

Permanent Canal Closures & Pumps:

Operable System Features of
Option 1, Option 2, and Option 2a
Pump Stations



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US Army Corps of Engineers
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Agenda

- Congressional Authority
- Aerials
- Operable System Features of Option 1, Option 2, and Option 2a Pump Stations
- Providing Operable Systems: Options 2 / 2a
- Option 1 Graphics
- Option 2 Graphics
- Construction Activities
- Option 2a
- Project Schedule



Congressional Authority

4th Supplemental

*In June 2006, Congress passed Public Law 109-234 giving the Corps **authorization** and **appropriations** to design and construct **Permanent Pumps** for the outfall canals – specifically, to “...modify the 17th Street, Orleans Avenue, and London Avenue drainage canals and install pumps and closure structures at or near the lakefront...”*



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Lake Pontchartrain



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17th Street Canal



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Selected Maximum Footprints



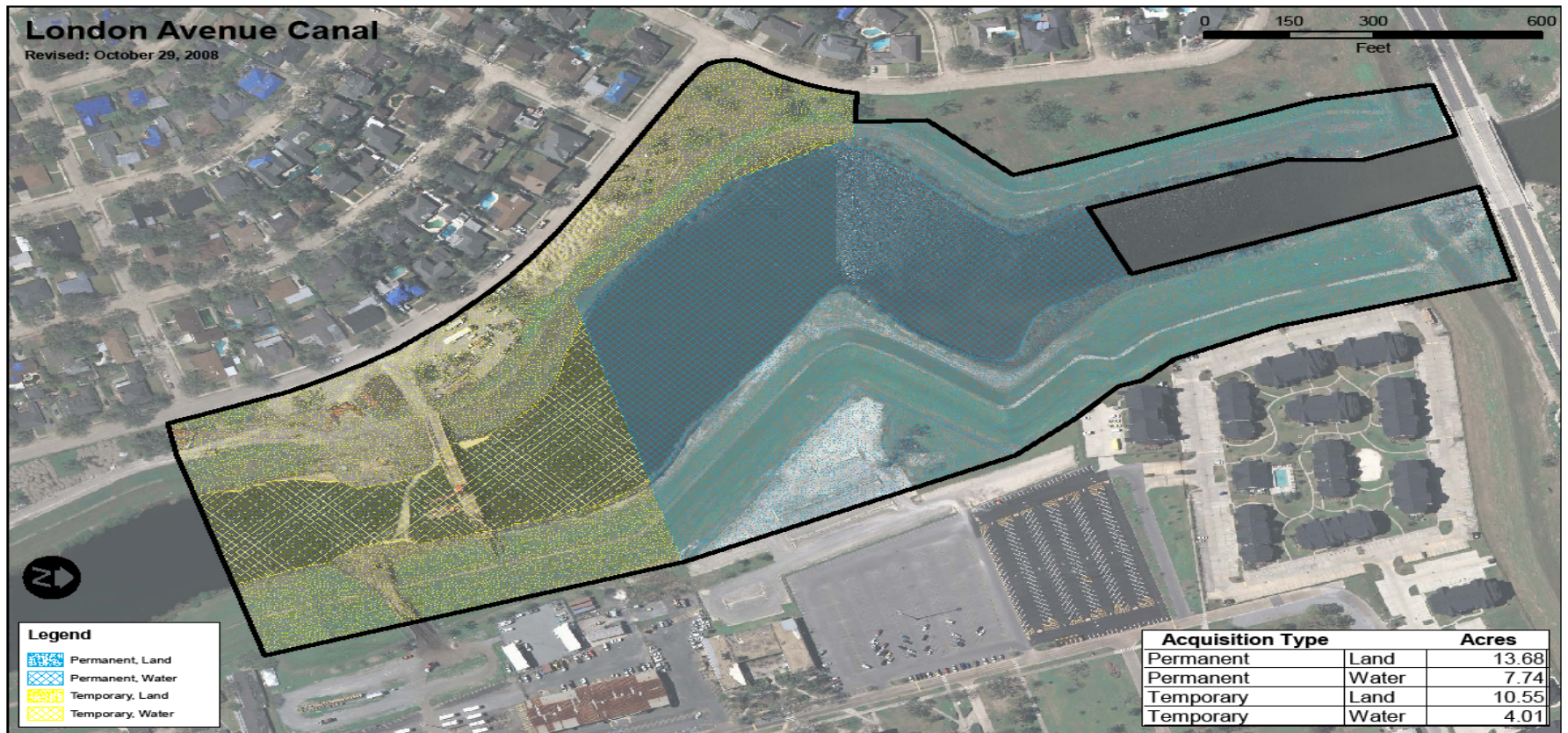
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London Avenue Canal



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Selected Maximum Footprints



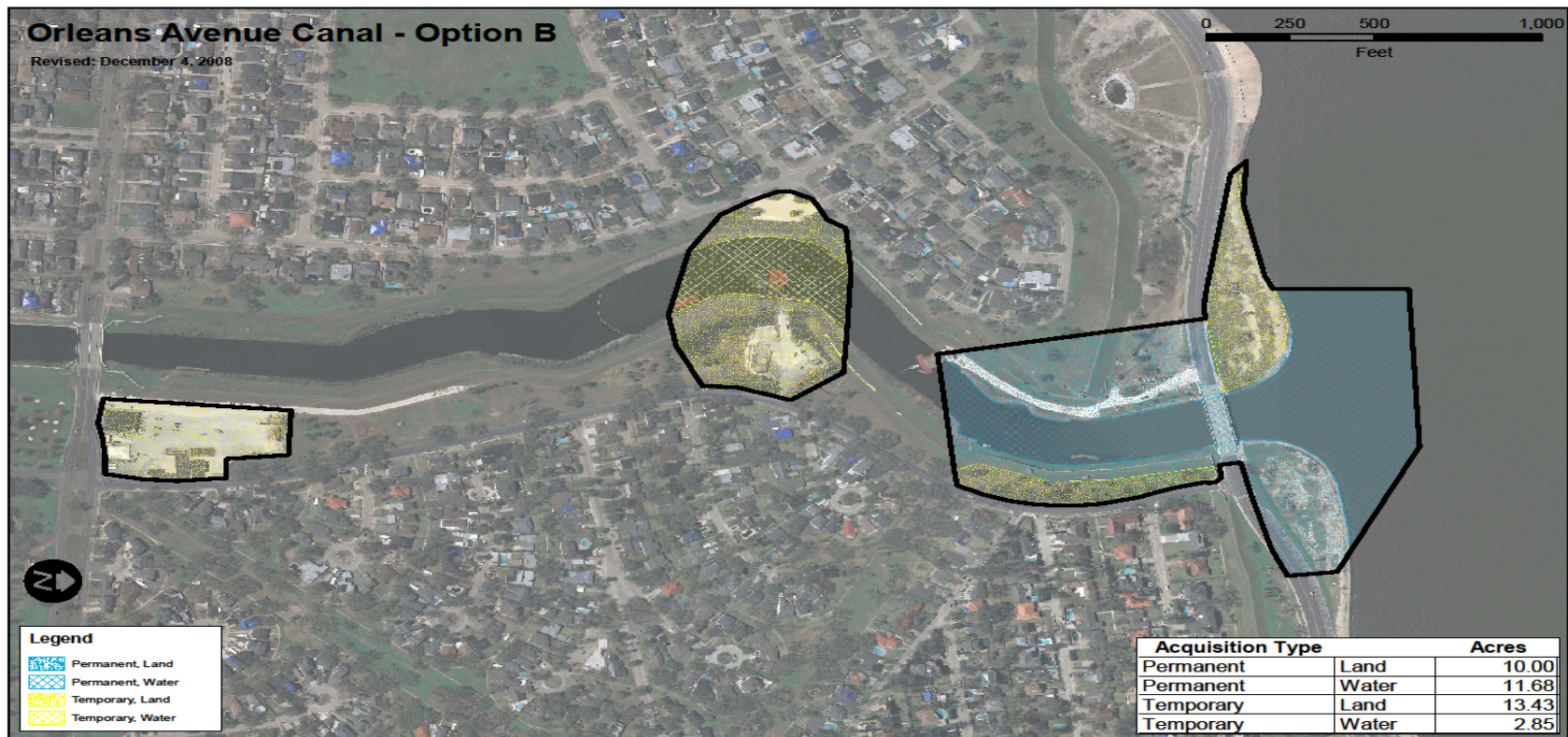
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Orleans Avenue Canal



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Selected Maximum Footprints



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Operable System Features of Option 1, Option 2, and Option 2a Pump Stations

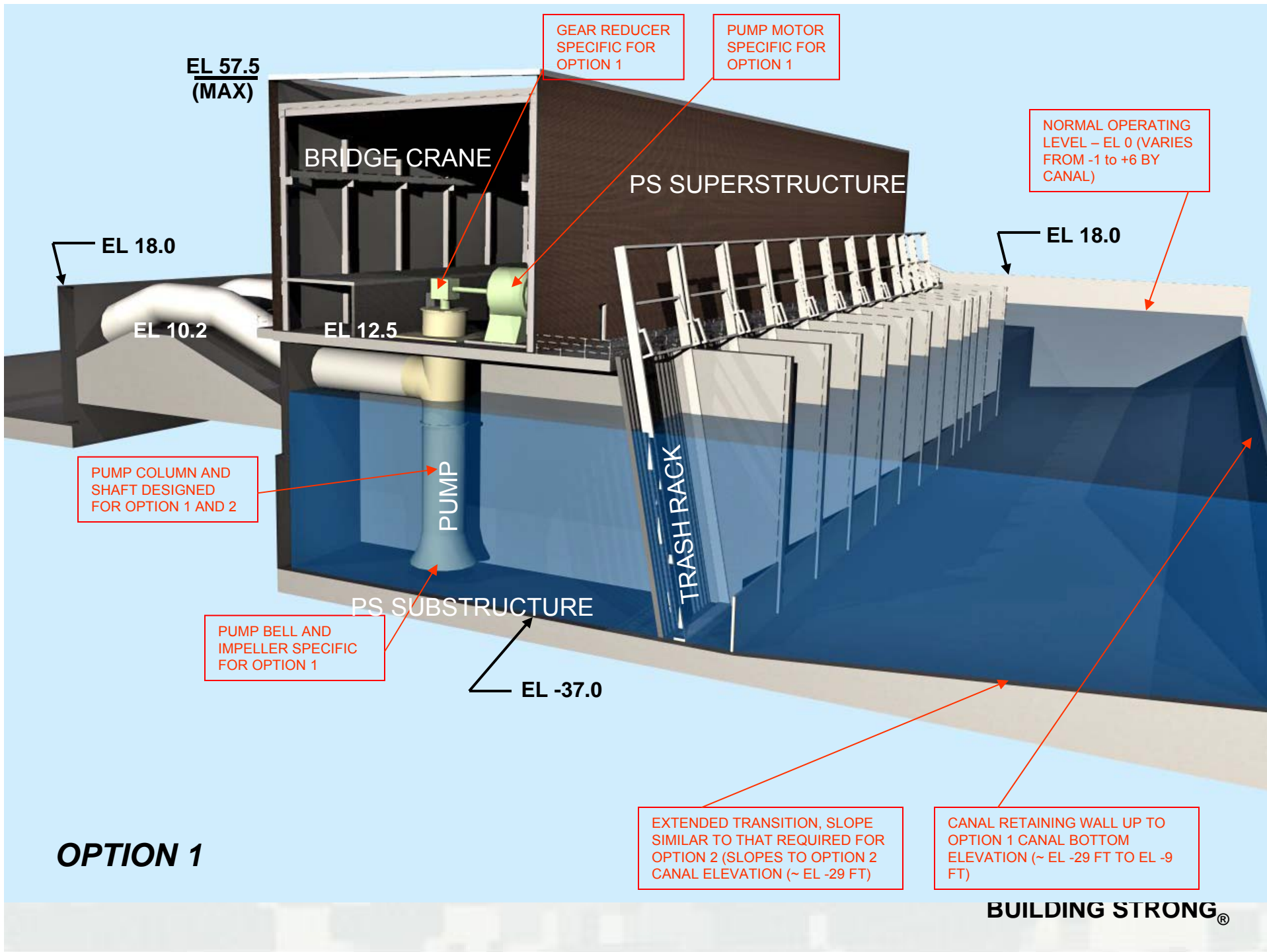
- Pump Station Substructure Intake Sill Elevation
- Pump Station Substructure Sized For Option 2/2a without need for removal
- Pump Station Superstructure
- General Site Development, Access and Pump Station Foot Print
- Channel Transition
- Pump Column and Shaft
- Expandable Generating Station
- Bridge Crane rails and supports (will be estimated based on Option 2/2a weight requirements)

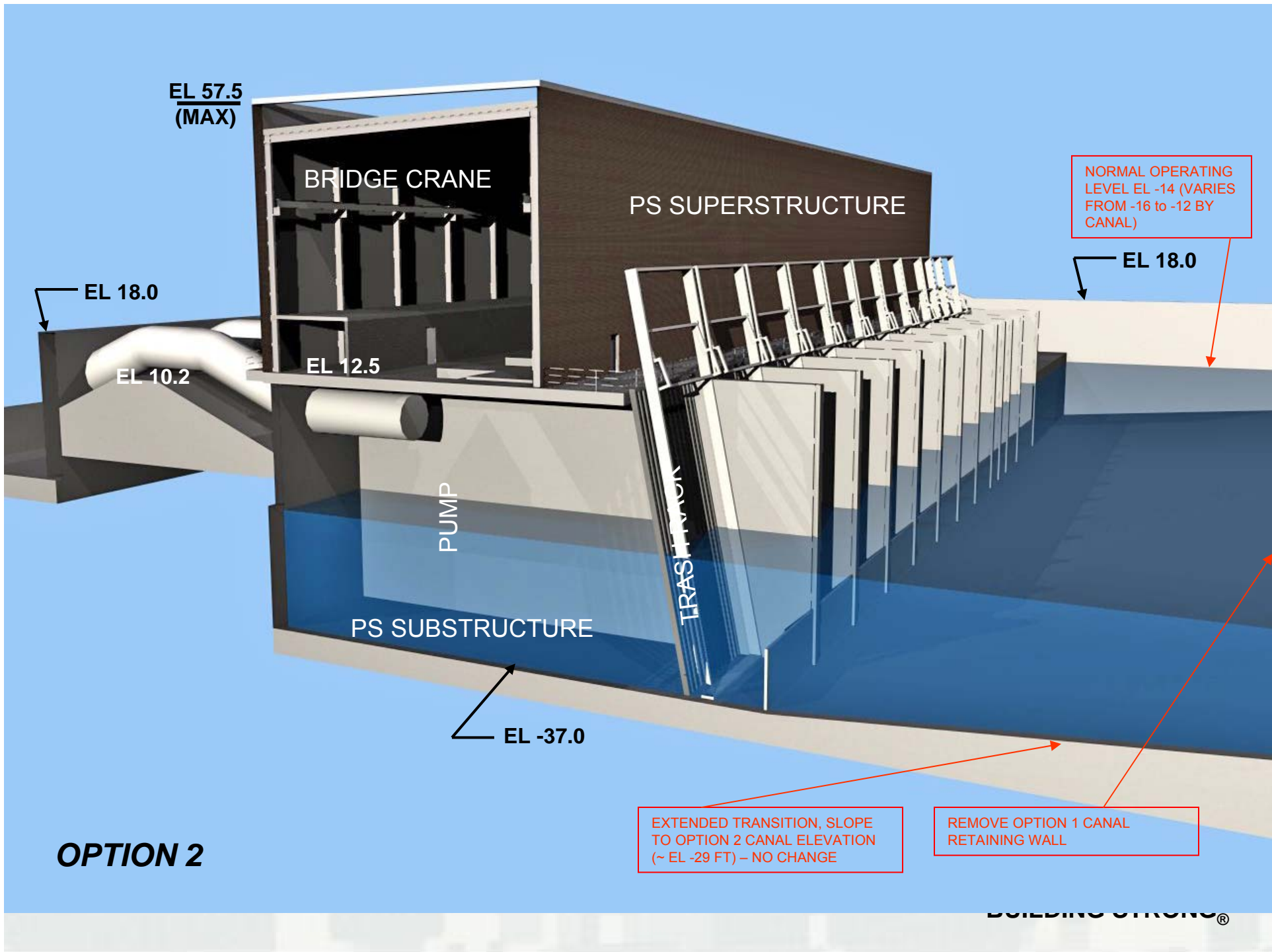


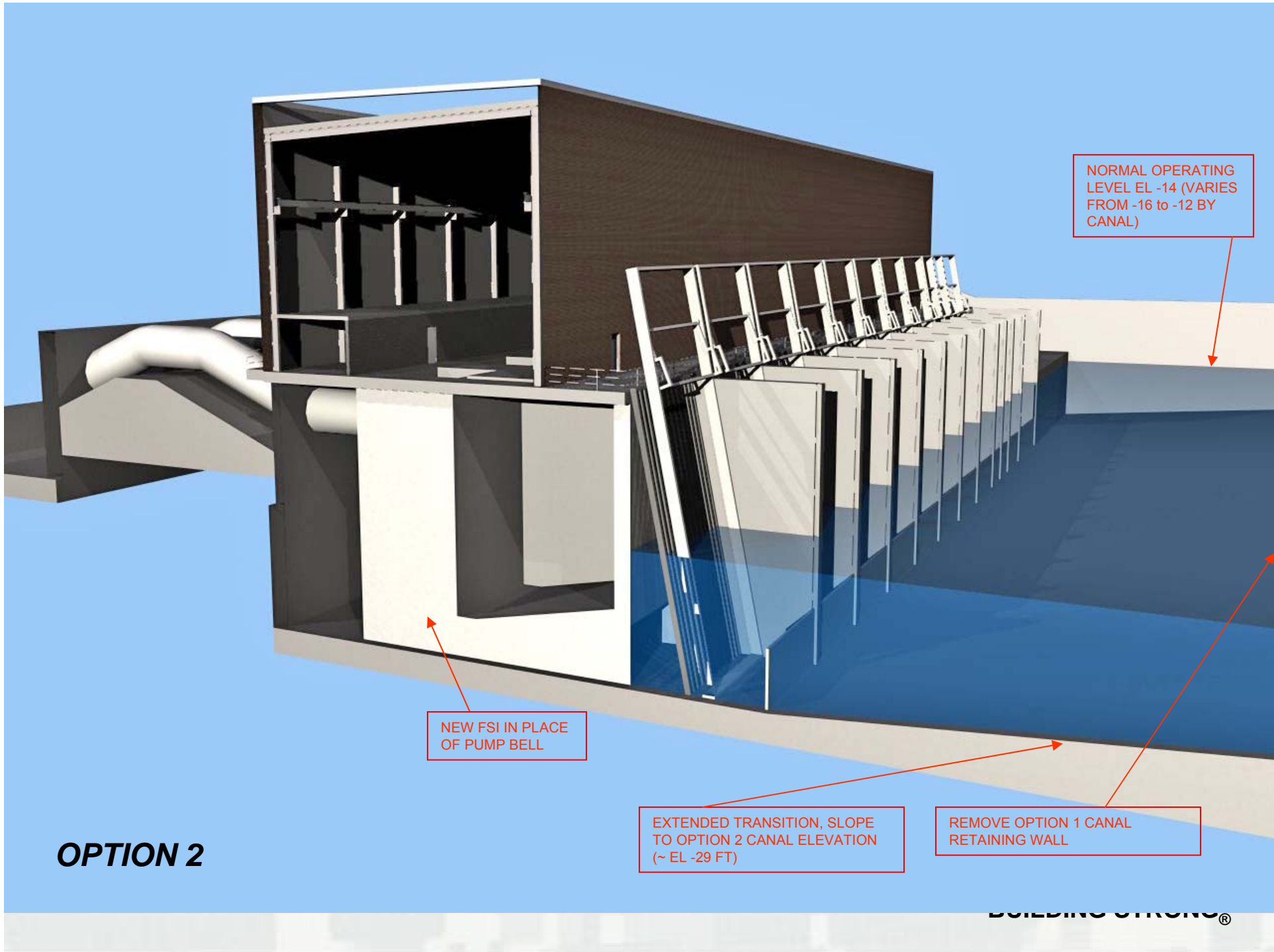
Providing Operable Systems: Options 2 / 2a

- Add Formed Suction Inlet and Remove Pump Bell
- Replace Driver Motor with Larger Size
- Change Pump Impeller Type
- Replace Gear Reducer
- Increase Number of Generators, Number of Fuel Tanks, HVAC Capacity and Size of Electrical Switch Gear
- Permanently Close the Gates









NORMAL OPERATING
LEVEL EL -14 (VARIES
FROM -16 to -12 BY
CANAL)

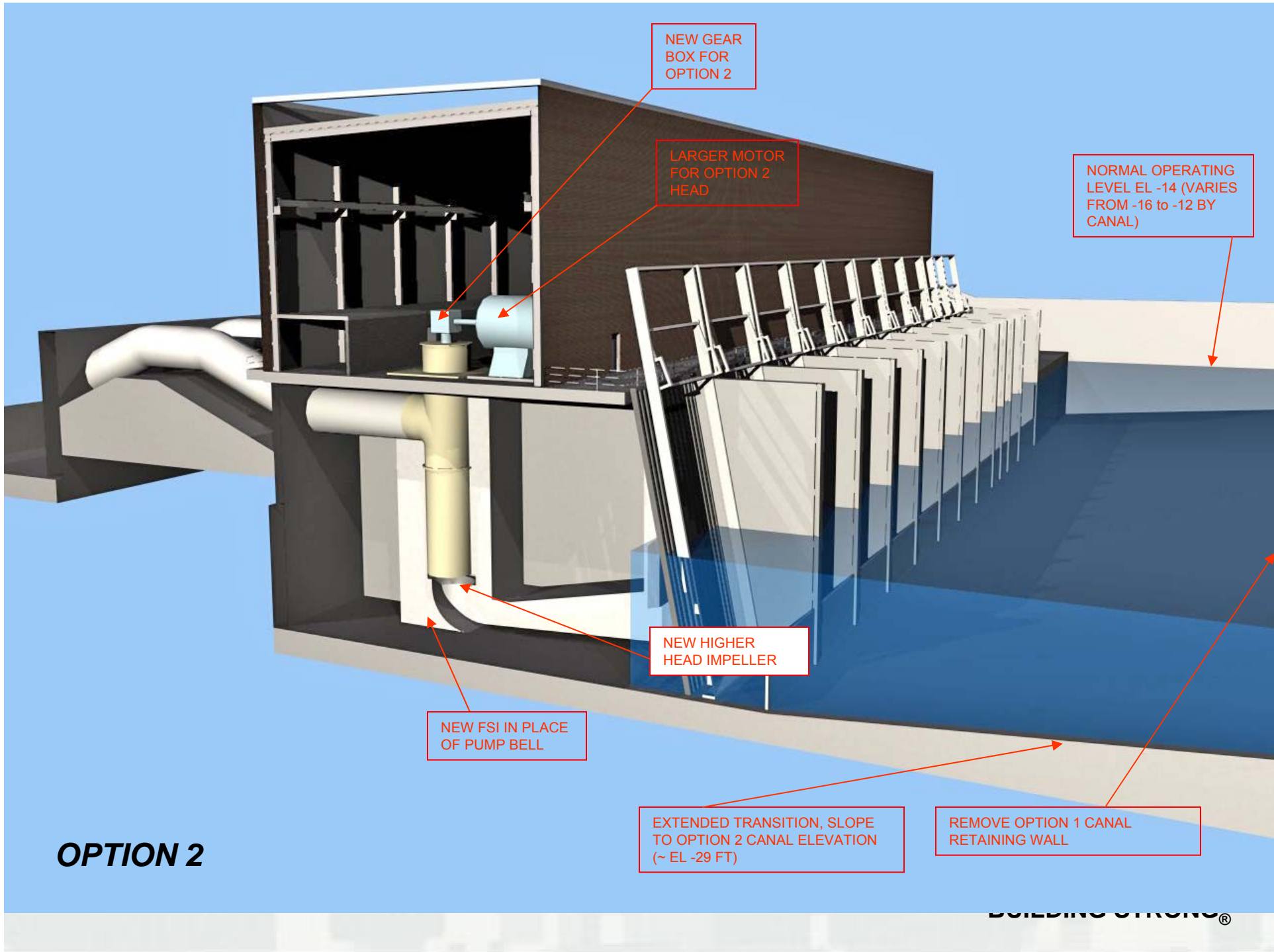
NEW FSI IN PLACE
OF PUMP BELL

EXTENDED TRANSITION, SLOPE
TO OPTION 2 CANAL ELEVATION
(~ EL -29 FT)

REMOVE OPTION 1 CANAL
RETAINING WALL

OPTION 2

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NEW GEAR BOX FOR OPTION 2

LARGER MOTOR FOR OPTION 2 HEAD

NORMAL OPERATING LEVEL EL -14 (VARIES FROM -16 to -12 BY CANAL)

