

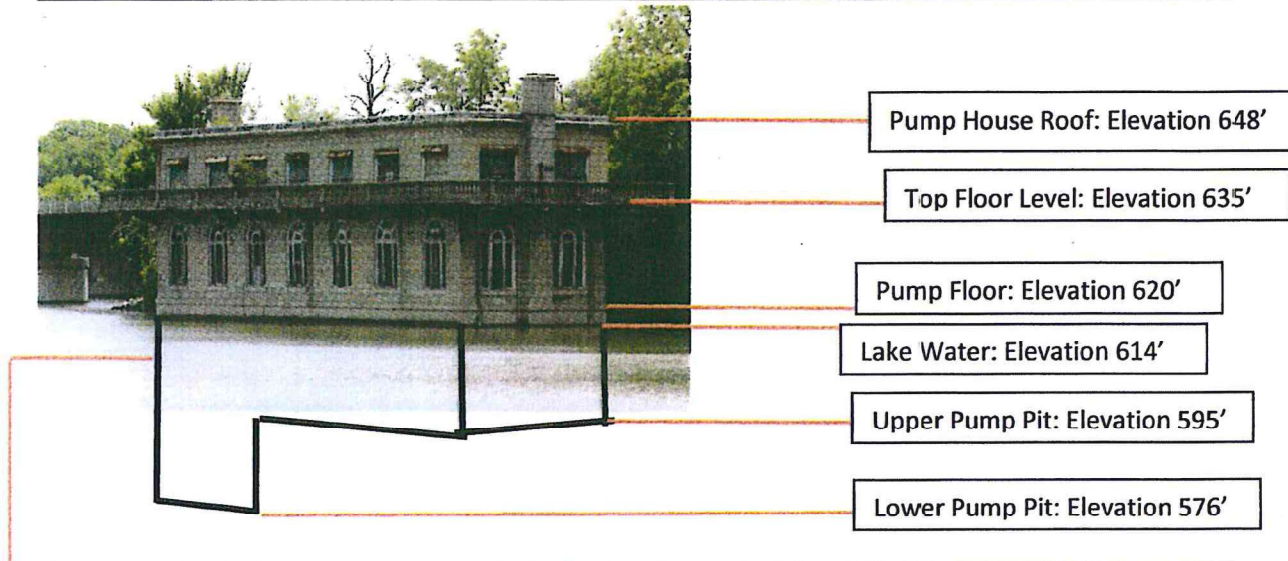
Tate & Lyle Pump House Demolition Plan

Decatur Lake, Rout 36 East of S. Lake Shore Drive, Decatur, Ill.

January 17, 2019

G.Schlueter

Picture of Pump House with elevations North & East Sides Taken Summer of 2018: Site 'A' Demolition.



Lake Bottom @ North Wall: Elevation 601'Water is 13 feet deep at the north-west corner of the building. That is the deepest water we will be dealing with. On the south side of the structure the water is 8 to 9 feet deep.

The purpose of these elevation views is to show how the original lake bottom has moved from original construction of the pump house @ 595' Elevation to 601' Elevation today. Soil erosion has filled in the lake and moved the bottom up 6' in this area.

