

# Lake Drive Improvements Project

Town Council Meeting

November 17, 2020

Prepared by:

Chris Johnson, PE – Town Engineer

# Lake Drive Improvements Project

## Agenda

- Project Background
- Project Budget
- Work Completed to Date
- Public Meeting (2/11/20) and Citizen Feedback
- Design Alternatives Considered
- 3D Visualization of Recommended Design Alternative
- Staff Recommendations
- Next Steps



Bryan Pl

Dullis Cir

Lake Dr

Dullis Cir

Hilltop Ave

Barton Rd

# Lake Drive Improvements Project

## Project Background

- Lake Drive is primary access to NC 50 for 30+ single family homes
- US70/NC 50 Bridge Replacement project (B-4654)
  - Design will close Hilltop Avenue access to US-70
  - Lake Drive will become primary/sole ingress/egress route
- Eastern block of Lake Drive does not meet current Town standards
  - Narrow travel lanes
  - No curb and gutter
  - No sidewalk
  - Drainage problems
  - Limited sight distance from trees adjacent to pavement

Lake Dr  
Warner, North Carolina

Google

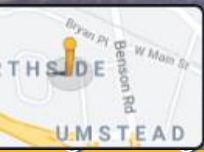
Street View



View



Cost



Lake Dr

25



Lake Dr

25





# Lake Drive Improvements Project

## Project Budget

Design (Arcadis)	\$ 58,090
ROW and Private Utility Relocations	\$130,000
<u>Construction (Roadway)</u>	<u>\$341,000</u>
Total	\$529,090
Say	\$530,000

Note: Project budget excludes costs for waterline upgrade. Waterline costs will be reimbursed by Raleigh Water via an agreement to be finalized at a later date.

# Lake Drive Improvements Project

## Work Completed to Date

- |   |                              |
|---|------------------------------|
| ✓ On-Call Design Agreement with Arcadis         | July 2019                    |
| ✓ Statement of Work #1 (Lake Drive)             | July 2019                    |
| ✓ Preliminary Design                            | Fall 2019                    |
| ✓ Statement of Work #2 (Utility coordination)   | October 2019                 |
| ✓ 65% Design Plans submitted                    | January 2020                 |
| ✓ Public Meeting and Citizen feedback           | February 2020                |
| ✓ Design Alternatives Reviewed                  | March 2020 (COVID-19 delays) |
| ✓ Waterline design incorporated (Raleigh Water) | July 2020                    |
| ✓ Town Council Presentation                     | November 2020                |

# Lake Drive Improvements Project

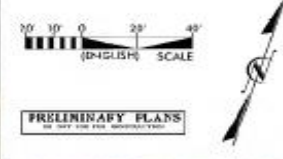
## Public Meeting

- Held February 11, 2020 @ 6:00 pm (Garner Fire Rescue)
- 18 Attendees
- Reviewed Public Meeting Map
  - Including ROW and easements required for project
  - Staff responded to questions/concerns

# DESIGN DATA

LAKE DRIVE

Functional Class = Local Street  
Posted Speed = 25 MPH  
Max. Super Elevation = 4%

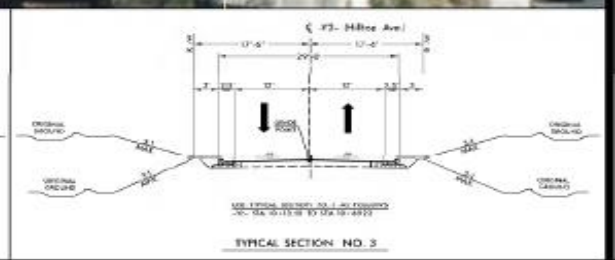
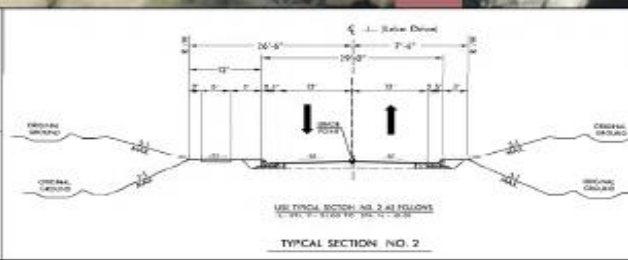
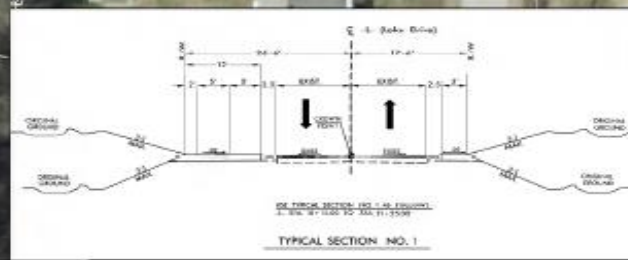


