

## Section 3 – Design

### Item Types

There are four item types found on Section 3 of the L.A.R.E.

- Multiple Choice  
-You will select ONE answer.
- Multiple Response  
-You will be able to select MORE THAN ONE answer. This item type will ask you to "**choose all that apply**" or to "**choose 2**" or "**choose 3**" etc.
- Drag and Place  
-You will be required to select a project element and **place** the element on a site.
- Hot Spot  
-You will be required to **select** the most appropriate location by clicking directly on a site or proposed plan.

---

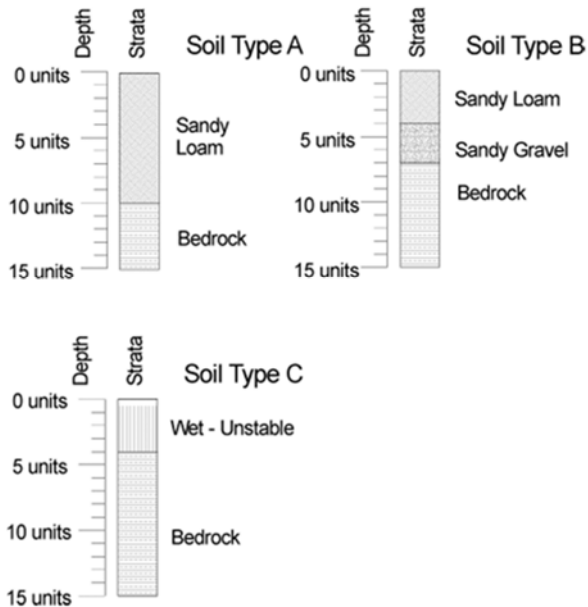
### *Synthesize Site Opportunities and Constraints*

1. The carrying capacity of a site relates to the
  - a. volume of vehicle trips generated per activity.
  - b. size of the total watershed relative to cumulative streamflow.
  - c. amount of impervious surfacing relative to floor area ratio.
  - d. amount of use it can sustain without damage to the resource.

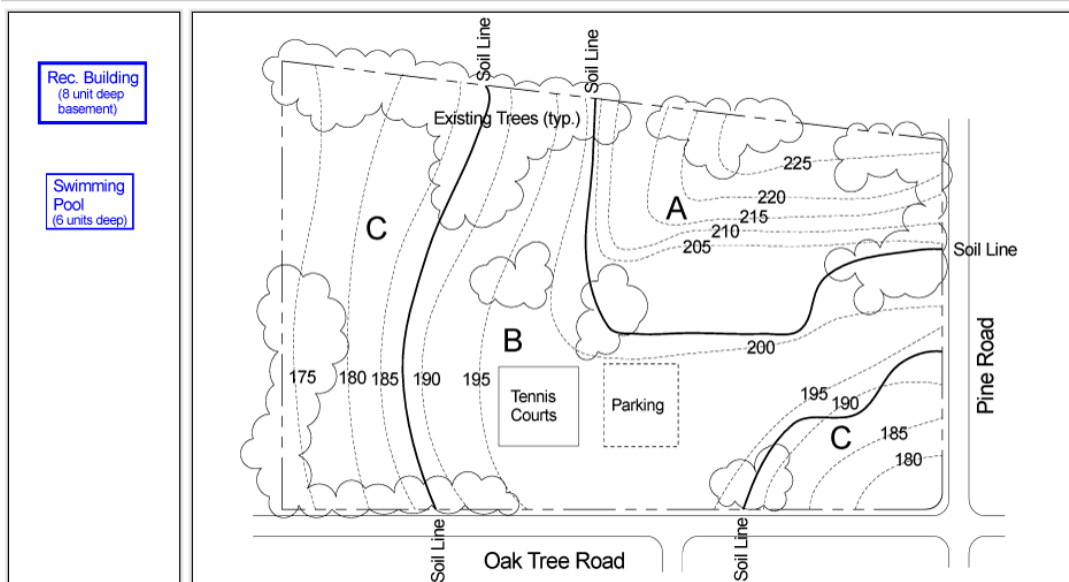
2. Refer to the Exhibit(s). Prepare a design for a proposed recreation development addressing site opportunities and constraints. *Place the project elements to minimize environmental impacts and construction costs.*

