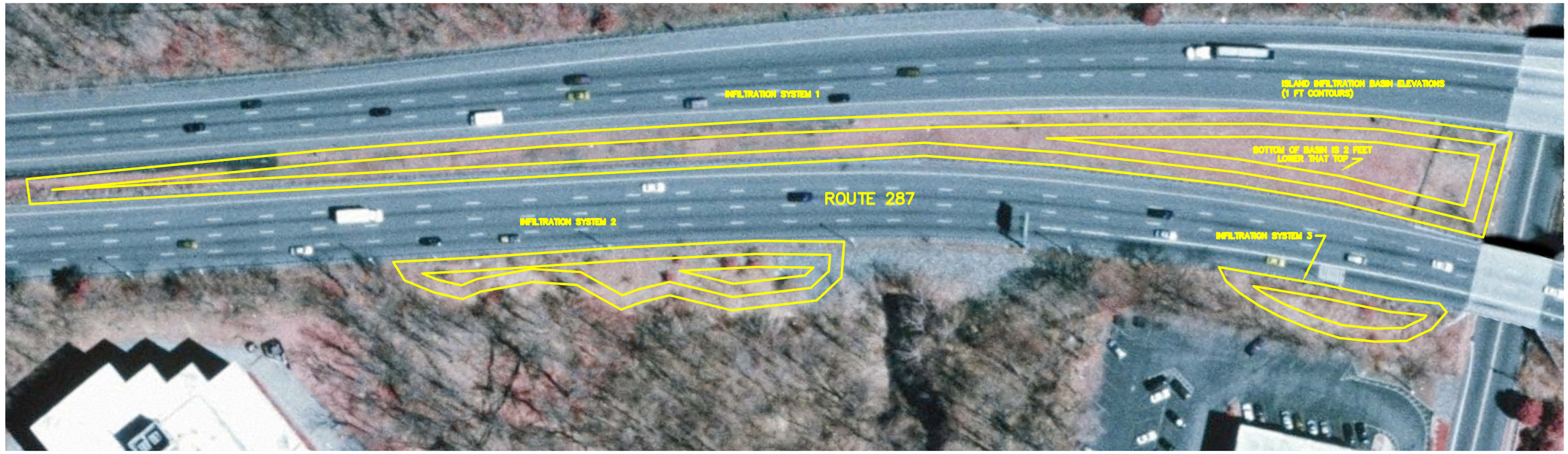


0 20 40 80
SCALE

NOTES:

1. MILESTONE 3 STATES THAT RUNOFF FROM ROUTE 80, 280 AND 46 IS RESPONSIBLE FOR INCREASES IN TOTAL SUSPENDED SOLIDS (TSS) AND FLOODING.

2. MILESTONE 3 ALSO CALLS FOR AN INCREASE OF INFILTRATION FOR THE ENTIRE WATERSHED TO HELP REDUCE FLOODING, IMPROVE WATER QUALITY AND INCREASE THE BASE FLOW OF STREAMS. INFILTRATION BASINS REDUCE TSS CONCENTRATIONS BY 80% WHILE INFILTRATING RUNOFF IN THE GROUNDWATER, THEREBY PROMOTING RECHARGE.

3. THIS SITE PLAN ILLUSTRATES TWO DIFFERENT METHODS THAT HELP TO TREAT RUNOFF FROM THE ROADWAY.

4. STORAGE CAPACITY FOR SYSTEM 1 IS 51,247.38 CUBIC FEET.
STORAGE CAPACITY FOR SYSTEM 2 IS 12,430.07 CUBIC FEET.
STORAGE CAPACITY FOR SYSTEM 3 IS 3,232.16 CUBIC FEET.

