



LSC TRANSPORTATION CONSULTANTS, INC.
2504 East Pikes Peak Avenue, Suite 304
Colorado Springs, CO 80909
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lsctrans.com
Website: <http://www.lsctrans.com>

Mayberry Filing No. 3
Traffic Technical Memorandum
(LSC #S224210)
May 19, 2022

Please add PCD¹
File No. SF2219



Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

John Mick

John Mick (May 20, 2022 13:23 PDT)

May 20, 2022

Date

Summary of Comments on 247f9dcd-a49a-4ce1-b644-8dd6ee9ac98b.pdf

Page: 1



Number: 1

Author: Daniel Torres

Subject: Text Box

Date: 6/22/2022 17:40:05

[Please add PCD File No. SF2219](#)

LAND USE AND ACCESS

Please provide small discussion/statement on the access to the site (New log Rd & Springs Rd)

1



Filing No. 3 includes 142 lots for single family homes. The Filing No. 3 plat is consistent with the Phase 1 PUD/Preliminary Plan Amendment studied in the February 2022 TIS. A copy of that TIS is attached for reference. Note: this current Filing No. 3 was previously referred to as "Filing No. 4" in recent TIS reports for the PUD/Preliminary Plan Amendment and the Rezone TIS Report. A copy of the subdivision plat is attached for reference.

TRIP GENERATION

Please state what the trip generation is.

2



Filing No. 3 includes 142 lots for single-family homes. Neither the ITE Land Use code nor the number of dwelling units has changed from the above-referenced prior TIS reports.

TRAFFIC IMPACT ANALYSIS AND ROADWAY IMPROVEMENTS

Overall

Please refer to the *Mayberry Phase 1 PUD Amendment Transportation Memorandum* dated February 17, 2022, which references (and identifies some specific updates to) the **June 2020** TIS report entitled *Ellicott Town Center Filing 2 Traffic Impact Study March 31, 2020** (*Note: Minor Revision June 2, 2020). The El Paso County reference numbers are PCD File Nos. CS192 and SF 1910. These documents addressed the impacts and improvements associated with this filing, as well as all of Phase 1.

New Log Road Phasing

Following with review of the PUD/Preliminary Plan TIS, the PCD Engineering Manager requested that the phasing of the one-way, New Log Road couplet south of SH 94 be addressed in this report.

The ultimate northbound-only portion of the one-way couplet has been and is proposed for interim use for **both** directions of travel and the separate, southbound-only portion of the couplet would be constructed later as future development occurs.

The trips on New Log Road would not exceed 3,000 vehicles per day (vpd) ADT with the buildout of Filings 1, 2, and 3. Given the northbound "half couplet" would have a similar cross section to an Urban Local roadway, and the design ADT of an Urban Local is 3,000 ADT, staff has indicated this volume as an approximate trigger for construction and use of the southbound lanes of the couplet.

Please identify the total trip generation for these three filings

3



 Number: 1 Author: Daniel Torres Subject: Callout Date: 6/23/2022 07:33:04

Please provide small discussion/statement on the access to the site (New log Rd & Springs Rd)

 Number: 2 Author: Daniel Torres Subject: Callout Date: 6/23/2022 07:26:57

Please state what the trip generation is.

 Number: 3 Author: Daniel Torres Subject: Callout Date: 6/23/2022 08:15:14

Please identify the total trip generation for these three filings

SUBDIVISION STREET CLASSIFICATIONS

Please refer to the *Mayberry Phase 1 PUD Amendment Transportation Memorandum* dated February 17, 2022, which contains a "Street Classifications" section and an associated exhibit.

ROADWAY IMPROVEMENT FEE PROGRAM

This project will be required to participate in the El Paso The PID option (or the 'opt out' option) for this subdivision prior to plat approval.

Please update the tables with the new plat filing numbers (i.e filing 4 is now filing 3) so that we have a clean table from here on out.

DEVIATIONS

Please refer to the *Mayberry Phase 1 PUD Amendment* February 17, 2022, which contains an "Approved Deviation

Also in the El Paso County Roadway Improvements section please discuss Mayberry drive from New Log Road to its terminus on the east. In looking back at the previous traffic studies, i noticed that it was not identified that only a half section is to be built in the first phase of development. This is only found in the deviation that was approved for Mayberry Dr.

An additional deviation (PUD Modification) was submitted for corner clearance across lots on the inside "knuckles."

