

**Hermen, Matt**



**From:** Hermen, Matt  
**Sent:** Thursday, August 20, 2015 1:57 PM  
**To:** Burgstahler, Ken  
**Subject:** FW: Transportation Model Land Use Assumptions - Rural Industrial Land Bank  
**Attachments:** 15867 LAND USE ANALYSIS.pdf

Sorry I didn't send this on your way earlier.

Matt

**From:** Chris Brehmer [mailto:CBREHMER@kittelson.com]  
**Sent:** Thursday, July 16, 2015 8:04 AM  
**To:** Hermen, Matt  
**Cc:** Euler, Gordon; Lebowsky, Laurie; Lisa Grueter; Julia Kuhn  
**Subject:** RE: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Hi Matt,

Attached is an updated circulation plan based on the feedback that you provided and building on Alternative 2 that was most recently provided.

Please let me know if you have questions or thoughts....

Thanks,  
Chris

Chris Brehmer, PE  
Principal Engineer

Transportation Engineering & Planning  
503-535-7473 (direct)

**From:** Hermen, Matt [mailto:Matt.Hermen@clark.wa.gov]  
**Sent:** Wednesday, July 08, 2015 10:16 AM  
**To:** Chris Brehmer  
**Cc:** Euler, Gordon; Lebowsky, Laurie; Lisa Grueter; Julia Kuhn  
**Subject:** RE: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Chris,

I agree. Alternative 2 is preferable for a variety of reasons:

- Maintains a greater amount of developable parcels
- Allows 139<sup>th</sup> St to access the full intersection with the signal at 134<sup>th</sup> St.
- Establishes a consistent grid pattern with the existing road network

- Thank you for addressing the issues raised during our coordination with WSDOT. I will schedule a conversation with RTC to re-run the model with this revised scenario and talk about studying the east and west side developments separately and combined.

Thanks,

Matt

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**From:** Chris Brehmer [<mailto:CBREHMER@kittelson.com>]  
**Sent:** Wednesday, July 08, 2015 9:55 AM  
**To:** Hermen, Matt  
**Cc:** Euler, Gordon; Lebowsky, Laurie; Lisa Grueter, Julia Kuhn  
**Subject:** FW: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Hi Matt,

Following up on the feedback you relayed from the County/WSDOT meeting, attached are two potential alternative circulation plans for your consideration. Both alternatives assume signalization of the SE 134<sup>th</sup> Street intersection with SR 503 and right-in/right-out only access at SE 139<sup>th</sup> Street/SE 144<sup>th</sup> Street at SR 503.

We believe Alternative 2 is preferable given the connectivity it would offer as well as the associated impacts to private land parcels/future property access.

Would you please review and let us know your thoughts/feedback?

Once we identify a preferred alternative, I would like to work with you and Shinwon to review/update the travel demand model to reflect these adjustments. We are also interested in confirming 1) if the RTC model link coding reflects the urbanizing characteristics of these new roadways and their connections to planned facilities (some of the trip assignment in the RTC modeling seems a bit counter-intuitive) and 2) if RTC could model development of a second RILB scenario with only the study area land on the east side of SR 503 developed to the assumed RILB uses.

Please let me know if you have questions and what your thoughts on the two attached alternatives are.

Thank you,  
Chris

Chris Brehmer, PE  
Principal Engineer

503 535 7433 (direct)  
Transportation Engineering / Planning

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**From:** Hermen, Matt [<mailto:Matt.Hermen@clark.wa.gov>]  
**Sent:** Wednesday, July 01, 2015 3:19 PM  
**To:** Chris Brehmer; Julia Kuhn  
**Cc:** Burgstahler, Ken; Euler, Gordon; Lebowsky, Laurie  
**Subject:** RE: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Chris,

Today we met with WSDOT regarding the proposed RILB concept plan to address impacts on the State system. In particular we talked about intersection spacing and circulation. Per WSDOT standards, they will not allow full intersections with signals less than 0.5 miles from existing signals. The proposed signal location @ 136<sup>th</sup> St would not meet their standards. Therefore, a signal at the 134<sup>th</sup> St extension is the only location where a new signal would be warranted. The proposed concept plan must be amended to reflect this state requirement.

While, the a signal at 134<sup>th</sup> would distribute traffic east-west an extension of 139<sup>th</sup> St to the site is still necessary. The County still requires connectivity with NE 139<sup>th</sup> St across the railroad in order to maintain circulation standards. The County prefers future roads to be in a grid pattern, allowing future development a predictable pattern for future connections.

Regarding the key findings below, I agree with all findings except the first bullet. Road segments that functioned near or at capacity experience a greater demand that may not accommodate additional trips. This occurs along SR-503 and 119<sup>th</sup> St at 132<sup>nd</sup> Ave.

The RILB application will require amendments to the Arterial Atlas. We look forward to processing those amendments concurrent with the RILB application in order to provide for successful economic development.

Thank you,

Matt

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**From:** Chris Brehmer [<mailto:CBREHMER@kittelson.com>]

**Sent:** Monday, June 29, 2015 11:12 AM

**To:** Hermen, Matt

**Subject:** FW: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Hi Matt,

Julia and I reviewed the new RTC data this morning. Based on our review, the key findings we see are:

- The additional land uses increase travel demand (as would be expected) but don't appear to create new systemic capacity issues. Fundamentally, we're not seeing large material differences in the travel demand.
- The travel demand patterns are oriented more north-south as opposed to east-west.
- There is continued forecast need for north-south facilities parallel to SR 503. Portions of NE 72<sup>nd</sup> are projected to operate over-capacity regardless of the RILB property.
- The modeling reinforces the need for north-south connectivity through the RILB property, particularly east of SR 503.
- The new 139<sup>th</sup>/west arterial through the RILB property west of SR 503 experiences better use (system benefit) but is well under-capacity.

I think one can conclude that the RTC modeling demonstrates the opportunity for the RILB property to complete needed connectivity improvements (both north-south and east-west). The modeling also demonstrates the need for north-south capacity and thus that the RILB property should be developed in a manner that does not preclude north-south connectivity and capacity collector options.

What are your thoughts?

Thank you,  
Chris

Chris Brehmer, PE  
Principal Engineer

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**From:** Harrington, Mark (RTC) [<mailto:Mark.Harrington@rtc.wa.gov>]  
**Sent:** Friday, June 26, 2015 5:18 PM  
**To:** Hermen, Matt; Chris Brehmer  
**Cc:** Kim, Shinwon  
**Subject:** RE: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Matt and Chris,

Shinwon ran a sub-area analysis of TAZs 512 and 513 using the assumption of 9 jobs/acre. The both TAZs were split into four zones each to provide better centroid loadings to the internal industrial collector system.

Plots for 2010, 2035 RTP and 2035 RILB pm peak hour volumes and v/c ratios are on our FTP site at the following link - <ftp://ftp.rtc.wa.gov/staff/mark/RILB/>

I'll be out next week, so if you have any questions Shinwon should be able to help you.

Cheers,

Mark Harrington  
P 360-397-6067 x5207

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**From:** Hermen, Matt  
**Sent:** Friday, June 19, 2015 11:10 AM  
**To:** 'Chris Brehmer', Harrington, Mark (RTC)  
**Subject:** RE: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Per the conceptual plan, there are 150 acres in TAZ 512 and 228 acres in TAZ 513. This equates to 1350 jobs in TAZ 512 and 2052 jobs in TAZ 513. As Mark mentioned Wednesday, the assumptions include additional jobs being added to the system, without the housing being matched to accommodate the workers. While that balance would require greater efforts, it should be acknowledged in the analysis.

Thanks you Mark for your help and directing our previous conversation.

