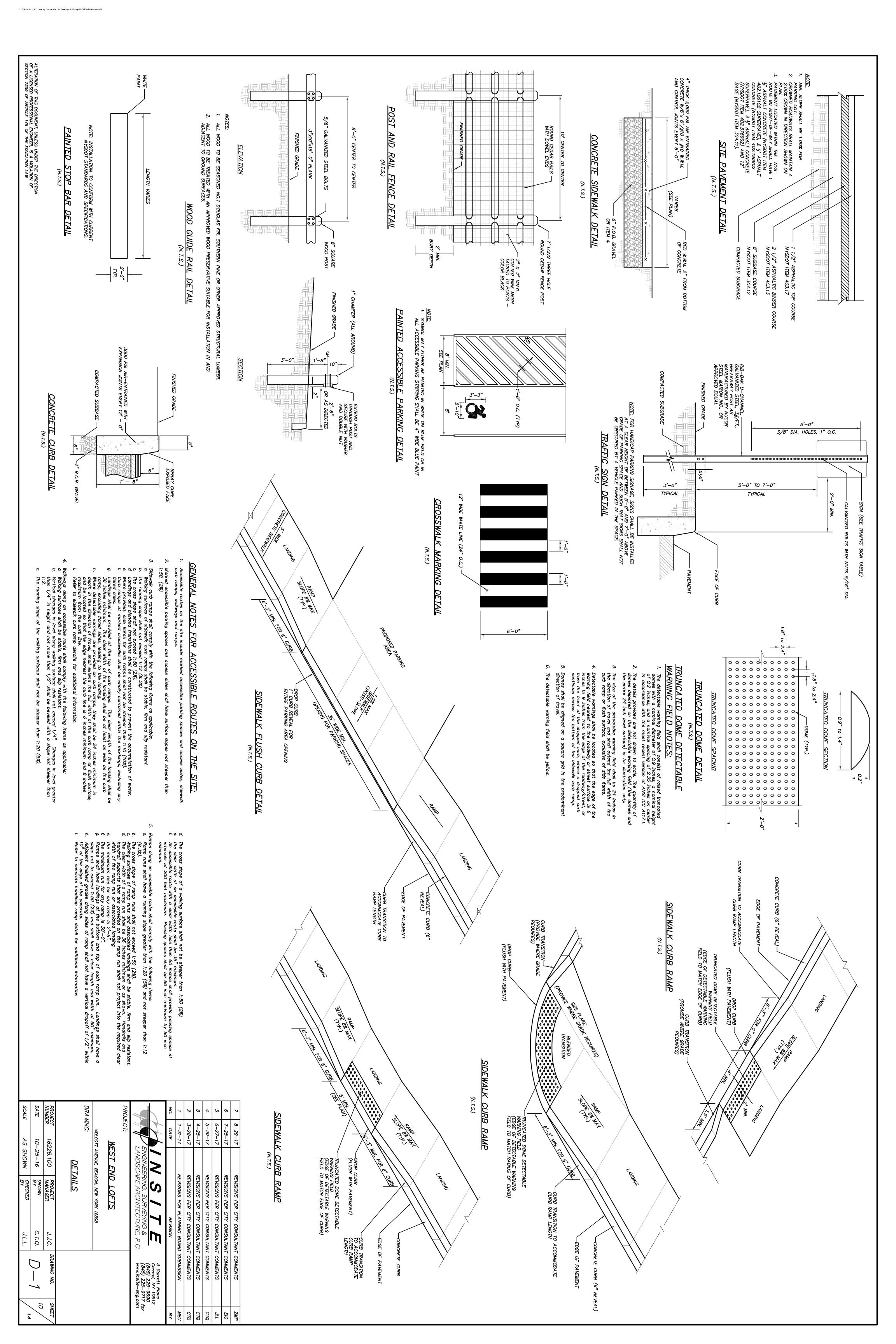
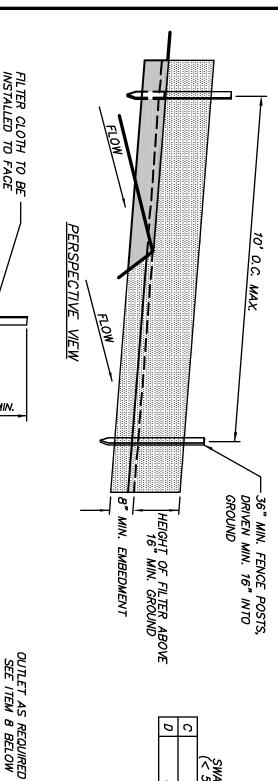
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O<sub>0</sub>

80 EIG LTQ CTQ CTQ





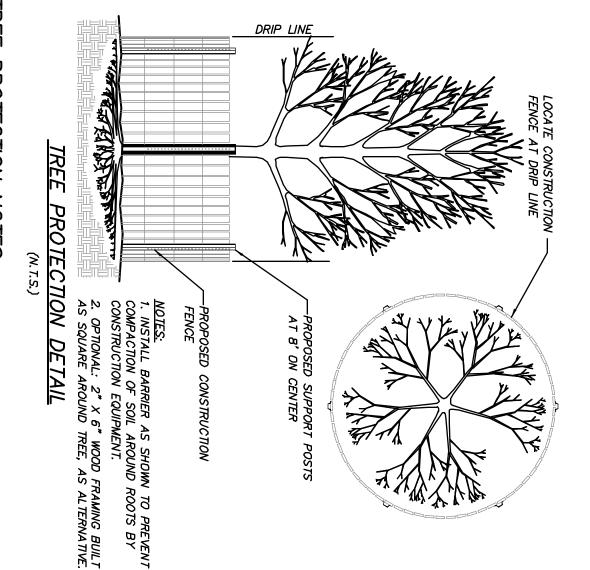
CONSTRUCTION NOTES FOR FABRA

1. FILTER CLOTH TO BE FASTENED SECURELY TO
POSTS AT TOP AND MID SECTION.

2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN
EACH OTHER THEY SHALL BE OVERLAPPED BY
SIX INCHES AND FOLDED.

