

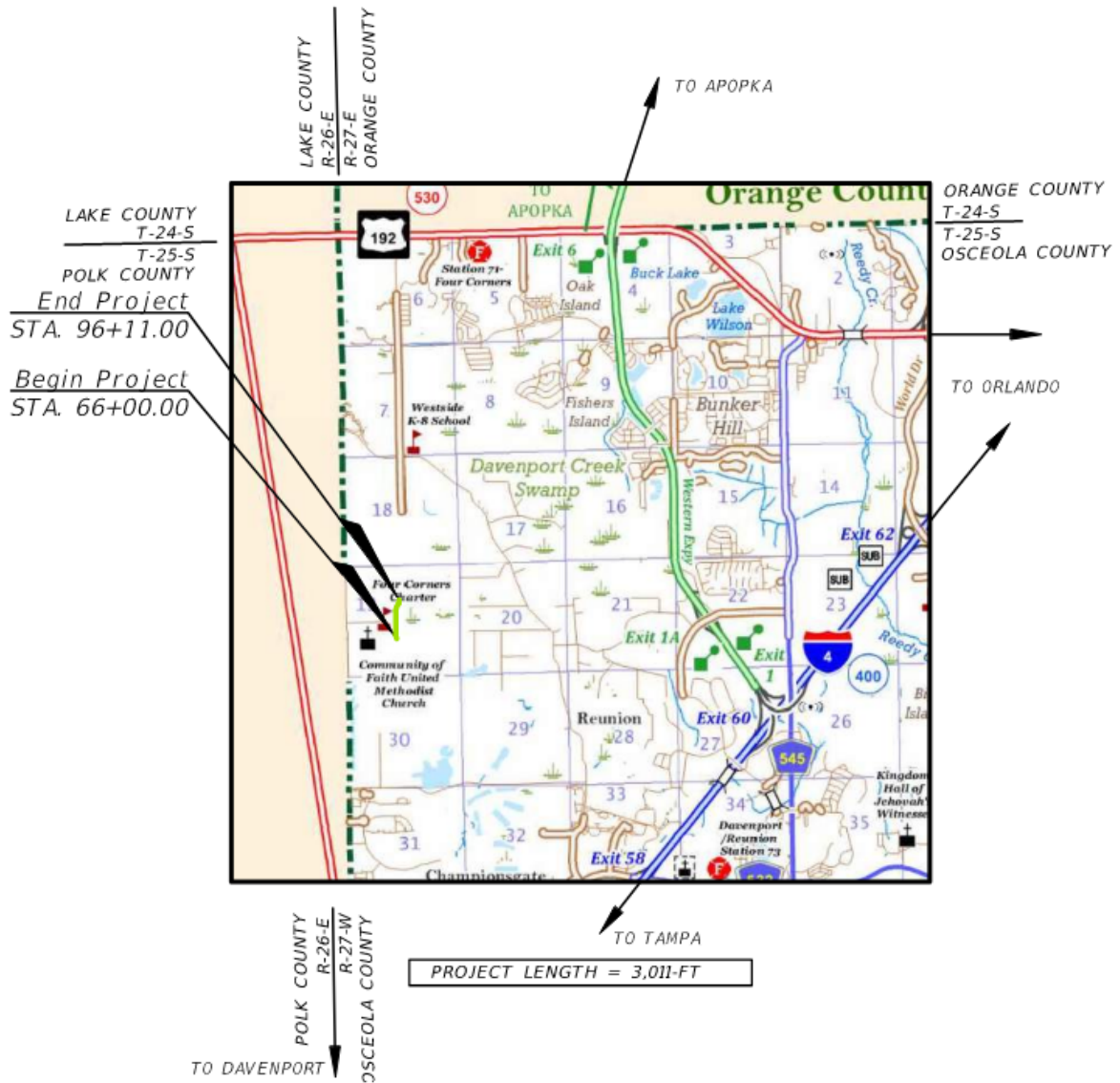
FINAL - DESIGN CRITERIA & DOCUMENTATION PACKAGE

FOR

WESTSIDE BOULEVARD EXTENSION

STA 66+00 – STA 96+11

OSCEOLA COUNTY, FLORIDA



MARCH 7TH, 2023

HAMILTON PROJECT NO. 53509.0017

Signature Sheet for:

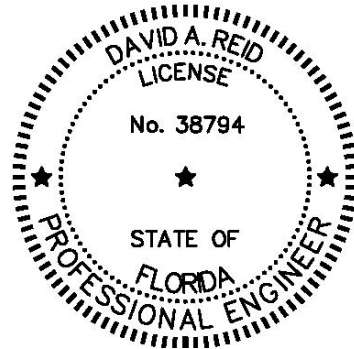
**FINAL - DESIGN CRITERIA & DOCUMENTATION
PACKAGE**

FOR

WESTSIDE BOULEVARD EXTENSION
OSCEOLA COUNTY, FLORIDA

This item has been digitally signed and sealed by David A. Reid, PE on the date adjacent to the seal.