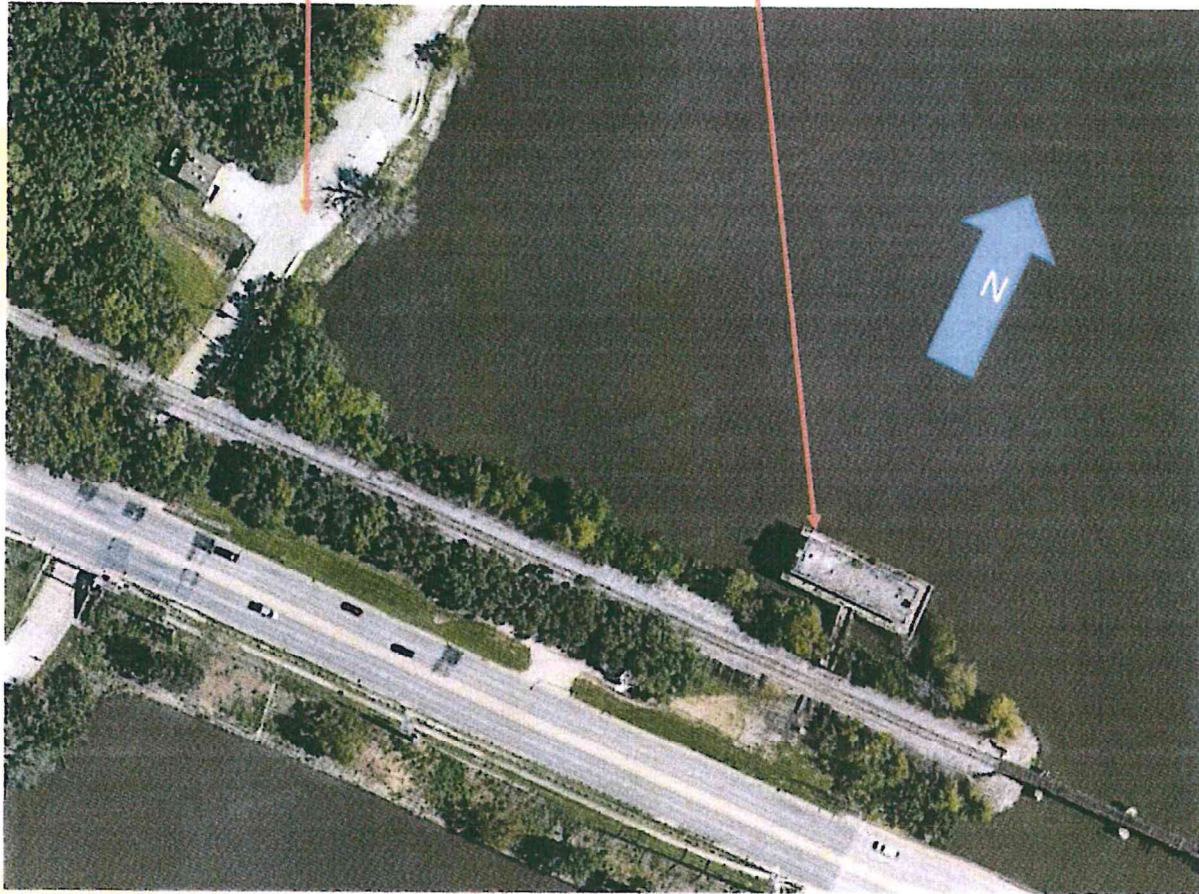
1.0 BACKGROUND

There will be 2 working sites for this demolition project. Site 'A' will be the actual pump house (pictured above) that is located in Lake Decatur Basin #3 and Site 'B' a spoils separation area located on S. Lake Shore Drive, just across the lake from the pump house (Pictured Below).



Spoils Area on S. Lake Shore Drive (Site B)

Tate & Lyle Pump House on Lake Decatur (Site A)



1.1 PROJECT LOCATION

The Project Site is located just north of the rail tracks in Decatur Lake north of Route 36 and east of South Lake Shore Drive in Decatur, IL

1.2 SUMMARY OF THE WORK

Complete Demolition of the "on water" pump house to approximately 4' below mud line (Lake Bottom) elevation 597'. Scope of work includes;

1. Above water structure demolition including all interior structure, machinery, & piping.
2. Concrete & Rebar removed separated at spoils area for recycle.
3. Clean crushed concrete will be used to fill in the lower pit to 4' below lake bottom, elevation 597'.
4. Demolition of the south pedestrian bridge.
5. Concrete foundation removals to approximately 4' below existing lake bottom, elevation 597'.
6. Back fill 4 feet of dirt over the filled in pump pit to bring level with lake bottom, elevation 601'.

All above work completed to the limits indicated above including loading, transportation and disposal of debris in accordance with city and state requirements.

1.5 REGULATORY AND SAFETY REQUIREMENTS

All work to comply with federal, state and local regulations. All asbestos containing material, Lead paint, and any other hazardous materials will be removed prior to any demolition activity. The survey has already been done and contract awarded to remove asbestos & lead paint.

1.6 DUST AND DEBRIS CONTROL

Prevent spread of dust and debris onto pavements and surrounding areas

- Spray materials with water. The object is to keep these materials moist. Will not overspray.
- Keep gates clear of debris utilizing skid steers brooms and shovels. Will not allow debris to be tracked onto existing roadways at Site "B". Utilize existing parking lot paving to control debris.
- Will Keep truck traffic on designated routes only.
- Designated flagman will constantly monitor the condition of the roadway (South Lake Shore Drive). Flagman is responsible for removing any buildup of materials immediately. If the debris is too much for a broom/shovel, the flagman should report this to the project foreman immediately.

1.7 PROTECTION

1.7.1 TRAFFIC CONTROL

All heavy equipment will be kept on site. Dump trucks will be staged on South Lake Shore Drive as needed. All loading will occur inside the work area. A flagman will be present at all times when trucks or vehicles are entering or leaving the site.

1.7.2 EXISTING WORK

Access to all work zones will be limited to authorized equipment and personnel only. All personnel and visitors entering any work zone will be questioned and required to sign in-out. All contractor Employees will be required to attend Tate & Lyle Safety Orientation Training as well as any visitors to the site. Prior to gaining access to the work zone, all visitors will be required to familiarize themselves with the Health and Site Safety Plan (HASSP) to be developed by the contractor awarded this work prior to any demolition.

