

Neighborhood Information Meeting (NIM)

# Lake Orange Dam Rehabilitation Capital Investment Plan (CIP)

## Erosion Control Barrier Replacement Project



October 12, 2021

Presenter:

Christopher J. Sandt, P.E., Staff Engineer  
Erosion Control, Stormwater & Engineering Division

# Purpose of the Meeting

To provide information to affected property owners and local County residents regarding the Lake Orange Dam Rehabilitation CIP and the proposed Erosion Control Barrier Replacement Project:

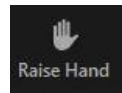
*Thanks for attending!*

- Meet the Team
- What is a Capital Investment Plan (CIP) Project?
- Brief History of Lake Orange
- Summary of Proposed Work (What are we doing and why?)
- Question and Answer Session

But first, let's get to know each other a little better...

***"How long have you lived on or near Lake Orange?"***

*USE THE "Raise Hand"*



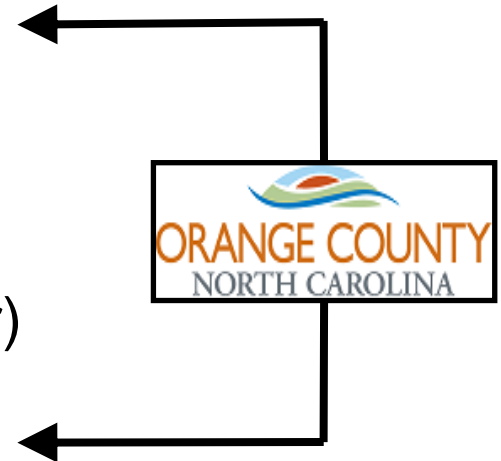
*BUTTON AT THE BOTTOM OF YOUR SCREEN*



- Before there was a lake?
- 40+ years?
- Less than 5 years?

# Meet the Team

- Craig N. Benedict, AICP, (Planning Director)
- Michael D. Harvey, AICP, CFM, CZE  
(Current Planning Supervisor)
- Patrick R. Mallett (EC / Stormwater Supervisor)
- Christopher J. Sandt, P.E. (Staff Engineer)
- Glenn Zeblo, P.E. (Principal/Vice President)
- Bill Needham, P.E. (Civil Project Manager)



Design Consultants



# Capital Investment Plan (CIP)

- The Orange County CIP is an annual planning tool to forecast long-range future capital needs for the County
- Examines infrastructure and equipment needs, provides a planning schedule, and identifies available financing options for the next five years, CIP is updated every year
  - For lists of current/planned CIP projects, go to:
    - <https://www.orangecountync.gov/budget/cip>
- The Lake Orange Dam Rehab CIP was started in FY19-20
- This is the first “big” CIP project for Lake Orange, woo-hoo!
  - *Project #1 – Erosion Control Barrier Replacement*

# Brief History of Lake Orange

- +/-150-acre surface water reservoir owned/operated by the County, located on +/-162-acre parcel (PIN 9857642370)
- Land donated to the County by local landowners in late-1960s for purposes of building regional water supply
- Dam/lake construction funded by County bonds
- Primary purpose is public water supply (WS-II), secondary purpose is recreation (Lake Orange, Inc. owns rights)
- Dam classified as a High Hazard (Class C) in July 2011
  - For more information on Lake Orange history/statistics, go to:
    - <https://orangecountync.gov/1326/Lake-Orange>



# Summary of Proposed Work

- Existing erosion control barrier(s) have surpassed their useful design life; time to replace entirely...



