

Fredda Gordon  
466 Davis Road  
Fairfield, CT 06825

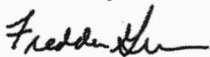
October 24, 2022

Town Plan and Zoning Commission  
725 Old Post Road  
Fairfield, CT 06824

Dear Chair Noonan and Vice Chair Braman,

I have been proud to serve Fairfield, CT on the TPZ Commission for the last 5 years as an alternate, so it is with great gratitude, and sadness, that I must resign from this position effective immediately. I will be moving out of Fairfield so will not be able to serve. As a part of this Commission I know how much work you, Jim Wendt, Emmeline Harrigan, Matt Decker, and all of the other staff and commissioners do to help Fairfield, making it the wonderful place it is. I will continue to watch it develop and look forward to enjoying it when I can.

Sincerely,



Fredda Gordon

RECEIVED

OCT 24 2022

TOWN CLERK'S OFFICE  
FAIRFIELD, CT

**From:** [null@town.fairfield.ct.us](mailto:null@town.fairfield.ct.us)  
**To:** [Board of Selectmen](#)  
**Subject:** New submission for form: Boards and Commissions Interest Form (ID #252)  
**Date:** Tuesday, November 15, 2022 8:57:05 AM

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## Boards and Commissions Interest Form

Record #252 submitted from IP address 67.83.66.51 on 11/15/2022 8:57 AM

[View form](#)

<b>ID</b>	252
<b>First Name</b>	Thom
<b>Last Name</b>	Corsillo
<b>Street Address</b>	839 Church Hill Road
<b>Zip Code</b>	06825
<b>Email Address</b>	tom.corsillo@gmail.com
<b>Cell Phone</b>	917-217-6406
<b>Home Phone</b>	475-282-4791
<b>Work Phone</b>	
<b>Voter Registration Status</b>	Yes
<b>Political Party Affiliation</b>	Democratic Party
<b>Board or Commission</b>	Town Plan and Zoning Commission
<b>Read the Boards Role</b>	Yes
<b>How You Learned About the Position</b>	I learned about the board from the Town website. I learned about the open position after reaching out to the Fairfield Democratic Town Committee via its website to express my interest in running for the Commission.
<b>Who You Have</b>	Other Board Members

<b>Spoken To</b>	
<b>Explanation of Interest and Contribution</b>	I am passionate about housing and finding ways to create affordable homes that allow families, young people and seniors to stay in their community or move here. Having spent the past 17 years working on land use issues, I understand the value of community engagement in ensuring development is appropriate and maximizes benefits for local stakeholders, as well as what is and is not possible from the perspective of developers. I also recognize many of the creative options available that strike a balance between building needed housing and ensuring development is contextual. Given the debate that is ongoing as relates to 8-30g, I believe this perspective and experience will be valuable as Fairfield tries to address the need for more affordable housing options in a way that takes into account the concerns of those who want to maintain local control and to moderate the pace of growth.
<b>Resume or Bio</b>	<a href="#">Tom Corsillo Resume November 2022.pdf</a>
<b>Additional Comments</b>	I appreciate the consideration of the Board of Selectmen. I really believe there is a way to find common ground and make progress in addressing Fairfield's housing needs through smart planning. If I am named to the Commission, I will work hard to do that, channeling all my passion, experience and expertise.

[Manage](#)

# Tom Corsillo

Fairfield, CT 06825

[tom.corsillo@gmail.com](mailto:tom.corsillo@gmail.com) | 917.217.6406

Tom Corsillo is a public affairs strategist with 17 years of experience devising and leading successful communications and advocacy campaigns that have won approval for billions of dollars in economic development and consequential legislation related to issues from health care to voting rights.

## **Key Accomplishments**

Established Marino's award-winning public affairs practice, expanding the agency's land use practice into policy and issue advocacy.

Conceived and led notable campaigns including:

- Multi-year media and stakeholder engagement campaign on behalf of the Pharmacists Society of the State of New York (PSSNY) that in 2021 won the enactment of groundbreaking legislation known as the Pharmacy Rescue Package.
- Media campaign on behalf of the Brennan Center for Justice that in 2020 won approval of Proposition 17, a California ballot measure that amended the state's constitution to restore voting rights to individuals upon completion of their sentences.
- Media campaigns that in 2022 won approval of two separate plans that will create 350+ affordable homes in Astoria, Queens and 150+ affordable homes in the Throggs Neck section of the Bronx.
- Media and stakeholder engagement campaign that in 2020 won approval of a plan by Rubenstein Partners and ACME Smoked Fish to keep the iconic manufacturer in Brooklyn by rezoning the long-time site of its NYC factory.
- Media and stakeholder engagement campaign that in 2017 successfully guided the rezoning of the former Pfizer site in Williamsburg, Brooklyn through one of the most contentious battles in the city's history.
- Media and stakeholder engagement campaign that in 2017 won approval of Starwood Capital's \$450 million plan to reactivate a long-vacant 15-acre former hospital site in Port Chester, New York as a vibrant, mixed-use development – among the largest economic development initiatives in Westchester County in the last 25 years.

## **Professional Experience**

**Marino Public Relations** - New York, NY

September 2005 - Present

*Senior Vice President, Public Affairs Practice Lead*

- Leads development and execution of data-driven campaign strategies that leverage earned, owned, and paid media to educate, engage and mobilize stakeholders.
- Oversees crisis communications strategy.
- Leads business development for public affairs practice, including securing new business, expanding existing client scopes and introducing new service lines.
- Hires, trains, mentors and manages talented and diverse team of public affairs strategists.
- Manages public affairs practice budget and financials.

*Vice President*

*Senior Account Executive*

*Account Executive*

*Assistant Account Executive*

## **Honors**

Political Consultants Power 75

City & State, 2022

40 Under 40 – Rising Stars

City & State, 2018

## **Professional Affiliations and Education**

Westchester County Association

*Land Use Policy Playbook Steering Committee, 2018*

University of Phoenix

*Bachelor of Science Degree in Communications*



## Town of Fairfield

Sullivan Independence Hall  
725 Old Post Road

Fairfield, Connecticut 06824  
Purchasing Department

(203) 256-3060  
FAX (203) 256-3080

### Award Recommendation Resolution:


On Wednesday, 16th of November, 2022 the Purchasing Authority recommended an award of project #2023-72 Electrical Generation Services to Constellation New Energy, Inc. (CNE Inc.), Houston, TX as the Town's selected electrical generation services provider for the period commencing with the December, 2023 United Illuminating Co.'s electricity service meter reading date and expiring with the December, 2025 electricity service meter reading date based on the firm's qualifications, experience, service offering and pricing.

Following is justification for the selection:

- CNE, Inc. has provided the Town with a competitive pricing offer to provide electrical generation services for the Town's electricity requirements.
- CNE, Inc. possesses a strong foundation and knowledge in providing electrical generation services.
- CNE, Inc., Inc. has provided the Town with a list of similar services in which they have successfully performed.

The award of this contract may be subject to the review and approval of the Board of Selectmen.

  
Brenda L. Kupchick, First Selectwoman

  
Gerald J. Foley, Director of Purchasing



# MEMORANDUM

**To: Board of Selectmen**

**From: Gerald J. Foley, Director of Purchasing**

**Date: 11/16/2022**

**Re: Electricity Generation Services**



The Town of Fairfield participated in a cooperative purchasing program with several surrounding municipalities (City of Bridgeport, Town of Easton, Town of Monroe, Town of Newtown, Town of Trumbull and Town of Westport) concerning the acquisition of electrical generation services.

The purpose of this cooperative purchasing program was to make an effort to pool the electricity load profiles from each of the municipalities that elected to participate in the program in an effort to obtain lower electricity rates for each of the municipalities.

With the assistance of Tradition Energy, fixed price quotes for electrical generation services (ESG) were recently solicited from six (6) ESG providers (Constellation New Energy; Direct Energy; EDF; Engie; FirstPoint and MP2). Three (3) of these providers submitted pricing offers:

Provider	Contract Term		
	12-Month Fixed	24-Month Fixed	36-Month Fixed
Constellation New Energy	\$0.1347	\$0.1264	\$0.1237
Direct Energy	\$0.1313*	\$0.1215*	\$0.1189*
FirstPoint	\$0.1449	\$0.1363	\$0.1316

\*Direct Energy's pricing offer did not include FS1 and FS2 costs.

Provider	Contract Term		
	12-Month Index	24-Month Index	36-Month Index
Constellation New Energy	\$0.0427	\$0.0375	\$0.0374
Direct Energy	\$0.0339*	\$0.0335*	\$0.0337*
FirstPoint	No Price	No Price	No price

\* Direct Energy's pricing offer did not include FS1 and FS2 costs.

<b>Provider</b>	<b>Contract Term</b>		
	12-Month Block	24-Month Block	36-Month Block
Constellation New Energy	\$0.0903	\$0.0836	\$0.0808
Direct Energy	\$0.0990*	\$0.0890*	\$0.0862*
FirstPoint	No Price	No Price	No price

\* Direct Energy's pricing offer did not include FS1 and FS2 costs.

Based on the results of this solicitation process, Constellation New Energy, Inc. (CNE, Inc) is being recommended to provide these services. And based on the current energy market conditions, the recommended approach to acquire a fixed price contract for electrical generation services is an index-block pricing strategy.

Utilizing this index-block pricing strategy, the individual Municipalities would enter into an index contract with CNE, Inc. and then purchase four (4) individual twenty-five percent (25%) blocks of electrical generation services and convert those four (4) individual block purchases into a single fixed price agreement. The proposed service period for this index-block pricing arrangement would be for two-years (December 2023 through December, 2025) with the consensus being that the pricing profiles for these electrical generation service would be improving in later years.

I concur with the recommended selection of Constellation New Energy, Inc. (CNE, Inc) for these services, the proposed index-block electrical generation services acquisition strategy process and for the recommended two-year contract period.

Thank you for your time and your consideration. And please let me know if you have any questions





Agreement is Not  
Valid Unless  
Executed by Seller

**CONTRACT AND DISCLOSURE STATEMENT SUMMARY**  
**ELECTRICITY SUPPLY AGREEMENT – FLEXIBLE INDEX SOLUTIONS (VARIABLE RATE PLAN)**

<b>My supplier's information:</b>	[CONSTELLATION LEGAL ENTITY NAME] is your electric generation supplier (CT DPUC Docket No. 06-07-11). You can call Constellation at its toll-free number 1-844-6-ENERGY between 8:00 AM and 7:00 PM eastern prevailing time (not including weekends or holidays) or email Constellation at <a href="mailto:customer@constellation.com">customer@constellation.com</a> . You can visit <a href="http://connecticut.constellationnewenergy.com">connecticut.constellationnewenergy.com</a> . You can send a letter through U.S. mail to Constellation NewEnergy, Inc., 1001 Louisiana St, Suite 2300, Houston, Texas 77002, Attn: Contracts Administration.
<b>How long is my contract?</b>	Subject to successful enrollment of your Account(s), we will supply each Account with electricity starting on or about _____ through on or about _____ unless extended on a holdover basis as described in this Agreement.
<b>What is my pricing structure?</b>	Your pricing structure is the Flexible Index Solutions (Variable Rate Plan) and includes costs associated with the generation of your electricity supply, subject to any charges you elected to pass through as set forth in the Cost Components section below. The plan will have a fixed rate of [\$_____/kWh] and will be fixed from the Start Date through the End Date.
<b>Are there any late payment fees?</b>	If you fail to make payment by the due date, interest will accrue daily on outstanding amounts from the due date until the bill is paid in full at a rate of 1.5% per month, or the highest rate permitted by law, whichever is less.
<b>When did I contract?</b>	You entered into this Agreement on _____ via signed contract.
<b>How do I contact the Connecticut Public Utilities Regulatory Authority (PURA)?</b>	You can contact the Connecticut Public Utilities Regulatory Authority at 1-800-382-4586 (toll free within Connecticut) or 1-860-827-2622 (outside Connecticut); by sending a letter to: PURA 10 Franklin Square New Britain, Connecticut 06051, Attn.: Consumer Assistance and Information Unit; or by visiting the website <a href="http://www.ct.gov/pura">http://www.ct.gov/pura</a> . You may also learn more about electric generation service in Connecticut by visiting <a href="http://energizeCT.com">energizeCT.com</a> .
<b>How will I receive notices?</b>	You will receive notices from Constellation through U.S. mail at: Address _____
<b>Can I cancel my contract and are there any early termination fees?</b>	Pursuant to Connecticut law, you have until midnight on the third business day after the later of the day on which you enter into this Agreement or the day on which you receive a copy of the fully executed Agreement to cancel this Agreement without penalty. To cancel this Agreement, you can call Constellation at 1-844-6-ENERGY, send an email to <a href="mailto:customer@constellation.com">customer@constellation.com</a> , or send a letter through U.S. mail to Constellation NewEnergy, Inc., 1001 Louisiana St, Suite 2300, Houston, Texas 77002, Attn: Contracts Administration. If you terminate this Agreement outside of this time period, you may be liable for an early termination payment calculated as the difference between (1) the prices below multiplied by the remaining anticipated usage of your account(s) and (2) the amount Constellation would be able to resell such related services. You will also be liable for all past due amounts as well as any costs incurred by Constellation in connection with collecting any such
<b>How do I contact my UDC?</b>	Your UDC is responsible for delivering electricity to your place of business. In cases of emergencies relating to your electricity service, such as a power outage, you should call your UDC: Connecticut Light & Power at (800) 286-2000; United Illuminating at (800) 722-5584.

UDC	UDC Account Number	Service Address	Energy Price Non TOU (\$/kWh)
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<b>Are there possible savings?</b>	During the term of the Agreement, the price may be higher or lower than the UDC's price-to-compare, which changes over time based upon your UDC's procurement structure. Therefore savings are not guaranteed.		
<b>What incentives are in place, if any?</b>	There are no offers currently available.		

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[CONSTELLATION LEGAL ENTITY NAME]

Electricity Supply Agreement – Flexible Index Solutions (Variable Rate Plan)

<Customer Name> (“Customer”) AND [CONSTELLATION LEGAL ENTITY NAME] (“Seller”) AGREE AS FOLLOWS:

**Defined Terms.** Capitalized terms have the meanings set out in this Electricity Supply Agreement, including the attached General Terms and Conditions (“Agreement”); generally the words “you” and “your” refer to the Customer listed above and the words “we” and “us” refer to Seller, unless the context clearly requires otherwise.

**Purchase and Sale of Electricity.** You will purchase and receive, and we will sell and supply all of your electricity requirements at the prices set forth below for each account identified in the Account Schedule below (“Account”). By signing this Agreement, you authorize us to enroll each Account with your UDC so that we can supply those Account(s). You will take such actions as we request to allow us to enroll each Account in a timely manner. You agree that we may select such sources of energy as we deem appropriate to meet our obligations under this Agreement. We will enroll each Account with the applicable UDC as being supplied by us and will take such other actions with the applicable UDC and ISO necessary for us to meet our obligations under this Agreement.

The specific prices for each Account are set forth in the Account Schedule, below.

You are also responsible to pay (1) Taxes - which we will pass through to you on your bill or as part of the price of electricity, as may be required by law, rule or regulation and (2) UDC charges for delivery/distribution services if we provide you a single bill that includes UDC charges. **We will apply all appropriate Taxes unless and until you provide a valid certification of tax exempt status.** Your prices are fixed for the existing term of this Agreement and only subject to change if there is a change in law, as described in Section 5 of the General Terms and Conditions below. The UDC charges (if any) and Taxes are charged to you as a “pass-through,” which means they will change during the existing term of this Agreement if and as the related charges assessed or charged vary for any reason, including but not limited to the types of changes described above.

We will pass through Energy Costs using the **day ahead locational marginal price**, which changes hourly (or sub-hourly in some markets), for the applicable ISO zone for your Account. If your Account(s) are not equipped with meters that provide an hourly (or sub-hourly in some markets) reading, we will use either the load profiles provided by the UDC applicable to the Account or, in the absence of such load profiles provided by the UDC on a timely basis, an otherwise reasonable allocation method established by us, in order to obtain hourly (or sub-hourly in some markets) readings to calculate costs associated with usage at market index prices. You may fix the Energy Costs for some or all of your usage as described in Retail Trade Transactions Section, below.

**Cost Components.** For each of the items listed as “Fixed” below, this means the item is included in your contract prices as set forth in the Account Schedule. For each of the items listed as “Passed Through” below, this means that you will be charged the costs associated with the line item in accordance with the definitions of each item in Section 1, Definitions of the General Terms and Conditions.

Energy Costs	Passed Through
Ancillary Services And Other ISO Costs	Fixed
Capacity Costs	Fixed
Line Loss Costs	Passed Through
RPS Costs	Fixed
Fuel Security Costs-COS	Fixed
Fuel Security Costs-Interim Winter Program	Fixed

The contract prices contained in the Account Schedule have been reduced to reflect a fixed credit to you for the Auction Revenue Rights and Transmission Loss Credits associated with the Account(s). The contract prices also include any credit costs and margin.

**Fuel Security Reliability Program Costs (“Fuel Security Costs” and “Fuel Security Costs-COS”)** means those costs or charges that are incurred by load serving entities in the ISO New England service territory associated with fuel security reliability, as described in ISO New England tariff provisions accepted by the Federal Energy Regulatory Commission (“FERC”) in Docket Nos. ER18-2364-000 and EL18-182-000 as proposed or implemented during the term of this Agreement, including but not limited to costs associated with cost-of-service agreements (“**COS Agreements**”), such as the agreement accepted for filing by FERC in Docket No. ER18-1639-000 (the “**Mystic COS Agreement**”) and the implementation of an interim inventoried energy program during the winter months of 2023-2024 for Forward Capacity Auction (“FCA”) 14 and 2024-2025 for FCA 15 accepted by FERC on August 6, 2019 in Docket NO ER19-1428-001 (collectively, the “Interim Winter Program”). If that portion of the Fuel Security Costs associated with the Mystic COS Agreement (“**Fuel Security Costs-COS**”) are **Fixed** under this Agreement then such costs shall **only** include costs associated with the Mystic COS Agreement and/or cost associated with the Interim Winter Program, as applicable, as in effect as of the date of the full execution of this Agreement. Any additions, modifications or conditions to the treatment of Fuel Security Costs under the ISO New England tariff or otherwise, including but not limited to any modifications of the Mystic COS Agreement, (including the approval of any other COS Agreements), modifications to the Interim Winter Program or any new or modified long-term market solutions implemented by ISO New England and accepted or approved by FERC shall be deemed a Change in Law pursuant to Section 5 below.

**Capacity Cost (Fixed):** You have elected the “Fixed” option for your “Capacity Costs” as noted in the table above. “Fixed” means we have included Capacity Costs in your contract price (set forth in the Account Schedule) based on the current Capacity Costs associated with your Accounts as of the effective date of this Agreement. Your Capacity Costs will not be subject to change during the term of this Agreement except as a result of Change in Law as described in Section 5 below. For avoidance of doubt, except as otherwise agreed to herein, your Fixed contract price will not be adjusted (either upward or downward) to pass through any changes in your Capacity Costs based on monthly or annual changes to the Capacity Obligation for the Account(s). “**Capacity Obligation**” means the Accounts’ ICAP Tags as provided by the UDC, as modified utilizing the applicable ISO methodology factors (including but not limited to reserve margin) as defined by the ISO as of the date this Agreement. “**ICAP Tag (kW)**” means the peak load contribution for the Account(s) measured in kilowatts (kW) as determined by the UDC and reported to the applicable ISO. For illustrative purposes only, please see the Capacity Obligation Components table below:

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<b><u>CAPACITY OBLIGATION COMPONENTS</u></b>	
ICAP Tags	<b>Fixed</b>
Other ISO/Utility factors (such as reserve margin)	<b>Fixed</b>

**Retail Trade Transactions.** At any time during the term of this Agreement, you may enter into one or more Retail Trade Transactions ("RTTs") with us, which shall be evidenced by a fully executed RTT Confirmation and be incorporated herein. Such RTTs may cover the purchase of: (1) electricity to fix your price of energy for supply period of three month or longer equal to a prescribed percentage of your load volume; and (2) renewable energy certificates in an amount equal to a prescribed percentage of your load volume.

**Term.** This Agreement will become effective and binding after you have signed this Agreement and we have counter-signed. Subject to successful enrollment of your Account(s), this Agreement shall commence on or about the date set forth under "Start Date" and end on or about the date set forth under "End Date", unless extended on a holdover basis as described in this Agreement. The actual Start Date is dependent on the UDC successfully enrolling the Account(s) and furnishing us with all necessary information regarding the Account(s) meter read cycle and meter read date(s). The dates set forth in the Account Schedule below reflect UDC information available at that time or as otherwise estimated by us. The actual meter read dates may occur on or about the dates set forth herein. We will use commercially reasonable efforts to begin service to each Account(s) on the actual meter read date on or about the Start Date set forth herein. If we are unable to timely enroll an Account, the Start Date will commence on the next regularly scheduled UDC meter read cycle date following successful enrollment. The End Date will remain the same unless extended for a holdover term. We shall not be liable for any failure to enroll or drop an Account by the Start and End Date due to circumstances beyond our control. We will not be responsible for any gaps in service that may occur between the termination of your service from a prior supplier and the commencement of supply from us.

Nothing in this Agreement shall be deemed to require or otherwise obligate us to offer to extend the term of this Agreement. If following termination or expiration of this Agreement (whether in whole or in part), for any reason, some or all of the Accounts remain designated by the UDC as being supplied by us, we may continue to serve such Account(s) on a month-to-month holdover basis. During such holdover term, we will calculate your invoice as follows: (Each Account's metered usage, as adjusted by the applicable line loss factor) times (the applicable ISO-published Day Ahead Locational Based Marginal Price ("LMP") + \$<Insert Holdover Rate>/kWh) + (a pass through of all costs and charges incurred by us for the retail delivery of energy to you) + Taxes. This Agreement will continue to govern the service of such Accounts during such holdover term. Either party may terminate the holdover term at any time within its discretion at which time we will drop each Account as of the next possible meter read date to the then applicable tariff service, whether default service or otherwise.

**Your Invoice.** Your invoice will contain all charges applicable to your electricity usage, including Taxes (which are passed through to you). You will receive one invoice from the UDC for UDC charges and one invoice from us for all other charges ("Dual Billing"), unless we agree otherwise, or your Account(s) eligibility changes. All amounts charged are due in full within **thirty (30)** days of the invoice date, and we reserve the right to adjust amounts previously invoiced based upon supplemental or additional data we may receive from your UDC. Your invoices will be based on actual data provided by the UDC, provided that if we do not receive actual data in a timely manner, we will make a good faith estimate using your historical usage data and other information. Once we receive actual data we will reconcile the estimated charges and adjust them as needed in subsequent invoices. If you fail to make payment by the due date, interest will accrue daily on outstanding amounts from the due date until the bill is paid in full at a rate of **1.5%** per month, or the highest rate permitted by law, whichever is less. All invoices (including adjustments thereto) are conclusively presumed final and accurate unless such invoices are objected to by either Party in writing, including adequate explanation and/or documentation, within 24 months after the date such invoice was rendered, provided however, Constellation may rebill based on post-period audits or adjustments made by the ISO, UDC, or other governmental authority, commission or agency with jurisdiction in the state in which the Accounts are located.

**Certain Warranties.** You warrant and represent that for Account(s) located in the State of Connecticut, that the electricity supplied under this Agreement is not for use at a residence.

**Notices.** All notices will be in writing and delivered by hand, certified mail, return receipt requested, or by first class mail or by express carrier to our respective business addresses. Our business address is 1001 Louisiana St, Suite 2300, Houston, Texas 77002, Attn: Contracts Administration. Either of us can change our address by notice to the other pursuant to this paragraph.

**Customer Service.** For questions about your invoice or our services, contact us at our Customer Service Department by calling toll-free 844-6-ENERGY, or by e-mail at [customercare@constellation.com](mailto:customercare@constellation.com). Your prior authorization of us to your UDC as recipient of your current and historical energy billing and usage data will remain in effect during the entire term of this Agreement, including any renewal, unless you rescind the authorization upon written notice to us or by calling us at 1-844-6-ENERGY. We reserve the right to cancel this Agreement in the event you rescind the authorization.

**IN THE EVENT OF AN EMERGENCY, POWER OUTAGE OR WIRES AND EQUIPMENT SERVICE NEEDS, CONTACT YOUR APPLICABLE UDC AT:**

<b>UDC Name</b>	<b>UDC Abbreviation</b>	<b>Contact Numbers</b>
<Insert Utility Name>	<Insert Utility Abbreviation>	<Insert Contact Numbers>

**Environmental Disclosure Information.** Our electricity supply may be purchased from any number of sources. We are not purporting to sell power from a specific source—e.g. renewable fuels. Data concerning the generation resource mix and environmental characteristics of our electricity products is included as Exhibit A hereto and incorporated herein by reference, may be provided to you periodically with your invoices, is available upon request and may be updated periodically.

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**\*This draft is preliminary and subject to further changes prior to release\***

**Additional Terms.** For Accounts in the State of Connecticut, additional information, including information on consumer rights, may be obtained by contacting the Connecticut Public Utilities Regulatory Authority at (800) 382-4586. You understand that you can review your existing electric generation service charge for purposes of comparison to your rate under this Agreement by going to [http://ctenergyinfo.com/choose\\_entry.htm](http://ctenergyinfo.com/choose_entry.htm) and selecting your rate class information.

**CUSTOMER'S RIGHT TO RESCIND. FOR ACCOUNT(S) LOCATED IN THE STATE OF CONNECTICUT: IF YOUR AGGREGATE PEAK LOAD DURING ANY 12 MONTH PERIOD IS 500 KILOWATTS OR LESS, YOU HAVE UNTIL MIDNIGHT ON THE THIRD BUSINESS DAY AFTER THE LATER OF THE DAY ON WHICH THE CUSTOMER ENTERS INTO THIS AGREEMENT OR THE DAY ON WHICH THE CUSTOMER RECEIVES A COPY OF THE FULLY EXECUTED AGREEMENT TO CANCEL THIS AGREEMENT WITHOUT PENALTY.**

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK.]

DRAFT

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Reference Number: 1-XXXXXXXX | Account Representative: E | FORM: Siebel - 1-XXXXXXXX | Page - 5 - of 12 | Printed: xx/xx/xxxx | E  
©2022 Constellation Energy Resources, LLC. All rights reserved. Errors and omissions excepted. Std. Short Form\_v.2010 Rev Nov-01-2017

Each party has caused this Agreement to be executed by its authorized representative on the respective dates written below.

[CONSTELLATION LEGAL ENTITY NAME]

Customer: <Customer Name>

By:

By: \_\_\_\_\_

Name:

Name:

Title:

Title:

Date:

Address: 1001 Louisiana St., Suite 2300  
Houston, Texas 77002

Address:

Attention: Contracts Administration

Attention:

Facsimile: (888) 829-8738

Facsimile:

Telephone: (844) 6-ENERGY

Telephone:

Email Address:

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## **General Terms and Conditions**

### **1. Definitions.**

**"Ancillary Services And Other ISO Costs"** means for any billing period the applicable charges regarding ancillary services as set forth in the applicable ISO Open Access Transmission Tariff ("OATT") and for other ISO costs not otherwise included in any of the defined cost components in this Agreement. We will reasonably determine your Account's monthly Ancillary Services And Other ISO Costs based on the Account's \$/kWh share of costs for Ancillary Services And Other ISO Costs or otherwise reasonable allocation method as we may determine from time to time based on how Ancillary Services And Other ISO Costs are assessed by the ISO.

**"Auction Revenue Rights"** means revenue credits resulting from the annual financial transmission rights auction conducted by the ISO that are applicable with respect to transmission peak load contribution.

**"Capacity Costs"** means a charge for fulfilling the capacity requirements for the Account(s) imposed by the ISO or otherwise.

**"Energy Costs"** means a charge for the cost items included in the locational Marginal Price for the ISO zone identified in the Account Schedule.

**"ISO"** means the independent system operator or regional transmission organization responsible for the service territory governing an Account, or any successor or replacement entity.

**"Line Loss Costs"** means the costs (to the extent not already captured in the applicable Energy Costs) applicable to each Account based on the kWh difference between the UDC metered usage and the ISO settlement volumes (the "Line Loss Usage"). If Line Loss Costs are "Fixed," the Line Loss Costs are included in the contract price and will not be invoiced as a separate line item. If Line Loss Costs are "Fixed (Charged Separately)," the contract price shall be applied to the Line Loss Usage and appear as a separate line item on the invoice. If Line Loss Costs are "Passed Through," the Line Loss Costs will be invoiced as a separate line item and calculated based on the applicable locational marginal price for the Line Loss Usage.

**"Non Time Of Use" or "NTOU"** means all hours of each day.

**"Off Peak"** means all hours other than Peak hours.

**"Peak"** means the hours designated as peak from time to time by the UDC.

**"Renewable Portfolio Standards Costs ("RPS Costs")"** means the costs associated with meeting renewable portfolio standards costs at the levels required by currently applicable Law. If Renewable Portfolio Standards Costs are not included in the contract price, such costs for a particular month will be the product of (i) the Monthly RPS Price; and (ii) an Account's monthly kWh usage. The Monthly RPS Price is the price of renewable portfolio standards compliance for the Account, for a particular month, fixed by reference to the renewable portfolio standards forward price curve for the state where the Account is located.

**"Taxes"** means all federal, state, municipal and local taxes, duties, fees, levies, premiums or other charges imposed by any governmental authority, directly or indirectly, on or with respect to the electricity and related products and services provided under this Agreement, including any taxes enacted after the date we entered into this Agreement.

**"Transmission Loss Credits"** means the credit amounts applicable to the Accounts under the ISO's marginal loss construct.

**"UDC"** means your local electric distribution utility owning and/or controlling and maintaining the distribution system required for delivery of electricity to the Accounts.

**"UDC Charges"** means all UDC costs, charges, and fees, due under UDC's delivery services rates associated with your use of UDC's distribution network, all as defined by the UDC tariffs, and any similar or related charges the UDC may impose from time to time.

**2. Cash deposit and other security.** At any time, we may require that you provide information to us so that we may evaluate your creditworthiness. We reserve the right to require that you make a cash deposit or provide other security acceptable to us if your financial obligations to us increase under this Agreement, or if, in our opinion, your credit, payment history, or ability to pay your bills as they come due becomes a concern. You will deliver any required cash deposit or other required security (or any increase therein) within three (3) business days of our request.

**3. Default under this Agreement.** You will be in default under this Agreement if you fail to: pay your bills on time and in full; provide cash deposits or other security as required by Section 2 above; or perform all material obligations under this Agreement and you do not cure such default within 5 days of written notice from us; or if you declare or file for bankruptcy or otherwise become insolvent or unable to pay your debts as they come due. We will be in default under this Agreement if we fail to perform all material obligations under this Agreement and do not cure such default within 5 days written notice from you, or if we declare or file for bankruptcy or otherwise become insolvent or unable to pay our debts as they come due.

**4. Remedies upon default; Early Termination Payment.** If you are in default under this Agreement, in addition to any other remedies available to us, we may terminate this Agreement entirely, or solely with respect to those Accounts adversely affected by such default, and switch your Account(s) back to UDC service (consistent with applicable regulations and UDC practices); and/or you will be required to pay us an early termination payment to compensate us for all losses we sustain due to your default, including:

- all amounts you owe us for electricity provided to you;
- the positive difference, if any, between (A) the price you would have paid us under this Agreement had it not been terminated early (including our margin), less the then-current market price of electricity and services under terms substantially similar to the terms of this Agreement, as reasonably calculated by us based on information available to us internally or supplied by one or more third parties; multiplied by (B) the estimated undelivered volume of electricity you would consume through the end of the term, as reasonably calculated by us; and
- all costs (including attorneys' fees, expenses and court costs) we incur in collecting amounts you owe us under this Agreement.

The parties agree that any early termination payment determined in accordance with this Section is a reasonable approximation of harm or loss and is not a penalty or punitive in any respect, and that neither party will be required to enter into a replacement transaction in order to determine or be entitled to a termination payment.

**5. Changes in law.** We may pass through or allocate, as the case may be, to you any increase or decrease in our costs related to the electricity and related products and services sold to you that results from the implementation of new, or changes (including changes to formula rate calculations) to existing, Laws, or other requirements or changes in administration or interpretation of Laws or other requirements. "Law" means any law, rule, regulation, ordinance, statute, judicial decision, administrative order, ISO business practices or protocol, UDC or ISO tariff, rule of any commission or agency with jurisdiction in the state in which the Accounts are located. Such additional amounts will be included in subsequent invoices to you. The changes described in this Section may change any or all of the charges described in this Agreement, whether described as "fixed," "variable," "pass-through" or otherwise. Your first bill reflecting increased costs will include a bill insert describing the increase in costs in reasonable detail.

**6. Events beyond either of our reasonable control.** If something happens that is beyond either of our reasonable control that prevents either of us from performing our respective obligations under this Agreement, then whichever

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one of us cannot perform will be relieved from performance until the situation is resolved. Examples of such events include: acts of God, fire, flood, hurricane, war, terrorism; declaration of emergency by a governmental entity, the ISO or the UDC; curtailment, disruption or interruption of electricity transmission, distribution or supply; regulatory, administrative, or legislative action, or action or restraint by court order or other governmental entity; actions taken by third parties not under your or our control, such as the ISO or a UDC. Such events shall not excuse failure to make payments due in a timely manner for electricity supplied to you prior to such event. Further, if such an event prevents or makes it impossible or impracticable for the claiming party to carry out any obligation under this Agreement due to the events beyond either of our reasonable control for more than 30 days, then whichever one of us whose performance was **not** prevented by such events shall have the right to terminate this Agreement without penalty upon 30 days' written notice to the other.

**7. UDC or ISO obligations.** We will have no liability or responsibility for matters within the control of the UDC or the ISO-controlled grid, which include maintenance of electric lines and systems, service interruptions, loss or termination of service, deterioration of electric services, or meter readings.

**8. Limitation on Liability.** IN NO EVENT WILL EITHER PARTY OR ANY OF ITS RESPECTIVE AFFILIATED COMPANIES BE LIABLE FOR ANY CONSEQUENTIAL, EXEMPLARY, SPECIAL, INCIDENTAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST OPPORTUNITIES OR LOST PROFITS NOT CONTEMPLATED BY SECTION 4. Each party's total liability related to this Agreement, whether arising under breach of contract, tort, strict liability or otherwise, will be limited to direct, actual damages. Direct, actual damages payable to us will reflect the early termination payment calculation in Section 4. Each party agrees to use commercially reasonable efforts to mitigate damages it may incur. NO WARRANTY, DUTY, OR REMEDY, WHETHER EXPRESSED, IMPLIED OR STATUTORY, ON OUR PART IS GIVEN OR INTENDED TO ARISE OUT OF THIS AGREEMENT, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

**9. DISPUTE RESOLUTION.** THIS AGREEMENT WILL BE GOVERNED BY AND INTERPRETED IN ACCORDANCE WITH THE LAWS OF THE STATE IN WHICH ANY ACCOUNT IS LOCATED, WITHOUT GIVING EFFECT TO ANY CONFLICTS OF LAW PROVISIONS, AND ANY CONTROVERSY OR CLAIM ARISING FROM OR RELATING TO THIS AGREEMENT WILL BE SETTLED IN ACCORDANCE WITH THE EXPRESS TERMS OF THIS AGREEMENT BY A COURT LOCATED IN SUCH STATE. IF THE MATTER AT ISSUE INVOLVES ACCOUNTS OR MATTERS IN MORE THAN ONE STATE, THE GOVERNING JURISDICTION AND VENUE SHALL BE DEEMED TO BE NEW YORK. TO THE EXTENT ALLOWED BY APPLICABLE LAW, WE ALSO BOTH AGREE IRREVOCABLY AND UNCONDITIONALLY TO WAIVE ANY RIGHT TO A TRIAL BY JURY OR TO INITIATE OR BECOME A PARTY TO ANY CLASS ACTION CLAIMS WITH RESPECT TO ANY ACTION, SUIT OR PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT.

**10. Relationship of Parties; Representations and Warranties.** We are an independent contractor, and nothing in this Agreement establishes a joint venture, fiduciary relationship, partnership or other joint undertaking. We are not acting as your consultant or advisor, and you will **not rely** on us in evaluating the advantages or disadvantages of any specific product or service, predictions about future energy prices, or any other matter. Your decision to enter into this Agreement and any other decisions or actions you may take is and will be based solely upon your own analysis (or that of your advisors) and not on information or statements from us. You represent (i) you are duly organized and in good

standing under the Laws of the jurisdiction of your formation; (ii) you are authorized and qualified to do business in the jurisdiction necessary to perform under this Agreement; (iii) execution, delivery and performance of this Agreement are duly authorized and do not violate any of your governing documents or contracts or any applicable Law; and (iv) if you are a Governmental Entity, you further warrant (a) you have complied with all applicable bidding and procurement laws in awarding this Agreement, (b) you will not claim immunity on the grounds of sovereignty or similar grounds from enforcement of this Agreement; and (c) you will obtain all necessary budgetary approvals, appropriations and funding for all of your obligations under this Agreement, the failure of which shall not be an excuse for Governmental Entity's performance or failure to perform hereunder and upon request will provide proof of such authority. "Governmental Entity" means a municipality, county, governmental board or department, commission, agency, bureau, administrative body, joint action agency, court or other similar political subdivision (including a public school district or special purpose district or authority), or public entity or instrumentality of the United States or one or more states.

**11. Confidentiality.** Consistent with applicable regulatory requirements, we will hold in confidence all information obtained by us from you related to the provision of services under this Agreement and which concern your energy characteristics and use patterns, except that we may, consistent with applicable law and regulation, disclose such information to (a) our affiliates and such affiliates' employees, agents, advisors, and independent contractors, (b) third parties representing you in this purchase of electricity, and (c) other third parties, if the information (i) is presented in aggregate and (ii) cannot be reasonably expected to identify you. Except as otherwise required by law, you will agree to keep confidential the terms of our Agreement, including price.

**12. Miscellaneous Provisions.** If in any circumstance we do not provide notice of, or object to, any default on your part, such situation will not constitute a waiver of any future default of any kind. If any of this Agreement is held legally invalid, the remainder will not be affected and will be valid and enforced to the fullest extent permitted by law and equity, and there will be deemed substituted for the invalid provisions such provisions as will most nearly carry out our mutual intent as expressed in this Agreement. You may not assign or otherwise transfer any of your rights or obligations under this Agreement without our prior written consent. Any such attempted transfer will be void. We may assign our rights and obligations under this Agreement. This Agreement contains the entire agreement between both of us, supersedes any other agreements, discussions or understandings (whether written or oral) regarding the subject matter of this Agreement, and may not be contradicted by any prior or contemporaneous oral or written agreement. A facsimile or e-mailed copy with your signature will be considered an original for all purposes, and you will provide original signed copies upon request. Each party authorizes the other party to affix an ink or digital stamp of its signature to this Agreement, and agrees to be bound by a document executed in such a manner. The parties acknowledge that any document generated by the parties with respect to this Agreement, including this Agreement, may be imaged and stored electronically and such imaged documents may be introduced as evidence in any proceeding as if such were original business records and neither party shall contest their admissibility as evidence in any proceeding. Except as otherwise explicitly provided in this Agreement, no amendment (including in form of a purchase order you send us) to this Agreement will be valid or given any effect unless signed by both of us. Applicable provisions of this Agreement will continue in effect after termination or expiration of this Agreement to the extent necessary, including those for billing adjustments and payments, indemnification, limitations of liability, and dispute resolution. This Agreement is a "forward contract" and we are a "forward contract merchant" under the U.S. Bankruptcy

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**\*This draft is preliminary and subject to further changes prior to release\***

Code, as amended. Further, we are not providing advice regarding “commodity interests”, including futures contracts and commodity options or any other matter, which would cause us to be a commodity trading advisor under the U.S. Commodity Exchange Act, as amended.

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**ACCOUNT SCHEDULE:**

**For: <Customer Name>**

**The pricing set forth below is only valid until 5:00 PM Eastern Prevailing Time on <Insert Date>**

**We shall have no obligation to enroll or supply electricity to any account(s) that are not identified on the Account Schedule below.**

**Please verify that your specific information is COMPLETE and ACCURATE.**

**Your review and acceptance of this information will help ensure accurate future invoices**

*Notes: Accounts or Service Addresses listed in the Account(s) Schedule may be updated or replaced with a new account number issued by the UDC, ISO or other entity.*

**THIS DOCUMENT MAY BE RETURNED TO SELLER BY FAX TO (888)-829-8738 OR AS OTHERWISE DIRECTED.**

No. of Service Accounts:

UDC	UDC Account Number	Service Address	Start Date	End Date	Retail Service Price (\$/kWh)

**Exhibit A**



Label date 9/15/2021

**Constellation NewEnergy, Inc.**  
**Electric Generation Disclosure Label** [see other side](#)

1310 Point Street, Baltimore, MD 21231

customer service phone #1-844-636-3749 website [www.constellation.com](http://www.constellation.com)

**What is this label about?**

It's about helping you compare the benefits of generation service offers of Constellation to those of other competitive electric suppliers and to (CL&P or UI).

**To our customers:**

Electric generation service in Connecticut can be provided to you by licensed Suppliers, CL&P, or UI. This is a choice you can make. This Constellation disclosure label can be used to compare prices and other items (such as generation power sources and renewable sources) to those that other Suppliers, CL&P or UI may offer you.

**Important considerations in making your comparisons and choice:**

- Ask the Supplier, CL&P or UI if its offer is **all-inclusive** or **not all-inclusive**, so you can make the right comparison and choice. Suppliers, CL&P and UI in Connecticut are required to disclose this information to you in their labels.
- An **all-inclusive** offer includes all charges and fees related to the generation portion of your electric bill included in the price of the Generation Service Charge (GSC). A **Not all-inclusive** offer **does not**, thus, there are other charges and/or fees that you would be assessed in addition to the GSC.
- Check any contract or agreement you are considering from a Supplier for specifics on price, such as whether pricing is fixed or variable, the term/ length of contract, and any other charges, enrollment fees, deposits or requirements for which you are responsible.

**Other questions you can ask a potential supplier:**

1. Is the Supplier licensed by the CT PURA?
2. Ask the Supplier to estimate your electric generation costs relative to CL&P's/ UI's and explain other possible benefits of switching your service. The average residential customer in CT uses 700 kWh per month. This would be a good comparison starting point. Some examples of the possible benefits are cost savings, budget certainty, risk management, product offerings and renewable energy.
3. How does the Supplier's all-inclusive price compare with the current CL&P or UI GSC charge?
4. Will the Supplier's price change when the CL&P or UI GSC price changes or is it fixed for the term of the contract/agreement?
5. If I switch to a Supplier, will my GSC charge still be on the CL&P/ UI bill or will I receive a separate bill from the supplier?
6. If a Supplier issues a separate bill to me, will there be a late payment fee and, if so, what is the annual percentage charge?
7. Does the Supplier offer a choice of energy sources, such as renewable energy?
8. What is the Supplier's contact information if I have questions? Contact information should include the Supplier's phone number, customer service hours, mailing address and contact name.

**For Pricing Information - See the "Account Schedule" page in your contract.**

**Reminder:** Your monthly electric bill also has a section for delivery service. This service is for the poles, wires, transformers and all of the other services to deliver electricity to your home or business. Delivery service charges do NOT include what you pay for your electric Generation Service in the GSC charge. You pay delivery service charges whether you buy your electricity from CL&P, UI or any other supplier.

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Label date: 9/15/2021

**Your Electric Generation Disclosure Label  
from Constellation**

[see other side](#)

Power Sources	New England Power Pool System Mix
Coal	0.23%
Natural Gas	45.89%
Oil (Diesel, Jet, Oil)	5.49%
Nuclear	24.99%
Connecticut Qualified Renewable Sources	11.73%
Other, Misc.	11.67%
<b>Total</b>	<b>100.00%</b>

System Mix source: NEPOOL GIS Reports (Q1-2020 through Q4-2020). CT Qualified Sources includes CT Class I & CT Class II only. Supplier Known Sources are part of the system mix, but renewable sources are disclosed separately in the Supplier Compliance chart for CT RPS below.

CT Renewable Portfolio Standards Constellation Compliance				
	<u>Class I</u>	<u>Class II</u>	<u>Class III</u>	<u>Total</u>
Required 2020	21.0%	4.0%	4.0%	29.0%
Required 2021	22.5%	4.0%	4.0%	30.5%
Required 2022	24.0%	4.0%	4.0%	32.0%
Required 2023	26.0%	4.0%	4.0%	34.0%
Required 2024	28.0%	4.0%	4.0%	36.0%

**About Power Sources**

Your electricity is transmitted across the New England electric system, which receives electricity from power plants throughout the region to meet the requirements of all customers in New England. The **"New England Power Pool System Mix"** represents the percentage of power supply from each power source in the regional system. Suppliers are responsible for generating and/or purchasing electricity that is added to the electric system in an amount equal to your electricity use. To promote the development of renewable/clean sources, Connecticut, through legislation called the **Renewable Portfolio Standard (RPS)**, requires all Suppliers to acquire specific percentages of energy from renewable resources. CT RPS sources are defined as Class I, Class II and Class III. **Class I renewable** sources include solar power, fuel cells, methane gas from landfills, ocean thermal power, sustainable biomass, wave or tidal power, low emission advanced renewable energy conversion technologies, and certain run-of-river hydropower. **Class II renewable** sources include trash-to-energy, certain biomass facilities, and certain run-of-river hydropower facilities. Electricity generation from renewables has lower emissions and less of an impact on the environment than that produced

from conventional fossil fuels. As an alternative to providing the RPS requirements a Supplier may pay an alternative compliance payment. **Class III** sources include CT commercial & industrial facilities using combined heat and power systems with at least 50% operating efficiency, a waste heat recovery system or electricity savings from energy efficiency measures.

