Public Report



То:	Economic and Development Services Committee
From:	Anthony Ambra, P.Eng., Commissioner, Economic and Development Services Department
Report Number:	ED-25-20
Date of Report:	January 29, 2025
Date of Meeting:	February 3, 2025
Subject:	Detailed Design for the One-Way to Two-Way Conversions for Albert Street, Celina Street, Brock Street East, and Colborne Street
Ward:	Ward 4
File:	03-05

1.0 Purpose

As part of the 2023 Budget, Council approved funding for Project 74-0157, Two-Way Street Conversion, to prepare the detailed design for the conversion of the one-way corridors of Albert Street, Celina Street, Brock Street East, and Colborne Street.

The purpose of this Report is to:

- 1. Provide design options for the conversion of the one-way corridors of Albert Street, Celina Street, Brock Street East, and Colborne Street; and,
- 2. Receive direction on which design option to proceed forward with.

A copy of Report DS-22-27, dated February 2, 2022 can be found at the following link: https://pub-oshawa.escribemeetings.com/filestream.ashx?DocumentId=7504

A copy of Report DS-21-144, dated September 8, 2021 can be found at the following link: http://app.oshawa.ca/agendas/development_services/2021/09-13/report_ds-21-144.pdf

A copy of Report DS-22-122, DS-22-120 dated June 1, 2022 can be found at the following link: https://pub-oshawa.escribemeetings.com/filestream.ashx?DocumentId=7162

Attachments 1 and 2 illustrate the detailed design for converting Brock Street East and Colborne Street (Pavement Markings and Signage Only).

Attachment 3 illustrates the detailed design for converting Albert Street (Pavement Markings and Signage Only).

Attachment 4 illustrates the detailed design for converting Celina Street (Pavement Markings and Signage only).

Attachment 5 illustrates the detailed design for converting Celina Street (Pavement Markings and Signage along with minor changes to curb radii at intersections) (Option 3).

2.0 Recommendation

That the Economic and Development Services Committee recommend to City Council:

That, in accordance with Report ED-25-20 dated January 29, 2025, concerning the detailed designs for the conversion of the one-way corridors of Albert Street, Celina Street, Brock Street East, and Colborne Street, Council choose an appropriate option from Section 4.2.

3.0 Input From Other Sources

The following were consulted in the preparation of this Report:

- Commissioner, Community and Operations Services
- Commissioner, Corporate and Finance Services
- Region of Durham Works Department

4.0 Analysis

4.1 Background

On September 30, 2019, the Development Services Committee adopted DS-19-173, Notice of Motion – Study to Investigate and Analyse the Conversion of Celina Street and Albert Street to Two-way Traffic Operations and directed that, for consideration of the 2020 Budget, staff include a study to investigate and analyze the conversion of Albert Street and Celina Street to two-way traffic operations.

As part of the 2020 Budget, Council approved funding for the One-Way to Two-Way Conversion Feasibility Study for Albert Street and Celina Street.

In October 2020, the Development Services Committee approved DS-20-117, Notice of Motion – Study to Investigate and Analyse the Conversion of Brock Street and Colborne Street to Two-way Traffic Operations.

As part of the 2021 Budget, Council approved funding for the One-Way to Two-Way Conversion Feasibility Study for Brock Street and Colborne Street.

In February 2021, the City of Oshawa retained the services of CIMA+ to undertake the One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East and Colborne Street.

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On September 27, 2021, City Council considered DS-21-144, One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East, and Colborne Street and approved the following recommendation:

"It is recommended that Development Services Committee recommend to City Council that, pursuant to Report DS-21-144 dated September 8, 2021 concerning the One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East, and Colborne Street staff be authorized to advance a virtual public engagement form owing to the COVID-19 pandemic, in the fall of 2021 to receive input on the preferred alternative and report back to Development Services Committee on the results of the public input and present a preliminary design for the preferred alternative."

Public Engagement Number 1 was held from October 25, 2021 to November 4, 2021 in a virtual form owing to the COVID-19 pandemic. The preliminary findings, alternatives considered, and the preferred alternative for each corridor were posted on the City's website for feedback and comments.

