JAN 2016	3008	2001	1007		7580	2252	3116	3089	0		7906	1689	659	4144	1187
JAN 2017	3538	2528	1010		9090	1711	3550	1412	0		8063	1610	621	4031	1796
JAN 2018	4645	3080	1565		10770	2937	3945	3774	0		9395	1737	831	4893	2038
FEB 2016	3358	2484	873		8780	2215	2996	3179	0		7669	1439	686	3699	1944
FEB 2017	2620	1787	833		8170	2214	2930	2887	0		7580	1699	479	3684	1813
FEB 2018	3285	2169	1115		8540	2937	3074	3131	0		7322	1374	622	3936	1627
JULY 2016	3775	2577	1198		9420	2243	3925	3112	0		10413	1954	1147	4862	2295
JULY 2017	3607	2293	1315		9630	2259	3771	3345	0		10074	1912	1181	4575	2366
JULY 2018	3335	2242	1093		8250	1557	2624	2159	2640		9838	1151	1019	5340	2262
AUG 2016	3863	2639	1224		9460	2322	3898	3116	0		10017	1985	1110	4535	2286
AUG 2017	3696	2336	1360		8660	2164	3501	2910	0		10220	1988	1080	4755	2251
AUG 2018	3508	2292	1216		11930	2201	3542	2935	2548		9817	1137	1082	5301	2199

Running approximately 94 % pf in Summer and 97 % in Winter according to power bills

Load shift from Main ckt 211 to Warton ckt 264 early 2018

Appendix C

230 kV–35 kV Transformer Loading

It would be difficult to over emphasize the importance of the 230 kV to 35 kV transformers that are located in the Washington Main Substation. These two transformers are the sole interconnection between the Washington Utilities electric system and the transmission grid. If these transformers are lost for any reason, there will be no electric service in the City for a significant period of time.

Design of the Washington Main Substation nearly 40 years ago recognized the need for redundancy in these transformers. Therefore, the transformers were arranged to allow either unit to supply the 35 kV bus that distributes power to all of the other substations throughout the City. The capacity of each transformer (50/67/84 MVA @ 65C rise) was selected to be able to provide service to all customers in case of the loss of one transformer at the time of projected peak loads. This design concept has served the City well. However, within the time frame of this Long Range Plan the projected system load will reach a level where one of the transformers will be stressed if it is required to carry the entire projected system peak load.

Several factors make the loading of these transformers an item of concern. First, the transformers are nearly 40 years old. While there is no industry-standard design life for such equipment, a commonly expected life is forty years. Beyond that time, one should realize that there is increasing risk of failure if the units are operated above design temperatures or exposed to physical shock such as the passage of high fault currents. This is particularly true if such conditions have been experienced during the previous operating history of the unit. Testing is also important to gain knowledge of deterioration that may be present in the transformer internal structure and/or the insulation components.

Review of the Washington Main Substation 230 kV to 35 kV transformers with the Washington staff produced several items of concern:

- Dielectric Testing – Dielectric testing usually takes place using Doble tests to measure the internal discharge of insulation under elevated voltage conditions. It measures the condition of not only the internal components but also the condition of the transformer bushings. No records have been found of routine Doble testing, though such tests may have been performed during past oil filtering. Records were not available to confirm this possibility.
- Dissolved Gas (DGA) Testing – The Electric Utilities group does routinely have oil samples drawn from these two transformers as well as other substation units. Results for T1 and T2 have been somewhat erratic. The 2019 testing of T1 showed indications of cellulose (insulation paper) heating. A decrease in the dielectric strength test of the oil is also of some concern, especially since T1 oil dielectric strength had dropped prior the last

reported oil filtering. The 2019 report for T2 shows that the dielectric strength of the oil has begun declining and there is evidence of water in visual inspection of the oil sample. The testing laboratory reports concern about the increase in carbon monoxide level in the oil sample. Their interpretation is that this "may indicate overheating of cellulose" (insulation paper). This is of concern since this not only decreases the dielectric strength of the paper but also makes the windings more susceptible to damage from the mechanical forces imposed by through faults.

- Transformer Loading History – There have been no recorded instances of sustained overloads on either T1 or T2. While there have been instances when operations required one transformer to carry all of the 35 kV load, it has not been in excess of the accepted nameplate capacity.
- Short Circuit History – Electric Utilities staff reports that there have been several major 35 kV fault events that could have affected the 230 to 35 kV transformers. Some of these involved animal contacts on the 35 kV bus or substation equipment immediately adjacent to the transformers. There have also been heavy faults on 35 kV circuits near the substation. Any of these events could have contributed to mechanical stress within the transformer windings. Any resulting movement within the winding coils would be irreversible and possibly lead to further electrical and mechanical degradation.
- SFRA Testing – As far as can be determined, there have been no Sweep Frequency Response Analysis (SFRA) tests made on either of these transformers since they entered service. This is a comparative test that is intended to detect such problems as coil displacement through the measurement of impedance at various frequencies. It is believed that no SFRA test may have been performed on either unit at the time of manufacture since such tests were not widely used at that time. However, SFRA tests can now be performed on both units. A comparison of the results would be meaningful since T1 and T2 are 'sister' units manufactured consecutively on the same production line. If significant differences are noted in SFRA results it could be an indication of winding deformation which could possibly lead to failure of the unit when it is exposed to additional stress from 35 kV short circuits.

Assessment of Existing Capacity

Given the extent of historical knowledge of the life of Washington Main transformers T1 and T2, the initial judgment is that loading on these units should be limited to avoid exceeding the 65C FOA rating. For T1 and T2 this is about 67 MVA. Planning should observe this limit under first-contingency fault conditions, for example the loss of one of these transformers with the system load carried entirely by the second unit. We do not recommend planning to take advantage of the 84 MVA OA/FA/FA (second-stage of forced-air cooling) 65C rating since peak loading projections do have some uncertainty and the condition of these transformers also has a significant degree of uncertainty.

In addition to the condition of the transformers, Washington management must be cognizant of the lead time to replace a failed unit. Lead time for a replacement unit is currently running at approximately 40 weeks. This means that if one unit fails, the City will be operating with no backup transformer for the majority of a year.

Conclusions and Recommendations

Given the critical importance of these transformers to the reliability of the Washington electric system and the very large investment required to enhance their reliability, additional information should be gathered to form the foundation of a responsible decision about the timing of such actions. A reasonable program should include:

- Contract with a qualified firm to conduct Doble tests of the overall insulation systems of these two transformers. Testing should include a comprehensive report on the insulation condition and recommendations for any improvements.
- Continue the existing practice of conducting annual DGA and oil chemistry tests. If laboratory tests show problematic results, follow recommendations for more frequent testing and/or corrective action.
- Obtain the services of an experienced testing organization to conduct SFRA tests on these two transformers. Compare results obtained from each unit to determine if there are any significant differences indicative of coil shifting or other anomalies.
- Develop a history of maximum loads experienced by these two transformers. It will be useful if this history can include ambient temperatures and duration of peak loads. Loading information should be available from SCADA system (or other) historical files. Monthly logs of top oil and winding temperatures will also be most useful in estimating winding aging.
- Develop a history of significant transformer maintenance events along with the reason for the maintenance. This should include accessory changes, vacuum oil processing/filtering, etc. Dates should be included so a correlation can be made with laboratory oil test results.
- Where possible, enhance existing information on major 35 kV faults that have occurred near (within ~ one mile of) the Washington Main Substation. Useful information will include the type of fault, device clearing the fault, relay targets activated, and any obvious effect on transformer.

Accumulation of this information will greatly assist in analysis of transformer condition. This, in turn, will allow a more fact-based assessment of the need to invest in upgrades to the T1 and T2 transformers in Washington Main Substation.

