

## FLOOD PLAIN NOTE:

A portion of the site is located in the 100 year flood plain in Zone "X" according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel No. 48453C0410H, Revised September 26, 2008.

The 100 year flood plain elevation for this site as per City of Austin is 509.81.

## Appendix P-4: SEQUENCE OF CONSTRUCTION

1. Temporary erosion and sedimentation controls are to be installed as indicated on the approved site plan. Install tree protection and initiate tree mitigation measures.
2. The Environmental Project Manager or Site Supervisor must contact the Watershed Protection Department, Environmental Inspection, at 512-974-2278, 72 hours prior to the scheduled date of the required on-site preconstruction meeting.
3. The Environmental Project Manager, and/or Site Supervisor, and/or Designated Responsible Party, and the General Contractor will follow erosion control plan. Temporary erosion and sedimentation controls will be revised, if needed, to comply with City Inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan.
4. All new material will be delivered through work boat/barge and or landough grade the dock area on land.
5. Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the approved site plan.
6. Begin site clearing/construction (or demolition) activities.
7. Complete construction of boat dock in accordance with the approved site plan and start revegetation of the site.
8. Upon completion of the site construction and revegetation of a project site, the design engineer shall submit an engineer's letter of concurrence to the Watershed Protection and Development Review Department indicating that construction, including revegetation, is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate City Inspector.
9. After a final inspection has been conducted by the City Inspector and with approval from the City Inspector, remove the temporary erosion and sedimentation controls and complete any necessary final revegetation resulting from removal of the controls.

## SITE PLAN RELEASE NOTES:

1. All improvements shall be made in accordance with the released site plan.
2. Any additional improvements will require site plan correction and approval.
3. Approval of the site plan does not include building and fire code approval nor building permit approval.
4. Additional electrical easements may be required at a later date.
5. All existing structures shown to be removed will require a demolition permit from the City of Austin Planning and Development Review Department.
6. Prior to issuance of building permit applicant will render a letter sealed by licensed professional stating that all buildings in the floodplain (ie boat docks) adhere to the provision of ASCE 24-Flood Resistant design and construction.
7. Some work on this project is to be accomplished via barge and some by land, spoils and staging area shown on Site Plan sheet.
8. A business or living quarter may not be constructed on a pier or similar structure extending into Lake Austin except under a license agreement approved by city council. LDC 25-2-1176(H)
9. Approval of these plans by the City of Austin indicates compliance with applicable City regulations only. Approval by other governmental entities may be required prior to the start of construction. The applicant is responsible for determining what additional approvals may be necessary.

REVISIONS / CORRECTIONS						
NO.	DESCRIPTION	REVISION (R) ADD (A) VOID (V) SHEET NO.'S	TOTAL # SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.) [X]	CITY OF AUSTIN APPROVAL-DATE

# ILES BOAT DOCK

## 2415 BIG HORN DRIVE

### AUSTIN, TEXAS 78732

LOCATION MAP  
(N.T.S.)

MAPSCO : 491S

## SITE

Existing Shoreline Length: 75.02 L.F.  
Proposed Dock Width 15'

## SHEET INDEX

1. COVER SHEET
2. GENERAL NOTES SHEET
3. SITE PLAN AND EROSION CONTROL PLAN
4. OVERALL HARBOR AREA SITE PLAN
5. ARCHITECTURAL SHEET

SUBMITAL DATE: 6/6/2014

RELATED CASE # C7A-82-002  
C8-69-027

SP-2014-0212DS

Development Permit #

THE DOCK IS AN ACCESSORY USE TO THE  
PRINCIPAL SINGLE FAMILY RESIDENCE AT  
2415 BIG HORN DRIVE PERMIT NUMBER  
2014-072967-BP

Planning and Development Review Department Date

## General Notes:

Dock Contractor: Clint Cunningham  
What's up Dock, Inc.  
P.O. Box 1430  
Dripping Springs, Tx 78620  
512-940-0185

Owner: Denise L. Iles and Thomas E. Iles  
Address: 7605 Rockpoint Cir  
Austin, Texas 78731

Legal Description: Lot 659 Apache Shores Sec 2  
Recorded in Volume 48, page 58, T.C.P.R.  
Warranty Deed Doc # 2013019705TR

Lot Address: 2415 Big Horn Drive  
Austin, Texas 78734

Watershed: Lake Austin

Watershed Classification: Water Supply Rural

Zoning: SF-2



APPROVAL STAMP

ADVANCED CONSULTING ENGINEERS

Civil Engineering Consultants, Planners  
5524 BES CAVE ROAD, SUITE 1-4  
AUSTIN, TEXAS 78746  
(512) 444-1739  
www.advengr.comILES BOAT DOCK  
2415 BIG HORN DRIVE  
COVER SHEET

SHEET NO.

