December 21, 2020



Mr. Dan Kent Galvan Foundation 400 State Street Hudson, NY 12534

RE: Traffic and Parking Assessment, The Depot District Mixed-Use Project, 75 N. 7th Street and 620/708 State Street, City of Hudson, Columbia County, New York; CM Project No. 20-205

Dear Mr. Kent,

Creighton Manning Engineering, LLP has completed a traffic and parking assessment for the proposed *Depot District* mixed-use project. The project consists of several mixed-use buildings that will be located on either side of N. 7^{th} Street and north of State Street in the City of Hudson. The buildings will accommodate a total of 157 affordable and market rate apartment units and $\pm 12,110$ square-feet (SF) of commercial space. This evaluation is based on information provided in the "Depot District Unit Dist.," last revised by Walter Chatham Architect Initiative on December 2, 2020 (See Attachment A). An executive summary of the assessment is included below:

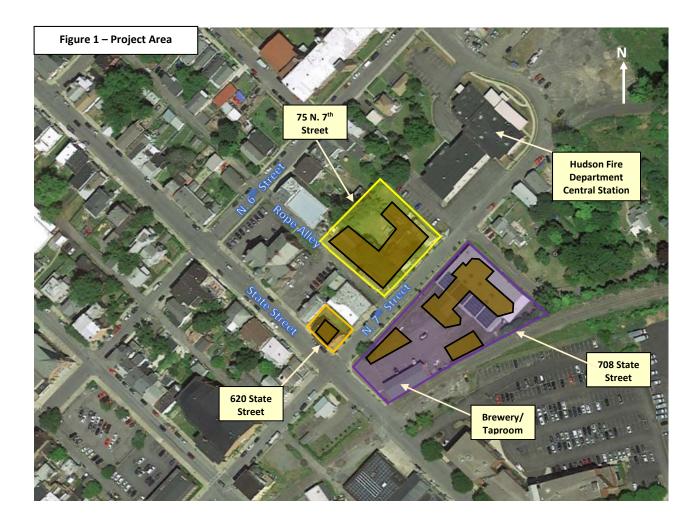
- A review of the surrounding study area indicates that the available on-street parking supply of
 approximately 176 spaces can accommodate the peak parking demand (153 parking spaces)
 associated with the *Depot District* mixed-use project. In addition, the municipal lot has
 approximately 110 available parking spaces that can accommodate additional parking if overnight
 on-street occupancy sharply increases in the City of Hudson.
- The trip generation estimate indicates that the project is expected to generate 86 trips during the AM peak hour and 87 trips during the PM peak hour. The magnitude of the new vehicle trips generated at the site is less than the NYSDOT and ITE threshold of 100 site generated vehicles on any one intersection approach for needing off-site intersection analysis; therefore, detailed analysis of off-site intersections is not necessary since the existing roadway network will have adequate capacity to accommodate future traffic generated by the site.
- A review of N. 7th Street indicates that this roadway provides approximately 20 to 21-feet of available roadway width (excluding the parking lane) for emergency vehicles which meets industry standards; therefore, the proposed project will not impact emergency access to and from the Hudson Fire Department Central Station building.

1.0 Project Description

The proposed project includes construction of two large mixed-use buildings that will be supported be three smaller secondary buildings. It is anticipated that the project will be completed in 2022. The study area is shown on Figure 1. The proposed development plan and land uses are summarized below:

• 75 N. 7th Street – The large five story building will consist of 53 affordable apartment units, 22 market rate apartment units, and 3,676 SF of commercial space. The building at 75 N. 7th Street will combine three parcels and remove the existing single-family homes and related structures on each property. Access to the existing parcels is currently provided via two curb cuts on N. 7th Street and one curb cut off of Rope Alley. Vehicular access and dedicated on-site parking will not be provided for residents or customers; however, pick-up and deliveries to the building will be accommodated via Rope Alley on the southwest corner of the building. Residents and customers will use available on-street parking and local municipal lots. The removal of three total curb cuts promotes positive access management.

