



Town Hall Meeting
21 February 2018
Montclair Spillway Project
Questions and Answers

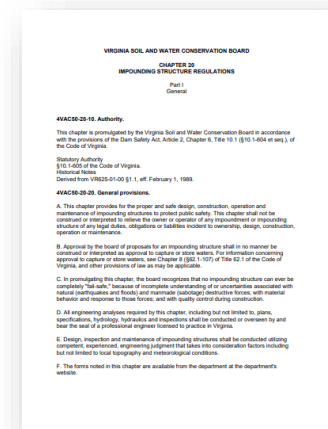
What is the “Spillway Project”?

- Modification of the Auxiliary Spillway (Dolphin Beach) in order to meet Virginia Regulatory Dam Safety requirements
- Once complete Lake Montclair Dam and Spillways will be in full compliance
- Once compliant, we will be able to obtain a Regular Operation and Maintenance Certificate
 - Needed to legally operate Montclair Dam
 - Certificate will be good for six years



Dam Safety Regulations

- Dam Safety Act, Article 2, Chapter 6, Title 10.1 of the Code of Virginia
- Title 4. Conservation and Natural Resources
- Agency 50. Virginia Soil and Water Conservation Board
- Chapter 20. Impounding Structure Regulations
 - The Chapter provides for the proper and safe design, construction, operation and maintenance of impounding structures to protect public safety



Reason for this Spillway Project



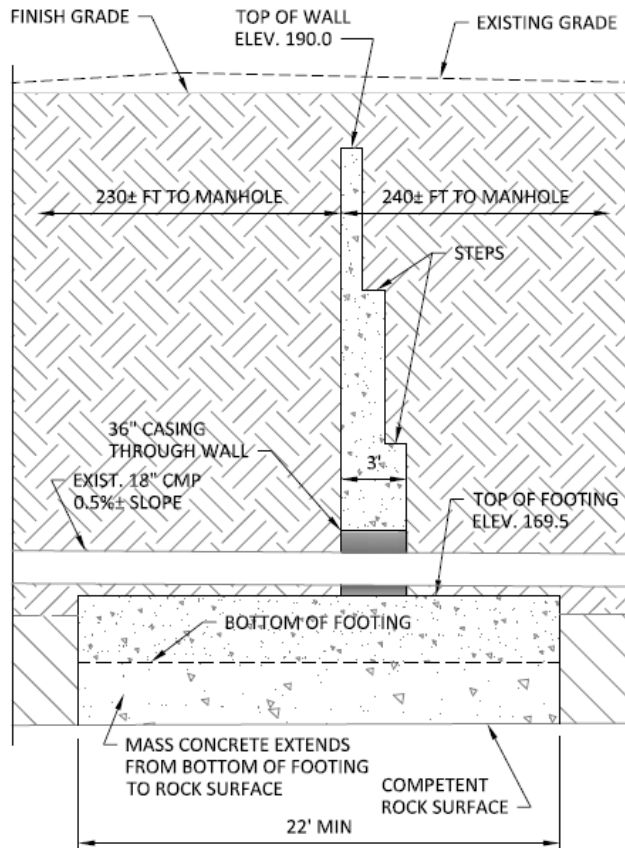
**354 occupied structures (19 are multi-family dwellings),
3 interstate bridges, and
4 secondary road bridges
impacted by a breach event**



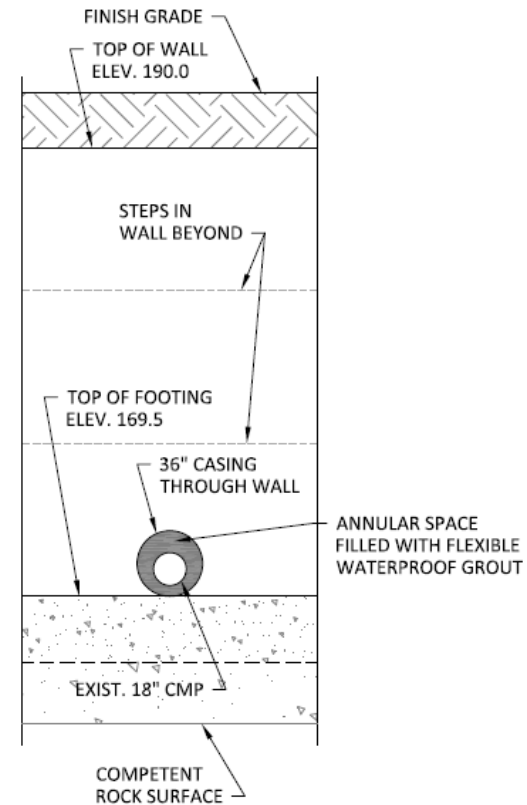
What is being built?

- The Auxiliary Spillway (Dolphin Beach) will be modified to meet **Capacity** and **Stability** requirements.
- A concrete Cutback Protection Wall has been designed to stop head cut erosion from reaching the lake.
- Structural reinforced concrete wall with sections varying from 6 to 20 feet tall. Wall will be anchored to bedrock with the top below the level of the beach surface.
- The wall will extend across the entire width of the spillway
- Dolphin Beach will be restored and maintained in similar fashion as currently.
 - Grass area downstream from a parking lot, redesigned parking lot and recreational beach restored to its original position

Cut-Back Wall



SECTION THROUGH CUT-BACK WALL



UPSTREAM ELEVATION OF CUT-BACK WALL AT PIPE



FROEHLING & ROBERTSON, INC.
Engineering Stability Since 1881

Date:	January, 2017
Scale:	As Shown
Drawn:	KHH 72U-0078

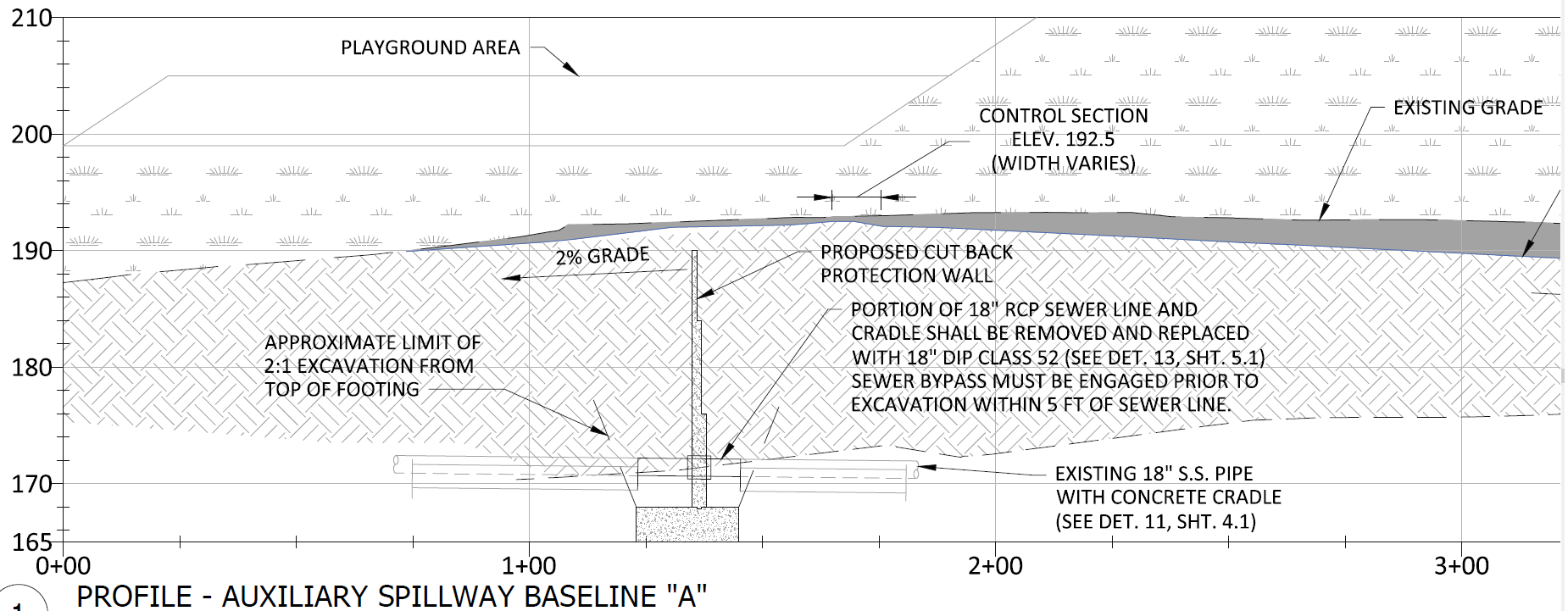
Montclair Lake Rehab Design
Montclair Property Owners Association
Montclair, VA

CUT-BACK WALL
PRELIMINARY DETAILS

Drawing No.

1

Profile View



Auxiliary Spillway / Dolphin Beach





How much will it cost?

- Construction contract for \$1,233,300
- Construction phase project administration, materials testing and post construction reporting \$42,650
- To be funded from Investment Portfolio
 - Reserves
 - Retained Earnings



Who is doing the work?

- Shirley Contracting Company LLC

- Experienced and best value

- Lake Barton Dam modifications
 - Lake Merriweather Dam remediation
 - Dam Modifications Route 606 VDOT project



- Froehling and Robertson, Inc (F&R, Inc)

- Working with us since 2014, Inundation Study, design options, developed final design, assisted in state/local approval, assisted in bid preparation and selection process and will provide construction oversight as well as post construction reporting.



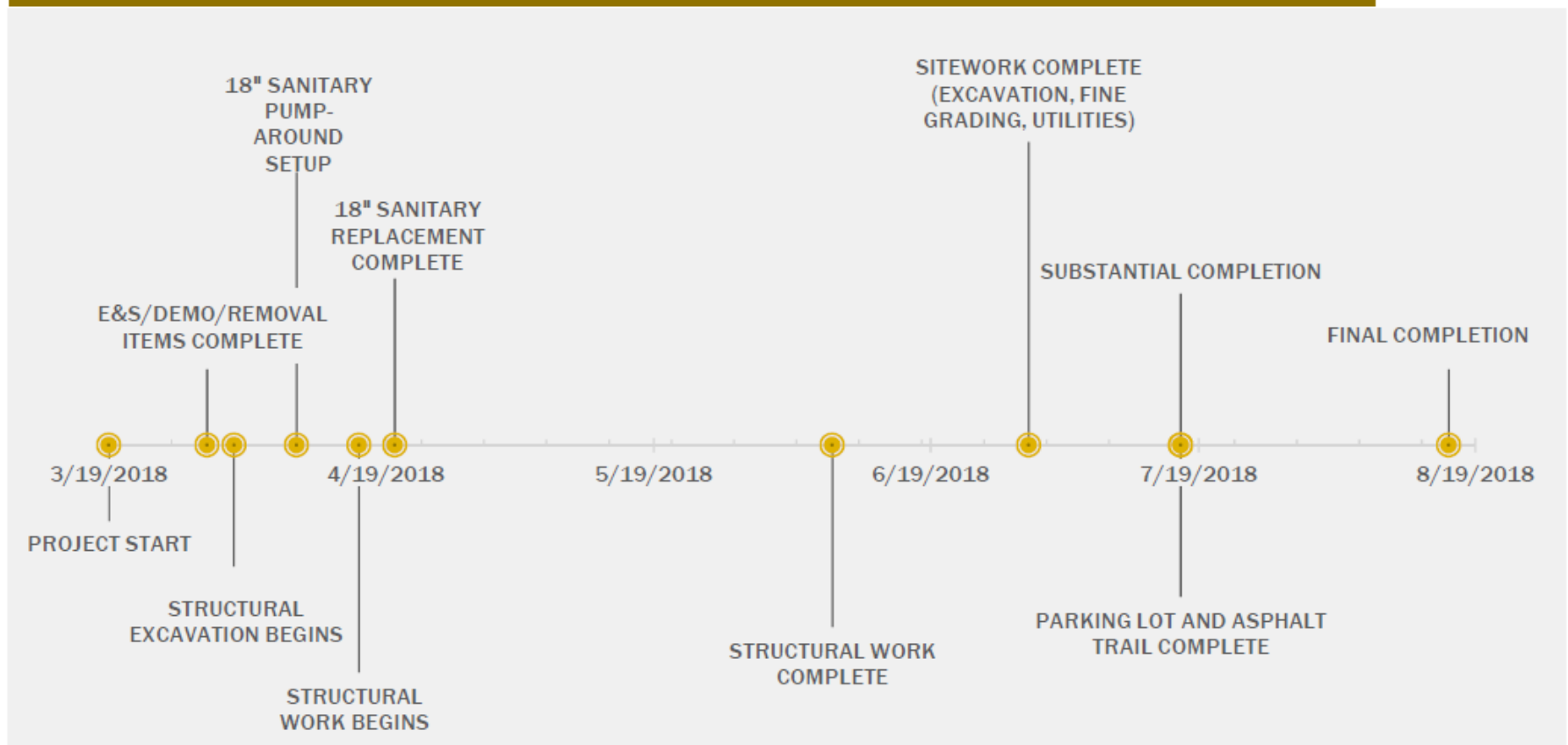
When will the project start / finish?

- Construction phase to start 19 March 2018
 - 4 to 5 month project
 - MPOA, F&R Inc and Shirley Contracting working on refining schedule and milestones
- Project requires the lake to be drawn down to 20ft below normal pool starting 22 Feb 2018
 - Lake draw down will follow normal procedure to 3 ft below normal pool and then 6 inches a day thereafter
 - Return to normal pool is weather dependent

Project Timeline

MONTCALIR DAM CUTBACK PROTECTION WALL PROJECT TIMELINE

***This schedule is for informational purposes only and is assuming a Project Start date of March 19, 2018.



Lake Drawdown -20 feet



Why has it taken so long to get started?

**EXPECT
DELAYS**

- Service Authority sewer line
- NOVEC electrical line relocation
- Spillway Design submitted 14 April 17
- Questions from Regional Dam Safety Engineer resolved and Spillway Design approved 15 Aug 17
- Alteration Permit signed 19 Sep 17
- Prince William Co. in approval process
- Bids received 22 Jan 2018
- Special BOD meeting 31 Jan 2018

What are the impacts to the community?

- Drawdown will prohibit use of the lake
 - Dangerous conditions on exposed lake bottom
 - All beaches closed, no Lifeguards 2018 even if water comes back
- Some events cancelled
 - Beer on the Beach, Lantern Launch, July 4th Fireworks, Fishing Tournament, Teen and Pre-Teen Beach Party, Triathlon
- Construction noise, trucks moving excess material to landfill



Will there be work site security?

- Yes, Shirley Contracting will undertake all necessary measures to ensure the safety of all persons and structures at the site and adjacent to the site including installation of temporary security fencing.
- Work site will be dangerous
 - Wide/deep channel required to build the cutback protection wall



More Questions?



Backup slides

What happens to the wildlife

- Reference
 - Prince William Co. Environmental Services (watershed)
 - VA Department of Game and Inland Fisheries
- Powell's Creek is a perennial stream and lake will be drawn down slowly allowing wildlife to adapt
- Lower water levels will result in increased predation on forage fish
- Exposed lake bed will benefit from sediment compaction as lake bed dries
- Mammals and birds will adapt to lower water levels or move to a new location
- Any terrestrial plant growth will provide habitat when water levels return to normal



Parts of an Embankment Dam

