



March 12, 2015

Anges Kowacz  
City of Woodinville  
17301-133<sup>rd</sup> Avenue NE  
Woodinville, WA 98072

RE: Additional Information Request for Parkwood Terrace (Church) Subdivision (PPA14001/SEP14017)  
Location: 20325 136<sup>th</sup> Ave NE/13457 NE 205<sup>th</sup> Street  
Parcel #, 032659049/0326059095  
Blueline Job No. 14-175

Ms. Kowacz:

This letter is in response to your review of the Parkwood Terrace (Church) Subdivision project. The plans and report have been revised according to the comments redlined on the plans and report dated December 19, 2014. Below is a list of each comment with our responses in bold.

## PLANNING

### Land Use

1. Lot 7 and Lot 14 do not meet the required minimum lot width at street of 50 feet. Pursuant to WMC 21.06.375.0020, if the front lot line is a curve, the lot width at street is measured "parallel to the tangent thereof, and at a distance from the front lot line equal to the depth of the required front yard." It appears that the Lot 7 has a lot width of 44 feet and Lot 14 has a lot width of 37 feet when measured using this method.  
**The plans have been updated to meet the required minimum lot width per WMC 21.06.375.0020.**
2. The east boundary of Tract 996 should be consistent with the stream buffer pursuant to WMC 21.24.180. Please be aware that if the 75-foot stream buffer is maintained, the edge of the buffer will be the new boundary of the NGPE. The report still does not demonstrate that the buffer reduction is warranted. See Comments 3 through 5 regarding the buffer reduction request.  
**Buffer reduction criterion has been addressed in updated Raedeke Associates Critical Area Assessment.**

### Critical Areas

The analysis and conclusions in the Critical Areas Assessment are unclear and do not substantiate a buffer reduction to 50 feet. The report should be revised to be consistent with the requirements of Chapter 21.24 WMC.

3. The Critical Area Assessment states that "Raedeke Associates, Inc. did not identify or delineate any wetlands on the property." However, Sheet 2 of the Preliminary Plat Map identifies wetland flags along

RECEIVED

MAR 12 2015

in Tract 996 as a wetland. The report uses still uses the term wetland throughout the report. Stream and wetland should not be used interchangeably. Plans state wetland also. The plans and report have been updated to accurately reflect the revised Raedeke Critical Area Assessment.

4. The Critical Area Assessment should provide information that evaluates the stream for the presence of fish including salmonid species. Include field reports or any information that was generated as a part of field work to support this finding. See email from Karen Walter (Muckleshoot Tribes) dated 12/9/2014.

**WDFW issued a HPA for in-stream work to the west of the Parkwood Terrace in February 2005. That HPA documents that the stream is not fish bearing and as such would be a Type 4 water under WAC 222-16-031. WDFW Type 4 waters and City of Woodinville Type 3 streams are analogous.**

5. In order to demonstrate that a reduced buffer is appropriate, the following must be included in the report consistent with WMC 21.24.380(1):
- Additional information and evidence supporting that the stream is significantly degraded. Specifically, address how/why various functions of the buffer are degraded.
  - Detailed information on the proposed mitigation. An explanation on how the mitigation is consistent with WMC 21.24.400 should be included. Specifically, address the present conditions and the level of function that is being provided (in terms of habitat, shade, water quality, etc.) and how the functions will improve with the enhancement.
  - An analysis of the mitigation demonstrating that it will provide a net improvement in overall stream and buffer function and value.
  - Please include the 5 year performance standards in section 6.2.3 of the report.
  - Provide information relating to costs of the planting and labor for bonding purposes.
  - Include language relating to the fence and signage that will alert the public of the critical area.
  - The upland area adjacent to the east side of the stream contains existing structures, driveways, and non-native plant species, such as a lawn, and as such is considered degraded and not in a natural condition.**
  - The City of Woodinville (2014) code requires a 75 foot buffer on Type 3 streams. The code (WMC 21.24.380(1)(a)) allows for reduction of the buffer to 50 feet wide provided that certain criteria are met and the retained buffer is enhanced to protect stream functions:

*(a) The standard buffer width will be established unless the existing stream buffer is significantly degraded. If the existing stream buffer is significantly degraded, the applicant may use the reduced buffer as referenced in subsection (1) of this section as long as enhancement measures are implemented to provide a net improvement in overall stream and buffer function and value as determined by a qualified biologist. Enhancement measures shall be conducted in accordance with a plan approved by the Development Services Director.*

the stream buffer is considered degraded, as it contains existing structures, an access drive, and a lawn, its basin is already developed with residential housing and associated roads, approximately 17% of the standard buffer area on-site is currently impervious surface. Consequently, the City code allows provision of a reduced buffer of 50 feet as long as buffer enhancement is proposed.