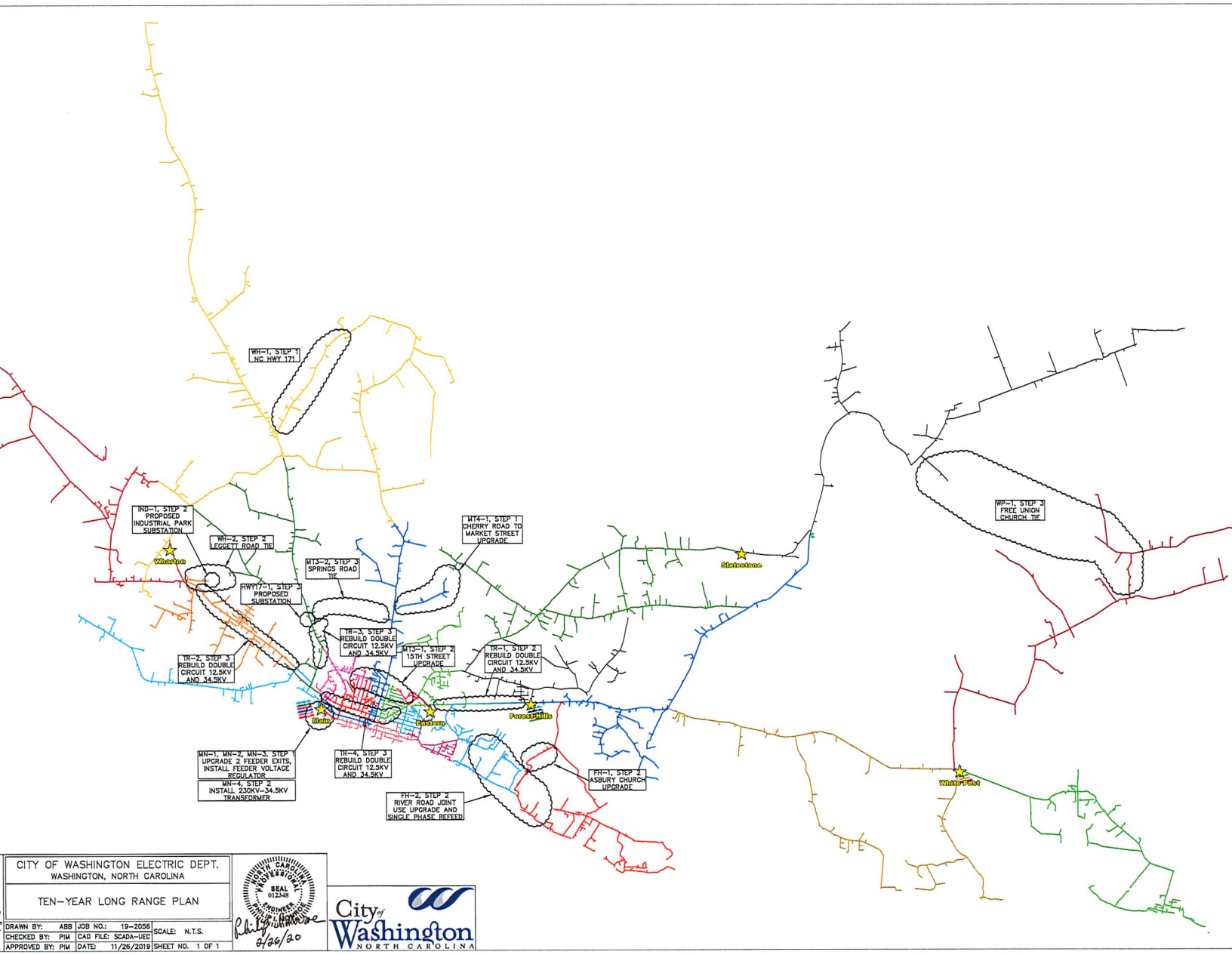
Adding a third transformer, as is proposed in the Plan, will take approximately one year if it is fast tracked. However, a more realistic completion time for the addition of the third transformer is close to two years. Therefore, since the present system load of 73.9 MVA is beyond the 67 MVA load level, it is recommended that design for addition of a third transformer begin immediately and the transformer energized no later than early Step 2 (end of year 2022).

Exhibit D

UNIT INSTALLED COST

ITEM	COST/MILE [1]
NEW LINE	
Three-Phase 336.4 kcmil ACSR	$ 140,000
Double Circuit Three-Phase 336.4 kcmil ACSR	$ 170,000
Double Circuit Three-Phase 336.4 kcmil ACSR *(12.47 & 34.5 kV)*	$ 180,000
CONVERSIONS	
Single-Phase to Single-Phase 1/0 ACSR	$ 50,000
Single-Phase to Three-Phase 1/0 ACSR	$ 70,000
Single-Phase to Three-Phase 336.4 kcmil ACSR	$ 80,000
Three-Phase to Three-Phase 336.4 kcmil ACSR	$ 80,000
Three-Phase to Double Circuit Three-Phase 556/336.4 kcmil ACSR *(34.5 & 12.47 kV)*	$ 170,000
Three-Phase to Double Circuit Three-Phase 336.4 kcmil ACSR *City goes joint use on existing foreign utility*	$ 140,000
MISCELLANEOUS	COST
Transclosure Replacement	$ 30,000
34.5 kV - 12.47/7.2 kV Substation 15/28 MVA Transformer 5 bays (3 initial, 2 spare) Future 115 kV operation	$ 3,600,000

[1] Based upon average right-of-way parameters and conditions. Cost estimates per project are adjusted based on abnormal design complexities, right-of way conditions and short line section projects.
All cost are 2019 base cost per mile unless otherwise noted.
Cost for 12.5 kV insulation unless otherwise noted



CITY OF WASHINGTON ELECTRIC DEPT. WASHINGTON, NORTH CAROLINA			
TEN-YEAR LONG RANGE PLAN			
DRAWN BY: ABB	JOB NO.: 19-2056	SCALE: N.T.S.	
CHECKED BY: PIM	CAD FILE: SCADA-UEC		
APPROVED BY: PIM	DATE: 11/26/2019	SHEET NO. 1 OF 1	

NORTH CAROLINA PROFESSIONAL SEAL 012348 ENGINEER PHILIP I. MCDADE
8/26/20

City of Washington NORTH CAROLINA

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To:	**Mayor Sadler & Members of the City Council**
From:	**Cynthia Bennett, City Clerk**
Date:	**October 12, 2020**
Subject:	**Appointment to Historic Preservation Commission**
Applicant Presentation:	**N/A**
Staff Presentation:	**N/A**

RECOMMENDATION: (Virginia Finnerty – Liaison)
I move that the City Council appoint_____to the Historic Preservation Commission to fill the un-expired term of Mike Renn, term to expire June 30, 2021.

BACKGROUND AND FINDINGS:

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT
___ Currently Budgeted (Account_____) ___ Requires additional appropriation ___ No Fiscal Impact

SUPPORTING DOCUMENTS
Applications

Requested Board Historic Preservation Commission

CANDIDATES REQUEST FOR APPOINTMENT TO BOARDS, COMMISSIONS, AND/OR AUTHORITY OF THE CITY OF WASHINGTON

NAME Marian P. Booth

ADDRESS 217 E. M.L.K. Jr. Drive, Washington, NC 27889

PHONE (WORK) 252-402-1890 **(HOME)** _____

E-MAIL ADDRESS mpbooth94@gmail.com

DO YOU LIVE WITHIN THE CORPORATE LIMITS OF WASHINGTON? YES (☑) NO (☐)

HOW LONG HAVE YOU BEEN A RESIDENT OF BEAUFORT COUNTY? 35 **YEARS**

YEARS OF EDUCATION 4 yrs. (graduate studies)

HAVE YOU SERVED ON A BOARD/COMMISSION OF THE CITY? YES (☐) NO (☑)

IF YES, PLEASE INDICATE _____

DO YOU ANTICIPATE A CONFLICT OF INTEREST BY SERVING AS A MEMBER OF A BOARD/COMMISSION? No **IF YES, EXPLAIN** _____

STATE REASONS WHY YOU FEEL QUALIFIED FOR THIS APPOINTMENT (s) (OPTIONAL): *Use back of sheet if additional space is needed.*

I served on the Historic Bath Commission for 3 years. The experience gave me the understanding and importance of historic structures and reflection of our historic history. By living in a Historic District, will give me the opportunity to help enhance and improve the image on how beautiful and unique historic living can benefit the community.

NOTE: This information will be used by the City Council in making appointments to Boards and Commissions AND, in the event you are appointed, it may be used as a news release to identify you to the community.