LEGEND	
[Red hatched]	BUILDINGS
[Green hatched]	EXISTING RIGHT OF WAY
[Light Green hatched]	PROPOSED RIGHT OF WAY
[Dark Green hatched]	PROPOSED BASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITIES)
[Orange hatched]	EXISTING ROADWAY
[Yellow hatched]	EXISTING ROADWAY TO BE RECONSTRUCTED
[Red hatched]	PROPOSED ROADWAY
[Blue hatched]	PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
[Red hatched]	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RECONSTRUCTED
[Red dashed line]	PROPOSED RIGHT-OF-WAY
[Black circle]	PROPERTY LIGHTS
[Black line]	GRAVEL DRIVEWAYS



## UTILITY INFORMATION

TO PROVIDE GREATER VISUAL CLARITY, TWISTING AND REVERSE UTILITIES ARE NOT SHOWN ON THESE MAPS OR ON OTHER DISPLAYS.



# Lake Drive Improvements Project

## Public Feedback

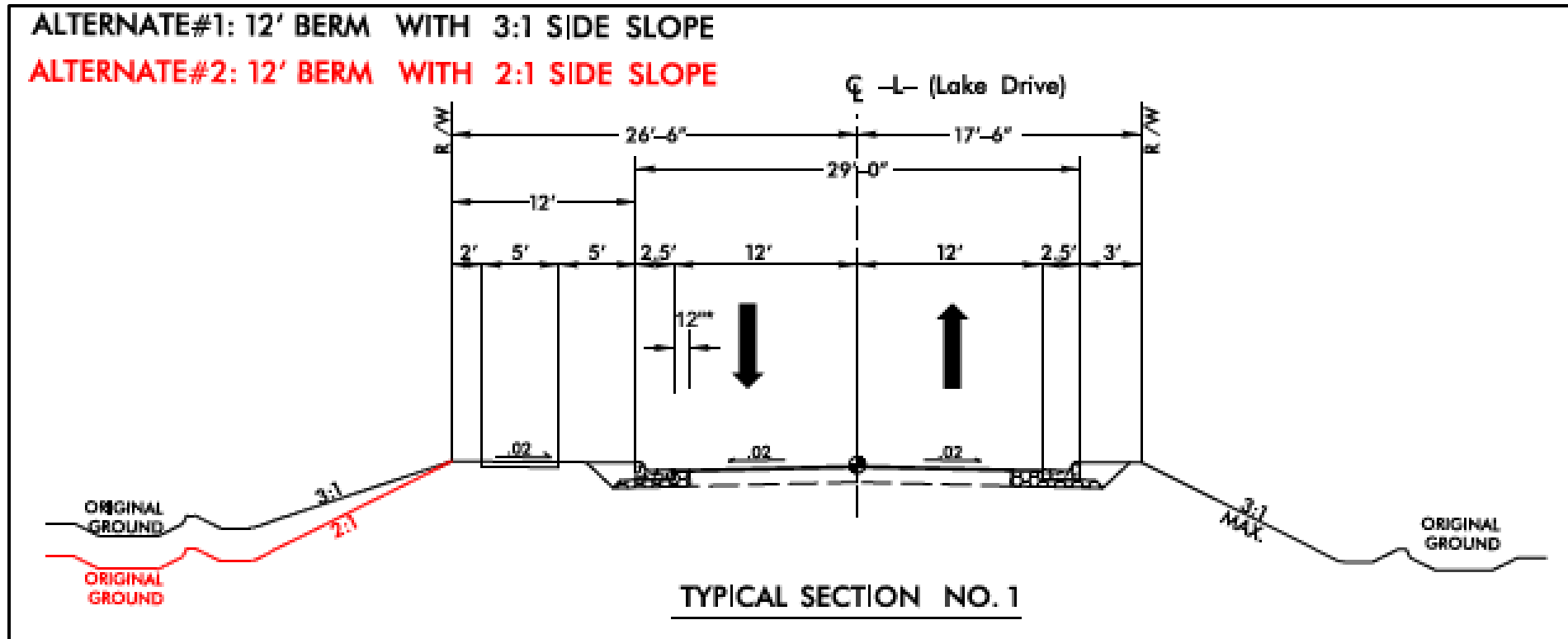
- Concerns with loss of trees/privacy, most notably along Parcel 2
- Sidewalk or no sidewalk (some owners liked sidewalk, some did not)
- Concerns with parking on street during downtown events
- Concerns with drainage and icing east of Hilltop Ave during winter months
- Narrow lanes along Lake Drive east of Hilltop Ave

