



OLD NORTH BRIDGE

TOWN OF CONCORD FIRE DEPARTMENT

209 WALDEN STREET
CONCORD, MASSACHUSETTS 01742

To: Kerry Lafleur
From: Thomas Judge, Fire Chief
Date: December 20, 2022
Re: Poor Cell Coverage in Town

Dear Kerry,

This letter is regarding the poor cell coverage in Town including the downtown area. Town staff have been aware of the cellular coverage issue for several years. The lack of reliable cell service has a negative impact on the operation of the Fire Department.

Recently while working at the town's annual holiday event in Concord center, I was unable to communicate by phone with other staff working at the event, which necessitated face-to-face meetings. This example, while not very dramatic, illustrates the difficulty working in Concord center and in the event of an emergency in Concord center, Fire Department access to cell service is critical – like all emergency services we have become heavily reliant on reliable data for mission critical information. Pre-incident planning is stored in a cloud-based environment and access to that data is imperative to guide decision making. Examples of information contained in preplans includes unique occupancy hazards, structural hazards, storage hazards, building photos, sketches, unusual fire loads, fire sprinkler connections and sprinkler system information, fire alarm system information nearest hydrants, water main sizes, projected fire flow needed based on involvement in fire, utility shutoffs, emergency contact numbers

Another area of concern is the lack of reporting infrastructure around the centers, starting in the 1990's and extending into the early 2000's the fire department converted from a hardwired fire alarm box system to a radio fire alarm system. The impact of this in areas that do not have reliable cell service is that once familiar "street boxes" are no longer available. In the past, any emergency could be reported simply by pulling the hook on a fire box and waiting for the fire department to arrive. The cost of maintaining those systems and the prevalence of cell phone service caused the town to move to a radio system. The subsequent reduction in reliable cell phone service has now created the situation that there is no way to report an emergency other than moving to a spot that has cell service.

Thank you for asking my opinion on cell coverage in Town and whether and to what extent it has impacted town operations. We look forward to working together to improve this critical service for the Town.

Sincerely,

A handwritten signature in black ink that reads "Thomas M. Judge". The signature is written in a cursive style with a large initial 'T'.

Thomas Judge
Fire Chief



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

To: Kerry Lafleur

From: Jason Bulger, Chief Technology Officer

Date: January 11, 2023

Re: Cellular Coverage in Town

Dear Kerry,

This letter is in regard to the poor cell coverage in the Town of Concord. Staff and residents have been aware of the cellular coverage issue for several years, but I wanted to take a moment to document the impact of this on our Broadband operations.

As you know, Concord Broadband offers high-speed internet through a fiber-to-the-home solution to residents and businesses throughout the municipality. This requires our staff visit every foot of Town to install or provide service calls to customers. In most of these locations, the customers do not yet have internet service, so our staff must rely on the cellular network to communicate with other staff and connect remotely to our software to make adjustments or provision accounts.

At times, unfortunately, our staff have to leave a customer's premises and drive to a location where they have adequate cellular coverage to make a software change or send a message, and then drive back to the customer. This results in slower service and unhappy customers. It also slows down our operations and directly impacts our revenue since a customer who has to wait for an installation often chooses other providers.

Here are a few additional impacts that elaborates on the overall sentiment:

1. Customers we visit or speak with on the phone, who are often people who just moved to Concord, lament the poor cellular coverage in Town and often ask staff why it's so bad and what is being done to fix it. They find this infrastructure lapse frustrating and impactful.
2. Concord Broadband has mobile devices on multiple carriers (incurring unnecessary monthly costs) in order to have a higher chance of success when it comes to provisioning new customers or contacting other staff.
3. In a given week, our Telecom Technicians report that up to 50% of the truck rolls result in a situation where they cannot adequately perform the essential functions of the job due to the poor cellular coverage.



TOWN OF CONCORD
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4. Because Telecom Technicians cannot access a mobile data network almost daily, we need to keep other staff at a desk in the office to offer assistance after getting a call or text messages (which works more reliably than mobile data). If every location in Town had adequate cellular coverage, this would not be required.

I appreciate the effort to improve coverage in Concord. I know that you and many other staff have been engaged in a lengthy effort to gain momentum to effect positive change. If there's anything I can do to help, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Bulger". The signature is fluid and cursive.

Jason Bulger
Chief Technology Officer
Town of Concord
<https://concordma.gov/broadband>



CONCORD PUBLIC WORKS

135 KEYES ROAD
CONCORD, MASSACHUSETTS, 01742-1601

ALAN H. CATHCART
DIRECTOR

TEL: 978-318-3201
FAX: 978-287-4762

To: Kerry Lafleur
From: Alan Cathcart, Director
Date: January 13, 2023
Re: CPW – Cell Service Coverage Issues

Dear Kerry,

The memo is an update to long-standing communication challenges Concord Public Works (CPW) has endured while performing emergency services as well as day-to-day operations attributed to poor cellular service within the Town of Concord. Whereas, I appreciate your desire to understand CPW impacts in order to inform your understanding of broader community needs interests, I offer some specific examples of how such communication constraints have impacted our operations.

