



NOTES:

1. THE AREA OF INTEREST IN THE MAP IS A COMMERCIAL SITE LOCATED OFF OF ROUTE 130. IT HAS BEEN CHOSEN AS A DEMONSTRATION PROJECT BECAUSE THE ENTIRE PARKING LOT IS PAVED AND THERE SEEMS TO BE NO ROOM FOR DISCONNECTION BESIDES UNDERGROUND STORAGE.
2. THIS PROJECT TAKES ADVANTAGE OF TWO NEWER TECHNOLOGIES FOR WATER RESOURCES MANAGEMENT. TURF STONE IS A PERVIOUS PAVEMENT THAT IS CRISS CROSSED CONCRETE WITH GRASS PLANTED IN SOIL, AS ONE CAN SEE IN THE IMAGE BELOW. THE SECOND IS CU SOIL. THIS IS A NEW TYPE OF SOIL MIX THAT HAS THE STRUCTURAL STRENGTH FOR A PARKING LOT WITHOUT COMPACTION. IT DOES THIS BY USING A MIX OF LARGER ANGULAR ROCKS AND SOIL. THE ROCKS CONNECT TO FOR A LATTICE THAT HOLDS PROVIDES THE STRUCTURAL STRENGTH LEAVING THE SOIL LOOSE AND EASY FOR ROOTS TO PENETRATE AND ALLOW TREES TO GROW MUCH LARGER THAN USUAL FOR URBAN ENVIRONMENTS.
3. THE STORMWATER ON THIS SITE RUNS FROM THE ROUTE 130 SIDE OF THE PARKING LOT TO THE STORE FRONTS. RCE PROPOSES THAT ASPHALT FOR THE FIRE LANES BE REMOVED AND REPLACED WITH TURFSTONE. THE TURFSTONE HAS ENOUGH STRENGTH FOR FIRE TRUCKS AND OTHER VEHICLE TRAFFIC THAT MAY USE THE FIRE LANES BUT CAN PROVIDE INFILTRATION AS THE WATER MOVES ALONG THE CURB. THERE ARE ROOF DRAINS THAT EMPTY ALONGSIDE OF THE CURB THE TURF STONE WILL BE ABLE TO INFILTRATE THAT RUNOFF AS WELL.
4. ALONG THE CENTER LINES OF THE PARKING ROWS, RCE PROPOSES TO REMOVE THE ASPHALT AND REPLACE IT WITH TURF STONE AND TREE BOXES USING CU SOIL. THE TURF STONE AGAIN WILL HAVE THE STRUCTURAL STRENGTH TO SUPPORT A PORTION OF THE CAR THAT RESTS ON IT, WHILE INFILTRATING STORMWATER RUNOFF FROM PARKING LOT. TREE BOXES ARE RECOMMENDED FOR 2 REASONS, THEY SUPPLY MUCH NEEDED SHADE TO THE CUSTOMERS OF THIS SHOPPING CENTER AND AS THE TREES GROW, THEIR ROOTS WILL EXPAND ENSURING THAT OVER THE YEARS THE SOILS DOES NOT GET TOO COMPACTED UNDERNEATH THE TURFSTONE AND IMPACT INFILTRATION.
5. THIS PROJECT WILL REMOVE 10,644 SQ. FT. OF ASPHALT FROM THE PARKING LOT.