Enjoy your time off,

Matt

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**From:** Chris Brehmer [<mailto:CBREHMER@kittelson.com>]  
**Sent:** Thursday, June 18, 2015 4:47 PM  
**To:** Harrington, Mark (RTC), Hermen, Matt  
**Subject:** FW: Transportation Model Land Use Assumptions - Rural Industrial Land Bank

Hello,

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- Per the e-mails below, we've been given direction to proceed with a model update assuming 9 jobs/acre with a site total of 378 acres (3,402 jobs).

Please let me know if you have questions and/or if you need anything from me to move ahead.

Thank you,  
Chris

Chris Brehmer, PE  
Principal Engineer

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**From:** Lisa Grueter [<mailto:Lisa@berkconsulting.com>]  
**Sent:** Thursday, June 18, 2015 4:42 PM  
**To:** Chris Brehmer  
**Cc:** Julia Kuhn; Tim Schauer  
**Subject:** FW: Transportation Model Land Use Assumptions

Hi Chris,

We're good to go with 9/acre.

Lisa Grueter, AICP  
206.493.2367 | DIRECT  
[www.berkconsulting.com](http://www.berkconsulting.com)

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**From:** Euler, Gordon [<mailto:Gordon.Euler@clark.wa.gov>]  
**Sent:** Thursday, June 18, 2015 4:39 PM  
**To:** Lisa Grueter  
**Cc:** Orjiako, Oliver; Hermen, Matt; Lebowsky, Laurie  
**Subject:** RE: Transportation Model Land Use Assumptions

Lisa:

Thanks for getting in touch. We assume, for comp plan purposes, 9 jobs per industrial acre. The 20 jobs per acre is the assumption we use for commercial development. It is correct to use the 9 jobs per acre because the rural industrial land bank site will be all zoned light industrial, although we will need to have a discussion about the up to 10% commercial allowed as part of industrial developments.

Gordy

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**From:** Lisa Grueter [<mailto:Lisa@berkconsulting.com>]  
**Sent:** Thursday, June 18, 2015 4:32 PM  
**To:** Euler, Gordon

**Cc:** Chris Brehmer; Julia Kuhn; Tim Schauer; Brian Murphy  
**Subject:** Transportation Model Land Use Assumptions

Hi Gordy,

Chris Brehmer at Kittelson has been talking with both County transportation staff and the Regional Transportation Council on transportation model land use inputs to test. Our team has also been corresponding on this.

The range of assumptions discussed so far include

- 9 jobs / acre
- 20 jobs / acre

The 9 jobs / acre is based on the Clark County VBLM model which assumes 9 jobs per developable industrial acre in all UGAs. Here's a sample table for Vancouver.

Location	Developable Net Acres	Jobs	Jobs Per Acre (Estimated)
Vancouver			
City	1,430.2	12,871	9
UGA	1,067.4	9,607	9
Total	2,497.6	22,478	9

[http://www.clark.wa.gov/planning/comp\\_plan/documents/2014UGACapacityAnalysis.pdf](http://www.clark.wa.gov/planning/comp_plan/documents/2014UGACapacityAnalysis.pdf)

That would mean a total number of jobs of 3,402 on the 378 developable acres we've estimated so far.

20 jobs / acre is a figure that has been used in the RTC model in the past in some cases (for each project the RTC asks for local government direction). That would result in 7,560 jobs on the docket site.

Our team's reaction is that 20 jobs per acre seems too high, and we would recommend 9 jobs per acre to be consistent with your other planning assumptions. Based on the VBLM and other assumptions I've applied in other Comprehensive Plan and docket reviews for other Counties (e.g. Pierce County at 8.25 jobs per net acre of industrial land), I'm more used to the 9 jobs / acre end of the spectrum. Tim says that between the 20 and 9 jobs/acre range, he is definitely on the 9 end of that scale.

We wanted to get your take on the job density assumption so we can direct RTC. Their modeler is gone after next week and we would like to resolve the assumption this week.

Thanks,

**Lisa Grueter, AICP**  
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