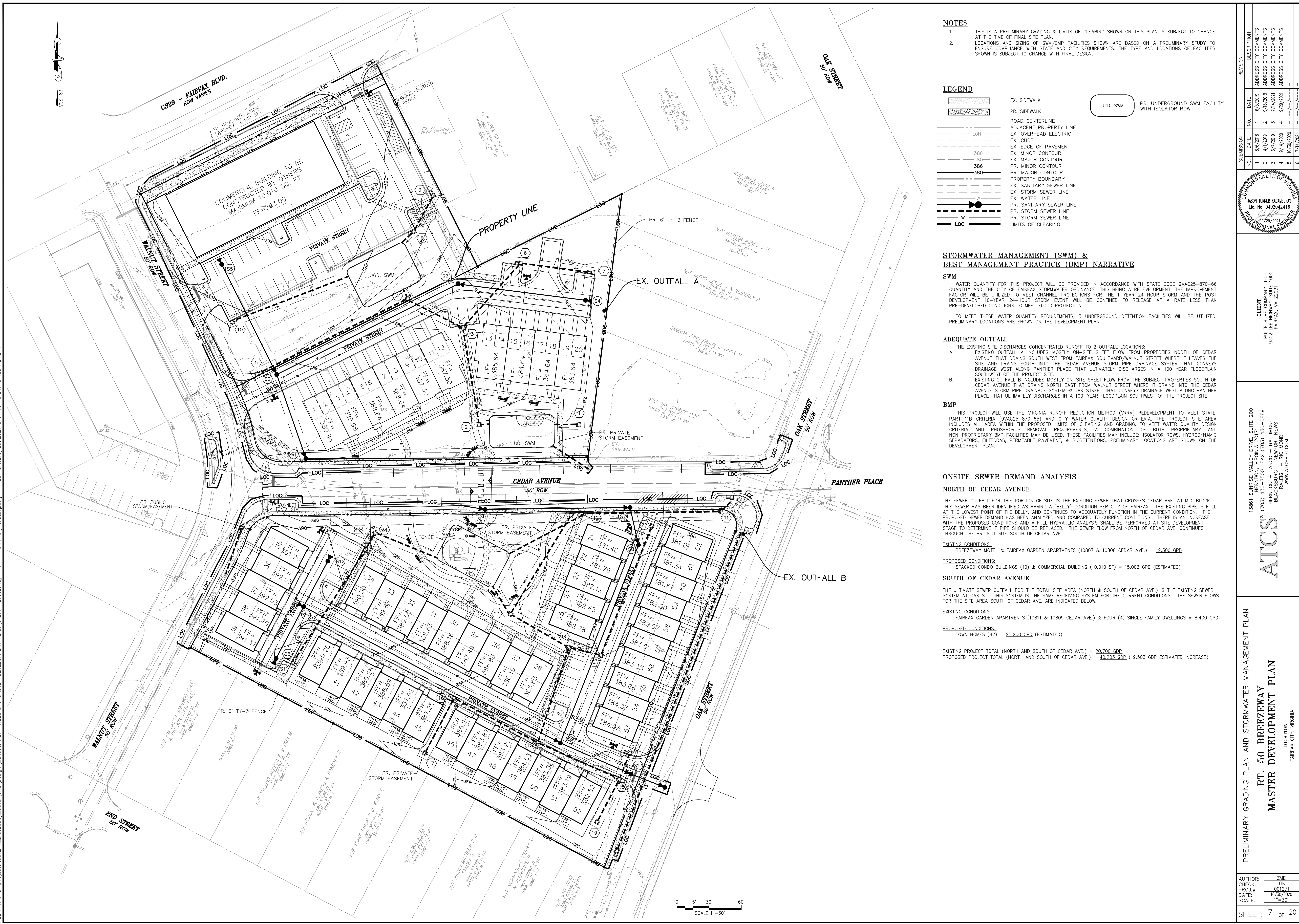


FILE PATH: S:\Projects\001271_Breezezway_Motel\Civil\Design\1271-REZONING MASTER DEVELOPMENT PLAN\01271 - Breezezway - 7 - Preliminary Grading.dwg PLOT DATE: 9/29/2021 5:01:40 PM BY: CHRIS NEFEERT



NOTES

- THIS IS A PRELIMINARY GRADING & LIMITS OF CLEARING SHOWN ON THIS PLAN IS SUBJECT TO CHANGE AT THE TIME OF FINAL SITE PLAN.
- LOCATIONS AND SIZING OF SWM/BMP FACILITIES SHOWN ARE BASED ON A PRELIMINARY STUDY TO ENSURE COMPLIANCE WITH STATE AND CITY REQUIREMENTS. THE TYPE AND LOCATIONS OF FACILITIES SHOWN IS SUBJECT TO CHANGE WITH FINAL DESIGN.