Exhibit(s):

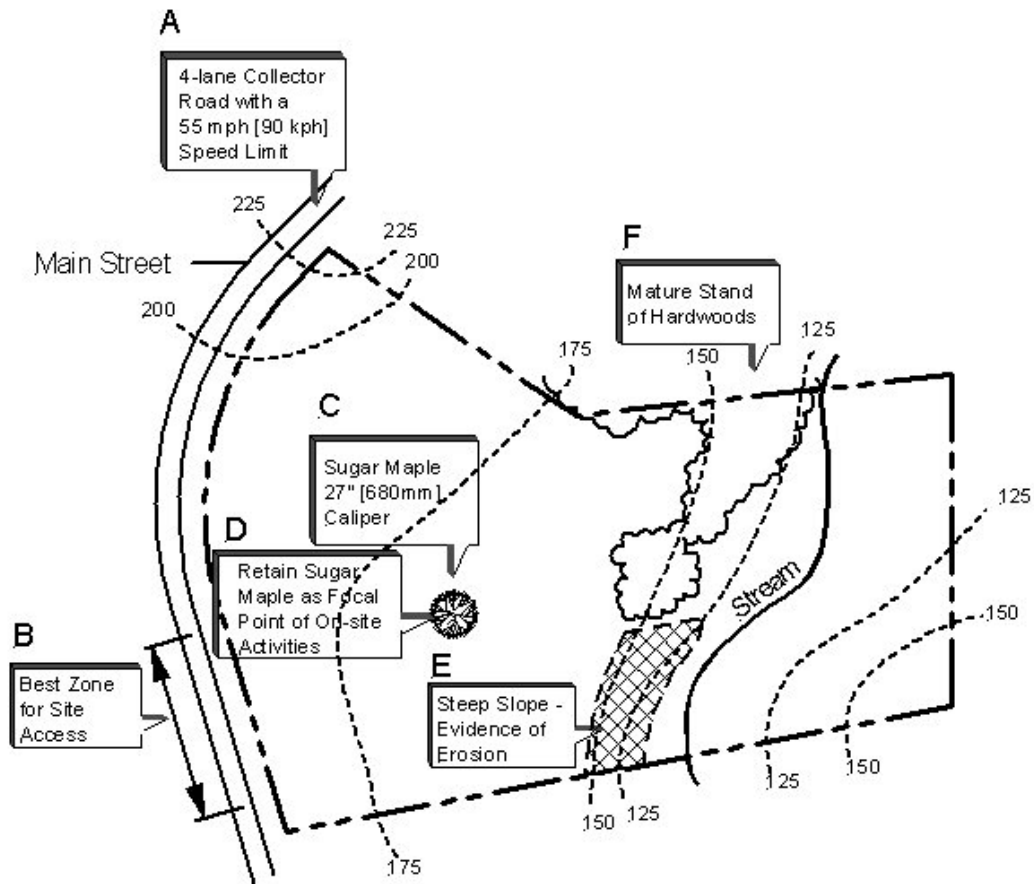
SOIL INFORMATION



Question:



3.



In the graphic shown, which items are considered analysis information? *Choose all that apply.*

- a.
- b.
- c.
- d.
- e.
- f.

**Refine Program**

4. In determining the expected recreational use of a proposed facility by analyzing the use of an existing similar facility, the landscape architect must
- interview users.
  - develop the maximum carrying capacity of the existing resource.
  - multiply the number of cars times the average turnover rate times the number of people per car.
  - adjust the figures to account for the recreational facilities within the zones of influence.

