APPENDIX M

Engineering Reports

M.1 | SIGNATURE EAST – ENGINEER'S REPORT

M.2 | SIGNATURE EAST – SITE DRAWINGS

M.3 | SIGNATURE SOUTH – ENGINEER'S REPORT

M.4 | SIGNATURE SOUTH – SITE DRAWINGS

APPENDIX M.3

Signature South – Engineer's Report

APPENDIX I
Groundwater Recharge

NOTE: THERE ARE SOME HSG A/D SOILS MAPPED ONSITE. SINCE THE SHWT IS WITHIN 24 INCHES OF THE GROUND SURFACE, THESE SOILS ARE CLASSIFIED AS HSG 'D' SOIL PER NJ BMP MANUAL CHAPTER 12.

REFER TO APPENDIX H - SUMMARY OF PROFILE TEST PITS.

New Jersey Groundwater Recharge Spreadsheet Version 2.0 November 2003

Annual Groundwater Recharge Analysis (based on GSR-32)

Project Name:	Signature South Expansion-TEB
Description:	Teterboro Airport Leasehold Area
Analysis Date:	03/02/26

Select Township ↓	Average Annual P (in)	Climatic Factor
BERGEN CO., TETERBORO BORO	43.2	1.40

Pre-Developed Conditions

Land Segment	Area (acres)	TR-55 Land Cover	Soil	Annual Recharge (in)	Annual Recharge (cu.ft)
1	2.05	Open space	Udorthents	0.0	-
2	9.76	Brush	Udorthents	0.0	-
3	5.04	Woods	Udorthents	0.0	-
4	1.32	Gravel, dirt	Udorthents	0.0	-
5	1.64	Impervious areas	Udorthents	0.0	-
6	0				
7	0				
8	0				
9	0				
10	0				
11	0				
12	0				
13	0				
14	0				
15	0				
Total =	19.8			Total Annual Recharge (in)	Total Annual Recharge (cu-ft)
				0.0	-

Post-Developed Conditions

Land Segment	Area (acres)	TR-55 Land Cover	Soil	Annual Recharge (in)	Annual Recharge (cu.ft)
1	2.24	Open space	Udorthents	0.0	-
2	2.84	Brush	Udorthents	0.0	-
3	3.98	Woods	Udorthents	0.0	-
4	0.71	Gravel, dirt	Udorthents	0.0	-
5	10.05	Impervious areas	Udorthents	0.0	-
6	0				
7	0				
8	0				
9	0				
10	0				
11	0				
12	0				
13	0				
14	0				
15	0				
Total =	19.8	Warning: make total area equal to Pre-Developed Condition		Total Annual Recharge (in)	Total Annual Recharge (cu.ft)
				0.0	-

Annual Recharge Requirements Calculation ↓

% of Pre-Developed Annual Recharge to Preserve =	100%	Total Impervious Area (sq.ft)	437,778
Post-Development Annual Recharge Deficit=	*0*	(cubic feet)	

Recharge Efficiency Parameters Calculations (area averages)

RWC=	0.00	(in)	DRWC=	0.00	(in)
ERWC =	0.00	(in)	EDRWC=	0.00	(in)

Procedure to fill the Pre-Development and Post-Development Conditions Tables

For each land segment, first enter the area, then select TR-55 Land Cover, then select Soil. Start from the top of the table and proceed downward. Don't leave blank rows (with A=0) in between your segment entries. Rows with A=0 will not be displayed or used in calculations. For impervious areas outside of standard lots select "Impervious Areas" as the Land Cover. Soil type for impervious areas are only required if an infiltration facility will be built within these areas.

NOTE: THERE ARE SOME HSG A/D SOILS MAPPED ONSITE. SINCE THE SHWT IS WITHIN 24 INCHES OF THE GROUND SURFACE, THESE SOILS ARE CLASSIFIED AS HSG 'D' SOIL PER NJ BMP MANUAL CHAPTER 12.