On February 22, 2022, City Council considered DS-22-27, One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East, and Colborne Street and approved the following recommendation:

"That the Development Services Committee recommend to City Council that pursuant to Report DS-22-27 dated February 2, 2022 concerning the One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East, and Colborne Street, staff be authorized to advance a second virtual public engagement process owing to the COVID-19 pandemic, in the early second Quarter of 2022 to receive input on the preliminary design for the preferred alternative and report back to Development Services Committee on the results of the public input."

DS-22-27 had presented the preliminary designs of the preferred alternatives for the four corridors.

The recommended improvements for the preferred alternative for Albert Street and Celina Street were split into two phases: interim Improvements (see Attachments 2 and 3 to DS-22-27), where the conversion to two-way operations has no impacts to the existing curbs/boulevards; and ultimate improvements (see Attachments 4 and 5 to DS-22-27), where the right-of-way is widened to a minimum of 20 metres (65.6 ft.) from the existing 15.1 metres (49.5 ft.) width.

The recommended improvements for the preferred alternative for Brock Street East and Colborne Street (see Attachments 6 and 7 to DS-22-27) are similar to the recommended improvements for the interim phase for Albert Street and Celina Street. The recommended improvements allow for the conversion to two-way operations while maintaining the existing roadway width.

Public Engagement Number 2 was held from April 4, 2022 to April 25, 2022 in a virtual form owing to the COVID-19 pandemic. The preliminary design for the preferred

alternative for each corridor were posted on the City's website for feedback and comments.

On June 20, 2022, City Council considered DS-22-122, Final Study Report for the One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East, and Colborne Street and approved the following recommendations:

- "1. That, pursuant to Report DS-22-120 dated June 1, 2022 concerning the One-Way to Two-Way Conversion Feasibility Study for Albert Street, Celina Street, Brock Street East, and Colborne Street, Council endorse, in principle, the Final Study Report prepared by CIMA+ dated May 2022.
- 2. That, pursuant to Report DS-22-120 dated June 1, 2022, the preparation of the detailed design for the conversion of the one-way corridors based upon the findings of the Final Study Report prepared by CIMA+ dated May 2022 be referred to the 2023 Capital Budget."

As part of the 2023 Budget, Council approved funding for Project 74-0157, Two-Way Street Conversion, to prepare the detailed design for the conversion of the one-way corridors of Albert Street, Celina Street, Brock Street East, and Colborne Street.

4.2 Design Options

As part of the detailed design process for converting the four one-way corridors, staff have prepared three options, as outlined below, for Council's consideration.

4.2.1 Option 1 – Converting Brock Street East, Colborne Street, Albert Street and Celina Street (Pavement Markings and Signage Only)

As noted in Section 4.1, the One-Way to Two-Way Conversion Feasibility Study recommended converting Brock Street East and Colborne Street to two-way operations without widening due to both streets being designated as local roads and having little to no opportunities to widen to accommodate enhanced landscape features.

The detailed design for converting Brock Street East and Colborne Street to two-way operations would entail:

- Obliterating existing pavement markings and removing any signage that would no longer be needed;
- Implementing new pavement markings and appropriate signage required for two-way operation;
- No construction work; and,
- No property widening or acquisitions.

The detailed design for converting Brock Street East and Colborne Street is presented in Attachments 1 and 2.

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The estimated cost to implement the detailed design for Brock Street East and Colborne Street, as shown in Attachments 1 and 2, is approximately \$25,000.

For Albert Street and Celina Street, it was recommended that the conversion to two-way traffic operations should occur without widening both streets while maintaining on-street parking. Furthermore, it was also recommended that the curb radii at intersections along both roads should be increased to meet current City design standards.

To save implementation costs, the detailed design under Option 1 for converting both Albert Street and Celina Street to two-way operations proposes changes to pavement markings and signage only. Although the existing curb radii would remain unchanged and would not meet existing design standards, reduced curb radii at intersections offer several advantages, especially for pedestrians and cyclists:

- Reduced Crossing Distances: Shorter crossing distances for pedestrians mean less time spent in the path of oncoming traffic, improving safety.
- Slower Vehicle Speeds: Tighter turns force vehicles to slow down, reducing the risk of collisions with pedestrians and cyclists.
- Improved Visibility: Reduced curb radii can increase visibility for both pedestrians and drivers, making it easier to spot potential hazards.
- Enhanced Pedestrian Safety: Reduced curb radii can provide more room for pedestrian ramps and crosswalk markings, making it safer for pedestrians to navigate intersections.
- Traffic Calming: Reduced curb radii can help to slow down traffic and reduce the overall speed limit in an area.
- Better Traffic Flow: In some cases, reduced curb radii can actually improve traffic flow by reducing the need for large turning lanes.

