

CODE REVIEW:

CERTIFICATE:

spieze

SPIEZE ARCHITECTURAL GROUP INC.
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HAMILTON, NJ 08611
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SEAL:

CONSULTANTS:

cve
ASSOCIATES
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248 ROBERTSON AVENUE, SUITE 200, NEW JERSEY
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TREBOR TAYLOR, P.E., P.P.
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44978

OCTOBER 9, 2023

PROJECT:
IMPROVEMENTS TO
RITZER FIELD
AT COLUMBIA H.S.
17 PARKER AVENUE
MAPLEWOOD, NJ 07040

FOR
SOUTH ORANGE AND
MAPLEWOOD
SCHOOL DISTRICT
525 ACADEMY STREET
MAPLEWOOD, NEW JERSEY 07040

FOR CODE REVIEW: XXXXXXXXXX

REVISIONS:

REVISION NAME	DATE

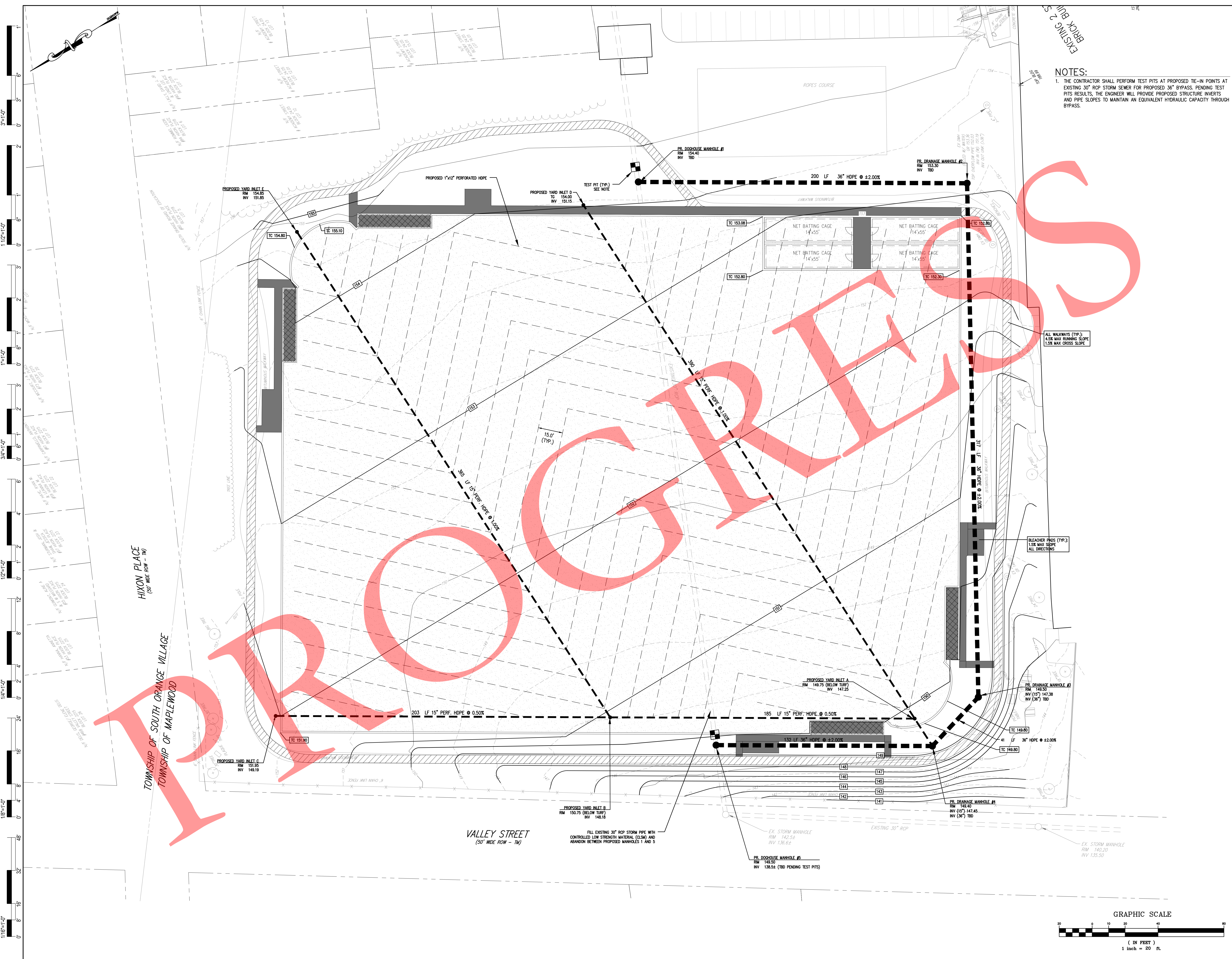
FOR BID: XX, 2021

DRAWING TITLE:
DEMOLITION
PLAN

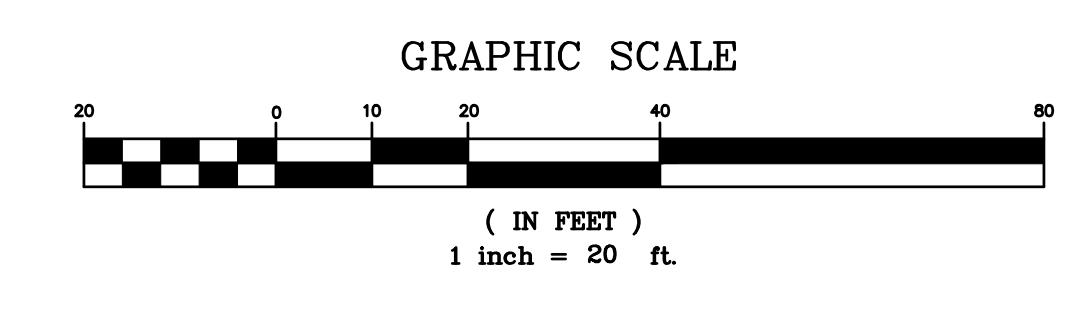
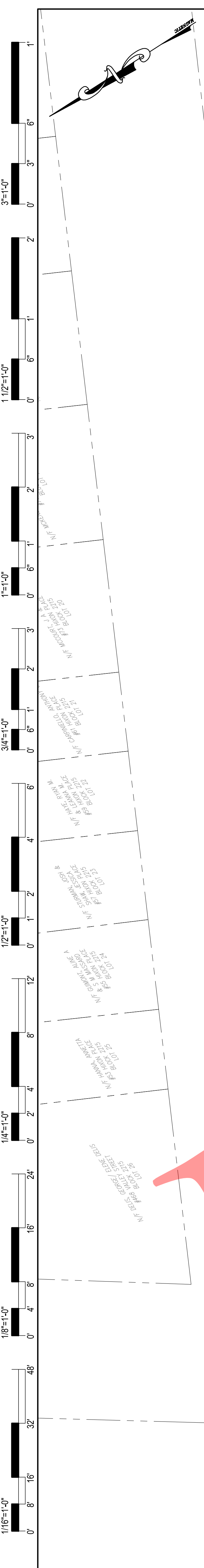
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DRAWING NUMBER:
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NOTES:
 1. THE CONTRACTOR SHALL PERFORM TEST PITS AT PROPOSED TIE-IN POINTS AT EXISTING 30" RCP STORM SEWER FOR PROPOSED 36" BYPASS. PENDING TEST PITS RESULTS, THE ENGINEER WILL PROVIDE PROPOSED STRUCTURE INVERTS AND PIPE SLOPES TO MAINTAIN AN EQUIVALENT HYDRAULIC CAPACITY THROUGH BYPASS.



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OCTOBER 9, 2023

PROJECT:
 IMPROVEMENTS TO
 RITZER FIELD
 AT COLUMBIA H.S.
 17 PARKER AVENUE
 MAPLEWOOD, NJ 07040

FOR
 SOUTH ORANGE AND
 MAPLEWOOD
 SCHOOL DISTRICT
 525 ACADEMY STREET
 MAPLEWOOD, NEW JERSEY 07040

FOR CODE REVIEW: XXXXXXXXX

REVISIONS:

REVISION NUMBER	REVISION NAME	DATE
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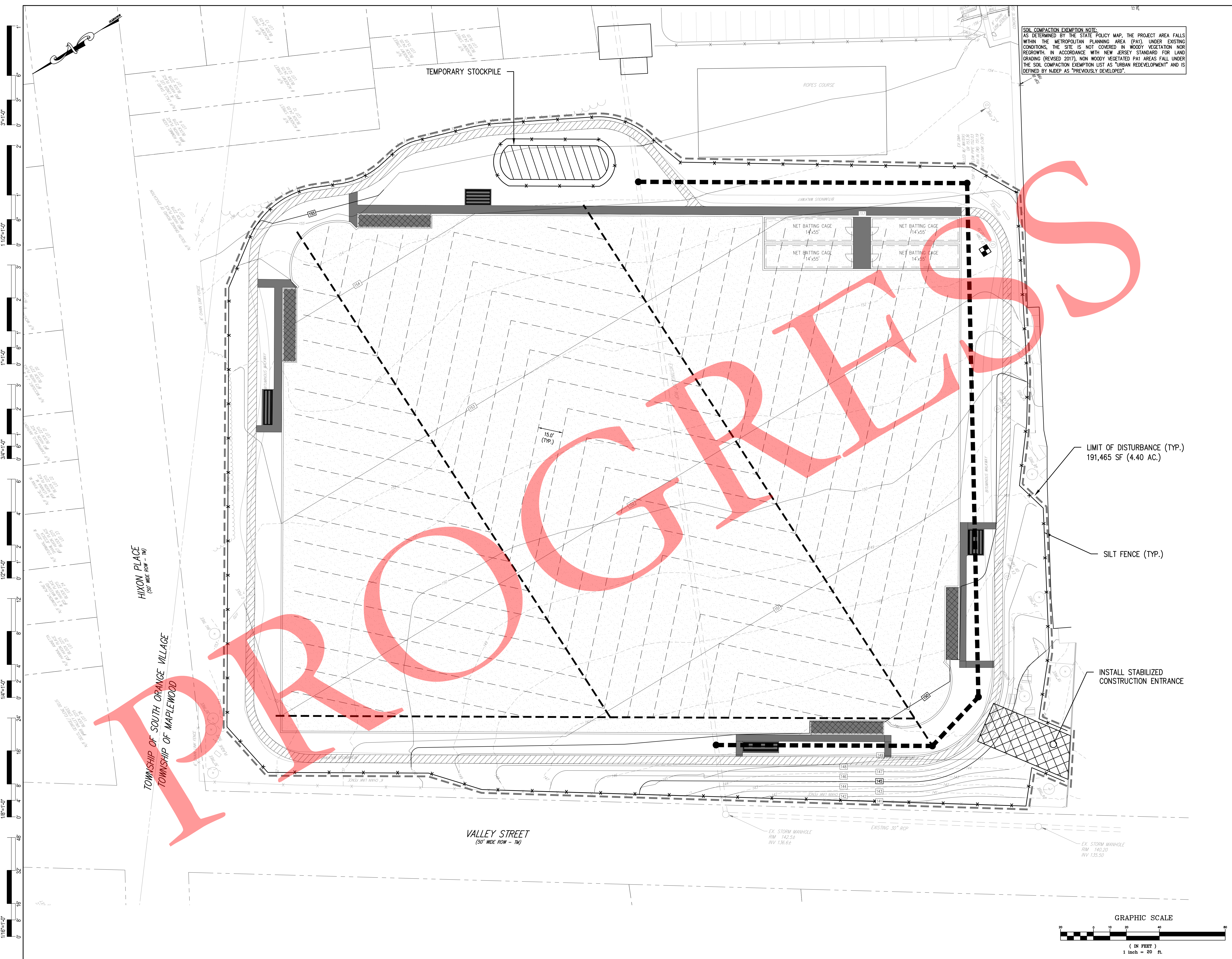
FOR BID: XX, 2022

DRAWING TITLE:
 GRADING AND
 DRAINAGE PLAN

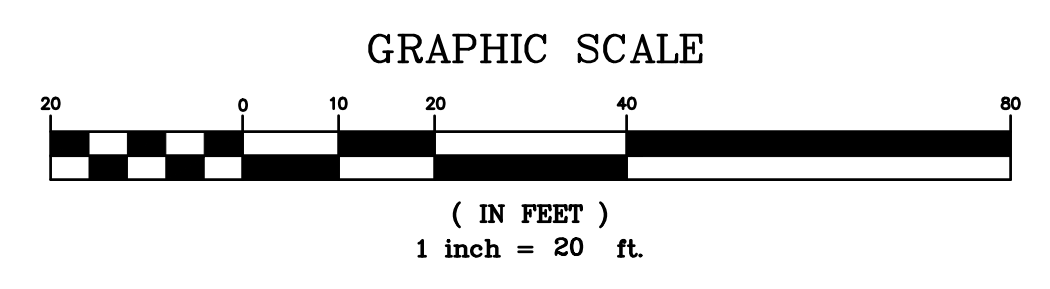
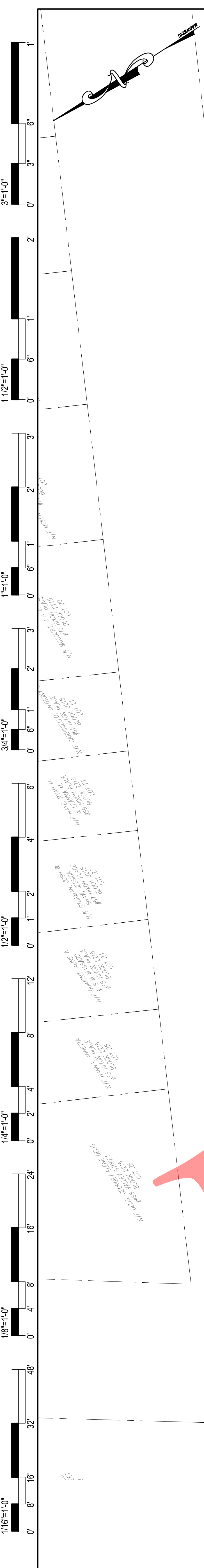
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SOIL COMPACTION EXEMPTION NOTE:
 AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA1). UNDER EXISTING CONDITIONS, THE SITE IS NOT COVERED IN WOODY VEGETATION NOR REGROWTH. IN ACCORDANCE WITH NEW JERSEY STANDARD FOR LAND GRADING (REVISED 2017), NON WOODY VEGETATED PA1 AREAS FALL UNDER THE SOIL COMPACTION EXEMPTION LIST AS "URBAN REDEVELOPMENT" AND IS DEFINED BY NJDEP AS "PREVIOUSLY DEVELOPED".



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TREBOR TAYLOR, P.E., P.P.
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OCTOBER 9, 2023

PROJECT:
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 MAPLEWOOD, NJ 07040

FOR
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 525 ACADEMY STREET
 MAPLEWOOD, NEW JERSEY 07040

FOR CODE REVIEW: XXXXXXXXXX

REVISIONS:

REVISION NAME	DATE

FOR BID: XX, 2021

DRAWING TITLE:
 SOIL EROSION AND
 SEDIMENT CONTROL
 AND STAGING PLAN

COMMISSION NUMBER:
 19K038

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CH.SW5.0

SOIL EROSION AND SEDIMENT CONTROL NOTES:

- 1. All soil erosion and sediment control practices on this plan will be constructed in accordance with the New Jersey Standards for Soil Erosion and Sediment Control 7th Edition last revised July 2017, effective December 2017. These measures will be installed prior to any major soil disturbance or in their proper sequence and maintained until permanent protection is established.
2. Soil to be exposed or stockpiled for a period of greater than 14 days, and not under active construction, may be required to be temporarily mulched, and seeded or otherwise provided with vegetative cover as per Appendix A.3. This temporary cover shall be maintained until such time whereby permanent stabilization is established.
3. Seeding Dates: The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPSCD: Spring - 3/15-5/15 and Fall - 8/15 - 10/1.
4. Sediment fences are to be properly trenched and maintained until permanent vegetative cover is established.
5. All storm drainage inlets shall be protected by one of the practices accepted in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.
6. Mulch materials shall be un-rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting like straw. Other suitable materials may be used if approved by the Soil Conservation District.
7. All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.
8. The Hudson-Exeter-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax - (862) 333-4507 OR email - INFORMATION@HEPSCD.ORG
9. The applicant must obtain a District Issued Report-of-Compliance prior to applying for the Certificate of Occupancy or Temporary Certificate of Occupancy from the respective municipality, NJ - or any other controlling agency. Contact the District at 862-333-4505 to request a Final Inspection, giving advance notice upon completion of the stabilization measures. A performance deposit may be posted with the District when winter weather or snow cover prohibits the proper application of seed, mulch, fertilizer or hydro-seeding.
10. Fowed roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water pumped out of the excavated areas contains sediments that must be removed prior to discharging to receiving bodies of water using removable pumping stations, sump pits, portable sedimentation tanks and/or silt control bags.
11. All surfaces having low or landscaping as final cover are to be provided topsoil prior to re-seeding, seeding or planting. A depth of 5.0 inches, firm in place, is required, as per the Standards for Topsoiling and Land Grading, effective December 2017.
12. All plan revisions must be submitted to the District for proper review and approval.
13. A crushed stone wheel cleaning/tracking-pad is to be installed at all site exits using 2 x 1/2 crushed angular stone (ASTM 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.
14. Steep slopes incurring disturbance may require additional stabilization measures. These special measures shall be designed by the applicant's engineer and approved by the Soil Conservation District.
15. The Hudson-Exeter-Passaic Soil Conservation District shall be notified, in writing, for the sale of any portion of the property for the sale of individual lots. New owners information shall be provided. Additional measures deemed necessary by District officials shall be implemented as conditions warrant.

3. Seeding

- A. Select a mixture from Table 4-3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless tested.
1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover over the specified seed mixture for the seeded area and mowed once.
2. Warm-season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85°F and above. Planting rates for warm-season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing results.
3. Cool-season mixtures are grasses and legumes which maximize growth at temperatures below 85°F. Many grasses become active at 65°F. See Table 4-3, mixtures 7&14. Adjustment of planting rates to compensate for the amount of PLS is not required for cool season grasses.
4. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacker seedings, seed shall be incorporated into the soil within 24 hours of seeded preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse-textured soil.
5. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillaryity, and improve seeding emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.
6. Hydroseeding is a broadcast seeding method usually involving a truck, or trailer-mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short-fibered mulch may be applied with a hydroseeder following seeding. (also see Section 4-Mulching below)
Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.
7. Establishing Permanent Vegetative Stabilization
The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

TABLE 7-2 (SELECTION AND RECOMMENDATIONS FROM TABLE 7-2) TEMPORARY SEED MIXTURE

Table with 2 columns: PERMANENT SEED MIXTURE and TEMPORARY SEED MIXTURE. Contains 4 rows of seed mixture specifications for cool season grasses.

MULCHING SPECIFICATION FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

- Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.
1. Sod should be free of broadleaf weeds and undesirable coarse and fine weed grasses.
2. Sod should be of uniform thickness, typically 5/8 inch, plus or minus 1/4 inch, at time of cutting (excludes top growth).
3. Sod should be vigorous and dense and be able to retain its own shape and weight when suspended vertically with a firm grasp from the upper 10 percent of the strip. Broken roots and rolls or torn and uneven ends will not be acceptable.
4. Sod should be of uniform thickness, typically 5/8 inch, plus or minus 1/4 inch, at time of cutting (excludes top growth).
5. Sod should be vigorous and dense and be able to retain its own shape and weight when suspended vertically with a firm grasp from the upper 10 percent of the strip. Broken roots and rolls or torn and uneven ends will not be acceptable.
6. Sod should be of uniform thickness, typically 5/8 inch, plus or minus 1/4 inch, at time of cutting (excludes top growth).
7. Sod should be vigorous and dense and be able to retain its own shape and weight when suspended vertically with a firm grasp from the upper 10 percent of the strip. Broken roots and rolls or torn and uneven ends will not be acceptable.

- 3. Crimper Mulch Anchoring Coupler Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Soil penetration should be about 3 to 4 inches. On sloping land, the operation should be on the contour.
4. Liquid Mulch-Binders
a. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
b. Use one of the following:
i. Organic and Vegetable Based Binders - naturally occurring, powder based, hydrophilic materials that mixed with water formulates a gel and when applied to a mulch under satisfactory conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in phytotoxic effect or impede growth of turfgrasses. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer.
ii. Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

REVEGETATION MATTING INSTALLATION

All areas so designated will be covered with mimat or approved equivalent. Revegetation matting, before hydroseeding or planting. The mat shall be installed using the following method:
1. Unroll revegetation mat from top of slope to the base with out stretching mat.
2. Bury edges of mat with 3" of soil to prevent undercutting of the soil.
3. Overlay by a minimum of 3" with the laterally adjacent strip of matting
4. Overlay by a minimum of 3" at the end of any roll. The terminal ends of each strip shall be buried in a looped fashion, 6" beyond the finished grade.
5. Peg all overlapped areas with 1" x 3" nominal wood pegs cut to 8" long triangular sections, or 6" long metal pins with 1-1/2" washers retained at the top of the pins.

JUTE MATTING SPECIFICATION

- 1. Jute mat shall be of cloth of a uniform plain weave with undyed and unbleached single jute yarn, 48 inches in width plus or minus 1 inch and weighing an average of 2 lbs/linear yard of cloth with a tolerance of plus or minus 5% with approximately 78 warp ends per width of cloth and 41 weft ends per linear yard of cloth. The yarn shall be of a low-level construction having average twist of not less than 1.6 turns/inch and shall not vary in thickness by more than one half of its nominal diameter.
2. Excelsior mat shall be wood excelsior, 48 inches in width plus or minus 1 inch and weighing 0.8 lbs/square yard plus or minus 10 percent. The excelsior material shall be covered with a netting to facilitate handling and to increase strength.
3. Staples - staples for anchoring soil stabilization matting shall be made of 12 to 20 inches in length of no. 8 plain iron wire.

STANDARD FOR DUST CONTROL

- When applicable, the following methods, or other methods as approved by the soil conservation district, are to be used for the control of dust:
1. Mulching - as per specification listed.
2. Vegetative cover - as per temporary and permanent specification listed.
3. Spray-on adhesives - on mineral soils (not effective on muck soils), keep traffic off these areas.

SEQUENCE OF CONSTRUCTION:

- 1. CLEAR SITE ACCORDING TO PLANS, INSTALL SILT FENCING, INLET PROTECTION FENCING WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. (1 WEEK)
2. STORM SEWER WORK (1 MONTH)
3. EARTHWORK (1 MONTH)
4. CONCRETE (1 MONTH)
5. INSTALL TURF (1 MONTH)
6. SITE AMENITIES, ACCESSORIES, LANDSCAPING (1 MONTH)
7. FINE GRADE AND RESTORE ALL DISTURBED AREAS (1 WEEK)
8. REMOVE ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES (1 DAY)
TOTAL AREA OF SOIL DISTURBANCE = 4.40 ACRES (911,465 SF)

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Methods and Materials

1. Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seeded preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.
B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.
C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be covered with organic matter, as needed, in accordance with the Standard for Topsoiling.
D. Install needed erosion control practices or facilities such as diversions, grade-stabilization structures, channel stabilization measures, sediment basins, and waterways.