- The buffer enhancement is intended to restore native forest community adjacent to the stream. Successful implementation of the enhancement plan would over time result in enhanced functioning of the stream buffer for protection of stream functions, such as protection of water quality, wildlife habitat, and recruitment of organic matter, compared with current degraded conditions of the buffer.
- See Figure 4 and Performance Standards
- See Figure 4

f. See Figure 3

6. The geotechnical report should include the following information:
- a. Demonstrate compliance with the design standards outlined in 21.24.310(1)(c).  
**See Section 4.3 of geotechnical report by Terra Associates referencing removal of steep slopes within the right of way. Therefore, section 21.24.310(1)(c) of the design code is not applicable. Comment resolution acknowledged per email.**

Email from Agnes Kowacz of the City of Woodinville on 02/25/2015 to Ted Schepper of Terra Associates and Moira Haughian.

*"Since the slope will no longer exist that believe that this section may not be applicable. I reread what was written and I believe that it will be addressed. Thanks,"*

Trees and Landscaping

7. Street trees in the cul-de-sac appear to still be located on Lot 15. Please relocate to the right-of-way. **Trees on Lot 15 have been relocated to right of way where possible. Three trees were removed from the plan because of conflicts with utilities and signs.**
8. The submitted tree credit calculations, tree replacement data, and tree evaluation data are inconsistent and incorrect among the submitted plans and reports. Please review the following:
- a. The tree credit requirement is 30 credit per acre for this proposal, please revise across all documents.  
**Tree replacement data has been revised accordingly.**
  - b. Please update the plans and report so that the total site area is consistent. The plat indicates that the site is 2.98 acres, while the tree plan and arborist report indicates 2.97 acres. This results in a slight difference in total tree credit requirements.  
**Tree replacement data has been revised accordingly.**
  - c. The report and landscape plans are inconsistent regarding trees retention and tree density calculations. Please clarify which trees are being retained and provide consistent calculations across all documents. The tables on Sheet L1.02 and arborist report indicate some trees being removed, while Sheet L1.01 shows them as being retained.  
**Landscape plans have been coordinated with Arborist report.**
  - d. Some multipliers for the retained trees are incorrect. The multiplier is based on mature canopy of the tree species. Please keep in mind that the multiplier method is optional and it doesn't always result in a higher number of credits. I have attached a list of trees with the multipliers. If you do not find the tree on the list, please refer to one or all of the sources shown on the tree list provided to determine the multiplier.  
**Multipliers have been corrected.**
  - e. The tables on Sheet L1.02 refers to a different project.  
**Sheet L1.02 has been revised to reflect the current data for the Parkwood Terrace project.**
9. Please provide a revised copy of the Tree Evaluation Data tables (at the end of the Arborist Report and Sheet L1.02) so that the Action column is legible (it appears to be cut off).  
**The Tree Evaluation Data has been revised and included at the end of the Arborist Report as well as on Sheet L1.02.**

10. The Arborist Report essentially identifies all trees outside the NGPE as Type 3 trees. Type 3 trees are trees that are (a) not viable, or (b) is in an area where removal is unavoidable due to the anticipated development activity. The Tree Evaluation Data table shows that many trees slated for removal are viable, healthy trees. Additionally, the preliminary grading plans show that these trees will not be significantly affected by grading activities. Revise the plans and report to protect trees that are outside of anticipated development activity or provide additional information that justifies the removal of these trees consistent with WMC 21.15.060.

**The trees outside the NGPA to be removed are expected to be affected by the anticipated development activity in addition to proposed grading of the site for development. Therefore, the affected trees are Type 3 as they are in an area where removal is unavoidable due to the anticipated development activity.**

#### AGENCY(S) COMMENTS

Please review the attached comments from the following agencies:

1. Muckleshoot Indian Tribe, email dated December 9, 2014
  - a. Is the stream fish bearing?  
**WDFW issued a HPA for in-stream work to the west of the Parkwood Terrace in February 2005. That HPA documents that the stream is not fish bearing and as such would be a Type 4 water under WAC 222-16-031. WDFW Type 4 waters and City of Woodinville Type 3 streams are analogous.**
  - b. The TIR indicates that the existing culvert on NE 205<sup>th</sup> Street has a split in the pipe and is leaking water (Page 3-6). The condition and size of that culvert may be causing a fish-passage barrier and as such, it should be replaced as part of the project since the NE 205<sup>th</sup> Street improved as part of the project?  
**WDFW issued a HPA for in-stream work to the west of the Parkwood Terrace in February 2005. That HPA documents that the stream is not fish bearing and as such would be a Type 4 water under WAC 222-16-031. WDFW Type 4 waters and City of Woodinville Type 3 streams are analogous. Additionally, the split in the pipe is located on private property.**

#### PUBLIC WORKS

1. Please have your surveyor double check the profile for 136<sup>th</sup> Ave NE. Point should be taken and provided at 25-ft intervals along the centerline and the edge of pavement.  
**Grid spacing on Sheet RP-01 has been updated to include 25' intervals.**
2. Please use the desirable distance of 18-ft from the edge of the traveled roadway per AASHTO for the decision point. Also use the assumption of 11-ft lanes.  
**The location of the decision point used for the Intersection Sight Distance (ISD) analysis at the NE 205<sup>th</sup> Street/ 136<sup>th</sup> Avenue NE intersection and site access onto 136<sup>th</sup> Avenue NE was evaluated consistent with current City policy. This policy is consistent with AASHTO design specifications and was confirmed by City staff. The ISD decision point was evaluated at 14.5 feet from the edge of the traveled way for ISD Case B1 as described on page 9-36 in the AASHTO's current (2011) "A Policy on Geometric Design of Highways and Streets."**
3. Please revise the analysis to have the sight triangle vertex at the intersection of 136<sup>th</sup> Ave NE and NE 205<sup>th</sup> St, relocated from the centerline to the east edge of the lane.
  - a. The road already does not meet sight distance lengths recommended by AASHTO.
  - b. A car turning right from NE 205<sup>th</sup> St onto 136<sup>th</sup> Ave NE would already be traveling 10-15mph.
  - c. There are additional items that must be considered with the sight triangle:
    - i. There will be street trees located in the planter strip. I normally make an assumption that the crown will start 7-ft from grade.
    - ii. Currently it was planned to have street parking but if this interferes with the sight distance the street can be signed no parking and the curb pushed out.

**Email from Ryan Miller of City of Woodinville Public Works Department on 02/27/2015 to Jesse Birchman and Mike Swenson of Transpo Group.**

Subject: RE: Woodinville Church – Sight Distance Confirmation Follow-up. *“The City’s analysis of sight distance does concur with the one you performed. The City is crafting a letter in response, with our findings that will show the hearing examiner just that.”*

Email from Jesse Birchman of Transpo Group on 01/05/2015 to Moira Haughian and Geoff Tamble. Subject: RE: Church Development. *“...He (Ryan Miller) and Tom Hansen revisited the site and confirmed what our exhibit demonstrated; AASHTO sight-distance requirements are met with buildout. He (Ryan Miller) mentioned that he is working on an email response stating this and that he was intending to send it along soon.”*

