

AVERAGE DAILY WATER DEMAND IS ESTIMATED AS SANITARY WASTEWATER AVERAGE DAILY FLOW PLUS 5 %. POTABLE WATER SYSTEM WILL NOT BE USED FOR IRRIGATION. RAINWATER HARVESTING FROM ROOFS WILL BE STORED IN CISTERNS AND WILL HAVE A SEPARATE DISTRIBUTION SYSTEM(S) FOR IRRIGATION NEEDS.

X 18 FT WITH 20 FT PARKING SPACE LENGTH FOR ADA SPACES.

SUMMARY OF PARKING SHOWN ON CONCEPTUAL LAND PLAN: TOTAL VILLAGE PARKING SHOWN (INCLUDING ADA SPACES)

TOTAL HOSPITALITY PARKING SHOWN (INCLUDING ADA SPACES) = 207

PROJECT PARKING SPACE SUMMARY

TOTAL PARKING SHOWN ENTIRE PROJECT = 390

PHASE 1 AVERAGE DAILY WATER DESIGN DEMAND = 1.05 X 25,786 GPD = 27,076 GPD

PHASE 1 TOTAL WELL YIELD NEEDS = 38 GPM ±
PHASE 1 MINIMUM TOTAL GROUND STORAGE NEEDS = 13,600 GAL ±

PHASE 2 ADDITIONAL AVERAGE DAILY WATER DESIGN DEMAND = $1.05 \times 13,740 \text{ GPD} = 14,427 \text{ GPD}$ PHASE 2 TOTAL ADDITIONAL WELL YIELD NEEDS = $21 \text{ GPM} \pm$

PHASE 2 MINIMUM ADDITIONAL WELL YIELD NEEDS = 21 GPM ±
PHASE 2 MINIMUM ADDITIONAL GROUND STORAGE NEEDS = 7,215 GAL ±

THEREFORE, TOTAL PHASE 1 + PHASE 2 DAILY WATER DESIGN DEMAND = 41,503 GPD