- 708 State Street The main six story building will consist of 63 market-rate apartment units and 5,197 SF of commercial space. The existing warehouse building at 708 State Street will be eliminated in order to accommodate the proposed development; however, it is noted that the City of Hudson has already approved a brewery/taproom that will renovate the vacant railroad station building located in the southeast quadrant of the parcel. It is noted that two smaller mixed-use buildings will eventually be constructed to accompany the main structure. The proposed building located adjacent to N. 7th Street will consist of six affordable apartment units and 1,795 SF of commercial space while the proposed building located along the railroad tracks will consist of 1,441 SF of commercial space. Access to the existing parcel is currently provided via one long curb cut on State Street. This curb cut will be eliminated and a new service road will be constructed on N. 7th Street opposite Rope Alley which will provide pick-up and delivery opportunities for the new buildings. Residents and customers will use available on-street parking and local municipal lots since direct vehicular access and dedicated on-site parking will not be provided.
- 620 State Street This building will consist of 13 market-rate apartment units. The previous building
 at 620 State Street has already been removed. Direct vehicular access was not provided to this
 parcel in the past and dedicated on-site parking will not be provided in the future. Residents will
 use available on-street parking and local municipal lots.





2.0 Existing Conditions

Roadways Serving the Site

N. 7th Street is a north-south roadway that travels from the *Hudson Fire Department Central Station* to Union Street and is classified as a local urban road. N. 7th Street generally provides a 28 to 29-foot wide roadway near the project site for two-way traffic from the *Hudson Fire Department Central Station* to State Street. N. 7th Street changes to a one-way roadway for southbound traffic between State Street and Columbia Street where it then changes back to a two-way facility between Columbia Street to Union Street. On-street parking on N. 7th Street is summarized below:

- Diagonal on-street, metered parking is provided on the west side of the road from Union Street to Warren Street. It is noted that parking is restricted in this area from 9:00 p.m. Monday to 8:00 a.m. Tuesday for street cleaning.
- Metered on-street parking is provided on both sides of the road from Warren Street to Columbia Street.
- Free on-street parking is provided on both sides of the road from Columbia Street to State Street.
- Free on-street parking is provided on the west side of the road from State Street to the *Hudson Fire Department Central Station*.

Sidewalks are generally provided on both sides of the road and the posted speed limit in the City of Hudson is 30-mph. Land uses along 7th Street in the project vicinity include the 7th Street Park, the Hudson Fire Department Central Station, and a mix of commercial and residential land.

Transit, Amtrak, and Pedestrians

Columbia County Public Transit (CCPT) provides transit service adjacent to the site on N. 7th Street. The *Hudson-Greenport Shuttle* runs a loop between the *Hudson Amtrak* station and the *Walmart* in Greenport. This line provides a stop at the Columbia County Department of Social Services building located approximately 600-feet northeast of the site. This route runs on approximately 70 minute headways. It is noted that the transit service is generally associated with local trips.

An *Amtrak* station is provided approximately 1½ miles southwest of the site located at 69 S. Front Street. This station serves four different *Amtrak* trains (Adirondack, Empire, Ethan Allen Express, and Maple Leaf). Residents may take the train and call for a ridesharing service or taxi to access the site.

3.0 Traffic Assessment

Trip Generation

Trip generation determines the quantity of traffic expected to travel to and from the project site. The Institute of Transportation Engineers (ITE) *Trip Generation, 10th edition,* is the industry standard used for estimating trip generation for proposed land uses based on data collected at similar uses. The trip generation for the proposed residential units was estimated using land use code (LUC) 223 for Affordable Housing (Income Limits in a Dense Urban Area) and LUC 221 for Multi-Family Mid-Rise Housing (Occupied Dwelling Units in a Dense Urban Area filtered for sites below 200-units). In addition, the trip generation for the proposed commercial space was estimated using LUC 231 for Mid-Rise Residential with 1st-Floor Commercial (retail portion of the equation for commercial space in a Dense Urban Area only). Table 1 summarizes the trip generation estimate for the AM and PM peak hours.



Table 1 – Trip Generation Summary

Landlles	North and State (CE	1116	AM Peak Hour	PM Peak Hour	
Land Use	Number of Units/SF	LUC	Total	Total	
75 N. 7 th Street Building	53 Affordable units	223	25	20	
	22 Market-Rate	221	6	5	
	3,676 SF Commercial Space	231	10	13	
708 State Street Buildings	69 Market-Rate Units	221	19	17	
	8,433 SF Commercial Space	231	22	29	
620 State Street Building	13 Market-Rate Units	221	4	3	
Total			86	87	

The table indicates that the project is expected to generate 86 trips during the AM peak hour and 87 trips during the PM peak hour. The magnitude of the new vehicle trips generated at the site is less than the NYSDOT and ITE threshold of 100 site generated vehicles on any one intersection approach for needing off-site intersection analysis. This guidance was developed as a tool to identify locations where the magnitude of traffic generated has the potential to impact operations at off site intersections and screen out locations from requiring detailed analysis that do not reach the 100 vehicle threshold; therefore, detailed analysis of off-site intersections is not necessary.