**PUBLIC WORKS COMMENTS RECEIVED 1/27/2015**

1. This development is in close proximity to two elementary schools and a high school. There are sections of the roadway, on the way to school that do not have curb, gutter and sidewalk, please address safe walk routes to school.  
**Safe Walk Report has been prepared that details the walking paths along the identified routes to the nearby elementary school, Woodin Elementary School, and high school, Woodinville High School.**
2. The City has denied the following deviations or asked for additional information:
  - a. DEC14010 – The City will not deviate from standards that requires a 6-ft planter and a 5.5-ft sidewalk along NE 205 St. There does need to be a transition but the length shall match that of a similar taper on 136 Ave NE, with a taper length of 8-ft from the opposing section rather than 110-ft as currently shown.  
**The request for this variance has been removed. The planter strip, curb, gutter and sidewalk and tapering now meets the city’s code requirements.**
  - b. DEC14011 – The deviation seeks to clarify standard plan 352. The pertinent information on setbacks from the side property line can be found in the Woodinville Transportation Infrastructure Manual 1- 4.6.2.  
“No driveway approach, including end slopes, shall be allowed within 5' of the side property line, unless a written request is made to and approved by the Public Works Director, and the owner of the adjacent property is a co-signer of the driveway permit.”  
**The variance has been revised to specifically request which driveways on specific lots will need to vary from this standard. Please refer to updated variance request letter for more details.**
  - c. DEC14012 – Additional information has been requested on the footprint of planned houses and how not granting a deviation from having a 10-ft utility easement would affect these planned houses.  
**The variance has been revised to indicate the impact of this utility easement to all lots along the north property line adjacent to lot 14. Please refer to updated variance request letter for more details.**
3. The current plans show a sidewalk and planter with a decreased width around the outside of the Cul-de-sac. The City will require that the development does not deviate and decrease these widths. The sidewalk shall be 5.5-ft wide and the planter 6-ft wide. Please verify that this does not impact minimum lot sizing.  
**Plans have been updated to reflect this standard.**
4. The wall along NE 205<sup>th</sup> St does not meet the 5-ft setback requirement. To keep the wall in its current location an additional right of way dedication would need to be made to locate the wall in the public right of way with an easement for tails. Please revise and verify that this does not impact minimum lot sizing.  
**The grading of the wall has been updated to where it is 4' or less outside of the city’s ROW. Per the city’s code, anything under 4' can remain on private property outside of the BSBL.**

5. Illumination plans show that light levels at the intersection of 136<sup>th</sup> Ave NE and NE 205<sup>th</sup> St do not meet standards in the Woodinville Transportation Infrastructure Standards and Specifications. Fixtures must provide 1.5 times the highest required light level at all intersections.

**Per City of Woodinville Design Standards (Amended 2013), "local residential and collector streets intersecting other local residential and collector streets shall not require 1.5 times the illumination at other intersections, provided that one luminaire is placed at the intersection" (p. 1.45) Since NE 136<sup>th</sup> Street is classified as a collector roadway this standard would apply and only a single luminaire is required at the intersection.**

6. Remove existing CB#7000 and install a new culvert across 136<sup>th</sup> Ave NE. Please provide the current and proposed flows used to determine the sizing of the culvert, minimum of 12" diameter is required.

**Storm system has been revised to remove existing CB and provide new pipe across 136<sup>th</sup> Ave NE and outlet to the same location/elevation as existing pipe to be replaced.**

7. Relocate the storm filter to the intersection of 136<sup>th</sup> Ave NE and NE 205<sup>th</sup> St.  
**Relocating the storm filter to this location would cause additional existing ROW area to drain to the filter, which would require additional cartridges.**

Please call or email me with any questions or concerns at (425) 216-4051 x225 or [gtamble@thebluelinegroup.com](mailto:gtamble@thebluelinegroup.com).

THE BLUELINE GROUP



Geoff Tamble, PE  
Principal

**Moira Haughian**

---

**From:** Mike Swenson <Mike.Swenson@transpogroup.com>  
**Sent:** Friday, February 27, 2015 1:03 PM  
**To:** Moira Haughian; Jesse Birchman  
**Cc:** Geoff Tamble; Dené Kuzaro  
**Subject:** RE: Church Development

I talked to Ryan and with Tom's schedule he will not be able to get a letter to us. We can refer to his email and they will provide a formal letter prior to the hearing.

**Mike Swenson, PE, PTOE | Principal**  
Mike.Swenson@transpogroup.com  
t 425-821-3665 x208 | d 425-896-5208 | c 206-909-5785



---

**From:** Moira Haughian [mailto:mhaughian@thebluelinegroup.com]  
**Sent:** Friday, February 27, 2015 12:52 PM  
**To:** Mike Swenson; Jesse Birchman  
**Cc:** Geoff Tamble; Dené Kuzaro  
**Subject:** RE: Church Development

Wonderful thank you Mike!

