

# Fairfield Public Works Yard



Public Information Meeting June 23, 2016

## Joseph Michelangelo, PE

2012 – Present	Fairfield	Public Works Director
2002-2012	Cheshire	Public Works Director/ Town Engineer
1998-2002	Oxford	Public Works Director / Town Engineer
1996-1998	Monroe	Deputy Director Public Works
1987-1996	Shelton	Asst. City Engineer

Various professional engineering non- municipal projects throughout career.

Univ. New Haven	BS Civil Engineering
Univ . New Haven	BS Electrical Engineering
Yale University	Masters Environmental Management



## **Scott Bartlett**

Superintendent of Public Works since 2004

Entire 35 career with Fairfield Public Works

Has done virtually every Department function from bottom  
To top in his career

Educated in Fairfield Public Schools







## LAY OF THE LAND

# How the pile got there: pre-2013

Public Works used the site for 40+ years

Location for spoils – Town generated concrete, asphalt, milled asphalt, street sweepings, catch basin cleanings, channel dredging, trench material, site excavation.

Reused these material in other construction projects (through contractors)

“Good stuff” got siphoned off

Worst of the spoils got left behind

# DPW - CAPITAL PROJECT PLAN

Updated August 20, 2012

A	B	C	D	E	F	G
Project Description	Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018	Next 5 Years 2018-2022
(1) Soccer field - rebuild drainage and level = \$120,000				120		
(l) Jennings School						
(1) Soccer field - rebuild drainage and level = \$75,000				75		
<u>Sherman Green</u> - is intensely used by the public especially at the weekly concerts which several hundred people attend. It would be very desirable to replace the temporary portable toilets with a permanent ADA accessible restroom. We would use a pre-fab modular unit. Estimated cost = \$80,000			80			
<u>DPW - Fill Pile</u> - For 40 plus years the DPW Yard accumulated fill from its road and construction projects consisting of soil, stones, concrete, asphalt, rebar, etc. With a cost sharing contract with a contractor we have been able to reduce the pile by 20,000 cubic yards to 40,000 cubic yards. The contractor processed the material into sellable products and the Town received a share. Down turn in the market for these products and the fact that the remaining material is less desirable to process has ended this approach.						
The neighbors are still upset with the sight of the pile and it is taking up valuable yard space. Our only current option is to pay to have the material removed at a cost of \$10/yard spread out over several years						
<u>DPW - Vehicle Wash Station</u> - The current wash bay is manual and inadequate to wash the large trucks used for plowing. They need to be thoroughly washed after every storm to prevent the aggressive corrosion caused by salt from reducing the life of the vehicles.		50	50	50	50	
<u>Turning Creek - Tide Gates</u> - Two tide gates and one self-regulating tide gate (SRT) were installed in the 70's to restore the marsh and prevent neighborhood flooding. Culverts were installed under the Riverside Dr. Bridge and the gates were attached to a bulkhead at the face of the bridge. The whole system (culverts, bulkhead, gates etc.) is at the end						

## **Spring 2013**

Pile was over the 40,000 Cubic Yards

The disposal costs of the material would be well in excess of \$10/CY

We still needed a destination for our monthly generated material

We felt an experienced earth contractor could:

- Convert to sellable product – most cost effective way to reduce and remove material
- By crushing, sorting, screening, etc. – waste product can be converted from a liability to a commodity that is desirable
- Needs to be blended with other material – can't be converted by itself

Issued RFP to seek a private entity to address our issue.



## **FRP with Julian 2013-2016**

First several months sorting out existing pile

Substantial amount of imported material needed to obtain a material that met gradation specifications and was salable

Town (Scott & I) should have controlled the flow of imported material better – import as needed, mix and sell, import as need, mix and sell, etc.