**Air Emissions from Power Sources**

The air emissions listed below are produced when certain fuels are used to generate electricity.

**Carbon Dioxide (CO<sub>2</sub>)** is released when coal, oil, natural gas, trash, methane and biomass are burned. Carbon dioxide, a greenhouse gas, is thought to be a major contributor to global warming.

**Nitrogen Oxide (NO<sub>x</sub>)** is formed when fossil fuels, trash, methane and biomass are burned at high temperatures. They contribute to acid rain and ground-level ozone (or smog), and may contribute to respiratory illness. NO<sub>x</sub> also accelerates vegetative growth in lakes and coastal waters which may lead to oxygen deprivation which is destructive to fish and other aquatic life.

**Sulfur Dioxide (SO<sub>2</sub>)** is formed when fuels containing sulfur are burned, primarily coal, oil and trash. Health risks associated with SO<sub>2</sub> include asthma, respiratory illness and aggravation of existing cardiovascular disease. SO<sub>2</sub> combines with water and oxygen in the atmosphere to form acid rain, which raises the acid level of lakes and streams, is detrimental to crops and forests and accelerates the deterioration of buildings and monuments.

**Additional Information:**

This label provides information on the New England regional electric system power sources and the air emissions related to electricity generation. For additional information on Supplier prices, power sources and air emissions, visit the CT PURA's Electric Supplier Info Database, [www.douc.state.ct.us/el\\_aggre.nsf](http://www.douc.state.ct.us/el_aggre.nsf)

In the case of an emergency or power outage, please contact your utility. UI customers call: 1-800-7CALL UI (1-800-722-5584); and CL&P customers call 1-800-286-2000.

**The Connecticut Public Utilities Regulatory Authority (PURA), Ten Franklin Square, New Britain, CT 06051  
Toll-free 1-800-382-4586 [www.ct.gov/pura](http://www.ct.gov/pura)**

**Suppliers are required to post their Disclosure Label(s), and updated versions as they occur, to the Electric Supplier Info Database on the PURA's website.**

PURA Disclosure Label-Supplier-template-12-2012

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Agreement is Not  
Valid Unless  
Executed by Seller

**CONTRACT AND DISCLOSURE STATEMENT SUMMARY**  
**ELECTRICITY SUPPLY AGREEMENT – FIXED RATE PLAN**

<b>My supplier's information:</b>	[CONSTELLATION LEGAL ENTITY NAME] is your electric generation supplier (CT DPUC Docket No. 06-07-11). You can call Constellation at its toll-free number 1-844-6-ENERGY between 8:00 AM and 7:00 PM eastern prevailing time (not including weekends or holidays) or email Constellation at <a href="mailto:customercare@constellation.com">customercare@constellation.com</a> . You can visit <a href="http://connecticut.constellationnewenergy.com">connecticut.constellationnewenergy.com</a> . You can send a letter through U.S. mail to Constellation NewEnergy, Inc., 1001 Louisiana St, Suite 2300, Houston, Texas 77002, Attn: Contracts Administration.
<b>How long is my contract?</b>	Subject to successful enrollment of your Account(s), we will supply each Account with electricity starting on or about _____ through on or about _____ unless extended on a holdover basis as described in this Agreement.
<b>What is my pricing structure?</b>	Your pricing structure is the Fixed Rate Plan and includes costs associated with the generation of your electricity supply, subject to any charges you elected to pass through as set forth in the Cost Components section below. The plan will have a fixed rate of [\$_____/kWh] and will be fixed from the Start Date through the End Date.
<b>Are there any late payment fees?</b>	If you fail to make payment by the due date, interest will accrue daily on outstanding amounts from the due date until the bill is paid in full at a rate of 1.5% per month, or the highest rate permitted by law, whichever is less.
<b>When did I contract?</b>	You entered into this Agreement on _____ via Signed Contract.
<b>How do I contact the Connecticut Public Utilities Regulatory Authority (PURA)?</b>	You can contact the Connecticut Public Utilities Regulatory Authority at 1-800-382-4586 (toll free within Connecticut) or 1-860-827-2622 (outside Connecticut); by sending a letter to: PURA 10 Franklin Square New Britain, Connecticut 06051, Attn.: Consumer Assistance and Information Unit; or by visiting the website <a href="http://www.ct.gov/pura">http://www.ct.gov/pura</a> . You may also learn more about electric generation service in Connecticut by visiting <a href="http://energizeCT.com">energizeCT.com</a> .
<b>How will I receive notices?</b>	You will receive notices from Constellation through U.S. mail at: Address _____
<b>Can I cancel my contract and are there any early termination fees?</b>	Pursuant to Connecticut law, you have until midnight on the third business day after the later of the day on which you enter into this Agreement or the day on which you receive a copy of the fully executed Agreement to cancel this Agreement without penalty. To cancel this Agreement, you can call Constellation at 1-844-6-ENERGY, send an email to <a href="mailto:customercare@constellation.com">customercare@constellation.com</a> , or send a letter through U.S. mail to Constellation NewEnergy, Inc., 1001 Louisiana St, Suite 2300, Houston, Texas 77002, Attn: Contracts Administration. If you terminate this Agreement outside of this time period, you may be liable for an early termination payment calculated as the difference between (1) the prices below multiplied by the remaining anticipated usage of your account(s) and (2) the amount Constellation would be able to resell such related services. You will also be liable for all past due amounts as well as any costs incurred by Constellation in connection with collecting any such
<b>How do I contact my UDC?</b>	Your UDC is responsible for delivering electricity to your place of business. In cases of emergencies relating to your electricity service, such as a power outage, you should call your UDC: Connecticut Light & Power at (800) 286-2000; United Illuminating at (800) 722-5584.

UDC	UDC Account Number	Service Address	Energy Price Non TOU (\$/kWh)

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<b>Are there possible savings?</b>	During the term of the Agreement, the price may be higher or lower than the UDC's price-to-compare, which changes over time based upon your UDC's procurement structure. Therefore savings are not guaranteed.
<b>What incentives are in place, if any?</b>	There are no offers currently available.

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[CONSTELLATION LEGAL ENTITY NAME]

Electricity Supply Agreement – Fixed Price Solutions (Fixed Rate Plan)

<Customer Name> (“Customer”) AND [CONSTELLATION LEGAL ENTITY NAME] (“Seller”) AGREE AS FOLLOWS:

**Defined Terms.** Capitalized terms have the meanings set out in this Electricity Supply Agreement, including the attached General Terms and Conditions (“Agreement”); generally the words “you” and “your” refer to the Customer listed above and the words “we” and “us” refer to Seller, unless the context clearly requires otherwise.

**Purchase and Sale of Electricity.** You will purchase and receive, and we will sell and supply all of your electricity requirements at the prices set forth below for each account identified in the Account Schedule below (“Account”). By signing this Agreement, you authorize us to enroll each Account with your UDC so that we can supply those Account(s). You will take such actions as we request to allow us to enroll each Account in a timely manner. You agree that we may select such sources of energy as we deem appropriate to meet our obligations under this Agreement. We will enroll each Account with the applicable UDC as being supplied by us and will take such other actions with the applicable UDC and ISO necessary for us to meet our obligations under this Agreement.

The specific prices for each Account are set forth in the Account Schedule, below. You are also responsible to pay (1) Taxes - which we will pass through to you on your bill or as part of the price of electricity, as may be required by law, rule or regulation and (2) UDC charges for delivery/distribution services if we provide you a single bill that includes UDC charges. **We will apply all appropriate Taxes unless and until you provide a valid certification of tax exempt status.** Your prices are fixed for the existing term of this Agreement and only subject to change if there is a change in law, as described in Section 5 of the General Terms and Conditions below. The UDC charges (if any) and Taxes are charged to you as a “pass-through,” which means they will change during the existing term of this Agreement if and as the related charges assessed or charged vary for any reason, including but not limited to the types of changes described above.

**Cost Components.** For each of the items listed as “Fixed” below, this means the item is included in your contract prices as set forth in the Account Schedule. For each of the items listed as “Passed Through” below, this means that you will be charged the costs associated with the line item in accordance with the definitions of each item in Section 1, Definitions of the General Terms and Conditions.

Energy Costs	Passed Through
Ancillary Services And Other ISO Costs	Fixed
Capacity Costs	Fixed
Line Loss Costs	Passed Through
RPS Costs	Fixed
Fuel Security Costs-COS	Fixed
Fuel Security Costs-Interim Winter Program	Fixed

The contract prices contained in the Account Schedule have been reduced to reflect a fixed credit to you for the Auction Revenue Rights and Transmission Loss Credits associated with the Account(s). The contract prices also include any credit costs and margin.

**“Fuel Security Reliability Program Costs (Fuel Security Costs” and “Fuel Security Costs-COS”)** means those costs or charges that are incurred by load serving entities in the ISO New England service territory associated with fuel security reliability, as described in ISO New England tariff provisions accepted by the Federal Energy Regulatory Commission (“FERC”) in Docket Nos. ER18-2364-000 and EL18-182-000 as proposed or implemented during the term of this Agreement, including but not limited to costs associated with cost-of-service agreements (“COS Agreements”), such as the agreement accepted for filing by FERC in Docket No. ER18-1639-000 (the “Mystic COS Agreement”) and the implementation of an interim inventoried energy program during the winter months of 2023-2024 for Forward Capacity Auction (“FCA”) 12 and 2024-2025 for FCA 15 accepted by FERC on August 6, 2019 in Docket NO ER19-1428-001 (collectively, the “Interim Winter Program”). If that portion of the Fuel Security Costs associated with the Mystic COS Agreement (“Fuel Security Costs-COS”) and/or the Interim Winter Program are **Fixed** under this Agreement then such costs shall **only** include costs associated with the Mystic COS Agreement and/or cost associated with the Interim Winter Program, as applicable as in effect as of the date of the full execution of this Agreement. Any additions, modifications or conditions to the treatment of Fuel Security Costs under the ISO New England tariff or otherwise, including but not limited to any modifications of the Mystic COS Agreement; (including the approval of any other COS Agreements), modifications to the Interim Winter Program or any new or modified long-term market solutions implemented by ISO New England and accepted or approved by FERC shall be deemed a Change in Law pursuant to Section 5 below.

**For clarification purposes only regarding Capacity Costs (Fixed) and Fuel Security Costs-COS (Fixed):**

**Capacity Cost (Fixed):** You have elected the “Fixed” option for your “Capacity Costs” as noted in the table above. “Fixed” means we have included Capacity Costs in your contract price (set forth in the Account Schedule) based on the current Capacity Costs associated with your Accounts as of the effective date of this Agreement. Your Capacity Costs will not be subject to change during the term of this Agreement except as a result of Change in Law as described in Section 5 below. For avoidance of doubt, except as otherwise agreed to herein, your Fixed contract price will not be adjusted (either upward or downward) to pass through any changes in your Capacity Costs based on monthly or annual changes to the Capacity Obligation for the Account(s). “Capacity Obligation” means the Accounts’ ICAP Tags as provided by the UDC, as modified utilizing the applicable ISO methodology factors (including but not limited to reserve margin) as defined by the ISO as of the date this Agreement. “ICAP Tag (kW)” means the peak load contribution for the Account(s) measured in kilowatts (kW) as determined by the UDC and reported to the applicable ISO. For illustrative purposes only, please see the Capacity Obligation Components table below:

CAPACITY OBLIGATION COMPONENTS	
ICAP Tags	Fixed

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Other ISO/Utility factors (such as reserve margin)	Fixed
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**For clarifications purposes only regarding Fuel Security Costs-COS (Fixed):**

**Fuel Security Costs-COS (Fixed):** You have elected the “Fixed” option for your “Fuel Security Costs-COS” as noted in the Cost Component table above. “Fixed” means we have included Fuel Security Costs-COS in your contract price (set forth in the Account Schedule) based on the current Fuel Security Costs-COS charges associated with your Accounts as of the effective date of this Agreement. Your Fuel Security Costs-COS charges will not be subject to change during the term of this Agreement except as a result of Change in Law as described in Section 5 below. Fixed means that your price will not be adjusted (either upward or downward) to pass through any Fuel Security Costs-COS charges based on monthly or annual changes as described in the COS Agreement (including the Mystic COS Agreement as defined further below) detailed in the ISO New England tariff provisions accepted by the Federal Energy Regulatory Commission (“FERC”) in Docket Nos. ER18-2364-000 and EL18-182-000 as proposed or implemented as of the effective date of this Agreement.

**Retail Trade Transactions.** At any time during the term of this Agreement, you may request the purchase of renewable energy certificates in an amount equal to a prescribed percentage of your load volume by entering into one or more Retail Trade Transactions (“RTTs”) between us. If we both agree to the pricing and terms of the renewable energy certificates purchase, a separate RTT Confirmation signed by both of us will document each such purchase and be incorporated herein.

**Term.** This Agreement will become effective and binding after you have signed this Agreement and we have counter-signed. Subject to successful enrollment of your Account(s), this Agreement shall commence on or about the date set forth under “Start Date” and end on or about the date set forth under “End Date”, unless extended on a holdover basis as described in this Agreement. The actual Start Date is dependent on the UDC successfully enrolling the Account(s) and furnishing us with all necessary information regarding the Account(s) meter read cycle and meter read date(s). The dates set forth in the Account Schedule below reflect UDC information available at that time or as otherwise estimated by us. The actual meter read dates may occur on or about the dates set forth herein. We will use commercially reasonable efforts to begin service to each Account(s) on the actual meter read date on or about the Start Date set forth herein. If we are unable to timely enroll an Account, the Start Date will commence on the next regularly scheduled UDC meter read cycle date following successful enrollment. The End Date will remain the same unless extended for a holdover term. We shall not be liable for any failure to enroll or drop an Account by the Start and End Date due to circumstances beyond our control. We will not be responsible for any gaps in service that may occur between the termination of your service from a prior supplier and the commencement of supply from us.

Nothing in this Agreement shall be deemed to require or otherwise obligate us to offer to extend the term of this Agreement. If following termination or expiration of this Agreement (whether in whole or in part), for any reason, some or all of the Accounts remain designated by the UDC as being supplied by us, we may continue to serve such Account(s) on a month-to-month holdover basis. During such holdover term, we will calculate your invoice as follows: (Each Account’s metered usage, as adjusted by the applicable line loss factor) times (the applicable ISO-published Day Ahead Locational Based Marginal Price (“LMP”) + \$<Insert Holdover Rate>/kWh) + (a pass through of all costs and charges incurred by us for the retail delivery of energy to you) + Taxes. This Agreement will continue to govern the service of such Accounts during such holdover term. Either party may terminate the holdover term at any time within its discretion at which time we will drop each Account as of the next possible meter read date to the then applicable tariff service, whether default service or otherwise.

**Your Invoice.** Your invoice will contain all charges applicable to your electricity usage, including Taxes (which are passed through to you). You will receive one invoice from the UDC for UDC charges and one invoice from us for all other charges (“Dual Billing”), unless we agree otherwise, or your Account(s) eligibility changes. All amounts charged are due in full within **twenty (20)** days of the invoice date, and we reserve the right to adjust amounts previously invoiced based upon supplemental or additional data we may receive from your UDC. Your invoices will be based on actual data provided by the UDC, provided that if we do not receive actual data in a timely manner, we will make a good faith estimate using your historical usage data and other information. Once we receive actual data we will reconcile the estimated charges and adjust them as needed in subsequent invoices. If you fail to make payment by the due date, interest will accrue daily on outstanding amounts from the due date until the bill is paid in full at a rate of **1.5%** per month, or the highest rate permitted by law, whichever is less. All invoices (including adjustments to those invoices) are conclusively presumed final and accurate unless such invoices are objected to by either you or us in writing, including adequate explanation and/or documentation, within 24 months after the date such invoice was rendered, provided however, we may rebill based on post-period audits or adjustments made by the ISO, UDC, or other governmental authority, commission or agency with jurisdiction in the state in which the accounts are located.

**Adding and Deleting Accounts.**

**(a) Adding Accounts.** The Parties acknowledge and agree that the contract price(s) in the Account Schedule reflect a product option that allows Customer the ability to add one or more Account(s) at the same contract price listed in this Agreement (consistent with the terms below) (an “Add”). The Add(s) will not exceed 10.00% of the Aggregate Baseline. The “Aggregate Baseline” shall mean the actual total historical monthly kilowatt-hours consumption reported to Seller for the immediately preceding yearly period prior to the Start Date herein or in the case of Account(s) that did not receive electricity in the prior year period, Seller’s good-faith estimate of the anticipated monthly consumption for such Account(s). For any Add(s) that exceed 10.00% of Aggregate Baseline, Customer and Seller will enter into good faith negotiations to add the Account(s) at the then -current market rate. For the purposes of clarity, the Aggregate Baseline shall only be made up of Customer’s Account(s) which are expressly listed on this Agreement only and not any Add(s) or Delete(s) transacted in accordance with this section.

**(b) Deleting Accounts.** In addition, the contract price(s) in the Account Schedule reflect a product option that allows Customer the ability to delete Account(s) listed in the Account Schedule below (“Delete”) without incurring an early termination payment until the Deletes exceed 10.00% of the Aggregate Baseline.

**(c) Add/Delete Restrictions.** In each case, any Add or Delete will only be allowed if: (i) there is no un-remedied default by Customer; (ii) with respect to Delete(s), the Delete(s) are in the ordinary course of Customer’s business and not to move to another electricity provider, (iii) with respect to any Add(s), the Add(s) are (a) within the same UDC zone and of similar usage patterns as the Customer’s Account(s) served by Seller under this Agreement; and (b) there

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has been no material change in law which has altered the economics to the extent that such change in law would impact Seller's desire to allow the original price to reflect the intent of the Parties' agreement. In no event will Customer be allowed to net Add(s) against Delete(s).

**(d) Confirmation of Add(s) via email.** Each Add and/or Delete shall be memorialized in writing. The Parties agree that if Customer designates an Authorized Person(s) below the signature line at the time this Agreement is executed and returned to Seller for execution, then both Parties agree to be legally bound to

Add an account via an e-mail transmission by such designated Authorized Persons in accordance with Seller's then-current email transaction process.

**Certain Warranties.** You warrant and represent that for Account(s) located in the State of Connecticut, that the electricity supplied under this Agreement is not for use at a residence. If you notify us that you are cancelling this agreement, you can call Constellation at 1-888-635-0827, send an email to [feedback@Constellation.com](mailto:feedback@Constellation.com), or send a letter through U.S. mail to our business address.

**Notices.** All notices will be in writing and delivered by hand, certified mail, return receipt requested, or by first class mail or by express carrier to our respective business addresses. Our business address is 1001 Louisiana St., Suite 2300, Houston, Texas 77002, Attn: Contracts Administration. Either of us can change our address by notice to the other pursuant to this paragraph.

**Customer Service.** For questions about your invoice or our services, contact us at our Customer Service Department by calling toll-free 844-6-ENERGY, or by e-mail at [customercare@constellation.com](mailto:customercare@constellation.com). Your prior authorization of us to your UDC as recipient of your current and historical energy billing and usage data will remain in effect during the entire term of this Agreement, including any renewal, unless you rescind the authorization upon written notice to us or by calling us at 1-844-6-ENERGY. We reserve the right to cancel this Agreement in the event you rescind the authorization.

**IN THE EVENT OF AN EMERGENCY, POWER OUTAGE OR WIRES AND EQUIPMENT SERVICE NEEDS, CONTACT YOUR APPLICABLE UDC AT:**

UDC Name	UDC Abbreviation	Contact Numbers
<Insert Utility Name>	<Insert Utility Abbreviation>	<Insert Contact Numbers>

**Environmental Disclosure Information.** Our electricity supply may be purchased from any number of sources. We are not purporting to sell power from a specific source—e.g. renewable fuels. Data concerning the generation resource mix and environmental characteristics of our electricity products is included as Exhibit A hereto and incorporated herein by reference, may be provided to you periodically with your invoices, is available upon request and may be updated periodically.

**Additional Terms.** For Accounts in the State of Connecticut, additional information, including information on consumer rights, may be obtained by contacting the Connecticut Public Utilities Regulatory Authority at (800) 382-4586. You understand that you can review your existing electric generation service charge for purposes of comparison to your rate under this Agreement by going to [energizeCT.com](http://energizeCT.com) and selecting your rate class information.

**CUSTOMER'S RIGHT TO RESCIND. FOR ACCOUNT(S) LOCATED IN THE STATE OF CONNECTICUT: IF YOUR AGGREGATE PEAK LOAD DURING ANY 12 MONTH PERIOD IS 500 KILOWATTS OR LESS, YOU HAVE UNTIL MIDNIGHT ON THE THIRD BUSINESS DAY AFTER THE LATER OF THE DAY ON WHICH THE CUSTOMER ENTERS INTO THIS AGREEMENT OR THE DAY ON WHICH THE CUSTOMER RECEIVES A COPY OF THE FULLY EXECUTED AGREEMENT TO CANCEL THIS AGREEMENT WITHOUT PENALTY.**

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK.]

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Each party has caused this Agreement to be executed by its authorized representative on the respective dates written below.

[CONSTELLATION LEGAL ENTITY NAME]

Customer: <Customer Name>

By:

By: \_\_\_\_\_

Name:

Name:

Title:

Title:

Date:

Address: 1001 Louisiana St., Suite 2300  
Houston, Texas 77002

Address:

Attention: Contracts Administration

Attention:

Facsimile: (888) 829-8738

Facsimile:

Telephone: (844) 6- ENERGY

Telephone:

Email Address:

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## **General Terms and Conditions**

### **1. Definitions.**

**"Ancillary Services And Other ISO Costs"** means for any billing period the applicable charges regarding ancillary services as set forth in the applicable ISO Open Access Transmission Tariff ("OATT") and for other ISO costs not otherwise included in any of the defined cost components in this Agreement. We will reasonably determine your Account's monthly Ancillary Services And Other ISO Costs based on the Account's \$/kWh share of costs for Ancillary Services And Other ISO Costs or otherwise reasonable allocation method as we may determine from time to time based on how Ancillary Services And Other ISO Costs are assessed by the ISO.

**"Auction Revenue Rights"** means revenue credits resulting from the annual financial transmission rights auction conducted by the ISO that are applicable with respect to transmission peak load contribution.

**"Capacity Costs"** means a charge for fulfilling the capacity requirements for the Account(s) imposed by the ISO or otherwise.

**"Energy Costs"** means a charge for the cost items included in the locational Marginal Price for the ISO zone identified in the Account Schedule.

**"ISO"** means the independent system operator or regional transmission organization responsible for the service territory governing an Account, or any successor or replacement entity.

**"Line Loss Costs"** means the costs (to the extent not already captured in the applicable Energy Costs) applicable to each Account based on the kWh difference between the UDC metered usage and the ISO settlement volumes (the "Line Loss Usage"). If Line Loss Costs are "Fixed," the Line Loss Costs are included in the contract price and will not be invoiced as a separate line item. If Line Loss Costs are "Fixed (Charged Separately)," the contract price shall be applied to the Line Loss Usage and appear as a separate line item on the invoice. If Line Loss Costs are "Passed Through," the Line Loss Costs will be invoiced as a separate line item and calculated based on the applicable locational marginal price for the Line Loss Usage.

**"Non Time Of Use" or "NTOU"** means all hours of each day.

**"Off Peak"** means all hours other than Peak hours.

**"Peak"** means the hours designated as peak from time to time by the UDC.

**"Renewable Portfolio Standards Costs ("RPS Costs")"** means the costs associated with meeting renewable portfolio standards costs at the levels required by currently applicable Law. If Renewable Portfolio Standards Costs are not included in the contract price, such costs for a particular month will be the product of (i) the Monthly RPS Price; and (ii) an Account's monthly kWh usage. The Monthly RPS Price is the price of renewable portfolio standards compliance for the Account, for a particular month, fixed by reference to the renewable portfolio standards forward price curve for the state where the Account is located.

**"Taxes"** means all federal, state, municipal and local taxes, duties, fees, levies, premiums or other charges imposed by any governmental authority, directly or indirectly, on or with respect to the electricity and related products and services provided under this Agreement, including any taxes enacted after the date we entered into this Agreement.

**"Transmission Loss Credits"** means the credit amounts applicable to the Accounts under the ISO's marginal loss construct.

**"UDC"** means your local electric distribution utility owning and/or controlling and maintaining the distribution system required for delivery of electricity to the Accounts.

**"UDC Charges"** means all UDC costs, charges, and fees, due under UDC's delivery services rates associated with your use of UDC's distribution network, all as defined by the UDC tariffs, and any similar or related charges the UDC may impose from time to time.

**2. Cash deposit and other security.** At any time, we may require that you provide information to us so that we may evaluate your creditworthiness. We reserve the right to require that you make a cash deposit or provide other security acceptable to us if your financial obligations to us increase under this Agreement, or if, in our opinion, your credit, payment history, or ability to pay your bills as they come due becomes a concern. You will deliver any required cash deposit or other required security (or any increase therein) within three (3) business days of our request.

**3. Default under this Agreement.** You will be in default under this Agreement if you fail to: pay your bills on time and in full; provide cash deposits or other security as required by Section 2 above; or perform all material obligations under this Agreement and you do not cure such default within 5 days of written notice from us; or if you declare or file for bankruptcy or otherwise become insolvent or unable to pay your debts as they come due. We will be in default under this Agreement if we fail to perform all material obligations under this Agreement and do not cure such default within 5 days written notice from you, or if we declare or file for bankruptcy or otherwise become insolvent or unable to pay our debts as they come due.

**4. Remedies upon default; Early Termination Payment.** If you are in default under this Agreement, in addition to any other remedies available to us, we may terminate this Agreement entirely, or solely with respect to those Accounts adversely affected by such default, and switch your Account(s) back to UDC service (consistent with applicable regulations and UDC practices); and/or you will be required to pay us an early termination payment to compensate us for all losses we sustain due to your default, including:

- all amounts you owe us for electricity provided to you;
- the positive difference, if any, between (A) the price you would have paid us under this Agreement had it not been terminated early (including our margin), less the then-current market price of electricity and services under terms substantially similar to the terms of this Agreement, as reasonably calculated by us based on information available to us internally or supplied by one or more third parties; multiplied by (B) the estimated undelivered volume of electricity you would consume through the end of the term, as reasonably calculated by us; and
- all costs (including attorneys' fees, expenses and court costs) we incur in collecting amounts you owe us under this Agreement.

The parties agree that any early termination payment determined in accordance with this Section is a reasonable approximation of harm or loss and is not a penalty or punitive in any respect, and that neither party will be required to enter into a replacement transaction in order to determine or be entitled to a termination payment.

**5. Changes in law.** We may pass through or allocate, as the case may be, to you any increase or decrease in our costs related to the electricity and related products and services sold to you that results from the implementation of new, or changes (including changes to formula rate calculations) to existing, Laws, or other requirements or changes in administration or interpretation of Laws or other requirements. "Law" means any law, rule, regulation, ordinance, statute, judicial decision, administrative order, ISO business practices or protocol, UDC or ISO tariff, rule of any commission or agency with jurisdiction in the state in which the Accounts are located. Such additional amounts will be included in subsequent invoices to you. The changes described in this Section may change any or all of the charges described in this Agreement, whether described as "fixed," "variable," "pass-through" or otherwise. . Your first bill reflecting increased costs will include a bill insert describing the increase in costs in reasonable detail.

**6. Events beyond either of our reasonable control.** If something happens that is beyond either of our reasonable control that prevents either of us from

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performing our respective obligations under this Agreement, then whichever one of us cannot perform will be relieved from performance until the situation is resolved. Examples of such events include: acts of God, fire, flood, hurricane, war, terrorism; declaration of emergency by a governmental entity, the ISO or the UDC; curtailment, disruption or interruption of electricity transmission, distribution or supply; regulatory, administrative, or legislative action, or action or restraint by court order or other governmental entity; actions taken by third parties not under your or our control, such as the ISO or a UDC. Such events shall not excuse failure to make payments due in a timely manner for electricity supplied to you prior to such event. Further, if such an event prevents or makes it impossible or impracticable for the claiming party to carry out any obligation under this Agreement due to the events beyond either of our reasonable control for more than 30 days, then whichever one of us whose performance was **not** prevented by such events shall have the right to terminate this Agreement without penalty upon 30 days' written notice to the other.

**7. UDC or ISO obligations.** We will have no liability or responsibility for matters within the control of the UDC or the ISO-controlled grid, which include maintenance of electric lines and systems, service interruptions, loss or termination of service, deterioration of electric services, or meter readings.

**8. Limitation on Liability.** IN NO EVENT WILL EITHER PARTY OR ANY OF ITS RESPECTIVE AFFILIATED COMPANIES BE LIABLE FOR ANY CONSEQUENTIAL, EXEMPLARY, SPECIAL, INCIDENTAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST OPPORTUNITIES OR LOST PROFITS NOT CONTEMPLATED BY SECTION 4. Each party's total liability related to this Agreement, whether arising under breach of contract, tort, strict liability or otherwise, will be limited to direct, actual damages. Direct, actual damages payable to us will reflect the early termination payment calculation in Section 4. Each party agrees to use commercially reasonable efforts to mitigate damages it may incur. NO WARRANTY, DUTY, OR REMEDY, WHETHER EXPRESSED, IMPLIED OR STATUTORY, ON OUR PART IS GIVEN OR INTENDED TO ARISE OUT OF THIS AGREEMENT, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

**9. DISPUTE RESOLUTION.** THIS AGREEMENT WILL BE GOVERNED BY AND INTERPRETED IN ACCORDANCE WITH THE LAWS OF THE STATE IN WHICH ANY ACCOUNT IS LOCATED, WITHOUT GIVING EFFECT TO ANY CONFLICTS OF LAW PROVISIONS, AND ANY CONTROVERSY OR CLAIM ARISING FROM OR RELATING TO THIS AGREEMENT WILL BE SETTLED IN ACCORDANCE WITH THE EXPRESS TERMS OF THIS AGREEMENT BY A COURT LOCATED IN SUCH STATE. IF THE MATTER AT ISSUE INVOLVES ACCOUNTS OR MATTERS IN MORE THAN ONE STATE, THE GOVERNING JURISDICTION AND VENUE SHALL BE DEEMED TO BE NEW YORK. TO THE EXTENT ALLOWED BY APPLICABLE LAW, WE ALSO BOTH AGREE IRREVOCABLY AND UNCONDITIONALLY TO WAIVE ANY RIGHT TO A TRIAL BY JURY OR TO INITIATE OR BECOME A PARTY TO ANY CLASS ACTION CLAIMS WITH RESPECT TO ANY ACTION, SUIT OR PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT.

**10. Relationship of Parties; Representations and Warranties.** We are an independent contractor, and nothing in this Agreement establishes a joint venture, fiduciary relationship, partnership or other joint undertaking. We are not acting as your consultant or advisor, and you will **not rely** on us in evaluating the advantages or disadvantages of any specific product or service, predictions about future energy prices, or any other matter. Your decision to enter into this Agreement and any other decisions or actions you may take is and will be based solely upon your own analysis (or that of your advisors) and not on information

or statements from us. You represent (i) you are duly organized and in good standing under the Laws of the jurisdiction of your formation; (ii) you are authorized and qualified to do business in the jurisdiction necessary to perform under this Agreement; (iii) execution, delivery and performance of this Agreement are duly authorized and do not violate any of your governing documents or contracts or any applicable Law; and (iv) if you are a Governmental Entity, you further warrant (a) you have complied with all applicable bidding and procurement laws in awarding this Agreement, (b) you will not claim immunity on the grounds of sovereignty or similar grounds from enforcement of this Agreement; and (c) you will obtain all necessary budgetary approvals, appropriations and funding for all of your obligations under this Agreement, the failure of which shall not be an excuse for Governmental Entity's performance or failure to perform hereunder and upon request will provide proof of such authority. "Governmental Entity" means a municipality, county, governmental board or department, commission, agency, bureau, administrative body, joint action agency, court or other similar political subdivision (including a public school district or special purpose district or authority), or public entity or instrumentality of the United States or one or more states.

**11. Confidentiality.** Consistent with applicable regulatory requirements, we will hold in confidence all information obtained by us from you related to the provision of services under this Agreement and which concern your energy characteristics and use patterns, except that we may, consistent with applicable law and regulation, disclose such information to (a) our affiliates and such affiliates' employees, agents, advisors, and independent contractors, (b) third parties representing you in this purchase of electricity, and (c) other third parties, if the information (i) is presented in aggregate and (ii) cannot be reasonably expected to identify you. Except as otherwise required by law, you will agree to keep confidential the terms of our Agreement, including price.

**12. Miscellaneous Provisions.** If in any circumstance we do not provide notice of, or object to, any default on your part, such situation will not constitute a waiver of any future default of any kind. If any of this Agreement is held legally invalid, the remainder will not be affected and will be valid and enforced to the fullest extent permitted by law and equity, and there will be deemed substituted for the invalid provisions such provisions as will most nearly carry out our mutual intent as expressed in this Agreement. You may not assign or otherwise transfer any of your rights or obligations under this Agreement without our prior written consent. Any such attempted transfer will be void. We may assign our rights and obligations under this Agreement. This Agreement contains the entire agreement between both of us, supersedes any other agreements, discussions or understandings (whether written or oral) regarding the subject matter of this Agreement, and may not be contradicted by any prior or contemporaneous oral or written agreement. A facsimile or e-mailed copy with your signature will be considered an original for all purposes, and you will provide original signed copies upon request. Each party authorizes the other party to affix an ink or digital stamp of its signature to this Agreement, and agrees to be bound by a document executed in such a manner. The parties acknowledge that any document generated by the parties with respect to this Agreement, including this Agreement, may be imaged and stored electronically and such imaged documents may be introduced as evidence in any proceeding as if such were original business records and neither party shall contest their admissibility as evidence in any proceeding. Except as otherwise explicitly provided in this Agreement, no amendment (including in form of a purchase order you send us) to this Agreement will be valid or given any effect unless signed by both of us. Applicable provisions of this Agreement will continue in effect after termination or expiration of this Agreement to the extent necessary, including those for billing adjustments and payments, indemnification, limitations of liability, and dispute resolution. This Agreement is a "forward

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**\*This draft is preliminary and subject to further changes prior to release\***

contract” and we are a “forward contract merchant under the U.S. Bankruptcy Code, as amended. Further, we are not providing advice regarding “commodity interests”, including futures contracts and commodity options or any other matter, which would cause us to be a commodity trading advisor under the U.S. Commodity Exchange Act, as amended.

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**ACCOUNT SCHEDULE:**

**For: <Customer Name>**

**The pricing set forth below is only valid until 5:00 PM Eastern Prevailing Time on <Insert Date>**

**We shall have no obligation to enroll or supply electricity to any account(s) that are not identified on the Account Schedule below.**

**Please verify that your specific information is COMPLETE and ACCURATE.**

**Your review and acceptance of this information will help ensure accurate future invoices**

*Notes: Accounts or Service Addresses listed in the Account(s) Schedule may be updated or replaced with a new account number issued by the UDC, ISO or other entity.*

**THIS DOCUMENT MAY BE RETURNED TO SELLER BY FAX TO (888)-829-8738 OR AS OTHERWISE DIRECTED.**

No. of Service Accounts:

UDC	UDC Account Number	Service Address	Start Date	End Date	Energy Price Non TOU (\$/kWh)



**Exhibit A**



Label date 9/15/2021

**Constellation NewEnergy, Inc.**  
**Electric Generation Disclosure Label** [see other side](#)

1310 Point Street, Baltimore, MD 21231

customer service phone #1-844-636-3749 website [www.constellation.com](http://www.constellation.com)

**What is this label about?**

It's about helping you compare the benefits of generation service offers of Constellation to those of other competitive electric suppliers and to (CL&P or UI).

**To our customers:**

Electric generation service in Connecticut can be provided to you by licensed Suppliers, CL&P, or UI. This is a choice you can make. This Constellation disclosure label can be used to compare prices and other items (such as generation power sources and renewable sources) to those that other Suppliers, CL&P or UI may offer you.

**Important considerations in making your comparisons and choice:**

- Ask the Supplier, CL&P or UI if its offer is **all-inclusive** or **not all-inclusive**, so you can make the right comparison and choice. Suppliers, CL&P and UI in Connecticut are required to disclose this information to you in their labels.
- An **all-inclusive** offer includes all charges and fees related to the generation portion of your electric bill included in the price of the Generation Service Charge (GSC). A **Not all-inclusive** offer **does not**; thus, there are other charges and/or fees that you would be assessed in addition to the GSC.
- Check any contract or agreement you are considering from a Supplier for specifics on price, such as whether pricing is fixed or variable, the term/ length of contract, and any other charges, enrollment fees, deposits or requirements for which you are responsible.

**Other questions you can ask a potential supplier:**

1. Is the Supplier licensed by the CT PURA?
2. Ask the Supplier to estimate your electric generation costs relative to CL&P's/ UI's and explain other possible benefits of switching your service. The average residential customer in CT uses 700 kWh per month. This would be a good comparison starting point. Some examples of the possible benefits are cost savings, budget certainty, risk management, product offerings and renewable energy.
3. How does the Supplier's all-inclusive price compare with the current CL&P or UI GSC charge?
4. Will the Supplier's price change when the CL&P or UI GSC price changes or is it fixed for the term of the contract/agreement?
5. If I switch to a Supplier, will my GSC charge still be on the CL&P/ UI bill or will I receive a separate bill from the supplier?
6. If a Supplier issues a separate bill to me, will there be a late payment fee and, if so, what is the annual percentage charge?
7. Does the Supplier offer a choice of energy sources, such as renewable energy?
8. What is the Supplier's contact information if I have questions? Contact information should include the Supplier's phone number, customer service hours, mailing address and contact name.

**For Pricing Information - See the "Account Schedule" page in your contract.**

**Reminder:** Your monthly electric bill also has a section for delivery service. This service is for the poles, wires, transformers and all of the other services to deliver electricity to your home or business. Delivery service charges do NOT include what you pay for your electric Generation Service in the GSC charge. You pay delivery service charges whether you buy your electricity from CL&P, UI or any other supplier.

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Label date: 9/15/2021

**Your Electric Generation Disclosure Label  
from Constellation**

[see other side](#)

Power Sources	New England Power Pool System Mix
Coal	0.23%
Natural Gas	45.89%
Oil (Diesel, Jet, Oil)	5.49%
Nuclear	24.99%
Connecticut Qualified Renewable Sources	11.73%
Other, Misc.	11.67%
<b>Total</b>	<b>100.00%</b>

System Mix source: NEPOOL GIS Reports (Q1-2020 through Q4-2020). CT Qualified Sources includes CT Class 1 & CT Class 2 only. Supplier Known Sources are part of the system mix, but renewable sources are disclosed separately in the Supplier Compliance chart for CT RPS below.

CT Renewable Portfolio Standards Constellation Compliance				
	Class I	Class II	Class III	Total
Required 2020	21.0%	4.0%	4.0%	29.0%
Required 2021	22.5%	4.0%	4.0%	30.5%
Required 2022	24.0%	4.0%	4.0%	32.0%
Required 2023	26.0%	4.0%	4.0%	34.0%
Required 2024	28.0%	4.0%	4.0%	36.0%

**About Power Sources**

Your electricity is transmitted across the New England electric system, which receives electricity from power plants throughout the region to meet the requirements of all customers in New England. The **"New England Power Pool System Mix"** represents the percentage of power supply from each power source in the regional system. Suppliers are responsible for generating and/or purchasing electricity that is added to the electric system in an amount equal to your electricity use. To promote the development of renewable/clean sources, Connecticut, through legislation called the **Renewable Portfolio Standard (RPS)**, requires all Suppliers to acquire specific percentages of energy from renewable resources. CT RPS sources are defined as Class I, Class II and Class III. **Class I renewable** sources include solar power, fuel cells, methane gas from landfills, ocean thermal power, sustainable biomass, wave or tidal power, low emission advanced renewable energy conversion technologies, and certain run-of-river hydropower. **Class II renewable** sources include trash-to-energy, certain biomass facilities, and certain run-of-river hydropower facilities. Electricity generation from renewables has lower emissions and less of an impact on the environment than that produced

from conventional fossil fuels. As an alternative to providing the RPS requirements a Supplier may pay an alternative compliance payment. **Class III** sources include CT commercial & industrial facilities using combined heat and power systems with at least 50% operating efficiency, a waste heat recovery system or electricity savings from energy efficiency measures.

**Air Emissions from Power Sources**

The air emissions listed below are produced when certain fuels are used to generate electricity.

**Carbon Dioxide (CO<sub>2</sub>)** is released when coal, oil, natural gas, trash, methane and biomass are burned. Carbon dioxide, a greenhouse gas, is thought to be a major contributor to global warming.

**Nitrogen Oxide (NO<sub>x</sub>)** is formed when fossil fuels, trash, methane and biomass are burned at high temperatures. They contribute to acid rain and ground-level ozone (or smog), and may contribute to respiratory illness. NO<sub>x</sub> also accelerates vegetative growth in lakes and coastal waters which may lead to oxygen deprivation which is destructive to fish and other aquatic life.

**Sulfur Dioxide (SO<sub>2</sub>)** is formed when fuels containing sulfur are burned, primarily coal, oil and trash. Health risks associated with SO<sub>2</sub> include asthma, respiratory illness and aggravation of existing cardiovascular disease. SO<sub>2</sub> combines with water and oxygen in the atmosphere to form acid rain, which raises the acid level of lakes and streams, is detrimental to crops and forests and accelerates the deterioration of buildings and monuments.

**Additional Information:**

This label provides information on the New England regional electric system power sources and the air emissions related to electricity generation. For additional information on Supplier prices, power sources and air emissions, visit the CT PURA's Electric Supplier Info Database, [www.dnuc.state.ct.us/el\\_aggreg.nsf](http://www.dnuc.state.ct.us/el_aggreg.nsf)

In the case of an emergency or power outage, please contact your utility. UI customers call: 1-800-7CALL UI (1-800-722-5584); and CL&P customers call 1-800-286-2000.

**The Connecticut Public Utilities Regulatory Authority (PURA), Ten Franklin Square, New Britain, CT 06051**  
Toll-free 1-800-382-4586 [www.ct.gov/pura](http://www.ct.gov/pura)

Suppliers are required to post their Disclosure Label(s), and updated versions as they occur, to the Electric Supplier Info Database on the PURA's website.

PURA Disclosure Label-Supplier-template-12-2012

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**CONSTELLATION LEGAL ENTITY NAME**  
**Retail Trade Transactions ("RTT") Confirmation**  
**Pricing Expiration Date: 5:00 PM Central Prevailing Time on <Insert Date>**

This Retail Trade Transactions Confirmation ("RTT Confirmation") is being entered into by and between CONSTELLATION LEGAL ENTITY NAME ("Seller") and <Customer Name> ("Customer") pursuant to and in accordance with a master retail electricity supply agreement or master electricity sales agreement ("Master Agreement") and a transaction confirmation or pricing schedule (the "TC") or an Electricity Supply Agreement (), as applicable, between Seller and Customer. Any reference in the Master Agreement, the TC, or the Electricity Supply Agreement, as applicable, or this RTT Confirmation to the "TC" or the "Agreement" shall include this RTT Confirmation. Capitalized terms used but not defined herein shall have the meanings ascribed to elsewhere in the Agreement. To the extent that the Master Agreement and/or the TC or the Electricity Supply Agreement and this executed RTT Confirmation contradict each other, this fully executed RTT Confirmation shall control. The Parties agree to the sale/purchase of the products identified below under the following terms and conditions:

**1. RTT Confirmation Detail Table**

No. of Service Accounts:

RTT Contract Number	Product	Sell	Commodity	RTT Start Date	RTT End Date	Delivery Point	Time Pattern	Holidays	Quantity	Qty UOM	Price (\$/ kWh)	UDC Account Number

**2. Definitions**

**2.1. RTT Confirmation Detail Definitions**

**2.1.1. Commodity** means the commodity for the transaction set forth in this RTT Confirmation as defined in the Commodity Definitions below.

**2.1.2. Commodity Definitions**

**2.1.2.1. Energy** means the requirement to supply electrical energy to meet the needs of Customer's Account(s) as defined by the relevant ISO or other electrical system governing authority as applicable.

**2.1.2.2. Natural Gas** is defined as meaning the requirement to fix some portion of the natural gas price associated with purchases of electricity when the purchase price is stated as a heat rate.