1 OF 5

SP-2014-0212DS

# APPENDIX P-1 - EROSION CONTROL NOTES

- The contractor shall install erosion/sedimentation controls and treatational area protective fencing prior to any site preparation work (clearing, grubbing or excavation).
- The placement of erosion/sedimentation controls shall be in accordance with the Environmental Criteria Manual and the approved Erosion and Sedimentation Control Plan. The CCA EDC Plan shall be consulted and used as the basis for a TDCS required SWPPP. If a SWPPP is required, it shall be available for review by the City of Austin Environmental Inspector at all times during construction, including at the Pre-Construction meeting. The checked below contains the basic elements that shall be reviewed and approved by CCA EV Plan Reviewers as well as CCA EV Inspectors.
  - Plan sheets submitted to the City of Austin MUST show the following:
    - Location of flow during grading operations.
    - Location, description, and calculations for all-site flow diversion structures.
    - Areas that will not be disturbed, critical features to be preserved.
    - Delimitation of construction drainage area to each proposed BMP in p, site flow, sediment basin, etc.)
    - Location and type of S&S BMPs for each phase of disturbance.
    - Calculations for BMPs as required.
    - Location and description of temporary sedimentation measures.
    - Location of silt traps, description of handling and disposal of trapped materials, and description of on-site permanent silt disposal area, including size, depth of fill and vegetation procedures.
    - Describe response of construction in a permit to EDC including the following elements:
      - Installation response of activities in a permit to EDC, these elements include, then temporary sedimentation, then permanent, etc.)
      - Project phasing if required (LOC greater than 25 acres)
      - Response of grading operations and activities of temporary stabilization measures to be used
      - Schedule for installing temporary basins to permanent WQ controls
      - Schedule for removal of temporary controls
      - Anticipated maintenance schedule for temporary controls
  - Complete each BMP with one of the following types of BMP activity as described below:
    - 1.1 Alternative disturbed area and prevent natural features and soil
    - 1.2 Control Disturbance during site and through the project
    - 1.3 Stabilize Soil
    - 1.4 Prevent Slopes
    - 1.5 Prevent Storm Drain Inlets
    - 1.6 Stabilize Potentially Disturbed and Sediment Basins
    - 1.7 Reduce Sediment On-Site and Control Sedimenting Practices
    - 1.8 Stabilize Disturbed Construction Area
    - 1.9 Any Additional BMPs
  - Note the location of each BMP on your site map(s).
  - For any structural BMPs, you should provide design specifications and details and refer to them.
  - For more information, see City of Austin Environmental Criteria Manual 1.4.
- The placement of treatational area protective fencing shall be in accordance with the City of Austin standard Notes for Tree and Natural Area Protection and the approved Grading/Tree and Natural Area Plan.
- A pre-construction conference shall be held on-site with the contractor, design Engineer/permit applicant and Environmental Inspector after installation of the erosion/sedimentation controls and treatational area protection measures and prior to beginning any site preparation work. The owner or owner's representative shall notify the Planning and Development Review Department, 974-2278, at least three days prior to the meeting date. CCA approved EDC Plan and TDCS SWPPP (if required) should be reviewed by CCA EV Inspector at this time.
- Any major variation in materials or locations of controls or fences from those shown on the approved plans will require a revision and must be approved by the reviewing Engineer, Environmental Specialist or City Arborist as appropriate. Major revisions must be approved by the Planning and Development Review Department. Minor changes to be made as field revisions to the Erosion and Sedimentation Control Plan may be required by the Environmental Inspector during the course of construction to correct control inadequacies.
- The contractor is required to provide a certified inspector with either a Certified Professional in Erosion and Sediment Control (CPESC), Certified Erosion, Sediment and Stormwater Inspector (CESSMI) or Certified Inspector of Sedimentation and Erosion Control (CISEC) certification to inspect the controls and fences at weekly intervals and after significant rainfall events to ensure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Soil accumulation at controls must be removed when the depth reaches six (6) inches.
- Prior to final acceptance by the City, haul roads and roadway crossings constructed for temporary contractor access must be removed, accumulated sediment removed from the roadway and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved local disposal sites.
- All work must stop if a void in the rock substrate is discovered which is, one square foot in total area, flows debris into the substrate and/or consistently receives water during any rain event. At this time it is the responsibility of the Project Manager to immediately contact a City of Austin Environmental Inspector for further investigation.
- Temporary and Permanent Erosion Control. All disturbed areas shall be restored as noted below.
  - All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil (see Standard Specification Item No. 6013.3(A)). Do not add topsoil within the critical root zone of existing trees. The topsoil shall be composed of 4 parts of soil mixed with 1 part compost, by volume. The compost shall meet the definition of compost as defined by TDCOT Specification Item 181. The soil shall be locally available native soil that meets the following specifications: Shall be free of trash, weeds, deleterious materials, rocks, and debris.
    - 100% shall pass through a 1/2-inch (38-mm) screen
    - Soil to be a loamy material that meets the requirements of the table below in accordance with the USDA textural triangle. Soil known locally as "red death" is not an allowable soil. Textural composition shall meet the following criteria:

Textural Class	Silt/Clay	Maximum
Clay	3%	50%
Silt	10%	50%
Sand	15%	67%

- An owner/engineer may propose use of onsite salvaged topsoil which does not meet the soil texture class required above by providing a soil analysis and a written statement from a qualified professional in soil, landscape architecture, or agronomy indicating the onsite topsoil will provide an equivalent growth media and specifying what, if any, soil amendments are required.
  - Soil amendments shall be worked into the existing onsite topsoil with a disc or tiller to create a well-blended material.
- Topsoil salvaged from the existing site may often be used, but it should meet the same standards as set forth in these standards.

The vegetative stabilization of areas disturbed by construction shall be as follows:

## TEMPORARY VEGETATIVE STABILIZATION:

- From September 15 to March 1, seeding shall be with cool season cover crops (Wheat at 0.5 pounds per 1000 SF, Oats at 0.5 pounds per 1000 SF, Corn at 0.5 pounds per 1000 SF) with a total rate of 1.5 pounds per 1000 SF. Cool season cover crops are not permanent erosion control.
- From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF.
  - Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
  - Hydromulch shall comply with Table 1, below.
  - Temporary erosion control shall be acceptable when the grass has grown at least 1 1/2 inches high with 90% coverage, provided no bare spots larger than 16 square feet exist.
  - When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 1: Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
100% or any blend of wood, cellulose, straw, and/or cotton plant material (except no mulch shall exceed 30% paper)	70% or greater Woodchips/plant material 30% or less Paper or Natural Fibers	6-12 months	Moderate slopes, from flat to 3:1	1500 to 2000 lbs per acre

## PERMANENT VEGETATIVE STABILIZATION:

- From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a height of less than one-half (1/2) inch and the area shall be re-seeded in accordance with 2. below.
- From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.
  - Fertilizer shall be a water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
  - Hydromulch shall comply with Table 2, below.
  - The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one week.
  - Permanent erosion control shall be acceptable when the grass has grown at least 1 1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
  - When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 2: Hydromulching for Permanent Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Organic defibrated fibers 10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	2500 to 4000 lbs per acre (see manufacturers recommendations)
Fiber Reinforced Matrix (FRM)	65% Organic defibrated fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3000 to 4500 lbs per acre (see manufacturers recommendations)

## 10. Developer Information:

Owner: Denise L. Isles and Thomas E. Isles Phone # (512) 914-9939  
Address: 7605 Rockpoint Circle, Austin, Texas 78731

Owner's representative responsible for plan alterations:  
Advanced Consulting Engineers Phone # (512) 444-1739

Person or firm responsible for erosion/sedimentation control maintenance:  
General Contractor Phone # \_\_\_\_\_

Person or firm responsible for treatational area protection maintenance:  
General Contractor Phone # \_\_\_\_\_

- The contractor shall not dispose of surplus excavated material from the site without notifying the Planning and Development Review Department at 974-2278 at least 48 hours prior with the location and a copy of the permit issued to receive the material.

## APPENDIX P-2 REMEDIAL TREE CARE NOTES ACRATATION AND SUPPLEMENTAL NUTRIENT REQUIREMENTS FOR TREES WITHIN CONSTRUCTION AREAS

As a component of an effective remedial tree care program per Environmental Criteria Manual section 3.3.4, preserved trees within the limits of construction may require soil aeration and supplemental nutrients. Soil and/or foliar analysis should be used to determine the need for supplemental nutrients. The City Arborist may require these analyses as part of a comprehensive tree care plan. Soil pH shall be considered when determining the fertilization composition as soil pH influences the tree's ability to uptake nutrients from the soil. If analyses indicate the need for supplemental nutrients, then humate/nutrient solutions with mycorrhizae components are highly recommended. In addition, soil analysis may be needed to determine if organic material or beneficial microorganisms are needed to improve soil health. Materials and methods are to be approved by the City Arborist (512-974-1876) prior to application. The owner or general contractor shall select a fertilization contractor and ensure coordination with the City Arborist. Pre-construction treatment should be applied in the appropriate season, ideally the season preceding the proposed construction. Minimally, areas to be treated include the entire critical root zone of trees as depicted on the City approved plans. Treatment should include, but not limited to, fertilization, soil treatment, mulching, and proper pruning. Post-construction treatment should occur during final revegetation or as determined by a qualified arborist after construction. Construction activities often result in a reduction in soil macro and micro pores and an increase in soil bulk density. To ameliorate the degraded soil conditions, aeration via water and/or air injected into the soil is needed or by other methods as approved by the City Arborist. The proposed nutrient mix specifications and soil and/or foliar analysis results need to be provided to and approved by the City Arborist prior to application (Fax # 512-974-2010). Construction which will be completed in less than 90 days may use materials at a recommended rates. Alternative organic fertilizer materials are acceptable when approved by the City Arborist. Within 7 days after fertilization is performed, the contractor shall provide documentation of the work performed to the City Arborist. Planning and Development Review Department, P.O. Box 1088, Austin, TX 78767. This note should be referenced as item #1 in the Sequence of Construction.

