CITY OF LAKELAND TENNESSEE

Municipal Planning & Design Review Commission
Regular Meeting Agenda
Thursday, September 15, 2022, 5:30 PM
City Hall, Lakeland, Tennessee 38002

I. CALL TO ORDER:

II. ROLL CALL:

III. APPROVAL OF MINUTES OF PREVIOUS MEETING:

1. July 21, 2022

IV. PUBLIC DISCUSSION:

V. REPORTS OF OFFICERS AND COMMITTEES:

VI. OLD BUSINESS:

VII. NEW BUSINESS:

1. Consideration of a Sign Plan for Harbor Freight Tools (general retail use on 10.24 acres zoned C-2, located at 6050 U.S. Highway 64).

2. Consideration of a Minor Site Plan for Villa Castrioti (a 624 square foot addition on 0.91 acres zoned C-2, located at 9161 Lake District Drive North, Suite 101).

3. Consideration of a Preliminary Development Plan for Kensington Manor Planned Development, Phase 3 (27 single-family residential lots on 13.09 acres zoned AG, located along the east side of Evergreen Road).

4. Consideration of a Site Plan for Glide Xpress Planned Development (car wash with vacuum bays on 4.86 acres zoned C-2, located at 8874 U.S. Highway 64).

5. Consideration of a Final Development Plan for Glide Xpress Planned Development (a 2-lot subdivision on 4.86 acres zoned C-2, located at 8874 U.S. Highway 64).

6. Consideration of a Sign Plan for Lakeland Meadows (Multi-phase subdivision on 190.20 acres zoned AG with a Residential PD Overlay,

located on Old Brownsville Road).

VIII. ANNOUNCEMENTS:

IX. ADJOURNMENT:

LAKELAND MUNICIPAL PLANNING COMMISSION
MEETING MINUTES
THURSDAY, JULY 21, 2022, 5:30 PM
CITY HALL, LAKELAND, TN.

DRAFT

I. **CALL TO ORDER:** The meeting was called to order at 5:30 PM by Chairman Susan Mitchell.

II. ROLL CALL BY ACTING RECORDER:

Jeff Adams	Absent *(excused)*
Commissioner Jim Atkinson	Present
Mayor Mike Cunningham	Present
Michael Green	Present
Todd Laessig	Present
Brian Sullivan	Present
(C) Susan Mitchell	Present

Others present:
Michael Walker, Interim City Manager
Richard Donovan, Planning Consultant
Emily Harrell, City Engineer

For the record: Commissioner Richard Gonzales was present in the audience.

III. APPROVAL OF MEETING MINUTES:
Mr. Laessig to approve the regular meeting of June 16, 2022, as written.

Commissioner Atkinson seconded the motion.

Motion passed unanimously, voice vote, 6 in favor 0 against.

IV. PUBLIC DISCUSSION: None

V. REPORTS OF OFFICERS AND COMMITTEES:

VI. OLD BUSINESS: None

VII. NEW BUSINESS:

1. ***Consideration of a Final Development Plan for Lakeland Meadows Planned Development, Phase 1 (33 single-family residential lots on 15.77 acres zoned AG, located along the south side of Old Brownsville Road).***

   Commissioner Atkinson moved to bring this item to the floor.

   Mayor Cunningham seconded the motion.

   Motion passed unanimously, voice vote, 6 in favor 0 against.

   Discussion ensued.

DRAFT

After the discussion, Commissioner Atkinson moved to approve the Final Development Plan for Lakeland Meadows PD, Phase 1 as described in the staff report. *(See attachment A)*

Mr. Laessig seconded the motion.

Motion passed unanimously, voice vote, 6 in favor 0 against.

For the record: Josh Burnett was present to represent the applicant.

3. ***Consideration of a Preliminary Development Plan for Lakeland Village Square, Area A (disturbed area of 2.87 acres zoned C-2, located at 9765 Village Circle).***

For the record: The order of business was changed without objection to move item # 3 up on the agenda.

Mr. Laessig moved to bring this item to the floor.

Commissioner Atkinson seconded the motion.

Motion passed unanimously, voice vote, 6 in favor 0 against.

Discussion ensued.

For the record: Representatives for this project were present but no names stated for the record.

After the discussion, Commissioner Atkinson moved to recommend to the Board of Commissioners with a negative recommendation as recommended in the staff report. *(See Attachment B)*

2. ***Consideration of a Land Disturbance Permit Application for Lakeland Village Square, Area A Lots 4 and 5 (2 commercial lots on 5.08 acres zoned C-2, located at 9765 Village Circle).***

For the record: With no approval for item # 3 this item was pulled from the agenda at the request of the applicant.

4. ***Consideration of a Site Plan for Lakeland Village Square, Area A Lot 4 (a 90,000 square foot self-service storage facility on 2.69 acres zoned C-2, located at 9765 Village Circle).***

For the record: With no approval for item # 3 this item was pulled from the agenda at the request of the applicant.

DRAFT

5. ***Consideration of a Site Plan for Smith's Plumbing (a 10,720 square foot commercial structure on 0.91 acres zoned C-2, located at 9875 Huff n Puff Road).***

Mayor Cunningham moved to bring this item to the floor.

Commissioner Atkinson seconded the motion.

Motion passed unanimously, voice vote, 6 in favor 0 against.

Discussion ensued.

For the record: Comments were heard from the following:

Joshua Bellaire – Arch 1010 (Representing the applicant)

After the discussion, Commissioner Atkinson moved to approve the site plan for Smith's Plumbing based on staff recommendations in the staff report. *(See Attachment C)*

Mr. Laessig seconded the motion.

Motion passed unanimously, voice vote, 6 in favor 0 against.

VIII. ANNOUNCEMENTS:

IX. ADJOURNMENT:

Mr. Laessig moved to adjourn the meeting. Mayor Cunningham seconded the motion.

Motion passed unanimously, voice vote, 6 in favor 0 against.

The meeting was adjourned at 6:51 p.m.

_____

Jeff Adams, *Secretary*

ATTEST:

_____

Debra Murrell, *City Recorder*

These minutes were approved on September 15, 2022.

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, July 21, 2022

Project: Lakeland Meadows Planned Development, Phase 1
Final Development Plan

Staff Contact: Donald Anthony, AICP

PROJECT INFORMATION

Location:	Along the south side of Old Brownsville Road
Parcel ID:	L0150 00539
Zoning District:	AG (Agriculture District)
Neighborhood:	Type 2
Site Area:	15.77 acres
Applicant:	Renaissance Developments LLC
Representative:	Donnie Culver, Renaissance Developments LLC

STAFF RECOMMENDATION

Staff recommends approval, subject to the following conditions:

1. Applicant shall satisfy all staff comments, except those waived by the Planning Commission.
2. Applicant shall satisfy all Planning Commission comments.
3. Applicant shall satisfy all Conditions of Approval and Procedural Requirements listed in this Staff Report.

DISCUSSION

The applicant, Donnie Culver of Renaissance Developments LLC, requests approval of a Final Development Plan for Phase 1 of the Lakeland Meadows Planned Development. Phase 1

consists of 33 lots for single-family detached dwelling units. The subject property is located along the south side of Old Brownsville Road, immediately west of the Winstead Farms Planned Development.

The proposed development would be served by three local streets (Emmie Ridge Drive, Madison Valley Lane, and Quaking Lane), each having a 31-foot right-of-way. Quaking Lane would be extended westward from Winstead Farms, providing a connection between the two subdivisions.

Lakeland Meadows Phase 1 would include lots ranging in area from 0.23 to 0.39 acres. Larger lots—ranging from 0.34 to 0.39 acres—would be located along the west side of Emmie Ridge Lane, adjacent to larger lots in Winstead Farms. Setbacks (30-feet front, 5-feet side, and 20-feet rear) are consistent with those shown in the approved Lakeland Meadows pattern book. Approximately 3.35 acres of Phase 1 are designated as common open space. The proposed 5-foot sidewalks, 9-foot landscape strips, 50-foot stream buffer, and 50-foot scenic corridor buffer are consistent with City regulations and the approved pattern book.

EXAMPLE MOTIONS

1. Motion to approve the Lake Meadows Phase 1 Final Development Plan subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to approve the Lakeland Meadows Phase 1 Final Development Plan without conditions.
3. Motion to deny the Lakeland Meadows Phase 1 Final Development Plan:
   a. Reason for denial

CONDITIONS OF APPROVAL

1. The applicant shall work with staff to address any unresolved staff comments from staff review letter dated July 1, 2022.

PROCEDURAL REQUIREMENTS

1. The applicant shall submit a corrected electronic (PDF) version of the plan to the Planning Department. All revisions shall be clouded on the plan. The applicant shall submit an accompanying letter confirming that all conditions of approval have been satisfied.
2. The applicant shall be responsible for having the plan recorded in the Shelby County Register of Deeds' office after receipt of any necessary security, fees, and contracts to

provide improvements required in the City of Lakeland Subdivision Regulations. The applicant shall obtain all required signatures on the plan prior to recordation.

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, July 21, 2022

Project: Lakeland Village Square, Area A Lots 4 and 5
Preliminary Development Plan

Staff Contact: Donald Anthony, AICP

PROJECT INFORMATION

Location:	9765 Village Circle
Parcel ID:	L0159 00542C
Zoning District:	C-2 (Regional Commercial)
Neighborhood:	Type 5
Site Area:	5.10 acres
Applicant:	Focal Point Investment LLC
Representative:	Wesley Wooldridge, Renaissance Group Inc.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission send this item forward to the Board of Commissioners with an unfavorable recommendation.

DISCUSSION

The applicant, Wesley Wooldridge of Renaissance Group Inc. representing Focal Point Investment LLC, seeks a favorable recommendation to the Board of Commissioners for a Preliminary Development Plan (PDP) for Lots 4 and 5 of the Lakeland Village Square Planned Development. The subject property is a 5.10-acre parcel located at 9765 Village Circle. The property is part of the Lakeland Village Square development, which was initially approved in 1999.

Property Characteristics

The 5.10-acre subject property has a generally rectangular shape with an appendage on its north side. The lot is lightly wooded on the south and northeast. Most of the property is relatively flat, though the appendage on the northwest side has significant grade changes; the applicant proposes using this area for stormwater detention.

Site Access

The site has frontage on Village Circle on the west and the Interstate 40 westbound entrance ramp from Canada Road on the southeast. Access to the site is limited to Village Circle. The applicant proposes using a single driveway connection to serve both Lots 4 and 5; the driveway would be placed along the two lots' shared property line.

Description of Plan

The purpose of this PDP is to amend the standards established for the Lakeland Village Square development, which was approved and recorded in 1999. Specifically, the applicant wishes to amend the approved *Lakeland Village Square Site Plan* document (the equivalent of a current Preliminary Development Plan) to allow a self-service storage facility on Lot 4 and a four-story hotel on Lot 5. The applicant has submitted a Site Plan for the storage facility; however, no plans have been submitted for the hotel.

As proposed in the PDP, Lot 4 would have an area of approximately 2.69 acres, while Lot 5 would have an area of approximately 2.39 acres. A retention pond would be placed on the north end of Lot 4; the pond would accommodate stormwater from both Lots 4 and 5. The proposed building setbacks (60-feet front, 10-feet side, and 25-feet rear) are consistent with those shown in the approved plan.

Lot 4 is the primary focus of the PDP. Lot 4 would be the site of a 90,000-square foot self-service storage facility. The facility would have a height of three stories; at its highest points, the building would reach approximately 42 feet. The exterior of the building would consist primarily of off-white EIFS with a brick base and Nichiha accents. The building would have a porte cochere on the west side, which would serve as the main entrance. Parking would be provided in two areas: one to the west of the building between the building and Village Circle, and one to the south of the building between the building and the Interstate 40 entrance ramp. Access to the site would be provided via a driveway along the southern property line; the driveway would serve both Lots 4 and 5.

Deviations from Approved Plan

The PDP deviates from the approved plan in several respects:

1. The PDP adds climate-controlled storage as an approved use. (See Item I.C. in the PDP document.)
2. The PDP increases the maximum height for hotel use to four stories or 50 feet. (See Item II.C. in the PDP document.)
3. The PDP adds a shared entrance for Lots 4 and 5. (See Item III.H. in the PDP document.)
4. In Planning staff's review of the PDP, staff noted an additional change to the approved plan. The approved plan sets a maximum floor area ratio (FAR) of 0.50 for lots within the Lakeland Village Square development. As shown on the submitted plans, Lot 4 would have a FAR of 0.77. Thus, the PDP would need to increase the maximum FAR to accommodate the proposed storage facility.

Comprehensive Plan

The Lakeland Land Use Map designates the subject property as Residential Support Center, which is characterized by the Land Use Map as:

> *Primarily planned developments containing neighborhood commercial uses with no on user having greater than 75,000 square feet, limited office, religious facilities, schools, public buildings, and institutional uses. Development requires public water and sanitary sewer service. Streets shall be designed with an urban cross-section.*

Staff Comments

Staff recommends that the Planning Commission send this item to the Board of Commissioners with an unfavorable recommendation. At its May 2022 meeting, the Planning Commission reviewed a Sketch Plan for the self-service storage facility and advised the applicant that such a use would not be appropriate for the subject property. Commissioners expressed concern about the nature of the use, its proximity to other uses and structures, the design of the building, and visibility from Interstate 40 and Canada Road. The Preliminary Development Plan does not fully address those concerns. The proposed building is monolithic, has little articulation, and is clad in a material (EIFS) that is not in keeping with Lakeland's expressed desire for high-quality building materials. The use itself is not well-suited for a site with such high visibility; warehouses and similar buildings are generally more compatible with industrial areas. Further, the size of the storage building is inconsistent with guidelines for Residential Support Center established in the City's adopted Comprehensive Plan.

Standards and Criteria for Planned Developments

Article I, Section 4.T.3.a. of the Lakeland Land Use Regulations give the Board of Commissioners the authority to approve Planned Developments upon written findings from the Planning Commission that the Planned Development satisfies specific standards. The Planning Commission should consider each of these standards in its discussion on this item.

1. Effect on surrounding property. The proposed development will not injure or damage the use, value, and enjoyment of surrounding property nor hinder or prevent the development of surrounding property in accordance with the City of Lakeland Comprehensive Plan and current development regulations.
2. Availability of facilities. Water supply, wastewater treatment and disposal, and stormwater drainage facilities are available and adequate to serve the proposed development.
3. Compatibility with surrounding uses. The location and arrangement of the structures, parking areas, walks, lighting, and other service facilities shall be compatible with the surrounding land uses. Any part of the proposed development not used for structures, parking, loading areas, or access ways shall be landscaped or otherwise improved except where natural features are such as to justify preservation.
4. Consistency with public interest. Any modification of the zoning or other regulations that would otherwise be applicable to the site are warranted by the design of the PDP and the amenities incorporated therein, and are not inconsistent with the public interest.
5. Owners Association required. Homeowners' or property owners' associations or some other responsible party shall be required to maintain any and all common and open space and/or common elements, unless conveyed to a public body which agrees to maintain such areas.

EXAMPLE MOTIONS

1. Motion to recommend denial of the Lakeland Village Square Area A Lots 4 and 5 Preliminary Development Plan to the Board of Commissioners:
   a. Reason for denial
2. Motion to recommend approval of the Lakeland Village Square Area A Lots 4 and 5 Preliminary Development Plan to the Board of Commissioners subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
3. Motion to recommend approval of the Lakeland Village Square Area A Lots 4 and 5 Preliminary Development Plan to the Board of Commissioners without conditions.

PROCEDURAL REQUIREMENTS

1. The applicant shall submit a corrected electronic (PDF) version of the plan to the Planning Department. All revisions shall be clouded on the plan. The applicant shall submit an accompanying letter confirming that all conditions imposed by the Planning Commission have been satisfied.
2. Signage shall be reviewed separately from the Preliminary Development Plan. The applicant shall submit a separate Sign Permit Application form and fee payment. Any

signage shown in the Preliminary Development Plan submittal is illustrative only; approval of the Preliminary Development Plan does not convey approval of any signage.

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, July 21, 2022

Project: Smith's Plumbing
Site Plan

Staff Contact: Donald Anthony, AICP

PROJECT INFORMATION

Location:	9875 Huff N Puff Road
Parcel ID:	L0159 00515
Zoning District:	C-2 (Regional Commercial)
Neighborhood:	Type 5
Site Area:	0.91 acres
Applicant:	Dustin Smith, Smith's Plumbing
Representative:	Joshua Bellaire, Arch 1010

STAFF RECOMMENDATION

Staff recommends approval, subject to the following conditions:

1. Applicant shall satisfy all staff comments, except those waived by the Planning Commission.
2. Applicant shall satisfy all Planning Commission comments.
3. Applicant shall satisfy all Conditions of Approval and Procedural Requirements listed in this Staff Report.

DISCUSSION

The applicant, Joshua Bellaire of Arch 1010 representing Dustin Smith of Smith's Plumbing, requests approval of a Site Plan for a 10,720-square foot commercial structure at 9875 Huff N

Puff Road. The subject property is located on the south side of Huff N Puff Road and has additional frontage along Interstate 40. The property consists of 0.91 acres and is zoned C-2.

Project Overview

The applicant wishes to alter the exterior of the existing 10,720-foot, single-story structure. The east side of the structure is currently occupied by a fitness facility. Smith's Plumbing would occupy the west side of the structure. The existing structure is a red brick building with minimal articulation. It previously housed an ATV parts and service center. The site is served by a single curb cut on Huff N Puff Road; additional access is available from a neighboring commercial lot (Tim Hogan's Carpet and Floors) on the west.

Design-related alterations proposed by the applicant include:

1. Painting the brick on the building an off-white color and installing new metal coping;
2. Installing new exterior glass; and
3. Replacing existing windows on the west end of the building with two overhead doors.

Site-related work proposed by the applicant include:

1. Installing new lighting in the parking lot; and
2. Relocating the curb cut along Huff N Puff Road westward to better align with the proposed overhead doors.

The Planning Commission—acting as the DRC—may approve the design-related alterations being sought by the applicant. While overhead doors are not generally permitted to face a public right-of-way, the building's reverse frontage makes it impractical—if not impossible—for the western half of the building to have overhead doors without some visibility from right-of-way. Typically, overhead doors should be placed at the rear of a structure. However, the distance between the rear of the structure and the public right-of-way along Interstate 40 ranges from 11 to 19 feet, making it difficult to maneuver delivery vehicles in that area.

Planning and Engineering staff have reviewed the proposed relocation of the curb cut along Huff N Puff Road and have found no major problems with this change. The Planning Commission should condition any approval of the Site Plan on the applicant providing landscaping and lighting plans that comply with City requirements.

EXAMPLE MOTIONS

1. Motion to approve the Smith's Plumbing Site Plan subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to approve the Smith's Plumbing Site Plan without conditions.

3. Motion to deny the Smith's Plumbing Site Plan:
    a. Reason for denial

CONDITIONS OF APPROVAL

If the Planning Commission chooses to approve the Site Plan, Staff recommends the following conditions:

1. The applicant shall provide lighting and landscaping plans for staff review. The lighting and landscaping plans shall conform to the requirements set forth in the Land Development Regulations.

PROCEDURAL REQUIREMENTS

1. The applicant shall submit a corrected electronic (PDF) version of the plan to the Planning Department. All revisions shall be clouded on the plan. The applicant shall submit an accompanying letter confirming that all conditions imposed by the Planning Commission have been satisfied.

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, September 15, 2022

Project: Harbor Freight
Signage Plan

Staff Contact: Richard T. Donovan, Jr., Planning Consultant

PROJECT INFORMATION

Location:	9050 US Highway 64, Suite B
Parcel ID:	Part of L0159 00408
Zoning District:	C-2 (Regional Commercial District)
Neighborhood:	Type V
Site Area:	5.08 acres
Applicant:	Matthew Milton
Representative:	Balton Sign Company

STAFF RECOMMENDATION

Staff recommends approval of the Harbor Freight Sign Plan.

DISCUSSION

BACKGROUND:
Harbor Freight Tools is seeking to have a wall sign on the front building façade of 9050 Highway 64. The company will be in the empty bay to the west of the Sprouts Grocery Store. The zoning is C2-General Business which allows for retail use. The proposed sign area will be 108.75 square feet and will be illuminated with LED channel letters (White with black returns and white with a blue background). The sign also has a red bounding box around the entire sign.

ANALYSIS:
Upon review by staff there are two items that the MPC/DRC will need to discuss.

1. The sign code allows 1 square foot per linear foot of building frontage. The store front is 106 feet long. The square footage for this sign is calculated based on the red bounding box and measures 108.75 square feet. The DRC does have the ability to approve additional sign area base on the frontage being more than 100 feet from the road. This sign qualifies for the additional signage.
2. The sign code allows for one background color with the returns (sides of the channel letters) counting as a background color. This sign has 3 background colors the red bounding box, the blue "Quality Tools Lowest Prices" bounding box and return, and the black returns on the "Harbor Freight" channel letters. The sign was originally approved with the blue bonding box and return and black returns. This is another area where the DRC could have discretion to approve an alternative.

EXAMPLE MOTIONS

1. Motion to approve the Harbor Freight sign plan subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to approve the Harbor Freight sign plan without conditions.
3. Motion to deny the Harbor Freight sign plan application:
   a. Reason for denial

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800.772.7932
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September 6, 2022

Mr. Richard Donovan
City of Lakeland DRC
10001 US Highway 70
Lakeland, TN 38002

Dear Mr. Donovan,

I am writing you in reference to the Harbor Freight Tools at 9050 Hwy. 64 in Lakeland, TN Please see below in italics in reference to your previous comments.

- Pursuant to Page Label 3; comment 1
  Per exchange between applicant and Richard no need to address this item.

- Pursuant to Page Label 3; comment 2
  Per your sign code if building is setback more than 100' from street you are allowed additional signage at the discretion of the DRC. Our building is an exception here as our setback is greater than 100'. We are set back approximately 260' from Fletcher Trace Parkway and approximately 370' from US Hwy. 70. We kindly request approval from the DRC due to this condition.

Thank you,

Jody Kluttz

HARBOR FREIGHT

QUALITY TOOLS LOWEST PRICES

SIGNAGE PROPOSAL

9050 Hwy 64

Lakeland, TN

SO# 131127

Creation Date: 08/16/2022

Last Revised: --|--|----

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Revisions:	
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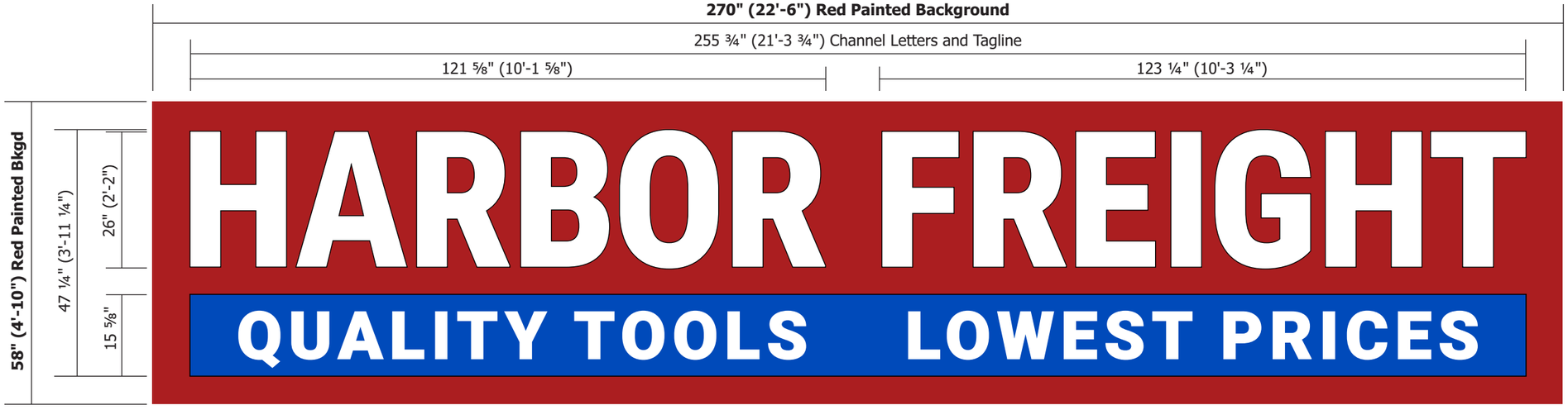
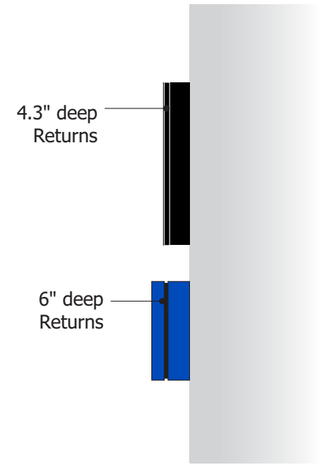
ELE

PM: Jody K.	Address: 9050 Hwy 64
Drawn By: JS	City State: Lakeland, TN
Date: 08/06/2022	Drawing Number: 131127-ELE



S01 Scale: 1/2" = 1'-0"



Side View

SCOPE OF WORK:
Internally illuminated (face lit) channel letters and S/F Tagline Cabinet are existing. Letters & Tagline Cabinet are flush mounted elevation.
Red background to be painted on storefront, behind letters

SQUARE FOOTAGE:
Allowed: 1 sq ft per linear foot - **NTE 106.0 sq ft**

Proposed: 47.25" x 255.75".....**83.91 sq ft**

DESCRIPTION:
- Individual formed letters with pre-finished aluminum returns.
- Acrylic letter faces are secured with 1" Jewelite trimcap.
- Channel Letter are flush to aluminum Staging Panels with internal illumination by LEDs.

LETTER COLOR SCHEDULE:
- Formed aluminum returns Satin Black (outside)/ White (inside)
- 7328 Optics LD white acrylic
- 1" Black Jewelite
- LED modules - White
- Aluminum Staging Panel painted SW 4081 Safety Red (satin)

DESCRIPTION:
- Tagline Cabinet is aluminum extrusion with painted finish.
- (2) cabinets are butted end to end with flex faces & surface applied vinyl graphics.
- Faces have bleed face tension frame.
- Cabinets are flush mounted to aluminum Staging Panel with internal illumination by LEDs.

TAGLINE COLOR SCHEDULE:
- Extruded Cabinet Painted Akzo Nobel 480-C-5 Blue (satin)
- 3M Panagraphics III Flex Face - White with Bleed Face Tension Frame
- 3M 3630-97 Bristol Blue - Weed copy
- LED modules - White

ELECTRICAL NOTES

1. All materials and fasteners meet 3004.4
2. All electrical components are UL listed, labeled and approved.
3. Sign grounded according to NEC 6007.7
4. Signs manufactured and listed NEC 600.3 and marked per NEC 600.4.
5. All branch circuits per NEC 600 .5(B).1 or (B).2.
6. All Signs controlled by photocell or time clock per FBC 13-415. (ABC).1.4.
7. One visible 20 amp disconnect per sign per circuit per NEC 600.6(A).1

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Revisions:	
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S01

PM: Jody K.	Address: 9050 Hwy 64
Drawn By: JS	City State: Lakeland, TN
Date: 08/06/2022	Drawing Number: 131127-S01

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, September 15, 2022

Project: Villa Castrioti
Minor Site Plan

Staff Contact: Richard T. Donovan, Jr., Planning Consultant

PROJECT INFORMATION

Location:	9861 Lake District Drive North, Suite 101
Parcel ID:	Part of L0159 00601
Zoning District:	The Lake District PD with base zoning of C-2 (Regional Commercial District)
Neighborhood:	Type V
Site Area:	~2.97 acres
Applicant:	Joe Clark Manager
Representative:	Christopher Schmidt, CS Studio Architecture

STAFF RECOMMENDATION

Staff recommends approval of the Villa Castrioti Site Plan with the fabric/canvas awnings.

DISCUSSION

BACKGROUND:

A small procedural note, this is a minor site plan that the MPC would not normally review so full set of plans was not required. Staff combined the minor site plan and design review into one MPC approval instead of a review by staff on a few items and review by the DRC on others. Staff did this to reduced confusion on approvals and have a single approval on the site and design elements by the MPC/DRC.

This building was originally site plan and architecturally approved with the first phase of the Lake District retail development. The building has since been constructed and the originally

approved metal canopies installed on the site. This application would change the canopy along the front from the approved 5 to 6-foot metal canopy to a canopy that extends nearly the entire front setback area but turns the large sidewalk/patio area into a usable covered dining space. The new proposed canopy will extend 12 feet into the setback and have 4 planters along the street side of the canopy creating separation from the sidewalk and street.

ANALYSIS:

Accessory structures:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Architecture, façade materials, and rooflines:
The Lake District PD allows canopies to the be within the building setback lines. It does however address canopy materials and express say that vinyl material is not permitted. The applicant has provided an alternative fabric/canvas material for the canopy but prefers the use of vinyl.

A second item of note is that the building was originally site plan approved with metal canopies. This proposal only includes the front canopy, all remaining canopies will be the originally approved metal.

Fences, gates, walls, and hedges:
Staff has reviewed this item, and it meets the requirements of the LDRs.

General content of site plans:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Landscaping, screening, and buffering:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Mechanical equipment, dumpsters, and storage:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Orientation of structures:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Parking, parking lot design standards, and loading area:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Pedestrian circulation:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Required notes:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Setbacks and Other Bulk Requirements:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Shared Access:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Signage:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Site Lighting:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Utilities:
Staff has reviewed this item, and it meets the requirements of the LDRs.

EXAMPLE MOTIONS

1. Motion to approve the Villa Castrioti Site Plan subject to the following conditions:
   a. With cloth awnings.
   b. Conditions as determined by the Planning Commission
   c. Conditions listed in the Staff Report
2. Motion to approve the Villa Castrioti Site Plan application without conditions.
3. Motion to deny the Villa Castrioti Site Plan application:
   a. Reason for denial

cs studio
art + architecture

06 September 2022

Planning Department
City of Lakeland
10001 Highway 70
Lakeland, TN 38002

Ref: Villa Castrioti Covered Patio Awning Request at The Lake District
9681 Lake District Drive North, Suite 101
Technical Review Committee - comment response

Dear Planning Department Staff & Commission Members,

In response to the City of Lakeland's Technical Review Committee comment of, *"The City's design standards do not permit vinyl. The DRC does have some latitude in the decision-making process and can choose to approve alternate materials."*

I would like to reiterate that proposed Serge Ferrari Soltis Proof 502 would be a superior product in comparison to fabric for the following reasons:

1. The installed product will be seamless to provide a continuous modern satin finish to match the current flat metal awning on West side of the building.
2. The smooth finish of this product has a dirt resistant surface treatment that would be beneficial with the use of a lighter color to match the existing metal awnings.
3. The product has longer life cycle than canvas, superior water-resistant capabilities along with 10 year warranty verses a 5 year warranty with Sunbrella like canvas.

If the Commission Members at the formal meeting after the presentation & discussion will not consider the polyester micro yarn-based cloth with a weldable PVDF coating vinyl, the project team has selected a Firesist awning fabric as an alternate cloud in the re-submitted Document.

Please let me know if you have any additional questions and thank you again for your consideration.

Sincerely,

Christopher Schmidt, RA | NCARB | LEED AP

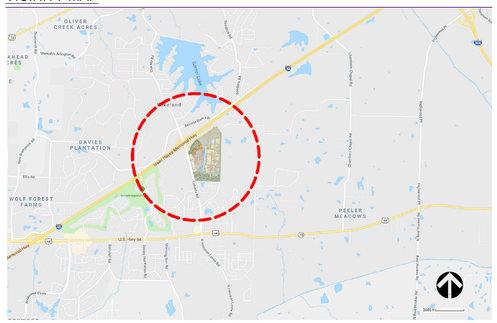
christopher schmidt, architect
6925 redfield drive
germantown, tn 38138
901.596.0705
christopher@csstudioarc.com

Villa Castrioti

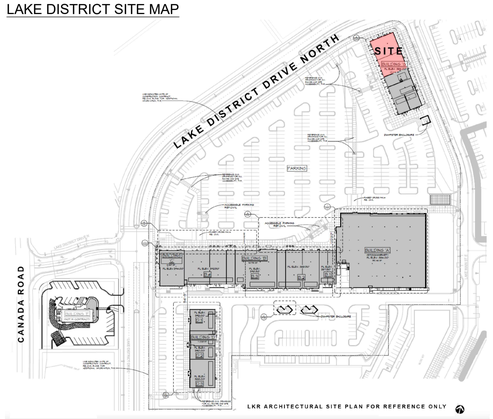
THE LAKE DISTRICT

9861 Lake District Drive North, Suite 101
Lakeland TN, 38002

VICINITY MAP



LAKE DISTRICT SITE MAP



PROJECT NARRATIVE

THIS PROJECT IS TO ADD A 12'x54' CANOPY AWNING, WITH 1' OVERHANGS, OVER AN EXISTING OPEN AIR PATIO FOR VILLA CASTRIOTI AT SUITE 101 IN BUILDING "G" LOCATED AT THE LAKE DISTRICT COMMUNITY IN LAKELAND, TN. THE TENANT SPACE IS CURRENTLY UNDER CONSTRUCTION, PERMIT COM-ALT-21-001289.

THE CANOPY STRUCTURE DOES ENCROACH INTO BUILDING SETBACK BUT THE LAKE DISTRICT P.D. DOES ALLOW ENCROACHMENT OF AWNINGS BEYOND THE BUILDING SETBACK AND THIS ENCROACHMENT IS ENTIRELY WITHIN THE PROPERTY LINE.

THE CANOPY AWNING WILL BE FABRICATED AND INSTALLED BY PARASOL AWNINGS, LLC OUT OF ALUMINUM TUBING FOR THE STRUCTURE AND SUPPORTS WITH A FLAME RETARDANT VINYL COVERING. THE USE OF VINYL PROVIDES MORE DURABLE LONGER LASTING MATERIAL AND ALLOWS FOR A LOWER SLOPE OF THE ROOF PITCH THAN FABRIC.

CODE REVIEW

PROJECT NAME: Villa Castrioti at The Lake District - Building G, Suite 101

PROJECT LOCATION: 9861 Lake District Drive North, Suite 101
Lakeland,TN 38002

SCOPE OF WORK: Adding a canopy awning over the existing outdoor dining patio for the the Villa Castrioti Restaurant tenant currently under construction in Suite 101. Parasol Awnings, LLC will be fabricating and installing the structure and the current tenant contractor Grinder Taber Grinder providing oversight and coordination.

APPLICABLE BUILDING CODES:
2015 International Building Code with Local Amendments
2015 International Existing Building Code with Local Amendments
2014 National Electrical Code with Local Amendments
2015 International Gas Code with Local Amendments
2015 International Mechanical Code with Local Amendments
2015 International Plumbing Code with Local Amendments
2015 International Energy Conservation Code with Local Amendments.
Accessibility Code
American National Standard ICC A117.1 2009 with Chapter 11 of 2015 IBC

EXISTING BUILDING CLASSIFICATION AS FOLLOWS:

BUILDING "G" USE & OCCUPANCY:
Group M-Retail / Group A2 - Restaurant Separated

TENANT OCCUPANCY: A-2 Restaurant

CONSTRUCTION TYPE: IBC TYPE V-B (Unprotected)

FIRE PROTECTION SYSTEMS: FULLY SPRINKLERED PER NFPA-13

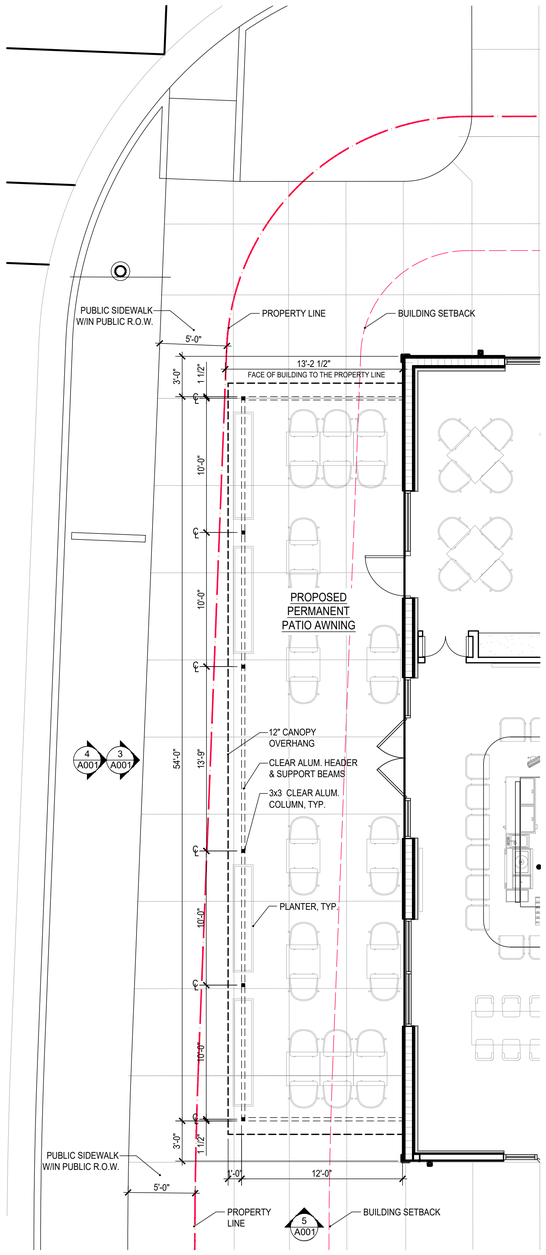
BUILDING AREA: 11,193 SQ.FT.
SUITE 101: 5,262 SQ.FT. (NET AREA OF EXISTING INTERIOR)
SUITE 101 PATIO: 624 SQ.FT.

OCCUPANT LOAD: TOTAL BUILDING OCCUPANT LOAD = 208 OCCUPANTS**

**PATIO SEATING - 48 OCCUPANTS (26 SHOWN) FOR A TOTAL OF 256 OCCUPANTS FOR PLUMBING FIXTURE COUNT THAT WAS ORIGINALLY SUBMITTED FOR PERMIT.

TENANT FIXTURE REQUIREMENTS

OCCUPANT LOAD:	256 (128 Male & 128 Female)
WATER CLOSET:	1 per 75 Each Male & Female - (2) Each Provided.
LAVATORIES:	1 per 200 Each - (1) Each Required
DRINKING FOUNTAIN:	0 (Restaurant Serving Water Per Section 410.1)
OTHER:	1 Service Sink

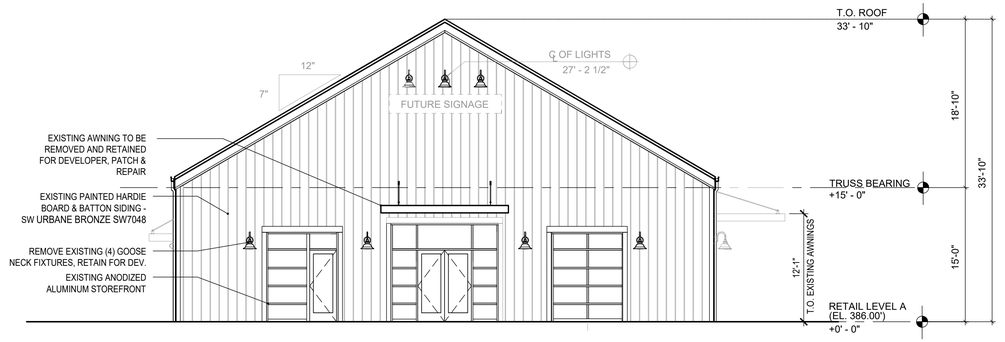


1 Enlarged Site, Patio & Floor Plan

SCALE: 3/16" = 1'-0"

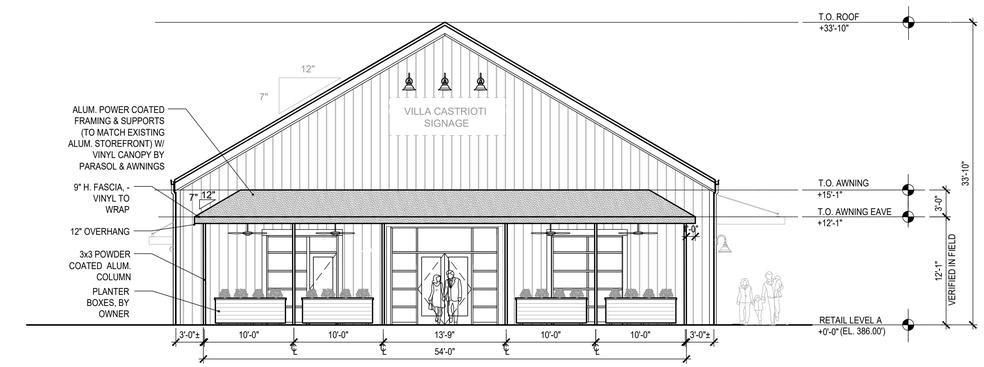
2 Context Images

SCALE: NTS



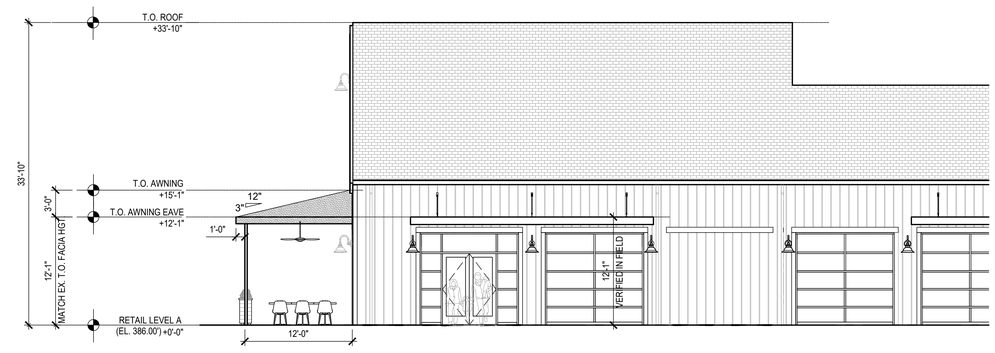
3 North Elevation - Existing

SCALE: 1/8" = 1'-0"



4 North Elevation - Outdoor Seating Proposed Awning Canopy

SCALE: 1/8" = 1'-0"



5 West Elevation - Outdoor Seating Proposed Awning Canopy

SCALE: 1/8" = 1'-0"

6 Material & Color Sections

SCALE: -

PARKER DESIGN STUDIO

cs studio architecture

HNA ENGINEERING

GTG GRINDER TABER GRINDER COMMERCIAL CONSTRUCTION CONTRACTORS

PERMIT DOCUMENT
09.06.22

CHRISTOPHER SCHMIDT REGISTERED ARCHITECT AGRICULTURE No. 109519 STATE OF TENNESSEE

VILLA CASTRIOTI
9681 LAKE DISTRICT DRIVE NORTH
SUITE 101
LAKELAND, TN 38002

Drawing Date: . 09.06.22
CS
CS | LC
Scale: As Noted

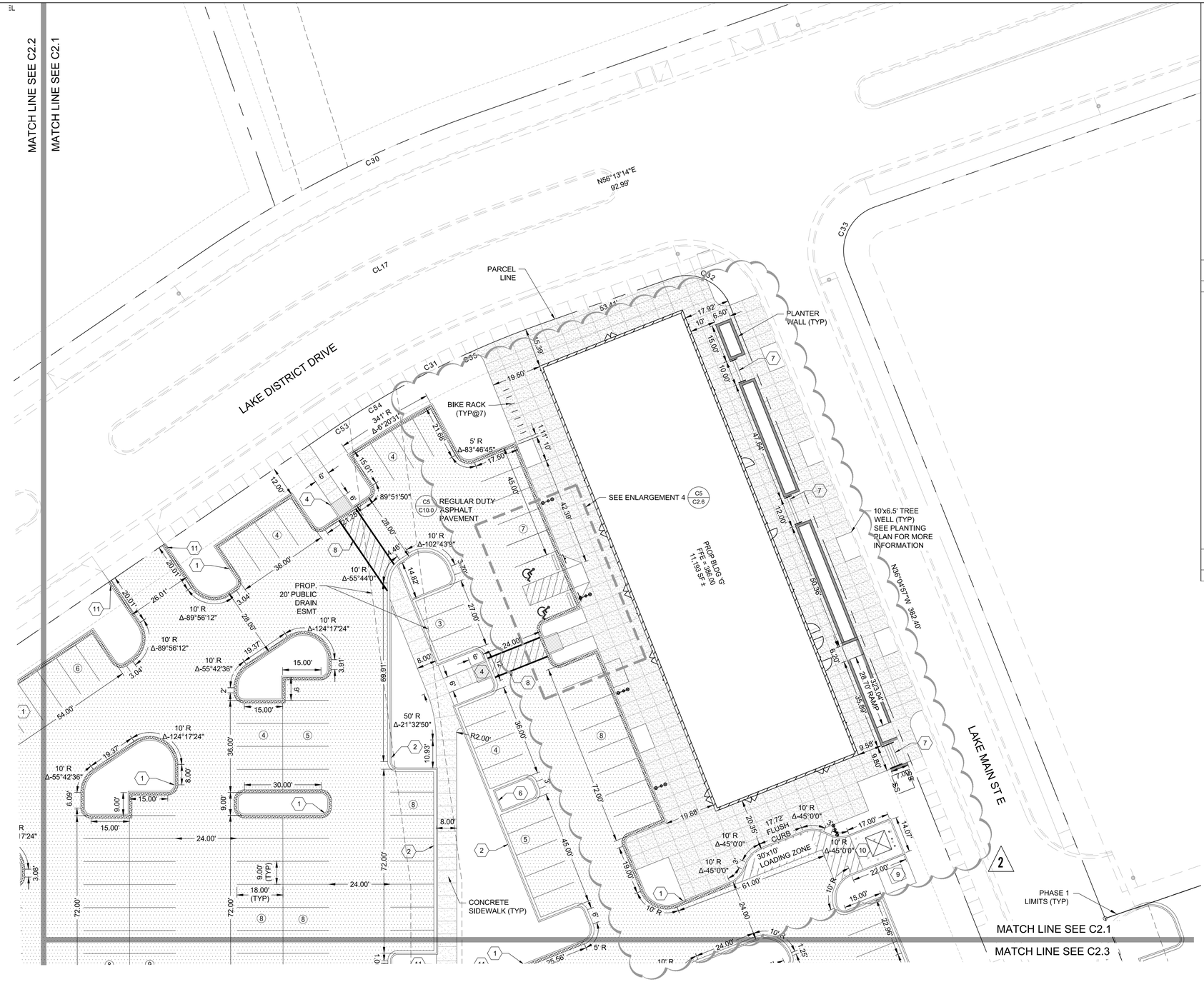
Revisions:

No.	Description	Date
	Permit Document	08.15.22
1.	Awning Fabric Alternate	09.06.22
2.		
3.		
4.		
5.		
6.		
7.		
8.		

A001

PATIO CANOPY PLAN, ELEVATIONS & NOTES

THIS DOCUMENT IS THE PROPERTY OF A2H, INC., AND ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS SHALL BE RETAINED BY SAME. ANY UNAUTHORIZED USE OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO A2H, INC., AND THE USER SHALL INDEMNIFY AND HOLD HARMLESS A2H, INC., FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING THEREFROM. ANY MODIFICATIONS OF THIS DOCUMENT WITHOUT THE WRITTEN VERIFICATION OF A2H, INC., FOR THE SPECIFIC PROJECT SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO A2H, INC. THE USER SHALL INDEMNIFY AND HOLD HARMLESS A2H, INC., FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING THEREFROM. IF CHANGES ARE MADE TO THIS DOCUMENT WITHOUT THE WRITTEN VERIFICATION OF A2H, INC., FOR THE SPECIFIC PROJECT, THE USER SHALL INDEMNIFY AND HOLD HARMLESS A2H, INC., FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING THEREFROM. IF CHANGES ARE MADE TO THIS DOCUMENT WITHOUT CONSENT, THE LIABILITY OF ANY CLAIM IS ACCEPTED BY THE RESPONSIBLE PARTY MAKING THE CHANGE.



C5 C10.0	REGULAR DUTY ASPHALT PAVEMENT SECTION
B4 C10.0	CONCRETE PAVEMENT
A4 C10.0	CONCRETE SIDEWALK
B4 C10.1	BRICK PAVERS
A3 C10.0	REVERSE 6-18 CURB & GUTTER
A2 C10.0	STANDARD 6-18 CURB & GUTTER
	LIGHT STANDARD

A5 NTS — LEGEND

NOTES:
1. ALL DELTA ANGLES ARE 90° UNLESS NOTED OTHERWISE.
2. ALL RADII ARE 3' UNLESS NOTED OTHERWISE.
3. ALL SIDEWALKS ARE 5' UNLESS NOTED OTHERWISE.
4. ANY AREAS USED BY THE CONTRACTOR FOR LAYDOWN OR HIGH PRESSURE CONSTRUCTION TRAFFIC SHALL HAVE A MINIMUM OF 8 INCHES CRUSHED ROCK. THESE AREAS SHALL BE MAINTAINED TO SUPPORT POSITIVE DRAINAGE AND SHALL NOT BE PAVED UNTIL HIGH PRESSURE EQUIPMENT IS NO LONGER NEEDED.

KEYNOTES

1. REVERSE 6-18 CURB AND GUTTER, SEE A3/C10.0
2. STANDARD 6-18 CURB AND GUTTER, SEE A2/C10.0
3. TRENCH DRAIN, SEE C4/C10.0
4. CURB RAMP, SEE D1/C10.1
5. TURN-DOWN SIDEWALK (SEE STRUCTURAL PLANS) W/ HANDRAIL, SEE A1-C10.2
6. 2' CONCRETE FLUME, SEE A5/C10.0
7. STAIR(S) WITH HANDRAIL.
8. 6' CROSSWALK WITH 6" SINGLE SOLID WHITE STRIPE.
9. PAD MOUNT TRANSFORMER, SEE ELECTRICAL PLANS
10. DUMPSTER ENCLOSURE, SEE ARCHITECTURAL PLANS
11. TRANSITION THE CURB HEIGHT FROM 6" TO 0" IN THE LAST 2'

B5 NTS — NOTES

CIVIL REFERENCE DOCUMENT NOTING THE PARCEL / PROPERTY LINE AND R.O.W. WITH PUBLIC SIDEWALK

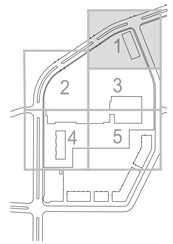
D1 — SITE LAYOUT PLAN - AREA 1
1" = 20'

NORTH
GRAPHIC SCALE: 1" = 20'
20 0 20

CITY ENGINEER DATE

A2H ENGINEERS ARCHITECTS PLANNERS
A2H, INC.
3009 DAVIES PLANTATION ROAD
LAKELAND, TN 38002
P. 901.372.0404
WWW.A2H.COM

MICHAEL J. HOWELL REGISTERED ENGINEER AGRICULTURE No. 119671 STATE OF TENNESSEE 4-6-20



THE LAKE DISTRICT

THE LAKE DISTRICT PLANNED DEVELOPMENT

LAKELAND, TN

PHASE 1 - AREA 'A' CONSTRUCTION DOCUMENTS

REVISIONS

2	11/17/2020	AS1#14C-BLDG G & BLDG B PATIOS

PROJECT NO.	DATE
15109.01	04/06/2020
DRAWN	CHECKED
DDT	MJH

SITE LAYOUT PLAN - AREA 1

C2.1

michaelh
I:\2015\15109.01\2 Civil\Prodwgs\Phase I-Area A\15109.01-PH1-A-Site.dwg
Nov 16, 2020 - 4:03pm
PLOT SCALE:
LATEST REV.:

Serge Ferrari | Soltis Proof 502

Applications
Awnings, canopies, pergolas, shade sails, light structures, fixed shading systems

Sparks creativity

- a unique satin finish to give a modern and high-end look to your projects
- a palette of 40 colors to give personality to your designs
- flexibility and strength provide freedom of shape and size.

Innovation and performance

- a weldable PVDF surface treatment improves dirt resistance
- a very smooth finish ensures easy upkeep
- tried and tested protection against heat and bad weather for year-round comfort
- maximum UV protection: Soltis® Proof 502 blocks 100% UV rays (UPF 50+ for all colors).

Proven longevity

Thanks to its Précontraint® technology, Soltis Proof 502:

- does not tear or stretch, ensuring structures last over time
- durably resists UV damage due to rigorous pigment selection and thicker coating over the yarn crest than the competition

Unfailing resistance for colorful projects

Serge Ferrari | Soltis Proof 502

Concrete 70.8 in 502V2-2167C

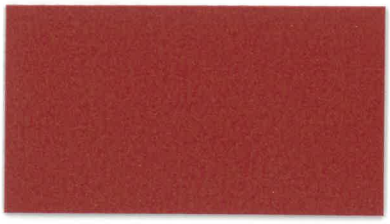
White 70.8 in 502V2-8102C

Boulder 70.8 in 502V2-2171C

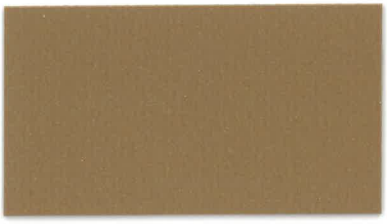
Concrete 70.8 in 502V2-2167C

Black 70.8 in 502V2-8450C

Metallic colors



Velvet red 70.8 in 502V2-2152C

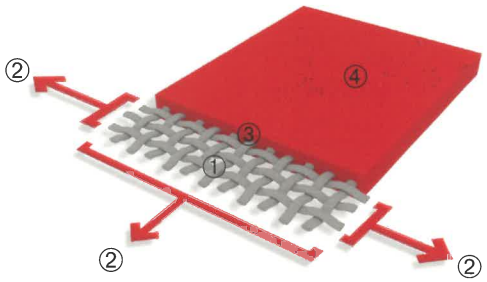


Autumn 70.8 in 502V2-2138C

Aluminium 70.8 in 502V2-2168C

Exclusive Précontraint® technology

Patented worldwide, the Précontraint® technology by Serge Ferrari involves keeping the composite under tension throughout the manufacturing process. This gives our materials exceptional performance that enables them to surpass market standards in terms of dimensional stability, mechanical strength, coating thickness and flatness.



High-tenacity polyester micro-yarn base cloth	①	Superior elongation and tear resistance
A coating with fabrics under bi-axial constant tension in both warp and weft directions	②	No deformation during processing and use
Thicker coating at the top of the yarns and a dirt resistant surface treatment	③	Superior aesthetic and mechanical durability
Exceptional flatness and thinness	④	Smooth easy to clean finish, space saving, easy rolling

Soltis
Proof 502

	Technical properties	Standards
Weight	16.8 oz/yd^2	EN ISO 2286-2
Thickness	0.45 mm	
Width	70.8 in	

	Length of rolls	
Standard format length	43.7 yds	

	Physical properties	
Tensile strength (warp/weft)	200/200 daN/5 cm	EN ISO 1421
Tear strength (warp/weft)	20/20 daN	DIN 53.363
Adhesion	7/7 daN/5 cm	EN ISO 2411

	Surface treatment	
Finish	PVDF Varnish both sides	

	Flame retardancy	
Rating	**Method 1 & 2**/NFPA 701 — CSFM T19 — **CLASS A**/ASTM E84 — CAN/ULC-S109 — **M2**/NFP 92-507 **B1**/DIN 4102-1 — BS 7837 — **1530.2 et 3**/AS/NZS — **M2**/UNE 23.727-90 — **VKF 5.3**/SN 198898 **Schwerbrennbar Q1-Tr1**/ONORM A 3800 — **Group 1**/AS NZS 3837 — **Class 2**/UNI 9177-87 **G1**/GOST 30244-94 — CPAI 84	
Euroclass	**B-s2,d0**	EN 13501-1

	Management systems	
Quality		ISO 9001

Certifications, labels, warranties, recycling

10-year warranty

S+ With **S+** Serge Ferrari goes further than the standards. (Consult us for further information.)

Tools and services

— Maintenance manual available on request

The above technical data represent average values subject to a +/-5% tolerance.
The buyer of our products is fully responsible for their application or their transformation concerning any possible third party. The buyer of our products is responsible for their implementation and installation according to the standards, workmanship and safety regulations in force in destination countries. For information on our contractual warranty, please refer to the relevant terms and conditions.
The values quoted above represent results of tests performed in compliance with common design practices and are provided for information only to enable customers to make the best use of our products. Our products are subjects to evolutions due to technical progress, we remain entitled to modify the characteristics of our products at any time. The buyer of our products is responsible for checking the validity of the above data.

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Réf. 1043 - SEPTEMBER 2018/V1.01
US

Cover picture: Antalya exhibition, Turkey - Yercekim Architectural Photography
Inside pictures: GoDaddy Global Tech Center - USA ©International Tension
Structures, Private house - Costa Rica — Photos: Serge Ferrari sas

Serge Ferrari
lightweight + durable

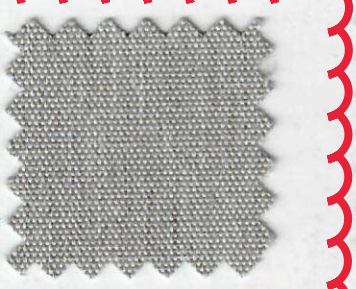
Serge Ferrari North America
954.942.3600
marketing.us@sergeferrari.com
sergeferrari.com

THE BEST OF BOTH WORLDS

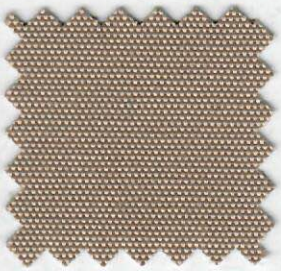
Specify FIRESIST® for an up-to-code fire-resistant awning and shade fabric that looks as good as it performs. Improved strength, colorfastness, and weather-resistance make fabrication with FIRESIST easier than ever.

CEDAR
82023-0000
NEW!

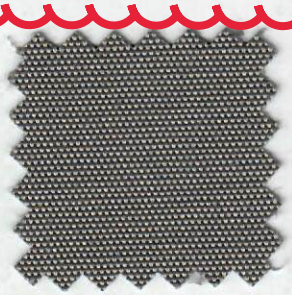
IVORY
82015-0000



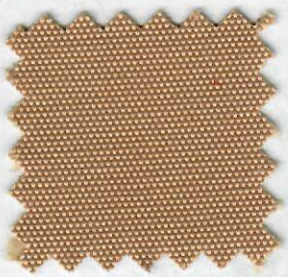
FOG
82024-0000
NEW!



SAND
82006-0000



GREY
82030-0000



TOASTY BEIGE
82012-0000

FIRE RETARDANT

FIRESIST® delivers a state-of-the-art combination of flame retardant performance and UV resistance that exceeds industry standards.

WEATHER RESISTANCE

With over 100 years of outdoor awning experience, Glen Raven has engineered new coatings and finishes to maximize water repellency, sunlight resistance, and ease of cleaning.

COLOR RETENTION & STRENGTH

The deep, rich colors and robust durability of FIRESIST deliver long lasting good looks to any application. Plus, workability improvements make cutting, sewing and welding easier than ever.

STYLING

The new FIRESIST color palette focuses on popular solids and custom blends.

GREENGUARD CERTIFICATION
Firesist fabric has achieved GREENGUARD GOLD Certification. Firesist fabrics are certified by GREENGUARD as contributing to healthy air quality by being a very low chemical emitting product.

TECHNICAL DATA	
WEIGHT	8.75 oz. per square yard
WIDTH	60" / 152.4 cm
COLOR	Solution dyed to resist color loss from UV exposure and weathering. Resistant to most chemicals, including bleach.
WARRANTY	5 years against loss of color or strength.
SURFACE	Plain weave - Highly water repellent and soil/stain release finish.
UNDERSIDE	Urethane/acrylic coating
TRANSPARENCY LEVEL	Lighter shades translucent for back-lighting applications.
ABRASION RESISTANCE	Excellent
FLEXIBILITY	Excellent in both hot and very cold conditions.
FLAME RESISTANCE (PASSES ALL, BUT NOT LIMITED TO)	California State Fire Marshal Title 19 NFPA 701-99, test method II CPAI-84; Tent walls and roof FMVSS 302 FAA 25.853 (Aviation) UFAC Upholstered Furniture, Class 1 ULCS-109
MILDEW RESISTANCE	Excellent (with proper maintenance and cleaning)
CHEMICAL RESISTANCE	Excellent
WATER REPELLENCY	Excellent
OIL RESISTANCE	Very good
SEWABILITY	Excellent
HEAT SEALING	Can be heat sealed using sealing tape and heat source such as wedge, hot air, radio frequency welding, etc.

FIRESIST®

Firesist® is a registered trademark of Glen Raven, Inc. FRSWATCHCD18

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, September 15, 2022

Project: Kensington Manor
Preliminary Development Plan Amendment

Staff Contact: Richard T. Donovan, Jr., Planning Consultant

PROJECT INFORMATION

Location:	10468 Memphis Arlington Road
Parcel ID:	L0159 00496
Zoning District:	Kensington Manor PD
Neighborhood:	Type II
Site Area:	46.13 acres
Applicant:	Regency Homebuilders
Representative:	Josh Burnette, PE, Renaissance Development

STAFF RECOMMENDATION

Staff recommends approval of the PDP Amendment for Kensington Manor PD.

DISCUSSION

BACKGROUND:

Kensington Manor Planned Development is a 103-lot single-family residential development located on 64.84 acres at the southeast corner of Highway 70 and Evergreen Road. Regency Homebuilders acquired the property from Bank of Bartlett and has completed construction on Phases 1 & 2 of the development. The development is divided into five (5) phases with full buildout projected to take approximately ten (10) years. Phase 3, as proposed in the amendment will include 27 single family lots and 3 common open spaces.

ANALYSIS:

There are four items that are being requested in the amendment to the Preliminary Development Plan. Each of those items is further explained below:

1. The applicant is requesting the phases be renumbered. Phase 5 will become Phase 3 and vice versa.

   This is a minor request and overall is not a major issue. If other changes were not being requested as in the PDP amendment an amendment would not be necessary for this.

2. Evergreen Road will be closed as a part of the new Phase 3.

   Phase 5 of the PD currently includes the closing of Evergreen at Highway 70. The Amendment proposes moving that closure up since the approved Phase 5 would be the new Phase 3. Once the closure is complete this would route traffic from Evergreen Road through the Kensington Manor subdivision to Highway 70 at Saffron Springs Drive. The Engineering Department has monitored the traffic in the are within the last month and this change is expected to affect 5 to 7 vehicles per day.

3. The developer will construct their section of Chambers Chapel with new Phase 3.

   The developer will be constructing their section of Chambers Chapel with the new Phase 3 (old Phase 5). The PD currently requires construction or payment in lieu of at Phase 3 of the project. The applicant has also requested that the construction plans for this section of Chambers Chapel be submitted to the Engineer Department upon approval of the amendment.

4. The applicant is requesting sewer be routed through a non-disturbance in a portion of the open space.

   The developer has also requested a portion of the sewer line be routed through a non-disturbance area within a common open space. The sewer is currently routed along the roads within the development instead of through the common open space. This area will not affect any specimen trees, as defined in the tree ordinance, and is being routed through an area that would only require clearing of small underbrush as shown in the picture provided in the response letter. For similar projects in the past clearing has been allowed for items 3 inch or smaller in non-disturbance areas.

STANDARDS AND CRITERIA FOR PLANNED DEVELOPMENTS

Article I, Section 4.T.3.a. of the Lakeland Land Use Regulations give the Board of Commissioners the authority to approve Planned Developments upon written findings from the Planning Commission that the Planned Development satisfies specific standards. The Planning Commission should consider each of these standards in its discussion on this item.

1. Effect on surrounding property. The proposed development will not injure or damage the use, value, and enjoyment of surrounding property nor hinder or prevent the development of surrounding property in accordance with the City of Lakeland Comprehensive Plan and current development regulations.
2. Availability of facilities. Water supply, wastewater treatment and disposal, and stormwater drainage facilities are available and adequate to serve the proposed development.
3. Compatibility with surrounding uses. The location and arrangement of the structures, parking areas, walks, lighting, and other service facilities shall be compatible with the surrounding land uses. Any part of the proposed development not used for structures, parking, loading areas, or access ways shall be landscaped or otherwise improved except where natural features are such as to justify preservation.
4. Consistency with public interest. Any modification of the zoning or other regulations that would otherwise be applicable to the site are warranted by the design of the PDP and the amenities incorporated therein, and are not inconsistent with the public interest.
5. Owners Association required. Homeowners' or property owners' associations or some other responsible party shall be required to maintain any and all common and open space and/or common elements, unless conveyed to a public body which agrees to maintain such areas.

EXAMPLE MOTIONS

1. Motion to recommend approval of the PDP Amendment for Kensington Manor PD to the Board of Commissioners subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to recommend approval to recommend approval of the PDP Amendment for Kensington Manor PD to the Board of Commissioners without conditions.
3. Motion to recommend denial to recommend approval of the PDP Amendment for Kensington Manor PD to the Board of Commissioners:
   a. Reason for denial

RENAISSANCE
DEVELOPMENTS, LLC

September 9, 2022

Richard T. Donavan, Jr., AICP, CNU-A
City Planner
City of Lakeland
10001 US-70
Lakeland, TN 38002

RE: KENSINGTON MANOR PD AMENDMENT AND PHASE 3 PLANS

Mr. Donavan:

In response to the comments of the PDP for Kensington Manor and the construction plans for Phase 3, we would like to provide the following responses:

First, it is our intention to construct the remaining portion of Chambers Chapel with Phase 3 construction. Since the construction plans for Chambers Chapel were not initially provided with the Phase 3 construction set, we would like to request to provide these drawings as a condition of approval following the September Planning Commission date.

Second, there is one 36" oak tree near the proposed sewer easement on the north portion Phase 3. This tree is currently outside of the easement; however, due to the proximity of the sewer line to the tree roots, it may be necessary to slightly adjust the sewer alignment to preserve the health of the tree. There is plenty of room to make this adjustment if needed. Figure 1 below is a picture taken on top of the existing sewer manhole looking upstream along the proposed sewer route. We also show the tree on the sanitary sewer layout plan.

Figure 1: Proposed Sewer Route

3157 Highway 64, Suite 200 - Eads, TN 38028 - Ph: 901.466.4101 - Fax: 901.466.4104
www.Renaissance-Company.com

RENAISSANCE
DEVELOPMENTS, LLC

Finally, we added the future phases to the preliminary plat; however, the current viewport is only enough room to show portions of the existing phase 2 and future phase 4. If you need a plat showing the parent parcel with all phases, we can add that to the construction set; however, it would be very similar to the exhibits in the planned development and may be considered redundant. Detailed landscaping and irrigation plans are provided with this submittal.

The purpose of the PDP amendment is due to the proximity of the sewer outfall location. Due to the grading plan and sewer locations for phases 1 & 2, construction of phase 3 as per the original PD is not feasible since the existing sewer connection in Phase 2 is too high. We would like to modify the PD to swap Phases 3 & 5 so that Phase 3 can feasibly be constructed. This is also a strategic way to install the sewer with construction rather than installing the entire sewer line in undeveloped phases. It is very risky to install sewer without a design for other infrastructure such as road geometry and storm drainage. The amended PDP includes the following changes:

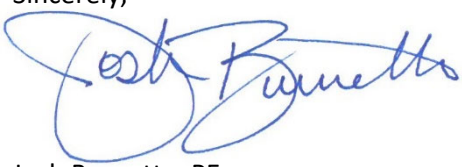
1. The central natural private park area increased from 3.28 acres to 3.31 acres*
2. Sheet 5: COS area decreased from 8.71 acres to 8.34 acres**
3. Sheet 5: Conservation easement area increased from 5.89 acres to 6.08 acres*
4. Sheet 5: Detention pond areas 1-3 were slightly modified.* Detention area 4 increased to 1.94 acres.**
5. Sheet 9: Updated conditions of approval to reflect modified phasing request
6. Sheet 16: Updated Site plan with updated site calculations
7. Sheet 17: Updated master plan with accurate lot areas.
8. Sheet 28: Updated phasing plan and lot counts

*The original survey was produced in 2006. Minor area changes are due to the most recent and more accurate survey.

**Detention Area 4 increased resulting in a decrease in the total PDP COS area. The detention area will still be platted as COS.

If any additional information is needed, please do not hesitate to contact me.

Sincerely,



Josh Burnette, PE

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www.Renaissance-Company.com

Kensington Manor

PDP AMENDED BY
RENAISSANCE DEVELOPMENTS
AUGUST 2022

November 19, 2007
Revised: December 19, 2007
Revised: January 9, 2008

FILE COPY

Kensington Manor

A Planned Residential Development

Prepared for:

REGENCY HOMEBUILDERS
3420 S HOUSTON LEVEE RD
COLLIERVILLE, TN 38017

Prepared By:

RENAISSANCE DEVELOPMENTS
3157 HWY 64 SUITE 200
EADS, TN 38028

a

CONDITIONS OF APPROVAL

I. General Statement
II. Land Uses Permitted
III. Legal Description
IV. Relationship to the Comprehensive Plan
V. Relationship to Parks Master Plan & Greenways Plan (including parkland dedication or payment in lieu, if any)
VI. Other Public Facilities (if any)
VII. Conveyance (rights-of-way, COS, and other facilities)
VIII. Private Recreational Facilities
IX. Common Open Space, Conservation Easements, Other Public Easements, Non-disturb Easements, or Dedications
X. Design Guidelines
XI. Quantitative including acreages, densities, and all quantitative information generated from the items below (total, and by phase, if applicable)
XII. Roads, Access, Circulation, and Design
XIII. Protection of natural features (trees, streams, other)
XIV. Water, Sewer, & Drainage
XV. Bulk and Similar Requirements (including, but not limited to)
XVI. Additional requirements
XVII. Phasing of Development
XVIII. Expiration / Termination of the PDP
XIX. Approvals Procedure for Additional Plan Elements and/or Future Phases

b

EXHIBITS

A. Regional Location Map
B. Immediate Area Location
C. Boundary Plat Plan
D. Legal Description
E. Aerial Photograph & Slope Analysis
F. Natural Features Map & Soils Map
G. Photo Analysis
H. Circulation Plan
I. Preliminary Site Plan
J. Master Plan Illustration
K. Schematic Sewer & Water Plan
L. Preliminary Drainage/Grading Plan
M. Existing Trees
N. Tree Protection & Removal
O. Road Cross Sections
P. Landscape Plates & Buffers
Q. Street Tree & Irrigation Plan
R. Entry Signage
S. Relationship Between Proposed Development & the City's Zoning Map, Parks and Recreation Plan, and Landuse Plan
T. Phasing Plan
U. Typical Lot Dimensions & Lighting
V. Architectural Character
W. Tree Protection Techniques on Front Loaded Lot
X. Lot 14 Setback Enlargement

CONDITIONS OF APPROVAL

I. General Statement

Kensington Manor is a proposed planned development consisting of 103 single-family lots on 64.84+/- acres. The neighborhood layout is designed to compliment existing natural features, provide many amenities for its residents, and accommodate future transportation needs. The property, currently zoned AG, is owned by Regency Homebuilders. As the developer, they plan to work closely with the city staff to provide a high quality, pedestrian friendly residential community.

1. To provide for a high quality, pedestrian friendly, walkable community with ample amenities for its residents. Tree lined streets with pedestrian walks on both sides have been provided to facilitate connectivity. A central 3.31 acre natural private park containing walking trails, large existing trees, and a swimming pool complex occupies a central location in the site. Two additional private parks provide outdoor common open space for the residents as well.
2. To protect and preserve much of the site's natural features, three private internal parks with wide perimeter buffers and tree-save areas has been provided to preserve much of the existing vegetation. Individual lots will also be developed in a manner that will help save large existing trees that are not in the immediate building envelope of the home. 90' conservation easements have also been provided along Memphis-Arlington Road and Chambers Chapel Road.
3. Vehicular connectivity will be encouraged throughout the neighborhood by providing multiple access points. Four community entrances have been provided, connecting to each of the bordering thoroughfares. Over 13% of the site area has been dedicated to meet the needs of the community.
4. To provide for cohesive, high quality homes and community architectural elements; Architectural guidelines will govern the design of each home that is to be constructed. Lot landscape guidelines set forth in Kensington Manor's Neighborhood Declaration of Covenants, Conditions, and Restriction govern the quantity and quality of plant material on each individual lot.

II. Land Uses Permitted

1. Lot area: Single-family detached residential uses shall be permitted and regulated in the R2A Medium Density Residential classification, as modified herein.
2. Common Open Space (C.O.S.): All common open space shall be placed in a platted common open space lot and shall be used for the resident's recreation. Improvements shall be allowed, including but not limited to: paved trails, swimming pools, community architectural elements, signage, landscape, lighting, benches, and bike racks. (Improvements excluded in conservation easement areas – see section IX, 3)
3. Detention Pond Areas: These areas are for the express use of detaining site runoff to its pre-development rate. All infrastructure associated with this function is allowed.
4. Accessory uses and structures shall be permitted in accordance with the applicable provisions of the Lakeland Zoning Ordinance as pertains to the principle use of the property.
5. A Declaration of Covenants, Conditions, and Restrictions, hereinafter the "Declaration" shall be applicable to all properties within the community. The Community is required to create both a Design Review Committee and a Development Association. The Design Review Committee will review and approve all development details and architectural designs prior to final plan approval. The Development Association will ensure that the project is properly maintained. A Master Development Association will be established to maintain all Common Open Spaces and to ensure that all features and amenities of the development that are considered common assets are continuously maintained in a quality manner.

III. Legal Description

From the boundary survey by Loudenbeck Surveying, PLLC, dated March 10, 2006: a certain tract or parcel of land located on Memphis-Arlington Road in Lakeland, Shelby County, Tennessee, and more particularly described as follows:

Beginning at an old PK nail (found) at the intersection of the centerline of Memphis-Arlington Road and Evergreen Road; thence with the centerline of Evergreen Road North 05 degrees 03 minutes 52 seconds East a distance of 1497.54 feet to a new PK nail in the south right-of-way line of U.S. Highway 70 (60 foot right-of-way); thence with said south line 66 degrees 31 minutes 27 seconds East a distance of 928.86 feet to a new iron rebar ; thence South 11 degrees 14 minutes 58 seconds East a distance of 404.29 feet to an old iron pin (found), said point being the southwest corner of the Thelma L. Smalley Subdivision (Plat Book 68, Page 3); thence with the south line of said subdivision South 86 degrees 50 minutes 11 seconds East a distance of 729.07 feet to an iron pin (found), said point being the northwest corner of the Jerry Jenkins Subdivision (Plat Book 177, Page 61); thence with west line of said subdivision South 02 degrees 06 minutes 43 seconds West a distance of 1508.66 feet to an old PK nail (found) in the centerline of Memphis-Arlington Road; thence with said centerline along to a curve to the right having a radius of 353.21 feet and an arc distance of 235.53 feet (chord = 231.9 feet, chord bearing = South 70 degrees 35 minutes 25 seconds West); thence continuing with said centerline North 84 degrees 00 minutes 02 seconds West a distance of 152.26 feet to the POINT OF BEGINNING, and containing2,824,337.4296 square feet or 64.838 acres. All bearings are referenced to the Tennessee State Plane Coordinate System of 1983.

IV. Relationship to the Comprehensive Plan

1. The site is designated as Suburban Residential on the City of Lakeland's Comprehensive Plan, recommending a maximum density of 2.5 units per acre. The Kensington Manor Preliminary Development Plan has 103 residential lots with a gross density of 1.59 units per acre.
2. The site is located in close proximity to planned mixed use and residential support center districts. These commercial districts would provide support and limit the number and distance of vehicular trips.
3. Two of the roads bordering the site, Memphis-Arlington Road and Proposed Chambers Chapel Road, are designated as scenic corridors on the Comprehensive plan. The PDP preserves the scenic nature of these thoroughfares by dedicating rights-of-way, payment in lieu for improvements, and by incorporating conservation easements.

V. Relationship to Parks Master Plan and Greenway Plan

There is no proposed park recommended or existing park proximate to Kensington Manor, per the Lakeland Parks and Recreation Plan, current edition. The greenway recommendations are being fulfilled along Chambers Chapel Road with the sidewalk and bike lanes in the proposed road, which will be paid in lieu. See Exhibit O for proposed road cross sections. Per the formula in the Lakeland Subdivision Regulations, this project is required 3.79 acres of parkland dedication. This will be handled by payment in lieu with the development contract for the applicable section.

D=L x A x P x M
D= Dedication Area
L= # of Dwelling Units (103 total)
A= Average Family Size (2.94)
P= Parkland Ratio (0.01)
M= Density Multiplier (1.25)

D= 103 x 2.94 x 0.01 x 1.25 = 3.79 acres

VI. Other Public Facilities

There are no other public facilities planned for this neighborhood, other than incidental public streets and utilities.

VII. Conveyance (rights-of-way, COS, and other facilities)

1. Perimeter Roads Right-of-Way – See Exhibit I for illustration

The perimeter roads rights of way dedication are as illustrated below. This land will be conveyed to the city as public right-of-way.

R.O.W. dedication along Evergreen Road (25'):	0.90 Ac.
R.O.W. dedication along Memphis-Arlington Road (34'):	1.32 Ac.
R.O.W. dedication along Chambers Chapel Road (106'):	3.26 Ac.
R.O.W. dedication along U.S. Hwy 70 (24'):	0.51 Ac.
Total perimeter road right-of-way dedication	5.99 Ac.

2. Internal Roads Right-of-Way

The proposed thoroughfares internal to the site will be dedicated to the city as public roads. The land area will be conveyed to the city as public right-of-way.

Internal road R.O.W. to be dedicated (35' or 45' width):	8.66 Ac.

3. Common Open Space (COS)

Common Open Space, which includes useable private park space, ornamental landscape areas, and buffers will be placed in a platted open space lot for the use of the residents and be maintained by the Kensington Manor Homeowner's Association. Common open space is as follows:

Total area platted as COS (excluding conservation easements):	8.34 AC

4. Conservation Easements

90' conservation easements, along the frontage of Memphis-Arlington Road and Chambers Chapel Road, will be granted to the City of Lakeland. These easements will be placed in a platted lot, which will be owned by the HOA. See Section IX, 3 for specific information on these easements.

Total area platted in conservation easements:	6.08 AC

5. Detention Ponds

All basins will be platted in a permanent detention easement that is owned and maintained by the Kensington Manor Homeowner's Association. Detention land areas are as follows:

Det. Pond 1:	0.73 AC
Det. Pond 2:	0.60 AC
Det. Pond 3:	0.47 AC
Det. Pond 4:	1.94 AC
Total area dedicated to detention:	3.74 AC

- See Exhibit I for breakdown. Detention areas have not been counted toward COS.

VIII. Private Recreational Facilities

Kensington Manor provides a 3.31 acre natural private park for the use of its residents. This private park will have a swimming pool and pool house with handicap accessible facilities. This amenity will be maintained by the Kensington Manor Homeowner's Association, and its use will be limited to residents and their guests. It is anticipated that many of the residents will travel to and from this facility via a pedestrian route, given its central location and the sidewalk network. While there are some limited improvements, the intent of this space is to preserve the majority of the healthy existing trees in a passive setting. A minimum of 1/3 acre of lawn area will be provided for active play, and is to be installed in phase three (3), but may be relocated if necessary to maximize natural resource protection on the site.

IX. Common Open Space, Conservation Easements, Other Public Easements, Non-Disturb Easements, or Dedications

1. As described in section VII above, COS areas are to be preserved in a platted common open lot. See chart in Exhibit I for a breakdown of all common open spaces (COS).

The following amenities will be developed in the centrally located private park, designated as common open space:

- Paved pedestrian trails
- Swimming pool
- Pool house
- Benches
- Formal lawn (turf area – 1/3 acre minimum size)

The HOA, funded by resident dues, will be responsible for hiring a maintenance company to maintain the common open spaces. Maintenance duties for the COS will include but not be limited to the following:

- Maintenance of pool/pool house facility
- Mowing the grass on a regular basis
- Pruning trees and shrubs
- Litter removal
- Mulching
- Weed/invasive plant removal
- Herbicide application
- Fertilizer application
- Edging
- Planting annual color
- Removing hazardous damaged branches from trees
- Removal of hazardous trees as determined by an ISA certified arborist

2. The areas denoted by "Detention 1, 2, 3, and 4" shall not be used as a building site or filled without first obtaining written permission from the City of Engineer. The storm water detention systems located in these areas, except for those parts located inn a public drainage easement, shall be owned and maintained by the Homeowners' Association. Such maintenance shall be performed so as to ensure that the system operates in accordance with the approved plan on file in the City Engineer's Office. Such maintenance shall include, but not be limited to, removing sedimentation, fallen objects, debris and trash; mowing; outlet cleaning; and repair of drainage structures.

   Adequate access shall be provided to the City of Lakeland for inspection as per the Storm Water Management Ordinance. Access shall be clearly shown for the city of Lakeland access to public detention control structures.

3. The buffer areas along Memphis-Arlington Road and the proposed Chambers Chapel Road will be placed in a conservation easement, except for the areas adjacent to the entrance that contain the entry monuments. Conservation easements 1 and 2 shall be granted to the City of Lakeland. The conservation easement shall remain in their natural, scenic, open or wooded state, precluding future or additional development except as specifically allowed in the terms of the easements. Conservation easements will be use/activity restricted to removal of invasive species only, unless otherwise directed by the City of Lakeland.

   Conservation easement 1, designated in the PDP plan as a 90-foot buffer along the Future Chambers Chapel Road ROW, and conservation easement 2, designated as A 90-foot buffer along the Memphis-Arlington Road Row, shall require a separate Conservation easement agreement to be completed prior to submission of a Final Development Plan

   No fencing, walls, structures, or private improvements shall be permitted with the conservation easements or perimeter buffers. Heavy equipment is not permitted and materials may not be stored in conservation easements at any time. City of Lakeland access shall be permitted in the conservation easements, as the City of Lakeland shall maintain the easements after they are granted to the City. The City shall be permitted to clear underbrush, invasive species, etc., in order to manage and/or re-plant appropriate trees and plants as deemed appropriate by the Natural Resources Department.

   The City of Lakeland shall be permitted to transfer maintenance of conservation Easements to qualified third parties, such as land trust in the future.

   The City of Lakeland shall be permitted to remove hazardous trees at any time.

   The City of Lakeland may construct a bike/pedestrian path in conservation easements that will be paid in lieu. The path shall avoid tree conflicts. The city will provide maintenance for all paths in conservation easements.

4. A Maintenance and Funding Plan satisfactory to the City of Lakeland shall be submitted for the entire development prior to the SDDP. This plan shall specify costs, funding, and methods to maintain all open spaces and facilities. This plan shall divide the maintenance responsibilities between the Kensington Manor Homeowners' Association and the City of Lakeland. Said plan shall address private facilities, common open spaces, and other open space areas including, but not limited to, detention/storm water quality basins, perimeter roadway buffer areas, entry treatments, amenity structures, conservation easements, etc.

5. Kensington Manor will provide no fences or walls located in buffers, COS, or conservation easements around the perimeter of the development, except for the entry monument structures.

X. Design Guidelines

The purpose of these Preliminary Design Guidelines is to establish consistent Characteristics for the homes in the development.

These Preliminary Design Guidelines shall be therefore enforceable by the City of Lakeland. The Guidelines govern design control over buildings to ensure that the neighborhood is kept to a high and desirable quality, These Preliminary Design Guidelines shall serve as the basis for the Detailed Design Guidelines to provided for the entire subdivision with the Phase I SDDP submittal. These guidelines shall apply to original construction, additions and accessory structures. The Guidelines shall be complied with by owners, developers, consultants, and builders.