**2.1.3. Holidays** means the days designated as holidays per the Holidays Definitions below.

**2.1.4. Delivery Point** means the point of interconnection between the ISO-controlled grid or a third-party transmission system and/or distribution system, as applicable, and the Utility's transmission system and/or distribution system at which the commodity will be delivered for settlement purposes.

**2.1.5. Price** means the price to be paid per unit for the commodity. The price may be stated in dollars or as a heat rate. See Product Definitions, below.

**2.1.6. Product** means the specific type of product purchased in the RTT Confirmation. See Product Definitions below.

**2.1.7. Quantity** means the amount of the commodity sold in each hour for the hours in which the commodity is defined to be provided.

**2.1.8. RTT Contract Number** means the contract number in Seller systems used to identify the specific RTT.

**2.1.9. RTT End Date** means on or about the date set forth above in which the commodity ceases to be provided to the Accounts, subject to definitions of Time Pattern and Holidays Excluded. In no case shall the term for any Product continue past the End Date of the underlying TC.

**2.1.10. RTT Start Date** means on or about the date set forth above in which the commodity begins to be provided to the Accounts subject to definitions of Time Pattern and Holidays Excluded. In no case shall the term for any Product start prior to the Start Date of the underlying TC.

**2.1.11. Sell** means that Seller is selling and the Customer is purchasing the commodity as set forth in this RTT Confirmation.

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**2.1.12. Time Pattern** means the days of the week and hours of those days when the commodity will be provided between the RTT Start Date and RTT End Date subject to definitions of Holidays. See Time Pattern Definitions below.

**2.1.13. Utility Account numbers** means the list of Account(s) participating in the purchase of the RTT for purposes of invoice calculation based on the Utility account numbers, recognizing that such account numbers may be updated or replaced from time to time by the UDC, ISO, or other authorized entity.

## **2.2. Product Definitions**

**2.2.1. Electric Block or Fixed Energy Contract Quantity** fixes the unit Price and the Quantity for the specified commodity, Delivery Point, Time Pattern, and Holidays.

**2.2.2. Electric Fixed Price Percent Of Load or Incremental Fixed Energy Contract Quantity Percentage** fixes the unit Price for a fixed percentage of the total requirement of the specified commodity for the specified Delivery Point, Time Pattern, and Holiday Pattern.

**2.2.3. Electric Block DA** fixes the Quantity for the specified commodity, Delivery Point, Time Pattern, and Holidays. The price will be the day ahead market price established by the Independent System Operator (ISO) plus the stated adder listed under Price.

**2.2.4. Gas Block** fixes the Gas Price and the Quantity for the specified Delivery Point, Time Pattern, and Holidays. This product is used only when the customer has previously purchased a Heat Rate Block and is used to fix the Gas Price for a portion of heat rate block(s).

**2.2.5. Gas Fixed Price Percent of Load** fixes the Gas Price for a fixed percentage of electric usage for the specified Delivery Point, Time Pattern, and Holiday Pattern. This RTT is used only when the base contract price is stated as a heat rate.

**2.2.6. Heat Rate Block** fixes the unit Price and the Quantity for the specified commodity, Delivery Point, Time Pattern, and Holidays. The unit Price is a heat rate, meaning that the price for the electricity will be determined by the price of natural gas multiplied by the heat rate. The gas price index is **NA**, the gas price index location is **NA**, the electric price index is **NA**. The Gas Price for a Heat Rate Block may be fixed for some or all of the Heat Rate Block volume by the purchase of a Gas Block.

## **2.3. Time Pattern Definitions**

**2.3.1. 7x24** means all days and all hours.

**2.3.2. Central 2x16** means Central Prevailing Time, Sat., Sun. and applicable Holidays from 6:00 a.m. through 10:00 p.m.

**2.3.3. Central 2x24** means Central Prevailing Time, Sat., Sun. and applicable Holidays for all hours.

**2.3.4. Central 5x16** means Central Prevailing Time, Mon. through Fri. from 6:00 a.m. through 10:00 p.m. excluding Holidays.

**2.3.5. Central 5x24** means Central Prevailing Time, Mon. through Fri. for all hours.

**2.3.6. Central 5x8** means Central Prevailing Time, Mon. through Fri. from midnight through 6:00 a.m. and 10:00 p.m. through midnight.

**2.3.7. Central 7x16** means Central Prevailing Time, Sun. through Sat. from 6:00 a.m. through 10:00 p.m.

**2.3.8. Central 7x8** means Central Prevailing Time, Sun. through Sat. from midnight through 6:00 a.m. and 10:00 p.m. through midnight.

**2.3.9. Central Whls NERC Off Peak** means Central 5x8 and Central 2x24 as elsewhere defined.

**2.3.10. Central Whls NERC Peak** means Central 5x16, as elsewhere defined.

**2.3.11. Eastern 2x16** means Eastern Prevailing Time, Sat., Sun. and applicable Holidays from 7:00 a.m. through 11:00 p.m.

**2.3.12. Eastern 2x24** means Eastern Prevailing Time, Sat., Sun. and applicable Holidays for all hours.

**2.3.13. Eastern 5x16** means Eastern Prevailing Time, Mon. through Fri. from 7:00 a.m. through 11:00 p.m. excluding Holidays.

**2.3.14. Eastern 5x8** means Eastern Prevailing Time, Mon. through Fri. from midnight through 7:00 a.m. and 11:00 p.m. through midnight.

**2.3.15. Eastern 7x16** means Eastern Prevailing Time, Sun. through Sat. from 7:00 a.m. through 11:00 p.m.

**2.3.16. Eastern 7x8** means Eastern Prevailing Time, Sun. through Sat. from midnight through 7:00 a.m. and 11:00 p.m. through midnight.

**2.3.17. Eastern Whls NERC Off Peak** means Eastern 5x8 and Eastern 2x24 as elsewhere defined.

**2.3.18. Eastern Whls NERC Peak** means Eastern 5x16, as elsewhere defined.

**2.3.19. Pacific 1x16** means Pacific Prevailing Time, Sun. and applicable Holidays from 6:00 a.m. through 10:00 p.m.

**2.3.20. Pacific 1x24** means Pacific Prevailing Time, Sun. and applicable Holidays for all hours.

**2.3.21. Pacific 5x16** means Pacific Prevailing Time, Mon. through Fri. from 6:00 a.m. through 10:00 p.m. excluding Holidays.

**2.3.22. Pacific 6x16** means Pacific Prevailing Time, Mon. through Sat. from 6:00 a.m. through 10:00 p.m. excluding Holidays.

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**2.3.23. Pacific 6x8** means Pacific Prevailing Time, Mon. through Sat. from midnight through 6:00 a.m. and 10:00 p.m. through midnight.

**2.3.24. Pacific 7x16** means Pacific Prevailing Time, Sun. through Sat. from 6:00 a.m. through 10:00 p.m.

**2.3.25. Pacific 7x8** means Pacific Prevailing Time, Sun. through Sat. from midnight through 6:00 a.m. and 10:00 p.m. through midnight.

**2.3.26. Pacific Whls NERC Off Peak** means Pacific 6x8 and Pacific 1x24 as elsewhere defined.

**2.3.27. Pacific Whls NERC Peak** means Pacific 6x16, as elsewhere defined.

## **2.4. Holidays Definitions**

**2.4.1. NERC Holidays** means holidays as defined by the North American Electric Reliability Council (NERC).

## **3. Additional Terms**

**CUSTOMER'S RIGHT TO RESCIND. FOR ACCOUNT(S) LOCATED IN THE STATE OF CONNECTICUT: IF YOUR AGGREGATE PEAK LOAD DURING ANY 12 MONTH PERIOD IS 500 KILOWATTS OR LESS, YOU HAVE UNTIL MIDNIGHT ON THE THIRD BUSINESS DAY AFTER THE LATER OF THE DAY ON WHICH THE CUSTOMER ENTERS INTO THIS AGREEMENT OR THE DAY ON WHICH THE CUSTOMER RECEIVES A COPY OF THE FULLY EXECUTED AGREEMENT TO CANCEL THIS AGREEMENT WITHOUT PENALTY.**

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**\*This draft is preliminary and subject to further changes prior to release\***

Please provide executed copies of this RTT Confirmation to Seller by no later than the Pricing Expiration Date set forth above via facsimile to (888) 829-8738 (Attention: Contracts Administrator). Failure to fax the completed documents to Seller as indicated above may result in the inability to timely enroll Customer's Account(s) or to honor the prices set forth herein.

**ACCEPTANCE.** *This RTT Confirmation shall not be binding or enforceable against Seller unless and until signed by an authorized representative of Seller.*

**IN WITNESS WHEREOF**, the Parties have caused this RTT Confirmation to be executed by their duly authorized representatives as of the respective dates set forth below.

**CONSTELLATION LEGAL ENTITY NAME**

**Customer: <Customer Name>**

By:

By: \_\_\_\_\_

Name:

Name:

Title:

Title:

Date:

Date:

Address: 1001 Louisiana St, Suite 2300  
Houston, Texas 77002

Address:

Attention: Contracts Administration

Attention:

Facsimile: 888-829-8738

Facsimile:

Telephone: 888-635-0827

Telephone:

Email Address:

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**Robert Kalamaras**  
Chief of Police

# Fairfield Police Department

**100 Reef Road  
Fairfield, CT 06824  
(203) 254-4816**



**Keith Broderick**  
Deputy Chief

---

## **Fairfield Emergency Radio Project**

---

### **1. Background-**

The project's primary goal is to replace the antiquated LMR communications system and to enhance interoperability and expanded communications capabilities for Fairfield's First Responders.

### **2. Purpose and Justification-**

Fairfield's existing Radio system was built in the early 1990s and this existing LMR system has reached the end of its life and is beginning to fail. The existing system provides limited interoperability both for incoming mutual aid and for Fairfield's emergency services providing aid to other municipal, state, and federal agencies. When a radio currently being used malfunctions, finding a replacement is a difficult process due to the fact our current radios are no longer supported by the manufacturer. There are several areas in town where there is limited or no coverage, which caused Officer/firefighter safety issues. The impacts of the project will enhance communication amongst first responders at the local, state, and federal levels. This will allow first responders to enhance the services provided to Fairfield residents by way of a more effective and efficient communications system.

### **3. Detailed Description of Proposal-**

This project will encompass the buildout of infrastructure necessary to ensure tower coverage within the Town and mobile and handheld radios for the end users. These radios will replace older radios which are NOT currently compatible with the State's Public Safety Radio System and our mutual-aid partners, and will enable the Police and Fire Department to communicate with our regional assets/teams on all the public safety bands utilizing analog or digital P25 and P25 Phase II standard radio language. Also included are allowances for radio installations, end user training, frequency coordination and licensing.

The State has afforded municipalities an opportunity to join their existing network. Many municipalities in Connecticut have or will be taking advantage of this invitation by the State of Connecticut to become part of their Connecticut Land Mobile Radio Network (CLMRN). The benefits of joining the CLMRN are: no fees charged by the State, interoperability with other users, access to conventional channel gateway network (CCGW) with Motorola consoles, over-the-air-rekeying (OTAR), over-the-air-programming (OTAP), access to the state radio management system, potential improved coverage, 24/7/365 monitoring by a dedicated team of experts at the Network Control Center, reduced costs as opposed to building your own system, and Mobile

phone/LTE integration. Our closest neighbors and our most frequent mutual-aid partners, the City of Bridgeport, the Town of Westport, and the Town of Easton have already joined this Network. The City of Norwalk is under contract to join, and is in the beginning stages of their infrastructure.

The coverage standard of joining the State of CT system will meet new construction technology and **will integrate with our new regional 911 center (Fairfield County Regional Dispatch)**

Town of Fairfield Cost Estimate: **\$3,500,000. (Total cost of project estimated at 7 million dollars but the town was recently awarded a 3.5 million dollar grant to fund half of the project. This total cost estimate of 7 million dollars includes a 500,000 software and hardware warranty supported by the state).**

#### **4. Reliability of Cost Estimate-**

On a scale of 1 to 10, the reliability of this estimate is a 9 if we move forward with the project prior to Dec 23, 2022. Motorola has refreshed their cost estimate to give us the high end estimate at State bid pricing which expires on Dec 23<sup>rd</sup> 2022.

#### **5. Increased Efficiency and Productivity**

Communities use Mutual Aid to handle those occasional incidents requiring more resources than they have or to handle instances when there are a large number of simultaneous calls. Dependable mutual aid partners respond promptly and efficiently when called and expect their partners to do the same. This purchase will enable timely replacement of equipment used daily in our core mission and ensure efficient and reliable response.

#### **6. Additional Long Range Costs-**

There are no additional long range costs. There will be a reduction in maintenance costs, as these will be new units under warranty.

#### **7. Additional Use or Demand-**

None anticipated

#### **8. Alternatives to This Request-**

This request represents the best alternative for the Police and Fire Departments. This is a purchase of equipment that is necessary to our essential functions. As noted earlier, our current radios are no longer supported by the manufacturer, and replacing a current radio is difficult due to the fact that they are hard to find replacements for sale.

#### **9. Safety**

For the Fire Department, the technology requested will support fire-ground communications and mutual-aid coordination. Lack of fire-ground communication is a commonly-cited reason for increased risk of injury or death on the scene of an emergency incident.

For the Police Department, the current, outdated radio system brings with it many dead spots in town where there is little or no radio reception, which causes significant officer safety issues. Also, if there was a major incident inside a large building or school in town, the current system has very little indoor reception which poses hazards for both Police and Fire.





**MOTOROLA SOLUTIONS**

**Firm Priced Proposal**

**Town of Fairfield, CT**

# Communications System Upgrade

**CLRMN Integration Proposal Refresh**

**October 10, 2022**

The design, technical, and price information furnished with this proposal is proprietary information of Motorola Solutions, Inc. (Motorola). Such information is submitted with the restriction that it is to be used only for the evaluation of the proposal, and is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the proposal, without the express written permission of Motorola Solutions, Inc.

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Motorola Solutions, Inc.  
500 W Monroe Street, Ste 4400  
Chicago, IL 60661-3781  
USA

October 10, 2022

Robert Kalamaras, Chief of Police  
Denis McCarthy, Fire Chief  
Town of Fairfield  
611 Old Post Road  
Fairfield, CT 06824

Subject: Communications System Upgrade

Dear Chief Kalamaras, Chief McCarthy,

Motorola Solutions, Inc. ("Motorola Solutions") is pleased to have the opportunity to provide Town of Fairfield, CT Fire and Police Departments with quality communications equipment and services. The Motorola Solutions project team has taken great care to propose a solution that will meet your needs and provide unsurpassed value.

Our proposal is based on connecting to and expanding the Connecticut Land Mobile Radio Network (CLMRN). To improve coverage within the Town of Fairfield and to enhance interoperability among your departments and with your mutual aid partners, the solution consists of:

- Three (3) 12-channel 7/800MHz ASTRO 25 trunked simulcast remote sites
- APX end user subscriber equipment for the Police Department and Fire Department

The pricing for the equipment, software and services being offered are consistent with the State of Connecticut's Master Contract #A-99-001 for Two-Way Radio Equipment, Contract #967-A-23-0338C. and is valid through December 23, 2022.

We thank you for the opportunity to furnish Town of Fairfield, CT with "best in class" solutions and we hope to strengthen our relationship by implementing this project. Our goal is to provide you with the best products and services available in the communications industry.

Sincerely,

Motorola Solutions, Inc.



Roy Kirchner  
MSSSI Vice President



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## Section 1

# System Description

## 1.1 Introduction

The Town of Fairfield has requested a proposal to replace the existing Police and Fire conventional radio systems with a Project 25, standards-based Internet Protocol (IP) expansion to the existing CT Land Mobile Radio Network (CLMRN) G ASTRO 25 simulcast subsystem to improve portable radio coverage within the Town of Fairfield jurisdictional area for Police and Fire users and enhance interoperability between other Local, State and Federal public safety agencies.

The Town of Fairfield has also requested the existing Police and Fire mobile and portable subscribers be replaced with APX Project 25 mobile and portable subscribers to provide mission critical voice communications with Fairfield public safety users and enhance interoperability between other Local, State and Federal public safety agencies.

## 1.2 Overview - Current System

The Town of Fairfield PD radio system currently consists of two (2) T-Band UHF conventional analog channels. Each UHF channel utilizes a main transmit site and a standby transmit site and includes additional receive sites in a receiver voting configuration.

The Town of Fairfield FD radio system currently consists of a single UHF conventional analog channel. The UHF channel utilizes a main transmit site and a standby transmit site and includes additional receive sites in a receiver voting configuration.

Current dispatch operations are performed by Fairfield County Dispatch using an MCC 7500E dispatch console system.

A mixture of mobile and portable subscriber radios are used by the Town of Fairfield PD and FD users.

The current Town of Fairfield radio systems do not provide sufficient portable radio coverage for the Town of Fairfield public safety use and does not provide seamless interoperability between other Local, State and Federal public safety agencies.

## 1.3 Proposed Solution

Motorola Solutions, Inc. (hereinafter Motorola Solutions) has worked closely with both the Town of Fairfield and the State to create a design that maximizes coverage within the Town of Fairfield jurisdictional area while minimizing the overall cost. In these discussions, several key design elements became clear:

- Improve in-building coverage within the Town of Fairfield jurisdictional area.
- Provide increased user capacity and interagency interoperability.
- Eliminate recurring costs related to the existing conventional radio systems.

- Leverage existing radio communications assets including the communication site at PD HQ.

To provide a solution which maximizes the in-building portable radio coverage within the Town of Fairfield, provides increased user capacity and provides interagency interoperability, Motorola Solutions' offered solution will expand and add to the existing CLMRN.

Motorola Solutions ASTRO 25 (APCO Project 25 compliant technology) is a trunked radio system that operates on IP (Internet Protocol) packet based architecture. The term "packet based" primarily references the capability of transporting digitized voice and data via IP packets through the system infrastructure. The Internet Protocol standard is utilized to establish a responsive connection between system components. Motorola Solutions ASTRO 25 is just one of the RF platforms that are supported in Motorola Solutions' packet switched IP backbone. This infrastructure uses the strength of IP to be able to implement any current or future RF IP-based technology, regardless of its "over-the-air" RF protocol.

A 12-channel 700/800 MHz ASTRO 25 simulcast remote site will be added to the existing CLMRN 13-site, 12-channel 700/800 MHz ASTRO 25 G simulcast subsystem. This ASTRO 25 simulcast remote site will be located at the existing Police Headquarters communication site on Reef Road. The simulcast remote site equipment will be installed in the existing equipment shelter. A DC rectifier system will be installed in the existing equipment shelter to provide backup power for the simulcast remote site equipment. The simulcast remote site antennas will be installed on the existing communications tower. A new microwave link into the existing CLMRN microwave network will be used for network backhaul to connect the simulcast remote site to the CLMRN G ASTRO 25 simulcast subsystem.

A 12-channel 700/800 MHz ASTRO 25 simulcast remote site will be added to the existing CLMRN 13-site, 12-channel 700/800 MHz ASTRO 25 G simulcast subsystem. This ASTRO 25 simulcast remote site will be located at Roncalli Hall on the Sacred Heart University campus on Park Avenue in Bridgeport, CT. The simulcast remote site equipment will be installed in the existing communication equipment room. A DC rectifier system will be installed in the existing communication equipment room to provide backup power for the simulcast remote site equipment. The simulcast remote site antennas will be installed on the roof of Roncalli Hall. A new microwave link into the existing CLMRN microwave network will be used for network backhaul to connect the simulcast remote site to the CLMRN G ASTRO 25 simulcast subsystem.

A 12-channel 700/800 MHz ASTRO 25 simulcast remote site will be added to the existing CLMRN 13-site, 12-channel 700/800 MHz ASTRO 25 G simulcast subsystem. This ASTRO 25 simulcast remote site will be located at the existing Crown Castle Tower site on Wood House Road. The simulcast remote site equipment will be installed in the existing Town of Fairfield acquired equipment shelter. A DC rectifier system will be installed in the existing equipment shelter to provide backup power for the simulcast remote site equipment. The simulcast remote site antennas will be installed on the existing communications tower. A new microwave link into the existing CLMRN microwave network will be used for network backhaul to connect the simulcast remote site to the CLMRN G ASTRO 25 simulcast subsystem.

Mobile and portable user radios will be added to the system to provide mission critical voice communications between the Fairfield Police and Fire users and Fairfield dispatch operators.



## 1.4 Proposed Equipment

The following sections describe the equipment configurations, by site, that will be provided/upgraded as part of this proposal.

### 1.4.1 Master Site

All of the equipment at the CLMRN Master and Dynamic System Resilience sites required to support the proposed equipment has been provided as part of other procurements and is not included as part of this offering.

The following licenses will be added to the Master Site and the DSR Master Site:

- Project 25 FDMA Trunking Site.
- Project 25 Phase 2 TDMA Trunking Site.
- Project 25 Phase 2 TDMA Base Radio.
- Unified Network Configurator (UNC) Device.
- Radio User.
- Group Services.
- G-Series P25 Multisite IP Base Repeater.
- DSC 8000 Controller.

An Advanced Power Monitor license will be added to the Genesis GenWatch server.

The subscriber Radio Management (RM) licenses will be added to the RM server.

The subscriber Group Management and Presence licenses will be added to the Intelligent Middleware (IMW) server.

### 1.4.2 ASTRO 25 Simulcast Subsystem

An ASTRO 25 simulcast remote site will be added to the following sites:

- Police Headquarters.
- SHU Roncalli Hall, Bridgeport.
- Wood House Road.

The following sections describe the equipment that will be provided/upgraded at the simulcast prime site and the proposed simulcast remote sites.

#### 1.4.2.1 CLMRN Wilton Simulcast Prime Site

The Simulcast Prime Site components/elements currently exist. No additional Simulcast Prime Site components/elements are required.

#### 1.4.2.2 Police Headquarters Simulcast Remote Site

The following equipment will be provided at the proposed simulcast remote site.

- An ASTRO 25 GTR 8000 ESS containing six (6) 700 MHz GTR 8000 base radios, DSC Hubs and RFDS equipment to support receive diversity.

- An ASTRO 25 GTR 8000 ESS containing six (6) 800 MHz GTR 8000 base radios, DSC Hubs and RFDS equipment to support receive diversity.
- Two (2) DSC 8000 Reference Distribution Modules (RDM), each containing integrated GNSS Timing Reference with Rubidium modules.
- A Juniper SRX 345 Site Router and Firewall.
- An MC-Edge RTU.
- A transmit antenna network consisting of:
  - An RFI BPA7496-180-14 746-960 MHz, 12 dBd gain, directional antenna.
  - An RFI APM7487K248 Advanced Power Monitor (APM).
- A diversity-receive antenna network consisting of:
  - Two (2) RFI BPA7496-180-14 746-960 MHz, 12 dBd gain, directional antennas.
  - A TX/RX Systems 432F-83W-01-T Dual Diversity Tower Top Amplifier (TTA).
  - A TX/RX Systems 432F-83W-01-C-48 Dual Diversity TTA Control Unit (CU).
  - An RFI PF7982-1018-31-N2 Dual 18 MHz Band Pass Receive Filter panel.
- An Aviat Networks 11GHz microwave network between the Police Headquarters simulcast remote site and the DESPP Troop G site, connecting the proposed simulcast remote site to the CLMRN simulcast prime site consisting of:
  - An IRU600 indoor hot standby 11 GHz RF unit.
  - An INUe Intelligent Node Unit with Ethernet user interface modules.
  - A 3-foot ultra-high performance antenna and all associated mounting hardware.
  - Elliptical waveguide and all associated mounting hardware.
  - Dehydrator and associated manifold and tubing.
- An Eltek Trilogy -48V DC Power System with 8 hours of full-load runtime consisting of:
  - Smartpack S Controller.
  - Six (6) Flatpack2 HE rectifiers in a N+1 redundant configuration.
  - Six (6) 48VDC 190AH Battery Sets.
  - Twenty-four (24) position DC breaker panel.

### 1.4.2.3 SHU Roncalli Hall Simulcast Remote Site

The following equipment will be provided at the proposed simulcast remote site.

- An ASTRO 25 GTR 8000 ESS containing six (6) 700 MHz GTR 8000 base radios, DSC Hubs and RFDS equipment to support receive diversity.
- An ASTRO 25 GTR 8000 ESS containing six (6) 800 MHz GTR 8000 base radios, DSC Hubs and RFDS equipment to support receive diversity.
- Two (2) DSC 8000 Reference Distribution Modules (RDM), each containing integrated GNSS Timing Reference with Rubidium modules.
- A Juniper SRX 345 Site Router and Firewall.
- An MC-Edge RTU.
- A transmit antenna network consisting of:
  - A dbSpectra DS7C09P36U-D 764-869 MHz, 8.8 dBd gain, omni-directional antenna.
  - An RFI APM7487K248 Advanced Power Monitor (APM).
- A diversity-receive antenna network consisting of:
  - Two (2) dbSpectra DS7C09P36U-D 764-869 MHz, 8.8 dBd gain, omni-directional antennas.
  - A TX/RX Systems 432F-83W-01-T Dual Diversity Tower Top Amplifier (TTA).
  - A TX/RX Systems 432F-83W-01-C-48 Dual Diversity TTA Control Unit (CU).

- An RFI PF7982-1018-31-N2 Dual 18 MHz Band Pass Receive Filter panel.
- An Aviat Networks 11GHz microwave network between the DESPP Troop G site and the SHU Roncalli Hall simulcast remote site and between the SHU Roncalli Hall simulcast remote site and the Wood House Road simulcast remote site, connecting the proposed simulcast remote sites to the CLRMN simulcast prime site consisting of:
  - Two (2) ODU600 outdoor hot standby 11 GHz RF units.
  - Two (2) INUe Intelligent Node Units with Ethernet user interface modules.
  - Two (2) 3-foot ultra-high performance antennas and all associated mounting hardware.
  - CNT-400 coaxial cable and all associated mounting hardware
- An Eltek Trilogy -48V DC Power System with 8 hours of full-load runtime consisting of:
  - Smartpack S Controller.
  - Six (6) Flatpack2 HE rectifiers in a N+1 redundant configuration.
  - Six (6) 48VDC 190AH Battery Sets.
  - Twenty-four (24) position DC breaker panel.

#### 1.4.2.4 Wood House Road Simulcast Remote Site

The following equipment will be provided at the proposed simulcast remote site.

- An ASTRO 25 GTR 8000 ESS containing six (6) 700 MHz GTR 8000 base radios, DSC Hubs and RFDS equipment to support receive diversity.
- An ASTRO 25 GTR 8000 ESS containing six (6) 800 MHz GTR 8000 base radios, DSC Hubs and RFDS equipment to support receive diversity.
- Two (2) DSC 8000 Reference Distribution Modules (RDM), each containing integrated GNSS Timing Reference with Rubidium modules.
- A Juniper SRX 345 Site Router and Firewall.
- An MC-Edge RTU.
- A transmit antenna network consisting of:
  - A dbSpectra DS7C09P36U-D 764-869 MHz, 8.8 dBd gain, omni-directional antenna.
  - An RFI APM7487K248 Advanced Power Monitor (APM).
- A diversity-receive antenna network consisting of:
  - Two (2) dbSpectra DS7C09P36U-D 764-869 MHz, 8.8 dBd gain, omni-directional antennas.
  - A TX/RX Systems 432F-83W-01-T Dual Diversity Tower Top Amplifier (TTA).
  - A TX/RX Systems 432F-83W-01-C-48 Dual Diversity TTA Control Unit (CU).
  - An RFI PF7982-1018-31-N2 Dual 18 MHz Band Pass Receive Filter panel.
- An Aviat Networks 11GHz microwave network between the Wood House Road site and the SHU Roncalli Hall site, connecting the proposed simulcast remote site to the CLRMN simulcast prime site consisting of:
  - An IRU600 indoor hot standby 11 GHz RF unit.
  - An INUe Intelligent Node Unit with Ethernet user interface modules.
  - A 3-foot ultra-high performance antenna and all associated mounting hardware.
  - Elliptical waveguide and all associated mounting hardware.
  - Dehydrator and associated manifold and tubing.
- An Eltek Trilogy -48V DC Power System with 8 hours of full-load runtime consisting of:
  - Smartpack S Controller.
  - Six (6) Flatpack2 HE rectifiers in a N+1 redundant configuration.

- Six (6) 48VDC 190AH Battery Sets.
- Twenty-four (24) position DC breaker panel.
- A Generac 50kW, 120/240V, Single-Phase Diesel Generator will be provided and installed consisting of:
  - Standard outdoor enclosure.
  - 300 Gallon subbase fuel tank.
  - A 200 Amp, 2 pole 120/240V, Single-Phase Automatic Transfer Switch.

#### 1.4.2.5 CLMRN Troop G Site

A new Aviat microwave link will be provided to connect the Police Headquarters simulcast remote site to the CLMRN microwave network, ultimately connecting the proposed simulcast remote site to the CLMRN simulcast prime site consisting of:

- An IRU600 indoor hot standby 11 GHz RF unit.
- An INUe Intelligent Node Unit with Ethernet user interface modules.
- A 3-foot ultra-high performance antenna at a proposed mounting height of 72-feet with an azimuth of 236.48° and all associated mounting hardware to the Police Headquarters site.
- Elliptical waveguide and all associated mounting hardware.

The proposed microwave equipment will utilize the existing DESPP microwave DC plant for power and the existing DESPP dehydrator for elliptical waveguide pressurization.

A new Aviat microwave link will be provided to connect the SHU Roncalli Hall simulcast remote site and the Wood House Road simulcast remote site to the CLMRN microwave network, ultimately connecting the proposed simulcast remote sites to the CLMRN simulcast prime site consisting of:

- An IRU600 indoor hot standby 11 GHz RF unit.
- An INUe Intelligent Node Unit with Ethernet user interface modules.
- A 3-foot ultra-high performance antenna at a proposed mounting height of 80-feet with an azimuth of 324.24° and all associated mounting hardware to the SHU Roncalli Hall site.
- Elliptical waveguide and all associated mounting hardware.

The proposed microwave equipment will utilize the existing DESPP microwave DC plant for power and the existing DESPP dehydrator for elliptical waveguide pressurization.

### 1.4.3 Project 25 (P25) User Radios

The following is a brief description of the P25 user radios that will be provided for the Fairfield Police and Fireq users.

#### 1.4.3.1 Police Department

Five (5) APX 6500 7/800 MHz remote mount mobile radios will be provided. Each mobile radio will include the following options:

- O3 Control Head.
- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.

- Programming over P25 (OTAP).
- Group Services.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- 15-Watt Water Resistant Speaker.
- 5-Year Essential Service Plan.
- 3 dB Low-Profile Antenna w/low-loss cable.

One hundred twelve (112) APX 6500 7/800 MHz remote mount mobile radios will be provided. Each mobile radio will include the following options:

- E5 Control Head.
- Standard 17-Foot Control Cable.
- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Water Resistant Hand Microphone.
- 15-Watt Water Resistant Speaker.
- 5-Year Essential Service Plan.
- 3 dB Low-Profile Antenna w/low-loss cable.

Six (6) APX 8500 All Band remote mount mobile radios will be provided. Each mobile radio will include the following options:

- E5 Control Head.
- Standard 17-Foot Control Cable.
- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Water Resistant Hand Microphone.
- 15-Watt Water Resistant Speaker.
- 5-Year Essential Services Plan.
- Antenna Multiplexer.
- 3 dB 7/800 MHz Low-Profile Antenna w/low-loss cable.
- Sti-Co VHF Roof Mount Antenna.
- Sti-Co UHF Roof Mount Antenna.

One hundred fifty (150) APX 6000 7/800 MHz Model 2.5 portable radios will be provided. Each portable radio will include the following options:

- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.

- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- 3400mAh Li-Ion IMPRES 2 Battery.
- Standard ½-Wave Dipole Antenna.
- 5-Year Essential Service Plan.

Twelve (12) APX 8000 All Band Model 2.5 portable radios will be provided. Each portable radio will include the following options:

- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Standard 3400mAh Li-Ion IMPRES 2 Battery.
- Standard All Band Antenna.
- 5-Year Essential Service Plan.

The following APX 6000/8000 portable radio accessories will be provided:

- One hundred sixty-two (162) Single-Unit IMPRES 2 Desktop Battery Chargers.
- Thirteen (13) Multi-Unit IMPRES 2 Battery Chargers.
- One hundred sixty-two (162) Remote Speaker Microphones.
- One hundred sixty-two (162) 3400mAh Li-Ion IMPRES 2 Batteries.

#### 1.4.3.2 Fire Department

Thirty-two (32) APX 8500 All Band remote mount mobile radios will be provided. Each mobile radio will include the following options:

- O2 Control Head.
- 30-Foot Control Cable.
- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- DVRS Mobile Subscriber Unit Activation.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Water Resistant Hand Microphone.
- 15-Watt Water Resistant Speaker.
- 5-Year Essential Services Plan.
- Tri-Band Roof Mount Antenna.

Seven (7) Futurecom P25 UHF, 450-470 MHz, Cross-Band Digital Vehicle Repeaters (DVR-LX) will be provided. Each DVR-LX will include the following enhancements:

- APX 8500 Remote-Mount Mobile Integration.
- P25 Enhanced Trunking features, including Phase 1 Operation, End-to-End TDMA Operation and P25 Encryption.



- Radio Management - Over-The-Air-Programming (RM-OTAP).
- Dual Triplexer Relay Filter Kit.
- ¼-Wave Roof Mount Antenna.
- 4-Year Extended Warranty.

Seventy (70) APX 8000HXE All Band Model 2.5 portable radios will be provided. Each portable radio will include the following options:

- Green Housing.
- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- DVRS Portable Subscriber Unit Activation.
- Personnel Accountability.
- Mandown Operation.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Standard TIA 4950 IP68 Rated 3100mAh Li-Ion IMPRES 2 Battery.
- Standard XE All-Band Antenna.
- 5-Year Essential Service Plan.

Twenty (20) APX 8000 All Band Model 2.5 portable radios will be provided. Each portable radio will include the following options:

- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- DVRS Activation.
- Personnel Accountability.
- Mandown Operation.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Standard 3400mAh Li-Ion IMPRES 2 Battery.
- Standard All Band Antenna.
- 5-Year Essential Service Plan.

The following APX 8000 portable radio accessories will be provided:

- Twenty (20) Single-Unit IMPRES 2 Desktop Battery Chargers.
- Twelve (12) Multi-Unit IMPRES 2 Battery Chargers.
- Twelve (12) IMPRES Vehicle Battery Charger.
- Seventy (70) Green XVE500 Remote Speaker Microphones with Channel Control Knob.
- Twenty (20) Black Remote Speaker Microphones.
- Seventy (70) TIA 4950 IP68 Rated 3100mAh Li-Ion IMPRES 2 Batteries.
- Ten (10) 3400mAh Li-Ion IMPRES 2 Batteries.

Two (2) All Band APX Consolettes will be provided. Each APX consolette will include the following:

- 7/800 MHz Operation Only.

- Full Front Panel Keypad/Clock/VU.
- AC Line Cord.
- P25 Trunking with TDMA.
- Advanced System Key – Hardware Key.
- Programming over P25 (OTAP).
- Group Services.
- AES Encryption.
- Over-the-Air Re-Keying (OTAR) with Multi-Key.
- Control Station Desk Microphone.
- 5-Year Essential Service Plan.
- APX Console Rack Mount Kit.
- 3 dB Control Station Antenna w/150-feet of ½-inch Transmission Line.

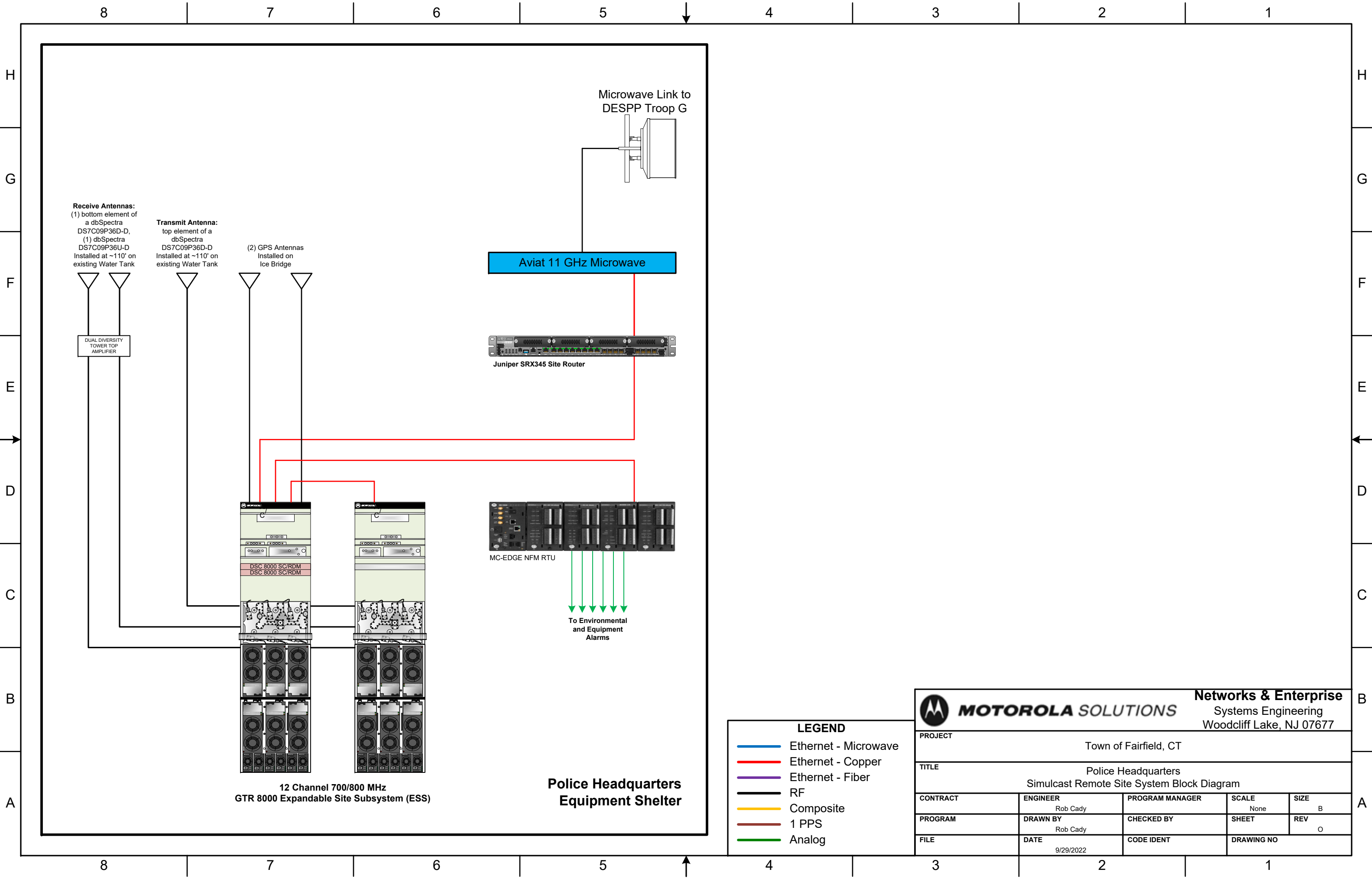
Four (4) MCD 5000 desksets and two (2) Radio Gateway Units (RGU) will be provided. A 24-port ethernet switch will also be provided.

The APX Consolelets will be connected to the RGU's. The MCD 5000 desksets and RGU's will be connected to the ethernet switch, creating a radio dispatch deskset system.

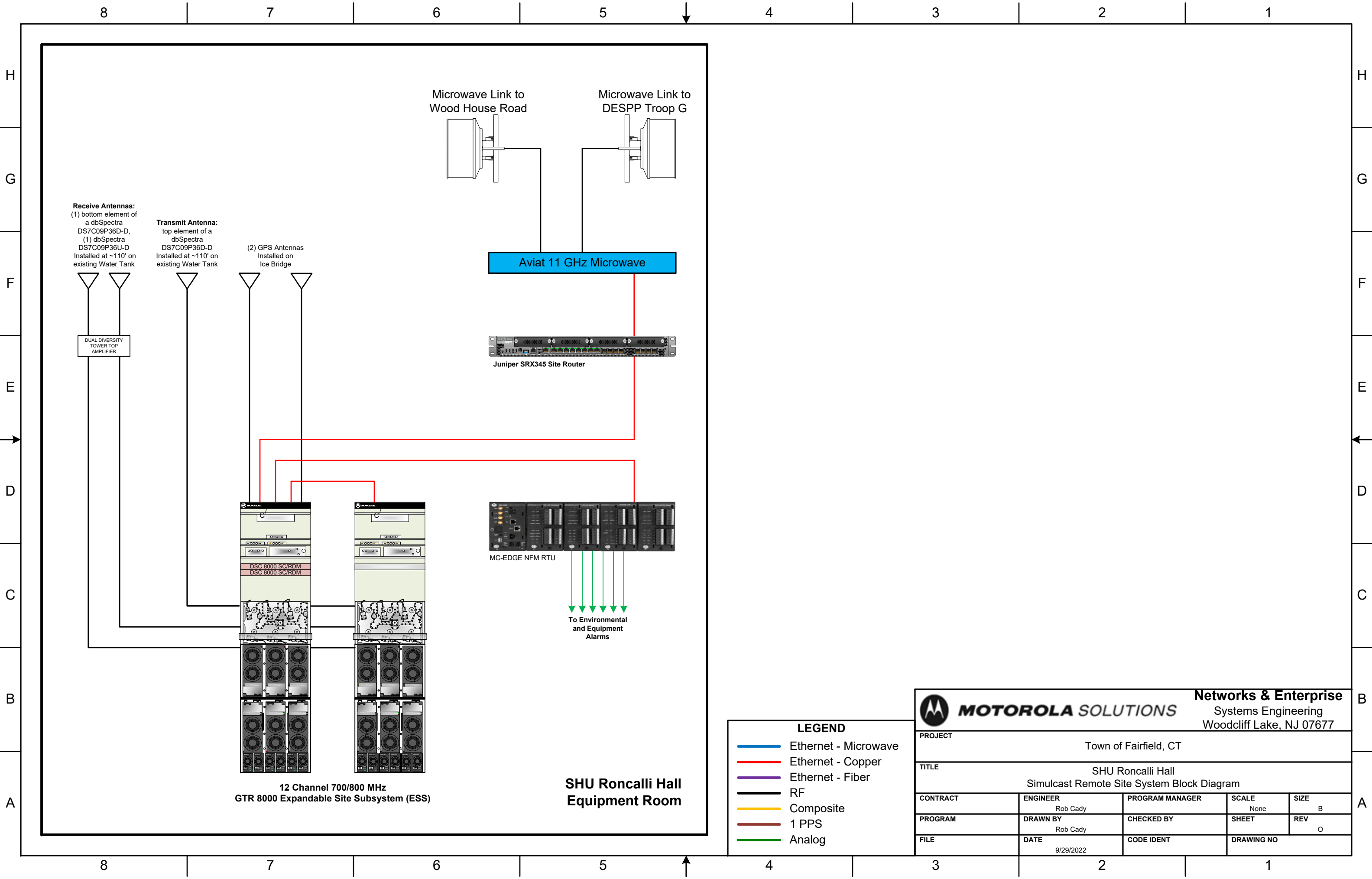
## 1.5 System Block Diagrams

The following are system block diagrams of the proposed equipment in the new simulcast remote sites:

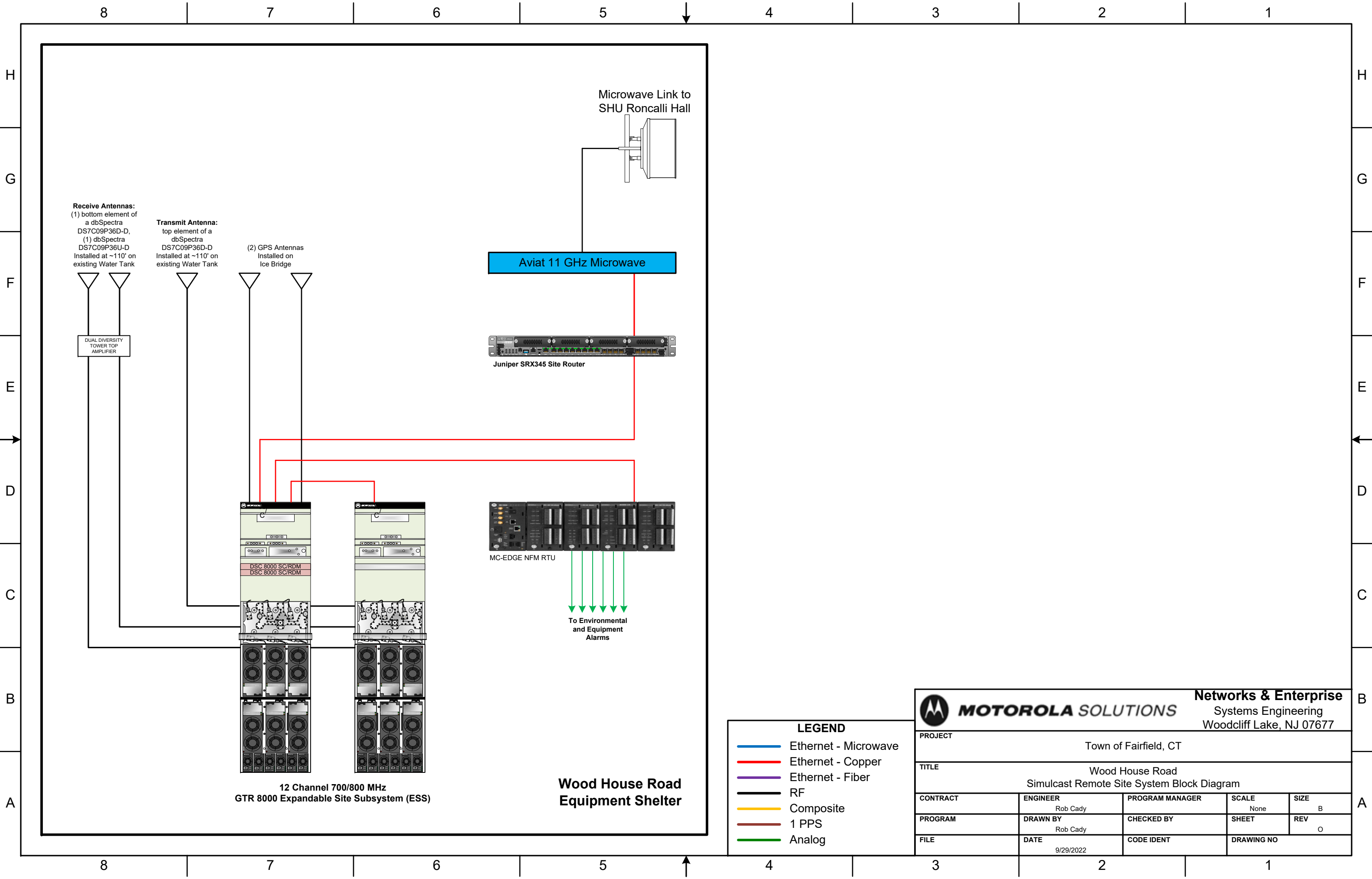
- Police Headquarters Simulcast Remote Site
- SHU Roncalli Hall Simulcast Remote Site
- Wood House Road Simulcast Remote Site




<div><div><div></div></div><div><b>MOTOROLA SOLUTIONS</b></div></div> <div>Networks &amp; Enterprise Systems Engineering Woodcliff Lake, NJ 07677</div>				
PROJECTTown of Fairfield, CT				
TITLEPolice Headquarters Simulcast Remote Site System Block Diagram				
CONTRACT	ENGINEER Rob Cady	PROGRAM MANAGER	SCALE None	SIZE B
PROGRAM	DRAWN BY Rob Cady	CHECKED BY	SHEET	REV O
FILE	DATE 9/29/2022	CODE IDENT	DRAWING NO	



<div><div><div></div></div><div><b>MOTOROLA SOLUTIONS</b></div></div> <div>Networks &amp; Enterprise Systems Engineering Woodcliff Lake, NJ 07677</div>				
PROJECTTown of Fairfield, CT				
TITLESHU Roncalli Hall Simulcast Remote Site System Block Diagram				
CONTRACT	ENGINEER Rob Cady	PROGRAM MANAGER	SCALE None	SIZE B
PROGRAM	DRAWN BY Rob Cady	CHECKED BY	SHEET	REV O
FILE	DATE 9/29/2022	CODE IDENT	DRAWING NO	



LEGEND	
<span style="color:blue">—</span>	Ethernet - Microwave
<span style="color:red">—</span>	Ethernet - Copper
<span style="color:purple">—</span>	Ethernet - Fiber
<span style="color:black">—</span>	RF
<span style="color:yellow">—</span>	Composite
<span style="color:darkred">—</span>	1 PPS
<span style="color:green">—</span>	Analog

<div><div></div><div><b>MOTOROLA SOLUTIONS</b></div><div>Networks &amp; Enterprise Systems Engineering Woodcliff Lake, NJ 07677</div></div>				
PROJECT		Town of Fairfield, CT		
TITLE		Wood House Road Simulcast Remote Site System Block Diagram		
CONTRACT	ENGINEER Rob Cady	PROGRAM MANAGER	SCALE None	SIZE B
PROGRAM	DRAWN BY Rob Cady	CHECKED BY	SHEET	REV 0
FILE	DATE 9/29/2022	CODE IDENT	DRAWING NO	





## Section 2

# Statement of Work

## 2.1 Overview

This Statement of Work (SOW) describes the deliverables to be furnished to the Town of Fairfield (the “Town” or “Fairfield”) and CT Department of Emergency Services and Public Protection (DESPP). The tasks described herein will be performed by Motorola Solutions, its subcontractors, DESPP, and the Town of Fairfield to implement the solution described in the System Description. It describes the actual work involved in installation, identifies the installation standards to be followed, and clarifies the responsibilities for Motorola Solutions, DESPP, and the Town during the project implementation. Specifically, this SOW provides:

- A description of the responsibilities for Motorola Solutions, DESPP, and Fairfield.
- The assumptions taken into consideration during the development of this project.

