OSE CERTIFICATIONS

The following code tables and certifications are based on the most current codes adopted by OSE shown in Chapter 5 of this manual. These tables and certifications are to be included on the Construction Drawings AS-IS. Do not re-create these in another format or medium. Please contact OSE if you need assistance.

ZONING CERTIFICATION

"I hereby certify that, to the best of my knowledge, these plans comply with applicable zoning ordinances, and that plans have been submitted to appropriate authority for their review and/or approval."

Signed: ______________________ (Architect/Engineer) ____________ (Date)

If the project does not require a National Pollution Discharge Elimination System (NPDES) permit from SCDHEC, include the following certification on the Site Plan(s):

EROSION AND SEDIMENT REDUCTION/STORMWATER MANAGEMENT

Designer's Certification:

"I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan are in compliance with the Regulations contained in Chapter 72, Article 2, SC Code of Regulations (Erosion and Sediment Reduction and Stormwater Management Regulations)."

Signed: ______________________ (Engineer or Registered Landscape Architect (Circle one)) ____________ (Date)

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TABLE 1 FLOOD HAZARD INFORMATION & FLOOD LOADS

FLOOD HAZARD AREA

Flood Map Information: Flood Zone: X — Community Number: 45057C
Is the Project Site in a 100-Year Flood Plain? Yes ☐ No ☒ — Panel Number: 0385D
Base Flood Elevation ________ MSL — NGVD or FIRM
Design Flood Elevation ________ MSL — IBC 1612.3 and ASCE 24

NON HIGH-VELOCITY WAVE ACTION

Elevation of Lowest Proposed Floor ________ MSL — Meet ASCE 24 Section 2.6.2.1/ 2.6.2.2
Dry floodproofing Yes ☐ No ☐ — per ASCE 24

HIGH-VELOCITY WAVE ACTION

Elevation of bottom of Lowest Horizontal Structural Member of lowest floor ________ MSL
Flotation resistant Yes ☐ No ☐ — per ASCE 24
Breakaway wall Yes ☐ No ☐ — per ASCE 24

IBC 1612 and SE-510, as applicable

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TABLE 2 SOILS & SITE

SOILS INVESTIGATION (If required) Yes ☒ No ☐ — per IBC 1803.2

SOILS CLASSIFICATION

Site Class: C — per IBC 1613.3.2
Classes Soil of Materials (UCS System): SP-SM/SM — per IBC 1803.5.1
Allowable Footing Bearing Pressure: 3000 psf

MINIMUM DESIGN SOIL BEARING LOAD 2000 psf — per IBC table 1806.2

COMPACTION

Subgrade: 100 Percent — ☒ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)
Base: 95 Percent — ☒ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)
Other: ______ Percent — ☐ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)

MINIMUM DESIGN SOIL LATERAL LOAD 150 psf — per IBC 1610.1

FOOTINGS

Undisturbed footings Yes ☐ No ☒
Compacted Fill Material Yes ☒ No ☐ — per IBC 1804.6

ELEVATIONS

Elevation of Water Table: 708 MSL
Elevation of lowest footing: 714 MSL
Elevation of lowest floor or basement: 716 MSL

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NOTE: Where a fire wall is necessary to separate buildings, each building is to be provided individual code criteria tables 3 through 14. See IBC 503.1.2.

TABLE 3 BASIC BUILDING CODE INFORMATION

CONSTRUCTION CLASSIFICATION	Type: V-B (IBC 602)		
OCCUPANCY CLASSIFICATION (indicate all) (Note IBC 504.2)	B Business (IBC 302)		
MOST RESTRICTIVE OCCUPANCY CLASSIFICATION	B (IBC Tables 504.3, 504.4 & 506.2)		
Does building require Incidental Use Area Separation?	Yes ☐ No ☒	(IBC 509.1)	
Does building have Accessory Occupancy (ies)? If so, what percent of story is Accessory Occupancy?	Yes ☒ No ☐	(IBC 508.2)	345 SF; 18 %
Mixed Occupancy	Yes ☐ No ☒	(IBC 508)	
Non separated	Yes ☐ No ☒	(IBC 508.3)	
Separated	Yes ☐ No ☒	(IBC 506.2.2) (IBC 506.2.4) (IBC 508.4)	
2-way Communication Required	Yes ☐ No ☒	(IBC 1009.8) (IBC 1009.6.5)	
Fire Apparatus Access and Water Line	Yes ☐ No ☒	(IFC 503 & 507)	

