



Office of General Services

DESIGN & CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242

ADDENDUM NO. 1 TO PROJECT NO. 47538

CONSTRUCTION WORK PROVIDE ASPHALT PAVING & IMPROVE DRAINAGE HIGHLAND RESIDENTIAL CENTER 629 N CHODIKEE LAKE ROAD HIGHLAND, NEW YORK

October 3, 2024

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

SPECIFICATION GROUP

1. SECTION 310000 EARTHWORK: Discard the section bound in the Project Manual and substitute the attached Section (pages 310000-1 through 310000-14) noted "REVISED 10/01/2024".
2. SECTION 321216 ASPHALT PAVEMENT: Discard the section bound in the Project Manual and substitute the attached Section (pages 321216-1 through 321216-4) noted "REVISED 10/01/2024".

DRAWINGS

3. Revised Drawing:
 - a. Drawing No. C-500 noted "REVISED DRAWING 10/01/2024" accompanies this Addendum and supersedes the same numbered originally issued drawing.

END OF ADDENDUM

Brady Sherlock, P.E.
Director, Division of Design
Design & Construction

EARTHWORK

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Topsoil: Section 329120.
- B. Seeding: Section 329219.
- C. Rock Removal: Section 312316.

1.02 DEFINITIONS

- A. The following terms have the meanings ascribed to them in this Article, wherever they appear in this Section.
 - 1. Earth Excavation: The removal of all surface and subsurface material not classified as rock as defined below.
 - 2. Rock: Limestone, sandstone, shale, granite, and similar material in solid beds or masses in its original or stratified position which can be removed only by blasting operations, drilling, wedging, or use of pneumatic tools, and boulders with a volume greater than 1.0 cu yd. Concrete building foundations and concrete slabs, not indicated, with a volume greater than 1.0 cu yd shall be classified as rock.
 - a. Limestone, sandstone, shale, granite, and similar material in a broken or weathered condition which can be removed with an excavator or backhoe equipped with a bucket with ripping teeth or any other style bucket shall be classified as earth excavation.
 - b. Masonry building foundations, whether indicated or not, shall be classified as earth excavation.
 - 3. Subgrade Surface: Surface upon which subbase or topsoil is placed.
 - 4. Subbase: Select granular material or subbase course Type 2 which is placed immediately beneath pavement or concrete slabs.
 - 5. Foundation Bearing Grade: Grade/elevation at which the bottom-of-footings are constructed.
 - 6. Maximum Density: The dry unit weight in pounds per cubic foot of the soil at "Optimum Moisture Content" when determined by ASTM D 698 (Standard Proctor).
 - 7. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
 - 8. Landscaped Areas: Areas not covered by structures, walks, roads, paving, or parking.
 - 9. Unauthorized Excavation: The removal of material below required elevation indicated on the Drawings or beyond lateral dimensions indicated or specified without specific written direction by the Director's Representative.

10. Grading Limit Line (Shown on Drawings): Limits of grading, excavations and filling required for the work of this contract. Unless specifically noted otherwise, the Grading Limit Line and Contract Limit Line will be considered the same.

1.03 SUBMITTALS

- A. Product Data:
 1. Filter Fabric: Manufacturer's catalog sheets, specifications, and installation instructions.
 2. Geogrid: Manufacturer's catalog sheets, specifications, and installation instructions.

- C. Samples: Submit samples as follows. Take the samples in the presence of the Director's Representative, and submit to the Director's Representative the laboratory test results for gradation, proctors and soundness tests, when required. These tests will be performed in accordance with ASTM standards, will be performed and signed by a certified soils laboratory, and will be submitted as part of the original submittal. At a minimum the samples taken will be of the following quantities:
 1. Select Granular Material: 50 - 60 lb. (Two Samples).
 2. Subbase Course Type 2: 50 - 60 lb. (Two Samples).
 3. Subbase Course Type 3: 50-60 lb (Two Samples)
 4. Selected Fill: 40 - 50 lb.
 5. Cushion Material: 30 lb.
 6. Item B-12: 30lb, each gradation.
 7. Crushed Stone: 30 lb.
 8. Underdrain Filter Material: 40 - 50 lb.

- D. Quality Control Submittals:
 1. Subbase Materials: Name and location of source and the DOT Source Number. If the material is not being taken from an approved DOT Source the results of the gradation and soundness tests performed by an ASTM certified soils laboratory will be required.
 2. Other Aggregates: Name and location of source and soil laboratory test results.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Protect filter fabric from sunlight during transportation and storage.

1.05 PROJECT CONDITIONS

- A. Protect existing trees and plants during performance of the Work unless otherwise indicated. Box trees and plants indicated to remain within the grading limit line with temporary steel fencing or solidly constructed wood barricades as required. Protect root systems from smothering. Do not store excavated material, or allow vehicular traffic or parking within the branch drip line. Restrict foot traffic to prevent excessive compaction of soil over root systems.

- B. Cold Weather Requirements:

1. Excavation: When freezing temperatures are anticipated, do not excavate to final required elevations for concrete work unless concrete can be placed immediately.
 2. Backfilling: If backfill is being placed during freezing temperatures the backfilling operations will be monitored by the Director's Representative and the following procedures will be followed:
 - a. Frozen ground will be removed in its entirety from beneath and five feet beyond the area of fill placement.
 - b. The fill material placed will consist of Selected Fill and will be free of all frozen chunks that exceed four inches in size. The material transported to the project site will only consist of material excavated from below the frost depth.
 - c. At the end of the work day, the area of fill placement will be covered with insulated blankets, or left unprotected. Other means of protection (hay, wood chips, etc.) may also be used for protection provided it is approved by the Director's Representative.
 - d. Following work day - Remove the insulated blankets and/or strip the area of all frozen material as specified previously.
 - e. Upon establishing the subgrade elevations, protect the grades with insulated blankets or place additional material that will adequately insulate the exposed earth surface from frost. This additional fill or protective material will be stripped just prior to pouring concrete.
- C. Thru-traffic or fill placement with heavy construction vehicles or equipment which causes rutting or weaving to occur within the perimeter of a building will not be permitted. If rutting or weaving occurs during placement of fill, place specified fill in a stable area outside building perimeter and spread with tracked equipment to specified layer thickness.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Select Granular Material: Stockpiled, sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with the gradation and material requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
2 inch	50.8	100
1/4 inch	6.35	30-65
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.

2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2 inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

B. Subbase Course Type 2: Stockpiled, crushed ledge rock or approved blast furnace slag. Comply with the gradation and material requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
2 inch	50.8	100
1/4 inch	6.35	25-60
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/2 inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

C. Subbase Course Type 3: Stone, Sand, Gravel and/or recycled concrete material (RCA). Comply with the gradation and material requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
2 inch	50.8	100
1/4 inch	6.35	30-75
No. 40	0.425	5-40
No. 200	0.075	0-10

1. Magnesium Sulfate Soundness Test: 30 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a 1/4-inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

D. Selected Fill: Sound, durable, sand, gravel, stone, or blends of these materials, free from organic and other deleterious materials. Comply with the gradation requirements specified below:

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
4 inch	101.6	100
No. 40	0.425	0-70
No. 200	0.075	0-15

E. Suitable Material (Fill and Backfill for Landscaped Areas): Material consisting of mineral soil (inorganic), blasted or broken rock and similar materials of natural or man-made origin, including mixtures thereof. Maximum particle size will not exceed 2/3 of the specified layer thickness prior to compaction. NOTE: Material containing cinders, industrial waste, sludge, building rubble, land fill, muck, and peat will be considered unsuitable for fill and backfill, except topsoil and organic silt may be used as suitable material in landscaped areas provided it is placed in the top layer of the subgrade surface.

F. Cushion Material: Will consist of clean, hard, durable, uncoated particles, free from lumps of clay and all deleterious substances and will meet the following gradation requirements:

Sieve Size		Percent Passing
Sieve Size	Size opening (mm)	
1/4 inch	6.35	100
No. 50	0.25	0-35
No. 100	0.15	0-10

G. No. 1 Coarse Aggregate: Crushed Stone that complies with material requirements of DOT Article 703-02 and meets the following gradation.

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
1 inch	25.4	100
1/2 inch	12.7	90-100
1/4 inch	6.35	0-15

H. No. 2 Coarse Aggregate: Crushed Stone that complies with material requirements of DOT Article 703-02 and meets the following gradation.

Sieve		Percent Passing
Sieve Size	Size opening (mm)	
1-1/2 inch	38.1	100
1 inch	25.4	90-100
1/2 inch	12.7	0-15

- I. Rip Rap: Light Stone Filling that complies with DOT Article 620-2.02 for stone filling.

2.02 GEOTECHNICAL FABRICS

- A. Filter Fabric (GeoTextile):
 1. Drainage and Erosion Control: Amoco 1199 & 2019, Maccaferri MacTex MX140 & MX155, Mirafi 140N & 160N, Fiberweave 403 & 404 or equivalent.
 2. Separation for foundation drains, underdrains, undercuts: Amoco 2002 & 2004, Contech Construction Products Inc. C-180, Synthetic Industries Geotex 250ST & 315ST, Mirafi Geolon HP570 & HP1500 or equivalent.
 3. Separation/Stabilization beneath pavements: GeoTex 801, Bonded Fibers Products PN080, Maccaferri Gabions MacTex MX275 & 340, Mirafi 160N & 180N or equivalent.
 4. Biaxial Geogrid Tensar BX1200, Tencate BG 120 or equivalent.

PART 3 EXECUTION

3.01 CLEARING AND GRUBBING

- A. Clear and grub the Site within the Grading Limit Line (GLL) of trees, shrubs, brush, other prominent vegetation, debris, and obstructions except for those items indicated to remain. Completely remove stumps and roots protruding through the ground surface.
 1. Use only hand methods for grubbing inside the drip line of trees indicated to be left standing.
 2. Where roots and branches of trees indicated to be saved interfere with new construction, carefully and cleanly cut them back to point of branching.
- B. Fill depressions caused by the clearing and grubbing operations in accordance with the requirements for filling and backfilling, unless further excavation is indicated.

3.02 REMOVAL OF TOPSOIL

- A. Remove existing topsoil from areas within the Grading Limit Line where excavation or fill is required.
- B. Stockpile approved topsoil where directed until required for use. Place, grade, and shape stockpiles for proper drainage.
 1. Topsoil will be tested prior to stockpiling. Stockpile only quantities of topsoil approved in writing for re-use.

3.03 UNDERGROUND UTILITIES

- A. Locate existing underground utilities prior to commencing excavation work. Determine exact utility locations by hand excavated test pits. Support and protect utilities to remain in place.

- B. Do not interrupt existing utilities that are in service.