2. Seeded Preparation

- A. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Cooperative Extension. Soil sample motters are available from the local Rutgers Cooperative Extension offices (http://njes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seeded preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.
B. Work lime and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seeded is prepared.
C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seeded preparation. See Standard for Management of High Acid-Producing Soils for specific requirements.

TABLE 4-3 (SELECTIONS AND RECOMMENDATIONS FROM TABLE 4-3) PERMANENT SEED IN DETENTION BASIN MIXTURE

Table with 2 columns: PERMANENT SEED MIXTURE and PERMANENT SEED MIXTURE. Contains 4 rows of seed mixture specifications for detention basins.

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Methods and Materials

1. Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seeded preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading.
B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways.
C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

2. Seeded Preparation

- A. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Cooperative Extension. Soil sample motters are available from the local Rutgers Cooperative Extension offices (http://njes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rate of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes.
B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seeded is prepared.
C. Inspect seeded just before seeding. If traffic has left the soil compacted, the area must be retiled in accordance with the above.
D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils.

3. Seeding

- A. Select seed from recommendations in Table 7-2.
B. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacker seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.
C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short-fibered mulch may be applied with a hydroseeder following seeding. (also see Section IV Mulching) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.
D. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillaryity, and improve seeding emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

4. Mulching

See Mulching Specification for Permanent and Temporary Vegetative Cover for Soil Stabilization)

STANDARD FOR STABILIZATION WITH MULCH ONLY

Methods and Materials

A. Site Preparation

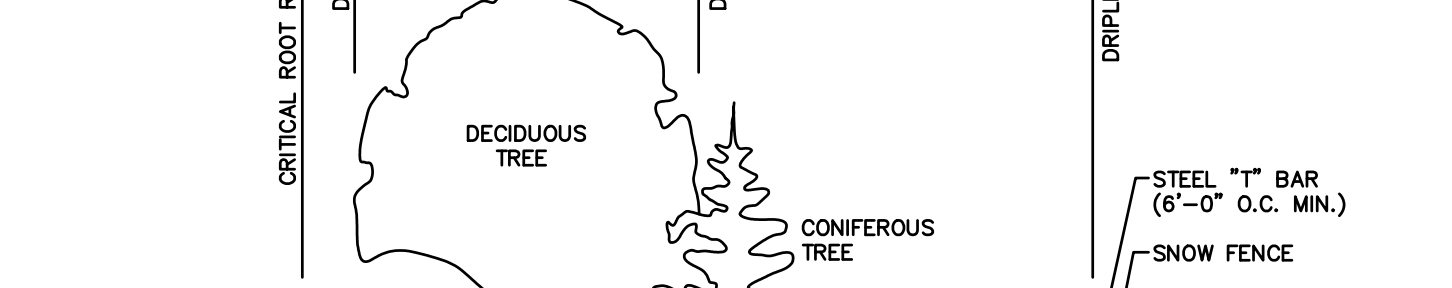
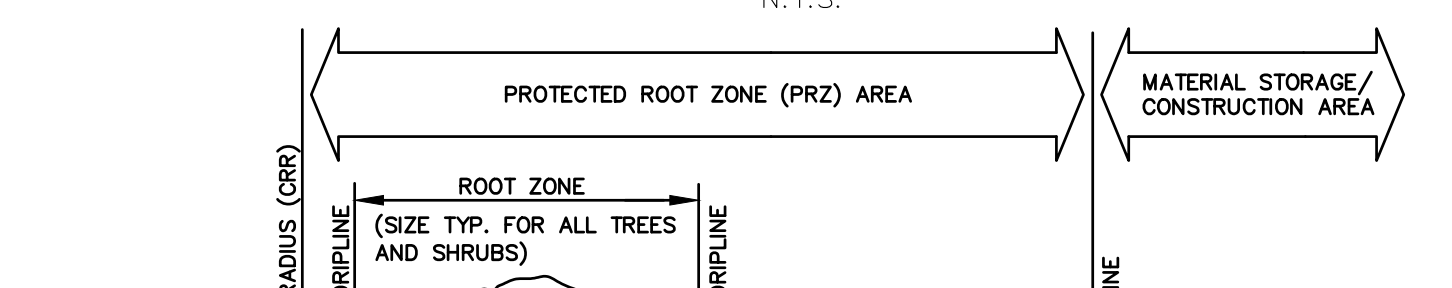
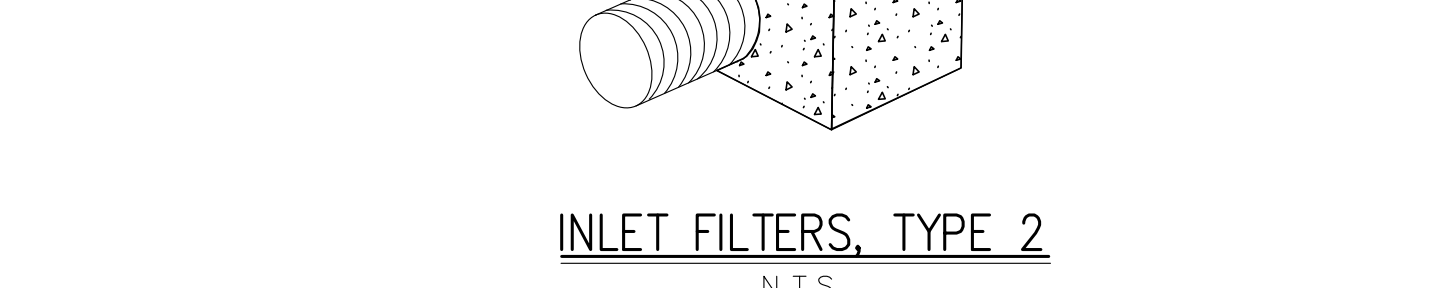
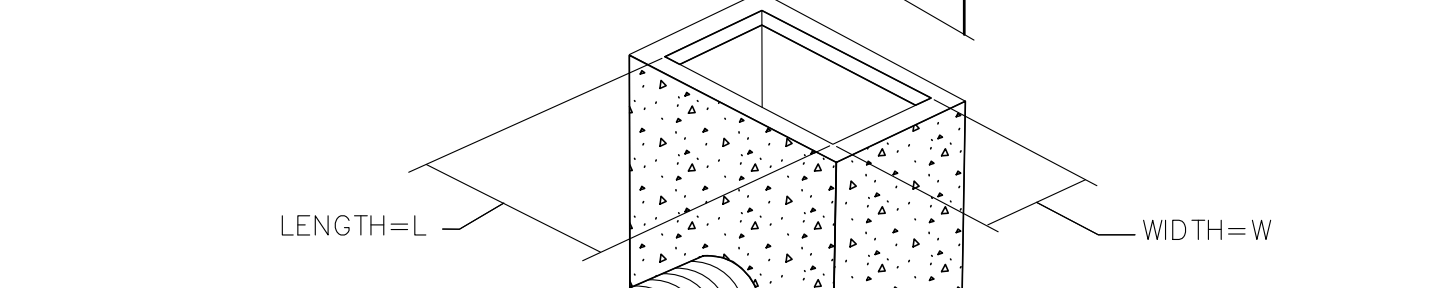
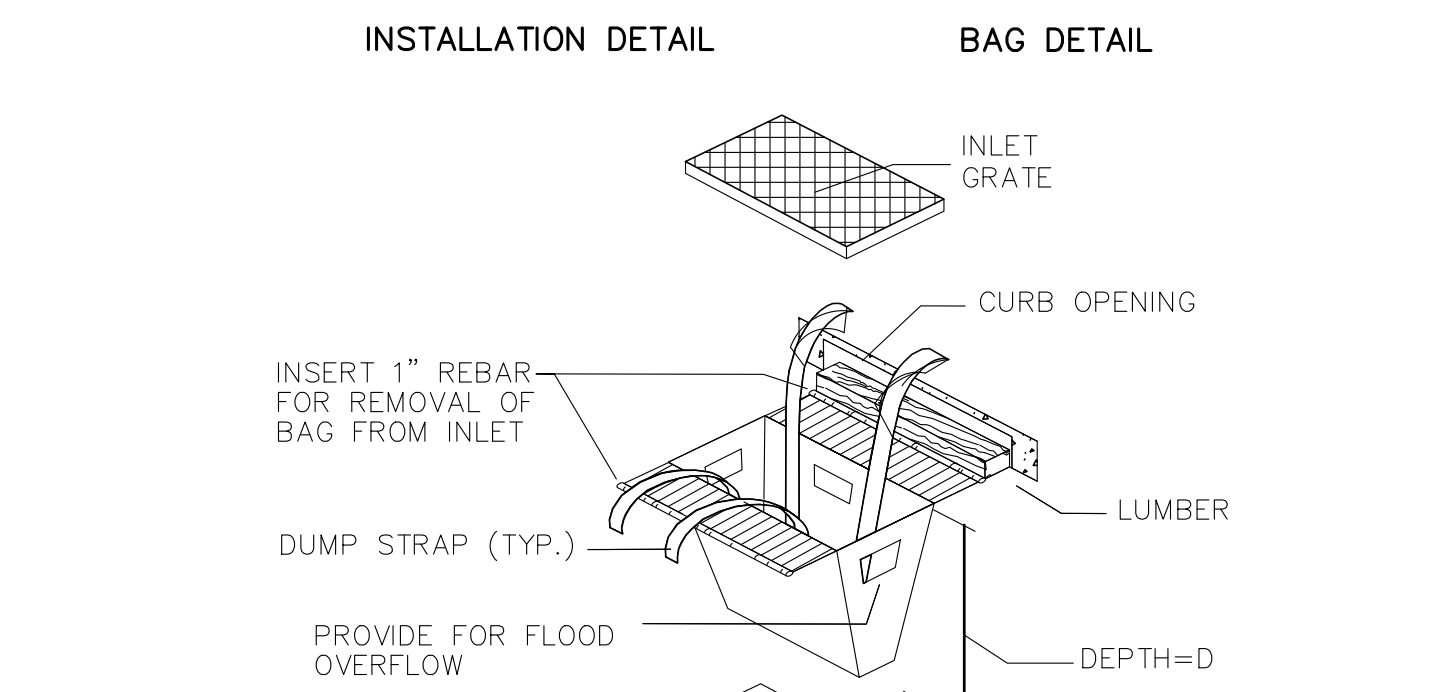
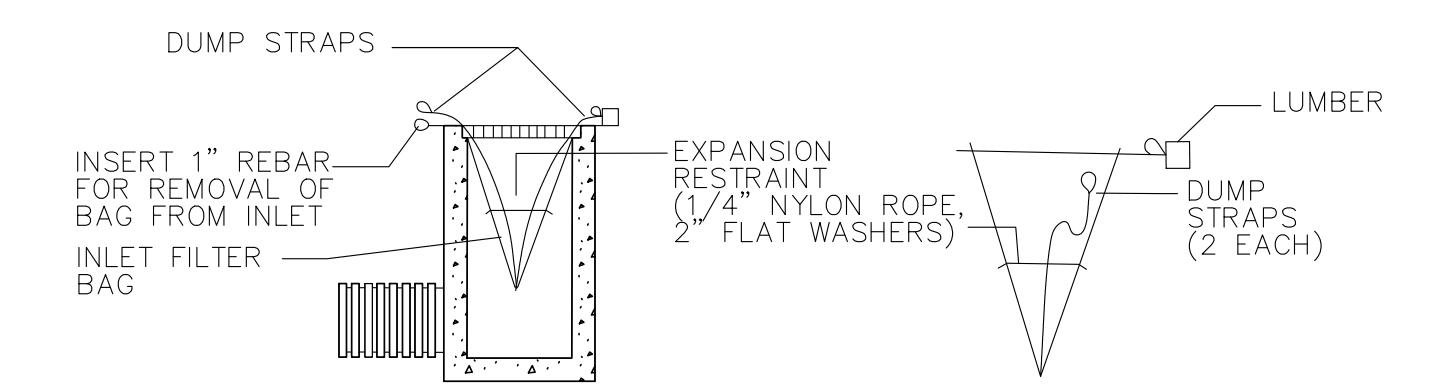
- 1. Grade as needed and feasible to permit the use of conventional equipment for seeded preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading.
2. Install as needed erosion control practices or facilities, such as diversions, grade stabilization measures, sediment basins, and waterways.
3. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

B. Protective Materials

- 1. Unsettled small-grain straw, or salt hay at 2.0 to 2.5 tons per acre is spread uniformly at 90 to 115 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.
2. Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturers.
3. Wood-chips applied uniformly to a minimum depth of 3 inches may be used. Woodchips will not be used on areas where flowing water could wash them into an inlet and plug it.
4. Mulch netting, such as paper jute, excelsior, cotton, or plastic, may be used.
5. Strawchips shall be applied to a minimum depth of 3 inches may be used. Strawchips will not be used on areas where flowing water could wash them into an inlet and plug it.
6. Gravel, crushed stone, or slag at the rate of 9 cubic yards per 1000 sq. ft. applied uniformly to a minimum depth of 3 inches may be used. Size 2 or 3 (ASTM C-33) is recommended.
C. Mulch Anchoring - should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind and weather. This may be done by one of the following methods, depending upon the size of the area and the steepness of slopes:
1. Peg and twine - drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a crisscross and a square pattern. Secure twine ground each peg with two or more round turns.
2. Mulch nettings - Staple paper, cotton, or plastic nettings over mulch. Use a degradable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and up to 300 feet long.

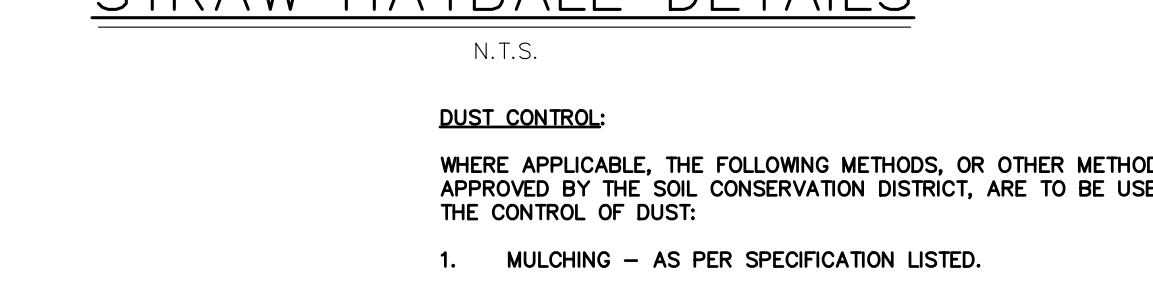
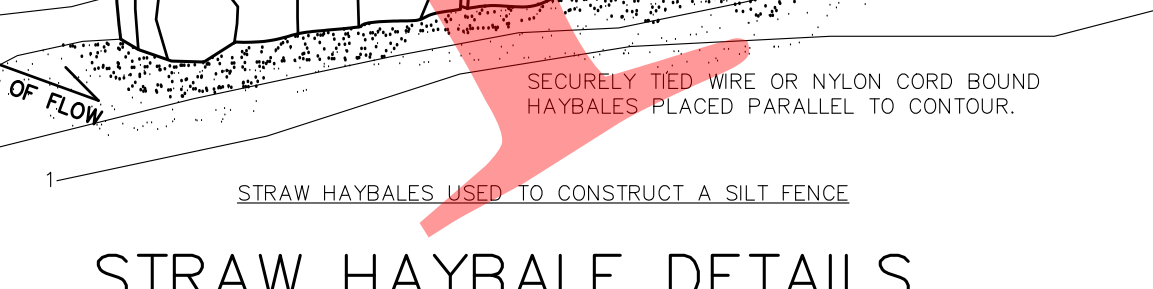
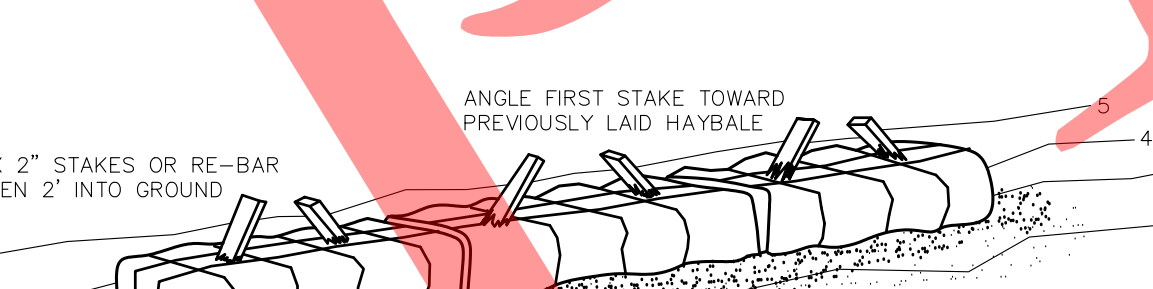
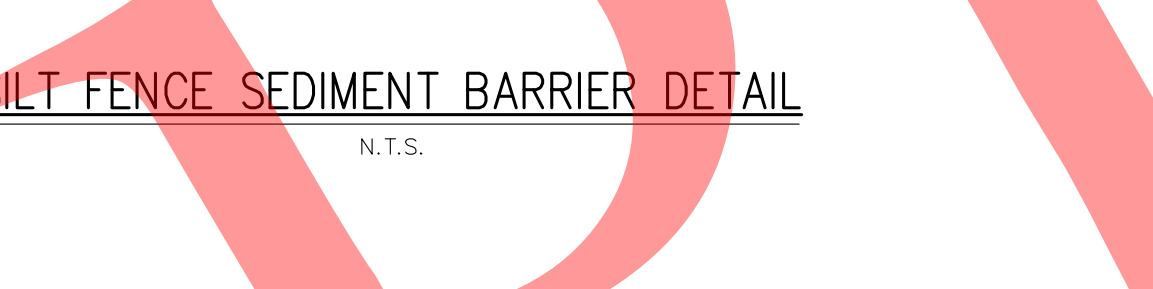
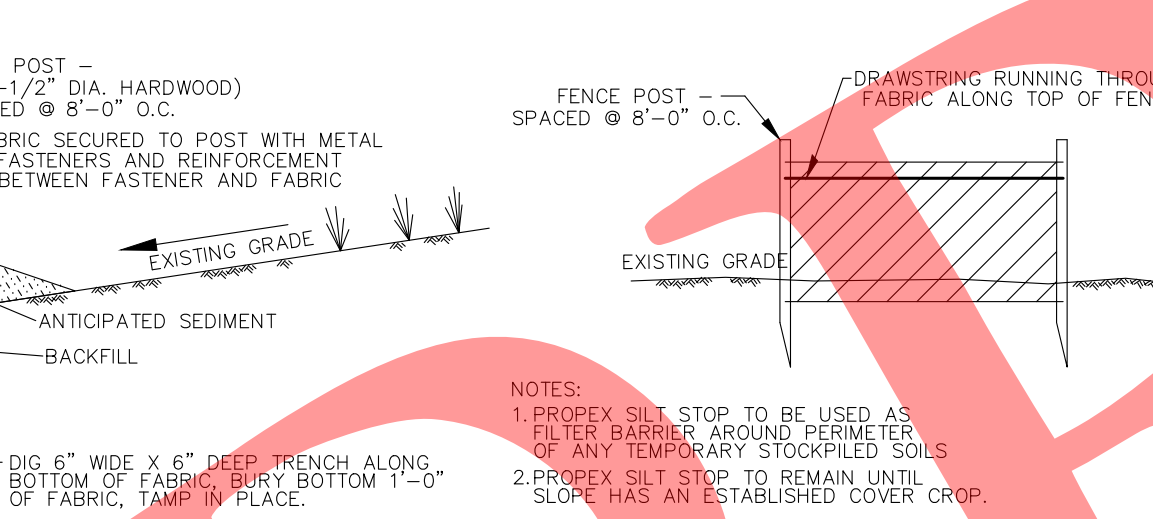
ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL NOTES FOR PROJECTS WITH BASINS

- 1. Basin must be properly constructed and permanently stabilized, and conduit outlet protection installed, prior to the drainage system becoming operational.
2. The standards for soil erosion and sediment control have specific requirements for topsoiling, the installation of sod, temporary and/or permanent vegetative cover and land grading. The text found on pages 6-2 (sec. 2a), 7-1 (sec. 1c), 8-2 (sec. 3c) and 19-2 (last paragraph) serve to help minimize soil compaction and reduce maintenance.
3. Ownership and responsibility for the operation and maintenance of the detention structure must be determined during design and shown on the plans and on the completed hydraulic and hydrologic data base summary form to be effective over a long period of time, the structure must be properly maintained.



Estimate a tree's Protected Root Zone (PRZ) by calculating the Critical Root Radius (CRR):
1. Measure the DBH (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.
2. Multiply measured DBH by 1.5 or 1.0. Express the result in feet.
DBH x 1.5: Critical Root Radius for older, unhealthy, or sensitive species.
DBH x 1.0: Critical Root Radius for younger, healthy or tolerant species.

As the major part of the root systems of the plant(s) to be protected are within the critical root radius / drip-line zone, this entire area should be fenced off (to a maximum height of 4'-0") prior to construction and removed thereafter. For maximum protection, no vehicle trespass, excavation, fill, waste discharge or material storage should be allowed in this zone.



CODE REVIEW:

CERTIFICATE:
SPEIZEL ARCHITECTURAL GROUP, INC.
1385 YARDVILLE HAMILTON SQUARE ROAD
SUITE 2A
HAMILTON, NJ 08611
PHONE: 609-655-7400



CONSULTANTS:
CONSULTING AND MUNICIPAL ENGINEERS
100 SOUTH VINCENNES AVENUE, SUITE 2000
TRENTON, NJ 08611
PHONE: 609-655-7400
NEW JERSEY PROFESSIONAL ENGINEER N.J. Lic. 44978

OCTOBER 9, 2023

PROJECT:
IMPROVEMENTS TO RITZER FIELD AT COLUMBIA H.S.
17 PARKER AVENUE
MAPLEWOOD, NJ 07040

FOR SOUTH ORANGE AND MAPLEWOOD SCHOOL DISTRICT
525 ACADEMY STREET
MAPLEWOOD, NEW JERSEY 07040

FOR CODE REVIEW: XXXXXXXX
REVISIONS:
REVISION NAME DATE

COMMISSION NUMBER: 19K038
DRAWING NUMBER: CH.SW5.1



SPIEZE ARCHITECTURAL GROUP INC.
1385 YARDVILLE HAMILTON SQUARE ROAD
SUITE 2A
HAMILTON, NJ 08611
PHONE: 609-655-7400

SIGNATURE:
MICHAEL S. HERRING
SCOTT E. DOMINE
STEVEN L. LORNE
STEVEN G. BESEL
ANGEL M. ALBERTI
JOHN T. WRIGHT
SPIEZE ARCHITECTURAL GROUP, INC.

