

**TOWN OF MANCHESTER  
PLANNING AND ZONING COMMISSION**

October 17, 2022  
7:00 P.M.

Lincoln Center Hearing Room, 494 Main Street  
Or virtually, via Zoom

**AGENDA**

This meeting will be held both in person and virtually, via Zoom. The meeting will be shown live on Cox Channel 16 and streamed live at <http://www.channel16.org/CablecastPublicSite/watch/1?channel=1>. Individuals who wish to speak at or attend the virtual meeting must complete a Request to Attend Virtually form, available at <https://manct.us/meeting> by 4:00 p.m. on the day of the meeting. These individuals will need to join the Zoom meeting and will be allowed to speak when directed by the Chairman. Zoom meeting information will be sent to individuals who complete a Request to Attend Virtually form. Only individuals who complete a Request to Attend Virtually form will be allowed to join the Zoom meeting. A physical location and electronic equipment will be provided for the public to use if a written request is received at least 24 hours in advance, via email to [pzccomments@manchesterct.gov](mailto:pzccomments@manchesterct.gov), or by mail to the Planning Department, 494 Main Street, P.O. Box 191, Manchester, CT 06045-0191.

*PUBLIC HEARING:*

1. **TOWN OF MANCHESTER** – Request a special exception modification under Art. II, Sec. 2.02.02 for a proposed school addition and southern storm water drainage system at 179 Keeney Street.
  - Special Exception Modification (PSE-0035-2022)

*BUSINESS:*

1. **TOWN OF MANCHESTER** – Request a special exception modification under Art. II, Sec. 2.02.02 for a proposed school addition and southern storm water drainage system at 179 Keeney Street.
  - Special Exception Modification (PSE-0035-2022)
  - Erosion & Sedimentation Control Plan (ESC-0011-2022)
2. **MANCHESTER COUNTRY CLUB, INC.** – For expansion of the 18th tee at Manchester Country Club at 305 South Main Street.
  - Inland Wetlands Permit Determination of Significance (IWP-0027-2022)

**3. ADMINISTRATIVE REPORTS**

**4. RECEIPT OF NEW APPLICATIONS**

**TOWN OF MANCHESTER  
LEGAL NOTICE**

The Planning and Zoning Commission will hold a public hearing on October 17, 2022 at 7:00 P.M., both virtually and in person in the Lincoln Center Hearing Room, 494 Main Street, Manchester, Connecticut, to hear and consider the following petitions:

**VOLTA CHARGING, LLC – Special Exception (PSE-0034-2022)** – Request a special exception under Art. IV, Sec. 24.03 to install, operate and maintain 10 electric vehicle charging stations with display screens at The Shoppes at Buckland Hills at 194 & 196 Buckland Hills Drive, Comprehensive Urban Development zone.

**TOWN OF MANCHESTER – Special Exception Modification (PSE-0035-2022)** – Request a special exception modification under Art. II, Sec. 2.02.02 for a proposed school addition and southern storm water drainage system at 179 Keeney Street, Rural Residence and Residence AA zones.

At this hearing interested persons may be heard, either in person or virtually via Zoom, and written communications received. This meeting will be shown live on Cox Channel 16 and streamed live at <http://www.channel16.org/CablecastPublicSite/watch/1?channel=1>. Individuals who wish to speak at or attend the virtual meeting must complete a Request to Attend Virtually form, available at <https://manct.us/meeting>, by 4:00 p.m. on the day of the meeting. These individuals will need to join the Zoom meeting and will be allowed to speak when directed by the Chairman. Zoom meeting information will be sent to individuals who complete a Request to Attend Virtually form. Only individuals who complete a Request to Attend Virtually form will be allowed to join the Zoom meeting. A physical location and electronic equipment will be provided for the public to use if a written request is received at least 24 hours in advance, via email to [pzccomments@manchesterct.gov](mailto:pzccomments@manchesterct.gov), or by mail to the Planning Department, 494 Main Street, P.O. Box 191, Manchester, CT 06045-0191.

Individuals may also submit comments in writing to the Planning and Economic Development Department via email to [pzccomments@manchesterct.gov](mailto:pzccomments@manchesterct.gov), or by mail to the Planning Department, 494 Main Street, P.O. Box 191, Manchester, CT 06045-0191. All written comments received by 4:00 p.m. on the day of the meeting will be presented and recorded as part of the hearing.

A copy of this petition is in the Planning and Economic Development Department, Lincoln Center Building, 494 Main Street, and may be inspected during regular business hours (8:30 a.m. – 4:30 p.m., Monday through Friday). Information about this application will be available online at <https://Manchesterct.gov/pzc> by the Friday before the hearing.

Planning and Zoning Commission  
Eric Prause, Chair

**TOWN OF MANCHESTER  
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT**

**TO:** Planning & Zoning Commission

**FROM:** Megan Pilla, Principal Development Planner *MP*

**DATE:** October 13, 2022

**RE:** Town of Manchester – 179 Keeney Street  
Special Exception Modification (PSE-0035-2022)  
Erosion & Sedimentation Control Plan (ESC-0011-2022)

***Introduction***

The Town of Manchester is proposing renovations to the existing Keeney Elementary School, including a building addition, redesign of the parking lot and bus loop, and associated site improvements. Construction is expected to begin in June 2023.

The Keeney Elementary School parcel is approximately 22.2 acres and is zoned Rural Residence. A portion of Folly Brook runs through the southern portion of the property. An erosion and sedimentation control plan is required for the proposed site activities, which will result in greater than one-half acre of land disturbance (approximately 8.5 acres). A modification of the special exception use in accordance with the Zoning Regulations Article II, Section 2.02.02 is required for the school improvement project.

***Existing Site Conditions***

Keeney Elementary School is bounded by Keeney Street to the west and Primer Road to the north. The property is adjacent to single-family residential homes on all sides as well as the Trinity Covenant Church to the east and Town-owned open space to the south. Vehicular access to the site is provided through several entrances off of Primer Road which lead to parking areas and a bus/drop-off loop.

The school building is situated in the center of the property. There are two (2) existing playground areas near the building, one to the east and one to the south. The western portion of the site includes a softball field, small gravel parking area, and a screened utility area which houses multiple transformers. The southern portion of the property is wooded with mixed deciduous forest and includes a portion of Folly Brook, a perennial watercourse, and associated inland wetlands.

### ***Project Description***

The proposed improvements to Keeney Elementary School include additions to the existing school building, modifications to site circulation and parking, relocated play spaces, a new interior courtyard, and improvements to the softball field entrance.

### **Building Additions**

Several additions are proposed to the school building totaling approximately 6,755 sq. ft. These are highlighted in yellow on sheet C3.00 of the attached plans.

Five (5) small additions are proposed to infill existing recessed entries.

A 512 sq. ft. addition to the library is proposed, which bumps out into the courtyard to the south.

The largest proposed addition totals approximately 6,101 sq. ft. and connects the two southern ends of the existing building to create an enclosed interior courtyard. This space includes several new classrooms and a new mechanical room.

The exteriors of the building additions are shown as brick with metal fascia to match the existing building façade.

Architects from TSKP Studio will provide a detailed description of the proposed building improvements at the Commission's October 17 meeting.

### **Access and Parking**

Site access and parking modifications are proposed to improve circulation and parking on site. The bus loop as shown remains in its current location and would continue to be accessed from the existing curb cut off of Primer Road. This loop is proposed to be distinctly separated from the parking lot, reducing the potential for conflicts between buses and cars. Access to the parking lot is simplified from the existing condition, with one curb cut for entry from Primer Road, directly opposite the bend in the road. The proposed reconfiguration of the parking area creates one-way circulation through one large parking lot, as opposed to the existing three separate parking lots, simplifying vehicular circulation. Vehicles would follow the one-way loop and exit back onto Primer Road via a second curb cut on the eastern side of the parking lot.

Proposed parking areas will accommodate a total of 122 vehicles, including six (6) spaces designated for ADA accessibility. This represents a net increase of 51 parking spaces.

Six (6) electric vehicle parking/charging spaces are shown near the main entrance of the building, and two groupings of six (total of 12) additional electric vehicle parking/charging spaces are shown as possible alternates on the proposed plans.

A service drive off of the southeastern corner of the parking lot provides truck access to the proposed dumpster enclosure. An 18-ft. wide turfstone (grass paver) access lane is also shown off of the bus loop, providing access to the south side of the building for emergency vehicles without increasing impervious surfaces.

### Traffic

There is no projected increase in student enrollment for Keeney School associated with the renovation, and no additional traffic on site or in the surrounding neighborhood is anticipated.

### Site Layout and Landscaping

Proposed site improvements include the relocation of play spaces to a secure fenced area on the east side of the school building which is easily accessed from classrooms. Within the fenced area would be two separate play areas with engineered wood fiber mulch surfacing, and one asphalt half basketball court.

The interior courtyard created by the proposed building addition includes stamped, colored concrete walkways and concrete seat walls for flexible use of the space. Landscaped planting beds are shown, as well as a garden area for use by the students.

New landscaping includes planted beds within the courtyard and new trees in front of the building and within the parking lot. A total of twelve (12) trees are proposed to be removed during construction and 23 new trees planted, for a net gain of eleven (11) trees on the site.

The plans indicate site lighting will include wall-mounted lighting on the building, 20-foot-high light poles at parking areas, 10-foot-high light poles at the main entrance, and 8-foot-high light poles in the proposed courtyard and other pedestrian areas.

### Stormwater Management

SLR has provided a stormwater management plan to manage runoff from the project site. Existing drainage patterns on the site will be maintained to the extent practical and proposed modifications to the storm collection system will accommodate the new building addition, modified site layout and grading. A net increase of 0.34 acres of impervious area is proposed.

The project includes an underground detention system (highlighted in orange on sheet C5.00, attached) that is designed to mitigate the increase in runoff from the site due to the addition of new impervious surfaces. Hydrodynamic separators will pretreat stormwater runoff prior to it entering the underground detention system.

### Utilities

The school is served by public water and sanitary sewer. A new connection to the water main on the Keeney Elementary School access drive is proposed for domestic service. No changes are proposed to the sanitary sewer system.

Gas service to the building will be terminated as part of this project. The existing gas meter will be removed and the necessary demolition and capping of the existing gas service will be coordinated with the gas company. It is proposed that the building will be heated by geothermal wells, which would be located under the lawn area on the east side of the property (approximate area highlighted in orange on Sheet C5.00, attached).

Existing electrical service to the school will be maintained.

### Inland Wetlands

Approximately 0.07 acres (3,050 sq. ft.) of disturbance is proposed within the 100-ft. regulated upland review area as part of this project. This work includes a small portion of the building addition at the southeast corner of the building where the existing structure already encroaches into the regulated area, as well as a small portion of concrete sidewalk and the installation of two (2) stormwater outlets with level spreaders.

Due to the relatively minor nature of the proposed encroachment, the necessary inland wetland permit may be approved administratively following approval of the special exception modification by the Commission.

### ***For the Commission's Consideration***

#### Special Exception Modification

The Commission is required to act on a Special Exception Modification application. The general criteria of Article IV, Section 20 should be considered, as well as the specific requirements for schools outlined in Article II, Section 1.00.02(e) and (f).

#### Erosion and Sedimentation Control Plan

The proposed plan features two construction entrance pads off Primer Road – one in front of the school building to accommodate the majority of project construction, and one at the gravel parking area in the northwest corner of the site to serve the softball field area. Silt fence is proposed downslope from areas of disturbance with the additional protection of hay bales to the south and east (adjacent to the regulated area). Stormwater collection structures will be fitted with inlet protection to remove sediment from the run-off prior to entering the drainage system. Erosion and sedimentation controls are highlighted in yellow on Sheet C6.00, attached.

***Staff Review***

Town staff has reviewed the plans and documents submitted with the application and an update on the status of any comments will be provided to the Commission at the October 17, 2022 meeting.

mp/kw

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Attach.

