



City of Seattle

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Gregory J. Nickels, Mayor  
**Department of Planning and Development**  
D. M. Sugimura, Director

**CITY OF SEATTLE  
ANALYSIS AND DECISION OF THE DIRECTOR  
OF THE DEPARTMENT OF PLANNING AND DEVELOPMENT  
AND RECOMMENDATION TO THE SUPERINTENDENT OF SEATTLE CITY LIGHT**

**Application Number:** 2400616  
**Applicant Name:** Gary M. Abrahams for T-Mobile Wireless Inc.  
**Address of Proposal:** 2249 Northeast 46<sup>th</sup> Street

**SUMMARY OF PROPOSED ACTION**

Master Use Permit for future installation of a minor communication utility (T-Mobile) consisting of three panel antennas located in the right of way atop a 100 ft. City Light pole, and an equipment cabinet pad to be located on private property in a storage room of an existing apartment building.

The following approvals are required:

**Siting Recommendation to Superintendent of Seattle City Light**

**SEPA - Environmental Determination** - Chapter 25.05, Seattle Municipal Code (SMC)

**SEPA DETERMINATION:**       Exempt     DNS     MDNS     EIS  
  
 DNS with conditions  
  
 DNS involving non-exempt grading or demolition or involving another agency with jurisdiction.

## **BACKGROUND INFORMATION**

### **Site and Vicinity Description**

The proposal sites are a Seattle City Light utility pole and private property. The utility pole is located in the Northeast 45<sup>th</sup> Street right-of-way situated between the Northeast 45<sup>th</sup> Street overpass and in back of the neighboring house at 2249 Northeast 46<sup>th</sup> Street. The private property addressed at 2249 Northeast 46<sup>th</sup> Street is situated on the south side of Northeast 46<sup>th</sup> Street and the north side of Northeast 45<sup>th</sup> Street. The property contains a total area of 6,835 square feet (sq. ft.). This rectangular shaped through lot contains a one-story single family residence with a basement, detached garage and detached garage. Vehicular access to the subject site is via Northeast 46<sup>th</sup> Street.

Northeast 46<sup>th</sup> Street is a non-arterial paved dead end street with curbs, gutters and sidewalks. Northeast 45<sup>th</sup> Street is a viaduct supported approximately 10' above the site's ground surface on wood timbers.

The topography of the private property site is relatively flat but a portion of the site is identified as Environmentally Critical Area (ECA)-Steep Slope and (Methane-producing) Abandoned Landfill. The existing residence is situated on the southern portion of the site. The topography at the northern edge of the site slopes steeply down towards the north, and the remainder of the ground surface north of the residence slopes gently to moderately down towards the east. The ground surface south of the residence slopes moderately to steeply down towards the south boundary. The site is vegetated with lawn, mature trees and bushes. A 5' retaining wall is located along the east property line and retains fill within the site. A 5' high rockery and stairs are located along the northern property line and two-tiered rockeries are near the southwest corner of the subject site.

The subject site is zoned Lowrise 3 (L-3). Surrounding property is zoned as L-3 to the north and west of the property. Lowrise Duplex Triplex (LDT) zone is to the east of the subject site and Major Institution Overlay/Midrise (MIO-60/MR) is the zone designation that is south of the proposal. Existing development in the vicinity of the proposal includes apartment buildings to the north, east and west. The University of Washington Campus is located across the viaduct to the south.

### **Proposal Description**

T-Mobile Wireless proposes to install a minor communication utility facility consisting of three (3) sector antenna arrays ("A", "B" and "C") with one (1) panel antenna per sector (three (3) antennas total) to be mounted atop a new 100' wood utility pole which would create an overall height of 100'. This new wood utility pole will replace the existing wood utility pole at the same location in the Northeast 45<sup>th</sup> Street public right-of-way. The antenna's conduit will be mounted on the outside of the pole (north side), running underground and be routed to associated radio equipment. The radio equipment will be located within a gated area located in the parking garage of a new multifamily residential building proposed to be built at 2249 Northeast 46<sup>th</sup> Street (DPD #2208249). The antennas and associated equipment will be painted to match the

color of the pole. Access to the enclosed equipment room and the utility pole would be via an ingress/egress easement across the property immediately east of the subject site fronting on Northeast 46<sup>th</sup> Street.