SEAL:

CONSULTANTS:
cve
ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
200 KOBLESTOWN AVENUE, HAVERTY, NEW JERSEY 07842
200 SOUTH V. SOUTH, HOWELL, NEW JERSEY 07731-9194
TREBOR TAYLOR, P.E., P.P.
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44976

OCTOBER 9, 2023

PROJECT:
IMPROVEMENTS TO
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MAPLEWOOD, NJ 07040
FOR
SOUTH ORANGE AND
MAPLEWOOD
SCHOOL DISTRICT
525 ACADEMY STREET
MAPLEWOOD, NEW JERSEY 07040

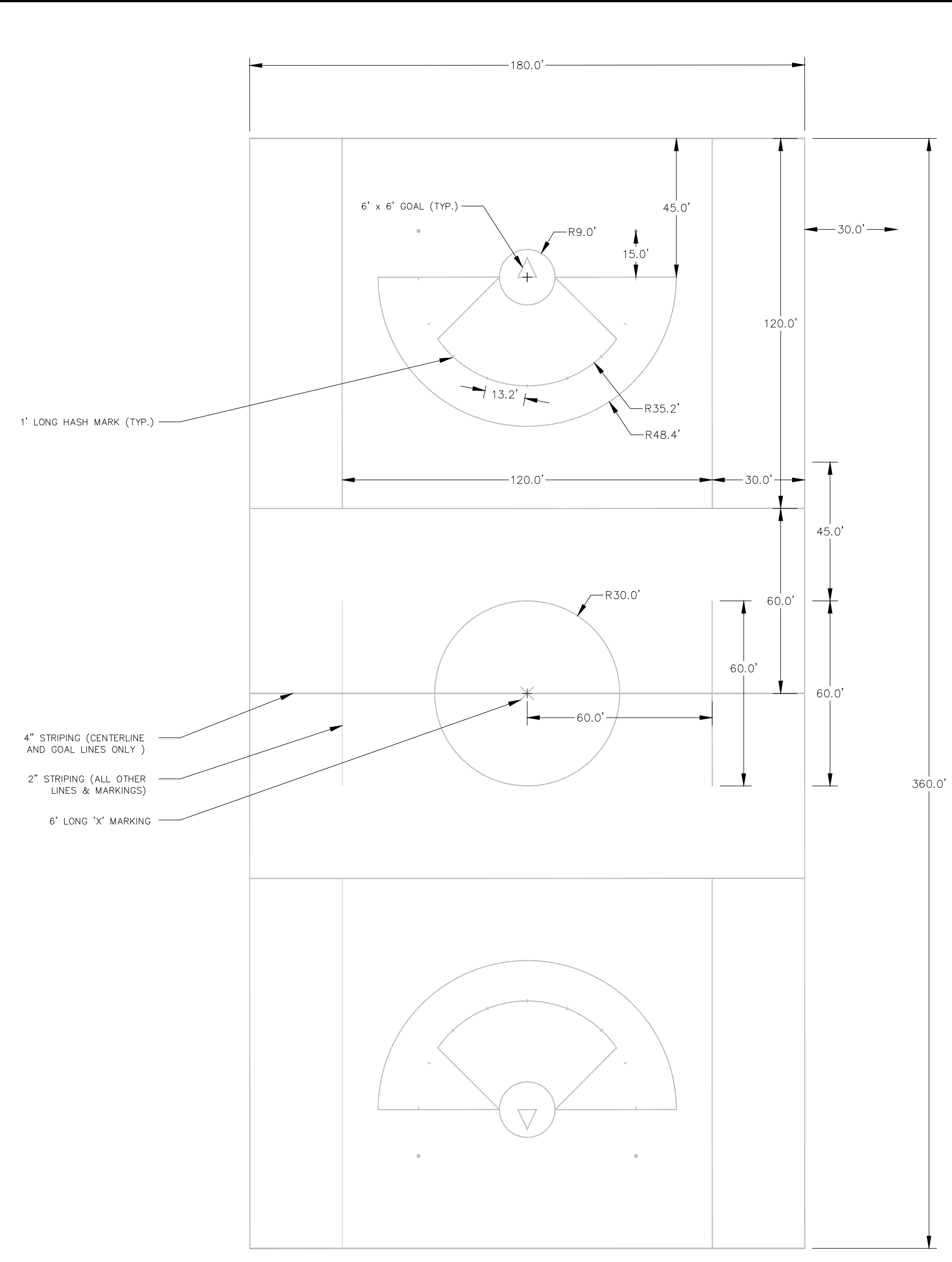
FOR CODE REVIEW: XXXXXXXX
REVISIONS:
REVISION NAME DATE

COMMISSION NUMBER:
19K038
##-###-##
DO NOT SCALE THE DRAWINGS

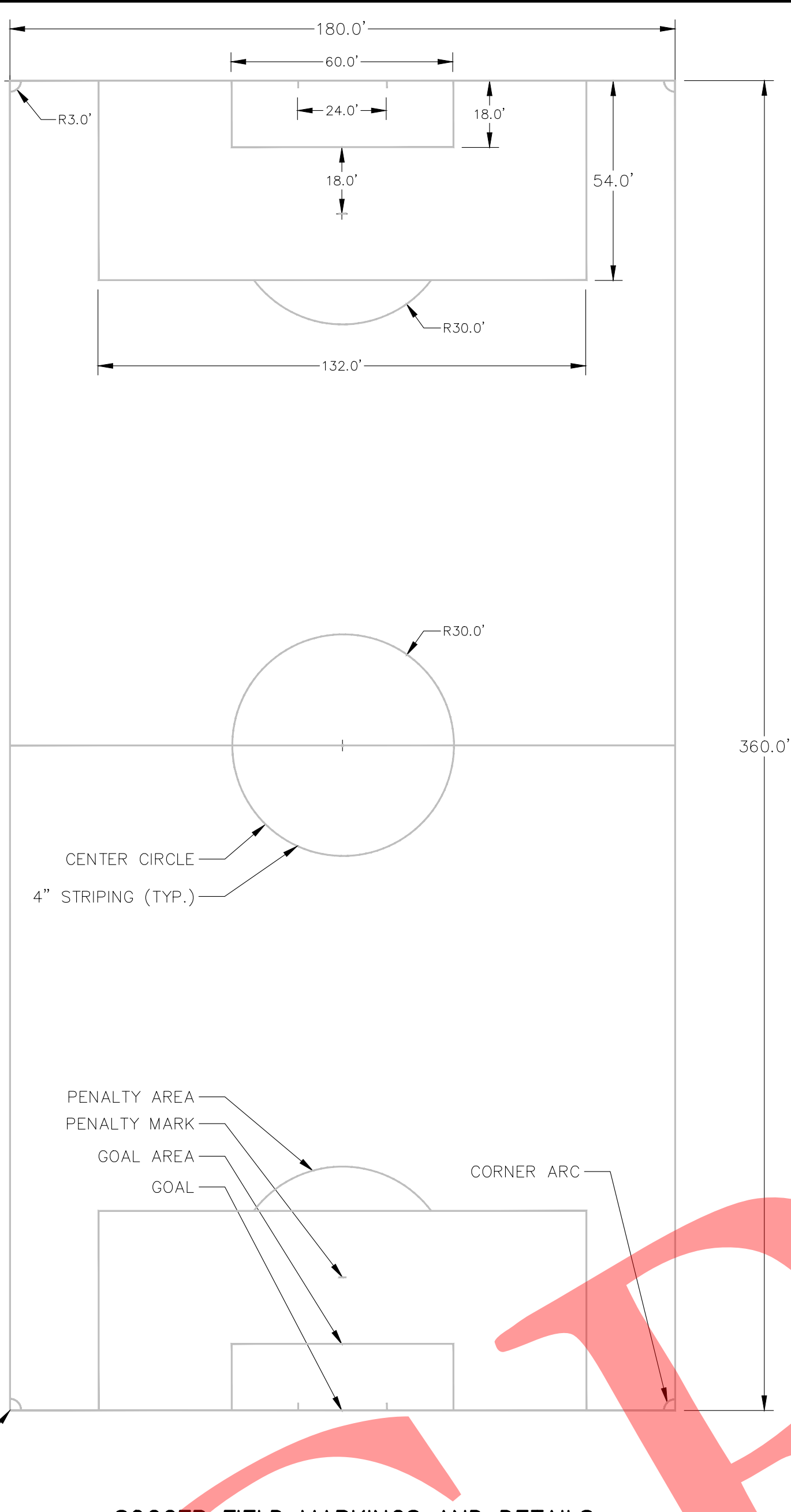
FOR BID: XX, 2022

DRAWING TITLE:
CONSTRUCTION
DETAILS
(1 OF 4)

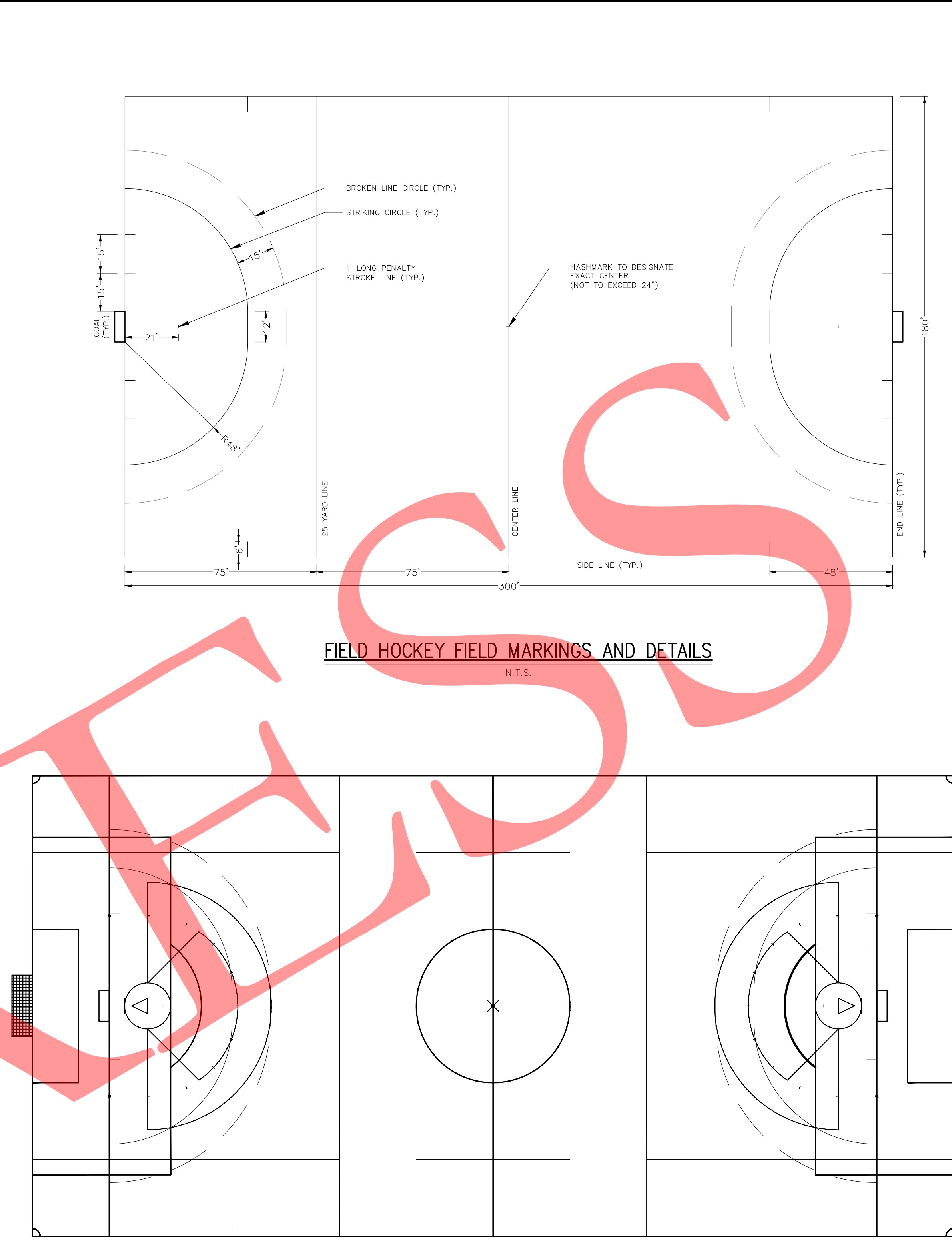
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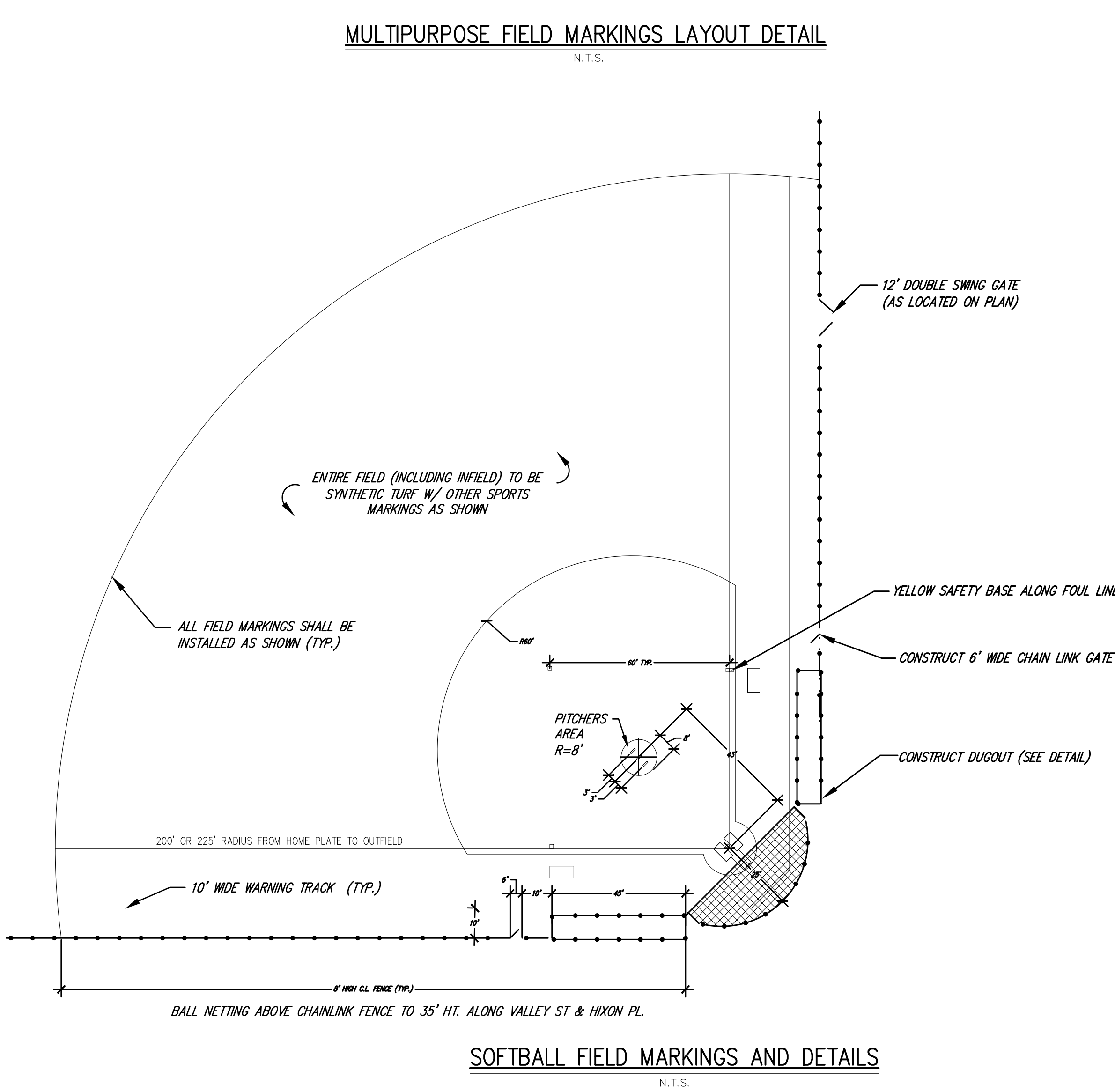
LACROSSE FIELD MARKINGS AND DETAILS
N.T.S.



SOCCER FIELD MARKINGS AND DETAILS
N.T.S.



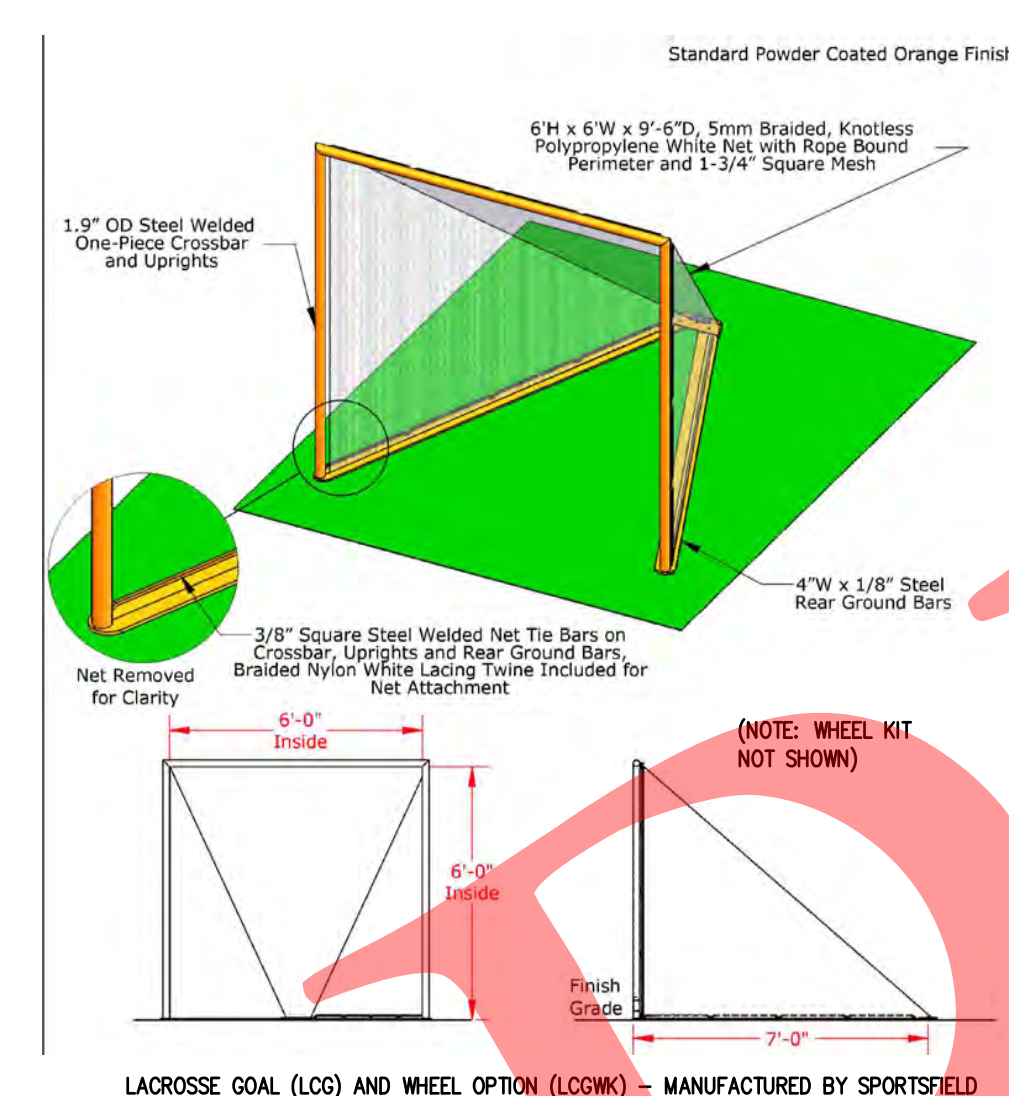
FIELD HOCKEY FIELD MARKINGS AND DETAILS
N.T.S.



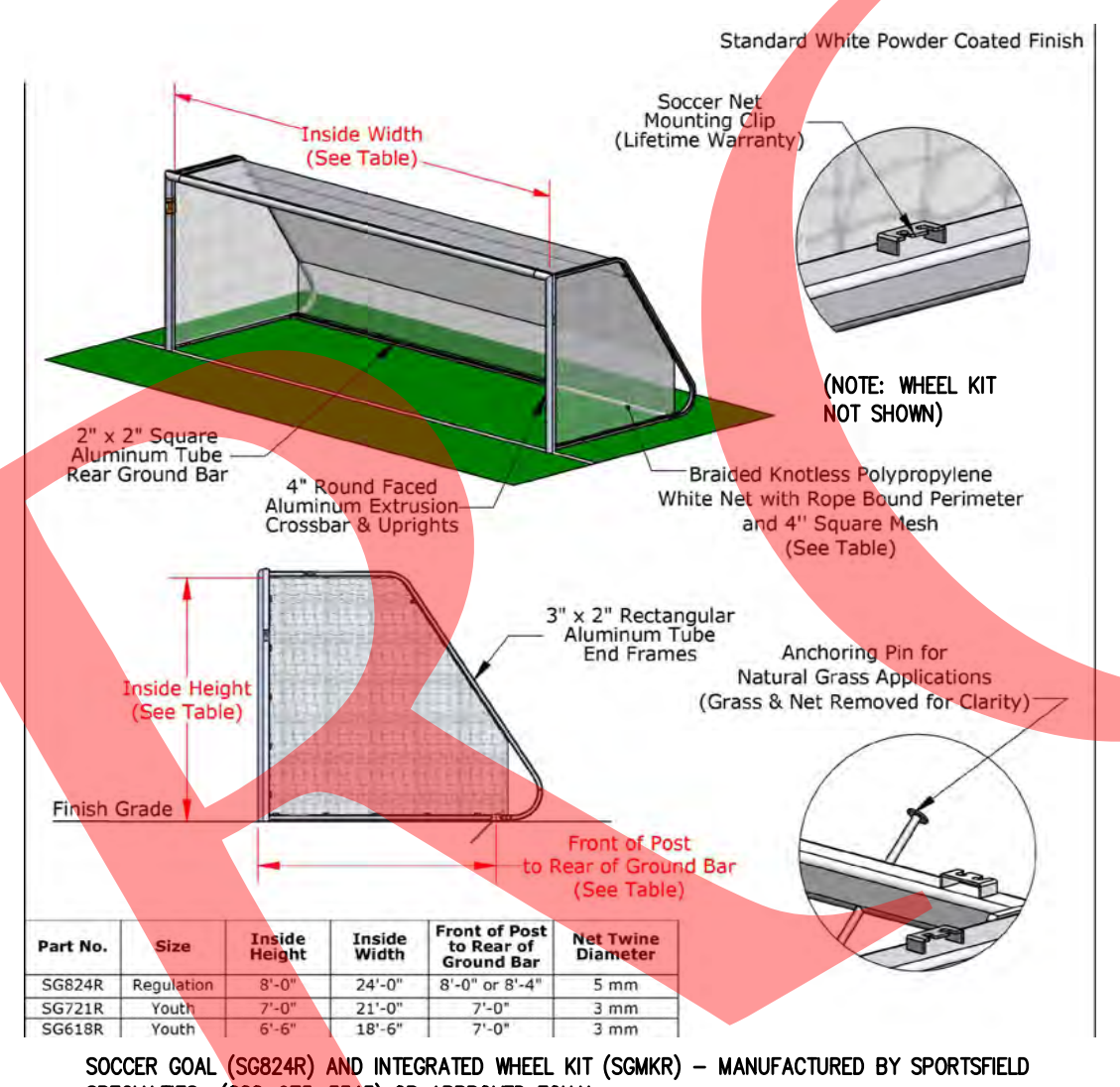
SOFTBALL FIELD MARKINGS AND DETAILS
N.T.S.

