Environmental Assessment
Neversink Ball Fields
Replacement Project

Appendix D

Environmental Evaluation

Town of Neversink Ball Fields

Environmental Evaluation

7752 State Route 42, Grahamsville, NY
Town of Neversink
Sullivan County, New York

Prepared for:
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E.A. Project No. 102.00213 October, 2013

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1.0 OVERVIEW

1.1. PURPOSE: The purpose of this document is to describe the Town of Neversink's search for a replacement site for its flood-damaged ball fields (i.e. Little League Complex). The key to this search was to find a practicable alternative which avoids rebuilding the ball fields in the current floodplain location or any other floodplain area.

1.2. BACKGROUND: The Town of Neversink's original baseball fields, which were located along Chestnut Creek on New York State (NYS) Route 55A, were destroyed by Hurricane Irene in 2011. The proposed ball fields site, which is located on the east side NYS Route 42 (at intersection with Big Hollow Road), would replace the Town's flood-damaged Little League Complex. The Town has leased the four damaged ball fields on NYS Route 55A from the New York City Department of Environmental Protection (NYCDEP) since the 1980s. All but one of the fields was destroyed beyond repair when flooding from Hurricane Irene swelled the Chestnut Creek, which, as noted above, runs alongside the fields. The Creek eroded its banks and washed away most of the original Little League Complex. The extensive damage included the loss of fences, dugouts and scorekeeper booths. Some of these same fields and structures were rebuilt after a similar flood in 2002 destroyed them. The Town is determined to find a location that would not be food-damaged again.

1.3. SITE SELECTION: For the location of the new Little League Complex, the Town of Neversink considered and evaluated any piece of vacant land within the Town that consisted of a 20 percent or less slope grade and could accommodate four baseball fields. The evaluation process took approximately two months. The Town found an area suitable for the development of new ball fields on land purchased from a private land owner. This 16.7 total acreage consists of several benefits including frontage on a NYS highway, municipal sewer availability, a drilled water supply well, open fields (without of shrubs or forested land), and a central location for community access.

1.4. RESERVOIR: The proposed site is approximately 3,300 feet upstream of Chestnut Creek and 7,500 feet upstream of Rondout Reservoir, which is part of the NYCDEP Aqueduct System for New York City. The proposed location is significantly distant from the Creek and the drinking water Reservoir. The NYCDEP operates and maintains a drinking water reservoir system (including the downstream Rondout Reservoir) for the City of New York and owns extensive lands in the Town of Neversink as well as in surrounding Towns. The purpose of the land ownership is to prevent or minimize development to protect the reservoirs from surface water and groundwater pollutants.

1.5. FLOODPLAIN EVALUATION PROCESS: Executive Order #11988 "Floodplain Management" requires that Federal agencies avoid funding activities that directly or indirectly support occupancy, modification, or development of the 100-year floodplain (BFE) whenever there are practicable alternatives. Critical Federal actions within the 100-year

floodplain or within 500-year floodplain require that Federal agency to conduct the Federal Emergency Management Agency's (FEMA) Eight-Step Decision-Making Process.

As the attached documents will show, the proposed site is not located in or near any flood hazard areas. Therefore, because the Town avoided land that contains any portion the 100-year floodplain or the 500-year floodplain within the site, there is no need to conduct FEMA's Eight-Step Decision-Making Process. See Appendix A, Figures, for documentation.

1.6. CONCLUSION: The Town of Neversink site evaluation process concluded that a practicable alternative to repairing the flood-damaged Little League Complex exists for development of new ball fields. The Town found a suitable area on 16+ acres of land located within the Town. Since the buildable portion of proposed site does not lie in or near any floodplain, and has adequate land for at least four new ball fields plus associated parking and recreation buildings, it is an practicable alternative to rebuilding on the old flood-prone location.

2.0 SITE DEVELOPMENT INFORMATION

2.1 SITE PREPARATION AND DEMOLITION: The 16.7 acre site is vacant fields, except for the one acre house lot that was included in the Town's purchase. This lot is situated directly across from the intersection of NYS Route 42 and Big Hollow Road. The house located on this lot was demolished and removed on August 31, 2013 by private contractor after Town bid process. One building, the garage, currently remains and will be used as storage for the new ball field complex. There are no other buildings on the site. Approximately 14.2 acres of the total 16.7 acres would be disturbed as a result of the new Little League Complex construction.

2.2 GRADING: The site is generally level but there are mounds and valleys that would need to be cut and filled to create four baseball fields with the associated parking areas and driveways. Maximum cut at center of site and maximum fill depth at northerly side of site are both approximately 14 feet to 15 feet. Each of the four proposed ball fields would have its own dugout, bleachers, backstop, scorer's booth and fences.

2.3 DURATION: The estimated construction period is five months. The Town is interested in having at least two ball fields operating by the spring of 2014.

2.4 BUILDING SIZE: Proposed buildings on site total 4,136 square feet (SF) and include the following: 28' x 74' Picnic Pavilion (with bathrooms), 24' x 36' Maintenance Garage, 20' x 20' Storage Building, and a 20' x 40' barn. A 480 SF existing garage located on the one acre house lot will remain and be used as storage for the proposed project.

2.5 VEGETATION: The proposed project site is open farm field except for the house lot, which includes a few specimen trees. There is a treeline off-site to the north, east and south of the proposed site along Red Brook. However, no off-site disturbances are proposed.

2.6 SEWER/WATER: There is an existing eight inch diameter sanitary sewer line running along the west edge of NYS Route 42. Wastewater from the proposed project would be pumped to that sewer main, which would convey to the NYC Wastewater Treatment Plant in Grahamsville. That treatment plant discharges into Chestnut Creek which ultimately flows into Rondout Reservoir. The estimated wastewater produced by ball fields would be 500 gallons per day (gpd) when fields are in use. The eight inch sewer main and the wastewater treatment plant have sufficient capacity to handle this additional flow.

There is an existing water supply well on the one acre house lot that would be sufficient for the water needs of the proposed ball fields.

2.7 LANDSCAPING: No landscaping, except for the planting of grass, is proposed at this time. However, a four to five foot chain-link fence would be constructed around each of the four baseball fields proposed.

2.8 LIGHTING: For public safety reasons, three to four wall mounted lights are proposed for the pavilion exterior walls and four to five pole lights are proposed within the parking areas. All lights would be downward facing luminaires. The ball fields themselves would not be lighted. Night games would not be played at this proposed location.

2.9 PARKING: Parking for 102 cars would be located near the center of the site in order to serve all four fields. Access to this parking lot would be from a proposed 24 foot wide access road connected to NYS Route 42. There is a northern 20-car parking lot also proposed but may not be built due to limited site distance at the exit onto NYS Route 42.