Administrative approval by the City Manager or his designate is permitted for minor deviations from the Design Guidelines. Minor deviations might be described as changes that do not substantially affect the massing, form, style, overall building materials, streetscape of the lot or its structures, while maintaining overall consistency with the Design Guidelines. Major deviations shall require amendments to the PDP, Secondary Detailed Development Plan (SDDP), Final Development Plan (FDP), and/or any approval deemed applicable for amendment by the City of Lakeland.

1. Preliminary architectural drawings have been provided. (See Exhibit V.) These sketches convey general architectural intent. Kensington Manor homes shall consist of European and Victorian designs.

   Each home shall contain the following architectural features:

   - Exteriors will consist of at least seventy percent brick & stone
   - Exteriors will also include thirty percent or less hardie concrete siding
   - Architectural shingles
   - Carriage style garage doors

- No garages facing primary frontage street (see exhibit U for explanation)
- Rear facades of homes on reverse frontage lots to use same materials and have similar architectural treatment as the front and side facades of the home

In addition, home designs area encouraged to provide many of the following features that may not be appropriate on every home:

- Covered porches
- Turrets, cupolas, finials, and copper vents
- Exposed exterior wood beams
- Cedar shutters
- Concrete walkways from front door to decorative iron mailbox at street
- Extensive evergreen plantings along exposed corridors

Detailed Design Guidelines will be submitted with the first SDDP.

2. A 9' wide planting strip is provided as part of the typical road sections (see Exhibit O). 3" caliper deciduous canopy trees will be planted at 35' spacings on each street that fronts lots (see Exhibit Q).

<u>Street Tree Standards are as follows:</u>
Min. distance on center – 15'
Max. distance on center – 35'
Min. distance from sidewalk – 4'
Min. distance from driveways – 5'
Min. street tree strip or easement – 9'
Species selection per City of Lakeland Trees Species Selection List

3. Site lighting will be provided in the form of private decorative pole-mounted lanterns (see Exhibit U). These poles are 6' high, adding to the pedestrian scale of the neighborhood, and house a 60-watt light fixture. Each home will have one in the front yard that will be maintained by the homeowner providing light to the adjacent area. Lighting will be designed in accordance with the Lakeland Title 14, Chapter 10. Finial lighting design will be finalized with the first SDDP, including location, light specifications, max. wattage, max. lighting level, and a photometric plan.

XI. Quantitative Data

See Chart in Exhibit I for all Quantitative Site Data. For lot coverage information, see Exhibit U.

XII. Roads, Access, Circulation, and Design

1. All internal streets to be public. Streets shall comply with all provisions of the City of Lakeland Subdivision Regulations, General Requirements & Minimum Standards of Design & Prerequisites to Acceptance of Public Improvements, except for those provisions governing width. As part of the PDP, we are requesting the following street width waiver.

   - Two-way road widths measure 26' from face of curb and will be constructed in a 45' right-of-way.
   - One-way road widths measure 16; from face of curb and will be constructed in a 35' right-of-way.

2. U.S. Highway 70 currently has a 60-foot right-of-way. 24 additional feet will be Dedicated from the site's north property line, making it 54' from the centerline. A 108' right-of-way is requested in the Major Road Plan for future expansion. Developer will pay in lieu for road improvement in keeping with the precedence set by previous projects along same roads or as directed by the planning commission.

3. Proposed Chambers Chapel Road has a 106'right-of-way. This entire R.O.W. is to be dedicated from the eastern portion of the site. The roadway will be improved as a scenic corridor/urban design section per the City of Lakeland Major Road Plan. Two lanes per this plan will be constructed in its respective phases, providing access from the easterly Kensington Major entrance to Memphis-Arlington Road. All other improvements, including roadway improvements, sidewalks, and bike paths in accordance with proposed section detail, shall be contiguous to the development (within the limits of the subject property for roadway frontage) and will be paid in lieu by this development for the approximately 1,560 linear feet of frontage in accordance with the typical roadway section shown in these plans.

   Location of existing off-site pond along the easterly margin of proposed Chambers Chapel to be field located and taken into consideration during final design of full roadway section. Proposed two lanes shown as per this plan providing access from the easterly Kensington Manor entrance roadway to Memphis-Arlington are not impacted by said pond.

4. Evergreen Road requires a 50' right-of-way. This necessitates 25' of the site to be dedicated from the centerline. Developer will be in lieu for other road improvements in keeping with the precedence set by previous projects along same roads or as directed by the planning commission.

5. Memphis-Arlington Road has a planned 68' right-of-way and shall have dedicated 34' from this site. A 10' width pedestrian/bike path will be paid in lieu. If not constructed within 6 years of acceptance of PDP, all funds will be returned to the developer.

6. The proposed road network has been designed to promote vehicular connectivity. Four community entrances have been provided, connecting to each of the bordering thoroughfares, and cul-de-sacs have been minimized. Thru traffic, however, will be minimized and "calmed" by the road layout. All routes through the project require at least two turns, so this neighborhood will not be desirable as a cut-through. Street trees, a proven method of traffic calming, along with the proposed road sections, will also lend a pedestrian feel and further discourage vehicular speeding.

7. 5' wide walkways have been provided on both sides of the internal streets to allow for free pedestrian circulation around the community. These walkways lead to the centrally located private park that has internal walking trails and a swimming pool facility. Staff to review park's internal circulation system with the first phase SDDP for connectivity. Additional access into the park may be added at that time. All walkways will have ADA accessible curb ramps at street crossings. A sidewalk waiver is being requested in the following locations.

- Along Evergreen Road (no walkways to be provided)
- Along Highway 70 (no walkways to be provided)
- Along Memphis-Arlington Road (no walkways to be provided)
- Around Three Internal Private Parks (COS 1, 2, & 5) - internal park walkways to be built in lieu of walk along street.

8. All proposed internal roads will be lined with street trees on both sides. These street trees are to be maintained by the adjacent property owner, with the HOA enforcing maintenance and replacement. The only exceptions are the roads that border the three internally located private parks. The street trees on the park side of these roads have been left off to allow the existing vegetation to remain. This will help create a "natural" edge to counterpoint the formal, architectural rhythm of the street trees.

9. On-street parking has not been "planned" into the proposed street sections. Occasional parking would only necessitate a temporary yield situation, calming traffic. A "No Parking" zone will be established at each neighborhood entrance and will be marked with appropriate signs. The minimum two-car garages and long drives provide more than adequate parking for the residents and even some guest spaces.

XIII. Protection of Natural Features

1. The site contains a variety of mature forest types including cedar stands, mature pine and oak-hickory stands. The largest mass of mature hardwoods is located near the middle of the neighborhood and will become a community park, preserving many large trees. There area several small farm ponds that have been deemed hydrologically isolated by a consulting hydrologist and are therefore not intended to remain as amenities on the site. Slopes range from very gentle to short stretches of steep topography where mature hardwoods stand. The site has been utilized for agriculture and therefore has many open fields that are now converting to forest and a high percentage of edge habitat.

2. It is the intent of this development to preserve as many specimen trees as possible. In addition to the tree save areas in the buffers and the central park, specimen trees that exist on lots outside the immediate building envelope will be protected and preserved when feasible. A mechanism for this tree preservation on lots will be finalized and submitted with the first SDDP. Proposed homes will use block footings as a tree protection measure. This will allow construction with less grading and land disturbance than with a slab on grade foundation (See exhibit W).

   An ISA certified arborist will be retained on the project to evaluate tree protection measures before, during and after construction of the infrastructure and homes. Whenever land disturbance encroaches 25% into the critical root zone of any specimen trees to be retained, that tree will be treated, in accordance with a recommendation from a certified arborist, for construction impact mitigation.

3. See Exhibit M for existing surveyed tree information. Final tree survey per arborist to be deferred to the SDDP.

4. See environmental assessment report by Brophy-Heineke & Associates, submitted with this application.

XIV. Water, Sewer and Drainage

1. Sewage will be accommodated via a proposed public sewer system. See Exhibit K for proposed and existing sanitary sewer lines to serve the development. Sanitary sewer plans shall be submitted to the City Engineer for review during the applicable SDDP phase. All sewer improvements to be in accordance with the requirements of the City of Lakeland. Application to the sewer board has already been made. Sewer connection is to gravity line at entrance of Creekside Manor. Any modifycations to the existing lift station within Creekside Manor to be determined by the developer and will be accomplished at the expense of the Kensington Manor development. The City of Lakeland will provide available information to assist in this determination.

2. Water will be provided by public water lines and is to be designed by MLGW. See Exhibit O to reference the anticipated locations of the lines when located within the roadways.

3. A sketch grading plan, Exhibit L, illustrates an overall storm drainage network for the proposed development known as Kensington Manor. Storm water will be controlled by four detention ponds that will be designed to meet the requirements of the City. A final storm drainage plan shall be submitted to the City Engineer for review as part of the applicable SDDP phase.

XV. Bulk and Similar Requirements

Kensington Manor shall comply with the bulk regulations in district R-2A residential located on page IV-12 in the Lakeland zoning Ordinance, unless otherwise stated in the PDP.

1. Design standards for single-family detached dwellings:

   A. Lots are approximately ¼ acre (10,500 s.f.) minimum area, internal lots are generally 80' wide by 135' deep, while corner lots area generally 95' wide by 135; deep. These sizes vary, however, due to the curvilinear nature of the road network. For a complete lot size chart, see exhibit J.

   B. A minimum two-car garage shall be included in the construction of all single-family detached dwellings. Garages shall not face primary street frontage. Corner lots (17 total) may have garages face secondary frontage street abutting side street in relation to the home, but not the primary frontage street. All garages on corner lots will have cedar arbors over garage door openings. Garage doors to have carriage style hardware. See Exhibit U.

   C. Internal block lot driveways may be located within 5' of side property line with a turnaround area adjacent to the garage abutting the property line.-

   D. All homes constructed shall be built upon conventional foundations as to limit land disturbance and allow for effective tree preservation.

2. Minimum Building Setbacks

   Minimum front yard setback: 25 feet (Lot 19 has a larger front setback to protect a large specimen cedar; see Exhibit X.)

	Minimum side yard setback:	5 feet/10 feet
	Minimum rear yard setback	25 feet
3.	Maximum building height	35 feet
4.	Maximum lot coverage (total footprint of primary structure including garage/total of lot.)	40%

XVI. Additional Requirements

No additional requirements exist that are not covered in the standard format of this PDP.

XVII. Phase of Development

This project is expected to be completed in five (5) phases. Phase 1 shall consist of the development of 24 single-family residential lots, dedication of right of way for U.S. Hwy. 70 and Chambers Chapel Road directly adjacent to phase 1, construction of the entrance onto U.S. Hwy. 70, construction of water, sewer storm water facilities, and any utilities associated with phase 1, and the construction of any roads associated with phase 1.

Phase 2 shall consist of the development of 22 single-family residential lots, dedication of right of way of Chamber Chapel Road directly adjacent to phase 2, the construction of two (2) lanes of Chambers Chapel Road providing access from the eastern entrance to Memphis – Arlington Road, construction of the entrance onto Chambers Chapel Road, the construction of water, sewer, storm water facilities, and any utilities associated with phase 2, and the construction of any roads associated with phase 2.

Phase 3 shall consist of the development of 24 single-family residential lots, dedication of rights of way of Evergreen Road and Chambers Chapel Road, payment in lieu of improvements to Evergreen Road, construction of entrance onto Evergreen Road, the construction of Chambers Chapel Road the construction of water, sewer, storm water facilities, and any utilities associated with phase 3, and the construction of any roads associated with phase.

Phase 4 shall consist of the development of 19 single-family residential lots, dedication of rights of way of Memphis – Arlington Road and Evergreen Road directly adjacent to phase 4, construction of the entrance onto Memphis -Arlington Road, the construction of water, sewer, storm water facilities, and any utilities associated with phase 4, and the construction of any roads associated with phase 4.

Phase 5 shall consist of the development of 14 single-family residential lots, dedication and payment in lieu of improvements to Memphis -Arlington Road directly adjacent to phase 5, the development of the central park and amenity center, the construction of water, sewer, storm water facilities, and any utilities associated with phase 3, and the construction of any rmds ;associated with phase 5.

Construction of phase 2, and each subsequent phase, will overlap the home building process in the previous phase. Infrastructure in subsequent phases will be built as homes are constructed in the previous phase. Home construction is market driven, therefore it is estimated that each phase will take approximately 24 months to complete. Full build-out is projected to take approximately 10 years.

XVIII. Expiration/Termination of the PDP

A. In the event that approval of the first Final Development Plan if not obtained for the planned development within 3 years of the approval of the Preliminary Development Plan by the Lakeland Board of Commissioners, the Preliminary Plan shall be deemed to have expired.

B. In the event that any portion of the PD has not obtained Final Development Plan approval after 6 years from the date of the Board of Commissioners' approval of the Preliminary Development Plan, the Preliminary Development Plan shall be deemed to have expired for those remaining portions of the P.D.

C. Extension of the completion period – Upon the request of the applicant and review and recommendation of the Planning Commission, the Board of Commissioners may extend, for a reasonable time, not to exceed one (1) years, the expiration date of the P.D.

D. Notice of revocation – If a Preliminary Development Plan expires under the Provisions of this Article, the planned development is terminated, such designation shall be removed from the Official Zoning Map and a notice of revocation shall be placed on the recorded development plan. The zoning regulations applicable before the development was approved shall then be in effect. However, if any portion of the property is constructed or developed as provided by the approved Planned Development, the remaining developed portion(s) of the property shall be in conformance with the approved Planned development regardless of the existing conventional zoning district of the property.

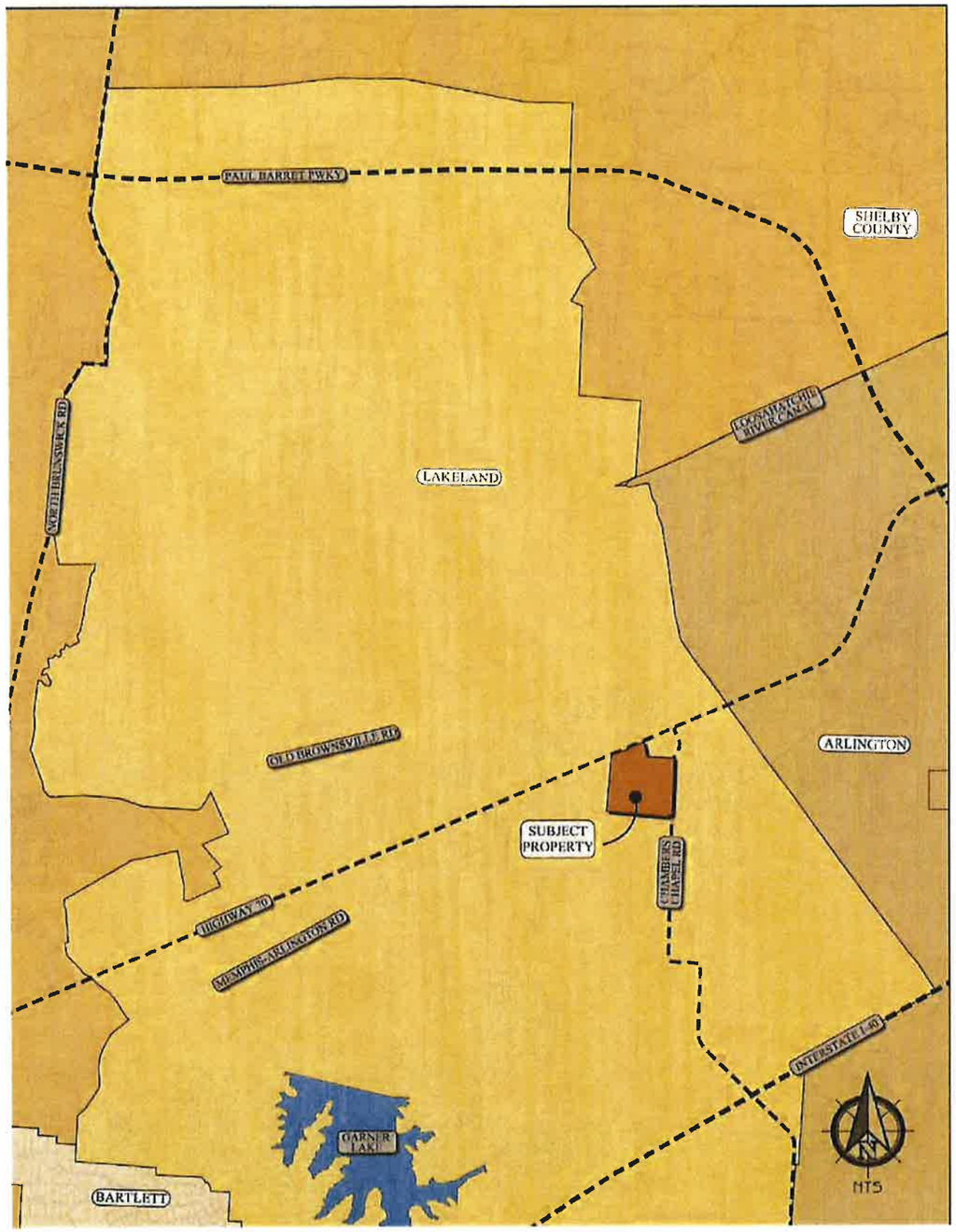
E. Amendments: Administrative minor revisions to plat documents are permitted per the subdivision regulations. Any other types of amendment to the Preliminary Development Plan or a Secondary Detailed Development Plan shall be approved by the Municipal Planning Commission and Board of Commissioners through public meetings with such meetings to require publication and mailing of notice at least 15 days before the meeting(s).

XIX. Approvals Procedure for Additional Plan Elements and/or Future Phases:

The following items will be provided with the *first phase SDDP:*

A. Final tree survey for entire development.
B. Final architectural design guidelines for entire development.
C. Final site lighting plan, including fixture specifications, max lighting levels, and photometric plans.
D. Preliminary Plat for entire development.
E. Detailed grading with storm water & drainage calculations for phase one.
F. Final landscape & irrigation plans for phase one.
G. Maintenance & funding plan for common open spaces, conservation easements, and facilities therein.
H. Tree Protection Plan (including Tree Protection Practices on Lots).
I. Detail of ADA accessible curb ramps on walkways at road crossings.
J. As a condition of approval of the Preliminary Development Plan, the applicant shall submit with the first phase Secondary Detailed Development Plan, a detailed topographic survey showing the location of the property limits, the location of the proposed right-of-way dedication, and the location of all environmental and physiographic features of interest within 100 feet of the proposed right-of-way dedication. If the existing pond is located more than 100 feet from the proposed right-of-way, it will be located as well.

REGIONAL LOCATION MAP - Exhibit A
IMMEDIATE AREA LOCATION - Exhibit B



MAJOR ROAD

SUBJECT PROPERTY

EXISTING LAKE

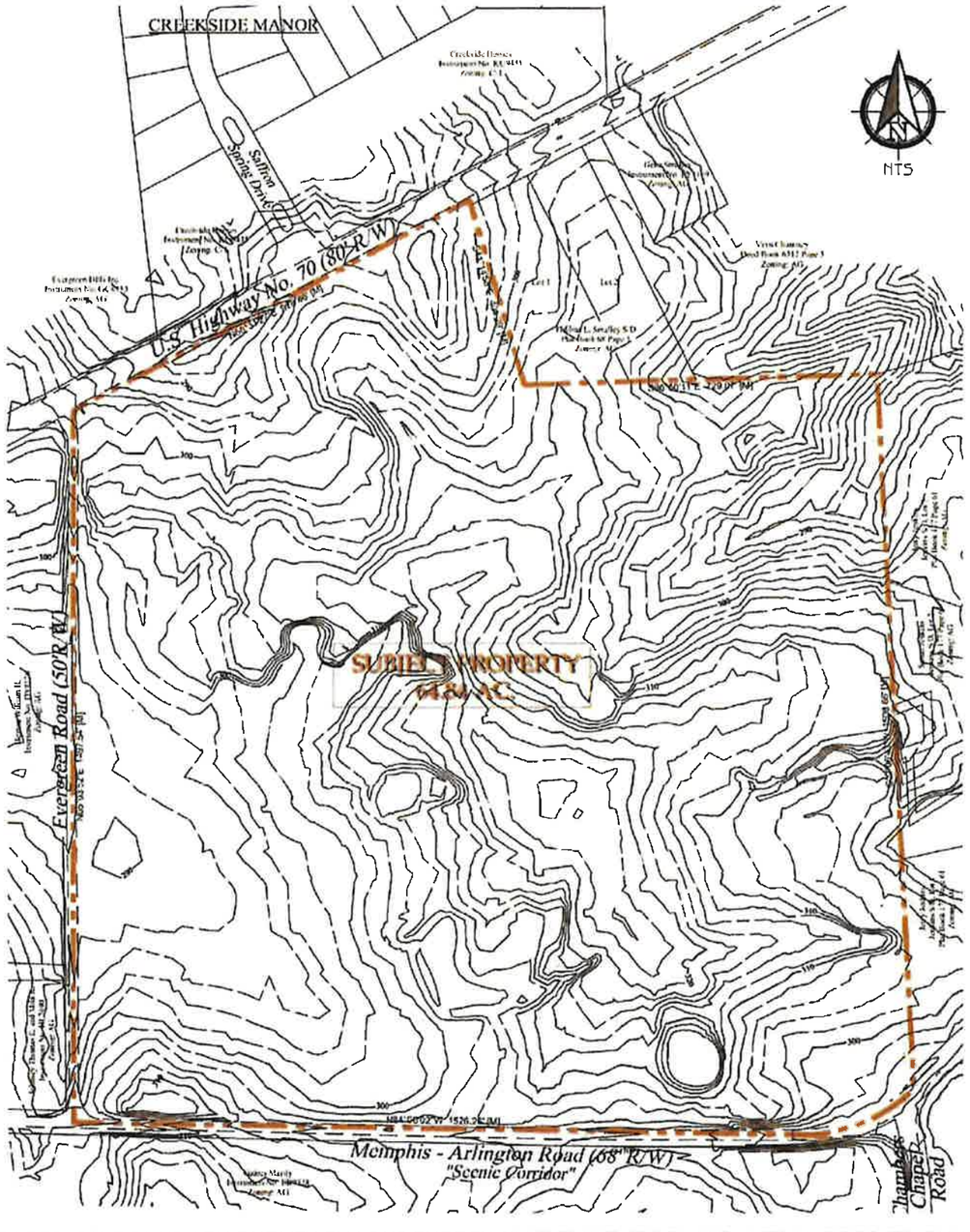
CITY OF BARTLETT

CITY OF LAKELAND

SHELBY COUNTY

TOWN OF ARLINGTON

BOUNDARY PLOT PLAN - Exhibit C
LEGAL DESCRIPTION - Exhibit D



BASED ON BOUNDARY SURVEY BY LOUDENBECK SURVEYING, PLLC, AND AERIAL TOPOGRAPHY, ASSEMBLED BY D.T.D

Property Description

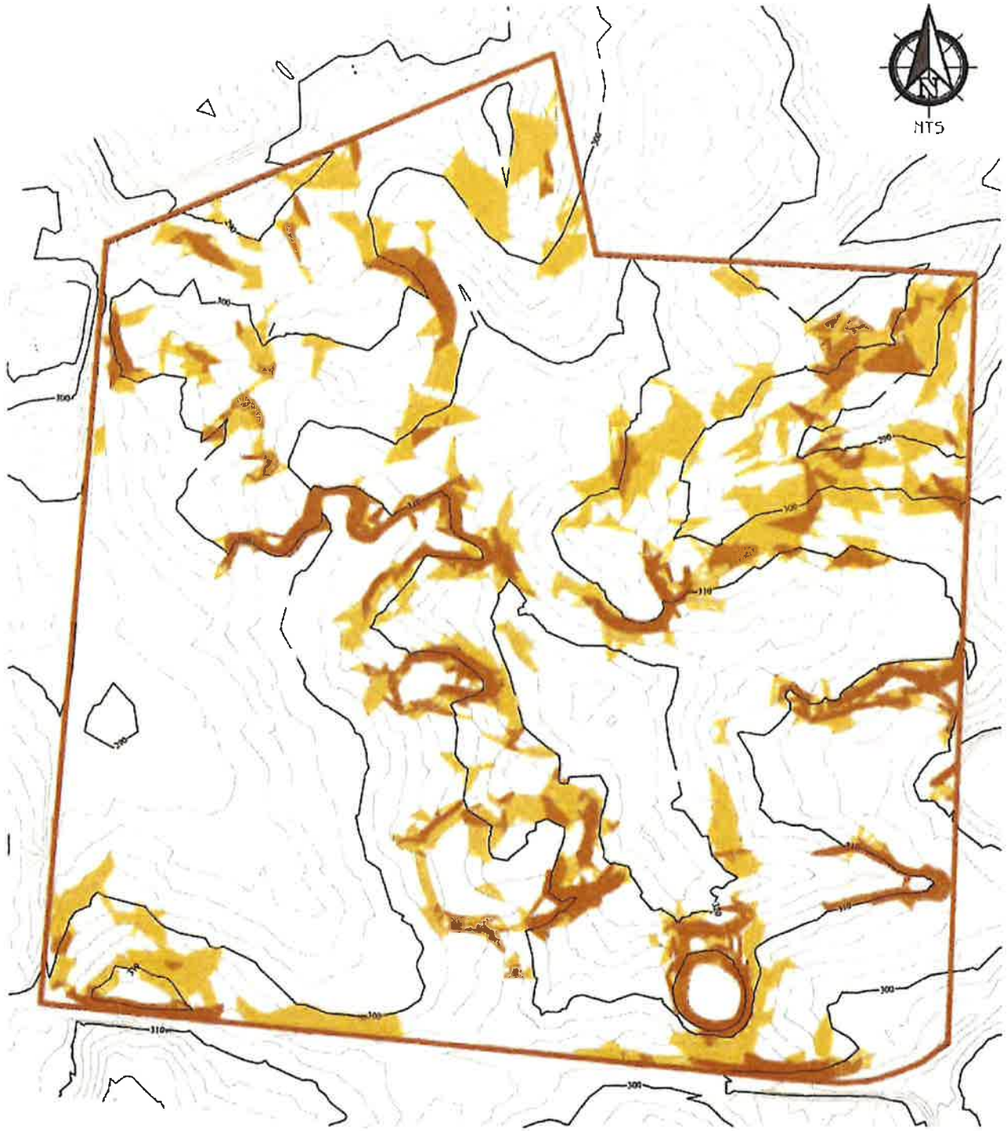
From the boundary survey by Loudenbeck, Surveying, PLLC, dated March, 10, 2006: *a certain tract or parcel of land located on Memphis-Arlington Road in Lakeland, Shelby County, Tennessee, and more particularly described as follows.*

Beginning at an old PK nail (found) at the intersection of the centerline of Memphis-Arlington Road and Evergreen Road; thence with the centerline of Evergreen Road North 05 degrees 03' 52" east a distance of 1497.54 feet to a new PK nail in the south right-of-way line of U.S. Highway 70 (60 foot right-of-way); thence with said south line 66 degrees 31' 27" east a distance of 928.86 feet to a new iron rebar; thence south 11 degrees 14' 58" east a distance of 404.29 feet to an old iron pin (found), said point being the southwest corner of the Thelma L. Smalley Subdivision (Plat Book 68, Page 3); thence with the south line of said subdivision South 86 degrees 50' 11" East a distance of 729.07 feet to an iron pin (found), said point being the northwest corner of the Jerry Jenkins Subdivision (Plat Book 177, Page 61); thence with west line of said Subdivision South 02 degrees 06' 43" West a distance of 1508.66 feet to an old PK nail (found) in the centerline of Memphis-Arlington Road; thence with said centerline along a cure to the right having a radius of 353.21 feet and an arc distance of 235.53 feet (chord = 231.9 feet, chord bearing = South 70 degrees 35' 25" west); thence continuing with said centerline North 84 degrees 00' 02" west a distance of 152.26 feet to the POINT OF BEGINNING, and containing 2,824,337.4296 square feet or 64.838 acres. All bearings are reference to the Tennessee State Plane Coordinate System of 1983.

AERIAL PHOTOGRAPH & SLOPE ANALYSIS - Exhibit E

SLOPES LEGEND

- 20% & GREATER
- 15% to 20% SLOPE
- 10% to 15% SLOPE



NATURAL FEATURES MAP & SOILS MAP - Exhibit F

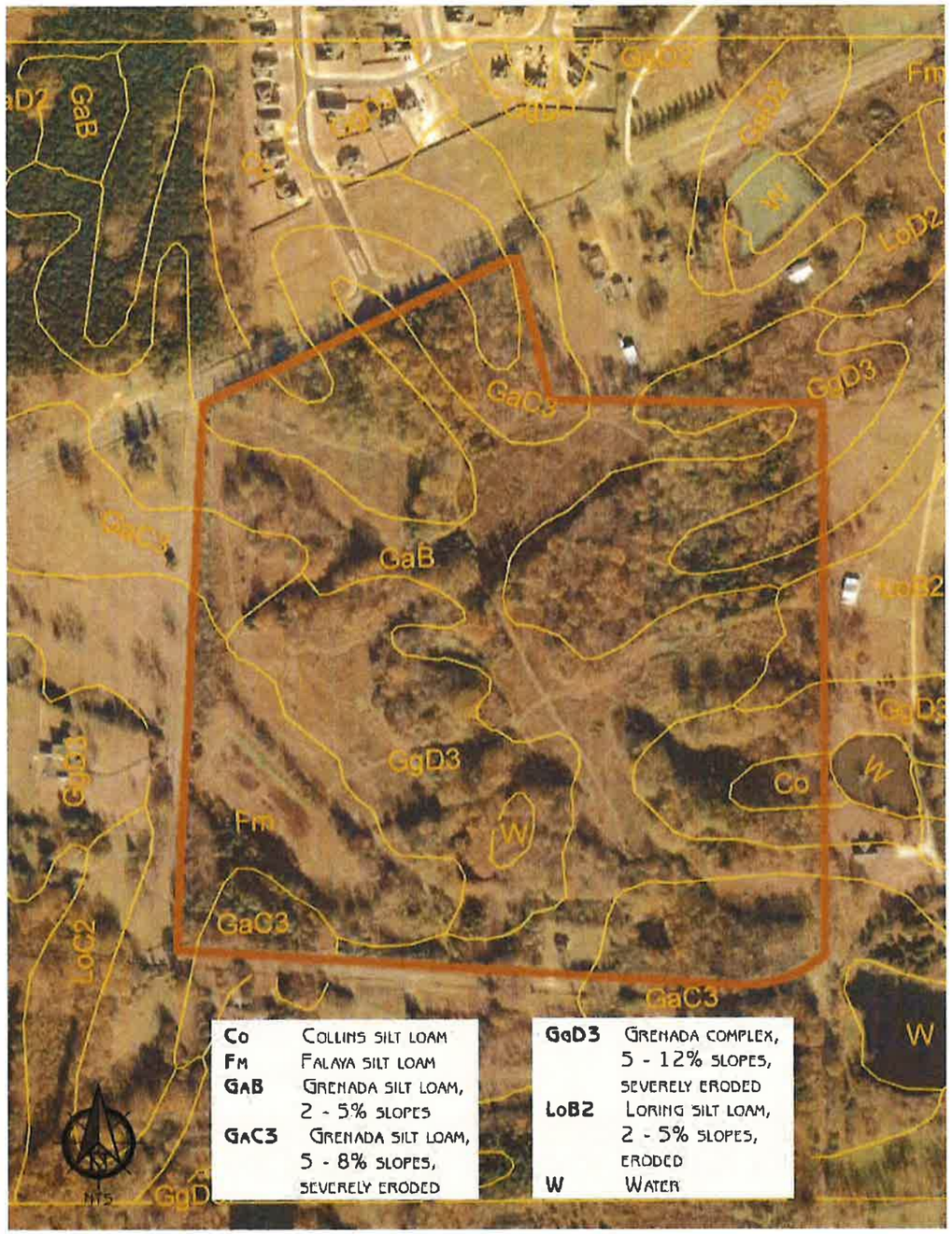


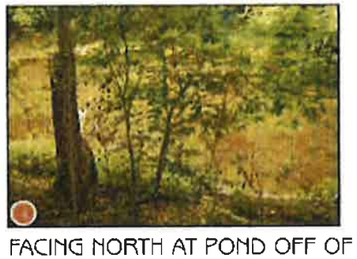
PHOTO ANALYSIS - Exhibit G

NTS

VIEW OF POND AREA

VIEW FACING HOUSE NORTH OF MEMPHIS-ARLINGTON ROAD

SOUTHEAST INTERSECTION AT CHAMBERS CHAPEL RD & MEMPHIS-ARLINGTON RD



FACING NORTH AT POND OFF OF MEMPHIS-ARLINGTON ROAD

LOOKING NORTH ON EVERGREEN RD FROM MEMPHIS-ARLINGTON RD

VIEW OF NEIGHBORING PASTURE FACING NORTHWEST

FACING SOUTHEAST TOWARDS PROPERTY FROM NORTHWEST CORNER

CIRCULATION PLAN - Exhibit H

LEGEND

- PEDESTRIAN WALKWAYS
- ROADS
- BIKE LANES
- BIKE PATHS

NOTE: FUTURE PEDESTRIAN WALKS AND BIKE LANES ALONG CHAMBERS CHAPEL ROAD (INDICATED AS RED & ORANGE DASHED) ARE SHOWN TO ILLUSTRATE CONNECTIVITY AND WILL BE PAID IN LIEU.

BIKE PATH NOTES (ALONG MEMPHIS ARLINGTON ROAD):

1) BIKE PATHS MAY BE PLACED IN ROAD R.O.W OR IN CONSERVATION EASEMENTS.
2) PATH TO CONSIST OF 4" AGGREGATE BASE W/ 2" ASPHALT TOP COURSE.
3) IF NOT CONSTRUCTED WITHIN 6 YEARS OF ACCEPTANCE OF PDP, ALL FUNDS WILL BE RETURNED TO THE DEVELOPER.
4) DURING THE FIRST PHASE SDDP, STAFF TO REVIEW PEDESTRIAN ACCESS TO EXTERNAL ROADWAYS. ADDITIONAL CONNECTIONS MAY BE REQUIRED AT THAT TIME.

REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010

*THE PDP WAS AMENDED BY W.H. PORTER ON AUGUST 23, 2010, CHANGING THE LOT LAYOUT. THIS EXHIBIT REMAINS IN FORCE. FOR THE AMENDED LAYOUT, SEE THE MASTER ILLUSTRATION PLAN, SHEET 1 OF 1, DATED JULY 15, 2010.

b

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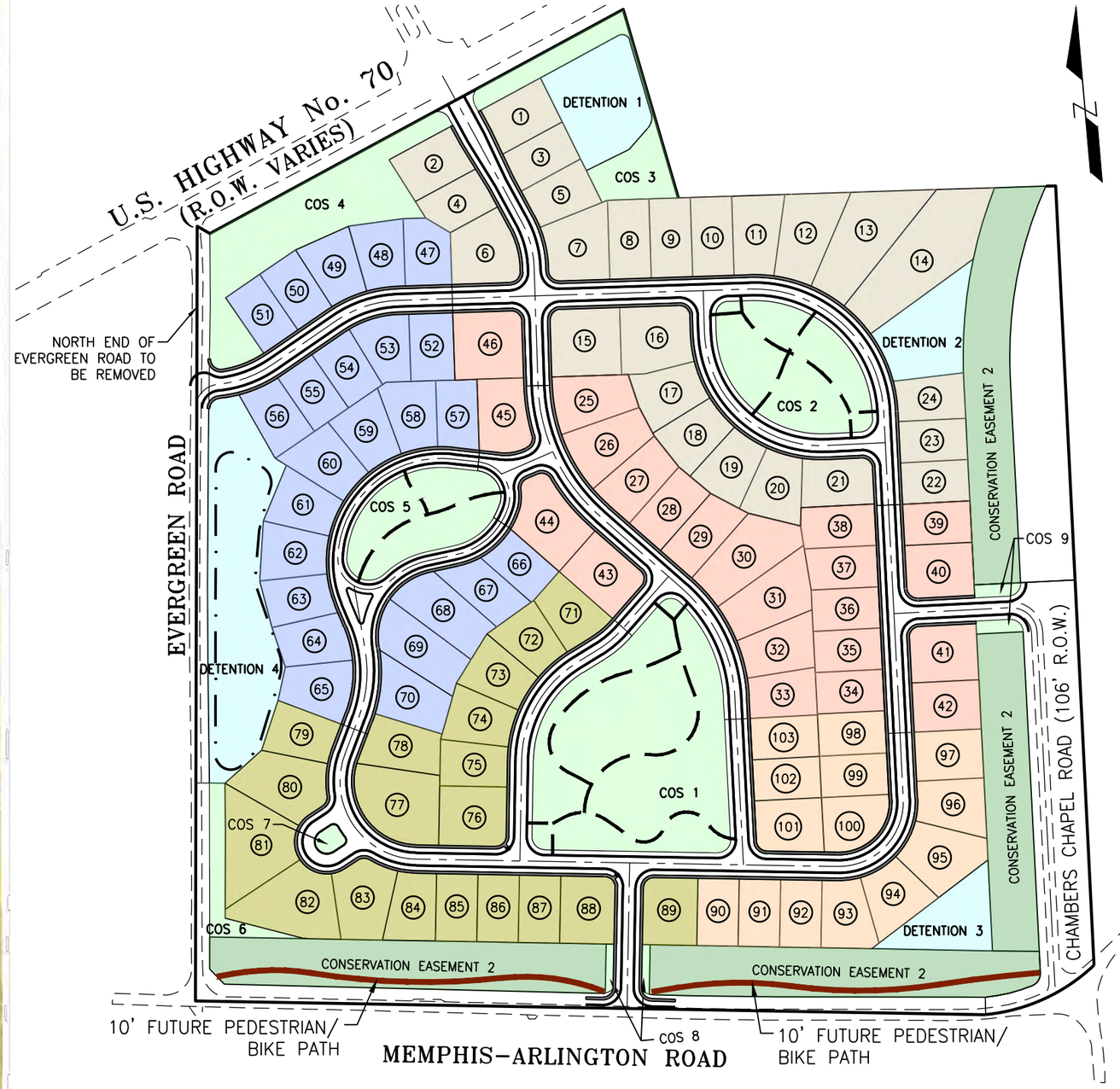
Kensington Manor

PRELIMINARY SITE PLAN - Exhibit I



SITE CALCULATIONS			
SITE AREA CALCULATIONS	**AREA (ACRES)**	**% OF SITE (GROSS)**	**% OF SITE (NET)**
TOTAL SITE AREA	64.84		
LESS R.O.W. DEDICATION ALONG EVERGREEN RD.	0.90	1.39%	
LESS R.O.W. DEDICATION ALONG MEMPHIS-ARLINGTON RD.	1.32	2.04%	
LESS R.O.W. DEDICATION ALONG CHAMBERS CHAPEL RD.	3.26	5.03%	
LESS R.O.W. DEDICATION ALONG US HWY 70	0.51	0.79%	
TOTAL PERIMETER ROAD R.O.W. DEDICATION	5.99	9.24%	
NET SITE AREA (AFTER R.O.W. DEDICATION)	58.85		
DETENTION PONDS	**AREA (ACRES)**	**% OF SITE (GROSS)**	**% OF SITE (NET)**
DETENTION BASIN 1	0.73	1.13%	1.24%
DETENTION BASIN 2	0.60	0.93%	1.02%
DETENTION BASIN 3	0.47	0.72%	0.80%
DETENTION BASIN 4	1.94	2.99%	3.30%
TOTAL DETENTION AREA	3.74	5.77%	6.36%

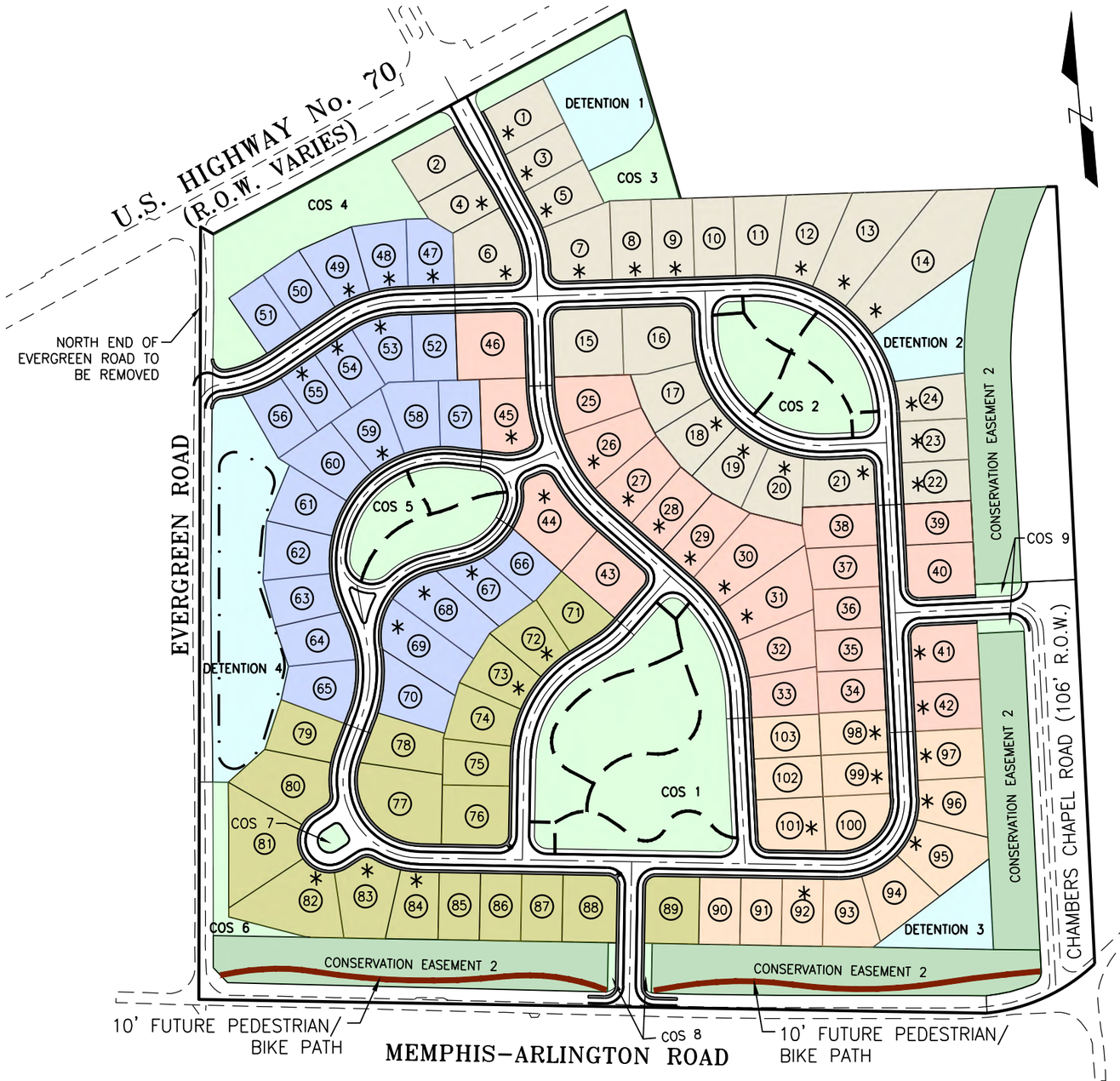
COMMON OPEN SPACE AREAS (COS) - (INCLUDING CONSERVATION EASEMENTS, BUT NOT DETENTION AREAS)	CLASSIFICATION	AREA (ACRES)	% OF SITE (GROSS)	% OF SITE (NET)
COS 1	USEABLE	3.31		
COS 2	USEABLE	1.32		
COS 3	TREE SAVE BUFFER	0.68		
COS 4	TREE SAVE BUFFER	1.50		
COS 5	USEABLE/BUFFER	0.95		
COS 6	TREE SAVE BUFFER	0.27		
COS 7	USEABLE	0.05		
COS 8	TREE SAVE BUFFER	0.08		
COS 9	TREE SAVE BUFFER	0.18		
CE 1	CONSERVATION ESMT.	2.87		
CE 2	CONSERVATION ESMT.	3.21		
TOTAL COS AREA (20% MINIMUM)		14.42	22.24%	24.50%

NUMBER OF RESIDENTIAL LOTS	103
GROSS SITE DENSITY	1.59 UNITS/ACRE

REVISED BY
RENAISSANCE DEVELOPMENTS
AUGUST 2022

MASTER PLAN ILLUSTRATION - Exhibit J

FUTURE 10' WIDE PEDESTRIAN/BIKE PATH ALONG EVERGREEN ROAD AND MEMPHIS ARLINGTON ROAD TO BE LAID IN LIEU



REVISED BY
RENAISSANCE DEVELOPMENTS
AUGUST 2022

* LOTS OF SPECIAL VEGETATIVE CONCERN (SEE EXHIBIT W IN PDP PLAN BOOK)

Parcel Area Table		
LOT	SQ. FT	ACRES
1	12871	0.30
2	13097	0.30
3	10887	0.25
4	10954	0.25
5	11502	0.26
6	16907	0.39
7	16936	0.39
8	12630	0.29
9	12632	0.29
10	12633	0.29
11	14198	0.33
12	17544	0.40
13	25646	0.59
14	36612	0.84
15	18766	0.43
16	17878	0.41
17	12946	0.30
18	12283	0.28
19	12460	0.29
20	12873	0.30
21	13494	0.31
22	10800	0.25
23	10800	0.25
24	11332	0.26
25	14559	0.33
26	15274	0.35
27	13608	0.31
28	12052	0.28
29	12912	0.30
30	19751	0.45
31	17658	0.41
32	13513	0.31
33	11479	0.26
34	10800	0.25
35	10800	0.25

Parcel Area Table		
LOT	SQ. FT	ACRES
36	10800	0.25
37	11166	0.26
38	11775	0.27
39	10800	0.25
40	14415	0.33
41	15179	0.35
42	12825	0.29
43	15550	0.36
44	18036	0.41
45	14525	0.33
46	18433	0.42
47	11457	0.26
48	11963	0.27
49	12230	0.28
50	10988	0.25
51	10800	0.25
52	11475	0.26
53	11881	0.27
54	10843	0.25
55	10400	0.24
56	11722	0.27
57	10941	0.25
58	12675	0.29
59	12359	0.28
60	13533	0.31
61	12376	0.28
62	12376	0.28
63	11237	0.26
64	12087	0.28
65	13416	0.31
66	10358	0.24
67	11976	0.27
68	16554	0.38
69	16545	0.38
70	14248	0.33

Parcel Area Table		
LOT	SQ. FT	ACRES
71	12405	0.28
72	11599	0.27
73	12219	0.28
74	12316	0.28
75	11288	0.26
76	16066	0.37
77	22189	0.51
78	13758	0.32
79	12115	0.28
80	18295	0.42
81	22088	0.51
82	21561	0.49
83	15868	0.36
84	12010	0.28
85	10800	0.25
86	10800	0.25
87	10800	0.25
88	14716	0.34
89	14716	0.34
90	10800	0.25
91	10800	0.25
92	10800	0.25
93	12841	0.29
94	13347	0.31
95	16117	0.37
96	13150	0.30
97	12825	0.29
98	11047	0.25
99	10800	0.25
100	12877	0.30
101	14159	0.33
102	10800	0.25
103	10800	0.25

b

17

Manor

Kensington

SCHEMATIC SEWER & WATER PLAN - Exhibit K

NOTE:

PROPOSED ON-SITE COLLECTION SYSTEM WILL BE DESIGNED AS A GRAVITY SANITARY SEWER SYSTEM; DISCHARGING TO THE FIELD LOCATED MANHOLEAND SHOWN ADJACENT TO THE NORTH OF HWY 70.

WATER, GAS, AND ELECTRICAL TO BE DESIGNED/ APPROVED BY M.L.G.W. SEE PROPOSED ROAD SECTIONS FOR ANTICIPATED LOCATIONS WITHIN R.O.W.'S AND UTILITY EASEMENTS.

PROPOSED SANITARY SEWER LINE

PROPOSED SANITARY SEWER MANHOLE

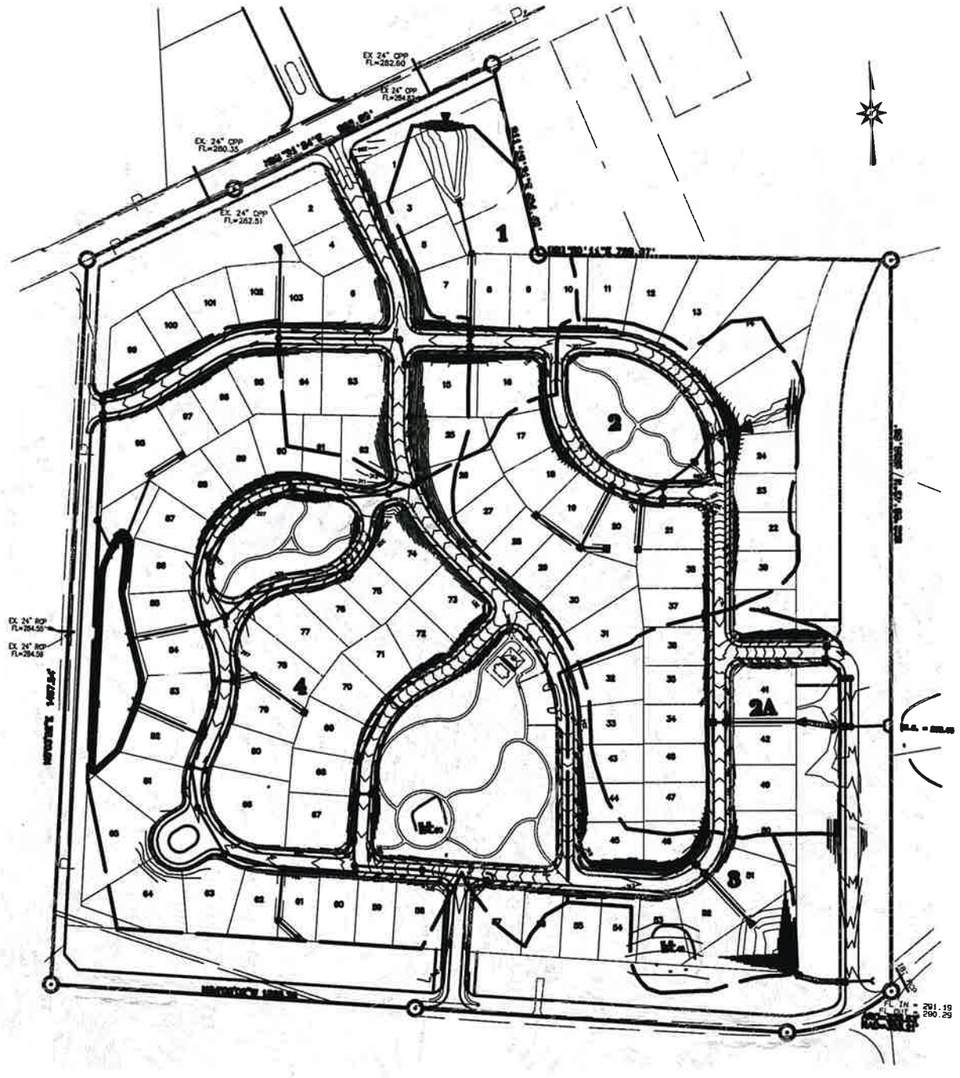
PROPOSED WATER LINE

PROPOSED FIRE HYDRANT

REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010

PRELIMINARY DRAINAGE/GRADING PLAN - Exhibit L

BASIN CALCULATIONS					
DRAINAGE BASIN	1	2	2A	3	4
AREA (AC)	3.57	8.68	5.10	3.32	28.98
TIME OF CONCENTRATION (HRS)					
PRE-DEVELOPED	0.23	0.29	0.23	0.17	0.50
POST-DEVELOPED	0.17	0.23	0.17	0.17	0.36
BASIN CURVE NUMBER					
PRE-DEVELOPED	70	70	70	70	70
POST-DEVELOPED	85	85	85	85	85
25-YEAR FLOWS					
PRE-DEVELOPED	14.3	30.6	20.4	10.8	78.2
POST-DEVELOPED	21.1	49.0	29.9	16.3	136.7
POND DISCHARGE (CFS)	10.3	22.4	22.7	9.23	76.9



REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010

EXISTING TREES - Exhibit M

TREE TYPE:	TOTAL # OF TREES:
ASH	2
OAK	402
CEDAR	25
ELM	4
PINE	80
SWEETGUM	23
SUGAR HACKBERRY	4
BEECH	1
HORNBEAM	1
LOCUST	1
POPLAR	1
SYCAMORE	7
	551 TOTAL TREES

NOTE:

1. FULL TREE SURVEY WILL BE DEFFERED TO THE SDDP. CERTIFIED ARBORIST TO INSPECT TREES PRIOR TO FINAL SUBMITTAL WITH THE SDDP.

2. EXISTING TREE SURVEY BY LOUDENBECK SURVEYING, PLLC.

TREE PROTECTION & REMOVAL - Exhibit N

LEGEND

EXISTING TREES 20[] AND GREATER TO BE PROTECTED

EXISTING TREES

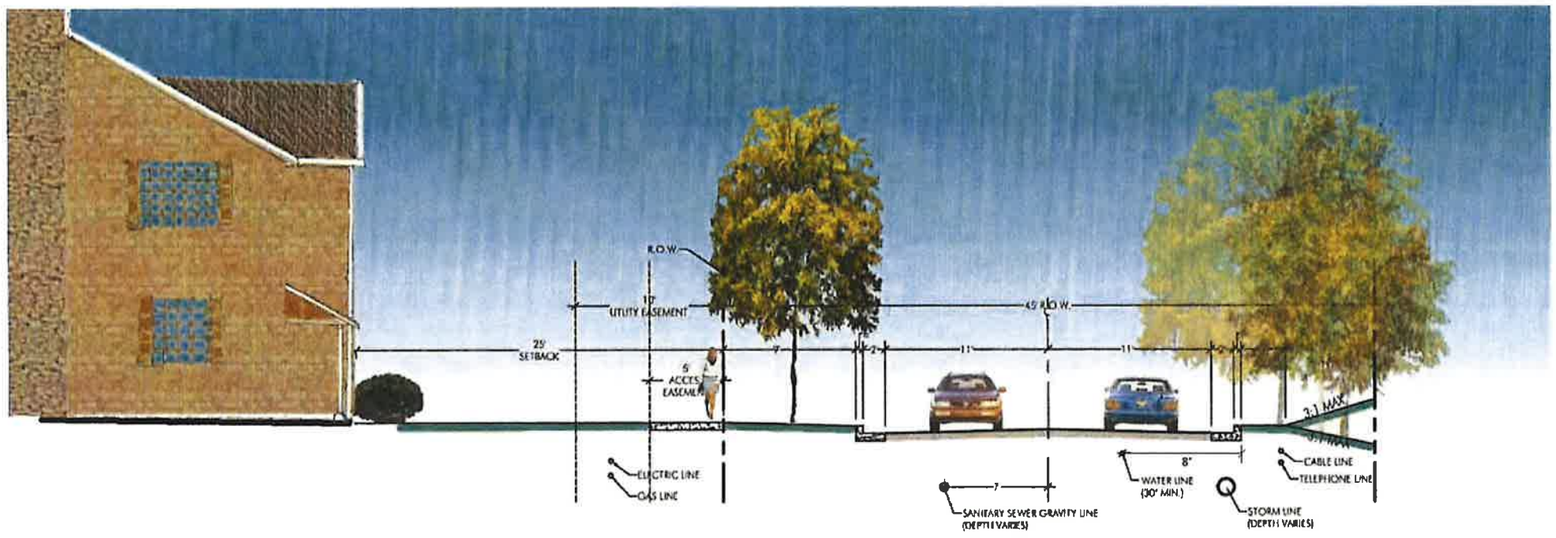
EXISTING TREELINE TO BE PROTECTED

NOTE: IT IS THE INTENT TO SAVE MANY OF THE SPECIMEN TREES, NOT LOCATED INSIDE THE EFFECTIVE BUILDING ENVELOPE. SEE EXHIBIT W FOR TREE PROTECTION TECHNIQUES ON FRONT LOADED LOTS. A REFINED EXHIBIT WILL BE SUBMITTED WITH THE FIRST SDDP.

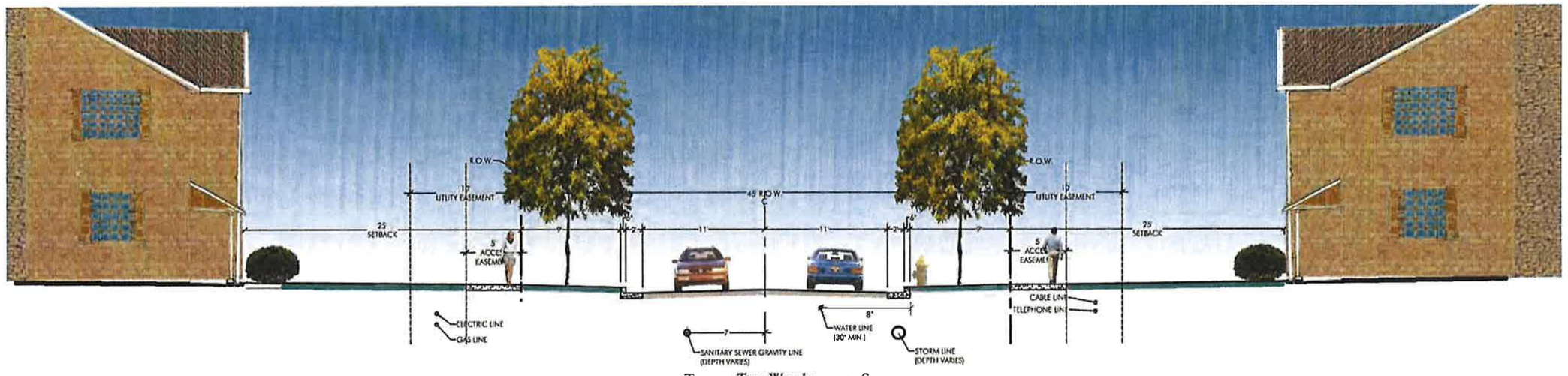
REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010

*THE PDP WAS AMENDED BY W.H. PORTER ON AUGUST 23, 2010, CHANGING THE LOT LAYOUT. THIS EXHIBIT REMAINS IN FORCE. FOR THE AMENDED LAYOUT, SEE THE MASTER ILLUSTRATION PLAN, SHEET 1 OF 1, DATED JULY 15, 2010.

ROAD CROSS SECTIONS - Exhibit O

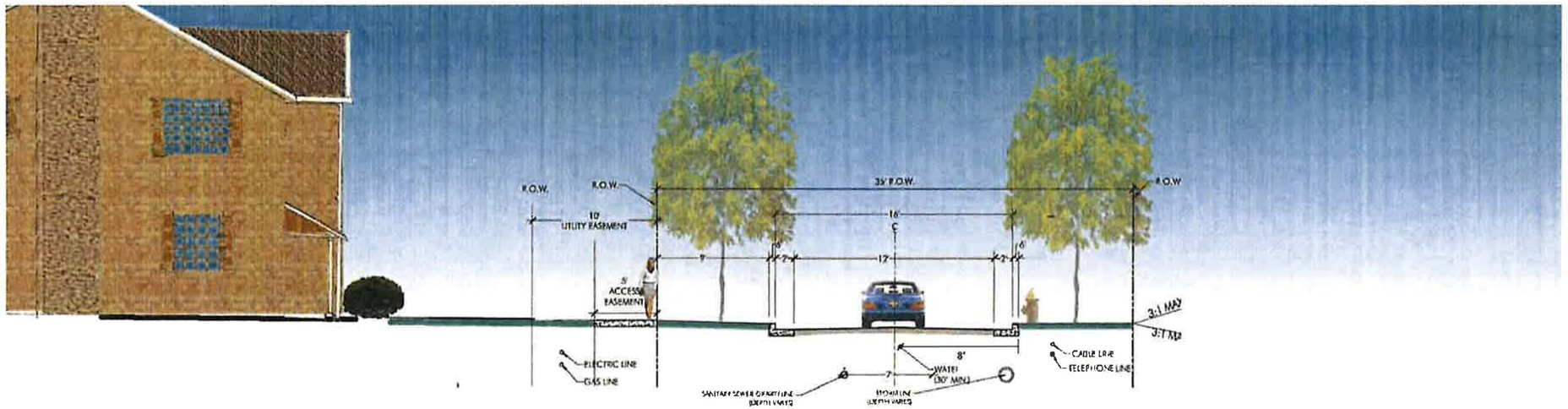


Typical Two-Way Street Along Park
1"=10'

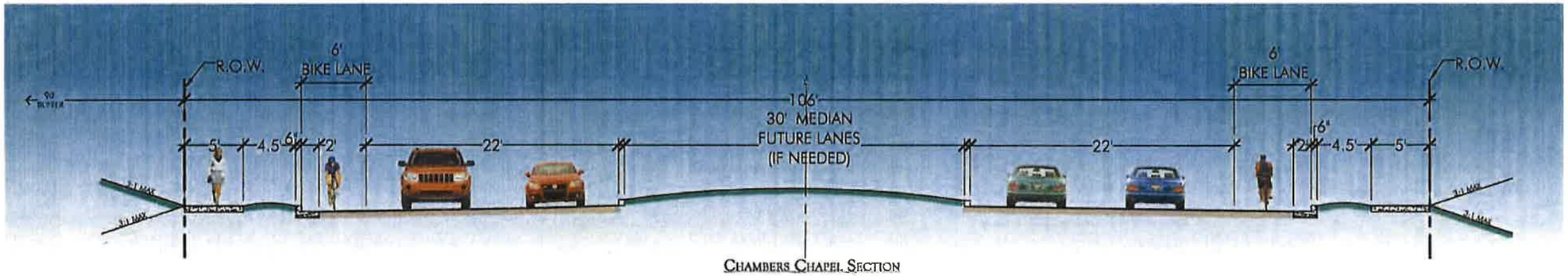


Typical Two-Way Internal Street
1"=10'

ROAD CROSS SECTIONS - Exhibit O



TYPICAL ONE-WAY INTERNAL STREET
1"=10'

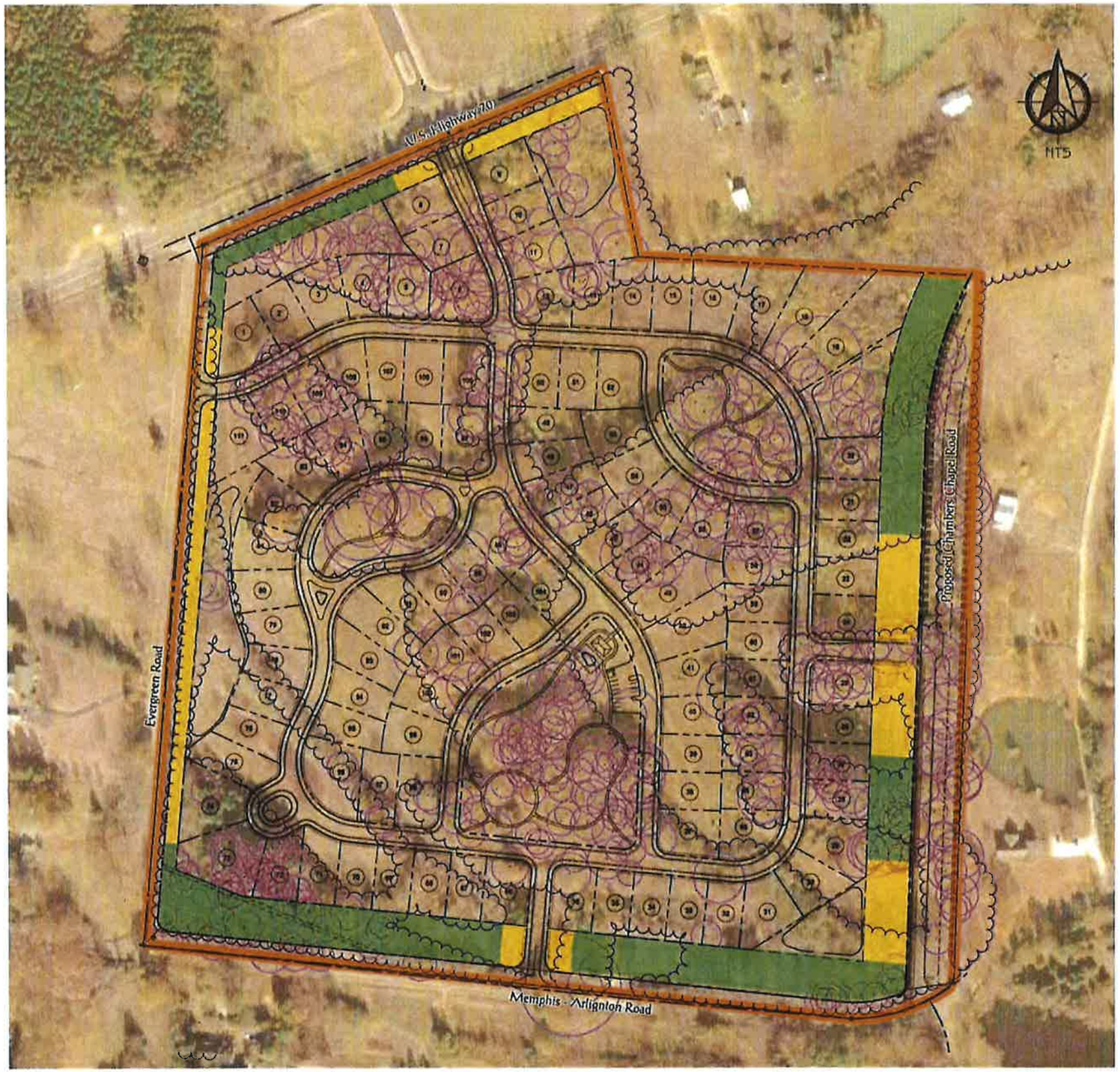


CHAMBERS CHAPEL SECTION
1"=10'

CHAMBERS CHAPEL BUFFER SECTION
1"=20'

LANDSCAPE PLATES & BUFFERS - Exhibit P

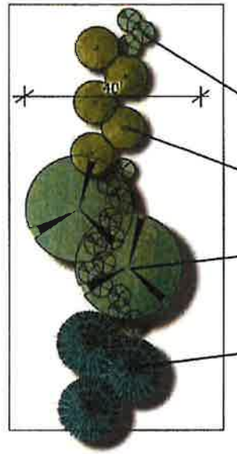
REVISED BY W.H. PORTER CONSULTANTS, PLLC AUGUST 2010



BUFFER TREATMENT KEY

REMOVE EXISTING INVASIVE PLANTS AND SUPPLEMENT WITH EVERGREEN TREES AND SHRUBS PER THE PLATES BELOW

EXISTING NATIVE VEGETATION TO BE PROTECTED - REMOVE INVASIVE PLANTS



PROPOSED CHAMBERS CHAPEL RD. AND U.S. HWY 70 LANDSCAPE BUFFER PLATE (TYP. 100 L.F. SECTION):

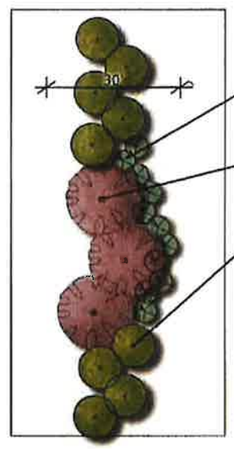
EVERGREEB SHRUB: FOSTER HOLLY, PRAGUE VIBURNUM, OR SCHIP LAUREL

MEDIUM EVREGREEN TREE: RED CEDAR OR GREEN GIANT ARBORVITAE

DECIDUOUS CANOPY TREE: TULIP POPLAR, RED MAPLE, AMERICAN SYCAMORE, OR SWEETGUM

LARGE EVREGREEN TREE: SOUTHERN MAGNOLIA OR PINE

NOTE: LANDSCAPE BUFFER ALONG EVERGREEN ROAD TO BE EVALUATED BY NATURAL RESOURCES DIRECTOR, DEVELOPER, AND ADJACENT LANDOWNER, PRIOR TO CONSTRUCTION, TO DETERMINE WHICH PLANT MATERIAL TO PRESERVE.



EVERGREEN RD. LANDSCAPE BUFFER PLATE (TYP. 100 L.F. SECTION):

EVERGREEB SHRUB: FOSTER HOLLY, PRAGUE VIBURNUM, OR SCHIP LAUREL

ORNAMENTAL UNDERSTORY TREE: REDBUD, SERVICEBERRY, OR DOGWOOD

MEDIUM EVREGREEN TREE: RED CEDAR OR GREEN GIANT ARBORVITAE

NOTE: EVERGREEN RD. LANDSCAPE BUFFER PLATE CONTAINS MEDIUM TO SHORTER HEIGHT PLANT MATERIAL DUE TO EXISTING OVERHEAD POWERLINES.

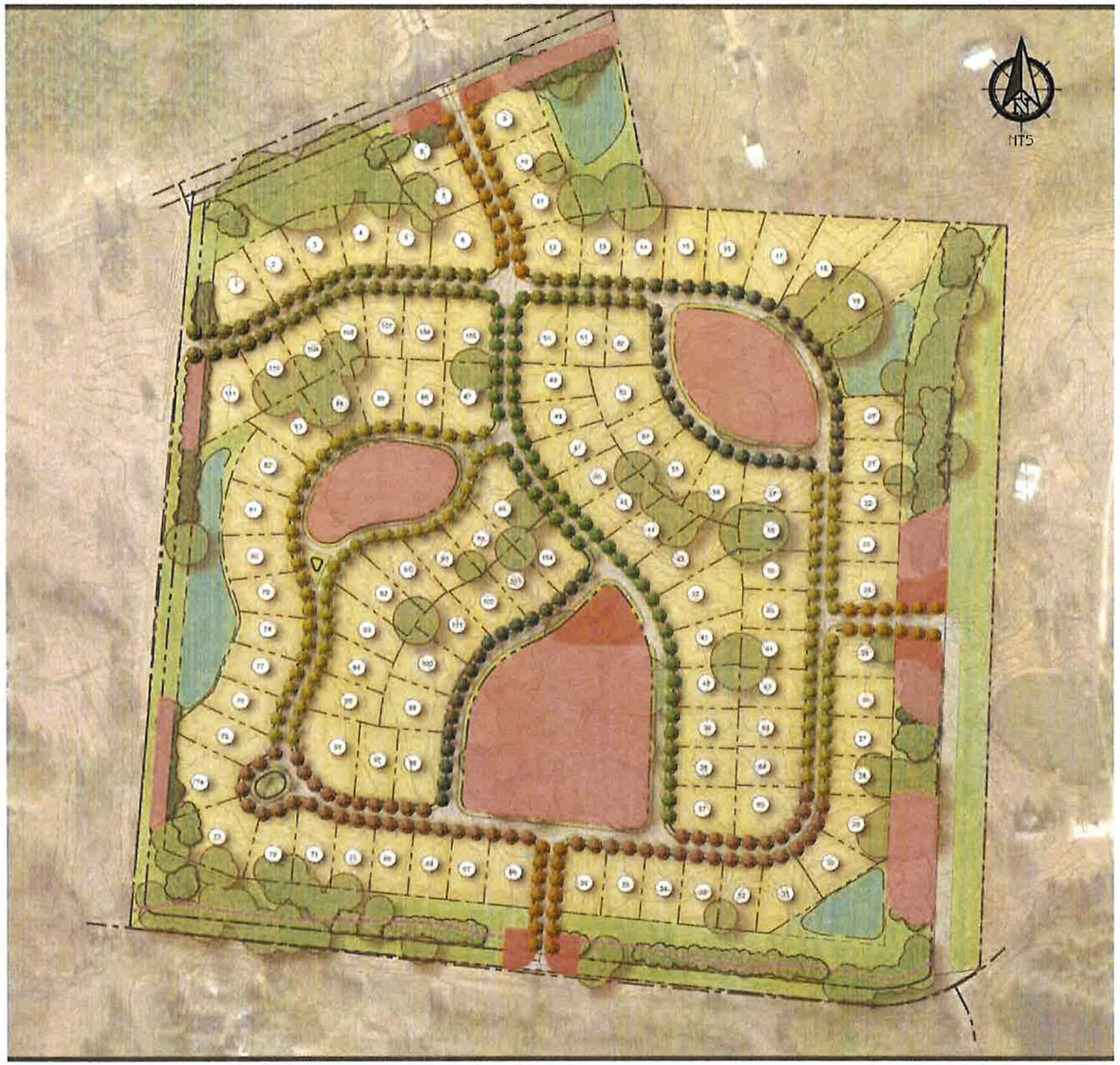
NOTE: WIDTH OF THE LANDSCAPE PLATES IS GOVERNED BY THE WIDTH OF THE BUFFER.

* ALL NON-INVASIVE PLANT MATERIAL IN BUFFERS NOT DIRECTLY AFFECTED BY ROAD DETENTION & UTILITY CONSTRUCTION ARE TO BE PRESERVED.

***THE PDP WAS AMENDED BY W.H. PORTER ON AUGUST 23, 2010, CHANGING THE LOT LAYOUT. THIS EXHIBIT REMAINS IN FORCE. FOR THE AMENDED LAYOUT, SEE THE MASTER ILLUSTRATION PLAN, SHEET 1 OF 1, DATED JULY 15, 2010.**

STREET TREE & IRRIGATION PLAN - Exhibit Q

REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010



IRRIGATION KEY

AREAS TO BE DRIP IRRIGATED BY A LOW FLOW SYSTEM (SEE NOTES BELOW)

AREAS TO BE IRRIGATED BY A MEDIUM FLOW SYSTEM (COMBINATIONS OF LOW FLOW DRIP AND SPRAY HEADS)

STREET TREE KEY

QUERCUS SHUMARDII / SHUMARD OAK

QUERCUS PHELLOS / WILLOW OAK

LIQUIDAMBAR STYRACIFLUA `ROTUNDALOBA' / SEEDLESS SWEETGUM

ULMUS PARVIFOLIA `BOSQUE' / LACEBARK ELM

PLATANUS X ACERIFOLIA `BLOODGOOD / T LONDON PLANETREE

ACER SACCHARUM `LEGACY' / LEGACY SUGAR MAPLE

NOTE: ALL STREET TREES ARE PLANTED AT 35' O.C. AND SPECIFIED AT 3[] **CALIPER**. PLANTS CHALL BE IN ACCORDANCE WITH A.N.S.I. Z80 []AMERICAN STANDARD FOR NURSERY STOCK[] (CURRENT EDITION).

NOTES:

1. ALL PROPOSED PLANT MATERIAL LOCATED IN BUFFERS, AT ENTRANCES, AND PARKS WILL BE IRRIGATED BY AN AUTOMATIC DRIP IRRIGATION SYSTEM. TRENCHING WILL BE MIMIMIZED AROUND EXISTING VEGETATION. STREET TREE WATERING WILL BE THE RESPONSIBILITY OF THE ADJACENT HOMEOWNER.

2. TURF AND GROUNDCOVER/SHRUB BEDS AT ENTRANCES WILL BE IRRIGATED BY SPRAY HEADS.

3. STREET TREES TO BE INSTALLED UPON COMPLETION OF EACH ADJACENT HOME. TREES ARE TO BE MAINTAINED BY THE HOMEOWNER AND ENFORCED BY THE HOA.

4. DETAILED IRRIGATION AND PLANTING PLANS TO BE SUBMITTED AT SDDP STAGE, PER CHAPTER 9, CITY OF LAKELAND ORDINANCE #07-100.

5. AT THE CONSTRUCTION PLAN PHASE, SOIL SAMPLES WILL BE TESTED AT REPRESENTATIVE LOCATIONS. IF IT IS DETERMINED THAT SOIL AMENDMENTS WILL BE NEEDED, RECOMMENDATIONS WILL BE FORWARDED TO THE NATURAL RESOURCES DIRECTOR.

***THE PDP WAS AMENDED BY W.H. PORTER ON AUGUST 23, 2010, CHANGING THE LOT LAYOUT. THIS EXHIBIT REMAINS IN FORCE. FOR THE AMENDED LAYOUT, SEE THE MASTER ILLUSTRATION PLAN, SHEET 1 OF 1, DATED JULY 15, 2010.**

ENTRY SIGNAGE - Exhibit R

SIGNAGE LOCATION KEY

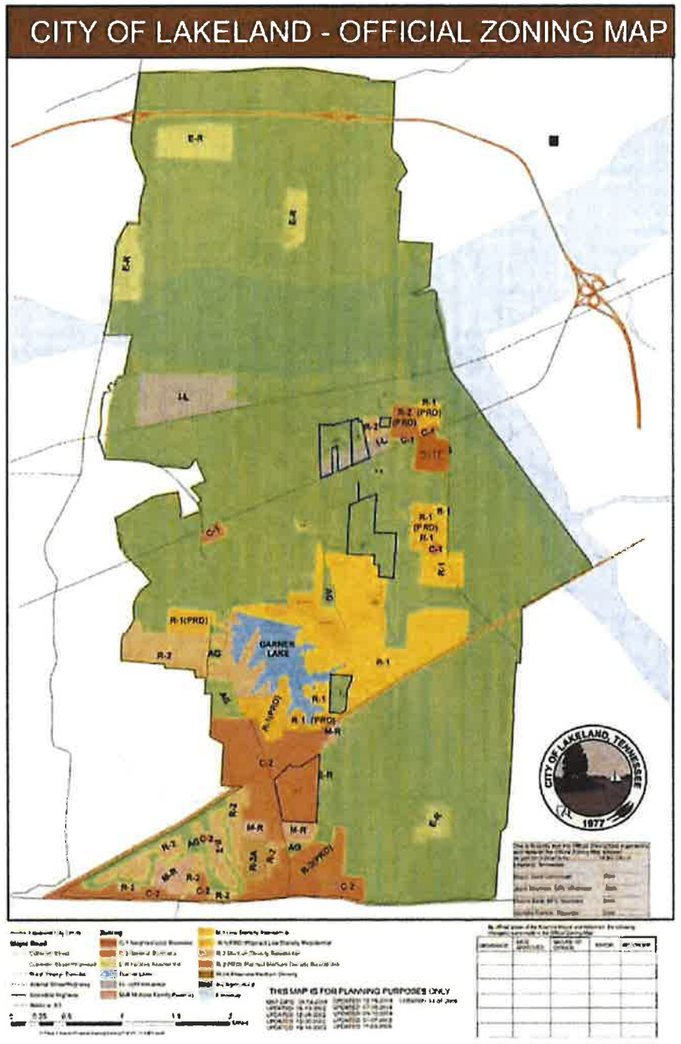
ABOVE: CONCEPTUAL MONUMENTAL SIGNAGE FOR MAIN ENTRANCES LOCATED OFF OF CHAMBERS CHAPEL ROAD AND U.S. HWY 70

RIGHT: CONCEPTUAL MONUMENTAL SIGNAGE FOR SECONDARY ENTRANCE LOCATED OFF OF MEMPHIS-ARLINGTON ROAD

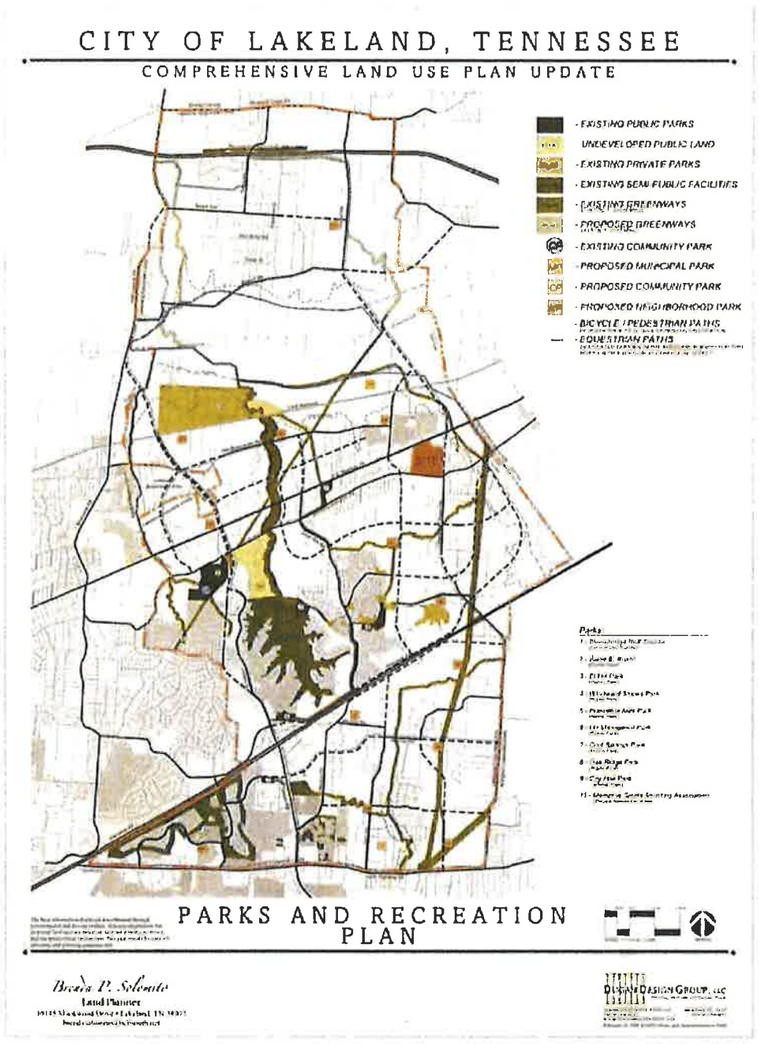
NOTE: ARCHITECTURAL AND LANDSCAPE FOCAL ELEMENTS WITHIN COMMON OPEN SPACES TO HAVE CONSTANT THEME/ IMAGE.