POLE: MIN. 1" DIA.
FLAG: MIN. 5" HIGH
INSTALL TOUCHING THE
OUTER EDGE OF THE LINES
AT THE CORNER

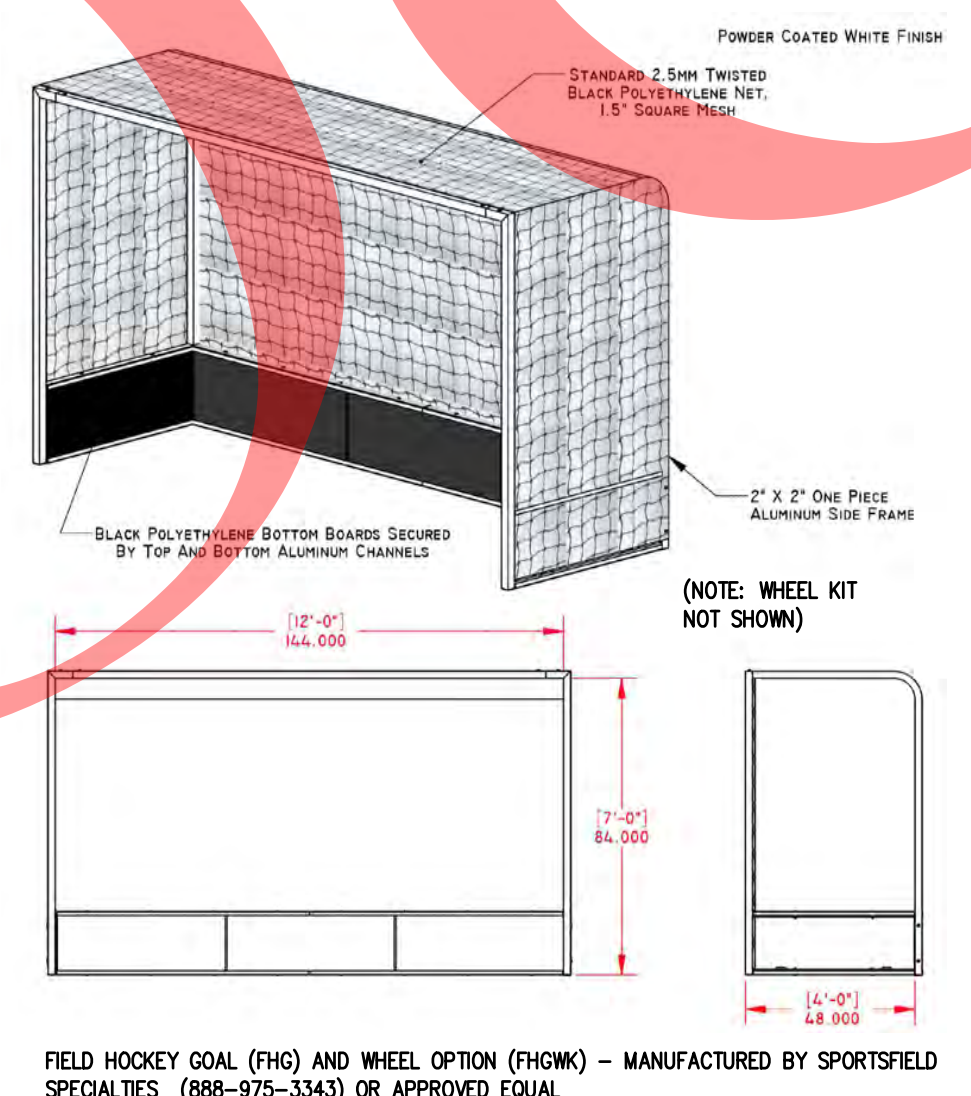
"OFFICIAL CORNER FLAGS" (68504) AS
MANUFACTURED BY KIWIGOAL INC.
(800-531-4252) OR APPROVED EQUAL



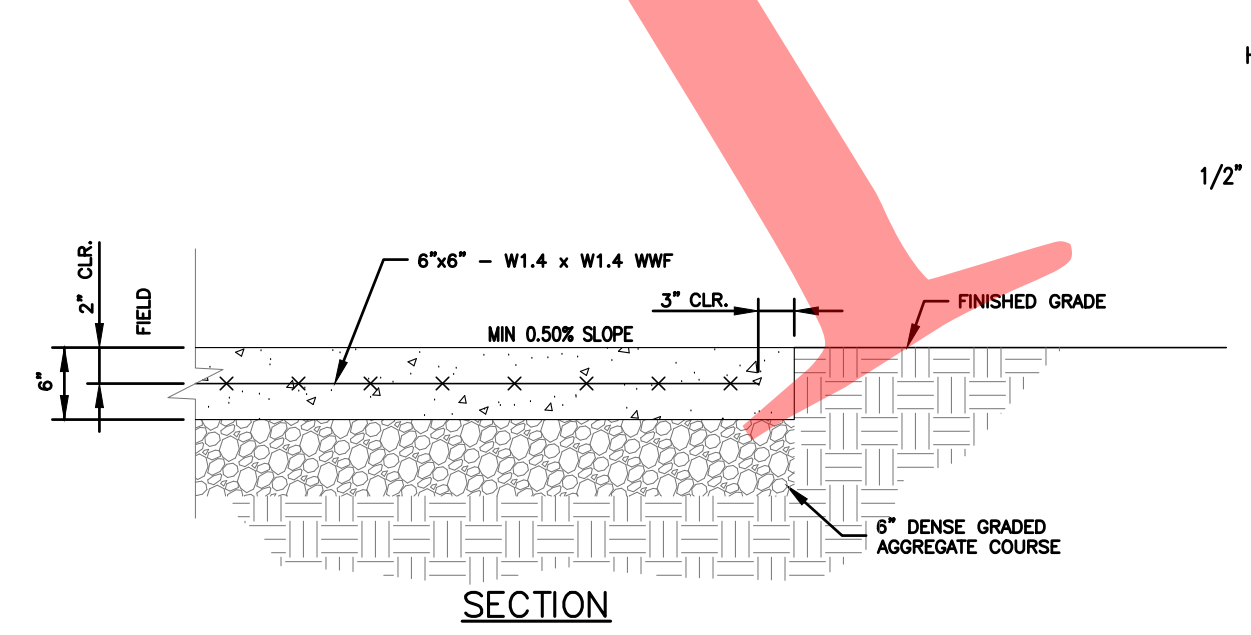
LACROSSE GOAL DETAIL
N.T.S.



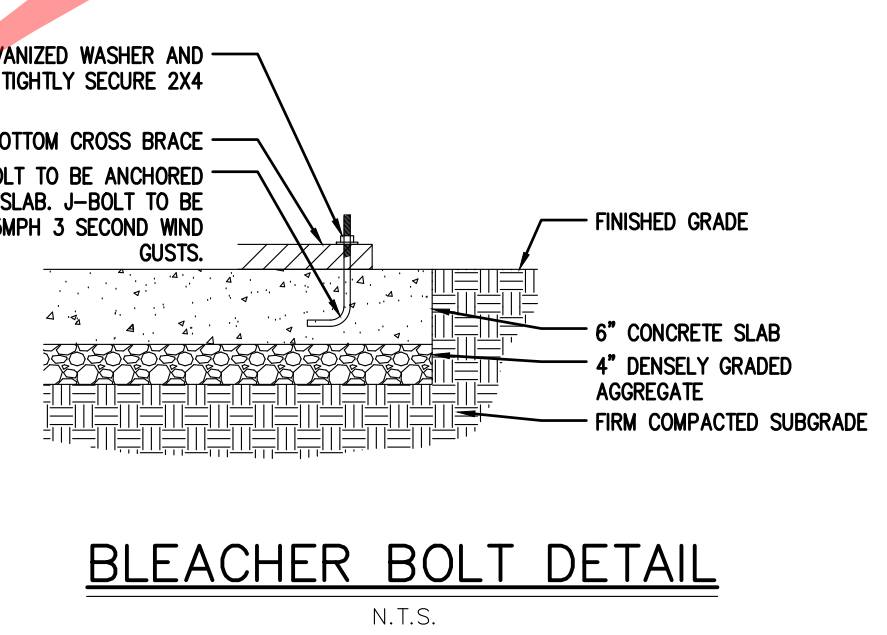
SOCCER GOAL DETAIL
N.T.S.



FIELD HOCKEY GOAL DETAIL
N.T.S.



BLEACHER AREA CONCRETE PAD DETAIL
N.T.S.



BLEACHER BOLT DETAIL
N.T.S.

- NOTES:
1. DETAILS PROVIDED FOR BIDDING PURPOSES. CONTRACTOR TO PROVIDE SHOP SUBMITTALS DETAILING LAYOUT, CONCRETE, REINFORCEMENT AND EXECUTION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
 2. CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF PLANS AND DETAILS BY A N.J. LICENSED ENGINEER FOR SUBMITTAL TO THE CONSTRUCTION DEPARTMENT FOR PERMITTING.
 3. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE CODES.
 4. ANY REQUIRED SOIL TESTING FOR BEARING CAPACITY DETERMINATION IS THE RESPONSIBILITY OF THE CONTRACTOR



SPIEZE ARCHITECTURAL GROUP INC. 1385 YARDVILLE HAMILTON SQUARE ROAD SUITE 2A HAMILTON, NJ 08611 PHONE: 609-695-7400

SIGNATURE: THOMAS S. FERRARO, SCOTT E. DOMINE, STEVEN L. DELO, AMELIA ALBERTO, JOHN J. WRIGHT, SPIEZE ARCHITECTURAL GROUP INC.

CONSULTANTS: CONSULTING AND MUNICIPAL ENGINEERS ASSOCIATES 248 BORDENTOWN AVENUE, HAMILTON, NEW JERSEY 08620

TREBOR TAYLOR, P.E., P.P. NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44676

OCTOBER 9, 2023

PROJECT: IMPROVEMENTS TO RITZER FIELD AT COLUMBIA H.S. 17 PARKER AVENUE MAPLEWOOD, NJ 07040

FOR SOUTH ORANGE AND MAPLEWOOD SCHOOL DISTRICT 525 ACADEMY STREET MAPLEWOOD, NEW JERSEY 07040

FOR REVIEW: XXXXXXXX

Table with 2 columns: REVISIONS, REVISION NAME, DATE

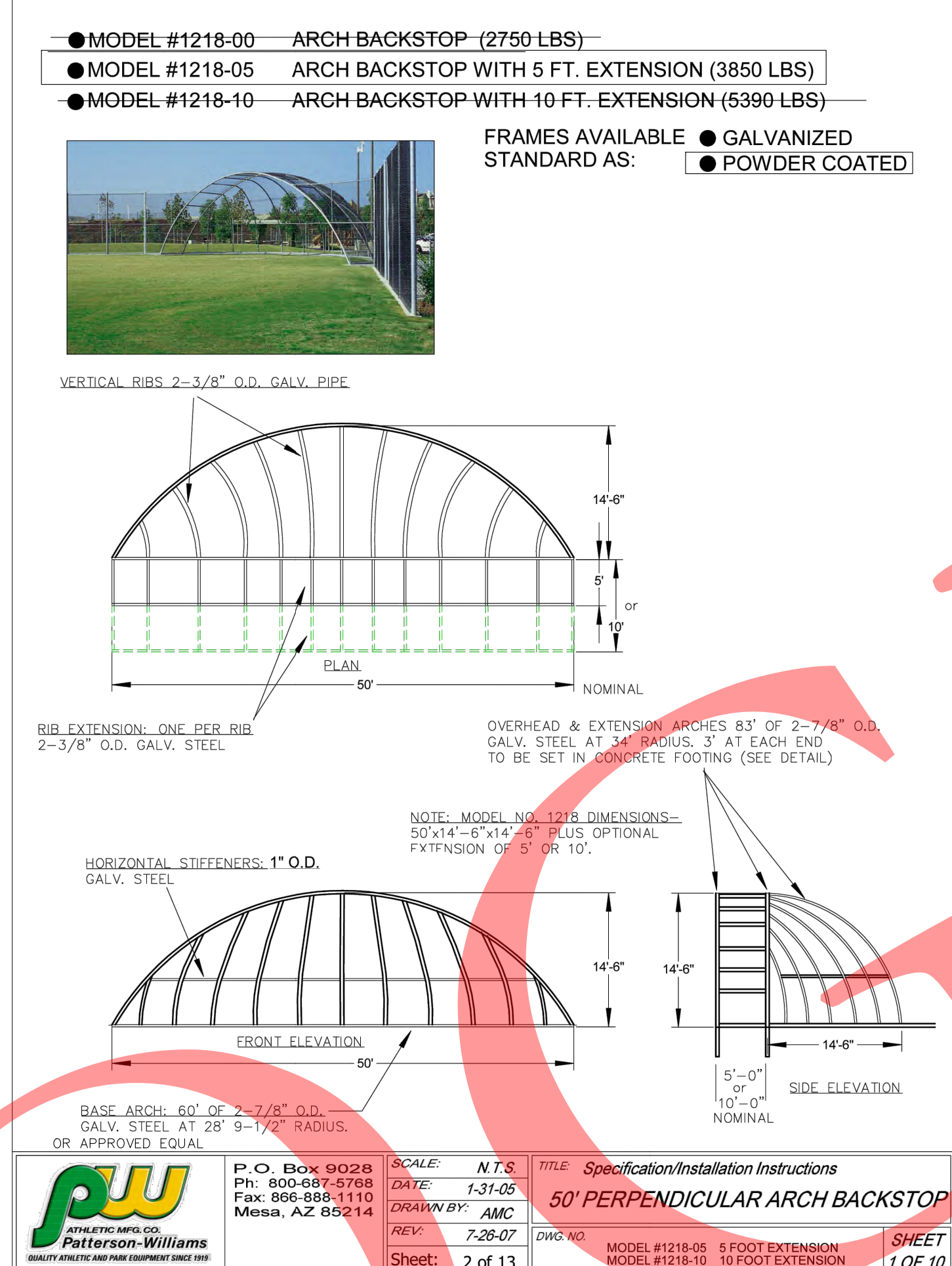
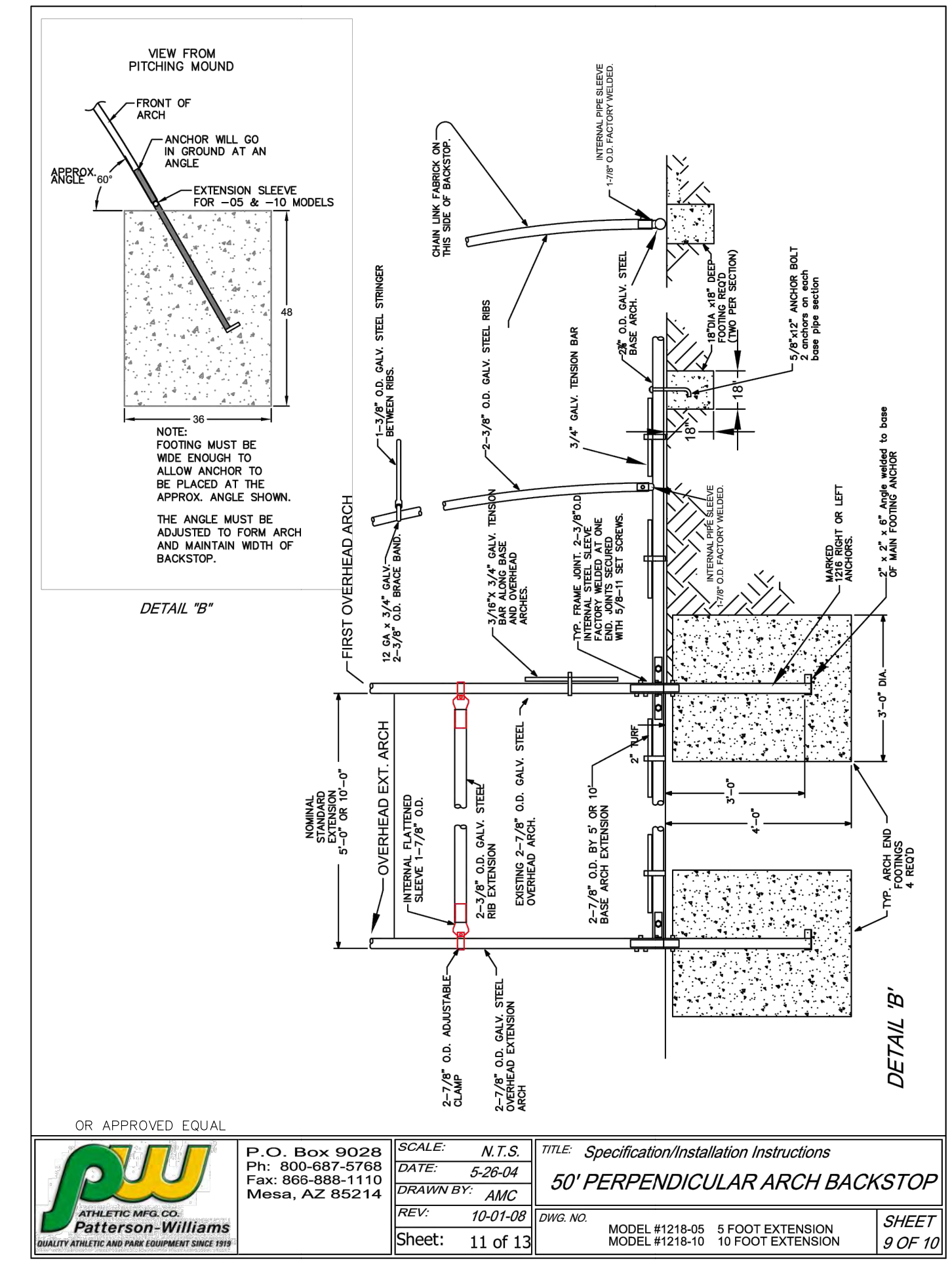
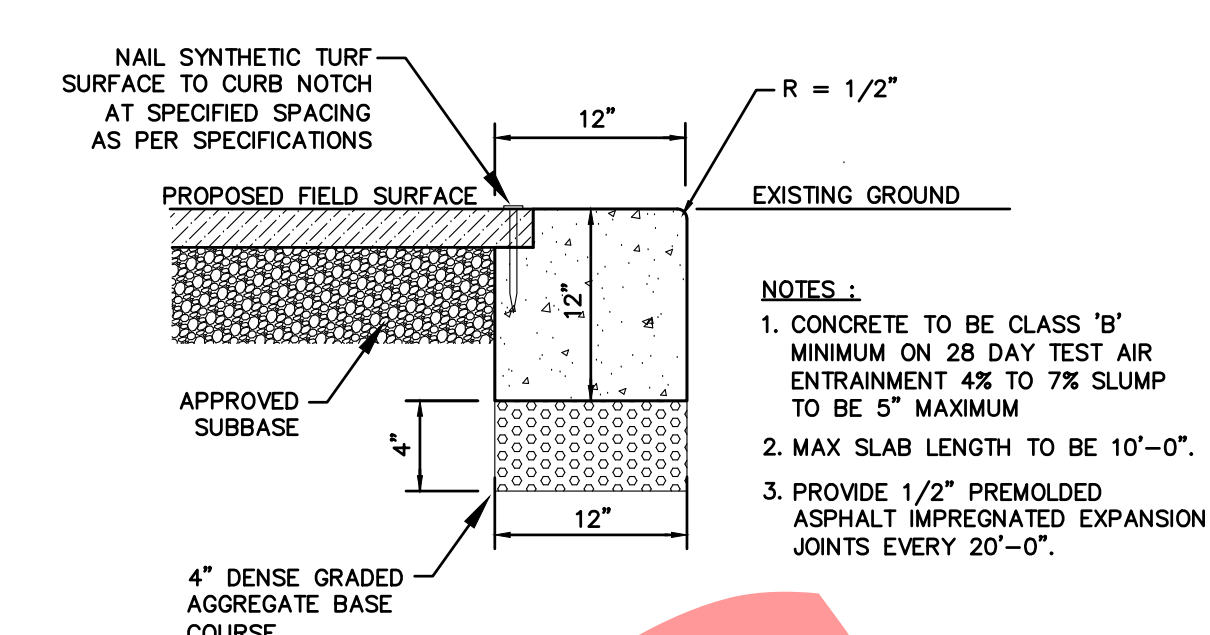
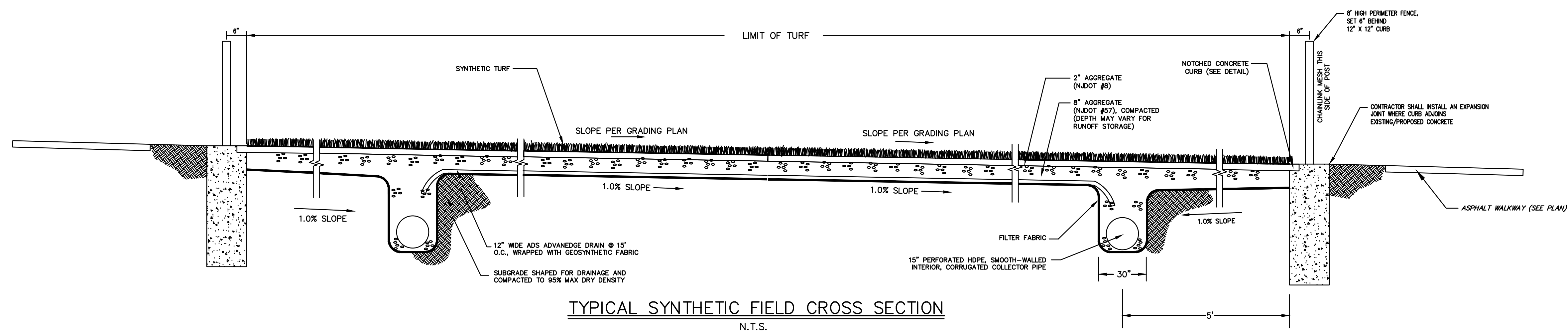
FOR BID: XX, 2022

