MEMORANDUM

To: City of Steamboat Springs, Planning and Engineering Departments

From: Cassie Slade, PE, PTOE

Date: June 12, 2024

Project: Riverfront Park

Subject: Parking Analysis – Updated

The Fox Tuttle Transportation Group performed a parking demand analysis for the existing Riverfront Park. The property is located in the southeast corner of Shields Drive at Bridge Lane in Steamboat Springs, CO. There are three (3) existing buildings on the property (1900, 1920, and 1955 Bridge Lane) that include a mix of land uses to support a live/work environment. The two (2) southmost buildings include two-bedroom apartments above office/warehousing space that is on the ground level. The west building includes office space, warehousing, and the Excel Gymnastics of Steamboat. It is understood that the existing parking supply is inadequate, and the purpose of this current project is to increase the parking supply based on the anticipated demand.

Study Assumptions

The following assumptions was utilized to perform the parking analysis for the existing land uses:

- **Land Uses:**
    - Office Space (live/work) – 11,623 square feet *(estimated)*
    - Warehousing – 7,159 square feet *(estimated)*
    - Gymnastics/Dance Studio – 14,084 square feet
    - Residential Homes above the Commercial – 26 dwelling units
- **Base Parking Demand Ratios:** utilized data provided in Institute of Transportation Engineers' (ITE) *Parking Generation, 6th Edition (2023).*
    - Gymnastics/Dance Studio = No land use listed, therefore, the ITE parking demand rate for recreational community center was utilized.

- **Multi-Modal Reduction:** 5% for residents and gymnastics/dance studio; 60% for the office; and 40% for warehousing. The office and warehousing percentages are high since this is live/work environment and it is assumed that many of the employees live within the property.

- **Monthly and Weekday/Weekend Adjustments:** utilized data provided in the *ULI Shared Parking Manual (3rd Edition).*

    - Gymnastics/Dance Studio = No land use listed, therefore, the ULI parking adjustments for active entertainment were utilized.

- **Auto Occupancy Adjustment:** No adjustment applied for conservative purposes.

- **Non-Captive (Internal) Adjustment:** Assumed to be included in the multi-modal reduction.

Evaluation Methodology

One of leading industry parking resources was reviewed within the context of this project and discussed in this memorandum: ITE's *Parking Generation, 6th Edition (2023)*. ITE publishes parking generation data for various land uses based on numerous studies and empirical data calculating average peak parking demand. For the majority of land uses, ITE provides both urban and suburban parking formulas, near and not near rail transit, to predict peak parking demand.

The complementary land uses found in mixed-use developments allow for the required number of parking spaces to be reduced. This is because mixed-use development encourages visits to multiple land uses or businesses during the same visit, allowing a visitor, employee, or resident to "park once." The mix of commercial uses also allows for some shared parking to occur on the site. Shared parking is the use of the same parking space by more than one user. This is possible because most parking spaces are only used part time by an individual user, and the highest parking demand for some land uses occurs at different times of the day or different days of the week. Most land uses have parking demand that accumulates at specific, predictable times of the day and week. The Riverfront Park property has a variety of commercial and residential land uses that can benefit from shared parking.

ULI is a nonprofit education and research company that provides resources to estimate the shared parking of these developments. To determine the most appropriate adjustment to the parking requirement based on a shared plan, the data provided in ULI's *Shared Parking Manual*[1] was utilized. The manual provides:

- Base parking demand ratios for land use classifications (ITE parking demand ratios used)
- Time of year by month
- Time of day for weekday verses weekend

[1] Shared Parking Manual, Urban Land Institute, ICSC, National Parking Association. 3rd Edition. 2020.

Analysis and Findings

The size for each land use category and user type was multiplied by the provided parking ratios and adjusted for multi-modal travel as shown in **Table 1**.

Table 1: Base Parking Demand

Land Use	Size	Unit	ITE Base Parking Demand Rate (per 1,000 sf or room)		Base Parking Demand (Spaces)		Modal Split Reduction	Adjusted Parking Demand (Spaces)	
			Weekday	Weekend	Weekday	Weekend		Weekday	Weekend
Residential									
Multi-family (Low Rise)	26	*du*	0.7	0.8	17	21	5%	16	20
Commercial									
Small Office Building	*11,623*	*sq. ft.*	2.56	0.26	30	3	60%	12	1
Warehousing	*7,159*	*sq. ft.*	0.39	0.04	3	0	40%	2	0
Gymnastics/Dance	*14,084*	*sq. ft.*	2.07	1.90	29	27	5%	28	25
		Total Base Parking Demand:			***79***	***51***	*Total Adjusted:*	***58***	***46***

The total parking demand, adjusted for multi-modal, was calculated to be 58 spaces during the weekday and 46 spaces during the weekend. These values assume all residents, customers/visitors, and employees are parked at the same time, which is not realistic since each land use type has varying peak parking months and times of day.

The base parking demand values in **Table 1** were multiplied by the ULI data for monthly adjustments and time of day adjustments to determine the actual peak parking demand of the Riverfront Park site. **Table 2** summarizes the peak hour per month for weekdays and **Table 3** summarizes the peak hour per month for weekends.

Table 2: Weekday Parking Demand

Land Use	Weekday												
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Late Dec
	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM
Small Office Building	12	12	12	12	12	12	11	11	12	12	12	12	10
Warehousing	2	2	2	2	2	2	2	2	2	2	2	2	2
Gymnastics/Dance	28	27	24	20	18	18	18	20	22	24	24	0	0
Residential	7	7	7	7	7	7	7	7	7	7	7	7	7
Total Weekday Parking Demand	***49***	***48***	***45***	***41***	***39***	***39***	***38***	***40***	***43***	***45***	***45***	***21***	***19***

Table 3: Weekend Parking Demand

Land Use	Weekend												
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Late Dec
	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM
Small Office Building	12	12	12	12	12	12	11	11	12	12	12	12	10
Warehousing	2	2	2	2	2	2	2	2	2	2	2	2	2
Gymnastics/Dance	28	27	24	20	18	18	18	20	22	24	24	0	0
Residential	11	11	11	11	11	11	11	11	11	11	11	11	11
Total Weekend Parking Demand	***53***	***52***	***49***	***45***	***43***	***43***	***42***	***44***	***47***	***49***	***49***	***25***	***23***

Conclusion

The analysis indicated that the peak parking demand will likely occur during the month of January. The highest weekday parking demand was estimated to occur at 11:00am and be 49 spaces. The weekend calculation was slightly higher with 53 spaces at 11:00am for the parking demand. **It is recommended that the site be designed to provide a minimum of 53 parking spaces to serve the estimated parking demand.** If the parking demand cannot be accommodated on site, then it is recommended that the property discuss leasing parking spaces from nearby businesses that have availability.

/CRS