

Appendix G4

Solar Access Analysis

Prepared by Bassetti Architects

September 2, 2021

MEMORANDUM

Date 9/2/2021

To Tom Mullins

From Jordan Kiel

Copies to Todd Sawin, Brian Urban

Subject Impact to Solar Access for Bellewood

Mitigation

The impacts to solar access to Bellewood due to the construction of Issaquah High School #4 and the associated fields has been mitigated. As currently proposed, the project does not have a significant impact to the amount of sunlight that will reach the Bellewood residences. This is based on studying sun angles depicted in the attached site sections. The mitigation has been achieved through two primary design changes:

- Rotating the field so that the outfield could gradually (within regulation) slope down and reduce the height of the retaining wall
- Moving the entry drive to the south allowing the fields to also slide south and providing a minimum 45' buffer – more than double the required amount.

Existing Conditions

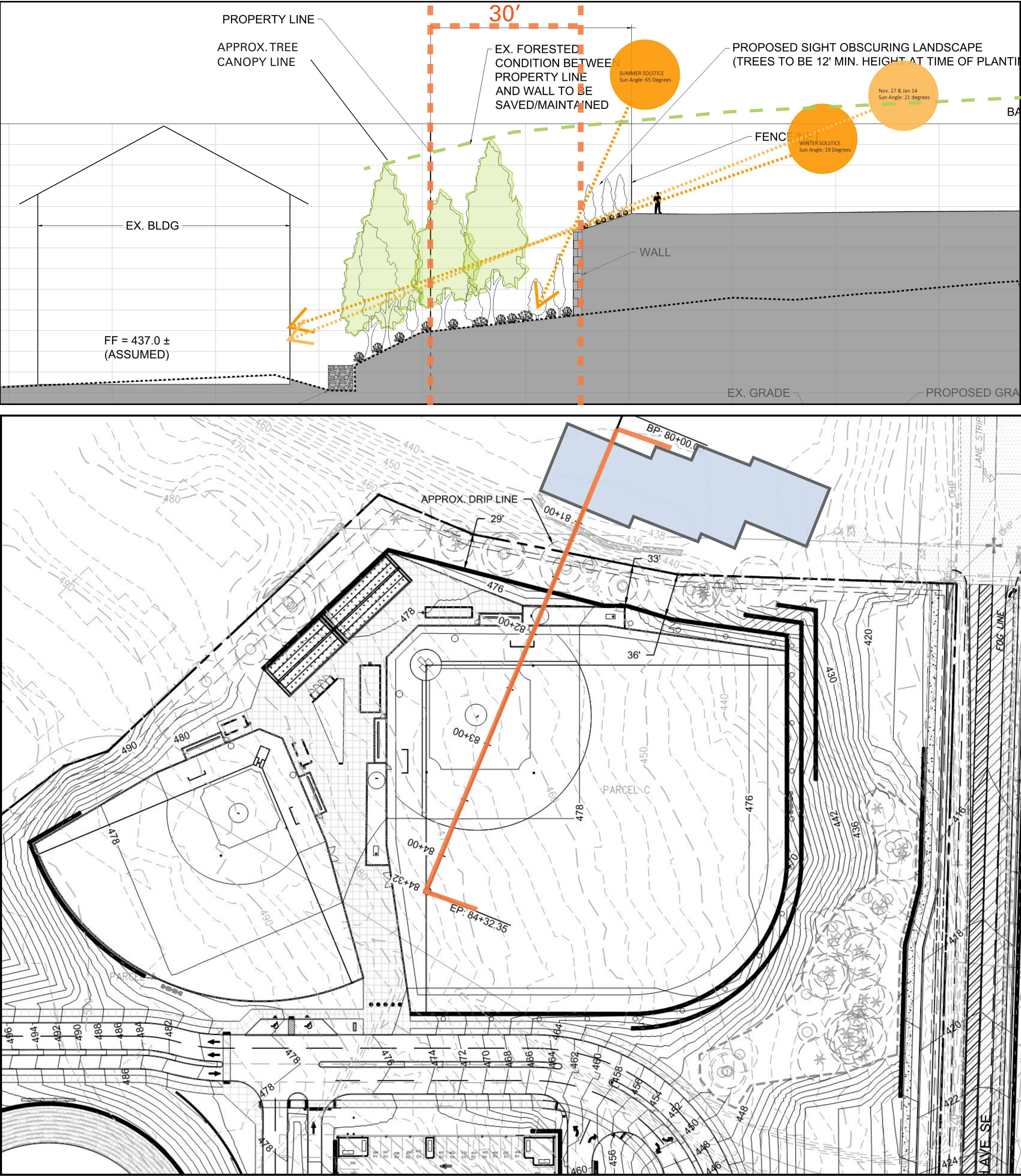
Before discussing the sun angles and the potential shadows cast by the proposed retaining wall, it is worth noting that the school district has gone to great lengths to retain as many of the existing trees as possible and to provide a vegetated buffer between the school site and its neighbors. This buffer includes many mature trees, some as tall as eighty feet, which are presently casting shadows on the Bellewood property. Nothing proposed by the school district is taller or closer to Bellewood than the trees currently casting shadows on the property.

