



# TOWN OF HUDSON

## Planning Board

Timothy Malley, Chairman

Roger Coutu, Selectmen Liaison



12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6008 · Fax: 603-594-1142

### **PUBLIC MEETING TOWN OF HUDSON, NH JANUARY 8, 2020**

The Town of Hudson Planning Board will hold a regularly scheduled meeting on Wednesday, January 8, 2020 at 7:00 p.m. in the “Buxton Community Development Conference Room” at Town Hall. The following items will be on the agenda:

- I. CALL TO ORDER BY CHAIRPERSON AT 7:00 P.M.
- II. PLEDGE OF ALLEGIANCE
- III. ROLL CALL
- IV. SEATING OF ALTERNATES
- V. MINUTES OF PREVIOUS MEETING(S)

- 11 December 2019 Meeting Minutes – Decisions

#### VI. NEW BUSINESS

- |  |                                       |
|--|---------------------------------------|
| A. Verizon Wireless Small Cell Wireless Antenna<br>CU# 01-20 | 2 North Ridge Road<br>Map 139/Lot 012 |
|--|---------------------------------------|

Purpose of Plan: to propose the installation of a small cell wireless antenna to be mounted atop an existing utility pole. Application Acceptance & Hearing.

- |   |                                      |
|---|--------------------------------------|
| B. Driveway Waiver request<br>WR# 01-20 | 15 Sunshine Drive<br>Map 149/Lot 006 |
|---|--------------------------------------|

Purpose of Request: to waive the requirements of item §193-10.C – Establishment of grades. Waiver Acceptance & Hearing.

- |  |                                    |
|--|------------------------------------|
| C. Griffin Road Lot Line Relocation<br>SB# 03-20 | 25 Griffin Road<br>Map 135/Lot 017 |
|--|------------------------------------|

Purpose of plan: to propose a lot line adjustment between lots 019 and proposed lot 017-004. Application Acceptance & Hearing.

- |  |                                    |
|--|------------------------------------|
| D. Griffin Road Subdivision<br>SB# 04-20 | 25 Griffin Road<br>Map 135/Lot 017 |
|--|------------------------------------|

Purpose of plan: to depict the subdivision of Map 135/Lot 017 into six residential lots. Application Acceptance & Hearing.

VII. OTHER BUSINESS

A. Zoning Amendments

1. Wetland Conservation Overlay District; Article IX, Wetland Conservation District; to establish a Conditional Use Permit process to protect wetlands and wetland buffers.
2. Duplexes; Article II, Terminology, §334-6 Definitions: DUPLEX; to clarify definition of Duplex buildings; Attachment 4, Table of Minimum Dimensional Requirements, to require greater lot size for duplexes than single-family homes.
3. Building Height in Industrial Zones; Article III, General Regulations, § 334-14 Building Height; to include Map 251 Lot 1, “BAE Systems” in the allowance for 50-foot building height in select industrial zones.

VIII. ADJOURNMENT

All plans and applications are available for review in the Planning Office. Comments may be submitted in writing until 10:00 a.m. on the Tuesday prior to the day of the meeting. The public is invited to attend.

POSTED: Town Hall, Library & Post Office – 12-20-19

\_\_\_\_\_  
Brian Groth, Town Planner



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## Planning Board



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### MINUTES/DECISIONS OF THE PLANNING BOARD MEETING DATE: DECEMBER 11, 2019

In attendance = X      Alternate Seated = S      Partial Attendance = P      Excused Absence = E

Tim Malley      Jordan Ulery      William Collins      Charlie Brackett  
Chair  (7:38p)      Vice-Chair       Secretary       Member

Dillon Dumont      Ed Van der Veen      Elliott Veloso      Roger Coutu  
Member       Member       Alternate       Select. Rep.

Marilyn McGrath      Brian Groth  
Alt. Select. Rep.       Town Rep.



- I. CALL TO ORDER BY CHAIRPERSON AT 7:01 P.M.
- II. PLEDGE OF ALLEGIANCE
- III. ROLL CALL
- IV. SEATING OF ALTERNATES

Mr. Ulery seated for Mr. Malley.

#### V. MINUTES OF PREVIOUS MEETING(S)

- 6 November 19 Meeting Minutes – Decisions

Mr. Coutu moved to accept the 6 November 19 Meeting Minutes (as written/amended).

Motion seconded by Mr. Brackett. Motion carried – 5/0/1 (Collins Abstained).

#### VI. CORRESPONDENCE

- A. Request to Release Corridor Impact Fees for Traffic Camera Software License by Elvis Dhima, Town Engineer (Memo dated 11-12-19).

Mr. Brackett voted to recommend to the Board of Selectman the release of \$2,252.49 from Impact Fee Account 2070-000-090, Corridor – Lowell Road Improvements for the Lowell Road and Fox Hollow Drive Intersection Project in

accordance with the written request for the same from the Town Engineer (please see attached memo from Town Engineer, Elvis Dhima, dated 12 NOV 2019).

