



**CONCEPTUAL DRAINAGE NARRATIVE**  
for  
**Pioneer Homes - North Lake Estates**  
Pinellas County, FL

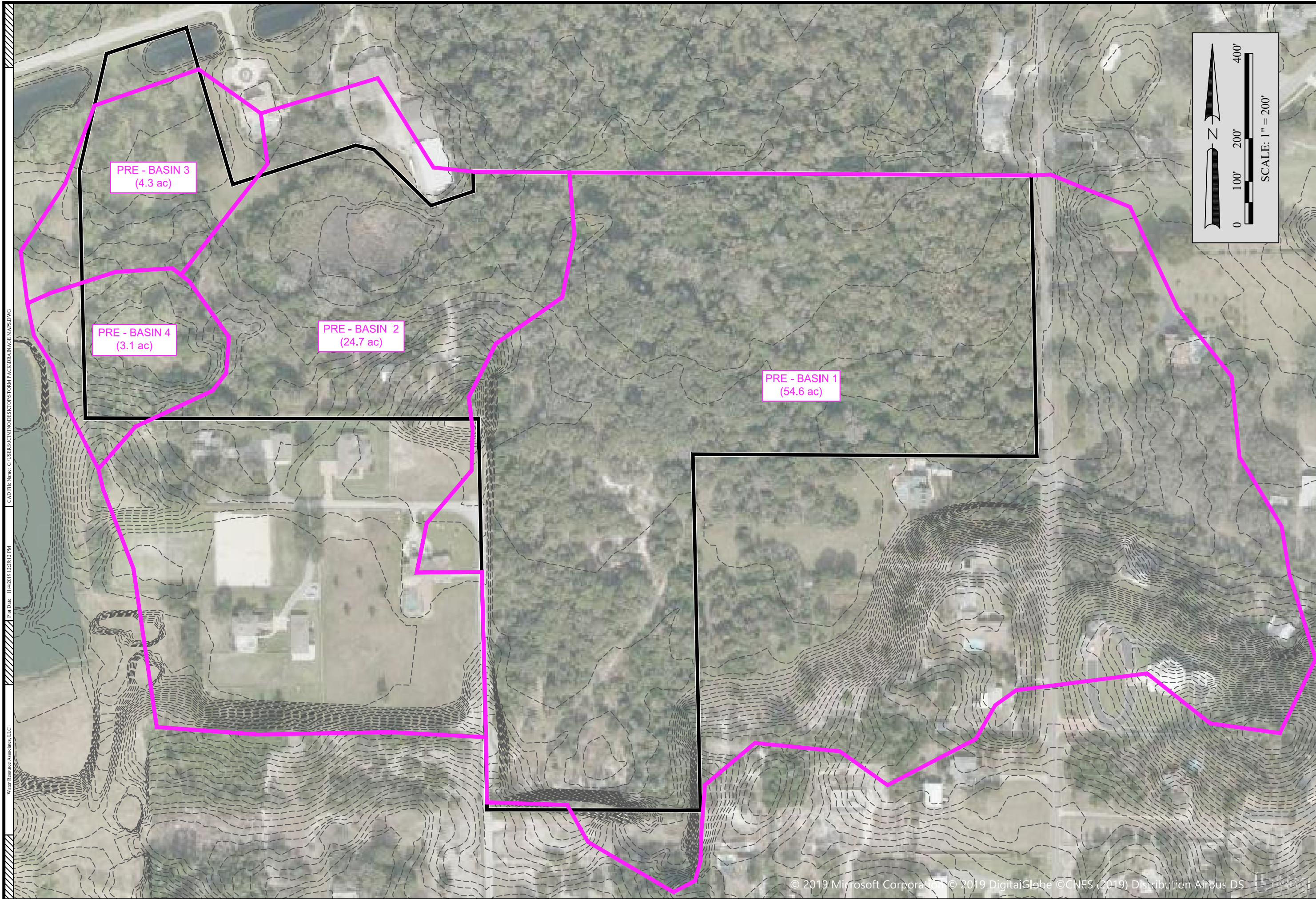
This memo is to describe the conceptual drainage design for a 43 ac +/- project on the southwest corner of East Lake North Highland Avenue in Pinellas County. The project is called North Lake Estates and includes large single family lots on public water and septic.

Pre-Existing drainage basins are shown in Figure 1, including offsite runoff. Pre-Basin 1 drains to the offsite wetland system north of the site that acts as the primary tailwater condition for the site. A 09-19-2017 SWFWMD Pre application meeting confirmed that the Anclote West Watershed Model Node ND04100 predicts a 100-year elevation of 5.37' (NAVD) at this tailwater condition, while FEMA flood map appears to incorporate the influence of a tidal surge event. Floodplain compensation is not required for the tidal FEMA floodplain but would be required for any encroachment into the 5.37 riverine elevation within this tailwater area. The proposed grading plan includes no encroachment into the riverine floodplain, therefore cup for cup floodplain compensation is not anticipated. Pre-Basin 4 discharges into a small closed basin that will be accounted for in predevelopment routing. Pre-Basin 2 discharges into a central wetland that overflows into the tailwater condition referenced above. Pre-Basin 3 discharges north into an existing pond on the property. A soils map is included in Figure 2 to show Type A spoils to the south transitioning into Type A/D soils to the north that will be incorporated into pre and post CN calculations.

