FORM F3 BUILDING CODE ANALYSIS FORM

PROJECT _____ DISTRICT _____

SUBMITTAL: ☐ SCHEMATIC ☐ DESIGN DEVELOPMENT ☐ CONSTRUCTION DOCUMENT

DATE _____ CODE & EDITION _____ GUIDE EDITION _____

BASIC BUILDING CODE INFORMATION						
DESIGNATED AREAS OF BUILDING	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**
CONSTRUCTION CLASSIFICATION TYPE (IBC 602)						
OCCUPANCY GROUP (indicate all) (IBC 302) (Note IBC 506.5)						
OCCUPANCY GROUP (indicate most restrictive) (IBC Table 503)						
Does building require Incidental Use Area Separation? (IBC 508.2.5)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Does building have Accessory Occupancy (ies)? What percent of story is accessory occupancy? (IBC 508.2)	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %
Mixed Occupancy (IBC 508)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Non separated (IBC 508.3)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Separated (IBC 508.4) (IBC 506.5)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
OTHER FIRE PROTECTION SYSTEMS, DEVICES or FEATURES If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to locations in construction documents. (e.g. fire extinguishers, smoke-evacuation/control/compartments. Note IBC 414.1.3.)						

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BUILDING AREA						
DESIGNATED AREAS OF BUILDING	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**
AREA LIMIT BY PER STORY (IBC Table 503) (Do not indicate increases for sprinklers & street frontage.)	SF	SF	SF	SF	SF	SF
MAXIMUM AREA MODIFICATION PER STORY FROM EQUATION 5-1 OF IBC (Insert equation from IBC 506.1 with completed calculations in this box) (Equation 5-1) Aa = At + [At x If] + [At x Is] Aa = Allowable area per floor (square feet). At = Tabular area per floor in accordance with Table 503 If = Area increase factor due to frontage (percent) as calculated in accordance with Section 506.2. Is = Area increase due to sprinkler protection as calculated in accordance with Section 506.3. (Repeat equation for each story of differing occupancies, IBC 506.5.2) Note: footnote "e." from table 601	SF	SF	SF	SF	SF	SF
MAXIMUM AREA PER STORY	SF	SF	SF	SF	SF	SF
TOTAL ALLOWED AREA OF BUILDING (Summary of all stories)	SF	SF	SF	SF	SF	SF
AREA AS DESIGNED PER STORY (Repeat for each story)	SF	SF	SF	SF	SF	SF
Total Designed Area of Building	SF	SF	SF	SF	SF	SF

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BUILDING HEIGHT							
DESIGNATED AREAS OF BUILDING		Area 1		Area 2		Area 3	
HEIGHT		DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED
Without any Allowable Increase (IBC Table 503)	In Feet						
	In Stories						
Allowable Height Increase (IBC 504.2)	In Feet						
	In Stories						
Total Height including any Allowable Increase	In Feet						
	In Stories						

BUILDING HEIGHT							
DESIGNATED AREAS OF BUILDING		Area 4		Area 5		Area 6	
HEIGHT		DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED
Without any Allowable Increase (IBC Table 503)	In Feet						
	In Stories						
Allowable Height Increase (IBC 504.2)	In Feet						
	In Stories						
Total Height including any Allowable Increase	In Feet						
	In Stories						

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Per IBC Chapter 10. List individual space occupancy load on life safety or architectural plans.

BUILDING DESIGN OCCUPANT LOAD						
DESIGNATED AREAS OF BUILDING	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**
Story						
Story						
Story						
Total						

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GENERAL FIRE PROTECTION REQUIREMENTS

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
SEPARATIONS						
Fireblocking Required (IBC Section 717)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Draftstopping Required (IBC Section 717)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke Control System Required (IBC Section 909)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke Barriers Required (IBC Sections 407 and 408)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke Partitions Required (IBC Section 407)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Fire Partition Required (IBC Section 420)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Fire Barrier Required (IBC Section 707)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
ALARM & DETECTION						
Fire Alarm System Required (IFC Section 907)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Emergency Alarm System Required (IFC 908)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
SUPPRESSION						
Standpipes Required (IFC Section 905)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Sprinklers Required (IFC Section 903)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Sprinklers Provided?	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Portable extinguishers required (IFC 906)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Other suppression systems required (IFC 904)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke & heat vents required (IFC 910)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes

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OTHER FIRE AND LIFE SAFETY FEATURES

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
AREA OF REFUGE						
Separation required (IBC 1007.6.2)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Two-way communication provided (IBC 1007.6.3)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Instruction provided (IBC 1007.6.4)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
EXTERIOR AREA FOR ASSISTED RESCUE						
Separation required (IBC 1007.8)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Identification provided (IBC 1007.8.3)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
OTHER						
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes

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FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Structural Frame (IBC Table 601)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Bearing Walls, Exterior (IBC Table 601)r	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Bearing Walls, Interior (IBC Table 601)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Nonbearing Walls & Partitions, Exterior (IBC Table 601 & 602)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Nonbearing Walls & Partitions (IBC Table 601 & 602) Exterior Interior	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Floor Construction including supporting beams & joists (IBC Table 601)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Roof Construction including supporting beams & joists (IBC Table 601)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Fire Walls (IBC Section 706)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Fire Barriers (IBC Section 707)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Shaft Enclosures (IBC Section 708)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Fire Partitions (IBC Section 709)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Opening & Protective Listing by Category (fire shutters, doors, etc.) (IBC Section 715)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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FIRE RESISTANCE RATING OF BUILDING ELEMENTS							
DESIGNATED AREAS OF BUILDING		**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**
Others (as required by Designer)	As Required, Hrs						
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						

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FLOOD HAZARD INFORMATION and FLOOD LOADS	
FLOOD HAZARD AREA	
Base Flood Elevation (NGVD or FIRM)	MSL
Design Flood Elevation IBC 1612.3 and ASCE 24	MSL
NON HIGH-VELOCITY WAVE ACTION	
Elevation of Lowest Proposed Floor (Meet ASCE 24 Section 2.6.2.1)	MSL
Dry floodproofing ASCE 24	☐ no ☐ yes
HIGH-VELOCITY WAVE ACTION	
Elevation of bottom of Lowest Horizontal Structural Member of lowest floor	MSL
Flotation resistant (ASCE 24)	☐ no ☐ yes
Breakaway wall per ASCE 24	☐ no ☐ yes

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Per IBC Chapter 16 and ASCE 7 – Structural tables may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STRUCTURAL DESIGN INFORMATION, AREA							
OCCUPANCY CATEGORY (IBC Table 1604.5)							
LIVE LOAD FOR EACH CCUPANCY TYPE (IBC Figure 1608.2 or ASCE 7)	Floor Live Load, F_{ll}	PSF	PSF	PSF	PSF	PSF	PSF
	Roof Live Load, R_{ll}	PSF	PSF	PSF	PSF	PSF	PSF
	Ground Snow Load, p_g	PSF	PSF	PSF	PSF	PSF	PSF
MISCELLANEOUS LOADS BY SPECIAL USE AREA (ARCHITECTURAL, MECHANICAL, DATA CENTER, ETC., ASCE 7)		PSF	PSF	PSF	PSF	PSF	PSF

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SOILS & SITE	
SOILS INVESTIGATION REQUIRED? (IBC 1803.2)	☐ no ☐ yes
SOILS CLASSIFICATION	
Seismic Site Class (IBC 1613.5.2)	
Classes Soil of Materials (UCS System) (IBC 1803.5.1)	
Allowable Footing Bearing Pressure	psf
MINIMUM DESIGN SOIL BEARING LOAD (IBC Table 1806.2)	psf
COMPACTION	
Subgrade (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%
Base (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%
Other (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%
MINIMUM DESIGN SOIL LATERAL LOAD (IBC 1610.1)	psf
FOOTINGS	
Undisturbed footings	☐ no ☐ yes
Compacted Fill Material (IBC 1804.5)	☐ no ☐ yes
ELEVATIONS	
Elevation of Water Table	MSL
Elevation of lowest footing	MSL
Elevation of lowest floor or basement	MSL

STRUCTURAL DESIGN INFORMATION, BUILDING		
WIND LOADS	Analysis Procedure (ASCE 7 or IBC 1609.6)	
	Basic Wind Speed, MPS (3 sec gust IBC Fig 1609)	V_{3S} =
	Exposure Category	
	Wind Importance Factor (ASCE 7 Table 6.1)	I_w =
	Internal Pressure Coefficient (ASCE 7)	GC_{pi} =
	External Pressure Coefficient (ASCE 7)	GC_p =
SEISMIC LOADS	Seismic Importance Factor (ASCE 7)	I =
	Soil Class (IBC 1613.5.2)	
	Mapped Spectral Response Accelerations	S_s =
		S_1=
	Design Spectral Response Acceleration Parameters	S_{DS} =
		S_{D1} =
	Seismic Use Group (ASCE 7 and Seismic Occupancy Category IBC)	
	Seismic Design Category (IBC Tables 1613.5.6(1) & 1613.5.6(2))	
	Basic Seismic Force Resisting System	
	Design Base Shear	KIPS
	Seismic Response Coefficient(s) ASCE 7	C_s =
	Response Modification Factor(s) ASCE 7	R =
	Analysis Procedure	

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The Designer(s) of Record shall determine the material and/or work on the project requiring Special Inspections. The Special Inspection requirements shall be based on Section 1704 of the 2006 International Building Code. Any deviations from the requirements of Section 1704 must be approved by OSF. Per IBC Chapter 16 and ASCE 7 – This information may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STATEMENT OF SPECIAL INSPECTIONS

MATERIAL	TYPE OF INSPECTION	FREQUENCY	SPECIFICATION REFERENCE	INSPECTION BY

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Provide a table for each structure.

PLUMBING INFORMATION		
WATER SYSTEM		
Service Line Size	Inches	
Distribution Design Criteria (IPC Table 604.3)	Fixture Units	
Maximum Flow Rate (IPC Table 604.4)	GPM	
Backflow	Location	
	Type	
SANITARY SEWER SYSTEM		
Service Line Size	Inches	
Drainage Design Criteria (IPC Tables 709.1 and 709.2)	Fixture Units	
Maximum Flow Rate	GPD	
Slope (IPC Table 704.1)	Inches/Ft	
MINIMUM PLUMBING FIXTURES REQUIRED/PROVIDED (IPC Section 403 & Table 403.1)		
For structures with multiple building areas and/or occupancy groups, show calculation for shared fixtures. Expand table as needed.		
Applicable area(s)		
Most restrictive area		
Fixture counts required		

CODE REQUIRED BUILDING FIXTURE COUNTS		
Water Closets	Male-Required	
	Male WC -Provided	
	Male Urinal -Provided	
	Female-Required	
	Female-Provided	
Lavatories	Male-Required	
	Male-Provided	
	Female-Required	
	Female-Provided	
Showers	Male-Required	
	Male-Provided	
	Female-Required	
	Female-Provided	
Drinking Fountains	Required	
	Provided	
Unisex toilet	Required	
	Provided	
Service Sink	Required	
	Provided	
Others (list)	Required	
	Provided	

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FIRE SERVICE INFORMATION		
Service Line Size		Inches
Fire Department Connection	Location	
Backflow	Location	
	Type	
Fire Hydrant Flow Test	Date	
	Flow	GPM
	Residual	PSI
	Static	PSI

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Summary of data from approved ASHRAE 90.1 compliance sheets.

MECHANICAL INFORMATION		
GENERAL INFORMATION		
Building Location		
Climate Zone		
Outdoor Design Temperature	Summer	deg F DB
		deg F WB
	Winter	deg F DB
		deg F WB
Indoor Design Temperature	Summer	deg F DB
		% RH
	Winter	deg F DB
		% RH
OUTSIDE AIR		
Occupied Minimum Outside Air	cfm per person	
CO2 Demand Management	☐ no ☐ yes	
Supervised Control System	☐ no ☐ yes	
MECHANCIAL SYSTEMS, SERVICE SYSTEMS & EQUIPMENT Briefly describe mechanical system:		

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ELECTRICAL INFORMATION		
SERVICE TRANSFORMER	☐ By Utility	
	☐ By District	KVA Primary
		Voltage/Phase
ELECTRICALSERVICE INFORMATION		
Service Voltage/Phase		Amperes
Service Entrance Conductors Size		Qty per Phase
Total Connected Load		KVA
Estimated Maximum Demand		KVA
Available Fault Current in Symmetrical Amperes		
Interrupting Capacity of Service Overcurrent Device		
GROUNDING ELECTRODE SYSTEM COMPONENTS (NEC 250)		
EMERGENCY SERVICE INFORMATION		
Emergency Generator	☐ no ☐ yes	KVA
		Voltage/Phase
	Fuel	
Exit/Emergency Lights Backup Power		☐ Integral Battery
		☐ Generator
Fire Alarm System	☐ Manual ☐ Automatic	☐ Addressable ☐ Class A ☐ Class B
LIGHTNING PROTECTION PROVIDED		☐ no ☐ yes

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Summary of data from approved ASHRAE 90.1 compliance sheets.

ENERGY INFORMATION		
INSULATION		
Roof	Cavity	R
	Continuous	R
Walls	Cavity	R
	Continuous	R
Underslab		R
GLAZING (each type)		
Window to wall ratio	North	%
	East	%
	South	%
	West	%
Glass Type	U Factor	
	SHG	

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