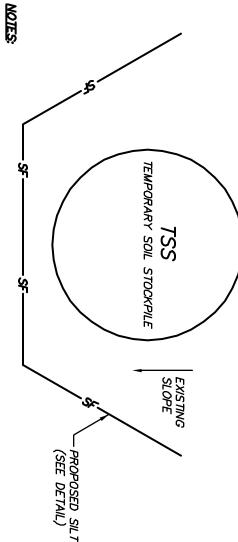
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED
AND MATERIAL REMOVED WHEN "BULGES"
DEVELOP IN THE SILT FENCE. EMBED FILTER CLOTH MIN. 8" INTO GROUND SECTION FABRICATED 20" MIN. FILTER CL SILT , STEEL EITHER T OR U TYPE OR 2" HARDWOOD BILINKA T140N,

SILT FENCE DETAIL



## TREE PROTECTION NOTES:

- Trees to be preserved in proximity to disturbance areas shall be marked in the field by the Landscape Architect prior to start of construction. protection meas res prior to start of site clearing &
- Vo construction equipment shall be parked and no earth or construction naterials shall be stockpiled or stored under the canopy of trees to be reserved. uring tree removal operations associated with construction, do not simage adjacent trees to remain. Lower limbs and tree trunks, do not op them.
- carefully tie back any tree branches quipment. that conflict with construction
- re trenching for utilities is required within a root zone, tunneling er and around roots shall be by hand digging. If roots 3" or larger encountered immediately adjacent to the location of new construction relocation is not practical, the roots shall be hand pruned under the ervision of a Certified Arborist or Landscape Architect to 6" back the new construction limit. All exposed roots to receive ropriate treatment prior to backfilling.
- e protection fencing to protect the root zone is not possible, six to inches of wood chip mulch and 3/4 inch plywood shall be placed the entire affected root zone area to prevent soil compaction.
- tree damaged during construction activities i ired by a qualified arborist at no additional nust be immediately cost to the owner.



AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND

UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.

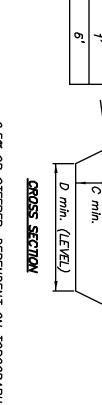
ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING DOWNGRADIENT SIDE. STOCKPILE INSTALLED ON THE

TEMPORARY SOIL (

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

### SWALE A (< 5 AC.) SWALE B (5-10 AC.) min. (LEVEL)

### OR STEEPER, DEPENDENT CROSS SECTION

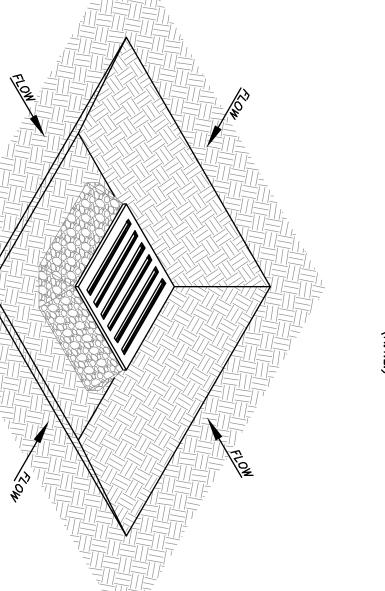


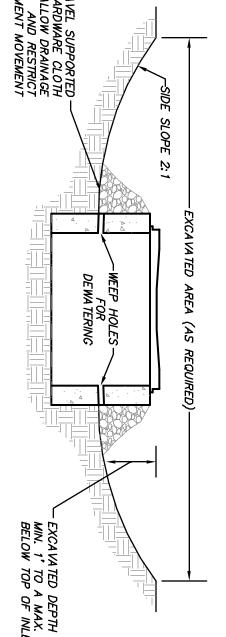
- CONSTRUCTION SPECIFICATIONS HAVE
- DIVERTED RUNOFF FROM A DIS TO A SEDIMENT TRAPPING DEV ALL TEMPORARY SWALES SHAL GRADE TO AN OUTLET. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON—EROSIVE VELOCITY. TURBED AREA SHALL BE CONVEYED NCE.
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTION-ABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
- TED OR SHAPED TO LINE, GRADE, AND TO MEET THE CRITERIA SPECIFIED (\* PROJECTIONS OR OTHER IRREGULAR—IAL FLOW.
- THE SWALE SHALL BE EXCAVATE CROSS SECTION AS REQUIRED TO HEREIN AND BE FREE OF BANK ITTES WHICH WILL IMPEDE NORMA FILLS SHALL BE COMPACTED BY ALL EARTH REMOVED AND NOT ITTELL SONT THE SWALE. EARTH MOVING EQUIPMENT.
- NEEDED ON CONSTRUCTION SHALL BE
- IERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PRO-IDED AFTER EACH RAIN EVENT.

STABILIZATION SHALL BE AS PER THE CHART BELOW:
SHALL
ВE
AS
PER
Ŧ
CHART
BELOW:

_			_	
4	3	N	1	TYPE OF IREAIMENI
8.1-20%	5.1-8.0%	3.1-5.0%	0.5-3.0%	CHANNEL GRADE
LINED 4-8" RIP-RAP	SEED WITH JUTE OR EXCELSIOR; SOD	SEED AND STRAW MULCH	SEED AND STRAW MULCH SEED AND STRAW MULCH	A (5 AC. OR LESS)
ENGINEERED DESIGN	LINED RIP—RAP 4—8" RECYCLED CONCRETE EQUIVALENT	SEED USING JUTE OR EXCELSIOR	SEED AND STRAW MULCH	B (5-10 AC.)

### TEMPORARY SWALE





1. CLEAR THE AREA OF ALL DEBRIS THAT WI 2. GRADE APPROACH TO THE INLET UNIFORM 3. WEEP HOLES SHALL BE PROTECTED BY GR 4. UPON STABILIZATION OF CONTRIBUTING DR HOLES, FILL EXCAVATION WITH STABLE SOI IT PROPERLY, AND STABILIZE WITH PERMAL 5. MAXIMUM DRAINAGE AREA = 1 ACRE WILL HINDER EXCAVATION RMLY AROUND THE BASIN )RAINAGE AREA, SEAL WEEP NOIL TO FINAL GRADE, COMPACT NANENT SEEDING

EXCAVATED DROP INLET PROTECTION DETAIL

Site map / col requirement. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Udorthents (Ud), Nassau—Cardigan Complex (NwC) and Dutchess—Cardigan Complex (DwB) as identified on the Soil Conservation Service Websoil Survey. These soil types belong to the Hydrologic Soil Group "B" and "B/C"." serve to

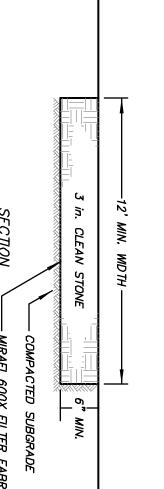
onstruction phasing plan / sequence of operations: The Construction equence and phasing found on these plans provide the required phasing. Instruction Sequence and Erosion and Sediment Control Maintenance chedule has been provided. The Sedimentation and Erosion Control Notes intained hereon outline a general sequence of operations for the oposed project. In general all erosion and sediment control facilities all be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time cacticable.