Conceptual post development conditions are provided in Figure 3 and show how all offsite runoff is anticipated to be routed through/around the project site. Sizing of any offsite bypass culverts will be included in the proposed drainage calculations. Approximately 17% ponds are provided for attenuation with adequate outfall conditions downstream. Post development 25yr, 24hr discharge rates to the downstream tailwater condition will be limited to the 25yr 24hr predevelopment discharge rates, including all bypass flows. Water table conditions are within 2 ft of the existing grade, therefore wet detention permanent pool treatment is anticipated.

Detail pre and post drainage calculations will be provided with the proposed constitution plans for review to demonstrate no adverse impacts upstream or downstream.



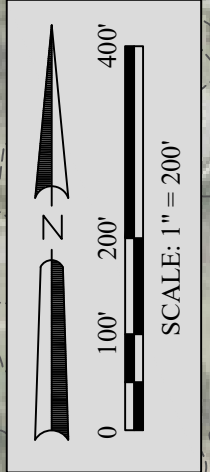


PRE - BASIN 3  
(4.3 ac)

PRE - BASIN 4  
(3.1 ac)

PRE - BASIN 2  
(24.7 ac)

PRE - BASIN 1  
(54.6 ac)



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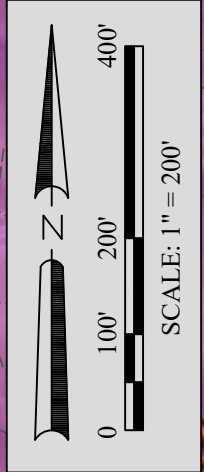
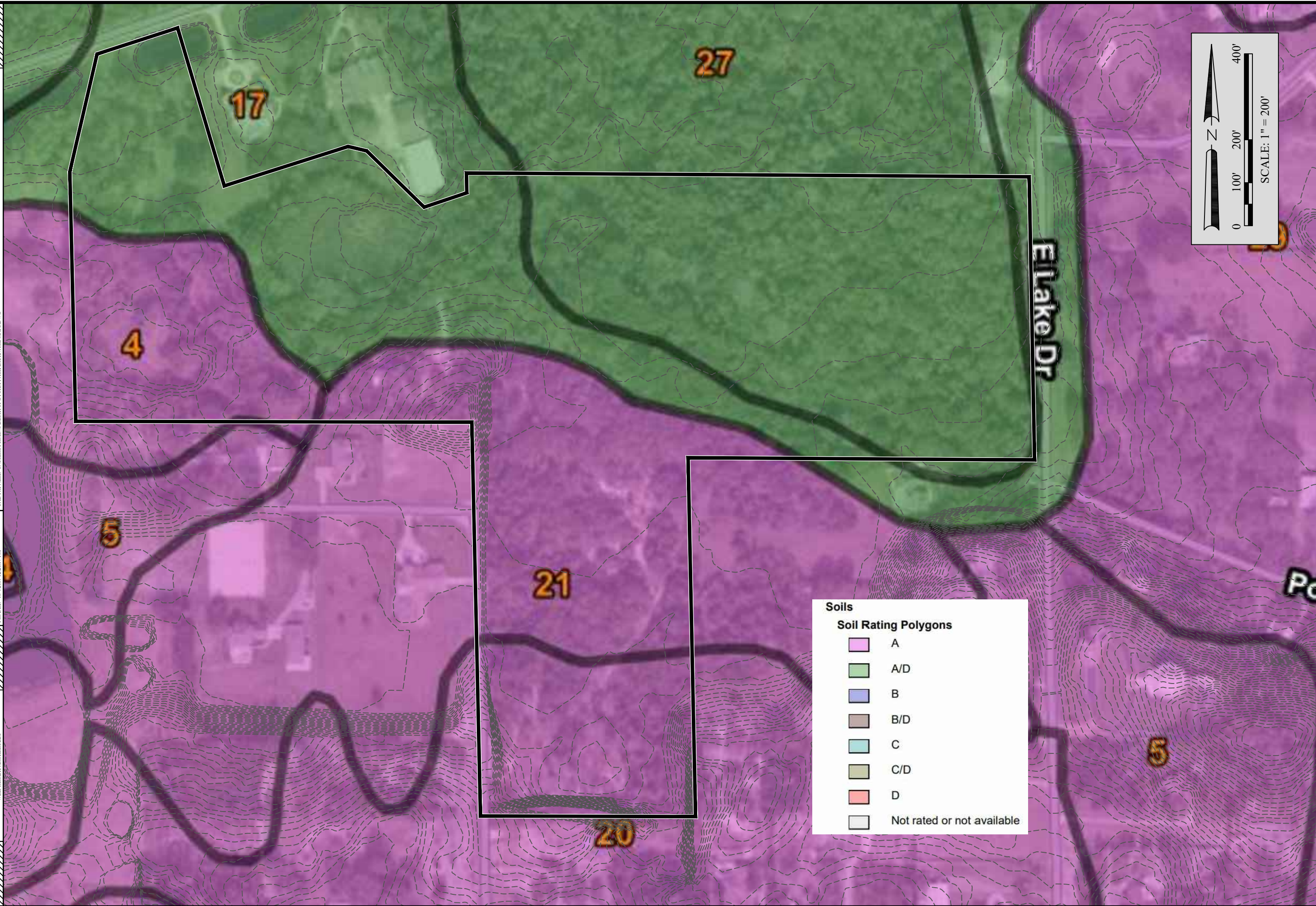
FIGURE 1  
PRE DEVELOPMENT  
DRAINAGE MAP

NORTH LAKE ESTATES

Date: 11-04-2019

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Soils	
Soil Rating Polygons	
	A
	A/D
	B
	B/D
	C
	C/D
	D
	Not rated or not available

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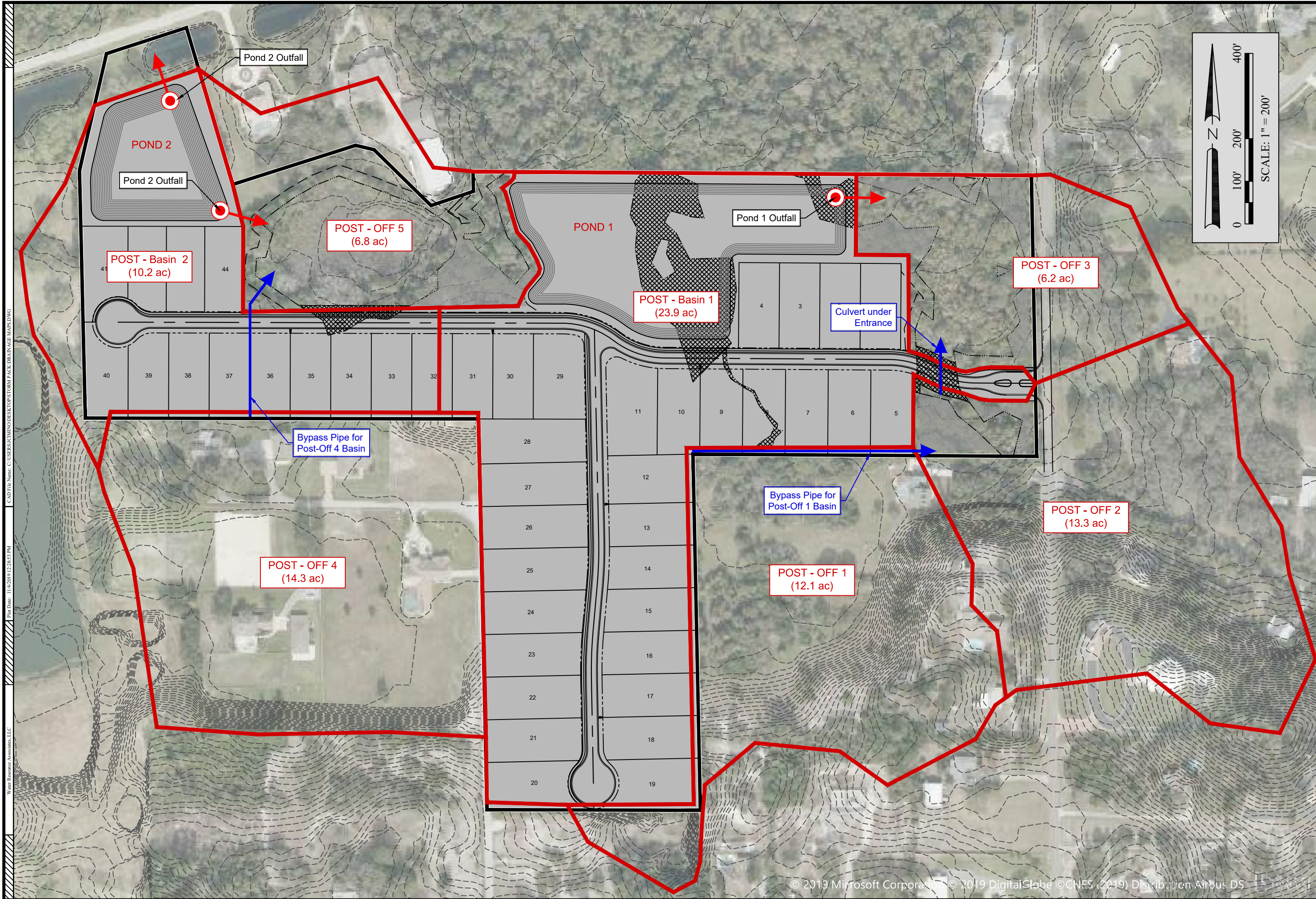


FIGURE 2  
SOILS MAP

NORTH LAKE ESTATES

Date: 11-04-2019

SHEET  
1 of 1



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**FIGURE 3**  
**POST DEVELOPMENT**  
**DRAINAGE MAP**