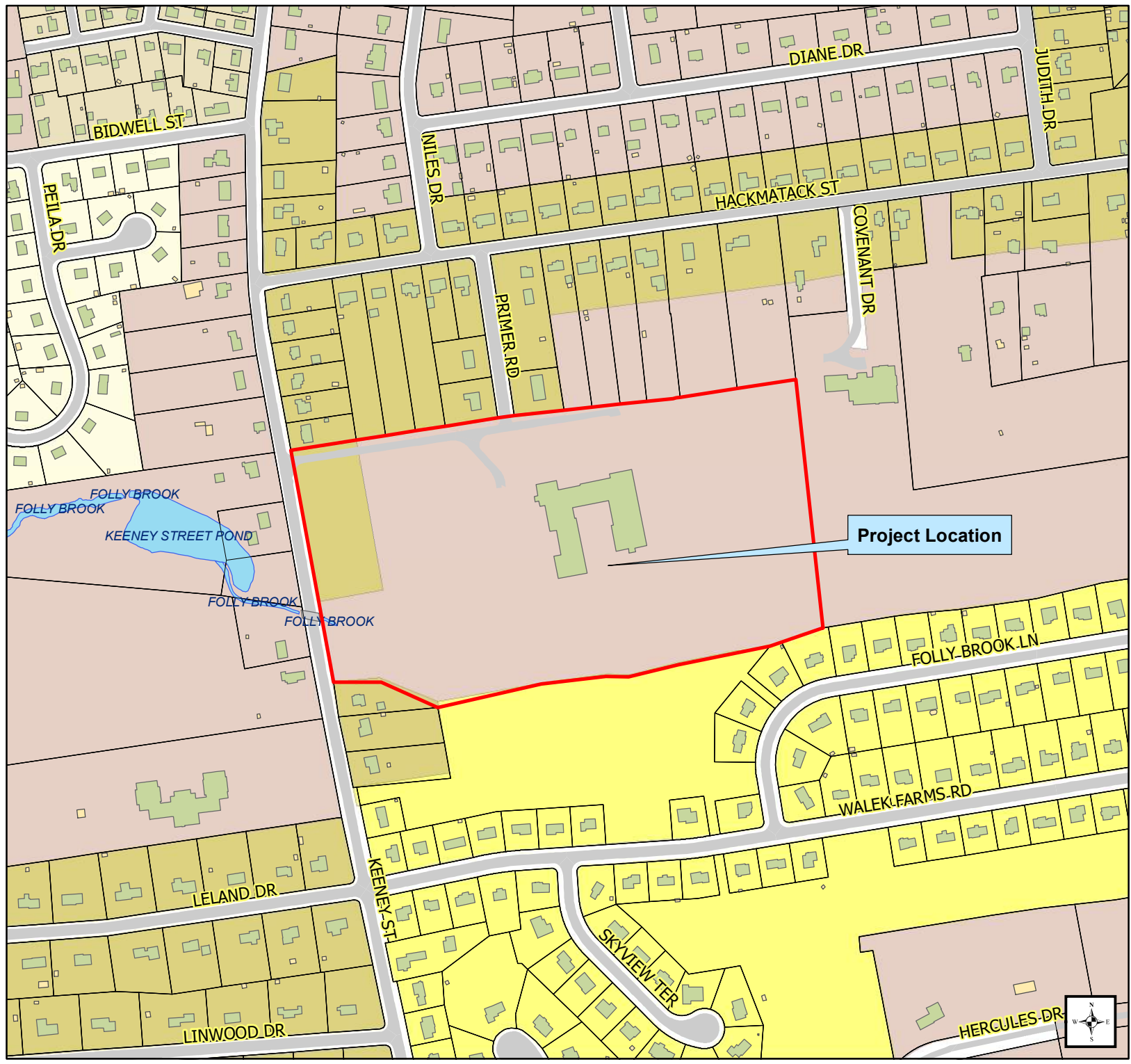
Town of  
Manchester, CT



Geographic Information  
Systems

179 Keeney Street

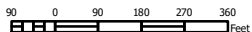
-  Bridges
-  Roads
-  Manchester Town Boundary
-  AA - Residence AA
-  RA - Residence A
-  RB - Residence B
-  RR - Rural Residence
-  Residence AA (Cluster Regulations Apply)



DISCLAIMER:  
The Town of Manchester, CT assumes no legal responsibility for the information contained in this map. This map is provided "AS IS" without warranty of any kind.

NOTES:  
Planimetric and topographic information were compiled by stereophotogrammetric methods from photography dated April 24, 1999 in accordance with ASPR accuracy standards for 1"=40' large scale Class I maps. Real property compiled from recorded deeds, subdivision plans and other public records. Utility networks compiled from record plans, as-built and/or field survey data. Aerial photography dated April 24, 1999.

1 inch = 400 feet



Date: 10/4/2022







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September 2, 2022

Mr. Randall Luther  
TSKP Studio  
Hartford Square West  
146 Wyllys Street, Suite 1-203  
Hartford, CT 06106

**Re: Wetland Delineation  
Keeney Elementary School  
176 Keeney Street  
Manchester, Connecticut  
SLR #141.12351.00094**

Dear Mr. Luther,

On August 17, 2022, Megan Raymond, Registered Soil Scientist and Professional Wetland Scientist, and Meaghan Fogarty, Environmental Scientist, of SLR International Corporation (SLR) visited the approximately 27-acre Kenney Elementary School property located at 176 Keeney Street in Manchester, Connecticut (Figure 1). The purpose of the site investigation was to determine the presence or absence of wetlands and/or watercourses and delineate boundaries of wetlands and watercourses as defined by local, state, and federal statutes within a portion of the school campus. The existing school building requires renovation, and the identification of the wetland boundary adjacent to the school campus is required. In summary, one wetland and watercourse system, a riparian wetland associated with Folly Brook, was delineated within the study area, which occupies approximately 5.8 acres of the 27-acre campus.

#### General Site Conditions

The subject site is located within a suburban residential region of Manchester and is accessible via Primer Road. The property is bound to the north, west, and south by single-family residential use and to the east by a church property. Topography on site generally slopes down from northeast to southwest, with elevations on site ranging from 185 feet to 240 feet above sea level. The school building is situated in the center of the property, with impervious parking and access roads to the north and west. A ballfield comprised of and surrounded by manicured lawn is located downgradient of the building to the west along Keeney Street. Two playground structures, underlain by woodchips and surrounded by manicured lawn, are located south and east of the building. A small gravel parking lot is located at the northeastern corner of the property. The remaining southern portion of the property represents approximately 10 acres of mixed upland deciduous forest, palustrine forested wetland, and a perennial watercourse known as Folly Brook.

### Watershed and Federal Emergency Management Area (FEMA) Floodplain Mapping

The site is located within the eastern portion of South Fork Hockanum River Subregional watershed (basin #4504), which drains a 11.9-square mile area across Manchester, eastern Bolton, and northern Glastonbury. Folly Brook flows from west to east along the southern property boundary, offsite through a culvert below Keeney Street, and into Keeney Street Pond on the west side of Keeney Street. It then flows northeast for approximately 0.5 miles before discharging into Folly Pond, which represents the headwaters of South Fork Hockanum River. This approximately 1.5-mile river converges with Hockanum River, which then flows approximately 7 miles east through East Hartford before emptying into the Connecticut River, which is located approximately 5 miles east of the project area. The Connecticut River discharges into the Long Island Sound in Old Saybrook/Old Lyme.

According to the most recent FEMA map (effective 9-26-2008), Folly Brook represents a Regulatory Floodway within the eastern extent of the project parcel, with a Base Flood Elevation (BFE) of 178.5 feet above sea level. The mapped Regulatory Floodway extends approximately 100 linear feet west of the eastern property boundary, terminated by a Limit of Study line. The remaining length of Folly Brook within the project parcel is not mapped by FEMA.

### Wetland Delineation

Wetland resources within the study area were delineated in accordance with the regulations of the Town of Manchester, Connecticut, and the State of Connecticut Inland Wetlands and Watercourses Act, CGS 22a-36 through 45. State-regulated wetland areas consist of any of the soil types designated by the National Cooperative Soils Survey as poorly drained, very poorly drained, alluvial, or floodplain. Regulated watercourses consist of rivers; streams; brooks; waterways; lakes; ponds; marshes; swamps; bogs; and all other bodies of water, natural or artificial, vernal or intermittent, public or private, not regulated pursuant to sections 22a-28 to 22a-35 inclusive (tidal wetlands). Intermittent watercourse determinations were made based on the presence of a defined permanent channel and bank and the occurrence of two or more of the following characteristics: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration longer than a particular storm incident, and C) the presence of hydrophytic vegetation. On the day of the site investigation, weather conditions were partly cloudy with an air temperature of approximately 75°F. Site conditions were suitable for wetland delineation work.

Inland wetland delineation methods followed the 1987 U.S. Army Corps of Engineers *Wetlands Delineation Manual* (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Northcentral and Northeast Region* (USACE, 2012). The classification system of the National Cooperative Soil Survey and Field Indicators of Hydric Soils in the United States (USDA, 2017) were used in this investigation. Soils were examined using a Dutch auger. Geospatial data was accessed via the United

States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) web soil survey mapping. The soil survey mapping is appended (Table 1, Figure 2).

**Table 1 NRCS Soil Units**

Map Unit		Parent Material	Slope (%)	Drainage Class	High Water Table			Depth To Bedrock (in)
Sym	Name				Depth (in)	Kind	Mos.	
<b><u>Wetland Soil</u></b>								
<b>108</b>	Saco silt loam	Coarse-silty alluvium	0-2	Very poorly drained	0-6	-	-	>80
<b><u>Upland Soil</u></b>								
<b>63B</b>	Cheshire fine sandy loam	Coarse-loamy melt-out till derived from basalt and/or sandstone and shale	3-8	Well drained	>80	-	-	>80
<b>63D</b>	Cheshire fine sandy loam	Coarse-loamy melt-out till derived from basalt and/or sandstone and shale	15-25	Well drained	>80	-	-	>80
<b>306</b>	Udorthents-Urban land complex	Drift	0-25	Well drained	54-72	-	-	>80

In general, the soils observed within the project area were consistent with those mapped by the USDA-NRCS web soil survey. Please note that SLR did not fully delineate the upland soil types within the project area. The site investigation confirmed the presence of poorly drained soils along the southern property boundary, extending slightly further north than the NRCS-mapped zone along the toe of the slope.

Sequentially numbered pink flags delineating the boundary of wetlands were attached to sturdy vegetation within the study area and generally spaced every 30 to 50 feet; the locations were recorded using a handheld Global Positioning System (GPS) unit with submeter accuracy. The wetland boundary is identified by flags W-1a through W-21a. The flag locations and numbers are depicted on the attached wetlands and watercourses map, Figure 3; complete boundaries are located along the lines that connect these sequentially numbered flags. The delineated resource is described below.

Forested Floodplain Wetland

One wetland and watercourse, a riparian wetland associated with Folly Brook, was delineated (Figure 3). A palustrine forested wetland, canopy vegetation is dominated by trees, including red maple (*Acer rubrum*), American hornbeam (*Carpinus caroliniana*), yellow birch (*Betula alleghaniensis*), and black cherry






(*Prunus serotina*). The moderately dense shrub stratum is composed primarily of northern spicebush (*Lindera benzoin*) and common winterberry (*Ilex verticillata*). A somewhat sparse herbaceous cover is comprised of jewelweed (*Impatiens pallida*), cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), and skunk cabbage (*Symplocarpus foetidus*). In addition to the hydrophytic vegetation and hydric soils, wetland hydrology was evidenced by water-stained leaves. Wetland soils are derived from alluvium and poorly drained glacial till. The wetland occupies approximately 5.8 acres within the subject parcel.








Two concrete headwalls convey stormwater from the school building to discharge points upgradient of the wetland boundary. The discharge has resulted in erosion and the creation of rills downgradient of the headwall. Neither rill displays requisite morphology to be delineated as an intermittent stream.

Wetland Functional Assessment

SLR assessed the wetland systems based on functions and values that they perform within the localized/regional watershed. The functions and values assessments are based on the US Army Corps of Engineers *Highway Methodology Workbook* (Table 2).

**Table 2 Functions and Values Assessment**

	Functions and Values	Comments
	Groundwater Recharge/Discharge	Yes – Groundwater discharge supports the hydrology of this wetland.
	Flood Flow Alteration (Storage & Desynchronization)	Yes – The topography and geomorphic position of this wetland allow for flood flow storage associated with Folly Brook.
	Fish & Shellfish Habitat	Yes – The watercourse is perennial and may provide finfish habitat.
	Sediment / Toxicant Retention	Yes – The topography and vegetative structure of this wetland allow for sediment and toxicant retention.
	Nutrient Removal / Retention / Transformation	Yes – The topography and vegetative structure of this wetland allow for nutrient retention, although residence time is limited within the stream corridor.

	Functions and Values	Comments
	Production Export (Nutrient)	Yes – The variety of vegetation and perennial hydrology allow for potential trophic-level interactions.
	Sediment / Shoreline / Watercourse Bank Stabilization	Yes – The vegetative structure of the wetland provides bank stabilization for Folly Brook.
	Wildlife Habitat	Yes – The structural heterogeneous vegetation and perennial hydrology of the stream provide opportunities for wildlife habitat.
	Visual Quality/Aesthetics	No – There is no primary viewing location, and access is limited by densely vegetated slopes.
	Recreation (Consumptive & Non-Consumptive)	No – It is located on school property, and access is limited by densely vegetated slopes.
	Educational Scientific Value	Yes – Wetland systems located on a school property provide inherent educational value.
	Uniqueness / Heritage	No – This wetland does not contain unique features.
<b>ES</b>	Endangered Species	The site is not mapped by the State of Connecticut for known habitat for state-listed flora and fauna.

