**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_ Class:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

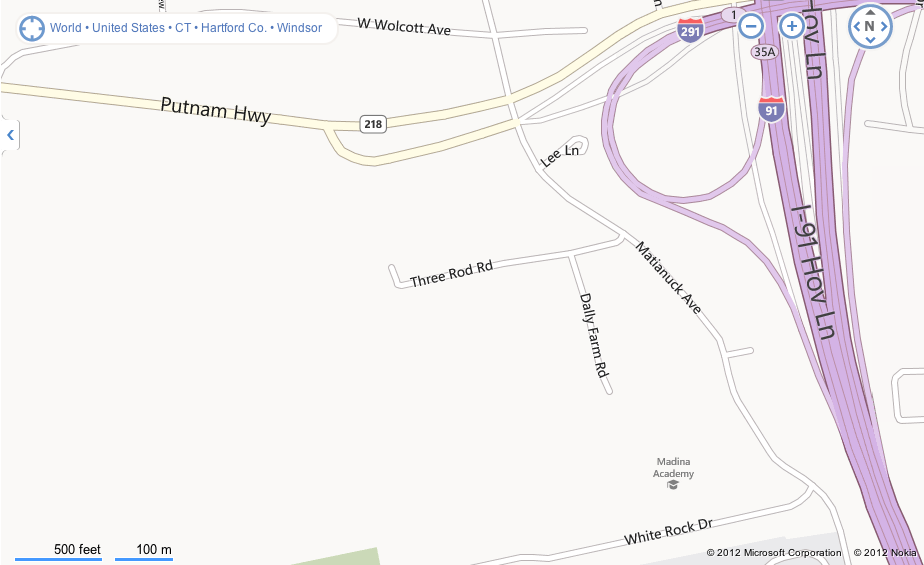
**Summary:** City of Hartford is planning a new construction project to meet the need of growing population, increase revenue for the city, and to improve unemployment rate. After several considerations the construction committee has decided to construct various buildings on the vacant land across the Putnam highway and I-91 in the city of Hartford. The Construction will include wide range of building and attractions to attract visitors from other cities. Some of the attractions include shopping mall, library, and hospital. The layout of this construction site is yet to be determined. Many construction companies are eager to get their hands on this project but only one will get the contract. You have been given a very important responsibility of creating a map of this new city block. Remember your job is to create and present a unique, accurate, detailed, and elegant plan.

**Job description:**

1. Create a map of the new city block on graph paper or computer by using exact guideline for each building. (See building guideline for more detail.)
2. Neatly Label each building on your map where you find appropriate.
3. Create a 3-Dimensional display of the city on a cardboard or hard surface.
4. Create roads that connect each building. (See road guideline for more detail.)
5. Find the perimeter and area of each building on a separate piece of paper. Remember to show your calculation because this will be used to estimate cost of the project.
6. Give your map an appealing look by coloring the map, adding trees, and adding other attractions.

**Vacant land**

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**Road Guideline**

1. Road one (name of your choice) should connect to Dally Farm road and should be parallel to White Rock Dr.
2. Road two (name of your choice) should connect the Putnam highway.
3. Road three (name of your choice) any direction of your choice

**Building Guideline**

1. Each building is at least 10 feet away from the other building.
2. Each building has an entrance, and parking garage if area of the building is more than 5,000 square feet.
3. Each building is located near the main road and is at least 10 feet away from other building.

**Useful Resources**

Team of architect had purposed following design. You may consider these designs or you may choose to create your own design.









You must consider following guidelines when constructing a map of city block.

|  |
| --- |
| **~\*~\*~\*~\*~\*~\*~ Building Guidelines ~\*~\*~\*~\*~\*~\*~** |
| **Shopping mall (name of your choice )**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have**  **At least 1 semicircle**  **At least 3 quad lateral**  **At least 1 trapezoid**  **6 entrances with sidewalk**  **(use an arrow to show entrance)**  **Parking garage**    Example  **Find the Area of this building. Find the perimeter of this building.** |
| **Library (name of your choice)**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have**  **At least 2 rectangle organized in L shape**  **At least 1 trapezoid**  **Parking lot**  **Two entrances with side walk**    **Find the Area of this building. Find the perimeter of this building.** |
| **Hospital ( name of your choice )**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have**  **At least 2 rectangle**  **At least 1 circle**  **At least 2 semicircle**  **At least 1 square**    **Parking garage**  **5 entrances**  **Find the Area of this building. Find the perimeter of this building.** |
| **Factory ( name of your choice )**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have**  **At least 1 Kite**  **At least parallelogram**  **At least 2 semicircle**  **At least 1 trapezoid**    **Parking lot**  **Find the Area of this building. Find the perimeter of this building.** |
| **Zoo ( name of your choice )**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have at least**  **1 Kite**  **1 trapezoid**  **One rhombus**  **One circle**  **Find the Area of this building. Find the perimeter of this building.**  **Any building of your choice, any name of your choice.**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have at least four**  **different geometric shapes.**  **Find the Area of this building. Find the perimeter of this building.** |
| **Any building of your choice, any name of your choice.**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Must have at least three**  **different geometric shapes.**  **Find the Area of this building. Find the perimeter of this building.** |

**NAME: Construction Project Rubric**

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| |  | | --- | | **Bonus 5 points: Submit on time** | |

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| --- | --- | --- | --- | --- | --- |
| CATEGORY | Exemplary | Proficient | Developing | Beginning | Points  Earned |
| Drawing each building on a graph paper on Geometry Sketch pad.  (40 points) | Each building is accurately drawn on graph. Exact measurement is used. Ruler is used to make straight lines. All sides of 3D model are closed. (40 points) | Missing one of the following.  Appropriate shape of the building; Accurate measurement of the sides; lines are straight and connected (30 points) | Missing two of the following.  Appropriate shape of the building; Accurate measurement of the sides; lines are straight and connected (20 points) | Missing three of the following.  Appropriate shape of the building; Accurate measurement of the sides; lines are straight and connected (10 points) |  |
| Labeling  (10 points) | Each building is labeled. Roads are constructed to connect one building from another. (10 points) | Buildings are labeled incorrectly. Roads are messy and out of order  (6 points) | Some buildings are labeled. Roads don’t connect buildings or don’t exist.  (4 points) | Buildings are not labeled and roads are not drawn.  (0 point) |  |
| Area of each building  (40 points) | Correct formula is used for each building. Area is accurate and free of error. All work is shown neatly on separate piece of paper. (40 points) | Correct formula is used but area is incorrect due to minor error. All work is shown neatly on separate piece of paper.  (30 points) | Correct formula is used but calculation contains many errors. No work is shown.  (20 points) | Incorrect Formula is used. Calculation contain many errors or no work is shown.  (10 points) |  |
| Neatness and Attractiveness of work  (10 points) | Exceptionally well designed, neat, and attractive. Colors that go well together are used to make the map more readable. (10 points) | Neat and relatively attractive. A ruler and graph paper are used to make the map more readable.  (6 points) | Lines are neatly drawn but the poster appears quite plain.  (4 points) | Appears messy and "thrown together" in a hurry. Lines are visibly crooked.  (0 points) |  |
| **Total Points** |  |  |  |  |  |

**Apex credit will be given based on following criteria.**

|  |  |  |
| --- | --- | --- |
| **Check**  **One** | **Workload** | **Credit** |
|  | **Creating a 2 dimensional drawing on graph paper**  **Finding accurate area and perimeter of each building.** | **10 Quizzes. May include practice assignment and test if scored above**  **85%** |
|  | **Creating a 3 dimensional drawing on graph paper**  **Finding accurate area and perimeter of each building.** | **12 Quizzes. May include practice assignment and test if scored above**  **85%** |
|  | **Creating a 3 dimensional model on hard surface.**  **Finding accurate area and perimeter of each building.** | **16 Quizzes. May include practice assignment and test if scored above**  **85%** |

**Timeline and instruction**

**Day 1-2**

* Make a 2-dimensional map of your building using PowerPoint. Must have one slide for each building. Save the file using your name!!
* Open “**city block constrcution.pub”** file and paste your building where you find appropriate. Then save the file using your name!!
* Print two copies of **PowerPoint** and one copy of **publisher.** Don’t bend your paper

**Day 3-5**

* Trace the map you created onto a construction paper.
* Build a 3 dimensional model for your building.
* Keep your buildings in a safe place. You are responsible for your lost and damage.

**Day 6**

* Glue the buildings on to a cardboard surface.
* Add parking lot, garage, roads, highway, and trees to make your model stand out.

**Day 7-8**

* Give appropriate measurements to your building using the 2-dimensional map you created on power point.
* Calculate the area and perimeter of each building. Staple your work next onto the 2D drawing. If unfinished for homework, then complete this for homework.