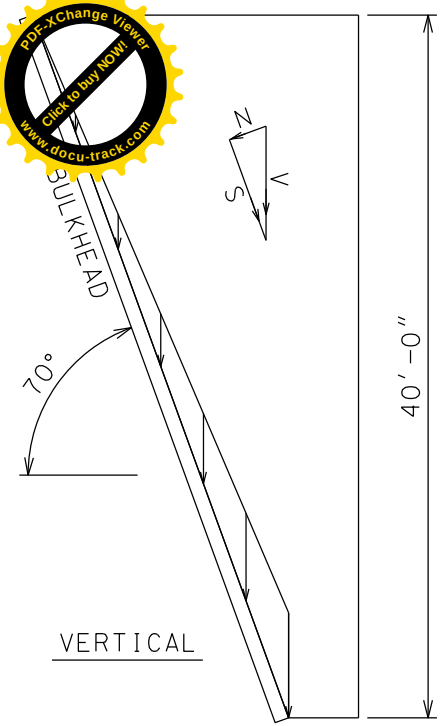
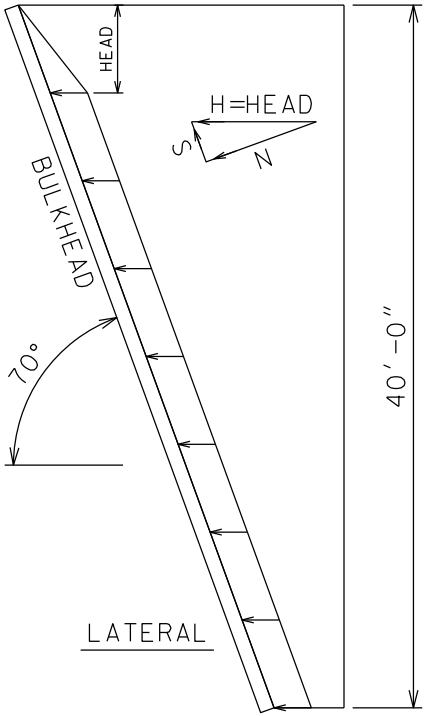


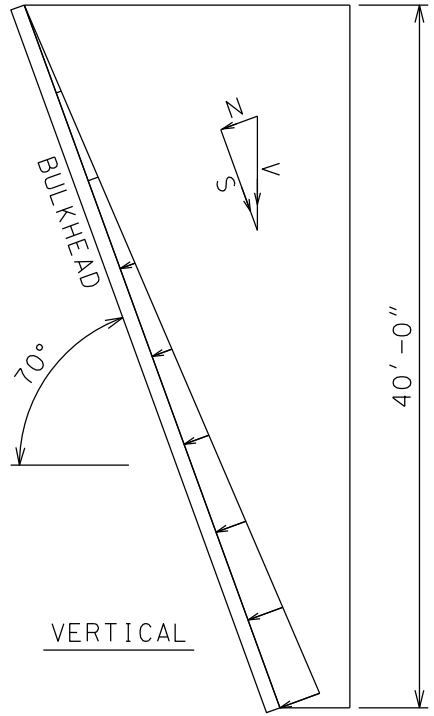
LOAD APPLIED TO BULKHEAD AS VERTICAL LINEARLY DISTRIBUTED: $W = V * \cos 70°$



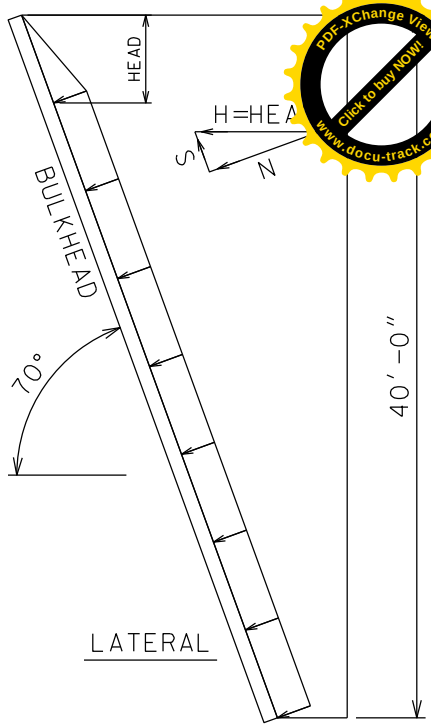
LOAD APPLIED TO BULKHEAD AS HORIZONTAL UNIFORMLY DISTRIBUTED: $W = H * \sin 70°$

NOTE: SHEAR COMPONENT (S) IS APPLIED TO THE FORM. THE METHOD ACCOUNTS FOR THE ACTUAL VERTICAL LOAD OF CONCRETE OVER THE BULKHEAD BUT HOW DOES A FLUID APPLY A SHEAR LOAD ON A SURFACE?

METHOD A



LOAD APPLIED TO BULKHEAD AS NORMAL LINEARLY DISTRIBUTED: $W = V * \cos^2 70°$



LOAD APPLIED TO BULKHEAD AS NORMAL UNIFORMLY DISTRIBUTED: $W = H * \sin^2 70°$

NOTE: VERTICAL SHEAR COMPONENT (S) IS APPLIED TO THE PREVIOUSLY CAST LOWER PIER. THE METHOD REMOVES SHEAR CONNECTION FROM THE FORM, HOWEVER, VERTICAL LOAD ON THE BULKHEAD IS NOW REDUCED. IS IT SAFE TO ASSUME THAT THE MAJORITY OF THE CONCRETE WEIGHT OVER THE BULKHEAD IS ACTUALLY SUPPORTED BY THE LOWER PIER?

METHOD B