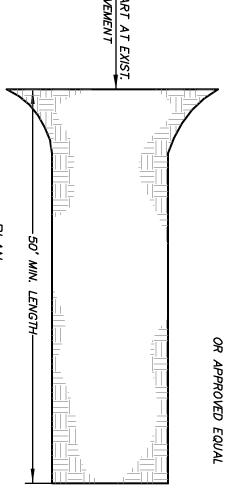
Site map / construction drawing: SWPPP requirement.

The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.

An inspection schedule: Inspections are to be performed twice weekly and by a qualified professional as required by the General Permit GP-0-15-002. In addition the NYSDEC Trained Contractor shall perform additional inspections as cited in the Erosion and Sediment Control Notes.

description and location of any stormwater discharges associated with Justrial activity other than construction at the site: There are no known strial stormwater discharges present or proposed at the site.





INSTALLATION NOTES 1. STONE SIZE – USE 3" STONE

LENGTH — AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)

INTENANCE — THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH
L PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY
IS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS
INDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO
AP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO
IBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.

ard, "New York Standards and here erosion and sediment control technical standard, the owner or ical standard. The following list of e with Part III.B.1a—I of General

Background Information: The subject project consists of the construction of (98) apartments in three buildings with appurtenances and utilities.

Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.

mporary and permanent soil stabilization plan: The Sedimentation and osion Control Notes and Details provided heron identify temporary and remanent stabilization measures to be employed with respect to specific ments of the project, and at the various stages of development.

This plan set serves to satisfy this

A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.

entification of any elements of the design that are not in conformance th the technical standard, "New York Standards and Specifications for osion and Sediment Control." All proposed elements of this SWPPP haven designed in accordance with the "New York Standards and secifications for Erosion and Sediment Control."

MIRAFI 600X FILTER FABRIC, OR APPROVED EQUAL

NOT LESS THAN SIX (6) INCHES.

FILTER CLOTH — WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT. MDTH — 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL MDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.

SURFACE WATER — ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

HING — WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO PANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL PONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN PROVED SEDIMENT TRAPPING DEVICE.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

## REQUIRED EROSION CONTROL SWPPP CONTENTS:

ldentification of all post-construct constructed as part of the projec serve to satisfy this SWPPP requir

Soil testing results and locations. This SWPPP requirement will be provided in the Preliminary Stormwater Pollution Prevention Plan.

### EROSION & SEDIMENT CONTROL

The Erosion and Sediment Control Plan of erosion and sediment control measu activities, including, but not limited to, drawings. is only to be referred to for the installation ires. For all other construction related grading and utilities, refer to the appropriate

Each contractor or subcontractor responsible for soil disturbance shall have a NYSDEC trained contractor onsite during soil disturbing activities. The NYSDEC trained contractor will be responsible to comply with the stormwater pollution prevention plan and for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction. The NYSDEC trained contractor shall sign a certification statement required by GP-0-15-002.

All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum soil erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with "New York Standards and Specifications For Erosion and Sediment Control," latest

All construction vehicles shall be kept clear of the watercourses and wetland control areas outside the areas of proposed development. Silt fence and orange construction fence shall be installed in the areas where the grading is in close proximity of the watercourses or wetland control areas.

Any graded areas not subject to further disturbance or construction traffic shall, within 7 days of final grading, receive permanent vegetation cover in combination with a suitable mulch. Refer to "Site Seeding Notes" for additional detail and application rate.

All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.

Stormwater from disturbed areas mus: before discharge beyond disturbed are t be passed through erosion control barriers as or discharged into other drainage systems.

or other approved methods as necessary, or or site engineer.

Cut and fills shall not endanger adjoir of others.

The NYSDEC Trained Contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.

Erosion and sediment control are suitably stabilized. shall remain in place until all disturbed an

Maintain basin vegetation including removal of trees and replacement of vegetation that should die. Remove any litter which accumulates as necessary. Typically, the accumulated silt will be required to be removed every 10 to 20 years. Any accumulated silt shall be removed from the stormwater basins once the site has been stabilized. Inspection of the stormwater basin should be performed every 6 months and after large storm events. These inspections should, at a minimum, check the outlet pipes for blockage and the general overall integrity of the basin and appurtenances.

# REQUIRED POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICE COMPONENTS:

Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-15-002), all construction projects needing post-construction stormwater management practices shall prepare a SWPPP that also includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). Where post-construction stormwater management practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of SWPPP components is provided in accordance with Part III.B.2a-g and III.B.3:

ion stormwater management practices to be t; This plan, and details/notes shown hereon ement.

STABILIZED CONSTRUCTION ENTRANCE

Inspect

Inspect

Clean/Replace Stone and Fabric

Remove

SILT FENCE BARRIER

Inspect

Inspect

Clean/Replace

Remove

PRACTICE

DAILY

WEEKLY

AFTER RAINFALL

DURING CONSTRUCTION

AFTER CONSTRUCTION

MAINTENANCE REQUIREMENTS

MAINTENANCE SCHEDULE

EROSION AND

SEDIMENT CONTROL

MONITORING REQUIREMENTS

DUST CONTROL

Inspect

Inspect

Mulching/ Spraying Water

× ×

\*VEGETATIVE ESTABLISHMENT

Inspect

Inspect

Water/Reseed/ Remulch

Reseed to 80% Coverage

INLET PROTECTION

Stormwater Modeling and Analysis Repart including pre—development conditions, st—development conditions, the results of the stormwater modeling, a summary table stornstrating that each practice has been designed in conformance with the sizing teria, identification of and justification for any deviations from the Design Manual, and intification of any design criteria that are not required. The required analysis will be swided in a Preliminary Stormwater Pollution Prevention Plan. ) showing the specific location and size of each agement practice; This plan, and details/notes SWPPP requirement.