### Public Comments

The required public comment period ended on March 17, 2004. DPD received two (2) written comments regarding this proposal. The neighbors objections regarding this proposal focused on the following issues:

- Concerns regarding future impacts to views of the Cascade Mountains.
- Concerns regarding potential interference to wireless internet connections to existing customers.
- Concerns regarding potential impacts to existing green space (Ravenna Woods).

### **ANALYSIS - SITING RECOMMENDATION TO SUPERINTENDENT OF SEATTLE CITY LIGHT**

The Street and Sidewalk Use Chapter of the Seattle Municipal Code allows Class II Special Attachments (minor communication utilities) to be placed on utility poles owned by Seattle City Light that are located on public rights of way. Class II Special Attachments are specifically regulated by SMC Section 15.32.300. This Section allows for minor communication utilities, or other Class II Special Attachments, to extend above the electrical facilities (wires) on top of an existing pole, or the replacement of an existing pole to achieve adequate height for the applicant's purposes. Section 15.32.300 further requires that all costs of such replacements be borne by the communications provider, and that the visual impacts of minor communication utilities and other Class II Special Attachments shall be reduced to a degree acceptable to the Superintendent of City Light.

Where a request for Class II attachment is made, and the proposed location is on an arterial street located within a Lowrise Zone, the applicant shall apply to DPD and pay for an attachment siting review and recommendation consistent with the application, fee, notice, timeline and criteria for an Administrative Conditional Use (ACU) permit. The DPD recommendation shall be advisory to the Superintendent of City Light. The specific ACU criteria can be found in SMC Section 23.57.011, subsection B. The criteria, which must be satisfied in order for the proposal to receive a positive recommendation from DPD, are as follows:

- a. The proposal shall not be significantly detrimental to the residential character of nearby residentially zoned areas, and the facility and the location proposed shall be the least intrusive facility at the least intrusive location consistent with effectively providing service. In considering detrimental impacts and the degree of intrusiveness, the impacts considered shall include but not be limited to visual, noise, compatibility with uses allowed in the zone, traffic, and the displacement of residential dwelling units.*

The proposal includes a wood utility pole with three (3) panel antennas to be located in the Northeast 45<sup>th</sup> Street right-of-way and associated radio equipment cabinets to be located within a

fenced area situated in the parking garage of a new apartment building proposed on private property. The subject sites are located in an L-3 zone. The height of the utility pole, including the antennas, would be 100' above grade. The existing 46'-8" tall existing utility pole will be removed. The antennas are proposed to be flush mounted to the pole and painted to match the color of the pole. All conduits would be attached against the northern exterior of the pole and also painted to match the pole's color.

The applicant submitted a search ring area map that delineated the boundaries of the search area in which a minor communication utility for T-Mobile must be located to satisfy the coverage objective-to allow for efficient frequency reuse for areas on the University of Washington campus to the south of the subject pole, as well as, the residential area to the north. The search ring is bounded by the area north of Northeast 46<sup>th</sup> Street, east towards 25<sup>th</sup> Avenue Northeast, west to just east of 22<sup>nd</sup> Avenue Northeast and south within an open space area of the University of Washington (UW). The search ring is inclusive of residential and commercial zones.

The applicant states that three (3) alternative sites were sought prior to the proposed location. The commercial area near the University Village shopping center just east of the subject pole would not work because the elevation drops sharply downward towards Montlake and this area is outside of the search area. The second option was to use an existing utility pole just east of the subject pole, with ground equipment on private property off of Ravenna Avenue Northeast. Unfortunately, this DPD application was "cancelled when the landowner chose not to lease the land to T-Mobile". The third site considered was the rooftop of an existing apartment building just east of the subject pole (2233 Northeast 46<sup>th</sup> Street). In order for the minor communication facility to function effectively, the antennas would have to be designed at least 25' above the roof to clear the trees to the south of the apartment.