REFER TO APPENDIX H - *SUMMARY OF PROFILE TEST PITS.*

New Jersey Groundwater Recharge Spreadsheet Version 2.0 November 2003

Annual Groundwater Recharge Analysis (based on GSR-32)

Select Township ↓	Average Annual P (in)	Climatic Factor
BERGEN CO., MOONACHIE BORO	42.9	1.39

Project Name:	**Signature South Expansion-TEB**
Description:	**Teterboro Airport Leasehold Area**
Analysis Date:	**03/02/26**

Pre-Developed Conditions

Land Segment	Area (acres)	TR-55 Land Cover	Soil	Annual Recharge (in)	Annual Recharge (cu.ft)
1	2.05	Open space	Udorthents	0.0	-
2	9.76	Brush	Udorthents	0.0	-
3	5.04	Woods	Udorthents	0.0	-
4	1.32	Gravel, dirt	Udorthents	0.0	-
5	1.64	Impervious areas	Udorthents	0.0	-
6	0				
7	0				
8	0				
9	0				
10	0				
11	0				
12	0				
13	0				
14	0				
15	0				
Total =	19.8			Total Annual Recharge (in)	Total Annual Recharge (cu-ft)
				0.0	-

Post-Developed Conditions

Land Segment	Area (acres)	TR-55 Land Cover	Soil	Annual Recharge (in)	Annual Recharge (cu.ft)
1	2.24	Open space	Udorthents	0.0	-
2	2.84	Brush	Udorthents	0.0	-
3	3.98	Woods	Udorthents	0.0	-
4	0.71	Gravel, dirt	Udorthents	0.0	-
5	10.05	Impervious areas	Udorthents	0.0	-
6	0				
7	0				
8	0				
9	0				
10	0				
11	0				
12	0				
13	0				
14	0				
15	0				
Total =	19.8	Warning: make total area equal to Pre-Developed Condition		Total Annual Recharge (in)	Total Annual Recharge (cu.ft)
				0.0	-

Annual Recharge Requirements Calculation ↓

% of Pre-Developed Annual Recharge to Preserve =	100%	Total Impervious Area (sq.ft)	437,778
Post-Development Annual Recharge Deficit=	***0***	(cubic feet)	

Recharge Efficiency Parameters Calculations (area averages)

RWC=	0.00	(in)	DRWC= 0.00	(in)
ERWC =	0.00	(in)	EDRWC= 0.00	(in)

Procedure to fill the Pre-Development and Post-Development Conditions Tables

For each land segment, first enter the area, then select TR-55 Land Cover, then select Soil. Start from the top of the table and proceed downward. Don't leave blank rows (with A=0) in between your segment entries. Rows with A=0 will not be displayed or used in calculations. For impervious areas outside of standard lots select "Impervious Areas" as the Land Cover. Soil type for impervious areas are only required if an infiltration facility will be built within these areas.

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Signature South
Teterboro, NJ

3/13/2026

Tests located in A/D soils
Associated groundwater within top 24inches.
HSG D Designation