September 14, 2020
Date

Marian P. Booth
Signature

NOTE: Application will remain on file for six (6) months. **Expiration Date:** October 12, 2020

Requested Board Historic Preservation Commission

CANDIDATES REQUEST FOR APPOINTMENT TO BOARDS, COMMISSIONS, AND/OR AUTHORITY OF THE CITY OF WASHINGTON

NAME John Stephen Carbone, MD, JD

ADDRESS 720 West Main Street, Washington NC 27889

PHONE (WORK) _____ (HOME) 919-452-4413

E-MAIL ADDRESS vadocdoc@outlook.com

DO YOU LIVE WITHIN THE CORPORATE LIMITS OF WASHINGTON? YES (✓) NO ( )

HOW LONG HAVE YOU BEEN A RESIDENT OF BEAUFORT COUNTY? three (3) YEARS

YEARS OF EDUCATION 12+

HAVE YOU SERVED ON A BOARD/COMMISSION OF THE CITY? YES ( ) NO (✓)

IF YES, PLEASE INDICATE _____

DO YOU ANTICIPATE A CONFLICT OF INTEREST BY SERVING AS A MEMBER OF A BOARD/COMMISSION? NO IF YES, EXPLAIN _____

STATE REASONS WHY YOU FEEL QUALIFIED FOR THIS APPOINTMENT (s) (OPTIONAL): *Use back of sheet if additional space is needed.*

see attachment

NOTE: This information will be used by the City Council in making appointments to Boards and Commissions AND, in the event you are appointed, it may be used as a news release to identify you to the community.

5/12/2020
Date

Signature

NOTE: Application will remain on file for six (6) months. Expiration Date: 11/12/2020

Since 2017, I have come into possession of three lovely homes in the Washington Historic District → one a charming WWI-vintage Craftsman bungalow, one a stately Victorian manse, and one (the Myers House) a Federal period structure that is the oldest extant building in town. I am honored to be the caretaker of these properties, preserving them for future generations whilst enjoying them day-to-day in the present. Having been schooled in both Wmsburg VA and Charlottesville VA - two municipalities steeped in history - I came early to appreciate that the material culture of the past, once lost, cannot be regained. Because of my deep personal interest in the mission of the Washington Historic Preservation Commission, and my roots here, I feel strongly that I am qualified to assist the commission in the fulfillment of its preservation mandate.

John Carbone MD

Agenda Date: October 12, 2020

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To: Mayor Sadler & Members of City Council
From: Matt Rauschenbach, CFO/Assistant City Manager
Date: October 1, 2020
Subject: Service Expansion Budget Ordinance Amendment
Staff Presentation:

RECOMMENDATION:

I move that the City Council adopt a Budget Ordinance Amendment and a Capital Project Ordinance Amendment for the service expansion items approved at the September Council meeting.

BACKGROUND AND FINDINGS:

PREVIOUS LEGISLATIVE ACTION

Approved presented items with the exception of # 1, 5, 6, 12, 16, 21 and 22 plus hazard pay round II similar to prior distribution.

FISCAL IMPACT

Requires appropriation

SUPPORTING DOCUMENTATION

Budget Ordinance Amendment
Capital Project Fund Amendment

AN ORDINANCE TO AMEND THE BUDGET ORDINANCE OF THE CITY OF WASHINGTON, N.C. FOR THE FISCAL YEAR 2020-2021

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$294,879
010-3613-0046	Recreation Rental Fee	1,500
010-3613-4130	Aquatic Memberships	1,500
010-3613-4135	Aquatic Center Rentals	500
		$298,379

Section 2. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

010-4110-0201	Salaries-Overtime	$ 5,912
010-4110-0500	FICA	452
010-4111-0201	Salaries-Overtime	1,182
010-4111-0500	FICA	90
010-4120-0200	Salaries	4,792
010-4120-0206	Salaries-Intern	1,207
010-4120-0500	FICA	459
010-4120-0700	Retirement	521
010-4123-0200	Salaries	608
010-4123-0500	FICA	46
010-4123-0700	Retirement	51
010-4124-0200	Salaries	1,824
010-4124-0300	Salaries-Part Time	361
010-4124-0500	FICA	167
010-4124-0700	Retirement	177
010-4125-0200	Salaries	6,680
010-4125-0500	FICA	511
010-4125-0700	Retirement	583
010-4126-0200	Salaries	3,022
010-4126-0500	FICA	231
010-4126-0700	Retirement	301
010-4130-0200	Salaries	6,936
010-4130-0300	Salaries-Part Time	192
010-4130-0500	FICA	545
010-4130-0700	Retirement	598
010-4131-0200	Salaries	2,415

010-4131-0500	FICA	185
010-4131-0700	Retirement	201
010-4134-0200	Salaries	1,811
010-4134-0500	FICA	139
010-4134-0700	Retirement	151
010-4135-0200	Salaries	9,056
010-4135-0500	FICA	693
010-4135-0700	Retirement	753
010-4250-0200	Salaries	4,535
010-4250-0500	FICA	347
010-4250-0700	Retirement	303
010-4260-0200	Salaries	2,110
010-4260-0300	Salaries-Part Time	167
010-4260-0500	FICA	174
010-4260-0700	Retirement	141
010-4310-0200	Salaries	61,463
010-4310-0300	Salaries-Part Time	80
010-4310-0500	FICA	4,708
010-4310-0700	Retirement	4,426
010-4310-0702	401k	1,836
010-4311-0200	Salaries	6,037
010-4311-0500	FICA	462
010-4311-0700	Retirement	502
010-4340-0200	Salaries	12,104
010-4340-0300	Salaries-Part Time	147
010-4340-0500	FICA	937
010-4340-0700	Retirement	775
010-4341-0200	Salaries	40,455
010-4341-0500	FICA	3,095
010-4341-0700	Retirement	2,591
010-4350-0200	Salaries	5,385
010-4350-0500	FICA	412
010-4350-0700	Retirement	428
010-4510-0200	Salaries	10,302
010-4510-0500	FICA	788
010-4510-0700	Retirement	708
010-4511-0200	Salaries	3,769
010-4511-0500	FICA	288
010-4511-0700	Retirement	251
010-4700-0200	Salaries	1,421
010-4700-0500	FICA	110
010-4700-0700	Retirement	131
010-4910-0200	Salaries	5,281
010-4910-0500	FICA	404
010-4910-0700	Retirement	448
010-6110-0200	Salaries	7,336
010-6110-0300	Salaries-Part Time	615

010-6110-0500	FICA	608
010-6110-0700	Retirement	667
010-6120-0200	Salaries	1,323
010-6120-0500	FICA	101
010-6120-0700	Retirement	112
010-6121-0200	Salaries	1,207
010-6121-0300	Salaries-Part Time	2,908
010-6121-0500	FICA	315
010-6121-0700	Retirement	100
010-6121-3301	Janitorial Supplies	600
010-6123-0200	Salaries	2,215
010-6123-0300	Salaries-Part Time	6,290
010-6123-0302	Salaries-Part Time Mid-East	137
010-6123-0500	FICA	661
010-6123-0700	Retirement	201
010-6124-0300	Salaries-Part Time	870
010-6124-0500	FICA	67
010-6124-0700	Retirement	28
010-6125-0200	Salaries	1,207
010-6125-0300	Salaries-Part Time	608
010-6125-0500	FICA	139
010-6125-0700	Retirement	100
010-6126-0200	Salaries	1,207
010-6126-0300	Salaries-Part Time	6,275
010-6126-0500	FICA	572
010-6126-0700	Retirement	100
010-6130-0200	Salaries	10,552
010-6130-0300	Salaries-Part Time	16,461
010-6130-0500	FICA	2,066
010-6130-0700	Retirement	2,358
	Total	$298,379

Section 3. That the following accounts of the Water Fund revenue budget be increased or decreased by the respective amounts indicated:

030-3991-9910	Fund Balance Appropriated	$ 26,076

Section 4. That the following accounts of the Water Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

030-7220-0200	Salaries	$ 2,133
030-7220-0300	Salaries-Part Time	169
030-7220-0500	FICA	176
030-7220-0700	Retirement	198
030-7250-0200	Salaries	2,515

030-7250-0500	FICA	192
030-7250-0700	Retirement	201
030-8100-0200	Salaries	12,389
030-8100-0300	Salaries-Part Time	119
030-8100-0500	FICA	957
030-8100-0700	Retirement	867
030-8140-0200	Salaries	3,768
030-8140-0500	FICA	288
030-8140-0700	Retirement	251
030-8180-0200	Salaries	1,617
030-8180-0500	FICA	124
030-8180-0700	Retirement	112
	Total	$26,076

