

AEP America – “Mountain Mikes”

SCOPE OF WORK

CAD Drafter

VERSION LOG:

Version	Date:	Revision notes:

INTRODUCTION TO PROJECT:

Welcome to the “Mountain Mikes – AEP America” Project with FSU!
 Our goals for this project are to collect all the information needed for our client to design new stores. FSU will be acting as the client’s eyes and ears on site to document the following scope of work for demolition, taking over current restaurant spaces and turning them in to Mountain Mikes. Please pay attention for items that look out of the ordinary or expensive to correct. The size of the spaces are approximately 1,400 to 3,000 sq. ft.

CAD DRAFTER CRITICAL PROJECT INFORMATION:			
Project Fee:	Can be viewed in Quickbase		
Turnaround/Upload Time Frame:	Logged in Quickbase		
FSU Project Contacts			
Project Manager:	Project Manager	Scheduling:	Project Coordinator
Project Manager phone:	303-355-7274	Scheduling phone:	303-355-7274
Project Manager email:	Project Manager’s Email	Scheduling email:	scheduling@fsusurveyor.com
FSU Project Escalation:	For missing information, documentation, Email needs to be sent to Surveyor with Project Manager CC’d on email.		
1. Project Manager:	Project Manager		
2. Vice President of Operations:	Vice President of Business Operations		
3. After hours contact:	Project Manager’s Cell Phone		
CAD Drafter Responsibilities:	<ul style="list-style-type: none"> o Thoroughly review the Scope of Work and address any questions with the Project Manager prior to survey o Download the current AutoCAD Template and Scope of Work from Quickbase o Contact Project Manager with any site issues or concerns o Enter “date surveyor deliverables in” and “CAD Drafter Hours” in QuickBase upon uploading of deliverables o Upload all documentation/deliverables to QuickBase within the required timeframe, send notification to Project Manager. Note: all deliverables must be completed in full prior to upload, partial deliverable uploads will not be accepted 		

CAD Drafter DELIVERABLES PACKAGE:

The following items will be uploaded by the Surveyor:

- Surveyor CAD
- Field Drawings
- Still Photos
- Laser Photos

***IF ITEMS HAVE *OPTIONAL PLEASE CHECK WITH YOUR PROJECT MANAGER BEFORE DRAFTING (CHECK SITE NOTES)**

I. SURVEYOR CAD Deliverable to CAD Drafter

Surveyor CAD Responsibilities	<ul style="list-style-type: none"> o <u>CAD Floorplan Orientation: Main entry facing right or bottom depending on space layout</u> o Surveyor must provide a base CAD <u>(Completed on Site)</u> that shows all walls, half-walls, doors, windows, columns, vertical floor changes, and soffits o Surveyor must guarantee the accuracy of their CAD to ¼ inch o Completed surveyor CAD must be saved in AutoCAD compatible format saved to version 2013 o Object snaps must be used o Surveyor must use the correct project template and layers o Door openings must be cut into walls o Surveyor CAD must show exterior and demising wall thickness (Be sure to note if demising wall thickness is assumed) o <u>Surveyor CAD requested to annotate the title block with the following: Address, Site Number, North Arrow, Date, and Surveyor Name</u>
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II. FIELD DRAWINGS

Extents/Column Dimension Plan	<ul style="list-style-type: none"> o Sketch of layout of space with overall dimensions front to back and side to side noted. If columns exist within space, Full placement, size, and spacing dimensions will be required as part of this drawing or as a separate drawing if necessary. Photos of the overall dimensions as shown on the laser are required for this plan. (Be sure to review laser photos)
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III. SURVEY INFORMATION

Floor Plan	<ul style="list-style-type: none"> o Floor Plan Elements: Exact placement of ALL items listed below. <ul style="list-style-type: none"> ▪ Exterior Walls (including demising wall and exterior wall thickness) ▪ Interior Walls, Partitions, Partial Wall Heights ▪ Wall Openings/Pass Throughs (WxH, Sill Ht, and Header Ht) ▪ Visible Columns, Visible Embedded Columns ▪ Doors (WxH) ▪ Windows (WxH, Sill and Header Height) ▪ Storefront (WxH, Sill and Header Height) ▪ Bump-Outs, Recesses, Niches (WxHxD) ▪ Steps, Ramps, Changes in Level (#Treads, Slope, and Height) o Floor Plan Elements: General placement of ALL items listed below. <ul style="list-style-type: none"> ▪ Identify Demising Walls – (Fire Rated) ▪ Identify Chase o Finishes Plan Elements: Exact placement of ALL items listed below. <ul style="list-style-type: none"> ▪ Floor Finishes (e.g.: carpet, concrete, tile, VCT, wood, laminate, etc.) ▪ Ceiling Finishes (e.g.: ACT, drywall, open to deck, glued tile, etc.)
Major Mechanical, Electrical, Plumbing Plan (MEP Plan)	<ul style="list-style-type: none"> o Mechanical: Exact placement of ALL mechanical elements listed below. <ul style="list-style-type: none"> ▪ HVAC Units (WxHxD and AFF) (# of Units, Model #'s, Serial #'s, Placement, Condition, Type)