TOTAL PHASE 1 + PHASE 2 WELL YIELD NEEDS = 59 GPM ±

TOTAL PHASE 1 + PHASE 2 MINIMUM GROUND STORAGE NEEDS = 20,815 GAL ±

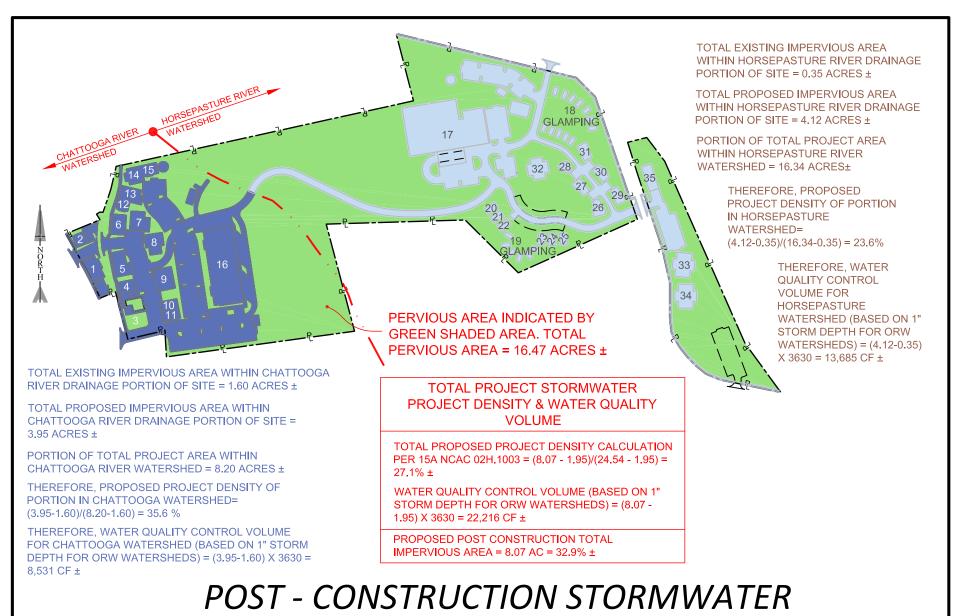
POTABLE WATER SOURCE STRATEGY: A MULTIPLE SOLUTION STRATEGY IS BEING PURSUED FOR POTABLE WATER SOURCES. FIRST, COMMUNITY WATER SYSTEM WELL SITES HAVE BEEN IDENTIFIED ON THE CONCEPTUAL LAND PLAN AND HAVE VERBAL APPROVAL FROM NC PUBLIC WATER SUPPLY. THE POTENTIAL COMMUNITY WELL LOCATIONS ON THE PROJECT PROPERTY WILL BE DRILLED IN THE NEAR FUTURE. ADDITIONALLY, THERE ARE 3 EXISTING NON-COMMUNITY WELLS ON SITE THAT WILL BE TESTED IN THE NEAR FUTURE. THE WATER SOURCE TO SERVE THE PROJECT COULD BE A COMMUNITY WATER SYSTEM WITH COMMUNITY WELLS OR A COMBINATION OF COMMUNITY WATER SYSTEMS WITH MULTIPLE NON-COMMUNITY WELLS OR A COMBINATION OF COMMUNITY WATER SYSTEMS AND NON-COMMUNITY WATER SYSTEMS. AS AN ALTERNATIVE, UTILITIES, INC. HAS BEEN CONTACTED AND HAVE INDICATED THEY WILL ALLOW EXPANSION OF THEIR SYSTEM PROVIDED THE DEVELOPER PROPERLY CONSTRUCTS THE NECESSARY DISTRIBUTION, STORAGE AND WATER WELL TO SERVE THE DEVELOPMENT IN ACCORDANCE WITH REGULATORY