The proposed 100' utility pole and cellular antennas would have some limited visual impacts to the residential character of the surrounding Lowrise zoned neighborhood. An appearance comparison chart and reasons why are noted below:

<b>Appearance</b>	<b>Existing SCL Utility Pole</b>	<b>Proposed SCL Utility Pole</b>
Shape	Cylinder-like shape	Same
Color	Natural brown wood	Same
Width	Varies per Seattle City Light	Same. Plus an additional 2' consisting of a conduit chase attached along the proposed pole's northern exterior.
Height	46'-8"	100'
Material	Solid wood	Same
Equipment Atop of Pole	None	Three (3) flush mounted antennas

1. The proposed SCL utility pole would be significantly taller (53'-4") than the existing SCL utility pole and other utility poles on the same block front along the Northeast 45<sup>th</sup> Street Viaduct.
2. The proposed wooden utility pole will appear irregular and larger than that of a typical round wood utility pole due to the exposure of the conduit along the pole's exterior.
3. The proposed antennas and the antenna flush-mounted design are atypical of other equipment, including transformers, located in residentially zoned public rights-of-way. Specifically, the height of the flush mounted antennas would make them highly visible. This is largely due to the fact that the proposed antennas would be located above the existing utility lines and would be 53'-4".

As proposed, it is clear that the minor communication utility will constitute a visual impact to the existing residential character of the surrounding neighborhood that resides immediately north of the subject site-but, this impact is not considered a major issue. Certain measures such as existing tall deciduous and coniferous trees and vegetation along Northeast 45<sup>th</sup> Street Viaduct assist in minimizing the impact at street level. Also, most of the residential properties entrances are orientated along Northeast 46<sup>th</sup> Street. The proposed pole will be located at the rear of these properties. The applicant originally sought an additional measure to reduce the bulk of the utility pole by proposing to install a glulam pole that would allow the conduit cables to be concealed within the pole. After consultation with Seattle City Light (SCL), it was determined a wood utility pole smaller in diameter and weight than a glulam pole would need to be installed.

The noise level is estimated to below the ambient level of residential uses allowed within the Lowrise zone according to the project's acoustical report. The equipment cabinets will be shielded by the concrete foundation walls of the proposed apartment's parking garage structure in which it is to be located.

Traffic impacts are not anticipated other than one service visit per month. The proposal would be compatible with uses allowed in the zone, and since no housing or structure will be removed, the proposal will not result in displacement of residential dwelling units.

*b. The visual impacts that are addressed in section 23.57.016 shall be mitigated to the greatest extent practicable.*

There is one (1) provision noted in SMC Section 23.57.016.J that applies to this proposal. However, even that subsection applies to freestanding transmission towers. Technically, utility poles are not freestanding transmission towers. However, the similarities of the two warrant consideration of subsection J, which reads as follows:

*SMC 23.57.016-J*

*Freestanding transmission towers shall minimize external projections from the support structure to reduce visual impacts and to the extent feasible shall integrate antennas in a screening structure with the same dimensions as external dimensions of the support structure, or shall mount antennas with as little projection from the structure as feasible. External conduits, climbing structures, fittings, and other projections from the external face of the support structure shall be minimized to the extent feasible.*

The applicant has attempted to demonstrate compliance with Section 23.57.016 by proposing the installation of a wood pole. No climbing structures are proposed and the existing light fixture will be replaced at the same onto the proposed wood pole at the same height (41'-7"). The wood pole will have flush mounted antennas with conduit attached to the exterior which will be painted to match the color of the pole. While this design attempts to integrate the antenna with the wood pole, it is not clear that this design accomplishes this to the fullest extent feasible.

However, the applicant's pole design is based on installation recommendations detailed in a letter from SCL. Therefore, there does not appear to be a more practical way to mitigate the visual impacts of this proposal than the design that has been proposed.

- c. *Within a Major Institution Overlay District, a Major Institution may locate a minor communication utility or an accessory communication device, either of which may be larger than permitted by the underlying zone, when:*
  - a. *The antenna is at least one hundred feet (100') from a MIO boundary; and*
  - b. *The antenna is substantially screened from the surrounding neighborhood's view.*

The proposed site is not located within a Major Institution Overlay. Therefore, this provision is not applicable.

- d. *If the minor communication utility is proposed to exceed the zone height limit, the applicant shall demonstrate that the requested height is the minimum necessary for the effective functioning of the minor communication utility.*

The antennas will be flushed mounted to a wood utility pole that is proposed to be 100' in height and exceeds the 30' height limit of the L-3 zone. The height of the existing SCL pole is 46'-8" with the power lines at 44'-8".