This SOW provides the most current understanding of the work required by all parties to ensure a successful project implementation. In particular, Motorola Solutions has made assumptions of the sites to be used for the new system. Should any of the sites change, a revision to the SOW and associated pricing will be required. It is understood that this SOW is a working document, and that it will be revised as needed to incorporate any changes associated with contract negotiations, and any other change orders that may occur during the execution of the project.

Motorola Solutions will install and configure the proposed equipment. Table 2-1 describes the tasks involved with installation and configuration.

**Table 2-1: Installation Tasks**

Tasks	Motorola Solutions	Town of Fairfield	DESPP
<b>PROJECT INITIATION</b>			
<b>Contract Finalization and Team Creation</b>			
Execute contract and distribute contract documents.	X	X	
Assign a Project Manager as a single point of contact.	X	X	X
Assign resources.	X	X	X
Schedule project kickoff meeting.	X	X	X
Deliverable: Signed contract, defined project team, and scheduled project kickoff meeting.			
<b>Project Kickoff</b>			
Introduce team, review roles, and decision authority.	X	X	X
Present project scope and objectives.	X		
Review SOW responsibilities and project schedule.	X	X	X
Schedule Design Review.	X	X	X
Deliverable: Completed project kickoff and scheduled Design Review.			
<b>Design Review</b>			

Tasks	Motorola Solutions	Town of Fairfield	DESPP
Present the system design and operational requirements for the solution.	X		
Present installation plan.	X		
Present preliminary cutover plan and methods to document final cutover process (as required).	X		
Present configuration and details of site required by system design.	X		
Validate that Customer site can accommodate proposed equipment.	X	X	
Provide approvals required to add equipment to proposed existing site(s).		X	X
Review safety, security, and site access procedures.	X		
Present equipment layout plans and system design drawings.	X		
Provide heat load and power requirements for new equipment.	X		
Provide information on existing system interfaces.		X	X
Complete the forms required for frequency coordination and licensing.		X	X
Pay for frequency coordination costs.	X		
Assume liability and responsibility for providing all necessary Motorola Solutions' requested information for complete installation.		X	
Assume responsibility for issues outside of Motorola Solutions' control such as but not limited to, existing consoles, backhaul.		X	
Ensure that frequency availability and licensing meet project requirements, and pay licensing and frequency coordination fees.	X		
Review and update design documents, including System Description, Statement of Work, and Acceptance Test Plan, based on Design Review agreements.	X		
Execute Change Order in accordance with all material changes to the Contract resulting from the Design Review.	X		
Deliverable: Finalized design documentation based upon "frozen" design, along with any relevant Change Order documentation.			
<b>SYSTEM INSTALLATION</b>			
<b>Equipment Order and Manufacturing</b>			
Create equipment order and reconcile to contract.	X		
Manufacture Motorola Solutions-provided equipment necessary for system based on equipment order.	X		
Procure non-Motorola Solutions equipment necessary for the system.	X		
Deliverable: Equipment procured and ready for shipment.			
<b>System Staging</b>			
Ship equipment needed for staging (field staging).	X		
Provide information on existing system interfaces, room layouts, or other information necessary for the assembly to meet field conditions.		X	X
Set up and rack the solution equipment on a site-by-site basis, as it will be configured in the field at each of the sites.	X		

Tasks	Motorola Solutions	Town of Fairfield	DESPP
Cut and label the cables with to/from information to specify interconnection for field installation and future servicing needs.	X		
Complete the cabling/connecting of the subsystems to each other ("connectorization" of the subsystems).	X		
Assemble required subsystems to assure system functionality.	X		
Power up, load application parameters, program, and test all staged equipment.	X		
Confirm system configuration and software compatibility with the existing system.	X		
Inventory the equipment with serial numbers and installation references.	X		
Perform factory functional acceptance tests of system features.	X		
Conduct site and system level testing.	X		
Deliverable: System staged and ready for shipment.			
Equipment Shipment and Storage			
Provide secure location for solution equipment (up to 3 months).	X		
Pack and ship solution equipment to the identified, or site location(s).	X		
Receive solution equipment.	X		
Inventory solution equipment.	X		
Deliverable: Solution equipment received and ready for installation.			
General Installation			
Deliver solution equipment to installation location.	X		
Coordinate receipt of and inventory solution equipment with designated contact.	X		
Install all proposed fixed equipment as outlined in the System Description based upon the agreed-upon floor plans, connecting audio, control, and radio transmission cables to connect equipment to the power panels or receptacles, and audio/control line connection points. Installation performed in accordance with R56 standards and state/local codes.	X		
Provide system interconnections that are not specifically outlined in the system design, including dedicated phone circuits, microwave links, fiber or other types of connectivity. Motorola Solutions has included the Microwave links for the three RF sites to provide transport to the Prime site. The transport from the Troop G site to the Prime and the Prime to the Master are existing and will be reused. If any of the new or existing links are not viable (due to structural failure, path issues etc.), it is the Town's responsibility for interconnectivity. If applicable, application(s) for PSDN service as well as a SFP module required for the use of PSDN and are the responsibility of the Town of Fairfield.		X	
Connect installed equipment to the provided ground system.	X		
Label equipment, racks, and cables.	X		
Note any required changes to the installation for inclusion in the "as-built" system documentation.	X		

Tasks	Motorola Solutions	Town of Fairfield	DESPP
Install Microwave links as detailed in the system description. <b>Note:</b> Paper path studies have been conducted, however physical path studies will need to be conducted to confirm the viability of the links.	X		
Remove and transport of old equipment from any other sites to the City location. This includes stations and associated racks, only equipment that will not be used after the addition of the simulcast subsites.		X	
Deliverable: Equipment installed.			
<b>Remote Site Installation and Configuration</b>			
Install fixed equipment contained in the equipment list and system description.	X		
Configure DESPP ASTRO 25 system to support the new RF sites.	X		
Verify site link performance, prior to the interconnection of the solution equipment to the link equipment.	X		
Provide list of subscriber IDs for loading into the Zone Controller.		X	X
Load subscriber IDs in the Zone Controller.			X
Provide required radio ID and alias information to enable alias database setup for interface to consoles.		X	X
Integrate the RF sites into the system to ensure proper operation.	X		
Deliverable: ASTRO 25 Remote sites equipment installation completed.			
<b>Control Station Installation and Configuration</b>			
Provide the locations of control stations at the location.		X	
Control station with standard antenna system installation includes mounting hardware, cable management, entry port, and grounding hardware only	X		
Survey mounting locations and develop control station installation plan.	X		
Provide adequate space, grounding, and power for the control station installation: Notes: 1. Assumes Town to provide building ground within 75' of equipment/antenna 2. AC power is provided by the City within 6' of equipment installation location		X	
Properly connectorize and ground the cabling, which will be run to the outdoor antenna location using the least obtrusive method. Note: Does not include non-standard cable runs or installations requiring special access with lift and/or special equipment	X		
Provide suitable cable path from antenna installation location to equipment installation location		X	
Install line (not greater than 75 feet in length) and antenna system (connectors, coax grounding kit, antenna, and surge protection).	X		
Install RF local control stations and desk set identified in the equipment list.	X		
Perform control station programming.	X		
Deliverable: Control station equipment installation completed.			
<b>Develop User Radio Fleetmap</b>			

Tasks	Motorola Solutions	Town of Fairfield	DESPP
Review and determine modifications to existing fleetmap.		X	X
Review fleetmapping requirements with Customer, including user ID and talkgroup structures.		X	X
Designate user group representatives for the user groups, to make timely decisions on their behalf.		X	X
Develop templates.		X	X
Participate in a meeting to finalize any changes among user groups.		X	X
Review and approve fleetmap templates.		X	X
Program approved templates into radios.	X		
Deliverable: Fleetmap plan completed and approved by Customer.			
<b>Mobile Radio and DVR-LX Installation and Programming</b>			
Develop and approve prototypes for each type of mobile installation.		X	X
Test features and functionalities of the mobile templates.		X	
Program the mobile radios identified in the equipment list in accordance with the programming templates, client software, and fleetmap. A “one-time only” programming is included in the project pricing.	X		
Provide vehicle list and work with Motorola Solutions to develop mobile equipment requirements.		X	
Provide adequate number of vehicles for installations according to the project/installation schedule.		X	
Remove the existing mobiles from the vehicle at the same time of installation of the new radios.	X		
Install all the mobiles in the vehicles (in same location as existing ones, if possible), as identified in the equipment list, and according to the installation schedule.	X		
Provide suitable installation location (indoor facility with electrical power).		X	
Permanently mount the antennas on each vehicle appropriate for the vehicle type. Install the antennas close to the same location as the existing antennas, where practical, in vehicles that already have antennas installed. If applicable, plug the old antenna hole with an appropriate rubber plug.	X		
Install the antennas on the roof, where practical, on the new antenna installations. If mobile antenna cannot be installed on the roof, determine an alternative location.	X		
Deliverable: Mobile radios installed and accepted.			
<b>Portable Radio Programming and Distribution</b>			
Program the portable radios identified in the equipment list in accordance with the customer approved programming templates, client software, and fleetmap. A “one-time only” programming is included in the project pricing.	X		

Tasks	Motorola Solutions	Town of Fairfield	DESPP
Deliver portable radios to authorized Customer personnel and inventory upon receipt.	X	X	
Acknowledge receipt of portable radios and accessories and verify proper operation of a sampling of delivered portable radios.		X	
Distribute portable radios to end users.		X	
Deliverable: Portable radios accepted and distributed.			
<b>SYSTEM OPTIMIZATION AND TESTING</b>			
<b>R56 Site Audit</b>			
Perform R56 site-installation quality-audits, verifying proper physical installation and operational configurations.	X		
Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola Solutions' R56 Standards and Guidelines for Communication Sites.	X		
Deliverable: R56 Standards and Guidelines for Communication Sites audits completed successfully.			
<b>Interference</b>			
Performance degradation of the System due to on-site RFI-EMI shall be promptly investigated and corrected by Motorola Solutions during the Warranty Term and, if exercised, any Maintenance Term of this Contract (A-99-001) at Motorola Solutions' expense, if the interference is due to a defect of any Product installed by Motorola Solutions.	X		
Resolve any interference caused by equipment not supplied by Motorola Solutions.		X	
<b>Solution Optimization</b>			
Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.	X		
Verify that all audio and data levels are at optimized settings.	X		
Verify communication interfaces between devices for proper operation.	X		
Ensure that functionality meets manufacturers' specifications and complies with the final configuration established during design review or system staging.	X		
Deliverable: Completion of System Optimization.			
<b>Functional Acceptance Testing</b>			
Verify the operational functionality and features of the solution supplied by Motorola Solutions, as contracted.	X		
Witness the functional testing (if desired).		X	X
Document all issues that arise during the acceptance tests.	X		
If any major task for the system as contractually described fails during the Customer acceptance testing or beneficial use, repeat that particular task after Motorola Solutions determines that corrective action has been taken.	X		
Resolve any minor task failures before Final System Acceptance.	X		
Document the results of the acceptance tests and present for review.	X		



Tasks	Motorola Solutions	Town of Fairfield	DESPP
Review and approve final acceptance test results.		X	
Deliverable: Completion of functional testing and approval by Customer.			
<b>Coverage Testing</b>			
Determine the required number of test vehicles for simultaneous testing of multiple service areas.	X	X	
Perform coverage testing according to the Coverage Acceptance Test Plan (CATP), Submit test reports within the agreed period.	X		
For any area that fails, take corrective action.	X		
Retest any areas for which corrective action has been taken.	X		
Document all issues that arise during the coverage testing.	X		
Submit final test reports, according to the agreed period.	X		
Provide the required number of test vehicles, drivers, and resources to witness the coverage testing.		X	
Review and approve test results.		X	X
Deliverable: Completion of coverage testing and approval by Customer.			
<b>PROJECT TRANSITION</b>			
<b>Cutover</b>			
Finalize Cutover Plan.	X	X	X
Input user radio information into the system database and activation, as required.			X
Conduct cutover meeting with relevant personnel to address both how to mitigate technical and communication problem impacts to the users during cutover and during the general operation of the system.	X		
Notify the personnel affected by the cutover of the date and time planned for cutover.		X	X
Provide ongoing communication with users regarding the project and schedule.	X	X	X
Cut over users and ensure that RF sites are operating on ASTRO 25 system.	X		
Resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.	X		
Assist Motorola Solutions with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist items.	X	X	X
Deliverable: Migration to new system completed, and punchlist items resolved.			
<b>Transition to Warranty</b>			
Review the items necessary for transitioning the project to warranty support and service.	X		
Motorola Solutions to provide services during year 1 warranty which align with the proposed services.	X		
Provide a Customer Support Plan detailing the warranty support associated with the contract equipment.	X		

Tasks	Motorola Solutions	Town of Fairfield	DESPP
Participate in the Transition Service/Project Transition Certificate (PTC) process.		X	X
Deliverable: Service information delivered and approved by Customer.			
<b>Finalize Documentation and System Acceptance</b>			
Provide manufacturer's installation material, part list and other related material to Customer upon project completion.	X		
Provide an electronic as-built system manual on CD or other Customer preferred electronic media. The documentation will include the following: <ul style="list-style-type: none"> <li>Site Block Diagrams.</li> <li>Site Floor Plans.</li> <li>Site Equipment Rack Configurations.</li> <li>Antenna Network Drawings for RF Sites (where applicable).</li> <li>ATP Test Checklists.</li> <li>Functional Acceptance Test Plan Test Sheets and Results.</li> <li>Equipment Inventory List.</li> </ul> Documents will be delivered in Adobe PDF format.	X		
Receive and approve documentation.		X	X
Execute Final Project Acceptance.	X	X	X
Deliverable: All required documents are provided and approved. Final Project Acceptance.			

## 2.2 Civil Work - Site Development

### 2.2.1 Site Development at Wood House Rd. Site

Existing Crown Castle site with abandoned 10x20 Nextel Shelter. Proposing to update electrical service, install new 50KW diesel generator with 300 gallon diesel tank, and upgrade grounding in shelter in order to utilize for proposed radio equipment. Site has existing 170ft monopole which will be used for proposed (3) new antennas. HVAC units will need to be serviced to see if any issues. Proposing to install DC Plant and new antennas on tower.

#### Site Scope Summary

- Engineering services for site drawings and regulatory approvals – Included.
- Site acquisition services – Not included.
- Zoning Services – Not included.
- Existing tower to be used for antennas – 170 ' Monopole.

#### Motorola Responsibilities:

##### Site Engineering

- Conduct utility investigation and coordinate with local utility company for power hook up.
- Prepare site construction drawings, limited to 2 revisions, showing the layout of various new and existing site components.

- Conduct site walks to collect pertinent information from the sites (e.g., location of Telco, power, existing facilities, etc.).
- Prepare a lease exhibit sketch of the site to communicate to the property owner the proposed lease space and planned development at the particular site location.
- Perform National Environmental Policy Act (NEPA) Limited Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- Preparation, submission and tracking of application for local permit fees (electrical, building etc.) and procurement of information necessary for filing.
- Crown Castle Structural Analysis Fees.
- Third Party Utility Detection.

### *Site Preparation*

- Obtain the permits such as electrical, building, and construction permits, and coordinate any inspections with local authorities that may be needed to complete site development work.
- Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.
- Compound graveling (including herbicide treatment and geotextile fabric installation) inside compound for restoration after grounding and generator installation. (not to exceed 400 square feet).

### *Site Components Installation*

- Supply and install (1) 120/240-volt, 200-amp, single-phase meter and hook up for electrical service by the local utility.
- Provide all trenching, conduit, and cabling necessary for underground hook up of power to the shelter from nearby utility termination backboard located within 50 cable feet of the shelter.
- Install foundations for proposed 50KW diesel generator.
- Supply and install 50KW diesel generator, fill subbase tank with 300 gallons of fuel and connect to ATS located within 25' feet of the generator.
- Supply and install exterior grounding for fuel tank and generator and tie into existing shelter ground ring located to meet current Motorola's R56 standards.
- Conduct (1) clamp on ground resistance test of the site and provide results to Fairfield. Should any improvements to grounding system be necessary after ground testing, the cost of such improvements shall be the responsibility of Fairfield.

### *Antenna and Transmission Line Installation*

- Supply and install (3) antenna(s) for the RF system.
- Supply and install (3) new heavy duty monopole mounts.
- Supply and install (2) monopole collars.
- Supply and install (2) GPS antenna(s) on existing shelter.
- Supply and install (1) tower top amplifier(s).
- Supply and Install up to 155 linear feet of 1/2-inch transmission line.
- Supply and install up to 465 linear feet of 1-5/8-inch transmission line.
- Perform sweep tests on transmission lines.

- Provide and install attachment hardware for supporting transmission lines on the antenna support structure every three feet.
- Supply and install ground buss bar at the bottom of tower, middle, and top for grounding RF cables.

### *Existing Facility Improvement Work*

- Supply and install (1) 200-amp breaker panel with capacity for 30 circuits.
- Supply and install (1) 15-amp breakers in the distribution panel and wire to DC Plant Inverter located on an average within 35 cable feet.
- Supply and install (3) 30-amp dual pole breakers in the distribution panel and wire to DC Plant Rectifiers located on an average within 35 cable feet.
- Supply and install (1) Type 2 surge protector on electrical service side of the existing ATS.
- Supply and install (1) primary Type 1 surge protector on the room electrical feed to protect the equipment from surges.
- Supply and install 200amp automatic transfer switch in existing Nextel shelter and connect to generator, electric main and connect to alarm panel.
- Supply and install 18-inch-wide cable runway (up to 30 linear feet) inside the existing room.
- Supply and install (1) cable entry panel with 12 ports.
- Ground all metallic objects in the interior of the existing shelter, to meet current Motorola's Standards and Guidelines for Communications Sites (R56) requirements and terminate near equipment locations.
- Supply and install (2) copper ground buss bar(s) for new MGB and EGB.
- Supply and install 1 wall-mounted 10-pound CO2 fire extinguisher and 1 wall-mounted 20-pound ABC fire extinguisher.
- Supply and install "No smoking" EME signage at the site.
- Supply and install (1) eye wash station and (1) first aid kit.
- Supply and install sensors for alarming (Fire, Smoke, Hi/Lo temp,), punch block and wiring of contact closures to alarm block.

### *Miscellaneous Work*

- Furnish HVAC technician to test and start up existing HVAC units to verify proper operation.
- Furnish man lift for installation of antennas and coax.
- Furnish labor for installation of proposed DC plant to include bolting down rack, terminating electric, installing rectifiers, wiring batteries, and installing inverter.
- Provide labor and tools to provide openings for new generator conduits to include main feed and ancillary conduits.

### **Customer Responsibilities: (Specific to Wood House Road)**

- Negotiate Lease with Crown Castle.
- Assumes customer will pay any Crown Castle Construction fees.

### **Assumptions: (Specific to Wood House Road)**

- Assumes the use of existing empty coax banding on tower.
- Existing HVAC units are in good working order and can be reused. Replacement costs have not been included.

## 2.2.2 Site Development at Fairfield PD Headquarters

Existing 9x19 abandoned Nextel Shelter of rooftop of PD building. Shelter will require upgrade of grounding interior and exterior, new electrical conductors in existing 2" conduit from building generator power located at ground floor of building. Proposing to install three (3) new panel antennas on tower with associated coax.

### Site Scope Summary

- Engineering services for site drawings and regulatory approvals – Included.
- Site acquisition services – Not included.
- Zoning Services – Not included.
- Existing tower to be used for antennas – 145 ' Monopole.

### Motorola Responsibilities:

#### Site Engineering

- Prepare site construction drawings, limited to 2 revisions, showing the layout of various new and existing site components.
- Conduct site walks to collect pertinent information from the sites (e.g., location of Telco, power, existing facilities, etc.).
- Prepare a lease exhibit, sketch of the site to communicate to the property owner the proposed lease space and planned development at the particular site location.
- Prepare record drawings of the site showing the as-built information.
- Perform National Environmental Policy Act (NEPA) Limited Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- Provide a structural engineering analysis for existing monopole, if necessary, to support the proposed antenna system. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Fairfield CT. **NOTE: This task does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If applicable, these tasks will be noted separately in the SOW.**
- Provide tower climbing and tower mapping services for towers to collect information about structural members and existing equipment.
- Preparation, submission and tracking of application for local permit fees (electrical, building etc.) and procurement of information necessary for filing.

#### Site Preparation

- Obtain the permits such as electrical, building, and construction permits, and coordinate any inspections with local authorities that may be needed to complete site development work.
- Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### *Site Components Installation*

- Conduct (1) clamp on ground resistance test of the site and provide results to Fairfield. Should any improvements to grounding system be necessary after ground testing, the cost of such improvements shall be the responsibility of Fairfield.

### *Tower Work*

- Supply and install upgrade to existing shelter grounding on the rooftop and tie it to the building ground located on rooftop.

### *Antenna and Transmission Line Installation*

- Supply and install (3) panel antenna(s).
- Furnish material and labor to install (1) new monopole collar mount for proposed antennas.
- Supply and install (3) 4-foot side arm(s) for antenna mounts.
- Supply and install (1) tower top amplifier(s).
- Supply and install up to 150 linear feet of 1/2-inch transmission line.
- Supply and install up to 450 linear feet of 1-5/8-inch transmission line.
- Perform sweep tests on transmission lines.
- Provide and install attachment hardware for supporting transmission lines on the antenna support structure every three feet.
- Supply and install ground buss bar at the bottom of tower, middle, and top for grounding RF cables.

### *Existing Facility Improvement Work*

- Supply and install (1) 15-amp breakers in the distribution panel and wire to DC Plant Inverter located on an average within 35 cable feet.
- Supply and install (3) 30-amp dual pole breakers in the distribution panel and wire to DC Plant Rectifiers located on an average within 35 cable feet.
- Supply and install (1) Type 2 surge protector on electrical service side of the ATS.
- Supply and install (1) primary Type 1 surge protector on the room electrical feed to protect the equipment from surges.
- Supply and install 18-inch-wide cable runway (up to 30 linear feet) inside the existing room.
- Ground all metallic objects in the interior of the existing shelter and add new equipment room halo, to meet current Motorola's Standards and Guidelines for Communications Sites (R56) requirements and terminate near equipment locations.
- Supply and install (2) copper ground buss bar(s) for MGB and EGB.
- Supply and install (1) wall-mounted 10-pound CO2 fire extinguisher and 1 wall-mounted 20-pound ABC fire extinguisher.
- Supply and install "No smoking" EME signage at the site.
- Supply and install (1) eye wash station and 1 first aid kit.
- Supply and install sensors for alarming (Fire, Smoke, Hi/Lo temp, door intrusion), punch block and wiring of contact closures to alarm block.

### *Miscellaneous Work*

- Furnish HVAC technician to test and start up existing HVAC units to verify proper operation.
- Furnish crane and man basket for installation of mounts, antennas, coax, etc.
- Provide materials and labor to install 200amp electrical conductors in existing 2" RGS conduit from ground floor emergency distribution to existing shelter on roof. Cable run approx. 225ft.



- Furnish labor for installation of proposed DC plant to include bolting down rack, terminating electric, installing rectifiers, wiring batteries, and installing inverter.

### **Customer Responsibilities:**

- Provide emergency generator backed power demarc for existing rooftop shelter.

## **2.2.3 Site Development on SHU Roncolli Hall**

Existing Sacred Heart University Building. with existing equipment room in basement. Proposing to install new equipment in room and install antennas on rooftop penthouse steel antenna structure. Transmission line routing to utilize an existing air shaft for installation of coax to first floor closet and then into to basement.

### **Site Scope Summary**

- Engineering services for site drawings and regulatory approvals – Included.
- Site acquisition services – Not included.
- Zoning Services – Not included.
- Existing tower to be used for antennas – 120 ' Rooftop.

### **Motorola Responsibilities:**

#### **Site Engineering**

- Prepare site construction drawings, limited to 2 revisions, showing the layout of various new and existing site components.
- Conduct site walks to collect pertinent information from the sites (e.g., location of Telco, power, existing facilities, etc.).
- Prepare a lease exhibit sketch of the site to communicate to the property owner the proposed lease space and planned development at the particular site location.
- Prepare record drawings of the site showing the as-built information.
- Perform National Environmental Policy Act (NEPA) Limited Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work. Perform a cultural resource study, as needed to identify sensitive historical and archaeological monuments that might be impacted by propose construction.
- Provide a structural engineering analysis for existing rooftop support structure, if necessary, to support the proposed the proposed equipment loads.
- Perform rooftop mapping, analysis, and design to existing rooftop antenna support structure for the proposed equipment and antenna loads. No obtrusive investigations have been included.
- Design antenna support mounts to support proposed antennas on the existing rooftop steel platform.
- Preparation, submission and tracking of application for local permit fees (electrical, building etc.) and procurement of information necessary for filing.

### Site Preparation

- Obtain the permits such as electrical, building, and construction permits, and coordinate any inspections with local authorities that may be needed to complete site development work.
- Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Site Components Installation

- Conduct (1) clamp on ground resistance test of the site and provide results to Fairfield. Should any improvements to grounding system be necessary after ground testing, the cost of such improvements shall be the responsibility of Fairfield.

### Antenna and Transmission Line Installation

- Supply and install (3) antenna(s) for the RF system on the existing rooftop steel structure.
- Supply and install (2) GPS antenna(s).
- Supply and install (1) tower top amplifier(s).
- Supply and install up to 200 linear feet of 1/2-inch transmission line.
- Supply and install up to 600 linear feet of 1-5/8-inch transmission line.
- Perform sweep tests on transmission lines.
- Provide and install attachment hardware for supporting transmission lines on the antenna support structure every three feet.
- Provide and install 10 linear ft of PVC sleepers and attachment hardware for supporting transmission lines on on rooftop every three feet.
- Supply and install (3) ground buss bars at the antenna, middle, and bottom of the antenna support structure for grounding RF cables.
- Supply and install #2 stranded copper ground (not to exceed 50 linear feet) for grounding the antennas to the existing building ground located on rooftop.

### Existing Facility Improvement Work

- Supply and install (1) 200-amp breaker panel with capacity for 30 circuits in existing equipment room fed from PPE panel in opposite room.
- Supply and install (1) 15-amp breakers in the distribution panel and wire to DC Plant Inverter located on an average within 35 cable feet.
- Supply and install (3) 30-amp dual pole breakers in the distribution panel and wire to DC Plant Rectifiers located on an average within 35 cable feet.
- Install (1) primary Type 1 surge protector on the room electrical utility feed panel to protect the equipment from surges.
- Supply and install 18-inch-wide cable runway (up to 30 linear feet) inside the existing room.
- Supply and install (4) cable entry ports on existing rooftop air shaft.
- Supply and install (1) cable entry panel with 6 ports at bottom of air shaft on 1st floor closet location.
- Ground all proposed metallic objects utilizing existing equipment room grounding and cable runway in the interior of the existing room, to meet current Motorola's Standards and Guidelines for Communications Sites (R56) requirements and terminate near equipment locations.
- Supply and install (1) (SSGB) copper ground buss bar(s) from existing MGB.

### Miscellaneous Work

- Furnish materials and labor to install (3) new 2 1/2" Schedule 40 pipe mounts and hardware to existing steel antenna structure on rooftop penthouse.

- Furnish labor to rig antennas and RF materials to rooftop of building.
- Furnish labor and materials to install new vertical Z Brackets on penthouse for cable management transition from roof to upper penthouse roof - approx. 20ft.
- Concrete core (2) 4" required in first floor closet for proposed coax to basement.
- Furnish labor to create (4) openings on rooftop airshaft for new single-entry ports.
- Additional labor for routing of coax from rooftop to basement equipment room.
- Furnish labor for installation of proposed DC plant to include bolting down rack, terminating electric, installing rectifiers, wiring batteries, and installing inverter.

## 2.2.4 Site Development at CLMRN Troop G Site

Existing State of CT owned Troop G site that has existing 180ft SST and equipment room in existing building. Proposing to perform AE functions needed for proposed MW installation and include installation of new UG conduit for cable management.

### Site Scope Summary

- Engineering services for site drawings and regulatory approvals – Included.
- Site acquisition services – Not included.
- Zoning Services – Not included.
- Existing tower to be used for antennas – 180' Self supported Tower.

### Motorola Responsibilities:

#### Site Engineering

- Prepare site construction drawings, limited to 2 revisions, showing the layout of various new and existing site components.
- Conduct site walks to collect pertinent information from the sites (e.g., location of Telco, power, existing facilities, etc.).
- Prepare a lease exhibit sketch of the site to communicate to the property owner the proposed lease space and planned development at the particular site location.
- Prepare record drawings of the site showing the as-built information.
- Perform National Environmental Policy Act (NEPA) Limited Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 Code of Federal Regulations (CFR) Chapter 1, subsection 1.1307 that may be potentially impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work.
- Provide a structural engineering analysis for existing self-support tower, if necessary, to support the proposed antenna system. If the tower structure fails the analysis, the cost of any site relocation or modifications to the tower required to support the antenna system will be the responsibility of Fairfield CT. NOTE: This task does not include mapping, structural measurement survey, materials testing, geotechnical investigation, and/or other field investigation to acquire the data. If applicable, these tasks will be noted separately in the SOW.
- Provide tower climbing and tower mapping services for towers to collect information about structural members and existing equipment.
- Preparation, submission and tracking of application for local permit fees (electrical, building etc.) and procurement of information necessary for filing.
- Third Party Utility Detection.

### Site Preparation

- Obtain the permits such as electrical, building, and construction permits, and coordinate any inspections with local authorities that may be needed to complete site development work.
- Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.

### Miscellaneous Work

- Furnish materials and labor to install new 6" PVC conduit from tower to building approx. 80ft. Includes removal and replacement of existing pavement and concrete walkway.
- Furnish concrete core for existing building floor.

## 2.2.5 Customer Responsibilities: (Project Wide)

- If required, prepare and submit Electromagnetic Energy (EME) plans for the site (as a licensee) to demonstrate compliance with FCC RF Exposure guidelines.
- Pay for all utility connection, pole or line extensions, and any easement or usage fees.
- Review and approve site design drawings within 14 calendar days of submission by Motorola or its subcontractor(s). Should a re-submission be required, the Customer shall review and approve the re-submitted plans within 7 calendar days from the date of submittal.
- Pay for the usage costs of power, leased lines and generator fueling both during the construction/installation effort and on an on-going basis.
- Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- As applicable (based on local jurisdictional authority), the Customer will be responsible for any installation or up-grades of the electrical system in order to comply with NFPA 70, Article 708
- Provide existing as-built drawings of the site and site components to Motorola for conducting site engineering.
- Provide a right of entry from the site owner for Motorola to conduct field investigations.
- Maintain existing access road in order to provide clear and stable entry to the site for heavy-duty construction vehicles, cement trucks and cranes. Sufficient space must be available at the site for these vehicles to maneuver under their own power, without assistance from other equipment.
- Arrange for space on the structure for installation of new antennas at the proposed heights on designated existing antenna-mounting structures.
- Provide as-built structural and foundation drawings of the structure and site location(s) along with geotechnical report(s) for Motorola to conduct a structural analysis.
- Confirm that there is adequate utility service to support the new equipment and ancillary equipment.
- Confirm that the existing generators are sufficient to support the new equipment and ancillary equipment loads.
- If required, remove or relocate any existing facilities, equipment, and utilities to create space for new site facilities and equipment.
- If required, provide any physical improvements (walls, roofing, flooring, painting, etc.) necessary to house the equipment in the existing room.
- Supply required standby generator power to support the additional proposed equipment. This power source shall be adequate to back up all radio equipment, future equipment growth, and ancillary equipment such as, but not limited to, interior lighting, tower lighting and HVAC.

## 2.2.6 Site Development Assumptions

**All clarifications and exceptions contained in this Section (General Site Development Assumptions) take precedence over any other section of this Contract.**

- All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- Prevailing Wages are included.
- Zoning is not required and is excluded.
- All recurring and non-recurring utility costs [including, but not limited to, generator fuel (except first fill), electrical, Telco] will be borne by the Customer or site owner.
- All utility installations shall be coordinated and paid for by the site owner and located at jointly agreed to location within or around the new communications shelter or equipment room.
- Site will have adequate electrical service for the proposed equipment. Utility transformer, transformer upgrades, line, or pole extensions have not been included.
- Hazardous materials are not present at the work location. Testing and removal of hazardous materials found during site investigations, construction or equipment installation will be the responsibility of the customer.
- Zoning filing or submittals are not required.
- Underground utilities are not in the location of proposed construction. If UG utilities are required to be relocated, it will be handled thru the change order process.
- A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- No improvements are required for concrete trucks or crane access.
- If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- Existing facility has a grounding system with a ground resistance of 10 ohms or less.
- Existing antenna support structures are structurally capable of supporting the new antenna, cables and ancillary equipment proposed and will not need to be removed or rebuilt at the existing site. The tower or supporting structure meets all applicable EIA/TIA-222 structural, foundation, ice, wind and twist and sway requirements. Motorola has not included any cost for structural or foundation upgrades to the antenna support structure.
- Existing cable support facilities from the antenna to the cable entry port can be used for supporting the new antenna cables.
- Alarming at existing sites will be limited to new component installations and will have to be discussed and agreed to on a site-by-site basis.
- The site will have adequate room for installation of proposed equipment, based on applicable codes and Motorola's R56 standards.
- The existing utility service and backup power facilities (generators) have sufficient extra capacity to support the proposed new equipment load.
- A clear obstruction-free access exists from the antenna location to the equipment room.
- The Customer does not desire upgrade of the existing site to meet Motorola's R56 standards.
- In existing shelters to be used for new radio equipment installation, the floors can support the proposed new loading. Physical or structural improvements to the existing room will not be required.
- Customer responsible for any 3rd party construction management fees or any building fees.

## Motorola Solutions Clarification

- Motorola's proposal is conditioned upon the ability of Motorola to complete the project at the prices set forth herein. Due to significant market volatility and material price fluctuations in raw materials such as steel, copper, finished wood and concrete, Motorola reserves the right to review all material pricing prior to placing any order for materials or equipment required for new towers or shelters and related civil work at each site in order to verify price validity. In the event of a cost increase in material, equipment or energy occurring during performance of the project through no fault of Motorola, the contract price, time of completion and/or contract requirements shall be equitably adjusted by Change Order in accordance with the procedures of the contract documents.
- The freight rates are estimated. Motorola reserves the right to apply a fuel surcharge to the quoted freight rates on all shipments based on the cost of diesel at the time of shipment.

## Completion Criteria

- Site development completed per issued for construction (IFC) construction drawings, project requirements, contractual obligations (including any customer/Motorola approved changes) and approved by Fairfield CT.

## 2.3 Subscriber Assumptions

The following assumptions were made for the subscriber installations:

### Control Station Installations

- Assumes any backhaul required, including internal network cabling is provided by customer and is not included in the price shown.
- Control station installation price assumes new outdoor antenna system unless otherwise noted
  - Standard antenna system installation assumes:
    - A wall mount antenna accessible with a 20' ladder
    - Single wall penetration
    - Up to 75' of antenna cable (may be surface mounted)
- Proposal does not include the cost of structural analysis, structural engineering, review and/or inspection of towers/buildings/structures/etc. and/or upgrades of towers/buildings/structures/etc. for control station installations.
- Our proposal and price quoted assumes that a Federal Aviation Administration (FAA) notification, Antenna Structure Registration (ASR) and/or any other federally required studies are not required for installation of equipment and antennas at any site.
- Installation is priced as prevailing wage using estimated wage rates. Customer to provide wage schedule with order.
- Does not include the cost of permits or permit fees, planning and zoning, inspection assistance or any monies associated with the aforementioned, if required
- R56 audit is not included at the control station install locations.
- Work to be completed during normal business hours

### Mobile Installations

- A vehicle inventory will be required prior to installation to provide firm plan for installation.
- Mobile installation price assumes installation of new radio in the same configuration (remote mount dash mount, dual head), location and antenna location as the radio being removed.



- Any relocation or special mounting of radio and/or antenna will require customer/Motorola authorization and may incur additional charges.
- All vehicles are assumed to have a 12VDC or existing converter and a negative ground electrical system
  - Vehicles with other electrical systems require a converter for an additional charge
- 
- Radio installation does not include interface to ancillary equipment unless otherwise noted.
  - Ancillary equipment includes but is not limited to external vehicle siren/PA systems, Knox Box, headset system, intercom system, additional mic and speaker, vehicle repeater, AVL system.
- Boat installations are custom quoted and will require an inspection of each vessel to develop an installation plan prior to work being scheduled.
- Equipment installation into Boat/Marine units assumes installation in a non-pressurized vessel and cable run does not require drilling through hull.
  - Boat must be out of the water or docked when installation work is performed.
  - Customer to provide life vest for Norcom personnel if vessel is in the water.
- Futurecom and vehicle charger installation assumes installation is concurrent with mobile radio radio.
- All mobile installations assume a ground for the antenna exists. If needed a ground plate will be added and billed in addition to price shown.
- Customer to provide a steady flow of vehicles/equipment for installation and on-site programming/flashing. Wait time for equipment may incur additional charges.
- Assumes work is completed during normal business hours at customer location.
  - Customer to provide indoor location with electricity to perform installation work.

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## Section 3

# Acceptance Test Plan

## 3.1 Preliminary Functional Acceptance Test Plan

The following is a preliminary Functional Acceptance Test Plan for the proposed Simulcast Add-On Sites.

## 3.1.1 Wide Area Trunking FDMA/TDMA Mixed Sites

### 3.1.1.1 Talkgroup Call

#### 1. DESCRIPTION

The Talkgroup is the primary level of organization for communications on a trunked radio system. Radios with Talkgroup call capability will be able to communicate with other members of the same Talkgroup. This provides the effect of a private channel down to the Talkgroup level.

This test will demonstrate that a Talkgroup transmission initiated by a radio user will only be heard by system users, which have, the same Talkgroup selected. As with other types of calls, Talkgroup calls can take place from anywhere in the system.

#### SETUP

RADIO-1 - SITE 1 - TALKGROUP 1  
RADIO-2 - SITE 2 - TALKGROUP 1  
RADIO-3 - SITE 1 - TALKGROUP 2  
RADIO-4 - SITE 2 - TALKGROUP 2

#### VERSION #1.040

#### 2. TEST

- Step 1. Initiate a Wide Area Call with RADIO-1 in TALKGROUP 1.
- Step 2. Observe that only RADIO-2 will be able to monitor and respond to the call.
- Step 3. Initiate a Wide Area Call with RADIO-3 in TALKGROUP 2.
- Step 4. Observe that only RADIO-4 will be able to monitor and respond the call.

Pass\_\_\_\_ Fail\_\_\_\_

## Wide Area Trunking FDMA/TDMA Mixed Sites

### 3.1.1.2 Continuous Assignment Updating

#### 1. DESCRIPTION

When a talkgroup is assigned a voice channel, the site controller continues to transmit the channel assignment on the control channel for the duration of the talkgroup call. Radios coming into use on the system are automatically sent to voice channels with conversations in progress involving their selected talkgroups.

#### SETUP

RADIO-1 - TALKGROUP 1  
RADIO-2 - TALKGROUP 1  
RADIO-3 - TALKGROUP 1

**VERSION #1.010**

#### 2. TEST

- Step 1. Turn OFF RADIO-1.
- Step 2. Initiate a Talkgroup Call using RADIO-2 and verify RADIO-3 hears the audio.
- Step 3. While the Talkgroup Call is in progress, turn ON RADIO-1.
- Step 4. Observe RADIO-1, which was just brought back into service, joins the Talkgroup Call already in progress.
- Step 5. End the talkgroup call.
- Step 6. Switch RADIO-1 to another talkgroup.
- Step 7. Initiate a Talkgroup Call from RADIO-2 to RADIO-3.
- Step 8. While the Talkgroup Call is in progress, set RADIO-1 back to TALKGROUP 1.
- Step 9. Observe that RADIO-1 joins the Talkgroup Call already in progress.