STANDARDS. AN OFFSITE COMMUNITY WELL IS AVAILABLE FOR PURCHASE TO INCORPORATE INTO THE UTILITIES, INC. SYSTEM OR,

PROJECT POTABLE WATER DESIGN BASIS SUMMARY

ALTERNATELY THE DEVELOPER MAY EXPLORE FORMING A NEW PUBLIC UTILITY TO SERVE THE DEVELOPMENT.

PLANNING ENGINEERING DESIGN
11 Citrus Drive Sylva, NC 28779 (828) 586 - 1424
Firm License No.: C-2288 Date: 1/27/22 Update: 2/16/22
PRELIMINARY - DO NOT USE FOR CONSTRUCTION



POST - CONSTRUCTION STORMWATER

MANAGEMENT DATA

NOT TO SCALE

				CASHIERS EA		v			
		ESTIMATED A	VERA	GE DAILY SA	NITAI	RY WASTEV	VATER I	FLOWS	
						ESTIMATED AVERAGE DAILY SANITARY SEWER FLOWS (Gal per Day)			
						PHASE	1	PHASE 2	2
Building #	Phase	Uses	Approximate Net Usable Sq. Ft.	Notes	Number of Stories	Sewage Flow Design Basis	Estimated Average Daily Flow (gpd)	Sewage Flow Design Basis	Estimated Average Daily Flow (gpd)
1	1	Restaurant	3000	50 seat Bar, 6 Employees Estimated	1	40 gpd per bar seat	2000		
		Retail	800			100 gpd per 1000 sf	80		
2	1	Retail	1600		2	100 gpd per 1000 sf	160		
		Office	1600			12 gpd per employee x 8	96		
3	2	Restaurant	3000	80 Seat Restaurant, 10 Employees Estimated	1	7.0		40 gpd per restaurant seat	3200
4	1	East Village Retail	2400		2	100 gpd per 1000 sf	240		
		Office	2400			12 gpd per employee x 12	144		
5	1	East Village Retail	2000		2	100 gpd per 1000 sf	200		
		Residential/Office	2500	2 Bedrooms		120 gpd per bedroom + 12 gpd per employee x 6	312		
6	1	East Village Retail	2000		2			100 gpd per 1000 sf	200
		Residential	2500	4 Bedrooms				120 gpd per bedroom	480
7	1	East Village Retail	2000		2			100 gpd per 1000 sf	200
		Residential	2500	4 Bedrooms				120 gpd per bedroom	480
8	1	East Village Retail	2400		2	100 gpd per 1000 sf	240	bedroom	
		Residential	3000	4 Bedrooms		120 gpd per bedroom	480		
9	1	Restaurant & Rooftop	8000	40 Seat Restaurant & 60 Seat Bar, 12 Employees Estimated	2	40 gpd per restaurant seat + 20 gpd per bar seat	2800		
10	2	East Village Retail	1600		2			100 gpd per 1000 sf	160
		Residential/Office	2000	2 Bedrooms				120 gpd per bedroom + 12 gpd per employee x 4	288
11	2	East Village Retail	2000		2			100 gpd per 1000 sf	200
		Residential/Office	2500	2 Bedrooms				120 gpd per bedroom + 12 gpd per employee x 6	312
12-15	2	East Village Residential	28000	32 Bedrooms	2.5			120 gpd per bedroom	3840
16	1	Cashiers Village Hall - Retail/Food Stand	15000	Retail and 500 SF Food Stand Floor Area	1	100 gpd per 1000 sf + 50 gpd per 100 sf food stand + 12 gpd per food stand employee x 4	1798	bedroom	
17	1	Lodge/Massage Rooms/Restaurant	90000	90 Bedrooms/50 Seat Restaurant/20 Seat Bar	3 plus Partial Basement	120 gpd per room + 40 gpd per restaurant seat + 20 gpd per bar seat	13200		
18- 1 9	1	Lodging/Glamping	8000	6 Bedrooms	1	120 gpd/bedroom	720		
	2	Lodging/Glamping		12 Bedrooms	1			120 gpd/bedroom	1440
20-31	1	Lodging/Cottages	15000	6 Bedrooms	1-2	120 gpd/bedroom	720		
	2	Lodging/Cottages		12 Bedrooms	1-2			120 gpd/bedroom	1440
32	1	Pavillion	3200	Community Center	1	5 gpd per person x 200 + 12 gpd per employee x 3	1036		
33	1	Employee Housing	15000	25 Single Bedrooms	3	60 gpd/person	1500	60 and/2000	1500
34	1	Employee Housing Maintenance Shed	15000 2400	25 Single Bedrooms 3 employees	3	20 gpd per employee	60	60 gpd/person	1500
				Total Average Da	ller Fasterras and	Sanitary Sewer Flows:	25786		1374

PHASE 1 SANITARY WASTEWATER WILL BE DISPOSED OF USING A COMBINATION OF EXISTING TUCKASEIGEE WATER AND SEWER AUTHORITY (TWSA) ALLOCATION PLUS THE CONSTRUCTION OF AN ON SITE, SUBSURFACE DRIP IRRIGATION DISPOSAL SYSTEM WITH PRETREATMENT:

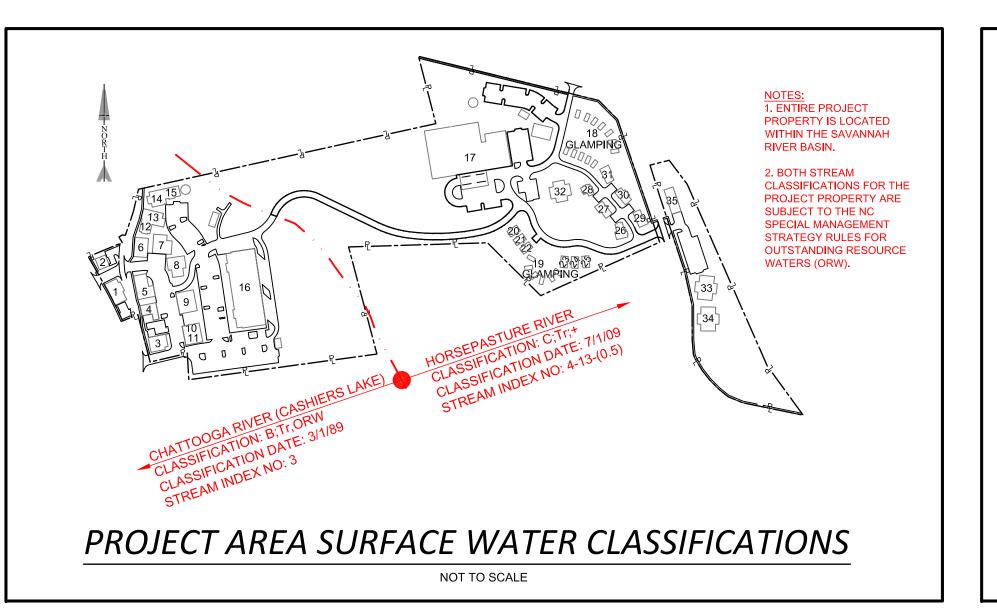
EXISTING TWSA SEWER CAPACITY ALLOCATED TO PROJECT PROPERTIES = 12,528 GPD

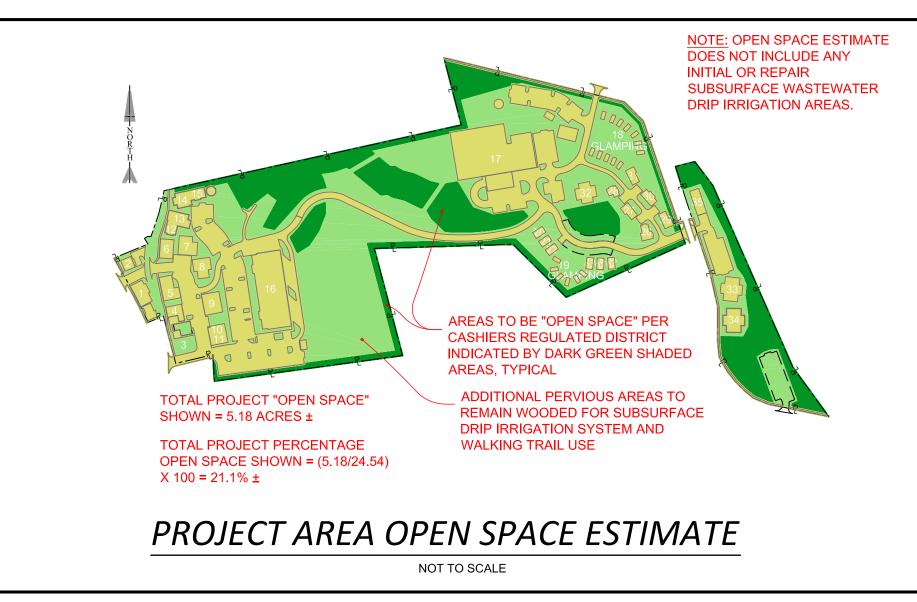
PROPOSED SUBSURFACE DRIP IRRIGATION DISPOSAL SYSTEM CAPACITY = 13,500 GPD ±

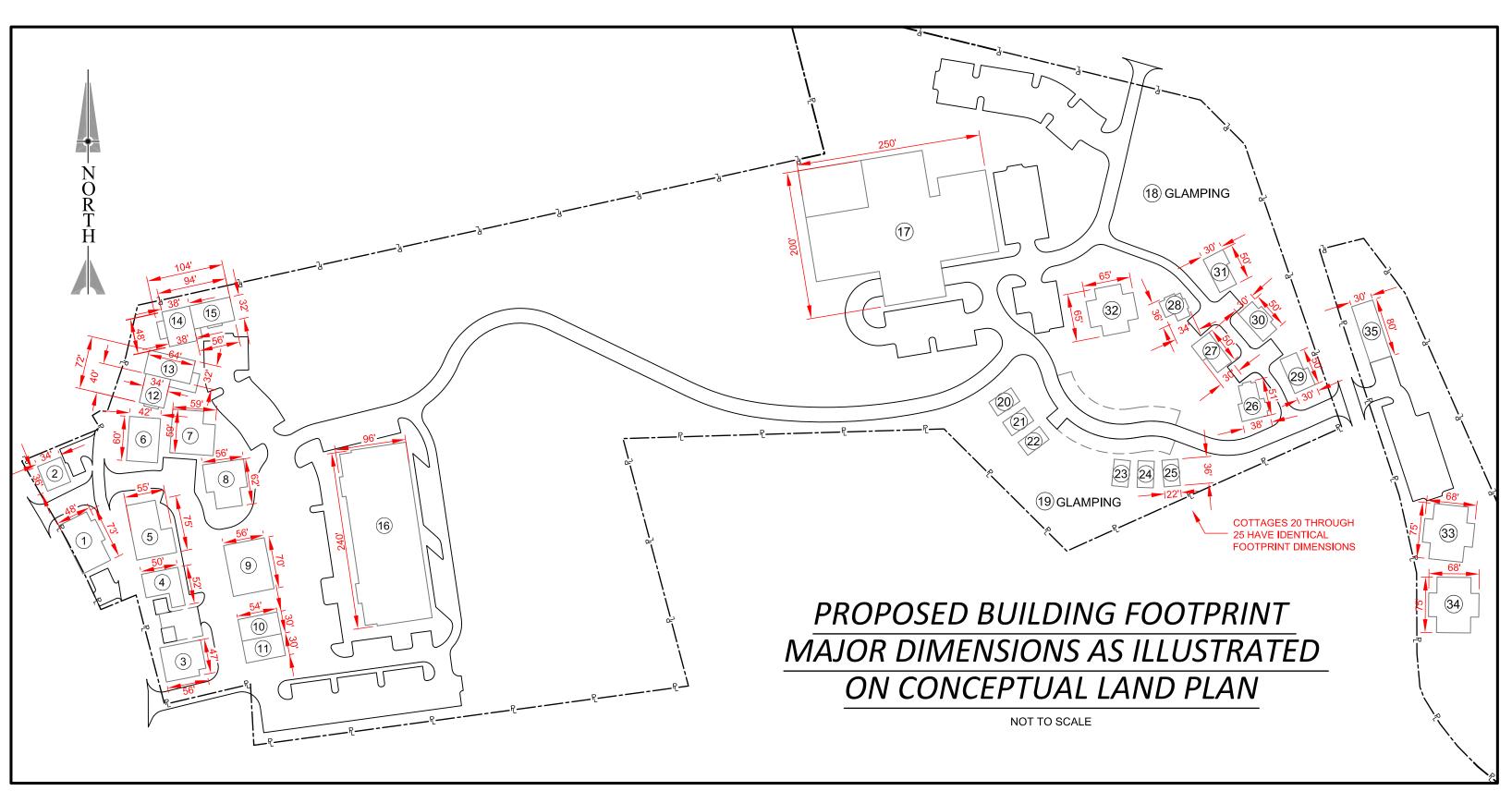
TOTAL PHASE 1 SEWAGE DISPOSAL CAPACITY = 26,028 GPD

THE BALANCE OF PHASE 2 SANITARY WASTEWATER CAPACITY NEEDED, IN THE AMOUNT OF APPROXIMATELY 13,498 GPD WILL BE APPLIED FOR THROUGH TWSA ONCE CAPACITY APPLICATION IS AVAILABLE FOR THEIR FUTURE WASTEWATER TREATMENT FACILTY. THE PORTION OF THE EXISTING TWSA COLLECTION SYSTEM WHICH WILL BE CONVEYED TO THE FUTURE TREATMENT FACILITY IS CURRENTLY SERVING THE PROJECT PROPERTY.

PROJECT SANITARY WASTEWATER DESIGN BASIS SUMMARY







LOW LEVEL AND DARK SKY SITE LIGHTING FIXTURES WILL BE PROVIDED FOR SAFETY AND SECURITY WHILE REDUCING GLARE AND LIGHT TRESPASS TO OTHER PROPERTIES IN ACCORDANCE WITH SECTION 9.3.8 OF THE JACKSON COUNTY CASHIERS COMMERCIAL AREA REGULATED DESTRICT STANDARDS.

SITE LIGHTING DESIGN BASIS

PRELIMINARY SITE DESIGN DATA SUMMARY for

CASHIERS EAST VILLAGE



Civil Site Exhibit - Page 2 of 2