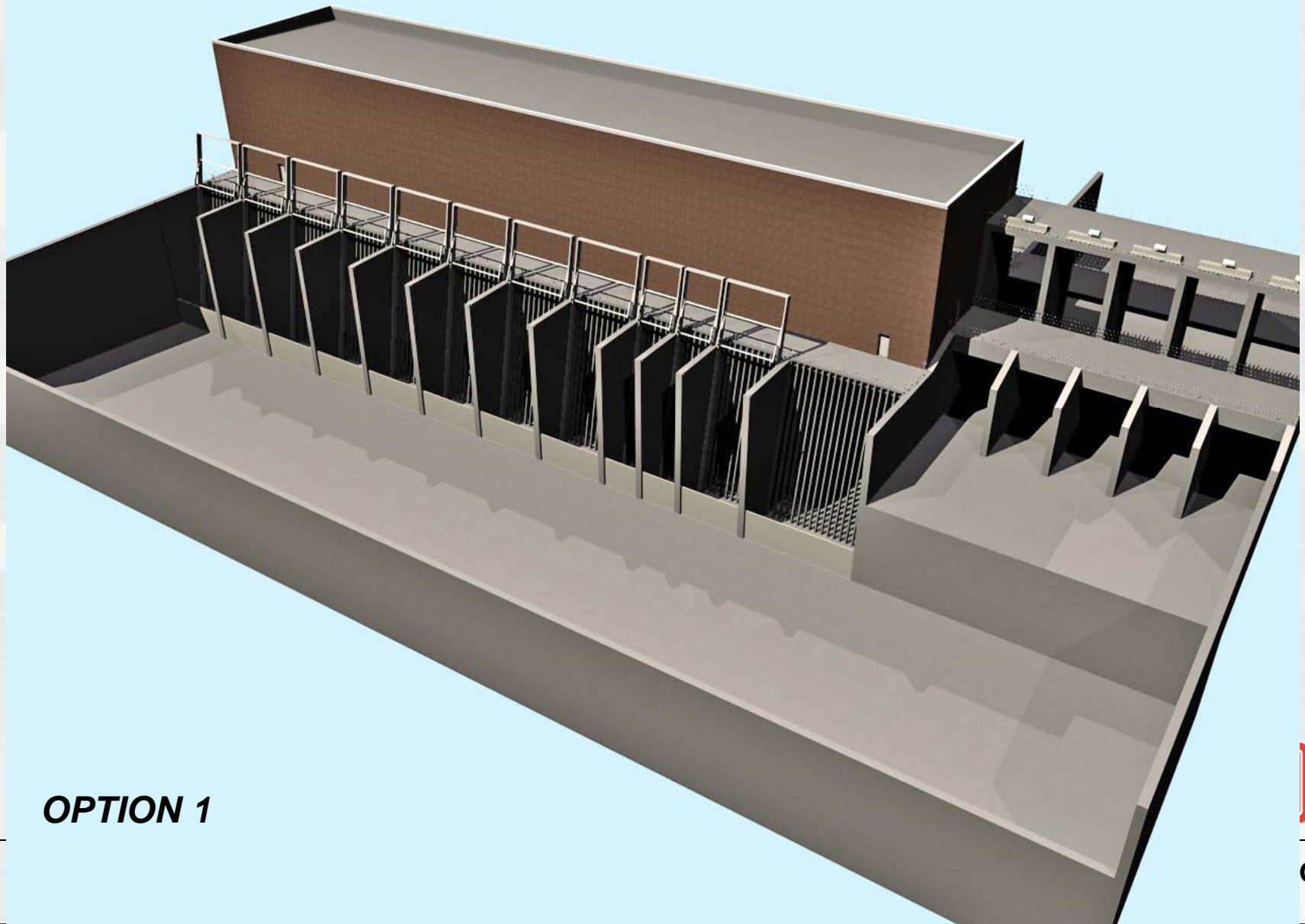
NEW HIGHER HEAD IMPELLER

NEW FSI IN PLACE OF PUMP BELL

EXTENDED TRANSITION, SLOPE TO OPTION 2 CANAL ELEVATION (~ EL -29 FT)