**Pass\_\_\_\_\_ Fail\_\_\_\_\_**

## Wide Area Trunking FDMA/TDMA Mixed Sites

### 3.1.1.3 Audio Interrupt / Interrupt Never Mode

#### 1. DESCRIPTION

A radio PTT request may be received for a group already active and currently being sourced by another radio unit. The talkgroup can be flagged to either allow or disallow the new PTT. If allowed, the latest PTT request will be granted and become the source of the call.

#### SETUP

RADIO-1 - TALKGROUP 1  
RADIO-2 - TALKGROUP 1  
RADIO-3 - TALKGROUP 1

#### VERSION #1.020

#### 2. TEST

- Step 1. Verify TALKGROUP 1's template is set up as Audio Interrupt Never.
- Step 2. Using RADIO-1, initiate a call on TALKGROUP 1.
- Step 3. Verify both RADIO-2 and RADIO-3 monitor the audio.
- Step 4. Using RADIO-3, initiate a call on TALKGROUP 1.
- Step 5. Verify that RADIO-3 receives a reject and that RADIO-2 continues to listen to RADIO-1.
- Step 6. Dekey both Radios.

Pass\_\_\_\_ Fail\_\_\_\_



### 3.1.2 Signoff Certificate

By their signatures below, the following witnesses certify they have observed the system Acceptance Test Procedures.

#### Signatures

WITNESS:

\_\_\_\_\_  
Date: \_\_\_\_\_

Please Print Name: \_\_\_\_\_

\_\_\_\_\_  
Initials:

Please Print Title: \_\_\_\_\_

WITNESS:

\_\_\_\_\_  
Date: \_\_\_\_\_

Please Print Name: \_\_\_\_\_

\_\_\_\_\_  
Initials:

Please Print Title: \_\_\_\_\_

WITNESS:

\_\_\_\_\_  
Date: \_\_\_\_\_

Please Print Name: \_\_\_\_\_

\_\_\_\_\_  
Initials:

Please Print Title: \_\_\_\_\_

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## 3.2 Coverage Acceptance Test Plan

### 3.2.1 Overview

This Coverage Acceptance Test Plan (CATP) is designed to verify that the voice radio system implemented by Motorola Solutions for the Town of Fairfield meets or exceeds the required reliability as shown on Motorola Solutions' map. The CATP defines the coverage testing method and procedure, the coverage acceptance criterion, the test documentation, and the responsibilities of Motorola Solutions, the Town of Fairfield, and DESPP.

Coverage Acceptance Testing is based upon a coverage prediction that accurately represents the implemented infrastructure and parameters that are consistent with the contract agreements. Motorola Solutions' coverage design and coverage guarantee is based on the use of Motorola Solutions APX subscribers. The Coverage Acceptance Test will be performed using Motorola Solutions APX subscribers.

Subsequent sections define the coverage acceptance test configurations and test criteria.

### 3.2.2 CATP Definitions

Several definitions are needed to accurately describe the coverage acceptance test method and criteria. Where cited, these terms or methods are defined in TIA TSB-88.1-F<sup>1</sup> or TSB-88.3-F<sup>2</sup>.

#### 3.2.2.1 Defined Test Area

The defined test area is the geographical area in which communications will be provided that meet or exceed the specified Channel Performance Criterion (CPC) at the specified reliability for the specified equipment configuration. The defined test area is listed in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary, along with the name of the corresponding Motorola Solutions map which shows the defined test area. Please see Reference 1 in Section 3.2.7 for the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration coverage prediction and Reference 2 in Section 3.2.7 for the APX 6500 Mobile coverage prediction.

For coverage testing, the defined test area will be divided into a grid pattern by Motorola Solutions to produce at least the number of uniformly sized test locations (or tiles) required by the Estimate of Proportions formula. {TSB-88.3-F, §5.2.1, equation 2} The minimum number of test tiles required varies, from a hundred to many thousands, depending on the size of the defined test area, desired confidence in results, type of coverage test, and the predicted versus required reliability.

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<sup>1</sup> *Wireless Communications Systems --- Performance in Noise- and Interference-Limited Situations --- Part 1: Recommended Methods for Technology Independent Performance Modeling* Technical Service Bulletin TSB-88.1-F, Telecommunications Industry Association (TIA), Arlington VA, 2022.

<sup>2</sup> *Wireless Communications Systems --- Performance in Noise- and Interference-Limited Situations --- Part 3: Recommended Methods for Technology Independent Performance Verification*, Technical Service Bulletin TSB-88.3-F, Telecommunications Industry Association (TIA), Arlington VA, 2022.

### 3.2.2.2 Channel Performance Criterion (CPC)

The CPC is the specified minimum design performance level in a faded channel. {TSB-88.1-F, §5.2} For this system, the CPC is the Delivered Audio Quality (DAQ) as stated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary. The DAQ definitions are provided below in Table 3-1: DAQ Definitions. {TSB-88.1-F, §5.4.2, Table 3}

**Table 3-1: DAQ Definitions**

DAQ	Subjective Performance Description
1	Unusable, speech present but unreadable.
2	Understandable with considerable effort. Frequent repetition due to noise/distortion.
3	Speech understandable with slight effort. Occasional repetition required due to noise/distortion.
3.4	Speech understandable with repetition only rarely required. Some noise/distortion.
4	Speech easily understood. Occasional noise/distortion.
4.5	Speech easily understood. Infrequent noise/distortion.
5	Speech easily understood.

The CPC pass/fail criterion is the faded performance threshold, plus any adjustments for antenna performance, external noise, and in-building or in-vehicle losses. {TSB-88.1-F, §5.4.2, Figure 5} The faded performance threshold for the specified CPC is determined using the receiver's static reference sensitivity adjusted by the projected CPC parameters for the applicable Modulation Type and DAQ as listed in the current version of TSB-88.1, Annex A, Table A-1. For coverage testing of digital voice radio systems, the faded performance threshold is the applicable Bit Error Rate (BER) from the projected CPC parameters.

### 3.2.2.3 Reliability

The Service Area reliability is the percentage of locations within the defined test area that are predicted to meet or exceed the specified CPC. The Motorola Solutions' map indicates the Service Area within which this system is predicted to provide at least the reliability of meeting or exceeding the CPC as stated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary.

After all accessible tiles in the defined test area have been tested, the Service Area reliability will be determined by dividing the number of tiles tested that meet or exceed the CPC pass/fail criterion by the total number of tiles tested. {TSB-88.3-F, §5.1, equation 1} Please see Reference 1 in Section 3.2.7 for the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration service area reliability coverage prediction and Reference 2 in Section 3.2.7 for the APX 6500 Mobile service area reliability coverage prediction.

### 3.2.2.4 Direction of Test

The direction of test in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary defines the direction which will be tested for coverage acceptance. Outbound (also called forward link, downlink, or talk-out) is the path from the fixed equipment outward to the mobile or portable radios. Inbound (also called reverse link, uplink, or talk-in) is the path from the mobile or portable radios inward to the fixed equipment. Round Trip means both Outbound and Inbound are required to pass for a test tile to pass.

### 3.2.2.5 Equipment Configurations

This section defines the equipment configuration and infrastructure design parameters upon which the coverage guarantee and the coverage acceptance test are based. The equipment configuration is defined in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary, and includes user equipment, outdoor/in-building definition, defined test area, number of test tiles, reliability, CPC, CPC pass/fail, and direction(s) of test. The infrastructure design parameters are defined in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary, and include site names, site locations, and antenna system parameters. If the implemented system equipment configuration and/or infrastructure design parameters vary from these configurations and/or parameters, a revised coverage map will be used to define the test configuration and potential areas from which test tiles will be included in the revised coverage acceptance test.

Coverage testing will be conducted with equipment installed per the configuration in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary, and with the mobile antenna in an unobstructed location that is not adjacent to other large objects or metallic items which would distort the antenna pattern.

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**Table 3-2: Town of Fairfield Coverage Acceptance Test Summary**

User Equipment	Outdoor / In-Building	Defined Test Area & Map Name	Number of Test Tiles	Reliability	CPC	CPC Pass/Fail	Direction(s) of Test
<b>Guaranteed Coverage</b>							
2.5 watt APX 8000HXE Portable with the standard XE all band antenna in a swivel case on the hip with a remote speaker microphone for transmit and receive	15 dB loss applied for building penetration coverage. In-vehicle attenuated drive test (simulating portable antenna performance and 15 dB loss applied for building penetration)	Service Area within the Town of Fairfield Jurisdictional Boundary as shown in Section 3.2.7 Reference 1 - Town of Fairfield, CLMRN G 7/800 MHz TDMA Simulcast Subsystem, 95% Service Area Reliability, Roundtrip, DAQ 3.4, APX 8000HXE Portable with an additional 15 dB loss applied for building penetration	546 (0.25 x 0.25 mile tiles) with approximately 474 accessible by roads	95%	DAQ-3.4	Subjective DAQ	Round Trip
APX 6500 Mobile in a standard vehicle with a unity gain antenna mounted in the center of the roof at least 5-feet high with 17-feet or less of Larson RG-58/U low loss dual shield coax or Times Microwave Systems LMR-240 coax installed according to prescribed installation standards	Outdoor	Service Area within the DESPP Troop G Jurisdictional Boundary as shown in Section 3.2.7 Reference 2 - CLMRN G 7/800 MHz TDMA Simulcast Subsystem, 98% Service Area Reliability, Outbound, DAQ 3.0, APX 6500 Mobile	4,305 (0.3 x 0.3 mile tiles) with approximately 4,127 accessible by roads	98%	DAQ-3.0	3.1% BER Outbound with Subjective DAQ Re-Test Allowed	Outbound Only



**Table 3-3: Town of Fairfield Infrastructure Design Parameters**

Site Name	Latitude	Longitude	Transmit Antenna System				Receive Antenna System			
			Mount Height (Feet)	Antenna Model	Azimuth (Degrees)	ERP (Watts)	Mount Height (Feet)	Antenna Model	Azimuth (Degrees)	EFS (dBm)
CLMRN G 700/800 MHz P25 Phase II TDMA Simulcast Subsystem										
Fairfield Police Headquarters	41°8'22.5" N	73°15'26.5" W	150	RFI BPA7496-180-14	335	150	150	RFI BPA7496-180-14	335	-126.37
Fairfield SHU Roncalli Hall	41°13'13.6" N	73°14'17.0" W	120	dbSpectra DS7C09P36U-D	N/A	150	120	dbSpectra DS7C09P36U-D	N/A	-123.17
Fairfield Wood House Road	41°11'45.3" N	73°16'53.0" W	92	dbSpectra DS7C09P36U-D	N/A	150	92	dbSpectra DS7C09P36U-D	N/A	-123.17
Bayberry Lane (Existing CLMRN)	41°10'17.9" N	73°19'42.9" W	140	dbSpectra DS7C09P36U-D	N/A	150	140	dbSpectra DS7C09P36U-D	N/A	123.17
Greenwich (Existing CLMRN)	41°5'49.3" N	73°38'19.5" W	180	Sinclair SC479-HF1LDF(D00-E5608)	N/A	105	180	Sinclair SC479-HF1LDF(D00-E5608)	N/A	-123.43
Redding (Existing CLMRN)	41°17'13.3" N	73°26'17.4" W	130	Sinclair SE419-SF3P4LDF	135	174	130	Sinclair SE419-SF3P4LDF	135	-124.43
Shelton (Existing CLMRN)	41°16'48.5" N	73°11'7.6" W	169	Sinclair SC479-HF1LDF(D00-E5765)	N/A	100	169	Sinclair SC479-HF1LDF(D00-E5765)	N/A	-123.43
Stamford (Existing CLMRN)	41°3'5.6" N	73°32'35.3" W	160	RFI CC807-08-T5	N/A	59	160	RFI CC807-08-T5	N/A	-120.05
Troop G (Existing CLMRN)	41°10'20.0" N	73°11'32.0" W	180	dbSpectra DS7C09P36U-D	N/A	100	180	dbSpectra DS7C09P36U-D	N/A	-123.23
West Rock Ridge (Existing CLMRN)	41°20'43.3" N	72°58'14.4" W	115	Sinclair SC479-HF1LDF(D00-E5765)	N/A	51	114	Sinclair SC479-HF1LDF(D00-E5765)	N/A	-123.43
Westport (Existing CLMRN)	41°8'14.8" N	73°20'4.8" W	173	Amphenol WPA-700102-4CF-EDIN-9	235	102	160	Sinclair SE419-SWBPALDF(D00) A=130°	235	-126.93

Site Name	Latitude	Longitude	Transmit Antenna System				Receive Antenna System			
			Mount Height (Feet)	Antenna Model	Azimuth (Degrees)	ERP (Watts)	Mount Height (Feet)	Antenna Model	Azimuth (Degrees)	EFS (dBm)
Wilton (Existing CLMRN)	41°10'21.3" N	73°26'3.4" W	182	Sinclair SC479-HF1LDF(D00-E5765)	N/A	155	181	Sinclair SC479-HF1LDF(D00-E5765)	N/A	-123.43
Norwalk Hospital (Existing CLMRN)	41°6'44.1" N	73°25'21.7" W	144	dbSpectra DS7C09P36D-D	N/A	100	144	dbSpectra DS7C09P36U-D	N/A	-116.09
Norwalk 2 <sup>nd</sup> District Water Tank (Existing CLMRN)	41°4'25.2" N	73°25'59.2" W	110	dbSpectra DS7C09P36D-D	N/A	100	110	dbSpectra DS7C09P36U-D	N/A	-123.17
Wilton Deer Run (Existing CLMRN)	41°14'29.1" N	73°28'12.0" W	110	RFI BPA7496-180-14	90	100	110	RFI BPA7496-180-14	90	-126.37
Wilton Transfer Station (Existing CLMRN)	41°14'18.7" N	73°25'26.9" W	150	dbSpectra DS7C09P36U2D	N/A	150	150	dbSpectra DS7C09P36U2D	N/A	-123.17

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### 3.2.2.6 In-Building Coverage

Motorola Solutions' coverage prediction for the portable in 15 dB random building equipment configuration includes additional loss to accommodate in-building coverage as stated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary.

Since building loss varies significantly depending on the construction of buildings, Motorola Solutions' coverage map does not predict coverage within any specific building. Rather, the in-building coverage map indicates the area within which this system is predicted to provide the required reliability of meeting or exceeding the required CPC within buildings that have up to the in-building loss as stated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary.

The in-building coverage map applies only to the above ground portions of buildings. The coverage map does not apply to in-building locations that are shielded from radio penetration, such as elevators, basements below ground level, tunnels, bank vaults, jails, x-ray rooms, nuclear facilities, and other locations shielded by metal walls or with heavy construction and with no external windows or doors.

Please see Reference 1 in Section 3.2.7 for the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration service area reliability coverage prediction.

### 3.2.2.7 Outdoor Only Mobile Coverage

Motorola Solutions' mobile coverage prediction is for outdoor locations only. Mobile coverage inside buildings, such as parking garages, or in tunnels is not a design requirement of this system and is, therefore, not guaranteed.

Please see Reference 2 in Section 3.2.7 for the APX 6500 Mobile service area reliability coverage prediction.

### 3.2.2.8 CPC Pass/Fail Criterion for a Test Tile

For the defined equipment configuration, the CPC pass/fail criterion for a test tile is stated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary. The defined equipment configuration will have only one CPC pass/fail criterion for a test tile.

Coverage for the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration equipment configuration will be verified for acceptance by attenuation of the test radio for Subjective DAQ tests. The attenuation will be the difference between the test radio's antenna system and the additional loss used in Motorola Solutions' coverage prediction to account for portable antenna performance and in-building penetration. The attenuator value is provided in Table 3-4: Attenuator Value to Evaluate Portable Equipment Configuration. Please see Figure 3-1: Portable CATP Test Radio Setup Diagram for the subjective DAQ roundtrip configuration.

This provides a method of verifying that the radio system provides the required Subjective DAQ for the specified CPC for the defined APX 8000HXE portable equipment configuration.

To obtain the informational BER and SSI values, sampling will be performed with the appropriate attenuator value installed in the test radio antenna line to establish an equivalent signal level performance for the defined equipment configuration. Please see Figure 3-1: Portable CATP Test Radio Setup Diagram for the objective BER outbound configuration.

Below is the attenuator value required to evaluate the equipment configuration. The methodology to determine the attenuator value is demonstrated in TSB-88.1-F §5.4.2, Figure 5. The attenuator value includes the proper values for the equipment configuration requirement plus adjustments for the test equipment setup. Should the test equipment setup losses (e.g. cable length) vary, an adjustment to the attenuator value may be required to represent the required equipment configuration accurately.

**Table 3-4: Attenuator Value to Evaluate Portable Equipment Configuration**

User Equipment Configuration and Outdoor / In-Building	Attenuator Value
APX 8000HXE Portable with an additional 15 dB loss applied for building penetration	21 dB

To measure BER for the APX 6500 mobile equipment configuration, the coverage test will be performed with an APX 6500 mobile radio connected to a unity gain antenna mounted in the center of the roof at least 5 feet high with 17-feet or less of Larson RG-58/U low loss dual shield coax or Times Microwave Systems LMR-240 coax installed according to prescribed installation standards to establish an equivalent signal level performance for the defined equipment configuration. Please see Figure 3-2: Mobile CATP Test Radio Setup Diagram for the objective BER outbound configuration.

Any test tile that fails the objective BER test described above will be re-tested using a subjective DAQ test. Any test tile that fails the objective BER test, but passes a subjective DAQ re-test will be declared passed.

This provides a method of verifying that the radio system provides the required BER for the specified CPC for the defined APX 6500 mobile equipment configuration.

### 3.2.2.9 Required Number of Test Tiles in the Defined Test Area

The method used to test coverage is a statistical sampling of the defined test area to verify that the CPC is met or exceeded at the required reliability for the defined equipment configuration. It is impossible to verify every point within a defined test area, because there are infinite points; therefore, coverage reliability will be verified by sampling a statistically significant number of randomly selected locations, quasi-uniformly distributed throughout the defined test area. There is one test sample per test tile, where a sample consists of multiple sub-samples.

Coverage acceptance testing will be performed in the defined test area as indicated on Motorola Solutions-provided map (See Reference 1 and Reference 2 in Section 3.2.7). To verify that the reliability requirement is met, the defined test area indicated on Motorola Solutions' map will be divided into uniformly sized test tiles, with at least the number of test tiles indicated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary. The number of test tiles indicated in Table 3-2 is at least the minimum required by the Estimate of Proportions formula as stated in section 3.2.2.1 (Defined Test Area) of this document.

Per TSB-88.3-F, the stated minimum outdoor test tile size is 100 by 100 wavelengths; however, the minimum *practical* test tile size is typically about 400 by 400 meters (about 0.25 by 0.25 miles). The minimum practical test tile size for any system is determined by the distance traveled at the speed of the test vehicle while sampling, GPS error margin, and availability of road access within very small test tiles. A related consideration is the time, resources, and cost involved in testing very large numbers of very small tiles. For a given defined test area, all test tiles must be of equal size. The maximum test tile size is 2 by 2 km (1.24 by 1.24 miles) {TSB-88.3-F, §5.5.1}. In some wide-area systems, this constraint on maximum tile size may dictate a greater number of test tiles than the minimum number required by the Estimate of Proportions formula.

No acceptance testing will be performed in locations outside the defined test area as indicated on the Motorola Solutions-provided map. Motorola Solutions, the Town of Fairfield, and DESPP may agree to perform “information only” tests in locations outside the defined test area; however, these “information only” test results will not be used for coverage acceptance. Any “information only” test locations must be defined before starting the test. If the added locations require significant additional time and resources to test, a change order will be required and Motorola Solutions may charge the Town of Fairfield on a time-and-materials basis.

### 3.2.2.10 Accessibility to Test Tiles

Prior to testing, Motorola Solutions, the Town of Fairfield, and DESPP will plan the route for the test vehicle through the defined test area, to ensure that at least the minimum required number of tiles is tested. While planning the route (if possible) or during the test, Motorola Solutions, the Town of Fairfield and DESPP will identify any test tiles that are inaccessible for the coverage test (due to lack of roads, restricted land, etc.). Inaccessible tiles will be eliminated from the acceptance test calculation. {TSB-88.3-F, §5.5.4}

If elimination of inaccessible test tiles results in less than a statistically significant number of test tiles or substantially alters the defined test area, Motorola Solutions reserves the right to adjust the committed reliability based on the reduced number of accessible test tiles within the altered test area and the Estimate of Proportions formula. {TSB-88.3-F, §5.2.1, equation 2}

### 3.2.2.11 Random Selection of a Test Location in Each Tile

This CATP provides an objective method of randomly selecting and tracking test locations using Motorola Solutions’ Voyager<sup>SM</sup> coverage testing tool. The method follows TIA TSB-88.3-F §5.0, “Performance Confirmation”, and has direct correlation with Motorola Solutions’ coverage prediction methodology.

Using Voyager, the actual test location within each test tile will be randomly selected by the test vehicle crossing into the tile at an arbitrary point, with an arbitrary speed and direction. If the selected test location is in a shielded area such as a tunnel or underground parking garage, the data from that test location must be eliminated and a replacement test location must be used.

### 3.2.2.12 CPC Measurements in Each Tile

For the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration equipment configuration, a voice test exchange will be initiated in each test tile using predetermined text typical of a common voice exchange between the fixed location and the portable location. The person conducting the test at the portable will be moving at a typical speed for the surrounding conditions.

For the Informational Outbound BER and Outbound SSI samples in each test tile, a series of sequential measurements (subsamples) will be made while the test vehicle is moving at a typical speed for the surrounding environment. This test tile measurement, containing a number of subsamples, constitutes the test sample for this location. The test sample will establish the mean BER and median signal strength within the test tile. The BER and SSI subsamples will typically be measured for at least 1 second for BER and over a distance of 40 wavelengths for SSI. A mean of multiple BER and a median of multiple signal strength subsamples is used rather than a single measurement to ensure that the measurement is not biased by taking a single sample that might be at a peak or null point on the radio wave.

For the APX 6500 mobile equipment configuration outbound BER test, a series of sequential measurements (subsamples) will be made in each test tile while the test vehicle is moving at a typical speed for the surrounding environment. This test tile measurement, containing a number of subsamples, constitutes the test sample for this location. The test sample will establish the mean BER within the test tile. The BER subsamples will typically be measured for at least 1 second. A mean of multiple BER subsamples is used rather than a single measurement to ensure that the measurement is not biased by taking a single sample that might be at a peak or null point on the radio wave.

### 3.2.3 Responsibilities and Preparation

This section identifies the responsibilities of the Town of Fairfield, DESPP, and Motorola Solutions regarding requirements for equipment, personnel, and time during the coverage test.

The Town of Fairfield and/or DESPP will provide the following for the duration of the coverage test:

- At least one (1) test vehicle and a driver for each test vehicle.
- Exclusive use of the test channels required by Motorola Solutions during the test.
- Facility with at least one (1) console operator position for the fixed end subjective audio test.
- At least one (1) field test team with three or more representatives designated by the Town of Fairfield and/or DESPP per test team to evaluate and record the pass/fail result of each subjective audio transmission. The required quantity of test participants shall be available a minimum of 8 hours per day.
- One (1) fixed end test team with two or more representatives designated by the Town of Fairfield and/or DESPP per test team to evaluate and record the pass/fail result of each subjective audio transmission. The required quantity of test participants shall be available a minimum of 8 hours per day.
- At least two (2) APX 8000HXE portable user radios per test team for the test. One (1) portable user radio will be used for the Subjective DAQ voice test and one (1) portable user radio will be used for informational BER and SSI measurements.
- At least two (2) APX 6500 mobile user radios per test team for the test vehicle. One (1) mobile user radio will be used for the Objective BER test and one (1) mobile user radio will be used for the Subjective DAQ voice re-test, if needed.

Motorola Solutions will provide the following for the duration of the coverage test:

- One (1) Motorola Solutions Voyager coverage testing tool per test team.
- Two (2) 7/800 MHz mobile antennas with magnetic mounts per test team, mounted in the center of the vehicle roof at least 18-inches apart, free of obstructions and not adjacent to other large objects or metallic items which would distort the antenna pattern. One (1) antenna will be used for the APX 8000HXE portable user radio that will be used for the Subjective DAQ voice test or the APX 6500 mobile user radio that will be used for the Objective BER test and one (1) antenna will be used for the APX 8000HXE portable user radio that will be used for informational BER and SSI measurements or the APX 6500 mobile user radio that will be used for the Subjective DAQ voice re-test, if needed.
- At least one (1) field test team with one fewer Motorola Solutions representatives per test team than those designated by the Town of Fairfield and/or DESPP to navigate and to operate Voyager, operate the portable radio, and to evaluate and record the pass/fail result of each subjective audio transmission. One fewer Motorola Solutions representatives per test team than those designated by the Town of Fairfield and/or



DESPP will ensure an odd number of team members to avoid ties for the pass/fail majority vote.

- One (1) fixed end test team with one fewer Motorola Solutions representatives than those designated by the Town of Fairfield and/or DESPP to operate the fixed end equipment and to evaluate and record the pass/fail result of each subjective audio transmission.

As required, Motorola Solutions will provide a receiver signal strength calibration file for the test radios used with the Voyager coverage testing tool. Motorola Solutions will also provide the test data from an Aeroflex or equivalent test equipment used to auto test the test radios.

Before starting the test, the Town of Fairfield, DESPP, and Motorola Solutions will agree upon the time frame for Motorola Solutions' submission of a report containing the coverage test results.

### 3.2.4 CATP Procedures

A coverage acceptance test will be performed using Motorola Solutions' Voyager tool to randomly select test locations, and to manage BER and SSI data collection.

Voyager consists of the following:

- A Global Positioning System (GPS) receiver, which will provide the computer with the location and speed of the test vehicle.
- A laptop computer with Voyager software and a mapping database, which includes highways and local streets.
- A test radio connected to an external antenna mounted in the center of the test vehicle roof, free of obstructions and not adjacent to other large objects or metallic items which would distort the antenna pattern. The test radio will monitor transmissions from the fixed network radio sites.

The procedure for the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration subjective DAQ coverage test will be as follows:

- A subjective listening test will be performed for coverage acceptance testing, to verify talk-in and talk-out DAQ performance of the system. Please see Figure 3-1: Portable CATP Test Radio Setup Diagram for the subjective DAQ roundtrip configuration.
- Talk-out and talk-in will both be required to pass for a test tile to pass.
- A fixed dispatch location will be established.
- To perform a statistically valid subjective DAQ test, a large group of people is required to ensure high confidence in the results. However, obtaining a large group of people for a subjective listening test is usually impractical; therefore, several (three to seven) people in a car or van must be used for the test. Since a group this small cannot provide statistically significant results, it is very important that the personnel participating in the subjective test be familiar with the sound of radio conversations. Before subjectively testing, all personnel who will evaluate audio quality must be "calibrated" by listening to examples of audio that pass and fail the subjective DAQ test.
- Prior to testing, the Town of Fairfield, DESPP, and Motorola Solutions will agree upon a procedure to allow each audio transmission, consisting of defined sentences that will be repeated for each outbound and inbound audio transmission, to be evaluated for approximately 5 seconds.
- The test participants will be divided into teams, each consisting of personnel from the Town of Fairfield, DESPP, and Motorola Solutions. Each team will have members that

operate a portable radio in the field, and members that are stationed at the fixed dispatch location.

- The Voyager tool will be installed in the test vehicle, which will be driven over a route planned to cover the accessible tiles within the defined test area.
- During the coverage test, the Voyager laptop computer screen will display the vehicle's location on a map of the defined test area overlaid with the grid of test tiles. As the field test team(s) drive through the defined test area, test locations within each test tile will be selected randomly by Voyager's GPS location indication. Voyager will be used to log the talk-in and talk-out pass/fail result as well as any pertinent notes for the location.
- At each test tile location, each field test team will initiate a talk-in voice call to the fixed dispatch location. Team members stationed at the fixed dispatch location will evaluate the talk-in audio quality of transmissions from each field test team, and will record his or her subjective pass/fail evaluation of the DAQ for the test tile. Team members stationed at the fixed dispatch location will respond to the field test team with a talk-out voice call. The field test team members will evaluate the talk-out audio quality of the transmission, and will record his or her subjective pass/fail evaluation of the DAQ for the test tile. Each team member will maintain a test log to record date, time, test tile reference and subjective pass/fail evaluation for each test tile location. Subjective pass/fail evaluation will be based on the DAQ descriptions in Table 3-1: DAQ Definitions. The determination of whether each test tile passes or fails the required DAQ value will be the majority vote of all team members' pass/fail subjective evaluations for that test tile. An odd number of team members is required to avoid ties for the pass/fail majority vote.
- Should any subjective DAQ test tile fail, a retry of the transmission will occur. Should the retry pass, the test tile will be considered a pass. If a retry should occur, it will be noted in the test log notes for that test tile. All failed test tiles will be eligible for one retry from a different location within that test tile. If the retry passes, then that test tile will be considered a pass.

The procedure for concurrently collecting the APX 8000HXE Portable with an additional 15 dB loss applied for building penetration informational-only outbound objective BER and SSI measurements will be as follows:

- Informational-only objective BER and SSI measurements will be collected. Please see Figure 3-1: Portable CATP Test Radio Setup Diagram for the objective BER outbound configuration.
- Outbound-only will be evaluated.
- The Voyager tool will be installed in the test vehicle, which will be driven over a route planned to cover the accessible tiles within the defined test area.
- The TDMA outbound-only BER/SSI test will use the 1031 Hz test pattern initiated on the TDMA logical channel. The outbound test pattern, once initiated, will send a continuous test pattern over the air to allow the radio in the Voyager test vehicle to gather signal statistics whenever a test is initiated.
- During the coverage test, the Voyager laptop computer screen will display the vehicle's location on a map of the defined test area overlaid with the grid of test tiles. Voyager will automatically initiate measurements when the GPS receiver indicates that a test tile has been entered. The computer will provide a visual indication that a measurement has been completed in a test tile. Voyager will manage the coverage test data collection, and will store the outbound measurements for each tested tile for later analysis.

The procedure for the mobile objective BER coverage test will be as follows:

- The Voyager tool will be installed in the test vehicle, which will be driven over a route planned to cover the accessible test tiles within the defined test area. Please see Figure 3-2: Mobile CATP Test Radio Setup Diagram for the objective BER outbound configuration.
- During the coverage test, the laptop computer screen will display the vehicle's location on a map of the defined test area overlaid with the grid of test tiles. Voyager will automatically initiate measurements when the GPS receiver indicates that a test tile has been entered. The computer will provide a visual indication that a measurement has been completed in a test tile. Voyager will manage the coverage test data collection, and will store the outbound measurements for each tested tile for later analysis.
- Any test tile that fails the objective BER test described above will be re-tested using a subjective DAQ voice test. Any test tile that fails the objective BER test, but passes the subjective DAQ voice re-test will be declared passed.

The procedure for the mobile subjective DAQ voice re-test of failed BER test tiles (if needed) will be as follows:

- A subjective listening re-test will be performed on test tiles that fail the objective BER test, to verify talk-out DAQ performance of those test tiles.
- Talk-out will be evaluated.
- The radio system will be configured to continuously play a pre-recorded audio file containing male and female sentences connected to a CCGW patched to a dedicated TDMA talkgroup.
- A subjective DAQ voice re-test mobile radio installed in a representative location in each test vehicle, connected to a mobile antenna installed per the User Equipment Configuration Table 3-2: Town of Fairfield Coverage Acceptance Test Summary, free of obstructions and not adjacent to other large objects or metallic items which would distort the antenna pattern, will monitor TDMA voice transmissions from the fixed network radio sites. Figure 3-2: Mobile CATP Test Radio Setup Diagram for the subjective DAQ outbound configuration.
- Each test team will consist of personnel from the Town of Fairfield, DESPP, and Motorola Solutions. Each test team will have a member that operates the subjective DAQ voice re-test mobile radio.
- When a test team observes that a test tile fails the objective BER test described above, the test team will increase the volume on the subjective DAQ voice re-test mobile radio and listen to the continuous talk-out audio transmission in the failed test tile for the duration of time necessary to hear the two (2) pre-recorded phrases (approximately 5-7 seconds) while moving. Depending on where the roads lie within the test tile, it may be necessary for the test team to stop or turn around before performing the subjective DAQ voice re-test in order to ensure that the test is performed while in the failed BER test tile.
- The test team will evaluate the talk-out audio transmission to a minimum of DAQ 3.0, as described in Table 3-1: DAQ Definitions. The test team will record the subjective pass/fail evaluation of the talk-out audio transmission for the failed BER test tile.
- Should any subjective DAQ voice re-test tile fail, the talk-out audio transmission will be reevaluated within the failed BER test tile. Should the reevaluation pass, the subjective DAQ voice re-test tile will be considered a pass. If a reevaluation should occur, it will be noted in the test log notes for that test tile.

### 3.2.5 CATP Documentation and Coverage Acceptance

During the coverage acceptance test, Voyager generates computer files that include the raw test data. A copy of this data will be provided to the Town of Fairfield and DESPP at the conclusion of the coverage test. Motorola Solutions will process this data to produce a map detailing the coverage test results, and to determine whether the coverage test was passed for the defined equipment configurations.

The coverage acceptance criterion for the defined equipment configuration will be that the voice radio system implemented by Motorola Solutions for the Town of Fairfield meets or exceeds the reliability stated in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary for the defined equipment configuration. The system coverage acceptance criterion will be the successful passing of the defined equipment configurations defined in Table 3-2: Town of Fairfield Coverage Acceptance Test Summary.

Motorola Solutions reserves the right to review any test tiles that fail the mobile objective BER coverage test and the mobile subjective DAQ voice re-test. If a coverage test, or a portion thereof, is suspected by Motorola Solutions to have failed due to external interference, those test tiles suspected of being affected by an interferer may be re-tested using the external Bird P/N JFCB0762T0860UF 762-860.5 MHz mobile filter installed between the BER test mobile radio and associated antenna and between the DAQ re-test mobile radio and associated antenna. If the test tiles re-tested are confirmed to have failed due to interference or external noise, those test tiles will be excluded from all acceptance calculations and Motorola Solutions will work with the Town of Fairfield and DESPP to identify potential solutions to the interference issues.

Motorola Solutions will conduct this Coverage Acceptance Test only once. If any portion of the test is determined to be affected by proven equipment malfunctions or failures, Motorola Solutions will repeat the portion of the test affected by the equipment malfunction or failure. The Town of Fairfield and DESPP will have the option to accept the coverage at any time prior to completion of the coverage test or documentation process.

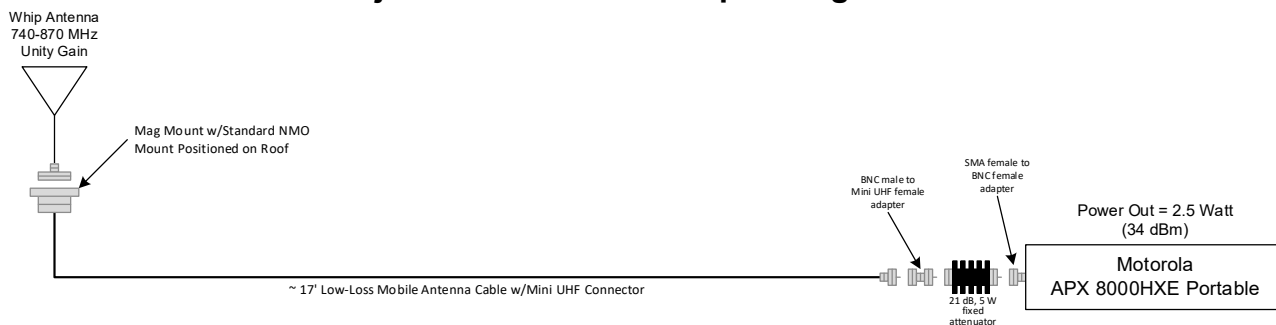
Motorola Solutions will submit to the Town of Fairfield and DESPP a report detailing the coverage test results. This report will include a document, which is to be signed by both the Town of Fairfield and Motorola Solutions, indicating the test was performed in accordance with this CATP and the results of the test indicate the acceptance or non-acceptance of the coverage portion of the system.

### 3.2.6 Test Radio Setup Diagram

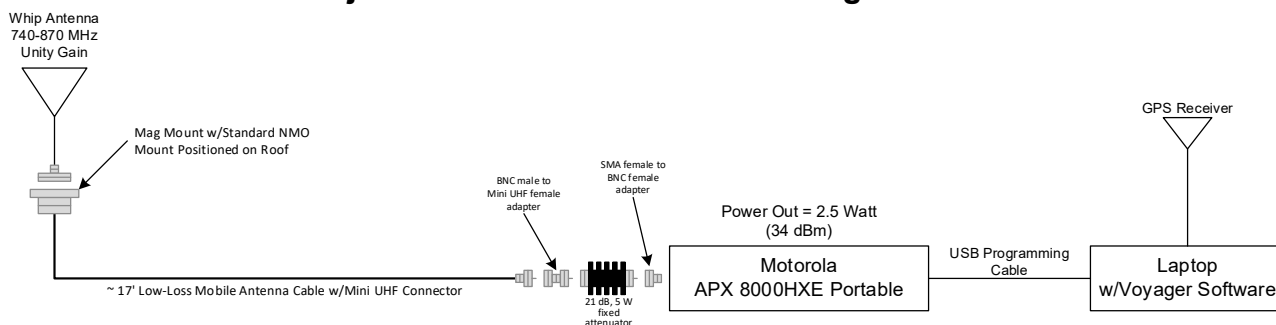
Figure 3-1: Portable CATP Test Radio Setup Diagram shows the subjective DAQ round trip and objective BER/SSI outbound configuration for the portable test radio.

Figure 3-2: Mobile CATP Test Radio Setup Diagram shows the objective BER/SSI outbound configuration for the mobile test radio and the subjective DAQ outbound configuration.

### Subjective DAQ Round Trip Configuration

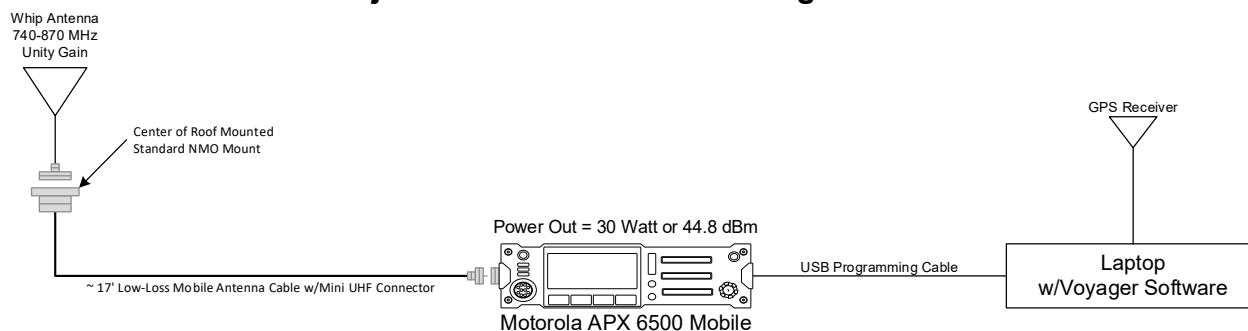


### Objective BER/SSI Outbound Configuration

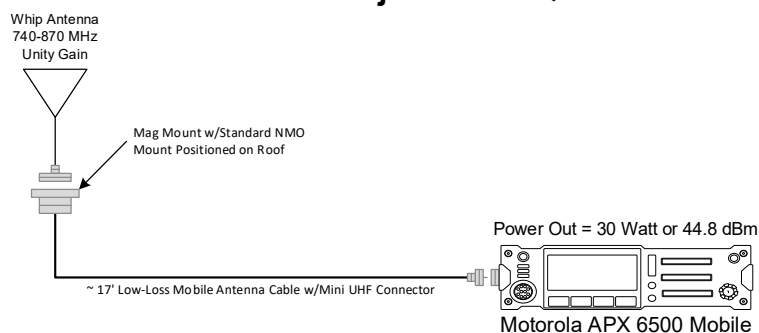


**Figure 3-1: Portable CATP Test Radio Setup Diagram**

## Objective BER Outbound Configuration



## Subjective DAQ Outbound Configuration



**Figure 3-2: Mobile CATP Test Radio Setup Diagram**

## 3.2.7 Coverage Maps

Motorola Solutions has provided coverage maps on the following pages in the order listed below:

- REFERENCE 1 – Town of Fairfield, CLRMN G 7/800 MHz TDMA Simulcast Subsystem, 95% Service Area Reliability, Roundtrip, DAQ 3.4, APX 8000HXE Portable with an additional 15 dB loss applied for building penetration.
- REFERENCE 2 – CLRMN G 7/800 MHz TDMA Simulcast Subsystem, 98% Service Area Reliability, Outbound, DAQ 3.0, APX 6500 Mobile.

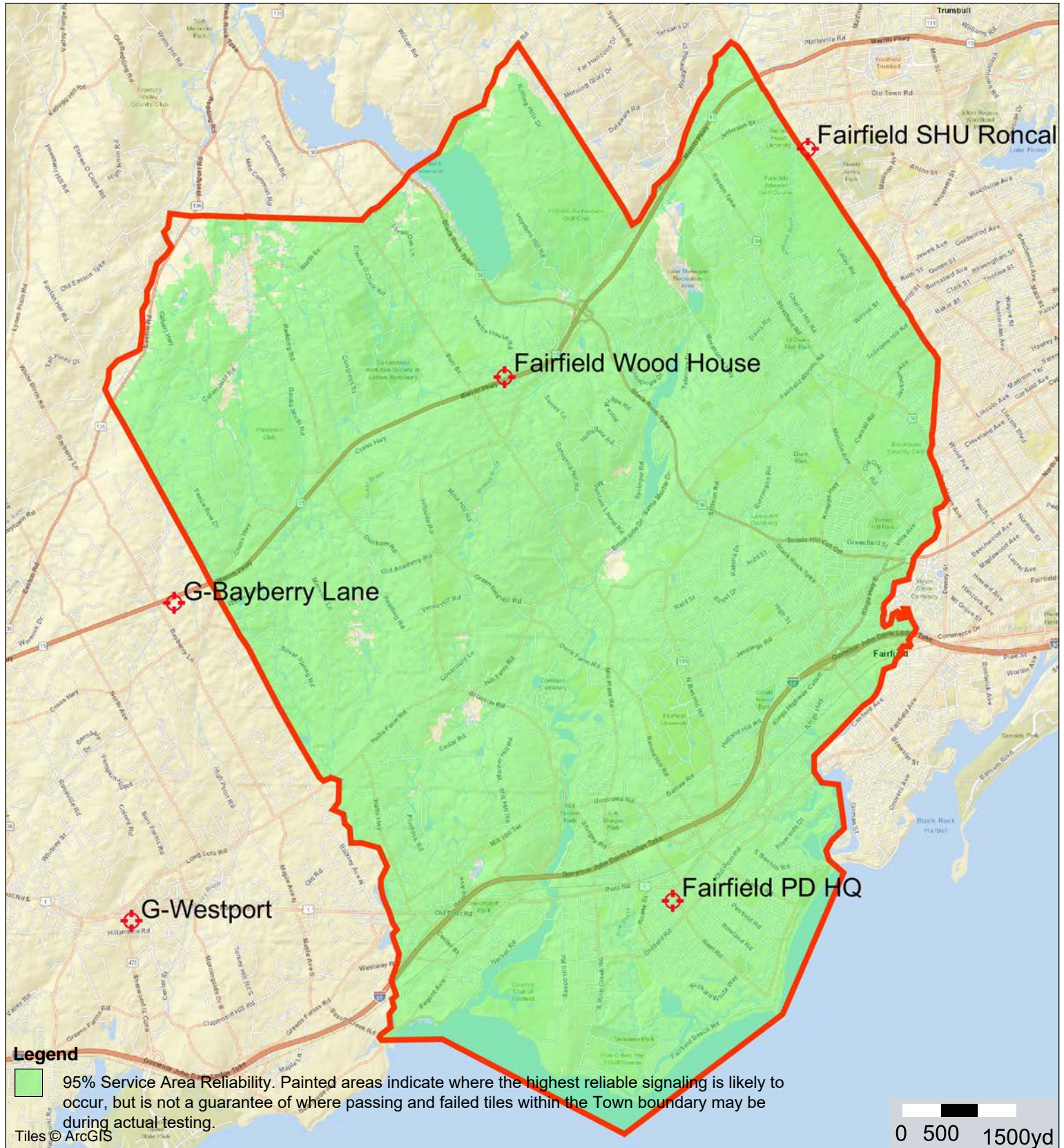




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SOLUTIONS

## TOWN OF FAIRFIELD, CT

CLMRN G 13-Site ASTRO 25 700/800 MHz TDMA Simulcast Subsystem w/Police Headquarters, SHU Roncalli Hall and Wood House Road Add-On Sites. Shaded Area Represents Roundtrip 95% Covered Area Reliability at DAQ 3.0.



Printed: 9/30/2022  
System version: 2.9.9.0

2.5 Watt APX 8000HXE Portable with an Additional 15 dB Loss applied for Building Penetration, 2.5W, Standard XE All Band Antenna in a Swivel Case on the Hip with a Remote Speaker Microphone for Transmit and Receive.