3.04 EXCAVATION

- A. Excavate earth as required for the Work.
- B. Install and maintain all erosion and sedimentation controls during all earthwork operations as specified on the Contract Drawings or as directed by local officials. If the erosion and sedimentation controls specified by the local officials are more stringent than those specified on the Contract Drawings contact the Director's Representative.
- C. Maintain sides and slopes of excavations in a safe condition until completion of backfilling. Comply with Code of Federal Regulations Title 29 - Labor, Part 1926 (OSHA).
 - 1. Trenches: Deposit excavated material on one side of trench only. Trim banks of excavated material to prevent cave-ins and prevent material from falling or sliding into trench. Keep a clear footway between excavated material and trench edge. Maintain areas to allow free drainage of surface water.
- D. Stockpile excavated materials classified as suitable material where directed, until required for fill. Place, grade, and shape stockpiles for proper drainage as approved by the Director's Representative.
- E. Excavation for Structures: Conform to elevations, lines, and limits indicated. Excavate to a vertical tolerance of plus or minus 1 inch. Extend excavation a sufficient lateral distance to provide clearance to execute the Work.
- F. Slabs and Floors: Excavate to the following depths below bottom of concrete for addition of select granular material:
 - 1. Exterior Slabs and Steps: 12 inches unless otherwise indicated.
- G. Pipe Trenches: Open only enough trench length to facilitate laying pipe sections. Unless otherwise indicated on the Drawings, excavate trenches approximately 24 inches wide plus the outside pipe diameter, equally divided on each side of pipe centerline. Cut trenches to cross section, elevation, profile, line, and grade indicated. Accurately grade and shape trench bottom for uniform bearing of pipe in undisturbed earth. Excavate at bell and coupling joints to allow ample room for proper pipe connections.
 - 1. Trench in Rock: Excavate an additional 6 inches below bottom of pipe for bed of cushion material under the piping.
- H. Open Ditches: Cut ditches to cross sections and grades indicated.
- I. Pavement: Excavate to subgrade surface elevation.

- J. Unauthorized Excavations: Unless otherwise directed, backfill unauthorized excavation under footings, foundation bases, and retaining walls with compacted select granular material without altering the required footing elevation. Elsewhere, backfill and compact unauthorized excavation as specified for authorized excavation of the same classification, unless otherwise directed by the Director.
 - 1. Unauthorized excavations under structural Work such as footings, foundation bases, and retaining walls will be reported immediately to the Director before any concrete or backfilling Work commences.
- K. Notify the Director's Representative upon completion of excavation operations. Do not proceed with the Work until the excavation is inspected and approved. Inspection of the excavation by the Director's Representative will be made on three working days notice.

3.05 DEWATERING

- A. Prior to the performance of any excavations provide dewatering methods such that the groundwater table is maintained at an elevation that is beneath the excavated depth.
- B. Prevent surface and subsurface water from flowing into excavations and trenches and from flooding the site and surrounding area.
- C. Do not allow water to accumulate in excavations or trenches. Remove water from all excavations immediately to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to the stability of subgrades and foundations. Furnish and maintain pumps, sumps, suction and discharge piping systems, and other system components necessary to convey the water away from the Site.
- D. Convey water removed from excavations, and rain water, to collecting or run-off area. Cut and maintain temporary drainage ditches and provide other necessary diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.
- E. Provide temporary controls to restrict the velocity of discharged water as necessary to prevent erosion and siltation of receiving areas.

3.06 SETTLEMENT DETECTION

- A. Excavating beneath the bearing grades of an existing structure: Establish a settlement detection method approved by the Director's Representative for structures subject to settlement from excavation, sheeting or sheetpiling operations. Maintain surveillance to detect any settlement.
- B. Surcharging: Establish a settlement monitoring plan to accurately determine the settlements that have occurred and the rate that they occurred to adequately determine when settlement caused by surcharge is complete.

3.07 PLACING FILTER FABRIC

- A. Place and overlap filter fabric in accordance with the manufacturer's installation instructions, unless otherwise shown.
- B. Cover tears and other damaged areas with additional filter fabric layer extending three feet beyond the damage.
- C. Do not permit traffic or construction equipment directly on filter fabric.
- D. Backfill over filter fabric within two weeks after placement. Backfill in accordance with the fabric manufacturer's instructions and in a manner to prevent damage to the fabric.

3.08 PLACING FILL AND BACKFILL

- A. Surface Preparation of Fill Areas: Strip topsoil, remaining vegetation, and other deleterious materials prior to placement of fill. Remove all asphalt pavement in its entirety from areas requiring the placement of fill or break up old pavements to a maximum size of four inches. Prior to placement of fill, smooth out and compact areas where wheel rutting has occurred due to stripping or earthwork operations.
- B. Excavations: Backfill as promptly as Work permits, but not until completion of the following:
 - 1. Acceptance by the Director's Representative of construction below finish grade including, where applicable, dampproofing, waterproofing, perimeter insulation, and bearing capacity of supporting soil.
 - 2. Inspection, testing, approval, and recording locations of underground utilities.
 - 3. Removal of concrete formwork.
 - 4. Removal of temporary sheeting or sheetpiling and backfilling of voids caused by removals.
 - 5. Cutting off top of permanent sheeting or sheetpiling.
 - 6. Removal of trash and debris.
 - 7. Installation of permanent or temporary bracing on horizontally supported walls.
- C. Place backfill and fill materials in layers not more than eight inches thick in loose depth unless otherwise specified. Before compaction, moisten or aerate each layer as necessary to facilitate compaction to the required density. Do not place backfill or fill material on surfaces that are muddy, frozen, or covered with ice.
 - 1. Place fill and backfill against foundation walls, and in confined areas such as trenches not easily accessible by larger compaction equipment, in maximum six inch thick loose depth layers.
 - 2. For large fill areas, the layer thickness may be modified by the Director's Representative, at the Contractor's written request, if in the Director's Representative's judgment, the equipment used is capable of compacting the fill material in a greater layer thickness. This request will include the type and specifications of compaction equipment intended for use.

3. For Open Graded Stone/Clean Stone (Item B-12, No. 1 crushed stone, No. 2 crushed stone, etc.) in access of six inches: Material must be wrapped in separation fabric.
- D. Concrete walls:
1. Do not place fill or backfill against concrete walls until the walls have attained 70 percent of their design strength. Place backfill against walls of structures containing basements or crawl spaces only after the first floor structural members are in place and any concrete components of the first floor structural system have attained 70 percent of their concrete design strength.
 2. Prevent wedging action of backfill against structures backfilled on both sides, by placing backfill uniformly around structure so that the elevation on each side never differs by more than 24 inches.
- E. Foundation Drains:
1. Line pipe trench loosely with filter fabric. Lap successive sheets 18 inches.
 2. Place underdrain filter material a minimum of 4 inches deep under pipe and 6 inches on both sides and over top of drain pipe.
 3. Completely wrap underdrain filter material with filter fabric.
 4. Within two weeks complete balance of backfill with selected fill extending 2 feet out from foundation wall and up to 6 inches below finished grade.
- F. Perimeter Insulation: Before the insulation is installed, place and tamp specified backfill to a smooth plane even with the required elevation of the lower surface of the insulation.
- G. Under Exterior Concrete Slabs and Steps:
1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 2. Subbase Material: Place 12 inches of select granular material over subgrade surface.
- H. Under Interior Concrete Slabs:
1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 2. Subbase Material: Place six inches of select granular material over subgrade surface.
- I. Under Pavements and Walks:
1. Up to Subgrade Surface Elevation: Place selected fill when fill or backfill is required.
 2. Subbase Material: Place as indicated.
- J. Landscaped Areas: Place suitable material when required to complete fill or backfill areas up to subgrade surface elevation. Do not use material containing rocks over four inches in diameter within the top 12 inches of suitable material.

- K. Plastic Pipe in Trenches: Place cushion material a minimum of six inches deep under pipe, 12 inches on both sides, and 12 inches above top of pipe. Complete balance of backfill as specified.
 - 1. Trench in Rock: Place a minimum six inch deep bed of cushion material under pipe.
- L. Backfilling Excavation Resulting From Removal of Unsuitable Material Beneath Structures and Other Improvements: Backfill the excavation with compacted select granular material.
 - 1. Such additional backfilling, exceeding the numeric quantities indicated on the Drawings, is included in the unit prices specified in this Section.

3.09 ADDITIONAL REQUIREMENTS FOR PLACING FILL TO SUPPORT STRUCTURES

- A. Place fill within the entire area enclosed by a line ten feet outside the perimeter of the structure to be constructed as follows:
 - 1. Strip the area in accordance with the requirements for Surface Preparation of Fill Areas.
 - 2. Compact the stripped surface to 95 percent of maximum density.
 - 3. Place fill in horizontal layers not exceeding eight inches loose depth and compact layers as specified.

3.10 COMPACTION

- A. All materials with exception of open graded stone (No. 2 Coarse aggregate, No. 1 Coarse aggregate, Item B-12, etc.):
 - 1. Compact each layer of fill and backfill for the following area classifications to the percentage of maximum density specified below and at a moisture content suitable to obtain the required densities, but at not less than three percent drier or more than two percent wetter than the optimum content as determined by ASTM D 698 (Standard Proctor) or 1557 (Modified Proctor).
 - a. Structures (entire area within ten feet outside perimeter): 95 percent.
 - b. Concrete Slabs and Steps: 95 percent.
 - c. Landscaped Areas: 90 percent.
 - d. Pavements and Walks: 95 percent.
 - e. Pipe Bedding: 95 percent.
 - 2. When the existing ground surface to be compacted has a density less than that specified for the particular area classification, break up and pulverize, and moisture condition to facilitate compaction to the required percentage of maximum density.
 - 3. Moisture Control:
 - a. Where fill or backfill must be moisture conditioned before compaction, uniformly apply water to the surface and to each layer of fill or backfill. Prevent ponding or other free water on surface subsequent to, and during compaction operations.
 - b. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to specified density. Soil that has been removed because it is too wet to permit compaction may be

stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value which will permit compaction to the percentage of maximum density specified.

4. If a compacted layer fails to meet the specified percentage of maximum density, the layer will be recompacted and retested. If compaction cannot be achieved the material/layer will be removed and replaced. No additional material may be placed over a compacted layer until the specified density is achieved.
- B. Open graded Stone: Place material in maximum twelve inch lifts. Each lift shall be raked smooth and compacted through several passes of a walk behind vibratory roller. Compaction Testing is **not** required.

3.11 ROUGH GRADING

- A. Exterior Grading: Trim and grade area within the Grading Limit Line and excavations outside the limit line, required by this Contract, to a level of 4 inches below the finish grades indicated unless otherwise specified herein or where greater depths are indicated. Provide smooth uniform transition to adjacent areas.
1. Slope cut and fill in transition areas, outside of the grading limit line, to meet corresponding levels of existing grades at a slope of 1 vertical to 2 horizontal unless otherwise indicated.
 2. Landscaped Areas: Provide uniform subgrade surface within 1 inch of required level to receive topsoil thickness specified. Compact fill as specified to within three inches of subgrade surface. Remove objectionable material detrimental to proper compaction or to placing full depth of topsoil. If the top three inches of subgrade has become compacted before placement of topsoil, harrow or otherwise loosen rough graded surface to receive topsoil to a depth of three inches immediately prior to placing topsoil.

3.12 SUBGRADE SURFACE FOR WALKS AND PAVEMENT

- A. Shape and grade subgrade surface as follows:
1. Walks: Shape the surface of areas under walks to required line, grade and cross section, with the finish surface not more than 1 inch above or below the required subgrade surface elevation.
 2. Pavements: Shape the surface of areas under pavement to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subgrade surface elevation.
- B. Grade Control: During construction, maintain lines and grades including crown and cross-slope of subbase course.
- C. Thoroughly compact subgrade surface for walks and pavement by mechanical rolling, tamping, or with vibratory equipment as approved to the density specified.

- D. Shoulders: Place shoulders along edges of filled subgrades to prevent lateral movement. Construct shoulders of selected fill material, placed in such quantity to compact to thickness of each subgrade course layer. Compact and roll at least a 2'-0" wide additional layer of each subgrade course.

3.13 FINISH GRADING

- A. Uniformly grade rough graded areas within limits of the Grading Limit Line to finish grade elevations indicated.
- B. Grade and compact to smooth finished surface within tolerances specified, and to uniform levels or slopes between points where finish elevations are indicated or between such points and existing finished grade.
- C. Grade areas adjacent to building lines so as to drain away from structures and to prevent ponding.
- D. Finish surfaces free from irregular surface changes, and as follows:
 - 1. Grassed Areas: Finish areas to receive topsoil to within one inch above or below the required subgrade surface elevations.
 - 2. Walks: Place and compact subbase material as specified. Shape surface of areas under walks to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subbase elevation.
 - 3. Pavements: Place and compact subbase material as specified. Shape surface of areas under pavement to required line, grade and cross section, with the finish surface not more than 1/2 inch above or below the required subbase elevation.
 - 4. Building Slabs: Grade subbase material smooth and even, free of voids, compacted as specified, and to required subbase elevation. Finish final grades within a tolerance of 1/4 inch when tested with a ten foot straightedge.
 - 5. Surfaces To Receive Vapor Barrier: Provide smooth surfaces graded, tamped and/or rolled, entirely free of obstructions or protruding objects.
- E. Spread topsoil directly upon prepared subgrade surface to a depth measuring FOUR inches after natural settlement of the topsoil has occurred in areas to be seeded or to receive sod. Place to greater depth when necessary to adjust grades to required elevations.
 - 1. Approved existing topsoil within the Grading Limit Line may be used. Provide additional topsoil from outside sources as required.
- F. Finish topsoil surface free of depressions which will trap water, free of stones over 1 inch in any dimension, and free of debris.

3.14 MAINTENANCE AND RESTORATION

- A. Restore grades to indicated levels where settlement or damage due to performance of the Work has occurred. Correct conditions contributing to settlement. Remove and replace improperly placed or poorly compacted fill materials.

- B. Restore pavements, walks, curbs, lawns, and other exterior surfaces damaged during performance of the Work to match the appearance and performance of existing corresponding surfaces as closely as practicable.
- C. Topsoil and seed or sod damaged lawn areas outside the GLL and new lawn areas inside the GLL. Water as required until physical completion of the Work.

3.15 DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS

- A. Remove from State property and dispose of excess and unsuitable materials, including materials resulting from clearing and grubbing and removal of existing improvements.

3.16 FIELD QUALITY CONTROL

- A. Compaction Testing: Notify the Director's Representative at least three working days in advance of all phases of filling and backfilling operations. Compaction testing will be performed by the Director's Representative to ascertain the compacted density of the fill and backfill materials. Compaction testing will be performed on certain layers of the fill and backfill as determined by the Director's Representative. If a compacted layer fails to meet the specified percentage of maximum density, the layer will be recompact and will be retested. No additional material may be placed over a compacted layer until the specified density is achieved.

3.17 PROTECTION

- A. Protect graded areas from traffic and erosion, and keep them free of trash and debris.

END OF SECTION

REVISED 10/01/2024

SECTION 321216

ASPHALT PAVING

PART 1 GENERAL

1.01 REFERENCES

- A. New York State Department of Transportation (DOT) Specification section 400 dated January 1, 2023.
- B. AASHTO: M-288-17 Section A6, Paving Fabric.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Earthwork: Section 310000.

1.03 SUBMITTALS

- A. Product Data:
 - 1. Paving Synthetics: including Manufacturer's name, specifications, MSDS as required and installation instructions (including adhesion type and rate) for each item specified.
 - 2. Asphaltic Pavement: Include mix design from NYSDOT approved Batch Plant, Mix Design Test results that are less than 6 months old
- B. Submit an Environmental Product Declaration (EPD) from the manufacturer for asphalt this specification section, if available. A statement of the contractor's good faith effort to obtain the EPD shall be provided if not available.
 - 1. Manufacturer-provided EPDs must be Product Specific Type III (Third-Party Reviewed), in adherence with ISO 14025 *Environmental labels and declarations*, ISO 14044 *Environmental management – Life cycle assessment*, and ISO 21930 *Core rules for environmental product declarations of construction products and services*.
- C. Batch plant name, NYSDOT Plant Number, and location of asphalt plant.
- D. Pavement Quality Control Submittals: Material Delivery Tickets
 - 1. At the time of delivery, a copy of the delivery ticket must be presented to the Director's Representative with the following minimum information:
 - a. Ticket Number.
 - b. Plant Identification.
 - c. Project Name.
 - d. Mix Type.
 - e. Quantity of material in vehicle.
 - f. Date and Time.

1.04 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. Discontinue paving when surface temperatures fall below requirements listed in DOT Table 404-1 unless otherwise specified in the General Conditions of this Contract or as directed by the Director's Representative.
 - 2. Do not place asphalt concrete on wet surfaces, or when weather conditions otherwise prevent the proper handling or finishing of bituminous mixtures as determined by the Director's Representative.
 - 3. Pavement is restricted by dates listed in the General Conditions or by temperatures.

PART 2 PRODUCTS

2.01 MATERIALS

- A. All aggregate used in design mixes shall be as specified in DOT Specification Section 401-2.02 B.; Coarse Aggregate Type F2 Conditions.
- B. Asphalt: Use aggregate and PG binder from suppliers listed in the NYS DOT's Approved List for Fine and Coarse Aggregates and Performance Graded (PG) Binders for Warm Mix Asphalt (WMA) Technology for paving respectively. Use of mineral filler or any other materials for the production of asphalt will be accepted in accordance with the State's written instructions.
- C. Supply approved asphalt mixtures that meet the requirements of NYS DOT *Comprehensive Pavement Design Manual. Chapter 6 - Materials*. Each mixture must be obtained from a single plant for the duration of the project. The following NYS DOT items only shall be utilized for this project:
 - 1. Top Course – NYSDOT Item 404.0973 (Type 6F using PG 64V-22)
 - 2. Binder Course – NYSDOT Item 404.1273 (Type 3 using PG-64V-22 (no more than 10% RAP))
- D. Reclaimed Asphalt Pavement (RAP) shall meet the requirements of NYS DOT MM 5.16 *Superpave Hot Mix Asphalt Mixture Design and Mixture Verification Procedures*. Maximum RAP content in binder layer is 10%.
- E. Asphalt Cement Tack Coat.

PART 3 EXECUTION

3.01 PRE-CONSTRUCTION MEETING

- A. The Director's Representative will conduct a Pre-Paving meeting prior to any Asphalt placement. The attendance at this meeting will include Contractor's Paving Superintendent, Chief Inspector or Paving Inspector(s), Asphalt plant representative, density gauge operator, depending on the compaction method used, and work zone traffic control (WZTC) competent person (if applicable). The contractor's Paving Superintendent must be prepared to discuss the operation

necessary to complete the work successfully. Participants will review all aspects of the project requirements including, but not limited to, the following:

1. Asphalt delivery temperature.
2. Equipment and setup.
3. Mix codes to ensure the correct mix is delivered.
4. Frequency of testing.
5. Density Gauge operator certification.
6. Proper construction practice to provide quality product.
7. Work zone traffic control activities necessary.

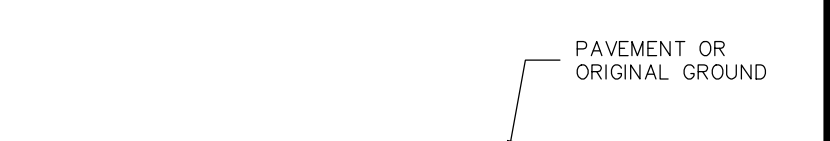
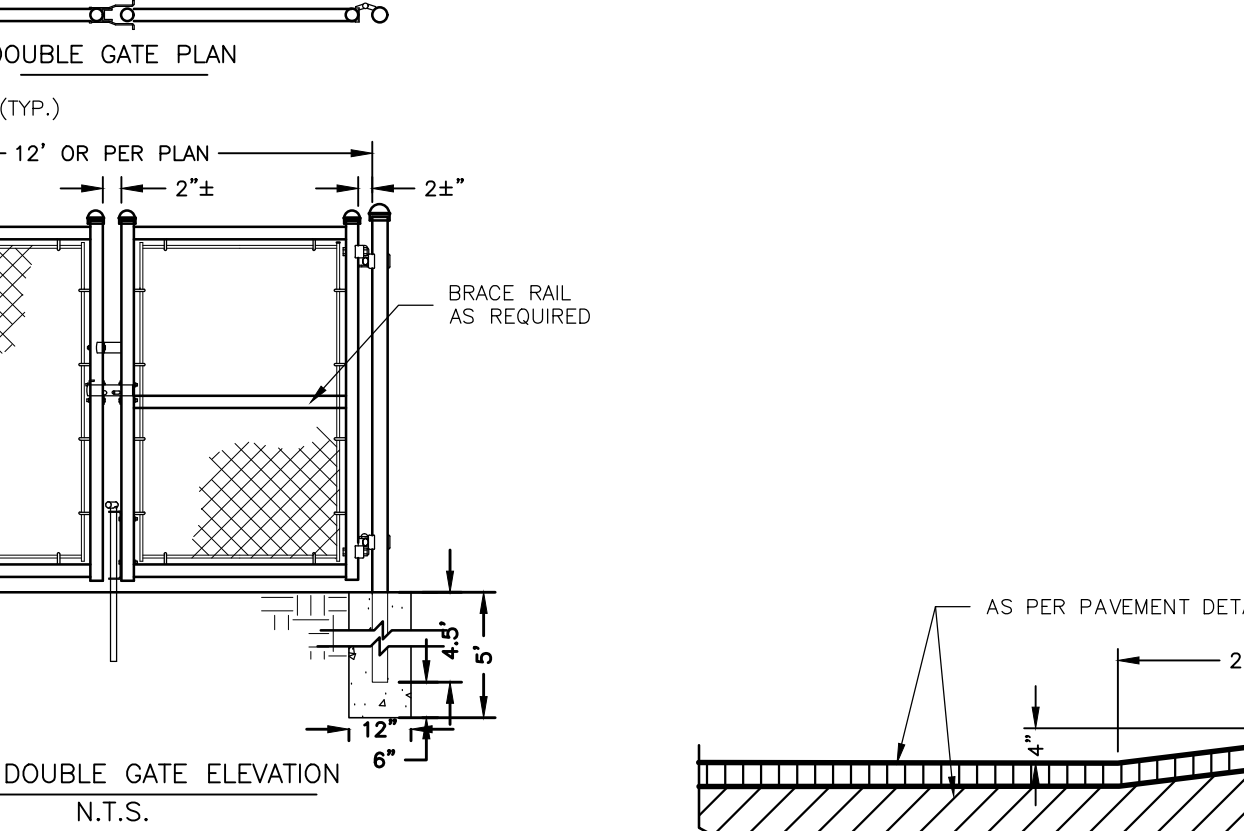
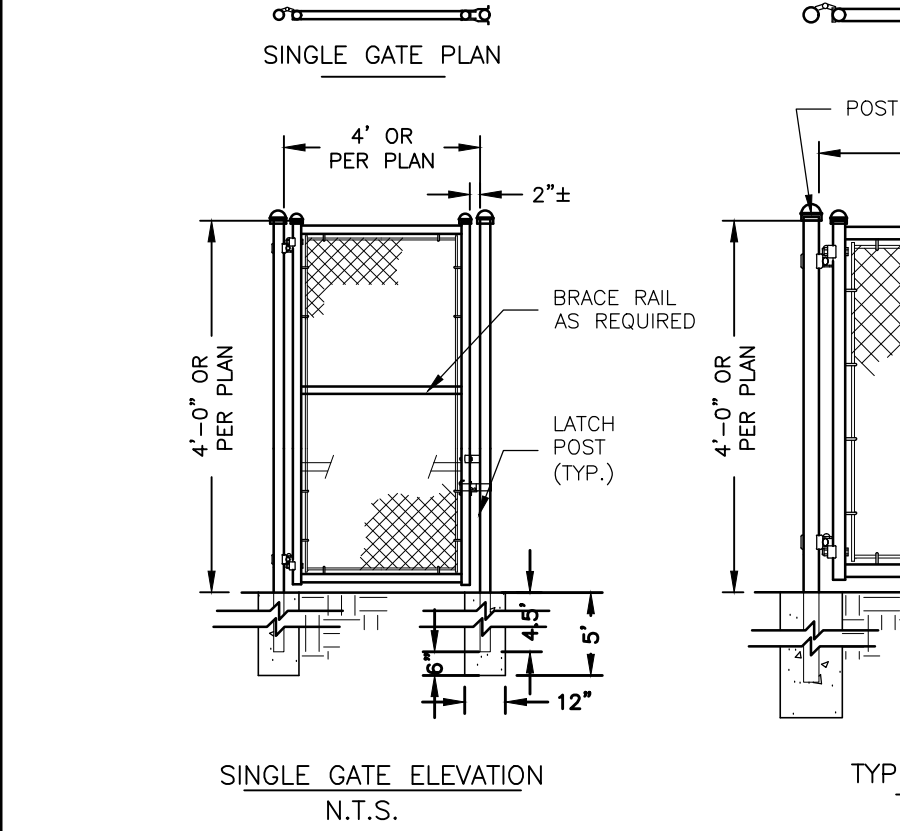
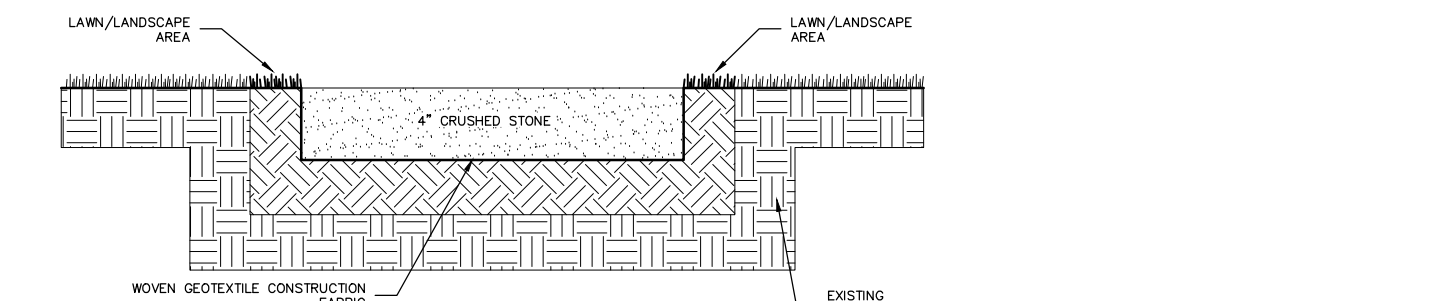
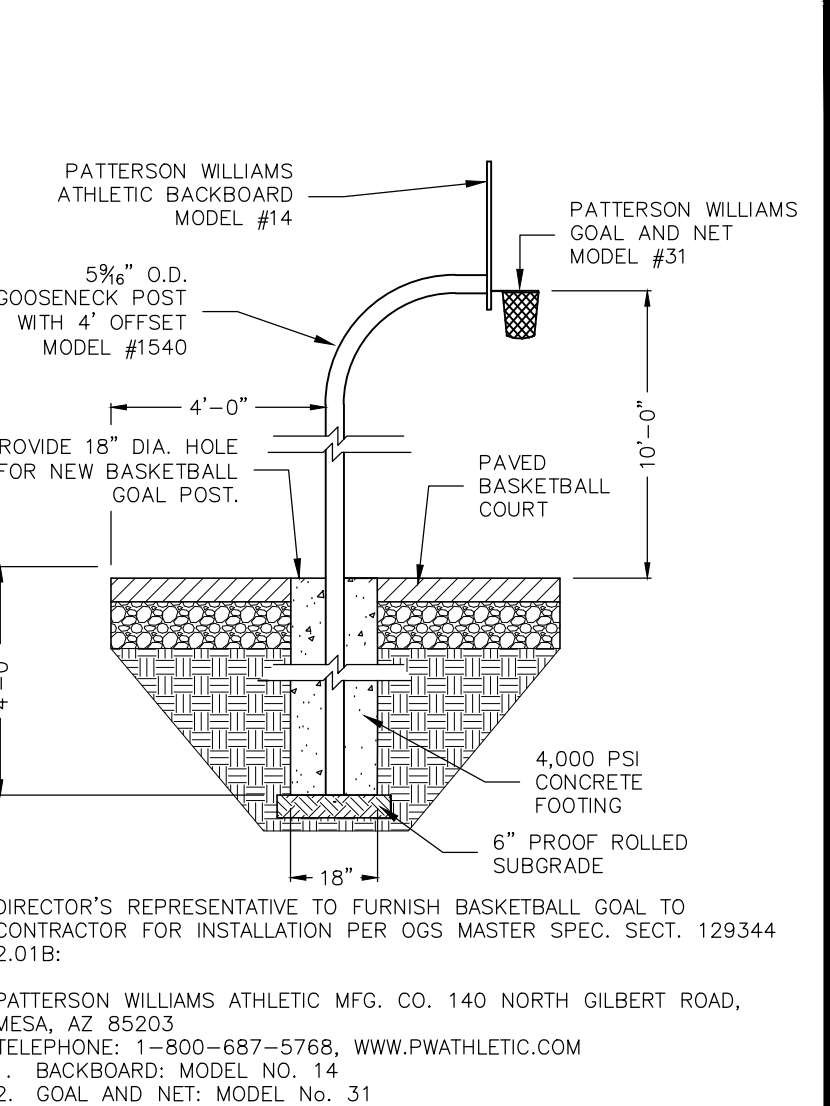
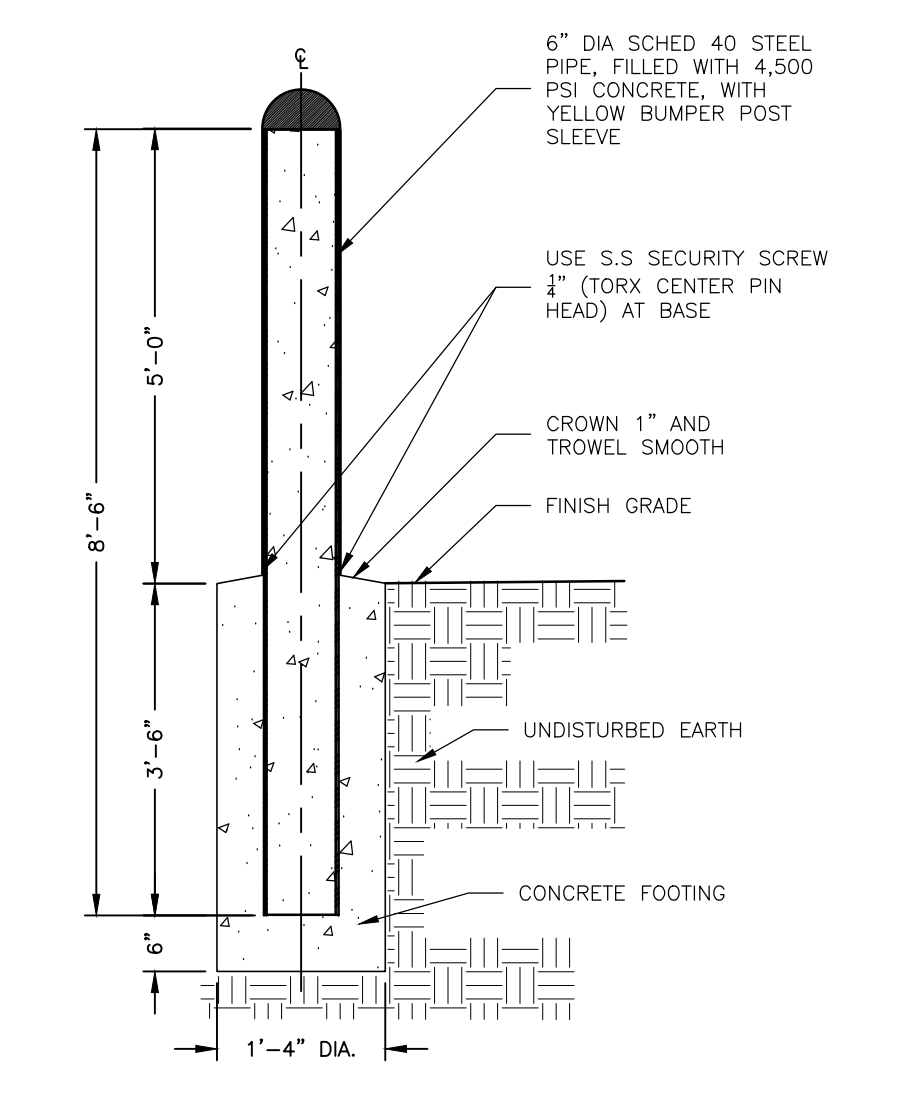
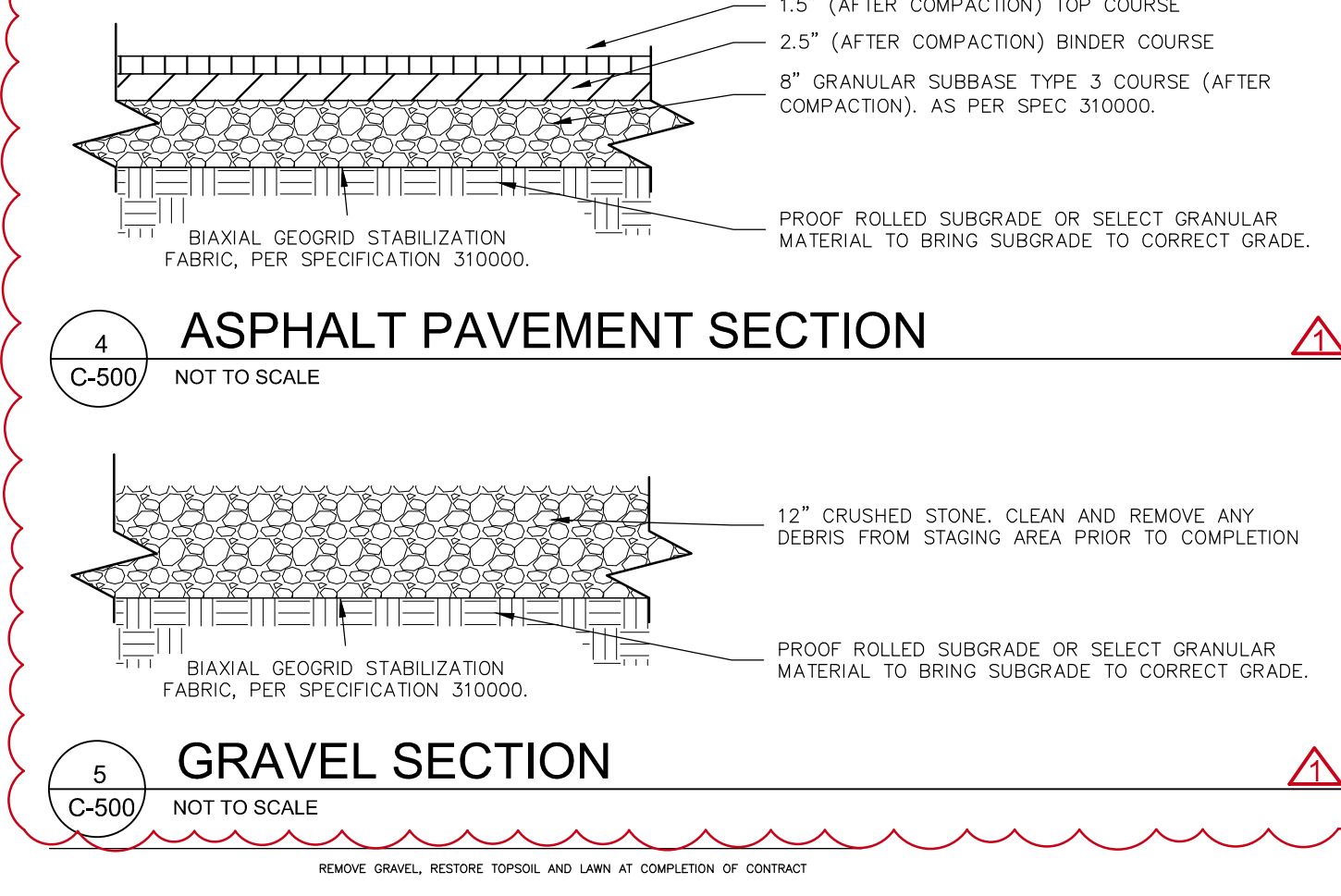
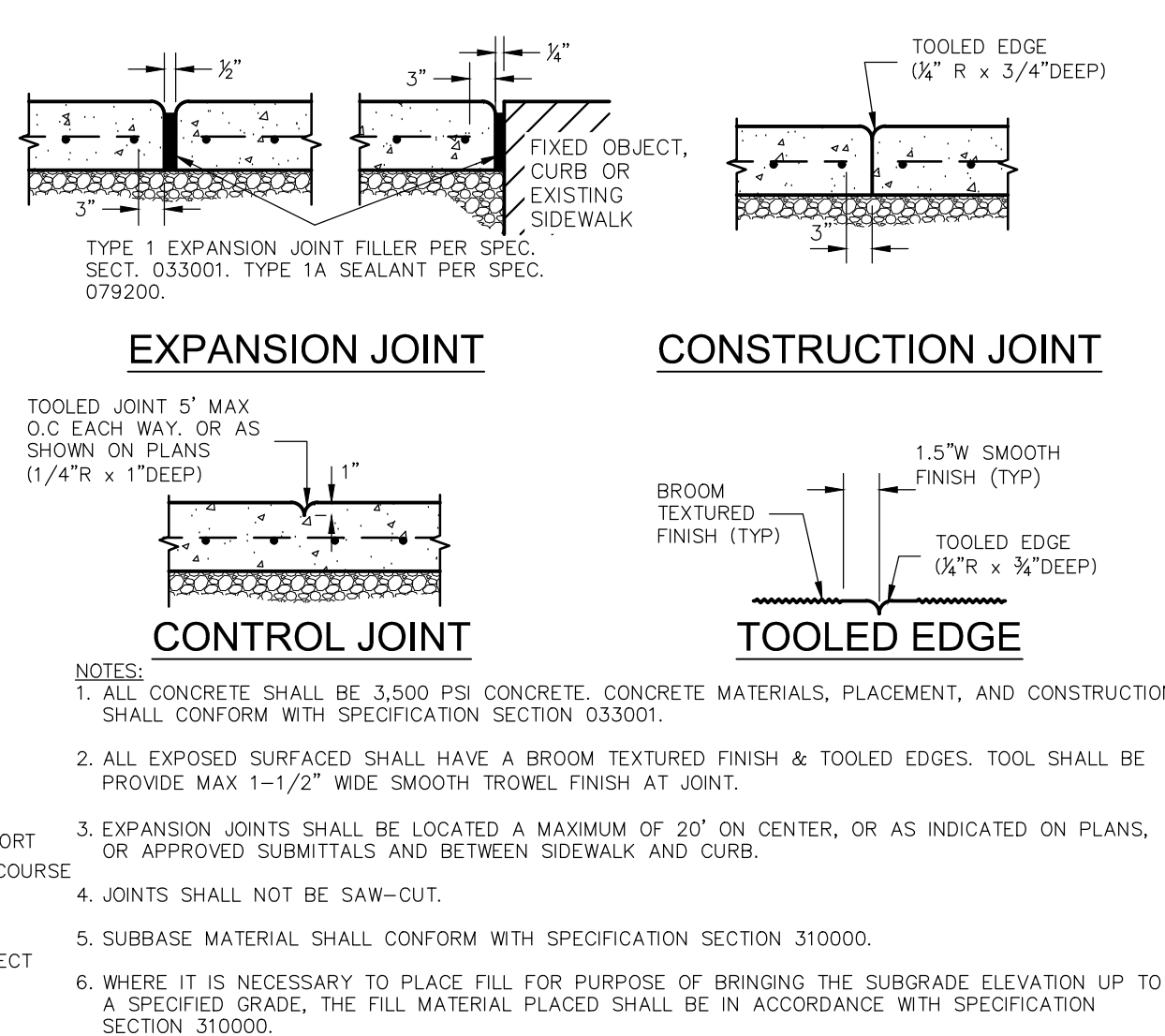
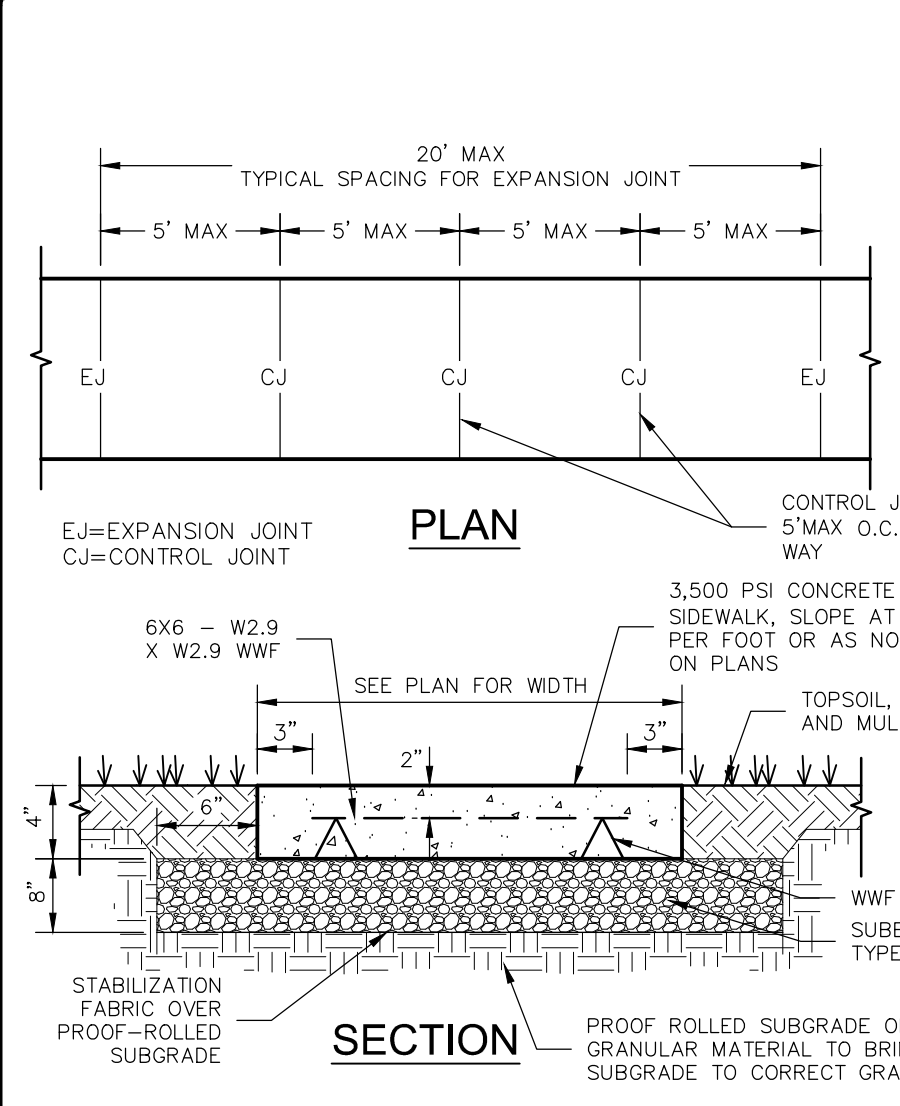
3.02 ASPHALT PAVING PLACEMENT & COMPACTION