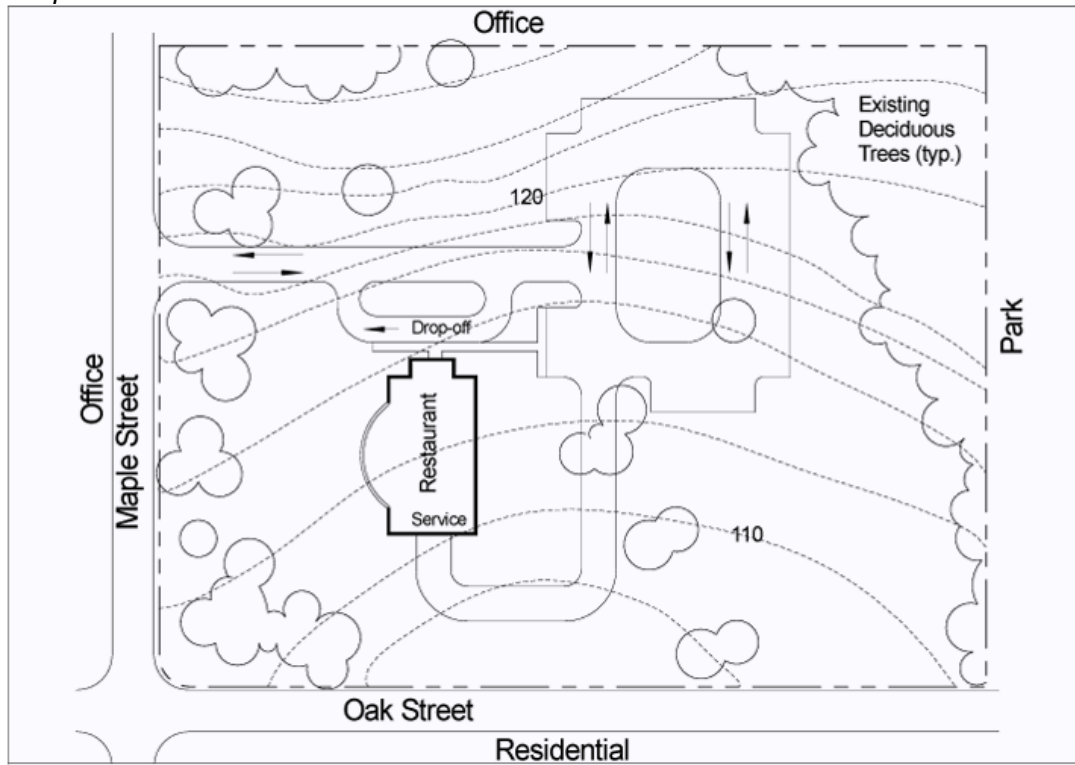
**Create Design Alternatives**

5. As land uses intensify into mixed uses to include a large retail/residential component, traffic control measures might include which of the following? *Choose all that apply.*
- On-street parking
  - A narrowing of traffic lanes
  - An increase of traveled lanes
  - The introduction of planted medians and street trees
6. Which of the following factors affect the selection and location of benches in park design? *Choose all that apply.*
- Physical comfort
  - Ability to observe activity
  - Ability to talk across easy distances
  - Screening from pedestrian activity

**Analyze Design Alternatives**

7. Noise barriers work best when located
- as required by an abutting property.
  - close to the source.
  - to form a non-continuous barrier.
  - farther from the source.