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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TABLE 4 BUILDING AREA

AREA LIMIT BY TABLE 506.2 OF IBC	9,000 SF (area limitation per story)
AREA INCREASES BY SECTION 506.2 AND 506.3 OF IBC — EXPLANATION OF INCREASES: N/A	0 SF (maximum modified area per story)
AREA AS ALLOWED IN IBC PER STORY	
Story/Level: First Floor	9,000 SF (area per story)
Story/Level:	SF (area per story)
Story/Level:	SF (area per story)
Story/Level:	SF (area per story)
TOTAL ALLOWED AREA OF BUILDING (summary of all stories)	9,000 SF
AREA AS DESIGNED PER STORY	
Story/Level: First Floor	1,922 SF (area per story)
Story/Level:	SF (area per story)
Story/Level:	SF (area per story)
Story/Level:	SF (area per story)
TOTAL DESIGNED AREA OF BUILDING (summary of all stories)	1,922 SF

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TABLE 5 BUILDING HEIGHT

	AS DESIGNED		AS ALLOWED BY IBC	
	In Feet	In Stories	In Feet	In Stories
PER TABLE 504.3	20	N/A	40	N/A
PER TABLE 504.4	N/A	1	N/A	2
TOTAL HEIGHT (including any Allowable Increase)	20	1	40	2

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TABLE 6 BUILDING DESIGN OCCUPANT LOAD

STORY/ LEVEL	FUNCTION OF SPACE (1)	A FLOOR AREA (2) (NSF or GSF)	B MAX AREA ALLOWED PER OCCUPANT (3) (NSF or GSF)	C OCCUPANTS ON FLOOR FOR THIS FUNCTION (4)	D DESIGN OCCUPANT LOAD (5)
1	Business Areas	1577	150 GSF	11	
	Accessory Storage Areas	345	300 GSF	2	
	......	......	......	......	
	......	......	......	......	
	Subtotal Design Occupant Load for This Story				13
......	......	......	......	......	
	......	......	......	......	
	......	......	......	......	
	......	......	......	......	
	Subtotal Design Occupant Load for This Story				
____	____	____	____	____	
	____	____	____	____	
	____	____	____	____	
	____	____	____	____	
	Subtotal Design Occupant Load for This Story				____
......	____	____	____	____	
	......	......	......	......	
	......	......	......	......	
	......	......	......	......	
	Subtotal Design Occupant Load for This Story				____
TOTAL BUILDING DESIGN OCCUPANT LOAD					13 (6)

FOOTNOTES:
1. Provide the complete name of the Function of Space using the left column of Table 1004.1.2 of the IBC (1)
2. Design Area for each occupant of this function on this Story in either Gross (GSF) or Net (NSF) Square Footage (2)
3. Allowed Floor Areas in Square Occupant per right column in Table 1004.1.2 of the IBC (3)
4. Divide Column A (2) by Column B (3) for each function and enter result, rounded up to the nearest whole person (4)
5. Subtotal all Column C values for this floor to yield the Design Occupant Load (5)
6. Total Building Design Occupant Load - sum of all Column D value (6)

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TABLE 7 GENERAL FIRE PROTECTION REQUIREMENTS

SEPARATIONS			
Fireblocking Required	Yes ☐	No ☒	per IBC Section 718
Draftstopping Required	Yes ☐	No ☒	per IBC Section 718
Smoke Control System Required	Yes ☐	No ☒	per IBC Section 909
Smoke Barriers Required	Yes ☐	No ☒	per IBC Section 407 and 408
Smoke Partitions Required	Yes ☐	No ☒	per IBC Section 407
Fire Partition Required	Yes ☐	No ☒	per IBC Section 708
Fire Barrier Required	Yes ☐	No ☒	per IBC Section 707
ALARM & DETECTION			
Fire Alarm System Required	Yes ☐	No ☒	per IFC Section 907
Emergency/Voice Alarm Communications System Required	Yes ☐	No ☒	per IFC Section 907.5.2.2
Emergency Alarm System Required	Yes ☐	No ☒	per IFC Section 908
SUPPRESSION			
Standpipes Required	Yes ☐	No ☒	per IFC Section 905
Sprinklers Required	Yes ☐	No ☒	per IFC Section 903
Sprinklers Provided	Yes ☐	No ☒	......
Portable extinguishers required	Yes ☒	No ☐	per IFC 906
Other suppression systems required	Yes ☐	No ☒	per IFC 904
Smoke & heat vents required	Yes ☐	No ☒	per IFC 910