Please also state when the full section is anticipated to be required.

ROUNABOUT ANALYSIS & DESIGN

A mini roundabout is proposed as the traffic control for the intersection of Mayberry Drive/Springs Road. Exhibits containing roundabout technical analysis are attached for reference. The horizontal layout and analysis has been completed using the criteria contained in the Wisconsin DOT roundabout design manual (as required by El Paso County). These exhibits contain all the details for the currently-proposed mini roundabout except the line-of-sight triangles/analysis, which LSC would prepare and submit to staff following review (and acceptance) of these exhibits, as per the same approach used on another recent project in the county. Note: The splitter islands only need to be mountable to accommodate a vehicle larger than a WB-50.

include in your narrative pertinent information regarding your analysis/proposed design such as design vehicle, entry angles used, diameter of the roundabout, pedestrian accessibility etc

CDOT ACCESS PERMITS

The CDOT access permits for New Log Road and Springs Road public street connections (access points) to SH 94 are 218053 and 218054. Both permits have been finalized. Note: The Improvements Table in the February 2022 PUD TIS report references these approved access permits for all CDOT-facility improvements.

CDOT may require updates to these permits to include the 142 lots in this subdivision filing, but that should not be problematic or difficult as the permits addressed phasing of highway improvements for all of Phase 1, including this filing. This plat is in conformance with the 2020 TIS report used as a basis for the access permits.

Number: 1 Author: Daniel Torres Subject: Callout Date: 7/6/2022 13:55:32

Please update the tables with the new plat filing numbers (i.e filing 4 is now filing 3) so that we have a clean table from here on out. Also in the El Paso County Roadway Improvements section please discuss Mayberry drive from New Log Road to its terminus on the east. In looking back at the previous traffic studies, I noticed that it was not identified that only a half section is to be built in the first phase of development. This is only found in the deviation that was approved for Mayberry Dr. Please also state when the full section is anticipated to be required.

Number: 2 Author: Daniel Torres Subject: Callout Date: 7/6/2022 13:54:23

include in your narrative pertinent information regarding your analysis/proposed design such as design vehicle, entry angles used, diameter of the roundabout, pedestrian accessibility etc

* * * * *

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.
Principal

JCH

Enclosures: Site plan
Roundabout Exhibits
Ellicott Town Center Fil 1-4 PUD An

provide roundabout critical design parameters table.

Lorson Ranch East Roundabout
Fontaine Boulevard/Lamprey Drive
El Paso County, CO
LSC #164360; May, 2018

ROUNDBABOUT CRITICAL DESIGN PARAMETERS

Design Parameters	Leg 1	Leg 2	Leg 3	Leg 4
Approach Width, FT	14.0	14.0	14.0	14.0
Entry Width, FT	16.0	16.0	16.0	16.0
Entry Angle, PHI ϕ , DEG	18.5	20.0	18.5	20.0
Inscribed Circle Diameter, FT	150.0	150.0	150.0	150.0
Exit Width, FT	20.0	20.0	20.0	20.0
Circulating Roadway Width Upstream of Entry, FT	20.0	20.0	20.0	20.0

Fastest Speed Path	135	22	169	24	133	22	169	24
R ₁ - Radius/Speed, FT/MPH	92	20	94	20	96	20	100	20
R ₂ - Radius/Speed, FT/MPH	524	36	423	33	408	33	406	33
R ₃ - Radius/Speed, FT/MPH	62	17	63	17	73	18	62	17
R ₄ - Radius/Speed, FT/MPH	97	20	97	20	98	20	97	20
Bypass R ₅ - Radius/Speed, FT/MPH								

Minimum Sight Parameters	35	50	35	50
Approach Design Speed, MPH	248	427	248	427
Horizontal Stopping Sight Distance, FT	113	20	113	20
Circulating Intersection Sight Distance, FT/MPH	123	22	135	23
Entering Intersection Sight Distance, FT/MPH			123	22
			135	23

Design Vehicle: WB-67

Truck Apron Width: 12

OSOW Accommodations: WB-67 is maximum vehicle that can be accommodated.

Circulating Roadway Cross-Slope: 2%

Access Control: There is no access proposed within the limits of the roundabout.

Parking Control: No on-street parking on any of the intersecting roads.

Bicycle & Pedestrian Accommodations: Bike lanes are transitioned through the roundabout for the east-west direction. Pedestrian refuges are provided within each of the four splitter islands.