Local Emergency Access

Main access to the *Hudson Fire Department Central Station* building located immediately north of the project site is provided via one large curb cut on N. 7th Street. Secondary access to the fire station is provided via a driveway on Washington Street. As noted above, direct vehicular access will not be provided to the proposed site and two existing residential curb cuts will be removed on N. 7th Street. A review of the project area indicates that on-street parking is currently provided on the west side of N. 7th Street which will not change after construction of the proposed development. Based on a review of the *2018 International Fire Code* (Section 503.2.1), the minimum clear width for fire department access roads is typically 20-feet. A review of N. 7th Street indicates that this roadway is approximately 28 to 29-feet wide which accommodates the approximate eight-foot wide on-street parking lane. This leaves approximately 20 to 21-feet of available roadway width for emergency vehicles which meets industry standards; therefore, the proposed project will not impact emergency access to and from the *Hudson Fire Department Central Station* building.

Parking Assessment

A review of the site plan indicates that the proposed affordable and market-rate apartment buildings will not provide on-site parking spaces. *Parking Generation, 5th Edition* published by ITE indicates that the 85th percentile peak weekday parking demand for affordable housing is 0.90 vehicles per unit while the 85th percentile peak weekday parking demand for market-rate housing is 1.01 vehicles per unit (filtered for dense urban sites below 200-units) and occurs between 10:00 p.m. and 5:00 a.m. This indicates that residents of the 157-units (53 affordable units and 104 market-rate units) located in the various apartment buildings will require approximately 153 parking spaces overnight. It is not anticipated that the commercial spaces will require overnight parking between 10:00 p.m. and 5:00 a.m.

Field observations of on-street parking near the proposed mixed-use development and the existing municipal parking lot located on Columbia Street were conducted from 10:30 p.m. to 12:30 a.m. in order to determine if adequate parking supply will be provided to accommodate the 153 spaces required for the proposed development. Typical traffic data collection time periods during the morning and afternoon commuter time periods would not give a true representation of parking needs as parking during these



periods would fluctuate with people entering and exiting the municipal lot and on-street parking during the beginning and end of their work days. The available parking supply in the vicinity of the proposed *Depot District* mixed-use project was documented by counting the number of available on-street parking spaces and the number of off-street parking spaces provided in the local municipal parking lot. The study area, as shown on Figure 2, was defined based upon the available off-street parking lot and on-street parking located within ¼ mile of the destination (approximate 0 to 5 minute walk). Within the study area, there are a total of approximately 332 free on-street parking spaces provided on the following streets:

East/West Streets

- Franklin Street (Washington Street to Prospect Street) 24 free spaces (No parking November 30 to March 31)
- Dodge Street (Prospect Street to State Street) 12 free spaces
- N. 6th Street (Clinton Street to Washington Street) 10 free spaces
- N. 6th Street (Washington Street to Prospect Street) 10 free spaces
- N. 6th Street (Prospect Street to State Street) 10 free spaces
- N. 6th Street (State Street to Columbia Street) 19 free spaces
- N. 7th Street (Washington Street to State Street) 10 free spaces
- N. 7th Street (State Street to Columbia Street) 16 free spaces

North/South Streets

- Washington Street (5th Street to 6th Street) 60 free spaces
- Prospect Street (5th Street to 6th Street) 60 free spaces
- State Street (5th Street to 6th Street) 60 free spaces
- State Street (6th Street to 7th Street) 16 free spaces
- Columbia Street (6th Street to 7th Street) 13 free spaces

A review of on-street weekday parking observations made prior to the corona virus pandemic for a previous project were reviewed to determine if current observations should be factored to account for any impacts related to the implementation of travel restrictions. A comparison of similar on-street parking areas indicates that there was 49% on-street parking demand prior to pandemic conditions and 45% on-street parking demand after pandemic conditions. This indicates that parking demand is comparable and a factor does not need to be applied.

The on-street parking noted above is all free. There are metered on-street parking spaces available within walking distance to the proposed development (State Street and Columbia Street east of 7th Street); however, they were excluded from the analysis. It is noted that the metered on-street parking spaces (\$0.25 per hour) have a two-hour time limit during typical daytime working hours (between 9:00 a.m. to 5:00 p.m. on weekdays) and are free on nights and weekends.