2.10 STORMWATER: During and after construction, stormwater on the site would be controlled and managed to prevent a turbid discharge off the site. The design of the stormwater system would meet all the requirements of the NYS Stormwater SPDES General Permit for Construction Activities.

2.11 ESTIMATED CONSTRUCTION COSTS: Construction details of the proposed Little League Complex include the following: soil excavation and fill, gravel surfaced access driveway, gravel surfaced parking lot, baseball backstops and fencing, concession building, sewage pumpstation and sewer forcemain, security lighting, signage, stormwater management (infiltration trenches, catchbasins and bioretention beds). Refer to Appendix B, Estimated Construction Costs, for the complete list of construction details. The total cost of these construction activities is estimated at $950,000.

3.0 DATA REVIEWED:

3.1 CULTURAL RESOURCES: New York State Office of Parks, Recreation and Historic Preservation (OPRHP) is the NYS agency with the primary responsibility for identifying, cataloguing, and protecting Historic and Archaeological sites (aka cultural resources). OPRHP was consulted about the conversion of the proposed site to ball fields. Based on their review, OPRHP concluded that the "*project will have No Effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places*." Please refer Appendix B of this document for the letter from OPRHP dated May 3, 2013.

3.2 NATURAL RESOURCES: The New York State Department of Environmental Conservation (NYSDEC) is responsible for identifying, cataloguing and protecting streams, wetlands and endangered species. Wetland and Streams: NYSDEC operates an on-line search tool (the Environmental Resource Mapper) that identifies such resources on sites around New York State. The search results of the proposed project site concluded that there is a Class B(ts) stream located adjacent to site. The "B" in this classification indicates that the highest and best use for this stream is fishing and possibly bathing. The "ts" indicates that this stream has the potential to support trout spawning. Trout spawning streams are some of the highest quality streams in the State. However, the proposed project would not disturb the bed or banks of this adjacent, but off-site stream. There are no wetlands located on the project site.

3.3 ENDANGERED SPECIES: Bald Eagles: The NYSDEC's online Environmental Resource Mapper search results also indicated that the proposed ball field site is at the edge of a 1+ mile circle surrounding the endangered Bald Eagle habitat. The NYSDEC requires an on-site review of each site within such a circle to determine whether a site contains bald eagles and/or their habitat. Refer to Appendix A, Figure 7 for the search results from NYSDEC Environmental Resource Mapper.

On September 11, 2013, a request was made to the NYS Department of Environmental Conservation (NYSDEC) to start the on-site review of the proposed site. In a letter dated September 25, 3013, the NYSDEC responded that there were no bald eagles or bald eagle habitat on or adjacent to the site. Please refer to Appendix B of this document for a copy of that letter from NYSDEC.

3.4 SITE PLANS: Attached are a set of plan sheets depicting the site preparation and site design of the proposed ball field site. The plan sheets are numbered 1 through 9. Please note that Sheet #2 has been deleted because it was essentially a duplicate of Sheet 1. These plans show the elevation changes needed to cut, fill and grade the site in preparation for the ball fields. The plans also show the construction of four ball fields, associated parking, fencing, driveways and several small buildings.

Appendix A
Figures

Please see Appendix A of this EA to view maps and figures listed on the previous page.

Appendix B
Documents & Correspondence

- Full Environmental Assessment Form (dated July 31, 2013)
- Letter from NYS OPRHP (dated May 3, 2013)
- Letter from NYSDEC (dated September 25, 2013)
- Estimated Construction Costs
- Site Plans

Please see Appendix B of this EA to view SEQRA documents listed on the previous page.

Please see Appendix C of this EA to view letters listed on the previous page.

Please see Appendix A of this EA to view siteplan listed on the previous page.

A. Vegetated Swale (NYSDEC SMDM 5.3.3)

A vegetated swale is an open, vegetated channel or depression explicitly designed to detain and promote the infiltration of stormwater runoff into the underlying soils. The amount of runoff reduction is dependent to the underlying soil. For systems in hydraulic soil groups A and B, a reduction value of 20% may be used. C and D soils are allowed a 10% reduction unless the soil is modified. For modified C soils, a 15% reduction is allowed. For modified D soils, a 12% reduction is allowed.

Landscaping

Landscaping of the swale will involve grass seeding and mulching in compliance with the standards outlined on the erosion and sediment control plan for this site.

Check Dams

Where swale slopes are greater than 4% or where additional detention is desired, stone check dams can be installed to slow down the flow and provide detention. This will also allow for greater infiltration and treatment.

Maintenance of Vegetated Swales

Maintenance shall be the responsibility of the owner. Sediment build–up within the bottom of the channel shall be removed when sediment depth reaches 2 inches. Vegetation should be mowed as required during the growing season to maintain grass heights between 4 and 6 inches.

Full inspections shall take place yearly. Full inspections involve checking for sediment, erosion, poor vegetation growth and excessive ponding. If a repair is necessary, it shall be initiated in a timely fashion. Remove sediment build up associated with any check dams.

B. Sheet Flow to Vegetated Filter Strips (NYSDEC SMDM 5.3.2)

Vegetated filter strips and undisturbed natural areas are used to treat and control runoff. Vegetated filter strips are often maintained grass buffers between impervious areas and natural areas.

Landscaping

Good grass or plant cover chosen for the soil and sun exposure. Natural cover is also acceptable.

Maintenance

Bare patches and dead plants should be reseed or replaced as soon as possible. Area of erosion should be repaired when discovered. The rills or channels form, methods of spreading the inflow to return to sheet flow should be installed.

C. Infiltration Trench and Basin (NYSDEC SMDM I–1 & I–2)

Stormwater system captures and stores the water quality volume for exfiltration into the subsoil. Specified as a standard practice in Chapters 5 and 6 of the "*New York State Stormwater Management Design Manual,*" and is encouraged as a Green/Runoff Reduction method in Chapter 4.

The practice can be a shallow basin (Infiltration Basin) or an excavated trench (Infiltration Trench). The basin has a vegetated cover over the underlying receiving soil. Shallow excavation or a berm allow for the storage of the design volume. The excavated trench is filled with stone and possibly contains hollow, open bottom chambers or perforated pipes to provide additional exfiltration volume storage. The cover of the trench is pea gravel or other filtration material.

Runoff Reduction Capacity for this practice is 100%.

Landscaping

The cover for the Infiltration Basin is grass. The grass shall be suitable for conditions that vary from occasional inundation to very dry conditions.

