

2012 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 & 2-FAMILY DWELLINGS AND TOWNHOUSES)

NAME OF PROJECT: SAMS XPRSS CAR WASH
 ADDRESS: E. Independence Blvd., Indian Trail, NC 28097 PARCEL ID# _____
 PROPOSED USE: MERCANTILE-CAR WASH
 OWNER OR CONTACT PERSON: PAYMAN NADIMI - SAMS REAL ESTATE
 OWNED BY: CITY/COUNTY PRIVATE STATE
 CODE ENFORCEMENT JURISDICTION: CITY COUNTY STATE

BUILDING DESCRIPTION: ONE STORY CAR WASH

SCOPE OF WORK DETAILS: New construction of a one story masonry carwash building with fuel pump stations
 Does this project have air rights, easements, an assumed or deeded property line, no build easements or other circumstances similar to the aforementioned? Yes No If yes, please provide a copy of the official documents.

Remotion projects only: If you are using Chapter 34 (3412), Existing buildings in the NCBC or NFPA 101 as an alternative for code compliance please schedule a preliminary review before submitting your project for review. Notes for Plans Examiner and Inspectors: Please reproduce the evaluation form on the plans.

ALTERNATE MEANS OF COMPLIANCE REQUEST:
 INDUSTRIAL EQUIPMENT WITH DECLARATION DOCUMENT ATTACHED
 RTAP (REVISION TO APPROVED PLANS)
 DATE OF PRELIMINARY REVIEW _____

LEAD DESIGN PROFESSIONAL: MICHAEL J. REMESI

DESIGNER	FIRM	NAME	LICENSE#	PHONE#	EMAIL
ARCHITECTURAL	RA ARCHITECTURE	MICHAEL J. REMESI	NC-0239	(704) 330-7335	mremesi@rachitecture.com
CIVIL	EAGLE ENGINEERING	FRANK L. GRAY	NC-15739	(704) 383-1255	skgray@eagleinc.com
ELECTRICAL	SABER ENGINEERING	RICHARD MORRISON	NC-25939	(704) 373-2068/222	rmm@sabersengineering.com
FIRE ALARM					
PLUMBING	SABER ENGINEERING	WAYNE KING	NC-26025	(704) 373-2068/222	wking@sabersengineering.com
MECHANICAL	SABER ENGINEERING	WAYNE KING	NC-26025	(704) 373-2068/222	wking@sabersengineering.com
STRUCTURAL	M.STRULCT	JOSEPH M.STRULLI	NC-26025	(704) 507-3009	jstrulli@msstrulct.com
STAINING WALLS					
SMOKE					
OTHER					

*SEE SEPARATE RETAINING WALL APPENDIX B FOR WALL STRUCTURAL DESIGN DATA ONLY

Type of work being performed - (Required Information for All Projects)
 What type of work is being performed?
 New Construction
 Addition: (An Existing Building that is adding heated or unheated space. This could be an addition to the footprint or a vertical expansion)
 Uplift: (First Time Interior Completion)
 Uplift: (First time interior completion of a virgin (never occupied) shell space in a newly constructed building. The applicant must provide a copy of the approved shell)
 Alteration/Renovation: (Previously Occupied Space) This includes Change of Use.

BUILDING CODE: 2012 NORTH CAROLINA BUILDING CODE (NCSC) 2009 ANSI A117.1
 2012 CHAPTER 34 (ATTACH BUILDING EVALUATION PER SEC. 3412)
 2015 NC EXISTING BUILDING CODE

NEW BUILDING: NEW BUILDING SHELL BUILDING
 FIRST TIME INTERIOR COMPLETION (UPFIT)
 ADDITION

EXISTING BUILDING: CHANGE OF USE/OCCUPANCY
 BUILDING/TENANT SPACE INTERIOR/EXTERIOR (RENOVATION)
 YEAR OF CONSTRUCTION: 1993 ORIGINAL USE

2012 NC REHAB CODE INFO: REPAIR RENOVATION ALTERATION RECONSTRUCTION

CHECK ALL THAT APPLY: CHANGE OF USE PERMANENT PROPERTY: YES NO
 LAST KNOWN LEGAL OCCUPANCY USE _____

ORIGINAL BUILDING CONSTRUCTION DATE: _____ DATE OF PRELIMINARY MEETING: _____

JUSTIFICATIONS FOR USING RETENTION: _____

REVIEWERS NOTES FOR FIELD INSPECTOR: _____

BUILDING DATA

CONSTRUCTION TYPE: I-A I-B II-A II-B III-A III-B
 IV V-A V-B

MIXED CONSTRUCTION: NO YES TYPES _____

SPRINKLERS: NO PARTIAL YES NFPA 13 NFPA 13R NFPA 13D

STANDPIPE: NO YES CLASS 1 2 3 WET DRY

FIRE DISTRICT: NO YES FLOOD HAZARD AREA: NO YES

BUILDING HEIGHT: 28'-0" FEET 1 NUMBER OF STORES HIGH RISE: YES NO
 MEZZANINE: NO YES

GROSS BUILDING AREA:

FLOOR	EXISTING (SQ. FT.)	(SQ. FT.)	REVISED (SQ. FT.)	SUBTOTAL
6TH FLOOR				
5TH FLOOR				
4TH FLOOR				
3RD FLOOR				
2ND FLOOR				
1ST FLOOR	0	0	4,120	4,120
BASEMENT				
TOTAL			4,120	4,120

PERMITTED OCCUPANCY: ALLOWABLE AREA:

BUSINESS ASSEMBLY A-1 A-2 A-3 A-4 A-5
 HAZARDOUS H-1 H-2 H-3 H-4 H-5
 INDUSTRIAL I-1 I-2 I-3 I-4
 I-3 USE CONDITION: 1 2 3 4 5
 MERCANTILE RESIDENTIAL R-1 R-2 R-3 R-4
 STORAGE S-1 S-2 HIGH PILED
 UTILITY & MISCELLANEOUS PARKING GARAGE REPAIR OPEN ENCLOSED

SECONDARY OCCUPANCY NOTE: SEE ALSO LIFE SAFETY PLAN FOR FUNCTION OF SPACE BREAK DOWN AS IT RELATES TO TABLE 1004.1.1 - TYP

Accessory Occupancies (E 1004): (508) If Applicable
 Assembly A-1 A-2 A-3 A-4 A-5
 Business B
 Educational E
 Factory F-1 Moderate F-2 Low
 Hazardous H-1 Domestic H-2 Dwellings H-3 Combust H-4 Health H-5 HPM
 Institutional I-1 I-2 I-3 I-4
 I-3 Condition 1 2 3 4 5
 Mercantile M
 Residential R-1 R-2 R-3 R-4
 Storage S-1 Moderate S-2 Low High Piled
 Utility and Miscellaneous U
 Parking Garage Open Enclosed Repair Garage

Incidental Uses: If applicable, areas with additional requirements (Table 508.2.5):
 Furnace room where any piece of equipment is over 400,000 Btu per hour input
 Rooms with boilers where the largest piece of equipment is over 400,000 Btu per hour input
 Refrigerant machine room
 Hydrogen cutoff rooms, not classified as Group I
 Incinerator rooms
 Paint shops, not classified as Group I, located in occupancies other than Group F-2
 Laboratories and research facilities, not classified as Group II, located in a Group E or I-2 occupancy
 Laundry rooms
 Dry cleaning
 Group I-3 cells equipped with tiled surfaces
 Group I-2 waste and soil collection rooms
 Waste and linen collection rooms over 100 square feet
 Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterruptible power supplies
 Rooms containing fire pumps Rooms containing Life-Safety generator Rooms containing primary transformers
 Group I-2 storage rooms over 100 square feet
 Group I-2 commercial kitchens
 Group I-2 handlines equal to or less than 100 square feet
 Group I-2 rooms or spaces that contain fluid fired heating equipment

SPECIAL USES: 402 403 404 405 406 407 408 409 410 411 412 413
 414 415 416 417 418 419 420 421 422 423 424 425 426 427
 SPECIAL PROVISIONS: 509.2 509.3 509.4 509.5 509.6 509.7 509.8 509.9

MIXED OCCUPANCY: NO YES SEPARATION NONE EXCEPTION NONE
 INCIDENTAL USE SEPARATION (508.2.5)
 THIS SEPARATION IS NOT EXEMPT AS A NON-SEPARATED USE (SEE EXCEPTIONS)
 NON-SEPARATED MIXED OCCUPANCY (508.3)
 THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATION FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION, SO DETERMINED, SHALL APPLY TO THE ENTIRE BUILDING.
 SEPARATED MIXED OCCUPANCY (508.3.4) - SEE BELOW FOR AREA CALCULATIONS FOR EACH STORY. THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1. NOTE ALSO EXCEPTION 508.3.1 RELATED TO ACCESSORY OCCUPANCIES

ACTUAL AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B ≤ 1
 ALLOWABLE AREA OF OCCUPANCY A

STORY NO.	DESCRIPTION & USE	V(A) BLDG AREA PER STORY (ACTUAL)	W(B) TABLE AREA (FROM NOTES)	I(C) AREA FOR OPEN SPACE INCREASE*	D(O) OR AREA FOR INCREASE*	E(I) ALLOWABLE BLDG AREA*	F(E) MAXIMUM BLDG. AREA*	
							1	2
1	(B) BUSINESS	4,120	9,000	NA	NA	9,000	9,000	
TOTAL								

* AREA OF FUNCTION OF USE AS OCCUPIABLE SPACE MAY DIFFER FROM GROSS S.F. OF BLD.

- FRONTAGE AREA INCREASES FROM SECTION 508.2 ARE COMPUTED THIS:
 A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20' MIN. WIDTH = _____(F)
 B. TOTAL BUILDING PERIMETER = _____(P)
 C. RATIO (F/P) = _____(F/P)
 D. W = MINIMUM WIDTH OF PUBLIC WAY = _____(W)
 E. PERCENT OF FRONTAGE INCREASE (If = (F/P - 0.25) x W/30 If = 100 | .50 - .25 | x 30/30 = (---))
- THE SPRINKLER INCREASE PER SECTION 508.3 IS AS FOLLOWS:
 A. MULTISTORY BUILDING IS = 200%
 B. SINGLE STORY BUILDING IS = 300%
 I. UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS: GROUP B, F, M, S, A-4 (508.3.3);
 I. GROUP A MOTION PICTURE (507.11), MALLS (402); & H-2 AIRCRAFT PAINT HANGARS (507.9);
 4. MAX BUILDING AREA = TOTAL # OF STORIES IN THE BUILDING x E BUT NOT GREATER THAN 3 x E
 5. MAX AREA OF A SINGLE-USE PARKING GARAGE MUST COMPLY W/ 406.3.5. MAX AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH 412.1.2

ALLOWABLE HEIGHT:

TYPE OF CONSTRUCTION	Type	V-B	LIFE SAFETY SYSTEM	
			SHOWN ON PLANS	CODE REF.
BUILDING HEIGHT (FEET)	Feet	40'-0"	1 = H + 1	28'-0"
BUILDING HEIGHT (STORIES)	Stories	1	1	1

Life Safety and Fire Alarm Check List for Compliance (Requirements for all projects) Check items that apply to your project

- One and/or more rated floor areas (Section 7)
- Exit door and property line calculation (705.8)
- Exit structures with 30' or less of egress building
- Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)
- Occupant loads for each area
- Exit access travel distances (1016)
- Common path of travel distances (1014.3 & 1028.8)
- Exit door end lengths (1018.4)
- Exit door clear widths for each exit door
- Minimum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
- Actual occupant load for each exit door
- A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- Location of doors with panic hardware (1008.1.10)
- Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
- Location of doors with electromagnetic egress locks (1008.1.9.8)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1029)
- The square footage of each fire area (902)
- The square footage of each smoke compartment (407.4)
- Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE UNITS PROVIDED:

TOTAL UNITS	ACCESSIBLE REQUIRED	ACCESSIBLE PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

FIRE RESISTIVE INFORMATION
LIFE SAFETY PLAN SHEET #, IF PROVIDED: A001

RECD	RATING** (W/ REDUCTION)	DESIGN # FOR RATED:		ASSEMBLY	PENETRATION	JOINTS
		FIRE SEPARATION (DISTANCE FEET)	DETAIL # AND SHEET #			
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	0	0				
BEARING WALLS	0	0				
EXTERIOR	0	0				
NORTH	0	0				
EAST	0	0				
WEST	0	0				
SOUTH	0	0				
INTERIOR	0	0				
NON BEARING WALLS AND PARTITIONS	0	0				
EXTERIOR						
NORTH	30' +	0	0			
EAST	30' +	0	0			
WEST	30' +	0	0			
SOUTH	30' +	0	0			
INTERIOR						

FLOOR CONSTRUCTION*** (INCLUDES SUPPORT BEAMS & JOISTS)

ROOF CONSTRUCTION (INCLUDES SUPPORT BEAMS & JOISTS)

SHAFTS - EXITS	NA	NA	CONDITION DOES NOT EXIST
SHAFTS - OTHER	NA	NA	CONDITION DOES NOT EXIST
CORRIDOR SEP.	NA	NA	CONDITION DOES NOT EXIST
OCCUPANCY SEP.	NA	NA	CONDITION DOES NOT EXIST
PARTY / FIRE WALL SEP.	NA	NA	CONDITION DOES NOT EXIST
SMOKE BARRIER SEP.	NA	NA	CONDITION DOES NOT EXIST
TENANT SEP. (GUEST ROOMS)	NA	NA	CONDITION DOES NOT EXIST
INCIDENTAL USE SEPARATION	0		

*** INDICATE SECTION NUMBER PERMITTED REDUCTION ** 0-4 HOURS OR N/A-NOT APPLICABLE (DEFINE REASONS IN PLAN SUMMARY) *** INDICATE IF USING T601 NOT C EXCEPTION

PERCENTAGE OF WALL OPENING CALCULATIONS
 THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS
 ALLOWABLE OPENING = 1705.8
 NOT APPLICABLE, MORE THAN 20' CLEAR AREA, PERIMETER OF BUILDING

WALL LEGENDS
 THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS
 CHECK IF THE FOLLOWING ARE PRESENT AND INDICATED BY A WALL LEGEND ON ALL PLANS
 FIRE WALLS (706) FIRE BARRIERS (707) SHAFT ENCLOSURE (708)
 FIRE PARTITIONS (709) SMOKE BARRIERS (710) SMOKE PARTITIONS (711)
 NO RATED WALLS ARE PRESENT

LIFE SAFETY SYSTEM

THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

EMERGENCY LIGHTING	YES	NO	<input type="checkbox"/>
EXTRUSIONS	YES	NO	<input checked="" type="checkbox"/>
FIRE ALARM	YES	NO	<input checked="" type="checkbox"/>
SMOKE DETECTION SYSTEMS	YES	NO	<input checked="" type="checkbox"/>
PANIC HARDWARE	YES	NO	<input type="checkbox"/>
LIFE SAFETY SYSTEMS GENERATOR:	YES	NO	<input checked="" type="checkbox"/>

EXIT REQUIREMENTS
THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS
NUMBER & ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	REG	SHOWN ON PLANS	TRAVEL DISTANCE		MEANS OF EGRESS (SECTION 1015.2)		1, 3	
			ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE OF EXITS SHOWN ON PLANS		
1ST FLOOR	2	3	200'-0"	50'-5"	55'-4"	88'-5"		

- CORRIDOR DEAD ENDS (SECTION 1014.4)
- BUILDINGS WITH SINGLE EXITS (1021.2), SPACES WITH ONE MEANS OF EGRESS (1015.1)
- COMMON PATH OF TRAVEL (SECTION 1014.3)

EXIT WIDTH

USE GROUP OR SPACE DESIGNATION	(A) AREA (SQFT)	(B) AREA PER OCCUPANT (TABLE 1004.1.1)	CALCULATED OCCUPANT LOAD (A/B)		EGRESS WIDTH PER OCCUPANT (SEC 1005.1)		REQ WIDTH (N) (A/B) x C		ACTUAL WIDTH ON PLANS	
			STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL		
1st FL - (A)-ASSEMBLY	327	15 NET	22	N/A	2					
1st FL - (B)-BUSINESS	647	100 GROSS	7	N/A	2					
1st FL - (S)-STOR/MECH	785	300 GROSS	3	N/A	2			6.4"	N/A	102"

EXIT WIDTH CONT

- SEE TABLE 1004.1.1 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE SEE DEFINITION "AREA, GROSS" AND "AREA NET" (SECTION 1002)
- MINIMUM STAIRWAY WIDTH (SECTION 1009.1); MIN. CORRIDOR WIDTH (SECTION 1018.2); MIN DOOR WIDTH (SECTION 1008.1)
- MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1023.2)
- SEE SECTION 1004.5 FOR CONVERGING EXITS.
- THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE TOTAL REQUIRED (SECTION 1005.1)
- ASSEMBLY OCCUPANCIES (SECTION 1028)
- SPACES WITHIN OCCUPANCIES OR USE GROUPS SHALL BE CALCULATED INDEPENDENTLY. (LOBBIES, LOUNGES, BREAK ROOMS, CONFERENCE ROOMS)

PLUMBING FIXTURE REQUIREMENTS

REQUIRED BY CODE:

OCCUPANCY USE GROUP / SPACE	WATER CLOSETS		URINAL	LAVS		SHOWER /TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE		M	F		REG	ACC
(A) ASSEMBLY	0.17	0.34	0	0.11	0.11	N/A		0.04
(B) BUSINESS	0.13	0.13	0	0.08	0.08	N/A		0.06
(S) STORAGE	0.02	0.02	0	0.02	0.02	N/A		0.00
TOTAL	0.32	0.40	0	0.21	0.21	N/A		0.10

ACTUAL SHOWN ON PLANS:

OCCUPANCY USE GROUP / SPACE	WATER CLOSETS		URINAL	LAVS		SHOWER /TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE		M	F		REG	ACC
BUILDING 1	1	1	0	1	1	N/A		1

* PLEASE SEE ALSO GENERAL PLUMBING NOTES FOR ROOM REGARDING OCCUPANCY SPECIFICATION
 ** FAMILY RESTROOM PROVIDED AND ROOM AREA PROVIDED FOR 3RD WASH REST RM
 *** SEE ALSO A004 GEN. PLUMBING NOTES FOR HOT TUB AREA IS NOT FOR ADDITIONAL PLUMBING

SCHEDULE OF SPECIAL INSPECTION SERVICES
 NO SPECIAL INSPECTION REQUIRED FOR THIS PROJECT SPECIAL INSPECTIONS REQUIRED