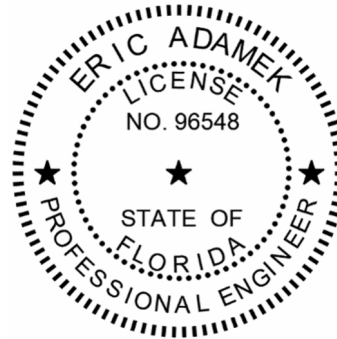
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Eric Adamek, P.E. Florida License No. 96548

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Appendix A – Design Criteria

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1.0 Introduction

Osceola County Transportation and Transit is proposing to construct a portion of a new 4-lane divided urban road called Westside Boulevard. The proposed improvements begin at the end of the southeast development called Tract X owned by LEN-CG SOUTH LLC and the end of the southwest development called Eden Gardens owned by EGR LLC and ends at the beginning of the northwest residential development called Soleil at Westside owned by Mattamy Orlando LLC. The south and north developments that our proposed road is tying into are currently being designed and modified, therefore coordination with the property owners is ongoing. The purpose of this report is to provide a summary of the proposed roadway design for this project.

The project's horizontal datum is Florida State Plane East zone (NAD 1983) and the vertical datum is NAVD88.

2.0 Project Location

The project is in northwest Osceola County. Project location is shown in Figure 1



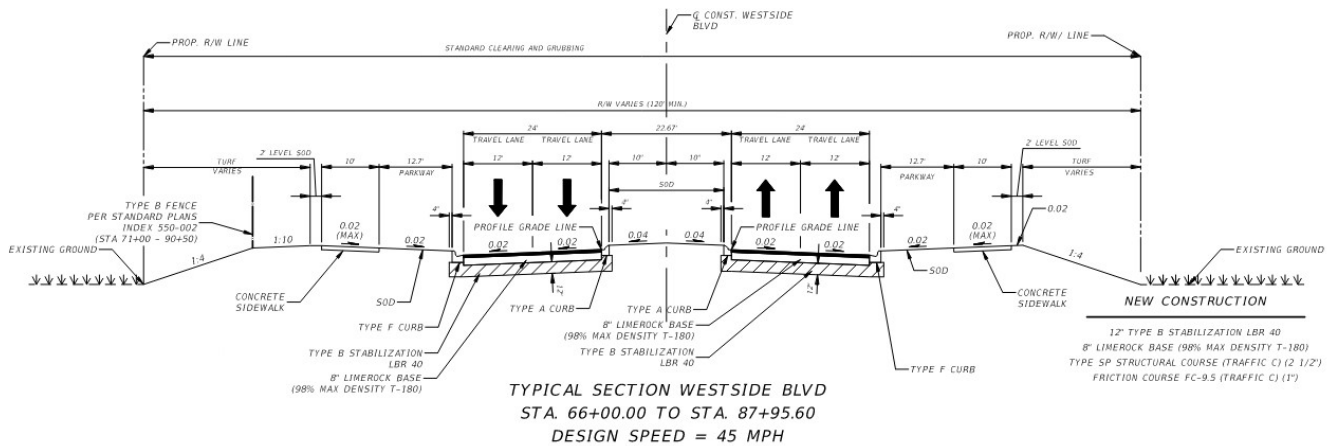
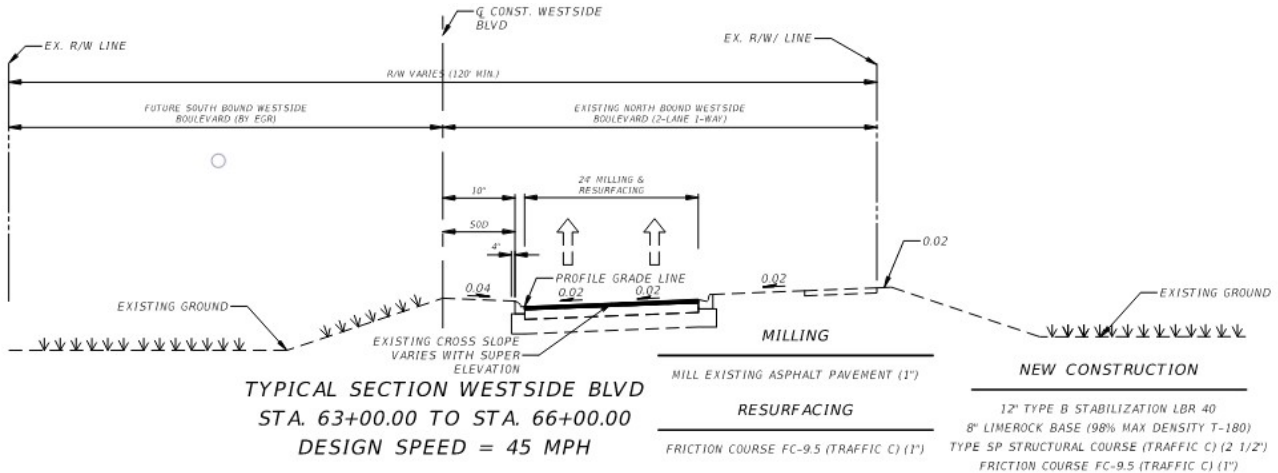
Figure 1: Project Location

3.0 Right-of Way

Additional Right-of-Way is required for this project, see Westside Boulevard Right-of-Way Exhibit. Slope and drainage easements are anticipated at the north and south ends of the project for roadway and sidewalk connections.

