

OPEN FOR BUSINESS

GROWTH MANAGEMENT - ELECTRONIC ENGINEERING REVIEW PROCESS

Tony Sergi, Binu Korah & Steven Kizlan

NEW TECHNOLOGY FOR ENGINEERING REVIEW PROCESS

- **Electronic Engineering review Tools**
- **Amanda Process**

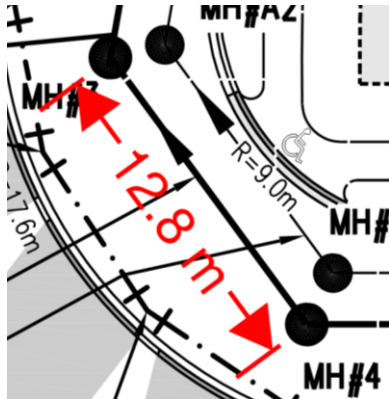
NEW TECHNOLOGY FOR ENGINEERING REVIEW PROCESS

Bluebeam Primary Functions

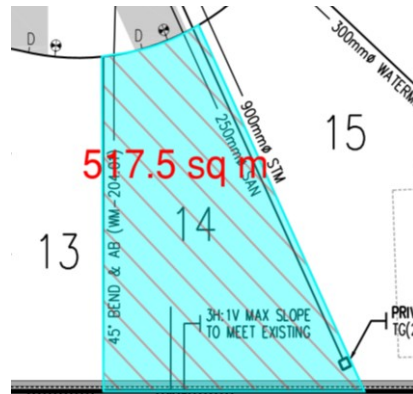
- **Measurement and Scaling Tools**
- **Document Markups**
- **Document Overlay and Comparison**
- **Markup List/Summary**

Measurement and Scaling Tools

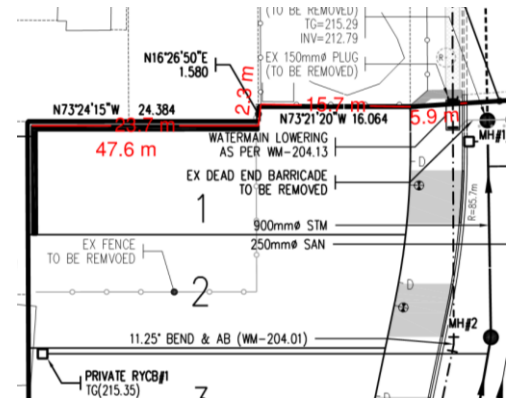
Bluebeam has many different measuring tools:



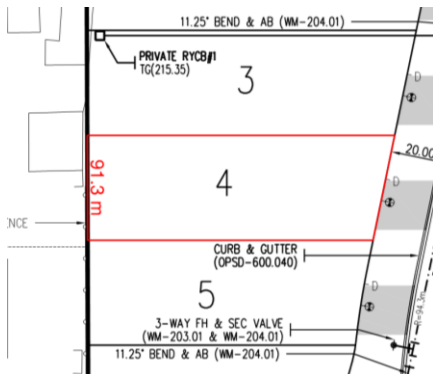
Length



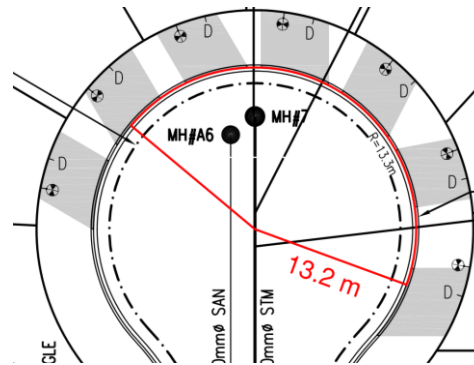
Area



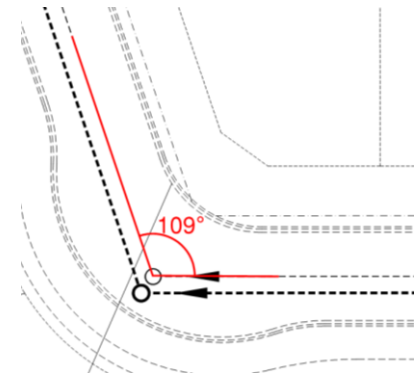
Polylength



Perimeter



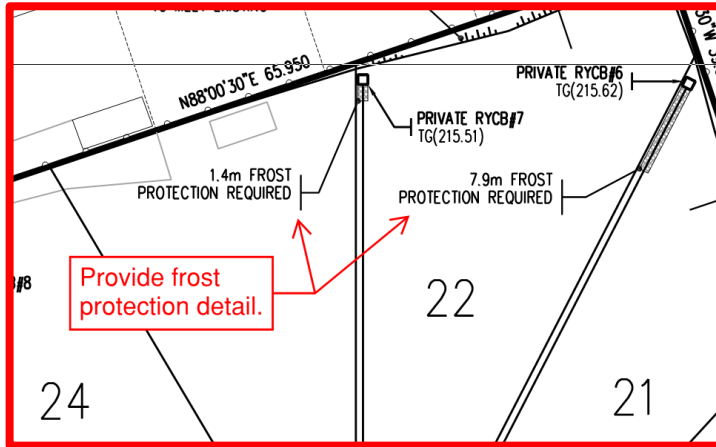
Radius (and Diameter)



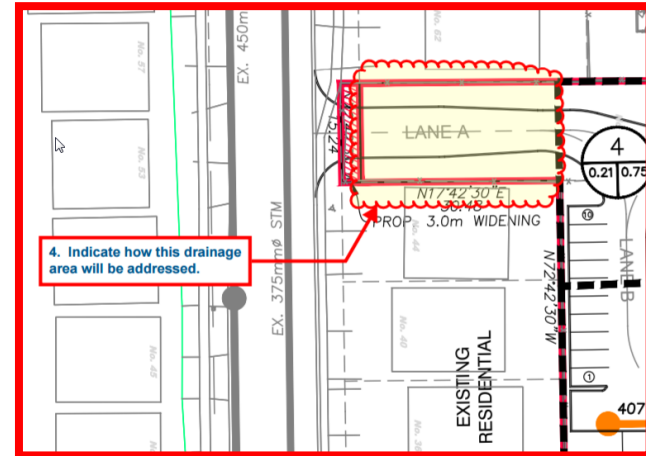
Angle

Document Markups

Bluebeam has many different markup tools, including:



Callouts



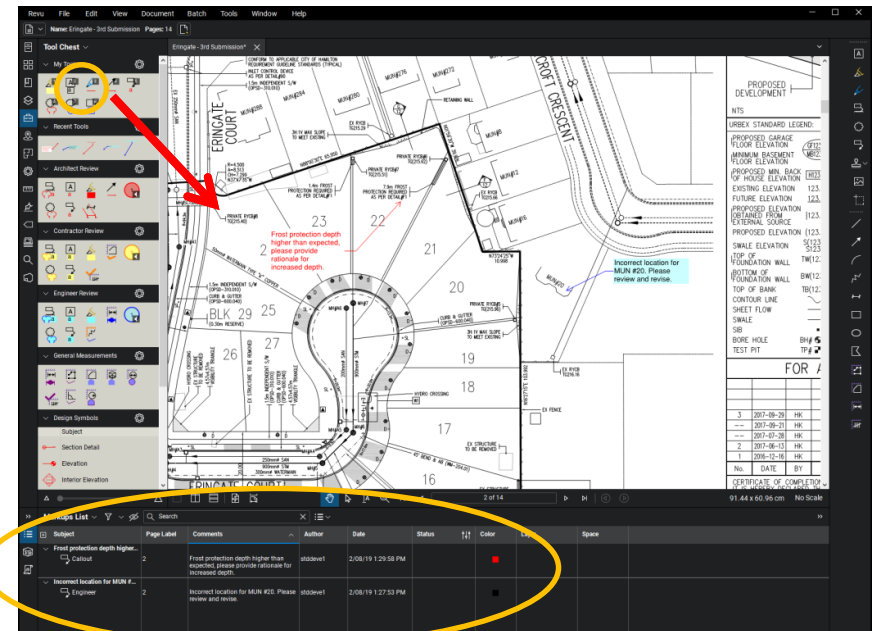
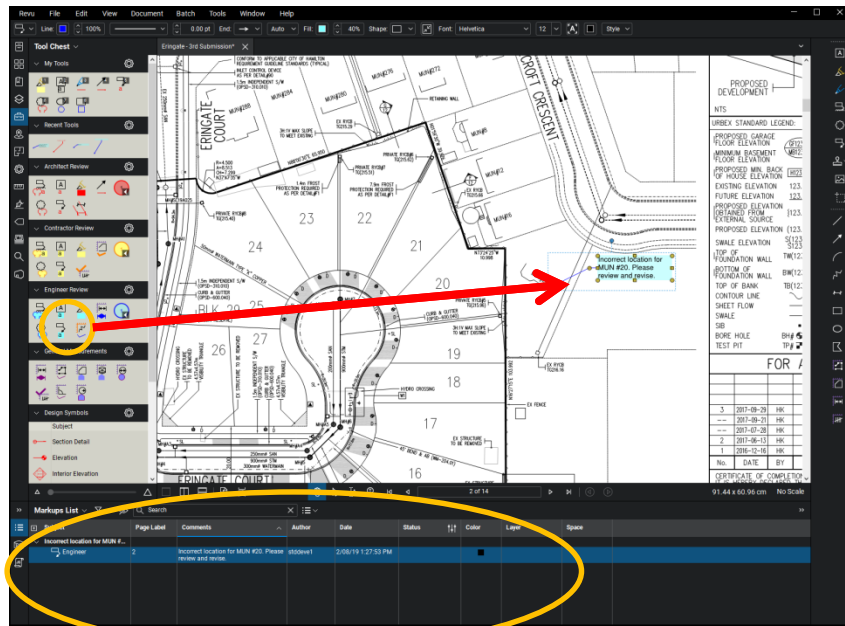
Clouds and Cloud+



Stamps

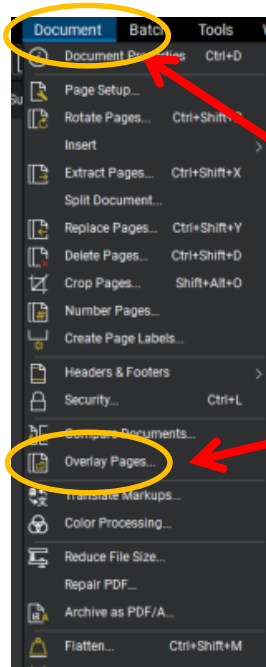
Also:
Highlights, Text boxes,
Lines, Arrows, Arcs,
Ellipses, Polygons,
Polylines, Images,
Hyperlinks, and more

Document Markup



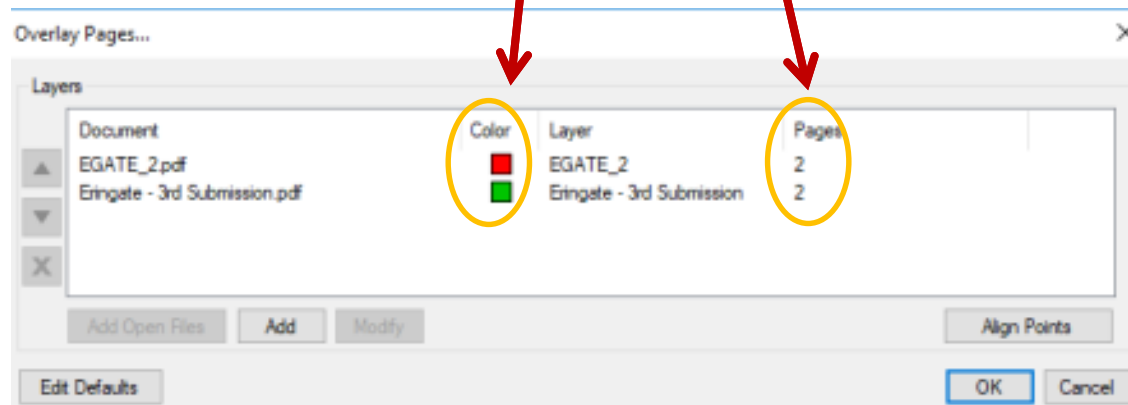
Different markups will have different appearances and be categorized differently the **Markups List**