The principal functions and values of the wetlands within the subject site include the following:

- Flood flow alteration
- Watercourse bank stabilization
- Wildlife habitat
- Educational value

Conclusions

On August 17, 2022, SLR delineated the regulated resources within an approximately 21-acre study area at Keeney Elementary School in Manchester, Connecticut. In summary, one wetland system associated with Folly Brook was delineated, with an approximate onsite area of 5.8 acres. Soils within the wetland are derived from alluvium and poorly drained glacial till. The wetland contributes to a variety of wetland functions given its structurally diverse composition, dominance of native plants, and perennial hydrology.

If you have any questions regarding this soil scientist report, please do not hesitate to contact me directly at (203)-344-7889 or mraymond@slrconsulting.com.

Very truly yours,

**SLR International Corporation**



Megan B. Raymond, MS, PWS  
Principal Scientist, Wetlands and Waterways Lead

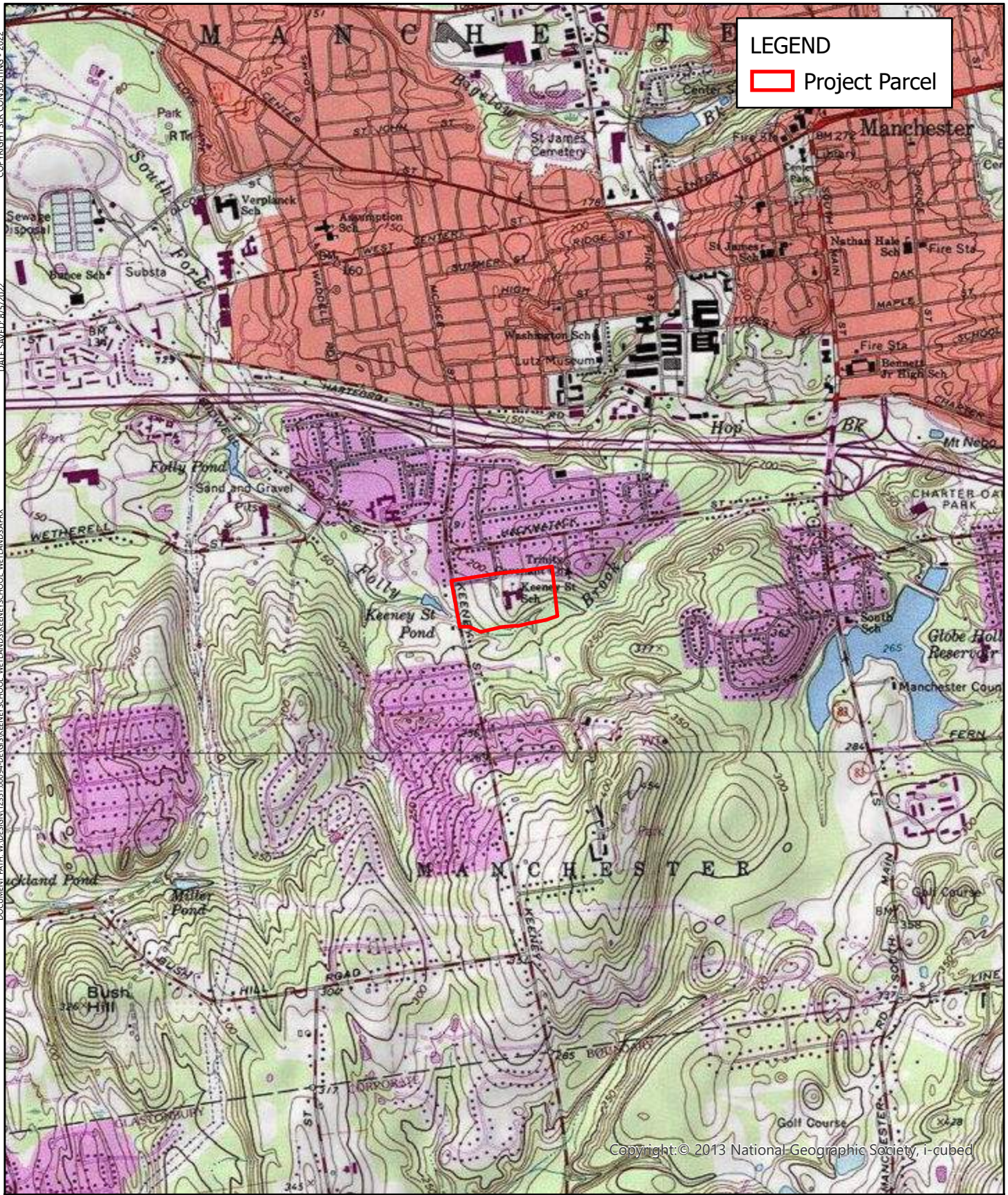
Enclosures:


Figures

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**LEGEND**  
 Project Parcel

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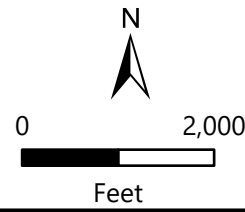


195 CHURCH STREET  
7TH FLOOR  
NEW HAVEN, CT 06511  
203.344.7887

USGS LOCUS  


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 KEENEY ELEMENTARY SCHOOL  
 TSKP STUDIO  
 179 KEENEY STREET  
 MANCHESTER, CONNECTICUT





SCALE	1" = 2,000'
DATE	8/5/2022
PROJ. NO.	141.12351.00094

**FIG. 1**

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DATE SAVED: 8/31/2022

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**LEGEND**

-  Project Parcel
-  NRCS Soil Unit Boundary

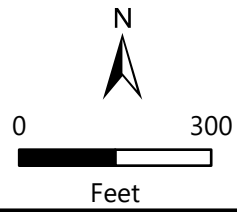


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195 CHURCH STREET  
7TH FLOOR  
NEW HAVEN, CT 06511  
203.344.7887

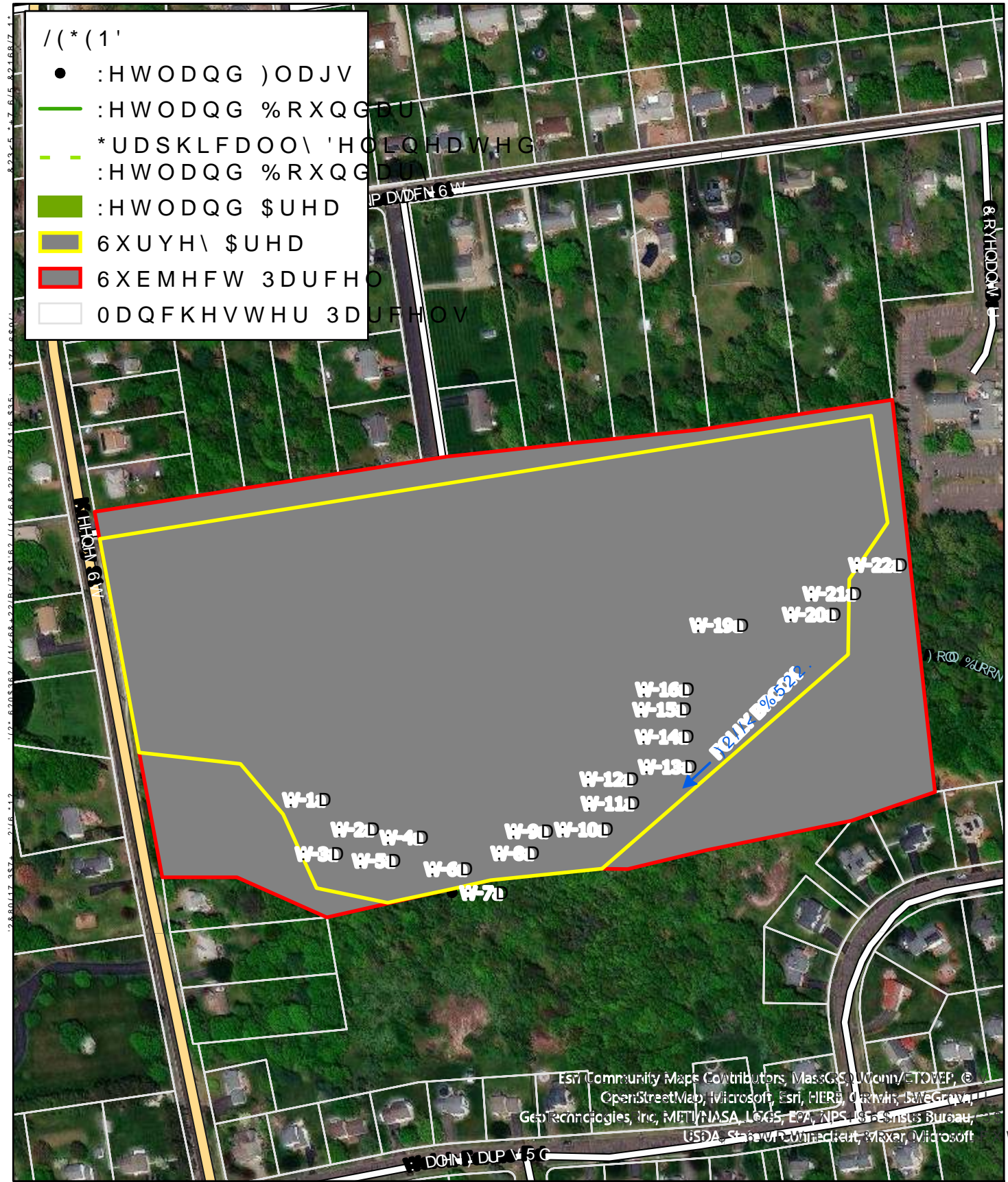
**NRCS SOIL MAP**  
KEENEY ELEMENTARY SCHOOL  
TSKP STUDIO  
179 KEENEY STREET  
MANCHESTER, CONNECTICUT



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PROJ. NO.	141.12351.00094

**FIG. 2**





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**GENERAL NOTES**

- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED UPON AN A-2 AND T-2 SURVEY PREPARED BY SLR CONSULTING ENTITLED "PROPERTY SURVEY/TOPOGRAPHIC SURVEY, KEENEY ELEMENTARY SCHOOL, 179 KEENEY STREET, MANCHESTER, CONNECTICUT" DATED MARCH 22, 2022.
- NORTH BASED UPON TOWN OF MANCHESTER HORIZONTAL CONTROL MONUMENTS, HOLDING THE FOLLOWING PUBLISHED COORDINATE VALUES:  

#532	N: 836618.768	#533	N: 836725.608
	E: 1056899.595		E: 1057549.207
- ELEVATIONS, CONTOURS AND BENCHMARKS ARE BASED UPON NAVD 1988 USING TOWN OF MANCHESTER CONTROL MONUMENTS #532 AND #533.
- INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION, MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
- SLR INTERNATIONAL CORPORATION ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
- ALL UTILITY SERVICES ARE TO BE UNDERGROUND. THE EXACT LOCATION AND SIZE OF ELECTRIC, TELEPHONE, CABLE TELEVISION AND GAS ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
- ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, AND BE SEEDED WITH GRASS OR SODDED, AS SHOWN ON THE PLANS.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
- ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF MANCHESTER REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 818 AND ADDENDUMS
- THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
- ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS SHOULD BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
- THE BUILDING IS SERVED BY THE TOWN OF MANCHESTER PUBLIC WATER SYSTEM AND THE MANCHESTER SEWER DEPARTMENT.
- COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
- THE CONTRACTOR MUST MAINTAIN (REPAIR/REPLACE WHEN NECESSARY) THE SILTATION CONTROL UNTIL ALL DEVELOPMENT ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- ANY WORK DONE WITHIN THE TOWN'S RIGHT OF WAY WILL REQUIRE A STREET EXCAVATION PERMIT.
- ALL GUTTER, ROOF DRAINS, AND FOUNDATION DRAINS SHALL BE CONNECTED TO THE PROPOSED STORM DRAINAGE SYSTEM UNLESS OTHERWISE NOTED ON PLANS. EXISTING STORM DRAINAGE, SANITARY AND OTHER UTILITIES TO REMAIN SHALL BE MAINTAINED AND PROTECTED DURING CONSTRUCTION.