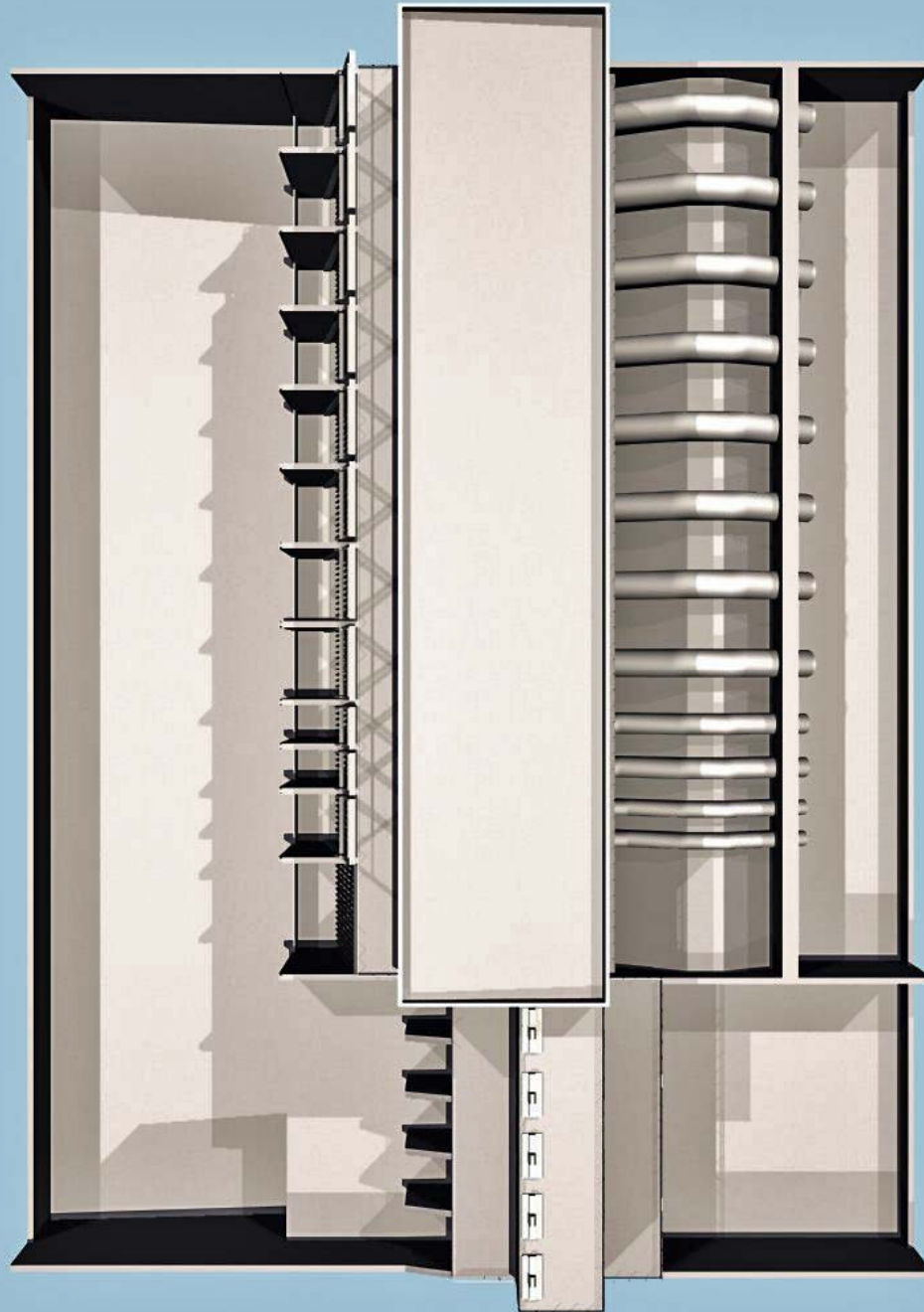
REMOVE OPTION 1 CANAL RETAINING WALL

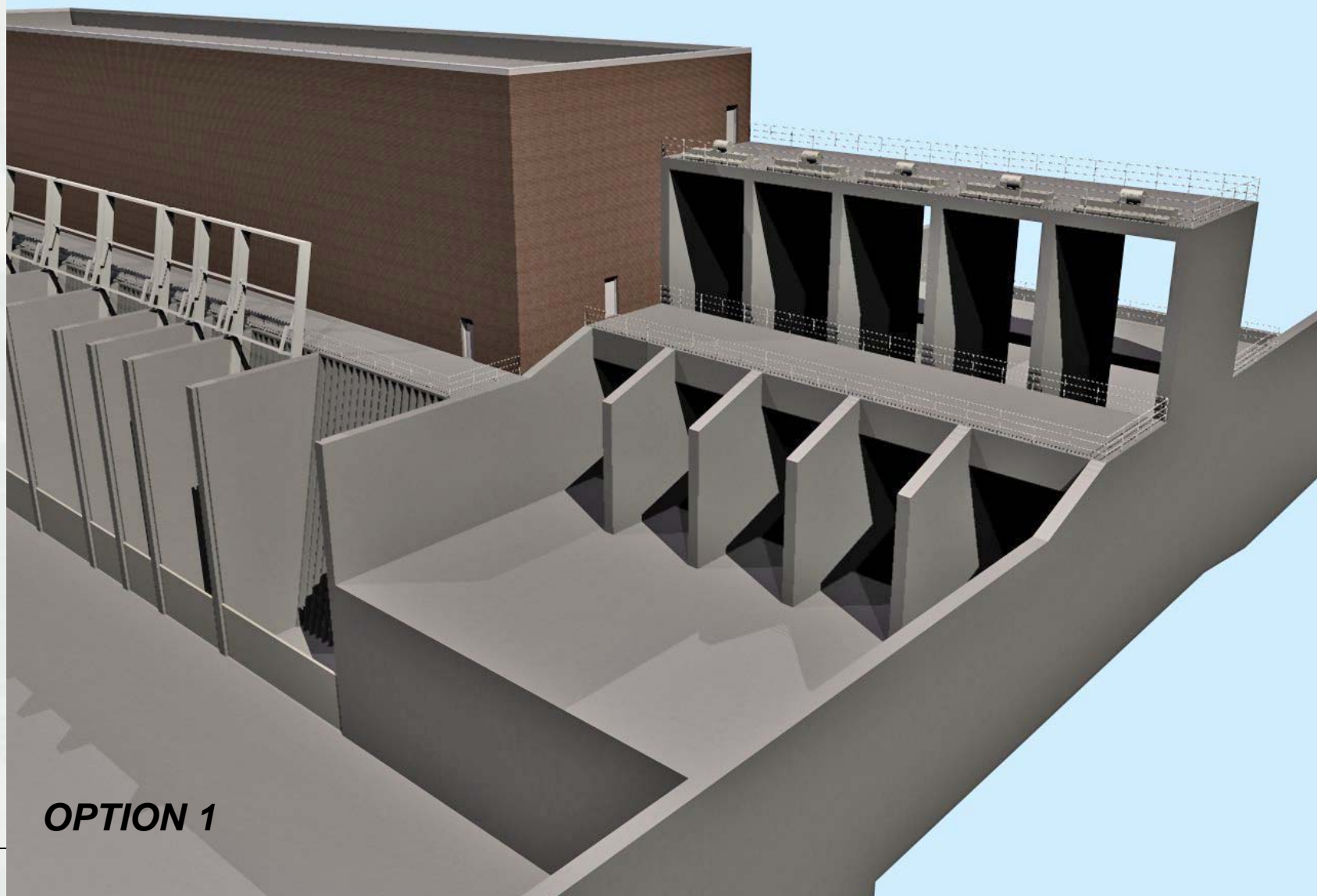
OPTION 2



OPTION 1

OPTION 1





OPTION 1

Construction Activities

Option 1 adaptable with Pump Station

1. Build Pump Station
2. Remove ICS

Option 2 with Pump Station

1. Build Pump Station
2. Remove ICS
3. Deepen Canals
4. Bypass Drainage Pump Stations
5. Floodwall and Levee Removal Along Outfall Canals

Option 2a with Pump Station

1. Build Pump Stations
2. Remove ICS
3. Deepen Canals
4. Construct Diversion (Hoey's Basin)
5. Bypass Drainage Pump Stations
6. Floodwall and Levee Removal Along Outfall Canals



Option 2a

- The “a” in 2a is the diversion
 - ▶ Hoey’s Basin
 - Drain approximately 2500 acres
 - Will divert rain water to the Mississippi River instead of the 17th Street Canal via new pump station

