From: <u>Harry Niemi</u>
To: <u>Kelsey Lang</u>

Cc: <u>Gaetanne Kruse</u>; <u>Jackie Kay</u>
Subject: ZBA 01-/16 Bonnarrow Meadows

Date: May-09-16 4:25:22 PM

Kelsey

Public works has completed a preliminary review of the above noted circulation and also reviewed the May 2, 2016 comments from R.J. Burnside on same.

The Public Works review was focused primarily on the Functional Servicing Report and Plan of Subdivision. The Planning report was also viewed for context it does impact the proposed engineering from a servicing and grading standpoint. Public Works is not commenting on the Hydrogeological Assessment, the Environmental Site Assessment, Environmental Impact Study at this time.

In no particular order, comments are as follows:

- Sewage Allocation: Item 1.1 of the Burnside letter recommends the Township review and confirm sewage allocation prior to draft plan approval. It is agreed that this needs to be completed in a more comprehensive manner. However as discussed with Burnside, we have completed some additional review of the servicing numbers and confirm there is some 8 additional units of allocation above the original number of 204 units. The current development application proposes 214 units. Any increase in allocation to this development is predicated primarily on the addition of the property at 5156 County Road 27 (Holman Property) to the original development area. Additional allocation can be achieved while still adhering to the maximum number of residential connections as presented in the County Growth plan of 2155. There are some definite reductions in development areas as well as actual lot adjustments and physical servicing and development limitations for the infill or unconnected lots. Previous correspondence did indicate that 225 units could be serviced from a plant capacity standpoint. Subsequent planning review of growth forecasts and the permitted flow to the City of Guelph per agreement may reduce that number.
- 2. As per the Burnside comments, access to the outlet control structure in SWM Block 172 is required. Similarly access will be required to the piped portion of the outlet located in the 5 m easement behind lots 99 to 105. Access to the open channel portion of the drainage easement between the development land and existing farm pond is also required.
- 3. The final detail for an 18 m cross section should be approved prior to draft plan approval. Based on a preliminary review of 18 m sections from other jurisdictions, there is something which can be utilized here. However an 18 m cross section will NOT be permitted where sidewalk is required on both sides of the street. Accordingly, the sidewalk layout does need to be shown at this time.
- 4. Review of the preliminary grading drawing indicates that the average slope on the rear yard swale from lot 37 to the Block 168 is approximately 1% and is over 150 metres in length. As

proposed, the swale length and slope do not meet minimum lot grading design criteria and is not acceptable. Grading coordination with the adjacent property to the south is recommended. Shifting the drainage easement to the Lot 47/48 lot line which appears to the existing low point on the property line will also reduce the swale length and increase the minimum slope with less reliance on grading coordination.

- 5. As discussed during the recent meeting with the applicant, the five metre drainage easement is behind lots 14 to 23 and the drainage easement along lot 22 are to be eliminated as the there is sufficient grade from the rear property line for sufficient back to front drainage. The grading design of the adjacent school site was coordinated with the subdivision and fill slopes were extended in to the subdivision to avoid rear yard swales.
- 6. As also discussed during the recent meeting, the drainage easement and rear yard swale can be eliminated by draining rear yards to a swale as part of the park grading.
- 7. Any required rear yard catchbasins on the west boundary (lots 96 to 105) could be connected directly to the SWM pond outlet sewer.
- 8. We have concerns over the proposed minimum side yard setbacks for Townhouse dwellings. Block 166 proposes 16 units in no less than 3 separate buildings based on two drainage easements within the block. The minimum interior side yard proposed for townhouses under 9.2.6.5 in the planning report is only 1.5 with 3 m between foundations of separate buildings. The foundation edge should not be immediately adjacent to the edge of any easement.
- 9. The drainage easements shown on lot lines appear to straddle the lot line with part of the easement on each lot. The development standards require that easements be located on one side of a common lot line. Where drainage easements are required along lot lines they are therefore to be contained entirely on one lot.
- 1. As discussed during the meeting with the applicant, the rear yard easements on lots 118 to 128 and 140 to 150 should be eliminated by grading the lots with back to front drainage. Lots 123 and 124 are 11 m frontage in the group from 118 to 128 while lots 142 to 148 are 11 m frontage in the 140 to 150 group. The planning report is proposing interior side yard setbacks of 1.2 m on side and 0.6 m the other for a minimum 1.8 m between foundations. As a result back to front drainage does present some grading challenges. Public works is of the of the opinion that the minimum setback should not reviewed further. Increased setbacks also allow for improved rear yard access where air conditioners and gas regulators, hydro meters are typically installed in the side yard area further reducing access.
- 2. Further review will be required for determining rear yard drainage easement requirements detailed design.
- 3. The water distribution system will be modeled to ensure proper sizing of watermains during the detailed design phase. A watermain connection will also be required through Block 169 to the existing watermain dead ended in the school site to improve looping.
- 4. Burnside has commented on decommissioning of the existing well at 5156 Wellington Road 27. A well is shown on the drawings located north of lot 57 actually outside the limits of the Holman property. It should be confirmed whether that well is actually in use for the Holman property or another well which was identified during the survey.
- 5. Pending review of details, Public Works cannot commit to acceptance of reduced cover over sewers as indicated in Section 4.6 of the FSR.
- 6. One forebay is preferable to the two proposed for the SWM pond in the south catchment.

- 7. A sediment drying area for maintenance purposes is to be addressed for the SWM ponds.
- 8. The grading of the SWM pond should be such that mandatory fencing is not required. It appears that minimum grading criteria for side slopes per MOE Stormwater Management Planning and Design Manuel have been followed. Given the integration with the adjacent park, preferred criteria per MOE table 4.6 of the design manual should be followed.

The above comments are not necessarily complete, but do cover items which may impact the overall draft plan.

Any questions please let me know.

Harry

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