# Lake Drive Improvements Project

## Design Alternatives

ALTERNATE#1: 12' BERM WITH 3:1 SIDE SLOPE

ALTERNATE#2: 12' BERM WITH 2:1 SIDE SLOPE

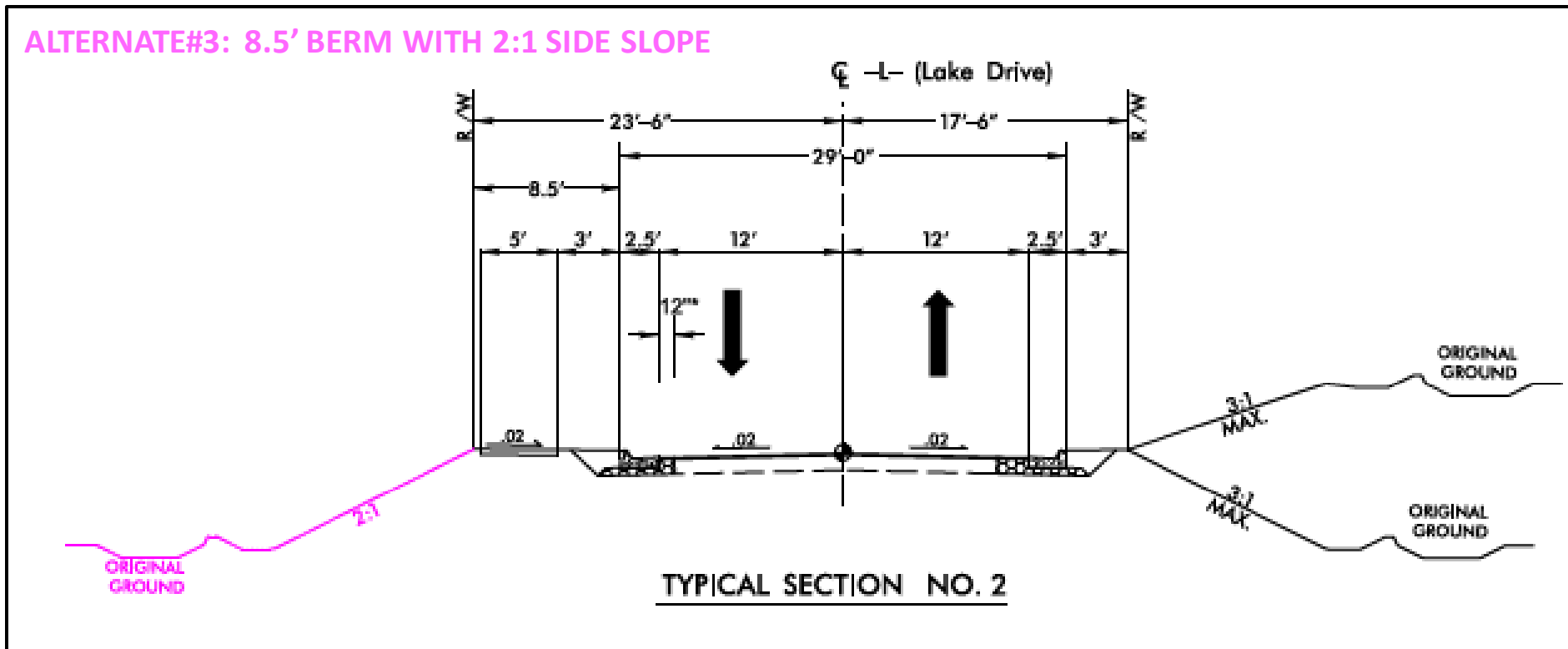




