



Dear Mr. Sikoff,

On behalf of Transit Wireless, LLC, we are pleased to present this comprehensive proposal for a Mobile Telecommunications franchise in response to the RFP for the installation and use of telecommunications equipment and facilities, including base stations and access point facilities, on city-owned street light poles and traffic light poles. Transit Wireless' extensive experience designing, deploying, and operating our wireless network throughout the Metropolitan Transportation Authority's ("MTA") New York City Transit ("NYCT") underground subway stations serves as a case study for our capabilities and the efficiency of our design solutions for connectivity in proving our eligibility and effectiveness in fully utilizing a mobile telecommunications services franchise ("MTF") if granted by New York City's Department of Information Technology and Telecommunications ("DoITT"). Transit Wireless' solution delivers:

- **Neutral host design** supporting the extension of cellular voice and data connectivity of our partners, the four major national wireless carriers: AT&T, Sprint, T-Mobile and Verizon Wireless (collectively, "Wireless Carriers")
- **Experienced construction planning** and execution, following all City and State government procedures utilizing vetted and certified partners
- **Future-proof design** options for carrier, network, and public application enhancements
- **Favorable deal terms** to DoITT in accordance with RFP Section 5

Our technical proposal and qualifications are driven by our proven capability to design and deliver seamless wireless connectivity to the Wireless Carriers. Our Installation, Operational, and Managerial capabilities are demonstrated by our previous work on behalf of NYCT to design, build, own, operate, and maintain a full-scale Wireless Communications ("WiCom") Network throughout the subway system footprint in compliance with government construction rules. Our compensation proposal and qualifications are anchored by our strong, collaborative pre-existing partnerships with the Carriers.

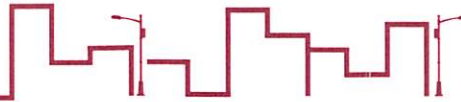
We appreciate the opportunity to deliver this proposal to you, fully aligned with DoITT's Mobile Telecommunications Services Franchise RFP Requirements. Please let us know if you have any questions, or if additional information is required. Transit Wireless would be happy to meet and discuss prospects here in more detail.

Thank you,  
**Melinda White, CEO**









Transit Wireless, in partnership with the MTA, built a highly reliable 160-mile fiber network following the path of the New York City Transit Authority subway system. This network delivers wireless connectivity to all 282 underground subway stations in New York City. In order to provide wireless connectivity in the above ground subway stations, over the next 2 years, Transit Wireless is investing in an additional 110 miles of fiber to the network. Transit Wireless would like to work with DoITT and the City of New York to leverage this network in support of the "Connected NYC" initiative to enable delivery of affordable broadband services to underserved residents and businesses throughout Manhattan, Brooklyn, Queens and the Bronx. The following proposal outlines two pilot programs designed to demonstrate the significant value created by expanding the services Transit Wireless provides via our existing and growing fiber network in NYC.

## TRANSIT WIRELESS UNIQUE VALUE PROPOSITION

- **Fiber Rich.** Strategically placed fiber available across New York City ("NYC").
- **Neutral Host Provider.** Strong relationships with "last mile" providers (Carriers and Internet Service Providers) who deliver communications services to the end user (transit riders, residential/commercial).
- **Trusted, Proven Partner.** Our customers include the MTA, all of the major wireless carriers who view Transit Wireless as their operator of choice, and the transit riders across NYC who depend on us to bring connectivity to their commute.
- **Solid Reputation** based on the quality, security and reliability of our IP network, our engineering, deployment and operational skills combined with the level of customer service we deliver.
- **Local Team.** Our team brings deep experience designing, building and operating Wi-Fi and fiber networks delivered by an NYC-based technical team comprised of optical, data, field and RF and mechanical engineers.

## FEDERAL COMMUNICATIONS COMMISSION ("FCC"):

Transit Wireless is an industry leader in the design, deployment, and operation of advanced communications network solutions in unique environments for public, private, and business enterprises. Transit Wireless specializes in designing, building, and operating indoor and outdoor neutral host and multi-band DAS networks to enable cellular connectivity in areas with insufficient coverage as well as venues that require increased capacity. Through innovative technologies and engineering for wireless, Wi-Fi, colocation, and fiber networks, we cost-effectively enhance consumer, business, and public safety connectivity.

Transit Wireless designed, built, owns and operates one of the largest neutral-host wireless networks in the world within the New York City subway system. To eliminate the potential for equipment and signal interference with the MTA, the WiCom network maintains off-site operations while delivering redundant pathways and network support to services linked to MTA operations. The Transit Wireless Data Centers or Base Station Hotel's (BSH) house both Wireless Carrier and MTA-owned equipment at secure, distributed facilities while maintaining all cross-connections. Transit Wireless has proven its capable of effectively serving as the single point of contact for the MTA in deploying all licensed cellular services, Wi-Fi and public safety wireless services. In addition, the Transit Wireless team provides construction management services for the MTA and other businesses throughout



the transit system. New York City has the largest density of wireless users, and our existing underground subway wireless network provides connectivity to more than 1.7 billion passengers annually. Our existing network facilitates several transit operational applications through the deployment of connected services to all active underground stations in the subway system, with services expanding to above ground stations and across all lines. Transit Wireless has deep experience working with governmental agencies and works diligently to maintain good standing with all parties .

#### **FEDERAL COMMUNICATIONS COMMISSION (“FCC”):**

Transit Wireless has direct experience working with the FCC in various capacities in order to support our networks and the needs of the wireless customers .

In addition, Transit Wireless has worked with the MTA to deliver the network’s FCC-regulated 4.9GHz dedicated public safety band for their public safety communications. All equipment used by Transit Wireless for implementing our WiCom Network on is FCC-certified. We also have experience working with the Underwriter’s Laboratory (“UL”).

#### **STATE OF NEW YORK AGENCIES:**

Transit Wireless partners with the MTA, a state-regulated agency on all aspects of the WiCom Network for NYCT . New York Historic Preservation: Transit Wireless works closely with transit and NYC historical offices to ensure the design and installation in historic stations is in accordance with regulations.

#### **CITY OF NEW YORK AGENCIES: DOITT/ECS/VERIZON UNDERGROUND**

Through Transit Wireless’ existing franchise agreement with New York City Transit, we are able to make a direct impact on the City of New York. As a result, Transit Wireless maintains consistent and open lines of communications with New York City government officials to address any WiCom Network-related concerns that may arise. Delivering a comprehensive and secure WiCom Network infrastructure in NYC requires Transit Wireless to have a regular and collaborative relationship with NYC’s Department of Information Technology and Telecom (“DoITT”). Other city-regulated entities with which we partner include Verizon Underground and Empire City Subway.

- Verizon Fiber – for fiber pulls in Brooklyn & Queens (applications, engineering drawings submitted)
- Empire City Subway (ECS) – for fiber pulls in Bronx & Manhattan (applications, engineering drawings submitted )

#### **NYPD:**

Transit Wireless has developed and maintains a strong relationship with the NYPD for purposes of supporting first responder communications through:

- Transit Wireless was directly involved in the installation and network support of the ubiquitous Help Point intercoms throughout the subway stations.
- Execution of 4.9 GHz Public Safety band
- The future-proof network is ready to expand operational support to include FirstNet, 700 MHZ LTE public safety band as well

### **DOT:**

To bring our fiber from the BSH's to NYCT subway stations above and below ground, Transit Wireless has deployed fiber through the conduits that run under New York City streets. Transit Wireless commissioned expeditors to file DOT permits to allow our work, as well as hired NYC certified and recognized contractors with experience in filing such permits to execute the required work.

### **THROUGH THE NYC DOT, TRANSIT WIRELESS HAS EITHER FILED OR SUPPORTED THOSE FILED ON OUR BEHALF, PERMITS FOR THE FOLLOWING:**

- Street Opening Permits required for excavations or other work in a city street (or sidewalk) that disturbs the street surface (i.e. trenching for fiber)
- Place Material on Street
- Crossing Sidewalk
- Place Crane Or Shovel On Street (with inspections)
- Place Equipment Other Than Crane Or Shovel
- Franchise Installations (Overhead Structures)
- Temporary Pedestrian Walk
- Occupancy Of Roadway As Stipulated
- Occupancy of Sidewalk As Stipulated necessary for 280 stations to create POE conduits to the station for WiCom (exclusive of stations with pre-existing POE)
- Occupancy of Street As Stipulated
- Lane Closure Permits 32 lane closure permits to do track crossing under elevated structures in BX BK QNS. (employing TAP electric) "Occupancy of Roadway".

### **NEW YORK STATE DOT:**

Transit Wireless also worked with NYS DOT to secure permissions while working in Queens laying fiber ducts for connection to the number 7 line. The work carried on across the Van Wyck Expressway, with permissions granted to excavate along this roadway to build new connection points.

### **OCCUPATIONAL HEALTH & SAFETY ADMINISTRATION ("OSHA"):**

In accordance with MTA and governmental agency requirements, Transit Wireless fully complies with all OSHA regulations for safety and inspection.

### **LANDMARK PRESERVATION:**

During the buildout of the network and provisioning of services to historic stations, our team has regularly consulted with the MTA NYCT Historic Preservationist office of their Capital Program Management. Transit Wireless takes care in all aspects of its installations to minimize disruption as well as camouflage equipment to the extent technologies and designs allow. All work was approved by New York State's Historic Preservation Office (SHPO).