LEGEND

[Symbol]	EX. SIDEWALK	[Symbol]	UGD SWM	[Symbol]	PR. UNDERGROUND SWM FACILITY WITH ISOLATOR ROW
[Symbol]	PR. SIDEWALK	[Symbol]		[Symbol]	
[Symbol]	ROAD CENTERLINE	[Symbol]		[Symbol]	
[Symbol]	ADJACENT PROPERTY LINE	[Symbol]		[Symbol]	
[Symbol]	EX. OVERHEAD ELECTRIC	[Symbol]		[Symbol]	
[Symbol]	EX. CURB	[Symbol]		[Symbol]	
[Symbol]	EX. EDGE OF PAVEMENT	[Symbol]		[Symbol]	
[Symbol]	EX. MINOR CONTOUR	[Symbol]		[Symbol]	
[Symbol]	EX. MAJOR CONTOUR	[Symbol]		[Symbol]	
[Symbol]	PR. MINOR CONTOUR	[Symbol]		[Symbol]	
[Symbol]	PR. MAJOR CONTOUR	[Symbol]		[Symbol]	
[Symbol]	PROPERTY BOUNDARY	[Symbol]		[Symbol]	
[Symbol]	EX. SANITARY SEWER LINE	[Symbol]		[Symbol]	
[Symbol]	EX. STORM SEWER LINE	[Symbol]		[Symbol]	
[Symbol]	EX. WATER LINE	[Symbol]		[Symbol]	
[Symbol]	PR. SANITARY SEWER LINE	[Symbol]		[Symbol]	
[Symbol]	PR. STORM SEWER LINE	[Symbol]		[Symbol]	
[Symbol]	PR. STORM SEWER LINE	[Symbol]		[Symbol]	
[Symbol]	LIMITS OF CLEARING	[Symbol]		[Symbol]	

STORMWATER MANAGEMENT (SWM) & BEST MANAGEMENT PRACTICE (BMP) NARRATIVE

SWM
WATER QUANTITY FOR THIS PROJECT WILL BE PROVIDED IN ACCORDANCE WITH STATE CODE 9VAC25-870-66 QUANTITY AND THE CITY OF FAIRFAX STORMWATER ORDINANCE. THIS BEING A REDEVELOPMENT, THE IMPROVEMENT FACTOR WILL BE UTILIZED TO MEET CHANNEL PROTECTIONS FOR THE 1-YEAR 24 HOUR STORM AND THE POST DEVELOPMENT 10-YEAR 24-HOUR STORM EVENT WILL BE CONFINED TO RELEASE AT A RATE LESS THAN PRE-DEVELOPED CONDITIONS TO MEET FLOOD PROTECTION.

TO MEET THESE WATER QUANTITY REQUIREMENTS, 3 UNDERGROUND DETENTION FACILITIES WILL BE UTILIZED. PRELIMINARY LOCATIONS ARE SHOWN ON THE DEVELOPMENT PLAN.

ADEQUATE OUTFALL
THE EXISTING SITE DISCHARGES CONCENTRATED RUNOFF TO 2 OUTFALL LOCATIONS.
A. EXISTING OUTFALL A INCLUDES MOSTLY ON-SITE SHEET FLOW FROM PROPERTIES NORTH OF CEDAR AVENUE THAT DRAINS SOUTH WEST FROM FAIRFAX BOULEVARD/WALNUT STREET WHERE IT LEAVES THE SITE AND DRAINS SOUTH INTO THE CEDAR AVENUE STORM PIPE DRAINAGE SYSTEM THAT CONVEYS DRAINAGE WEST ALONG PANTHER PLACE THAT ULTIMATELY DISCHARGES IN A 100-YEAR FLOODPLAIN SOUTHWEST OF THE PROJECT SITE.
B. EXISTING OUTFALL B INCLUDES MOSTLY ON-SITE SHEET FLOW FROM THE SUBJECT PROPERTIES SOUTH OF CEDAR AVENUE THAT DRAINS NORTH EAST FROM WALNUT STREET WHERE IT DRAINS INTO THE CEDAR AVENUE STORM PIPE DRAINAGE SYSTEM @ OAK STREET THAT CONVEYS DRAINAGE WEST ALONG PANTHER PLACE THAT ULTIMATELY DISCHARGES IN A 100-YEAR FLOODPLAIN SOUTHWEST OF THE PROJECT SITE.

