

Location and Extent Staff Report - Supplemental

Date: May 30, 2025

To: Douglas County Planning Commission

From: Eric Pavlinek, Principal Planner *SK for EP*
Jeanette Bare, AICP, Planning Manager *SK for JB*
Steven E. Koster, AICP, Assistant Director of Planning Services *SK*

Subject: **7878 Snake River Street – Location and Extent
Additional Information**

Project File: LE2025-005

Planning Commission Hearing:**June 2, 2025 @ 6:00 p.m.**

The applicant, John Adams Academy Charter School, is requesting approval of a Location and Extent (L & E) application to construct a charter school facility within Sterling Ranch serving grades Kindergarten through 8th grade.

The applicant has provided updated reports, studies, plans, and responses to comments as noted below. Additional referral comments and public comments have also been received. All items are attached. Staff has not completed a review of the additional materials but will be available to answer specific questions at the hearing on Monday night.

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Loveland, CO 80537

320 North Lincoln Avenue,

970.613.1447 TAIT.COM

May 30, 2025

Douglas County Community Development Department
100 Third St.
Castle Rock, CO
80104

Attn. Jeanette Bare, Community Development Director

John Adam Academy Charter School Location and Extents Resubmittal

Dear Ms. Bare:

TAIT & Associates, Inc. (TAIT) is pleased to resubmit the Location and Extent package for Phase 1 of the proposed John Adams Academy Charter School for review by the Douglas County Planning Commission at the June 2nd meeting.

We are resubmitting the package because of site changes that have occurred since our initial application, including finding out that City of Aurora plans to install a large raw water line across the north and west sides of the property. This requires that we adjust the parking and building locations to be out of Aurora's easement. Additionally, we have revised the access to meet South Metro Fire and Rescue requirement that there be two accesses to the site from public ROW. Details of this are spelled out in the updated community impact report. Some submittal documents have not changed and are listed below.

- Land use Application along with letter of Authorization from Sterling Ranch Development
- Phase III Drainage Memo
- Building floor plans

After meeting with the Sterling Ranch committee, building elevations have been revised to reflect their input. The package includes the following documents that have changed from the original submittal.

- Community Impact Report
- Traffic Impact Study
- Location and Extent Plan Package including
 - Cover sheet



- Site Plan including utilities
- Overall Grading Plan
- Overall Landscape Plan
- Building Elevations (provided by Ethos 3 Architects)

We look forward to working with the Douglas County Staff to complete this review and get the project under construction later this year. If you have any questions, please contact me at 970.980.3557 or moberschmidt@tait.com.

Sincerely
TAIT & Associates, Inc.

Mark Oberschmidt, PE
Municipal Project Director

CC :Jay Lemery - Performance Charter, John Lopeman – Ethos 3 Architecture, Steve Tuttle & Cassie Slade – Fox Tuttle, Mary Bates – Evergreen Design Concepts, Ethan Mansfield – Hawkins, Kevin Johnk – Sterling Ranch, file

John Adams Academy Charter School
Community Impact Report



TAIT & Associates, Inc.
320 North Lincoln
Avenue,
Loveland, CO. 80537
970/613/1447

May 30, 2025

Location and Extent Submittal

John Adams Academy – Parcel 706, Sterling Ranch

Douglas County, Colorado

Project Overview

Parcel 706 is a 26-acre school site located within a larger 547-acre parcel at the southwest corner of Waterton Road and Snake River Street in the Sterling Ranch development. The site is designated for a K–12 charter school to be developed by John Adams Academy Charter School in partnership with Charter Development and Performance Charter. The parcel will be owned and maintained by the Charter School.

Phased Development Plan:

- **Phase 1 (2025–2026):** K–8 school facility
- **Phase 2 (Future):** Addition of grades 9–12

The development will include all necessary infrastructure to support the school's operations and safety.

Site Infrastructure and Improvements

Site Development Includes:

- Parking facilities (per Douglas County requirements)
- Potable water and sanitary sewer service
- Drainage infrastructure
- Athletic fields and playgrounds
- Fire protection infrastructure
- Public street access and internal circulation for public and emergency services

Access and Circulation

Primary Access Points:

- **Snake River Street/Butte Creek Street Intersection** (Primary access for Phase 1)
- **Waterton Road** via Middle Fork Street Extension

Internal Access Road:

- A private road utilizing a modified Douglas County School District access road cross-section along the east property line will connect Snake River Street to the school's east entrance.
 - **Phase 1:** Construct a 36-ft wide flowline to flowline drive in a 60-ft wide drainage utility and access easement along the east property line to the primary access drive into the school grounds.
 - **Phase 2:** Completion of access drive south along the east property line to a future Roaring Fork Street extension from Waterton Drive along the southern property line of the parcel. Final alignment of Middle Fork Street is still to be determined. See Future Road Extensions.
- A 2nd drive is provided off Middle Fork Street extension to the south into the parking lot on the west side of the school providing the required 2nd point of access.

Future Road Extensions:

- Middle Fork Street will extend west along the southern boundary with future development; potential realignment of the school's southern access road in the Middle Fork alignment will be the responsibility of future developers.

Easements:

- Access, utility, and drainage easements to be dedicated by separate document along the east and south property lines.
- Drainage and utility easements to be dedicated by separate documents along the north and west property lines.
- Existing Roxborough Water and Sanitation District (RWSD) easement will be revised and rededicated as this waterline will be relocated by the Sterling Ranch developer with the development of the school to accommodate phase 2 development.

Parking

- **Phase 1 Total:** 151 parking spaces required
 - Includes 5 ADA-compliant spaces near the main entrance

- Parking Provided: 151 spaces including 5 ADA compliant parking spaces
- Designed to accommodate Phase 1 construction.

Parking By Student population per Sterling Ranch PD Document			
John Adams Academy Phase 1 Elementary/Middle School			Total Parking
unit parking spaces/ student	# Students	parking spaces required	parking spaces Provided
0.25	605	151	151

Utilities

- **Service Provider:** Dominion Water and Sanitation District
 - Potable water and sanitary sewer service
- Fire protection provided in coordination with South Metro Fire Rescue (SMFR)
 - Closest stations: Station 40 (3.5 miles NE), Station 39 (7 miles NW)
- Fire hydrant placement and fire suppression systems will comply with SMF requirements. Final details and locations to be completed with construction documents.
- The Phase 1 building will be fully sprinklered
- Estimates water demand, including fire flows, and sanitary sewer loading have been calculated for the subdivision and will be confirmed as buildout based on final student and staff counts in the construction documents.

Site Lighting

- The lighting plan will adhere to Douglas County Zoning Resolution Section 30 (March 10, 1999) and the Sterling Ranch dark sky requirements.

Transportation and Traffic

Traffic studies for Sterling Ranch have accounted for school development on Parcel 706. An updated memorandum by Fox Tuttle addresses Phase 1 school traffic impacts.

Key Traffic Considerations:

- Snake River Street & Waterton Road: $\frac{3}{4}$ movement (no SB left turns)
- Waterton Road & Middle Fork Street: Planned 4-way intersection, potential future roundabout

- Waterton Road & Eagle River: Planned roundabout to aid circulation for school

Mitigation Measures:

- Traffic calming and signage, including school zone signs
- Safe pedestrian corridors incorporated in site design
- Access to the site is at two intersections with full movement
- School staff on site during pick up and drop off times to coordinate driver movements

Drainage

The site is part of two drainage sub-basins:

- **C37.10** (west of ridge)
- **C41** (east of ridge)

Relevant Reports:

- *Sterling Ranch Filing 6A Phase III Drainage Report* – Redland, 12/23/2020
- *Sterling Ranch Filing 6 Phase II Drainage Report* – Redland, 01/27/2020

Grading will closely follow existing sub-basin boundaries. Final impervious surface area will be less than or equal to prior assumptions. Refer to the Phase III drainage memo for additional details.

Construction Management

- Construction BMPs per approved SWMP/GESC plan
- Disturbed areas will be stabilized post-construction
- Construction traffic access limited to Waterton Road at the south end of the property to minimize impact on nearby residences

Conclusion

The John Adams Academy development is consistent with Sterling Ranch's original planning, with no expected negative impact to public infrastructure. Utility systems have the capacity to support the proposed school facilities in both phases. The site has been thoughtfully planned for long-term educational use and will be developed in collaboration with all necessary public and utility agencies.



Since 1964
320 North Lincoln Avenue, Loveland, CO 80537
970.613.1447 TAIT.COM

May 28, 2025

Aaron Miller
South Metro Fire and Rescue
9195 E Mineral Avenue
Centennial, CO
80112

John Adams Academy, Sterling Ranch – Location and Extents Response to comments

Dear Mr. Miller

This letter serves as our response to your comments concerning the locations and extents site plan submittal for this project.

Per your comments dated May 07, 2025 we have.

- We will defer to Douglas County Planning regarding the name of the application for the planning commission.
- Removed the emergency access off Waterton Road. See below for access discussion.
- We will work with SMFR to determine the final number and placement of FH's to meet code as we develop construction documents.
- We understand that we may need to adjust some internal site plan elements with Construction Documents to meet building egress and exit requirements.

Per our meeting on May 28, 2025, we have revised the site plan as follows.

- Two points of permanent access are provided to the site from public roads.
 - The northern access is from Snake River Street entering the school property near the NE corner of the site.
 - Phase1 construction will extend the alignment of Butte River Street south along the east property line to a drive that goes west into the property to the parking lot at the front (west side) of the school. Please note that the eastern drive will extend to the future Middle Fork Street extension with phase 2 construction.



- The southern access is from Waterton Road via the future Middle Fork Street extension entering the property near the SW corner of the site. This drive extends north to the SW corner of the parking lot.
- The number of Fire Hydrants and their locations will be determined after coordination with you during the development of the Construction Documents.
- We have provided an updated TIS based on the new site configuration. The site changes mentioned above do not impact the TIS as they are all internal to the site.

Thank you for working with us to develop a site plan that meets the needs of South Metro Fire & Rescue and the John Adams Academy. We look forward to working with South Metro Fire & Rescue toward the successful completion of this project.

Sincerely
TAIT & Associates, Inc.

Mark Oberschmidt, PE
Municipal Projects Director

CC Jay Lemery, Bryan Ray – Performance Charter, John Lopeman – Ethos 3 Architects, Cassie Slade, Steve Tuttle, Scott Kilgor – Fox Tuttle, Erik Pavlinek, Brad Jackson, Zeke Lync, Jeanette Bare – Douglas County, Kevin Johnk – Sterling Ranch, file



Since 1964
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May 30, 2025

Eric Pavlinek
Douglas County Planning
100 Third St.
Castle Rock, CO
80104

John Adams Academy Location and Extent – LE 2025-005

Dear Mr. Pavlinek,

This letter serves as a response to comments received from Douglas County and referral agencies for the proposed John Adams Academy located at the southwest corner of Waterton Road and Snake River Street in Sterling Ranch known as Parcel 706.

Please note that the site plan has been modified since our initial submittal for the following reasons. After the submission, the project team was informed of a proposed raw water pipeline that is to be constructed by the City of Aurora on the site along the northern and western property line. The site infrastructure including parking utilities and building was relocated west to be completely out of the already dedicated 60-foot-wide utility easement.

Additionally, after discussions with South Metro Fire and Rescue (SMFR) and Douglas County Engineering comments, the project team has eliminated the emergency access off Waterton Road and provided a permanent access drive from the future Middle Fork extension along the south side of the property providing two points of access to the site as required by SMFR. Direct access off Snake River Street has also been eliminated.



We have reviewed the Referral Agency report dated 04/28/2025 and have responded to those agencies that had comments. Our comment responses to comments received in the Referral Agency Report are as follows

1. Chatfield Community Association
 - a. We have received a will-serve letter from Dominion for both potable water distribution and wastewater treatment after providing them with our estimate student /staff populations and resultant water and wastewater demands.
2. South Metro Fire & Rescue
 - a. Plans revised to comply with their comments. See letter dated 05/28/2025 along with updated site plan in submittal package.
3. Douglas County Health Department
 - a. All necessary erosion control and dust mitigation measures will be taken during construction. Final Construction Documents will include an Erosion Control plan, and the contractor will be required to have a SWMP plan on site and update measures as needed as construction progresses.
4. Douglas County Engineering
 - a. We will provide the requested documents in the memo dated 5/13/2025 with our construction documents submittal
 - b. Traffic study has been updated to reflect the current site plan and expected traffic patterns. The proposed site layout directs traffic out to Waterton Road, a main N-S corridor in Sterling Ranch
 - c. Roxborough Easement is shown on the site plan
 - d. Aurora waterline easement is shown on the site plan
 - e. We are working with Sterling Ranch to develop a plan for the ROW dedication of the future Middle Fork Extension. We will coordinate this dedication with the Douglas County Engineering department.
 - f. Emergency access onto Waterton has been removed.
 - g. The entire 26-acre parcel will be transferred at one time. The land transference details are being worked out between Sterling Ranch and John Adams School.
 - h. The area east of parcel 706, Tract Y, will be maintained by the Sterling Ranch Metro District.
 - i. Phase 2 is expected to happen in the next 5-10 years.
 - j. Traffic calming measures for the site include
 - i. Traffic calming signage, including school zone signs
 - ii. Safe pedestrian corridors incorporated in site design
 - iii. School staff on site during pick up and drop off times to coordinate driver movements
 - k. A traffic circulation plan is provided with this submittal and will be shared with parents.
 - l. The following have been provided.
 - i. A cul-de-sac bubble at the existing end of Butte Creek Street. This cul-de-sac will be dedicated as a public ROW by separate document along with other needed easements.



- m. Drainage Report
 - i. We will provide additional detailed drainage calculations with our construction document package.
 - ii. All permanent on-site storm sewers are sized for full build out of the site.
- 5. Plum Valley Heights
 - a. This application meets the codes and criteria for a Douglas County Location and Extents application. The team has designed the site to minimize the impact to neighbors by moving the building as far west as possible and putting the parking on the west side of the building away from the Plum Valley Heights.
- 6. South Metro Fire & Rescue
 - a. The team met with SMFR on 05/28 and after discussing the site with them we updated the site plan to create 2 permanent accesses to the site. The team will work with SMFR on the number of fire hydrants required for full buildout and their placement to provide adequate fire protection for the building and occupants. Refer to the attached response letter to SMFR for additional detail.
- 7. Public Comment
 - a. Many of the comments received have been regarding traffic impacts to the neighborhoods. The proposed site plan and the traffic circulation plan is intended to direct traffic leaving the site to Waterton Road either via Snake River for NB traffic or Middle Fork for NB & SB traffic. Staff will work to educate parents on this circulation plan to minimize impact on the adjoining neighborhoods. This will include sharing of the circulation plan and advising parents to be good neighbors when driving in or out of the school property.

Please let us know if you have any more questions. We look forward to presenting this site plan to the Planning Commission on Monday June 02. 2025.

Sincerely
TAIT & Associates, Inc.

Mark Oberschmidt, PE
Municipal Projects Director

CC Jay Lemery - Performance Charter, Ethan Mansfield – Hawkins Company, John Lopeman – Ethos 3 Architecture, Steve Tuttle, Casie Slade – Fox Tuttle, Aaron Miller – SMFR, Mary Bates – Evergreen Design Group, file

John Adams Charter School Traffic Impact Study



Date: May 26, 2025

Submitted To:
Tait & Associates, Inc.
320 N Lincoln Ave
Loveland, CO 80537

Submitted By:
Fox Tuttle Transportation Group, LLC
1580 Logan Street, Suite 600 PMB 0604
Denver, CO 80203

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Intersection Capacity Worksheets

NCDOT School Stacking Calculator Worksheets

JOHN ADAMS CHARTER SCHOOL TRAFFIC IMPACT STUDY

1.0 INTRODUCTION

The Fox Tuttle Transportation Group has prepared this traffic impact analysis for the proposed development of a John Adams Charter School in Douglas County. The plan is to build a school on the southeast corner of Waterton Road at Snake River Street within the Sterling Ranch Ascent Village. The site was previously assumed to be a superblock for additional residential homes and has recently shifted to allow a school for the community.

The purpose of this study is to assist in identifying potential traffic impacts within the study area as a result of this project. This traffic study addresses short-term and buildout project build out conditions. Long-term traffic operations for the build out of Sterling Ranch are addressed in the Sterling Ranch Master Traffic Impact Study¹ (MTS). Additional studies that were reviewed and incorporated into this analysis include:

- Sterling Ranch Preliminary Plan 5 Traffic Impact Analysis. Fox Tuttle Hernandez Transportation Group. Revised December 2019. Including traffic letters for each phase.
- Sterling Ranch Preliminary Plan 6 Traffic Impact Analysis. Fox Tuttle Transportation Group. Revised April 2021. Including traffic letters for each phase.
- Sterling Ranch Preliminary Plan 7 Traffic Impact Analysis. Fox Tuttle Transportation Group. Revised August 2022. Including traffic letters for Filings 7A, 7B, and 7C.
- Plum Creek by Shea Homes Traffic Impact Study. Tsouvaras Simmons Holderness. Dated October 2015.

The information contained in this study is anticipated to be used by Douglas County in identifying potential intersection or roadway deficiencies and potential improvements that may be required of the project with each phase of the proposed John Adams Charter School. This traffic study summarizes analyses, findings, and recommendations based on the details provided in the current submittal.

¹ Sterling Ranch Master Traffic Study. Fox Tuttle Transportation Group, LLC. Initial Submittal January 30, 2014, updated December 2019.

2.0 PROJECT DESCRIPTION

The current plan for the John Adams Charter School is to open the school by August 2026 with grades Kindergarten through 8th, with up to 605 students. It is the desire of the school to have the option to expand in the future to include grades 9th through 12th in a second phase with a total enrollment of 940 students. The expansion of the school is included in the traffic study to ensure the intersection and roadways can accommodate the traffic associated with the school. A vicinity map is shown on **Figure 1**. The proposed site and access is provided on **Figure 2**.

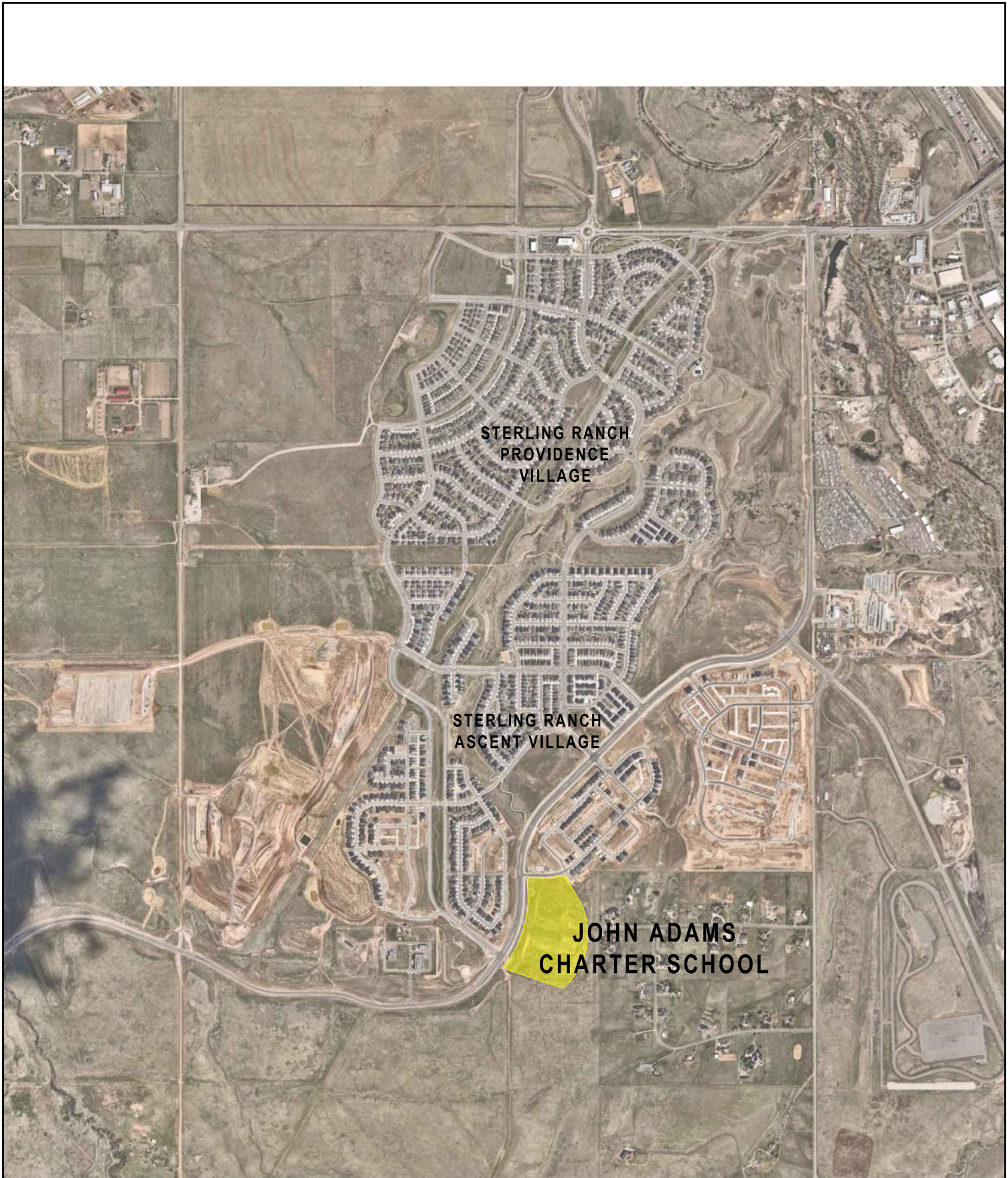
The proposed charter school will utilize the existing roadways within Ascent Village, south of Waterton Road. The project will include extending Butte Creek Street south to extend to the school access. Middle Fork Street will be extended south of Waterton Road for a short segment to provide secondary access to the school. The first phase of the charter school project will include a temporary emergency access road from the school parking lot to Middle Fork Street.

Phase 2 of the project will extend Butte Creek Street to the future Middle Fork Street and extend Middle Fork Street to Butte Creek Street to serve the school and future development. The roadway network will provide a high level of multimodal connectivity to the entire Sterling Ranch development area. The internal roads will be constructed using the complete street standards found in the *Sterling Ranch Roadway Design Standards (most current version)*.

The primary access to John Adams Charter School is as follows:

- **Waterton Road at Snake River Street [Phase 1]:** Currently a $\frac{3}{4}$ movement access with side-street stop-control that leads directly to the school access.
- **Waterton Road at Eagle River Street [Phase 1]:** Full-movement, currently a side-street stop-controlled intersection that will be secondary access since the route to the school is through the neighborhood. It is planned that this intersection will be upgraded to a roundabout in Year 2026.
- **Waterton Road at Middle Fork Street [Phase 1 & 2]:** Full-movement, currently a side-street stop-controlled intersection to provide direct access on the south end of the site. It is planned that this intersection will be upgraded to a roundabout by Year 2032.

The school plans to have direct access into the property on the extension of Butte Creek Street. The proposed circulation plan is shown on **Figure 2**. In the near-term, it is proposed that school traffic enter on Snake River Street from Waterton Road, travel east to turn south onto Butte Creek Street, then into the school property. Drivers will circulate the campus with drop-off/pick-up in front the school, travel along the temporary road to Middle Fork Street, and exit onto Waterton Road. The ultimate circulation plan is currently proposed to circulate back to Butte Creek Street instead of directly to Middle Fork Street. Additional details are provided in **Section 7.0**. The design package includes provides a detailed description of the circulation plan which is under a separate cover.



JOHN ADAMS CHARTER SCHOOL TRAFFIC IMPACT STUDY
VICINITY MAP

FT Project #	25035	Original Scale	NTS	Date	4/24/25	Drawn by	CRS	Figure #	1
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7878 Snake River Street - Location and Extent

Project File: LE2025-005

Supplement to Planning Commission Staff Report - Page 18 of 117

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PLANNING AREA 26.07 ACRES
LOCATION AND EXTENT LE2025-005



UNAUTHORIZED CHANGES & USES

The undersigned hereby certifies that it has not, nor has any of its subsidiaries, affiliates, or agents, made any unauthorized changes or uses of the information contained herein, and that it has not, nor has any of its subsidiaries, affiliates, or agents, made any unauthorized changes or uses of the information contained herein, and that it has not, nor has any of its subsidiaries, affiliates, or agents, made any unauthorized changes or uses of the information contained herein.

NOTE TO CONTRACTOR

THE UNITED STATES DEPARTMENT OF JUSTICE, CIVIL RIGHTS DIVISION, MEMPHIS, TENNESSEE, ADVISES THAT ON APRIL 11, 1968, IT RECEIVED A COMPLAINT OF DISCRIMINATION FROM THE ABOVE NAMED INDIVIDUAL. THE COMPLAINT ALLEGES THAT ON APRIL 11, 1968, THE INDIVIDUAL WAS AT THE ABOVE NAMED HOTEL IN MEMPHIS, TENNESSEE, AND THAT HE WAS DENIED ACCOMMODATION AT THE HOTEL BECAUSE OF HIS RACE. THE INDIVIDUAL REQUESTS THAT THE UNITED STATES DEPARTMENT OF JUSTICE, CIVIL RIGHTS DIVISION, INVESTIGATE THE MATTER AND TAKE SUCH ACTION AS MAY BE NECESSARY TO ENFORCE THE CIVIL RIGHTS ACT OF 1964.

PARKING INFORMATION

Parking by Student population per Shelling Ranch PD Document				
John Adams Academy Phase 1 Elementary/Middle School				Total Parking
unit parking spaces/ student/	# Students	parking spaces required	parking spaces Provided	ADA Spaces Provided
0.26	800	208	140	0

SYMBOLS LEGEND

- [illegible]

RESEARCH & MARKETING, COLLEGE PARK, MD 20742-3015; TEL: 410/326-7100; FAX: 410/326-7101; E-MAIL: JOURNAL@AMBA.COM

**PRELIMINARY-
NOT FOR
CONSTRUCTION**

TAIT
 & ASSOCIATES

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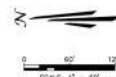
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OF



FOX TUTTLE
TRANSPORTATION GROUP

JOHN ADAMS CHARTER SCHOOL TRAFFIC IMPACT STUDY

SITE PLAN

FT Project #	25035	Original Scale	NTS
7878 Snake River Street - Location and Extent			

Date 5/25/2025

Drawn by	CRS
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Figure #	2
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Project File: LE2025-005

Supplement to Planning Commission Staff Report - Page 19 of 117

3.0 EXISTING TRAFFIC CONDITIONS

3.1 Study Area

The study area boundaries, intersections, and the planning horizon to evaluate in this John Adams Charter School Traffic Impact Study (TIS) were developed at a scoping meeting with Douglas County staff in Spring 2025. Douglas County Staff and the design team members took into consideration the volume of site traffic that will be generated from the school on the surrounding street network and planned access.

3.2 Circulation Network

The existing study area street network consists of roadways classified by Douglas County as arterial, collector and local streets. This includes the following public roadways that are within the study area and adjacent to the project site. Roadway classifications noted below are consistent with the current roadway classifications in the Douglas County Transportation Plan².

Waterton Road is a two- to four-lane minor arterial roadway that provides access from the Chatfield Basin and Roxborough Park area to areas west and north, including Lockheed Martin. Waterton Road connects to Wadsworth Boulevard to provide connectivity to the north. The posted speed limit on Waterton Road is 40 mph, west of Rampart Range Road. Sidewalks are constructed along both sides of Waterton Road for approximately 0.25 mile west of Rampart Range Road. Waterton Road has 5' paved shoulders. The segment of roadway along the school property is four-lanes wide with a posted speed limit of 45 mph. West of Middle Fork Street, Waterton Road becomes a two-lane roadway until it widens within Prospect Village.

Eagle River Street is an Avenue that provides direct access into Sterling Ranch south of Titan Road and to Chatfield State Park north of Titan Road. Internal to Sterling Ranch, Eagle River Street has one travel lane per direction with buffered bike lanes, sidewalks, parking lanes, and a raised median. The intersection with Titan Road is controlled by a multi-lane roundabout. North of Titan Road, Eagle River Street provides one travel lane per direction and buffered bike lanes. This segment of Eagle River Street was constructed to be the primary access into Chatfield State Park and to the Solstice community to reduce traffic on Roxborough Park Road. The posted speed limit is 30 mph.

Middle Fork Street is a two-lane Avenue that currently travels through the west side of Sterling Ranch Filing 1 and into the future Preliminary Plan 5 area. The roadway includes sidewalks, buffered bike lanes, parking lanes, and a raised median. With future development, Middle Fork

² Douglas County 2040 Transportation Plan. Douglas County. September 2019.

Street will extend north towards Titan Road and south to connect with the future Waterton Road. The posted speed limit is 30 mph.

Traffic to and from the school will utilize the other roadways within the Chatfield Basin, including US 85 (S. Santa Fe Drive) , Titan Parkway, Titan Road, Moore Road, Roxborough Park Road, Rampart Range Road, Wadsworth Boulevard (State Highway 121), Waterton Road (Southern Connector), and Taylor River Circle. These roadways are described and evaluated within the Sterling Ranch MTS, Preliminary Plan Traffic Studies, and traffic letters.

3.3 Data Collection

Weekday morning and evening peak hour turning-movement volumes and daily roadway volumes were collected in December 2024 for Sterling Ranch (school was in session and weather was good). Average Daily Traffic (ADT) counts have been periodically gathered over the years since Year 2013. Counts on Waterton Road were recently gathered in December 2024. The counts reflect the occupancy of homes in Sterling Ranch, as well as construction traffic.

Since the intersection counts were taken during the PM commuter peak period and not specifically collected during typical school PM peak period, the roadway volumes were utilized to factor the turning movement counts for an earlier time in the afternoon. Data on Waterton Road indicated that the previous two hours of volumes are between 60% and 90% of the commuter PM peak hour; therefore, it was estimated that the school PM peak hour at the study intersections would be approximately 80% of the peak hour. This was applied to the PM peak hour traffic volumes to estimate the school PM peak. Peak hour volumes were balanced between intersections as necessary throughout the study area.

The existing traffic volumes and intersection lane geometries are illustrated on **Figure 3**. Count data sheets are provided in the **Appendix**.

3.4 Existing Intersection Capacity Analysis

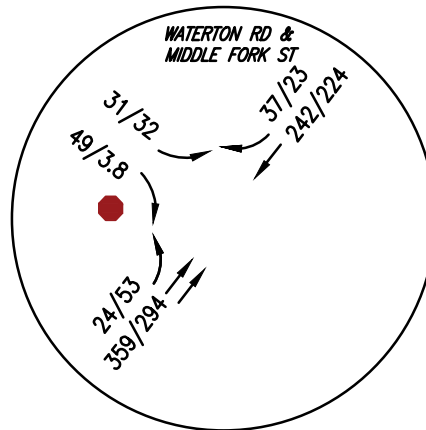
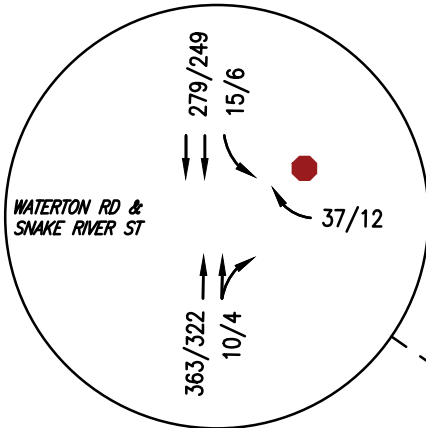
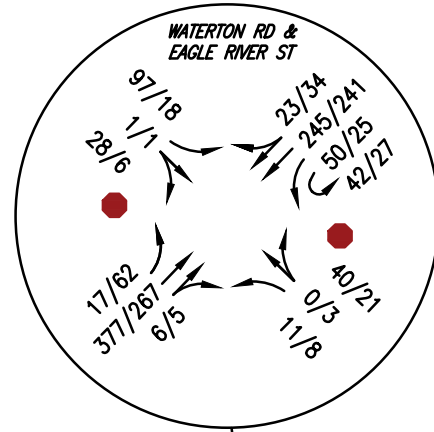
In determining the operational characteristics of an intersection for vehicular traffic, “Levels of Service” (LOS) A through F are applied, with LOS A indicating very good operations and LOS F indicating congested operations. The intersection LOS is represented as a delay in seconds per vehicle for the intersection as a whole and for each turning movement.

A more detailed discussion of LOS methodology is contained in the **Appendix** for reference. Criteria contained in the *Highway Capacity Manual (HCM, 7th Edition)* was applied for these analyses in order to determine existing levels of service during peak hour periods.

Intersection level of service is one of the analysis methods the Sterling Ranch team is using to evaluate the multimodal transportation system in Sterling Ranch. Other analysis methods that will ensure that the multimodal transportation system is safe, efficient, and accessible for all modes of travel are

identified in the Sterling Ranch Road Roadway Design Guidelines. This study primarily focuses on vehicular LOS to show concurrency as outlined in the PD document.

The results of the existing LOS calculations and 95th percentile queues for the intersections are summarized in **Table 1**. The intersection level of service worksheets are attached in the **Appendix**. The data in the table shows that **all study area intersections currently operate overall at LOS A in both peak hours, with the majority of movements operating at LOS D or better**. At the intersection of **Waterton Road and Eagle River Street (#3)** the southbound left-turn was calculated to be operating at LOS E in the AM peak hour, which is consistent with field observations. The 95th percentile queue was estimated to extend up to 100 feet (about four vehicles). This intersection is planned to be reconstructed as a roundabout in the next year, which will reduce the delay on Eagle River Street.



KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME



JOHN ADAMS CHARTER SCHOOL TRAFFIC IMPACT STUDY

YEAR 2024 EXISTING TRAFFIC VOLUMES

FT Project #	25035	Original Scale	NTS	Date	4/24/2025	Drawn by	CRS	Figure #	3
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7878 Snake River Street - Location and Extent

Project File: LE2025-005

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Table 1 - Peak Hour Intersection Level of Service and 95th Percentile Queue Summary

Intersections and Lane Groups	Year 2024 Existing						Year 2026 Background						Year 2026 with Project						Year 2032 Background						Year 2032 with Project																																							
	AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak																																				
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue																																		
STOP SIGN CONTROL																																																																
1. Waterton Road & Middle Fork Street	1		A				2		A				3		A				3		A				13		B				8		A																															
Eastbound Left	8	A	3'	8	A	3'	8	A	3'	8	A	5'	8	A	3'	8	A	5'	Analyzed as Roundabout						Analyzed as Roundabout																																							
Eastbound Through	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'																																														
Westbound Left													0	A	0'	8	A	0'																																														
Westbound Through	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'																																														
Westbound Right	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'																																														
Northbound Left													70	F	108'	37	E	53'																																														
Northbound Through+Right													16	C	35'	14	B	20'																																														
Southbound Left	14	B	8'	13	B	8'	19	C	33'	18	C	25'	54	F	110'	34	D	65'																																														
Southbound Through+Right	10	B	8'	10	A	5'	11	B	13'	11	B	10'	11	B	13'	11	B	10'																																														
2. Waterton Road & Snake River Street	1		A				0		A				3		A				2		A				1		A				0		A				4		A		2		A																					
Westbound Right	10	A	5'	9	A	3'	10	B	5'	10	A	3'	12	B	28'	11	B	15'	11	B	5'	10	A	3'	13	B	28'	11	B	18'																																		
Northbound Through	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'																									
Northbound Right	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'																									
Southbound Left	8	A	3'	8	A	0'	9	A	3'	8	A	0'	12	B	38'	10	A	18'	9	A	3'	8	A	0'	16	C	80'	10	A	18'																																		
Southbound Through	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'	0	A	0'																									
3. Waterton Road & Eagle River Street	8		A				3		A																																																							
Eastbound Left	8	A	0'	8	A	5'	Analyzed as Roundabout						Analyzed as Roundabout						Analyzed as Roundabout						Analyzed as Roundabout																																							
Eastbound Through+Right	0	A	0'	0	A	0'																																																										
Westbound Left	9	A	8'	8	A	3'																																																										
Westbound Through+Right	0	A	0'	0	A	0'																																																										
Northbound Left	24	C	5'	18	C	3'																																																										
Northbound Through+Right	10	A	5'	11	B	3'																																																										
Southbound Left	47	E	100'	19	C	8'																																																										
Southbound Through+Right	10	A	5'	11	B	0'																																																										
ROUNDBOUT																																																																
1. Waterton Road & Middle Fork Street																	5		A				5		A				7		A				6		A																											
Eastbound Approach	Analyzed as Stop-Control						Analyzed as Stop-Control						Analyzed as Stop-Control						5			A	25'	5			A	25'	6			A	25'	5			A	25'																										
Westbound Approach																			4			A	25'	5			A	25'	5			A	25'	5			A	25'																										
Northbound Approach																												11			B	50'	8			A	25'																											
Southbound Approach																			6			A	25'	6			A	25'	7			A	25'	7			A	25'																										
3. Waterton Road & Eagle River Street							6		A				5		A				7		A				5		A				6		A				9		A		6		A																					
Eastbound Approach	Analyzed as Stop-Control						6						A	25'	5						A	25'	8						A	50'	9						A	50'	6						A	25'																		
Westbound Approach							5						A	25'	6						A	25'	5						A	25'	6						A	50'	6						A	25'																		
Northbound Approach							6						A	0'	5						A	0'	7						A	0'	5						A	0'	8						A	0'	6						A	0'										
Southbound Approach							7						A	25'	4						A	0'	10						B	50'	5						A	0'	8						A	25'	5						A	0'	16						C	100'	6	

4.0 FUTURE TRAFFIC CONDITIONS WITHOUT PROPOSED DEVELOPMENT

The growth over the years has mostly been related to development of Sterling Ranch, Solstice, and other projects within the Chatfield Basin. Traffic has fluctuated with the employment changes at Lockheed Martin over the years as well as roadway connectivity due to new roadways or construction closures.

4.1 Future Volume Methodology

The John Adams Charter School plans to have Phase 1 completed and the school opened by August 2026. Phase 2 will include an expansion of the school to include high school grades, which is planned to be completed by Year 2032.

The following assumptions were made to calculate background traffic growth for the Year 2026 and Year 2032:

- **Solstice:** Although homes are continuously being built, the traffic study does not add this development's traffic to Waterton Road since they will likely use Titan Road through the Chatfield Basin.
- **Sterling Ranch:**
 - **Filings 5A and 5B (residential)** are currently under construction, with approximately 85% of the homes completed at the time of the data collection. By Year 2026, it is anticipated that all homes will be completed. The trip assignment from the traffic letters were used to determine the added traffic associated with these filings at completion and added to the background.
 - **Filing 5C (residential)** is under construction and both lots are anticipated to be completed before the school is opened in Fall 2026. The trips were added to the background volumes.
 - **Filing 6A, 6B, and 6C (residential)** are currently under construction and are adjacent to the school site. Filing 6A is approximately 94% completed and Filings 6B and 6C are 50% completed. The remaining trips were added to the Year 2026 background.
 - **Filing 7A** is under construction and is anticipated to be 35% completed before the school opens in Fall 2026, which was added to the Year 2026 background.
 - **Filings 7B-7F** was assumed to be completed by Year 2032 based on the assumptions of the Preliminary Plan 7 Traffic Impact Study. This is a conservative estimate since it is likely the pace of construction will adjust as it has historically.

4.2 Year 2026 Background Roadway and Intersection Improvements

The following mitigation measures from previous Sterling Ranch Filings, or as discussed previously, were assumed to be implemented by Year 2026:

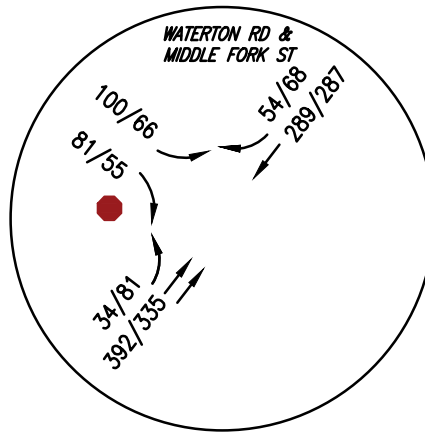
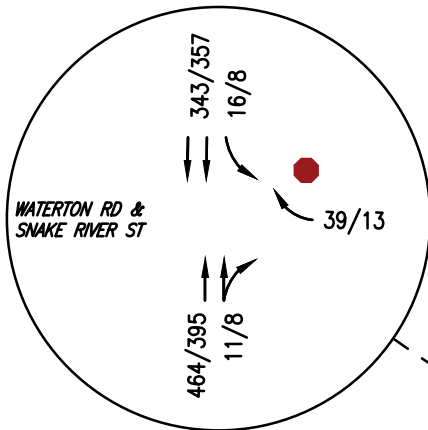
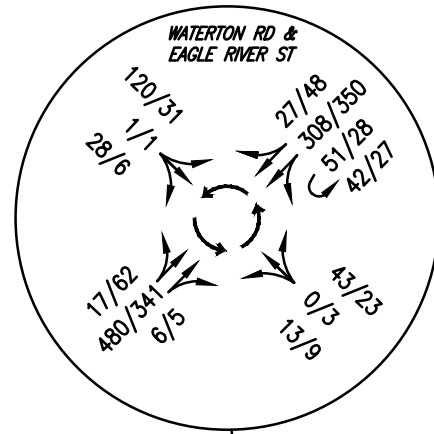
- **Roundabout at Waterton Road at Eagle River Street.** It is understood that the Sterling Ranch Community Authority Board (CAB) and Douglas County are partnering to upgrade this intersection to multi-lane roundabout with two (2) entering and exiting lanes on Waterton Road and one (1) entering and exiting lane on Eagle River Street.

Using the listed growth and roadway network assumptions, the Year 2026 background traffic volumes were calculated and are summarized on **Figure 4**.

4.3 Year 2026 Background Analysis

The study area intersections were evaluated to determine baseline operations for the Year 2026 background scenario and to identify any motor vehicle capacity constraints associated with the background traffic. The level of service criteria discussed in prior sections, was applied to the study area intersections to determine impacts with the addition of background traffic.

The results of the LOS calculations and 95th percentile queues for the intersections are summarized in **Table 1**. The intersection LOS worksheets are attached in the **Appendix**. **The analysis indicated that all of the study intersections will operate overall at LOS A in both peak hours with all movements operating at LOS C or better.** No mitigation measures are needed.



KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME



4.4 Year 2032 Background Roadway and Intersection Improvements

The following mitigation measures from previous Sterling Ranch Filings, or as discussed previously, were assumed to be implemented by Year 2032:

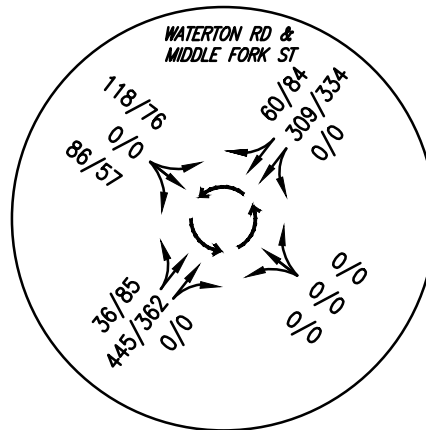
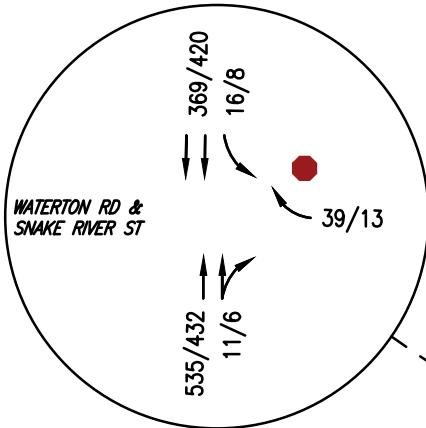
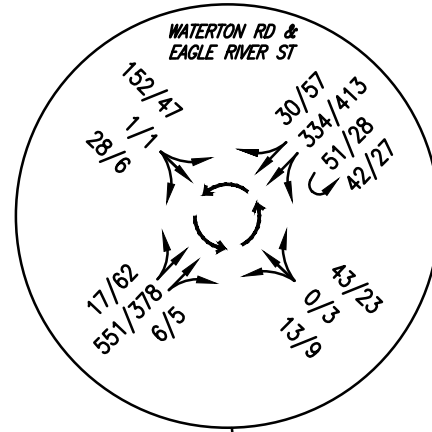
- **Roundabout at Waterton Road at Middle Fork Street.** It is understood that the Sterling Ranch Community Authority Board (CAB) and Douglas County are partnering to upgrade this intersection to multi-lane roundabout with two (2) entering and exiting lanes on Waterton Road and one (1) entering and exiting lane on Middle Fork Street.