4.0 Typical Section

The proposed typical section for Westside Blvd is a 4-lane divided urban, minor arterial with 12-ft travel lanes, 10-ft sidewalk on both sides and separated by a 20-ft raised median.



DESIGN CRITERIA & DOCUMENTATION PACKAGE
 WESTSIDE BOULEVARD EXTENSION – FINAL DESIGN CRITERIA & DOCUMENTATION PACKAGE

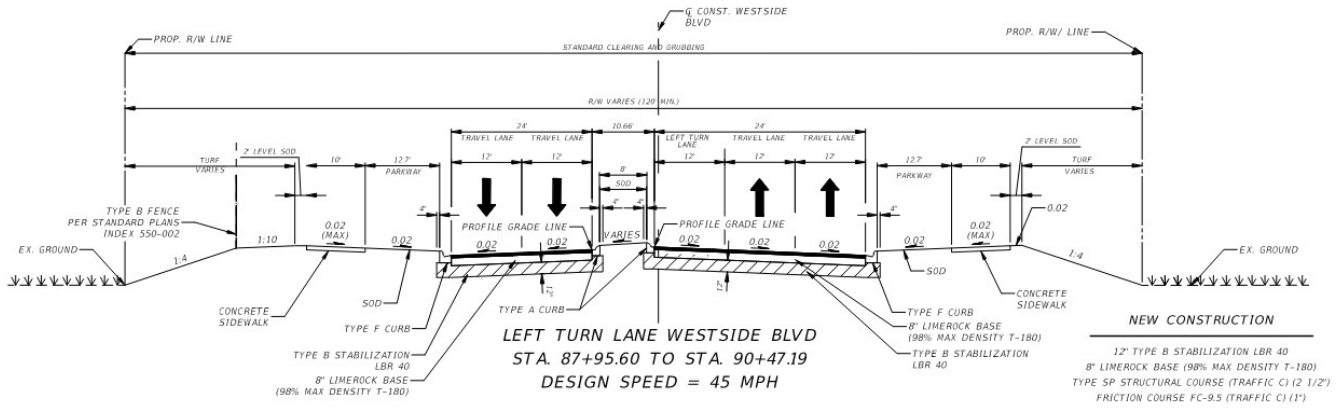


Figure 4: Typical Sections 87+95.60 – 90+47.19

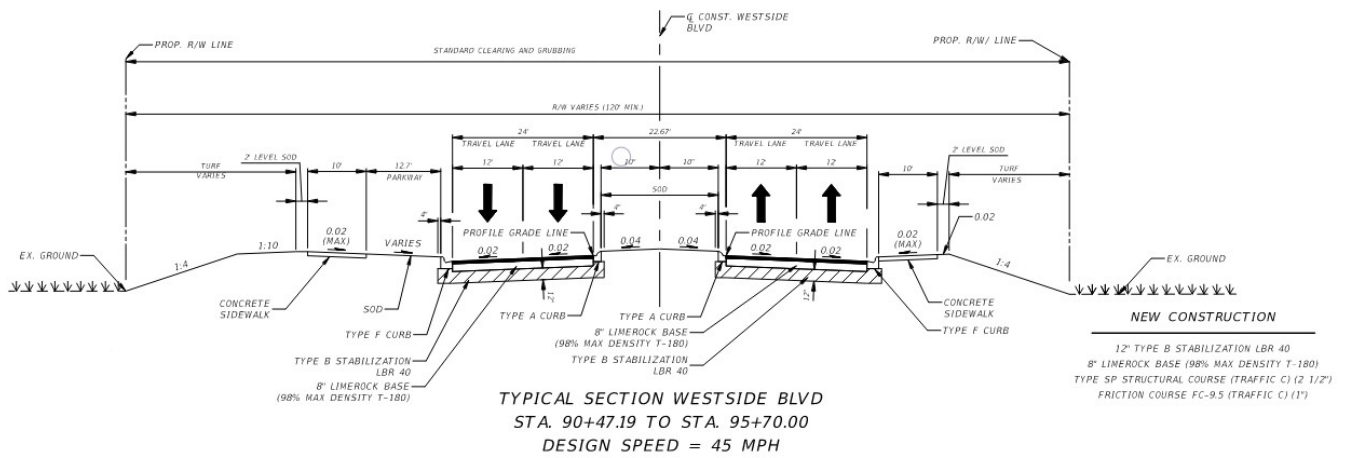


Figure 5: Typical Sections 90+47.19 – 95+70.00

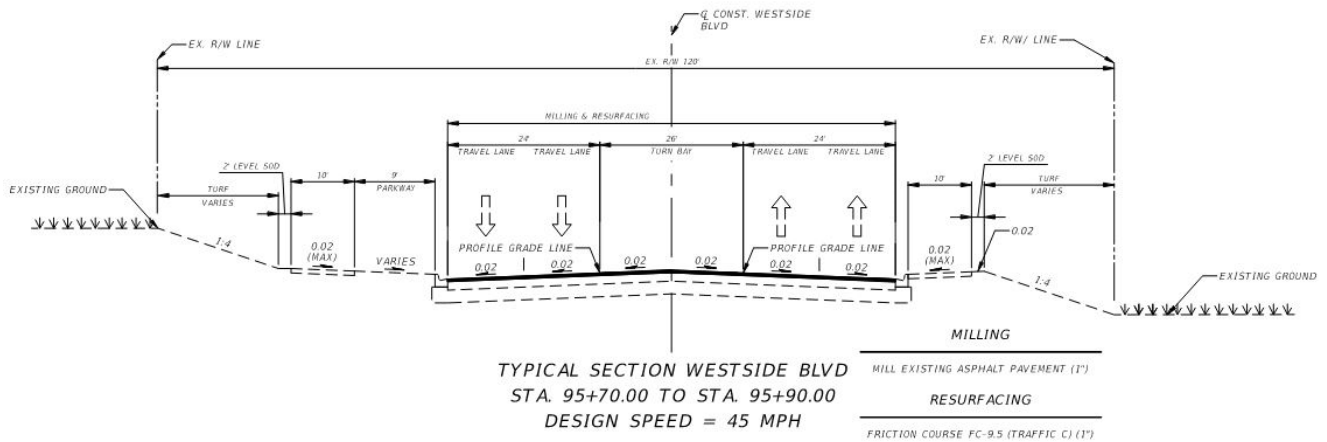


Figure 6: Typical Sections 95+70.00 – 95+90.00

Appendix A

Design Criteria

DESIGN CRITERIA & DOCUMENTATION PACKAGE
 WESTSIDE BOULEVARD EXTENSION – FINAL DESIGN CRITERIA & DOCUMENTATION PACKAGE

| DESIGN ELEMENT | WESTSIDE BOULEVARD | SOURCE/NOTES |
|---|--|---|
| Roadway Classification | Minor Arterial | Florida Greenbook Table 3-1 |
| Design Period | 20 Years | FDM, Section 201.3 |
| Opening Year | 2023 | |
| Design Year | 2043 | Opening year plus 20 years |
| Design Speed | 45 MPH | From County |
| Design Vehicle | WB-62FL | FDM, Section 201.6 |
| Right-of-Way | 120 ft | Existing R/W shown |
| HORIZONTAL ALIGNMENT | | |
| Merging Taper | L = W*S | FDM, Section 210.2.5 |
| Shifting Taper | L/2 | FDM, Section 210.2.5 |
| Shoulder Taper | L/3 | FDM, Section 210.2.5 |
| Desired Horizontal Curve Length | 675-ft (desirable), 400-ft (minimum) | FDM, Table 210.8.1 |
| Max. Deflection without Horizontal Curve | 1'00'00" | FDM, Section 210.8.1 |
| Minimum Stopping Sight Distance | 360-ft | FDM, Section 210.11.1 |
| VERTICAL ALIGNMENT | | |
| Maximum Profile Grade (%) | 6% | FDM, Table 210.10.1 |
| Maximum Change in Grade without Vertical Curve | 0.7% | FDM, Table 210.10.2 |
| Clearance of Roadway Base over High Water Elevation | 3-ft (desirable), 1-ft (minimum) | FDM, Section 210.10.3 |