LEGEND

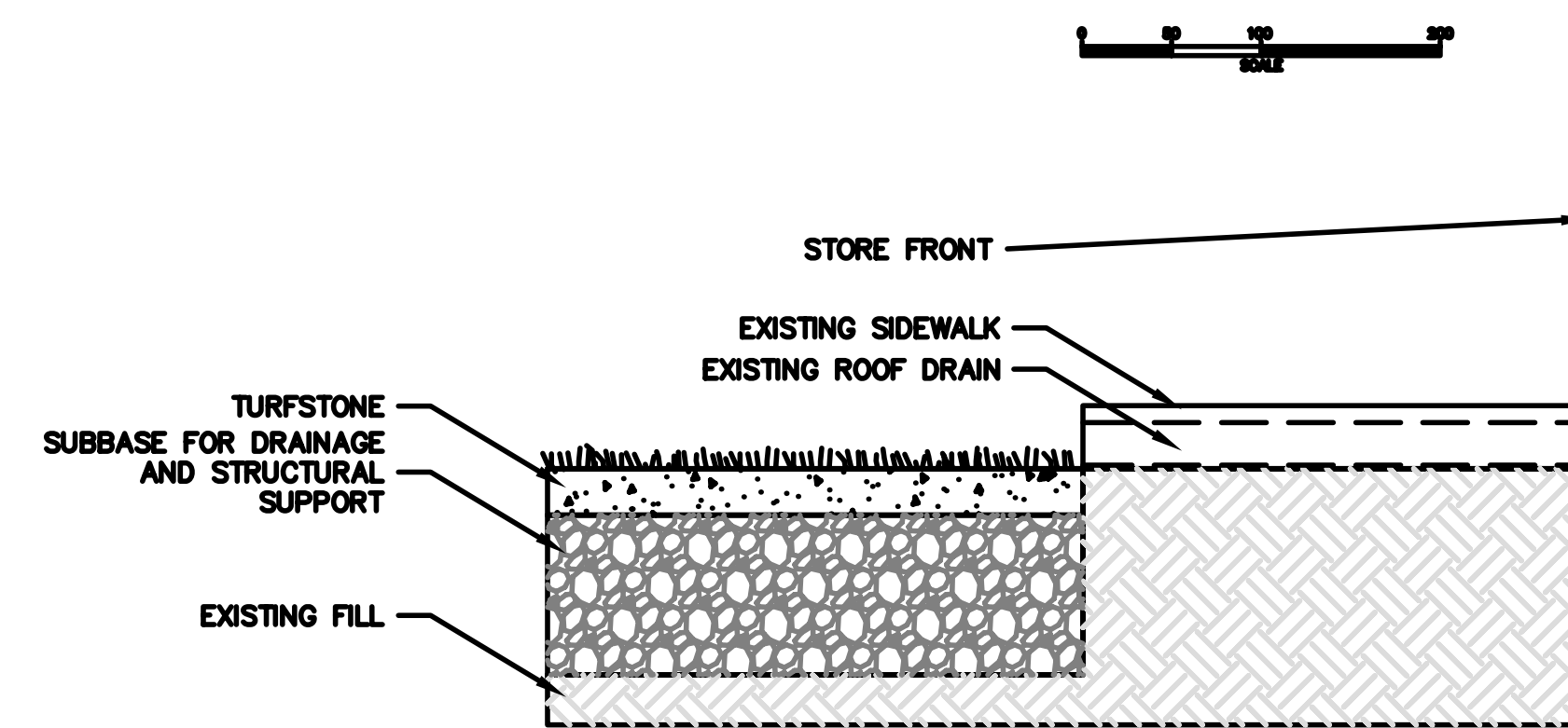
PARKING LOT OF INTEREST



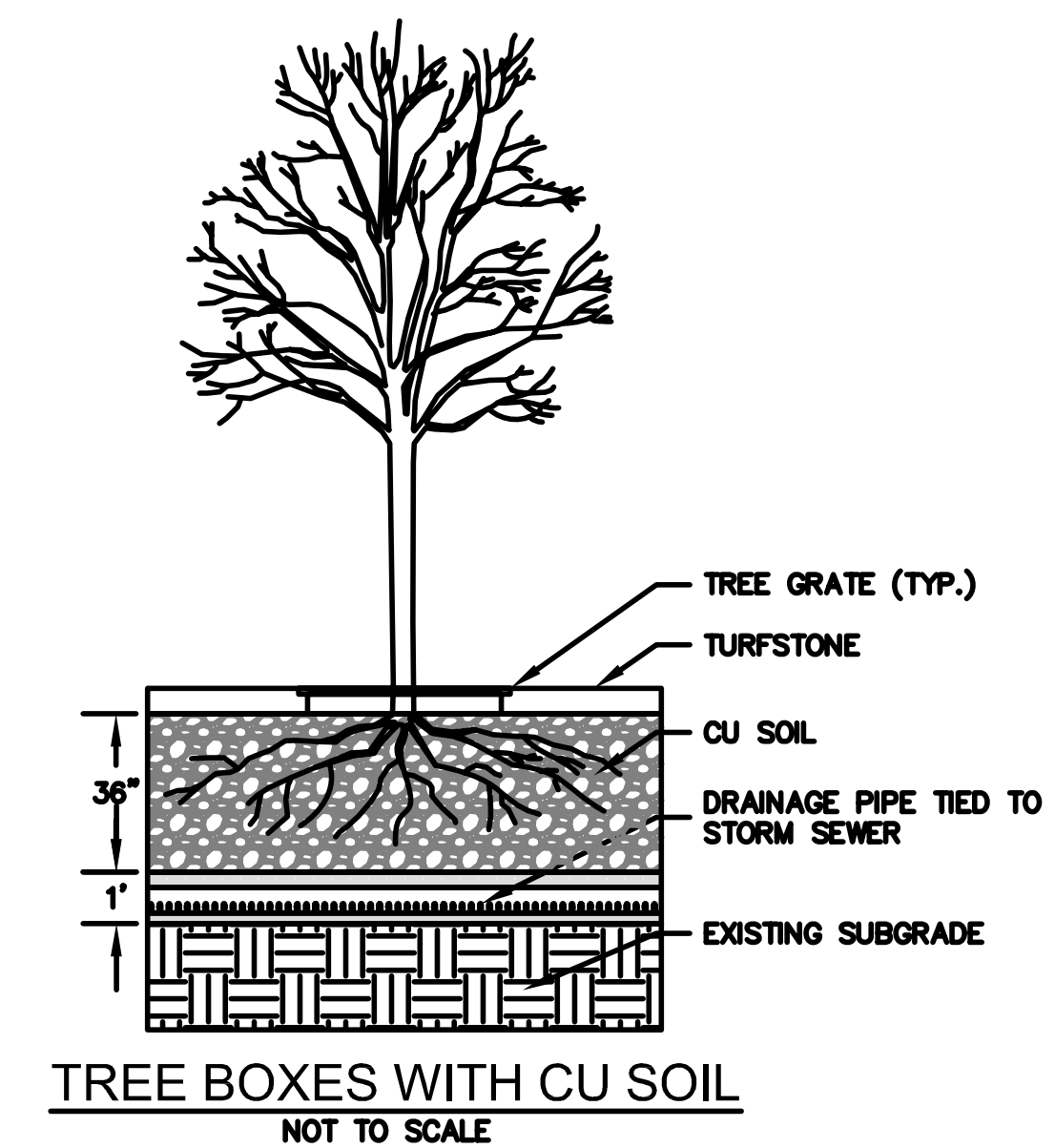
PROPOSED AREAS FOR TURFSTONE



TURFSTONE



PERVIOUS PAVEMENT FIRE LANE  
NOT TO SCALE



TREE BOXES WITH CU SOIL  
NOT TO SCALE

CHRISTOPHER C. OBROPTA, Ph.D., P.E.  
PROFESSIONAL ENGINEER - NJ LICENSE # 37632

DESIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED: \_\_\_\_\_ APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
SPW CCO

MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE  
POMPESTON CREEK  
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
COMMERCIAL DISCONNECTION DEMONSTRATION, CINNAMINSON, NJ  
DISCONNECTION FOR NJ WATER QUALITY STORM

RUTGERS  
New Jersey Agricultural  
Experiment Station  
WATER RESOURCES PROGRAM  
14 COLLEGE FARM ROAD  
NEW BRUNSWICK, NJ 08901

CONCEPT SHEET # 11  
NO. 11 TOTAL 12  
POMP

DRAFT