# Lake Drive Improvements Project

## Design Alternatives

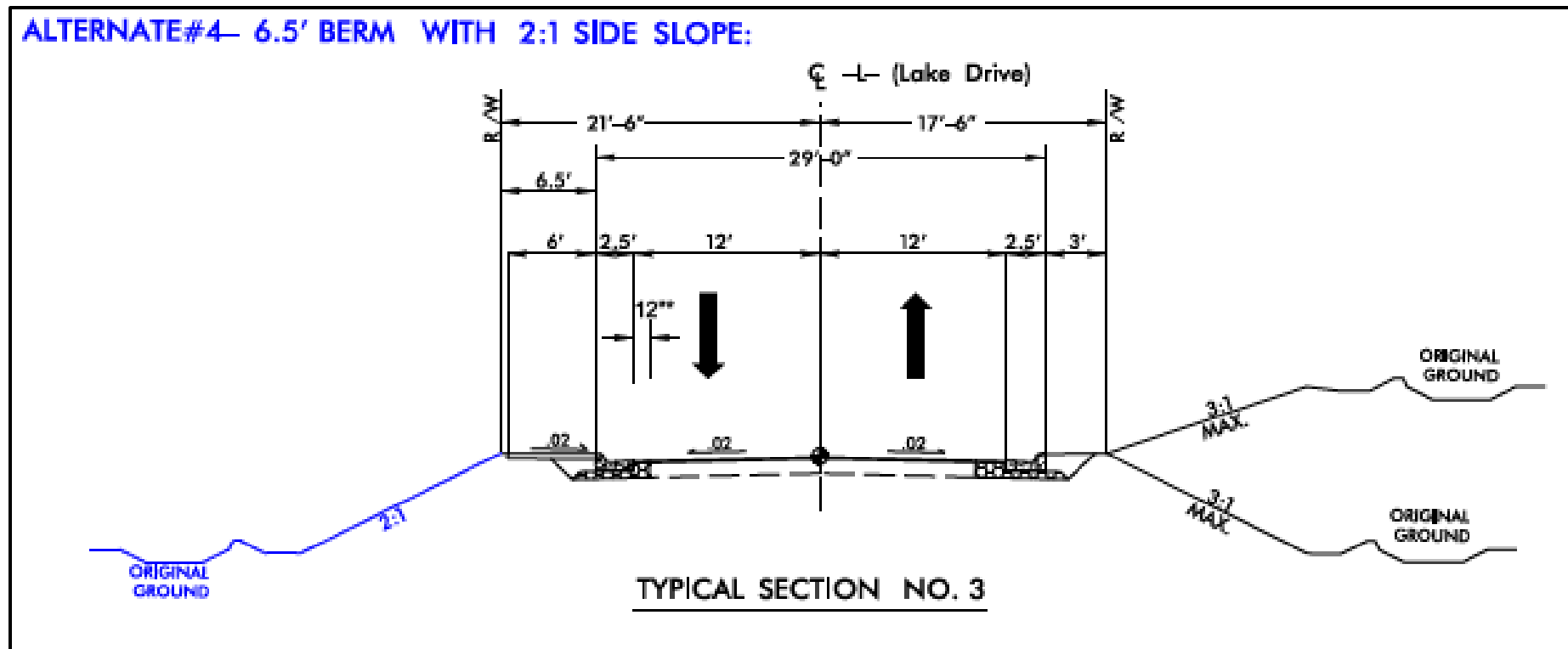
### ALTERNATE#3: 8.5' BERM WITH 2:1 SIDE SLOPE



