

Rochester School Board / Rochester City Council
Joint Building Committee
School Department Boardroom
April 17, 2024
6:30 p.m.

Agenda

1. Pledge of Allegiance
2. Approval of the February 14, 2024 Minutes
3. Civil Engineering Update (Third Party Review)
4. Letter from Conservation Committee to JBC dated April 1, 2024
5. Construction Manager Report (GMP)
6. Owner's Representative Report
7. Other
8. Public Comment
9. Adjournment

Members:

School Board Members:

Sarah Harrington, Chair
Matthew Beaulieu
Matthew Pappas
Shane Downs
Steven Cusumano

City Council Members:

Donald Hamann, Vice Chair
Timothy Fontneau
Paul Callaghan
Alexander de Geofroy
Kevin Sullivan

City of Rochester
Joint School Board – City Council Meeting
School Department Board Room
February 14, 2024
6:00 p.m.

DRAFT

School Board Present:

Mrs. Sarah Harrington, Chair
Mr. Matthew Beaulieu
Mr. Matthew Pappas
Mr. Steven Cusumano
Mr. Shane Downs

City Council Present:

Mayor Paul Callaghan
Mr. Donald Hamann
Mr. Alexander de Geofroy
Mr. Timothy Fontneau
Mr. Kevin Sullivan

Others Present:

Mr. Kyle Repucci
Mr. Dave Totty
Ms. Sandy Keans
Ms. Cherie Plummer
Guests and Public

Mrs. Harrington called the meeting to order at 6:00 p.m. and welcomed School Board members Shane Downs and Steven Cusumano to the JBC Committee. Members and guests participated in the Pledge of Allegiance.

Approval of Minutes

Mr. Hamann moved, seconded by Mr. Pappas, to approve the January 10, 2024 minutes. The motion carried unanimously.

Architect Update

Ms. Ingrid Nichols, Banwell Architects, presented the Architect Update. She reviewed the current plan and explained the changes. She reviewed the floor plan and site renderings. They are working on developing a list of additional alternates that can be priced out and added on. She reviewed the electrical outlets in classrooms; additional outlets were added as power strips are not allowed. Discussion ensued and clarifying questions were asked by committee members.

Civil Update

Mr. Patrick Cimmins, Tighe & Bond, presented the Civil Update. He reviewed the site layout, grading and drainage, high-level changes and improvements, wetland buffers, and utilities.

Greg Lucas, Tighe & Bond, presented the Traffic Study Review and reviewed the process for the study. Mr. Repucci, Superintendent, explained that the left hand turning lane coming from the north is now 100 feet; 50 additional feet were added. Mr. Dave Totty, Facilities Director, shared that they reached out to Terra Estates about any future construction planned so that could be considered. He also spoke with the Police Chief Boudreau about beacons to make drivers aware of how fast they are going and a reminder to slow down. Discussion ensued regarding traffic concerns and emergency vehicles being able to get through if necessary. Mr. Cusumano expressed concern that the traffic study did not include the traffic on Portland Street. Mr. Lucas explained that the traffic study was to evaluate the impact of traffic on the new school. They were not asked to evaluate the traffic at an existing school.

Construction Manager Report

Mr. Keith Kelley, Harvey Construction, reviewed and explained next steps; site work scope of work, site electric (above vs. below ground). He also reviewed the preconstruction schedule. Discussion ensued. Mr. Fontneau moved, seconded by Mr. Beaulieu, to continue with underground utilities. The motion carried unanimously.

Owner's Representative Report

Mr. Gordon Bristol explained the timeline for the guaranteed maximum price bid process and review of bids, review of kitchen equipment and review of all building furniture. Discussion ensued and clarifying questions were asked by committee members.

The team's next steps are for the design team to complete the final bidding/construction documents; Harvey Construction to bid out the project in March; review final costs at the JBC meeting in April.

Other – Mr. Pappas asked if there is enough data for the school to plan for future needs. Mr. Totty explained that they have already planned for that. Mr. Pappas also asked about water runoff. Mr. Crimmins explained that they have designed a storm water management system. Discussion ensued regarding safety and security measures for windows and entrances. Mr. Totty stated that they have met with Homeland Security and will meet with them again in the future.

Public Comment

Carol Mairs, Rochester resident, reviewed and explained her concerns with the traffic study.