	<ul style="list-style-type: none"> ▪ Compressors (WxHxD and AFF) ▪ Evaporative Coolers (WxHxD and AFF) ▪ Gas Meters ▪ Identify if Gas is on site, location of Gas line, and size ○ Mechanical: General placement of ALL mechanical elements listed below. <ul style="list-style-type: none"> ▪ Wall mounted HVAC registers ▪ Ductwork – Identify Type and Height at front, middle, and rear of space ○ Electrical: Exact placement of ALL electrical elements listed below. <ul style="list-style-type: none"> ▪ Electrical Panels (WxHxD and AFF) (Service Size, Voltage, and Service Details) ▪ Electrical Meters (AFF) ▪ Timers (AFF) ▪ Disconnect Switches (WxHxD and AFF) ▪ Control Panels ▪ Key Pads ▪ Transformers (WxHxD) ▪ Main Point of Entry (MPOE) ○ Plumbing: Exact placement of ALL plumbing elements listed below including AFFs. <ul style="list-style-type: none"> ▪ Toilets ▪ Urinals ▪ Hand Sinks ▪ Utility Sinks, Mop Sinks ▪ 3-comp/2-comp Sinks ▪ Drinking Fountains ▪ Floor Drains, Floor Sinks ▪ Sanitary Line Location and Size ▪ Clean-Outs ▪ Exposed Plumbing (Stub-Outs, Shut-Offs) (Main Shut Offs) ▪ Water Heaters/Insta-Hots ▪ Water Meters ▪ Water Supply Location, Water Line Size ▪ Grease Interceptor ○ Fire/Life Safety: Exact placement of ALL elements listed below. <ul style="list-style-type: none"> ▪ Fire Alarm Control Panels and Equipment to Identify
<p>Reflected Ceiling Plan (RCP) - *OPTIONAL</p>	<ul style="list-style-type: none"> ○ General placement of ALL elements listed below. <ul style="list-style-type: none"> ▪ Ceiling Heights ▪ Soffits/Changes in Ceiling Height ▪ Headers/Beams ▪ HVAC Registers (Supply/Return) ▪ Identify if Fire Sprinklers are within surveyed space
<p>Sprinkler Plan – REQUIRED</p>	<ul style="list-style-type: none"> ○ Sprinkler Plan Elements: True placement of ALL items listed below. <ul style="list-style-type: none"> ▪ Water and Plumbing Line and Size with MPOE <p>*To identify any obstruction above grid with height and general placement.</p>
<p>HVAC Plan* – OPTIONAL</p>	<ul style="list-style-type: none"> ○ HVAC Plan Elements: True placement of ALL items listed below. <ul style="list-style-type: none"> ▪ HVAC Registers/Diffusers ○ HVAC Plan Elements: General placement of ALL items listed below. <ul style="list-style-type: none"> ▪ HVAC Ductwork (Height only at front, middle, and rear of space) <p>*To identify any obstruction above grid with height and general placement.</p>
<p>Structural Plan* - OPTIONAL</p>	<ul style="list-style-type: none"> ○ Structural Plan Elements: General placement of ALL items listed below. (Height at front, middle, and rear of space) <ul style="list-style-type: none"> ▪ Structural Beams – Identify Type (Need Angle Measurements, Thickness for Both TC and BC *See Below) ▪ Structural Walls – Identify Type ▪ Columns – Identify Type

	<ul style="list-style-type: none"> ▪ Joists (Roof, Floor, Ceiling) – Identify Type ▪ Roof Deck – Identify Type (Type of Roof Construction, Metal Deck, Bulb-Tee, Etc.) <p>*Beams and joists to be identified:</p> <ul style="list-style-type: none"> ▪ Depth ▪ Top Chord = TC <ul style="list-style-type: none"> ▪ Angle ▪ Bottom Chord = BC ▪ Web Members <ul style="list-style-type: none"> ▪ Configuration of Web Members, Spacing of Panel Points ▪ Gap = G ▪ Span = S <ul style="list-style-type: none"> ▪ Dimensional Info of Support Members and Their spans, depth, Width, and Thickness ▪ Spacing = SP <ul style="list-style-type: none"> ▪ Ang. Spacing <p>*To identify any obstruction above grid with height and general placement.</p>
Roof Plan* - OPTIONAL	<ul style="list-style-type: none"> o True placement of ALL elements listed below. <ul style="list-style-type: none"> ▪ Parapet Walls (Height) ▪ Direction of Roof Slope ▪ RTU's (WxHxD) ▪ Roof Drains o General placement of ALL elements listed below. <ul style="list-style-type: none"> ▪ Roof Vents ▪ Exhaust Fans ▪ Condensers
Site Plan* - OPTIONAL	<ul style="list-style-type: none"> o Exact placement of ALL elements listed below. <ul style="list-style-type: none"> ▪ Exterior Utilities (Meters, Panels) ▪ Curb at Perimeter of Surveyed Space ▪ Slopes & ramps <p>*20'-0" Radius around Surveyed Space</p>
Photo Key	<ul style="list-style-type: none"> o Floor plan with photos grouped by area or room o Surveyor deliverable for photo bubble must be clear and accurate for the actual photo location. o Above grid plan with group bubbles <ul style="list-style-type: none"> ▪ Surveyor deliverable for photo bubble must be clear and accurate for the actual photo location.

IV. PHOTOS	
<p>Photos</p> <p>(CAD Drafters are required to review the photos for a full completion of the Site Survey, this is to ensure everything was captured as needed from the Scope of Work, if anything is missing from the scope that was not captured by the surveyor, please email the surveyor and CC the project manager)</p>	<ul style="list-style-type: none"> o Exterior photos ARE NOT to be taken at night o Photos to include: <ul style="list-style-type: none"> ▪ All Sides of Building ▪ Adjacent Tenants ▪ Remote Utility Rooms (With Path of Travel from Site) ▪ Remote Storage Rooms (With Path of Travel from Site) ▪ Parking Lot and Accessible Spaces ▪ Signage ▪ Visible Damage/Areas of Concern ▪ Photos of Mechanical Equipment (Thermostats), Mechanical, Electrical, and Plumbing ▪ All Rooms and Spaces Within the Survey Space ▪ Above Grid/Structural Design and Configuration of Structural Members ▪ Roof – To Include RTUs with Tags and General Photo Array ▪ Entrances/Exits – Both Sides, To Include Threshold

	<ul style="list-style-type: none"> ▪ MEP Equipment – To Include Close Up of Labels ○ Photo resolution: 1280 x 960 minimum ○ Photos to be taken in landscape format only ○ Photo sequence order: regardless of the order of the photos taken, the surveyor will reorder the photos to this sequence: <ol style="list-style-type: none"> 1. Exterior (front then rear) 2. Interior 3. Above ceiling 4. Roof 5. Extra space (remote power or phone room) ○ Interior photos: <ul style="list-style-type: none"> ▪ Complete store front photos ▪ Corner photos facing into the space (each corner, 2 photos with your back in the corner facing the opposite corner. 1 eye level photo, 1 ceiling photo) ▪ Architectural details such as millwork, wainscoting, structural relationships ▪ Utility equipment (HVAC units, filter systems, water heaters, electrical, water, gas...etc. ▪ Above ceiling photos: limited amount. Take several photos to document the duct placements and structure type. ○ Photo Folder naming protocol: APMM_XXXX (5 digit site number)_CityST_Photos ○ Photo naming protocol: APMM_XXXX (5 digit site number)_### ○ Include any equipment outside of the space, MPOE, Dmarc, and panels. ○ Include detail photos of any electrical panels that serve the space (detail photos of panels not within the space are still required) if equipment is not in the space please take a path of travel from the space to the equipment location. ○ Close-up photos of: <ul style="list-style-type: none"> ▪ Electrical equipment including panel boxes (with all marking-make, model, serial number, amps, volts, phase, wire, as well as individual circuits on the box). ▪ Meters. ▪ MPOE and demarks. ▪ Utilities that service the space ▪ Rear door hardware from inside and outside of the space ▪ Roof Equipment
Roof Photos	<ul style="list-style-type: none"> ○ Photos completely documenting the roof conditions ○ Photos of all roof mounted equipment and their information plates/tags
Laser Photos	<ul style="list-style-type: none"> ○ <u><i>Laser photos are to be delivered separately from regular site photos</i></u> ○ Folder Naming Protocol: APMM_XXXX (5 digit site number)_CityST_Laser ○ Photo Naming Protocol: APMM_XXXX (5 digit site number)_###

V. Drafter CAD	
CAD Drafter Deliverable	<ul style="list-style-type: none"> ○ <u><i>CAD Floorplan Orientation: Main entry facing right or bottom depending on space layout</i></u> ○ Completed CAD must be saved in AutoCAD compatible format saved to version 2013 ○ Object snaps must be used ○ CAD Drafter must use the correct project template and layers ○ Door openings must be cut into walls ○ Must show exterior and demising wall thickness (Be sure to note if demising wall thickness is assumed) ○ Viewport scale needs to match the annotation scale (Viewport scale is in ¼"=1'-0", Annotation needs to state the same scale.) ○ <u><i>CAD Drafter requested to confirm the title block is correct with the following information: Address, Site Number, and North Arrow.</i></u> ○ <u><i>In Title block update CAD Drafter name.</i></u>

VI. REQUIRED HAND DRAWING EXAMPLES

Extents Dimension Plan

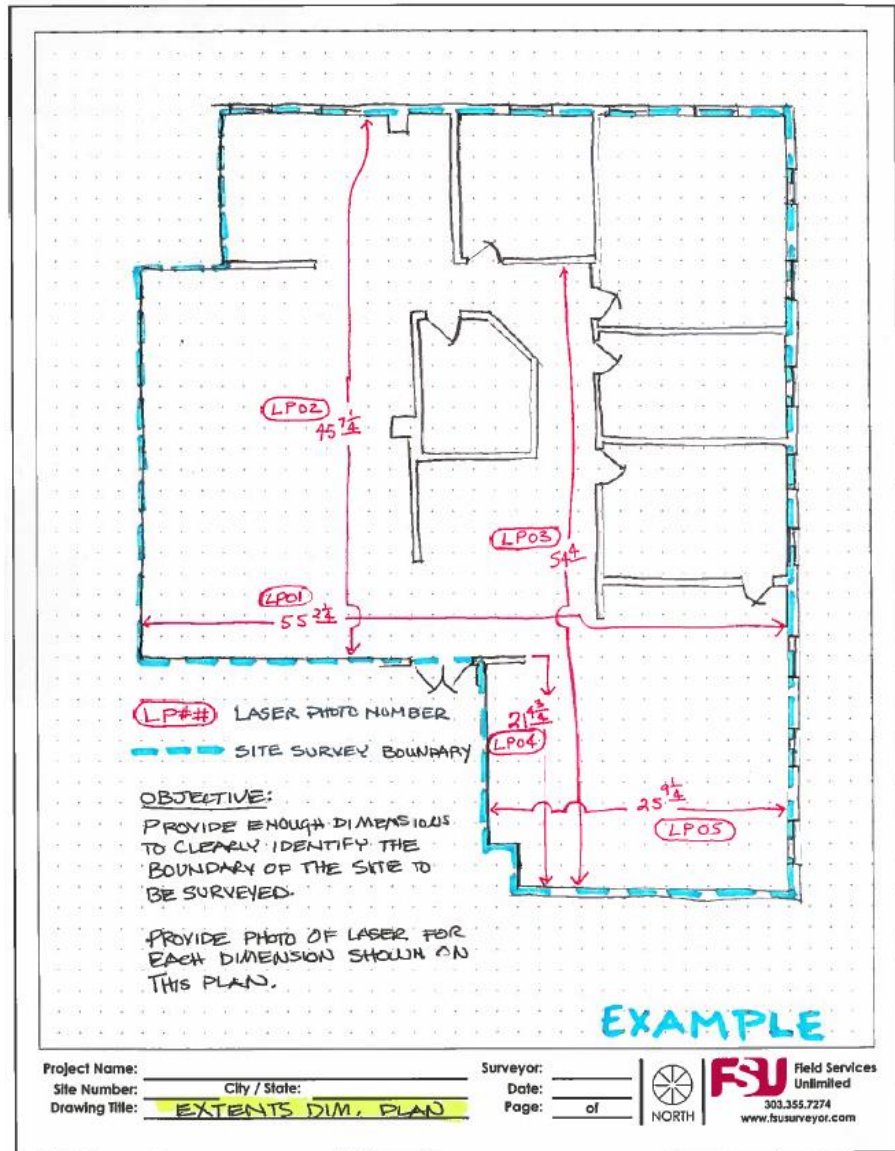
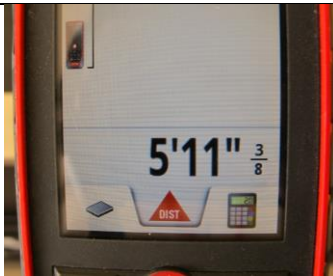
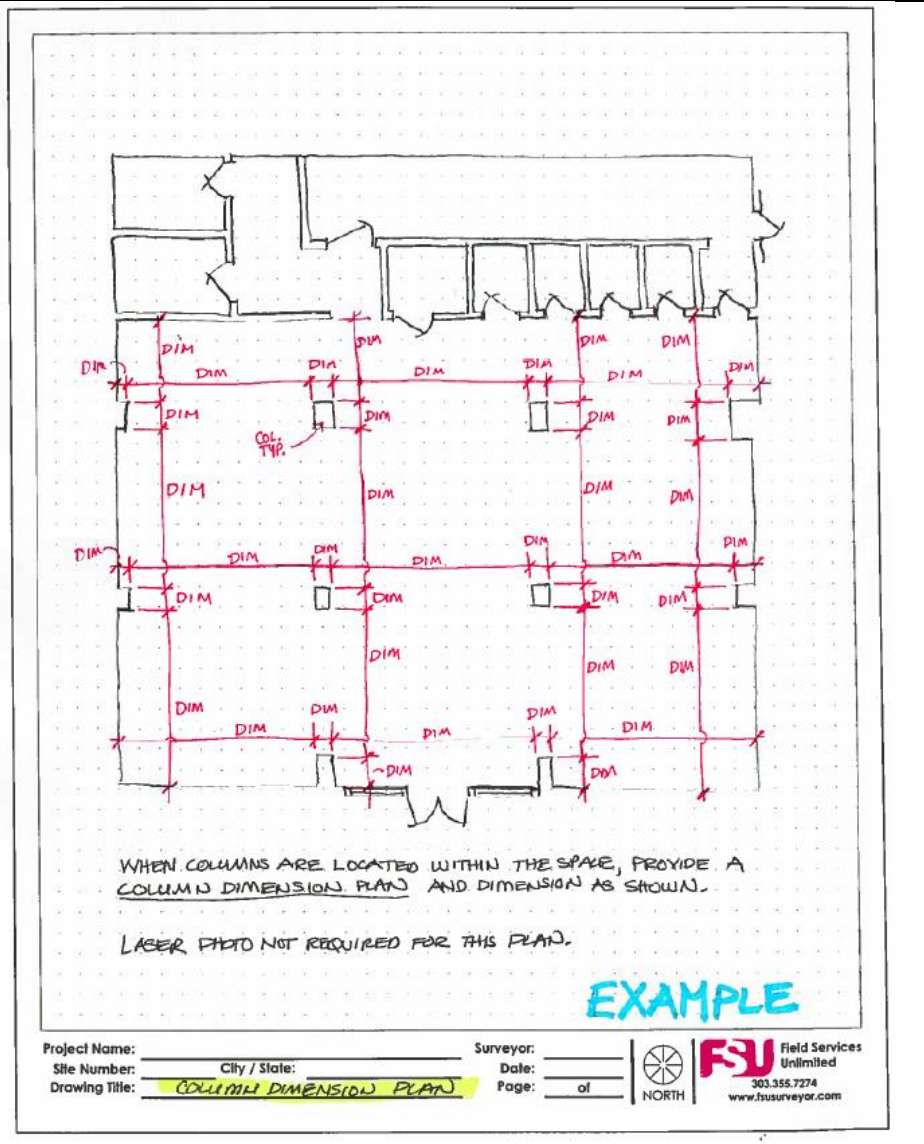


Photo of Laser



Column Dimension Plan



VII. TABLE SUMMARY

Summary Table o The following SOW tables define required elements and placements in greater detail.

	MAJOR FLOOR PLAN ELEMENTS: (REQUIRED IN SURVEYOR CAD)	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Exterior Walls	✓		✓	✓	✓			
	Interior Walls, Partitions, Partial-Ht. Walls	✓		✓	✓	✓			
	Bump-outs, Recesses, Niches	✓		✓	✓	✓		✓	
	Wall openings/Pass-Through	✓		✓	✓	✓		✓	
	Columns, Embedded Columns	✓		✓	✓	✓			
	Doors	✓		✓	✓	✓			
	Windows	✓		✓	✓	✓		✓	
	Storefront assembly	✓		✓	✓	✓		✓	
	Demising Walls	✓		✓	✓	✓			
	Chase	✓		✓	✓	✓			

	MINOR FLOOR PLAN ELEMENTS: (NOT REQUIRED IN SURVEYOR CAD)	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Steps, ramps, changes in level	✓		✓	✓	✓		✓	
	Ceiling finishes	✓							
	Floor finishes	✓							

	MECHANICAL ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Gas meter	✓							
	HVAC unit	✓		✓	✓	✓		✓	
	Wall mounted HVAC registers		✓	✓	✓	✓		✓	
	Compressors	✓		✓	✓	✓		✓	
	Evaporative coolers	✓		✓	✓	✓		✓	
	Ductwork		✓					✓	
	Gas meter MPOE	✓					✓	✓	

	ELECTRICAL ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Electrical panels	✓		✓	✓	✓		✓	
	Electrical meter	✓						✓	
	Transformers	✓		✓	✓	✓		✓	
	Timer	✓						✓	
	Disconnect switches	✓		✓	✓	✓		✓	
	Control panels	✓						✓	
	Keypads	✓						✓	
	Main Point of Entry	✓						✓	

	PLUMBING ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Toilets	✓						✓	
	Urinals	✓						✓	

	Hand sinks	✓						✓	(Top and clear AFF)
	Floor Drains	✓					✓		
	Floor Sinks	✓		✓	✓	✓	✓		
	Cleanouts	✓					✓	✓	
	Water Meters	✓					✓	✓	
	Utility sinks/mop sinks	✓		✓	✓	✓		✓	
	3-comp/2-comp sinks	✓		✓	✓	✓		✓	
	Drinking fountains	✓						✓	
	Water heater/Insta-hot	✓						✓	✓
	Water Supply Line	✓						✓	✓
	Sanitary Line	✓						✓	✓
	Grease Interceptor	✓							
	Exposed plumbing (stub-outs, shut-offs)	✓						✓	✓

	LIFE SAFETY ELEMENTS:	Placement		Required Measurements						
		Exact	General	L	W	H	DIA	AFF	Notes	
	Fire Alarm Control Panel	✓		✓	✓	✓			✓	

	SITE PLAN ELEMENTS - OPTIONAL	Placement		Required Measurements						
		Exact	General	L	W	H	DIA	AFF	Notes	
FSU Default	Meters	✓								
	Ramps	✓								
	Exterior Utilities	✓								
	Curb	✓								
	Sidewalk	✓								

	RCP ELEMENTS - OPTIONAL	Placement		Required Measurements						
		Exact	General	L	W	H	DIA	AFF	Notes	
	Ceiling heights		✓						✓	
	Soffit/changes in ceiling height		✓						✓	
	Headers/Beams		✓						✓	
	HVAC registers (Supply/Return)		✓						✓	

	ROOF PLAN ELEMENTS - OPTIONAL	Placement		Required Measurements						
		Exact	General	L	W	H	DIA	AFF	Notes	
FSU Default	RTU/HVAC units	✓		✓	✓	✓				
	Parapet walls	✓		✓	✓	✓				
	Direction of roof slope	✓								
	Roof vents		✓							
	Exhaust fans		✓							
	Condensers		✓							
	Roof drains	✓						✓		

	ABOVE GRID/STRUCTURAL ELEMENTS	Placement		Required Measurements						
		Exact	General	L	W	H	DIA	AFF	Notes	
FSU Default	HVAC Ductwork		✓						✓	-optional
	HVAC Registers/Diffusers	✓							✓	-optional
	Structural Beams		✓	✓	✓	✓			✓	-optional
	Structural Walls		✓	✓	✓	✓				-optional

Joists (Roof, Floor, Ceiling)		✓	✓	✓	✓	✓	✓	✓	<i>-optional</i>
Roof Deck		✓						✓	<i>-optional</i>
Columns		✓	✓	✓	✓	✓	✓		<i>-optional</i>
Water and Plumbing Lines	✓						✓	✓	