



September 3, 2014

Dana Shuler
Weber County Engineering

Project: Mallard Springs
Re: Weber County Engineering Division

Below please find our response to your Miradi posted comments dated April 11, 2014. Please note that our numbering reference system corresponds to your comment numbering system.

Improvement Plan Responses:

1. Approval Letters will be provided once they have been obtained by Jason Hamblin. Taylor West Weber Water to provided approval after the approval of the County.
2. Efforts have been made to identify the actual location of the land drains in question. The land drain has been shown on Sheet 1 with a note that the location is to be verified in field.
3. Proposed contours have been provided.
4. General Sewer Line
 1. All 8" sewer is a minimum .33%
 2. Per industry standard, the minimum depth of bury for PVC pipe with traffic loading is 12", from the top of the pipe to the bottom of the flexible road surface. The plans call for a minimum cover of 30" over the PVC pipe.
 3. Easement for the sewer line has been provided, see attached.
5. Storm Drain/Retention Ponds
 1. Detailed calculations of the retention basins have been provided on plans. See sheets 4, 7, and 8. Retention basin information has been provided, including finished grades. The calculations have been reviewed and updated as of June 2, 2014.
 2. Reference to APWA 315 catch basins have been added to the plans.
 3. Grading and infrastructure provided on plans.
 4. The emergency overflow has been shown on plans. Also, 12" of freeboard has been provided over the high water of the 100' year storm to provide additional capacity in each basin.
6. Sheet 1
 1. The date on the sheet has been updated to Sept. 2014.

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2. Sheet 1 has been modified to include a call out for a 6' vinyl fence along the irrigation ditch.
7. Sheet 2
 1. General Notes 2 and 13 have been modified to reference Weber County Standards instead of a Geotechnical study. No Geotechnical report was done for the property.
 2. The dry utilities that will be installed with this project have been indicated in the road section on in the Utility Notes.
 3. Connection detail has been provided.
 4. Asphalt has been specified on plans.
8. Sheet 3
 1. Sidewalk has been modified to terminate at the curb.
 2. Ex. Driveways have been shown.
 3. Sewer line labels have been reviewed and made consistent.
9. Sheets 4,7 and 8
 1. Grading of the retention pond has been included.
 2. The calculations have been reviewed and updated as of June 2, 2014.
10. Sheet 8
 1. The plans have been modified to show the road tie into the existing ground at property line.
 2. The flow calculations have been updated and provided. The Q was determined using the following: $C=0.37$, $I=1.6$ inches per hour and $A=9.93$ acres.
 $(0.37)(1.6)(9.93)=5.88$ CFS
11. Sheet 10
 1. The canal easement is shown on Sheet 10.
 2. Jason Hamblin is working with the irrigation/canal/ditch company to obtain their approval.
12. Sheet 12
 1. Notes have been provided on the profile to indicate a minimum separation of 18".
13. Sheet 14 & 15
 1. Potholing was performed, and all information obtained from the potholes has been incorporated into the plan set.
14. Sheet 14
 1. The profile on Sheet 14 has been modified to indicate the required 18" separation between the water and sewer.

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15. Sheet 15

1. Potholing was performed, and all information obtained from the potholes has been incorporated into the plan set. The SW is shown in its current/existing location.
2. The sewer line has been upsized to a 12" pipe in all required locations.
3. The surrounding grades have been reviewed, and the drop will only require a 2" drop. The water will still have a path to follow and get to its historical location.
4. Potholing was performed, and all information obtained from the potholes has been incorporated into the plan set.
5. Note on plans indicates the minimum separation between the water and sewer needs to be 18".

We appreciate your review and trust we have changed and/or clarified all of your comments. If you have any questions, or we can be of further assistance, please let us know.

Sincerely,
REEVE & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read 'Nate Reeve', is written over a horizontal line.

Nate Reeve, P.E.
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