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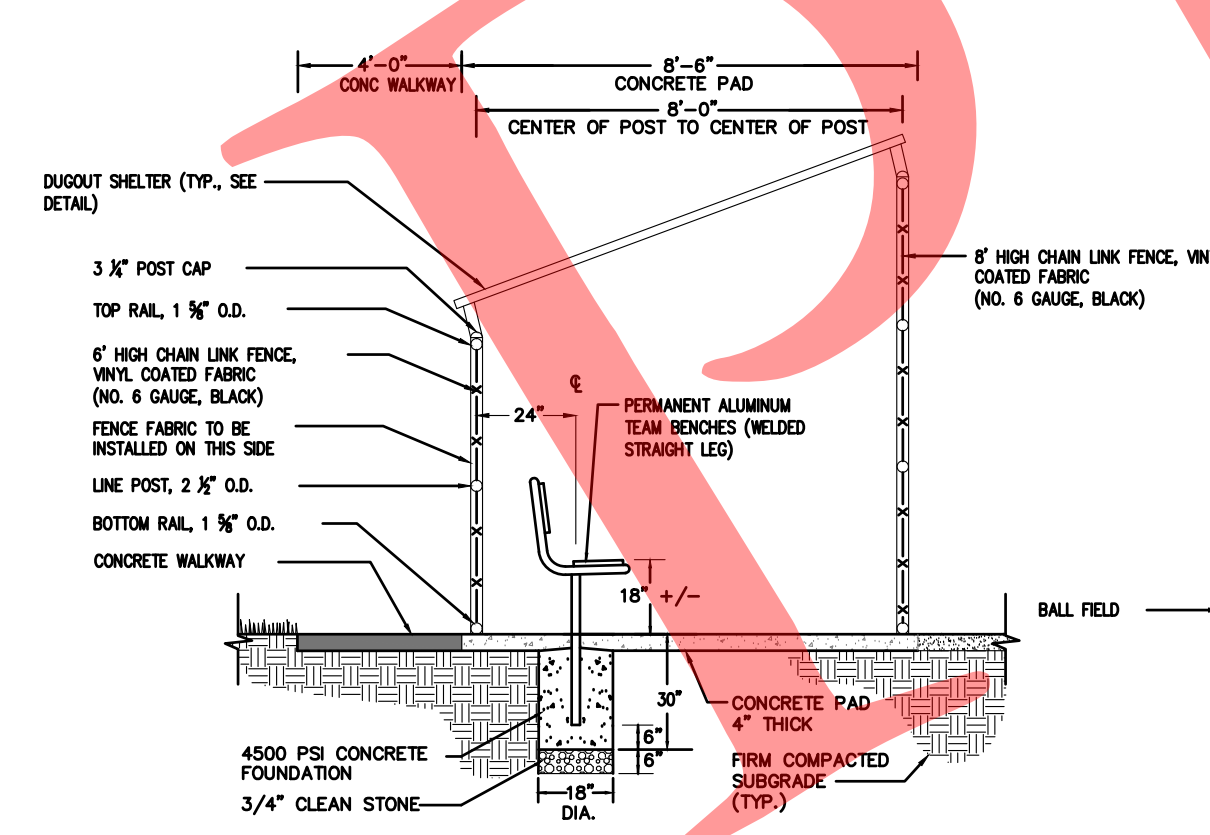
COMMISSION NUMBER: 19K038

###-###-## DO NOT SCALE THE DRAWINGS

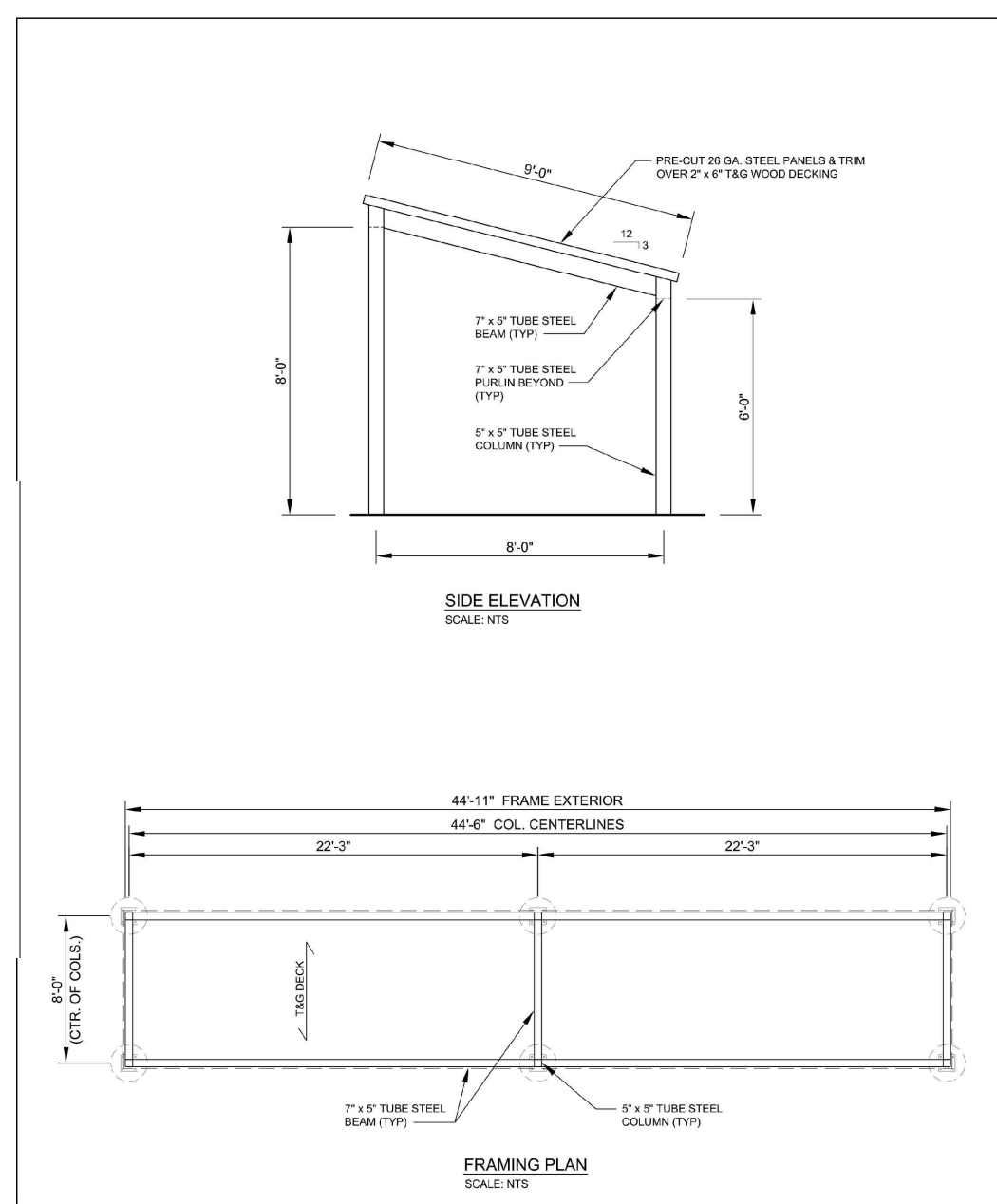
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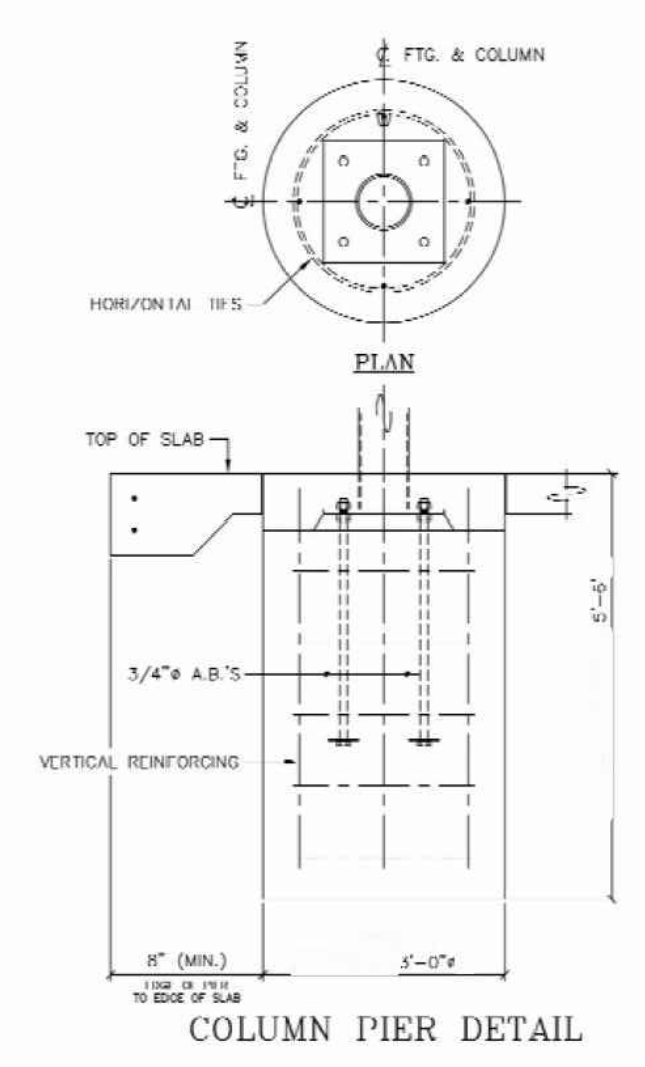
BATTING CAGE DETAIL



TEAM BENCH AREA DETAIL MODEL # 1103-21 AND 1103-15. N.T.S. MANUFACTURED BY PW ATHLETIC MANUFACTURING CO. OR APPROVED EQUIVALENT



DUGOUT SHELTER DETAILS MODEL # 8P0-0945-08-10. N.T.S. DUGOUT SHELTER TO BE MANUFACTURED BY COVERWORK RECREATIONAL ARCHITECTURE



PORTABLE BALL FIELD FENCING TO BE MODEL # A15-302, GRAND SLAM ABOVE GROUND TEMPORARY FENCE PACKAGE, 150' AS PROVIDED BY ANTHEM SPORTS (800-886-8700) OR APPROVED EQUAL.

Vertical scale markings on the left side of the page.



SPIEZE ARCHITECTURAL GROUP INC.
1385 YARDVILLE HAMILTON SQUARE ROAD
SUITE 2A
HAMILTON, NJ 08611
PHONE: 609-655-7400

SIGNATURE:
MICHAEL S. FERRARO 2148155600
SCOTT E. DOMINE 2148154400
STEVEN L. LEONE 2148153500
STEVEN G. BESEL 2148154500
ANGELICA BERTI 2148154600
JOHN J. WRIGHT 2148154700
SPIEZE ARCHITECTURAL GROUP, INC. 2148280000

SEAL:



TREBOR TAYLOR, P.E., P.P.
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44576

OCTOBER 9, 2023

PROJECT:
IMPROVEMENTS TO
RITZER FIELD
AT COLUMBIA H.S.
17 PARKER AVENUE
MAPLEWOOD, NJ 07040
FOR
SOUTH ORANGE AND
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525 ACADEMY STREET
MAPLEWOOD, NEW JERSEY 07040

FOR CODE REVIEW: XXXXXXXX
REVISIONS:
REVISION NAME DATE

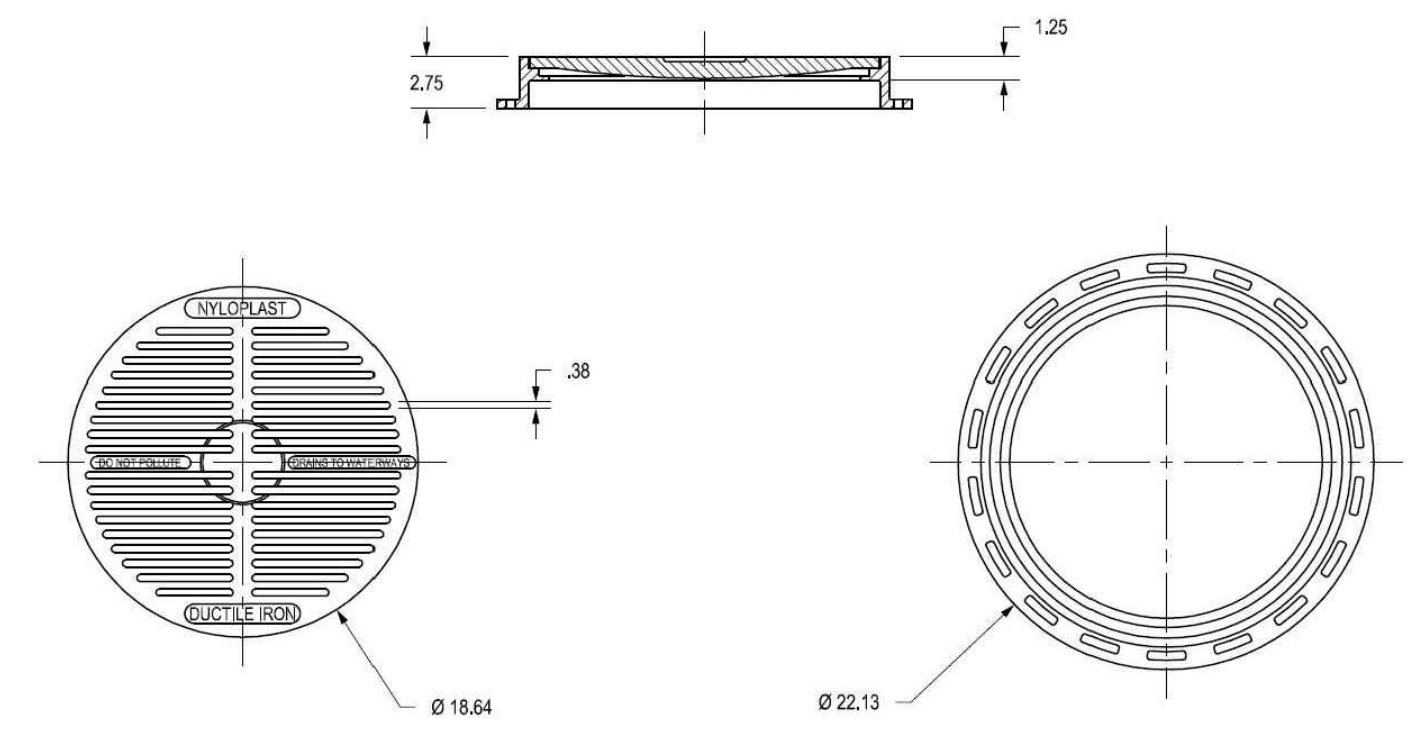
FOR BID: XX, 2022

DRAWING TITLE:
CONSTRUCTION
DETAILS
(3 OF 4)

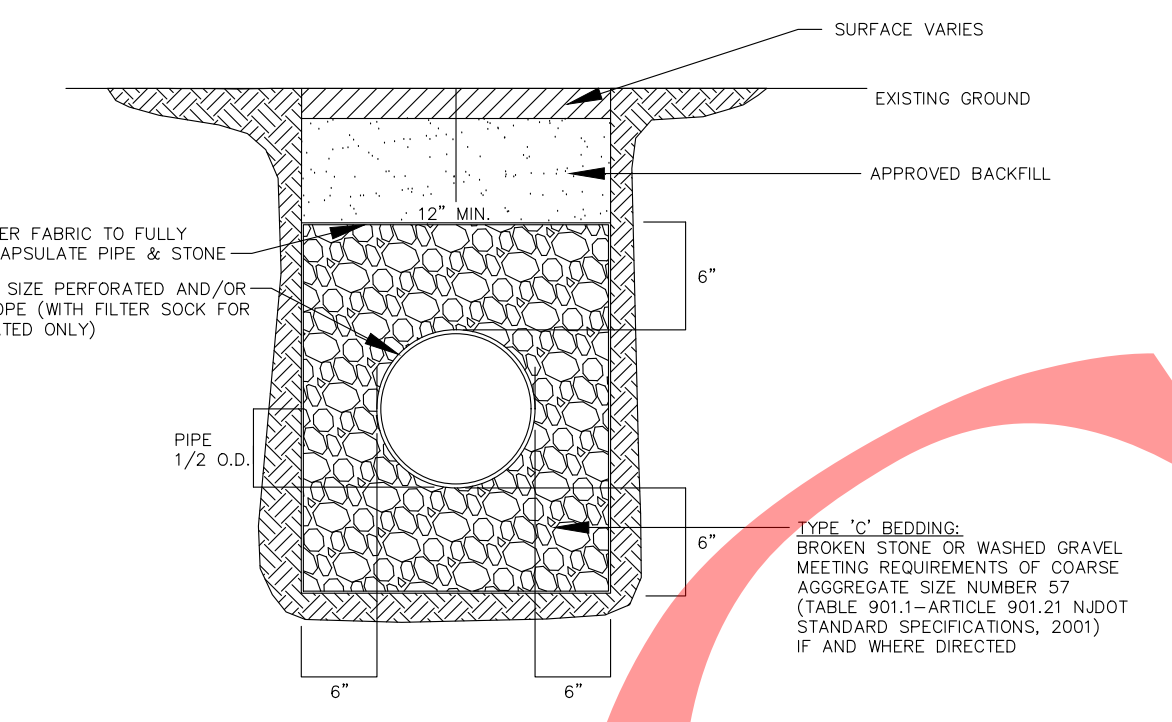
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19K038
##-####-##
DO NOT SCALE THE DRAWINGS

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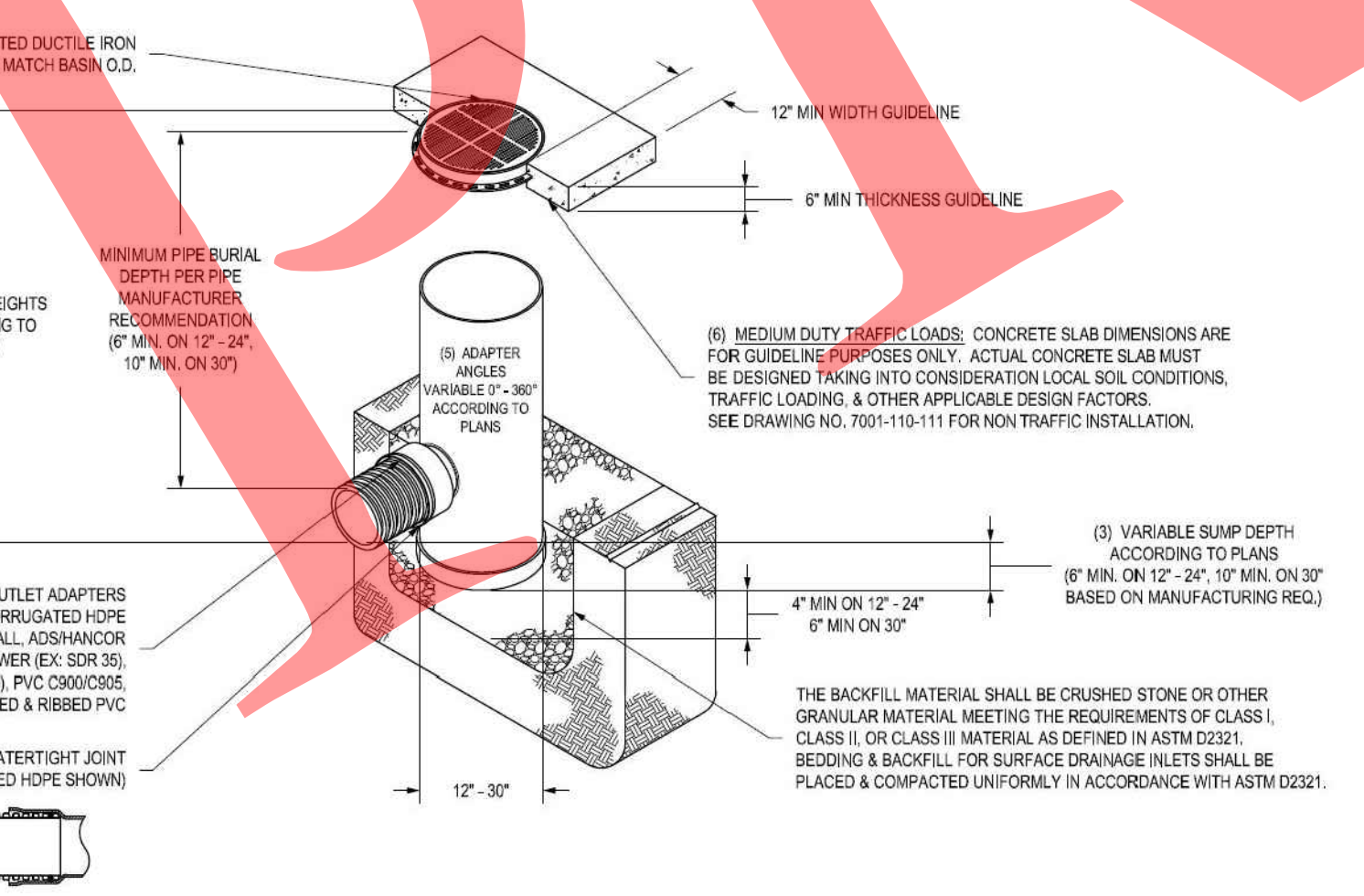
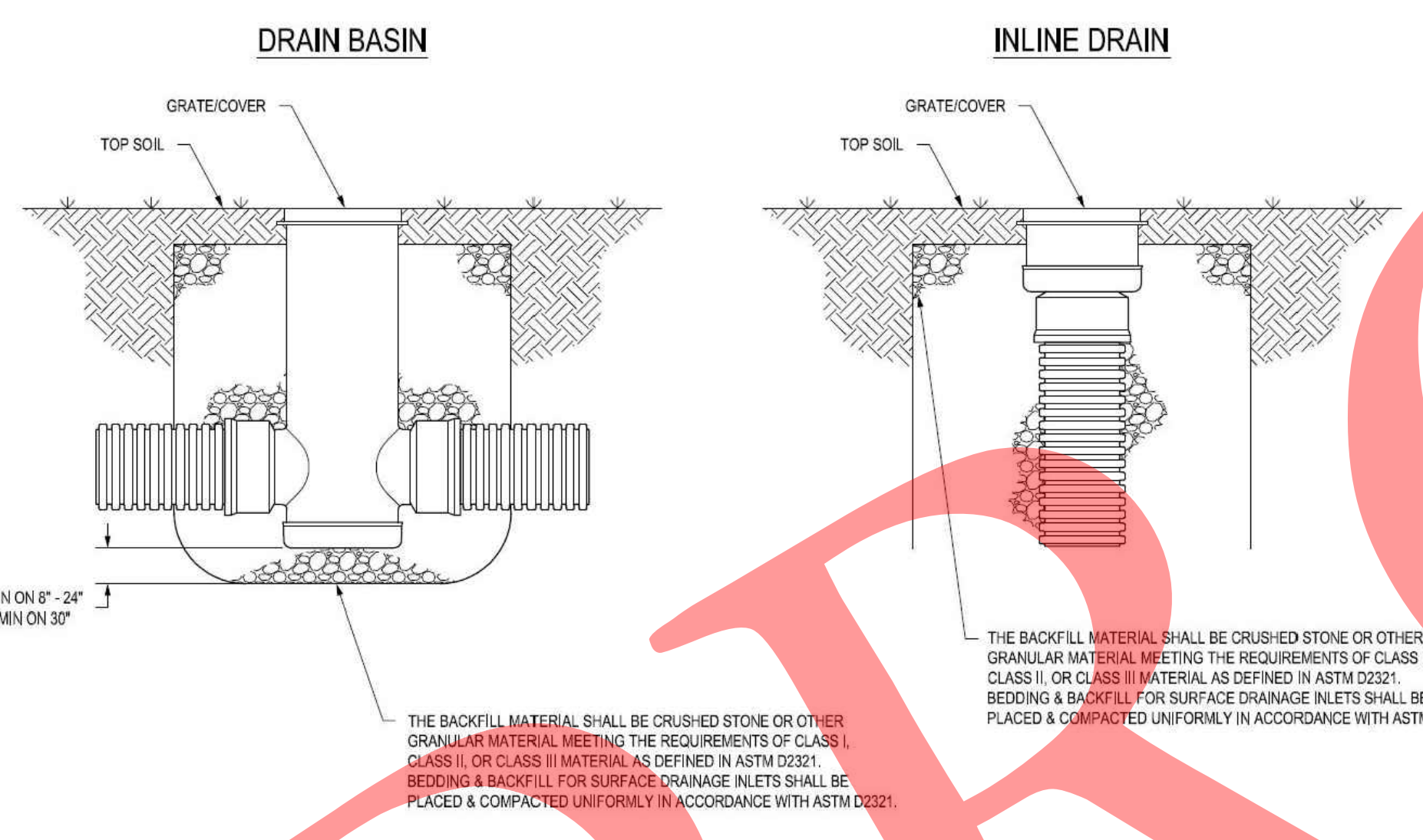
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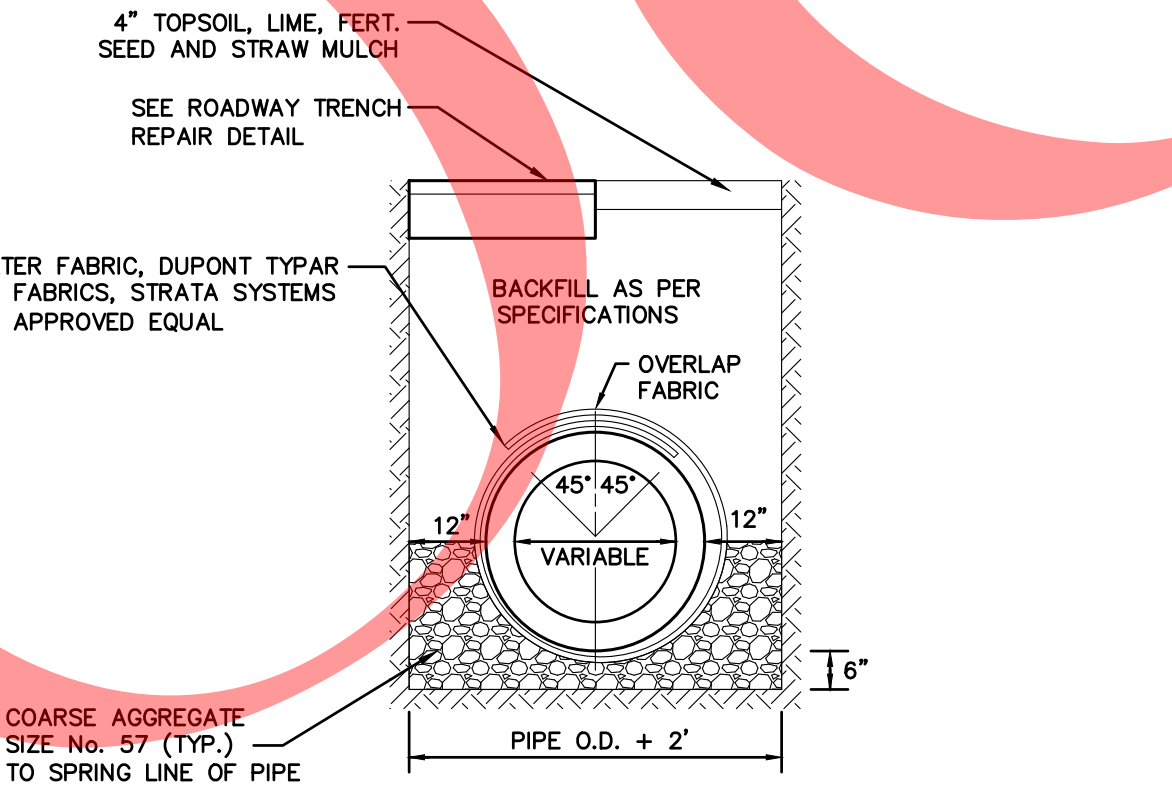
YARD INLET GRATE DETAIL
N.T.S.



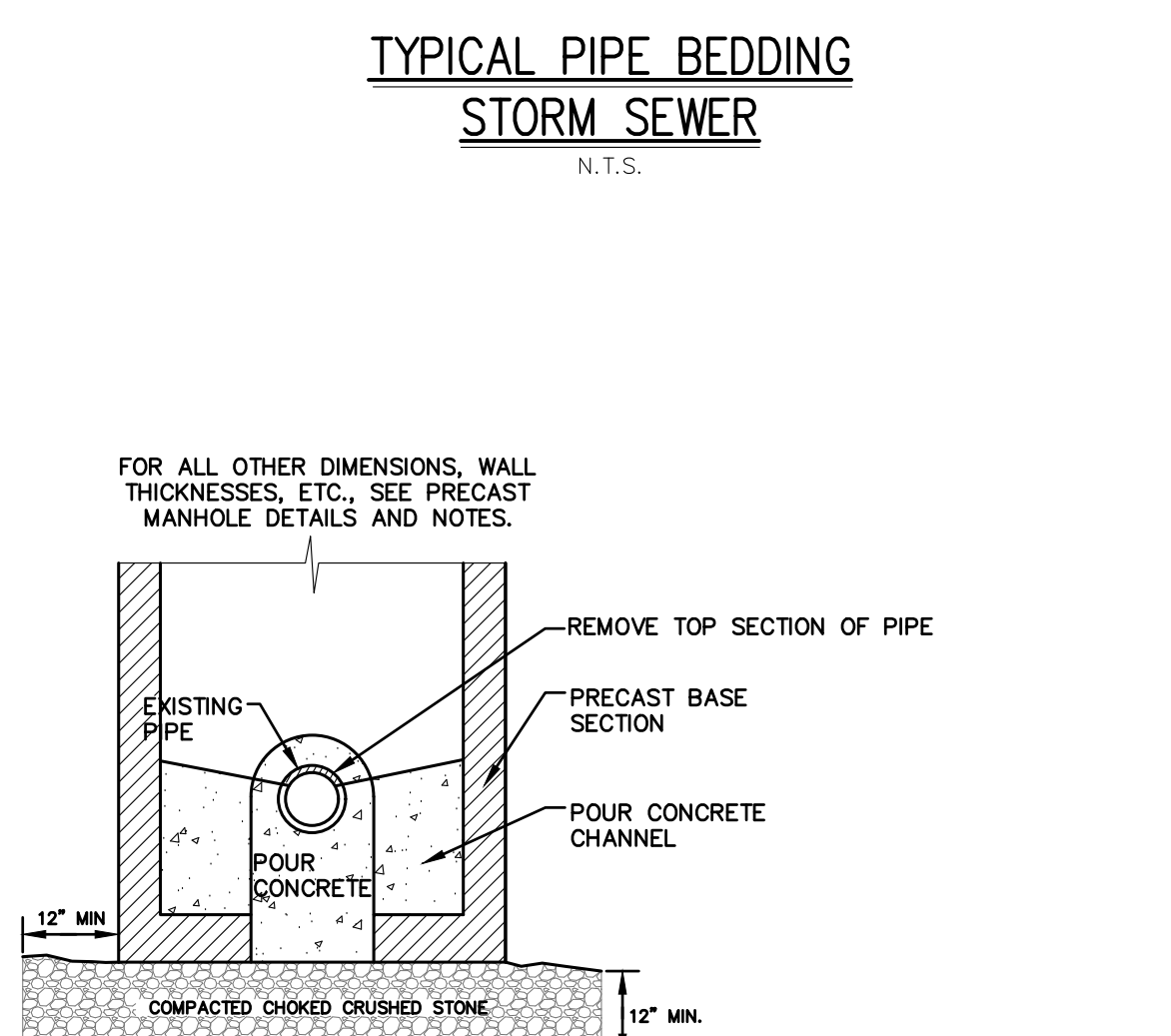
TYPICAL PERFORATED PIPE BEDDING DETAIL
N.T.S.



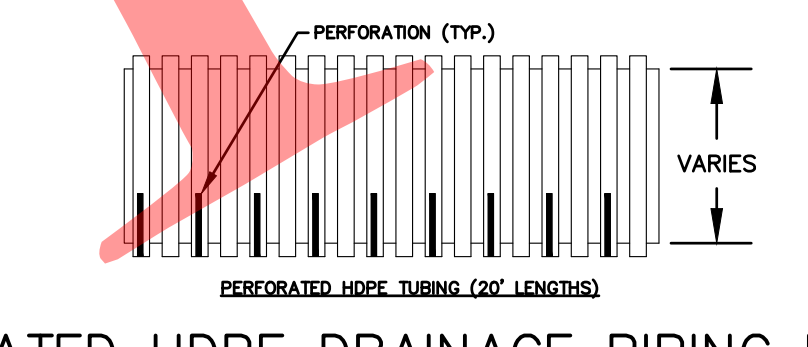
YARD INLET DETAIL
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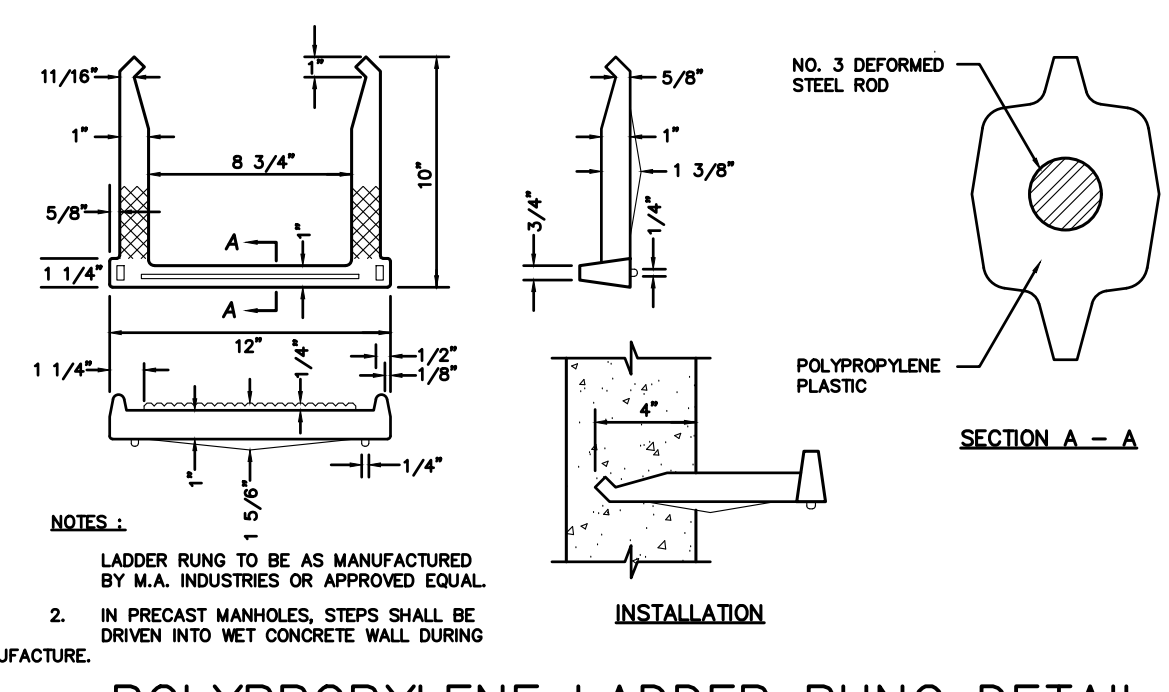
TYPICAL PIPE BEDDING STORM SEWER
N.T.S.



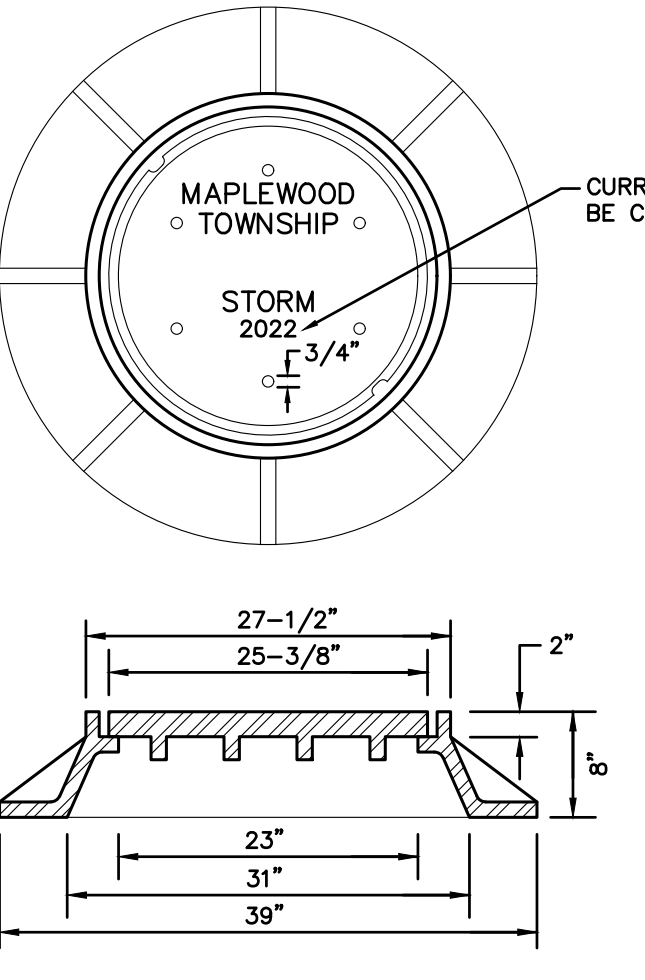
DOGHOUSE INLET OR MANHOLE
N.T.S.



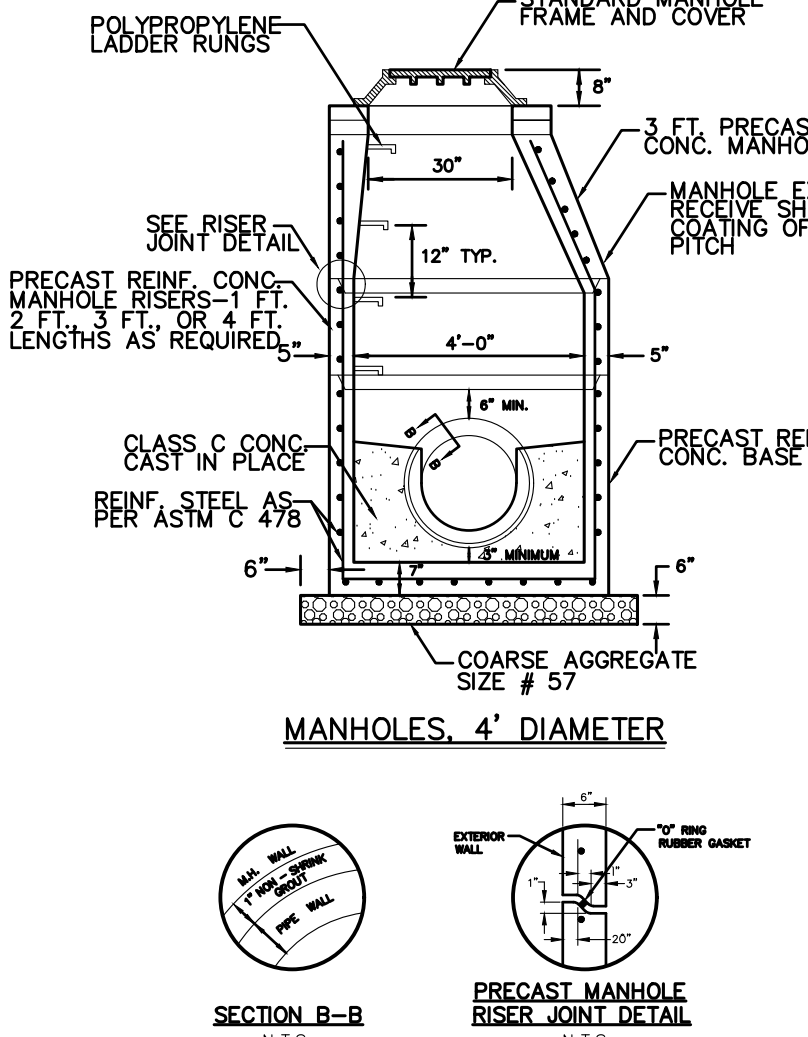
PERFORATED HDPE DRAINAGE PIPING DETAILS
N.T.S.



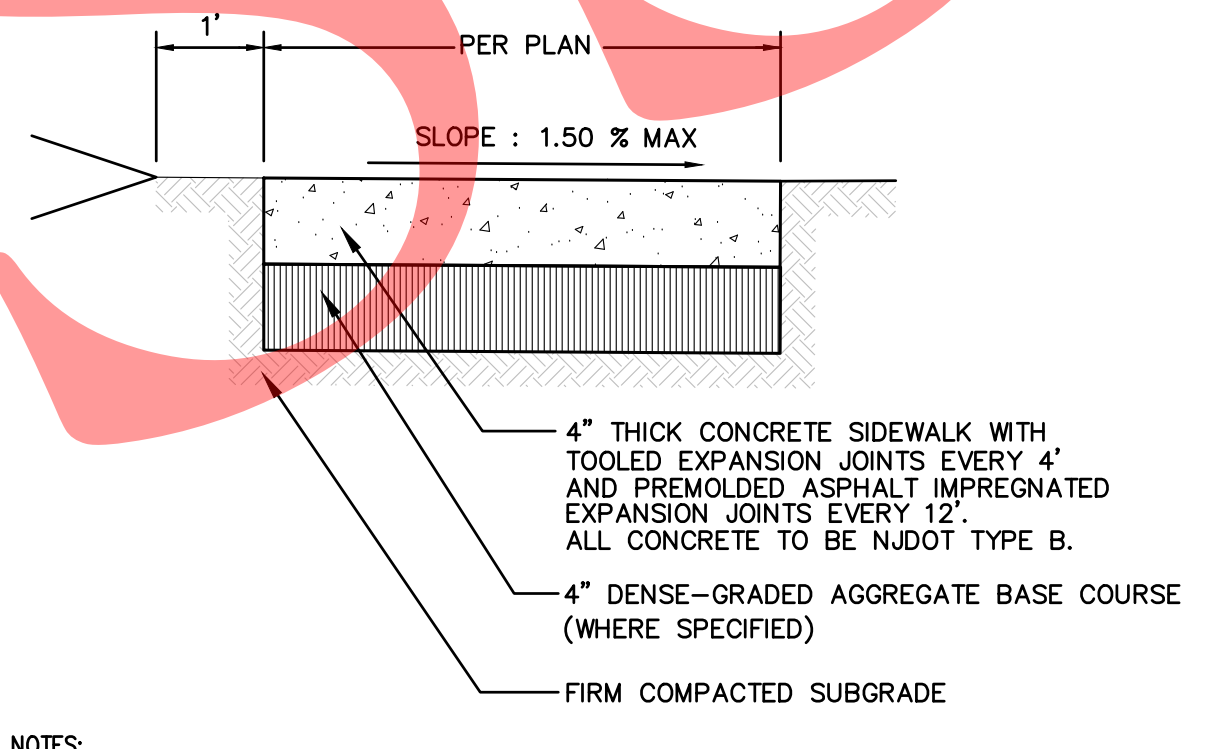
POLYPROPYLENE LADDER RUNG DETAIL
N.T.S.



TYPICAL STORM SEWER MANHOLE FRAME & COVER
N.T.S.

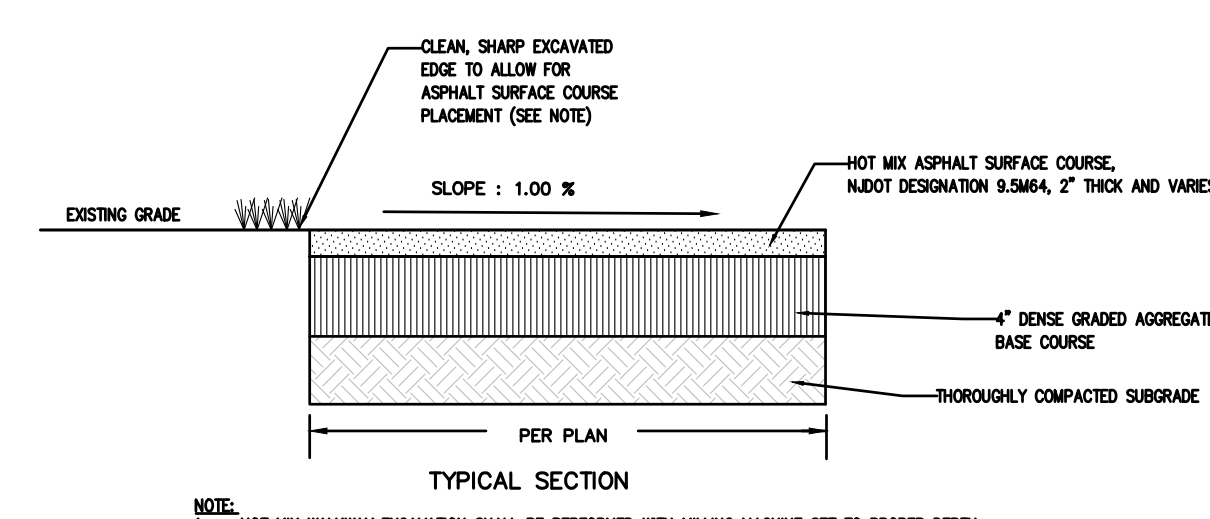


STORM SEWER MANHOLES
N.T.S.



NOTES:
1. TRANSVERSE EXPANSION JOINTS 1/2" WIDE SHALL BE PROVIDED @ INTERVALS OF NOT MORE THAN 20' AND FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER. LONGITUDINAL JOINTS 1/4" WIDE SHALL BE PROVIDED BETWEEN CURBS AND ADJUTING SIDEWALKS AND SHALL BE FILLED WITH PREFORMED BITUMINOUS TYPE JOINT FILLER. THE TOP OF ALL JOINT FILLER SHALL BE 1/4" BELOW THE TOP OF THE SIDEWALK.
2. CONTRACTOR TO PROVIDE GRADING CUT SHEETS PRIOR TO COMMENCEMENT OF ALL WORK

CONCRETE SIDEWALK / PAD DETAIL
N.T.S.

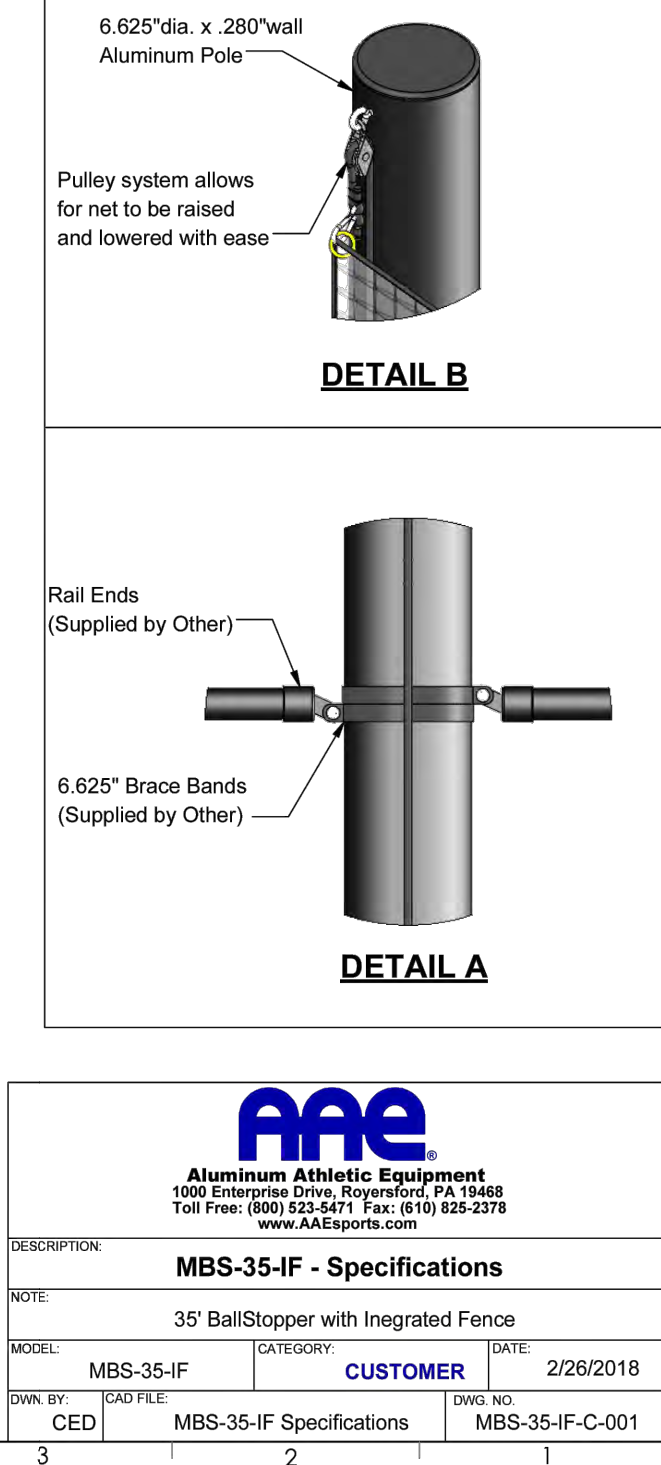
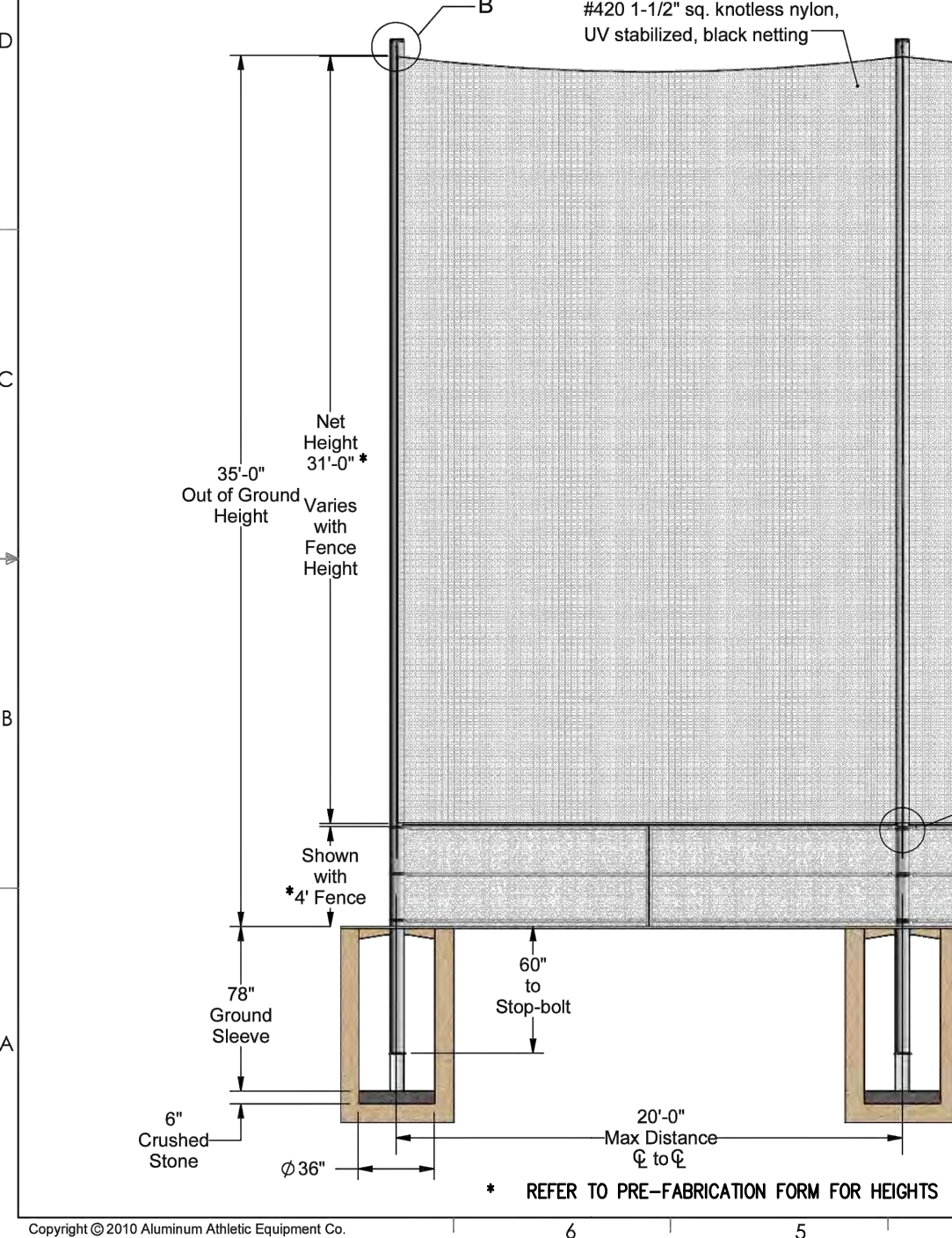


NOTES:
1. HOT MIX WALKWAY EXCAVATION SHALL BE PERFORMED WITH MILLING MACHINE SET TO PROPER DEPTH. THAT COURSE SHALL BE HAND EXCAVATED AT THE EDGES FOR SHARP CUTS.
2. DGA BASE COURSE SHALL BE "TRUCK HOLLOW" PRIOR TO INSTALLATION OF HMA SURFACE COURSE.

HMA WALKWAY DETAIL
N.T.S.

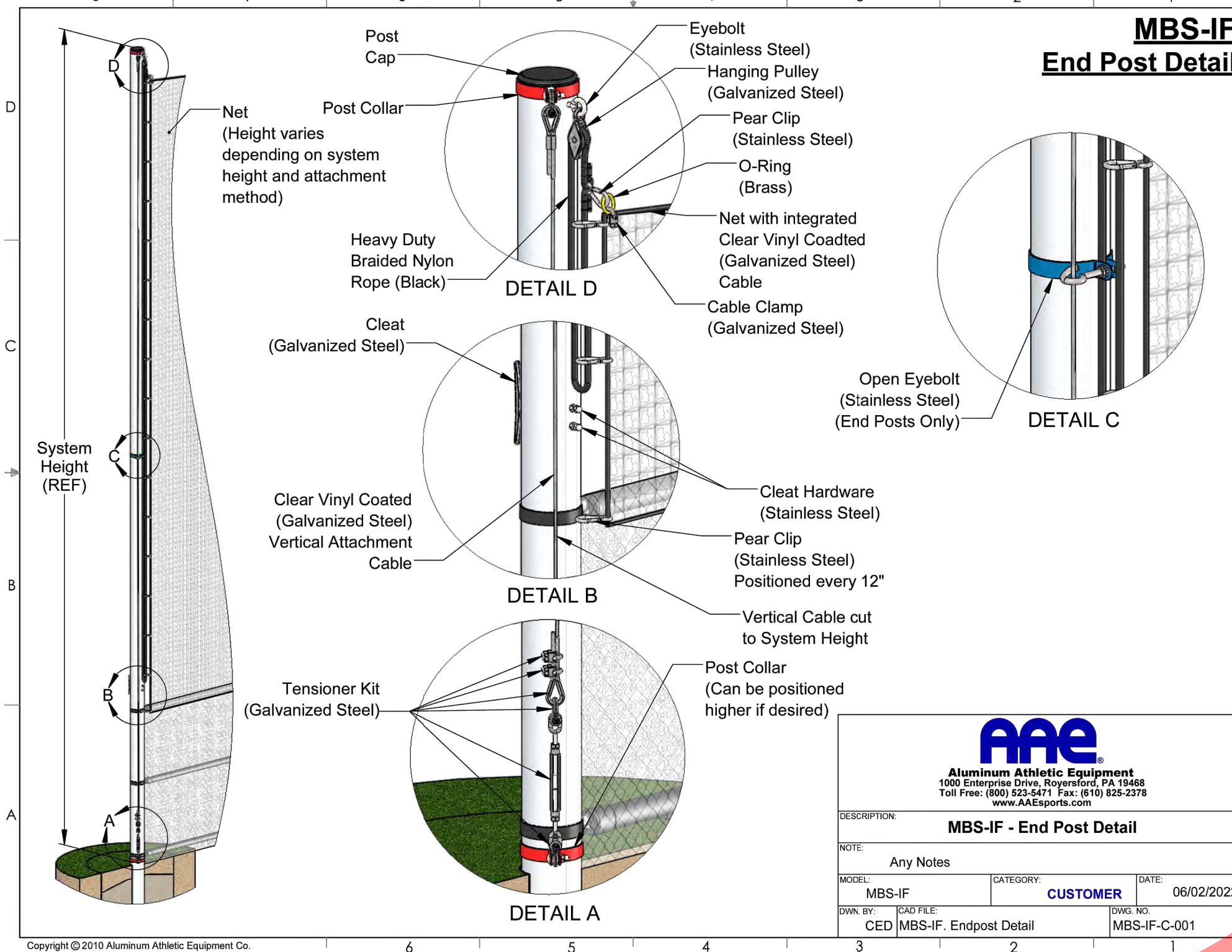
NOTE:
1. IF WATERTIGHT MANHOLE FRAMES & COVERS ARE REQUIRED THEY SHALL BE AS MFG. BY CAMPBELL FOUNDRY CO. PATTERN NO. 1536 TYPE 'A' OR APPROVED EQUAL.
2. WHERE WATERTIGHT MANHOLE FRAME AND COVER ARE NOT REQUIRED THE MANHOLE COVER AND FRAME SHALL BE OF THE HEAVY HIGHWAY TYPE, WITH THE CIRCULAR PLATED TYPE FRAME AND ROUND FLANGE. THE COVER SHALL BE PERFORATED WITH A MINIMUM OF SIX 3/4" HOLES.
3. TO BE USED ON STREETS CAMPBELL FOUNDRY CO. PATTERN NO. 1202 OR EQUIVALENT.
4. TO BE USED OUTSIDE OF STREET R.O.W. CAMPBELL FOUNDRY CO. PATTERN NO. 1486 OR EQUIVALENT.

MBS-35-IF - 35' BallStopper - Integrated Fence Specifications



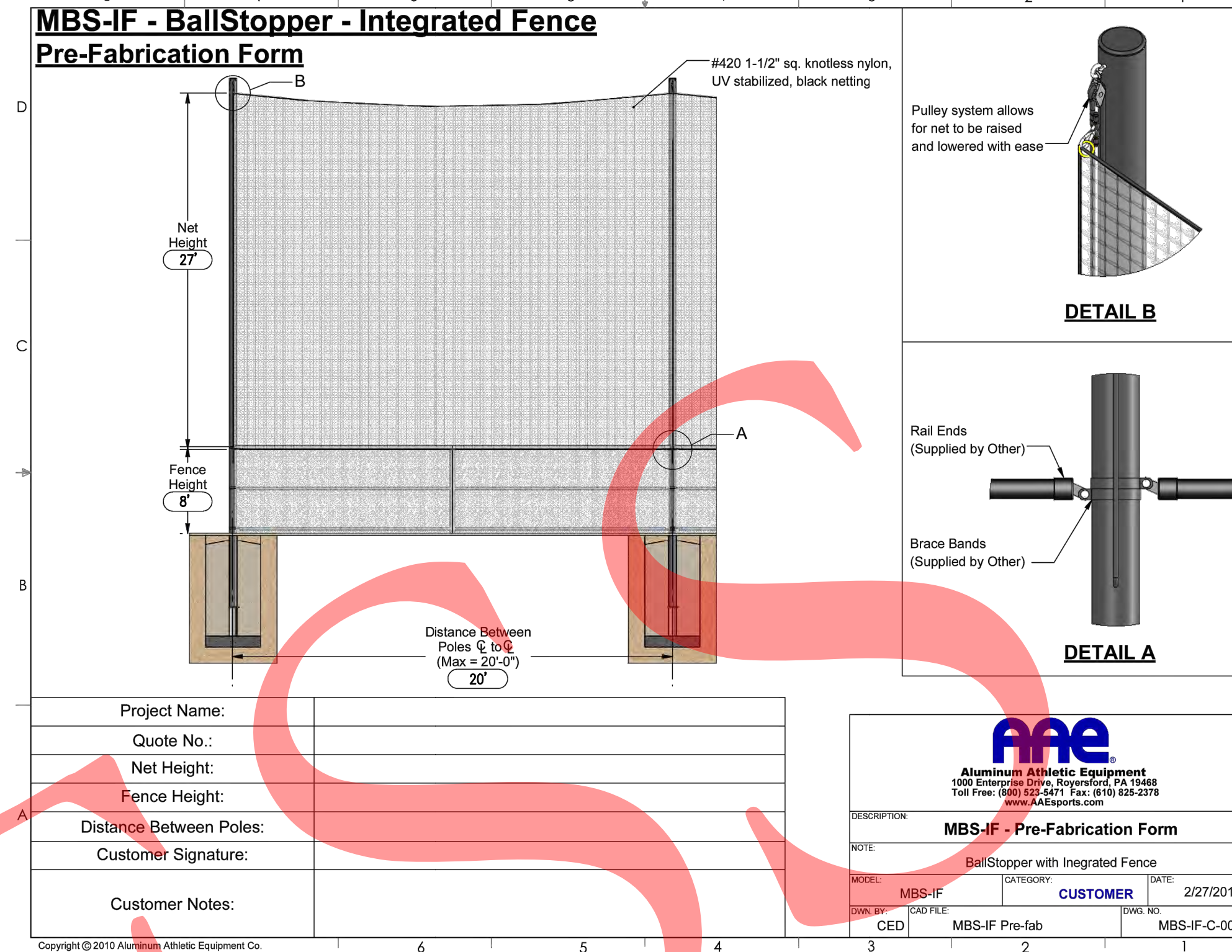
AAE
Aluminum Athletic Equipment
1000 International Drive, Suite 1000
Tot Free (800) 523-2271 Fax: (616) 826-2276
www.AAEathletic.com

DESCRIPTION	MODEL	CATEGORY	DATE
MBS-35-IF - Specifications	MBS-35-IF	CUSTOMER	2/28/2018
REVISED	REVISED	REVISED	REVISED
CED	MBS-35-IF	Specifications	MBS-35-IF-C-001



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Tot Free (800) 523-2271 Fax: (616) 826-2276
www.AAEathletic.com

DESCRIPTION	MODEL	CATEGORY	DATE
MBS-IF - End Post Detail	MBS-IF	CUSTOMER	08/02/2022
REVISED	REVISED	REVISED	REVISED
CED	MBS-IF	Endpost Detail	MBS-IF-C-001



AAE
Aluminum Athletic Equipment
1000 International Drive, Suite 1000
Tot Free (800) 523-2271 Fax: (616) 826-2276
www.AAEathletic.com

DESCRIPTION	MODEL	CATEGORY	DATE
MBS-IF - Pre-Fabrication Form	MBS-IF	CUSTOMER	2/27/2018
REVISED	REVISED	REVISED	REVISED
CED	MBS-IF	Pre-fab	MBS-IF-C-001

35' MULTI-SPORT BALLSTOPPER NETTING - INTEGRATED FENCE SYSTEM DETAILS

N.T.S.
AA MBS-35 OR APPROVED EQUAL.