# Summary of Proposed Work (cont.)

## □ Basic Scope:

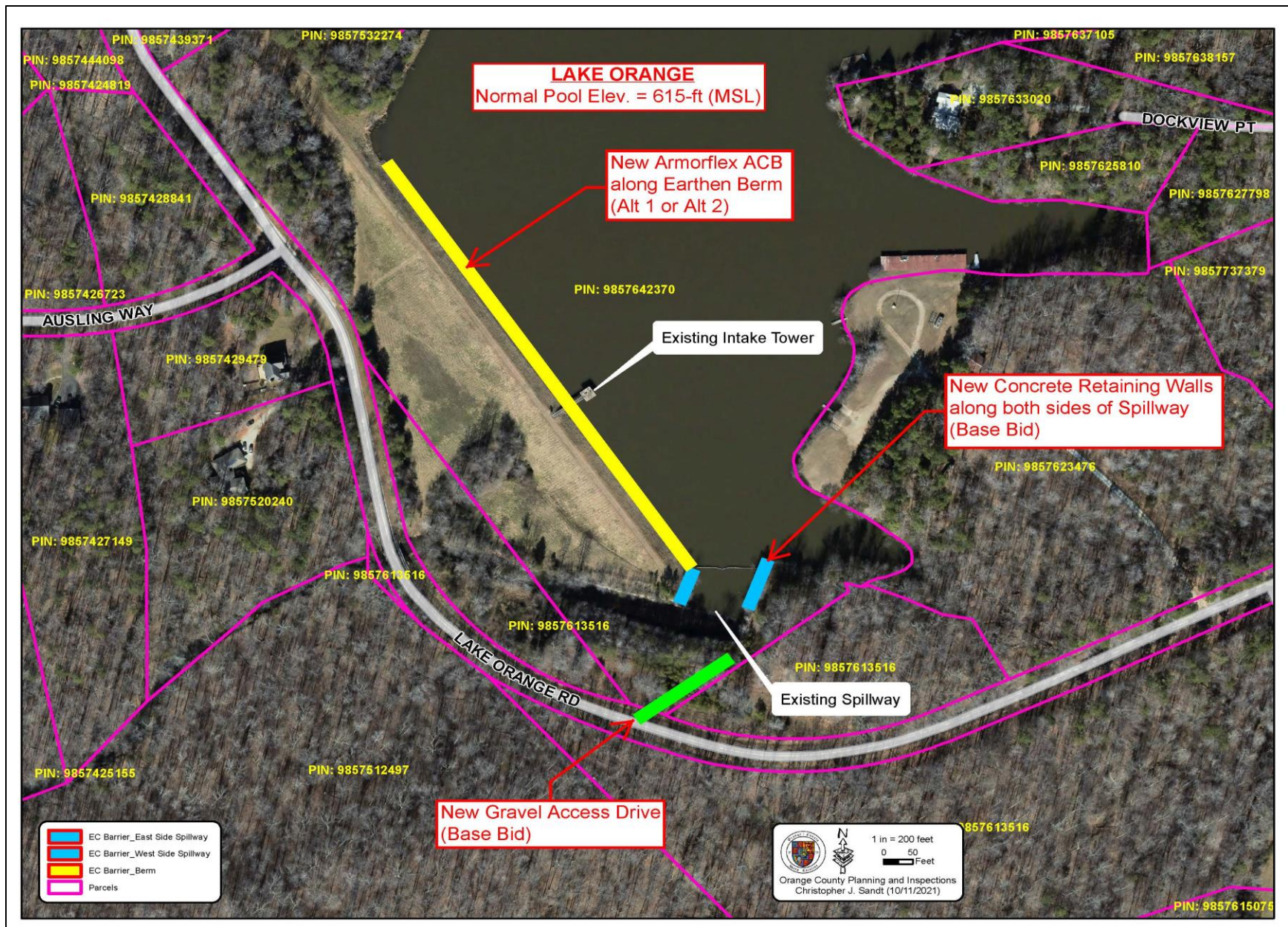
- Base Bid – new entrance road and new concrete retaining walls at spillway
- Alternate 1 – replacement of EC barrier along earthen berm (7.5-ft wide)
- Alternate 2 – replacement of EC barrier along earthen berm (20-ft wide)
- Water surface will be dropped by a maximum of seven (7) feet, monitored daily  
*(for safety, as recommended by NC Dam Safety, contains the 25-year, 24-hour storm volume)*

## □ Available CIP Budget:

- +/- \$80,000 – geotech, topo survey, engineering design / bidding / inspection
- +/- \$450,000 – construction (we'll build what we can afford based on bids rec'd)