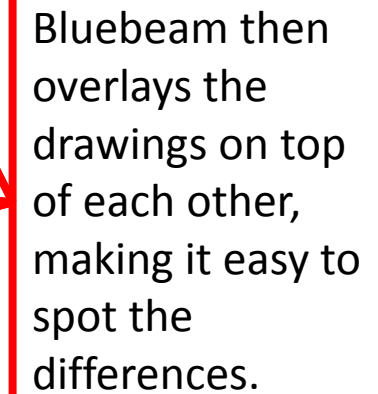
Document Overlay



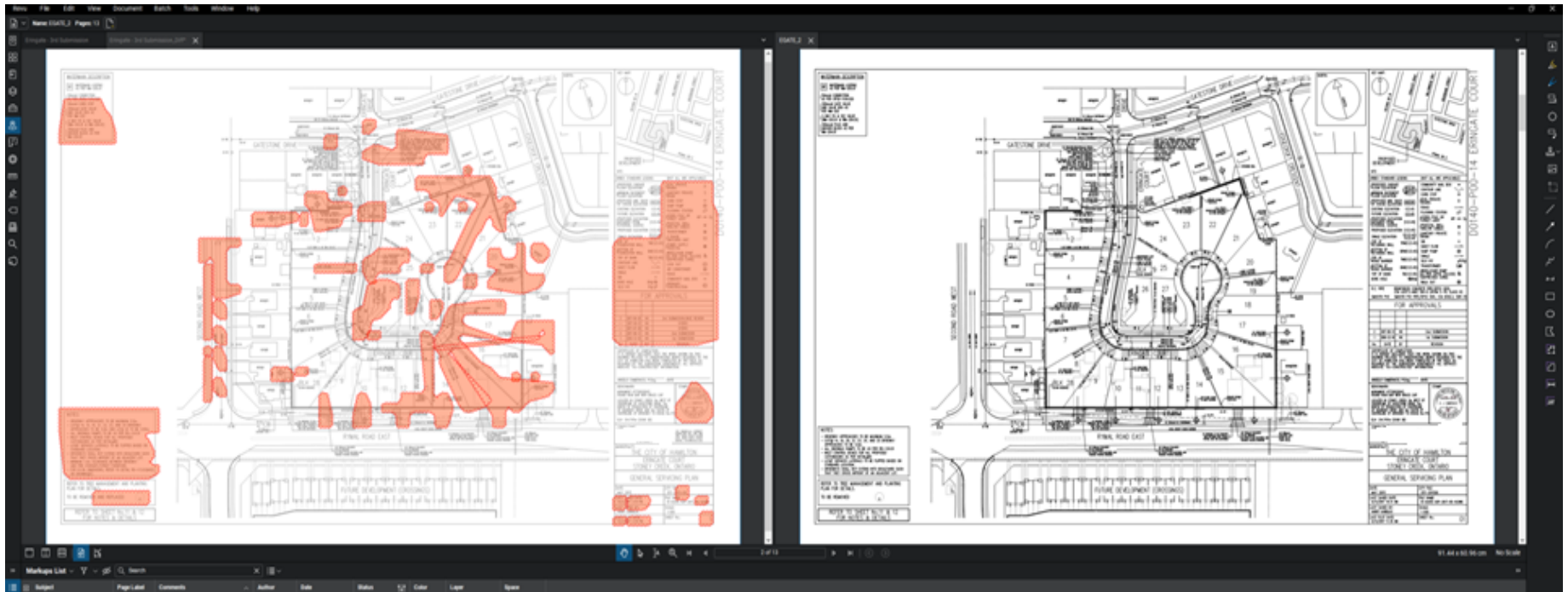
To overlay use the **Document** menu pulldown and select **Overlay Pages**

By default, Bluebeam will overlay the open document and pages. Select a colour and a page number for each layer of the overlay.





Document Comparison



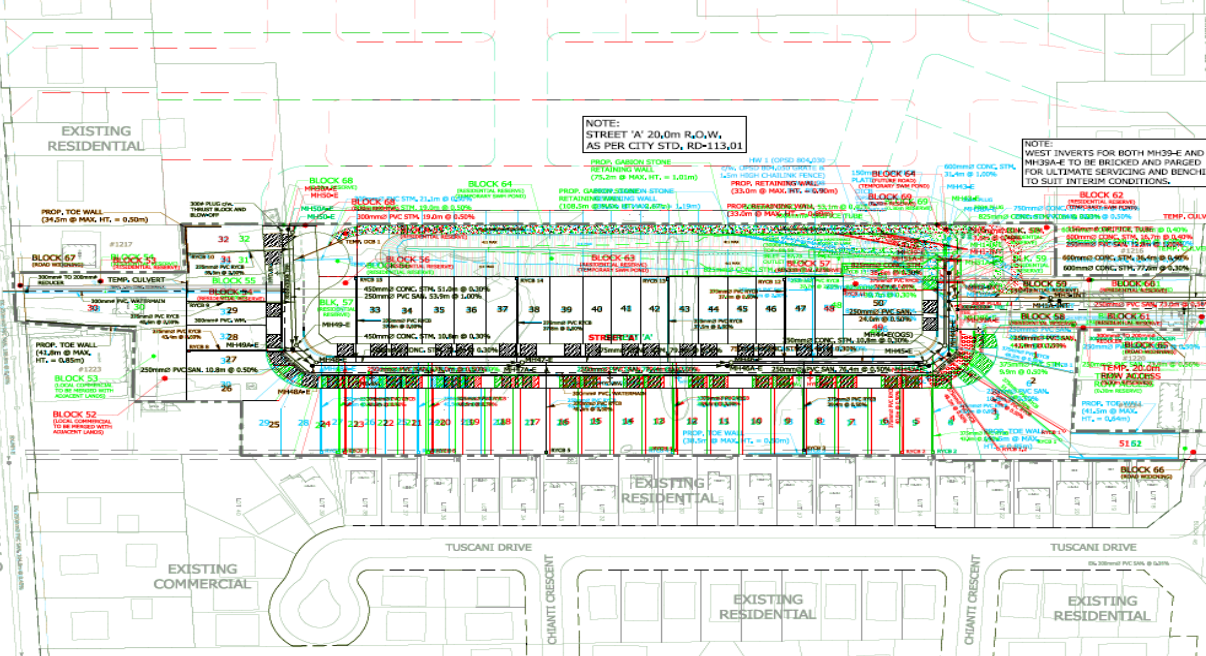
- Bluebeam displays a newly created and separate document with the differences highlighted in orange clouds
- In a split screen view with synchronization turned on Bluebeam will zoom, pan, and move both drawings simultaneously for ease of comparison

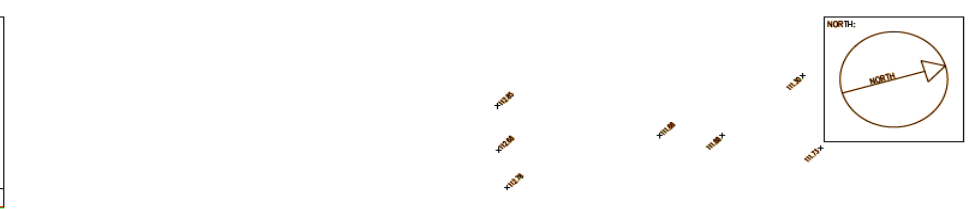
SANITARY STRUCTURE TABLE			
STRUCTURE:	DETAILS:	TOP ELEV.:	INVERTS:
PM20H-A	1200mm MH	TOP=91.62	E 87.93
PM10H-SHIFT	1200mm MH	TOP=92.87	E 88.39
RCB3-B	600mm (CONCRETE)	TOP=92.00	E 88.02
TM20H-A	1200mm MH	TOP=92.21	E 88.28
TM20H-B	1200mm MH	TOP=92.21	E 88.28
TM20H-C	1200mm MH	TOP=92.73	E 88.63
TM20H-D	1200mm MH	TOP=92.73	E 88.78
TM20H-E	1200mm MH	TOP=92.73	E 88.78
TM20H-F	1200mm MH	TOP=92.73	E 88.78
TM20H-G	1200mm MH	TOP=92.73	E 88.78
TM20H-H	1200mm MH	TOP=92.73	E 88.78
TM20H-I	1200mm MH	TOP=92.73	E 88.78
TM20H-J	1200mm MH	TOP=92.73	E 88.78
TM20H-K	1200mm MH	TOP=92.73	E 88.78
TM20H-L	1200mm MH	TOP=92.73	E 88.78
TM20H-M	1200mm MH	TOP=92.73	E 88.78
TM20H-N	1200mm MH	TOP=92.73	E 88.78
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TM20H-P	1200mm MH	TOP=92.73	E 88.78
TM20H-Q	1200mm MH	TOP=92.73	E 88.78
TM20H-R	1200mm MH	TOP=92.73	E 88.78
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TM20H-T	1200mm MH	TOP=92.73	E 88.78
TM20H-U	1200mm MH	TOP=92.73	E 88.78
TM20H-V	1200mm MH	TOP=92.73	E 88.78
TM20H-W	1200mm MH	TOP=92.73	E 88.78
TM20H-X	1200mm MH	TOP=92.73	E 88.78
TM20H-Y	1200mm MH	TOP=92.73	E 88.78
TM20H-Z	1200mm MH	TOP=92.73	E 88.78
TM20H-AA	1200mm MH	TOP=92.73	E 88.78
TM20H-AB	1200mm MH	TOP=92.73	E 88.78
TM20H-AC	1200mm MH	TOP=92.73	E 88.78
TM20H-AD	1200mm MH	TOP=92.73	E 88.78
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TM20H-AF	1200mm MH	TOP=92.73	E 88.78
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TM20H-IB	1200mm MH	TOP=92.73	E 88.78
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TM20H-JG	1200mm MH	TOP=92.73	E 88.78
TM20H-JH	1200mm MH	TOP=92.73	E 88.78
TM20H-JI	1		



NOTE: EXTERNAL SAN SEWER LOCATION IS APPROXIMATE AND
BASED ON CITY OF HAMILTON PLAN AND PROFILE DRAWINGS

FUTURE
RESIDENTIAL





Mark Up Summary

When complete, a summary of the markups can be exported by clicking the summary menu and selecting a file type.

The screenshot displays a software interface for managing map annotations. The top section shows a map with various annotations, including property boundaries, existing and proposed sanitary sewers, and a proposed sanitary drainage plan. The bottom section is a 'Markups List' table, which is a summary of the annotations. The table has columns for Subject, Page Label, Comments, Author, Date, Measurement, Status, Color, Layer, and Space. A red box highlights the 'Summary' menu in the table, with a red arrow pointing to it from the text box on the left.

Subject	Page Label	Comments	Author	Date	Measurement	Status	Color	Layer	Space
3. Prior to registration of the plan of subdivision, the 15 Picardy storm and sanitary sewers must be installed up to the property limit shared with 56 Highland Road West.	Figure 4 - ...		cmcfarla						
2/22/19 (4)	Figure 5 - ...	4. Prior to registration of the plan of subdivision, the Owner's Engineer shall demonstrate and confirm that there is adequate sanitary sewer capacity available in the interim and ultimate conditions to the satisfaction of Growth Management.	cmcfarla	2/26/19 3:28:51...	4 Count				
11. Label curb radii	Figure 8 - ...		cmcfarla	2/22/19 1:15:20...	1 Count				
1. Figure 4 mislabeled. Correct.	Figure 4 - ...		cmcfarla	2/26/19 3:59:53...	1 Count				
2/25/19 (11)	Figure 4 - ...		cmcfarla	2/25/19 12:27:4...	11 Count				
4. Indicate how this drainage	Figure 4 - ...		cmcfarla	2/26/19 3:13:16...	1 Count				

Mark Up Summary



Memorandum

Date: April 18, 2019

To: Tim Vrooman, Sr. Planner
Development Planning Section, Planning Division

From: Chuck McFarland, P.Eng., Project Manager
Development Approvals, Growth Management