**GENERAL CONSTRUCTION SEQUENCE**

- CALL "CALL BEFORE YOU DIG" FOR MARK OUT OF ALL UTILITIES.
- PRIOR TO COMMENCEMENT OF WORK A PRE CONSTRUCTION MEETING SHALL BE HELD WITH TOWN STAFF AND REPRESENTATIVES OF THE CONTRACTOR AND OWNER. AT THIS MEETING, ONE PERSON WILL BE PLACED IN CHARGE OF SEDIMENT AND EROSION CONTROL FOR THE ENTIRE SITE.
- ESTABLISH TREE PROTECTION FENCING AND EROSION & SEDIMENTATION CONTROLS PRIOR TO DEMOLITION.
- DEMOLISH EXISTING HARDSCAPE, LANDSCAPING, UTILITIES, SIGNAGE AND OTHER ITEMS AS IDENTIFIED ON THE REMOVALS PLAN.
- CONSTRUCT UNDERGROUND STORMWATER MANAGEMENT SYSTEM, TO PROTECT COMPACTION OF EXISTING SOILS, USE OF HEAVY EQUIPMENT AND STOCKPILING OF MATERIALS SHOULD BE AVOIDED IN THIS AREA. THE BED SHALL BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION. RUNOFF FROM EXPOSED SOIL AREAS SHOULD BE DIVERTED AROUND THE BED UNTIL THE SITE IS SUFFICIENTLY STABILIZED.
- CONSTRUCT SCHOOL ADDITION, UTILITIES, ROADS AND OTHER SITE IMPROVEMENTS AS SHOWN.
- PERMANENTLY STABILIZE ALL DISTURBED AREAS.
- CLEAN STORM DRAINAGE SYSTEM AS NECESSARY TO REMOVE ANY SEDIMENT OR DEBRIS COLLECTED DURING CONSTRUCTION.
- COMPLETE ALL SIGNAGE AND PAVEMENT MARKINGS.

**PROJECT DATA:**

AREA:	± 1,183,140 S.F. (± 27.161 AC.)
ZONE:	RURAL RESIDENCE (RR/AA)
EXISTING & PROPOSED USE:	ELEMENTARY SCHOOL

**RA ZONING DATA:**

	ALLOWED	PROVIDED
MIN. LOT AREA	30,000 S.F.	± 1,183,140 S.F.
MAX. BUILDING AREA OF LOT	30%	6.2%
MIN. FRONT YARD SETBACK	50'	205.8'
MIN. SIDE YARD SETBACK	15'	498'
MIN. REAR YARD SETBACK	30' OR 25% OF LOT DEPTH	307'
MIN. BUILDING-LINE DIMENSION	150'	807'
MIN. LOT FRONTAGE	200'	705.5'
MAX. BUILDING HEIGHT	35'	< 35'

**PARKING DATA:**

EXISTING SPACES:	71 (INCLUDING 6 ACCESSIBLE SPACES)
REQUIRED SPACES:	PER ZONING REGULATION 9.03.22 - THE NUMBER OF SPACES SHALL BE SUFFICIENT TO ACCOMMODATE PERSONNEL, STUDENTS, EXPECTED VISITORS, AND SERVICE VEHICLES, DEPENDING ON THE NATURE OF THE SCHOOL.
PROVIDED SPACES:	122 (INCLUDING 6 ACCESSIBLE SPACES)
ACCESSIBLE SPACES:	6 (4 VAN ACCESSIBLE), + 1 LOADING/UNLOADING ZONE



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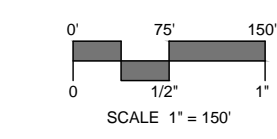
**TOWN OF MANCHESTER WATER AND SANITARY SEWER CONSTRUCTION NOTES**

- A PRECONSTRUCTION MEETING WITH TOWN STAFF IS REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES DEPICTED ON THESE DRAWINGS ARE FROM THE BEST AVAILABLE SOURCES. SUCH INFORMATION IS FURNISHED ONLY FOR THE INFORMATION OF THE CONTRACTOR AND IS NOT GUARANTEED.
- THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
- THE LOCATIONS OF ALL PROPOSED UNDERGROUND UTILITIES (I.E. GAS, TELEPHONE, CABLE TV, ELECTRIC, ETC.) SHALL BE APPROVED BY THE TOWN PRIOR TO CONSTRUCTION.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST REVISION OF THE TOWN OF MANCHESTER "PUBLIC IMPROVEMENT STANDARDS".
- AT ALL UTILITY CROSSINGS A MINIMUM 18" VERTICAL SEPARATION DISTANCE SHALL BE PROVIDED FROM WATER OR SEWER UTILITIES UNLESS INDICATED OTHERWISE ON THE PLANS OR AS APPROVED BY THE TOWN. A CONCRETE GRADLE SHALL BE UTILIZED IF A MINIMUM VERTICAL SEPARATION DISTANCE OF LESS THAN 12" IS ALLOWED BY THE TOWN. A MINIMUM HORIZONTAL SEPARATION DISTANCE OF 10' SHALL BE PROVIDED BETWEEN WATER AND SEWER UTILITIES. PROVIDE 5' MINIMUM SEPARATION DISTANCE BETWEEN WATER AND SEWER UTILITIES AND GAS MAINS. PROVIDE 5' MINIMUM SEPARATION DISTANCE BETWEEN WATER OR SEWER UTILITIES AND STORM DRAIN LINES. PROVIDE 2' MINIMUM SEPARATION DISTANCE BETWEEN WATER MAINS AND CATCH BASINS.
- ALL EXISTING WATER OR SANITARY SEWER SERVICES THAT WILL NOT BE REUSED AS PART OF THE FUTURE DEVELOPMENT SHALL BE ABANDONED AT THE MAIN IN ACCORDANCE WITH PROCEDURES SET FORTH BY THE TOWN.
- ALL PROPOSED WATER AND SEWER EASEMENTS SHALL BE DESCRIBED BY METES AND BOUNDS. PROPOSED EASEMENTS SHALL BE APPROVED BY THE TOWN AND FILED WITH THE TOWN CLERK PRIOR TO MAKING A REQUEST FOR A CERTIFICATE OF OCCUPANCY. PROVIDE VOLUME AND PAGE REFERENCES FOR ALL EXISTING WATER AND SEWER EASEMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY HANDLING OF SANITARY SEWAGE FLOWS DURING CONSTRUCTION. METHODS OF HANDLING SEWAGE FLOWS SHALL BE APPROVED BY THE TOWN.
- THRUST RESTRAINT FOR ALL MECHANICAL JOINTS AT VALVES AND FITTINGS SHALL BE PROVIDED BY MEANS OF DUCTILE IRON RESTRAINER GLANDS, WEDGE-ACTION JOINT RESTRAINERS OR GASKET-TYPE JOINT RESTRAINT SHALL BE USED TO RESTRAIN ALL DUCTILE IRON PIPE JOINTS FOR A DISTANCE OF AT LEAST 27 FEET ON EACH SIDE OF ALL VALVES OR FITTINGS. NO MORE THAN ONE PIPE JOINT SHALL BE ALLOWED WITHIN THAT 27 FEET OF PIPE.
- ALL VALVE BOXES AND CURB BOXES SHALL BE ADJUSTED TO THE FINAL GRADES. ALL CURB BOXES SHALL BE LOCATED IN GRASSED AREAS AT THE STREETLINE FRONTING THE PROPERTY UNLESS INDICATED OTHERWISE ON THE PLANS.
- ALL VALVES AND HYDRANTS SHALL BE LEFT OPENING (COUNTER CLOCKWISE) BASED ON THEIR LOCATION IN TOWN. THE CONTRACTOR SHALL VERIFY THE DIRECTION OF OPENING PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. ALL MAIN LINE AND AUXILIARY VALVES (4" TO AND INCLUDING 12") SHALL BE RESILIENT WEDGE GATE VALVES.
- ALL WATER MAINS SHALL HAVE 4 1/2 FEET OF COVER UNLESS OTHERWISE INDICATED ON THE PLANS. COVER LESS THAN OR IN EXCESS OF 4 1/2 FEET SHALL BE ALLOWED ONLY AS INDICATED ON THE PLANS OR APPROVED BY THE TOWN. WATER MAINS HAVING COVER LESS THAN 4 1/2 FEET SHALL BE INSULATED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY TEMPORARY THRUST RESTRAINT THAT MAY BE REQUIRED.
- WHEN DOMESTIC OR FIRE WATER SERVICES GREATER THAN OR EQUAL TO 4" IN DIAMETER ARE PROPOSED TO BE CONNECTED TO THE WATER MAIN USING A TAPPING SLEEVE AND VALVE A WET TAP CONTRACTOR PREAPPROVED BY THE TOWN SHALL BE USED.
- ALL EXISTING HYDRANTS TO BE REMOVED OR REPLACED SHALL BE SALVAGED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE TOWN. ALL OTHER MATERIALS WHICH ARE REMOVED FROM THE ROADWAY SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF PROPERLY UNLESS OTHERWISE INDICATED OTHERWISE ON THE PLANS.

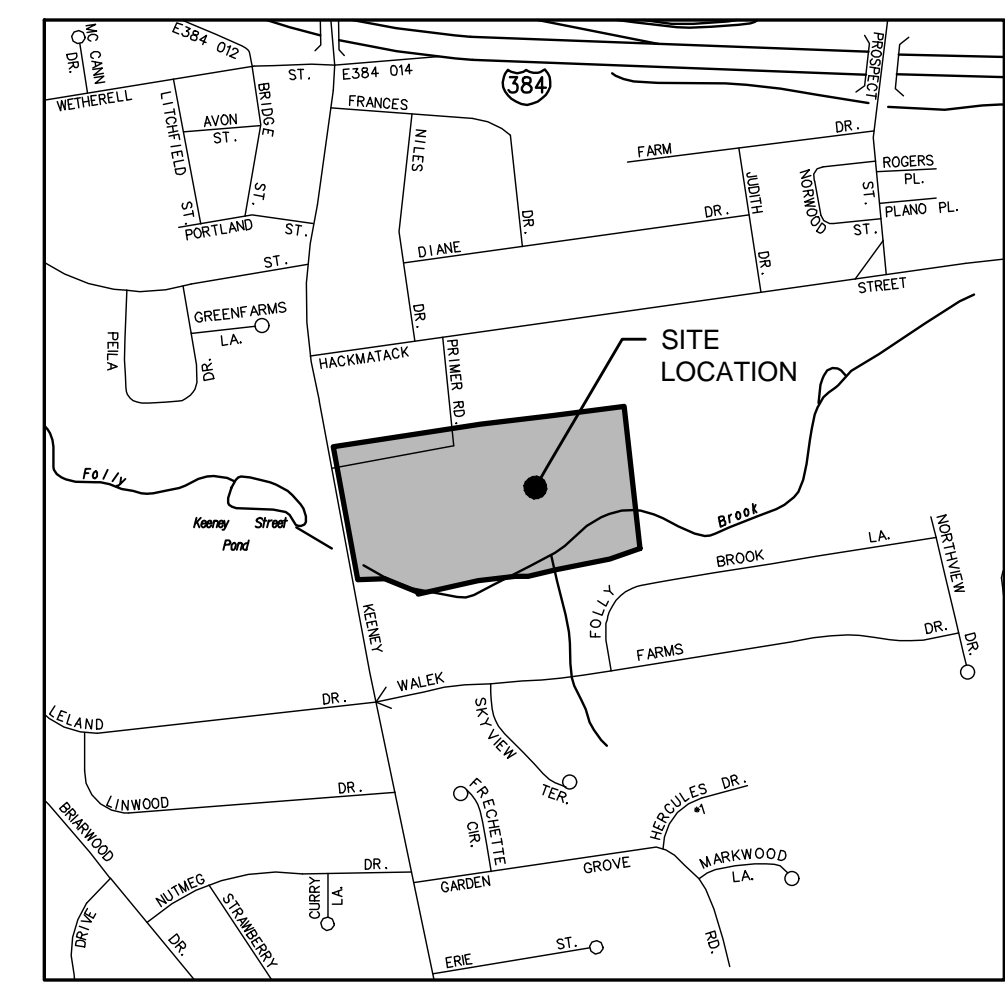


**INDEX PLAN**

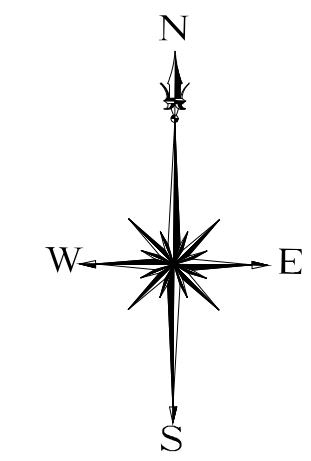
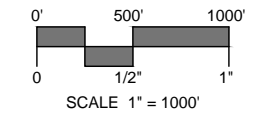
SHEET NUMBER	SHEET TITLE
C0.00	SITE NOTES & INDEX PLAN
C1.00	SITE PLAN - EXISTING CONDITIONS
C2.00	SITE PLAN - REMOVALS
C3.00	SITE PLAN - LAYOUT & LANDSCAPING
C4.00	SITE PLAN - GRADING
C5.00	SITE PLAN - UTILITIES
C6.00	SITE PLAN - SEDIMENT & EROSION CONTROLS
C7.00	SITE PLAN - ACCESSIBLE ROUTES
C8.00	SITE DETAILS
C8.01	SITE DETAILS
C8.02	SITE DETAILS
C8.03	SITE DETAILS
C8.04	SITE DETAILS
C8.05	SITE DETAILS
C8.06	SITE DETAILS
C8.07	SITE DETAILS