Infiltration testing results. This SWPPP requirement will be provided in the Preliminary Stormwater Pollution Prevention Plan.

CHECK DAMS

SWALES

Inspect

Clean/Mulch/ Repair

Inspect

Mulching/ Silt Fence Repair

Remove

Clean/Repair/ Replace

Inspect

CONCRETE
DRAINAGE
STRUCTURES
DRAINAGE
PIPES

Inspect

Inspect

Clean/Repair

Clean/Repair

Inspect

Inspect

Clean/Replace Stones/Repair Clean Sumps/ Remove Debris/ Repair/Replace

Mow Permanent Grass/Replace/ Repair Rip Rap Clean/Replace Stones/Repair Clean Sumps/ Remove Debris/ Repair/Replace

SOIL STOCKPILES

An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post—construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice. The Permanent Stormwater Facilities Maintenance Schedule provided on these plans serves to satisfy this requirement.

Enhanced Phosphorus Removal Standards — Beginning on September 30, 2008, all construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post—construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York Stormwater Management Design Manual. At a minimum, the post—construction stormwater management practice component of the SWPPP shall include items 2.a — 2.f above: These standards do not apply to the subject project

# NOTES:

herever feasible, natural vegetation should be retained and protected. Disturbance rall be minimized in the areas required to perform construction. No more than 5 sres of unprotected soil shall be exposed at any one time, unless prior authorization is canted by the MS4.

When land is exposed during development, the exposure shall be kept to the shortest practical period of time, but in no case more than 7 days after the construction activity in that portion of the site has ceased. Disturbance shall be minimized in the areas required to perform construction.

The stabilized construction entrance and silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.

All topsoil to be stripped from the area being developed shall be stockpiled and Immediately seeded with a rye grass mixture having a quick germination time.

Grass seed mix may be applied by either mechanical or hydroseeding methods. Turf establishment shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610–3.02, Method No. 1".

Cut or fill (all) slopes steeper than 3:1 shall be stabilized immediately after grading with a rolled erosion control product (RECP) such as, Curlex I Single Net Erosion Control Blanket, or approved equal.

The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities. Paved roadways shall be kept clean at

Erosion and sediment control measures shall be inspected and maintained on a daily basis by the NYSDEC Trained Contractor. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt tences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the site engineer.

Dust shall be controlled by sprinkling as directed by the trained contractor ing property, nor divert water onto the property

All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.

As warranted by field conditions, specimeasures, as specified by the site engthe contractor. ial additional erosion and sediment control jineer and the Town Engineer shall be installed by

3. After completion of the site improvemer maintenance of the access drive, parkin, Each spring the paved areas shall be clitraction sand. After this is completed cleaned. All pipes should be checked for During the cleaning process, the drain ir inspected for structural integrity and ow replacements should be made as require rements, the owner will assume responsibility for orking lot, drainage system and stormwater facilities. be cleaned to remove the winter accumulation of sted all drain inlet and catch basin sumps should be sed for debris and blockage and cleaned as required. ain inlets, catch basins and pipes should be overall condition. Repairs and/or

vention Plan for additional details regarding drainage facilities.

PROJECT NUMBER DATE

AS SHOWN

CHECKED BY

10-25-16

C.T.Q.

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12

J.J.C.

16226.100

<u>DETAILS</u>

ſ		<b>D</b>	Ç.,	<b>*</b>	
and or the contain of the subject property.	and for the current owner(s) of the subject property	BALDWIN PLACE, NY 10505	34 CLAYTON BOULEVARD	KEARNEY REALTY & DEVELOPMENT GROUP	

\* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas area permanently stabiliz <u>Note:</u> The party responsible for implementation of the maintenance schedule during and after construction is:

ROAD & PAVEMENT

CONSITE SOILS WITHIN THE LIMIN THE L Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls.) Areas where runoff reduction and/or infiltration practices are applied Areas where topsoil is stripped only – no change in grade Areas of cut or fill Restoration not permitted

Restoration not required

HSG A & B HSG C & D

Apply 6" of Aerate 3 and apply topsoil

Apply 6" of 6" of topsoil SOIL RESTORATION REQUIREMENT HSC A & B

Aerate<sup>3</sup> and apply Apply full Soil
6" of topsoil

Restoration<sup>4</sup> IMIT OF DISTURBANCE BELONG TO THE HYDROLOGIC SOIL GROUP Restoration not required, but may be applied for appropriate practices. Apply full Soil Restoration<sup>5</sup> (de-compaction and compost enhancement)<sup>6</sup> Keep construction equipment from crossing these areas. To protect newly installed practices from any ongoing construction activities construction a single phase operation fence area. Preservation of Natural
Clearing and grubbing
Protect area from any
ongoing construction
activities

1. Table taken from Chapter 5 of the "New York State Stormwater Management Design Manual"
2. Items struck out on the table are litems that are not applicable to this project.
3. Aeration includes the use of machines such as tractor—drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which functions like a mini—subsoiler.
4. Per "Deep Ripping and Decompaction, DEC 2008"
5. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
5.1. Apply 3 inches of compost over subsoil.
5.2. Till compost into subsoil to a depth of at least 12 inches using a cat—mounted ripper, tractor—mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
5.3. Rock—pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
5.4. Apply topsoil to a depth of 6 inches.
5.5. Vegetate as required by Erosion & Sediment Control Note #9.
5.6. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface
6. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

REVISIONS PER CITY CONSULTANT COMMENTS

Q	7-25-17	REVISIONS PER CITY CONSULTANT COMMENTS	EIG
5	6-27-17	REVISIONS PER CITY CONSULTANT COMMENTS	JLL
4	5-30-17	REVISIONS PER CITY CONSULTANT COMMENTS	ста
3	4-25-17	REVISIONS PER CITY CONSULTANT COMMENTS	ста
2	3-28-17	REVISIONS PER CITY CONSULTANT COMMENTS	CTQ
1	1-31-17	REVISIONS FOR PLANNING BOARD SUBMISSION	MEU
NO.	DA TE	REVISION	ВҮ
		INSITE 3 Garrett Place Carmel, NY 10512 ENGINEERING, SURVEYING & (845) 225–9690 (845) 225–9717 fax Www.insite-eng.com	מצ
PROJECT:		EST END I DETS	
	могсо11 <u>М</u>	WEST END LOFTS  WOLCOTT AVENUE, BEACON, NEW YORK 12508	

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

SEWER MAIN SLEEVE DETAIL

WATER

SERVICE

TRENCH

DETAIL

 $\sim B_{\perp}$ 

<u>/OCK</u> N.T.S.)