Using the listed growth and roadway network assumptions, the Year 2032 background traffic volumes were calculated and are summarized on **Figure 5**.

4.5 Year 2032 Background Analysis

The study area intersections were evaluated to determine baseline operations for the Year 2026 background scenario and to identify any motor vehicle capacity constraints associated with the background traffic. The level of service criteria discussed in **Section 3.4** was applied to the study area intersections to determine impacts with the addition of background traffic.

The results of the LOS calculations and 95th percentile queues for the intersections are summarized in **Table 1**. The intersection LOS worksheets are attached in the **Appendix**. **The analysis indicated that all of the study intersections will operate overall at LOS A in both peak hours with all movements operating at LOS C or better.** No mitigation measures are needed.



KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME



5.0 PROPOSED DEVELOPMENT TRAFFIC

5.1 Proposed Roadway Network and Access

As discussed in **Section 2.0**, John Adams Charter School will provide the extension of Butte Creek Street to the south and the extension of Middle Fork Street to the southeast. These roadways will provide connectivity and circulation for the school, as well as existing and future residents.

5.2 Trip Generation

John Adams Charter School trip generation estimates were developed based on data contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*³. This establishes the volume of new motor vehicle trips that will be added to the area roadway network with development of the school.

The John Adams Charter School will include 605 students in grades Kindergarten through 8th in the first phase and then increase to 940 students with the addition of grades 9th through 12th in the second phase. There are several land use codes for schools in the *Trip Generation Manual* and the most applicable was “ITE 536 - Charter Elementary School”. There is a category for a K-8 charter school, however, the data is limited and the sample size is minimal. The rates for “ITE 536 - Charter Elementary School” were applied for Phase 1. **Table 2** provides the trip generation for Phase 1.

For Phase 2, the most applicable land use code with high school was “ITE 532 - Private School (K-12)” since the code for a charter school was limited and the sample size is minimal. **Table 3** provides the trip generation for Phase 2.

The first phase of the John Adams Charter School was estimated to generate up to 1,500 vehicle trips in the weekday, up to 629 trips in the AM peak hour, and up to 436 trips in the school PM peak hour. At full buildout (Phase 1 and 2), it is estimated that the school will generate up to 2,331 vehicle trips in the weekday, up to 743 trips in the AM peak hour, and up to 498 trips in the school PM peak hour.

It was estimated that 40% of the John Adams Charter School traffic will be from the Chatfield Basin and the remaining trips will come from outside the basin. The trip generation estimates were separated and listed in each of the tables. For conservative purposes, a non-auto reduction was not applied.

³ *Trip Generation Manual* (11th Edition). Institute of Transportation Engineers. Washington, DC. 2021

Table 2 - Trip Generation Summary (Year 2026)

Land Use	Size	Unit	Non-Auto Factor ⁽¹⁾	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
				Rate ⁽²⁾	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
ITE 536 - Charter Elementary School	605	Students	1.00	2.48	1,500	750	750	1.04	629	327	302	0.72	436	214	222
Chatfield Basin Trips:			40%		600	300	300		252	131	121		174	86	88
Outside Chatfield Basin Trips			60%		900	450	450		377	196	181		262	128	134

Source: ITE Trip Generation 11th Edition, 2021.

⁽¹⁾ Non-Auto Use Factor applies a trip reduction to account for TDM, transit trips, pedestrian trips, and bicycle trips that will occur that are not respresented in the ITE (traditionally suburban) rates as well as for multi-use trips that will occur between retail uses.

⁽²⁾ The ITE land use code for "Charter Elementary School" has a daily rate based on 1 site and was lower than "Elementary School" rate; therefore, the Private School daily rate was applied.

Table 3 - Trip Generation Summary (Year 2032)

Land Use	Size	Unit	Non-Auto Factor ⁽¹⁾	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
				Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
ITE 532 - Private School (K-12) ⁽²⁾	940	Students	1.00	2.48	2,331	1,166	1,165	0.79	743	468	275	0.53	498	209	289
Chatfield Basin Trips:			40%		600	466	134		297	187	110		199	84	115
Outside Chatfield Basin Trips			60%		1,731	700	1,031		446	281	165		299	125	174

Source: ITE Trip Generation 11th Edition, 2021.

⁽¹⁾ Non-Auto Use Factor applies a trip reduction to account for TDM, transit trips, pedestrian trips, and bicycle trips that will occur that are not respresented in the ITE (traditionally suburban) rates as well as for multi-use trips that will occur between retail uses.

⁽²⁾ The ITE land use code for "Charter School (K-12) does not include a daily rate or a PM peak hour rate; therefore, the Private School rates were applied. Generally, there are similar travel patterns for Charter and Private school since there is rarely busing and there is a high percentage of families that do not live close enough to travel by walking, biking or wheeling.

5.3 Trip Distribution and Assignment

The estimated motor vehicle traffic volumes presented in **Tables 2 and 3** were distributed onto the adjacent street network based on existing traffic characteristics, existing and proposed land uses in the Chatfield Basin, and per regional and County travel demand modeling. The overall distribution for the school trips is as follows:

To/From	To/From the Chatfield Basin	To/From Outside the Basin
West Waterton Road	n/a	25%
East Waterton Road	n/a	65%
North Eagle River Street	n/a	10%
North of Waterton Road	55%	n/a
East of Eagle River Street	5%	n/a
West of Middle Fork Street	40%	n/a

Using these distribution assumptions, the projected site traffic associated with the proposed school was assigned to the study area roadway network for the weekday AM and school PM peak hour periods. **Figure 6** illustrates the trip distributions.

The Phase 1 (Year 2026) site-generated volumes are shown on **Figure 7** and the Phase 2 (Year 2032) site-generated volumes are shown in **Figure 8**.

WATERTON RD &
EAGLE RIVER ST

OUTSIDE BASIN
TRIP DISTRIBUTION

CHATFIELD BASIN
TRIP DISTRIBUTION

WATERTON RD &
SNAKE RIVER ST

OUTSIDE BASIN
TRIP DISTRIBUTION

CHATFIELD BASIN
TRIP DISTRIBUTION

WATERTON RD &
MIDDLE FORK ST

OUTSIDE BASIN
TRIP DISTRIBUTION

CHATFIELD BASIN
TRIP DISTRIBUTION



PROJECT
SITE

KEY

XXX/XXX

AM / PM PEAK HOUR TRIP VOLUME

XX,XXX

DAILY TRAFFIC VOLUME



FOX TUTTLE
TRANSPORTATION GROUP

JOHN ADAMS CHARTER SCHOOL TRAFFIC IMPACT STUDY

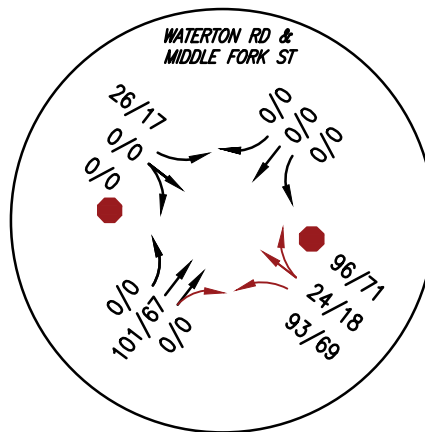
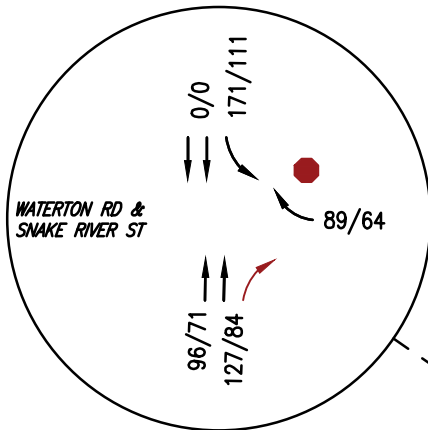
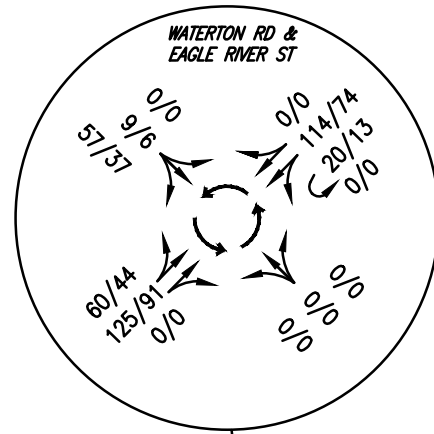
SITE TRIP DISTRIBUTION

FT Project #	25035	Original Scale	NTS	Date	5/25/2025	Drawn by	CRS	Figure #	6
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7878 Snake River Street - Location and Extent

Project File: LE2025-005

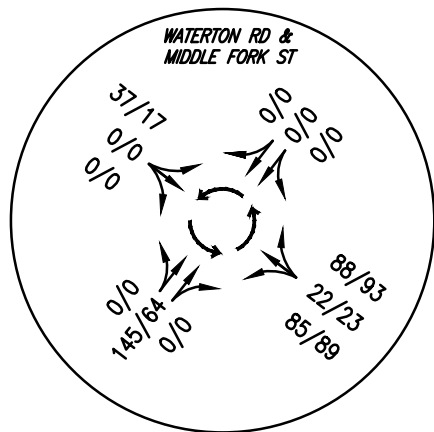
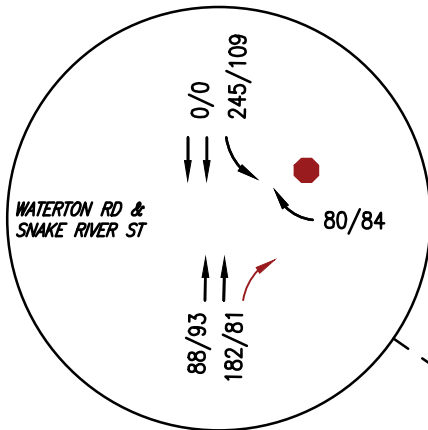
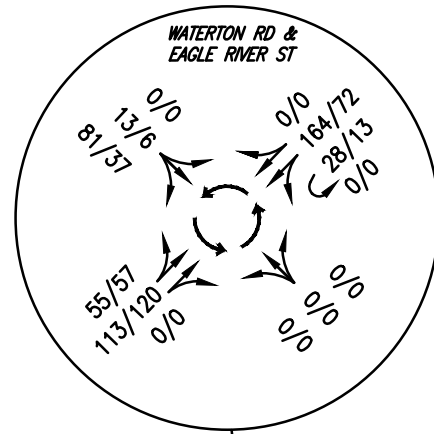
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KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME





KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME



6.0 FUTURE TRAFFIC CONDITIONS WITH SITE DEVELOPMENT

This analysis has been conducted in order to determine impacts associated with each phase of the John Adams Charter School, focusing on the study intersections. As discussed in **Section 4.2**, the intersection of Waterton Road at Eagle River Street will be a roundabout in Year 2026 and the intersection of Waterton Road at Middle Fork Street will be a roundabout by Year 2032.

6.1 Year 2026 + John Adams Charter School Phase 1 Capacity Analysis

The Phase 1 site-generated vehicle traffic volumes were added to the Year 2026 background volumes to analyze potential site impacts with the first phase. These volumes are illustrated on **Figure 9**. Based on the turning volumes from Waterton Road, **it is recommended that a right-turn lane be added at Snake River Street.**

The LOS criteria discussed in prior sections was applied to the study area intersections to determine impacts with the addition of Phase 1 school traffic volumes in the short-term. The results of the LOS calculations and 95th percentile queues for the intersections with Waterton Road are summarized in **Table 1**.

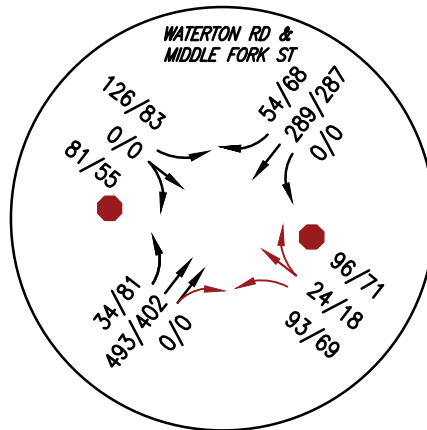
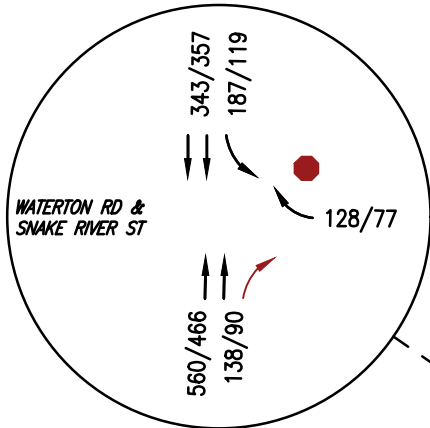
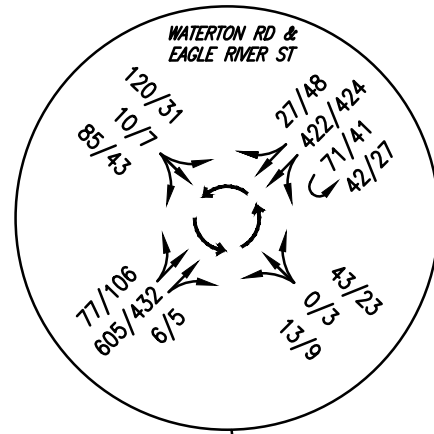
The project trips were determined to add delay to the side-street approaches of the intersection of Waterton Road at Middle Fork Street. With the majority of exiting vehicles using Middle Fork Street, it was estimated that the northbound and southbound left-turn delays will equate to LOS F in the AM peak hour and LOS E/D in the PM peak hour, respectively. The 95th percentile queues on the northbound and southbound left-turns were calculated to extend up to 110 feet in the AM peak hour and up to 55 feet in the PM peak hour. No mitigation measures are recommended in the near-term since this is a typical experience for roadways serving school traffic. It is anticipated that the non-school peak periods will operate acceptably, especially since the northbound approach will have little to no traffic.

6.2 Year 2032 + John Adams Charter School Phase 2 Capacity Analysis

The site-generated vehicle traffic volumes associated with the full buildout of the John Adams Charter School were added to the Year 2032 background volumes to analyze potential site impacts. These volumes are illustrated on **Figure 10**.

The LOS criteria was applied to the study intersections to determine impacts with the addition of buildout traffic volumes of the John Adams Charter School. The results of the LOS calculations and 95th percentile queues for the intersections are summarized in **Table 1**.

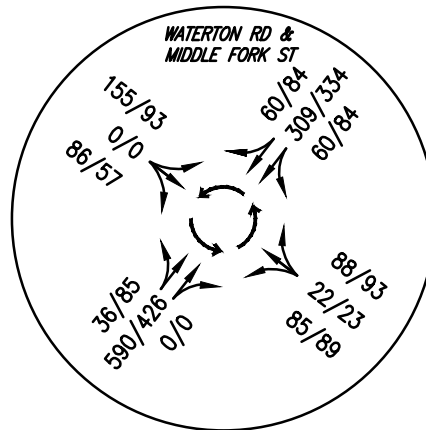
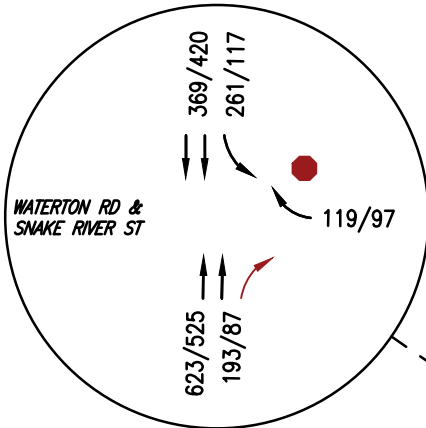
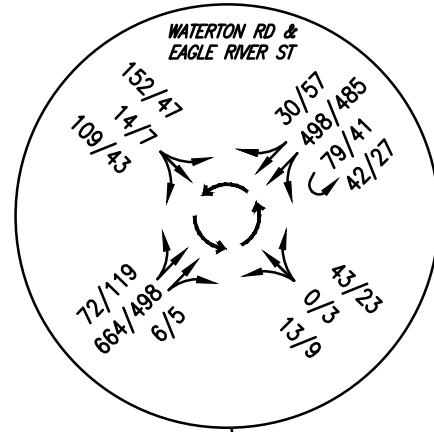
The project trips have minimal impact on the performance of the study intersections. All of the intersections continue to operate overall at LOS A in both peak hours with all movements calculated to operate at LOS C or better. With the future roundabout at Waterton Road and Middle Fork Street, the delays estimated in the near-term scenario are significantly reduced and congestion minimized.



KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME





KEY

XXX/XXX AM / PM PEAK HOUR TRIP VOLUME
 XX,XXX DAILY TRAFFIC VOLUME



7.0 CIRCULATION PLAN AND STACKING

As shown in **Figure 2** and discussed in **Section 2.0**, it is proposed that school traffic will be expected to follow this travel pattern in the near-term:

1. Turn onto Snake River Street from Waterton Road
2. Travel east on Snake River Street to Butte Creek Street
3. Turn right onto Butte Creek Street to travel south
4. Turn right into the school access
5. Travel along entry roadway (one lane per direction)
6. Drop-off/pick-up in front of school (two lanes available)
7. Circulate the parking lot to two exit options: (1) the Temporary Access Road to Middle Fork Street and (2) the Entrance Road to Butte River Street to Snake River Street.
8. Turn onto Waterton Road to exit the area

It will be highly encouraged to not utilize Eagle River Street or neighborhood streets within Ascent Village. It is understood that staff and parents may still utilize these roadways regardless of expectations, as reflected in the trip distribution. John Adams Charter School will educate their families on the importance of following the circulation plan and minimizing travel through the neighborhood.

When the school is expanded to include high school grades, it is anticipated that the circulation plan will be revisited and adjusted with any new roadway connections and site design. It is envisioned that the Temporary Access Road will be removed and drivers will circulate back to Butte Creek Street, turn right, to then travel on Middle Fork Street to Waterton Road.

It was measured that the school will have the following length of stacking on campus:

- Entrance Road: 620 feet
- Front of School (2 lanes): 530 feet x 2 = 1,060 feet
- Exit Parking Lot: 530 feet
- Temporary Access Road: 490 feet
- **Total On-Campus: 3,320 feet [620 + 1,060 + 530 + 490 + 620]**
 - *In the short-term, Butte Creek Street extension will just be used by the school which adds 540 feet of stacking for a total of 3,860 feet*
 - *Long-term without Temporary Access Road: 2,830 feet*

The on-campus stacking for student drop-off/pick-up length was analyzed using the North Carolina DOT School Calculator. This tool estimates the length needed on campus based on the number of students. The spreadsheet input includes the number of students, number of buses, and number of staff. The NCDOT School Calculator provides a conservative estimate of the stacking demand to serve the drop-off/pick-up operations. Based on experience, the number of buses and staff members does not change the calculated queue length in this calculator. The number of buses should change the length needed on campus since the high-capacity vehicle removes passenger cars from the campus stacking. Therefore, it should be utilized as a guideline and not a requirement.

Table 4 provides the calculations based on the total enrollment for each phase. The NCDOT School output tables are provided in the **Appendix**.

Table 4 – NCDOT School Calculator Estimates

Scenario	Total Number of Students	Average Queue Length	High Demand Length
Phase 1	605	1,454 ft	1,890 ft
Phase 2	940	2,730 ft	3,549 ft

Based on the available stacking on campus, **it is expected that the Phase 1 school design will accommodate the calculated average and high demand queue length and not spill onto the adjacent roadways.** The current conceptual design for Phase 2 is anticipated to accommodate the average queue length.

8.0 CONCLUSIONS

The current plan for the John Adams Charter School is to open the school by August 2026 with grades Kindergarten through 8th, with up to 605 students. It is the desire of the school to have the option to expand in the future to include grades 9th through 12th in a second phase with a total enrollment of 940 students. The proposed charter school will utilize the existing roadways within Ascent Village, south of Waterton Road. The project will include extending Butte Creek Street south to extend to the future Middle Fork Street connection. Additionally, Middle Fork Street will be extended south of Waterton Road to serve the school and future development. The primary access to John Adams Charter School will be on Waterton Road at Middle Fork Street, Snake River Street, and Eagle River Street.

The school plans to have direct access into the property on Snake River Street and on the extension of Butte Creek Street. The circulation plan has not been determined at this time and will be evaluated once a plan is proposed.

The first phase of the John Adams Charter School was estimated to generate up to 1,500 vehicle trips in the weekday, up to 629 trips in the AM peak hour, and up to 436 trips in the school PM peak hour. At full buildout (Phase 1 and 2), it is estimated that the school will generate up to 2,331 vehicle trips in the weekday, up to 743 trips in the AM peak hour, and up to 498 trips in the school PM peak hour.

This traffic study evaluated existing, near-term background (Year 2026), and short-term background (Year 2032) peak hour intersection conditions in the study area without and with the John Adams Charter School. The following recommended improvements to support the traffic growth in the area:

Existing/Background Recommendations:

- **Roundabout at Waterton Road at Eagle River Street.** Reconstruction as a multi-lane roundabout with two (2) entering and exiting lanes on Waterton Road and one (1) entering and exiting lane on Eagle River Street in next year.
- **Roundabout at Waterton Road at Middle Fork Street.** Reconstruction as a multi-lane roundabout with two (2) entering and exiting lanes on Waterton Road and one (1) entering and exiting lane on Middle Fork Street by Year 2032.

