

July 20, 2020

Engineering Division  
City of New Braunfels  
550 Landa Street  
New Braunfels, TX 78130

RE: *Permit No. PI2019-0013 Parkside Unit 1 (Review 5)*

Please find listed below our responses to your comments in regard to the Parkside Unit 1 project.

The following items have been addressed:

**General Comments**

1. Per New Braunfels Ordinance Sec. 114-92, please provide a copy of TxDOT permit approval prior to permit issuance. Any changes required per TxDOT must be resubmitted to the City of New Braunfels for acceptance.  
Review 2: Comment remains pending TxDOT approval.  
Review 3: Comment remains.  
Review 4: Comment remains pending TXDOT approval.  
Review 5: Comment remains.
  - *We understand and are currently working on gaining the approval of TxDOT. We respectfully request that these plans be conditionally approved pending the TxDOT approval so that it can be used for land purchase documentation*
2. Cleared
3. Cleared

**Cover Sheet**

4. Cleared

**General Notes**

5. Cleared
6. Cleared

**Drainage**

7. Cleared
8. Cleared
9. Cleared
10. Cleared

**Drainage Report**

- 11. Cleared
- 12. Cleared
- 13. Cleared
- 14. Cleared
- 15. Cleared
- 16. Cleared

**Storm Sewer Plans**

- 17. Cleared
- 18. Cleared

**Creeks and Open Channels**

- 19. Cleared
- 20. Cleared
- 21. Cleared
- 22. Cleared

**Culverts**

- 23. Cleared
- 24. Cleared
- 25. Moved to Notes
- 26. Cleared
- 27. Cleared

**Detention and Retention Facilities**

- 28. Cleared
- 29. Cleared
- 30. Moved to Notes
- 31. Cleared
- 32. Cleared

**Water Quality Facilities**

- 33. Cleared
- 34. Cleared
- 35. Per the New Braunfels Drainage and Erosion Control Design Manual Sec. 10, no pond may retain flows more than 36-hours.  
Review 2: Comment remains. An updated drainage report was not received.  
Review 3: Comment remains. Drawdown calculations could not be found in the drainage report. Please include the calculations and indicate where they are located in the drainage report.

Review 4: Comment remains. The water quality time to drain is 50 hours, exceeding the required 36 hours.

- *The previous submittal had the perforated pipe height of 1.0 feet when the actual designed height is 1.5feet. This has been corrected the time to drain is 22.44 hours.*
- Also refer to the construction documents and the drainage report.

Review 5: Comment remains. Please specify the drawdown time of 22.44, is it for half the volume? Or for the whole water quality facility?

- *Table 10 – Water Quality Perforated Pipe Summary has been updated and can be found on pages 19 and 404 of the drainage report and C5.10 of the construction documents. The 22.44 hours shown is the total time for the Water Quality volume to drain.*

Table 10 - Water Quality Perforated Pipe Summary	
Water Quality Volume =	184286.00
Required Water Quality Volume =	166578.00
1/2 of Required Water Quality Volume =	83289.00
Volume Discharged in 12 Hours =	98535.136
Volume Remaining after 12 Hours =	85750.86
Half or more required volume retained after 12 Hours?	YES
Total Time for Water Quality Volume to drain =	22.44

### **Erosion Control Plan**

- 36. Cleared
- 37. Cleared
- 38. Cleared
- 39. Cleared

### **Grading Plan**

- 40. Cleared
- 41. Cleared
- 42. Cleared

### **Paving Plan and Profiles**

#### *Paving*

- 43. Cleared
- 44. Cleared
- 45. Cleared
- 46. Cleared

#### *Sidewalks*

- 47. Cleared
- 48. Cleared

*Horizontal/Vertical*

- 49. Cleared
- 50. Cleared

*Traffic*

- 51. Cleared
- 52. Cleared

**Pavement Marking and Signage**

- 53. Cleared
- 54. Cleared

**Traffic**

- 55. Cleared
- 56. Cleared
- 57. Cleared
- 58. Cleared
- 59. Cleared
- 60. Cleared
- 61. Cleared
- 62. Cleared
- 63. Cleared
- 64. Cleared
- 65. Cleared

**Utilities**

- 66. Cleared
- 67. Cleared

**City of New Braunfels Details**

- 68. Cleared
- 69. Cleared

**Planning and Plat Compliance**

- 70. Cleared
- 71. Cleared

## International Fire Code

- 72. Cleared
- 73. Cleared

## Review 3 Comments

- 74. Cleared

## Review 5 Comments

- 75. Specify at what phase of Parkside will the temporary Channel A1 will become permanent.
  - Temporary Channel A1 will be removed in the development of Parkside Phase 2 and replaced with Extended Detention Basin A2.
- 76. Please verify if EX A2 flows for the 2-year and 10-year are the same.

