
Findlay Toyota OHV Park

CENE 486C
Project Status Presentation #3



Presented By:
Trandon Struck

Other Members:
Abdulmalik Alajlan
Miranda Aakre
William Gil

In Partnership With:



March 28th, 2017

Project Recap



5130 N. Test
Dr
Flagstaff, AZ

Project:

OHV Demonstration Park

Client:



Schedule Status

#	Title	Due Date	Team Lead
1.0	Site Analysis	2/15/17	Malik
2.0	Code Review	2/13/17	Trandon
3.0	Geotechnical Testing/Analysis	2/13/17	Miranda
4.0	Drainage Analysis	3/6/17	William
5.0	Project Site Design	4/1/17	Miranda
6.0	Park Feature Design	4/1/17	Trandon
7.0	Deliverables and Project Management	Varies	William

Work Completed Since Last Update

Soil Samples Collected

Soil Testing Started

- Sieve Analysis
- Atterberg Limits

Park Features

- Steep Hill
- Off Camber Section



Figure 1: Soil Collection



Figure 2: Soil Testing



 - APPROXIMATE SOIL BORING LOCATIONS



SOIL BORING LOCATION PLAN

PM: MA | REV: 0 | DATE: 1/20/17

5130 N. Test Dr
Flagstaff, AZ

CENE 486
SPRING 2017



Soil Collection

Ring Samples (in-situ)

Auger Samples

- Soils of differing Composition

Bulk Samples

- 5 Gallons

Field Analysis



Figure 3: Boulder



Figure 4: Auger Sample

Soil Classification

	PL	LL	USCS	AASHTO	Subgrade	Grade
TP-1				A-2-4	Good to Excellent	
TP-2	22.6%	18.4%	SC – Clayey Sand	A-2-4	Good to Excellent	Fair to Poor
TP-3	32.5%	25.7%	SM – Silty Sand	A-2-4	Good to Excellent	Poor
TP-4				A-2-4	Good to Excellent	
TP-5				A-2-4	Good to Excellent	

