

Practice Problem – Section E

PROBLEM STATEMENT:

Locate and prepare a grading plan for a retention basin to capture the runoff from the proposed parking lot.

CONTEXT:

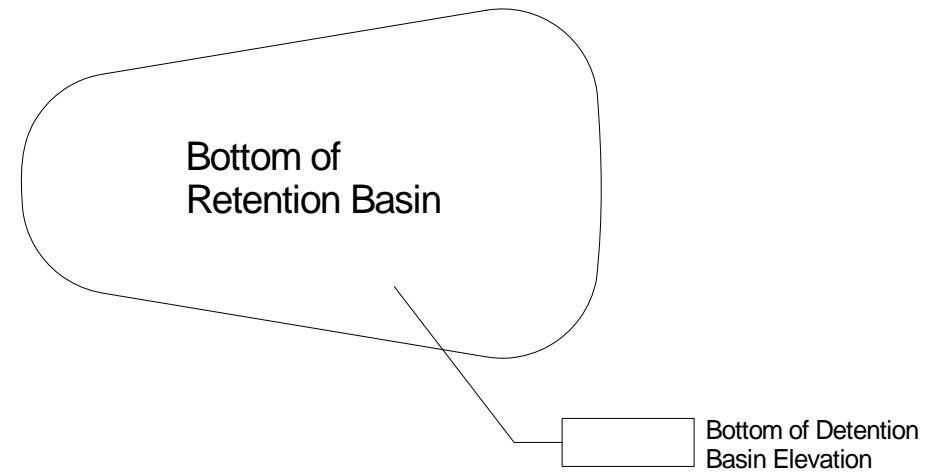
- The proposed grading for the parking lot is provided.
- The existing soils are sandy. No outlet structure is necessary for the retention basin.
- There is no setback from the marsh.

REQUIRED:

- Locate and grade the retention basin with the given bottom shape at a depth of at least 4' using the graphic provided. The bottom of the basin shall be flat. All parking lot runoff should be diverted into the retention basin. Indicate the bottom of the basin and the high water elevation to the nearest 1/10th of a foot. (spot elevation must be indicated on the solution and not in the box shown under Project Element).
- The bottom of the retention basin must be at or above the elevation of the marsh.
- Provide a spot elevation(s) on the retention basin embankment to the nearest 1/10th of a foot to indicate the high water elevation.
- Grade a 1' deep swale from the parking lot to the bottom of the retention basin.
- Gradients on unpaved surfaces shall be 2% minimum and 4:1 (25%) maximum.
- Show and label all proposed 1' contours and meet existing contours within the contract limit lines.
- Save the existing trees. Do not grade within the dripline of the trees.
- No additional retaining walls or drainage structures are permitted.

PROJECT ELEMENTS

Scale: 1" = 20'



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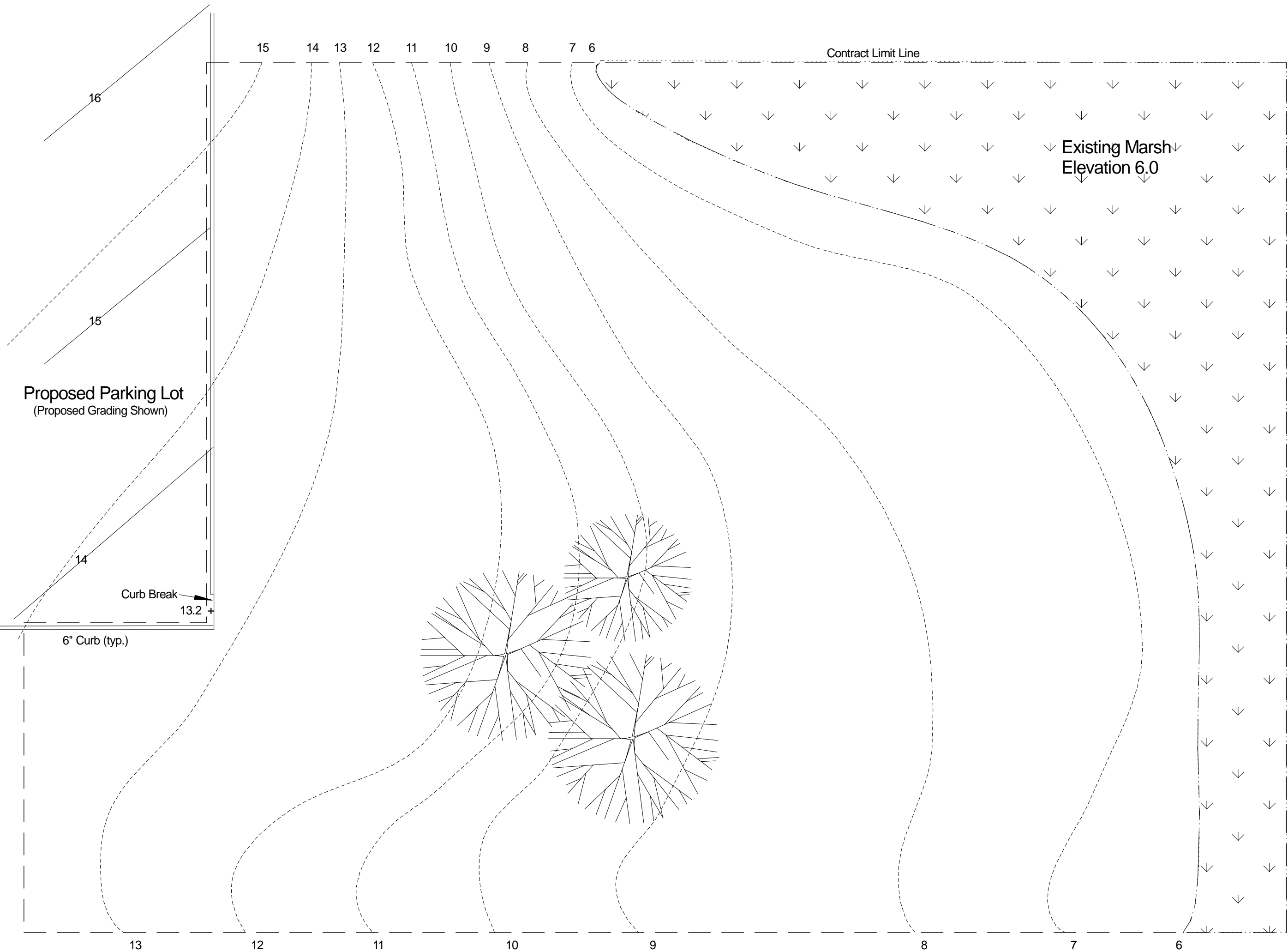
March 2009

Candidate I.D.

Landscape Architect Registration Examination

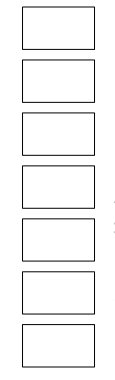
Grading, Drainage and Stormwater Management

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March 2009



Landscape Architect Registration Examination

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Scale: 1"=20'