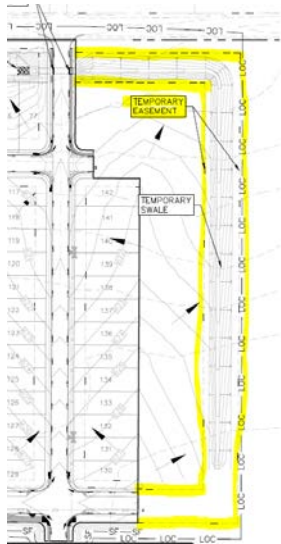
- *The 2-year storm event information has been corrected and updated.*

Concentration	Description	Drainage Area	Area	T <sub>c</sub>	Curve Number	Q <sub>2</sub> (cfs)	Q <sub>10</sub> (cfs)	Q <sub>25</sub>
EX A1	Longest Time of Concentration Analysis	EX A1	25.12	49.73	78.00	35.56	54.39	53
EX A2	Longest Time of Concentration Analysis	EX A2	10.47	35.30	78.00	6.62	17.91	26
EX A3	Drainage Sub-Area A14 Comparison	EX A3	68.84	45.35	78.00	101.56	91.62	15
EX A4	Longest Time of Concentration Analysis	EX A4	50.18	86.98	78.00	48.80	133.80	72

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- 77. Attachments C, D, and E on the drainage report are missing the maps.
  - The drainage maps have been included in the drainage report. Please refer to sheets 27, 30, and 33 of the drainage report.



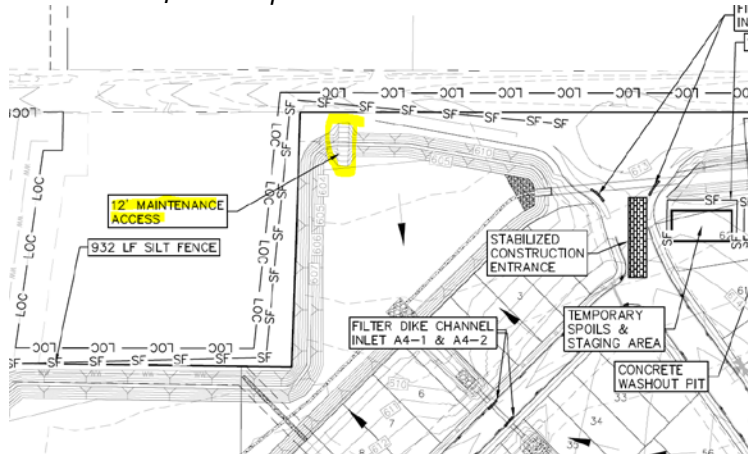
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- 78. Per New Braunfels Drainage and Erosion Control Design Manual Sec. 2.4, all private drainage and water quality facilities must have an associated drainage easement, restrictive covenant, or similar recorded instrument that clearly identifies ownership and the party responsible for maintenance. The temporary swale is not shown to be in a temporary easement.
  - *A temporary easement has been added to the plat and called out in the construction documents. The temporary swale has been modified to contain the 100 year storm event and have 0.50' of freeboard during the 25 year storm event.*



## Detention Pond

79. Per the New Braunfels Drainage and Erosion Control Design Manual Sec. 10.1(O), maintenance access to detention pond must be provided and shall be a minimum of 12 feet wide and have no greater than a 6:1 slope. Please provide a 12-foot maintenance access path to the ramp on the west side of the pond, since it seem it leads to the 4-foot top of the berm as shown on sheet C5.09.

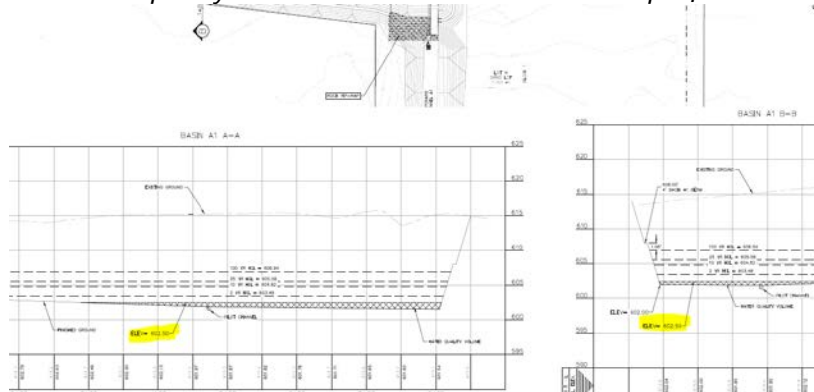
- The maintenance access for Extended Detention Basin A1 has been relocated to provide better access to the ramp. Its new location is shown below and can be accessed from Pieper R.O.W.*



## Water Quality Facilities

80. In accordance with TCEQ RG-348, verify the detention pond design accounts for the required water quality volume. These volumes must be separate, and the detention volume must be provided on top of the water quality volume. Please show the water quality volume elevation in the pond profiles on Sheet C5.09.