**Moira L. Haughian | Planning Coordinator**  
**BLUELINE |** www.thebluelinegroup.com  
t 425.216.4051 x226 | f 425.216.4052  
LAND MATTERS :: Civil Engineering :: Land Use Planning

---

**From:** Mike Swenson [mailto:Mike.Swenson@transpogroup.com]  
**Sent:** Friday, February 27, 2015 12:50 PM  
**To:** Moira Haughian; Jesse Birchman  
**Cc:** Geoff Tamble; Dené Kuzaro  
**Subject:** RE: Church Development

Moira,

Attached is the email we received from Ryan this morning. I am trying to push him for a formal response by Monday.

**Mike Swenson, PE, PTOE | Principal**  
Mike.Swenson@transpogroup.com  
t 425-821-3665 x208 | d 425-896-5208 | c 206-909-5785



---

**From:** Moira Haughian [mailto:mhaughian@thebluelinegroup.com]  
**Sent:** Friday, February 27, 2015 12:45 PM  
**To:** Jesse Birchman; Mike Swenson  
**Cc:** Geoff Tamble; Dené Kuzaro  
**Subject:** RE: Church Development

Hi Jesse and Mike-  
Wondering if you have receive the documentation from Tom/Ryan yet?

Thanks,

**Moira L. Haughian** | Planning Coordinator  
**BLUELINE** | www.thebluelinegroup.com  
t 425.216.4051 x226 | f 425.216.4052  
LAND MATTERS :: Civil Engineering :: Land Use Planning

---

**From:** Jesse Birchman [mailto:[jesse.birchman@transpogroup.com](mailto:jesse.birchman@transpogroup.com)]  
**Sent:** Wednesday, February 25, 2015 7:49 AM  
**To:** Moira Haughian  
**Cc:** Geoff Tamble; Mike Swenson; Dené Kuzaro  
**Subject:** RE: Church Development

Moira,

I did not receive an email reply from either Ryan or Tom yesterday. Will follow up with a phone call/voicemail today.

Also, to make sure that you are aware, I will be on vacation beginning this Friday and returning to the office on Monday 3/9. I will be monitoring my emails for any fire drills that might occur and Mike will be available while I am out. Hopefully we can drum up a documentable response from Ryan and/or Tom before I leave.

**Jesse Birchman**, PE, PTOE | Senior Transportation Engineer  
Jesse.Birchman@transpogroup.com  
t 425-821-3665 x220 | c 425-761-5593



---

**From:** Jesse Birchman  
**Sent:** Tuesday, February 24, 2015 8:57 AM  
**To:** 'Moira Haughian'  
**Cc:** Geoff Tamble; Mike Swenson; Dené Kuzaro  
**Subject:** RE: Church Development

No, I have not. I'll follow up with Tom and Ryan today to see if they can provide documentary confirmation and provide you with an update by the end of the day.

**Jesse Birchman**, PE, PTOE | Senior Transportation Engineer  
Jesse.Birchman@transpogroup.com  
t 425-821-3665 x220 | c 425-761-5593



---

**From:** Moira Haughian [mailto:[mhaughian@thebluelinegroup.com](mailto:mhaughian@thebluelinegroup.com)]  
**Sent:** Tuesday, February 24, 2015 8:34 AM  
**To:** Jesse Birchman  
**Cc:** Geoff Tamble; Mike Swenson; Dené Kuzaro  
**Subject:** RE: Church Development

Hi Jesse-  
We are resubmitting this application on March 3<sup>rd</sup>, did you receive the below mentioned email from Tom Hanson?

Thanks,

**Moira L. Haughian** | Planning Coordinator  
**BLUELINE** | www.thebluelinegroup.com

t 425.216.4051 x226 | f 425.216.4052  
LAND MATTERS :: Civil Engineering :: Land Use Planning

**From:** Jesse Birchman [<mailto:jesse.birchman@transpogroup.com>]  
**Sent:** Monday, January 05, 2015 3:25 PM  
**To:** Moira Haughian  
**Cc:** Geoff Tamble; Mike Swenson  
**Subject:** RE: Church Development

Moira/Geoff,

I just got off of the phone with Ryan and after a bit more of back-and-forth over the past week, he and Tom Hansen revisited the site and confirmed what our exhibit demonstrated; AASHTO sight-distance requirements are met with buildout. He mentioned that he is working on an email response stating this and that he was intending to send it along soon.

Please let us know if we can help with anything else.

**Jesse Birchman**, PE, PTOE | Senior Transportation Engineer  
Jesse.Birchman@transpogroup.com  
t 425-821-3665 x220 | c 425-761-5593



**From:** Moira Haughian [<mailto:mhaughian@thebluelinegroup.com>]  
**Sent:** Wednesday, December 24, 2014 8:46 AM  
**To:** Jesse Birchman  
**Cc:** Geoff Tamble; Mike Swenson  
**Subject:** RE: Church Development

Thank you!

**Moira L. Haughian** | Planning Coordinator  
**BLUELINE** | [www.thebluelinegroup.com](http://www.thebluelinegroup.com)  
t 425.216.4051 x226 | f 425.216.4052  
LAND MATTERS :: Civil Engineering :: Land Use Planning

**From:** Jesse Birchman [<mailto:jesse.birchman@transpogroup.com>]  
**Sent:** Tuesday, December 23, 2014 4:23 PM  
**To:** Moira Haughian  
**Cc:** Geoff Tamble; Mike Swenson  
**Subject:** FW: Church Development

Moira,

After speaking with Ryan and discussing our sight-distance exhibit in detail it is apparent that meeting with Tom Hansen and Ryan is the best approach to clarifying the information shown in our exhibits for them. Based on the sight-triangles we've prepared to-date that are consistent with both City and AASHTO standards we are fairly certain that we will be able to satisfy City requirements, but the challenge for us is to understand specifically what the City is wanting us to show to demonstrate this to them. We will update you as we hear back from Ryan (or Tom).

I hope that you have a good holiday season and will be in touch soon.

**Jesse Birchman**, PE, PTOE | Senior Transportation Engineer  
Jesse.Birchman@transpogroup.com  
t 425-821-3665 x220 | c 425-761-5593



**From:** Jesse Birchman  
**Sent:** Tuesday, December 23, 2014 3:45 PM  
**To:** 'Ryan Miller'  
**Cc:** Mike Swenson  
**Subject:** RE: Church Development

Ryan,

Thanks for the phone call. Given the iterations that we have gone through, I wondering if we could arrange a meeting with you and Tom at your earliest convenience to go over the sight-distance along 136th at the access roadway. Given the underlying issues that can alter the analysis (e.g. on-street parking, etc.), a brief meeting would help to ensure that we can quickly provide you with the information needed to finalize any project design changes that are necessary.

Please let us know of a time that works for you and we will quickly confirm our availability. Thanks.

**Jesse Birchman, PE, PTOE | Senior Transportation Engineer**  
Jesse.Birchman@transpogroup.com  
t 425-821-3665 x220 | c 425-761-5593



**From:** Ryan Miller [<mailto:RyanM@ci.woodinville.wa.us>]  
**Sent:** Tuesday, December 23, 2014 9:39 AM  
**To:** Jesse Birchman  
**Subject:** RE: Church Development

Jesse-  
2:30 works, I will wait for your call.

Thank you,

Ryan Miller | Engineer I | Public Works Department  
Tel: 425-489-2700 ext. 2296 | Fax: 425-489-2756  
Cell: 206-255-2867 | Email: [ryanm@ci.woodinville.wa.us](mailto:ryanm@ci.woodinville.wa.us)  
City of Woodinville | 17301 133rd Ave NE | Woodinville, WA 98072

**From:** Jesse Birchman [<mailto:jesse.birchman@transpogroup.com>]  
**Sent:** Tuesday, December 23, 2014 7:44 AM  
**To:** Ryan Miller  
**Subject:** RE: Church Development

Let's plan on 2:30 p.m., if that works for you. Thanks.

**Jesse Birchman, PE, PTOE | Senior Transportation Engineer**  
Jesse.Birchman@transpogroup.com  
t 425-821-3665 x220 | c 425-761-5593



**From:** Ryan Miller [<mailto:RyanM@ci.woodinville.wa.us>]  
**Sent:** Tuesday, December 23, 2014 7:40 AM  
**To:** Jesse Birchman  
**Subject:** RE: Church Development

Jesse-

I got your message and have time this afternoon or tomorrow morning. Let me know if there is a particular time?