8. Select the area on the proposed circulation plan where pedestrian safety would be compromised.



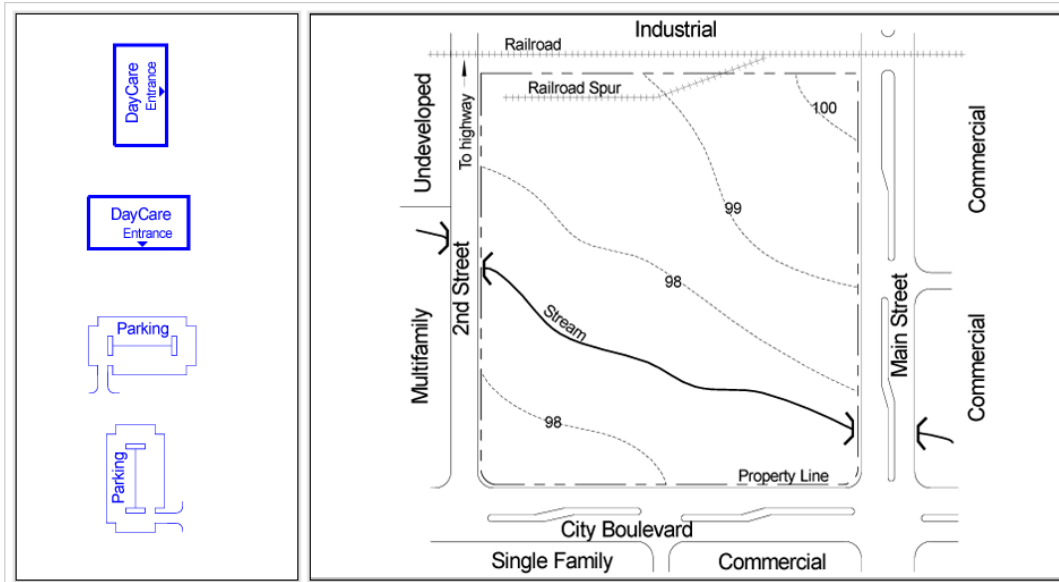
*Develop Master Plan Documents (e.g. land-use, circulation, phasing plan, and guidelines)*

9. A compact versus a sprawling community will encourage which of the following? Choose all that apply.

- a. Reduced impact on water resources
- b. Transit-oriented transportation system
- c. An increase in inter-city highway usage
- d. An improved local economic environment

*Develop Preliminary Site Plans, Sections, and Details*

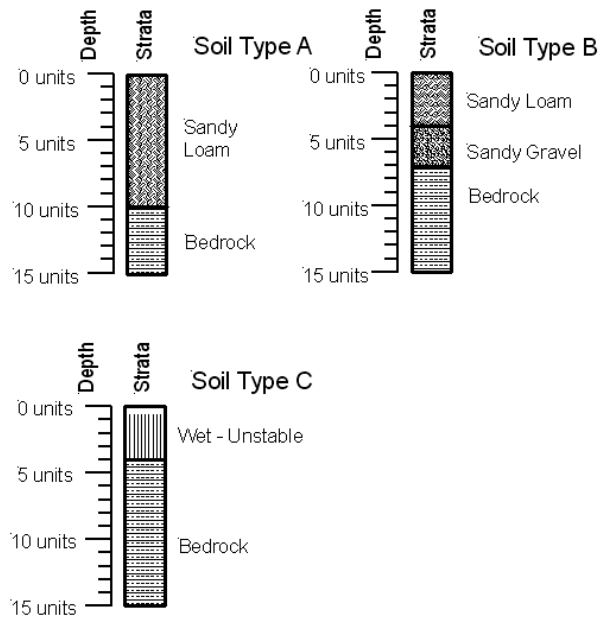
**10.** Locate the DayCare building and associated parking to respond to site opportunities and constraints. *Place 1 each of the DayCare building and Parking on the site.*