Designer: Matt Romero/Chris McGranahan
Reviewer:

SIGNATURE: _____ DATE: _____

NAME: _____

The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.



Number: 1 Author: Daniel Torres Subject: Text Box Date: 7/6/2022 13:49:37

[provide roundabout critical design parameters table.](#)



Number: 2 Author: Daniel Torres Subject: Image Date: 7/6/2022 13:49:52

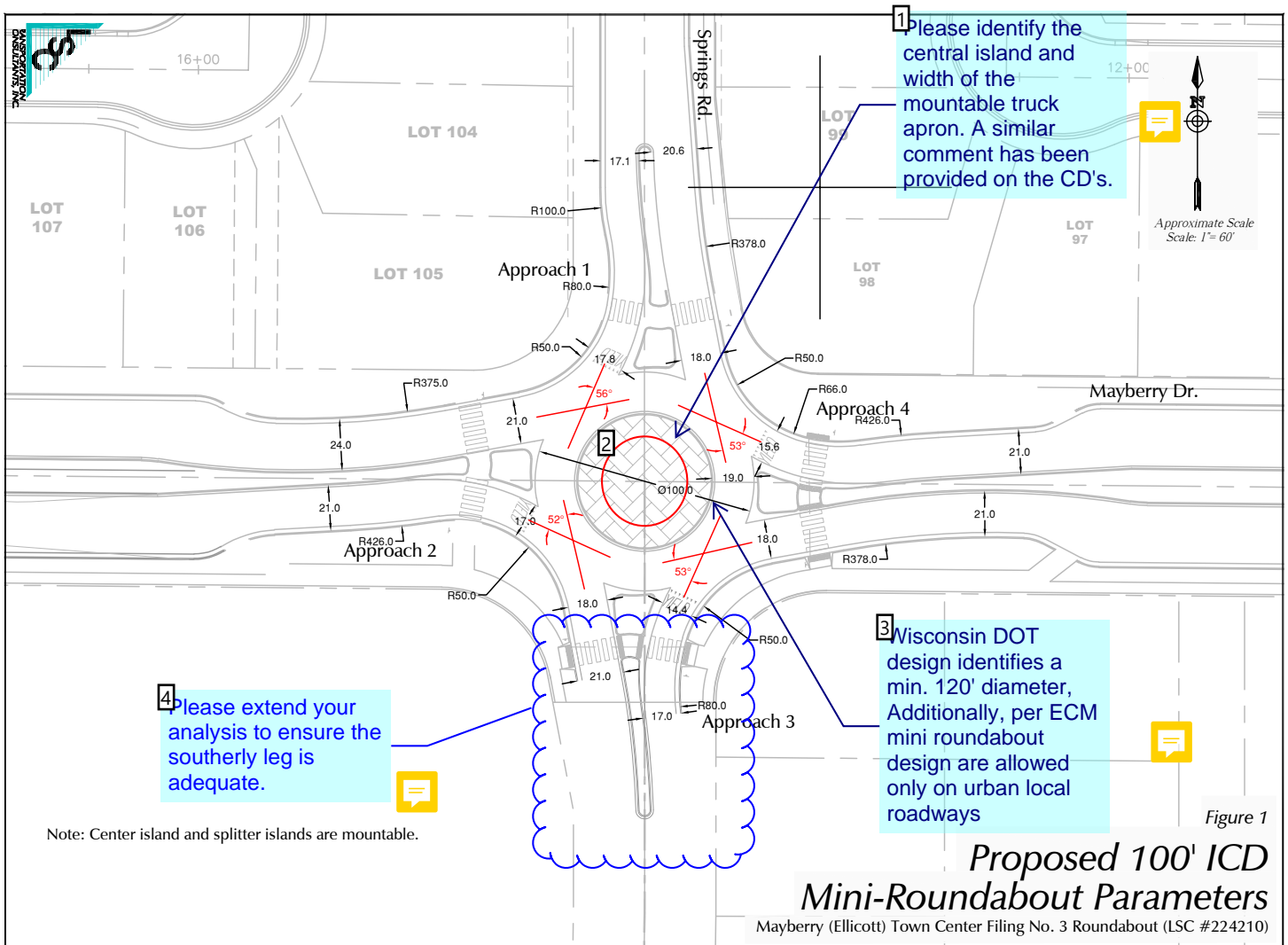



Figure 1

 Number: 1 Author: Daniel Torres Subject: Callout Date: 7/6/2022 15:10:16

Please identify the central island and width of the mountable truck apron. A similar comment has been provided on the CD's.