Transit Wireless’s WiCom Network demonstrates our unique capabilities in the design and construction of a network to meet current and future demands of the wireless marketplace in unique public environments. Our networks deliver scalable cellular coverage to the public with sufficient bandwidth to support extensive future data consumption. The technical designs we implement deliver sufficient capacity for extensive bandwidth coverage for dedicated services and future technology needs.

Transit Wireless is a subsidiary of BAI Communications (BAI), a global company that designs, builds and operates highly available communications networks – broadcast, cellular, Wi-Fi and public safety. BAI has an unparalleled track record across the globe in delivering secure, future-proof telecom solutions. We custom design each network to suit the local environment. Transit Wireless’ solution is technologically proven by our sister company, Broadcast Australia. Broadcast Australia rolled out an extensive radio network in around Melbourne’s dense urban and residential environment. Equipment had to meet rigorous environmental and aesthetic standards, the installation had to be done in consideration of the population and in areas that would not impact daily life and deliver strong service no matter the location.

**ORGANIZATION**

Transit Wireless built a team with the expertise and experience to engineer, design, construct and maintain common in- station, tunnel and on-train communications systems to meet current and future communications needs for all stakeholders requiring connectivity. The company has significant internal staff augmented with contractors and vendors that are exclusively focused on building infrastructure within the NYC subway system supporting multiple mission critical communications systems. Our company is led by seasoned management providing oversight to an experienced team consisting of professional civil, mechanical, electrical, RF, network engineers, project manager and operations specialists.



Image 1 - Transit Wireless org structure



The company has demonstrated extensive technical and financial capability to perform a project the size and complexity of the MTF – specifically in the vibrant urban environment of New York City. Through our public-private partnership model, our network infrastructure was delivered at no cost to taxpayers, with additional service capabilities for the MTA NYCT negotiated by project with new agreements.

Transit Wireless' design and construction teams took extreme care in the solution development to take into consideration the physical, scheduling and labor constraints associated with an MTA-based project, while still delivering the WiCom Network ahead of schedule and under budget. Transit Wireless worked with MTA teams across the board – from officials responsible for historic station preservation to station safety officials. Working with MTA labor teams, Transit Wireless developed look-ahead plans for work authorizations and MTA support for services such as flaggers, General Orders for track outage, and more. All Transit Wireless employees, contractors, and sub-contractors on the platforms and tracks were vetted by MTA NYCT, certified with NYCT track safety training, and Occupational Safety and Health Administration (“OSHA”) certifications. Transit Wireless worked hand-in-hand with the MTA for the smooth and efficient coordination of deliverables for the transit authority.

## **EXECUTING A SUCCESSFUL PROJECT**

Transit Wireless has a strong track record of delivering ahead of schedule and under budget, while fully compliant with all MTA requirements, specifications and regulations. Through our direct experience working with the MTA on the WiCom project, we know:

- **STRONG PARTNERSHIPS WITH GOVERNMENT AGENCIES INVOLVED IN THE PROJECT ARE CRITICAL**
  - Our experience in working closely with the MTA and the Wireless Carriers in the framework of a Private-Public Partnership to deliver one of the most expansive and complex DAS and Wi-Fi networks in the world demonstrates the uniqueness of our focus, capabilities, technical expertise, ability to deliver, and high standards of quality and customer care.
- **TECHNOLOGY AGNOSTICISM OFFERS FLEXIBILITY AND LEVERAGING POWER**
  - As a technology-agnostic company, Transit Wireless can freely test all equipment while searching for the best solution. By focusing on industry-standards for most of our solutions, interchangeable parts and upgrades we hold distinct bargaining power with vendors.
- **FORWARD THINKING DELIVERS FUTURE-PROOFING**
  - Considerations in initial design save costs in the long run, as well as make easy network service upgrades and future-proofing for additional spectrum and capacity.
- **QUALITY OF SYSTEM IS DIRECTLY LINKED TO THE DESIGN PROPOSED**
  - Based in New York City, Transit Wireless' team is uniquely qualified to work above and below ground and below throughout New York City while building out the WiCom infrastructure. Knowledge of the volume of NYC commuter traffic and the reliance of residents and tourists on the subway system and communications networks was an advantage in our collaboration with the MTA to design and deliver the high-quality WiCom network.

### **TRANSIT WIRELESS IS A NEUTRAL HOST OPERATOR**

Transit Wireless operates as a neutral host allowing for equal connectivity for all Wireless Carriers, and must accommodate the variations in equipment between Carriers. All designs consider the technological needs of each Wireless Carrier, which is only accomplished through collaboration and joint testing.

As a technology-agnostic company, we are positioned to have our internal design and our enclosures to adapt to technology over time, whether that is to expand bandwidth, increase services, or add city utilities. Need to discuss this.





Transit Wireless hereby provides a detailed technical description of the proposed equipment, services, installation methods, operations, maintenance, and rollout schedule Transit Wireless proposes for the mobile telecoms franchise deployment.

## EQUIPMENT AND FACILITIES

Transit Wireless is proposing to install base station equipment on Street Operation Poles as shown in [Image2](#). The base stations will consist of 3 primary elements: An antenna, an enclosure, and interconnecting cabling. Transit Wireless' entire solution also includes its extensive fiber network (comprising over 160 miles of dark fiber) throughout the streets of New York city and our 5 datacenter facilities to enable the wireless services described in section (ii) of the RFP.



Image 2: Transit Wireless proposed network architecture for poletop

## OVERALL FEATURES OF THE TRANSIT WIRELESS PROPOSED DESIGN INCLUDE:

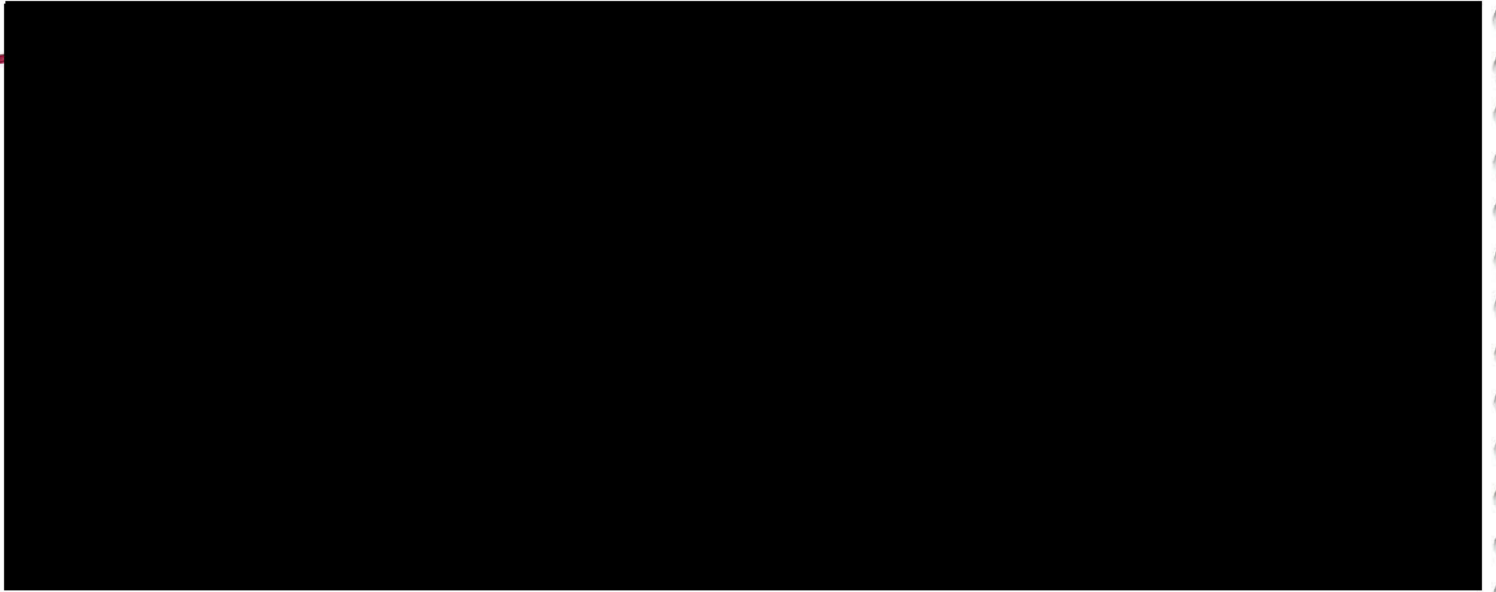
- Antenna mounted on end cap on top of pole, or side mounted
- Enclosure mounted on vertical section of pole
- Interconnecting Cables – routed inside the pole
- Structural Analysis to ensure snow loads, wind load, and the weight of other equipment commonly found on Street Poles such as traffic signals, street light luminaires, banners, or other reasonably predictable weight burdens are included.