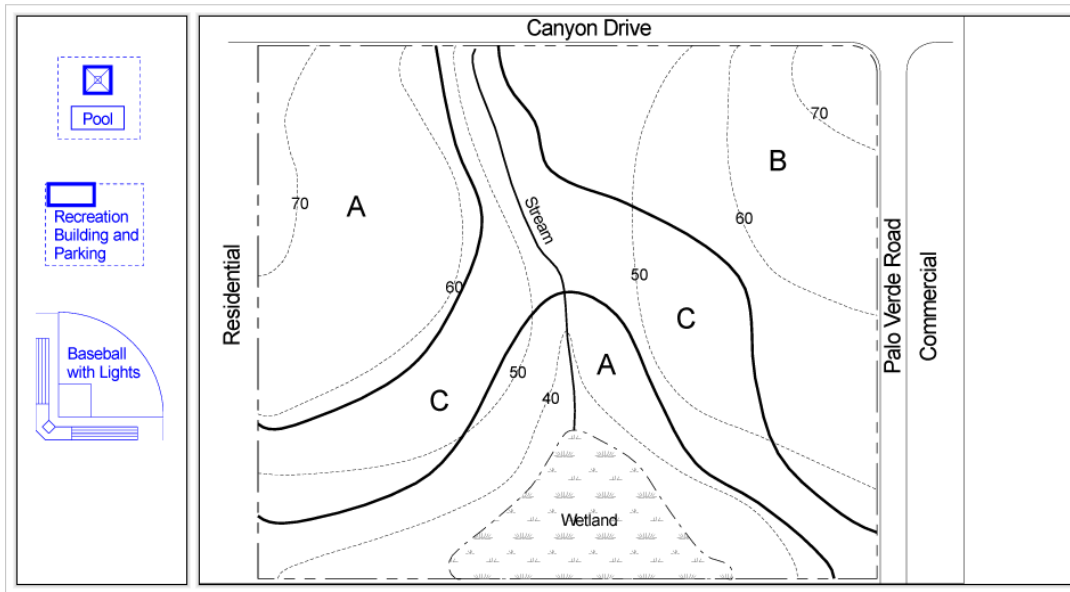
11. Refer to exhibit(s). Local codes prohibit blasting for removal of bedrock. The pool complex consists of an 8 unit deep pool, a pool house and deck. The Recreation Building is a one-story building with 10 unit deep basement for equipment and pool storage. The developer wishes to separate the Baseball from other recreation uses. Minimize the environmental impact and costs of the development. *Place the project elements on the site plan.*

Exhibit(s):

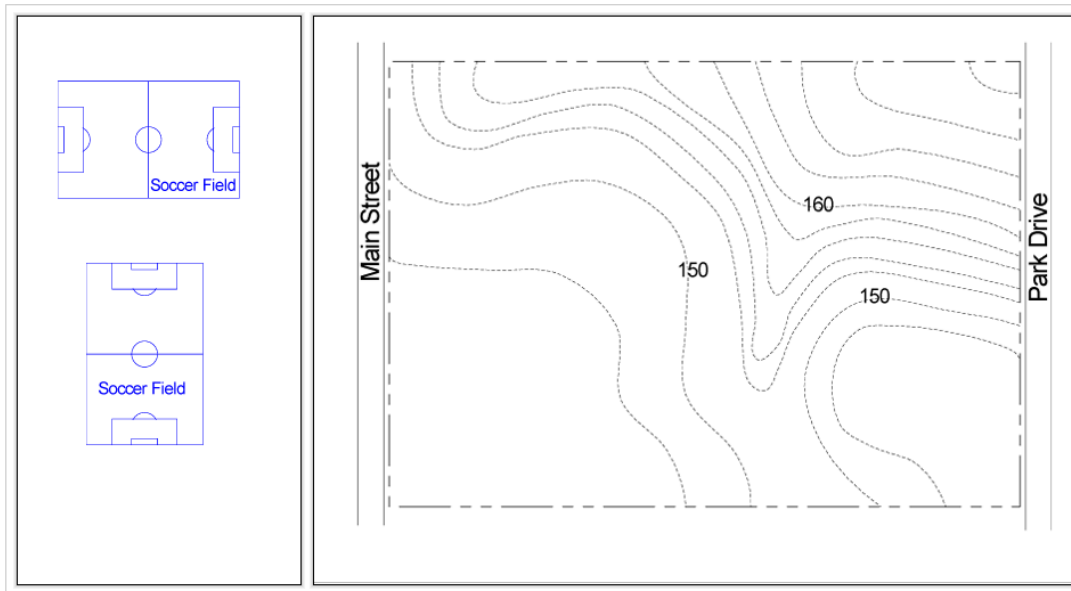
SOIL INFORMATION



Question:



12. Locate a soccer field on the site to minimize environmental impact and construction costs. The soccer field will be used for competition in the afternoons and evenings. *Place 1 soccer field on the site.*



13. Designs for public swimming pools require which of the following elements? *Choose all that apply.*

- a. Recirculating skimmers or overflow gutters
- b. Walkways not less than 4' [1.2m] in width around the entire pool
- c. The ability to completely drain all of the water
- d. Approved rates for pool water turnover

**Investigate, Verify Availability, and Select Design Materials and Components**

14. Fire-resistant plants tend to have which of the following characteristics? *Choose 3 that apply.*

- a. Needle-leaved foliage
- b. Dense, compact or low, prostrate forms
- c. High moisture content
- d. Low sap/resin content

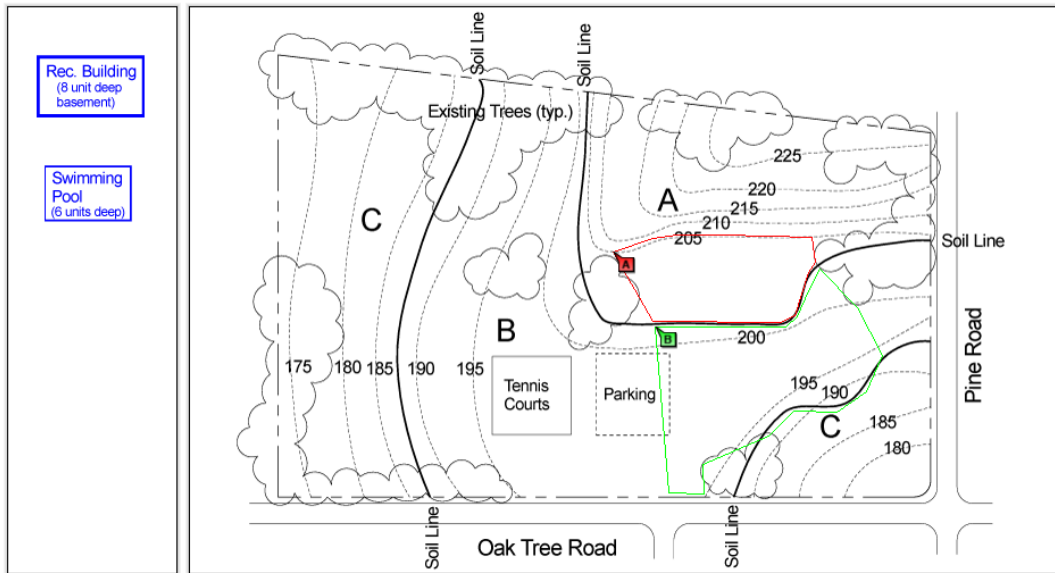
15. Irrigation system design strategies are influenced by which of the following? *Choose all that apply.*

