CHARLES TOWN UTILITY BOARD
AGENDA

WEDNESDAY, NOVEMBER 18, 2020

Special Meeting | **661 South George Street, Charles Town, WV 25414** | **4:00 PM**

CALL TO ORDER

1. **APPROVAL OF MINUTES**
   a. Approval of October 28, 2020 Regular Meeting Minutes
      UB Minutes October 28, 2020.pdf
   b. Approval of November 9, 2020 Special Meeting Minutes
      UB Minutes November 9, 2020.pdf

2. **PUBLIC COMMENT**
   This portion of the agenda is designed for members of the general public to share thoughts on items of interest in the community. By law, Board members may ask clarifying questions or discuss procedural matters but are not permitted to discuss the policy merits of any issue unless it is scheduled for discussion.

   Until such time as Governor Justice revokes Executive Order 09-20 or any subsequent executive order that is primarily intended to address the public health emergency and spread of COVID-19 by restricting public gatherings and invoking physical distancing, public access to the meeting room will be restricted. Members of the public may still submit written comments to kstolipher@ctubwv.com that will be read aloud. Up to 20 minutes of time will be allotted for reading public comments.

   The public is invited to attend this meeting via webcast (www.ctubwv.com - Board Meetings - Meeting Agendas and Minutes 2020).

3. **ACTION ITEMS**
   a. Route 9 Sewer Project Resolution No. 9 - Contractor Pay Application No. 009, Hatch Invoices, and CTUB Reimbursement
      Pay Application No. 9.pdf
   b. Tuscawilla MBR Replacement Basin 3 Resolution No. 1 - Contractor Pay Application No. 001
      Pay Application No. 1.pdf
   c. Route 9 Tank Charles Town Road - Verizon 2nd Lease Amendment
      Verizon Lease 2nd Amendment.pdf
   d. RFQ for Legal Services
      RFQ Legal Services - Utilities.pdf

e. December Meeting Schedule - Special Meeting on December 16th

4. **UTILITY MANAGER REPORT**
   a. Utility Manager Report
      11.18.2020 Report.pdf
   b. Rate Equalization Schedule and Project Update

5. **CHAIRMAN UPDATES**
   a. Utility Board Mission Statement

6. **APPROVAL OF BILLS**
   a. November 9, 2020
      Board Report 11.09.20.pdf
   b. November 18, 2020
      Board Report 11.18.20.pdf

7. **INFORMATION ONLY - NEXT MEETING - DECEMBER 16, 2020 AT 4:00 PM**

8. **ADJOURNMENT**

October 28, 2020

The Charles Town Utility Board held a regular meeting on October 28, 2020 at 4:00 p.m. at 661 S. George Street. Members of the Board present were Daryl Hennessy, Pete Kubic, Duke Pierson, Jacquelyn Milliron and Tommy Stocks. Also present were Kristen Stolipher, April Shultz and Hoy Shingleton. The Chairman called for changes or corrections to the October 14, 2020 regular meeting minutes. Jacquelyn suggested changes. The Board approved the minutes as amended. There were no public comments.

Next, discussed was the Tuscawilla Membrane Replacement Change Order No. 1. Kristen noted the change order was for a 50-day extension of time on the project. The substantial completion date is November 2nd and final payment is November 16th. Kristen mentioned the plant should be operational within the next few weeks. By motion from Jacquelyn, second by Duke, the Board approved Change Order No. 1.

Next, the Chairman opened the floor for discussion on the Utility Manager Report. Kristen briefed the Board on the CARES Act Residential Utility Grant Application and Certification. CARES funding is being offered to those customers with unpaid balances during a specific qualifying period due to COVID-19. Jacquelyn mentioned she had received a phone call from her water department regarding this as well. Kristen also provided an overview of all consultant efforts for the month including a potential workshop with Council in December to discuss rate equalization and funding for upcoming projects. Those details will be presented to the Board at the November 18th board meeting. Kristen mentioned a special meeting may need to be scheduled to discuss a change order to extend the substantial completion date for the Route 9 project due to delays in pump delivery. Jacquelyn had several questions on the report and presented her own draft of a cost benefit analysis for the decommissioning of pump stations relating to Magnolia Springs.

The Chairman next opened the floor for discussion on a Tariff Application Policy. The Board discussed staff developing a policy that would determine which CIF a developer would pay when connecting to the system. The Chairman noted after speaking with staff, the rate would be determined by where the point of direct connection occurs and the Utility that owned that line prior to consolidation. Kristen mentioned the ultimate goal is to unify CIF's for the entire system once rates are equalized.

The Chairman next discussed the Approval of Bills. By motion from Duke, second by Pete, with discussion from Jacquelyn, the Board approved the payment of bills. Jacquelyn questioned whether the changing of Board meeting dates should be an action of the Board, specifically the November meeting change discussed at the last board meeting. The Chairman noted it was in the minutes documenting the change in date. Motion by Duke, second by Jacquelyn, the Board approved cancelling the November 11th regular meeting due to the holiday and reschedule to November 18th.

The meeting was adjourned at 5:09 p.m. The November 18th special meeting will be held at the CTUB office located at 661 S. George Street.

_____ _____

Chairman Secretary

November 9, 2020

The Charles Town Utility Board held a special meeting on November 9, 2020 at 4:30 p.m. at 661 S. George Street. Members of the Board present were Daryl Hennessy, Pete Kubic, Duke Pierson, Jacquelyn Milliron and Tommy Stocks. Also present was Kristen Stolipher. There were no public comments.

The Chairman next opened the floor for discussion on the Route 9 Sewer Project – Change Order No. 7. Kristen mentioned the change order is to extend the substantial completion date to November 30th due to Covid-19 delays. She also noted the pumps were shipped and delivered. By motion from Pete, second by Duke, with discussion from Jacquelyn, the Board approved Change Order No. 7.

With no further action, the meeting was adjourned at 4:34 p.m. The November 18th special meeting will be held at the CTUB office located at 661 S. George Street.

_____ _____

Chairman Secretary

CHARLES TOWN UTILITY BOARD
ROUTE 9 SEWER PROJECT

RESOLUTION NO. 9

RESOLUTION OF THE CITY OF CHARLES TOWN UTILITY BOARD APPROVING INVOICES RELATING TO THE CONSTRUCTION AND OTHER SERVICES FOR THE ROUTE 9 SEWER PROJECT AND AUTHORIZING PAYMENT THEREOF,

WHEREAS, the City of Charles Town Utility Board has reviewed the invoices attached hereto and incorporated herein by reference relation to the project funded by ROXUL USA, Inc., dba ROCKWOOL under an Alternate Mainline Extension Agreement (WV PSC Case No. 191025-S-PC, approved November 22, 2019) and the Escrow Agreement dated October 11, 2019.

a) That none of the items for which payment is proposed to be made has formed the basis for any disbursement theretofore made.

b) That each item for which the payment is proposed to be paid is or was necessary in connection with the Project and constitutes a cost of the project.

c) That each of such costs has been otherwise properly incurred.

d) That the payment for each of the items proposed is due and owing.

NOW, THEREFORE, BE IT RESOLVED the City of Charles Town Utility Board that the payment of the attached Contractor's Application for Payment No. 09, HATCH Invoice No. 90762081 and the CTUB Reimbursement per the attached Schedule B (See Column - Resolution No. 9) as summarized below, is hereby authorized and directed.

Vendor	Route 9 Sewer Project
Snyder Environmental Services, Inc.	$449,810.33
HATCH	$58,388.63
CTUB Reimbursement	$57,403.25
Total	**$565,602.21**

ADOPTED BY the City of Charles Town Utility Board, at the meeting held on the 18th day of November 2020.

By: _____
Daryl Hennessy, Chairman

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Contractor's Application for Payment No. 09

Application Period: 10/1/2020 to 10/31/2020		10/31/2020
To (Owner): **Charles Town Utility Board**	From (Contractor): **Snyder Environmental Services**	Via (Engineer): **Hatch Associates Consultants, Inc.**
Project: **Route 9 Sewer Project Ranson, WV**	Contract:	
Owner's Contract No.:	Contractor's Project No.: 20018	Engineer's Project No.: **H-359787**

Application For Payment

Change Order Summary

Approved Change Orders

Number	Additions	Deductions
01		$1,162,000.00
02		$1,177,551.00
03	$902,406.49	
04		$75,000.00
05		$26,160.87
6	$62,514.40	
TOTALS	$964,920.89	$2,440,711.87
NET CHANGE BY CHANGE ORDERS	**-$1,475,790.98**	

1. ORIGINAL CONTRACT PRICE		**$8,453,848.00**
2. Net change by Change Orders		**-$1,475,790.98**
3. Current Contract Price (Line 1 ± 2)		**$6,978,057.02**
4. TOTAL COMPLETED AND STORED TO DATE		**$6,474,791.75**
5. RETAINAGE:		
a. 10% X $3,489,028.51 **Work Completed**		**$348,902.85**
b. 10% X $172,029.23 **Stored Material**		**$17,202.92**
c. Total Retainage (Line 5.a + Line 5.b)		**$366,105.77**
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)		**$6,108,685.98**
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)		**$5,658,875.64**
8. AMOUNT DUE THIS APPLICATION		**$449,810.33**
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)		**$869,371.04**

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: Brandon L	Date: 10/31/2020

Payment of: $ 449,810.33
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ 10/31/2020
(Engineer) (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding or Financing Entity (if applicable) (Date)

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Progress Estimate - Unit Price Work **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV													
Application Period:	10/1/2020 to 10/31/2020									Application Number:	09			
										Application Date:	10/31/2020			
Engineer's Project Number: H-359787						Work Completed								
A					B	C		D		E	F		G	
Bid Item Code	Description	Item Quantity	Units	Unit Price	Scheduled Value ($)	Quantity Installed this Period	Value of Work Installed This Period	Quantity Installed to Date	Value of Work Installed to Date	Materials PresentlyStored (not in C or D)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)	
100	**MOBILIZATION**													
101	MOBILIZE EQUIPMENT	1.00	LS	$ 300,000.00	$ 300,000.00	0	$ -	0.90	$270,000.00		$270,000.00	90.0%	$	30,000.00
102	BLASTING STAKEOUT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$	-
103	CONSTRUCTION STAKEOUT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$	-
104	VIDEO DOCUMENTATION	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$	-
105	SUBMITTALS	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	0.95	$23,750.00		$23,750.00	95.0%	$	1,250.00
106	BONDS & INSURANCE	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$	-
200	TRAFFIC CONTROL	1.00	LS	$ 27,700.00	$ 27,700.00	0	$ -	1.00	$27,700.00		$27,700.00	100.0%	$	-
300	EROSION AND SEDIMENT CONTROL	1.00	LS	$ 60,000.00	$ 60,000.00		$ -	1.00	$60,000.00		$60,000.00	100.0%	$	-
400	GRAVITY SEWER 6" & 8", OPEN CUT	1,085.00	LF	$ 107.00	$ 116,095.00	0	$ -	1101.00	$117,807.00		$117,807.00	101.5%	$	(1,712.00)
500	GRAVITY SEWER 10", OPEN CUT	1,014.00	LF	$ 101.00	$ 102,414.00	0	$ -	1025.00	$103,525.00		$103,525.00	101.1%	$	(1,111.00)
600	GRAVITY SEWER 12", OPEN CUT	3,567.00	LF	$ 119.00	$ 424,473.00	0	$ -	3588.00	$426,972.00		$426,972.00	100.6%	$	(2,499.00)
700	GRAVITY SEWER 15", OPEN CUT	3,776.00	LF	$ 130.00	$ 490,880.00	0	$ -	3776.00	$490,880.00		$490,880.00	100.0%	$	-
800	FORCE-MAIN (6"-4") OPEN CUT	4,149.00	LF	$ 121.00	$ 502,029.00	0	$ -	4122.00	$498,762.00		$498,762.00	99.3%	$	3,267.00
900	FORCE-MAIN (6"-4") IN EX. RT. 9 CASING	265.00	LF	$ 252.00	$ 66,780.00	0	$ -	265.00	$66,780.00		$66,780.00	100.0%	$	-
1000	FORCE-MAIN (6"-4") AIR VAULT & INTERNALS	6.00	EA	$ 8,370.00	$ 50,220.00	0	$ -	8.00	$66,960.00		$66,960.00	133.3%	$	(16,740.00)
1300	FORCE-MAIN (8"-6"-8") OPEN CUT	11,646.00	LF	$ 93.00	$ 1,083,078.00	0	$ -	11675.00	$1,085,775.00		$1,085,775.00	100.2%	$	(2,697.00)
1400	FORCE-MAIN (8"-6"-8") AIR VAULT & INTERNALS	21.00	EA	$ 8,370.00	$ 175,770.00	0	$ -	21.00	$175,770.00		$175,770.00	100.0%	$	-
1700	FORCE-MAIN MISC. DIP FITTINGS, IF DIRECTED	2,000.00	LBS	$ 7.00	$ 14,000.00	0	$ -						$	14,000.00
1800	CONCRETE CLASS B, IF DIRECTED	100.00	CY	$ 435.00	$ 43,500.00	0	$ -						$	43,500.00
1900	CASING 24" BORED, W/ 10" GRAVITY SEWER	62.00	LF	$ 540.00	$ 33,480.00	0	$ -	65.00	$35,100.00		$35,100.00	104.8%	$	(1,620.00)
2000	CASING 24" BORED, W/ 12" GRAVITY SEWER	94.00	LF	$ 532.00	$ 50,008.00	0	$ -	94.00	$50,008.00		$50,008.00	100.0%	$	-
2100	CASING 24" BORED, W/ 6"-4"-6" FORCE-MAINS	130.00	LF	$ 596.00	$ 77,480.00	0	$ -	110.00	$65,560.00		$65,560.00	84.6%	$	11,920.00
2200	CASING 30" BORED, W/ 15" GRAVITY SEWER	162.00	LF	$ 779.00	$ 126,198.00	0	$ -	166.00	$129,314.00		$129,314.00	102.5%	$	(3,116.00)
2300	CASING 36" BORED, W/ 8"-6"-8" FORCE-MAINS	141.00	LF	$ 692.00	$ 97,572.00	0	$ -	205.00	$141,860.00		$141,860.00	145.4%	$	(44,288.00)
2600	MANHOLE, 4'-DIA. (UP TO 6' DEEP)	44.00	EA	$ 7,630.00	$ 335,720.00	0	$ -	44.00	$335,720.00		$335,720.00	100.0%	$	-
2700	MANHOLE BV-03 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)	1.00	EA	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$	-
2800	MANHOLE DC-02 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)	1.00	EA	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$	-
2900	MANHOLE EXTENSION, 4'-DIA.	130.00	VF	$ 167.00	$ 21,710.00	0	$ -	127.10	$21,225.70		$21,225.70	97.8%	$	484.30
3000	MANHOLE DROP CONNECTION, TYPE A	1.00	EA	$ 3,550.00	$ 3,550.00	0	$ -	1.00	$3,550.00		$3,550.00	100.0%	$	-
3100	MANHOLE DROP CONNECTION, TYPE B	5.00	EA	$ 5,000.00	$ 25,000.00	0	$ -	5.00	$25,000.00		$25,000.00	100.0%	$	-
3200	MANHOLE BV-22, FOR TRANSITION	1.00	EA	$ 13,500.00	$ 13,500.00	0	$ -	1.00	$13,500.00		$13,500.00	100.0%	$	-
3300	MANHOLE CH-20, FOR TRANSITION	1.00	EA	$ 13,500.00	$ 13,500.00	0	$ -	1.00	$13,500.00		$13,500.00	100.0%	$	-
3400	SEWER MARKER	98.00	EA	$ 105.00	$ 10,290.00	0	$ -						$	10,290.00
3500	CONNECTION TO EX. FACILITIES, AT MANHOLE 11V	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$	-
3600	CONNECTION TO EX. FACILITIES, AT MANHOLE BV-03	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$	-
3700	CONNECTION TO EX. FACILITIES, AT MANHOLE DC-02	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$	-
3800	**PUMP STATION, WAR ADMIRAL**					0	$ -						$	-
3801	MOBILIZATION	1.00	LS	$ 21,700.00	$ 21,700.00	0	$ -	0.90	$19,530.00		$19,530.00	90.0%	$	2,170.00
3802	EXCAVATION	1.00	LS	$ 120,000.00	$ 120,000.00	0	$ -	1.00	$120,000.00		$120,000.00	100.0%	$	-
3803	SET WET WELL	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$	-
3804	VALVE VAULT	1.00	LS	$ 75,000.00	$ 75,000.00		$ -	1.00	$75,000.00		$75,000.00	100.0%	$	-
3805	BACKFILL	1.00	LS	$ 25,000.00	$ 25,000.00	0.25	$ 6,250.00	1.00	$25,000.00		$25,000.00	100.0%	$	-
3806	WET WELL AND VALVE VAULT PIPING	1.00	LS	$ 66,000.00	$ 66,000.00	0.50	$ 33,000.00	0.50	$33,000.00	$1,060.20	$34,060.20	51.6%	$	31,939.80
3807	AIR INJECTION VAULT & EQUIPMENT	1.00	LS	$ 54,675.00	$ 54,675.00	0	$ -	1.00	$54,675.00		$54,675.00	100.0%	$	-
3808	PUMPS	1.00	LS	$ 195,000.00	$ 195,000.00	0	$ -						$	195,000.00
3809	CONTROLS	1.00	LS	$ 110,000.00	$ 110,000.00	0	$ -			$101,426.00	$101,426.00		$	8,574.00
3810	FETTERVILLE BUILDING	1.00	LS	$ 53,100.00	$ 53,100.00		$ -	1.00	$53,100.00		$53,100.00	100.0%	$	0.00
3811	GENERATOR PAD	1.00	LS	$ 10,000.00	$ 10,000.00		$ -	1.00	$10,000.00		$10,000.00	100.0%	$	-
3812	GENERATOR	1.00	LS	$ 67,500.00	$ 67,500.00		$ -			$67,500.00	$67,500.00		$	-
3813	ELECTRIC	1.00	LS	$ 167,500.00	$ 167,500.00	0.75	$ 125,625.00	0.75	$125,625.00	$2,043.03	$127,668.03	76.2%	$	39,831.97
3814	START UP	1.00	LS	$ 20,000.00	$ 20,000.00	0	$ -						$	20,000.00

EJCDC® C-620 Contractor's Application for Payment
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Progress Estimate - Unit Price Work

Contractor's Application

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	09
Application Period:	10/1/2020 to 10/31/2020	Application Date:	10/31/2020
Engineer's Project Number: H-359787			

A					B	C		D		E	F		G
Bid Item Code	Description	Item Quantity	Units	Unit Price	Scheduled Value ($)	Quantity Installed this Period	Value of Work Installed This Period	Quantity Installed to Date	Value of Work Installed to Date	Materials PresentlyStored (not in C or D)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
3815	PAVING	1.00	LS	$ 33,000.00	$ 33,000.00	0	$ -						$ 33,000.00
3816	RESTORATION	1.00	LS	$ 22,590.00	$ 22,590.00	0	$ -						$ 22,590.00
3817	FENCE	1.00	LS	$ 15,000.00	$ 15,000.00	0	$ -						$ 15,000.00
4000	RESTORATION, STATE (WVDOH) ROAD	290.00	SY	$ 76.00	$ 22,040.00	0	$ -	70.50	$5,358.00		$5,358.00	24.3%	$ 16,682.00
4100	RESTORATION, ASPHALT DRIVEWAY	320.00	SY	$ 62.00	$ 19,840.00	0	$ -	328.00	$20,336.00		$20,336.00	102.5%	$ (496.00)
4200	RESTORATION, ASPHALT BIKE PATH	140.00	SY	$ 315.00	$ 44,100.00	0	$ -	140.00	$44,100.00		$44,100.00	100.0%	$ -
4300	RESTORATION, GRAVEL ROAD OR DRIVE	2,170.00	SY	$ 15.00	$ 32,550.00	0	$ -	2170.00	$32,550.00		$32,550.00	100.0%	$ -
4400	RESTORATION, UNIMPROVED (GRASS) SURFACE	80,460.00	SY	$ 3.00	$ 241,380.00	0	$ -	74946.00	$224,838.00		$224,838.00	93.1%	$ 16,542.00
4500	CULVERT 12" TO 30", OPEN CUT	60.00	LF	$ 150.00	$ 9,000.00	0	$ -	60.00	$9,000.00		$9,000.00	100.0%	$ -
4600	ABANDONMENT OF WATER WELL	1.00	LS	$ 3,000.00	$ 3,000.00	0	$ -						$ 3,000.00
4700	EXCAVATION AND BACKFILLING BELOW SUBGRADE	500.00	CY	$ 45.00	$ 22,500.00	0	$ -						$ 22,500.00
4800	ALLOWANCE - SINKHOLE REPAIR, SOIL FOR CAP	25.00	CY	$ 30.00	$ 750.00	0	$ -						$ 750.00
4900	ALLOWANCE - SINKHOLE REPAIR, CLASS 10 AGGREGATE	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5000	ALLOWANCE - SINKHOLE REPAIR, CLASS 1 AGGREGATE BAS	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5100	ALLOWANCE - SINKHOLE REPAIR, SPECIAL ROCK FILL	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5200	ALLOWANCE - SINKHOLE REPAIR, RIP-RAP	25.00	CY	$ 75.00	$ 1,875.00	0	$ -						$ 1,875.00
5300	ALLOWANCE - SINKHOLE REPAIR, IMPERVIOUS CORE	500.00	SF	$ 10.00	$ 5,000.00	0	$ -						$ 5,000.00
5400	**PUMP STATION, NORTHPORT**						$ -						$ -
5401	MOBILIZATION	1.00	LS	$ 20,022.00	$ 20,022.00	0	$ -	0.90	$18,019.80		$18,019.80	90.0%	$ 2,002.20
5402	EXCAVATION	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
5403	SET WET WELL	1.00	LS	$ 30,223.49	$ 30,223.49	0	$ -	1.00	$30,223.49		$30,223.49	100.0%	$ -
5404	VALVE VAULT	1.00	LS	$ 59,400.00	$ 59,400.00		$ -	1.00	$59,400.00		$59,400.00	100.0%	$ -
5405	BACKFILL	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
5406	WET WELL AND VALVE VAULT PIPING	1.00	LS	$ 50,000.00	$ 50,000.00	1.00	$ 50,000.00	1.00	$50,000.00		$50,000.00	100.0%	$ -
5407	PUMPS	1.00	LS	$ 100,000.00	$ 100,000.00	0.50	$ 50,000.00	1.00	$100,430.00		$100,430.00	100.4%	$ (430.00)
5408	CONTROLS	1.00	LS	$ 106,012.00	$ 106,012.00	1.00	$ 106,012.00	1.00	$106,012.00		$106,012.00		$ -
5409	FETTERVILLE	1.00	LS	$ 30,000.00	$ 30,000.00		$ -	1.00	$30,000.00		$30,000.00	100.0%	$ -
5410	GENERATOR PAD	1.00	LS	$ 10,000.00	$ 10,000.00		$ -	1.00	$10,000.00		$10,000.00	100.0%	$ -
5411	GENERATOR	1.00	LS	$ 47,039.00	$ 47,039.00	1.00	$ 47,039.00	1.00	$47,039.00		$47,039.00		$ -
5412	ELECTRIC	1.00	LS	$ 146,919.00	$ 146,919.00	1.00	$ 146,919.00	1.00	$146,919.00		$146,919.00	100.0%	$ -
5413	ELECTRIC CONDUIT	1,335.00	LF	$ 41.00	$ 54,735.00	0	$ -	1335.00	$54,735.00		$54,735.00		$ -
5414	ELECTRIC VAULT	2.00	EA	$ 2,457.00	$ 4,914.00	0	$ -						$ 4,914.00
5415	START UP	1.00	LS	$ 4,950.00	$ 4,950.00	0	$ -						$ 4,950.00
5416	PAVING	1.00	LS	$ 16,822.00	$ 16,822.00	0	$ -						$ 16,822.00
5417	RESTORATION	1.00	LS	$ 54,970.00	$ 54,970.00	0	$ -						$ 54,970.00
5418	FENCE	1.00	LS	$ 16,400.00	$ 16,400.00	0	$ -						$ 16,400.00
CO 004	CHANGE ORDER 004 REMOVE B&O TAXES	1.00	LS	$ (75,000.00)	$ (75,000.00)	0	$ -						$ (75,000.00)
CO 005	CHANGE ORDER 005 OPEN CUT CASING	1.00	LS	$ (26,160.87)	$ (26,160.87)	0	$ -	1.00	($26,160.87)		($26,160.87)		$ -
CO 006	CHANGE ORDER 006	1.00	LS	$ 62,514.40	$ 62,514.40		$ -	1.00	$62,514.40		$62,514.40		$ -
					$ 6,978,057.02		**$ 564,845.00**		**$ 6,302,762.52**	**$ 172,029.23**	**$ 6,474,791.75**		**$ 503,265.27**