<u>DETAILS</u>

PROPOSED 1'x 1'x 1' POURED BLOCK OF CONCRETE TO PLUG AND CAP THE 10" HDPE SLEEVE (TYP.)

— PROPOSED 12"# D.I.P. SLEEVE

(15' TOTAL LENGTH, 7.5' ON EITHER SIDE

CENTER LINE OF WALL)

— PROPOSED 8"# PVC SDR

35 SEWER PIPE

## SEWER TESTING PROCEDURES TESTS FOR NON-PRESSURE PIPELINES FOR TRANSPORT OF SEWAGE The leakage shall be determined by exfiltration, infiltration or low pressure air.

- Exfiltration Testing Exfiltration tests shall be made by filling a section of pipeline with water measuring the quantity of leakage.
- The head of water at the beginning of the test shall be at least 2 feet above the highest pipe within the section being tested. Should groundwater be present within the section being tested, the head of water for the test shall be 2 feet above the hydraulic gradient of the groundwater.
- Should the requirement of 2 feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet, another method of testing shall be employed.
- Measurement of the infiltration shall be by means of a calibrated weir constructed at the outlet of the section being tested. Infiltration test shall be made by measuring the quantity of water into a section of pipeline. Infiltration tests will be allowed only when the water table gauges determine the groundwater level to be 2 feet or more above the highest pipe of the section being tested.
- The allowable leakage (exfiltration or infiltration) for non-pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per 1000 feet of pipe:

ible Leakage for Non

- Regardless of the above allowable leakage, any spurting leaks detect be permanently stopped. <u>Type of Pipe</u> Ductile iron — mechanical or push—on joints Polyvinyl chloride, thermal plastic or fiberglass with rubber joints Cast iron soil pipe
- Low pressure air tests shall conform to ASTM F1417—92, Section 8.2.2, Time—Pressure Drop Method for a 0.5 psi drop, except as specified herein and shall not be limited to type or size of pipe. Air testing for accep been completed. ıre Air Testing nce shall not be perforr ed until the backfilling has
- sections of pipelines shall be cle ed and flushed prior to testing.
- The air test shall be based on the starting pressure of 3.5 to 4.0 psi gauge. The time allowed for the 0.5 psi drop in pressure, measured in seconds, will be computed based on the size and length of the test section by the Engineer. When groundwater is present, the average test pressure of  ${\mathfrak I}$  psig shall be above any back pressure due to the groundwater level.
- The equipment required for air testing shall be furnished by the Contractor and shall include the necessary compressor, valves, gauges and plugs to allow for the monitoring of the pressure, release of pressure and a separatest gauge. The maximum pressure allowed under any condition in air testing shall be 10 psig. The maximum groundwater level for air testing is 13 feet above the top of the pipe.
- Testing The test gauge shall be sized to allow for the measuring of the 0.5 psig loss allowed during the test period and shall be on a separate line to the test section.

# Deflection testing shall be performed 30 days after backfilling. The test shall be made by passing a ball or cylinder no less then 95% of the pipe diameter through the pipe. The test shall be performed without mechanical pulling devices.

- ole Testing
- A manhole will be acceptable if the leakage does not exceed an allowance of one gallon per vertical foot of depth for 24 hours. Regardless of the allowable leakage, any leaks detected shall be permanently stopped. h manhole shall be tested by either exfiltration, infiltration or um testing.
- Exfiltration tests shall be performed after backfilling. The test shall be made by filling the manhole with water and observing the level for a minimum of eight hours.
- Infiltration tests shall be performed after backfilling when the groundwater level is above the joint of the top section of a precast manhole. Vacuum testing shall be performed after backfilling in acc latest revision of ASTM C1244—11 as follows: ordance with the
- A vacuum of 10 in. of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop 9 in. of mercury. The test head shall be placed at the top of the manhole in accordain with the manufacturer's recommendations.
- The manhole shall pass if the time for the vacuum reading to drop from 10 in. of mercury to 9 in. of mercury meets or exceeds the values indicated below:
- Test Times for

  Depth (ft) D 
   Diameter (inches)
   48
   60

   Time (seconds)
   20
   26

   30
   39

   40
   52

   45
   59

   50
   65
- If the manhole fails the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained.

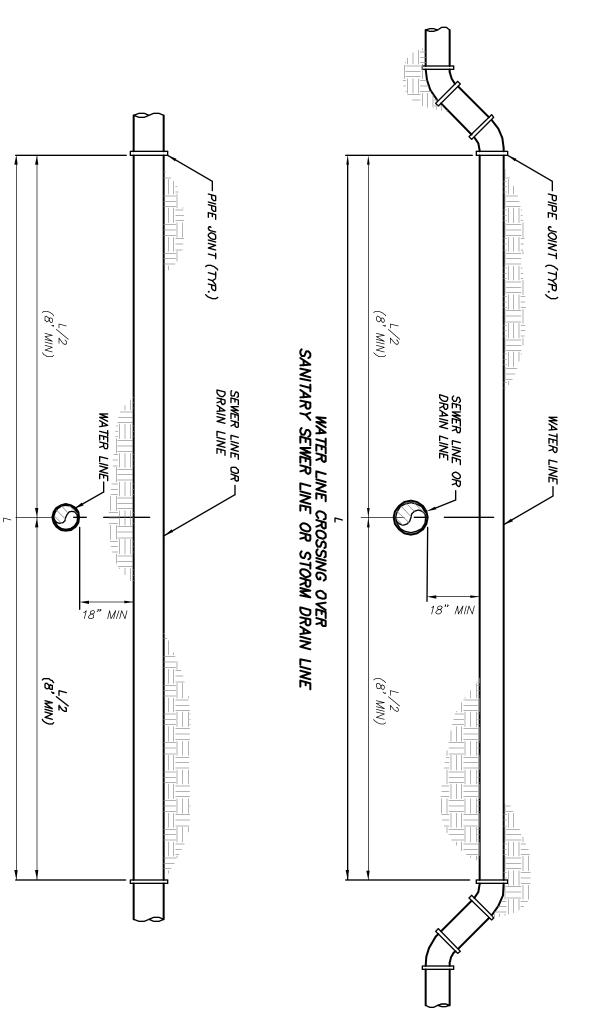
PROPOSED PIPE SPACER, INSTALLED 3' O.C., (4 TOTAL)

PROPOSED MODULAR BLOCK RETAINING WALL, SEE DETAIL.