- a. Climate
- b. Soils
- c. Plant materials
- d. Site layout

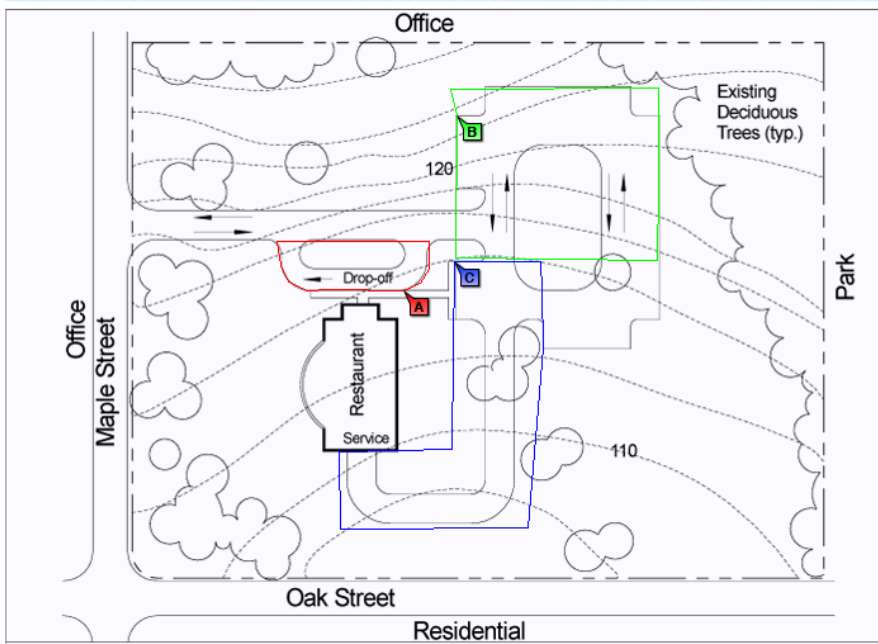


**Answer Key:**

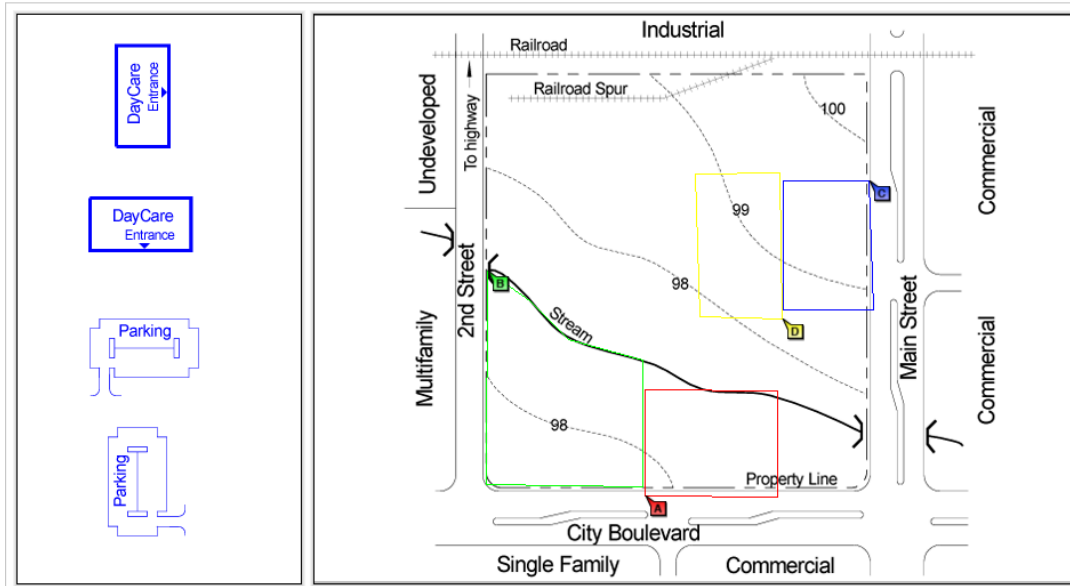
1. D
2. Rec. Building – A  
Swimming Pool – B