# Lake Drive Improvements Project

## Design Alternatives

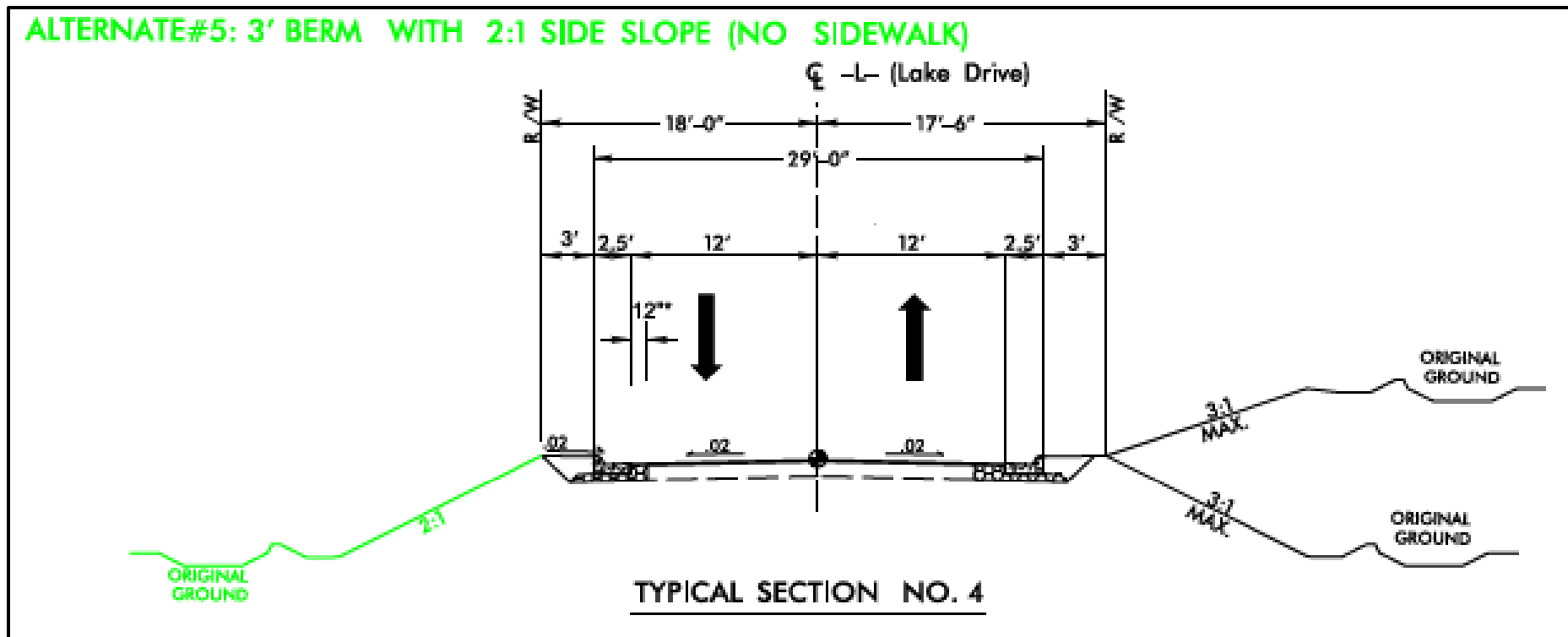
ALTERNATE#4- 6.5' BERM WITH 2:1 SIDE SLOPE:



# Lake Drive Improvements Project

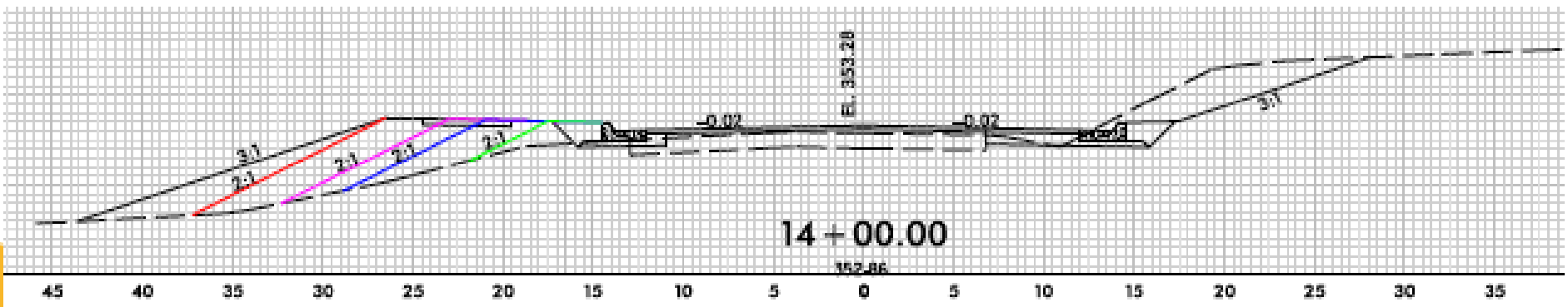
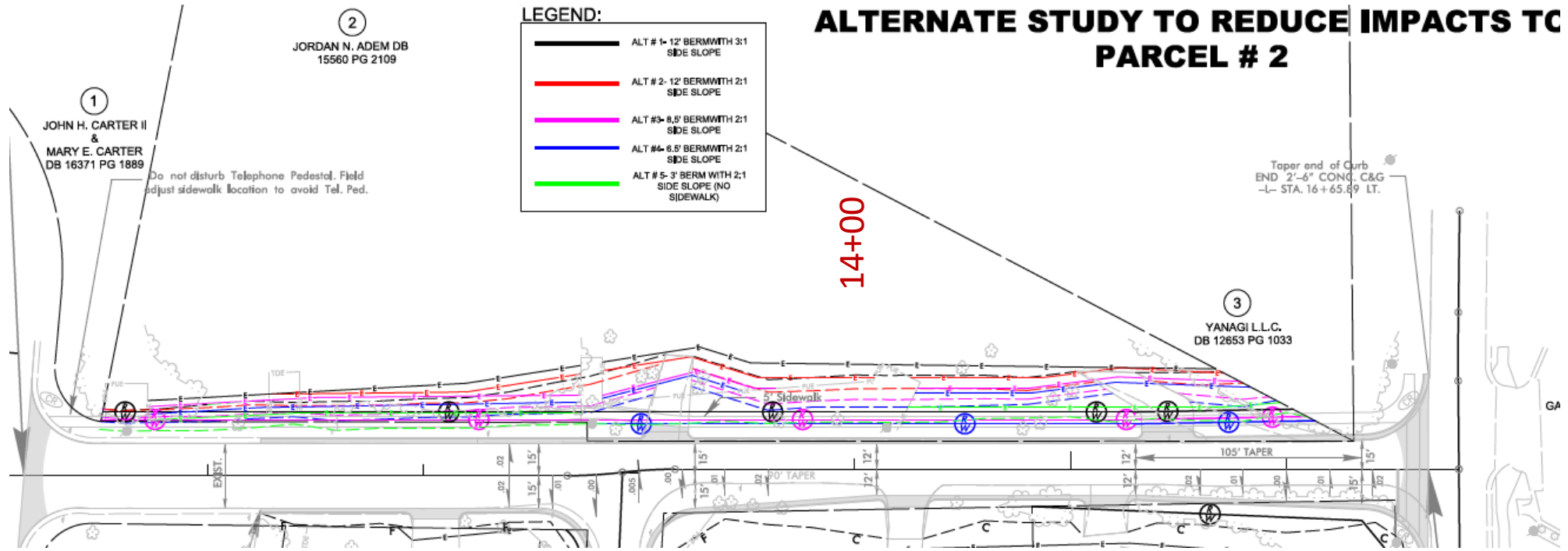
## Design Alternatives

ALTERNATE#5: 3' BERM WITH 2:1 SIDE SLOPE (NO SIDEWALK)



# Lake Drive Improvements Project

## ALTERNATE STUDY TO REDUCE IMPACTS TO PARCEL # 2



# Lake Drive Improvements Project

## IMPACTS TO PARCEL # 2

IMPACTS	AREA TAKEN				
	ALT #1	ALT #2	ALT #3	ALT #4	ALT #5
R/W	5,700 SF	5,700 SF	3,750 SF	2,835 SF	2,835 SF
TEMP. EASEMENT	7,550 SF	6,025 SF	5,375 SF	4,810 SF	1,925 SF

# Lake Drive Improvements Project

## Staff Recommendations

Council authorize staff to proceed with finalizing design plans in accordance with Alternative 4, which includes installing 6' wide sidewalk abutting back of curb.

# Lake Drive Improvements Project

## 3D Visualization of Recommended Design Alternative

# Lake Drive Improvements Project

## Next Steps

Land Acquisition Phase	Winter 2021
Finalize Design Plans/Permitting	Spring 2021
Final bid documents	Summer 2021
Advertise for construction	Summer 2021
Council award project	Fall 2021
Begin construction	Late 2021
Complete construction	Summer 2022



# Questions?