Image 3 - Example of pole designs



1. ANTENNA



2. ENCLOSURE



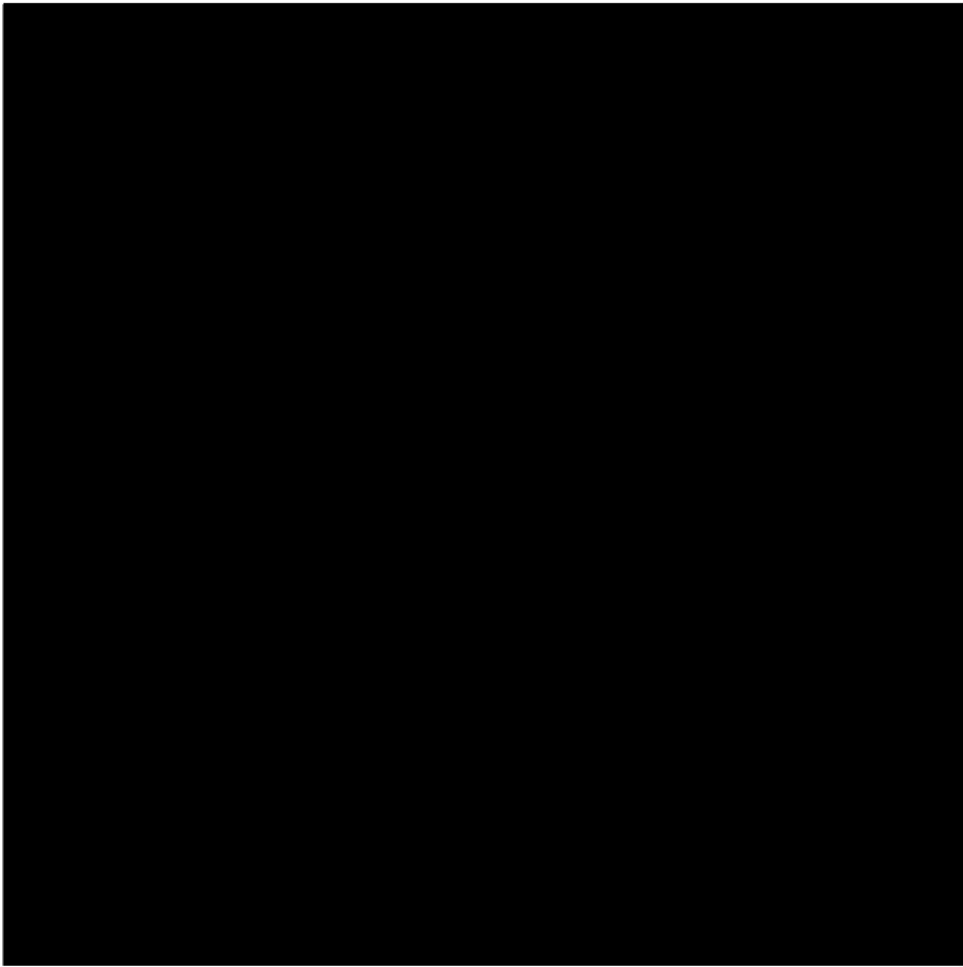
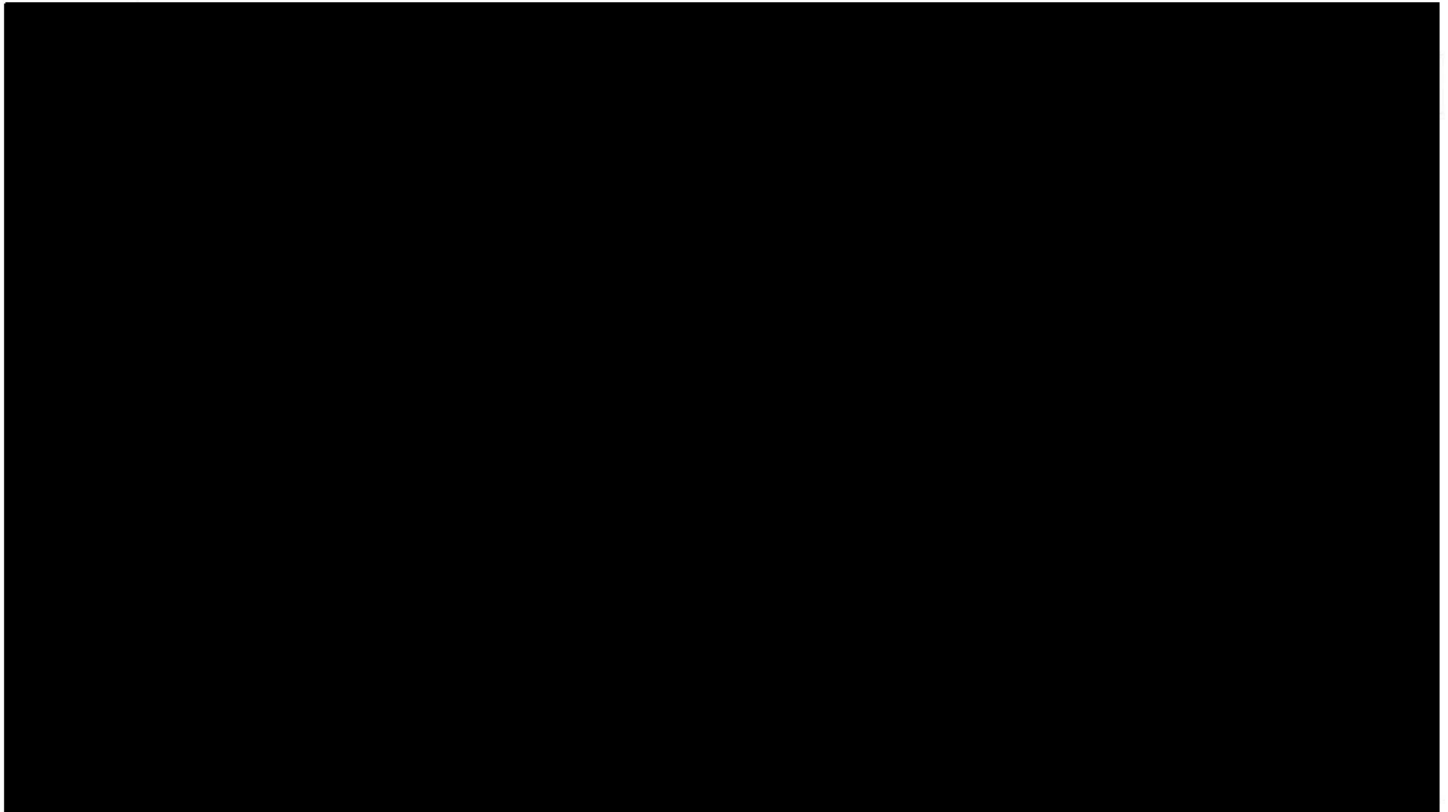


