

brackenridge park

A POSTCARD PLACE LOST IN TIME

HDRC MEETING

19 APRIL 2023

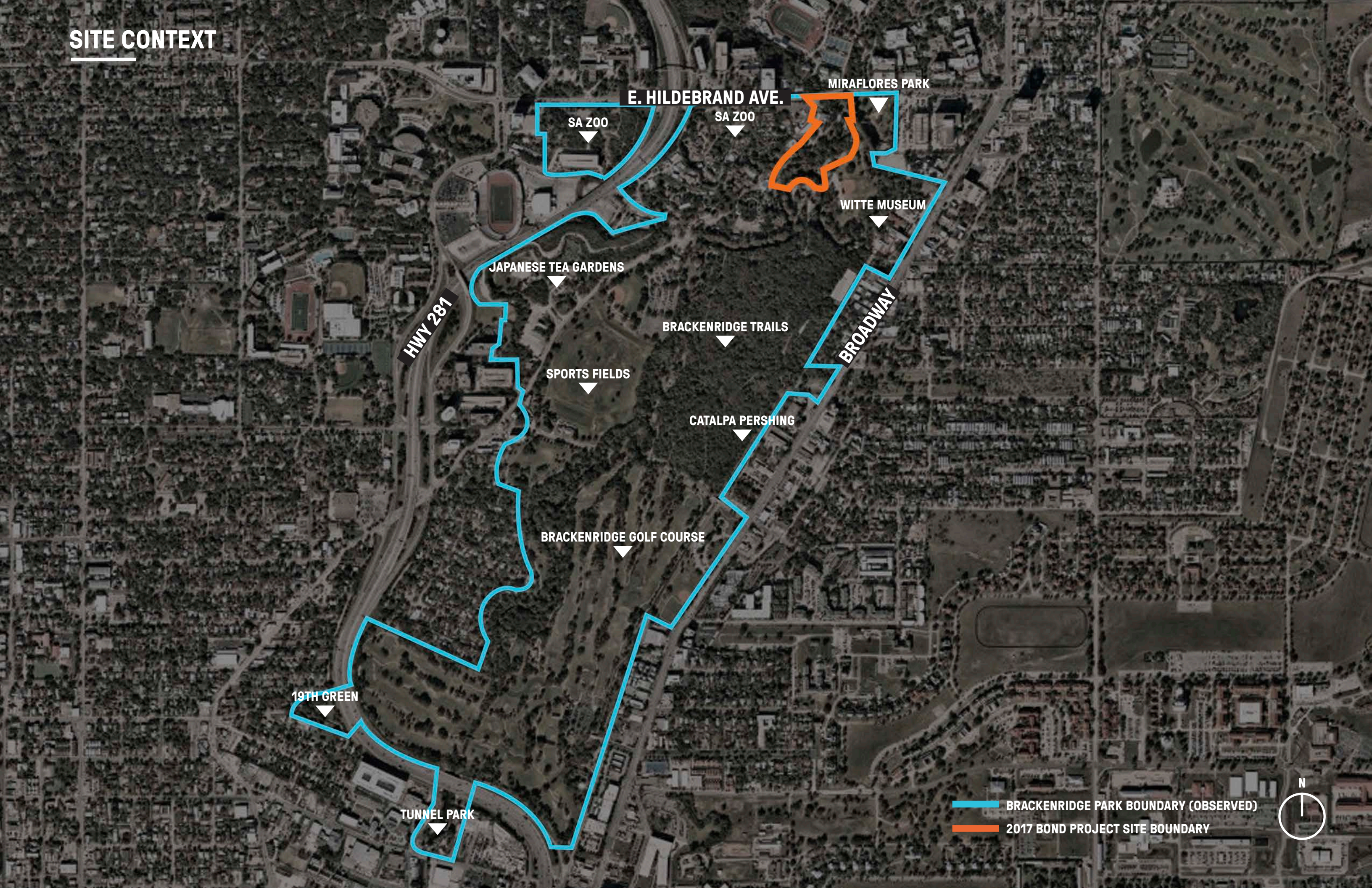




AGENDA

01 introduction // 02 existing conditions // 03 public input (wall relocation, structural details, & tree relocation) // 04 Lambert Beach plan // 05 proposed structural details

SITE CONTEXT



E. HILDEBRAND AVE.

MIRAFLORES PARK

SA ZOO

SA ZOO

WITTE MUSEUM

JAPANESE TEA GARDENS

BRACKENRIDGE TRAILS

SPORTS FIELDS

CATALPA PERSHING

BRACKENRIDGE GOLF COURSE

BROADWAY

HWY 281

19TH GREEN

TUNNEL PARK

BRACKENRIDGE PARK BOUNDARY (OBSERVED)

2017 BOND PROJECT SITE BOUNDARY



SCOPE PHASING

E. HILDEBRAND AVE.

SAN ANTONIO ZOO

BRACKENRIDGE RD.

MIRAFLORES PARK

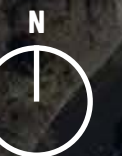
PHASE II
UPPER LABOR & WATERWORKS ZONE

PHASE I
LAMBERT BEACH ZONE

SAN ANTONIO ZOO

- UNDERPIN PERIMETER FOUNDATION OF PUMPHOUSE
- REPAIR & REBUILD LAMBERT BEACH WALLS/STAIRS
- REBUILD GRAND STAIRCASE ON NE SIDE OF LAMBERT BEACH
- GRADING & EARTHWORK IMPROVEMENTS
- ADDRESS TREES IMPACTING CULTURAL RESOURCES

BRACKENRIDGE WAY



0 10 20
1"=40'-0"

02 // EXISTING CONDITIONS

EXISTING CONDITIONS : LAMBERT BEACH NORTH WALLS



EXISTING CONDITIONS : DEWATERED RIVER CHANNEL WALL AND WALK AT PUMP HOUSE



EXISTING CONDITIONS : DEWATERED LAMBERT BEACH GRAND STAIR



EXISTING CONDITIONS : VOLUNTEER TREES AT BASE OF DEWATERED LAMBERT BEACH WALL

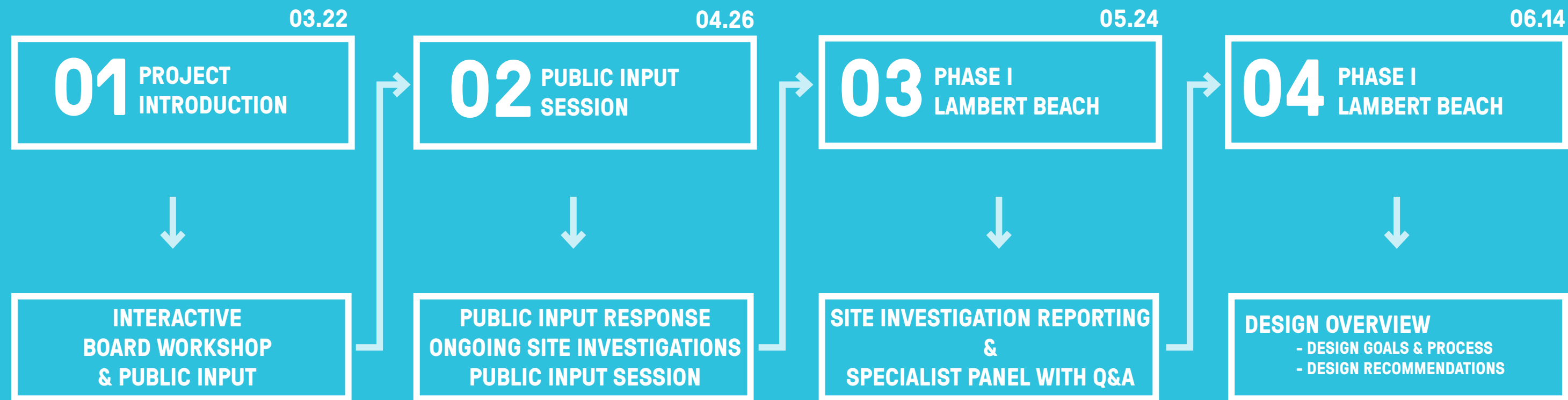


EXISTING CONDITIONS : DEWATERED RIVER LEVEL FLOOR OF PUMP HOUSE



03 // PUBLIC INPUT (WALL RELOCATION, STRUCTURAL DETAILS, & TREE RELOCATION)

PHASE I



WALL RELOCATION STUDY

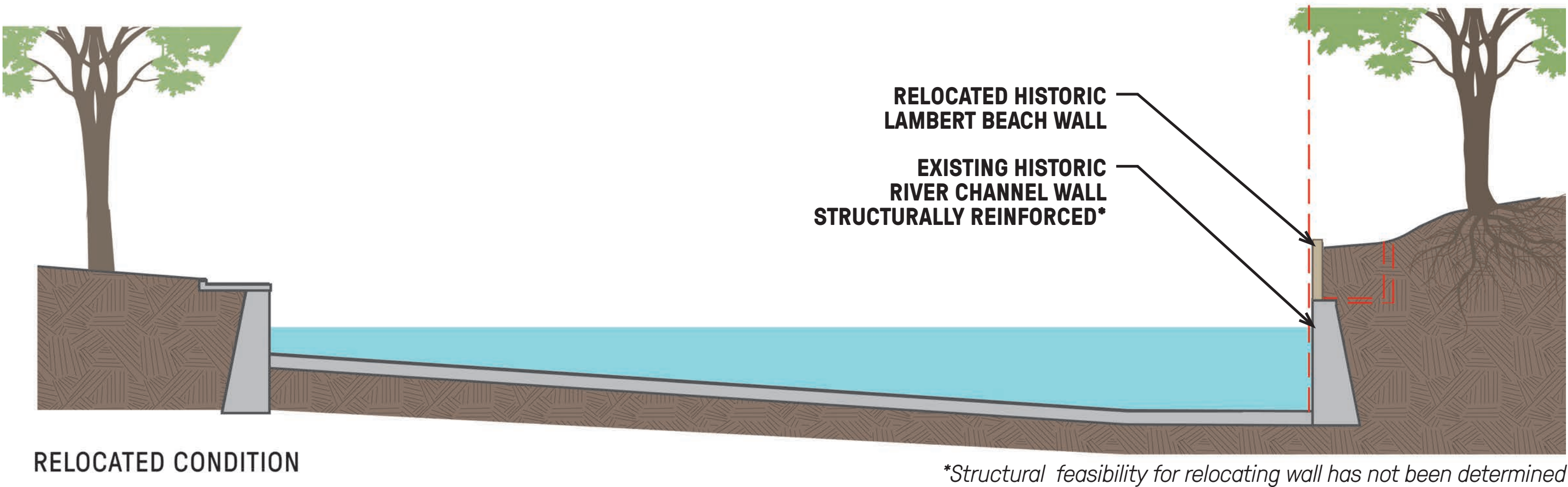
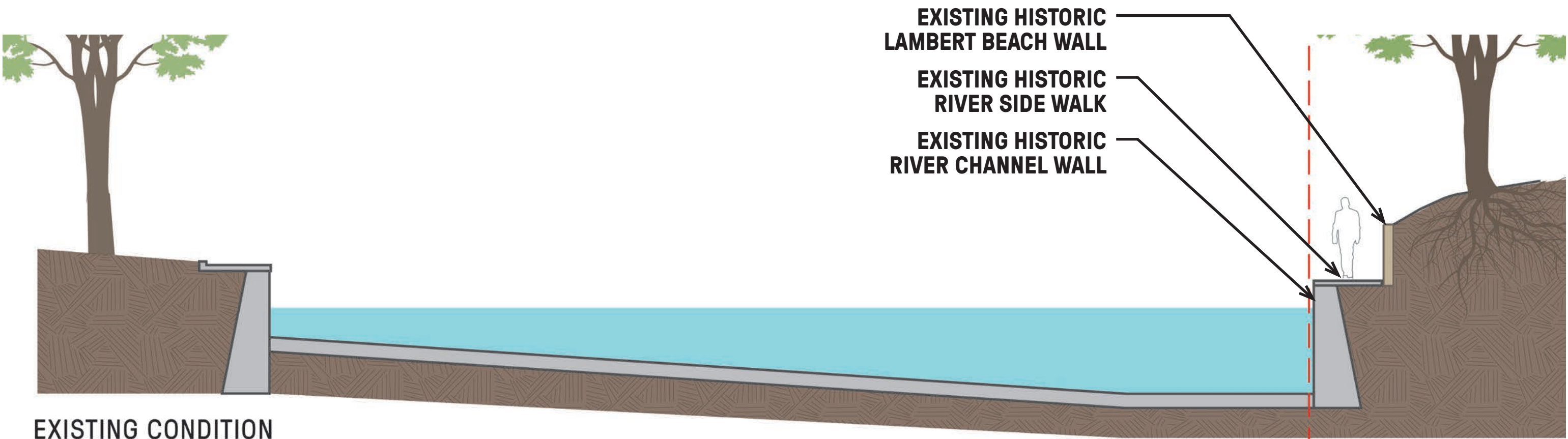
DIAGRAM : EXISTING LAMBERT BEACH WALLS STUDIED FOR RELOCATION



PHOTO : EXISTING LAMBERT BEACH WALLS STUDIED FOR RELOCATION

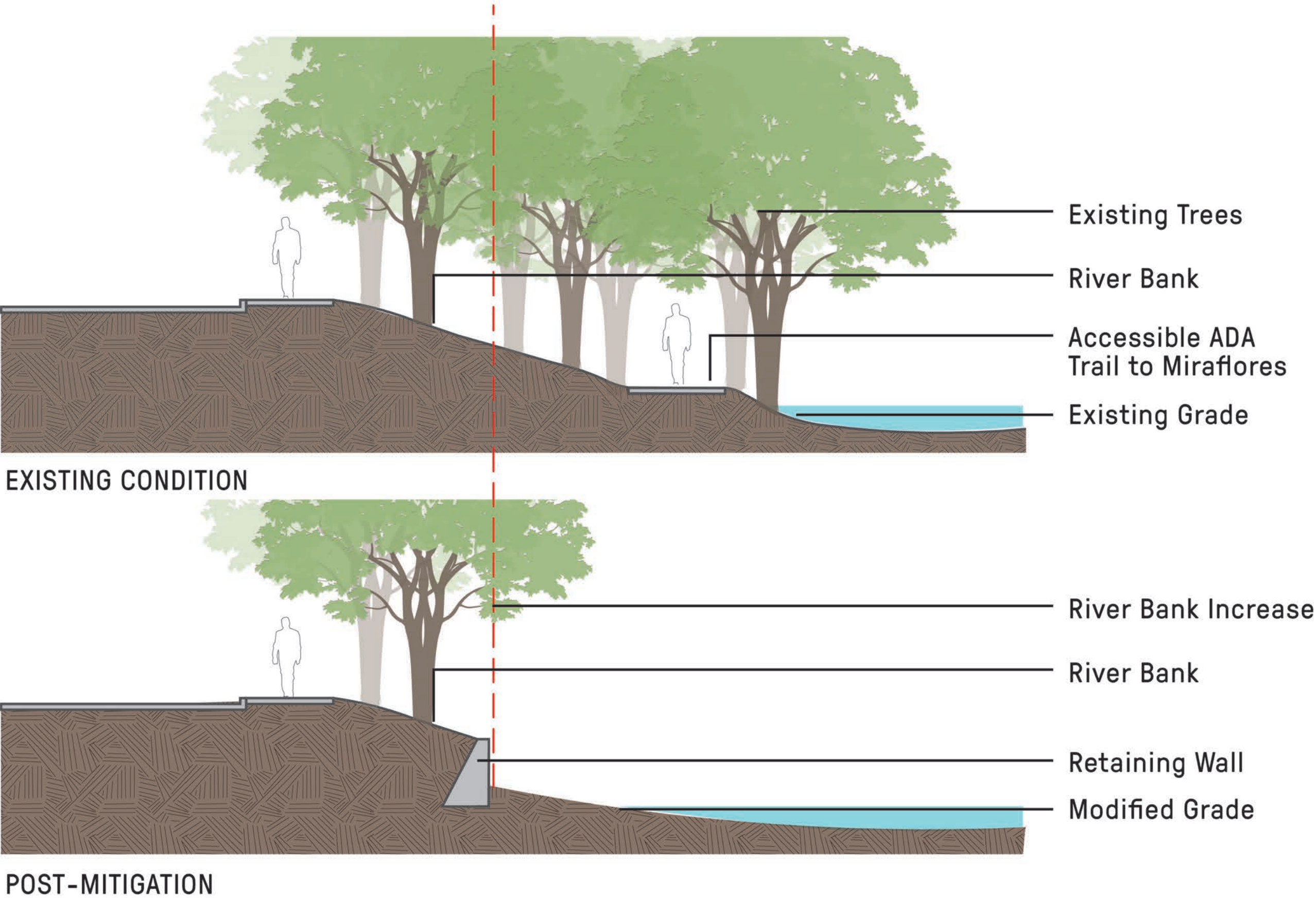


DIAGRAM : PROPOSED WALL RELOCATION AT LAMBERT BEACH



**Structural feasibility for relocating wall has not been determined*

DESIGN TEAM STUDY : UPSTREAM MITIGATION REQUIRED TO OFFSET WALL RELOCATED AT LAMBERT BEACH



LAMBERT BEACH WALL RELOCATION

PROS

- **PRESERVE 8 LARGE TREES**
 - WOULD REQUIRE THE REMOVAL OF LARGE TREES CURRENTLY GROWING AT THE BASE OF THE WALL
- **MAINTAIN EXISTING ECOSYSTEM**
- **PROVIDE ADDITIONAL PEDESTRIAN SPACE NEAR BATH HOUSE**

CONS

- **FLOODPLAIN EFFECTS:**
 - **WOULD REQUIRE MITIGATION FARTHER UPSTREAM**
 - **ADDITIONAL PERMITS AND VARIANCES**
 - **SEPARATE RIVER CONSTRUCTION PROJECT**
 - **REMOVAL OF OTHER LARGE TREES FARTHER UPSTREAM AT MITIGATION SITE**
 - **WOULD BE COSTLY AND DELAY DELIVERY OF PROJECT**
- **HISTORIC EFFECTS:**
 - **DAMAGE A CONTRIBUTING RESOURCE TO BRACKENRIDGE PARK AS A NRHP-LISTED HISTORIC DISTRICT**
 - **VOID THE PROGRAMMATIC AGREEMENT WITH USACE**
 - **REQUIRE MITIGATION AS AN ADVERSE EFFECT**
- **LIMIT RIVER ACCESS TO PARK GO-ERS**
- **DRAMATICALLY ALTER THE APPEARANCE AND FUNCTION OF LAMBERT BEACH**

PROGRAMMATIC AGREEMENT SUMMARY

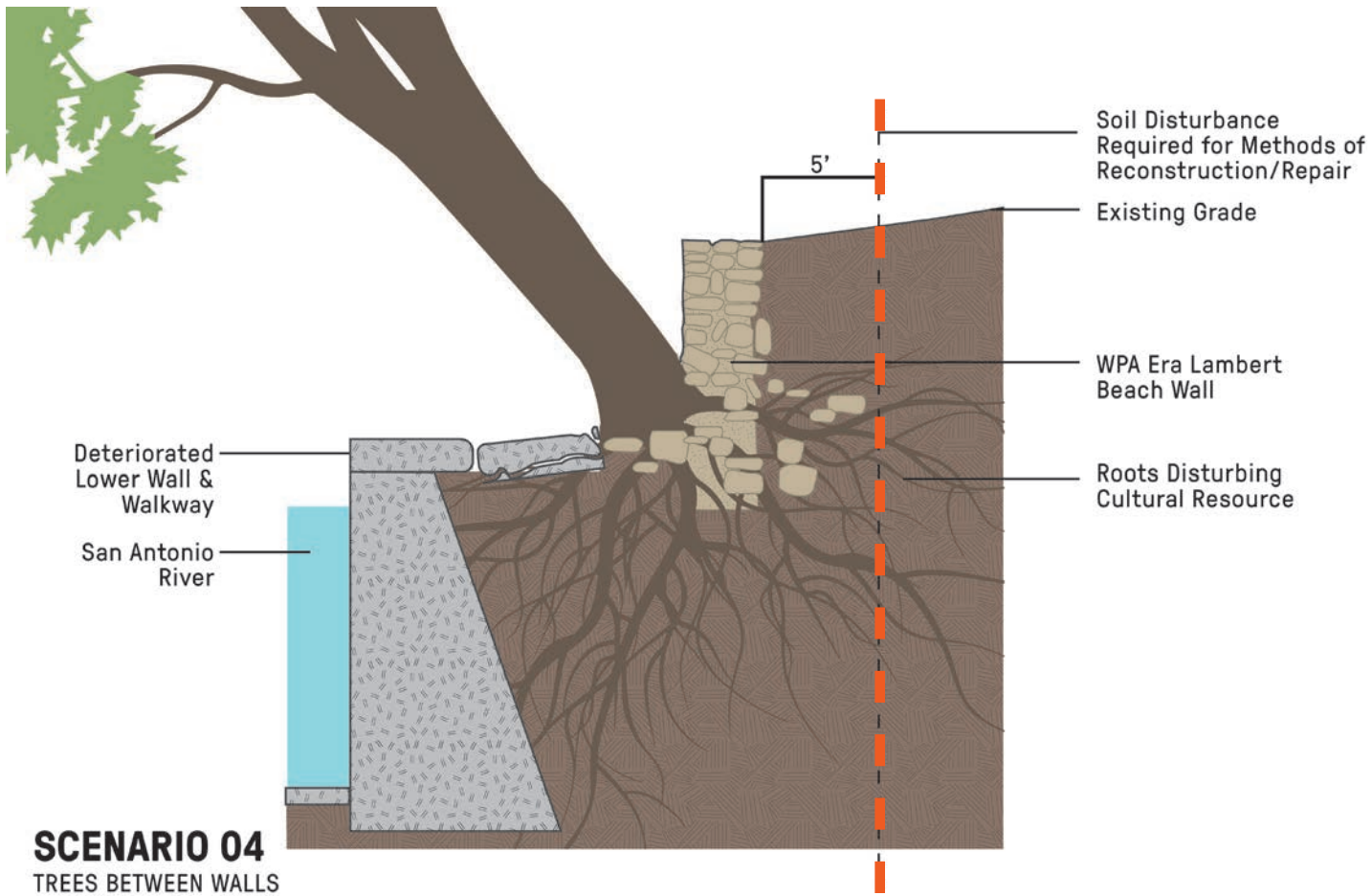
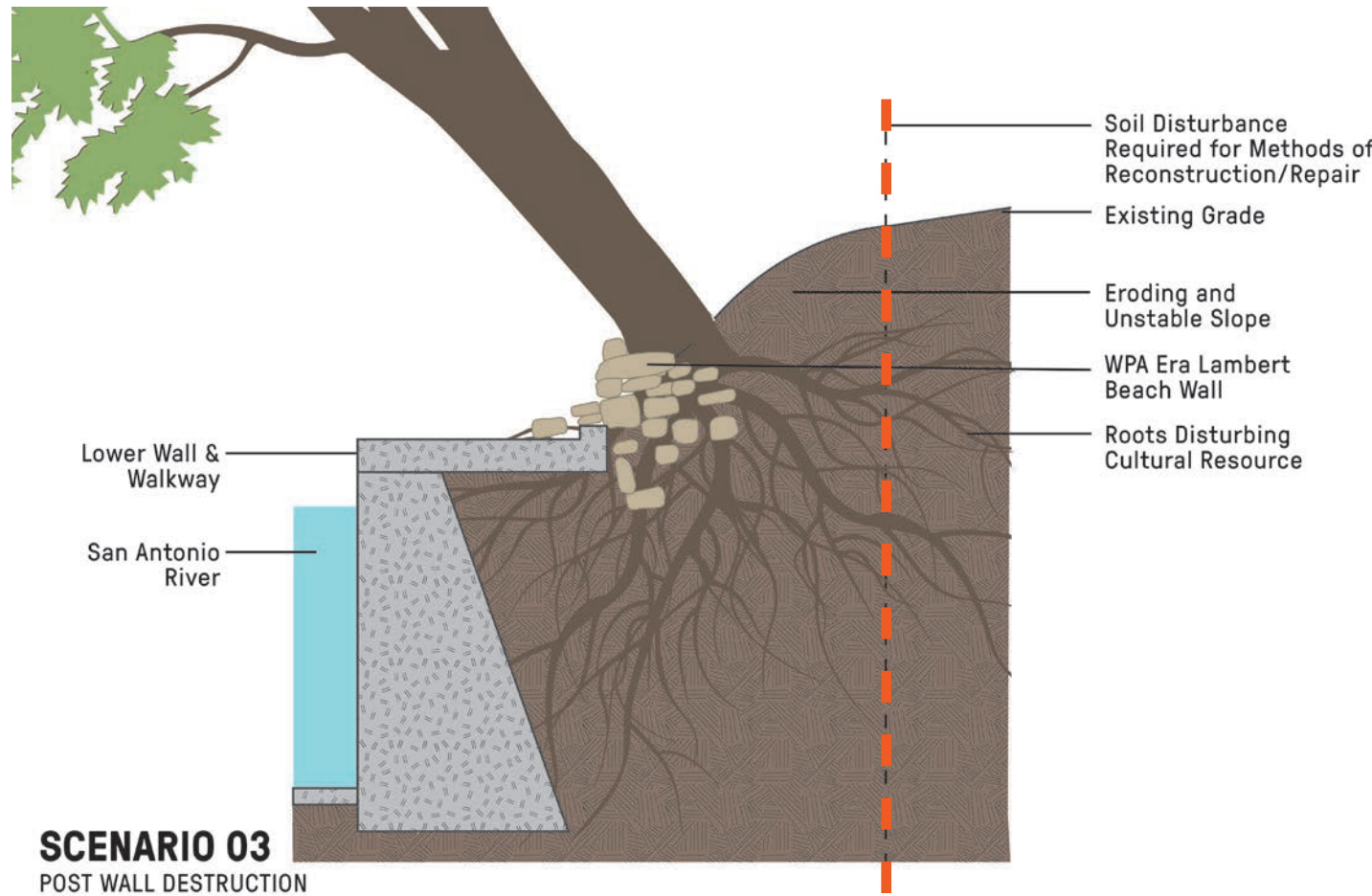
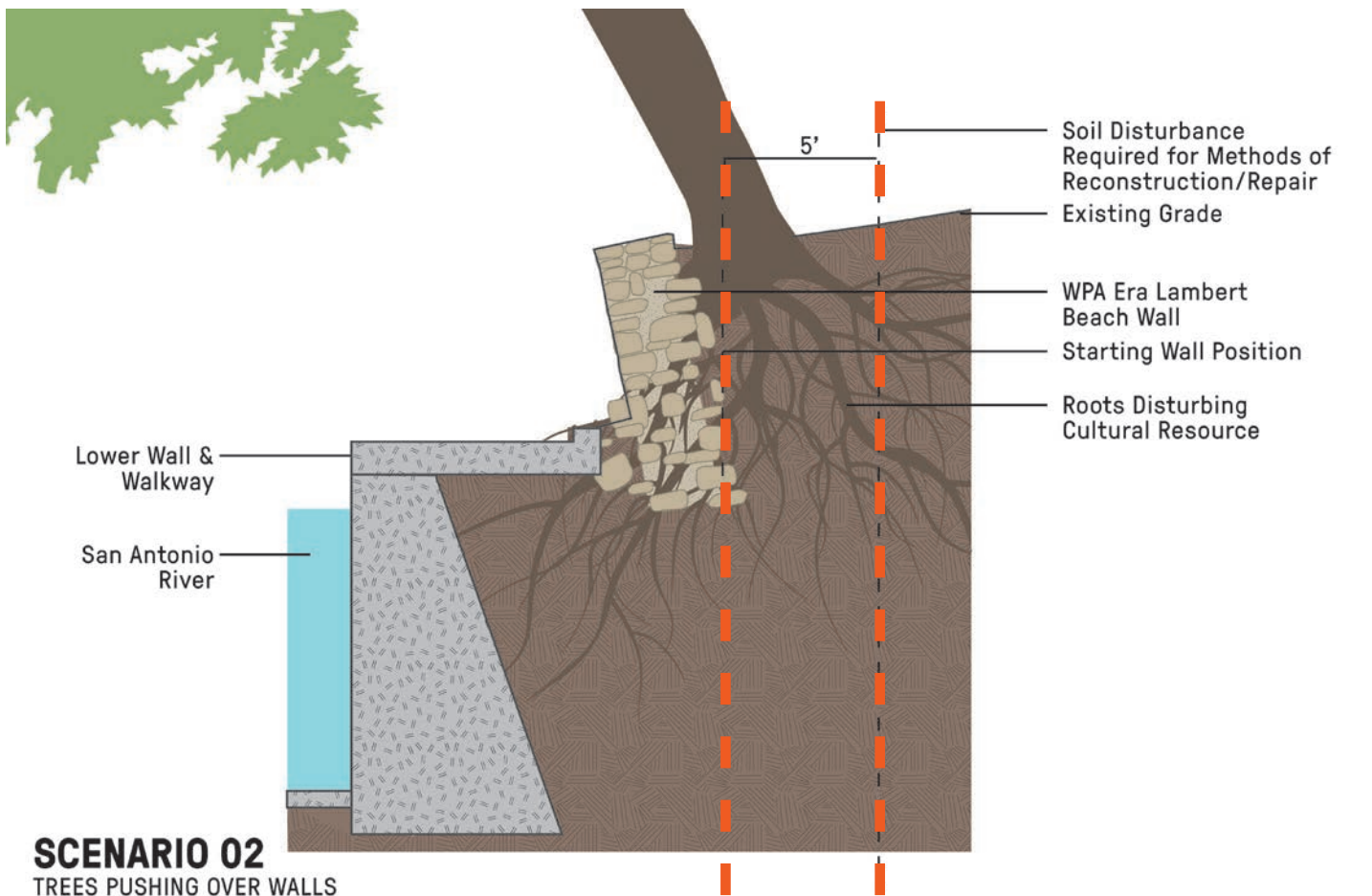
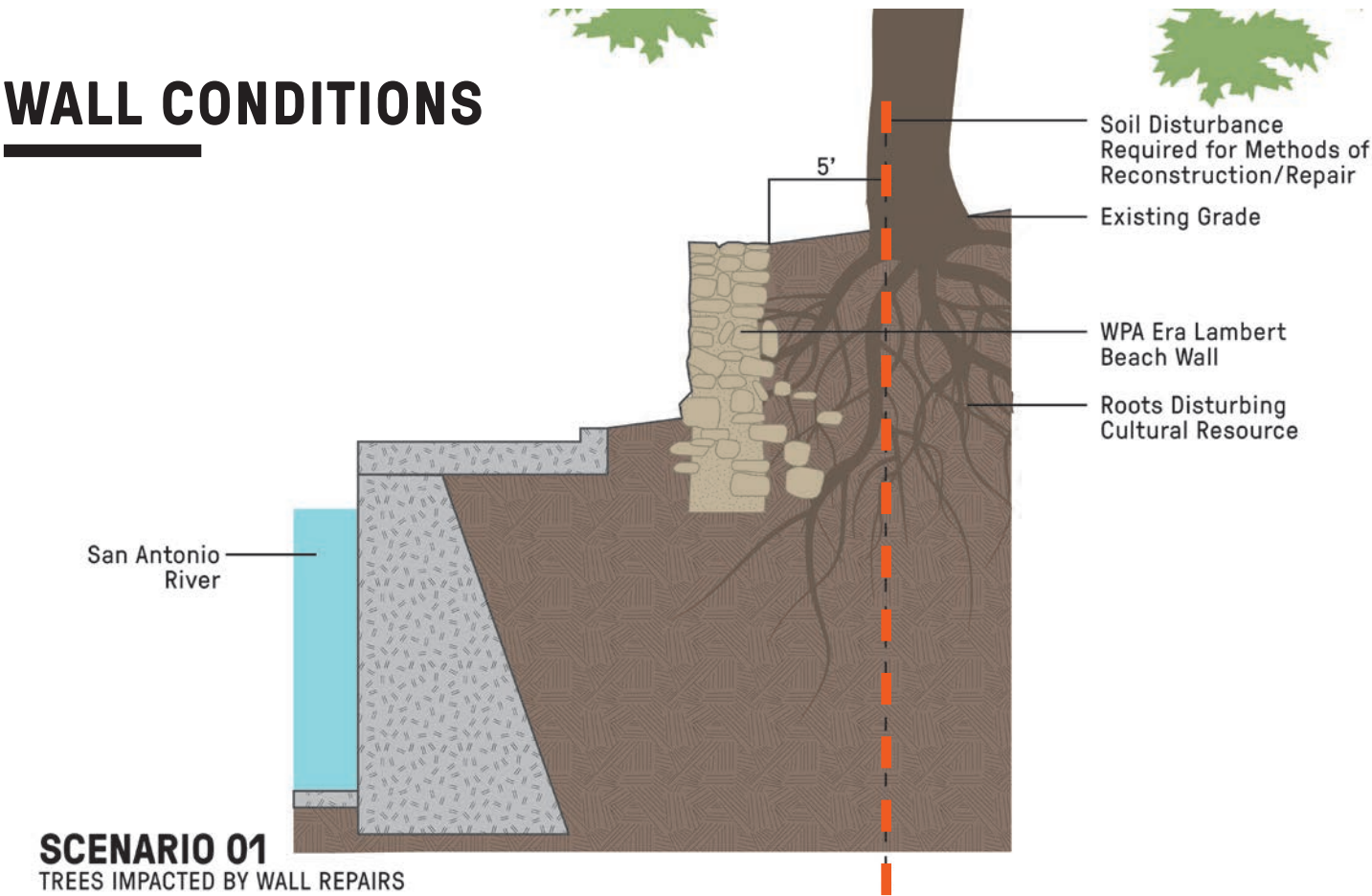
Within Brackenridge Park, the San Antonio River (a WOUS) is a centerpiece of user activities and contributes to the unique character of the Park. **Any proposed project that occurs at or below the water level of the San Antonio River will trigger review under Section 404.** Brackenridge Park is listed as a State Antiquities Landmark (SAL) and is in the National Register of Historic Places (NRHP) as a Historic District. **In an effort to streamline the federal permit review process, environmental process and overall project budget and schedule, the PA standardizes the review process by providing procedures that satisfactorily take into account the effect of Brackenridge Park maintenance, repairs, and stabilization projects on historic properties.** With the execution of this PA, it enables the regulatory agencies to streamline cultural resources studies, and expedites the permitting process to allow future Brackenridge Park projects to be constructed in an expeditious manner.

For projects that are unusual or complex and exceed the stipulations of the PA, a separate MOA will be required.

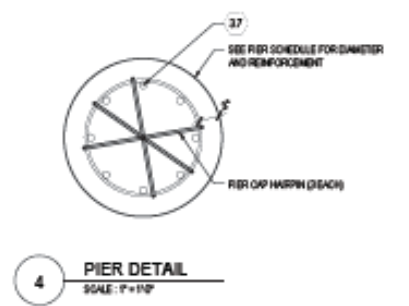
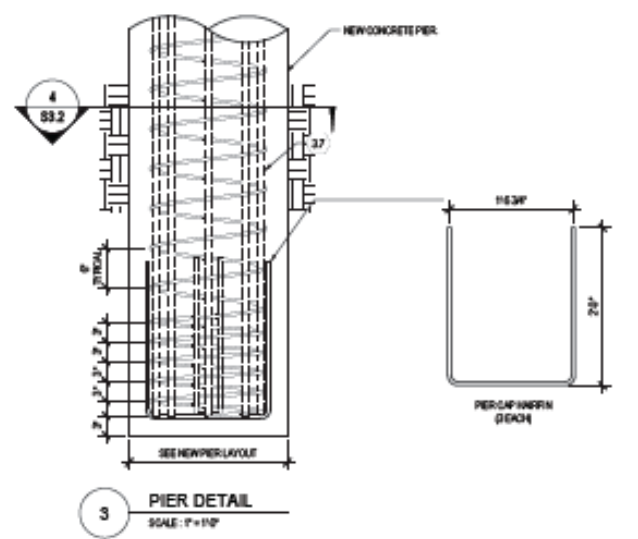
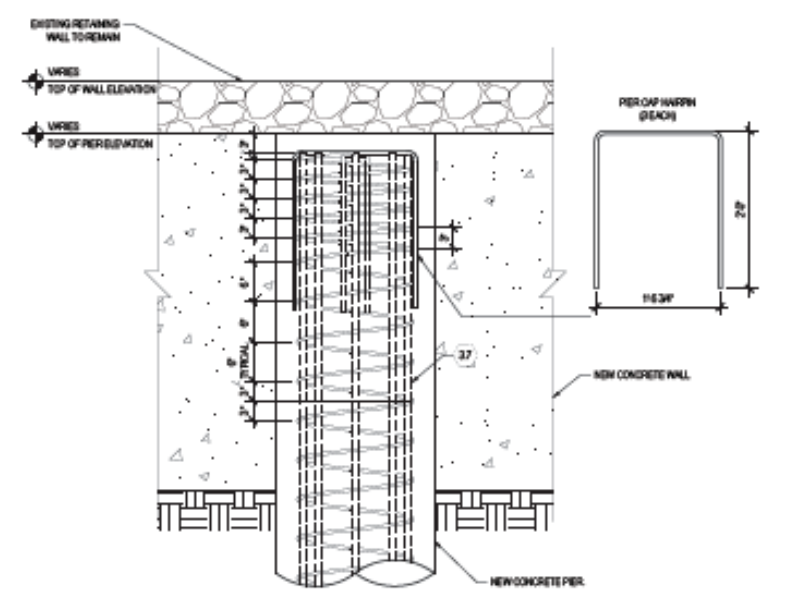
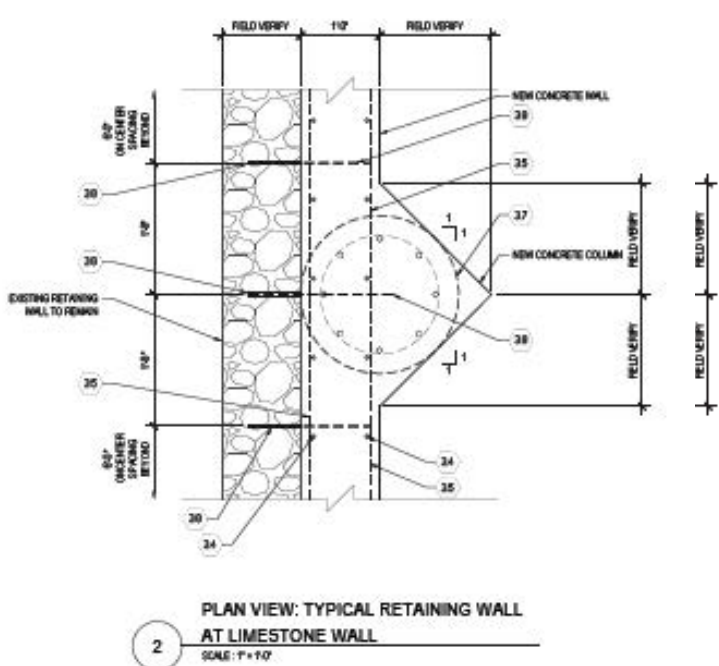
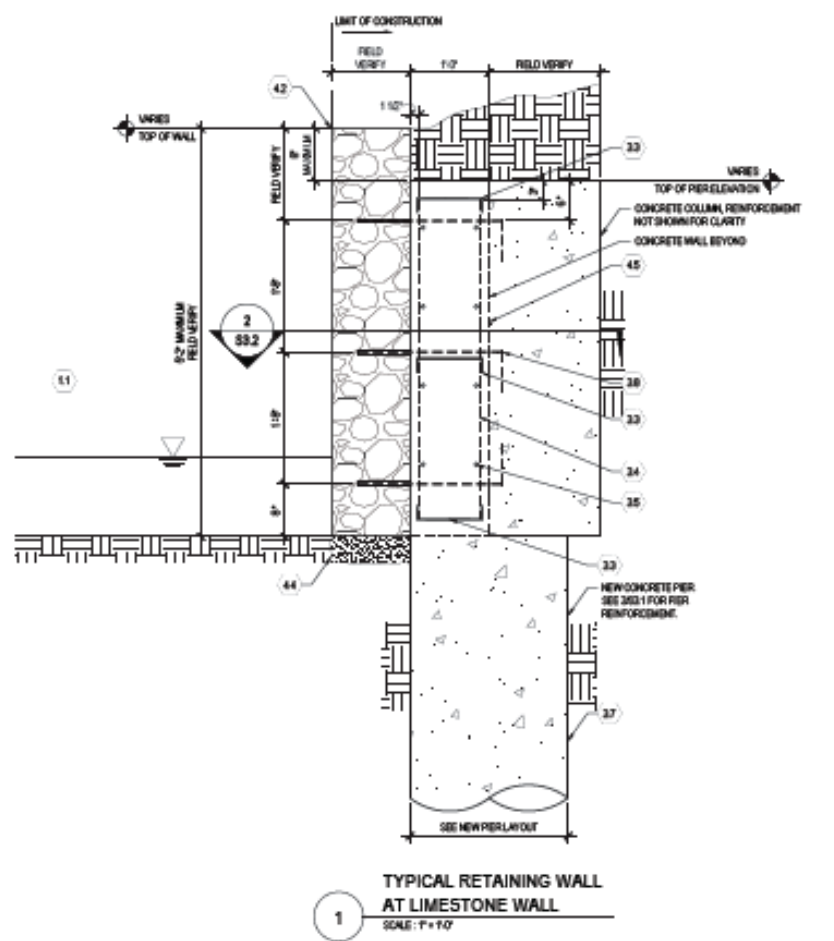
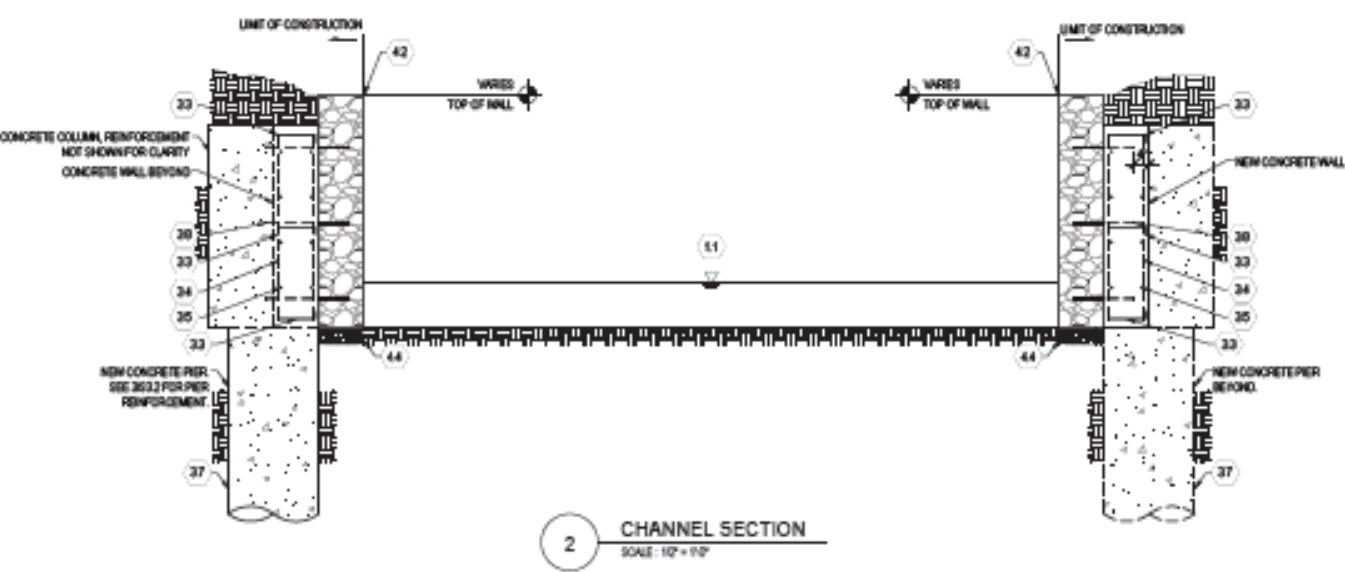
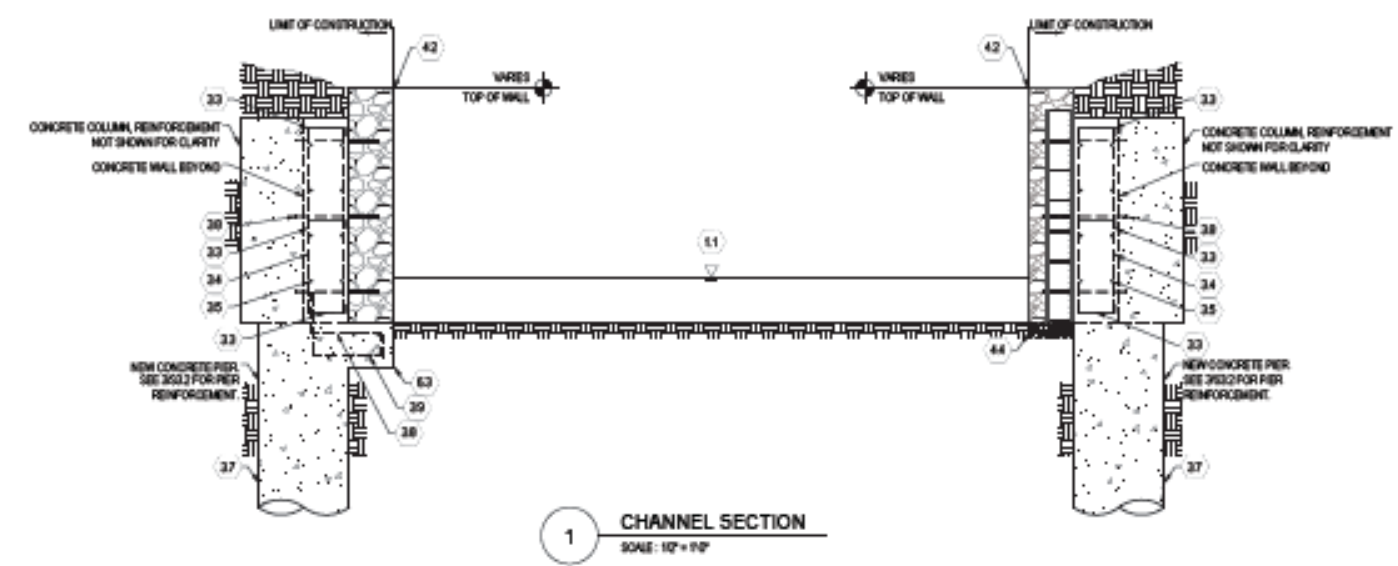
The PA streamlines the process by having procedures in place that already have the consent of stakeholders. The predetermined requirements outlined in the PA will help guide the project development process to avoid or minimize possible impacts to resources.

STRUCTURAL DETAIL STUDY

WALL CONDITIONS



ALTERNATIVE STRUCTURAL STRATEGY : PIER AND SPANDREL SYSTEM



ALTERNATIVE STRUCTURAL STRATEGY : PIER AND SPANDREL SYSTEM

PROS

- MORE ROBUST SYSTEM
 - DEEPER FOUNDATION OFFERS GREATER STABILITY
- SIMILAR TIMEFRAME TO EXISTING PROPOSED STRATEGY

CONS

- TREE IMPACTS:
 - ROOT SYSTEMS OF TREES WOULD STILL BE DESTROYED DUE TO EXCAVATION REQUIRED
 - EXTENSIVE CANOPY TRIMMING REQUIRED
- CONSTRUCTION ACCESS:
 - HEAVY MACHINE RIG ACCESSIBILITY ISSUES (SLOPES, HISTORIC STRUCTURES, TREES)
 - REQUIRES EXTENSIVE SUPPORT SYSTEM FOR EQUIPMENT WEIGHT
- HISTORIC IMPACTS:
 - ANCHORS THROUGH FRONT OF WALLS DO NOT COMPLY WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION
 - REQUIRES DISMANTLING / REBUILDING OF HISTORIC WALLS AGAINST SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION
- MORE EXPENSIVE COST

TREE RELOCATION STUDY

TREE REMOVAL SUMMARY



TREE REMOVAL

TOTAL TREES WITHIN PROJECT AREA: 83

INITIAL PROPOSED TREE REMOVAL : 70

FINAL PROPOSED TREE REMOVAL : 48

TOTAL HERITAGE TREES REMOVED : 6

TOTAL TREES REMOVED 6" OR LESS : 10

TOTAL TREES BETWEEN 6" AND 24" : 24

INVASIVE SPECIES TO BE REMOVED : 4

DEAD/DYING TREES TO BE REMOVED: 4

RELOCATED TREES : 21

TOTAL TREES PRESERVED IN PLACE : 14

44" LIVE OAK TO BE RELOCATED



PROPOSED PLANTING PLAN

BRAKENRIDGE PLANTING SCHEDULE - PHASE 1

SHADE TREES		
SYM.	Botanical Name	Common Name
QVA	<i>Quercus virginiana</i>	Live Oak

ORNAMENTAL & SMALL TREES		
SYM.	Botanical Name	Common Name
ID	<i>Ilex decidua</i> 'Walter'	Possumhaw
IV	<i>Ilex vomitoria</i>	Yaupon Holly (Upright)
SP	<i>Sophora secundiflora</i>	Texas Mountain Laurel
VR	<i>Viburnum rufidulum</i>	Rusty Blackhaw Viburnum