RELATIONSHIP BETWEEN PROPOSED DEVELOPMENT & THE CITY'S ZONING MAP, PARKS AND RECREATION PLAN, AND LANDUSE PLAN - Exhibit S

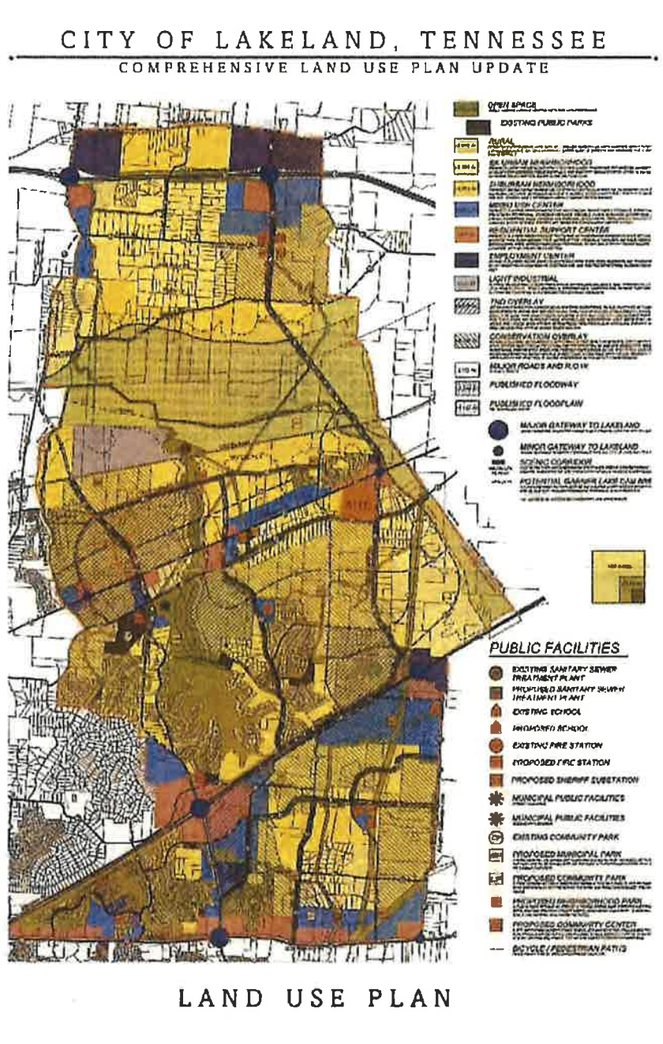
ZONING MAP



PARKS AND RECREATION PLAN



LANDUSE PLAN



LAND USE PLAN

b

28

Kensington Manor

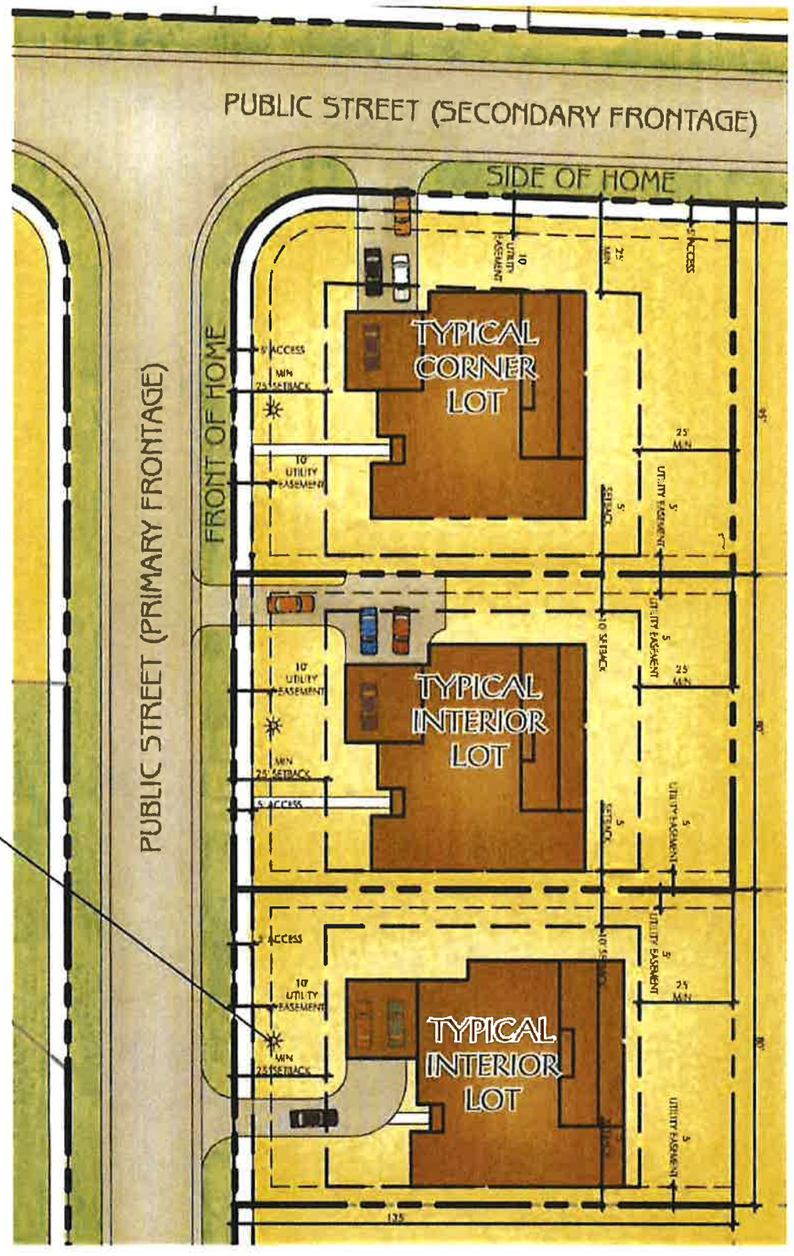
PHASING PLAN - Exhibit T

REVISED BY
RENAISSANCE DEVELOPMENTS
AUGUST 2022

PHASE	LOTS	NO. OF LOTS	AREA (AC)
PHASE 1	1-24	24	17.29
PHASE 2	25-46	22	12.19
PHASE 3	47-70	24	13.09
PHASE 4	71-89	19	11.10
PHASE 5	90-103	14	10.64

TYPICAL LOT DIMENSION & LIGHTING - Exhibit U

TYPICAL FRONT LOADED LOT



1" = 40'

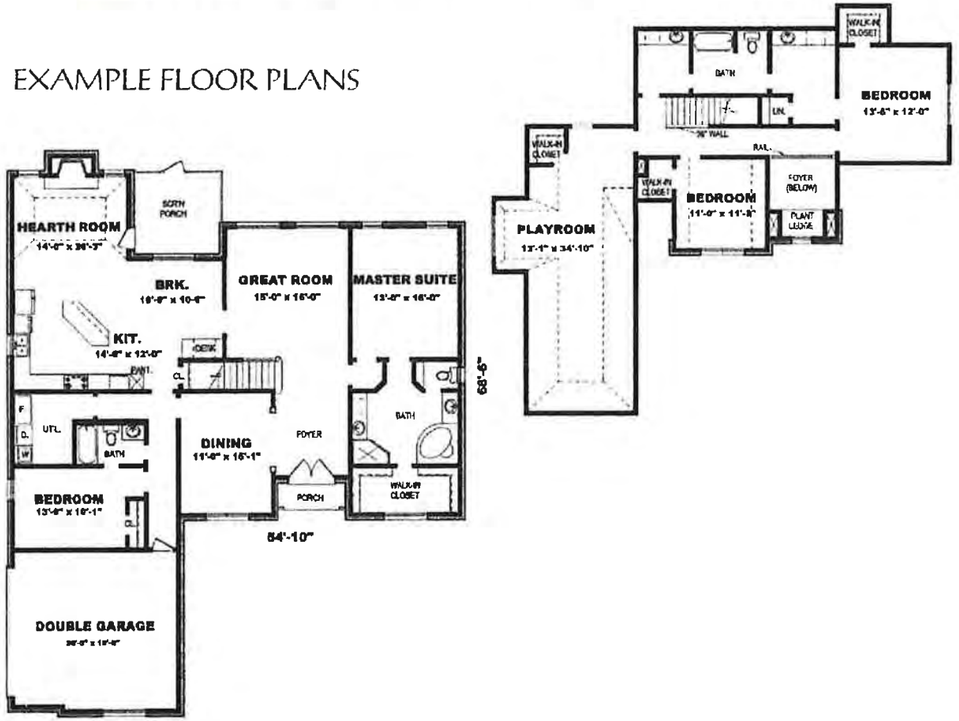
APPROXIMATE LOCATION OF 6' HT. POLE MOUNTED PRIVATE LIGHT FIXTURE (DETAILED LIGHTING INFORMATION TO BE SUBMITTED WITH THE SDDP)

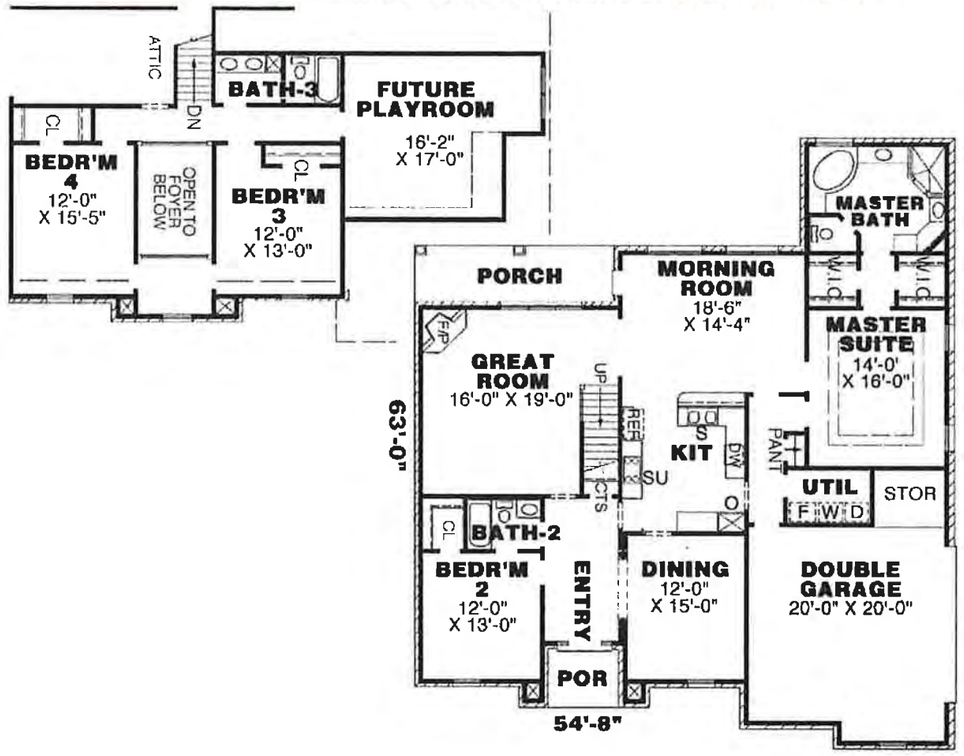
NOTE: REFER TO SECTION XV, 1, B FOR CORNER LOT GARAGE INFORMATION.

TYPICAL LIGHT - ONE PER EACH FRONT YARD

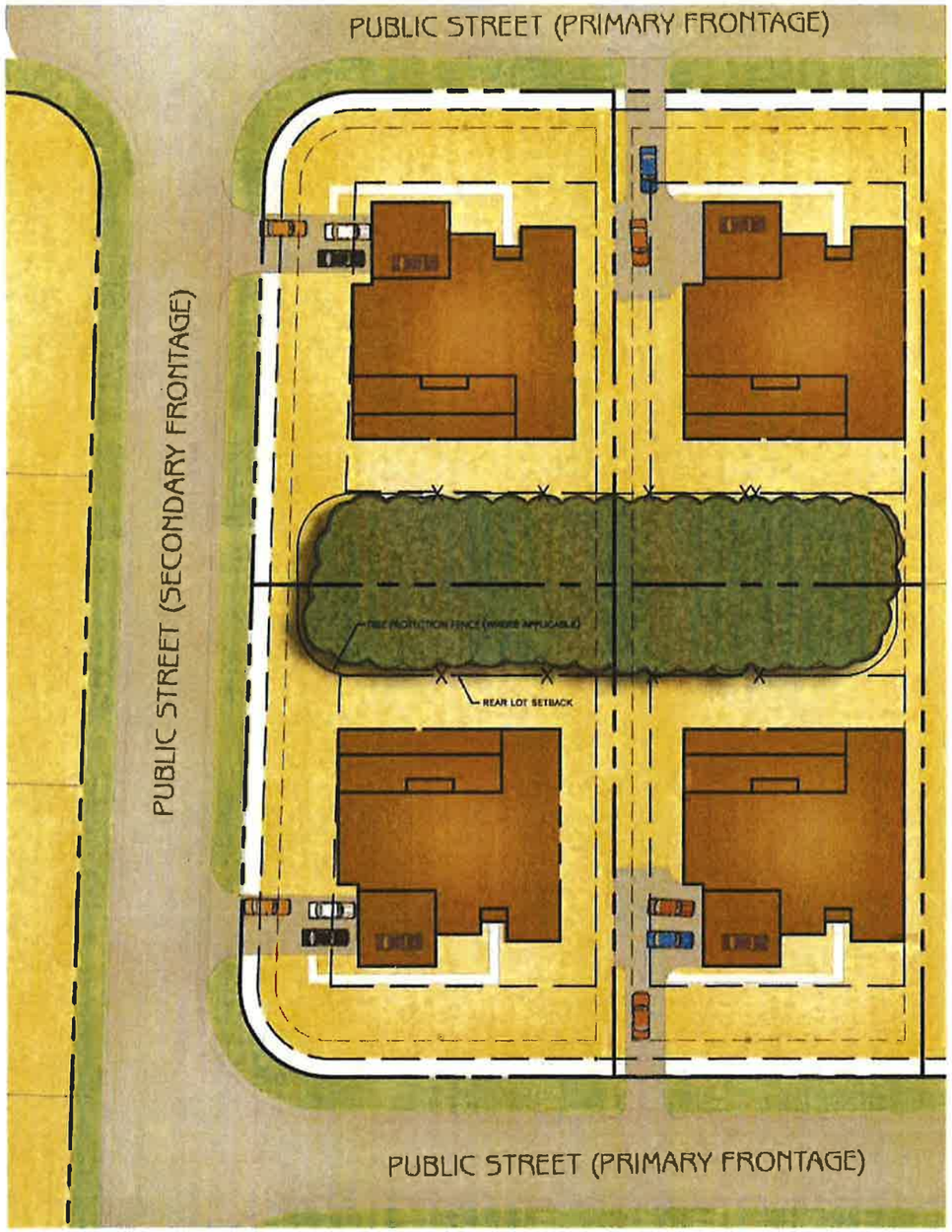
ARCHITECTURAL CHARACTER - Exhibit V

EXAMPLE FLOOR PLANS

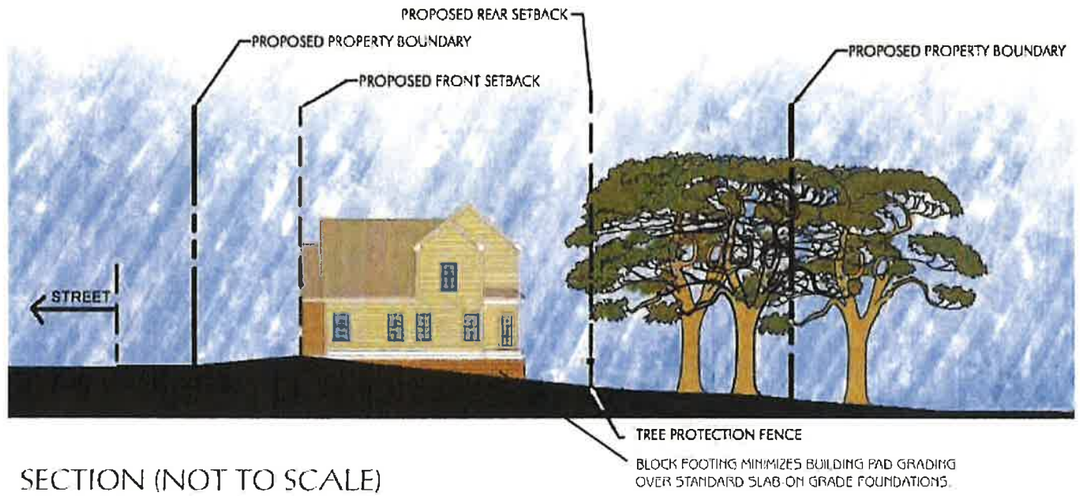




TREE PROTECTION TECHNIQUES ON FRONT LOADED LOTS - Exhibit W



TYPICAL FRONT LOADED LOT
1" = 40'



SECTION (NOT TO SCALE)

1.) ALL SPECIMEN TREES IN THE REAR BUILDING SETBACK OF FRONT LOADED LOTS WILL BE PROTECTED. IN ADDITION, ON LOTS OF SPECIAL VEGETATIVE CONCERN (NOTED ON SITE MASTER PLAN & EXHIBIT J), PRIOR TO OBTAINING A BUILDING PERMIT, HEALTHY TREES OF VALUE WILL BE EVALUATED BY THE NATURAL RESOURCE DIRECTOR, THE BUILDER, AND THE ISA CERTIFIED ARBORIST FOR FEASIBILITY OF PRESERVATION. THESE ADDITIONAL TREES THAT ARE MARKED FOR PRESERVATION WILL HAVE THE SAME PROTECTION MEASURES PERFORMED AS DO THE SPECIMEN TREES.

2.) UPON COMPLETION OF THE FULL TREE SURVEY, THE CITY OF LAKELAND STAFF MAY ADD OR SUBTRACT LOTS TO THE LIST OF []LOTS OF SPECIAL VEGETATIVE CONCERN.[]

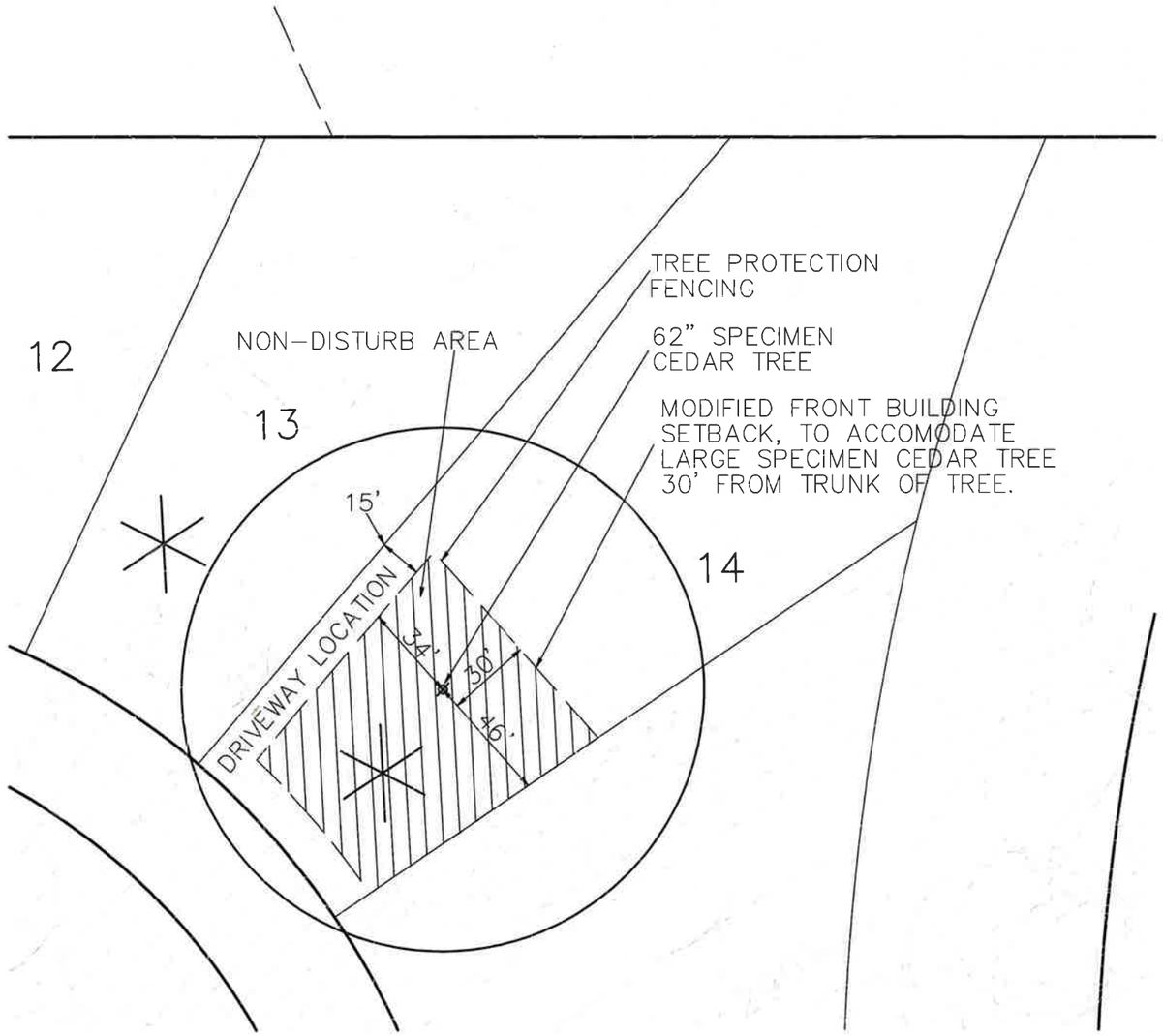
3.) A TREE PROTECTION PLAN WITH DETAILS WILL BE SUBMITTED WITH THE FIRST PHASE SDDP. TREE PROTECTION FENCING WILL BE INSTALLED USING GUIDELINES APPROVED BY AN ISA CERTIFIED ARBORIST. ARBORIST TO INSPECT TREE PROTECTION FENCING AND MONITOR HEALTH OF THE PROTECTED TREES BEFORE, DURING, AND AFTER CONSTRUCTION.

* SEE SECTION XV, BULLET NUMBER 4, IN THE CONDITIONS OF APPROVAL TEXT FOR MAXIMUM LOT COVERAGE

REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010

SPECIAL TREE PROTECTION TECHNIQUE FOR LOT 14 - Exhibit X

LOT 14 SHALL HAVE A MODIFIED BUILDING SETBACK TO ACCOMODATE A LARGE 62" CEDAR OF SIGNIFICANT IMPORTANCE. A LARGE NON-DISTURB AREA HAS BEEN IDENTIFIED TO PRESERVE THE HEALTH OF THIS TREE. THIS AREA WILL BE SURROUNDED BY TREE PROTECTION FENCING. ARBORIST SHALL INSPECT PROTECTION FENCING AND MONITOR THE HEALTH OF THE TREE BEFORE AND THROUGH THE PHASES OF CONSTRUCTION.



REVISED BY
W.H. PORTER CONSULTANTS, PLLC
AUGUST 2010

LOCATION MAP
NOT TO SCALE

CONSTRUCTION PLANS

FOR

KENSINGTON MANOR
PHASE 3

L A K E L A N D , T E N N E S S E E

DEVELOPER:

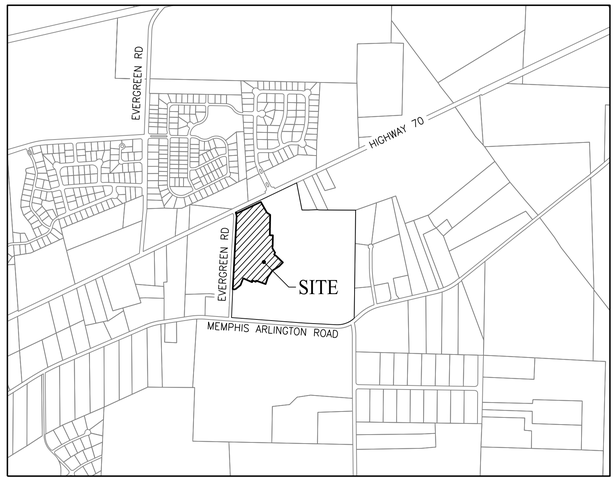
REGENCY HOMEBUILDERS
3420 S HOUSTON LEVEE
COLLIERVILLE, TN 38017

CIVIL ENGINEER:

McCARTY GRANBERRY ENGINEERING FIRM
198 PROGRESS ROAD
COLLIERVILLE, TN 38017
PH: 901.605.2998
JBURNETTE@RENDEVCO.NET

SURVEYOR:

OLLAR SURVEYING
3157 HIGHWAY 64, STE. 250
EADS, TN 38028
PH: 901.465.5555
jason@ollarsurveying.com



VICINITY MAP
1" = 1,000'

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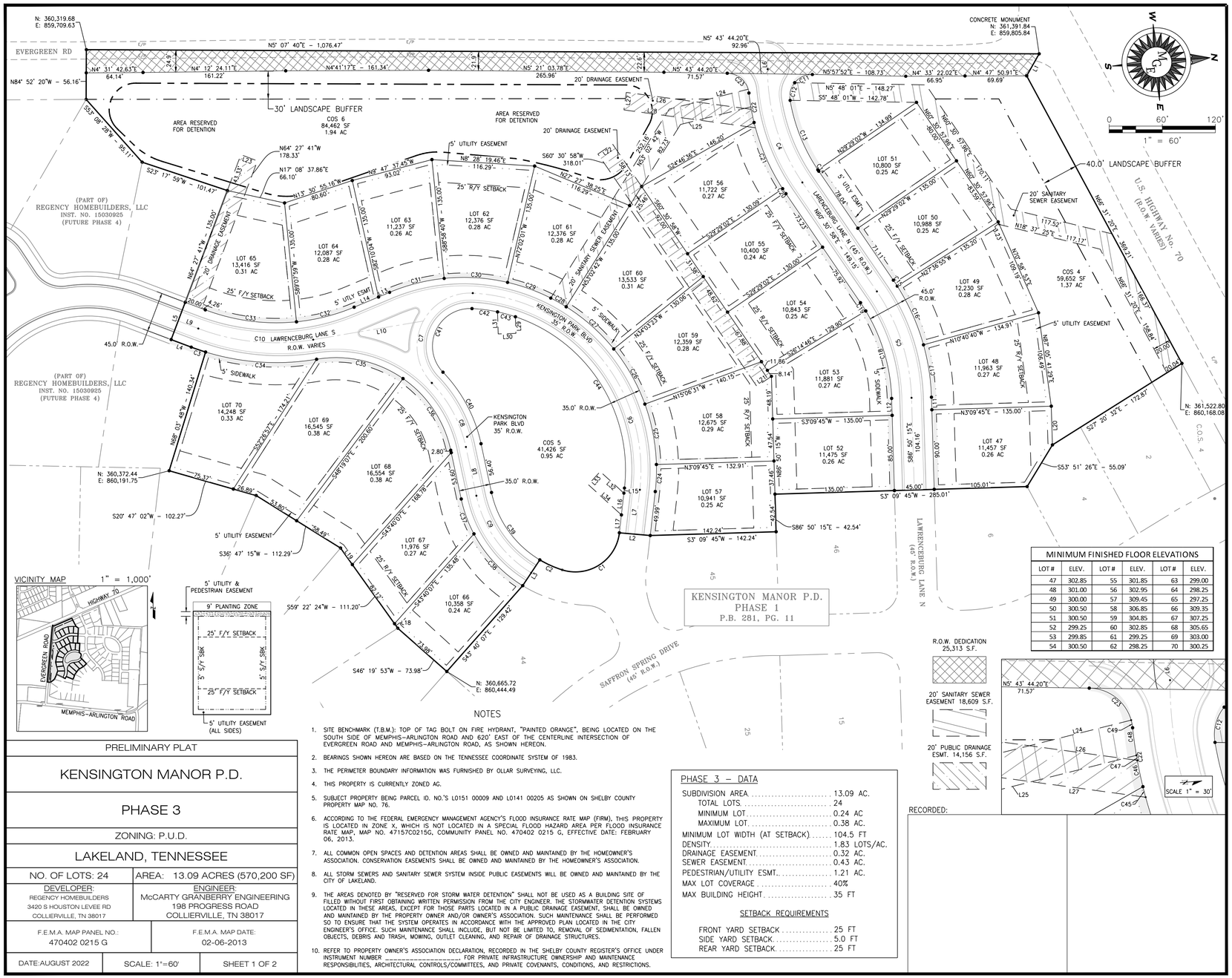
CITY OF LAKELAND ENGINEER APPROVAL: _____ DATE: _____

McCARTY GRANBERRY ENGINEERING



VICINITY MAP 1" = 1,000'

PRELIMINARY PLAT		
KENSINGTON MANOR P.D.		
PHASE 3		
ZONING: P.U.D.		
LAKELAND, TENNESSEE		
NO. OF LOTS: 24	AREA: 13.09 ACRES (570,200 SF)	
DEVELOPER: REGENCY HOMEBUILDERS 3420 S HOUSTON LEVEE RD COLLIERVILLE, TN 38017	ENGINEER: McCARTY GRANBERRY ENGINEERING 198 PROGRESS ROAD COLLIERVILLE, TN 38017	
F.E.M.A. MAP PANEL NO.: 470402 0215 G	F.E.M.A. MAP DATE: 02-06-2013	
DATE:AUGUST 2022	SCALE: 1"=60'	SHEET 1 OF 2

NOTES

1. SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSECTION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.
2. BEARINGS SHOWN HEREON ARE BASED ON THE TENNESSEE COORDINATE SYSTEM OF 1983.
3. THE PERIMETER BOUNDARY INFORMATION WAS FURNISHED BY OLLAR SURVEYING, LLC.
4. THIS PROPERTY IS CURRENTLY ZONED AG.
5. SUBJECT PROPERTY BEING PARCEL ID. NO.'S L0151 00009 AND L0141 00205 AS SHOWN ON SHELBY COUNTY PROPERTY MAP NO. 76.
6. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.
7. ALL COMMON OPEN SPACES AND DETENTION AREAS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION. CONSERVATION EASEMENTS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
8. ALL STORM SEWERS AND SANITARY SEWER SYSTEM INSIDE PUBLIC EASEMENTS WILL BE OWNED AND MAINTAINED BY THE CITY OF LAKELAND.
9. THE AREAS DENOTED BY "RESERVED FOR STORM WATER DETENTION" SHALL NOT BE USED AS A BUILDING SITE OF FILLED WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM THE CITY ENGINEER. THE STORMWATER DETENTION SYSTEMS LOCATED IN THESE AREAS, EXCEPT FOR THOSE PARTS LOCATED IN A PUBLIC DRAINAGE EASEMENT, SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER AND/OR OWNER'S ASSOCIATION. SUCH MAINTENANCE SHALL BE PERFORMED SO TO ENSURE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE APPROVED PLAN LOCATED IN THE CITY ENGINEER'S OFFICE. SUCH MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REMOVAL OF SEDIMENTATION, FALLEN OBJECTS, DEBRIS AND TRASH, MOWING, OUTLET CLEANING, AND REPAIR OF DRAINAGE STRUCTURES.
10. REFER TO PROPERTY OWNER'S ASSOCIATION DECLARATION, RECORDED IN THE SHELBY COUNTY REGISTER'S OFFICE UNDER INSTRUMENT NUMBER _____ FOR PRIVATE INFRASTRUCTURE OWNERSHIP AND MAINTENANCE RESPONSIBILITIES, ARCHITECTURAL CONTROLS/COMMITTEES, AND PRIVATE COVENANTS, CONDITIONS, AND RESTRICTIONS.

PHASE 3 – DATA

SUBDIVISION AREA	13.09 AC.
TOTAL LOTS	24
MINIMUM LOT	0.24 AC
MAXIMUM LOT	0.38 AC.
MINIMUM LOT WIDTH (AT SETBACK)	104.5 FT
DENSITY	1.83 LOTS/AC.
DRAINAGE EASEMENT	0.32 AC.
SEWER EASEMENT	0.43 AC.
PEDESTRIAN/UTILITY ESMT.	1.21 AC.
MAX LOT COVERAGE	40%
MAX BUILDING HEIGHT	35 FT

SETBACK REQUIREMENTS

FRONT YARD SETBACK	25 FT
SIDE YARD SETBACK	5.0 FT
REAR YARD SETBACK	25 FT

MINIMUM FINISHED FLOOR ELEVATIONS

LOT #	ELEV.	LOT #	ELEV.	LOT #	ELEV.
47	302.85	55	301.85	63	299.00
48	301.00	56	302.95	64	298.25
49	300.00	57	309.45	65	297.25
50	300.50	58	306.85	66	309.35
51	300.50	59	304.85	67	307.25
52	299.25	60	302.85	68	305.65
53	299.85	61	299.25	69	303.00
54	300.50	62	298.25	70	300.25

R.O.W. DEDICATION
25,313 S.F.

20' SANITARY SEWER EASEMENT 18,609 S.F.

20' PUBLIC DRAINAGE ESMT. 14,156 S.F.

RECORDED:

CERTIFICATE OF OWNERS AND DEDICATION

THE UNDERSIGNED, REGENCY HOMEBUILDERS, LLC, HEREBY CERTIFY THAT THEY ARE THE OWNERS OF THE FOREGOING PROPERTY AND THAT THE PLAT IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE ABOVE NAMED OWNERS, PROPRIETORS, DO HEREBY DEDICATE TO THE CITY OF LAKELAND ALL PUBLIC IMPROVEMENTS, EASEMENTS, OR LANDS HEREIN SPECIFICALLY IDENTIFIED FOR DEDICATION, FOR THE PURPOSES OF OPERATION, CONSTRUCTION AND MAINTENANCE OF THESE IMPROVEMENTS, AS NEEDED FOR THE PROPER DEVELOPMENT AND MAINTENANCE OF SAID SUBDIVISION.

DATE: _____

_____
SEAN CARLSON

NOTARY'S CERTIFICATE
STATE OF TENNESSEE
COUNTY OF SHELBY

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE AND COUNTY AFORESAID, DULY COMMISSIONED AND QUALIFIED, PERSONALLY APPEARED _____WITH WHOM I AM PERSONALLY ACQUAINTED AND WHO, UPON OATH, ACKNOWLEDGED HIMSELF TO BE OWNER OF CANADA ROAD BUSINESS PARK, AND HE AS SUCH OWNER, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED. IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND AFFIX MY SEAL THIS, THE DAY OF _____, 20____.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES: _____

CERTIFICATE OF MUNICIPAL PLANNING COMMISSION APPROVAL – SUBDIVISION

I, _____ DO HEREBY CERTIFY THAT THE CITY OF LAKELAND MUNICIPAL PLANNING COMMISSION HAS APPROVED THIS FINAL PLAT. THE SIGNING OF THIS CERTIFICATE SHALL IN NO WAY BE DEEMED TO CONSTITUTE OR EFFECT AN ACCEPTANCE OF THE DEDICATION OF ANY STREET, IMPROVEMENT, OR OTHER GROUND SHOWN UPON THE PLAT.

DATE: _____

_____
MPC SECRETARY

CERTIFICATE OF PLANNING REVIEW AND COMPLIANCE

THE FINAL PLAT AND SITE PLAN REVIEW IS REVIEWED AND DEEMED COMPLIANT WITH THE LAND DEVELOPMENT REGULATIONS, SUBJECT TO ANY WAIVERS, MODIFICATIONS, OR VARIANCES THEREOF GRANTED BY THE CITY OF LAKELAND.

DATE: _____

_____
CODE ADMINISTRATOR

CERTIFICATE OF CITY ENGINEER

THE FINAL PLAT AND SITE PLAN REVIEW IS REVIEWED AND DEEMED COMPLIANT WITH THE LAND DEVELOPMENT REGULATIONS, SUBJECT TO ANY WAIVERS, MODIFICATIONS, OR VARIANCES THEREOF GRANTED BY THE CITY OF LAKELAND.

DATE: _____

_____
CITY ENGINEER

CERTIFICATE OF MORTGAGEE AND DEDICATION

WE, THE MORTGAGEE, _____, DO HEREBY FREELY CONSENT TO THE SUBDIVISION OF THIS PROPERTY IN ACCORDANCE WITH THE FINAL PLAT; DEDICATE THE PUBLIC IMPROVEMENTS, EASEMENTS, OR LANDS HEREIN SPECIFICALLY IDENTIFIED FOR DEDICATION, TO THE APPROPRIATE AGENCIES AS OUTLINED IN THIS PLAT AND APPROVED BY THE MUNICIPAL PLANNING COMMISSION OF LAKELAND, TENNESSEE FOR THE PURPOSES OF OPERATION, CONSTRUCTION AND MAINTENANCE OF THESE IMPROVEMENTS, AS NEEDED FOR THE PROPER DEVELOPMENT AND MAINTENANCE OF SAID SUBDIVISION.

DATE:_____

_____
SIGNATURE OF AUTHORIZED AGENT OF MORTGAGEE

NOTARY'S CERTIFICATE
STATE OF TENNESSEE
COUNTY OF SHELBY

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE AND COUNTY AFORESAID, DULY COMMISSIONED AND QUALIFIED, PERSONALLY APPEARED

_____ (PRINTED NAME) OF _____, WITH WHOM I AM PERSONALLY ACQUAINTED AND WHO, UPON OATH, ACKNOWLEDGED HIMSELF TO BE _____ (TITLE) OF THE _____, THE WITHIN NAMED BARGAINER, AND THAT HE EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED.
IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND AFFIX MY SEAL THIS, THE ____ DAY OF _____, 20____.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES:_____

CERTIFICATE OF ENGINEER

I, JOSHUA W. BURNETTE, A PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THE DESIGN OF PUBLIC AND PRIVATE IMPROVEMENTS PROVIDED FOR IN THE PRELIMINARY PLAT / CONSTRUCTION PLANS / FINAL PLAT (WHICHEVER IS APPLICABLE) ARE IN ACCORDANCE WITH ACCEPTABLE ENGINEERING PRACTICES, THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, CITY OF LAKELAND MANUAL FOR PUBLIC WORKS AND MATERIALS SPECIFICATIONS, AND ALL CITY OF LAKELAND ORDINANCES, INCLUDING SUBDIVISIONS.

IN WITNESS WHEREOF, I THE SAID JOSHUA W. BURNETTE, A PROFESSIONAL ENGINEER, HEREUNTO SET OUT HAND AND AFFIX MY SEAL THIS _____DAY OF _____ 20_____.

TENNESSEE REGISTRATION NO. 119686

_____
PROFESSIONAL ENGINEER

CERTIFICATE OF SURVEYOR
STATE OF TENNESSEE
COUNTY OF SHELBY

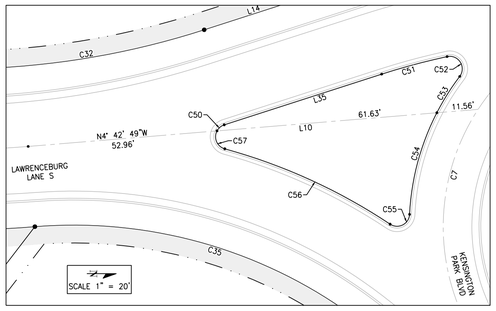
I HEREBY CERTIFY THAT THIS IS A CATEGORY I SURVEY AND THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS AT LEAST 1:10,000 AS SHOWN HEREON. THIS SURVEY HAS BEEN MADE USING THE LATEST RECORDED DEED, IS IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

IN WITNESS WHEREOF, I THE SAID _____,
A LAND SURVEYOR, HEREUNTO SET OUT HAND AND AFFIX MY SEAL THIS DAY OF_____.

_____
TENNESSEE REGISTRATION NO.

PARCEL LINE TABLE		
LINE #	LENGTH	DIRECTION
L6	18.74	S84° 52' 20"E
L7	50.42	N78° 39' 10"W
L8	56.40	N82° 44' 09"E
L15	5.78	S78° 39' 10"E
L16	24.71	S78° 39' 10"E
L17	20.37	S78° 39' 10"E
L20	43.78	S86° 50' 15"E
L35	46.21	N17° 51' 00"W

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	87.82	50.00	100.63	S28° 08' 48"E	76.96
C2	27.86	117.86	13.55	S28° 56' 29"W	27.80
C3	17.13	272.50	3.60	S23° 44' 15"W	17.13
C4	135.92	225.00	34.61	N77° 49' 19"E	133.86
C5	128.20	225.00	32.65	N76° 50' 22"E	126.47
C6	326.80	200.00	93.62	S54° 32' 11"W	291.64
C7	143.15	60.00	136.70	S60° 37' 29"E	111.53
C8	83.02	150.00	31.71	N66° 52' 50"E	81.96
C9	109.87	135.00	46.63	N59° 25' 18"E	106.86
C10	132.00	250.00	30.25	N10° 24' 45"E	130.47
C39	96.35	117.50	46.98	S59° 14' 44"W	93.67
C40	92.70	167.50	31.71	S66° 52' 50"W	91.53
C41	101.40	42.50	136.70	N60° 37' 29"W	79.00
C42	29.17	182.50	9.16	N12° 18' 14"E	29.14
C43	20.92	182.50	6.57	N20° 10' 01"E	20.91
C44	248.12	182.50	77.90	N62° 23' 57"E	229.45
C50	2.70	3.50	44.25	N39° 58' 35"W	2.64
C51	18.94	190.50	5.70	N15° 00' 07"W	18.93
C52	8.51	3.50	139.30	N57° 29' 43"E	6.56
C53	12.02	69.50	9.91	S57° 48' 37"E	12.00
C54	29.62	69.50	24.42	S74° 58' 30"E	29.40
C55	7.38	3.50	120.85	S26° 45' 44"E	6.09
C56	50.99	159.50	18.32	S24° 30' 09"W	50.77
C57	6.26	3.50	102.55	S66° 37' 14"W	5.46



PRELIMINARY PLAT

KENSINGTON MANOR P.D.

PHASE 3

ZONING: P.U.D.

LAKELAND, TENNESSEE

NO. OF LOTS: 24	AREA: 13.09 ACRES (570,200 SF)
DEVELOPER: REGENCY HOMEBUILDERS 3420 S HOUSTON LEVEE RD COLLIERVILLE, TN 38017	ENGINEER: McCARTY GRANBERRY ENGINEERING 198 PROGRESS ROAD COLLIERVILLE, TN 38017
F.E.M.A. MAP PANEL NO.: 470402 0215 G	F.E.M.A. MAP DATE: 02-06-2013
DATE: AUGUST 2022	SCALE: 1"=60'	SHEET 2 OF 2

RECORDED:

General Notes

1. The Contractor shall notify the City of Lakeland Engineering Office, (901) 867-5418, before commencing construction.

2. The Contractor shall be responsible for notifying any utility company which maintains a utility line within the boundaries of the project before the initiation of any construction on the project or in the streets bordering the project. The Contractor shall also assume responsibility for any damage incurred by any utility company to their utility lines whether shown on the construction plans or not, during work on the project.

3. All newly cut and/or filled areas lacking adequate vegetation shall be seeded, fertilized, mulched and/or sodded as required to effectively prevent soil erosion per State regulations.

4. All construction within Public Easements and right-of-ways shall meet the City of Lakeland Standard Specifications. Construction within private developments (private streets, drives, alleys and associated infrastructure) shall be reviewed on a case-by-case basis.

5. The Contractor must have written approval from the City Engineer before any change in design is made.

6. For information concerning the utilities, call 1-800-351-1111 or the respective organization.

7. Seventy-two (72) hours before beginning any excavation, the Contractor shall call 1-800-351-1111 for the location of underground utilities.

8. The Contractor shall not enter upon nor cause damage to any adjacent properties without written permission from said property owners.

9. All fill lifts shall be compacted to a minimum density of 95% of the standard proctor density (ASTM D-698) with suitable fill material acceptable to testing laboratory. Maximum loose lift to be 6".

10. All concrete shall be 4,000 PSI, air entrained, unless approved otherwise by the City Engineer.

11. Any existing utilities requiring relocation or removal shall be the Developer's responsibility.

Sewer Notes

1. The Contractor shall be responsible for notifying any utility company which maintains a utility line within the boundaries of the project before the initiation of any construction on the project or in the streets bordering the project. The Contractor shall also assume responsibility for any damage incurred by any utility company to their utility lines whether shown on the construction plans or not, during work on the project.

2. All newly cut and/or filled areas lacking adequate vegetation shall be seeded, fertilized, mulched and/or sodded as required to effectively prevent soil erosion per State regulations.

3. A six (6) inch service connection to each lot/building is shown. The contractor shall keep a record of the location of each connection. 1). For residential, at the property line chisel an "S" on the curb at the tap location and 2). For non-residential, measure from the nearest manhole or other acceptable mark. Each sewer manhole and connection will be located on the as-built drawings.

4. For information concerning the utilities, call 1-800-351-1111 or the respective organization.

5. Before construction begins, call the City of Lakeland Engineering Office (901) 867-5418.

6. Seventy-two (72) hours before beginning any excavation, the Contractor shall call 1-800-351-1111 for the location of underground utilities. Call City of Lakeland Public Works for the location of sewer lines.

7. All trenches are to be back-filled according to the City of Lakeland Standard Construction Specifications.

8. All sewer lines are to have a mandrel pulled and air tested. All sewer manholes are to be vacuum tested.

9. All sewer manhole lids in open fields shall be constructed 3.0 feet above final grade unless they are in a floodplain/floodway or detention area, then the final grade will be determined on construction drawings. Those constructed in backyards and landscape/Common Open Space areas, shall be constructed 0.5 feet above final grade. When the clearance between sanitary sewer and drainage is less than 1.5 feet, the sanitary sewer shall be ductile iron pipe or concrete encased for 10 feet each side of the drainage crossing, this includes sanitary sewer services.

10. All public sanitary sewer shall be SDR-26; all other to be constructed in accordance with local building code.

Water Specification Notes

1. A 3/4" minimum copper service connection shall be provided for each lot.

2. Meter boxes shall be concrete from Goddard Concrete Services or plastic from DRW Plastics, Inc. model DFW36C-12-1-CA. Meter boxes may be purchased from any vendor. Contractors are responsible for installation of boxes.

3. All materials and installation shall conform to the Standard Specifications of City of Lakeland, Memphis Light, Gas and Water (MLGW), and the State of Tennessee.

4. Ductile iron pipe shall be Class 50 for 200 psi working pressure unless otherwise specified.

5. Blocking of fire hydrant tees and bends required as per City of Lakeland specifications.

6. Contractors shall chisel and paint "W" on the face of the curb at each house connection.

7. Water lines, valves, fittings and hydrant shall be installed, disinfected, pressure tested and leakage tested in accordance with all state and local requirements.

8. All trenches to be back-filled according to the City of Lakeland Standard Construction Specifications.

7. Fire hydrants to be M & H, Mueller Centurion or Clow.

8. Valve boxes shall be as manufactured by Tyler Pipe 6850 Series.

9. Public fire hydrants to be silver in color.

10. Private fire hydrants to be red in color.

11. All ties to existing water lines must be made starting with a valve if no valve exists.

12. Any existing fire hydrants that do not meet current standards are to be up-graded by the Developer.

Erosion Control Notes

1. Erosion controls are not limited to the specified practices; however, alternative measures must be as effective in controlling erosion and sedimentation.

2. If the erosion control measures selected and constructed fail to adequately control erosion and off-site sediment transport, alternative methods must be used and approved by the Division of Engineering and TDEC. Inadequately controlled erosion is a violation of Tennessee State Law and will not be permitted.

3. Any erosion control measures shown here on are intended as a minimum guide. The contractor shall be responsible for maintaining erosion controls necessary to comply with all applicable City, State and Federal Laws.

4. Clearing and grubbing shall be the minimum necessary for grading and equipment operation

5. Sequence construction shall be used in order to minimize exposure time of cleared area.

6. Avoid grading activities during months of highly erosive rainfall.

7. Stabilize cleared area before proceeding to clear another by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.

8. Erosion and sediment control measures must be in place and functional prior to beginning earth moving operations.

9. All erosion control measures must be properly constructed and maintained throughout the construction period.

10. Erosion control measures must be appropriately adjusted, relocated and modified in accordance with applicable requirements and regulations to address changing site conditions as the project progresses.

11. Inspect all erosion and sediment control measures twice weekly, a minimum of 72 hours apart and after each rainfall per TDEC Construction General Permit requirements. Daily checking is required during prolonged rainfall. Maintain a rain gauge on site with a permanent rainfall log. Maintain a permanent log of checks and maintenance measures.

12. Keep construction debris from entering swales, ditches and stream channels.

13. Promptly backfill and stabilize trenches and/or pits.

14. Designate a specific qualified individual to be responsible for erosion and sediment controls and to keep the permanent job log. The person responsible for maintaining the erosion control measures and log shall have the appropriate certification as required by TDEC. A copy of this certification shall be maintained at the job site.

15. Do not place excavation material from the pipe trenches between the trench and swales, ditches or streams. Place material on the up slope side of the excavation such that any erosion from it is caught by the trench.

16. Buffer zones shall be provided to meet the minimum requirements of the TDEC Construction General Permit.

17. Do not destroy, remove or disturb vegetative ground cover more than 14 calendar days prior to grading.

18. Do not unnecessarily remove canopy; however, when necessary, trees and shrubs should be cut so that they fall away from the ditch.

19. Any area that will remain unfinished for more than 14 calendar days shall have appropriate annual vegetation for temporary soil stabilization.

20. Apply permanent soil stabilization with perennial vegetation as soon as possible, but no more than 14 calendar days after final grading.

21. Erosion control measures shall be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, then additional erosion and sediment control measures shall be implemented to control and/or treat the sediment source before land and/or aquatic disturbance may continue.

22. All erosion control measures shall meet the minimum requirements of all federal, state and local agencies.

23. Protect inlets during construction. Keep sediment out of the storm drainage system. Modify protection as construction progresses. Inspect and modify inlet protections as necessary to insure satisfactory trapping of sediment

24. In accordance with the City of Lakeland MS4 Permit, all State/NPDES Permits are required to be obtained and implemented before start-up of any construction activities, including, but not limited to, land and/or aquatic disturbance.

25. Install staked and entrenched mulch socks and/or silt fence along the base of all backfills and cuts on the downhill side of any stockpiled soil and along any ditch banks in cleared areas to prevent erosion into ditches. Place silt fence along contours, not across. Do not allow silt fence to cause concentrated flow.

26. Divert all surface water flowing toward the construction area around the construction area by the use of dikes, berms, channels or sediment traps as necessary.

27. If required, place cofferdams constructed with sandbags, plastic or non-erodible sheeting on either side of proposed line crossings and extend from bank to bank to prevent the flow of water into the construction area. Hold water from cofferdams or excavations in properly designated settling basins, dewatering pits or filter basins until it is at least as clear as upstream water before discharging into surface water. Ensure that discharge does not cause erosion and sedimentation.

28. Do not use ditches for the transport of equipment. Use a stabilized pad of clean and properly sized rock for access to road construction. Utilize erosion and sediment control measures as indicated on the plans and in the current edition of the Tennessee Erosion Prevention and Sediment Control Handbook where ditch banks are disturbed.

SHELBY COUNTY, TENNESSEE

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS-ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS-ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE REGISTERED ENGINEER No. 120161 STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*

ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

GENERAL NOTES

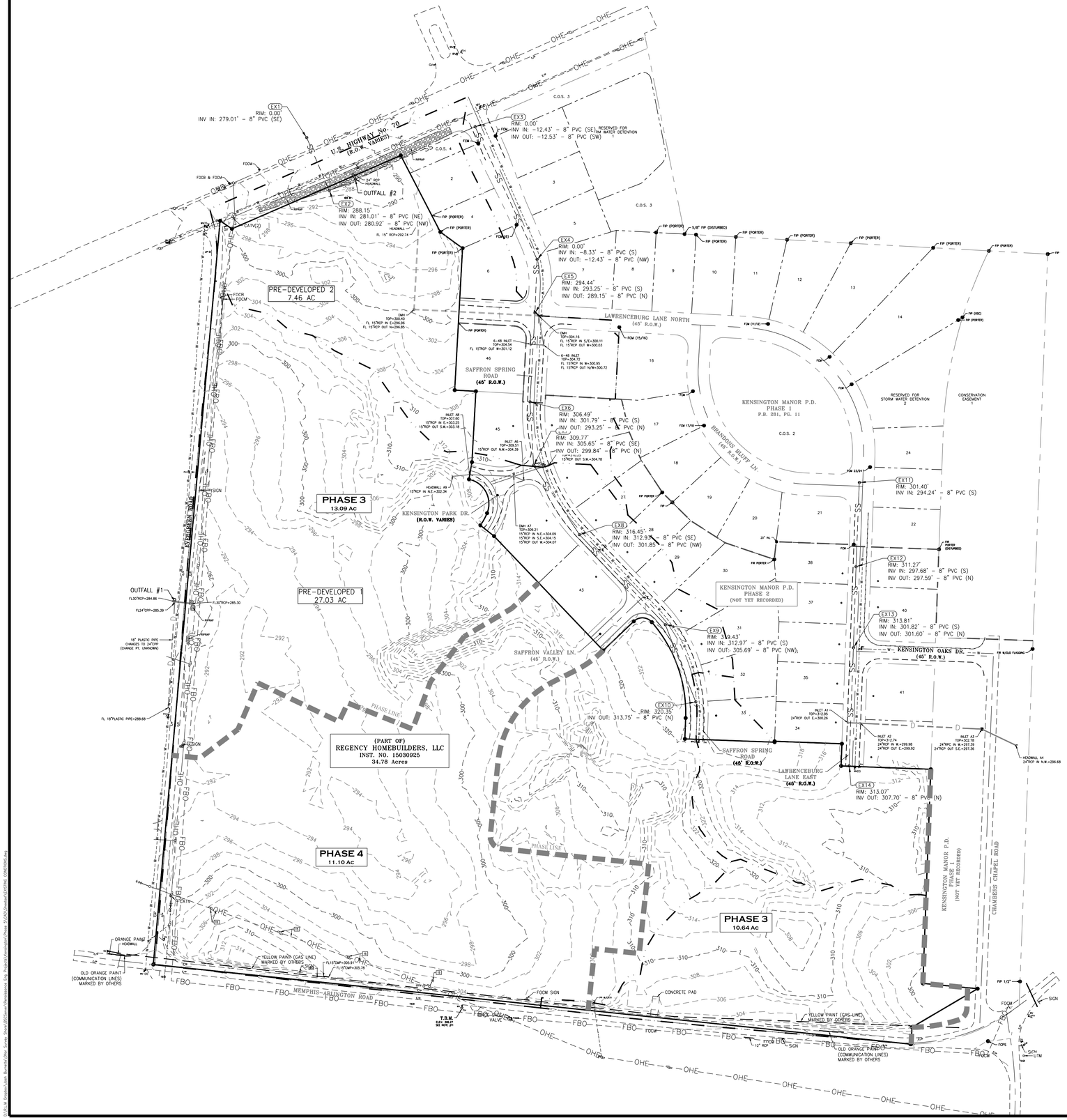
LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----

DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:

DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: ----

CITY ENGINEER DATE


PHASE 3
13.09 Ac
PRE-DEVELOPED 2
7.46 AC
PRE-DEVELOPED 1
27.03 AC
PHASE 4
11.10 Ac
PHASE 3
10.64 Ac
(PART OF)
REGENCY HOMEBUILDERS, LLC
INST. NO. 15030925
34.78 Acres
U.S. HIGHWAY NO. 70
(R.O.W. VARIES)
MEMPHIS-ARLINGTON ROAD
(R.O.W. VARIES)
KENSINGTON PARK DR.
(R.O.W. VARIES)
SAFFRON SPRING ROAD
(45' R.O.W.)
LAWRENCEBURG LANE NORTH
(45' R.O.W.)
BRANDONS BLUFF LN.
(45' R.O.W.)
SAFFRON VALLEY LN.
(45' R.O.W.)
KENSINGTON OAKS DR.
(45' R.O.W.)
LAWRENCEBURG LANE EAST
(45' R.O.W.)
KENSINGTON MANOR P.D.
PHASE 1
P.B. 281, PG. 11
KENSINGTON MANOR P.D.
PHASE 2
(NOT YET RECORDED)
KENSINGTON MANOR P.D.
PHASE 3
(NOT YET RECORDED)
RESERVED FOR
STORM WATER DETENTION
2
CONSERVATION
EASEMENT
1
C.O.S. 1
C.O.S. 2
C.O.S. 3
C.O.S. 4
CHAMBERS CHAPEL ROAD
OUTFALL #1
OUTFALL #2
EX1
RIM: 0.00'
INV IN: 279.01' - 8" PVC (SE)
EX2
RIM: 288.15'
INV IN: 281.01' - 8" PVC (NE)
INV OUT: 280.92' - 8" PVC (NW)
EX3
RIM: 0.00'
INV IN: -12.43' - 8" PVC (SE)
INV OUT: -12.53' - 8" PVC (SW)
EX4
RIM: 0.00'
INV IN: -8.33' - 8" PVC (S)
INV OUT: -12.43' - 8" PVC (NW)
EX5
RIM: 294.44'
INV IN: 293.25' - 8" PVC (S)
INV OUT: 289.15' - 8" PVC (N)
EX6
RIM: 306.49'
INV IN: 301.79' - 8" PVC (S)
INV OUT: 293.25' - 8" PVC (N)
EX7
RIM: 309.77'
INV IN: 305.65' - 8" PVC (SE)
INV OUT: 299.84' - 8" PVC (N)
EX8
RIM: 316.45'
INV IN: 312.93' - 8" PVC (SE)
INV OUT: 301.85' - 8" PVC (NW)
EX9
RIM: 318.43'
INV IN: 312.97' - 8" PVC (S)
INV OUT: 305.69' - 8" PVC (NW)
EX10
RIM: 320.35'
INV OUT: 313.75' - 8" PVC (N)
EX11
RIM: 301.40'
INV IN: 294.24' - 8" PVC (S)
EX12
RIM: 311.27'
INV IN: 297.68' - 8" PVC (S)
INV OUT: 297.59' - 8" PVC (N)
EX13
RIM: 313.81'
INV IN: 301.82' - 8" PVC (S)
INV OUT: 301.60' - 8" PVC (N)
EX14
RIM: 313.07'
INV OUT: 307.70' - 8" PVC (N)
T.B.M.
ELEV. 306.27
SEE NOTE #11
PHASE LINE
YELLOW PAINT (GAS LINE) MARKED BY OTHERS
OLD ORANGE PAINT (COMMUNICATION LINES) MARKED BY OTHERS
ORANGE PAINT HEADWALL
CONCRETE PAD
FOCM SIGN
FOCB & FOCM
FOCM
FOCB
FIP (PORTER)
FIP 1/2"
FCM (1"/1/2)
FCM (5/16)
FCM 11/18
FCM 33/31
FCM 30/28
FCM 32/30
FCM 34/32
FCM 36/34
FCM 38/36
FCM 40/38
FCM 42/40
FCM 44/42
FCM 46/44
FCM 48/46
FCM 50/48
FCM 52/50
FCM 54/52
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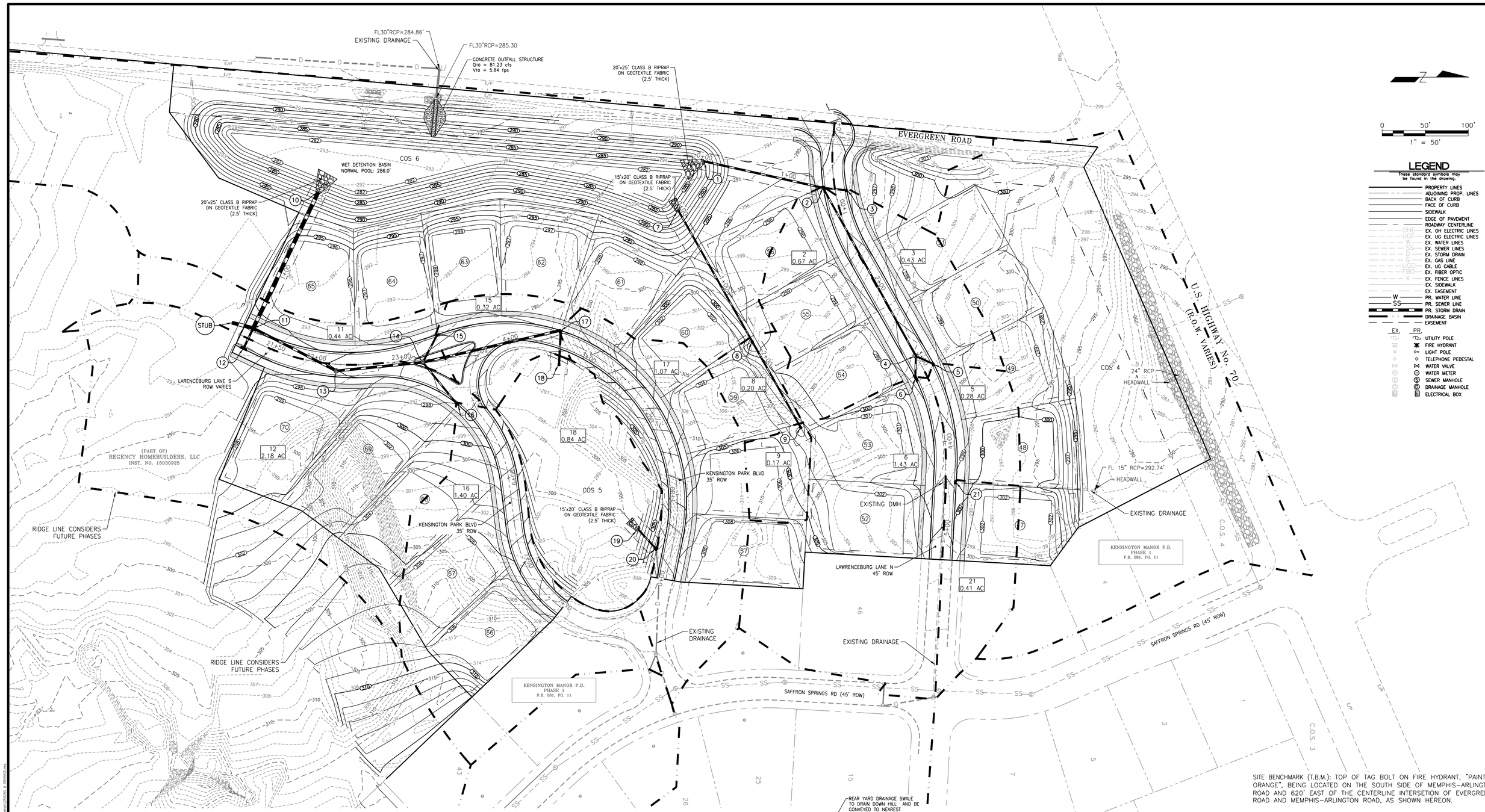
FCM 62/60
FCM 64/62
FCM 66/64
FCM 68/66
FCM



0 50' 100'
1" = 50'

LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- BACK OF CURB
- FACE OF CURB
- SIDEWALK
- EDGE OF PAVEMENT
- ROADWAY CENTERLINE
- OHE — EX. OH ELECTRIC LINES
- UGE — EX. UG ELECTRIC LINES
- W — EX. WATER LINES
- SS — EX. SEWER LINES
- D — EX. STORM DRAIN
- G — EX. GAS LINE
- UGC — EX. UG CABLE
- FBO — EX. FIBER OPTIC
- X — EX. FENCE LINES
- EX. SIDEWALK
- EX. EASEMENT
- W — PR. WATER LINE
- SS — PR. SEWER LINE
- PR. STORM DRAIN
- DRAINAGE BASIN
- EASEMENT

EX. / PR.

- UTILITY POLE
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE PEDESTAL
- WATER VALVE
- WATER METER
- SEWER MANHOLE
- DRAINAGE MANHOLE
- ELECTRICAL BOX

STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
- (XX) EX. SANITARY SEWER STRUCTURE

NOTE: ALL STRUCTURE AND PIPE TABLES FOR THIS SHEET ARE LOCATED ON SHEET

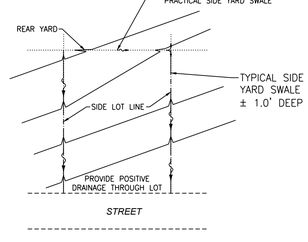
GRADING AND DRAINAGE NOTES:

1. HANDICAP RAMPS ARE REQUIRED AT ALL INTERSECTIONS.
2. THE CITY OF LAKELAND SHALL HAVE THE RIGHT TO ENTER THE PROPERTY FOR THE PURPOSE OF MAINTAINING THE DRAINAGE, WATER, AND SEWER SYSTEMS LOCATED WITHIN PUBLIC EASEMENTS, HOWEVER, THE CITY DOES NOT HAVE THE RESPONSIBILITY TO REPAIR ANY DAMAGE TO THE YARDS, PARKING LOT, STREETS OR DRIVES CAUSED BY SOIL SETTLEMENT OR OTHER REASONS THAT ARE NOT DIRECTLY CAUSED BY THE CITY'S ACTION OF PERFORMING MAINTENANCE TO THE UNDERGROUND SYSTEMS.
3. DRAINAGE AND ASSOCIATED EASEMENTS LOCATED HEREON ARE OWNED BY THE PUBLIC UNLESS OTHERWISE NOTED.
4. DRAINAGE BASIN AREAS SHOWN WITH BOXES ARE SUBBASINS OF OVERALL BASINS NOTED ON POST DEVELOPED DRAINAGE SHEET. INDIVIDUAL SUBBASINS ARE DRAINING TO STRUCTURE OR LOCATIONS AS INDICATED IN SAID BOX.

MINIMUM FINISHED FLOOR ELEVATIONS

LOT #	ELEV.	LOT #	ELEV.	LOT #	ELEV.
47	302.85	55	301.85	63	299.00
48	301.00	56	302.95	64	298.25
49	300.00	57	309.45	65	297.25
50	300.50	58	306.85	66	309.35
51	300.50	59	304.85	67	307.25
52	299.25	60	302.85	68	305.65
53	299.85	61	299.25	69	303.00
54	300.50	62	298.25	70	300.25

XX — STRUCTURE NUMBER
X.XX AC — CONTRIBUTING DRAINAGE AREA



TYPICAL SIDE YARD SWALE
N.T.S.

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE
REGISTERED ENGINEER
No. 15
STATE OF TENNESSEE

PRELIMINARY
NOT FOR CONSTRUCTION

DIVISION OF ENGINEERING

GRADING & DRAINAGE

LAKELAND, TN

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE

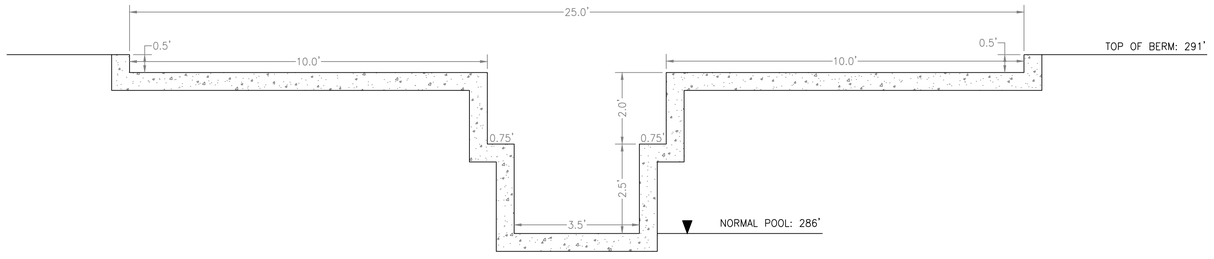
C:\Users\julia\Documents\Projects\Kensington Phase 3\Drawings\Grading & Drainage.dwg

STRUCTURE TABLE											
STRUCTURE ID	STRUCTURE TYPE	INLET STATION & OFFSET	RIM/GRATE ELEVATION	PIPES IN	PIPES OUT	D.A. (ACRES)	Q-25 RUNOFF (CFS)	UPSTREAM BYPASS (CFS)	Q, TOTAL (CFS)	Q, CAPTURED (CFS)	Q, BYPASS (CFS)
STUB	STUB	STA. 20+91.90'; 8.50' L	N/A		36" RCP – 288.09' (N)	12.92	39.57	0.00	39.57	....	....
1	TYPE 'D' HW	STA. 0+00.00'; 0.00'	N/A	18" RCP – 286.00' (N)		....	....	....	....	....	....
2	#12 INLET	STA. 0+74.12'; 13.50' R	295.70'	15" RCP – 288.84' (NE) 15" RCP – 288.84' (N)	18" RCP – 288.59' (S)	0.67	2.92	1.58	4.50	2.75	1.76
3	#12 INLET	STA. 0+81.55'; 13.50' L	295.77'		15" RCP – 289.68' (S)	0.43	1.70	0.11	1.81	1.46	0.35
4	DMH	STA. 2+94.13'; 0.32' R	297.40'	15" RCP – 292.74' (NE) 15" RCP – 292.74' (E)	15" RCP – 292.74' (SW)	....	....	....	....	....	....
5	#12 INLET	STA. 3+12.46'; 13.50' L	297.72'		15" RCP – 292.97' (SW)	0.28	1.12	0.00	1.12	1.01	0.11
6	#14 INLET	STA. 3+17.37'; 13.50' R	297.76'		15" RCP – 293.00' (W)	1.43	5.17	0.00	5.17	3.58	1.58
7	TYPE 'D' HW	STA. 0+00.00'; 0.00'	N/A	15" RCP – 286.00' (NE)		....	....	....	....	....	....
8	3070 INLET	STA. 1+74.83'; 0.00'	298.27'	15" RCP – 292.12' (NE)	15" RCP – 292.12' (SW)	0.20	0.88	0.00	0.88	0.82	0.06
9	3070 INLET	STA. 2+89.33'; 0.00'	301.75'		15" RCP – 296.13' (SW)	0.17	0.75	0.00	0.75	0.75	0.00
10	TYPE 'E' HW	STA. 0+00.00'; 0.00'	N/A	42" RCP – 286.00' (SE)		....	....	....	....	....	....
11	#14 INLET	STA. 21+16.81'; 13.50' L	294.35'	18" RCP – 289.40' (SE) 24" RCP – 288.90' (NE) 36" RCP – 287.90' (S)	42" RCP – 287.40' (NW)	0.44	1.93	0.93	2.86	2.87	0.00
12	#14 INLET	STA. 21+16.79'; 13.50' R	294.35'		18" RCP – 289.67' (NW)	2.18	7.73	2.17	9.90	9.90	0.00
13	DMH	STA. 22+24.50'; 7.70' R	294.97'	24" RCP – 289.71' (N)	24" RCP – 289.71' (SW)	....	....	....	....	....	....
14	DMH	STA. 23+24.39'; 2.95' R	296.96'	15" RCP – 291.22' (NW) 15" RCP – 291.22' (NE) 24" RCP – 290.47' (N)	24" RCP – 290.47' (S)	....	....	....	....	....	....
15	#12 INLET	STA. 23+43.96'; 28.10' L	296.23'		15" RCP – 291.77' (SE)	0.32	1.41	1.63	3.04	2.10	0.93
16	#12 INLET	STA. 23+60.20'; 54.98' R	298.02'		15" RCP – 293.11' (SW)	1.40	5.19	0.00	5.19	3.02	2.17
17	#12 INLET	STA. 3+41.96'; 10.50' R	297.32'	18" RCP – 292.61' (E)	24" RCP – 292.11' (S)	1.07	4.28	0.00	4.28	2.66	1.63
18	3070 INLET	STA. 3+30.16'; 27.78' L	296.78'		18" RCP – 293.41' (W)	0.84	7.54	0.00	7.54	7.54	0.00
19	TYPE 'D' HW	STA. 0+50.44'; 42.51' L	N/A	15" RCP – 300.68' (NE)		....	....	....	....	....	....
20	CONC. JUNCTION BOX	STA. 0+32.63'; 18.10' L	305.44'		15" RCP – 302.34' (SW)	....	4.86	....	....	....	....
21	#12 INLET	STA. 4+47.11'; 12.96' L	299.00'			....	....	....	....	....	....

PIPE TABLE										
FROM	INV. ELEV.	TO	INV. ELEV.	PIPE DIAM.	LENGTH	SLOPE	D.A. (ACRES)	DESIGN FLOW Q-25 (CFS)	PIPE CAPACITY QC (CFS)	VELOCITY (FPS)
STUB	288.09	11	287.90	36" RCP	25	0.75%	12.92	39.57	57.92	8.19
2	288.59	1	286.00	18" RCP	142	1.82%	2.81	9.86	14.22	8.05
3	289.68	2	288.84	15" RCP	28	3.00%	0.43	1.7	11.22	9.14
4	292.74	2	288.84	15" RCP	223	1.75%	1.71	6.16	8.57	6.98
5	292.97	4	292.74	15" RCP	23	1.00%	0.28	1.12	6.48	5.28
6	293.00	4	292.74	15" RCP	26	1.00%	1.43	5.17	6.48	5.28
8	292.12	7	286.00	15" RCP	175	3.50%	0.37	1.42	12.12	9.87
9	296.13	8	292.12	15" RCP	115	3.50%	0.17	0.75	12.12	9.87
11	287.40	10	286.00	42" RCP	175	0.80%	19.17	63.13	90.15	9.37
12	289.67	11	289.40	18" RCP	27	1.00%	2.18	7.73	10.53	5.96
13	289.71	11	288.90	24" RCP	108	0.75%	3.63	16.01	19.64	6.25
14	290.47	13	289.71	24" RCP	101	0.75%	3.63	16.11	19.64	6.25
15	291.77	14	291.22	15" RCP	37	1.50%	0.32	1.41	7.93	6.46
16	293.11	14	291.22	15" RCP	63	3.00%	1.4	5.19	11.22	9.14
17	292.11	14	290.47	24" RCP	164	1.00%	1.91	10.92	22.68	7.22
18	293.41	17	292.61	18" RCP	40	2.00%	0.84	7.54	14.90	8.43
20	302.34	19	300.68	15" RCP	30	5.49%	1.43	4.86	15.18	12.37

25' CONCRETE WEIR - CROSS SECTIONAL VIEW

SCALE: 1" = 2'



OUTFALL #1 FLOW DATA						
CONDITION	DRAINAGE AREA (ACRE)	SCS CURVE NUMBER, CN	TIME OF CONCENTRATION , T_C (MIN)	FLOW RATES, Q (CFS)		
				2-YR	10-YR	25-YR	100-YR
E-1 PREDEVELOPED	27.03	77	24.8	46.76	82.29	104.62	142.13
P-1 (DETAINED)	30.02	85	14.0	40.29	71.72	91.98	126.42

OUTFALL #2 FLOW DATA						
CONDITION	DRAINAGE AREA (ACRE)	RUNOFF COEFFICIENT	TIME OF CONCENTRATION , T_C (MIN)	FLOW RATES, Q (CFS)		
				2-YR	10-YR	25-YR	100-YR
E-2 PREDEVELOPED	7.46	79	18.00	17.01	28.99	36.43	48.83
P-2 (UNDETAINED)	5.03	86	12.00	17.84	27.83	33.86	43.75

PRE-DEVELOPED DRAINAGE CALCULATIONS												
DRAINAGE AREA NUMBER	DRAINAGE AREA (ACRES)	HYDROLOGIC SOIL GROUP	SCS CURVE NUMBER, CN	TIME OF CONC., TR-55 (MIN)	P 2YR (IN)	P 10YR (IN)	P 25YR (IN)	P 100YR (IN)	Q-2YR (CFS)	Q-10YR (CFS)	Q-25YR (CFS)	Q-100YR (CFS)
E-1	27.03	D	77	24.80	3.98	5.59	6.56	8.16	46.76	82.29	104.62	142.13
E-2	7.46	D	79	18.00					17.01	28.99	36.43	48.83
POST DEVELOPED DRAINAGE CALCULATIONS												
DRAINAGE AREA NUMBER	DRAINAGE AREA (ACRES)	HYDROLOGIC SOIL GROUP	SCS CURVE NUMBER, CN	TIME OF CONC., TR-55 (MIN)	P 2YR (IN)	P 10YR (IN)	P 25YR (IN)	P 100YR (IN)	Q-2YR (CFS)	Q-10YR (CFS)	Q-25YR (CFS)	Q-100YR (CFS)
P-1 (DETAINED)	30.02	D	85	14.00	3.98	5.59	6.56	8.16	40.29	71.72	91.98	126.42
P-2	5.03	D	86	12.00					17.84	27.83	33.86	43.75

DETENTION BASIN - STAGE-STORAGE-DISCHARGE			
STAGE (ft)	ELEVATION (ft)	STORAGE VOLUME (cuft)	DISCHARGE (CFS)
0.00	286.00	0	0.00
1.00	287.00	34038	11.46
2.00	288.00	73083	32.42
3.00	289.00	117259	61.30
4.00	290.00	166688	100.72

DETENTION BASIN - STAGE AND DISCHARGE DATA			
DESIGN STORM EVENT	25' CONCRETE WEIR DISCHARGE FLOW RATE, Q (CFS)	ELEVATION (FT)	STORED VOLUME (CF)
2-YR	40.29	288.31	86,295
10-YR	71.72	289.29	130,881
25-YR	91.98	289.80	156,127
100-YR	126.42	290.55	196,149

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE — REGISTERED ENGINEER — No. 120326 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

GRADING & DRAINAGE TABLES

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: ----

CITY ENGINEER DATE

D:\K.W. Projects\Lots Burnett\Site Survey Work\BIM\Civil\Working\Plat Prep\Kensington Phase 3\GRADING\Grading & Drainage.dwg

LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- DRAINAGE BASIN
- LIMITS OF DISTURBANCE
- EASEMENT
- TREES TO REMAIN
- TREES TO BE REMOVED
- SF — SILT FENCE
- SF/WB — SILT FENCE WITH WIRE BACKING
- IP — INLET PROTECTION
- CD — CHECK DAM
- WATTLES
- ST — SEDIMENT TRAP
- SB — SEDIMENT BASIN
- OP — OUTLET PROTECTION
- CE — CONSTRUCTION EXIT
- PS — PERMANENT SEEDING
- ECM — EROSION CONTROL MAT

EX.	PR.	
Ⓢ	Ⓢ	SEWER MANHOLE
Ⓓ	Ⓓ	DRAINAGE MANHOLE

HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)

XX — OUTFALL NUMBER
X.XX AC — CONTRIBUTING DRAINAGE AREA

PHASE 1 CONSTRUCTION SEQUENCE

1. CONSTRUCT TEMPORARY CONSTRUCTION EXIT/ENTRANCE AS SHOWN. CONSTRUCTION ENTRANCE LOCATION MAY BE MODIFIED ACCORDING TO INGRESS/EGRESS OF THE CONTRACTOR AS APPROVED BY ENGINEER.
2. INSTALL RAIN GAUGE NEAR CONSTRUCTION EXIT/ENTRANCE OR LOCATION THAT IS EASILY ACCESSIBLE BY A VEHICLE
3. FURNISH AND INSTALL ALL SILT FENCING, WATTLES, PIPES, STRUCTURES, AND INLET/OUTLET PROTECTION AS SHOWN ON THIS SHEET.
4. DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER.
5. TRANSITION TO EPSC – PHASE 2.

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

TENNESSEE N.P.D.E.S. PERMIT
FOR
STORM WATER DISCHARGE

EFFECTIVE DATE_____

TRACKING N.O._____

EPSC NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES OR WATTLES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NEEDED OR AS DIRECTED BY THE ENGINEER.
2. ALL NEW CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED MULCHED, SEEDED, AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
3. TOTAL DISTURBED AREA IS APPROXIMATELY 12.72 ACRES.
4. DURING EXCAVATION PHASES OF STEEP SLOPES, WATTLES WITH SILT FENCE BACKING SHALL BE REQUIRED TO ELIMINATE SILTATION TRANSFER ONTO ADJACENT LANDOWNERS PROPERTY AND PUBLIC STREETS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL WATTLES WITH SILT FENCE BACKING AS NEEDED ALONG EXPOSED SLOPES.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES OR WATTLES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NEEDED OR AS DIRECTED BY THE ENGINEER.
6. ALL NEW CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED MULCHED, SEEDED, AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
7. SEDIMENT WILL BE REMOVED FROM SILT FENCES, ROCK SILT SCREENS, AND OTHER SEDIMENT CONTROLS AS NECESSARY, BUT AT LEAST WHEN THE DESIGN CAPACITY OF THE CONTROL HAS BEEN REDUCED BY 50%.
8. MAINTENANCE NEEDS IDENTIFIED BY INSPECTIONS OR OTHER MEANS WILL BE ACCOMPLISHED BEFORE THE NEXT STORM EVENT IF POSSIBLE, BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE NEED IS IDENTIFIED.
9. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
10. NEAREST RECEIVING WATER(S): THE RECEIVING WATER FOR ALL DISCHARGING OF STORM WATER FROM THIS CONSTRUCTION SITE IS SCOTTS CREEK WHICH IS A TRIBUTARY OF THE LOOSAHATCHIE RIVER. SCOTTS CREEK (SEGMENT ID: TN0801020902_0300) IS A NON–SUPPORTING STREAM.
11. DRAINAGE BASIN AREAS SHOWN WITH BOXES AND OUTFALL LOCATIONS OF CORRESPONDING BASINS ARE NOTED.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE — REGISTERED ENGINEER — STATE OF TENNESSEE — PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 5

OWNER: *KENSINGTON MANOR, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

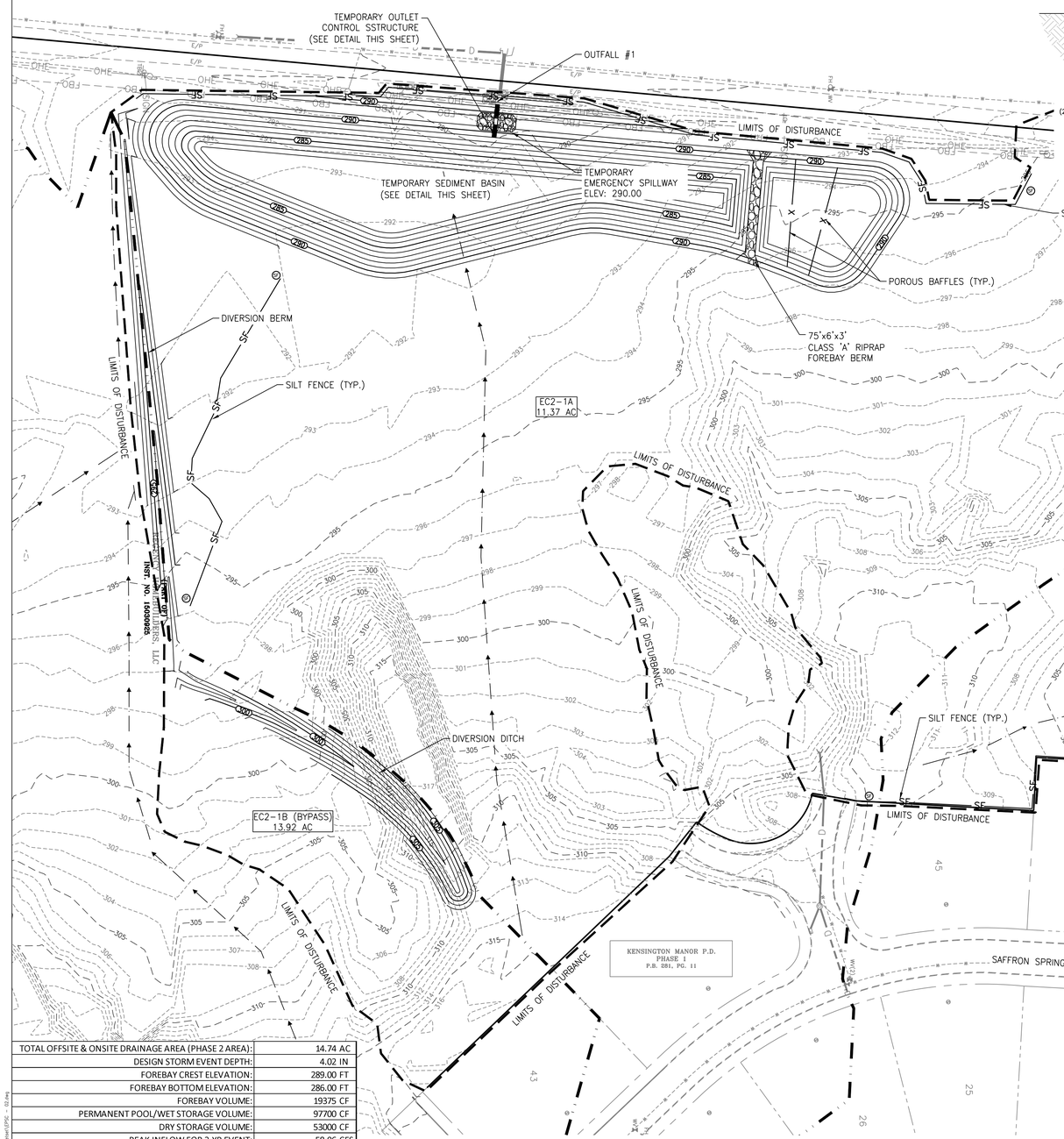
EPSC – 01

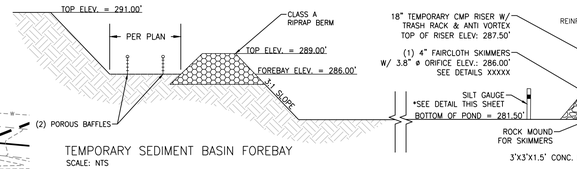
LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: ---- PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: ---- BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: ---- SCALE: *1" = 50'*

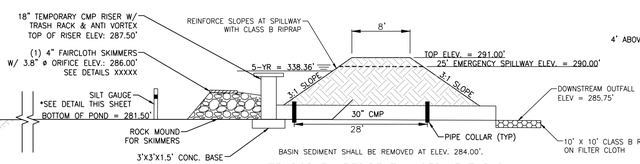
CITY ENGINEER _____ DATE _____

D:\35_Lk\ Brookes\Justin Burnette\Other Survey Stakes\SBD\Sewer\Mainsheets Eng Projects\Kensington\Phase 5\CAD\Sheets\EPSC - 01.dwg

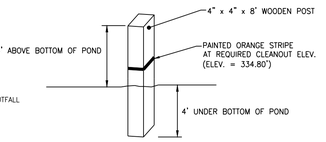




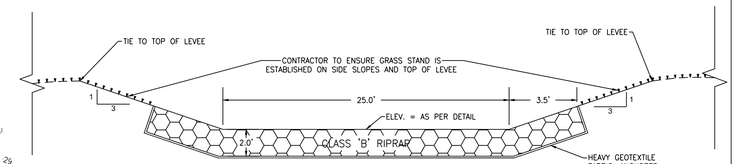
TEMPORARY SEDIMENT BASIN FOREBAY
SCALE: NTS



TEMPORARY RESIDENTIAL SEDIMENT BASIN
SCALE: NTS



COMMERCIAL SILT GAUGE
SCALE: NTS



25' WIDE SEDIMENT BASIN EMERGENCY SPILLWAY
N.T.S.

0 50' 100'
1" = 50'

LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- DRAINAGE BASIN
- LIMITS OF DISTURBANCE
- EASEMENT
- TREES TO REMAIN
- TREES TO BE REMOVED
- SF — SILT FENCE
- SF/WB — SILT FENCE WITH WIRE BACKING
- IP — INLET PROTECTION
- CD — CHECK DAM
- WATTLES
- ST — SEDIMENT TRAP
- SB — SEDIMENT BASIN
- OP — OUTLET PROTECTION
- CE — CONSTRUCTION EXIT
- PS — PERMANENT SEEDING
- ECM — EROSION CONTROL MAT
- SEWER MANHOLE
- DRAINAGE MANHOLE
- HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)

PHASE 2 CONSTRUCTION SEQUENCE

1. CONSTRUCT TEMPORARY CONSTRUCTION EXIT/ENTRANCE AS SHOWN. CONSTRUCTION ENTRANCE LOCATION MAY BE MODIFIED ACCORDING TO INGRESS/EGRESS OF THE CONTRACTOR AS APPROVED BY ENGINEER.
2. FURNISH AND INSTALL ALL SILT FENCING, WATTLES, PIPES, STRUCTURES, AND INLET/OUTLET PROTECTION AS SHOWN ON THIS SHEET.
3. INSTALL SEDIMENT BASIN AND TEMPORARY CONTROL STRUCTURE AS SHOWN. STABILIZE SLOPES WITH VEGETATION IMMEDIATELY UPON COMPLETION.
4. CONSTRUCT BERM AND DIVERSION DITCH WHERE SHOWN FROM EXCAVATED MATERIAL OF SEDIMENT BASIN AND SLOPE AREA TO DRAIN AROUND SEDIMENT BASIN.
5. CLEAR AND GRUB SITE. CUT AND DISPOSE OF ANY DEBRIS PRODUCED DURING THE CLEARING AND GRUBBING ACTIVITY.
6. DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER.
7. TRANSITION TO EPSC – PHASE 3.

TOTAL OFFSITE & ONSITE DRAINAGE AREA (PHASE 2 AREA):	14.74 AC
DESIGN STORM EVENT DEPTH:	4.02 IN
FOREBAY CREST ELEVATION:	289.00 FT
FOREBAY BOTTOM ELEVATION:	286.00 FT
FOREBAY VOLUME:	19375 CF
PERMANENT POOL/WET STORAGE VOLUME:	97700 CF
DRY STORAGE VOLUME:	53000 CF
PEAK INFLOW FOR 2-YR EVENT:	58.06 CFS
POND SURFACE AREA AT PRINCIPAL SPILLWAY ELEVATION:	0.90 AC
PEAK DISCHARGE FOR 2-YR EVENT:	8.43 CFS
2-YEAR, 24-HOUR STORM ELEVATION:	288.43 FT
10-YEAR, 24-HOUR STORM ELEVATION	289.45 FT
PERMANENT POOL LEVEL/ WET STORAGE ELEVATION:	286.00 FT
DRY STORAGE ELEVATION:	287.50 FT
BOTTOM OF BASIN ELEVATION:	281.50 FT
PRINCIPAL SPILLWAY ELEVATION:	287.50 FT
OUTFALL PIPE DISCHARGE ELEVATION:	285.75 FT
ELEVATION OF THE RECEIVING MEDIUM DOWNSTREAM OF THE OUTFALL:	285.38 FT
EMERGENCY SPILLWAY ELEVATION:	290.00 FT
DESIGN STORM EVENT ABOVE WHICH THE BASIN WILL DISCHARGE VIA THE EMERGENCY SPILLWAY:	25-YR
EMERGENCY SPILLWAY SIDESLOPE:	3:1
EMERGENCY SPILLWAY WIDTH:	25 FT
TOP OF EMBANKMENT ELEVATION:	291.00 FT
SHORTEST DISTANCE (FLOW PATH) FROM ALL INLET(S) TO THE DEWATERING DEVICE (FT):	315.00 FT
FLOW PATH L/W RATIO:	4.20

EPSC NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES OR WATTLES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NEEDED OR AS DIRECTED BY THE ENGINEER.
2. ALL NEW CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED MULCHED, SEEDED, AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
3. TOTAL DISTURBED AREA IS APPROXIMATELY 12.72 ACRES.
4. DURING EXCAVATION PHASES OF STEEP SLOPES, WATTLES WITH SILT FENCE BACKING SHALL BE REQUIRED TO ELIMINATE SILTATION TRANSFER ONTO ADJACENT LANDOWNERS PROPERTY AND PUBLIC STREETS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL WATTLES WITH SILT FENCE BACKING AS NEEDED ALONG EXPOSED SLOPES.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES OR WATTLES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NEEDED OR AS DIRECTED BY THE ENGINEER.
6. ALL NEW CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED MULCHED, SEEDED, AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
7. SEDIMENT WILL BE REMOVED FROM SILT FENCES, ROCK SILT SCREENS, AND OTHER SEDIMENT CONTROLS AS NECESSARY, BUT AT LEAST WHEN THE DESIGN CAPACITY OF THE CONTROL HAS BEEN REDUCED BY 50%.
8. MAINTENANCE NEEDS IDENTIFIED BY INSPECTIONS OR OTHER MEANS WILL BE ACCOMPLISHED BEFORE THE NEXT STORM EVENT IF POSSIBLE, BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE NEED IS IDENTIFIED.
9. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
10. NEAREST RECEIVING WATER(S): THE RECEIVING WATER FOR ALL DISCHARGING OF STORM WATER FROM THIS CONSTRUCTION SITE IS SCOTTS CREEK WHICH IS A TRIBUTARY OF THE LOOSAHATCHIE RIVER. SCOTTS CREEK (SEGMENT ID: TN08010209002_0300) IS A NON-SUPPORTING STREAM.
11. DRAINAGE BASIN AREAS SHOWN WITH BOXES AND OUTFALL LOCATIONS OF CORRESPONDING BASINS ARE NOTED.

TENNESSEE N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE

EFFECTIVE DATE_____

TRACKING N.O._____

XX — OUTFALL NUMBER
X.XX AC — CONTRIBUTING DRAINAGE AREA

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOHN W. BURNETTE — REGISTERED ENGINEER — STATE OF TENNESSEE — 119008 — NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 5

OWNER: *KENSINGTON MANOR, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

EPSC – 02

LAKELAND, TN

SURVEY: *OLLAR SURVEYING*	DATE: ----	PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.*	DATE: ----	BOOK:
DRAWN BY: *P. DUNGAN, E.I.*	DATE: ----	SCALE: *1" = 50'*

CITY ENGINEER _____ DATE _____

D:\E.I.W. Projects\2018 Burnette\Misc. Survey Work\EPSC\Current\Phase 2\EPSC\Updated EPSC - 02.dwg

0 50' 100'
1" = 50'

LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- DRAINAGE BASIN
- LIMITS OF DISTURBANCE
- EASEMENT
- TREES TO REMAIN
- TREES TO BE REMOVED
- SF — SILT FENCE
- SF/WB — SILT FENCE WITH WIRE BACKING
- IP — INLET PROTECTION
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- ECM — EROSION CONTROL MAT

EX.	PR.	
Ⓢ	Ⓢ	SEWER MANHOLE
Ⓓ	Ⓓ	DRAINAGE MANHOLE

- HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)
- XX — OUTFALL NUMBER
- X.XX AC — CONTRIBUTING DRAINAGE AREA

PHASE 03 CONSTRUCTION SEQUENCE:

1. MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY.
2. INSTALL ALL STORMWATER PIPING AND STRUCTURES.
3. INSTALL INLET PROTECTION MEASURES WHERE SHOWN.
4. INSTALL ALL UNDERGROUND UTILITIES.
5. BEGIN GRADING OF STREETS AND INSTALL CURB & GUTTER. SILT FENCE SHALL BE INSTALLED BEHIND CURB & GUTTER WHERE SHOWN AND APPROPRIATE.
6. PAVE STREETS AND MONITOR CONTROLS AS NECESSARY UNTIL THE SITE IS STABILIZED.
7. STORMWATER INSPECTION AND REPORTING WILL BE REQUIRED OF ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH TDEC.
8. REMOVE ANY TEMPORARY CONTROL MEASURES NOT NEEDED.
9. DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER.
10. TRANSITION TO PHASE 04.

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

TENNESSEE N.P.D.E.S. PERMIT
FOR
STORM WATER DISCHARGE

EFFECTIVE DATE_____

TRACKING N.O._____

EPSC NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES OR WATTLES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NEEDED OR AS DIRECTED BY THE ENGINEER.
2. ALL NEW CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED MULCHED, SEEDED, AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
3. TOTAL DISTURBED AREA IS APPROXIMATELY 12.72 ACRES.
4. DURING EXCAVATION PHASES OF STEEP SLOPES, WATTLES WITH SILT FENCE BACKING SHALL BE REQUIRED TO ELIMINATE SILTATION TRANSFER ONTO ADJACENT LANDOWNERS PROPERTY AND PUBLIC STREETS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL WATTLES WITH SILT FENCE BACKING AS NEEDED ALONG EXPOSED SLOPES.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES OR WATTLES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NEEDED OR AS DIRECTED BY THE ENGINEER.
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7. SEDIMENT WILL BE REMOVED FROM SILT FENCES, ROCK SILT SCREENS, AND OTHER SEDIMENT CONTROLS AS NECESSARY, BUT AT LEAST WHEN THE DESIGN CAPACITY OF THE CONTROL HAS BEEN REDUCED BY 50%.
8. MAINTENANCE NEEDS IDENTIFIED BY INSPECTIONS OR OTHER MEANS WILL BE ACCOMPLISHED BEFORE THE NEXT STORM EVENT IF POSSIBLE, BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE NEED IS IDENTIFIED.
9. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
10. NEAREST RECEIVING WATER(S): THE RECEIVING WATER FOR ALL DISCHARGING OF STORM WATER FROM THIS CONSTRUCTION SITE IS SCOTTS CREEK WHICH IS A TRIBUTARY OF THE LOOSAHATCHIE RIVER. SCOTTS CREEK (SEGMENT ID: TN08010209002_0300) IS A NON–SUPPORTING STREAM.
11. DRAINAGE BASIN AREAS SHOWN WITH BOXES AND OUTFALL LOCATIONS OF CORRESPONDING BASINS ARE NOTED.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE — REGISTERED — No. 119628 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 5

OWNER: *KENSINGTON MANOR, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

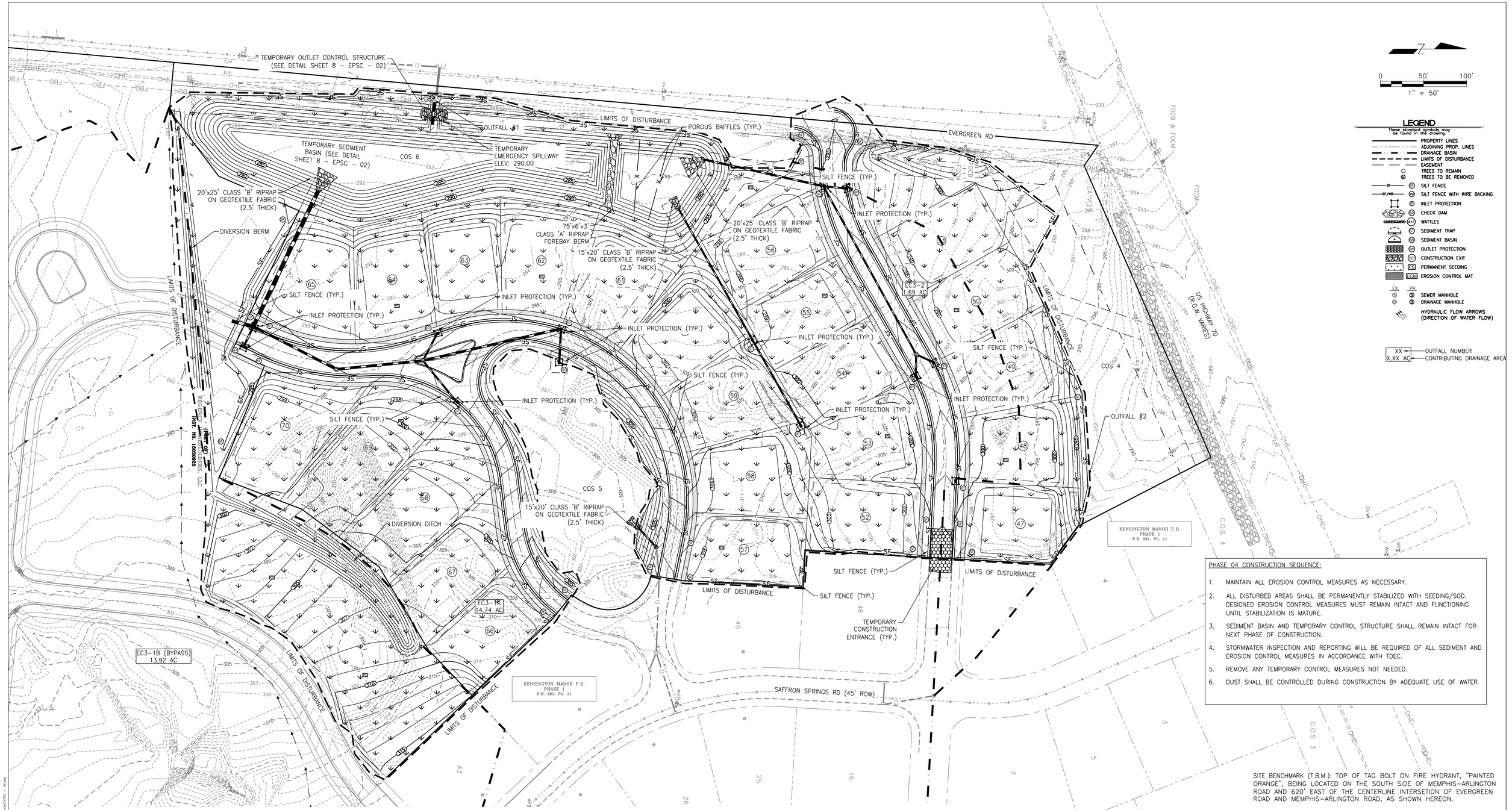
EPSC – 03

LAKELAND, TN

SURVEY: *OLLAR SURVEYING*	DATE: ----	PROJECT NO.: ----	
DESIGN BY: *J. BURNETTE, P.E.*	DATE: ----	BOOK:	
DRAWN BY: *P. DUNGAN, E.I.*	DATE: ----	SCALE: *1" = 50'*	

CITY ENGINEER _____ DATE _____

J:\CIL\# Projects\Josh Burnette\Olller Survey Shave\EPSC\Overall\Rendered Eng Projects\Kensington\Phase 5\CAD\Sheets\EPSC - 03.dwg



0 50' 100'

1" = 50'

LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- DRAINAGE BASIN
- LIMITS OF DISTURBANCE
- EASEMENT
- TREES TO REMAIN
- TREES TO BE REMOVED
- SF — SILT FENCE
- SF/WB — SILT FENCE WITH WIRE BACKING
- IP — INLET PROTECTION
- CD — CHECK DAM
- WATTLES
- ST — SEDIMENT TRAP
- SB — SEDIMENT BASIN
- OP — OUTLET PROTECTION
- CE — CONSTRUCTION EXIT
- PS — PERMANENT SEEDING
- ECM — EROSION CONTROL MAT

EX.	PR.	
Ⓢ	Ⓢ	SEWER MANHOLE
Ⓓ	Ⓓ	DRAINAGE MANHOLE

HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)

XX — OUTFALL NUMBER
X.XX AC — CONTRIBUTING DRAINAGE AREA

PHASE 04 CONSTRUCTION SEQUENCE:

1. MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY.
2. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH SEEDING/SOD. DESIGNED EROSION CONTROL MEASURES MUST REMAIN INTACT AND FUNCTIONING UNTIL STABILIZATION IS MATURE.
3. SEDIMENT BASIN AND TEMPORARY CONTROL STRUCTURE SHALL REMAIN INTACT FOR NEXT PHASE OF CONSTRUCTION.
4. STORMWATER INSPECTION AND REPORTING WILL BE REQUIRED OF ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH TDEC.
5. REMOVE ANY TEMPORARY CONTROL MEASURES NOT NEEDED.
6. DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER.

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

TENNESSEE N.P.D.E.S. PERMIT
FOR
STORM WATER DISCHARGE

EFFECTIVE DATE_____

TRACKING N.O._____

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11. DRAINAGE BASIN AREAS SHOWN WITH BOXES AND OUTFALL LOCATIONS OF CORRESPONDING BASINS ARE NOTED.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

KENSINGTON MANOR – PHASE 5

OWNER: *KENSINGTON MANOR, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

PRELIMINARY NOT FOR CONSTRUCTION

DIVISION OF ENGINEERING

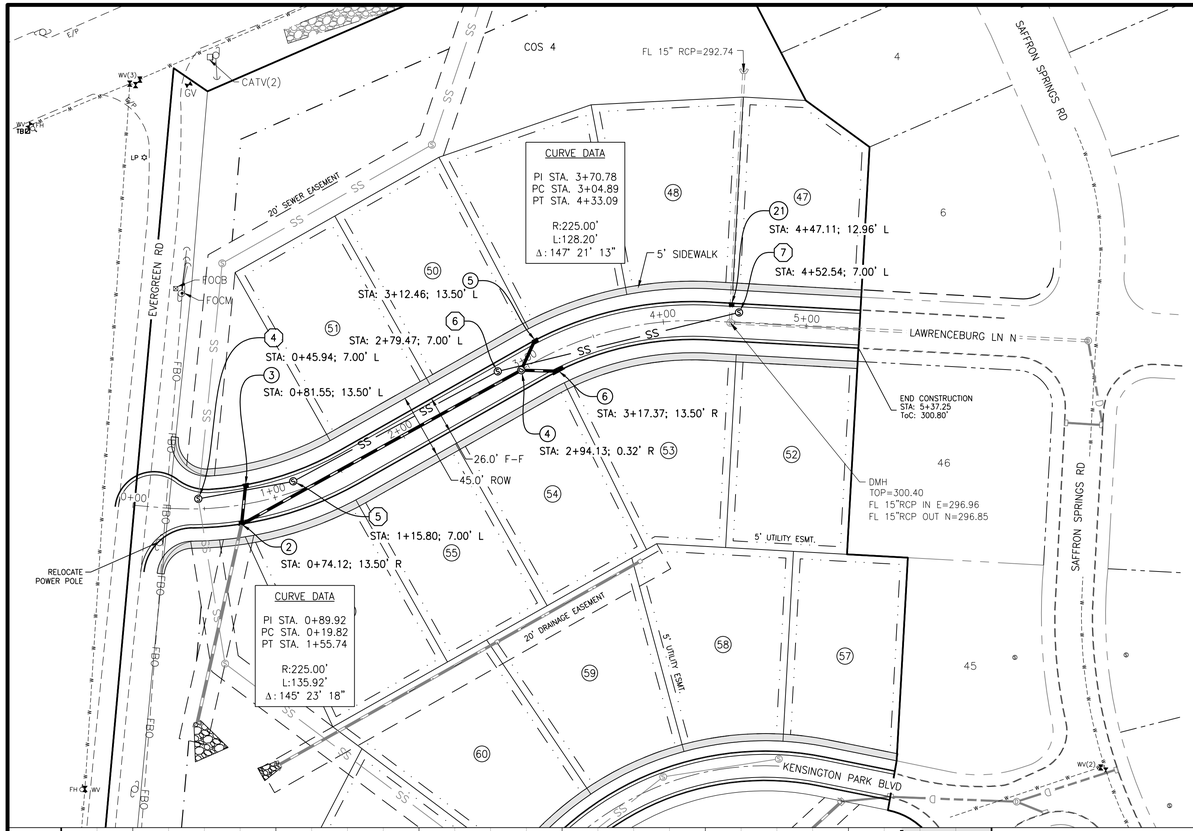
EPSC – 04

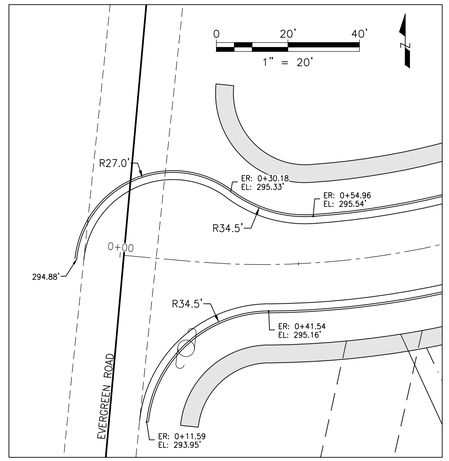
LAKELAND, TN

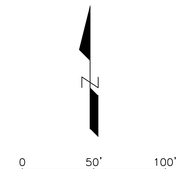
SURVEY: *OLLAR SURVEYING*	DATE: ----	PROJECT NO.: ----	
DESIGN BY: *J. BURNETTE, P.E.*	DATE: ----	BOOK:	
DRAWN BY: *P. DUNGAN, E.I.*	DATE: ----	SCALE: *1" = 50'*	

CITY ENGINEER _____ DATE _____

J:\CIVIL\Projects\Josh Burnette\Olller Survey Stone\ERS\Drawings\Wetlands\ Eng Projects\Kensington\Phase 5\EXISTING\Wetland\EPSC – 04.dwg





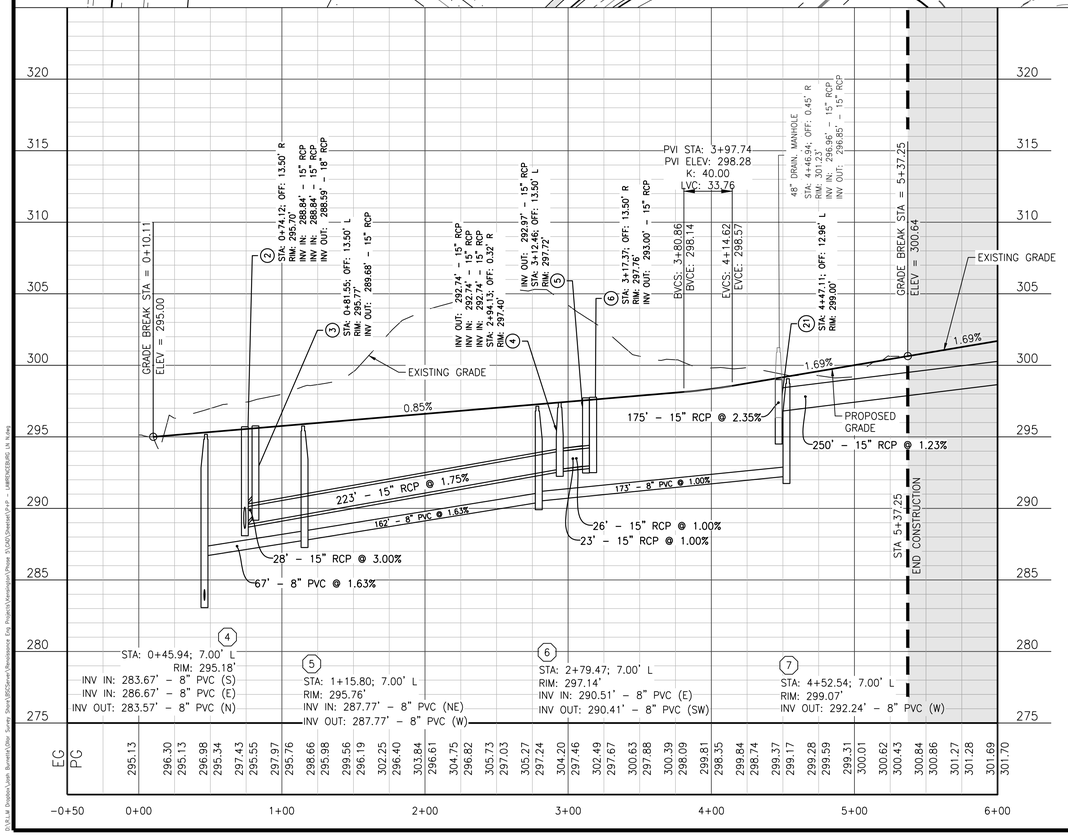


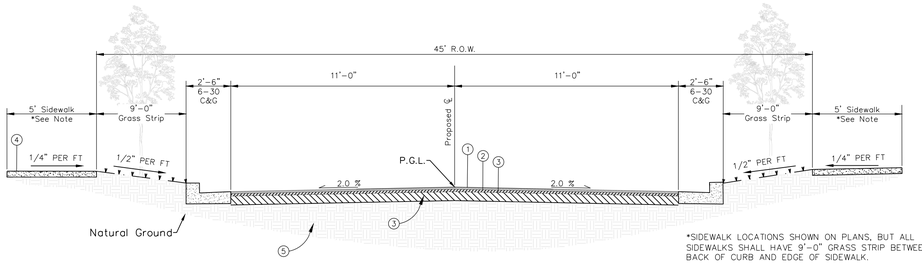
LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- BACK OF CURB
- FACE OF CURB
- SIDEWALK
- EDGE OF PAVEMENT
- ROADWAY CENTERLINE
- OHE — EX. OH ELECTRIC LINES
- UGE — EX. UG ELECTRIC LINES
- W — EX. WATER LINES
- SS — EX. SEWER LINES
- D — EX. STORM DRAIN
- G — EX. GAS LINE
- UGC — EX. UG CABLE
- FBO — EX. FIBER OPTIC
- X — EX. FENCE LINES
- EX. SIDEWALK
- EX. EASEMENT
- W — PR. WATER LINE
- SS — PR. SEWER LINE
- PR. STORM DRAIN
- DRAINAGE BASIN
- EASEMENT

EX.	PR.	
		UTILITY POLE
		FIRE HYDRANT
		LIGHT POLE
		TELEPHONE PEDESTAL
		WATER VALVE
		WATER METER
		SEWER MANHOLE
		DRAINAGE MANHOLE
		ELECTRICAL BOX





1. 1.5" BITUMINOUS CONCRETE WEARING LAYER (ASPHALT) GRADING 'E' (T.D.O.T. SPEC 411)
2. 2" B.P.M.P. (HOT MIX) GRADING 'B' (T.D.O.T. SPEC 307-BM-2)
3. 8" SOIL CEMENT (SOIL TEST AND MIX DESIGN REQUIRED)
4. 4" CONCRETE SIDEWALK (4,000 PSI, 5% AIR-ENTRAINED)
5. COMPACTED SUBGRADE (95% STANDARD PROCTOR)

TYPICAL SECTION - LAWRENCEBURG LANE N

STA. 0+54.96 - 5+37.25 *N.T.S.*

STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
- (XX) EX. SANITARY SEWER STRUCTURE

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS-ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS-ARLINGTON ROAD, AS SHOWN HEREON.

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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE — REGISTERED ENGINEER — No. 120 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR - PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

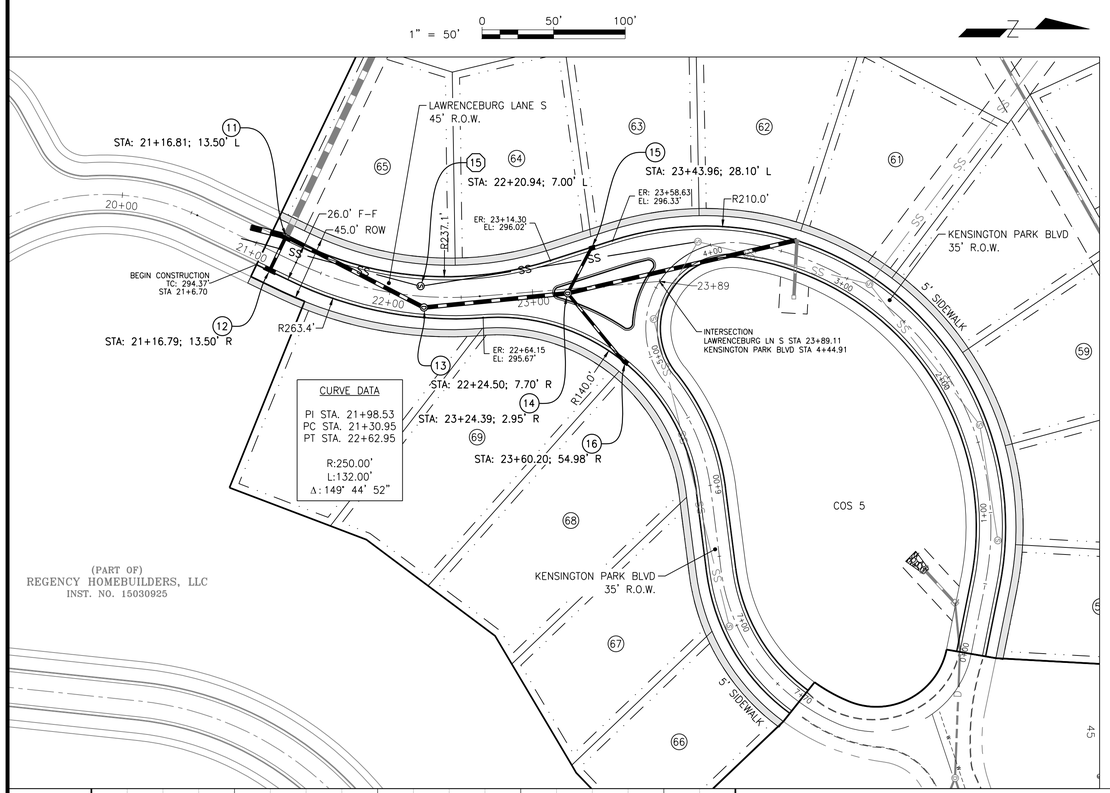
DIVISION OF ENGINEERING

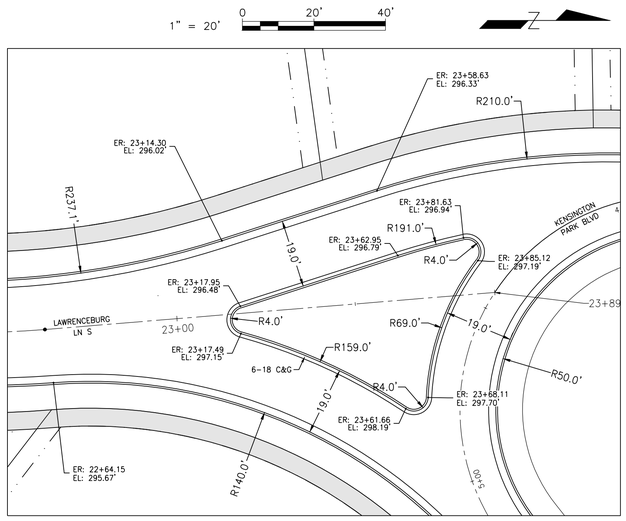
PLAN & PROFILE - LAWRENCEBURG LANE N

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE





SPOT ELEVATIONS

LEGEND

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- PROPERTY LINES
- ADJOINING PROP. LINES
- BACK OF CURB
- FACE OF CURB
- SIDEWALK
- EDGE OF PAVEMENT
- ROADWAY CENTERLINE
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- SS — EX. SEWER LINES
- D — EX. STORM DRAIN
- G — EX. GAS LINE
- UGC — EX. UG CABLE
- FBO — EX. FIBER OPTIC
- X — EX. FENCE LINES
- EX. SIDEWALK
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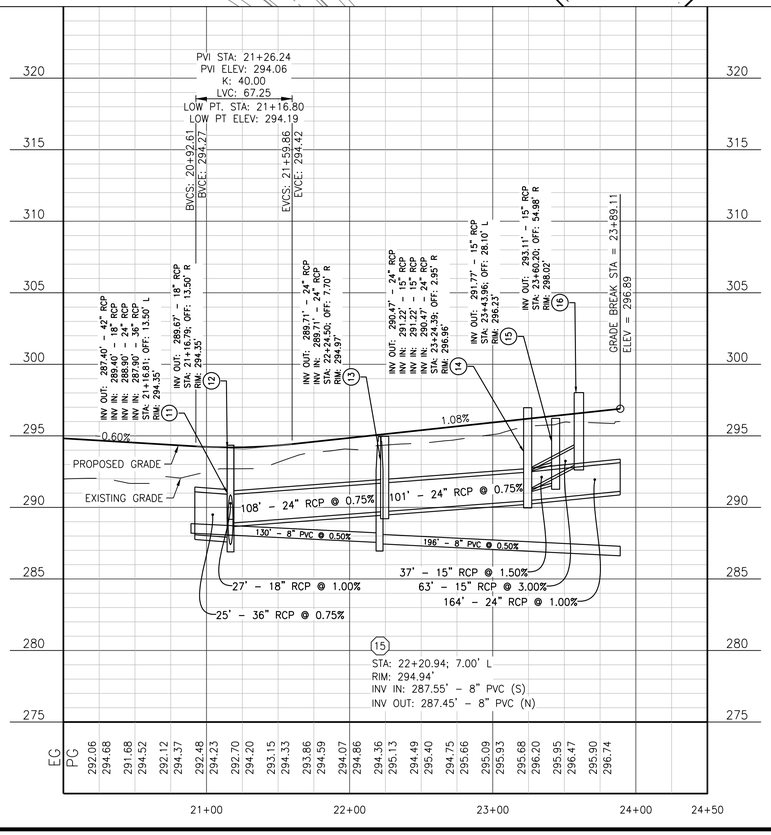
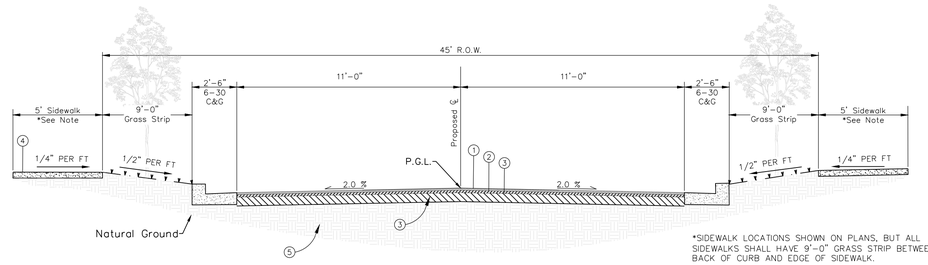
- SS — PR. SEWER LINE
- PR. STORM DRAIN
- DRAINAGE BASIN
- EASEMENT

EX.	PR.	
		UTILITY POLE
		FIRE HYDRANT
		LIGHT POLE
		TELEPHONE PEDESTAL
		WATER VALVE
		WATER METER
		SEWER MANHOLE
		DRAINAGE MANHOLE
		ELECTRICAL BOX





*SIDEWALK LOCATIONS SHOWN ON PLANS, BUT ALL SIDEWALKS SHALL HAVE 9'-0" GRASS STRIP BETWEEN BACK OF CURB AND EDGE OF SIDEWALK.

① 1.5" BITUMINOUS CONCRETE WEARING LAYER (ASPHALT) GRADING 'E' (T.D.O.T. SPEC 411)

② 2" B.P.M.P. (HOT MIX) GRADING 'B' (T.D.O.T. SPEC 307-BM-2)

③ 8" SOIL CEMENT (SOIL TEST AND MIX DESIGN REQUIRED)

④ 4" CONCRETE SIDEWALK (4,000 PSI, 5% AIR-ENTRAINED)

⑤ COMPACTED SUBGRADE (95% STANDARD PROCTOR)

TYPICAL SECTION – LAWRENCEBURG LANE S

STA. 21+6.70 – 21+30.95 *N.T.S.*

STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
- (XX) EX. SANITARY SEWER STRUCTURE

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS-ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS-ARLINGTON ROAD, AS SHOWN HEREON.

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REVISION

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETT — REGISTERED ENGINEER — 115 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*

ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

PLAN & PROFILE – LAWRENCEBURG LANE S

LAKELAND, TN

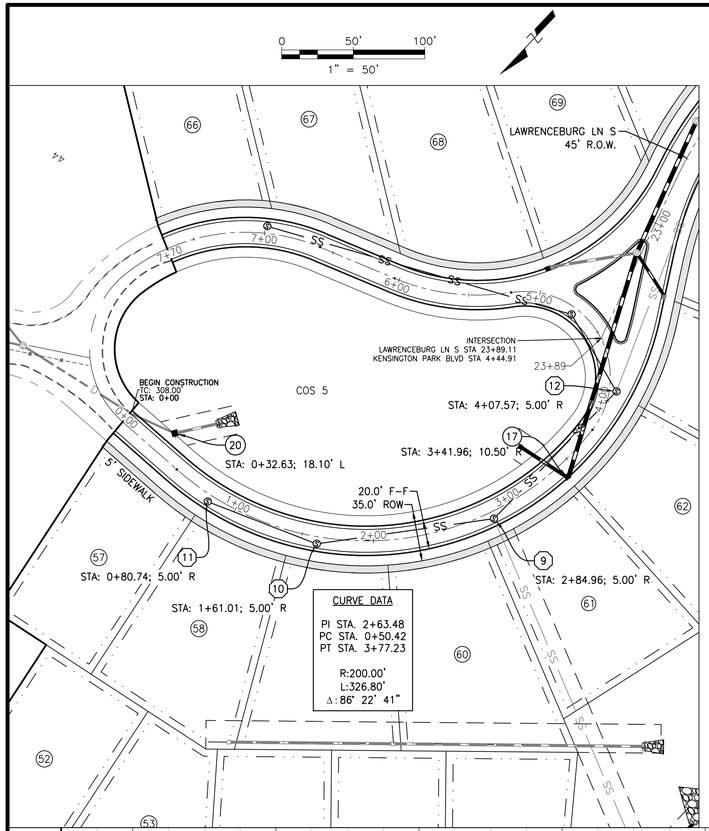
SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----

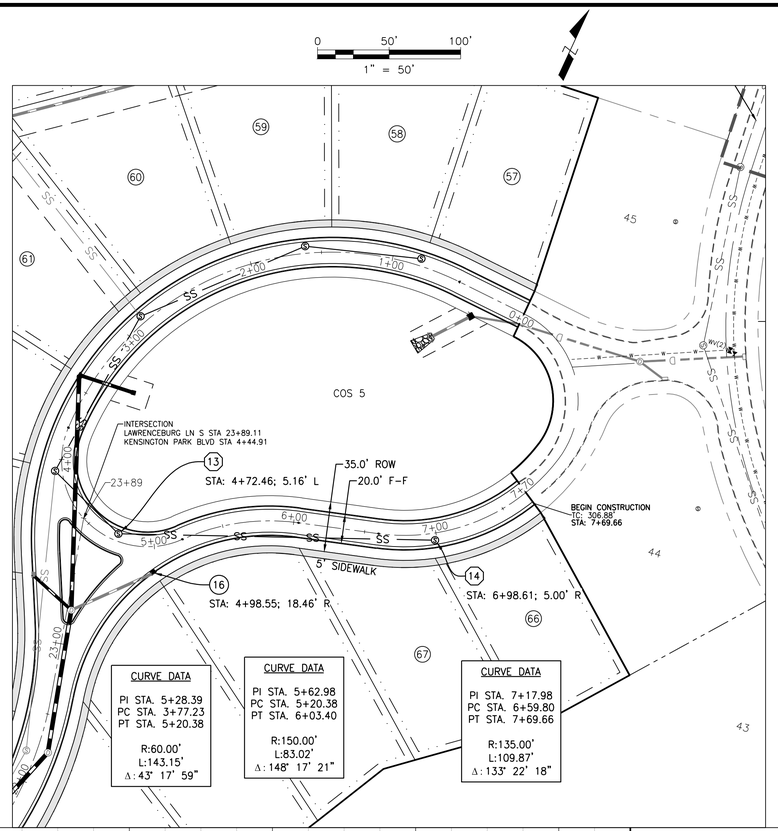
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:

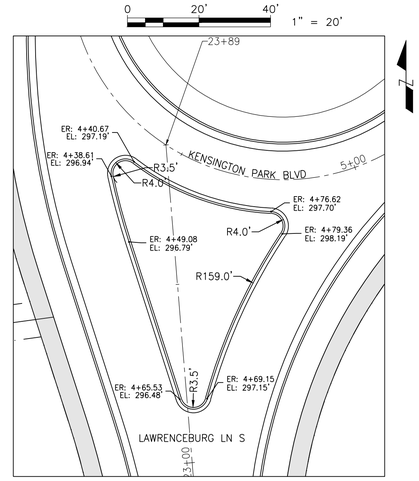
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE

J:\W.B Drafting\Job Books\Olla Surve Book\85\Sheet Mastercopy.dgn Plotted:Monday,Jun Plotted By:Dungan,Phillip C:\DATA\Desktop\CAP - LAWRENCEBURG LN S.dwg







LEGEND

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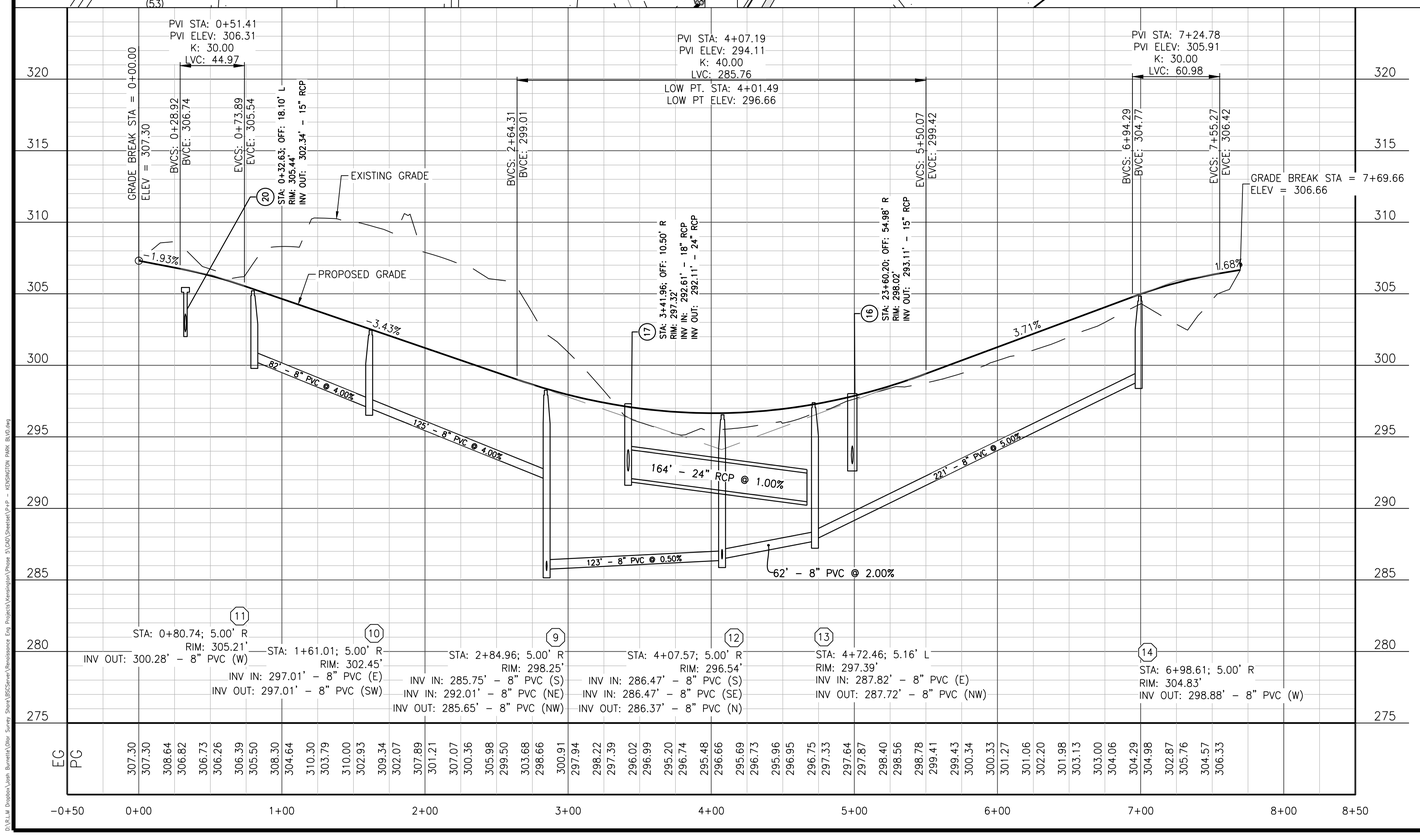
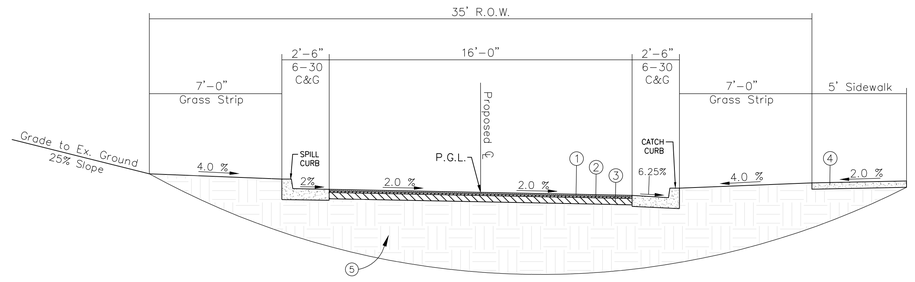
		FIRE HYDRANT
		LIGHT POLE
		TELEPHONE PEDESTAL
		WATER VALVE
		WATER METER
		SEWER MANHOLE
		DRAINAGE MANHOLE
		ELECTRICAL BOX





1. 1.5" BITUMINOUS CONCRETE WEARING LAYER (ASPHALT) GRADING 'E' (T.D.O.T. SPEC 411)
2. 2.0" B.P.M.P. (HOT MIX) GRADING 'B' (T.D.O.T. SPEC 307-BM-2)
3. 8" SOIL CEMENT (SOIL TEST AND MIX DESIGN REQUIRED)
4. 4" CONCRETE SIDEWALK (4,000 PSI, 5% AIR-ENTRAINED)
5. COMPACTED SUBGRADE (95% STANDARD PROCTOR)

TYPICAL SECTION – KENSINGTON PARK BLVD

FROM STA 0+0.00 - 3+77.23, 5+20.38 - 7+69.66 *N.T.S.*

STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
- (XX) EX. SANITARY SEWER STRUCTURE

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS-ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS-ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE — REGISTERED ENGINEER — STATE OF TENNESSEE — PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

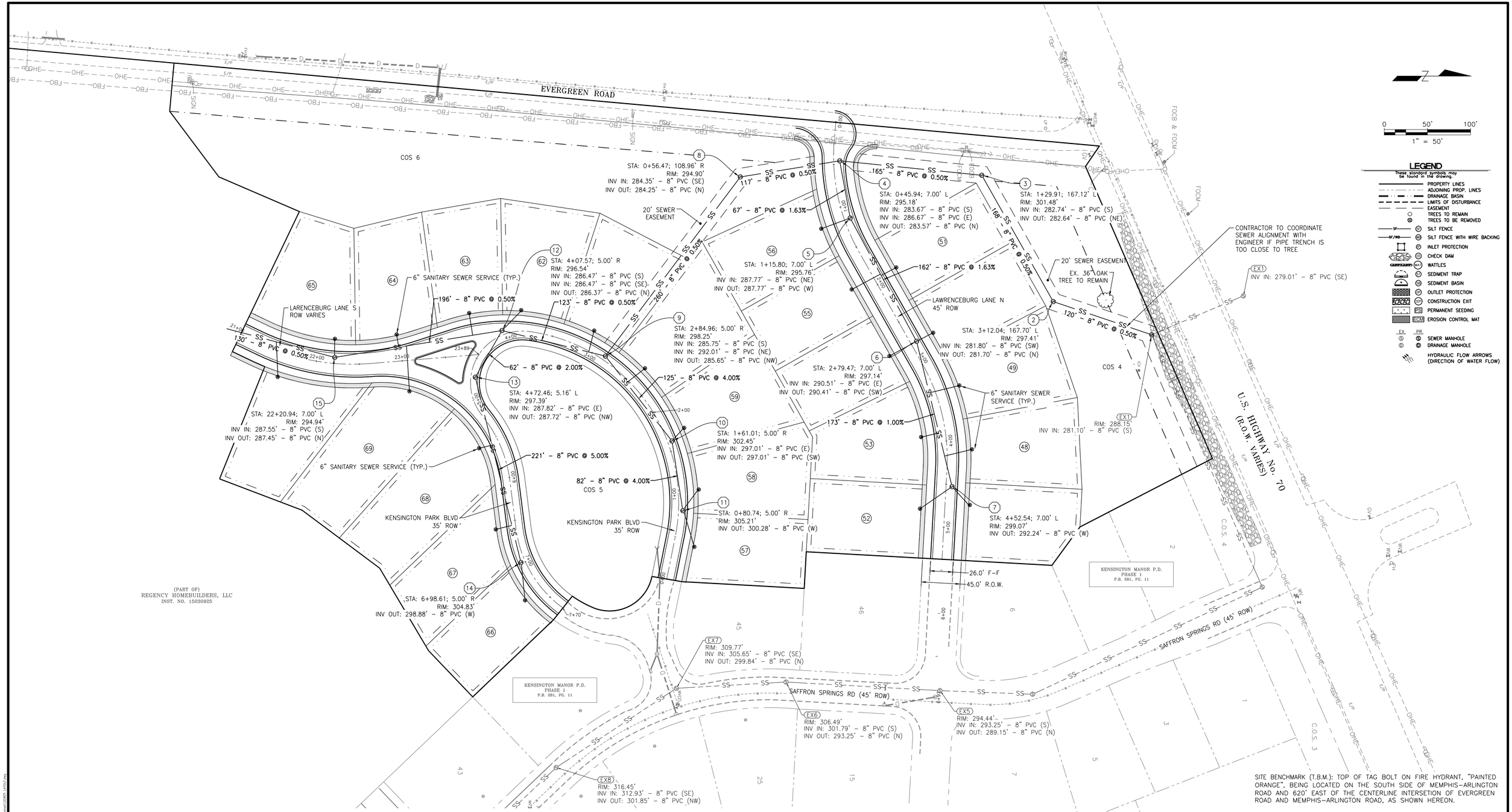
DIVISION OF ENGINEERING

PLAN & PROFILE – KENSINGTON PARK BLVD

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE



LEGEND

These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- DRAINAGE BASIN
- LIMITS OF DISTURBANCE
- EASEMENT
- TREES TO REMAIN
- TREES TO BE REMOVED
- SF — SILT FENCE
- SF/WB — SILT FENCE WITH WIRE BACKING
- IP — INLET PROTECTION
- CD — CHECK DAM
- WATTLES
- SB — SEDIMENT TRAP
- SB — SEDIMENT BASIN
- OP — OUTLET PROTECTION
- CE — CONSTRUCTION EXIT
- PS — PERMANENT SEEDING
- ECM — EROSION CONTROL MAT
- EX / PR — SEWER MANHOLE / DRAINAGE MANHOLE
- HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)

SEWER NOTES

1. THE CITY OF LAKELAND SHALL HAVE THE RIGHT TO ENTER THE PROPERTY FOR THE PURPOSE OF MAINTAINING THE DRAINAGE, WATER, AND SEWER SYSTEMS LOCATED WITHIN PUBLIC EASEMENTS. HOWEVER, THE CITY DOES NOT HAVE THE RESPONSIBILITY TO REPAIR ANY DAMAGE TO THE YARDS, PARKING LOT, STREETS OR DRIVES CAUSED BY SOIL SETTLEMENT OR OTHER REASONS THAT ARE NOT DIRECTLY CAUSED BY THE TOWN'S ACTION OF PERFORMING MAINTENANCE TO THE UNDERGROUND SYSTEMS.
2. ALL SANITARY SEWER SHOWN HEREIN IS PUBLIC.
3. SANITARY SEWER SHOULD BE LAID AT LEAST 10 FEET HORIZONTALLY AND 18" VERTICALLY FROM ANY EXISTING OR PROPOSED WATER MAIN, WITH THE WATER MAIN LOCATED ABOVE THE SEWER PIPE. SEWERS CROSSING WATER MAINS SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN OR THE SEWER SHOULD BE DUCTILE IRON OR SHALL BE ENCASED IN DUCTILE IRON OR CONCRETE FOR A MINIMUM OF ONE FULL JOINT LENGTH ON EACH SIDE OF THE CROSSING.
4. ALL SANITARY SEWER MAINS AND SERVICES SHALL BE PVC SDR-26. SEWER SERVICES SHALL BE 6" IN DIAMETER, AND SHALL BE INSTALLED ON A MINIMUM 1% SLOPE.
5. BEDDING MATERIAL SHALL BE REQUIRED BENEATH ALL SANITARY SEWER MAINS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. CONTRACTOR SHALL MARK SEWER CROSSINGS OF COMMON OPEN SPACE AREAS WITH CHISELED "S" ON CURB OR SIDEWALK AT CROSSING LOCATIONS.
7. SEWER SERVICES SHOWN FOR APPROXIMATE LOCATIONS, BUT SHALL BE LOCATED NEAR THE CENTER OF EACH LOT AND SHALL BE SPACED 10' FROM WATER SERVICES, WHERE PRACTICAL.
8. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLE HAS BEEN IN PLACE AT LEAST THIRTY 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

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STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
- (XX) EX. SANITARY SEWER STRUCTURE

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

W. BURNETTE, P.E. — REGISTERED ENGINEER — STATE OF TENNESSEE — NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

SEWER LAYOUT PLAN

LAKELAND, TN

SURVEY: *OLLAR SURVEYING*	DATE: *12/15/2021*	PROJECT NO.:	----
DESIGN BY: *J. BURNETTE, P.E.*	DATE: *9/8/2022*	BOOK:	
DRAWN BY: *P. DUNGAN, E.I.*	DATE: *9/8/2022*	SCALE:	*1" = 50'*

CITY ENGINEER — DATE

W:\M Projects\Lots Brunetta\Office Survey Work\SEPlotPlan Dimensions.dwg, Project\Kensington Phase 3\SEWER\Sheets\SEWER LAYOUT.dwg

SEWER NOTES

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STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
- (XX) EX. SANITARY SEWER STRUCTURE

GRADING & DRAINAGE NOTES

1. HANDICAP RAMPS ARE REQUIRED AT ALL INTERSECTIONS.
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3. DRAINAGE AND ASSOCIATED EASEMENTS LOCATED HEREON ARE OWNED BY THE PUBLIC UNLESS OTHERWISE NOTED.
4. DRAINAGE BASIN AREAS SHOWN WITH BOXES ARE SUBBASINS OF OVERALL BASINS NOTED ON POST DEVELOPED DRAINAGE SHEET. INDIVIDUAL SUBBASINS ARE DRAINING TO STRUCTURE OR LOCATIONS AS INDICATED IN SAID BOX.

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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE — REGISTERED ENGINEER — No. 120 — STATE OF TENNESSEE — PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 5

OWNER: *KENSINGTON MANOR, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

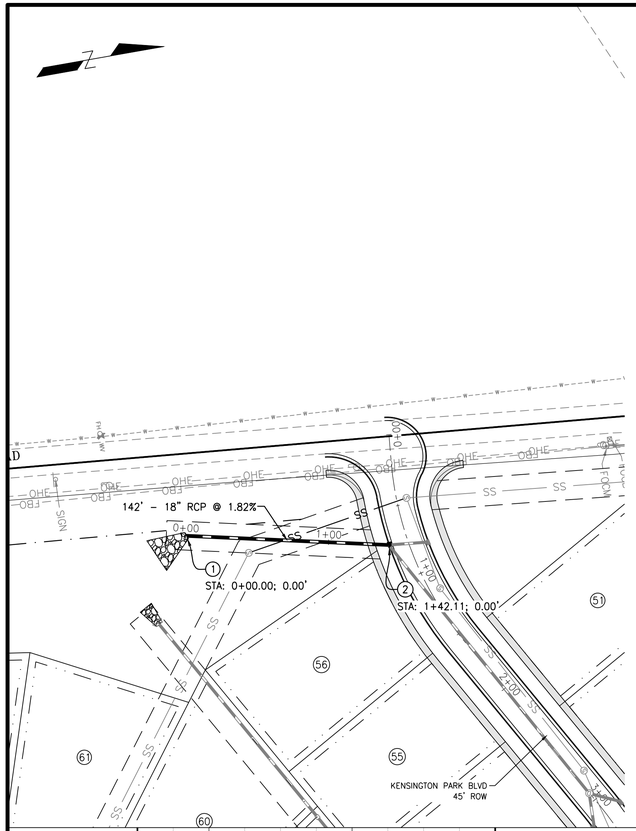
DIVISION OF ENGINEERING

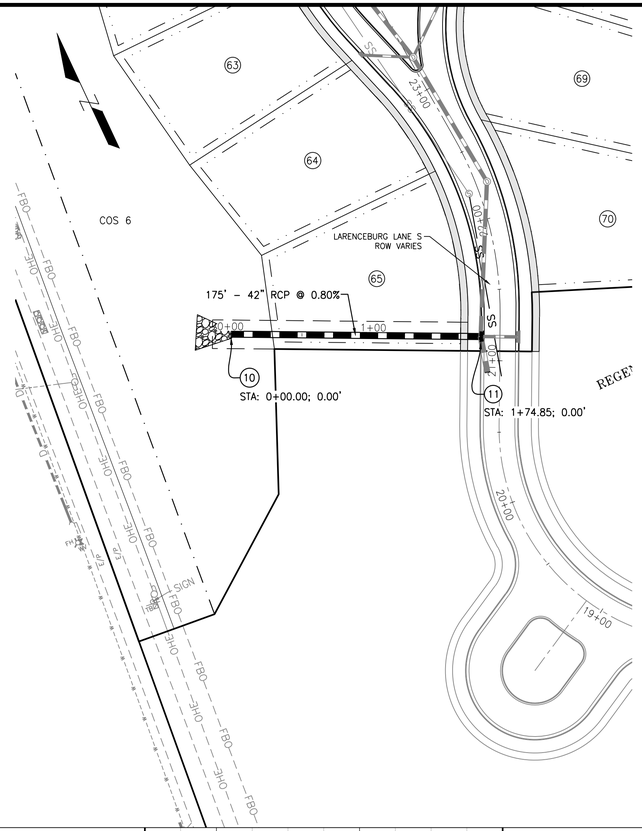
COMBO UTILITY PLAN

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: ---- PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: ---- BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: ---- SCALE: *1" = 50'*

CITY ENGINEER DATE





0 50' 100'

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LEGEND

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- EX. / PR. SEWER MANHOLE
- EX. / PR. DRAINAGE MANHOLE
- HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)

STRUCTURE LEGEND

- (XX) DRAINAGE STRUCTURE
- (XX) PR. SANITARY SEWER STRUCTURE
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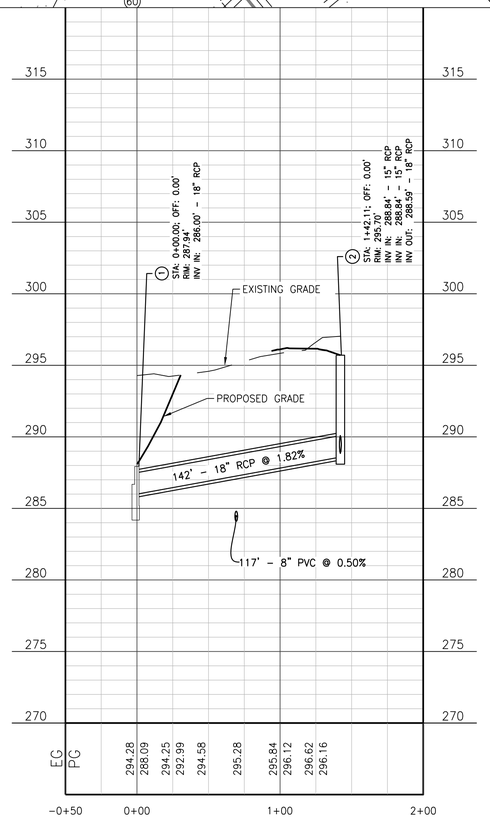

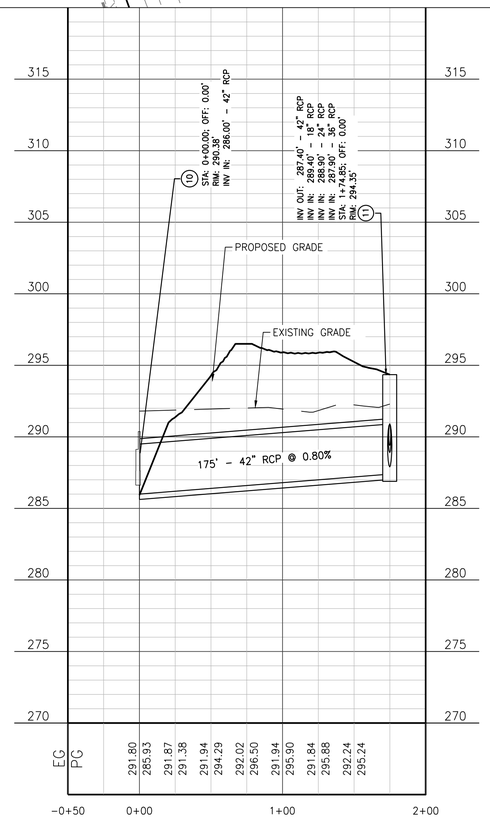

SEWER NOTES

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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE REGISTERED ENGINEER 120.02 — PRELIMINARY PLANS NOT FOR CONSTRUCTION — STATE OF TENNESSEE

KENSINGTON MANOR - PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*

ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

OFFSTREET DRAINAGE - 01

LAKELAND, TN

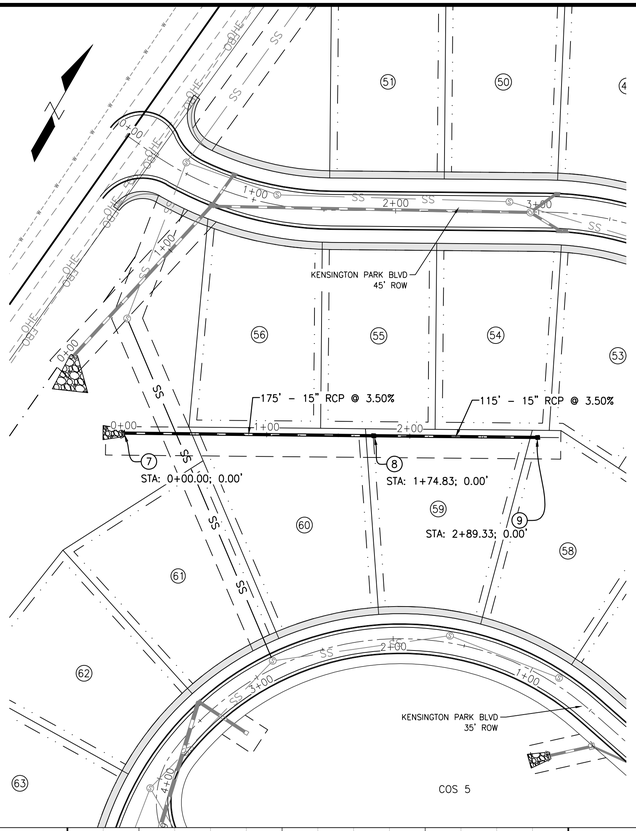
SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----

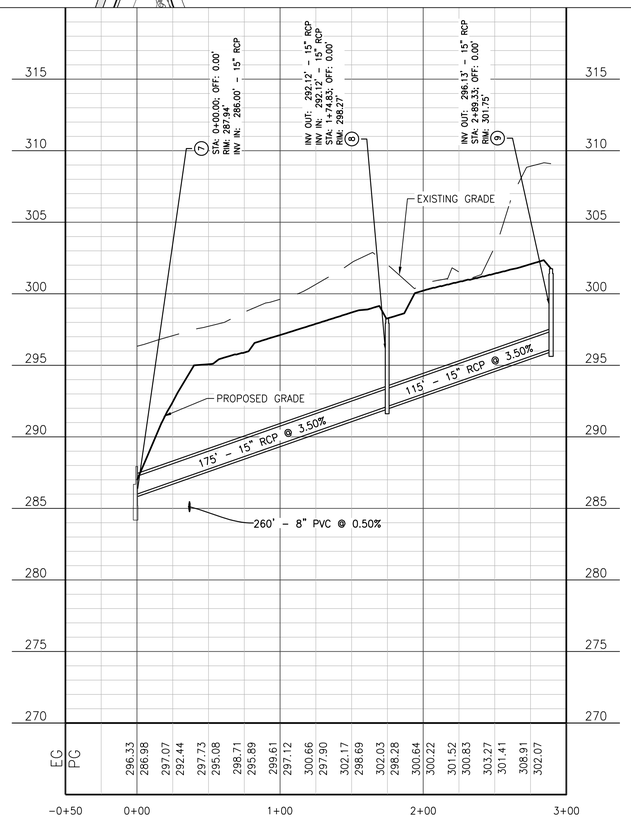
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:

DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE

J:\K to P Folder\Josh Burnette\Data - Survey Books\MPDSheet\Kensington Phase 3\CAD\Sheets\OFFSTREET DRAINAGE.dwg





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LEGEND

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EX.	PR.	
Ⓢ	Ⓢ	SEWER MANHOLE
Ⓓ	Ⓓ	DRAINAGE MANHOLE

HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)

STRUCTURE LEGEND

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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE — REGISTERED ENGINEER — STATE OF TENNESSEE

PRELIMINARY PLANS NOT FOR CONSTRUCTION

KENSINGTON MANOR - PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

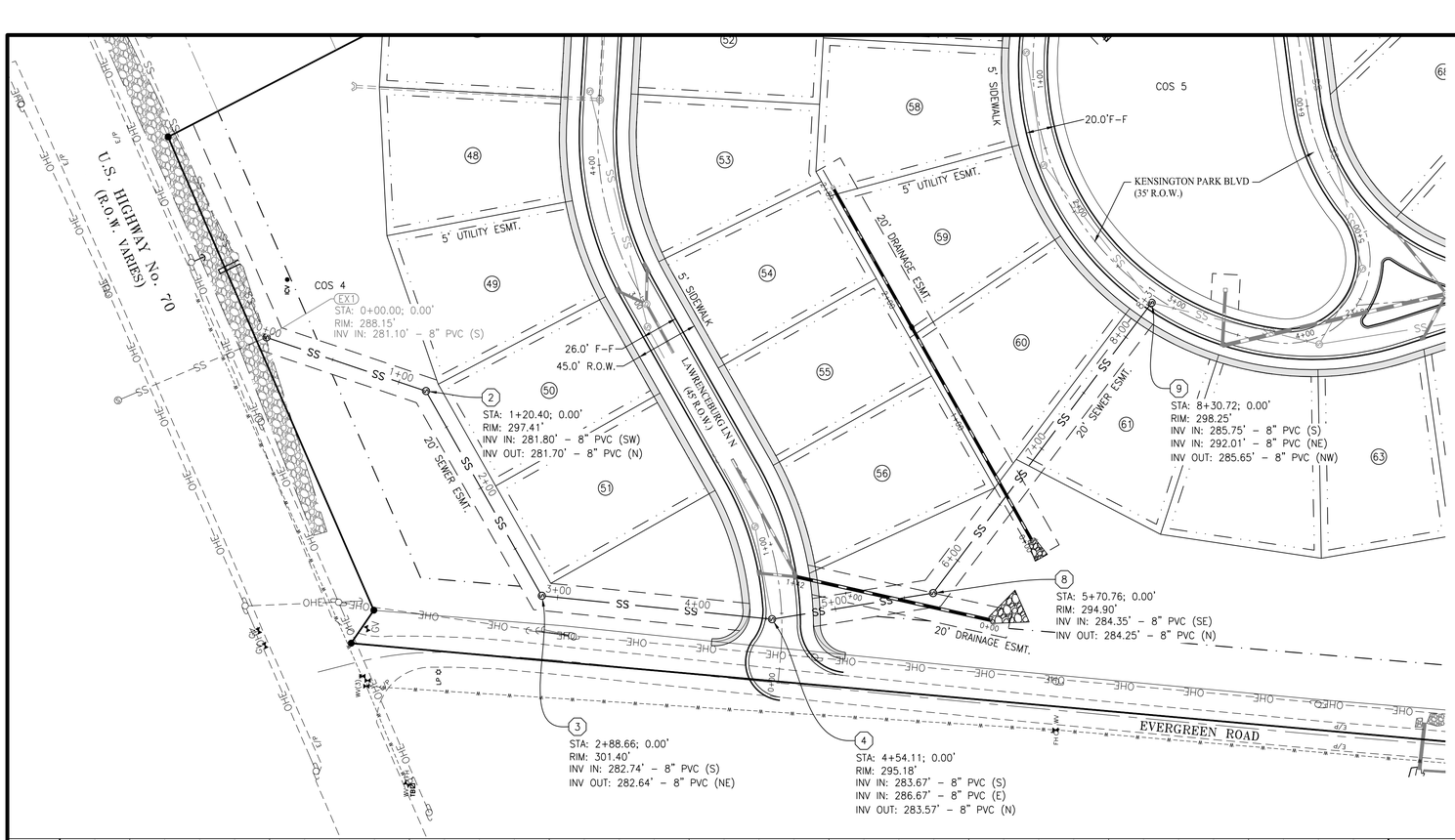
OFFSTREET DRAINAGE - 02

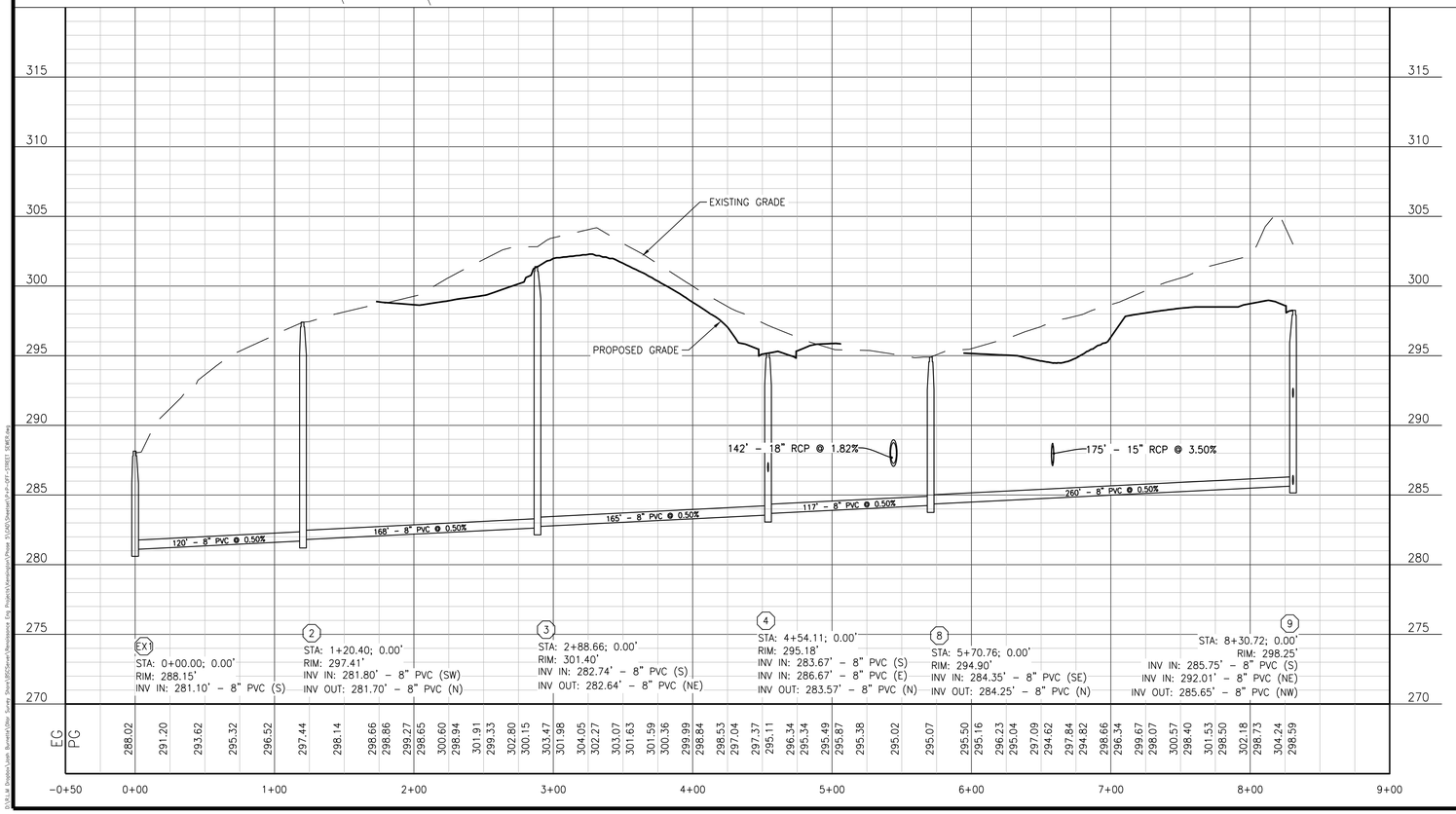
LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE

J:\W.B Projects\Lake Burnett\Site Survey Block\SP\Cover Sheet\Cover Sheet.dwg, Plotted by Mcclanahan,Thomas, 9/12/2022 8:04:07 AM, DWG To PDF.pc3, ARCH E1 (30.00 x 42.00 Inches), Default, 50.00 %





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LEGEND

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- PROPERTY LINES
- ADJOINING PROP. LINES
- BACK OF CURB
- FACE OF CURB
- SIDEWALK
- EDGE OF PAVEMENT
- ROADWAY CENTERLINE
- OHE — EX. OH ELECTRIC LINES
- UGE — EX. UG ELECTRIC LINES
- W — EX. WATER LINES
- SS — EX. SEWER LINES
- D — EX. STORM DRAIN
- G — EX. GAS LINE
- UGC — EX. UG CABLE
- FBO — EX. FIBER OPTIC
- X — EX. FENCE LINES
- EX. SIDEWALK
- EX. EASEMENT
- W — PR. WATER LINE
- SS — PR. SEWER LINE
- PR. STORM DRAIN
- DRAINAGE BASIN
- EASEMENT

EX.	PR.	
		UTILITY POLE
		FIRE HYDRANT
		LIGHT POLE
		TELEPHONE PEDESTAL
		WATER VALVE
		WATER METER
		SEWER MANHOLE
		DRAINAGE MANHOLE
		ELECTRICAL BOX

SEWER NOTES

1. THE CITY OF LAKELAND SHALL HAVE THE RIGHT TO ENTER THE PROPERTY FOR THE PURPOSE OF MAINTAINING THE DRAINAGE, WATER, AND SEWER SYSTEMS LOCATED WITHIN PUBLIC EASEMENTS. HOWEVER, THE CITY DOES NOT HAVE THE RESPONSIBILITY TO REPAIR ANY DAMAGE TO THE YARDS, PARKING LOT, STREETS OR DRIVES CAUSED BY SOIL SETTLEMENT OR OTHER REASONS THAT ARE NOT DIRECTLY CAUSED BY THE TOWN'S ACTION OF PERFORMING MAINTENANCE TO THE UNDERGROUND SYSTEMS.
2. ALL SANITARY SEWER SHOWN HEREIN IS PUBLIC.
3. SANITARY SEWER SHOULD BE LAID AT LEAST 10 FEET HORIZONTALLY AND 18" VERTICALLY FROM ANY EXISTING OR PROPOSED WATER MAIN, WITH THE WATER MAIN LOCATED ABOVE THE SEWER PIPE. SEWERS CROSSING WATER MAINS SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN OR THE SEWER SHOULD BE DUCTILE IRON OR SHALL BE ENCASED IN DUCTILE IRON OR CONCRETE FOR A MINIMUM OF ONE FULL JOINT LENGTH ON EACH SIDE OF THE CROSSING.
4. ALL SANITARY SEWER MAINS AND SERVICES SHALL BE PVC SDR–26.
5. BEDDING MATERIAL SHALL BE REQUIRED BENEATH ALL SANITARY SEWER MAINS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. CONTRACTOR SHALL MARK SEWER CROSSINGS OF COMMON OPEN SPACE AREAS WITH CHISELED "S" ON CURB OR SIDEWALK AT CROSSING LOCATIONS.
7. SEWER SERVICES SHOWN FOR APPROXIMATE LOCATIONS, BUT SHALL BE LOCATED NEAR THE CENTER OF EACH LOT AND SHALL BE SPACED 10' FROM WATER SERVICES, WHERE PRACTICAL.
8. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILLE HAS BEEN IN PLACE AT LEAST THIRTY 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

SEWER SERVICES SHALL BE 6" IN DIAMETER, AND SHALL BE INSTALLED ON A MINIMUM 1% SLOPE.

GRADING & DRAINAGE NOTES

1. HANDICAP RAMPS ARE REQUIRED AT ALL INTERSECTIONS.
2. THE CITY OF LAKELAND SHALL HAVE THE RIGHT TO ENTER THE PROPERTY FOR THE PURPOSE OF MAINTAINING THE DRAINAGE, WATER, AND SEWER SYSTEMS LOCATED WITHIN PUBLIC EASEMENTS. HOWEVER, THE CITY DOES NOT HAVE THE RESPONSIBILITY TO REPAIR ANY DAMAGE TO THE YARDS, PARKING LOT, STREETS OR DRIVES CAUSED BY SOIL SETTLEMENT OR OTHER REASONS THAT ARE NOT DIRECTLY CAUSED BY THE CITY'S ACTION OF PERFORMING MAINTENANCE TO THE UNDERGROUND SYSTEMS.
3. DRAINAGE AND ASSOCIATED EASEMENTS LOCATED HEREON ARE OWNED BY THE PUBLIC UNLESS OTHERWISE NOTED.
4. DRAINAGE BASIN AREAS SHOWN WITH BOXES ARE SUBBASINS OF OVERALL BASINS NOTED ON POST DEVELOPED DRAINAGE SHEET. INDIVIDUAL SUBBASINS ARE DRAINING TO STRUCTURE OR LOCATIONS AS INDICATED IN SAID BOX.

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS–ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS–ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE — REGISTERED ENGINEER — No. 115901 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

OFFSTREET SEWER

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE

RESIDENTIAL STREET SIGN SCHEDULE			
SIGN ID	TYPE	STREET NAMES	
1	D3-1(2)	(1)LARENCEBURG LANE N	(2) EVERGREEN ROAD
2	D3-1(2)	(1) LARENCEBURG LANE S	(2) KENSINGTON PARK BLVD

0 50' 100'

1" = 50'

LEGEND

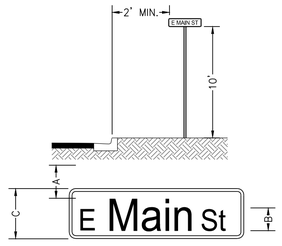
These standard symbols may be found in the drawing.

- PROPERTY LINES
- ADJOINING PROP. LINES
- DRAINAGE BASIN
- LIMITS OF DISTURBANCE
- EASEMENT
- TREES TO REMAIN
- TREES TO BE REMOVED
- SF — SILT FENCE
- SF/WB — SILT FENCE WITH WIRE BACKING
- IP — INLET PROTECTION
- CD — CHECK DAM
- WATTLES
- ST — SEDIMENT TRAP
- SB — SEDIMENT BASIN
- OP — OUTLET PROTECTION
- CE — CONSTRUCTION EXIT
- PS — PERMANENT SEEDING
- ECM — EROSION CONTROL MAT

EX. PR.

- SEWER MANHOLE
- DRAINAGE MANHOLE

HYDRAULIC FLOW ARROWS (DIRECTION OF WATER FLOW)



	A	B	C
SPEED LIMIT LESS THAN 25 MPH	4"	3"	6"
SPEED LIMIT 25 MPH AND GREATER	6"	4 1/2"	9"
OVERHEAD SIGNS	PER MUTCD		

1. THE STREET NAME SIGN SHALL BE RETROREFLECTIVE USING HIGH-INTENSITY GRADE OR BETTER
2. THE BORDER SHALL BE THE SAME COLOR AS THE LEGEND.
3. PRIVATE STREET SIGNS SHALL HAVE A HIGH INTENSITY RETROREFLECTIVE BLUE BACKGROUND.
4. PUBLIC STREET SIGNS SHALL HAVE A HIGH-INTENSITY RETROFLECTIVE GREEN BACKGROUND.
5. ALL LETTERING SHALL BE SERIES C-2000 STYLE PER MUTCD.
   - 5.1. BLUE PRODUCT CODE 3875 OR EQUIVALENT
   - 5.2. GREEN-3M PRODUCT CODE 3877 OR EQUIVALENT

STREET SIGNS

SCALE: N.T.S.

NOTES:

1. ALL STREET SIGNAGE (STREET NAMES, STOP SIGNS, AND SPEED LIMIT SIGNS) SHALL BE INSTALLED PRIOR TO RECORDING THE PLAT.
2. ALL SIDEWALK DRIVE/STREET CROSSINGS SHALL MEET CURRENT ADA, COUNTY, AND CITY REGULATIONS.
3. CONTRACTOR TO ENSURE THAT ALL SIGHT TRIANGLES ARE CLEAR OF OBSTRUCTIONS.

SITE BENCHMARK (T.B.M.): TOP OF TAG BOLT ON FIRE HYDRANT, "PAINTED ORANGE", BEING LOCATED ON THE SOUTH SIDE OF MEMPHIS-ARLINGTON ROAD AND 620' EAST OF THE CENTERLINE INTERSETION OF EVERGREEN ROAD AND MEMPHIS-ARLINGTON ROAD, AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), THIS PROPERTY IS LOCATED IN ZONE X, WHICH IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA PER FLOOD INSURANCE RATE MAP, MAP NO. 47157C0215G, COMMUNITY PANEL NO. 470402 0215 G, EFFECTIVE DATE: FEBRUARY 06, 2013.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE — REGISTERED ENGINEER — NO. 120 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*

ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

SIGNAGE AND STRIPING PLAN

LAKELAND, TN

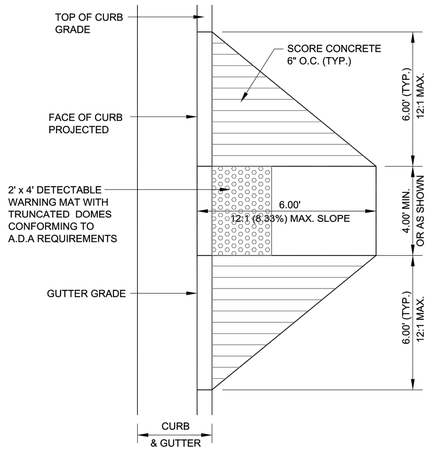
SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----

DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:

DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: *1" = 50'*

CITY ENGINEER DATE

J:\K-M Projects\Lake Burnett\Dgn_Survey_Base\SIGNAGE\Kensington Phase 3\SIGN\Sheets\LAKELAND_MID_STRIPING_PLAN.dwg



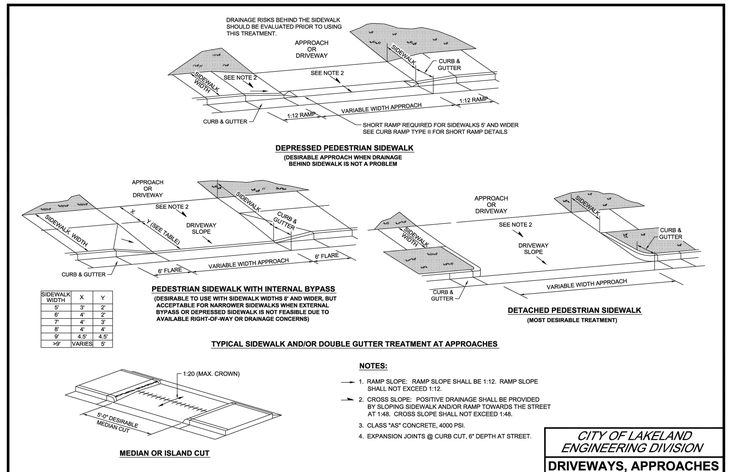
STANDARD ACCESSIBILITY RAMP DETAIL

NOT TO SCALE

CITY OF LAKELAND ENGINEERING DIVISION

STD. ACCESSIBILITY RAMP DETAIL

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008



SIDEWALK WIDTH	X	Y
5'	3'	2'
6'	4'	2'
7'	4'	3'
8'	4'	4'
9'	4.5'	4.5'
"W"	VARIES	5'

TYPICAL SIDEWALK AND/OR DOUBLE GUTTER TREATMENT AT APPROACHES

MEDIAN OR ISLAND CUT

NOTES:

1. RAMP SLOPE: RAMP SLOPE SHALL BE 1:12. RAMP SLOPE SHALL NOT EXCEED 1:12.
2. CROSS SLOPE: POSITIVE DRAINAGE SHALL BE PROVIDED BY SLOPING SIDEWALK AND/OR RAMP TOWARDS THE STREET AT 1:48. CROSS SLOPE SHALL NOT EXCEED 1:48.
3. CLASS "AS" CONCRETE, 4000 PSI.
4. EXPANSION JOINTS @ CURB CUT, 6" DEPTH AT STREET.

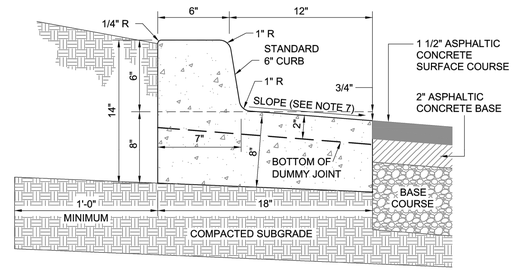
DRIVEWAYS, APPROACHES AND MEDIAN CUTS FOR ADA ACCESSIBILITY

NOT TO SCALE

CITY OF LAKELAND ENGINEERING DIVISION

DRIVEWAYS, APPROACHES & MEDIAN CUTS FOR ADA ACCESSIBILITY

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008



CONSTRUCTION NOTES:

1. PRECUT EXPANSION JOINT MATERIAL WILL BE USED IN ALL EXPANSION JOINTS.
2. DUMMY JOINTS WILL BE INSTALLED AT 10' MAXIMUM INTERVALS.
3. EXPANSION JOINTS WILL BE INSTALLED AT 40' O.C. MAX.
4. EXPANSION JOINTS WILL BE INSTALLED AT ENDS OF RADII.
5. EXPANSION JOINTS WILL BE LOCATED ADJACENT TO INLET STRUCTURES.
6. CONCRETE WILL BE CLASS "AS" CONCRETE, 4000 PSI.
7. SLOPE 3/16" OR SAME SLOPE AS ADJACENT PAVEMENT.
8. SEE DETAIL FOR EXPANSION JOINTS.

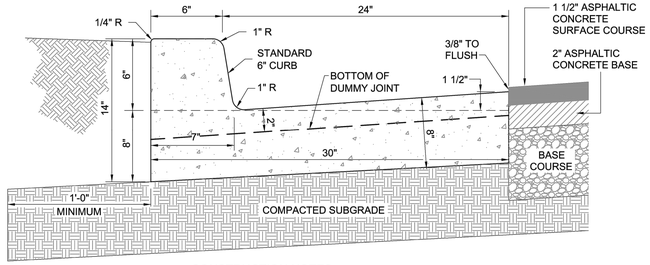
MEDIAN SPILL CURB SECTION

NOT TO SCALE

CITY OF LAKELAND ENGINEERING DIVISION

MEDIAN SPILL CURB SECTION

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008



CONSTRUCTION NOTES:

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2. DUMMY JOINTS WILL BE INSTALLED AT 10' MAXIMUM INTERVALS.
3. EXPANSION JOINTS WILL BE INSTALLED AT 40' O.C. MAX.
4. EXPANSION JOINTS WILL BE INSTALLED AT ENDS OF RADII.
5. EXPANSION JOINTS WILL BE LOCATED ADJACENT TO INLET STRUCTURES.
6. CONCRETE WILL BE CLASS "AS" CONCRETE, 4000 PSI.
7. SEE DETAIL FOR EXPANSION JOINTS.

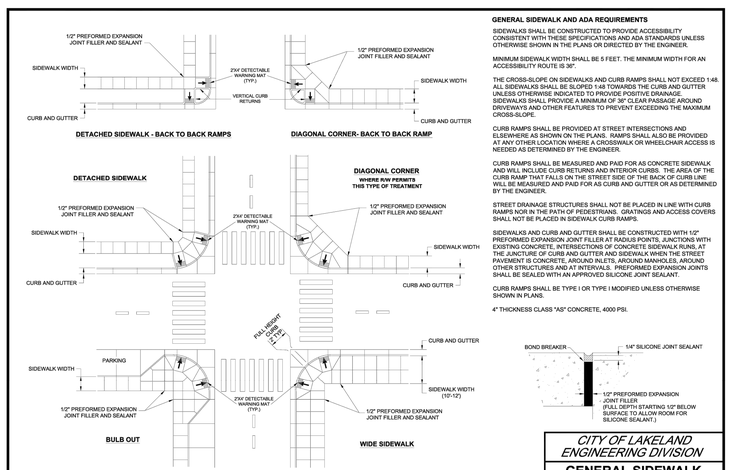
6-30 CURB AND GUTTER

NOT TO SCALE

CITY OF LAKELAND ENGINEERING DIVISION

6-30 CURB AND GUTTER

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008



GENERAL SIDEWALK AND ADA REQUIREMENTS

SIDEWALKS SHALL BE CONSTRUCTED TO PROVIDE ACCESSIBILITY CONSISTENT WITH THESE SPECIFICATIONS AND ADA STANDARDS UNLESS OTHERWISE SHOWN IN THE PLANS OR DIRECTED BY THE ENGINEER.

MINIMUM SIDEWALK WIDTH SHALL BE 5 FEET. THE MINIMUM WIDTH FOR AN ACCESSIBILITY ROUTE IS 36".

THE CROSS-SLOPE ON SIDEWALKS AND CURB RAMPS SHALL NOT EXCEED 1:48. ALL SIDEWALKS SHALL BE SLOPED 1:48 TOWARDS THE CURB AND GUTTER UNLESS OTHERWISE INDICATED TO PROVIDE POSITIVE DRAINAGE. SIDEWALKS SHALL PROVIDE A MINIMUM OF 36" CLEAR PASSAGE AROUND DRIVEWAYS AND OTHER FEATURES TO PREVENT EXCEEDING THE MAXIMUM CROSS-SLOPE.

CURB RAMPS SHALL BE PROVIDED AT STREET INTERSECTIONS AND ELSEWHERE AS SHOWN ON THE PLANS. RAMPS SHALL ALSO BE PROVIDED AT ANY OTHER LOCATION WHERE A CROSSWALK OR WHEELCHAIR ACCESS IS NEEDED AS DETERMINED BY THE ENGINEER.

CURB RAMPS SHALL BE MEASURED AND PAID FOR AS CONCRETE SIDEWALK AND WILL INCLUDE CURB RETURNS AND INTERIOR CURBS. THE AREA OF THE CURB RAMP THAT FALLS ON THE STREET SIDE OF THE BACK OF CURB LINE WILL BE MEASURED AND PAID FOR AS CURB AND GUTTER OR AS DETERMINED BY THE ENGINEER.

STREET DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH CURB RAMPS NOR IN THE PATH OF PEDESTRIANS. GRATINGS AND ACCESS COVERS SHALL NOT BE PLACED IN SIDEWALK CURB RAMPS.

SIDEWALKS AND CURB AND GUTTER SHALL BE CONSTRUCTED WITH 1/2" PREFORMED EXPANSION JOINT FILLER AT RADIUS POINTS, JUNCTIONS WITH EXISTING CONCRETE, INTERSECTIONS OF CONCRETE SIDEWALK RUNS, AT THE JUNCTURE OF CURB AND GUTTER AND SIDEWALK WHEN THE STREET PAVEMENT IS CONCRETE, AROUND INLETS, AROUND MANHOLES, AROUND OTHER STRUCTURES AND AT INTERVALS. PREFORMED EXPANSION JOINTS SHALL BE SEALED WITH AN APPROVED SILICONE JOINT SEALANT.

CURB RAMPS SHALL BE TYPE I OR TYPE I MODIFIED UNLESS OTHERWISE SHOWN IN PLANS.

4" THICKNESS CLASS "AS" CONCRETE, 4000 PSI.

GENERAL SIDEWALK REQUIREMENTS FOR ADA ACCESSIBILITY

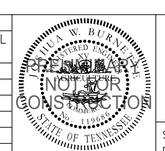
NOT TO SCALE

CITY OF LAKELAND ENGINEERING DIVISION

GENERAL SIDEWALK REQUIREMENTS FOR ADA ACCESSIBILITY

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



DIVISION OF ENGINEERING

STREET DETAILS

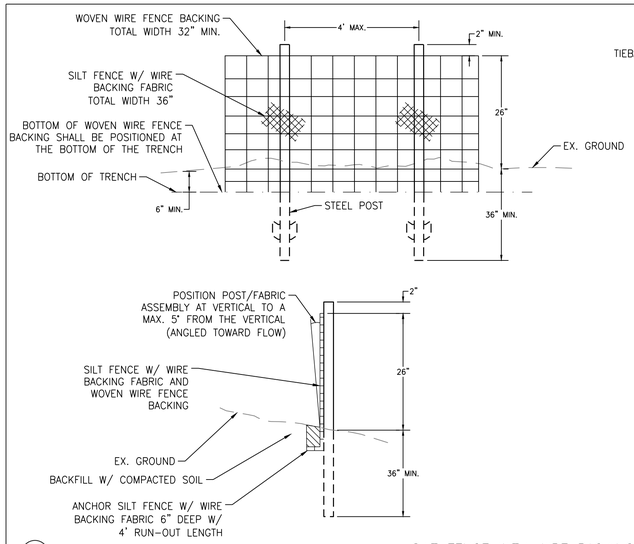
LAKELAND, TN

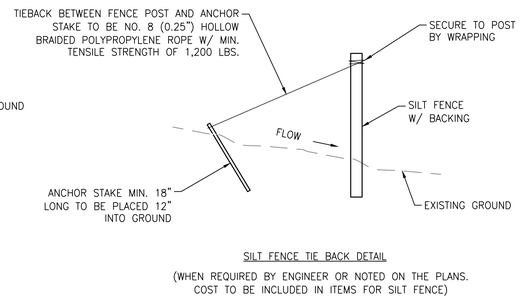
KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: ----

J:\W_R Folders\Julie Burnette\Julie Burnette Work\ENGineer Eng Projects\Kensington Phase 3\ACAD\Detail\DETAILS - STREET - DRAINAGE - EPC.dwg



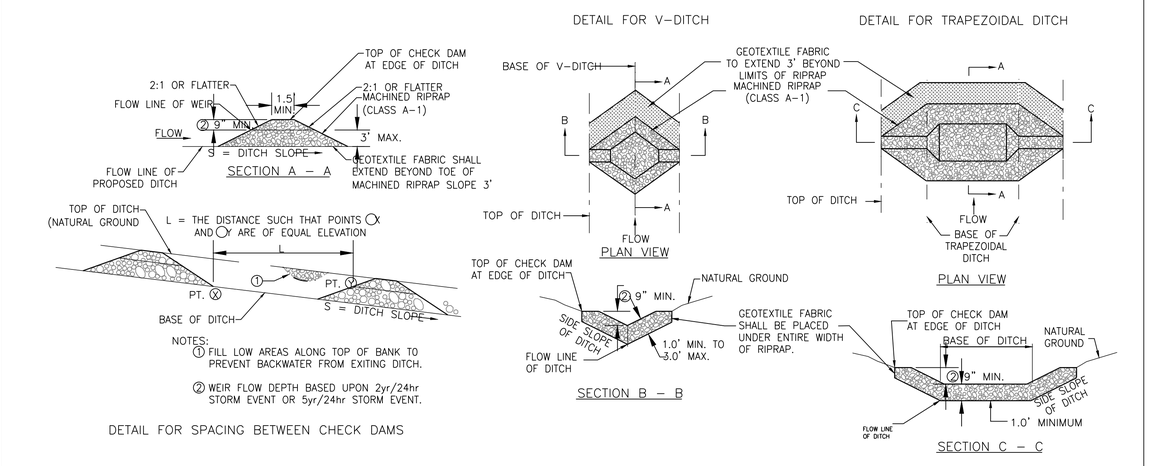


SILT FENCE TIE BACK DETAIL

(WHEN REQUIRED BY ENGINEER OR NOTED ON THE PLANS. COST TO BE INCLUDED IN ITEMS FOR SILT FENCE)

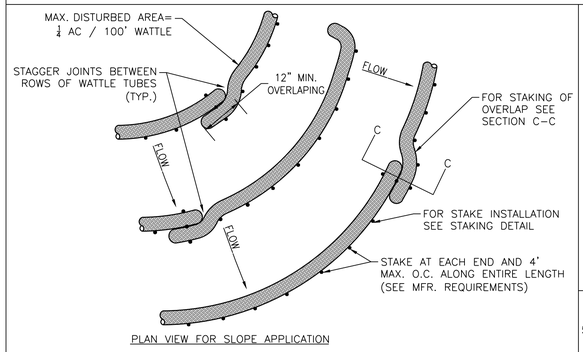
B1 SILT FENCE WITH WIRE BACKING AND METAL POSTS

N.T.S.



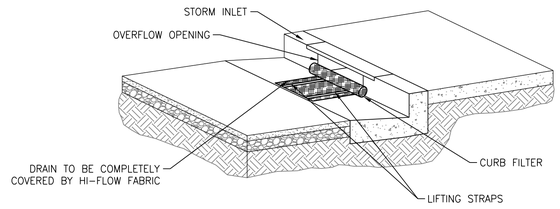
B5 CHECK DAM

SCALE: N.T.S.



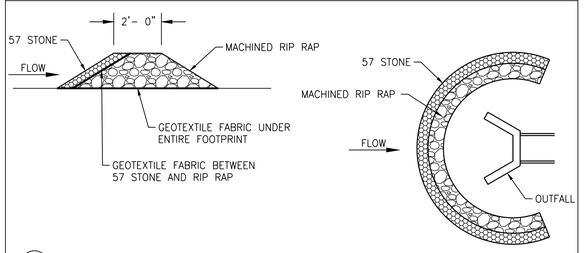
D1 SEDIMENT TUBES/WATTLES

SCALE: N.T.S.



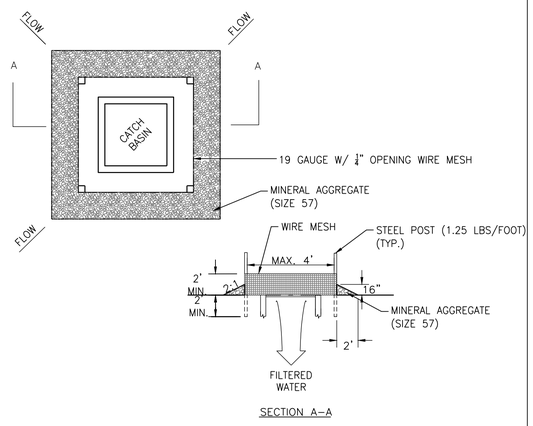
C3 CURB INLET PROTECTION

SCALE: N.T.S.



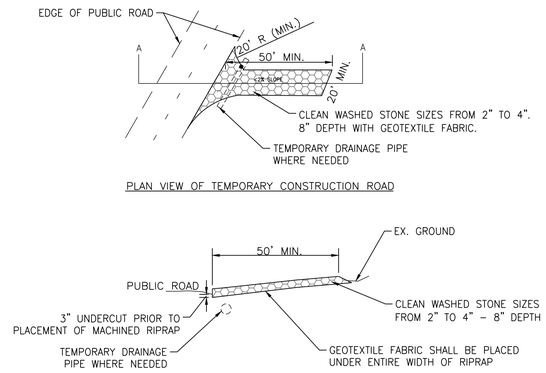
D3 STONE FILTER RING

N.T.S.



D5 INLET PROTECTION DETAIL

SCALE: N.T.S.



D7 CONSTRUCTION ENTRANCE DETAIL

SCALE: N.T.S.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

W. BURNETTE
REGISTERED ENGINEER
PRELIMINARY
NOT FOR CONSTRUCTION
STATE OF TENNESSEE

KENSINGTON MANOR - PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

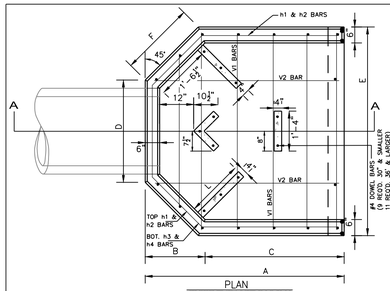
DIVISION OF ENGINEERING

EPSC DETAILS

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: ----

W:\M Shelton\Lake Branch\Misc Survey Prep\EPSCtemp\Maintenance Prg Photos\Drawings\Photo 3\TASK\Details\DETAILS - STREET DRAINAGE - EPSC.dwg



PLAN
SHOWING ENERGY DISSIPATOR

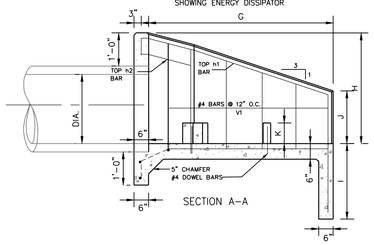
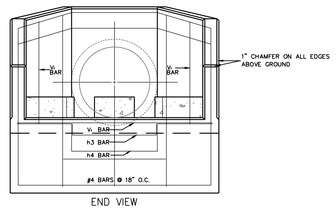


TABLE OF DIMENSION AND DIAMETERS										
DIA	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	72"
A	5'-3⅜"	5'-6¾"	5'-6¾"	5'-7⅝"	5'-9"	7'-4½"	8'-0"	9'-1⅝"	10'-9"	12'-6"	15'-6"
B	1'-8½"	1'-8½"	1'-8½"	1'-8⅝"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"
C	3'-0⅜"	3'-4¼"	3'-10½"	3'-11"	4'-0"	5'-7½"	7'-3"	7'-4½"	9'-0"	10'-9"	13'-9"
D	2'-0¼"	2'-3½"	2'-6½"	2'-10"	3'-5"	4'-0"	4'-7"	5'-2"	5'-9"	6'-5"	7'-9"
E	5'-5¾"	5'-8½"	5'-11½"	6'-3"	6'-11¾"	7'-6"	8'-1"	8'-8"	9'-5"	9'-11"	11'-3"
F	2'-4¾"	2'-4¾"	2'-6¾"	2'-6¾"	2'-5 1⅝"	2'-5 1⅝"	2'-5 1⅝"	2'-5 1⅝"	2'-5 1⅝"	2'-5 1⅝"	2'-5⅝"
G	4'-5⅛"	5'-0⅜"	5'-0⅜"	5'-1⅜"	5'-3"	6'-10½"	8'-6"	8'-7½"	10'-3"	12'-0"	15'-0"
H	2'-5⅛"	2'-6¾"	2'-11½"	3'-2½"	3'-9"	4'-3½"	4'-10	5'-4½"	5'-11"	6'-6"	7'-6"
I	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"
J	0'-10"	1'-0"	1'-3"	1'-6"	2'-0"	2'-0"	2'-0"	2'-6"	2'-6"	2'-6"	2'-6"
K	0'-8"	0'-8"	0'-8"	0'-8"	1'-0"	1'-0"	1'-0"	1'-0"	1'-3"	1'-3"	1'-6"
L	1'-5"	1'-6"	1'-7"	1'-9"	1'-11"	2'-2"	2'-5"	2'-6"	2'-9"	3'-0"	3'-6"

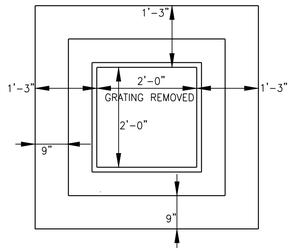
NOTE: FOR 72" HEADWALL ONLY VERTICAL BARS V1 SHOWN IN SECTION A-A AS #4 BARS AT 12" O/C SHALL BE #5 BARS AT 12" O/C



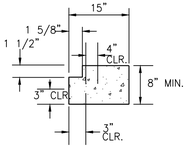
END VIEW

B1

TYPE E HEADWALL
SCALE: N.T.S.

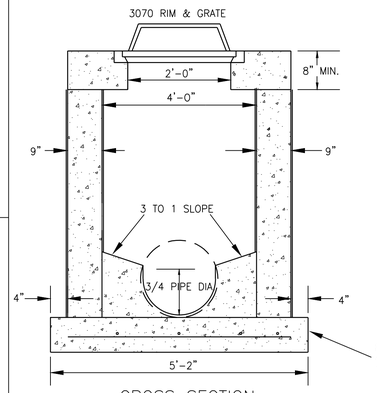


PLAN

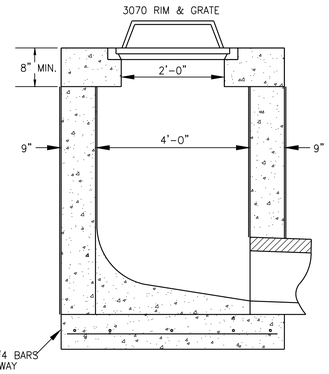


NOTES:

1. INLET TO BE SET ON SUBGRADE COMPACTED TO 95% OF STANDARD PROCTOR (ASTM D-698).
2. CONTRACTOR SHALL PROVIDE AND PLACE STEPS ON 16" VERTICAL CENTERS IF STRUCTURE IS GREATER THAN 3'-0" DEEP.
3. PIPE DIAMETER, DEPTH AND DIRECTION SHALL BE DICTATED BY THE PRODUCT GRADING AND DRAINAGE PLAN.
4. PRECAST TOPS MUST BE SET IN PLACE USING A FULL BED OF MORTOR.
5. INLET SHALL BE EQUIPPED WITH A MEMPHIS MACHINE WORKS NO. 3070 RIM AND GRATE.



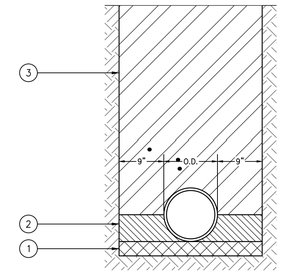
CROSS SECTION



LONGITUDINAL SECTION

B7

PRECAST 3070 INLET
SCALE: N.T.S.

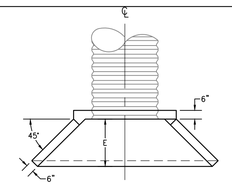


RCP PIPE

1. BEDDING: 4" CLEAN SAND COMPACTED TO 95% STANDARD PROCTOR.
2. HAUNCHING: CLEAN SAND HANDWORKED & COMPACTED TO SPRINGLINE OF PIPE. COMPACT TO 95% STANDARD PROCTOR.
3. FINAL BACKFILL: NATIVE MATERIAL PLACED & COMPACTED IN 12" LIFTS TO EX. GROUND SURFACE OR ROAD BED IF UNDER PROPOSED ROAD. COMPACT TO 95% STANDARD PROCTOR, ± 3% OPTIMUM MOISTURE CONTENT.

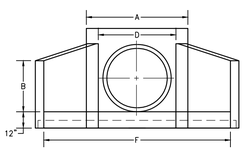
B7

RCP BEDDING & BACKFILLING
SCALE: N.T.S.

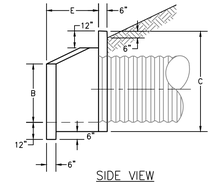


TOP VIEW

INSIDE PIPE ⌀	AREA PIPE OPENING	A	B	C	D	E	F
18"	1.76	3'-2"	1'-3"	3'-2"	1'-6"	1'-3"	4'-10"
21"	2.40	3'-8"	1'-9"	3'-8"	2'-3"	1'-6"	6'-1"
24"	3.14	3'-8"	1'-9"	3'-8"	2'-3"	1'-6"	6'-1"
30"	4.91	4'-2"	2'-0"	4'-2"	2'-9"	1'-10"	7'-2"
36"	7.07	4'-8"	2'-4"	4'-8"	3'-9"	2'-2"	8'-4"
42"	6.63	5'-8"	3'-3"	5'-8"	4'-3"	2'-11"	10'-10"
48"	12.58	5'-8"	3'-3"	5'-8"	4'-3"	2'-11"	10'-10"
54"	16.00	6'-8"	1'-3"	6'-8"	5'-3"	3'-4"	11'-10"
60"	19.63	6'-8"	3'-8"	6'-8"	5'-3"	3'-4"	11'-10"



FRONT VIEW



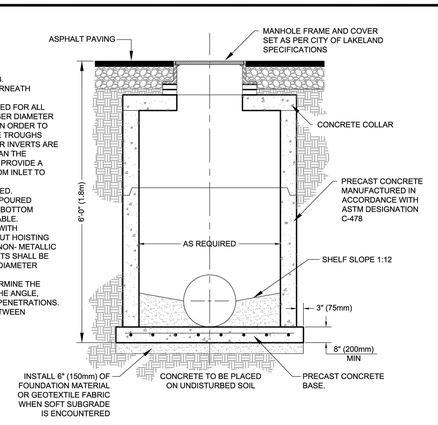
SIDE VIEW

NOTES:

1. MATERIALS: ALL CONCRETE, STEEL BARS, AND STEEL WIRE REINFORCEMENT SHALL COMPLY WITH APPLICABLE STATE STANDARDS & SPECIFICATIONS.
2. SUBGRADE TO BE COMPACTED TO 85% MODIFIED PROCTOR.
3. ALL CONCRETE SHALL BE 4000 PSI AND REINFORCING STEEL SHALL BE NO. 4 GRADE 40 BARS.
4. PLACE REINFORCING WITH 2" MINIMUM CLEARANCE AND CHAMFER ALL EXPOSED CONCRETE EDGES ¾".
5. REINFORCING STEEL BARS SHALL BE PLACED 6" ON CENTER EACH WAY (MIN.)
6. PRECAST CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ASTM C478 CONCERNING MATERIALS, ADDITIONAL REINFORCEMENT OF OPENINGS, PLACEMENT OF REINFORCEMENT LAPS, WELDING, SPACING, MANUFACTURE, WORKMANSHIP, AND FINISHING QUALITY CONTROL AND OTHER APPLICABLE REQUIREMENTS.

D7

TYPE D HEADWALL
SCALE: N.T.S.



NOTES:

1. MANHOLES SHALL BE PLUMB.
2. SEAL ALL JOINTS AND UNDERNEATH RING AND ALL RISERS.
3. FLOOR TROUGHS ARE NEEDED FOR ALL INCOMING SEWERS. A LARGER DIAMETER MANHOLE MAY BE NEEDED IN ORDER TO PROPERLY CONSTRUCT THE TROUGHS WHEN THE INCOMING SEWER INVERTS ARE SUBSTANTIALLY HIGHER THAN THE OUTGOING SEWER INVERT. PROVIDE A MINIMUM OF .1 FT DROP FROM INLET TO OUTLET.
4. NO MANHOLE STEPS ALLOWED.
5. MANHOLES WITH THE BASE POURED MONOLITHICALLY WITH THE BOTTOM BARREL ARE ALSO ACCEPTABLE.
6. SEAL JOINTS WATER TIGHT WITH APPROVED MATERIAL. GROUT HOISTING HOLES WATER TIGHT WITH NON- METALLIC NON-SHRINK GROUT. INVERTS SHALL BE U-SHAPED TO THE I.D. PIPE DIAMETER POINT (PIPE CROWN).
7. THE ENGINEER SHALL DETERMINE THE MANHOLE SIZE BASED ON THE ANGLE, NUMBER AND SIZE OF PIPE PENETRATIONS. THE MINIMUM DISTANCE BETWEEN KNOCKOUTS IS 12" (300mm).

STANDARD STORM SEWER MANHOLE
(FOR DEPTHS OF 6'-0" OR LESS)
NOT TO SCALE

E3

CITY OF LAKELAND ENGINEERING DIVISION

STANDARD STORM SEWER MANHOLE
FOR DEPTHS OF 6'-0" OR LESS

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008

REVISION			
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE	

JULIA W. BURNETTE — REGISTERED — 119628 — STATE OF TENNESSEE — PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

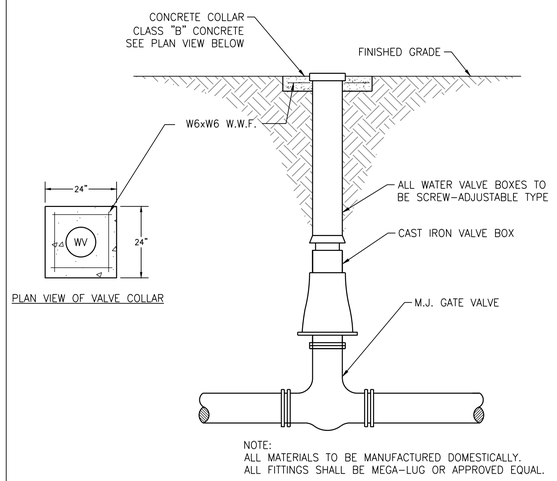
DIVISION OF ENGINEERING

DRAINAGE DETAILS

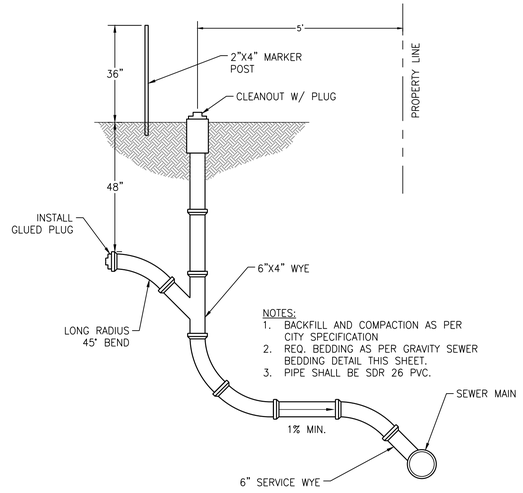
LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: ----

C:\Julia Work Burnett\Ollar Survey Share\SRCShare\Miscellaneous Eng Records\Drawings\Phase 3\CAD Details\DETAILS - SHEET 1 DRAWING - STRC.dwg



WATER VALVE COLLAR
SCALE: N.T.S.



SEWER SERVICE
SCALE: N.T.S.

90° BEND							
SIZE	2"	4"	6"	8"	10"	12"	16"
A	16"	16"	26"	33"	40"	50"	70"
B	16"	16"	24"	33"	40"	50"	70"
C	9"	9"	12"	12"	15"	16"	22"
D	8"	8"	12"	16"	20"	25"	24"

11 1/4° BEND							
SIZE	2"	4"	6"	8"	10"	12"	16"
A	9"	9"	11"	13"	16"	18"	30"
B	9"	9"	11"	13"	16"	18"	30"
C	8"	8"	10"	12"	14"	16"	15"
D	4"	4"	5"	6"	8"	9"	16"

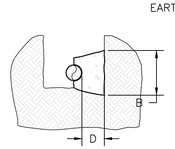
45° BEND							
SIZE	2"	4"	6"	8"	10"	12"	16"
A	12"	12"	18"	24"	31"	37"	52"
B	12"	12"	18"	24"	31"	37"	52"
C	8"	8"	10"	12"	14"	16"	14"
D	6"	6"	9"	12"	15"	18"	18"

PLUG							
SIZE	2"	4"	6"	8"	10"	12"	16"
A	26"	26"	26"	34"	43"	52"	70"
B	26"	26"	26"	34"	43"	52"	70"
C	12"	12"	12"	12"	12"	12"	30"
D	11"	11"	11"	15"	22"	32"	32"

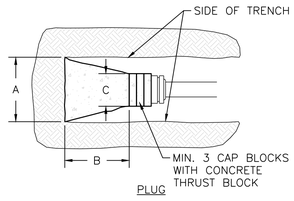
22 1/2° BEND							
SIZE	2"	4"	6"	8"	10"	12"	16"
A	9"	9"	13"	18"	23"	26"	40"
B	9"	9"	13"	18"	23"	26"	40"
C	8"	8"	10"	12"	14"	16"	15"
D	4"	4"	6"	9"	11"	13"	16"

TEE							
SIZE	MAIN	2"-6"	8"-12"	8"-10"	12"	12"	12"	16"
	BRANCH	2"-6'	2"-6"	8"-10"	2"-6"	8"-10"	12"	10"-16"
A		26"	26"	43"	26"	43"	52"	70"
B		26"	26"	43"	26"	43"	52"	70"
C		12"	12"	12"	12"	12"	12"	30"
D		13"	13"	21"	13"	21"	26"	24"

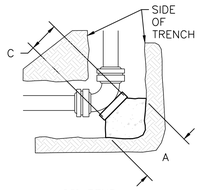
NOTE: THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.



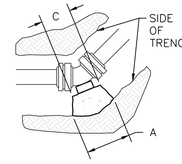
TYPICAL SECTION



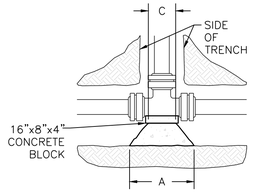
PLUG



90° BEND



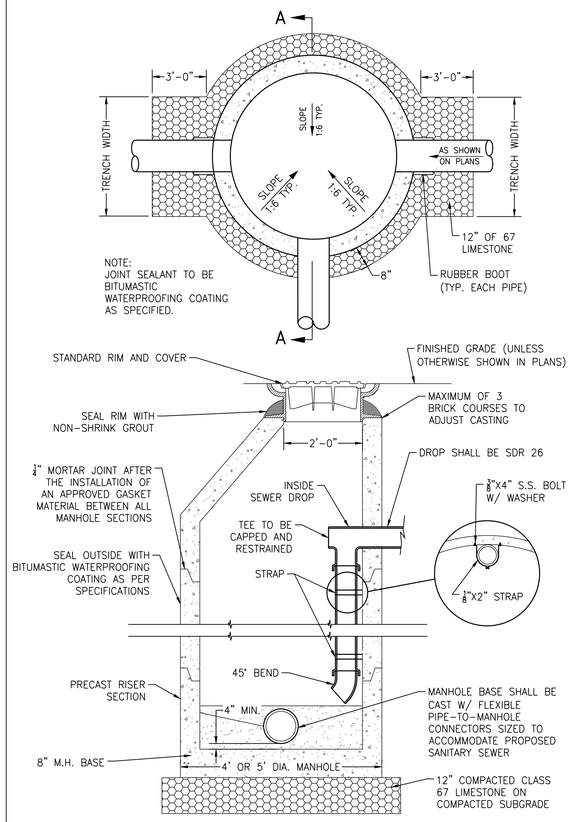
45°, 22-1/2° AND 11-1/4° BENDS



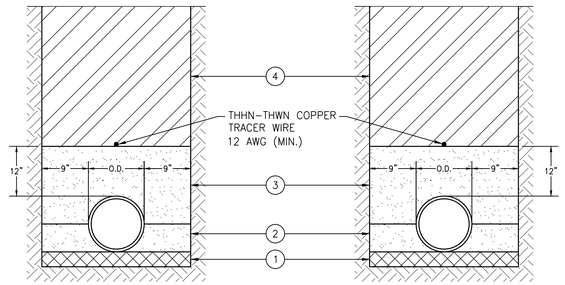
TEE

NOTE: ALL FITTINGS SHALL HAVE MEG-A-LUG RESTRAINTS OR APPROVED EQUAL.

WATER LINE THRUST BLOCK
SCALE: N.T.S.



SANITARY SEWER MANHOLE
SCALE: N.T.S.

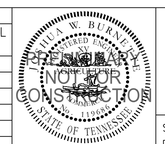


WATER LINE SEWER LINE

1. BEDDING: 4" CLEAN SAND COMPACTED TO 90% STANDARD PROCTOR.
2. HAUNCHING: CLEAN SAND HAND WORKED AROUND PIPE AND COMPACTED TO SPRINGLINE OF PIPE. COMPACT TO 90% STANDARD PROCTOR.
3. INITIAL BACKFILL: CLEAN SAND PLACED & COMPACTED IN 8" LIFTS TO 12" ABOVE CROWN OF PIPE. COMPACT TO 90% STANDARD PROCTOR.
4. FINAL BACKFILL: SUITABLE NATIVE MATERIAL PLACED & COMPACTED IN 12" LIFTS TO EX. GROUND SURFACE OR ROAD BED IF UNDER PROPOSED ROAD. COMPACT TO 95% STANDARD PROCTOR, ± 3% OPTIMUM MOISTURE CONTENT.

PVC BEDDING & BACKFILLING
SCALE: N.T.S.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



KENSINGTON MANOR - PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

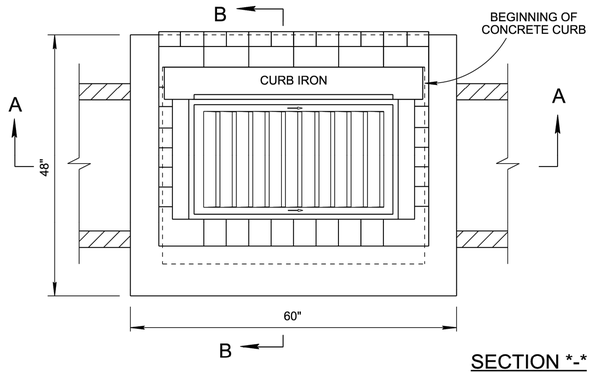
UTILITY DETAILS

LAKELAND, TN

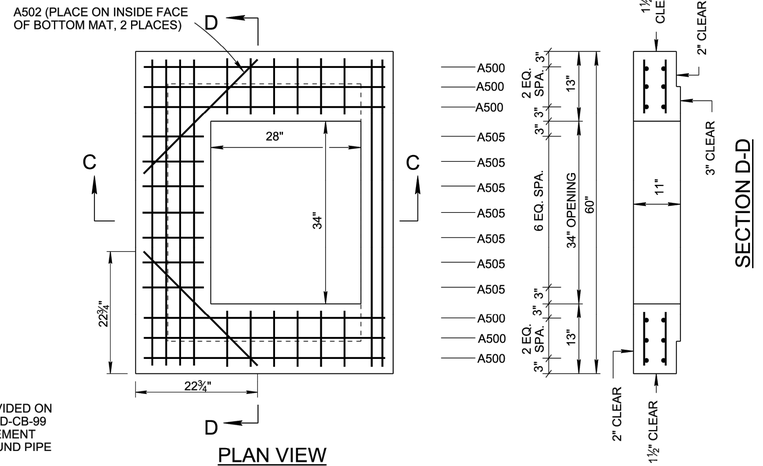
SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: N.T.S.

CITY ENGINEER DATE

W:\M Shares\Lake Branch\Office Survey Group\Engineering\Projects\Regency Homebuilders\Eng Projects\Kensington\Phase 3\CAD\Details\DETAILS - UTILITY DETAILS.dwg

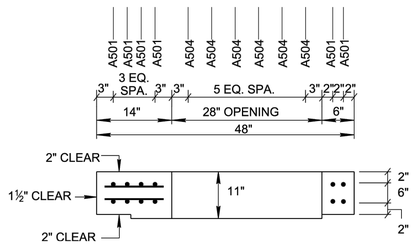


PLAN VIEW



SECTION D-D

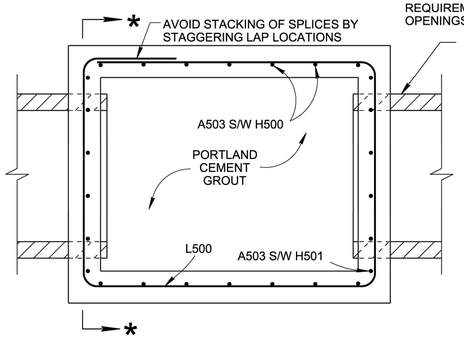
PLAN VIEW



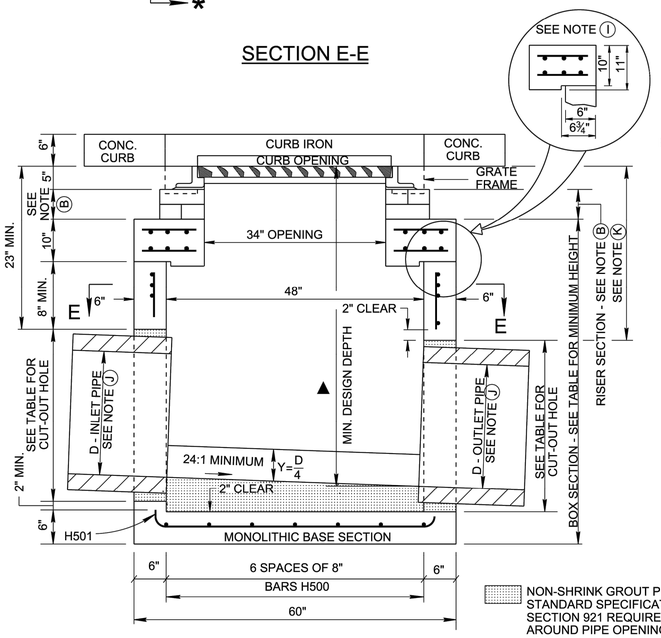
SECTION C-C

SECTION *-*

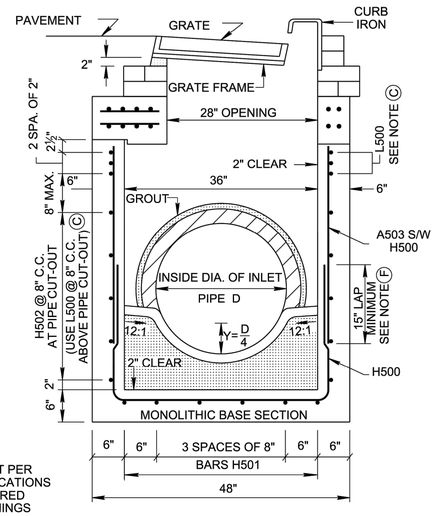
X-SECT. VIEW IS PROVIDED ON STANDARD DRAWING D-CB-99 SHOWING REINFORCEMENT REQUIREMENTS AROUND PIPE OPENINGS



SECTION E-E



SECTION A-A



SECTION B-B

NON-SHRINK GROUT PER STANDARD SPECIFICATIONS SECTION 921 REQUIRED AROUND PIPE OPENINGS ONLY

CATCH BASIN MAXIMUM DEPTH NOTE
MAXIMUM DEPTH FOR THIS STRUCTURE IS 12.00'.

CATCH BASIN DIMENSIONS				FOR DESIGN ▲ USE ONLY
INSIDE DIAMETER (D) OF PIPE (INCHES)	PIPE WALL THICKNESS (INCHES)	DIAMETER OF CUT-OUT HOLES (INCHES)	BOX SECTION MINIMUM HEIGHTS (INCHES)	CATCH BASIN MINIMUM DESIGN DEPTH (FEET)
18	2½	25	51	3.90
24	3	32	58	4.44
(4) 30	3½	39	65	4.98
(4) 36	4	46	72	5.52

(1) CUT-OUT HOLES BASED ON REINFORCED CONCRETE PIPE WITH WALL TYPE "B".

(2) ALL FLEXIBLE PIPE MATERIALS REQUIRE GASKET. SEE STANDARD DRAWING D-PB-2.

(3) CUT-OUT HOLES FOR PRECAST STRUCTURES TO BE FORMED IN ORDER TO OBTAIN A SMOOTH EDGED HOLE. SCORED OR ETCHED HOLES WITH REINFORCING STEEL LEFT UNCUT WILL NOT BE PERMITTED.

(4) TO BE USED IN 48 INCH INTERIOR WALLS ONLY.

GENERAL NOTES

(A) DRAWING TO BE USED FOR ALL PRECAST NO. 12 CONCRETE CATCH BASINS THAT ARE BETWEEN MINIMUM DEPTH AND TWELVE FEET. SEE STANDARD DRAWING D-CB-12S FOR DETAILS OF CAST-IN-PLACE NO. 12 CONCRETE CATCH BASINS AND PRECAST NO. 12 CONCRETE CATCH BASINS THAT ARE GREATER TWELVE FEET IN DEPTH. SEE STANDARD DRAWING D-CB-99 FOR ADDITIONAL CONSTRUCTION NOTES & DETAILS.

(B) THIS DIMENSION MAY VARY FROM A MINIMUM OF 0 INCHES TO A MAXIMUM OF 24 INCHES AS LONG AS 23 INCHES IS SATISFIED. THE CONTRACTOR HAS THE OPTION OF USING BRICK OR STANDARD PRECAST CONCRETE RISER FRAMES. THE USE OF BRICK SHALL BE LIMITED TO 6 INCHES. IF THIS DIMENSION EXCEEDS 6 INCHES, PRECAST CONCRETE RISER FRAMES SHALL BE USED AS SHOWN ON STANDARD DRAWING D-RF-1.

(C) THIS DRAWING DEPICTS THE MINIMUM HORIZONTAL REINFORCING AT THE TOP OF CATCH BASIN WALLS. SEE ADDITIONAL DETAILS ON STANDARD DRAWING D-CB-99 FOR TALLER SECTIONS AND STEEL PLACEMENT ABOVE PIPE OPENINGS.

(D) ALL PRECAST ELEMENTS SHALL MEET ASTM C913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.

CONCRETE: f'_c= 4,000 POUNDS PER SQUARE INCH AT 28 DAYS
REINFORCING STEEL: ASTM A615, F_y= 60,000 POUNDS PER SQUARE INCH
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

(E) PRECAST CATCH BASIN UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT HIS OWN EXPENSE.

(F) THE FABRICATOR MAY ELIMINATE THE A503 BARS BY LENGTHENING THE VERTICAL LEG OF THE H500/H501 BARS SO THAT 1½ INCHES OF CLEAR COVER IS PROVIDED AT THE TOP OF THE STRUCTURE.

(G) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(H) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES WITH GROUT AND PLACE A MINIMUM OF ONE (1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

(I) ALTERNATIVE JOINT DETAILS MAY BE ACCEPTABLE. SEE STANDARD DRAWING D-CB-99 FOR ADDITIONAL DETAILS.

(J) SEE ROADWAY PLANS DRAINAGE TABULATION FOR PIPE INLET AND OUTLET ELEVATIONS. IF NEEDED, INVERT ELEVATIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

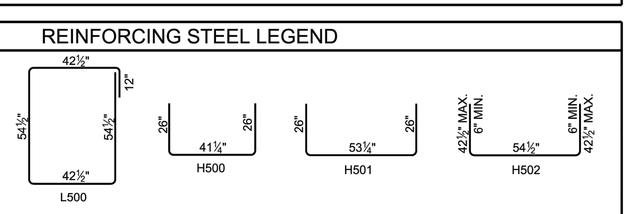
(K) FOR CASES WHERE THE OUTLET PIPE DIAMETER IS LARGER THAN THE INLET PIPE DIAMETER, A MINIMUM 23 INCH DEPTH SHALL BE MAINTAINED ABOVE THE OUTLET PIPE.

(L) SEE STANDARD DRAWING D-CBB-12A FOR DETAILS REGARDING CAST IRON GRATES, FRAMES AND CURB INLETS.

(M) PAY DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION. PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS 611-12.01 CATCH BASINS, TYPE 12, 0'-4' DEPTH THROUGH 611-12.03, CATCH BASINS, TYPE 12, > 8'-12' DEPTH PER EACH. PAYMENT INCLUDES RISER SECTION AND GRATE.

REINFORCING STEEL LEGEND

A500	45"
A501	57"
A502	30"
A503	VARIABLE
A504	10"
A505	11"



DIMENSIONS SHOWN ON THIS LEGEND ARE OUTSIDE TO OUTSIDE OF BAR. STANDARD C.R.S.I. HOOK AND TIE DETAILS SHALL APPLY, EXCEPT AS NOTED.

- REV. 10-26-97: CHANGED MINIMUM DEPTH TABLE AND MODIFIED STEEL IN BASE SECTION.
- REV. 1-19-99: MODIFIED CATCH BASIN MINIMUM DEPTH TABLE.
- REV. 5-27-01: CHANGED PAY ITEMS IN GENERAL NOTE (I)
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE (B)

  REV. 8-01-12: REVISED CATCH BASIN FOR COMPLIANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH INTERIMS. REVISED REINFORCING, GENERAL NOTES, LEGEND AND ADDITIONAL MISC. DRAFTING EDITS.
- REV. 9-24-12: MODIFIED TOP SLAB AND MINIMUM DEPTH.
- REV. 3-11-14: ELIMINATED STIRRUPS.
- REV. 05-15-18: REVISED CATCH BASIN MINIMUM DESIGN DEPTH VALUES. CORRECTED STANDARD SPECIFICATIONS SECTION NUMBER TO 921 FOR NON-SHRINK GROUT. ADDED DIMENSION IN SECTION A-A FOR NOTE (B). CORRECTED REBAR PLACEMENT IN LIDS. ADDED DIMENSION IN SECTION VIEW A-A FOR MINIMUM DESIGN DEPTH. ADJUSTED BOX SECTION MINIMUM HEIGHTS.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

STANDARD PRECAST RECTANGULAR CONCRETE NO. 12 CATCH BASIN

12-18-95 | D-CB-12P

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JULIA W. BURNETTE — REGISTERED ENGINEER — NOT FOR CONSTRUCTION — STATE OF TENNESSEE

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

NO. 12 INLET DETAILS

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: N.T.S.

CITY ENGINEER _____ DATE _____

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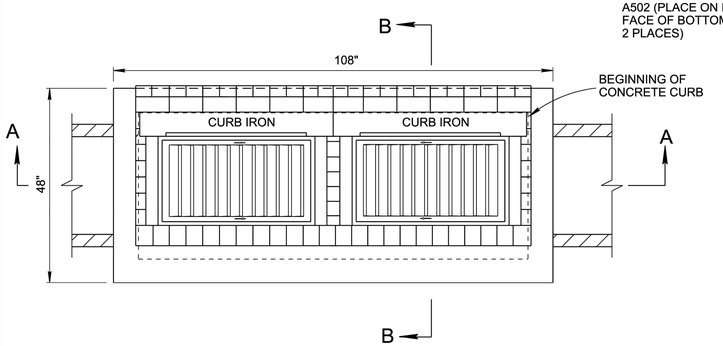
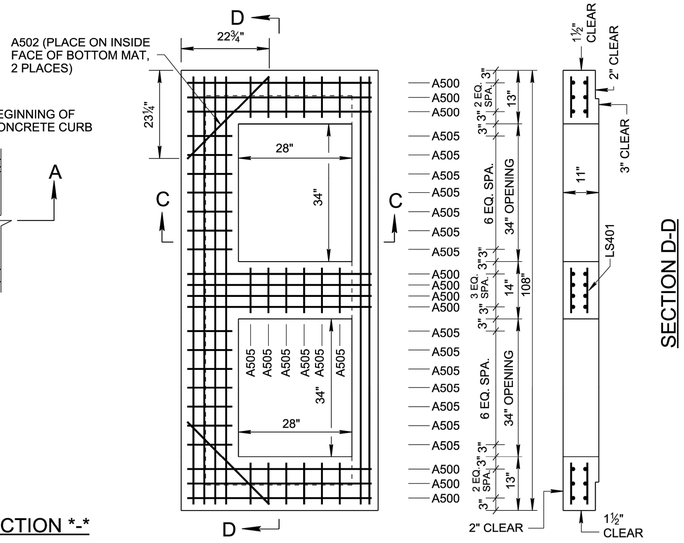


PLAN VIEW

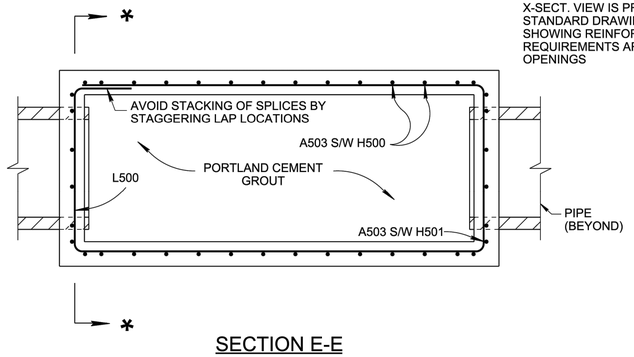


PLAN VIEW

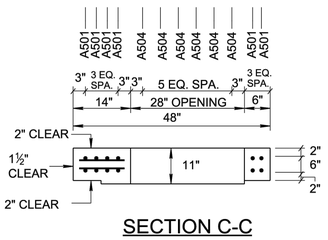
SECTION D-D

SECTION *-*

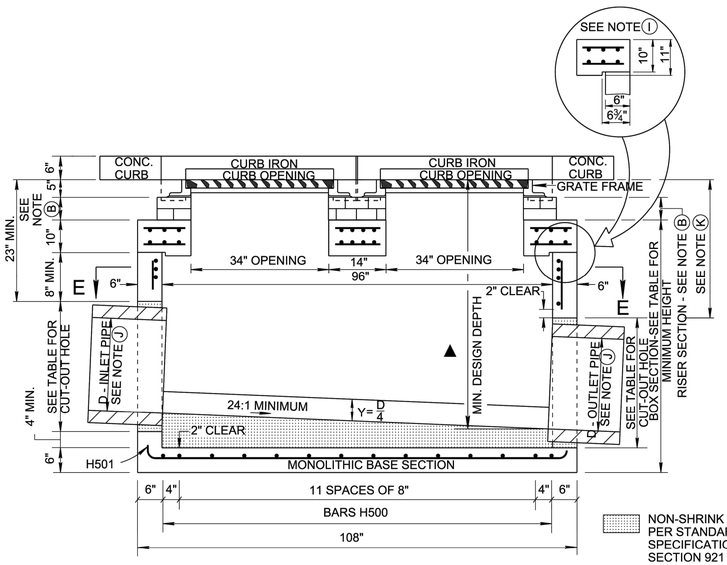
X-SECT. VIEW IS PROVIDED ON STANDARD DRAWING D-CB-99 SHOWING REINFORCEMENT REQUIREMENTS AROUND PIPE OPENINGS



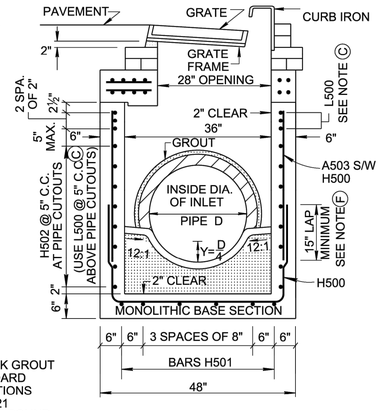
SECTION E-E



SECTION C-C



SECTION A-A



SECTION B-B

NON-SHRINK GROUT PER STANDARD SPECIFICATIONS SECTION 921 REQUIRED AROUND PIPE OPENINGS ONLY

GENERAL NOTES

(A) DRAWING TO BE USED FOR ALL PRECAST NO. 14 CONCRETE CATCH BASINS THAT ARE BETWEEN MINIMUM DEPTH AND TEN FEET. SEE STANDARD DRAWING D-CB-14S FOR DETAILS OF CAST-IN-PLACE NO. 14 CONCRETE CATCH BASINS AND PRECAST NO.14 CONCRETE CATCH BASINS THAT ARE GREATER THAN TEN FEET IN DEPTH. SEE STANDARD DRAWING D-CB-99 FOR ADDITIONAL CONSTRUCTION NOTES & DETAILS.

(B) THIS DIMENSION MAY VARY FROM A MINIMUM OF 0 INCHES TO A MAXIMUM OF 24 INCHES AS LONG AS 23 INCHES IS SATISFIED. THE CONTRACTOR HAS THE OPTION OF USING BRICK OR STANDARD PRECAST CONCRETE RISER FRAMES. THE USE OF BRICK SHALL BE LIMITED TO 6 INCHES. IF THIS DIMENSION EXCEEDS 6 INCHES, PRECAST CONCRETE RISER FRAMES SHALL BE USED AS SHOWN ON STANDARD DRAWING D-RF-1.

(C) THIS DRAWING DEPICTS THE MINIMUM HORIZONTAL REINFORCING AT THE TOP OF CATCH BASIN WALLS. SEE ADDITIONAL DETAILS ON STANDARD DRAWING D-CB-99 FOR TALLER SECTIONS AND STEEL PLACEMENT ABOVE PIPE OPENINGS.

(D) CAST-IN-PLACE CONCRETE CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS UNLESS SUPERSEDED BY THIS DRAWING. ALL PRECAST ELEMENTS SHALL MEET ASTM C913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.

(E) THE FOLLOWING MATERIAL PROPERTIES ARE REQUIRED FOR BOTH CAST-IN-PLACE AND PRECAST STRUCTURES.

CONCRETE: f'_c= 4,000 POUNDS PER SQUARE INCH AT 28 DAYS
REINFORCING STEEL: ASTM A615, F_y= 60,000 POUNDS PER SQUARE INCH
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

(F) PRECAST CATCH BASIN UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT HIS OWN EXPENSE.

(G) THE CONTRACTOR MAY ELIMINATE THE A503 BARS BY LENGTHENING THE VERTICAL LEG OF THE H500/H501 BARS SO THAT 1½ INCHES OF CLEAR COVER IS PROVIDED AT THE TOP OF THE STRUCTURE.

(H) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(I) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES WITH GROUT AND PLACE A MINIMUM OF ONE (1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

(J) ALTERNATIVE JOINT DETAILS MAY BE ACCEPTABLE. SEE STANDARD DRAWING D-CB-99 FOR ADDITIONAL DETAILS.

(K) SEE ROADWAY PLANS DRAINAGE TABULATION FOR PIPE INLET AND OUTLET ELEVATIONS. IF NEEDED, INVERT ELEVATIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

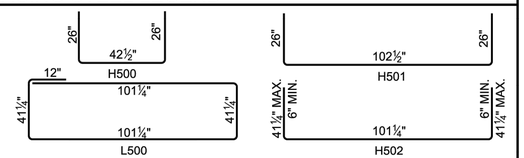
(L) FOR CASES WHERE THE OUTLET PIPE DIAMETER IS LARGER THAN THE INLET PIPE DIAMETER, A MINIMUM 23 INCH DEPTH SHALL BE MAINTAINED ABOVE THE OUTLET PIPE.

(M) SEE STANDARD DRAWING D-CBB-12A FOR DETAILS REGARDING CAST IRON GRATES, FRAMES AND CURB INLETS.

(N) PAY DEPTH MEASUREMENT MADE FROM TOP OF GRATE TO OUTLET FLOW ELEVATION. PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS 611-14.01 CATCH BASINS, TYPE 14, 0'-4' DEPTH THROUGH 611-14.03, CATCH BASINS, TYPE 14, > 8'-12' DEPTH PER EACH. PAYMENT INCLUDES RISER SECTIONS AND GRATES.

REINFORCING STEEL LEGEND

A500 45"
A501 105"
A502 30"
A503 VARIABLE
A504 10"
A505 11"



DIMENSIONS SHOWN ON THIS LEGEND ARE OUTSIDE TO OUTSIDE OF BAR. STANDARD C.R.S.I. HOOK AND TIE DETAILS SHALL APPLY, EXCEPT AS NOTED.

- REV. 12-18-95: MODIFIED DRAWING NO. D-CB-14S BY CHANGING WALL AND FLOOR THICKNESSES FROM EIGHT TO SIX INCHES FOR PRECAST CATCH BASIN BETWEEN MINIMUM DEPTH AND TEN FEET.
- REV. 12-18-96: REMOVED 0.5" PREMOLDED FIBER EXPANSION JOINT FROM SECTION "B-B". REMOVED OLD GENERAL NOTE (G) CHANGED LABEL OF LAST THREE GENERAL NOTES.
- REV. 10-26-97: CHANGED MINIMUM DEPTH TABLE AND MODIFIED STEEL IN BASE SECTION.
- REV. 1-19-99: MODIFIED CATCH BASIN MINIMUM DEPTH TABLE.
- REV. 5-27-01: CHANGED PAY ITEMS IN GENERAL NOTE (L)
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE (B)

  REV. 8-01-12: REVISED CATCH BASIN FOR COMPLIANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH INTERIMS. REVISED REINFORCING, GENERAL NOTES, LEGEND AND ADDITIONAL MISC. DRAFTING EDITS.
- REV. 9-24-12: MODIFIED TOP SLAB AND MINIMUM DEPTH.
- REV. 3-11-14: ELIMINATED STIRRUPS.
- REV. 05-15 -18: REVISED CATCH BASIN MINIMUM DESIGN DEPTH VALUES. CORRECTED STANDARD SPECIFICATIONS SECTION NUMBER TO 921 FOR NON-SHRINK GROUT. ADDED DIMENSION IN SECTION VIEW A-A FOR NOTE (B) CORRECTED REBAR PLACEMENT IN LIDS. ADDED DIMENSION IN SECTION VIEW A-A FOR MINIMUM DESIGN DEPTH. ADJUSTED BOX SECTION MINIMUM HEIGHTS.

(1) CUT-OUT HOLES BASED ON REINFORCED CONCRETE PIPE WITH WALL TYPE "B".

(2) ALL FLEXIBLE PIPE MATERIALS REQUIRE GASKET. SEE STANDARD DRAWING D-PB-2.

(3) CUT-OUT HOLES FOR PRECAST STRUCTURES TO BE FORMED IN ORDER TO OBTAIN A SMOOTH EDGED HOLE. SCORED OR ETCHED HOLES WITH REINFORCING STEEL LEFT UNCUT WILL NOT BE PERMITTED.

(4) TO BE USED IN 96 INCH INTERIOR WALLS ONLY.

CATCH BASIN MAXIMUM DEPTH NOTE
MAXIMUM DEPTH FOR THIS STRUCTURE IS 10.00'.

CATCH BASIN DIMENSIONS				▲ FOR DESIGN USE ONLY
INSIDE DIAMETER (D) OF PIPE (INCHES)	PIPE WALL THICKNESS (INCHES)	DIAMETER OF CUT-OUT HOLES (INCHES)	BOX SECTION MINIMUM HEIGHTS (INCHES)	CATCH BASIN MINIMUM DESIGN DEPTH (FEET)
18	2½	25	53	4.06
24	3	32	60	4.61
(4) 30	3½	39	67	5.15
(4) 36	4	46	74	5.69
(4) 42	4½	53	81	6.23
(4) 48	5	60	88	6.77
(4) 54	5½	67	95	7.31
(4) 60	6	74	102	7.86

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

STANDARD PRECAST RECTANGULAR CONCRETE NO.14 CATCH BASIN

12-18-95 | D-CB-14P

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

PAUL W. BURNETTE, P.E. REGISTERED PROFESSIONAL ENGINEER NO. 112604 STATE OF TENNESSEE — PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

NO. 14 INLET DETAILS

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: N.T.S.

CITY ENGINEER DATE

GENERAL NOTES

(A) WHEN A SIX (6) INCH NONMOUNTABLE CURB IS REQUIRED USE THIS DRAWING ON ALL VARIATIONS OF NUMBER 10, 12, 14, 16, AND 17 CATCH BASINS CONTAINED IN THIS SECTION OF THE STANDARD DRAWINGS.

(B) FOR CLEARNESS, ALL CORNERS ARE SHOWN ON THIS DRAWING BY STRAIGHT LINES WITH THE EXCEPTION OF THE 1" RADIUS AT THE TOP OF FACE OF CURB. ALL INSIDE CORNERS SHOULD BE MADE WITH ½" x ½" FILLETS OR ¾" RADIUS FILLETS FOR EASE IN MOULDING.

(C) IF PAID FOR SEPARATELY CAST IRON USED IN CASTINGS IS TO BE PAID FOR UNDER ITEM NO. 611-03.04 GRAY IRON CASTINGS (CATCH BASIN) .... PER POUND.

(D) IF CATCH BASIN IS PAID FOR UNDER EACH, THEN COST OF CAST IRON USED IN CASTINGS IS TO BE PAID FOR UNDER THE SPECIFIC ITEM BID FOR THAT CATCH BASIN. SEE STANDARD DRAWINGS FOR TYPE 10, 12, 14, 16, AND 17 CATCH BASINS FOR APPLICABLE PAY ITEMS FOR EACH TYPE OF CATCH BASIN.

WEIGHTS

(SINGLE GRATE CATCH BASIN)

FRAME --------- 265 LBS.
GRATE --------- 250 LBS.
CURB INLET ---- 155 LBS.
* TOTAL ------- 670 LBS.

* NOTE: WEIGHT OF TWO GRATES = 1,340 LBS.
* NOTE: FOR NO. 10 CATCH BASIN, DEDUCT 155 LBS. PER " GRATE ", SINCE NO CURB INLET IS REQUIRED.

FRACTION TABLE

1/8"	-	0.125"
1/4"	-	0.250"
3/8"	-	0.375"
1/2"	-	0.500"
5/8"	-	0.625"
11/16"	-	0.688"
3/4"	-	0.750"

REV. 10-26-93: REDREW SHEET, REORGANIZED SHEET AND UPDATED TO 1993 POLICY.

REV. 9-05-94: MODIFIED CURB INLET CASTING DETAIL.

REV. 1-19-95: CHANGED WEIGHT OF CURB INLET CASING FROM 150 TO 155 POUNDS.

REV. 5-27-95: CHANGED GENERAL NOTE (A).

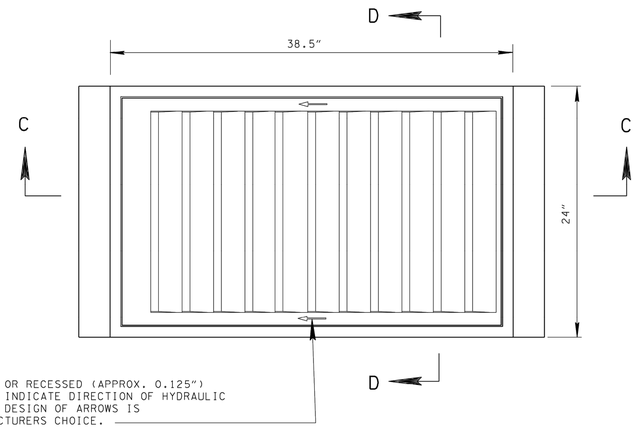
REV. 5-27-97: CHANGED GENERAL NOTE (A). DELETED OLD GENERAL NOTE (C). CHANGED DESCRIPTION IN RIGHT LOWER CORNER BLOCK.

REV. 1-19-98: CHANGED GENERAL NOTE (A).

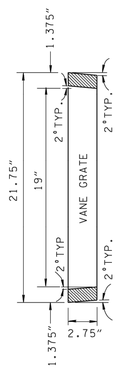
REV. 12-18-99: CHANGED LOWER RIGHT HAND CORNER BLOCK DESCRIPTION.

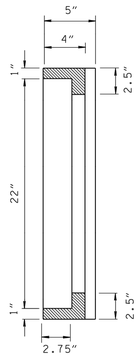
REV.5-27-01: CHANGED GENERAL NOTE (D).

GRATE AND FRAME DETAILS

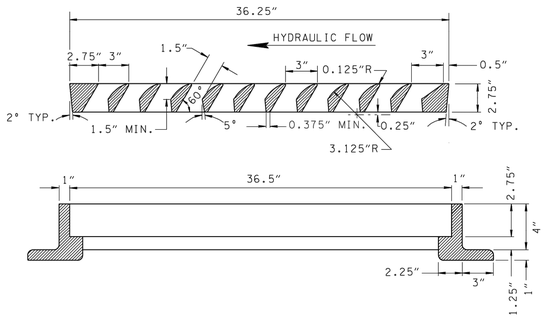


PLAN VIEW



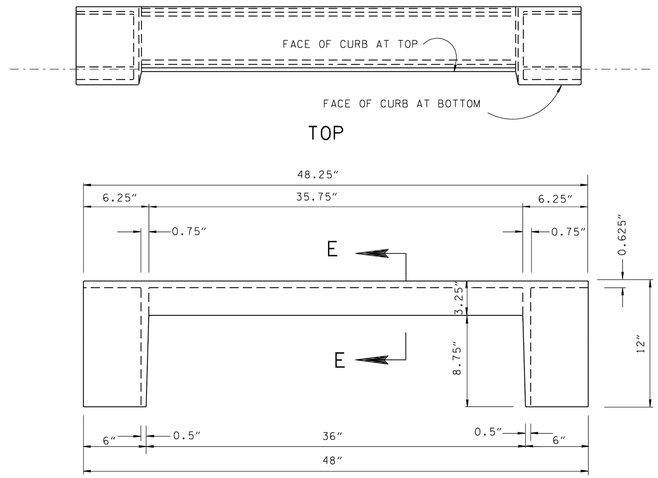


SECTION D-D



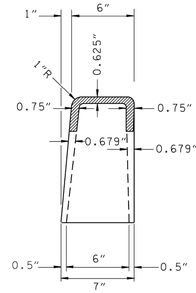
SECTION C-C

CURB INLET CASTING

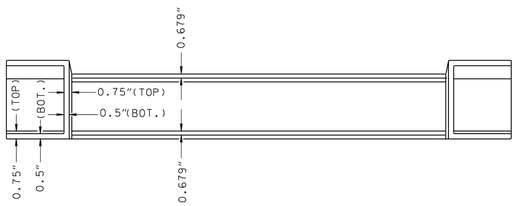


TOP

FRONT



SECTION E-E



BOTTOM

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPE 'B'
CAST IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 10, 12, 14, 16 & 17 TYPE CATCH BASINS

1-20-84 | D-CBB-12A

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

JOSHUA W. BURNETTE — REGISTERED ENGINEER — No. 120161 — STATE OF TENNESSEE

PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*
ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

INLET & GRATE DETAILS

LAKELAND, TN

SURVEY: *OLLAR SURVEYING* DATE: *12/15/2021* PROJECT NO.: ----
DESIGN BY: *J. BURNETTE, P.E.* DATE: *9/8/2022* BOOK:
DRAWN BY: *P. DUNGAN, E.I.* DATE: *9/8/2022* SCALE: N.T.S.

CITY ENGINEER _____ DATE _____

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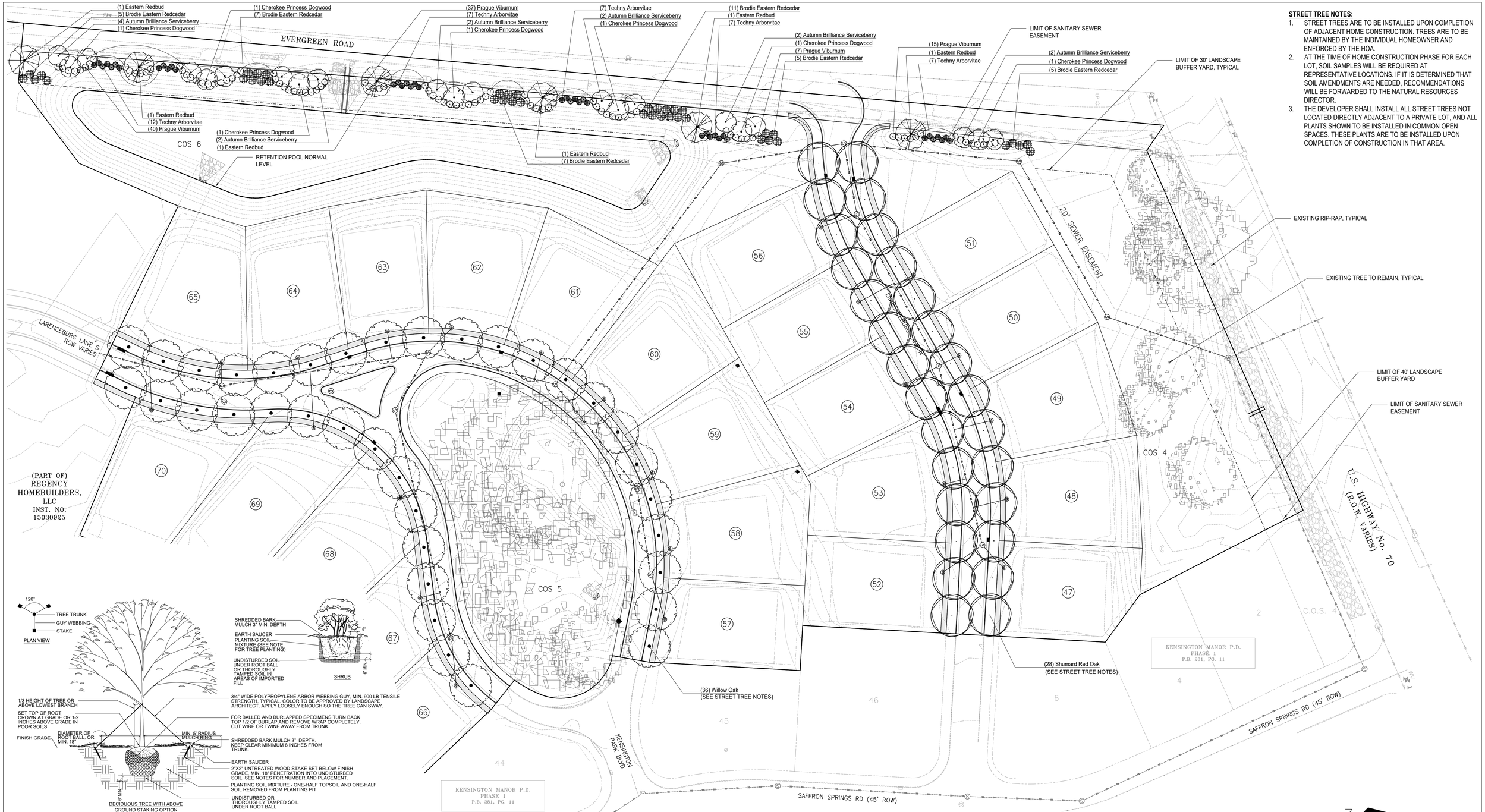


STREET TREE NOTES:

1. STREET TREES ARE TO BE INSTALLED UPON COMPLETION OF ADJACENT HOME CONSTRUCTION. TREES ARE TO BE MAINTAINED BY THE INDIVIDUAL HOMEOWNER AND ENFORCED BY THE HOA.
2. AT THE TIME OF HOME CONSTRUCTION PHASE FOR EACH LOT, SOIL SAMPLES WILL BE REQUIRED AT REPRESENTATIVE LOCATIONS. IF IT IS DETERMINED THAT SOIL AMENDMENTS ARE NEEDED, RECOMMENDATIONS WILL BE FORWARDED TO THE NATURAL RESOURCES DIRECTOR.
3. THE DEVELOPER SHALL INSTALL ALL STREET TREES NOT LOCATED DIRECTLY ADJACENT TO A PRIVATE LOT, AND ALL PLANTS SHOWN TO BE INSTALLED IN COMMON OPEN SPACES. THESE PLANTS ARE TO BE INSTALLED UPON COMPLETION OF CONSTRUCTION IN THAT AREA.

TYPICAL PLANTING DETAILS

NOT TO SCALE

PLANT SCHEDULE

TREES	COMMON NAME	BOTANICAL NAME	CONDITION	CAL	SIZE	REMARKS
14	Autumn Brilliance Serviceberry	Amelanchier x grandiflora 'Autumn Brilliance'	B & B	3" Cal		Matched specimens, min. 4` clear trunk
40	Brodie Eastern Redcedar	Juniperus virginiana 'Brodie'	B & B		6` ht.	
7	Cherokee Princess Dogwood	Cornus florida 'Cherokee Princess'	B & B	3" Cal		Matched specimens, min. 4` clear trunk
6	Eastern Redbud	Cercis canadensis	B & B	3" Cal		Specimen, min. 4` clear trunk
28	Shumard Red Oak	Quercus shumardii	B & B	3" Cal		Matched specimens, min. 4` clear trunk
40	Techny Arborvitae	Thuja occidentalis 'Techny'	B & B		6` ht.	Matched specimens, full to ground
36	Willow Oak	Quercus phellos	B & B	3" Cal		Matched specimens, min. 5` clear trunk

SHRUBS	COMMON NAME	BOTANICAL NAME	CONDITION	SPR.	HT.	REMARKS
100	Prague Viburnum	Viburnum x pragense	5 gal		24"	Dense, matching specimens, full to ground

GENERAL LANDSCAPE NOTES:

1. COMMON OPEN SPACE PLANTINGS SHALL BE PROVIDED AN AUTOMATIC IRRIGATION SYSTEM CONSISTING OF SURFACE DRIP, TO MINIMIZE DISTURBANCE TO EXISTING TREES TO REMAIN. IRRIGATION SHALL BE PROVIDED ON A DESIGN-BUILD BASIS. IRRIGATION PLANS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE (1) YEAR FOLLOWING ACCEPTANCE BY THE DEVELOPER.
3. LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY START OF PLANTING INSTALLATION. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ANY DAMAGES TO SUCH UTILITIES INCURRED BY HIS COMPANY.
4. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY OR ALL PLANTING MATERIALS WHICH IN HER OPINION DOES NOT APPEAR TO BE FIT FOR THIS PLANTING INSTALLATION.
5. THE LANDSCAPE CONTRACTOR CANNOT SUBSTITUTE ANY PLANT MATERIAL WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT, EXCEPT FOR SUBSTITUTING LARGER SIZED PLANTS OF THE SAME QUALITY SPECIFIED WITHOUT ADDITIONAL COST TO THE OWNER. NO UNDERSIZED PLANT MATERIAL WILL BE ACCEPTED.
6. ALL PLANT MATERIALS SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" SPECIFICATIONS, LATEST EDITION.
7. ALL TREES TO RECEIVE RING OF MULCH AT LEAST 5 (FIVE) FEET IN DIAMETER, WITH CONCENTRIC RINGS OF DRIP LINE SURROUNDING. SHRUB MASSES AND TREE MASSES ARE TO BE PROVIDED SOLID MULCH AREAS, EXTENDING AT LEAST 5 FEET FROM TREES AND AT LEAST 3 FEET FROM SHRUBS. AREAS OUTSIDE MULCH BORDERS AND ALL ISLANDS SHALL BE SODDED EXCEPT AS OTHERWISE SPECIFIED.
8. THE PLANT SCHEDULE IS PROVIDED FOR THE CONTRACTOR'S CONVENIENCE AND IS NOT GUARANTEED TO BE ACCURATE. THE CONTRACTOR IS RESPONSIBLE FOR ALL QUANTITY CALCULATIONS. IN THE EVENT OF A DISCREPANCY, THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE.

0 40' 80'

1" = 40'

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

ISOBEL R. RITCH REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 761 PRELIMINARY NOT FOR CONSTRUCTION

KENSINGTON MANOR – PHASE 3

OWNER: *REGENCY HOMEBUILDERS, LLC*

ENGINEER: *McCARTY GRANBERRY ENGINEERING FIRM*

DIVISION OF ENGINEERING

LANDSCAPE PLAN

LAKELAND, TN

SURVEY: *OLLAR SURVEYING*	DATE: ----	PROJECT NO.: ----	
DESIGN BY: *I. RITCH, PLA*	DATE: ----	BOOK:	
DRAWN BY: *I. RITCH, PLA*	DATE: ----	SCALE: *1" = 40'*	

CITY ENGINEER — DATE

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, September 15, 2022

Project: Glide Xpress Car Wash
Site Plan

Staff Contact: Richard T. Donovan, Jr., Planning Consultant

PROJECT INFORMATION

Location:	8872 US Highway 64
Parcel ID:	Part of L0159 00580
Zoning District:	Glide Xpress PD with base zoning of C-2 (Regional Commercial District)
Neighborhood:	Type V
Site Area:	4.86 acres
Applicant:	Max Alley Investments LLC
Representative:	Chuck Walker, Carson Consulting Engineers Inc

STAFF RECOMMENDATION

Staff recommends approval of the Glide Xpress Site Plan with the following conditions:

1. Staff review the retaining wall material prior to a building permit approval and the retaining wall material match the primary building color.

DISCUSSION

BACKGROUND:

Request Overview

The applicant, Chuck Walker of Carson Consulting Engineers Inc. representing Max Alley Investments LLC, seeks approval of a Final Development Plan (PDP) for the Glide Xpress Planned Development. The subject property is a 4.86-acre parcel located at 8874 U.S. Highway 64. Adjacent properties include: an Esporta fitness facility on the west; the future site of Shadrach's coffee shop on the east; U.S. Highway 64 on the south; and Interstate 40 on the north.

Property Characteristics
The subject property is rectangular in shape, having a width of approximately 260 feet at the U.S. Highway 64 frontage and a depth of approximately 740 feet on the east side and 796 feet on the west side. The site slopes from the northeast to the south; the gradient change is approximately 2.6 percent. The rear one-third of the subject property is heavily wooded. A cell tower is a situated on a separate parcel adjacent to the subject property on the northeast.

ANALYSIS:

Accessory structures:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Architecture, façade materials, and rooflines:
The BOC approval of the PDP requires the applicant to provide one of the following elements to the facades:

1. Replace all the split-faced block with another material.
2. Replace a portion of the split-faced block with another material.
3. Provide undulations along the façade to break up the long walls of split-faces block.

The applicant has added ceramic pilasters along both side facades since the PDP was reviewed by BOC and MPC. The MPC will need to determine if this meets the requirement set forth by the BOC.

Fences, gates, walls, and hedges:
Staff has reviewed this item, and it meets the requirements of the LDRs.

General content of site plans:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Landscaping, screening, and buffering:
The applicant is also proposing a retaining wall along a portion of the detention/retention pond. This material will need to be approved by the MPC in addition to the building materials. Retaining wall materials have not been provided to Staff at this time.

Mechanical equipment, dumpsters, and storage:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Orientation of structures:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Parking, parking lot design standards, and loading area:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Pedestrian circulation:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Required notes:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Setbacks and Other Bulk Requirements:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Shared Access:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Signage:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Site Lighting:
Staff has reviewed this item, and it meets the requirements of the LDRs.

Utilities:
Staff has reviewed this item, and it meets the requirements of the LDRs.

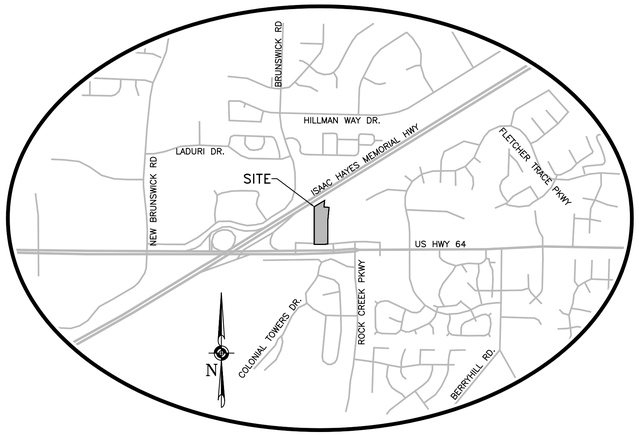
EXAMPLE MOTIONS

1. Motion to approve the Glide Xpress Site Plan subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to approve the Glide Xpress Site Plan application without conditions.
3. Motion to deny the Glide Xpress Site Plan application:
   a. Reason for denial

SITE IMPROVEMENT PLANS

Glide XPRESS

8872 US HIGHWAY 64
LAKELAND, TENNESSEE



VICINITY MAP
NTS

DEVELOPED BY:

MAX ALLEY INVESTMENTS, LLC

MAX ALLEY INVESTMENTS
6500 SUMMERHILL RD, STE 2E
TEXARKANA, TX 75503

ENGINEER:

CARLSON CONSULTING ENGINEERS, INC.

7068 Ledgestone Commons, Bartlett, TN 38133
Phone (901) 384-0404 • Fax (901) 384-0710

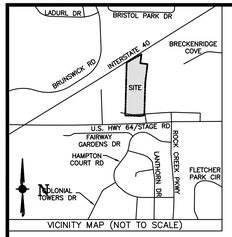
THE SITEWORK FOR THIS PROJECT SHALL MEET OR EXCEED THE "SITE SPECIFIC SPECIFICATIONS."

ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO CONTRACT COMPLETION AND THE FINAL CONNECTION OF SERVICES.

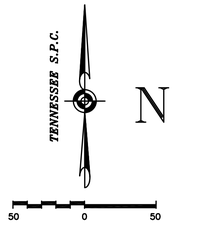
CONTRACTOR SHALL CONTACT 811 FOR LOCATION OF ALL UTILITIES, AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.

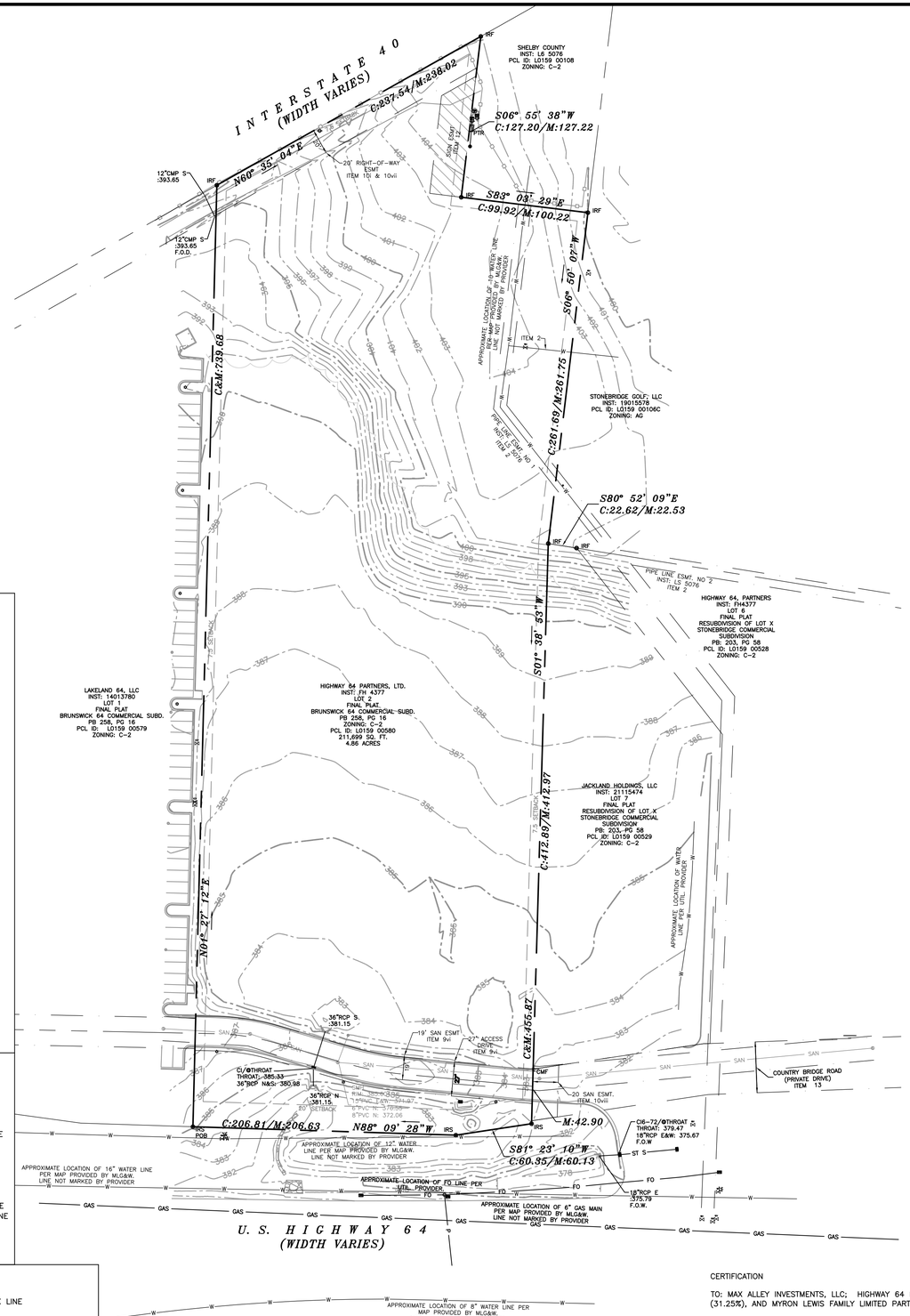
INDEX OF SHEETS

G1.0	TITLE SHEET
C1.0	ALTA/NSPS LAND TITLE SURVEY
C1.1	TREE INVENTORY PLAN
C2.0	SITE PLAN
C3.0	GRADING AND DRAINAGE PLAN
C3.1	PHASE I EROSION & SEDIMENTATION CONTROL PLAN
C3.2	PHASE II EROSION & SEDIMENTATION CONTROL PLAN
C3.3	EROSION CONTROL DETAILS
C3.4	EROSION CONTROL DETAILS
C3.5	EROSION CONTROL DETAILS
C4.0	UTILITY PLAN
L1.0	PLANTING PLAN
L1.1	PLANTING ENLARGEMENTS
L1.2	PLANTING DETAILS
L1.3	PLANTING DETAILS
U1.0	BUILDING ELEVATIONS
U1.1	BUILDING ELEVATIONS
U1.2	COLOR RENDERINGS
U1.3	PHOTOMETRIC PLAN
U1.4	PHOTOMETRIC DETAILS



VICINITY MAP (NOT TO SCALE)





SYMBOLS LEGEND

⊠	CONC. MONUMENT
IRF	IRON REBAR FOUND
IPF	IRON PIPE FOUND
IRS	5/8" CAPPED IRON REBAR SET
CMF	CHISELED MARK FOUND
CMS	CHISELED MARK SET
PKF	PK NAIL FOUND
SMH	SANITARY MANHOLE
SCO	SANITARY CLEANOUT
GT	GREASE TRAP
DMH	DRAINAGE MANHOLE
CI	CURB INLET
	CATCH BASIN
	SURFACE DOWN SPOUT
	UNDERGROUND DOWN SPOUT
	AUTO. SPKR/FIRE DEPT. CON.
	HYDRANT
WM	WATER METER
BFP	BACKFLOW PREVENTER
	WATER VALVE
	IRRIGATION CONTROL VALVE
	POST INDICATOR VALVE
WS	WATER SPIGOT
MB	MAILBOX
GM	GAS METER
	GAS VALVE
LIGHT	AREA LIGHT
LIGHT	CONCRETE BASE LIGHT POLE
	WALL MOUNTED FLOOD LIGHT
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
EPB	ELECTRIC PULLBOX
EV	ELECTRIC VAULT
T	TELEPHONE MANHOLE
TP	TELEPHONE PEDESTAL
TPB	TELEPHONE PULLBOX
CP	CABLE T.V. PEDESTAL
PP	POWER POLE
TBM	TEMPORARY BENCHMARK
	SIGN

TRAFFIC CONTROL LEGEND

	HANDICAP PARKING
	PAINTED SOLID WHITE LINE
	PAINTED SOLID YELLOW LINE
	PAINTED DASHED WHITE LINE
	PAINTED DASHED YELLOW LINE
	TRAFFIC FLOW
	LEFT TURN ONLY LANE
	RIGHT TURN ONLY LANE
	STRAIGHT OR LEFT TURN LANE
	STRAIGHT OR RIGHT TURN LANE
	NO PARKING HATCH

LINE LEGEND

	EASEMENT LINE
	BUILDING SETBACK LINE
	PROPERTY LINE
OHT	OVERHEAD TELEPHONE
ST S	DRAIN. SEWER LINE TYPE AND SIZE
W	WATER LINE AND SIZE OF PIPE
SAN	SANITARY SEWER LINE AND SIZE
P	OVERHEAD POWER
P&T	OVERHEAD POWER & TELEPHONE CABLE
UGE	UNDERGROUND ELECTRIC CABLE
UGT	UNDERGROUND TELEPHONE CABLE
FO	UNDERGROUND FIBER OPTIC CABLE
GAS	GAS LINE AND SIZE
	FENCE
P&CATV	OVERHEAD POWER AND CATV

CHICAGO TITLE INSURANCE COMPANY
SCHEDULE B SECTION II
EXCEPTIONS

ORDER NO.: 9506089
COMMITMENT DATE: 06/11/2021 AT 8:00 AM

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THE FORM. ***NOT A SURVEY RELATED ITEM.***

2. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND. ***10" WATERLINE EASEMENT RECORDED IN INSTRUMENT L6 5076, SHOWN HEREON; WATERLINE TEEING OFF OF 10" WATERLINE TO THE EAST, APPARENTLY WITHOUT EASEMENT, SHOWN HEREON.***

3. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS. ***NONE APPARENT.***

4. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS. ***NOT A SURVEY RELATED ITEM.***

5. THE RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. ***NOT A SURVEY RELATED ITEM.***

6. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS. ***NOT A SURVEY RELATED ITEM.***

7. ANY TAXES OR ASSESSMENTS NOT POSTED ON THE RECORD OF THE TAXING AUTHORITY(IES) OF WHICH THE LAND DESCRIBED IN SCHEDULE A HEREOF IS SUBJECT, INCLUDING BUT NOT LIMITED TO: SUPPLEMENTAL, REVISED, AND/OR CORRECTED ASSESSMENTS PURSUANT TO T.C.A. SECTION 67-5-509 AND 67-5-603 ET SEQ. DEALING WITH ANY IMPROVEMENTS COMPLETED AFTER JANUARY 1 AND BEFORE SEPTEMBER 1 OF ANY YEAR; OR BACK ASSESSMENTS PURSUANT TO T.C.A. SECTION 67-1-1001 ET. SEQ.; OR TAXES BASED ON A CHANGE IN THE CLASSIFICATION OF THE INSURED LAND (ROLL BACK TAXES) PURSUANT TO T.C.A. SECTION 67-5-1001 ET SEQ. ***NOT A SURVEY RELATED ITEM.***

8. CITY OF LAKELAND AND SHELBY COUNTY TAXES FOR THE YEAR 2021, LIENS, NOT YET DUE AND PAYABLE. ***NOT A SURVEY RELATED ITEM.***

9. SUBDIVISION RESTRICTIONS, BUILDING LINES AND EASEMENTS OF RECORD IN PLAT BOOK 152, PAGE 56, RE-RECORDED AT PLAT BOOK 172, PAGE 54; ***9i – DOES NOT AFFECT SUBJECT PARCEL.*** PLAT BOOK 178, PAGE 61; ***9ii – DOES NOT AFFECT SUBJECT PARCEL.*** PLAT BOOK 200, PAGE 36; ***9iii – DOES NOT AFFECT SUBJECT PARCEL.*** PLAT BOOK 203, PAGE 58; ***9iv – DOES NOT AFFECT SUBJECT PARCEL.*** PLAT BOOK 227, PAGE 25; ***9v – DOES NOT AFFECT SUBJECT PARCEL.*** AND PLAT BOOK 258, PAGE 16, ***9vi – AFFECTS SUBJECT PARCEL, SHOWN HEREON.*** IN THE REGISTER'S OFFICE OF SHELBY COUNTY, TENNESSEE.

10. EASEMENTS OF RECORD AT INSTRUMENT NOS. T5 6633; ***10i – AFFECTS SUBJECT PARCEL, SHOWN HEREON.*** FK 0847; ***10ii – DOES NOT AFFECT SUBJECT PARCEL.*** HK 5302; ***10iii – DOES NOT AFFECT SUBJECT PARCEL.*** E2 1385; ***10iv – DOES NOT AFFECT SUBJECT PARCEL.*** KA 4781; ***10v – DOES NOT AFFECT SUBJECT PARCEL.*** KU 0891; ***10vi – DOES NOT AFFECT SUBJECT PARCEL.*** KV 4418; ***10vii – AFFECTS SUBJECT PARCEL, SHOWN HEREON.*** 04207192; ***10viii – DOES NOT AFFECT SUBJECT PARCEL, BUT SHOWN HEREON.*** 06162477, AS PARTIALLY TERMINATED AT 21042216; 14088570; 14097691; AND 14108645, ***10ix – DOES NOT AFFECT SUBJECT PARCEL.*** IN THE AFORESAID REGISTER'S OFFICE.

11. DECLARATION OF COMMON AREA AGREEMENT AT FH 4378 AS AMENDED AT KJ 0430, 02182994, AND 04207684, IN THE AFORESAID REGISTER'S OFFICE. ***DOES NOT AFFECT SUBJECT PARCEL.***

12. DECLARATION OF EASEMENTS AND RESTRICTIONS AT CG 5768, IN THE AFORESAID REGISTER'S OFFICE. ***SIGN EASEMENT, EXHIBIT E, AFFECTS SUBJECT PARCEL AND SHOWN HEREON.***

13. RECIPROCAL ACCESS EASEMENT, NON-BARRIER AGREEMENT AND SANITARY SEWER EASEMENT 14013781, IN AFORESAID REGISTER'S OFFICE. ***BENEFITS SUBJECT PARCEL, ALLOWS ACCESS TO "COUNTRY BRIDGE ROAD (PRIVATE DRIVE), SHOWN HEREON.***

14. RIGHTS OF TENANTS IN POSSESSION, AS TENANTS ONLY, UNDER UNRECORDED LEASES, IF ANY. ***NOT A SURVEY RELATED ITEM.***

15. ASSESSMENTS LEVIED BY THE OWNERS ASSOCIATION, IF ANY. ***NOT A SURVEY RELATED ITEM.***

CHICAGO TITLE INSURANCE COMPANY
SCHEDULE A
LEGAL DESCRIPTION

ORDER NO.: 9506089
COMMITMENT DATE: 06/11/2021 AT 8:00 AM

LAND SITUATED IN SHELBY COUNTY, TENNESSEE:

LOT 2, FINAL PLAT, BRUNSWICK 64 COMMERCIAL SUBDIVISION, AS SHOWN ON PLAT OF RECORD IN PLAT BOOK 258, PAGE 16, IN THE REGISTER'S OFFICE OF SHELBY COUNTY, TENNESSEE, TO WHICH PLAT REFERENCE IS HEREBY MADE FOR A MORE PARTICULAR DESCRIPTION OF SAID LAND.

NOTES:

1. THE STREET ADDRESS OF THE PROPERTY SHOWN ON THIS SURVEY IS 0 U.S. HIGHWAY 64, LAKELAND, TN (ADDRESS TO BE ASSIGNED).

2. THE TAX PARCEL NUMBER FOR THIS PROPERTY IS L0159 00580. THE RECORD OWNER OF LOT SHOWN HEREON IS: HIGHWAY 64 PARTNERS, LTD.

3. THE AREA OF THE PROPERTY SURVEYED CONTAINING 211,699 SQ.FT. OR 4.86 ACRES, MORE OR LESS.

4. THE PROPERTY AREA WAS DETERMINED BY THE COORDINATE COMPUTATION METHOD.

5. DISTANCES SHOWN HEREON ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.

6. THE CURRENT ZONING OF THIS PROPERTY IS C-2 (REGIONAL COMMERCIAL DISTRICT) THE MINIMUM BUILDING SETBACK DISTANCES ARE AS FOLLOWS:
FRONT YARD: 20 FEET
SIDE YARD: 7.5 FEET
REAR YARD: 7.5 FEET
ZONING INFORMATION PROVIDED BY CITY OF LAKELAND PLANNING DEPARTMENT.

7. ANY UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. ALTHOUGH HE DOES STATE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. BEFORE BEGINNING ANY CONSTRUCTION OR BORINGS CONTACT THE UTILITIES PROTECTION SERVICE CENTER AT TENNESSEE 1-CALL: 811/1-800-351-1111.

8. THE SUBJECT PROPERTY IS LOCATED ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47157C0310G, DATED: FEBRUARY 6, 2013.

9. ALL CORNERS NOT LABELED ARE TO BE CONSIDERED POINTS.

10. THIS IS A SURVEY OF THE PROPERTY REFERENCED IN INSTRUMENT FH 4377 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE.

11. THE REFERENCE BEARING FOR THIS DRAWING IS BASED ON TENNESSEE SPC. PROVIDED BY OPUS OBSERVATION BY GLOBAL POSITIONING SYSTEM. NAD 83 TENNESEE STATE PLANES, 4100TN ZONE, US FOOT.
COMBINED FACTOR= 0.99999402
CONVERGENCE ANGLE=-2.20520833
ELEVATIONS FOR THIS DRAWING ARE BASED ON NAVD88
HORIZONTAL AND VERTICAL CONTROL POINTS USED:

-DF8976 ZME1 MEMPHIS WAAS 1 CORS ARP	N350402.595	W0895719.300	22976.6
-DO5142 ARWY WYNNE CORS ARP	N351511.493	W0904805.121	94341.5
-DJ9568 TN43 TDOT DISTRICT 43 CORS ARP	N351342.851	W0883614.106	105905.5

12. THERE ARE NO VISIBLE AND/OR APPARENT ENCROACHMENTS OR PROJECTIONS OTHER THAN THOSE SHOWN ON THIS PLAT OF SURVEY.

13. AT THE TIME OF THE SURVEY, THE SURVEYOR NOTICED OBSERVABLE EVIDENCE OF THE FOLLOWING UTILITIES: SANITARY SEWER, STORM SEWER, WATER, ELECTRIC, TELEPHONE, GAS, FIBER OPTICS, CATV.

14. NO LOCAL ROADWAY MILE MARKERS APPARENT.

15. ALL ACTIVE DRAINAGE PIPES, STRUCTURES AND SANITARY MANHOLES ARE PRECAST AND IN FAIR CONDITION.

16. NO OBSERVED EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

17. NO EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

18. ALL CONTIGUOUS/APPURTENANT EASEMENTS AND ENCUMBRANCES AFFECTING SUBJECT PARCEL AS PROVIDED BY TITLE POLICY, ORDER NO.: 9506089, COMMITMENT DATE: 06/11/2021 AT 8:00 AM, ARE SHOWN HEREON. OTHER OFFSITE EASEMENTS AND ENCUMBRANCES COULD EXIST BUT CAN NOT BE DETERMINED WITHOUT TITLE FOR ADJOINING PROPERTIES.

19. SUBJECT PARCEL HAS DIRECT ACCESS TO U.S. HIGHWAY 64, A PUBLIC RIGHT-OF-WAY, BY WAY OF A 27' ACCESS EASEMENT AND COUNTRY BRIDGE DRIVE (A PRIVATE DRIVE).

20. DATE OF THE FIELD SURVEY: 9/13/2021 – 9/16/2021

SURVEY LEGAL DESCRIPTION

SITUATED IN THE CITY OF LAKELAND, COUNTY OF SHELBY AND STATE OF TENNESSEE AND KNOWN AS A PARCEL OF LAND CONVEYED TO HIGHWAY 64 PARTNERS, LTD BY DEED RECORDED IN INSTRUMENT FH 4377 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE AND FURTHER KNOWN AS LOT 2 OF THE FINAL PLAT BRUNSWICK 64 COMMERCIAL SUBD BY PLAT RECORDED IN PLAT BOOK 258, PAGE 16 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE AND IS FURTHER BOUNDED AND DESCRIBED AS FOLLOWS;

BEGINNING AT A CAPPED 5/8" IRON REBAR SET AT A SOUTHEASTERLY CORNER OF LAND CONVEYED TO LAKELAND 64, LLC BY DEED RECORDED IN INSTRUMENT 14013780 AND FURTHER KNOWN AS LOT 1 OF SAID BRUNSWICK 64 COMMERCIAL SUBD. SAID IRON LYING IN A NORTHERLY RIGHT-OF-WAY U.S. HIGHWAY 64 (WIDTH VARIES);

THENCE ALONG AN EASTERLY LINE OF SAID LOT 1 NORTH 01°27'12' EAST A DISTANCE OF 739.68 FEET TO AN IRON REBAR FOUND AT A NORTHEASTERLY CORNER THEREOF SAID IRON LYING IN A SOUTHERLY RIGHT-OF-WAY OF INTERSTATE 40 (WIDTH VARIES); THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY NORTH 60°35'04" EAST A DISTANCE OF 238.02 FEET TO AN IRON REBAR FOUND AT A NORTHWESTERLY CORNER OF LAND CONVEYED TO SHELBY COUNTY BY DEED RECORDED IN INSTRUMENT L6 5076 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE; THENCE ALONG A WESTERLY LINE OF LAND SO CONVEYED TO SHELBY COUNTY SOUTH 06°55'38" WEST A DISTANCE OF 127.22 FEET TO AN IRON REBAR FOUND AT A SOUTHWESTERLY CORNER THEREOF; THENCE ALONG A SOUTHERLY LINE OF LAND SO CONVEYED TO SHELBY COUNTY SOUTH 83°03'29" EAST A DISTANCE OF 100.22 FEET TO AN IRON REBAR FOUND AT A SOUTHEASTERLY CORNER THEREOF SAID IRON ALSO LYING IN A WESTERLY LINE OF LAND CONVEYED TO STONEBRIDGE GOLF, LLC BY DEED RECORDED IN INSTRUMENT 19015578 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE; THENCE ALONG SAID WESTERLY LINE SOUTH 06°50'07" WEST A DISTANCE OF 261.75 FEET TO AN IRON REBAR FOUND AT A SOUTHWESTERLY CORNER THEREOF AND ALSO BEING A NORTHWESTERLY CORNER OF LAND CONVEYED TO JACKLAND HOLDINGS, LLC BY DEED RECORDED IN INSTRUMENT 21115474 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE AND FURTHER KNOWN AS BEING LOT 7 OF THE FINAL PLAT RESUBDIVISION OF LOT X STONEBRIDGE COMMERCIAL SUBDIVISION RECORDED BY PLAT IN PLAT BOOK 203, PAGE 58 IN THE SHELBY COUNTY REGISTER OF DEEDS OFFICE; THENCE ALONG A WESTERLY LINE OF SAID LOT 7 SOUTH 01°38'53" WEST, PASSING THROUGH A CHISEL MARK FOUND AT THE SOUTHWEST CORNER OF SAID LOT 7 AT 412.97 FEET, AND HAVING AN OVERALL LENGTH OF 455.87 FEET TO A CAPPED 5/8" IRON REBAR SET LYING IN SAID NORTHERLY RIGHT-OF-WAY OF U.S. HIGHWAY 64; THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY SOUTH 81°23'10" WEST A DISTANCE OF 60.13 FEET TO A CAPPED 5/8" IRON REBAR SET AT AN ANGLE POINT THEREIN; THENCE CONTINUING ALONG SAID NORTHERLY RIGHT-OF-WAY NORTH 88°09'28" WEST A DISTANCE OF 206.63 FEET TO THE PLACE OF BEGINNING CONTAINING 211,699 SQ. FT. OR 4.86 ACRES (MORE OR LESS) OF LAND.

CERTIFICATION

TO: MAX ALLEY INVESTMENTS, LLC; HIGHWAY 64 PARTNERS, L.P. (58.33%), LAWRENCE LEWIS FAMILY LIMITED PARTNERSHIP (31.25%), AND MYRON LEWIS FAMILY LIMITED PARTNERSHIP (10.42%); CHICAGO TITLE INSURANCE COMPANY

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established by ALTA and NSPS, and includes items 1 through 6, 7(a), 7(b)(1), 7(c), 8, 9, 10(a), 11, 13, 14, 15 through 20 of Table A thereof. The fieldwork was completed on September 16, 2021. Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the State of Tennessee, the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

10/7/2021
Date

Brian L. Buchheit RLS #2250

REVISIONS

NO.	DATE	DESCRIPTION

ALTA/NSPS LAND TITLE SURVEY
FOR
GLIDE XPRESS CARWASH

CITY OF LAKELAND, SHELBY COUNTY, TENNESSEE

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

SCALE: 1" = 5'
DATE: 10/7/2021
DRAWING FILE: GLIDEXPRESS
DRAWN BY: CDR/JSL
JOB No. LAKELAND
SHEET 1 OF 1

TREE INVENTORY PREPARED BY:
CHARLES R. WALKER
ISA CERTIFIED ARBORIST
SO-6611A
EXPIRATION DATE: DEC. 31, 2023

TREE INVENTORY LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- SPECIMEN TREE
- LIMITS OF TREE CANOPY (aka. DRIP LINE)

Project Name:		Glide Xpress, Hwy 64, Lakela		May 9, 2022
Tree #	Tag #	Type	Size DBH	Cond. Factor
1	1701	Sweetgum	13.0	80.0%
2	1702	Sweetgum	6.0	80.0%
3	1703	Black Locust	10.0	76.8%
4	1704	Black Locust	8.0	56.4%
5	1705	Loblolly Pine	12.5	66.9%
6	1706	Black Locust	6.0	68.8%
7	1707	Black Locust	9.0	72.0%
8	1708	Black Locust	8.0	72.0%
9	1709	Black Locust	9.0	60.2%
10	1710	Mimosa	8.5	51.6%
11	1711	Mimosa	6.0	24.1%
12	1712	Chinese Privet	12.0	68.8%
13	1713	Sassafrass	8.5	57.6%
14	1714	Loblolly Pine	8.0	55.2%
15	1715	Loblolly Pine	6.4	51.6%
16	1716	Loblolly Pine	8.0	64.4%
17	1717	Loblolly Pine	9.0	65.8%
18	1718	Willow Oak	38.5	88.7%
19	1719	Black Locust	8.5	45.4%
20	1720	Black Locust	6.0	17.5%
21	1631	Black Locust	8.0	38.6%
22	1632	Black Locust	7.6	64.8%
23	1633	Chinese Privet	12.0	67.2%
24	1634	Willow Oak	46.5	86.0%
25	1635	Winged Elm	7.0	51.5%
26	1636	Eastern Red Cedar	11.0	25.5%
27	1637	Winged Elm	11.0	59.5%
28	1638	Willow Oak	33.5	72.4%
29	1639	Eastern Red Cedar	7.5	64.8%
30	1640	Southern Red Oak	29.0	52.8%
31	1621	Willow Oak	36.0	48.0%
32	1622	Winged Elm	10.0	85.5%
33	1623	Eastern Red Cedar	12.2	57.5%
34	1624	Southern Red Oak	21.5	76.4%
35	1641	Eastern Red Cedar	7.0	16.8%
36	1642	Water Oak	9.0	81.5%
37	1643	Willow Oak	28.3	64.1%
38	1644	Willow Oak	35.0	76.4%
39	1645	Red Mulberry	15.5	15.3%
40	1646	Tree of Heaven	7.5	40.8%

Project Name:		Glide Xpress, Hwy 64, Lakela		May 9, 2022
Tree #	Tag #	Type	Size DBH	Cond. Factor
41	1647	Black Oak	25.5	56.1%
42	1648	Black Oak	31.0	30.8%
43	1649	Black Cherry	12.0	20.0%
44	1650	Eastern Red Cedar	10.0	28.8%
45	1651	Eastern Red Cedar	10.0	20.8%
46	1652	Willow Oak	35.0	75.6%
47	1653	Winged Elm	15.0	43.9%
48	1654	Winged Elm	6.0	32.4%
49	1655	Persimmon	13.8	23.7%
50	1656	Tulip Poplar	7.0	26.6%
51	1657	Tulip Poplar	9.0	41.0%
52	1658	Black Locust	7.5	15.1%
53	1659	Winged Elm	15.5	65.8%
54	1660	Winged Elm	10.0	63.4%
55	1661	Willow Oak	29.5	72.8%
56	1662	Tulip Poplar	11.0	36.9%
56	1663	Cedar Elm	8.0	21.7%
58	1664	Willow Oak	22.0	38.0%
59	1665	Willow Oak	18.5	31.9%
60	1666	Red Mulberry	17.0	43.9%
61	1667	Bois de'Arc	9.0	23.1%
62	1668	Tulip Poplar	11.0	51.0%
63	1669	Tulip Poplar	8.0	74.0%
64	1670	Tulip Poplar	9.0	63.4%
65	1671	Tulip Poplar	6.0	51.6%
66	1672	Cedar Elm	10.0	77.6%
67	1673	Tulip Poplar	9.0	49.6%
68	1674	Winged Elm	6.0	51.3%
69	1675	Tulip Poplar	8.0	28.2%
70	1676	Tulip Poplar	8.0	85.5%
71	1677	Black Oak	16.0	77.6%
72	1678	Black Locust	12.0	44.5%
73	1679	Black Locust	24.0	36.0%
74	1680	Winged Elm	24.0	53.2%
75	1681	Loblolly Pine	24.0	22.7%
76	1682	Loblolly Pine	24.0	41.5%
77	1683	Loblolly Pine	24.0	43.0%
78	1684	Slippery Elm	9.0	57.6%
79	1685	Red Mulberry	11.0	53.8%
80	1686	Winged Elm	6.0	57.9%

Project Name:		Glide Xpress, Hwy 64, Lakela		May 9, 2022
Tree #	Tag #	Type	Size DBH	Cond. Factor
81	1687	Winged Elm	8.0	49.6%
82	1688	Winged Elm	12.0	49.3%
83	1689	Mockernut Hickory	6.0	85.5%
84	1690	Winged Elm	7.0	41.2%
85	1691	Red Mulberry	9.0	49.0%
86	1692	Loblolly Pine	25.0	6.1%
87	1693	(Duplicate)		#DIV/0!
88	1694	Black Cherry	7.0	19.6%
89	1695	Slippery Elm	18.0	65.2%
90	1696	Bois de'Arc	7.0	55.4%
91	1697	Silver Maple	8.0	63.4%
92	1698	Red Mulberry	10.0	56.7%
93	1699	Black Locust	8.0	40.6%
94	1700	Winged Elm	10.0	41.0%
95	1625	Black Locust	9.0	39.3%
96	1626	Slippery Elm	16.0	41.4%
97	1627	Black Locust	7.0	68.8%
98	1628	Black Locust	12.0	74.8%

NOTE:
TREE INVENTORY PERFORMED APRIL 07–14, 2022. TREES WERE MOSTLY DEFOLIATED DURING INVENTORY AND WERE IDENTIFIED SOLELY BY BARK AND GROWTH HABIT. TREE SPECIES MANY VARY SLIGHTLY; HOWEVER, TREE FAMILIES ARE ACCURATE.
(i.e. BLACK OAK vs. CHERRYBARK OAK – BOTH RED OAK FAMILY)

SUMMARY OF DATA			
AREA OF MATURE CANOPY:	1.5	ACRES	
TOTAL NUMBER OF SPECIES:	22	SPECIES	
EXISTING TREES (ARBORIST)	97	TREES	(ALL > 6" DBH)
EXISTING TREES (NOT-SURVEYED)	-----	TREES	(< 6" DBH NOT SURVEYED)
TOTAL CALIPER INCHES:	1,260"		
TOTAL *INVASIVE SPECIES*:	3 SPP.	5 IND.	SEE TABLE
TOTAL INCLUDED TREES: (6" - 9.9")	33	TREES	
TOTAL STANDARD TREES: (10" - 23.9")	47	TREES	
TOTAL SPECIMEN TREES: (24" - 59.9")	17	TREES	SEE TABLE
TOTAL LANDMARK TREES: (60" & GREATER)	0	TREES	
LARGEST TREE:	46.5"	DBH	WILLOW OAK
TREES TO REMAIN (ON-SITE)	84	TREES	
PERCENT OF TREES TO REMAIN (ON-SITE)	86.6%		
SPECIMEN TREES TO REMAIN (ON-SITE)	17	TREES	
PERCENT OF SPECIMEN TREES TO REMAIN (ON-SITE)	100%		(MOST HAVE RECENT ICE-STORM DAMAGE)

NOTE:
NO LANDMARK TREES EXIST ONSITE. ALL SPECIMINE TREES TO BE PRESERVED.

EXISTING TREE SUMMARY TABLE							
TREE TYPES	QTY	AVG COND.	%	TREE TYPES	QTY	AVG COND.	%
BOIS DE ARC	2	39.3%	2.1%	OAK, BLACK	3	54.8%	3.1%
CEDAR, EASTERN RED	6	35.7%	6.2%	OAK, SOUTHERN RED	2	64.6%	2.1%
CHERRY, BLACK	2	19.8%	2.1%	OAK, WATER	1	81.5%	1.0%
ELM, CEDAR	2	49.7%	2.1%	OAK, WILLOW	10	65.4%	10.3%
ELM, SLIPPERY	3	54.5%	3.1%	PERSIMMON	1	23.7%	1.0%
ELM, WINGED	14	49.7%	14.4%	PINE, LOBLOLLY	9	46.4%	9.3%
HICKORY, MOCKERNUT	1	85.5%	1.0%	POPLAR, TULIP	10	50.8%	10.3%
LOCUST, BLACK	17	52.4%	17.5%	*PRIVET, CHINESE*	2	68.0%	2.1%
MAPLE, SILVER	1	63.4%	1.0%	SASSAFRAS	1	57.6%	1.0%
MIMOSA	2	37.9%	2.1%	SWEETGUM	2	80.0%	2.1%
MULBERRY, RED	5	43.7%	5.1%	*TREE-OF-HEAVEN*	1	40.8%	1.0%
				TOTAL	97	53.0%	100%

NOTE:
TREE CONDITION IS AN OVERALL ASSESSMENT OF THE TREES CONDITION RELATIVE TO THE 'IDEAL' HEALTH, FORM, AND GROWING CONDITIONS. FACTORS EVALUATED INCLUDE: ROOT ZONE, BASE, TRUNK, MAJOR BRANCHING, MINOR BRANCHING, LEAF DENSITY, DECAY, LEAN, AND OVERALL FORM. EACH CATEGORY IS INDIVIDUALLY ASSESSED AND FACTORED AS PART OF THE OVERALL TOTAL SCORE FOR THE TREE'S CONDITION.
(100% IS PERFECT, 70% – 40% IS NORMAL, 0% IS DEAD.)

SPECIMEN TREES

TAG#	TYPE	DBH	STATUS
1718	WILLOW OAK	38.5"	TO REMAIN
1634	WILLOW OAK	46.5"	TO REMAIN
1638	WILLOW OAK	33.5"	TO REMAIN
1640	SOUTHERN RED OAK	29.0"	TO REMAIN
1621	WILLOW OAK	36.0"	TO REMAIN
1643	WILLOW OAK	28.3"	TO REMAIN
1644	WILLOW OAK	35.0"	TO REMAIN
1647	BLACK OAK	25.5"	TO REMAIN
1648	BLACK OAK	31.0"	TO REMAIN
1652	WILLOW OAK	35.0"	TO REMAIN
1661	WILLOW OAK	29.5"	TO REMAIN
1679	BLACK LOCUST	24.0"	TO REMAIN
1680	WINGED ELM	24.0"	TO REMAIN
1681	LOBLOLLY PINE	24.0"	TO REMAIN
1682	LOBLOLLY PINE	24.0"	TO REMAIN
1683	LOBLOLLY PINE	24.0"	TO REMAIN
1692	LOBLOLLY PINE	25.0"	TO REMAIN

TREES TO BE REMOVED

TAG#	TYPE	DBH	NOTES
1701	SWEETGUM	13.0"	
1702	SWEETGUM	6.0"	
1703	BLACK LOCUST	10.0"	
1704	BLACK LOCUST	8.0"	
1710	MIMOSA	8.5"	INVASIVE
1711	MIMOSA	6.0"	INVASIVE
1712	CHINESE PRIVET	12.0"	INVASIVE
1713	SASSAFRASS	8.5"	
1636	EASTERN RED CEDAR	11.0"	
1622	WINGED ELM	10.0"	
1676	TULIP POPLAR	8.0"	
1627	BLACK LOCUST	7.0"	
1628	BLACK LOCUST	12.0"	

INVASIVE TREES OF TN
TREE-OF-HEAVEN
MIMOSA
PRINCESS TREE
CALLERY PEAR
CHINESE PARASOL TREE
CHINABERRY
CHINESE TALLOWTREE
CHINESE PRIVET

N
30 0 30

Tennessee 811
Know what's below. Call before you dig.

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

CHARLES R. WALKER REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 000000 — 5/24.07.22

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 1

C1.1
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

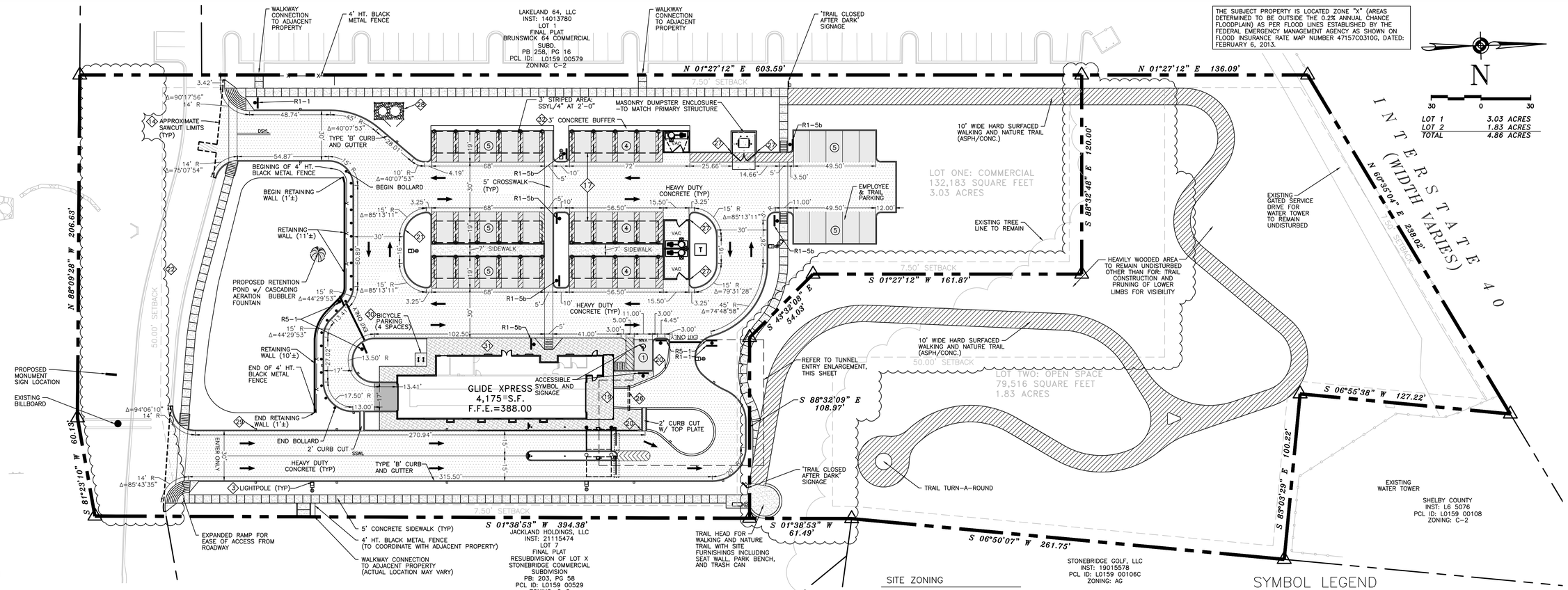
TREE INVENTORY PLAN

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE 10/07/21	BOOK ____
DRAWN BY	DPS	DATE 09/07/22	SCALE 1"=30'
DESIGN BY	TLB	DATE 09/07/22	PROJECT ____

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING, AND EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
2. CONTRACTORS SHALL NOTIFY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES IN WRITING AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO CONFIRM THE LOCATIONS OF ANY EXISTING BURIED UTILITIES.
3. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS TO BE INCORPORATED INTO THE WORK A MINIMUM OF THREE WEEKS PRIOR TO PLACEMENT OR INSTALLATION.
4. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE CODES, RULES AND REGULATIONS. OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS FOR THE WORK.
5. MATCH THE EDGE OF NEW BITUMINOUS PAVEMENT TO THE EXISTING EDGE OF THE BITUMINOUS PAVEMENT. SLOPE NEW BITUMINOUS PAVEMENT TO MATCH EXISTING FLOW LINE.
6. CLEANUP AND DISPOSE OF ALL EXCESS MATERIALS OFF SITE.
7. NO PARKING OR STORAGE OF MATERIAL OR EQUIPMENT WILL BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY AT ANY TIME DURING CONSTRUCTION.
8. A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES. PEDESTRIANS SHALL NOT BE DETOURED INTO THE EXISTING ROADWAY OR THROUGH ACTIVE CONSTRUCTION.
9. FURNISH THE OWNER WITH A SET OF AS-BUILT DRAWINGS FOLLOWING COMPLETION OF CONSTRUCTION.

◇NOTES:

1. DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT U.N.O.
2. ALL CURBS SHALL BE CONCRETE CURB & GUTTER U.N.O. SEE DETAIL SHEET FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL PLAN FOR ELECTRICAL SITE LIGHTING PLAN.
4. TRAFFIC SIGN NUMBERS REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5. ALL RADII TO BE 3' U.N.O.
6. BUILDING TIES SHOWN FROM THE CORNER OF BUILDING TO A POINT PERPENDICULAR TO THE PROPERTY LINE.
7. ALL NECESSARY INSPECTIONS, APPROVALS, AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR AUTHORITIES SHALL BE COMPLETED PRIOR TO THE ANNOUNCED BUILDING POSSESSION AND THE FINAL CERTIFICATION OF SERVICES.
8. ALL DELTA ANGLES ARE 90° U.N.O.
9. ALL PAINTED PAVEMENT MARKINGS SUCH AS ACCESSIBLE SYMBOLS AND LETTERING SHALL BE PAINTED USING TEMPLATES.
10. SLOPE ON ALL ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 5% IN THE DIRECTION OF TRAVEL AND 2% CROSS SLOPE. THE SLOPE WITHIN ALL ADA ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% IN ALL DIRECTIONS.
11. REMOVE EXISTING CURBING IN ENTRANCE.
12. REFER TO THE ARCHITECTURAL PLANS FOR PIPE BOLLARD PLACEMENT AROUND THE BUILDING.
13. COORDINATE FIRE LANE STRIPING AND SIGN REQUIREMENTS WITH LOCAL FIRE DEPARTMENT. PROVIDE ALL REQUIRED SIGNS AND STRIPING AS A PART OF THE CONTRACT.
14. CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT AS SHOWN TO ALLOW FOR A CLEAN, STRAIGHT JOINT BETWEEN OLD AND NEW SURFACES.
15. SEE DETAIL SHEET FOR CONCRETE PAVEMENT JOINT REQUIREMENTS.
16. DUMPSTER ENCLOSURE. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
17. PROPOSED CANOPY. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
18. VACUUM ENCLOSURE. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
19. TRANSITION FROM 12' DRIVE AISLE WIDTH TO 11' DRIVE AISLE WIDTH APPROACHING ENTRANCE TUNNEL OVER 14'.
20. TYPE "D" ROLL CURB AROUND INTERIOR RADIUS OF DRIVE AS SHOWN. TRANSITION FROM TYPE "E" CURB IN 5'.
21. TYPE "E" VERTICAL CURB (NO GUTTER) AROUND INTERIOR PORTIONS OF SITE.
22. EXISTING ASPHALT DRIVE TO REMAIN
23. SEE CURB CUT TOP PLATE DETAIL, THIS SET, FOR ADDITIONAL INFORMATION.
24. TRANSITION 6" CURB DOWN TO 0" OVER 2'.
25. REFER TO BUILDING SIDEWALK PLAN, THIS SET, FOR ADDITIONAL INFORMATION.
26. CAMERA ARCH. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
27. TERMINATE CURB AT ENCLOSURE.
28. PROVIDE 6' TALL, CEDAR WOOD FENCE AROUND 10'X20' GRAVEL PAD SURROUNDING LIFT STATION. INCLUDE ONE (1) 12' DOUBLE GATE (TWO-6' PANELS) WITH LOCKING HARDWARE. STAIN FINISH TO BE COMPATIBLE WITH BUILDING. TO BE APPROVED BY ARCHITECT.
29. 12"X12"X16" CARWASH SIGN PADS. DOWEL INTO BACK OF CURB. OPERATIONS TO VERIFY EXACT LOCATIONS.
30. BICYCLE RACK SHALL BE SARIS CYCLING GROUP RACK OR APPROVED EQUAL. INSTALL AND ANCHOR TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS. CONCRETE PAD SHALL BE 7' x 8' x 6" AIR-ENTRAINED CONCRETE WITH BROOM FINISH AND 28 DAY COMPRESSIVE STRENGTH 3,000 PSI.
31. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMARION REGARDING BUILDING SIDEWALK.
32. 6" SIDEWALK TURNDOWN AT PAVEMENT. REFER TO DETAILS, THIS SET, FOR ADDITIONAL INFORMATION.

REQUIRED PARKING CALCULATIONS

BUILDING AREA	4,175 SF
REQUIRED PER RATIO (3.33/1,000 SF)	14 SPACES

PROVIDED PARKING

VACUUM PARKING	27 SPACES
ADDITIONAL PARKING	10 SPACES
ACCESSIBLE PARKING*	1 SPACES
TOTAL PARKING PROVIDED	38 SPACES
PARKING PROVIDED PER RATIO	9.10 PER 1,000 SF

*ADA PARKING REQ'D BASED ON PARKING PROVIDED FOR EMPLOYEES

SIDEWALK TABLE

STREET NAME	S/W WIDTH	SIDE	LOCATION FROM CURB LINE	ACTION
COUNTRY BRIDGE RD. (PRIVATE)	5 FT.	NORTH	5 FT.	INSTALL

ZONING INFORMATION TABLE

- ZONING: PD (C-2)
- LAND USE: COMMERCIAL

BICYCLE PARKING

MINIMUM REQUIRED: 4
SPACES PROVIDED: 4

SITE ZONING

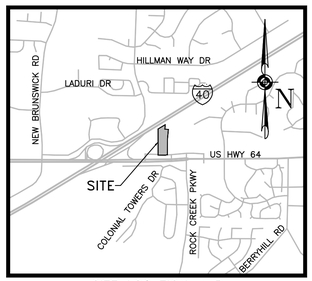
PARCEL #L0159-00580

PARCEL SIZE: 4.86 ACRES (EXISTING) 211,699 SQ. FT.

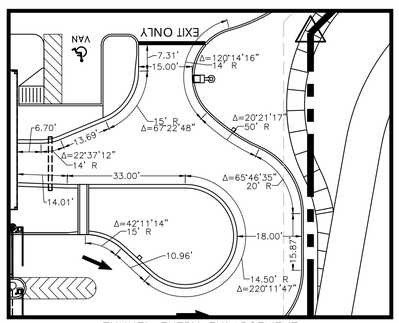
PARCEL ADDRESS: 8872 US HIGHWAY 64, LAKELAND, TN 38002

ZONING DISTRICT: PD (C-2)

BUILDING SETBACKS:
FRONT: 20'
SIDE: 7.50'
REAR: 7.50'



SITE LOCATION MAP
SCALE: N.T.S.



TUNNEL ENTRY ENLARGEMENT
SCALE: 1"=20'

CAUTION — NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, APPURTENANCES AND IMPROVEMENTS WHICH CONFLICT WITH THE IMPROVEMENTS SHOWN BY THESE PLANS.

Tennessee811
Know what's below. Call before you dig.

SYMBOL LEGEND

- PROPERTY CORNER
- PROPERTY LINE
- STANDARD DUTY CONCRETE PAVEMENT
- TINTED CHARCOAL/BLACK STANDARD DUTY CONCRETE
- HEAVY DUTY CONCRETE PAVEMENT
- CURB CUT TOP PLATE
- CONCRETE SIDEWALK
- ARCHITECTURAL CONCRETE
- PRIVATE DRIVE REPAIR BY CONTRACTOR
- DUMPSTER PAD
- 3/4" – 2" DIA WASHED GRAVEL
- PROPOSED TYPE "E" VERTICAL CURB OR TYPE "B" CURB AND GUTTER
- SAWCUT LINE
- (XX) PARKING SPACE COUNT
- SIGN
- LIGHT POLE
- SSWL – SINGLE SOLID WHITE LINE
- DSYL – DOUBLE SOLID YELLOW LINE
- SSYL – SINGLE SOLID YELLOW LINE
- CONCRETE SIGN PAD (12"X12"X16")

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE STATE OF TENNESSEE NO. 22976

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 1

C2.0
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

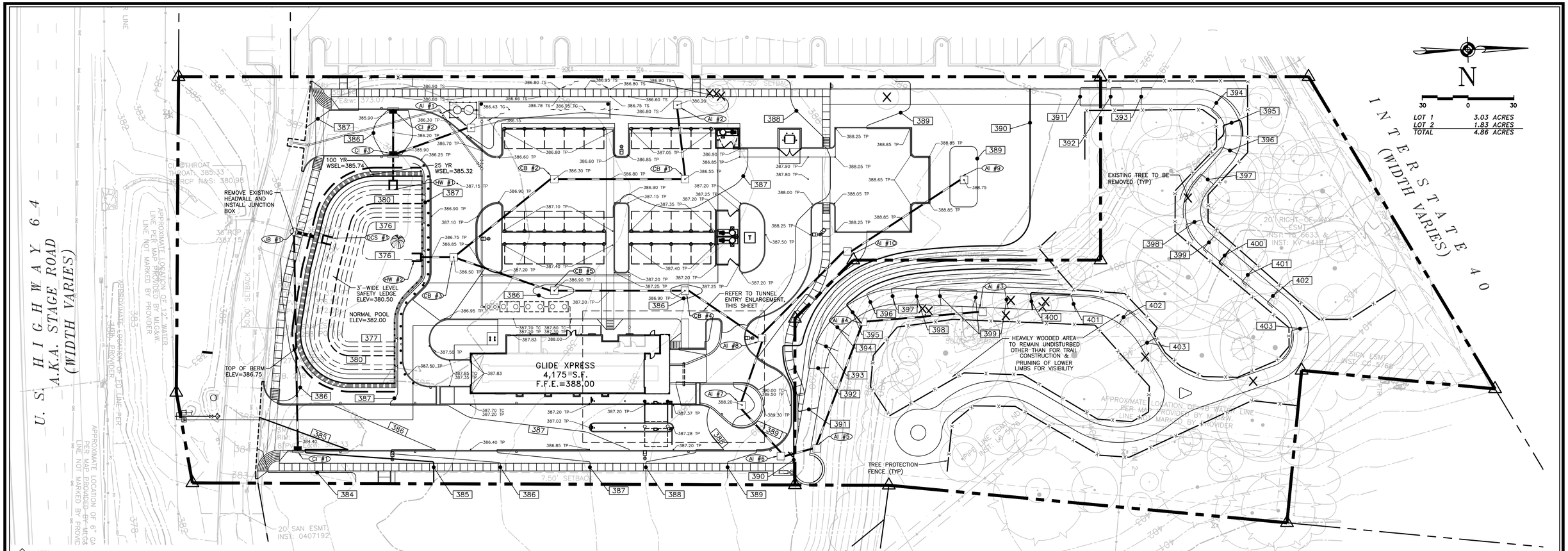
SITE PLAN

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	____
DRAWN BY	DPS	DATE	09/07/22	SCALE	1"=30'
DESIGN BY	TLB	DATE	09/07/22	PROJECT	____

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



NOTES:

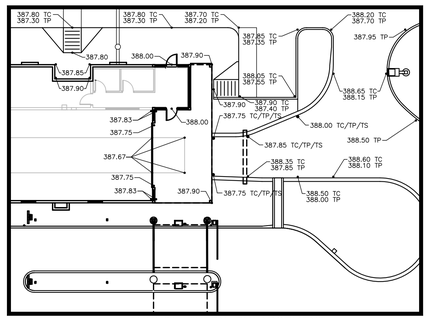
1. ALL DISTURBED AREAS ARE TO RECEIVE TWO INCHES OF TOPSOIL SOD AND/OR LANDSCAPING. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. REFER TO PLANTING PLAN, THIS SET, FOR ADDITIONAL INFORMATION.
2. ACCEPTABLE STORM SEWER MATERIALS (THERE WILL BE NO SUBSTITUTIONS ALLOWED FOR PIPES SHOWN TO BE RCP)
   1) REINFORCED CONCRETE PIPE
   2) SPIRAL RIB METAL PIPE
   3) CORRUGATED POLYETHYLENE (N-12)
   4) POLYVINYL CHLORIDE (PVC) – ONLY PERMITTED IN 15" DIAMETER OR LESS.
3. SLOPES WITHIN ALL ADA STALLS AND ACCESS AISLES SHALL NOT EXCEED 1:50 IN ALL DIRECTIONS.
4. LONGITUDINAL SLOPE ON ALL ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 1:20. CROSS SLOPE OF ADA ROUTES SHALL NOT EXCEED 1:50.
5. SAWCUT EXISTING CURB & GUTTER, SIDEWALK OR PAVEMENT. REMOVE CURB & GUTTER, CURB CUT, OR PAVEMENT.
6. THE CONTRACTOR SHALL HAVE ANY RIGHT-OF-WAY MONUMENTS LOCATED BY A LICENSED SURVEYOR PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES WITHIN THE RIGHT-OF-WAY. ANY MONUMENTS WHICH ARE DESTROYED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED.
7. DOWNSPOUT COLLECTORS SHOWN AT APPROXIMATE LOCATION OF GUTTER DOWNSPOUTS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ACTUAL DOWNSPOUT LOCATIONS. CONTRACTOR SHALL CONNECT COLLECTORS TO DOWNSPOUTS PER DOWNSPOUT COLLECTOR DETAIL, THIS SET.
8. 6" DOWNSPOUT LEADER. STORM SEWER PIPES EXITING BUILDING SHALL HAVE A MINIMUM COVER OF 2 FEET AND MINIMUM SLOPE OF 2%. CONTRACTOR SHALL PROVIDE AND INSTALL ALL FITTINGS, BENDS, TEES, ETC. REQUIRED FOR DOWNSPOUT COLLECTION SYSTEM. SEE ARCH PLANS FOR ADDITIONAL DETAILS.
9. TRANSITION CURB/SIDEWALK FROM 6" TO 0" OVER DISTANCES SHOWN.
10. TRENCH DRAIN. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
11. ALL RIP-RAP PADS TO BE 10'(L)X12'(W)X24"(T) TDOT CLASS A-2 AND ARE TO BE PLACED IN ACCORDANCE WITH DETAIL SHEETS.

GENERAL NOTES:

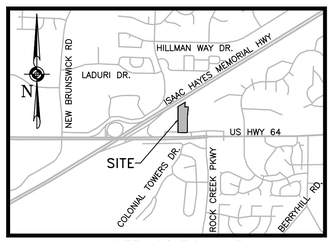
1. A MINIMUM OF 24 HOURS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE AT (901) 636-2462.
2. ALL NEWLY CUT OR FILLED AREAS LACKING ADEQUATE VEGETATION, SHALL BE SEEDED, MULCHED, FERTILIZED AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
3. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY COMPANIES WHICH MAINTAIN A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT OR IN THE STREETS BORDERING THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN CONSTRUCTION PERIMETERS, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING THE WORK ON THE PROJECT. FOR SITE LOCATION OF EXISTING UTILITIES INVOLVING MLG&W, AT&T, TEXAS GAS COMPANY AND/OR CITY OF MEMPHIS SEWER, PLEASE CALL 811.
4. ALL FILL SOILS SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D-698) WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN LIFTS NOT TO EXCEED SIX (6) INCHES OF COMPACTED THICKNESS.
5. ALL CONSTRUCTION MATERIALS AND PROCEDURES SHALL MEET OR EXCEED THE REQUIREMENTS OF THE CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS.
6. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING, CLEARING AND THE ERECTION OR REMOVAL OF FENCES ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
7. VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE ENGINEER OF ANY VARIATIONS PRIOR TO COMMENCEMENT OF WORK.
8. ALL GRADING WORK SHALL BE PERFORMED IN SUCH A MANNER THAT ADJACENT PROPERTIES ARE NOT DAMAGED OR ADVERSELY AFFECTED.
9. LOT DRAINAGE: FINISH GRADE SHALL BE SLOPED AWAY FROM THE FOUNDATION FOR DRAINAGE. THE FINISH GRADE MUST BEGIN AT LEAST 12-INCHES BELOW THE TOP OF THE FOUNDATION WALL OR THE GRADE OF THE CONCRETE SLAB AT THE INTERIOR IN THE CASE OF AN INTEGRAL SLAB AND FOUNDATION. THE MINIMUM GRADE AWAY FROM THE FOUNDATION SHALL BE TWO PERCENT (2%) IN ALL DIRECTIONS. THE DRIVEWAY SHALL BE SLOPED DOWN AT TWO PERCENT (2%) FOR AT LEAST EIGHT FEET FROM THE STRUCTURE.

BENCHMARK:
CITY OF MEMPHIS BENCHMARK #765
ROCKCREEK PKWY. & HIGHWAY 64
CITY MONUMENT IS LOCATED ON THE SOUTH SIDE OF HWY. 64 AT CENTERLINE OF ROCKCREEK PKWY. IN GRASS MEDIAN, 17.6' SOUTH OF NORTH FACE OF CURB, 11.0' WEST OF EAST FACE OF CURB, 13.0' EAST OF WEST FACE OF CURB OF MEDIAN.
ELEV: 374.60

THE SUBJECT PROPERTY IS LOCATED IN FLOOD HAZARD AREA ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47157C0310G, DATED: FEBRUARY 6, 2013.



TUNNEL ENTRY ENLARGEMENT
SCALE: 1"=20'



SITE LOCATION MAP
SCALE: N.T.S.

LEGEND

	– PROPERTY LINE	X	– TREE PROTECTION FENCE
	– STORM SEWER	385	– PROPOSED CONTOUR MAJOR
	– 6-72 CURB INLET	386	– PROPOSED CONTOUR MINOR
	– CATCH BASIN/OCS	385	– EX. CONTOUR MAJOR
	– HEADWALL	386	– EX. CONTOUR MINOR
XXX.XX	– SPOT ELEVATION	ST S	– EX. DRAINAGE PIPE
HP	– HIGH POINT		– DRAINAGE ARROW
TP	– TOP OF PAVEMENT	TC	– TOP OF CURB
TS	– TOP OF SIDEWALK	TG	– TOP OF GROUND

DETENTION NOTE:
THE AREAS DENOTED BY "RESERVED FOR STORM WATER DETENTION": SHALL NOT BE USED AS A BUILDING SITE OR FILLED WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM THE CITY ENGINEER. THE STORM WATER DETENTION SYSTEMS LOCATED IN THESE AREAS, EXCEPT FOR THOSE PARTS LOCATED IN A PUBLIC DRAINAGE EASEMENT, SHALL BE OWNED AND MAINTED BY THE PROPERTY OWNER AND/OR PROPERTY OWNERS ASSOCIATION. SUCH MAINTENANCE SHALL BE PERFORMED SO AS TO ENSURE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE APPROVED PLAN ON FILE IN THE CITY ENGINEER'S OFFICE. SUCH MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO REMOVAL OF SEDIMENTATION, FALLEN OBJECTS, DEBRIS AND TRASH, MOWING, OUTLET CLEANING, AND REPAIR OF DRAINAGE STRUCTURES.

Tennessee811
Know what's below.
Call before you dig.

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE STATE OF TENNESSEE NO. 22976

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 1

C3.0
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

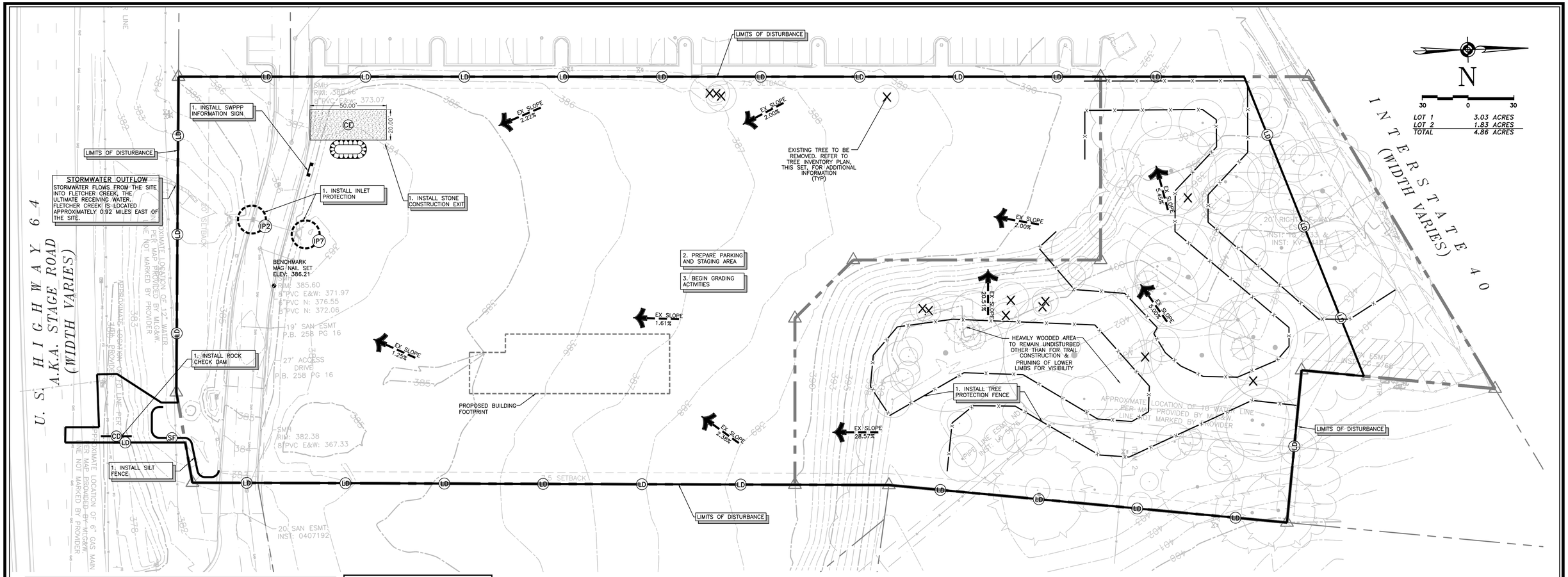
GRADING AND DRAINAGE PLAN

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	1"=30'
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



BEST MANAGEMENT PRACTICES SEQUENCE

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC, IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ALL AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

PHASE I – EROSION CONTROL SEQUENCING

1. INSTALL SWPPP INFORMATION SIGN AND STONE CONSTRUCTION EXIT. INSTALL TREE PROTECTION FENCE, PERIMETER BMPS AND INLET PROTECTION DEVICES AT EXISTING INLETS.
2. PREPARE PARKING AND STAGING AREA.
3. BEGIN GRADING ACTIVITIES. SEQUENCE GRADING TO MINIMIZE EXPOSED AREAS.

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL RD, SUITE 2E
TEXARKANA, TEXAS 75503
(903) 223-8000

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

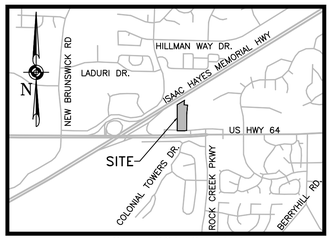
IMPORTANT: GC MUST SIGN ALL SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

PROJECT BENCHMARKS

TBM #1 – MAG NAIL SET AT NORTHERN CURB OF COUNTRY BRIDGE RD.
ELEV: 386.21

ACREAGE SUMMARY

TOTAL PROJECT AREA	4.86	ACRES
ON-SITE DISTURBED AREA	4.57	ACRES
OFF-SITE DISTURBED AREA	0.05	ACRES
TOTAL DISTURBED AREA	4.62	ACRES



SITE LOCATION MAP
SCALE: N.T.S.

LEGEND

- PROPERTY LINE
- TREE PROTECTION FENCE
- LD – LIMITS OF DISTURBANCE
- CD – CHECK DAM
- SF – SEDIMENTATION/SILT FENCE
- CE – CONSTRUCTION EXIT (STONE)
- IP2 – BLOCK AND AGGREGATE CURB INLET PROTECTION
- IP7 – INLET HEADWALL SEDIMENTATION FILTER
- DRAINAGE PATTERN
- RL – RIDGELINES
- SWPPP INFORMATION SIGN
- SEDIMENT TRAP

SILT FENCE LOCATION

SILT FENCE LOCATION SHOWN ON PLAN HAS BEEN OFFSET FOR CLARITY. WHERE SILT FENCE IS SHOWN ADJACENT TO LIMITS OF DISTURBANCE IT IS THE INTENTION THAT SILT FENCE BE INSTALLED ALONG LIMITS OF DISTURBANCE (NO DISTURBANCE BEYOND SILT FENCE). SILT FENCE SHALL FOLLOW CONTOURS.

LIMITS OF DISTURBANCE

CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

NOTE TO GENERAL CONTRACTOR

PRIOR TO CONSTRUCTION, GC MUST CLEARLY DELINEATE AND MARK AREAS IDENTIFIED IN THE SWPPP OR IN THE FIELD, TO BE PROTECTED (SUCH AS, NATURAL BUFFERS, TREES, HABITATS OF ENDANGERED/ THREATENED SPECIES, HISTORIC PROPERTIES, ETC.).

CAUTION NOTICE TO CONTRACTOR

IF PROPERLY IMPLEMENTED, THIS PLAN WILL PROVIDE AN EFFECTIVE MEANS FOR CONTROLLING EROSION. HOWEVER, IT IS ACKNOWLEDGED THAT NO ONE PLAN CAN BE PREPARED THAT WILL DEPICT ALL POSSIBLE CONTROL MEASURES NECESSARY FOR VARIOUS STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID ADEQUATE FUNDS TO PROVIDE ALL EROSION CONTROL MEASURES NECESSARY TO COMPLY WITH CODES FOR THE DURATION OF THE CONSTRUCTION PROJECT.

SPECIFICATIONS REQUIREMENTS

THE REQUIREMENTS SHOWN ON THIS PLAN ARE SUPPLEMENTED BY THE SWPPP CONTAINED WITHIN THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICTS BETWEEN THE PLANS, SWPPP SPECIFICATIONS AND THE ACTUAL GENERAL PERMIT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

TRACK OUT PREVENTION

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE VEHICLES ARE ADEQUATELY CLEANED PRIOR TO EXITING THE LIMITS OF DISTURBANCE TO PREVENT TRACK OUT.IF THE ACTION OF THE STONE CONSTRUCTION EXIT DOES NOT SATISFACTORILY PREVENT TRACK OUT FROM TRAFFIC EXITING THE SITE, THE CONTRACTOR SHALL IMPLEMENT A WHEEL WASH SYSTEM AT THE CONSTRUCTION EXIT.WATER FROM THE WHEEL WASH SYSTEM SHALL BE DIRECTED TOWARDS THE CONSTRUCTION EXIT SEDIMENT TRAP FOR TREATMENT OF THE SEDIMENT LADEN WATER.THE CONTRACTOR SHALL ALSO HAVE AN ATTENDANT STATIONED AT THE CONSTRUCTION EXIT. THE ATTENDANT SHALL HAVE THE AUTHORITY TO PROHIBIT TRAFFIC FROM EXITING THE SITE IF IT APPEARS THAT VEHICLES EXITING THE SITE WILL CAUSE TRACK OUT. IT IS ULTIMATELY THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRAFFIC FROM THE SITE WILL NOT CAUSE TRACK OUT FROM THE PROJECT SITE.BY SUBMITTING A BID ON THE PROJECT, THE CONTRACTOR AFFIRMS THAT ADEQUATE FUNDS HAVE BEEN INCLUDED TO ADDRESS THESE REQUIREMENTS.

BMP NOTICE

THE CONTRACTOR MUST CONTINUALLY INSPECT BMP'S TO ENSURE ANY PONDING DOES NOT PRESENT HAZARDS TO THE PUBLIC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MODIFY BMP'S AS NEEDED TO PROTECT THE PUBLIC AT ALL TIMES AND PROVIDE PROTECTION FROM SEDIMENT RELEASE.

SPECIFICATIONS REQUIREMENTS

THE REQUIREMENTS SHOWN ON THIS PLAN ARE SUPPLEMENTED BY THE SWPPP CONTAINED WITHIN THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICTS BETWEEN THE PLANS, SWPPP SPECIFICATIONS AND THE ACTUAL GENERAL PERMIT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

CAUTION – NOTICE TO CONTRACTOR

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SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR ESTIMATED PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY CONSTRUCTION EXIT																								
TEMPORARY CONTROL MEASURES																								
STRIP & STOCKPILE TOPSOIL																								
ROUGH GRADING																								
STORM FACILITIES																								
SITE CONSTRUCTION																								
FINISH GRADING																								
PERMANENT CONTROL STRUCTURES																								
FOUNDATION/BUILDING CONSTRUCTION																								
LANDSCAPING/SEED/FINAL STABILIZATION																								

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22978 STATE OF TENNESSEE

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 2

C3.1
SEWER BASIN: WN-10

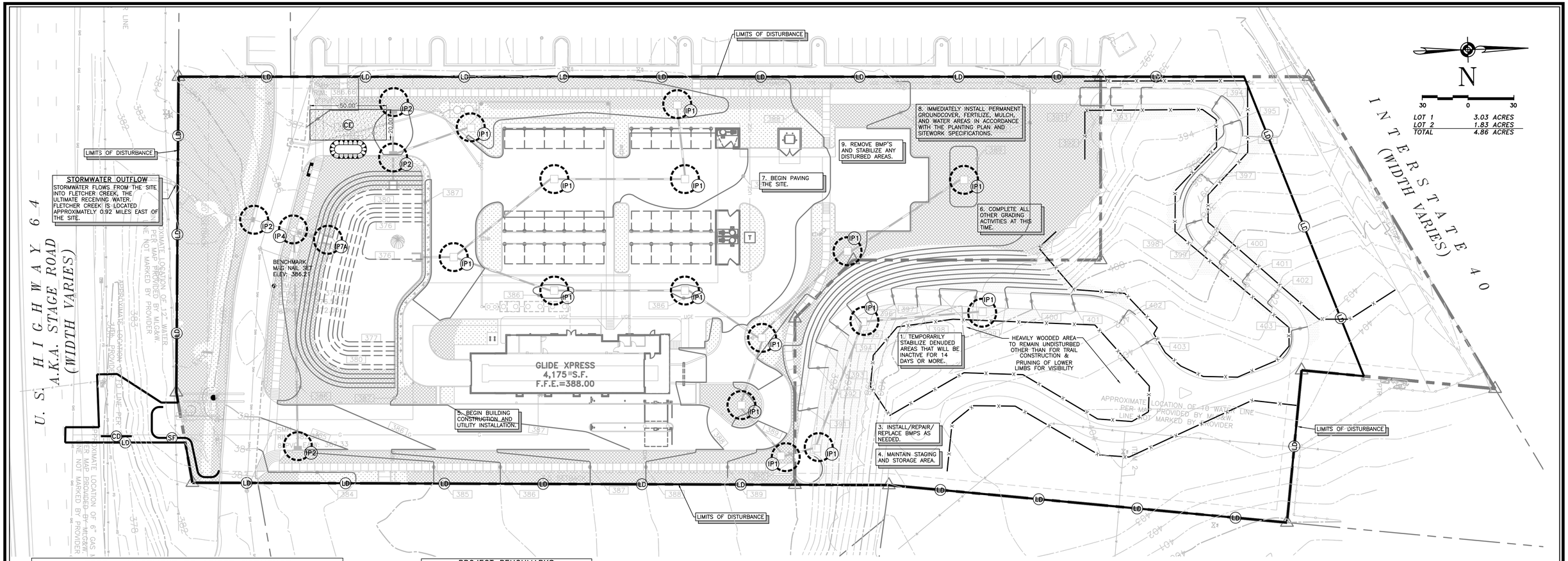
DIVISION OF ENGINEERING

PHASE I EROSION & SEDIMENTATION CONTROL PLAN
8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	____
DRAWN BY	DPS	DATE	09/07/22	SCALE	1"=30'
DESIGN BY	TLB	DATE	09/07/22	PROJECT	____

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



BEST MANAGEMENT PRACTICES SEQUENCE

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PHASE II – EROSION CONTROL SEQUENCING

1. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE. ALL AREAS AT FINAL GRADE MUST BE PAVED OR STABILIZED WITH SPECIFIED GROUNDCOVER PER LANDSCAPE PLAN WITHIN 14 DAYS AFTER COMPLETION OF WORK IN THESE AREAS.
2. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
3. INSTALL/REPAIR/REPLACE BMPS AS NEEDED.
4. MAINTAIN TEMPORARY STAGING AND STORAGE AREA AS NEEDED.
5. BEGIN BUILDING CONSTRUCTION AND UTILITY INSTALLATION.
6. COMPLETE ALL OTHER GRADING ACTIVITIES AT THIS TIME.
7. BEGIN PAVING THE SITE.
8. IMMEDIATELY INSTALL PERMANENT GROUNDCOVER, FERTILIZE, MULCH, AND WATER AREAS IN ACCORDANCE WITH THE PLANTING PLAN AND SITEWORK SPECIFICATIONS.
9. REMOVE BMP'S AND STABILIZE ANY DISTURBED AREAS.

ACREAGE SUMMARY

TOTAL PROJECT AREA	4.86	ACRES
ON-SITE DISTURBED AREA	4.57	ACRES
OFF-SITE DISTURBED AREA	0.05	ACRES
TOTAL DISTURBED AREA	4.62	ACRES

BMP NOTICE

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TRACK OUT PREVENTION

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE VEHICLES ARE ADEQUATELY CLEANED PRIOR TO EXITING THE LIMITS OF DISTURBANCE TO PREVENT TRACK OUT.IF THE ACTION OF THE STONE CONSTRUCTION EXIT DOES NOT SATISFACTORILY PREVENT TRACK OUT FROM TRAFFIC EXITING THE SITE, THE CONTRACTOR SHALL IMPLEMENT A WHEEL WASH SYSTEM AT THE CONSTRUCTION EXIT.WATER FROM THE WHEEL WASH SYSTEM SHALL BE DIRECTED TOWARDS THE CONSTRUCTION EXIT SEDIMENT TRAP FOR TREATMENT OF THE SEDIMENT LADEN WATER.THE CONTRACTOR SHALL ALSO HAVE AN ATTENDANT STATIONED AT THE CONSTRUCTION EXIT. THE ATTENDANT SHALL HAVE THE AUTHORITY TO PROHIBIT TRAFFIC FROM EXITING THE SITE IF IT APPEARS THAT VEHICLES EXITING THE SITE WILL CAUSE TRACK OUT. IT IS ULTIMATELY THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRAFFIC FROM THE SITE WILL NOT CAUSE TRACK OUT FROM THE PROJECT SITE.BY SUBMITTING A BID ON THE PROJECT, THE CONTRACTOR AFFIRMS THAT ADEQUATE FUNDS HAVE BEEN INCLUDED TO ADDRESS THESE REQUIREMENTS.

SILT FENCE LOCATION

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LIMITS OF DISTURBANCE

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NOTE TO GENERAL CONTRACTOR

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SPECIFICATIONS REQUIREMENTS

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PROJECT BENCHMARKS

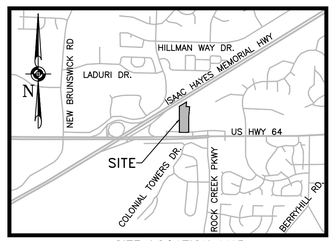
TBM #1 – MAG NAIL SET AT NORTHERN CURB OF COUNTRY BRIDGE RD.
ELEV: 386.21

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL RD, SUITE 2E
TEXARKANA, TEXAS 75503
(903) 223-8000

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.



SITE LOCATION MAP
SCALE: N.T.S.

LEGEND

- PROPERTY LINE
- TREE PROTECTION FENCE
- LD – LIMITS OF DISTURBANCE
- CD – ROCK CHECK DAM
- SF – SEDIMENTATION/SILT FENCE
- CE – CONSTRUCTION EXIT (STONE/ASPHALT)
- IP1 – BLOCK AND AGGREGATE SEDIMENTATION FILTER
- IP2 – BLOCK AND AGGREGATE CURB INLET PROTECTION
- IP4 – SILT FENCE INLET PROTECTION
- P7A – GRAVEL AND WIRE MESH OCS SEDIMENT FILTER
- DRAINAGE PATTERN
- RIP-RAP PAD
- SEEDED AREA
- SODDED AREA
- PLANTING BED: MULCH, GROUNDCOVER, ETC. SEE PLANTING PLAN FOR SPECIFIC INFORMATION
- SWPPP INFORMATION SIGN

CAUTION – NOTICE TO CONTRACTOR

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CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22975 STATE OF TENNESSEE

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 2 OF 2

C3.2
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

PHASE II EROSION & SEDIMENTATION CONTROL PLAN
8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY BLB DATE 10/07/21 BOOK ____
DRAWN BY DPS DATE 09/07/22 SCALE 1"=30'
DESIGN BY TLB DATE 09/07/22 PROJECT ____
REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____

GENERAL EROSION NOTES

A. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("SITE MAP"), THE STANDARD DETAILS, SPECIFICATIONS SECTION 02370 ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. CONTRACTOR SHALL CONSTRUCT TEMPORARY BERM ON DOWN STREAM SIDES IN COMPLIANCE WITH 02370 SPECIFICATION.

H. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

J. DUST ON THE SITE SHALL BE CONTROLLED BY SPRAYING WATER OR OTHER APPROVED DUST SUPPRESSION MATERIAL. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

M. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE, MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS AS SHOWN ON SITE MAP.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED, AND/OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS. REFER TO THE PHASE II EROSION CONTROL PLAN.

O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.

P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

Q. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCE, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.

U. SEE SITE PLAN FOR PERMANENT AND TEMPORARY SIGNAGE.

V. GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.

W. REFER TO THE SWPPP FOR REPORTABLE SPILL QUANTITIES OF PETROLEUM PRODUCTS AND/OR HAZARDOUS WASTES.

X. REFER TO 02370 SPECIFICATION FOR RUN-OFF SAMPLING/MONITORING REQUIREMENTS IF APPLICABLE TO SITE DURING CONSTRUCTION.

Y. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

MAINTENANCE REQUIREMENTS:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

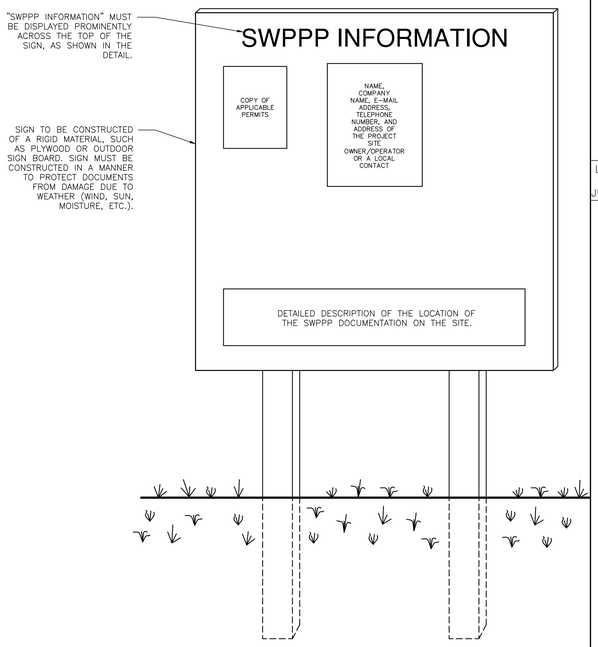
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

4. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT AS CONDITIONS DEMAND.

5. THE TEMPORARY PARKING AND STORAGE AREAS SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.

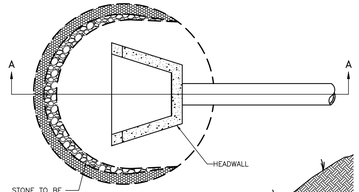
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.



NOTES:

1. THE SWPPP INFORMATION SIGN MUST BE LOCATED IN A PROMINENT, PUBLICLY ACCESSIBLE LOCATION NEAR THE MAIN ENTRANCE OF THE SITE, SUCH THAT THE DOCUMENTATION CAN BE READ WITHOUT ACCESSING THE JOBSITE, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A TRAFFIC SAFETY HAZARD.
2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION.
3. CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCIES.
4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SS SWPPP INFORMATION SIGN



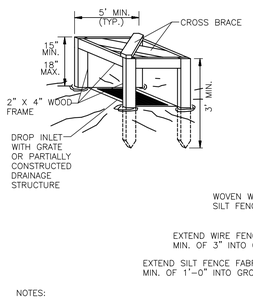
SECTION A-A

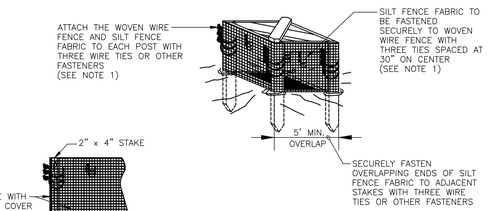
IP7 INLET HEADWALL SEDIMENTATION FILTER

NTS

SOURCE BOX

LAST REVISED:	CONSULTANT DETAIL
JUNE 27, 2013	





POSTS: 2 X 4 WOODEN STAKE
FENCE: WOVEN WIRE, 14-1/2 GA., 6" MAX. MESH OPENING
FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION

NOTES:

1. ATTACH THE WOVEN WIRE FENCE AND THE GEOTEXTILE TO EACH POST (SPACED EVERY 30") WITH THREE WIRE TIES OR OTHER FASTENERS, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART.
2. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED ACROSS TWO POSTS.
3. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-THIRD THE HEIGHT OF THE FABRIC.
4. ALL SILT FENCE INLET PROTECTIONS SHALL INCLUDE WIRE SUPPORT.
5. THIS DETAIL ALSO TO BE UTILIZED AS AN INTERMEDIATE PROTECTION DEVICE AROUND PARTIALLY COMPLETED DRAINAGE STRUCTURES.

MAINTENANCE NOTES:

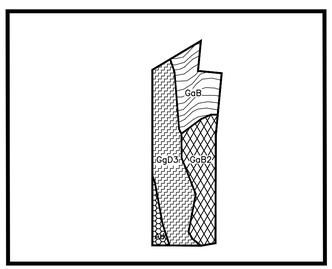
1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
3. INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
4. CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
5. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

SOURCE BOX

LAST REVISED:	CEC STANDARD DETAIL
APRIL 30, 2011	

IP4 SILT FENCE INLET PROTECTION

N.T.S.



SOIL MAP

NTS

SOIL SURVEY AREA MAP UNIT SYMBOL	SOIL NAME	SLOPES	HYDRIC CLASSIFICATION
Ad	ADLER SILT LOAM	0-2%	NON-HYDRIC
GgD3	GRENADA SILT LOAM	5-12%	NON-HYDRIC
GgB2	GRENADA SILT LOAM	2-5%	NON-HYDRIC
GaB	GRENADA SILT LOAM	2-5%	NON-HYDRIC

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 22978 STATE OF TENNESSEE

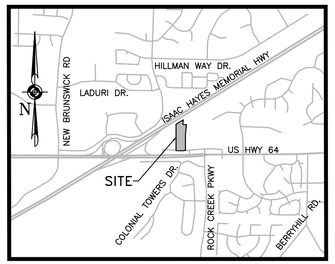
GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL RD, SUITE 2E
TEXARKANA, TEXAS 75503
(903) 223-8000

SITE OPERATOR/GENERAL CONTRACTOR:

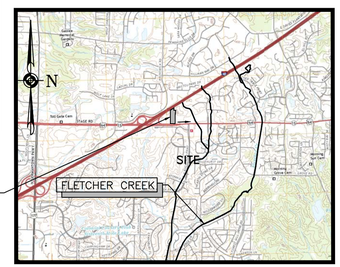
SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.