1.7.3 UTILITIES

Utility terminations have been completed by Tate & Lyle. Adjacent utilities will be located, identified and marked prior to any demolition work being done.

1.8 BURNING

No burning of materials will be permitted on this project.

2.0 EQUIPMENT

Prior to the start of construction, the necessary equipment and materials will be mobilized to the site.

The following major equipment is anticipated to be used on site:

- Equipment Barge
- Material Barge
- Push Boat
- Excavators, Skid Steers, and manlifts.
- Torch Set, and other cutting tools as needed.

Note that any cutting will be done with water spray to control dust in accordance with all regulatory requirements.

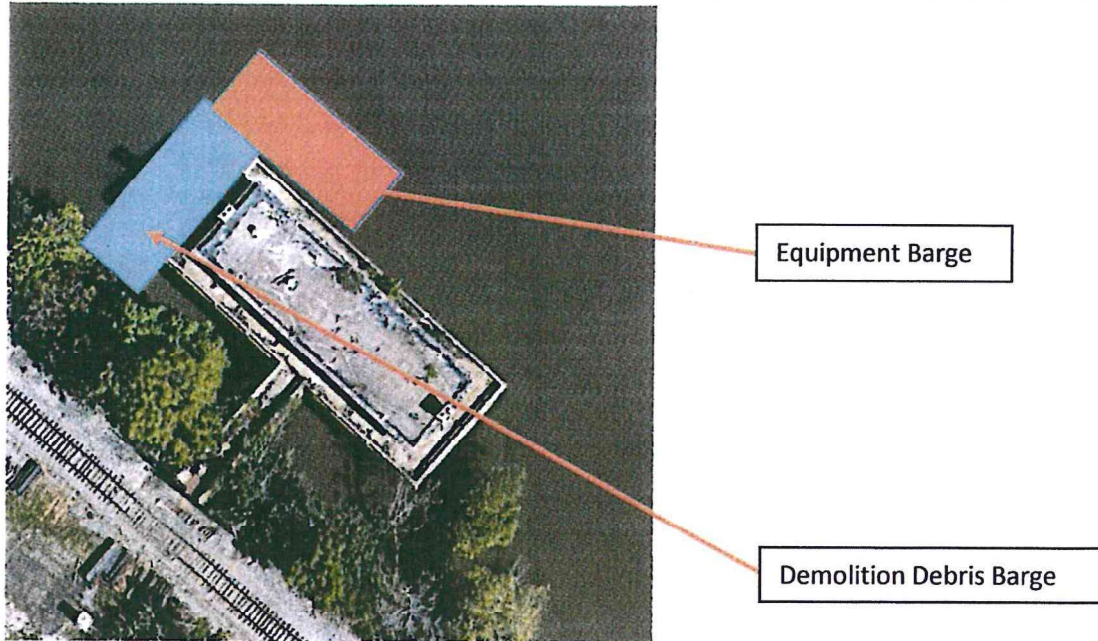
3.0 DEMOLITION OF PUMP HOUSE ON WATER

3.1.1 STRUCTURAL

1. Material barge and an equipment barge will be staged in locations depicted on the attached logistics plan.
 - a. Equipment barge will support the excavator, attachments, mini-excavator and skid steers necessary to complete the demolition
2. The excavator will create an opening in the west wall of the pump house so that the exterior masonry will fall directly into the material barge for collection.
3. Once the opening is made, the mini-excavator and skid steers will be placed in the pump house structure.
4. The smaller machines will remove as much of the interior non-load bearing items as possible. The skid steers will move the demolished materials along the main floor to the created opening and drop the materials into the material barge for collection and disposal.
5. Prior to structural demolition, crushed concrete and stone fill will be imported via material barge to the pump house and the skid steer will fill the lower pump pit and part of the upper pump pit to 4' below mudline, elevation 597'.
6. Once the pump pits are backfilled, the excavator will systematically demolish the above water line construction in a vertical fashion keeping the material barge immediately adjacent to the exterior wall(s) moving east until the structure is removed to slab.
7. Once the building has been reduced to slab and foundation walls. The excavator equipped with an underwater breaker will break the concrete into manageable pieces in the water. The excavator (equipped with an excavation bucket) will remove the pieces from the lake bottom and load them into the material barge for separation into concrete and rebar for recycle.
8. Fire watch and flaggers will be supplied each day by Contractor doing the work.
9. Once the concrete is broken, the excavator will extract the broken concrete/rebar with the bucket and place in the material barge to be moved to Site "B" for separation & recycle.

10. During the activities described above, an excavator equipped with a grapple and buckets will be staged on the shoreline "Site B" reducing the debris sizes, sorting materials, extracting rebar and other metal and loading these materials into trucks for transportation offsite.