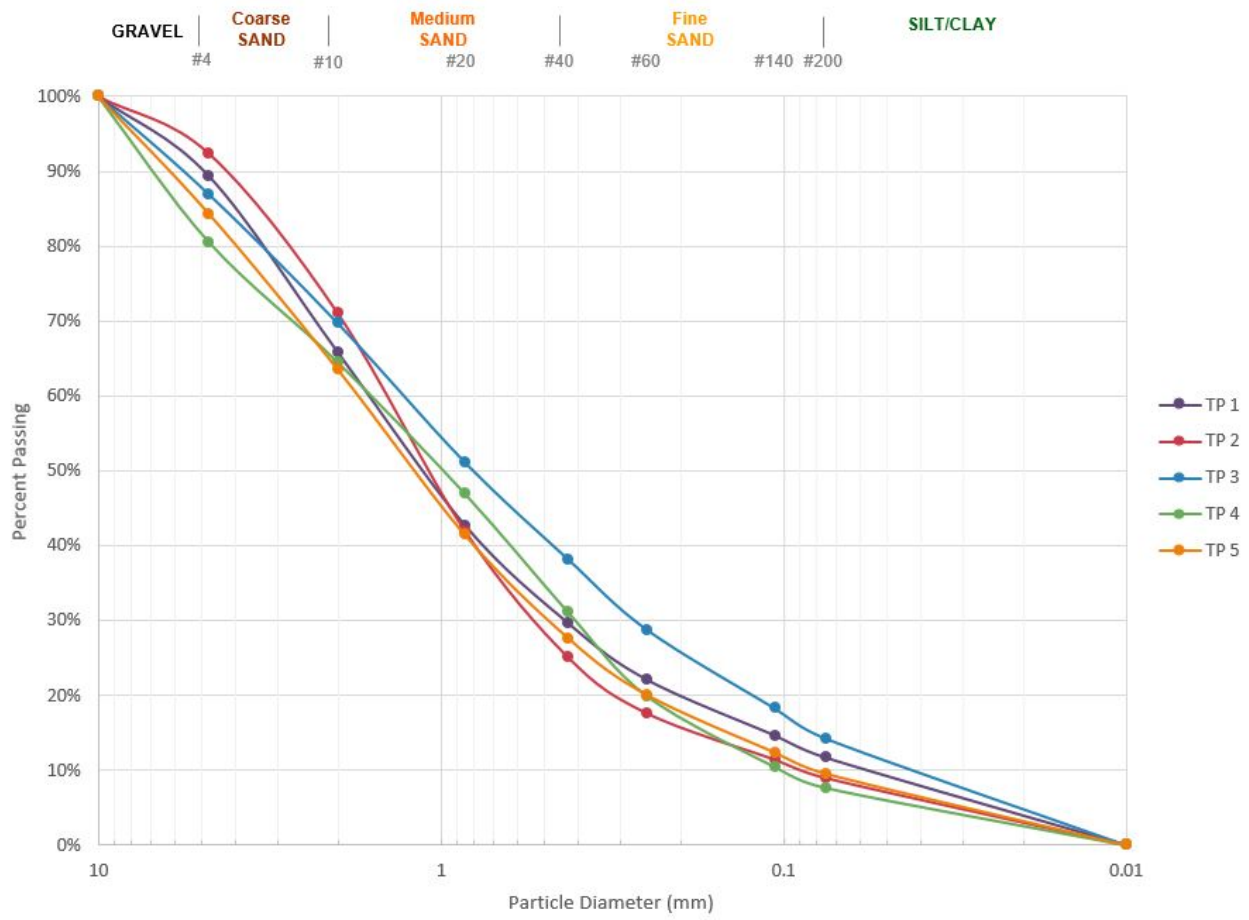


Figure 5: Particle Size Distribution Overlay

Geotechnical Testing

Test	Number of Trials	Result
Direct Shear	5	Shear Strength
Triaxial (CU)	5	CD strength, friction angle
Proctor Compaction	5	Dry density, Optimal moisture content
Swell Tests	5	Pressure when compacted and wet
Hydraulic conductivity	5	How fast does it drain
Sieve	5	Identification of soil
Atterberg Limits	5	Shrink limit, liquid limit and plastic limit

4.0 Drainage Analysis

- Stormwater Collection Design
- Sewer Drainage Design

Impervious Areas:

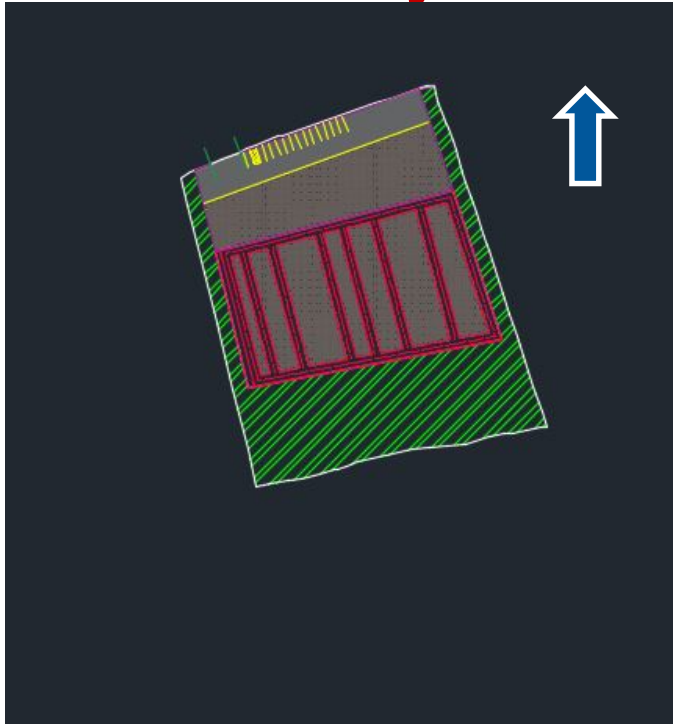
- Parking Lot =12969.2 sq. ft.
- Track=TBD

- Grading Required: TBD

5.0 Project Site Design

- ~~Site Location~~
- ~~Site Layout~~
- Track Alignments
- Track Profiles
- ~~Parking Plan~~
- Ingress/Egress Plan
- Safety Plan

Site Layout: Segment



- Area: 24020.2 sq ft
- Number of Features: 6
- Track Length: 1915 LF
- Parking Spaces: 14

Figure 6: Site Layout

Parking Lot Cross Section

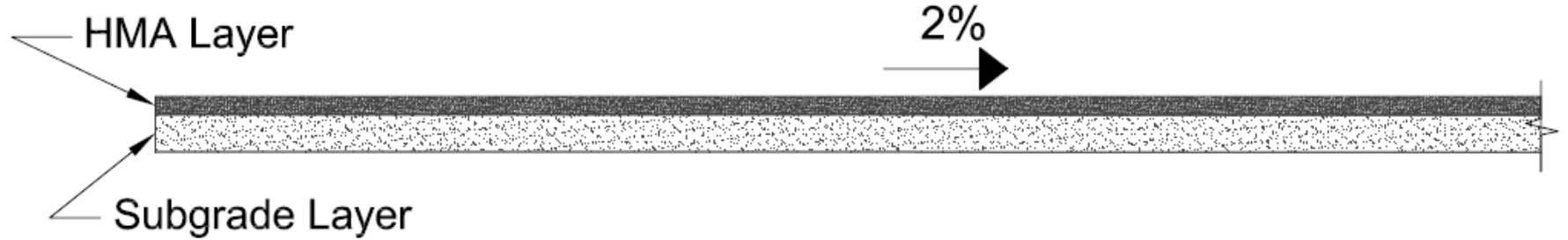


Figure 7: Parking Lot Cross Section

6.0 Park Features Design

- ~~Steep and Sand Hills~~
- ~~Off-camber Section~~
- Mud and Sand Pits
- Boulder Garden
- Materials Schedule

Vehicle Specifications are primary limiting factors for these features

Steep Hill



Figure 8: Steep Hill Dimensions

Off-Camber Section

- Continued for length of section
- Variation Expected

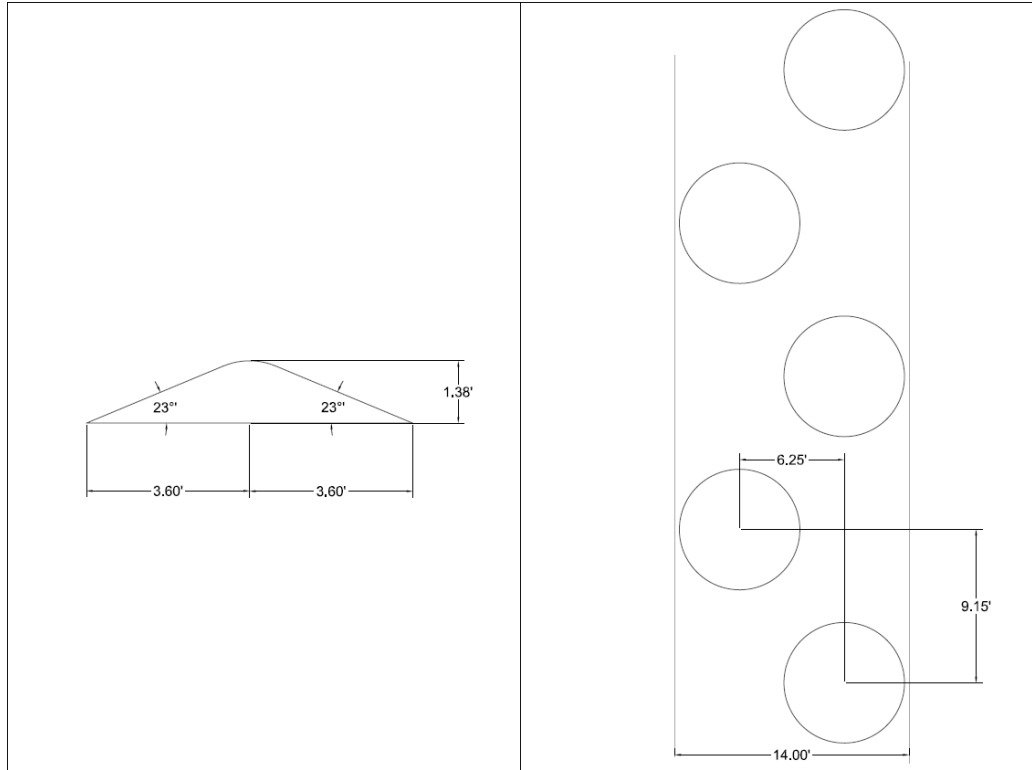


Figure 9: Off Camber Section Dimensions

7.0 Project Deliverables

- ~~50% Report~~
- Final Report
- Website
- Final Presentation
- Plan Set
- Meetings
- Scheduling
- Budgeting

Questions?