Image 6 - Enclosure schematic

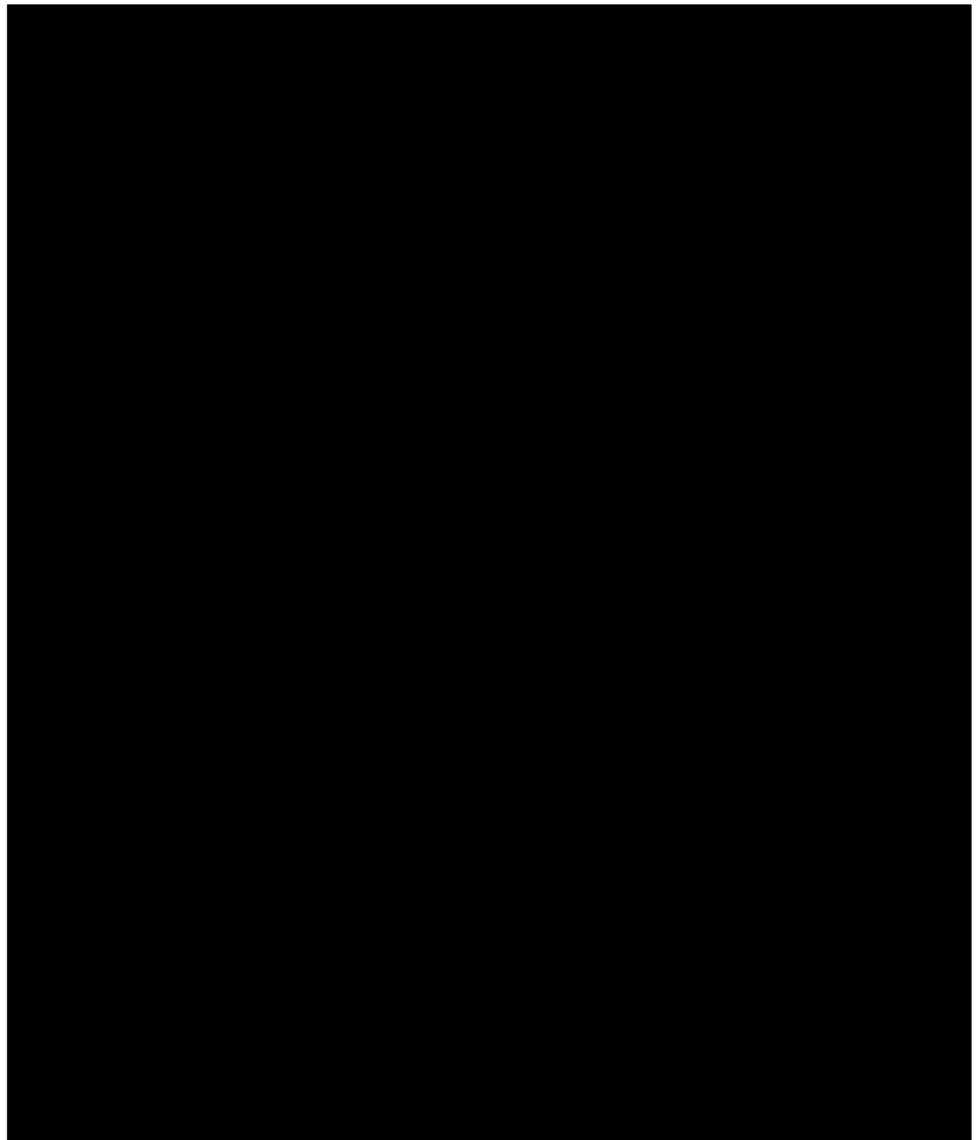
### 3. INTERCONNECTING CABLES



#### 4. TRANSIT WIRELESS DARK FIBER NETWORK

Transit Wireless' network currently has 160+ miles of fiber optic cable, spanning across New York City, currently connected to all underground subway stations to provide in-station wireless communications services that we support back to our datacenters. The Transit Wireless Dark Fiber network consists of backbone trunk fiber with [REDACTED] with [REDACTED] brought into each underground station.

The network was designed with numerous extensions in mind, including future small cell deployments. Leveraging our existing network infrastructure for our MTF solution will significantly reduce construction requirements and implementation, as well as time to market.



Transit Wireless will be deploying [REDACTED] new pole top installations either "On Net", or "Near Net". On Net installation are where the street pole is located on the same street that TW has fiber installed. "Near Net" is where TW will be required to install a short distance (typically less than 500 ft) of fiber optic cable through existing ECS or Verizon ducts.

Transit Wireless already has strong relationships with both ECS and Verizon for access to their ducts.



## 5. TRANSIT WIRELESS DATACENTERS / BASE STATION HOTELS

Transit Wireless operates five secure, strategically-located and distributed colocation/datacenters in New York City connected by a fast, high-capacity fiber network to deliver secure services for telecommunications carriers and businesses of all types with availability in Manhattan, Brooklyn, Queens, and the Bronx. The base station model involves building a secure, resilient facility that wireless carriers can install their Base Station Equipment with 24/7 secure access, redundant power, redundant cooling and access to TW's fiber network. Our colocation/data centers are highly secure facilities – inside and out – beginning with biometric and closed-circuit TV systems at entries. Both security and operations are managed and monitored 24/7, 365-days a year. Inside, our colocation facilities



Image 9 - Interior of a Transit Wireless BSH

Each location is chosen to minimize fiber lengths in each borough to various pole locations, and for its close access to power, fiber, and easy access to major transport system for quick access. Transit Wireless will utilize one of our existing BSHs that will fully serve the entire pole top footprint.

All four major wireless carriers already have significant infrastructure installed in each of our datacenters, and they can leverage this infrastructure to rapidly connect and deploy pole top installation throughout the city.



Image 10 - Proposed Base Station Installation before and after



## SERVICES

Transit Wireless' design is capable of providing cellular communication services by housing wireless carrier small cell and oDAS equipment that will broadcast their cellular signals.

### SMALL CELLS:

Small cells provide excellent quality of service and reliability. Small cell short range and ability to detect and adjust to other small cells in the area help to negate multi-cell interference.

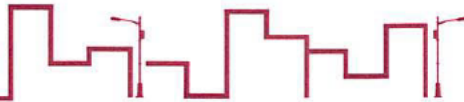
Wireless carriers are increasingly deploying small cell solutions over oDAS, with the main reason behind it is that a Small Cell has better RF performance and throughput capacity.

### SOME ADDITIONAL BENEFITS OF THE TRANSIT WIRELESS SMALL CELL SOLUTION INCLUDE:

- o Can combine multiple small cells from more than one carrier
- o Up to 4x4 MIMO – provides up to 4 x the capacity of a single input single output (SISO) solution
- o Dark Fiber front-haul network supports Centralized Radio Access Network (C-RAN) architecture and associated benefits
- o Can support multiple frequency bands – though this is dependent on which frequencies the wireless carriers want to deploy, Transit Wireless is designing the solution to accommodate – PCS (1.9 GHz), AWS (2.1 GHz) , BRS (2.5 GHz) , CBRS (3.5 GHz), and UNII (5.X GHz) frequencies
- o Each small cell is designed to only transmit the frequencies licensed to each wireless carrier, and will be independently FCC type certified as such. This assists to eliminate possibility of wideband noise and emissions that could interfere with other services and wireless carriers.
- o Each item will be tested separately and combined for low passive intermodulation (PIM), preventing the generation of spurious noise and interference that could affect other services and wireless carriers.



Image 11 - User wireless experience



The method of installation Transit Wireless employs will be dependent on the specific type of pole and the type of fiber installation required at each location. Below are the methods for attachment on typical street light poles, wooden utility poles, fiber trenching and fiber micro-trenching.

Before Transit Wireless performs any type of work on street poles or fiber trenching, Transit Wireless will obtain the necessary permits from the Landmark commission, Business Improvement District, NYC DOT, NYS DOT, Department of Parks and Recreation, Port Authority of NY and NJ, any Schools any Landmarks Preservation Commission if applicable.

## STREET OPERATION POLES

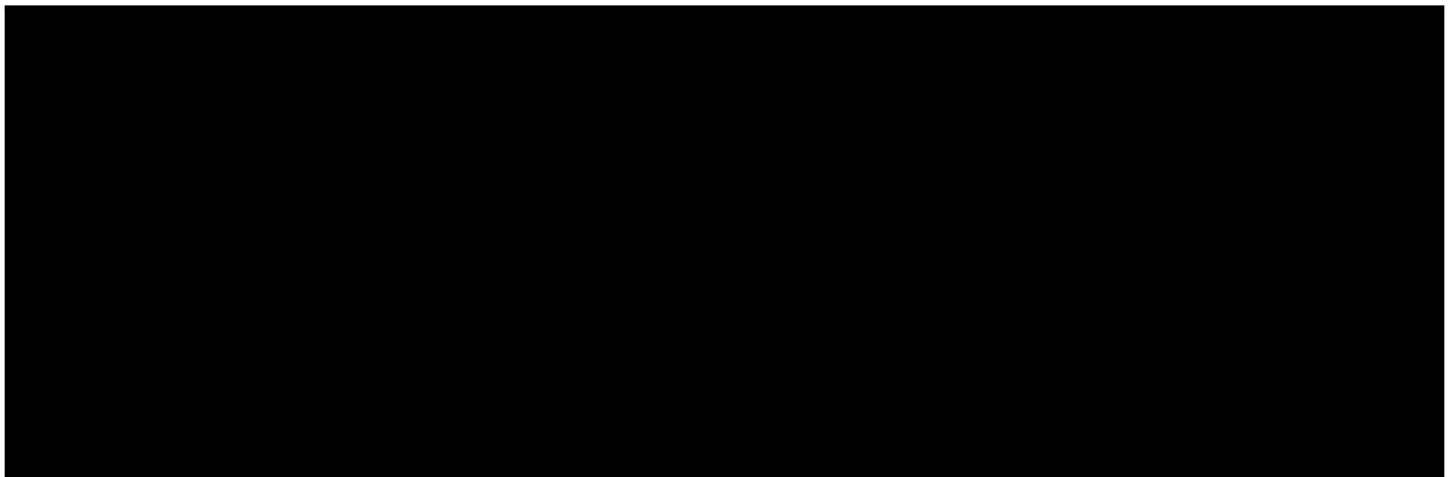


Image 12 - Transit Wireless existing fiber network transposed over train lines

### Transit Wireless will follow the general method of installation as follows:

1. Shroud bottom to be 15' 1" AGL
2. Make 2" penetration in pole to bring coax, fiber, grounds and power to equipment
3. Attach shroud to pole via Band-it banding.
4. Install coax inside the pole shaft from equipment to antenna location at the top of pole
5. Install ground cable in shaft from top of pole to the base.
6. Install power cord and fiber in shaft from the base of the pole to equipment in the shroud.
7. Remove pole cap at top of the pole and install pole top mount.
8. Attach cables to antenna and mount antenna.
9. Ground antenna mount, coax and equipment to ground cable grounded to the base of pole.
10. Install in line fuse to Con-ED power cable.
11. Fiber to the pole will be via conventional trench or from the ECS Manhole to the base of the pole and enter pole base through elbow conduit that exists or needs to be installed. Micro trench will come from ECS manhole to a hand hole that needs to be installed at base of pole. From hand hole a conduit will be installed and connect to elbow conduit that exists or needs to be installed to enter base.



12. If pole does not have an end cap, then antenna will be installed on side mount bracket with metal bandit straps.
13. Transit Wireless understands that there are a small number of poles that may be underrated and DOT will require the upgrade of the foundation or pole to support the new base station installation. Transit Wireless has procedures for installation temporary poles foundations to accommodate the upgrade of the proposed pole for the base station installation.