**APPROVED**  
PLANNING AND ZONING COMMISSION  
MANCHESTER, CT  
DATE: \_\_\_\_\_  
SIGNED: \_\_\_\_\_



**LOCATION MAP:**



**PREPARED FOR:**  
TOWN OF MANCHESTER  
PLANNING DEPARTMENT  
494 MAIN STREET  
P.O. BOX 191  
MANCHESTER, CT 06045-0191

**STANDARD NOTES FOR SITE DEVELOPMENT APPLICATIONS**

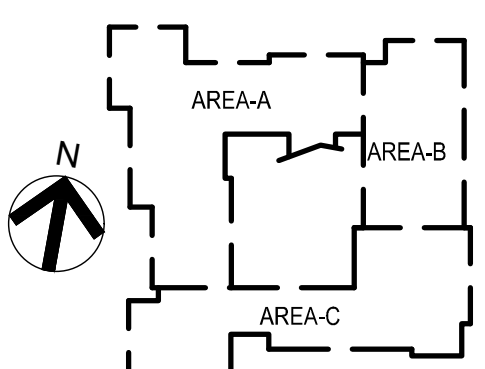
- ALL MATERIALS AND METHODS OF CONSTRUCTION WITHIN THE PUBLIC ROAD RIGHT-OF-WAY AND FOR PROPOSED UTILITIES SHALL CONFORM TO THE MANCHESTER PUBLIC IMPROVEMENT STANDARDS, EFFECTIVE JANUARY 19, 2004, AS AMENDED.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- RECORD DRAWINGS SHALL BE SUBMITTED TO THE TOWN OF MANCHESTER ENGINEERING DIVISION IN ACCORDANCE WITH SECTION 5.01 OF THE MANCHESTER PUBLIC IMPROVEMENT STANDARDS UPON COMPLETION OF THE WORK. THE DRAWINGS SHALL BE IN A FORM ACCEPTABLE TO THE ENGINEERING DIVISION AND SHALL BE APPROVED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCURING ALL INFORMATION NECESSARY TO GENERATE DRAWINGS AND FOR PROVIDING THE ACTUAL DRAWINGS TO THE TOWN.
- THE CONTRACTOR MUST CONTACT CALL-BEFORE-YOU-DIG AT 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
- IN ACCORDANCE WITH TOWN OF MANCHESTER ORDINANCE 14-57, THE CONTRACTOR SHALL REPLACE ALL BROKEN OR DAMAGED SIDEWALK AND CURBS ALONG THE FRONTAGE OF THE PROPERTY AS DIRECTED BY THE TOWN.
- AN APPROVED EROSION CONTROL BOND IS REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
- THE STORMWATER TREATMENT SYSTEM MUST BE DESIGNED TO REMOVE A MINIMUM OF 80% OF THE TOTAL SUSPENDED SOLIDS FROM THE WATER QUALITY FLOW OF 1.04 CFS WITH INTERNAL BYPASS OF THE 10-YEAR DESIGN STORM FLOW OF 7.04 CFS. THE SYSTEM MUST BE INSPECTED AND CLEANED EVERY SIX (6) MONTHS OR PER THE MANUFACTURER'S RECOMMENDATION, WHICHEVER IS MORE FREQUENT. SHOP DRAWINGS OF THE PROPOSED SYSTEM MUST FIRST BE APPROVED BY THE DESIGN ENGINEER THEN SUBMITTED TO THE TOWN FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWING SUBMITTALS MUST INCLUDE:
  - "TREATED" FLOW FOR THE SPECIFIED SYSTEM AND MODEL, WHICH MUST EQUAL OR EXCEED THE WATER QUALITY FLOW
  - "CONVEYED" FLOW FOR THE SPECIFIED SYSTEM AND MODEL, WHICH MUST EQUAL OR EXCEED THE DESIGN STORM FLOW
  - CALCULATIONS OR DOCUMENTATION VERIFYING THAT 80% (MIN.) OF THE AVERAGE ANNUAL TOTAL SUSPENDED SOLIDS WILL BE REMOVED FROM THE WATER QUALITY FLOW
  - CALCULATIONS OF THE HYDRAULIC GRADE LINE ELEVATIONS FOR THE DESIGN STORM EVENT IN THE FIRST STRUCTURE LOCATED UPSTREAM OF THE SYSTEM AND ANY OTHER CRITICAL LOCATIONS
  - ORIENTATION OF THE SYSTEM IN PLAN VIEW WITH RESPECT TO THE APPROVED SITE PLAN (IF DIFFERENT THAN SHOWN ON THE APPROVED PLANS)
  - PROPOSED SIZE AND ELEVATION OF CRITICAL WEIR, ORIFICE, PIPE INVERT ELEVATIONS, AND OTHER DESIGN ELEMENTS THAT CORRESPOND TO THE HYDRAULIC CHARACTERISTICS OF THE SYSTEM

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SLRCONSULTING.COM

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MANCHESTER, CT 06040

**P&Z SUBMISSION**



**DRAWING TITLE**

**SITE NOTES & INDEX PLAN**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	AS NOTED
DATE:	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	ISSUE DATE	PURPOSE

**C0.00**

**APPROVED**  
**PLANNING AND ZONING**  
**COMMISSION**  
**MANCHESTER, CT**

DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

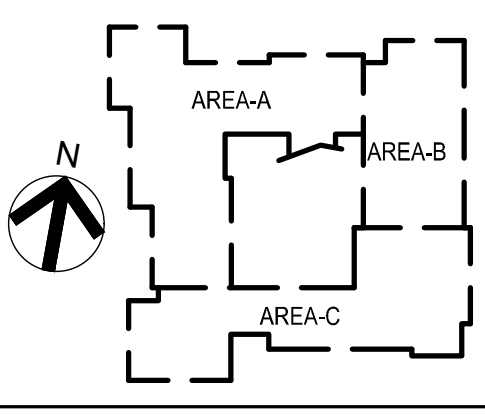
**Existing Conditions**

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**STUDIO**  
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 146 Wyllys Street, Bldg 1-203  
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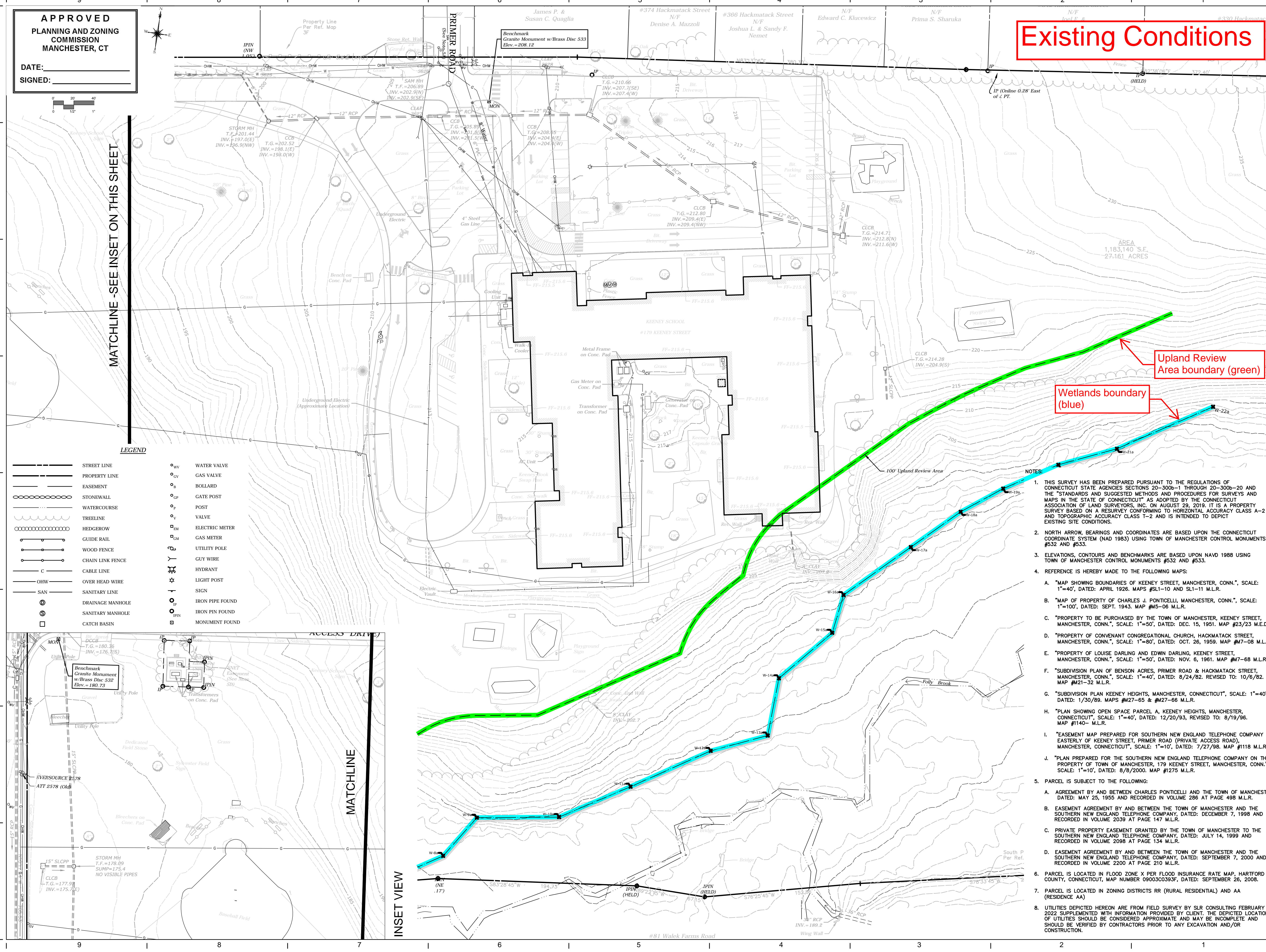


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**SITE PLAN - EXISTING**  
**CONDITIONS**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	DATE	PURPOSE

**C1.00**



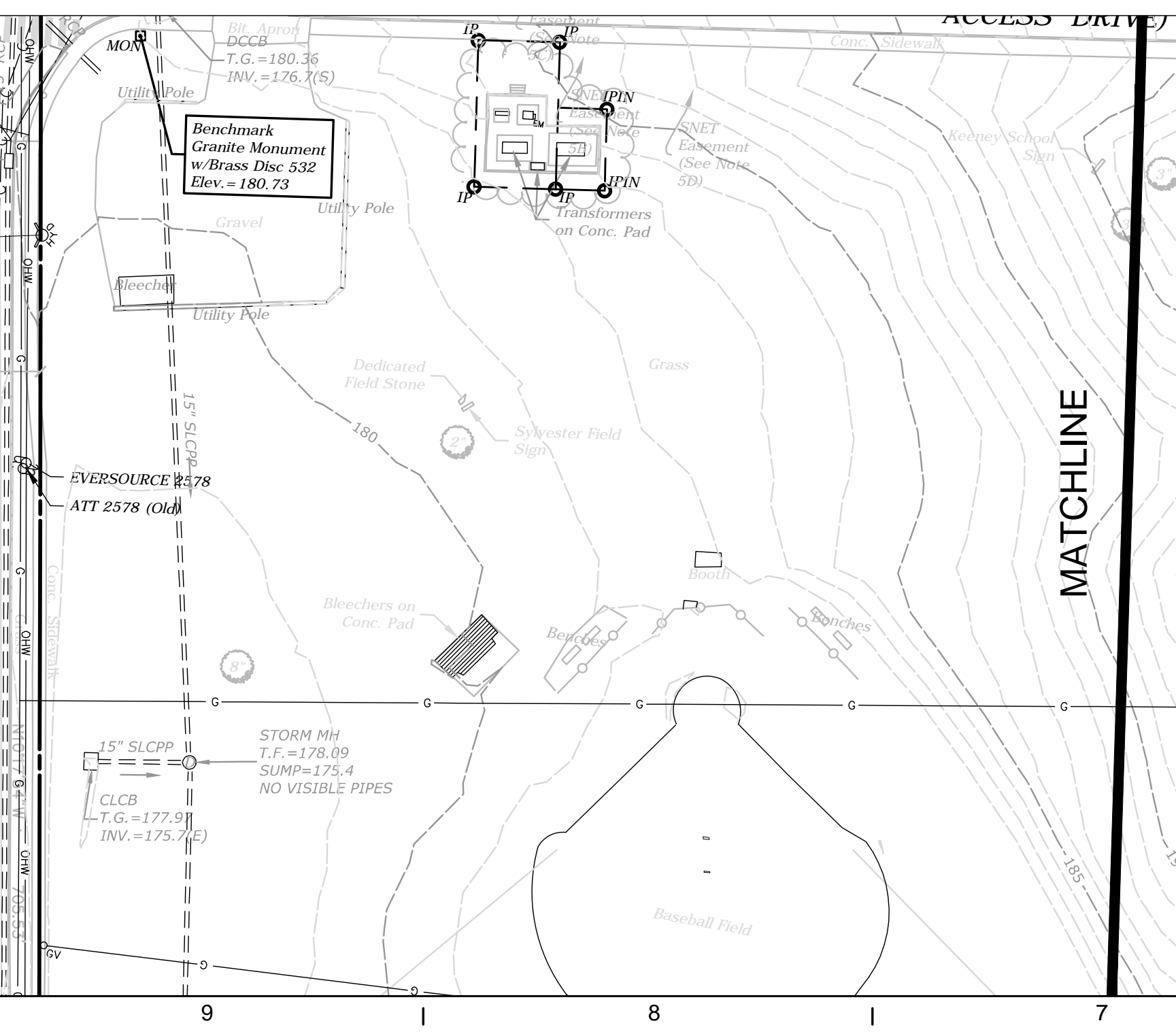
MATCHLINE - SEE INSET ON THIS SHEET

**LEGEND**

- STREET LINE
- PROPERTY LINE
- EASEMENT
- STONEWALL
- WATERCOURSE
- TREELINE
- HEDGEROW
- GUIDE RAIL
- WOOD FENCE
- CHAIN LINK FENCE
- C --- CABLE LINE
- OHW --- OVER HEAD WIRE
- SAN --- SANITARY LINE
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- CATCH BASIN
- W --- WATER VALVE
- G --- GAS VALVE
- B --- BOLLARD
- P --- GATE POST
- --- POST
- V --- VALVE
- M --- ELECTRIC METER
- G --- GAS METER
- U --- UTILITY POLE
- W --- GUY WIRE
- H --- HYDRANT
- P --- LIGHT POST
- S --- SIGN
- IP --- IRON PIPE FOUND
- IP --- IRON PIN FOUND
- M --- MONUMENT FOUND

**NOTES**

- THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS AND SUGGESTED METHODS AND PROCEDURES FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29, 2019. IT IS A PROPERTY SURVEY BASED ON A RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS T-2 AND IS INTENDED TO DEPICT EXISTING SITE CONDITIONS.
- NORTH ARROW, BEARINGS AND COORDINATES ARE BASED UPON THE CONNECTICUT COORDINATE SYSTEM (NAD 1983) USING TOWN OF MANCHESTER CONTROL MONUMENTS #532 AND #533.
- ELEVATIONS, CONTOURS AND BENCHMARKS ARE BASED UPON NAVD 1988 USING TOWN OF MANCHESTER CONTROL MONUMENTS #532 AND #533.
- REFERENCE IS HEREBY MADE TO THE FOLLOWING MAPS:
  - "MAP SHOWING BOUNDARIES OF KEENEY STREET, MANCHESTER, CONN.", SCALE: 1"=40', DATED: APRIL 1926. MAPS #SL1-10 AND SL1-11 M.L.R.
  - "MAP OF PROPERTY OF CHARLES J. PONTICELLI, MANCHESTER, CONN.", SCALE: 1"=100', DATED: SEPT. 1943. MAP #M5-06 M.L.R.
  - "PROPERTY TO BE PURCHASED BY THE TOWN OF MANCHESTER, KEENEY STREET, MANCHESTER, CONN.", SCALE: 1"=50', DATED: DEC. 15, 1951. MAP #23/23 M.E.O.
  - "PROPERTY OF CONVENANT CONGREGATIONAL CHURCH, HACKMATAK STREET, MANCHESTER, CONN.", SCALE: 1"=80', DATED: OCT. 26, 1959. MAP #M7-08 M.L.R.
  - "PROPERTY OF LOUISE DARLING AND EDWIN DARLING, KEENEY STREET, MANCHESTER, CONN.", SCALE: 1"=50', DATED: NOV. 6, 1961. MAP #M7-68 M.L.R.
  - "SUBDIVISION PLAN OF BENSON ACRES, PRIMER ROAD & HACKMATAK STREET, MANCHESTER, CONN.", SCALE: 1"=40', DATED: 8/24/82. REVISED TO: 10/6/82. MAP #M21-32 M.L.R.
  - "SUBDIVISION PLAN KEENEY HEIGHTS, MANCHESTER, CONNECTICUT", SCALE: 1"=40', DATED: 1/30/89. MAPS #M27-65 & #M27-66 M.L.R.
  - "PLAN SHOWING OPEN SPACE PARCEL A, KEENEY HEIGHTS, MANCHESTER, CONNECTICUT", SCALE: 1"=40', DATED: 12/20/93, REVISED TO: 8/19/96. MAP #1140- M.L.R.
  - "EASEMENT MAP PREPARED FOR SOUTHERN NEW ENGLAND TELEPHONE COMPANY EASTERLY OF KEENEY STREET, PRIMER ROAD (PRIVATE ACCESS ROAD), MANCHESTER, CONNECTICUT", SCALE: 1"=10', DATED: 7/27/98. MAP #1118 M.L.R.
  - "PLAN PREPARED FOR THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY ON THE PROPERTY OF TOWN OF MANCHESTER, 179 KEENEY STREET, MANCHESTER, CONN.", SCALE: 1"=10', DATED: 8/8/2000. MAP #1275 M.L.R.
- PARCEL IS SUBJECT TO THE FOLLOWING:
  - AGREEMENT BY AND BETWEEN CHARLES PONTICELLI AND THE TOWN OF MANCHESTER DATED: MAY 25, 1955 AND RECORDED IN VOLUME 286 AT PAGE 498 M.L.R.
  - EASEMENT AGREEMENT BY AND BETWEEN THE TOWN OF MANCHESTER AND THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY, DATED: DECEMBER 7, 1998 AND RECORDED IN VOLUME 2039 AT PAGE 147 M.L.R.
  - PRIVATE PROPERTY EASEMENT GRANTED BY THE TOWN OF MANCHESTER TO THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY, DATED: JULY 14, 1999 AND RECORDED IN VOLUME 2098 AT PAGE 134 M.L.R.
  - EASEMENT AGREEMENT BY AND BETWEEN THE TOWN OF MANCHESTER AND THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY, DATED: SEPTEMBER 7, 2000 AND RECORDED IN VOLUME 2200 AT PAGE 210 M.L.R.
- PARCEL IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP, HARTFORD COUNTY, CONNECTICUT, MAP NUMBER 09030C0393F, DATED: SEPTEMBER 26, 2008.
- PARCEL IS LOCATED IN ZONING DISTRICTS RR (RURAL RESIDENTIAL) AND AA (RESIDENCE AA)
- UTILITIES DEPICTED HEREON ARE FROM FIELD SURVEY BY SLR CONSULTING FEBRUARY 2022 SUPPLEMENTED WITH INFORMATION PROVIDED BY CLIENT. THE DEPICTED LOCATION OF UTILITIES SHOULD BE CONSIDERED APPROXIMATE AND MAY BE INCOMPLETE AND SHOULD BE VERIFIED BY CONTRACTORS PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION.



INSET VIEW

MATCHLINE

**APPROVED**  
**PLANNING AND ZONING**  
**COMMISSION**  
**MANCHESTER, CT**

DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

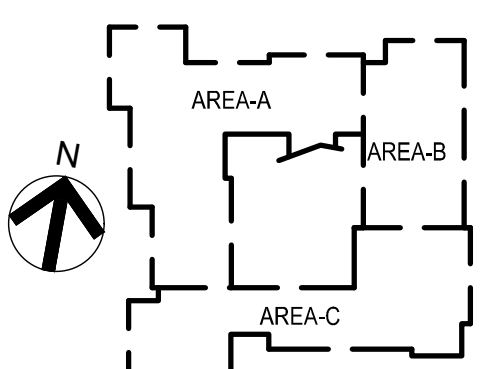
**Demolition/Removals**

**TSKP**  
**STUDIO**  
 One Hartford Square West  
 146 Wyllys Street, Bldg 1-203  
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 860.547.1970  
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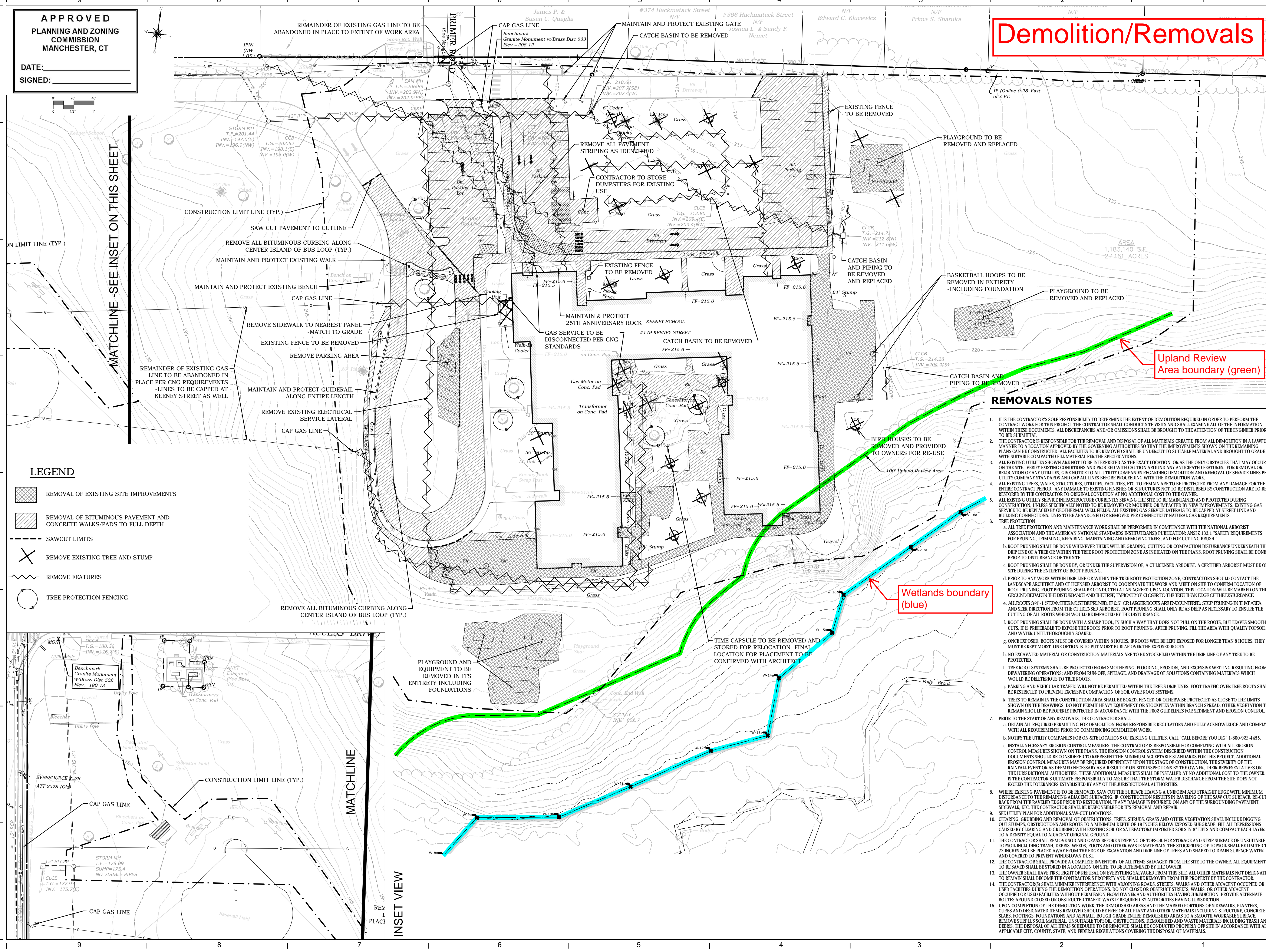
DRAWING TITLE

**SITE PLAN - REMOVALS**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	DATE	PURPOSE

**C2.00**



**REMOVALS NOTES**

- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED IN ORDER TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL OF THE INFORMATION WITH THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL MATERIALS CREATED FROM ALL DEMOLITION IN A LAWFUL MANNER TO A LOCATION APPROVED BY THE GOVERNING AUTHORITIES SO THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLAN CAN BE CONSTRUCTED. ALL MATERIALS TO BE REMOVED SHALL BE UNDERLIFT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
- ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. FOR REMOVAL OR RELOCATION OF ANY UTILITIES, GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DEMOLITION AND REMOVAL OF SERVICE LINES PER UTILITY COMPANY STANDARDS AND CAP ALL LINES BEFORE PROCEEDING WITH THE DEMOLITION WORK.
- ALL EXISTING TREES, WALKS, STRUCTURES, UTILITIES, FACILITIES, ETC. TO REMAIN ARE TO BE PROTECTED FROM ANY DAMAGE FOR THE ENTIRE CONTRACT PERIOD. ANY DAMAGE TO EXISTING FINISHES OR STRUCTURES NOT TO BE DISTURBED BY CONSTRUCTION ARE TO BE RESTORED BY THE CONTRACTOR TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXISTING UTILITY SERVICE INFRASTRUCTURE CURRENTLY SERVING THE SITE TO BE MAINTAINED AND PROTECTED DURING CONSTRUCTION, UNLESS SPECIFICALLY NOTED TO BE REMOVED OR MODIFIED OR IMPACTED BY NEW IMPROVEMENTS. EXISTING GAS SERVICE TO BE REPLACED BY GEOTHERMAL WELL FIELDS. ALL EXISTING GAS SERVICE LATERALS TO BE CAPPED AT STREET LINE AND BUILDING CONNECTIONS. LINES TO BE ABANDONED OR REMOVED PER CONNECTICUT NATURAL GAS REQUIREMENTS.
- TREE PROTECTION**
  - ALL TREE PROTECTION AND MAINTENANCE WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE NATIONAL ARBORIST ASSOCIATION AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATION: ANSI Z133.1 "SAFETY REQUIREMENTS FOR PRUNING, TRIMMING, REPAIRING, MAINTAINING AND REMOVING TREES, AND FOR CUTTING BRUSH."
  - ROOT PRUNING SHALL BE DONE WHENEVER THERE WILL BE GRADING, CUTTING OR COMPACTION DISTURBANCE UNDERNEATH THE DRIP LINE OF A TREE OR WITHIN THE TREE ROOT PROTECTION ZONE AS INDICATED ON THE PLANS. ROOT PRUNING SHALL BE DONE PRIOR TO DISTURBANCE OF THE SITE.
  - ROOT PRUNING SHALL BE DONE BY, OR UNDER THE SUPERVISION OF, A CT LICENSED ARBORIST. A CERTIFIED ARBORIST MUST BE ON SITE DURING THE ENTIRETY OF ROOT PRUNING.
  - PRIOR TO ANY WORK WITHIN DRIP LINE OR WITHIN THE TREE ROOT PROTECTION ZONE, CONTRACTORS SHOULD CONTACT THE LANDSCAPE ARCHITECT AND CT LICENSED ARBORIST TO COORDINATE THE WORK AND MEET ON SITE TO CONFIRM LOCATION OF ROOT PRUNING. ROOT PRUNING SHALL BE CONDUCTED AT AN AGREED UPON LOCATION. THIS LOCATION WILL BE MARKED ON THE GROUND BETWEEN THE DISTURBANCE AND THE TREE, TYPICALLY 6' CLOSER TO THE TREE THAN THE EDGE OF THE DISTURBANCE.
  - ALL ROOTS 3/4" - 1.5" DIAMETER MUST BE PRUNED. IF 2" OR LARGER ROOTS ARE EXPOSED, STOP PRUNING THAT AREA AND SEEK DIRECTION FROM THE CT LICENSED ARBORIST. ROOT PRUNING SHALL ONLY BE AS DEEP AS NECESSARY TO ENSURE THE CUTTING OF ALL ROOTS WHICH WOULD BE IMPACTED BY THE DISTURBANCE.
  - ROOT PRUNING SHALL BE DONE WITH A SHARP TOOL, IN SUCH A WAY THAT DOES NOT PULL ON THE ROOTS, BUT LEAVES SMOOTH CUTS. IT IS PREFERABLE TO EXPOSE THE ROOTS PRIOR TO ROOT PRUNING. AFTER PRUNING, FILL THE AREA WITH QUALITY TOPSOIL AND WATER UNTIL THOROUGHLY SOAKED.
  - ONCE EXPOSED, ROOTS MUST BE COVERED WITHIN 8 HOURS. IF ROOTS WILL BE LEFT EXPOSED FOR LONGER THAN 8 HOURS, THEY MUST BE KEPT MOIST. ONE OPTION IS TO PUT MOIST BURLAP OVER THE EXPOSED ROOTS.
  - NO EXCAVATED MATERIAL OR CONSTRUCTION MATERIALS ARE TO BE STOCKPILED WITHIN THE DRIP LINE OF ANY TREE TO BE PROTECTED.
  - TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EROSION, AND EXCESSIVE WETTING, RESULTING FROM DEWATERING OPERATIONS, AND FROM RUN-OFF, SPILLAGE, AND DRAINAGE OF SOLUTIONS CONTAINING MATERIALS WHICH WOULD BE DELETERIOUS TO TREE ROOTS.
  - PARKING AND VEHICULAR TRAFFIC WILL NOT BE PERMITTED WITHIN THE TREE'S DRIP LINES. FOOT TRAFFIC OVER TREE ROOTS SHALL BE RESTRICTED TO PREVENT EXCESSIVE COMPACTION OF SOIL OVER ROOT SYSTEMS.
  - TREES TO REMAIN IN THE CONSTRUCTION AREA SHALL BE BOXED, FENCED OR OTHERWISE PROTECTED AS CLOSE TO THE LIMITS SHOWN ON THE DRAWINGS. DO NOT PERMIT HEAVY EQUIPMENT OR STOCKPILES WITHIN BRANCH SPREAD OR OTHER VEGETATION TO REMAIN SHOULD BE PROPERLY PROTECTED IN ACCORDANCE WITH THE 2002 GUIDELINES FOR SEDIMENT AND EROSION CONTROL.
- PRIOR TO THE START OF ANY REMOVALS, THE CONTRACTOR SHALL**
  - OBTAIN ALL REQUIRED PERMITTING FOR DEMOLITION FROM RESPONSIBLE REGULATORS AND FULLY ACKNOWLEDGE AND COMPLY WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
  - NOTIFY THE UTILITY COMPANIES FOR ON-SITE LOCATIONS OF EXISTING UTILITIES. CALL "CALL BEFORE YOU DIG" 1-800-922-4455.
  - INSTALL NECESSARY EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. THE EROSION CONTROL SYSTEM DESCRIBED WITHIN THE CONSTRUCTION DOCUMENTS SHOULD BE CONSIDERED TO REPRESENT THE MINIMUM ACCEPTABLE STANDARDS FOR THIS PROJECT. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDENT UPON THE STAGE OF CONSTRUCTION. THE SEVERITY OF THE RAINFALL EVENT OR AS DETERMINED NECESSARY AS A RESULT OF ON-SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES OR THE JURISDICTIONAL AUTHORITIES. THESE ADDITIONAL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER. IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO ASSURE THAT THE STORM WATER DISCHARGE FROM THE SITE DOES NOT EXCEED THE TOLERANCES ESTABLISHED BY ANY OF THE JURISDICTIONAL AUTHORITIES.
- WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW CUT THE SURFACE LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF CONSTRUCTION RESULTS IN RAVELING OF THE SAW CUT SURFACE, RE-CUT BACK FROM THE RAVELLED EDGE PRIOR TO RESTORATION. IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
- SEE UTILITY PLAN FOR ADDITIONAL SAW-CUT LOCATIONS.
- CLEARING, GRUBBING AND REMOVAL OF OBSTRUCTIONS, TREES, SHRUBS, GRASS AND OTHER VEGETATION SHALL INCLUDE DIGGING OUT STUMPS, OBSTRUCTIONS AND ROOTS TO A MINIMUM DEPTH OF 18 INCHES BELOW EXPOSED SUBGRADE. FILL ALL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING WITH EXISTING SOIL OR SATISFACTORY IMPORTED SOILS IN 8" LIFTS AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.
- THE CONTRACTOR SHALL REMOVE SOIL AND GRASS BEFORE STRIPPING OF TOPSOIL FOR STORAGE AND STRIP SURFACE OF UNSUITABLE TOPSOIL INCLUDING TRASH, DEBRIS, WEEDS, ROOTS AND OTHER WASTE MATERIALS. THE STOCKPILING OF TOPSOIL SHALL BE LIMITED TO 72 INCHES AND PLACED AWAY FROM THE EDGE OF EXCAVATION AND DRIP LINE OF TREES AND SHAPED TO DRAIN SURFACE WATER AND COVERED TO PREVENT WINDBLOWN DUST.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE INVENTORY OF ALL ITEMS SALVAGED FROM THE SITE TO THE OWNER. ALL EQUIPMENT TO BE SAVED SHALL BE STORED IN A LOCATION ON-SITE, TO BE DETERMINED BY THE OWNER.
- THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON EVERYTHING SALVAGED FROM THIS SITE. ALL OTHER MATERIALS NOT DESIGNATED TO REMAIN SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE PROPERTY BY THE CONTRACTOR.
- THE CONTRACTOR(S) SHALL MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES BY THE DEMOLITION WORKS. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- UPON COMPLETION OF THE DEMOLITION WORKS AND THE MARKED PORTIONS OF SIDEWALKS, PLANTERS, CURBS AND DESIGNATED ITEMS REMOVED SHALL BE FREE OF ALL PLANT AND OTHER MATERIALS INCLUDING STRUCTURE, CONCRETE SLABS, FOOTINGS, FOUNDATIONS AND ASPHALT. ROUGH GRADE ENTIRE DEMOLISHED AREAS TO A SMOOTH WORKABLE SURFACE. REMOVE SURPLUS SOIL MATERIAL, OBSTRUCTIONS, OBSTRUCTIONS, DEMOLISHED AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS. THE DISPOSAL OF ALL ITEMS SCHEDULED TO BE REMOVED SHALL BE CONDUCTED PROPERLY OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS COVERING THE DISPOSAL OF MATERIALS.