Project Improvement Recommendations:

- **Waterton Road at Snake River Street:** Construct a separate right-turn lane on Waterton Road
- **Butte Creek Street:** Extend to school access
- **Middle Fork Street:** Extend to temporary school access
- **Implement the proposed circulation plan** with adequate stacking and access

Appendix:

Level of Service Definitions

Traffic Count Data Sheets

Intersection Capacity Worksheets

Level of Service Definitions

LEVEL OF SERVICE DEFINITIONS

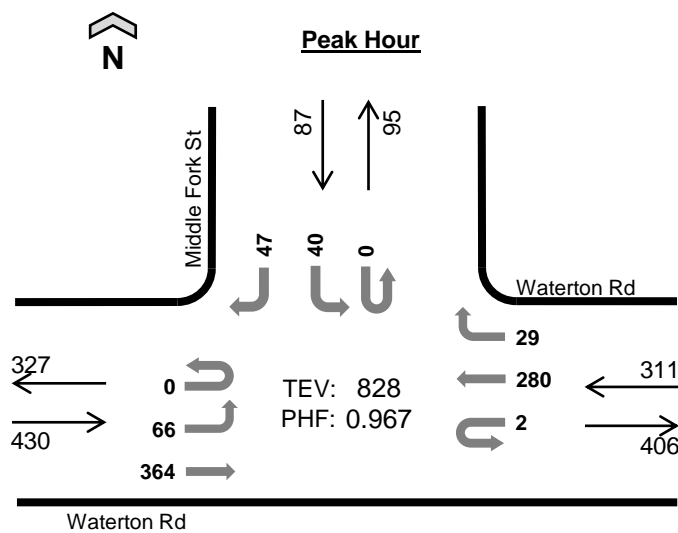
In rating roadway and intersection operating conditions with existing or future traffic volumes, “Levels of Service” (LOS) A through F are used, with LOS A indicating very good operation and LOS F indicating poor operation. Levels of service at signalized and unsignalized intersections are closely associated with vehicle delays experienced in seconds per vehicle. More complete level of service definitions and delay data for signal and stop sign controlled intersections are contained in the following table for reference.

Level of Service Rating	Delay in seconds per vehicle (a)		Definition
	Signalized	Unsignalized	
A	0.0 to 10.0	0.0 to 10.0	Low vehicular traffic volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within the traffic stream. Drivers are able to maintain their desired speeds with little or no delay.
B	10.1 to 20.0	10.1 to 15.0	Stable vehicular traffic volume flow with potential for some restriction of operating speeds due to traffic conditions. Vehicle maneuvering is only slightly restricted. The stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	20.1 to 35.0	15.1 to 25.0	Stable traffic operations, however the ability for vehicles to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail, but adverse signal coordination or longer vehicle queues cause delays along the corridor.
D	35.1 to 55.0	25.1 to 35.0	Approaching unstable vehicular traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in ability to maneuver and selection of travel speeds due to congestion. Driver comfort and convenience are low, but tolerable.
E	55.1 to 80.0	35.1 to 50.0	Traffic operations characterized by significant approach delays and average travel speeds of one-half to one-third the free flow speed. Vehicular flow is unstable and there is potential for stoppages of brief duration. High signal density, extensive vehicle queuing, or corridor signal progression/timing are the typical causes of vehicle delays at signalized corridors.
F	> 80.0	> 50.0	Forced vehicular traffic flow and operations with high approach delays at critical intersections. Vehicle speeds are reduced substantially, and stoppages may occur for short or long periods of time because of downstream congestion.

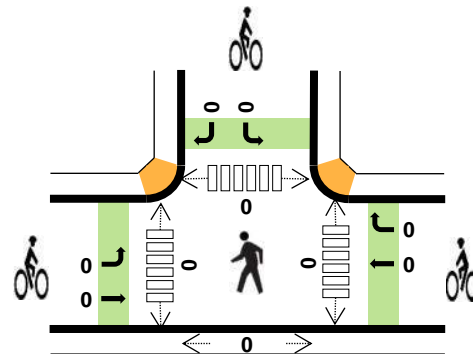
(a) Delay ranges based on Highway Capacity Manual (6th Edition, 2016) criteria.

Traffic Count Data Sheets

Middle Fork St Waterton Rd



Date: 12/17/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV%	PHF
EB	1%	0.97
WB	2%	0.86
NB	--	--
SB	3%	0.68
TOTAL	2%	0.97

Peak Hour Count Summaries

Peak Hour Interval Start		Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	18	87	0	0	0	66	9	0	0	0	0	0	10	0	7	197	0
4:15 PM		0	16	95	0	0	0	66	8	0	0	0	0	0	10	0	14	209	0
4:30 PM		0	17	87	0	2	0	81	7	0	0	0	0	0	3	0	11	208	0
4:45 PM		0	15	95	0	0	0	67	5	0	0	0	0	0	17	0	15	214	828
Pk Hr	All	0	66	364	0	2	0	280	29	0	0	0	0	0	40	0	47	828	
	HV	0	1	5	0	0	0	3	3	0	0	0	0	0	3	0	0	15	
	HV%	-	2%	1%	-	0%	-	1%	10%	-	-	-	-	-	8%	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	5	0	0	2	7	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
Peak Hour	6	6	0	3	15	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles																			
Interval Start		Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	18	87	0	0	0	66	9	0	0	0	0	0	10	0	7	197	0
4:15 PM		0	16	95	0	0	0	66	8	0	0	0	0	0	10	0	14	209	0
4:30 PM		0	17	87	0	2	0	81	7	0	0	0	0	0	3	0	11	208	0
4:45 PM		0	15	95	0	0	0	67	5	0	0	0	0	0	17	0	15	214	828
5:00 PM		0	13	88	0	0	0	56	6	0	0	0	0	0	11	0	13	187	818
5:15 PM		0	20	81	0	0	0	66	13	0	0	0	0	0	8	0	10	198	807
5:30 PM		0	24	81	0	0	0	42	9	0	0	0	0	0	9	0	14	179	778
5:45 PM		0	19	55	0	0	0	50	5	0	0	0	0	0	6	0	14	149	713
Count Total		0	142	669	0	2	0	494	62	0	0	0	0	0	74	0	98	1,541	
Pk Hr	All	0	66	364	0	2	0	280	29	0	0	0	0	0	40	0	47	828	
	HV	0	1	5	0	0	0	3	3	0	0	0	0	0	3	0	0	15	
	HV%	-	2%	1%	-	0%	-	1%	10%	-	-	-	-	-	8%	-	0%	2%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	5	0	0	2	7	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	2	3	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	1	0	2	4	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	3	4	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	1	0	1	4	0	0	0	0	0	0	0	0	0	0
Count Total	11	8	0	11	30	0	0	0	0	0	0	0	0	0	0
Peak Hour	6	6	0	3	15	0	0	0	0	0	0	0	0	0	0

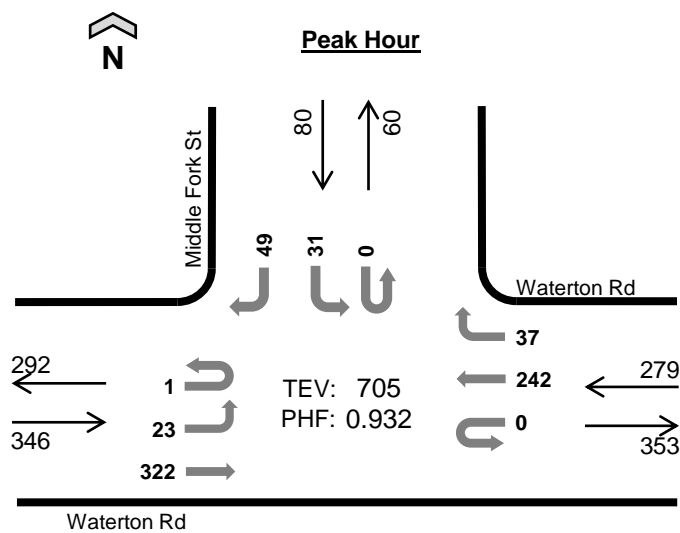
Count Summaries - Heavy Vehicles

Interval Start	Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	4	0	0	0	0	0	0	0	0	0	0	2	0	0	7	0
4:15 PM	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	15
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	3	11
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	4	12
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	4	13
5:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0	4	15
Count Total	0	2	9	0	0	0	5	3	0	0	0	0	0	11	0	0	30	
Pk Hr Heavy	0	1	5	0	0	0	3	3	0	0	0	0	0	3	0	0	15	

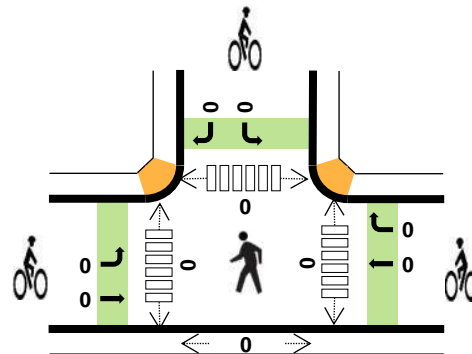
Count Summaries - Bikes

Interval Start	Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Middle Fork St Waterton Rd



Date: 12/17/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV%	PHF
EB	2%	0.84
WB	2%	0.77
NB	--	--
SB	3%	0.87
TOTAL	2%	0.93

Peak Hour Count Summaries

Peak Hour Interval Start		Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	5	98	0	0	0	40	9	0	0	0	0	0	9	0	11	172	0
7:15 AM		0	3	75	0	0	0	59	12	0	0	0	0	0	8	0	10	167	0
7:30 AM		1	4	74	0	0	0	79	12	0	0	0	0	0	7	0	12	189	0
7:45 AM		0	11	75	0	0	0	64	4	0	0	0	0	0	7	0	16	177	705
Pk Hr	All	1	23	322	0	0	0	242	37	0	0	0	0	0	31	0	49	705	
	HV	0	3	4	0	0	0	4	1	0	0	0	0	0	2	0	0	14	
	HV%	0%	13%	1%	-	-	-	2%	3%	-	-	-	-	-	6%	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
7:45 AM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0
Peak Hour	7	5	0	2	14	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	5	98	0	0	0	40	9	0	0	0	0	0	9	0	11	172	0
7:15 AM		0	3	75	0	0	0	59	12	0	0	0	0	0	8	0	10	167	0
7:30 AM		1	4	74	0	0	0	79	12	0	0	0	0	0	7	0	12	189	0
7:45 AM		0	11	75	0	0	0	64	4	0	0	0	0	0	7	0	16	177	705
8:00 AM		1	13	63	0	0	0	57	3	0	0	0	0	0	8	0	16	161	694
8:15 AM		0	6	67	0	0	0	52	13	0	0	0	0	0	19	0	21	178	705
8:30 AM		0	8	41	0	0	0	57	13	0	0	0	0	0	7	0	23	149	665
8:45 AM		0	21	59	0	0	0	44	14	0	0	0	0	0	4	0	26	168	656
Count Total		2	71	552	0	0	0	452	80	0	0	0	0	0	69	0	135	1,361	
Pk Hr	All	1	23	322	0	0	0	242	37	0	0	0	0	0	31	0	49	705	
	HV	0	3	4	0	0	0	4	1	0	0	0	0	0	2	0	0	14	
	HV%	0%	13%	1%	-	-	-	2%	3%	-	-	-	-	-	6%	-	0%	2%	

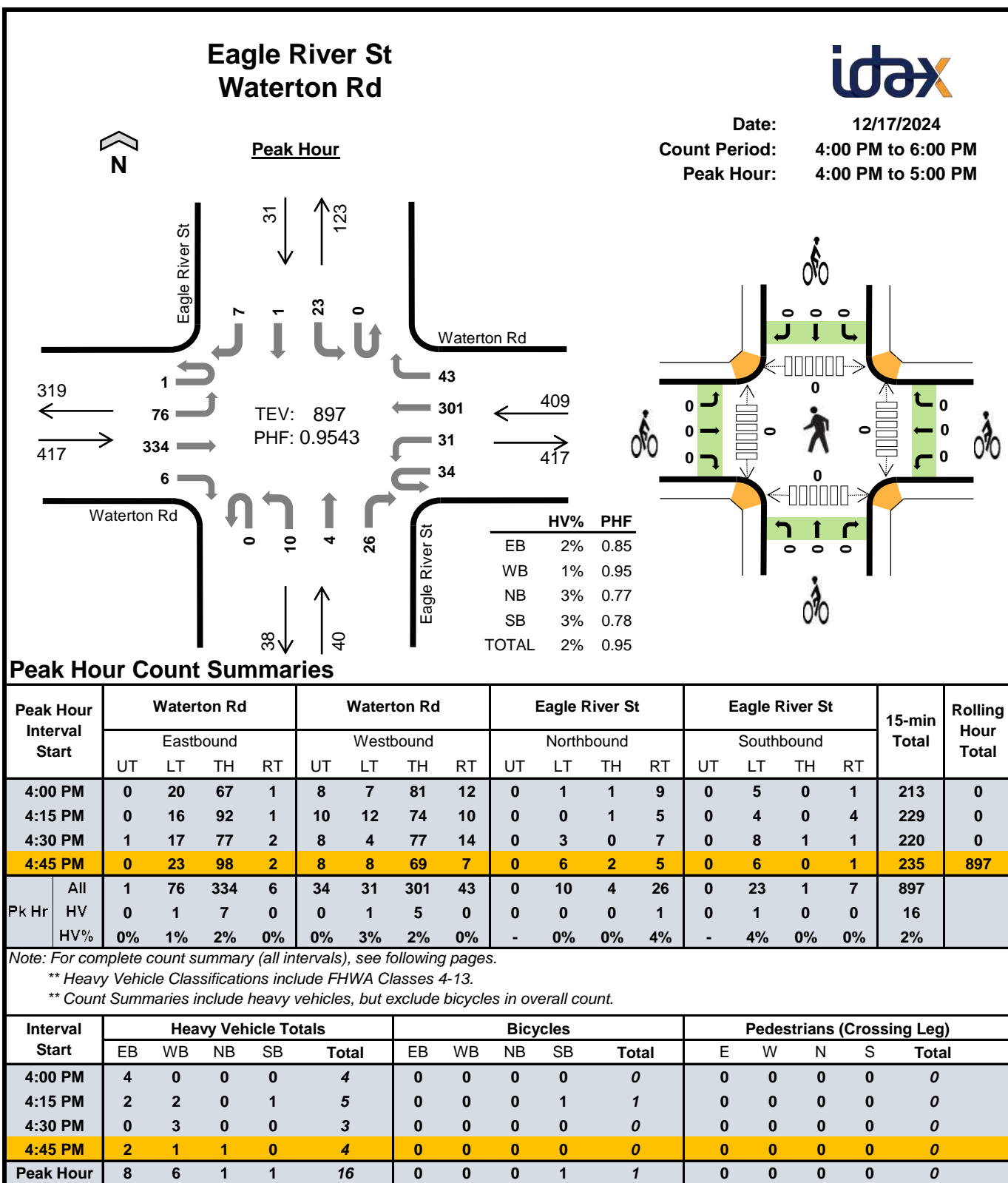
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
7:45 AM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0
8:00 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
8:30 AM	4	2	0	1	7	0	0	0	0	0	0	0	0	0	0
8:45 AM	4	1	0	2	7	0	0	0	0	0	0	0	0	0	0
Count Total	19	10	0	5	34	0	0	0	0	0	0	0	0	0	0
Peak Hour	7	5	0	2	14	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0
7:30 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0
7:45 AM	0	3	2	0	0	0	2	1	0	0	0	0	0	0	0	0	8	14
8:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
8:15 AM	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3	18
8:30 AM	0	1	3	0	0	0	2	0	0	0	0	0	0	0	0	1	7	21
8:45 AM	0	0	4	0	0	0	0	1	0	0	0	0	0	0	0	2	7	20
Count Total	0	6	13	0	0	0	7	3	0	0	0	0	0	2	0	3	34	
Pk Hr Heavy	0	3	4	0	0	0	4	1	0	0	0	0	0	2	0	0	14	

Count Summaries - Bikes

Interval Start	Waterton Rd				Waterton Rd				n/a				Middle Fork St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		



Count Summaries - All Vehicles

Interval Start		Waterton Rd				Waterton Rd				Eagle River St				Eagle River St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	20	67	1	8	7	81	12	0	1	1	9	0	5	0	1	213	0
4:15 PM		0	16	92	1	10	12	74	10	0	0	1	5	0	4	0	4	229	0
4:30 PM		1	17	77	2	8	4	77	14	0	3	0	7	0	8	1	1	220	0
4:45 PM		0	23	98	2	8	8	69	7	0	6	2	5	0	6	0	1	235	897
5:00 PM		0	18	78	2	5	7	56	9	0	5	1	7	0	9	0	0	197	881
5:15 PM		0	15	66	4	8	8	73	11	0	2	1	12	0	7	1	1	209	861
5:30 PM		0	14	71	2	10	8	53	10	0	1	1	11	0	4	0	1	186	827
5:45 PM		0	10	56	0	1	7	56	8	0	0	0	4	0	13	0	5	160	752
Count Total		1	133	605	14	58	61	539	81	0	18	7	60	0	56	2	14	1,649	
Pk Hr	All	1	76	334	6	34	31	301	43	0	10	4	26	0	23	1	7	897	
	HV	0	1	7	0	0	1	5	0	0	0	0	1	0	1	0	0	16	
	HV%	0%	1%	2%	0%	0%	3%	2%	0%	-	0%	0%	4%	-	4%	0%	0%	2%	

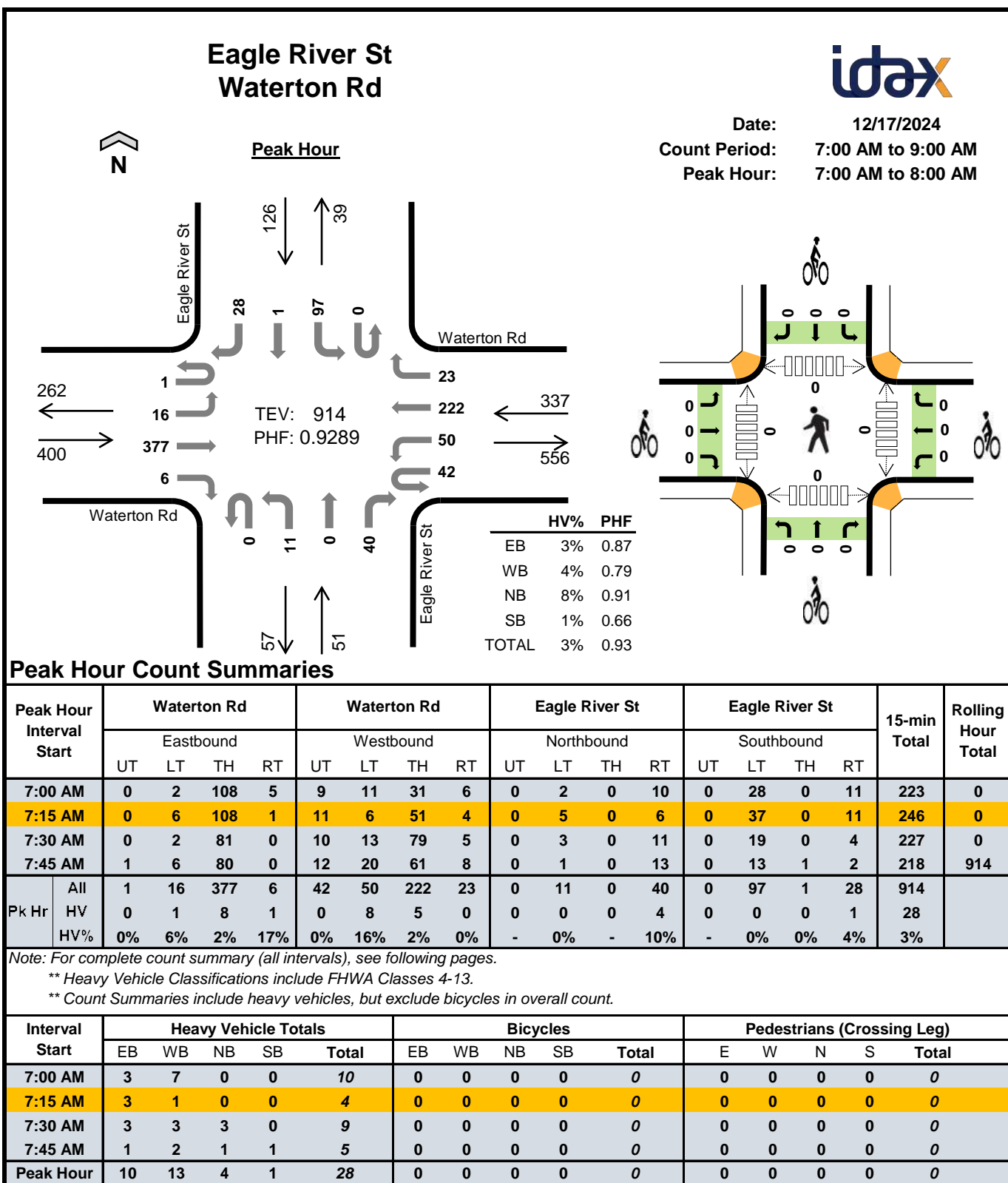
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0
4:15 PM	2	2	0	1	5	0	0	0	1	1	0	0	0	0	0
4:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
4:45 PM	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	1	0	3	0	0	0	1	1	0	0	0	0	0
5:15 PM	2	0	1	0	3	0	0	0	0	0	0	0	1	0	1
5:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	1	1	3	7	0	0	0	0	0	0	0	0	0	0
Count Total	14	9	4	4	31	0	0	0	2	2	0	0	1	0	1
Peak Hour	8	6	1	1	16	0	0	0	1	1	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	Waterton Rd				Waterton Rd				Eagle River St				Eagle River St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
4:15 PM	0	0	2	0	0	1	1	0	0	0	0	0	0	1	0	0	5	0
4:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0
4:45 PM	0	0	2	0	0	0	1	0	0	0	0	1	0	0	0	0	4	16
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	3	15
5:15 PM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3	13
5:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	12
5:45 PM	0	0	2	0	0	0	1	0	0	0	0	1	0	3	0	0	7	15
Count Total	0	1	13	0	0	1	8	0	0	0	1	3	0	4	0	0	31	
Pk Hr Heavy	0	1	7	0	0	1	5	0	0	0	0	1	0	1	0	0	16	