OTHER: *(Indicate other provided fire and life safety features not listed above, if any)*

____
____
____

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TABLE 8 FIRE RESISTANCE RATING OF BUILDING ELEMENTS

BUILDING ELEMENT	RATING AS REQUIRED (in hours)	RATING AS DESIGNED (in hours)	TESTING AGENCY & DESIGN NO. (UL, FM, etc)	DESIGNERS WALL/PARTITION KEY CODE
Primary Structural Frame (per IBC Table 601)	0 HR	0 HR	N/A	
Bearing Walls — Exterior	0 HR	0 HR	N/A	N/A
Bearing Walls — Interior (per IBC Table 601)	0 HR	0 HR	N/A	N/A
Nonbearing Walls & Partitions — Exterior	0 HR	0 HR	N/A	N/A
Nonbearing Walls & Partitions — Interior (per IBC Table 601 & 602) Note footnote "d" from Table 601.	0 HR	0 HR	N/A	N/A
Floor Construction including supporting beams & joists (per IBC Table 601)	0 HR	0 HR	N/A	
Roof Construction including supporting beams & joists (per IBC Table 601)	0 HR	0 HR	N/A	
Fire Walls (per IBC Section 706)	N/A	N/A	N/A	N/A
Fire Barriers (per IBC Section 707)	N/A	N/A	N/A	N/A
Shaft Enclosures (per IBC Section 713)	N/A	N/A	N/A	N/A
Fire Partitions (per IBC Section 708)	N/A	N/A	N/A	N/A
Opening & Protective Listing by Category (fire shutters, doors, etc. per IBC Section 716)	N/A	N/A	N/A	N/A
Others (as required by Designer)	N/A	N/A	N/A	N/A

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TABLE 9 STRUCTURAL DESIGN INFORMATION

RISK CATEGORY: 2 — IBC Table 1604.5

LIVE LOADS

Floor Live Load(s) - List the F_{ll} for each occupancy/use.
Occupancy/Use: PUBLIC ROOMS AND CORRIDORS SERVING THEM — F_{ll} = 100 PSF
Occupancy/Use: ________ F_{ll} = ____ PSF
Occupancy/Use: ________ F_{ll} = ____ PSF
Occupancy/Use: ________ F_{ll} = ____ PSF
Roof Live Load R_{ll} = 20 PSF
Ground Snow Load p_g = 10 PSF (IBC Figure 1608.2 or ASCE 7)

WIND LOADS

Analysis Procedure: DIRECTIONAL PROCEDURE — ASCE 7 or IBC 1609
Ultimate Design Wind Speed: V_{ult} = [illegible]14 MPH — IBC Fig's. 1609.3(1)-(3)
Exposure Category: [illegible] — IBC 1609.4.3
Internal Pressure Coefficient: GC_{pi} = 0.18 — ASCE 7
External Pressure Coefficient: GC_p = VARIES — ASCE 7
Protection of Openings Required: Yes ☐ No ☒ — IBC 1609.1.2
If "Yes", check one: Impact Resistant Glazing ☐ Impact Resistant Covering ☐

SEISMIC LOADS

Seismic Importance Factor: I_e = 1.0 — ASCE 7 Table 1.5-2
Site Class: C — IBC 1613.3.2
Mapped Spectral Response Accelerations: S_s = 0.276 S_1 = 0.090
Design Spectral Response Acceleration Parameters: S_{DS} = 0.239 S_{D1} = 0.090
Seismic Design Category: B — IBC Tables 1613.3.5(1) & 1613.3.5(2)
Basic Seismic Force Resisting System: ORDINARY REINFORCED MASONRY SHEAR WALLS — ASCE 7 Chapter 12
Design Base Shear: 57 KIPS
Seismic Response Coefficient(s): C_s = 0.120 — ASCE 7
Response Modification Factor(s): R = 2 — ASCE 7
Analysis Procedure: EQUIVALENT LATERAL FORCE PROCEDUE

ARCHITECTURAL-MECHANICAL-ETC. LOADS

Provide as applicable: architectural items, mechanical, plumbing, etc. per ASCE 7

SPECIAL LOADS

Provide as applicable: abnormal items, moving loads, impact, hoisting, etc. per ASCE 7

*per IBC Chapter 16 and ASCE 7 -- 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.

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TABLE 11 MECHANICAL INFORMATION

AIR COMFORT SYSTEMS

Overall Thermal Transfer Value (OTTV): 2.9 BTU/(HR x °F x SF)
Building Cooling Load: 410 SF / Ton
Building Heating Load: 26 BTU/(HR x SF)

OTHER LOADING FEATURES

Glass: U Factor: 0.87(W1/W2), 0.49(W3) — Window to wall ratio: 4.10%
Insulation Values: Roof: R-38 Attic — Exterior Walls: R-10ci
Outside Air minimum while occupied: 350 CFM 4 Occupants

MECHANCIAL SYSTEMS, SERVICE SYSTEMS & EQUIPMENT

Briefly describe mechanical system: The concessions and restroom areas are heated and cooled by a nominal 4 ton split system air handling unit with electric supplemental heat. The associated heat pump unit is located on exterior grade next to the building. The Janitor's closet is heated by an electric heater. The restrooms and janitor's closest is exhausted by ceiling mounted centrifugal fans that discharge through a louver in the attic.

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TABLE 12 ELECTRICAL INFORMATION

SERVICE TRANSFORMER: ☒ By Utility Company ☐ By Agency (if by Agency) ______ KVA Primary ______ Voltage/Phase

ELECTRICAL SERVICE INFORMATION

Service Voltage/Phase: 480V/3-PH — Amperes
Service Entrance Conductors Size: 250 KCM — Quantity per Phase
Total Connected Load: 126 KVA
Estimated Maximum Demand: 110.9 KVA
Available Fault Current in Symmetrical Amperes: 11,815
Interrupting Capacity of Service Overcurrent Device: 14,000 AIC
Grounding Electrode System Components: 3/0 CU GROUND LOOP (NEC 250)

EMERGENCY SERVICE INFORMATION

Emergency Generator: Yes ☐ No ☒ ______ 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 ☒ Yes ☐ No

COMMUNICATIONS COORDINATED ☒ Yes ☐ Not Required

Contact DSIT Network/Infrastructure Planning for applicability at (803) 896-0001

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TABLE 10 PLUMBING INFORMATION

WATER SYSTEM: Service Line Size: 2 Inches; Peak Flow: 30 GPM; Total Demand: 75 No. Fixture Units

SANITARY SEWER SYSTEM: Loading: ______ GPD; Service Line Size: 4 Inches; Slope: 1/4":12" for 2-1/2" pipe or less, 1/8":12" for 3"or larger ____ min inches/ft

MINIMUM PLUMBING FIXTURES REQUIRED/PROVIDED (Per IPC Section 403 & Table 403.1)
Occupancy Classification(s) (as shown in Table 5-3): SEE PARK OCCUPANCY CALC CHART BELOW
Total Building Design Occupant Load (as shown in Table 5-6): SEE PARK OCCUPANCY CHART BELOW

1. Occupancy: A-5 — Total Load for this Occupancy: 396 — Male: 198 Female: 198

	Male-REQUIRED	Female-REQUIRED
Water Closets/ Urinals*	2.64 (# Urinals allowed 1.00)	4.95
Lavatories	0.99	1.3[illegible]
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)		**REQUIRED**
Drinking Fountains		1.00
Unisex Toilet		[illegible]
Service Sink		[illegible]
Other (list) ____		[illegible]

