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# Discussion of Required Electrical Utility Undergrounding in the 145<sup>th</sup> Street Station Subarea and the Impact on the Sound Transit LLE Project and MUR-70' Development



February 28, 2022

# Overview

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- Background on SMC 13.20 and electrical undergrounding
- Background on electrification of the ST LLE Project
- Application of SMC 13.20 on the LLE Project and for development
- Alternatives for Council consideration

# SMC 13.20 - Electrical and Communication Facilities

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- Provides City underground regulations
- SMC 13.20.100 – Purpose
- SMC 13.20.040 – Exceptions for undergrounding
- SMC 13.20.050 – Undergrounding required if:
  - City CIP project
  - Joint trenching project
  - ***New extensions, additions, duplications, or rebuilds or any new facilities in areas with no overhead wires***

# Electrification of the ST LLE Project

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- LLE Project elements requiring 3-phase power:
  - Temporary Construction Power
  - Station and Parking Garage Power
  - Traction Power Sub-Station (TPSS) – power to make light rail train operate
- SCL 5<sup>th</sup> Ave Duct Bank
  - 3-phase power to ST LLE
  - Schedule delayed 2023 to 2027



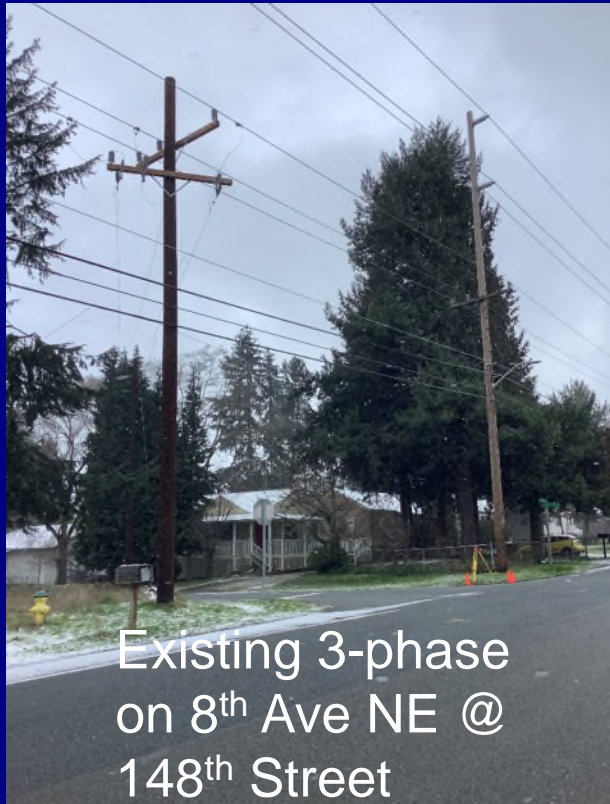
# What is at issue – LLE Station and Garage

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- With delay in duct bank project, direct bury power in 5<sup>th</sup> Ave not accessible/usable
- Closest 3-phase power on 8<sup>th</sup> Ave NE
- For LLE Project construction, temp power extended from 8<sup>th</sup> Ave NE on NE 148<sup>th</sup> to ST station at 5<sup>th</sup> Ave
- Proposal to use this power for interim operational power; *Code amendment required*