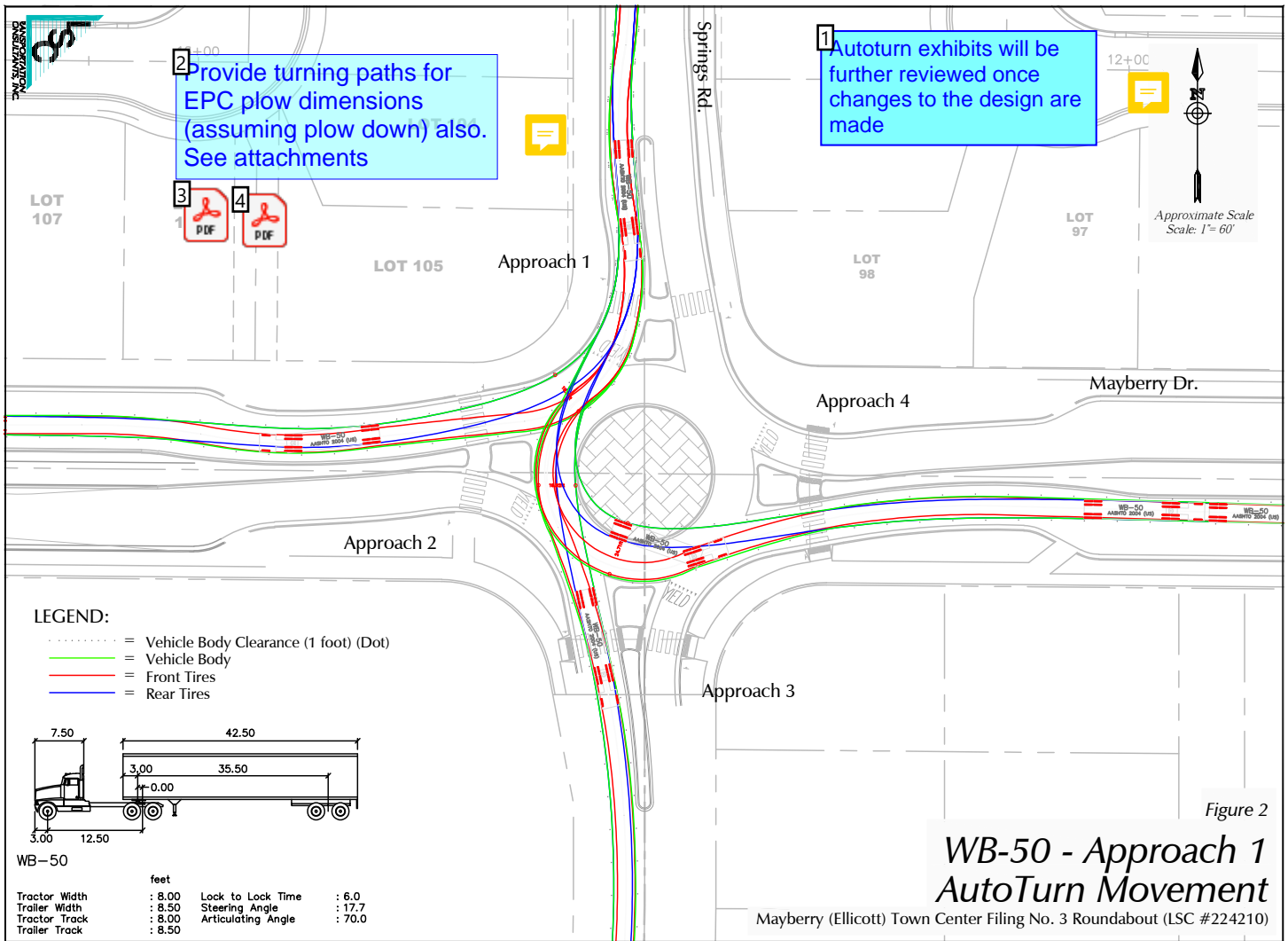
 Number: 2 Author: Daniel Torres Subject: Ellipse Date: 7/6/2022 15:07:19

 Number: 3 Author: Daniel Torres Subject: Callout Date: 7/6/2022 17:45:10

Wisconsin DOT design identifies a min. 120' diameter, Additionally, per ECM mini roundabout design are allowed only on urban local roadways


 Number: 4 Author: Daniel Torres Subject: Cloud+ Date: 7/6/2022 17:49:21

Please extend your analysis to ensure the southerly leg is adequate.