Count Summaries - Bikes

Interval Start	Waterton Rd				Waterton Rd				Eagle River St				Eagle River St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	



Count Summaries - All Vehicles

Interval Start		Waterton Rd				Waterton Rd				Eagle River St				Eagle River St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	2	108	5	9	11	31	6	0	2	0	10	0	28	0	11	223	0
7:15 AM		0	6	108	1	11	6	51	4	0	5	0	6	0	37	0	11	246	0
7:30 AM		0	2	81	0	10	13	79	5	0	3	0	11	0	19	0	4	227	0
7:45 AM		1	6	80	0	12	20	61	8	0	1	0	13	0	13	1	2	218	914
8:00 AM		0	4	53	3	13	9	54	10	0	3	1	6	0	14	2	2	174	865
8:15 AM		0	7	87	0	13	6	61	5	0	0	0	8	0	21	0	2	210	829
8:30 AM		0	6	43	0	10	7	71	4	0	1	0	3	1	8	0	2	156	758
8:45 AM		0	6	55	0	11	12	53	7	0	5	1	6	0	14	0	3	173	713
Count Total		1	39	615	9	89	84	461	49	0	20	2	63	1	154	3	37	1,627	
Pk Hr	All	1	16	377	6	42	50	222	23	0	11	0	40	0	97	1	28	914	
	HV	0	1	8	1	0	8	5	0	0	0	0	4	0	0	0	1	28	
	HV%	0%	6%	2%	17%	0%	16%	2%	0%	-	0%	-	10%	-	0%	0%	4%	3%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	3	7	0	0	10	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	3	3	0	9	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	2	1	1	5	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	2	2	1	5	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	2	1	4	0	0	0	0	0	0	0	0	0	0
8:30 AM	3	2	0	1	6	0	0	0	0	0	0	0	0	0	0
8:45 AM	3	0	2	0	5	0	0	0	0	0	0	0	1	0	1
Count Total	16	18	10	4	48	0	0	0	0	0	0	0	1	0	1
Peak Hour	10	13	4	1	28	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	Waterton Rd				Waterton Rd				Eagle River St				Eagle River St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	2	1	0	6	1	0	0	0	0	0	0	0	0	0	10	0
7:15 AM	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0
7:30 AM	0	0	3	0	0	1	2	0	0	0	0	3	0	0	0	0	9	0
7:45 AM	0	0	1	0	0	0	2	0	0	0	0	1	0	0	0	1	5	28
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	2	0	0	1	0	5	23
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	0	4	23
8:30 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	1	0	0	6	20
8:45 AM	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	5	20
Count Total	0	1	14	1	0	9	9	0	0	0	0	10	0	2	1	1	48	
Pk Hr Heavy	0	1	8	1	0	8	5	0	0	0	0	4	0	0	0	1	28	

Count Summaries - Bikes







Interval Start	Waterton Rd				Waterton Rd				Eagle River St				Eagle River St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Location: Waterton Rd W/O Eagle River St
 Date Range: 12/17/2024 - 12/23/2024
 Site Code: 01

Time	Tuesday 12/17/2024			Wednesday 12/18/2024			Thursday 12/19/2024			Friday 12/20/2024			Saturday 12/21/2024			Sunday 12/22/2024			Monday 12/23/2024			Mid-Week Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	4	11	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	11	15
1:00 AM	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	5
2:00 AM	4	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	8
3:00 AM	4	9	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	9	13
4:00 AM	12	23	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	23	35
5:00 AM	33	89	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	89	122
6:00 AM	193	171	364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193	171	364
7:00 AM	388	276	664	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	388	276	664
8:00 AM	266	260	526	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	266	260	526
9:00 AM	219	183	402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	219	183	402
10:00 AM	238	167	405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	167	405
11:00 AM	228	183	411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	228	183	411
12:00 PM	261	235	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261	235	496
1:00 PM	230	201	431	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	230	201	431
2:00 PM	285	189	474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	285	189	474
3:00 PM	374	305	679	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	374	305	679
4:00 PM	403	313	716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	403	313	716
5:00 PM	329	254	583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	329	254	583
6:00 PM	187	187	374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	187	187	374
7:00 PM	116	151	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	151	267
8:00 PM	58	110	168	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58	110	168
9:00 PM	32	77	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	77	109
10:00 PM	24	39	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	39	63
11:00 PM	13	15	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	15	28
Total	3,902	3,456	7,358	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,902	3,456	7,358
Percent	53%	47%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53%	47%	
AM Peak	07:00	07:00	07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	07:00	07:00	07:00
Vol.	388	276	664	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	388	276	664
PM Peak	16:00	16:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16:00	16:00	16:00
Vol.	403	313	716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	403	313	716

1. Mid-week average includes data between Tuesday and Thursday.





Intersection Capacity Worksheets: Existing

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	359	242	37	31	49
Future Vol, veh/h	24	359	242	37	31	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	245	-	-	0	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	77	77	87	87
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	29	427	314	48	36	56

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	362	0	0 585 314
Stage 1	-	-	- 314 -
Stage 2	-	-	- 271 -
Critical Hdwy	4.13	-	- 6.645 6.245
Critical Hdwy Stg 1	-	-	- 5.445 -
Critical Hdwy Stg 2	-	-	- 5.845 -
Follow-up Hdwy	2.219	-	- 3.5285 3.3285
Pot Cap-1 Maneuver	1195	-	- 455 723
Stage 1	-	-	- 737 -
Stage 2	-	-	- 748 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1195	-	- 444 723
Mov Cap-2 Maneuver	-	-	- 444 -
Stage 1	-	-	- 719 -
Stage 2	-	-	- 748 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.51	0	11.72
HCM LOS			B









Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1195	-	-	-	444	723
HCM Lane V/C Ratio	0.024	-	-	-	0.08	0.078
HCM Ctrl Dly (s/v)	8.1	-	-	-	13.8	10.4
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.3

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	37	363	10	15	279
Future Vol, veh/h	0	37	363	10	15	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	417	11	19	353

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	214	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	791	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	791	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.81	0	0.42
HCM LOS	A		







Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	791	1127
HCM Lane V/C Ratio	-	-	0.054	0.017
HCM Ctrl Dly (s/v)	-	-	9.8	8.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection												
Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	377	6	92	245	23	11	0	40	97	1	28
Future Vol, veh/h	17	377	6	92	245	23	11	0	40	97	1	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	-	285	-	-	85	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	79	79	79	91	91	91	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	433	7	116	310	29	12	0	44	147	2	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	339	0	0	440	0	0	865	1048	220	813	1037	170
Stage 1	-	-	-	-	-	-	476	476	-	558	558	-
Stage 2	-	-	-	-	-	-	389	572	-	256	479	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1217	-	-	1116	-	-	248	226	784	270	230	845
Stage 1	-	-	-	-	-	-	539	555	-	482	510	-
Stage 2	-	-	-	-	-	-	607	502	-	726	553	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1217	-	-	1116	-	-	206	200	784	225	203	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	206	200	-	225	203	-
Stage 1	-	-	-	-	-	-	530	546	-	432	457	-
Stage 2	-	-	-	-	-	-	514	450	-	675	544	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.34	2.2	12.82	38.53
HCM LOS			B	E





Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	206	784	1217	-	-	1116	-	-	225	761
HCM Lane V/C Ratio	0.059	0.056	0.016	-	-	0.104	-	-	0.655	0.058
HCM Ctrl Dly (s/v)	23.6	9.9	8	-	-	8.6	-	-	47.1	10
HCM Lane LOS	C	A	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.2	0.2	0	-	-	0.3	-	-	4	0.2

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	294	224	23	32	38
Future Vol, veh/h	53	294	224	23	32	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	245	-	-	0	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	86	86	68	68
Heavy Vehicles, %	1	1	2	2	3	3
Mvmt Flow	55	303	260	27	47	56

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	287	0	0 521 260
Stage 1	-	-	- 260 -
Stage 2	-	-	- 261 -
Critical Hdwy	4.115	-	- 6.645 6.245
Critical Hdwy Stg 1	-	-	- 5.445 -
Critical Hdwy Stg 2	-	-	- 5.845 -
Follow-up Hdwy	2.2095	-	- 3.5285 3.3285
Pot Cap-1 Maneuver	1280	-	- 498 775
Stage 1	-	-	- 780 -
Stage 2	-	-	- 757 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1280	-	- 477 775
Mov Cap-2 Maneuver	-	-	- 477 -
Stage 1	-	-	- 746 -
Stage 2	-	-	- 757 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.21	0	11.55
HCM LOS			B









Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1280	-	-	-	477	775
HCM Lane V/C Ratio	0.043	-	-	-	0.099	0.072
HCM Ctrl Dly (s/v)	7.9	-	-	-	13.4	10
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.2

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	322	4	6	249
Future Vol, veh/h	0	12	322	4	6	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	91	91	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	354	4	7	277

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	179	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	833	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	833	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.4	0	0.19
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	833	1197
HCM Lane V/C Ratio	-	-	0.019	0.006
HCM Ctrl Dly (s/v)	-	-	9.4	8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0







Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	267	5	52	241	34	8	3	21	18	1	6
Future Vol, veh/h	62	267	5	52	241	34	8	3	21	18	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	-	285	-	-	85	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	95	95	95	77	77	77	78	78	78
Heavy Vehicles, %	2	2	2	1	1	1	3	3	3	3	3	3
Mvmt Flow	73	314	6	55	254	36	10	4	27	23	1	8





Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	289	0	0	320	0	0	700	862	160	686	847	145
Stage 1	-	-	-	-	-	-	463	463	-	381	381	-
Stage 2	-	-	-	-	-	-	237	399	-	305	466	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.22	-	-	2.21	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	1269	-	-	1244	-	-	324	290	854	332	295	873
Stage 1	-	-	-	-	-	-	546	560	-	610	609	-
Stage 2	-	-	-	-	-	-	742	598	-	677	558	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1269	-	-	1244	-	-	288	261	854	285	266	873
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	261	-	285	266	-
Stage 1	-	-	-	-	-	-	514	528	-	583	582	-
Stage 2	-	-	-	-	-	-	702	572	-	613	526	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.49	1.28	12.5	16.43
HCM LOS			B	C







Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	288	665	1269	-	-	1244	-	-	285	659
HCM Lane V/C Ratio	0.036	0.047	0.057	-	-	0.044	-	-	0.081	0.014
HCM Ctrl Dly (s/v)	18	10.7	8	-	-	8	-	-	18.7	10.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	0.1	0.2	-	-	0.1	-	-	0.3	0

Intersection Capacity Worksheets: 2026 Background

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	392	289	54	100	81
Future Vol, veh/h	34	392	289	54	100	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	245	-	-	0	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	77	77	87	87
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	40	467	375	70	115	93
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	445	0	-	0	690	375
Stage 1	-	-	-	-	375	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	4.13	-	-	-	6.645	6.245
Critical Hdwy Stg 1	-	-	-	-	5.445	-
Critical Hdwy Stg 2	-	-	-	-	5.845	-
Follow-up Hdwy	2.219	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	1113	-	-	-	393	668
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	712	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1113	-	-	-	379	668
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	712	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.67	0		15.31		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1113	-	-	-	379	668
HCM Lane V/C Ratio	0.036	-	-	-	0.303	0.139
HCM Ctrl Dly (s/v)	8.4	-	-	-	18.6	11.3
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3	0.5

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	464	11	16	343
Future Vol, veh/h	0	39	464	11	16	343
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	533	13	20	434
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	273	0	0	546	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	725	-	-	1019	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	725	-	-	1019	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	10.3	0		0.38		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	725	1019	-	
HCM Lane V/C Ratio	-	-	0.062	0.02	-	
HCM Ctrl Dly (s/v)	-	-	10.3	8.6	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	





Intersection						
Intersection Delay, s/veh	5.6					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	579		542		61	226
Demand Flow Rate, veh/h	590		553		62	231
Vehicles Circulating, veh/h	308		34		769	532
Vehicles Exiting, veh/h	455		797		129	55
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	6.2		4.5		5.8	6.7
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	277	313	260	293	62	231
Cap Entry Lane, veh/h	1017	1093	1308	1380	739	903
Entry HV Adj Factor	0.982	0.980	0.980	0.981	0.984	0.978
Flow Entry, veh/h	272	307	255	287	61	226
Cap Entry, veh/h	999	1071	1282	1353	727	884
V/C Ratio	0.272	0.286	0.199	0.212	0.084	0.256
Control Delay, s/veh	6.3	6.1	4.5	4.4	5.8	6.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0	1

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	81	335	287	68	66	55
Future Vol, veh/h	81	335	287	68	66	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	245	-	-	0	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	86	86	68	68
Heavy Vehicles, %	1	1	2	2	3	3
Mvmt Flow	84	345	334	79	97	81

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	413	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.115	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2095	-	-
Pot Cap-1 Maneuver	1151	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1151	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.63	0	14.72
HCM LOS	B		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1151	-	-	-	373	705
HCM Lane V/C Ratio	0.073	-	-	-	0.26	0.115
HCM Ctrl Dly (s/v)	8.4	-	-	-	18	10.8
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1	0.4

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	395	6	8	357
Future Vol, veh/h	0	13	395	6	8	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	91	91	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	434	7	9	397
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	220	0	0	441	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	784	-	-	1116	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	784	-	-	1116	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	9.7	0		0.18		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	784	1116	-	
HCM Lane V/C Ratio	-	-	0.022	0.008	-	
HCM Ctrl Dly (s/v)	-	-	9.7	8.3	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Intersection Delay, s/veh	4.5					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	480		477		46	49
Demand Flow Rate, veh/h	489		483		47	50
Vehicles Circulating, veh/h	101		90		524	443
Vehicles Exiting, veh/h	392		481		66	130
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	4.5		4.5		4.5	4.2
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	230	259	227	256	47	50
Cap Entry Lane, veh/h	1230	1303	1243	1316	910	974
Entry HV Adj Factor	0.981	0.982	0.988	0.988	0.976	0.979
Flow Entry, veh/h	226	254	224	253	46	49
Cap Entry, veh/h	1206	1280	1228	1300	888	954
V/C Ratio	0.187	0.199	0.183	0.195	0.052	0.051
Control Delay, s/veh	4.6	4.5	4.5	4.4	4.5	4.2
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0	0

Intersection Capacity Worksheets: 2032 Background

Intersection					
Intersection Delay, s/veh	5.0				
Intersection LOS	A				
Approach	EB		WB		SB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	573		479		235
Demand Flow Rate, veh/h	585		489		242
Vehicles Circulating, veh/h	140		44		409
Vehicles Exiting, veh/h	511		681		124
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	5.1		4.3		6.1
Approach LOS	A		A		A
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	275	310	230	259	242
Cap Entry Lane, veh/h	1187	1261	1296	1368	1003
Entry HV Adj Factor	0.980	0.980	0.979	0.980	0.971
Flow Entry, veh/h	269	304	225	254	235
Cap Entry, veh/h	1163	1236	1269	1341	974
V/C Ratio	0.232	0.246	0.177	0.189	0.241
Control Delay, s/veh	5.2	5.1	4.3	4.3	6.1
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	39	535	11	16	369
Future Vol, veh/h	0	39	535	11	16	369
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	615	13	20	467

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	314	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	682	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	682	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.65	0	0.37
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	682	950
HCM Lane V/C Ratio	-	-	0.066	0.021
HCM Ctrl Dly (s/v)	-	-	10.6	8.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection						
Intersection Delay, s/veh	6.3					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	660		579		61	274
Demand Flow Rate, veh/h	673		590		62	280
Vehicles Circulating, veh/h	357		34		901	565
Vehicles Exiting, veh/h	488		929		129	59
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	7.1		4.6		6.6	7.7
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.469	0.531	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	316	357	277	313	62	280
Cap Entry Lane, veh/h	972	1048	1308	1380	660	878
Entry HV Adj Factor	0.982	0.980	0.982	0.980	0.984	0.978
Flow Entry, veh/h	310	350	272	307	61	274
Cap Entry, veh/h	955	1028	1284	1352	650	860
V/C Ratio	0.325	0.341	0.212	0.227	0.094	0.319
Control Delay, s/veh	7.2	7.0	4.6	4.6	6.6	7.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	2	1	1	0	1

Intersection					
Intersection Delay, s/veh	4.7				
Intersection LOS	A				
Approach	EB		WB		SB
Entry Lanes	2		2		1
Conflicting Circle Lanes	2		2		2
Adj Approach Flow, veh/h	461		486		196
Demand Flow Rate, veh/h	466		496		202
Vehicles Circulating, veh/h	115		89		396
Vehicles Exiting, veh/h	483		492		189
Ped Vol Crossing Leg, #/h	0		0		0
Ped Cap Adj	1.000		1.000		1.000
Approach Delay, s/veh	4.5		4.5		5.6
Approach LOS	A		A		A
Lane	Left	Right	Left	Right	Left
Designated Moves	LT	TR	LT	TR	LR
Assumed Moves	LT	TR	LT	TR	LR
RT Channelized					
Lane Util	0.470	0.530	0.470	0.530	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	219	247	233	263	202
Cap Entry Lane, veh/h	1214	1288	1244	1317	1014
Entry HV Adj Factor	0.990	0.990	0.981	0.980	0.970
Flow Entry, veh/h	217	244	229	258	196
Cap Entry, veh/h	1202	1275	1220	1290	984
V/C Ratio	0.180	0.192	0.187	0.200	0.199
Control Delay, s/veh	4.6	4.5	4.6	4.5	5.6
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Vol, veh/h	0	13	432	6	8	420
Future Vol, veh/h	0	13	432	6	8	420
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	91	91	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	475	7	9	467










Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	241	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	760	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	760	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.84	0	0.16
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	760	1078
HCM Lane V/C Ratio	-	-	0.022	0.008
HCM Ctrl Dly (s/v)	-	-	9.8	8.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Intersection Delay, s/veh	4.8					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	524		553		46	69
Demand Flow Rate, veh/h	534		559		47	71
Vehicles Circulating, veh/h	122		90		590	510
Vehicles Exiting, veh/h	459		547		66	139
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	4.8		4.7		4.8	4.7
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	251	283	263	296	47	71
Cap Entry Lane, veh/h	1207	1280	1243	1316	860	921
Entry HV Adj Factor	0.981	0.982	0.988	0.990	0.976	0.971
Flow Entry, veh/h	246	278	260	293	46	69
Cap Entry, veh/h	1184	1257	1227	1302	840	894
V/C Ratio	0.208	0.221	0.212	0.225	0.055	0.077
Control Delay, s/veh	4.9	4.8	4.8	4.7	4.8	4.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0	0

Intersection Capacity Worksheets: Year 2026 Project

Intersection												
Int Delay, s/veh	12.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	493	0	0	289	54	93	24	96	126	0	81
Future Vol, veh/h	34	493	0	0	289	54	93	24	96	126	0	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	245	-	-	250	-	0	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	77	77	77	80	80	80	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	3	2	3
Mvmt Flow	40	587	0	0	375	70	116	30	120	145	0	93

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	445	0	0	587	0	0	1043	1113	293	765	1043	375
Stage 1	-	-	-	-	-	-	668	668	-	375	375	-
Stage 2	-	-	-	-	-	-	375	445	-	389	668	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.345	6.53	6.245
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.145	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.545	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.5285	4.019	3.3285
Pot Cap-1 Maneuver	1113	-	-	986	-	-	195	208	704	305	229	668
Stage 1	-	-	-	-	-	-	415	456	-	643	616	-
Stage 2	-	-	-	-	-	-	645	573	-	605	456	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1113	-	-	986	-	-	162	200	704	208	220	668
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	200	-	208	220	-
Stage 1	-	-	-	-	-	-	400	439	-	643	616	-
Stage 2	-	-	-	-	-	-	555	573	-	450	439	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.54	0	39.65	37.5
HCM LOS			E	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	162	468	1113	-	-	986	-	-	208	668
HCM Lane V/C Ratio	0.719	0.32	0.036	-	-	-	-	-	0.696	0.139
HCM Ctrl Dly (s/v)	69.8	16.3	8.4	-	-	0	-	-	54.4	11.3
HCM Lane LOS	F	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	4.3	1.4	0.1	-	-	0	-	-	4.4	0.5










Intersection						
Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗	↗	↗↗
Traffic Vol, veh/h	0	128	560	138	187	343
Future Vol, veh/h	0	128	560	138	187	343
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	250	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	87	70	70	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	183	644	197	267	434

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	322	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	674	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	674	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.32	0	4.52
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	674	790
HCM Lane V/C Ratio	-	-	0.271	0.338
HCM Ctrl Dly (s/v)	-	-	12.3	11.9
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	1.1	1.5

Intersection						
Intersection Delay, s/veh	7.4					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	791		711		61	326
Demand Flow Rate, veh/h	807		726		62	333
Vehicles Circulating, veh/h	347		105		986	705
Vehicles Exiting, veh/h	691		943		168	126
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	7.9		5.5		7.1	10.3
Approach LOS	A		A		A	B
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	379	428	341	385	62	333
Cap Entry Lane, veh/h	981	1057	1226	1299	614	780
Entry HV Adj Factor	0.981	0.980	0.980	0.979	0.984	0.978
Flow Entry, veh/h	372	419	334	377	61	326
Cap Entry, veh/h	962	1036	1202	1272	604	763
V/C Ratio	0.386	0.405	0.278	0.296	0.101	0.427
Control Delay, s/veh	8.0	7.8	5.5	5.5	7.1	10.3
LOS	A	A	A	A	A	B
95th %tile Queue, veh	2	2	1	1	0	2