# New Temp Overhead 3-Phase Power on NE 148<sup>th</sup> Street

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# What is at issue - TPSS

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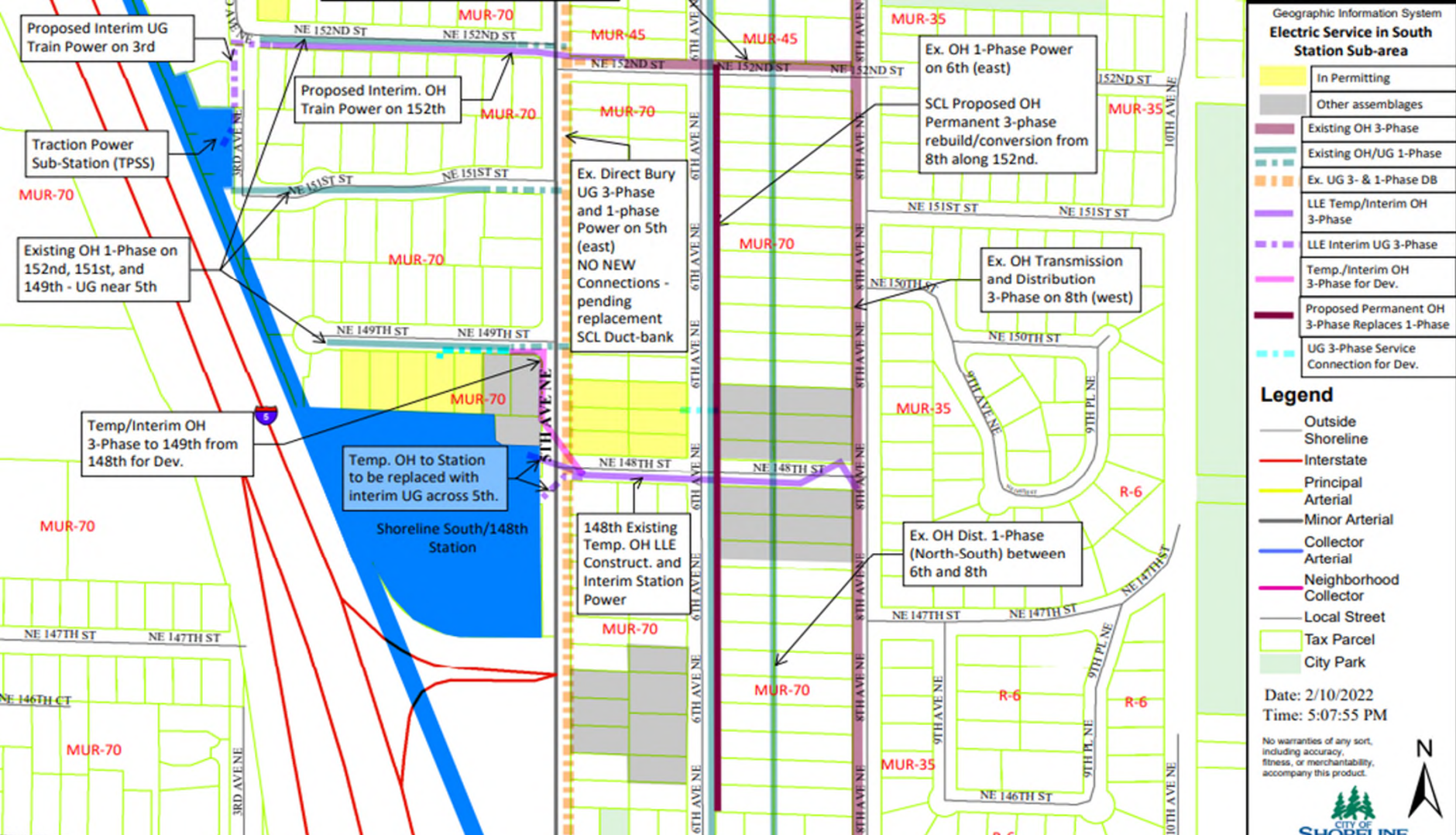
- Additional 3-phase Power needed to power TPSS
- Without duct bank or alternative overhead 3-phase power source, Sound Transit service will be delayed
- Proposal to upgrade/rebuild powerlines along 152<sup>nd</sup> to 3<sup>rd</sup> Ave to power TPSS until duct bank completed; *Code amendment required*

# Existing Overhead Power on NE 152<sup>nd</sup> Street

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Geographic Information System

### Electric Service in South Station Sub-area

	In Permitting
	Other assemblages
	Existing OH 3-Phase
	Existing OH/UG 1-Phase
	Ex. UG 3- & 1-Phase DB
	LLE Temp/Interim OH 3-Phase
	LLE Interim UG 3-Phase
	Temp./Interim OH 3-Phase for Dev.
	Proposed Permanent OH 3-Phase Replaces 1-Phase
	UG 3-Phase Service Connection for Dev.

### Legend

	Outside
	Shoreline
	Interstate
	Principal Arterial
	Minor Arterial
	Collector Arterial
	Neighborhood Collector
	Local Street
	Tax Parcel
	City Park

Date: 2/10/2022  
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# What is at issue – New Development

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- Some development in 145<sup>th</sup> Station Subarea also relying on duct bank project for 3-phase power
- Need temporary construction power and interim operational power until duct bank is completed
- Proposal to allow overhead temporary construction power as an exception to undergrounding regulations;  
*Code amendment required – SMC 13.20.040*
- Proposal for some overhead ‘interim’ power to be constructed/remain in place until duct bank completed;  
*Code amendment required – SMC 13.20.050*

# Council Policy Questions

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- Is Council supportive of an amendment to SMC 13.20.040 to allow for overhead temporary construction power? (Option 1)
- Is Council also supportive of some level of interim overhead power until SCL-planned facilities are installed? (Option 2)

# Recommendation

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1. Allow for overhead temporary construction power; amend SMC 13.20.040 immediately
2. Allow for interim overhead power in some circumstances until SCL-planning undergrounding facilities are installed; amend SMC 13.20.050 subsequently
3. Continue to engage with SCL