

CONDITIONAL USE PERMIT APPLICATION PROJECT NARRATIVE

INTRODUCTION

The City of Mercer Island (City) Public Works Department (PWD) is seeking a Conditional Use Permit (CUP) for installation of water meter data collection equipment at an additional location. This project is considered an Essential Public Facility (EPF) (Mercer Island City Code (MICC) 19.16.010.E – Essential public facilities). An EPF requires a Conditional Use Permit in all zones (MICC 19.06.100(D)).

BACKGROUND AND NEED FOR THE PROJECT

The City operates a water utility meter reading program that involves reading 82% of meters manually and reading the remaining 28% through a radio read system. Water metering information is used in the City's utility billing system, from which utility billing statements are generated.

In 2018, the City began evaluating options to improve its water metering practices, which led to a comprehensive Water Meter Replacement Program (the Program). The Program includes implementing an Advanced Metering Infrastructure (AMI) system that has involved replacement of nearly 7,900 existing water meters with new smart meters, standardized in type and technology. This will enable a meter-reading approach that will best support reduced water loss and improved water resource management. The new meters will automatically transmit water usage data to the City on an hourly basis via data collection equipment on utility poles or other structures.

PROJECT DESCRIPTION

The Applicant is proposing to install water meter data collection equipment on utility poles or other structures across Mercer Island. A propagation study was completed on 1/10/2024 to assist with location selection. The proposed locations were identified due to their ability to capture transmissions from water meters across Mercer Island. The proposed location is not in the Town Center Zone.

The data collection equipment at W. Mercer Way & E. Mercer Way (project site) is proposed for installation in the City right-of-way (ROW). The data collection equipment would include two elements: a coated aluminum box approximately 22-inches by 22-inches by 10.5-inches in size (base station) and an antenna that is approximately 9 feet, 1 inch tall and 1.5 inches wide. Installation of the base station and antenna would be on a City-owned pole in the ROW. A new 55' pole will be installed by the City at 47.525862, -122.226832 (See Figure 1: Site Map) to replace an existing City-owned pole. The base station will be installed on the pole approximately 15 feet from the ground and the antenna will be installed at the top of the 55-foot pole (reaching a total height of 64 feet 1 inches) (See Figure 2: Pole Diagram).

CRITICAL AREAS

The City of Mercer Island defines critical areas as geologically hazardous areas, fish and wildlife habitat conservation areas, watercourses, and wetlands (MICC 19.16.010) and requires any development activity, and all structures and facilities that contain critical areas and/or their buffers to be reviewed prior to authorization of development (MICC 19.07.020).

According to our desktop review, the project site is within a landslide, erosion, steep slope, and seismic hazard area (geologically hazardous area). The Project would be exempt from provisions of Chapter

19.07 MICC as a minor expansion of public utility structures and their associated facilities (MICC 19.07.120(D)(2)). However, a review of mitigation sequencing is provided in the Code Compliance Matrix.

Consultation with the code official occurred during the pre-application meeting for the project where critical area study requirements were waived (pursuant to MICC 19.07.119). Consistent with MICC 19.07.100, reasonable methods are proposed to minimize impacts to the geologically hazardous area. Please see compliance with mitigation sequencing under Decision Criteria below. The development proposal is minor in nature and will not increase the risk of landslide, erosion, or harm from seismic activity.

CONSTRUCTION

The new pole upon which the equipment will be mounted will be designed and installed by the City. As that design/construction effort will be initiated by the City, the construction notes provided here do not address installation of the pole itself; rather, the focus of this discussion is upon the attachment of the data box and associated antenna to the pole.

The staging and construction area would be approximately 40 feet by 40 feet (160 square feet). Installation machinery would include a manlift. All construction would occur over 1-2 days during daylight hours and include up to three construction workers; no nighttime work is proposed.

The existing site is pre-disturbed ground cover; no vegetation is anticipated to be removed or altered. Likewise, no trees are proposed for removal or alteration. There are no anticipated stormwater runoff or surface water issues as the data box and antenna will not create any ground disturbance or impervious surfaces.

OPERATIONS

Post-installation, minimal equipment maintenance is required. In the event of an emergency or malfunctioning equipment, an initial investigation can be completed remotely. If the situation cannot be resolved remotely, a site visit would occur by a professional trained technician to inspect and maintain the equipment, and to make any necessary adjustment or repairs. For onsite inspection and maintenance of the antenna, a lift truck would be used.

STATE ENVIRONMENTAL POLICY ACT

The State Environmental Policy Act (SEPA) is required to be fulfilled for this Project. A SEPA Checklist is included with this submittal.

SCHEDULE

The schedule is highly dependent on receiving permit approvals and lead times on construction materials. The applicant would like the equipment to be in service by the end of Q2 2025 to support the Program schedule.

DECISION CRITERIA

Review of the MICC development criteria required to be met for proposal approval (MICC 19.06.100, 19.06.110, and 19.06.120) is included in the Code Compliance Matrix document submitted with this application package