5. THE DETAILS BELOW DISPLAY THE A CROSS SECTION OF THE INFILTRATION BASIN WHICH SHOULD BE USED AS A MODEL FOR DESIGNING EACH BASIN. THE OTHER DETAIL SHOWS VARIOUS WAYS WHICH TO TRANSPORT RUNOFF FROM THE ROAD INTO AN INFILTRATION SYSTEM WITH AN EMERGENCY SPILLWAY SYSTEM TO PREVENT FLOODING DURING LARGER STORMS:

EXAMPLE 1:

STORMWATER IS COLLECTED AT A CATCH BASIN AND PIPED TO AN INFILTRATION BASIN. ANOTHER CATCH BASIN WILL BE PLACED ON THE OTHER END OF THE BASIN BELOW THE INVERT OF THE OUTFALL FROM THE FIRST CATCH BASIN AS AN EMERGENCY SPILLWAY CONNECTION TO THE STORMSEWER SYSTEM. A BASIN LIKE IS TYPICALLY DESIGNED FOR AT MOST A 2 YR STORM.

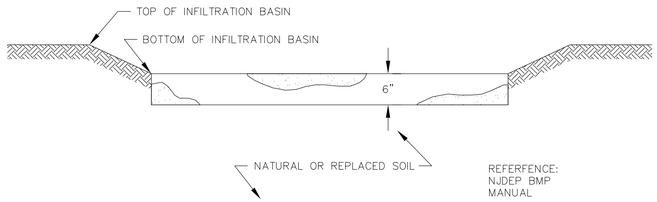
EXAMPLE 2:

STORMWATER CAN FLOW OVER THE ROAD AND INTO AN INFILTRATION BASIN FROM BOTH SIDES. THE WATER WILL RECHARGE THE GROUND WATER. IF THERE IS TOO MUCH WATER IT WILL FILL UP THE GROUND DIRECTLY UNDER BASIN AND REACH THE POURUS PIPES THAT CONNECTS TO THE EXISTING STORM SEWERS. A BASIN LIKE IS TYPICALLY DESIGNED FOR AT MOST A 2 YR STORM.

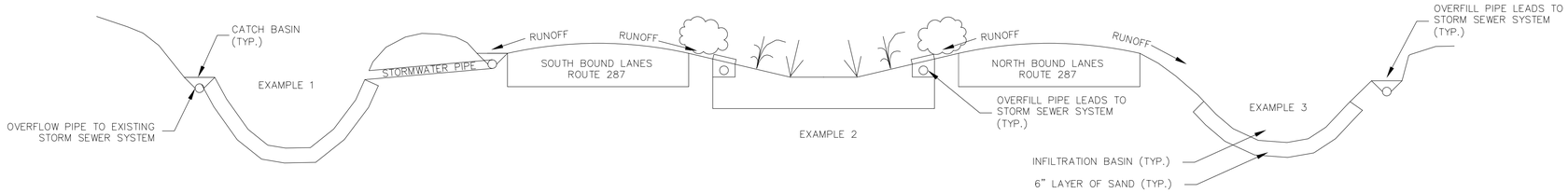
EXAMPLE 3:

STORMWATER CAN FLOW OVER THE ROAD AND INTO AN INFILTRATION BASIN SIMILAR TO THE ISLAND. A CATCH BASIN WILL BE PLACED ON THE OTHER END OF THE BASIN AS AN EMERGENCY SPILLWAY CONNECTION TO THE STORMSEWER SYSTEM. A BASIN LIKE IS TYPICALLY DESIGNED FOR AT MOST A 2 YR STORM.

6. THIS IS NOT FOR PERMITTING OR CONSTRUCTION USE, THIS DRAWING IS ONLY TO BE USED FOR CONCEPTUAL PURPOSES.



TYPICAL CROSS SECTION OF INFILTRATION BASIN
(NOT TO SCALE)



CROSS SECTION OF ROAD WITH VAREITY OF INFILTRATION METHODS
(NOT TO SCALE)

DRAFT

CHRISTOPHER C. OBROPTA, Ph.D., P.E.
PROFESSIONAL ENGINEER - NJ LICENSE # 37532

DRAWN SPW | DESIGNED SPW | APPROVED CCO | APPROVED | DATE | DATE

MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE TROY BROOK
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
ROUTE 287
HIGHWAY STORMWATER MANAGEMENT CONCEPT PLANS

WATER RESOURCES PROGRAM
14 COLLEGE FARM ROAD
NEW BRUNSWICK, NJ 08901

JOB | SHEET # E3 | B/O | TOTAL