| Minimum Gutter Grade (%) | 0.30% | FDM, Section 210.10.1.1 |
| Minimum Distance between VPI's | 250-ft | FDM, Section 210.10.1.1 |
| Minimum K for Crest Vertical Curve | 98 | FDM, Table 210.10.3 |
| Minimum K for Sag Vertical Curve | 79 | FDM, Table 210.10.3 |
| Minimum Length of Vertical Curve (Sag/Crest) | 135-ft | FDM, Table 210.10.4 |
| Maximum Superelevation (e max) | 0.05 | FDM, Section 210.9 |
| Minimum Superelevation Radius | 694-ft | FDM, Table 210.9.2 |
| Superelevation Transition Ratios | 80% Tangent, 20% Curve (Typ.) | FDM, Section 210.9.1 |
| Superelevation Transition Slope | 1:150 | FDM, Table 210.9.3 |
| Minimum Length of Superelevation Transition | 75-ft | FDM, Table 210.9.3 |
| CROSS SECTIONS | | |
| Number of Thru Lanes | 4 lanes | |
| Travel Lane Width | 11-ft, 10-ft (Minimum) | FDM, Table 210.2.1, Osceola County Land Development Code Table 4.7.1C |
| Minimum Width of Sidewalk | 5-ft | Osceola County Land Development Code Table 4.7.1C |
| Minimum Median Width | 16-ft | Osceola County Land Development Code Table 4.7.1C |
| Pavement Cross Slope | 0.02-0.04 | FDM, Figure 210.2.1 |
| Border Width | 14-ft (Curbed) | FDM, Table 210.7.1 |
| Clear Zone | N/A (Urban Roadway) | FDM, Table 215.2.1 (New Construction) |
| Front Slope Ratio (run:rise) | <u>Curb and Gutter</u> 1:2 (0'-6' Height of Fill) 1:3 (>6' Height of Fill) 1:6 (minimum) | FDM, Table 215.2.3 |
| Back Slope Ratio (run:rise) | <u>Curb and Gutter</u> 1:2 Maximum, 1:6 Minimum | FDM, Table 215.2.3 |
| <u>Minimum Lateral Offsets (Curbed)</u> Light Poles Above Ground Utilities Signal/ITS Poles and Controllers Trees (>4 inches) Bridge Piers and Abutments Overhead Sign Structures | 4.0-ft from Face of Curb 4.0-ft from Face of Curb 4.0-ft from Face of Curb 4.0-ft from Face of Curb 16.0-ft from Edge of Travel Outside of Clear Zone | FDM, Table 215.2.2, Section 215.3.3 |