— PROPOSED GRANULAR LEVELING PAD, SEE DETAIL. — 12" MIN. SEPARATION

# DUCTILE IRON PIPE WATER TESTING PROCEDURES TESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER

- Hydrostatic Pressure Test Hydrostatic testing shall be performed in accordance C600, Section 5.2, "Hydrostatic Testing". of AWWA
- Test pressure shall be as scheduled or, where no pressure is scheduled, shall be 150 psi, or 1.25 times the static operating pressure, whichever is higher. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the Engineer.
- The test medium shall be water. static Leakage Test
- The leakage test shall be conducted concurrently with the pressure test. The rate of leakage shall be determined at 15-minute intervals by means of volumetric measurement of the makeup water added to maintain the test press. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three consecutive 15-minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.
- All exposed piping shall be examined during the test and all lear material or joints shall be repaired or replaced before repeating At the completion of the test, the pressure shall be releasing the the point of application. the tests. sed at the
- age will be determined by the follow [D √P 148,000
- quantity of makeup water, in gallons per hour length of pipe tested, in feet nominal diameter of the pipe, in inches average test pressure during the hydrostatic test, square inch (gauge)
- The test medium shall be water. Regardless of the above stopped.
- Disinfection
  Prior to placing the water main into service, the new pipe shall be cleaned and disinfected in accordance with the latest revision of AWWA C651, Section 4.4.3, "The Continuous Feed Method". The "Tablet Method" will not be accepted.
- Chlorination shall be scheduled such that sampling and flushing will be performed during normal daylight working hours. The contractor shall provide acceptable backflow prevention on all supply water to prevent any potential backflow contamination or cross connection. All work under this section shall be performed in the presence of the Design Engineer, and a representative of the public health authority having jurisdiction, as required.
- Prior to chlorination, all dirt and foreign matter shall be remove cleaning and flushing of the pipeline or structure. Chlorination shall be by the use of a solution of water and liquid chlorine, calcium hypochlorite or sodium hypochlorite and the solution shall be contained in the pipe or structure as specified. d by a thorough
- The chlorine solution shall be introduced to pipelines through corporation stops placed in the horizontal axis of the pipe, to structures by means of tubing extending directly into the structure, or other approved methods.
- The application of the chlorine solution shall be by means of a controlled solution feed device. The rate of chlorine solution flow shall be in such proportion to the rate of water entering the pipe or structure that the resulting free chlorine residual shall be between 25 and 50 parts per million (PPM) or milligrams per liter (mg/l).
- The chlorine residual shall be not less than 10 PPM (or mg/l) at pipe or structure at the end of the 24—hour retention period. The chlorine treated water shall be retained in the pipe or struchours, unless otherwise directed. During the retention period, all hydrants within the treated sections shall be operated. cture at least 24 I valves and any point in the
- When making repairs to, or when specified, structures and portions of pipelines shall be chlorinated by a concentrated chlorine solution containing not less than 200 PPM (mg/l) of free chlorine. The solution shall be applied with a brush or sprayed on the entire inner surface of the empty pipes or structures. The structures disinfected shall remain in contact with the strong chlorine solution for at least 30 minutes.
- After the required retention of chlorinated water in the pipe or structures, they shall be thoroughly flushed until the replacement water shall, upon test, both the characterial shall, and bacteriological, be proven equal to water quality served by the sublic from the existing water supply system.
- The Contractor shall make all arrangements for the testing of water quality by an approved independent laboratory. Two acceptable bacteriological test, taken at least 24 hours apart, shall be collected from the new water main. At least 1 set of samples must be collected from every 1,000 LF of the new water main, plus one set from the end of the line and at least one set from each branch. The results for all tests shall be forwarded to the Design Engineer and the public health authority having jurisdiction. The disposal of chlorinated water from any pipe or structure shall be such that it will not cause damage to any vegetation, fish, or animal life.
- All water quality requirements shall be fulfilled prior to the passage of any water through the new system to a public supply or the use of the new system.



10'-0" MIN. INSIDE DIMENSION

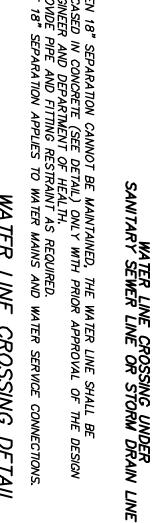
REFUSE CART (OPTIONAL)

—ACCESSIBLE REFUSE OR RECYCLING CONTAINER (3'—B" MAX. HEIGHT)

<u>¼" PER FOOT</u> MIN. SLOPE

-ACCESSIBLE SIDE DOOR OPENING, MAX. 48" ABOVE GRADE (TYP.)

GALVANIZED STEEL POST (TYP.)



DOOR
HARDWARE
MOUNTED @
4'-0" MAX.

-DOOR HARDWARE
SHALL BE EASY TO
OPERATE U-SHAPED
HANDLE OR
LEVER-OPERATED
MECHANISM (TYP.)

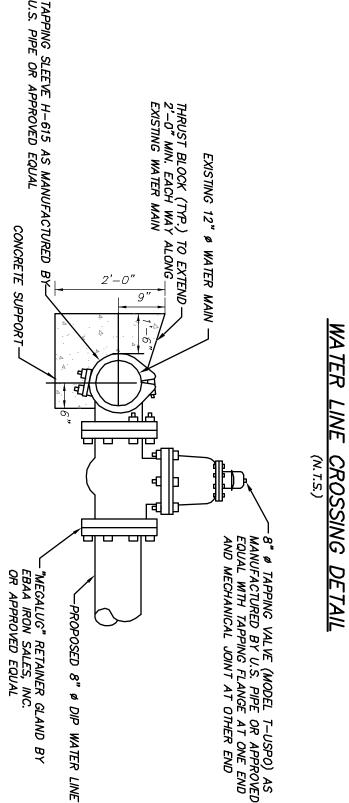
-GALVANIZED STEEL HINGES AND HARDWARE (TYP.)

