

APPLICATION FOR BUILDING PERMIT

The Village of Irvington | 85 Main St | Irvington NY 10533

Application Number:	761	Date:	07/28/2021
Job Location:	75 HAMILTON RD	Parcel ID:	2.130-66-22
Property Owner:	yoon choi	Property Class:	1 FAMILY RES
Occupancy:	One/ Two Family	Zoning:	
Common Name:			

Applicant	Contractor
yoon choi	
n/a	
75 HAMILTON RD, IRVINGTON, NY 10533Irvington NY 10533	
9177430295	

Description of Work

Type of Work:	Addition	Applicant is:	Owner
Work Requested by:		In association with:	
Cost of Work (Est.):	75000.00	Property Class:	1 FAMILY RES

Description of Work

Single story, one room addition, at rear of house, on piers.

Please Note: Completing the application does not constitute a permit to commence construction. To obtain your permit follow the instructions on the instruction page provided on page 3.

Job Location: 75 HAMILTON RD

Parcel Id: 2.130-66-22

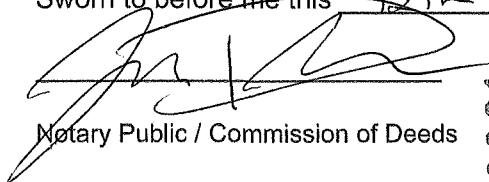
AFFIDAVIT OF APPLICANT

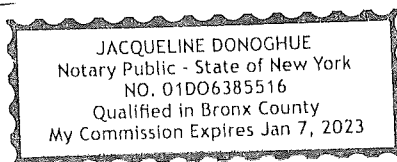
I Yoon Choi being duly sworn, depose and says: That s/he does business as: n/a with offices at: 75 HAMILTON RD, IRVINGTON, NY 10533 Irvington NY 10533 and that s/he is:


- ☒ The owner of the property described herein.
☐ The _____ of the New York Corporation _____ with offices at: _____
_____ duly authorized by resolution of the Board of Directors, and that
said corporation is duly authorized by the owner to make this application.
- ☐ A general partner of _____ with offices _____ and that said
Partnership is duly authorized by the Owner to make this application.
☐ The Lessee of the premises, duly authorized by the owner to make this application.
☐ The Architect of Engineer duly authorized by the owner to make this application.
☐ The contractor authorized by the owner to make this application.

That the information contained in this application and on the accompanying drawings is true to the best of his knowledge and belief. The undersigned hereby agrees to comply with all the requirements of the New York State Uniform Fire Prevention and Building Code, the Village of Irvington Building Code, Zoning Ordinance and all other laws pertaining to same, in the construction applied for, whether or not shown on plans or specify in this application.

Sworn to before me this 12th day of August of 2021


Notary Public / Commission of Deeds




Applicant's Signature

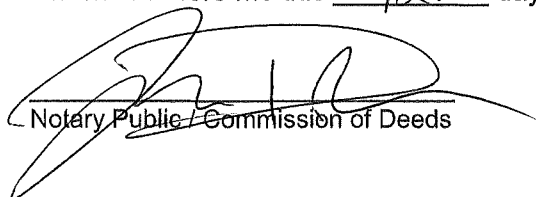
OWNER'S AUTHORIZATION

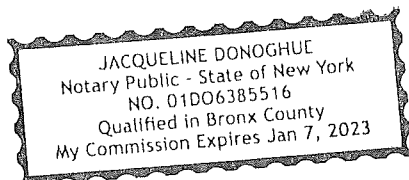
I Yoon Choi as the owner of the subject premises and have authorized the contractor named above to perform the work under the subject application.

Owner phone number 917 743 0295 Owner email address yoontimothychoi@gmail.com

- ☒ Yoon Choi I hereby acknowledge that it is my responsibility as the **property owner** to ensure that if the permit (if issued) receives a Final Certificate of Approval from the Building Department and further that if a Final Certificate of Approval is not obtained upon completion of the construction, a property violation may be placed on the property for which this permit is being requested.

Sworn to before me this 12th day of August of 2021


Notary Public / Commission of Deeds




Applicant's Signature

INSTRUCTIONS

REQUIREMENTS FOR OBTAINING A PERMIT:

The following items must be submitted in order to obtain a Building Permit:

1. One (1) Building Permit application signed by the owner or a notarized Agent Letter.
2. One (1) property survey (signed and sealed), reflecting existing conditions.
3. Two (2) sets of construction drawings and specifications, including existing and proposed conditions, state design criteria, structural and architectural details, plans, and cross sections, mechanical, electrical, and plumbing drawings (signed and sealed by a licensed professional).
4. One USB with all plans (with Licensed Professionals certification/stamp) and specifications in PDF (file size must be less than 25MB).
5. Copy of approved site plan from the Irvington Planning Board when applicable (required on all increases of FAR, footprint, coverage, driveways and increases of cubic content under a roof).
6. Approval by the Architectural Review Board (ARB) when applicable. An additional five (5) sets of construction drawings and specifications (please see ARB requirements (available on the village web site www.Irvingtonny.gov) prior to submission).
7. Visit the Village of Irvington website www.Irvingtonny.gov for additional check list for solar panels, generators, underground propane tanks, signs and awnings(found in forms and documents in the Building & Planning General Information folder).
8. Village Zoning Code is available on the Village website: www.Irvingtonny.gov.
9. Provide evidence that the application meets the NYS Energy code as described by www.dos.state.ny.us/code/energycode/overview.htm

Contractor Requirements in order to obtain a Building Permit:

10. Contractor's Certificate of Liability listing the Village of Irvington as the Certificate Holder with no disclaimer in the description other than certificate holder is named additional insured (any additional comments will not be accepted).
11. Contractor's Workers Compensation C-105 form (or equivalent) listing the Village of Irvington as Certificate Holder.
12. Copy of Contractor's Westchester County Home Improvement License.
13. All information above uploaded into permit application with the contractor's contact information, including mailing address, phone number, and email address.
14. Contractor's signature on Affidavit of Contractor (required prior to issuance of the permit).

Please Note:

-State Law requires that the contractor submits a copy of Workman's Compensation as required by the New York State Disability Insurance naming the Department of Buildings, Village of Irvington as certificate holder and showing coverage for general contracting and the locations covered by such insurance. If structure is to be demolished a copy of Liability Insurance must also be submitted.

- Please be advised under State and Municipal Laws, the Workman's Compensation and Disability benefits insurance must be submitted on separate state approved forms. The "Acord Form" is no longer acceptable as proof of Workman's Compensation coverage. Further information or questions may be answered by calling the NYS Bureau of Compliance at (518) 486-6307 or by visiting their website or by contacting your insurance provider.

FEES ASSOCIATED WITH BUILDING PERMIT APPLICATION (All fees must be paid at time of application):

Fee schedule

Building Permit (Non-Refundable)

* Application fee \$85

* Permit fee \$17 per thousand dollars (\$1000) of estimated cost of construction, or fraction thereof

85
1275

• Inspection Fees (as applicable)

- | | |
|--|--|
| • Insulation: \$50 | • Footing: \$50 |
| • Solid Fuel: \$50 | • Preparation for concrete slabs and walls: \$50 |
| • Foundation and footing drain: \$50 | • Framing: \$50 |
| • Energy Code Compliance: \$50 | • Building systems, including underground and rough-in: \$50 |
| • Sediment and erosion control: \$50 | • Fire resistant construction and penetrations: \$50 |
| • Footing: \$50 | • Final Inspection for C.O.: \$50 |
| • Preparation for concrete slabs and walls: \$50 | • State and local laws (per re-inspection): \$50 |

Total Inspections 150

* Certificate of Occupancy Fees: One dollar (\$1.00) per thousand dollars of estimated cost. Minimum Fee \$25.00

* Permit Revisions or Amendment: \$50.00 (plus \$17 per thousand (\$1000), of the estimated cost of construction and any additional inspections fees).

75

* Re-inspection fee for work not ready at time of inspection or not in compliance: \$50

* Applications for Undocumented Work/ Legalizing: Applications to legalize work done prior to applying for and receiving a building permit shall pay double all applicable fees and inspections, including the cost of construction based on the cost of all proposed work being legalized at the time of application. Minimum fee \$500.00.

(To be collected at time of submission of application) Total \$1,585.

(Note: pursuant to 224-54A all permits are valid for one (1) year from date on permit
Any permit that expires will be subject to additional fees.)

**VILLAGE OF IRVINGTON
PLANNING BOARD DECISION**

WHEREAS, in March 2021, Yoon and Katarina Choi applied for site development plan approval to build a one -story addition on concrete piers on their house and a patio underneath, on their property at 75 Hamilton Road, which lies in the Barney Brook flood plain; and

WHEREAS, James J. Hahn Engineering, P.C. ("Hahn") reviewed the plans and, in Memoranda dated March 2 and June 1, 2021, listed a number of issues, most of which were satisfactorily addressed; and

WHEREAS, the Village's landscape consultant reviewed the plans and made recommendations, which were addressed, to her satisfaction, in a subsequent submission; and

WHEREAS, the Planning Board held a public hearing on March 3 and June 2, 2021; and

WHEREAS, the proposed construction will alter a flood plan, so was reviewed for compliance with the Flood Damage Prevention Chapter of the Village Code, as detailed in Hahn's June 2, 2021 Memorandum; and

WHEREAS, the proposed construction requires a Freshwater Wetlands Permit and, as detailed in Hahn's June 1, 2021 Memorandum, it meets the requirements for that permit; and

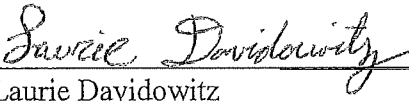
WHEREAS, the proposed construction requires a Water Bodies and Water Courses Permit, and, as detailed in Hahn's June 1, 2021 Memorandum, it meets the requirements for that permit; and

WHEREAS, the action is a Type II action under the State Environmental Quality Review Act and, therefore, requires no environmental review; now, therefore, be it:

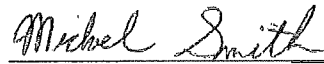
RESOLVED that the Planning Board issues Floodplain, Freshwater Wetlands, and Water Bodies and Watercourses Permits, and grants site development plan approval, for the construction reflected in the drawings entitled "Proposed Addition and Alterations to: Choi Residence," Sheets T-1, D-1, A-1, A-2, all last dated May 5, 2021, prepared by Samuel P. Vieira, Architect P.C.; and "Proposed Additions & Alterations, 75 Hamilton Road," Sheets C-1 and C-2, both dated May 19, 2021, prepared by Hudson Engineering & Consulting, P.C., subject to complying with the items listed in the June 1, 2021 Hahn Memorandum.

Dated: June 2, 2021

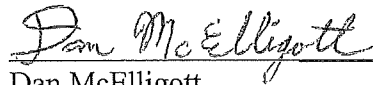

Cesare Manfredi, Chairperson



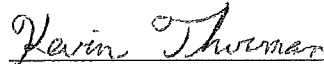
Laurie Davidowitz



Michael Smith



Dan McElligott



Kevin Thurman

NB: This approval is not a substitute for a building permit. Construction may not commence until the Building Inspector issues a building permit.



HUDSON
ENGINEERING
&
CONSULTING, P.C.

August 4, 2021

George E. Pommer, P.E.
Vice President
James J. Hahn Engineering, P.C.
Putnam Business Park
1689 Route 22
Brewster, NY 10509

Re: Site Plan Review
Irvington Planning Board No. 2021-13
Owner/Applicant – Yoon and Katrina Choi
75 Hamilton Road

Dear Mr. Pommer:

On behalf of the applicant, our office has reviewed your Memorandum dated June 1, 2021, and offers the following responses:

Comment Letter:

- 1.) An updated coverage worksheet is included in the submission
- 2.) Infiltration has been removed from the design.
- 3.) The HydroCAD model has been revised to include the 4 inch pipe to confirm adequate size for flows.
- 4.) A note has been added for the crossings to confirm elevations and account for adjustment if necessary. As this is a closed system, there is leeway to raise or lower the gallery as necessary.
- 5.) A detail has been included on sheet C-2.
- 6.) Comment noted.

We respectfully request that you review the enclosed submittal. If you should have any additional questions or comments, please do not hesitate to contact our office at (914) 909-0420, or via email at Ubadah@hudsonec.com.

Thank you.

Sincerely,

Ubadah Abdullah, E.I.T.

STORMWATER MANAGEMENT PLAN & DRAINAGE ANALYSIS

**75 Hamilton Road
Village of Irvington - New York**

**May 19, 2021
Revised August 3, 2021**



Hudson Engineering & Consulting, P.C.

45 Knollwood Road - Suite 201

Elmsford, NY 10523

(914) 909-0420

**STORMWATER MANAGEMENT
PLAN & DRAINAGE ANALYSIS
75 Hamilton Road
Village of Irvington - New York**

INTRODUCTION

This Stormwater Management Plan presents the proposed Best Management Practices (BMPs) to control erosion and sedimentation and manage stormwater during and upon construction of proposed additions and alterations at 75 Hamilton Road in the Village of Irvington, Westchester County, New York.

This Plan consists of this narrative and a plan set entitled: “Proposed Additions & Alterations, 75 Hamilton Road, Village of Irvington, Westchester County - New York”, all as prepared by Hudson Engineering and Consulting, P.C., Elmsford, New York, latest date August 3, 2021. The design is in accordance with the Village of Irvington requirements. Since the project disturbance is less than one acre the New York State Department of Environmental Conservation [NYSDEC] stormwater regulations are not applicable.

METHODOLOGY

The stormwater analysis was developed utilizing the Soil Conservation Service (SCS) TR-20, 24-hour Type III storm events (HydroCad®) to assist with the design of the mitigating practices. The “Curve Number” (CN) value determination is based on soil type, vegetation and land use. The design is in accordance with the Village of Irvington’s stormwater regulations. The CN and T_c data are input into the computer model. The project site was modeled for the 1-, 10-, 25-, and 100-year Type III – 24-hour storm event.

PRE-DESIGN INVESTIGATIVE ANALYSIS

A pre-design investigative analysis was performed including percolation and deep tests in the location shown on the plans.

Testing was completed as follows: a percolation test hole of approximately 8-inch diameter was dug from the surface to a depth of 24” in order to maintain a distance of 36” from the observable groundwater. A 4-inch diameter pipe was inserted into the percolation hole and backfilled around. The hole was pre-soaked for 24 hours prior to running the tests. Tests were run until a 3-inch drop in water level as measured or 30 minutes had elapsed, whichever came first. Testing was performed in the vicinity of the potential stormwater mitigation practice [TP-1] until a constant rate was achieved, the result as follows:

- TP-1: A percolation rate of 80-minutes per inch (0.75-inch per hour) was observed. Infiltration was not used in the design.

Three (3) deep test hole was excavated and labeled TP-1, TP-2, and TP-3 as shown on the plans.

- TP-1 was excavated to a depth of 65-inches. The test revealed topsoil to a depth of 8-inches, brown loam to a depth of 29-inches, gray clay to a depth of 44-inches, and grayish brown sandy loam to the invert. No ledge rock was encountered. Groundwater was observed at 60-inches.
- TP-2 was excavated to a depth of 72-inches. The test revealed topsoil to a depth of 8-inches, brown loam to a depth of 20-inches, gray clay to a depth of 47-inches, and grayish brown sandy loam to the invert. No ledge rock was encountered. Groundwater was observed at 60-inches.
- TP-3 was excavated to a depth of 60-inches. The test revealed topsoil to a depth of 6-inches and grayish black clay to the invert. No ledge rock was encountered. Groundwater was observed at 24-inches.

PRE-DEVELOPED CONDITION

In the pre-developed condition, the site is characterized as generally sloping from south to north. The soil classification based upon Westchester County Soils Mapping is primarily Leicester Loam, 3 to 8 percent slopes, stony, with some Sutton Loam, 3 to 8 percent slopes. The site vegetation can be characterized as lawn and landscaped.

The site is located along the north side of Hamilton Road, approximately 1,000 feet east of South Broadway. The site consists of an existing dwelling, driveway, deck, walkways, and stream with lawn and landscaping making up the rest of the site. Runoff from the existing dwelling flows through the gutters into downspouts that are directed to discharge into the stream at the rear.

In the Pre-Developed Condition, the project site is modeled as two watersheds, *Watershed 1 and Watershed 2*.

Watershed 1 contains a tributary area of approximately 15,732 square feet comprised of approximately 12,588 square feet of pervious in the form of grass cover, "D" soils and 1,887 square feet of impervious cover in the form of the existing dwelling, walkway, concrete platform and stream. The weighted curve number (CN) value is calculated as 84 and the Time of Concentration (Tc) is calculated as 7.0 minutes. Overland flow from this watershed originates at the front of the property and flows northerly towards DP-1 at which point it enters Barney Brook.

Watershed 2 contains a tributary area of approximately 4,293 square feet comprised of approximately 3,546 square feet of pervious in the form of grass

cover, “D” soils and 747 square feet of impervious cover in the form of the existing driveway, , walk and front platform. The weighted curve number (CN) value is calculated as 83 and the Time of Concentration (Tc) is calculated as 4.2 minutes. Overland flow from this watershed originates at the southeast portion of the property and flows south towards DP-2 onto Hamilton Road.

POST-DEVELOPED CONDITION

In the Post-Developed Condition, the project site is modeled as three watersheds denoted as *Watersheds 1, 1A and 2*. Each watershed is analyzed as follows:

Watershed 1 contains a tributary area of approximately 15,009 square feet comprised of approximately 12,112 square feet of pervious in the form of grass cover, “D” soils and 2,897 square feet of impervious cover in the form of a portion of the existing dwelling, walkway, concrete platform, stream and proposed patio and addition. The weighted curve number (CN) value is calculated as 83 and the Time of Concentration (Tc) is calculated as 7.0 minutes. Overland flow from this watershed originates at the front of the property and flows northerly towards DP-1 at which point it enters Barney Brook.

Watershed 1A contains a tributary area of approximately 723 square feet entirely of impervious area in the form of the front portion of the dwelling. The weighted curve number (CN) value is calculated as 98 and the Time of Concentration (Tc) is calculated as direct entry 1.0 minute. Runoff is collected via the roof leaders and directed towards 20 L.F. of solid walled 12” HDPE (N-12) attenuation gallery with 2 orifices to control flow. This runoff is controlled and overflows via a 4” HDPE pipe to the stream at the rear of the property. The system is designed to handle runoff up to and including the 100-year storm event.

The peak rates of runoff from the site were calculated to be as follows:

Pre- and Post-Developed Conditions – WS-1				
	1 Year	10 Year	25 Year	100 Year
	cfs	cfs	cfs	cfs
Pre	0.55	1.35	1.82	2.76
Post	0.54	1.33	1.79	2.72

Watershed 2 contains a tributary area of approximately 4,293 square feet comprised of approximately 3,556 square feet of pervious in the form of grass cover, “D” soils and 737 square feet of impervious cover in the form of the existing driveway, , walk and front platform. The weighted complex number (CN) value is calculated as 83 and the Time of Concentration (Tc) is calculated as 4.2 minutes. Overland flow from this watershed originates at the southeast portion of the property and flows south towards DP-2 onto Hamilton Road.

The peak rates of runoff from the site were calculated to be as follows:

Pre- and Post-Developed Conditions – WS-2				
	1 Year	10 Year	25 Year	100 Year
	cfs	cfs	cfs	cfs
Pre	0.16	0.40	0.54	0.82
Post	0.16	0.40	0.54	0.82

The proposed post-developed conditions for the site reduce or equal the stormwater runoff rates of the pre-developed conditions at the design points [DP-1 and DP-2].

CONSTRUCTION SEQUENCING

The following erosion control schedule shall be utilized:

1. Establish construction staging area.
2. Install tree protection on trees as noted on plans.
3. Selective vegetation removal for silt fence installation.
4. Install silt fence down slope of all areas to be disturbed as shown on the plan.
5. Strip topsoil and stockpile at the locations specified on the plans (up gradient of erosion control measures). Temporarily stabilize topsoil stockpiles (hydroseed during May 1st through October 31st planting season or by covering with a tarpaulin(s) November 1st through April 30th. Install silt fence around toe of slope.
6. Demolish any existing site features and/or structures noted as being removed on the construction documents, and dispose of off-site.
7. Rough grade site.
8. Excavate and install exfiltration/attenuation galleries per manufacturer's recommendations and requirements.
9. Install drainage work tributary to galleries from dwelling including all pretreatment devices, catch basins and piping.
10. Construct building additions and terrace. Install and connect roof drain leaders to existing roof leaders at the rear.
11. Connect front roof leaders to previously installed exfiltration/attenuation galleries.

12. Fine grade and seed all disturbed areas. Clean pavement, drain lines, catch basins and pretreatment devices. Clean exfiltration/attenuation galleries. Ensure grass stand is achieved.
13. Install 4"-6" topsoil, fine grade, seed the entire project site and install landscape plantings. Spread salt hay over seeded areas.
14. Remove all temporary soil erosion and sediment control measures after the site is stabilized with vegetation.

* Soil erosion and sediment control maintenance must occur weekly and prior to and after every ½" or greater rainfall event.

EROSION AND SEDIMENT CONTROL COMPONENTS

The primary aim of the soil and sediment control measures is to reduce soil erosion from areas stripped of vegetation during and after construction and to prevent silt from reaching the off-site drainage structures and downstream properties. The Sediment and Erosion Control Components are an integral component of the construction sequencing and will be implemented to control sedimentation and re-establish vegetation.

Planned erosion and sedimentation control practices during construction include the installation, inspection and maintenance of the inlet protection, soil stockpile areas, diversion swales and silt fencing. General land grading practices, including land stabilization and construction sequencing are also integrated into the Sediment and Erosion Control Plan. Dust control is not expected to be a problem due to the relatively limited area of exposure, the undisturbed perimeter of trees around the project area and the relatively short time of exposure. Should excessive dust be generated, it will be controlled by sprinkling.

All proposed soil erosion and sediment control practices have been designed in accordance with the following publications:

- New York State standards and Specifications for Erosion and Sediment Control, November 2016
- New York State General Permit for Stormwater Discharges, GP-0-20-001 (General permit).
- "Reducing the Impacts of Stormwater Runoff from New Development", as published by the New York State Department of Environmental Conservation (NYSDEC), second edition, April, 1993.

The proposed soil erosion and sediment control devices include the planned erosion control practices outlined below. Maintenance procedures for each erosion control practice have also been outlined below.

- **SILT FENCE**

Silt fence (geo-textile filter cloth) shall be placed in locations depicted on the approved plans. The purpose of the silt fence is to reduce the velocity of sediment laden stormwater from small drainage areas and to intercept the transported sediment load. In general, silt fence shall be used at the toe of slopes or intermediately within slopes where obvious channel concentration of stormwater is not present.

Maintenance

Silt fencing shall be inspected at a minimum of once per week and prior to and within 48 hours following a rain event $\frac{1}{2}$ " or greater. Inspections shall include ensuring that the fence material is tightly secured to the woven wire and the wire is secured to the wood posts. In addition, overlapping filter fabric shall be secure and the fabric shall be maintained a minimum of six (6) inches below grade. In the event that any "bulges" develop in the fence, that section of fence shall be replaced within 48 hours with new fence section. Any sediment build-up against the fence shall be removed within 48 hours and deposited on-site a minimum of 100 feet outside of any wetland or watercourse.

- **INLET PROTECTION**

After driveway catch basins and surface inlets have been installed, these drain inlets will receive stormwater from the driveway, Temporary Diversion Swales and surrounding overland watersheds. In order to protect the receiving waters from sedimentation, the contractor shall install $\frac{3}{4}$ inch stone aggregate around the perimeter of all catch basins and surface inlets as illustrated on the approved plans. This barrier will allow stormwater to be filtered prior to reaching the basin inlet grate.

Maintenance

The stone aggregate shall be inspected weekly prior to and within 48 hours following a rain event $\frac{1}{2}$ " or greater. Care shall be taken to ensure that all stone aggregate are properly located and secure and do not become displaced. The stone aggregate shall be inspected for accumulated sediments and any accumulated sediment shall be removed from the device and deposited not less than 100 feet from wetland or watercourse.

- **TREE PROTECTION**

All significant trees to be preserved located within the limits of disturbance and on the perimeter of the disturbance limits shall be protected from harm by erecting a 3' high (minimum) snow fence completely surrounding the tree. Snow fence should extend to the drip-line of the tree to be preserved. Trees

designated to be protected shall be identified during the staking of the limits of disturbance for each construction phase.

Maintenance

The snow fence shall be inspected daily to ensure that the perimeter of the fence remains at the drip-line of the tree to be preserved. Any damaged portions of the fence shall be repaired or replaced within 48 hours. Care shall also be taken to ensure that no construction equipment is driven or parked within the drip-line of the tree to be preserved.

- **SOIL/SHOT ROCK STOCKPILING**

All soil and shot rock stripped from the construction area during grubbing and mass grading shall be stockpiled in locations approved by the Village's representative, but in no case shall they be placed within 100' of a wetland or watercourse. The stockpiled soils shall be re-used during finish-grading to provide a suitable growing medium for plant establishment. Soil stockpiles shall be protected from erosion by vegetating the stockpile with rapidly – germinating grass seed or covering the stockpile with tarpaulin and surrounding it with silt fence at toe of slope.

Maintenance

Sediment controls (silt fence) surrounding the stockpiles shall be inspected according to the recommended maintenance outline above. All stockpiles shall be inspected for signs of erosion or problems with seed establishment weekly and prior to and within 48 hours following a rain event ½" or greater.

- **GENERAL LAND GRADING**

The intent of the Erosion & Sediment Control Plan is to control disturbed areas such that soils are protected from erosion by temporary methods and, ultimately, by permanent vegetation. Where practicable, all cut and fill slopes shall be kept to a maximum slope of 2:1. In the event that a slope must exceed a 2:1 slope, it will be stabilized with stone riprap. On fill slopes, all material will be placed in layers not to exceed 12 inches in depth and adequately compacted. Where practicable, diversion swales shall be constructed on the top of all fill embankments to divert any overland flows away from the fill slopes.

- **SURFACE STABILIZATION**

All disturbed will be protected from erosion with the use of vegetative measures (i.e., grass seed mix, sod) hydromulch netting or hay. When activities temporarily cease during construction, soil stockpiles and exposed soil should be stabilized by seed, mulch or other appropriate measures as soon as possible, but in no case more than 14 days after construction activity

has ceased. All seeded areas will be re-seeded as necessary and mulch according to the site plan to maintain a vigorous, dense vegetative cover,

Erosion control barriers consisting of silt fencing shall be placed around exposed areas during construction. Where exposed areas are immediately uphill from a wetland or watercourse, the erosion control barrier will consist of double rows of silt fencing. Any areas stripped of vegetation during construction will be vegetated and/or mulch as soon as possible, but in no case more than 14 days to prevent erosion of the exposed soils. And topsoil removed during construction will be temporarily stockpiled for future use in grading and landscaping.

As mentioned above, temporary vegetation will be established to protect exposed soil areas during construction. If growing conditions are not suitable for the temporary vegetation, mulch will be used to the satisfaction of the Commissioner of Public Works. Materials that may be used for mulching include straw, hay, salt hay, wood fiber, synthetic soil stabilizers, mulch netting, sod or hydromulch. In site areas where significant erosion potential exists (steep slopes) and where specifically directed by the Village's representative, Curlex Excelsior erosion control blankets (manufactured by American Excelsior, or approved equal) shall be installed. A permanent vegetative cover will be established upon completion of construction of those areas that have been brought to finish-grade and to remain undisturbed.

- **DEWATERING**

Prevent surface water and subsurface or ground water from flowing into excavations and trenches. Pump out any accumulated water.

Do not allow water to accumulate in excavations or trenches. Remove water from all excavations immediately to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to the stability of subgrades and foundations. Furnish and maintain pumps, sumps, suction and discharge piping systems, and other system components necessary to convey the water away from the Site.

Convey water removed from excavations, and rain water, to collecting or run-off area. Cut and maintain temporary drainage ditches and provide other necessary diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.

Provide temporary controls to restrict the velocity of discharged water as necessary to prevent erosion and siltation of receiving areas.

CONSTRUCTION PRACTICES TO MINIMIZE STORMWATER CONTAMINATION

Adequate measures shall be taken to minimize contaminant particles arising from the discharge of solid materials, including building materials, grading operations, and the reclamation and placement of pavement, during project construction, including but not limited to:

- Building materials, garbage, and debris shall be cleaned up daily and deposited into dumpsters, which will be periodically removed from the site and appropriately disposed of.
- Dump trucks hauling material from the construction site will be covered with a tarpaulin.
- The paved street adjacent to the site entrance will be swept daily to remove excess mud, dirt, or rock tracked from the site.
- Petroleum products will be stored in tightly sealed containers that are clearly labeled.
- All vehicles on site will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.
- All spills will be cleaned up immediately upon discovery. Spills large enough to reach the storm system will be reported to the National Response Center at 1-800-424-8802.
- Materials and equipment necessary for spill cleanup will be kept in the temporary material storage trailer onsite. Equipment will include, but not be limited to, brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, saw dust, and plastic and metal trash containers.
- All paint containers and curing compounds will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm system, but will be properly disposed according to the manufacturer's instructions.
- Sanitary waste will be collected from portable units a minimum of two times a week to avoid overfilling.
- Any asphalt substances used on-site will be applied according to the manufacturer's recommendation.
- Fertilizers will be stored in a covered shed and partially used bags will be transferred to a sealable bin to avoid spills and will be applied only in the minimum amounts recommended by the manufacturer and worked into the soil to limit exposure to stormwater.

- No disturbed area shall be left un-stabilized for longer than 14 days during the growing season.
- When erosion is likely to be a problem, grubbing operations shall be scheduled and performed such that grading operations and permanent erosion control features can follow within 24 hours thereafter.
- As work progresses, patch seeding shall be done as required on areas previously treated to maintain or establish protective cover.
- Drainage pipes and swales/ditches shall generally be constructed in a sequence from outlet to inlet in order to stabilize outlet areas and ditches before water is directed to the new installation or any portion thereof, unless conditions unique to the location warrant an alternative method.

STORMWATER MANAGEMENT FACILITIES MAINTENANCE PROGRAM

The following maintenance plan has been developed to maintain the proper function of all drainage and erosion and sediment control facilities:

- Erosion & Sediment Control Maintenance:

During the construction of the project, the site erosion and sediment control measures as well as basin embankments and outlet structures will be inspected by the project superintendent once a week and/or within 24 hours following a rainstorm $\frac{1}{2}$ " or greater. Any repairs required shall be performed in a timely manner. All sediment removal and/or repairs will be followed within 24 hours by re-vegetation. Remove sediment and correct erosion by re-seed eroded areas and gullies within 7 days.

- General Stormwater Facilities Maintenance (Storm Sewer, Catch Basins/Drain Inlets, Manholes, Pre-treatment Device and Subsurface Infiltration System)

All stormwater facilities shall be inspected immediately after completion of construction, and then monthly for the first three (3) months following the completion of the Project. Within the first three (3) months, inspections shall immediately be performed following a large storm event (i.e. producing $\frac{1}{2}$ " (one-half inch) of rain or greater. Thereafter, these facilities shall be inspected as described as follows. Upon inspection, facilities shall be immediately maintained and/or cleaned as may be required. Any site areas exhibiting soil erosion of any kind shall be immediately restored and stabilized with vegetation, mulch or stone, depending on the area to be stabilized.

Upon each inspection, all visible debris including, but not limited to, twigs, leaf and forest litter shall be removed from the swales, overflow discharge points and frames and grates of drainage structures.

- Sumps – Catch Basin/Drain Inlets and Drain Manholes

All catch basin/drain inlets and drain manholes with sumps have been designed to trap sediment prior to its transport to the infiltration practice and, ultimately, downstream. These sumps will require periodic inspection and maintenance to ensure that adequate depth is maintained within the sumps.

All sumps shall be inspected once per month for the first three (3) months (after drainage system has been put into service). Thereafter, all sumps shall be inspected every four (4) months. The Owner, or their duly authorized representative, shall take measurements of the sump depth.

If sediment has accumulated to 1/2 (one-half) the depth of the sump, all sediment shall be removed from the sump. Sediments can be removed with hand-labor or with a vacuum truck.

The use of road salt shall be minimized for maintenance of roadway and driveway areas.

- Subsurface Exfiltration Gallery:

The subsurface infiltration chambers shall be inspected immediately after construction. Thereafter, the attenuation/exfiltration gallery shall be inspected every six (6) months (Spring and Fall) for excess sediment accumulation. During dry weather conditions, when sediment has accumulated to an average depth exceeding 3" (three inches), the gallery shall be water jetted clean, and all accumulated sediments shall be vacuumed out or removed manually. A stadia rod may be inserted to determine the depth of the sediment.

CONCLUSION

The stormwater management plan proposed meets all the requirements set forth by the Village of Irvington. Design modification requirements that may occur during the approval process will be performed and submitted for review to the Village of Irvington.

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	73.863 degrees West
Latitude	41.030 degrees North
Elevation	0 feet
Date/Time	Fri, 12 Apr 2019 14:39:38 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.33	0.51	0.63	0.82	1.03	1.29	1yr	0.89	1.23	1.48	1.84	2.27	2.81	3.20	1yr	2.49	3.08	3.57	4.29	4.93	1yr
2yr	0.40	0.62	0.77	1.01	1.27	1.59	2yr	1.10	1.49	1.83	2.26	2.78	3.42	3.85	2yr	3.03	3.70	4.26	5.06	5.73	2yr
5yr	0.47	0.73	0.92	1.23	1.57	1.99	5yr	1.36	1.84	2.29	2.84	3.49	4.28	4.87	5yr	3.79	4.69	5.44	6.33	7.09	5yr
10yr	0.53	0.83	1.05	1.42	1.85	2.35	10yr	1.59	2.16	2.72	3.38	4.15	5.07	5.82	10yr	4.49	5.60	6.54	7.51	8.33	10yr
25yr	0.61	0.98	1.24	1.72	2.29	2.94	25yr	1.97	2.68	3.42	4.26	5.23	6.35	7.38	25yr	5.62	7.10	8.36	9.41	10.31	25yr
50yr	0.70	1.12	1.43	2.01	2.70	3.49	50yr	2.33	3.16	4.07	5.07	6.21	7.53	8.83	50yr	6.66	8.49	10.06	11.16	12.13	50yr
100yr	0.79	1.28	1.65	2.33	3.18	4.15	100yr	2.75	3.72	4.85	6.04	7.39	8.94	10.57	100yr	7.91	10.17	12.12	13.24	14.26	100yr
200yr	0.90	1.46	1.90	2.72	3.76	4.93	200yr	3.24	4.39	5.77	7.19	8.79	10.61	12.67	200yr	9.39	12.18	14.61	15.72	16.78	200yr
500yr	1.07	1.77	2.30	3.34	4.68	6.19	500yr	4.04	5.47	7.26	9.06	11.07	13.34	16.09	500yr	11.80	15.47	18.71	19.73	20.83	500yr

Lower Confidence Limits

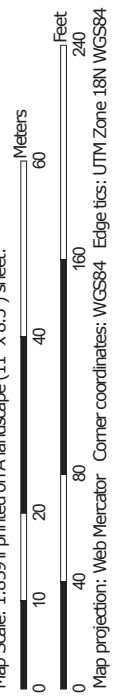
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.45	0.55	0.74	0.92	1.15	1yr	0.79	1.12	1.32	1.57	2.17	2.44	2.69	1yr	2.16	2.59	3.29	3.95	4.35	1yr
2yr	0.38	0.59	0.73	0.99	1.21	1.46	2yr	1.05	1.43	1.68	2.17	2.70	3.32	3.73	2yr	2.94	3.59	4.12	4.88	5.56	2yr
5yr	0.42	0.64	0.79	1.09	1.39	1.70	5yr	1.20	1.67	1.96	2.51	3.16	3.98	4.52	5yr	3.52	4.35	5.01	5.84	6.54	5yr
10yr	0.45	0.68	0.85	1.18	1.53	1.89	10yr	1.32	1.85	2.19	2.75	3.56	4.56	5.22	10yr	4.04	5.02	5.77	6.61	7.26	10yr
25yr	0.48	0.73	0.91	1.30	1.71	2.16	25yr	1.48	2.12	2.54	3.08	4.17	5.50	6.30	25yr	4.87	6.06	6.92	7.86	8.28	25yr
50yr	0.51	0.77	0.96	1.38	1.85	2.39	50yr	1.60	2.33	2.84	3.33	4.70	6.33	7.26	50yr	5.60	6.98	7.91	8.95	9.07	50yr
100yr	0.53	0.80	1.01	1.46	2.00	2.62	100yr	1.72	2.56	3.17	3.58	5.26	7.31	8.37	100yr	6.47	8.05	9.08	10.19	9.88	100yr
200yr	0.55	0.82	1.04	1.51	2.11	2.85	200yr	1.82	2.79	3.55	3.81	5.93	8.47	9.66	200yr	7.49	9.29	10.39	11.59	10.69	200yr
500yr	0.57	0.85	1.09	1.59	2.26	3.19	500yr	1.95	3.12	4.12	4.08	6.96	10.29	11.60	500yr	9.10	11.15	12.40	13.73	11.78	500yr

Upper Confidence Limits

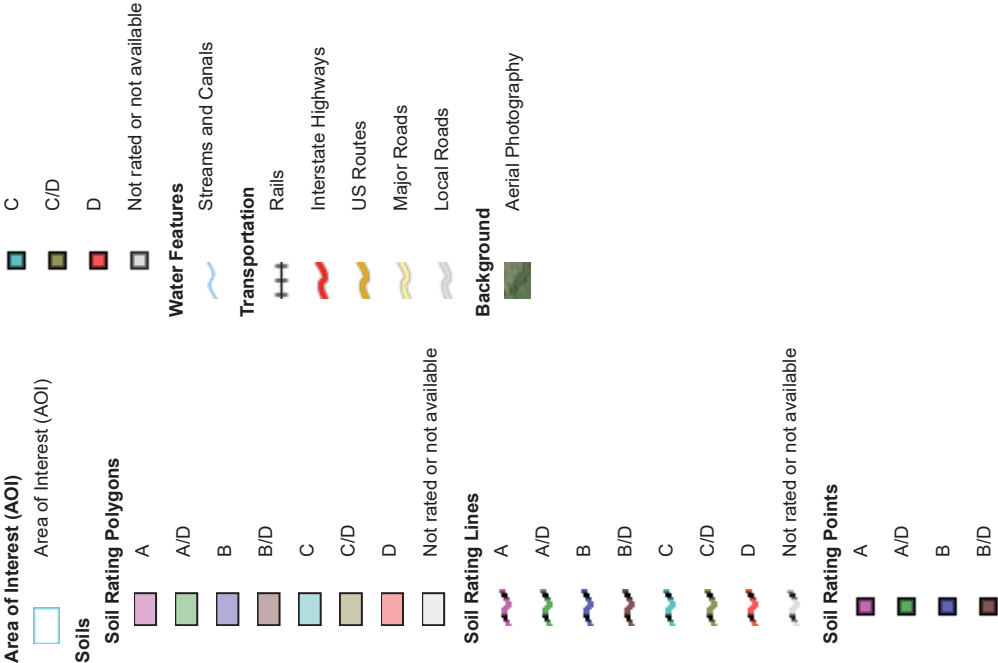
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.37	0.58	0.71	0.95	1.17	1.38	1yr	1.01	1.35	1.61	2.12	2.50	3.02	3.49	1yr	2.68	3.35	3.87	4.62	5.24	1yr
2yr	0.42	0.65	0.80	1.08	1.33	1.60	2yr	1.15	1.57	1.82	2.37	2.90	3.55	3.99	2yr	3.14	3.84	4.45	5.24	6.04	2yr
5yr	0.52	0.81	1.00	1.37	1.75	2.04	5yr	1.51	2.00	2.36	3.06	3.81	4.60	5.26	5yr	4.07	5.05	5.85	6.81	7.61	5yr
10yr	0.63	0.97	1.20	1.68	2.17	2.48	10yr	1.88	2.43	2.88	3.73	4.67	5.60	6.50	10yr	4.96	6.25	7.25	8.40	9.31	10yr
25yr	0.82	1.25	1.55	2.21	2.91	3.23	25yr	2.51	3.16	3.76	4.94	6.14	7.25	8.60	25yr	6.41	8.27	9.63	11.04	12.06	25yr
50yr	1.00	1.52	1.89	2.72	3.66	3.97	50yr	3.16	3.88	4.61	6.11	7.53	8.81	10.64	50yr	7.80	10.23	11.96	13.56	14.69	50yr
100yr	1.23	1.86	2.33	3.37	4.62	4.87	100yr	3.98	4.76	5.66	7.60	9.27	10.72	13.18	100yr	9.49	12.68	14.89	16.67	17.93	100yr
200yr	1.52	2.29	2.90	4.19	5.85	5.98	200yr	5.05	5.85	6.95	9.49	11.40	13.03	16.32	200yr	11.54	15.69	18.55	20.50	21.90	200yr
500yr	2.04	3.03	3.90	5.67	8.06	7.89	500yr	6.96	7.71	9.13	12.79	15.01	16.86	21.67	500yr	14.92	20.84	24.83	26.96	28.59	500yr



Map Scale: 1:859 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York

Survey Area Data: Version 14, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 21, 2014—Aug 27, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
LcB	Leicester loam, 3 to 8 percent slopes, stony	A/D	2.8	87.2%
SuB	Sutton loam, 3 to 8 percent slopes	B/D	0.4	11.7%
UrB	Urban land-Ridgebury complex, 0 to 8 percent slopes	D	0.0	1.1%
Totals for Area of Interest			3.2	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

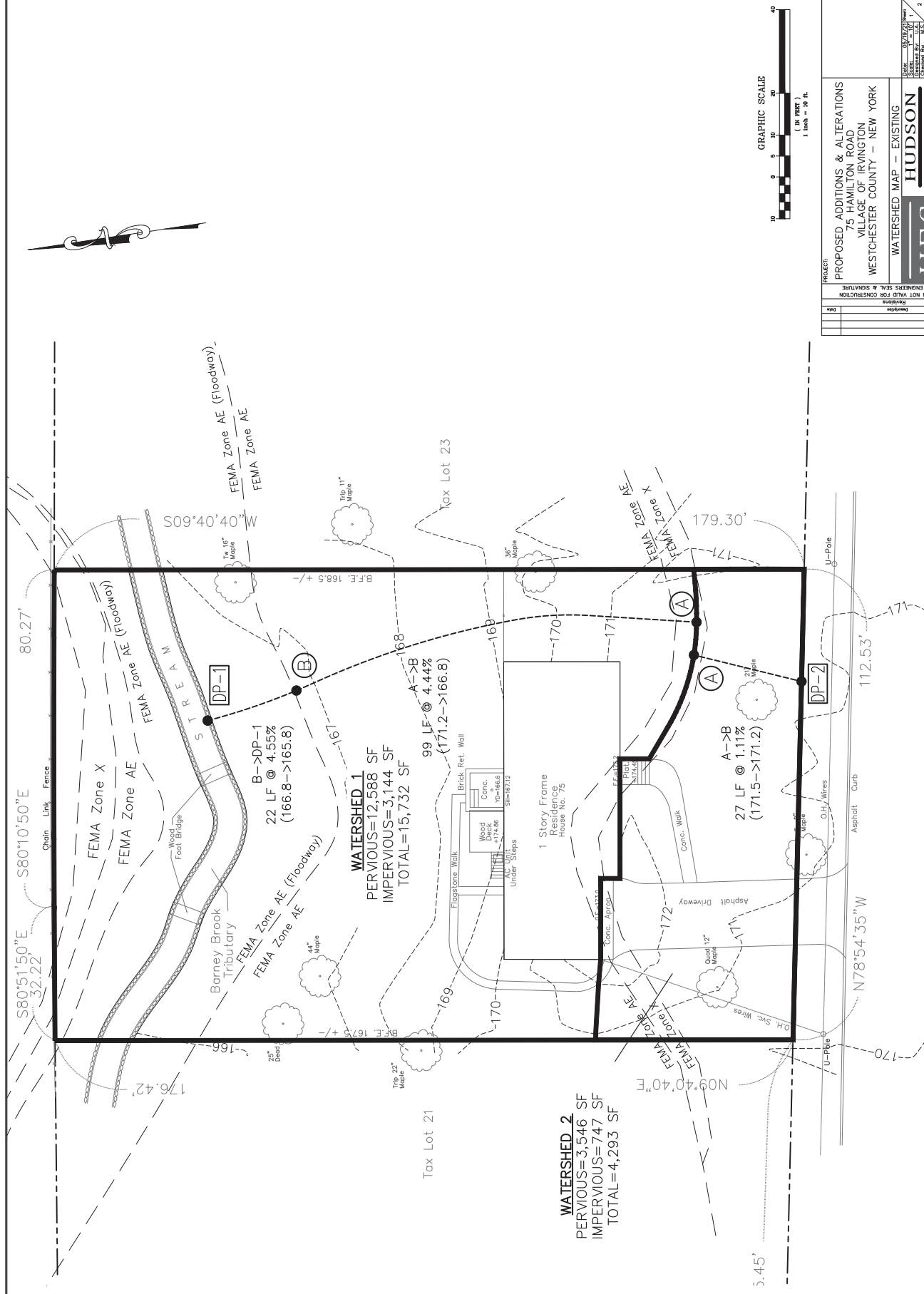
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

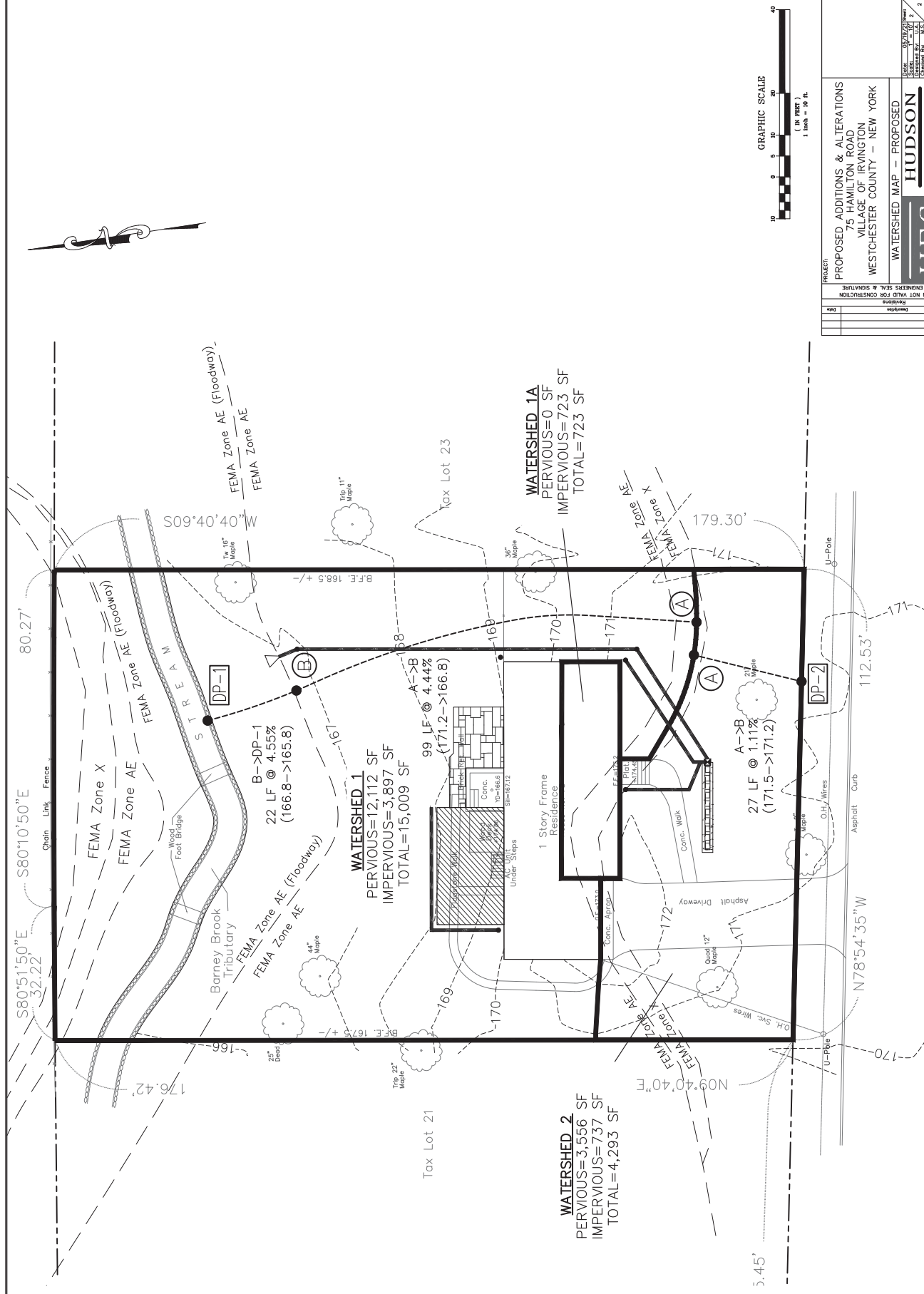
Component Percent Cutoff: None Specified


Tie-break Rule: Higher



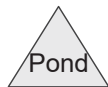
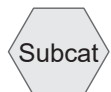
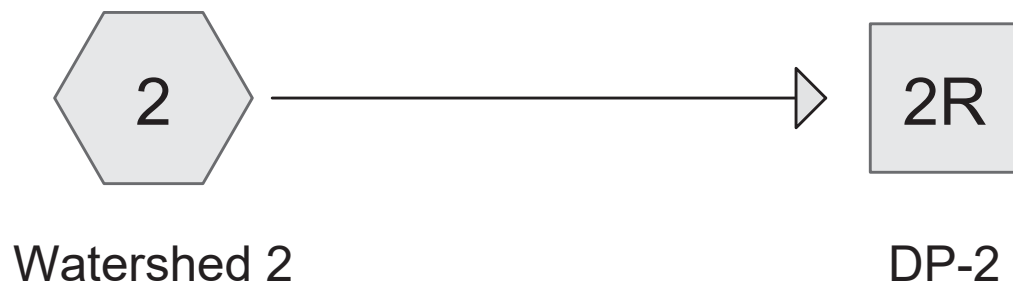
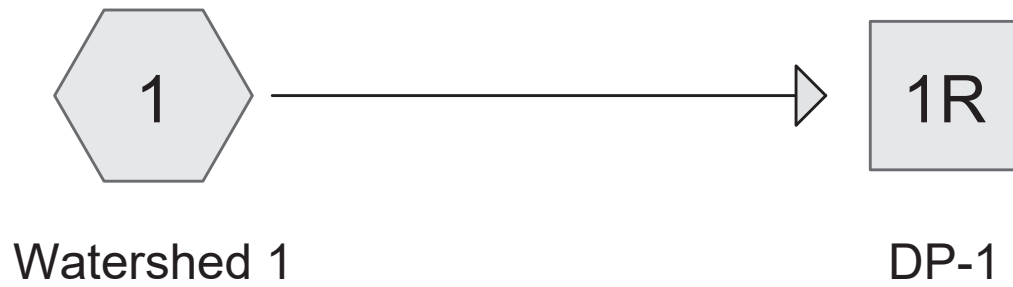
No.	Designation	Date	Sheet No.	2
<p>PROJECT: PROPOSED ADDITIONS & ALTERATIONS 75 HAMILTON ROAD VILLAGE OF IRVINGTON WESTCHESTER COUNTY - NEW YORK</p>		<p>Drawn By: C. J. F. / J. S. / J. S. / J. S. Checked By: J. S. / J. S. / J. S. / J. S. Reviewed By: J. S. / J. S. / J. S. / J. S.</p>	<p>WS-1</p>	
<p>WITHOUT ENGINEERS SEAL & SIGNATURE</p>		<p>THIS PLAN NOT VALID FOR CONSTRUCTION</p>		
<p>HEC</p>		<p>HUDSON ENGINEERING CONSULTING, P.C. 40 E. 10th Street, 10th Floor New York, N.Y. 10003 Tel: 212-691-1000 Fax: 212-691-1001</p>		
<p>WATERSHED MAP - EXISTING</p>		<p>© 2021</p>		

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.



PROJECT	PROPOSED ADDITIONS & ALTERATIONS 75 HAMILTON ROAD VILLAGE OF IRVINGTON WESTCHESTER COUNTY - NEW YORK
DESCRIPTION	WATERSHED MAP - PROPOSED
DATE	DATE: 02/17/2019 DRAWN BY: J.A. CHECKED BY: J.A. SCALE: 1"=100'
NO.	SHEET NO. 2
	
<p>THIS PLAN WAS NOT MADE FOR CONSTRUCTION WITHOUT ENGINEER'S SEAL & SIGNATURE</p>	

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.



Existing Condition - 2021-05-17

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Type III 24-hr 1-Year Rainfall=2.81"

Printed 8/4/2021

Page 2

Summary for Subcatchment 1: Watershed 1

Runoff = 0.55 cfs @ 12.10 hrs, Volume= 1,785 cf, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.81"

	Area (sf)	CN	Description
*	1,887	98	Existing Dwelling
*	270	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,588	80	>75% Grass cover, Good, HSG D
	15,732	84	Weighted Average
	12,588		80.02% Pervious Area
	3,144		19.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B
					Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1
					Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 2: Watershed 2

Runoff = 0.16 cfs @ 12.07 hrs, Volume= 463 cf, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.81"

	Area (sf)	CN	Description
*	747	98	Existing Driveway, Walk and Platform
	3,546	80	>75% Grass cover, Good, HSG D
	4,293	83	Weighted Average
	3,546		82.60% Pervious Area
	747		17.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2
					n= 0.150 P2= 3.50"

Summary for Reach 1R: DP-1

Inflow Area = 15,732 sf, 19.98% Impervious, Inflow Depth = 1.36" for 1-Year event

Inflow = 0.55 cfs @ 12.10 hrs, Volume= 1,785 cf

Outflow = 0.55 cfs @ 12.10 hrs, Volume= 1,785 cf, Atten= 0%, Lag= 0.0 min

Existing Condition - 2021-05-17*Type III 24-hr 1-Year Rainfall=2.81"*

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Page 3

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DP-2

Inflow Area = 4,293 sf, 17.40% Impervious, Inflow Depth = 1.30" for 1-Year event

Inflow = 0.16 cfs @ 12.07 hrs, Volume= 463 cf

Outflow = 0.16 cfs @ 12.07 hrs, Volume= 463 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Existing Condition - 2021-05-17

Type III 24-hr 10-Year Rainfall=5.07"

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Page 4

Summary for Subcatchment 1: Watershed 1

Runoff = 1.35 cfs @ 12.10 hrs, Volume= 4,372 cf, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.07"

	Area (sf)	CN	Description
*	1,887	98	Existing Dwelling
*	270	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,588	80	>75% Grass cover, Good, HSG D
	15,732	84	Weighted Average
	12,588		80.02% Pervious Area
	3,144		19.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B
					Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1
					Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 2: Watershed 2

Runoff = 0.40 cfs @ 12.06 hrs, Volume= 1,158 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.07"

	Area (sf)	CN	Description
*	747	98	Existing Driveway, Walk and Platform
	3,546	80	>75% Grass cover, Good, HSG D
	4,293	83	Weighted Average
	3,546		82.60% Pervious Area
	747		17.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2
					n= 0.150 P2= 3.50"

Summary for Reach 1R: DP-1

Inflow Area = 15,732 sf, 19.98% Impervious, Inflow Depth = 3.33" for 10-Year event
 Inflow = 1.35 cfs @ 12.10 hrs, Volume= 4,372 cf
 Outflow = 1.35 cfs @ 12.10 hrs, Volume= 4,372 cf, Atten= 0%, Lag= 0.0 min

Existing Condition - 2021-05-17*Type III 24-hr 10-Year Rainfall=5.07"*

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Page 5

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DP-2

Inflow Area = 4,293 sf, 17.40% Impervious, Inflow Depth = 3.24" for 10-Year event

Inflow = 0.40 cfs @ 12.06 hrs, Volume= 1,158 cf

Outflow = 0.40 cfs @ 12.06 hrs, Volume= 1,158 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Existing Condition - 2021-05-17

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Type III 24-hr 25-Year Rainfall=6.35"

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Page 6

Summary for Subcatchment 1: Watershed 1

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 5,932 cf, Depth= 4.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	1,887	98	Existing Dwelling
*	270	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,588	80	>75% Grass cover, Good, HSG D
	15,732	84	Weighted Average
	12,588		80.02% Pervious Area
	3,144		19.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B
					Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1
					Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 2: Watershed 2

Runoff = 0.54 cfs @ 12.06 hrs, Volume= 1,580 cf, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	747	98	Existing Driveway, Walk and Platform
	3,546	80	>75% Grass cover, Good, HSG D
	4,293	83	Weighted Average
	3,546		82.60% Pervious Area
	747		17.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2
					n= 0.150 P2= 3.50"

Summary for Reach 1R: DP-1

Inflow Area = 15,732 sf, 19.98% Impervious, Inflow Depth = 4.53" for 25-Year event
 Inflow = 1.82 cfs @ 12.10 hrs, Volume= 5,932 cf
 Outflow = 1.82 cfs @ 12.10 hrs, Volume= 5,932 cf, Atten= 0%, Lag= 0.0 min

Existing Condition - 2021-05-17*Type III 24-hr 25-Year Rainfall=6.35"*

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Page 7

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: DP-2

Inflow Area = 4,293 sf, 17.40% Impervious, Inflow Depth = 4.42" for 25-Year event

Inflow = 0.54 cfs @ 12.06 hrs, Volume= 1,580 cf

Outflow = 0.54 cfs @ 12.06 hrs, Volume= 1,580 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Existing Condition - 2021-05-17

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Type III 24-hr 100-Year Rainfall=8.94"

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Page 8

Summary for Subcatchment 1: Watershed 1

Runoff = 2.76 cfs @ 12.10 hrs, Volume= 9,178 cf, Depth= 7.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.94"

	Area (sf)	CN	Description
*	1,887	98	Existing Dwelling
*	270	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,588	80	>75% Grass cover, Good, HSG D
	15,732	84	Weighted Average
	12,588		80.02% Pervious Area
	3,144		19.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B
					Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1
					Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 2: Watershed 2

Runoff = 0.82 cfs @ 12.06 hrs, Volume= 2,461 cf, Depth= 6.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.94"

	Area (sf)	CN	Description
*	747	98	Existing Driveway, Walk and Platform
	3,546	80	>75% Grass cover, Good, HSG D
	4,293	83	Weighted Average
	3,546		82.60% Pervious Area
	747		17.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2
					n= 0.150 P2= 3.50"

Summary for Reach 1R: DP-1

Inflow Area = 15,732 sf, 19.98% Impervious, Inflow Depth = 7.00" for 100-Year event
 Inflow = 2.76 cfs @ 12.10 hrs, Volume= 9,178 cf
 Outflow = 2.76 cfs @ 12.10 hrs, Volume= 9,178 cf, Atten= 0%, Lag= 0.0 min

Existing Condition - 2021-05-17*Type III 24-hr 100-Year Rainfall=8.94"*

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Page 9

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

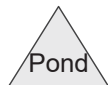
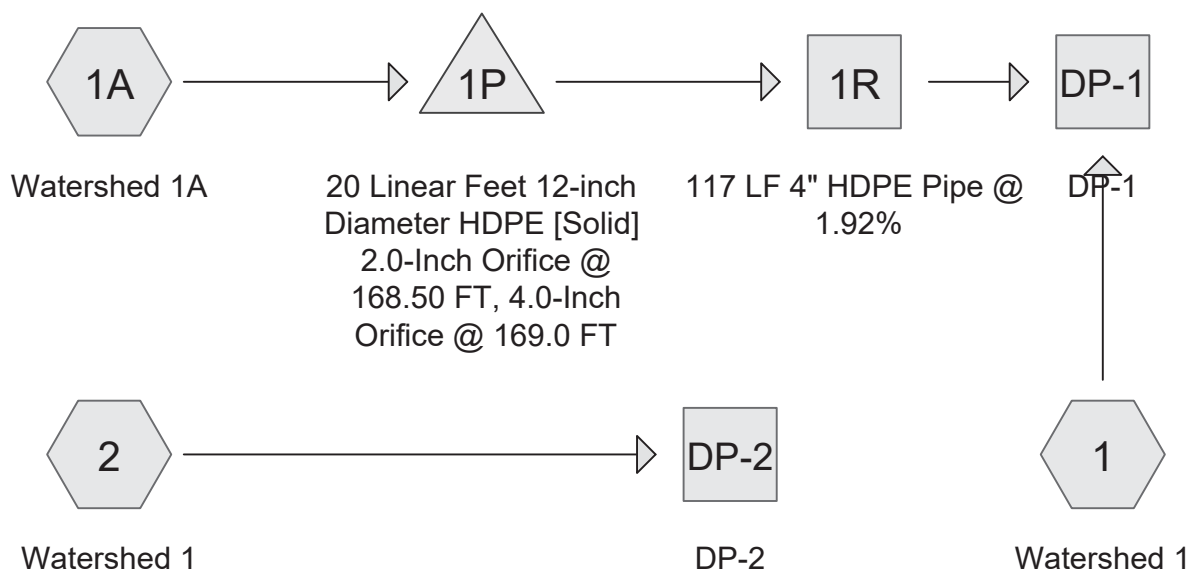
Summary for Reach 2R: DP-2

Inflow Area = 4,293 sf, 17.40% Impervious, Inflow Depth = 6.88" for 100-Year event

Inflow = 0.82 cfs @ 12.06 hrs, Volume= 2,461 cf

Outflow = 0.82 cfs @ 12.06 hrs, Volume= 2,461 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs



Routing Diagram for Proposed Condition - 2021-08-03
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Proposed Condition - 2021-08-03

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Type III 24-hr 1-Year Rainfall=2.81"

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Page 2

Summary for Subcatchment 1: Watershed 1

Runoff = 0.50 cfs @ 12.10 hrs, Volume= 1,620 cf, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.81"

	Area (sf)	CN	Description
*	1,164	98	Portion of existing dwelling
*	83	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,112	80	>75% Grass cover, Good, HSG D
*	215	98	Proposed Patio
*	448	98	Proposed Addition
	15,009	83	Weighted Average
	12,112		80.70% Pervious Area
	2,897		19.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1 Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 1A: Watershed 1A

Runoff = 0.05 cfs @ 12.01 hrs, Volume= 155 cf, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.81"

	Area (sf)	CN	Description
*	723	98	Front portion of existing dwelling
	723		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0					Direct Entry, Direct Entry

Summary for Subcatchment 2: Watershed 1

Runoff = 0.16 cfs @ 12.07 hrs, Volume= 463 cf, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.81"

Proposed Condition - 2021-08-03

Type III 24-hr 1-Year Rainfall=2.81"

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Page 3

Area (sf)	CN	Description
* 737	98	Existing Driveway, Walk and Platform
3,556	80	>75% Grass cover, Good, HSG D
4,293	83	Weighted Average
3,556		82.83% Pervious Area
737		17.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2 n= 0.150 P2= 3.50"

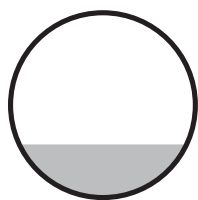
Summary for Reach 1R: 117 LF 4" HDPE Pipe @ 1.92%

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 2.58" for 1-Year event
 Inflow = 0.05 cfs @ 12.04 hrs, Volume= 155 cf
 Outflow = 0.05 cfs @ 12.07 hrs, Volume= 155 cf, Atten= 1%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.29 fps, Min. Travel Time= 0.9 min
 Avg. Velocity= 0.74 fps, Avg. Travel Time= 2.6 min

Peak Storage= 2 cf @ 12.05 hrs
 Average Depth at Peak Storage= 0.10'
 Bank-Full Depth= 0.33' Flow Area= 0.1 sf, Capacity= 0.26 cfs

4.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 117.0' Slope= 0.0192 '/
 Inlet Invert= 168.50', Outlet Invert= 166.25'

**Summary for Reach DP-1: DP-1**

Inflow Area = 15,732 sf, 23.01% Impervious, Inflow Depth = 1.35" for 1-Year event
 Inflow = 0.54 cfs @ 12.10 hrs, Volume= 1,775 cf
 Outflow = 0.54 cfs @ 12.10 hrs, Volume= 1,775 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Proposed Condition - 2021-08-03

Type III 24-hr 1-Year Rainfall=2.81"

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Page 4

Summary for Reach DP-2: DP-2

Inflow Area = 4,293 sf, 17.17% Impervious, Inflow Depth = 1.30" for 1-Year event
 Inflow = 0.16 cfs @ 12.07 hrs, Volume= 463 cf
 Outflow = 0.16 cfs @ 12.07 hrs, Volume= 463 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

for Pond 1P: 20 Linear Feet 12-inch Diameter HDPE [Solid] 2.0-Inch Orifice @ 168.50 FT, 4.0-Inch Orifice

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 2.58" for 1-Year event
 Inflow = 0.05 cfs @ 12.01 hrs, Volume= 155 cf
 Outflow = 0.05 cfs @ 12.04 hrs, Volume= 155 cf, Atten= 11%, Lag= 1.5 min
 Primary = 0.05 cfs @ 12.04 hrs, Volume= 155 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Peak Elev= 168.79' @ 12.04 hrs Surf.Area= 18 sf Storage= 4 cf

Plug-Flow detention time= 1.3 min calculated for 155 cf (100% of inflow)
 Center-of-Mass det. time= 1.3 min (755.8 - 754.6)

Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	16 cf	12.0" Round Pipe Storage L= 20.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.50'	2.0" Vert. Orifice/Grate C= 0.600
#2	Primary	169.00'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.05 cfs @ 12.04 hrs HW=168.79' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.05 cfs @ 2.18 fps)
2=Orifice/Grate (Controls 0.00 cfs)

Proposed Condition - 2021-08-03

Type III 24-hr 10-Year Rainfall=5.07"

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Page 5

Summary for Subcatchment 1: Watershed 1

Runoff = 1.26 cfs @ 12.10 hrs, Volume= 4,049 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.07"

	Area (sf)	CN	Description
*	1,164	98	Portion of existing dwelling
*	83	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,112	80	>75% Grass cover, Good, HSG D
*	215	98	Proposed Patio
*	448	98	Proposed Addition
	15,009	83	Weighted Average
	12,112		80.70% Pervious Area
	2,897		19.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1 Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 1A: Watershed 1A

Runoff = 0.10 cfs @ 12.01 hrs, Volume= 291 cf, Depth= 4.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.07"

	Area (sf)	CN	Description
*	723	98	Front portion of existing dwelling
	723		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0					Direct Entry, Direct Entry

Summary for Subcatchment 2: Watershed 1

Runoff = 0.40 cfs @ 12.06 hrs, Volume= 1,158 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.07"

Proposed Condition - 2021-08-03

Type III 24-hr 10-Year Rainfall=5.07"

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Page 6

Area (sf)	CN	Description
* 737	98	Existing Driveway, Walk and Platform
3,556	80	>75% Grass cover, Good, HSG D
4,293	83	Weighted Average
3,556		82.83% Pervious Area
737		17.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2 n= 0.150 P2= 3.50"

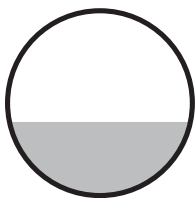
Summary for Reach 1R: 117 LF 4" HDPE Pipe @ 1.92%

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 4.83" for 10-Year event
 Inflow = 0.09 cfs @ 12.04 hrs, Volume= 291 cf
 Outflow = 0.09 cfs @ 12.06 hrs, Volume= 291 cf, Atten= 2%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.72 fps, Min. Travel Time= 0.7 min
 Avg. Velocity= 0.89 fps, Avg. Travel Time= 2.2 min

Peak Storage= 4 cf @ 12.05 hrs
 Average Depth at Peak Storage= 0.13'
 Bank-Full Depth= 0.33' Flow Area= 0.1 sf, Capacity= 0.26 cfs

4.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 117.0' Slope= 0.0192 '/
 Inlet Invert= 168.50', Outlet Invert= 166.25'

**Summary for Reach DP-1: DP-1**

Inflow Area = 15,732 sf, 23.01% Impervious, Inflow Depth = 3.31" for 10-Year event
 Inflow = 1.33 cfs @ 12.10 hrs, Volume= 4,340 cf
 Outflow = 1.33 cfs @ 12.10 hrs, Volume= 4,340 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Proposed Condition - 2021-08-03

Type III 24-hr 10-Year Rainfall=5.07"

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Page 7

Summary for Reach DP-2: DP-2

Inflow Area = 4,293 sf, 17.17% Impervious, Inflow Depth = 3.24" for 10-Year event
 Inflow = 0.40 cfs @ 12.06 hrs, Volume= 1,158 cf
 Outflow = 0.40 cfs @ 12.06 hrs, Volume= 1,158 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

for Pond 1P: 20 Linear Feet 12-inch Diameter HDPE [Solid] 2.0-Inch Orifice @ 168.50 FT, 4.0-Inch Orifice

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 4.83" for 10-Year event
 Inflow = 0.10 cfs @ 12.01 hrs, Volume= 291 cf
 Outflow = 0.09 cfs @ 12.04 hrs, Volume= 291 cf, Atten= 9%, Lag= 1.3 min
 Primary = 0.09 cfs @ 12.04 hrs, Volume= 291 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Peak Elev= 169.08' @ 12.04 hrs Surf.Area= 20 sf Storage= 9 cf

Plug-Flow detention time= 1.3 min calculated for 291 cf (100% of inflow)

Center-of-Mass det. time= 1.3 min (744.4 - 743.2)

Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	16 cf	12.0" Round Pipe Storage L= 20.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.50'	2.0" Vert. Orifice/Grate C= 0.600
#2	Primary	169.00'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.09 cfs @ 12.04 hrs HW=169.08' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.07 cfs @ 3.39 fps)

2=Orifice/Grate (Orifice Controls 0.02 cfs @ 0.96 fps)

Proposed Condition - 2021-08-03

Type III 24-hr 25-Year Rainfall=6.35"

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Page 8

Summary for Subcatchment 1: Watershed 1

Runoff = 1.70 cfs @ 12.10 hrs, Volume= 5,525 cf, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	1,164	98	Portion of existing dwelling
*	83	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,112	80	>75% Grass cover, Good, HSG D
*	215	98	Proposed Patio
*	448	98	Proposed Addition
	15,009	83	Weighted Average
	12,112		80.70% Pervious Area
	2,897		19.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1 Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 1A: Watershed 1A

Runoff = 0.12 cfs @ 12.01 hrs, Volume= 368 cf, Depth= 6.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	723	98	Front portion of existing dwelling
	723		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0					Direct Entry, Direct Entry

Summary for Subcatchment 2: Watershed 1

Runoff = 0.54 cfs @ 12.06 hrs, Volume= 1,580 cf, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

Proposed Condition - 2021-08-03

Type III 24-hr 25-Year Rainfall=6.35"

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Page 9

Area (sf)	CN	Description
* 737	98	Existing Driveway, Walk and Platform
3,556	80	>75% Grass cover, Good, HSG D
4,293	83	Weighted Average
3,556		82.83% Pervious Area
737		17.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2 n= 0.150 P2= 3.50"

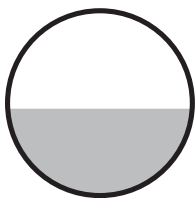
Summary for Reach 1R: 117 LF 4" HDPE Pipe @ 1.92%

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 6.11" for 25-Year event
 Inflow = 0.12 cfs @ 12.02 hrs, Volume= 368 cf
 Outflow = 0.12 cfs @ 12.04 hrs, Volume= 368 cf, Atten= 2%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.94 fps, Min. Travel Time= 0.7 min
 Avg. Velocity= 0.96 fps, Avg. Travel Time= 2.0 min

Peak Storage= 5 cf @ 12.03 hrs
 Average Depth at Peak Storage= 0.16'
 Bank-Full Depth= 0.33' Flow Area= 0.1 sf, Capacity= 0.26 cfs

4.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 117.0' Slope= 0.0192 '/
 Inlet Invert= 168.50', Outlet Invert= 166.25'

**Summary for Reach DP-1: DP-1**

Inflow Area = 15,732 sf, 23.01% Impervious, Inflow Depth = 4.50" for 25-Year event
 Inflow = 1.79 cfs @ 12.10 hrs, Volume= 5,893 cf
 Outflow = 1.79 cfs @ 12.10 hrs, Volume= 5,893 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Proposed Condition - 2021-08-03

Type III 24-hr 25-Year Rainfall=6.35"

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Page 10

Summary for Reach DP-2: DP-2

Inflow Area = 4,293 sf, 17.17% Impervious, Inflow Depth = 4.42" for 25-Year event
 Inflow = 0.54 cfs @ 12.06 hrs, Volume= 1,580 cf
 Outflow = 0.54 cfs @ 12.06 hrs, Volume= 1,580 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

for Pond 1P: 20 Linear Feet 12-inch Diameter HDPE [Solid] 2.0-Inch Orifice @ 168.50 FT, 4.0-Inch Orifice

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 6.11" for 25-Year event
 Inflow = 0.12 cfs @ 12.01 hrs, Volume= 368 cf
 Outflow = 0.12 cfs @ 12.02 hrs, Volume= 368 cf, Atten= 2%, Lag= 0.6 min
 Primary = 0.12 cfs @ 12.02 hrs, Volume= 368 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Peak Elev= 169.14' @ 12.02 hrs Surf.Area= 19 sf Storage= 11 cf

Plug-Flow detention time= 1.3 min calculated for 368 cf (100% of inflow)

Center-of-Mass det. time= 1.3 min (741.0 - 739.7)

Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	16 cf	12.0" Round Pipe Storage L= 20.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.50'	2.0" Vert. Orifice/Grate C= 0.600
#2	Primary	169.00'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.12 cfs @ 12.02 hrs HW=169.14' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.08 cfs @ 3.58 fps)

2=Orifice/Grate (Orifice Controls 0.04 cfs @ 1.25 fps)

Proposed Condition - 2021-08-03

Type III 24-hr 100-Year Rainfall=8.94"

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Page 11

Summary for Subcatchment 1: Watershed 1

Runoff = 2.59 cfs @ 12.10 hrs, Volume= 8,604 cf, Depth= 6.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.94"

	Area (sf)	CN	Description
*	1,164	98	Portion of existing dwelling
*	83	98	Existing Concrete Pad and Walk
*	987	98	Existing Stream and Walls
	12,112	80	>75% Grass cover, Good, HSG D
*	215	98	Proposed Patio
*	448	98	Proposed Addition
	15,009	83	Weighted Average
	12,112		80.70% Pervious Area
	2,897		19.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	99	0.0444	0.24		Sheet Flow, A->B Grass: Short n= 0.150 P2= 3.50"
0.2	22	0.0455	1.49		Shallow Concentrated Flow, B->DP-1 Short Grass Pasture Kv= 7.0 fps
7.0	121	Total			

Summary for Subcatchment 1A: Watershed 1A

Runoff = 0.17 cfs @ 12.01 hrs, Volume= 524 cf, Depth= 8.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.94"

	Area (sf)	CN	Description
*	723	98	Front portion of existing dwelling
	723		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0					Direct Entry, Direct Entry

Summary for Subcatchment 2: Watershed 1

Runoff = 0.82 cfs @ 12.06 hrs, Volume= 2,461 cf, Depth= 6.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.94"

Proposed Condition - 2021-08-03

Type III 24-hr 100-Year Rainfall=8.94"

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Page 12

Area (sf)	CN	Description
* 737	98	Existing Driveway, Walk and Platform
3,556	80	>75% Grass cover, Good, HSG D
4,293	83	Weighted Average
3,556		82.83% Pervious Area
737		17.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	27	0.0111	0.11		Sheet Flow, A->DP-2 n= 0.150 P2= 3.50"

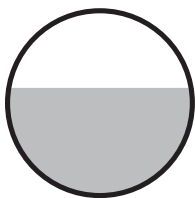
Summary for Reach 1R: 117 LF 4" HDPE Pipe @ 1.92%

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 8.70" for 100-Year event
 Inflow = 0.17 cfs @ 12.02 hrs, Volume= 524 cf
 Outflow = 0.17 cfs @ 12.04 hrs, Volume= 524 cf, Atten= 1%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.21 fps, Min. Travel Time= 0.6 min
 Avg. Velocity= 1.06 fps, Avg. Travel Time= 1.8 min

Peak Storage= 6 cf @ 12.03 hrs
 Average Depth at Peak Storage= 0.19'
 Bank-Full Depth= 0.33' Flow Area= 0.1 sf, Capacity= 0.26 cfs

4.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 117.0' Slope= 0.0192 '/
 Inlet Invert= 168.50', Outlet Invert= 166.25'

**Summary for Reach DP-1: DP-1**

Inflow Area = 15,732 sf, 23.01% Impervious, Inflow Depth = 6.96" for 100-Year event
 Inflow = 2.72 cfs @ 12.09 hrs, Volume= 9,128 cf
 Outflow = 2.72 cfs @ 12.09 hrs, Volume= 9,128 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Proposed Condition - 2021-08-03

Type III 24-hr 100-Year Rainfall=8.94"

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Page 13

Summary for Reach DP-2: DP-2

Inflow Area = 4,293 sf, 17.17% Impervious, Inflow Depth = 6.88" for 100-Year event
 Inflow = 0.82 cfs @ 12.06 hrs, Volume= 2,461 cf
 Outflow = 0.82 cfs @ 12.06 hrs, Volume= 2,461 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

for Pond 1P: 20 Linear Feet 12-inch Diameter HDPE [Solid] 2.0-Inch Orifice @ 168.50 FT, 4.0-Inch Orifice

Inflow Area = 723 sf, 100.00% Impervious, Inflow Depth = 8.70" for 100-Year event
 Inflow = 0.17 cfs @ 12.01 hrs, Volume= 524 cf
 Outflow = 0.17 cfs @ 12.02 hrs, Volume= 524 cf, Atten= 1%, Lag= 0.4 min
 Primary = 0.17 cfs @ 12.02 hrs, Volume= 524 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Peak Elev= 169.21' @ 12.02 hrs Surf.Area= 18 sf Storage= 12 cf

Plug-Flow detention time= 1.3 min calculated for 524 cf (100% of inflow)

Center-of-Mass det. time= 1.3 min (736.5 - 735.2)

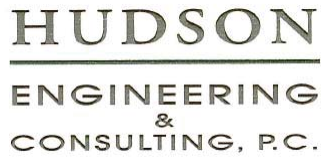
Volume	Invert	Avail.Storage	Storage Description
#1	168.50'	16 cf	12.0" Round Pipe Storage L= 20.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.50'	2.0" Vert. Orifice/Grate C= 0.600
#2	Primary	169.00'	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.17 cfs @ 12.02 hrs HW=169.21' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.08 cfs @ 3.80 fps)

2=Orifice/Grate (Orifice Controls 0.09 cfs @ 1.55 fps)



WITNESSED BY: Michael Frugis



HUDSON
ENGINEERING
&
CONSULTING, P.C.

SITE ADDRESS: 75 Hamilton Road

TOWN/VILLAGE: Irvington

DATE: 04/10/2019 TIME: 10:30 AM

WEATHER: Partly Cloudy TEMP. 47° F

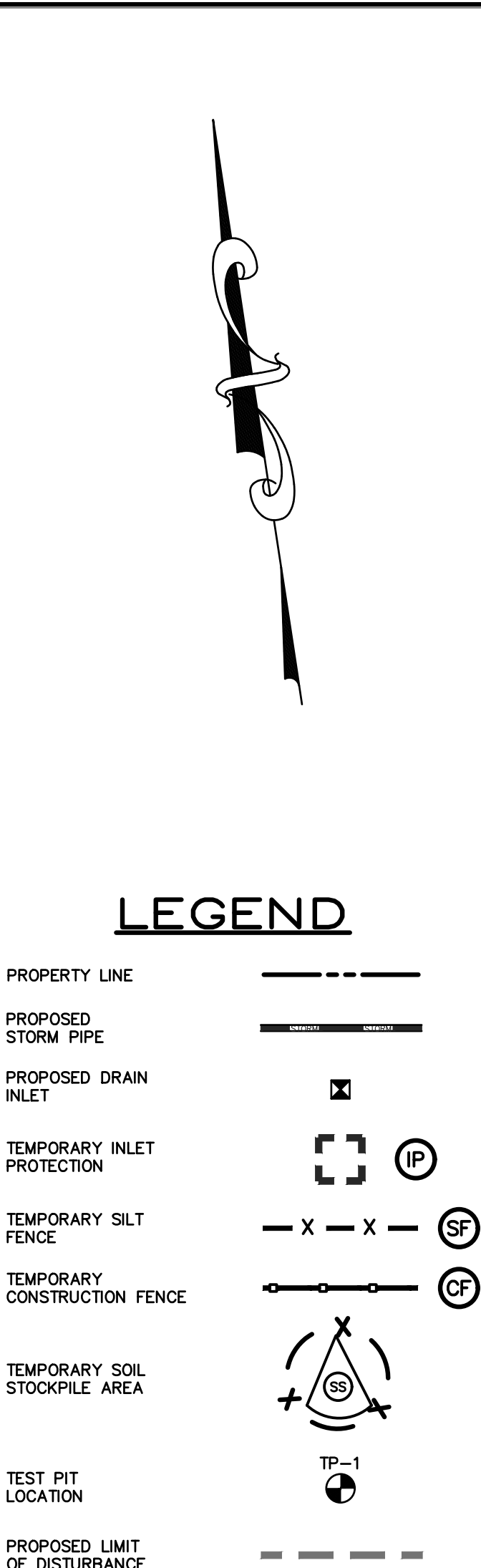
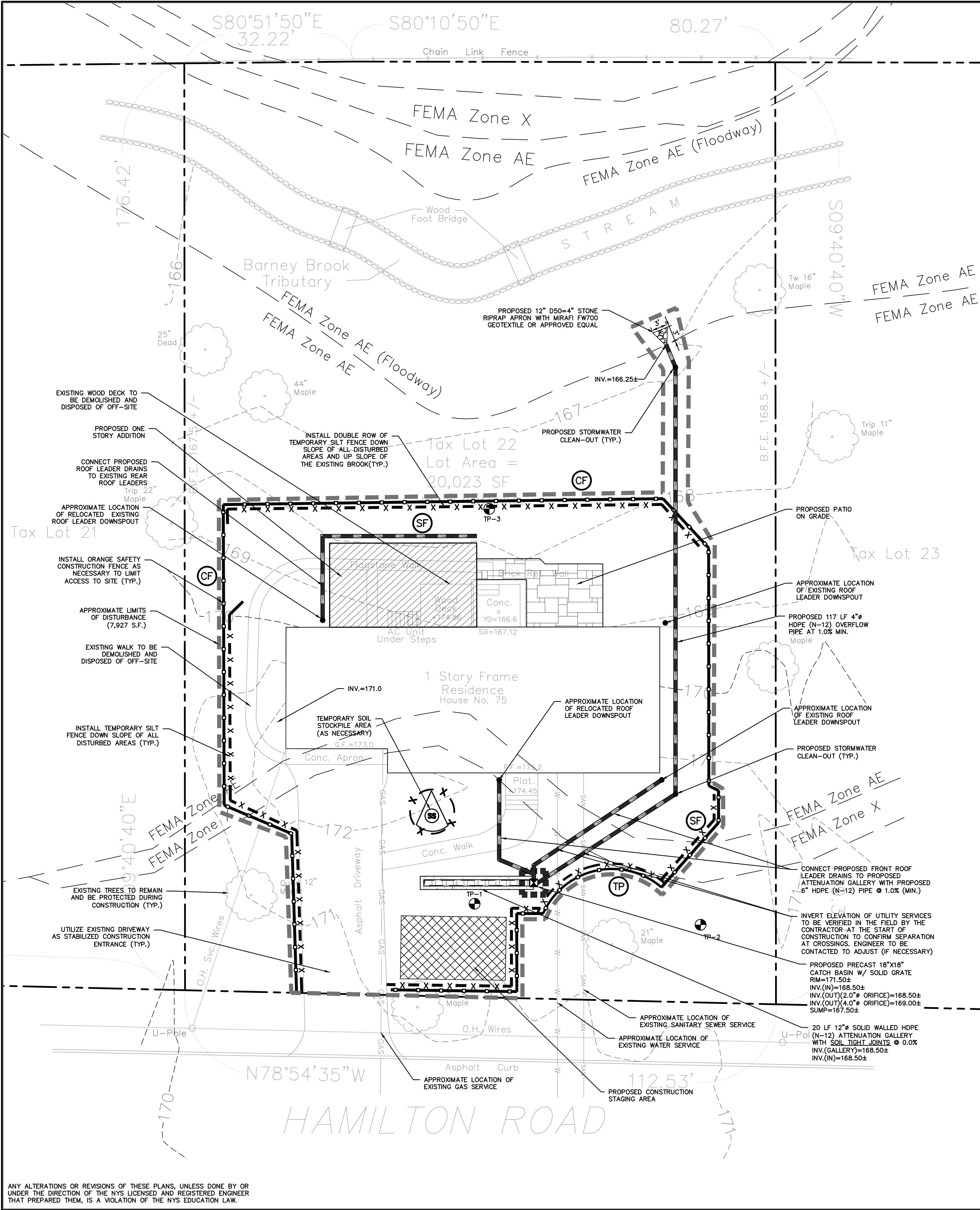
WITNESSED BY: Michael Frugis

DEEP TEST HOLE DATA SHEET – STORMWATER MANAGEMENT SYSTEM

DEPTH	HOLE NO. <u>1</u>	HOLE NO. <u>2</u>	HOLE NO. <u>3</u>	HOLE NO. _____
G.L.	0-8" Topsoil	0-8" Topsoil	0-6" Topsoil	
6"	8-29" Brown	8-20" Brown	6-60" Grayish	
12"	Loam	Loam	Black Clay	
18"		20-47" Gray Clay		
24"			-GW @ 24"	
30"	29-44" Gray Clay		-No Ledge	
36"				
42"	44-65" Grayish			
48"	Brown Sandy	47-72" Grayish		
54"	Loam	Brown Sandy		
60"	-GW @ 60"	Loam		
66"	-No Ledge	-GW @ 60"		
72"		-No Ledge		
78"				
84"				
90"				
96"				
102"				
108"				

- Indicate level at which Ground Water (GW), Mottling and/or Ledge Rock is encountered.
- Indicate level for which water level rises after being encountered.

EXCAVATION PERFORMED BY: _____



GENERAL NOTES:

1. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE SUPERVISION OF THE CONSTRUCTION.
2. NO CHANGES SHALL BE MADE TO THESE PLANS EXCEPT AS PER NYS LAW CHAPTER 987.
3. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO A.D. A.S.C., ZONING, AND THE NEW YORK STATE BUILDING CODE.
4. ALL CONDITIONS, LOCATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES.
5. ALL CHANGES MADE TO THE PLANS SHALL BE APPROVED BY THE ENGINEER AND ANY SUCH CHANGES SHALL BE FILED AS AMENDMENTS TO THE ORIGINAL BUILDING PERMIT.
6. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR THE ACTS AND OMISSIONS OF HIS EMPLOYEES, SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.
8. SAFETY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL AGENCIES IN EFFECT DURING THE PERIOD OF CONSTRUCTION.
9. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL MAKE APPLICATION TO RECEIVE ALL NECESSARY PERMITS TO PERFORM THE WORK UNDER CONTRACT. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL BE LICENSED TO DO ALL WORK AS REQUIRED BY THE LOCAL, COUNTY, AND STATE AGENCIES WHICH MAY HAVE JURISDICTION OVER THOSE TRADES, AND SHALL PRESENT THE OWNER WITH COPIES OF ALL LICENSES AND INSURANCE CERTIFICATES.
10. FINAL GRADING AROUND THE BUILDING AREA SHALL SLOPE AWAY FROM THE STRUCTURE.
11. ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS.
12. ADJOINING PUBLIC AND PRIVATE PROPERTY SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION, REMODELING AND DEMOLITION WORK. PROTECTION MUST BE PROVIDED FOR FOOTINGS, FOUNDATIONS, PARTY WALLS, CHIMNEYS, SKYLIGHTS AND ROOFS. PROVISIONS SHALL BE MADE TO CONTROL WATER RUNOFF AND EROSION DURING CONSTRUCTION OR DEMOLITION ACTIVITIES. THE PERSON MAKING OR CAUSING AN EXCAVATION TO BE MADE SHALL PROVIDE WRITTEN NOTICE TO THE OWNERS OF ADJOINING BUILDINGS ADVISING THEM THAT THE EXCAVATION IS TO BE MADE AND THAT THE ADJOINING BUILDING SHOULD BE PROTECTED. SAID NOTIFICATION SHALL BE DELIVERED NOT LESS THAN 10 DAYS PRIOR TO THE SCHEDULED STARTING DATE OF THE EXCAVATION.
13. OWNER SHALL INSURE THAT THE INSURANCE PROVIDED BY THE CONTRACTOR HIRED TO PERFORM THE WORK SHALL BE ENDORSED TO NAME HUDSON ENGINEERING & CONSULTING, P.C., AND ANY DIRECTORS, OFFICERS, EMPLOYEES, SUBSIDIARIES, AND AFFILIATES, AS ADDITIONAL INSURED ON ALL POLICIES AND HOLD HARMLESS DOCUMENTS, AND SHALL STIPULATE THAT THIS INSURANCE IS PRIMARY, AND THAT ANY OTHER INSURANCE OR SELF-INSURANCE MAINTAINED BY HUDSON ENGINEERING & CONSULTING, P.C., SHALL BE EXCESS ONLY AND SHALL NOT BE CALLED UPON TO CONTRIBUTE WITH THIS INSURANCE. ISO ADDITIONAL INSURED ENDORSEMENT FORM NUMBER 002010 1185 UNDER GL. COPIES OF THE INSURANCE POLICIES SHALL BE SUBMITTED TO HUDSON ENGINEERING & CONSULTING, P.C., FOR APPROVAL PRIOR TO THE SIGNING OF THE CONTRACT.
14. INDUSTRIAL CODE RULE 753. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS PRIOR TO THE START OF HIS OPERATIONS AND SHALL COMPLY WITH ALL THE LATEST INDUSTRIAL CODE RULE 753 REGULATIONS.

TREE PROTECTION NOTES:

1. ALL TREES WITHIN OR ADJACENT TO THE LIMITS OF DISTURBANCE SHALL RECEIVE TREE PROTECTION.
2. MITIGATE COMPACTION OF CRITICAL ROOT ZONES WITHIN DRIP LINES OF TREES BY PLACING PLYWOOD ATOP 6" OF MULCH.
3. ESTABLISH FENCING AROUND PERIMETER OF DRIP LINE AND ARMORING AROUND TRUNK.
4. PERFORM EXCAVATION WITHIN CRITICAL ROOT ZONES BY HAND. DO NOT CUT OR PULL ROOTS WITH MECHANICAL EQUIPMENT.

STORMWATER MANAGEMENT FACILITIES MAINTENANCE PROGRAM

THE FOLLOWING MAINTENANCE PLAN HAS BEEN DEVELOPED TO MAINTAIN THE PROPER FUNCTION OF ALL DRAINAGE AND EROSION AND SEDIMENT CONTROL FACILITIES:

- DRAINAGE INLETS SHALL BE VACUUM SWEEP TWICE A YEAR, AT THE CONCLUSION OF THE LANDSCAPE SEASON IN THE FALL AND AT THE CONCLUSION OF THE SAND AND DE-ICING SEASON IN THE SPRING. INSPECT EXFILTRATION/ATTENUATION GALLERY FOR SEDIMENT AND REMOVE SAME IF FOUND.

THE PERMANENT MAINTENANCE PROGRAM WILL BE MANAGED BY THE FUTURE HOMEOWNERS UPON COMPLETION OF CONSTRUCTION AND ACCEPTANCE OF THE IMPROVEMENTS.

NOTES:

1. THE BUILDING INSPECTOR OR VILLAGE ENGINEER MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES IF DEEMED APPROPRIATE TO MITIGATE UNFORESEEN SILTATION AND EROSION OF DISTURBED SOILS.
2. "AS-BUILT" DRAWINGS OF THE SITE IMPROVEMENTS SHALL BE SUBMITTED TO THE VILLAGE ENGINEER FOR REVIEW PRIOR TO OBTAINING CERTIFICATE OF OCCUPANCY.
3. THE ATTENUATION SYSTEM MUST NOT BE CONNECTED UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
4. CUT/FILL MATERIAL SHALL NOT BE IMPORTED TO OR EXPORTED FROM THE SITE.
5. ALL EXISTING TREES SHALL BE PROTECTED WITH A MINIMUM OF 6-INCHES OF WOOD CHIPS OR MULCH IN AREAS PRONE TO COMPACTION DUE TO CONSTRUCTION ACTIVITIES.
6. EXCAVATION FOR PROPOSED STORMWATER CONNECTION FROM SUMP BOX TO PROPOSED OVERFLOW SHALL BE COMPLETED BY HAND FOR THE EXISTING SEWER AND WATER SERVICES CROSSINGS

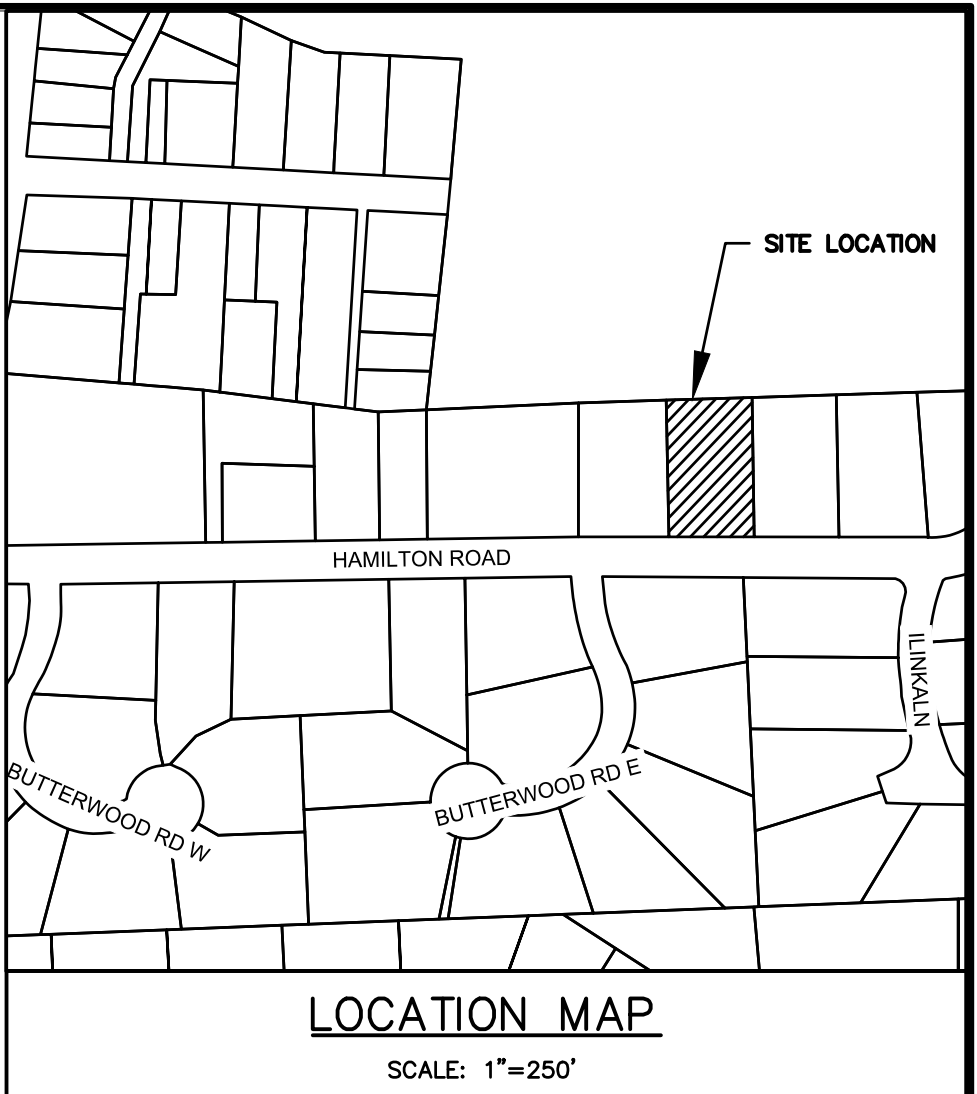
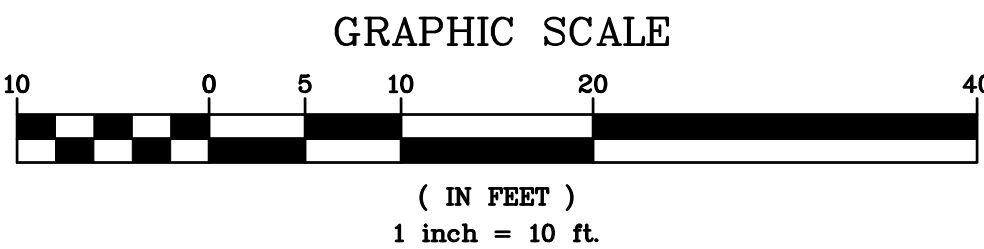
TEST HOLE DATA:

TEST HOLE #1
DEPTH - 65"
0-8" TOPSOIL
8-29" BROWN LOAM
29-44" GRAY CLAY
44-65" GRAYISH BROWN SANDY LOAM
GROUNDWATER AT 60"
NO LEDGE ROCK
PERC. = 0.75" INCHES/HOUR

TEST HOLE #2
DEPTH - 72"
0-8" TOPSOIL
8-20" BROWN LOAM
20-47" GRAY CLAY
47-72" GRAYISH BROWN SANDY LOAM
GROUNDWATER AT 60"
NO LEDGE ROCK
NO PERCOLATION TEST PERFORMED

TEST HOLE #3
DEPTH - 60"
0-6" TOPSOIL
6-60" GRAYISH BLACK CLAY
GROUNDWATER AT 24"
NO LEDGE ROCK
NO PERCOLATION TEST PERFORMED

75 HAMILTON ROAD STORMWATER
MANAGEMENT PLAN BASED UPON
EXISTING INFORMATION PROVIDED BY
RICHARD J. DOMATO LAND SURVEYOR,
DATED MARCH 30, 2019



INSTALLATION & MAINTENANCE OF EROSION CONTROL:

CONSTRUCTION SCHEDULE
NOTIFY APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 5 DAYS PRIOR TO START.

EROSION CONTROL MEASURES
INSTALL ALL EROSION CONTROL MEASURES PRIOR TO START OF CONSTRUCTION. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.

INSPECTION BY MUNICIPALITY
MAINTENANCE (TO BE PERFORMED DURING ALL PHASES OF CONSTRUCTION)

AFTER ANY RAIN CAUSING RUNOFF, CONTRACTOR TO INSPECT HAYBALES, ETC. AND REMOVE ANY EXCESSIVE SEDIMENT AND INSPECT STOCKPILES AND CORRECT ANY PROBLEMS WITH SEED ESTABLISHMENT. INSPECTIONS SHALL BE DOCUMENTED IN WRITING AND SUBMITTED TO THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION.

INSPECTION BY MUNICIPALITY - FINAL GRADING
REMOVE UNNEEDED SUBGRADE FROM SITE. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.

INSPECTION BY MUNICIPALITY - LANDSCAPING

SPREAD TOPSOIL EVENLY OVER AREAS TO BE SEEDDED. HAND RAKE LEVEL. BROADCAST 1.25 LB. BAG OF JONATHAN GREEN "FASTGROW" MIX OR EQUAL OVER AREA TO BE SEEDDED. APPLY STRAW MULCH AND WATER WITHIN 2 DAYS OF COMPLETION OF TOPSOILING. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.

INSPECTION BY MUNICIPALITY - FINAL LANDSCAPING

GRASS ESTABLISHED. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.

INSPECTION BY MUNICIPALITY - FINAL INSPECTION

ALL EROSION CONTROL MEASURES REMOVED AND GRASS ESTABLISHED. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.

CONSTRUCTION SEQUENCING:

THE FOLLOWING EROSION CONTROL SCHEDULE SHALL BE UTILIZED:

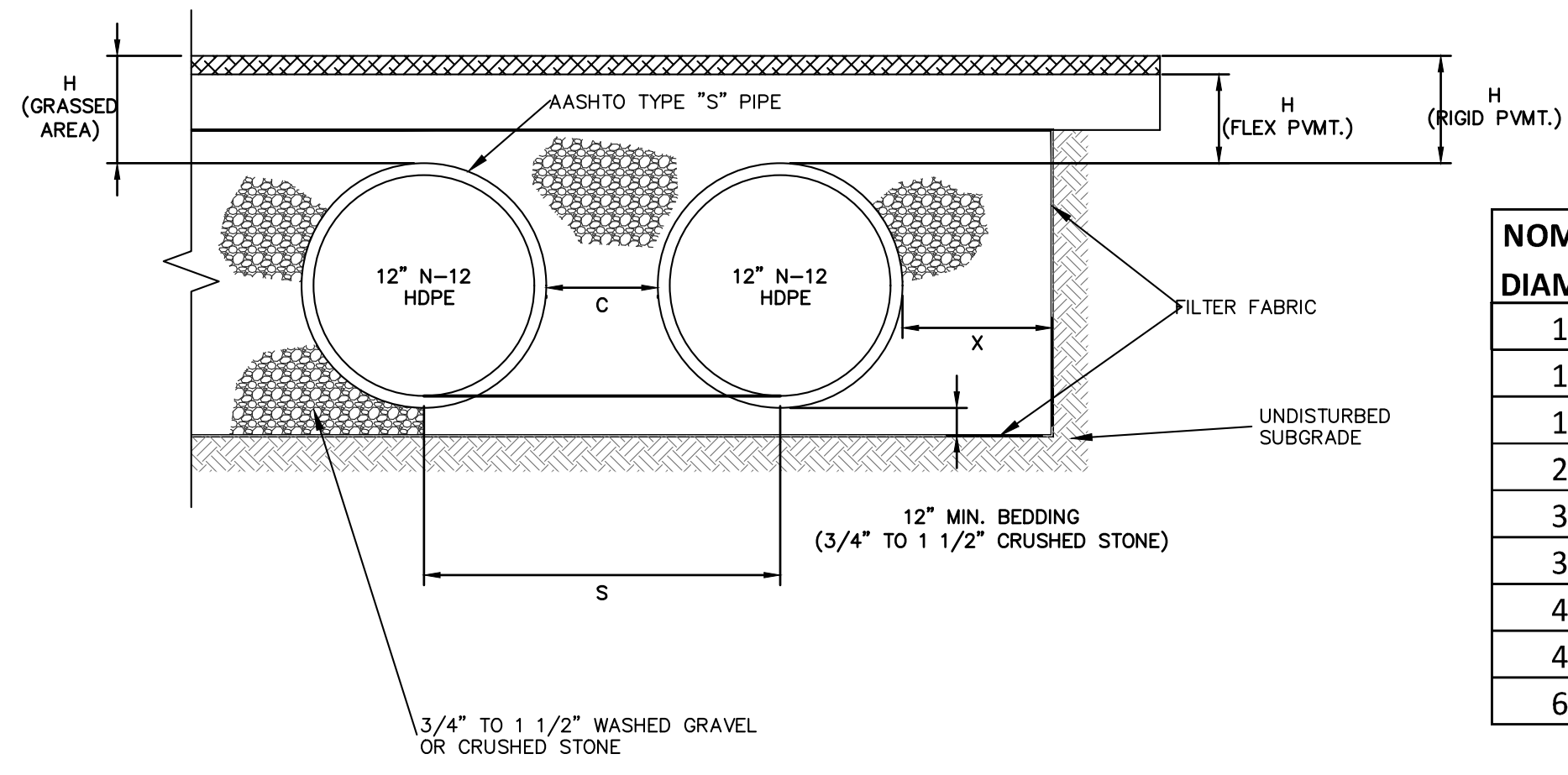
1. ESTABLISH CONSTRUCTION STAGING AREA.
2. INSTALL TREE PROTECTION ON TREES AS NOTED ON PLANS.
3. SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION.
4. INSTALL SILT FENCE DOWN SLOPE OF ALL AREAS TO BE DISTURBED AS SHOWN ON THE PLAN.
5. STRIP TOPSOIL AND STOCKPILE AT THE LOCATIONS SPECIFIED ON THE PLANS (UP GRADIENT OF EROSION CONTROL MEASURES). TEMPORARILY STABILIZE TOPSOIL STOCKPILES (HYDROSEED DURING MAY 1ST THROUGH OCTOBER 31ST PLANTING SEASON OR BY COVERING WITH A TARP(AULIN(S) NOVEMBER 1ST THROUGH APRIL 30TH. INSTALL SILT FENCE AROUND TOE OF SLOPE.
6. DEMOLISH ANY EXISTING SITE FEATURES AND/OR STRUCTURES NOTED AS BEING REMOVED ON THE CONSTRUCTION DOCUMENTS, AND DISPOSE OF OFF-SITE.
7. ROUGH GRADE SITE.
8. EXCAVATE AND INSTALL EXFILTRATION/ATTENUATION GALLERIES PER MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
9. INSTALL DRAINAGE WORK TRIBUTARY TO GALLERIES FROM DWELLING INCLUDING ALL PRETREATMENT DEVICES, CATCH BASINS AND PIPING.
10. CONSTRUCT BUILDING ADDITIONS AND TERRACE. INSTALL AND CONNECT ROOF DRAIN LEADERS TO EXISTING ROOF LEADERS AT THE REAR.
11. CONNECT FRONT ROOF LEADERS TO PREVIOUSLY INSTALLED EXFILTRATION/ATTENUATION GALLERIES.
12. FINE GRADE AND SEED ALL DISTURBED AREAS. CLEAN PAVEMENT, DRAIN LINES, CATCH BASINS AND PRETREATMENT DEVICES. CLEAN EXFILTRATION/ATTENUATION GALLERIES. ENSURE GRASS STAND IS ACHIEVED.
13. INSTALL 4"-6" TOPSOIL, FINE GRADE, SEED THE ENTIRE PROJECT SITE AND INSTALL LANDSCAPE PLANTINGS. SPREAD SALT HAY OVER SEEDED AREAS.
14. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION.

*SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE MUST OCCUR WEEKLY AND PRIOR TO AND AFTER EVERY 1/2" OR GREATER RAINFALL EVENT.

CONTRACTOR SHALL CONTACT DESIGN ENGINEER TO SCHEDULE A SITE INSPECTION PRIOR TO BACKFILLING INFILTRATION/ATTENUATION SYSTEM(S). SHOULD THE CONTRACTOR BACKFILL PRIOR TO INSPECTION, THE CONTRACTOR SHALL EXPOSE THE SYSTEM AT THEIR OWN EXPENSE.

<div>REVISIONS</div> <table border="1"><thead><tr><th>No.</th><th>Date</th><th>Revised Per</th><th>Value</th><th>Comments</th></tr></thead><tbody><tr><td>1</td><td></td><td></td><td></td><td></td></tr></tbody></table>	No.	Date	Revised Per	Value	Comments	1					PROJECT: PROPOSED ADDITIONS & ALTERATIONS 75 HAMILTON ROAD VILLAGE OF IRVINGTON WESTCHESTER COUNTY - NEW YORK	<div>STATE OF NEW YORK MICHAEL J. STERN LICENSED PROFESSIONAL ENGINEER No. 60857</div>
	No.	Date	Revised Per	Value	Comments							
	1											
	STORMWATER MANAGEMENT PLAN											
HUDSON ENGINEERING & CONSULTING, P.C. 45 Knollwood Road, Suite 201 Elmsford, New York 10523 T: 914-909-0420 F: 914-560-2086 © 2021												
Date: 05/19/21 Sheet: Scale: 1" = 10' Designed By: U.A. Checked By: M.S. Sheet No. 2												

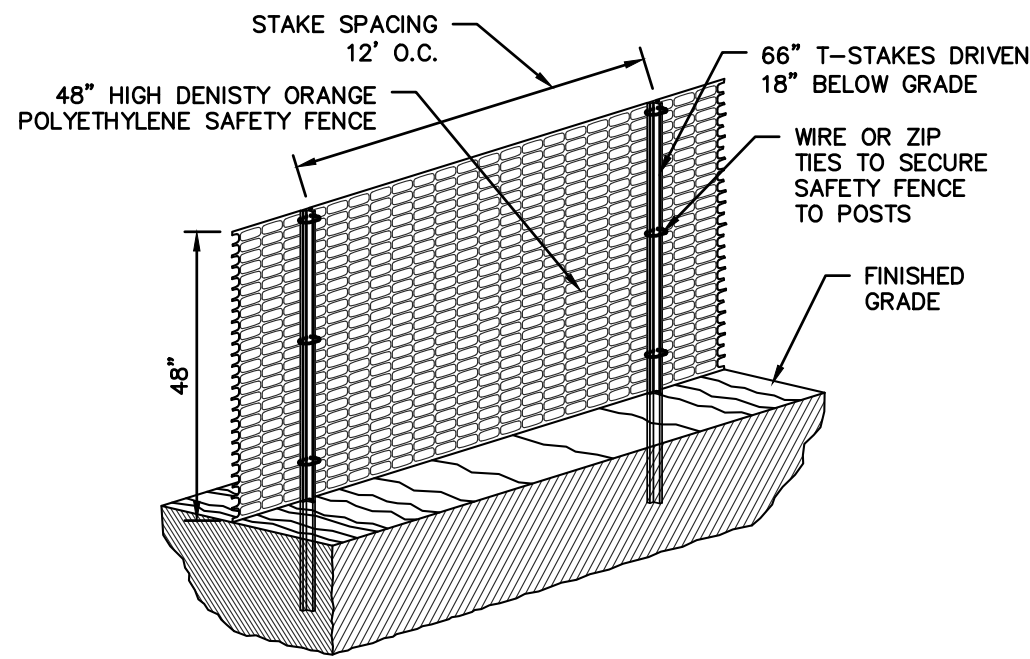
C-1



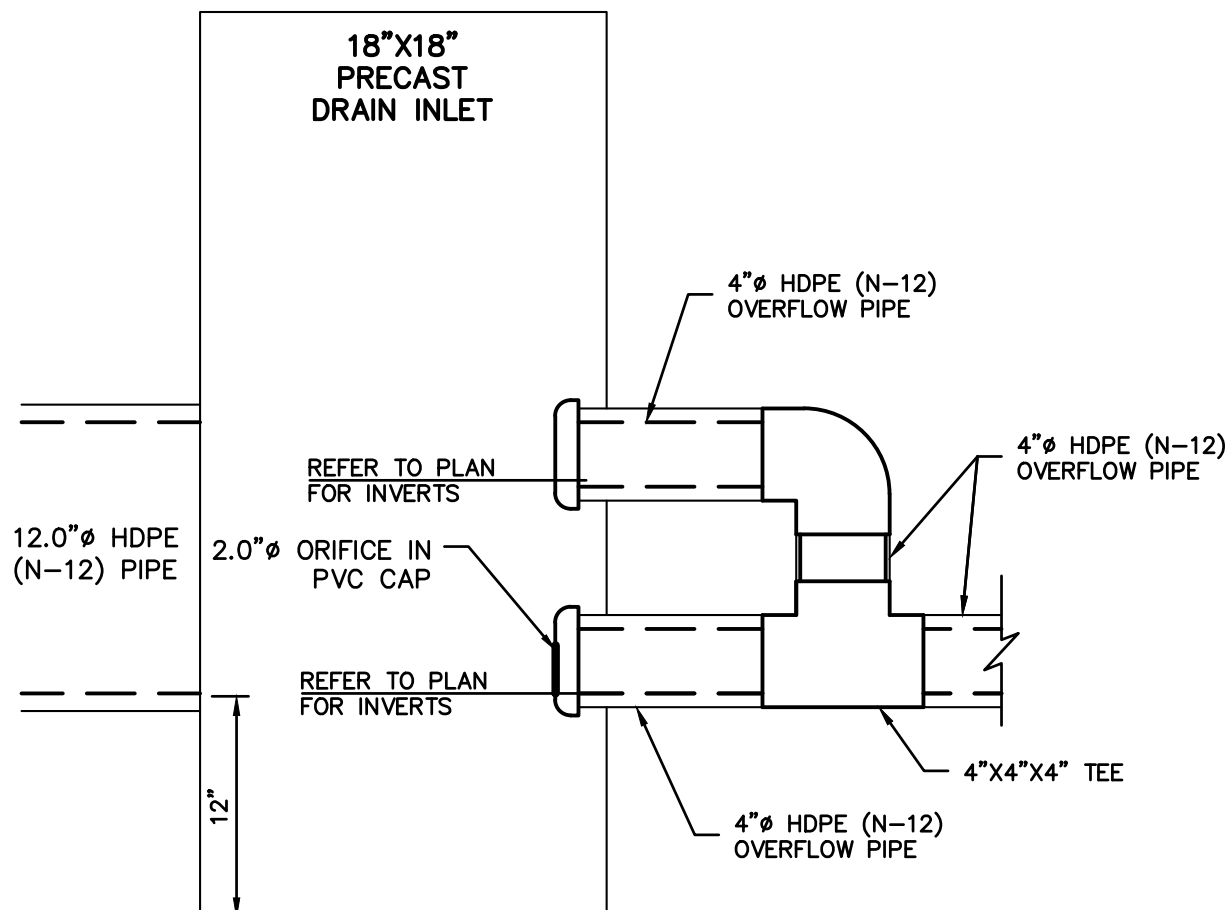
ATTENUATION GALLERY SECTION

- NOTES:
- ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 - THE ATTENUATION GALLERY SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
 - MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED, SEE ASTM D2321.
 - FILTER FABRIC:** A GEOTEXTILE FABRIC SHALL BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE 3/4" TO 1 1/2" WASHED GRAVEL OR CRUSHED STONE, IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 12" MINIMUM.
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE 3/4" TO 1 1/2" WASHED GRAVEL OR CRUSHED STONE, IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 12" MINIMUM.
 - MINIMUM COVER:** MINIMUM COVER OVER ALL ATTENUATION GALLERIES IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
 - ALL PIPE STUBS, ORIFICE PLATES, FITTINGS, BENDS, TEES, ETC. SHALL BE MANUFACTURED AT THE FACTORY.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SPACING "S"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12"	14.5"	11"	25.4"	8"	12"	12"
15"	18"	12"	28.9"	8"	12"	12"
18"	21"	17"	33.9"	9"	12"	12"
24"	28"	13"	40.7"	10"	12"	12"
30"	36"	18"	53.1"	18"	12"	12"
36"	42"	22"	63"	18"	12"	12"
42"	48"	24"	71.9"	18"	12"	24"
48"	54"	25"	78.5"	18"	12"	24"
60"	67"	24"	90"	18"	12"	24"

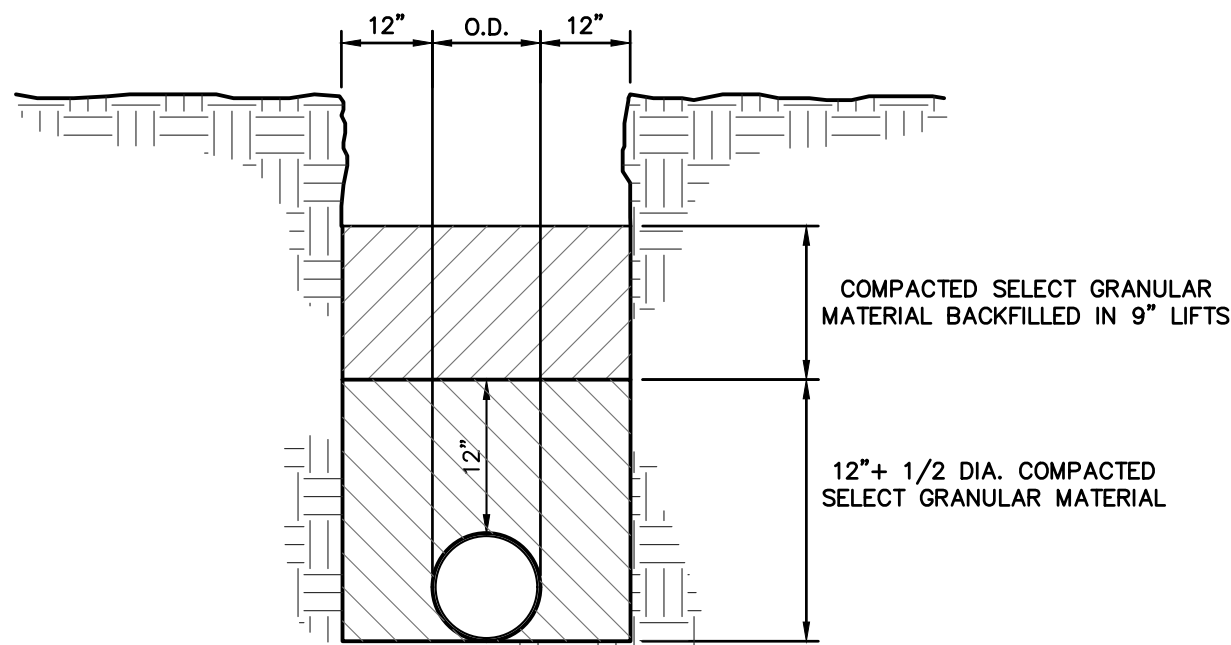


CONSTRUCTION FENCE

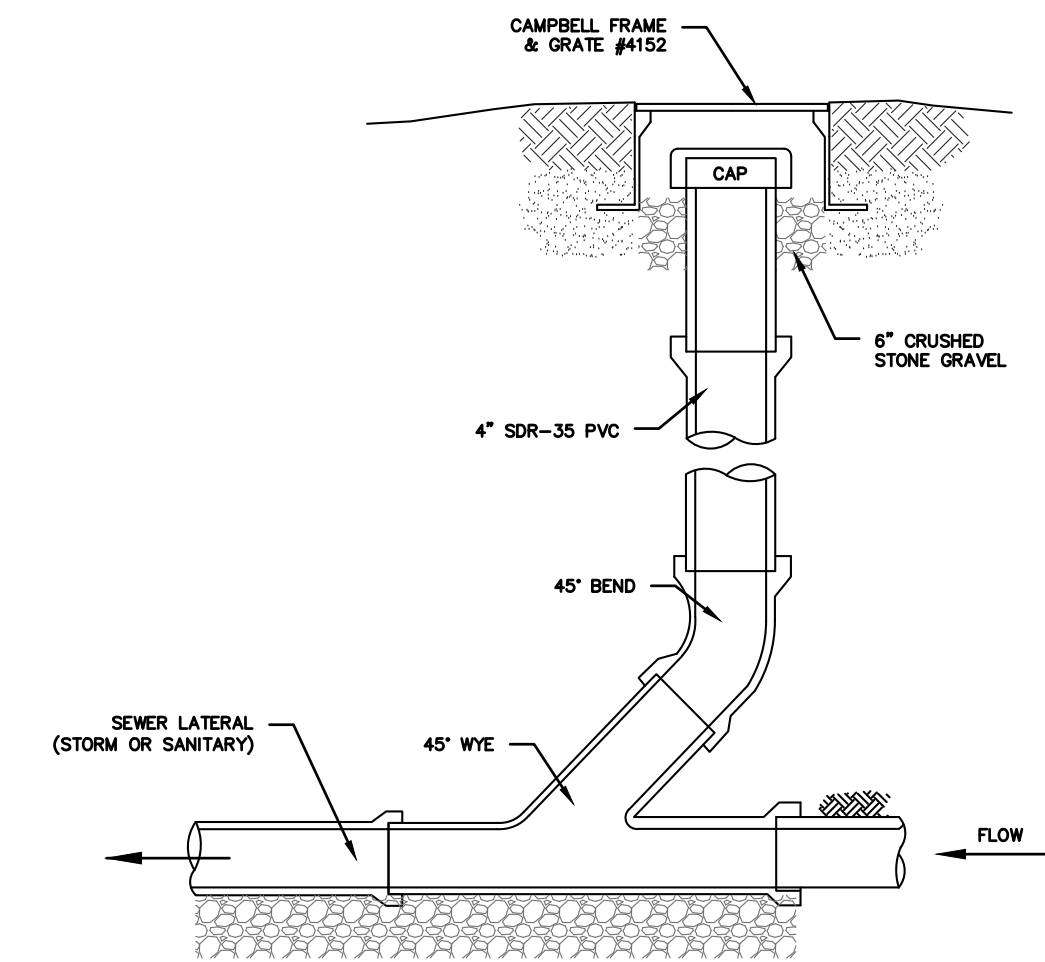


NOTE: ALL STUBS TO BE INSTALLED BY MANUFACTURER.

OUTLET DETAIL

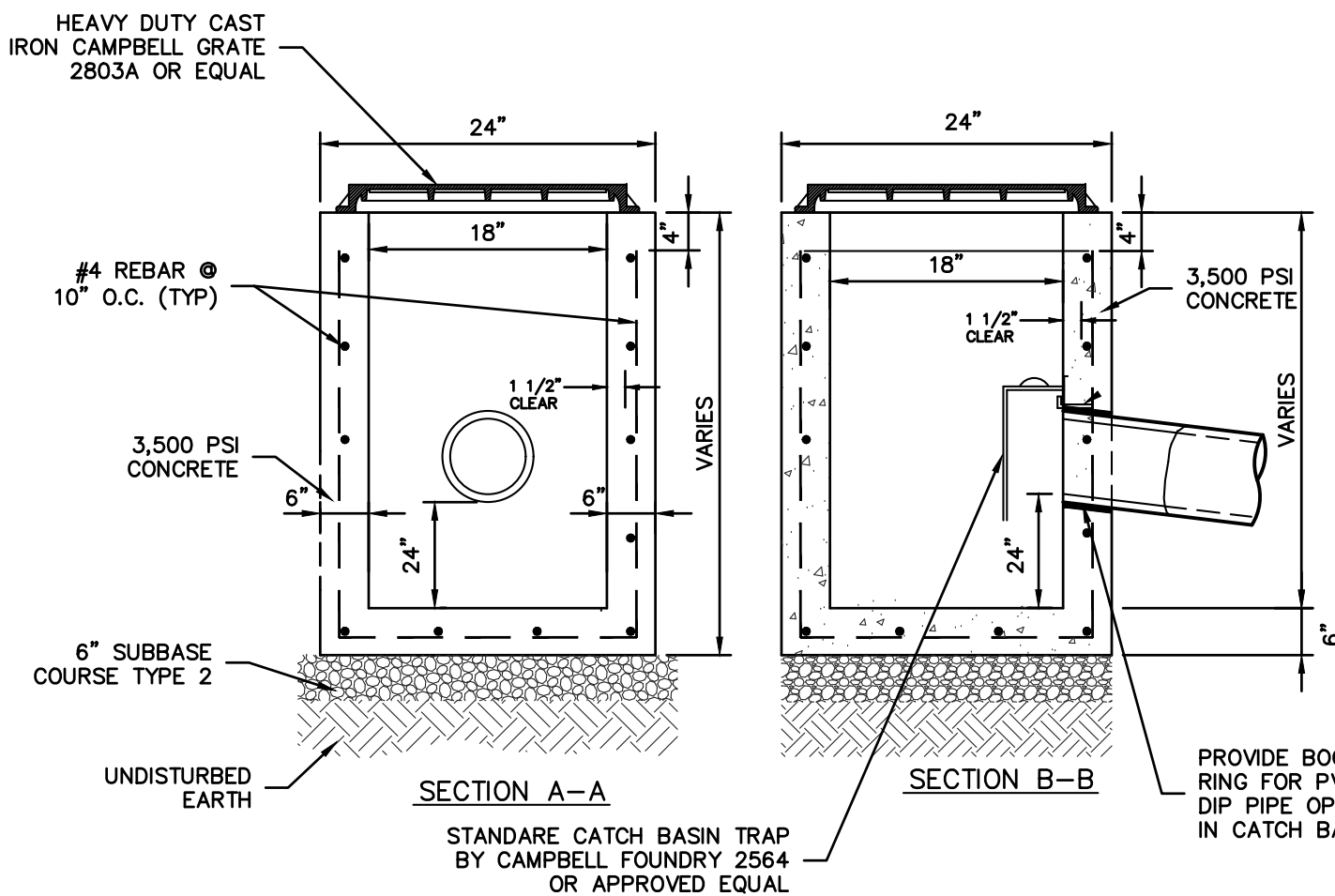


TRENCH BEDDING



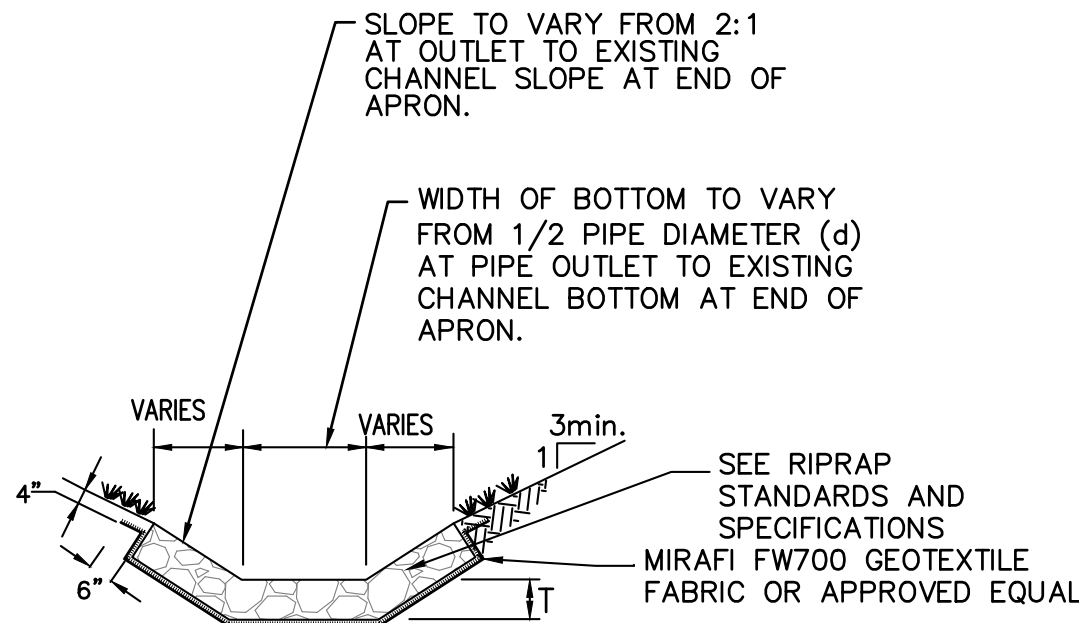
- NOTES (SANITARY SEWER SERVICES):
- ALL SANITARY SEWER SERVICES TO BE 4" SCH. 40 @ 1.0% MINIMUM.
 - IN ACCORDANCE WITH THE NYS RESIDENTIAL BUILDING CODE, THE FOLLOWING REQUIREMENTS APPLY:
 - CLEANOUTS SHALL BE INSTALLED NOT MORE THAN 100 FEET APART IN HORIZONTAL DRAINAGE LINES (P3005.2.2).
 - CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE DRAINAGE SYSTEM GREATER THAN 45 DEGREES.
 - CLEANOUTS SHALL BE INSTALLED SO THAT THE CLEANOUT OPENS TO ALLOW CLEANING IN THE DIRECTION OF THE FLOW OF THE DRAINAGE LINE (P3005.2.8).
- NOTES (STORM SEWER):
- REFER TO PLAN FOR SPECIFIC PIPE SIZING AND SLOPE SPECIFICATIONS; HOWEVER, IN GENERAL, ALL STORM SEWER SERVICES TO BE 6" SCH. 40 @ 1.0% MINIMUM.
 - CLEANOUTS SHALL BE PLACED BEFORE SIGNIFICANT PIPE BEND LOCATIONS (I.E., JUNCTIONS, 90-DEGREE BENDS, ETC.) UNLESS A ROOF LEADER DOWNSPOUT CONNECTION IS PROPOSED.

SEWER CLEANOUT DETAIL (GRAVITY) (STORM OR SANITARY)



- NOTES:
- CONCRETE - 3,500 PSI MINIMUM STRENGTH @ 28 DAYS
 - STEEL REINFORCEMENT - ASTM A-615, # 4 REBAR, GRADE 60
 - COVER TO STEEL - 1 1/2" MINIMUM
 - DESIGN LOADING - AASHTO HS20-44
 - EARTH COVER - 0 TO 5 FEET
 - CONSTRUCTION JOINT - LAPPED

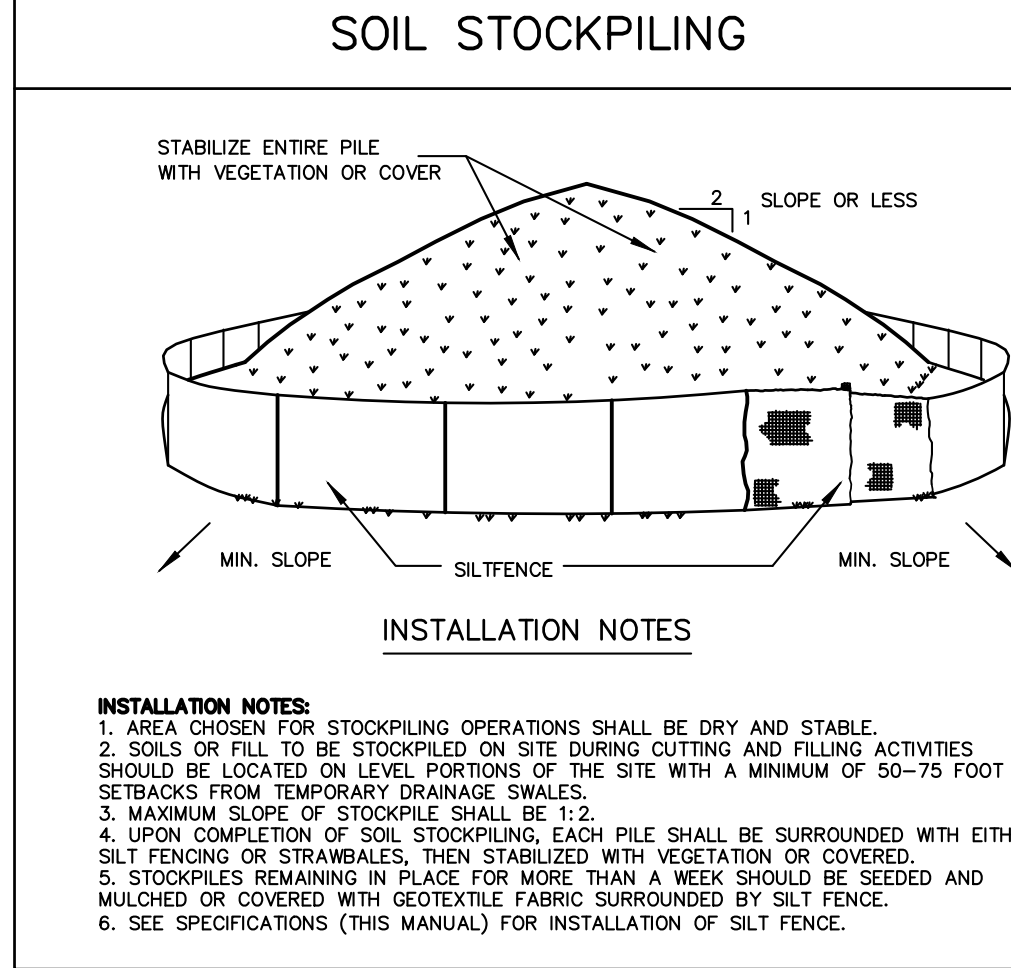
PRECAST DRAIN INLET



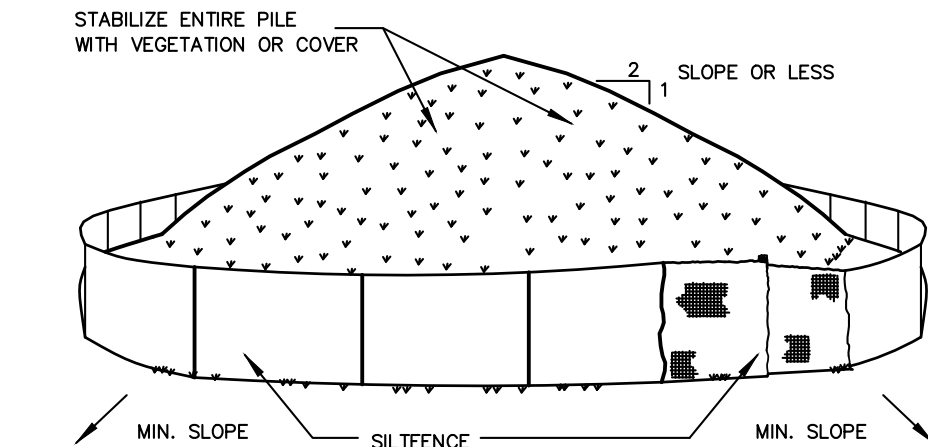
NOTES:

- REFER TO RIPRAP STANDARDS AND SPECIFICATIONS FOR MINIMUM TAILWATER CONDITIONS IN THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- APRON SIDE SLOPE SHALL BE 2:1 (SEE DRAWINGS FOR SLOPE OF APRON BOTTOM).

RIPRAP APRON/ENERGY DISSIPATOR



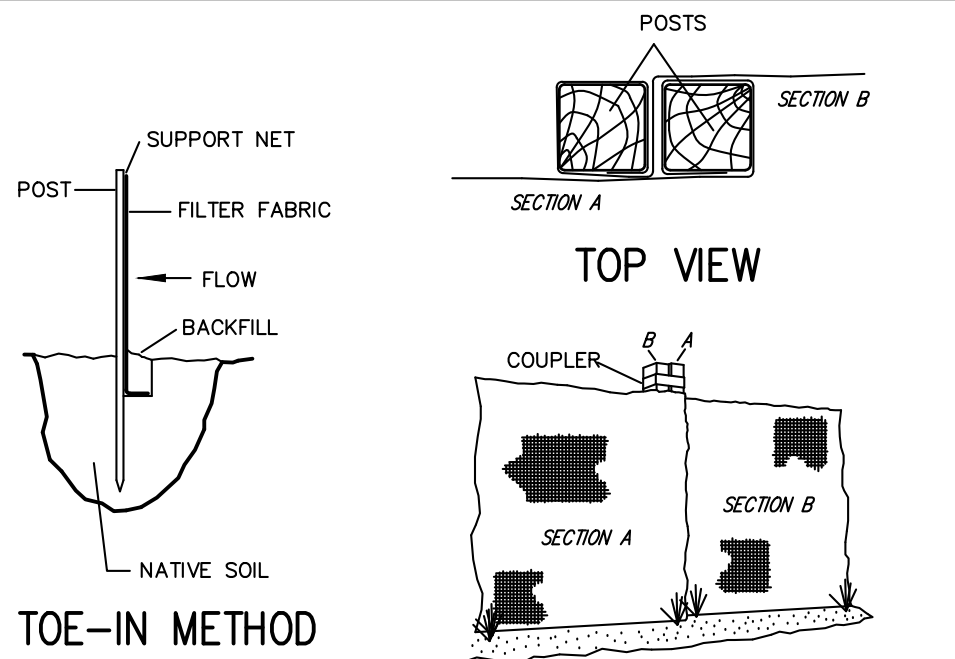
SOIL STOCKPILING



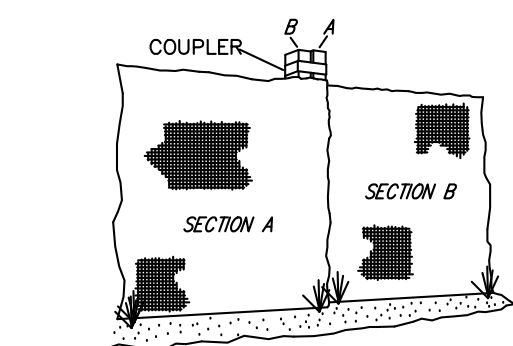
INSTALLATION NOTES

- INSTALLATION NOTES:
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 - SOILS OR FILL TO BE STOCKPILED ON SITE DURING CUTTING AND FILLING ACTIVITIES SHOULD BE LOCATED ON LEVEL PORTIONS OF THE SITE WITH A MINIMUM OF 50-75 FOOT SETBACKS FROM TEMPORARY DRAINAGE SWALES.
 - UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
 - STOCKPILES REMAINING IN PLACE FOR MORE THAN A WEEK SHOULD BE SEEDED AND MULCHED OR COVERED WITH GEOTEXTILE FABRIC SURROUNDED BY SILT FENCE.
 - SEE SPECIFICATIONS (THIS MANUAL) FOR INSTALLATION OF SILT FENCE.

SILT FENCE



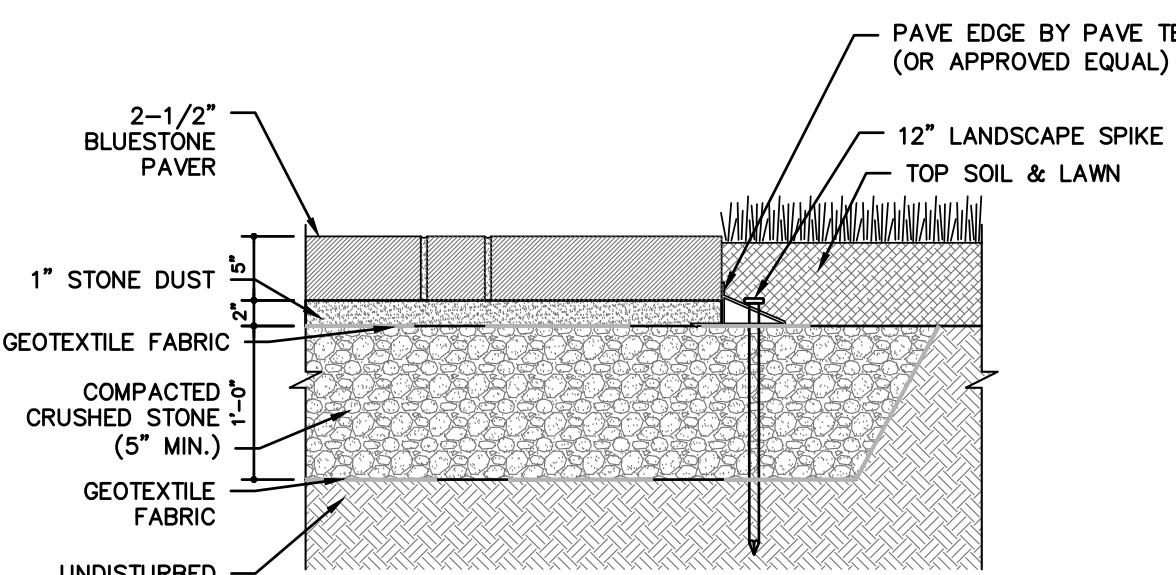
TOP VIEW



JOINING SECTIONS OF FENCING

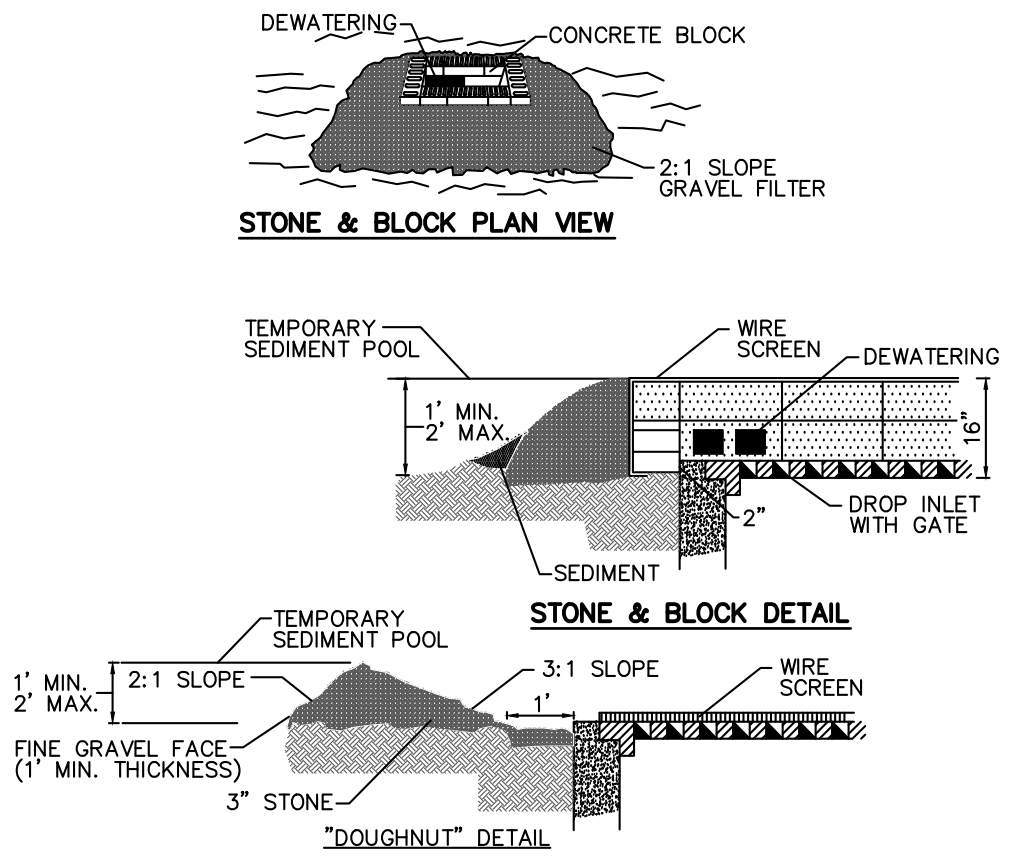
INSTALLATION NOTES:

- EXCAVATE A 4 INCH * 4 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
- UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
- DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
- LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT.
- JOIN SECTIONS AS SHOWN ABOVE.



PATIO/WALK PAVER AT LAWN

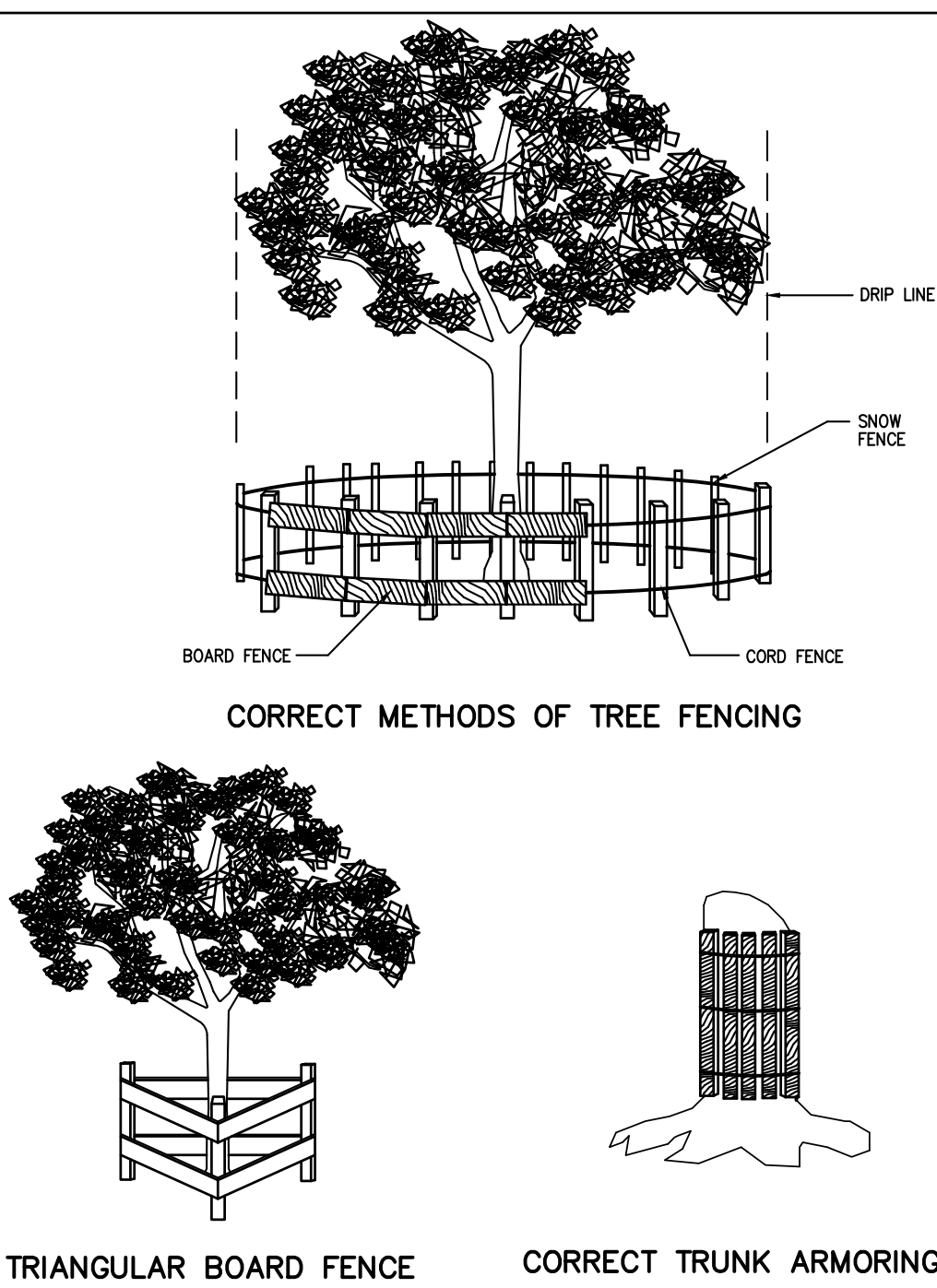
STONE & BLOCK DROP INLET PROTECTION



CONSTRUCTION SPECIFICATION

- LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
- HARDWARECLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
- USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF BLOCK ON A 2:1 SLOPE OR FLATTER.
- FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE.

FENCING AND ARMORING



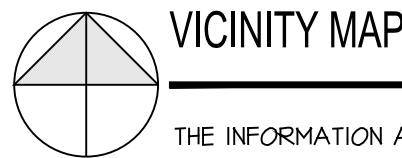
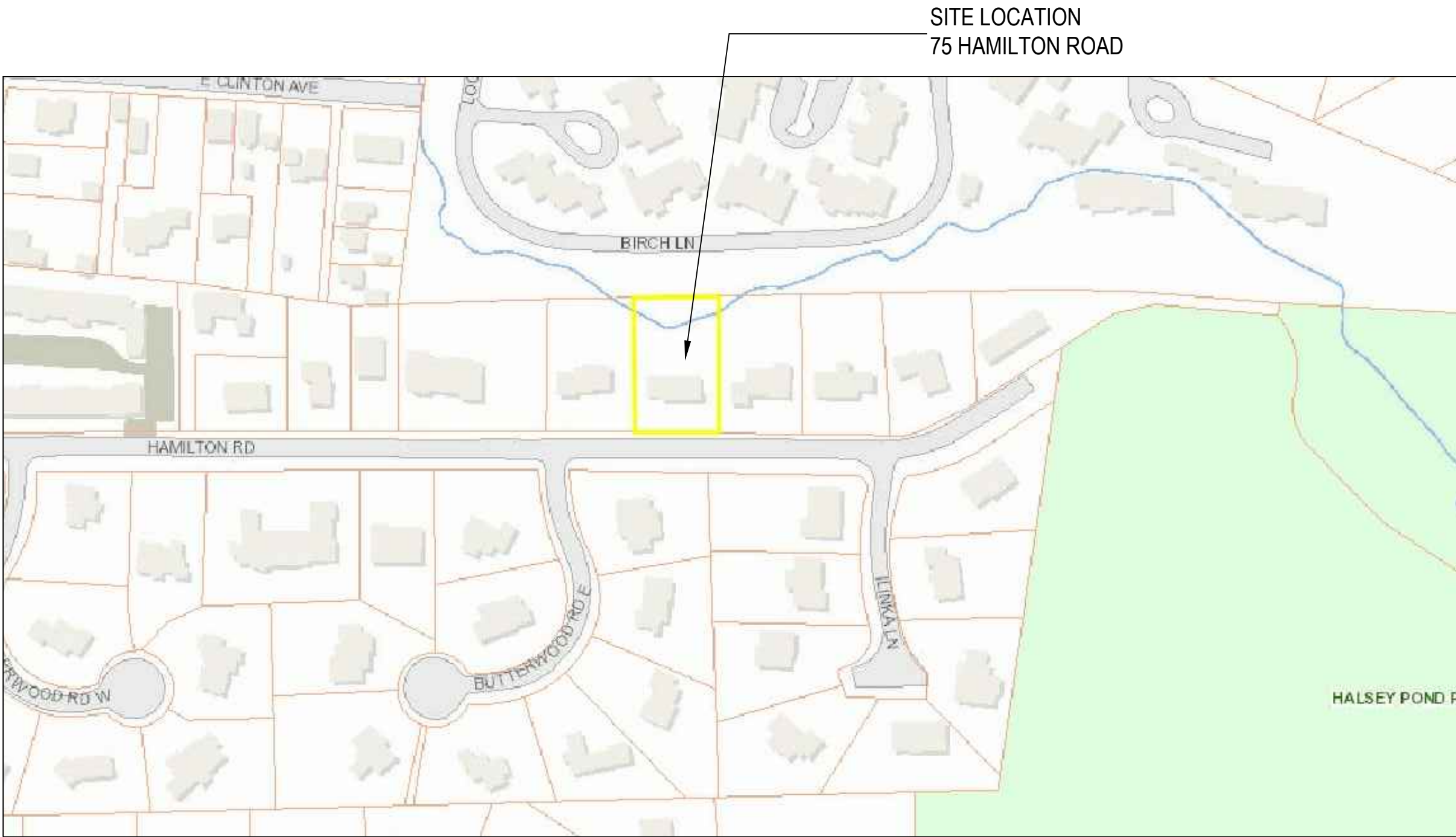
CORRECT METHODS OF TREE FENCING

TRIANGULAR BOARD FENCE CORRECT TRUNK ARMORING

PROJECT:	PROPOSED ADDITIONS & ALTERATIONS 75 HAMILTON ROAD VILLAGE OF IRVINGTON WESTCHESTER COUNTY - NEW YORK
DETAILS	HUDSON ENGINEERING CONSULTING, P.C. 45 Knollwood Road, Suite 201 Elmsford, New York 10523 T: 914-909-0420 F: 914-560-2086 © 2021
DATE: 05/19/21 SCALE: N.T.S. DESIGNED BY: U.A. CHECKED BY: M.S. SHEET NO. 2	C-2

PROPOSED ADDITION AND ALTERATIONS TO: CHOI RESIDENCE

75 HAMILTON ROAD
IRVINGTON, NY 10533



VICINITY MAP

N.T.S.

THE INFORMATION ABOVE WAS TAKEN FROM GIS WESTCHESTER MAPS 2021

General notes:

- The Architect is not contracted for supervision and so is not responsible for methods of construction or materials used.
- Contractor shall verify all existing conditions in the field and shall notify the Architect of any discrepancies before starting work.
- Contractor shall obtain all permits, certificates, inspections, etc.. required by law or code. Owner shall pay for same.
- Contractor shall maintain Workman's Compensation and liability insurance in adequate amounts to render the owner harmless in case of an accident to person or property involved in this project.
- Contractor shall perform all work required for the total completion of the project, weather or not indicated on the drawings. The intention of the drawings is to produce a complete and proper functioning project.
- Verify adequacy of all services (gas, electrical etc.). If additional is required, provide and install same as part of contract.
- Contractor shall remove all existing material and construction interfering with the proposed new work whether or not shown on the drawings.
- In some cases, the existing structure has been assumed in so far as the directions of framing, size etc. New structure has been designed based on this assumption. During demolition or any other phase of work, if there is any discrepancies in the assumed condition, which is actually in place, notify the Architect at once.
- Site shall be stabilized during construction to manage storm water run off as required. Using silt fencing and hay bales ensure no run off to adjacent properties.
- All sections and details shall be considered typical and apply for the same, and similar conditions, unless otherwise specifically noted.
- Contractor shall furnish and be solely responsible for all temporary bracing and shoring required to maintain stability of the structure during construction.
- Any required shop drawings shall be submitted to Architect for approval prior to fabrication.
- All surfaces, new existing areas disturbed by construction to be prepared for proper finishing.
- Substitutions of material and/or methods of construction shall be approved by Architect and owner prior to signing construction contract.
- All work shall be guaranteed for one year.
- Construction not to commence pending approval of plans.
- General notes to be strictly adhered to unless otherwise noted on drawings.

Demolition:

- Prior to demolition disconnect and cap all existing utilities as required. Coordinate shut-off and removals with utility companies.
- All electrical disconnects and removals must be done by a Electrical Contractor licensed in Westchester County.
- All Plumbing disconnects and removals must be done by a Plumbing Contractor licensed in Westchester County.
- Remove all debris from site to a legal disposal facility. Contractor shall pay for all necessary dumpsters and carting fee's.

Foundation:

- Excavation shall be protected from frost in cold weather.
- Remove all water from excavation prior to concrete placement.
- All footings shall be at 3'-6" min. below grade on undisturbed soil.
- All footings shall rest on undisturbed soil of minimum bearing capacity of 2.0 tons per square foot.
- Provide sill plate anchors as detailed on drawings.
- Backfill with approved material, in layers, not to exceed 12". Compaction shall be 95% of maximum density at optimum moisture content.

Concrete:

- Material: F'c = 3000 psi at 28 days.
- All concrete exposed to weather including concrete for exterior foundation walls shall be air entrained.
- Rod reinforcement shall be in accordance with ASTM A615, grade 60 typically, grade 40 for ties and stirrups.
- Mesh reinforcement shall be in accordance with ASTM A185 and A82.
- All details, workmanship and procedures shall conform to ACI 318 latest edition.
- All bars marked "cont" shall be lapped 40 bar diameters at splices and corners and shall be hooked or extended 2'-0" minimum.
- Curing of concrete is to start as soon as surface will not be marred by finishing. It will not be permissible to delay curing until the next morning after concrete is cast.

Site Drainage:

- Provide gutters and leaders as required. Placement shall be as per Engineering drawings

Masonry:

- Stone and Concrete Masonry walls shall conform to the recommended practice for engineered brick masonry, latest edition by Structural Clay Products Institute, and "Specifications for the Design and Construction of Load Bearing Concrete Masonry" by National Concrete Masonry Association.
- All units shall be placed in a running bond, except where indicated otherwise.
- Mortar shall be type "M" or "S" min. 1 part portland cement, $\frac{1}{4}$ to $\frac{1}{2}$ part hydrated lime, and 2 $\frac{1}{4}$ to 3 parts sand.
- Store all units off ground to prevent contamination. Cover materials to protect from the elements.
- No air-entraining admixtures or antifreeze compounds, such as calcium chloride shall be added to mortar.
- The first block course on footings and top two courses shall be filled solid with concrete.

Wood Framing:

- All lumber to have min. stress grade of 850 PSI. Lumber exposed to exterior shall be pressure treated.
- Min. Bearing of all framing members to be 3 1/2".
- All framing to be erected plumb, level and true.
- All joists to receive solid bridging at mid span, 8'-0" max. spacing.
- Use double jack studs at all openings grater than 5'-0" and at all corners.
- Vent all rafters and attics as required and detailed.
- Use metal joist hangers at all discontinuous or flush framing. Joist hangers shall be installed as per manufacturers instructions and guide lines specifically for what type/size of nails need to be used and where.
- All headers to be 2-1 $\frac{3}{4}$ "x9 $\frac{1}{2}$ " LVL's unless otherwise noted.
- All exterior metal fasteners shall be galvanized.
- Provide double floor joists under parallel partitions.
- Wood I joists and engineered lumber shall be installed as per manufactures details and recommendations. Enginnered lumber shall be "Nordic" products
- Connections:
 - Wall Assembly
 - Top plate to top plate connection 2-16d commons per foot
 - Top plate intersection connection 4 -16d commons each side joint
 - Stud to stud connection 2 - 16d commons 24" o.c.
 - Header to header connection 16d commons 16" o.c. - edges
 - Choose top or bottom plate to stud connection 2-16d commons per 2 x 4 stud
 - Wall Assembly to Floor Assembly
 - Solid Bridging to Floor Joist 2-8d Commons each end
 - Blocking to Floor Joist Connection 2-8d Commons each end
 - Band Joist to Floor Joist Connection 3-16d Commons per Joist
 - Floor Assembly to Wall Assembly
 - Floor joist to Top Plate Connection 4-8d Commons per Joist
 - Blocking to Sill or Top Plate Connection 2-61d Commons per foot
- Double and triple LVL headers and girders to be connected using 3 rows of 16d (3 $\frac{1}{2}$ ") common wire nails @ 12" O.C., 2" from top and bottom and in center full length of beam.
- Provide Hurricane ties on new roof rafters, as well on existing where possible.

Roofing:

- Provide ice shield at all eaves and valleys. Ice shield to extend min. 24" beyond interior edge of exterior walls.
- Provide copper valleys and flashing as required.
- Provide drip edge as required.
- Roofing shall be minimum 50 year asphalt shingles, to match existing.

Window and Exterior Doors:

- Windows and exterior doors to be installed as per details and specs. on window schedule, plans and elevations.
- All units shall have code compliant insulation and air infiltration requirements.
- Maximum U-Value for Glazing shall be .35 and Maximum SHGC shall be .40

Applicable Codes:

2020 Residential Code of New York State
2020 Energy Conservation Code of New York State
Local Irvington Zoning Code

Town of Irvington
CODE ENFORCEMENT DIVISION
85 Main Street, Irvington, NY 10533

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA (Effective 10-3-2016)													
LOCATION: Village of Irvington												Zip Code: 10533	
Ground Snow Load	Wind Design				Seismic Design Category (RCNY Only)	Subject to Damage From			Climate Zone	Ice Barrier Underlayment Req'd.	Flood Hazards	Air Freezing Index	Mean Annual Temp.
	Speed (mph)	Topo Effects	Special Wind Region	Wind-borne Debris Zone		Weathering	Frost Line Depth	Termite					
30	* Special Wind Region	No	Yes	No	C	Severe	42"	Moderate to Heavy	4A	Yes	** FIRM COMMUNITY PANEL MAP# 36119C0261F EFFECTIVE DATE 9-28-2007	2000	51.6

* 115 MPH to 120 MPH. The special wind region should serve as a warning to design professionals in evaluating wind loading conditions. Wind speeds higher than the derived values taken from Section 1609 of the IBC and figure R301.2(4)A of the IRC are likely to occur and should be considered in the design.

Insulation:

- The following minimum insulation requirements shall apply.
 - Maximum U-Value for glazing - .35
 - Maximum SHGC for glazing - .40
- Minimum R Values:
 - Ceiling - R 49
 - Walls - R 20
 - Floor - R 21
- Compliance using computer software can be used as substitute.

Electrical:

- All electrical work shall be performed by a licensed electrician.
- All work shall conform to all codes and requirements of authorities having jurisdiction.
- Contractor is responsible for procurement of all inspection certificates.
- Electrical plans reflect minimum electrical and lighting requirements. Client shall field locate all fixtures and electrical requirements as desired.
- All telephone lines shall be Cat-5 wire and homerun to central location to be V.I.F.
- All smoke, heat and carbon monoxide detectors shall be hardwired and interconnected.
- Smoke Detecting alarms are to be installed in each sleeping space, outside each sleeping area and on each floor as per section R314 of the 2015 International Residential Code. N.F.P.A. # 72 and all other applicable codes and requirements having jurisdiction.
 - As per the 2015 International Residential Code Section R314.2.2 Where Alterations, repairs or additions requiring a permit occur or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with Smoke Alarms located as required for new dwelling
- Carbon Monoxide Detectors are to be installed as required by 2015 International Residential Code Section R315 and local codes and ordinances. Carbon Monoxide Alarms shall be provided in the following locations:
 - As per the 2015 International Residential Code Section R314.2.2 Where Alterations, repairs or additions requiring a permit occur or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with Smoke Alarms located as required for new dwelling.
 - Within each dwelling unit, on each story containing a sleeping area.
 - Within 15 feet of any sleeping area, more than one Carbon Monoxide alarm shall be provided where necessary to assure that no sleeping area on a story is more than 15 feet away from a Carbon Monoxide Alarm.
 - On any story of a dwelling unit that contains a Carbon Monoxide source.
- As per 2015 International Residential Code. Owner must install hardwired interconnected smoke detectors on each floor as required for a new residence.

HVAC System:

- Existing Heating and Cooling system shall bechecked for performance and capability to handel additional area while maintaining 68° degress inside temperature with 0° degree outside temperature.
- Contractor shall coordinate with Architect to provide system options and prices to present to owner for final approval.
- All Heating and Air Conditioning accessories and appurtenances shall be U.L. listed and installed in accordance with same.

Exterior Finishes:

- Provide Tyvec house wrap, or approved equal, on all exterior walls.
- Provide flashing and water proofing entire exterior as required.
- Trim to be PVC composite.
- All fasteners, nails, screws etc. shall be coated to prevent rusting.
- Exterior Siding to match existing.

Interior Finishes:

- New and renovated areas to receive 1/2" Gyp. Board throughout. Unless noted otherwise. Use green board in bathrooms and cement board in any walls designated to receive tile.
- Gyp. board to receive min. two coats taping compound, sanded smooth to receive paint or wall covering.
- Walls to receive one coat primer and two coats finish paint min. Ensure proper coverage.
- All trim shall match existing.
- Finish flooring to be wood to match existing.

Energy Code Certification Statement:

To the best of my knowledge and belief, these drawings and specifications are prepared in conformance with the 2015 International Energy Conservation Code requirements for Climate Zone 4A (Westchester County) Criteria.

Samuel F. Vieira
Samuel F. Vieira, R.A.

Samuel F. Vieira, Architect P.C.

140 VALLEY ST. SLEEPY HOLLOW, NY 10591
PHONE 914 524 9054
FAX 914 524 9672
CELL 914 659 4894
E-MAIL SAM@STVDSIGN.COM

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT IS ALTERED, THE SEAL SHALL BE CONSIDERED NULL AND VOID. ANY SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REV.	DATE	COMMENT

TITLE SHEET, GENERAL NOTES AND SPECIFICATIONS

PROJECT: PROPOSED ADDITION AND ALTERATIONS:

CHOI RESIDENCE

75 HAMILTON ROAD

IRVINGTON, NEW YORK 10533

DRAWING TITLE:

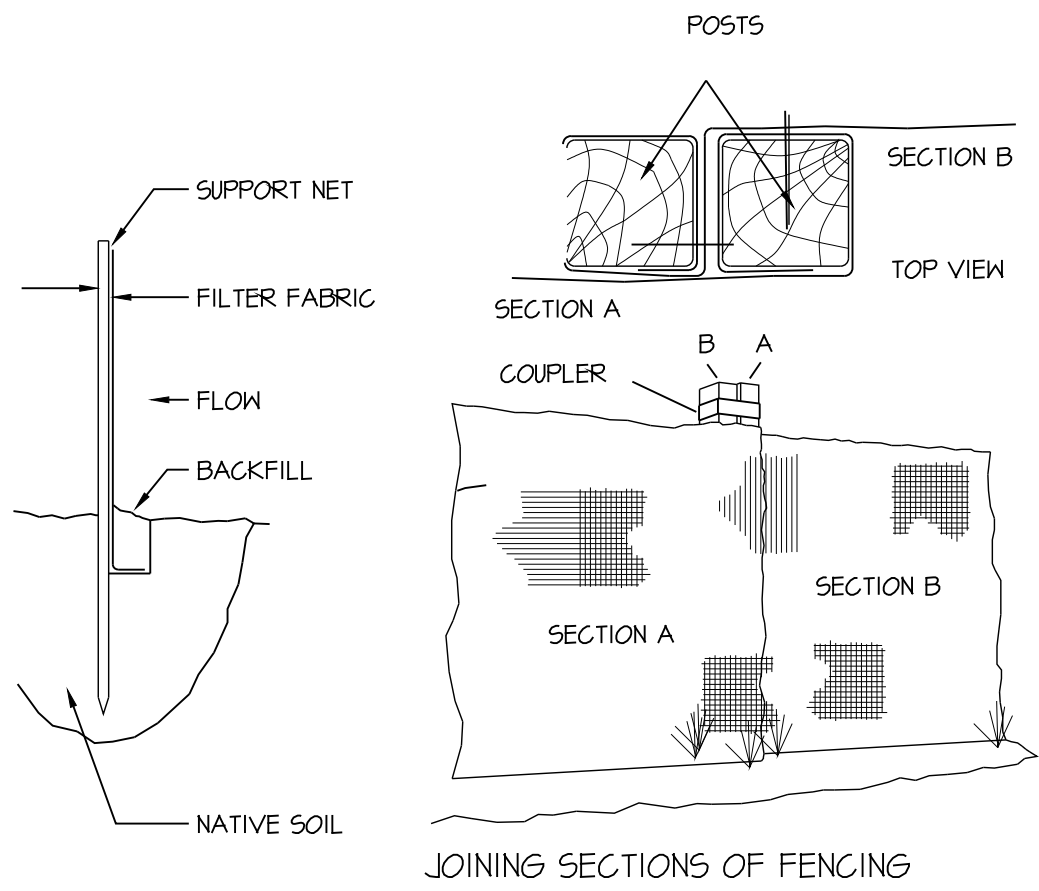
SEAL:

PROJECT #:
DATE:
SCALE:
DRAWN BY:

20002-18
JULY 23, 2021
AS NOTED
RFA, DFA

T-1

SHEET NO:

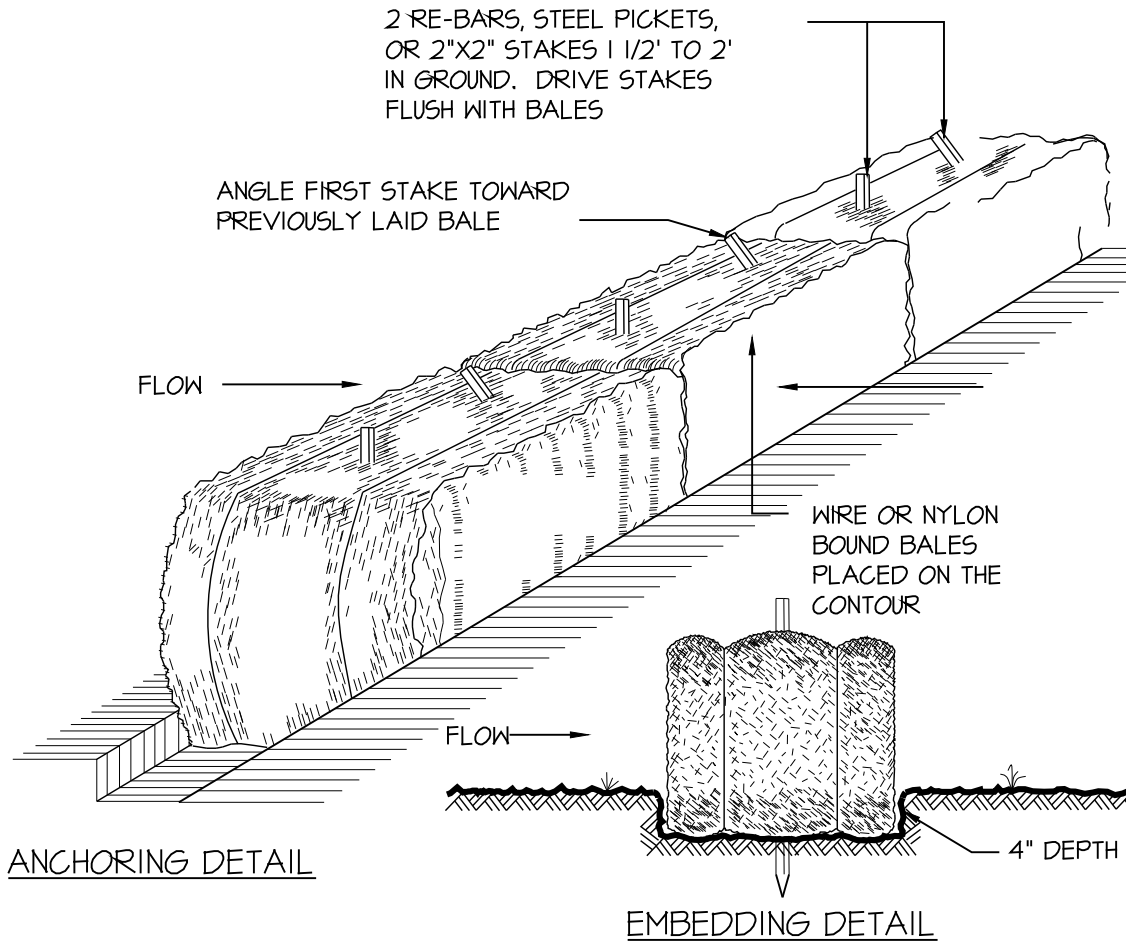


SILT FENCE DETAIL

4 N.T.S.

- INSTALLATION NOTES**
- EXCAVATE A 4"x4" TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
 - UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
 - DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
 - LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
 - JOIN SECTIONS AS SHOWN ABOVE.

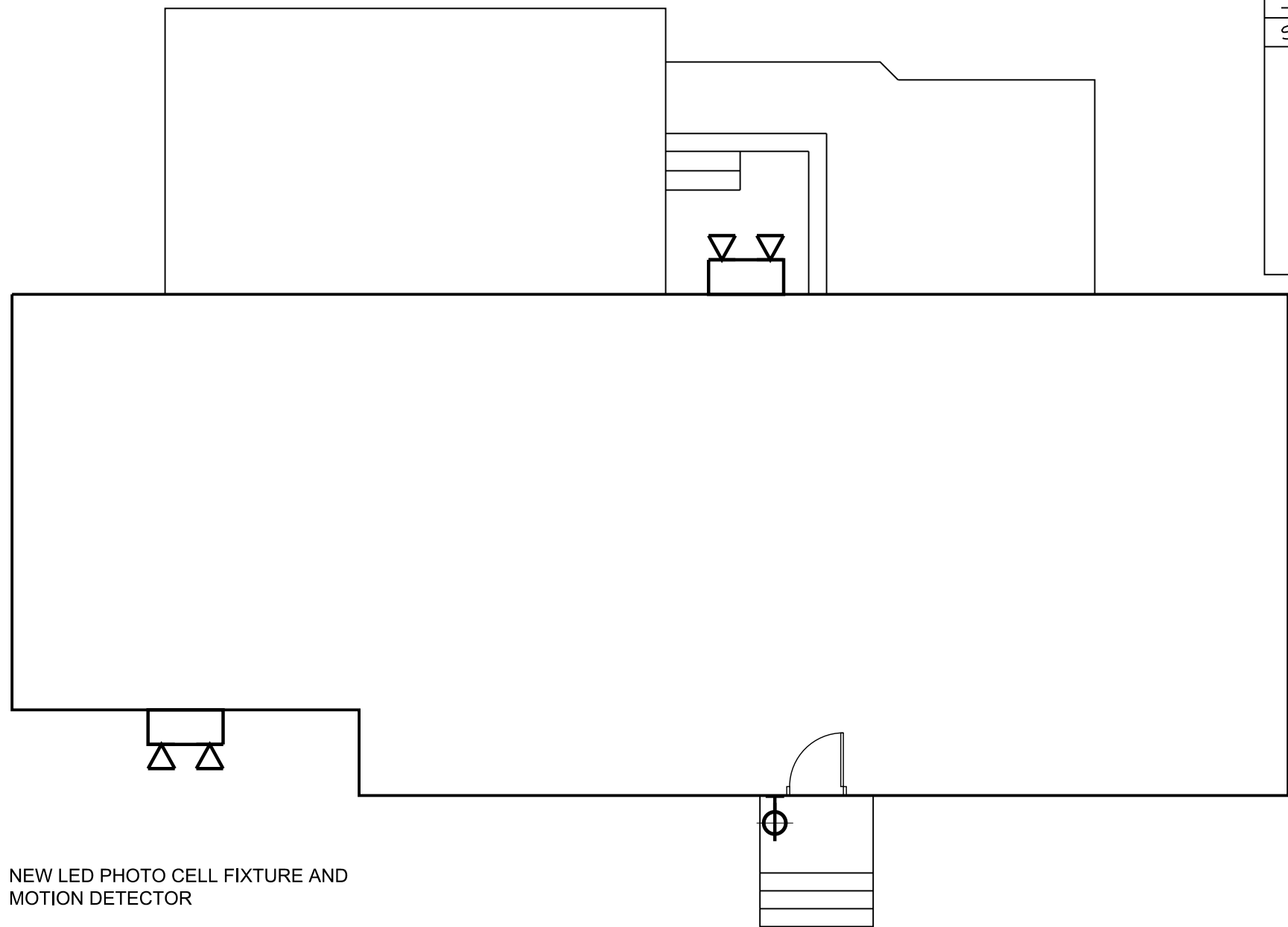
NOTE:
ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE WESTCHESTER COUNTY PUBLICATION BEST MANAGEMENT PRACTICES MANUAL-CONSTRUCTION RELATED ACTIVITIES, LATEST EDITION.



STRAWBALE SEDIMENT BARRIERS

5 N.T.S.

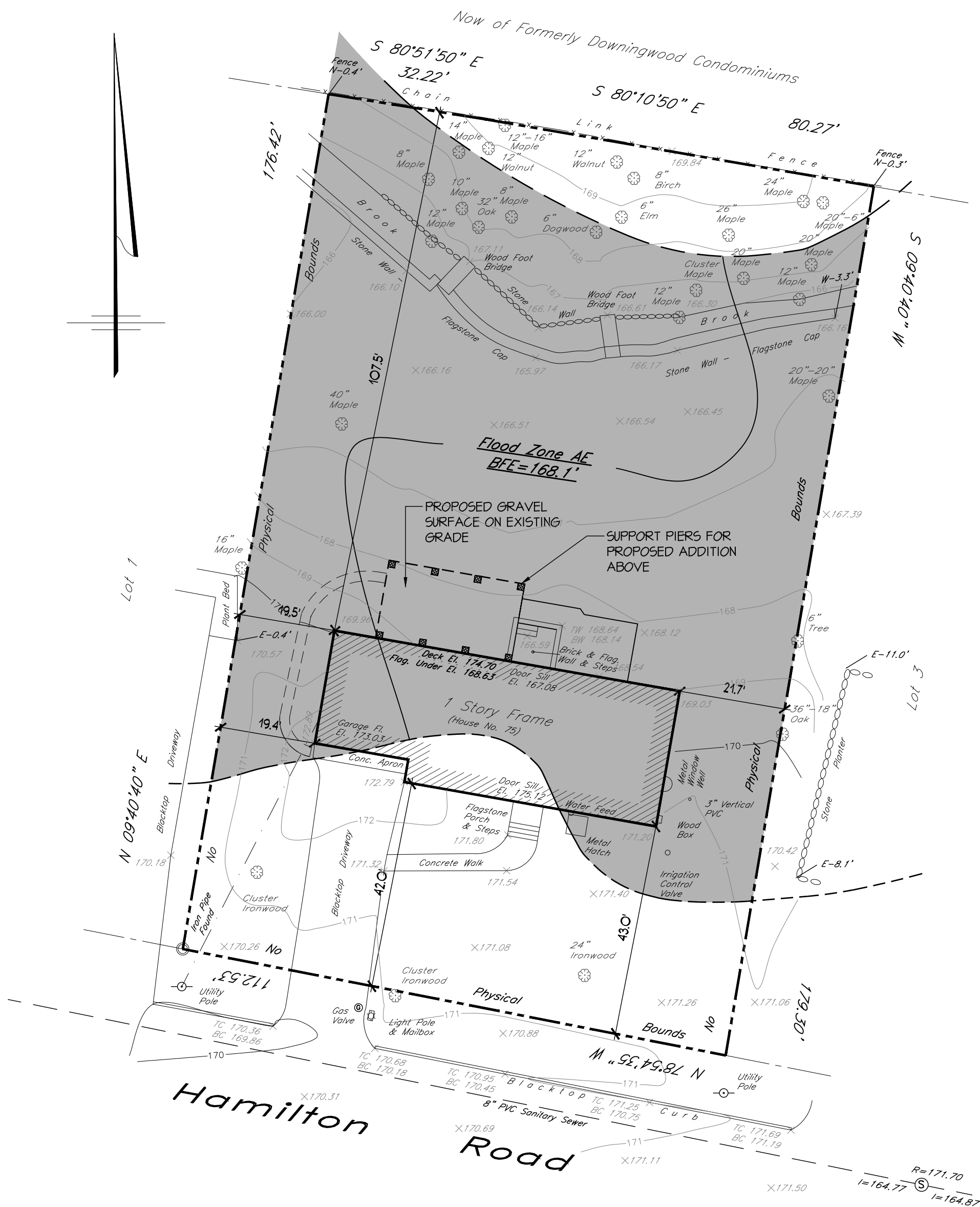
- NOTES:**
- BALES SHALL BE EITHER STRAW OR HAY.
 - BALES SHALL BE PLACED AT THE TOE OF SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
 - INSPECTION SHALL BE FREQUENT, AND REPAIR AND/OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED TO MAINTAIN EFFECTIVENESS OF INSTALLATION.
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE FLOW OR DRAINAGE.



EXTERIOR LIGHTING PLAN

3 1/8" = 1'-0"

ELECTRICAL LEGEND:	
SYMBOL	DESCRIPTION
	EXISTING WALL MOUNTED LIGHT FIXTURE
	EXISTING LED FLOOD LIGHT FIXTURE WITH PHOTOCELL / MOTION DETECTOR ON TIMER



FLOOD ZONE / DISTURBANCE SITE PLAN

1 1" = 20'-0"

THE INFORMATION ABOVE WAS TAKEN FROM AN OWNER PROVIDED SURVEY BY WARD CARPENTER ENGINEERS, INC., DATED DECEMBER 30, 2020. ACCURACY IS LIMITED TO THE DATA PROVIDED THEREIN. ARCHITECT IS NOT RESPONSIBLE FOR INFORMATION PROVIDED BY OTHERS.

ZONING DATA					
TAX MAP DESIGNATION:		SECTION 2130 BLOCK 66 LOT 22			
ZONING DISTRICT: IF-20		SINGLE FAMILY RESIDENCE DISTRICT			
		MINIMUM REQUIREMENTS	EXISTING	PROPOSED	VARIANCE REQUESTED
MIN. LOT AREA	S.F.	20,000	20,023	NO CHANGE	--
MIN. LOT WIDTH	FT.	100	112.53	NO CHANGE	--
MIN. LOT DEPTH	FT.	125	116.42	NO CHANGE	--
MIN. FRONT YARD	FT.	35	42.0	38.0	--
MIN. SIDE YARD	FT.	15	14.4	NO CHANGE	--
MIN. REAR YARD	FT.	35	107.5	41.8	--
OFF STREET PARKING	SP.	2	2	NO CHANGE	--
		MAXIMUM PERMITTED			
MAX. FL. AREA RATIO	S.F.	4,004.6	1,479	1,421	--
MAX. COVERAGE	S.F.	3,201.38	2,819.64	3,190.70	--

PRINCIPAL BUILDING COV. CALCULATIONS
EXISTING
EXST. BLDG. COV. = 1,908.44 SQ.FT.

PROPOSED
EXST. BLDG. COV. = 1,908.44 SQ.FT.
COVERED FRONT STOOP = 26.61 SQ.FT.
REAR ADDITION = 448.00 SQ.FT.

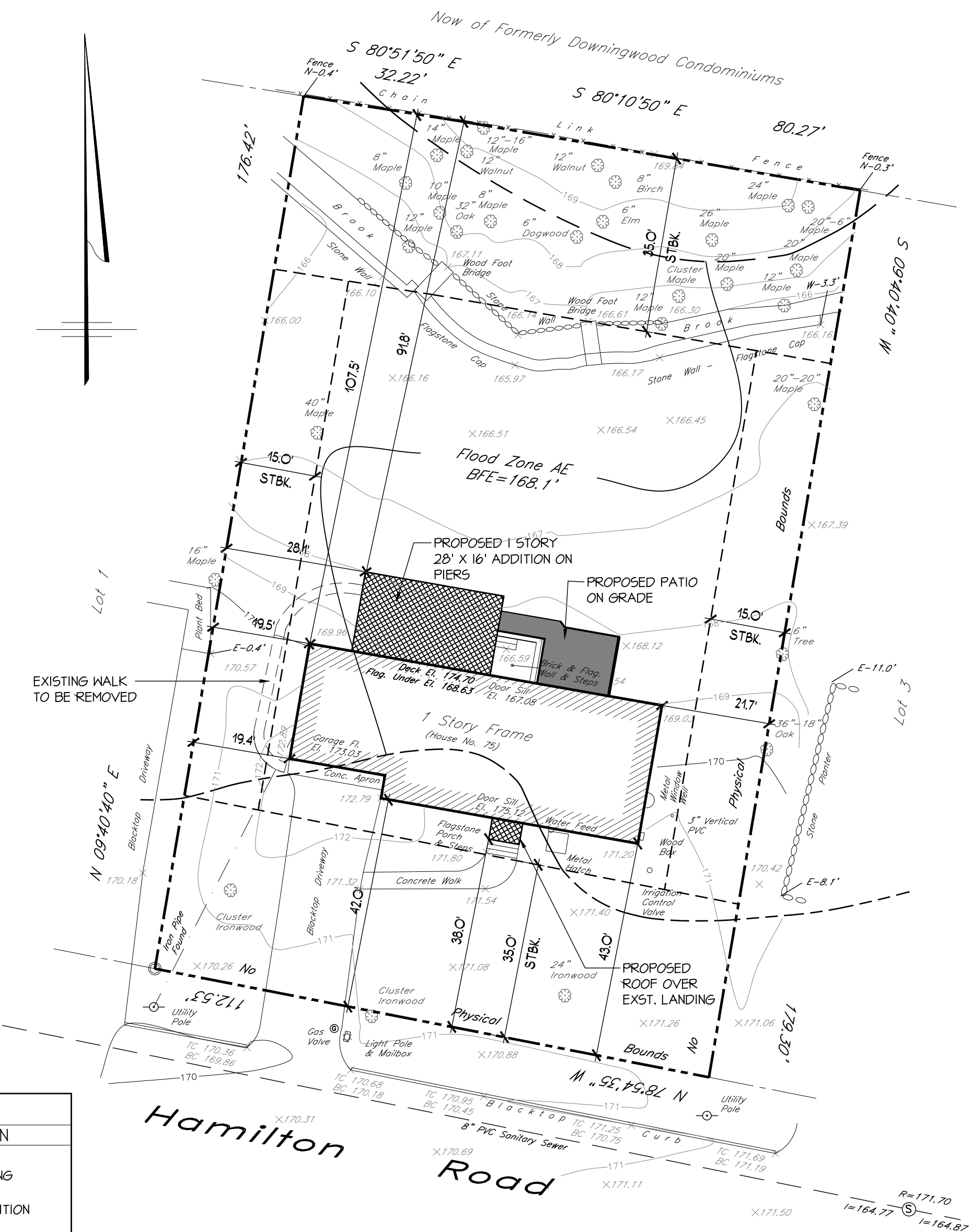
TOTAL = 2,383.05 SQ.FT.

MAX. COVERAGE CALCULATION - 2241.3		
LOT AREA 20,023 SF		
20,023 SF. - 20,000 SF. = 23 SF.		
20,000 SF. x 16% = 3,200 SF.		
23 SF. x 6% = 1.38 SF.		
TOTAL = 3,201.38 SF.		
ITEM	EXISTING	PROPOSED
MAIN HOUSE	1,908.44	2,383.05
DECKS	102	0
BGMNT. PAVED ENTRY	42.60	42.60
STONE WALLS	243.10	243.10
WALKS & STEPS	356.60	140.00
FOOT BRIDGES	51.06	51.06
METAL HATCH	15.84	15.84
NEW MASONRY PATIO	0	215.00
TOTAL	2,819.64	3,190.70

MAXIMUM FLOOR AREA RATIO CALCULATIONS (224-136)
PERMITTED
LOT SIZE = 20,023 SQ.FT.
20,023 SQ.FT. x 0.2 = 4,004.6 SQ.FT.

MINIMUM FLOOR AREA CALCULATIONS		
	EXISTING	PROPOSED
FIRST FLOOR AREA	SQ.FT.	1,457 SQ. FT.
GARAGE	SQ.FT.	22 SQ. FT.
BASEMENT	SQ.FT.	0 SQ. FT.
TOTAL	1,479 SQ. FT.	1,927 SQ. FT.

EXEMPTION (224-131 (D))
GARAGE AREA = 422 SQ.FT.
422 SQ.FT. - 400 SQ.FT. = 22 SQ.FT.



PROPOSED SITE PLAN

2 1" = 20'-0"

THE INFORMATION ABOVE WAS TAKEN FROM AN OWNER PROVIDED SURVEY BY WARD CARPENTER ENGINEERS, INC., DATED DECEMBER 30, 2020. ACCURACY IS LIMITED TO THE DATA PROVIDED THEREIN. ARCHITECT IS NOT RESPONSIBLE FOR INFORMATION PROVIDED BY OTHERS.

SITE PLAN LEGEND:	
SYMBOL	DESCRIPTION
	EXISTING BUILDING
	PROPOSED ADDITION
	EXISTING GENERAL SITE
	EXIST. FENCE
	PROPERTY LINE

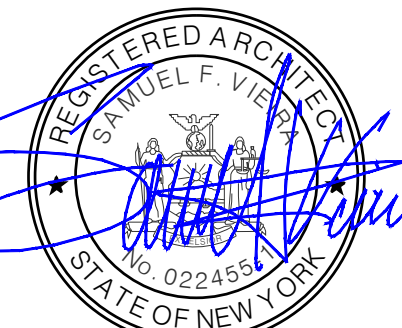
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REV.	DATE	COMMENT

DRAWING TITLE:
FLOOD ZONE / DISTURBANCE SITE PLAN PROPOSED SITE PLAN AND LIGHTING STUDY PLAN
PROJECT:
PROPOSED ADDITION AND ALTERATIONS:
CHOI RESIDENCE
75 HAMILTON ROAD
IRVINGTON, NEW YORK 10533



SEAL:
PROJECT #:
DATE:
SCALE:
DRAWN BY:

20002-18
JULY 23, 2021
AS NOTED
RFA, DFA

SP-1

SHEET NO:

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REV.	DATE	COMMENT

DRAWING TITLE:



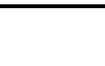


PROPOSED ADDITION AND ALTERATIONS:

CHOI RESIDENCE
75 HAMILTON ROAD
IRVINGTON, NEW YORK 10533



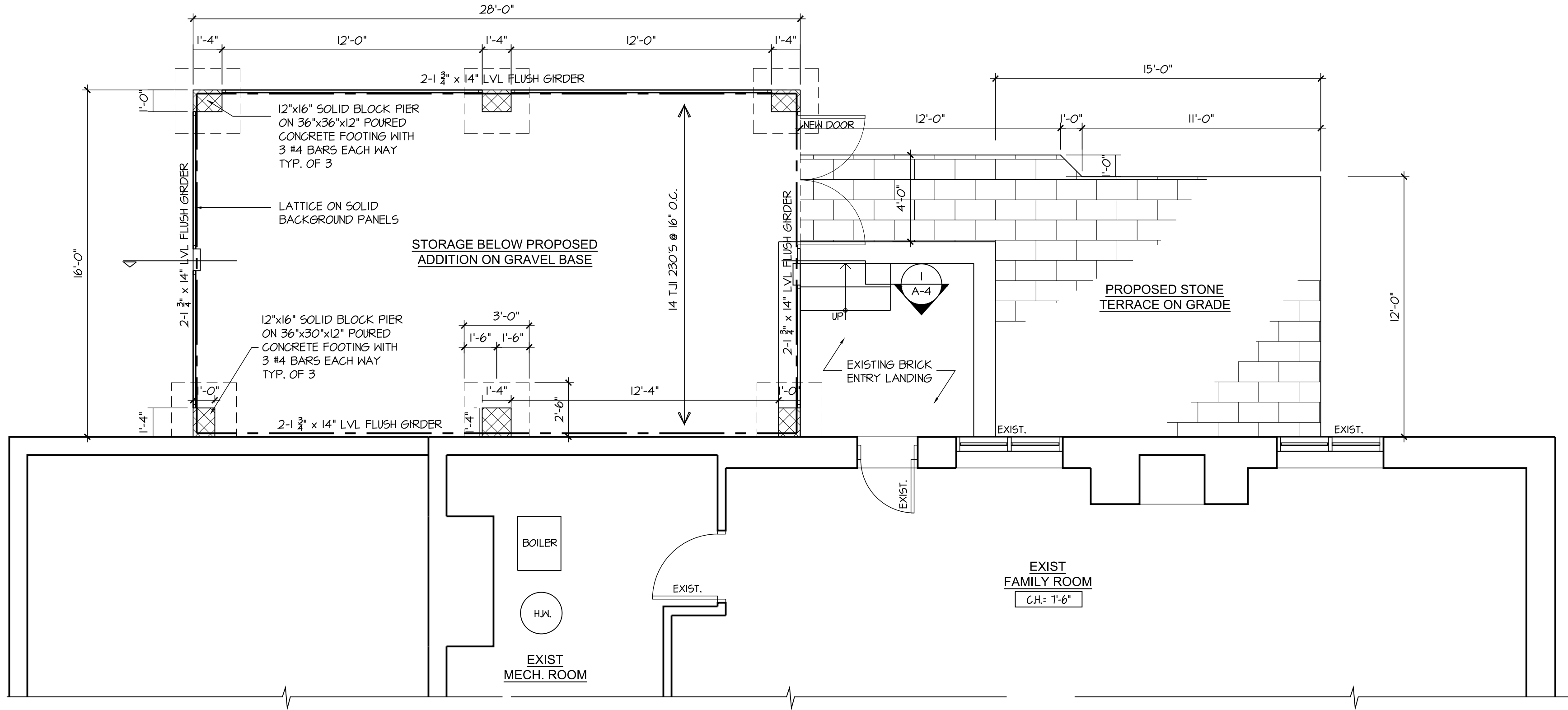
PROJECT #: 20002-18
DATE: JULY 23, 2021
SCALE: AS NOTED
DRAWN BY: RFA, DFA

SHEET NO:

DEMOLITION LEGEND:	
SYMBOL	DESCRIPTION
	EXISTING WALL TO REMAIN
	EXISTING CONSTRUCTION TO BE REMOVED
	EXIST. DOOR TO BE REMOVED INDICATES EXST. DOOR SIZE
	INDICATES THE EXISTING DIRECTION OF FRAMING
	INDICATES TEMPORARY SUPPORT WALL

[illegible]

1 BASEMENT/ FOUNDATION DEMOLITION PLAN $1/4" = 1'-0"$



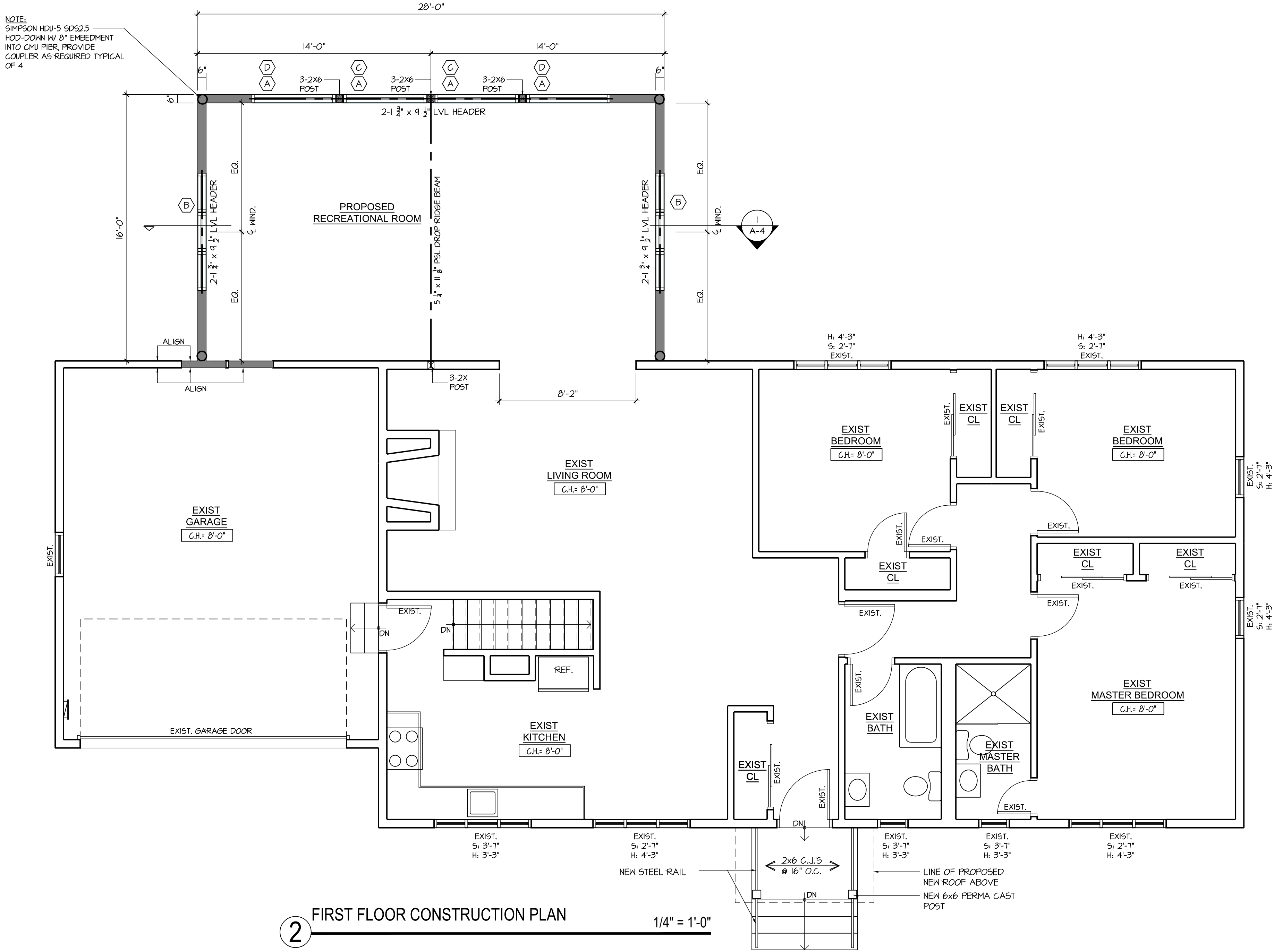
1 PARTIAL BASEMENT CONSTRUCTION PLAN 1/4" = 1'-0"

WINDOW SCHEDULE						
UNIT	MANUFACTURER	MODEL	R.O.	GLASS	VENT	NOTES
A	ANDERSEN	P5050	5'-0 3/8" x 5'-0 3/8"	21J	--	--
B	ANDERSEN	CW35	7'-1 1/8" x 5'-0 3/8"	27.6	16.7	MEETS EGRESS REQUIREMENTS
C, D, E, F	ANDERSEN	CUSTOM	--	--	--	--

WINDOW NOTES:
1. ALL NEW WINDOWS TO BE "ANDERSEN" 400 SERIES, SANDSTONE CLAD EXTERIOR, WOOD INTERIOR, FULL SCREENS, WHITE HARDWARE, EXT. JAMBS TO BE COORDINATED IN FIELD PRIOR TO ORDERING

CONSTRUCTION LEGEND:	
SYMBOL	DESCRIPTION
[Solid line]	EXISTING WALL TO REMAIN
[Dashed line]	PROPOSED 2X6 WOOD STUDS @ 16" O.C. W/ R-20 INSULATION & 1/2" GYP. BD. ROOM SIDE
[Circle with A]	PROPOSED WINDOW INDICATES WINDOW TYPE
[Circle with C]	PROPOSED DOOR INDICATES DOOR SIZE
[Arrow]	INDICATES THE EXISTING DIRECTION OF FRAMING

NATURAL LIGHT AND VENTILATION CALCULATIONS					
ROOM:	SQ. FT.:	REQUIRED:		PROPOSED:	
		VENT 4%	LIGHT 8%	VENT	LIGHT
FIRST FLOOR LEVEL					
PROPOSED RECREATIONAL ROOM	418.5 S.F.	16.74	33.48	33.4	139.6



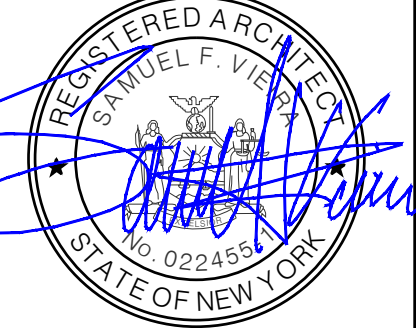
2 FIRST FLOOR CONSTRUCTION PLAN 1/4" = 1'-0"

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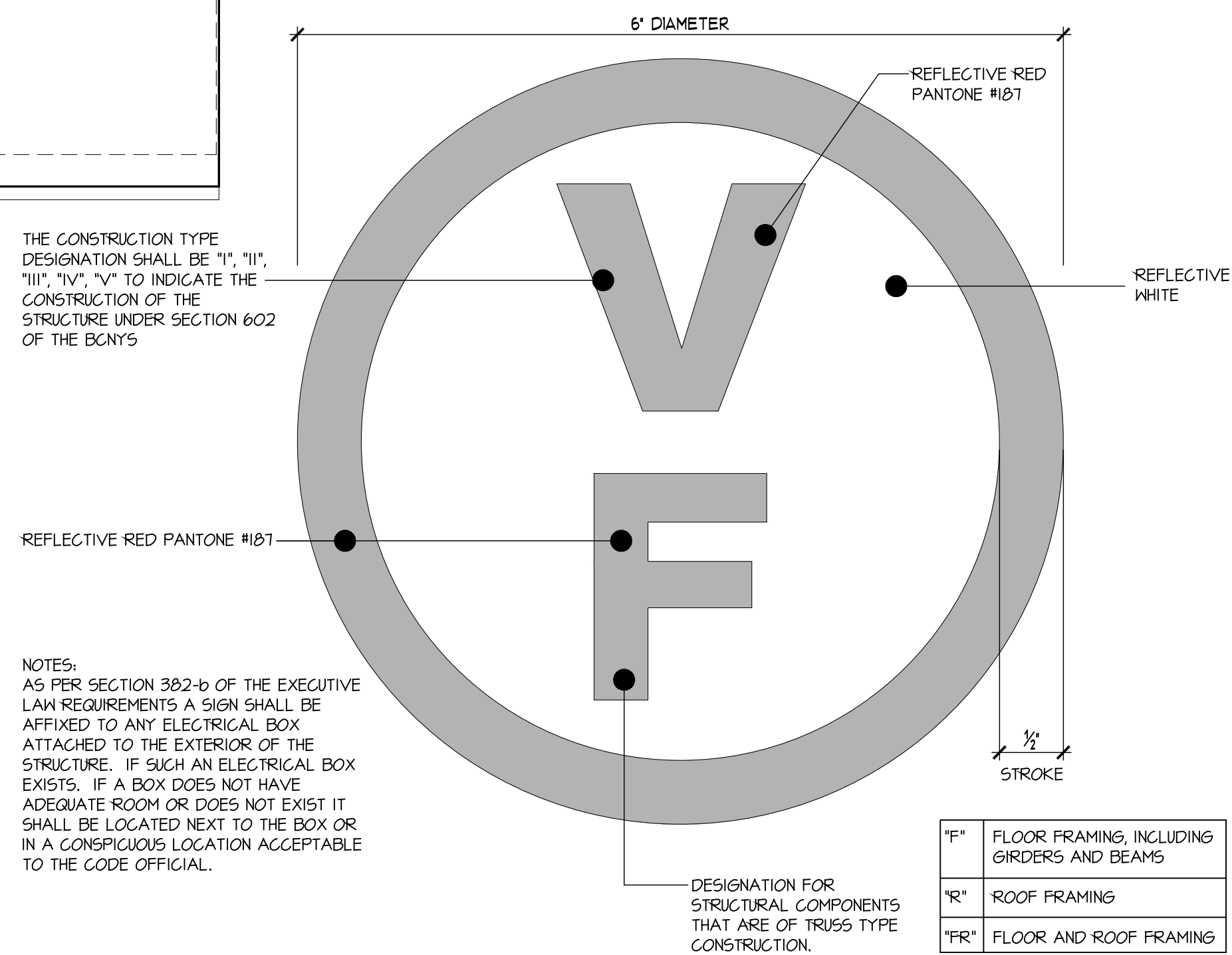
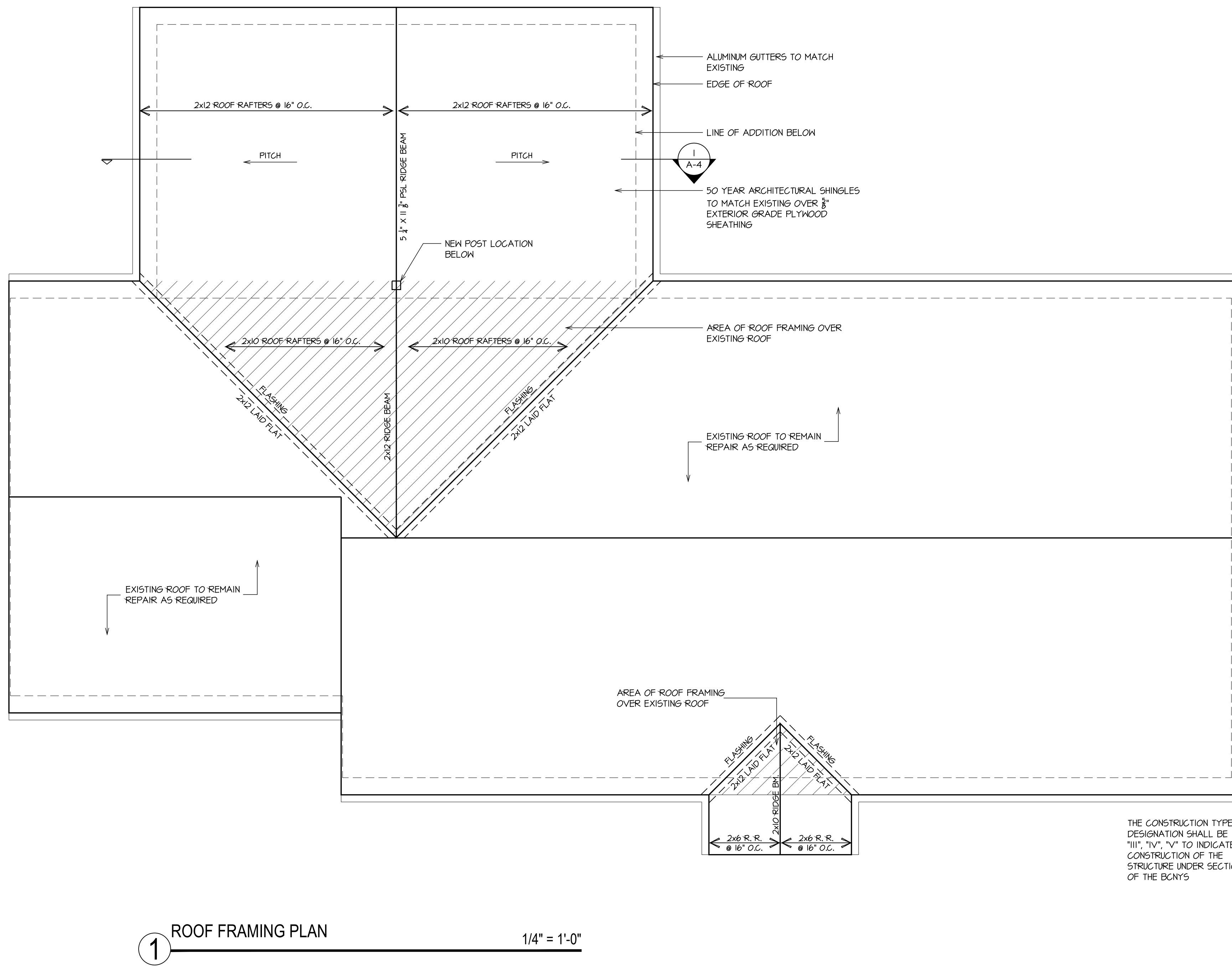
REV.	DATE	COMMENT




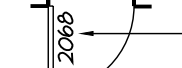
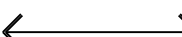
DRAWING TITLE: PARTIAL BASEMENT AND FIRST FLOOR CONSTRUCTION PLANS
PROJECT: PROPOSED ADDITION AND ALTERATIONS:
CHOI RESIDENCE
75 HAMILTON ROAD
IRVINGTON, NEW YORK 10533



PROJECT #: 20002-18
DATE: JULY 23, 2021
SCALE: AS NOTED
DRAWN BY: RFA, DFA

A-1
SHEET NO:



CONSTRUCTION LEGEND:	
SYMBOL	DESCRIPTION
	EXISTING WALL TO REMAIN
	PROPOSED 2X6 WOOD STUDS @ 16" O.C. W/ R-20 INSULATION & 1/2" GYP. BD. ROOM SIDE
	<u>PROPOSED WINDOW</u> INDICATES WINDOW TYPE
	<u>PROPOSED DOOR</u> INDICATES DOOR SIZE
	INDICATES THE EXISTING DIRECTION OF FRAMING

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REV.	DATE	COMMENT

DRAWING TITLE:

ROOF FRAMING PLAN AND SIGNAGE DETAIL

PROJECT: PROPOSED ADDITION AND ALTERATIONS:

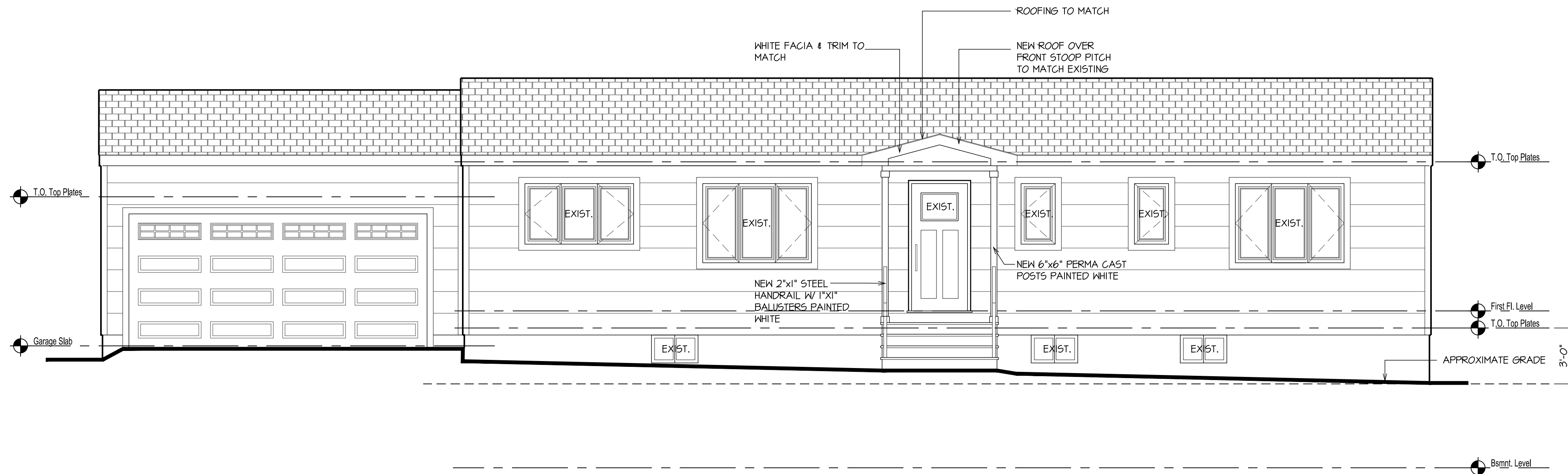
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DATE: JULY 23, 2021
SCALE: AS NOTED
DRAWN BY: RFA, DFA

A-2

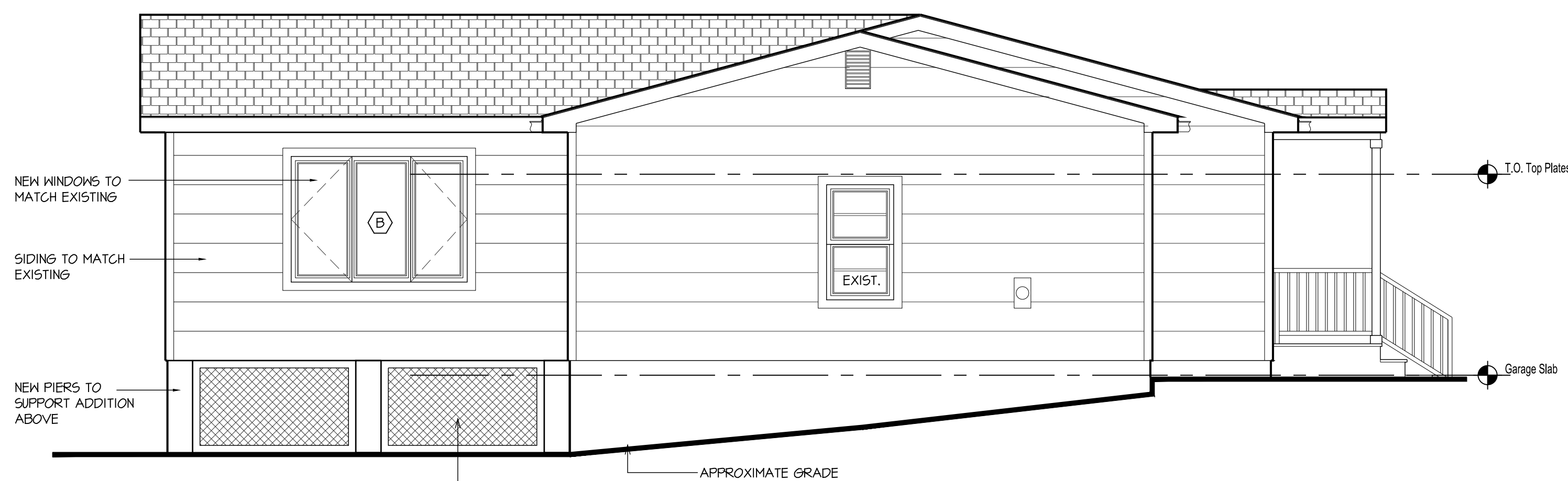
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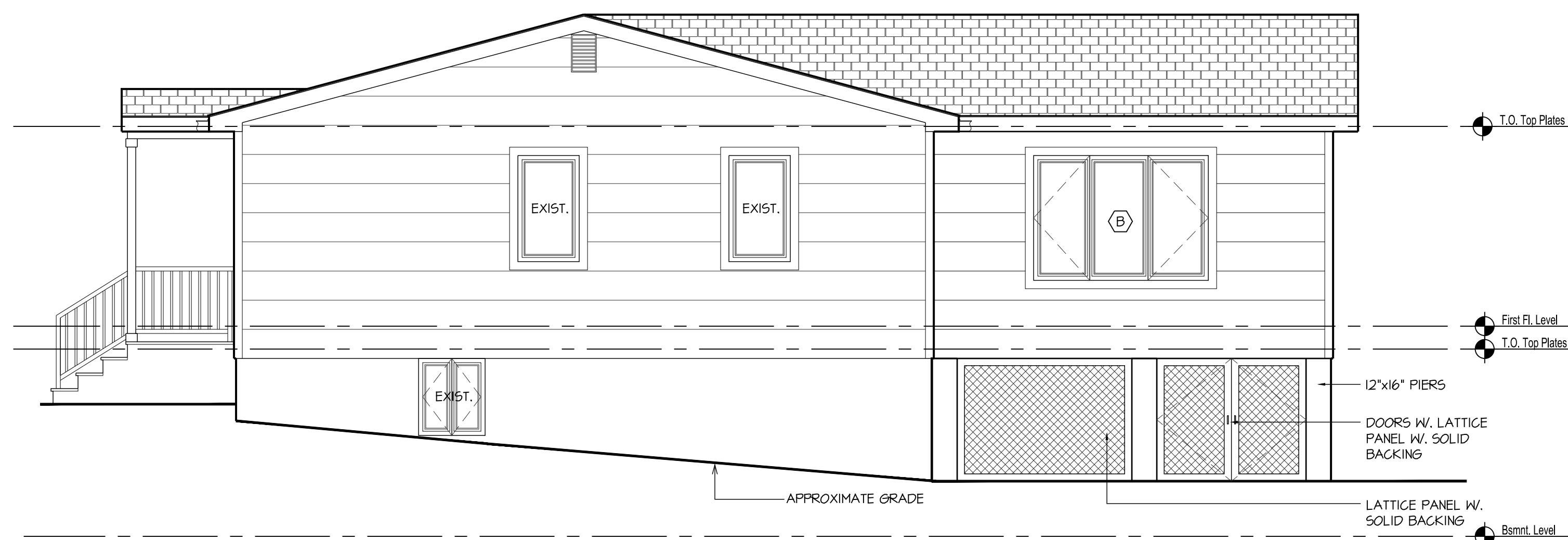
1 PROPOSED FRONT ELEVATION 1/4" = 1'-0"



2 PROPOSED REAR ELEVATION 1/4" = 1'-0"



3 PROPOSED WEST SIDE ELEVATION 1/4" = 1'-0"



4 PROPOSED EAST SIDE ELEVATION 1/4" = 1'-0"

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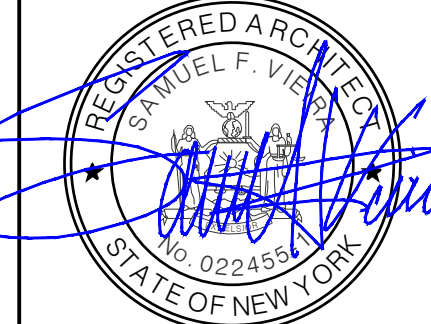
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REV.	DATE	COMMENT

DRAWING TITLE: PROPOSED EXTERIOR ELEVATIONS

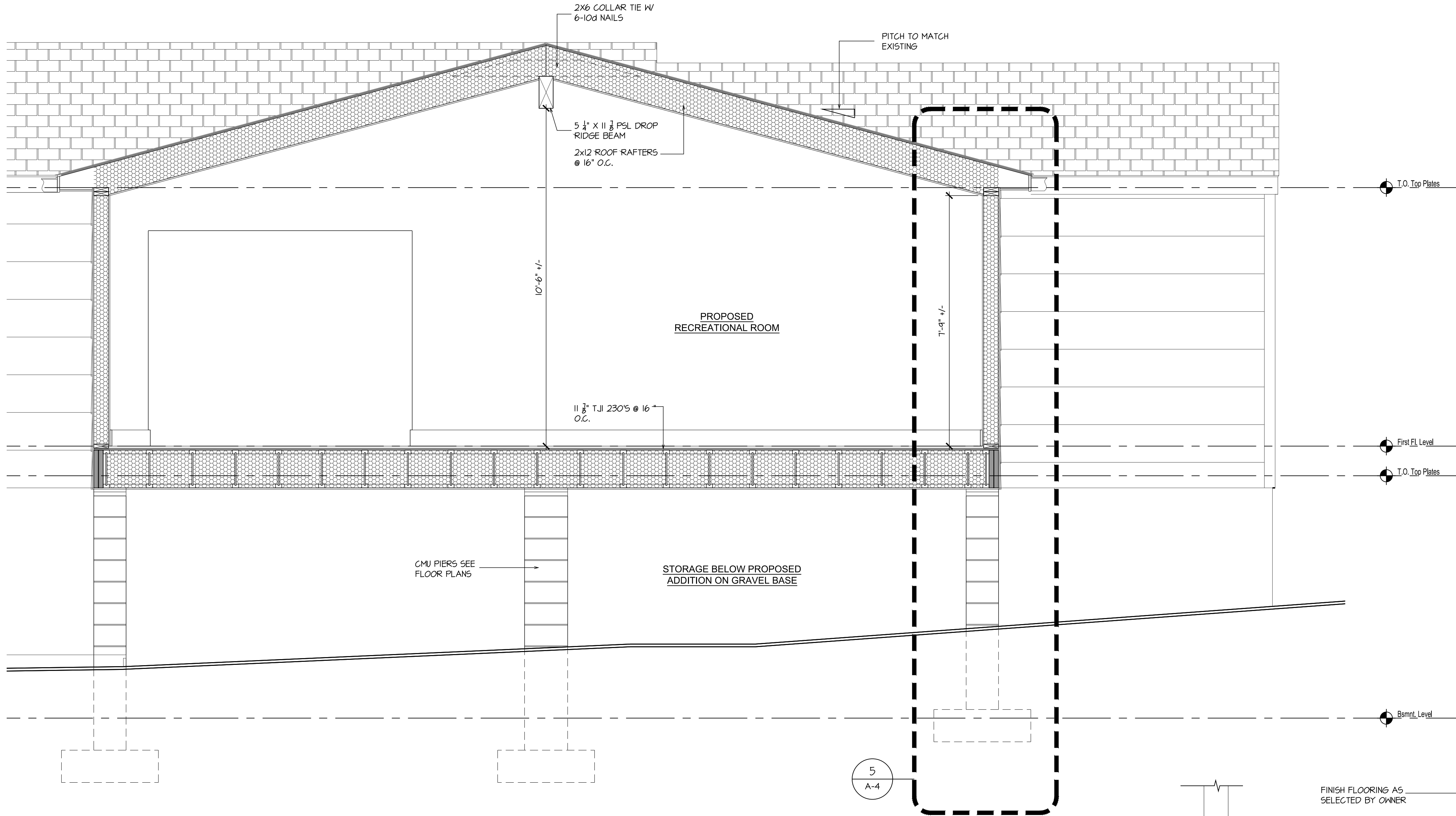
PROJECT: PROPOSED ADDITION AND ALTERATIONS:
CHOI RESIDENCE
75 HAMILTON ROAD
IRVINGTON, NEW YORK 10533



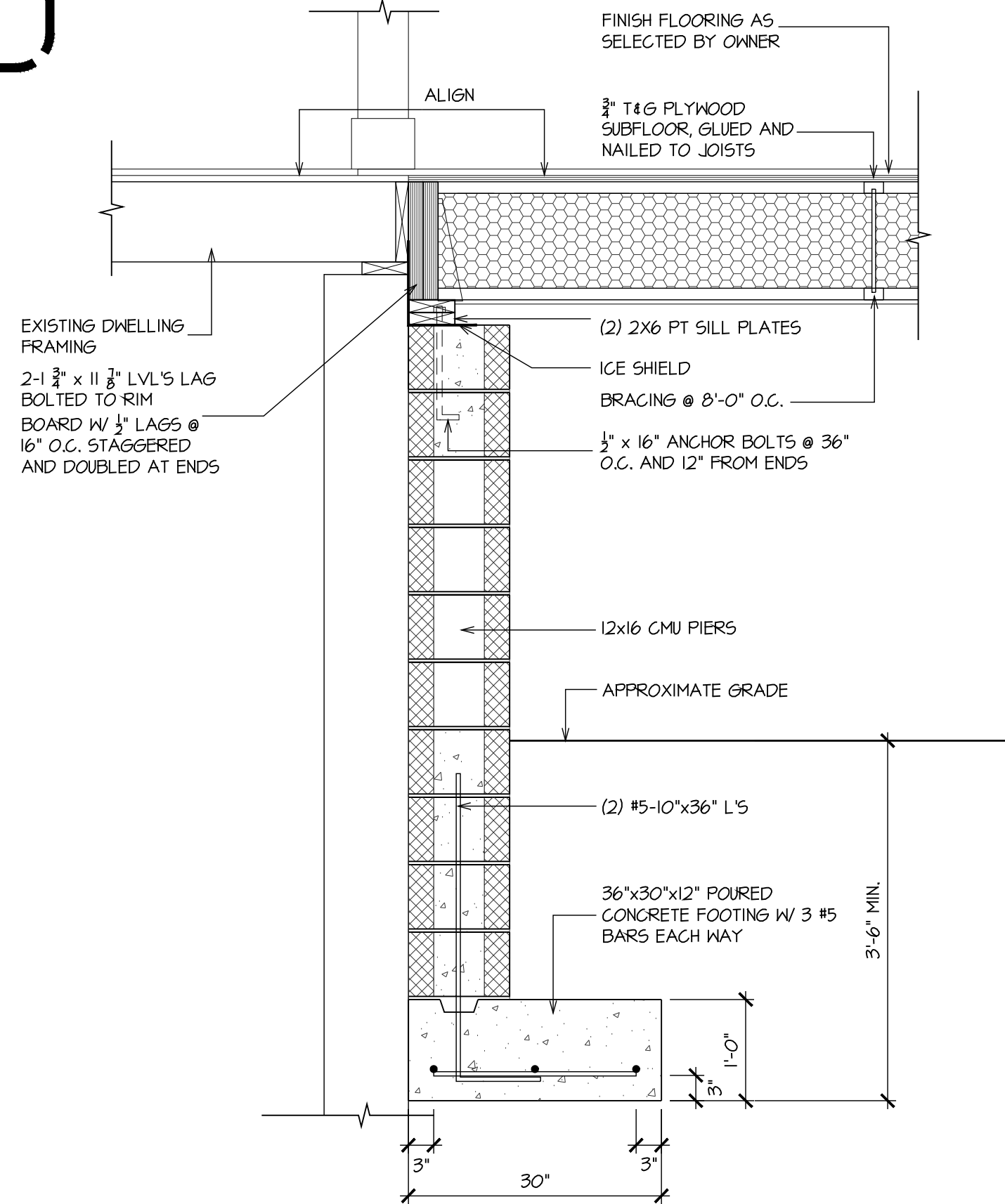
SEAL: PROJECT #: 20002-18
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SCALE: AS NOTED
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A-3

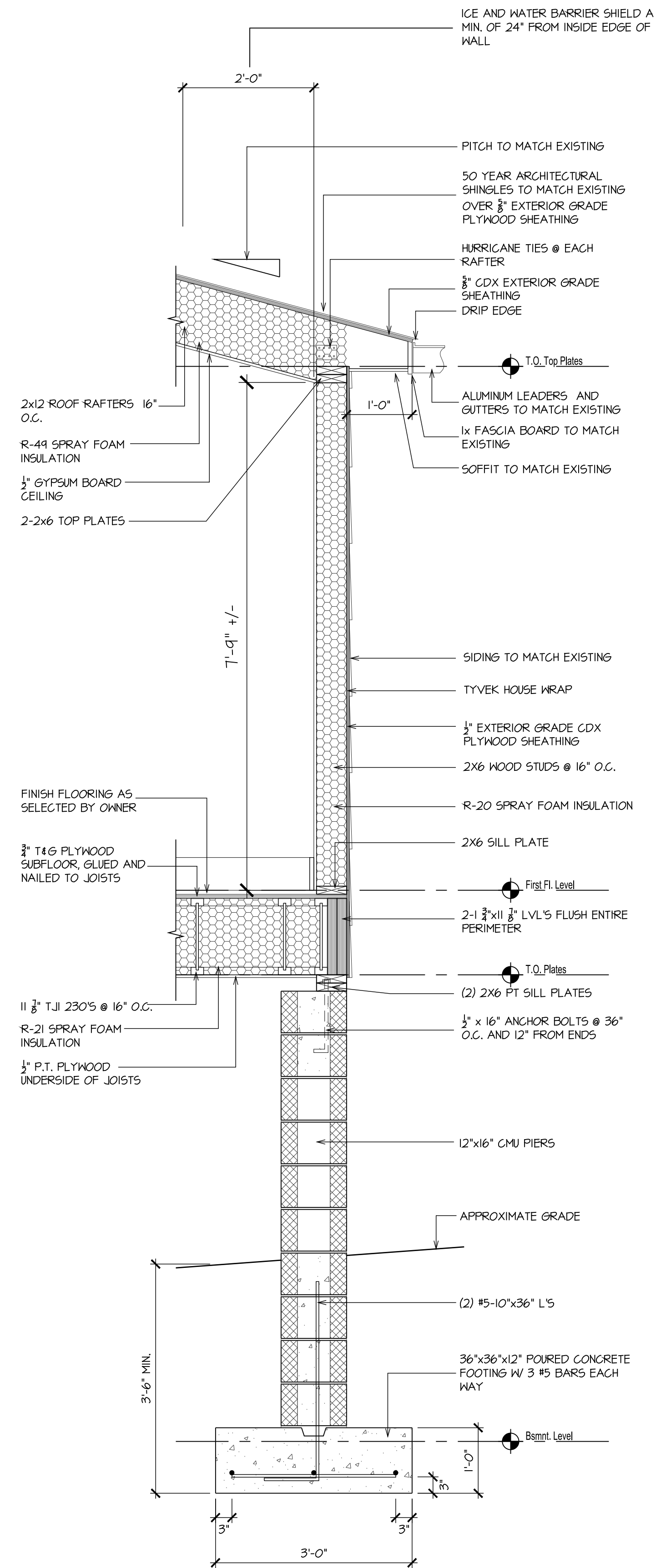
SHEET NO:



1 TYPICAL BUILDING SECTION
1/2" = 1'-0"



4 TYPICAL WALL SECTION
3/4" = 1'-0"



5 TYPICAL WALL SECTION
3/4" = 1'-0"

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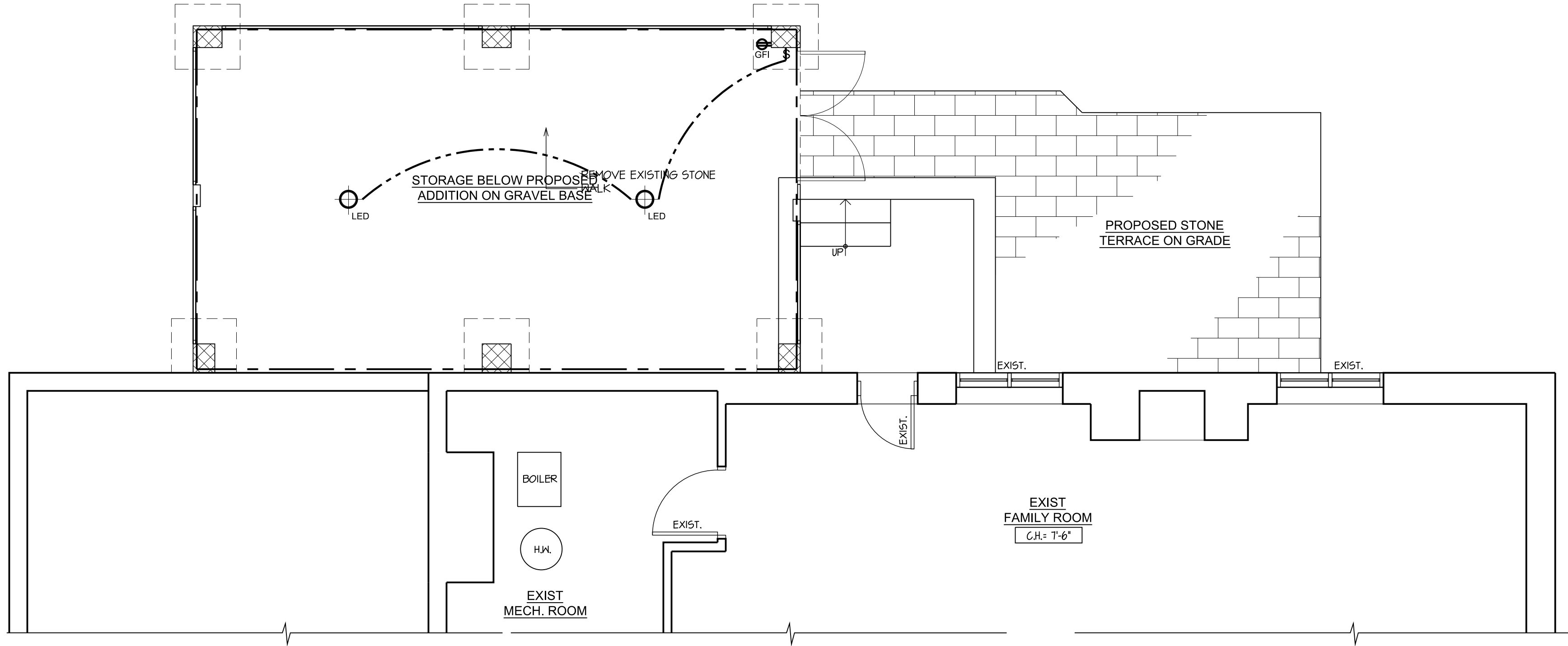
REV.	DATE	COMMENT

DRAWING TITLE: TYPICAL BUILDING SECTION WALL SECTIONS AND DETAILS
PROJECT: PROPOSED ADDITION AND ALTERATIONS:
CHOI RESIDENCE
75 HAMILTON ROAD
IRVINGTON, NEW YORK 10533



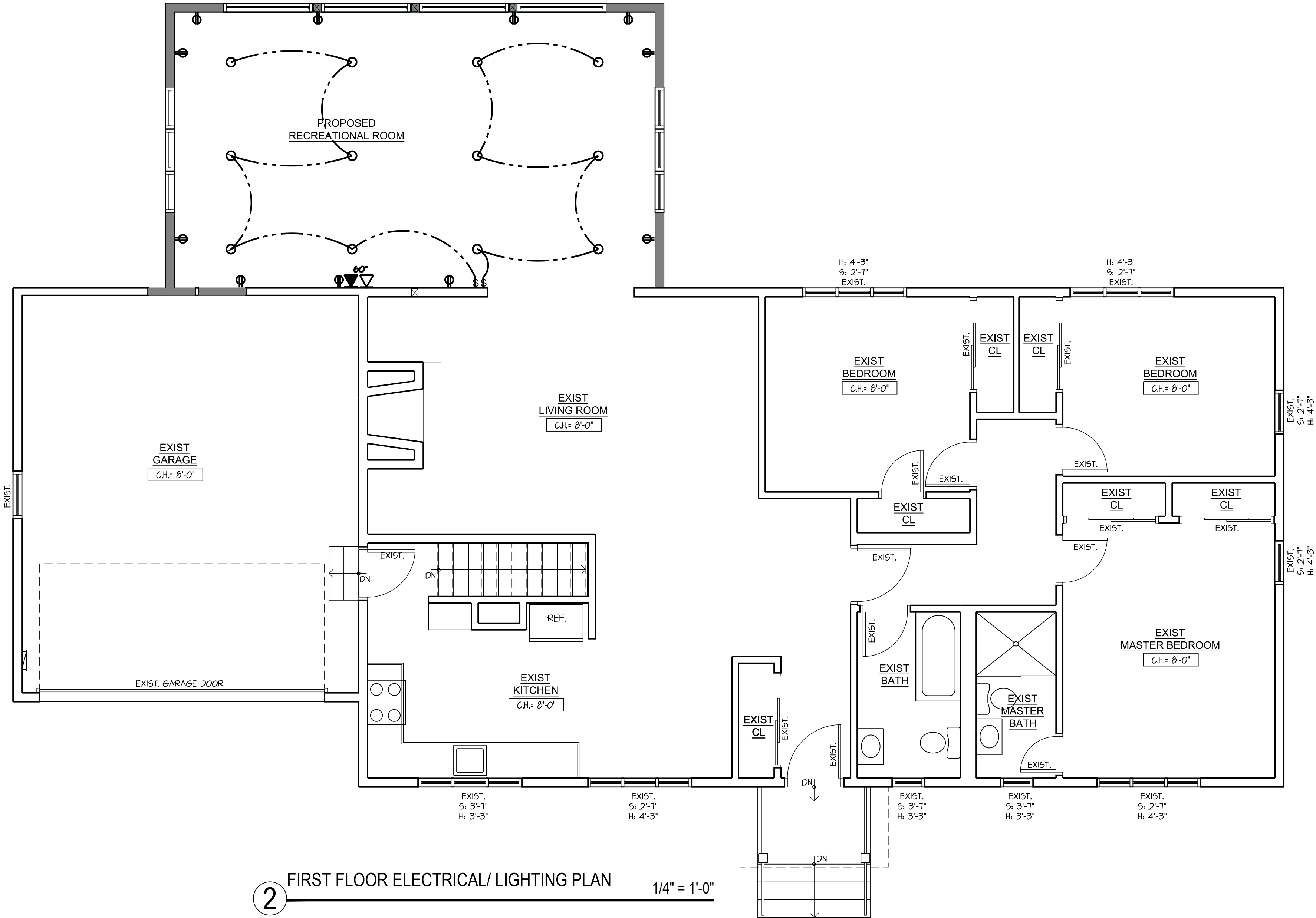
PROJECT #: 20002-18
DATE: JULY 23, 2021
SCALE: AS NOTED
DRAWN BY: RFA, DFA

A-4
SHEET NO:



1 PART. BASEMENT ELECTRICAL/ LIGHTING PLAN 1/4" = 1'-0"

ELECTRICAL LEGEND:			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SINGLE POLE LIGHT SWITCH		4" RECESSED LED LIGHT FIXTURE
	3-WAY SWITCH		WALL MOUNTED LIGHT FIXTURE
	DUPLEX OUTLET		CABLE TV JACK
	DUPLEX OUTLET W/ GROUND FAULT CIRCUIT INTERRUPTOR (GFCI)		ETHERNET CONNECTION
	WATERPROOF COVERS (WP) WHERE INDICATED		NEW HARDWIRED SMOKE DETECTOR INTERCONNECTED TO OTHERS IN DWELLING
	CEILING MOUNTED LED LIGHT FIXTURE AS SELECTED BY OWNER		NEW HARDWIRED AND INTERCONNECTED SMOKE DETECTOR AND CARBON MONOXIDE COMBO.



2 FIRST FLOOR ELECTRICAL/ LIGHTING PLAN 1/4" = 1'-0"

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REV.	DATE	COMMENT

DRAWING TITLE: PARTIAL BASEMENT AND FIRST FLOOR ELECTRICAL LIGHTING PLANS

PROJECT: PROPOSED ADDITION AND ALTERATIONS:

CHOI RESIDENCE

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IRVINGTON, NEW YORK 10533



SEAL: PROJECT #:
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SHEET NO: