

Alan Mayberry Tree Consulting
1425 – 1447 South Fort Harrison Ave. and 514 Belleview Blvd.
Clearwater, Florida

March 3, 2026

Prepared For: Mr. Griffeth Whitehurst, Whitehurst Gallery

Prepared By: Alan Mayberry, Consulting Arborist
ISA Certified Arborist #SO-0305

The following report is submitted by Alan Mayberry, Consulting Arborist, and includes findings I believe are accurate based on my education, experience, and knowledge in the field of Arboriculture. My findings are based on scientific research in the field of Arboriculture. In addition, my findings are based on personal observations of over 40 years of experience in the broad field of Arboriculture. I have no interest personally or financially in this property and I believe my report is factual and unbiased.

Tree Inventory Overview

The following tree inventory provides an overall condition rating for all site trees and palms protected by the provisions of the City of Clearwater code. The overall condition ratings range from 0 (a dead tree) to 6 (a specimen quality tree). Increments of 0.5 are used for accuracy. A tree rated 3.0 is an average tree that has sufficient health and structure to warrant consideration for preservation. A tree rated 2.5 is slightly below average but may improve with minor remedial maintenance if noted in the tree inventory. Trees that are rated 2.0 or less are recommended for removal and the City of Clearwater generally requires their removal as a condition of development. Trees rated 4.0 and above are high quality trees with good health and structural attributes. The tree inventory includes specific arboricultural terminology in the comment section following each tree rated 2.5 or below. The **Notes Section** preceding the tree inventory provides important information regarding recommendations made in the inventory. The **Tree Inventory Data** section that follows the notes provides a more thorough explanation of the rating system and how individual trees are scored and evaluated.

The field work for this tree inventory was completed on August 16, 2024.

Notes Section

NOTE: Any reference to future monitoring of trees or further inspections of trees should only be performed by an ISA Certified Arborist with the Tree Risk Assessment Qualification (TRAQ).

NOTE: Any references in the following tree inventory recommending tree pruning should only be performed by International Society of Arboriculture (ISA) Certified Arborists skilled in pruning to the standards defined in the American National Standards Institute (ANSI) publication, *ANSI-A300 Part 1: Tree, Shrub and Other Woody Plant Maintenance – standards Practices, Pruning* and the International Society of Arboriculture’s companion publication: *Best Management Practices, Tree Pruning* (Revised 2008).

NOTE: The structural defect of a codominant stem with included bark occurs when two or more trunks or large branches emanate from the same area and the bark between the unions becomes embedded within the union. Over time the bark inclusion causes internal fractures and decay that cannot be viewed externally. The codominant stem/included bark defect is a serious **structural** defect that often leads to failure and can lead to property damage or personal injury. This report will identify trees with this defect and recommend remedial maintenance or in some cases removal of the tree. Please heed these recommendations.

NOTE: Structural pruning is a specialized pruning utilized to mitigate or prevent the codominant stem/included bark defect. It is important for persons hired to perform work recommended in this tree inventory relating to structural pruning to have proven proficiency in structural pruning.

NOTE: A tree’s size is determined by measuring the trunk diameter at 4.5’ above grade. If the trunk forks at or below 4.5’ above grade, then the trunk measurement is taken at the narrowest trunk diameter between the grade and the fork.

NOTE: Per ANSI A300 Standards, all deadwood 1” in diameter and greater should be removed from the tree.

Tree Inventory

Tree #	Size	Species	Rating
1.	16’ Clear Trunk (CT)	sabal palm (<i>Sabal palmetto</i>)	4.0
Comments: Recommend preservation.			
2.	14’ CT	sabal palm (<i>Sabal palmetto</i>)	4.0
Comments: Recommend preservation.			
3.	11”	slash pine (<i>Pinus elliotii</i>)	2.5
Comments: This tree lacks sufficient rooting area, the crown density is low, and the crown displays deadwood and dieback. Recommend removal.			
4.	12”	live oak (<i>Quercus virginiana</i>)	3.0
Comments: The westernmost codominant stem has included bark; compacted soil to the east, asphalt to the west. Preserve only if structural pruning is performed to mitigate the included bark.			
5.	19”	live oak (<i>Quercus virginiana</i>)	3.0
Comments: An asphalt parking lot is located 2’ to the east of root flare, the trunk is codominant but not included 15’ above grade, the crown has been utility pruned and is sprouting from old wounds. The overall health and structure are average. Recommend preservation.			
6.	36”	live oak (<i>Quercus virginiana</i>)	3.0
Comments: This tree grows in an island with an asphalt road 4’ to the north, 4’ to the south, 2’ to the west, and 12’ to the east; the tree has been utility pruned on the east side and has deadwood in the crown. If preserved, recommend removal of deadwood. Recommend preservation.			
7.	7’ CT	sabal palm (<i>Sabal palmetto</i>)	Exempt
Comments: Exempt from permit requirements as the clear trunk is less than 10’. The palm is healthy and can be preserved.			