DESIGN CRITERIA & DOCUMENTATION PACKAGE
 WESTSIDE BOULEVARD EXTENSION – FINAL DESIGN CRITERIA & DOCUMENTATION PACKAGE

| | | |
|--|---------------------------|----------------------|
| Drop-offs (>6 feet, <1:3 slope) | 22-ft from Edge of Travel | |
| Pedestrian Railings | 4.0-ft from Face of Curb | |
| SINGLE LEFT TURN | | |
| Brake to Stop Distance | 100-ft | FDM, Exhibit 212-1 |
| Total Decel. Distance | 185-ft | FDM, Exhibit 212-1 |
| Queue Length | 0-ft | FDM, Exhibit 212-1 |
| Special Area Limited to Ground Cover | 100-ft | FDM, Figure 212.11.5 |
| Separation of opposing traffic | 4-ft | FDM, Table 212.9.1 |
| Intersection Angle | 75-degrees | FDM, 212.5 |

Appendix B

Geometry Reports

Horizontal Alignment Report

File: L:\53509 Lennar Homes, LLC\0017 Westside Blvd Ext\ENGR\02 Master\1 DWGs\90% SET\Xref\C-ALGN.dwg

Report Date: 3/6/2023 4:16:46 PM

Alignment Name: WESTSIDE BOULEVARD

Station Range: Start: 53+33.82, End: 99+98.79

Description: WESTSIDE BOULEVARD (OCEOLA COUNTY EXTENSION)

Begin WESTSIDE BOULEVARD

N 1,438,125.008 E 447,516.078 53+33.82

Line (1)

N 0° 13' 32" E 913.04'

N 1,439,038.045 E 447,519.672 62+46.86

Line (1)

Curve (2)

BC N 1,439,038.045 E 447,519.672 62+46.86

CTR N 1,439,043.496 E 446,134.682

PI N 1,439,240.124 E 447,520.467

Direction Back N 0° 13' 32" E

Radius 1,385.00'

Delta 16°36'09"(LT)

Length 401.33'

Tangent 202.08'

Chord Direction N 8° 04' 33" W Distance 399.93'

Direction Ahead N 16° 22' 37" W

EC N 1,439,434.006 E 447,463.489 66+48.19

Curve (2)

Line (3)

N 16° 22' 37" W 231.17'

N 1,439,655.794 E 447,398.309 68+79.36

Line (3)

Curve (4)

BC N 1,439,655.794 E 447,398.309 68+79.36

CTR N 1,440,061.813 E 448,779.884

PI N 1,439,849.470 E 447,341.392

Direction Back N 16° 22' 37" W

Radius 1,440.00'

Delta 15°57'36"(RT)

Length 401.12'

Tangent 201.87'

Chord Direction N 8° 23' 49" W Distance 399.82'
Direction Ahead N 0° 25' 01" W

EC N 1,440,051.331 E 447,339.923 72+80.48
Curve (4)

Line (5)

N 0° 25' 01" W 962.90'
N 1,441,014.205 E 447,332.914 82+43.38

Line (5)

Curve (6)

BC N 1,441,014.205 E 447,332.914 82+43.38
CTR N 1,441,027.293 E 449,130.887
PI N 1,441,215.154 E 447,331.451

Direction Back N 0° 25' 01" W
Radius 1,798.02'
Delta 12°45'15"(RT)
Length 400.25'
Tangent 200.95'
Chord Direction N 5° 57' 36" E Distance 399.42'
Direction Ahead N 12° 20' 14" E

EC N 1,441,411.467 E 447,374.388 86+43.63
Curve (6)

Line (7)

N 12° 20' 14" E 344.50'
N 1,441,748.014 E 447,447.996 89+88.13

Line (7)

Curve (8)

BC N 1,441,748.014 E 447,447.996 89+88.13
CTR N 1,442,105.904 E 445,811.677
PI N 1,441,921.798 E 447,486.005

Direction Back N 12° 20' 14" E
Radius 1,675.00'
Delta 12°07'29"(LT)
Length 354.45'
Tangent 177.89'
Chord Direction N 6° 16' 30" E Distance 353.79'
Direction Ahead N 0° 12' 45" E

EC N 1,442,099.688 E 447,486.665 93+42.58
Curve (8)

Line (9)

N 0° 12' 45" E 656.20'

N 1,442,755.887 E 447,489.100 99+98.79
Line (9)

N 1,442,755.887 E 447,489.100 99+98.79
End WESTSIDE BOULEVARD

Alignment Length: 4,664.97'

Profile Vertical Curve Report

Client:

Client

Client Company

Address 1

Prepared by:

Preparer

Your Company Name

123 Main Street

Date: 3/6/2023 4:22:44 PM

Vertical Alignment: WESTSIDE - PGL Right

Description:

Station Range: Start: 60+61.50, End: 95+70.00

Vertical Curve Information:(sag curve)

| | | | |
|---------------------|----------|---------------|------------|
| PVC Station: | 68+00.00 | Elevation: | 124.69' |
| PVI Station: | 69+00.00 | Elevation: | 124.11' |
| PVT Station: | 70+00.00 | Elevation: | 124.61' |
| Low Point: | 69+07.12 | Elevation: | 124.38' |
| Grade in(%): | -0.58% | Grade out(%): | 0.50% |
| Change(%): | 1.08% | K: | 185.76' |
| Curve Length: | 200.00' | Curve Radius | 18,575.85' |
| Headlight Distance: | | | |

Vertical Curve Information:(crest curve)

| | | | |
|-------------------|-----------|--------------------|------------|
| PVC Station: | 71+00.00 | Elevation: | 125.11' |
| PVI Station: | 72+00.00 | Elevation: | 125.61' |
| PVT Station: | 73+00.00 | Elevation: | 125.11' |
| High Point: | 72+00.00 | Elevation: | 125.36' |
| Grade in(%): | 0.50% | Grade out(%): | -0.50% |
| Change(%): | 1.00% | K: | 200.00' |
| Curve Length: | 200.00' | Curve Radius | 20,000.00' |
| Passing Distance: | 1,646.36' | Stopping Distance: | 764.58' |

Vertical Curve Information:(sag curve)

| | | | |
|--------------|----------|---------------|---------|
| PVC Station: | 73+50.00 | Elevation: | 124.86' |
| PVI Station: | 74+50.00 | Elevation: | 124.36' |
| PVT Station: | 75+50.00 | Elevation: | 124.86' |
| Low Point: | 74+50.00 | Elevation: | 124.61' |
| Grade in(%): | -0.50% | Grade out(%): | 0.50% |
| Change(%): | 1.00% | K: | 200.00' |

Curve Length: 200.00' Curve Radius 20,000.00'
Headlight Distance:

Vertical Curve Information:(crest curve)

PVC Station: 76+50.00 Elevation: 125.36'
PVI Station: 77+50.00 Elevation: 125.86'
PVT Station: 78+50.00 Elevation: 125.36'
High Point: 77+50.00 Elevation: 125.61'
Grade in(%): 0.50% Grade out(%): -0.50%
Change(%): 1.00% K: 200.00'
Curve Length: 200.00' Curve Radius 20,000.00'
Passing Distance: 1,646.36' Stopping Distance: 764.58'

Vertical Curve Information:(sag curve)

PVC Station: 79+50.00 Elevation: 124.86'
PVI Station: 80+50.00 Elevation: 124.36'
PVT Station: 81+50.00 Elevation: 124.86'
Low Point: 80+50.00 Elevation: 124.61'
Grade in(%): -0.50% Grade out(%): 0.50%
Change(%): 1.00% K: 200.00'
Curve Length: 200.00' Curve Radius 20,000.00'
Headlight Distance:

Vertical Curve Information:(crest curve)

PVC Station: 82+50.00 Elevation: 125.36'
PVI Station: 83+50.00 Elevation: 125.86'
PVT Station: 84+50.00 Elevation: 125.36'
High Point: 83+50.00 Elevation: 125.61'
Grade in(%): 0.50% Grade out(%): -0.50%
Change(%): 1.00% K: 200.00'
Curve Length: 200.00' Curve Radius 20,000.00'
Passing Distance: 1,646.36' Stopping Distance: 764.58'

Vertical Curve Information:(sag curve)

PVC Station: 85+10.00 Elevation: 125.06'
PVI Station: 86+10.00 Elevation: 124.56'
PVT Station: 87+10.00 Elevation: 125.19'
Low Point: 85+98.89 Elevation: 124.84'
Grade in(%): -0.50% Grade out(%): 0.63%

| | | | |
|---------------------|---------|--------------|------------|
| Change(%): | 1.13% | K: | 177.78' |
| Curve Length: | 200.00' | Curve Radius | 17,777.78' |
| Headlight Distance: | | | |

Appendix C

Superelevation

SUPERELEVATION WORKSHEET

| | |
|-------------------------|------------|
| Westside Blvd Extension | |
| HAMILTON JOB # | 53509.0017 |

| | | | | | | |
|----------------------|--------------|-----|-------|----------|-----|-----|
| Roadway | Designed by: | EA | Date: | 4/6/2023 | PM: | DAR |
| Westside Blvd | Checked by: | DAR | Date: | | | |

| | | | | | |
|------------------------------|----------|-----------------------------------|---------------|-----------------------------------|----------------|
| Roadway Data | | | | | |
| Alignment Name: | Westside | Design Speed: | 45 | mph | Input Values |
| Facility Type: | Roadway | SE Table: | 5.00% | FDM | Rounded Values |
| | | Lane Width: | 12 | ft | Calculated |
| Curve Data | | Straight Line Transition | | | |
| Curve #: | C1 | Direction of Curve: | L | Entry Slope Rate from Table: | 150 |
| | | # of Lanes Rotated: | 2 | Exit Slope Rate from Table: | 150 |
| | | Compound Curve: | N | Initial Transition Length: | 144.00 |
| | | | | Adjusted T: | 150 |
| PC Station: | 62+46.86 | Initial Cross Slope: | -2.00% | Final Transition Length: | 144.00 |
| PT Station: | 66+48.19 | Super Cross Slope: | 2.00% | Adjusted T: | 150 |
| Radius of Curve: | 1385.00 | Final Cross Slope: | -2.00% | % Runoff on Curve (PC): | 20% |
| Degree of Curve: | 4.14 | | | % Runoff on Tangent: | 80% |
| Length of Curve: | 401.33 | | | % Runoff on Curve (PC): | 20% |
| | | | | % Runoff on Tangent: | 80% |
| Side Friction Factor: | | Interpolate SE from Tables | | Transition Rate per 1.00%: | |
| PC: | 0.1177 | Radius | Radius | SE | Initial : 38 |
| Full Super: | 0.0773 | Higher | | | Final: 38 |
| PT: | 0.1177 | Actual | 1385.00 | 2.00% | |
| | | Lower | | | |

