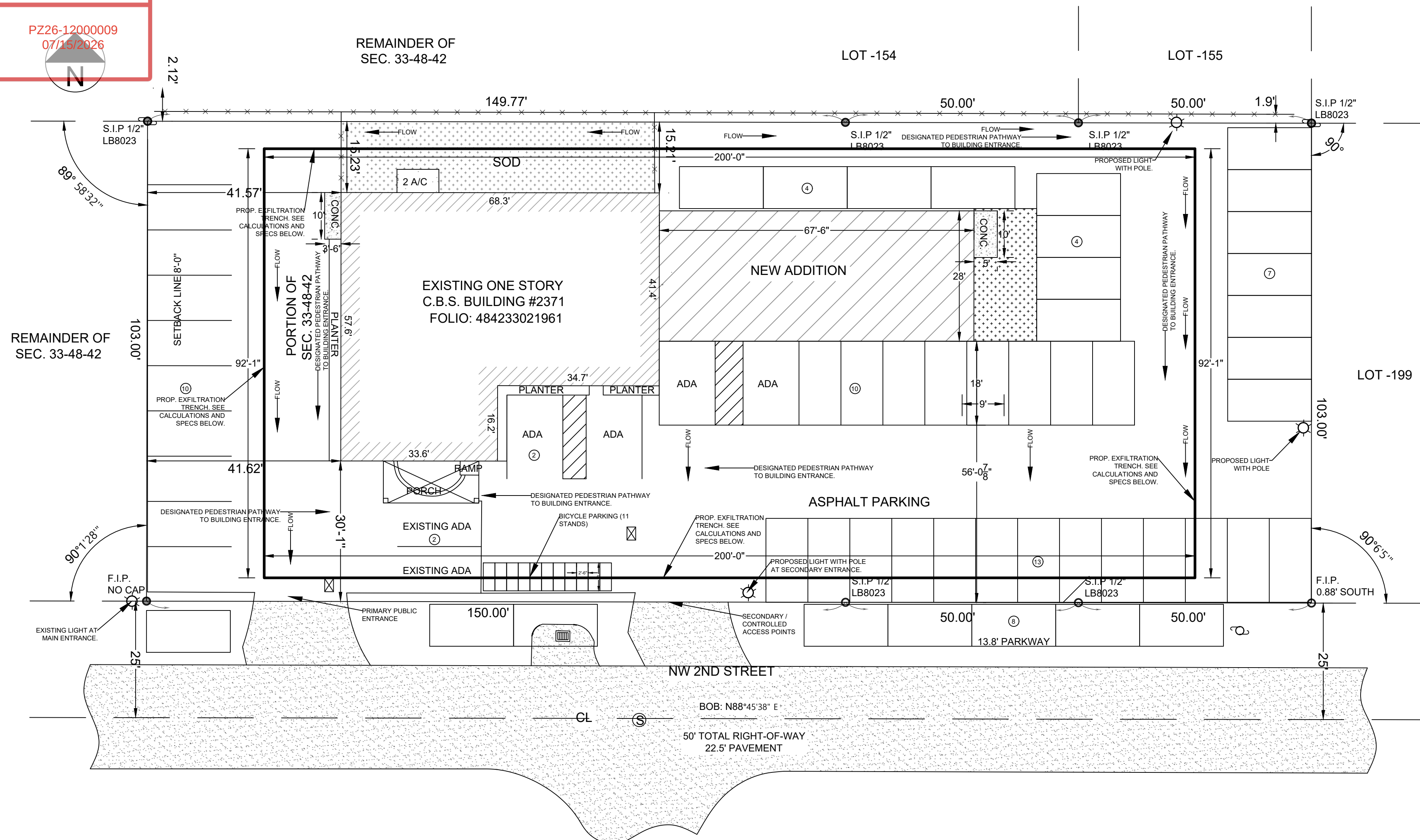


 DRAINAGE PLAN

SCALE: 1/16"=1'

EXFILTRATION TRENCH – WATER QUALITY STORAGE CALCULATIONS

SITE AREA = 25,738 SF
IMPERVIOUS AREA = 24,780 SF
% IMPERVIOUS (I) = 24,780 / 25,738 = 0.962 (96.2%)

REQUIRED WATER QUALITY VOLUME, WQv = 5,163 CF

EXFILTRATION TRENCH STORAGE PROVIDED:

TRENCH BOTTOM WIDTH (W) = 5.0 FT
AGGREGATE RESERVOIR DEPTH (H) = 5.0 FT
AGGREGATE VOID RATIO (n) = 0.40 (TYP.)
STORAGE PER LINEAR FOOT = $W \times H \times n$
STORAGE PER LINEAR FOOT = $5.0 \times 5.0 \times 0.40 = 10.00 \text{ CF/LF}$

