

**RULE NO.: 161-23.05**

**NOTICE OF PROPOSED RULE**

**POSTING DATE: January 12, 2023**

The Director of the Watershed Protection Department proposes to adopt the following rule after February 14, 2023.

Comments on the proposed rule are requested from the public. Comments should be submitted to Kelly Strickler, at [kelly.strickler@austintexas.gov](mailto:kelly.strickler@austintexas.gov) or (512) 974-1845. To be considered, comments must be submitted before February 13, 2023 the 32nd day after the date this notice is posted. A summary of the written comments received will be included in the notice of rule adoption that must be posted for the rule to become effective.

An affordability impact statement regarding the proposed rule has been obtained and is available by contacting Kelly Strickler at [kelly.strickler@austintexas.gov](mailto:kelly.strickler@austintexas.gov) or (512) 974-1845.

**EFFECTIVE DATE OF PROPOSED RULE**

A rule proposed in this notice may not become effective before the effective date established by a separate notice of rule adoption. A notice of rule adoption may not be posted before February 13, 2023 (the 32nd day after the date of this notice) or not after March 23, 2023 (the 70th day after the date of this notice).

If a proposed rule is not adopted on or before March 23, 2023, it is automatically withdrawn and cannot be adopted without first posting a new notice of a proposed rule.

**BRIEF EXPLANATION OF PROPOSED RULE**

**Standards Manual - Series 600 - Environmental**

- Standard No. 661-4 – Geomembrane Liner Attachment Details: Removes this detail.
- Standard No. 661-4A – Concrete Wall Geomembrane Liner Attachment: Replaces 661-4 with an updated detail that incorporates acceptable methods for geomembrane liner attachment for placement under concrete walls.
- Standard No. 661-4B – Grouted or Mortared Stone Retaining Wall Geomembrane Liner: Replaces 661-4 with an updated detail that incorporates acceptable methods for geomembrane liner attachment for placement under grouted or mortared stone retaining walls.

A copy of the complete text of the proposed rule is available for public inspection and copying at the following locations. Copies may be purchased at the locations at a cost of ten cents per page:

Watershed Protection Department, located at 505 Barton Springs Road, 12<sup>th</sup> Floor, and

Office of the City Clerk, City Hall, located at 301 West 2nd Street, Austin, Texas.

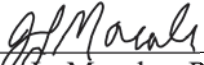
## **AUTHORITY FOR ADOPTION OF PROPOSED RULE**

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in Chapter 1-2 of the City Code. The authority to regulate water quality is established in Chapter 25-8 of the City Code.

## **CERTIFICATION BY CITY ATTORNEY**

By signing this Notice of Proposed Rule (R161-23.05), the City Attorney certifies the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

## **REVIEWED AND APPROVED**

  
\_\_\_\_\_  
Jorge L. Morales, P.E., CFM, Director  
Watershed Protection Department