The applicant submitted a map which denotes the search ring associated with this site and an arrow marking the location of the pole identified as #48SW344 adjacent to at Northeast 45<sup>th</sup> Street Viaduct. According to a memo dated February 27, 2004, a search ring was issued by a Radio Frequency (RF) engineer with the directive that an MCU site must be found within that ring in order to satisfy the coverage objectives. For a wireless system to work, a clear line of site from the antennas in the system throughout the intended coverage area is necessary to ensure the quality of transmission of the digital system. An antenna site cannot be too close to the next site, otherwise interference will occur between sites.

The coverage objective is the UW campus to the southeast and southwest, as well as the residential areas to the north. According to the applicant, the height of the proposed facility was determined primarily by the distance from the existing MCU's and the nature of the terrain and foliage in the area identified. A survey, included with the submitted plans, identified a series of trees along the south side of Northeast 45<sup>th</sup> Street with heights ranging between 85'-95'tall. The survey further notes other trees in the area range between at 50' or less in height.

Per the applicant, the requested height is the minimum acceptable to provide the needed coverage with respect to the neighboring cell sites. Strict application of the height standards would compromise the applicant's ability to provide wireless services that would meet increasing user demand and federally mandated E911 location accuracy requirements for the intended coverage area mentioned above.

- e. *If the proposed minor communication utility is proposed to be a new freestanding transmission tower, the applicant shall demonstrate that it is not technically feasible for the proposed facility to be on another existing transmission tower or on an existing building in a manner that meets the applicable development standards. The location of a facility on a building on an alternative site or sites, including construction of a network that consists of a greater number of smaller less obtrusive utilities, shall be considered.*

The subject proposal is not a new freestanding transmission tower. Therefore, this provision is not applicable.

#### **SITING RECOMMENDATION TO SUPERINTENDENT OF SEATTLE CITY LIGHT**

Based on the above analysis the Director of the Department of Planning and Development recommends to the Superintendent of Seattle City Light to **grant** the application to install a minor communication utility on Seattle City Light pole in the public right-of-way in a residential zone, subject to conditions requiring painting portions of the facility to minimize visual impact. The recommended condition is enumerated at the end of this report.

#### **ANALYSIS - SEPA**

The initial disclosure of the potential impacts from this project was made in the environmental checklist submitted by the applicant dated February 26, 2004. The information in the checklist, applicant's statement of Federal Communication Commission Compliance, supplemental information and the experience of the lead agency with the review of similar projects form the basis for this analysis and decision.

Many environmental concerns have been addressed in the City's codes and regulations. The SEPA Overview Policy (SMC 25.05.665) discusses the relationship between the City's code/policies and environmental review. The Overview Policy states, in part, "*Where City regulations have been adopted to address an environmental impact, it shall be presumed that such regulation are adequate to achieve sufficient mitigation*" subject to some limitations. It may be appropriate to deny or mitigate a project based on adverse environmental impacts in certain circumstances as discussed in SMC 25.05.665 D1-7. In consideration of these policies, a more detailed discussion of some of the potential impacts is appropriate.

### Short - Term Impacts

The following temporary or construction-related impacts are expected; decreased air quality due to suspended particulate from building activities and hydrocarbon emissions from construction vehicles and equipment; increased traffic and demand for parking from construction equipment and personnel; consumption of renewable and non-renewable resources. These impacts are expected to be very minor in scope and of very short duration considering the installation process. No conditioning pursuant to SEPA is warranted.

### Construction and Noise Impacts

Codes and development regulations applicable to this proposal will provide sufficient mitigation for most impacts. The initial installation of the antennas and alteration of the equipment room may include loud equipment and activities. This construction activity may have an adverse impact on nearby residences. Due to the close proximity of nearby residences, the Department finds that the limitations of the Noise Ordinance are inadequate to appropriately mitigate the adverse noise impacts associated with the proposal. The SEPA Construction Impact policies, (SMC 25.05.675.B) allow the Director to limit the hours of construction to mitigate adverse noise and other construction-related impacts. Therefore, the proposal is conditioned to limit construction activity to non-holiday weekday hours between 7:30 a.m. and 6:00 p.m.