 Number: 1 Author: Daniel Torres Subject: Text Box Date: 7/6/2022 17:45:36

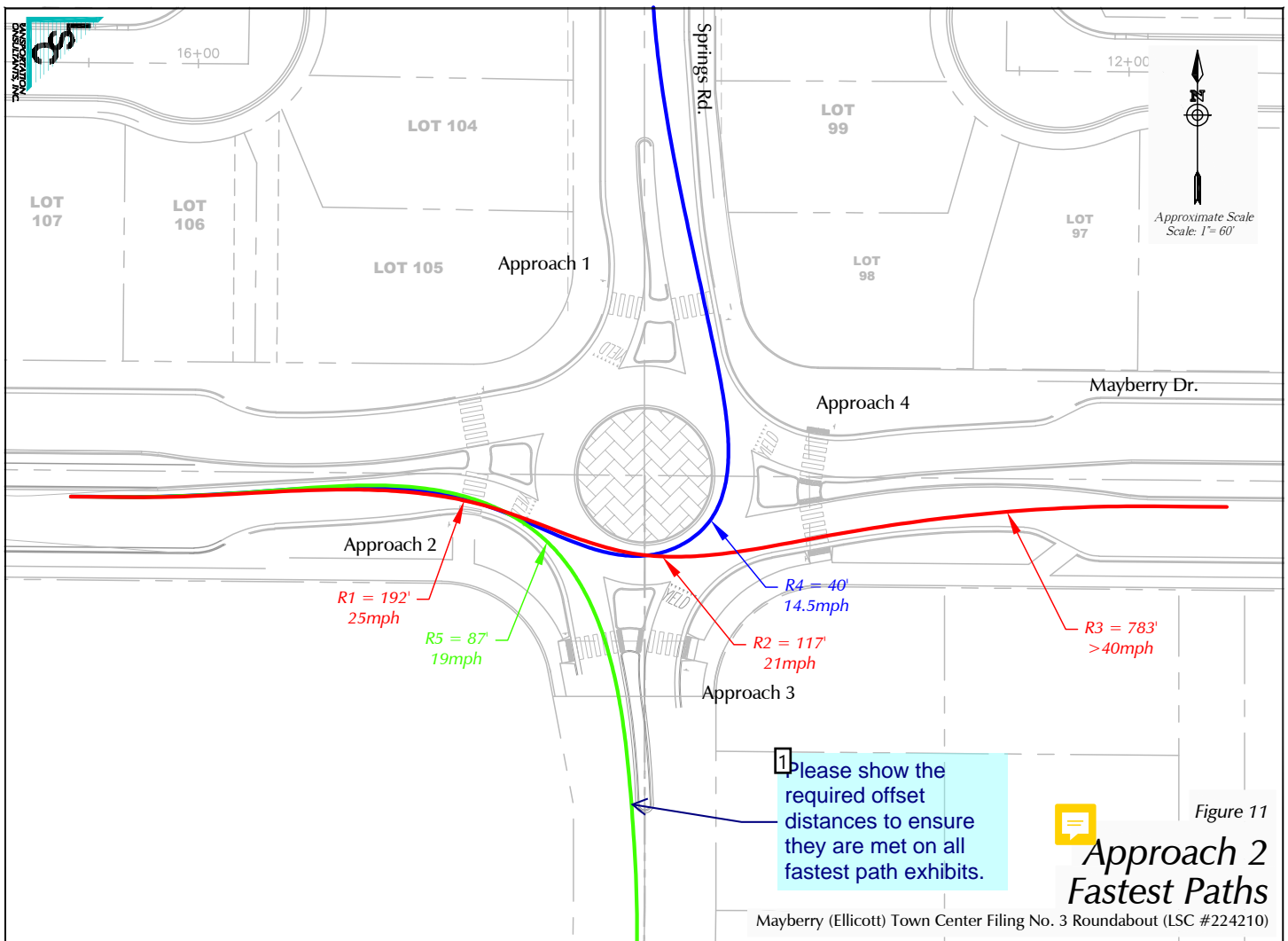
[Autoturn exhibits will be further reviewed once changes to the design are made](#)

 Number: 2 Author: Daniel Torres Subject: Text Box Date: 7/7/2022 15:48:11

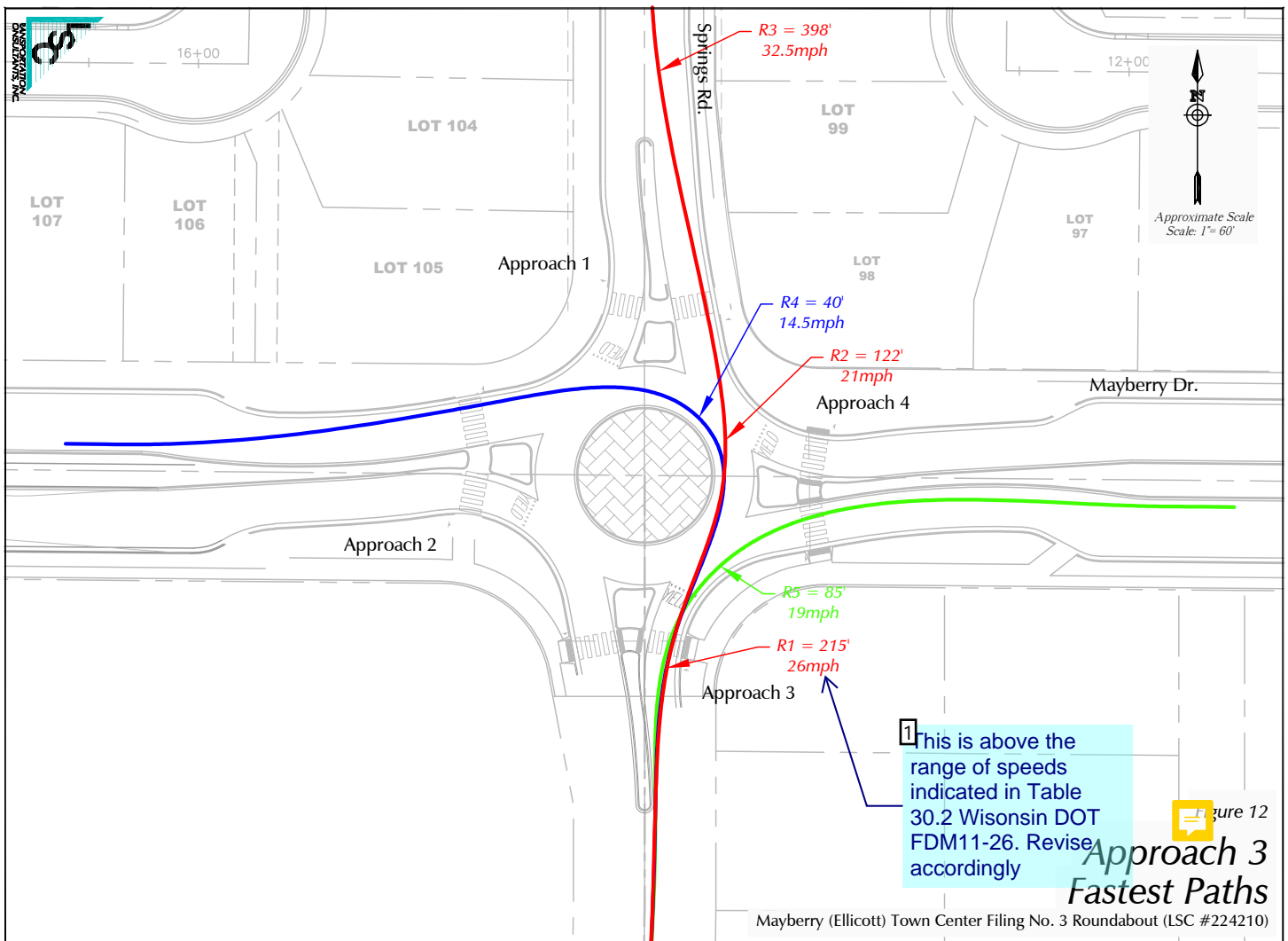
[Provide turning paths for EPC plow dimensions \(assuming plow down\) also. See attachments](#)