*NOTE: Base Bid construction will happen regardless; Alternates 1 & 2 are TBD*







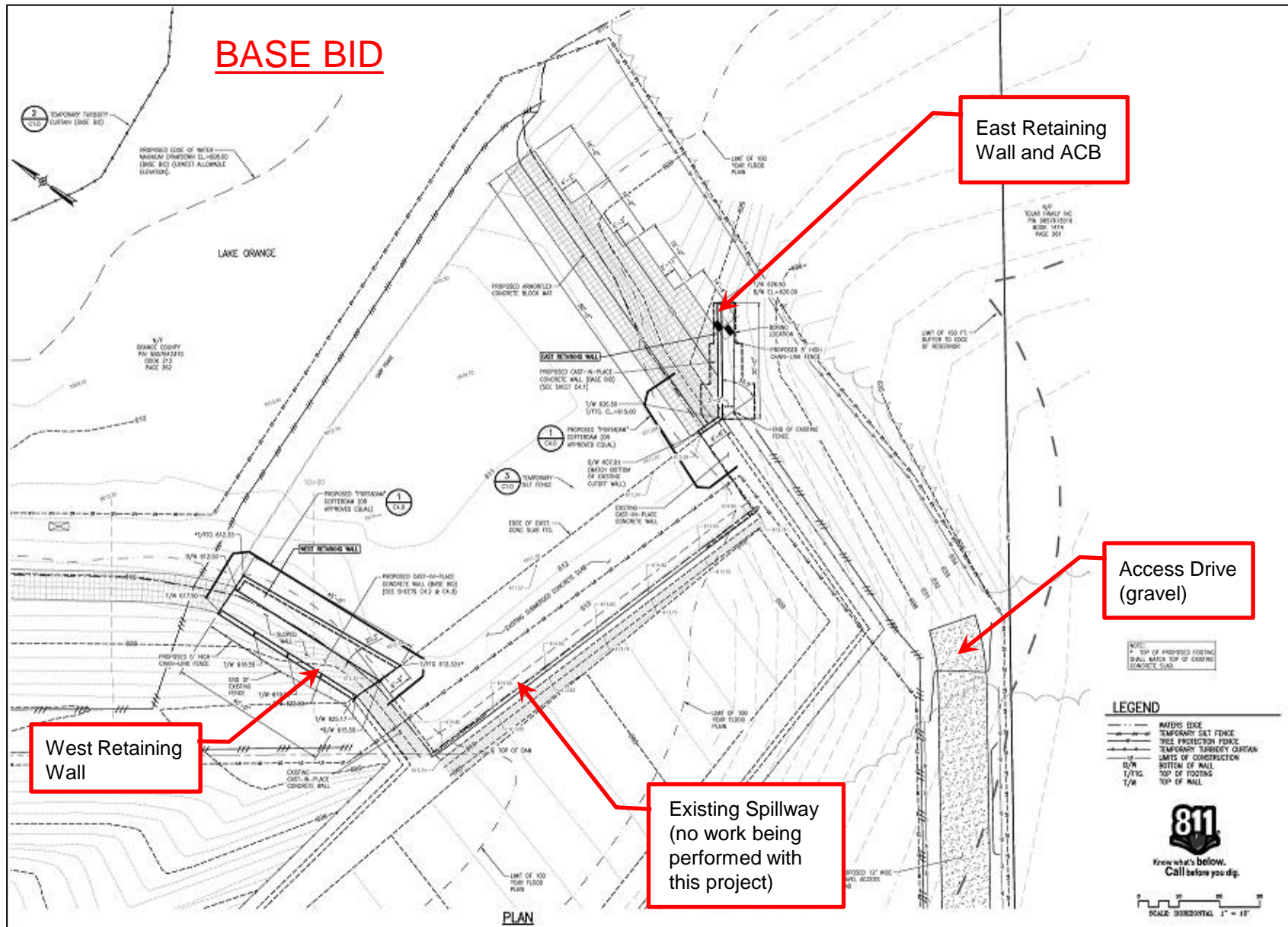
**BASE BID**

**East Retaining Wall and ACB**

**Access Drive (gravel)**

**West Retaining Wall**

**Existing Spillway (no work being performed with this project)**



# Summary of Proposed Work (cont.)

## □ Current Status:


- Fully Designed. NC Dam Safety, NCDEMLR, NCDOT permits in place, County permits in place or pending; however, US Army Corps of Engineers (USACE) Nationwide 3 – Dam Maintenance permit is still needed

## □ Next Steps and “Guesstimated” Timelines:

- Obtain final permitting (Nationwide 3)
  - **mid December 2021 (hopefully), USACE and State staff workload is very high, COVID**
- Advertise for construction bids, assess, and award construction contract
  - **mid December 2021 to mid February 2022 (hopefully)**
- Lake draw-down, commence construction
  - **mid February to mid March 2022 (hopefully), construction will take approx. 3 months**
- Lake refill (timeline dependent on precipitation through late Spring 2022)

# Question and Answer Session

## ▫ Ground Rules:

- Please keep your questions/comments specific to this construction project
- Tertiary questions/comments can be sent to Christopher J. Sandt, P.E. at [csandt@orangecountync.gov](mailto:csandt@orangecountync.gov) or 919-245-2583
- Please keep your questions/comments limited to 3 minutes or so, we want to respect everyone's time and allow those who want to speak, to speak
- Use the “Raise Hand”  button if you have a question/comment
- Let us know if you'd like to be on video, and we'll open your video feed
- Questions/comments will be fielded in the order they're received
- This NIM is being recorded, your questions/comments will be made part of Orange County records for the project

# Contact Information

- Christopher J. Sandt, P.E., Staff Engineer
  - [csandt@orangecountync.gov](mailto:csandt@orangecountync.gov), 919-245-2583
- Glenn Zeblo, P.E. and/or Bill Needham, P.E. (Alpha and Omega)
  - [tgzeblo@aogroup.com](mailto:tgzeblo@aogroup.com), [wsneedham@aogroup.com](mailto:wsneedham@aogroup.com), 919-981-0310
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- Michael D. Harvey, AICP, CFM, CZO, Current Planning Supervisor
  - [mharvey@orangecountync.gov](mailto:mharvey@orangecountync.gov), 919-245-2597
- Patrick R. Mallett, Orange County EC & Stormwater Supervisor
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