Date: 01/03/2023

Anne  
Morgan  
\_\_\_\_\_  
Anne L. Morgan  
City Attorney

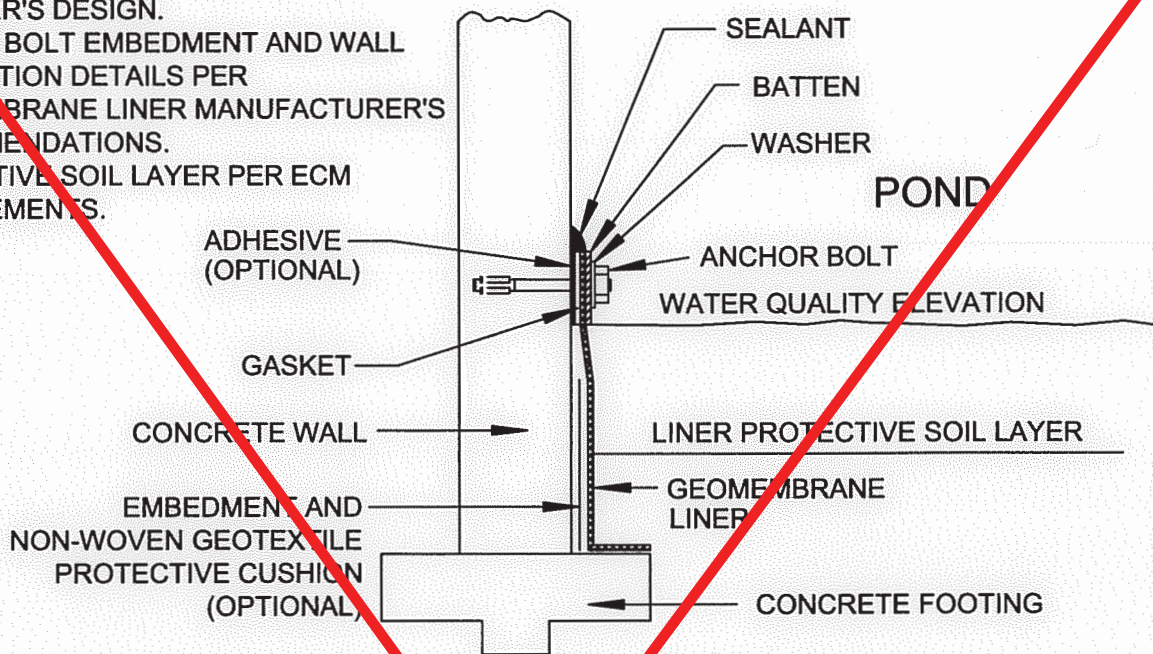
Digitally signed by Anne Morgan  
DN: cn=Anne Morgan, o=City of Austin,  
ou=Law Department,  
email=anne.morgan@austintexas.gov,  
c=US  
Date: 2023.01.04 16:39:46 -06'00'

Date: 1/4/23

REMOVE

NOTES:

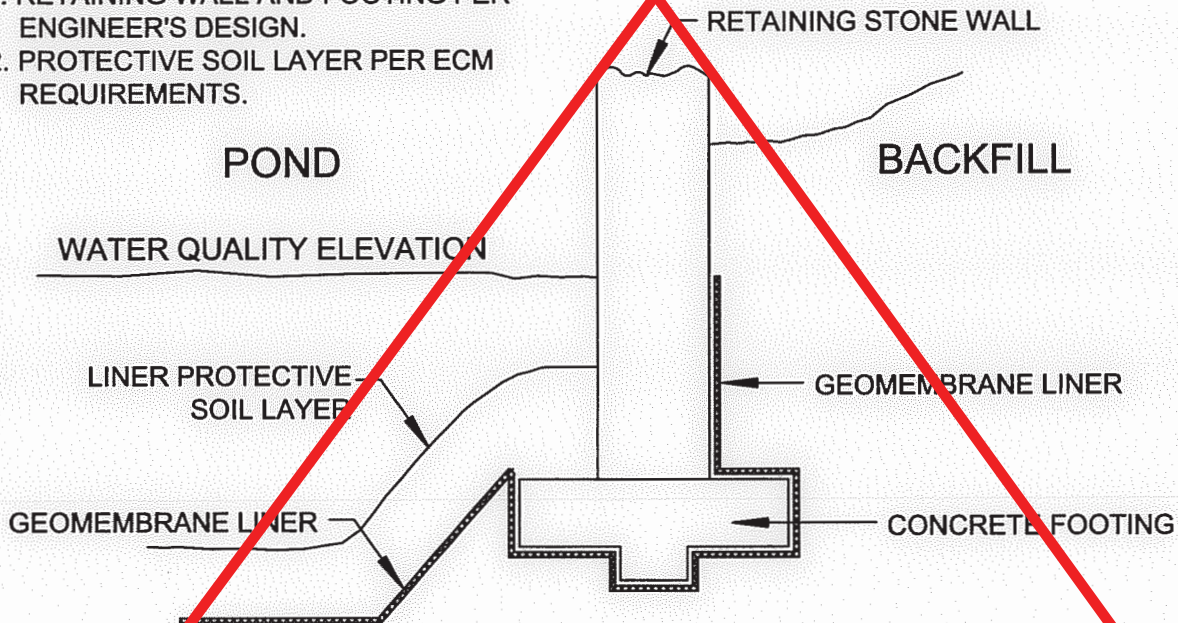
1. CONCRETE WALL AND FOOTING PER ENGINEER'S DESIGN.
2. ANCHOR BOLT EMBEDMENT AND WALL CONNECTION DETAILS PER GEOMEMBRANE LINER MANUFACTURER'S RECOMMENDATIONS.
3. PROTECTIVE SOIL LAYER PER ECM REQUIREMENTS.