While reduced curb radii can offer significant benefits, it's important to note that the needs of other road users, such as large vehicles, may be compromised. Overly reduced curb radii can make it difficult for larger vehicles to navigate intersections, potentially leading to traffic congestion or safety issues.

Similar to the detailed design for converting Brock Street East and Colborne Street, the detailed design for converting Albert Street and Celina Street to two-way operations would also entail:

- Obliterating existing pavement markings and removing any signage that would no longer be needed;
- Implementing new pavement markings and appropriate signage required for two-way operation;
- Traffic signal works at the intersections of Olive Avenue, John Street, Athol Street, and Bruce Street to accommodate two-way traffic;

- No loss of current paid on-street parking with potential to implement additional paid onstreet parking;
- Informal on-street parking could be removed to implement an additional 18 paid onstreet parking along Albert Street and 1 (one) along Celina Street;
- No construction work; and,
- No property widening or acquisitions.

The detailed design for converting Albert Street (Pavement Markings and Signage Only) is presented in Attachment 3.

The detailed design for converting Celina Street (Pavement Markings and Signage Only) is presented in Attachment 4.

The estimated cost to implement the detailed designs for Albert Street, Celina Street, Brock Street East, and Colborne Street, as shown in Attachments 1, 2, 3, and 4 is approximately \$400,000.

Should Council wish to select Option 1, the following motion should be passed:

"That pursuant to Report ED-25-20 dated January 29, 2025, concerning the Detailed Design for the One-Way to Two-Way Conversions for Albert Street, Celina Street, Brock Street East, and Colborne Street:

- 1. Council endorse, in principle, the detailed designs for converting Albert Street, Celina Street, Brock Street East, and Colborne Street to two-way operations that would require changes to pavement markings and signage only;
- 2. Staff be authorized to post the detailed design on the City's website; and,
- 3. The conversion of Albert Street, Celina Street, Brock Street East, and Colborne Street be referred to the 2026 Mayor's Budget for consideration."

4.2.2 Option 2 – Only Convert Brock Street East and Colborne Street

Due to the simplicity and low cost of converting Brock Street East and Colborne Street and the ever-changing development interests along both Albert Street and Celina Street, Council may wish to convert only Brock Street East and Colborne Street to two-way operations for the time being and delay converting Albert Street and Celina Street.

Should Council wish to select Option 2, the following motion should be passed:

"That pursuant to Report ED-25-20 dated January 29, 2025, concerning the Detailed Design for the One-Way to Two-Way Conversions for Albert Street, Celina Street, Brock Street East, and Colborne Street:

- 1. Council endorse, in principle, the detailed designs for converting Brock Street East, and Colborne Street to two-way operations that would require changes to pavement markings and signage only;
- 2. Council defer the conversion of Albert Street, and Celina Street to two-way operations;
- 3. Staff be authorized to post the detailed design on the City's website; and,
- 4. The conversion of Brock Street East, and Colborne Street be referred to the 2026 Mayor's Budget for consideration."

4.2.3 Option 3 – Converting Brock Street East, Colborne Street, and Albert Street (Pavement Markings and Signage Only) and converting Celina Street (Pavement Markings and Signage along with minor changes to curb radii at intersections)

The detailed design for converting Brock Street East and Colborne Street to two-way operations would remain the same as proposed in Option 1.

For Albert Street and Celina Street, since it was recommended that the conversion to twoway traffic operations should include increasing the curb radii along both roads to meet current City design standards, the detailed design would entail:

- Obliterating existing pavement markings and removing any signage that would no longer be needed;
- Implementing new pavement markings and appropriate signage required for two-way operation;
- Removing and replacing existing curb radii that are less than 9 metres, along with several catch basins, storm sewer connections, and sidewalk ramps to meet existing design standards;
- Shifting the lanes north and south of the intersection of Albert Street and Elm Street;
- Constructing a raised centre island at Wilkinson Avenue, limiting this access to a rightin/right-out movement;
- Shifting lanes from Bruce Street to approximately 53 metres south of Bruce Street, which will require the removal and replacement of approximately 53 metres of existing curb;
- Traffic signal works at the intersections of Olive Avenue, John Street, Athol Street, and Bruce Street; and,

Multiple widenings and property acquisitions would be required.

Since the impacts of increasing curb radii at all intersections, as outlined above, may make the two-way conversion infeasible, a reduced scope was considered. This included curb radii improvements only where they would formalize on-street parking and would have no impact to resident driveways. In this scenario the need for widening or property acquisition would be on Celina Street only.

The detailed design for converting Celina Street (Pavement Markings and Signage along with minor changes to curb radii at intersections) is presented in Attachment 6.

The estimated cost to implement the detailed design for Option 3, as shown in Attachments 1, 2, 3 and 5, is approximately \$775,000.

Should Council wish to select Option 3, the following motion should be passed:

"That pursuant to Report ED-25-20 dated January 29, 2025, concerning the Detailed Design for the One-Way to Two-Way Conversions for Albert Street, Celina Street, Brock Street East, and Colborne Street:

- Council endorse, in principle, the detailed designs for converting Brock Street East and Colborne Street to two-way operations that would require changes to pavement markings and signage only;
- Council endorse, in principle, the detailed designs for converting Albert Street and Celina Street to two-way operations that would require changes to existing curb radii, pavement markings and signage, traffic signal work, and other associated construction works;
- 3. Staff be authorized to post the detailed design on the City's website; and,
- 4. The conversion of Albert Street, Celina Street, Brock Street East, and Colborne Street be referred to the 2026 Mayor's Budget for consideration for consideration."

5.0 Financial Implications

Although there are no immediate financial implications resulting from the recommendations of this Report, however, any recommendation approved by Council resulting in financial implications will be included for consideration in the applicable Mayor's Budget.

6.0 Relationship to the Oshawa Strategic Plan

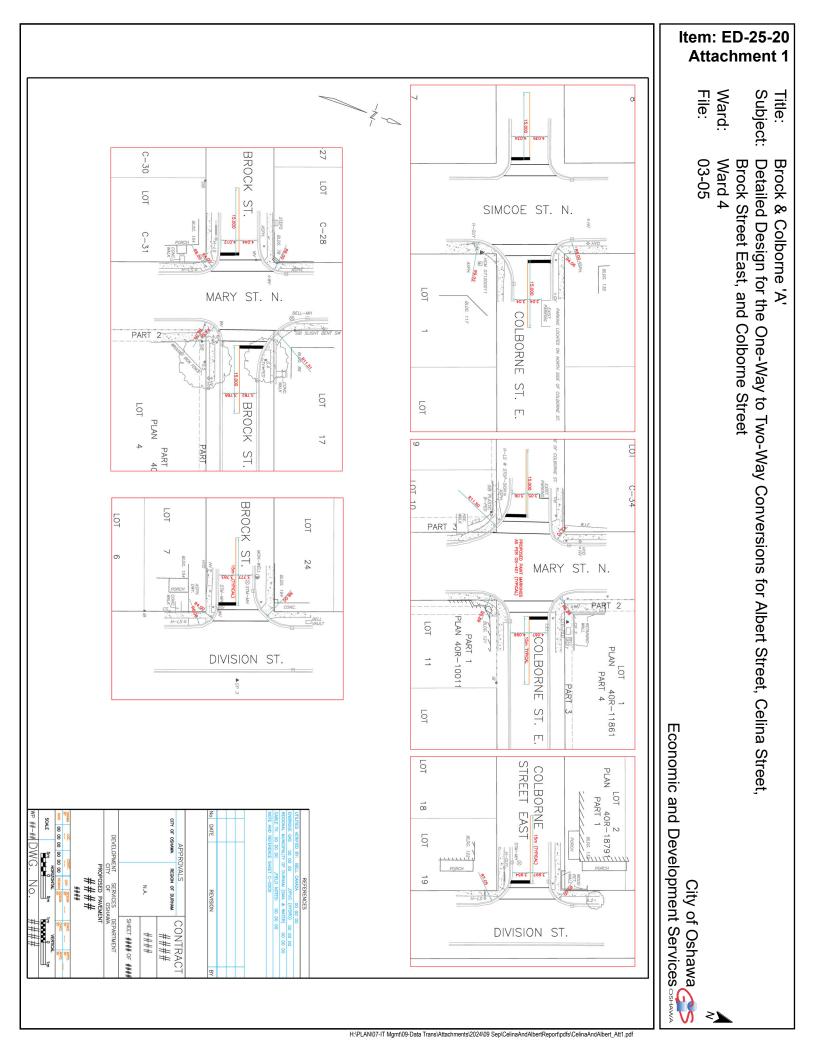
This Report responds to the Oshawa Strategic Plan Priority Area:

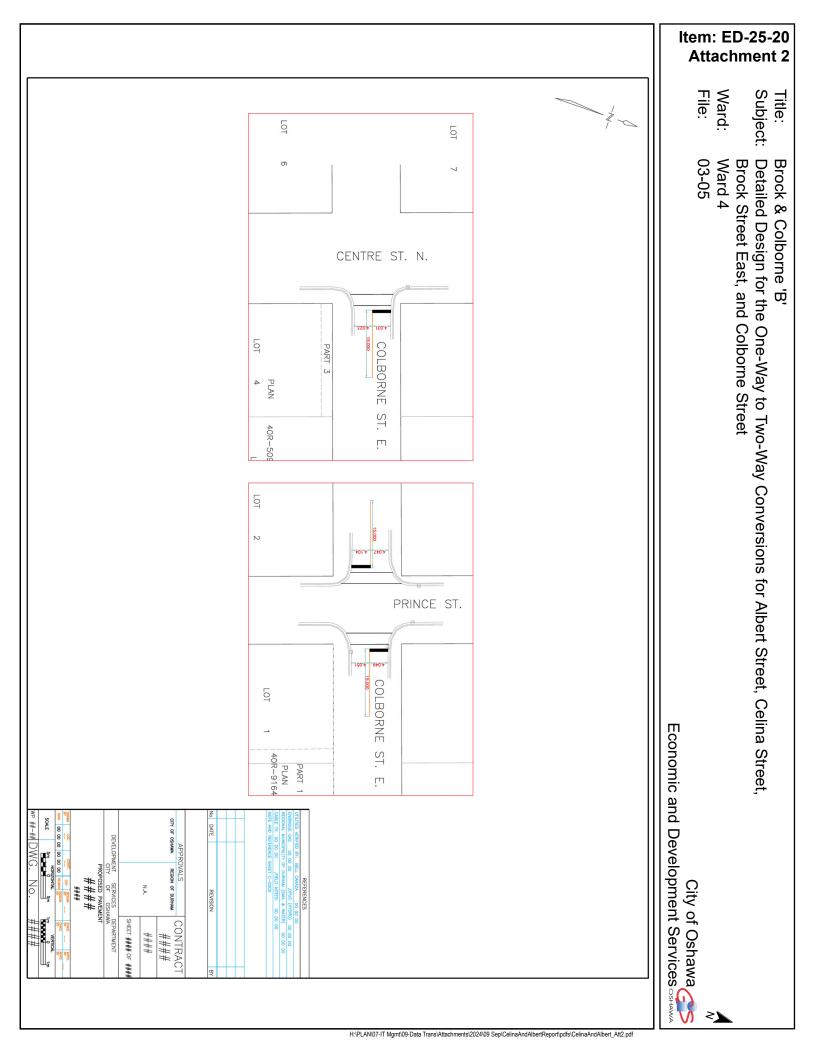
"Belong: Inclusive and Healthy Community" with the goal to invest in infrastructure and assets that meet the needs for sustainable growth.