Solution: Fairfield, CT  
Project: CLMRN Integration (2022)  
Design: Design 65  
C13924

This map is intended solely for the equipment configuration stated above.  
Coverage can vary significantly if different configurations are used.

**REFERENCE 1**

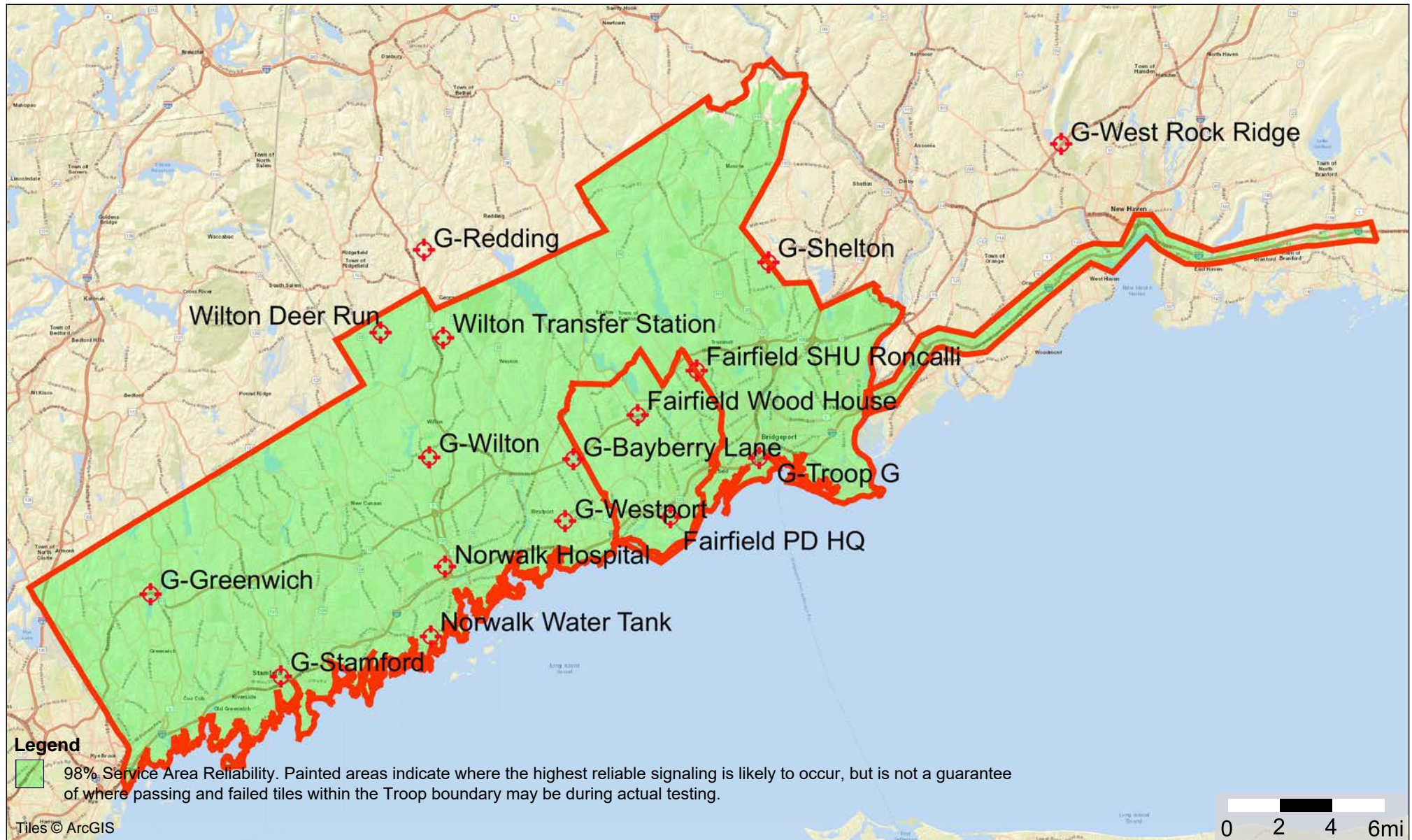




**MOTOROLA**  
SOLUTIONS

## TOWN OF FAIRFIELD, CT

CLMRN G 13-Site ASTRO 25 700/800 MHz TDMA Simulcast Subsystem w/Police Headquarters, SHU Roncalli Hall and Wood House Road Add-On Sites. Shaded Area Represents Outbound 95% Covered Area Reliability at DAQ 3.0.



Printed: 9/30/2022  
System version: 2.9.9.0

APX 6500 Mobile, 30W, Center Roof Mount Antenna installed according to prescribed installation standards.

Solution: Fairfield, CT  
Project: CLMRN Integration (2022)  
Design: Design 64  
C13924

This map is intended solely for the equipment configuration stated above.  
Coverage can vary significantly if different configurations are used.

**REFERENCE 2**

## Section 4

# Service/Warranty

Motorola Solutions has over 90 years of experience supporting mission critical communications for public safety and public service agencies. Motorola Solutions' technical and service professionals use a structured approach to lifecycle service delivery and provide comprehensive maintenance and support throughout the life of the system. The value of support is measured by system availability, which is optimized through the use of proactive processes, such as preventive maintenance, fault monitoring and active response management. System availability is a function of having in place a support plan delivered by highly skilled support professionals, backed by proven processes, tools, and continuous training.

## 4.1 The Motorola Solutions Service Delivery Team

### 4.1.1 Account Services Manager

Your Motorola Solutions Account Services Manager provides coordination of support resources to enhance the quality of service delivery and to ensure your satisfaction. The Account Services Manager (ASM) is responsible to oversee the execution of the Warranty and Service Agreement and ensure that Motorola Solutions meets its response and restoration cycle time commitments. The ASM will supervise and manage the Motorola Solutions Authorized Servicer's functions.

### 4.1.2 Motorola Solutions System Technologists

The Motorola Solutions System Technologists (ST) are available to assist Motorola Solutions' Authorized Servicers when needed for network health and operations.

### 4.1.3 Motorola Solutions System Support Center

Located in Schaumburg, Illinois, the System Support Center (SSC) is a key component to the overall management and system maintenance. As detailed in this Customer Support Plan, the following services are provided by the System Support Center:

- Network Monitoring.
- Dispatch Service.
- Infrastructure Repair.
- Technical Support.

### 4.1.4 Motorola Solutions Local Service Provider

Motorola Solutions' authorized service centers are staffed with trained and qualified technicians. They provide rapid response, repair, restoration, installations, removals, programming, and scheduled preventive maintenance tasks for site standards compliance and RF operability. Motorola Solutions' authorized service centers are assessed annually for technical and administrative competency.

Motorola Solutions places great emphasis on ensuring that communications systems, such as the one proposed for the Town of Fairfield, meet high standards for design, manufacture, and performance. To enhance the value of the communications system being acquired, Motorola Solutions offers customized warranty and post-warranty services as outlined in this section.

## 4.2 Warranty Services

The Motorola Solutions Warranty and Maintenance Program will provide the Town of Fairfield with comprehensive maintenance and support services during the warranty and post warranty of period. The system warranty will commence upon acceptance or beneficial use, whichever occurs first, not to exceed 18-months from date of shipment. Subscriber warranties will commence upon shipment.

Please note that the warranty services are for the equipment proposed and do not include any existing equipment. Response and repair excludes third-party equipment not shipped by Motorola Solutions.

Please note that civil and site system components such as, but not limited to, Generators, Shelters, and Antenna Systems are only covered by their manufacturer's warranty. Any services provided by Motorola Solutions for these items will be considered above contract and will be billed on a Time and Materials basis.

### 4.2.1 Dispatch Service

Motorola Solutions' Dispatch Service ensures that trained and qualified technicians are dispatched to diagnose and restore your communications network. Following proven response and restoration processes, the local authorized service center in your area is contacted and a qualified technician is sent to your site. An automated escalation and case management process is followed to ensure that technician site arrival and system restoration comply with contracted response and restore times. Once the issue has been resolved, the System Support Center verifies resolution and with your approval, closes the case. Activity records are also available to provide a comprehensive history of site performance, issues, and resolution.

### 4.2.2 OnSite Infrastructure Response

Motorola Solutions OnSite Infrastructure Response provides local, trained and qualified technicians who arrive at your location to diagnose and restore your communications network. Motorola Solutions will provide the Town of Fairfield with the same level of service response and escalation procedures currently provided to CTS for its mission critical network in accordance with section 24 of the CTS master agreement.

### 4.2.3 Network Preventative Maintenance

Network Preventative Maintenance provides an operational test and alignment on your infrastructure or fixed network equipment to ensure that it meets original manufacturer's specifications. Trained technicians:

- Physically inspect equipment.
- Remove dust and foreign substances.
- Clean filters.



- Measure, record, align and adjust equipment to meet original manufacturer's specifications.

This service is performed based on a schedule agreed upon between you and Motorola Solutions. Network Preventative Maintenance proactively detects issues that may result in system malfunctions and operational interruptions.

#### 4.2.4 Infrastructure Repair

Infrastructure Repair service provides for the repair of all Motorola Solutions-manufactured equipment, as well as equipment from third-party infrastructure vendors. All repair management is handled through a central location eliminating your need to send equipment to multiple locations.

Comprehensive test labs replicate your network in order to reproduce and analyze the issue. State-of-the-art, industry-standard repair tools enable our technicians to troubleshoot, analyze, test, and repair your equipment. Our ISO9001 and TL9000-certified processes and methodologies ensure that your equipment is quickly returned maintaining the highest quality standards.

Service agreements allow you to budget your maintenance costs on an annual basis. Equipment covered under service agreements also receives higher service priority, which results in quicker repair times.

#### 4.2.5 Technical Support Service

Motorola Solutions Technical Support service provides an additional layer of support through centralized, telephone consultation for issues that require a high level of communications network expertise and troubleshooting capabilities. Technical Support is delivered by the System Support Center (SSC). The SSC is staffed with trained, skilled technologists specializing in the diagnosis and swift resolution of network performance issues. These technologists have access to a solutions database as well as in house test labs and development engineers. Technical Support cases are continuously monitored against stringent inbound call management and case management standards to ensure rapid and consistent issue resolution. Technical Support service translates into measurable, customer-specific metrics for assured network performance and system availability.

#### 4.2.6 Network Monitoring Service

Network Monitoring Service can help keep your network at optimum availability so it is ready to serve mission critical communications needs. By watching over the network continuously, Network Monitoring Service takes action whenever needed, and resolves network problems. We often intervene and correct the problem before you even know a problem exists. Network Monitoring Service provides improved productivity and enhanced network performance, which in turn helps to increase your technology Return-On-Investment.

Using a combination of network monitoring software, automated alerts, and remote diagnostics inquiries, our System Support technologists actively monitor your network to maximize network uptime and overall preparedness...for the expected and unexpected. Upon receiving an alert, our team immediately performs a series of diagnostics to assess the problem. Often the situation can be resolved remotely, but when additional attention is required, local field technicians are dispatched immediately to your site to achieve restoration.

Motorola Solutions' Network Monitoring service is a vital component of an intelligent communication support plan that keeps your business operating smoothly, your costs down, and assures maximum preparedness at all times.

Specifically, Network Monitoring Service provides:

- Improved network availability.
- Remote and timely resolution to minimize downtime.
- Cost efficiencies.
- Optimize time at site due to assessment and knowledge transfer before dispatch.
- Minimize unnecessary trips to site.
- Detailed Reports.

## 4.2.7 System Upgrade Agreement II (Required for CT DESPP Core Connected Equipment)

The Motorola Solutions System Upgrade Agreement II (SUA II) is a complete package of hardware, software and implementation services required to update the ASTRO 25 system up to one upgrade in a two-year period.

Updates to OEM components ensure availability of repair services support and may also provide increased capacity and processing speed. Regular updates enable system expansion (i.e., expansion of RF sites, dispatch positions, data sub-systems, and network management positions). Professional implementation services guarantee live system upgrades are performed with minimal interruption to system operation and with minimal reliance on owner resources. Motorola Solutions SUA II ensures your system continues to perform at the highest level of operation, allows for expansion and feature enhancement, and maximizes the lifespan of the investment. For owners committed to upgrading their system on a regular basis, SUA II provides a consistent, budgeted solution that delivers complete coverage.

**Table 4-1: Included Features**

	SUA II
Minor Release (patch release)	✓
Major Release (system release)	✓
Implementation Services	✓
Major upgrade in a 2-year period <sup>1</sup>	✓
Hardware Refresh <sup>2</sup>	✓

<sup>1</sup> As major system releases become available, Motorola Solutions agrees to provide the system owner with the software, hardware and implementation services required to execute up to one system infrastructure upgrade in a two-year period for their ASTRO 25 system.

<sup>2</sup>Hardware refresh includes version updates and/or replacements for Motorola Solutions field replaceable units (FRU) and third-party networking and computing hardware when needed to support a software release update. New hardware will both support the new software update, as well as maintain existing functions and feature.

- Minor releases may include commercial operating system (OS) and application security updates, patches and service pack updates for Microsoft Windows and Server OS, Red Hat Linux, Sun Solaris and any Motorola Solutions software service packs that may be available.

- Major releases include commercial OS and application software updates as well as Motorola Solutions system release software to improve the system functionality and operation from previous releases as well as significant new feature enhancements that are available for purchase.
- Implementation services include all in-house and on-site resources to implement and test the major release update.

## 4.3 Post Warranty Services

As Motorola Solutions' continuing commitment to supporting your system, warranty services can be extended after the first year to provide maintenance and service support in future years. Any of the services that we identify can be customized in future years, and are available for purchase either in "System Support Services" packages or as individual service offerings. These system support services significantly benefit the Town of Fairfield because the system can be effectively supported after the warranty period, thereby maximizing the operational capabilities and useful life of the system and protecting your investment in the system.

Post-warranty support is an optional cost with system purchase, but required for CT DESPP Core connected equipment in order to provide for system wide maintenance of all sites and components.

## 4.4 Summary

Whether it's a routine service call, or a disaster situation, Motorola Solutions understands its responsibility and takes pride in its commitment to deliver proven response service to the public safety community. Motorola Solutions has the capability to provide the technical, administrative, consultative, and maintenance repair services needed to support, enhance, and maintain the effectiveness of your communications network. Motorola Solutions' goal is to provide the Town of Fairfield with the qualified resources, to maintain and improve system operation and availability, and to deliver world-class service support.

Warranty and Post Warranty Service support services to be delivered are outlined in Table 4-2.

**Table 4-2: Warranty and Post Warranty Service Overview**

Warranty and Post Warranty Service Overview	Warranty Year	Post Warranty Years 2-5
Dispatch Service	✓	✓
OnSite Infrastructure Response	✓	✓
Network Preventative Maintenance	✓	✓
Infrastructure Repair	✓	✓
Technical Support Service	✓	✓
Network Monitoring Service	✓	✓
System Upgrade Agreement (SUA/SUA II)		✓

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## Section 5

# Pricing Summary

## 5.1 Pricing Summary

Solution Component	Value
<b>Discounted Equipment &amp; Freight, Itemized Below:</b>	<b>\$6,164,282</b>
Fixed Network Equipment & Freight	\$2,623,803
Subscribers & Accessories	\$3,540,479
<b>Implementation Services, Itemized Below:</b>	<b>\$2,489,595</b>
Staging & Installation Services	\$186,811
Civil Installation Services	\$793,798
Microwave Installation Services	\$407,425
PM, ENG & ST Services	\$469,604
CATP Test Kits & Services	\$120,070
Box Warranty to State Services Upgrade	\$75,733
Prevailing Wage Adder for Installation & Subscriber Services	\$18,583
Frequency Research, Engineering, Coordination & Licensing	\$40,800
Subscriber Services	\$345,542
End User Training	\$31,250
<b>CT A-99-001 Pricing</b>	<b>\$8,653,877</b>
<b>State Add On Incentive</b>	<b>(\$2,552,894)</b>
<b>Total Investment with Discount</b>	<b>\$6,100,983</b>
Years 2-5 of Maintenance & Lifecycle Services	\$522,003
<b>Total Investment with Discount &amp; Post-Warranty Services</b>	<b>\$6,622,986</b>

### 5.1.1 Post Warranty Services

Post warranty services as priced below include years 2-5 of Advanced + support and System Upgrade Agreement II (SUA II). Pricing as summarized is based on purchase of the post-warranty services at the time of system order or prior to final system acceptance. Year to year services renewal pricing will reflect current support pricing at the time of renewal.

Service	Year 1	Year 2	Year 3	Year 4	Year 5
Maintenance Services	Included	\$89,097	\$103,376	\$108,235	\$113,342
Lifecycle (SUA) Services	N/A	\$26,453	\$26,800	\$27,162	\$27,538
<b>Total Services</b>	<b>Included</b>	<b>\$115,550</b>	<b>\$130,176</b>	<b>\$135,397</b>	<b>\$140,879</b>

## 5.2 Terms and Conditions

The terms and conditions are based upon the State of Connecticut's DAS Master Contract A-99-001.

## 5.3 Price validity

This proposal is valid through December 23, 2022.

## 5.4 Milestone Payment Schedule

The payment schedule as shown is based on the A-99-001 Master Agreement. The total contract value is \$6,100,983 with discount, exclusive of post-warranty services and \$6,622,986 inclusive of post-warranty services years 2-5. Customer will make payment when due in the form of a check, cashier's check or wire transfer drawn on a U.S. financial institution and in accordance with the following milestone payment schedule.

**Table 5-1: Payment Milestones**

	Milestone	Milestone Details	Payment (no post warranty)	Payment (with post warranty)
1	Factory Testing, Certification and Delivery to the State	Aggregate payments upon completion of Delivery to the State shall be in an amount equal to 48% of the Contract Price of the System, payable upon delivery of equipment. The aggregate payment upon completion of this Delivery Milestone shall not exceed the amount presented.	\$2,928,472	\$3,179,033
2	System Installation	Aggregate payments upon receipt of equipment in an amount equal to 20% of the Contract Price of the System, payable on a site or troop basis. The aggregate payment upon completion of this Installation Milestone shall not exceed the amount presented.	\$1,220,197	\$1,324,597
3	Acceptance Testing	Aggregate payments upon completion of Equipment Testing as defined in Acceptance Test Plan Proposal Section 4 shall be in an amount equal to 18% of the Contract Price of the System, payable on a site-by-site basis. The aggregate payment upon completion of this system equipment testing Milestone shall not exceed the amount presented.	\$1,098,177	\$1,192,137
4	Final System Acceptance	Payments of all "hold back" funds upon Final System Acceptance. An amount equal to 14% of the Contract Price of the System. The payment upon completion of this system testing Milestone shall not exceed the amount presented.	\$854,137	\$927,219

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5.5 Detailed Pricing

The equipment, software and features for the proposed solution is as follows.

5.5.1 Infrastructure Equipment

SUB SYS	BLOCK	LIM	O	APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST (USD)	EXT LIST (USD)	Contract Disc	Contract Unit	Contract Extended
PD HQ	Site Rtr	1	-	147	1	T8547	SITE ROUTER & FIREWALL- DC	\$1,100.00	\$1,100.00	15%	\$935.00	\$935.00
PD HQ	Site Rtr	1	a	147	1	CA03445AA	ADD: MISSION CRITICAL HARDENING	\$3,300.00	\$3,300.00	15%	\$2,805.00	\$2,805.00
PD HQ	Site Rtr	1	b	147	1	CA03448AA	ADD: STATEFUL FIREWALL	\$1,000.00	\$1,000.00	15%	\$850.00	\$850.00
PD HQ	700 ESS	2	-	112	1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM	\$6,000.00	\$6,000.00	20%	\$4,800.00	\$4,800.00
PD HQ	700 ESS	2	a	595	1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2	\$0.00	\$0.00	20%	\$0.00	\$0.00
PD HQ	700 ESS	2	b	112	1	CA00855AA	ADD: 700/800 MHZ	\$6,300.00	\$6,300.00	20%	\$5,040.00	\$5,040.00
PD HQ	700 ESS	2	c	112	1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS	\$35,400.00	\$35,400.00	20%	\$28,320.00	\$28,320.00
PD HQ	700 ESS	2	d	595	6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE	\$29,500.00	\$177,000.00	20%	\$23,600.00	\$141,600.00
PD HQ	700 ESS	2	e	112	1	CA02686AA	ADD: AC DC POWER DISTRIBUTION	\$0.00	\$0.00	20%	\$0.00	\$0.00
PD HQ	700 ESS	2	f	595	3	CA01842AA	ADD: P25 TDMA SOFTWARE	\$13,000.00	\$39,000.00	20%	\$10,400.00	\$31,200.00
PD HQ	700 ESS	2	g	112	1	CA01943AA	ADD:2ND BRANCH DIVERSITY	\$700.00	\$700.00	20%	\$560.00	\$560.00
PD HQ	700 ESS	2	h	112	1	CA00862AA	ADD: SITE & CABINET RMC W/CAPABILITY OF 7-24 BRS	\$2,100.00	\$2,100.00	20%	\$1,680.00	\$1,680.00
PD HQ	700 ESS	2	i	112	1	CA00879AA	ADD: PRIMARY 6 PORT CAVITY COMBINER	\$8,400.00	\$8,400.00	20%	\$6,720.00	\$6,720.00
PD HQ	700 ESS	2	j	112	1	CA00881AA	ADD: 700 + 800 MHZ DIPLEXER W/PMU	\$1,000.00	\$1,000.00	20%	\$800.00	\$800.00
PD HQ	700 ESS	2	k	677	2	CA03792AA	ADD: DSC 8000 REFERENCE DISTRIBUTION MODULE	\$6,000.00	\$12,000.00	20%	\$4,800.00	\$9,600.00
PD HQ	700 ESS	2	l	680	2	CA03746AA	ADD: DSC 8000 SIMULCAST RDM SW	\$8,200.00	\$16,400.00	20%	\$6,560.00	\$13,120.00
PD HQ	700 ESS	2	m	677	2	CA03739AA	ADD: INTEGRATED GNSS TIMING REF W/ RB	\$12,000.00	\$24,000.00	20%	\$9,600.00	\$19,200.00
PD HQ	700 ESS	2	n	680	2	CA03747AA	ADD: DSC 8000 RUBIDIUM SW	\$4,500.00	\$9,000.00	20%	\$3,600.00	\$7,200.00
PD HQ	700 ESS	2	o	112	1	CA01402AA	ADD: 7.0 FT OPEN RACK	\$495.00	\$495.00	20%	\$396.00	\$396.00
PD HQ	700 ESS	3	-	895	2	PMUG1017B	GNSS REMOTE RECEIVER ASSY	\$900.00	\$1,800.00	10%	\$810.00	\$1,620.00
PD HQ	700 ESS	4	-	291	2	DSP04268	ALUMINUM 6061-T6. PIPE 1 INCH SCHED 40	\$15.25	\$30.50	25%	\$11.44	\$22.88
PD HQ	700 ESS	5	-	207	2	DSIX2L1M1DC48IG	SITE EQUIPMENT,PD, HPD GPS DATA LINE, 48VDC, HARD WIRE WITH ISOLATED G	\$225.00	\$450.00	10%	\$202.50	\$405.00
PD HQ	700 ESS	6	-	207	2	DS30C87465CO1	125' OUTDOOR UV PROTECTED CABLE 6 PR, 22AWG DB15	\$810.00	\$1,620.00	10%	\$729.00	\$1,458.00
PD HQ	800 ESS	7	-	112	1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM	\$6,000.00	\$6,000.00	20%	\$4,800.00	\$4,800.00
PD HQ	800 ESS	7	a	595	1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2	\$0.00	\$0.00	20%	\$0.00	\$0.00
PD HQ	800 ESS	7	b	112	1	CA00855AA	ADD: 700/800 MHZ	\$6,300.00	\$6,300.00	20%	\$5,040.00	\$5,040.00
PD HQ	800 ESS	7	c	112	1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS	\$35,400.00	\$35,400.00	20%	\$28,320.00	\$28,320.00
PD HQ	800 ESS	7	d	595	6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE	\$29,500.00	\$177,000.00	20%	\$23,600.00	\$141,600.00
PD HQ	800 ESS	7	e	112	1	CA02686AA	ADD: AC DC POWER DISTRIBUTION	\$0.00	\$0.00	20%	\$0.00	\$0.00
PD HQ	800 ESS	7	f	595	6	CA01842AA	ADD: P25 TDMA SOFTWARE	\$13,000.00	\$78,000.00	20%	\$10,400.00	\$62,400.00
PD HQ	800 ESS	7	g	112	1	CA01943AA	ADD:2ND BRANCH DIVERSITY	\$700.00	\$700.00	20%	\$560.00	\$560.00
PD HQ	800 ESS	7	h	112	1	CA00877AA	ADD: CABINET RMC FOR EXPANSION RACK	\$600.00	\$600.00	20%	\$480.00	\$480.00
PD HQ	800 ESS	7	i	112	1	CA00880AA	ADD: EXPANSION 6 PORT CAVITY COMBINER	\$8,400.00	\$8,400.00	20%	\$6,720.00	\$6,720.00
PD HQ	800 ESS	7	j	112	1	CA01059AA	ADD: EXPAN RCK DIPLXR EXTEN CABLE	\$100.00	\$100.00	20%	\$80.00	\$80.00

PD HQ	800 ESS	7	k	677	2	CA03737AA	ADD: DSC HUB	\$3,500.00	\$7,000.00	20%	\$2,800.00	\$5,600.00
PD HQ	800 ESS	7	l	112	1	CA01402AA	ADD: 7.0 FT OPEN RACK	\$495.00	\$495.00	20%	\$396.00	\$396.00
PD HQ	TXAnt	8	-	351	1	DSBPA749618014P	PANEL ANTENNA, 12DBD, 746-960MHZ, 180DEG, PIM & 25KW PIP RATED	\$3,015.00	\$3,015.00	10%	\$2,713.50	\$2,713.50
PD HQ	RXAnt1	9	-	351	1	DSBPA749618014P	PANEL ANTENNA, 12DBD, 746-960MHZ, 180DEG, PIM & 25KW PIP RATED	\$3,015.00	\$3,015.00	10%	\$2,713.50	\$2,713.50
PD HQ	RXAnt2	10	-	351	1	DSBPA749618014P	PANEL ANTENNA, 12DBD, 746-960MHZ, 180DEG, PIM & 25KW PIP RATED	\$3,015.00	\$3,015.00	10%	\$2,713.50	\$2,713.50
PD HQ	APM	11	-	351	1	DSAPM7487K248	ADVANCED POWER MONITOR, 746-870 MHZ, 36-60 VDC	\$5,870.00	\$5,870.00	10%	\$5,283.00	\$5,283.00
PD HQ	APM	12	-	112	1	3084921Y04	CBL,ASSY,COAX,0.65ML,7/16 PLUG	\$96.75	\$96.75	20%	\$77.40	\$77.40
PD HQ	TTA	13	-	457	1	DS432F83W01T	TTA, DUAL DIVERSITY, 794-824MHZ,DUAL DIVERSITY,TOWER BOX,	\$9,522.00	\$9,522.00	10%	\$8,569.80	\$8,569.80
PD HQ	TTA CU	14	-	457	1	DS432F83W01C48	ESS DUAL BRANCH MONITORING UNIT, 794-824MHZ,DUAL DIVERSITY,SNMP,48VDC	\$4,137.00	\$4,137.00	10%	\$3,723.30	\$3,723.30
PD HQ	PreSelect	15	-	457	1	DSPF7982101831N2	BANDPASS FILTERS, TWO ON 1RU PANEL, RX, 18MHZ BW, RANGE 796-824MHZ	\$2,243.00	\$2,243.00	10%	\$2,018.70	\$2,018.70
PD HQ	TXSurge	16	-	207	1	DSTSXDFFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET	\$178.00	\$178.00	10%	\$160.20	\$160.20
PD HQ	RXSurge	17	-	207	3	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG	\$168.00	\$504.00	10%	\$151.20	\$453.60
PD HQ	1-4U Cable	18	-	351	20	DSACC014J50	1/4" ULTRA FLEXIBLE, 50 OHM, CORRUGATED, COPPER OUTER CONDUCTOR, LOW S	\$2.75	\$55.00	10%	\$2.48	\$49.50
PD HQ	1-4U N M	19	-	351	2	DSNMA01450	N MALE FOR 1/4" ACC SERIES CABLE	\$26.00	\$52.00	10%	\$23.40	\$46.80
PD HQ	1-4U B M	20	-	351	2	DSBNA01450	CONNECTOR BNC MALE FOR 1/4" ACC SERIES CABLE	\$26.00	\$52.00	10%	\$23.40	\$46.80
PD HQ	1-4H Cable	21	-	351	55	DSEC150HF	COAXIAL CABLE, 1/4" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$2.70	\$148.50	10%	\$2.43	\$133.65
PD HQ	1-4H N M	22	-	351	14	DSNM50B14X	CONNECTOR, N MALE INTERFACE FOR EC1-50-HF	\$31.00	\$434.00	10%	\$27.90	\$390.60
PD HQ	1-2H Cable	23	-	351	50	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$3.65	\$182.50	10%	\$3.29	\$164.25
PD HQ	1-2H N M	24	-	351	4	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF	\$43.00	\$172.00	10%	\$38.70	\$154.80
PD HQ	1-2 Cable	25	-	351	300	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET	\$3.15	\$945.00	10%	\$2.84	\$850.50
PD HQ	1-2 D M	26	-	351	3	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50	\$25.50	\$76.50	10%	\$22.95	\$68.85
PD HQ	1-2 N M	27	-	351	8	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50	\$24.50	\$196.00	10%	\$22.05	\$176.40
PD HQ	1-2 43 M	28	-	351	3	DS4310M50V12N1	CONNECTOR, 4.3-10 MALE INTERFACE FOR EC4-50	\$27.00	\$81.00	10%	\$24.30	\$72.90
PD HQ	1-58 Cable	29	-	351	630	DSEC750A	COAXIAL CABLE, "A" SERIES 1-5/8" 50 OHM CORRUGATED COPPER	\$11.25	\$7,087.50	10%	\$10.13	\$6,378.75
PD HQ	1-58 D F	30	-	351	2	DS716F50V158N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE WITH CAPTIVATED CENTER PIN	\$142.00	\$284.00	10%	\$127.80	\$255.60
PD HQ	1-58 N F	31	-	351	4	DSNF50V158N1	CONNECTOR, N FEMALE INTERFACE WITH CAPTIVATED CENTER PIN FOR EC7-50-A	\$151.00	\$604.00	10%	\$135.90	\$543.60
PD HQ	RTU	32	-	275	1	F0016A	MC IOT MAIN MODEL	\$0.00	\$0.00	10%	\$0.00	\$0.00
PD HQ	RTU	32	a	275	1	VA01370AA	ADD: MC-EDGE	\$950.00	\$950.00	10%	\$855.00	\$855.00
PD HQ	RTU	32	b	275	1	VA00985AA	ADD: NO PIGGY_ MC-EDGE	\$0.00	\$0.00	10%	\$0.00	\$0.00
PD HQ	RTU	32	c	275	4	VA00989AA	ADD: 8DO EE 16DI 5-18 V /DRY	\$600.00	\$2,400.00	10%	\$540.00	\$2,160.00

PD HQ	RTU	32	d	275	1	VA00155	ADD:DC POWER CABLE	\$50.00	\$50.00	10%	\$45.00	\$45.00
PD HQ	RTU	33	-	499	1	DSIABDIN4	PANDUIT IABDIN4 4 RACK UNIT DIN RAIL FOR EIA 19" MOUNT	\$368.00	\$368.00	10%	\$331.20	\$331.20
PD HQ	RTU	34	-	275	2	FHN0057	DIN RAIL STOPPER	\$15.00	\$30.00	10%	\$13.50	\$27.00
PD HQ	RTU	35	-	275	4	FKN0044A	MC_EDGE AUX IO MIGRATION CABLE	\$75.00	\$300.00	10%	\$67.50	\$270.00
PD HQ	DCPowerSys	36	-	207	1	DST2S2084500007	TRILOGY POWER SYSTEM WITH SMARTPACK S, 48V, 500A	\$12,572.00	\$12,572.00	10%	\$11,314.80	\$11,314.80
PD HQ	DCPowerSys	37	-	207	6	DS241115105	FLATPACK 2 48/2000 HE RECTIFIER	\$949.00	\$5,694.00	10%	\$854.10	\$5,124.60
PD HQ	DCPowerSys	38	-	207	2	DS23640800	BLIND PANEL FP2 HE BLACK G1	\$27.00	\$54.00	10%	\$24.30	\$48.60
PD HQ	DCPowerSys	39	-	207	1	DS3672495500	ALARM CABLE 50F FOR TRILOGY S POWER SYSTEMS	\$161.00	\$161.00	10%	\$144.90	\$144.90
PD HQ	DCPowerSys	40	-	207	1	DS202277	23-7-6 (45RU) NON-SEISMIC BOLTED RACK	\$5,491.00	\$5,491.00	10%	\$4,941.90	\$4,941.90
PD HQ	DCPowerSys	41	-	207	6	DS264814	BATT KIT ENERSYS 12V190F 48V 1BANK	\$3,596.00	\$21,576.00	10%	\$3,236.40	\$19,418.40
PD HQ	DCPowerSys	42	-	207	2	DSCBB003E	CIRCUIT BREAKER, 3 AMP PLUG-IN BULLET, ELECTRO-MECHANICAL	\$44.00	\$88.00	10%	\$39.60	\$79.20
PD HQ	DCPowerSys	43	-	207	3	DSCBB020E	CIRCUIT BREAKER, 20 AMP, E TRIP	\$44.00	\$132.00	10%	\$39.60	\$118.80
PD HQ	DCPowerSys	44	-	207	4	DSCBB080E	80A BATTERY BREAKER	\$44.00	\$176.00	10%	\$39.60	\$158.40
PD HQ	DCPowerSys	45	-	207	1	DS1720481315	CONVERTER, 200-WATT, SINGLE OUTPUT 48 VDC INPUT TO 13 VDC OUTPUT	\$993.00	\$993.00	10%	\$893.70	\$893.70
PD HQ	AC Surge	46	-	207	1	DSAPEXIMAX808	SPD, TYPE 2A, 120/240VAC 1-PHASE NEMA 4X ENCLOSURE, SAD/MOV	\$2,266.00	\$2,266.00	10%	\$2,039.40	\$2,039.40
Crown	Site Rtr	47	-	147	1	T8547	SITE ROUTER & FIREWALL- DC	\$1,100.00	\$1,100.00	15%	\$935.00	\$935.00
Crown	Site Rtr	47	a	147	1	CA03445AA	ADD: MISSION CRITICAL HARDENING	\$3,300.00	\$3,300.00	15%	\$2,805.00	\$2,805.00
Crown	Site Rtr	47	b	147	1	CA03448AA	ADD: STATEFUL FIREWALL	\$1,000.00	\$1,000.00	15%	\$850.00	\$850.00
Crown	700 ESS	48	-	112	1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM	\$6,000.00	\$6,000.00	20%	\$4,800.00	\$4,800.00
Crown	700 ESS	48	a	595	1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2	\$0.00	\$0.00	20%	\$0.00	\$0.00
Crown	700 ESS	48	b	112	1	CA00855AA	ADD: 700/800 MHZ	\$6,300.00	\$6,300.00	20%	\$5,040.00	\$5,040.00
Crown	700 ESS	48	c	112	1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS	\$35,400.00	\$35,400.00	20%	\$28,320.00	\$28,320.00
Crown	700 ESS	48	d	595	6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE	\$29,500.00	\$177,000.00	20%	\$23,600.00	\$141,600.00
Crown	700 ESS	48	e	112	1	CA02686AA	ADD: AC DC POWER DISTRIBUTION	\$0.00	\$0.00	20%	\$0.00	\$0.00
Crown	700 ESS	48	f	595	3	CA01842AA	ADD: P25 TDMA SOFTWARE	\$13,000.00	\$39,000.00	20%	\$10,400.00	\$31,200.00
Crown	700 ESS	48	g	112	1	CA01943AA	ADD:2ND BRANCH DIVERSITY	\$700.00	\$700.00	20%	\$560.00	\$560.00
Crown	700 ESS	48	h	112	1	CA00862AA	ADD: SITE & CABINET RMC W/CAPABILITY OF 7-24 BRS	\$2,100.00	\$2,100.00	20%	\$1,680.00	\$1,680.00
Crown	700 ESS	48	i	112	1	CA00879AA	ADD: PRIMARY 6 PORT CAVITY COMBINER	\$8,400.00	\$8,400.00	20%	\$6,720.00	\$6,720.00
Crown	700 ESS	48	j	112	1	CA00881AA	ADD: 700 + 800 MHZ DIPLEXER W/PMU	\$1,000.00	\$1,000.00	20%	\$800.00	\$800.00
Crown	700 ESS	48	k	677	2	CA03792AA	ADD: DSC 8000 REFERENCE DISTRIBUTION MODULE	\$6,000.00	\$12,000.00	20%	\$4,800.00	\$9,600.00
Crown	700 ESS	48	l	680	2	CA03746AA	ADD: DSC 8000 SIMULCAST RDM SW	\$8,200.00	\$16,400.00	20%	\$6,560.00	\$13,120.00
Crown	700 ESS	48	m	677	2	CA03739AA	ADD: INTEGRATED GNSS TIMING REF W/ RB	\$12,000.00	\$24,000.00	20%	\$9,600.00	\$19,200.00
Crown	700 ESS	48	n	680	2	CA03747AA	ADD: DSC 8000 RUBIDIUM SW	\$4,500.00	\$9,000.00	20%	\$3,600.00	\$7,200.00
Crown	700 ESS	48	o	112	1	CA01402AA	ADD: 7.0 FT OPEN RACK	\$495.00	\$495.00	20%	\$396.00	\$396.00
Crown	700 ESS	49	-	895	2	PMUG1017B	GNSS REMOTE RECEIVER ASSY	\$900.00	\$1,800.00	10%	\$810.00	\$1,620.00
Crown	700 ESS	50	-	291	2	DSP04268	ALUMINUM 6061-T6. PIPE 1 INCH SCHED 40	\$15.25	\$30.50	25%	\$11.44	\$22.88
Crown	700 ESS	51	-	207	2	DSIX2L1M1DC48IG	SITE EQUIPMENT,PD, HPD GPS DATA LINE, 48VDC, HARD WIRE WITH ISOLATED G	\$225.00	\$450.00	10%	\$202.50	\$405.00
Crown	700 ESS	52	-	207	2	DS30C87465CO1	125' OUTDOOR UV PROTECTED CABLE 6 PR, 22AWG DB15	\$810.00	\$1,620.00	10%	\$729.00	\$1,458.00



Crown	800 ESS	53	-	112	1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM	\$6,000.00	\$6,000.00	20%	\$4,800.00	\$4,800.00
Crown	800 ESS	53	a	595	1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2	\$0.00	\$0.00	20%	\$0.00	\$0.00
Crown	800 ESS	53	b	112	1	CA00855AA	ADD: 700/800 MHZ	\$6,300.00	\$6,300.00	20%	\$5,040.00	\$5,040.00
Crown	800 ESS	53	c	112	1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS	\$35,400.00	\$35,400.00	20%	\$28,320.00	\$28,320.00
Crown	800 ESS	53	d	595	6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE	\$29,500.00	\$177,000.00	20%	\$23,600.00	\$141,600.00
Crown	800 ESS	53	e	112	1	CA02686AA	ADD: AC DC POWER DISTRIBUTION	\$0.00	\$0.00	20%	\$0.00	\$0.00
Crown	800 ESS	53	f	595	6	CA01842AA	ADD: P25 TDMA SOFTWARE	\$13,000.00	\$78,000.00	20%	\$10,400.00	\$62,400.00
Crown	800 ESS	53	g	112	1	CA01943AA	ADD:2ND BRANCH DIVERSITY	\$700.00	\$700.00	20%	\$560.00	\$560.00
Crown	800 ESS	53	h	112	1	CA00877AA	ADD: CABINET RMC FOR EXPANSION RACK	\$600.00	\$600.00	20%	\$480.00	\$480.00
Crown	800 ESS	53	i	112	1	CA00880AA	ADD: EXPANSION 6 PORT CAVITY COMBINER	\$8,400.00	\$8,400.00	20%	\$6,720.00	\$6,720.00
Crown	800 ESS	53	j	112	1	CA01059AA	ADD: EXPAN RCK DIPLXR EXTEN CABLE	\$100.00	\$100.00	20%	\$80.00	\$80.00
Crown	800 ESS	53	k	677	2	CA03737AA	ADD: DSC HUB	\$3,500.00	\$7,000.00	20%	\$2,800.00	\$5,600.00
Crown	800 ESS	53	l	112	1	CA01402AA	ADD: 7.0 FT OPEN RACK	\$495.00	\$495.00	20%	\$396.00	\$396.00
Crown	TXAnt	54	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
Crown	RXAnt1	55	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
Crown	RXAnt2	56	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
Crown	APM	57	-	351	1	DSAPM7487K248	ADVANCED POWER MONITOR, 746-870 MHZ, 36-60 VDC	\$5,870.00	\$5,870.00	10%	\$5,283.00	\$5,283.00
Crown	APM	58	-	112	1	3084921Y04	CBL,ASSY,COAX,0.65ML,7/16 PLUG	\$96.75	\$96.75	20%	\$77.40	\$77.40
Crown	TTA	59	-	457	1	DS432F83W01T	TTA, DUAL DIVERSITY, 794-824MHZ,DUAL DIVERSITY,TOWER BOX,	\$9,522.00	\$9,522.00	10%	\$8,569.80	\$8,569.80
Crown	TTA CU	60	-	457	1	DS432F83W01C48	ESS DUAL BRANCH MONITORING UNIT, 794-824MHZ,DUAL DIVERSITY,SNMP,48VDC	\$4,137.00	\$4,137.00	10%	\$3,723.30	\$3,723.30
Crown	PreSelect	61	-	457	1	DSPF7982101831N2	BANDPASS FILTERS, TWO ON 1RU PANEL, RX, 18MHZ BW, RANGE 796-824MHZ	\$2,243.00	\$2,243.00	10%	\$2,018.70	\$2,018.70
Crown	TXSurge	62	-	207	1	DSTSXDfMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET	\$178.00	\$178.00	10%	\$160.20	\$160.20
Crown	RXSurge	63	-	207	3	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG	\$168.00	\$504.00	10%	\$151.20	\$453.60
Crown	1-4U Cable	64	-	351	20	DSACC014J50	1/4" ULTRA FLEXIBLE, 50 OHM, CORRUGATED, COPPER OUTER CONDUCTOR, LOW S	\$2.75	\$55.00	10%	\$2.48	\$49.50
Crown	1-4U N M	65	-	351	2	DSNMA01450	N MALE FOR 1/4" ACC SERIES CABLE	\$26.00	\$52.00	10%	\$23.40	\$46.80
Crown	1-4U B M	66	-	351	2	DSBNA01450	CONNECTOR BNC MALE FOR 1/4" ACC SERIES CABLE	\$26.00	\$52.00	10%	\$23.40	\$46.80
Crown	1-4H Cable	67	-	351	55	DSEC150HF	COAXIAL CABLE, 1/4" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$2.70	\$148.50	10%	\$2.43	\$133.65
Crown	1-4H N M	68	-	351	14	DSNM50B14X	CONNECTOR, N MALE INTERFACE FOR EC1-50-HF	\$31.00	\$434.00	10%	\$27.90	\$390.60
Crown	1-2H Cable	69	-	351	50	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$3.65	\$182.50	10%	\$3.29	\$164.25
Crown	1-2H N M	70	-	351	4	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF	\$43.00	\$172.00	10%	\$38.70	\$154.80
Crown	1-2 Cable	71	-	351	315	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET	\$3.15	\$992.25	10%	\$2.84	\$893.03
Crown	1-2 D M	72	-	351	6	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50	\$25.50	\$153.00	10%	\$22.95	\$137.70
Crown	1-2 N M	73	-	351	8	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50	\$24.50	\$196.00	10%	\$22.05	\$176.40
Crown	1-58 Cable	74	-	351	675	DSEC750A	COAXIAL CABLE, "A" SERIES 1-5/8" 50 OHM CORRUGATED COPPER	\$11.25	\$7,593.75	10%	\$10.13	\$6,834.38

Crown	1-58 D F	75	-	351	2	DS716F50V158N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE WITH CAPTIVATED CENTER PIN	\$142.00	\$284.00	10%	\$127.80	\$255.60
Crown	1-58 N F	76	-	351	4	DSNF50V158N1	CONNECTOR, N FEMALE INTERFACE WITH CAPTIVATED CENTER PIN FOR EC7-50-A	\$151.00	\$604.00	10%	\$135.90	\$543.60
Crown	RTU	77	-	275	1	F0016A	MC IOT MAIN MODEL	\$0.00	\$0.00	10%	\$0.00	\$0.00
Crown	RTU	77	a	275	1	VA01370AA	ADD: MC-EDGE	\$950.00	\$950.00	10%	\$855.00	\$855.00
Crown	RTU	77	b	275	1	VA00985AA	ADD: NO PIGGY_ MC-EDGE	\$0.00	\$0.00	10%	\$0.00	\$0.00
Crown	RTU	77	c	275	4	VA00989AA	ADD: 8DO EE 16DI 5-18 V /DRY	\$600.00	\$2,400.00	10%	\$540.00	\$2,160.00
Crown	RTU	77	d	275	1	VA00155	ADD:DC POWER CABLE	\$50.00	\$50.00	10%	\$45.00	\$45.00
Crown	RTU	78	-	499	1	DSIABDIN4	PANDUIT IABDIN4 4 RACK UNIT DIN RAIL FOR EIA 19" MOUNT	\$368.00	\$368.00	10%	\$331.20	\$331.20
Crown	RTU	79	-	275	2	FHN0057	DIN RAIL STOPPER	\$15.00	\$30.00	10%	\$13.50	\$27.00
Crown	RTU	80	-	275	4	FKN0044A	MC_EDGE AUX IO MIGRATION CABLE	\$75.00	\$300.00	10%	\$67.50	\$270.00
Crown	DCPowerSys	81	-	207	1	DST2S2084500007	TRILOGY POWER SYSTEM WITH SMARTPACK S, 48V, 500A	\$12,572.00	\$12,572.00	10%	\$11,314.80	\$11,314.80
Crown	DCPowerSys	82	-	207	6	DS241115105	FLATPACK 2 48/2000 HE RECTIFIER	\$949.00	\$5,694.00	10%	\$854.10	\$5,124.60
Crown	DCPowerSys	83	-	207	2	DS23640800	BLIND PANEL FP2 HE BLACK G1	\$27.00	\$54.00	10%	\$24.30	\$48.60
Crown	DCPowerSys	84	-	207	1	DS3672495500	ALARM CABLE 50F FOR TRILOGY S POWER SYSTEMS	\$161.00	\$161.00	10%	\$144.90	\$144.90
Crown	DCPowerSys	85	-	207	1	DS202277	23-7-6 (45RU) NON-SEISMIC BOLTED RACK	\$5,491.00	\$5,491.00	10%	\$4,941.90	\$4,941.90
Crown	DCPowerSys	86	-	207	6	DS264814	BATT KIT ENERSYS 12V190F 48V 1BANK	\$3,596.00	\$21,576.00	10%	\$3,236.40	\$19,418.40
Crown	DCPowerSys	87	-	207	2	DSCBB003E	CIRCUIT BREAKER, 3 AMP PLUG-IN BULLET, ELECTRO-MECHANICAL	\$44.00	\$88.00	10%	\$39.60	\$79.20
Crown	DCPowerSys	88	-	207	3	DSCBB020E	CIRCUIT BREAKER, 20 AMP, E TRIP	\$44.00	\$132.00	10%	\$39.60	\$118.80
Crown	DCPowerSys	89	-	207	4	DSCBB080E	80A BATTERY BREAKER	\$44.00	\$176.00	10%	\$39.60	\$158.40
Crown	DCPowerSys	90	-	207	1	DS1720481315	CONVERTER, 200-WATT, SINGLE OUTPUT 48 VDC INPUT TO 13 VDC OUTPUT	\$993.00	\$993.00	10%	\$893.70	\$893.70
Crown	AC Surge	91	-	207	1	DSAPEXIMAX808	SPD, TYPE 2A, 120/240VAC 1-PHASE NEMA 4X ENCLOSURE, SAD/MOV	\$2,266.00	\$2,266.00	10%	\$2,039.40	\$2,039.40
Crown	AC Surge	92	-	207	1	DSAPEXIMAX808MM	SPD, TYPE 2B, 120/240VAC, 1-PHASE, NEMA 4X ENCLOSURE, MOV	\$1,339.00	\$1,339.00	10%	\$1,205.10	\$1,205.10
Crown	Generator	93	-	207	1	DQ12141920220722A	C50D6, 50kW, 60Hz, Standby, Diesel Genset with 300 gallon subbase tank and 5 year extended warranty	\$81,737.60	\$81,737.60	10%	\$73,563.84	\$73,563.84
Crown	Generator	94	-	207	1	DQ12141920220722B	OTECB, OTEC Transfer Switch-Electronic Control: 150A/225A/260A	\$7,459.20	\$7,459.20	10%	\$6,713.28	\$6,713.28
SHU	Site Rtr	95	-	147	1	T8547	SITE ROUTER & FIREWALL- DC	\$1,100.00	\$1,100.00	15%	\$935.00	\$935.00
SHU	Site Rtr	95	a	147	1	CA03445AA	ADD: MISSION CRITICAL HARDENING	\$3,300.00	\$3,300.00	15%	\$2,805.00	\$2,805.00
SHU	Site Rtr	95	b	147	1	CA03448AA	ADD: STATEFUL FIREWALL	\$1,000.00	\$1,000.00	15%	\$850.00	\$850.00
SHU	700 ESS	96	-	112	1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM	\$6,000.00	\$6,000.00	20%	\$4,800.00	\$4,800.00
SHU	700 ESS	96	a	595	1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2	\$0.00	\$0.00	20%	\$0.00	\$0.00
SHU	700 ESS	96	b	112	1	CA00855AA	ADD: 700/800 MHZ	\$6,300.00	\$6,300.00	20%	\$5,040.00	\$5,040.00
SHU	700 ESS	96	c	112	1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS	\$35,400.00	\$35,400.00	20%	\$28,320.00	\$28,320.00
SHU	700 ESS	96	d	595	6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE	\$29,500.00	\$177,000.00	20%	\$23,600.00	\$141,600.00
SHU	700 ESS	96	e	112	1	CA02686AA	ADD: AC DC POWER DISTRIBUTION	\$0.00	\$0.00	20%	\$0.00	\$0.00
SHU	700 ESS	96	f	595	3	CA01842AA	ADD: P25 TDMA SOFTWARE	\$13,000.00	\$39,000.00	20%	\$10,400.00	\$31,200.00
SHU	700 ESS	96	g	112	1	CA01943AA	ADD:2ND BRANCH DIVERSITY	\$700.00	\$700.00	20%	\$560.00	\$560.00

SHU	700 ESS	96	h	112	1	CA00862AA	ADD: SITE & CABINET RMC W/CAPABILITY OF 7-24 BRS	\$2,100.00	\$2,100.00	20%	\$1,680.00	\$1,680.00
SHU	700 ESS	96	i	112	1	CA00879AA	ADD: PRIMARY 6 PORT CAVITY COMBINER	\$8,400.00	\$8,400.00	20%	\$6,720.00	\$6,720.00
SHU	700 ESS	96	j	112	1	CA00881AA	ADD: 700 + 800 MHZ DIPLEXER W/PMU	\$1,000.00	\$1,000.00	20%	\$800.00	\$800.00
SHU	700 ESS	96	k	677	2	CA03792AA	ADD: DSC 8000 REFERENCE DISTRIBUTION MODULE	\$6,000.00	\$12,000.00	20%	\$4,800.00	\$9,600.00
SHU	700 ESS	96	l	680	2	CA03746AA	ADD: DSC 8000 SIMULCAST RDM SW	\$8,200.00	\$16,400.00	20%	\$6,560.00	\$13,120.00
SHU	700 ESS	96	m	677	2	CA03739AA	ADD: INTEGRATED GNSS TIMING REF W/ RB	\$12,000.00	\$24,000.00	20%	\$9,600.00	\$19,200.00
SHU	700 ESS	96	n	680	2	CA03747AA	ADD: DSC 8000 RUBIDIUM SW	\$4,500.00	\$9,000.00	20%	\$3,600.00	\$7,200.00
SHU	700 ESS	96	o	112	1	CA01402AA	ADD: 7.0 FT OPEN RACK	\$495.00	\$495.00	20%	\$396.00	\$396.00
SHU	700 ESS	97	-	895	2	PMUG1017B	GNSS REMOTE RECEIVER ASSY	\$900.00	\$1,800.00	10%	\$810.00	\$1,620.00
SHU	700 ESS	98	-	291	2	DSP04268	ALUMINUM 6061-T6. PIPE 1 INCH SCHED 40	\$15.25	\$30.50	25%	\$11.44	\$22.88
SHU	700 ESS	99	-	207	2	DSIX2L1M1DC48IG	SITE EQUIPMENT,PD, HPD GPS DATA LINE, 48VDC, HARD WIRE WITH ISOLATED G	\$225.00	\$450.00	10%	\$202.50	\$405.00
SHU	700 ESS	100	-	207	2	DS30C87465CO1	125' OUTDOOR UV PROTECTED CABLE 6 PR, 22AWG DB15	\$810.00	\$1,620.00	10%	\$729.00	\$1,458.00
SHU	800 ESS	101	-	112	1	SQM01SUM7054	GTR 8000 EXPANDABLE SITE SUBSYSTEM	\$6,000.00	\$6,000.00	20%	\$4,800.00	\$4,800.00
SHU	800 ESS	101	a	595	1	CA00719AA	ADD: ASTRO SYSTEM RELEASE 2019.2	\$0.00	\$0.00	20%	\$0.00	\$0.00
SHU	800 ESS	101	b	112	1	CA00855AA	ADD: 700/800 MHZ	\$6,300.00	\$6,300.00	20%	\$5,040.00	\$5,040.00
SHU	800 ESS	101	c	112	1	X306AC	ADD: QTY (6) GTR 8000 BASE RADIOS	\$35,400.00	\$35,400.00	20%	\$28,320.00	\$28,320.00
SHU	800 ESS	101	d	595	6	CA01193AA	ADD: IP BASED MULTISITE BASE RADIO SOFTWARE	\$29,500.00	\$177,000.00	20%	\$23,600.00	\$141,600.00
SHU	800 ESS	101	e	112	1	CA02686AA	ADD: AC DC POWER DISTRIBUTION	\$0.00	\$0.00	20%	\$0.00	\$0.00
SHU	800 ESS	101	f	595	6	CA01842AA	ADD: P25 TDMA SOFTWARE	\$13,000.00	\$78,000.00	20%	\$10,400.00	\$62,400.00
SHU	800 ESS	101	g	112	1	CA01943AA	ADD:2ND BRANCH DIVERSITY	\$700.00	\$700.00	20%	\$560.00	\$560.00
SHU	800 ESS	101	h	112	1	CA00877AA	ADD: CABINET RMC FOR EXPANSION RACK	\$600.00	\$600.00	20%	\$480.00	\$480.00
SHU	800 ESS	101	i	112	1	CA00880AA	ADD: EXPANSION 6 PORT CAVITY COMBINER	\$8,400.00	\$8,400.00	20%	\$6,720.00	\$6,720.00
SHU	800 ESS	101	j	112	1	CA01059AA	ADD: EXPAN RCK DIPLXR EXTEN CABLE	\$100.00	\$100.00	20%	\$80.00	\$80.00
SHU	800 ESS	101	k	677	2	CA03737AA	ADD: DSC HUB	\$3,500.00	\$7,000.00	20%	\$2,800.00	\$5,600.00
SHU	800 ESS	101	l	112	1	CA01402AA	ADD: 7.0 FT OPEN RACK	\$495.00	\$495.00	20%	\$396.00	\$396.00
SHU	TXAnt	102	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
SHU	RXAnt1	103	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
SHU	RXAnt2	104	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
SHU	APM	105	-	351	1	DSAPM7487K248	ADVANCED POWER MONITOR, 746-870 MHZ, 36-60 VDC	\$5,870.00	\$5,870.00	10%	\$5,283.00	\$5,283.00
SHU	APM	106	-	112	1	3084921Y04	CBL,ASSY,COAX,0.65ML,7/16 PLUG	\$96.75	\$96.75	20%	\$77.40	\$77.40
SHU	TTA	107	-	457	1	DS432F83W01T	TTA, DUAL DIVERSITY, 794-824MHZ,DUAL DIVERSITY,TOWER BOX,	\$9,522.00	\$9,522.00	10%	\$8,569.80	\$8,569.80
SHU	TTA CU	108	-	457	1	DS432F83W01C48	ESS DUAL BRANCH MONITORING UNIT, 794-824MHZ,DUAL DIVERSITY,SNMP,48VDC	\$4,137.00	\$4,137.00	10%	\$3,723.30	\$3,723.30
SHU	PreSelect	109	-	457	1	DSPF7982101831N2	BANDPASS FILTERS, TWO ON 1RU PANEL, RX, 18MHZ BW, RANGE 796-824MHZ	\$2,243.00	\$2,243.00	10%	\$2,018.70	\$2,018.70
SHU	TXSurge	110	-	207	1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET	\$178.00	\$178.00	10%	\$160.20	\$160.20
SHU	RXSurge	111	-	207	3	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG	\$168.00	\$504.00	10%	\$151.20	\$453.60

SHU	1-4U Cable	112	-	351	20	DSACC014J50	1/4" ULTRA FLEXIBLE, 50 OHM, CORRUGATED, COPPER OUTER CONDUCTOR, LOW S	\$2.75	\$55.00	10%	\$2.48	\$49.50
SHU	1-4U N M	113	-	351	2	DSNMA01450	N MALE FOR 1/4" ACC SERIES CABLE	\$26.00	\$52.00	10%	\$23.40	\$46.80
SHU	1-4U B M	114	-	351	2	DSBNA01450	CONNECTOR BNC MALE FOR 1/4" ACC SERIES CABLE	\$26.00	\$52.00	10%	\$23.40	\$46.80
SHU	1-4H Cable	115	-	351	55	DSEC150HF	COAXIAL CABLE, 1/4" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$2.70	\$148.50	10%	\$2.43	\$133.65
SHU	1-4H N M	116	-	351	14	DSNM50B14X	CONNECTOR, N MALE INTERFACE FOR EC1-50-HF	\$31.00	\$434.00	10%	\$27.90	\$390.60
SHU	1-2H Cable	117	-	351	50	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$3.65	\$182.50	10%	\$3.29	\$164.25
SHU	1-2H N M	118	-	351	4	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF	\$43.00	\$172.00	10%	\$38.70	\$154.80
SHU	1-2 Cable	119	-	351	90	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET	\$3.15	\$283.50	10%	\$2.84	\$255.15
SHU	1-2P Cable	120	-	351	140	DSEC450HLFR	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH PLENUM RATED JACKET,	\$4.15	\$581.00	10%	\$3.74	\$522.90
SHU	1-2 D M	121	-	351	6	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50	\$25.50	\$153.00	10%	\$22.95	\$137.70
SHU	1-2 N M	122	-	351	8	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50	\$24.50	\$196.00	10%	\$22.05	\$176.40
SHU	1-58PCable	123	-	351	420	DSEC750AHLFR	COAXIAL CABLE, "A" SERIES 1-5/8" 50 OHM CORRUGATED COPPER	\$14.00	\$5,880.00	10%	\$12.60	\$5,292.00
SHU	1-58 D F	124	-	351	2	DS716F50V158N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE WITH CAPTIVATED CENTER PIN	\$142.00	\$284.00	10%	\$127.80	\$255.60
SHU	1-58 N F	125	-	351	4	DSNF50V158N1	CONNECTOR, N FEMALE INTERFACE WITH CAPTIVATED CENTER PIN FOR EC7-50-A	\$151.00	\$604.00	10%	\$135.90	\$543.60
SHU	RTU	126	-	275	1	F0016A	MC IOT MAIN MODEL	\$0.00	\$0.00	10%	\$0.00	\$0.00
SHU	RTU	126	a	275	1	VA01370AA	ADD: MC-EDGE	\$950.00	\$950.00	10%	\$855.00	\$855.00
SHU	RTU	126	b	275	1	VA00985AA	ADD: NO PIGGY_ MC-EDGE	\$0.00	\$0.00	10%	\$0.00	\$0.00
SHU	RTU	126	c	275	4	VA00989AA	ADD: 8DO EE 16DI 5-18 V /DRY	\$600.00	\$2,400.00	10%	\$540.00	\$2,160.00
SHU	RTU	126	d	275	1	VA00155	ADD:DC POWER CABLE	\$50.00	\$50.00	10%	\$45.00	\$45.00
SHU	RTU	127	-	499	1	DSIABDIN4	PANDUIT IABDIN4 4 RACK UNIT DIN RAIL FOR EIA 19" MOUNT	\$368.00	\$368.00	10%	\$331.20	\$331.20
SHU	RTU	128	-	275	2	FHN0057	DIN RAIL STOPPER	\$15.00	\$30.00	10%	\$13.50	\$27.00
SHU	RTU	129	-	275	4	FKN0044A	MC_EDGE AUX IO MIGRATION CABLE	\$75.00	\$300.00	10%	\$67.50	\$270.00
SHU	DCPowerSys	130	-	207	1	DST2S2084500007	TRILOGY POWER SYSTEM WITH SMARTPACK S, 48V, 500A	\$12,572.00	\$12,572.00	10%	\$11,314.80	\$11,314.80
SHU	DCPowerSys	131	-	207	6	DS241115105	FLATPACK 2 48/2000 HE RECTIFIER	\$949.00	\$5,694.00	10%	\$854.10	\$5,124.60
SHU	DCPowerSys	132	-	207	2	DS23640800	BLIND PANEL FP2 HE BLACK G1	\$27.00	\$54.00	10%	\$24.30	\$48.60
SHU	DCPowerSys	133	-	207	1	DS3672495500	ALARM CABLE 50F FOR TRILOGY S POWER SYSTEMS	\$161.00	\$161.00	10%	\$144.90	\$144.90
SHU	DCPowerSys	134	-	207	1	DS202277	23-7-6 (45RU) NON-SEISMIC BOLTED RACK	\$5,491.00	\$5,491.00	10%	\$4,941.90	\$4,941.90
SHU	DCPowerSys	135	-	207	6	DS264814	BATT KIT ENERSYS 12V190F 48V 1BANK	\$3,596.00	\$21,576.00	10%	\$3,236.40	\$19,418.40
SHU	DCPowerSys	136	-	207	2	DSCBB003E	CIRCUIT BREAKER, 3 AMP PLUG-IN BULLET, ELECTRO-MECHANICAL	\$44.00	\$88.00	10%	\$39.60	\$79.20
SHU	DCPowerSys	137	-	207	3	DSCBB020E	CIRCUIT BREAKER, 20 AMP, E TRIP	\$44.00	\$132.00	10%	\$39.60	\$118.80
SHU	DCPowerSys	138	-	207	4	DSCBB080E	80A BATTERY BREAKER	\$44.00	\$176.00	10%	\$39.60	\$158.40
SHU	DCPowerSys	139	-	207	1	DS1720481315	CONVERTER, 200-WATT, SINGLE OUTPUT 48 VDC INPUT TO 13 VDC OUTPUT	\$993.00	\$993.00	10%	\$893.70	\$893.70
SHU	AC Surge	140	-	207	1	DSAPEXIMAX808	SPD, TYPE 2A, 120/240VAC 1-PHASE NEMA 4X ENCLOSURE, SAD/MOV	\$2,266.00	\$2,266.00	10%	\$2,039.40	\$2,039.40



AVIAT MW	MW	141	-	131	1	DQMWFAIRFIELD	AVIAT FAIRFIELD 11 GHz MICROWAVE COMPLETE NA191202-44448	\$427,768.00	\$427,768.00	15%	\$363,602.80	\$363,602.80
Spare	TXRXAnt	142	-	351	1	DSBPA749618014P	PANEL ANTENNA, 12DBD, 746-960MHZ, 180DEG, PIM & 25KW PIP RATED	\$3,015.00	\$3,015.00	10%	\$2,713.50	\$2,713.50
Spare	TXRXAnt	143	-	351	1	DSDS7C09P36UD	DS7C09P36U-D, 764-869MHZ SINGLE 9DB GAIN OMNI WITH DIN	\$4,013.00	\$4,013.00	10%	\$3,611.70	\$3,611.70
Spare	TTA	144	-	457	1	DS432F83W01T	TTA, DUAL DIVERSITY, 794-824MHZ,DUAL DIVERSITY,TOWER BOX,	\$9,522.00	\$9,522.00	10%	\$8,569.80	\$8,569.80
Spare	TTA CU	145	-	457	1	DS432F83W01C48	ESS DUAL BRANCH MONITORING UNIT, 794-824MHZ,DUAL DIVERSITY,SNMP,48VDC	\$4,137.00	\$4,137.00	10%	\$3,723.30	\$3,723.30
Spare	Site Rtr	146	-	147	1	T8547	SITE ROUTER & FIREWALL- DC	\$1,100.00	\$1,100.00	15%	\$935.00	\$935.00
Spare	Site Rtr	146	a	147	1	CA03445AA	ADD: MISSION CRITICAL HARDENING	\$3,300.00	\$3,300.00	15%	\$2,805.00	\$2,805.00
Spare	Site Rtr	146	b	147	1	CA03448AA	ADD: STATEFUL FIREWALL	\$1,000.00	\$1,000.00	15%	\$850.00	\$850.00
Spare	PA	147	-	112	1	DLN6895	FRU: PA 7/800 MHZ	\$3,200.00	\$3,200.00	20%	\$2,560.00	\$2,560.00
Spare	XCVR	148	-	112	1	DLN6885	FRU: XCVR 7/800 MHZ V2	\$3,500.00	\$3,500.00	20%	\$2,800.00	\$2,800.00
Spare	FAN	149	-	591	1	DLN6898	FRU: FAN MODULE	\$300.00	\$300.00	25%	\$225.00	\$225.00
Spare	DSC8000	150	-	677	1	DLN1445B	FRE: DSC 8000, W/ RUBIDIUM 28-60V	\$22,500.00	\$22,500.00	20%	\$18,000.00	\$18,000.00
Spare	DSC HUB	151	-	677	1	DLN8035	FRU: DSC HUB	\$3,500.00	\$3,500.00	20%	\$2,800.00	\$2,800.00
Spare	GNSS ANT	152	-	895	1	PMUG1017B	GNSS REMOTE RECEIVER ASSY	\$900.00	\$900.00	10%	\$810.00	\$810.00
Spare	RTU	153	-	275	1	FLN9985A	8DO EE 16DI 5-18 V /DRY	\$650.00	\$650.00	10%	\$585.00	\$585.00
License	Master	154	-	877	1	SQM01SUM0323	ASTRO MASTER SITE	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	Master	154	a	877	1	CA03517AD	ADD: CORE EXPANSION	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	Master	154	b	877	3	UA00153AB	ADD: P25 FDMA TRUNKING OPERATION SITE	\$30,000.00	\$90,000.00	20%	\$24,000.00	\$72,000.00
License	Master	154	c	877	3	UA00159AB	ADD: P25 PHASE 2 TDMA TRKNG OP SITE LIC	\$30,000.00	\$90,000.00	20%	\$24,000.00	\$72,000.00
License	Master	154	d	877	27	UA00161AA	ADD: P25 PHASE 2 TDMA SW BASE RADIO LIC	\$3,000.00	\$81,000.00	20%	\$2,400.00	\$64,800.00
License	Master	154	e	877	4	CA01316AA	ADD: UNC ADDTL DEVICE LIC (QTY 10)	\$1,500.00	\$6,000.00	20%	\$1,200.00	\$4,800.00
License	G-Series	155	-	595	1	T8343	GSERIES SOFTWARE LICENSING	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	G-Series	155	a	595	36	UA00400AA	ADD: GSERIES BR-P25 TRNK MS IP	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	G-Series	155	b	680	6	UA00758AA	ADD: DSC 8000 RUBIDIUM SW	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	G-Series	155	c	680	6	UA00760AA	ADD: DSC 8000 REFERENCE DISTRIBUTION MODULE	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	GCM Exp	156	-	112	1	T7140	G-SERIES SOFTWARE UPGRADE	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	GCM Exp	156	a	595	12	CA01197AA	ADD: IP BASED MULTISITE OPERATION UPGRADE	\$3,000.00	\$36,000.00	20%	\$2,400.00	\$28,800.00
License	GCM Exp	156	b	595	12	CA01914AB	ADD: ADD: SW UPGRADE LIC SINGLE EXP	\$1,350.00	\$16,200.00	20%	\$1,080.00	\$12,960.00
License	Genesis	157	-	708	1	TT2266	GENWATCH3 ATIA ADD-ON	\$0.00	\$0.00	15%	\$0.00	\$0.00
License	Genesis	157	a	817	3	TT05722AA	GW3-TRBO ADV PWR MONITOR ADD CONN	\$264.00	\$792.00	10%	\$237.60	\$712.80

5.5.3 Subscriber Equipment

SUB SYS	BLOCK	LIM	O	APC	QTY	NOMENCLATURE	DESCRIPTION	UNIT LIST (USD)	EXT LIST (USD)	Contract Disc	Contract Unit	Contract Extended
PD	65RemO3	1	-	527	5	M25URS9PW1BN	APX6500 ENHANCED 7/800 MHZ	\$3,253.00	\$16,265.00	25%	\$2,439.75	\$12,198.75
PD	65RemO3	1	a	527	5	G67DR	ADD: REMOTE MOUNT O3 APXM	\$327.00	\$1,635.00	25%	\$245.25	\$1,226.25
PD	65RemO3	1	b	656	5	G444	ADD: APX CONTROL HEAD SOFTWARE	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemO3	1	c	656	5	G72	ADD: APX O3 HANDHELD CH	\$1,041.00	\$5,205.00	25%	\$780.75	\$3,903.75
PD	65RemO3	1	d	681	5	G806	ENH: ASTRO DIGITAL CAI OP APX	\$567.00	\$2,835.00	25%	\$425.25	\$2,126.25
PD	65RemO3	1	e	527	5	G51	ENH: SMARTZONE OPERATION APX6500	\$1,320.00	\$6,600.00	25%	\$990.00	\$4,950.00
PD	65RemO3	1	f	656	5	G361	ENH: P25 TRUNKING SOFTWARE APX	\$330.00	\$1,650.00	25%	\$247.50	\$1,237.50
PD	65RemO3	1	g	655	5	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$30.00	25%	\$4.50	\$22.50
PD	65RemO3	1	h	656	5	GA00580	ADD: TDMA OPERATION APX	\$495.00	\$2,475.00	25%	\$371.25	\$1,856.25
PD	65RemO3	1	i	656	5	G996	ENH: OVER THE AIR PROVISIONING	\$110.00	\$550.00	25%	\$82.50	\$412.50
PD	65RemO3	1	j	656	5	GA09008	ADD: GROUP SERVICES	\$165.00	\$825.00	25%	\$123.75	\$618.75
PD	65RemO3	1	k	656	5	G843	ADD: AES ENCRYPTION APX AND ADP	\$523.00	\$2,615.00	25%	\$392.25	\$1,961.25
PD	65RemO3	1	l	656	5	G298	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$4,070.00	25%	\$610.50	\$3,052.50
PD	65RemO3	1	m	656	5	G89	ADD: NO RF ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemO3	1	n	681	5	GA01606AA	ADD: NO GPS/WI-FI ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemO3	1	o	656	5	G90	ADD: NO MICROPHONE NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemO3	1	p	656	5	G831	ADD: SPKR 15W WATER RESISTANT	\$66.00	\$330.00	25%	\$49.50	\$247.50
PD	65RemO3	1	q	185	5	GA00318	ADD: 5Y ESSENTIAL SERVICE	\$352.00	\$1,760.00	0%	\$352.00	\$1,760.00
PD	65RemO3	2	-	554	5	RAF4226A	762-870 MHZ 3DB LOW PROFILE MOBILE ANTENNA W/ 17' LOW LOSS CABLE	\$82.00	\$410.00	25%	\$61.50	\$307.50
PD	65RemE5	3	-	527	112	M25URS9PW1BN	APX6500 ENHANCED 7/800 MHZ	\$3,253.00	\$364,336.00	25%	\$2,439.75	\$273,252.00
PD	65RemE5	3	a	656	112	G67DT	ADD: REMOTE MOUNT E5 APXM	\$327.00	\$36,624.00	25%	\$245.25	\$27,468.00
PD	65RemE5	3	b	656	112	G444	ADD: APX CONTROL HEAD SOFTWARE	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemE5	3	c	681	112	GA01670	ADD: APX E5 CONTROL HEAD	\$717.00	\$80,304.00	25%	\$537.75	\$60,228.00
PD	65RemE5	3	d	681	112	G806	ENH: ASTRO DIGITAL CAI OP APX	\$567.00	\$63,504.00	25%	\$425.25	\$47,628.00
PD	65RemE5	3	e	527	112	G51	ENH: SMARTZONE OPERATION APX6500	\$1,320.00	\$147,840.00	25%	\$990.00	\$110,880.00
PD	65RemE5	3	f	656	112	G361	ENH: P25 TRUNKING SOFTWARE APX	\$330.00	\$36,960.00	25%	\$247.50	\$27,720.00
PD	65RemE5	3	g	655	112	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$672.00	25%	\$4.50	\$504.00
PD	65RemE5	3	h	656	112	GA00580	ADD: TDMA OPERATION APX	\$495.00	\$55,440.00	25%	\$371.25	\$41,580.00
PD	65RemE5	3	i	656	112	G996	ENH: OVER THE AIR PROVISIONING	\$110.00	\$12,320.00	25%	\$82.50	\$9,240.00
PD	65RemE5	3	j	656	112	GA09008	ADD: GROUP SERVICES	\$165.00	\$18,480.00	25%	\$123.75	\$13,860.00
PD	65RemE5	3	k	656	112	G843	ADD: AES ENCRYPTION APX AND ADP	\$523.00	\$58,576.00	25%	\$392.25	\$43,932.00
PD	65RemE5	3	l	656	112	G298	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$91,168.00	25%	\$610.50	\$68,376.00
PD	65RemE5	3	m	656	112	G89	ADD: NO RF ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemE5	3	n	681	112	GA01606AA	ADD: NO GPS/WI-FI ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	65RemE5	3	o	656	112	G892	ENH: HAND MIC,GCAI WATER RESISTANT	\$79.00	\$8,848.00	25%	\$59.25	\$6,636.00
PD	65RemE5	3	p	656	112	G831	ADD: SPKR 15W WATER RESISTANT	\$66.00	\$7,392.00	25%	\$49.50	\$5,544.00
PD	65RemE5	3	q	185	112	GA00318	ADD: 5Y ESSENTIAL SERVICE	\$352.00	\$39,424.00	0%	\$352.00	\$39,424.00

PD	65RemE5	4	-	554	112	RAF4226A	762-870 MHZ 3DB LOW PROFILE MOBILE ANTENNA W/ 17' LOW LOSS CABLE	\$82.00	\$9,184.00	25%	\$61.50	\$6,888.00
PD	85RemE5	5	-	656	6	M37TSS9PW1 N	APX8500 ALL BAND MP MOBILE	\$5,667.00	\$34,002.00	25%	\$4,250.25	\$25,501.50
PD	85RemE5	5	a	656	6	G67EH	ADD: REMOTE MOUNT E5 MP	\$327.00	\$1,962.00	25%	\$245.25	\$1,471.50
PD	85RemE5	5	b	656	6	G444	ADD: APX CONTROL HEAD SOFTWARE	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	85RemE5	5	c	681	6	GA01670	ADD: APX E5 CONTROL HEAD	\$717.00	\$4,302.00	25%	\$537.75	\$3,226.50
PD	85RemE5	5	d	681	6	G806	ENH: ASTRO DIGITAL CAI OP APX	\$567.00	\$3,402.00	25%	\$425.25	\$2,551.50
PD	85RemE5	5	e	656	6	G51	ENH: SMARTZONE OPERATION APX	\$1,650.00	\$9,900.00	25%	\$1,237.50	\$7,425.00
PD	85RemE5	5	f	656	6	G361	ENH: P25 TRUNKING SOFTWARE APX	\$330.00	\$1,980.00	25%	\$247.50	\$1,485.00
PD	85RemE5	5	g	655	6	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$36.00	25%	\$4.50	\$27.00
PD	85RemE5	5	h	656	6	GA00580	ADD: TDMA OPERATION APX	\$495.00	\$2,970.00	25%	\$371.25	\$2,227.50
PD	85RemE5	5	i	656	6	G996	ENH: OVER THE AIR PROVISIONING	\$110.00	\$660.00	25%	\$82.50	\$495.00
PD	85RemE5	5	j	656	6	GA09008	ADD: GROUP SERVICES	\$165.00	\$990.00	25%	\$123.75	\$742.50
PD	85RemE5	5	k	681	6	GA01517	DEL: NO J600 ADAPTER CABLE NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	85RemE5	5	l	656	6	G843	ADD: AES ENCRYPTION APX AND ADP	\$523.00	\$3,138.00	25%	\$392.25	\$2,353.50
PD	85RemE5	5	m	656	6	G298	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$4,884.00	25%	\$610.50	\$3,663.00
PD	85RemE5	5	n	656	6	G89	ADD: NO RF ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	85RemE5	5	o	681	6	GA01606AA	ADD: NO GPS/WI-FI ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
PD	85RemE5	5	p	656	6	G892	ENH: HAND MIC,GCAI WATER RESISTANT	\$79.00	\$474.00	25%	\$59.25	\$355.50
PD	85RemE5	5	q	656	6	G831	ADD: SPKR 15W WATER RESISTANT	\$66.00	\$396.00	25%	\$49.50	\$297.00
PD	85RemE5	5	r	185	6	GA00318	ENH: LACR SFS LITE 5 YR	\$363.00	\$2,178.00	0%	\$363.00	\$2,178.00
PD	85RemE5	6	-	681	6	H1919	MULTIPLEXER QMA	\$275.00	\$1,650.00	25%	\$206.25	\$1,237.50
PD	85RemE5	7	-	362	6	CB000091A02	CABLE, COAXIAL,QMA PLUG TO QMA PLUG CONNETOR	\$32.00	\$192.00	25%	\$24.00	\$144.00
PD	85RemE5	8	-	554	6	RAF4226A	762-870 MHZ 3DB LOW PROFILE MOBILE ANTENNA W/ 17' LOW LOSS CABLE	\$82.00	\$492.00	25%	\$61.50	\$369.00
PD	85RemE5	9	-	362	6	CB000091A03	CABLE, COAXIAL,QMA PLUG TO MINI-UHF JACK CONNETOR	\$52.25	\$313.50	25%	\$39.19	\$235.13
PD	85RemE5	10	-	291	12	DSROOFTNITI	STI-CO INDUSTRIES, INC - 136-1000 MHZ ROOF MOUNT, 3/4 INCH HOLE	\$134.00	\$1,608.00	25%	\$100.50	\$1,206.00
PD	APX6000	11	-	481	150	H98UCF9PW6BN	APX6000 700/800 MODEL 2.5 PORTABLE	\$3,595.00	\$539,250.00	25%	\$2,696.25	\$404,437.50
PD	APX6000	11	a	481	150	Q806	ADD: ASTRO DIGITAL CAI OPERATION	\$567.00	\$85,050.00	25%	\$425.25	\$63,787.50
PD	APX6000	11	b	481	150	H38	ADD: SMARTZONE OPERATION	\$1,320.00	\$198,000.00	25%	\$990.00	\$148,500.00
PD	APX6000	11	c	481	150	Q361	ADD: P25 9600 BAUD TRUNKING	\$330.00	\$49,500.00	25%	\$247.50	\$37,125.00
PD	APX6000	11	d	655	150	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$900.00	25%	\$4.50	\$675.00
PD	APX6000	11	e	481	150	QA00580	ADD: TDMA OPERATION	\$495.00	\$74,250.00	25%	\$371.25	\$55,687.50
PD	APX6000	11	f	481	150	G996	ADD: PROGRAMMING OVER P25 (OTAP)	\$110.00	\$16,500.00	25%	\$82.50	\$12,375.00
PD	APX6000	11	g	655	150	QA09008	ADD: GROUP SERVICES	\$165.00	\$24,750.00	25%	\$123.75	\$18,562.50
PD	APX6000	11	h	481	150	Q629	ENH: AES ENCRYPTION AND ADP	\$523.00	\$78,450.00	25%	\$392.25	\$58,837.50
PD	APX6000	11	i	481	150	Q498	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$122,100.00	25%	\$610.50	\$91,575.00
PD	APX6000	11	j	562	150	QA05570	ALT: LI-ION IMPRES 2 IP68 3400 MAH	\$110.00	\$16,500.00	25%	\$82.50	\$12,375.00
PD	APX6000	11	k	185	150	Q887	ADD: 5Y ESSENTIAL SERVICE	\$227.00	\$34,050.00	0%	\$227.00	\$34,050.00
PD	APX8000	12	-	655	12	H91TGD9PW6 N	APX 8000 ALL BAND PORTABLE MODEL 2.5	\$7,108.00	\$85,296.00	25%	\$5,331.00	\$63,972.00
PD	APX8000	12	a	579	12	Q806	ADD: ASTRO DIGITAL CAI OPERATION	\$567.00	\$6,804.00	25%	\$425.25	\$5,103.00



PD	APX8000	12	b	655	12	H38	ADD: SMARTZONE OPERATION	\$1,650.00	\$19,800.00	25%	\$1,237.50	\$14,850.00
PD	APX8000	12	c	655	12	Q361	ADD: P25 9600 BAUD TRUNKING	\$330.00	\$3,960.00	25%	\$247.50	\$2,970.00
PD	APX8000	12	d	655	12	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$72.00	25%	\$4.50	\$54.00
PD	APX8000	12	e	655	12	QA00580	ADD: TDMA OPERATION	\$495.00	\$5,940.00	25%	\$371.25	\$4,455.00
PD	APX8000	12	f	655	12	G996	ADD: PROGRAMMING OVER P25 (OTAP)	\$110.00	\$1,320.00	25%	\$82.50	\$990.00
PD	APX8000	12	g	655	12	QA09008	ADD: GROUP SERVICES	\$165.00	\$1,980.00	25%	\$123.75	\$1,485.00
PD	APX8000	12	h	655	12	Q629	ENH: AES ENCRYPTION AND ADP	\$523.00	\$6,276.00	25%	\$392.25	\$4,707.00
PD	APX8000	12	i	655	12	Q498	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$9,768.00	25%	\$610.50	\$7,326.00
PD	APX8000	12	j	185	12	Q887	ADD: 5Y ESSENTIAL SERVICE	\$227.00	\$2,724.00	0%	\$227.00	\$2,724.00
PD	PortAcc	13	-	785	162	NNTN8860A	CHARGER, SINGLE-UNIT, IMPRES 2, 3A, 115VAC, US/NA	\$170.00	\$27,540.00	25%	\$127.50	\$20,655.00
PD	PortAcc	14	-	785	13	NNTN8844A	CHARGER, MULTI-UNIT, IMPRES 2, 6-DISP, NA/LA-PLUG, ACC USB CHGR	\$1,420.00	\$18,460.00	25%	\$1,065.00	\$13,845.00
PD	PortAcc	15	-	372	162	PMMN4135A	AUDIO ACCESSORY, XVP850 REMOTE SPEAKER MICROPHONE, WITH CHANNEL KNOB	\$508.00	\$82,296.00	25%	\$381.00	\$61,722.00
PD	PortAcc	16	-	453	162	PMNN4486	BATT IMPRES 2 LIION R IP68 3400T	\$179.00	\$28,998.00	25%	\$134.25	\$21,748.50
FD	85RemO2DVR	17	-	656	32	M37TSS9PW1 N	APX8500 ALL BAND MP MOBILE	\$5,667.00	\$181,344.00	25%	\$4,250.25	\$136,008.00
FD	85RemO2DVR	17	a	471	32	G67	ADD: REMOTE MOUNT MP	\$327.00	\$10,464.00	25%	\$245.25	\$7,848.00
FD	85RemO2DVR	17	b	656	32	G444	ADD: APX CONTROL HEAD SOFTWARE	\$0.00	\$0.00	25%	\$0.00	\$0.00
FD	85RemO2DVR	17	c	656	32	GA00804	ADD: APX O2 CONTROL HEAD	\$541.00	\$17,312.00	25%	\$405.75	\$12,984.00
FD	85RemO2DVR	17	d	656	32	G610	ADD: REMOTE MOUNT CBL 30 FEET	\$28.00	\$896.00	25%	\$21.00	\$672.00
FD	85RemO2DVR	17	e	681	32	G806	ENH: ASTRO DIGITAL CAI OP APX	\$567.00	\$18,144.00	25%	\$425.25	\$13,608.00
FD	85RemO2DVR	17	f	656	32	G51	ENH: SMARTZONE OPERATION APX	\$1,650.00	\$52,800.00	25%	\$1,237.50	\$39,600.00
FD	85RemO2DVR	17	g	656	32	G361	ENH: P25 TRUNKING SOFTWARE APX	\$330.00	\$10,560.00	25%	\$247.50	\$7,920.00
FD	85RemO2DVR	17	h	655	32	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$192.00	25%	\$4.50	\$144.00
FD	85RemO2DVR	17	i	656	32	GA00580	ADD: TDMA OPERATION APX	\$495.00	\$15,840.00	25%	\$371.25	\$11,880.00
FD	85RemO2DVR	17	j	656	32	G996	ENH: OVER THE AIR PROVISIONING	\$110.00	\$3,520.00	25%	\$82.50	\$2,640.00
FD	85RemO2DVR	17	k	656	32	GA09008	ADD: GROUP SERVICES	\$165.00	\$5,280.00	25%	\$123.75	\$3,960.00
FD	85RemO2DVR	17	l	656	32	GA00631	ADD: DVRS MSU ACTIVATION	\$275.00	\$8,800.00	25%	\$206.25	\$6,600.00
FD	85RemO2DVR	17	m	681	32	GA01515	ADD: J600 ADAPTER CABLE	\$105.00	\$3,360.00	25%	\$78.75	\$2,520.00
FD	85RemO2DVR	17	n	656	32	G843	ADD: AES ENCRYPTION APX AND ADP	\$523.00	\$16,736.00	25%	\$392.25	\$12,552.00
FD	85RemO2DVR	17	o	656	32	G298	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$26,048.00	25%	\$610.50	\$19,536.00
FD	85RemO2DVR	17	p	656	32	G89	ADD: NO RF ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
FD	85RemO2DVR	17	q	681	32	GA01606AA	ADD: NO GPS/WI-FI ANTENNA NEEDED	\$0.00	\$0.00	25%	\$0.00	\$0.00
FD	85RemO2DVR	17	r	656	32	G892	ENH: HAND MIC,GCAI WATER RESISTANT	\$79.00	\$2,528.00	25%	\$59.25	\$1,896.00
FD	85RemO2DVR	17	s	656	32	G831	ADD: SPKR 15W WATER RESISTANT	\$66.00	\$2,112.00	25%	\$49.50	\$1,584.00
FD	85RemO2DVR	17	t	185	32	GA00318	ENH: LACR SFS LITE 5 YR	\$363.00	\$11,616.00	0%	\$363.00	\$11,616.00
FD	85RemO2DVR	18	-	291	32	DSRFMTNTVUCQMA	RFMT-NT TRIBAND ANT WITH QMA ANTENNA	\$317.00	\$10,144.00	25%	\$237.75	\$7,608.00
FD	DVR-LX	19	-	571	7	TT3885A	DVR-LX 450-470 MHZ VEHICLE MOUNT CROSS-BAND	\$11,815.00	\$82,705.00	15%	\$10,042.75	\$70,299.25
FD	DVR-LX	19	a	571	7	TT06279AA	DVR/VRX FOR USE WITH ALL BAND APX8500 MOBILE	\$0.00	\$0.00	15%	\$0.00	\$0.00
FD	DVR-LX	19	b	571	7	TT06568AA	DVR-LX RM-OTAP	\$203.00	\$1,421.00	15%	\$172.55	\$1,207.85
FD	DVR-LX	20	-	554	7	HAE4003	ANTENNA, UHF (450-470 MHZ) 1/4 WAVE ROOF MOUNT	\$23.25	\$162.75	25%	\$17.44	\$122.06
FD	DVR-LX	21	-	571	7	DDN2659	DUAL TRIPLEXER RELAY KIT	\$1,113.00	\$7,791.00	15%	\$946.05	\$6,622.35