Motion seconded by Mr. Van der Veen. All in favor – motion carried.

Mr. Brackett voted to recommend to the Board of Selectman the release of \$2,147.51 from Impact Fee Account 2070-000-702, Corridor – Zone 2 Traffic Improvements for the Lowell Road and Fox Hollow Drive Intersection Project in accordance with the written request for the same from the Town Engineer (please see attached memo from Town Engineer, Elvis Dhima, dated 12 NOV 2019).

Motion seconded by Mr. Van der Veen. All in favor – motion carried.

## VII. OTHER BUSINESS

### A. Zoning Amendments

#### a) Wetland Conservation Overlay District

Mr. Collins moved for the Planning Board to conduct a public hearing on the 8<sup>th</sup> of January 2020 for the proposed amendment to Article IX “Wetland Conservation District” to create a Conditional Use Permit process and to revise (or strike) the redundant definition of Wetland Conservation District from §334-6 “Definitions.”

Motion seconded by Mr. Dumont. Motion carried – 6/0/1 (Malley Abstained).

#### b) Duplex

Mr. Collins moved for the Planning Board to conduct a public hearing on the 8<sup>th</sup> of January 2020 for the proposed amendment to §334-6 “Definitions” to clarify the definition of “DUPLEX” and to §334 Attachment 4 “Table of Minimum Dimensional Requirements” to require a larger lot size for duplexes than single family homes, as discussed at tonight’s meeting.

Motion seconded by Mr. Brackett. Motion carried – 6/1/0 (Dumont).

#### c) BAE Building Height

Mr. Malley moved for the Planning Board to conduct a public hearing on the 8<sup>th</sup> of January 2020 for the proposed amendment to §334-14 “Building height” to include BAE Systems’ industrial park at 65 River Road in the 50-foot building height allowance currently afforded to all other industrial parks other than Elm Avenue, as discussed at tonight’s meeting.

Motion seconded by Mr. Van der Veen. All in favor – motion carried.

B. Master Plan Update

Groth updated the Board on the Outreach sessions held in November.

C. 2020 Meeting Dates

VIII. ADJOURNMENT

Motion to adjourn by Mr. Malley. Seconded by Mr. Van der Veen. All in favor – motion carried.

Meeting adjourned at 9:10 p.m.

\_\_\_\_\_  
William Collins, Secretary

DRAFT

**These minutes are in draft form and have not yet been approved by the Planning Board.**

# DERRY ROAD, HUDSON, NH 03051

## HUDSON NW SC06 NH

RECEIVED

DEC 17 2019

TOWN OF HUDSON  
PLANNING DEPARTMENT

LEASE EXHIBIT



45 BEECHWOOD DRIVE TEL: (978) 557-5553  
N. ANDOVER, MA 01845 FAX: (978) 336-5586

CHECKED BY: JX

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/20/17	REVISED ADDRESS	MR
0	02/06/17	LEASE EXHIBIT	AN

SITE NAME:  
HUDSON NW SC06  
NH

SITE ADDRESS:  
DERRY ROAD  
HUDSON, NH 03051

SHEET TITLE  
KEY PLAN

SHEET NUMBER  
L-1



KEY PLAN 1  
SCALE: N.T.S. L-1

FIELD INSPECTION DATE: 02-01-2017

APPROXIMATE COORDINATES: LAT: N42° 47' 32.89" LONG: W71° 26' 16.22"