### Long - Term Impacts

Long-term or use-related impacts are also anticipated as a result of approval of this proposal, namely increases in demand for energy and increased generation of electromagnetic radiation emission. These long-term impacts are not considered significant or of sufficient adversity to warrant mitigation. However, due to the widespread public concerns expressed about electromagnetic radiation, this impact is further discussed below.

### Environmental Health

The Federal Communications Commission (FCC) has been given exclusive jurisdiction to regulate wireless facilities based on the effects of electromagnetic radiation emissions. The FCC, the City and County have adopted standards addressing maximum permissible exposure (MPE) limits for these facilities to ensure the health and safety of the general public. The Seattle-King County Department of Public Health has reviewed hundreds of these sites and found that the exposures fall well below all the maximum permissible exposure (MPE) limits. The Department of Public Health does not believe these utilities to be a threat to public health.

The City is not aware of interference complaints from the operation of other installations from persons operating electronic equipment, including sensitive medical devices (e.g. - pacemakers). The Land Use Code (SMC 23.57.012C2) requires that warning signs be posted at every point of access to the antennas noting the presence of electromagnetic radiation. In the event that any interference were to result from this proposal in nearby homes and businesses or in clinical medical applications, the FCC has authority to require the facility to cease operation until the issue is resolved.

The information discussed above, review of literature regarding these facilities, and the experience of the Departments of Planning and Development and Public Health with the review of similar projects form the basis for this analysis and decision. The Department concludes that no mitigation for electromagnetic radiation emission impacts pursuant to SEPA policies is warranted.

### Land Use

The Seattle Land Use Code and the Street Use Code specifically contemplate and regulate the location of minor communication facilities. The administrative conditional use criteria found in SMC 23.57 adequately mitigates potential adverse impacts of siting telecommunication antennas where they could be permitted in Lowrise zones whether a proposal requires the ACU for location on private property or requires a siting review and recommendation to the Superintendent of City Light. Therefore, the proposal does not warrant conditioning pursuant to the SEPA Land Use Policy 25.05.675 J.

Other long term impacts such as height, bulk and scale, traffic, and air quality are minor and adequately mitigated by the City's existing codes and ordinances. Provided that the proposal is constructed according to approved plans, no further mitigation pursuant to SEPA is warranted.

### **DECISION - SEPA**

This decision was made after review by the responsible official on behalf of the lead agency of a completed environmental checklist and other information on file with the responsible department. This constitutes the Threshold Determination and form. The intent of this declaration is to satisfy the requirement of the State Environmental Policy Act (RCW 43.21.C), including the requirement to inform the public of agency decisions pursuant to SEPA.

[X] Determination of Non-Significance. This proposal has been determined not to have a significant adverse impact upon the environment. An EIS is not required under RCW 43.21.030(2)(C).

[ ] Determination of Significance. This proposal has or may have a significant adverse impact upon the environment. An EIS is required under RCW 43.21C.030(2)(C).

### **RECOMMENDED CONDITIONS TO SUPERINTENDENT OF SEATTLE CITY LIGHT**

#### For the Life of the Permit

1. The owner(s) and/or responsible party(s) shall ensure that the antennas and support structures are painted to blend with the color (non-glare) of the Seattle City Light pole.

Land Use Code Requirement (Non-Appealable) Prior to Issuance of Master Use Permit

2. This proposal includes the creation of an equipment room in a structure that has not been permitted at this time. Therefore, the new multifamily residential building (MUP application #2208249) permit must be issued prior to the issuance of this application.

**CONDITIONS – SEPA**

During Construction

The following condition to be enforced during construction shall be posted at the site in a location on the property line that is visible and accessible to the public and to construction personnel from the street right-of-way. If more than one street abuts the site, conditions shall be posted at each street. The conditions will be affixed to placards prepared by DPD. The placards will be issued along with the building permit set of plans. The placards shall be laminated with clear plastic or other waterproofing material and shall remain posted on-site for the duration of the construction.

1. In order to further mitigate the noise impacts during construction, the hours of construction activity shall be limited to non-holiday weekdays between the hours of 7:30 a.m. and 6:00 p.m. This condition may be modified by DPD to allow work of an emergency nature or allow low noise interior work. This condition may also be modified to permit low noise exterior work after approval from the Land Use Planner.

Signature: (signature on file)  
Tamara Garrett, Land Use Planner  
Department of Planning and Development

Date: January 16, 2006