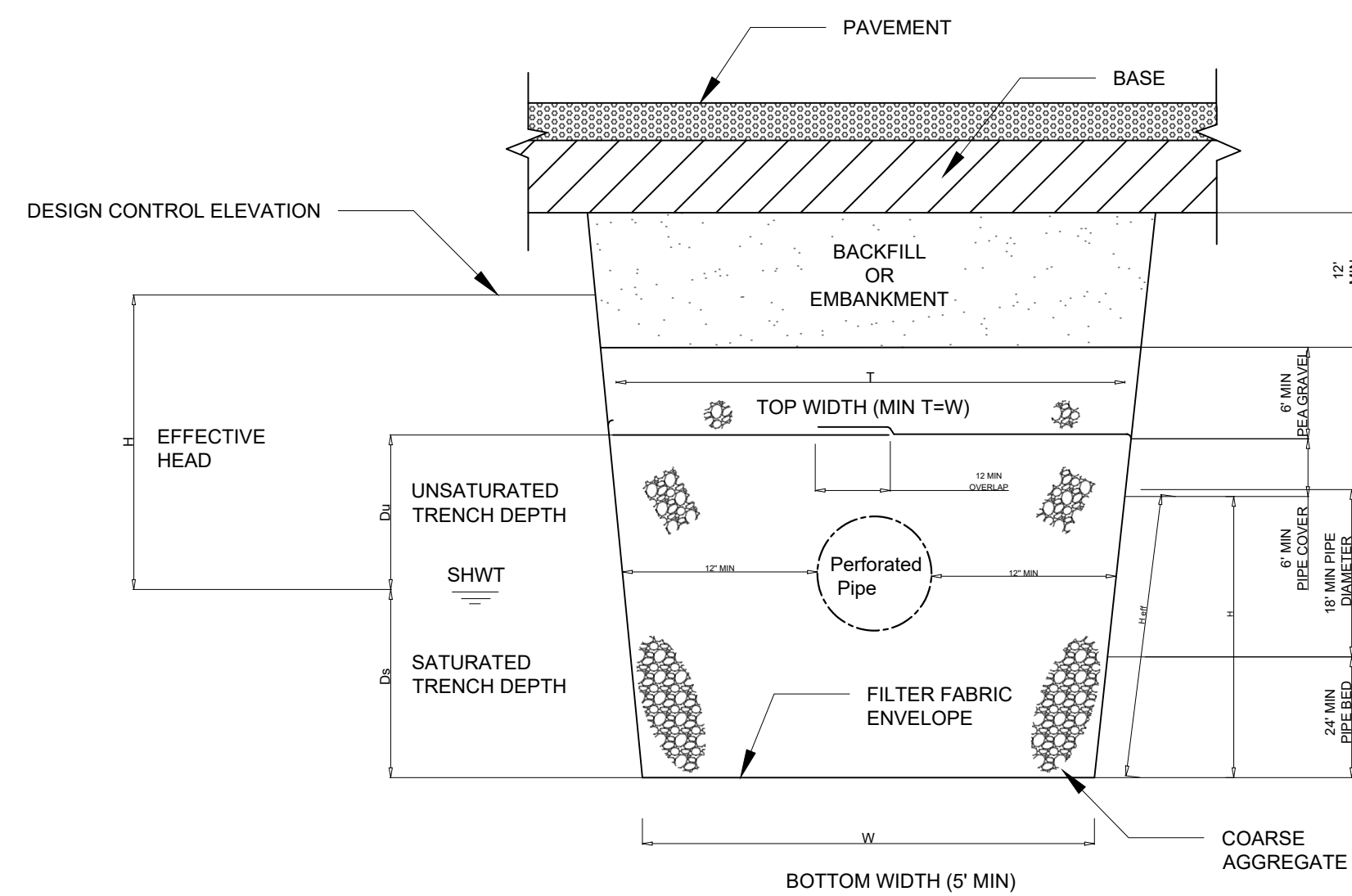
REQUIRED TRENCH LENGTH (L_{req}) = WQ_v / 10.00
L_{req} = 5,163 / 10.00 = 516.3 LF

PROVIDED TRENCH LENGTH (L_{prov}) = 584 LF (MIN.)
TOTAL STORAGE PROVIDED = $10.00 \times 584 = 5,840$ CF

CHECK: PROVIDED / REQUIRED = 584 / 516.3 = 1.13 (OK)

WATER QUALITY CALCULATIONS:

WATER QUALITY VOLUME = 2.5" x PERCENT IMPERVIOUS

$$V = 2.5/12 \times 24,780 \text{ SF} = 5,162.5 \text{ CF}$$


TYPICAL EXFILTRATION TRENCH

Site Calculations Table				
Areas	Existing (SF.)	Proposed (SF.)	Total (SF)	Status
Total Lot	25,738	-	25,738	N.A.
Under Air (Building)	3,495	1,890	5,385	N.A.
Garage	-	-		N.A.
Total Building Coverage	3,495	1,890	5,385	7%
Patios	-	-		
Pool	-	-		
Driveways	-	-		
Walkways	-	-		
Concrete Pads	6,735	12,660	19,395	
Accessory Structures/ Additions	-	-		
Impervious Area	10,230	14,550	24,780	96%
Pervious Area	15,508	11,188	958	4%



400 NW 7th Ave #14310 Ft.
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RENOVATION

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Consultant
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HOUSE OF GOD

DRAINAGE PLAN

Project number	P-78482
Date	10-23-2025
Drawn by	DONDIEGO MAURICE
Checked by	

A-006

Scale 1/16" = 1'-0"