Learning Objectives

Monday, March 20, 2023 1:48 PM

The workbooks used for L8 to L12 are found in the files folder of Canvas. Lecture 11 will use Workbook 8. The drawings used are found in The workbooks required to complete these exercises are found in Canvas\Files\Workbooks.

https://my.civil.utah.edu/~bartlett/CVEEN%201400/Drawings/

1. Finish Exercise 1 – Exercise 1: Creating an Assembly WorkBook 8 -AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Assembly-*1a.dwg Exercise1 lastname first name.pdf*. Upload this file to Canvas.

2. Finish Exercise 2 – Exercise 2: Modifying the Subassembly Name Template from WorkBook 8 - AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Assembly-*1b.dwg Exercise 2 lastname first name.pdf*. Upload this file to Canvas.

3. *Finish Exercise 3 – Exercise 3: Managing Assemblies and Subassemblies from WorkBook 8 - AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Assembly-1c.dwg Exercise 3 lastname first name.pdf. Upload this file to Canvas.*

4. *Finish Exercise 4 – Exercise 4: Examining the Existing Corridor in Section from WorkBook 8 -* AutoCad_Civil_3D_Grading tutorial file. No file submission is required for this exercise.

5. Finish Exercise 5 – Exercise 5: Rebuilding the Corridor and Examining the Results from WorkBook 8 - AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Assembly-*2a.dwg Exercise 5 lastname first name.pdf*. Upload this file to Canvas.

6. Finish Exercise 6 – Exercise 6: Creating a Basic Corridor Model WorkBook 8 -AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Corridor-*1a.dwg Exercise 6 lastname first name.pdf*. Upload this file to Canvas.

7. Finish Exercise 7 – Exercise 7: Creating an Assembly with a Transition Lane from WorkBook 8 - AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Corridor-2a.*dwg Exercise 7 lastname first name.pdf*. Upload this file to Canvas.

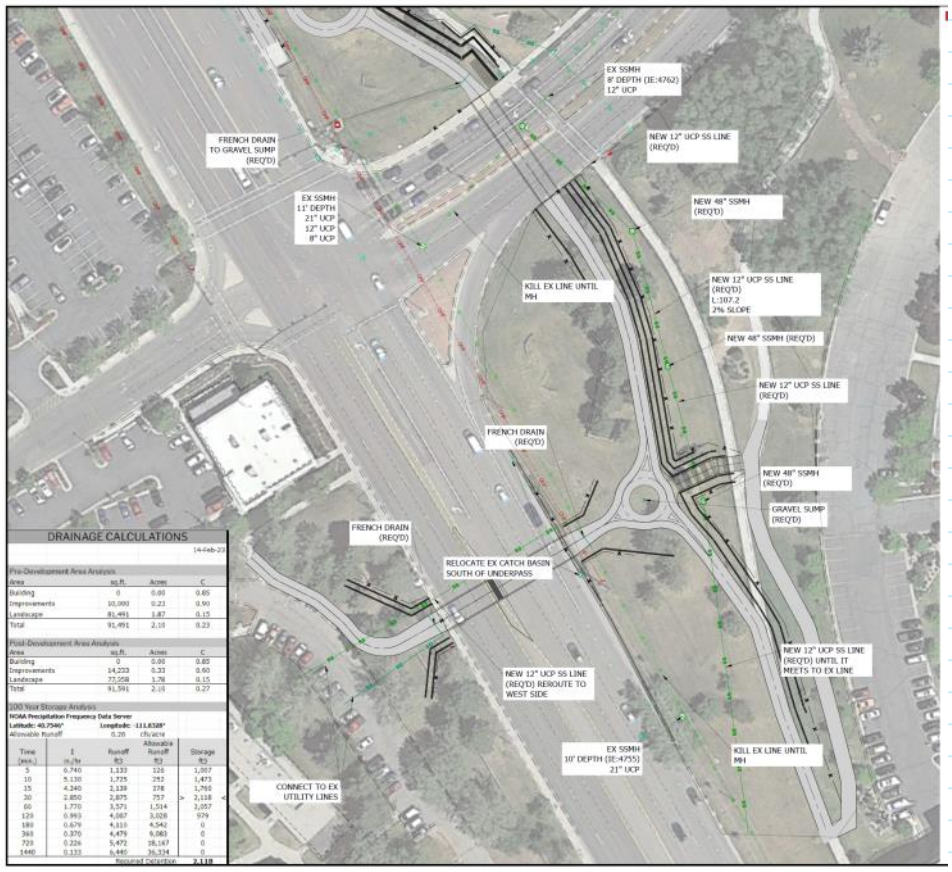
8. Finish Exercise 8 – Exercise 8: Creating a Corridor with a Transition Lane from WorkBook 8 - AutoCad_Civil_3D_Grading tutorial file. Save the file from this exercise as Corridor-2b.*dwg Exercise 8 lastname first name.pdf*. Upload this file to Canvas.

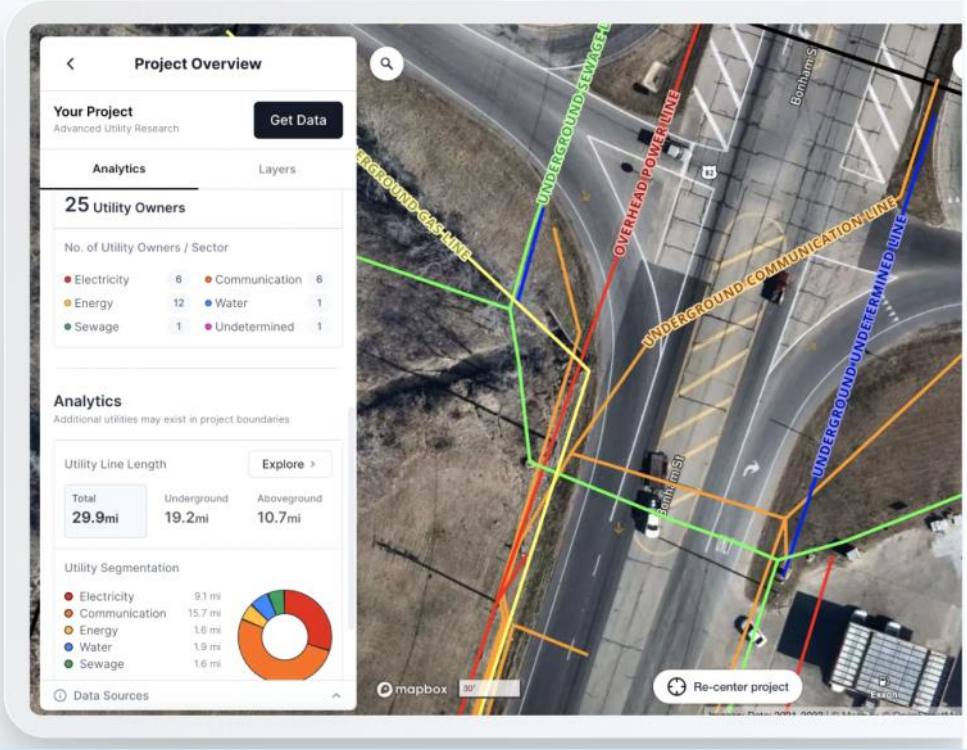
9. Finish Exercise 9 – Exercise 9: Creating a Divided Highway Assembly from WorkBook 8 -AutoCad_Civil_ 3D_Grading tutorial file. Save the file from this exercise as Corridor-3a.*dwg Exercise 9 lastname first name.pdf*. Upload this file to Canvas.

10. Finish Exercise 10 – Exercise 10: Creating a Divided Highway Corridor from WorkBook 8 -AutoCad_Civil_ 3D_Grading tutorial file. Save the file from this exercise as Corridor-3a.*dwg Exercise 10 lastname first name.pdf*. Upload this file to Canvas.

Roadway Assemblies and Utilities

Saturday, January 12, 2019 1:48 PM





Roadway Major Features

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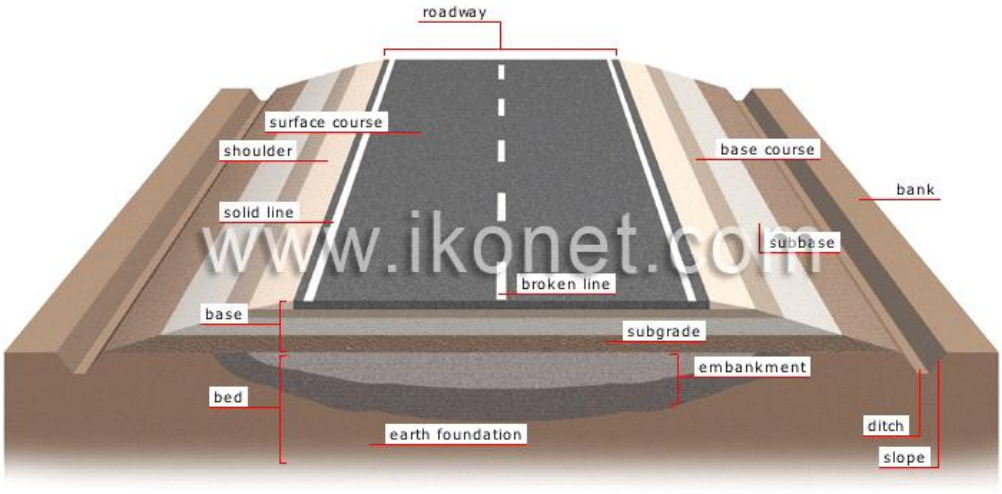
- Shoulders allow drivers to regain control once leaving the pavement, provide a space for emergency parking, and provide structural support for the edge of the pavement.

- Curbs, often formed of concrete, keep vehicles off lawns, and in conjunction with a gutter, provide a conveyance channel for stormwater.

- Medians provide separation between opposing lanes of traffic, thereby reducing the probability of deadly head-on collisions. Also, in cold climates, medians provide space for snow storage.

- Ditches convey stormwater, and unlike impervious curbs and gutters, allow for some infiltration and treatment of stormwater.

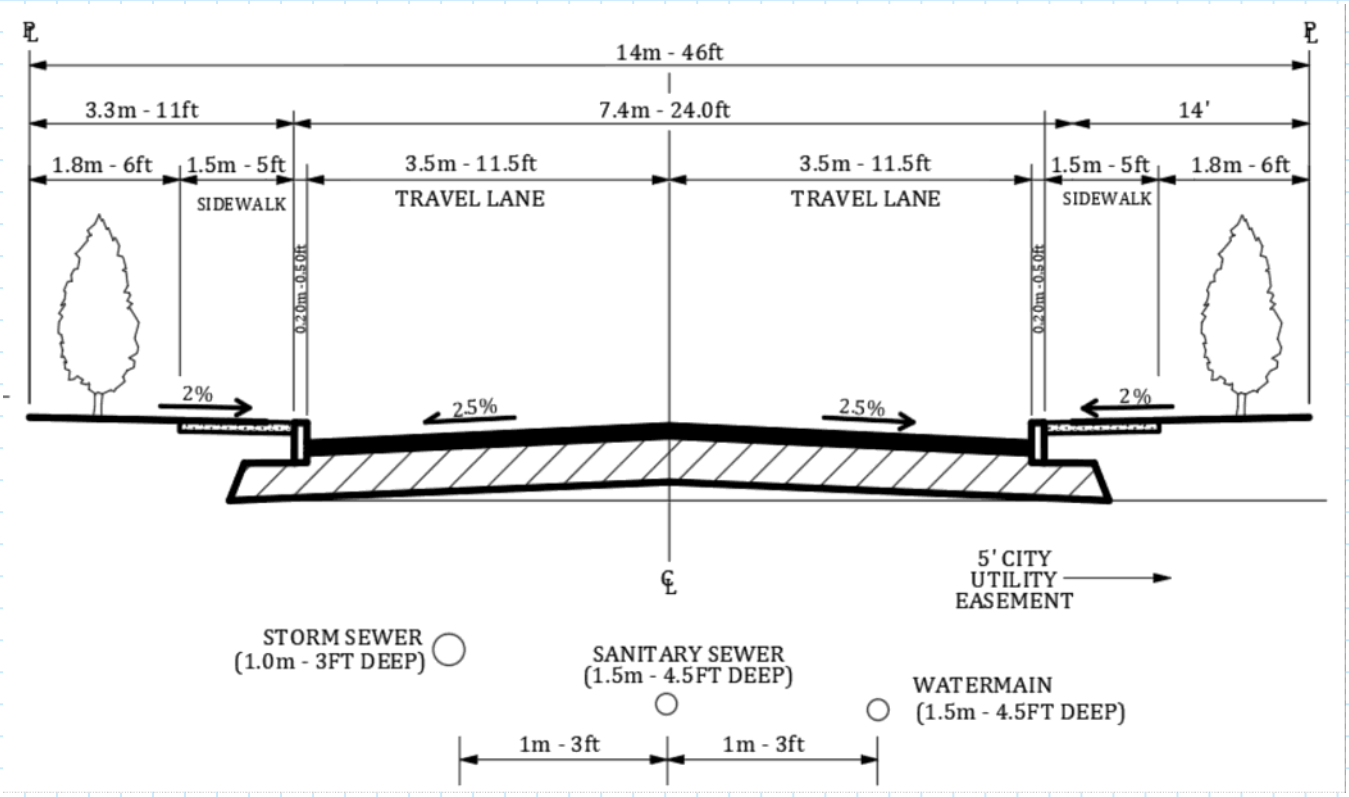
Penn, Michael R.. Introduction to Infrastructure (Page 59). Wiley Higher Ed. Kindle Edition.