## WOODEN UTILITY POLE

Transit Wireless will follow the general method of installation is as follows:

1. Install pre-assembled sled with Shroud, disconnect and meter pan via two threaded rods drilled through the pole. Bottom of meter to be 8' AGL.
2. Install coax up the side of the wood from equipment to antenna location at the top of pole or in "Communications zone" as per specifications.
3. Install ground cable up the side of the wood pole from the base to the top of pole.
4. Install two risers with weather heads one for fiber and one for power.
5. Run power and fiber through risers and leave coils outside weather heads for connection.
6. Install antenna mount and antenna in the Communications zone or on pole top.
7. Ground antenna mount, coax and equipment to ground cable grounded to ground rod at the base of pole.
8. Install "u-guard" up the pole to cover coax and ground cable.
9. Fiber to the pole will be via aerial fiber. A splice case will be installed and the coiled fiber will be placed in case and spliced.

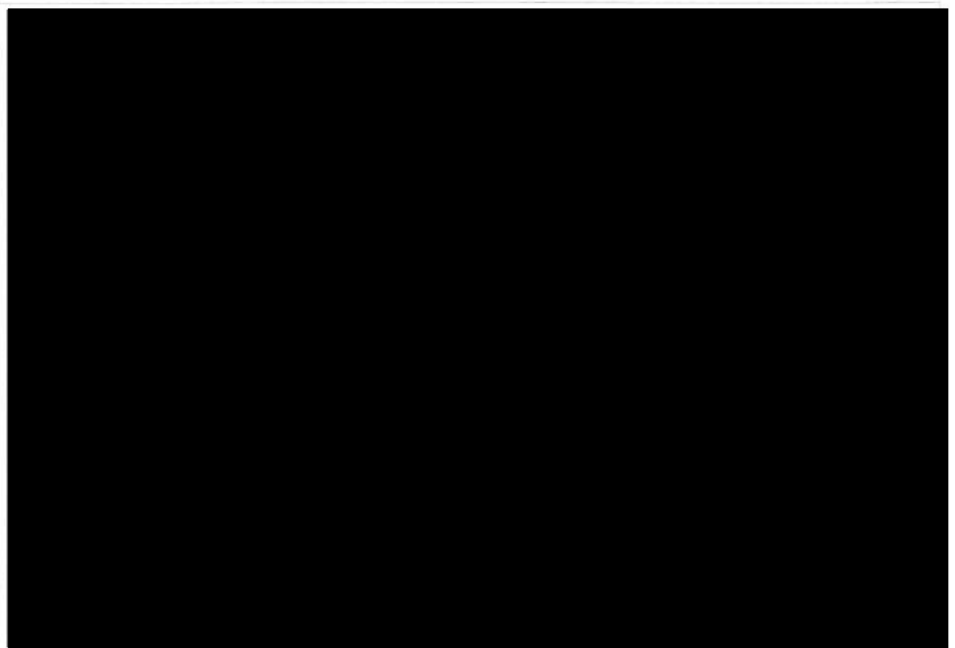


Image 13 - Transit Wireless existing fiber network transposed over train lines

## EXCAVATION

Transit Wireless has extensive experience in excavation and micro-trenching in city streets for the purposes of deploying fiber.

### THE COMPANY EMPLOYS THESE BASIC STEPS REQUIRED FOR EXCAVATION:

1. Survey the area of excavation.
2. Obtain necessary permits from NYC DOT.
3. Coordinate all manhole access with ECS including inspector request and filling out and submitting all forms and required documentation to complete the work.
4. Contact 811/safe dig to mark out all utilities 48 hours prior to start of work.
5. Follow permit stipulation such as the hours and/or days in which street operations and construction may take place.
6. Place barricades, signs, lights and other approved traffic control devices in accordance with most recent NYC DOT highway rules and as per permit.
7. Outline the trench and determine the path from the MH to the subway station.
8. Excavate in areas where using excavating machine is allowed, and hand digging remaining areas close to utilities.
9. Once the trench has been excavated, stock pile the fill and remove if space is limited.
10. Install specified conduits from the MH to the subway station.
11. Back-fill, tamp and install protection plates and buried cable marker tape.
12. Back-fill the remainder of the trench with fill, then with concrete or binder as per NYC DOT.
13. For binder, scrape the top of the trench to match the adjoining road surface.
14. For concrete, fill the trench to match the adjoining road surface and cover with steel road plates.
15. Resurface the top and install Transit Wireless markers.

### THE COMPANY EMPLOYS THESE BASIC STEPS REQUIRED FOR MICRO-TRENCHING:

- a. All micro-trenching is done in accordance with NYCT DOT Specifications, Section 2-23 (see <http://www.nyc.gov/html/dot/downloads/pdf/hwyrules.pdf>)
- b. Contact 811 / Code 53 for mark out of existing utilities in area
- c. White line area of work
- d. Set Up Maintenance and Protection of Traffic (MPT)
- e. Use Means & Methods of micro trenching
  - i. Utilize correct saw blade and machine
  - ii. Follow standard cutting procedures
- f. Install Hand Hole adjacent to street Light
- g. Install 2" GRS or HDPE to NYC Street Light & then to Hand Hole
- h. Install Micro duct to Hand Hole
- i. Backfill & Base





### BASE STATION INTEGRATION AND COMMISSIONING

As part of the turn-up and integration process, Transit Wireless will test the full system for passive intermodulation and RF performance. Transit Wireless will ensure that there is no interference from outside sources that will interfere with the proposed cellular services.



Image 14 - Transit Wireless Experience with Trenching

### TRANSIT WIRELESS RADIO FREQUENCY ENERGY TESTING

Every installation will be assessed with regard to FCC requirements for Radio Frequency Energy Emissions. At the direction of the city, Transit Wireless will also agree to test facilities with the use of independent contractors as per FCC's OET (Office of Engineering and Technology) Bulletin 65 (or a successor thereto) or agreed equivalent procedure.



# TIMING

Transit Wireless already has an extensive dark fiber network - 160 miles running throughout New York City. The company also owns 5 datacenter facilities in the different boroughs. Transit Wireless will utilize its existing network to provide telecommunications services from turn-on date.

The company already has plans to expand the fiber network another 80 miles quickly and efficiently throughout the city. This will allow Transit Wireless to offer telecommunication services at a greater number of locations throughout the city.

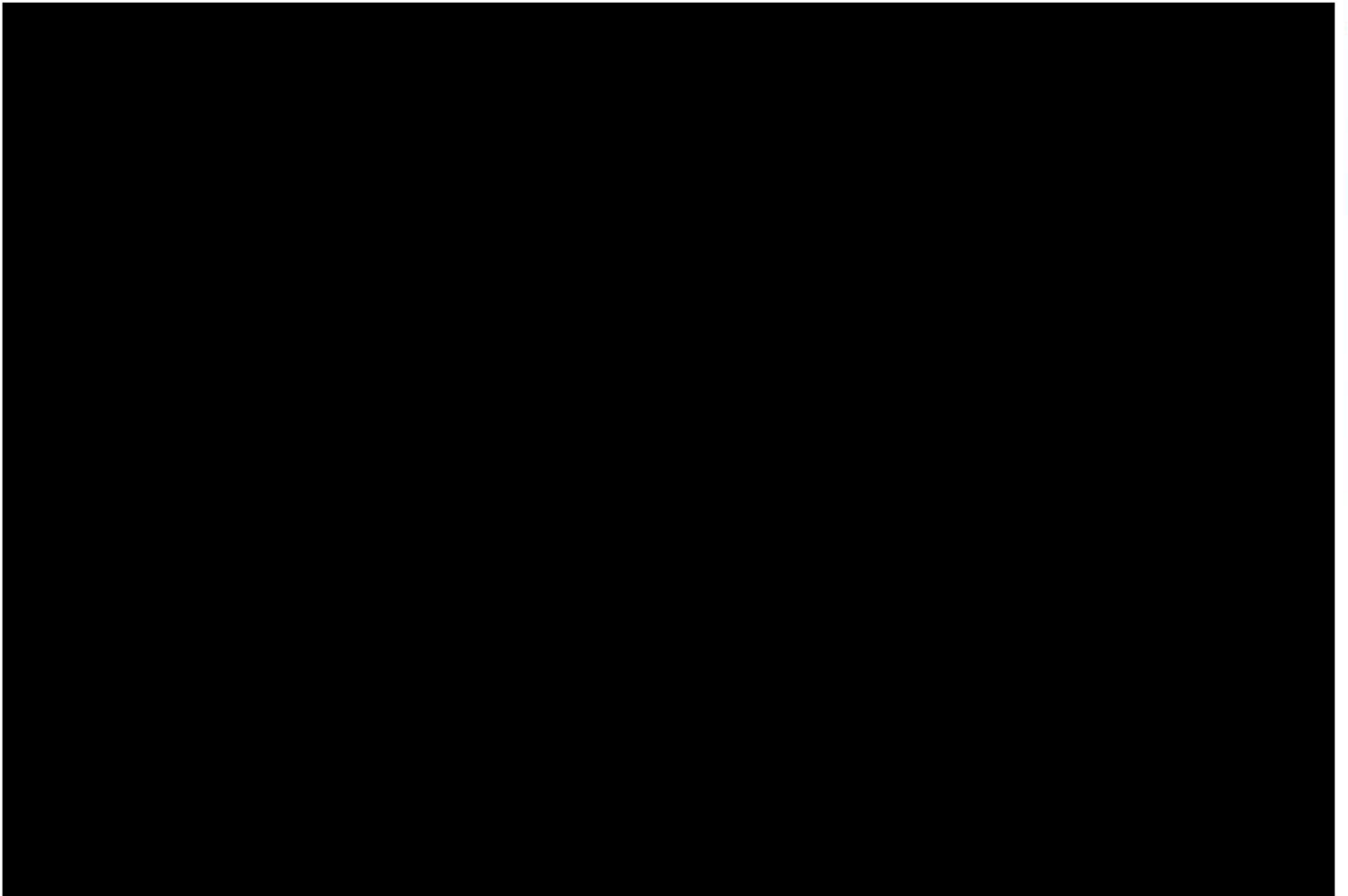
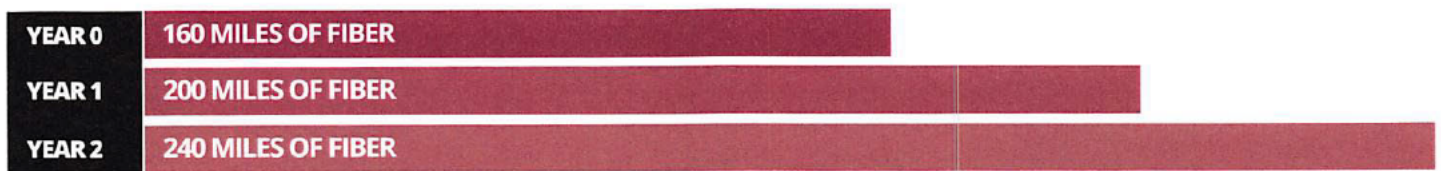


Image 15 - Existing Network

Image 16 - Network Growth



Timeline - Fiber footprint



Below is a summary of the current and proposed Transit Wireless fiber footprint, and proposed locations for base station deployments in each of the boroughs:

BOROUGH	YEAR 0	YEAR 1+
Manhattan	13.9 sq. miles	14.2 sq. miles
Queens	3.6 sq. miles	20.0 sq. miles
Brooklyn	10.7 sq. miles	19.9 sq. miles
Bronx	3 sq. miles	11.4 sq. miles
Staten Island	0	0
<b>Total area</b>	<b>31.1</b>	<b>65.4</b>

### DESIGNING FOR THE FUTURE

Transit Wireless proposes the following changes to the current Arts Commission aesthetic design, to better enhance the wireless services and resiliency of services.

#### Modification on Arts Commission aesthetic enclosure design:

The modifications will include installing additional ventilation apertures while retaining aesthetic appearance – removing the requirement on active fans, removing single point of failure on existing design and increasing the resilience of the design. The requirement for active cooling is extremely difficult to engineer to withstand extreme weather events.

#### Modification of enclosure dimensions / form factor:

The modification will retain overall volume, but relax the requirement on length/width to allow different configurations.

Allowance for longer (thinner) shrouds will make possible different configurations of equipment, including multi-tenant telecommunications services and additional space for battery backup. This will also help to reduce drag and minimize loading on poles and help to further increase resilience during extreme weather events.

#### Modification of antenna component:

The current requirement for a 2" diameter antenna is very restrictive in terms of frequency bandwidth, and multitancy. It may be possible to allow a wider and shorter antenna, (which would still maintain overall volume and cross-sectional area) and would not to exceed pole width, will allow additional frequency bands and multitancy.

#### Some of the additional frequency bands would include:

- 600 MHz
- 3.5 GHz CBRS
- 5 GHz for LAA

## To better support multi-tenancy

- Transit Wireless is working with many vendors that are developing multi-tenant small cell equipment, to ensure that this equipment will meet the form factor requirements of the DOITT shroud.
- Multitenant small cell equipment requires several key technologies to be developed and adopted by the carriers:
  - ORAN (Open Radio Access Network)
  - eCPRI (enhanced Common Public Radio Interface)
  - Digital DAS (Distributed Antennas Systems)

## To support more capacity (MIMO)

- Transit Wireless is working on this solution as the wireless carriers are adding more and more MIMO paths to their small cells. Examples of latest iterations of MIMO design are:
  - Nokia Airscale 4 x 4 5W
  - Sprint 8x8 20W

## 5G (mmWave)

- 5G is the next evolution in wireless connectivity
- 5G brings several benefits including increased throughputs, ultra-low latency, and support for increased number of connections (massive IoT)
- 5G uses a number of new techniques includes Massive Multiple Input Multiple Output (M-MIMO) with up to 128 antennas elements, mmWave, advanced Coordinated multipoint-antenna sharing (CoMP).
- All of these new features of 5G also brings some new challenges
- Antenna and Enclosure radome materials - Mmwave frequencies can be blocked easily. Need to make sure antenna is not blocked by the pole
- If located inside the enclosure, need to make sure the enclosure is made of a material that doesn't block the mmWave signals.
- Backhaul technologies
- Existing backhaul technologies won't be able support the capacity required for 5G applications. New backhaul technologies are being developed including eCPRI, and Mobile Edge Computing (MEC) to enable the massive throughputs required for 5G services
- Transit Wireless intends to deploy infrastructure that will support smart cities/IoT solutions such as:
  - Street Light controllers
  - Autonomous vehicles and V2X
  - Traffic CCTV integration

## ADDITIONAL STREET FURNITURE

Transit Wireless would like rights to deploy wireless infrastructure/services on additional street furniture as described in Section 1 (g) of the RFP





- **Manhole antenna**
  - TW has developed a “manhole” small cell solution that meets all applicable DOITT requirements including aesthetic, FCC, and City requirements.
- **Bus shelters/News Stands**
  - Other cities have deployed small cells on Bus Shelters. Transit Wireless would like to investigate design options that would meet the requirements of the relevant agencies and owners
- **Smart Trash Cans**
  - Transit Wireless has been working with partners to develop a smart trash can placed in the right of way that accommodates multi-tenant small cell solution and optional antenna support pole.
- **“Smart” poles**
  - Transit Wireless has been working with partners to develop an New York City specific integrated smart pole solution that can placed anywhere in the right of way with access to power and fiber, and that houses a highly resilient internal small cell enclosure and cooling system.

## REPAIR, MAINTENANCE AND/OR REMOVAL



Transit Wireless has standardized processes and procedures for repair, maintenance, and/or removal of base station equipment.

### THE TRANSIT WIRELESS NETWORK OPERATIONS CENTER (“NOC”):

Transit Wireless created a Network Operations Center to support our Wireless Communications system on behalf of the MTA that is 24x7x365, and is locally based in New York City. Utilizing real-time, web-based reporting, diagnostic monitoring, and management software, Transit Wireless administers maintenance and operations of the network and ensures optimal performance of all systems and applications. Transit Wireless proposes to leverage this system to support for the DoITT pole top based wireless system. Transit Wireless will leverage these tools to support NYC on our pole top installations.

The Transit Wireless' NOC has visibility to all active system operational information in real-time. The nucleus of the NOC is the Operations Team and through the use of system-aided dispatch, will coordinate and deploy resources to any locations across the NYC pole top utilization area. This team will be the interface and management arm of any maintenance involving pole top installations, supporting systems and backup resources and will ensure appropriate, timely and effective responses and notifications.

Transit Wireless will utilize tiered system access for applicable services to view network information and reporting capabilities to appropriate personnel. This program is operationally tested and has provided financial and operational efficiency to our network operations on behalf of the MTA. Transit Wireless is confident in delivering similar efficiencies to the management of Base Stations Installations.

Maintenance management on behalf of NYC DoITT pole top franchise will be a 24x7x365 function that will include both proactive and reactive operations. Proactive tasks will be outlined in an established preventative maintenance program. The program will include a series of tasks from routine visual inspection of passive elements to include cables, antennas, and connections to capturing detailed measurements of signal strengths. The program will assign schedules for the tasks and generate preventative maintenance reports that can be made available. Reactive obligations will be initiated from any of the monitoring devices and relayed to the NOC via the integrated alarm tracking system, email, or from calls to a dedicated 800-number. The category of alarms will include [REDACTED]. Each condition will trigger a response the NOC and a proper notification will be sent to the Operations Team. The NOC will initiate trouble tickets for any repairs and prompt estimates for service restoration.

### MONITORING

The system monitoring methodology will ensure that the performance remains at levels initially tested and accepted and will be accomplished through specific proactive maintenance procedures and internal system performance checks. The system will also employ [REDACTED] that will, upon any event, alert the NOC and activate an appropriate alarm. The latest in industry standard network monitoring and management tools with built-in redundancy will be used for monitoring, including [REDACTED]. The goal is to exceed network up-time and performance requirements while maintaining the lowest possible operating costs.





## MAINTENANCE

Transit Wireless will, from time to time, require reactive and preventative maintenance to be performed on the pole-top network equipment within the franchise proposal area, our BSH's (datacenters), or along the fiber optic connectivity path under the streets of NYC. The response times for these actions are dependent as to whether the issues are in any way safety related customer impacting or NYC DOITT / DOT requested.

Our Operations team is internally staffed and are available whenever needed. Transit Wireless has an extended team that handles Preventative Maintenance (PM), performance testing, electrical, and fiber repairs. This dedicated team consists of:

1. Safety management
2. Quality Assurance support
3. Customer monitoring and call center
4. RF Engineering department
5. Network Engineering department
6. Multi-disciplinary Field Operations technicians
7. Facilities support team
8. Dedicated Fiber engineering department
9. Mechanical and Electrical support
10. Vendor support

## RESPONSES AND RESPONSE TIMES

Upon need, Transit Wireless will dispatch trained, experienced, competent personnel to repair pole top installations and supporting equipment. Transit Wireless will work with the DOT, DOITT, Carriers, manufacturers and vendors to ensure that any required resources including safety, bucket truck, field engineers, inspectors and licensed electrician support are authorized, scheduled and coordinated concurrent to the dispatch of a repair technician or other service provider. Transit Wireless will always provide a safety-oriented, carrier-class of service which means qualified, certified, factory trained on the equipment being addressed.

Repair technicians are responsible for coordinating the pickup of all necessary materials required to perform the expected repair. In addition, Transit Wireless owns and is responsible for the procurement and management of any tool and test equipment required for their personnel to complete any network repairs. Transit Wireless will maintain sufficient spare parts inventory necessary to conduct repairs.

In situations where outside vendor resources are required, including certified safety personnel, OSP fiber specialists, equipment manufacturer support and other parties, Transit Wireless will ensure that these resources are:

**VETTED:** This is the process of pre-approving designated, competent service provider/resources.

**AUTHORIZED:** Authorization involves receiving approval, when necessary, from an authorized representative of DOITT, DOT or other parties.



**SCHEDULED:** Resources such as DOT permitting may at times be required. When these resources require a formal document submission to be scheduled, this activity will be performed by a designated Transit Wireless resource. All work will occur during approved, appropriate NYC and DOT windows.

**COORDINATED:** Coordination involves the real-time synchronization of multiple resources to ensure efficient repair and resource utilization. Coordination involves timely communication with required resources, tactical scheduling and the dissemination of workflow, contact information, and full issue and engineering documentation to the involved parties.

Transit Wireless' NOC team is managed locally – our Operations Team is based in NYC, and our company headquarters are located in Herald Square.

### **PREVENTIVE MAINTENANCE & SYSTEM UPGRADES**

Preventive Maintenance procedures and schedules have been developed by Transit Wireless for our employees and contractors. They are provided these procedures, schedules, inspection reports and in some cases, waste material tracking forms as needed. As Preventive Maintenance is completed, inspection and performance reports are analyzed, uploaded and stored digitally. Thereafter, any work performed is entered into our maintenance management system along with any service notes, recommendations and estimates for future inclusion into maintenance management analytics.

### **PREVENTIVE MAINTENANCE INCLUDES:**

- Visual (physical) inspections will be initially performed on a bi-annual basis. Adjustment will be made to increase or decrease the frequency of inspections based on our findings for each pole or area.
- Cleaning, if deemed necessary, will occur concurrently with the visual inspections and adjusted based on observations and historical performance.
- Annual maintenance inspections will include all other preventative maintenance such as testing of RF coverage performance, system optimization, and a more detailed inspection of equipment including but not limited to, pole attachment hardware, equipment housing status, cleaning fiber terminations and optical analysis, inspection of cable plant, BSH (datacenter) hardware and extended diagnostics on active components.
- Notification with NYC DOITT for callout maintenance, repair, and removal work.
- Transit Wireless will use an approved contractor to handle all maintenance work requests.
- Transit Wireless will conduct regular site inspections (in person site survey, dated photos, and record all findings of approved pole / equipment sites.
- Visual inspection
- Preventative maintenance where applicable

The timing of maintenance repairs required as a result of inspections will be dependent upon the nature and severity of discrepancy or fault discovered.

Transit Wireless will manage all aspects of network implementations, removals, operation and maintenance functions. In some cases, outside vendors and/or manufacturers will report to Transit Wireless for installation, testing or maintenance functions. Transit Wireless' established operations team will be performing day to day network maintenance as currently done in our existing communications networks and facilities. Transit Wireless will also manage any additional modifications, removals or upgrades resulting from DOITT, DOT or other official requests. This includes pole top on-site equipment and their related infrastructure, electricity and backhaul / fronthaul connectivity.

### INTERFERENCE MITIGATION

If any pole top location is involved in a wireless signal interference issue, Transit Wireless has significant experience in performing intermodulation studies and interference mitigation. Specifically, Transit Wireless uses intermodulation software tools which not only account for 2nd, 3rd, 5th, and 7th order harmonics, but have the flexibility to include other harmonic frequencies as necessary which may be applicable in outdoor situations. Additionally, this software is specifically designed and developed to include all commercial wireless bands, the various bandwidths available in the bands on a per carrier basis, as well as all public safety and LMR bands and channel bandwidths. Transit Wireless has performed significant amount of noise floor studies to assess the impact of introduction of services at different frequencies.

Transit Wireless has performed similar analyses and interference mitigation in numerous MTA venues. With a full suite of software and field measurement tools as well as many years' experience in interference detection and mitigation, plus 5+ years' experience in the deployment of RF systems in NYC, Transit Wireless will research, assess, analyze and mitigate any interference situations.

Transit Wireless commits to dealing with interference in an expeditious and professional manner. Our company owns test equipment for interference troubleshooting including [REDACTED]. Additionally, we have [REDACTED] to validate issues and resolution. Our Field Engineers and Field Techs have certifications and factory training in all aforementioned systems and devices. All Transit Wireless network systems use, where applicable, PIM rated components installed with industry / manufacturer best practices to minimize the likelihood of PIM and other in-band and out of band issues. We are also familiar with all filtering devices and techniques including ferrite, hybrid, cavity, etc. for small cells.

If interference arises Transit Wireless will work directly with the complainant and their representatives through resolution. Transit Wireless will guarantee resolution of all interference issues which are caused by Transit Wireless with the same expectation of reciprocity if others cause similar to Transit Wireless installed systems. We also have an outside consultingz firm available if ever needed to assist.

Transit Wireless has a proven track record of over 5 years successfully operating and maintaining high density, high volume optical fiber, cellular and Wi-Fi networks in the NYC public environment. We will continue to hold



to the highest standards of operations we have historically set to the services offered through the pole top franchise through DOITT.

Transit Wireless understands that it has a responsibility to protect structures in relation to the deployment of base station infrastructure associated with the RFP. Transit Wireless has quality processes as part of our Operations and Maintenance procedures that ensure any and all existing structures and equipment belonging to the City and all designated landmarks, as well as all other structures within any designated landmark district will be protected.



Image 17 - Transit Wireless Test equipment

Transit Wireless will obtain the prior approval of the City before altering any water main, sewerage or drainage system, or any other municipal structure or equipment on, over or under the Inalienable Property, including standard and nonstandard sidewalk treatments, and road surfaces.

Transit Wireless understands that if any such alteration shall be made by the Company, Transit Wireless shall replace or repair and restore to its condition immediately prior to the disturbance or damage.

## REMOVALS

Transit Wireless will immediately respond to requests for permanent or temporary removals. It is desired that on long term or permanent removals, an approved temporary or permanent relocation pole top will be suggested and approved by DOITT and other parties. These removals, regardless of the status of a replacement location, will be coordinated as needed with all parties including DOITT and DOT. Each removal/relocation, as is with all new installations, will always be overseen and coordinated by a Transit Wireless project manager, whom is highly familiar with all DOT / NYC requirements. The removal will be provided to the deconstruction team after any DOITT / DOT NTP or permitting requirements are in place. Removals can be coordinated for regular events like the Macy's Thanksgiving Day Parade, severe weather events (flooding, high wind conditions, intense snowstorms, etc.), power outages, and other emergency conditions.



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**EXHIBIT C**  
**ACKNOWLEDGMENT OF RELEASE DATE AND ADDENDUM**

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APPLICANT'S NAME:	<u>Transit Wireless, LLC</u>
RFP RELEASE DATE:	<u>June 12, 2018</u>
NUMBER OF ADDENDA RECEIVED:	<u>2</u>
ISSUE DATE(S) OF ADDENDA:	<u>June 27, 2018; June 29, 2018</u>

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# Doing Business Data Form

To be completed by the City agency prior to distribution

Agency \_\_\_\_\_ Transaction ID \_\_\_\_\_

Check One

Transaction Type (check one)

- Proposal  Award  Concession  Economic Development Agreement  Franchise  Grant  Pension Investment Contract  Contract

Any entity receiving, applying for or proposing on an award or agreement must complete a Doing Business Data Form (see Q&A sheet for more information). Please either type responses directly into this fillable form or print answers by hand in black ink, and be sure to fill out the certification box on the last page. **Submission of a complete and accurate form is required for a proposal to be considered responsive or for any entity to receive an award or enter into an agreement.**

This Data Form requires information to be provided on principal officers, owners and senior managers. The name, employer and title of each person identified on the Data Form will be included in a public database of people who do business with the City of New York, as will the organizations that own 10% or more of the entity. No other information reported on this form will be disclosed to the public. **This Data Form is not related to the City's PASSPort registration or VENDEX requirements.**

Please return the completed Data Form to the City office that supplied it. Please contact the Doing Business Accountability Project at [DoingBusiness@mocs.nyc.gov](mailto:DoingBusiness@mocs.nyc.gov) or 212-788-8104 with any questions regarding this Data Form. Thank you for your cooperation.