TABLE 1 - SUMMARY OF PROFILE TEST PITS

Profile Test ID	Basin ID	Profile Pit Completion Date	Time of Excavation	Existing Surface Grade	Proposed Bottom of BMP	Approximate Profile Pit Bottom		Approximate Observed Top of Soil Mottling Layer		Approximate Bottom of Observed Soil Mottling Layer		Observed Groundwater Level or Water Seepage		Determined Seasonal High Groundwater		Remarks
				(el)	(el)	(ft)	(el)	(ft)	(el)	(ft)	(el)	(ft)	(el)	(ft)	(el)	
LTP-1	Pervious Pavement (A2)	2/20/2026	9:15	2	0.5	11.6	-9.6	2.2	-0.2	11.6	-9.6	1	1	1.0	1.0	Standing water at surface.
LTP-2	Pervious Pavement (A2)	2/20/2026	10:00	2	0.5	11	-9	2.5	-0.5	11	-9	1.2	0.8	1.2	0.8	Standing water at surface.
LTP-3	Pervious Pavement (A2)	3/4/2026	9:20	2.5	0.5	11	-8.5	4.2	-1.7	6.4	-3.9	2.6	-0.1	2.6	-0.1	Snow at surface.
LTP-4	Pervious Pavement (A2)	3/6/2026	9:30	2.5	0.5	11	-8.5	3	-0.5	9	-6.5	1	1.5	1.0	1.5	Snow at surface.
LTP-5	Detention Chamber (A3)	3/3/2026	10:05	2	1.6	10.3	-8.3	1	1	6.7	-4.7	2.6	-0.6	1.0	1.0	Standing water at surface.
LTP-6	Detention Chamber (A3)	2/20/2026	12:15	2	1.6	4	-2	0.9	1.1	4	-2	0.8	1.2	0.8	1.2	Standing water at surface and rapid water infiltration. Test pit terminated due to sidewall collapse.
LTP-7	Detention Chamber (A4)	2/20/2026	12:35	2	1.6	9	-7	1.1	0.9	5.3	-3.3	1.1	0.9	1.1	0.9	Standing water at surface.
LTP-8	Detention Chamber (A4)	3/6/2026	10:15	2.5	1.6	11	-8.5	1.4	1.1	5	-2.5	1.8	0.7	1.4	1.1	Snow at surface.
LTP-9	Detention Chamber (A3)	2/20/2026	11:20	2	1.6	10.9	-8.9	1	1	6.3	-4.3	0.8	1.2	0.8	1.2	Standing water at surface.
LTP-10	Detention Chamber (A4)	3/3/2026	11:30	2	1.6	11.3	-9.3	1.6	0.4	11	-9	1	1	1.0	1.0	Standing water at surface.
LTP-11	Detention Chamber (A3)	2/20/2026	10:45	2	1.6	11	-9	1.7	0.3	11	-9	1	1	1.0	1.0	Standing water at surface.
LTP-12	Detention Chamber (A3)	3/3/2026	12:30	2	1.6	11.3	-9.3	1.3	0.7	7	-5	0.8	1.2	0.8	1.2	Standing water/snow at surface.
LTP-13	Detention Chamber (A4)	3/3/2026	1:05	1.5	1.6	9	-7.5	1.8	-0.3	6	-4.5	1.8	-0.3	1.8	-0.3	Standing water at surface.
LTP-14	Detention Chamber (A4)	3/3/2026	11:50	3	1.6	11.6	-8.6	0.6	2.4	5	-2	3	0	0.6	2.4	Snow at surface.
LTP-15	Pervious Pavement (A5)	3/4/2026	12:05	1.5	3.4	7	-5.5	1.3	0.2	7	-5.5	1.4	0.1	1.3	0.2	Standing water at surface.
LTP-16	Pervious Pavement (A5)	3/4/2026	11:30	1.5	3.4	6	-4.5	1.3	0.2	6	-4.5	1.8	-0.3	1.3	0.2	Standing water at surface.
LTP-17	Detention Chamber (A7)	3/4/2026	11:00	1.5	3	6.3	-4.8	2	-0.5	6	-4.5	2.5	-1	2.0	-0.5	Standing water at surface.
LTP-18	Pervious Pavement (A5)	3/4/2026	10:20	2	3.4	6	-4	1.8	0.2	6	-4	0.5	1.5	0.5	1.5	Standing water at surface.
LTP-19	Pervious Pavement (A6)	3/11/2026	9:30	4	2.5	10.8	-6.8	5	-1	10.8	-6.8	4.8	-0.8	4.8	-0.8	
LTP-20	Pervious Pavement (A6)	3/11/2026	10:20	3	2.5	8.2	-5.2	2	1	7.4	-4.4	1	2	1.0	2.0	
LTP-21	Pervious Pavement (A6)	3/11/2026	10:50	4	2.5	7.3	-3.3	2	2	7.3	-3.3	1	3	1.0	3.0	Standing water at surface. Test pit terminated due to sidewall collapse.
LTP-22	Pervious Pavement (A6)	3/11/2026	11:30	3	2.5	7.4	-4.4	1.1	1.9	5.5	-2.5	0.8	2.2	0.8	2.2	Standing water at surface. Test pit terminated due to sidewall collapse.

NOTES

1 Refer to Appendix A for profile test pit logs.

2 The elevations and depths provided in the table are approximate.

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