

STORM WATER DETENTION SUMMARY

Page 1 of 2

The calculations contained herein reflect the 100-year rainfall event, and have been prepared using the TR-55 modeling system, as prescribed by the City of Jonesboro Standards and Specifications.

Existing Conditions:

- A) Storm Flow conveyed through, and controlled by existing 78" diameter pipe beneath Peachtree Avenue.
- B) The flow generated by the 406 acre (+) overall drainage basin cause water to be temporarily impounded upstream of Peachtree Avenue. The existing quantity of water impounded is 21.7 acre-feet.

Proposed Improvements:

- A) The proposed improvements to this property include, within the initial phase of development, the installation of three detention ponds.
- B) The upper-most lake will allow the accumulation and temporary storage of 6.3 acre-feet of water. It is proposed to be a temporary storage facility, which will completely drain following each rain event.
- C) The second lake (largest of the three) will provide a standing lake of approximately 2 acres. It also allows for an additional accumulation of up to six (6') of water, creating a storage capacity of 12.3 acre-feet of water.
- D) The third lake, positioned near the center of the proposed Quadraplexes, will provide a standing lake of approximately 2/3 of an acre. It too will have a significant freeboard, providing a storage of 6.1 acre-feet.

Proposed Cumulative Storage:

Upper-most Lake:	6.3 ACRE-FEET
Second Lake:	12.3 ACRE-FEET
Third Lake:	6.1 ACRE-FEET
Existing impoundment volume:	<u>11.1 ACRE-FEET</u>
TOTAL PROPOSED STORAGE:	35.8 ACRE-FEET

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Page 2 of 2

Storage Requirements:

Based upon calculations, the storage volume required for the development of the entire 70.6 acres is equal to 3.8 acre-feet.

Net Results:

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| A) | TOTAL STORAGE PROVIDED AS A PART OF THE DEVELOPMENT: | 35.8 ACRE-FEET |
| B) | CURRENT STORAGE WITH EXISTING CONDITIONS: | - <u>21.7 ACRE-FEET</u> |
| C) | INCREASE FROM EXISTING CONDITIONS: | 14.1 ACRE-FEET |
| D) | REQUIRED FOR DEVELOPMENT: | - <u>3.8 ACRE-FEET</u> |
| E) | STORAGE PROPOSED IN EXCESS OF CURRENT REQUIREMENTS: | 10.3 ACRE-FEET |