## Special Construction Techniques ECH 2.3.5.4(B)

Prior to excavation within tree driplines or the removal of trees adjacent to other trees that are to remain, make a clean cut between the disturbed and undisturbed root zones with a rock saw or similar equipment to minimize root damage.

In critical root zone areas that cannot be protected during construction with fencing and where heavy vehicular traffic is anticipated, cover those areas with a minimum of 12 inches of organic mulch to minimize soil compaction. In areas with high soil plasticity Geotextile fabric, per standard specification 6202, should be placed under the mulch to prevent excessive mixing of the soil and mulch. Additionally, material such as plywood and metal sheets, could be required by the City Arborist to minimize root impacts from heavy equipment. Once the project is completed, all materials should be removed, and the mulch should be reduced to a depth of 3 inches.

Perform all grading within critical root zone areas by hand or with small equipment to minimize root damage.

Water all trees most heavily impacted by construction activities deeply once a week during periods of hot, dry weather. Spray tree crowns with water periodically to reduce dust accumulation on the leaves. When installing concrete adjacent to the root zone of a tree, use a plastic vapor barrier behind the concrete to prohibit leaching of lime into the soil.

## APPENDIX P-2 CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION

- All trees and natural areas shown on plan to be preserved shall be protected during construction with temporary fencing.
- Protective fences shall be erected according to City of Austin Standards for Tree Protection.
- Protective fences shall be installed prior to the start of any site preparation work (clearing, grubbing or grading), and shall be maintained throughout all phases of the construction project.
- Erosion and sedimentation control barriers shall be installed or maintained in a manner which does not result in soil build-up within tree drip lines.
- Protective fences shall surround the trees or group of trees, and will be located at the outermost limit of branches (drip line), for natural areas, protective fences shall follow the limit of Construction line, in order to prevent the following:
  - Soil compaction in the root zone area resulting from vehicular traffic or storage of equipment or materials)
  - Root zone disturbances due to grade changes (greater than 6 inches cut or fill), or trenching not reviewed and authorized by the City Arborist)
  - Wounds to exposed roots, trunk or limbs by mechanical equipment)
  - Other activities detrimental to trees such as chemical storage, cement truck cleaning, and fires.
- Exceptions to installing fences at tree drip lines may be permitted in the following cases:
  - Where there is to be an approved grade change, impermeable paving surface, tree well, or other such site development, erect the fence approximately 2 to 4 feet beyond the area disturbed;
  - Where permeable paving is to be installed within a tree's drip line, erect the fence at the outer limits of the permeable paving area (prior to site grading so that this area is graded separately prior to paving installation to minimize root damage);
  - Where trees are close to proposed buildings, erect the fence to allow 6 to 10 feet of work space between the fence and the buildings;
  - Where there are severe space constraints due to tract size, or other special requirements, contact the City Arborist at 974-1876 to discuss alternatives.
- Special Note for the protection of natural areas, no exceptions to installing fences at the Limit of Construction line will be permitted.
- Where any of the above exceptions result in a fence being closer than 4 feet to a tree trunk, protect the trunk with strapped-on plankings to a height of 6 ft (or to the limits of lower branching) in addition to the reduced fencing provided.
- Trees approved for removal shall be removed in a manner which does not impact trees to be preserved.
- Any roots exposed by construction activity shall be pruned flush with the soil. Backfill root areas with good quality top soil as soon as possible. If exposed root areas are not backfilled within 2 days, cover them with organic material in a manner which reduces soil temperature and minimizes water loss due to evaporation.
- Any trenching required for the installation of landscape irrigation shall be placed as far from existing tree trunks as possible.
- No landscape topsoil dressing greater than 4 inches shall be permitted within the drip line of trees. No soil is permitted on the root flare of any tree.
- Pruning to provide clearance for structures, vehicular traffic and equipment shall take place before damage occurs (ripping of branches, etc.).
- All finished pruning shall be done according to recognized, approved standards of the industry (Reference the National Arborist Association Pruning Standards for Shade Trees available on request from the City Arborist).
- Deviations from the above notes may be considered ordinance violations if there is substantial non-compliance or if a tree sustains damage as a result.

## ADVANCED CONSULTING ENGINEERS

Civil Engineering Consultants, Planners

5524 BEE CAYE ROAD, SUITE 1-4  
AUSTIN, TEXAS 78746

(512) 444-1739



ILES BOAT DOCK  
2415 BIG HORN DRIVE  
GENERAL NOTES SHEET

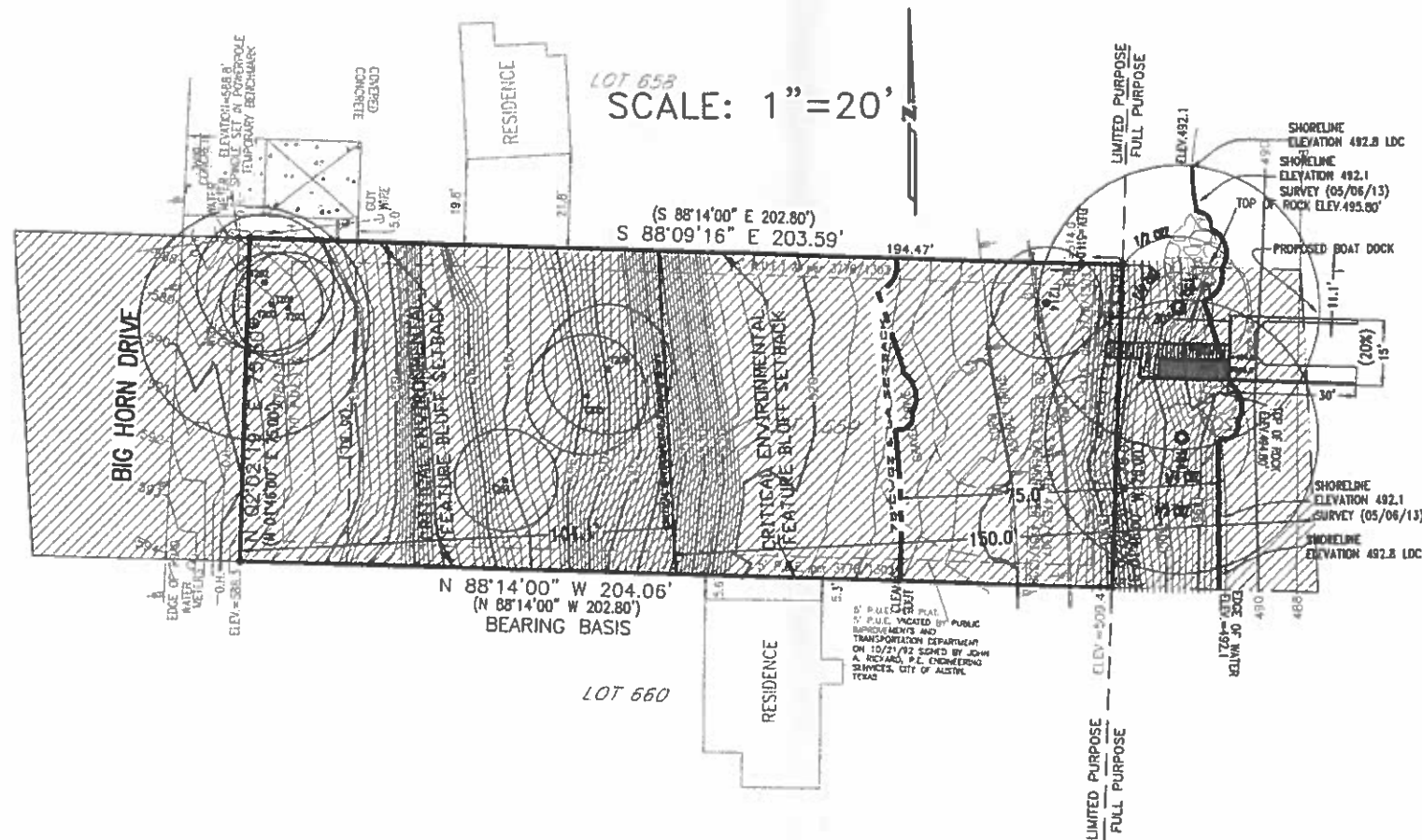
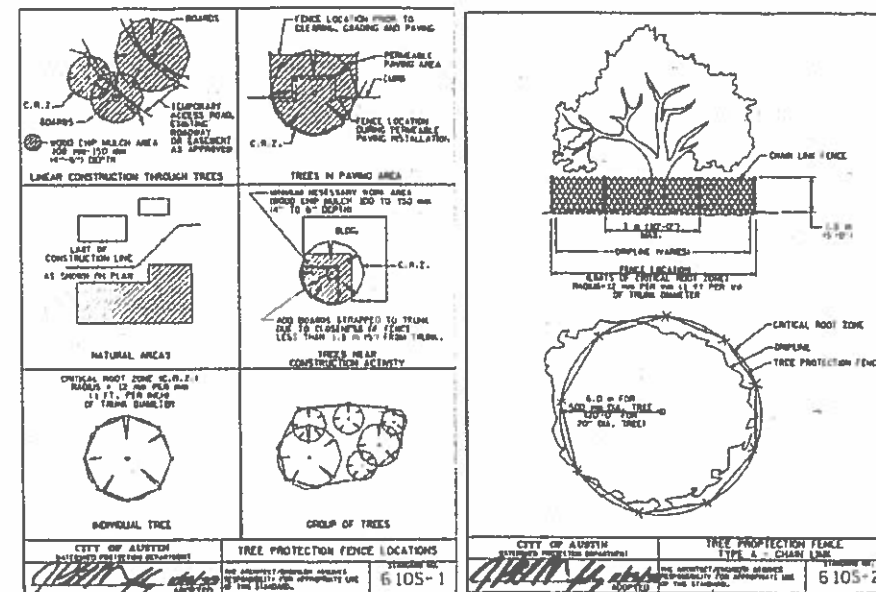
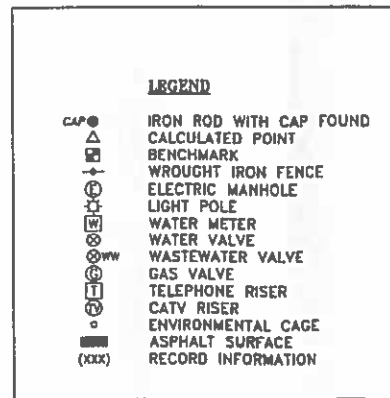
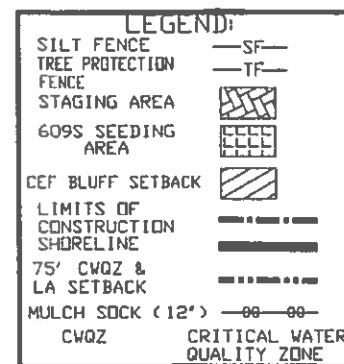
SHEET NO.

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Tag No.	TREE DESCRIPTION
T54	32" SYCAMORE
T55	33" PECAN
T202	16" LIVE OAK
T200	27" LIVE OAK
T201	12" LIVE OAK
T202	16" LIVE OAK
T203	13" LIVE OAK
T204	12" LIVE OAK
T205	14" ELM
T206	15" ELM
T214	13" CHINA BERRY

CWQZ= CRITICAL WATER QUALITY ZONE



DRAWN BY: CR  
 CHECKED BY: AT  
 DATE: 5/29/14  
 JOB NO. 60828M/DOCK



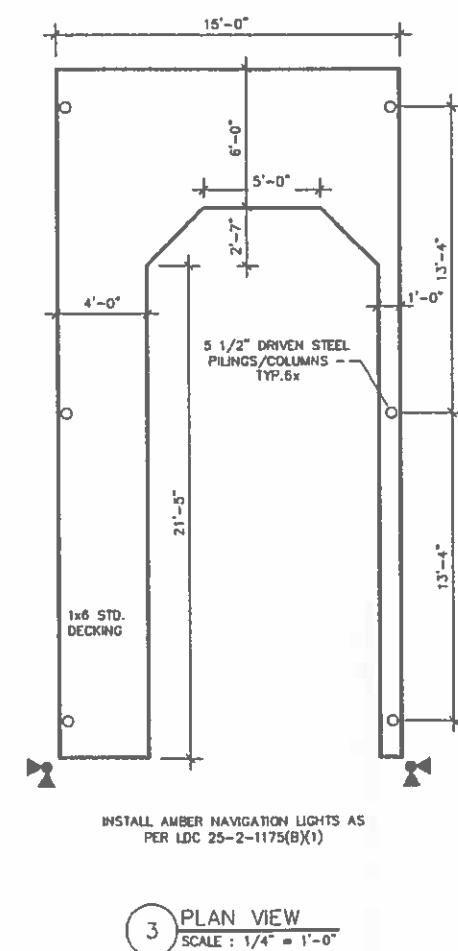
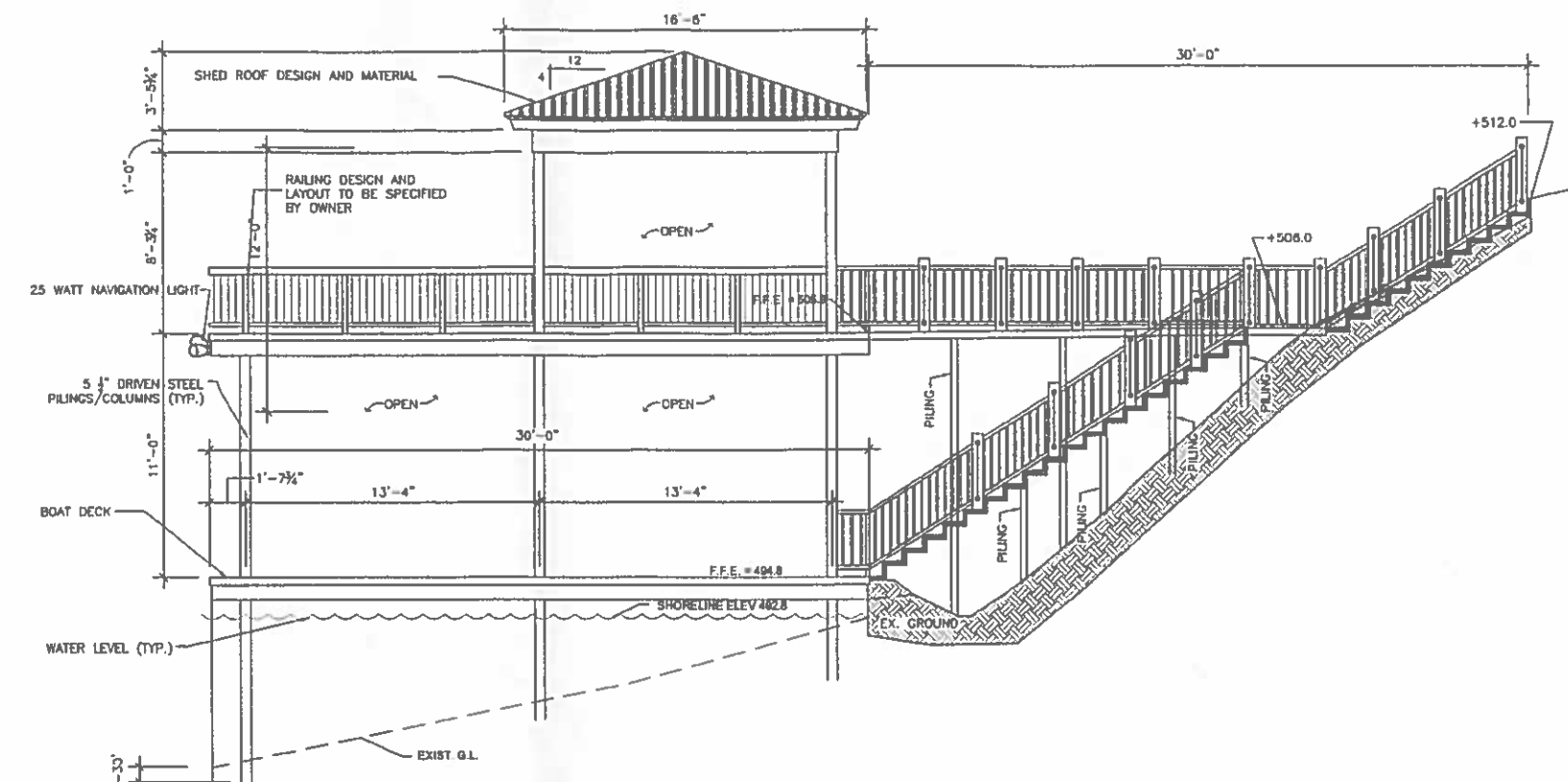
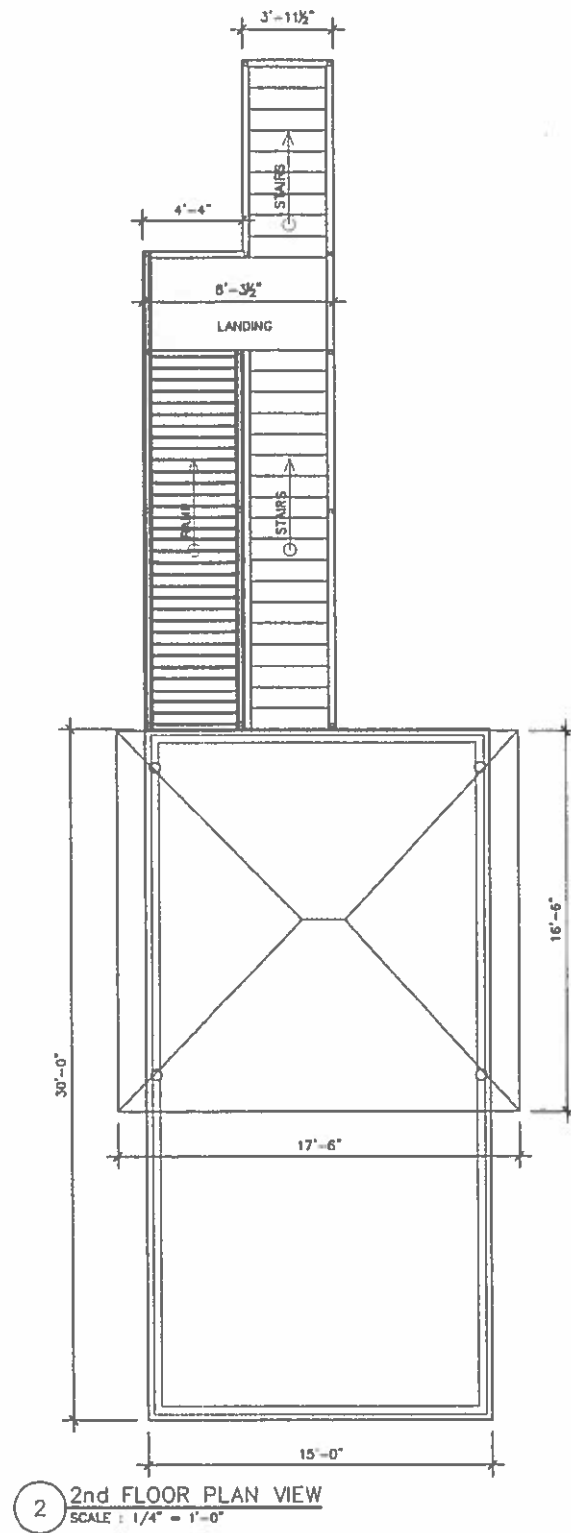
**ADVANCED CONSULTING ENGINEERS**  
 Civil Engineering Consultants, Planners  
 6624 BEE CREEK ROAD, SUITE 1-4  
 AUSTIN, TEXAS 78748  
 (512) 444-1739  
 www.aecneers.com



**ILLES BOAT DOCK**  
 2415 BIG HORN DRIVE  
 OVERALL HARBOR AREA SITE PLAN

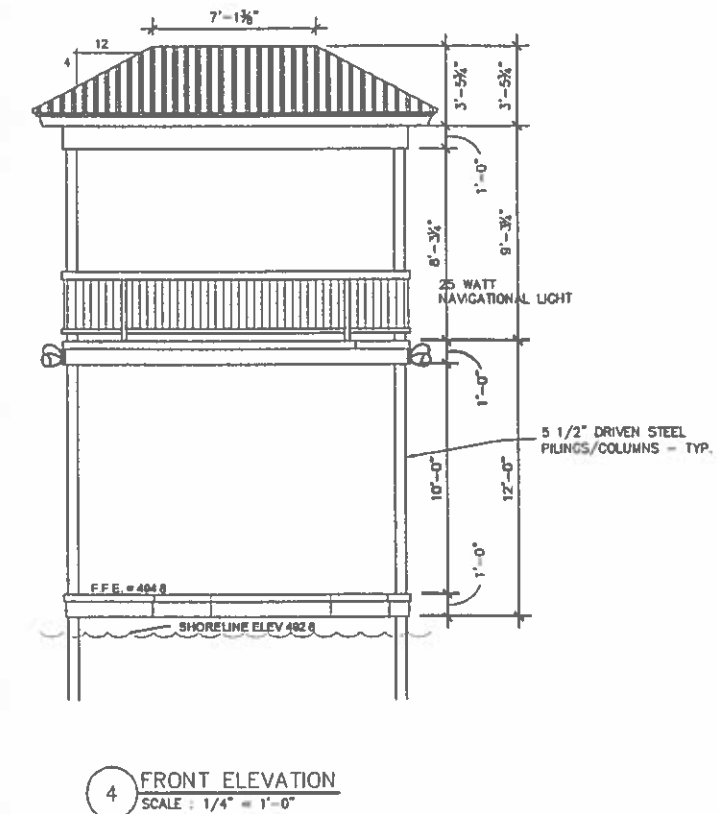
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The proposed boat dock must comply with all requirements of LDC 25-2-1174 ("Structural Requirements"), and must comply with Chapter 25-12, Article 1 (Uniform Building Code) and the Building Criteria Manual.

THE PROPOSED BOAT DOCK WILL NOT BE MORE THAN 30% ENCLOSED  
THE STEPS WILL BE STEEL PAN WITH CONCRETE POURED STEPS FOR ALL STAIRCASES.  
INSTALL 5 1/2" DRIVEN STEEL PILING/COLUMNS TYPE .6x



APPROVAL STAMP

**WHAT'S UP...DOCK**

P.O. BOX 1430  
DRIPPING SPRINGS, TX  
78620

TEL: 512. 940. 0185  
TEL: 512. 844. 2434

**ILES BOAT DOCK**

**2415 BIG HORN DRIVE**  
**AUSTIN, TEXAS**

Page	No.	Date	Description	Approval Signature
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