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Stored Material Summary **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	09
Application Period:	10/1/2020 to 10/31/2020		10/31/2020

A		B	C		D		E				F		G
					Stored Previously								
Bid Item No.	Supplier Invoice No.		Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Stored Units		Subtotal Amount Stored to Date (D + E)	Incorporated in Work	% Stored	Materials Remaining in Storage ($) (D + E - F)
100				**MOBILIZATION**						$ -			$ -
101				MOBILIZE EQUIPMENT						$ -			$ -
102				BLASTING STAKEOUT						$ -			$ -
103				CONSTRUCTION STAKEOUT						$ -			$ -
104				VIDEO DOCUMENTATION						$ -			$ -
105				SUBMITTALS						$ -			$ -
106				BONDS & INSURANCE						$ -			$ -
200				TRAFFIC CONTROL						$ -			$ -
300				EROSION AND SEDIMENT CONTROL									$ -
400				GRAVITY SEWER 6" & 8", OPEN CUT						$ -			$ -
500	3378054		on site	GRAVITY SEWER 10", OPEN CUT	3/2020	$16.00		1014.00	LF	$ 16.00	1025.00	-1%	$ -
600	3376257 3378050		on site	GRAVITY SEWER 12", OPEN CUT	3/2020	$181.00		3567.00	LF	$ 181.00	3588.00	-1%	$ -
700	3376255		on site	GRAVITY SEWER 15", OPEN CUT	3/2020	$21.00		3776.00	LF	$ 21.00	3776.00		$ -
800	3372577		on site	FORCE-MAIN (6"-4") OPEN CUT	3/2020	$24,089.00		4149.00	LF	$ 24,089.00	4122.00	1%	$ -
900				FORCE-MAIN (6"-4") IN EX. RT. 9 CASING						$ -	265.00		$ -
1000				FORCE-MAIN (6"-4") AIR VAULT & INTERNALS						$ -	8.00		$ -
1300	3375294 3375305 3375299 3373509 3373510		on site	FORCE-MAIN (8"-6"-8") OPEN CUT	3/2020	$105,363.00		11646.00	LF	$ 105,363.00	11675.00	0%	$ -
1400	3377020 3377031			FORCE-MAIN (8"-6"-8") AIR VAULT & INTERNALS	3/2020	$29.00		21.00	EA	$ 29.00	21.00		$ -
1700				FORCE-MAIN MISC. DIP FITTINGS, IF DIRECTED						$ -			$ -
1800				CONCRETE CLASS B, IF DIRECTED						$ -			$ -
1900				CASING 24" BORED, W/ 10" GRAVITY SEWER						$ -			$ -
2000				CASING 24" BORED, W/ 12" GRAVITY SEWER						$ -			$ -
2100				CASING 24" BORED, W/ 6"-4"-6" FORCE-MAINS						$ -			$ -
2200	LL223750 LL223616 13885501		on site	CASING 30" BORED, W/ 15" GRAVITY SEWER	3/2020	$21,237.82		162.00	LF	$ 21,237.82	166.00	-2%	$ -
2300	13885502		on site	CASING 36" BORED, W/ 8"-6"-8" FORCE-MAINS	3/2020	$20,250.00		141.00	LF	$ 20,250.00	205.00	-45%	$ -
2600				MANHOLE, 4'-DIA. (UP TO 6' DEEP)									$ -
2700				MANHOLE BV-03 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)		$3.00							$ -
2800				MANHOLE DC-02 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)									$ -
2900				MANHOLE EXTENSION, 4'-DIA.									$ -
3000				MANHOLE DROP CONNECTION, TYPE A									$ -
3100				MANHOLE DROP CONNECTION, TYPE B									$ -
3200				MANHOLE BV-22, FOR TRANSITION									$ -
3300				MANHOLE CH-20, FOR TRANSITION									$ -
3400				SEWER MARKER									$ -
3500				CONNECTION TO EX. FACILITIES, AT MANHOLE 11V									$ -
3600				CONNECTION TO EX. FACILITIES, AT MANHOLE BV-03									$ -
3700				CONNECTION TO EX. FACILITIES, AT MANHOLE DC-02									$ -
3800				**PUMP STATION, WAR ADMIRAL**									$ -
3801				MOBILIZATION									$ -

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Stored Material Summary **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	09
Application Period:	10/1/2020 to 10/31/2020		10/31/2020

A		B	C		D		E				F		G
					Stored Previously								
Bid Item No.	Supplier Invoice No.		Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Stored Units		Subtotal Amount Stored to Date (D + E)	Incorporated in Work	% Stored	Materials Remaining in Storage ($) (D + E - F)
3802				EXCAVATION									$ -
3803				SET WET WELL									$ -
3804				VALVE VAULT									$ -
3805				BACKFILL									$ -
3806	111544		SES Shop	WET WELL AND VALVE VAULT PIPING	Sep-20	$2,120.40	$ -	1.00	LS	$ 2,120.40	0.50	50%	$ 1,060.20
3807				AIR INJECTION VAULT & EQUIPMENT									$ -
3808				PUMPS									
3809	200416-1 200416-3		on site	CONTROLS	Sep-20	$101,426.00	$ -	1.00	LS	$ 101,426.00		100%	$ 101,426.00
3810				FETTERVILLE BUILDING									
3811				GENERATOR PAD									
3812	S1-68114		SES Shop	GENERATOR	Sep-20	$67,500.00	$ -	1.00	LS	$ 67,500.00		100%	$ 67,500.00
3813	M761044		on site	ELECTRIC	Sep-20	$8,172.13	$ -	1.00	LS	$ 8,172.13	0.75	25%	$ 2,043.03
3814				START UP									
3815				PAVING									
3816				RESTORATION									
3817				FENCE									
4000				RESTORATION, STATE (WVDOH) ROAD									
4100				RESTORATION, ASPHALT DRIVEWAY		$70.50							
4200				RESTORATION, ASPHALT BIKE PATH		$258.00							
4300				RESTORATION, GRAVEL ROAD OR DRIVE									
4400				RESTORATION, UNIMPROVED (GRASS) SURFACE									
4500				CULVERT 12" TO 30", OPEN CUT		$5,014.00							
4600				ABANDONMENT OF WATER WELL									
4700				EXCAVATION AND BACKFILLING BELOW SUBGRADE									
4800				ALLOWANCE - SINKHOLE REPAIR, SOIL FOR CAP									
4900				ALLOWANCE - SINKHOLE REPAIR, CLASS 10 AGGREGATE									
5000				ALLOWANCE - SINKHOLE REPAIR, CLASS 1 AGGREGATE BAS									
5100				ALLOWANCE - SINKHOLE REPAIR, SPECIAL ROCK FILL									
5200				ALLOWANCE - SINKHOLE REPAIR, RIP-RAP									
5300				ALLOWANCE - SINKHOLE REPAIR, IMPERVIOUS CORE									
5400				**PUMP STATION, NORTHPORT**									
5401				MOBILIZATION									
5402				EXCAVATION		$0.65							
5403				SET WET WELL									
5404				VALVE VAULT									
5405				BACKFILL									
5406				WET WELL AND VALVE VAULT PIPING									
5407				PUMPS									
5408	200416-2		on site	CONTROLS	Sep-20	$81,277.00	$ -	1.00	LS	$ 81,277.00	1.00		$ -
5409				FETTERVILLE									
5410				GENERATOR PAD									
5411	S1-68068 S1-67061		SES Shop	GENERATOR	Sep-20	$39,350.00	$ -	1.00	LS	$ 39,350.00	1.00		$ -
5412				ELECTRIC									
5413				ELECTRIC CONDUIT									
5414				ELECTRIC VAULT									
5415				START UP									
5416				PAVING									

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Stored Material Summary **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	09
Application Period:	10/1/2020 to 10/31/2020		10/31/2020

A		B	C		D		E			F		G
					Stored Previously							
Bid Item No.	Supplier Invoice No.		Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Stored Units	Subtotal Amount Stored to Date (D + E)	Incorporated in Work	% Stored	Materials Remaining in Storage ($) (D + E - F)
5417				RESTORATION								
5418				FENCE								
						$476,378.50	**$ -**		**$ 471,032.35**			**$ 172,029.23**

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Charles Town Utility Board
Route 9 Sewer Infrastructure Project
Alternate Mainline Extension Agreement (AMEA) / Escrow Agreement

				Resolution No. C	Resolution No. 1	Resolution No. 2	Resolution No. 3	Resolution No. 4	Resolution No. 5	Resolution No. 6	Resolution No. 7	Resolution No. 8	Resolution No. 9	ESCROW DEPOSIT FOR CONSTRUCTION
$10,500,000 Rockwool Escrow Agreement/(AMEA) Reimbursement Schedule B, October, 2019	**REVISED BUDGET**	**Draw (a.) Ranson Reimbursement**	**Draw (b.) CTUB Reimbursement**	**Draw (c.) CTUB Reimbursement 10/1/19-present**	**Contractor's Application for Payment No. 001**	**Contractor's Application for Payment No. 002, Hatch Inv. 90736637, CTUB Reimbursement**	**Contractor's Application for Payment No. 003, Hatch Inv. No. 90739805 & 90742814, CTUB Reimbursement**	**Contractor's Application for Payment No. 04, Hatch Inv. No. 90746225**	**Contractor's Application for Payment No. 05, CTUB Reimbursement**	**Contractor's Application for Payment No. 06, Hatch Inv. 90752351, CTUB Reimbursement**	**Contractor's Application for Payment No. 07, Hatch Inv. 90755283, CTUB Reimbursement**	**Contractor's Application for Payment No. 08, Hatch Inv. 90758960, CTUB Reimbursement**	**Contractor's Application for Payment No. 09, Hatch Inv. 90762081, CTUB Reimbursement**	**BALANCE REMAINING**
1 **CONSTRUCTION**														
a. Contract 1	6,978,057.02	0.00	0.00	0.00	90,000.00	1,236,605.34	1,894,374.89	1,114,717.05	480,775.05	180,516.31	258,917.35	402,969.65	449,810.33	869,371.05
b. Construction 4.46%	603,350.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72,008.45	42,992.55	62,919.75	58,685.95	55,762.50	310,981.78
c. CSX Fees	15,300.00	0.00	16,050.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-5,750.00
d. N-S Fees	41,600.00	0.00	21,300.00	0.00	0.00	0.00	0.00	0.00	9,789.21	1,640.50	2,957.50	2,769.75	1,640.75	1,502.29
e. DOH Bond and Inspection Fees	119,937.00	0.00	19,550.00	0.00	0.00	84,973.05	1,288.27	0.00	0.00	0.00	0.00	0.00	0.00	14,125.68
2 **ENGINEERING SERVICES**														
Task Orders 1 - 8	1,851,567.87	1,084,987.66	102,994.82	10,289.25	0.00	38,068.37	210,109.15	93,693.87	61,197.50	42,247.25	56,752.25	41,275.75	58,388.63	51,563.37
Task Orders Charles Town	56,820.00	0.00	56,820.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 **LEGAL SERVICES**														
a Local Project Attorney (PSC)	100,000.00	0.00	65,836.78	25,573.71	0.00	0.00	2,730.00	0.00	260.00	0.00	0.00	0.00	0.00	5,599.51
b Permitting / Ord Attorney	215,000.00	0.00	199,514.04	0.00	0.00	0.00	15,485.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c RA Attorney Stranko / Luttrell	12,959.40	12,959.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 **ADMINISTRATIVE SERVICES**														
b Project Accountant	16,723.00	0.00	16,723.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c Other Administrative Costs	2,750.00	0.00	2,750.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 **LAND COSTS**														
b Easements	324,611.85	0.00	324,611.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOFT COST CONTINGENCY	74,667.36	0.00	0.00	0.00	0.00	0.00	74,667.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Line of Credit	59,887.52	59,887.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Amount Owed Line of Credit		1,157,834.58												
Charles Town's Cost Incurred			826,150.49											
9 Sub Total Lines 1-8	**10,473,232.00**	**1,157,834.58**	**826,150.49**	**40,862.96**	**90,000.00**	**1,359,646.76**	**2,198,655.63**	**1,208,410.92**	**624,030.21**	**267,396.61**	**381,546.85**	**505,701.10**	**565,602.21**	**1,247,393.68**
ESCROW DEPOSIT UPON AMLEA SUBMITTAL TO WV PSC (Ranson and Charles Town Costs Incurred)														
ESCROW DEPOSIT FOR CONSTRUCTION														**1,247,393.68**

*The construction contingency line item has been reduced by $26,768 to reflect the installation of 120 linear feet of 16" steel casing for a sanitary sewer crossing that was funded by Rockwool during the water line project.

1600 West Carson St, Suite 1
Pittsburgh, PA 15219
Phone: (412) 497-2000

INVOICE

Charles Town Utility Board
661 South George St., Ste. 101
Charles Town, WV 25414
Attn: Kristen Stolipher

Date:	11/6/2020
Invoice No:	90762081
Period Ending:	10/30/2020
Currency:	US Dollar (USD)
Reference:	TASK ORDER 4
Terms of Payment:	Net 30 Days
Customer Number:	113985

re: H-359787 On-Call Engineering Services
Project Manager: Richard Travers

TO#4 Route 9 Sewer Project, Bid and Construction Services Progress Report – coordinated with SES on building electrical equipment layout, well abandonments (plus application exhibits to facilitate owner signature), prepared Change Order #6 paperwork for time extension, processed shop drawings (O&M Manuals, landscaping revisions), coordinated on same with Snyder Environmental Services (SES), Specialized Engineering (SE) and CTUB, Hatch and SE attended 9/30, 10/14 and 10/28 progress meetings via conference call or in-person, coordinated with SE and CTUB regarding construction issues and updates, reviewed and processed SES pay applications with SE, SE performed daily coordination with SES on progress, liaison activities between SES and CTUB, and performed inspection activities.

Employee	HOURS	RATE	AMOUNT
Severn, Guy	2.50	$ 234.00	$ 585.00
Travers, Richard	39.00	$ 215.00	$ 8,385.00
Keel, Andrew	0.25	$ 120.00	$ 30.00
Yearley, Scott	4.50	$ 120.00	$ 540.00
Total Labor			**$ 9,540.00**

Vendor	INVOICE #	AMOUNT
Specialized Engineering	48702	$ 46,522.50
Total Expenses		**$ 46,522.50**

Administration	BASE	RATE	AMOUNT
Total Administration	$ 46,522.50	5%	**$ 2,326.13**

Task Order Budget	**$ 647,683.00**
Task Order Previously Billed	**$ 560,753.64**
Total Invoice	**$ 58,388.63**
Task Order Remaining	**$ 28,540.74**

SPECIALIZED ENGINEERING
Engineers • Geologists • Inspectors
Employee Owned, Client Driven
4845 International Blvd
Suite 104
Frederick, Maryland 21703

Invoice

DATE	INVOICE NO.
11/04/2020	48702

BILL TO
Luke Fischer Hatch 704 Quince Orchard Road Suite 310 Gaithersburg, MD 20878

TERMS	PROJECT	Client's Number
NET 30	197873 - Route 9 Sewer Infrastructure	Route 9 Sewer Infrastructure

DATE	QTY	DESCRIPTION	RATE	AMOUNT
		Management		
9/28/2020	5.00	Construction Manager	130.00	650.00
9/29/2020	5.00	Construction Manager	130.00	650.00
9/29/2020	1.00	PM - Site Visit	145.00	145.00
9/30/2020	5.00	Construction Manager	130.00	650.00
10/1/2020	5.00	Construction Manager	130.00	650.00
10/1/2020	4.00	PM - Correspondence	145.00	580.00
10/1/2020	1.00	PM - Site Visit	145.00	145.00
10/2/2020	5.00	Construction Manager	130.00	650.00
10/2/2020	4.50	PM - Correspondence	145.00	652.50
10/2/2020	1.00	PM - Site Visit	145.00	145.00
10/5/2020	6.00	Construction Manager	130.00	780.00
10/6/2020	6.00	Construction Manager	130.00	780.00
10/7/2020	6.00	Construction Manager	130.00	780.00
10/8/2020	6.00	Construction Manager	130.00	780.00
10/8/2020	1.00	PM - Site Visit	145.00	145.00
10/9/2020	6.00	Construction Manager	130.00	780.00
10/12/2020	6.00	Construction Manager	130.00	780.00
10/13/2020	6.00	Construction Manager	130.00	780.00
10/13/2020	2.00	PM - Site Visit	145.00	290.00
10/14/2020	6.00	Construction Manager	130.00	780.00
10/15/2020	6.00	Construction Manager	130.00	780.00
10/16/2020	6.00	Construction Manager	130.00	780.00
10/19/2020	6.00	Construction Manager	130.00	780.00
10/19/2020	1.00	PM - Site Visit	145.00	145.00
10/20/2020	6.00	Construction Manager	130.00	780.00
10/21/2020	6.00	Construction Manager	130.00	780.00
10/21/2020	1.00	PM - Meeting	145.00	145.00
10/21/2020	1.00	PM - Site Visit	145.00	145.00
10/22/2020	6.00	Construction Manager	130.00	780.00
10/23/2020	6.00	Construction Manager	130.00	780.00

Project	197873	Route 9 Sewer Infrastructure	Invoice	48702
10/23/2020	2.00	PM - Site Visit	145.00	290.00
10/26/2020	4.00	Construction Manager	130.00	520.00
10/27/2020	4.00	Construction Manager	130.00	520.00
10/27/2020	1.00	PM - Site Visit	145.00	145.00
10/28/2020	4.00	Construction Manager	130.00	520.00
10/28/2020	1.00	PM - Site Visit	145.00	145.00
10/29/2020	4.00	Construction Manager	130.00	520.00
10/30/2020	4.00	Construction Manager	130.00	520.00
10/30/2020	1.00	PM - Site Visit	145.00	145.00
		Inspector I		
9/28/2020	8.00	Senior Inspector	115.00	920.00
9/29/2020	8.00	Senior Inspector	115.00	920.00
9/30/2020	8.00	Senior Inspector	115.00	920.00
10/1/2020	8.00	Senior Inspector	115.00	920.00
10/2/2020	8.00	Senior Inspector	115.00	920.00
10/5/2020	8.00	Senior Inspector	115.00	920.00
10/6/2020	8.00	Senior Inspector	115.00	920.00
10/7/2020	8.00	Senior Inspector	115.00	920.00
10/8/2020	8.00	Senior Inspector	115.00	920.00
10/9/2020	8.00	Senior Inspector	115.00	920.00
10/10/2020	6.00	Senior Inspector	115.00	690.00
10/12/2020	8.00	Senior Inspector	115.00	920.00
10/13/2020	10.00	Senior Inspector	115.00	1,150.00
10/14/2020	8.00	Senior Inspector	115.00	920.00
10/15/2020	8.00	Senior Inspector	115.00	920.00
10/16/2020	8.00	Senior Inspector (OT)	172.50	1,380.00
10/17/2020	8.00	Senior Inspector	115.00	920.00
10/19/2020	8.00	Senior Inspector	115.00	920.00
10/20/2020	8.00	Senior Inspector	115.00	920.00
10/21/2020	8.00	Senior Inspector	115.00	920.00
10/22/2020	8.00	Senior Inspector	115.00	920.00
10/23/2020	8.00	Senior Inspector (OT)	172.50	1,380.00
10/26/2020	4.00	Senior Inspector	115.00	460.00
10/27/2020	4.00	Senior Inspector	115.00	460.00
10/28/2020	4.00	Senior Inspector	115.00	460.00
10/29/2020	4.00	Senior Inspector	115.00	460.00
10/30/2020	4.00	Senior Inspector	115.00	460.00
		Inspector II		
10/5/2020	8.00	Inspector	100.00	800.00
10/6/2020	4.00	Inspector	100.00	400.00
10/7/2020	8.00	Inspector	100.00	800.00
10/8/2020	2.50	Inspector	100.00	250.00

All Claims and discrepancies must be reported within 30 days of the date of the invoice

Total this Invoice $46,522.50

CHARLES TOWN UTILITY BOARD
TUSCAWILLA MBR REPLACEMENT PROJECT BASIN 3

RESOLUTION NO. 1

RESOLUTION OF THE CITY OF CHARLES TOWN UTILITY BOARD APPROVING INVOICES RELATING TO THE CONSTRUCTION AND OTHER SERVICES FOR THE TUSCAWILLA MBR REPLACEMENT PROJECT BASIN 3 AND AUTHORIZING PAYMENT THEREOF,

WHEREAS, the City of Charles Town Utility Board has reviewed the invoices attached hereto and incorporated herein by reference relation to the project;

a) That none of the items for which payment is proposed to be made has formed the basis for any disbursement theretofore made.

b) That each item for which the payment is proposed to be paid is or was necessary in connection with the Project and constitutes a cost of the project.

c) That each of such costs has been otherwise properly incurred.

d) That the payment for each of the items proposed is due and owing.