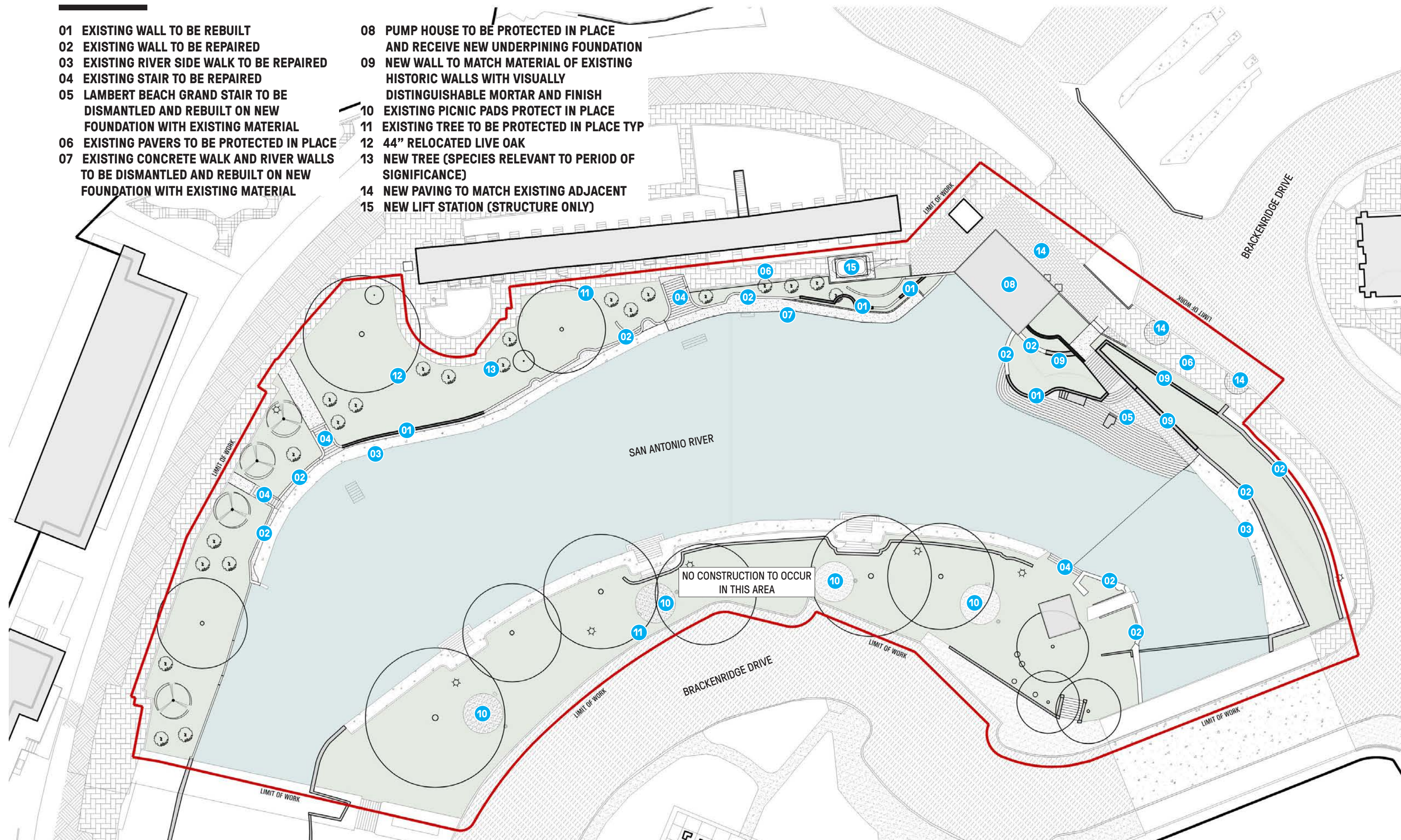


04 // LAMBERT BEACH PLAN

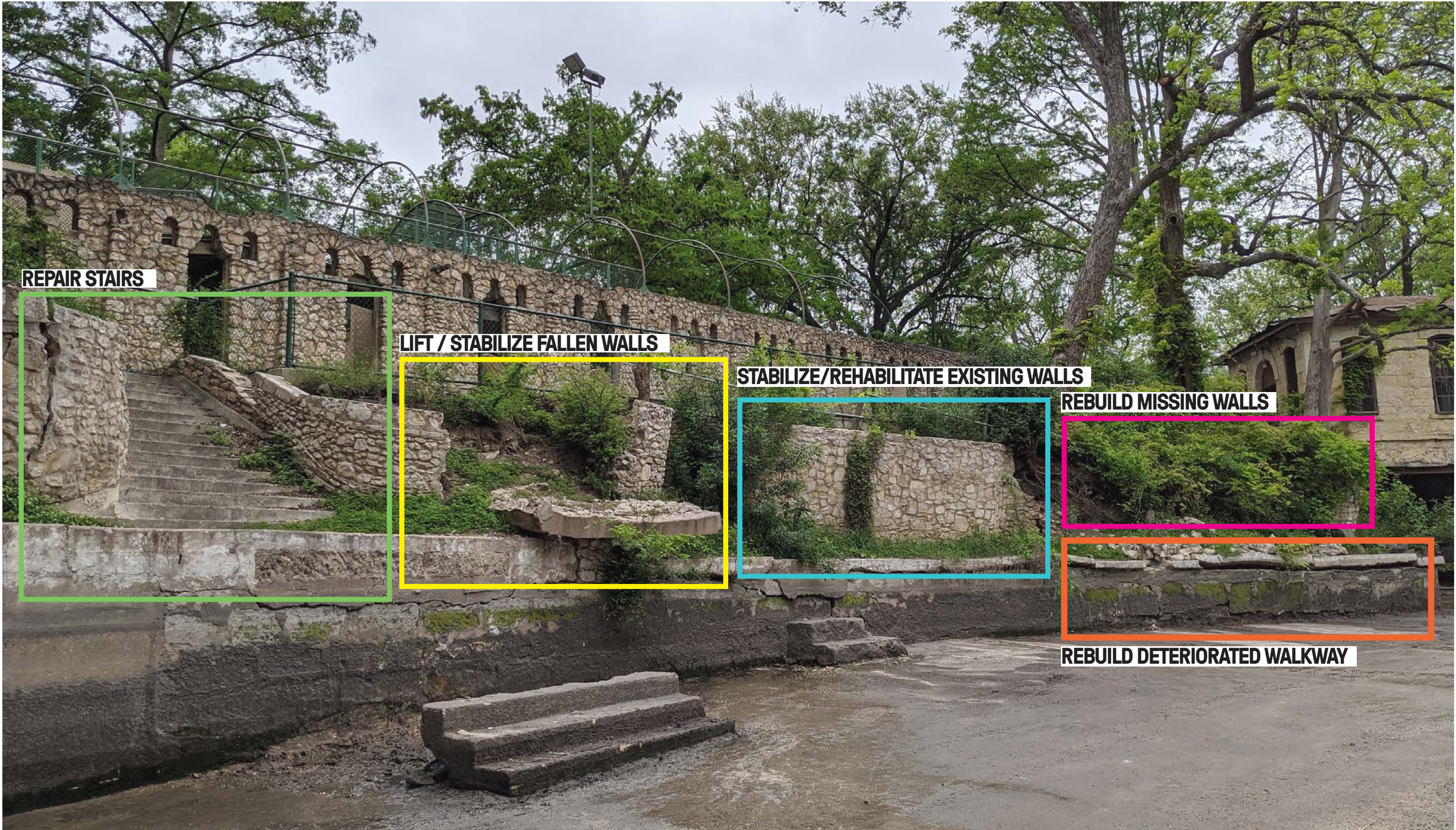
LAMBERT BEACH PLAN

- 01 EXISTING WALL TO BE REBUILT
- 02 EXISTING WALL TO BE REPAIRED
- 03 EXISTING RIVER SIDE WALK TO BE REPAIRED
- 04 EXISTING STAIR TO BE REPAIRED
- 05 LAMBERT BEACH GRAND STAIR TO BE DISMANTLED AND REBUILT ON NEW FOUNDATION WITH EXISTING MATERIAL
- 06 EXISTING PAVERS TO BE PROTECTED IN PLACE
- 07 EXISTING CONCRETE WALK AND RIVER WALLS TO BE DISMANTLED AND REBUILT ON NEW FOUNDATION WITH EXISTING MATERIAL

- 08 PUMP HOUSE TO BE PROTECTED IN PLACE AND RECEIVE NEW UNDERPINNING FOUNDATION
- 09 NEW WALL TO MATCH MATERIAL OF EXISTING HISTORIC WALLS WITH VISUALLY DISTINGUISHABLE MORTAR AND FINISH
- 10 EXISTING PICNIC PADS PROTECT IN PLACE
- 11 EXISTING TREE TO BE PROTECTED IN PLACE TYP
- 12 44" RELOCATED LIVE OAK
- 13 NEW TREE (SPECIES RELEVANT TO PERIOD OF SIGNIFICANCE)
- 14 NEW PAVING TO MATCH EXISTING ADJACENT
- 15 NEW LIFT STATION (STRUCTURE ONLY)



DEWATERED RIVER CHANNEL WALL AND WALK AT PUMP HOUSE



REPAIR STAIRS

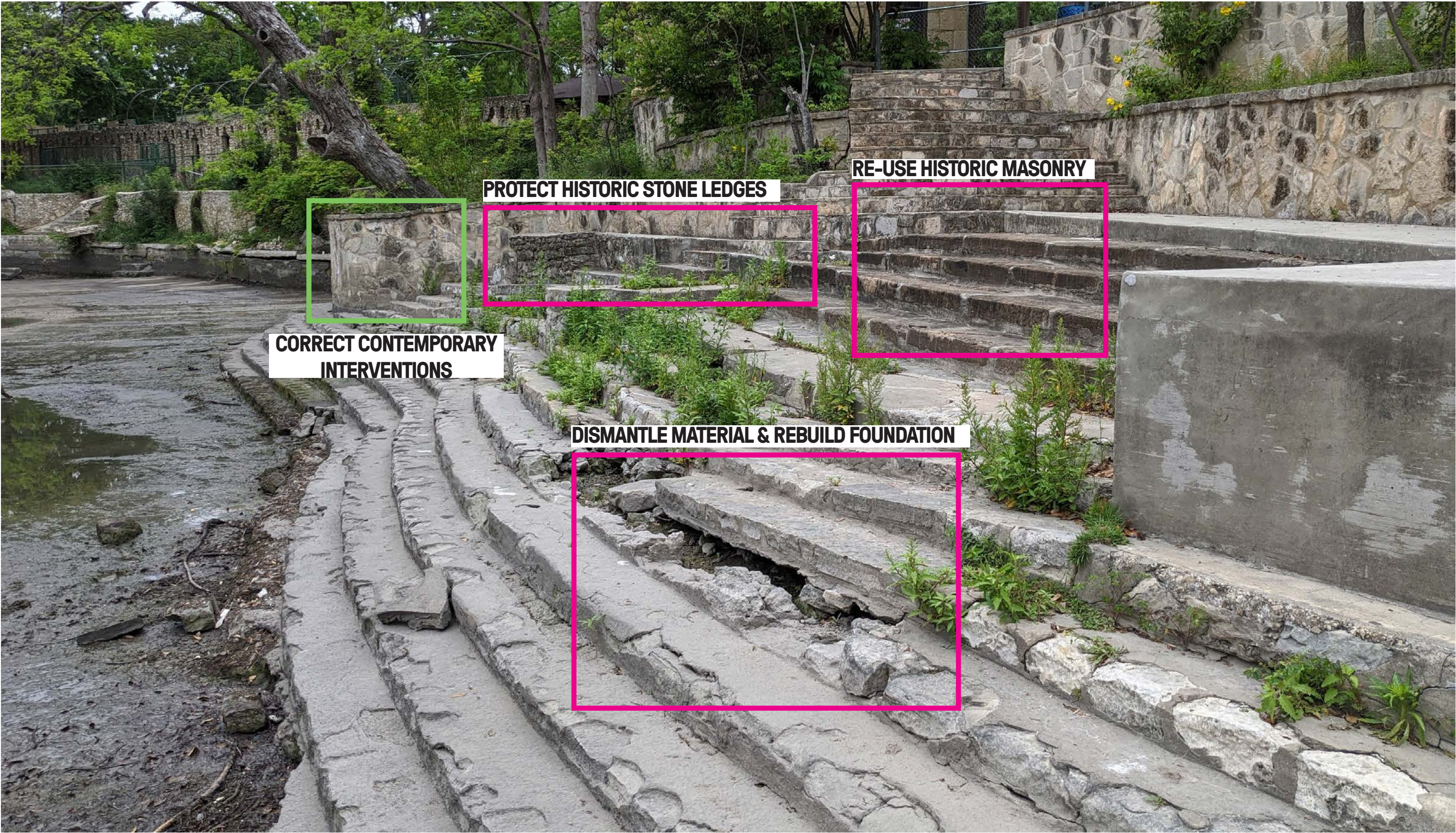
LIFT / STABILIZE FALLEN WALLS

STABILIZE/REHABILITATE EXISTING WALLS

REBUILD MISSING WALLS

REBUILD DETERIORATED WALKWAY

DEWATERED LAMBERT BEACH GRAND STAIR



**CORRECT CONTEMPORARY
INTERVENTIONS**

PROTECT HISTORIC STONE LEDGES

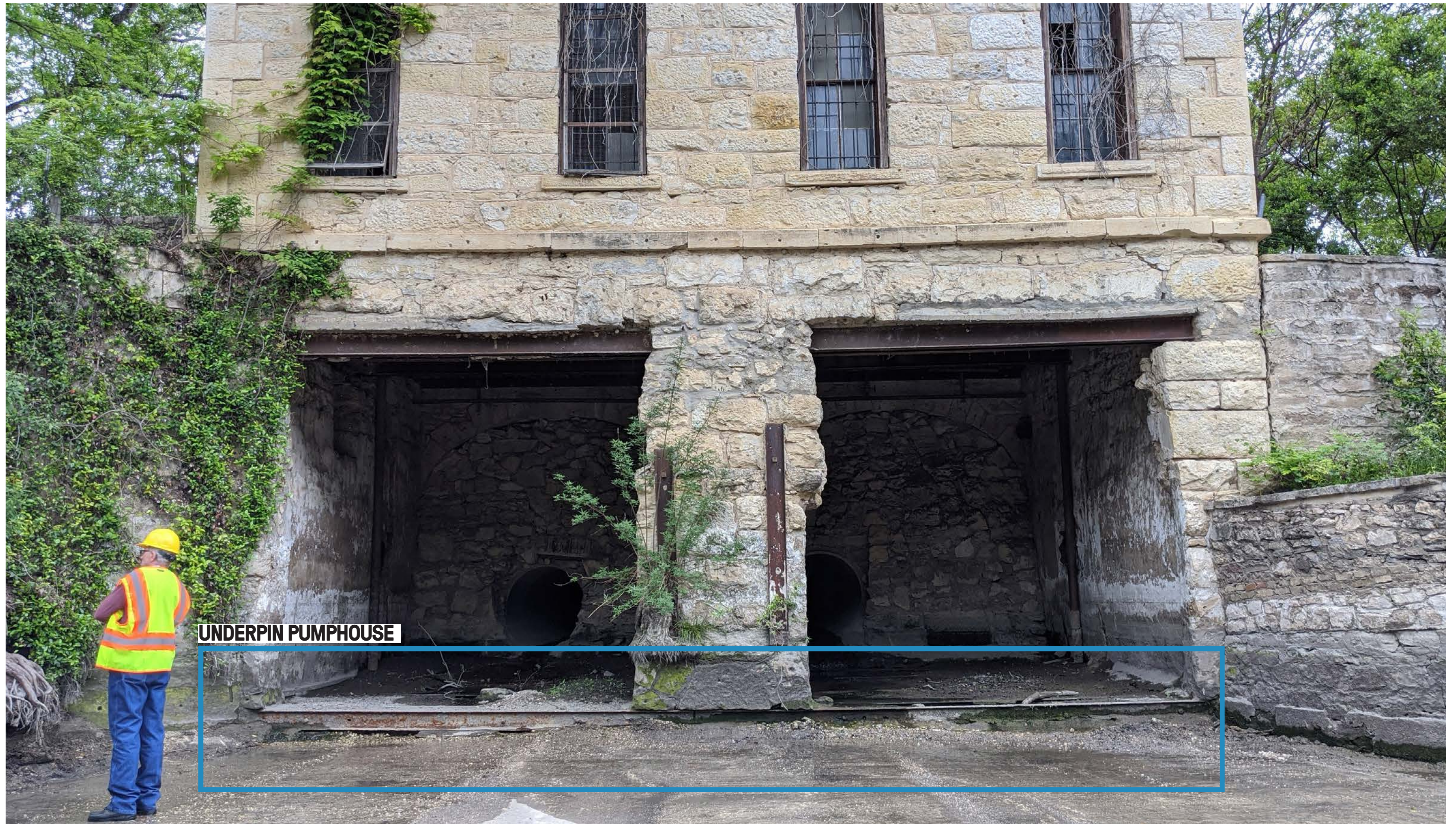
RE-USE HISTORIC MASONRY

DISMANTLE MATERIAL & REBUILD FOUNDATION

VOLUNTEER TREES AT BASE OF DEWATERED LAMBERT BEACH WALL



DEWATERED RIVER LEVEL FLOOR OF PUMP HOUSE

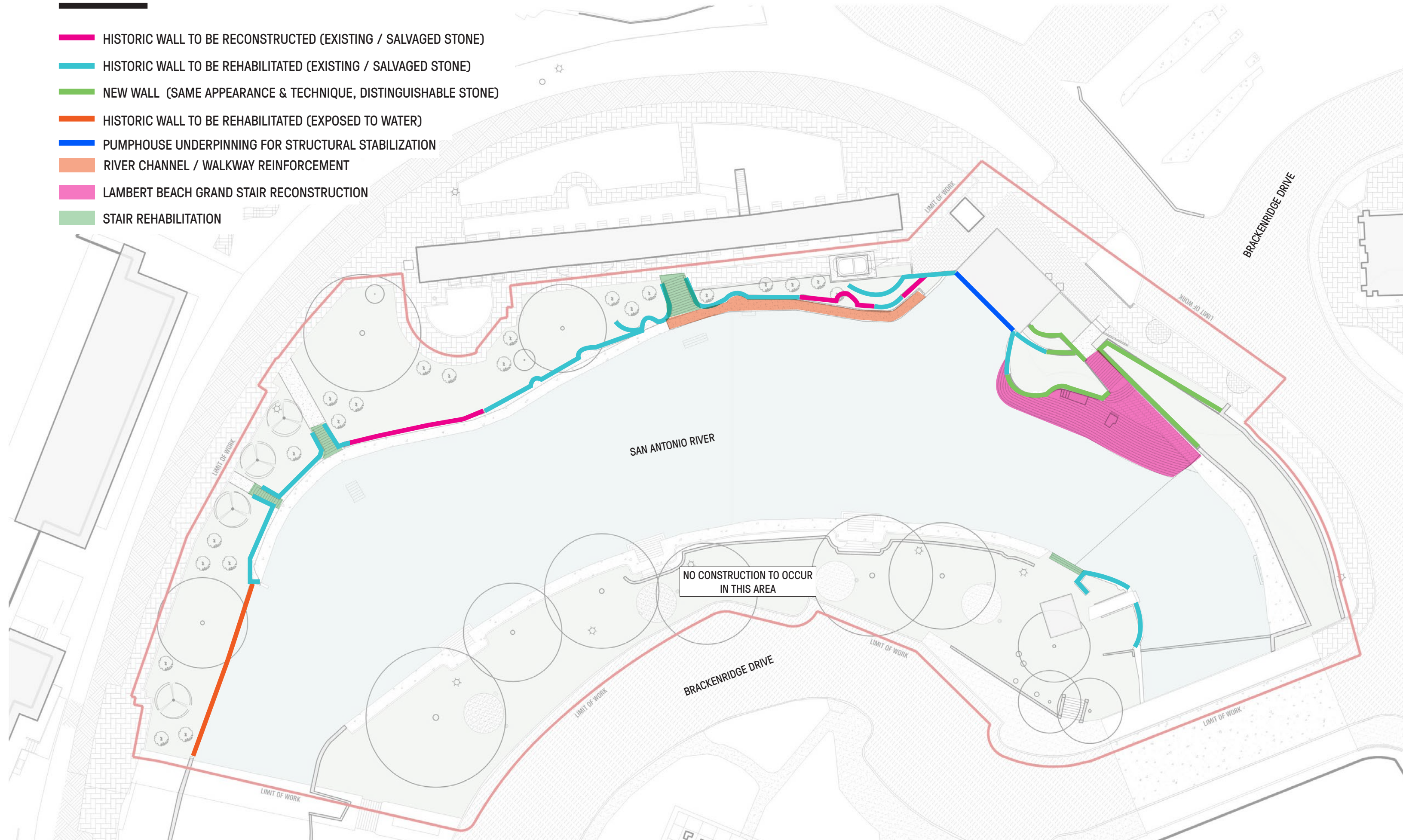


UNDERPIN PUMPHOUSE

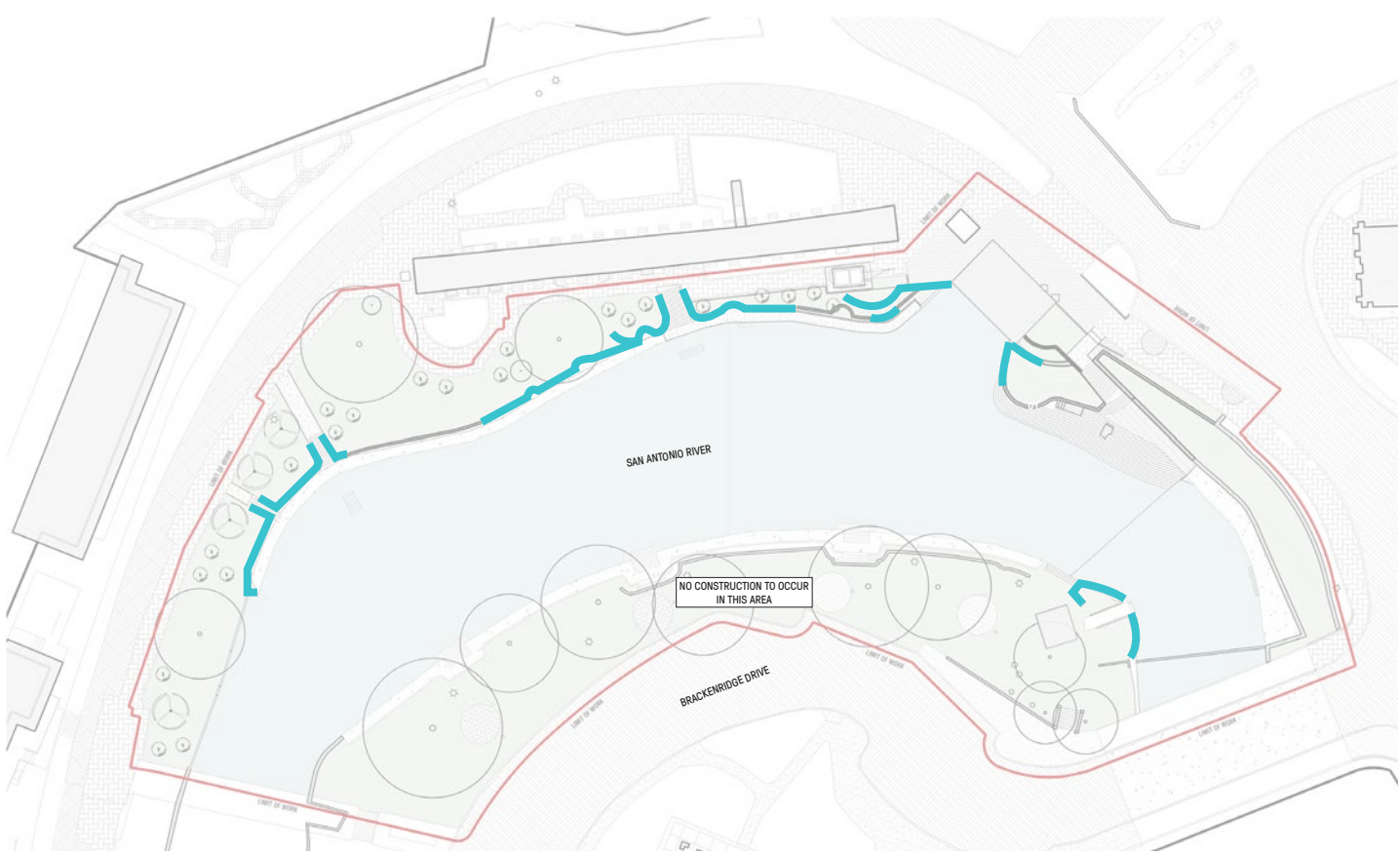
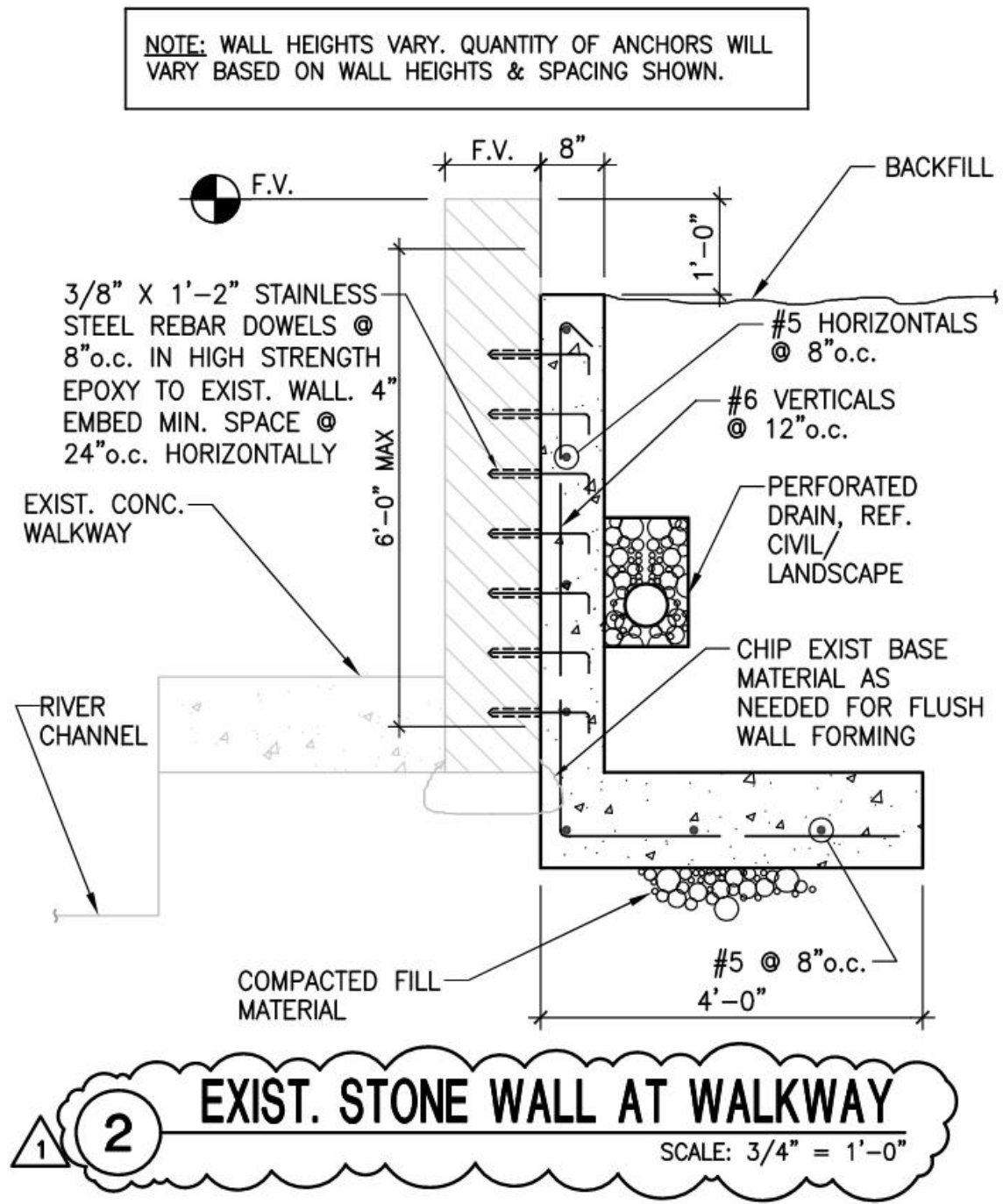
06 // PROPOSED STRUCTURAL DETAILS

REHABILITATION STRATEGY

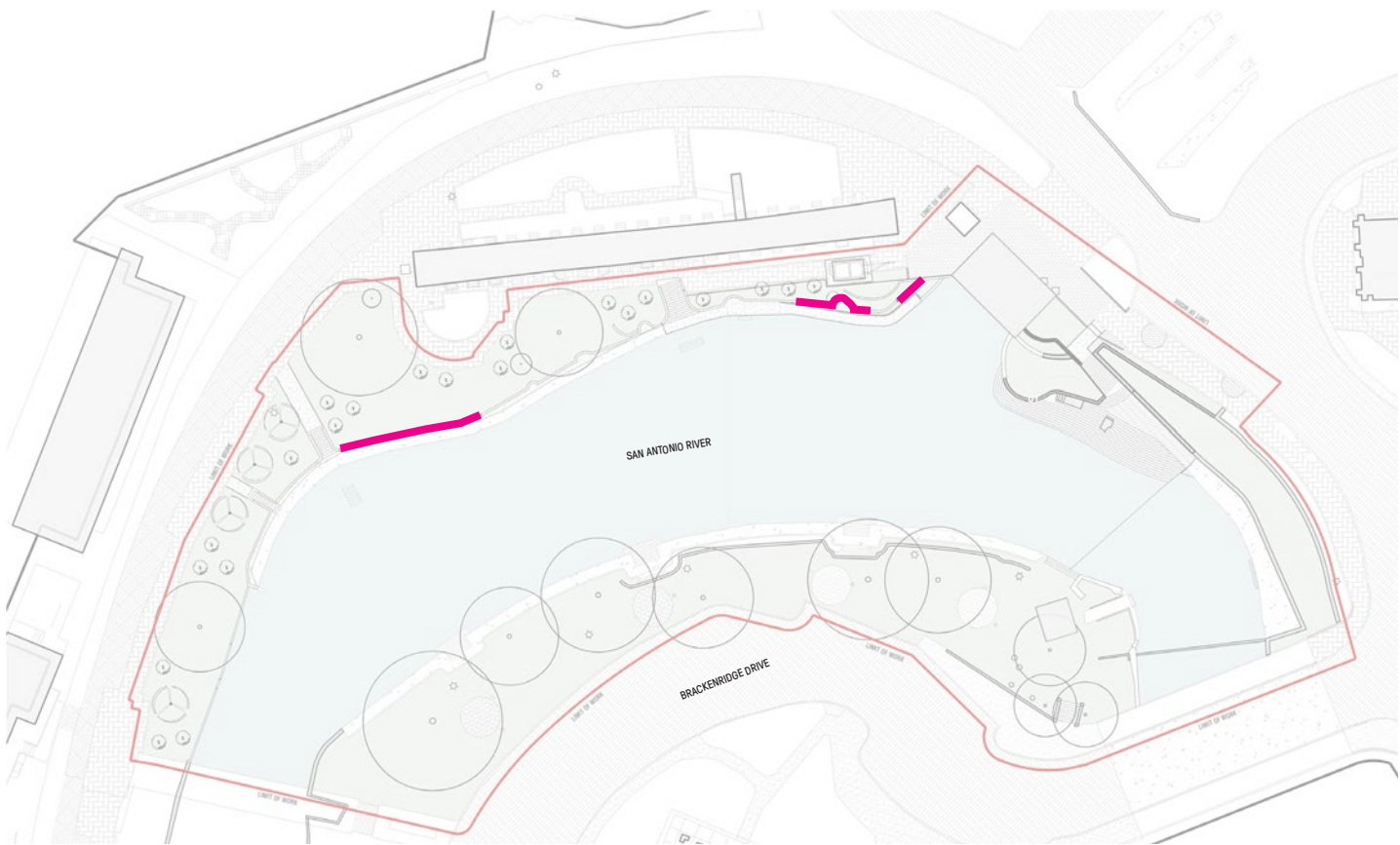
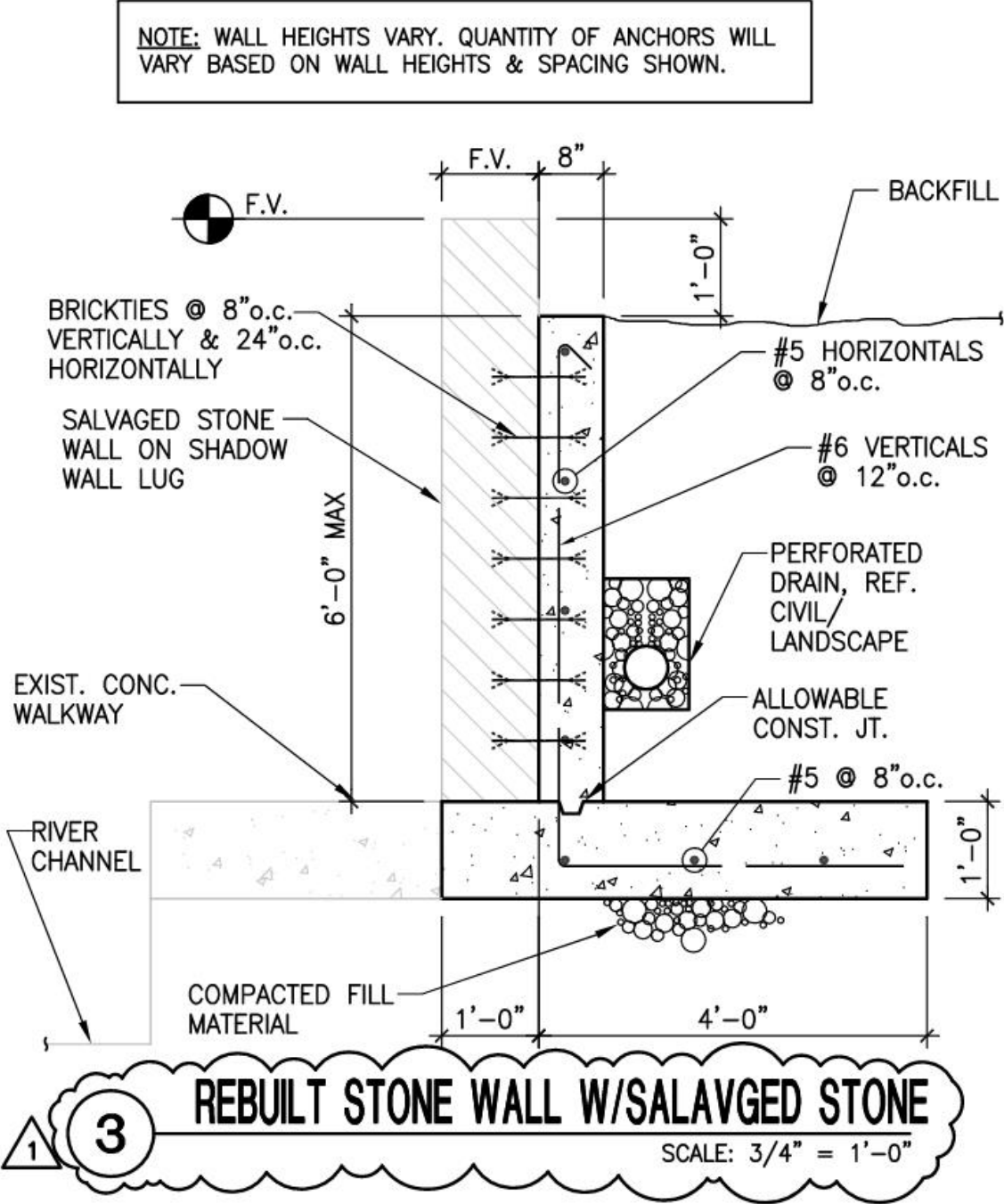
- HISTORIC WALL TO BE RECONSTRUCTED (EXISTING / SALVAGED STONE)
- HISTORIC WALL TO BE REHABILITATED (EXISTING / SALVAGED STONE)
- NEW WALL (SAME APPEARANCE & TECHNIQUE, DISTINGUISHABLE STONE)
- HISTORIC WALL TO BE REHABILITATED (EXPOSED TO WATER)
- PUMPHOUSE UNDERPINNING FOR STRUCTURAL STABILIZATION
- RIVER CHANNEL / WALKWAY REINFORCEMENT
- LAMBERT BEACH GRAND STAIR RECONSTRUCTION
- STAIR REHABILITATION



STRUCTURAL DETAILS : LAMBERT BEACH WALLS

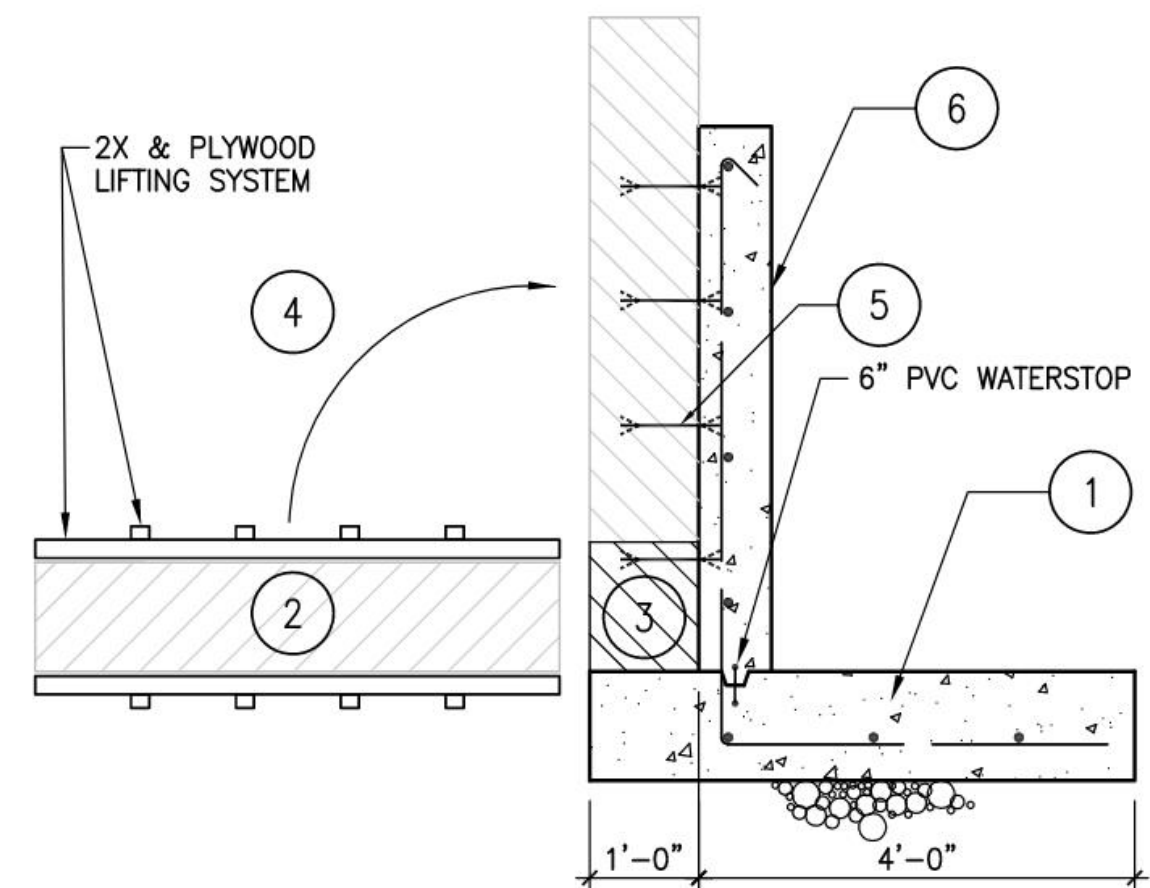


STRUCTURAL DETAILS : LAMBERT BEACH WALLS





STRUCTURAL DETAILS : LAMBERT BEACH WALLS



- 1. FORM AND POUR NEW SHADOW WALL FOOTING.
- 2. SECURE EXISTING WALL IN LIFTING FRAMEWORK.
- 3. REBUILD BASE FOR EXISTING WALL USING RECLAIMED EXISTING MATERIALS
- 4. LIFT EXISTING WALL INTO PLACE.
- 5. SET ANCHORS PER DETAIL 3/S3.00
- 6. FORM & POUR SHADOW WALL REF.3/S3.00

1

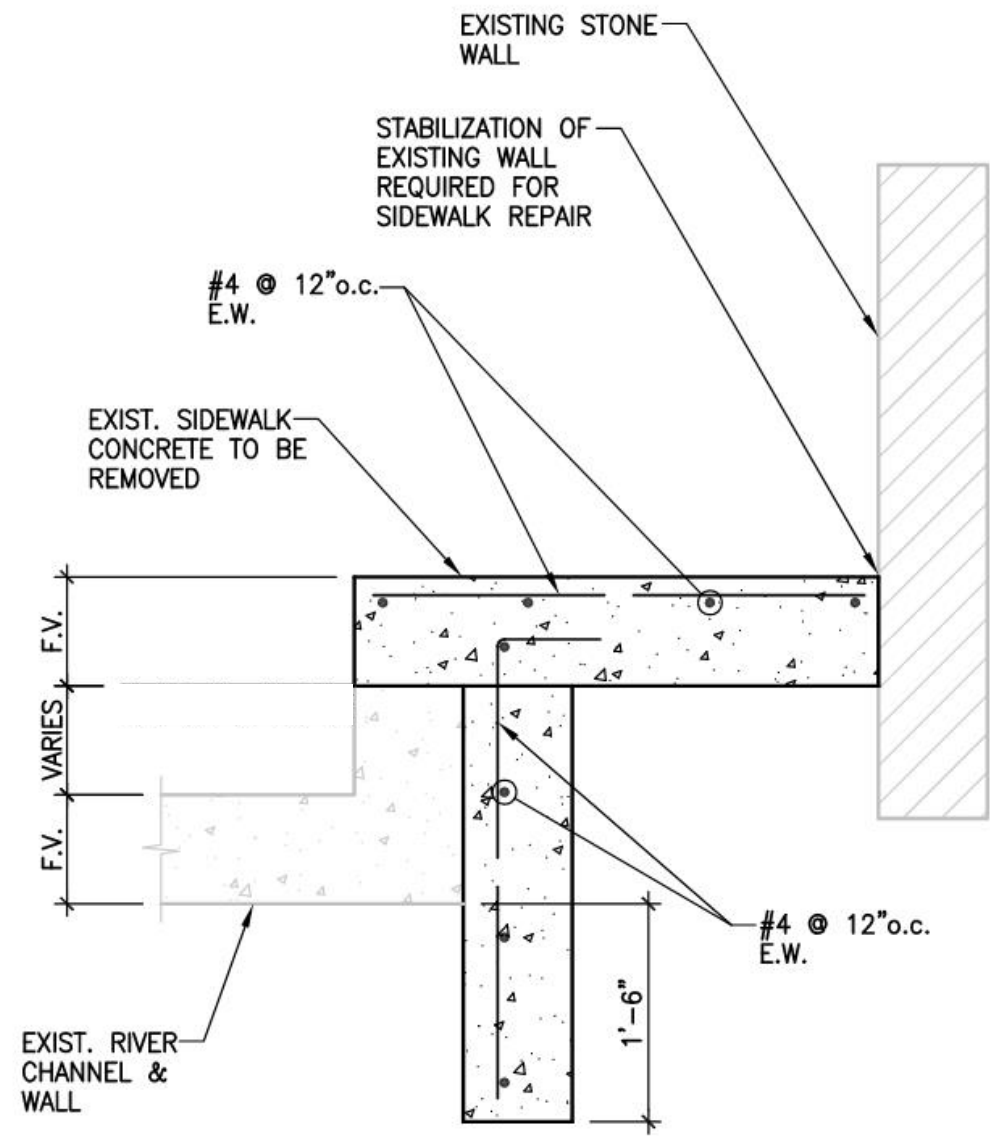
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SALAVAGED WALL LIFTING METHOD

SCALE: 3/4" = 1'-0"



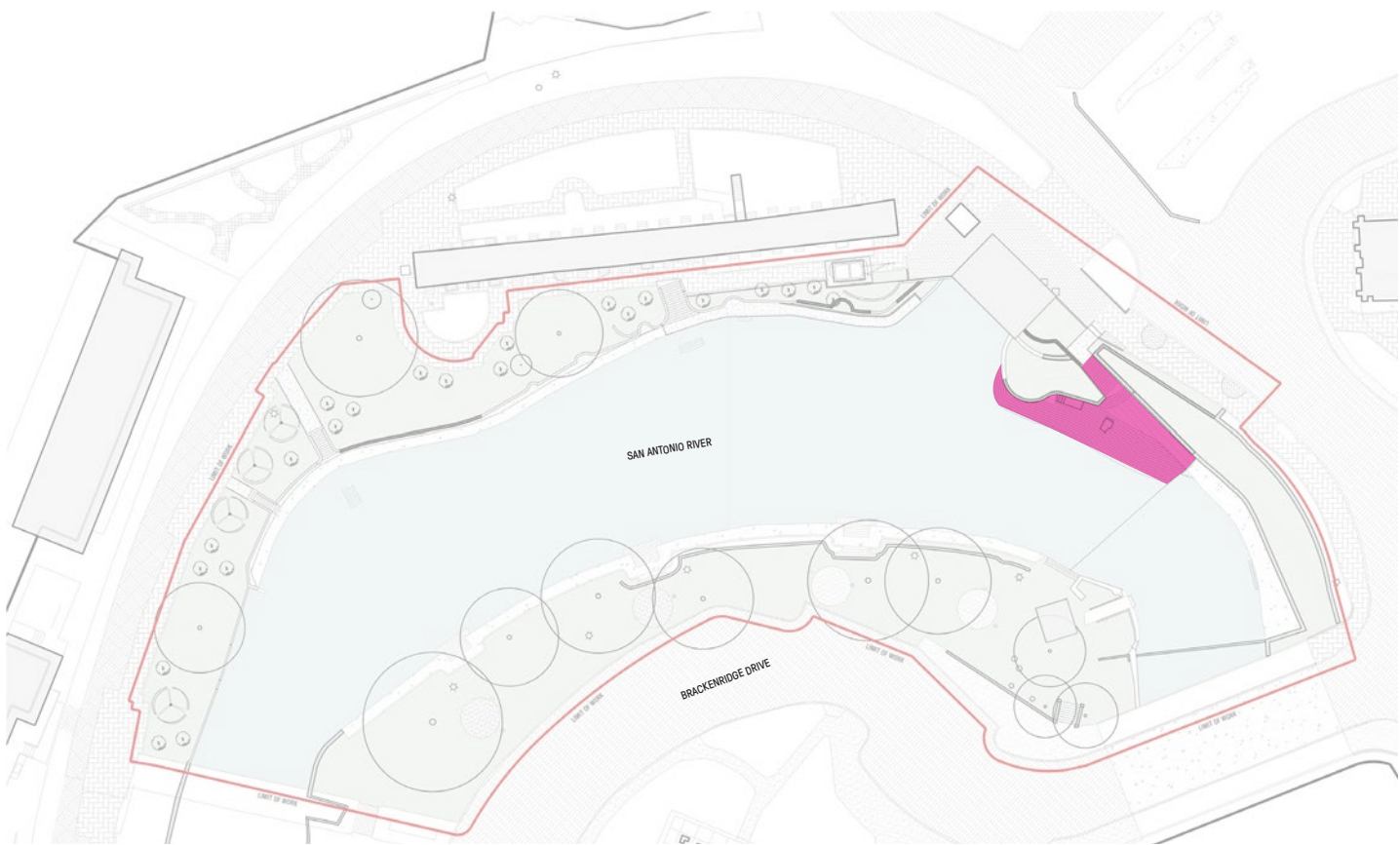
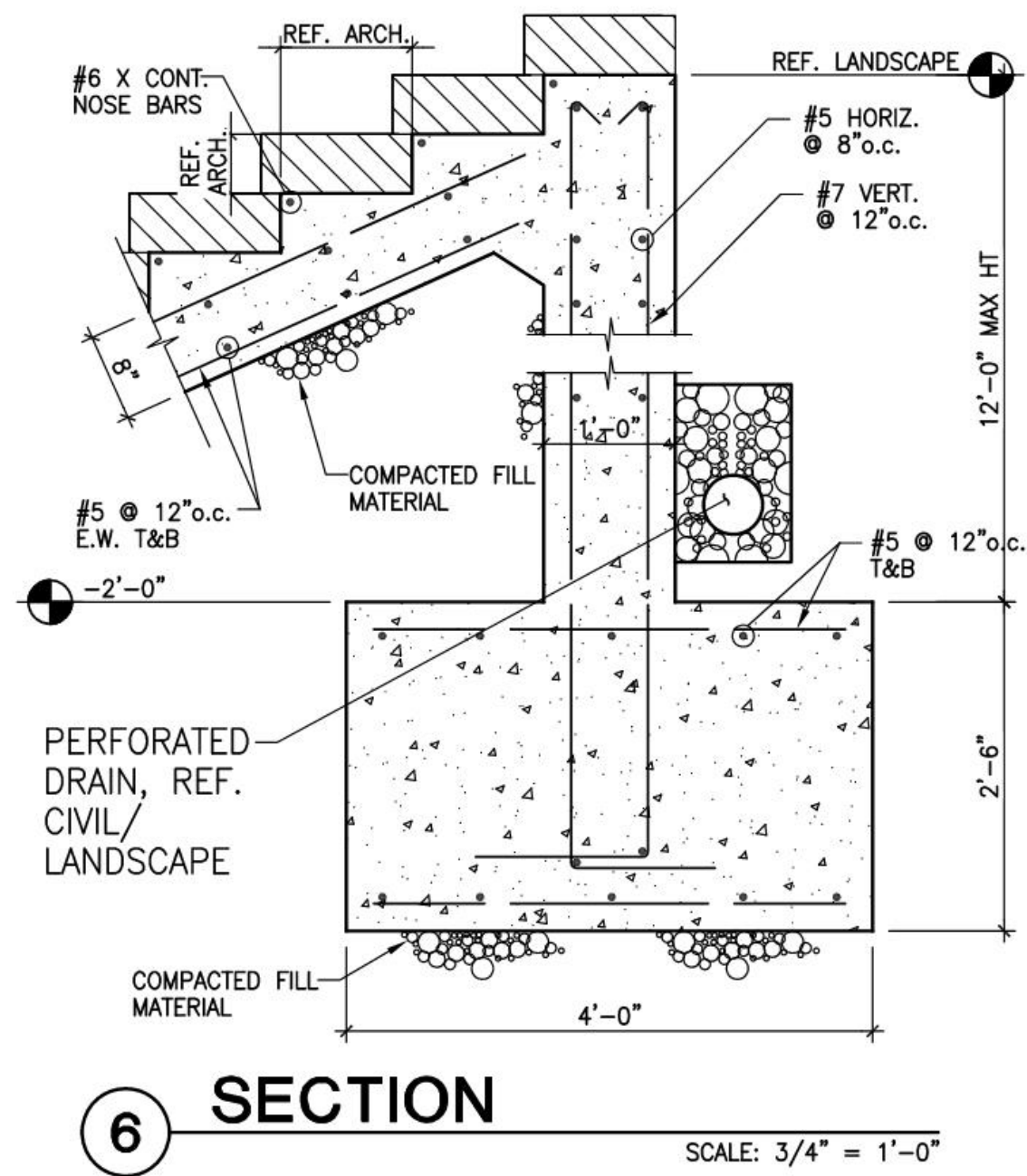
STRUCTURAL DETAILS : LAMBERT BEACH WALLS



10 RIVER CHANNEL WALL REINF. SCALE: 3/4" = 1'-0"



STRUCTURAL DETAILS : LAMBERT BEACH GRAND STAIR



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EXISTING CONDITIONS : LAMBERT BEACH NORTH WALLS