2. Occupancy: ______ — Total Load for this Occupancy: ______ — Male: ____ Female: ____

	Male-REQUIRED	Female-REQUIRED
Water Closets/ Urinals*	(# Urinals allowed)	____
Lavatories		____
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)		**REQUIRED**
Drinking Fountains		____
Unisex Toilet		____
Service Sink		____
Other (list) ____		____

3. Occupancy: ______ — Total Load for this Occupancy: ______ — Male: ____ Female: ____

	Male-REQUIRED	Female-REQUIRED
Water Closets/ Urinals*	(# Urinals allowed)	____
Lavatories	......	____
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)		**REQUIRED**
Drinking Fountains		____
Unisex Toilet		____
Service Sink		____
Other (list) ____		____

TOTAL BUILDING COUNT (add all occupancies)

	Male-REQUIRED	Male-PROVIDED (round up # Required)	Female-REQUIRED	Female-PROVIDED (round up # Required)
Total Water Closets/ Urinals*	2.64 (# Urinals allowed 1.00)	3 (# Urinals provided 1)	4.95	5
Total Lavatories	0.99	2	1.32	2
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)			**REQUIRED**	**PROVIDED** (round up)
Total Drinking Fountains			1.00	2
Total Unisex Toilets			0.00	1
Total Service Sinks			1.00	1
Total Other (list) ____			0.00	0

* Urinals -- See IPC 419.2

PLUMBING OCCUPANCY CALCS

SOCCER FIELD USERS (4 TEAMS PER FIELD PLUS REFEREES AND SPECTATORS)	234 OCC
CONCESSION/STORAGE BUILDING	6 OCC
2 @ S-2 (363SF/300)	
4 @ B (513/150)	
0 OCCUPANTS FOR RESTROOMS (SERVE OTHER SPACES)	
SHELTERS 2 @ 864SF (1728SF/15)	116 OCC
PLAY AREA (3934SF/100)	40 OCC
TOTAL COMPLEX OCCUPANT LOAD	**396 OCC**

PLUMBING CALCULATIONS

TOTAL PLUMBING OCCUPANCY = 396 OCC

2018 IBC TABLE 2902.1

ASSEMBLY A-5: STADIUMS, AMUSEMENT PARKS...

MINIMUM FIXTURES REQUIRED (50% MALE / 50% FEMALE):

MALE: 198 OCC = 3 WC (*2 WC/1 URINAL) = 1 LAV
FEMALE: 198 OCC = 5 WC = 2 LAV

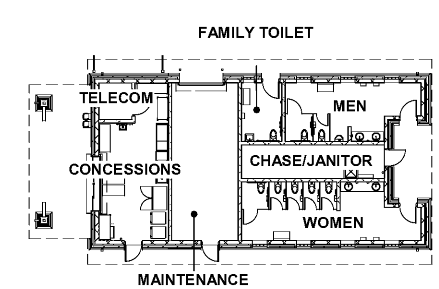
*UP TO 50% OF MALE WC MAY BE SUBSTITUTED WITH URINALS PER 2018 IPC 424.2 (3/2 = 1.5 = 1 URINAL)

DRINKING FOUNTAINS: 1 PER 1000 OCC = 1 DF

ACTUAL FIXTURES PROVIDED:

MALE: = 2 WC = 1 URINAL = 2 LAV
FEMALE: = 5 WC = 2 LAV
FAMILY: = 1 WC = 1 LAV

DRINKING FOUNTAINS: 2 DF



REFERENCE PLAN

SCALE : 1/16" = 1'-0"

WOOLPERT
ARCHITECTURE | ENGINEERING | GEOSPATIAL

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Charlotte, NC 28226
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STATE OF SOUTH CAROLINA — BRIAR BRADER, Charlotte, NC, No. 8803, 11/20/20 — REGISTERED ARCHITECT

SOUTH CAROLINA — WOOLPERT INC No. C02990 — CERTIFICATE OF AUTHORIZATION

Lancaster County, South Carolina

Heath Springs Soccer Complex

Lancaster County Parks & Recreation Soccer Complexes

200 Boyd Faile Road
Heath Springs, SC 29058

Revisions:

1 County Permit Review 1 11/20/20

Proj. No.: 080703
Date: 10/09/2020

Sheet Name:
CODE SUMMARY

G-002

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