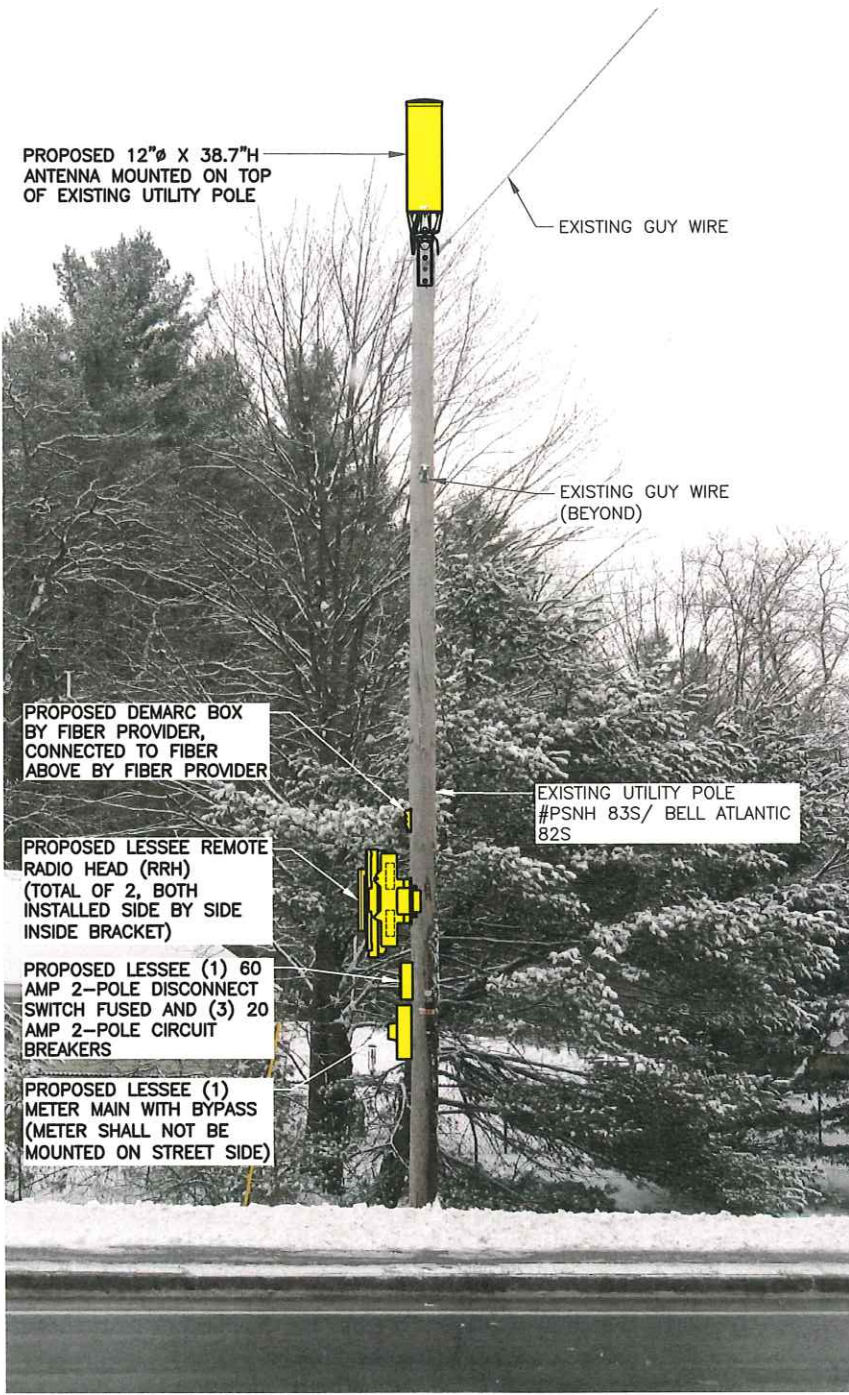
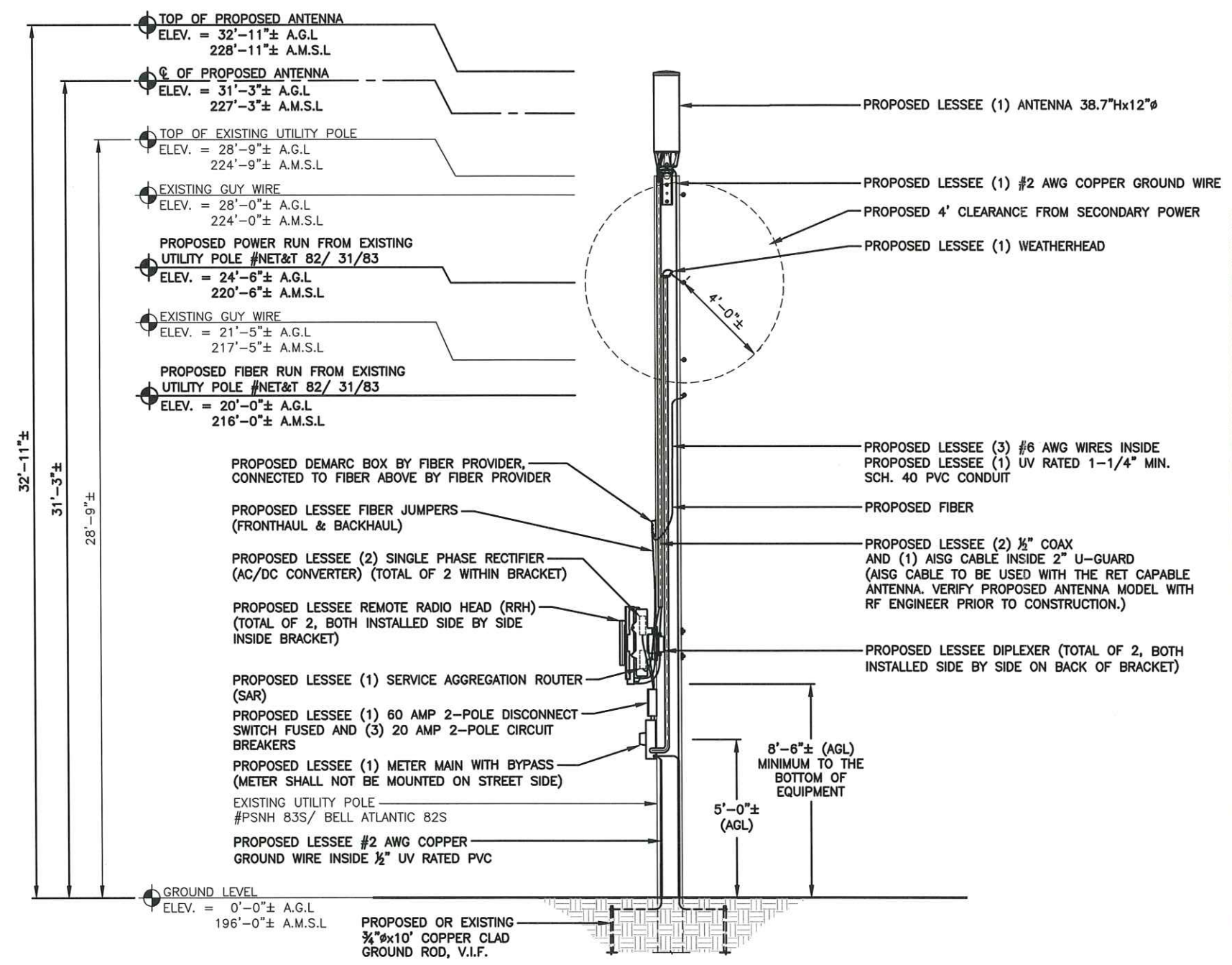
**STRUCTURAL NOTE:**  
 1. AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC. DRAWINGS ARE SUBJECT TO CHANGE PENDING OUTCOME OF A STRUCTURAL ANALYSIS.  
 2. SHOP DRAWINGS OF FINAL EXTENSION AND/OR ANTENNA MOUNT TO BE PROVIDED TO ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