## Entity Information

*If you are completing this form by hand, please print clearly.*

Entity EIN/TIN \_\_\_\_\_ Entity Name Transit Wireless, LLC

### Filing Status

**NEW:** Data Forms submitted now must include the listing of organizations, as well as individuals, with 10% or more ownership of the entity. Until such certification of ownership is submitted through a change, new or update form, a no change form will not be accepted.

### (Select One)

- Entity has never completed a Doing Business Data Form. Fill out the entire form.  
 Change from previous Data Form dated \_\_\_\_\_. Fill out only those sections that have changed, and indicate the name of the persons who no longer hold positions with the entity.  
 No Change from previous Data Form dated \_\_\_\_\_. Skip to the bottom of the last page.

Entity is a Non-Profit  Yes  No

Entity Type  Corporation (any type)  Joint Venture  LLC  Partnership (any type)  Sole Proprietor  Other (specify) \_\_\_\_\_

Address 1350 Broadway, 3rd Floor

City New York State NY Zip 10018

Phone 212-931-9020 E-mail \_\_\_\_\_@transitwireless.com

*Provide your e-mail address in order to receive notices regarding this form by e-mail.*

## Principal Officers

Please fill in the required identification information for each officer listed below. If the entity has no such officer or its equivalent, please check "This position does not exist." If the entity is filing a Change Form and the person listed is replacing someone who was previously disclosed, please check "This person replaced..." and fill in the name of the person being replaced so his/her name can be removed from the *Doing Business Database*, and indicate the date that the change became effective.

### Chief Executive Officer (CEO) or equivalent officer

This position does not exist

*The highest ranking officer or manager, such as the President, Executive Director, Sole Proprietor or Chairperson of the Board.*

First Name Melinda MI \_\_\_\_\_ Last White Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title Chief Executive Officer Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

This person replaced former CEO William Bayne, Jr. on date May 21, 2018

### Chief Financial Officer (CFO) or equivalent officer

This position does not exist

*The highest ranking financial officer, such as the Treasurer, Comptroller, Financial Director or VP for Finance.*

First Name Keith MI \_\_\_\_\_ Last Friedman Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title Chief Financial Officer Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

This person replaced former CFO \_\_\_\_\_ on date \_\_\_\_\_

### Chief Operating Officer (COO) or equivalent officer

This position does not exist

*The highest ranking operational officer, such as the Chief Planning Officer, Director of Operations or VP for Operations.*

First Name Thomas MI \_\_\_\_\_ Last McCarthy Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title Director of Network Operations Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

This person replaced former COO \_\_\_\_\_ on date \_\_\_\_\_

**Principal Owners**

Please fill in the required identification information for all individuals or organizations that, through stock shares, partnership agreements or other means, own or control 10% or more of the entity. If no individual or organization owners exist, please check the appropriate box to indicate why and skip to the Senior Managers section. If the entity is owned by other companies that control 10% or more of the entity, those companies must be listed. If an owner was identified on the previous page, fill in his/her name and write "See above." If the entity is filing a Change Form, list any individuals or organizations that are no longer owners at the bottom of this section. If more space is needed, attach additional pages labeled "Additional Owners."

There are no owners listed because (select one):

- The entity is not-for-profit
- The entity is an individual
- No individual or organization owns 10% or more of the entity

Other (explain) \_\_\_\_\_

**Individual Owners (who own or control 10% or more of the entity)**

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

**Organization Owners (that own or control 10% or more of the entity)**

Organization Name BROADCAST AUSTRALIA US CORPORATION

Organization Name NAB Q WIRELESS LLC

Organization Name \_\_\_\_\_

**Remove the following previously-reported Principal Owners**

Name TAILWIND NY UNDERGROUND, LLC Removal Date 01/31/2018

Name \_\_\_\_\_ Removal Date \_\_\_\_\_

Name \_\_\_\_\_ Removal Date \_\_\_\_\_

**Senior Managers**

Please fill in the required identification information for all senior managers who oversee any of the entity's relevant transactions with the City (e.g., contract managers if this form is for a contract award/proposal, grant managers if for a grant, etc.). Senior managers include anyone who, either by title or duties, has substantial discretion and high-level oversight regarding the solicitation, letting or administration of any transaction with the City. At least one senior manager must be listed, or the Data Form will be considered incomplete. If a senior manager has been identified on a previous page, fill in his/her name and write "See above." If the entity is filing a Change Form, list individuals who are no longer senior managers at the bottom of this section. If more space is needed, attach additional pages labeled "Additional Senior Managers."

**Senior Managers**

First Name Katherine MI L Last Dominus Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title Counsel Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

First Name Saeid MI \_\_\_\_\_ Last Malaki Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title Director of Design and Construction Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last \_\_\_\_\_ Birth Date (mm/dd/yy) \_\_\_\_\_

Office Title \_\_\_\_\_ Employer (if not employed by entity) \_\_\_\_\_

Home Address \_\_\_\_\_

**Remove the following previously-reported Senior Managers**

Name \_\_\_\_\_ removal date \_\_\_\_\_

Name \_\_\_\_\_ removal date \_\_\_\_\_

**Certification**

I certify that the information submitted on these two pages and \_\_\_\_\_ additional pages is accurate and complete. I understand that willful or fraudulent submission of a materially false statement may result in the entity being found non-responsible and therefore denied future City awards.

Name Melinda White Title Chief Executive Officer

Entity Name Transit Wireless LLC Work Phone # \_\_\_\_\_

Signature [Signature] Date 08/03/2018



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**EXHIBIT D  
AFFIRMATION**

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The undersigned proposer or bidder affirms and declares that said proposer or bidder is not in arrears to the City of New York upon debt, contract, or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the proposer or bidder to receive public contracts except

---

Full name of Proposer or Bidder

Melinda White

---

Address

1350 Broadway, 3rd Floor

---

City New York

State NY

Zip Code 10018

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorship\*

SOCIAL SECURITY NUMBER \_\_\_\_\_

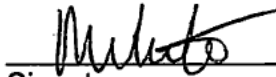
B - Partnership, Joint Venture or other unincorporated organization

EMPLOYER IDENTIFICATION NUMBER \_\_\_\_\_

C - Corporation

EMPLOYER IDENTIFICATION NUMBER XXXXXXXXXX \_\_\_\_\_

By



Signature

Chief Executive Officer

Title

If a corporation, place seal here:

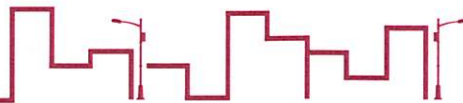
Must be signed by an officer or duly authorized representative.

\* Under the Federal Privacy Act the furnishing of Social Security Numbers by bidders on City contracts is voluntary. Failure to provide a Social Security Number will not result in a bidder's disqualification. Social Security Numbers will be used to identify bidders, proposers, or vendors to ensure their compliance with laws, to assist the City in enforcement of laws as well as to provide the City a means of identifying of businesses which seek City contracts.

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**EXHIBIT F**  
**DOING BUSINESS DATA FORM**

All proposers must complete a Doing Business Data Form which, along with a Questions and Answers about the Doing Business Data Form and Owner Certification Guide, is included as separate attachments to this RFP.



Transit Wireless routinely secures letters of credit to provide financial security against performance obligations for its work on New York City Transit (NYCT) and Department of Transportation (DOT) real estate. Transit Wireless agrees to arrange for and maintain a letter of credit sufficient to secure its obligations under this proposed franchise agreement.

Transit Wireless is a subsidiary of BAI Communications (BAI), a global company that designs, builds and operates highly available communications networks – broadcast, cellular, Wi-Fi and public safety. BAI Communications, has over \$3.5 billion of secured orders across its various businesses, with several businesses specifically focused on wireless communications services projects with governmental agencies.

BAI's majority shareholder is the Canadian Pension Plan Investment Board ("CPPIB"), who maintain significant capital and resources to support any financial needs Transit Wireless might require. The CPPIB is one of the world's largest institutional investors with over \$250 billion under management. CPPIB are long-term investors managing the assets of 20 million Canadians to help build their financial security in retirement.

**TRANSIT WIRELESS' SCOPE PROPOSAL**

Transit Wireless seeks to have a franchise agreement that includes all 3 zones (Zone A, Zone B, Zone C) as specified in the RFP Section 9.

**TRANSIT WIRELESS' COMPENSATION PROPOSAL**

Per Transit Wireless' Scope Proposal for a franchise agreement including all 3 zones, we hereby propose the following compensation package, conforming to the guidelines of RFP Section 9:

STREET OPERATIONS POLES		STREET UTILITY POLES	
ZONE	MONTHLY PER POLE COMPENSATION	ZONE	MONTHLY PER POLE COMPENSATION
A	\$365.00	B	\$25.00
B	\$260.00	C	\$10.00
C	\$110.00		

All of Transit Wireless' proposed pole compensations will follow the 4% annual escalation effective upon the anniversary of the effective date of any resulting franchise, and each subsequent anniversary throughout the term, per RFP section 9 (c).