**GRADE** 

—6' HIGH STOCKADE FENCE STAINED TO MATCH BUILDING COLOR

(REFER

16'-0" or 20'-0" 70 DRAWING SP-1 FOR V PLAN



GENERAL NOTES: 1. CHECK WITH REFUSE HAULER PRIOR DIMENSIONS.

TO INSTALLATION

OF REFUSE ENCLOSURE

ELEVATION

3000 PSI. CONCRETE

LPROVIDE 8" HAUNCH
AT FRONT OF
CONCRETE SLAB

-4" CONC. SLAB WITH
6"X6"/#10X#10 WWF OVER
6" THICK CRUSHED STONE

MIN.

-8" & CONCRETE FOOTING (TYP.) 14" & CONCRETE FOOTING AT DOUBLE POSTS.

ACCESSIBILITY NOTES:

GATE(S) DESIGNATED FOR ACCESSIBLE ENTRY INTO DUMPSTER ENCLOSURE SHALL BE MAINTAINED TO BE RELATIVELY FREE SWINGING AND EASY TO OPEN AND CLOSE.

SHOULD INDIVIDUAL AS SUCH.

CATE BE DES

ACCESSIBLE REFUSE CONTAINERS SHALL BE PROVIDED — AND/OR DUMPSTERS WITH ACCESSIBLE SIDE OPENINGS.

TRASH CAN(S),

DUMPSTER

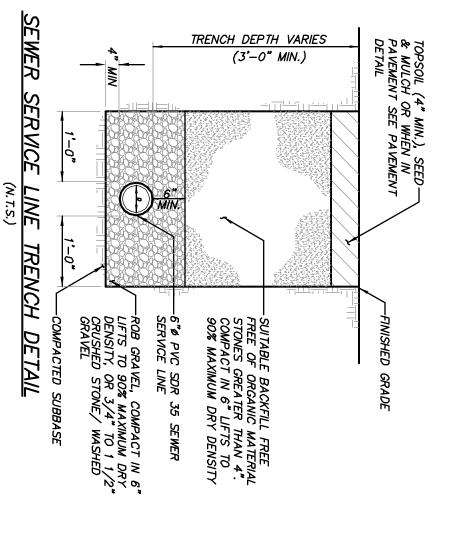
ENCLOSURE DETAIL

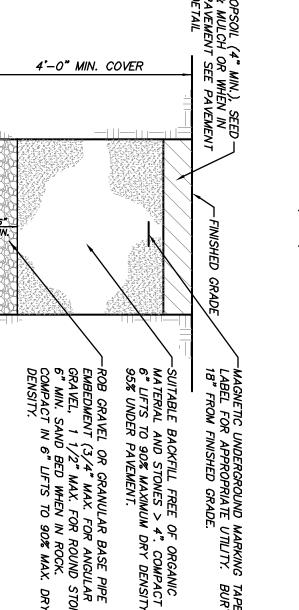
A 36" MINIMUM CLEAR DISTANCE SHALL BE MAINTAINED BETWEEN DUMPSTERS AND IN FRONT OF DUMPSTER AS NECESSARY TO PROVIDE ACCESSIBLE ROUTE MITHIN DUMPSTER ENCLOSURE TO SIDE ACCESS DOORS TO DUMPSTERS AND / OR REFUSE CARTS.

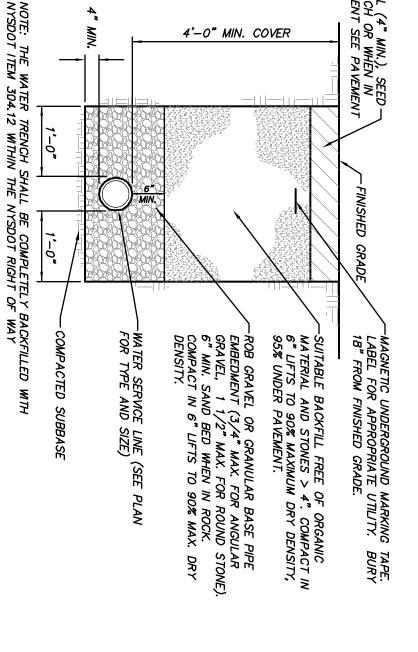
VERTICAL CHANGE IN LEVEL BETWEEN FINISHED GRADE OF CONCRETE PAD FOR DUMPSTER ENCLOSURE AND ADJACENT PAVEMENT AT GATE OPENINGS SHALL NOT EXCEED 1/4"; 1/4" 10 1/2" VERTICAL CHANGE SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2H:1V.

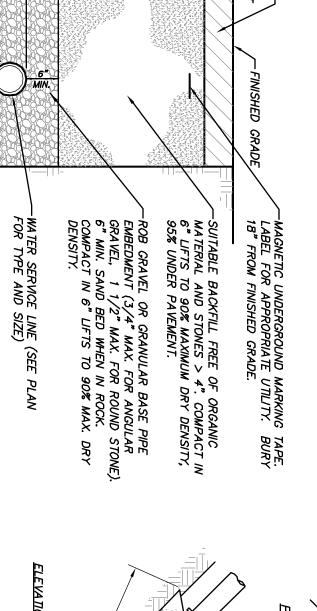
ALL HARDWARE UTILIZED TO ATTACH WOOD FENCE TO POSTS SHALL BE GALVANIZED STEEL.