Pile grew too big, amount of activity too great an impact

**M.02.06—Gradation, Plasticity, Resistance to Abrasion and Soundness Requirements:**

**1. Gradation:**

	Grading		
	<u>A</u>	<u>B</u>	<u>C</u>
Square Mesh Sieves	Percent passing by weight (mass)		
Pass 5 inch (125 mm)		100	
Pass 3 1/2 inch (90 mm)	100	90-100	
Pass 1 1/2 inch (37.5 mm)	55-100	55-95	100
Pass 3/4 inch (19 mm)			45-80
Pass 1/4 inch (6.3 mm)	25-60	25-60	25-60
Pass #10 (2.0 mm)	15-45	15-45	15-45
Pass #40 (425 μm)	5-25	5-25	5-25
Pass #100 (150 μm)	0-10	0-10	0-10
Pass #200 (75 μm)	0-5	0-5	0-5

The grading percentages specified in the above table shall apply to the material after it has been delivered to the construction site well as when tested at the pit or other source of supply.

When the fraction of the dry sample passing the No. 100 (150-μm) mesh sieve is greater than 8% by weight (mass), the sample will be washed as indicated. The amount obtained from washing shall be added to that obtained by dry sieving; and the total amount passing each sieve shall meet the above gradation.



Jan 2016





June 23, 2016





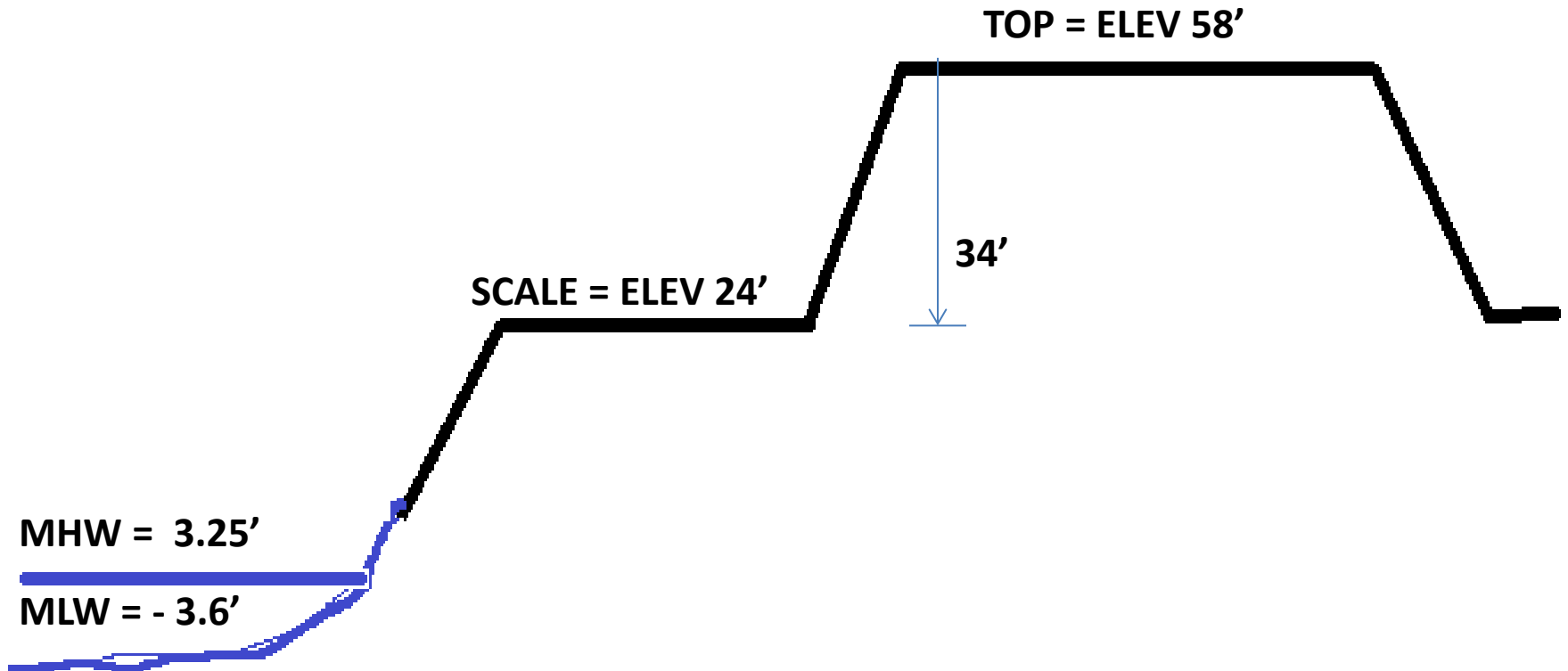
Jan 2016



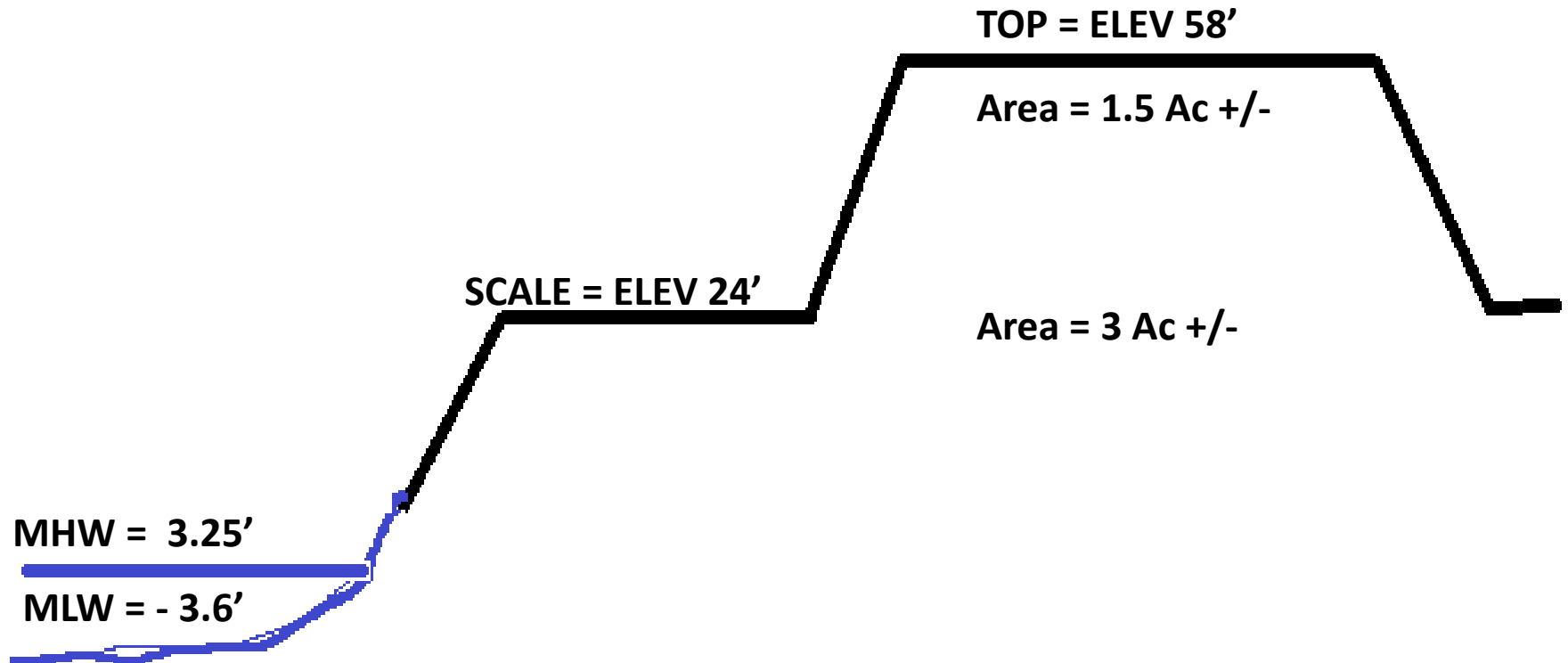
June 23, 2016

Is the pile going down?

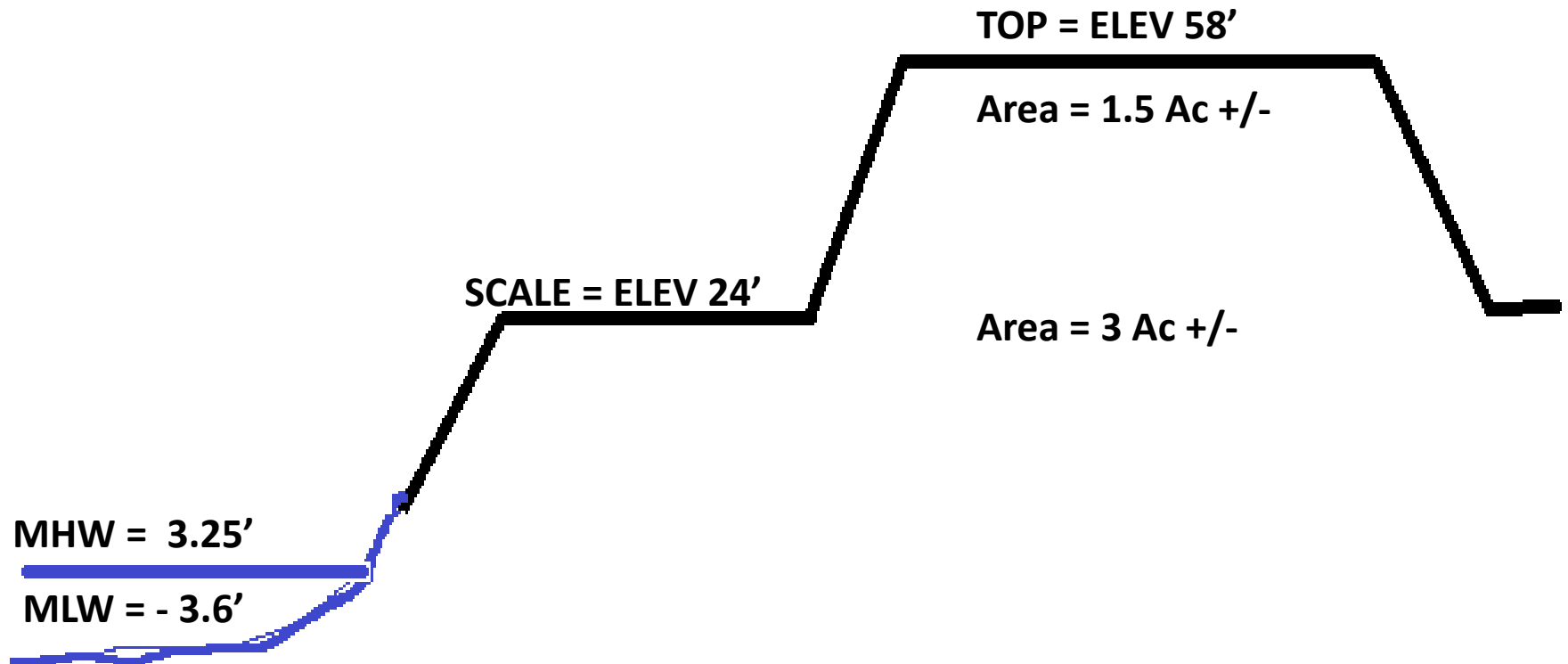
**Some estimated numbers from my inspections about 2 weeks ago**



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**Current configuration: Every 3,150 tons off the top = 1' reduction**

$$(42,560 \text{ sf/Ac} \times 1.5 \text{ Ac} \times 1 \text{ ft} / 27 \text{ CF/CY}) \times 1.33 \text{ tons/ CY} = 3,144$$



## **Proposed Plan going forward**

Reduce the pile through selling material

Set height and square footage limits for the pile with milestone dates

Move operations away from the south &  
west embankment

Grade to create landscape berm according to  
design plan

Landscaped berm/screening goes up & pile goes down =  
Out of sight of neighbors

Clean slate – once we remove pile, monthly material quantity is much  
easily managed



**April 2, 2013**

**THANK YOU**