**LEASE EXHIBIT:**  
 THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

APPROXIMATE COORDINATES: LAT: N42° 47' 32.89" LONG: W71° 26' 16.22"

LEASE EXHIBIT

**HDG HUDSON Design Group LLC**  
 45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586



**EXISTING PHOTO DETAIL** 2 L-2  
 SCALE: N.T.S.

CHECKED BY: JX

APPROVED BY: DPH

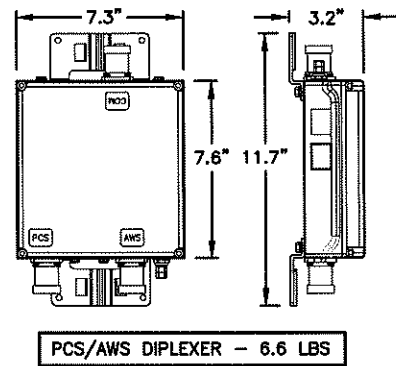
SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/20/17	REVISED ADDRESS	MR
0	02/06/17	LEASE EXHIBIT	AN

SITE NAME:  
 HUDSON NW SC06 NH

SITE ADDRESS:  
 DERRY ROAD  
 HUDSON, NH 03051

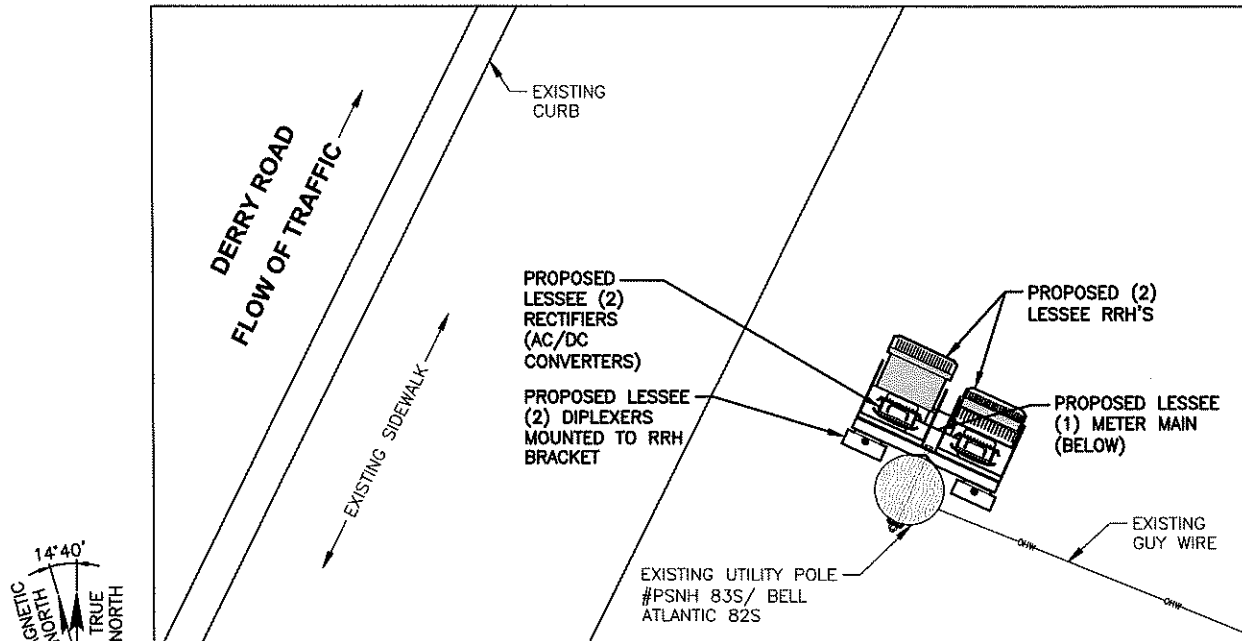
SHEET TITLE  
 ELEVATION & PHOTO

SHEET NUMBER  
 L-2

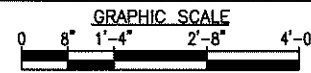


PCS/AWS DIPLEXER - 6.6 LBS

DIPLEXER DETAIL  
SCALE: N.T.S. 1 L-3



RRH PLAN  
22x34 SCALE: 3/4"=1'-0"  
11x17 SCALE: 3/8"=1'-0" 2 L-3

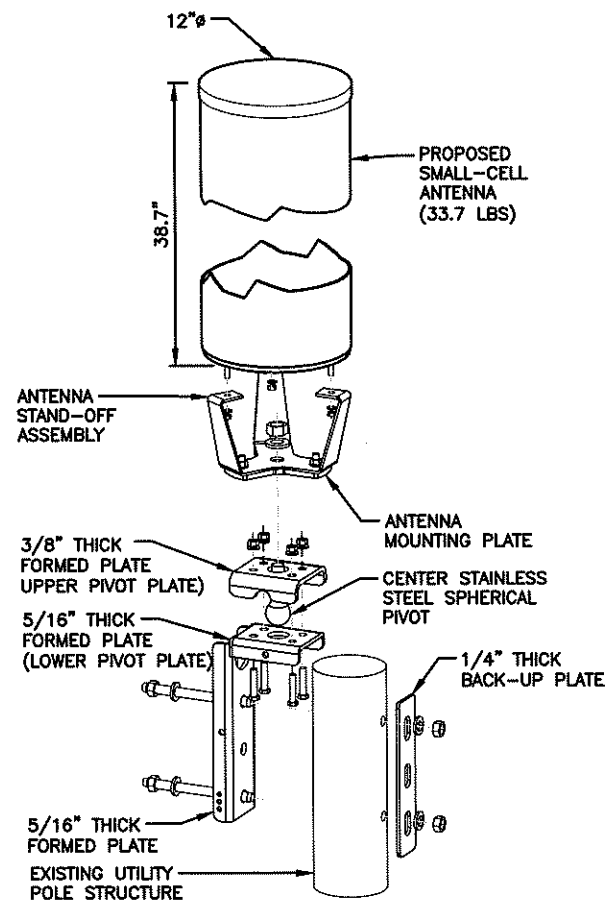


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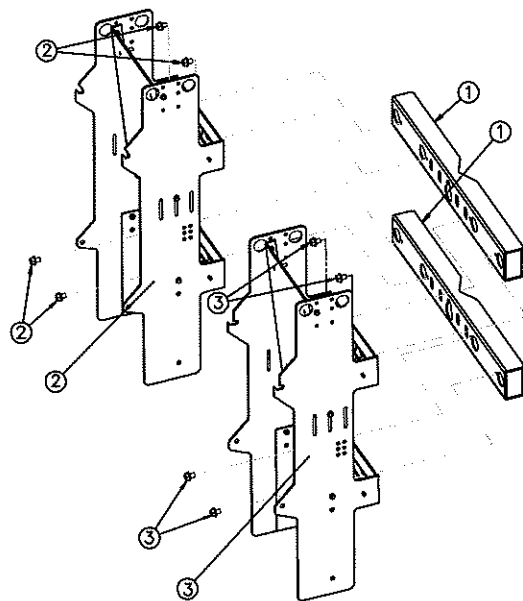
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2. SHOP DRAWINGS OF FINAL EXTENSION AND/OR ANTENNA MOUNT TO BE PROVIDED TO ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

**ELECTRICAL NOTES:**  
120-240V, 1-PHASE, 3 WIRE;  
USE MILBANK MODEL NO.:  
U2272-RL-5T9-BL METER  
SOCKET

USE SQUARE D MODEL NO.:  
Q0816L100RBCP LOAD CENTER



ANTENNA MOUNT DETAIL  
SCALE: N.T.S. 3 L-3

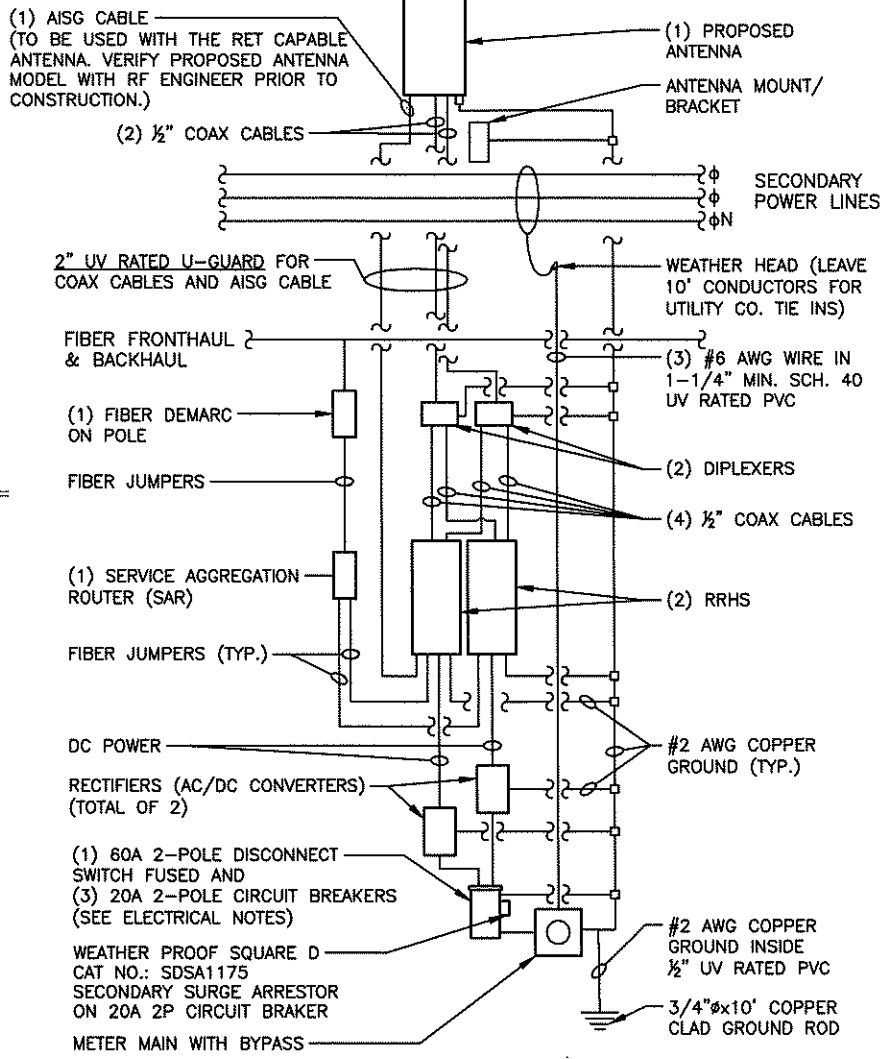
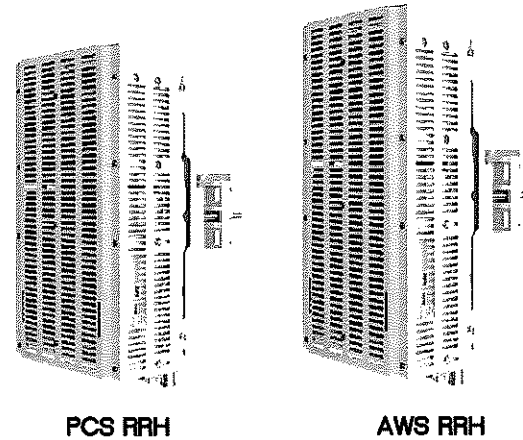


**WIRELESS CONSTRUCTION, INC.  
POLE/WALL MOUNT FOR DUAL  
RADIO BRACKET**

ITEM	DESCRIPTION	QTY.
1	MOUNT	2
2	PCS OR AWS RRH RACK W/ SUPPLIED HARDWARE	1
3	AWS RRH RACK W/ SUPPLIED HARDWARE	1

- (2) DUAL RRH BRACKET - 27"x3"x2" - 19 LBS
- (1) PCS RRH - 21.4"Hx12"Wx7.2"D - 51 LBS
- (1) AWS RRH - 25.8"Hx12"Wx7.3"D - 58.9 LBS
- (2) RECTIFIER - 14.1"Hx8.3"Wx3.5"D - 14.1 LBS
- (1) ROUTER - 2.6"Hx15"Wx10"D -
- (2) DIPLEXER - 7.6"Hx7.3"Wx2.6"D - 6.6 LBS

RRH & MOUNTING BRACKET  
SCALE: N.T.S. 4 L-3



GENERAL WIRING DIAGRAM - DUAL RRHs  
SCALE: N.T.S. 5 L-3

LEASE EXHIBIT



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CHECKED BY: JX

APPROVED BY: DPH

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
1	12/20/17	REVISED ADDRESS	MR
0	02/06/17	LEASE EXHIBIT	AN

SITE NAME:  
HUDSON NW SC06  
NH

SITE ADDRESS:  
DERRY ROAD  
HUDSON, NH 03051

SHEET TITLE  
EQUIPMENT DETAILS

SHEET NUMBER  
**L-3**



RECEIVED

DEC 17 2019

TOWN OF HUDSON  
PLANNING DEPARTMENT



CONSULTING • MANAGEMENT  
FIELD SERVICES

49 Brattle Street | Arlington, MA 02474  
Tel: 781-791-7724 | [www.structureconsulting.com](http://www.structureconsulting.com)

Benjamin C. Skillin  
Tel: 781-860-2446  
Email: [bskillin@structureconsulting.net](mailto:bskillin@structureconsulting.net)

December 17<sup>th</sup>, 2019

Town of Hudson  
Community Development Department  
12 School Street,  
Hudson, NH 03501

**Re:** Petition for Conditional Use Permit to Attach Small Cell Antenna and Supporting Equipment to Existing Utility Pole in ROW  
**Applicant:** Cellco Partnership d/b/a Verizon Wireless (“VzW”)  
**Address:** Existing Utility Pole #83S/82S, located in public right of way on Derry Road, Hudson, NH (“Hudson\_NW\_NH\_SC06”)

Dear Planning Board,

VzW is submitting herewith the enclosed Conditional Use Permit Application Package in a Public Way so that it may install, operate and maintain a “Small Cell” wireless communication antenna and supporting equipment (together, the “Small Cell”) on the above-referenced utility pole (individually the “Utility Pole”) as depicted on the plans submitted herewith. Consultant for the applicant spoke with Brian Groth, Town Planner on December 13, 2019 and was advised that an application for a conditional use permit needs to be filed with the Planning Board due to town zoning ordinance. VzW is proposing Small Cells in order to be able to provide coverage and capacity relief and improve wireless service throughout Hudson, particularly where, as here, VzW has identified areas of dense demand for its Long-Term Evolution (“LTE” or “4G”) voice and data services.

VzW is one of the nation's leading Federal Communications Commission-licensed providers of wireless telecommunications services, extending coverage to almost all of the top 100 markets in the United States. It has developed one of the largest and most reliable national wireless networks to provide wireless voice and data services to an ever-growing customer base, last counted at over 135 million, and continuously works to enhance and improve its network.

### **“Small Cell” Technology**

One of VzW's key network design objectives is to provide seamless and reliable coverage without either significant gaps or dead spots, or any inability to handle and off-load voice and data traffic, particularly in areas of high data demand. To provide this level of coverage—as required by the federal Telecommunications Act of 1996—VzW utilizes a variety of available technologies. At present, these technologies fall into three categories: (1) macro-sites, (2) small cells and Cloud Radio Access Network (“CRAN”) nodes, and (3) indoor and outdoor distributed antenna systems (“DAS”). The deployment of a particular technology in a specific location is largely dependent upon the specific network coverage/capacity needs of the area around the location, and the environment in which the technology will be used. In particular, it is critical that each technology deployed complements the other technologies already being deployed in its vicinity, in order to avoid interference and to establish a more robust overall network.

Macro-sites are the most commonly deployed wireless technology and represent a basic solution applicable to most environments, whether a busy urban center, rural area, or in between. These sites typically consist of an antenna support structure—such as a monopole or lattice tower, or a building rooftop—with three sectors of antennas intended to serve a broad geographic area around the site. Macro-sites were deployed as part of the first-generation analog networks in the 1980s. As wireless technologies have evolved through second, third and now fourth generation networks (with 5G on the horizon), the macro-site infrastructure has continued to be a vital component of FCC-licensed carriers' wireless networks because they provide the first critical layer of broad-area coverage needed to support wireless network connectivity.

Small cells and CRAN nodes are a relatively recent addition to the set of available technology solutions used to deploy wireless services. VzW's small cell and CRAN applications generally consist of a smaller, lower-power antenna (as compared to that on a macro-site) mounted on a utility pole, light pole or on- or two-story building rooftop, and are typically used to serve smaller isolated areas of heavy network usage, such as strip malls, schools, town commons and high traffic areas/intersections. These technologies operate at the same frequencies as macro-sites and their coverage areas are subject to the same impacts of surrounding obstructions, or “clutter,” such as trees, buildings and topographical variations. However, because small cells and CRAN nodes are typically deployed on shorter structures below such “clutter,” their coverage areas are limited to open line-of-sight stretches up and down the adjacent roadways, and across open areas surrounding the locations listed above.

Indoor and outdoor DAS are also used to provide coverage in discrete areas. They are typically owned and operated by third parties as a lower-powered, neutral host solution where multiple wireless carriers

“plug in” at a central head-end location. Examples of indoor/outdoor DAS systems include large sporting venues such as Fenway Park, Gillette Stadium, casinos, and major underground traffic corridors such as the central Artery Tunnel in Boston. Based on its objectives in Hudson, VzW has concluded that the proposed Small Cells are the most appropriate technology available to serve its network needs in this area at this time.

### **VzW's Proposal**

With the aim of rapidly deploying Small Cell technology throughout New Hampshire, VzW has entered into pole attachment licensing agreements with utility providers, including Public Service Company of New Hampshire d/b/a Eversource and Consolidated Communications, among others, which allow for the installation of compact Small Cell antennas on utility poles throughout the Commonwealth.