| SUPER APPLICATION STATIONS | | | | | | | | |
|----------------------------------|------------|----------------------|------------------|------------------|-----|---------------|----------------|------------------|
| | CALCULATED | | | MODIFIED | | | | |
| | STA | Left/Median Shoulder | Transition Lanes | Outside Shoulder | STA | Left Shoulder | Right Backbone | Outside Shoulder |
| Begin Super Transition (NC): | 61+26.86 | | -2.00% | | | | | |
| PC Station: | 62+46.86 | | | | | | | |
| Begin Full Super/End Transition: | 62+76.86 | | 2.00% | | | | | |
| End Full Super/Begin Transition: | 66+18.19 | | 2.00% | | | | | |
| PT Station: | 66+48.19 | | | | | | | |
| End Super Transition: | 67+68.19 | | -2.00% | | | | | |

ADDITIONAL COMMENTS:

SUPERELEVATION WORKSHEET

| | |
|-------------------------|------------|
| Westside Blvd Extension | |
| HAMILTON JOB # | 53509.0017 |

| | | | | | | |
|----------------------|--------------|-----|-------|----------|-----|-----|
| Roadway | Designed by: | EA | Date: | 4/6/2023 | PM: | DAR |
| Westside Blvd | Checked by: | DAR | Date: | | | |

| | | | | | |
|------------------------------|----------|-----------------------------------|---------------|-----------------------------------|----------------|
| Roadway Data | | | | | |
| Alignment Name: | Westside | Design Speed: | 45 mph | | Input Values |
| Facility Type: | Roadway | SE Table: | 5.00% FDM | | Rounded Values |
| | | Lane Width: | 12 ft | | Calculated |
| Curve Data | | Straight Line Transition | | | |
| Curve #: | C2 | Direction of Curve: | R | Entry Slope Rate from Table: | 150 |
| | | # of Lanes Rotated: | 2 | Exit Slope Rate from Table: | 150 |
| | | Compound Curve: | N | Initial Transition Length: | 144.00 |
| | | | | Adjusted T: | 150 |
| PC Station: | 68+79.36 | Initial Cross Slope: | -2.00% | Final Transition Length: | 144.00 |
| PT Station: | 72+80.48 | Super Cross Slope: | 2.00% | Adjusted T: | 150 |
| Radius of Curve: | 1440.00 | Final Cross Slope: | -2.00% | % Runoff on Curve (PC): | 20% |
| Degree of Curve: | 3.98 | | | % Runoff on Tangent: | 80% |
| Length of Curve: | 401.12 | | | % Runoff on Curve (PC): | 25% |
| | | | | % Runoff on Tangent: | 75% |
| Side Friction Factor: | | Interpolate SE from Tables | | Transition Rate per 1.00%: | |
| PC: | 0.1140 | Radius | Radius | SE | Initial : 38 |
| Full Super: | 0.0736 | Higher | | | Final: 38 |
| PT: | 0.1140 | Actual | 1440.00 | 2.00% | |
| | | Lower | | | |

| SUPER APPLICATION STATIONS | | | | | | | | |
|----------------------------------|------------|----------------------|------------------|------------------|-----|---------------|----------------|------------------|
| | CALCULATED | | | MODIFIED | | | | |
| | STA | Left/Median Shoulder | Transition Lanes | Outside Shoulder | STA | Left Shoulder | Right Backbone | Outside Shoulder |
| Begin Super Transition (NC): | 67+59.36 | | -2.00% | | | | | |
| PC Station: | 68+79.36 | | | | | | | |
| Begin Full Super/End Transition: | 69+09.36 | | 2.00% | | | | | |
| End Full Super/Begin Transition: | 72+42.98 | | 2.00% | | | | | |
| PT Station: | 72+80.48 | | | | | | | |
| End Super Transition: | 73+92.98 | | -2.00% | | | | | |

ADDITIONAL COMMENTS:

SUPERELEVATION WORKSHEET

| | |
|-------------------------|------------|
| Westside Blvd Extension | |
| HAMILTON JOB # | 53509.0017 |

| | | | | | | |
|----------------------|--------------|-----|-------|----------|-----|-----|
| Roadway | Designed by: | EA | Date: | 4/6/2023 | PM: | DAR |
| Westside Blvd | Checked by: | DAR | Date: | | | |

| | | | | | | |
|------------------------------|----------|-----------------------------------|---------------|------------------------------|-----------------------------------|----|
| Roadway Data | | | | | | |
| Alignment Name: | Westside | Design Speed: | 45 | mph | Input Values | |
| Facility Type: | Roadway | SE Table: | 5.00% | FDM | Rounded Values | |
| | | Lane Width: | 12 | ft | Calculated | |
| Curve Data | | Straight Line Transition | | | | |
| Curve #: | C3 | Direction of Curve: | R | Entry Slope Rate from Table: | 150 | |
| | | # of Lanes Rotated: | 2 | Exit Slope Rate from Table: | 150 | |
| | | Compound Curve: | N | Initial Transition Length: | 144.00 | |
| | | | | Adjusted T: | 150 | |
| PC Station: | 82+43.38 | Initial Cross Slope: | -2.00% | Final Transition Length: | 144.00 | |
| PT Station: | 86+43.63 | Super Cross Slope: | 2.00% | Adjusted T: | 150 | |
| Radius of Curve: | 1798.02 | Final Cross Slope: | -2.00% | % Runoff on Curve (PC): | 20% | |
| Degree of Curve: | 3.19 | | | % Runoff on Tangent: | 80% | |
| Length of Curve: | 400.25 | | | % Runoff on Curve (PC): | 20% | |
| | | | | % Runoff on Tangent: | 80% | |
| Side Friction Factor: | | Interpolate SE from Tables | | | Transition Rate per 1.00%: | |
| PC: | 0.0952 | Radius | Radius | SE | Initial : | 38 |
| Full Super: | 0.0550 | Higher | | | Final: | 38 |
| PT: | 0.0952 | Actual | 1798.02 | 2.00% | | |
| | | Lower | | | | |

| SUPER APPLICATION STATIONS | | | | | | | | |
|----------------------------------|------------|----------------------|------------------|------------------|-----|---------------|----------------|------------------|
| | CALCULATED | | | MODIFIED | | | | |
| | STA | Left/Median Shoulder | Transition Lanes | Outside Shoulder | STA | Left Shoulder | Right Backbone | Outside Shoulder |
| Begin Super Transition (NC): | 81+23.38 | | -2.00% | | | | | |
| PC Station: | 82+43.38 | | | | | | | |
| Begin Full Super/End Transition: | 82+73.38 | | 2.00% | | | | | |
| End Full Super/Begin Transition: | 86+13.63 | | 2.00% | | | | | |
| PT Station: | 86+43.63 | | | | | | | |
| End Super Transition: | 87+63.63 | | -2.00% | | | | | |

ADDITIONAL COMMENTS:

SUPERELEVATION WORKSHEET

| | |
|-------------------------|------------|
| Westside Blvd Extension | |
| HAMILTON JOB # | 53509.0017 |

| | | | | | | |
|----------------------|--------------|-----|-------|----------|-----|-----|
| Roadway | Designed by: | EA | Date: | 4/6/2023 | PM: | DAR |
| Westside Blvd | Checked by: | DAR | Date: | | | |

| | | | | | | |
|------------------------------|----------|-----------------------------------|---------------|------------------------------|-----------------------------------|----|
| Roadway Data | | | | | | |
| Alignment Name: | Westside | Design Speed: | 45 | mph | Input Values | |
| Facility Type: | Roadway | SE Table: | 5.00% | FDM | Rounded Values | |
| | | Lane Width: | 12 | ft | Calculated | |
| Curve Data | | Straight Line Transition | | | | |
| Curve #: | C4 | Direction of Curve: | L | Entry Slope Rate from Table: | 150 | |
| | | # of Lanes Rotated: | 2 | Exit Slope Rate from Table: | 150 | |
| | | Compound Curve: | N | Initial Transition Length: | 144.00 | |
| | | | | Adjusted T: | 150 | |
| PC Station: | 89+88.13 | Initial Cross Slope: | -2.00% | Final Transition Length: | 144.00 | |
| PT Station: | 93+42.58 | Super Cross Slope: | 2.00% | Adjusted T: | 150 | |
| Radius of Curve: | 1675.00 | Final Cross Slope: | -2.00% | % Runoff on Curve (PC): | 20% | |
| Degree of Curve: | 3.42 | | | % Runoff on Tangent: | 80% | |
| Length of Curve: | 354.45 | | | % Runoff on Curve (PC): | 20% | |
| | | | | % Runoff on Tangent: | 80% | |
| Side Friction Factor: | | Interpolate SE from Tables | | | Transition Rate per 1.00%: | |
| PC: | 0.1008 | Radius | Radius | SE | Initial : | 38 |
| Full Super: | 0.0605 | Higher | | | Final: | 38 |
| PT: | 0.1008 | Actual | 1675.00 | 2.00% | | |
| | | Lower | | | | |

| | CALCULATED | | | | MODIFIED | | | |
|----------------------------------|------------|----------------------|------------------|------------------|----------|---------------|----------------|------------------|
| | STA | Left/Median Shoulder | Transition Lanes | Outside Shoulder | STA | Left Shoulder | Right Backbone | Outside Shoulder |
| Begin Super Transition (NC): | 88+68.13 | | -2.00% | | | | | |
| PC Station: | 89+88.13 | | | | | | | |
| Begin Full Super/End Transition: | 90+18.13 | | 2.00% | | | | | |
| End Full Super/Begin Transition: | 93+12.58 | | 2.00% | | | | | |
| PT Station: | 93+42.58 | | | | | | | |
| End Super Transition: | 94+62.58 | | -2.00% | | | | | |

ADDITIONAL COMMENTS: