Kiley, Renee

From: Krahforst, Chris

Sent: Wednesday, September 13, 2023 8:00 AM

To: Kiley, Renee

Subject: FW: 51 Harborview Rd, Hull

From: Sousa, Tony [mailto:tsousa@cecinc.com] Sent: Tuesday, September 12, 2023 11:54 AM

To: Bin Wang <Bin.Wang@gza.com>

Cc: Krahforst, Chris <ckrahforst@town.hull.ma.us>; Russell Morgan <Russell.Morgan@gza.com>; Ryan DaPonte <Ryan.DaPonte@gza.com>; MacDonald, Ian <imacdonald@town.hull.ma.us>; tfitzgerald@conferencehotels.com;

matt@watskylaw.com; Pascua, Kay <kpascua@cecinc.com>

Subject: RE: 51 Harborview Rd, Hull

Hi Bin, my responses are below in red. Most are general acknowledgments that will be incorporated into the revised copy. Thank you.

Tony E. Sousa, P.E. | Project Manager |
Civil & Environmental Consultants, Inc.
31 Bellows Road, Raynham, MA 02767
direct 774.409.2640 office 774.501.2176 mobile 774.319.3936
www.cecinc.com



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From: Bin Wang < Bin.Wang@gza.com > Sent: Monday, September 11, 2023 3:44 PM To: Sousa, Tony < tsousa@cecinc.com >

Cc: Christian Krahforst (ckrahforst@town.hull.ma.us) < ckrahforst@town.hull.ma.us>; Russell Morgan

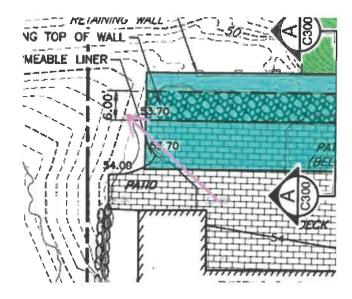
<Russell.Morgan@gza.com>; Ryan DaPonte <Ryan.DaPonte@gza.com>; MacDonald, Ian

<imacdonald@town.hull.ma.us>
Subject: RE: 51 Harborview Rd, Hull

Hi Tony,

Please see GZA's comments below based on our review of the interim stormwater management plan and calc you shared with us last Thursday. Most of them are minor edits to the CAD plan or hydroCAD calc. Please feel free to let me know if you need any clarifications. We can get on a quick call if needed.

 Additional information on the proposed patio grading should be provided. As shown, it would be possible for stormwater to run off to the west and miss the proposed basin. We will show more spot elevations and adjust as necessary.



- 2. The TP-40 100-year design event is used in the model. TP-40 has been superseded by Atlas-14, which would change the rainfall depth from 7.00 inches to 8.68 inches. However, note that designing this system for the 100-year event is probably excessive as it is temporary. Noted
- 3. Are there provisions to ensure that roof runoff does not enter the proposed drain system? No downspouts or roof leaders are shown on the figure. All the roof runoff is tied into downspouts that drain to the front. Will include in revisions.
- 4. Given the pipe invert and rim elevations at the 10" basin, the top of pipe will be above grade. This basin should be adjusted. Patio grades may also need to be adjust to make this work. Noted
- 5. Does the 10-mil liner need to be supported by any type of bedding material or geotextile? No, the existing subgrade soil at the top of the slope is relatively sandy and should be conducive to installing the liner.
- 6. The 6" pipe outlet elevation should be labeled on the figure. It is call out at elevation 25 in the HydroCAD model.

 Noted
- 7. Do we know what the site groundwater elevations are? If it is above 25, seep collars should be added.

 Groundwater does not appear to be an issue; we drilled a boring in the side yard down to about El. 28 and the material was very dry throughout. We also do not see any evidence of groundwater induced seepage along the exposed slope.
- 8. A pipe anchor detail should be included. Noted

+++++++++++++++

Chris/lan, just copying you.

Thanks all, Bin

Bin Wang, P.E., CFM
Metro-Boston Water Resources
o: 781-278-5809 | c: 781-856-9808

Email: bin.wang@gza.com

From: Sousa, Tony <<u>tsousa@cecinc.com</u>>
Sent: Friday, September 8, 2023 3:53 PM
To: Bin Wang <<u>Bin.Wang@gza.com</u>>

Cc: Christian Krahforst (ckrahforst@town.hull.ma.us) < ckrahforst@town.hull.ma.us>; Russell Morgan

<Russell.Morgan@gza.com>

Subject: [EXTERNAL] RE: 51 Harborview Rd, Hull