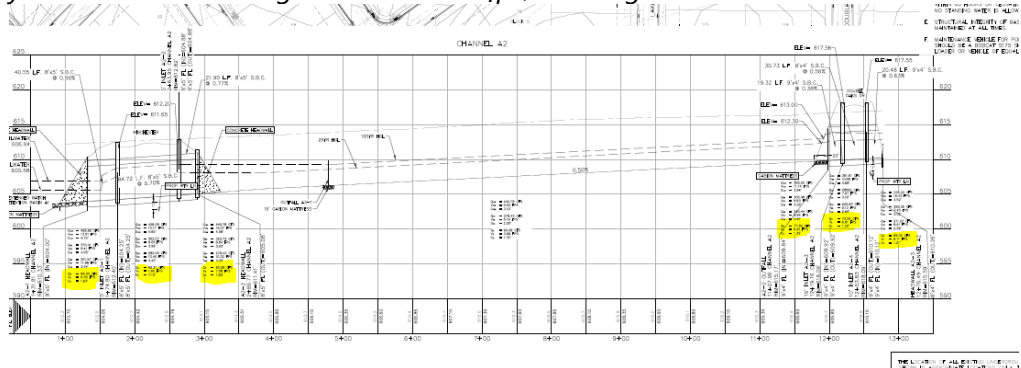
- The water quality elevation has been added to the profile on sheet C5.09.*

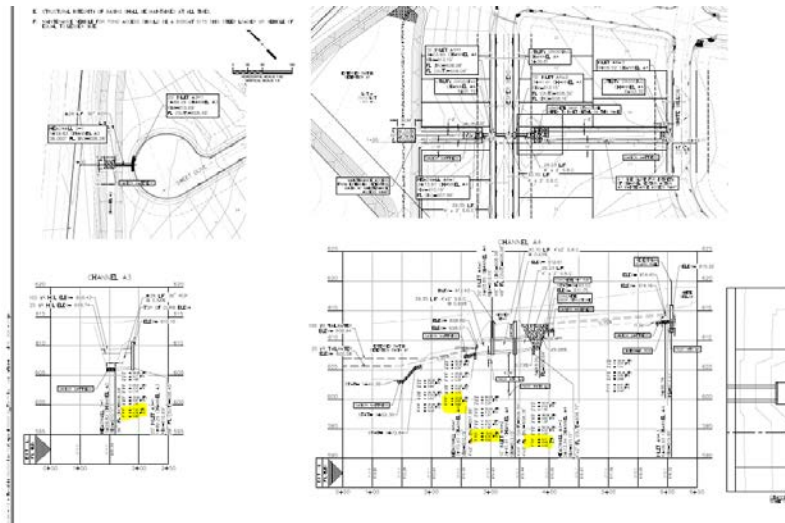


## Culverts

81. Per the New Braunfels Drainage and Erosion Control Design Manual Sec. 9.1(G), culverts shall have a minimum storm velocity of 2.5 fps in the 2-year storm. Provide 2-year velocity for all culverts.

- The 2 year storm event information has been added to the profiles on sheets C5.05 and C5.07 of the construction drawings. The calculations can be found on pages 424 through 426 of the drainage report. All velocities during the 2 year storm event are greater than 2.5 fps, meeting the DECDM criteria.*





## Notes

Please note the following:

- a. Any revisions required per NBU that change the civil site plans must be resubmitted to the City of New Braunfels for acceptance.
- b. Any excavations within the existing City right of way, including open cuts, street cuts, and/or boring operations require the approval of the Streets and Drainage Division Manager. Such work will also require a ROW Excavation Permit in addition to any building permit.
- c. Retaining walls are proposed within the development for Channel A2. Provide structural details and dimensions for all proposed retaining walls. Confirm railings are not required for walls adjacent to pedestrian facilities. Note the retaining wall must be approved by the building department prior to acceptance of this application.
  - *The design has been revised and this note no longer applies.*
- d. Required NBI structure numbers must be included in plan set provided prior to acceptance of the proposed infrastructure.
  - *The design has been revised and this note no longer applies.*
- e. This unit cannot be approved prior to the Parkside Offsite Improvements approval and the infrastructure proposed will not be accepted prior to previous unit acceptance.
- f. Several lots adjacent to the drainage structures seem to be several feet above proposed grade. Please revise grading if possible.



We hope everything here is in order, and if you have any further questions or comments, please contact me at (830) 625-8555.

Sincerely,

*Chris Van Heerde, PE*

Christopher Van Heerde, P.E.  
Managing Partner  
HMT Engineering and Surveying



*7/20/2020*