Maintenance of Infiltration Practices

Maintenance shall be the responsibility of the owner. Treatment area plants and components should be repaired or replaced when needed. The vegetation shall be mowed to maintain a height between 4 and 6 inches. Sediment shall be removed before it reaches 1 inch deep and each spring. Debris shall be removed as it accumulates. The filtration material over the trench shall be cleaned of sediment as needed and replaced if necessary.

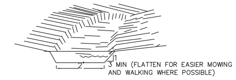
Full inspections shall take place yearly. Full inspections involve checking all components of the infiltration practices thoroughly. If a repair is necessary, it shall be initiated in a timely fashion

D. Rooftop Disconnection (NYSDEC SMDM 5.3.5)

Disconnecting rooftops is allowing the runoff from roofs to flow overland to a filtration or infiltration area. This allows for the initial treatment prior to the practice and slows down the runoff rate.

E. Soil Restoration (NYSDEC SMDM 5.1.6)

Soil Restoration is required where soils have been disturbed and will be vegetated. For this project, the majority of the heavy traffic disturbance will be in areas that will be building or parking area. Minimal soil disturbance will occur in proposed vegetated areas. The common practice in preparing an area for landscape is to loosen the soil and apply topsoil. The native soil in bioretention areas is removed and replaced with enhanced soil. The need for full soil restoration is not warranted for the disturbed, proposed vegetated areas. If excessive compaction occurs during construction, mitigation including, but not limited to deep ripping and de–compaction as outlined in the NYSDEC Stormwater Manual, Section 5.1.6, may be ordered by the site engineer.



CONSTRUCTION SPECIFICATIONS

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETE WATERWAY.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE PRACTICES.
   A. FOR DESIGN VELOCITIES OF LESS THAN 3.5 FT. PER. SEC., SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY WATERWAYS OR OTHER MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE WATERWAY DURING THE ESTABLISHMENT OF THE VEGETATION.
   B. FOR DESIGN VELOCITIES OF MORE THAN 3.5 FT. PER. SEC., THE WATERWAY SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE OR EXCELSIOR MATTING OR WITH SEEDING AND MULCHING INCLUDING TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.
6. PERMANENT GRASS MIXTURE AS SPECIFIED SHALL BE USED IN GRASS SWALES.

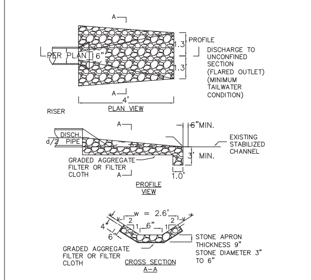
VEGETATED SWALE
NOT TO SCALE

SEEDING AND MULCHING: SUNNY ATHLETIC FIELDS

ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED FOR MORE THAN 21 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE SEEDING AND MULCHING. DISTURBED AREAS SHALL BE LIMITED AND BE COVER WITH A LAYER OF TOPSOIL PRIOR TO SEEDING. SEEDING WILL BE INSPECTED FOR BARE SPOTS, WASH OUTS, AND HEALTHY GROWTH. IF REQUIRED ADDITIONAL SEEDING SHALL BE PERFORMED. THE SEED MIX SPECIFIED FOR THIS SITE IS FROM THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, TABLE 3.2 (SITE CHOICE 1A) WHICH IS AS FOLLOWS:

SPECIES (% by weight)	Pure Live Seed Values lbs/1000SF	lbs/acre
50% perennial ryegrass	1.5 – 2.0	65 – 87
50% Kentucky bluegrass blend	1.5 – 2.0	65 – 88
	3.0 – 4.0	130 – 175

IF SEED MIXTURE IS SPECIFIED ON LANDSCAPE OR ATHLETIC FIELD PLANS, USE THAT SEED MIXTURE INSTEAD.



VEGETATED SWALE
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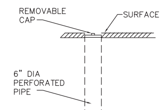

OBSERVATION WELL
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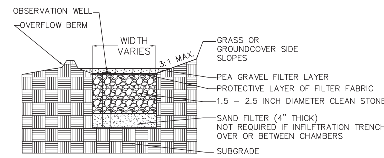

INFILTRATION TRENCH
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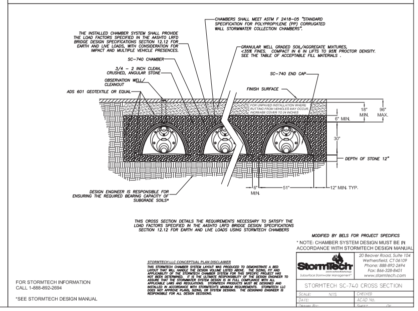
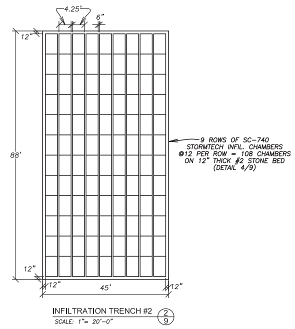
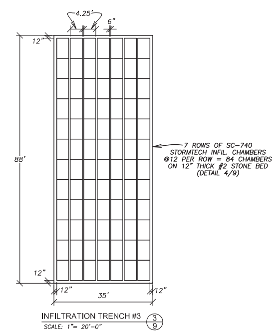


STORMWATER MANAGEMENT DETAILS 7/9
SCALE: AS SHOWN

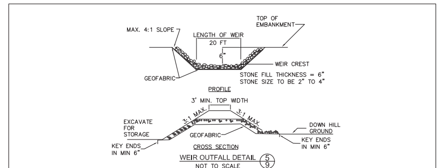


INFILTRATION TRENCH #2 2/9
SCALE: 1"= 20'–0"



INFILTRATION TRENCH #3 3/9
SCALE: 1"= 20'–0"

INFILTRATION TRENCH LAYOUT PLANS



WEIR OUTFALL DETAIL 5/9
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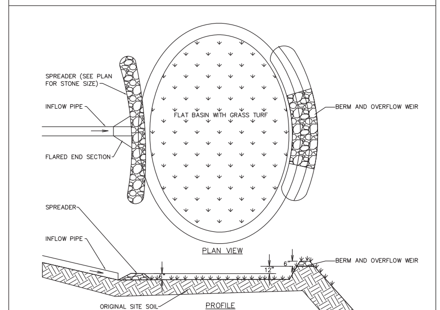

INFILTRATION BASIN 6/9
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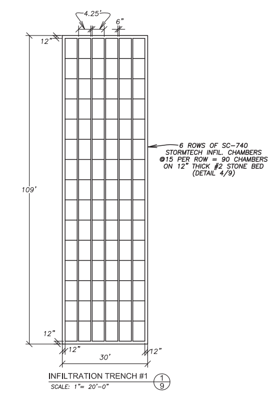
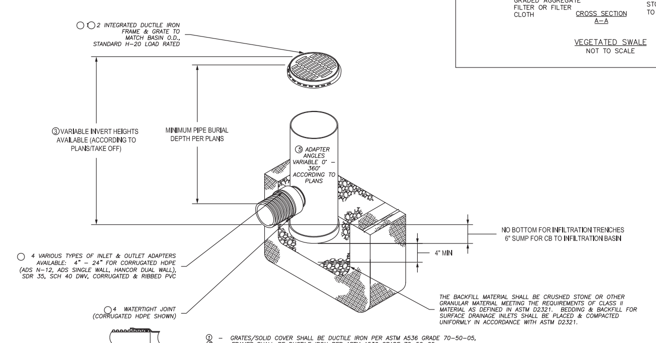


INFILTRATION TRENCH #1 1/9
SCALE: 1"= 20'–0"

NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



1 – GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05,
2 – FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05
3 – DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001–110–065
4 – DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5 – ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001–110–013.

DETAIL MODIFIED BY BELS FOR PROJECT SPECIFICS

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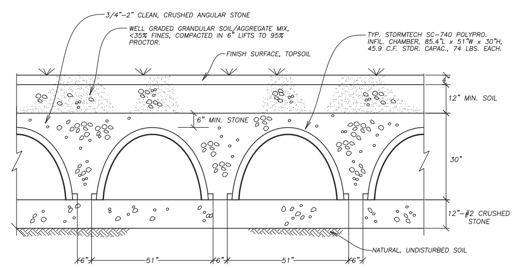
	DATE 4-3-06		
	APPD BY CJA	PROJECT NO./NAME	TITLE 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
	DATE 4-3-06		
	DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-192 REV B

OUTLET RISER DETAIL 8/9
N. T. S.



TYP. SECTION - INFILTRATION TRENCH WITH CHAMBERS 4/9
SCALE: ½"= 1'–0"

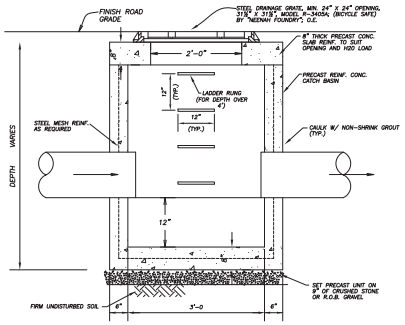
REV.	DR.	CK.	DATE	DESCRIPTION

GLENN L. SMITH
CONSULTING ENGINEER, P.C.
P.O. BOX 156 - MONTICELLO - NEW YORK - 12701
PH. (845) 796–2216

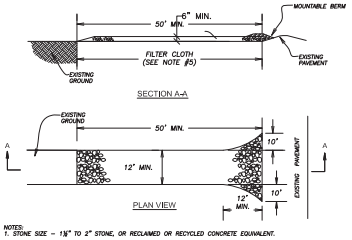
STORMWATER DETAILS

TOWN OF NEVERSINK
N.Y.S. ROUTE 42
(T) NEVERSINK * SULLIVAN COUNTY * NEW YORK

SEAL	DATE JULY 15, 2013	SHEET NO. 9 OF SHEETS
	REVISION	
	SCALE AS SHOWN	
	DRAWN OLB	
	CHECKED GLS	
	JOB NO. 11-028	

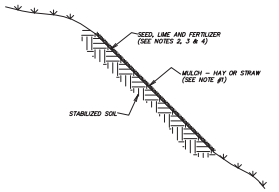


CATCH BASIN DETAIL 1/8
N.T.S.



NOTES:
1. STONE SIZE - 1½" TO 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - 15 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH TO BE PLACED OVER THE ENTIRE WIDTH AND LENGTH OF AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AND AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE 2/8



1. MULCH: HAY OR STRAW MAY BE UTILIZED AND SHALL BE APPLIED AT A RATE OF 2 - 3 TONS PER ACRE.
2. LIME SHALL BE APPLIED AT A UNIFORM RATE OF 50 LBS. PER 1,000 SQUARE FEET.
3. FERTILIZER: SHALL BE APPLIED AT A RATE OF 25 LBS. PER 1,000 SQUARE FEET USING 10-6-10 OR EQUIVALENT.
4. SEED: SHALL BE OF THE FOLLOWING GRASS MIXTURE AND APPLIED AT A RATE OF 5 LBS. PER 1,000 SQUARE FEET MIXTURE AS FOLLOWS:

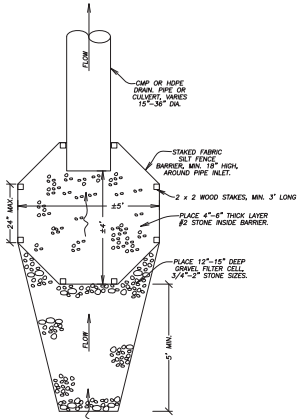
TYPE	PERCENT BY WEIGHT
PERENNIAL RYE GRASS	10
REDTOP	10
CREEPING RED FESCUE	40-50
KENTUCKY BLUEGRASS	30-50

5. MULCH ANCHORING: NO SPECIFIC ANCHORING SHALL BE APPLIED UNLESS SEEDED AREAS APPEAR TO BE EXCESSIVELY EXPOSED TO THE WIND ELEMENTS. SHOULD ANCHORING BE DIRECTED AN EMULSIFIED ASPHALT LIQUID BINDER SHALL BE EMPLOYED. DETAILS OF SELECTED METHOD SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ITS UTILIZATION.

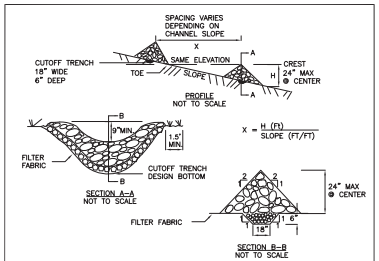
SEEDED AND MULCHED AREAS CRITICAL AREAS - SLOPES GREATER THAN 30% 3/8
N.T.S.

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL PERFORM TEMPORARY EROSION CONTROL MEASURES AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION OPERATIONS TO CONTROL SOIL EROSION AND WATER POLLUTION. METHODS SHALL INCORPORATE BERMS, DIKES, SEDIMENT CHECK DAMS, FIBER MATS, NETTING, GRAVEL, VEGETATIVE GROWTH, MULCHES AND SIMILAR DEVICES.
2. LOCATIONS OF CONTROL MEASURES SHOWN ON THE PLANS ATTEMPT TO FORESEE ALL ANTICIPATED SURFACE RUN-OFF SWALES AND CHANNELS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AT LEAST A SEMI-PERVIOUS DIKE (HAY BALES, O.E.) ON ALL RUN-OFF SWALES IN AREAS OF CONSTRUCTION SUBJECT TO SEDIMENT LADEN FLOWS. CONTINUOUS AND EFFECTIVE EROSION CONTROL MUST BE PROVIDED THROUGHOUT THE CONSTRUCTION AND POST-CONSTRUCTION PERIOD.
3. NO DISTURBED SOIL AREAS SHOULD REMAIN EXPOSED MORE THAN FIFTEEN (15) DAYS WITHOUT EROSION CONTROLS BEING IMPLEMENTED BY THE CONTRACTOR. AS A MINIMUM, APPLY RYE GRASS AT 30 LBS. PER ACRE AND HAY MULCH AT RATE OF 2 TONS/ACRE FOR TEMPORARY GROUND COVER.
4. MATERIALS REQUIRED FOR HIS WORK SHALL INCLUDE THE FOLLOWING:
   a.) VEGETATIVE COVER - GRASS SHALL BE A QUICK GROWING SPECIES (SUCH AS RYE GRASS, ITALIAN RYE GRASS OR CEREAL GRASSES) SUITABLE TO THE AREA SOIL. GRASS SHALL BE SOWN WITH A MULCH CONSISTING OF HAY, STRAW, BARK, JUTE, NETTING, WOOD CHIPS, O.E., FERTILIZER AND SOIL CONDITIONERS OF A STANDARD COMMERCIAL GRADE SHALL BE INCLUDED WITH THE SEEDING AND MULCHING.
   b.) SILT FENCE - A SELF-SUPPORTING, SEDIMENT-RETAINING FABRIC MAY BE UTILIZED IN CHANNELS AND ON SLOPES TO ASSIST IN EROSION CONTROL. THE FABRIC SHOULD BE STRONG, NON-ROTTING, AND RESISTANT TO SUNLIGHT DETERIORATION. IT SHALL PERMIT FILTRATION OF SOILS WHILE ALLOWING WATER PASSAGE. THE FABRIC SHALL COME IN ROLLS OF 100 FOOT LENGTH MINIMUM. THE SILT FENCE SHALL BE "ENVIROFENCE", "GEOFAB SILT FENCE", O.E.
5. SILT FENCES, SHALL BE CONSTRUCTED WITH WOODEN POSTS SPACED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND INSTALLED ALONG THE TOE OF ALL EXPOSED "FILL" SLOPES AS INDICATED ON THE PLAN AND/OR AS OTHERWISE DIRECTED BY THE ENGINEER.
6. SWALES SUBJECT TO SIGNIFICANT RUN-OFF FLOWS SHALL BE STONE-FILLED AT CULVERT PIPE OUTLETS AND AT LEAST 20 FT. BEYOND, AS REQUIRED TO PREVENT EROSION, WITH GRASS GROWTH ESTABLISHED ALONG EACH SIDE.
7. RUN-OFF FLOWS SHALL BE INTERCEPTED AND DIVERTED AROUND ERODIBLE CONSTRUCTION AREAS BY EARTHEN BERMS, HAY BALES, OR DITCHES. DIVERSION STRUCTURES SHOULD GENERALLY FOLLOW A CONTOUR ACROSS A SLOPE WHERE EROSION IS ANTICIPATED TO BE A PROBLEM FOR A PARTICULAR AREA, EROSION CONTROL MEASURES WILL BE REQUIRED BETWEEN SUCCESSIVE CONSTRUCTION STAGES TO PREVENT WATER POLLUTION (I.E. - BETWEEN CLEARING AND GRUBBING, EXCAVATION, ROAD AND PARKING GRADING, AND RESTORATION)
8. ALL DISTURBED AREAS WILL BE LIMED AT A RATE OF THREE (3) TONS PER ACRE AND FERTILIZED IN ACCORDANCE WITH PROPER SOILS TESTS PRIOR TO RESEEDING. APPLY FERTILIZER AT RATE OF 25 LBS. PER 1000 FT^2 USING 10-6-10; O.E.



DRAIN. PIPE INLET FILTER DETAIL 6/8
SCALE: ½" = 1'-0

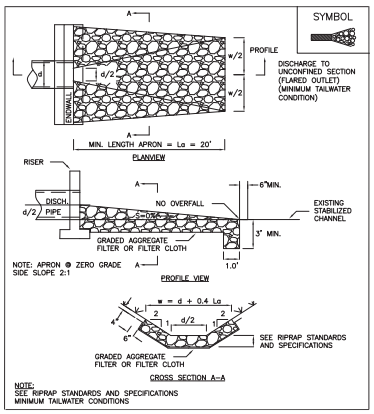


CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAXIMUM DRAINAGE AREA 2 ACRES.

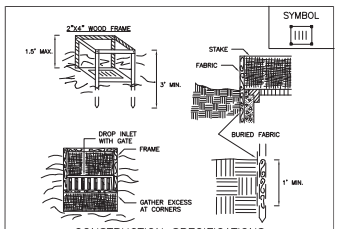
CHECK DAM DETAIL 5/8
N.T.S.



NOTE: APRON @ ZERO GRADE SIDE SLOPE 2:1

NOTE: SEE RIPRAP STANDARDS AND SPECIFICATIONS MINIMUM TAILWATER CONDITIONS

RIPRAP OUTLET PROTECTION EXAMPLE 7/8
N.T.S.



CONSTRUCTION SPECIFICATIONS

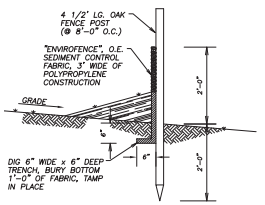
1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUN DRAINAGE AREA 1 ACRE

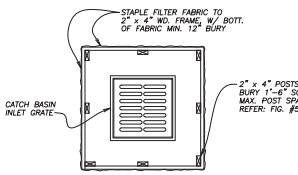
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

FILTER FABRIC DROP INLET PROTECTION

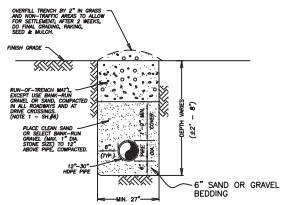
FILTER FABRIC DROP INLET PROTECTION 9/8
N.T.S.



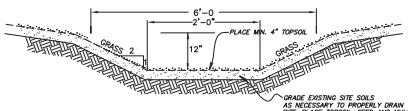
SILT FENCE DETAIL 8/8
N.T.S.



CATCH BASIN PROTECTION DETAIL 4/8
N.T.S.



TYPICAL DRAINAGE TRENCH DETAIL 10/8
N.T.S.



TYPICAL SECTION

GRASS - LINED DRAINAGE DITCH 11/8
N.T.S.

GRASSED DRAINAGE CHANNEL SPEC.

1) SEED MIX:

KENTUCKY BLUEGRASS	0.6 LBS./1,000 S.F.
CREEPING RED FESCUE	0.5 LBS./1,000 S.F.
PERENNIAL RYEGRASS	0.2 LBS./1,000 S.F.

2) MULCH:
AIR DRIED HAY STRAW, 2-3 BALES/1,000 S.F ±90% SURFACE COVERAGE, WATER EVERY 1-2 DAYS.

REV.	DR.	CK.	DATE	DESCRIPTION

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CONSTRUCTION DETAILS

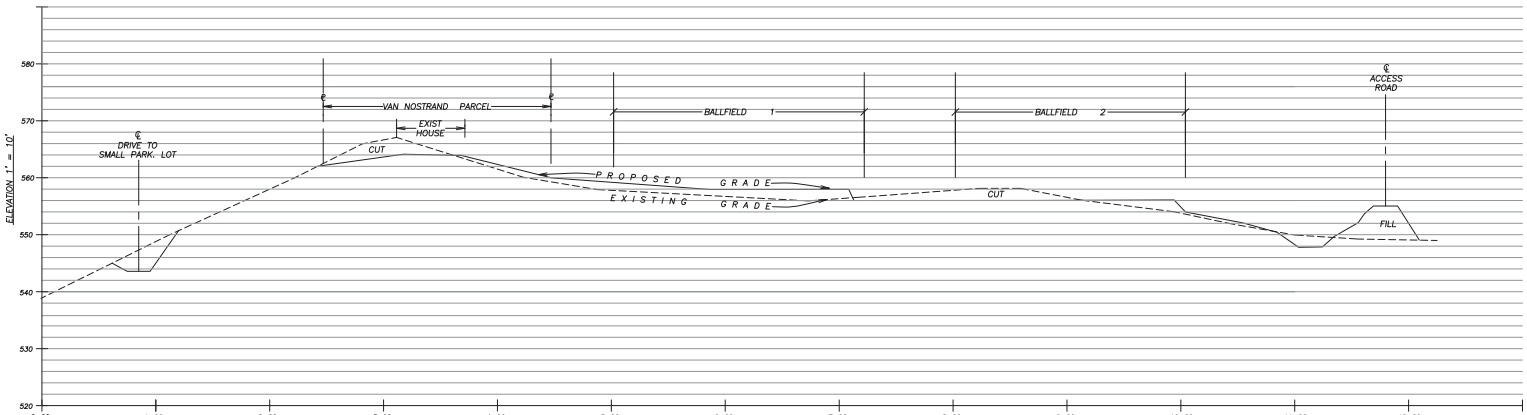
TOWN OF NEVERSINK
N.Y.S. ROUTE 42

(T) NEVERSINK * SULLIVAN COUNTY * NEW YORK

SEAL

DATE	JUNE 24, 2013
REVISION	
SCALE	AS SHOWN
DRAWN	OLB
CHECKED	GLS
JOB NO.	11-028

SHEET NO. 8 OF SHEETS



X-SECTION 3
SCALE: 1"= 50'-0 HORIZ.
1"= 10'-0 VERT.
1/7

REV.	DR.	CK.	DATE	DESCRIPTION

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BALLFIELDS SECTION PROFILES

TOWN OF NEVERSINK
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SCALE	AS SHOWN
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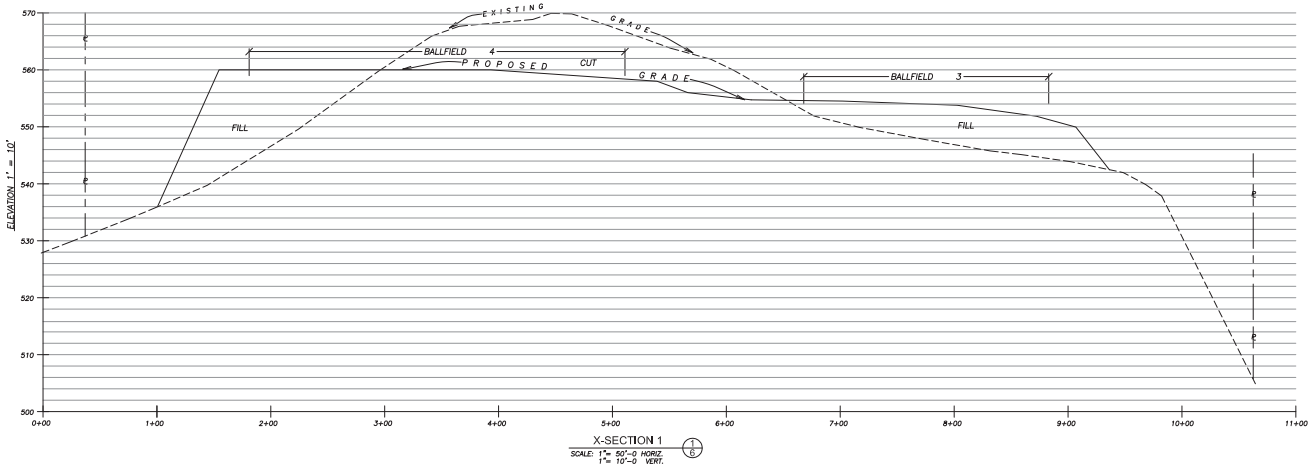
CHECKED	GLS
JOB NO.	11-028

SEAL

SHEET NO. 7 OF SHEETS



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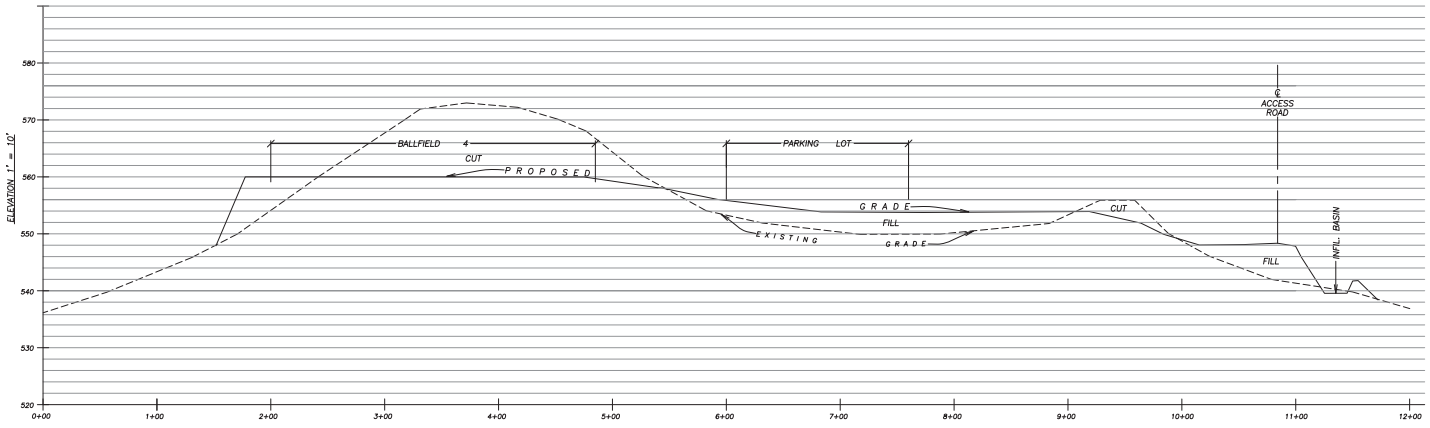

X-SECTION 2 (2/6)

SCALE: 1"= 50'-0 HORIZ.
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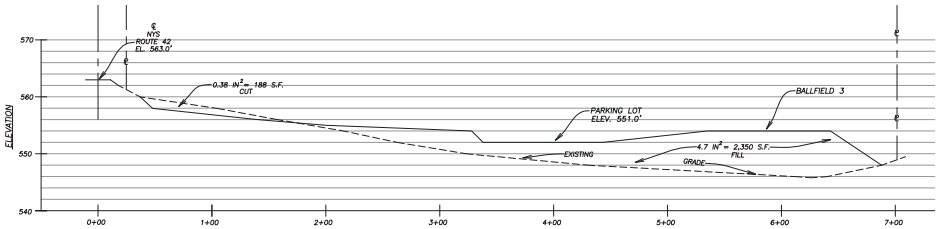
SHEET NO. 6 OF SHEETS



SECTION I (1/5)
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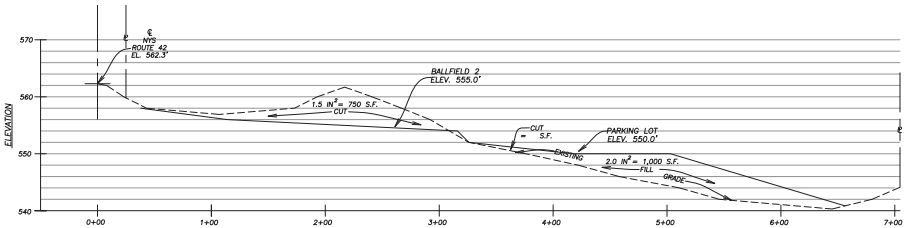

SECTION J (2/5)
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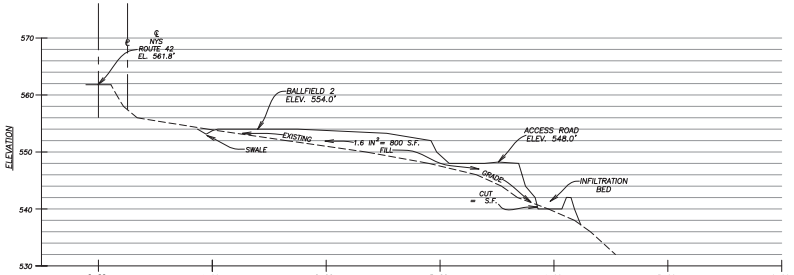

SECTION K (3/5)
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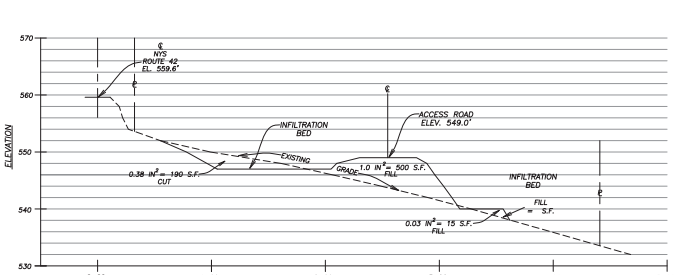

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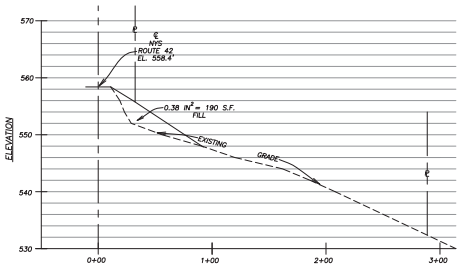

SECTION M (5/5)
SCALE: 1"= 50'-0 HORIZ.
1"= 10'-0 VERT.

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BALLFIELDS SECTION PROFILES

TOWN OF NEVERSINK
N.Y.S. ROUTE 42

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REVISION	
SCALE	AS SHOWN
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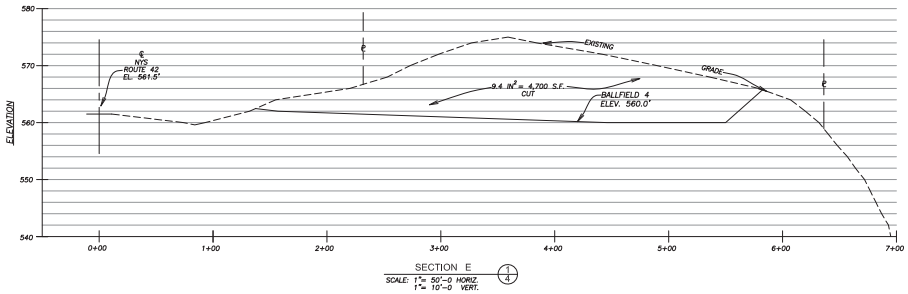
SHEET NO. 5 OF SHEETS



SECTION E (1/4)
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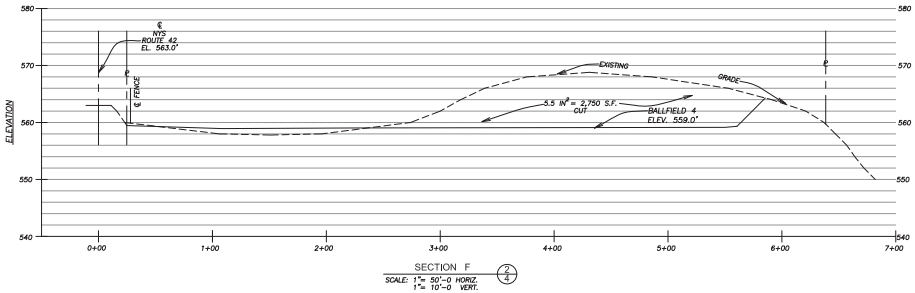

SECTION F (2/4)
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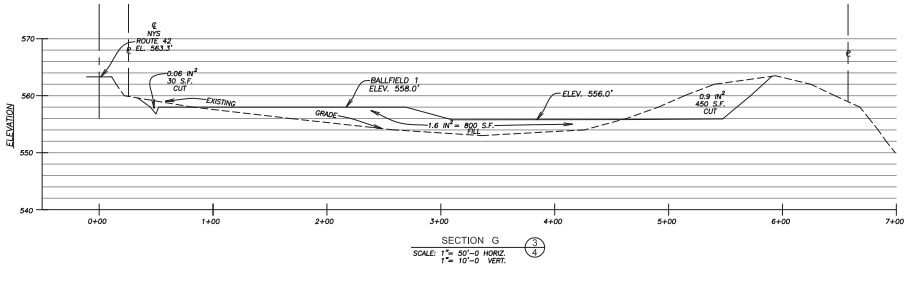

SECTION G (3/4)
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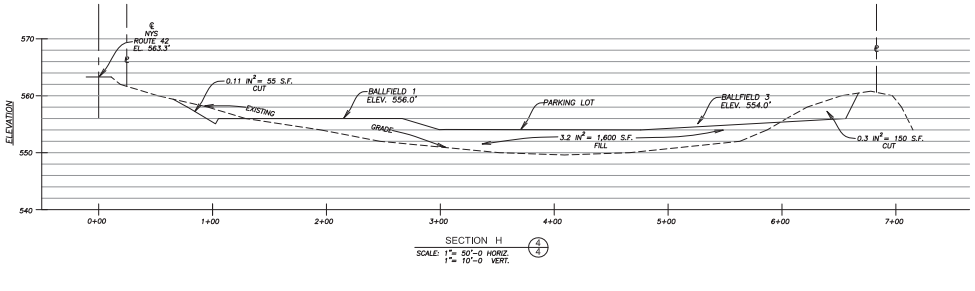

SECTION H (4/4)
SCALE: 1"= 50'-0 HORIZ. 1"= 10'-0 VERT.

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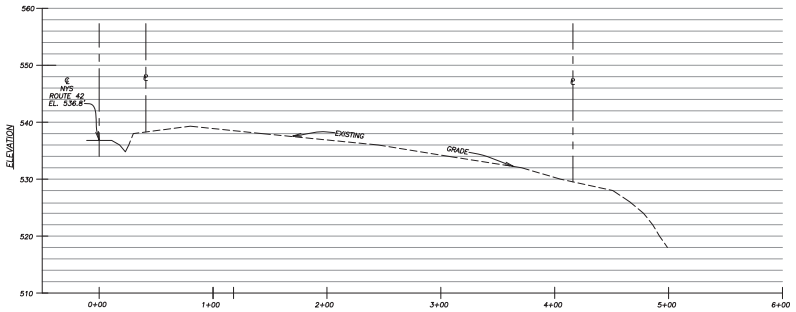
SHEET NO. 4 OF SHEETS



SECTION A (1/3)
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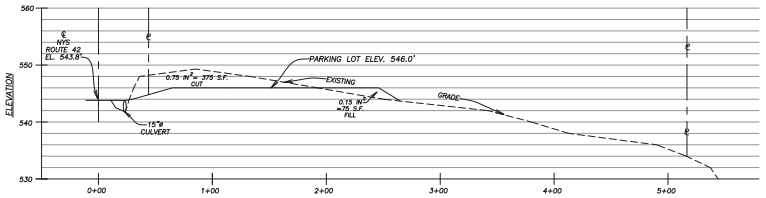

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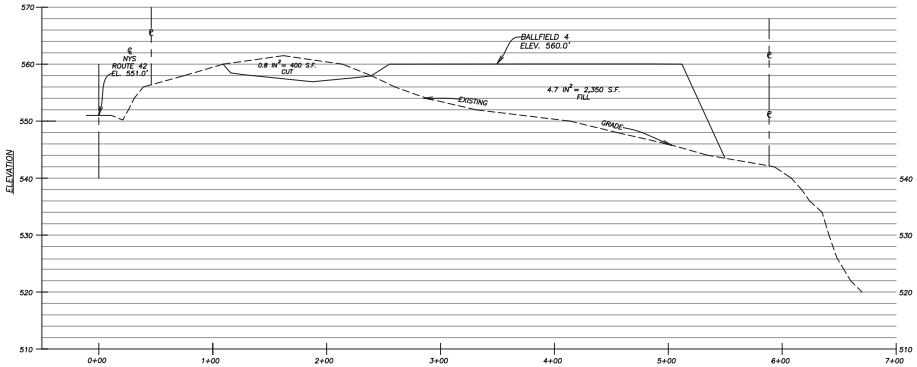

SECTION C (3/3)
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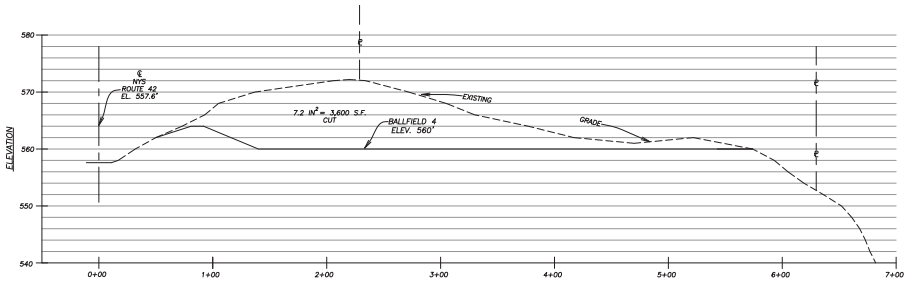

SECTION D (4/3)
SCALE: 1"= 50'-0 HORIZ.
1"= 10'-0 VERT.

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SHEET NO. 3 OF SHEETS

Appendix C

Site Photographs

Looking North at House on One-Acre Lot before Demolition

Looking South at House on One-Acre Lot before Demolition

Garage on One-Acre Lot

Shed on One-Acre Lot

Looking South Across the Site

Looking North Across the Site