Sawmill Culvert - Emergency Response/Repair:

In the Spring of 2021, CPW responded to an emergency failure of a culvert running under Monument Street. While first responders attempted to mitigate imminent public safety threats, based on the location of this failure, field personnel and supporting managerial staff were unable to communicate using cell phones because of poor cellular service. The emergency response occurred over a period of several days with cellular communications being problematic throughout. Once the site was stabilized, the actual repair of the culvert required a multi-month effort involving specialized contractors, town operations support, traffic safety officers, and third-party inspectors. Again, the lack of cell coverage in this immediate area compromised communication efforts for all involved.

Winter Storm Response Operations:

Concord Public Works is responsible for maintaining the Town's transportation network, including streets, sidewalks, curb ramps, and parking areas during winter storm periods in a condition that allows for safe and convenient vehicular and pedestrian use by the general public, commerce, and emergency services. A sustained snow event will require mobilization of a large fleet of equipment and personnel, including municipal employees and third-party contractors. As conditions change and time-sensitive response needs arise,

there is a constant need for reliable communications between equipment operators, field supervisors, and CPW's snow response dispatch center. While two-way radio communications have historically supported such communications – not all equipment can be furnished with two-way radios and third-party contractors do not generally have such equipment. As such, the use of cell phone communications has become the standards default. As anyone familiar with the cell phone connectivity issues identified in specific areas of Town, operators assigned to specific routes do not have the ability to use their cell phones for time-sensitive communications.

Hubbard Street – Complete Street Construction Project:

Throughout the summer of 2021 and 2022, public works coordinated underground utility and roadway reconstruction efforts along Hubbard Street. Regrettably, this neighborhood is known to fall in an zone with very poor cellular service. Throughout this multi-year project, the lack of reliable cell service coverage introduced ongoing communication issues impacting a number of third-party construction contractors, field inspectors, traffic safety officers, and off-site support services routinely provided through their respective management and administrative groups, as well as vendors.

Water/Sewer Production Facilities:

Two of Concord's water supplies, the Jennie Dugan well and the Second Division well, are located in areas of Town where cell service is intermittent to poor. As these facilities require daily site inspections and routine and non-routine service to keep them operational, the lack of reliable cellular service routinely compromises communication needs between field personnel, supervisors, and specialized service providers (including mechanical, electrical, and instrumentation technicians).

As a manager responsible for assets located throughout Town, I routinely use my time while performing field inspections and site visits to engage in cell phone communications with staff, residents, third-party consultants, regulators... Hands-free technology enabled with cell phone use has been incredibly helpful while performing this work. I routinely find myself being disconnected from such calls.

While some may dismiss poor cell phone service encountered in certain areas of town as a mere inconvenience, I remain concerned that less than reliable service can and does have a more serious consequences for both CPW employees and the Town. I trust these few examples of service challenges identified within the operations of CPW can help you characterize the broader needs and interest of the community as you attempt to tackle this very real problem.

CONCORD POLICE DEPARTMENT

MEMORANDUM

TO: Kerry A. Lafleur, Town Manager

FROM: Thomas M. Mulcahy, Interim Chief of Police

DATE: January 17, 2023

SUBJECT: ***POLICE DEPARTMENT-CELL SERVICE COVERAGE ISSUES***

Dear Kerry,

This memo is to update you on the long-standing limited cell phone service in the downtown area and other areas throughout town, as it continues to be a public-safety issue in our community. Concord Police staff are faced with daily challenges conducting day-to-day operations due to this ongoing problem with poor cellular service. Staff have been unable to make cell phone calls or stay connected on cell calls in the Concord center area, impacting effective communication, and limiting communication during major events in and around Concord center and during emergency operations. The lack of reliable cellular service in Monument Square creates challenges for CPD staff who need to seek different, adjacent locations to communicate in a timely manner to Command Staff during certain operations, such as the Patriot's Day parade, Memorial Day exercises, and the Christmas tree lighting event. The lack of cellular service requires them to relocate in order to communicate and update staff regarding on-going matters or incidents. The inability to communicate in emergency situations is of great concern to this department and puts a strain on operations if emergencies arise in these areas. Not only does it create a challenge for staff in its response to calls, but also for the public in reporting emergency matters. Members of the public and police officers must seek out a better location, which is not always practical, to report an emergency or communicate updates in this area. Given the current climate, it's critically important that department staff have access to reliable cellular coverage for planning, communicating to other staff, and to Public-Safety Dispatchers, who disseminate information to Police Officers in the field.

Poor coverage zones in other areas of Town hamper effective communications for day-to-day operations as well. Access to critical information is limited in the Main Street, Walden Street, Keyes Road, Hubbard Street, Thoreau Street, and Sudbury Road areas. Poor cellular coverage in these areas also effect cruiser computers and department cell phones. Officers rely on good cellular service to obtain information for operations, such as vehicle registrations, information on individuals, and for issuing electronic citations.

Other areas of concern that have limited cellular service are the campus at Concord-Carlisle Regional High School, Sudbury Road by Seven Star Lane, Route 126 at Walden Pond, and Fairhaven Hill Road.

I appreciate the opportunity to provide some examples of the communication challenges our department faces daily, with hopes of improving the situation for better cellular service and coverage in the near future.