There are 123 parking spaces associated with the off-street municipal parking lot located on Columbia Street which includes 109 metered (\$0.25 per hour) and 14 permit parking spaces. The municipal lots owned by the City of Hudson have a 12-hour time limit during the day and are free on nights (5:00 p.m. to 9:00 a.m.) and weekends which coincide with peak times of the proposed mixed-use development.

Table 2 summarizes the available and occupied parking spaces observed during peak demand conditions on a weekday evening (Thursday, July 9, 2020). The table indicates that the **Columbia Street municipal lot was approximately 10% occupied (110 available spaces)** during the Thursday PM peak period. In addition, approximately 55% of on-street parking spaces were available within a ¼ mile walk to the mixed-use buildings during the Thursday PM peak period **(176 available spaces)**. A review of the surrounding area indicates that **the on-street parking supply can accommodate parking demands associated with the** *Depot District* **mixed-use project (peak demand = 153 parking spaces). In addition, the municipal lot could also accommodate a significant amount of parking if overnight on-street occupancy sharply increases in the City of Hudson.**



Table 2 – Summary of Parking Availability by Lot and Street July 9, 2020 (10:30 p.m. to 12:30 a.m.)

Parking Area		Restrictions (General)		Weekday		
				Occupied Spaces	Available Spaces	Average Occupancy
Municipal Lot	Columbia Street Lot	Day 12-hour Metered and Permit (9am-5pm), Free Nights and Weekends	123	13	110	10%
Parking Lot Availability					90%	
	Franklin Street - Washington St to Prospect St	ranklin Street - Washington St to Prospect St Free (No Parking November 30 to March 31)		5	19	21%
~	odge Street - Prospect Street to State Street Free (No Parking Thurs 9 PM to Fri 8 AM)		12	9	15	38%
Wal	l 6th Street - Clinton Street to Washington St		10	0	10	0%
Minute Walk	N 6th Street - Washington St to Prospect Street Free		10	5	5	50%
Jin	I 6th Street- Prospect Street to State Street Free		10	6	4	60%
2	N 6th Street- State Street to Columbia Street	Free	19	11	8	58%
On-Street Parking - 0 to	N 7th Street - Washington Street to State Street Free		10	2	8	20%
	N 7th Street- State Street to Columbia Street Free		16	8	8	50%
	Nashington Street - 5th Street to 6th Street South Side: No Parking Mon 9 PM to Tues 8 AM North Side: No Parking Tues 9 PM to Wed 8 AM		60	33	27	55%
	Prospect Street - 5th Street to 6th Street South Side: No Parking Mon 9 PM to Tues 8 AM North Side: No Parking Tues 9 PM to Wed 8 AM		60	23	37	38%
	State Street - 5th Street to 6th Street	Free	60	25	35	42%
	State Street - 6th Street to 7th Street Free		16	11	5	69%
	Columbia Street - 6th Street to 7th Street	Free		6	7	46%
Total On-Street (0-5 Minute)			320	144	176	45%
On-Street (0-5 Minute) Availability					55%	
Total Parking			443	157	286	35%
Total Parking Availability					65%	

4.0 Conclusions

The project consists of several mixed-use buildings that will be located on either side of N. 7^{th} Street State Street north of State Street in the City of Hudson. The buildings will accommodate a total of 157 affordable and market-rate apartment units and $\pm 12,110$ SF of commercial space. Access to the 75 N. 7^{th} Street parcel



is currently provided via two curb cuts on N. 7th Street and one curb cut off of Rope Alley. Vehicular access and dedicated on-site parking will not be provided for residents; however, pick-up and deliveries to the building will be accommodated via Rope Alley on the southwest corner of the building. Access to the 708 State Street parcel is currently provided via one long curb cut on State Street. This curb cut will be eliminated and a new service road will be constructed on N. 7th Street opposite Rope Alley which will provide pick-up and delivery opportunities for the new buildings. Direct vehicular access to the 620 State Street parcel was not provided in the past and dedicated on-site parking will not be provided in the future. Residents and customers of the *Depot District* mixed-use project will use available on-street parking and local municipal lots. It is anticipated that the project will be completed in 2022. The following is noted regarding the proposed project:

- The development is expected to generate 86 vehicle trips during the AM peak hour and 87 vehicle trips during the PM peak hour, which is below the threshold for further analysis or potential traffic impact, meaning the site will not have a traffic impact.
- Main access to the Hudson Fire Department Central Station building located immediately north of the project site is provided via one large curb cut on N. 7th Street. Direct vehicular access will not be provided to the proposed site and two existing residential curb cuts will be removed on N. 7th Street. The minimum clear width for fire department access roads is typically 20-feet. A review of N. 7th Street indicates that this roadway provides approximately 20 to 21-feet of available roadway width (excluding the parking lane) for emergency vehicles which meets industry standards; therefore, the proposed project will not impact emergency access to and from the Hudson Fire Department Central Station building.
- A review of the site plan indicates that the proposed mixed-use buildings will not provide on-site parking spaces. Information published by ITE indicates that the 85th percentile peak weekday parking demand is 0.90 vehicles per unit while the 85th percentile peak weekday parking demand for market-rate housing is 1.01 vehicles per unit and occurs between 10:00 p.m. and 5:00 a.m. This indicates that residents of the 157-units (53 affordable units and 104 market-rate units) located in the various mixed-use buildings will require approximately 153 parking spaces overnight. It is not anticipated that the commercial spaces will require overnight parking between 10:00 p.m. and 5:00 a.m.
- A review of the off-street municipal parking lot on Columbia Street indicates that it is generally 10% occupied during the peak weekday PM peak period (110 available parking spaces).
- The parking assessment of existing conditions indicates that on-street parking within a five-minute
 walking range to the site has a 45% percent occupancy rate with 176 available spaces during the
 weekday peak period. The available parking supply located within an approximate five-minute walk
 is more than adequate to accommodate the proposed development.