Section 5. That the following accounts of the Sewer Fund revenue budget be increased or decreased by the respective amounts indicated:

032-3991-9910	Fund Balance Appropriated	$28,226

Section 6. That the following accounts of the Sewer Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

032-7221-0200	Salaries	$ 2,133
032-7221-0300	Salaries-Part Time	169
032-7221-0500	FICA	176
032-7221-0700	Retirement	198
032-8200-0200	Salaries	5,276
032-8200-0500	FICA	404
032-8200-0700	Retirement	351
032-8210-0200	Salaries	3,015
032-8210-0500	FICA	231
032-8210-0700	Retirement	201
032-8220-0200	Salaries	12,406
032-8220-0300	Salaries-Part Time	119
032-8220-0500	FICA	958
032-8220-0700	Retirement	867
032-8230-0200	Salaries	1,507
032-8230-0500	FICA	115
032-8230-0700	Retirement	100
	Total	$28,226

Section 7. That the following accounts of the Storm Water Fund revenue budget be increased or decreased by the respective amounts indicated:

034-3991-9910	Fund Balance Appropriated	$7,571

Section 8. That the following accounts of the Storm Water Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

034-5710-0200	Salaries	$7,353
034-5710-0500	FICA	563
034-5710-0700	Retirement	561
034-5712-0200	Salaries	1,207
034-5712-0500	FICA	92
034-5712-0700	Retirement	100
	Total	$9,876

Section 9. That the following accounts of the Electric Fund revenue budget be increased or decreased by the respective amounts indicated:

035-3991-9910	Fund Balance Appropriated	$56,243

Section 10. That the following accounts of the Electric Fund appropriations budget be increased or decreased by the respective amounts to provide funds for for the expansion items approved by Council September 14, 2020:

035-7222-0200	Salaries	$ 5,815
035-7222-0500	FICA	445
035-7222-0700	Retirement	516
035-7230-0200	Salaries	3,622
035-7230-0300	Salaries-Part Time	690
035-7230-0500	FICA	330
035-7230-0700	Retirement	372
035-7250-0200	Salaries	9,495
035-7250-0500	FICA	726
035-7250-0700	Retirement	707
035-8370-0200	Salaries	3,618
035-8370-0500	FICA	277
032-8370-0700	Retirement	241
035-8375-0200	Salaries	2,412
035-8375-0500	FICA	185
032-8375-0700	Retirement	161
035-8380-0200	Salaries	22,956
035-8380-0500	FICA	1,756
035-8380-0700	Retirement	1,919
	Total	$56,243

Section 11. That the following accounts of the Airport Fund revenue budget be increased or decreased by the respective amounts indicated:

037-3991-9910	Fund Balance Appropriated	$1,696

Section 12. That the following accounts of the Airport Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

037-4530-0200	Salaries	$1,207
037-4530-0300	Salaries-Part Time	276
037-4530-0500	FICA	113
037-4530-0700	Retirement	100
	Total	$1,696

Section 13. That the following accounts of the Sanitation Fund revenue budget be increased or decreased by the respective amounts indicated:

038-3991-9910	Fund Balance Appropriated	$21,484

Section 14. That the following accounts of the Sanitation Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

038-4710-0200	Salaries	$18,590
038-4710-0300	Salaries-Part Time	213
038-4710-0500	FICA	1,438
038-4710-0700	Retirement	1,243
	Total	$21,484

Section 15. That the following accounts of the Cemetery Fund revenue budget be increased or decreased by the respective amounts indicated:

039-3991-9910	Fund Balance Appropriated	$4,566

Section 16. That the following accounts of the Cemetery Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

039-4740-0200	Salaries	$6,591
039-4740-0500	FICA	504
039-4740-0700	Retirement	480
	Total	$7,575

Section 17. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$4,566

Section 18. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

010-4910-0400	Professional Services	$ 50,000

Section 19. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$100,000

Section 20. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

010-4400-9276	Transfer to CPF	$100,000

Section 21. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$35,000

Section 22. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the expansion items approved by Council September 14, 2020:

010-6124-7400	Capital Outlay	$35,000

Adopted this the 12th day of October, 2020.

_____

MAYOR

ATTEST:

_____

CITY CLERK

AN ORDINANCE TO AMEND THE CAPITAL PROJECT ORDINANCE FOR LIBRARY EXPANSION CITY OF WASHINGTON, N.C. FOR FISCAL YEAR 2020-2021

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That the Estimated Revenues in the Library Expansion Capital Project Fund be increased or decreased in the following accounts and amounts:

114-3980-1000	Transfer from General Fund	$	100,000

Section 2. That the following appropriation accounts in the Library Expansion CPF be increased or decreased by the following amounts for the expansion budget approved by Council September 14, 2020:

114-4952-0401	Construction	$	100,000

Section 3. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 4. This ordinance shall become effective upon its adoption.

Adopted this the 12th day of October, 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To:	**Mayor Sadler & Members of City Council**
From:	**Adam Waters, Public Works Director**
Date:	**October 6, 2020**
Subject:	**Amend Chapter 31, STORMWATER UTILITY**
Staff Presentation:	**Adam Waters**

RECOMMENDATION:

I move Council adopt the attached ordinance to amend Chapter 31, STORMWATER UTILITY, with an effective date of October 13, 2020.

BACKGROUND AND FINDINGS:

In June of 2020, Council adopted Chapter 31, Stormwater Utility into ordinance. Since its adoption, a few questions have been raised about its meaning. This change is an effort to make the Ordinance clearer.

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT

___ Currently Budgeted (Account _____) ___ Requires additional appropriation
_X__No Fiscal Impact

SUPPORTING DOCUMENTS

AN ORDINANCE TO ADMEND CHAPTER 31, STORMWATER UTILITY
TO THE WASHINGTON CITY CODE

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That Chapter 31, Stormwater Utility be deleted in its entirety from the City of Washington's Code of Ordinances.

Chapter 31

STORMWATER UTILITY

CHAPTER 31 – STORMWATER UTILITY

Sec. 31-1. Purpose

The purpose of this chapter is to establish the Stormwater Utility requirements of the City of Washington to include structural, natural stormwater and drainage systems of all types owned and maintained by the City of Washington and the cost to maintain and operate the Stormwater Utility shall be financed with revenues from the Stormwater Service Fees.

a. Stormwater poses a serious threat to the public's health, safety, and welfare. This threat cannot be eliminated entirely. Factors affecting this threat which are beyond the city's control include: frequency and intensity of precipitation events; the topography in and around the city; the types of soils and other geologic structures found in and around the city; body of law established under state and federal authority concerning water rights generally and including but not limited to navigable and non-navigable waters, surface waters, and underground waters; unauthorized interference with the city's storm water drainage system; the design and maintenance of those portions of the storm water drainage system constructed or maintained by others, including private parties and other government entities; and the amount of impervious surfaces associated with a given level of development.

b. The management of stormwater can reduce the above described threat through the following:

(1) Constructing, operating and maintaining needed facilities;

(2) Regulating and controlling the use and development of land to reduce the adverse effects of storm water as described in Chapter 30 - Stormwater Management;

(3) Equitably and adequately funding the stormwater utility program by a Stormwater service fee that is related to the volume and quality of stormwater runoff from developed land.