Peter Leduc, Rochester resident, shared that after listening to the traffic study, he feels that the parameter of the study was short sighted. There are times in the morning when traffic is backed up and he cannot get out of his driveway at 732 Salmon Falls Road. His take away from the discussion is that it is our responsibility to anticipate the problems and do due diligence to prevent traffic backup.

Shirley Wilson, Rochester resident, shared that more houses will be going into Terra Estates. She expressed concern with traffic being backed up on the southbound side of Salmon Falls Road, cars getting rear-ended and issues with cars crossing traffic to turn into the new school. She asked the committee to figure out how to take care of traffic issues before the school is built.

Adjournment

Mr. Beaulieu moved, second by Mr. Pappas, to adjourn the meeting at 7:45 p.m. The motion carried unanimously.

Respectfully Submitted,

Kyle M. Repucci
Board Secretary



CITY OF ROCHESTER

NEW HAMPSHIRE

OFFICE OF THE
CONSERVATION COMMISSION

33 Wakefield Street, Rochester, New Hampshire 03867

April 1, 2024

City of Rochester Joint Building Committee

Re: New Elementary School Property - 753 Salmon Falls Rd Tax Map 0227-0035-0000

Dear Members of the Joint Building Committee:

Rochester's natural resources contribute to the quality of life, economic vitality, and public health of the City. Residents have traditionally supported strong conservation and preservation actions that protect the rich array of natural resources found in our community. This is why the Conservation Commission is requesting that measures be taken to protect the undeveloped portion of the new elementary school property.

The Commission would like to see this land placed into a conservation easement, which would provide permanent land use restrictions to protect its natural features. The school parcel contains wetland areas that are connected across adjacent parcels. Wetlands serve many important functions including floodwater storage, filtering of pollutants, groundwater recharge and wildlife habitat. The parcel is also located within a NHDES Source Water Protection Area and careful management serves to protect those who rely on the Salmon Falls River as a source of drinking water.

In the Natural Resources Chapter of the City of Rochester's Master Plan, the importance of taking action to protect natural resources is a responsibility of all, "City boards and commissions, elected officials, and City staff should strive to facilitate these actions whenever and wherever possible". The Rochester Conservation Commission requests that you take action to permanently protect the areas not included in the construction of the new school.

If you have any questions or would like to discuss further, please contact me or the Rochester Planning & Development Department at (603) 335-1338.

Sincerely,

Mike Dionne, Conservation Commission Chair

Cc: Rochester City Council
Rochester Planning Board

REF: NEX-2020266.05

DATE: March 29, 2024

TO: Richard Carr, P.E.
City Engineer
Department of Public Works
209 Chestnut Hill Rd
Rochester, NH 03867

FROM: Michael Dugas, P.E.
Senior Engineer

RE: Salmon Falls Elementary School
Engineering Peer Review of Off-Site Improvements

INTRODUCTION

Greenman-Pedersen, Inc. (GPI) has prepared this technical memorandum to summarize our findings and recommendations related to the design of off-site improvements for the proposed Salmon Falls Elementary School. For this evaluation, GPI has referenced the Traffic Impact Study (TIS, 11/7/2023), Entrance Layout Sketch (11/23/2023), and the Revised Site Plans (2/13/2024), all by Tighe & Bond.

EXISTING CONDITIONS

The school will be located at 753 Salmon Falls Road, approximately 1.2 miles south of Portland Street and 900' south of the intersection with Ida Circle and Eagle Drive. Salmon Falls Road in the vicinity of the site is approximately 24' to 26' wide with 11' wide lanes and narrow shoulders. The posted speed limit at the school access is 35 mph; the northbound speed limit drops to 30 mph approximately 300' north of the school driveway. Operating speeds on Salmon Falls Road were measured to be substantially higher than the speed limit, with 85th percentile speeds of 53 mph northbound and 49 mph southbound. The school site is near the north end of a 0.8-mile-long tangent on Salmon Falls Road. Three hundred feet north of the school site, Salmon Falls Road northbound curves left at a radius of approximately 430'. Safety improvements were implemented within the curve in the last decade to improve the roadside clear zones and add guardrail and curve warning signs on the east side of the road.

PROPOSED SITE ACCESS

School access will be via a full-access driveway on Salmon Falls Rd. The driveway will provide separate left and right turn lanes and will be under stop sign control. Salmon Falls Road is proposed to be widened at the site driveway. The proposed roadway layout will provide a northbound left turn lane and a southbound right turn lane. A raised median is proposed to extend north approximately 300' from the driveway, tapering from a width of 10' at its south end to 2' at its north end. The north end of the median will be at the south end of the roadway curve described above. Due to the high operating speeds, Tighe & Bond conservatively assumed a design speed of 55 mph in the analysis of stopping and intersection sight distance. They also evaluated the available intersection sight distance for the posted speed limit; however, Tighe & Bond incorrectly noted the speed limit as 30 mph. The existing speed limit, as noted above, is 35 mph for both approaches to the school site driveway. The City has reported that a second Tara Estates driveway is under study that would access Salmon Falls Road approximately 400' south of the proposed school driveway. The proposed driveway should not physically interfere with the planned road improvements at the school

driveway. While no analysis is yet available to understand the implications of the potential Tara Estates driveway fully, it is likely that the new access will serve to redistribute and disperse the traffic between the school and Tara Estates, which could reduce the volume of PM traffic turning left from the school driveway.

FINDINGS

GPI offers the following key findings as they pertain to the safety and traffic operations of the proposed school driveway.

1. Intersection sight distance: The TIS investigated stopping and intersection sight distance availability, evaluating requirements for the posted speed limit (30 mph, rather than the actual speed limit of 35 mph – discussed elsewhere) and the 85th percentile speed measured at the site. The 85th percentile speed was conservatively rounded to 55 mph. The assumed position of the driver's eye at the site driveway was not mentioned in the analysis; the eye is customarily located 14.5' from the edge of the travel lane. The TIS estimates the existing sight distance looking north from the proposed driveway as 500'. This estimate appears reasonable if measured from within the travel lane; however, the available sight distance measured from a point 14.5' from the Salmon Falls Road travel way would be less due to the roadside vegetation. The TIS states that the 500' stopping sight distance for southbound traffic approaching the school driveway meets AASHTO Green Book guidelines for the 55 mph design speed. However, it should be noted that providing only stopping sight distance is a minimum standard described in the Green Book as a "hurried stop under ordinary conditions." The TIS also evaluated the higher standard of intersection sight distance, finding a recommended sight line from the school driveway of 530' to the left and 610' to the right, based on AASHTO guidelines. GPI computed the required intersection sight distance as 606' to the north and 647' to the south, accounting for the proposed driveway and roadway configurations in the analysis.
2. The proposed 12' width of travel lanes is acceptable; however, 11' wide lanes would suit the rural context and match the existing width. The proposed widening toward the school property will nearly negate the already narrow southbound shoulder. Also, no improvements intended to accommodate non-motorized road users are provided.
3. The proposed tapers to shift the southbound travel lane are appropriate for a 30 mph design speed, but are less than required for the 35 mph posted speed limit.
4. The proposed raised median is an appropriate measure to shield drivers in the northbound left turn lane from southbound through vehicles. The 10' wide full-width portion at the south end of the median island will match the full width of the northbound left turn lane that it shadows. The north end of the median will coincide with the south end of the 430' radius curve.
5. One overhead luminaire is present opposite the proposed site driveway.
6. The proposed school zone signs including vehicle speed feedback signs are an essential component for the safe operation of the driveway.

RECOMMENDATIONS

GPI offers the following recommendations for the City's consideration.

1. Salmon Falls Road southbound right turn lane: The proposed right turn lane was shown in the TIS to be a viable option according to the National Cooperative Highway Research Program (NCHRP) Report 457 guidelines; however, the capacity analysis did not provide operational data to indicate the necessity of the lane for traffic operations. The TIS states that "the inclusion of turn bays has no detrimental effect on operations", which implies that the lane is not essential for traffic operations. In addition, the very short length of the right turn lane would limit its utility. Most importantly, vehicles decelerating in or stopping in the right turn lane, particularly school buses, will obscure the sight line to the north needed by drivers exiting the driveway to turn left onto Salmon Falls Road safely. This obscured sight line would leave exiting drivers vulnerable to being struck by unseen through vehicles

- approaching from the north. This safety concern is elevated by the high operating speeds on Salmon Falls Road. Therefore, it is recommended that the proposed right turn lane be eliminated, and a single southbound travel lane be provided for through and right-turning vehicles.
2. Intersection sight distance: It is recommended that a minimum unimpeded sight line of 500' be provided to the north and south of the proposed driveway. Roadside clearing of vegetation will be required on the west side of Salmon Falls Road, both north and south of the site driveway, to provide and maintain appropriate intersection sight lines. Additional roadside clearing, if possible, would be desirable to achieve the recommended intersection sight distance of 600' to the north and 650' to the south.
 3. Design speed vs. posted speed limits: In accordance with the existing 35 mph posted speed limit of the northbound and southbound approaches to the proposed site driveway, the proposed road improvements should use a design speed of 35 mph rather than 30 mph. This will increase the required taper distance to shift the southbound travel lane from 180' as shown on the Entrance Layout Sketch to 205'.
 4. Posted speed limits: The City is encouraged to pursue modifications to the existing speed zones on Salmon Falls Road as needed for consistency with the road context and between the northbound and southbound directions. State law (RSA 265:60) sets a *prima facie* speed limit of 35 mph for rural residential zones, which describes the context of Salmon Falls Road. Departures from the 35 mph speed limit must be supported by an engineering or traffic study according to both the Manual on Uniform Traffic Control Devices (MUTCD) and state law.
 5. Raised median island: The full width portion of the island should be narrowed from 10' to 6' to allow a 2' offset to lane markings. This will provide an appropriate shy distance between the travel lanes and the curb. Also, the proposed median's northern terminus may present a hazard to both drivers and snowplows due to its location at the end of the curve and the narrow lanes adjacent to the island. It is recommended that the tapered portion of the median island be eliminated and accomplished with pavement markings, leaving a raised median 6' wide and approximately 75' long adjacent to the driveway.
 6. Off-site improvement plan details: The plan is missing some key dimensions for features such as lanes, shoulders, and raised median.
 7. Overhead lighting: It is good practice to provide illumination for driver awareness of raised median islands. The existing luminaire opposite the site driveway will illuminate the south end of the raised median island. It is recommended that a luminaire be installed to illuminate the north end of the island as well. It appears that the utility pole at the north end of the school property frontage would be appropriately situated for this additional luminaire.
 8. School bus turning movements: The proposed layout of the driveway entrance lane will not provide sufficient width for the turning movement of a full-size school bus making the southbound right turn, without encroaching into the exiting lane of the driveway. The width and/or radius of the driveway entering lane should be enlarged to properly accommodate the turn. Similarly, the proposed 10' wide raised median island will require buses exiting to the north to swing wide to avoid striking the median island, leaving no margin for error. However, the recommended reduction of the island width to 6' (see note 5) should correct this condition.
 9. School zone signs: The proposed school zone signs are essential to inform Salmon Falls Road traffic of the turning traffic at the school driveway. The city is encouraged to enforce the posted speed limits as strictly as feasible and to investigate physical changes to Salmon Falls Road to calm traffic and reduce the high operating speeds. The school zone signs (static and feedback signs) must be designed based on the existing posted speed limit of 35 mph.
 10. MUTCD compliance: It is recommended that the proposed school zone signs be modified to comply with the MUTCD. First, the MUTCD requires that warning signs within school zones be fluorescent yellow-green rather than the yellow indicated in the revised site plans. Also, the elements of the vehicle speed feedback signs, including their sign color, text color, and numerical displays should be MUTCD-compliant.
 11. Accommodation of non-motorized road users: The proposed road layout at the site driveway will eliminate the existing narrow shoulder on Salmon Fall Road southbound. It is recommended that a

4' wide paved shoulder be provided within the school frontage. In addition, in support of the City's Safe Routes to School efforts, it is recommended that a sidewalk be provided within the school's frontage, and potential extend into the school property.

CONCLUSION

At the request of the City of Rochester GPI has performed a peer review of the Traffic Impact Study and proposed roadway improvements by Tighe & Bond, Inc. for the planned Salmon Falls Elementary School. GPI has recommended several modifications to the proposed layout of the site driveway and to the proposed improvements to Salmon Falls Road at the site driveway intended to more closely adhere to AASHTO and MUTCD guidance and optimize the safety and operation of the new intersection for all users.