CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER AND SEWER OPERATIONS
ENGINEERING

AMENDED DRAINAGE PLAN

CI-126C

THIS DRAINAGE PLAN AMENDS PREVIOUSLY DESIGNED/ADOPTED DRAINAGE PLAN #_____

SHOWING LOCATION, SIZES AND GRADES OF SEWERS IN AREA BOUNDED APPROXIMATELY BY.....(SEGMENT WILL ADJUST VERTICALLY AND HORIZONTALLY TO ACOMODATE UP TO 5 LINES OF TEXT)

BOROUGH OF _____

This plan was prepared by the Commissioner of The Department of Environmental Protection under Section 683 of the New York City Charter

APPROVED FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____ P.E. _____
CHIEF, DATE
DIVISION OF REVIEW AND CONSTRUCTION COMPLIANCE

_____ P.E. _____
DIRECTOR OF ENGINEERING DATE
BUREAU OF WATER AND SEWER OPERATIONS

_____ P.E. _____
DEPUTY COMMISSIONER DATE
BUREAU OF WATER AND SEWER OPERATIONS

_____ _____
COMMISSIONER DATE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPROVED FOR THE DEPARTMENT OF HEALTH

_____ P.E. _____
DIRECTOR, DATE
BUREAU OF PUBLIC HEALTH ENGINEERING

APPROVED FOR THE DEPARTMENT OF CITY PLANNING

_____ _____
DIRECTOR OF CITY PLANNING DATE

SEWER SYMBOLS

BULKHEAD LINE — U.S. BULKHEAD

BOUNDARIES OF DRAINAGE AREA

SEWERS HEREWITH ESTABLISHED:
- SANITARY — 10" — +10.60 — 15"
- STORM WATER — 12" — +10.60 — 16"
- HIGH LEVEL STORM WATER — 12" — +10.60 — 15"
- COMBINED — 15" — +10.60 — 15"
- FORCE MAIN — -2.00 — 20" F.M. — +20.20
- BUILT (S, SW, HLS, C) — 12"S — +10.60 — 15"S

SEWERS PREVIOUSLY ESTABLISHED:
- SANITARY — (10"S) — (+10.60) — (15"S)
- STORM WATER — (12"SW) — (+10.60) — (15"SW)
- HIGH LEVEL STORM WATER — (12"HLS) — (+10.60) — (15"HLS)
- COMBINED — (15"C) — (+10.60) — (15"C)
- FORCE MAIN — (-2.00) — (20" F.M.) — (+20.00)
- BUILT (S, SW, HLS, C) — (12"SW) — (+10.60) — (15"SW)

FUTURE SEWERS NOT YET ESTABLISHED
- SANITARY
- STORM
- HIGH LEVEL STORM WATER
- COMBINED

EXISTING SEWERS NEVER LEGALIZED (S, SW, HLS, C) — [12"C] — [+10.60] — [15"C]

EXISTING SEWERS TO BE ABANDONED — (12"S) — (+10.60) — (15"S)

DEAD END — +10.00 — 15"

SEWER SUMMIT

UNIFORM SEWER GRADIENT — 12" — 15" — 24"

DROP MANHOLE — +10.61 — +5.20

SEWER JUNCTIONS:
- INTERSECTING SEWERS HAVE MATCHING INNER TOP ELEV. — 15" — +2.34 — 24"
- INTERSECTING SEWERS AT VARIOUS INNER TOP ELEV. — +8.00 — +7.89

RAILROAD

PROPOSED DRAINAGE EASEMENT/CORRIDOR

ADOPTED STREET

RECORD STREET

STEP STREET

STREET TO BE DEMAPPED IN FUTURE

PARK

TYPICAL STREAM CROSS SECTION — Top Width — Y — X — Bottom Width — Sideslope: X:Y

PARALLEL RELIEF SEWER — (60"SW) — 30" — A= R= T= C=

FOR SEWERS OTHER THAN CIRCULAR SECTION, SHOW THE WIDTH, HEIGHT AND EQUIVALENT CIRCULAR SIZE IN EACH SEWER. SHOW THE WIDTH FIRST IN THIS MANNER:
- FLAT TOP SEWER 10'-6"W X 8'-0"H (126" Ø)
- ELLIPTICAL SEWER 76"W X 48"H (60"Ø)

ALSO SHOW THE TYPICAL CROSS SECTIONS IN THE COMPUTATION SHEETS.