- A. Prepare existing surfaces in accordance with DOT Section 404-3.05, *Conditioning of Existing Surface*.
- B. Apply Tack Coat in accordance with DOT Section 407-3.02, *Application of Tack Coat*, specifically Table 407-1 – Tack Coat Application Rates. The rates listed are recommended application rates for tack coat on various surfaces and may be modified by the Director’s Representative.
- C. Spread and Finish asphalt in accordance with DOT Section 404-3.06, *Spreading and Finishing*.
- D. Provide compaction of asphalt in accordance with DOT Section 404-3.07, *Compaction*.
 1. Paragraph D. 80 Series Compaction Methods, specifically meeting the minimum requirements as shown in Table 404-3 Number of Passes. The Director’s Representative may increase or decrease the number of passes to obtain adequate density of the compacted HMA.
 2. The Director’s Representative may also approve alternate compaction procedures where the specified procedures are not applicable.
 3. Testing to be performed at the direction of and in locations chosen by the Director’s Representative. Target compaction is 95% (92% - 97% range is acceptable).
- E. Asphalt joints shall be in accordance with DOT Section 404-3.09, *Joints*.
- F. Construct each pavement course to a 1/4” surface tolerance. The Director’s Representative may test the surface with a 16-foot straight edge or string line placed parallel to the centerline of the pavement and with a 10-foot straight edge or string line placed transversely to the centerline of the pavement on any portion of the pavement. Variations exceeding 1/4 inch will be appropriately corrected or the pavement be removed and replaced at no additional cost to the State.
- G. The allowable thickness tolerance of all asphalt mixtures shall be:
 1. 1/4 inch or less when the total nominal thickness indicated on the plans is 4 inches or less.
 2. 1/2 inch or less when the total nominal thickness is over 4 inches but not more than 8 inches.
 3. When the asphalt mixture is placed on newly constructed subbase material, an additional tolerance of 1/4 inch will be allowed both in the

nominal thickness of the course placed directly on the subbase and the total pavement thickness.

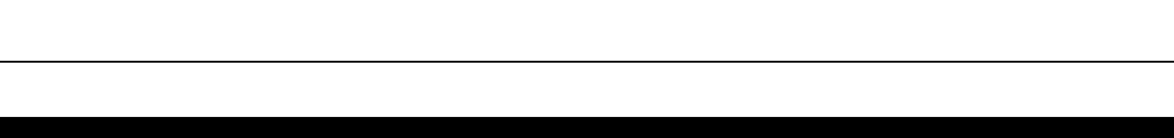
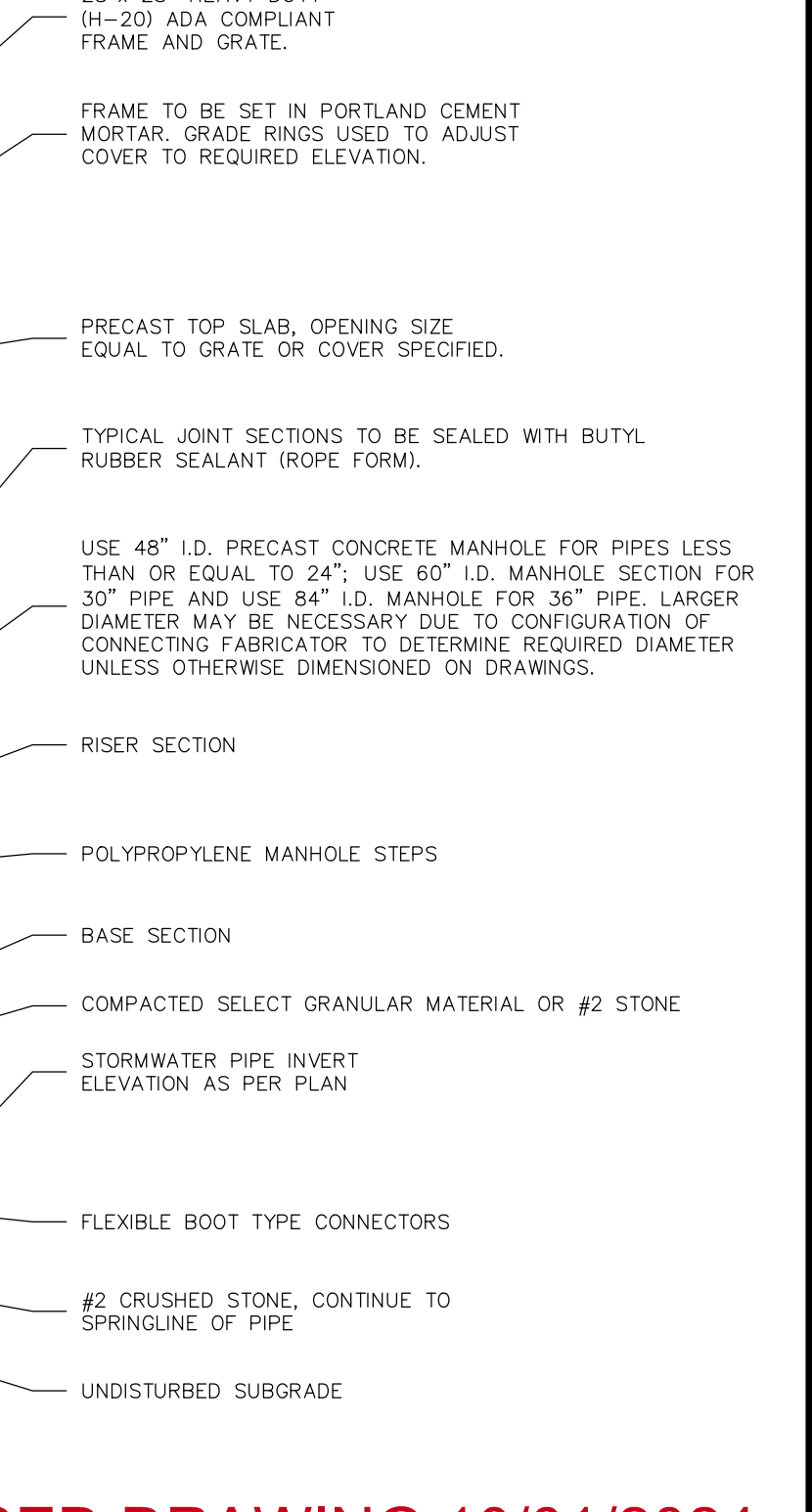
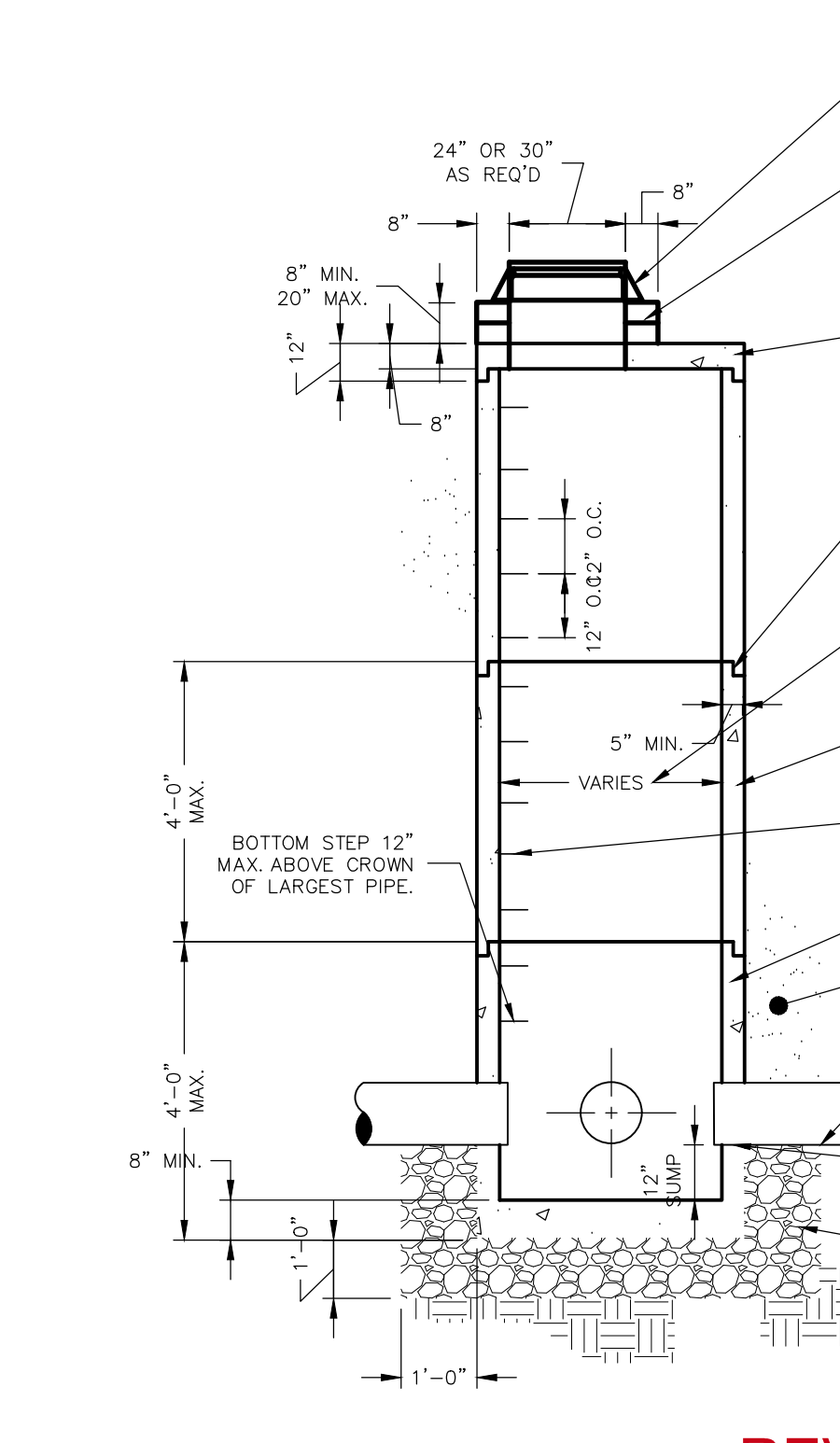
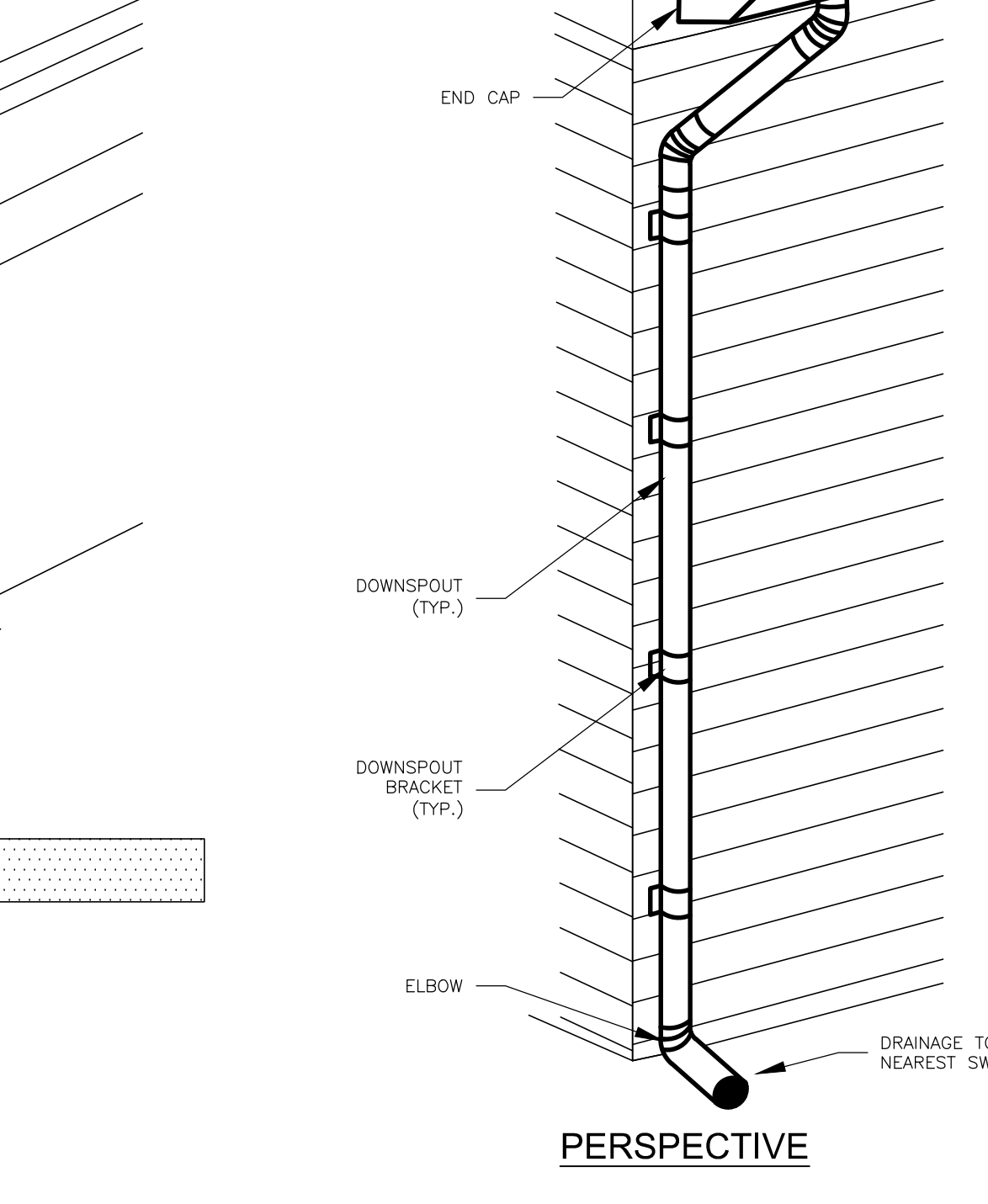
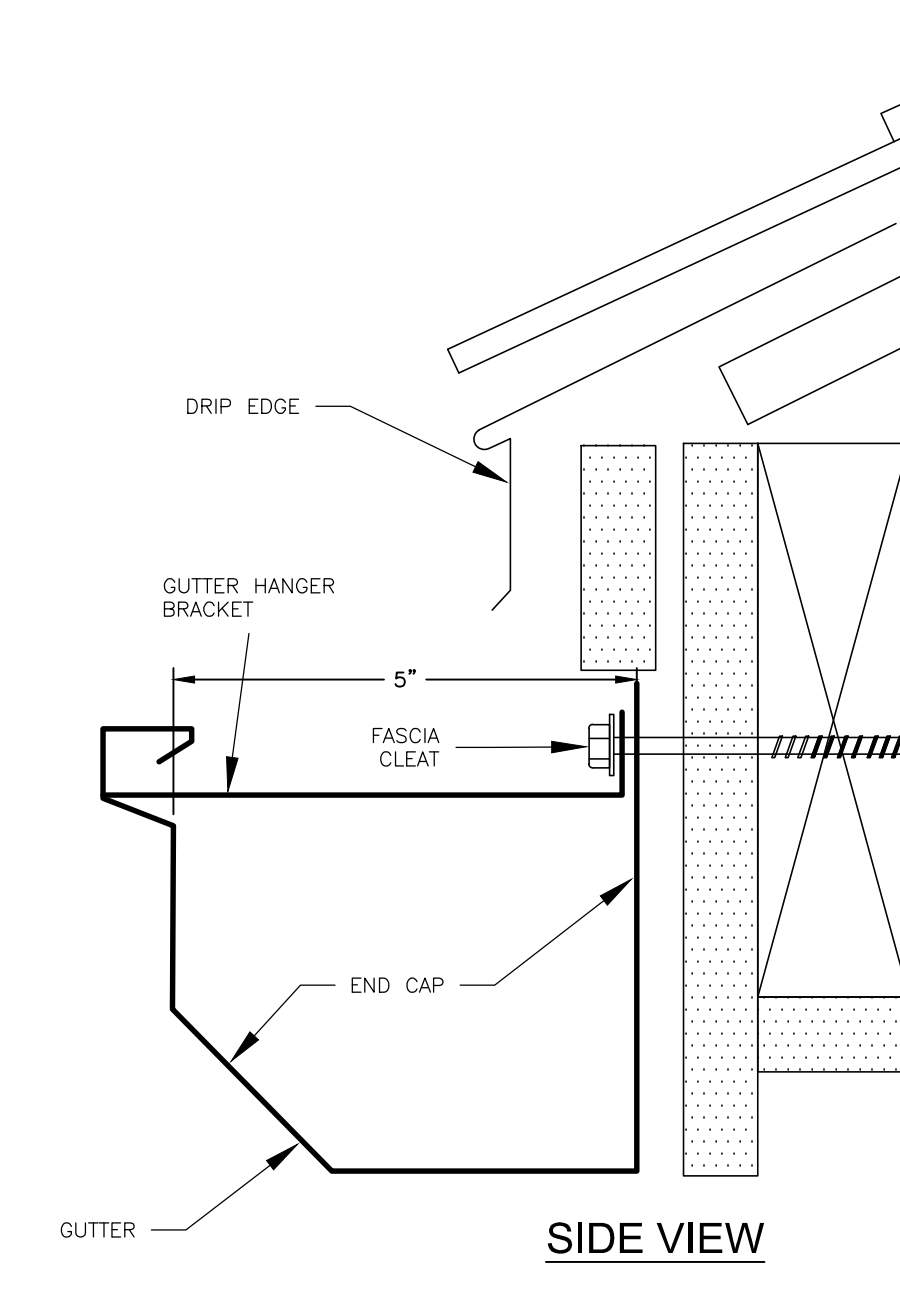
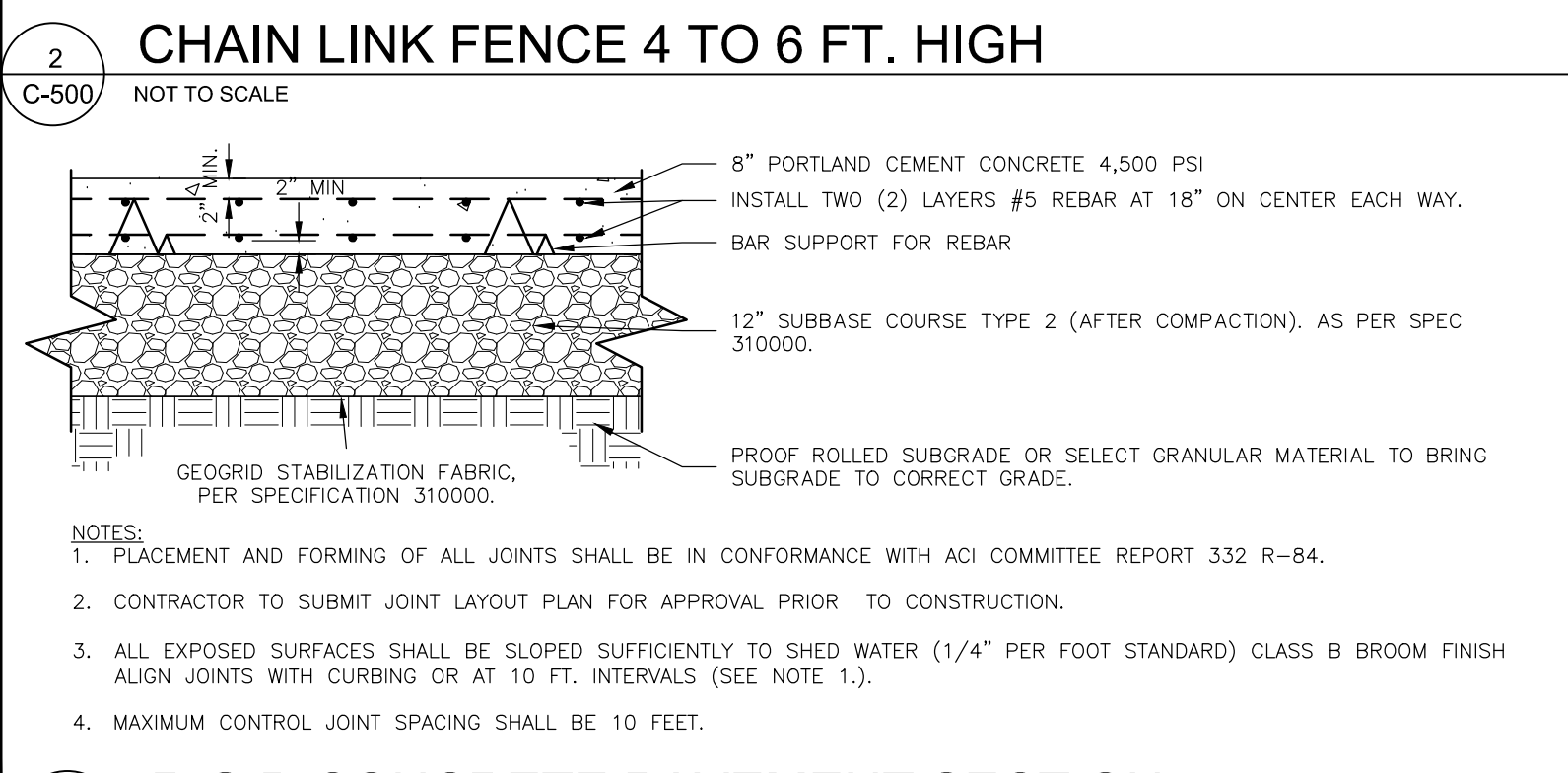
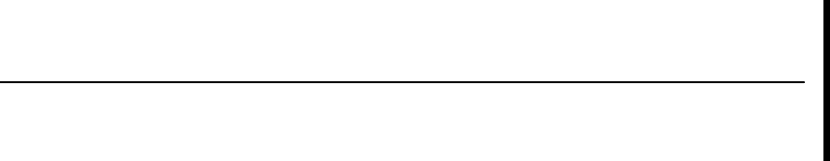
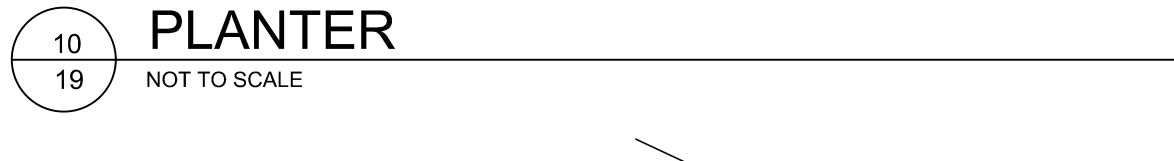
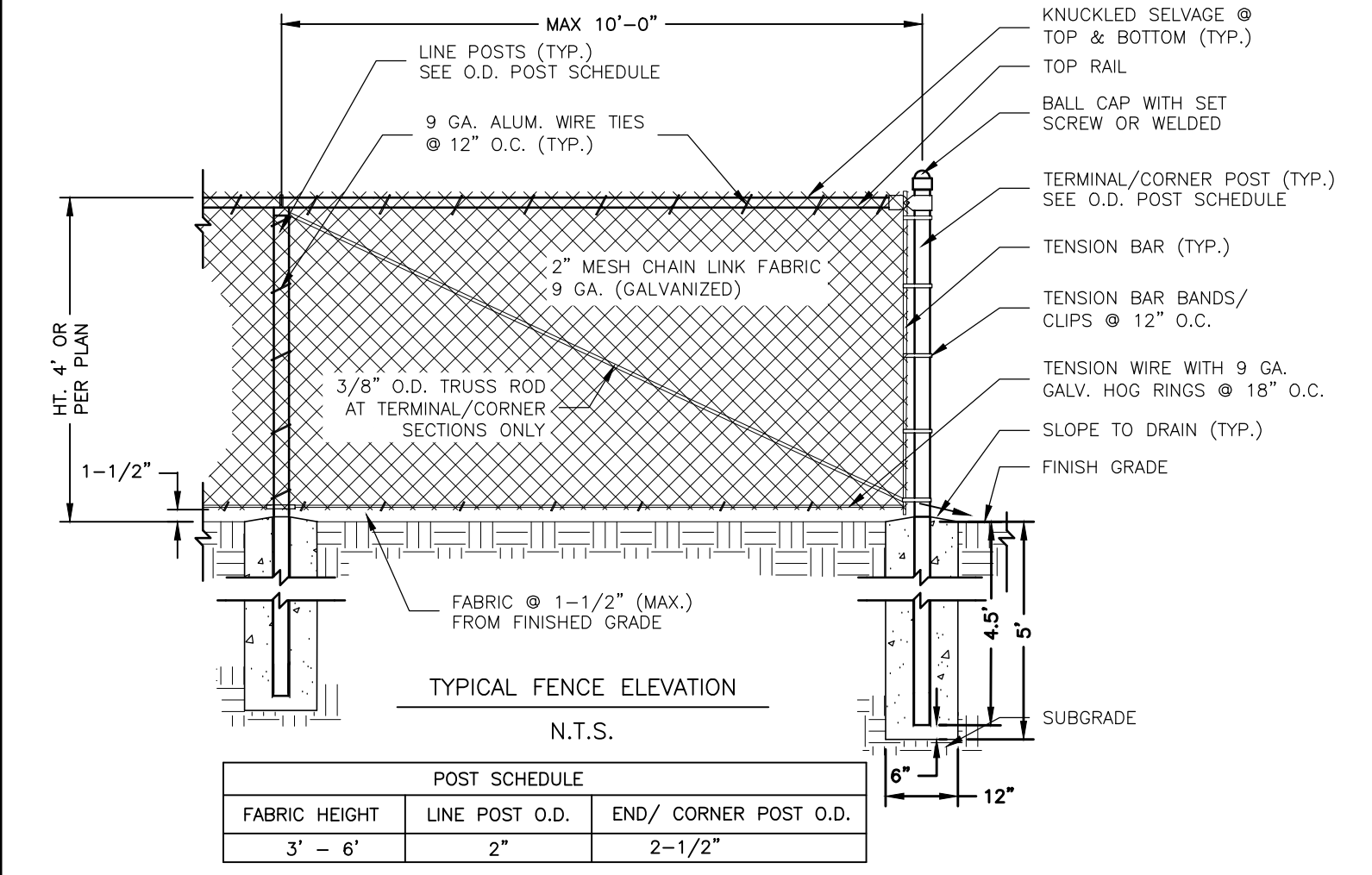
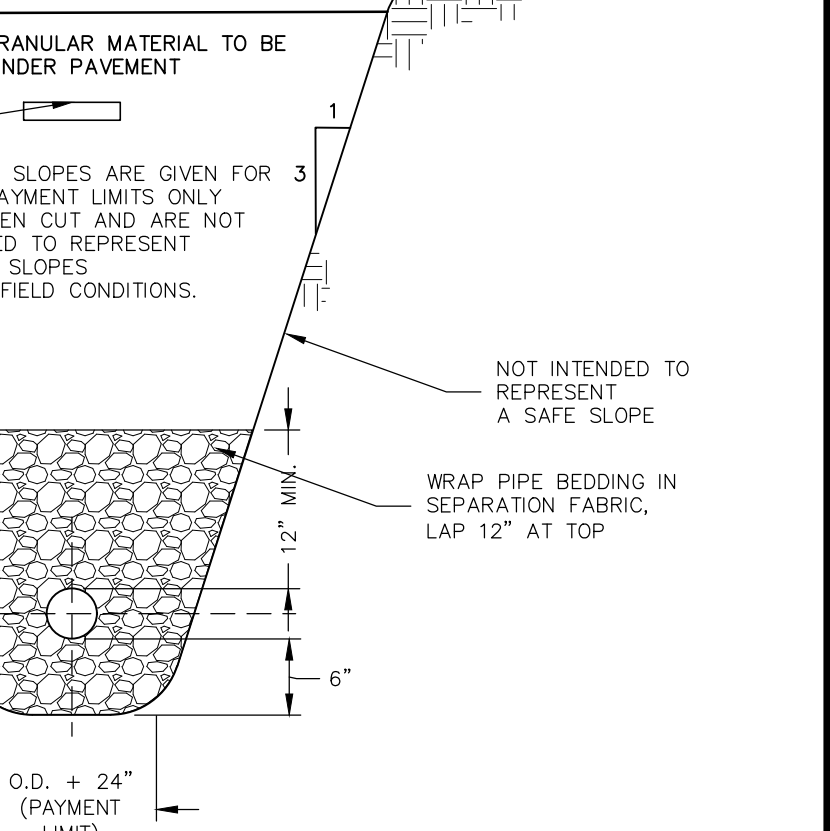
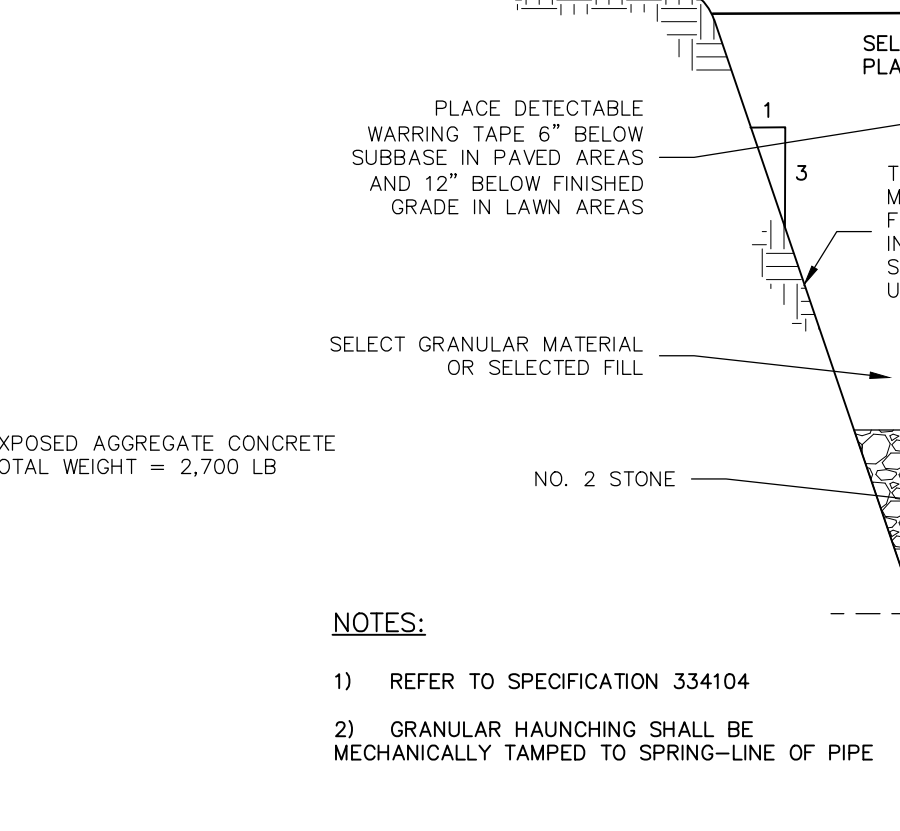
- H. Remove and restore paved areas that are defective or contaminated as delineated by the Director's Representative at no additional cost to the State.
- I. Do not clean tools and equipment used for asphalt placement on the pavement surface, or near streams, ponds, drainage structures or other areas that are tributaries to waterways. Use an area approved by the Director's Representative for cleaning all paving equipment and tools.
- J. Once pavement cures for a minimum of 24 hours, apply pavement markings with mechanical equipment to a minimum wet film thickness of 15 mils (0.4 mm), or as specified by the Manufacturer if greater.

END OF SECTION



SINGLE LEAF GATES	
OPENING	POST O.D.
3'-6"	3"

DOUBLE LEAF GATES	
OPENING	POST O.D.
6'-12"	3"



WARNING:
THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.



CONSTRUCTION

PROVIDE ASPHALT PAVING AND IMPROVE DRAINAGE

LOCATION: HIGHLAND RESIDENTIAL CENTER
629 N CHODIKEE LAKE ROAD
HIGHLAND, NEW YORK

CLIENT: NEW YORK STATE OFFICE OF CHILDREN AND FAMILY SERVICES

CRW	DATE	DESCRIPTION
10/01/2024	ADDENDUM No. 1	
07/16/2024	BID DOCUMENTS	
PROJECT NUMBER:	47538	- C
DESIGNED BY:	DBR	
DRAWN BY:	DBR	
FIELD CHECK:	BPO	
APPROVED:	BPO	

DETAILS

C-500

Oct. 02, 2024 - 10:13am
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 36x24 PLOT SHEET

REVISED DRAWING 10/01/2024