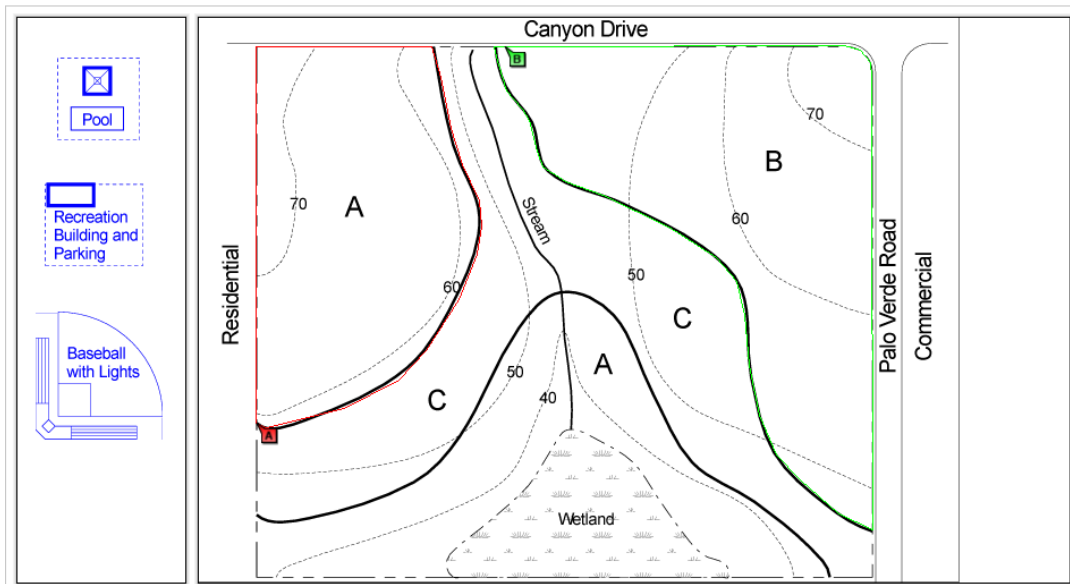
3. B, D
4. D
5. A, B, D
6. A, B, C
7. B
8. A



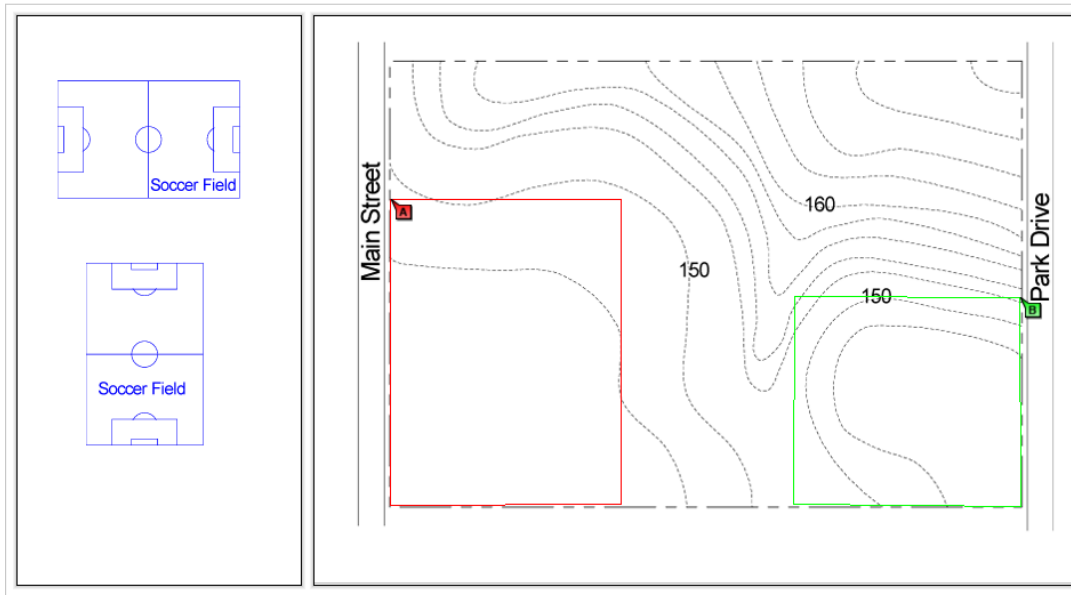
- 9. A, B, D
- 10. Daycare (2) – B  
Parking (1) – A



- 11. Pool – A  
Recreation Building and Parking – A  
Baseball with Lights – B



12. Soccer Field (2) – A



- 13. A, B, C, D
- 14. B, C, D
- 15. A, B, C, D