BMP
THIS PROJECT WILL USE THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) REDEVELOPMENT TO MEET STATE, PART 11B CRITERIA (9VAC25-870-85) AND CITY WATER QUALITY DESIGN CRITERIA. THE PROJECT SITE AREA INCLUDES ALL AREA WITHIN THE PROPOSED LIMITS OF CLEARING AND GRADING TO MEET WATER QUALITY DESIGN CRITERIA AND PHOSPHORUS REMOVAL REQUIREMENTS, A COMBINATION OF BOTH PROPRIETARY AND NON-PROPRIETARY BMP FACILITIES MAY BE USED. THESE FACILITIES MAY INCLUDE: ISOLATOR ROWS, HYDRODYNAMIC SEPARATORS, FILTERRAS, PERMEABLE PAVEMENT, & BIORETENTIONS. PRELIMINARY LOCATIONS ARE SHOWN ON THE DEVELOPMENT PLAN.

ONSITE SEWER DEMAND ANALYSIS

NORTH OF CEDAR AVENUE
THE SEWER OUTFALL FOR THIS PORTION OF SITE IS THE EXISTING SEWER THAT CROSSES CEDAR AVE. AT MID-BLOCK. THIS SEWER HAS BEEN IDENTIFIED AS HAVING A "BELLY" CONDITION PER CITY OF FAIRFAX. THE EXISTING PIPE IS FULL AT THE LOWEST POINT OF THE BELLY, AND CONTINUES TO ADEQUATELY FUNCTION IN THE CURRENT CONDITION. THE PROPOSED SEWER DEMAND HAS BEEN ANALYZED AND COMPARED TO CURRENT CONDITIONS. THERE IS AN INCREASE WITH THE PROPOSED CONDITIONS AND A FULL HYDRAULIC ANALYSIS SHALL BE PERFORMED AT SITE DEVELOPMENT STAGE TO DETERMINE IF PIPE SHOULD BE REPLACED. THE SEWER FLOW FROM NORTH OF CEDAR AVE. CONTINUES THROUGH THE PROJECT SITE SOUTH OF CEDAR AVE.

EXISTING CONDITIONS:
BREEZEWAY MOTEL & FAIRFAX GARDEN APARTMENTS (10807 & 10808 CEDAR AVE.) = 12,300 GPD

PROPOSED CONDITIONS:
STACKED CONDO BUILDINGS (10) & COMMERCIAL BUILDING (10,010 SF) = 15,003 GPD (ESTIMATED)

SOUTH OF CEDAR AVENUE
THE ULTIMATE SEWER OUTFALL FOR THE TOTAL SITE AREA (NORTH & SOUTH OF CEDAR AVE.) IS THE EXISTING SEWER SYSTEM AT OAK ST. THIS SYSTEM IS THE SAME RECEIVING SYSTEM FOR THE CURRENT CONDITIONS. THE SEWER FLOWS FOR THE SITE AREA SOUTH OF CEDAR AVE. ARE INDICATED BELOW.

EXISTING CONDITIONS:
FAIRFAX GARDEN APARTMENTS (10811 & 10809 CEDAR AVE.) & FOUR (4) SINGLE FAMILY DWELLINGS = 8,400 GPD

PROPOSED CONDITIONS:
TOWN HOMES (42) = 25,200 GPD (ESTIMATED)

EXISTING PROJECT TOTAL (NORTH AND SOUTH OF CEDAR AVE.) = 20,700 GPD
PROPOSED PROJECT TOTAL (NORTH AND SOUTH OF CEDAR AVE.) = 40,203 GPD (19,503 GPD ESTIMATED INCREASE)

REVISION		SUBMISSION	
NO.	DATE	NO.	DATE
1	6/6/2018	1	6/6/2018
2	9/18/2019	2	4/7/2019
3	6/7/2019	3	6/7/2019
4	7/14/2020	4	9/29/2021
5	10/30/2020	5	10/30/2020
6	7/14/2021	6	7/14/2021
7	9/29/2021	7	9/29/2021

CLIENT
PULTE HOME COMPANY LLC
9302 LEE HIGHWAY, SUITE 1000
FAIRFAX, VA 22031

**13861 SUNRISE VALLEY DRIVE, SUITE 200
HERNDON, VIRGINIA 20171
TEL: (703) 430-7500 FAX: (703) 430-0889
HERNDON - LARGO - BALTIMORE
BLACKSBURG - RALEIGH - RICHMOND
WWW.ATCSPLC.COM**

ATCS

**PRELIMINARY GRADING PLAN AND STORMWATER MANAGEMENT PLAN
RT. 50 BREEZEWAY
MASTER DEVELOPMENT PLAN**

LOCATION
FAIRFAX CITY, VIRGINIA

AUTHOR: ZME
CHECK: JTK
PROJ.#: 001271
DATE: 10/30/2020
SCALE: 1"=50'

SHEET: 7 of 20