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PERSPECTIVE VIEW 10' O.C. F —36" MIN. FENCE POSTS, DRIVEN MIN. 16" INTO GROUND HEIGHT OF FILTER ABOVE 16" MIN. GROUND EMBEDMENT

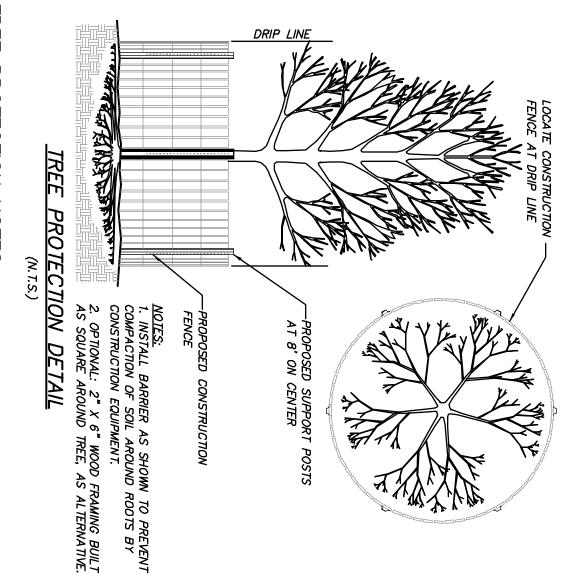
CONSTRUCTION NOTES FOR FABRA

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.

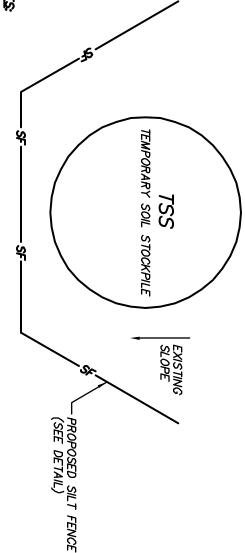
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED
AND MATERIAL REMOVED WHEN "BULGES"
DEVELOP IN THE SILT FENCE. EMBED FILTER CLOTH: MIN. 8" INTO GROUND SECTION FABRICATED 20" MIN. FILTER CL POSTS: CLOTH: FILTER X,
MIRAFI 100X, STABILINKA T140N,
OR APPROVED EQUAL
BRICATED UNIT: GEOFAB,
ENVIROFENCE, OR APPROVED
EQUAL STEEL EITHER T OR U TYPE OR 2" HARDWOOD

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. es prior to start of site
- ing tree removal operations associated with construction, do not nage adjacent trees to remain. Lower limbs and tree trunks, do not them.



- A O
- ALL STOCKPILES SHALL BE PROTECTED DOWNGRADIENT SIDE. WITH SILT FENCING INSTALLED
- STOCKPILE

NOTES:

AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY

- UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.

- clearing &
- No construction equipment shall be parked and no earth or construction materials shall be stockpiled or stored under the canopy of trees to be preserved.
- fully tie back any tree branches that conflict with construction ment.
- Where trenching for utilities is required within a root zone, tunneling under and around roots shall be by hand digging. If roots 3" or laure encountered immediately adjacent to the location of new construand relocation is not practical, the roots shall be hand pruned under supervision of a Certified Arborist or Landscape Architect to 6" back from the new construction limit. All exposed roots to receive appropriate treatment prior to backfilling.

SLOPE

2:1

-WEEP HOLES-FOR DEWATERING

XCAVATED

AREA (AS RE

- tree protection fencing to protect the root zone is not possible, six to ght inches of wood chip mulch and 3/4 inch plywood shall be placed wer the entire affected root zone area to prevent soil compaction.
- tree damaged during construction activities i red by a qualified arborist at no additional roust be immediately cost to the owner.

- MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
- ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW. TEMPORARY SOIL .

SWALE B (5-10 AC.) OR STEEPER, DEPENDENT CROSS |min SECTION (LEVEL)

- ALL TEMPORARY SWALES SHALL GRADE TO AN OUTLET. CONSTRUCTION SPECIFICATIONS HAVE UNINTERRUPTED POSITIVE
- DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.

 DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON—EROSIVELOCITY. TURBED AREA SHALL BE CONVEYED ICE.
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTION-ABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE MITH THE PROPER FUNCTIONING OF THE SWALE.

 THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARHEREIN AND THE WILL IMPEDE NORMAL FLOW.
- L EARTH REMOVED AND NOT ACED SO THAT IT WILL NOT HE SWALE. NEEDED ON CONSTRUCTION SHALL BE EARTH MOVING EQUIPMENT.
- PERIODIC INSPECTION AND REQUIDED AFTER EACH RAIN EVEN SHALL BE AS FLOW CHANNE PER THE CHART BELOW: JIRED MAINTENANCE MUST BE PRO STABILIZATION

TYPE OF TREATMENT

CHANNEL GRADE

A (5 AC. OR LESS)

B (5-10 AC.)

AND STRAW MULCH

Ŋ

3.1-5.0%

SEED AND STRAW MULCH
SEED AND STRAW
MULCH

8.1-20%

LINED 4-8" RIP-RAP

SEED MITH JUTE OR EXCELSIOR; SOD

5.1-8.0%

TEMPORARY SWALE DETAIL

- description and location of any stormwater discharges associated with Justrial activity other than construction at the site: There are no known Justrial stormwater discharges present or proposed at the site.
- 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."
- *⋽*: CLEAN STONE MIRAFI 600X FILTER FABRIC, OR APPROVED EQUAL 6 MIN.
- 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.)
- 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. WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH 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 IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

EXCAVATED DROP INLET PROTECTION DETAIL

1. CLEAR THE AREA OF ALL DEBRIS THAT WII
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 PERMAN
5. MAXIMUM DRAINAGE AREA = 1 ACRE

DRAINAGE AREA, SEAL WEEP SOIL TO FINAL GRADE, COMPACT MANENT SEEDING

WILL HINDER EXCAVATION RMLY AROUND THE BASIN

- AINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH ILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY HIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS ONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO RAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO UBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
- WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO BENTRANCE ONTO PUBLIC RIGHT OF WAY, WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

 PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

REQUIRED EROSION CONTROL SWPPP

Pursuant to the NYSDEC "SPDES General Permit for Starmwater Discharges from Construction Activity" (GP-0-15-002), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list a required SWPPP components is provided in accordance with Part Ill.B.1a-1 of General Permit GP-0-15-002.

- Background Information: The subject project consists of the construction of (98) apartments in three buildings with appurtenances and utilities. Site map / construction 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
- nstruction 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 shedule has been provided. The Sedimentation and Erosion Control Notes antained hereon outline a general sequence of operations for the coposed project. In general all erosion and sediment control facilities all be installed prior to commencement with land disturbing activities, all areas of disturbance shall be limited to the shortest period of time cacticable.

- Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.
- Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific sermanents of the project, and at the various stages of development.
- Site map / construction drawing: SWPPP requirement. This plan set serves to satisfy this
- 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.
- Ji. 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.
- hen land is exposed during development, the exposure shall be kept to the shortest ractical period of time, but in no case more than 7 days after the construction ctivity in that portion of the site has ceased. Disturbance shall be minimized in the reas required to perform construction.
- All construction vehicles shall be kept areas outside the areas of proposed dence shall be installed in the areas watercourses or wetland control areas. clear of the watercourses and wetland control development. Silt fence and orange construction where the grading is in close proximity of the
- 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.
- 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.
- 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.
- all times.

- Stormwater from disturbed areas mus before discharge beyond disturbed are t be passed through erosion control barriers as or discharged into other drainage systems.
- Dust shall be controlled by sprinkling as directed by the trained contractor or ather approved methods as necessary, or or site engineer.
- All fills shall be placed and comp to prevent settlement. acted in 6" lifts to provide stability of material and ing property, nor divert water onto the property

3-28-17

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NG, SURVEYING &
E ARCHITECTURE, P.C.

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- As warranted by field conditions, speci measures, as specified by the site eng the contractor. ial additional erosion and sediment control gineer and the Town Engineer shall be installed by
- Erosion and sediment control are suitably stabilized. shall remain in place until all disturbed areas
- 3. After completion of the site improvement maintenance of the access drive, parking Each spring the paved areas shall be clip traction sand. After this is completed a cleaned. All pipes should be checked for During the cleaning process, the drain it inspected for structural integrity and over replacements should be made as required. vernents, 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 of overall condition. Repairs and/ar
- 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. vention Plan for additional details regal drainage facilities.

SCALE

AS SHOWN

CHECKED BY

10-25-16

PROJECT MANAGER DRAWN BY

C. T.Q.

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REQUIRED POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICE COMPONENTS:

- Pursuant to the NYSDEC "SPDES General Construction Activity" (GP-0-15-002), a post-construction stormwater management includes practices designed in conformant technical standard, New York State Storm Manual"). Where post-construction storm designed in conformance with this technical demonstrate equivalence to the technical components is provided in accordance with this technical components.
- ldentification of all post—construct constructed as part of the project serve to satisfy this SWPPP requir General Permit for Stormwater Discharges from 002), all construction projects needing magement practices shall prepare a SWPPP that also informance with the most current version of the te Stormwater Management Design Manual ("Design on stormwater management practices are not stechnical standard, the owner or operator must echnical standard. The following list of SWPPP lance with Part Ill.B.2a—g and Ill.B.3: tion stormwater management practices to be t; This plan, and details/notes shown hereon ement.
- showing the specific location and size of each agement practice: This plan, and details/notes SWPPP requirement.
- Stormwater Modeling and Analysis Report including pre—development conditions, to results of the stormwater modeling, a summary table size that each practice has been designed in conformance with the sizing iteria, identification of and justification for any deviations from the Design Manual, and entification of any design criteria that are not required. The required analysis will be ovided in a Preliminary Stormwater Pollution Prevention Plan.
- Soil testing results and locations. This SWPPP requirer Preliminary Stormwater Pollution Prevention Plan. ent will be provided in the
- Infiltration testing results. This SWPPP requirement will be provided in the Preliminary Stormwater Pollution Prevention Plan.
- 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.

EROSION SEDIMENT CONTROL NOTES:

- 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 res. For all ather construction related grading and utilities, refer to the appropriate
- Each contractor or subcontractor responsible for soll 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 provided with appropriate protective m sediment disposition within. Minimum shall be implemented as shown on the "New York Standards and Specification: removal or disposition of soil are to be leasures to minimize erosion and contain soil erosion and sediment control measures plans and shall be installed in accordance with sear Erosion and Sediment Control," latest
- herever feasible, natural vegetation should be retained and protected. Disturbance tall be minimized in the areas required to perform construction. No more than 5 tres of unprotected soil shall be exposed at any one time, unless prior authorization anted by the MS4.
- The stabilized construction entrance and silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
- 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".

- Paved roadways shall be kept clean at The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
- All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
- 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 fences 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.
- Cut and fills shall not endanger adjoin of others.
- The NYSDEC Trained Contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.

- 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 pipe for blockage and the general overall integrity of the basin and appurtenances.

DRAWING:

<u>DETAILS</u>

WOLCOTT AVENUE, BEACON,

WEST END LOFTS

1. Table taken from Chapter 5 of the "New York State Stormwater Management Design Manual" 2. Items struck out on the table are items 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 Sail 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. *VEGETATIVE ESTABLISHMENT SOIL RESTORATION REQUIREMENTS 1.2 (ONSITE SOILS MITHIN THE LIMIT OF DISTURBANCE BELONG TO THE HYDROLOGIC SOIL GROUP (HSG) B) TYPE OF SOIL DISTURBANCE SOIL RESTORATION REQUIREMENT (MITTER) DUST CONTROL 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 Permanent vegetation is considered stabilized when 80% of the plant density Erosion control measures shall remain in place until all disturbed areas area ote: Ote: The party responsible for implementation of the maintenance schedule after construction is: CHECK DAMS SOIL STOCKPILES ROAD & PAVEMENT CONCRETE DRAINAGE STRUCTURES DRAINAGE PIPES STABILIZED ONSTRUCTION ENTRANCE INLET PROTECTION SILT FENCE BARRIER EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE Areas of cut or fill PRACTICE SWALES KEARNEY REALTY & DEVELOPMENT GROUP 34 CLAYTON BOULEVARD BALDWIN PLACE, NY 10505 MONITORING REQUIREMENTS Inspect Inspect DAILY 7-25-17 6-27-17 5-30-17 4-25-17 ent owner(s) of the subject property. Restoration not permitted Restoration not required HSG A & B HSG C & B Apply 6" of Acrate3 and apply topsoil 6" of topsoil Inspect Inspect Inspect WEEKLY HSG A & B Aerate³ and apply Apply full Soil 6" of topsoil Restoration* Restoration not required, but may be applied for appropriate practices. Apply full Soil Restoration⁵ (de-compaction and compost enhancement)⁶ REVISIONS PER CITY CONSULTANT COMMENTS REVISIONS FOR PLANNING BOARD SUBMISSION AFTER RAINFALL Inspect Inspect Inspect Inspect Inspect Inspect Inspect Inspect Inspect Mulching/ Silt Fence Repair Clean/Replace Stone and Fabric Clean Sumps/ Remove Debris/ Repair/Replace Mulching/ Spraying Water DURING CONSTRUCTION Clean/Replace Stones/Repair Clean/Repair/ Replace Clean/Replace Clean/Mulch/ Repair Water/Reseed/ Remulch Clean/Repair MAINTENANCE REQUIREMENTS 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 is established. permanently stabilized during and Clean Sumps/ Remove Debris/ Repair/Replace Mow Permanent Grass/Replace/ Repair Rip Rap Clean/Replace Stones/Repair AFTER CONSTRUCTION Reseed to 80% Coverage Clean/Repair Remove Remove Remove Remove × × ## E/G ### CTQ CTQ

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 TESTING PROCEDURES ٦. D. \mathfrak{S} Exfiltration Testin Regardless of the above allowable leakage, any spurting be permanently stopped. Exfiltration tests shall be made by filling a section of pipeline with water measuring the quantity of leakage. ole Testing All section 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. 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. 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. 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. 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 shall not be limited to type or size of pipe. 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 med into a section of pipeline. Vacuum testing shall be performed after backfilling in accordance with the latest revision of ASTM C1244–11 as follows: Infiltration tests shall be performed after backfilling when the groulevel is above the joint of the top section of a precast manhole. The equipment required for air testing shall be fumished 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 separa test gauge. Air testing for acceptance shall not be performed until the backfilling has been completed. <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 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: 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. ble Leakage for Non Testing 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 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. 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. If the manhole falls the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained. 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. 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. 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. Each manhole shall be tested by either vacuum testing. When groundwater is present, the average test pressure of 3 psig shall be above any back pressure due to the groundwater level. ıre Air Testing 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: The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendations. is of pipe Test Times for Depth (ft) shall be cle FOR ed and flushed prior to testing. ring the quantity of water TRANSPORT OF or low pressure air. SEWAGE DUCTILE IRON PIPE WATER TESTING PROCEDURES IESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER 12. 13. 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. Hydrostatic Pressure Test Hydrostatic testing shall be performed in C600, Section 5.2, "Hydrostatic Testing". Hydrostatic Leakage Test Test pressure shall be held on the piping for a period of at leas unless a longer period is requested by the Engineer. The test medium shall be water. The test medium shall be water. The leakage test shall be conducted concurrently with the pressure test. 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, upless a longer period is requested by the Francer. 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 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. 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. 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. 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. 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. 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 structions, unless otherwise directed. During the retention period, all hydrants within the treated sections shall be operated. Prior to chlorination, all dirt and foreign matter shall be remove cleaning and flushing of the pipeline or structure. Chlorination shall be scheduled such that sampling and flushing valuring normal daylight working hours. The contractor shall provide backflow prevention on all supply water to prevent any potential contamination or cross connection. 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 work under this section shall be performed in the presence of the Design Engineer, and a representative of the public health authority having jurisdiction, required. All exposed piping shall be examined during the test and all leaks, defective material or joints shall be repaired or replaced before repeating the tests. 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 chally and bacteriological, be proven equal to water quality served by the sublic from the existing water supply system. At the completion of the test, the pressure shall be released at the furthermost point from the point of application. PROPOSED PIPE SPACER, INSTALLED 3' O.C., (4 TOTAL) SEWER MAIN SLEEVE DETAIL PROPOSED 1'x 1'x 1' POURED BLOCK OF CONCRETE TO PLUG AND CAP THE 10" HDPE SLEEVE (TYP.) 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) — PROPOSED 12"# PVC SDR 35 SLEEVE (15' TOTAL LENGTH, 7.5' ON EITHER SIDE CENTER LINE OF WALL) — PROPOSED 8"# PVC SDR 35 SEWER PIPE LD √P 148,000 ned by the PROPOSED MODULAR BLOCK RETAINING WALL, SEE DETAIL. — PROPOSED GRANULAR LEVELING PAD, SEE DETAIL. —12" MIN. SEPARATION cture at least 24 I valves and will be performed de acceptable I backflow d by a thorough of AWWA any point in the WA TER NOTE: THE WATER TRENCH SHALL NYSDOT ITEM 304.12 WITHIN THE . SEWER SERVICE LINE TRENCH DETAIL TOPSOIL (4" MIN.), SEED— & MULCH OR WHEN IN PAVEMENT SEE PAVEMENT DETAIL TRENCH DEPTH VARIES (3'-0" MIN.) 4'-0" MIN. COVER TAPPING SLEEVE H-615 AS MANU U.S. PIPE OR APPROVED EQUAL SERVICE TRENCH JOINT (TYP.) ETELY BACKFILLED MTH SHT OF WAY -ROB GRAVEL, COMPACT IN 6" LIFTS TO 90% MAXIMUM DRY DENSITY, OR 3/4" TO 1 1/2" CRUSHED STONE/ WASHED GRAVEL -SUITABLE BACKFILL FREE FREE OF ORGANIC MATERIAL STONES GREATER THAN 4". COMPACT IN 6" LIFTS TO 90% MAXIMUM DRY DENSITY 6°ø PVC SDR 35 SEWER SERVICE LINE INISHED GRADE DETAIL POB GRAVEL OR GRANULAR BASE PIPE EMBEDMENT (3/4" MAX. FOR ANGULAR GRAVEL, 11/2" MAX. FOR ROUND STONE). 6" MIN. SAND BED WHEN IN ROCK. COMPACT IN 6" LIFTS TO 90% MAX. DRY DENSITY. WATER SERVICE LINE (SEE PLAN FOR TYPE AND SIZE) COMPACTED SUBBASE -MAGNETIC UNDERGROUND MARKING TAPE. LABEL FOR APPROPRIATE UTILITY. BURY 18" FROM FINISHED GRADE. SUITABLE BACKFILL FREE OF ORGANIC MATERIAL AND STONES > 4". COMPACT IN 6" LIFTS TO 90% MAXIMUM DRY DENSITY, 95% UNDER PAVEMENT. (8° MIN) (8' MIN) NNOT BE MAINTAINED, THE WATER LINE SHALL BE SE DETAIL) ONLY WITH PRIOR APPROVAL OF THE DESIGN ST OF HEALTH. SESTRAINT AS REQUIRED. SES TO WATER MAINS AND WATER SERVICE COMMITCE. WATER LINE CROSSING OVER SANITARY SEWER LINE OR STORM DRAIN LINE TAPPING SLEEVE, VALVE. AND THRUST BLOCK DETAIL WATER LINE CROSSING UNDER SANITARY SEWER LINE OR STORM DRAIN LINE AINT AS REQUIRED. WATER MAINS AND WATER SERVICE CONNECTIONS WATER LINE CROSSING DETAIL SEWER LINE OR . DRAIN LINE SEWER LINE DRAIN LINE Ø, 18" MIN "MEGALUG" RETAINER GLAND BY EBAA IRON SALES, INC. OR APPROVED EQUAL PROPOSED 8" Ø DIP WATER LINE (8' MIN) (8' MIN) 45° BEND ELE VA TION THRUST 1.5° $\sim B_{\parallel}$ LOCK N.T.S.) 1/2° BEND BEND 2, _ SCHEDULE **DETAILS** 1.5 1.5' 1.5' DOOR HARDWARE MOUNTED @ 4'-0" MAX. ELEVATION 10'-0" MIN. INSIDE DIMENSION HEAVY TAR LMERHANICA GENERAL NOTES: 1. CHECK WITH REFUSE HAULER PRIOR TO INSTALLATION OF REFUSE ENCLOSURE DIMENSIONS. ACCESSIBILITY NOTES: ACCESSIBLE REFUSE CONTAINERS SHALL BE PROVIDED — AND/OR DUMPSTERS WITH ACCESSIBLE SIDE OPENINGS. GATE(S) DESIGNATED FOR ACCESSIBLE ENTRY INTO DUMPSTER ENCLOSURE SHALL BE MAINTAINED TO BE RELATIVELY FREE SWINGING AND EASY TO OPEN AND CLOSE. 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" TO 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. 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. SHOULD INDIVIDUAL GATE BE DESIGNATED FOR ACCESSIBLE ENTRY, IT SHALL BE LABELLED AS SUCH. MERHANIGAL PROVIDE 8" HAUNCH AT FRONT OF CONCRETE SLAB 4" CONC. SLAB MTH 6"X6"/#10X#10 WWF OVER 6" THICK CRUSHED STONE DUMPSTER ENCLOSURE DETAIL DRAWING: DATE SCALE 16'-0" or 20'-0" TO DRAWING SP-1 FOR REFUSE CART (OPTIONAL) 6-27-17 5-30-17 4-25-17 MIN. ELEVATION <u>¼" PER FOOT</u> MIN. SLOPE AS SHOWN 10-25-16 16226.100 WEST END LOFTS <u>DETAILS</u> × -8" & CONCRETE FOOTING (TYP.) 14" & CONCRETE FOOTING AT DOUBLE POSTS. GALVANIZED STEEL POST (TYP.) 3000 PSI. AIR-ENTRAINED —ACCESSIBLE REFUSE OR RECYCLING CONTAINER (3'—B" MAX. HEIGHT) REUSIONS PER CITY CONSULTANT COMMENTS REUSIONS FOR PLANNING BOARD SUBMISSION TRASH CAN(S), REFUSE CARTS, PROJECT MANAGER DRAWN BY -ACCESSIBLE SIDE DOOR OPENING, MAX. 48" ABOVE GRADE (TYP.) CHECKED BY S S / T / IT NG, SURVEYING & ARCHITECTURE, P.C. FOR FINAL C. T.Q. **ルルC** 3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com -DOOR HARDWARE SHALL BE EASY TO OPERATE U-SHAPED HANDLE OR LEVER-OPERATED MECHANISM (TYP.) —6' HIGH STOCKADE FENCE STAINED TO MATCH BUILDING COLOR -GALVANIZED STEEL HINGES AND HARDWARE (TYP.) GRADE 4 13 JLL CTQ CTQ CTQ