SITE LOCATION MAP

SCALE: N.T.S.



USGS QUADRANGLE MAP

SCALE: 1"=2000'

STORMWATER OUTFLOW
STORMWATER FLOWS FROM THE SITE INTO FLETCHER CREEK, THE ULTIMATE RECEIVING WATER. FLETCHER CREEK IS LOCATED APPROXIMATELY 0.92 MILES EAST OF THE SITE.

CITY OF LAKELAND ENGINEER _____ DATE _____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 3

C3.3

SEWER BASIN: WN-10

DIVISION OF ENGINEERING

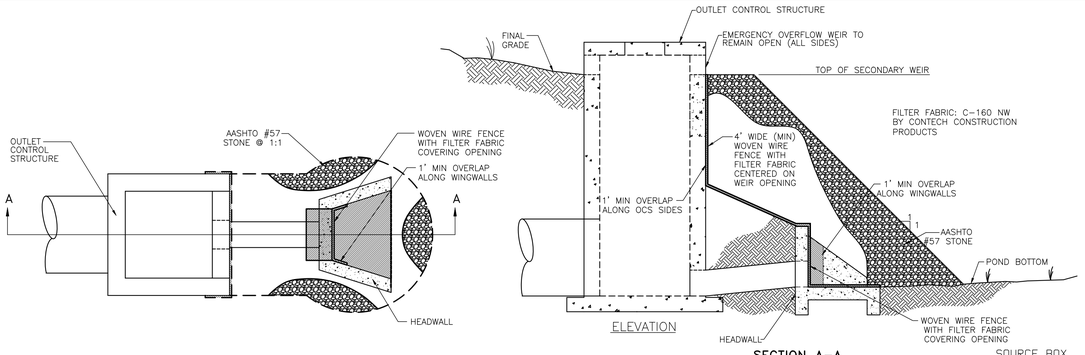
EROSION CONTROL DETAILS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER _____ DATE _____ CITY OF MEMPHIS ENGINEER _____ DATE _____



PLAN VIEW

ELEVATION

SECTION A-A

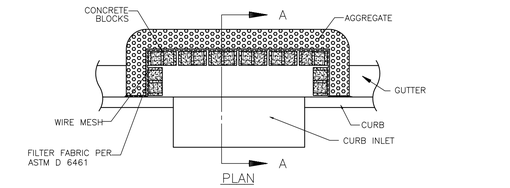
GRAVEL & WIRE MESH OCS SEDIMENT FILTER WITH HEADWALL

NTS

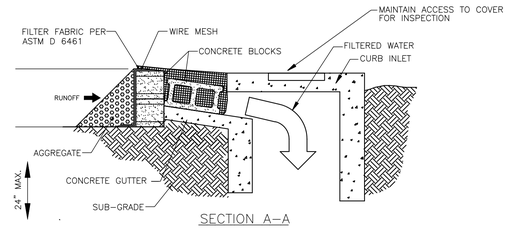
IP7A

SOURCE BOX

LAST REVISED:	CONSULTANT DETAIL
JUNE 27, 2013	



PLAN



SECTION A-A

NOTES:

1. PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF CURB INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
2. HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. TOP OF BARRIER MUST BE LOWER THAN TOP OF CURB ELEVATIONS ADJACENT TO INLET. MAX. HEIGHT SHALL BE 24".
3. PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
4. THE AGGREGATE SHALL BE 3/4" – 2" ANGULAR CLEAN STONE WHICH WILL SLOW THE FLOW OF WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE INLET.
5. IF ROAD OR PARKING AREA IS OPEN TO PUBLIC, VERIFY SUITABILITY OF BMP WITH AGENCIES HAVING JURISDICTION AND WITH CEC.

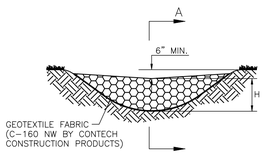
MAINTENANCE NOTES:

1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
3. INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
4. CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
5. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

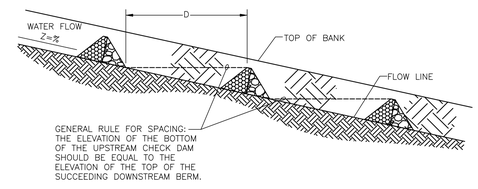
IP2 BLOCK AND AGGREGATE CURB INLET PROTECTION

N.T.S.

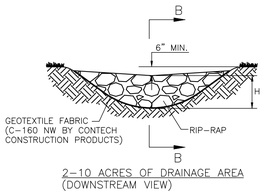
NOTE:
1. SEE SITE MAP(S) FOR LOCATION OF CHECK DAM(S).
2. IF WATER REMAINS IMPOUNDED ON UPSTREAM SIDE OF ROCK CHECK DAMS FOR MORE THAN 48 HOURS THE WATER SHALL BE PUMPED OUT THROUGH A FILTER BAG TO PROVIDE SUITABLE CONDITIONS FOR GERMINATION OF SEEDS OR TO SUSTAIN VEGETATION IN THE DITCH BOTTOM.



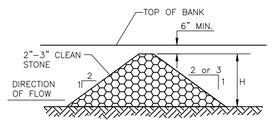
2 ACRES OR LESS OF DRAINAGE AREA
(DOWNSTREAM VIEW)



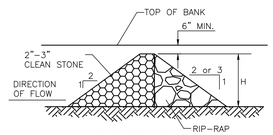
CHECK DAMS IN SWALE



2-10 ACRES OF DRAINAGE AREA
(DOWNSTREAM VIEW)



ELEVATION A



ELEVATION B

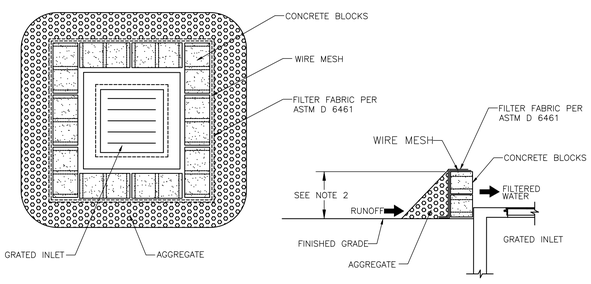
CHECK DAMS				
CHECK DAM NAME	CHECK DAM HEIGHT (IN.)	CHECK DAM SPACING (FT.)	AVERAGE CHANNEL SLOPE	MAXIMUM CHANNEL SLOPE
CD1	?	?	?%	?%
CD2	?	?	?%	?%
CD3	?	?	?%	?%

SOURCE BOX

LAST REVISED:	CEC STANDARD DETAIL
JUNE 2012	

CD ROCK CHECK DAM

N.T.S.



PLAN

SECTION

IP1 BLOCK AND AGGREGATE INLET PROTECTION

N.T.S.

NOTES:

1. PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
2. HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. MIN. HEIGHT OF BARRIER SHALL BE 12" AND MAX. HEIGHT SHALL BE 24".
3. PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
4. THE AGGREGATE SHALL BE 3/4"-2" ANGULAR CLEAN STONE, WHICH WILL SLOW THE FLOW OF THE WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE INLET.

MAINTENANCE NOTES:

1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
3. INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
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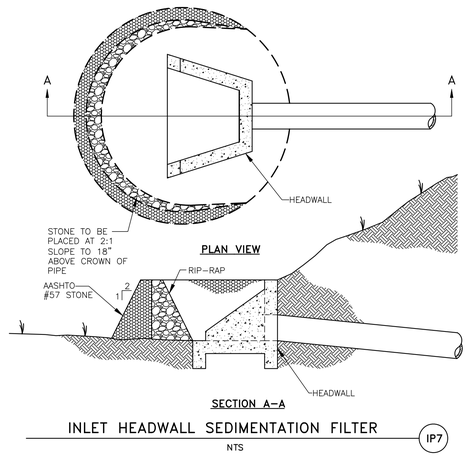
5. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.



SECTION A-A

INLET HEADWALL SEDIMENTATION FILTER

NTS

IP7

SOURCE BOX

LAST REVISED:	CONSULTANT DETAIL
JUNE 27, 2013	

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL RD, SUITE 2E
TEXARKANA, TEXAS 75503
(903) 223-8000

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22975 STATE OF TENNESSEE

CARLSON CONSULTING ENGINEERS, INC.

7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER _____ DATE _____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 2 OF 3

C3.4
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

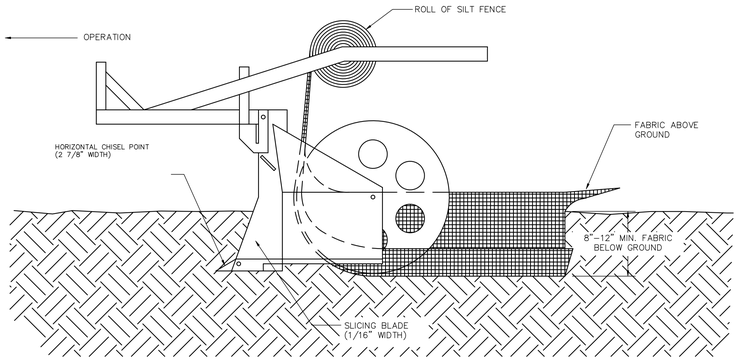
EROSION CONTROL DETAILS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

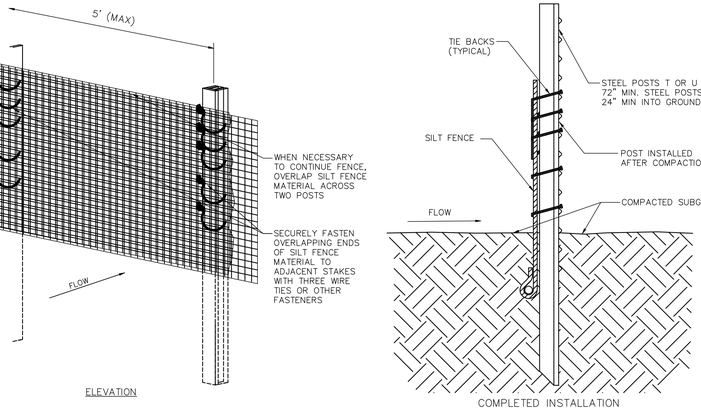
DEPUTY CITY OF MEMPHIS ENGINEER _____ DATE _____ CITY OF MEMPHIS ENGINEER _____ DATE _____



NOTE: VIBRATORY PLOW IS NOT ACCEPTABLE BECAUSE OF HORIZONTAL COMPACTION

POSTS: STEEL T OR U TYPE.

FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION.



ELEVATION

COMPLETED INSTALLATION

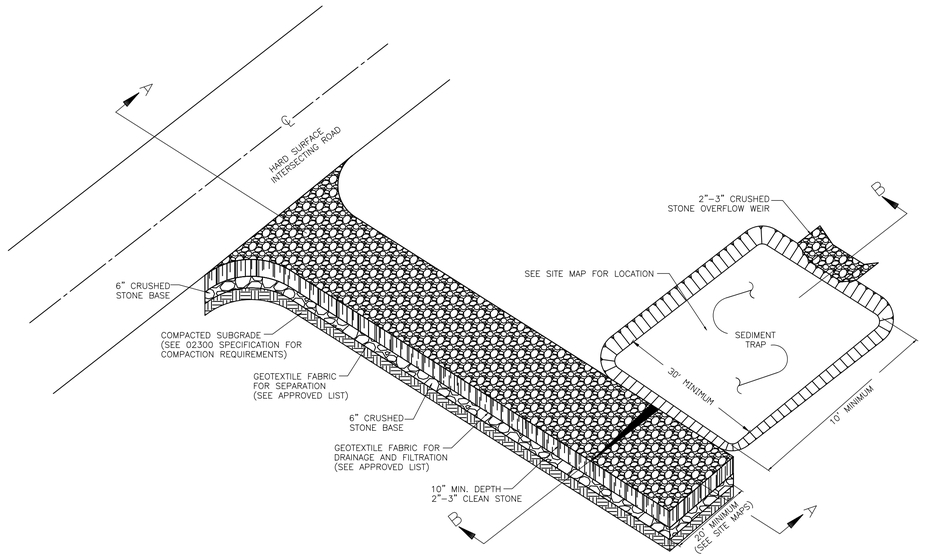
SPECIFICATIONS FOR STATIC SLICING METHOD FOR SILT FENCE INSTALLATION

STATIC SLICING SHALL BE USED TO ANCHOR SILT FENCE FABRIC IN ORDER TO NOT USE THE WIRE BACKING.

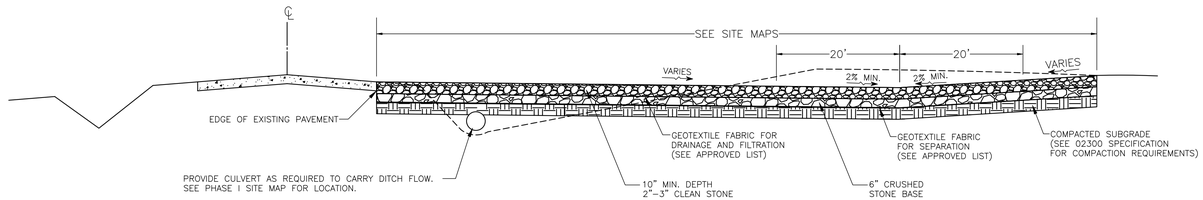
1. SILT FENCE SHALL BE INSTALLED PER ASTM D-6462-03 LATEST EDITION.
2. INSTALL POSTS AT A MAXIMUM OF 5'-0" APART.
3. INSTALL POSTS AT A MINIMUM DEPTH OF 24" ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT UPSTREAM WATER PRESSURE ON THE FABRIC.
4. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FENCE FABRIC.
5. ATTACH THE FABRIC TO EACH POST WITH FIVE TIES, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
6. WRAP APPROXIMATELY 6" OF FABRIC AROUND THE END POSTS AND SECURE WITH 5 TIES.
7. WHEN NECESSARY TO CONTINUE FENCE, OVERLAP SILT FENCE MATERIAL ACROSS TWO POSTS.
8. NO MORE THAN 24" OF A 36" FABRIC IS ALLOWED ABOVE GROUND LEVEL.
9. DRIVE POST A MINIMUM OF 24" INTO THE GROUND.
10. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION. USE A FLAT-BLADED SHOVEL TO TUCK FABRIC DEEPER INTO THE SLIT IF NECESSARY.
11. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQ. INCH. COMPACT THE UPSTREAM SIDE FIRST. COMPACT EACH SIDE TWICE FOR A TOTAL OF FOUR TRIPS.
12. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-HALF THE HEIGHT OF THE FENCE. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ONE-HALF THE HEIGHT OF THE FENCE FABRIC ABOVE GRADE.
13. WHEN TWO SECTIONS OF SILT FENCE MATERIAL ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED A MINIMUM OF 60"ACROSS TWO POSTS, AS SHOWN.
14. ADD POST CAPS AS NEEDED BASED ON SITE CONDITIONS AND APPLICABLE AGENCY REQUIREMENTS.

NON-WIRE BACKED SLICING METHOD FOR SILT FENCE INSTALLATION (SF)
N.T.S.

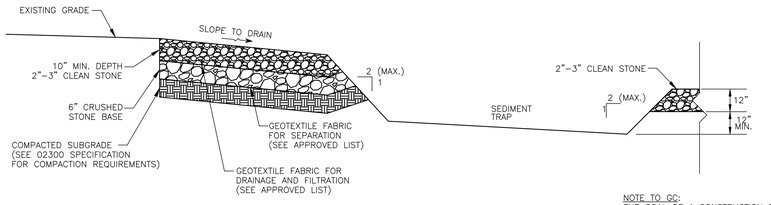
SILT FENCE



PLAN VIEW



SECTION A–A



SECTION B–B

CONSTRUCTION EXIT (CE)
N.T.S.

PERFORMANCE STANDARDS:

1. ALL SITE ACCESS MUST BE CONFINED TO THE CONSTRUCTION EXIT(S). BARRICADE TO PREVENT USE OF ANY LOCATIONS OTHER THAN THE CONSTRUCTION EXIT(S) WHERE VEHICLES OR EQUIPMENT MAY ACCESS THE SITE.
2. CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.
3. PROVIDE SEDIMENT TRAP ON DOWN GRADIENT SIDE (OR BOTH SIDES) AS REQUIRED. SEDIMENT TRAP SHALL BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND AT A MINIMUM SETBACK DISTANCE AS REQUIRED PER LOCAL JURISDICTION.
4. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT(S) IS NOT SUFFICIENT TO PREVENT TRACKING OF DIRT, DUST OR MUD, THEN TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. ALL WASH WATER MUST BE ROUTED TO A SEDIMENT TRAP OR OTHER TREATMENT AREA AND SHALL NOT BE DIRECTLY DISCHARGED OFF-SITE.
5. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT TRACKING BEYOND THE PERMITTED PROJECT AREA. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
6. ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEPT AS NECESSARY (AND WITHIN THE SAME DAY AS DISCOVERY) AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS.
7. EXIT(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD BEYOND THE EXIT(S). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT(S) AS CONDITIONS DEMAND.
8. CONTRACTOR SHALL BE PERMITTED TO TURN THE STONE WHEN THE SURFACE BECOMES SMOOTH AND SURFACE VOIDS ARE FILLED TO MAINTAIN EFFECTIVENESS OF CONSTRUCTION EXIT UNTIL SUCH TIME THAT VOIDS BELOW THE SURFACE BECOME FILLED AND THE CONSTRUCTION EXIT IS NO LONGER EFFECTIVE. AT SUCH A TIME THE CONTRACTOR SHALL REMOVE THE INEFFECTIVE STONE AND REPLACE PER DETAIL.
9. IF EXIT BMP IS STILL INEFFECTIVE, QC MUST CONTACT THE ENGINEER AND SUBMIT AN RFI AS NECESSARY.
10. IF WATER REMAINS IN SEDIMENT TRAP FOR MORE THAN 48 HOURS THE WATER SHALL BE PUMPED OUT THROUGH A FILTER BAG TO ENSURE DESIGN VOLUME IS AVAILABLE FOR FUTURE STORM EVENTS.

APPROVED GEOTEXTILE FABRICS:
1. MIRAFI HP 370 OR HP 570 BY MIRAFI
2. SF40 OR SF56 BY DUPONT
3. LINQ GTF-200 OR 300 BY LINQ
4. TERRATEX HD BY WEBTEC

NOTE TO GC:
THE GOAL OF A CONSTRUCTION EXIT AND ASSOCIATED WHEEL WASH AREAS IS TO ELIMINATE TRACK OUT. SIMPLY MANAGING TRACK OUT THROUGH DESIGNATED OR CONTINUAL STREET SWEEPING IS NOT AN ACCEPTABLE PRACTICE. WHILE STREET SWEEPING IS AN ACCEPTABLE PRACTICE FOR REMOVING DUST AND MINIMAL AMOUNTS OF FINE SEDIMENT, OBSERVABLE TRACK OUT FROM THE PROJECT SHALL TRIGGER THE USE OF ADDITIONAL MEASURES (WHEEL WASH), CONSIDERATION OF ALTERNATE EXITS, OR DISCONTINUING VEHICLE TRAFFIC UNTIL CONDITIONS ON-SITE HAVE IMPROVED. TRACK OUT IS A SEDIMENT RELEASE. ALL SEDIMENT RELEASES MUST BE REPORTED TO THE SWCT VIA THE ONLINE CRITICAL INCIDENT REPORT.

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL RD, SUITE 2E
TEXARKANA, TEXAS 75503
(903) 223-8000

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DANA J. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22078 STATE OF TENNESSEE

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 3 OF 3

C3.5
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

EROSION CONTROL DETAILS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

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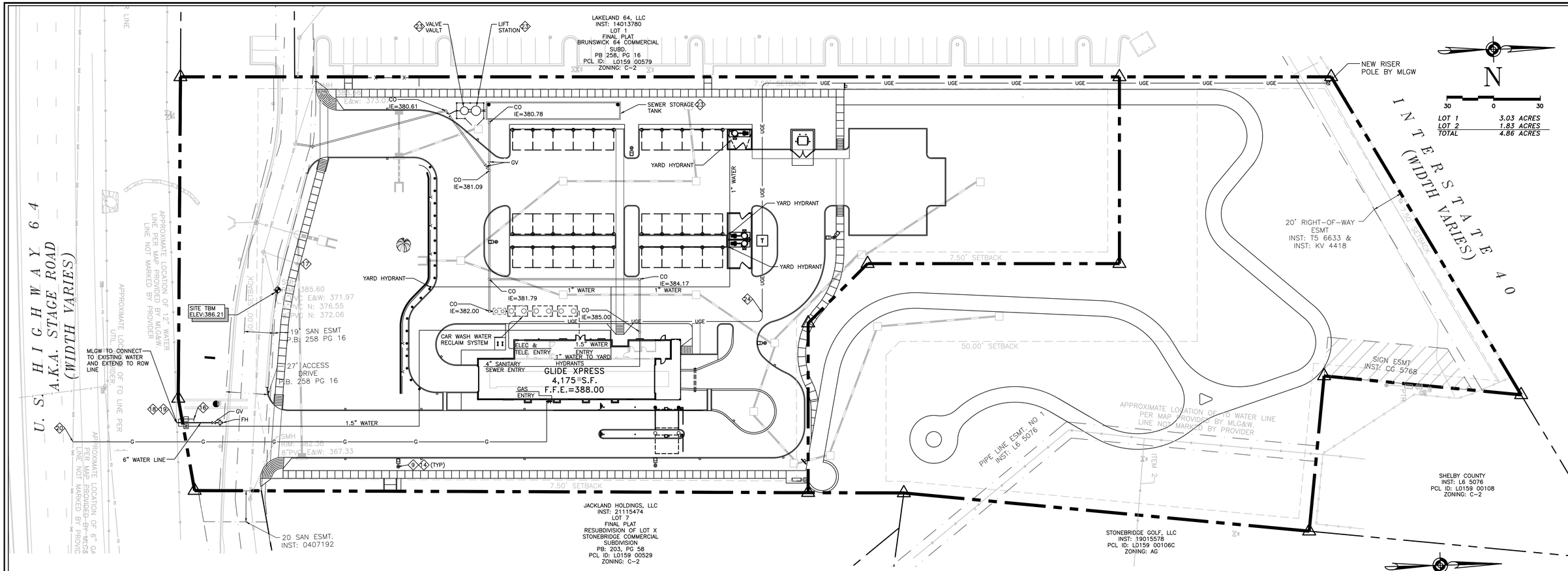
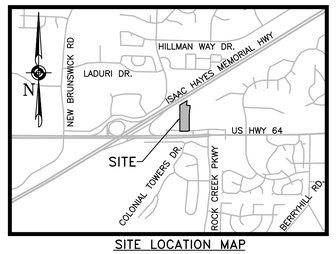
DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____





SITE LOCATION MAP
SCALE: N.T.S.

NOTES:

1. CONTRACTOR SHALL VERIFY AS-BUILT INVERT ELEVATION AND ADVISE ENGINEER OF ANY DISCREPANCIES.
2. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM APPROPRIATE UTILITY COMPANIES AND CONTRACTOR HAS BEEN NOTIFIED.
3. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR.
4. ALL NECESSARY INSPECTIONS, APPROVALS, AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR AUTHORITIES SHALL BE COMPLETED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CERTIFICATION OF SERVICES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CONDUIT FOR UNDERGROUND UTILITIES AS PER THE UTILITY COMPANY REQUIREMENTS.
6. CONTRACTOR SHALL COORDINATE WITH MLGW FOR REQUIREMENTS OF DOMESTIC ENTRY. ALL APPURTENANCES SUCH AS VALVES, BACKFLOW PREVENTION DEVICES, METER BOXES AND/OR METERS REQUIRED BUT NOT PROVIDED BY MLGW SHALL BE PURCHASED BY THE CONTRACTOR AND INSTALLED PER MLGW REQUIREMENTS.
7. PRIOR TO THE START OF CONSTRUCTION OF, OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER OF RECORD AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER OF RECORD AND HIS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
8. MAINTAIN A MINIMUM 10' HORIZONTAL AND 18" VERTICAL SEPARATION AT ALL WATER AND SEWER CROSSINGS.
9. REFER TO THE ARCHITECTURAL PLANS FOR ELECTRICAL SITE LIGHTING PLAN.
10. COORDINATE WITH ALL UTILITY COMPANIES FOR SERVICE AS SOON AS CONTRACT IS AWARDED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR ANY DAMAGE, INCURRED BY ANY UTILITY COMPANY, TO THEIR LINES AS A RESULT OF HIS ACTIVITIES, WHETHER THESE LINES ARE SHOWN ON THE CONSTRUCTION PLANS OR NOT.
12. CAR WASH WATER RECLAIM TANK SYSTEM. REFER TO BUILDING PLANS.
13. SEE SURVEY FOR DESCRIPTION OF EXISTING EASEMENTS.
14. CONTRACTOR SHALL USE CAUTION WHEN INSTALLING LIGHT POLE BASES TO PREVENT DAMAGE TO UTILITIES.
15. ALL UTILITY CONSTRUCTION SHALL CONFORM WITH THE MOST STRINGENT REQUIREMENTS OF THE UTILITY COMPANY OR SITE SPECIFICATIONS.
16. REFER TO IRRIGATION PLAN FOR CONTINUATION OF THIS LINE.
17. CONTRACTOR SHALL ADJUST TOPS OF CLEANOUTS, MANHOLES, VALVES, ETC. TO MATCH FINAL GRADES TO ENSURE POSITIVE DRAINAGE AND ELIMINATE TRIP AND FALL HAZARDS. REFER TO GRADING AND DRAINAGE PLAN, THIS SET, FOR ADDITIONAL INFORMATION.
18. 1.5" DOMESTIC TAP W/ 1.5" METER.
19. 1" IRRIGATION TAP W/ 1" METER.
20. CONNECT TO EXISTING GAS BY MLGW.
21. LOWER EXISTING MANHOLE TO FINISHED GRADE. REFER TO 02536 SPECIFICATION FOR ADDITIONAL INFORMATION.
22. SEE UTILITY ENTRY DETAIL, THIS SHEET, FOR ADDTIONAL INFORMATION.
23. SEE PRIVATE HOLDING TANK AND PUMP DETAILS, THIS SET, FOR ADDITIONAL INFORMATION.
24. (2)-2" SCH 40 PVC CONDUITS FOR ELECTRIC AND (2)-2" SCH 80 PVC CONDUITS FOR TELEPHONE BY CONTRACTOR.
25. DOMESTIC WATER LINE IS 1.5 INCHES WHICH IS TO BE CONNECTED TO THE BUILDING WITH THE MLGW WATER METER

LEGEND

- WATER LINE (6" OR LARGER)
- WATER LINE (LESS THAN 6")
- UGE & T — UNDERGROUND ELECTRIC & TELEPHONE
- G — GAS LINE
- SANITARY SEWER
- MANHOLE (MH)
- CLEANOUT (CO)
- FIRE HYDRANT (FH)
- GATE VALVE (GV)
- DOMESTIC METER
- IRRIGATION METER
- PROPOSED UTILITY POLE
- EXISTING UTILITY POLE
- EXISTING UTILITY POLE WITH STREET LIGHT

Tennessee811 Know what's below. Call before you dig.

CAUTION — NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE IMPROVEMENTS SHOWN BY THESE PLANS.

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
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PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE STATE OF TENNESSEE No. 22978

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 1

C4.0
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

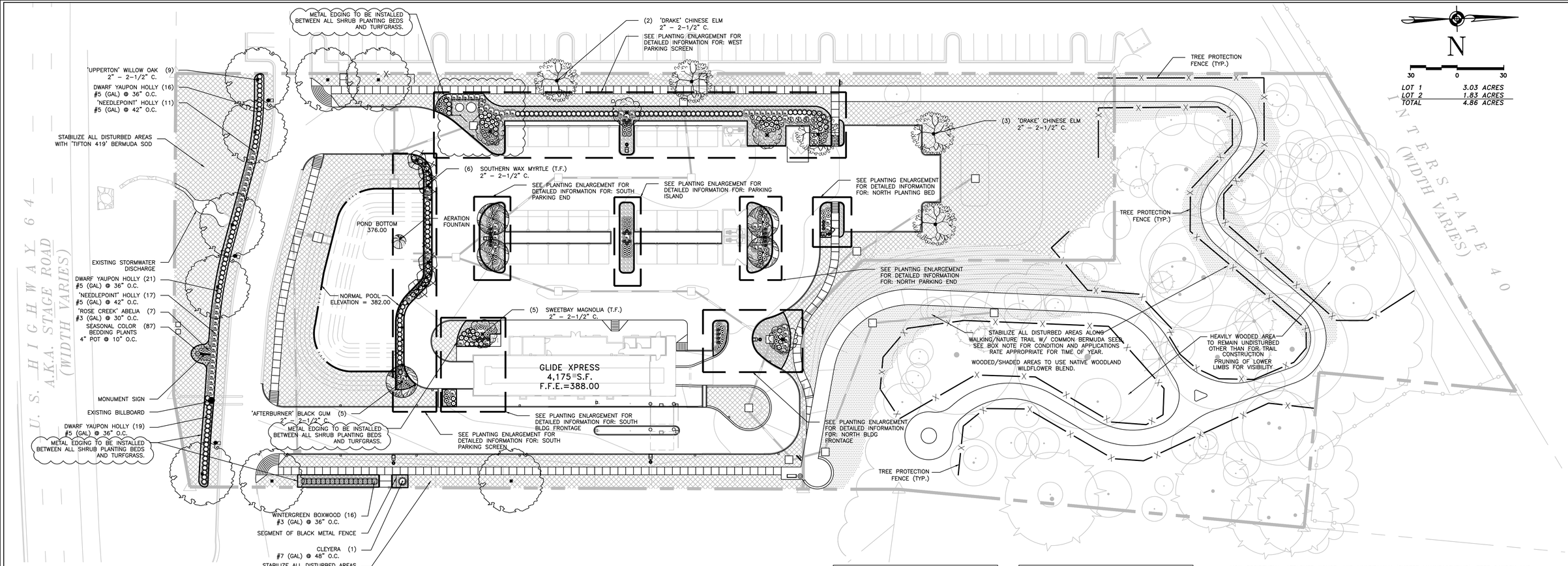
UTILITY PLAN

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	____
DRAWN BY	DPS	DATE	09/07/22	SCALE	1"=30'
DESIGN BY	TLB	DATE	09/07/22	PROJECT	____

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



PLANT SCHEDULE

NOTE: ALL SIZES AND CONDITION OF NURSERY STOCK SHALL MEET THE STANDARDS ESTABLISHED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

QTY	%	SYM	BOTANICAL NAME	COMMON NAME	SIZE (BOTH MIN'S TO BE MET)	SPACING	CONDITION	REMARKS
TREES:								
5	16.7%		MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA (T.F.)	2" – 2-1/2" C / 8' – 10' HT	AS SHOWN	B&B/CONT.	FULL HEAD W/UNIFORM GROWTH SINGLE TRUNK
6	19.9%		MYRICA CERIFERA	SOUTHERN WAX MYRTLE TREE FORM	2" – 2-1/2" C / 8' – 10' HT	AS SHOWN	B&B/CONT.	3–5 TRUNKS CLR 4' HT, FULL ROUND HEAD
5	16.7%		NYSSA SYLVATICA 'AFTERBURNER'	'AFTERBURNER' BLACK GUM	2" – 2-1/2" C / 8' – 10' HT	AS SHOWN	B&B/CONT	FULL HEAD W/ UNIFORM GROWTH
9	30.0%		QUERCUS PHELLOS 'RT3' P.P. 16,444	'UPPERTON' WILLOW OAK	2" – 2-1/2" C / 12' – 14' HT	AS SHOWN	B&B	FULL HEAD W/ UNIFORM GROWTH
5	16.7%		ULMUS PARVIFOLIA 'DRAKE'	'DRAKE' CHINESE ELM	2" – 2-1/2" C / 12' – 14' HT	AS SHOWN	B&B/CONT	FULL HEAD W/ UNIFORM GROWTH
30	**100%**							
SHRUBS:								
113	25.3%		ABELIA X CHINENSIS 'ROSE CREEK'	'ROSE CREEK' ABELIA	#5 (GAL) / 15" – 18" SPD	36" O.C.	CONT	ROUND, FULL HEAD
16	3.6%		BUXUS SINICA VAR. INSULARIS	WINTERGREEN BOXWOOD	#3 (GAL) / X" – X" SPD	36" O.C.	CONT	ROUND, FULL HEAD
1	0.2%		CLEYERA JAPONICA	CLEYERA	#7 (GAL) / X" – X" SPD	48" O.C.	CONT	ROUND, FULL HEAD
83	18.6%		ILEX CORNUTA 'PHELLOS'	'NEEDLEPOINT' HOLLY	#5 (GAL) / 18" – 24" HT.	42" O.C.	CONT	ROUND, FULL HEAD
7	1.6%		ILEX X 'CONED'	'LITTLE RED' HOLLY	#5 (GAL) / 24" – 30" SPD	60" O.C.	CONT	ROUND, FULL HEAD
135	30.2%		ILEX VOMITORIA	DWARF YAUPON HOLLY – SCHELLING	#5 (GAL) / 15" – 18" SPD	36" O.C.	CONT	ROUND, FULL HEAD
61	13.6%		LOROPETALUM CHINENSE 'SHANG-WHITE' PP #21,738	'EMERALD SNOW' FRINGE FLOWER	#3 (GAL) / 18" – 24" SPD	36" O.C.	CONT	ROUND, FULL HEAD
31	6.9%		NANDINA DOMESTICA 'MONFAR'	'SIENNA SUNRISE' NANDINA	#3 (GAL) / 18" – 24" HT.	30" O.C.	CONT	ROUND, FULL HEAD
447	**100%**							
GROUNDCOVERS:								
FILL AREA			CYNODON DACTYLON	COMMON BERMUDAGRASS	4#/1,000 S.F. (SEE TIME TABLE)	SOLID	SEED	99% PURE – 99% GERM RATE
FILL AREA			NATIVE WOODLAND WILDFLOWER BLEND	PARTIAL SHADE WILDFLOWER MIX	4#/1,000 S.F. (SEE TIME TABLE)	SOLID	SEED	99% PURE – 99% GERM RATE
FILL AREA			CYNODON DACTYLON 'TIFTON 419'	'TIFTON 419' BERMUDA SOD	SLAB / ROLL	SOLID	SOD	WEED FREE & ACTIVELY GROWING
FILL AREA			RIVER COBBLE LANDSCAPE STONE	RIVER COBBLE	3" LAYER OF (2" – 4")	SOLID	BULK	
87			ANNUAL BEDDING PLANTS	SEASONAL COLOR	4" POT, 2"– 4" HT.	10" O.C.	POT	WEED FREE & ACTIVELY GROWING

NOTE: SYMBOLS SHOWN IN TABLE ABOVE ARE FOR SPECIES IDENTIFICATION ONLY. PLANT SIZE SHOWN IN THE TABLE IS NOT INTENDED TO BE REPRESENTATIVE OF THE PLANT AT EITHER INSTALLATION OR MATURITY. SIZE OF SYMBOL SHOWN IN TABLE ABOVE MAY VARY FROM THOSE SHOWN ON PLANS.

NOTE: NO SUBSTITUTIONS OF PLANT MATERIALS ARE ALLOWED WITHOUT THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MAINTENANCE AND A WARRANTY ON ALL PLANT MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

ALL UNSURFACED AREAS SHALL RECEIVE A 4" LAYER OF SUITABLE TOPSOIL AND SOD. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED

TREE PROTECTION FENCING TO BE REMOVED JUST PRIOR TO THE INSTALLATION OF ALL LANDSCAPE PLANTING.

SOD SHALL BE PEGGED ON ALL 3:1 SLOPES OR STEEPER IN ORDER TO HOLD SOD IN PLACE. SEE SITEWORK SPECIFICATIONS FOR OTHER REQUIREMENTS.

UNLESS SHOWN OTHERWISE, ALL LARGE CANOPY TREES SHALL MAINTAIN 25' HORIZONTAL CLEARANCE FROM ALL OVERHEAD UTILITY LINES AND 10' HORIZONTAL CLEARANCE FROM ALL UNDERGROUND UTILITY LINES.

ALL LANDSCAPE AREAS SHALL BE FULLY IRRIGATED AS SHOWN ON THE IRRIGATION PLAN. SEE IRRIGATION PLAN, THIS SET, FOR ADDITIONAL INFORMATION.

PERMANENT SEEDING SHALL BE APPLIED BASED ON THE TIME OF YEAR AND TEMPERATURE OF SOIL.

MAY 1 – JULY 30 (OR ONCE SOIL TEMP. IS ABOVE 60°) APPLY HULLED BERMUDA SEED @ MIN 4 LBS / 1000 SF.

PERMANENT SEEDING OPERATIONS WITH BERMUDAGRASS SEED SHALL NOT TAKE PLACE DURING AUGUST. IF SEEDING IS REQUIRED, APPLY THE TEMPORARY SEED MIX TO STABILIZE THE SOIL, AND RE-SEED WITH THE PERMANENT SEED MIX DURING THE FALL/WINTER SEASON.

SEPTEMBER 1 – FEBRUARY 28 (OR ONCE SOIL TEMP. IS BELOW 60°) – APPLY UNHULLED BERMUDA SEED @ MIN 8 LBS / 1000 SF AND OVERSEED WITH TEMPORARY SEED MIX AS DESCRIBED IN THE SEEDING AND SODDING NOTES.

PERMANENT SEEDING OPERATIONS WITH BERMUDAGRASS SEED SHALL NOT TAKE PLACE DURING MARCH – APRIL. IF SEEDING IS REQUIRED, APPLY THE TEMPORARY SEED MIX TO STABILIZE THE SOIL, AND RE-SEED WITH THE PERMANENT SEED MIX DURING THE SUMMER SEASON.

G. NON-RESIDENTIAL, ATTACHED HOUSE, AND MULTIFAMILY (EXCEPT MANUFACTURING), TREE CANOPY AND LANDSCAPE REQUIREMENTS.

1. INTENT. TO ESTABLISH MINIMUM LANDSCAPE REQUIREMENTS FOR COMMERCIAL, MIXED USE, ATTACHED HOUSE, AND MULTIPLE FAMILY BUILDINGS, IN ADDITION TO ANY REQUIRED LANDSCAPE BUFFERS AND SCREENS, TO AESTHETICALLY IMPROVE THEIR APPEARANCE, AND TO ENSURE THAT THE YARDS ARE PLANTED APPROPRIATELY.

2. APPLICABILITY. THESE STANDARDS APPLY TO ALL PROPERTIES IN THE NC1, C1, C2, NO, O, P, R6, AND R7 DISTRICTS.

3. TREE CANOPY COVERAGE REQUIREMENTS. ONE (1) LARGE OR MEDIUM OVERSTORY TREE IS REQUIRED FOR EVERY TWO THOUSAND (2,000) SQUARE FEET OF LANDSCAPE AREA. REFER TO III.5.F(3) FOR GENERAL REQUIREMENTS.

3.a. EXISTING TREE CANOPY MAY BE UTILIZED TO MEET THIS REQUIREMENT. REFER TO III.5.F(4)(B) FOR DETAILS.

4. LANDSCAPE AREAS REQUIREMENTS. A MINIMUM OF FORTY (40) PERCENT OF THE FRONT AND CORNER SIDE YARDS NOT ALREADY DESIGNATED AS A FRONTAGE OR SIDE AND REAR BUFFER (REFER TO III.5.J-K) SHALL BE EITHER ORNAMENTAL PLANTING BEDS (REFER TO III.5.B(7)(B)) OR NATURAL LANDSCAPE AREAS (REFER TO III.5.E).

FRONTAGE BUFFER:

3.D TREES. A MEDIUM OR LARGE OVERSTORY TREE SHALL BE PLANTED WITHIN THE REQUIRED LANDSCAPE BUFFER, LOCATED ON THE STREET SIDE OF THE FENCE, SPACED TO ALTERNATE WITH STREET TREES SO THAT THE FINAL EFFECT IS A STAGGERED TREE LINE. WHERE NO STREET TREES ARE PROVIDED, THE BUFFER TREES SHALL BE PLANTED A MINIMUM OF THIRTY (30) FEET AND A MAXIMUM OF FIFTY (50) FEET ON CENTER.

- LENGTH OF FRONTAGE ROAD: ~265 L.F.
- TREE SPACING RANGING FROM 30'–50' O.C. = 5.3 TO 8.8 FRONTAGE TREES.

Tennessee811 Know what's below. Call before you dig.

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

CHARLES R. WALKER REGISTERED LANDSCAPE ARCHITECT STATE OF TENNESSEE NO. 2855 — Sept. 07, 22

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 2

L1.0
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

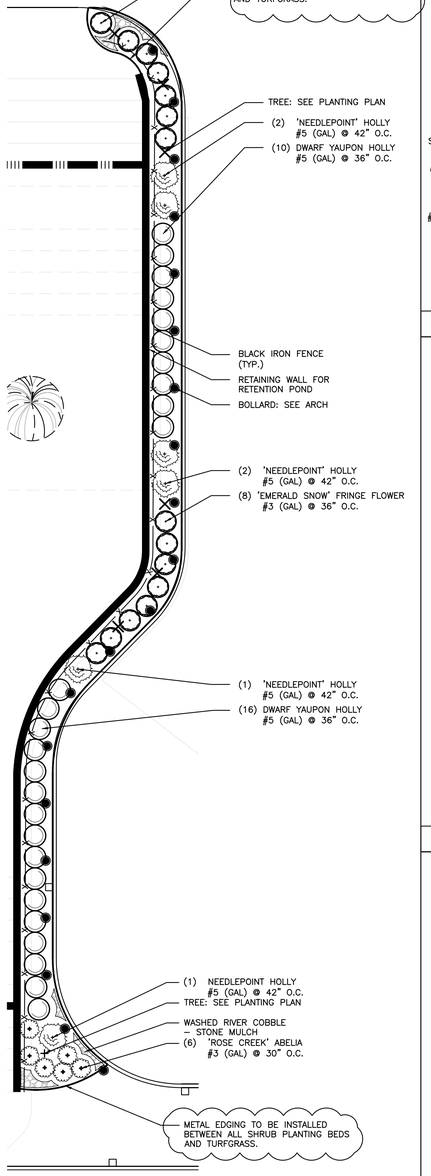
PLANTING PLAN

8872 HIGHWAY 64
LAKELAND, TENNESSEE

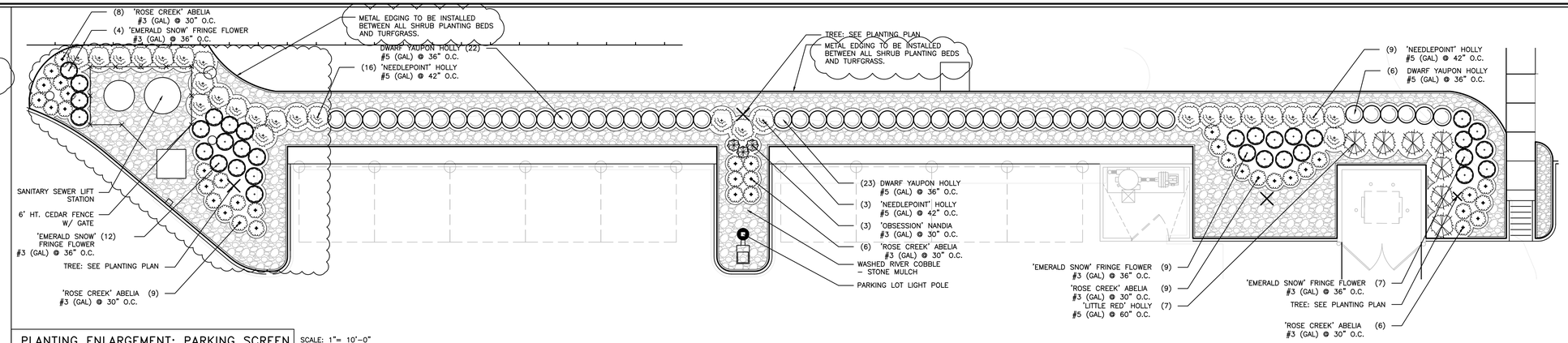
SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	1"=30'
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

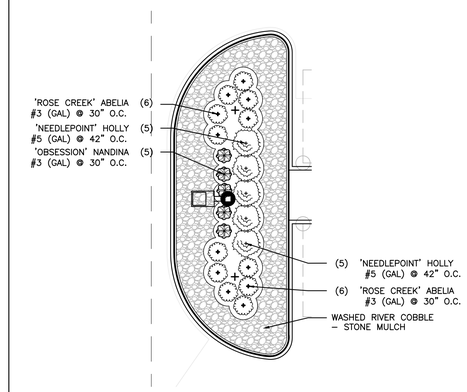
DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



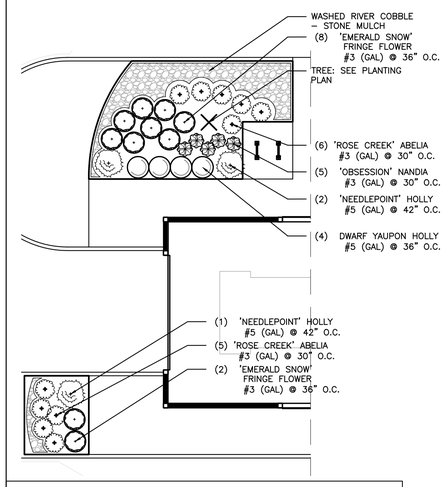
PLANTING ENLARGEMENT: SOUTH SCREEN SCALE: 1"= 10'–0"



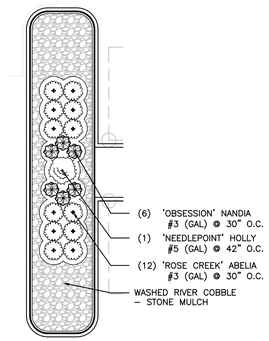
PLANTING ENLARGEMENT: PARKING SCREEN SCALE: 1"= 10'–0"



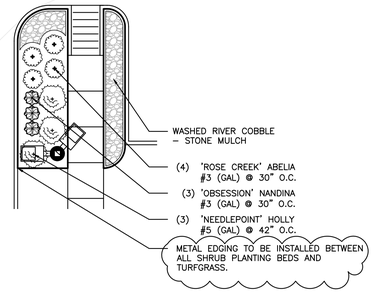
PLANTING ENLARGEMENT: SOUTH PARKING END SCALE: 1"= 10'–0"



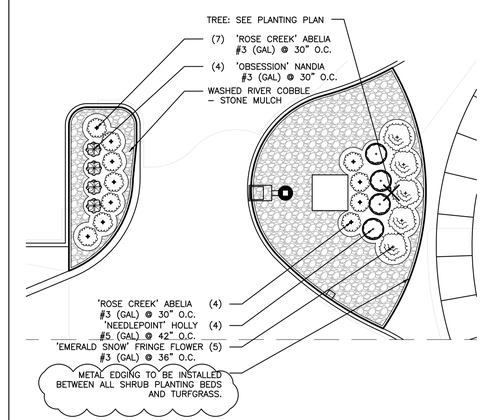
PLANTING ENLARGEMENT: SOUTH BLDG FRONTAGE SCALE: 1"= 10'–0"



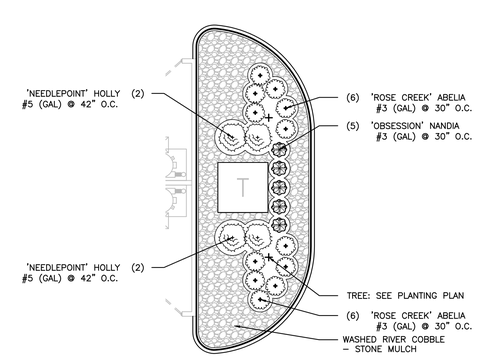
PLANTING ENLARGEMENT: PARKING ISLAND SCALE: 1"= 10'–0"



PLANTING ENLARGEMENT: NORTH PLANTING BED SCALE: 1"= 10'–0"



PLANTING ENLARGEMENT: NORTH BLDG FRONTAGE SCALE: 1"= 10'–0"



PLANTING ENLARGEMENT: NORTH PARKING END SCALE: 1"= 10'–0"

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CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12–A
SHEET NUMBER: 2 OF 2

L1.1
SEWER BASIN: WN–10

DIVISION OF ENGINEERING

PLANTING ENLARGEMENTS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	1"=10'
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

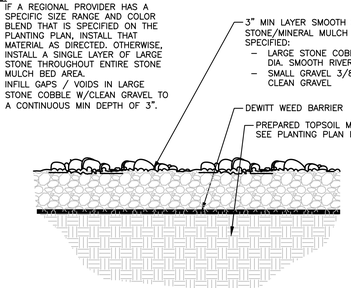
REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____

PLANTING NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION TO OWNER'S SATISFACTION, AT NO ADDITIONAL COST. NO PLANTING SHALL BE INSTALLED IN CONFLICT WITH UTILITIES.
2. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON THE BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF UTILITY LINES ON THE PROJECT SITE AND ADJACENT TO THE WORK AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS PRIOR TO PROCEEDING. IF UNFORESEEN CIRCUMSTANCES ARE ENCOUNTERED, THE CONTRACTOR IS TO STOP WORK AND CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY.
4. SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
5. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
6. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.
7. ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
8. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
9. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
10. ALL LANDSCAPED AREAS SHALL BE SPRAYED WITH HERBICIDE 4 WEEKS PRIOR TO INSTALLATION OF LANDSCAPING. THE EXISTING MATERIAL SHALL BE REMOVED BEFORE ANY INSTALLATION OF PLANT MATERIAL OR SEED.
11. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
12. ALL NEW TREES SHALL HAVE 'MYCOR TREE SAVER' OR EQUAL MYCORIZAL FUNGAL TREATMENT INSTALLED AT RATE RECOMMENDED BY MANUFACTURER AT THE TIME OF INSTALLATION.
13. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
14. ALL SHRUB BED AREAS SHALL RECEIVE A MIN OF 8" OF PLANTING BED MIX AS DESCRIBED IN PLANTING BED PREP DETAIL (THIS PAGE).
15. GRADE PLANTING BEDS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. ALL BED AREAS SHALL BE BERMED TO PROMOTE GOOD BED DRAINAGE (AFTER GENTLE TOPSOIL TAMPING).
16. ALL CONSTRUCTION AREAS ON THE SUBJECT SITE TO RECEIVE TURFGRASS SHALL RECEIVE A 4" MIN DEPTH OF SUITABLE TOPSOIL MIX PER DETAILS AND SPECIFICATIONS.
17. PRIOR TO PLANTING OR SEEDING, MULTIPLE REPRESENTATIVE SAMPLES OF THE TOPSOIL SOURCE SHALL BE TAKEN AND SENT TO A QUALIFIED TESTING AGENCY FOR ANALYSIS. FERTILIZE SUITABLE TOPSOIL IN TURFGRASS AREAS AS PER TESTING AGENCY'S RECOMMENDATIONS FOR TURFGRASS SPECIES SPECIFIED ON PLANS. THE PLANTING BED MIX TO BE USED IN SHRUB PLANTING BEDS IS TO BE FERTILIZED AS PER TESTING AGENCY'S RECOMMENDATIONS FOR ORNAMENTAL PLANTINGS.
18. ALL PLANTING BEDS SHALL HAVE 'SURFLAN' OR EQUAL PRE-EMMERGENT HERBICIDE BROADCAST AT RATE RECOMMENDED BY MANUFACTURER.
19. PLANTING OPERATIONS SHOULD ONLY TAKE PLACE DURING SUITABLE WEATHER CONDITIONS. PLANTS ARE NOT TO BE INSTALLED WHEN THE SOIL IS EITHER HIGHLY SATURATED OR FROZEN.
20. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
21. DURING THE GROWING SEASON ALL ANNUALS SHALL REMAIN IN A HEALTHY, VIABLE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
22. ALL PLANTING AREAS, SHRUB, GROUND COVER AND SEASONAL COLOR ANNUAL PLANTING BEDS, ARE TO BE COMPLETELY COVERED WITH SHREDDED HARDWOOD MULCH AND SHALL MAINTAIN A MINIMUM LAYER OF FOUR INCHES (4") IN DEPTH AFTER SETTLING.
23. THERE IS NO SEPARATE PAY ITEM FOR DRESSING OUT SHRUB BEDS OR TREE SAUCERS WITH SHREDDED HARDWOOD MULCH, IT SHALL BE INCLUDED WITH THE COST OF ALL PLANT MATERIALS.
24. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. ALL PLANT MATERIALS QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
25. ALL UNSURFACED AREAS SHALL RECEIVE A 4" LAYER OF SUITABLE TOPSOIL AND SOD. WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
26. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC) OF THE PLANTING AREAS AND LAWN UNTIL APPROVED BY THE LANDSCAPE ARCHITECT AND THE WORK IS ACCEPTED IN TOTAL BY THE OWNER.
27. ALL PLANT MATERIALS SHALL BE UNCONDITIONALLY GUARANTEED IN ACCORDANCE WITH THE FOLLOWING SPECIAL WARRANTY GUIDELINES AGAINST ALL DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.
    - WARRANTY PERIOD FOR TREES AND SHRUBS: ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
    - WARRANTY PERIOD FOR GROUND COVER AND PLANTS: SIX MONTHS FROM DATE OF SUBSTANTIAL COMPLETION.
28. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL GUY WIRES AT THE END OF THE 1 YEAR WARRANTY PERIOD FOR TREES.
29. REFER TO PROJECT SITEWORK SPECIFICATIONS FOR ALL INFORMATION NEEDED FOR IMPLEMENTATION OF PLANTING PLANS.

PLANTING NOTES



STONE–COBBLE / MINERAL MULCH

NTS

TEMPORARY SEEDING

- SEED: MIXTURE 70% RYEGRASS/30% WINTER WHEAT 4 LBS / 1,000 SQ FT.
- AREAS TO RECEIVE SEED SHALL BE FERTILIZED WITH A COMPLETE FERTILIZER PER EXTENSION SERVICE'S RECOMMENDATIONS.

PERMANENT SEEDING

- SEED MIX B: COMMON BERMUDA (REFER TO BOX NOTE BELOW FOR SEED TYPE FOR TIME OF APPLICATION)
- AREAS TO RECEIVE HYDRO–SEED SHALL BE FERTILIZED WITH A COMPLETE FERTILIZER PER EXTENSION SERVICE'S RECOMMENDATIONS

SEED:

- SEED MIX B: COMMON BERMUDA (REFER TO BOX NOTE BELOW FOR SEED TYPE AT TIME OF APPLICATION)
- ALL DISTURBED AREAS NOT RECEIVING SOD SHALL BE HYDRO–SEEDED WITH SEED MIX UNLESS NOTED OTHERWISE.
- PREPARATION OF ALL AREAS TO BE HYDRO–SEEDED SHALL CONSIST OF THOROUGHLY LOOSENING OR SCARIFYING THE SOIL TO A DEPTH OF TWO (2) TO FOUR (4) INCHES USING A TRACTOR DISC OR OTHER APPROVED METHOD. AREAS TO BE HYDRO–SEEDED SHALL BE CLEARED OF ANY WEEDS, STICKS, OR OTHER DEBRIS. HYDRO–SEEDING MAY BE DONE IMMEDIATELY THEREAFTER PROVIDED THE BED HAS REMAINED IN GOOD FRIABLE CONDITION AND HAS NOT BECOME WET. WATER ALL HYDRO–SEEDED SOIL IMMEDIATELY AFTER HYDRO–SEEDING USING SPRAY NOZZLES OR ANOTHER ACCEPTABLE METHOD WHICH DOES NOT CAUSE SOIL OR HYDRO–SEED TO WASH AWAY.
- SUITABLE TOPSOIL SHALL MEET THE FOLLOWING REQUIREMENTS:
    - IT SHALL ALL BE A RICH EASILY FRIABLE BROWN OR BLACK LOAMY TO SANDY LOAM SOIL
    - 5% ORGANIC MATERIAL
    - PH OF 5.5 – 7.4
    - FREE OF WEEDS, LITTER, STIFF CLAY, OR STONES GREATER THAN 1" IN DIAMETER
    - HEAVY CLAYS AND FINE SILTY SOILS ARE NOT ACCEPTABLE
- ANY AREAS WHERE THE HYDRO–SEED MAY WASH OR BLOW AWAY OR DOES NOT GERMINATE SHALL BE RE–GRADED AND RE–SEEDED UNTIL AREA HAS A FULL AND HEALTHY STAND OF TURFGRASS.
- AREAS TO RECEIVE HYDRO–SEED SHALL BE FERTILIZED WITH A COMPLETE FERTILIZER AS PER EXTENSION SERVICE'S RECOMMENDATIONS FOR SPECIFIED TURFGRASS SPECIES.
- CONTRACTOR SHALL SEQUENCE HYDRO–SEEDING TO PROVIDE A HEALTHY STAND OF GRASS AT THE TIME OF THE OWNER'S POSSESSION.

SOD:

- ALL SODDED AREAS SHALL BE 'TIFTON 419' HYBRID BERMUDA.
- ALL CURBED ISLANDS SHALL BE SODDED UNLESS NOTED OTHERWISE.
- SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- SLOPES GREATER THAN 3:1 SHALL BE REINFORCED AND PEGGED.
- ALL AREAS TO BE SODDED SHALL RECEIVE A MINIMUM 4" LAYER OF SUITABLE TOPSOIL THAT MEETS THE CONDITIONS LISTED ABOVE AND THAT HAS BEEN TILLED, FINE GRADED, AND HAS HAD ALL STONES, ROOTS, DEBRIS, ETC REMOVED.
- SOD SHALL BE LAID AS SOON AS IT IS DELIVERED TO PLANTING AREAS. ONLY HEALTHY MOIST GREEN SOD SHALL BE LAID. ANY SOD WHICH IS BROWN AND UNDER STRESS IS UNACCEPTABLE. ANY SOD WHICH IS NOT LAID WITHIN 24 HOURS OF DELIVERY SHALL BE UNACCEPTABLE.
- SOD SHALL BE A MINIMUM OF 3/4" THICK, FREE OF WEEDS AND PESTS, AND CUT NO MORE THAN 24 HOURS PRIOR TO PLANTING.
- SOD PANELS SHALL BE LAID TIGHTLY TOGETHER AND END JOINTS STAGGERED SO AS TO MAKE A SOLID SODDED AREA.
- ANY JOINTS OR SEAMS THAT MAY EXIST AFTER LAYING SOD SHALL BE FILLED WITH SAND SO AS TO CREATE A SMOOTH AND UNIFORM GROWING SURFACE.
- SOD SHALL BE ROLLED AND WATERED AT THE TIME OF INSTALLATION TO ENSURE GOOD SOD–SOIL CONTACT AND TO PROVIDE A SMOOTH, UNIFORM WALKING SURFACE.

SOD SHALL BE PEGGED ON ALL SLOPES 4:1 AND GREATER IN ORDER TO HOLD SOD IN PLACE. SEE SITEWORK SPECIFICATIONS FOR OTHER REQUIREMENTS.

ALL DISTURBED AREAS SHALL RECEIVE A 4" LAYER OF SUITABLE TOPSOIL AND HYDRO–SEED, MULCH, OR SOD (WHERE SHOWN). AREA SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED. SOD MAY BE SUBSTITUTED FOR HYDRO–SEED IN TURF GRASS AREAS AT GENERAL CONTRACTOR'S DISCRETION WITH NO ADDITIONAL COST TO OWNER. SOD TYPE SHALL MATCH PERMANENT SOD TYPE SPECIFIED ON CONSTRUCTION PLANS.

PERMANENT SEEDING SHALL BE APPLIED BASED ON THE TIME OF YEAR AND TEMPERATURE OF SOIL.

MAY 1 – JULY 30 (OR ONCE SOIL TEMP. IS ABOVE 60') APPLY HULLED BERMUDA SEED @ MIN 4 LBS / 1000 SF.

PERMANENT SEEDING OPERATIONS WITH BERMUDAGRASS SEED SHALL NOT TAKE PLACE DURING AUGUST. IF SEEDING IS REQUIRED, APPLY THE TEMPORARY SEED MIX TO STABILIZE THE SOIL, AND RE–SEED WITH THE PERMANENT SEED MIX DURING THE FALL/WINTER SEASON.

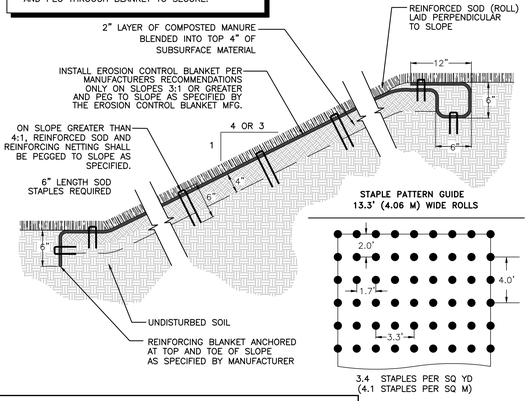
SEPTEMBER 1 – FEBRUARY 28 (OR ONCE SOIL TEMP. IS BELOW 60') – APPLY UNHULLED BERMUDA SEED @ MIN 8 LBS / 1000 SF AND OVERSEED WITH TEMPORARY SEED MIX AS DESCRIBED IN THE SEEDING AND SODDING NOTES.

PERMANENT SEEDING OPERATIONS WITH BERMUDAGRASS SEED SHALL NOT TAKE PLACE DURING MARCH – APRIL. IF SEEDING IS REQUIRED, APPLY THE TEMPORARY SEED MIX TO STABILIZE THE SOIL, AND RE–SEED WITH THE PERMANENT SEED MIX DURING THE SUMMER SEASON.

SEEDING & SODDING NOTES

- INSTALL EROSION CONTROL BLANKET AS SPECIFIED BY THE MANUFACTURER.
- FILL SPACES IN BLANKET AND COVER WITH UP TO 1/2" OF SAND TO REMOVE ALL AIR SPACES.
- INSTALL SOD OVER SAND AND REINFORCING BLANKET AND PEG THROUGH BLANKET TO SECURE.

ANY SLOPE GREATER THAN 4:1 SHALL HAVE SOD PEGGED IN PLACE (WITHOUT USE OF BLANKET)



SODDING ON SLOPES

NTS

SHADE AND FLOWERING TREES					
	CALIPER	HEIGHT TYPE 1	HEIGHT TYPE 2	MINIMUM DIAMETER BALL	BALL DEPTH
MEASURED @ 6" ABOVE GRADE	INCHES	FEET	FEET	INCHES	INCHES
	1"	8'–10'	6'–7'	16"	12"
	1–1/2"	10'–12'	8'–9'	20"	15"
	2"	12'–14'	8'–10'	24"	16"
	2–1/2"	12'–14'	8'–10'	28"	18"
	3"	14'–16'	10'–12'	32"	19"
	3–1/2"	14'–16'	10'–12'	38"	23"
	4"	16'–18'	10'–12'	42"	25"
MEASURED @ 12" ABOVE GRADE	4–1/2"	16'–18'	10'–12'	48"	29"
	5"	18'+	12'+	54"	32"
	5–1/2"	18'+	12'+	57"	34"
	6"	20'+	14'+	60"	36"
	7"	24'+	16'+	70"	42"
	8"	26'+	18'+	80"	48"

SOURCE: AMERICAN STANDARD FOR NURSERY STOCK – CALIPER TAKES PRECEDENCE OVER HEIGHT FOR TYPE I SHADE TREES.

TYPE 1 (LARGE SHADE TREES)
ACER RUBRUM
ACER SACCHARUM
BETULA *SPP*
GINKGO *SPP*
GLEDITISA *SPP*
PLATANUS *SPP*
QUERCUS *SPP*
TAXODIUM *SPP*
SALIX *SPP*
ZELKOVA *SPP*

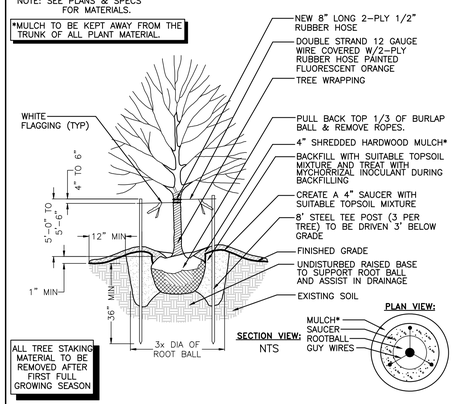
TYPE 2 (MEDIUM/SLOW SHADE TREES)
AESCULUS *SPP*
CELTIS *SPP*
CLADRASTIS LUTEA
FAGUS SYLVATICA
KOELREUTERIA *SPP*
LABURNUM *SPP*
LIQUIDAMBAR *SPP*
MAGNOLIA GRANDIFLORA
NYSSA *SPP*
OLEA EUROPA
QUERCUS ALBA
SORBUS *SPP*
TILIA CORDATA
ULMUS PARVIFOLIA

TYPE 3 (SMALL UPRIGHT TREES)
ACER CAMPESTRE
AMELANCHIER *SPP*
CARPINUS *SPP*
CERCIS *SPP*
CRATAEGUS *SPP*
OXYDENDRUM *SPP*
MAGNOLIA VIRGINIANA
PRUNUS *SPP*
PYRUS *SPP*
STYRAX *SPP*
SYRINGA RETICULATA

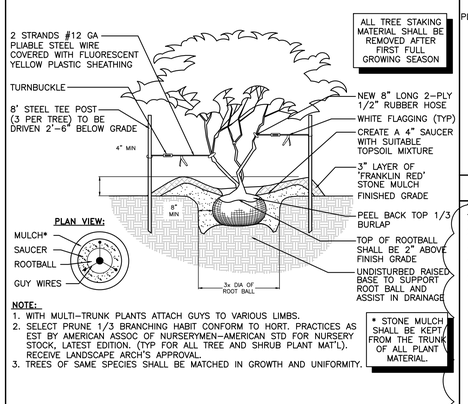
TYPE 4 (SMALL SPREADING TREES)
ACER PALMATUM
ACER GRISEUM
CORNUS *SPP*
LAGERSTROMIA *SPP*
MAGNOLIA SOULANGIANA
MAGNOLIA STELLATA
VITEX *SPP*

ALL MINIMUM SIZES SHALL BE MET: CALIPER, HEIGHT, AND ROOT BALL

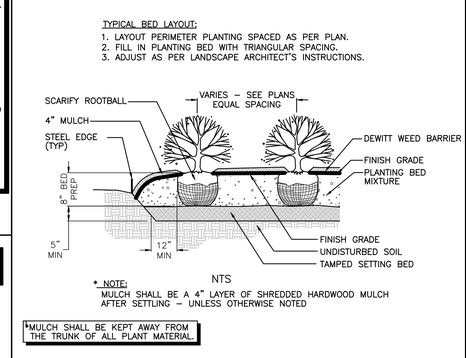
TREE SIZE/ROOT BALL RELATIONSHIP



TREE PLANTING

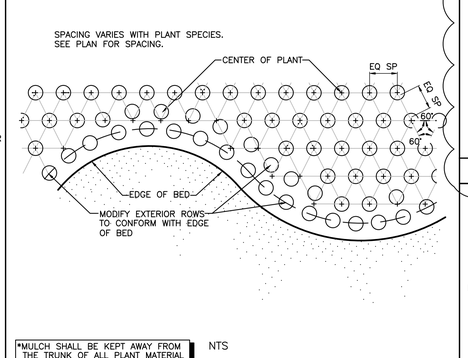


MULTI–TRUNKED TREE PLANTING



NTS

SHRUB PLANTINGS



NTS

PLANT SPACING

PARKING LOT ISLAND PREPARATION

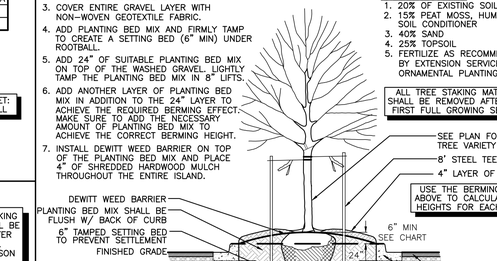
1. REMOVE ALL THE COMPACTED STONE AND FILL DIRT OUT OF THE CENTER OF THE ISLANDS DOWN TO A DEPTH OF 28" BELOW THE TOP OF THE CONCRETE CURB.
2. LINE BOTTOM OF PIT W/ NON–WOVEN GEOTEXTILE FABRIC AND ADD A 4" – 8" LAYER (SLOPED BOTTOM) OF WASHED GRAVEL IN THE BOTTOM OF THE ISLAND TO PROVIDE ADEQUATE DRAINAGE.
3. COVER ENTIRE GRAVEL LAYER WITH NON–WOVEN GEOTEXTILE FABRIC.
4. ADD PLANTING BED MIX AND FIRMLY TAMP TO CREATE A SETTING BED (6" MIN) UNDER ROOTBALL.
5. ADD 24" OF SUITABLE PLANTING BED MIX ON TOP OF THE WASHED GRAVEL. LIGHTLY TAMP THE PLANTING BED MIX IN 8" LIFTS.
6. ADD ANOTHER LAYER OF PLANTING BED MIX IN ADDITION TO THE 24" LAYER TO ACHIEVE THE REQUIRED BERMING EFFECT. MAKE SURE TO ADD THE NECESSARY AMOUNT OF PLANTING BED MIX TO ACHIEVE THE CORRECT BERMING HEIGHT.
7. INSTALL DEWITT WEED BARRIER ON TOP OF THE PLANTING BED MIX AND PLACE 4" OF SHREDDED HARDWOOD MULCH THROUGHOUT THE ENTIRE ISLAND.

BERMING CHART	
WIDTH OF ISLAND	BERM HEIGHT
3' – 4'	6"
4' – 6'	8"
6' – 8'	12"
> 8'	1–1/2" / 1'–0" WIDTH

PLANTING BED MIX:

1. 20% OF EXISTING SOIL
2. 15% PEAT MOSS, HUMUS, OR SOIL CONDITIONER
3. 40% SAND
4. 25% TOPSOIL
5. FERTILIZE AS RECOMMENDED BY EXTENSION SERVICE FOR ORNAMENTAL PLANTINGS.

ALL TREE STAKING MATERIAL SHALL BE REMOVED AFTER THE FIRST FULL GROWING SEASON



NOTE:
SEE PLANS & SPECS FOR MATERIALS.

TYPICAL ISLAND

NTS

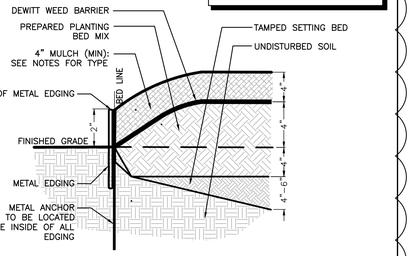
PLANTING BED PREPARATION:

1. LAYOUT BED LINE USING SMOOTH FLOWING CURVES.
2. CUT INTO EXISTING SOIL AT APPROXIMATELY A 60° ANGLE, TURNING SOIL BACK INTO BED AREA.
3. ADD AMENDMENTS AND TILL BED UNTIL BLENDED.
4. MAINTAIN CUT EDGE AT 3" DEPTH TO HOLD MULCH IN PLACE.
5. ADA METAL EDGING ALONG THE OUTSIDE EDGE OF ALL PLANTING BEDS THAT IMMEDIATELY ABOUT TURFGRASS.

PLANTING BED MIX:

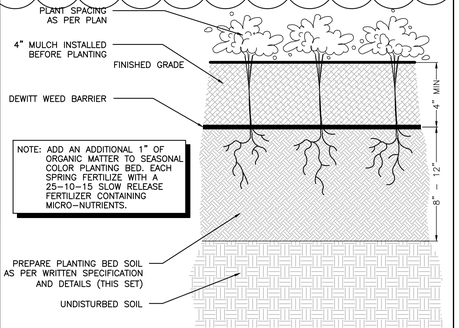
1. 20% EXISTING APPROVED ONSITE SOIL
2. 15% ORGANIC MATTER
3. 40% SAND
4. 25% SUITABLE TOPSOIL
5. FERTILIZE AS RECOMMENDED BY EXTENSION SERVICE FOR ORNAMENTAL PLANTINGS.

USE ONLY IN ABSENCE OF LOCALLY AVAILABLE LANDSCAPE PLANTING MIX



PLANTING BED PREP w/ METAL EDGING

NTS



GROUND COVER & SEASONAL COLOR PLANTINGS

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

CHARLES R. WALKER REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 0905
Sept. 07, 22

CITY OF LAKELAND ENGINEER _____ DATE _____

DRAINAGE BASIN: FLETCHER 12–A
SHEET NUMBER: 1 OF 2

L1.2

SEWER BASIN: WN–10

DIVISION OF ENGINEERING

PLANTING DETAILS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

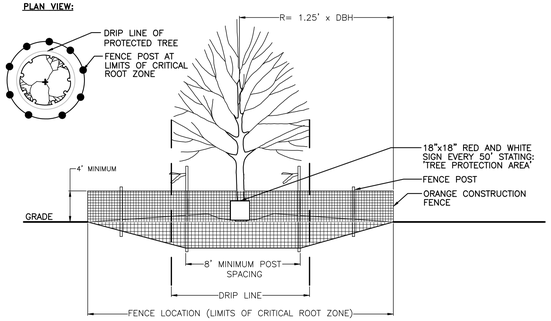
DEPUTY CITY OF MEMPHIS ENGINEER _____ DATE _____ CITY OF MEMPHIS ENGINEER _____ DATE _____

CARLSON CONSULTING ENGINEERS, INC.

7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384–0404 • FX. (901) 384–0710

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

PLAN VIEW:



RADIUS = 1.25 FT PER INCH OF TRUNK DIAMETER
DBH = DIAMETER AT BREAST HEIGHT

TREE PROTECTION FENCING

1. ALL TREES AND NATURAL AREAS SHOWN ON THIS PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO PLANS AND SPECIFICATIONS FOR TREE PROTECTION.
3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIPLINES.
5. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE LIMITS OF THE CRITICAL ROOT ZONE. FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6") OR TRENCHING NOT REVIEWED BY CITY ARBORIST.
   C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, STORAGE, CEMENT TRUCK CLEANING, & FIRES.
6. EXCEPTIONS TO INSTALLING FENCES AT THE LIMITS OF THE CRITICAL ROOT ZONE MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT.
   B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN THE PROTECTED AREA, 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).
   C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS ERECT THE FENCE TO 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING.
   D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE OR OTHER SPECIAL REQUIREMENTS.
7. 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 PLANKING TO A HEIGHT OF 8 FEET (OR LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES DOES NOT IMPACT TREES TO BE PRESERVED.
9. 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.
10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE. ALL TRENCHING WITHIN THE DRIPLINE SHALL BE DONE BY HAND.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITH IN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.
13. 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 UPON REQUEST FROM THE CITY ARBORIST.)
14. DEVIATIONS FROM THE ABOVE NOTES WILL BE CONSIDERED SPECIFICATION VIOLATIONS. IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL REPLACEMENTS OR CORRECTIVE ACTIONS AT HIS OWN EXPENSE.

OPEN (FLATTER) AREAS
HYDRO-SEED OPEN AREAS
W/ SPECIFIED SEED BLEND
MIXED WITH 3,000 LBS HYDRA CM
BONDED FIBER MATRIX / ACRE (MIN)

SLOPED AREAS
SLOPES TO BE HYDRO-SEEDED W/
SPECIFIED SEED BLEND
MIXED WITH 4,000 LBS HYDRA CM
BONDED FIBER MATRIX / ACRE (MIN).
EROSION CONTROL BLANKET INSTALLED
OVER HYDRO-SEEDED AREA

NOTE TO CONTRACTOR:
SEED AND STRAW ARE NOT AN ACCEPTABLE SUBSTITUTION FOR HYDRO-SEEDED AREAS.

ALL AREAS TO BE HYDRO-SEEDED
1. SPREAD, AMMEND, OR INSTALL SOIL/GROWING MEDIUM AS SPECIFIED ON THE PLANS, AND FINE GRADE SURFACE.
2. HYDRO-SEED AREA WITH SPECIFIED SEED MIX AT THE STATED RATE, AND CORRECT AMOUNT OF BONDED FIBER MATRIX.
3. COVER SEEDED AREA WITH THE EROSION CONTROL BLANKET SPECIFIED IN THE TABLE AND INSTALL AS PER MANUFACTURERS RECOMMENDATION UNLESS OTHERWISE DIRECTED BY CEC.
4. SPREAD SHARP WHITE SAND OR A HIGH SAND TOPSOIL BLEND OVER THE BLANKET TO FILL AND REMOVE ALL VOIDS AND/OR AIR POCKETS FROM THE BLANKET. COVER SANDED BLANKET WITH SUITABLE TOPSOIL TO A DEPTH OF 0.5" TO 1.0".
5. MAKE A SECOND HYDRO-SEED APPLICATION OVER THE AREA WITH SPECIFIED SEED MIX AT THE STATED RATE AND THE CORRECT AMOUNT OF BONDED FIBER MATRIX.

HYDRO-SEED NOTES

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

CHARLES R. WALKER REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 0855
Sept. 07, 22

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 2 OF 2

L1.3
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

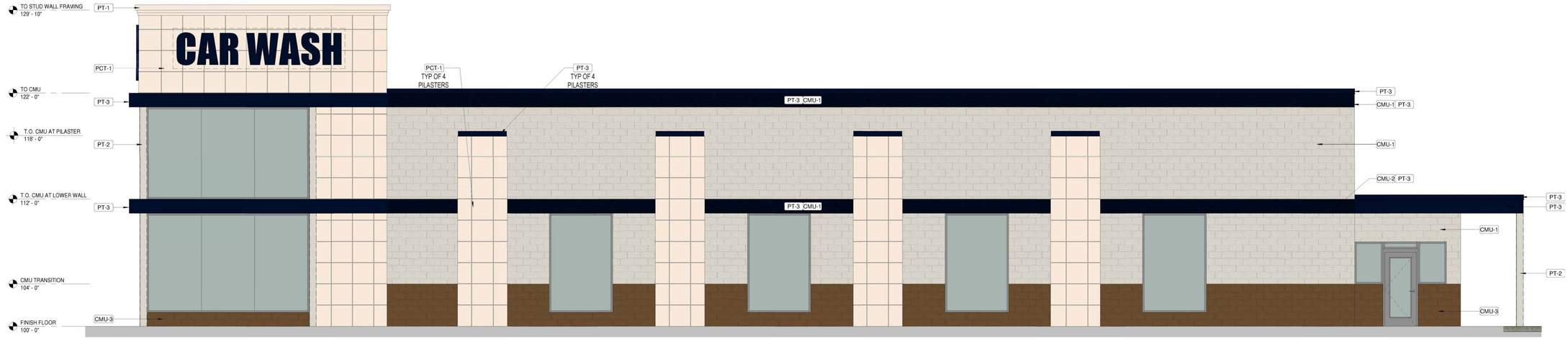
PLANTING DETAILS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____



2 EAST ELEVATION

1 WEST ELEVATION

EXTERIOR FINAL FINISH SCHEDULE:

PT - 1	**PAINT - EXTERIOR (TRIM, REF ELEVATIONS)** SHERWIN WILLIAMS COLOR: TO MATCH PORCELAIN TILE, EGGSHELL, EXTERIOR, SW 9173 SHIITAKE PRIME SURFACES AS REQUIRED REF SPECIFICATIONS
PT - 2	**PAINT - EXTERIOR (TRIM, REF ELEVATIONS)** SHERWIN WILLIAMS CUSTOM COLOR: TO MATCH CMU-1, EXTERIOR
PT - 3	**PAINT - EXTERIOR (TRIM, REF ELEVATIONS)** SHERWIN WILLIAMS CUSTOM COLOR: GLIDE XPR RIDE THE GLIDE BLUE, SEMI-GLOSS, EXTERIOR PRIME SURFACES AS REQUIRED REF SPECIFICATIONS
PT - 4	**PAINT - EXTERIOR (TRIM, REF ELEVATIONS)** SHERWIN WILLIAMS CUSTOM COLOR: TO MATCH FABRIC CANOPY CAPPUCCINO COLOR, EXTERIOR
PT - 5	**PAINT - EXTERIOR (BOLLARDS)** SHERWIN WILLIAMS COLOR: SAFETY YELLOW, SEMI-GLOSS, EXTERIOR PRIME SURFACES AS REQUIRED REF SPECIFICATIONS
XP - 1B	**EPOXY PROTECTIVE CCATING** SHERWIN WILLIAMS MACROPOXY 646 FAST CURE EPOXY PROTECTIVE & MARINE COATING COLOR: SW 6258 TRICORN BLACK, SEMI-GLOSS PREP WALL AND CEILING SURFACE AS REQUIRED BY MANUFACTURER PRIOR TO APPLYING EPOXY REF SPECIFICATIONS
XP - 1W	**EPOXY PROTECTIVE CCATING - EXTERIOR (UNDERSIDE OF CANOPY AT TUNNEL ENTRANCE)** SHERWIN WILLIAMS MACROPOXY 646 FAST CURE EPOXY PROTECTIVE & MARINE COATING COLOR: SW WHITE, SEMI-GLOSS PREP WALL AND CEILING SURFACE AS REQUIRED BY MANUFACTURER PRIOR TO APPLYING EPOXY REF SPECIFICATIONS
CMU-1	**CONCRETE MASONRY UNIT** BEST BLOCK COLOR: SOFTGOLD, INTEGRAL COLOR WITH WATER REPELLENT ADMIXTURE (OR APPROVED EQUAL) SPLIT FACE, 8 X 8 X 16 BLOCK SPLIT FACE TO BE USED ON EXTERIOR ELEVATIONS WHERE NO ADDITIONAL FINAL FINISH IS APPLIED TO THE FACE OF THE CMU WALL.
CMU-2	**CONCRETE MASONRY UNIT** BEST BLOCK COLOR: STANDARD GREY, WITH WATER REPELLENT ADMIXTURE SMOOTH FACE, 8 X 8 X 16 BLOCK
CMU-3	**CONCRETE MASONRY UNIT** MIDWEST BLOCK COLOR: SANDSTONE, INTEGRAL COLOR WITH WATER REPELLENT ADMIXTURE (OR APPROVED EQUAL) SPLIT FACE, 8 X 8 X 16 BLOCK SPLIT FACE TO BE USED ON EXTERIOR ELEVATIONS WHERE NO ADDITIONAL FINAL FINISH IS APPLIED TO THE FACE OF THE CMU WALL.
PCS-1	**PRECAST CONCRETE CAP** COLOR: TO MATCH CMU-1 SMOOTH FACE, REF PLANS FOR DIMENSIONS
PCT-1	**PORCELAIN TILE** MSI COLOR: ARIA ORO PORCELAIN: GROUT COLOR TO MATCH TILE. REF SPECS 24" X 24" TILE

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DETAILS BY OTHERS

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 2

U1.0
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

BUILDING ELEVATIONS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY BLB DATE 10/07/21 BOOK ____
DRAWN BY DPS DATE 09/07/22 SCALE NTS
DESIGN BY TLB DATE 09/07/22 PROJECT ____
REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____

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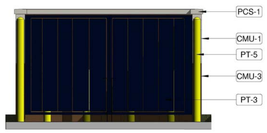
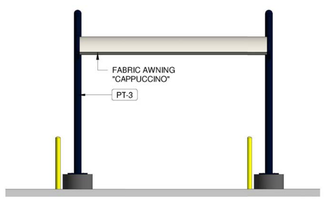
1 SOUTH ELEVATION

2 NORTH ELEVATION

5 VACUUM ENCLOSURE ELEVATION



4 DUMPSTER ENCLOSURE ELEVATION



3 CANOPY ELEVATION

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DETAILS BY OTHERS

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 2 OF 2

U1.1
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

BUILDING ELEVATIONS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
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REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____

LAKELAND, TENNESSEE- 08.12.2022

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Glide XPRESS
RIDE THE GLIDE.