NOW, THEREFORE, BE IT RESOLVED the City of Charles Town Utility Board that the payment of the attached Contractor's Application for Payment No. 01 as summarized below, is hereby authorized and directed.

Vendor	**Route 9 Sewer Project**
H2O Innovation USA	$313,083.90
Total	**$313,083.90**

ADOPTED BY the City of Charles Town Utility Board, at the meeting held on the 18th day of November 2020.

By: _____
Daryl Hennessy, Chairman

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Contractor's Application for Payment No. 1

		Application Period: 04/27/2020 to 11/15/2020	Application Date: 2020-11-11
To (Owner):	Charles Town Utility Board 661 South George Street, Suite 101 Charles Town, WV 25414	From (Contractor): H2O Innovation USA. 8900 109th Ave N, Suite #1000 Champlin, MN 55316	Via (Engineer): Chris Eckenrode
Project:	Tuscawilla Wastewater Treatment Plant Membrane Bioreactor (MBR) Replacement	Contract: Tuscawilla MBR Replacement Basin 3	
Owner's Contract No.:	N/A	Contractor's Project No.:	Engineer's Project No.: 20011

Application For Payment

Change Order Summary

Approved Change Orders

Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE	**$**	**$366,180.00**
2. Net change by Change Orders	**$**	
3. Current Contract Price (Line 1 ± 2)	**$**	**$366,180.00**
4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)	**$**	**$347,871.00**
5. RETAINAGE:		
a. 10% X $347,871.00 **Work Completed**	**$**	**$34,787.10**
b. 10% X _____ **Stored Material**	**$**	
c. Total Retainage (Line 5a + Line 5b)	**$**	**$34,787.10**
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)	**$**	**$313,083.90**
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	**$**	
8. AMOUNT DUE THIS APPLICATION	**$**	**$313,083.90**
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)	**$**	**$53,096.10**

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By: A. Girard-King, H2O Innovation

Date: 11-Nov-20

Payment of: $ 313,083.90
(Line 8 or other - attach explanation of the other amount)

is recommended by: Christopher M. Eckenrode (Engineer) November 12, 2020 (Date)

Payment of: $ 313,083.90
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ (Funding Agency (if applicable)) _____ (Date)

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Progress Estimate - Lump Sum Work

Contractor's Application

For (Contract):	Tuscawilla MBR Replacement Basin 3		Application Number:	1
Application Period:	04/27/2020 to 11/15/2020		Application Date:	2020-11-11

			Work Completed		E	F		G
A		B	C	D	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F / B)	Balance to Finish (B - F)
Specification Section No.	Description	Scheduled Value ($)	From Previous Application (C+D)	This Period				
N/A	Toray module replacement, including:	$366,180.00		$347,871.00		$347,871.00	95%	$18,309.00
	membranes and membrane cages, piping, valves, connections,							
	anchor bolts, contractor installation, on site assistance							
	Totals	**$366,180.00**		**$347,871.00**		**$347,871.00**	95.00%	**$18,309.00**

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Tenant GL/Site Name: Charles Town South

SECOND AMENDMENT TO LEASE AGREEMENT

Site Name/Location: **The City of Charles Town – WV-002 Charles Town Road**
1376 Charles Town Road, Charles Town, Jefferson County, West Virginia

This Second Amendment to Lease Agreement (the "Second Amendment"), dated as of _____, 2020, is made and entered into by and between CELLCO PARTNERSHIP d/b/a Verizon Wireless ("Tenant"), a Delaware General Partnership, with its principal offices at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920; and the CITY OF CHARLES TOWN, WEST VIRGINA ("Landlord"), a Municipal Corporation, with an address at 101 East Washington Street, Charles Town, West Virginia 25414.

RECITALS

WHEREAS Landlord and Tenant are parties to that Lease Agreement dated as of August 25, 2008 (the "Agreement") pursuant to which Tenant is leasing from Landlord space on Landlord's water tank (the "Tank") and within Landlord's Property located at 1376 Charles Town Road, Charles Town, West Virginia for the purposes of operating certain communications antennas and related equipment thereat (collectively the "Premises"); and

WHEREAS Landlord and Tenant are parties to that First Amendment dated as of September 9, 2015 (the "First Amendment") whereby Tenant modified the configuration of its antennas and equipment at the premises and within the Property in accordance with the terms of the Agreement and First Amendment, and Landlord is amenable to such changes in configuration in accordance with the terms thereof; and

WHEREAS, Tenant desires to change the configuration of its antennas and related equipment at the Premises and within the Property in accordance with the terms hereof; and

NOW, THEREFORE, in consideration of the foregoing recitals and the agreements and covenants set forth herein, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

1. Paragraph 4 is hereby amended by adding the following and is hereby incorporated into the Agreement:

   (c) In the event that this Agreement continues beyond the expiration of the Initial Term and any Extension Terms provided for herein, the annual Rent payment shall be increased on August 1st of each year during the Holdover Term to an amount equal to 3% over the annual Rent then in effect, and said Rent shall be payable monthly through any Holdover Term.

2. In consideration of Landlord's consent to the equipment modifications referenced in Exhibit 2 of this Second Amendment, the monthly Rent is hereby affirmed for the current Extension Term expiring July 31, 2023, and shall be Two Thousand Four Hundred Sixty Dollars and Ninety-One Cents ($2,460.91). On each August 1st thereafter throughout this Extension Term or any other Extension Term exercised by Tenant, the monthly Rent shall be increased subject to the annual monthly rental increase set forth in Section 4(b) of the Agreement.

3. **Exhibit 2** to the Agreement is hereby deleted in its entirety, and the new **Exhibit 2-1** to the Agreement, the Colocation Application of Tenant, is hereby incorporated into the Agreement in lieu thereof.

4. **Exhibit 3** to the Agreement is hereby deleted in its entirety, and the new **Exhibit 3-1** to the Agreement, the Tenant As-Built Construction Drawings, is hereby incorporated into the Agreement in lieu thereof.

5. Except as expressly amended herein, the Agreement and the First Amendment's terms and provisions thereof shall remain in full force and effect. Capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

6. This Amendment may be executed in multiple counterparts, each of which, when executed, shall be deemed an original instrument, but all of which taken together shall constitute one and the same agreement.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the day and year first above written.

Witness

Melissa Ford

Print Name: Melissa Ford

TENANT:

CELLCO PARTNERSHIP d/b/a Verizon Wireless a Delaware general partnership

By: _____

Name: Thomas O'Malley

Title: Director - Network Field Engineering

11/5/2020

Witness

_____

Print Name: _____

LANDLORD:

CITY OF CHARLES TOWN
a Municipal Corporation

By: _____

Name: _____

Title: _____

EXHIBIT 2

CO-LOCATION APPLICATION OF TENANT

[See Attached Co-location Application of Tenant]

☐ NEW LEASE ☑ AMENDMENT TO EXISTING LEASE ☐ ANCHOR TENANT ☐ RECONTRACT

INTERNAL USE ONLY	
APP VERSION #	1
LEASE #	3
AMENDMENT #	2

PLEASE RETURN THIS APPLICATION VIA EMAIL TO:

Wireless Networks Group, Inc.
2926 Rohrersville Road
Rohrersville, Maryland 21779-1214
Attn: Michael Hofe

E-Mail: mhofe@wirelessnetworksgroup.com

Phone: 301-667-0001

Charles Town Site Number:	WV-002
Charles Town Site Name:	Charles Town Road
Application Date:	7/15/2020
Revision Dates:	
OPS Approval:	9/22/2020 Michael D Hofe

APPLICANT / CARRIER INFORMATION

Carrier Name:	**Verizon Wireless**	**Contact Name:**	**Tom King**
Carrier Site Number:		**Contact Number:**	**443-610-7705**
Carrier Site Name:	**Charles Town South**	**Contact Fax:**	
Carrier Legal Entity Name:	Cellco Partnership	**Contact Address:**	6095 Marshalee Dr 3rd Floor Elkridge, MD 21075
State of registration:	DE		
Type of entity (LP, LLC, Corp) d/b/a (If applicable)	Partnership		
Notice Address for Lease:	Cellco Partnership dba Verizon Wireless 180 Washington Valley Road Bedminster, NJ 07921 Attention: Network Real Estate	**Contact E-mail:**	tking@nbcllc.com
With copies to:		**Additional E-mail:**	
Carrier Invoice Address:	10170 Junction Drive,Suite 300,Annapolis Juncti	**Desired Install Date:**	January 2021
Carrier Invoice Contact - Name, Title, Phone No.	Kellie Gaither, Project Coodinator, 410.712.7092 e	**Carrier NOC#**	800-852-2671

ADDITIONAL CONTACT INFORMATION

Leasing Contact Name/Number:	Tom King / 443-610-7705
RF Contact Name/Number:	Luke Neiswander / 443-257-3744
Construction Contact Name/Number:	Robin Brown / 410-703-8010
Emergency Contact Name/Number:	NOC / 800-852-2671

SITE INFORMATION

Latitude:	39.273867	N	**Existing Structure Type:**	Water Tank
Longitude:	-77.849578	W	**Existing Structure Height:**	93'
Site Address:	1376 Charles Town Road, Charles Town, WV 25414			

FREQUENCY/TECHNOLOGY INFORMATION

Type of Technology for all equipment (i.e., 3G, LTE, CMDA, MW, WiFi, TV, etc.)		LTE
TX Frequency (MHz)	Licensed	728-734, 776-787, 880-894, 1975-1985, 2110-2140 MHz
RX Frequency (MHz)	Licensed	698-704, 746-757, 835-849, 1895-1905, 1720-1740 MHz
Tenants using an unlicensed band must provide exact Frequency Channels and Call Sign(s) to be utilized. (Providing the band range only will not be accepted.)		

PLEASE PROVIDE A BRIEF DESCRIPTION OF GENERAL SCOPE OF WORK

Remove all exiting antennas and reserve related equipment, except for one (1) surge suppressor and install six (6) new panel antennas for a total of six (6) panel antennas, six (6) remote radio heads and two (2) new surge suppressors for a total of thee (3) surge suppressors. All coax and fiber from the shelter to the antennas will remain unchanged.

EXISTING EQUIPMENT Applicant's Existing Equipment Configuration and Specifications										
Equipment Type (ex: panel, TMA, RRU)	RAD (feet)	Mount Height (feet)	Mount Type	Equip Qty	Equipment Manufacturer	Equipment Model #	Equip Dim (HxWxD) (ft or in)	Equip Weight (lbs)	Az	Remain
Panel	104	104	Pipe Mount	6	JMA Wireless	X7C-FRO-860	96 x 14.6 x 8.0 inches	48.5	4,124, 244	No
Panel	104	104	Pipe Mount	3	JMA Wireless	Reserve	69 x 6.7 x 4.1 inches	19.2	4, 124, 244	Reserve
RRU	104	104	Pipe Mount	3	Nokia	B13 RRH 4x30	20.9 x 11.8 x 7.2 inches	55.6	4,124, 244	No
TMA	104	104	Pipe Mount	6						No
Surge Suppressor	104	104	Pipe Mount	1	RFS	DBB1-6C-12AB-0Z	28.93x15.73x10.3 in.	32	36	Yes

EXISTING LINES Applicant's Existing Lines and Specifications					
Line Type	Line Size (Inches)	Total # of Lines	Coax interior or exterior (for monopoles)	Remain	Comments:
Coax	1 5/8	12		Yes	No changes to any cable from shelter to antennas
Hybrid	1 1/4	1		Yes	

PROPOSED EQUIPMENT Applicant's Proposed Equipment Configuration and Specifications									
Equipment Type (ex: panel, TMA, RRU, ice shields)	RAD (feet)	Mount Height (feet)	Mount Type	Equip Qty	Equipment Manufacturer	Equipment Model #	Equip Dim (HxWxD) (ft or in)	Equip Weight (lbs)	Azimuth
Panel	104	104	Pipe Mount	3	JMA Wireless	MX06FRO860-02	95.9 x 15.4 x 10.7 inches	58.18	4,124,244
RRU	104	104	Pipe Mount	3	Nokia	AZQZ CBRS B48 Micro RRH			4,124,244
RRU	104	104	Pipe Mount	3	Nokia	Dual RRH B2/B66a 320W	22.05 x 12.13 x 7.12 inches	79.36	4,124,244
Surge Suppressor	104	104	Pipe Mount	3	RFS	DBB1-6C-12AB-0Z	28.93 x 15.73 x 10.3 inches	32	4,124,244
Panel	104	104	Pipe Mount	3	JMA Wireless	MX10FRO860-xx	95.9 x 15.4 x 10.7 inches	58.18	4,124,244

PROPOSED LINES Applicant's Proposed Lines and Specifications				
Line Type	Line Size (Inches)	Total # of Lines	Coax interior or exterior (for monopoles)	Comments:
Coax	1 5/8	12		
RET Home Run Cable				
Fiber	1 1/4	1		
DC Power				

PROPOSED FINAL CONFIGURATION TOTALS	
EQUIPMENT TYPE	TOTAL
Panel Antennas	6
Omni/Whip Antennas	
RRU	6
TMA	
Diplexer / Triplexer	
Bias T	
Surge Suppressor	3
MW Dish	
Ice Shield	
ODU	
Filter	
Combiner	
Junction Box	
RET	
Equipment Cabinets	
Other (Please specify)	
Other (Please specify)	
Other (Please specify)	
Other (Please specify)	
Other (Please specify)	

PROPOSED FINAL CONFIGURATION TOTALS	
LINE TYPE	TOTAL
Coax	12
Hybrid	1
CAT5	
DC/Power	
RET	
Fiber	

ADDITIONAL EQUIPMENT INFORMATION
• RRUs, TMAs and ODUs are required to be installed directly behind the antennas / MW dish. Otherwise there will be an additional charge. • All equipment lines are required to be installed inside the tower when space is available. Carriers will be charged an additional $25.00 per line per month if equipment lines are installed on the outside of the tower even though there is available space inside the tower. Charles Town must approve any installation of lines on the outside of the tower. • All tenant equipment must be installed within one continuous 10 ft vertical envelope. Exceeding this vertical space will be subject to additional rent.

GROUND / INTERIOR SPACE REQUIREMENTS						
Total Ground / Interior Area Dimensions: **L' x W' = Total Square Feet Required**	30 X 12	(Including all Equipment (i.e., Shelter, Equipment Platform or Pad, Generator Pad, Generator Fuel Tank Pad, Antenna Sleds, etc. – provide details below)				
Cabinet Area Dimensions (Pad/Platform)	4 X 5	Cabinet Installation Type	Tenant Shelter			
Shelter Pad Dimensions	10 X 3	Shelter Manufacturer				
Rooftop Antenna Total Area Required	X	Antenna Sled Dimensions (per sector)	X	Antenna Wall Mount Dimensions (per sector)	X	

EQUIPMENT CABINET REQUIREMENTS (Required for rooftops or Charles Town interior space)					
Number of Cabinets Required		Cabinet Dimensions (L' x W' x H')		Manufacturer:	
Number of Cabinets Required		Cabinet Dimensions (L' x W' x H')		Manufacturer:	
Number of Cabinets Required		Cabinet Dimensions (L' x W' x H')		Manufacturer:	
Equipment Cabinet Comments					

GENERATOR REQUIREMENTS					
Generator Required?:		Generator Fuel Type		Generator Size	
Generator Pad Dimensions	10' x 3'		Generator Manufacturer		
Generator Fuel Tank Pad Dimensions			Fuel Tank Manufacturer		

AC POWER REQUIREMENTS			
Meter Type	Existing Tenant Meter	Estimated Monthly Utility Usage Amount	
Voltage		Total Amperage	

FIBER / BACKHAUL					
Fiber Installation Status	Existing (No Change)	Fiber Provider			
Cable Type	Fiber	Number of Points of Entry		Conduit/Riser Size (in inches)	

STRUCTURAL ANALYSIS DETAILS			
Structural Hardcopies Required?	No	If wet seals required, please provide address:	

ADDITIONAL COMMENTS
No Change to ground space.

EXHIBIT 3

TENANT AS-BUILT CONSTRUCTION DRAWINGS

[See Attached Final Approved CD's to be Replaced by As-Built Construction Drawings]

verizon

SITE NAME: CHARLES TOWN SOUTH
PROJECT: AWS ADD

1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

811 Know what's below. Call before you dig.

SCOPE OF WORK

SCOPE OF WORK:	PROJECT CONSISTS OF REMOVING (3) ANTENNAS AND (3) RRH'S AND INSTALLING (6) NEW ANTENNA, (6) NEW RRH'S TO AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY.
SITE ADDRESS:	1376 S. GEORGE STREET CHARLES TOWN, WV 25414
PROPERTY OWNER: ADDRESS:	CITY OF CHARLES TOWN 101 E WASHINGTON STREET PO BOX 14 CHARLES TOWN, WV 25414
SITE DATA :	DEED BOOK 608, PAGE 563
TAX MAP:	10
PARCEL:	211
PARCEL AREA:	0.11± ACRES
JURISDICTION:	JEFFERSON COUNTY
ZONING:	MIXED-USE ZONE
GROUND ELEVATION:	544'± (AMSL)
STRUCTURE TYPE:	WATER TANK
STRUCTURE HEIGHT:	92'-6" (AGL)
LATITUDE:	39.273914°
LONGITUDE:	-77.849718°

PROJECT TEAM

APPLICANT:	VERIZON WIRELESS 7600 MONTPELIER ROAD LAUREL, MD 20723 (301) 617-4210
ENGINEERING FIRM:	NB+C ENGINEERING SERVICES, LLC 6095 MARSHALEE DRIVE, SUITE 300 ELKRIDGE, MD 21075 (410) 712-7092

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

VICINITY MAP



DIRECTIONS

FROM VERIZON WIRELESS OFFICE: TURN LEFT ONTO JOHNS HOPKINS RD AT ROUNDABOUT, TAKE 2ND EXIT ONTO RAMP. MERGE ONTO US-29 N / COLUMBIA PIKE AT EXIT 25B, TAKE RAMP RIGHT FOR I-70 WEST TOWARD FREDERICK AT EXIT 52, TAKE RAMP RIGHT FOR US-15 SOUTH / US-340 WEST TOWARD CHARLES TOWN / LEESBURG. KEEP STRAIGHT ONTO US-340 W. ENTERING VIRGINIA ROAD NAME CHANGES TO WILLIAM L WILSON FWY ENTERING WEST VIRGINIA.KEEP STRAIGHT ONTO US-340 S / WILLIAM L WILSON FWY. TAKE RAMP FOR WV-9 W / VETERANS MEMORIAL HWY, ARRIVE AT WV-9 W / CHARLES TOWN RD 1376 CHARLES TOWN RD, CHARLES TOWN, WV 25414.

WEST VIRGINIA CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2015 INTERNATIONAL BUILDING CODE
- 2014 NFPA 70 NATIONAL ELECTRICAL CODE
- 2015 NFPA 101, LIFE SAFETY CODE
- 2012 IFC
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANSI/TIA-222-G
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-1275
- ANSI/T 311

DRAWING INDEX

T-1	TITLE SHEET
GN-1	GENERAL NOTES
SP-1	SITE PLAN
C-1	COMPOUND PLAN
C-2	ELEVATION
A-1	ANTENNA SCHEDULE & PLANS
A-2	ANTENNA MOUNTING DETAILS
A-3	EQUIPMENT DETAILS
G-1	GROUNDING DETAILS

APPROVAL BLOCK

		APPROVED	APPROVED AS NOTED	DISAPPROVED/ REVISE
PROPERTY OWNER	9/22/2020 DATE	☑	☐	☐
SITE ACQUISITION	DATE	☐	☐	☐
CONSTRUCTION MANAGER	DATE	☐	☐	☐
ZONING	DATE	☐	☐	☐
RF ENGINEER	DATE	☐	☐	☐

ENGINEERING FIRM
NB+C TOTALLY COMMITTED
NB+C ENGINEERING SERVICES, LLC.

APPLICANT
verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION
CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

DESIGN RECORD
REVISIONS

REV	DATE	DESCRIPTION	BY
0	09/16/20	FINAL CD's	BDR
A	05/05/20	PRELIMINARY CD	AMM

PROFESSIONAL STAMP
TRENT TRAVIS SNARR, P.E. WEST VIRGINIA PROFESSIONAL ENGINEER LICENSE #21726

ENGINEER
TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS, DR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THE PROJECT REQUIREMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWING/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATION UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL MAINTAIN A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDA OR CLARIFICATIONS AVAILABLE FOR USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT. REDLINED AS-BUILTS ARE TO BE DELIVERED TO THE CLIENT AT CLOSEOUT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
15. FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (HANDICAPPED ACCESS NOT REQUIRED).
16. FACILITY HAS NO PLUMBING.
17. PRIOR TO OR UPON ENTERING INTO THE SITE COMPOUND, THE PERSONNEL ENTERING THE SITE ARE TO CONTACT THE SWITCH AND THE CLIENT NOC INFORMING THEM OF THE FOLLOWING INFORMATION: WHO IS ENTERING THE SITE AND WHAT COMPANY THEY ARE WITH, WHY THEY ARE ENTERING THE SITE AND HOW LONG THEY PLAN TO BE AT THE SITE.
18. UPON LEAVING THE SITE, THE "SITE" PERSONNEL ARE TO CONTACT THE SWITCH AND CLIENT NOC INFORMING THEM OF DEPARTURE.
19. SHOULD THE SITE ACCESS OCCUR WHILE THE SWITCH IS UNMANNED, THEN AT MINIMUM THE CLIENT NOC WILL BE NOTIFIED OF THE ABOVE INFORMATION.
20. ALL INSTALLATION DEBRIS AND TRASH SHALL BE REMOVED FROM THE SITE ON A DAILY BASIS. ANY EXPENSE THAT IS INCURRED BY CLIENT FOR TRASH REMOVAL WILL BE BACK-CHARGED TO THE SUBCONTRACTOR.
21. THE CONTRACTOR SHALL NOTIFY ENGINEER, WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE CONSTRUCTION MANAGER.
22. ALL ANTENNA OUTAGES MUST BE PLANNED AT A MINIMUM OF 24 HOURS IN ADVANCE. CONTRACTOR MUST CONTACT THE SWITCH AND THE NOC TO COORDINATE. IF THIS POLICY IS NOT ADHERED TO, THE CONTRACTOR WILL BE REMOVED FROM THE BIDDER'S LIST AND ANY OPPORTUNITY FOR FUTURE WORK.