CONCRETE WALL GEOMEMBRANE ATTACHMENT

NOTES:

1. RETAINING WALL AND FOOTING PER ENGINEER'S DESIGN.
2. PROTECTIVE SOIL LAYER PER ECM REQUIREMENTS.



RETAINING WALL GEOMEMBRANE CONNECTION

CITY OF AUSTIN  
WATERSHED PROTECTION DEPARTMENT

GEOMEMBRANE LINER ATTACHMENT DETAILS

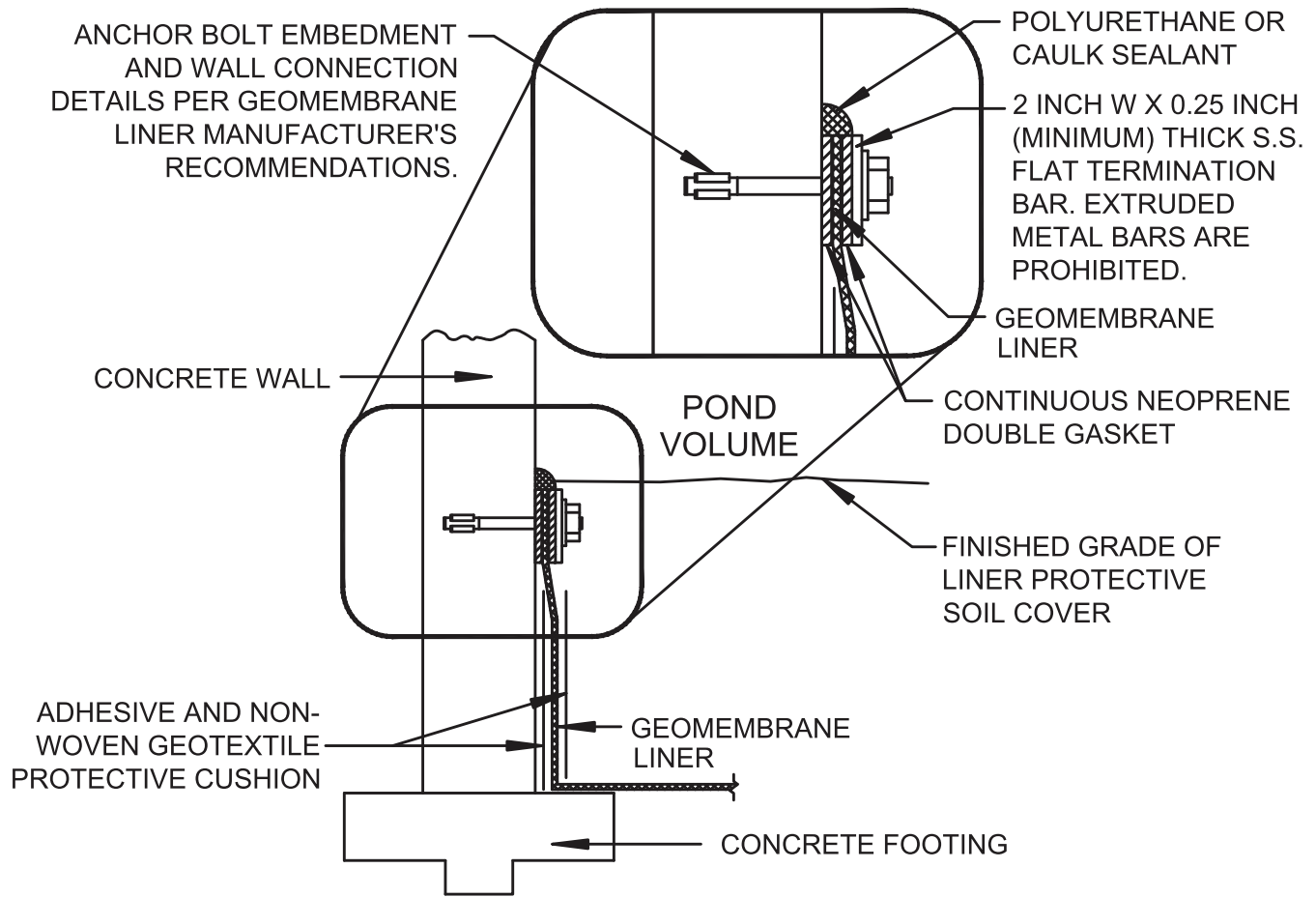
STANDARD NO.