8. 24" live oak (*Quercus virginiana*) 3.0
 Comments: Asphalt 4' to the south, low crown density, minor dieback. This tree will improve with proper maintenance. Recommend preservation.
9. 27" live oak (*Quercus virginiana*) 1.0
 Comments: The trunk of this tree forms a basal codominant with included bark from grade to 3' above grade. The crown is one sided and restricted. Recommend removal.
10. 15" live oak (*Quercus virginiana*) 2.0
 Comments: This tree has a moderate lean with a poor root flare on the tension side and is becoming a basal codominant with the adjacent tree #11. The tree is one-sided, with a restricted canopy, low crown density, and minor dieback present. Recommend removal.
11. 15" live oak (*Quercus virginiana*) 2.0
 Comments: This tree has a moderate lean with a restricted root flare on the tension side due to growing adjacent to tree #10. The crown is restricted and suppressed with deadwood. Recommend removal.
12. 11' CT sabal palm (*Sabal palmetto*) 4.5
 Comments: Recommend preservation.
13. 28" live oak (*Quercus virginiana*) 3.5
 Comments: One sided, restricted canopy, rubbing branches, deadwood. If preserved, recommend removing one of the rubbing branches to avoid decay.
14. 25" live oak (*Quercus virginiana*) 2.5
 Comments: This tree has a building two feet to the south, a building two feet to the east, and is surrounded by a brick paver porch on the remaining sides. The roof overhang has been notched to accommodate a large scaffold branch that emanates from the trunk and grows to the south. The tree has dieback in the top over center and in various other places of the crown. The health appears to be declining, most likely due to poor soil conditions and root loss. The stored energy reserves have been depleted and the tree is solely dependent on its live root system. Additionally, it is difficult to assess the extent to which the root system will continue to anchor this tree as the root plate and major structural roots are covered. If this tree is to be preserved it should be monitored for health and structure annually or after any major storm event such as tropical storm force winds or greater. Recommend removal unless this tree is monitored by an ISA Certified Arborist with the Tree Risk Assessment Qualification (TRAQ) annually.
15. 18' CT foxtail palm (*Wodyetia bifurcata*) 3.5
 Comments: Minor nutrient deficiency. Recommend preservation.
16. 16" live oak (*Quercus virginiana*) 2.0
 Comments: Utility pruned, epicormic growth, heavy vine saturation. Recommend removal.
17. 7' CT sabal palm (*Sabal palmetto*) Exempt
 Comments: Exempt from permit requirements as the clear trunk is less than 10'. Restricted canopy, but healthy. Can be preserved.

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|---|-------|---|--------|
| 18. | 30" | live oak (<i>Quercus virginiana</i>) | 3.5 |
| Comments: Codominant, not included, 10' above grade, multiple trunk wounds are closing with woundwood, vines on western side of canopy, stubs, deadwood. Recommend preservation with the removal of vines and deadwood. | | | |
| 19. | 4' CT | sabal palm (<i>Sabal palmetto</i>) | Exempt |
| Comments: Exempt from permit requirements as the clear trunk is less than 10'. Healthy small palm that can be preserved. | | | |
| 20. | 7" | unidentifiable species of dead tree | 0.0 |
| Comments: Recommend removal. | | | |
| 21. | 8" | live oak (<i>Quercus virginiana</i>) | 3.0 |
| Comments: Trunk wound 8' above grade, moderate phototropic lean, one sided canopy, minor insect damage to leaves is not a problem, vines. Recommend preservation. | | | |
| 22. | 8" | cherry laurel (<i>Prunus caroliniana</i>) | 2.0 |
| Comments: Decaying wound 3' above grade on west side, restricted, suppressed canopy. Recommend removal. | | | |
| 23. | 8" | cherry laurel (<i>Prunus caroliniana</i>) | 1.0 |
| Comments: Leader failed leaving decaying wound, only growth is epicormic sprouts. Recommend removal. | | | |
| 24. | 10" | live oak (<i>Quercus virginiana</i>) | 3.0 |
| Comments: Minor canker on trunk, slight phototropic lean, epicormic growth, vines. Recommend preservation. If preserved, recommend removing vines. | | | |
| 25. | 11" | live oak (<i>Quercus virginiana</i>) | 3.0 |
| Comments: Minor canker on trunk, phototropic lean, restricted canopy, epicormic growth. This tree has sufficient health and structure for preservation. Recommend preservation. | | | |
| 26. | 6" | laurel oak (<i>Quercus laurifolia</i>) | 4.0 |
| Comments: This tree has single leader structure with minor epicormic growth. Recommend preservation. | | | |
| 27. | 15" | laurel oak (<i>Quercus laurifolia</i>) | 3.5 |
| Comments: This tree has s | | | |

ingle leader structure, a minor phototropic lean, a small decaying wound on the trunk 18' above grade on the east side, and minor deadwood. Recommend preservation.

28. 34" live oak (*Quercus virginiana*) 3.0
Comments: One sided, restricted canopy, epicormic growth, stubs, minor dieback. This tree has sufficient health and structure for preservation and will improve with proper maintenance. Recommend preservation.

29. 28" live oak (*Quercus virginiana*) 2.0
Comments: This tree has very low crown density, dieback, stubs, and deadwood. The tree has declining health. Recommend removal.

30. 43" live oak (*Quercus virginiana*) 2.5
Comments: The trunk of this tree is codominant 6' above grade, the top over center has dieback and the crown has abnormally small leaves indicating physiological stress. The crown has epicormic growth, stubs and deadwood. Recommend removal due to declining health.

31. 30" live oak (*Quercus virginiana*) 2.5
Comments: The parking lot is located 1' to the west, the crown has epicormic growth, stubs, and deadwood. The health and structure are above average, recommend preservation. *This tree has uniform branch tip dieback and has declined since the last assessment. The crown density is below average.*

32. 19" live oak (*Quercus virginiana*) 2.5
Comments: The parking lot is located 3' to the west, the canopy is one sided, restricted and suppressed with epicormic growth, stubs, and deadwood. The overall health and structure are average, but the tree will improve with proper care. Recommend preservation. *This tree has uniform branch tip dieback and has declined since the last assessment. The crown density is below average.*

33. 8" cherry laurel (*Prunus caroliniana*) 3.5
Comments: Single leader structure, slight phototropic lean, growing into crown of adjacent oak #30. A good understory species. Recommend preservation.

34. 5" cherry laurel (*Prunus caroliniana*) 2.0
Comments: Restricted, suppressed canopy, low crown density, epicormic growth, heavy vines. Recommend removal.

35. This tag was lost, there is no tree #35.

36. 12' CT queen palm (*Syagrus romanzoffiana*) 2.0
Comments: Category two invasive exotic. Recommend removal due to poor species characteristics.

37. 8" cherry laurel (*Prunus caroliniana*) 1.0
Comments: The leader failed on this tree; most growth is from epicormic sprouts. Recommend removal.

38.	11"	live oak (<i>Quercus virginiana</i>)	3.0
Comments: One sided tree, restricted canopy with good structure, average health. Recommend preservation.			
39.	5"	cherry laurel (<i>Prunus caroliniana</i>)	2.5
Comments: One sided tree, restricted canopy, one scaffold branch is dead. Preserve only if the dead scaffold branch is removed.			
40.	6"	cherry laurel (<i>Prunus caroliniana</i>)	2.5
Comments: This tree has an acute lean, restricted, suppressed canopy, epicormic growth, low crown density. Recommend removal.			
41.	15"	cherry laurel (<i>Prunus caroliniana</i>)	1.5
Comments: The trunk of this tree is codominant with included bark 2' above grade. Recommend removal due to poor structure.			
42.	9"	golden rain (<i>Koelreuteria elegans</i>)	1.5
Comments: The trunk is embedded in a chain-link fence; it has a large wound on the trunk and has been previously topped. In addition, the species is a Category Two Invasive Exotic. Recommend removal.			
43.	6"	cherry laurel (<i>Prunus caroliniana</i>)	0.0
Comments: Dead tree. Recommend removal.			
44.	18"	ear tree (<i>Enterolobium cyclocarpum</i>)	2.0
Comments: The root plate of this tree is growing into the sidewalk creating a trip hazard and cracking the sidewalk. Recommend removal.			
NOTE: Trees #45 – #64 are off-site trees growing within 25' of the subject property and are required by City of Clearwater Code to be included in the tree inventory. They are identified by species and location and approximate trunk diameter (size) but not assessed for structure and health due to the legal ramifications of assessing trees without the property owner's permission or knowledge.			
45.	16"	weeping bottlebrush (<i>Callistemon viminalis</i>)	Off Site
Comments: Right of way tree, multi-trunk.			
46.	11"	weeping bottlebrush (<i>Callistemon viminalis</i>)	Off Site
Comments: Right of way tree, multi-trunk.			
47.	9' CT	sabal palm (<i>Sabal palmetto</i>)	Off Site
Comments: Right of way tree.			
48.	7"	laurel oak (<i>Quercus laurifolia</i>)	Off Site
Comments: Right of way tree.			
49.	7' CT	sabal palm (<i>Sabal palmetto</i>)	Off Site
50.	6' CT	sabal palm (<i>Sabal palmetto</i>)	Off Site
51.	12"	laurel oak (<i>Quercus laurifolia</i>)	Off Site