FD	DVR-LX	22	-	571	7	DDN2085	DVR-LX CROSS-BAND 4 YEAR EXTENDED HARDWARE WARRANTY	\$605.00	\$4,235.00	15%	\$514.25	\$3,599.75
FD	DVR-LX	23	-	571	1	DDN9025	DVR PROGRAMMING CABLE 10FT	\$202.00	\$202.00	15%	\$171.70	\$171.70
FD	8000HXE25	24	-	655	70	H91TGD9PW8 N	APX 8000H ALL BAND PORTABLE MODEL 2.5	\$7,940.00	\$555,800.00	25%	\$5,955.00	\$416,850.00
FD	8000HXE25	24	a	673	70	QA02006	ENH: APX8000HXE RUGGED RADIO	\$880.00	\$61,600.00	25%	\$660.00	\$46,200.00
FD	8000HXE25	24	b	579	70	QA01427	ALT:APX 8000 HOUSING GREEN	\$28.00	\$1,960.00	25%	\$21.00	\$1,470.00
FD	8000HXE25	24	c	579	70	Q806	ADD: ASTRO DIGITAL CAI OPERATION	\$567.00	\$39,690.00	25%	\$425.25	\$29,767.50
FD	8000HXE25	24	d	655	70	H38	ADD: SMARTZONE OPERATION	\$1,650.00	\$115,500.00	25%	\$1,237.50	\$86,625.00
FD	8000HXE25	24	e	655	70	Q361	ADD: P25 9600 BAUD TRUNKING	\$330.00	\$23,100.00	25%	\$247.50	\$17,325.00
FD	8000HXE25	24	f	655	70	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$420.00	25%	\$4.50	\$315.00
FD	8000HXE25	24	g	655	70	QA00580	ADD: TDMA OPERATION	\$495.00	\$34,650.00	25%	\$371.25	\$25,987.50
FD	8000HXE25	24	h	655	70	G996	ADD: PROGRAMMING OVER P25 (OTAP)	\$110.00	\$7,700.00	25%	\$82.50	\$5,775.00
FD	8000HXE25	24	i	655	70	QA09008	ADD: GROUP SERVICES	\$165.00	\$11,550.00	25%	\$123.75	\$8,662.50
FD	8000HXE25	24	j	655	70	QA00631	ADD: DVRS PSU ACTIVATION	\$110.00	\$7,700.00	25%	\$82.50	\$5,775.00
FD	8000HXE25	24	k	481	70	Q445	ADD: APX Personnel Accountability	\$165.00	\$11,550.00	25%	\$123.75	\$8,662.50
FD	8000HXE25	24	l	655	70	QA01843	ADD: MANDOWN OPERATION	\$165.00	\$11,550.00	25%	\$123.75	\$8,662.50
FD	8000HXE25	24	m	655	70	Q629	ENH: AES ENCRYPTION AND ADP	\$523.00	\$36,610.00	25%	\$392.25	\$27,457.50
FD	8000HXE25	24	n	655	70	Q498	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$56,980.00	25%	\$610.50	\$42,735.00
FD	8000HXE25	24	o	185	70	Q887	ADD: 5Y ESSENTIAL SERVICE	\$227.00	\$15,890.00	0%	\$227.00	\$15,890.00
FD	APX8000	25	-	655	20	H91TGD9PW6 N	APX 8000 ALL BAND PORTABLE MODEL 2.5	\$7,108.00	\$142,160.00	25%	\$5,331.00	\$106,620.00
FD	APX8000	25	a	579	20	Q806	ADD: ASTRO DIGITAL CAI OPERATION	\$567.00	\$11,340.00	25%	\$425.25	\$8,505.00
FD	APX8000	25	b	655	20	H38	ADD: SMARTZONE OPERATION	\$1,650.00	\$33,000.00	25%	\$1,237.50	\$24,750.00
FD	APX8000	25	c	655	20	Q361	ADD: P25 9600 BAUD TRUNKING	\$330.00	\$6,600.00	25%	\$247.50	\$4,950.00
FD	APX8000	25	d	655	20	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$120.00	25%	\$4.50	\$90.00
FD	APX8000	25	e	655	20	QA00580	ADD: TDMA OPERATION	\$495.00	\$9,900.00	25%	\$371.25	\$7,425.00
FD	APX8000	25	f	655	20	G996	ADD: PROGRAMMING OVER P25 (OTAP)	\$110.00	\$2,200.00	25%	\$82.50	\$1,650.00
FD	APX8000	25	g	655	20	QA09008	ADD: GROUP SERVICES	\$165.00	\$3,300.00	25%	\$123.75	\$2,475.00
FD	APX8000	25	h	655	20	QA00631	ADD: DVRS PSU ACTIVATION	\$110.00	\$2,200.00	25%	\$82.50	\$1,650.00
FD	APX8000	25	i	481	20	Q445	ADD: APX Personnel Accountability	\$165.00	\$3,300.00	25%	\$123.75	\$2,475.00
FD	APX8000	25	j	655	20	QA01843	ADD: MANDOWN OPERATION	\$165.00	\$3,300.00	25%	\$123.75	\$2,475.00
FD	APX8000	25	k	655	20	Q629	ENH: AES ENCRYPTION AND ADP	\$523.00	\$10,460.00	25%	\$392.25	\$7,845.00
FD	APX8000	25	l	655	20	Q498	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$16,280.00	25%	\$610.50	\$12,210.00
FD	APX8000	25	m	185	20	Q887	ADD: 5Y ESSENTIAL SERVICE	\$227.00	\$4,540.00	0%	\$227.00	\$4,540.00
FD	PortAcc	26	-	785	20	NNTN8860A	CHARGER, SINGLE-UNIT, IMPRES 2, 3A, 115VAC, US/NA	\$170.00	\$3,400.00	25%	\$127.50	\$2,550.00
FD	PortAcc	27	-	785	12	NNTN8844A	CHARGER, MULTI-UNIT, IMPRES 2, 6-DISP, NA/LA-PLUG, ACC USB CHGR	\$1,420.00	\$17,040.00	25%	\$1,065.00	\$12,780.00
FD	PortAcc	28	-	785	12	NNTN7624C	CHARGER,CHR IMP VEH EXT NA/EU KIT	\$510.00	\$6,120.00	25%	\$382.50	\$4,590.00
FD	PortAcc	29	-	372	70	PMMN4132A	ACCESSORY KIT,XVE500 REMOTE SPEAKER MIC, HIGH IMPACT GREEN WITH KNOB	\$680.00	\$47,600.00	25%	\$510.00	\$35,700.00
FD	PortAcc	30	-	372	20	PMMN4099CL	AUDIO ACCESSORY-REMOTE SPEAKER MICROPHONE,IP68 REMOTE SPEAKER MICROPHO	\$143.00	\$2,860.00	25%	\$107.25	\$2,145.00
FD	PortAcc	31	-	453	70	PMNN4547A	BATT IMPRES 2 LIION TIA4950 R IP68 3100T	\$203.00	\$14,210.00	25%	\$152.25	\$10,657.50
FD	PortAcc	32	-	453	10	PMNN4486	BATT IMPRES 2 LIION R IP68 3400T	\$179.00	\$1,790.00	25%	\$134.25	\$1,342.50

FD	7/800 CS	33	-	656	2	L37TSS9PW1 N	ALL BAND CONSOLETTTE	\$9,551.00	\$19,102.00	25%	\$7,163.25	\$14,326.50
FD	7/800 CS	33	a	681	2	GA05508	DEL: DELETE VHF BAND	(\$800.00)	(\$1,600.00)	25%	(\$600.00)	(\$1,200.00)
FD	7/800 CS	33	b	681	2	GA05509	DEL: DELETE UHF BAND	(\$800.00)	(\$1,600.00)	25%	(\$600.00)	(\$1,200.00)
FD	7/800 CS	33	c	761	2	L999	ADD: FULL FP W/E5/KEYPAD/CLOCK/VU	\$868.00	\$1,736.00	25%	\$651.00	\$1,302.00
FD	7/800 CS	33	d	761	2	CA01598	ADD: AC LINE CORD US	\$0.00	\$0.00	25%	\$0.00	\$0.00
FD	7/800 CS	33	e	681	2	G806	ENH: ASTRO DIGITAL CAI OP APX	\$567.00	\$1,134.00	25%	\$425.25	\$850.50
FD	7/800 CS	33	f	656	2	G51	ENH: SMARTZONE OPERATION APX	\$1,650.00	\$3,300.00	25%	\$1,237.50	\$2,475.00
FD	7/800 CS	33	g	656	2	G361	ENH: P25 TRUNKING SOFTWARE APX	\$330.00	\$660.00	25%	\$247.50	\$495.00
FD	7/800 CS	33	h	655	2	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY	\$6.00	\$12.00	25%	\$4.50	\$9.00
FD	7/800 CS	33	i	656	2	GA00580	ADD: TDMA OPERATION APX	\$495.00	\$990.00	25%	\$371.25	\$742.50
FD	7/800 CS	33	j	656	2	G996	ENH: OVER THE AIR PROVISIONING	\$110.00	\$220.00	25%	\$82.50	\$165.00
FD	7/800 CS	33	k	656	2	GA09008	ADD: GROUP SERVICES	\$165.00	\$330.00	25%	\$123.75	\$247.50
FD	7/800 CS	33	l	656	2	G843	ADD: AES ENCRYPTION APX AND ADP	\$523.00	\$1,046.00	25%	\$392.25	\$784.50
FD	7/800 CS	33	m	656	2	G298	ENH: ASTRO 25 OTAR W/ MULTIKEY	\$814.00	\$1,628.00	25%	\$610.50	\$1,221.00
FD	7/800 CS	33	n	656	2	W382	ADD: CONTROL STATION DESK GCAI MIC	\$186.00	\$372.00	25%	\$139.50	\$279.00
FD	7/800 CS	33	o	185	2	GA00318	ADD: 5Y ESSENTIAL SERVICE	\$335.00	\$670.00	0%	\$335.00	\$670.00
FD	7/800 CS	34	-	761	2	HKN6233C	APX CONSOLETTTE RACK MOUNT KIT	\$200.00	\$400.00	25%	\$150.00	\$300.00
FD	7/800 CS	35	-	454	2	CLN6679	RACK MTG HDW OUTLAW	\$41.00	\$82.00	25%	\$30.75	\$61.50
FD	7/800CSAnt	36	-	351	2	DSSP7C03CS36UN	764-869MHZ 3DBD GAIN CONTROL STATION ANTENNA W/N-TYPE CONNECTOR.	\$1,064.00	\$2,128.00	10%	\$957.60	\$1,915.20
FD	7/800CSAnt	37	-	207	2	DSISB50LNC2MA	RF SPD, 125-1000MHZ DC BLOCK BROADBAND BULKHEAD MT, NM ANT, NF EQUIP	\$87.00	\$174.00	10%	\$78.30	\$156.60
FD	7/800CSAnt	38	-	351	50	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET	\$3.65	\$182.50	10%	\$3.29	\$164.25
FD	7/800CSAnt	39	-	351	4	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF	\$43.00	\$172.00	10%	\$38.70	\$154.80
FD	7/800CSAnt	40	-	351	300	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET	\$3.15	\$945.00	10%	\$2.84	\$850.50
FD	7/800CSAnt	41	-	351	2	DSNF50V12	CONNECTOR, N FEMALE INTERFACE FOR EC4-50	\$28.00	\$56.00	10%	\$25.20	\$50.40
FD	7/800CSAnt	42	-	351	2	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50	\$24.50	\$49.00	10%	\$22.05	\$44.10
FD	RGU	43	-	202	2	F7879	SM, RADIO GATEWAY UNIT (RGU)	\$2,275.00	\$4,550.00	20%	\$1,820.00	\$3,640.00
FD	RGU	44	-	202	2	FHN7469	MCD 5000 DESKSET / RGU POWER SUPPLY WITH USA POWER CORD	\$100.00	\$200.00	20%	\$80.00	\$160.00
FD	RGU	45	-	112	2	FTN7490	MCD 5000 DESKSET RGU RACK MOUNT PANEL PLUS SCREWS	\$200.00	\$400.00	20%	\$160.00	\$320.00
FD	RGU	46	-	202	1	HKVN4861	LICENSE,MCD 5000 DESKSET SYSTEM CONFIG TOOL - SYSTEM W/OUT OMC	\$250.00	\$250.00	20%	\$200.00	\$200.00
FD	LANSW	47	-	147	2	CLN1868	2930F 24-PORT SWITCH	\$2,500.00	\$5,000.00	15%	\$2,125.00	\$4,250.00
FD	MCD5000	48	-	202	4	F2380	MCD 5000 DESKSET	\$2,275.00	\$9,100.00	20%	\$1,820.00	\$7,280.00
FD	MCD5000	49	-	202	4	FHN7469	MCD 5000 DESKSET / RGU POWER SUPPLY WITH USA POWER CORD	\$100.00	\$400.00	20%	\$80.00	\$320.00
FD	MCD5000	50	-	202	1	FHN7485	FRU: MCD 5000 DESKSET / RGU POWER SUPPLY W/OUT POWER CORD	\$85.00	\$85.00	20%	\$68.00	\$68.00
License	Master	51	-	877	1	SQM01SUM0323	ASTRO MASTER SITE	\$0.00	\$0.00	20%	\$0.00	\$0.00
License	Master	51	a	877	1	CA03517AD	ADD: CORE EXPANSION	\$0.00	\$0.00	20%	\$0.00	\$0.00

License	Master	51	b	877	1	UA00152AA	ADD:500 RADIO USER LICENSES	\$7,500.00	\$7,500.00	20%	\$6,000.00	\$6,000.00
License	Master	51	c	877	1	UA00700AA	ADD: GROUP SERVICES	\$10,000.00	\$10,000.00	20%	\$8,000.00	\$8,000.00
License	RM	52	-	430	1	T7914	RADIO MANAGEMENT ONLINE	\$0.00	\$0.00	15%	\$0.00	\$0.00
License	RM	52	a	430	409	UA00049AA	ADD: RADIO MANAGEMENT LICENSES ONLINE	\$110.00	\$44,990.00	15%	\$93.50	\$38,241.50
License	UNS	53	-	232	1	T8108	UNS RESOURCE EXPANSIONS	\$0.00	\$0.00	15%	\$0.00	\$0.00
License	UNS	53	a	232	1	CA03096AA	ADD: ADDITIONAL RESOURCES TO AN EXISTING SERVICE	\$0.00	\$0.00	15%	\$0.00	\$0.00
License	UNS	53	b	232	1	UA00055AA	ADD: 401-500 RESOURCES FOR PRESENCE	\$10,800.00	\$10,800.00	15%	\$9,180.00	\$9,180.00
License	UNS	54	-	232	1	T8108	UNS RESOURCE EXPANSIONS	\$0.00	\$0.00	15%	\$0.00	\$0.00
License	UNS	54	a	232	1	CA03096AA	ADD: ADDITIONAL RESOURCES TO AN EXISTING SERVICE	\$0.00	\$0.00	15%	\$0.00	\$0.00
License	UNS	54	b	232	409	UA00762AA	DD RESOURCES FOR GROUP MANAGEMENT FOR MSI APPS	\$24.00	\$9,816.00	15%	\$20.40	\$8,343.60



Licensee Site Name: N/A  
Licensee Site No.: N/A

Licensor Site Name: BRG 126 943086  
JDE Business Unit: 806355

## SITE LICENSE AGREEMENT (FOR INSTALLATION ON A TOWER)

This **Site License Agreement** ("SLA") is made and entered into as of this \_\_\_\_\_, (the "SLA Date"), by and between Town of Fairfield - Police Department, a political subdivision of the state of Connecticut ("Licensee"), and Crown Atlantic Company LLC, a Delaware limited liability company ("Licensor"), with respect to Licensee's use of certain Licensed Space at the following site (the "Site") in connection with the approved order attached hereto as **Exhibit A** (the "Order"):

### Site and Licensee Identifiers:

Crown Castle BU#: 806355  
Licensee Site ID: N/A  
Licensee Type: Government

### General Terms and Conditions Information:

Version ID: 2749326  
Version Date: October 28, 2021  
Licensee Approval Date: TBD

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree to be legally bound to this SLA as follows:

1. **INCORPORATED AND DEFINED TERMS:** The General Terms and Conditions (for Co-Location by Government Licensees on Tower Sites and/or Rooftop Sites) referenced above (the "General Terms and Conditions"), are hereby incorporated herein and made part of this SLA; provided, however, in the event of any inconsistencies between this SLA and the General Terms and Conditions, the terms of this SLA shall control. Unless otherwise clear from the context in which they are used, all capitalized terms used in this SLA shall have the same meanings ascribed to them in the General Terms and Conditions.
2. **EQUIPMENT:** Pursuant and subject to this SLA, Licensor hereby grants a license to Licensee to install, operate and maintain on the Site only the Equipment described in the Order. Such License is subject to the Installation Standards and the Building Rules (if applicable).
3. **LICENSED SPACE:** The Equipment shall be contained only within the Licensed Space, which consists of those certain locations designated for the placement of Equipment on the tower, on the ground, within an existing building, and/or on the rooftop, as described in the Order and, if applicable, as shown in the Level Drawing attached hereto as **Exhibit B** (the "Level Drawing") and/or the Site Plan attached hereto as **Exhibit C** (the "Site Plan"). For the avoidance of doubt, the Licensed Space does not include any space located within any non-exclusive easements or any other space that is not designated for the placement of Equipment as described above.
4. **SLA TERM:** The following items shall be used to define the SLA Term of this SLA:
  - (a) "Term Commencement Date": Upon full execution of this SLA
  - (b) Duration of Initial SLA Term: 10 years
  - (c) Number of Renewal SLA Terms: 4
  - (d) Duration of Renewal SLA Terms: 5 years
  - (e) Required minimum number of days written notice not to renew: ninety (90) days prior to the expiration of the then-current term that is in effect as of the date of delivery of such written notice

TT: E 1833970SR  
Prepared by: R. Benson  
Prepared on: 9/28/2022  
Revised on:  
CROWN CASTLE STANDARD SLA

App Rev #: 1  
LRF Rev #: 1  
MLA #: 2749326





Licensee Site Name: N/A  
Licensee Site No.: N/A

Licensor Site Name: BRG 126 943086  
JDE Business Unit: 806355

IN WITNESS WHEREOF, the parties have made and executed this SLA on the SLA Date set forth above.

**LICENSOR:**

Crown Atlantic Company LLC,  
a Delaware limited liability company

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**WITNESS:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

**LICENSEE:**

Town of Fairfield - Police Department,  
a political subdivision of the state of Connecticut

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

TT: E 1833970SR  
Prepared by: R. Benson  
Prepared on: 9/28/2022  
Revised on:  
CROWN CASTLE STANDARD SLA

App Rev #: 1  
LRF Rev #: 1  
MLA #: 2749326







Licensee Site Name: N/A  
Licensee Site No.: N/A

Licenser Site Name: BRG 126 943086  
JDE Business Unit: 806355

STATE OF \_\_\_\_\_

SS

COUNTY OF \_\_\_\_\_

#### ACKNOWLEDGMENT OF LICENSEE

On this \_\_\_\_\_, before me, personally appeared \_\_\_\_\_, to me personally known, who, being by me duly sworn, did say that he/she is \_\_\_\_\_ of Town of Fairfield - Police Department, a political subdivision of the state of Connecticut, and that said instrument was signed on behalf of said company and said appeared \_\_\_\_\_ acknowledged said instrument to be his/her free act and deed.

In witness whereof, I have hereunto set my hand and affixed my seal at my office in said County and State on the day and year first above written.

Sworn to and subscribed before me this \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

TT: E 1833970SR  
Prepared by: R. Benson  
Prepared on: 9/28/2022  
Revised on:  
CROWN CASTLE STANDARD SLA

App Rev #: 1  
LRF Rev #: 1  
MLA #: 2749326





ground, tower or rooftop, as applicable, (e) the addition of generators or generator fuel tanks in any location, (f) any addition, modification, or replacement of equipment on the tower or rooftop other than as may be specified in the SLA, (g) any change to the frequency ranges specified in the SLA or the use of any frequency outside of the frequency ranges specified in the SLA, or (h) any use of power in excess of the power level specified in the SLA. Notwithstanding the foregoing, the replacement of any of Licensee's equipment (if any) on the tower or rooftop with new, identical equipment (i.e., equipment of the same quantity, make, model, size and weight), in the same location as the previously permitted equipment, shall not by itself constitute a "Modification", provided that such replacement does not negatively affect the tower's or rooftop's loading capacity, as determined by Licensor.

"NTP" means a written notice to proceed.

"Order" means the order form (as may be amended by Licensor from time to time), which shall be submitted to Licensor by Licensee when Licensee desires to apply for a license to install or make a Modification to Equipment or the Licensed Space. The approved Order for Licensee's initial permitted Equipment at the Site is attached to the SLA.

"Pre-Existing Use" means any installation or modified use of Licensor's or another user's equipment prior to the installation or modified use of Licensee's Equipment.

"Prime Lease" means the lease(s), sublease(s), or other similar prior agreement(s) from which Licensor's rights in any portion of the Site are derived, and which may contain restrictions on use of the Site.

"Prior Agreement" means, if applicable, any active prior oral or written agreements (as may have been amended or assigned) between Licensor and Licensee to the extent applicable to both the Site and the subject matter described in the SLA.

"Renewal SLA Term" means each renewal term of the SLA that commences upon the expiration of the immediately preceding term and continues for the duration specified in the SLA.

"RF" means radio frequency.

"Services Agreement" means any active agreement(s) between Licensee and Crown Castle with respect to the performance of Work for Licensee by Crown Castle, which active agreement(s) may include, without limitation, any master services agreement, project appendix, purchase order for services, and/or other similar agreement.

"Site" means the property referred to in the SLA, which is owned, leased, or otherwise controlled by Licensor and which contains the Licensed Space.

"Site Plan" means the site plan or site sketch attached to the SLA.

"SLA" means the Site License Agreement into which these General Terms and Conditions are incorporated by reference.

"SLA Term" means the term of the SLA, inclusive of the Initial SLA Term and the Renewal SLA Term(s).

"Structural Analysis" means an engineering analysis performed to determine whether the physical and structural capacity of the tower or rooftop are sufficient to accommodate the proposed tower-mounted or rooftop-mounted Equipment, if any. Such

engineering analysis takes into consideration factors such as weight, wind loading and physical space requirements.

"Subsequent Use" means any installation or modified use of Licensor's or another user's equipment subsequent to the installation or modified use of the Licensed Equipment as described in Section 6.1 below.

"Term Commencement Date" shall have the meaning ascribed to it in the SLA.

"Unlicensed Equipment" means, if applicable, Licensee's permitted equipment installed at the Site that is transmitting or receiving signals within frequencies that do not require an FCC license, to the extent that such equipment is transmitting or receiving signals within such frequencies.

"Up-Front Co-Location Fee" means, with respect to Licensee's initial installation on the Site, the fee payable by Licensee to Licensor in the amount specified in the SLA to defray Licensor's costs associated with those certain items covered by the Up-Front Co-Location Fee as set forth in the SLA, which covered items may include any or all of the following: (a) Crown Castle's submittal or evaluation of the Order, (b) the performance of one (1) Structural Analysis with respect to Licensee's proposed tower-mounted or rooftop-mounted Equipment described in the Order, and/or (c) Crown Castle's inspection of any Work not performed by Crown Castle, if applicable, in relation to the Order. For the avoidance of doubt, the Up-Front Co-Location Fee does not cover the cost of any structural or Site modifications that may be required to accommodate Licensee's Equipment on the Site, or any expenses related to any Modification to Licensee's Equipment or Licensed Space.

"Work" means the installation of Equipment at the Site, construction of an approved Modification to Equipment at the Site, or removal of Equipment from the Site, as set forth in Section 2.4 below.

"Zoning Application" means any application for a Zoning Approval.

"Zoning Application Amendment" means any amendment to a Zoning Application.

"Zoning Approval" means an approval required by or issued pursuant to any applicable land use, planning, zoning, development, or similar law by a state or local Government Entity, Indian Tribe, or Native Hawaiian organization.

"Zoning Authority" means an entity that has jurisdiction over the zoning of the property where a Site is located.

## **2. LICENSE, EQUIPMENT, LICENSED SPACE, MODIFICATIONS, NOTICE TO PROCEED, ACCEPTANCE OF SITE**

2.1 **License to Install, Operate and Maintain the Equipment** Pursuant and subject to the SLA and these General Terms and Conditions, Licensor grants a license to Licensee to install, operate and maintain the Equipment on the Site within the Licensed Space, as such Equipment and Licensed Space are described in, and subject to, the approved Order attached to the SLA and as shown in the Level Drawing and Site Plan attached to the SLA. Such license is restricted exclusively to the installation, operation and maintenance of Equipment consistent with the specifications and in the locations identified in the Order, Level Drawing and Site Plan; provided, however, installation of the Equipment is subject to the Installation Standards, changes in



properly trained and securely attached to the tower by means of an OSHA-approved device and shall comply with OSHA regulations. Notwithstanding the foregoing, in no event shall Licensee allow any person to climb a tower (if any) for or on behalf of Licensee if the SLA does not permit Licensee to install equipment on the tower. The foregoing limitations on Site access are material terms of the SLA and these General Terms and Conditions.

**3.3 Notice to Licensor.** Licensee agrees to provide prior notice of any access to be made by Licensee or its contractors or subcontractors to the Site by calling Licensor's Network Operations Center at (800) 788-7011 (or by providing notice as otherwise directed by Licensor). For safety reasons, access to the Site is restricted to times when elevated work is not being performed on any tower at the Site by any other person. If Licensor's Network Operations Center informs Licensee of an existing condition that must be eliminated before Licensee may access the Site or tower, then Licensee may not access the Site or tower, as the case may be, unless and until such condition is eliminated and Licensee is subsequently informed of same.

**3.4 Licensee's Use of the Site.** Licensee shall use the Licensed Space at the Site to install, operate and maintain only the Equipment specified in the Order to which the SLA applies and shall transmit and receive only within the FCC-licensed or unlicensed frequency ranges specified in the Order, at the power levels specified in the Order. Licensee shall comply with all permits, directives, Laws, the Installation Standards and the Building Rules (if any).

**3.5 Permits, Authorizations and Licenses.** Except as may be otherwise be expressly set forth herein or agreed to by Crown Castle and Licensee in a Services Agreement, Licensee shall be solely responsible for obtaining and maintaining, at its own expense, all required permits, authorizations and licenses (if any) associated with its occupancy of Licensed Space at the Site and utilization of Equipment thereon and shall promptly provide copies thereof to Licensor.

**3.6 Zoning Approval.** At least seventy-two (72) hours before submitting any Zoning Application or Zoning Application Amendment to the applicable Zoning Authority in relation to its installation of or Modification to Equipment at the Site, Licensee must provide Licensor with copies of such Zoning Application or Zoning Application Amendment. Licensor shall respond to Licensee with its approval or rejection of such Zoning Application or Zoning Application Amendment within seventy-two (72) hours after its receipt of copies thereof. Licensor reserves the right to (a) require that it or the tower owner be named as applicant or co-applicant on any such Zoning Application or Zoning Application Amendment or (b) require revisions to any such Zoning Application or Zoning Application Amendment. Licensor also reserves the right, prior to any decision by the applicable Zoning Authority, to approve or reject any conditions of such Zoning Authority's Approval (including, without limitation, any limitations or obligations imposed by the Zoning Authority) that would apply to (i) the entire Site, (ii) the owner of the Site, (iii) the owner of the property on which the Site is located, (iv) the owner or operator of any tower on the Site, or (v) any existing or future Site licensee; provided, however, Licensor shall not unreasonably withhold or delay approval of any such conditions of such Zoning Authority's Approval. Except as otherwise agreed by the parties in writing, Licensee shall be solely responsible for all costs and expenses associated with (A) any Zoning Application or Zoning Application Amendment submitted by Licensee, (B) making any improvements or performing any other obligations required as a condition of approval with respect to same and (C) any other related expenses. Any such costs and expenses paid by Crown Castle or Licensor will be passed through to Licensee.

**3.7 Utilities.** Licensee shall pay for all electricity and other utilities it uses. If separate metering is unavailable and Licensor is providing electricity to Licensee, Licensee shall pay a share of Licensor's electricity costs as reasonably allocated by Licensor. Except as may be otherwise agreed to by Licensor in a separate active written agreement, Licensor shall not be responsible or liable for any disruption or unavailability of any utility at the Site.

**3.8 Emergency Situations.** If Landlord or Licensor determines that an emergency situation exists whereby the continued operation of Licensee's Equipment shall cause substantial risk to human health or property damage as determined by Landlord or Licensor in its sole judgment, then Licensee shall promptly be notified verbally, and Licensee shall act diligently and expediently to remedy the emergency situation. Should Licensee fail to so remedy the emergency situation or should Landlord or Licensor reasonably determine that the response time by Licensee is not adequate given the nature of the emergency, then Landlord or Licensor may shut down the Equipment for only so long as it takes to rectify the emergency and Licensee shall have no recourse against Landlord or Licensor as a result of such action.

#### **4. SLA TERM**

**4.1 Initial SLA Term.** The Initial SLA Term shall commence on the Term Commencement Date set forth in the SLA and continue for the duration set forth in the SLA.

**4.2 Automatic Term Renewal.** Following the Initial SLA Term, the SLA Term shall automatically extend for the number and duration of Renewal SLA Terms set forth in the SLA, unless Licensee provides Licensor with the required advance written notice of its election not to renew the SLA Term as set forth in the SLA.

**4.3 SLA Term Subject to Prime Lease.** Notwithstanding the foregoing, if a Prime Lease applies to the Site, and the term of the Prime Lease expires or terminates sooner than the expiration or termination of the SLA, and Licensor has not assigned (and is not obligated to assign) its rights hereunder to Landlord, then the SLA Term shall continue and remain in effect only as long as Licensor retains its interest under the Prime Lease.

#### **5. CONSIDERATION, ASSESSMENTS**

**5.1 Basic Payment.** Licensee shall pay to Licensor the monthly Basic Payment specified in the SLA, subject to adjustment in accordance with Section 5.2 below (the "Basic Payment"), for its license and use of the Licensed Space. The Basic Payment shall be paid in advance and without demand, in equal monthly payments payable on the Basic Payment Commencement Date, and on the first day of each month thereafter continuing for the SLA Term, subject to extensions as provided for herein. Payments shall be made by check to the payee and address set forth in the SLA. Payments for any partial month shall be prorated.

**5.2 Adjustments to Basic Payment.** The Basic Payment shall be increased on the first escalation date identified in the SLA and every anniversary of such date thereafter by the percentage amount identified in the SLA. Licensor's failure to demand any such increase shall not be construed as a waiver of any right thereto and Licensee shall be obligated to remit all increases notwithstanding any lack of notice or demand thereof.

**5.3 Taxes, Fees and Assessments, Building Use Fees.** Licensee shall pay directly to the applicable Government Entity, or to Licensor if Licensor is invoiced by such Government Entity, if and when due, all taxes, fees, assessments or other charges assessed by such Government Entity against the Equipment or Licensee's use



Licensee shall indemnify, defend and hold Licensor, and Licensor's affiliates, subsidiaries, directors, officers, managers, employees and contractors, harmless from and against any claim, action, damages, liability, loss, cost or expense (including reasonable attorney's fees), resulting from or arising out of (a) Licensee's or any of Licensee's contractors', subcontractors', servants', agents' or invitees' use or occupancy of the Site, (b) the use of any hazardous materials on the Site by Licensee or persons acting under Licensee, or (c) the existence of any hazardous materials on the Site caused by Licensee or persons acting under Licensee.

## **11. INSURANCE**

**11.1 General.** Licensee shall maintain commercial general liability insurance on a form providing coverage at least as broad as the most current ISO CG 0001 policy form covering its occupancy and use of Sites. The liability insurance policies (automobile, commercial general liability, and umbrella) shall be endorsed to cover Licensor, Licensor's manager (as applicable), and Landlord (as required by the terms of the Prime Lease, if applicable) as an additional insured on a primary and non-contributory basis such that the umbrella liability policy, primary auto liability and commercial general liability all apply as primary with regard to any primary and excess/umbrella liability insurance maintained by the subject additional insured on a form that does not exclude the concurrent negligence of the additional insured. All insurers will carry a minimum A.M. Best A-(FSC VIII) or equivalent rating and must be licensed or authorized to do business in the state where the subject Site is located.

**11.2 Minimum Limits.** At a minimum, Licensee shall obtain and maintain the following insurance coverage, covering itself, its employees and its agents:

- (a) statutory workers' compensation including employer's liability with the following limits: \$1,000,000 per accident; \$1,000,000 disease, each employee; and \$1,000,000 disease policy limit;
- (b) commercial general liability covering bodily injury, death and property damage (including coverage for products/completed operations, and not excluding coverage for explosion, collapse and underground exposures (XCU)), with limits not less than \$1,000,000 per occurrence, combined single limit with a \$2,000,000 general policy aggregate and a separate products/completed operations aggregate of \$2,000,000, plus umbrella liability insurance of \$5,000,000;
- (c) automobile liability covering all owned, hired and non-owned vehicles with combined single limits not less than \$1,000,000 per accident; and
- (d) commercial all risk of loss fire with extended coverage insurance covering all of Licensee's equipment and improvements at the Site.

Licensee must ensure that all independent contractors accessing Sites for or on behalf of Licensee maintain insurance as separately specified by Licensor.

**11.3 Increases to and Application of Limits.** Licensor reserves the right, no more than once every five (5) years, to require reasonable increases in the commercial general liability limits and umbrella liability limits identified above, which increases shall be reflective of then-current industry exposures. Licensor shall exercise such right by providing written notice thereof to Licensee, in which event Licensee shall become compliant within thirty (30) days after receipt of written notice of the subject increases to such limits. If

Licensee maintains insurance with limits higher than the minimum limits required by this Section 11, then such higher limits shall apply as to comply with the limits required by this Section 11. The insurance requirements in these General Terms and Conditions shall not be construed to limit or otherwise affect the liability of Licensee.

**11.4 Policies and Certificates.** All policies required to be provided pursuant to this Section 11 shall contain a waiver of subrogation in favor of Licensor, Landlord (as applicable) and Licensor's manager (as applicable). Licensee shall provide certificates of insurance evidencing said coverage to Licensor upon execution of the SLA and at least annually as the policies renew. Any failure on the part of Licensor to request the required certificates of insurance shall not in any way be construed as a waiver of any of the aforesaid insurance requirements. All policies required hereunder shall provide that the insurer shall notify Licensor of any policy cancellation not less than thirty (30) days in advance of the effective date of such cancellation, or, if such cancellation is due to non-payment of premium, not less than ten (10) days in advance of the effective date of such cancellation.

## **12. CASUALTY, CONDEMNATION**

**12.1 Casualty.** In the event that the Site, or any part thereof, is damaged by fire or other casualty not caused by Licensee, and the Site is not repaired or restored within ninety (90) days from the date of damage, if the damage is less than total destruction of the Site, or within one hundred and eighty (180) days from date of destruction, if the Site is destroyed, and the damage or destruction effectively precludes Licensee's use of the Site as authorized under the applicable SLA, then either party may, at its option, terminate the SLA without further liability of the parties, as of the date of partial or complete destruction. If, for any reason whatsoever, Licensee's use of the Site is interrupted due to casualty, Licensee's sole remedies shall be (a) abatement of the Basic Payment for the period during which Licensee's use of the Site is interrupted and (b) the aforementioned contingent right to terminate the SLA. In no event shall Licensor be liable to Licensee for damage to the Equipment or interruption or termination of Licensee's operations caused by force majeure, acts of God or acts or omissions of third parties. In no event shall the discontinuance or disruption of any utility to the Site be deemed to be a casualty for the purposes of the SLA.

**12.2 Condemnation.** If any part of the Site is taken under the power of eminent domain, Licensor and Licensee shall be entitled to assert their respective claims in accordance with applicable state law.

## **13. DEFAULT, REMEDIES, WAIVER OF CONSEQUENTIAL DAMAGES**

**13.1 Events of Default.** Each of the following shall constitute an Event of Default hereunder: (a) Licensee's failure to pay any amount due hereunder within ten (10) days after receipt of written notice from Licensor that said payment is delinquent; (b) Licensee's engagement of a contractor not approved by Crown Castle to perform Work on the Site in violation of the requirements of Section 2.4 above; (c) Licensee's breach of these General Terms and Conditions by installing Equipment or making a Modification other than as permitted hereunder as described in Section 2.6 above; (d) Licensee's violation of the Site or tower access limitations in Section 3 above; (e) Licensee's failure to stop its Equipment from causing RF interference to Licensor or other pre-existing uses of users of the Site in violation of the requirements of Section 6.2 above; and (f) either party's failure to cure any breach of any other covenant of such party herein within thirty (30) days after receipt of written notice from the non-breaching party of said breach, provided, however, such thirty (30) day cure period shall be extended upon the breaching party's request if deemed by the non-



portion thereof, except that a party to an SLA may disclose the terms of these General Terms and Conditions, any SLA or any portion thereof to (a) such party's auditor, accountant, lender or attorney, (b) such party's employees, directors, consultants, or agents who have a reasonable need to know such information and who shall agree in writing to be bound by the terms and conditions of this non-disclosure provision, or (c) a Government Entity to the extent required by regulation, subpoena or government order to reveal, disclose or publish such information. Notwithstanding the foregoing, either party may disclose the terms of these General Terms and Conditions, any SLA or any portion thereof to any of its affiliated entities, and Licensors may disclose the terms of these General Terms and Conditions, any SLA or the relevant portions thereof to (i) Landlord, if a Prime Lease applies to the Site, (ii) the manager of the Building (if applicable), (iii) any of Licensors' creditors, or (iv) third parties that are existing or potential lessees or licensees of space at the Site, to the extent such disclosure to such potential lessees or licensees is reasonably necessary for the operation, leasing, licensing and marketing of the Site. The terms that may be disclosed to such potential lessees or licensees may include terms relating to Licensee's permitted frequencies for the purposes of RF compliance tests, and terms relating to Licensee's Equipment (if any) installed, or to be installed, on the tower for the purposes of Structural Analysis.

## **22. SUBORDINATION, NON-DISTURBANCE, ATTORNMEN**

22.1 **Defined Terms.** The following terms as used in this Section 22 are defined as follows:

**"Acquiring Party"** means any person acquiring title to Licensors' interest in the real property of which the Site forms a part through a Conveyance.

**"Conveyance"** includes any exercise by a Lender of its rights under the Security Instrument, including a foreclosure, sheriff's or trustee's sale under the power of sale contained in the Security Instrument, the termination of any superior lease of the Site and any other transfer, sale or conveyance of the Licensors' interest in the property of which the Site forms a part under peril of foreclosure or similar remedy, including to the generality of the foregoing, an assignment or sale in lieu of foreclosure or similar remedy.

**"Lender"** means any and all lenders, creditors, indenture trustees and similar parties.

**"Security Instrument"** means any and all mortgages, deeds of trust or other deeds, and any similar security agreements that encumber the Site to secure the debt of Licensors.

22.2 **Subordination.** Subject to Section 22.3, the SLA and Licensee's rights under the SLA are and will be subject and subordinate in all respects to: (a) a Security Instrument from Licensors in favor of Lender insofar as the Security Instrument affects the property of which the Site forms a part; (b) any and all advances to be made thereunder; and (c) any and all renewals, extensions, modifications, consolidations and replacements thereof. Said subordination is made with the same force and effect as if the Security Instrument had been executed prior to the execution of the SLA.

22.3 **Non-Disturbance.** The subordination described in Section 22.2 is conditioned upon the agreement by Lender that, so long as the SLA is in full force and effect and Licensee is not in material default (beyond applicable notice and cure periods) hereunder, Lender, for itself and on behalf of its successors in interest, and for any Acquiring Party, agrees that the right of

possession of the Site and all other rights of Licensee pursuant to the terms of the SLA shall remain in full force and effect and shall not be affected or disturbed by Lender in the exercise of its rights under the Security Instrument.

22.4 **Liability of Parties.** Licensee and Licensors agree (a) that any Conveyance shall be made subject to the SLA and the rights of Licensee hereunder and (b) that the parties shall be bound to one another and have the same remedies against one another for any breach of the SLA or these General Terms and Conditions as Licensee and Licensors had before such Conveyance; provided, however, that Lender or any Acquiring Party shall not be liable for any act or omission of Licensors or any other predecessor-in-interest to Lender or any Acquiring Party. Licensee agrees that Lender may join Licensee as a party in any action or proceeding to foreclose, provided that such joinder is necessary to foreclose on the Security Instrument and not for the purpose of terminating the SLA.

22.5 **Attornment.** Licensee agrees that, upon receipt by Licensee of notice to attorn from Lender or any Acquiring Party, (a) Licensee shall not seek to terminate the SLA and shall remain bound under the SLA, provided that Licensee does not waive any rights that it may have hereunder to terminate the SLA, in accordance with its terms and these General Terms and Conditions, and (b) Licensee shall attorn to, accept and recognize Lender or any Acquiring Party as the licensor hereunder pursuant to the provisions expressly set forth herein for the then remaining balance of the SLA Term and any extensions or expansions thereof as made pursuant hereto. Licensee agrees to execute and deliver, at any time and from time to time, upon the request of Lender or any Acquiring Party any reasonable instrument which may be necessary or appropriate to evidence such attornment.

## **23. SURRENDER OF LICENSED SPACE, REMOVAL OF EQUIPMENT, REMAINING EQUIPMENT FEE**

Licensee shall remove all of its Equipment and other personal property from the Site prior to, and shall surrender the Licensed Space upon, the termination or expiration of the SLA. The removal of Licensee's Equipment and other personal property shall be performed in such a manner as not to interfere with the continuing use of the Site by Licensors and others. Licensee shall, at Licensee's sole expense, promptly repair any damage caused by such removal, reasonable wear and tear excepted, to the Site, to the Licensed Space or to the equipment of any third party on the Site. Should any of Licensee's Equipment or other property remain on the Site after the expiration or termination of the SLA, then:

- (a) no tenancy or interest in the Site shall result, and all such Equipment and other property shall be subject to immediate removal;
- (b) in addition to any other rights or remedies that Licensors may have hereunder or at law or in equity:
  - (i) Licensee shall, upon demand, pay to Licensors a fee equal to one and one-half (1 ½) times the monthly portion of Basic Payment (based on the amount of the Basic Payment at the time of said expiration or termination) for each month or partial month during which any portion of Licensee's Equipment remains at the Site after the expiration or termination of the SLA,
  - (ii) Licensee shall pay to Licensors all expenses that Licensors may incur by reason of such Equipment or other property remaining at the Site after the expiration or termination of the SLA, and



Licensee Site Name: N/A  
Licensee Site No.: N/A

Licensor Site Name: BRG 126 943086  
JDE Business Unit: 806355

**EXHIBIT A  
to Site License Agreement**

APPROVED ORDER

TT: E 1833970SR  
Prepared by: R. Benson  
Prepared on: 9/28/2022  
Revised on:  
CROWN CASTLE STANDARD SLA

App Rev #: 1  
LRF Rev #: 1  
MLA #: 2749326





## Configuration Review

### Antennas

MCL (ft)	ACL (ft)	TOTAL INSTALLED	PROPOSED	NOT INSTALLED	MANUFACTURER / MODEL	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)
100	100	2	0	2	0 DBSPECTRA / DS7C09P36UxD	170.40	3.00	3.15	68.00
100	100	1	0	1	0 RFS/CELWAVE / SC3-W100A	39.36	39.36	104.50	39.70

### Tower Mounted Equipment

MCL (ft)	ACL (ft)	TOTAL INSTALLED	PROPOSED	NOT INSTALLED	MANUFACTURER / MODEL	TYPE	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)
100	100	1	0	1	0 TX RX SYSTEMS / 432F-83W-01- C-110/110R/48/48R	AMPLIFIE	15.00	12.00	7.50	18.00

### Feedlines

MCL (ft)	ACL (ft)	TOTAL INSTALLED	PROPOSED	NOT INSTALLED	MANUFACTURER / MODEL	NOMINAL SIZE (in)	NOMINAL O.D. (in)
100	100	1	0	1	0 ANDREW / EW90	ELLIPTICAL	1.32
100	100	1	0	1	0 EUPEN / EC4-50	1/2	0.63
100	100	3	0	3	0 EUPEN / EC7-50A	1-5/8	1.97

## Frequencies

SVC TECHNOLOGY	EIRP (WATTS)	STANDARD FREQUENCY	TRANSMIT FREQUENCY
Other - With RF	150.00		700.000 - 800.000MHZ
Other - With RF	5128.00		11.000 - 11.000GHZ

All Receive frequencies are approved.

## Cabinets

Number of Proposed Additional Cabinets

1

## Lease Areas

Lease Area 20'0"x12'0" (240.00sq. ft.) - Proposed

### Foundation Types

TYPE	LENGTH	WIDTH	HEIGHT	SQ. FT	STATUS
Building	20'0"	12'0"		240.00	Proposed

Lease Area 8'0"x4'0" (32.00sq. ft.) - Proposed

### Foundation Types

TYPE	LENGTH	WIDTH	HEIGHT	SQ. FT	STATUS
Pad	8'0"	4'0"		32.00	Proposed

### Generators

TYPE	MANUFACTURER / MODEL	POWER OUTPUT (kW)	TANK SIZE (gal)	OWNER	LOCATION	STATUS
Diesel	GENERAC / SD050	50	250	Customer Generator	Pad (8'0"x4'0")	Proposed

## Power

Do you need Crown to supply Power?

No

Battery Backup Required?

No



Licensee Site Name: N/A  
Licensee Site No.: N/A

Licensor Site Name: BRG 126 943086  
JDE Business Unit: 806355

**EXHIBIT B**  
**to Site License Agreement**

LEVEL DRAWING

TT: E 1833970SR  
Prepared by: R. Benson  
Prepared on: 9/28/2022  
Revised on:  
CROWN CASTLE STANDARD SLA

App Rev #: 1  
LRF Rev #: 1  
MLA #: 2749326





Licensee Site Name: N/A  
Licensee Site No.: N/A

Licensor Site Name: BRG 126 943086  
JDE Business Unit: 806355

**EXHIBIT C**  
**to Site License Agreement**

**SITE PLAN**

TT: E 1833970SR  
Prepared by: R. Benson  
Prepared on: 9/28/2022  
Revised on:  
CROWN CASTLE STANDARD SLA

App Rev #: 1  
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