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	402	0	2	287	68	69	18	71	83	0	55
Future Vol, veh/h	81	402	0	2	287	68	69	18	71	83	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	245	-	-	250	-	0	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	92	92	86	86	80	80	80	68	92	68
Heavy Vehicles, %	1	1	2	2	2	2	2	2	2	3	2	3
Mvmt Flow	84	414	0	2	334	79	86	23	89	122	0	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	413	0	0	414	0	0	920	999	207	724	920	334
Stage 1	-	-	-	-	-	-	581	581	-	338	338	-
Stage 2	-	-	-	-	-	-	338	417	-	385	581	-
Critical Hdwy	4.115	-	-	4.13	-	-	7.33	6.53	6.93	7.345	6.53	6.245
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.145	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.545	5.53	-
Follow-up Hdwy	2.2095	-	-	2.219	-	-	3.519	4.019	3.319	3.5285	4.019	3.3285
Pot Cap-1 Maneuver	1151	-	-	1143	-	-	238	243	800	325	270	705
Stage 1	-	-	-	-	-	-	467	498	-	673	640	-
Stage 2	-	-	-	-	-	-	676	590	-	608	498	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1151	-	-	1143	-	-	195	225	800	243	250	705
Mov Cap-2 Maneuver	-	-	-	-	-	-	195	225	-	243	250	-
Stage 1	-	-	-	-	-	-	433	462	-	672	639	-
Stage 2	-	-	-	-	-	-	597	589	-	477	462	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.4	0.04	23.94	24.69
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	195	527	1151	-	-	1143	-	-	243	705
HCM Lane V/C Ratio	0.441	0.211	0.073	-	-	0.002	-	-	0.503	0.115
HCM Ctrl Dly (s/v)	37.2	13.6	8.4	-	-	8.2	-	-	33.9	10.8
HCM Lane LOS	E	B	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	2.1	0.8	0.2	-	-	0	-	-	2.6	0.4

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗	↗	↗↗
Traffic Vol, veh/h	0	77	466	90	119	357
Future Vol, veh/h	0	77	466	90	119	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	250	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	91	70	70	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	110	512	129	170	397

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	256	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	743	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	743	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.68	0	2.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	743	940
HCM Lane V/C Ratio	-	-	0.148	0.181
HCM Ctrl Dly (s/v)	-	-	10.7	9.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.7

Intersection						
Intersection Delay, s/veh	5.2					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	639		569		46	104
Demand Flow Rate, veh/h	652		575		47	107
Vehicles Circulating, veh/h	123		144		687	535
Vehicles Exiting, veh/h	519		590		88	184
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	5.3		5.1		5.2	5.3
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	306	346	270	305	47	107
Cap Entry Lane, veh/h	1205	1279	1182	1256	792	901
Entry HV Adj Factor	0.981	0.979	0.990	0.988	0.976	0.970
Flow Entry, veh/h	300	339	267	301	46	104
Cap Entry, veh/h	1183	1252	1170	1241	773	874
V/C Ratio	0.254	0.270	0.228	0.243	0.059	0.119
Control Delay, s/veh	5.3	5.3	5.1	5.0	5.2	5.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0	0

Intersection Capacity Worksheets: Year 2032 Project

Intersection						
Intersection Delay, s/veh	6.8					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	745		479		244	277
Demand Flow Rate, veh/h	760		489		249	285
Vehicles Circulating, veh/h	183		181		943	517
Vehicles Exiting, veh/h	619		1011		0	153
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	6.2		5.0		11.4	7.4
Approach LOS	A		A		B	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	357	403	230	259	249	285
Cap Entry Lane, veh/h	1141	1216	1143	1218	637	915
Entry HV Adj Factor	0.981	0.980	0.979	0.980	0.982	0.972
Flow Entry, veh/h	350	395	225	254	244	277
Cap Entry, veh/h	1119	1191	1119	1193	625	889
V/C Ratio	0.313	0.332	0.201	0.213	0.391	0.311
Control Delay, s/veh	6.2	6.2	5.0	4.9	11.4	7.4
LOS	A	A	A	A	B	A
95th %tile Queue, veh	1	1	1	1	2	1

Intersection						
Int Delay, s/veh	4.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗	↗	↗↗
Traffic Vol, veh/h	0	119	623	193	261	369
Future Vol, veh/h	0	119	623	193	261	369
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	250	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	70	87	70	70	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	170	716	276	373	467

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	358	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	638	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	638	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.67	0	7.14
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	638	693
HCM Lane V/C Ratio	-	-	0.266	0.538
HCM Ctrl Dly (s/v)	-	-	12.7	16.1
HCM Lane LOS	-	-	B	C
HCM 95th %tile Q(veh)	-	-	1.1	3.2

Intersection						
Intersection Delay, s/veh	9.1					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	853		821		61	416
Demand Flow Rate, veh/h	870		838		62	424
Vehicles Circulating, veh/h	412		99		1098	813
Vehicles Exiting, veh/h	825		1061		184	124
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	9.2		6.0		7.9	15.5
Approach LOS	A		A		A	C
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	409	461	394	444	62	424
Cap Entry Lane, veh/h	924	1000	1232	1305	558	711
Entry HV Adj Factor	0.980	0.980	0.980	0.980	0.984	0.980
Flow Entry, veh/h	401	452	386	435	61	416
Cap Entry, veh/h	905	981	1207	1280	549	697
V/C Ratio	0.443	0.461	0.320	0.340	0.111	0.596
Control Delay, s/veh	9.3	9.1	6.0	6.0	7.9	15.5
LOS	A	A	A	A	A	C
95th %tile Queue, veh	2	2	1	2	0	4

Intersection						
Intersection Delay, s/veh	5.9					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	527		488		256	221
Demand Flow Rate, veh/h	532		498		261	228
Vehicles Circulating, veh/h	143		232		673	511
Vehicles Exiting, veh/h	596		702		2	219
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	4.9		5.3		8.4	6.6
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	250	282	234	264	261	228
Cap Entry Lane, veh/h	1183	1258	1090	1166	801	920
Entry HV Adj Factor	0.990	0.990	0.981	0.980	0.982	0.969
Flow Entry, veh/h	248	279	229	259	256	221
Cap Entry, veh/h	1172	1245	1069	1143	787	891
V/C Ratio	0.211	0.224	0.215	0.226	0.326	0.248
Control Delay, s/veh	4.9	4.8	5.4	5.2	8.4	6.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1	1

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗	↗	↗↗
Traffic Vol, veh/h	0	97	525	87	117	420
Future Vol, veh/h	0	97	525	87	117	420
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	250	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	91	70	70	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	139	577	124	167	467
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	288	0	0	701	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	708	-	-	892	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	708	-	-	892	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	11.32	0		2.63		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	708		892	-	
HCM Lane V/C Ratio	-	0.196		0.187	-	
HCM Ctrl Dly (s/v)	-	11.3		10	-	
HCM Lane LOS	-	B		A	-	
HCM 95th %tile Q(veh)	-	0.7		0.7	-	

Intersection						
Intersection Delay, s/veh	5.7					
Intersection LOS	A					
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	2		2		2	2
Adj Approach Flow, veh/h	732		643		46	124
Demand Flow Rate, veh/h	747		650		47	128
Vehicles Circulating, veh/h	144		159		803	601
Vehicles Exiting, veh/h	585		691		88	208
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	5.9		5.5		5.8	5.9
Approach LOS	A		A		A	A
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.471	0.529	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	351	396	306	344	47	128
Cap Entry Lane, veh/h	1182	1256	1166	1241	718	852
Entry HV Adj Factor	0.981	0.980	0.987	0.991	0.976	0.967
Flow Entry, veh/h	344	388	302	341	46	124
Cap Entry, veh/h	1159	1231	1152	1229	700	824
V/C Ratio	0.297	0.315	0.262	0.277	0.066	0.150
Control Delay, s/veh	5.9	5.8	5.5	5.4	5.8	5.9
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	0	1

NCDOT School Stacking Calculator Worksheets

MSTA School Traffic Calculations

AM and PM Peak Traffic Estimates

(These numbers do not reflect peak hour traffic volumes)

School Name:

Type: **Private / Non-urban Charter**

Version: 04012021

MSTA School Queue Input					Calculations					
Grade Level	Student Population	Number of Buses	Staff Members	Student Drivers	PM Total Vehicles	PM Peak Vehicles	Average Queue Length	Total AM Trips	Total PM Trips	High Demand Length
Pre-K & K	50	1	7		20	10	222	56	40	30%
1-10	555	8	73		146	56	1232	481	292	289
11th										
12th										
Sum >>	605				166	66	1454	537	332	1890

Yes - If Pre-K & K students are provided parking spaces at or above their PM Peak Vehicles >>>>>>

436

	Pre-K & K								
	AM Trips Generated				PM Trips Generated				
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips	
IN	28			28	20			20	
OUT	28			28	20			20	
		AM Pre-K-K Trips		56			PM PK-K Trips		40

	1-10								
	AM Trips Generated				PM Trips Generated				
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips	
IN	241			241	146			146	
OUT	241			241	146			146	
		AM K-10 Trips		481			PM K-10 Trips		292

AM Trips Generated					PM Trips Generated				
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips	
IN									
OUT									
AM 11 Trips					PM 11 Trips				

AM Trips Generated					PM Trips Generated				
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips	
IN									
OUT									
AM 12 Trips					PM 12 Trips				

All AM TRIPS		
In		269
Out		269
Total		537

All PM TRIPS		
In		166
Out		166
Total		332

ADT
96
773
869

Calculated 5/24/2025 By: _____

MSTA School Traffic Calculations

AM and PM Peak Traffic Estimates

(These numbers do not reflect peak hour traffic volumes)

School Name:

Type: **Private / Non-urban Charter**

Version: 04012021

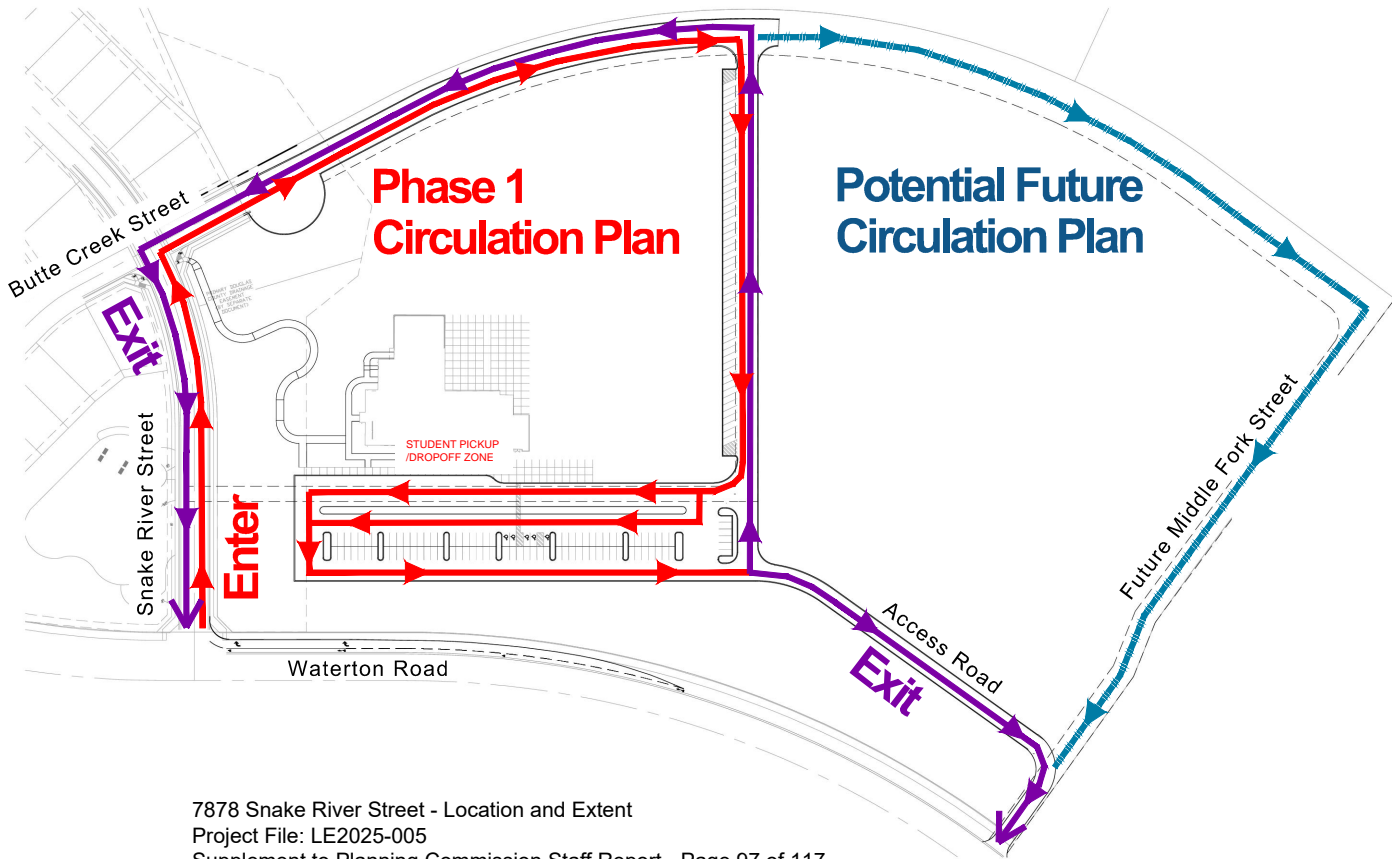
MSTA School Queue Input					Calculations					
Grade Level	Student Population	Number of Buses	Staff Members	Student Drivers	PM Total Vehicles	PM Peak Vehicles	Average Queue Length	Total AM Trips	Total PM Trips	High Demand Length
Pre-K & K	50	1	7		20	10	222	56	40	30%
1-10	730	10	96		192	73	1606	633	384	2088
11th	80	2	9	26	38	18	399	85	76	519
12th	80	1	8	68	39	22	502	80	78	653
Sum >>	940				289	123	2730	854	578	3549

Yes - If Pre-K & K students are provided parking spaces at or above their PM Peak Vehicles >>>>>>

819

Pre-K & K									ADT		
AM Trips Generated					PM Trips Generated						
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips			
IN	28			28	20			20			
OUT	28			28	20			20			
AM Pre-K-K Trips				56	PM PK-K Trips			40			
1-10									1017		
AM Trips Generated					PM Trips Generated						
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips			
IN	316			316	192			192			
OUT	316			316	192			192			
AM K-10 Trips				633	PM K-10 Trips			384			
11th										161	
AM Trips Generated					PM Trips Generated						
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips			
IN	42			42	38			38			
OUT	42			42	38			38			
AM 11 Trips				85	PM 11 Trips			76			
12th										158	
AM Trips Generated					PM Trips Generated						
Direction	Parents	Buses	Staff	Trips	Parents	Buses	Staff	Trips			
IN	40			40	39			39			
OUT	40			40	39			39			
AM 12 Trips				80	PM 12 Trips			78			
All AM TRIPS				In	427	All PM TRIPS				In	289
				Out	427					Out	289
				Total	854					Total	578
1432											

Calculated 5/24/2025 By: _____



7878 Snake River Street - Location and Extent

Project File: LE2025-005

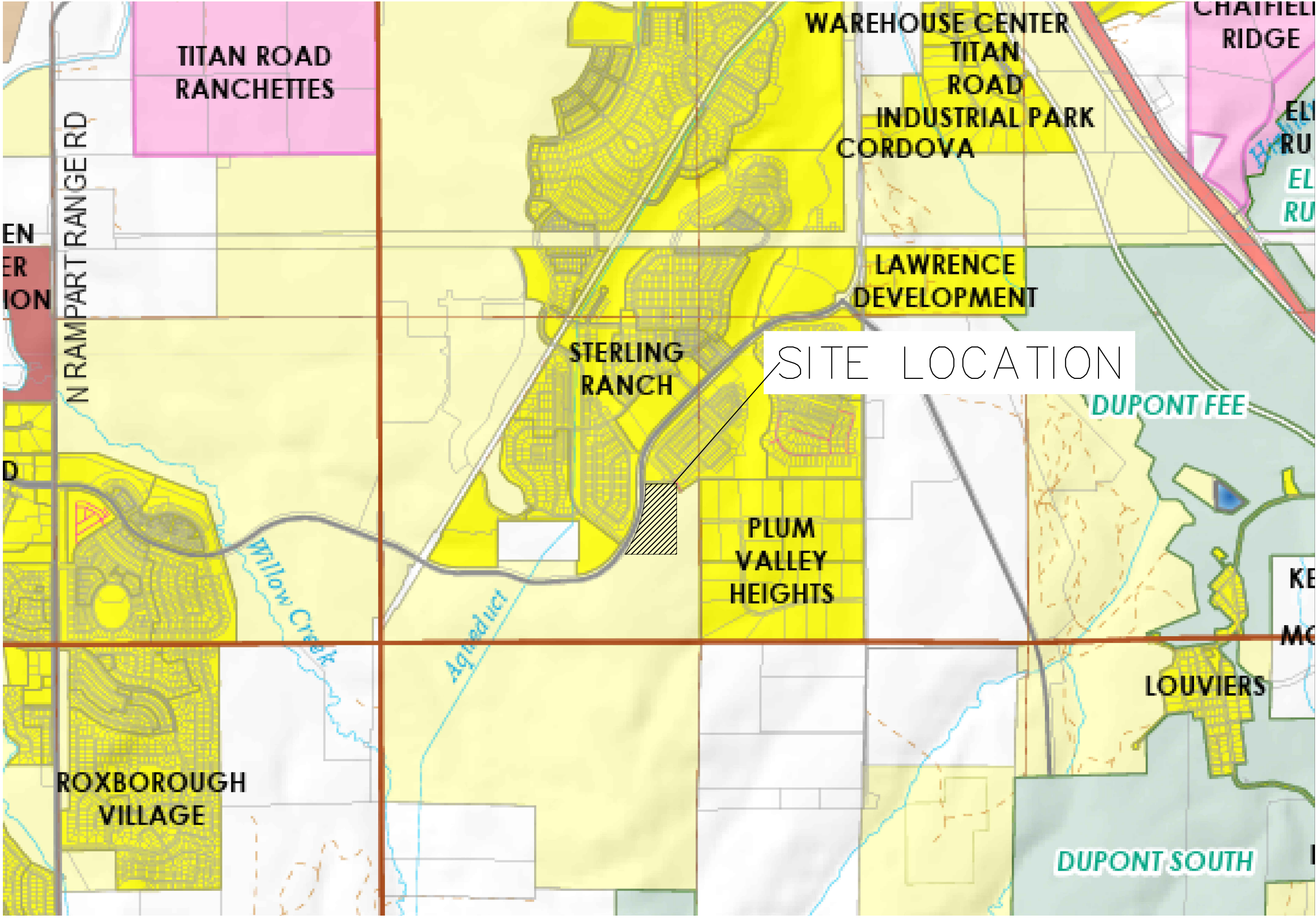
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JOHN ADAMS ACADEMY CHARTER SCHOOL

THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST, SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH TRACT L,
STERLING RANCH FILING 6A
PLANNING AREA 26.07 ACRES
LOCATION AND EXTENT LE2025-005

LEGAL DESCRIPTION

THAT CERTAIN PORTION OF THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST, SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH TRACT L, STERLING RANCH FILING 6A AS SHOWN ON THE RECORDED PLAT THEREOF IN THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AT RECEPTION NUMBER 2021117596, IN THE COUNTY OF DOUGLAS, STATE OF COLORADO.



VICINITY MAP
(NOT TO SCALE)



SHEET INDEX

- 1 OF 10 - CIVIL COVER SHEET
- 2 OF 10 - CIVIL SITE PLAN
- 3 OF 10 - CIVIL GRADING PLAN
- 4 OF 10 - OVERALL LANDSCAPE PLANTING KEY PLAN
- 5 OF 10 - LANDSCAPE PLANTING PLAN
- 6 OF 10 - LANDSCAPE PLANTING PLAN
- 7 OF 10 - LANDSCAPE PLANTING PLAN
- 8 OF 10 - LANDSCAPE PLANTING PLAN
- 9 OF 10 - LANDSCAPE PLANT SCHEDULE AND NOTES
- 10 OF 10 - LANDSCAPE DETAILS AND SPECIFICATIONS

PARKING INFORMATION

Parking By Student population per Sterling Ranch PD Document				
John Adams Academy Phase 1 Elementary/Middle School			Total Parking	
unit parking spaces/ student	# Students	parking spaces required	parking spaces Provided	ADA Spaces Provided
0.25	605	151.25	151	5

CONTACTS

CIVIL TAIT & ASSOCIATES, INC. 320 N. LINCOLN AVE. LOVELAND, CO 80537 ATTN: BRANDON HUMANN, PE (970) 612-5458	LANDSCAPE EVERGREEN DESIGN GROUP 1340 ENVIRON WAY, CHAPEL HILL, NC 27515 ATTN: KENN BATES (970) 426-2057
TRANSPORTATION FOX TUTTLE TRANSPORTATION GROUP 1580 LOGAN ST 6TH FLOOR, DENVER, CO 80203 ATTN: CASSIE SLADE, PE (303) 652-3571	STERLING RANCH DEVELOPMENT 8155 PINEY RIVER AVENUE, SUITE 200 LITTLETON, CO 80125 ATTN: KEVIN JOHNK, ENTITLEMENTS DIRECTOR (720) 224-2423
ARCHITECTURE ETHOS THREE ARCHITECTURE 8985 S EASTERN AVE, LAS VEGAS, NV 89123 ATTN: JOHN LOPMAN, AIA (702) 456-7020	



UNAUTHORIZED CHANGES & USES

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES OF THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS PRIOR TO CONSTRUCTION. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

NOTE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES, AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE EXISTING UTILITIES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL ASCERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION OF THOSE UNDERGROUND UTILITIES TO BE USED PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

BASIS OF BEARINGS:
TEXT

BENCHMARK:
TEXT

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E. COLORADO P.E. #35721 DATE

DRAWN:
DATE:
CHECKED:
DATE:
REVISION #:
DATE:

COVER SHEET

STERLING RANCH- JOHN ADAMS ACADEMY CHARTER SCHOOL
ETHOS THREE ARCHITECTURE
SOUTHEAST CORNER SNAKE RIVER STREET & WATERTON ROAD

TAIT & ASSOCIATES
Since 1984
PRELIMINARY- NOT FOR CONSTRUCTION
320 North Lincoln Ave.
Loveland, CO 80537
p: 970.612.1447
www.tait.com
ENGINEERING, ENVIRONMENTAL, BUILDING, LAND, AND SURVEYING
San Luis Colorado, 80656

REVISIONS

DATE

BY

NO. DESCRIPTION

JOHN ADAMS ACADEMY CHARTER SCHOOL

THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST, SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH TRACT L,
STERLING RANCH FILING 6A
PLANNING AREA 26.07 ACRES
LOCATION AND EXTENT LE2025-005



0 60' 120'
SCALE: 1" = 60'

PARKING INFORMATION

Parking By Student population per Sterling Ranch PD Document				
John Adams Academy Phase 1 Elementary/Middle School			Total Parking	
unit parking spaces/ student	# Students	parking spaces required	parking spaces Provided	ADA Spaces Provided
0.25	605	151.25	151	5

SYMBOLS LEGEND

---	PROPERTY LINE
---	ADJACENT PROPERTY/ ROW LINE
---	BUILDING SETBACK LINE
---	PROPOSED EASEMENT
---	LIMIT OF DISTURBANCE
---	EXISTING WATER LINE
---	EXISTING SEWER LINE
---	EXISTING NON-POTABLE WATER
---	PROPOSED TELEPHONE SERVICE LINE
---	PROPOSED ELECTRIC SERVICE LINE
---	PROPOSED WATER SERVICE LINE
---	PROPOSED SS SERVICE LINE
---	PROPOSED STORM DRAIN
---	PROPOSED RIDGELINE
---	PROPOSED TOP OF POND
---	PROPOSED BOTTOM OF POND
---	PROPOSED SS CLEANOUT
---	PROPOSED BACKFLOW PREVENTOR
---	EXISTING FIRE HYDRANT
---	PROPOSED FIRE HYDRANT
---	PROPOSED STREET LIGHT
---	EXISTING ELEVATION
---	PROPOSED ELEVATION
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING SLOPE
---	PROPOSED SLOPE
---	EXISTING INLET
---	PROPOSED INLET
---	PROPOSED STORM INFRASTRUCTURE
---	PROPOSED STORM MANHOLE
---	PROPOSED TEE / THRUST BLOCK
---	PROPOSED FLARED-END SECTION
---	EXISTING SANITARY SEWER MANHOLE

BASIS OF BEARINGS:
TEXT

BENCHMARK:
TEXT

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E. COLORADO P.E. #35721 DATE



UNAUTHORIZED CHANGES & USES

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NOTE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES, AND/OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE EXISTING UTILITIES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL ASCERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION OF THOSE UNDERGROUND UTILITIES TO BE USED PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

SITE PLAN

STERLING RANCH- JOHN ADAMS ACADEMY CHARTER SCHOOL
ETHOS THREE ARCHITECTURE
SOUTHEAST CORNER SNAKE RIVER STREET & WATERTON ROAD

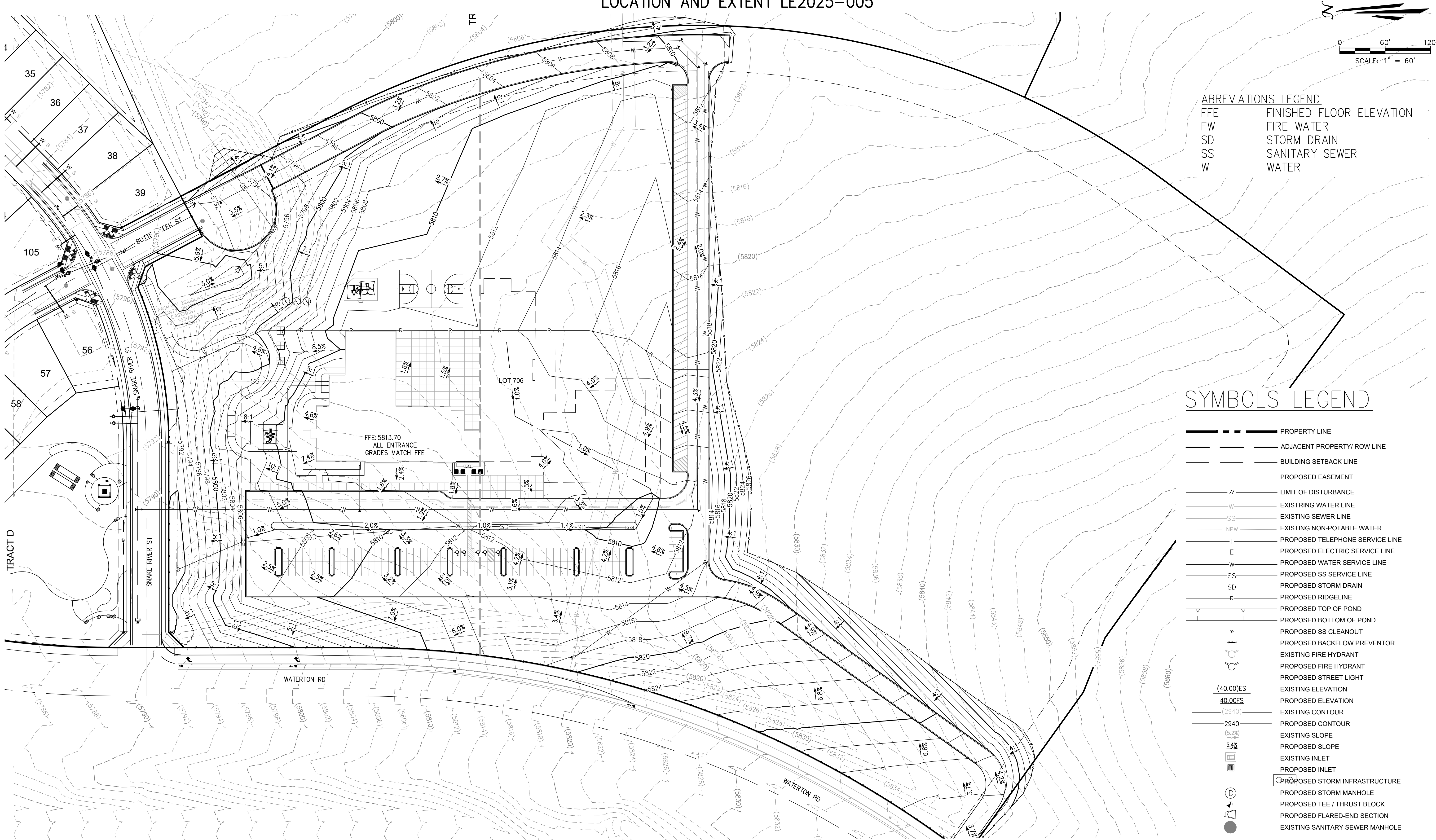
DRAWN:
DATE:
CHECKED:
DATE:
REVISION #:
DATE:

PRELIMINARY-
NOT FOR
CONSTRUCTION
320 North
Lovelock
P.O. Box 11447
www.tait.com
San Jose, CA 95131
Since 1984

NO. DESCRIPTION BY DATE
REVISIONS

JOHN ADAMS ACADEMY CHARTER SCHOOL

THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST, SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH TRACT L,
STERLING RANCH FILING 6A
PLANNING AREA 26.07 ACRES
LOCATION AND EXTENT LE2025-005



ABBREVIATIONS LEGEND

FFE	FINISHED FLOOR ELEVATION
FW	FIRE WATER
SD	STORM DRAIN
SS	SANITARY SEWER
W	WATER

SYMBOLS LEGEND

---	PROPERTY LINE
---	ADJACENT PROPERTY/ ROW LINE
---	BUILDING SETBACK LINE
---	PROPOSED EASEMENT
---	LIMIT OF DISTURBANCE
W	EXISTING WATER LINE
SS	EXISTING SEWER LINE
NPW	EXISTING NON-POTABLE WATER
T	PROPOSED TELEPHONE SERVICE LINE
E	PROPOSED ELECTRIC SERVICE LINE
W	PROPOSED WATER SERVICE LINE
SS	PROPOSED SS SERVICE LINE
SD	PROPOSED STORM DRAIN
R	PROPOSED RIDGELINE
---	PROPOSED TOP OF POND
---	PROPOSED BOTTOM OF POND
---	PROPOSED SS CLEANOUT
---	PROPOSED BACKFLOW PREVENTOR
---	EXISTING FIRE HYDRANT
---	PROPOSED FIRE HYDRANT
---	PROPOSED STREET LIGHT
---	EXISTING ELEVATION
---	PROPOSED ELEVATION
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING SLOPE
---	PROPOSED SLOPE
---	EXISTING INLET
---	PROPOSED INLET
---	PROPOSED STORM INFRASTRUCTURE
---	PROPOSED STORM MANHOLE
---	PROPOSED TEE / THRUST BLOCK
---	PROPOSED FLARED-END SECTION
---	EXISTING SANITARY SEWER MANHOLE

UNAUTHORIZED CHANGES & USES

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BASIS OF BEARINGS:
TEXT

BENCHMARK:
TEXT

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E. COLORADO P.E. #35721 DATE

DRAWN:
DATE:
CHECKED:
DATE:
REVISION #:
DATE:

SITE GRADING PLAN

STERLING RANCH- JOHN ADAMS ACADEMY CHARTER SCHOOL
ETHOS THREE ARCHITECTURE
SOUTHEAST CORNER SNAKE RIVER STREET & WATERTON ROAD

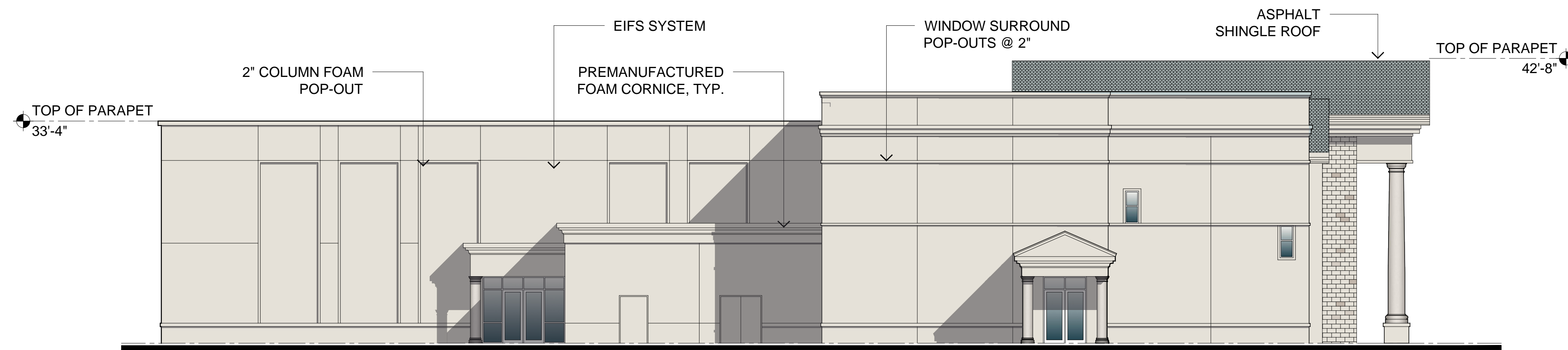
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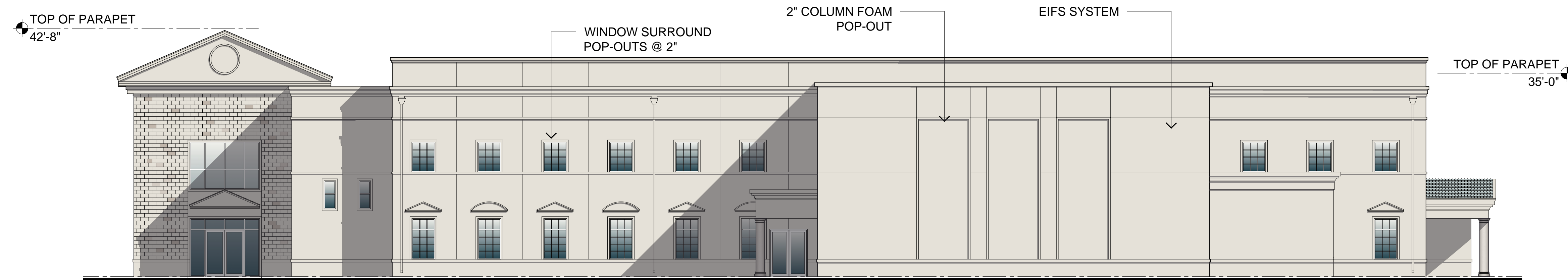
NO. DESCRIPTION
BY DATE
REVISIONS



Know what's below
Call before you dig.



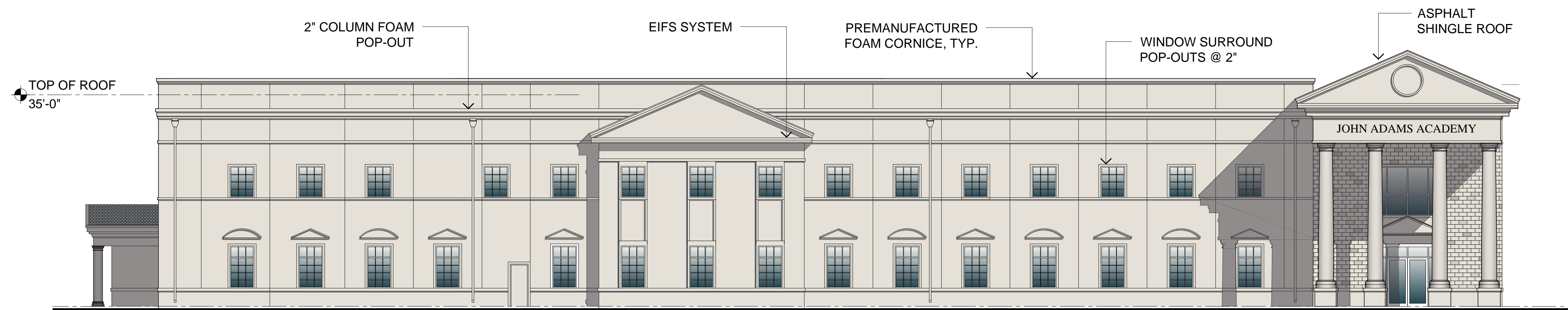
SIDE B ELEVATION



BACK ELEVATION



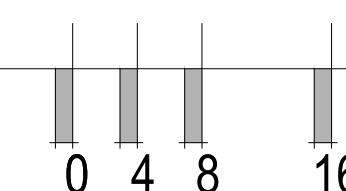
SIDE A ELEVATION



FRONT ELEVATION

exterior elevations - phase 1 - option 1

SCALE : 1/32" = 1'-0"



05-07-25

8985 s. eastern
suite 220
las vegas, nv 89123
p 702.456.1070
f 702.456.7020

JOB NUMBER - 2025.901.116



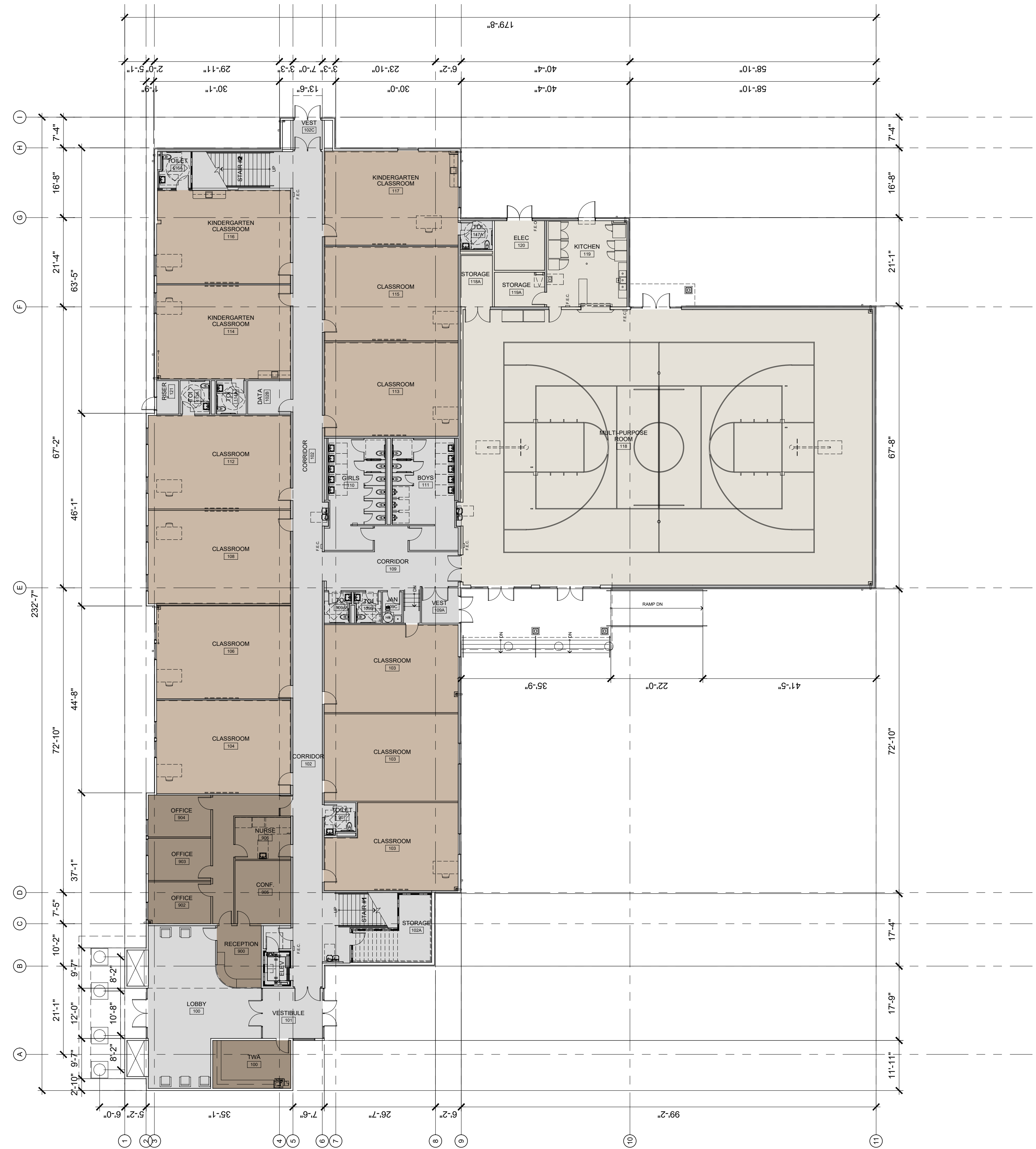
ELEVATIONS

JOHN ADAMS ACADEMY
STERLING CHARTER

SHT A5.1

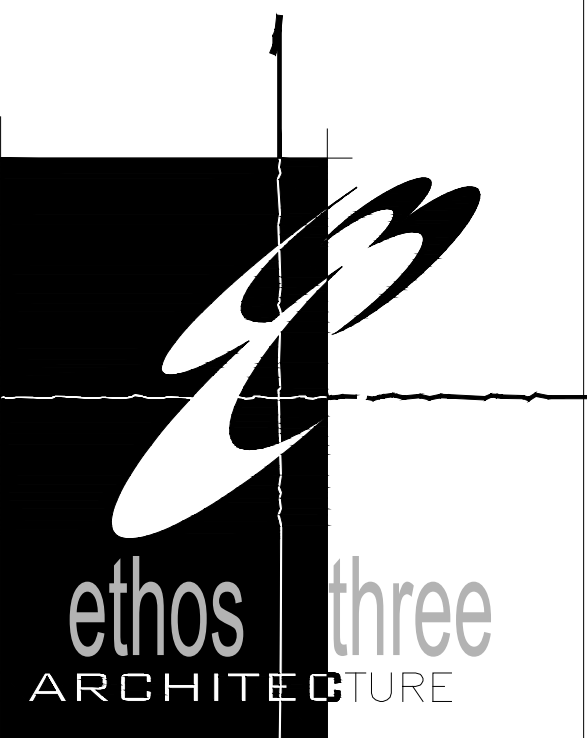
FLOOR PLAN LEVEL 1 PHASE I

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



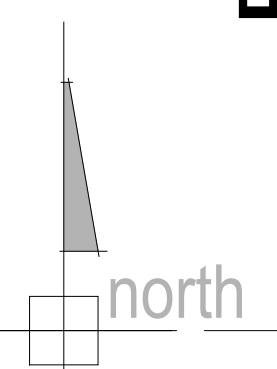
8985 s. eastern
suite 220
las vegas, nv 89123
p 702.456.1070
f 702.456.7020

JOB NUMBER - 2025.901.116



FLOOR PLAN

STERLING RANCH
CHARTER SCHOOL

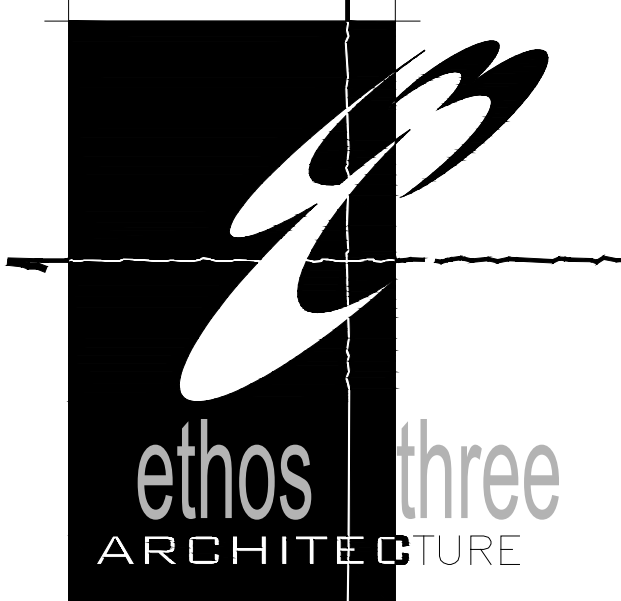
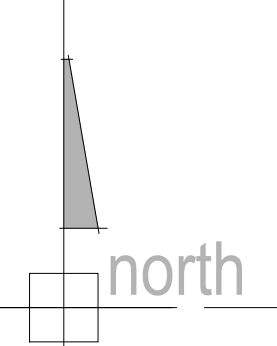
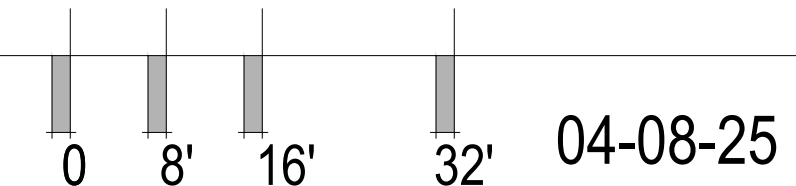
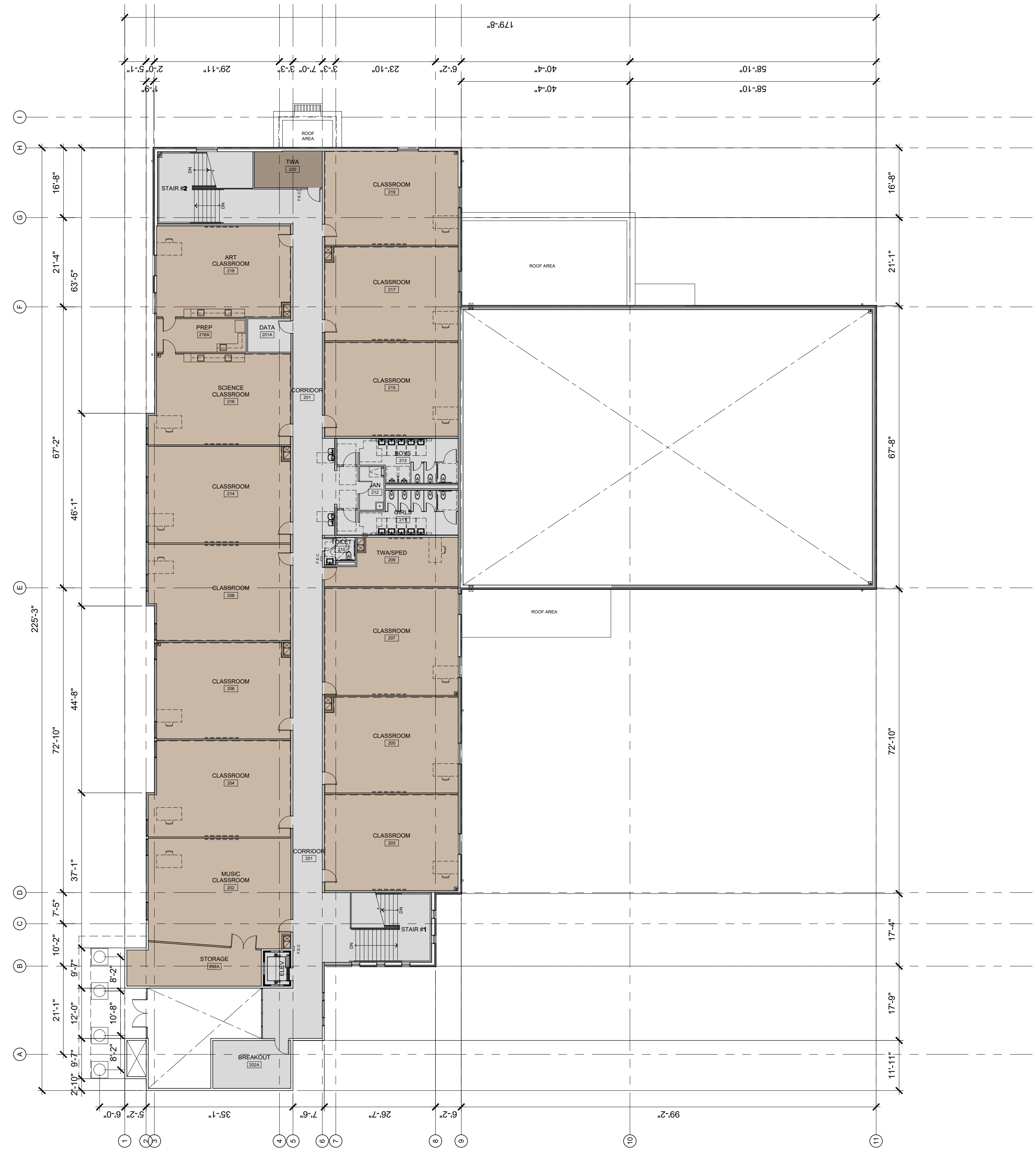


0 8' 16' 32' 04-08-25

SHT A2.1

FLOOR PLAN LEVEL 2 PHASE I

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



FLOOR PLAN

STERLING RANCH
CHARTER SCHOOL

SHT A2.2

JOB NUMBER - 2025.901.116

8985 s. eastern
suite 220
las vegas, nv 89123
p 702.456.1070
f 702.456.7020



May 22, 2025

Douglas County Planning Services
Attn: Eric Pavlinek
100 Third Street
Castle Rock, CO 80104
epavlinek@douglas.co.us

RE: John Adams Academy School, 7878 Snake River Street LE2025-005

The Sterling Ranch Community Authority Board "CAB" has reviewed the plans and has no objection to the proposed Location and Extent.

The owner/developer/contractor must complete the design review application process for exterior design elements, amenities and site furnishings. CAB provides public infrastructure to serve our community.

Please feel free to contact us with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Debus".

Gary Debus
General Manager
Sterling Ranch Community Authority Board

9350 Roxborough Park Road • Sterling Ranch, CO 80125

From: [Aaron Miller](#)
To: [Mark Oberschmidt](#)
Cc: [Jay Lemery](#); [Jeanette Bare](#); kevin.johnk@sterlingranchcolorado.com; [Ellie Reynolds](#); [Susan Beckman](#); [Eric Pavlinek](#)
Subject: RE: John Adams Academy - checking in
Date: Friday, May 30, 2025 11:55:23 AM
Attachments: [image002.png](#)
[image003.png](#)

I will not get to the documents just provided for review today. A revised SMFR review letter will be provided early next week. Please plan accordingly.

Thank you,



SOUTH METRO FIRE RESCUE

Fire Marshal's Office

Aaron Miller
Plan Reviewer

T 720.989.2246
C 720.498.4197
E aaron.miller@southmetro.org



9195 East Mineral Avenue, Centennial, Colorado 80112

From: Mark Oberschmidt <moberschmidt@TAIT.COM>
Sent: Friday, May 30, 2025 10:40 AM
To: Aaron Miller <aaron.miller@southmetro.org>
Cc: Jay Lemery <jlemery@performancecsd.com>; Jeanette Bare <JBare@douglas.co.us>; kevin.johnk@sterlingranchcolorado.com; Ellie Reynolds <elliereynolds@plgovsolutions.com>; Susan Beckman <Susanb@sterlingranchcolorado.com>
Subject: John Adams Academy - checking in

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Aaron

We updated the site plans per our meeting earlier this week.

Have you issued your updated letter to Douglas County? If not, can you please get that to Jeannette this morning? We are moving forward to our June 2nd meeting.

Thanks so much for your help.

Thanks and Make it a Great Day
Mark Oberschmidt, PE | TAIT & Associates, Inc.
Municipal Projects Director

320 N Lincoln Ave, Loveland, CO 80537
M: 970 980-3557
moberschmidt@tait.com | www.tait.com



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Eric Pavlinek

From: Harold Britton <haroldbritton@gmail.com>
Sent: Friday, May 30, 2025 9:19 AM
To: Eric Pavlinek
Subject: Support for John Adams Academy

Mr. Pavlinek and the Douglas County Planning Commission,

My wife and I would like to write sharing our strong support for the application submitted by John Adams Academy planned for Sterling Ranch. I understand the application will be presented by the planning commission on 6.2.25 and we want to encourage this offer to be approved.

As a homeowner, educator, pastor, parent, and neighborhood volunteer of Douglas County, we believe with a growing number of active parents that the addition of John Adams Academy will be an exceptional contribution to our community. JAA's focus on classical leadership education, civic engagement, and character development is so needed in our County that we so love, where we are raising a family and ministering to hundreds of neighbors.

Sterling Ranch is growing rapidly, and parents increasingly are looking for Charter Schools that can offer high-quality educational options. JAA Charter School has an excellent proven track record in other counties across the USA, a great educational alternative that underlines a strong sense of civic responsibility to challenge our growing kids. And our taxes will most likely be less with JAA's generous investment commitment.

I respectfully ask for the Planning Commission to approve this application in Douglas County for our youth.

Sincerely,

Rev. Harold and Gwen Britton
720.363.0787
haroldbritton@gmail.com

Eric Pavlinek

Subject: RE: Opposition to JAA Location & Extent – Sterling Ranch

Mr. Thomas,

I'm writing to submit my public comment regarding the Location & Extent (L&E) application for John Adams Academy in Sterling Ranch. As a resident of the community, I do not support this school's development for several reasons.

There is a clear lack of community desire for this particular school — the public engagement has been minimal and often misleading. Many residents feel blindsided by the application and the surrounding narrative. Additionally, traffic is a major concern. The proposed site is surrounded by residential streets and already experiences congestion during school drop-offs and pick-ups. Adding another large school facility in this area will increase traffic risks, especially for families walking or biking with small children.

Please include this comment in the public record and consider the broader impact this school would have on our neighborhood. Our community deserves thoughtful, data-driven decisions — not rushed land giveaways. Public land should not be given to private entities.

Thank you,

Hana
Sterling Ranch Resident

From: [Jeanette Bare](#)
To: ["kerri.compton"](#); [Eric Pavlinek](#)
Cc: [Planning](#); [Dan Avery](#); [lorel@gmail.com](#); [tiffany.a.ecker@gmail.com](#); [Steve Koster](#); [Andrew Steers](#)
Subject: RE: John Adams Academy L&E Questions
Date: Friday, May 30, 2025 12:44:00 PM
Attachments: [image001.png](#)

Regarding the reference to the PD language which talks about the three parties needing to agree on school site dedications, the following is what the PD document says:

The number of and locations of School Sites depicted on the Land Use Plan are conceptual and may change. The specific size and location of each School Sites to be offered for dedication shall be determined by Owner, the School District and the County. All dedications of School Sites shall be subject to the right of first refusal and other provisions provided in C.R.S. § 30-28-133(4)(a)(II).

As mentioned in our previous responses, the John Adams charter school site has not been dedicated, nor offered for dedication, as a school site by the "Owner" (defined in the PD as the Sterling Ranch developer).

We hope this helps. At this point, we do not have any further clarifications to offer.

Jeanette L. Bare, AICP | Planning Manager, Current Planning
Douglas County Department of Community Development
Planning Services
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4309 **Main** | 303-660-7460
Email | jbare@douglas.co.us

From: kerri.compton <kcompy@yahoo.com>
Sent: Wednesday, May 28, 2025 8:00 AM
To: Eric Pavlinek <epavlinek@douglas.co.us>
Cc: Planning <Planning@douglas.co.us>; Dan Avery <DAvery@douglas.co.us>; [lorel@gmail.com](#); [tiffany.a.ecker@gmail.com](#); Jeanette Bare <JBare@douglas.co.us>
Subject: Re: John Adams Academy L&E Questions

Thank you for your response.

I'd like to respectfully express concern that the revised language omits a key procedural safeguard. Specifically, Dan Avery previously confirmed via phone that for the Filing 6 parcel to fulfill Sterling Ranch's school land dedication obligation, a formal three-party agreement between John Adams Academy, the developer, and Douglas County School District would be required. This requirement aligns with the Sterling Ranch PD and the laws.

Removing reference to this agreement alters the procedural clarity and could be misinterpreted to suggest that the land may qualify through an informal or unilateral process, despite the PD clearly requiring formal public dedication mechanisms.

Additionally, the change from “would not fulfill” to “may not fulfill” creates ambiguity. Can you please clarify:

- Under what circumstances a direct conveyance to a private entity could be interpreted as fulfilling the developer’s school land obligation,
- And whether Douglas County has formally or informally provided guidance on such a pathway.

Thank you again for your time and for helping clarify the County’s position on this important issue.

On Friday, May 23, 2025 at 04:23:38 PM MDT, Eric Pavlinek <epavlinek@douglas.co.us> wrote:

Good afternoon, Kerri,

Below are the responses in red:

Thanks,

Eric Pavlinek | Principal Planner

Douglas County Department of Community Development

Planning Services Division

Address | 100 Third St., Castle Rock, CO 80104

Direct | 303.814.4377 **Main** | 303.660.7460

Email epavlinek@douglas.co.us

From: kerri compton <kcompy@yahoo.com>

Sent: Wednesday, May 21, 2025 10:31 PM

To: Eric Pavlinek <epavlinek@douglas.co.us>

Cc: Planning <Planning@douglas.co.us>; Brett Thomas <bthomas@douglas.co.us>; Dan Avery <DAvery@douglas.co.us>; Loreli Wright <loreli@gmail.com>; tiffany.a.ecker@gmail.com

Subject: Re: John Adams Academy L&E Questions

Hi Eric,

Thank you again for your time and your previous response. I've since reviewed additional public records and I want to follow up with further questions and clarifications particularly given the extent of community confusion and public concern.

JAA stated publicly that this land is "public land for a public school." Additionally, the developer, Harold Smethills, was recorded as saying he would never gift 25 acres to anyone, and that this site represents the developer's school land obligation under the Sterling Ranch PD. He also stated they're "sick of DCSD asking for more land", and confirmed that no alternate site will be offered if this one goes to JAA.

This directly conflicts with your office's statement that:

- The site is "not a designated school site per the Sterling Ranch PD," and
- The County has "not received a request" to count the JAA parcel toward school land dedication.

I'm having a hard time reconciling these statements. The developer is telling the public one thing, JAA is telling us another, and the County is asserting something else entirely. To that end, I'm seeking your help in clarifying the following question. To note, I'm not a lawyer and certainly uninformed regarding land use, so please bear with me.

1. C.R.S. §22-32-124 and applicability

I understand this statute provides for Planning Commission review of charter school sites, but does not override land use procedures, zoning requirements, or PD obligations. Can you confirm that compliance with platting, dedication, and Article 10 is still required under County process, even if the charter school seeks review under §22-32-124?

Yes, compliance with platting, dedication, and Article 10 is required.

2. On whether the Filing 6 (SCZ-A) parcel is considered a designated school site

You stated the parcel is not a designated school site under the PD. However:

- The 2022 PD Amendment Project Narrative refers to it explicitly as the "Proposed SCZ-A School Site" jointly identified with DCSD
- The DCSD referral response explicitly confirms they withdrew objections based on the understanding that this parcel would be rezoned and conveyed to them; and
- The DCSD board resolution in December 2023 references this site as the one previously designated and still expected for public school use.

Questions:

- Is the County interpreting "not designated" to mean the site was never formally platted or conveyed, even if the parcel was identified in multiple planning documents and public correspondence as DCSD's future site?

Yes, the site was never formally platted or conveyed nor designated as a school site on the PD map.

If so, does that mean the developer still owes a school site to DCSD under the PD?

Yes.

- What specific action or documentation would be required to formally change the intended use of this site from DCSD to a private charter, and still comply with the PD?

See number 1 above. N/A

3. Lack of a request to count the JAA site toward school land dedication

You mentioned no formal request has been made to count this parcel toward the Sterling Ranch PD school obligation.

- If that remains true, can I accurately communicate to the community that, as of now, this parcel does not fulfill the school land dedication required by the PD and Article 10?

At this time, based on information provided to Community Development, that is correct.

- If the developer does intend for this site to count, what would be required for that to happen procedurally? Would this trigger a need for DCSD's approval? A public hearing? A PD amendment?

We cannot speculate on a request that we have not received.

4. Article 10 requirements

Article 10 of the County's Subdivision Resolution states that land must be dedicated to DCSD or the County to fulfill school obligations.

- Does a direct conveyance to JAA Foundation, a private nonprofit with no elected governance, fulfill Article 10?
- If not, what kind of legal mechanism would be required to recognize it as meeting the PD dedication?

We cannot speculate on a request that we have not received.

5. Community understanding and messaging

I've been asked by dozens of residents to clarify what's going on. I want to be transparent and accurate in what I share. Based on your statements, this is what I am planning to communicate to the community, please correct me if any part of this is *inaccurate*:

*"Douglas County has confirmed that the Filing 6 parcel currently being pursued by John Adams Academy is not considered a dedicated school site under the Sterling Ranch PD. There has been no formal request to count the parcel toward Sterling Ranch's school land obligation. Unless that request is submitted and approved through a formal process, including a three party agreement with DCSD, the land cannot be counted toward the developer's obligations. Any conveyance of this parcel directly to JAA Foundation **would** may not fulfill the public dedication requirement under Article 10 and the PD."*

Removed highlighted areas above.

“Douglas County has confirmed that the Filing 6 parcel currently being pursued by John Adams Academy is not considered a dedicated school site under the Sterling Ranch PD. There has been no formal request to count the parcel toward Sterling Ranch’s school land obligation. Unless that request is submitted and approved through a formal process the land cannot be counted toward the developer’s obligations. Any conveyance of this parcel directly to JAA Foundation may not fulfill the public dedication requirement under Article 10 and the PD.”

Is this summary accurate based on the County’s current position?

And finally, I’m including a copy of the DCSD Open Records Request response, in which DCSD affirms that this Filing 6 parcel was the agreed-upon school site, and that it was expected to be platted and dedicated for that use. Please see Pages 31–34 for documentation of:

- DCSD’s planning staff referencing this parcel as the intended school site
- Confirmation that DCSD withdrew objections to Filing 6 only on the condition that the site would be dedicated CSS
- Emails indicating that a Site Dedication Agreement was expected (but never completed), and that this understanding was shared with County and DevCo staff.

These pages seem to directly contradict the claim that this site was never identified for public school use. I would appreciate any clarification you can offer so I can speak accurately to others seeking clarity.

We acknowledge that the developer and the school district have had discussions as indicated above. No formal action has been taken to dedicate or designate the property as a school site.

Sincerely,
Kerri Schlachter
Sterling Ranch Resident
623-703-7033

On Wednesday, May 21, 2025 at 04:35:16 PM MDT, Eric Pavlinek <epavlinek@douglas.co.us> wrote:

Good afternoon, Kerri,

Please see the responses below to your questions:

1. Charter schools are subject to review by the Planning Commission in accordance with C.R.S. §22-32-124. The County handles these reviews through the Location and Extent process. There is nothing in the State statute that requires land for a charter school to be subdivided, platted, or dedicated for a charter school use prior to submittal of the request for County review.
2. The John Adams charter school is following the process established in C.R.S. §22-32-124 for review by the Planning Commission. The parcel in question is not a designated school site per the Sterling Ranch PD.
3. This land is not identified as a public school per the PD. The parcel was depicted in Sterling Ranch Preliminary Plan 6 as a superblock lot (not a school site) that could be developed for a variety of purposes.
4. Community Development has not received a request for the proposed John Adams site to be counted towards the school land dedication commitments in the Sterling Ranch PD. If such a request is received, the specifics of the request will be reviewed pursuant to the Sterling Ranch PD, the County's regulations, and State statutes.
5. Article 10 of the County's Subdivision Resolution addresses school land dedication.

It is available here: [DCSR - Article 10](#)

Regards,

Eric Pavlinek | Principal Planner

Douglas County Department of Community Development

Planning Services Division

Address | 100 Third St., Castle Rock, CO 80104

Direct | 303.814.4377 **Main** | 303.660.7460

Email epavlinek@douglas.co.us

From: kerri compton <kcompy@yahoo.com>

Sent: Wednesday, May 21, 2025 9:22 AM

To: Eric Pavlinek <epavlinek@douglas.co.us>; Brett Thomas <bthomas@douglas.co.us>; Dan Avery <DAvery@douglas.co.us>; Planning <Planning@douglas.co.us>

Subject: Re: John Adams Academy L&E Questions

Hello,

I hope you're doing well. I wanted to follow up after attending the John

Adams Academy community meeting on Monday evening, where the issue of the Filing 6 school site generated considerable concern. There were many questions raised about the land's designation, the DCSD release stating JAA cannot locate on land identified for DCSD, the L&E process, and the role of public oversight.

Given the growing community interest and ongoing uncertainty, I'd greatly appreciate your help in answering the questions below. This will allow me to either validate these concerns or provide accurate clarification on the procedural framework surrounding this application.

Thank you so much for your time and continued assistance. I know this is a complex issue, and I appreciate your willingness to help the community better understand the process.

Thanks,

Kerri Schlachter

Sterling Ranch Resident

623-703-7033

On Friday, May 16, 2025 at 02:17:15 PM MDT, kerri compton <kcompy@yahoo.com> wrote:

To Douglas County Planning Staff:

I am seeking clarification regarding the procedural basis for accepting the L&E application submitted by John Adams Academy Foundation for a school site in Sterling Ranch Filing 6.

As noted in the PD and in C.R.S. § 30-28-133(4)(a)(II), school-designated land is required to be dedicated to a County entity and/or the public school

district (In our case, DCSD) as a condition of subdivision and development. In this case, it appears that the land remains unplatted, has not yet been formally dedicated, and the applicant is a private nonprofit entity with no public governance or elected oversight.

My questions are as follows:

1. What is the procedural basis for accepting and processing a Location & Extent application for land that has not been subdivided, platted, or legally dedicated for public school use, as required under the Sterling Ranch PD and state statute?
2. Given that the John Adams Academy Foundation is a private 501(c)(3) nonprofit entity, not a public school district or county agency, on what grounds is this private applicant permitted to seek land use approval on a parcel designated for DCSD under the PD?
3. What is the formal process by which land identified as public school land under the PD could be transferred to a private entity such as JAA Foundation? What public approvals or amendments would be required for that transfer to comply with existing land use and subdivision obligations?
4. If the land is conveyed directly from the developer to the private entity JAA Foundation, without subdivision, public input, or DCSD involvement, does that still fulfill the school land dedication requirement outlined in the PD and state statute?
 - If so, under what interpretation or legal precedent does such a private conveyance satisfy a public obligation?
 - If not, would the developer then be required to identify and dedicate an alternate school site to remain in compliance with the PD?
- 5.
6. Does the County have written guidance or policy clarifying whether school land dedication obligations can be met by transferring land to non-governmental, privately governed entities?

I appreciate your time and attention to these questions and request a response prior to the June 2nd Planning Commission Meeting. And please, don't direct me to the BOCC, they direct me straight back to you.

Sincerely,

Kerri Schlachter

623-703-7033

Sterling Ranch Resident