52.	20"	laurel oak (<i>Quercus laurifolia</i>)	Off Site
53.	14"	laurel oak (<i>Quercus laurifolia</i>)	Off Site
54.	20' CT	sabal palm (<i>Sabal palmetto</i>)	Off Site
55.	8"	cherry laurel (<i>Prunus caroliniana</i>)	Off Site
56.	6"	cherry laurel (<i>Prunus caroliniana</i>)	Off Site
57.	30"	live oak (<i>Quercus virginiana</i>)	Off Site
58.	18' CT	sabal palm (<i>Sabal palmetto</i>)	Off Site
59.	7"	cherry laurel (<i>Prunus caroliniana</i>)	2.0

Comments: Off-site tree to be removed with property owner's permission. Low crown density, poor structure. Recommend removal.

60.	7"	cherry laurel (<i>Prunus caroliniana</i>)	1.5
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Comments: Off-site tree to be removed with property owner's permission. Dieback, poor structure. Recommend removal.

61.	11"	live oak (<i>Quercus virginiana</i>)	Off Site
62.	16"	live oak (<i>Quercus virginiana</i>)	Off Site
63.	12"	cherry laurel (<i>Prunus caroliniana</i>)	2.0

Comments: Off-site tree to be removed with property owner's permission. Suppressed, poor form, dieback. Recommend removal.

64.	7"	cherry laurel (<i>Prunus caroliniana</i>)	2.0
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Comments: Off-site tree to be removed with property owner's permission. Dieback, anemic crown, below average health. Recommend removal.

This concludes the tree inventory.

The following section of this tree inventory explains the components of the inventory and provides an explanation of how individual trees are evaluated and scored to apply an overall condition rating for each tree.

Tree Rating System

A tree inventory is a record of a tree's condition at the time of inspection. It is a valuable tool to identify trees that have sufficient health and structure to warrant preservation considerations or identify trees with health and/or structural issues that could lead to failure and cause personal injury or property damage. The tree inventory can also be useful in prescribing maintenance needs of individual trees. The tree inventory data includes the tree number, trunk diameter, tree species, and overall condition rating. It also includes a comment section for the tree assessor to note information that supports a condition rating or identifies a defect that may not be obvious.

The overall condition rating is the result of the tree assessor's valuation of a tree's health, structure, species characteristics, and to a lesser degree, aesthetic qualities. The tree assessor must evaluate trees with an eye on public safety as a tree inventory is typically performed for trees that are on an existing site or that will be left on a site after site work. In any case, trees may be close to people, structures, or vehicles. The assessor should identify trees that will be an asset to a property and distinguish them from trees that pose a liability. Due to the connection saving trees will have on public safety; the tree assessor must possess a comprehensive knowledge of tree biology, tree biomechanics and tree species characteristics.

NOTE: *In cases involving new construction, it is sometimes prudent to plant new trees that will not suffer construction impacts and will be able to acclimate to the new site characteristics.*

The methodology for conducting this tree assessment is defined by the International Society of Arboriculture (ISA) as a Visual Tree Assessment (VTA). Trees are assessed by conducting a 360-degree visual observation of the foliage, twigs, secondary branches, major scaffold branches, trunk, and portions of the root system that are visible. Arboricultural diagnostic tools such as probes, rubber mallets for resonance testing and binoculars are used to increase accuracy.

The following is an explanation of the data used in the tree inventory.

Tree Inventory Data

Tree# - location - Each tree is assigned a tree identification number for reference in the inventory that corresponds with a number on the site plan that identifies the location of the tree in the field. In some cases, tree identification numbers may be GPS coordinates.

Size – Tree size is a measure of the tree's trunk diameter at 4.5' above grade. If the trunk forks at 4.5' above grade the diameter is measured at the narrowest trunk diameter between the fork and grade. Palm species are measured in trunk diameter or feet of clear trunk (C.T.), depending on local code requirements.

Species – Each tree is listed by its common and botanical name.

Condition Rating – The condition rating is an assessment of the tree's overall structure and systemic health.

Elements of structure include: **1) soundness of the tree's wood:** presence of cavities; decay; fungal fruiting bodies; discolored wood; split, cracked; rubbing branches; bows; trunk seams; reaction wood; presence of tension wood/roots, etc., **2) branch arrangement and attachments:** well-spaced scaffold branches vs. clustered branches emanating from the same area on the trunk; codominant stems vs. single leader trunk; presence of a branch bark ridge in the branch union vs. included bark in the union; basal codominant association with adjacent trees. **3) root stability:** presence of root barriers; girdling roots; root decay; mounding; fill; lack of trunk flare; evidence of trenching or grubbing.

Elements of systemic health relate to the tree's overall energy system measured by net photosynthesis (food made) vs. respiration (food used). A tree with good systemic health will have a vascular system that moves water, nutrients and photosynthate within the tree as needed. Indicators of a healthy systemic system used in the overall condition rating include: 1) **live crown ratio** (the

percentage live crown a tree has relative to its height, 2) **crown density** (density of the foliage), 3) **tip growth** (foliated branch tips and shoot elongation), 4) lack of debilitating disease or insect attack.

The rating scale is 0-6 with 0 being a dead tree and 6 a specimen tree. Increments of 0.5 are used to increase accuracy. Examples of the tree rating system are as follows:

0- A dead tree.

1- A tree that has one or more of the following problems: tree is in severe decline (in a mortality spiral); tree has over 50% crown dieback; tree is deemed to be hazardous by the assessor; tree harbors a communicable debilitating disease; tree is designated by the State of Florida's Exotic Pest Plant Council as a category #1 or #2 invasive species e.g., Brazilian pepper tree (*Schinus terebinthifolius*). A tree with a rating of 1 should be removed as it is beyond treatment and is a threat to cause personal injury or property damage or is an invasive species.

2 – A tree that has one or more of the following problems: tree exhibits the structural defect of codominant stems with included bark in the unions when located in the trunk or large scaffold branches; tree is a basal codominant with an adjacent tree; tree has large cavities; tree has large areas of decayed wood; tree has torsional cracks, ribs, seams in the trunk; tree has pathogenic fungal fruiting structures e.g., conks, mushrooms, tree has cracked/split, rubbing scaffold branches; tree is uprooted; tree has 30% or greater crown dieback; tree has a live crown ratio less than 25%; tree has debilitating disease or insect problems; tree has severe nutritional deficiencies. A tree with a rating of 2 should be removed.

2.5 – A tree that has one or more of the following problems: tree has a thinning canopy with below average crown density; tree has 15% or greater crown dieback; tree has a suppressed canopy; tree has low crown density and poor form due to competition from adjacent trees; tree has a phototropic lean without appropriate response growth; root barriers are present that adversely affect stability; tree has restricted branching; tree has acute doglegs in scaffold branches; tree has been severely lion-tailed; tree has multiple flush cuts; tree has been previously topped; tree with a codominant trunk that is becoming included in the union; tree has mistletoe infestation; tree is an exotic species with undesirable characteristics. A tree with a 2.5 rating is recommended for removal as trees in this classification have been downgraded due to health or structural conditions that will prevent them from being a viable element in the future landscape unless the assessor prescribes arboricultural treatments that will reverse the conditions, and the property owner is committed to implementing the treatments. The treatments should be in accordance with industry standards (ISA) and the assessor should provide specific instructions for the treatments in the "comments" section including the requisite qualifications of the person performing the treatment.

3- A tree with the following attributes: tree exhibits average crown density; tree has a live crown ratio of 45% or greater (30% for *Pinus* spp.); tree has foliated branch tips with less than 10% branch dieback; Tree has a codominant trunk but has U-shaped unions with a branch bark ridge present in the union; tree has a phototropic lean compensated with tension root development; root barriers are minor affecting less than 20% of the tree's root development; tree lacks debilitating disease or insect attack; tree has minor nutritional deficiencies; tree has minor wounds that are being mitigated by response growth; tree with average form. A tree rated a 3 has sufficient health, structure, and form to warrant preservation considerations.

4- A tree with the following attributes: tree has above average crown density; tree has a live crown ratio of 55% or greater; branch tips are foliated with less than 5% tip dieback; tree is free of debilitating disease or insect problems; trunk develops a codominant, but unions are U-shaped with a branch bark ridge present; wounds are closed or in the process of closure; scaffold branches and primary branches have strong attachments; root barriers are minor affecting less than 15% of the tree's root development; tree has a balanced crown with few irregularities. A tree with a rating of 4 is valuable to the property and should be preserved if possible.

5 – A tree with the following attributes: tree has high crown density indicating stored energy reserves; tree has branch tips exhibiting vigorous shoot growth; tree has a live crown ratio of 65% or greater, tree has single leader structure - live oak (*Quercus virginiana*) trees can have codominant structure if branch angles are wide and free of included bark; tree has well-spaced scaffold branches; tree is free of debilitating disease or insect problems; tree lacks nutritional deficiencies; root barriers are minor affecting less than 5% of the tree's root development; tree has a crown that is symmetrical and full imparting high aesthetic amenities. A tree in this category should be of a species that possesses characteristics inherent to longevity and should be a strong compartmentalizing species. A tree with a #5 rating lends considerable value to the site and is worthy of site plan modification considerations to achieve preservation.

6 – A specimen tree. A specimen tree possesses a combination of superior qualities regarding systemic health, structural integrity, and form surpassing the attributes of a tree rated a 5. A specimen tree may also have unique qualities regarding its size, species, age, or form. A great effort should be made to preserve a specimen tree including shifting structures that would adversely impact the tree. A specimen tree should have a minimum undisturbed rooting area equal to a one-foot radius from the trunk for each inch of trunk diameter measured at 4.5' above grade. All work performed on a specimen tree should only be performed by an International Society of Arboriculture (I.S.A.) Certified Arborist with references of previous tree maintenance.

Comments: The comment section serves to note observations relative to the tree but not covered in the inventory data or expands on information in the inventory data. It may include maintenance recommendations to improve the tree's overall condition rating and may also have **recommendations** on whether to remove or preserve a tree.



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January 16, 2026

Re: Whitehurst Development

Stormwater Narrative

The owner intends to remodel the existing building at the Northeast corner of S. Ft. Harrison Avenue and Belleview Boulevard for a new Jewelry Store. As part of the redevelopment, the existing parking lots and a residential house will be removed. A new parking lot will be constructed. The total property size is 1.22 acres with the project area being 0.73 acres.

The stormwater management system for this site consists of an on-site underground stormwater rock bed retention system to provide the required water quality and quantity volumes for the proposed project. This system will allow stormwater runoff to percolate into the ground. Additionally, a swale will be constructed near the eastern property line with discharge to Belleview Boulevard. This swale will ensure there are no stormwater impacts to offsite properties and will allow water to percolate into the ground.

There are no storm sewers in the adjacent right-of-way's which makes the stormwater design challenging as runoff is only able to sheet flow into the right-of-way's. Additionally, meeting the Cities redevelopment criteria is also challenging with reductions in the pre-development weighted coefficient of runoff. This is why pervious pavers were chosen along with an underground rock bed retention system. The existing site sheet flows to the adjacent right-of-way's and the proposed design will also sheet flow into the right-of-way's.

For this redevelopment, the impervious area will be decreasing compared to existing conditions. Pervious pavers across the parking lot will be utilized allowing stormwater runoff to percolate into the ground.

Water quality treatment will be provided in the proposed underground stormwater rock bed retention system. Pollutants conveyed to the drainage system will be treated via percolation and will recover to the system bottom in less than the required 72 hours. A new swale will be provided near the eastern property line. Swale's are good mechanisms to provide water quality treatment with stormwater able to infiltrate into the ground.

The property will discharge to S. Fort Harrison Avenue R/W and Belleview Boulevard R/W via sheet flow – considered to be discharge without an outfall. Therefore, the City of Clearwater requires the attenuation of the 50-year, 1-hour time of concentration storm with discharge to the pre-development rate utilizing the Rational Method. Detailed calculations will be provided to the City for review and approval.

Sincerely,

Landon, Moree & Associates, Inc.

Erik Madsen, State of Florida, Professional Engineer,
License No. 58102. This item has been digitally signed and sealed by Erik Madsen, P.E. on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Erik Madsen, P.E.