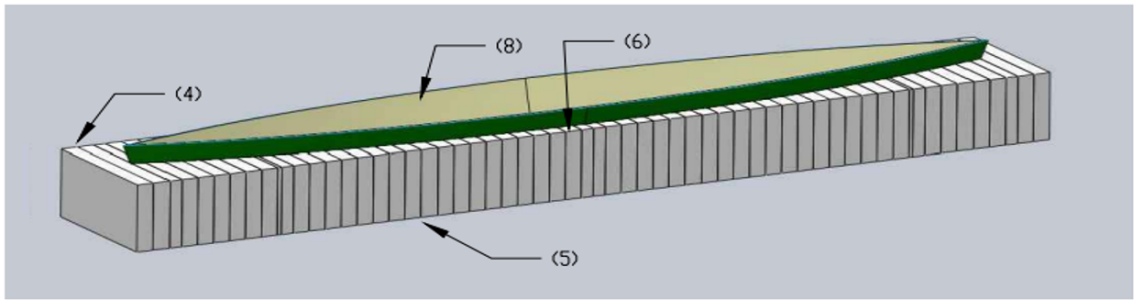
Isometric View

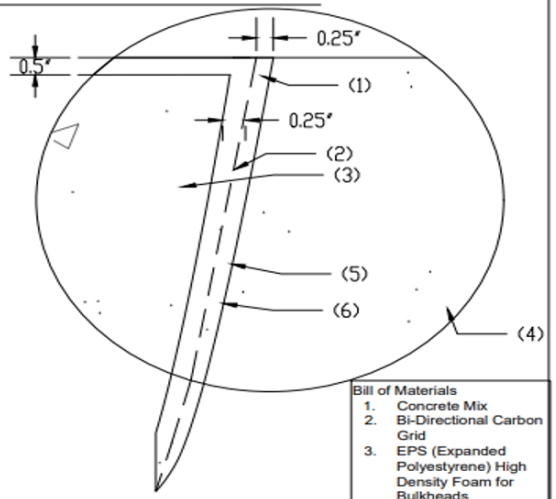


Not to Scale

Notes

1. A two-level layering scheme will be utilized for concrete placement, with two layers of concrete mix at a thickness of ¼" each, with bi-directional carbon grid in between.
2. Section A-1 represents the first 36" of the canoe on the bow and stern.
3. Section B-1 represents the interior of the canoe between the bulkheads.
4. Mold is displayed with section cuts to display construction methods.
5. Mold is split into 4" sections for constructability purposes.
6. Liquidized rubber is applied to the mold for protection.
7. Retarder Admixture is added to the concrete mix to decrease set time and reduce risk of delaminating in between layers.
8. Canoe is raised from the mold to show finished product inside of mold.

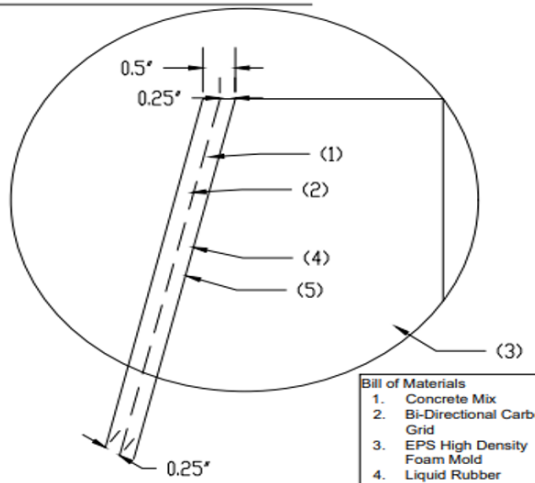
Section A-1 -Detail 1



Bill of Materials
1. Concrete Mix
2. Bi-Directional Carbon Grid
3. EPS (Expanded Polyestyrene) High Density Foam for Bulkheads
4. EPS High Density Foam Mold
5. Liquid Rubber
6. Petroleum Based Releasing Agent

Scale:
1"=4"

Section B-1 -Detail 2



Bill of Materials
1. Concrete Mix
2. Bi-Directional Carbon Grid
3. EPS High Density Foam Mold
4. Liquid Rubber
5. Petroleum Based Releasing Agent

Scale:
1"=4"

Bill of Materials

Material	Weight
Utelite Crushed Fines	15.57 lbs.
Utelite 10mesh	15.57 lbs.
Recycled Aggregate	41.35 lbs.
UL-FGA	20.41 lbs.
No. 6- Expanded Perlite	10.2 lbs.
Delvo	0.16 lbs.
Type I/II/V Cement	46.19 lbs.
Class C Fly Ash	12.89 lbs.
Silica Fume	4.3 lbs.
Glenium 7500	0.49 lbs.
SRA-35	0.04 lbs.
SSD Water	24.17 lbs.
Water for CM Hydration	25.35 lbs.
Fiber Mesh	0.11 lbs.

~SHEET~ 2 OF 2

Northern Arizona University
Department of Civil Engineering, Construction Management and Environmental Engineering

NO.	DATE	COMMENTS

DRAWN BY: Steven Francois
CHECKED BY: Eric Moore
DATE: 12/14/2022
SCALE: Refer to Drawings

2022 Concrete Canoe

Construction Drawings