The proposed Small cell will primarily consist of a 38.7” tall by 12.0” wide canister antenna. The antenna for Hudson\_NW\_NH\_SC06 will be top-mounted on the Utility Pole as depicted in the submitted plans. The antennas are designed to resemble a traditional electric transformer, so that it will be virtually indistinguishable from electric transformers already located on utility poles throughout the area. Additional supporting equipment—a remote radio head, electrical junction box and meter, and fiberoptic and power connections—will be mounted to the exterior of each Utility Pole, resulting in a self-contained small wireless facility without the need for further infrastructure. With respect to visual impacts, this equipment is substantially similar to the equipment of electric, telephone and cable utility providers.

The strategic integration of small cell antenna technology is a surgical approach to the continued deployment of Verizon’s existing LTE and AWS networks in Hudson and throughout New Hampshire, particularly in those areas of high data traffic. When Small Cell antennas are strategically placed throughout a targeted geographic area, the end result is an overall increase in performance and efficiency, both within the target area and the network as a whole.

The proposed location is intended to address a gap in service by providing adequate capacity and coverage improvement to the roadways, businesses, and residential areas immediately surrounding the Pole. The Small Cell will address the high wireless usage in those locations, while also freeing up network capacity elsewhere in the area, as macro sites that currently need to provide service to those locations can use the relief to provide better wireless service to other high usage areas.

Improved wireless access provides enormous economic benefits to communities. Because of wireless technology, it is easier to start a business today than it ever has been, as entrepreneurs can market, buy inventory, accept payments, and keep in touch with customers from their phones, wherever they go. Similarly, wireless access lets consumers research potential purchases in real time while shopping. Most importantly, a robust wireless network is vital to ensuring that residents, visitors, and businesses in Hudson have entirely reliable access to public safety and that public safety is always connected to the services they need to save lives while working in the field.

Following installation, VzW technicians will monitor and occasionally visit the pole sites for maintenance purposes. Except for standard electrical service, the installations will not impact utilities, schools, traffic or other municipal resources. Because there is no generator or HVAC unit, the Small Cell will not create any noise or vibrations.

The following table summarizes each proposed installation.

<b>Site Name</b>	<b>Pole #</b>	<b>Approximate Location</b>	<b>Antenna Dimensions &amp; Mount</b>	<b>Existing Pole Height</b>	<b>Overall Height</b>
Hudson_NW_NH_SC06	83S/82S	Derry Road	38.7" x 12" Top-mount	28'9"	32'11"

**Materials Enclosed**

We have enclosed our check payable to the Town of Hudson in the amount of \$180.00 for the conditional use permit filing fee & advertising fee, as well as the originals and (2) copies of the following materials for your review.

- 1.) Conditional use permit application (2);
- 2.) A zoning determination form (2);
- 3.) Direct and indirect abutters list with postage fees (2);
- 4.) Two (2) sets of plans sized 11"x17" for Hudson\_NW\_NH\_SC06 prepared by Hudson Design Group, LLC, dated December 20, 2017;
- 5.) Two (2) sets of plans sized 8 1/2"x11" for Hudson\_NW\_NH\_SC06 prepared by Hudson Design Group, LLC, dated December 20, 2017;

### **FCC Shot Clock**

The Telecommunications Act of 1996 provides that a local government “shall act on any request for authorization to place, construct, or modify personal wireless service facilities *within a reasonable period of time* after the request is duly filed” (emphasis added). In 2009, the FCC issued Ruling No. 09-99, which provides specific time periods defining what constitutes “a reasonable period of time.” For collocations on existing structures, a municipality has 90 days from the date an application is received by the municipality to process and reach a final decision on that application. However, since then the Federal Communications Commission has published 2018 FCC Order, which clarifies the proper standard of review for courts and municipalities to use when considering whether denial of a small cell antenna application would prohibit or have the effect of prohibiting the provision of personal wireless service. For the town’s benefit, a copy of the 2018 FCC order is enclosed and a brief summary of some of the relevant changes is below.

The 2018 FCC Order establishes that municipalities have 60 days from the date an application is received to review a proposed small cell on a pre-existing structure. This revises the shot clock for small cells, as before the 2018 FCC Order, and as previously stated above, municipalities had 90 days to review applications.

The Planning Board is receiving this complete petition on December 17, 2019. Sixty (60) days from that date is February 15, 2019 and, therefore, the planning board has until Monday, February 17, 2019, to reach a final decision on this petition.

### **Conclusion**

The proposed Small Cells are the least intrusive means available to address an identified coverage gap in the above-described area of dense demand for VzW’s LTE voice and data services in Hudson. The Small Cells will provide enhanced service to this area while avoiding the aesthetic impacts of a traditional wireless facility such as a monopole tower.

Please place this conditional use permit application on the agenda for the next available Planning Board meeting. Thank you for your timely attention to this matter. If you should have any questions regarding the enclosed materials, please do not hesitate to contact me directly.

Very truly yours,

Benjamin Skillin

BCS