http://www.ikonet.com/en/visualdictionary/transport-and-machinery/road-transport/road-system/cross-section-of-a-road.php

Roadway Cross-Section

Monday, May 17, 2021 5:48 AM

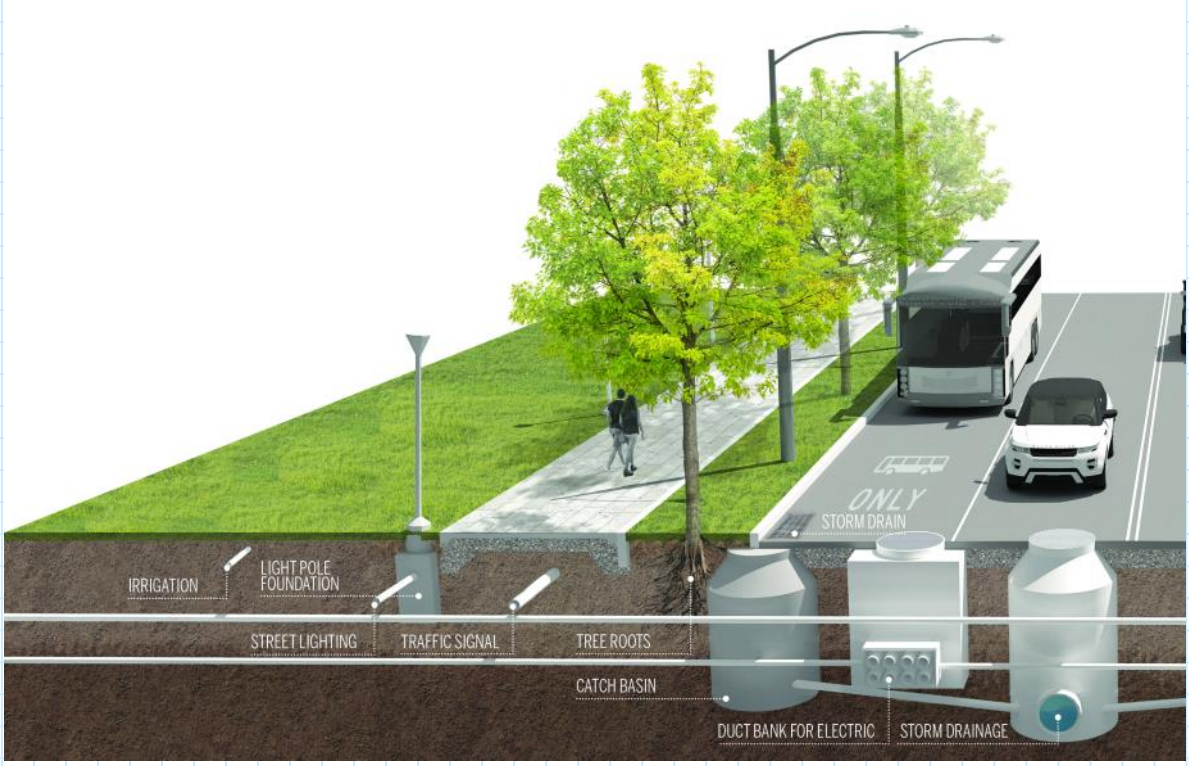


Pipes and Drains - Storm Drain

Saturday, January 12, 2019 1:48 PM

Pipes and Drains - Storm Drain

Saturday, January 12, 2019 1:48 PM



Cross-sectional view of typical roadway

Steel grate over storm drain inlet

Electrical and other cables

Sewer line installation

Pipes and Drains - Water

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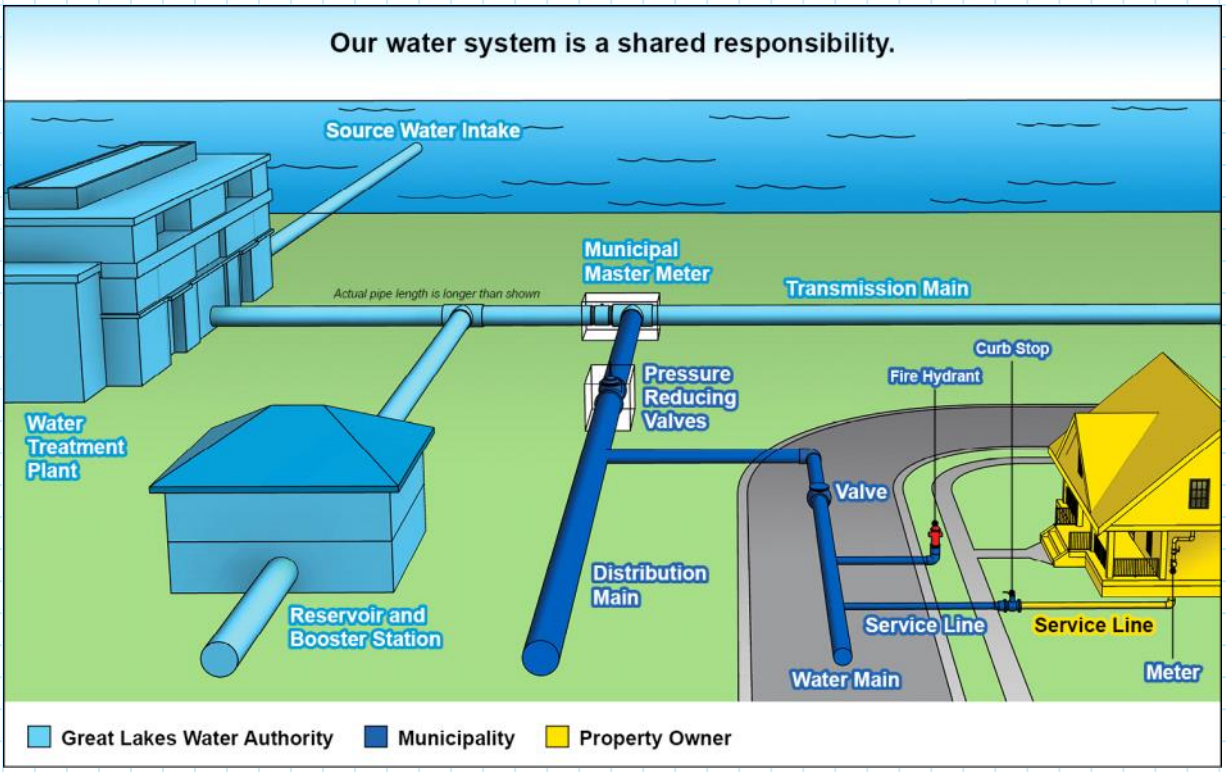


Pipes and Drains - Sewer

Saturday, January 12, 2019 1:48 PM

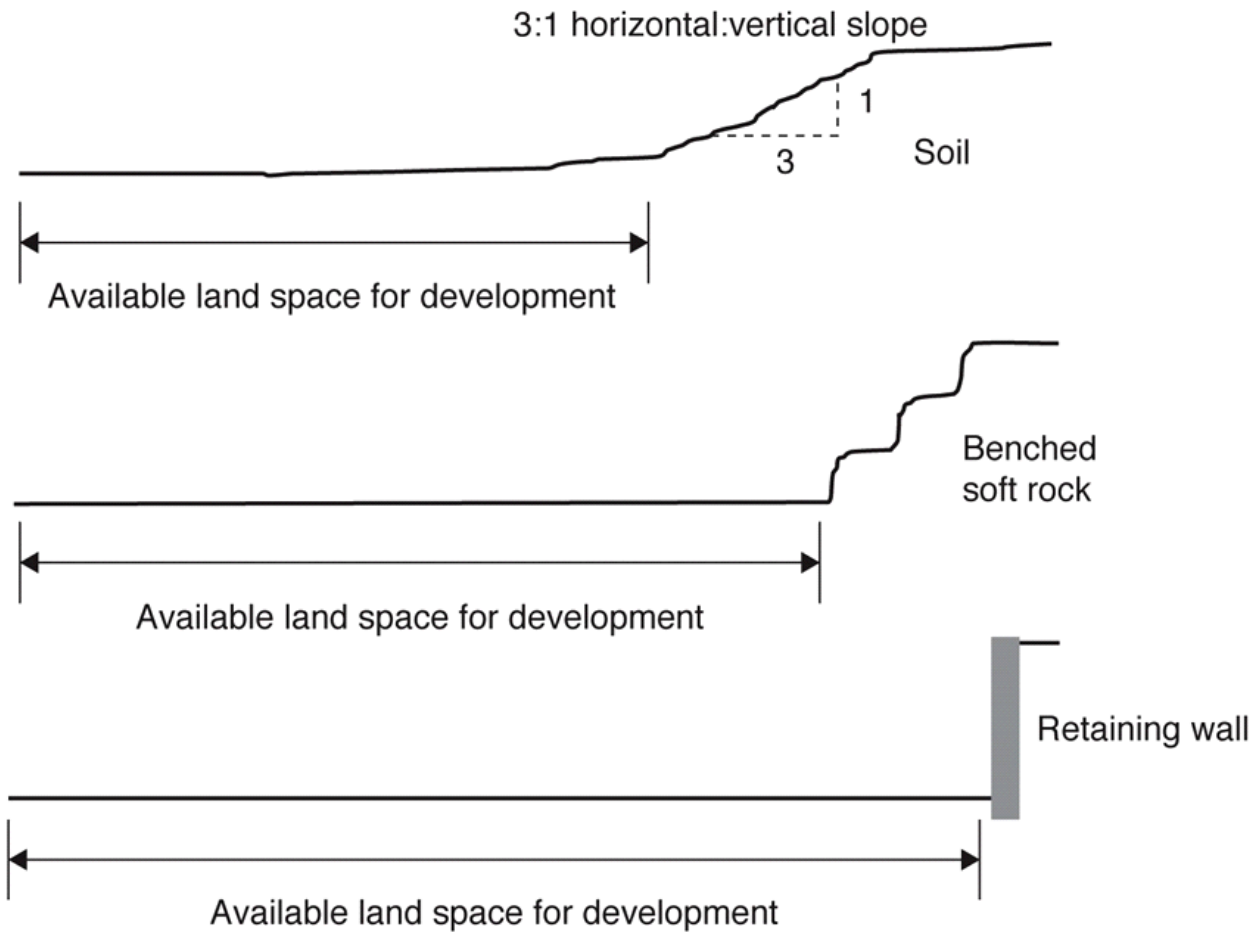
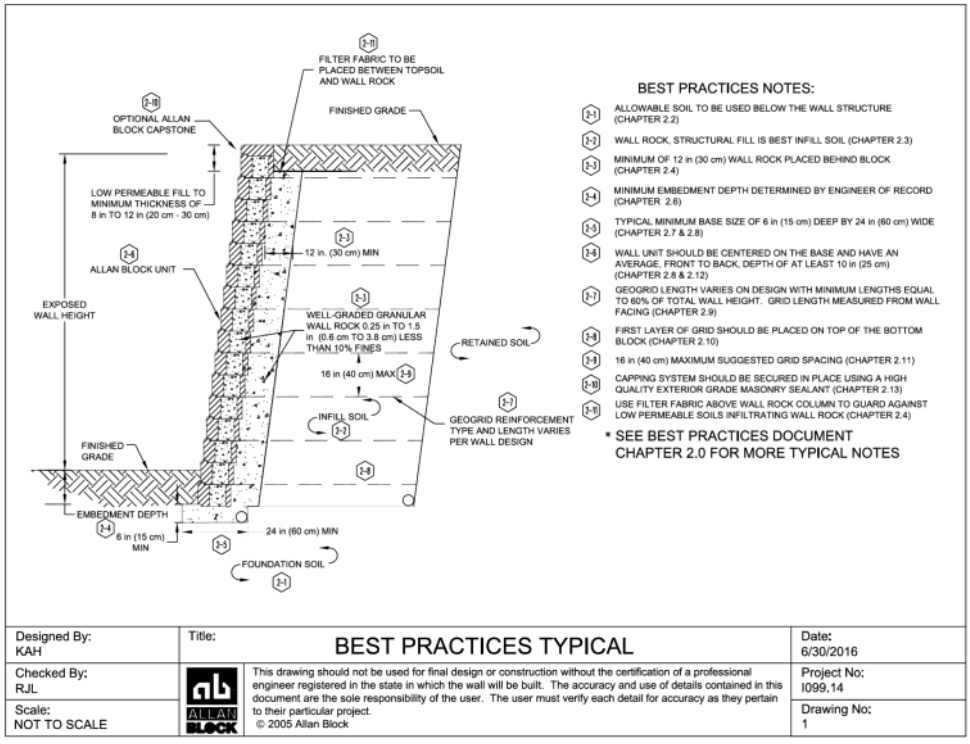


Figure 3.22

Modular Block Retaining Wall

Saturday, January 12, 2019 1:48 PM

Figure 3.23
M. Penn



https://allanblock.com/engineers/typical-wall-construction.aspx

Mechanically Stabilized Earth Wall

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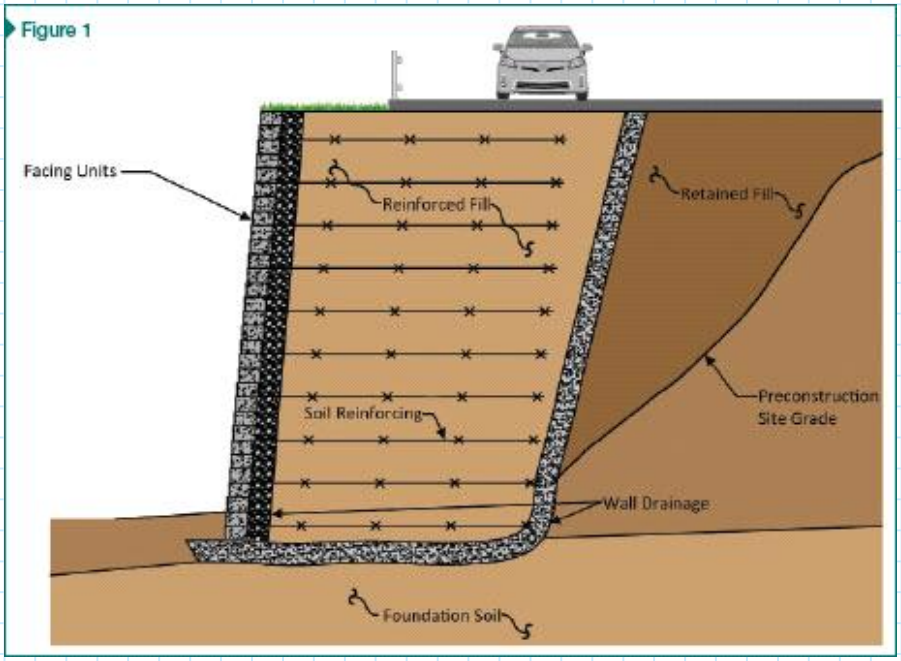

Mechanically Stabilized Earth Wall

Saturday, January 12, 2019 1:48 PM

Creating Roadway Assemblies in Civil 3D

Monday, May 17, 2021 5:48 AM

[Creating an Assembly in Civil 3D 2018, 2019, 2020, 2021]

Autocad Civil 3D Training