 Number: 3 Author: Daniel Torres Subject: File Attachment Date: 7/7/2022 15:50:11

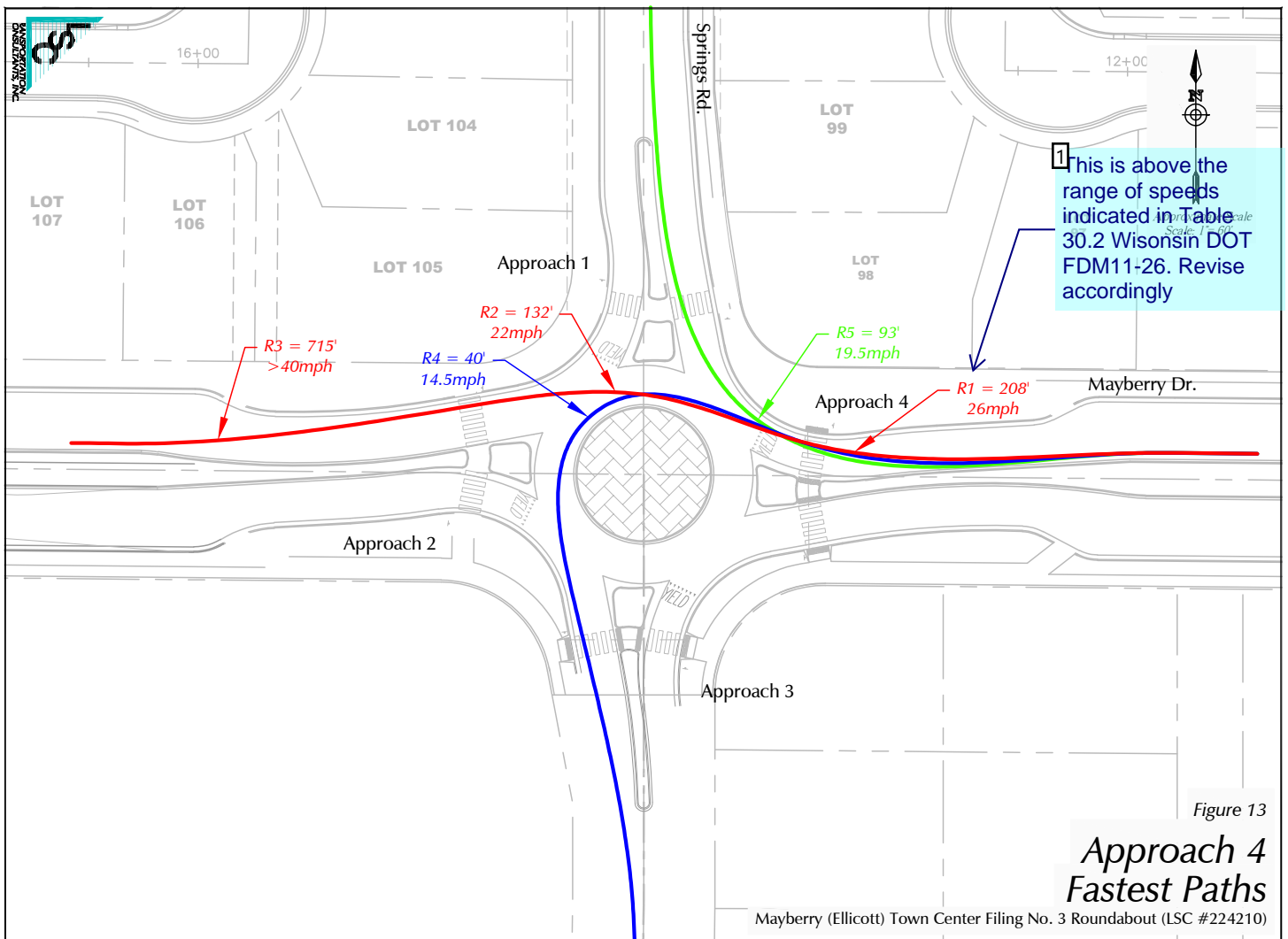
 Number: 4 Author: Daniel Torres Subject: File Attachment Date: 7/7/2022 15:50:20



Please show the required offset distances to ensure they are met on all fastest path exhibits.



This is above the range of speeds indicated in Table 30.2 Wisconsin DOT FDM11-26. Revise accordingly



This is above the range of speeds indicated in Table 30.2 Wisconsin DOT FDM11-26. Revise accordingly