LAKELAND, TENNESSEE- 08.12.2022

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Glide XPRESS
RIDE THE GLIDE.

REVISIONS

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CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER _____ DATE _____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 1

U1.2
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

COLOR RENDERINGS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
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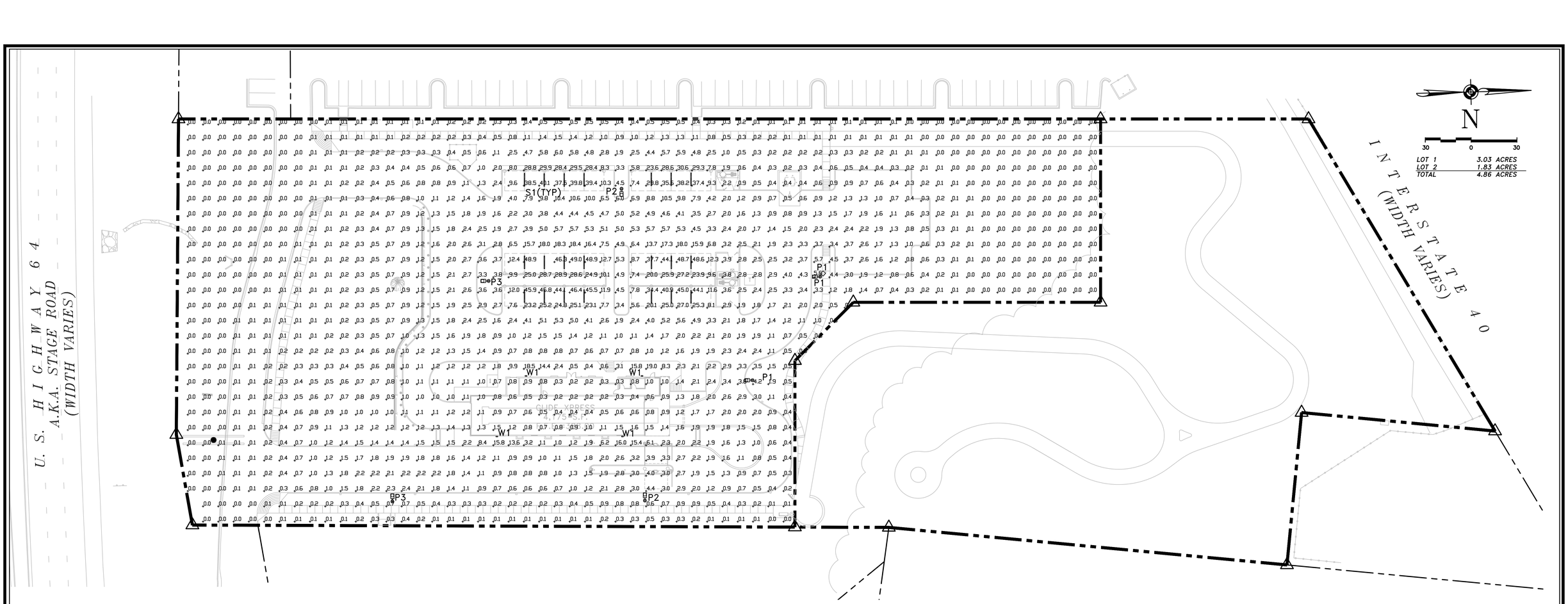

SCHEDULE

SYMBOL	LABEL	QUANTITY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	NUMBER LAMPS	LUMENS PER LAMP	LIGHT LOSS FACTOR	WATTAGE
▭	W1	4	HUBBELL OUTDOOR	TRP2-24L-30-4K7-1	GEOPAK SIZE 2	1	4065	1	27.9
▭	P2	2	BEACON PRODUCTS	VP-L-64L-135-4K7-3-HSS-90-FB	LARGE VIPER WITH NEW TYPE III OPTICS&AND 90 HOUSE-SHIELD	1	15380	1	145.06
▭	P3	2	BEACON PRODUCTS	VP-L-64L-135-4K7-4W	LARGE VIPER WITH NEW TYPE IV-W LENS	1	15576	1	135
▭	P1	3	BEACON PRODUCTS	VP-L-64L-135-4K7-3-HSS-270-FB	LARGE VIPER WITH 270 HOUSE-SHIELD	1	10439	1	145.06
▬	S1	21	COOPER LIGHTING SOLUTIONS - METALUZ (FORMERLY EATON)	8VT2-LD5-12-FR50-UNV-L850-CD2-WL-U	METALUX VT2 LED LUMINAIRE FROSTED LENS/15% DR HIGH IMPACT ADDITVE STANDARD DISTRIBUTON 8FT FIXTURE	224	58	1	101.2

NOTE:
THE AVERAGE ILLUMINATION LEVEL FOR THE PARKING LOT IS 2.8 FOOTCANDLES.

NOTE:
THE HEIGHT OF EACH LIGHTPOLE IS 25'-0"

STATISTICS

DESCRIPTION	CALC ZONE #3
SYMBOL	+
AVG	2.8 FC
MAX	49.2 FC
MIN	0.0 FC
MAX/MIN	N/A
AVG/MIN	N/A

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DETAILS BY OTHERS

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER ____ DATE ____

DRAINAGE BASIN: FLETCHER 12-A
SHEET NUMBER: 1 OF 1

U1.3
SEWER BASIN: WN-10

DIVISION OF ENGINEERING

PHOTOMETRIC PLAN

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY BLB DATE 10/07/21 BOOK ____
DRAWN BY DPS DATE 09/07/22 SCALE 1"=30'
DESIGN BY TLB DATE 09/07/22 PROJECT ____
REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER ____ DATE ____ CITY OF MEMPHIS ENGINEER ____ DATE ____

BEACON

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

VIPER L
LARGE VIPER LUMINAIRE

OPTICS STRIKE

RELATED PRODUCTS
- Viper Small

FEATURES
- Large size companion to Viper Small
- Wide choice of different LED wattage configurations
- Ten optical distributions
- Designed to replace HID lighting up to 1000W MH or HPS
- Suitable for wet locations

C US — DLC Premium — kia — Buy American Solutions
*3000K and warmer CCTs only
See Certification Specifications

CONTROL TECHNOLOGY
NX DISTRIBUTED INTELLIGENCE · wiSCAPE · energen · SiteSync LIGHTING NETWORK

SPECIFICATIONS

CONSTRUCTION
- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IP5 polyester powder-coat electrostatically applied and thermocured. IP5 finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

INSTALLATION
- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included

ELECTRICAL
- Luminaire accepts 100V through 277V, 347V or 480V input 50 Hz to 60 Hz (UNV)
- Power factor is ≥ .90 at full load
- Surge protection: 20kA
- Fixture electrical compartment contains all LED driver components

ELECTRICAL (CONTINUED)
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher; 13A rating applies to primary (AC) side only
- Optional 7-pin ANSI C136.41-2013 Twist-Lock® photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices
- Ambient operating temperature -40°C to 25°C
- Lifeshield™ Circuit (see Electrical Data)

CONTROLS
- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration
- Available with Energen® for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application.

CONTROLS (CONTINUED)
- In addition, Viper can be specified with SiteSync™ wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7

CERTIFICATIONS
- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Certified to UL 1598 and UL 8750
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available online
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 06/03/2020. See Buy American Solutions.

WARRANTY
- 5 year warranty
- See HLI Commercial and Industrial Outdoor Lighting Warranty for additional information

KEY DATA	
Lumen Range	14,283–39,969
Wattage Range	64–395
Efficacy Range (LPW)	98–135
Reported Life (Hours)	L70=60,000
Input Current Range (Amps)	0.3–4.0

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HUBBELL Lighting

BEACON

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

VIPER L
LARGE VIPER LUMINAIRE

ORDERING GUIDE

CATALOG # _____ **Example:** VPL–96L–280–4K7–4W–UNV–A–DBT–GENI–04–BC

VPL Series	LED Engine	CCT/CRI[1]	Distribution	Rotation	Voltage
VPL Viper Large	**64L-135** 135W LED array **80L-180** 180W LED array **80L-235** 235W LED array **96L-220** 220W LED array **96L-280** 280W LED array **96L-315** 315W LED array **96L-395** 395W LED array	**3K7** 3000K, 70 CRI **4K7** 4000K, 70 CRI **5K7** 5000K, 70 CRI	**FR** Type 1 Front Row **2** Type 2 **3** Type 3 **4F (formerly 4)** Type 4 **4W** Type 4 Wide **5QM** Type 5QM **5QN** Type 5QN **5R** Type 5R (rectangular) **5W** Type 5W (round wide) **TC** Tennis Court **CR** Corner Right **CL** Corner Left	Blank No rotation **L** Optic rotation left[1] **R** Optic rotation right[1]	**UNV** 120–277V **347** 347V **480** 480V

Mounting	Color	Control Options Network	Options
A Rectangular Arm (formerly RA) for square or round pole **MAF** Mast Arm Fitter (formerly SF2) for 2¾" OD horizontal arm **K** Knuckle (formerly PK2) limit to 30° tilt or 2⅜" OD horizontal arm or vertical tenon **WB** Wall Bracket **AD** Universal Arm for square pole **AD3** Universal Arm with adapter for 2.4"–4" round pole **AD4** Universal Arm with adapter for 4.2"–5.3" round pole **AD5** Universal Arm with adapter for 5.5"–5.9" round pole **AD6** Universal Arm with adapter for 6.0"–6.5" round pole	**BLT** Black Matte Textured **BLS** Black Gloss Smooth **DBT** Dark Bronze Matte Textured **DBS** Dark Bronze Gloss Smooth **GTT** Graphite Matte Textured **LGS** Light Grey Gloss Smooth **PSS** Platinum Silver Smooth **WHT** White Matte Textured **WHS** White Gloss Smooth **VGT** Verde Green Textured **Color Option** **CC** Custom Color	**NXWE** NX Wireless Enabled (module + radio) **NXSPW_F** NX Wireless, PIR Occ. Sensor, Daylight Havesting[1] **NXSP_F** NX, PIR Occ. Sensor, Daylight Harvesting[1] **WIR** Wireless Controls, wiSCAPE **Control Options** **7PR** 7-Pin Receptacle only (shorting cap, photo-control, or wireless control provided by others) **7PR-SC** 7-Pin Receptacle w/Shorting Cap **7PR-TL** 7-Pin Receptacle w/Twist-Lock® photo control **SCP_F** Programmable Occupancy Sensor w/ daylight control[1,2,5] **GENI-XX** ENERGEN® **SWP** SiteSync Pre-Commission[1,4] **SWPM_F** SiteSync Pre-Commission w/ Sensor[1,2,3,4]	**BC** Backshield (available for P5, 2, 3, 4, 4W Optics) **CD** Continuous Dimming **F** Fusing **TB** Terminal Block

Notes:
1. Not available with other wireless control or sensor options
2. Specify mounting height, 8'–11' or less, 40'–14' to 40'
3. Specify motion setting code (example: GEN-04). See ENERGEN brochure and instructions for setting table and options. Not available with sensor or SiteSync options
4. Specify group and zone at time of order. See www.hubbelllightingsupport.com for further details. Order at least one SiteSync interface accessory: SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
5. Only available with FR, 2, 3, 4, 4W and 5R distributions
6. Order at least one SCP-REMOTE per project location to program and control the occupancy sensor

House Side Shield Accessories	Mounting Accessories
☐ **HSS/EVP-L/90-FB/XXX** 90° shield front or back ☐ **HSS/EVP-L/90-LR/XXX** 90° shield left or right ☐ **HSS/EVP-L/270-FB/XXX** 270° shield front or back ☐ **HSS/EVP-L/270-LR/XXX** 270° shield left or right ☐ **HSS/EVP-L/360/XXX** Full shield Replace XXX with notation for desired finish color. Refer to page 8 for shield images.	☐ **VPL-AD-RPA3** 2.4"–4" Round Pole Adapter for AD arm ☐ **VPL-AD-RPA4** 4.2"–5.3" Round Pole Adapter for AD arm ☐ **VPL-AD-RPA5** 5.5"–5.9" Round Pole Adapter for AD arm ☐ **VPL-AD-RPA6** 6.0"–6.5" Round Pole Adapter for AD arm

Accessories and Services (Ordered Separately)	Hubbell Control Solutions — Accessories (Sold Separately)
☐ **SCP-REMOTE*** Remote Control for SCP_F option. Order at least one per project to program and control the occupancy sensor ☐ **SWUSB*** SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node ☐ **SWTAB*** Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node ☐ **SWBRG** SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested ☐ **SW7PR-** SiteSync 7-Pin on fixture module On/Off/Dim, Daylight Sensor 120–480VAC ☐ **BIRD-SPIKE-4** Bird Spikes * When ordering SiteSync at least one of these two interface options must be ordered per project. + Available as a SiteSync retrofit solution for fixtures with an existing 7-pin receptacle.	**NX Distributed Intelligence™** ☐ **NXDFM-SYID-UNV** On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HUBNET Radio and Bluetooth® Radio, 120–480VAC **wSCAPE® Lighting Control** ☐ **WIR-RME-L** On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110–480VAC For additional information related to these accessories please visit www.hubbelllightingsolutions.com. Options provided for use with NX Distributed Intelligence view specification sheet ordering information table for details

KEY DATA	
Lumen Range	3,200-11,000
Wattage Range	28–87
Efficacy Range (LPW)	112–146
Fixture Projected Life (Hours)	L70=60K
Weights lbs. (kg)	16–18 (7.3–8.2)

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HUBBELL Lighting

POLE MOUNTED FIXTURES

HUBBELL Outdoor Lighting

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

GEOPAK Series 2
SIZE 2 - TRP2/QSP2/RDI2

FEATURES
- Mid sized architectural wallpacks in three stylish shapes
- Capable of replacing up to 400w HID luminaires
- Type I, II, III and IV distributions for a wide variety of applications
- Integral battery backup options
- Control capabilities offer additional energy savings options
- Zero uplight distributions

RELATED PRODUCTS
- RDI1 GeoPak
- TRP1 GeoPak
- QSP1 GeoPak

c UL us — DLC Premium — kia — Buy American Solutions
*3000K and warmer CCTs only
See Certification Specifications

CONTROL TECHNOLOGY
SiteSync LIGHTING NETWORK

SPECIFICATIONS

CONSTRUCTION
- Die-cast aluminum housing and door
- Seven powder coat standard finishes, plus custom color options

OPTICS
- 24 or 32 high power LEDs deliver up to 10,800 lumens
- Up to 146 lumens per watt
- Different lenses offer a variety of distribution patterns - Type I, II, III and IV (Forward throw)
- 3000K - 70 CRI, 4000K - 70 CRI and 5000K - 70 CRI, CCT nominal

INSTALLATION
- Quick-mount adapter with gasket seal provides easy installation to wall or to recessed junction box (4" square junction box). Fixture attaches by two Allen-head hidden fasteners for tamper resistance
- Black box accessory available for surface conduit application

ELECTRICAL
- Optional Dual Drivers & Dual Power Feeds for 50, 70 and 90 watt versions
- 120-277, 347 and 480 voltage, 50/60Hz
- Power factor ≥ 90%
- THD (Total Harmonic Distortion) <20%
- Ambient operating temperature -40°C to 40°C
- 20kA surge protection (series). Automatically takes fixture off-line when device is consumed

ELECTRICAL (CONTINUED)
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Includes a long-life Lithium Iron Phosphate battery with optional battery heater for cold temperature application
- Utilizes 4 LEDs in emergency mode with 657 lumens. Each of the 4 LEDs in emergency are designed to function independently in the unlikely event of a single LED malfunction
- Spectrum® self-testing/self-diagnostic electronics are included standard
- Independent dedicated driver and LED array for battery/emergency mode operation

CONTROLS
- Drivers are 0-10V dimming standard
- Universal button photocontrol for dusk to dawn energy savings
- Photocell and occupancy sensor options available for complete on/off and dimming control
- In addition, GeoPak Size 2 can be specified with SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbelllighting.com/sitesync for more details

CERTIFICATIONS
- IP65 rated housing
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Zero uplight (U0), dark sky, neighbor friendly
- Drivers IP66 and RoHS compliant
- This product qualifies as both (i) a "domestic construction material" per FAR §52.225-9 Buy American-Construction Materials and a "(COTS) item" per FAR §2.101 and (ii) a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 06/03/2020. See Buy American Solutions.

WARRANTY
- 5 year limited warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	3,200-11,000
Wattage Range	28–87
Efficacy Range (LPW)	112–146
Fixture Projected Life (Hours)	L70=60K
Weights lbs. (kg)	16–18 (7.3–8.2)

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HUBBELL Lighting

HUBBELL Outdoor Lighting

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

GEOPAK Series 2
SIZE 2 - TRP2/QSP2/RDI2

ORDERING GUIDE

CATALOG # _____ **Example:** TRP2-24L30-3K7-2-UNV-DBT

ORDERING INFORMATION

Series	# LEDs - Wattage	CCT/CRI	Distribution	Voltage	Secondary Mounting
TRP2 Trapezoid **RDI2** Radius **QSP2** Gft-sphere	**24L-30** 24 LEDs, 30 watts **24L-50** 24 LEDs, 50 watts **24L-70** 24 LEDs, 70 watts **24L-90** 24 LEDs, 90 watts **32L-70** 32 LEDs, 70 watts **32L-90** 32 LEDs, 90 watts	**3K7** 3000K, 70 CRI **3K8** 3000K, 80 CRI **4K7** 4000K, 70 CRI **4K8** 4000K, 80 CRI **5K7** 5000K, 70 CRI	**1** TYPE I **2** TYPE II **3** TYPE III **4** TYPE IV	**UNV** 120-277V **120** 120V **208** 208V **240** 240V **277** 277V **UHV** 347/480V **347** 347V **480** 480V	**BLANK** Downlight Only

Color	Control Options Network	Options
BLT Black Matte Textured **BLS** Black Gloss Smooth **DBT** Dark Bronze Matte Textured **DBS** Dark Bronze Gloss Smooth **GTT** Graphite Matte Textured **LGS** Light Grey Gloss Smooth **PSS** Platinum Silver Smooth **WHT** White Matte Textured **WHS** White Gloss Smooth **VGT** Verde Green Textured **Color Option** **CC** Custom Color	**PC** Button Photocontrol **SCP**[2,4] Programmable occupancy sensor, factory default is 10% light output **SCO**[2] Sensor Control, On only **Spec SCP/SCO & SWPM Mount Height** **-8F** Up to 8ft mount height **-20F** Up to 20ft mount height	**SF**[3] Single fuse & fuse holder **DF**[3] Double fuse & fuse holder **E**[3,6] Battery pack (0°C) **EH**[3,6] Battery pack (-30°C) with heater **2DR**[5] Dual Drivers **2PF**[5,6] Dual power feeds **CS** Comfort shield

Notes:
1. 70 & 90 watt versions only
2. Must specify voltage (120, 277 or 347V only for SWP & SWP; 120 or 277V only for E & EH)
3. PCU option not applicable, included in sensor
4. Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings
5. Not available with 30w version
6. Battery option not compatible with 2 power feeds

ACCESSORIES (ORDERED SEPARATELY)

	Catalog Number	Description
☐	**SCP-REMOTE***	Remote control for SCP option. Order at least one per
☐	**BB-GEO-XX**	Black box with 4-1/2" threaded conduit holes, specify finish by replacing "XX" with finish selection, eg. Dark Bronze "DB"
☐	**SWUSB****	SiteSync loaded on USB flash drive (Windows based only)
☐	**SWTAB****	SiteSync Windows Tablet
☐	**SWBRG+**	SiteSync Wireless Bridge Node

Notes:
- * Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings.
- ** When ordering with SiteSync, one of the following interface options must be chosen an ordered separately. Each option contains the SiteSync License, GUI and Bridge Node.
- + If needed, an additional Bridge Node can be ordered

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HUBBELL Lighting

WALL MOUNTED FIXTURES

Project		Catalog #		Type	
Prepared by		Notes		Date	

Metalux
Vaportite LED

8' Industrial LED Lamp
Vaportite Industrial Refrigerated Case

Typical Applications
Parking Garage • Cold Storage • Canopy • Warehouse • Food Processing • Manufacturing • Complex Environments

Interactive Menu

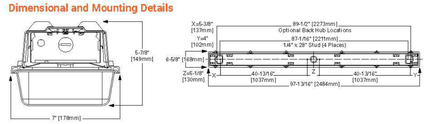
- Order Information page 2
- Photometric Data page 2
- Product Warranty

Product Certification
cULus Listed · DLC Premium · IP65 · RoHS · FC · NSF · usa

Product Features
LUMEN DISCONNECT™ Hot and overheating lumens are automatically disconnected from the driver · Wet location

Top Product Features
- 2ft, 4ft, and 8ft Sealed and Gasketed Vaportite
- Lumen packages up to 22K lumens
- High-Performance efficacy up to 150 LPW
- LEDs available in 3500K, 4000K and 5000K at 80 CRI
- Rated for -40c to 35c ambient

Dimensional and Mounting Details



Installation Data

COOPER Lighting Solutions

Metalux — 8' Vaportite LED

Order Information
SAMPLE ORDER NUMBER: **8VT2-LD5-9-DR-UNV-L840-CD1-WL-U**

Series	Lamp Type	LED Lumens Output	Lens	Distribution	Voltage	Remote Emergency Enclosure
8VT2-8' Vaportite	**LD5-LED 5.0**	**9**-9000 Lumens **12**-12000 Lumens **18**-18000 Lumens **22**-22000 Lumens	**DR**-Internal Prismatic Lens/ 15% DR High Impact Additive **DR100**-Internal Prismatic Lens/ 100% DR High Impact Additive **PR50**-Frosted Lens/ 15% DR High Impact Additive[1]	**[Blank]**-Medium (Standard) **W**-Wide Distribution	**347V**-347 Volt **UNV**-Universal Voltage 120-277	**VT-EM-EL**-Emergency Installed, 700 Lumens [4] **EL13W**-13 watt, 120-277V emergency battery pack installed (5,000 lumen fixture only) [4]
Notes (1) To order product that is compliant with the Buy American Act (BAA), per Federal Acquisition Act (FAA), see the notes specifications contained to specify BAA or TAA. Please refer to DOMESTIC PREFERENCES LAW for more information. (2) Designs with Constant Wattage Control (CWC) are available. For more information, refer to www.designlights.org for details.			**Notes** (1) Not available in wide distribution.			**Notes** (4) EL must specify 120 or 277V only.

Lamps	Driver Type	Label	Options	Packaging	Accessories
L835-3500K, LED **L840**-4000K, LED **L850**-5000K, LED	**CD**[1,2]-Dimming Driver (5,000 lumens only) **CD2**-2 Dimming Drivers **5LTD**[1]-Fifth Light DALI (5,000 lumens only) **5LTD2**-Fifth Light DALI	**WL**-Wet Location Label	**SSL**-Stainless Steel Latches **TH**-(2) Tap Weirs for Hubs **TDH**-(2) Tap and (2) End Weirs for Hubs (all Weirs for Hubs have 1/2" Conduit Entry) **MS**-Demo Latest Motion Sensor **MSWL20**-Wet Listed Motion Sensor, max 20ft mounting height **MSLT**-Wet location PIR Indoor/Outdoor Occupancy Sensor [3]	U-Unit Pack	**VT2-ChainSet-U**-Chain Hanging Set, Includes 6 ft. of chain, 4 large S-Hooks and 4 small S-Hooks Two (2) Kits Recommended for 8' Fixture **VT2-SS-MBK**-Stainless Steel Wall Mounting Bracket
			Notes (3) Available for 120V, 277V and 347V voltage only.		

Product Specifications

Construction
- Rugged and durable construction for optimal performance
- Fiberglass housing is reinforced polyester and self-extinguishing (ASTM-D635-74) plastic
- Full metal fixture lines
- Watertight housing
- 1/2" conduit entry at each end of housing (standard) for continuous feed
- Polyurethane gasketing provides a continuous seamless seal for the diffuser lens
- Four sturdy cam latches clamp diffuser tightly for a positive seal between housing, gasketing and diffuser
- Surface or chain mounting

Electrical
- Long Life LED system coupled with electrical driver for optimal performance
- LEDs available in 3500K, 4000K and 5000K with a CRI > 80
- Projected life is 60,000 hours at 91% lumen output
- Electronic drivers are available for 120-277V applications
- 0-10V dimming control (standard)
- Operating temperature of -40°C to 35°C; ideal for cold storage environments

Lens
- Internal prismatic diffuser lens
- Internal Prismatic Lens with 15% DR High Impact Additive (DR) or Internal Prismatic Lens with 100% DR High Impact Additive (DR100)
- Frosted Lens with 15% DR High Impact Additive (FR50) option

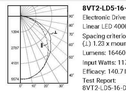
Finish
- Housing is permanent pearl gray color

Warranty
- Five-year limited warranty

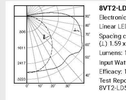
Compliance
- UL/cUL listed for Wet location
- RoHS compliant
- LED modules comply with IESNA LM-79 and LM-80 standards
- NSF listed
- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium (refer to www.designlights.org for details)
- The VT2 Series ratings apply to Horizontal Mounting only

Photometric Data

View IES files



8VT2-LD5-16-DR-UNV-L840-CD2-WL-U
Electronic Driver
Linear LED 4000K
Spacing criterion: (i) 1.21 x mounting height, (.) 1.23 x mounting height
Lumens: 16460
Input Watts: 117W
Efficacy: 140.7 lm/W
Test Report: 8VT2-LD5-16-DR-UNV-L840-CD2-WL-U.IES



8VT2-LD5-16-DR-W-UNV-L840-CD2-WL-U
Electronic Driver
Linear LED 4000K
Spacing criterion: (i) 1.22 x mounting height, (.) 1.59 x mounting height
Lumens: 15236
Input Watts: 117W
Efficacy: 130.2 lm/W
Test Report: 8VT2-LD5-16-DR-W-UNV-L840-CD2-WL-U.IES

COOPER Lighting Solutions

CANOPY MOUNTED FIXTURES

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DETAILS BY OTHERS

CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404 • FX. (901) 384-0710

GLIDE XPRESS CAR WASH
GLIDE XPRESS PLANNED DEVLEOPMENT
DEVELOPER: MAX ALLEY INVESTMENTS, LLC
ENGINEER: CARLSON CONSULTING ENGINEERS, INC

CITY OF LAKELAND ENGINEER _____ DATE _____

DRAINAGE BASIN: FLETCHER 12–A
SHEET NUMBER: 1 OF 1

U1.4
SEWER BASIN: WN–10

DIVISION OF ENGINEERING

PHOTOMETRIC DETAILS

8872 HIGHWAY 64
LAKELAND, TENNESSEE

SURVEY	BLB	DATE	10/07/21	BOOK	
DRAWN BY	DPS	DATE	09/07/22	SCALE	NTS
DESIGN BY	TLB	DATE	09/07/22	PROJECT	

REVIEWED:

DEPUTY CITY OF MEMPHIS ENGINEER _____ DATE _____ CITY OF MEMPHIS ENGINEER _____ DATE _____

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, September 15, 2022

Project: Glide Xpress Car Wash
Final Development Plan

Staff Contact: Richard T. Donovan, Jr., Planning Consultant

PROJECT INFORMATION

Location:	8872 US Highway 64
Parcel ID:	L0159 00580
Zoning District:	Glide Xpress PD with base zoning of C-2 (Regional Commercial District)
Neighborhood:	Type V
Site Area:	4.86 acres
Applicant:	Max Alley Investments LLC
Representative:	Chuck Walker, Carson Consulting Engineers Inc

STAFF RECOMMENDATION

Staff recommends approval of the Glide Xpress Final Development Plan based on substantial compliance with the PDP.

DISCUSSION

BACKGROUND:

The Board of Commissioners approved the Preliminary Development Plan at their June 9, 2022, meeting with the recommendation of the Municipal Planning Commission. The Board of Commissioners did add a condition to their approval. The BOC approval requires the applicant to provide one of the following elements to the facades:

1. Replace all the split-faced block with another material.
2. Replace a portion of the split-faced block with another material.
3. Provide undulations along the façade to break up the long walls of split-faces block.

This item will be resolved with the approval of the site plan.

Request Overview

The applicant, Chuck Walker of Carson Consulting Engineers Inc. representing Max Alley Investments LLC, seeks approval of a Final Development Plan (PDP) for the Glide Xpress Planned Development. The subject property is a 4.86-acre parcel located at 8874 U.S. Highway 64. Adjacent properties include: an Esporta fitness facility on the west; the future site of Shadrach's coffee shop on the east; U.S. Highway 64 on the south; and Interstate 40 on the north.

Property Characteristics

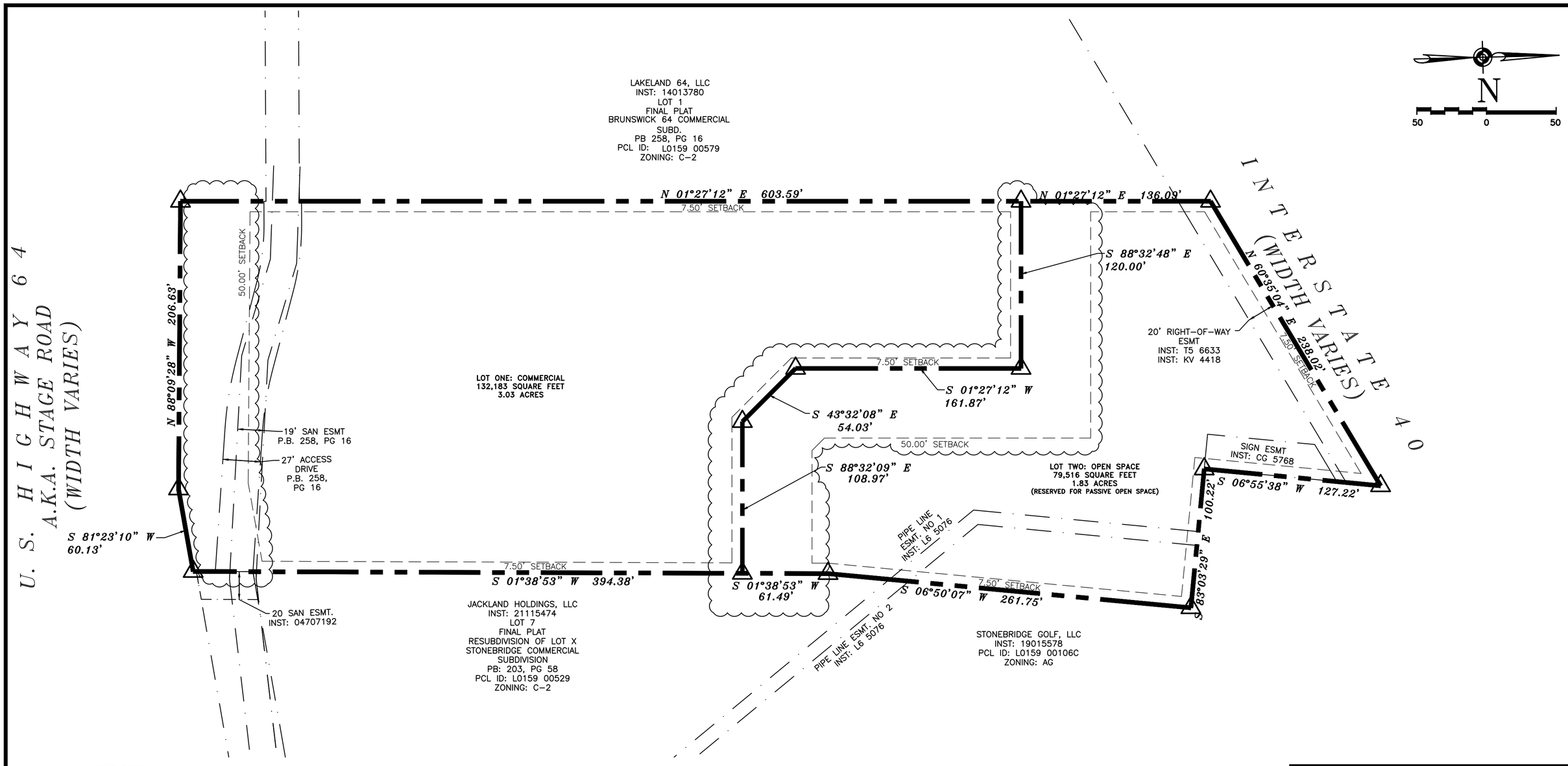
The subject property is rectangular in shape, having a width of approximately 260 feet at the U.S. Highway 64 frontage and a depth of approximately 740 feet on the east side and 796 feet on the west side. The site slopes from the northeast to the south; the gradient change is approximately 2.6 percent. The rear one-third of the subject property is heavily wooded. A cell tower is a situated on a separate parcel adjacent to the subject property on the northeast.

ANALYSIS:

Staff has reviewed the Final Development Plan in comparison to the approved outline plans and preliminary development plan. The Final Development Plan substantially conforms to the approved Outline Plan and Preliminary Development Plans.

EXAMPLE MOTIONS

1. Motion to approve the Glide Xpress Final Development Plan subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to approve the Xpress Final Development Plan application without conditions.
3. Motion to deny the Xpress Final Development Plan application:
   a. Reason for denial



SITE DATA

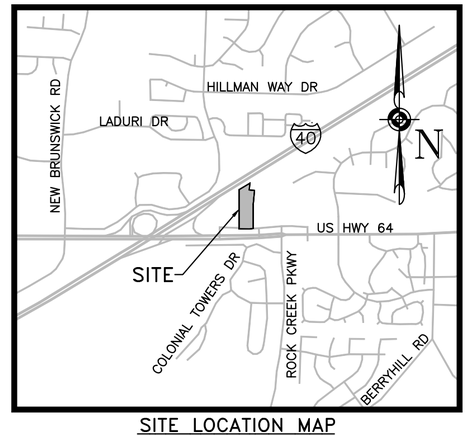
LOT AREA:		
	LOT 1:	3.03 AC
	LOT 2:	1.83 AC
	TOTAL	4.86 AC
USE:	GLIDE XPRESS CAR WASH	
GROSS BLDG AREA		4,175 SF
SERVICE BAYS		1 BAY
PARKING REQUIRED:		
BLDG AREA (3,33/100 SF) =		14 SPACES
TOTAL		22 SPACES
PARKING PROVIDED:		
VACUUM PARKING		27 SPACES
ADDITIONAL PARKING		10 SPACES
ADA ACCESSIBLE SPACES		1 SPACES
TOTAL		38 SPACES
BICYCLE PARKING:		
REQUIRED	4	
PROVIDED	4	

SIDEWALK TABLE

STREET NAME	S/W WIDTH	SIDE	LOCATION FROM CURB LINE	ACTION
COUNTRY BRIDGE RD. (PRIVATE)	5 FT.	NORTH	5 FT.	INSTALL

BUILDING DATA

BUILDING	USE	BLDG SF
GLIDE XPRESS CAR WASH	COMMERCIAL	4,175 SF



SITE LOCATION MAP
SCALE: N.T.S.

SHELBY COUNTY DETENTION NOTE:
THE AREAS DENOTED BY "RESERVED FOR STORM WATER DETENTION" SHALL NOT BE USED AS A BUILDING SITE OR FILLED WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM THE CITY ENGINEER. THE STORM WATER DETENTION SYSTEMS LOCATED IN THESE AREAS, EXCEPT FOR THOSE PARTS LOCATED IN A PUBLIC DRAINAGE EASEMENT, SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER AND/OR PROPERTY OWNERS' ASSOCIATION. SUCH MAINTENANCE SHALL BE PERFORMED SO AS TO ENSURE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE APPROVED FINAL DEVELOPMENT PLAN ON FILE IN THE CITY ENGINEER'S OFFICE. SUCH MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO REMOVAL OF SEDIMENTATION, FALLEN OBJECTS, DEBRIS AND TRASH, MOWING, OUTLET CLEANING, AND REPAIR OF DRAINAGE STRUCTURES.

BENCHMARK:
CITY OF MEMPHIS BENCHMARK #765
ROCKCREEK PKWY. & HIGHWAY 64
CITY MONUMENT IS LOCATED ON THE SOUTH SIDE OF HWY. 64 AT CENTERLINE OF ROCKCREEK PKWY. IN GRASS MEDIAN, 17.6' SOUTH OF NORTH FACE OF CURB, 11.0' WEST OF EAST FACE OF CURB, 13.0' EAST OF WEST FACE OF CURB OF MEDIAN.
ELEV: 374.60

FINAL DEVELOPMENT PLAN

BRUNSWICK 64 COMMERCIAL SUBDIVISION

FEMA FIRM NUMBER 47157C 0310G DATED: FEBRUARY 6, 2013
SHELBY COUNTY, TN WARD 96 BLOCK 59 PARCEL ID L0159-00580

ENGINEER:
CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384-0404
FX. (901) 384-0710

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL ROAD
TEXARKANA, TEXAS 75503
PH. (903) 223-8000

DEVELOPER:
MAX ALLEY REAL ESTATE SERVICES, LLC.
6500 SUMMERHILL ROAD
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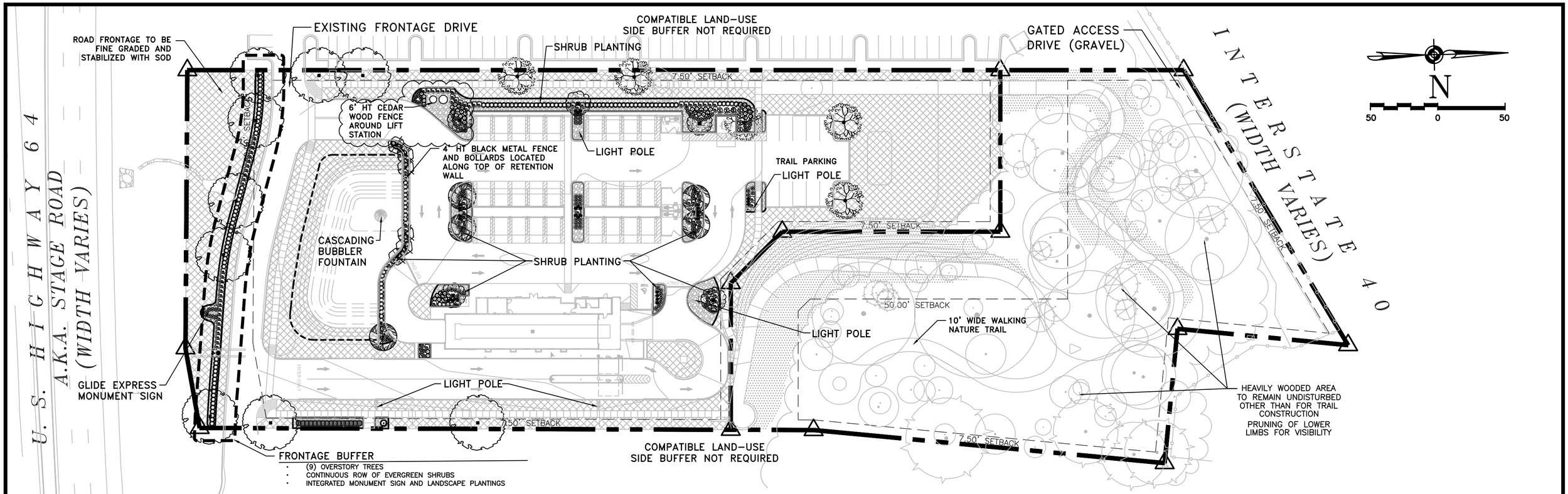
SEPTEMBER 2022

SHEET 1 OF 6 FINAL PLAN



PLANT SCHEDULE

NOTE: ALL SIZES AND CONDITION OF NURSERY STOCK SHALL MEET THE STANDARDS ESTABLISHED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

QTY	%	SYM	BOTANICAL NAME	COMMON NAME	SIZE (BOTH MIN'S TO BE MET)	SPACING	CONDITION	REMARKS
TREES:								
5	16.7%		MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA (T.F.)	2" – 2-1/2" C / 8' – 10' HT	AS SHOWN	B&B/CONT.	FULL HEAD W/UNIFORM GROWTH SINGLE TRUNK
6	19.9%		MYRICA CERIFERA	SOUTHERN WAX MYRTLE TREE FORM	2" – 2-1/2" C / 8' – 10' HT	AS SHOWN	B&B/CONT.	3-5 TRUNKS CLR 4' HT, FULL ROUND HEAD
5	16.7%		NYSSA SYLVATICA 'AFTERBURNER'	'AFTERBURNER' BLACK GUM	2" – 2-1/2" C / 8' – 10' HT	AS SHOWN	B&B/CONT	FULL HEAD W/ UNIFORM GROWTH
9	30.0%		QUERCUS PHELLOS 'RT3' P.P. 16,444	'UPPERTON' WILLOW OAK	2" – 2-1/2" C / 12' – 14' HT	AS SHOWN	B&B	FULL HEAD W/ UNIFORM GROWTH
5	16.7%		ULMUS PARVIFOLIA 'DRAKE'	'DRAKE' CHINESE ELM	2" – 2-1/2" C / 12' – 14' HT	AS SHOWN	B&B/CONT	FULL HEAD W/ UNIFORM GROWTH
30	**100%**							
SHRUBS:								
113	25.3%		ABELIA X CHINENSIS 'ROSE CREEK'	'ROSE CREEK' ABELIA	#5 (GAL) / 15" – 18" SPD	36" O.C.	CONT	ROUND, FULL HEAD
16	3.6%		BUXUS SINICA VAR. INSULARIS	WINTERGREEN BOXWOOD	#3 (GAL) / X" – X" SPD	36" O.C.	CONT	ROUND, FULL HEAD
1	0.2%		CLEYERA JAPONICA	CLEYERA	#7 (GAL) / X" – X" SPD	48" O.C.	CONT	ROUND, FULL HEAD
83	18.6%		ILEX CORNUTA 'PHELLOS'	'NEEDLEPOINT' HOLLY	#5 (GAL) / 18" – 24" HT.	42" O.C.	CONT	ROUND, FULL HEAD
7	1.6%		ILEX X 'CONED'	'LITTLE RED' HOLLY	#5 (GAL) / 24" – 30" SPD	60" O.C.	CONT	ROUND, FULL HEAD
135	30.2%		ILEX VOMITORIA	DWARF YAUPON HOLLY – SCHELLING	#5 (GAL) / 15" – 18" SPD	36" O.C.	CONT	ROUND, FULL HEAD
61	13.6%		LOROPETALUM CHINENSE 'SHANG-WHITE' PP #21,738	'EMERALD SNOW' FRINGE FLOWER	#3 (GAL) / 18" – 24" SPD	36" O.C.	CONT	ROUND, FULL HEAD
31	6.9%		NANDINA DOMESTICA 'MONFAR'	'SIENNA SUNRISE' NANDINA	#3 (GAL) / 18" – 24" HT.	30" O.C.	CONT	ROUND, FULL HEAD
447	**100%**							
GROUNDCOVERS:								
FILL AREA			CYNODON DACTYLON	COMMON BERMUDAGRASS	4#/1,000 S.F. (SEE TIME TABLE)	SOLID	SEED	99% PURE – 99% GERM RATE
FILL AREA			NATIVE WOODLAND WILDFLOWER BLEND	PARTIAL SHADE WILDFLOWER MIX	4#/1,000 S.F. (SEE TIME TABLE)	SOLID	SEED	99% PURE – 99% GERM RATE
FILL AREA			CYNODON DACTYLON 'TIFTON 419'	'TIFTON 419' BERMUDA SOD	SLAB / ROLL	SOLID	SOD	WEED FREE & ACTIVELY GROWING
FILL AREA			RIVER COBBLE LANDSCAPE STONE	RIVER COBBLE	3" LAYER OF (2" – 4")	SOLID	BULK	
87			ANNUAL BEDDING PLANTS	SEASONAL COLOR	4" POT, 2"– 4" HT.	10" O.C.	POT	WEED FREE & ACTIVELY GROWING

NOTE: SYMBOLS SHOWN IN TABLE ABOVE ARE FOR SPECIES IDENTIFICATION ONLY. PLANT SIZE SHOWN IN THE TABLE IS NOT INTENDED TO BE REPRESENTATIVE OF THE PLANT AT EITHER INSTALLATION OR MATURITY. SIZE OF SYMBOL SHOWN IN TABLE ABOVE MAY VARY FROM THOSE SHOWN ON PLANS.

NOTE: NO SUBSTITUTIONS OF PLANT MATERIALS ARE ALLOWED WITHOUT THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT.

ALL LANDSCAPE AREAS SHALL BE FULLY IRRIGATED BY A PERMANENTLY INSTALLED IN-GROUND IRRIGATION SYSTEM. CONTRACTOR TO PROVIDE AN AUTOMATICALLY CONTROLLED IRRIGATION SYSTEM THAT PROVIDES 100% COVERAGE TO ALL PLANTED AREAS, AND UTILIZES A COMBINATION OF LOW-VOLUME AND RUNOFF SPRAY HEADS AND DRIP IRRIGATION COMPONENTS.

TREE CANOPY CALCULATIONS

TOTAL LANDSCAPE AREA: 49,230 S.F.
1 OVERSTORY TREE/2,000 S.F. = 49,230 S.F./2,000 S.F. = 24.6 OR 25 TREES
24 TREES PROVIDED

OPEN SPACE TREE CANOPY CALCULATIONS

TOTAL LANDSCAPE AREA: 79,318 S.F.
50% CANOPY COVERAGE. = 39,659 S.F./TABLE TREE RATINGS
65.165± S.F. OF NATURE FOREST COVER TO REMAIN

111,500 S.F. OF CANOPY COVER AS PER INDIVIDUAL EXISTING TREE CALCULATIONS

FINAL DEVELOPMENT PLAN
BRUNSWICK 64 COMMERCIAL SUBDIVISION
FEMA FIRM NUMBER 47157C 0310G DATED: FEBRUARY 6, 2013
SHELBY COUNTY, TN WARD 96 BLOCK 59 PARCEL ID L0159-00580

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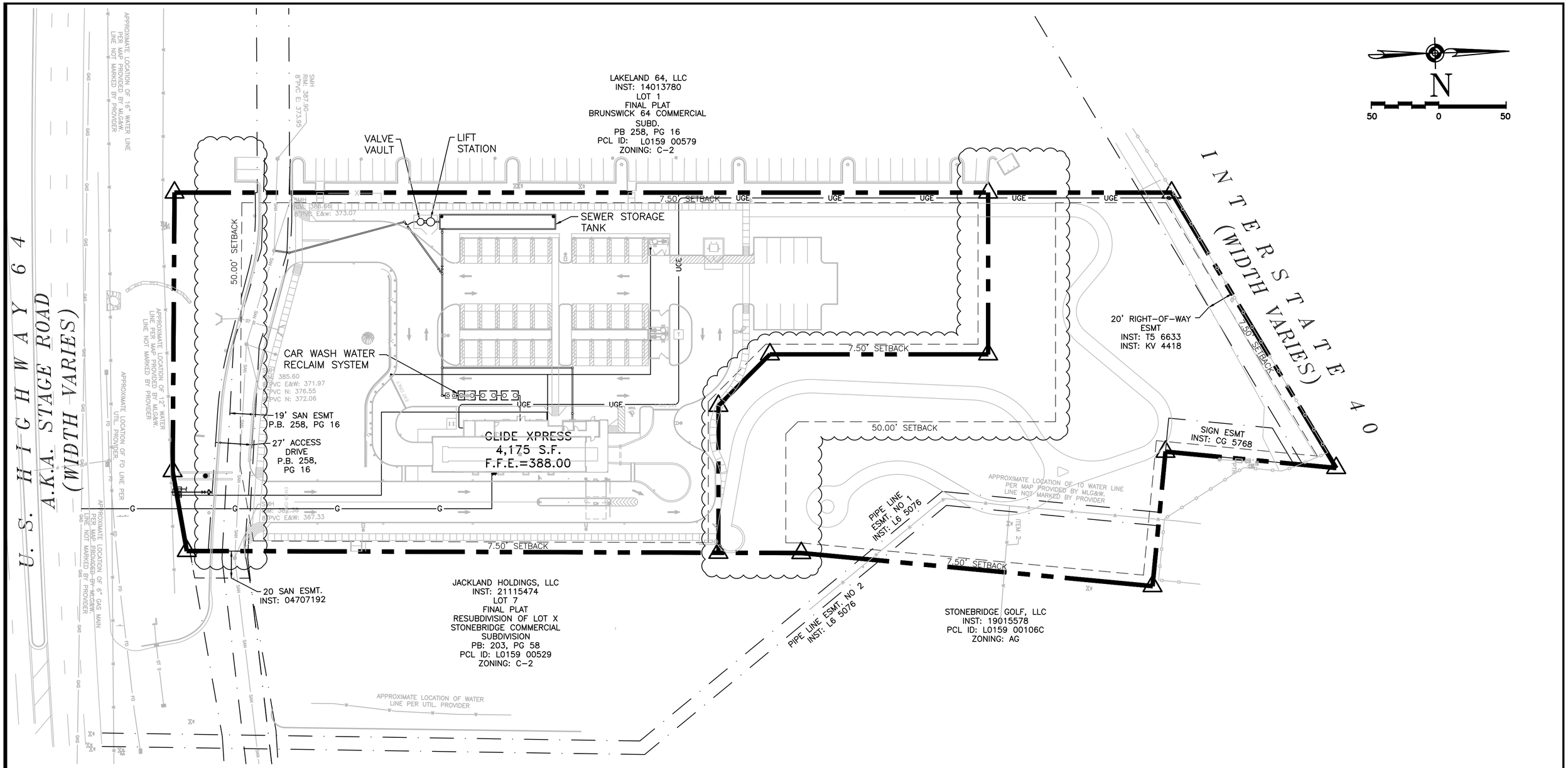

UTILITY LEGEND

EXISTING		PROPOSED	
W	– WATER		– WATER
SAN	– SEWER		– SEWER
GAS	– GAS	G	– GAS
P	– ELECTRIC	UGE	– ELECTRIC
FO	– FIBER OPTIC		

FINAL DEVELOPMENT PLAN

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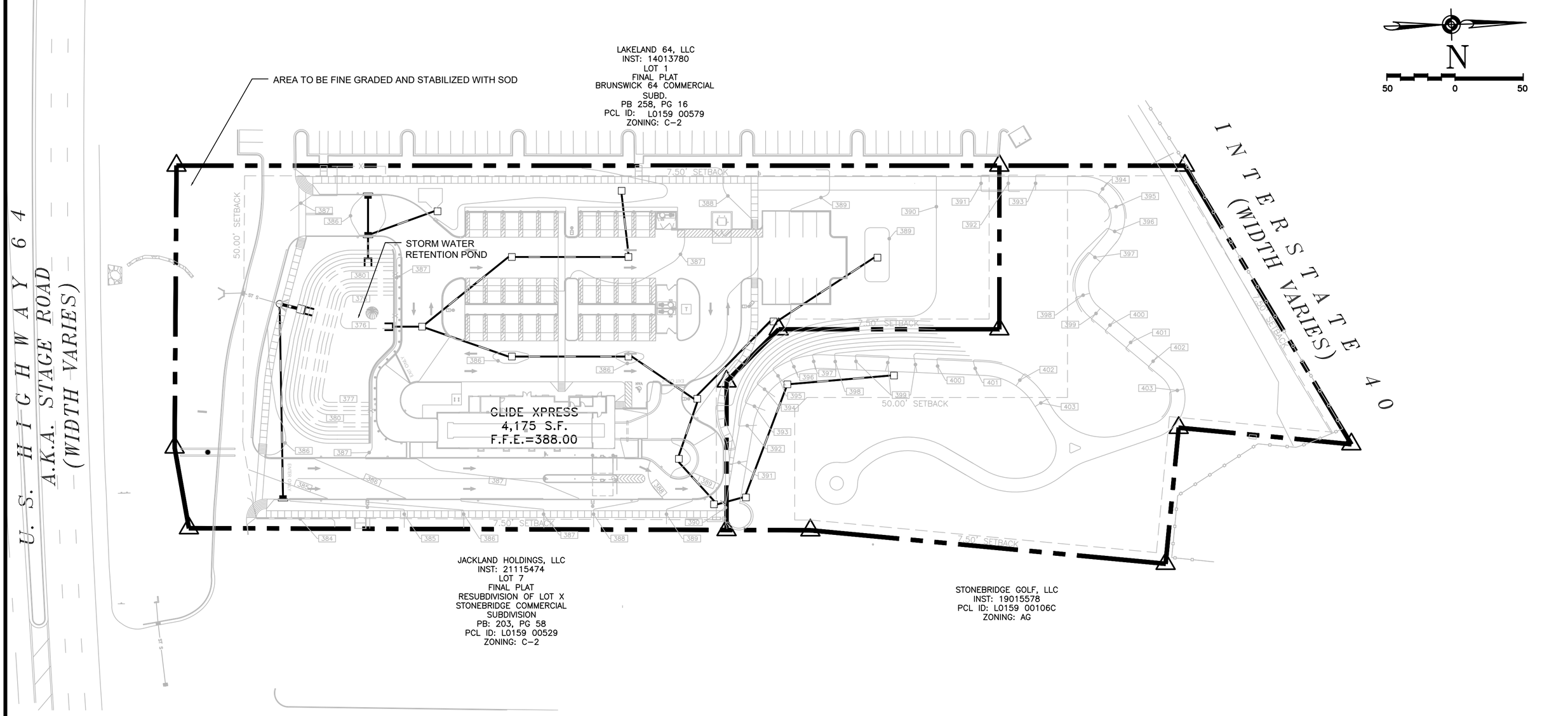
SHEET 3 OF 6 UTILITY PLAN



	PRE-DEVELOPED	POST-DEVELOPED		
		POND (DETAINED)		
STORM EVENT (YR)	PRE-DEVELOPED DISCHARGE	POND DISCHARGE	WSEL	FREEBOARD (FT)
2	6.25 CFS @ 12.15 HRS	5.98 CFS @ 12.10 HRS	383.86	2.89
10	11.30 CFS @ 12.15 HRS	7.86 CFS @ 12.10 HRS	384.78	1.97
25	14.49 CFS @ 12.15 HRS	10.19 CFS @ 12.10 HRS	385.32	1.43
100	19.73 CFS @ 12.15 HRS	24.29 CFS @ 12.05 HRS	385.74	1.01
NOTE: FINAL DRAINAGE CALCULATIONS MAY VARY AS DESIGN DEVELOPMENT PROCEEDS				

DRY WEATHER CONDITIONS
NORMAL POOL ELEVATION: 382.00
DRY WEATHER FREE BOARD: 4.75'

TR-55
Type-II SCS Rainfall Distribution
12 Year 24-hr Rainfall Depth = 4.01"
10 Year 24-hr Rainfall Depth = 5.58"
25 Year 24-hr Rainfall Depth = 6.52"
100 Year 24-hr Rainfall Depth = 8.02"

EXISTING IMPERVIOUS
AREA: 0 ACRES

PROPOSED IMPERVIOUS
AREA: 1.43 ACRES

FINAL DEVELOPMENT PLAN
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I. GENERAL STATEMENT

THE GLIDE XPRESS ON HIGHWAY 64, A 4.86 ACRE TRACT OF LAND LOCATED IN LAKELAND, TENNESSEE, IS A TWO–LOT VEHICULAR SERVICE BASED PLANNED DEVELOPMENT (CAR WASH). THE DEVELOPMENT PROVIDES RESIDENTIAL SUPPORT THROUGH THE CAR WASH SERVICES AND OPEN SPACE FOR RECREATIONAL USE. THE INTENT IS A PLANNED DEVELOPMENT THAT INCORPORATES THE CAR WASH WITH THE NATURAL FEATURES OF THE SITE TO DEVELOP A COHESIVE PROJECT DESIGN. THE LAYOUT PROVIDES JOINT ENTRANCES TO THE WALKING TRAIL AND CAR WASH.

THE PRELIMINARY DEVELOPMENT PLAN SERVES AS THE CULMINATION OF THE ANALYSIS OF THE EXISTING SITE CONDITIONS, LAND–USE INTEGRATION, AND VEHICULAR/PEDESTRIAN CIRCULATION FOR DEVELOPMENT OF THE SITE. THE LAYOUT OF THE FINAL DESIGN TAKES INTO ACCOUNT THE EXISTING DRIVES AND INTERNAL CIRCULATION, THE EXISTING TOPOGRAPHY AND NATURAL RESOURCES, UTILITIES, STORM DRAINAGE, DETENTION, AND MARKET CONDITIONS ALONG WITH OTHER SITE CONSIDERATIONS. THE PRELIMINARY PLANNED DEVELOPMENT SHALL SERVE AS A GRAPHIC ILLUSTRATION OF THE CONCEPTUAL VISION FOR THE DEVELOPMENT, WHICH IS TO BE FULLY CONSTRUCTED IN A SINGLE PHASE.

THE PURPOSE OF THIS GENERAL STATEMENT IS TO SET FORTH THE CONCEPTUAL VISION OF THE GLIDE XPRESS ON HIGHWAY 64 AS DEPICTED IN THE PRELIMINARY PLANNED DEVELOPMENT. THE ACTUAL PERMITTED USES, DIMENSIONAL REGULATIONS, ACCESS AND CIRCULATION AND DESIGN CRITERIA FOR THE PROJECT SHALL AT ALL TIMES BE GOVERNED BY THE PRELIMINARY DEVELOPMENT PLAN AND ANY CONDITIONS OF APPROVAL, ALONG WITH THE DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS.

II. USES PERMITTED

A. LOT 1 – ALL USES ALLOWED BY RIGHT IN C2 AND VEHICULAR SERVICE CENTER.
B. LOT 2 – PASSIVE OPEN SPACE FOR PUBLIC RECREATION.

III. BULK REGULATIONS

DEVELOPMENT OF THE SITE WILL BE GUIDED BY THE PRELIMINARY DEVELOPMENT PLAN AND THE AREA USE DESCRIPTIONS PROVIDED ABOVE. DEVELOPMENT MUST BE IN COMPLIANCE WITH THE PROVISIONS FOR DIMENSIONAL REGULATIONS AND ACCESS AND CIRCULATION CONDITIONS PROVIDED BELOW.

A. DESIGN STANDARDS FOR ALL STRUCTURES

1. AREA SHALL FOLLOW THE ARCHITECTURAL GUIDELINES WITHIN THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE, FOR THE REFERENCED DISTRICT EXCEPT WHERE INDICATED OTHERWISE IN THE PRELIMINARY DEVELOPMENT PLAN.
2. ANY SPECIFIC CONDITIONS OR EXCEPTIONS SET FORTH WITHIN THIS DEVELOPMENT AS A CONDITION OF DOCUMENT APPROVAL. INCLUDING BUT NOT LIMITED TO:

   · CANOPY STRUCTURES – COLORS, MATERIALS

   · VEHICULAR ROLL–UP DOORS

   · 25' HEIGHT OF FREESTANDING SITE LIGHTING POLES.

B. MINIMUM SETBACKS
   1. AREA SHALL FOLLOW THE ZONING GUIDELINES WITHIN THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE, FOR THE C2 REGIONAL COMMERCIAL DISTRICT.

C. MINIMUM LOT WIDTH PER AREA
   1. LOT 1 – 100'
   2. LOT 2 – 100'

D. MINIMUM LOT SIZE PER AREA
   1. LOT 1 – 1.0–ACRES
   2. LOT 2 – 1.0–ACRES

E. MAXIMUM BUILDING HEIGHTS AND MAXIMUM BUILDING COVERAGE SHALL BE AS REGULATED BY THE CITY OF LAKELAND, LAND DEVELOPMENT REGULATIONS.

IV. ROADWAYS, ACCESS, AND PARKING

A. THE PROJECT SITE FRONTS ON U.S. HIGHWAY 64 WHICH IS A 7–LANE LIMITED ACCESS ROADWAY. ALL SITE ACCESS IS TO BE PROVIDED BY AN EXISTING PRIVATE FRONTAGE DRIVE THAT CURRENTLY CROSSES THE SOUTHERN END OF THE PROPERTY. ALL INTERNAL VEHICULAR CIRCULATION IS THROUGH PRIVATE DRIVE AISLES.

B. THE PROJECT SITE IS LIMITED TO TWO (2) POINTS OF VEHICULAR ACCESS OFF OF THE PRIVATE FRONTAGE DRIVE.
   - THE FIRST (EASTERN) ENTRY IS TO BE A ONE–WAY ACCESS INTO THE WASH TUNNEL FOR THE CAR WASH
   - THE SECOND (WESTERN) IS TO BE A TWO–WAY PUBLIC ACCESS FOR THE PUBLIC VACUUM STATIONS, THE OPEN SPACE LOCATED ON LOT 2, AND SERVE AS AN EXIT FROM THE WASH TUNNEL.
   - ALL BUSINESS PARKING AND PUBLIC PARKING FOR THE OPEN SPACE ON LOT 2 IS LOCATED ON LOT 1. PARKING CAPACITY REQUIREMENTS SHALL COMPLY WITH THE GUIDELINES WITHIN THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE, FOR THE C2 REGIONAL COMMERCIAL DISTRICT.
   - THE OPEN SPACE ON LOT 2 PROVIDES A 10' WIDE, HARD SURFACED (ASPHALT/CONCRETE) WALKING/NATURE TRAIL THROUGH THE EXISTING FOREST CANOPY THAT EXISTS UPON THE SITE. THE TRAIL IS TO BE OPEN TO THE PUBLIC FROM DAWN TO DUSK, AND PARKING IS PROVIDED AS SHOWN ON LOT 1.

V. LANDSCAPING, SCREENING, AND OPEN SPACE

A. THE FRONTAGE BUFFER, TYPICALLY APPLIED TO PUBLIC STREETS, SHALL BE APPLIED TO THE EXISTING PRIVATE FRONTAGE DRIVE. THE TYPE AND QUANTITY OF STREET TREES SHALL CONFORM TO THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE, EXCEPT AS NECESSARY TO AVOID CONFLICTS WITH EXISTING UTILITIES, INFRASTRUCTURES, OR EXISTING SITE FEATURES.

B. THE SIDE AND REAR BUFFERS SHALL COMPLY WITH THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE.

C. THE OPEN SPACE FOR THE PLANNED DEVELOPMENT, LOT 2, MOST CLOSELY COMPLIES WITH A "GREEN" AS DESCRIBED WITHIN THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE, WITH THE EXCEPTION OF THE FOLLOWING:

   · MINIMUM % OF VEHICULAR R.O.W. REQUIRED – 50%

      o NORTHERN BOUNDARY OF OPEN SPACE FRONTS ON U.S. INTERSTATE 40, NO PUBLIC ACCESS.

      o VEHICULAR ACCESS TO OPEN SPACE PROVIDED THROUGH LOT 1 FROM PRIVATE DRIVE.

VI. SIGNAGE

A. ALL SIGNAGE WILL BE IN COMPLIANCE WITH THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE.

VII. DRAINAGE FACILITIES & SERVICES

A. THE STORMWATER DRAINAGE SYSTEM SHALL BE DESIGNED AND CONSTRUCTED TO THE DESIGN STANDARDS REQUIRED BY THE CITY OF LAKELAND.
B. A STORM WATER POLLUTION PREVENTION PLAN WILL BE FILED WITH THE STATE OF AUTHORITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
C. ACCORDING TO FEMA FLOOD INSURANCE RATE MAP, THIS PROPERTY DOES NOT LIE IN ANY SPECIAL FLOOD HAZARD AREAS AS IDENTIFIED IN FIRM Panels: 47157C0310G, DATED FEBRUARY 5, 2013.
D. GRADING AND STORM DRAINAGE PLANS SHALL BE ESTABLISHED PER THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE. ALL PUBLIC STORMWATER DRAINAGE SHALL REQUIRE A PUBLIC EASEMENT.

VIII. SANITARY SEWER & SERVICES

A. MASTER SANITARY SEWER CONCEPT PLAN SHALL BE SUBMITTED AT THE TIME A PRELIMINARY PLAN IS SUBMITTED FOR REVIEW AND APPROVAL.
B. THE CITY OF MEMPHIS WILL PROVIDE SANITARY SEWER SERVICE.
C. SANITARY SEWER IMPROVEMENTS SHALL BE PROVIDED UNDER CONTRACT IN ACCORDANCE WITH THE CITY OF MEMPHIS, THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE, AND THE STATE OF TENNESSEE REGULATIONS.
D. SIZES OF SANITARY SEWER LINES SHALL BE DETERMINED AT THE TIME A FINAL PLAN IS SUBMITTED TO THE CITY ENGINEER.
E. SANITARY SEWER PLANS SHALL BE SUBMITTED TO THE TENNESSEE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (TDEC) FOR WRITTEN APPROVAL.
F. ALL SANITARY SEWER LOCATED IN A PRIVATE DRIVE OR OTHERWISE OUTSIDE OF THE PUBLIC RIGHT–OF–WAY SHALL BE WITHIN A PUBLIC EASEMENT.

IX. WATER SERVICE/UTILITIES

A. PUBLIC WATER IMPROVEMENTS SHALL BE PROVIDED BY THE DEVELOPER UNDER CONTRACT IN ACCORDANCE WITH THE CITY OF LAKELAND LAND DEVELOPMENT REGULATIONS AND THE STATE OF TENNESSEE REGULATIONS.
B. ALL UTILITIES AND SERVICES TO BE INSTALLED UNDERGROUND
C. ALL WATER SERVICES LOCATED IN A PRIVATE DRIVE OR OTHERWISE OUTSIDE OF THE PUBLIC RIGHT–OF–WAY SHALL BE WITHIN A PUBLIC EASEMENT.

X. DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS

A. THE DEVELOPER WILL FORM A GLIDE XPRESS ON HIGHWAY 64 – PROPERTY OWNERS' ASSOCIATION AND ADOPT A DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS, HEREINAFTER "COVENANTS", TO PROVIDE FOR HARMONY, CONTINUITY, AND MAINTENANCE FOR THE PLANNED DEVELOPMENT, AND REMAIN IN COMPLIANCE WITH THE STANDARDS SET FORTH BY THE COMMUNITY. THE COVENANTS SHALL BE APPLICABLE TO ALL PROPERTIES WITHIN THE PLANNED DEVELOPMENT. AS A PART OF THE ABOVE, THE DEVELOPER WILL ESTABLISH AN ARCHITECTURAL REVIEW COMMITTEE, HEREINAFTER "ARC", TO ENSURE THAT IMPROVEMENTS ARE CONSISTENT WITH AND CONFORM TO THE QUALITY ESTABLISHED BY THE LAND DEVELOPMENT REGULATIONS, CITY OF LAKELAND, TENNESSEE. THIS COMMITTEE, OR THEIR DESIGNATED ARCHITECT, WILL REVIEW ALL PROPOSED STRUCTURES, SITE PLANS, BUILDING ELEVATIONS, LANDSCAPE PLANS, AND CONSTRUCTION MATERIALS. THE ARC SHALL ADHERE TO THE GUIDELINES AS SET FORTH BY THE PLANNED DEVELOPMENT'S CONDITIONS OF APPROVAL, THE COVENANTS, AND THE DEVELOPER. GLIDE XPRESS ON HIGHWAY 64 – PROPERTY OWNERS' ASSOCIATION WILL OWN ALL COMMON OPEN SPACES AND ENSURE THAT ALL FEATURES AND AMENITIES OF THE DEVELOPMENT THAT ARE CONSIDERED COMMON ASSETS ARE CONTINUOUSLY MAINTAINED AND REPAIRED AS NEEDED IN A QUALITY MANNER.

FINAL DEVELOPMENT PLAN
BRUNSWICK 64 COMMERCIAL SUBDIVISION
FEMA FIRM NUMBER 47157C 0310G DATED: FEBRUARY 6, 2013
SHELBY COUNTY, TN WARD 96 BLOCK 59 PARCEL ID L0159–00580

ENGINEER:
CARLSON CONSULTING ENGINEERS, INC.
7068 LEDGESTONE COMMONS
BARTLETT, TENNESSEE 38133
PH. (901) 384–0404
FX. (901) 384–0710

OWNER:
MAX ALLEY INVESTMENTS, LLC.
6500 SUMMERHILL ROAD
TEXARKANA, TEXAS 75503
PH. (903) 223–8000

DEVELOPER:
MAX ALLEY REAL ESTATE SERVICES, LLC.
6500 SUMMERHILL ROAD
TEXARKANA, TEXAS 75503
PH. (903) 223–8000

SEPTEMBER 2022

OWNERS CERTIFICATE

I/WE, _____, THE UNDERSIGNED OWNER(S), OF THE PROPERTY SHOWN, HEREBY ADOPT THIS FINAL DEVELOPMENT PLAN AS MY/OUR PLAN OF DEVELOPMENT. I/WE CERTIFY THAT I AM/WE ARE THE OWNER(S) OF THE SAID PROPERTY IN FEE SIMPLE, DULY AUTHORIZED TO ACT, AND THAT SAID PROPERTY IS NOT ENCUMBERED BY ANY TAXES WHICH HAVE BECOME DUE AND PAYABLE.

_____
SIGNATURE

_____
PRINT

NOTARY
STATE OF _____
COUNTY OF _____

BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE SAID STATE AND COUNTY, DULY COMMISSIONED AND QUALIFIED, PERSONALLY APPEARED _____, WITH WHOM I AM PERSONALLY ACQUAINTED, AND WHO UPON HIS/HER OATH ACKNOWLEDGED HIM/HERSELF TO BE OWNER OF THE PROPERTY, THE WITHIN NAMED BARGAINER, AND THAT HE/SHE EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AFFIXED MY NOTORIAL SEAL AT MY OFFICE IN _____, THIS DAY _____ OF _____, 2022.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES _____,

MORTGAGEE'S CERTIFICATE

I/WE, _____, THE UNDERSIGNED MORTGAGEE, OF THE PROPERTY SHOWN, HEREBY CONSENT AND AGREE TO THE PLAN OF DEVELOPMENT AS SUBMITTED BY_____, OWNER OF THE PROPERTY.

_____ _____
INSTITUTION SIGNATURE

NOTARY
STATE OF _____
COUNTY OF _____

BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE SAID STATE AND COUNTY, DULY COMMISSIONED AND QUALIFIED, PERSONALLY APPEARED _____, WITH WHOM I AM PERSONALLY ACQUAINTED, AND WHO UPON HIS/HER OATH ACKNOWLEDGED HIM/HERSELF TO BE MORTGAGEE OF THE PROPERTY, AND THAT HE/SHE EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AFFIXED MY NOTORIAL SEAL AT MY OFFICE IN _____, THIS DAY _____ OF _____, 2022.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES _____,

ENGINEER'S CERTIFICATE

IT IS HEREBY CERTIFIED THAT THIS FINAL DEVELOPMENT PLAN IS TRUE AND CORRECT, IS IN CONFORMANCE WITH THE DESIGN REQUIREMENTS OF THE CITY OF LAKELAND LAND DEVELOPMENT REGULATIONS AND THE SPECIFIC CONDITIONS IMPOSED ON THIS DEVELOPMENT, AND TAKES INTO ACCOUNT ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING LAWS AND REGULATIONS.

BY: _____

TENNESSEE CERTIFICATE NO. _____

DEAN L. CARLSON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22978 STATE OF TENNESSEE

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS IS A CATEGORY I SURVEY AND THAT THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS 1:10,000 OR GREATER; THAT THIS FINAL DEVELOPMENT PLAN HAS BEEN PREPARED BY ME OR UNDER MY INDIVIDUAL SUPERVISION AND CONFORMS WITH APPLICABLE STATE LAWS, THE CITY OF LAKELAND LAND DEVELOPMENT REGULATIONS, AND THE SPECIFIC CONDITIONS IMPOSED ON THIS DEVELOPMENT RELATING TO THE PRACTICE OF SURVEYING.

BY_____
BRIAN L. BUCHHEIT

DATE 9/7/2022

TENNESSEE LICENSE NO. 2250

BRIAN L. BUCHHEIT REGISTERED LAND SURVEYOR AGRICULTURE COMMERCE TENNESSEE NO. 2250

LAND USE AND DEVELOPMENT SERVICES CERTIFICATE

THIS FINAL PLAN CONFORMS WITH THE PRELIMINARY DEVELOPMENT PLAN APPROVED BY THE BOARD OF COMMISIONERS OF THE CITY OF LAKELAND ON MAY 19, 2022.

BY _____ DATE _____
CITY MANAGER

CITY ENGINEER _____ DATE _____

FINAL DEVELOPMENT PLAN
BRUNSWICK 64 COMMERCIAL SUBDIVISION
FEMA FIRM NUMBER 47157C 0310G DATED: FEBRUARY 6, 2013
SHELBY COUNTY, TN WARD 96 BLOCK 59 PARCEL ID L0159-00580

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SEPTEMBER 2022

SHEET 6 OF 6 CERTIFICATIONS

CITY OF LAKELAND TENNESSEE

Municipal Planning and Design Review Commission

Meeting Date: Thursday, September 15, 2022

Project: Lakeland Meadows
Phase 1 Signage Plan

Staff Contact: Richard T. Donovan, Jr., Planning Consultant

PROJECT INFORMATION

Location:	Old Brownsville Road
Parcel ID:	L0150 00539
Zoning District:	AG with Lakeland Meadows PD overlay
Neighborhood:	Type II
Site Area:	190.20 acres
Applicant:	Doug Swink, Renaissance Developments
Representative:	David Backer, Fisher Arnold

STAFF RECOMMENDATION

Staff recommends approval of the Lakeland Meadows Phase 1 Sign Plan.

DISCUSSION

BACKGROUND:
The Lakeland Meadows Developer is seeking to have a subdivision sign approved for the entrance on Old Brownsville Road. The Outline Plan and PDP were approved in October of 2018. The proposed sign is area will be 3 square feet on each side of the entrance and will be cast from Limestone. The sign will be placed on one of 4 fieldstone clad fence columns with back wood fencing between each column.

ANALYSIS:
Upon review by staff the subdivision sign plan meets the requirements of the Lakeland Sign Ordinance. Below are the requirements of the sign code for subdivision signs.

(o) Subdivision Entry Sign. Ground-mounted signs integrated into the entrance treatment (i.e., entrance wall) with the name of the subdivision or planned unit development may be allowed on one or both sides of each principal entrance. Subdivision entry signs shall be located on private property and shall not obstruct any public right-of-way or easement. Where located at the side of the road on private property, there may be one (1) sign located on one side of the entrance road or on both sides of the entrance road at each principal entrance to the subdivision or planned unit development, provided that:

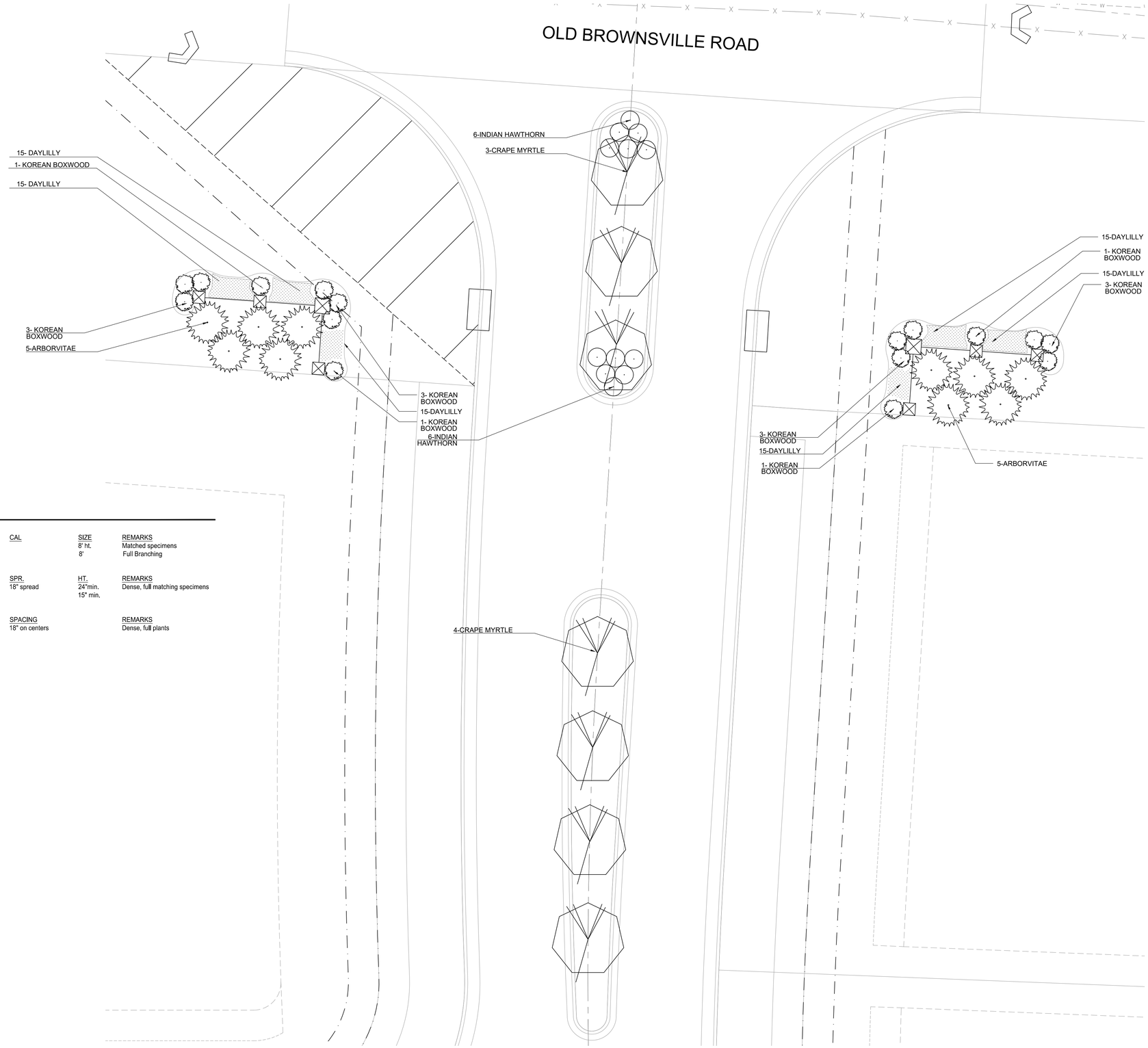
(i) Such signs shall not exceed 32 square feet in sign area per entry sign;

(ii) Such sign shall not exceed 72 inches in height measured from finished grade, unless integrated into a wall or column, in which case it shall not exceed the height of the wall or column; and

(iii) Such sign shall contain no commercial message.

EXAMPLE MOTIONS

1. Motion to approve the Lakeland Meadows Phase 1 Sign Plan subject to the following conditions:
   a. Conditions as determined by the Planning Commission
   b. Conditions listed in the Staff Report
2. Motion to approve the Lakeland Meadows Phase 1 Sign Plan without conditions.
3. Motion to deny the Lakeland Meadows Phase 1 Sign Plan application:
   a. Reason for denial



PLANT SCHEDULE

TREES

QTY.	COMMON NAME	BOTANICAL NAME	CONDITION	CAL	SIZE	REMARKS
10	American Arborvitae	Thuja occidentalis 'smaragd'	B & B		8' ht.	Matched specimens
7	Crape Myrtle	Lagerstroemia indica ' Cherokee'	B & B		8'	Full Branching

SHRUBS

QTY.	COMMON NAME	BOTANICAL NAME	CONDITION	SPR.	HT.	REMARKS
16	Korean Boxwood	Buxus sinica	B&B	18" spread	24"min.	Dense, full matching specimens
12	Indian Hawthorn	Raphiolepis x delacourii 'Georgia Petite'	CONT		15" min.	

GROUND COVERS

QTY.	COMMON NAME	BOTANICAL NAME	CONT	SPACING	REMARKS
90	Dayilly Mix	Hemerocallis x `Going Bananas` and H. x 'Pardon Me'	1 gal	18" on centers	Dense, full plants

PLANTING PLAN

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

*NOTE: Mirror Plantings on both sides of the drive.

FISHER ARNOLD
ENGINEERING INTEGRATION
9180 Crestwyn Hills Drive | Memphis, Tennessee 38125-8538
901.748.1811 | Fax: 901.748.3115 | www.fisherarnold.com
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Lakeland Meadows
Lakeland, Tennessee

Rev.	Date	Revision Description

Seal

Issue Date: 07.22.2022
Project No: RENAISSA0010PL
Drawn By: IRR
Checked By: DBB
Sheet Title:

SIGN PLAN
AND DETAILS

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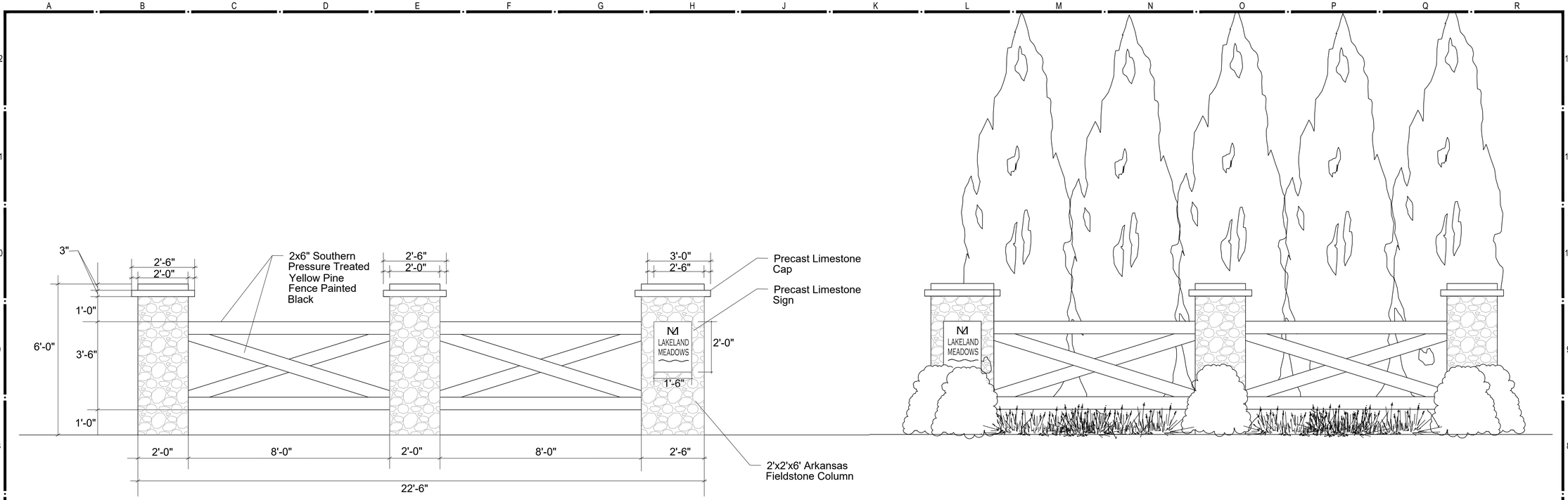
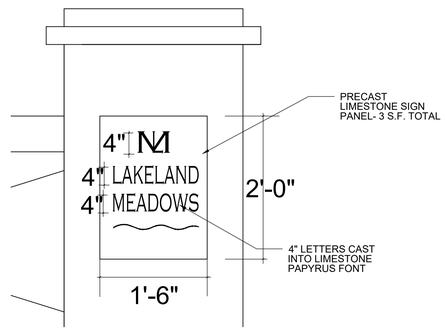


SIGN ELEVATION

SCALE: 1/2" = 1'-0"

SIGN LAYOUT

SCALE: 1" = 10'-0"



SIGN ENLARGEMENT

SCALE: 1" = 10'-0"

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Lakeland Meadows
Lakeland, Tennessee

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