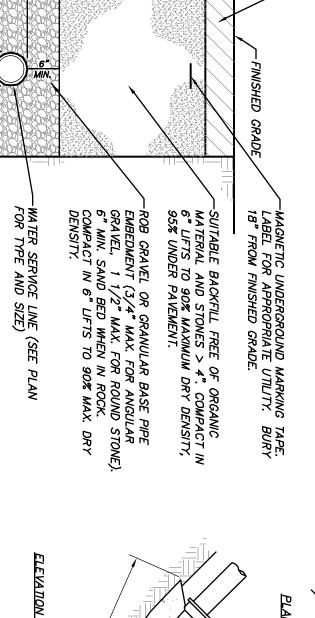


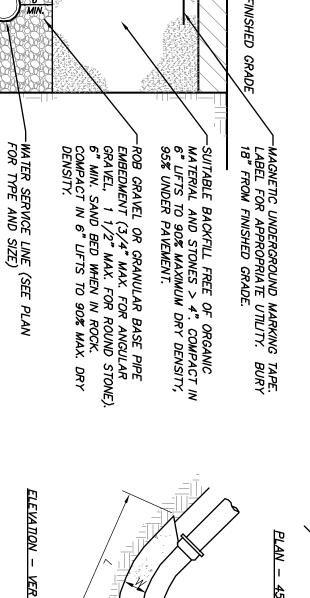


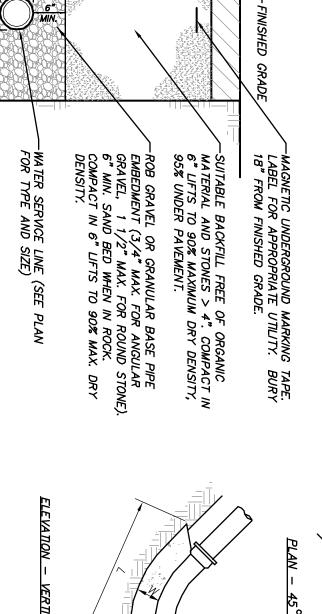


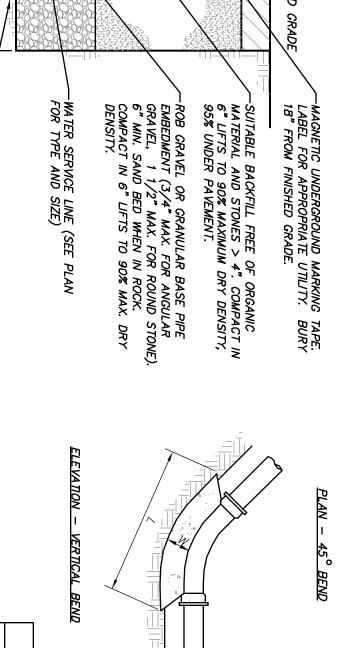


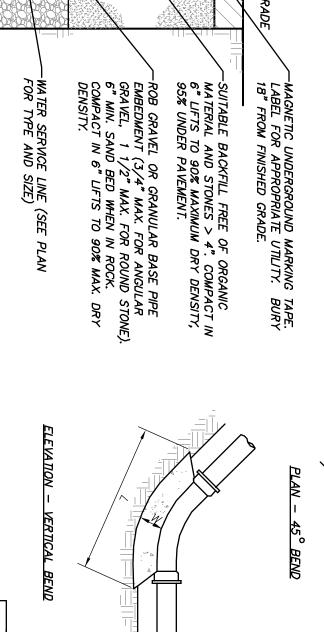


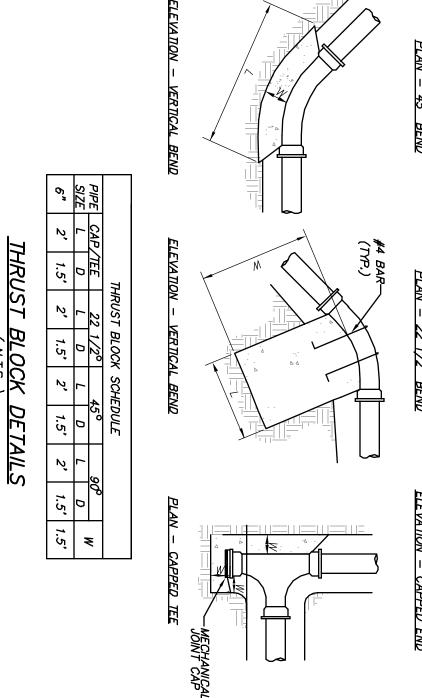


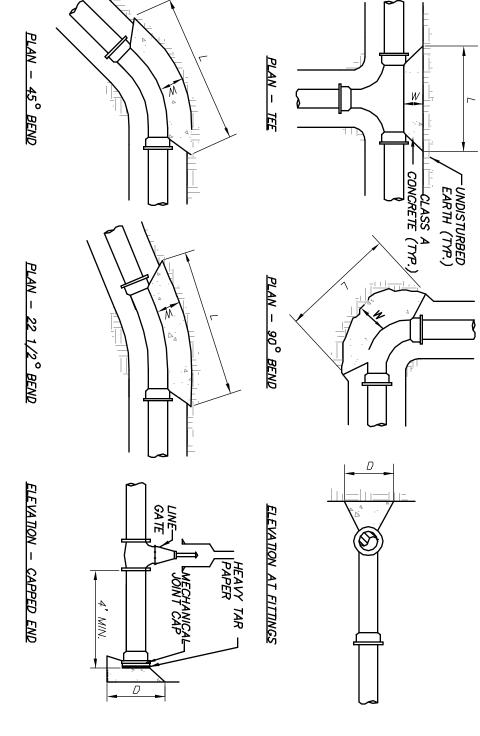












-		PLAN — CAPPED TEE	MECHANICAL JOINT CAP					<u> </u>		ELEVATION — CAPPED END			4° MIN.		
DRA WING:			PROJECT:			NO.	1	2	3	4	5	9	7		
MNG:	WEST END LOFTS  WOLCOTT AVENUE, BEACON, NEW YORK 12508		M	IECT:			DA TE	1-31-17	3-28-17	4-25-17	5-30-17	6-27-17	7-25-17	8-29-17	
			ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.	INSITE	REVISION	REVISIONS FOR PLANNING BOARD SUBMI	REVISIONS PER CITY CONSULTANT COMM	REUSIONS PER CITY CONSULTANT COMM	REUSIONS PER CITY CONSULTANT COMM						
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SCALE	DATE	PROJECT NUMBER		DRA WING:	<b>~</b>		
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CHECKED BY	DRAWN BY	PROJECT MANAGER	<u>DETAILS</u>		WOLCOTT AVENUE, BEACON, NEW YORK 12508	WEST END LOFTS	
J.L.L.	C. T.Q.	J.J.C.			08		
-	D-4	DRAWING NO.					
	13	SHEE					