Site Sections

Both site sections show three sun angles, the summer solstice at noon, the winter solstice at noon, and the angle at which the shadow cast by the retaining wall would not reach any of the windows of the Bellewood residences. The potential for a shadow cast by the retaining wall to impact the light entering a lower level window is limited to the period of time between the end of November and mid-January and to times of the day in which the disc of the sun is visible. This represents a very small number of total hours annually and when it does occur, the existing trees and vegetation have far more significant impacts.

END OF MEMORANDUM

BELLEWOOD DISCUSSION / PREVIOUS SITE ADJACENCY STUDY

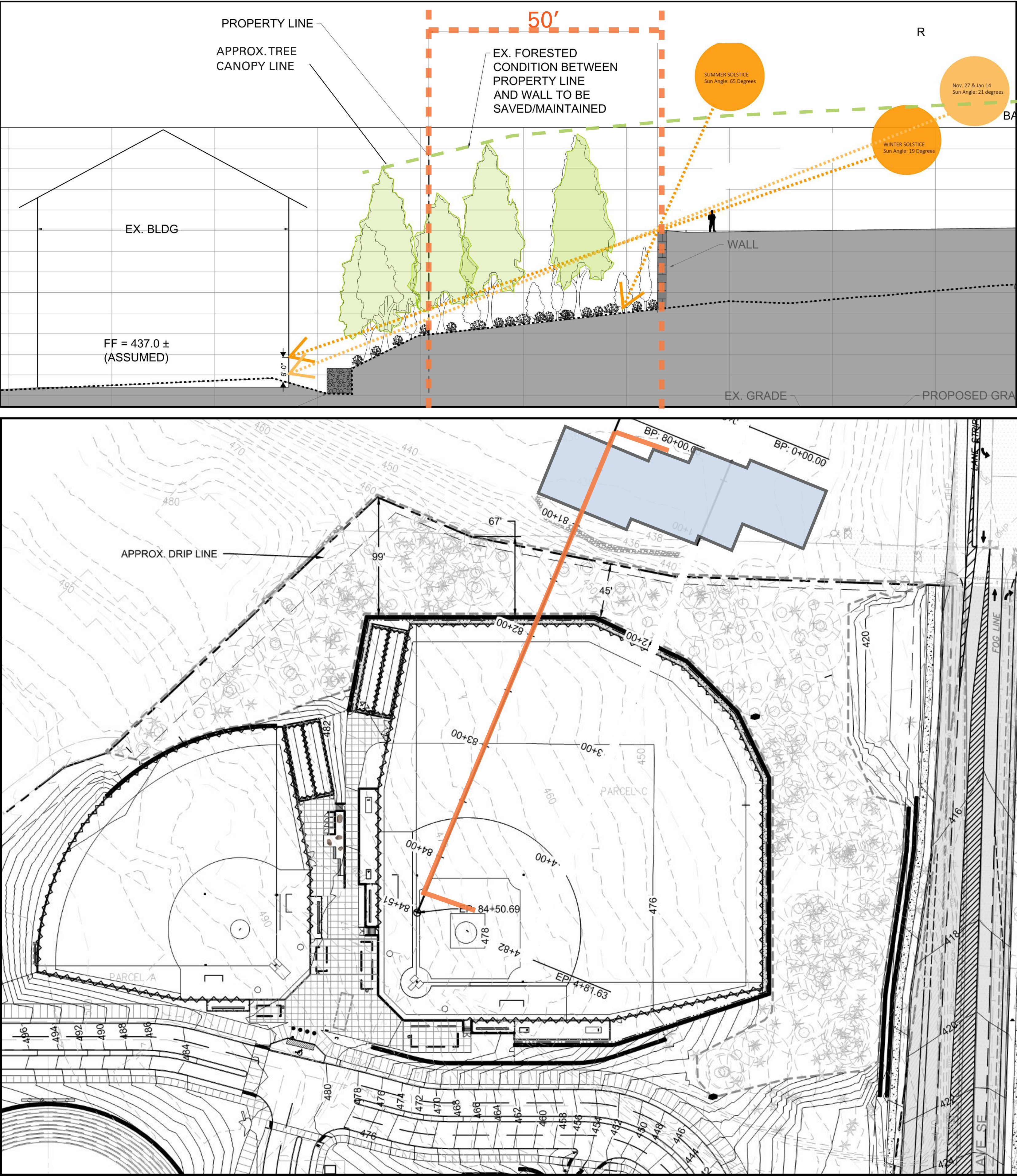


APPROX. LOCATION OF 228TH AVE. SE

APPROX. LOCATION OF PROPERTY LINE



BELLEWOOD DISCUSSION / CURRENT SITE ADJACENCY STUDY



APPROX. LOCATION OF 228TH AVE. SE

APPROX. LOCATION OF PROPERTY LINE