THE ARCHITECT/ENGINEER ASSUMES  
RESPONSIBILITY FOR APPROPRIATE USE  
OF THIS STANDARD.

661-4

*My Ky, P.E.* 12/30/14  
ADOPTED





## NOTES:

1. THIS SPECIFICATION IS FOR SUBMERGED GEOMEMBRANE LINER TERMINATIONS ON CONCRETE WALLS ONLY.
2. ALL TERMINATION BATTENS AND FASTENERS MUST BE STAINLESS STEEL (SS). THE TERMINATION BAR MUST HAVE A MINIMUM THICKNESS OF 1/4" (ONE QUARTER INCH) AND MINIMUM WIDTH OF 2" (TWO INCHES). EXTRUDED METAL BARS ARE PROHIBITED.
3. GEOMEMBRANE LINERS MUST MEET THE MINIMUM GUIDELINES OF ECM 1.6.2 AND BE INSTALLED PER THOSE GUIDELINES UNDER THE SUPERVISION OF A LICENSED GEOTECHNICAL ENGINEER.
4. ALL GASKETS, SEALANTS, CONCRETE WALL PREPARATION, AND ANCHORS MUST BE INSTALLED PER SPECIFICATIONS BY A CERTIFIED TECHNICIAN FOR THAT SPECIFIC MANUFACTURER.
5. PROTECTIVE SOIL COVER MUST MEET THE GUIDELINES OF ECM 1.6.2. THE TERMINATION BAR SHOULD BE ANCHORED JUST BELOW THE FINISH GRADE OF THE PROTECTIVE COVER.
6. GEOTEXTILE SHALL MEET MINIMUM MANUFACTURERS GUIDELINES AND ECM 1.6.
7. CONCRETE RETAINING WALLS MUST BE WATER-TIGHT AND PROVIDE WATERSTOPS PER STANDARD SPECIFICATION 414S.
8. DEVIATIONS FROM THIS DETAIL MAY BE PERMITTED PER MANUFACTURER GUIDELINES IF APPROVED BY THE CITY INSPECTOR AND A LICENSED GEOTECHNICAL ENGINEER.

CITY OF AUSTIN  
WATERSHED PROTECTION DEPARTMENT

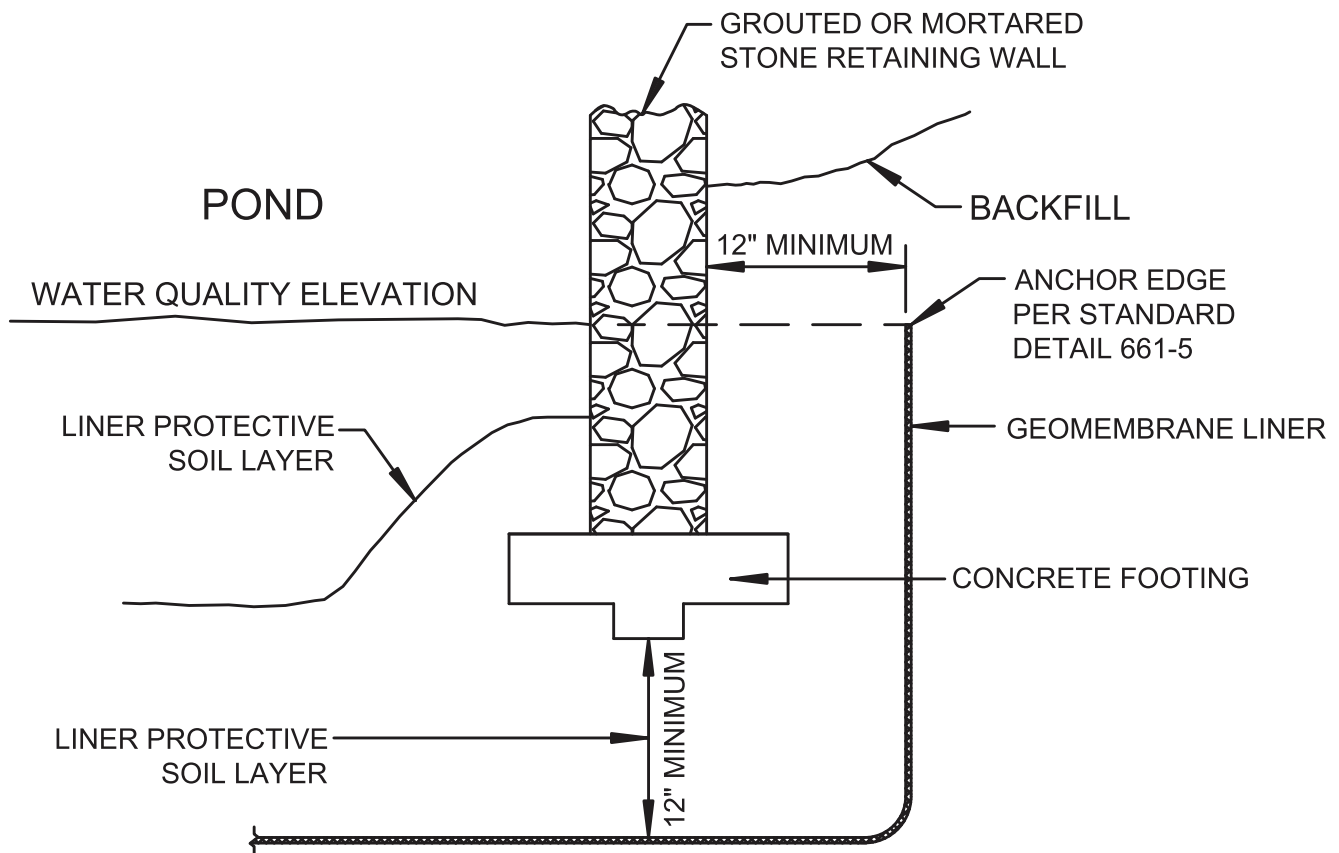
CONCRETE WALL GEOMEMBRANE LINER ATTACHMENT

THE ARCHITECT/ENGINEER ASSUMES  
RESPONSIBILITY FOR APPROPRIATE USE  
OF THIS STANDARD.

STANDARD NO.

661-4A

ADOPTED



## NOTES:

1. RETAINING WALL AND FOOTING PER ENGINEERING DESIGN.
2. PROTECTIVE SOIL LAYER PER ECM 1.6.2.
3. GEOMEMBRANE LINER MUST BE LOCATED UNDERNEATH THE FOOTING AND BEHIND THE RETAINING WALL.
4. AT A MINIMUM, THE GEOMEMBRANE LINER MUST EXTEND UP TO THE WATER QUALITY ELEVATION BEHIND THE RETAINING WALL.
5. GEOMEMBRANE LINER MUST BE ANCHORED BEHIND THE WALL USING ACCEPTABLE METHOD SHOWN IN STANDARD DETAIL 661-5.
6. FREE STANDING DRY STACKED ROCK WALLS ARE NOT ACCEPTABLE.

CITY OF AUSTIN  
WATERSHED PROTECTION DEPARTMENT

GRouted OR MORTARED STONE RETAINING  
WALL GEOMEMBRANE LINER

*608*

ADOPTED

THE ARCHITECT/ENGINEER ASSUMES  
RESPONSIBILITY FOR APPROPRIATE USE  
OF THIS STANDARD.

STANDARD NO.

**661-4B**