STREET GRADE ELEVATION
- ADOPTED 12.34
- EXISTING (12.34)

LOWER ELEVATION AT GRADE SEPARATION 1234

TAX BLOCK NUMBER -1234-

ALL SEWER ELEVATIONS SHOWN ARE INNER TOP ELEVATIONS

A = TOTAL TRIBUTARY AREA IN ACRES

A_H =TOTAL TRIBUTARY AREA IN ACRES FOR HIGH LEVEL SEWERS (A_H=0.5A)

R = RAINFALL INTENSITY IN in/hr COMPUTED BY THE FORMULA $R=\frac{125}{t+15}$

T= t + e

t = ACCUMULATIVE SEWER TRAVEL TIME IN MINUTES BETWEEN MANHOLES

e = INITIAL ENTRANCE TIME IN MINUTES

C = COEFFICIENT OF RUNOFF

N

NOTES

THE STORM AND COMBINED SEWERS SHOWN ON THIS DRAINAGE PLAN ARE INTENDED TO HAVE A CAPACITY ADEQUATE TO THE REASONABLE NEEDS OF THE DRAINAGE DISTRICT FOR A LIMITED PERIOD AND ARE NOT INTENDED TO BE OF SUFFICIENT CAPACITY TO IMMEDIATELY REMOVE STORM WATER WHEN THE RATE OF PRECIPITATION EXCEEDS AN INTENSITY OF "R" INCHES PER HOUR WHICH IS 1.75" PER HOUR FOR A STORM OF FIVE YEAR RETURN FREQUENCY CONTINUING THROUGH "T" MINUTES, "C" PERCENT OF WHICH WILL REACH THE SEWERS WITHIN THAT TIME. THE CAPACITY OF THE SYSTEM HAS BEEN ESTABLISHED FOR THE PURPOSE OF KEEPING THE COST WITHIN LIMITS WHICH ARE DEEMED ECONOMICALLY REASONABLE.

THE CITY OF NEW YORK WILL NOT BE RESPONSIBLE FOR DAMAGES BY SURCHARGING IN ANY CASE IN WHICH THE INVERT ELEVATION OF THE HOUSE CONNECTION AT THE CURB LINE IS LESS THAN THE HYDRAULIC GRADE OF ANY SEWER THROUGH WHICH IT OUTLETS.

THE CITY OF NEW YORK ASSUMES NO LIABILITY FOR DAMAGES DUE TO SURCHARGING OF "BUILT SEWERS PREVIOUSLY AND HEREWITH ESTABLISHED " WHICH MAY OCCUR BEFORE THE FUTURE ESTABLISHED OUTLET SEWERS, DESIGNED ON THE BASIS OF ESTABLISHED ZONING HAVE BEEN BUILT. UNTIL THE FUTURE OUTLET SEWERS ARE ESTABLISHED AND BUILT, ALLOWABLE FLOWS INTO THE "HEREWITH ESTABLISHED SEWERS" ARE LIMITED TO THE FLOW VALUES WHICH THE EXISTING OUTLET SEWERS WERE DESIGNED TO ACCEPT.

THE ELEVATIONS SHOWN ON THIS MAP REFER TO THE BOROUGH OF _____ SEWER DATUM PLANE WHICH IS _____ FEET ABOVE MEAN SEA LEVEL AS ESTABLISHED BY THE UNITED STATES COAST AND GEODETIC SURVEY AT SANDY HOOK, NEW JERSEY.

0' 100' 200'
Scale

Date Prepared: March 1st, 9999

No.	Date	Revisions	By

WARNING
IT IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER IN ANY WAY PLANS, SPECIFICATION, PLATS OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER HAS BEEN APPLIED. IF AN ITEM BEARING THE SEAL OF A PROFESSIONAL ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE, THE DATE, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DESIGNED_____
DRAWN_____
CHECKED_____
PROJECT ENGINEER_____

_____ P.E. _____
PROJECT MANAGER DATE
CONSULTANT'S COMPANY NAME

Consultant's Logo here
Consultant's Company Name Here
Company Address here

NYC Environmental Protection

DEPARTMENT OF ENVIRONMENTAL PROTECTION
REVIEWED BY
_____ P.E. _____
CHIEF, DRAINAGE REVIEW SECTION DATE

CI-126C

Sheet____of____

Revised July 2010