Thank you,

Ryan Miller | Engineer I | Public Works Department  
Tel: 425-489-2700 ext. 2296 | Fax: 425-489-2756  
Cell: 206-255-2867 | Email: [ryanm@ci.woodinville.wa.us](mailto:ryanm@ci.woodinville.wa.us)  
City of Woodinville | 17301 133rd Ave NE | Woodinville, WA 98072

**From:** Jesse Birchman [<mailto:jesse.birchman@transpogroup.com>]  
**Sent:** Monday, December 22, 2014 9:58 AM  
**To:** Ryan Miller  
**Subject:** RE: Church Development

Ryan – I thought I'd follow up regarding my voicemail at the end of the day on Friday. If you would be available for a few moments this morning for me to briefly share my computer screen I believe that we can fairly quickly wrap up a revised exhibit consistent with what you are looking for. I mostly could use some clarification regarding where you are looking for the sight-triangle vertex to be located and sharing a computer screen should help me to quickly better understand your direction. My schedule for the day is flexible, so if there is a specific time that works best for you please let me know and I will make sure that I am available.

**Jesse Birchman**, PE, PTOE | Senior Transportation Engineer  
[Jesse.Birchman@transpogroup.com](mailto:Jesse.Birchman@transpogroup.com)  
t 425-821-3665 x220 | c 425-761-5593



**From:** Ryan Miller [<mailto:RyanM@ci.woodinville.wa.us>]  
**Sent:** Friday, December 19, 2014 3:24 PM  
**To:** Jesse Birchman  
**Cc:** Agnes Kowacz; Geoff Tamble  
**Subject:** Church Development

Jesse-

Thank you for reviewing the site distance with me this morning, it was appreciated. I headed out into the field after and made an observation from the location of Road A that was conflicting. The analysis you provide tells me that I will be able to see the top of a car for the whole length of 136<sup>th</sup> Ave NE, for a driver making a left hand turn out of Road A. I saw that cars would actually disappear behind the crest of the roadway. If you could please address and double check the following items:

- Please have your surveyor double check the profile for 136<sup>th</sup> Ave NE. Point should be taken and provided at 25-ft intervals along the centerline and the edge of pavement.
- Please use the desirable distance of 18-ft from the edge of the traveled roadway per AASHTO for the decision point. Also use the assumption of 11-ft lanes.
- Please revise the analysis to have the sight triangle vertex at the intersection of 136<sup>th</sup> Ave NE and NE 205<sup>th</sup> St, relocated from the centerline to the east edge of the lane.
  - The road already does not meet sight distance lengths recommended by AASHTO.
  - A car turning right from NE 205<sup>th</sup> St onto 136<sup>th</sup> Ave NE would already be traveling 10-15mph.
- There are additional items that must be considered with the sight triangle:
  - There will be street trees located in the planter strip. I normally make an assumption that the crown will start 7-ft from grade.
  - Currently it was planned to have street parking but if this interferes with the sight distance the street can be signed no parking and the curb pushed out.

Thank you,

Ryan Miller | Engineer I | Public Works Department  
Tel: 425-489-2700 ext. 2296 | Fax: 425-489-2756  
Cell: 206-255-2867 | Email: [ryanm@ci.woodinville.wa.us](mailto:ryanm@ci.woodinville.wa.us)  
City of Woodinville | 17301 133rd Ave NE | Woodinville, WA 98072

**From:** Jesse Birchman [<mailto:jesse.birchman@transpogroup.com>]  
**Sent:** Friday, December 19, 2014 10:01 AM  
**To:** Ryan Miller  
**Subject:** RE: Church Development

14.5 feet from the edge of the traveled way, consistent with Case B1 on p9-36. The edge of the travelled way was assumed to a straight line between the tangent points of the curb returns on either side of the two intersections.

I've attached the revised Attachment E & F exhibits correcting to the 3.5 ft object height.

**Jesse Birchman**, PE, PTOE | Senior Transportation Engineer  
[Jesse.Birchman@transpogroup.com](mailto:Jesse.Birchman@transpogroup.com)  
t 425-821-3665 x220 | c 425-761-5593



---

**From:** Ryan Miller [<mailto:RyanM@ci.woodinville.wa.us>]  
**Sent:** Friday, December 19, 2014 9:43 AM  
**To:** Jesse Birchman  
**Subject:** Church Development

Jesse-  
If you look at page 9-30 in AASHTO, Figure 9-15 B, what was used for the distance a1?

Thank you,

Ryan Miller | Engineer I | Public Works Department  
Tel: 425-489-2700 ext. 2296 | Fax: 425-489-2756  
Cell: 206-255-2867 | Email: [ryanm@ci.woodinville.wa.us](mailto:ryanm@ci.woodinville.wa.us)  
City of Woodinville | 17301 133rd Ave NE | Woodinville, WA 98072

**Moira Haughian**

**From:** Agnes Kowacz <agnesk@ci.woodinville.wa.us>  
**Sent:** Wednesday, February 25, 2015 11:36 AM  
**To:** Ted Schepper  
**Cc:** Moira Haughian  
**Subject:** RE: Parkwood Terrace (Church) Subdivision (PPA14001/SEP14017)

Hi Moira-

Since the slope will no longer exist that believe that this section may not be applicable. I reread what was written and I believe that it will be addressed. Thanks,

**Agnes Kowacz | Associate Planner**  
**City of Woodinville**  
17301 133<sup>rd</sup> Ave NE  
Woodinville, WA 98072  
Office: (425) 877-2293  
Email: [agnesk@ci.woodinville.wa.us](mailto:agnesk@ci.woodinville.wa.us)

**From:** Moira Haughian [<mailto:mhaughian@thebluelinegroup.com>]  
**Sent:** Tuesday, February 24, 2015 2:11 PM  
**To:** Agnes Kowacz  
**Cc:** Ted Schepper  
**Subject:** FW: Parkwood Terrace (Church) Subdivision (PPA14001/SEP14017)

Hi Agnes-  
Can you please help us with Ted's question below. Let us know what we need to do to fulfill this comment?

Thanks,

**Moira L. Haughian | Planning Coordinator**  
**BLUELINE |** [www.thebluelinegroup.com](http://www.thebluelinegroup.com)  
t 425.216.4051 x226 | f 425.216.4052  
LAND MATTERS :: Civil Engineering :: Land Use Planning

**From:** Ted Schepper [<mailto:TSchepper@terra-associates.com>]  
**Sent:** Tuesday, February 24, 2015 9:24 AM  
**To:** [akowacz@ci.woodinville.wa.us](mailto:akowacz@ci.woodinville.wa.us)  
**Cc:** Moira Haughian  
**Subject:** Parkwood Terrace (Church) Subdivision (PPA14001/SEP14017)

Agnes, Moira at Blueline asked me to contact you direct regarding your review comment relative to the landslide hazard design standards contained in WMC 21.24.310(1)(c). The comment read as follows:

The geotechnical report should include the following information:

- a. Demonstrate compliance with the design standards outlined in 21.24.310(1)(c).

Our report dated October 31, 2014 specifically addressed this. Section 4.3 of our report reads as follows:

4.3 Landslide Hazard Areas

The cut embankments on the north and east perimeters of the site that were made for construction of the NE 205th Street and 136th Avenue NE roadways are steep slopes/landslide hazard areas as defined by WMC. Steep slope areas that fall on the property are shown in plan view on Figure 3. As discussed earlier, right-of-way improvements that will include widening and sidewalk construction will completely remove these slopes with the grade transition from the property to the new widened roadway grade supported by an engineered retaining wall. Figure 4 presents two cross sections depicting this proposed grading.

The proposed grading will eliminate the steep slope/landslide hazard and replace it with an engineered retaining wall. These proposed improvements will improve stability conditions at the site, will not increase surface water discharge or sedimentation to adjacent properties nor will they adversely impact other critical areas. Wall designs will provide minimum safety factors against instability as required by the current building codes which will meet or exceed requirements of Section 21.24.310(1)(c) of the WMC.

Design of the retaining walls per the IBC will provide for minimum safety factors of 1.5 for static conditions and 1.2 for dynamic conditions as required. Not certain as to what additional information or discussion we can provide. Please advise.

Thank you

**Terra Associates, Inc.**

*Ted Schepper, P.E.*  
*President*  
12525 Willows Road, Suite 101  
Kirkland, WA 98034  
Office – 425-821-7777  
Cell – 206-396-5783