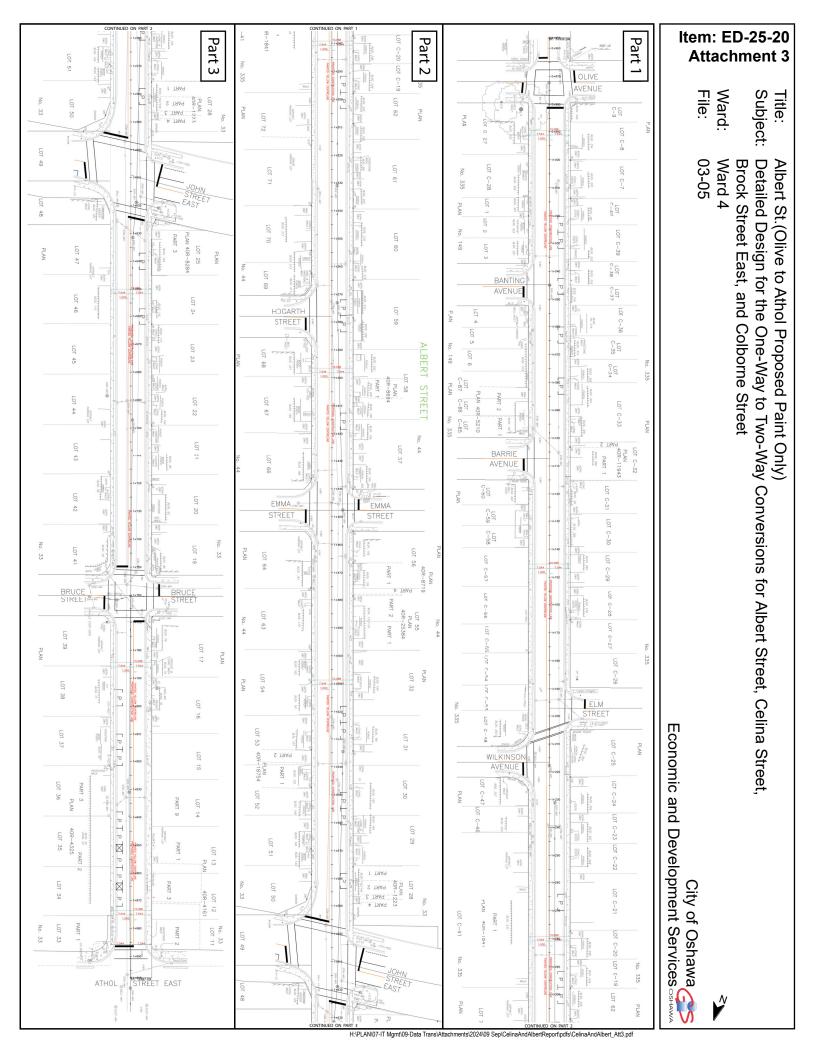
Greg Hardy, P.Eng., PMP, Director, Engineering Services