Sec. 31-2. – Definitions

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates otherwise:

a. ***City*** shall mean the City of Washington.
b. ***Commercial-Other and nonresidential*** shall mean any developed land not fitting the definition of a residential-single family unit. It includes, but is not limited to, land upon which there are residential structures that contain more than one unit, such as duplexes, triplexes, townhouses, condominiums, apartments, boardinghouses; churches; institutional buildings, whether public or private; commercial, office, and industrial buildings; parking lots, driveways, and private streets; and land containing improvements under construction or impervious surfaces that are not structures, with the exception of city streets.
c. ***Developed Land*** shall mean property altered from a natural state by construction or installation of more than 200 square feet of impervious surfaces.
d. ***Equivalent Residential Unit (ERU)*** – The average impervious surface area on a single family residential parcel. The ERU for the City of Washington is equal to three thousand one hundred sixty-four (3,164) square feet of impervious area.
e. ***Impervious Surface*** shall mean those areas within developed land which prevent or significantly impede the infiltration of stormwater into the soil. Common impervious surfaces include, but are not limited to, roof tops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, brick or concrete pavers, and other surfaces which prevent or significantly impede the natural infiltration of stormwater into the soil like asphalt, gravel or clay.
f. ***Property Owner*** shall mean the person or firm that own(s) parcel(s) that have impervious area to which a stormwater service fee is charged.
g. ***Public Works Director*** shall mean the Director of the City of Washington's Public Works Department or his designee.
h. ***Residential- Single Family*** shall mean developed land containing one or more structures which are designed to provide living quarters for one family (attached-townhome or detached dwelling) and shall include houses, manufactured homes, and mobile homes located on an individual parcel of land.
i. ***Stormwater s***hall mean that portion of rainfall that runs off the property; such as, roofs, land, and paved surfaces, and does not soak into the ground.
j. ***Stormwater and drainage systems*** shall mean natural and structural channels, swales, ditches, swamps, rivers, streams, creeks, branches, reservoirs, ponds, drainage ways, inlets, catch basins, pipes, head walls, storm sewers, lakes, and other physical works, properties and improvements which transfer, control, convey or otherwise influence the movement of Stormwater runoff.
k. ***Stormwater Service Fee*** shall mean the portion of stormwater service fee applicable to the parcel of developed land which is generally reflective of a parcel's impact on the cost of providing services and facilities to properly control stormwater runoff quantity and quality. The service rate charge will vary from one parcel of developed land to another based upon the amount of impervious surfaces. This fee will be in the form of an Equivalent Residential Unit (ERU).

Sec. 31-3. – Jurisdiction, Billing and Collection

a. All parcels within the corporate city limits that have impervious area shall be charged a monthly Stormwater Service Fee.

(1) All Residential –Single Family land parcels will be billed monthly per the current fee schedule.
(2) All Commercial – Other and nonresidential detached land parcels monthly per the current fee schedule.

b. Stormwater Service Fees shall be applied per customer. The owner of each parcel of developed land, however, shall be ultimately obligated to pay such Stormwater Service Fee if it is not paid by the customer.

c. Each commercial property or residential property that does not have a current utility account with the City of Washington will be billed directly to the owner of the parcel. In other words, the landowner becomes the customer.

d. Where there is a mix of non-residential and residential uses on the same land parcel and/or in the same building, the non-residential use shall be billed at the non-residential rate and the residential use shall be billed at the residential rate established by the City Council.
e. Every bill shall be due when mailed to the customer by the due date on the bill and penalties for not paying shall be imposed per the city's current fees.

f. The total revenues generated by the Stormwater service charge fees will be used to pay stormwater expenses of City owned and maintained stormwater drainage system components and principal and/or interest on debt related to the capital maintenance and/or construction of stormwater system components owned by and operated by the City of Washington, as are reasonably necessary, for the improvements and enhancements of the stormwater and drainage systems throughout the City as deemed appropriate by City Council.

g. A schedule of stormwater service fees shall be adopted by the City Council and made a part of the minutes of the meeting in which the action was taken. Certified copies of the fee will be on file in the office of the City Clerk and the office of the Director, and copies shall be made available upon request. The rates shall be reviewed and adjusted by the City Council, as needed, or upon recommendations of the City Manager.

h. Only drainage ways owned and maintained by the City of Washington shall be operated and/or maintained with revenues from the Stormwater Service Fees identified in this Chapter.

Sec. 31-4. – Complaints Regarding Bill

a. A customer having a complaint about a Stormwater Service Fee charged to his/her account shall file a written or verbal notice with the City of Washington Customer Service Department. The Public Works Director will review the account and determine if an adjustment is due based upon such evidence as he/she deems appropriate.

Sec. 31-5. – Adjustment of Bill

a. If the City determines that it has overcharged or undercharged a customer on account of its error, the City shall refund or recover the difference subject to the following:

(1) The adjustment period shall be limited to the lesser of the actual period during which the error occurred or twelve (12) months; and

(2) The amount of adjustment shall be determined by the Public Works Director based upon such evidence as her/she deems appropriate; and

(3) Any overcharge may be either refunded or credited to the customer and any undercharge shall be billed to the customer.

Section 2. That Chapter 31, Stormwater Utility be amended by adding the revision in its entirety to the City of Washington's Code of Ordinances.

Chapter 31
STORMWATER UTILITY

CHAPTER 31 – STORMWATER UTILITY

Sec. 31-1. Purpose.

The purpose of this chapter is to establish the Stormwater Utility requirements of the city to include structural, natural stormwater and drainage systems of all types owned and maintained by the city and the cost to maintain and operate the Stormwater Utility shall be financed with revenues from the Stormwater Service Fees.

a. Stormwater poses a serious threat to the public's health, safety, and welfare. This threat cannot be eliminated entirely. Factors affecting this threat which are beyond the city's control include: frequency and intensity of precipitation events; the topography in and around the city; the types of soils and other geologic structures found in and around the city; body of law established under state and federal authority concerning water rights generally and including but not limited to navigable and non-navigable waters, surface waters, and underground waters; unauthorized interference with the city's stormwater drainage system; the design and maintenance of those portions of the stormwater drainage system constructed or maintained by others, including private parties and other government entities; and the amount of impervious surfaces associated with a given level of development.

b. The management of stormwater can reduce the above described threat through the following:

(1) Constructing, operating and maintaining needed facilities;

(2) Regulating and controlling the use and development of land to reduce the adverse effects of stormwater as described in Chapter 30 - Stormwater Management; and

(3) Equitably and adequately funding the Stormwater Utility program through Stormwater Service Fees that are related to the volume and quality of stormwater runoff from developed land.

Sec. 31-2. Definitions.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates otherwise:

a. City shall mean the City of Washington.

b. Commercial-Other and nonresidential shall mean any developed land not fitting the definition of residential-single family. It includes, but is not limited to, land upon which there are residential structures that contain more than one residential unit, such as duplexes, triplexes, townhomes, condominiums, apartments, and boarding houses; churches; institutional buildings, whether public or private; commercial, office, and industrial buildings; parking lots, driveways, and private streets; and land containing improvements under construction or impervious surfaces that are not structures, with the exception of city streets.

c. Customer shall mean an individual or entity that possesses a utility account with the city.

d. Developed Land shall mean property altered from a natural state by construction or installation of more than 200 square feet of impervious surface.

e. Equivalent Residential Unit (ERU) shall mean the average impervious surface area on a single family residential parcel. The ERU for the city is equal to three thousand one hundred sixty-four (3,164) square feet of impervious surface.

f. Impervious Surface shall mean those areas within developed land which prevent or significantly impede the infiltration of stormwater into the soil. Common impervious surfaces include, but are not limited to, roof tops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, brick or concrete pavers, and other surfaces which prevent or significantly impede the natural infiltration of stormwater into the soil like asphalt, gravel or clay.

g. Property Owner shall mean the person or entity that owns a land parcel that has impervious surface to which a Stormwater Service Fee is charged.

h. Public Works Director shall mean the Director of the city's Public Works Department or his designee.

i. Residential- Single Family shall mean developed land containing one or more structures which are designed to provide living quarters for one family (attached-townhome or detached dwelling) and shall include, but is not limited to, houses, manufactured homes, and mobile homes located on an individual parcel of land.

j. Residential- Multi Family shall mean developed land containing one or more structures which are designed to provide living quarters for more than one family and shall include, but is not limited to, duplexes, triplexes, apartments, townhomes, condominiums, boarding houses, and manufactured home parks.

k. Stormwater shall mean that portion of rainfall that runs off the property; such as, roofs, land, and paved surfaces, and does not soak into the ground.

l. Stormwater and drainage systems shall mean natural and structural channels, swales, ditches, swamps, rivers, streams, creeks, branches, reservoirs, ponds, drainage ways, inlets, catch basins, pipes, head walls, storm sewers, lakes, and other physical works, properties

and improvements which transfer, control, convey or otherwise influence the movement of stormwater runoff.

m. Stormwater Service Fee shall mean the portion of Stormwater Service Fees applicable to a parcel of developed land which is generally reflective of the parcel's impact on the cost of providing services and facilities to properly control stormwater runoff quantity and quality. An individual Stormwater Service Fee will vary from one parcel of developed land to another based upon the amount of impervious surfaces. This fee will be in the form of an Equivalent Residential Unit (ERU).

Sec. 31-3 Jurisdiction, Billing and Collection.

a. All land parcels within the corporate city limits that have impervious surface shall be charged a monthly Stormwater Service Fee.

(1) All Residential –Single Family land parcels will be billed monthly to the customer per the current residential fee schedule.

(2) All Residential-Multi Family land parcels will be billed monthly to the customer per the current residential fee schedule per residential unit located thereon. Common areas, including but not limited to parking lots, private streets, and community areas, will be billed monthly to the property owner per the current commercial fee schedule.

(3) All Commercial – Other and nonresidential detached land parcels will be billed monthly per the current commercial and/or residential fee schedule, as more specifically provided for herein.

b. Stormwater Service Fees shall be applied per customer or property owner as more specifically provided for herein. However, the property owner of each parcel of developed land shall ultimately be obligated to pay such Stormwater Service Fee if it is not paid by, or applied to, a customer.

c. Each commercial property or residential property, or portion thereof, that does not have a current utility account with the city will be billed directly to the property owner of the parcel.

d. Where there is a mix of commercial and residential uses on the same land parcel and/or in the same building, the commercial use shall be billed at the commercial rate and the residential use shall be billed at the residential rate established by the City Council.

e. When mailed to the customer or property owner, every bill shall be due by the due date on the bill and penalties for not paying the bill shall be imposed in accordance with the city's current fees and policies.

f. The total revenues generated by the Stormwater Service Fees will be used to pay stormwater expenses of city owned and maintained stormwater drainage system components and principal and/or interest on debt related to the capital maintenance and/or construction of stormwater system components owned by and operated by the city, as are reasonably necessary, for the improvements and enhancements of the stormwater and drainage systems throughout the city as deemed appropriate by City Council.

g. Schedules of Stormwater Service Fees shall be adopted by the City Council and made a part of the minutes of the meeting in which the action was taken. Certified copies of the fee schedules will be on file in the office of the City Clerk and the office of the Public Works Director, and copies shall be made available upon request. The rates shall be reviewed and adjusted by City Council, as needed, or upon recommendations of the City Manager.

h. Only drainage ways owned and maintained by the city shall be operated and/or maintained with revenues from the Stormwater Service Fees identified in this chapter.

Sec. 31-4. Complaints Regarding Bill.

a. A customer or property owner having a complaint concerning a Stormwater Service Fee may file a written or verbal notice with the city's Customer Service Department. The Public Works Director will review the account and determine if an adjustment is due based upon such evidence as he or she deems appropriate.

Sec. 31-5 Adjustment of Bill.

a. If the city determines that it has overcharged or undercharged a customer or property owner on account of its error, the city shall refund or recover the difference subject to the following:

(1) The adjustment period shall be limited to the lesser of the actual period during which the error occurred or twelve (12) months;

(2) The amount of adjustment shall be determined by the Public Works Director based upon such evidence as he or she deems appropriate; and

(3) Any overcharge may be either refunded or credited to the customer or property owner and any undercharge shall be billed to the customer or property owner.

Section 3. All ordinances or parts of ordinance in conflict herewith are hereby repealed.

Section 4. This ordinance shall become effective upon adoption.

This, the 12th day of October, 2020.

_____

MAYOR

ATTEST:

_____

CITY CLERK

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To:	**Mayor Sadler & Members of City Council**
From:	**Adam Waters, Public Works Director**
Date:	**October 6, 2020**
Subject:	**Authorize Manager to Execute Engineering Agreement with Rivers and Associates for Medical District Drainage Improvements and Approve Corresponding Purchase Order**
Staff Presentation:	**Adam Waters**

RECOMMENDATION:

I move that City Council authorize the City Manager to execute the Engineering Agreement with Rivers and Associates and approve purchase order to Rivers and Associates in the amount of $ 611,000 for the Medical District Drainage Improvements Project.

BACKGROUND AND FINDINGS:

In July 2020, the City applied to Golden LEAF Disaster Recovery Grant for drainage improvements in the Medical District (area of the hospital along the corridors of 15th Street, Brown Street, 11th Street and under John Small Avenue/US Highway 264 Business) in the amount of $8,027,125 and was awarded $3,030,000 in early August 2020. Public Works staff requested RFQ's for engineering services on October 2, 2020 and Rivers and Associates was deemed best qualified for this project.

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT

_X_ Currently Budgeted (Account _____) ___ Requires additional appropriation
____ No Fiscal Impact

SUPPORTING DOCUMENTS

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To:	**Mayor Sadler & Members of the City Council**
From:	**Jonathan Russell, City Manager**
Date:	**October 1, 2020**
Subject:	**Staff Addition: Public Works Assistant Director**
Applicant Presentation:	**N/A**
Staff Presentation:	**N/A**

RECOMMENDATION:

I move that City Council approve the addition of a full-time Public Works Assistant Director, grade 28 and adopt a Budget Ordinance Amendment.

BACKGROUND AND FINDINGS:

It is essential that we hire an Assistant Director of Public Works to assist in the management, planning and organization in the Public Works department. There is an obvious "skill gap" that needs to be addressed and vital to the succession planning for the department. The addition will "fill the gap" and assist in reducing the current Public Works Director's workload. This position had been eliminated during a reorganization in 2015.

This position will report directly to the Public Works Director. The position is an exempt position salary grade 28.

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT:

Salary,	$80,000.00
Taxes, Retirement, Fringe Benefits	$21,439.00
Total:	$101,439.00

SUPPORTING DOCUMENTS

N/A

AN ORDINANCE TO AMEND THE BUDGET ORDINANCE OF THE CITY OF WASHINGTON, N.C. FOR THE FISCAL YEAR 2020-2021

BE IT ORDAINED by the City Council of the City of Washington, North Carolina:

Section 1. That the following accounts of the General Fund revenue budget be increased or decreased by the respective amounts indicated:

010-3991-9910	Fund Balance Appropriated	$ 13,770

Section 2. That the following accounts of the General Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the Assistant Public Works position:

010-4700-0200	Salaries	$ 10,667
010-4700-0500	F.I.C.A.	816
010-4700-0700	Retirement	1,090
010-4700-0600	Insurance	1,017
010-4700-0701	401k	180
	Total	$ 13,770

Section 3. That the following accounts of the Water Fund revenue budget be increased or decreased by the respective amounts indicated:

030-3991-9910	Fund Balance Appropriated	$ 20,655

Section 4. That the following accounts of the Water Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the Assistant Public Works position:

030-7220-0200	Salaries	$ 16,000
030-7220-0500	F.I.C.A.	1,224
030-7220-0700	Retirement	1,635
030-7220-0600	Insurance	1,526
030-7220-0701	401k	270
	Total	$ 20,655

Section 5. That the following accounts of the Sewer Fund revenue budget be increased or decreased by the respective amounts indicated:

032-3991-9910	Fund Balance Appropriated	$ 20,655

Section 6. That the following accounts of the Sewer Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the Assistant Public Works position:

032-7221-0200	Salaries	$ 16,000
032-7221-0500	F.I.C.A.	1,224
032-7221-0700	Retirement	1,635
032-7221-0600	Insurance	1,526
032-7221-0701	401k	270
	Total	$ 20,655

Section 7. That the following accounts of the Storm Water Fund revenue budget be increased or decreased by the respective amounts indicated:

034-3991-9910	Fund Balance Appropriated	$ 13,770

Section 8. That the following accounts of the Storm Water Fund appropriations budget be increased or decreased by the respective amounts to provide funds for the Assistant Public Works position:

034-5710-0200	Salaries	$ 10,667
034-5710-0500	F.I.C.A.	816
034-5710-0700	Retirement	1,090
034-5710-0600	Insurance	1,017
034-5710-0701	401k	180
	Total	$ 13,770

Adopted this the 12th day of October, 2020.

_____

MAYOR

ATTEST:

_____

CITY CLERK

City of Washington
NORTH CAROLINA

REQUEST FOR CITY COUNCIL ACTION

To: **Mayor Sadler & Members of City Council**
From: **Jonathan Russell, City Manager**
Date: **October 7, 2020**
Subject: **Approve Partnership with ElectriCities and Retail Strategies**

RECOMMENDATION:
I move that City Council approve the City of Washington's partnership with Retail Strategies, LLC and ElectriCities of North Carolina, Inc. as negotiated under the Professional Services Agreement to Provide Consulting Services.

BACKGROUND AND FINDINGS:
Retail Strategies, LLC is a consulting and business recruitment agency that helps communities attract new retailers, restaurants, hotels, etc. Under the proposed agreement, ElectriCities of North Carolina will pay a portion of the consulting fee, and Retail Strategies will recruit businesses on behalf of the City at a discounted price rate of $45,000 over a partnership period of three years.

PREVIOUS LEGISLATIVE ACTION

FISCAL IMPACT

___ Currently Budgeted (Account _____) _X_ Requires additional appropriation
___No Fiscal Impact

SUPPORTING DOCUMENTS
PROFESSIONAL SERVICES AGREEMENT TO PROVIDE CONSULTING SERVICES

PROFESSIONAL SERVICES AGREEMENT TO PROVIDE CONSULTING SERVICES

This Professional Services Agreement to Provide Consulting Services (this "Agreement") sets forth the mutual understanding of (the "Client") Washington, NC and Retail Strategies, LLC, an Alabama limited liability company (the "Consultant") on this the _____ day of _____, 2020 (the "Execution Date"), for the provision of professional consulting services as more fully set forth below.

RECITALS:

The Consultant possesses a high degree of professional skill and experience and is a unique provider of professional consulting services in retail recruitment.

The Client desires to hire the Consultant to provide professional consulting services because of its professional skill and experience.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements set forth in this Agreement, the Client and the Consultant, intending to be legally bound, do hereby agree as follows:

1. **CONSULTING SERVICES.** The Consultant agrees to provide the following professional consulting services to the Client (the "Services"):

A. **Research.** The Consultant will identify the Client's retail trade area using a blend of demographics, political boundaries, drive times and/or custom boundaries. The Consultant will perform market and retail analysis based on current industry standards at the time such reports are run. The Consultant will map retail locations and analyze opportunities given local and macro retail trends.

B. **In-Market Real Estate Analysis.** The Consultant will analyze existing shopping centers and retail corridors and actively reach out to local brokers and real estate owners. The Consultant will identify, evaluate and catalogue priority commercial properties for development or redevelopment based on their highest-and-best-use. The Consultant will identify priority business categories to expand locally and to recruit to the area.

C. **Retail Recruitment.** The Consultant will proactively recruit businesses for targeted zones through the contact of a minimum of 30 retailers, restaurants, brokers or developers. The Consultant will regularly update the Client Representative on retail recruitment efforts via email, telephone and the Consultant's client web portal known as "Basecamp." One market visit per calendar year is included in this agreement, additional travel outside of this agreement and requested by the Client shall be approved and paid for by the Client. The Consultant will represent the Client at International Council of Shopping Center conferences and provide updates according to the yearly conference schedule.

D. **Updates.** The Consultant will provide the Client Representative with updates within three business days of receipt of a request from the Client Representative (as defined in Section 4 below).

2. **TERM.** The Consultant's engagement and provision of Services will commence upon the Execution Date as set forth above. The Consultant's engagement and this Agreement will terminate automatically on the third anniversary of the Execution Date (the "Term") unless earlier terminated as provided in Section 6 below. At the end of the Term, the Client, acting by and through the Client Representative, may extend the Term at its option for successive one year periods on such terms and conditions as the Client Representative, acting for and on behalf of the Client, and the Consultant may agree upon in writing.

3. **CONSULTING FEE.**

A. **Consulting Fee.** The complete cost for the Consultant to provide the services under this agreement shall be $90,000 (the "Consulting Fee"). In consideration for providing the Services, the Client agrees to pay the Consultant a portion of the consulting fee in an amount equal to $45,000. The Client and the Consultant along with ElectriCities of NC, as provided in paragraph 9 below, agree that ElectriCities of NC will be responsible for the remaining $45,000. Payments are due within 30 days of receipt of the invoice. An invoice will be sent 60 days prior to installment date for years 2 and 3 The Consulting Fee will be paid in installments of immediately available funds as follows:

Contract Period	Payment Date	Payment Amount	Responsible Party
Year One	Upon execution of this Agreement	**$20,000.00**	City of Washington, NC
	Upon Delivery of Retail Recruitment Plan	**$20,000.00**	ElectriCities of NC
Year Two	On or before the 1st anniversary of the Effective Date	**$12,500.00**	City of Washington, NC
	On or before the 1st anniversary of the Effective Date	**$12,500.00**	ElectriCities of NC
Year Three	On or before the 2nd anniversary of the Effective Date	**$12,500.00**	City of Washington, NC
	On or before the 2nd anniversary of the Effective Date	**$12,500.00**	ElectriCities of NC

B. **Payment Default.** If the Client fails to pay any portion of the Consulting Fee on the requisite payment date, the Consultant will immediately cease all Services, including but not limited to: (1) negotiation of incentive agreements; (2) all recruiting and marketing efforts; (3) representation of the Client at trade shows; (4) booking meetings for the Client with prospective retailers; and (5) including the Client in marketing materials.

4. **CLIENT INFORMATION AND ACCESS.**

A. To the extent permitted by law, the Client will provide the Consultant with access to relevant personnel, facilities, records, reports and other information (including any information specified in the Consultant's proposal to the Client) accessible by the Client

that the Consultant may reasonably request from time-to-time during the Term. The Client acknowledges and agrees that the Consultant's scheduled delivery of the Services is dependent upon the timely access to such personnel, facilities, records, reports and other requested information.

B. To facilitate such access and Consultant's delivery of the Services, the Client designates the _____ TITLE (the "Client Representative"), currently _____ NAME. The Client Representative will serve as the primary liaison between the Consultant and the Client. The Client Representative will have responsibility for regular communications between the Client and the Consultant, including providing updates in a timely manner through Basecamp. The Client Representative's communications to the Consultant will include information regarding retail growth and development, such as actual and prospective business openings and closings, changes in economic drivers (e.g., significant increases or decreases in workforce of major employers, school enrollments, housing or healthcare services) and changes in the ownership of targeted real estate (e.g., transfers of real estate or changes in the finances of ownership). The Client Representative will also be responsible for disseminating updates relative to consultants' activities related to scope of work to members of local stakeholder groups of the Client (e.g. City Council, Economic Development Boards, and Chamber of Commerce etc.).

C. The Client hereby authorizes the Client Representative (i) to act on behalf of the Client in the day-to-day administration and operation of this Agreement and the arrangements it contemplates and (ii) to execute and deliver, on behalf of the Client, such notices, approvals, consents, instruments, amendments or other documents as may be necessary or desirable to facilitate or assist the Consultant with the provision of the Services.

5. INTELLECTUAL PROPERTY. As part of the Services, the Consultant will prepare periodic and final reports including demographic and other research reports that will become the property of the Client upon delivery from the Consultant. Any other reports, memoranda, electronic mail, facsimile transmissions or other written documents prepared or used by the Consultants in connection with the Services will remain the property of the Consultant. With the Consultant's prior permission, the Client may use other information provided by the Consultant, such as specifics related to retailers, developers, site information or other "confidential information" for internal purposes while taking reasonable steps to so limit the use of such materials and maintain its confidentiality.

6. TERMINATION.

A. **By the Client At-Will.** The Client may terminate this Agreement at any time for any or no reason upon delivery of 30 days' prior written notice to the Consultant. Any portion of the Consulting Fee paid prior to such termination of this Agreement is earned when paid and nonrefundable.

B. **By the Client Upon the Consultant's Default.** The Client may notify the Consultant within 90 days of the day that the Client knows or should have known that the Consultant breached this Agreement. The Consultant will have 30 days following receipt of such notice to cure any alleged breach. If the Consultant fails to cure any alleged breach within that 30-day period, then the Client may terminate this Agreement. Within 30 days of such termination of this Agreement, the Consultant will refund a pro rata portion of the

installment of the Consulting Fee previously paid for the contract period during which such termination occurs based upon the number of days remaining in such contract period.

