August 17, 2011

Lee Garrity, City Manager  
City of Winston-Salem  
P. O. Box 2511  
Winston-Salem, NC  27102

RE:  ZONING TEXT AMENDMENT UDO-224

Dear Mr. Garrity,

The attached report of the Planning Board to the City Council is sent to you at the request of the Council Members. You will be notified by the City Secretary’s Office of the date on which the Council will hear this petition.

Sincerely,

A. Paul Norby, FAICP  
Director of Planning

pc:  City Secretary’s Office, P.O. Box 2511, Winston-Salem, NC  27102  
Robert Vorsteg, 3620 Marlowe Avenue, Winston-Salem, NC  27106
**ACTION REQUEST FORM**

**DATE:** August 17, 2011  
**TO:** The Honorable Mayor and City Council  
**FROM:** A. Paul Norby, FAICP, Director of Planning

**COUNCIL ACTION REQUEST:**

Request for Public Hearing on zoning text amendment proposed by the Winston-Salem City Manager’s Office

**SUMMARY OF INFORMATION:**

Zoning text amendment of the Winston-Salem City Manager’s Office to amend Chapter C of the *Unified Development Ordinances* to provide an additional exception to the ten (10) foot maximum height provision for mechanically stabilized slopes. (UDO-224).

**PLANNING BOARD ACTION:**

<table>
<thead>
<tr>
<th>MOTION ON PETITION:</th>
<th>APPROVAL</th>
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<tr>
<td>FOR:</td>
<td>WESLEY CURTIS, ARNOLD KING, CLARENCE LAMBE, DARRYL LITTLE, BARRY LYONS, PAUL MULLICAN, BRENDA SMITH, ALLAN YOUNGER</td>
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<tr>
<td>AGAINST:</td>
<td>LYNNE MITCHELL</td>
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<td>SITE PLAN ACTION:</td>
<td>NOT REQUIRED</td>
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REQUEST
This UDO text amendment is proposed by the City Manager’s Office to amend Chapter C of the Unified Development Ordinances to provide an additional exception to the ten (10) foot maximum height provision for mechanically stabilized slopes.

BACKGROUND
Current UDO standards specify a maximum height for mechanically stabilized slopes of ten (10) feet, with a requirement of intervening terraces of at least ten (10) feet in width between mechanically stabilized slopes. Requiring terraces provides both a structural benefit of minimizing the risk of failure of a much taller wall, and a visual benefit of avoiding the impact of a more massive wall. While this height restriction/terrace requirement is appropriate in most cases, site specific situations may make development impracticable without some additional relief. As a result, deviation from the aforementioned ten (10) foot standard may be appropriate upon a determination by the Assistant City Manager for Public Works that there is no practical alternative to the increased height AND that appropriate safety measures will be installed to protect the public from the additional permitted height.

ANALYSIS
Mechanically stabilized slopes are slopes which restrain erosion through the use of timber or masonry retaining walls, riprap, cribs, or similar structures. Increased flexibility from other UDO standards, such as parking and landscape requirements, is already provided as an incentive to assist with development and redevelopment in many zoning districts. This text amendment would provide an additional exception to the ten (10) foot maximum height limitation for mechanically stabilized slopes, increasing development and redevelopment flexibility on development sites where the ten (10) foot wall, ten (10) foot horizontal terrace provisions of the UDO would be impracticable. Currently, the UDO allows for alternative compliance for mechanically stabilized slopes over ten (10) feet in height in GMA 1(The City and Town Centers GMA) in certain zoning districts.

Given the topography of this region, retaining walls are a common necessity in development projects. However, retaining walls with intervening terraces consume land that could be used for additional development. Staff recognizes that development in more dense urban environments usually requires a greater deal of site manipulation and engineering than development in more suburban or rural environments. The proposed exception to the ten (10) foot maximum height requirement is an expansion of the current UDO provision allowing for wing walls and similar earth retaining devices required for the structural support of buildings, culverts, and similar structures to be greater than ten feet in height with approval of the Director of Inspections. Under this exception, the Assistant City Manager for Public Works may (not shall) approve an increase in the maximum retaining wall height to fifteen (15) feet if he/she determines that there
is no practical development alternative and a written certification that said retaining walls will have adequate supplemental safety protections. The installation of the supplemental safety protections will become a condition of approval for the project.

Staff supports this request with the addition of a planting strip located adjacent to the exterior of the retaining wall. Staff believes that a minimal two (2) foot wide planting strip that includes some columnar plantings and shrubs would serve to break up the potential monolithic appearance of retaining walls over ten (10) feet in height.

**RECOMMENDATION**

**APPROVAL**
Aaron King presented the staff report.

PUBLIC HEARING

FOR:

Robert Vorsteg, 3620 Marlowe Avenue, Winston-Salem, NC  27106
- Winston-Salem Neighborhood Alliance believes that for safety and aesthetic reasons the maximum height of retaining walls should be ten feet.
- The 15’ height is too high, especially in residential areas.
- The proposed two foot landscape buffer is inadequate to offset the negative visual appearance of that much concrete.
- Exceptions should be granted only in extreme cases where the benefit to the public outweighs the negative impacts.
- We believe the final decision should be made by the Elected Body through the Special Use Permit rather than by the Assistant City Manager for Public Works.
- We request therefore that for an exception to the 10’ high limit, the Assistant City Manager for Public Works should make a finding that the proposed wall be structurally sound and safe for the public, the topography of the site makes the use of terraces impractical, and the structure is the minimum height necessary to allow the site to be reasonably utilized.
- The conditions should preclude any easy access to exceptions.
- If the proposal meets the prerequisites, we then request a public hearing by the Elected Board to consider whether such wall is in the public interest and if it will adversely impact adjacent property or the public.
- We are asking for more transparency.
- What is driving this request by the City Manager?
- Whose interest is being served here?

AGAINST: None
WORK SESSION

During discussion by the Planning Board, the following points were made:

1. It has been left up to the Inspections Division to determine the appropriate plantings in the strip.

2. These walls are engineered by certified people and will be safe for the public. They are very expensive to build because of all the safety issues. Sometimes you have to use a higher wall but the preference is not to build high walls.

3. If there's a 15 foot wall going on, what opportunity does the public have to express their opinions on the impact of the wall on their neighborhood? The difference here is between an approval by right if you meet the requirements versus a discretionary decision.

MOTION: Clarence Lambe moved approval of the zoning text amendment.
SECOND: Wesley Curtis
VOTE:
   FOR: Wesley Curtis, Arnold King, Clarence Lambe, Darryl Little, Barry Lyons, Paul Mullican, Brenda Smith, Allan Younger
   AGAINST: Lynne Mitchell
   EXCUSED: None

A. Paul Norby, FAICP
Director of Planning
UDO-224
AN ORDINANCE AMENDING THE EXCEPTIONS
TO THE TEN FOOT MAXIMUM HEIGHT LIMITATIONS
FOR MECHANICALLY STABILIZED SLOPES

Be it ordained by the City Council of the City of Winston-Salem, North Carolina, that the
Unified Development Ordinances is hereby amended as follows:

Section 1. Chapter C – Zoning Ordinance, Article V – Environmental Ordinance, Erosion
Control, is amended as follows:

Chapter C - Environmental Ordinance
Article V - Erosion Control

5-7 MANDATORY STANDARDS FOR LAND DISTURBING ACTIVITY

No land disturbing activity subject to the control of this section of the Ordinance shall be
undertaken except in accordance with the following mandatory standards:

(A) BUFFER ZONE

(1) Lake or Natural Watercourse. No land disturbing activity during
periods of construction or improvement to land shall be permitted in
proximity to a lake or natural watercourse unless a buffer zone is provided
along the margin of the watercourse of sufficient width to confine visible
siltation within the twenty-five percent (25%) of the buffer zone nearest
the land disturbing activity. This subdivision shall not apply to a land
disturbing activity in connection with the construction of facilities to be
located on, over or under a lake or natural watercourse.

(2) Width of Buffer Zone. Unless otherwise provided, the width of a buffer
zone is measured from the edge of the water to the nearest edge of the
disturbed area, with the twenty-five percent (25%) of the strip nearer the
land disturbing activity containing natural or artificial means of confining
visible siltation.

(B) GRADED SLOPES, MECHANICALLY STABILIZED SLOPES AND
FILLS

(1) Slope Specifications. No cut or fill greater than ten (10) vertical feet shall
be made which creates a slope steeper than one and one-half (1.5) to one
(1.5:1) unless approval is granted during plan review by the Director of
Inspections. The angle for graded slopes and fills shall be no greater than
the angle which can be retained by vegetative cover or other adequate erosion control devices or structures. The angle for graded slopes and fills must be demonstrated to be stable. Stable is the condition where the soil remains in its original configuration, with or without mechanical constraints. Mechanically stabilized slopes, including but not limited to riprap, cribs, timber or masonry retaining walls, shall not exceed ten (10) feet in height without intervening terraces ten (10) feet in width with a maximum slope of three to one (3:1). In any event, slopes left exposed and such terraces will, within twenty-one (21) calendar days of completion of any phase of grading, be planted or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion.

(2) **Exceptions.** With prior approval of the Director of Inspections, the ten (10) foot height limit for mechanically stabilized slopes may be increased for:

(a) **Wing Walls and Earth Retaining Devices.** Wing walls allowing subgrade access and other earth retaining devices required for the structural support of buildings, bridges, dams, culverts, or similar structures; or,

(b) **Stormwater Channels.** Mechanical stabilization required for engineered stormwater channels.

(c) **Approval by the Assistant City Manager for Public Works (W).** Retaining walls up to fifteen (15) feet in height may be approved if the Assistant City Manager for Public Works determines that there is no practical development alternative and determines that adequate supplemental safety protections can be installed. The supplemental safety protections will then become a site plan condition. Any section of retaining wall over ten (10) feet in height shall include a minimum two (2) foot wide planting strip located adjacent to the exterior of the wall. Said planting strip shall consist of columnar plantings spaced ten (10) feet apart with a minimum of two (2) shrubs planted in between columnar plantings. Plant species shall be approved by the Inspections Division.

(3) **Alternative Compliance for PB, CB, CI, and MU-S Districts in GMA 1.** The ten (10) foot height limit for mechanically stabilized slopes may be approved for alternative compliance by the Elected Body through the Special Use District Zoning process for developments in the PB, CB, CI, and MU-S districts in GMA 1.

**Section 2.** This ordinance shall be effective upon adoption.