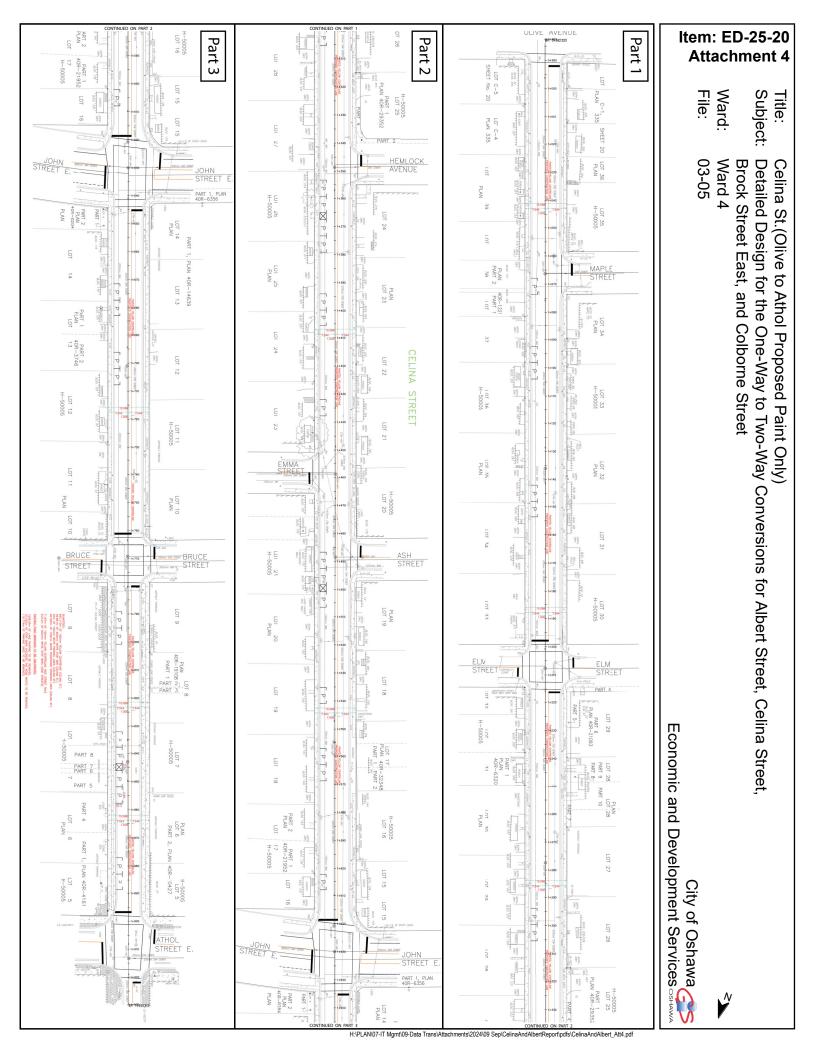
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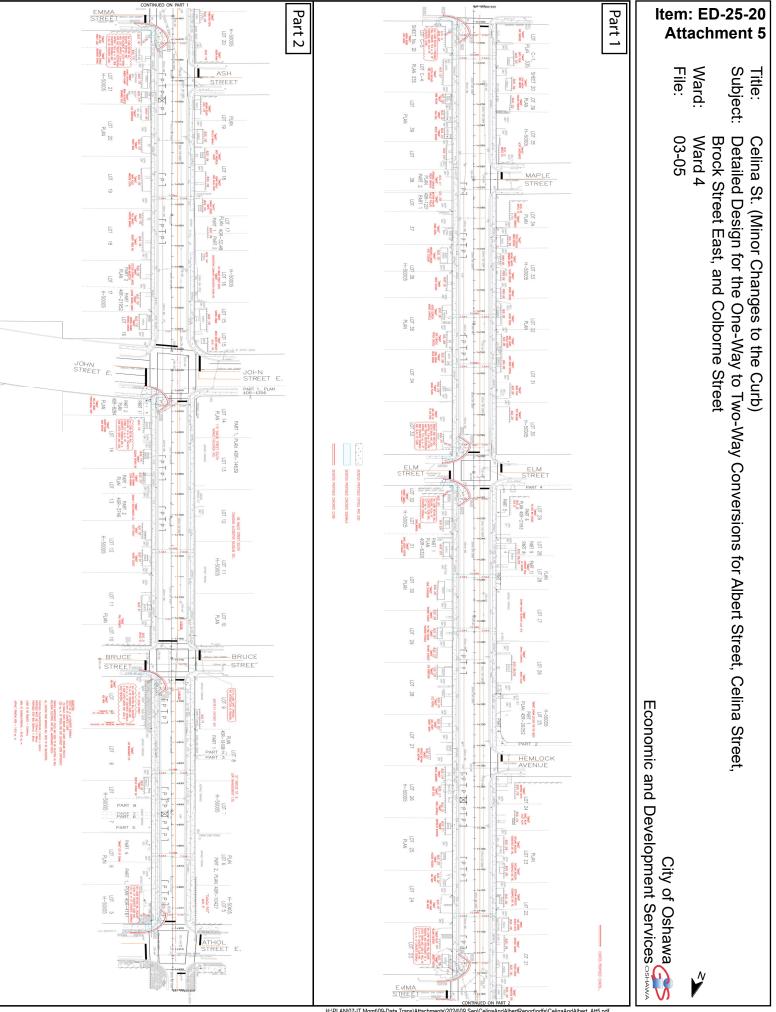
Anthony Ambra, P.Eng., Commissioner, Economic and Development Services Department











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