



Shabica & Associates, Inc.

Title: Elder/Centennial Park Shoreline Stabilization
299, 261 and 225 Sheridan Road
Winnetka, Illinois 60093

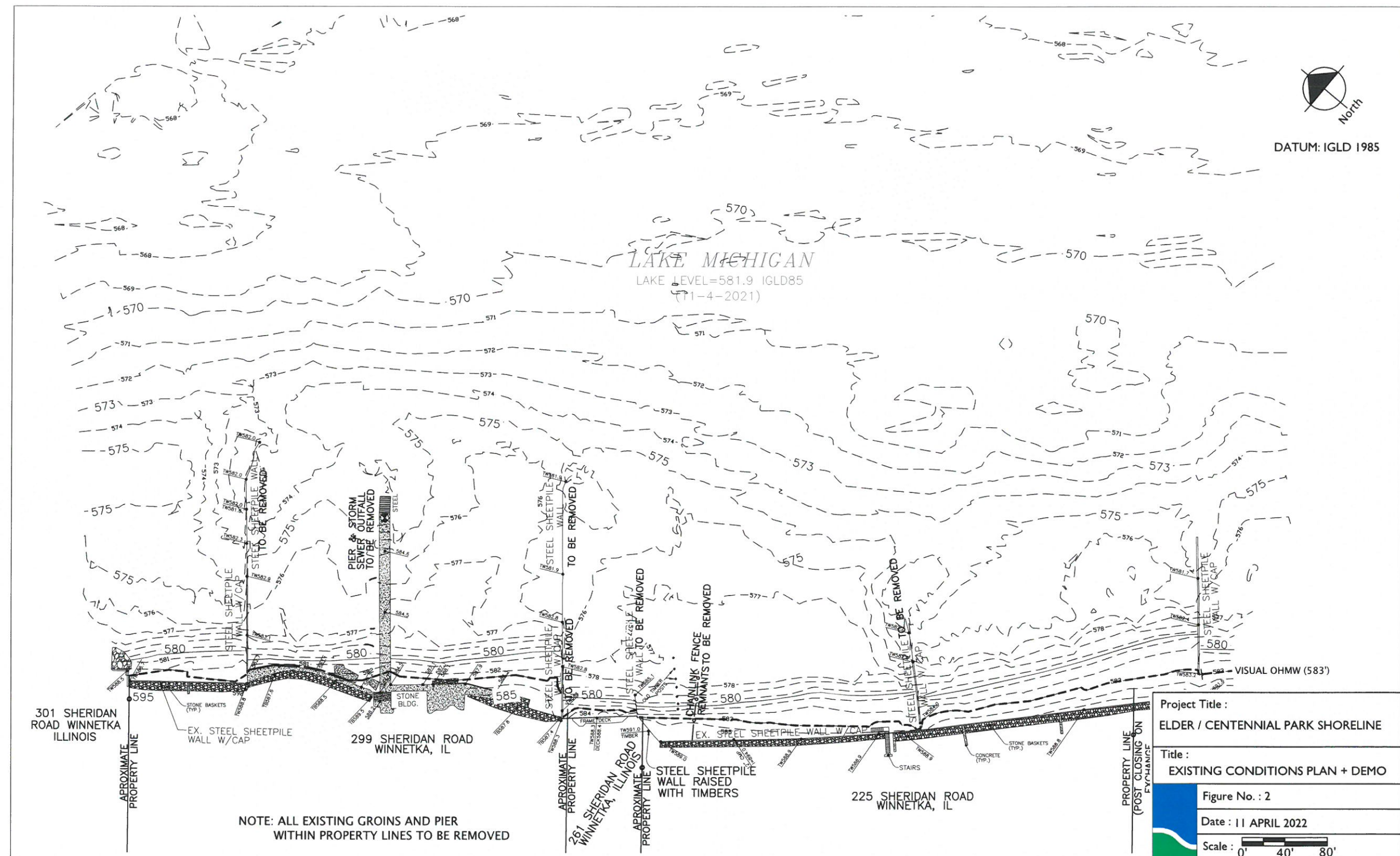
Submittal Date: February 24, 2022