Please call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,

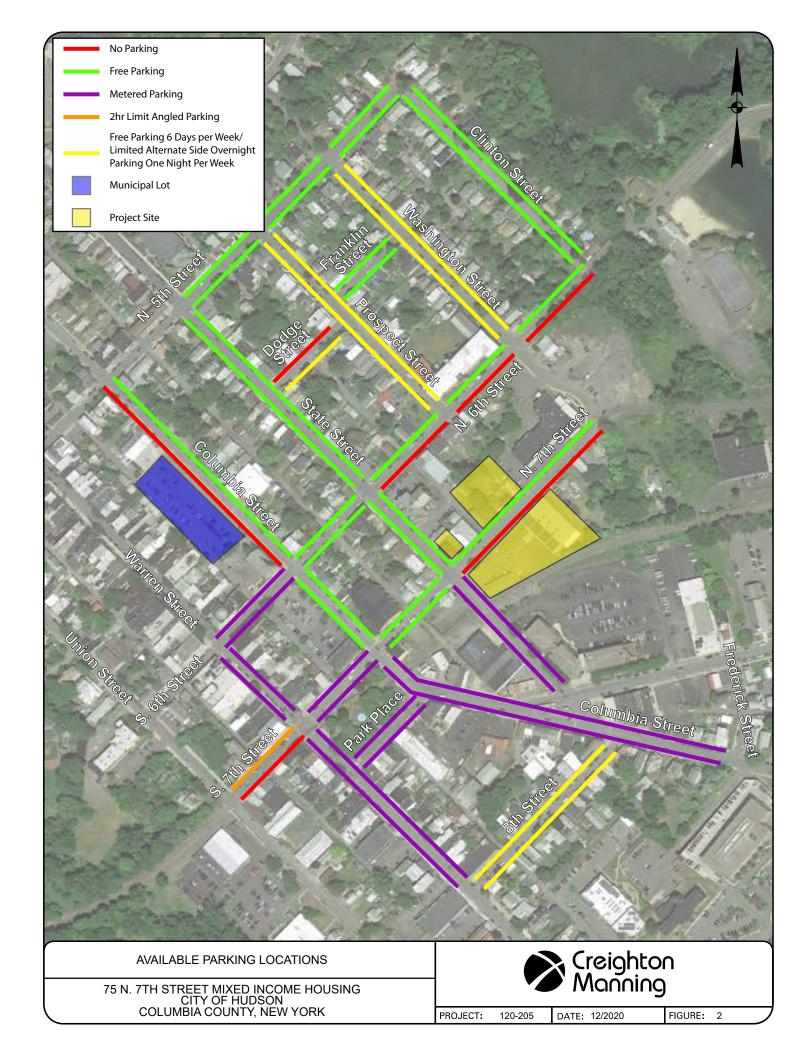
Creighton Manning Engineering, LLP

Mark D. Nadolny

Associate

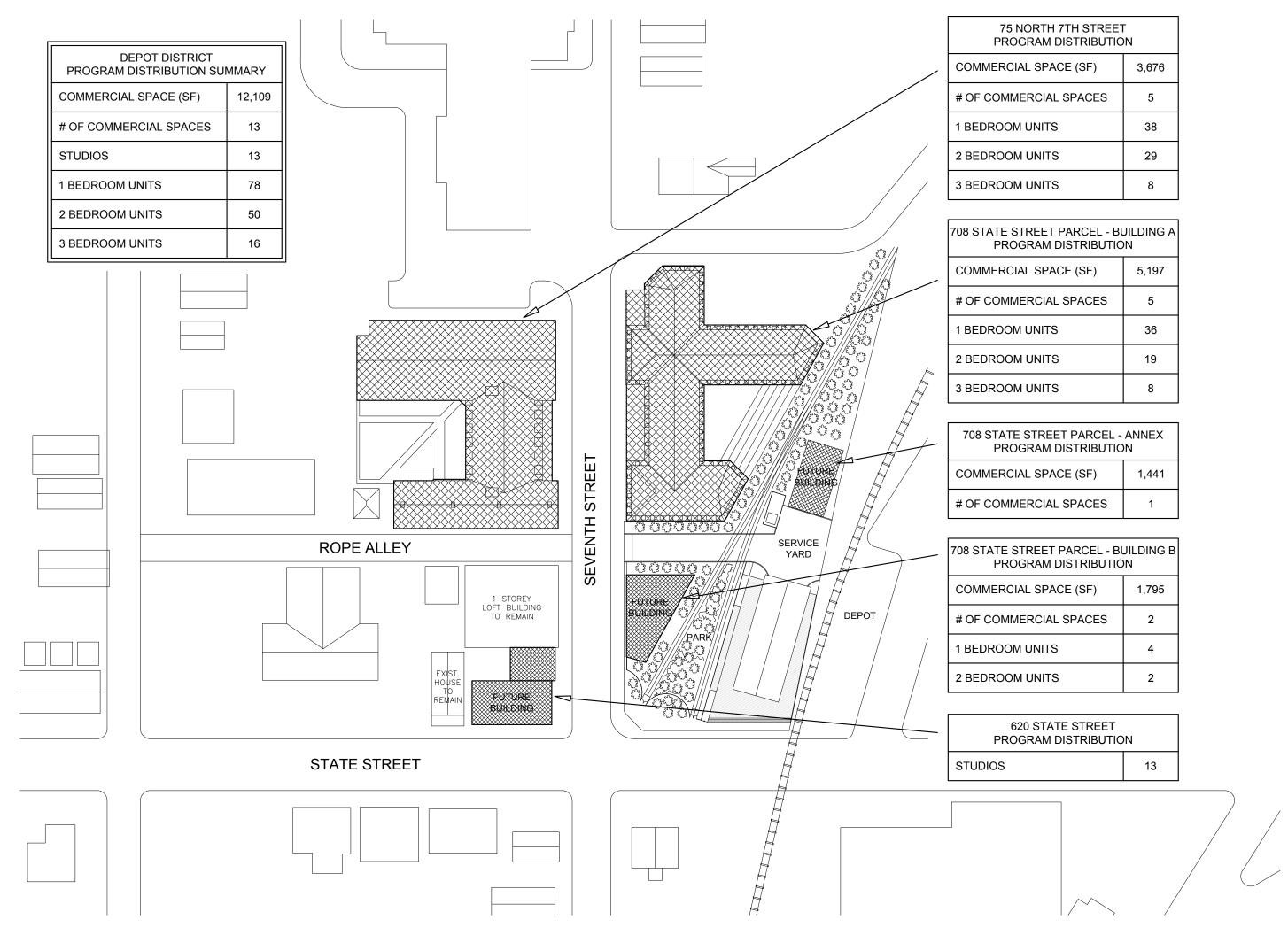
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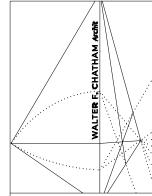




Attachment A Site Plan

The Depot District Mixed-Use Project City of Hudson, New York





WALTER CHATHAM ARCHITECT

2 HUDSON AVENUE HUDSON, NY 12534 212 925 2202 walter@wfchatham.com

PROJECT:

HUDSON **DEPOT DISTRICT**

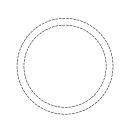
HUDSON, NEW YORK

DATE: 08.24.2020 2020.12 PROJECT NO.:

DATE:

REVISION: MM.DD.YYYY

DESIGN DEVELOPMENT 12.02.2020



DEPOT DISTRICT UNIT DIST.

SCALE:

1/64" = 1'-0"

DWG. NO.:

DRAWN BY:

CAD FILE NO.

X OF X