Pump House "On Water" Demolition: Initial Location of Barges to Control Demolition Debris.



3.2 DISPOSITION OF MATERIAL

3.2.1 TITLE TO MATERIALS

- All demolition materials will be recycled or disposed of in local land fills.
- Disposal records will be kept and shared upon request

3.4 CLEANUP

3.4.1 DEBRIS AND RUBBISH

- Remove and transport debris and rubbish to prevent spillage on pavements, streets, or adjacent areas. Clean up spillage from pavements, streets and adjacent areas to prevent potential hazards

Waste transportation and disposal will be tracked and logged on site.

3.5 COMPLETION OF WORK – FINAL RESULTS

3.5.1 PUMP HOUSE DEMOLITION SITE "Site A"

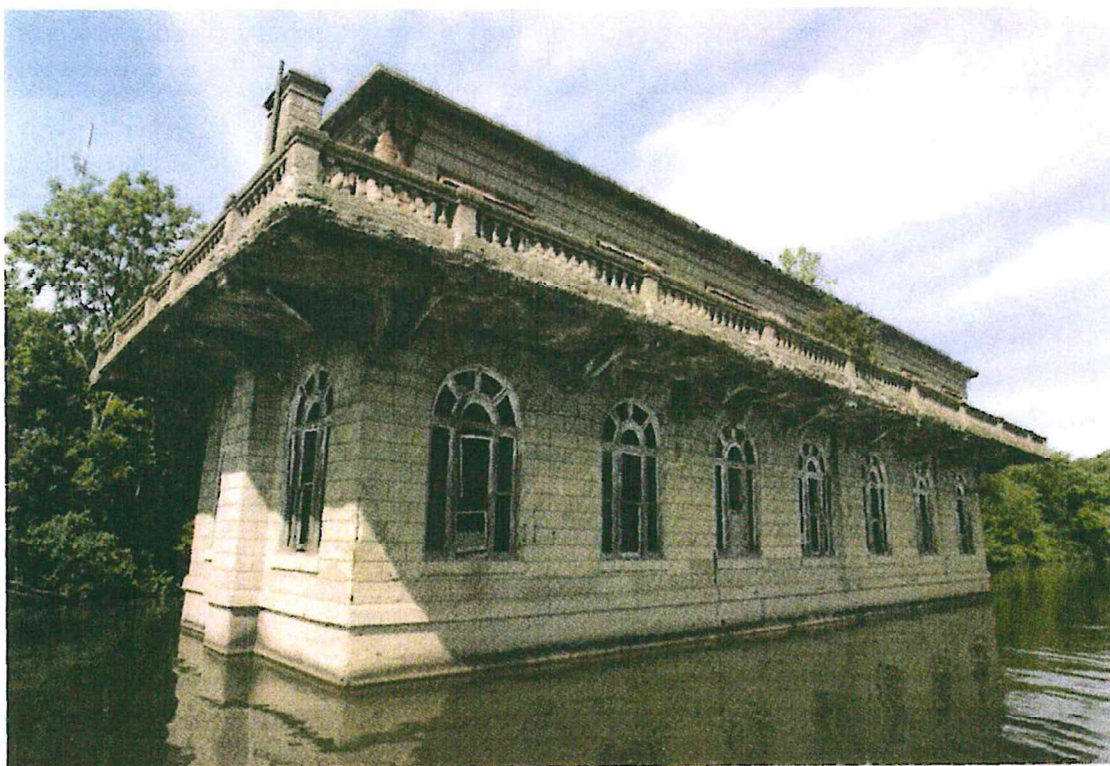
- The Pump House Building and personnel bridge will be gone. The concrete walls of the building will be demolished to Elevation 598' which leaves approximately 3' of wall and the floor of the

upper pump pit. The Lower pump pit will be filled with crushed concrete from the demolition of the building. The Upper pump pit floor will remain and be partially filled with crushed concrete from the demolition, then covered with approximately 4' of dirt to bring it up to lake bottom level, elevation 601'.

3.5.2 SPOILS AREA ON SOUTH LAKE SHORE DRIVE "Site B"

- All demolition debris will be gone. Any damage from unloading barges on the Lake Decatur Shore Line will be repaired and the new rip rap stone will be installed. Any damage to paving from demolition equipment, trucking vehicles, or separating materials will be restored to its original condition.

Picture of the West Side & North Side taken summer 2018. You can see the deterioration of the concrete veranda that wraps around the entire top floor of the Pump House.



THIS DEMOLITION PLAN SUBMITTED BY:

Gerald F. Schlueter, PE (Tate & Lyle Project Director, Global Operations)

Additional Pictures of present Interior of the Tate & Lyle Pump House:

Pictures of the pump floor, access ladder to pump pits, old pumps, old piping.