Phone: 905-546-2424 Ext. 1330

File: 25T-201902

Subject: Comments for Application for Draft Plan of Subdivision for Lands located at 70 Bobolink Road, Hamilton (Ward 7)

The subject application proposes to create 54 semi-detached dwellings on the site of the former Cardinal Heights elementary school. Growth Management has reviewed the Preliminary Functional Servicing Report (December 2018) and preliminary Engineering Drawings received February 4, 2019 for the proposed 70 Bobolink Road subdivision. We respectfully submit the following comments:

Recommendation

Development Approvals do not currently support the application for draft plan of subdivision based on preliminary functional servicing report, preliminary design plans, and comments provided below. We have concerns that the draft plan may ultimately require changes to address some of the issues and concerns noted herein. A revised Functional Servicing Report is requested that addresses the City's comments and concerns ahead of reconsideration of this position.

General Comments

The main issues and concerns we have are related to the location of the intersection of Street A at Bobolink, the preliminary designs not matching to the submitted preliminary draft plan, and numerous errors as well as many instances of the preliminary designs not conforming to City guidelines. For example the submitted preliminary servicing design fails to provide minimum frost cover 1.2m over the portions of the proposed storm sewer. The preliminary grading design does not successfully demonstrate how the proposed overland flow routes would satisfactorily function for both the road and rear yards. Further comments are provided on the marked-up plans attached (Preliminary Grading and Erosion Control, Preliminary Site Servicing Plan, Storm Drainage Area Plan, Dec 2018). The comments contained in the table below correspond to the preliminary plan mark-ups prepared by Development Approvals (attached) and will need to be read in conjunction with the corresponding mark-up comment for full context. As part of a complete next submission the Developer's Consultant shall be required to provide responses to each point.

In accordance with City's Comprehensive Development Guidelines and Financial Policies Manual (2017) there will be NO cost sharing for this subdivision.

Mark-up Comment Summary Table	
Page Label/Sheet Name	Comments
PRELIMINARY GRADING AND EROSION CONTROL PLAN	01. The proposed rear yard grading for Lots 36 to 40 is not acceptable. Grading and drainage shall be self-contained within the subdivision and not draining to the neighbouring school property. Review and revise.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	02. The RLCB(5) and lead shall be entirely contained within one lot and not straddle the proposed property line between the two lots.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	03. The proposed use of semi-mountable OPSD curb 600.110 is not acceptable. The curb and gutter shall be as per the current Guidelines either OPSD 600.040 or 600.073. Correct and revise.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	04. Incorrect OPSD specified. Based on OPSD sizing table MH3 should be a OPSD 701.014 due to the 1500mm downstream side pipe. We suggest drafting larger structures to external diameters to help avoid potential conflicts.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	05. The inside pavement radius shall be revised to 13m and the external radius to 15m.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	06. Double catchbasins are required at all proposed low points in the road. Review and Revise.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	07. Double catchbasins are required at all proposed low points in the road. Review and Revise.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	08. The grading in between Lots 46 & 47 is not acceptable. The rear yard catchbasin shall be located within the rear yard area and not the side yard. As proposed there are flow direction arrows in close proximity that are indicating drainage being directed in opposite directions. Review, revise and clarify.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	09. The proposed T/G elevations of MH's 3 & 4A are not consistent with the proposed road profile. Review and revise.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	10. A portion of the drainage from the Bruleville Park generally flows west across the shared property line with 70 Bobolink Rd. Clearly demonstrate how the existing drainage will be accommodated. Drainage shall not be directed over the top of proposed retaining wall. Also private catchbasins should not include catchment areas for parkland drainage. Furthermore, clearly identify the Park catchment area on the Storm Drainage Area Plan. Review and Revise.
PRELIMINARY GRADING AND EROSION CONTROL PLAN	11. Double catchbasins are required at all proposed low points in the road. Review and Revise.

Using Excel or other software, the comments in the Mark up summary can be quickly formatted and shared

Additional Features

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What City need from the Consultant

- **Engineering submission – Vector PDF**
- **Design Calculation sheets - XL Spread Sheet**
- **Digital copy's of all Documents**

THANK YOU



Questions?