

WAUKESHA COUNTY DEPARTMENT OF  
PUBLIC WORKS  
MEMO

DATE: September 8, 2015  
TO: Doug Koehler, Planner, City of Waukesha  
FROM: Karen Braun, P.E. Senior Civil Engineer  
SUBJECT: Waukesha West Bypass  
Project IS 2788-00-22  
310 Merrill Hills Road  
We Energies Substation Access

This memo is being provided as a follow up to the questions and requests made by the City of Waukesha Planning Commission in regards to the relocation of the We Energies Substation at 310 Merrill Hills Road. The County has requested that the City allow us to remove the 2 existing gravel driveways from CTH TT (Merrill Hills Road) and replace them with a single asphalt paved driveway from Howell Avenue.

**Issue 1:**

The planning commission has asked that the access gate proposed for Howell Avenue be relocated further from the Howell Avenue frontage.

Waukesha County and We Energies have discussed the gate location and we are able to relocate the gate further back on the site to a point that is approximately 65 feet from the existing sidewalk. There is a safety and access concern by We Energies for this site and they are concerned that moving this gate too far from the Howell Avenue Driveway could encourage the public to park on the site in front of the gate and block access. The gate location needs to discourage the public from entering or using this driveway to maintain the public safety and the function of the substation.

**Issue 2:**

The planning commission has asked that the access gate proposed for Howell Avenue be modified to a decorative type fence with masonry posts.

We Energies has reviewed the gate design and structure along with the safety of the site. They have recommended keeping the proposed gate system as previously shown in the revised location discussed above. To better blend this gate into the neighborhood setting, we have revised the landscape design to include plantings of Austrian Pine trees near the gate to better blend the posts into the site and visually block the gate structure from the adjacent residential properties.

The gate is a standard access control gate and not only provides the security for the site, but also has several safety features to protect the public.

1. The proposed gate is a metal frame structure with a reflective yellow coating. This reflective coating helps increase safety by making the gate visible to vehicles (including bikes, snowmobiles and cars) and eliminating crashes. We Energies has had poor results using other types of color and reflective enhancements in the past, including decals that peel from the gate, paint that chips and degrades and coverings that lose reflective quality over time. This system will be the safest for the public in the long term.
2. The gate is a clear barrier between the public and this site. This is a power substation and serves a large section of Waukesha. The site must be secure and protected at all times, and public access needs to be discouraged. A decorative or non commercial gate structure would make the site look more inviting to the public and encourage access by non authorized parties. This type of intrusion can lead to accidents, blockage of emergency access, theft and possible electrical outages.
3. Masonry base gate posts are not compatible with the recommended gate for this site. This type of decorative treatment would lead to the same issues with making this site more inviting to the public. In place of decorative posts, we are proposing to increase nearby plantings to better block the view of the gate and posts for adjacent owners.

**Issue 3:**

The planning commission has asked that additional plantings be included along the driveway to better buffer the site.

1. We have reviewed the landscape plan and included additional pine tree plantings to better buffer the driveway. We are proposing Austrian Pine plantings at the site that will mature between 30 and 50 feet in height. These trees are extremely hardy, fast growing and feature spreading branches. The tree is recommended for privacy screens and will provide a buffer for the adjacent properties. We have also shown the existing plantings on the plan view to illustrate that the majority of existing landscape can be preserved with the proposed driveway at this site.

**Issue 4:**

The planning commission has asked that plantings and screening be placed along the property's CTH TT frontage.

Waukesha County and We Energies have discussed the request, but are unable to offer any screening to the CTH TT frontage for the following reasons:

1. This is an electrical substation and needs to be seen from the public street for police patrol, security and safety. Due to the recent uptake in copper theft, concerns with vandalism and safety of the public, screening is strongly discouraged along the site's highway frontage.
2. The planned Waukesha West Bypass will be approximately 6.5 feet higher than the substation elevation at the sidewalk. This elevation difference would cause any low height screening placed at the site's CTH TT right of way line to be at the foot of the slope and invisible from CTH TT or Kisdon Hill. Plantings placed within the right of way at the top of the slope at this location would block visibility to the site and present a safety hazard.

3. The site's frontage is open and unscreened from CTH TT; however, adjacent residential properties in the Kisdon Hill Subdivision do not have a view of the site. Kisdon Hill Drive is curved and climbs steeply at this subdivision. The homes are screened by existing trees and growth along the curved roadway and do not have direct views of the substation. The Kisdon Hill roadway does have limited views of substation from the CTH TT intersection only.

Waukesha County and We Energies are hopeful that the Planning Commission will approve relocating the existing We Energies driveways.

- The removal of 2 driveways on CTH TT reduces conflict points at the highway and increases safety for everyone using the roadway and sidewalks.
- The relocation of the driveways will result in better access for We Energies to this site for maintenance, repair and upgrades. This substation provides electrical service for a large portion of the City of Waukesha and its continued safe operation is in the best interest of the City.
- The relocation of the We Energies Driveways allows Waukesha County to raise the planned Bypass highway grades at the Kisdon Hill intersection. Replacing the We Energies driveway at its current location would require a significant design change at the Kisdon Hill intersection and could result in a raised median across the frontage with right in right out access only.
- The Waukesha West Bypass is a publically funded project and is required to provide the most efficient use of taxpayer dollars to construct a safe functional highway project. We incorporated the planning commission's request for increased landscape buffering at this site, however; the County and State have limited resources that preclude additional costs such as masonry pillars, decorative structures and other enhancements that the landowner opposes.

Waukesha County is required to provide all adjacent landowners with reasonable access to the roadway. If the plan commission cannot approve the relocated driveway for We Energies as proposed, Waukesha County and We Energies will move forward with the replacement of the existing driveways at their current location. This option will cause a change at the Kisdon Hill intersection and could result in split profiles along the bypass with limited access at the intersection. This alternative does not increase highway safety, site function or benefits to the community.



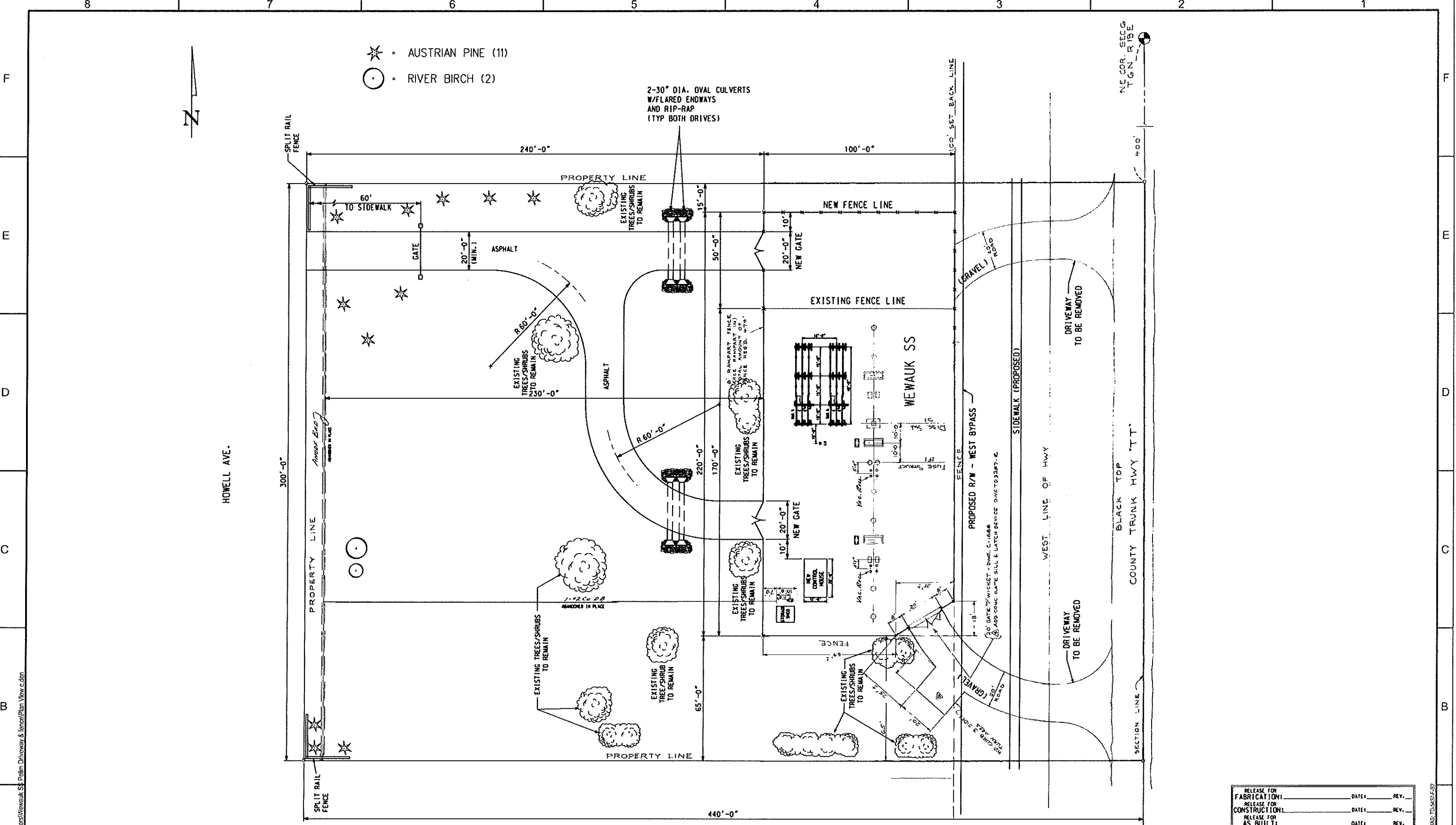
09/03/2015 11:29





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\* = AUSTRIAN PINE (11)  
 ○ = RIVER BIRCH (2)

RELEASE FOR FABRICATION: \_\_\_\_\_ DATE: \_\_\_\_\_ REV: \_\_\_\_\_  
 RELEASE FOR CONSTRUCTION: \_\_\_\_\_ DATE: \_\_\_\_\_ REV: \_\_\_\_\_  
 RELEASE FOR AS BUILT: \_\_\_\_\_ DATE: \_\_\_\_\_ REV: \_\_\_\_\_

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REFERENCE DRAWINGS


REV. NO.	DATE	ORDER NO.	REVISION DESCRIPTION	WR. NO.	DRAWN	CHKD.	APVD.	REV. NO.	DATE	ORDER NO.	REVISION DESCRIPTION	WR. NO.	DRAWN	CHKD.	APVD.

REF FILES


MICROFILM No:

VENDOR No: 1


DRAWN DATE: 08-15 ORDER NO. 608259

CHKD DATE: WR. NO.

CHECKED DATE: WR. NO.

APPROVED DATE: SCALE

APR CAB


**PROPOSED NEW DRIVEWAY AND FENCE LAYOUT**  
 WEWAUK SUBSTATION  
**DWEW 121 PANL 000 00**