- PLANTING NOTES:**
1. THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANT MATERIAL AS INDICATED. INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, MEASUREMENTS INCLUDING WATERING AND CLEANUP.
 2. THE LANDSCAPE CONTRACTOR SHALL PERFORM SOIL SAMPLING OF THE SITE, IF DEEMED NECESSARY, PRIOR TO ANY PLANT INSTALLATIONS TO DETERMINE SOIL CHARACTERISTICS. IF NECESSARY, ADJUSTMENTS SHALL BE MADE BY THE LANDSCAPE CONTRACTOR IN COOPERATION WITH THE OWNER BASED ON THE SOIL TEST REPORT TO ENSURE SURVIVAL OF ALL PLANT MATERIAL.
 3. THE CONTRACTOR SHALL VERIFY AND VERIFY THE EXISTENCE OF ALL UTILITIES AND/OR CONFLICTING SITE AMENITIES PRIOR TO STARTING THE WORK.
 4. ALL PLANTS SHALL BE DELIVERED, TRANSPORTED, AND HANDLED WITH UTMOST CARE AND PROTECTION FROM INJURY AND DISEASE.
 5. ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION.
 6. THE CENTRAL LEADER SHALL NOT BE CUT, DAMAGED, OR BROKEN. NO PLANT WITH CENTRAL LEADER DAMAGE SHALL BE ACCEPTED.
 7. PLANTS SHALL NOT BE PRUNED ON LOCATION UNLESS IT IS NECESSARY TO REMOVE BROKEN OR DAMAGED LIMBS.
 8. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE A VIGOROUS SPRING GROWTH AND HAVE AN ACCEPTABLE MATURE PROPORTION SHALL BE MADE FOR A WRITTEN GUARANTEE OF AT LEAST TWO YEARS FOR TREES AND A NUMBER OF TWO GROWING SEASONS FOR SHRUBS OR PER FOR THAT WHICH MAY BE STATED IN THE MUNICIPALITY'S LAND DEVELOPMENT ORDINANCE. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST GROWING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
 9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE WATER AND FERTILIZER TO ALL PLANT MATERIAL DURING THE GUARANTEE PERIOD TO ENSURE PLANT SURVIVAL.
 10. THE MINIMUM DEPTH OF TOPSOIL IN PLANTING LOT ISLANDS SHALL BE TWO FEET.
 11. TREES SHALL BE ROOTED INTO THE BALL SO THAT SOIL ON MEDIA REMAINS INTACT AND TRUNK AND ROOTBALL MOVE AS ONE WHEN LIFTED. THE TREE TRUNK SHOULD BE PROTECTED FROM ANY PUNCTURE, NOT PUNCTURE AT OR BELOW THE SOIL LINE.
 12. THE POINT WHERE THE TRUNK MEETS THE ROOT BALL SHOULD BE PROTECTED FROM ANY PUNCTURE, NOT PUNCTURE AT OR BELOW THE SOIL LINE.
 13. THE RELATIONSHIP BETWEEN CALIPER HEIGHT AND ROOTBALL SIZE FOR ALL TREES SHALL MEET AND EXCEED THE LATEST DESIGN STANDARDS.
 14. ALL DECIDUOUS SHADE TREES SHALL HAVE ONE DOMINANT CENTRAL LEADER, MORE OR LESS STRAIGHT TO THE TOP OF THE TREE WITH THE LARGER BRANCHES BEING PROTECTED FROM ANY PUNCTURE, NOT PUNCTURE AT OR BELOW THE SOIL LINE.
 15. THE TREE CANOPY SHOULD BE SYMMETRICAL, FREE OF LARGE HOLES, AND TYPICAL OF THE SPECIES OR CULTURAL LIVE COVER RATIO SHOULD BE FROM 10% TO 20% OF THE TREE HEIGHT SHOULD BE AT LEAST 50%.
 16. SHADE TREE BRANCHES SHOULD BE LESS THAN 2/3 THE TRUNK DETERMINED FREE OF BARK INCLUSIONS, AND MORE OR LESS RADIALLY DISTRIBUTED AROUND THE TRUNK.
 17. TREE TRUNKS AND MAIN BRANCHES SHALL BE FREE OF WOUNDS, DAMAGED AREAS, CANKS, BLEEDS, AND SIGNS OF INSECT DAMAGE.
 18. BACKFILL MATERIAL FOR PLANTING PITS SHALL BE ONE-THIRD PEAT MOSS, ONE-THIRD SCREENED TOPSOIL, AND ONE-THIRD TOPSOIL FROM THE SITE (MATERIAL FREE OF ROCKS, STICKS, LARGE STONES, DEBRIS, OR OTHER DETERIORATIVE MATERIAL).
 19. PLANTS SHALL BE SET TO ULTIMATE FINISH GRADE SO THAT THE ROOT COLLAR AND FLARE ARE EXPOSED AT THE SURFACE OF THE MEDIUM GRADE SOIL SHOULD BE GENTLY COVERED AND PROPERLY DISPOSED OF OFFSITE. ALL PLANTS SHALL BE SET PLAIN AND STRAIGHT IN THE CENTER OF THE PIT.
 20. ANY COBBLE BRUSH OR BALL OR ALL BALLED AND BURLAPPED BRUSH PLANTS SHALL BE CUT AND REMOVED WELL AWAY FROM THE BASE AND TOP OF THE ROOT BALL AS SOON AS POSSIBLE. AFTER THE BRUSH IS REMOVED FROM THE PLANTING PIT, ANY REMAINING BRUSH SHOULD BE DISPOSED OF OFFSITE. THE BRUSH SHOULD BE COMPLETELY REMOVED. THESE MATERIALS WITH BRUSH SHOULD HAVE THE WIRE BASKET REMOVED COMPLETELY TO PREVENT THE POTENTIAL FOR BRUSH ROOT BROTHER. IN THE EVENT THAT THE WIRE BASKET IS UNREMOVABLE, IT SHALL BE COVERED TO REMOVE ONLY THE TOP 2/3 OF THE WIRE BASKETS, TOP 2/3 OF BRUSH, AND ALL BRUSH OR BRUSHING. THIS CAN BE DETERMINED BY VISUAL ASSESSMENT BY THE STATE INSPECTOR. IF A STATE INSPECTOR IS REQUIRED ON SITE AND THE AUTHORIZED AGENTS IN RESPONSIBLE CARE FOR THE RESPONSIBILITY OF TREE INSTALLATION.
 21. TREES SHALL BE STAKED IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE DETAIL. ALL SUPPORT SYSTEMS IN DIRECT CONTACT WITH THE TREE TRUNK SHALL BE PROTECTED TO PREVENT GROUND. ALL TRUNK PROTECTION MATERIALS SHALL BE REMOVED AT THE TIME OF PLANTING. THE CONTRACTOR SHALL INSTALL NEW TRUNK PROTECTION, ONLY NEW, HIGH QUALITY, IN ACCORDANCE WITH THE INSTALL DETAIL.
 22. ALL EVERGREENS AND DECIDUOUS TREES THAT GROW TO GROUND OR HEIGHT SHALL BE STAKED AS PER DETAIL. ALL SUPPORTS SHALL BE REMOVED WITHIN ONE YEAR OF PLANTING FROM TREES THAT DO NOT NEED SUPPORT STRUCTURES.
 23. ALL PLANTING ISLANDS SHALL BE MULCHED ALL DISADVANTAGED TREES SHALL BE SET IN 2" DIAMETER MULCHED BEDS. ALL TREES WITHIN THE TRUNK PROTECTION SHALL BE SET IN A 1" DIAMETER MULCHED BED. ALL TREES SHALL BE SET IN A 1" DIAMETER MULCHED BED. ALL TREES SHALL BE SET IN A 1" DIAMETER MULCHED BED. ALL TREES SHALL BE SET IN A 1" DIAMETER MULCHED BED. ALL TREES SHALL BE SET IN A 1" DIAMETER MULCHED BED.
 24. ALL PLANTING MATERIALS AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS SET FORTH BY THE MUNICIPALITY AND LATEST EDITION OF THE U.P. OF THE AMERICAN STANDARDS FOR NURSERY STOCK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, A NURSERY STOCK CERTIFICATE OR PLANT SELLER CERTIFICATION TO OBTAIN NURSERY STOCK CERTIFICATION BY THE NEW JERSEY DEPARTMENT OF AGRICULTURE.
 25. ALL AREAS WHICH ARE TO BE RETURNED TO THE MESHED BEDS SHALL BE SEEDING WITH THE TRIMMED GRASS MIXTURE FOUND IN THE SOIL. EROSION AND SEDIMENT CONTROL (E.T.C. SHEET OR SOIL) IS NOTED.
 26. NO SHADE TREES SHALL BE LOCATED CLOSER THAN 10' FROM ANY LIGHT FIXTURE.
 27. TREES LOCATED WITHIN THE SHIRT TAIL TRAP EASEMENTS SHALL HAVE THE LOWEST BRANCH MAINTAINED AT A MINIMUM HEIGHT OF 10' ABOVE THE INTERSECTING CONTROLS OR WHEN INDICATED BY THE MUNICIPALITY'S ORDINANCE. SHRUBS SHALL BE MAINTAINED AT A MINIMUM OF 4' ABOVE THE INTERSECTING CONTROLS.
 28. ALL TREES UTILIZED FOR STREET TREE PLANTINGS SHALL BE NURSERY PRUNED TO 7 FEET MINIMUM.
 29. ALL EXISTING LANDSCAPING LOCATED ON-SITE TO REMAIN, UNLESS OTHERWISE INDICATED ON THE PLAN.
 30. IF THERE ARE ANY DISCREPANCIES BETWEEN PLANT LIST AND PLAN SHALL BE CONTROLLING.
 31. ADEQUATE CLEARANCE MUST BE PROVIDED FOR ALL DRIVEWAYS, UTILITIES AND WALKWAYS.

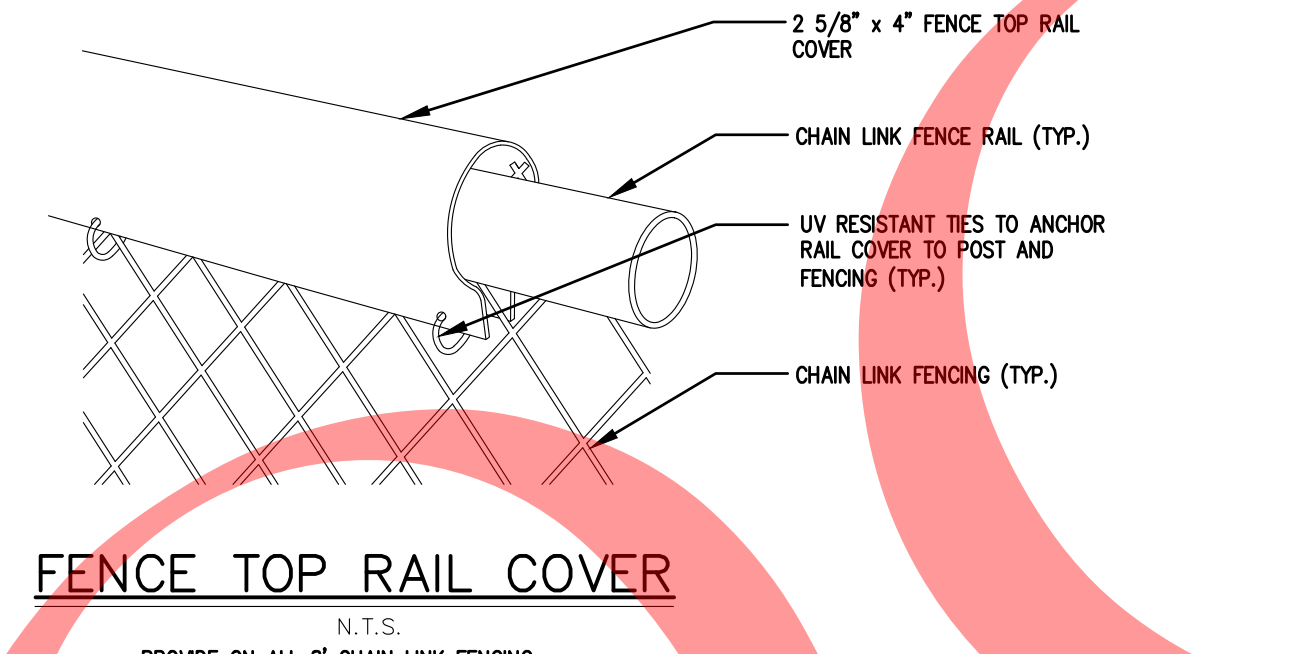
FENCE TOP RAIL COVER
N.T.S.
PROVIDE ON ALL 3' CHAIN LINK FENCING

PLANT SCHEDULE

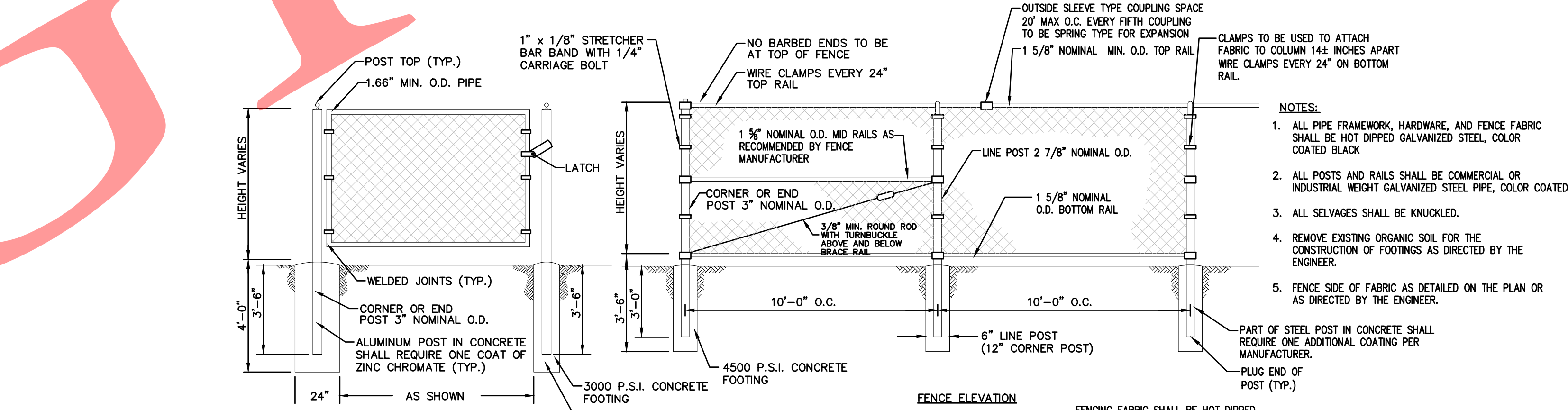
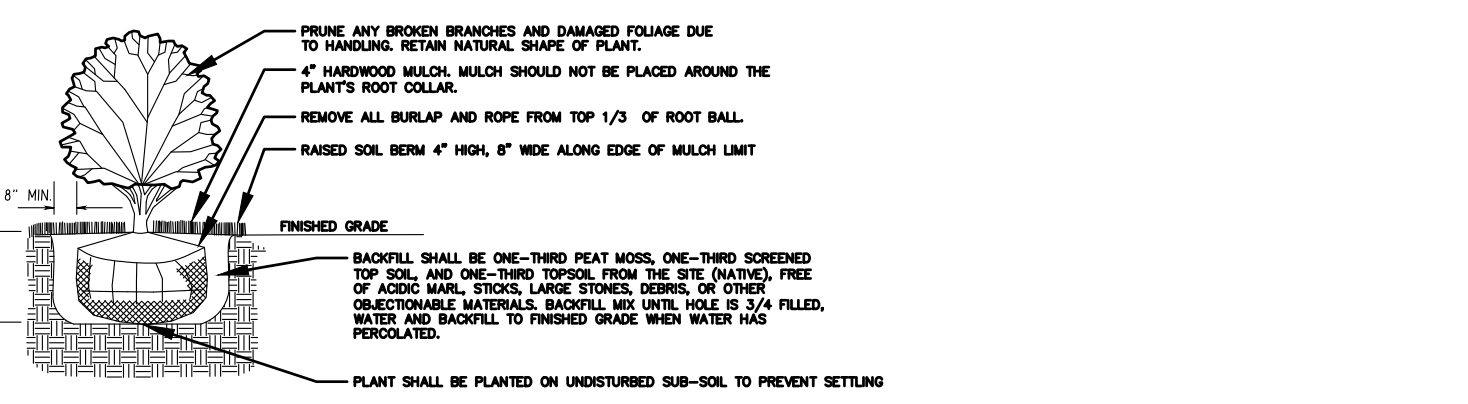
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
SHRUBS					
36	Hp	Hydrangea paniculata 'Jane'	Little Lime Panicle Hydrangea	24" - 30" ht.	Container, 3.5' on center
28	Ig	Ilex glabra 'Densa'	Dense Inkberry Holly	24" - 30" ht.	Container, 4' on center
4	Jd	Ilex crnata 'Steads'	Steads Japanese Holly	30" - 36" ht.	Container, Spacing as shown
45	Jc	Juniperus chinensis 'Sargentii'	Sargent's Juniper	#3 can	Container, 4.5' on center
22	St	Spiraea x 'Tracy'	Double Play Big Bang Spirea	18" - 24" ht.	Container, 2.75' on center
135	Total				
ORNAMENTAL GRASSES					
31	Pa	Pennisetum alopecuroides 'Cassian'	Cassian Dwarf Fountain Grass	#2 can	Container, 2' on center
31	Total				

Note: All Trees To Be Balled & Burlapped and Shall Meet ANSI Z 260.1 Standards
Note: The Following List of Trees Are Considered to Have A High Risk of Failure When Dug From Growing Locations in The Fall (Autumn)

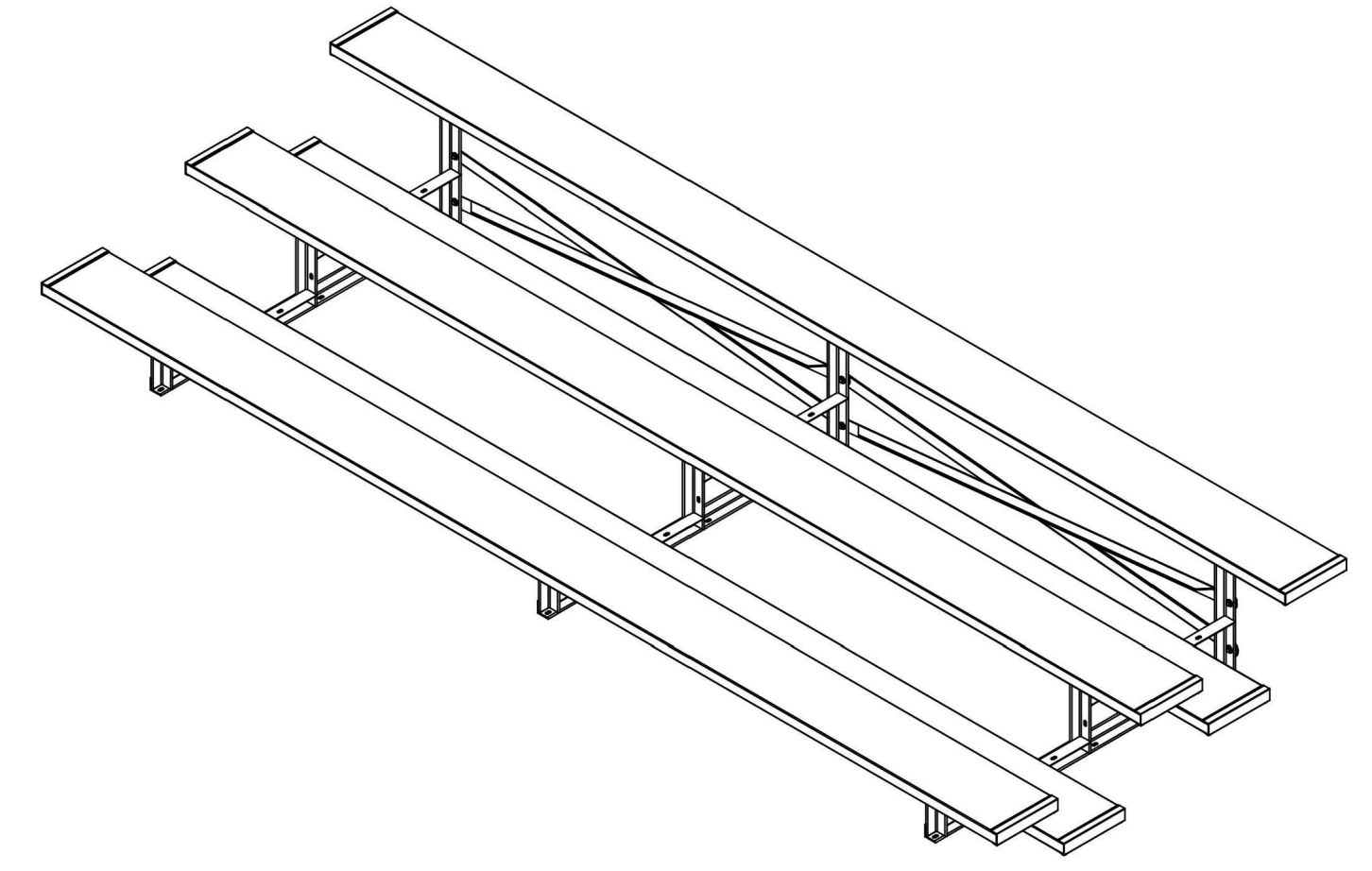
Acer rubrum	Crataegus varieties	Nyssa sylvatica	Sorbus varieties
Betula papyrifera	Fagus varieties	Ostrya virginiana	Tilia tomentosa varieties
Carpinus varieties	Halesia varieties	Platanus varieties	Ulmus parvifolia varieties
Quercus varieties	Koelerandria paniculata	Prunus - all stone fruits	Zelkova varieties
Cercis varieties	Liquidambar styraciflua	Pinus varieties	
Cercidiphyllum varieties	Liriodendron tulipifera	Quercus - all except Q. palustris	
Cornus varieties	Malus varieties	Salix - weeping varieties	



SHRUB PLANTING DETAIL
N.T.S.

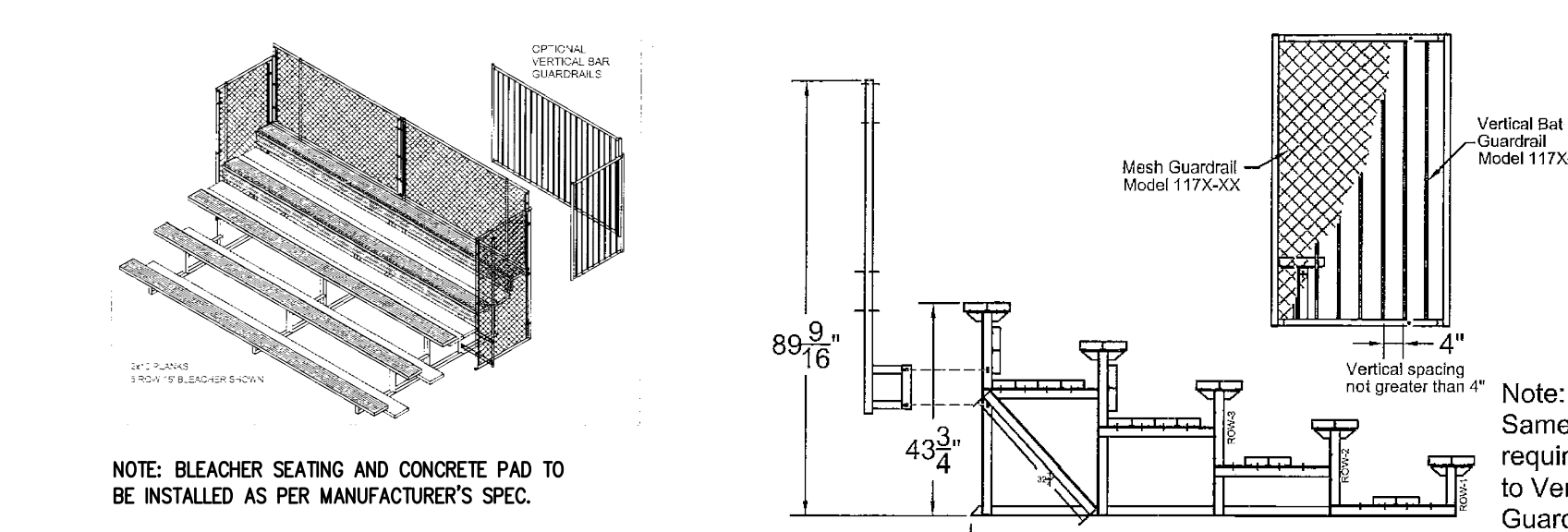


CHAIN LINK FENCE & GATE DETAILS
N.T.S.



3-ROW, ALUMINUM BLEACHER SYSTEM
N.T.S.

MANUFACTURED BY PW ATHLETIC MFG. CO. OF MESA, ARIZONA (800-687-5768) OR APPROVED EQUAL



5 ROW BLEACHER DETAILS
N.T.S.

MANUFACTURED BY PW ATHLETIC (GEORGE ELY ASSOCIATES, 800-282-8448) OR APPROVED EQUAL

CODE REVIEW:

CERTIFICATE:

spieze

SPIEZE ARCHITECTURAL GROUP INC.
1385 YARDVILLE HAMILTON SQUARE ROAD
SUITE 2A
HAMILTON, NJ 08611
PHONE: 609-695-7400

SIGNATURE:
THOMAS R. SPINALE
SCOTT E. DONNE
STEVEN L. DONNE
ANGELICA S. BESEL
JOHN J. WRIGHT
SPIEZE ARCHITECTURAL GROUP INC.

DATE:
2/28/2018
2/28/2018
2/28/2018
2/28/2018
2/28/2018
2/28/2018

SEAL:

CONSULTANTS:
cxv
CONSULTING AND MUNICIPAL ENGINEERS
200 HOBOKEN AVENUE, HOBOKEN, NEW JERSEY 07030
300 SOUTH VILLAGE, HOBOKEN, NEW JERSEY 07030

TRENTOR TAYLOR, P.E., P.P.
NEW JERSEY PROFESSIONAL ENGINEER N.J. Lic. 44676

OCTOBER 9, 2023

PROJECT:
IMPROVEMENTS TO
RITZER FIELD
AT COLUMBIA H.S.
17 PARKER AVENUE
MAPLEWOOD, NJ 07040

FOR
SOUTH ORANGE AND
MAPLEWOOD
SCHOOL DISTRICT
525 ACADEMY STREET
MAPLEWOOD, NEW JERSEY 07040

FOR CODE REVIEW: XXXXXXXX

REVISIONS:

REVISION NAME	DATE
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FOR BID: XX, 2022

DRAWING TITLE:
**CONSTRUCTION
DETAILS
(4 OF 4)**

COMMISSION NUMBER:
19K038

###-###-##
DO NOT SCALE THE DRAWINGS

DRAWING NUMBER:
CH.SWG.3