A/C	AIR CONDITIONING
ADJ.	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
APPROX.	APPROXIMATELY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWG	AMERICAN WIRE GAUGE
A	AMPERE
BTS	BASE TRANSMISSION STATION
BLDG.	BUILDING
BLK.	BLOCK
B/S	BUILDING STANDARD
CIGBE	GROUND BAR
CLG	CEILING
CLR.	CLEAR
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
C.F.C.I.	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
DBL.	DOUBLE
DIA., ø	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DN	DOWN
DTL.	DETAIL
DWG.	DRAWING
E	EAST
EA.	EACH
EL., ELEV.	ELEVATION
ELECT.	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.	EACH WAY
EXIST.	EXISTING
EXT.	EXTERIOR
FIN.	FINISH
FLR	FLOOR
FT.	FOOT
GRC.	GALVANIZED RIGID CONDUIT
G. OR GRD.	GROUND
GA.	GAUGE
GALV.	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
HORIZ.	HORIZONTAL
HR	HOUR
HT.	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
I.D.	INSIDE DIA.
IN.	INCH
INFO	INFORMATION
INSUL.	INSULATION
INT.	INTERIOR
KVA	KILOVOLTS-AMPERE
KW	KILOWATT
LB(S)	POUND(S)
MGB	MASTER GROUND BAR
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MGR.	MANAGER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTD.	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NEUT.	NEUTRAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOC	NETWORK OPERATIONS CENTER
NPS	NOMINAL PIPE SIZE
N.T.S.	NOT TO SCALE
O.F.C.I.	OWNER FURNISHED CONTRACTOR INSTALLED
OC, o/c	ON CENTER
OPP	OPPOSITE
OD	OUTSIDE DIAMETER
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
OHU	OVERHEAD UTILITY LINES
PLYWD.	PLYWOOD
PR	PAIR
PH	PHASE
PVC	POLYVINYL CHLORIDE
PROJ	PROJECT
PROP	PROPERTY
PT	PRESSURE TREATED
RECPT.	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
R.O.	ROUGH OPENING
R.O.W.	RIGHT-OF-WAY
S	SOUTH
S.O.	SERVICE GRADE OIL RESISTANT
SHT	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
XXX.XX'	SPOT ELEVATION
SQ.	SQUARE
SF	SQUARE FOOT
SS	STAINLESS STEEL
STL.	STEEL
STRUCT.	STRUCTURAL
THRU	THROUGH
T.O.C.	TOP OF CONCRETE
T.O.M.	TOP OF MASONRY
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
VERT.	VERTICAL
VIF	VERIFY IN FIELD
V	VOLT
W	WEST
W	WIRE
W/	WITH
W/O	WITHOUT
W.P.	WEATHERPROOF
XFMR	TRANSFORMER

MATCH LINE
WORK POINT
MECHANICAL BONDING CONNECTION
EXOTHERMICALLY WELDED BONDING CONNECTION
POWER POLE OR
DISCONNECT SWITCH
DOUBLE-THROW MANUAL TRANSFER SWITCH
CIRCUIT BREAKER
EMERGENCY GENERATOR RECEPTACLE
TELCO PEDESTAL
GROUND ROD
GROUND ROD INSPECTION WELL
REPRESENTS DETAIL NUMBER
REF. DRAWING NUMBER

NORTH ARROW
ELEVATION
SECTIONS & DETAILS
BRICK
CONCRETE
EARTH
GRAVEL
STEEL
METER OR
GROUND
REVISION
KEYNOTE

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED
NB+C ENGINEERING SERVICES, LLC.
2005 MARSHALEE DRIVE, SUITE 300
ELLICOTT CITY, MD 21075
(410) 715-7000

APPLICANT

verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION

CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
0	05/15/20	FINAL CD's	SDR
A	05/03/20	PRELIMINARY CD	AMM

PROFESSIONAL STAMP

TRENT TRAVIS SNARR
21726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

ENGINEER

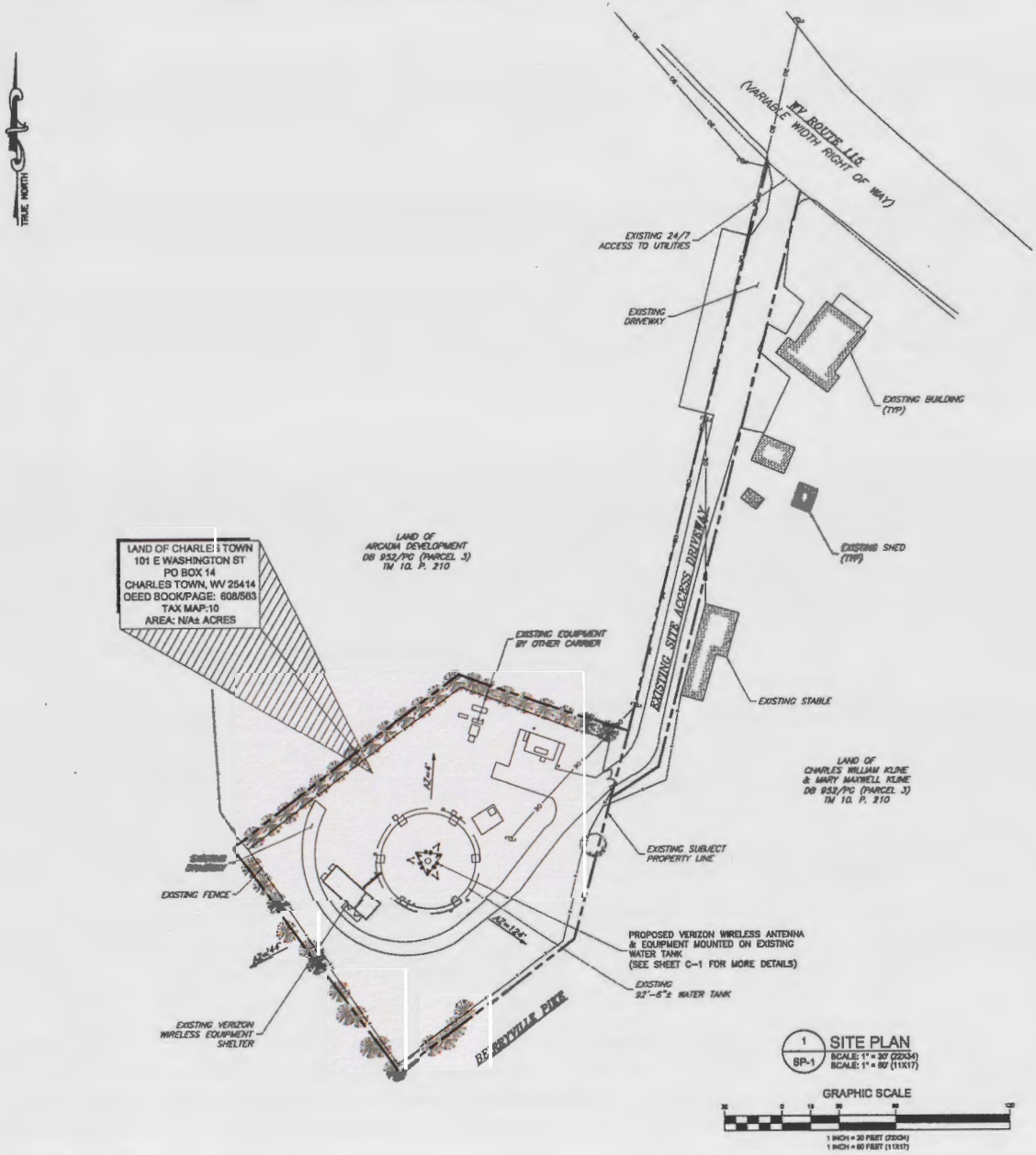
TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-1



ZONING INFORMATION

JURISDICTION: JEFFERSON COUNTY

ZONING: MIX USED ZONE

DIMENSION	EXISTING ±	PROPOSED ±
FRONT YARD SETBACK:	NO CHANGE	NO CHANGE
SIDE YARD SETBACK:	NO CHANGE	NO CHANGE
REAR YARD SETBACK:	NO CHANGE	NO CHANGE

LOT AREA: N/A ± ACRES

(ALL MEASUREMENTS ARE IN FEET ± UNLESS OTHERWISE NOTED)

NOTES:

1) SITE PLAN IS NOT THE RESULT OF A SURVEY. IT IS BASED ON FIELD MEASUREMENTS AND SCALED ASSESSORS MAPS AVAILABLE. ALL INFORMATION SHOWN IS APPROXIMATE ONLY AND SUBJECT TO ANY CONDITION THAT A SURVEY MAY REVEAL.

2) ALL SETBACKS SHOWN ARE FROM EXISTING TOWER TO EXISTING PROPERTY LINES.

LEGEND

- PROPERTY LINE - SUBJECT PARCEL
- PROPERTY LINE - ABUTTERS
- EXISTING ROAD
- EXISTING BUILDING

ENGINEERING FIRM

NB+C TOTALLY COMMITTED

NB+C ENGINEERING SERVICES, LLC.

APPLICANT

verizon

7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION

CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP

TRENT TRAVIS SNARR
21726
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

ENGINEER

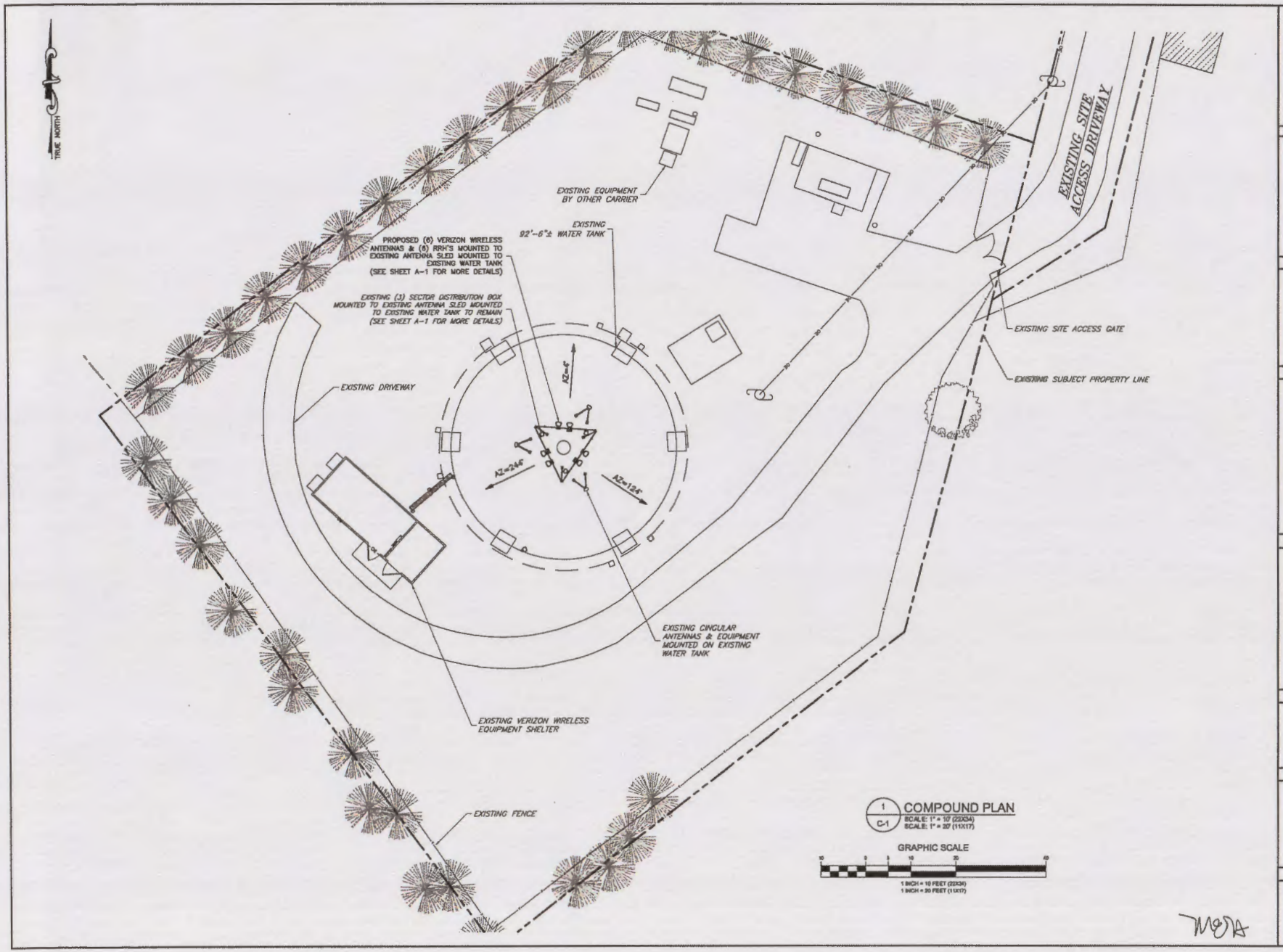
TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE

SITE PLAN

SHEET NUMBER

SP-1



ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.

APPLICANT

verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION

CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP

TRENT TRAVIS SNARR 21726 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ENGINEER

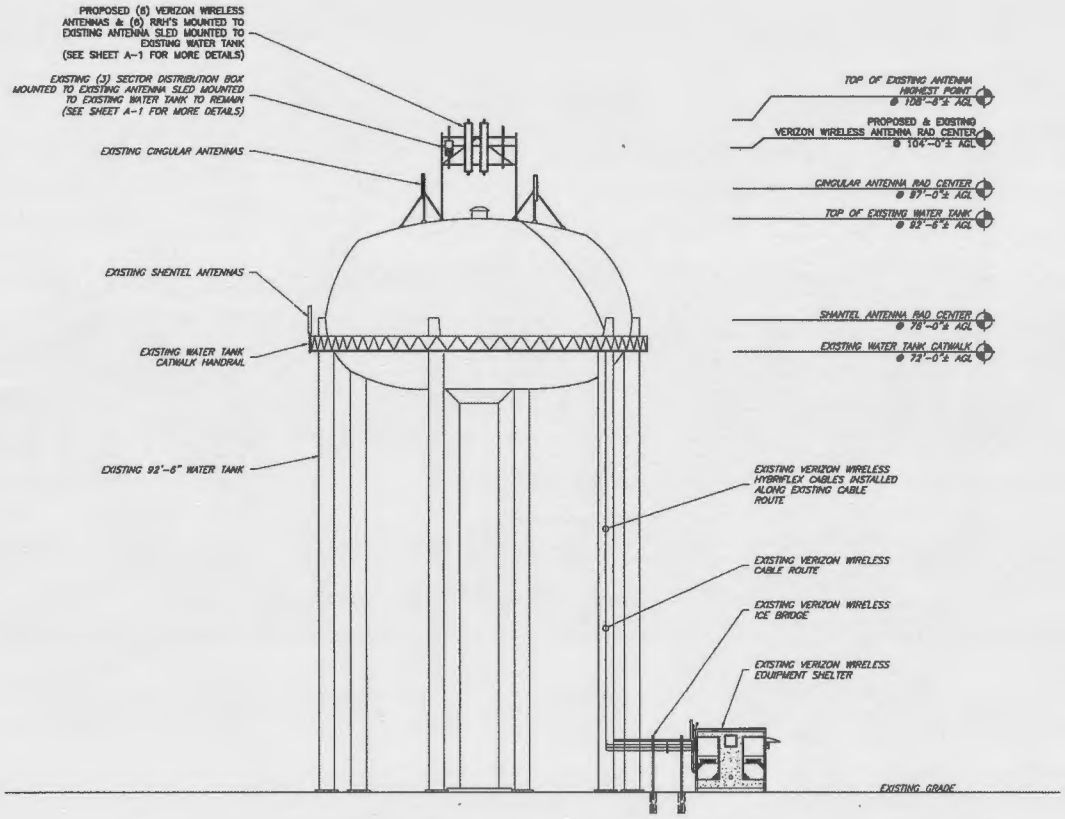
TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE

COMPOUND PLAN

SHEET NUMBER

C-1



1 / C-2 ELEVATION
SCALE: 1" = 10' (22X34)
SCALE: 1" = 20' (11X17)

GRAPHIC SCALE

1 INCH = 10 FEET (22X34)
1 INCH = 20 FEET (11X17)

STRUCTURAL NOTE:

CONTRACTOR TO VERIFY ALL PROPOSED AND EXISTING ANTENNAS AND CABLES WERE CONSIDERED AND PASSED A STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.

APPLICANT

verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION

CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP

TRENT TRAVIS SNARR 21726 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ENGINEER

TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE

ELEVATION

SHEET NUMBER

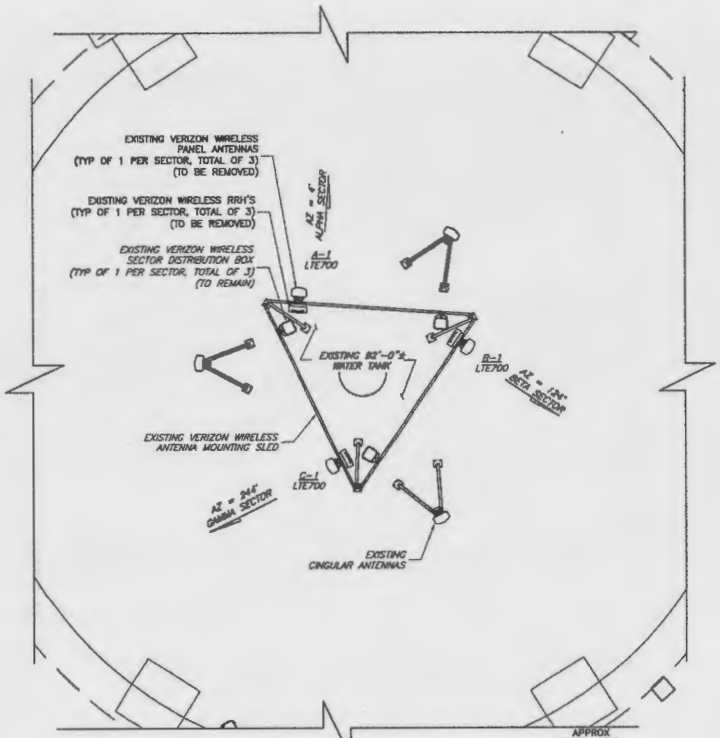
C-2

ANTENNA INFORMATION CHART

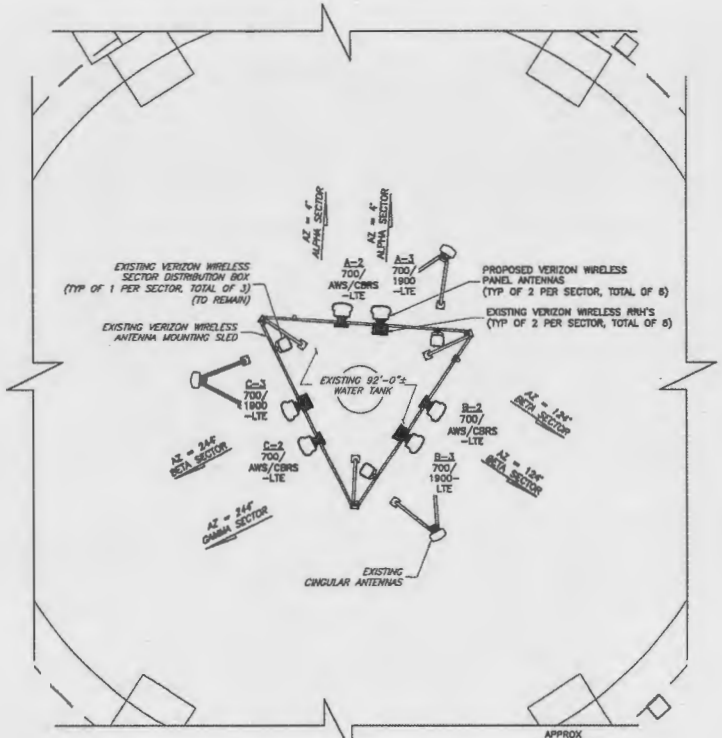
SECTOR	STATUS	ANTENNA MANUFACTURER	TECHNOLOGY	ANTENNA MODEL	RAD CENTER	AZIMUTH	RRH QUANTITY & MODEL
ALPHA	PROPOSED	JMA WIRELESS	700/AWS/CBRS-LTE	MX06FRO660-02	104'-0"	4'	(1) AZQZ CBRS B48 MICRO RRH 4X5
ALPHA	PROPOSED	JMA WIRELESS	700/1900-LTE	MX10FRO660-XX	104'-0"	4'	(1)NOKIA-AHFIC AIRSCALE DUAL RRH 4T4R B25/B66A 320W
BETA	PROPOSED	JMA WIRELESS	700/AWS/CBRS-LTE	MX06FRO660-02	104'-0"	124'	(1) AZQZ CBRS B48 MICRO RRH 4X5
BETA	PROPOSED	JMA WIRELESS	700/1900-LTE	MX10FRO660-XX	104'-0"	124'	(1)NOKIA-AHFIC AIRSCALE DUAL RRH 4T4R B25/B66A 320W
GAMMA	PROPOSED	JMA WIRELESS	700/AWS/CBRS-LTE	MX06FRO660-02	104'-0"	244'	(1) AZQZ CBRS B48 MICRO RRH 4X5
GAMMA	PROPOSED	JMA WIRELESS	700/1900-LTE	MX10FRO660-XX	104'-0"	244'	(1)NOKIA-AHFIC AIRSCALE DUAL RRH 4T4R B25/B66A 320W

NOTES:
1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO VERIFY ALL PROPOSED AND EXISTING ANTENNA AND CABLES WERE CONSIDERED AND PASSED A STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.

1 / A-1 ANTENNA SCHEDULE
NTS



2 / A-1 EXISTING ANTENNA ORIENTATION PLAN
NTS



3 / A-1 PROPOSED ANTENNA ORIENTATION PLAN
NTS

NB+C ENGINEERING SERVICES, LLC.

APPLICANT

verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION

CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP

TRENT TRAVIS SNARR 21726 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ENGINEER

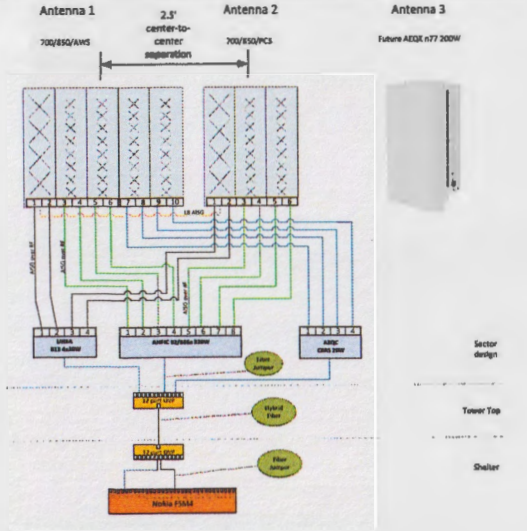
TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE

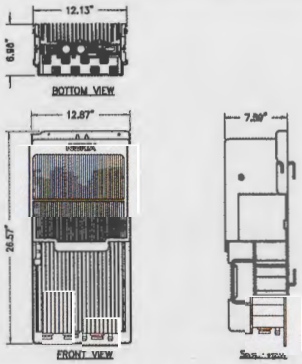
ANTENNA SCHEDULE & PLANS

SHEET NUMBER

A-1

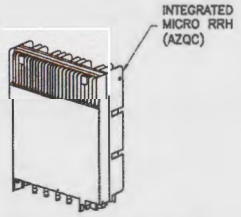


1 A-2 PLUMBING DIAGRAM DETAIL
NTS



1850–2180 MHz REMOTE RADIO HEAD RRH 4T4R B25/66a 320W AHFIC	
WEIGHT	79.37 LBS.
DIMENSIONS (mm) Height X Width X Depth	22.04"x12.13"x6.98" (CORE ONLY) 26.57"x12.87"x7.59" (INCLUDING MOUNTING BRACKETS ETC.)
RF OUTPUT POWER	40W (B66a)/40W(B2) OR 60W(B66a)/20W (B2)

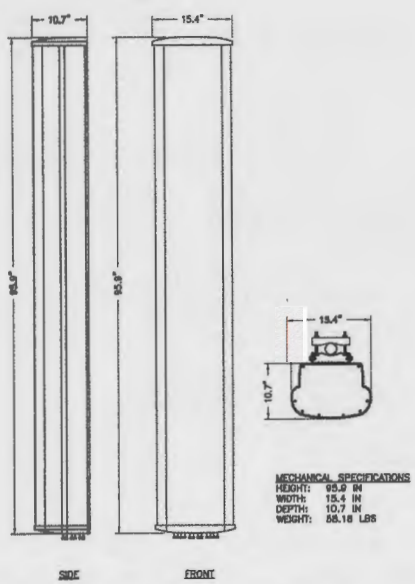
2 A-2 AIRSCALE DUAL 4T4R B25/66a 320W RRH's
NTS



NOKIA PART#: 3.5GHz AIRSCALE MICRO RRH 4T/4R 20W (AZQC)

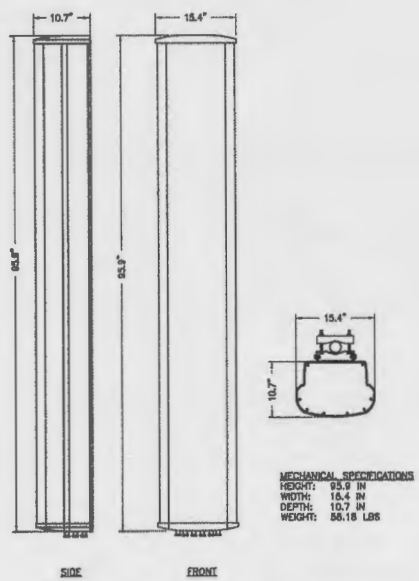
SPECIFICATIONS	DETAILS
LTE ACCESS:	CBRS 3550 MHz–3700 MHz
RF OUTPUT POWER:	UP TO 4x5W PER TX PATH(0.1 db steps down to 50mW)
CAPACITY/BANDWIDTH:	UP TO 4 CARRIERS IBW: up to 150MHz; OBW: 80MHz HW capable up to 20MHz
5G NR:	
PHYSICAL SIZE (w/o ant.):	DC: 5.8L/ <8.5kg; AC: 6.4L/<10Kg
INTERFACES:	2 CPRI ports Fronthaul (2x9.8Gbps) 1 port for External Alarm
MOUNTING OPTIONS:	WALL, POLE, STRAND, ENCLOSURE, BOOKSHELF
ANTENNA:	CONFIGURATION: 4T4R or 2T2R MIMO TYPES: INTEGRATED DIRECTIONAL OR EXTERNAL CONNECTOR: Nex10
POWER CONSUMPTION:	120W (Typ.), 175W (Max)
INPUT POWER:	DC:–40.5 to –57V AC: 80V to 276V (via external AC/DC converter)

3 A-2 NOKIA AZQC 3.5GHz MICRO RRH DETAIL
NTS



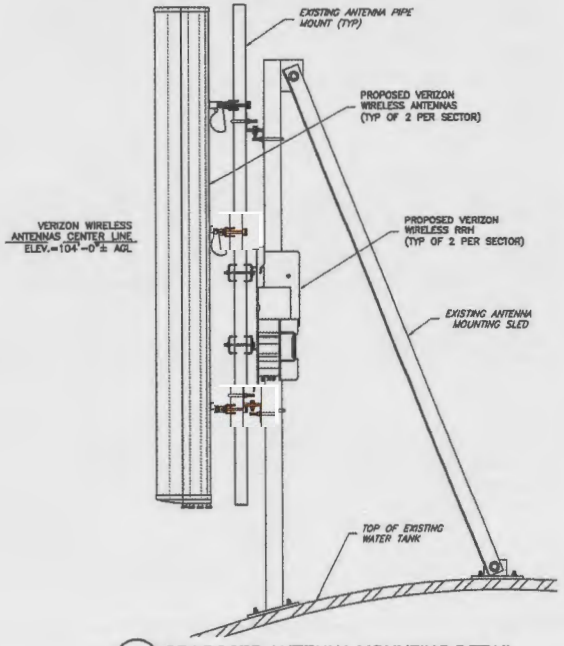
MECHANICAL SPECIFICATIONS
HEIGHT: 95.9 IN
WIDTH: 15.4 IN
DEPTH: 10.7 IN
WEIGHT: 58.18 LBS

4 A-2 MX06FRO860-02 ANTENNA DETAIL
NTS



MECHANICAL SPECIFICATIONS
HEIGHT: 95.9 IN
WIDTH: 15.4 IN
DEPTH: 10.7 IN
WEIGHT: 58.18 LBS

5 A-2 MX10FRO860-XX ANTENNA DETAIL
NTS



6 A-2 PROPOSED ANTENNA MOUNTING DETAIL
NTS

ENGINEERING FIRM
NB+C TOTALLY COMMITTED
NB+C ENGINEERING SERVICES, LLC.

APPLICANT
verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION
CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

DESIGN RECORD
REVISIONS

REV	DATE	DESCRIPTION	BY
0	06/16/20	FINAL CD's	BDR
A	06/03/20	PRELIMINARY CD	AMM

PROFESSIONAL STAMP
TRENT TRAVIS SNARR 21726 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ENGINEER
TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE
ANTENNA MOUNTING DETAILS

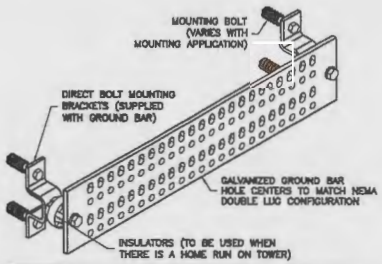
SHEET NUMBER
A-2

GROUNDING NOTES

1. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTING PROTECTION SHALL BE DONE IN ACCORDANCE WITH VERIZON WIRELESS GROUNDING STANDARDS.
2. GROUND CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
3. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
4. ALL POWER AND GROUND CONNECTIONS TO BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY HARGER (OR APPROVED EQUAL) RATED FOR OPERATION AT NO LESS THAN 75°C OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
5. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 8" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
6. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
7. APPLY OXIDE INHIBITING COMPOUND TO ALL MECHANICAL GROUND CONNECTIONS.
8. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
9. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
10. CONTRACTOR SHALL CONDUCT ANTENNA, CABLE, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.



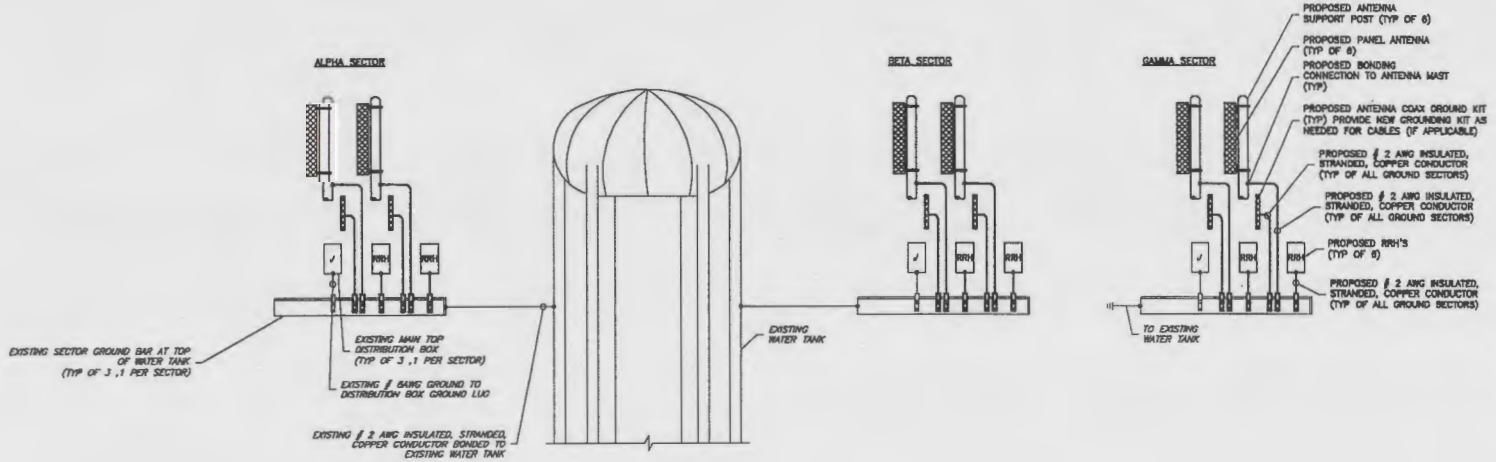
1 / G-1 CADWELD GROUNDING CONNECTION DETAILS
NTS



GROUND BAR SCHEDULE

TYPE	QTY	MANUFACTURER	PART NO.	REMARKS
MGB	2	ITS	GB12	OR EQUAL
CBG	3	ITS	GB24	OR EQUAL

2 / G-1 GROUND BAR DETAIL
NTS



3 / G-1 GROUNDING DIAGRAM
NTS

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED
NB+C ENGINEERING SERVICES, LLC.

APPLICANT

verizon
7600 MONTPELIER ROAD
LAUREL, MD 20723
(301) 617-4210

SITE INFORMATION

CHARLES TOWN SOUTH
1376 S. GEORGE STREET
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP

TRENT TRAVIS SNARR 21726 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ENGINEER

TRENT TRAVIS SNARR, P.E.
WEST VIRGINIA PROFESSIONAL ENGINEER
LICENSE #21726

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-1

MODIFICATION DRAWINGS FOR A 14'-10" PLATFORM MOUNT

SITE NAME: CHARLES TOWN ROAD
SITE ID: WV-002

SITE ADDRESS:
1376 CHARLES TOWN ROAD
CHARLES TOWN, WV 25414
JEFFERSON COUNTY

COORDINATES:
LAT: 39° 16' 26"
LONG: -77° 50' 58"

9/22/2020

SITE INFORMATION

BUILDING CODE	2015 INTERNATIONAL BUILDING CODE
TIA STANDARD	ANSI/TIA-222-G
ULTIMATE WIND SPEED (MPH)	115
NOMINAL WIND SPEED WITH ICE (MPH)	30
ICE THICKNESS (IN)	0.75
EXPOSURE CATEGORY	C
RISK CATEGORY	II
TOPOGRAPHIC CATEGORY	1

THE MODIFICATIONS DEPICTED IN THIS SET OF DOCUMENTS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED BY NB+C ENGINEERING SERVICES, LLC, PROJECT NO. 100101, DATED AUGUST 19th, 2020

DRAWING INDEX

T-1	TITLE SHEET
N-1	POST MODIFICATION INSPECTION CHECKLIST
N-2	GENERAL NOTES
ST-1	MODIFICATION DETAILS
ST-2	CONNECTION DETAILS

DO NOT SCALE DRAWINGS

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE, REPRODUCTION OR CAUSING TO BE REPRODUCED THE WHOLE OR ANY PART OF THESE DRAWINGS WITHOUT THE PERMISSION OF NB&C ENGINEERING SERVICES, LLC IS PROHIBITED.

THIS REPORT WAS BASED ON A SPECIFIC ANTENNA AND COAX CONFIGURATION PROVIDED BY THE CLIENT. ANY CHANGE TO THIS INFORMATION MUST BE REVIEWED BY NB&C ENGINEERING SERVICES, LLC.

ALL CONSTRUCTION SHALL COMPLY WITH THE ANSI/ASSP 10.48 AND ANSI/TIA-322 STANDARDS.

ENGINEER: NB+C TOTALLY COMMITTED. NB+C ENGINEERING SERVICES, LLC.

APPLICANT

SITE INFORMATION:
SITE NAME:
CHARLES TOWN ROAD
SITE ADDRESS:
1376 CHARLESTOWN ROAD
CHARLESTOWN, WV 25414
JEFFERSON COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
0	09/24/20	FOR CONSTRUCTION	MM

PROFESSIONAL STAMP: KRUPAKARAN KOLANDAIVELU, REGISTERED, STATE OF WEST VIRGINIA, PROFESSIONAL ENGINEER

ENGINEER: KRUPAKARAN KOLANDAIVELU, P.E.
WV PROFESSIONAL ENGINEER LIC. #19644

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1

PMI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED	REPORT ITEM
PRE-CONSTRUCTION	
X	PMI CHECKLIST DRAWING
N/A	EOR APPROVED SHOP DRAWINGS
N/A	FABRICATION INSPECTION
N/A	FABRICATOR CERTIFIED WELD INSPECTION
N/A	MATERIAL TEST REPORT (MTR)
N/A	FABRICATOR NDE INSPECTION
N/A	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)
N/A	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH AND SLUMP TESTS
N/A	POST INSTALLED ANCHOR ROD VERIFICATION
N/A	BASE PLATE GROUT VERIFICATION
N/A	CONTRACTOR'S CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	PMI INSPECTOR REDLINE OR RECORD DRAWING(S)
N/A	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PMI REPORT
N/A DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PMI REPORT

POST MODIFICATION INSPECTION NOTES:

GENERAL

1. THE POST MODIFICATION INSPECTION (PMI) IS A VISUAL INSPECTION OF TOWER MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).
2. THE PMI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. NOR DOES THE PMI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.
3. ALL PMI'S SHALL BE CONDUCTED BY A PMI INSPECTOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR NB+C ENGINEERING SERVICES, LLC.
4. TO ENSURE THAT THE REQUIREMENTS OF THE PMI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE PMI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR NB+C POINT OF CONTACT (POC).
5. REFER TO CCR-D1 : CONTRACTOR CLOSEOUT REQUIREMENTS FOR FURTHER DETAILS AND REQUIREMENTS.

PMI INSPECTOR

1. THE PMI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE PMI TO, AT A MINIMUM:
   - REVIEW THE REQUIREMENTS OF THE PMI CHECKLIST
   - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
2. THE PMI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE PMI REPORT TO NB+C ENGINEERING SERVICES, LLC.

CORRECTION OF FAILING PMI'S

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE PMI ("FAILED PMI"), THE GC SHALL WORK WITH THE ENGINEER OF RECORD TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
   - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT PMI.
   - OR, WITH EOR'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE PMI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE PMI REPORT:
   - PRE-CONSTRUCTION GENERAL SITE CONDITION
   - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
     - RAW MATERIALS
     - PHOTOS OF ALL CRITICAL DETAILS
     - FOUNDATION MODIFICATIONS
     - WELD PREPARATION
     - BOLT INSTALLATION AND TORQUE
     - FINAL INSTALLED CONDITION
     - SURFACE COATING REPAIR
   - POST CONSTRUCTION PHOTOGRAPHS
     - FINAL INFIELD CONDITION
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

MSDA

ENGINEER: NB+C ENGINEERING SERVICES, LLC.

APPLICANT: CITY OF CHARLES TOWN 1786

SITE INFORMATION:
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SITE ADDRESS:
1376 CHARLESTOWN ROAD
CHARLESTOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP: KRUPAKARAN KOLANDAIVELU REGISTERED PROFESSIONAL ENGINEER STATE OF WEST VIRGINIA

ENGINEER: KRUPAKARAN KOLANDAIVELU, P.E.
WV PROFESSIONAL ENGINEER LIC. #19644

SHEET TITLE: **POST MODIFICATION INSPECTION CHECKLIST**

SHEET NUMBER: **N-1**

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS NECESSARY TO COMPLETE THE PROJECT AND ABIDE BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO NB+C ENGINEERING SERVICES, LLC. FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
3. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO NB+C ENGINEERING SERVICES, LLC. PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE NB+C ENGINEERING SERVICES, LLC. APPROVAL.
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AFTER THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE AND RESTORE AS BEST AS POSSIBLE TO PRECONSTRUCTION CONDITION.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSP 10.48 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.

CONTRACTOR QUALIFICATION NOTES:

1. ALL REPAIRS SHALL BE PERFORMED BY A TOWER CONTRACTOR WITH A MINIMUM 5 YEARS EXPERIENCE IN TOWER ERECTION AND RETROFIT AND WITH WORKING KNOWLEDGE OF THE ANSI/TIA-222-G "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS".
2. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS. SHOULD THE CONTRACTOR REQUIRE DIRECT CONSULTATION, NB+C ENGINEERING SERVICES, LLC. IS WILLING TO OFFER SERVICES BASED UPON AN AGREED FEE FOR THE WORK REQUIRED.
3. ALL SUBMITTAL INFORMATION MUST BE SENT TO PMI INSPECTOR. ANY VARIATION OF THESE SPECIFICATIONS OR DRAWINGS WITHOUT CONSENT FROM NB+C ENGINEERING SERVICES, LLC. WILL VOID ANY RESPONSIBILITY OR LIABILITY FOR DAMAGE (MATERIAL OR PHYSICAL) TOWARDS NB+C ENGINEERING SERVICES, LLC.
4. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE ANSI/ASSP 10.48 AND ANSI/TIA-322 STANDARDS.

JOB SITE SAFETY & NOTES:

1. NEITHER THE PROFESSIONAL ACTIVITIES OF NB+C ENGINEERING SERVICES, LLC. NOR THE PRESENCE OF NB+C ENGINEERING SERVICES, LLC. OR EMPLOYEES AND SUB-CONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE GENERAL CONTRACTOR AND OR SUBCONTRACTORS AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY, AND WARRANTS THAT THIS INTENT IS EVIDENT BY ACCEPTING THIS WORK.

COLD GALVANIZATION/SURFACE PREPARATION NOTES:

1. CONTRACTOR TO USE ZINGA OR ZRC COLD GALVANIZATION COMPOUNDS OR APPROVED EQUIVALENT.
2. PREPARE RUSTED/CORRODED SURFACE FOR TREATMENT ACCORDING TO MANUFACTURE'S RECOMMENDATIONS.
3. CONTRACTOR TO APPLY (2) COATS OF COLD GALVANIZATION COMPOUND PER MANUFACTURER'S RECOMMENDATION. DRYING AND CURING TIMES MUST BE UTILIZED PER MANUFACTURER'S RECOMMENDATION.
4. APPLY ALL COATINGS BY BRUSH IN CALM WIND CONDITIONS. THE USE OF AEROSOL IS NOT PERMITTED.
5. IF THE TOWER IS PAINTED, BRUSH PAINT ALL TREATED AREAS TO MATCH TOWER AFTER COLD GALVANIZATION COMPOUND IS ALLOWED TO CURE.

STEEL:

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE AND ASTM SPECIFICATIONS.
2. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325N, THREAD INCLUDED WITH SHEAR PLANE (UNLESS OTHERWISE NOTED).
3. ALL BOLTED CONNECTIONS TO BE INSTALLED TO A SNUG-TIGHTENED CONDITION IN ACCORDANCE WITH AISC 13 PART 16.2, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", SECTION 6.1, UNLESS OTHERWISE SPECIFIED. WHEN "X" TYPE BOLTS ARE USED, CONTRACTOR MAY BE REQUIRED TO STACK ADDITIONAL WASHERS TO OBTAIN PROPER SNUG TIGHT INSTALLATION. ALL NUTS SHALL BE HEAVY HEX UNLESS OTHERWISE NOTED.
4. ALL STEEL, AFTER FABRICATION, SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH MULTIPLE COATS OF ZRC COLD GALVANIZING COMPOUND ACHEIVING A MINIMUM OF 4 MILS DRY FILM PER ASTM A 780.
5. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. CONTRACTOR IS REQUIRED TO PROVIDE NB+C ENGINEERING SERVICES, LLC. WITH A PASSING CERTIFIED WELDING INSPECTION FOR ALL WELDS.
6. STRUCTURAL STEEL MAY NOT BE TORCH CUT FOR FABRICATION. ALL STEEL FABRICATION MUST FOLLOW AISC STANDARDS.

MISC. NOTES:

1. ALL MODIFICATIONS ARE ASSUMED TO BE MADE ON AN EMPTY TOWER. CONTRACTOR IS RESPONSIBLE TO MAKE PROVISIONS TO SUPPORT OR WORK AROUND EXISTING ANTENNAS AND TRANSMISSION LINES. MODIFICATIONS MUST BE CONTINUOUS THROUGH ALL AREAS SHOWN.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

FABRICATION NOTES:

1. ALL DIMENSIONS ARE PRELIMINARY UNTIL FIELD VERIFIED BY CONTRACTOR. ANY CHANGES MUST BE APPROVED BY ENGINEER OF RECORD IN WRITING PRIOR TO FABRICATION AND INSTALLATION.
2. NEW STEEL MEMBERS MUST HAVE SINGLE DRILLED HOLES. SLOTTED AND DOUBLE DRILLED HOLES ARE NOT ACCEPTABLE MEANS OF FABRICATION.

SUBSTITUTES AND/OR EQUALS:

1. IF CONTRACTOR WISHES TO FURNISH OR USE A SUBSTITUTE ITEM OF MATERIAL OR EQUIPMENT, CONTRACTOR SHALL FIRST MAKE WRITTEN APPLICATION TO ENGINEER OF RECORD FOR ACCEPTANCE THEREOF, CERTIFYING THAT THE PROPOSED SUBSTITUTE WILL PERFORM ADEQUATELY THE FUNCTIONS AND ACHIEVE THE RESULTS CALLED FOR BY THE GENERAL DESIGN, BE SIMILAR IN SUBSTANCE TO THAT SPECIFIED AND SUITED TO THE SAME USE AS THAT SPECIFIED. ALL VARIATIONS OF THE PROPOSED SUBSTITUTE FROM THAT SPECIFIED WILL BE IDENTIFIED IN THE APPLICATION AND AVAILABLE MAINTENANCE, REPAIR AND REPLACEMENT SERVICE WILL BE INDICATED. THE APPLICATION WILL ALSO CONTAIN AN ITEMIZED ESTIMATE OF ALL COSTS OR CREDITS THAT WILL RESULT DIRECTLY OR INDIRECTLY FROM ACCEPTANCE OF SUCH SUBSTITUTE INCLUDING COSTS OF REDESIGN AND CLAIMS OF OTHER CONTRACTORS AFFECTED BY THE RESULTING CHANGE, ALL OF WHICH WILL BE CONSIDERED BY ENGINEER OF RECORD IN EVALUATION OF THE PROPOSED SUBSTITUTE. ENGINEER OF RECORD MAY REQUIRE CONTRACTOR TO FURNISH ADDITIONAL DATA ABOUT THE PROPOSED SUBSTITUTE.

ENGINEER

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.

APPLICANT

CITY OF CHARLES TOWN 1786

SITE INFORMATION

SITE NAME:
CHARLES TOWN ROAD
SITE ADDRESS:
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CHARLESTOWN, WV 25414
JEFFERSON COUNTY

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PROFESSIONAL STAMP

KRUPAKARAN KOLANDAIVELU REGISTERED STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

ENGINEER

KRUPAKARAN KOLANDAIVELU, P.E.
WV PROFESSIONAL ENGINEER LIC. #19644

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

N-2

MATERIAL SCHEDULE

SCOPE ITEM	GRADE	LENGTH	QUANTITY	ELEV. (ft)
L3x3x1/4	A36	14'-0"	6	104.0'±
SPACER PLATE 3"x3"x3/8"	A36	–	18	104.0'±
5/8"ø STITCH BOLT	A325	–	18	104.0'±

NOTE:
NB+C ES OFFERS PMI (POST MOD INSPECTION) SERVICES. IF AUTHORIZED, NB+C ES WILL COORDINATE THE PMI WITH THE OC.

NOTE:
CARRIER EQUIPMENT NOT SHOWN FOR CLARITY

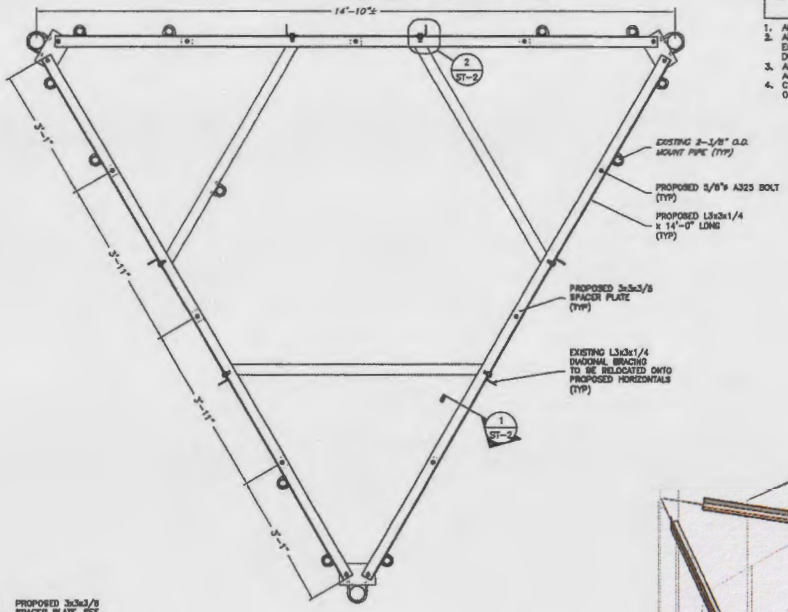
MODIFICATION SCOPE

① INSTALL (6) L3x3x1/4 ANGLES TO MAIN HORIZONTALS. SEE THIS SHEET FOR DETAILS.

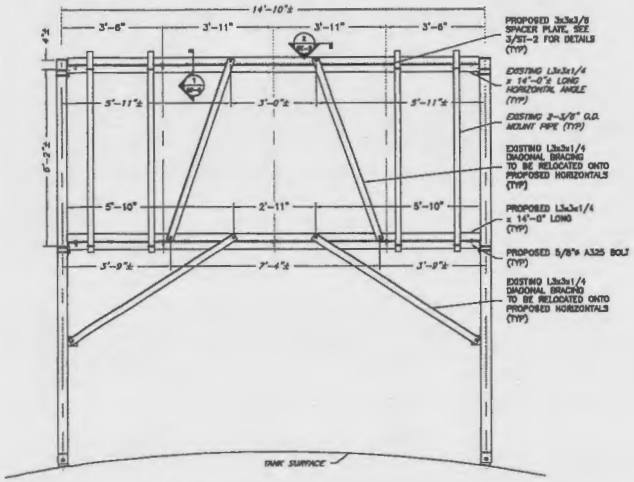
② INSTALL SPACER PLATES AND STITCH BOLTS. SEE THIS SHEET FOR DETAILS.

③ RELOCATE EXISTING BRACING ONTO PROPOSED DOUBLE ANGLE. SEE THIS SHEET FOR DETAILS.

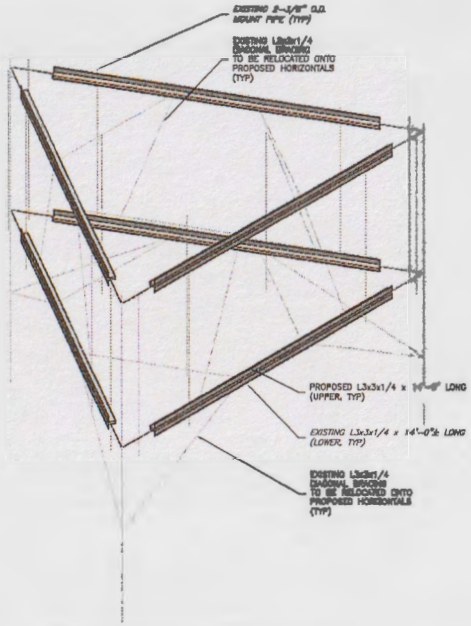
1. APPURTENANCES MAY INTERFERE WITH NEW MODIFICATIONS.
2. ALL MODIFICATIONS TO BE INSTALLED CONTINUOUSLY THROUGH EXISTING EQUIPMENT. ALL EXISTING EQUIPMENT NOT TO BE DAMAGED OR TAKEN OFF AIR DURING INSTALLATION.
3. ANTENNA & COAX GRAPHICS NOT SHOWN FOR CLARITY. SEE STRUCTURAL ANALYSIS REPORT FOR EXISTING ANTENNA LOADING & COAX CONFIGURATION.
4. CONTRACTOR TO FIELD VERIFY ALL LENGTHS AND QUANTITIES PRIOR TO ORDERING OF MATERIALS AND INSTALLATION.



1 ST-1 MODIFICATION PLAN VIEW
SCALE: 3/4" = 1'-0"



2 ST-1 MODIFICATION ELEVATION VIEW
SCALE: 3/4" = 1'-0"



3 ST-1 MODIFICATION ISOMETRIC VIEW
SCALE: NTS

ENGINEER: NB+C TOTALLY COMMITTED. NB+C ENGINEERING SERVICES, LLC.

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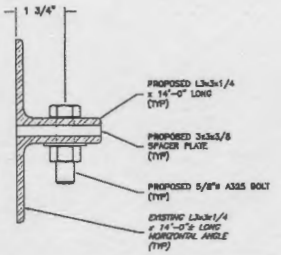
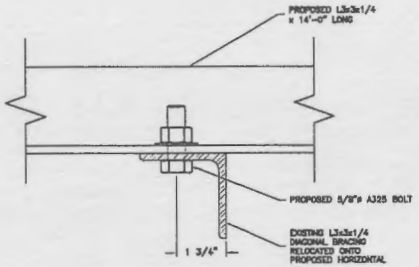
ENGINEER: KRUPAKARAN KOLANDAIVELU, P.E.
WV PROFESSIONAL ENGINEER LIC. #19644

SHEET TITLE: MODIFICATION DETAILS

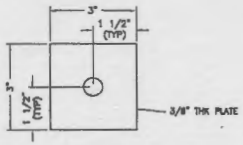
SHEET NUMBER: ST-1



1 / ST-2 SPACER PLATE CONNECTION DETAIL
SCALE: 3/4" = 1'-0"



2 / ST-2 RELOCATED DIAGONAL CONNECTION DETAIL
SCALE: 3/4" = 1'-0"



3 / ST-2 SPACER PLATE DETAIL
SCALE: 3/4" = 1'-0"

MSR

ENGINEER

NB+C
TOTALLY COMMITTED
NB+C ENGINEERING SERVICES, LLC.

APPLICANT

CITY OF CHARLES TOWN 1786

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KRUPAKARAN KOLANDAVELU REGISTERED 19644 STATE OF VIRGINIA PROFESSIONAL ENGINEER

ENGINEER

KRUPAKARAN KOLANDAVELU, P.E.
WV PROFESSIONAL ENGINEER LIC. #19644

SHEET TITLE

CONNECTION DETAILS

SHEET NUMBER

ST-2

CHARLES TOWN UTILITY BOARD

LEGAL SERVICES - UTILITIES
REQUEST FOR QUALIFICATIONS

Released: November 25, 2020
Proposals Due: December 17, 2020 5:00 P.M.

CHARLES TOWN UTILITY BOARD
REQUEST FOR QUALIFICATIONS – LEGAL SERVICES - UTILITIES

The Charles Town Utility Board (CTUB) is soliciting proposals from attorneys/law firms to provide legal services specifically related to rate equalization and project funding for a combined waterworks and sewerage system. CTUB recently acquired the assets of two neighboring utilities to form a regional system with increased complexity and needs. The combined system has annualized revenues of over $10 million and provides service to approximately 7,700 sewer and 6,500 water customers. With the consolidation of utilities, CTUB is pursuing rate equalization across the three (3) utilities while concurrently pursuing several public infrastructure capital projects including a Sewer Renewal and Replacement Project for the treatment facilities as well as system wide sewer transmission upgrades.

The selected applicant will provide legal services on utility matters that remain the direct authority of CTUB. The selected applicant will work closely with the Utility General Manager to provide such services directly to the CTUB Board of Directors.

The selected applicant is expected to provide legal services on utility matters including, but not limited to, the following:

- drafting and amending utility tariffs, resolutions, and policy statements;
- assisting with rate design and implementation;
- providing related guidance on public meeting, notice, and other administrative matters;
- present rate equalization strategies to Charles Town City Council;
- assist with Capital Improvement Project borrowings;
- negotiating and drafting contracts; and
- advising on other related utility matters as needed.

The selected applicant is expected to attend CTUB meetings, city council meetings and ordinance committee meetings as needed.

Attorneys/law firms with utility expertise are invited to submit proposals containing their qualifications to provide such services. To be considered, proposals must include a response to each item listed in this document and a complete rate and fee schedule for each category of services. Applicants must also demonstrate through their answers and documentation that they have sufficient capacity to provide a high level of service and expertise on utility-related legal matters.

Applicants are asked to submit an hourly rate for general services. Proposed rates will only be considered after an applicant has first been determined to be qualified.

CTUB reserves the right to not select any of the submitted proposals. CTUB also reserves the right to hire other, outside counsel for special purposes.

Any questions regarding this Request for Qualifications (RFQ) should be addressed to Kristen Stolipher, Utility General Manager, at kstolipher@ctubwv.com. To be considered, proposals must be received no later than: **Deadline: 5:00 pm on Thursday, December 17, 2020.**

Submission of a hard copy must be received prior to the deadline in a sealed envelope addressed to:

Kristen Stolipher
Utility General Manager
661 South George Street, Suite 101
Charles Town, WV 25414

An electronic version of the proposal will also be accepted by the same deadline at the following e-mail address:
kstolipher@ctubwv.com.

Please note on the cover of the envelope or in the subject line of the email: LEGAL SERVICES RFQ – UTILITIES - (Attorney/Firm Name)

Upon selection, it is anticipated that CTUB and the selected attorney/law firm will enter into a contract subject to the information contained in the RFQ and the proposal.

STATEMENT OF QUALIFICATIONS - PROPOSAL

Each applicant should provide a proposal, no more than 15 pages long including attachments, that addresses each of the following items:

1. name of firm, year organized, brief history of the firm, and any utility-related specialties;
2. address and telephone number of the applicant;
3. provide the name of the principal attorney, and any other attorneys, who will provide services to CTUB;
4. include a description of each attorney's education, years of legal experience, years of municipal government experience, and information on any utility-related specialties;
5. provide a list of up to three current municipal or other governmental clients, a contact person for each, and a telephone number for the contact person;
6. for each municipal or other governmental client, please summarize the type of services provided;
7. summarize your legal philosophy and how you can help CTUB achieve their goal of developing an efficient, effective, and transparent regional waterworks and sewerage system;
8. please note if the firm has represented or sued CTUB during the last five years and if so the outcome;
9. summarize the three largest utility projects and/or cases in the past five years led by the principal attorney assigned to this contract and the outcome;
10. please list any clients that you currently represent that may cause a conflict of interest with your responsibilities with CTUB. Describe how you plan to resolve these or any future conflicts of interest;
11. please provide proof of a malpractice policy in an amount of $1 million aggregate and an agreement to keep in effect while representing CTUB;

12. please provide proof that the firm and its attorneys are in good standing with the WV State Bar and that the firm is registered to do business in the state with the WV Secretary of State;
13. please provide a list of grievances filed with the WV State Bar against the attorneys providing services to the city;
14. please provide a list of any lawsuits filed against the attorneys that will be providing services to CTUB or against the law firm; and
15. please provide proof that the firm has a WV business license and has or will obtain a Charles Town business license prior to conducting business in the city.

FEES

The scope of services for which fees and rates are requested is divided into two categories: general legal advice and representation and other expenses. These categories are more fully described below for your clarification. The firm will be required to provide a monthly, detailed, and itemized billing for each category (including general legal advice and representation).

General Legal Advice and Representation

- consultation with CTUB staff and/or Board of Directors via telephone and/or email on a variety of utility-related legal matters;
- preparation and/or review of tariff documents, resolutions, ordinances, and other policy-related documents prior to CTUB or city action;
- preparation and review of utility-related contracts and other transactional documents prior to city action;
- research local, state, and national laws, as needed, and provide legal advice on matters concerning CTUB business;
- attend CTUB, city council and ordinance committee meetings as requested (generally no more frequent than bi-weekly);
- attend other special meetings as requested; and
- other general utility legal service needs as requested.

Other Fees and Expenses

- any other fees associated with providing legal services including travel, copies, carrier service, etc.

SELECTION OF LEGAL SERVICES PROVIDER FOR UTILITY PROJECTS

The following factors will be considered when selecting a qualified applicant to provide utility-related legal services for CTUB:

- a complete proposal that includes responses to all the items listed in this RFQ (must be complete to be considered);
- experience working on utility-related legal matters for a combined regional waterworks and sewerage system of comparable size and complexity; and
- demonstrated success working on utility-related projects and/or cases for a combined regional waterworks and sewerage system of comparable size and complexity.

Applicants that are determined to be qualified will be further evaluated based on the proposed cost of service.

CHARLES TOWN UTILITY BOARD
Proposed Fee Schedule for Legal Services - Utilities

The following rates are proposed for Legal Services - Utilities to CTUB by the individual or firm listed below:

General Legal Advice and Representation:
(per hour rate) $_____

Other Fees and Expenses (please explain):

_____

_____

_____

I, _____, acting on behalf of the firm of _____ certify that I have reviewed and fully understand the CTUB Request for Qualifications for Legal Services. I further certify and swear that the information submitted in response to the Request for Qualifications is a true, correct, and complete representation of our firm's ability to provide such services.

_____ _____

Signature Date

Charles Town
Utility Board
661 S. George Street, Suite 101 Charles Town, WV 25414
Phone: (304) 725-2316 ♦ Fax: (304) 725-7150 ♦ Web: www.ctubwv.com

MEMORANDUM TO THE BOARD OF DIRECTORS

FROM: Kristen Stolipher, Utility General Manager
SUBJECT: Utility General Manager's Report
DATE: November 18, 2020

ADMINISTRATIVE

- Property transfer/auction – 2nd reading at City Council on November 16th
- Customer Counts
  - Sewer 8,008 (1,922 billed by JUI)
  - Water 6,307
- Website Design

WATER

- 2020-2021 Local Source Water Protection Grant submitted October 1, 2020.
- GDF presentation on disinfection by-products to Board at December meeting.

SEWER

- **Route 9 Sewer Project:**
  - 98% complete. Pump Station start-up November 13 – November 18.
- **Tuscawilla MBR #3 Replacement:**
  - Start-up scheduled Tuesday, November 17, 2020.
- **NPDES Permit Renewal**
  - Permit application renewal underway. Submission in December 2020.
- **Renewal and Replacement Project:**
  - Site visit to evaluate screening and sludge operations November 19, 2020. Design underway.

INFORMATION

- **Capacity Improvement Fee collection: See attached.**
- **Water and Sewer Treatment Plant Flows: See attached.**

Customer Name	Location	Lot Number	CIF Date Paid	Number of Sewer EDUs	Sewer CIF Amount Paid	Number of Water EDU's	Water CIF Amount Paid
K. Hovnanian	Shenandoah Springs	3M	1/9/2020	1	$ 2,752.00		
K. Hovnanian	Shenandoah Springs	7M	1/9/2020	1	$ 2,752.00		
Dan Ryan Builders	Aspen Greens	29	1/17/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	30	1/17/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	31	1/17/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	40	1/17/2020	1	$ 3,207.00		
K. Hovnanian	Shenandoah Springs	11M	1/30/2020	1	$ 2,752.00		
Dan Ryan Builders	Aspen Greens	35	2/5/2020	1	$ 3,207.00		
Dan Ryan Builders	Briar Run	313-316	2/19/2020	4	$ 12,828.00		
K. Hovnanian	Shenandoah Springs	12M	2/27/2020	1	$ 2,752.00		
K. Hovnanian	Shenandoah Springs	14M	2/27/2020	1	$ 2,752.00		
Hayslette	Jefferson Ave	3A	2/28/2020	1	$ 3,207.00	1	$ 2,576.00
Dan Ryan Builders	Briar Run	333-336	3/18/2020	4	$ 12,828.00		
Dan Ryan Builders	Aspen Greens	5	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	24	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	26	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	28	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	33	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	34	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	38	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	39	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	43	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	45	3/18/2020	1	$ 3,207.00		
Dan Ryan Builders	Aspen Greens	46	3/18/2020	1	$ 3,207.00		
F & A Builders	E. Liberty Street	32	3/25/2020	1	$ 1,127.00	1	$ 2,576.00
Dan Ryan Builders	Aspen Greens	32	4/2/2020	1	$ 3,207.00		
Blackford	8879 Charles Town Road		4/28/2020	1	$ 3,207.00		
Stanley Martin	Presidents Pointe	1-7	4/28/2020	7	$ 19,264.00		
Stanley Martin	Presidents Pointe	10-15	4/28/2020	6	$ 16,512.00		
Stanley Martin	Presidents Pointe	16-21	4/28/2020	6	$ 16,512.00		
Stanley Martin	Presidents Pointe	22-28	5/8/2020	7	$ 19,264.00		
Stanley Martin	Presidents Pointe	29-36	5/29/2020	8	$ 22,016.00		
Wormald	Beallair	106	5/29/2020	1	$ 3,207.00		
Lutman	Maple Avenue	4-8	6/16/2020	1	$ 1,127.00	1	$ 2,576.00
Devil's Due Distillery	Burr West	32	6/22/2020	1	$ 641.40		
Dan Ryan Builders	Briar Run	382-386	6/25/2020	5	$ 16,035.00		
Stanley Martin	Presidents Pointe	71-76	7/2/2020	6	$ 16,512.00		
RC Bent	Jefferson Terrace	16/17	7/21/2020			1	$ 2,576.00
Dan Ryan Builders	Briar Run	317-320	7/30/2020	4	$ 12,828.00		
Dan Ryan Builders	Briar Run	329	7/30/2020	1	$ 3,207.00		
Nella Constructors	100 Shenandoah Jct-DG		8/13/2020	0.31	$ 1,005.00		
Mark Roper	Jefferson Ave	2	8/20/2020	1	$ 3,207.00	1	$ 2,576.00
Dan Ryan Builders	Briar Run	328, 330-332	8/27/2020	4	$ 12,828.00		
Dan Ryan Builders	Beallair	107	9/21/2020	1	$ 3,207.00		
Shade	Sawmill Court		9/22/2020	1	$ 3,207.00		
Stanley Martin	Presidents Pointe	37-42	9/30/2020	6	$ 16,512.00		
Arbys	490 Euclid Ave, Suite 102		9/30/2020	8.26	$ 9,309.02	8.26	$ 21,277.76
Lutman	Parcel 58 Sawmill Ct		9/30/2020	1	$ 3,207.00		
Lutman	322 A N. Mildred St		9/30/2020	1	$ 1,127.00	1	$ 2,576.00
Lutman	Lot 19 Euclid Ave		9/30/2020	1	$ 3,207.00	1	$ 2,576.00
Lutman	322 B, 324B N. Mildred St		10/6/2020	2	$ 2,254.00	2	$ 5,152.00
Stanley Martin	Presidents Pointe	65-70	10/13/2020	6	$ 16,512.00		
Stanley Martin	Presidents Pointe	43-50	11/10/2020	8	$ 22,016.00		
Stanley Martin	Presidents Pointe	57-64	11/10/2020	8	$ 22,016.00		
	W. Washington Street	47	11/10/2020	1	$ 1,127.00	1	$ 2,576.00
	843 Keyes Ferry Road		11/12/2020			1	$ 2,576.00
			Totals =	**135.57**	**$ 369,342.42**	**19.26**	**$ 49,613.76**

Charles Town Utility Board
2020 Capacity Improvement Fee Collections/EDU for Sewer

Month	Commercial	Residential	Total Number of EDU's	Total Sewer CIF Collected	CIF Paid to Ranson	Total
Jan-20		7	7	$ 21,084.00	$ 4,875.00	$ 16,209.00
Feb-20		8	8	$ 24,746.00	$ 3,250.00	$ 21,496.00
Mar-20		16	16	$ 49,232.00		$ 49,232.00
Apr-20		21	21	$ 58,702.00	$ 42,250.00	$ 16,452.00
May-20		16	16	$ 44,487.00	$ 13,000.00	$ 31,487.00
Jun-20	1	6	7	$ 17,803.40		$ 17,803.40
Jul-20		11	11	$ 32,547.00		$ 32,547.00
Aug-20		5.31	5.31	$ 17,040.00		$ 17,040.00
Sep-20		19.26	19.26	$ 39,776.02	$ 9,750.00	$ 30,026.02
Oct-20		8	8	$ 18,766.00	$ 9,750.00	$ 9,016.00
Nov-20		17	17	$ 45,159.00	$ 26,000.00	$ 19,159.00
Dec-20						
Total 2020	**1**	**129**	**135.57**	**$ 369,342.42**	**$ 108,875.00**	**$ 260,467.42**

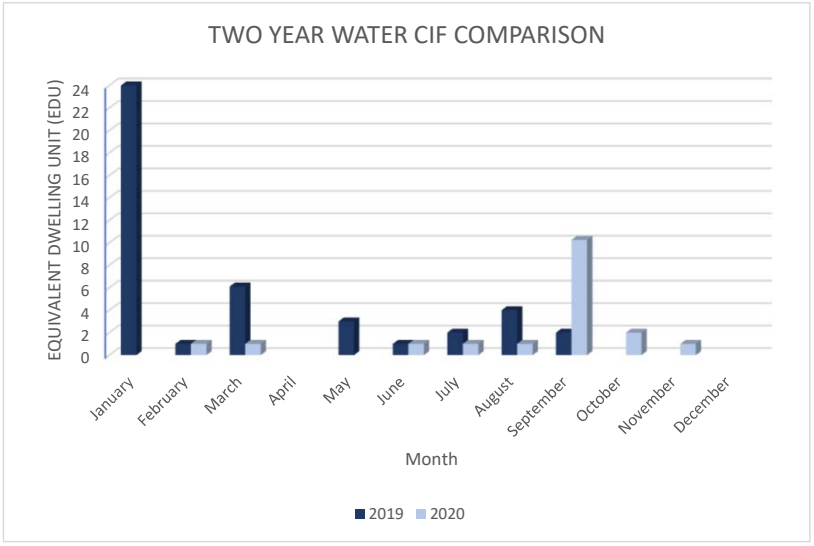
Charles Town Utility Board
2020 Capacity Improvement Fee Collections/EDU for Water

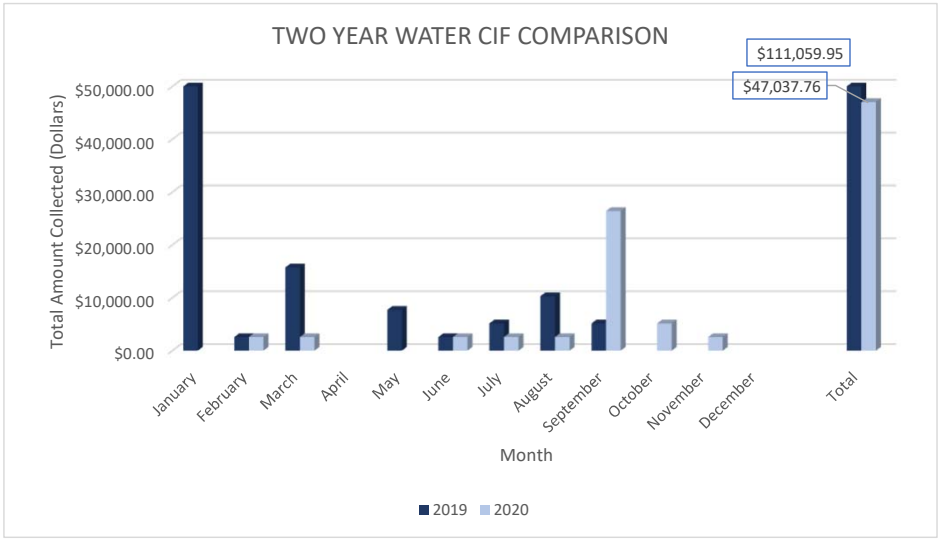
Month	Commercial	Residential	Total Number of EDU's	Total Water CIF
Jan-20				
Feb-20		1	1	$ 2,576.00
Mar-20		1	1	$ 2,576.00
Apr-20				
May-20				
Jun-20		1	1	$ 2,576.00
Jul-20		1	1	$ 2,576.00
Aug-20		1	1	$ 2,576.00
Sep-20		10.26	10.26	$ 26,429.76
Oct-20		2	2	$ 5,152.00
Nov-20		2	2	$ 5,152.00
Dec-20				
Total 2020	**0**	**19**	**19.26**	**$ 49,613.76**

As of November 12, 2020
Water CIF Tracking

Charles Town Utility Board 2019 Capacity Improvement Fee Collections/EDU for Water				
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Water CIF**
January	24		24	$ 61,824.00
February		1	1	$ 2,576.00
March	5.11	1	6.11	$ 15,747.95
April				
May		3	3	$ 7,728.00
June	1		1	$ 2,576.00
July	2		2	$ 5,152.00
August		4	4	$ 10,304.00
September		2	2	$ 5,152.00
October				
November				
December				
Total	**32.11**	**11**	**43.11**	**$ 111,059.95**

Charles Town Utility Board 2020 Capacity Improvement Fee Collections/EDU for Water				
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Water CIF**
Jan-20				
Feb-20		1	1	$ 2,576.00
Mar-20		1	1	$ 2,576.00
Apr-20				
May-20				
Jun-20		1	1	$ 2,576.00
Jul-20		1	1	$ 2,576.00
Aug-20		1	1	$ 2,576.00
Sep-20		10.26	10.26	$ 26,429.76
Oct-20		2	2	$ 5,152.00
Nov-20		1	1	$ 2,576.00
Dec-20				
Total 2020	**0**	**18**	**18.26**	**$ 47,037.76**

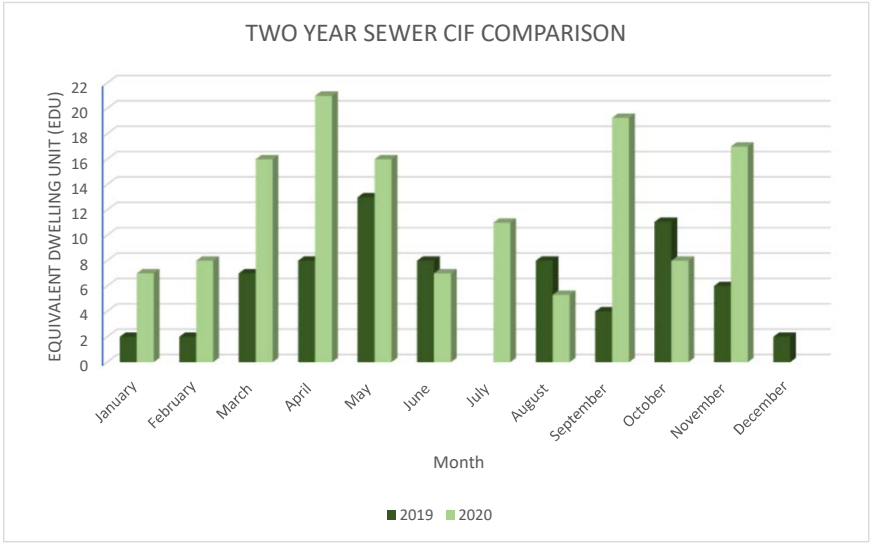


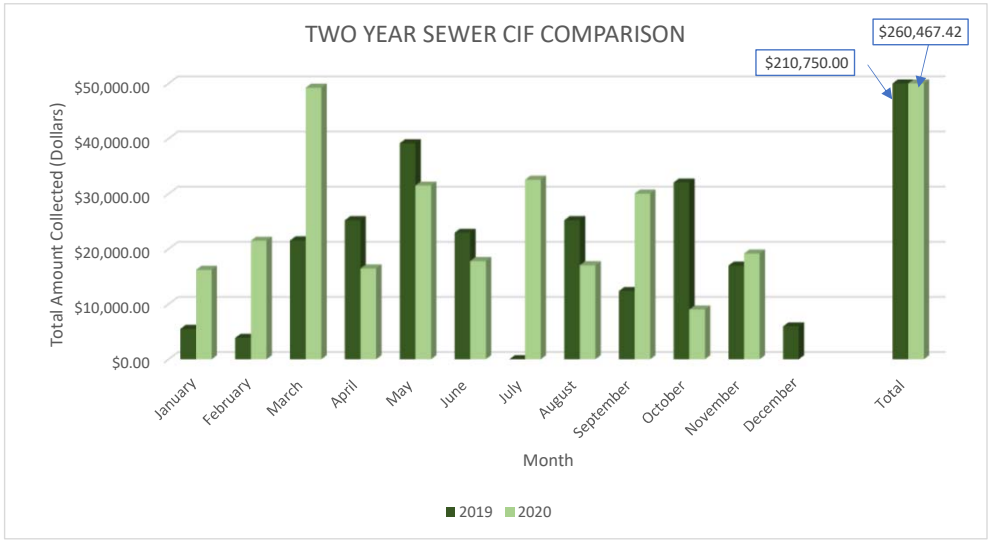


As of November 12, 2020
Sewer CIF Tracking

Charles Town Utility Board 2019 Capacity Improvement Fee Collections/EDU for Sewer				
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Sewer CIF**
January		2	2	$5,504.00
February		2	2	$3,879.00
March		7	7	$21,539.00
April		8	8	$25,201.00
May		13	13	$39,156.00
June		8	8	$22,926.00
July				$0.00
August		8	8	$25,201.00
September		4	4	$12,373.00
October	1.06	10	11.06	$32,045.00
November		6	6	$16,967.00
December		2	2	$5,959.00
Total	**1.06**	**70**	**71.06**	**$ 210,750.00**

Charles Town Utility Board 2020 Capacity Improvement Fee Collections/EDU for Sewer						
Month	**Commercial**	**Residential**	**Total Number of EDU's**	**Total Sewer CIF Collected**	**CIF Paid to Ranson**	**Total**
Jan-20		7	7	$21,084.00	$4,875.00	$16,209.00
Feb-20		8	8	$24,746.00	$3,250.00	$21,496.00
Mar-20		16	16	$49,232.00		$49,232.00
Apr-20		21	21	$58,702.00	$42,250.00	$16,452.00
May-20		16	16	$44,487.00	$13,000.00	$31,487.00
Jun-20	1	6	7	$17,803.40		$17,803.40
Jul-20		11	11	$ 32,547.00		$ 32,547.00
Aug-20		5.31	5.31	$ 17,040.00		$ 17,040.00
Sep-20		19.26	19.26	$ 39,776.02	$ 9,750.00	$ 30,026.02
Oct-20		8	8	$ 18,766.00	$ 9,750.00	$ 9,016.00
Nov-20		17	17	$ 45,159.00	$ 26,000.00	$ 19,159.00
Dec-20						
Total 2020	**1**	**129**	**135.57**	**$369,342.42**	**$108,875.00**	**$260,467.42**





CHARLES TOWN UTILITY BOARD
WATER TREATMENT PLANT FLOW DATA

CHARLES TOWN WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	Total Available (EDU's)
2019	2.8	644.32	1.77	1.03498	1,034,980	6,900
2020	2.8	516.29	1.69	1.11	1,107,297	7,382

2019		
	Total	AVERAGE
JANUARY	52,264,325	1,685,946
FEBRUARY	48,901,884	1,746,496
MARCH	52,112,735	1,681,056
APRIL	51,316,538	1,710,551
MAY	56,973,829	1,837,865
JUNE	55,111,832	1,837,061
JULY	57,587,563	1,857,663
AUGUST	58,291,878	1,880,383
SEPTEMBER	53,642,580	1,788,086
OCTOBER	54,262,184	1,750,393
NOVEMBER	50,656,056	1,688,535
DECEMBER	53,202,360	1,716,205
Annual Total	644,323,764	1,765,020

2020		
	Total	AVERAGE
JANUARY	53,689,445	1,731,918
FEBRUARY	49,700,448	1,713,809
MARCH	51,009,216	1,645,459
APRIL	46,966,864	1,565,562
MAY	50,753,036	1,637,195
JUNE	52,587,142	1,752,905
JULY	54,394,477	1,754,661
AUGUST	54,972,785	1,773,316
SEPTEMBER	50,996,141	1,699,871
OCTOBER	51,222,251	1,652,331
NOVEMBER		
DECEMBER		
Annual Total	516,291,805	1,692,703

GLEN HAVEN WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	
2020	0.0216	0.55	0.01	0.01	12,747	

2020		
	Total	AVERAGE
JANUARY		
FEBRUARY		
MARCH		
APRIL		
MAY		
JUNE		
JULY		
AUGUST		
SEPTEMBER	283,900	9,158
OCTOBER	265,000	8,548
NOVEMBER		
DECEMBER		
Annual Total	548,900	8,853

CAVALAND WATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	
2020	0.036	0.28	0.00	0.03	31,448	

2020		
	Total	AVERAGE
JANUARY		
FEBRUARY		
MARCH		
APRIL		
MAY		
JUNE		
JULY		
AUGUST		
SEPTEMBER	141,900	4,577
OCTOBER	140,300	4,526
NOVEMBER		
DECEMBER		
Annual Total	282,200	4,552

CHARLES TOWN UTILITY BOARD
WASTEWATER TREATMENT PLANT FLOW DATA

CHARLES TOWN WASTEWATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	Total Available (EDU's)
2015	1.75	384	1.05	0.7	700,000	4,667
2016	1.75	419	1.14	0.61	610,000	4,067
2017	1.75	393	1.08	0.67	670,000	4,467
2018	1.75	491	1.34	0.41	410,000	2,733
2019	1.75	459	1.26	0.49	490,000	3,267
2020	1.75				-	-

TUSCAWILLA WASTEWATER PLANT FLOW DATA						
YEAR	Total Design (MGD)	TOTAL ANNUAL FLOW (MG)	AVERAGE DAILY (MGD)	Total Design minus Average Daily	Total Available (gpd)	Total Available (EDU's)
2015	0.5	48	0.13	0.37	370,000	2,467
2016	0.5	49	0.13	0.37	370,000	2,467
2017	0.5	48	0.14	0.36	360,000	2,400
2018	0.5	78	0.21	0.29	290,000	1,933
2019	0.5	55.24	0.15	0.35	350,000	2,333
2020				0	-	-

Total EDU's available between CT and Tuscawilla	
2015	7,133
2016	6,533
2017	6,867
2018	4,667
2019	3,267
2020	-

2018		
	Total	AVERAGE
JANUARY	32.66	1.05
FEBRUARY	30.25	1.08
MARCH	32.34	1.04
APRIL	31.04	1.04
MAY	52.19	1.68
JUNE	39.84	1.33
JULY	39.86	1.29
AUGUST	43.63	1.41
SEPTEMBER	42.24	1.41
OCTOBER	45.50	1.47
NOVEMBER	50.36	1.68
DECEMBER	50.97	1.64
Annual Total	490.87	1.34

2019		
	Total	AVERAGE
JANUARY	51.37	1.66
FEBRUARY	43.72	1.56
MARCH	44.32	1.43
APRIL	37.29	1.24
MAY	45.1	1.45
JUNE	33.83	1.13
JULY	39.09	1.26
AUGUST	33.33	1.08
SEPTEMBER	30.89	1.03
OCTOBER	32.86	1.06
NOVEMBER	30.65	1.02
DECEMBER	36.55	1.18
Annual Total	459	1.26

2020		
	Total	AVERAGE
JANUARY	39.05	1.26
FEBRUARY	36.74	1.27
MARCH	36.76	1.19
APRIL	33.32	1.11
MAY	35.50	1.15
JUNE	33.44	1.11
JULY	34.45	1.11
AUGUST	32.65	1.05
SEPTEMBER	32.43	1.08
OCTOBER	33.91	1.09
NOVEMBER		
DECEMBER		
Annual Total	348.25	1.14

2018		
	Total	AVERAGE
JANUARY	4.00	0.13
FEBRUARY	3.52	0.13
MARCH	3.71	0.12
APRIL	3.79	0.13
MAY	6.29	0.20
JUNE	8.27	0.28
JULY	5.97	0.19
AUGUST	7.42	0.24
SEPTEMBER	8.94	0.30
OCTOBER	7.10	0.23
NOVEMBER	10.90	0.36
DECEMBER	8.31	0.27
Annual Total	78.22	0.21

2019		
	Total	AVERAGE
JANUARY	6.25	0.2
FEBRUARY	4.98	0.18
MARCH	7.53	0.24
APRIL	5.28	0.18
MAY	7.88	0.25
JUNE	3.75	0.12
JULY	4.2	0.14
AUGUST	3.75	0.12
SEPTEMBER	3.64	0.12
OCTOBER	3.97	0.13
NOVEMBER	3.66	0.12
DECEMBER	0.35	0.01
Annual Total	55.24	0.15

2020		
	Total	AVERAGE
JANUARY		
FEBRUARY		
MARCH		
APRIL		
MAY		
JUNE		
JULY		
AUGUST	1.09	0.16
SEPTEMBER		
OCTOBER		
NOVEMBER		
DECEMBER		
Annual Total	1.09	0.16

Task order	Task Description	Firm	Before Gallons per day	After Gallons per day	Reimbursement by Customer/Developer
Task 1 - Subtask 1	Lindsay Drive Sewer extension	RK&K	0	750	No
Task 1 - Subtask 2	Edmond Survey	RK&K	N/A	N/A	N/A
Task 1- Subtask 3	Augustine Plan review	RK&K	N/A	N/A	N/A
Task 1- Subtask 4	Briar Run Pump Station emergency connections	RK&K	N/A	N/A	N/A
Task 2	Euclid decommissioning	RK&K	N/A	N/A	N/A
Task 3	Beallair/Sleepy Hollow Plan review and alternatives	RK&K	0	Approx. 210,000	No
Task 4	Line reverse design to Route 9 Sewer Project (Part of Modified Flowing Springs)	RK&K	N/A	N/A	N/A
Task 5	Sewer Model	RK&K	N/A	N/A	N/A
Task 6	Shenandoah Junction	RK&K	N/A	N/A	N/A
Task 7	Parkview-Woodlawn-Jett's (Part of Modified Flowing Springs)	RK&K	N/A	N/A	N/A
Task 7 Change 1	Parkview decommissioning	RK&K	N/A	N/A	N/A
Task 8	Wilt's decommissioning	RK&K	N/A	N/A	N/A
Task 9	Beallair Downstream Capacity	RK&K	N/A	N/A	N/A
Task 10	Jefferson Memorial Line - (Part of Modified Flowing Springs)	RK&K	Approx. 775,000	Approx. 1 MGD	No
Task 11	Maintenance Building	RK&K	N/A	N/A	N/A
Task 12	Forrest Avenue and Fairfax Crossing	RK&K	10,000	Approx. 40,000	**Yes**
Task 13	Belvedere Pump Station Decommission	RK&K	N/A	N/A	N/A
Task 14	Manhole Evaluation	RK&K	N/A	N/A	N/A
Task 1	Rockwool Mainline Cost estimate	HATCH	0	50,000	No
Task 2	Route 9 Project WVDOH comments	HATCH	N/A	N/A	N/A
Task 3	Air Injection system design	HATCH	N/A	N/A	N/A
Task 4	Route 9 Bid and Construction Services	HATCH	N/A	N/A	N/A
Task 5	Greenfield Pump Station	HATCH	Design:28,350 Current: 48,750	55,200	No
Task 6	Jefferson Heights South Evaluation	HATCH	9,000	15,000	No
Task 7	Fairfax Crossing	HATCH	10,000	Approx. 40,000	No
Task 8	Route 9 Air Track Investigation	HATCH	N/A	N/A	N/A
Task 9	President's Pointe Inspection	HATCH	N/A	N/A	N/A
Task 10	Magnolia Water and Sewer Inspection	HATCH	N/A	N/A	N/A

Capacity related projects

Plan Reviews

		Invoice to Developer	Invoice Paid by Developer
	Plan Review - Magnolia Springs	8/2/2018 Billed $150	10/25/2018 Paid $150
	Plan Review - Burr Lot 16 Holtzman	7/1/2019 Billed $50	7/2/2019 Paid $500
	Plan Review - President's Pointe	7/22/2019 Billed $150	9/16/2019 Paid $150
	Plan Review - West Burr Lot 27 & 28	10/29/2019 Billed $50	10/31/2019 Paid $500
	Plan Review - Dollar General	12/5/2019 Billed $50	12/12/2019 Paid $500
	Plan Review - Blaze Pizza	1/6/2020 Billed $50	1/7/2020 Paid $500
	Plan Review - Devil's Due Distillery	2/18/2020 Billed $50	2/26/2020 Paid $500
	Plan Review - Washington Landing	3/23/2020 Billed $150	
	Plan Review - Aspen Greens Phase II	7/9/2020 Billed $150	7/20/2020 Paid $150
	Plan Review - Lot 7 Jefferson Crossing	7/6/2020 Billed $150	7/30/2020 Paid $150

Project Inspection Contracts

President's Pointe	Task Order #9 Budget $49,300, Change Order #1 $19,700, Total $69,000 - Actual $66,652.7	**Payments to HATCH**	**Invoice Paid by Developer**
12/18/2019	CTUB Paid Invoice No. 90719698	$ 8,942.25	
12/18/2019	CTUB Paid Invoice No. 90723396	$ 11,199.75	
12/20/2019	Developer Reimbursed CTUB for Invoice No. 90719698 & 9072339		$ (20,142.00)
12/20/2019	Developer Reimbursed CTUB for Invoice No. 90727607		$ (17,532.50)
12/27/2019	CTUB Paid Invoice No. 90727607	$ 17,532.50	
3/5/2020	Developer Reimbursed CTUB for Change Order #1		$ (19,700.00)
3/25/2020	CTUB Paid Invoice No. 90736646	$ 28,978.25	
4/14/2020	Developer Reimbursed CTUB for Remaining Balance Due		$ (9,278.25)
	PAID IN FULL	**$ 66,652.75**	**$ (66,652.75)**
Magnolia Springs			
9/9/2020	CTUB Paid Invoice No. 90755285	$ 5,805.50	
9/25/2020	Developer Reimbursed CTUB for Invoice No. 90755285		$ (5,805.50)
10/7/2020	Invoiced Developer for Hatch Invoice No. 90759093 $11,39		

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT

========== FUND TOTALS ==========	
50 WATER FUND	7,841.30
60 SEWER FUND	26,034.12
GRAND TOTAL:	33,875.42

TOTAL PAGES: 2

APPROVED BY: _____

APPROVED BY: _____

Note:

Highlighted invoices to be reimbursed by the Developer;

Highlighted invoices to be reimbursed for the Tuscawilla MBR Project - Basin #3

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
JANE ARNETT	CONSULTING SVCS NOV, OCT '	WATER FUND	WATER		1,850.00
	CONSULTING SVCS NOV, OCT '	SEWER FUND	SEWER		1,850.00
				TOTAL:	3,700.00
CAVCON INC	1' & 3' EXTENSIONS, EXPEDI	SEWER FUND	NON-DEPARTMENTAL		5,022.63
				TOTAL:	5,022.63
CUMMINS, INC	COUNTY GREEN: 10/14/20	SEWER FUND	SEWER		355.91
				TOTAL:	355.91
ENCOVA INSURANCE	INSTALLMENT	WATER FUND	WATER		3,717.12
	INSTALLMENT	SEWER FUND	SEWER		2,090.88
				TOTAL:	5,808.00
HATCH ASSOCIATES CONSULTANTS, INC.	TO10 H-363705 MAGNOLIA SPR	SEWER FUND	NON-DEPARTMENTAL		11,390.00
				TOTAL:	11,390.00
HOME DEPOT CREDIT SERVICES	HOME DEPOT CARD 6054	WATER FUND	WATER		38.78
	HOME DEPOT CARD 6054	SEWER FUND	SEWER		38.78
	HOME DEPOT CARD 6054	SEWER FUND	SEWER		485.63
				TOTAL:	563.19
INTELLIPOINT TECHNOLOGIES, LLC	IT-REGULAR-REMOTE	WATER FUND	WATER		131.25
	IT-REGULAR-REMOTE	WATER FUND	WATER		43.75
				TOTAL:	175.00
JENKINS TREE SERVICE	RMV TREES @ MILDRED ST PS	SEWER FUND	SEWER		4,500.00
				TOTAL:	4,500.00
ROBERTS OXYGEN COMPANY, INC.	YEARLY RENTAL RENEWAL	WATER FUND	WATER		350.00
	YEARLY RENTAL RENEWAL	WATER FUND	WATER		1,200.00
				TOTAL:	1,550.00
SPRINT	MONTHLY CELL SERVICE	WATER FUND	WATER		260.40
	MONTHLY CELL SERVICE	SEWER FUND	SEWER		131.09
	MONTHLY CELL SERVICE	SEWER FUND	SEWER		169.20
				TOTAL:	560.69
TRAVELERS COMM INS SVCS	POLICY 0105344361 S RENEWA	WATER FUND	WATER		250.00
				TOTAL:	250.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
VERMEER MID ATLANTIC, LLC	2.5" PIERCING TOOL	WATER FUND	WATER	3,945.00
			TOTAL:	3,945.00
ROBERT H WAGER COMPANY, INC	4-6" BOTTOM ACCESS	SEWER FUND	SEWER	3,672.94
			TOTAL:	3,672.94
WINCHESTER EQUIPMENT COMPANY	MISC MAINT SUPPLIES	WATER FUND	WATER	83.77
			TOTAL:	83.77
WIRELESS NETWORKS GROUP, INC.	MISC SVCS, 9/29/20	WATER FUND	WATER	67.50
	MISC SVCS, OCT	WATER FUND	WATER	2,512.50
			TOTAL:	2,580.00
WO GRUBB	SET NEOSEP FLTRS & WRK AS	SEWER FUND	NON-DEPARTMENTAL	2,226.00
			TOTAL:	2,226.00

========== FUND TOTALS ==========

50	WATER FUND	94,003.51
60	SEWER FUND	956,027.67
	GRAND TOTAL:	1,050,031.18

TOTAL PAGES: 6

APPROVED BY: _____

APPROVED BY: _____

This Packet: $ 1,050,031.18

Security Deposit Refunds: 1,011.87

Total: $ 1,051,043.05

Note:

Highlighted invoices to be reimbursed by the Route 9 Sewer Project Escrow Account;

Highlighted invoices to be reimbursed for the Tuscawilla MBR Project - Basin #3;

Highlighted invoices to be reimbursed for the R&R Project

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
SHENANDOAH SALES & SERVICE, INC.	2011 FORD F-150	SEWER FUND	SEWER		687.62
	PUMP AT TUSCAWILLA	SEWER FUND	SEWER		265.72
	2020 GMC SIERRA	SEWER FUND	SEWER		131.95
				TOTAL:	1,085.29
LAW OFFICES OF HOY SHINGLETON, L.C.	GENERAL 10/01 - 10/30/20	SEWER FUND	SEWER		2,827.50
				TOTAL:	2,827.50
SNYDER ENVIRONMENTAL SERVICES, INC	CNTCR AP#09 RES#8, RT9 PRJ	SEWER FUND	NON-DEPARTMENTAL		449,810.33
				TOTAL:	449,810.33
STEPTOE & JOHNSON PLLC	CNSTRCTN STRMWTR PRMT ISSU	SEWER FUND	NON-DEPARTMENTAL		4,028.50
	GENERAL ENVIRONMENTAL	SEWER FUND	SEWER		132.50
	GENERAL EMPLOYER COUNSELIN	SEWER FUND	SEWER		395.00
				TOTAL:	4,556.00
GERALD TAYLOR CO., INC.	PUMP / HAUL	WATER FUND	WATER		481.77
	PUMP / HAUL	WATER FUND	WATER		522.17
	PUMP / HAUL	WATER FUND	WATER		227.25
	PUMP / HAUL	WATER FUND	WATER		640.34
				TOTAL:	1,871.53
THE CI THORNBURG CO, INC.	INSTALLATION OF BASE STATI	WATER FUND	NON-DEPARTMENTAL		7,800.00
	5/8" SRII & GASKETS	WATER FUND	WATER		2,056.70
	5/8" SRII	WATER FUND	WATER		660.06
	5/8" SRII	WATER FUND	WATER		562.33
	5/8" SRII	WATER FUND	WATER		4,306.12
	5/8" SRII	WATER FUND	WATER		2,329.94
	5/8" SRII	WATER FUND	WATER		1,589.10
	CHLORINE	WATER FUND	WATER		903.00
	TAPPING SLV, TAPPING VALVE	SEWER FUND	SEWER		3,955.11
				TOTAL:	24,162.36
TUSCAWILLA HILLS HOA INC	HOA DUES NOV 2020	WATER FUND	WATER		36.00
				TOTAL:	36.00
UNIFIRST CORPORATION	WIPER BLADES	WATER FUND	WATER		29.00
	WIPER BLADES	WATER FUND	WATER		29.00
	WIPER BLADES	WATER FUND	WATER		31.25
	WIPER BLADES	WATER FUND	WATER		31.25
	WIPER BLADES	SEWER FUND	SEWER		29.00
	WIPER BLADES	SEWER FUND	SEWER		29.00
	WIPER BLADES	SEWER FUND	SEWER		31.25
	WIPER BLADES	SEWER FUND	SEWER		31.25
				TOTAL:	241.00
USA BLUEBOOK	METER, WRENCH, LOCK, UV LA	SEWER FUND	SEWER		180.36
				TOTAL:	180.36
VALLEY CREDIT SERVICE, INC.	OCT COLLECTIONS	WATER FUND	WATER		101.13
	OCT COLLECTIONS	SEWER FUND	SEWER		101.12
	PSD OCT COLLECTIONS	SEWER FUND	SEWER		54.00
				TOTAL:	256.25
MICHAEL B VENTERS	CONSULTING FEE, NOV	SEWER FUND	SEWER		725.00
				TOTAL:	725.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
	MISC PS'S: 10/05 - 10/08/2	SEWER FUND	SEWER		1,537.50
	MISC PS'S: 10/07 - 10/22/2	SEWER FUND	SEWER		2,325.00
	RANSON: 10/01/20	SEWER FUND	SEWER		450.00
				TOTAL:	6,450.00
MISS UTILITY OF WV, INC.	MESSAGE FEES: OCT	WATER FUND	WATER		140.00
				TOTAL:	140.00
MOUNTAIN STATE ESC	REGISTRATION- R.SHIPE	SEWER FUND	SEWER		125.00
				TOTAL:	125.00
THOMAS NALLS	OCT TANK LOT RENT	WATER FUND	NON-DEPARTMENTAL		3,443.48
				TOTAL:	3,443.48
LOGICAL CONCEPTS, INC	MONITORING LIFT& PUMP STAT	SEWER FUND	SEWER		468.00
				TOTAL:	468.00
PACE ANALYTICAL SERVICES, LLC	TESTING:RC UCMR4_SE6_WK3_A	WATER FUND	WATER		418.00
	TESTING: CAVALAND QTRLY	WATER FUND	WATER		21.00
	TESTING: CT QUARTERLY	SEWER FUND	SEWER		262.23
	TESTING: CT WEEKLY	SEWER FUND	SEWER		190.30
	TESTING: CT INDUSTRIAL USE	SEWER FUND	SEWER		53.63
	TESTING: CT PERMIT RENEWAL	SEWER FUND	SEWER		762.02
	TESTING: JCPSD IU04 QUARTE	SEWER FUND	SEWER		82.06
	TESTING: CT QUARTERLY SLUD	SEWER FUND	SEWER		211.91
	TESTING: CT WEEKLY	SEWER FUND	SEWER		190.30
	TESTING: OUTFALL 001-WV002	SEWER FUND	SEWER		2,175.82
	TESTING: CT WEEKLY	SEWER FUND	SEWER		190.30
				TOTAL:	4,557.57
PCM	HDMI CABLE	WATER FUND	WATER		6.51
	SWITCH	WATER FUND	WATER		37.99
				TOTAL:	44.50
CORPORATION OF RANSON	OCT GARBAGE	WATER FUND	NON-DEPARTMENTAL		94.26
	OCT UT COLLECTIONS	WATER FUND	NON-DEPARTMENTAL		2,778.82
				TOTAL:	2,873.08
RK & K ENGINEERS	TO11 MAINTENANCE BUILDING	WATER FUND	NON-DEPARTMENTAL		2,165.94
	TO5 SEWER MODEL	SEWER FUND	NON-DEPARTMENTAL		6,267.89
	TO10 JEFFRSN MMRL FRC MAIN	SEWER FUND	NON-DEPARTMENTAL		244.76
	TO12 FOREST AVE/FAIRFAX XI	SEWER FUND	NON-DEPARTMENTAL		1,731.25
	TO13 DECOMM BELVEDERE PS	SEWER FUND	SEWER		3,816.05
	TO14 MNHLEVAL@EVITTS/BRWNV	SEWER FUND	SEWER		4,005.56
				TOTAL:	18,231.45
ROSS H BARE	2ND HLF DEERFIELD PLNT SND	SEWER FUND	SEWER		4,261.34
				TOTAL:	4,261.34
SG PLUMBING, INC.	BEAUREGAURD BLVD: 10/20/20	WATER FUND	WATER		760.00
	GEORGE ST: 10/21/20	WATER FUND	WATER		760.00
	SAMUEL ST: 10/22/20	WATER FUND	WATER		895.00
	BEAUREGARD BLVD: 10/27/20	WATER FUND	WATER		760.00
	BEAUREGAURD BLVD: 10/28/20	WATER FUND	WATER		510.00
				TOTAL:	3,685.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
	304-876-9970-121914-4	WATER FUND	WATER	92.53
			TOTAL:	185.06
GUTTMAN ENERGY	W/E 10/25/20	WATER FUND	WATER	334.30
	W/E 11/01/20	WATER FUND	WATER	465.87
	W/E 11/08/20	WATER FUND	WATER	531.63
	W/E 11/15/20	WATER FUND	WATER	194.28
	W/E 10/25/20	SEWER FUND	SEWER	671.41
	W/E 11/01/20	SEWER FUND	SEWER	644.84
	W/E 11/08/20	SEWER FUND	SEWER	444.86
	W/E 11/15/20	SEWER FUND	SEWER	699.23
			TOTAL:	3,986.42
GWIN DOBSON & FOREMAN INC	WA & WW RETAINER SVCS	WATER FUND	WATER	1,364.74
	TUSC WWTP MBRN BIORCTR RPL	SEWER FUND	NON-DEPARTMENTAL	1,186.70
	WWTP UPGRADE	SEWER FUND	NON-DEPARTMENTAL	23,687.33
			TOTAL:	26,238.77
H2O INNOVATION USA INC	TUSCMBRRPLCMT APP#1	SEWER FUND	NON-DEPARTMENTAL	313,083.90
			TOTAL:	313,083.90
HACH COMPANY	CHEMICALS FOR WTP	WATER FUND	WATER	1,795.65
	CHEMICALS FOR WTP	WATER FUND	WATER	165.40
			TOTAL:	1,961.05
HATCH ASSOCIATES CONSULTANTS, INC.	TO4 H-359787 RT 9 PRJCT	SEWER FUND	NON-DEPARTMENTAL	58,388.63
			TOTAL:	58,388.63
PROTOUCH COMMUNICATIONS, LLC DBA INTOU	OCT SVCS: AFTER-HOURS EMER	WATER FUND	WATER	206.06
			TOTAL:	206.06
IRON MOUNTAIN, INC	SHREDDING, STORAGE	WATER FUND	WATER	192.67
	SHREDDING, STORAGE	SEWER FUND	SEWER	192.67
			TOTAL:	385.34
JAMES RIVER EQUIPMENT	EQUIPMENT RENTAL	SEWER FUND	SEWER	2,994.73
			TOTAL:	2,994.73
JEFFERSON UTILITIES, INC	12-0820-00	SEWER FUND	SEWER	121.83
	12-0820-00	SEWER FUND	SEWER	40.61
			TOTAL:	162.44
JOHNNY BLUE, INC	PARKVIEW PS DECOMMISION	SEWER FUND	SEWER	124.00
			TOTAL:	124.00
KABLE EXCAVATING, LLC	MV EXCVTR: BRIRRN TO PRKVW	SEWER FUND	SEWER	190.00
	DUMP BRSH,STMPS FRM WDLWN	SEWER FUND	SEWER	6,350.00
			TOTAL:	6,540.00
KROHNE INC	FLOWTUBE & CONVERTER	SEWER FUND	NON-DEPARTMENTAL	3,570.20
	FLOWTUBE, CONVERTER	SEWER FUND	NON-DEPARTMENTAL	4,522.00
			TOTAL:	8,092.20
MAGAHA, INC.	CT WTP: 9/28 - 10/06/20	WATER FUND	WATER	1,275.00
	CT PLANT: 10/01 - 10/19/20	SEWER FUND	SEWER	412.50
	TUSC PLANT: 10/22 - 10/23/	SEWER FUND	SEWER	450.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
	VLV BOX EXT SCREW & EXTNSN	WATER FUND	WATER		84.80
	CABLE CARRIER	SEWER FUND	SEWER		360.00
	CPLNG, SDR35 SWR	SEWER FUND	SEWER		142.83
	SDR35 ECC INCREASER GXSP	SEWER FUND	SEWER		122.23
				TOTAL:	10,166.37
COYNE CHEMICAL	MISC CHEMICALS FOR WTP	WATER FUND	WATER		5,686.96
				TOTAL:	5,686.96
CRYSTAL SPRINGS	MONTHLY SVC@ WWTP	WATER FUND	WATER		39.76
	MONTHLY SVC@ 661 S GEORGE	WATER FUND	WATER		33.97
	MONTHLY SVC@ 661 S GEORGE	SEWER FUND	SEWER		33.97
				TOTAL:	107.70
CUMMINS, INC	COUNTY GREEN: 10/27/20	SEWER FUND	SEWER		957.18
	WILLOW SPRINGS: 10/30/20	SEWER FUND	SEWER		720.41
	TUSCAWILLA WWTP: 11/03/20	SEWER FUND	SEWER		6,004.93
				TOTAL:	7,682.52
WV DEPT OF HEALTH & HUMAN SERVICES	FLOURIDE TEST	WATER FUND	WATER		15.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER		120.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER		140.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER		100.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER		20.00
				TOTAL:	395.00
DIGITAL ASSURANCE CERTIFICATION, LLC	DISSEMINATION SVC & STORAG	WATER FUND	WATER		1,250.00
	DISSEMINATION SVC & STORAG	SEWER FUND	SEWER		1,250.00
				TOTAL:	2,500.00
FERGUSON US HOLDINGS, INC	WADERS, PRESSURE GAUGE	WATER FUND	WATER		107.70
	WADERS, PRESSURE GAUGE	WATER FUND	WATER		88.20
	PVC DISCHRG HSE MXF	WATER FUND	WATER		211.90
	HIP WADERS	WATER FUND	WATER		78.50
	PIPE LASER W/SPOT FINDER R	SEWER FUND	SEWER		5,350.00
				TOTAL:	5,836.30
FIFTH THIRD BANK	PCARD 4726	WATER FUND	WATER		3,197.36
	PCARD 4726	WATER FUND	WATER		97.48
	PCARD 4726	WATER FUND	WATER		1,466.86
	PCARD 4726	WATER FUND	WATER		1,250.00
	PCARD 4726	WATER FUND	WATER		314.50
	PCARD 4726	WATER FUND	WATER		250.00
	PCARD 4726	WATER FUND	WATER		797.22
	PCARD 4726	SEWER FUND	SEWER		2,785.24
	PCARD 4726	SEWER FUND	SEWER		594.94
	PCARD 4726	SEWER FUND	SEWER		185.77
	PCARD 4726	SEWER FUND	SEWER		1,250.00
	PCARD 4726	SEWER FUND	SEWER		376.58
	PCARD 4726	SEWER FUND	SEWER		44.65
	PCARD 4726	SEWER FUND	SEWER		48.50
	PCARD 4726	SEWER FUND	SEWER		30.90
	PCARD 4726	SEWER FUND	SEWER		334.62
				TOTAL:	13,024.62
FRONTIER COMMUNICATIONS	304-876-2120-111514-4	WATER FUND	WATER		92.53

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
AMERIGAS	TANK RENTAL: FLWNG SPRG	SEWER FUND	SEWER		110.00
	TANK RENTAL: WOODLAWN	SEWER FUND	SEWER		47.74
				TOTAL:	157.74
APPLE VALLEY TIRE	FLAT REPAIR: BACKHOE	WATER FUND	WATER		76.25
				TOTAL:	76.25
NEAL O NILSEN	OFFICE 365 BASIC - 25 USER	WATER FUND	WATER		75.00
	OFFICE 365 BASIC - 25 USER	SEWER FUND	SEWER		75.00
				TOTAL:	150.00
B. A. MARTIN CERTIFIED WELDING, LLC	SEWER PS REPAIRS	SEWER FUND	SEWER		570.00
				TOTAL:	570.00
BENTLEY SYSTEMS, INC.	WATERCAD STANDALONE PIPES	WATER FUND	WATER		922.50
				TOTAL:	922.50
B.E.S. TECHNOLOGY, INC	WEBSITE REDESIGN 25%	WATER FUND	WATER		1,062.50
	WEBSITE REDESIGN 25%	SEWER FUND	SEWER		1,062.50
				TOTAL:	2,125.00
BIEDLER'S ELECTRIC MOTOR REPAIR, INC.	RACE TRACK PUMP	SEWER FUND	SEWER		3,164.09
	JETTS FARM	SEWER FUND	SEWER		2,329.84
				TOTAL:	5,493.93
JP & RF BURNS PARTNERSHIP	OCT LOADS - 43	SEWER FUND	SEWER		7,439.00
				TOTAL:	7,439.00
CAPITAL LIGHTING & SUPPLY LLC	SUPPLIES FOR PLANT	SEWER FUND	SEWER		388.07
	SUPPLIES FOR PLANT	SEWER FUND	SEWER		19.26
	SUPPLIES FOR PLANT	SEWER FUND	SEWER		476.40
				TOTAL:	883.73
CITY ELECTRIC SUPPLY CO	SUPPLIES FOR WWTP	SEWER FUND	SEWER		243.90
				TOTAL:	243.90
CITY NATIONAL BANK	LOCKBOX SERVICES OCT	WATER FUND	WATER		1,665.17
	LOCKBOX SERVICES OCT	WATER FUND	WATER		738.44
	LOCKBOX SERVICES OCT	SEWER FUND	SEWER		1,665.17
	LOCKBOX SERVICES OCT	SEWER FUND	SEWER		738.44
				TOTAL:	4,807.22
CITY OF CHARLES TOWN	UB COLLECTIONS	WATER FUND	NON-DEPARTMENTAL		15,720.09
				TOTAL:	15,720.09
CLIFFS CLEANING SERVICE	OCT CLEANING	WATER FUND	WATER		125.00
	OCT CLEANING	WATER FUND	WATER		365.00
	OCT CLEANING	SEWER FUND	SEWER		200.00
	OCT CLEANING	SEWER FUND	SEWER		100.00
	OCT CLEANING	SEWER FUND	SEWER		365.00
				TOTAL:	1,155.00
CORE & MAIN	CPLGS, BALLCURB, TUBING, I	WATER FUND	WATER		2,133.84
	METERBOX, FRAME&COVER	WATER FUND	WATER		2,234.56
	CPLG, BALLCURB, CPLG, 90 B	WATER FUND	WATER		3,161.41
	METERTILE, MDDLRING, PIPE	WATER FUND	WATER		1,926.70