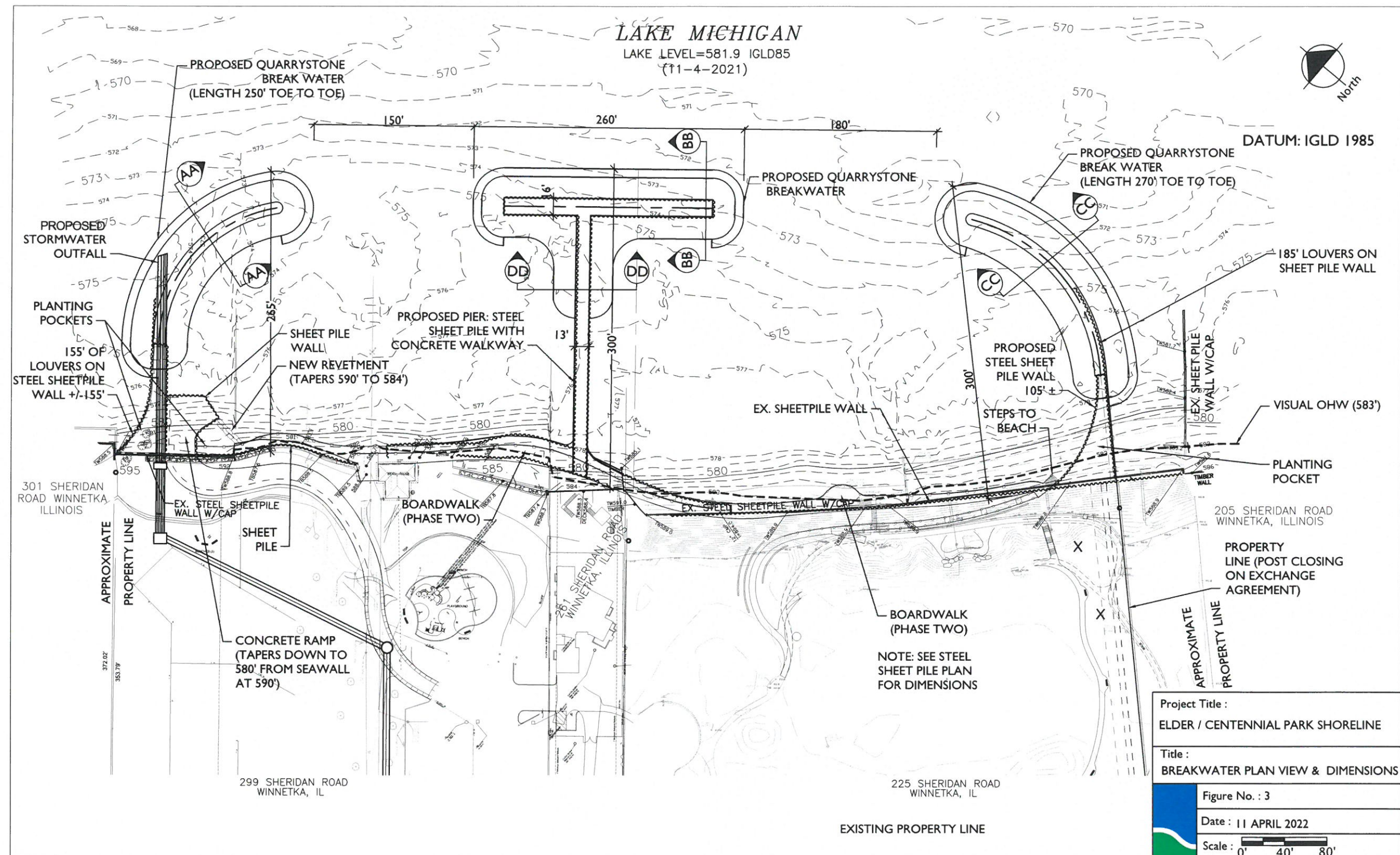
Rev. Submittal Date: April 11, 2022

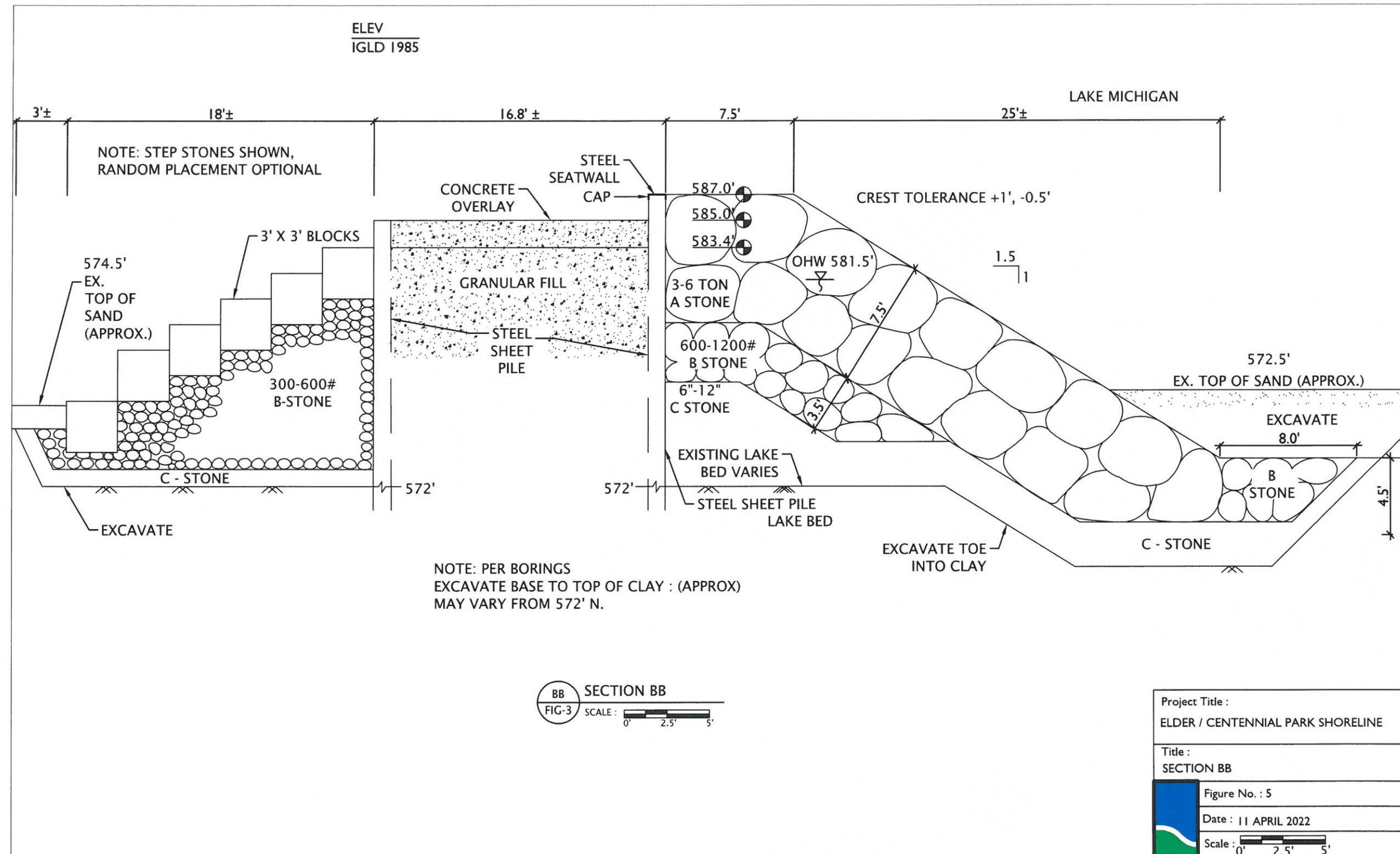
Plan Sheets:

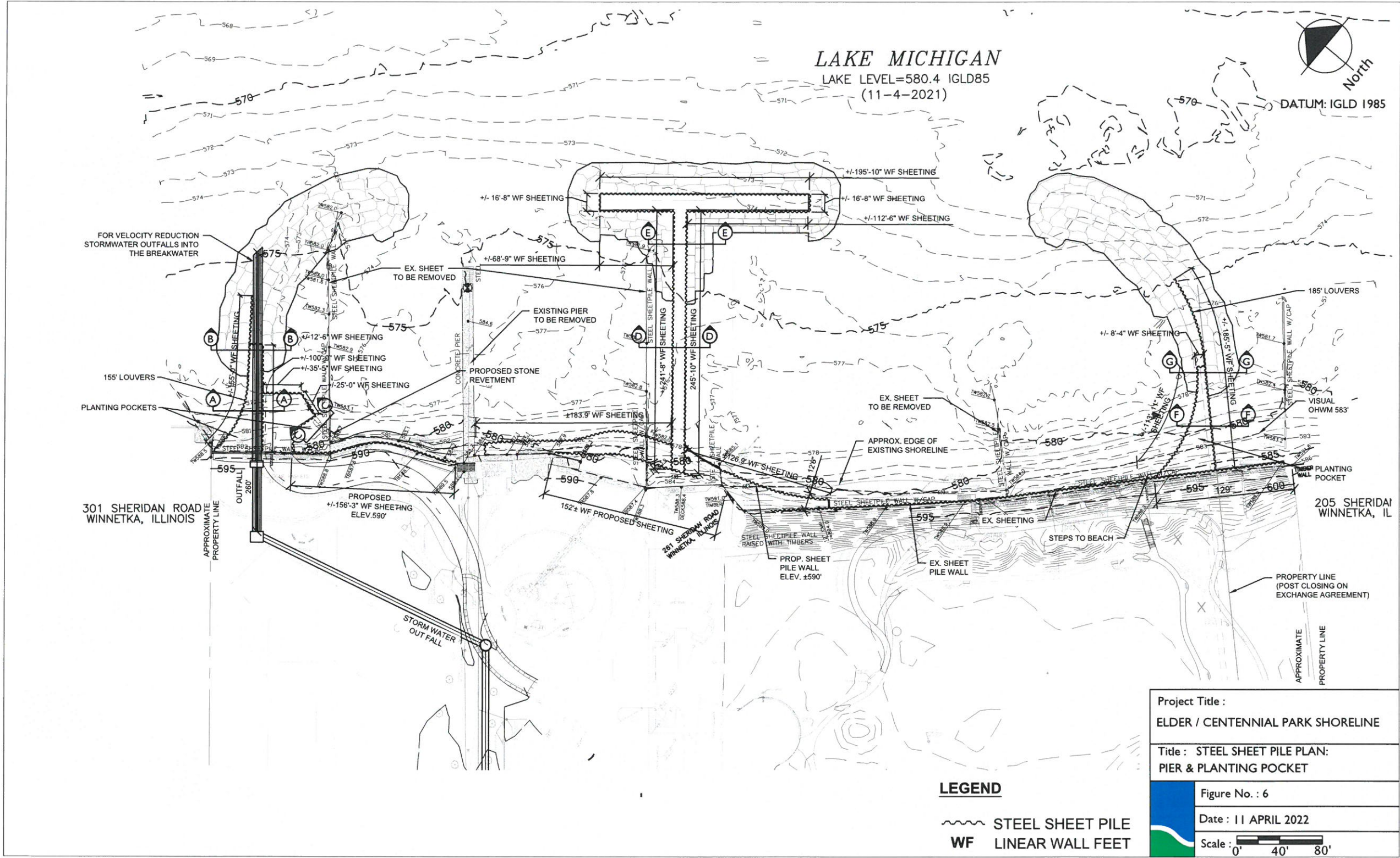
- 2022.4.11 Elder/Centennial Park Vicinity Map/Project Location Plan – Figure No. 1
- 2022.4.11 Elder Centennial Park Existing Conditions Plan + Demo – Figure No. 2
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- 2022.4.11 Elder/Centennial Park Steel Sheet Pile Plan: Pier & Planting Pocket – Figure No. 6
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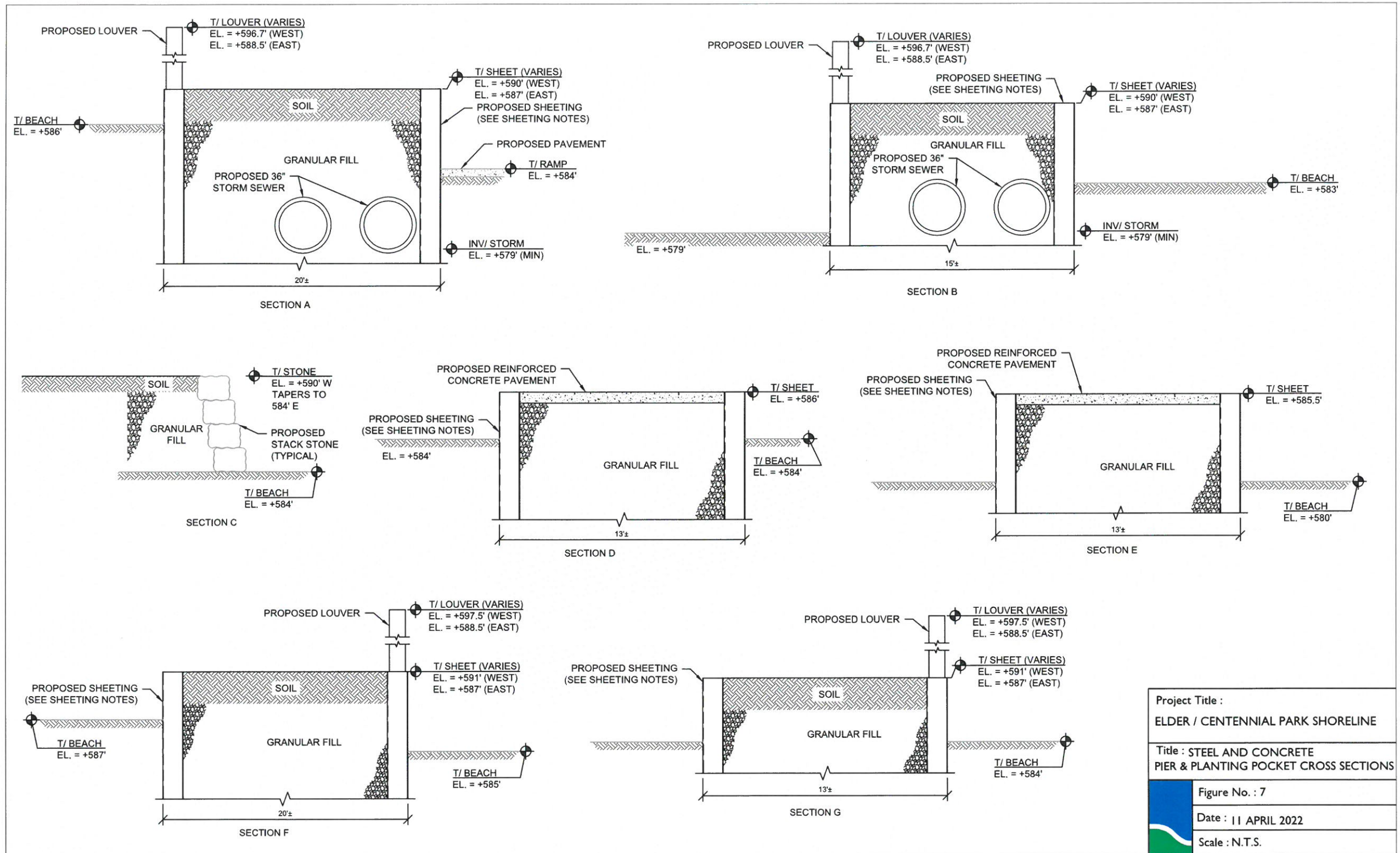


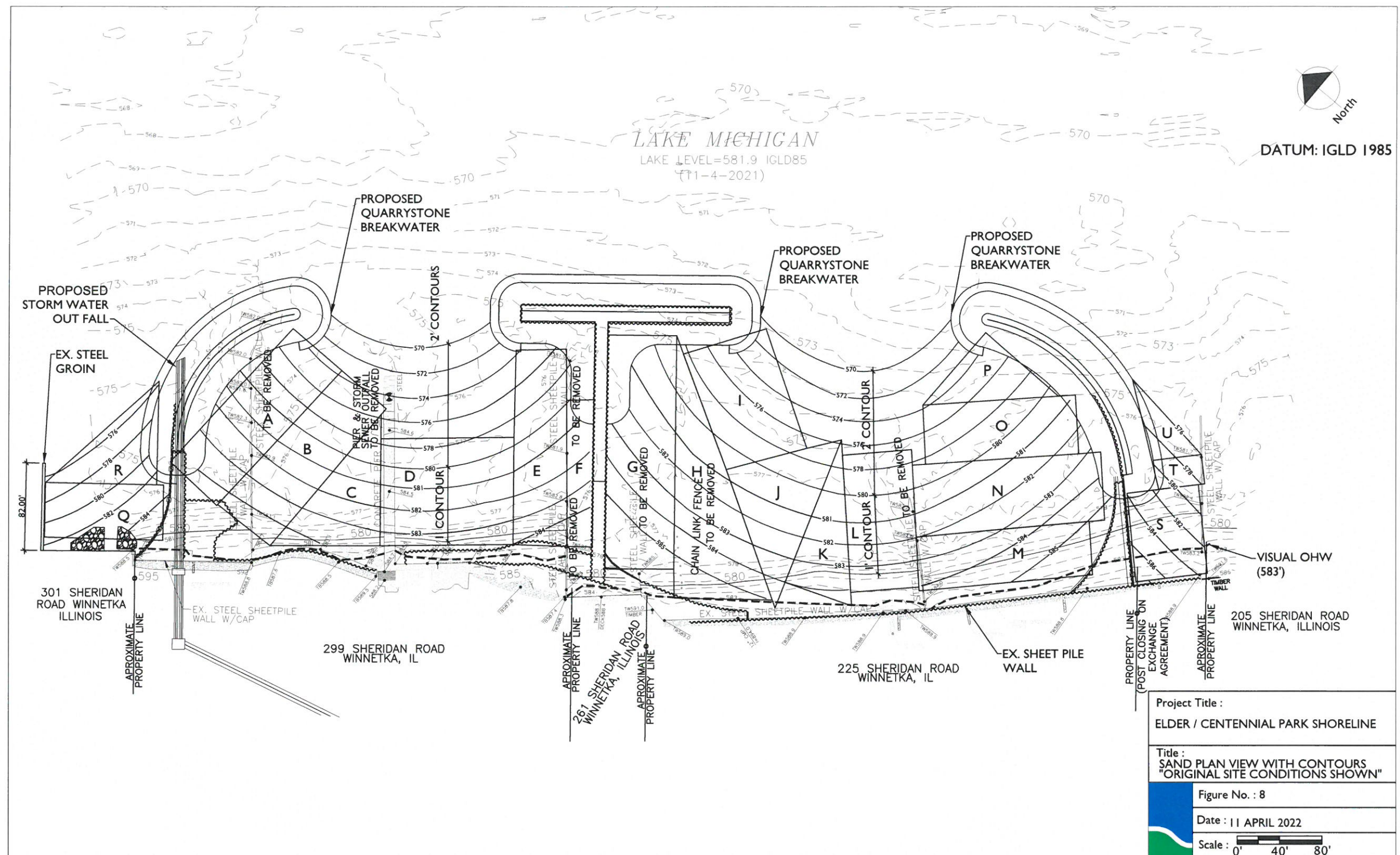


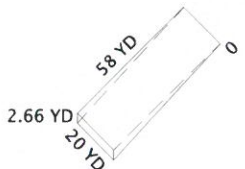
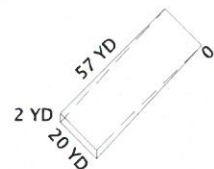
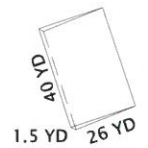
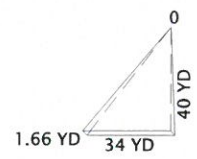
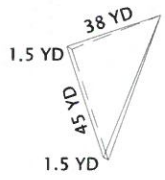
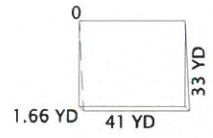
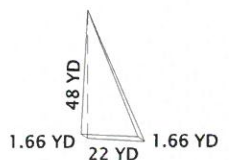
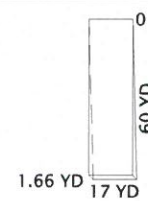
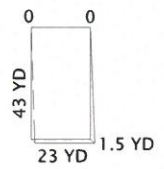
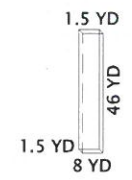
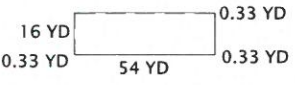
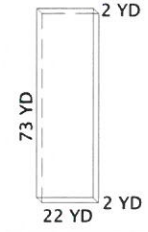










A		$\frac{20 \text{ YD} \times 58 \text{ YD} \times 2.66}{2} = 1,543 \text{ CU. YD}$		H		$\frac{29 \text{ YD} \times 87 \text{ YD} \times 1.66}{2} = 2,094 \text{ CU. YD}$	
B		$\frac{20 \text{ YD} \times 57 \text{ YD} \times 2}{2} = 1,160 \text{ CU. YD}$		I		$\frac{26 \text{ YD} \times 40 \text{ YD} \times 1.5}{2} = 780 \text{ CU. YD}$	
C		$\frac{34 \text{ YD} \times 40 \text{ YD} \times 1.66}{6} = 376 \text{ CU. YD}$		J		$\frac{38 \text{ YD} \times 45 \text{ YD} \times 1.5}{6} = 427.5 \text{ CU. YD}$	
D		$\frac{33 \text{ YD} \times 41 \text{ YD} \times 1.66}{2} = 1,123 \text{ CU. YD}$		K		$\frac{22 \text{ YD} \times 48 \text{ YD} \times 1.66}{6} = 292 \text{ CU. YD}$	
E		$\frac{17 \text{ YD} \times 60 \text{ YD} \times 1.66}{2} = 847 \text{ CU. YD}$		L		$\frac{23 \text{ YD} \times 43 \text{ YD} \times 1.5}{2} = 742 \text{ CU. YD}$	
F		$8 \text{ YD} \times 46 \text{ YD} \times 1.5 = 552 \text{ CU. YD}$		M-LOWER		$16 \text{ YD} \times 54 \text{ YD} \times 0.33 = 285 \text{ CU. YD}$	
G		$22 \text{ YD} \times 73 \text{ YD} \times 2 = 3,212 \text{ CU. YD}$					

Project Title :

ELDER / CENTENNIAL PARK SHORELINE

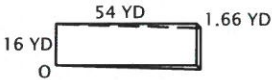
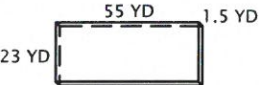
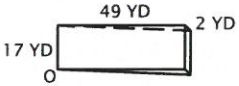
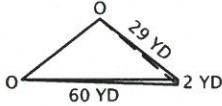
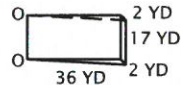
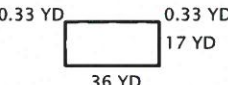
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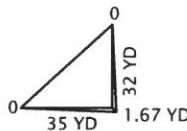
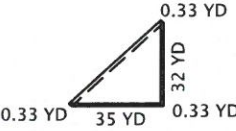
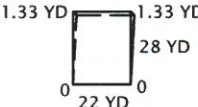
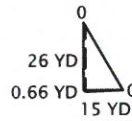
SAND CALCULATIONS

Figure No. : 9

Date : 11 APRIL 2022

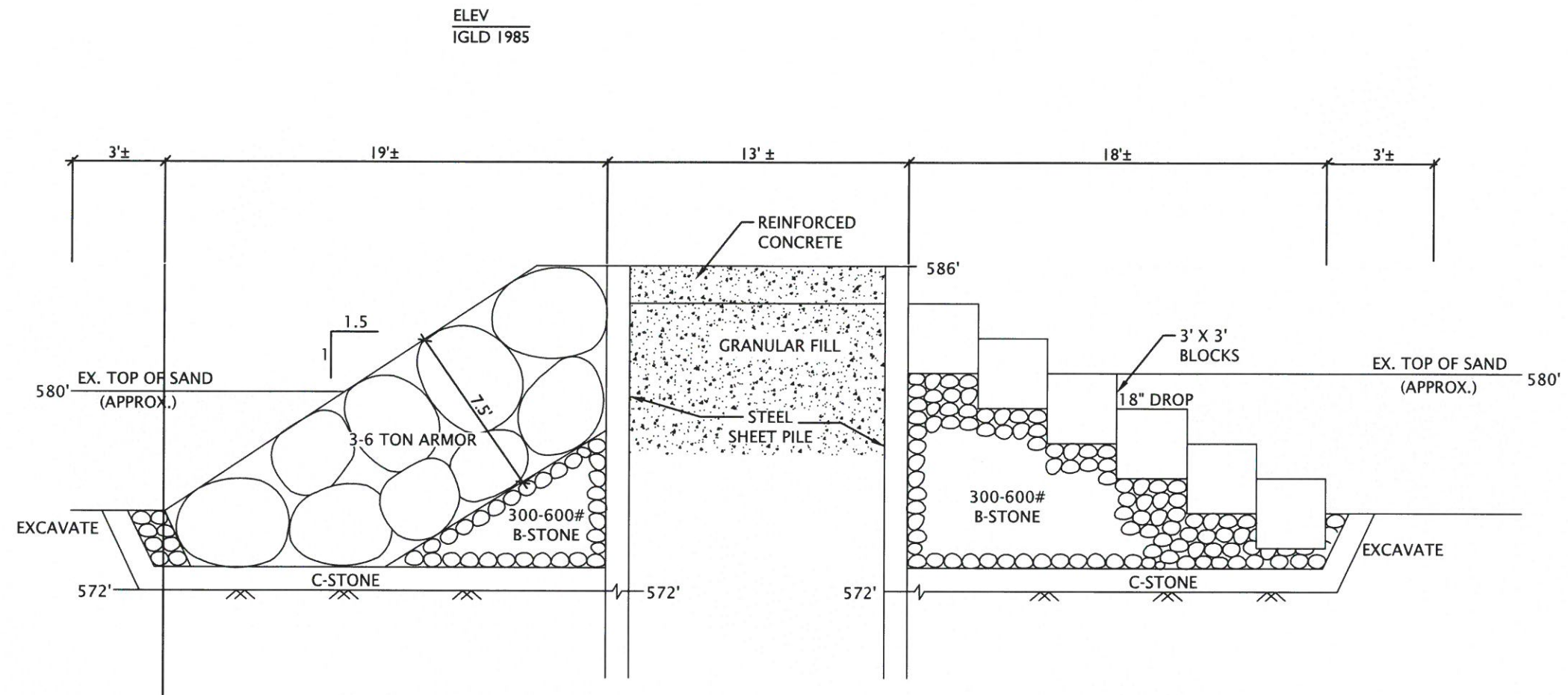
Scale :

M-UPPER		$\frac{16 \text{ YD} \times 54 \text{ YD} \times 1.66}{2} = 717 \text{ CU. YD}$
N		$23 \text{ YD} \times 55 \text{ YD} \times 1.5 = 1,898 \text{ CU. YD}$
O		$\frac{17 \text{ YD} \times 49 \text{ YD} \times 2}{2} = 833 \text{ CU. YD}$
P		$\frac{29 \text{ YD} \times 60 \text{ YD} \times 2}{6} = 580 \text{ CU. YD}$
Q-UPPER		$\frac{36 \text{ YD} \times 17 \text{ YD} \times 2 \text{ YD}}{2} = 612 \text{ CU. YD}$
Q-LOWER		$36 \text{ YD} \times 17 \text{ YD} \times 0.33 \text{ YD} = 202 \text{ CU. YD}$

R-UPPER		$\frac{35 \text{ YD} \times 32 \text{ YD} \times 1.67}{6} = 312 \text{ CU. YD}$
R-LOWER		$\frac{35 \text{ YD} \times 32 \text{ YD} \times 0.33 \text{ YD}}{2} = 185 \text{ CU. YD}$
S		$\frac{22 \text{ YD} \times 28 \text{ YD} \times 1.33 \text{ YD}}{2} = 410 \text{ CU. YD}$
T		$9 \text{ YD} \times 15 \text{ YD} \times 0.8 \text{ YD} = 108 \text{ CU. YD}$
U		$\frac{15 \text{ YD} \times 26 \text{ YD} \times 0.66 \text{ YD}}{6} = 43 \text{ CU. YD}$
		TOTAL = 19,333.5 CU. YD

19,333.5 CU. YD X 20% (OVERFILL) = 3,866.7 YD
19,333.5 CU. YD + 3,939 CU. YD = 23,200.2 CU. YD
23,200.2 CU. YD X 1.25 TONS / CU. YD = 29,000 TONS CLEAN SAND

Project Title :	ELDER / CENTENNIAL PARK SHORELINE
Title :	SAND CALCULATIONS
Figure No. :	10
Date :	11 APRIL 2022
Scale :	



DD SECTION DD
FIG-3 SCALE : 0' 2.5' 5'

Project Title :	ELDER / CENTENNIAL PARK SHORELINE
Title :	SECTION DD
Figure No. : 11	
Date : 11 APRIL 2022	
Scale : 0' 2.5' 5'	