From:	Rob Gordon
To:	Genna Porter
Subject:	FW: Eng Review - Ellington Farms
Date:	Thursday, August 14, 2014 7:01:37 AM
Attachments:	image002.png

Please upload to protrak, thanks.

Robert Gordon, PE
Project Engineer
City of Wilmington/Engineering
(910) 341-5856

From: Rob Gordon
Sent: Thursday, August 14, 2014 6:59 AM
To: Garry Pape (gpape@gsp-consulting.com)
Cc: Jeff Walton; Derek Pielech
Subject: Eng Review - Ellington Farms

Engineering has reviewed the plans for Ellington Farms and have the following comments:

1. There is no offsite impervious area listed on the application. Please complete section IV (12) of the application. This impervious does not have to be treated, but does have to be accounted for.
2. Please add the following notes to the plans:
    - Per the requirements of the stormwater permit, the following shall occur prior to issuance of a certificate of occupancy or operation of the permitted facility:
        - As-built drawings for all stormwater management facilities shall be submitted to the City of Wilmington Engineering Division.
        - An Engineer's certification shall also be submitted, along with all supporting documentation that specifies, under seal that the as-built stormwater measures, controls and devices are in compliance with the approved stormwater management plans.
        - A final inspection by City of Wilmington Engineering personnel.
    - All required easement maps shall be reviewed by City staff and recorded prior to issuance of a certificate of occupancy.
3. Please list the BMP drainage area for each BMP on the DA map.
4. Please provide a drainage area map for the ditch culvert.
5. Please place the drainage ditches in a public drainage easement.
6. Please provide a 5' landscaped zone measured outward from the top of bank around the entire perimeter of the pond (Chapter 5, Section D, paragraph 4(g) of the City technical standards). Please also provide a 10' access shoulder measured outward from the top of bank around all sides of the pond except what faces the roadway/parking area (Chapter 5, Section D, paragraph 4(h) of the city technical standards). The access shoulder cannot occupy the same space as the landscape shelf.
7. Note Only – Please make sure the landscape plan addresses compliance with SD 15-16, when submitted.
8. The stub road is proposed to be extended to the property line. There appears to be a couple feet of fill necessary to install this stub road. Is there a construction easement for fill?

9. There is an offset line around the buildings on the grading plan. Is this the roof drain lines or the dripline of the roof or something else? I would prefer a rough roof drain layout be shown on the plans if possible. We have had problems with roof drainage being piped to the wrong inlet in the past. Please clarify.
10. It is not clear how the deck of the pool will be directed to the pond. Please clarify.
11. Please specify an embankment width on the plans. Make sure that embankment width is provided and the contours tie back to grade on the South side of pond #1 adjacent to the ditch.
12. The pond details indicate 3:1 slopes on the forebay, but the contours appear to be graded to a 2:1 slope. Please clarify.
13. The graded bottom pond contour is 1 ft higher than the detail for both ponds. Please clarify.
14. The pond 1 orifice is specified at 1.9" in the calcs & supplement & 2" in the drawings & routing. Can't imagine it makes that much of a difference, but please coordinate.
15. Please change the predeveloped c factor for pond 1 to 0.15, that is the max for sandy soils.
16. There is a small discrepancy with the DA for pond #1 between the calcs & the application (2.25 vs 2.28).
17. I am pretty sure some of the calcs summary sheets were mislabeled as pond #1 when they were supposed to be pond #2. Please clarify.
18. The site does have some Johnson soils, but they are limited to the stream corridor along the Eastern part of the site. You have assumed 2/3 of the pond 2 DA as D soils. The majority of the pond #2 DA is in upland soils. Please adjust the predeveloped (& post, if desired) CN for pond #2.

Please submit one copy of revised plans & calcs to Engineering for additional review. These comments will be uploaded to protrak. Please call or email if there are any questions.

Robert Gordon, PE
Project Engineer

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