C. **By the Consultant At-Will.** The Consultant may terminate this Agreement at any time for any or no reason upon delivery of 30 days' prior written notice to the Client. Within 30 days of such termination of this Agreement, the Consultant will refund a pro rata portion of the installment of the Consulting Fee previously paid for the period during which such termination occurs based upon the number of days remaining in such period.

D. **By the Consultant Upon the Client's Default.** The Consultant may notify the Client within 90 days of the day that the Consultant knows or should have known that the Client breached this Agreement. The Client will have 30 days following receipt of such notice to cure any alleged breach. If the Client fails to cure any alleged breach within that 30-day period, then the Consultant may terminate this Agreement. Any portion of the Consulting Fee paid prior to such termination of this Agreement is earned when paid and nonrefundable.

7. **NOTICES.** Any notice or communication in connection with this Agreement will be in writing and either delivered personally, sent by certified or registered mail, postage prepaid, delivered by a recognized overnight courier service, or transmitted via facsimile or other electronic transmission, addressed as follows:

Client: Jonathan Russell, City Manager
102 E Second Street, Washington, NC 27889
Office: 252-975-9319 | Cell: 252-402-4984
Email: jrussell@washingtonnc.gov
www.washingtonnc.gov

Consultant: Retail Strategies, LLC
2200 Magnolia Ave. South, Suite 100
Birmingham, AL 35205
Email: sleara@retailstrategies.com
Fax: (205) 313-3677
Attention: Stephen P. Leara, Esq – EVP | General Counsel

or to such other address as may be furnished in writing by either party in the preceding manner. Notice shall be deemed to have been properly given for all purposes: (i) if sent by a nationally recognized overnight carrier for next business day delivery, on the first business day following deposit of such notice with such carrier, (ii) if personally delivered, on the actual date of delivery, (iii) if sent by certified U.S. Mail, return receipt requested postage prepaid, on the third business day following the date of mailing, or (iv) if sent by facsimile or email of a PDF document (with confirmation of transmission), then on the actual date of delivery if sent prior to 5 p.m. Central Time, and on the next business day if sent after such time.

8. **INDEPENDENT CONTRACTOR.** The Consultant, in its capacity as a professional consultant to the Client, is and will be at all times an independent contractor. The Consultant does not have the express, implied or apparent authority either (A) to act as the Client's agent or legal representative or (B) to legally bind the Client, its officers, agents or employees.

9. **ELECTRICITIES OF NORTH CAROLINA OBLIGATION:** Acknowledging they have received good and valuable consideration ElectriCities of North Carolina is executing as a counterpart to this agreement acknowledging and accepting their obligation to pay the portion of the consulting fee pursuant to section 3A above.

10. **STANDARD TERMS.**

A. **Affiliated Services:** The Client acknowledges that certain affiliates of the Consultant provide real estate brokerage and management services for which they are paid brokerage, development, leasing, management and similar fees. In connection with the Services and with the prior written permission of the Client, such affiliates may be engaged to provide such services in consideration for the payment of such fees.

B. **Applicable Laws:** The Consultant will abide by all laws, rules and regulations applicable to the provision of the Services.

C. **Insurance:** The Consultant will carry all employee insurance necessary to comply with applicable state and federal laws.

D. **Third Party Beneficiaries:** This Agreement is for the sole benefit of the parties to this Agreement and their permitted successors and assigns. Nothing in this Agreement, whether express or implied, is intended to or will confer upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

E. **Publicity:** The Client agrees that the Consultant may, from time-to-time, use the Client's name, logo and other identifying information on the Consultant's website and in marketing and sales materials.

F. **Entire Agreement:** This Agreement, together with any exhibits or amendments hereto, constitutes the entire agreement of the parties, as a complete and final integration thereof with respect to its subject matter. Any prior written or oral understandings and agreements between the parties are merged into this Agreement, which alone fully and completely expresses their understanding. No representation, warranty, or covenant made by any party which is not contained in this Agreement or expressly referred to herein has been relied on by any party in entering into this Agreement.

G. **Further Assurances**: Each party hereby agrees to perform any further acts and to execute and deliver any documents which may be reasonably necessary to carry out the provisions of this Agreement.

H. **Force Majeure:** Neither party to this Agreement will hold the other party responsible for damages or delay in performance caused by acts of God, strikes, lockouts or other circumstances beyond the reasonable control of the other or the other party's employees, agents or contractors.

I. **Limitation on Liability; Sole Remedy:** Each party's liability to the other party arising out of or related to this Agreement or the Services will not exceed the amount of the Consulting Fee. The Client's sole remedy in the event of any alleged breach of this

Agreement by the Consultant will be the notice, cure and refund provisions of Section 6(B) of this Agreement.

J. **Amendment in Writing**: This Agreement may not be amended, modified, altered, changed, terminated, or waived in any respect whatsoever, except by a further agreement in writing, properly executed by a duly authorized officer of the Consultant and the Client Representative, acting for and on behalf of the Client.

K. **Binding Effect**: This Agreement will bind the parties and their respective successors and assigns. If any provision in this Agreement will be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions will not in any way be affected or impaired thereby.

L. **Captions**: The captions of this Agreement are for convenience and reference only, are not a part of this Agreement and in no way define, describe, extend, or limit the scope or intent of this Agreement.

M. **Construction:** This Agreement will be construed in its entirety according to its plain meaning and will not be construed against the party who provided or drafted it.

N. **Prohibition on Assignment:** No party to this Agreement may assign its interests or obligations hereunder without the written consent of the other party obtained in advance of any such assignment. No such assignment will in any manner whatsoever relieve any party from its obligations and duties hereunder and such assigning party will in all respects remain liable hereunder irrespective of such assignment.

O. **Waiver:** Non-enforcement of any provision of this Agreement by either party will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remaining terms and conditions of this Agreement.

P. **Survival:** Section 5 and Section 9(H) will survive termination of this Agreement.

Q. **Counterparts; Electronic Transmission:** This Agreement may be executed in counterparts, each of which will be deemed to be an original, and such counterparts will, together, constitute and be one and the same instrument. A signed copy of this Agreement delivered by telecopy, electronic transmission or other similar means will be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the Client and the Consultant have caused this Agreement to be executed by their duly authorized officers to be effective as of the Effective Date.

CLIENT:
City of Washington, NC

By: _____
Name:
Title:
Date:

CLIENT:
ElectriCities of North Carolina

By: _____
Name:
Title:
Date

CONSULTANT:
RETAIL STRATEGIES, LLC

By: _____
Name: Lacy Beasley
Title: President
Date September 10, 2020

EXHIBIT A

I. CONSULTANT AGREEMENT

This section outlines what Retail Strategies (the "consultant") will provide to City of Washington, NC (the "client").

A. Research

1. Identify market retail trade area using political boundaries, drive times and radii and custom boundary geographies
2. Perform market and retail GAP analysis for trade area (i.e. leakage and surplus)
3. Conduct retail peer market analysis
4. Competition analysis of identified target zones trade area(s)
5. Tapestry lifestyles – psychographic profile of trade area / market segmentation analysis
6. Customized retail market guide including aerial map with existing national retailer brands and traffic counts
7. Retail competitor mapping/analysis
8. Analysis of future retail space requirements in relation to the retail market analysis, the market's growth potential and trends in the retail industry
9. Identification of at minimum 30 retail prospects to be targeted for recruitment over three-year engagement
10. Updates provided on retail industry trends
11. Custom on-demand demographic research – historical, current, and projected demographics – to include market trade areas by radius/drive time, and custom trade area

B. Boots on the Ground Analysis

1. Identify/Evaluate/Catalog priority commercial properties for development, re-development and higher and best use opportunities
2. Identification of priority business categories for recruitment and/or local expansion
3. Perform competitive analysis of existing shopping centers and retail corridors
4. Active outreach to local brokers and land owners

C. Retail Recruitment

1. Pro-active retail recruitment for targeted zones
2. Will contact a minimum of 30 retailers, restaurants, brokers and/or developers
3. Updates on new activity will be provided to Client's designated primary point of contact (Sec. II-A) via Basecamp, telephone, or email on a monthly and/or as needed basis
4. One market visit per calendar year included in agreement, any travel outside of the agreement shall be approved and paid for by the contracting entity
5. ICSC conference representation- updates provided according to the yearly conference schedule