MATCHLINE - SEE INSET ON THIS SHEET

MATCHLINE

INSET VIEW

**APPROVED**  
**PLANNING AND ZONING**  
**COMMISSION**  
**MANCHESTER, CT**

DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

**Proposed Plan**

**TSKP**  
**STUDIO**

One Hartford Square West  
 146 Wyllys Street, Bldg 1-203  
 Hartford, CT 06106  
 860.547.1970

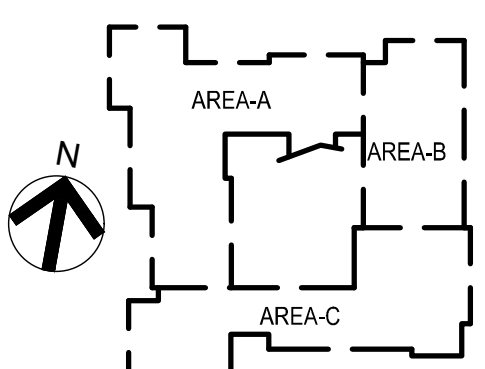
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**SLR**

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 GOSHUPE, CT 06410  
 203.271.1773  
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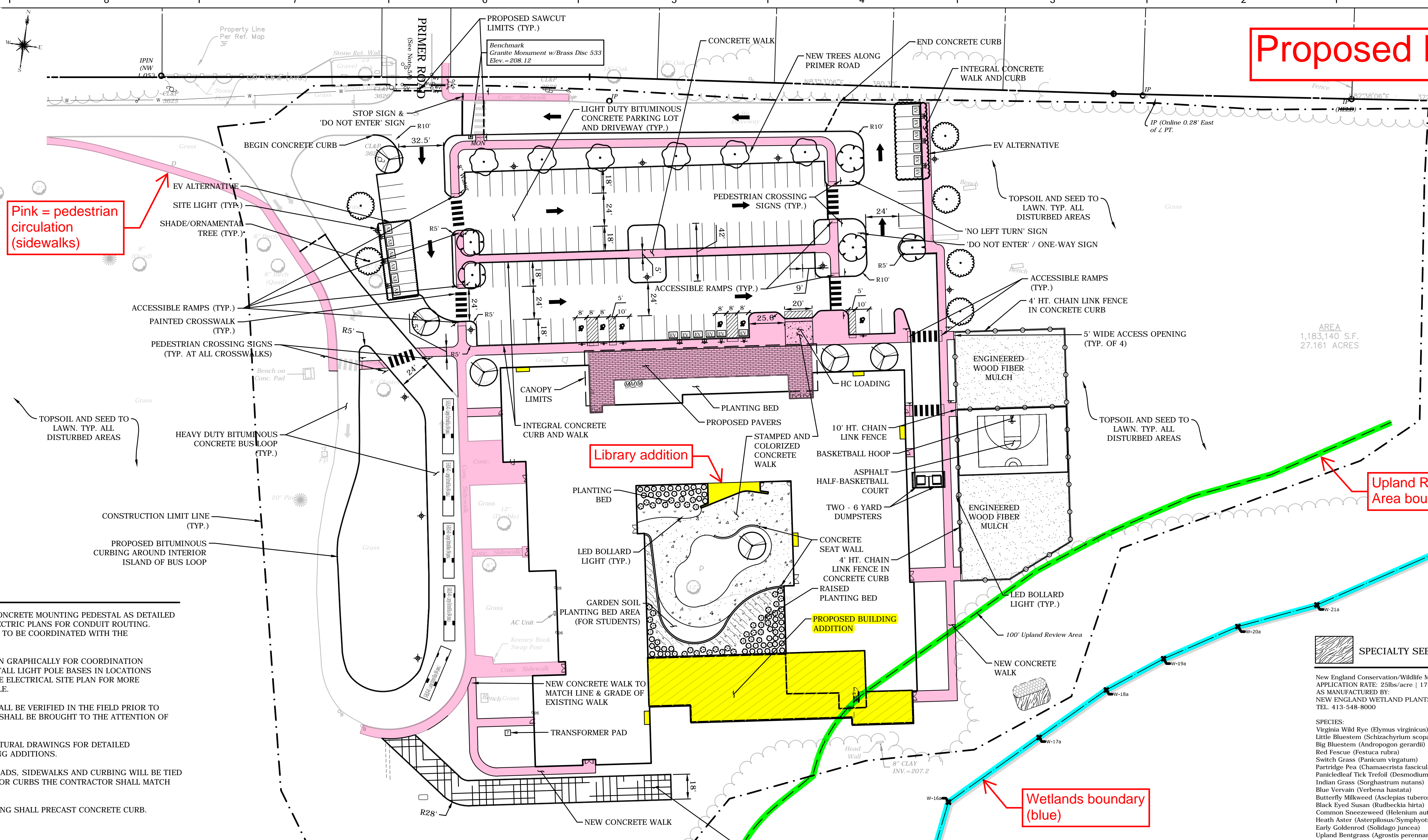
**SITE PLAN - LAYOUT & LANDSCAPING**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY	STN
CHECKED BY	DLO

ISSUE DATES

NO.	DATE	PURPOSE

**C3.00**



Pink = pedestrian circulation (sidewalks)

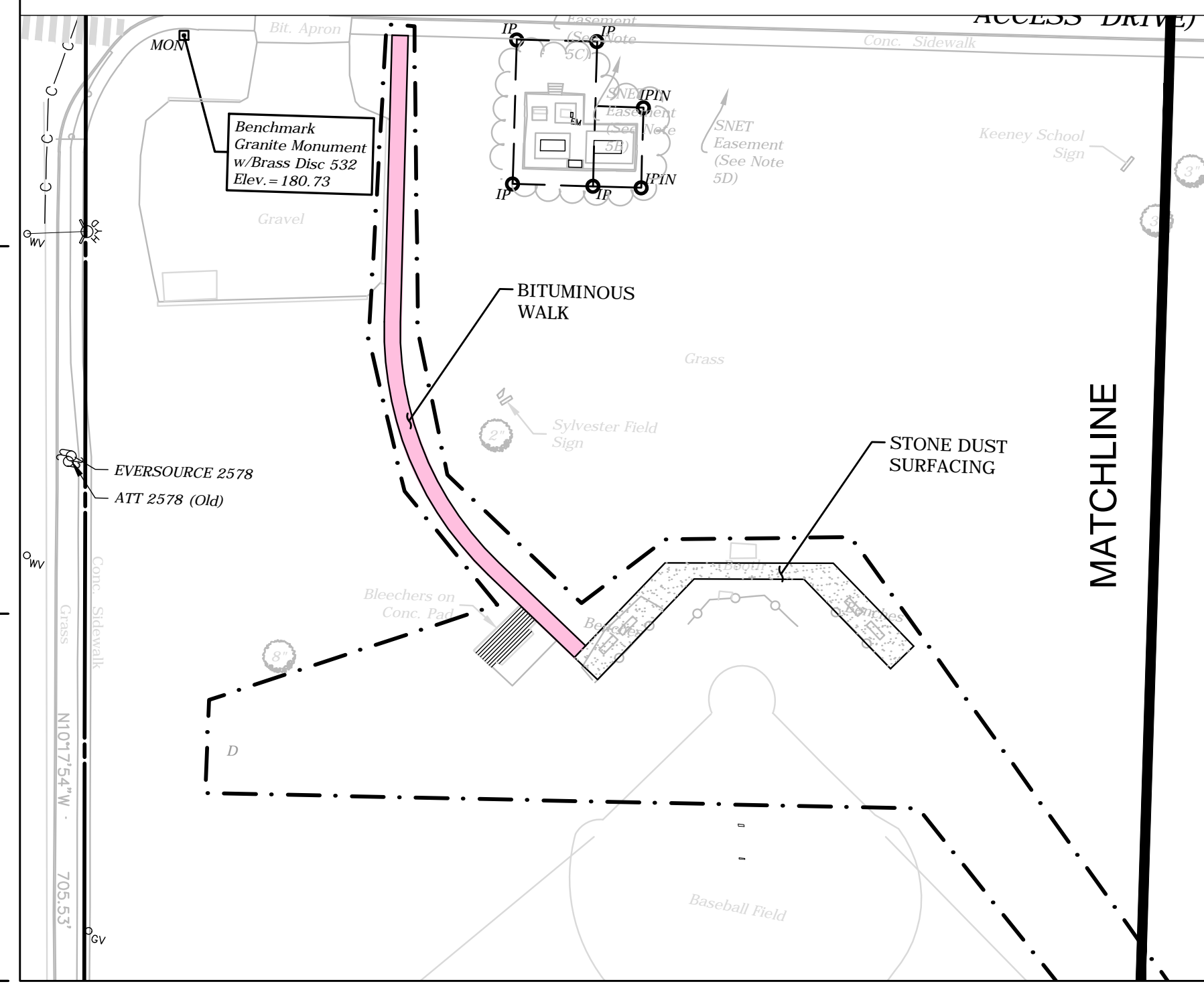
Library addition

Upland Review Area boundary (green)

Wetlands boundary (blue)

**LAYOUT NOTES**

- FOR EV PARKING SPACES - PROVIDE CONCRETE MOUNTING PEDESTAL AS DETAILED ON ELECTRICAL DETAILS. SEE THE ELECTRIC PLANS FOR CONDUIT ROUTING. COMPATIBLE SIGNAGE AND MOUNTING TO BE COORDINATED WITH THE MANUFACTURER.
- SITE LIGHTING LOCATIONS ARE SHOWN GRAPHICALLY FOR COORDINATION PURPOSES. SITE CONTRACTOR TO INSTALL LIGHT POLE BASES IN LOCATIONS SHOWN ON ELECTRICAL SITE PLAN. SEE ELECTRICAL SITE PLAN FOR MORE INFORMATION AND LIGHTING SCHEDULE.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DETAILED INFORMATION PERTAINING TO BUILDING ADDITIONS.
- IN ALL CASES IN WHICH PROPOSED ROADS, SIDEWALKS AND CURBING WILL BE TIED INTO EXISTING ROAD/SIDEWALK AND/OR CURBS THE CONTRACTOR SHALL MATCH EXISTING LINE AND GRADE.
- UNLESS OTHERWISE NOTED ALL CURBING SHALL PRECAST CONCRETE CURB.



**PLANT SCHEDULE**

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	
CP	6	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	2"-2.5" Cal.	
LH	6	Liquidambar styraciflua 'Happdel'	Happdaze® Sweet Gum	3"-3.5" Cal.	
UP	6	Ulmus americana 'Princeton'	Princeton American Elm	3"-3.5" Cal.	
ZG	5	Zelkova serrata 'Green Vase'	Green Vase Sawleaf Zelkova	3"-3.5" Cal.	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	
CA	42	Cornus sericea 'Arctic Fire'	Arctic Fire Red Twig Dogwood	#3	
II	53	Ilex glabra 'Compacta'	Compact Inkberry	#5	
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING
LB	483	Liriope muscari 'Big Blue'	Big Blue Lilyturf	#1	18" o.c.
ST	68	Schizachyrium scoparium 'Twilight Zone'	Twilight Zone Little Bluestem	#1	24" o.c.

**PLANTING NOTES**

- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING PLANT PITS.
- SEED ALL DISTURBED AREAS TO LAWN UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE A 6" MINIMUM DEPTH OF SCREENED TOPSOIL, AS SPECIFIED, FOR ALL LAWN AREAS.
- ALL PLANTING BEDS SHALL HAVE 12" MINIMUM DEPTH OF TOPSOIL.
- THE CONTRACTOR SHALL PROVIDE A 4" MIN. DEPTH OF SHREDDED BARK MULCH OVER ALL PLANTING BEDS AND TREE PLANTINGS. MULCHED PLANT BEDS SHALL EXTEND 12" FURTHER THAN THE ADJACENT PLANTINGS. NO DYED MULCH.
- ALL PLANT MATERIAL IS SUBJECT TO INSPECTION AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO AND AFTER PLANTING.
- PLANT SPECIES MAY BE ADJUSTED BASED ON AVAILABILITY AT TIME OF PLANTING. ALL PLANT MATERIAL SUBSTITUTIONS ARE SUBJECT TO REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL CARRY A FULL GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE. TO INCLUDE PROMPT TREATMENT OR REMOVAL AND REPLACEMENT OF ANY PLANTS FOUND TO BE IN AN UNHEALTHY CONDITION BY THE LANDSCAPE ARCHITECT. ALL REPLACEMENTS SHALL BE OF THE SAME KIND AND SIZE OF PLANTS SPECIFIED IN THE PLANT LIST.
- MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL ACCEPTANCE BY THE LANDSCAPE ARCHITECT AT THE END OF THE WARRANTY PERIOD. MAINTENANCE SHALL INCLUDE WATERING, MULCHING, TIGHTENING & REPLACING OF GUYS, REPLACEMENT OF SICK OR DEAD PLANTS, RESETTling PLANTS TO PROPER GRADE OR UPRIGHT (PLUMB) POSITION, RESTORATION OF SAUCERS, AND ALL OTHER CARE NEEDED FOR PROPER GROWTH OF THE PLANTS.
- WHERE A SIZE RANGE IS SPECIFIED AT LEAST 50% OF PLANTS PROVIDED SHALL BE OF THE LARGER SIZE.
- CONTRACTOR TO REMOVE TREE STAKES AFTER ONE GROWING SEASON.
- TAKE NOTE TO PROTECT ROOT ZONES OF EXISTING TREES ROOT ZONES

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**MANCHESTER, CT**

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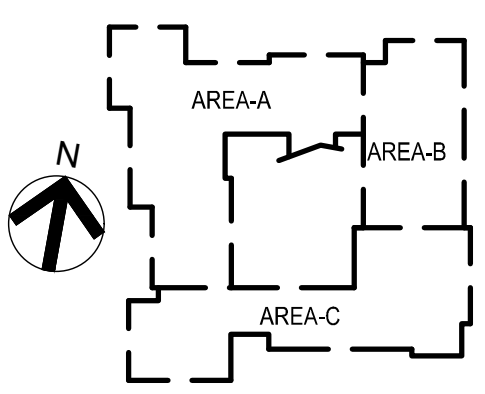
**Proposed Plan - Grading**

**TSKP**  
**STUDIO**  
 One Hartford Square West  
 146 Wyllys Street, Bldg 1-203  
 Hartford, CT 06106  
 860.547.1970  
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 99 REALTY DRIVE  
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**MANCHESTER - KEENEY**  
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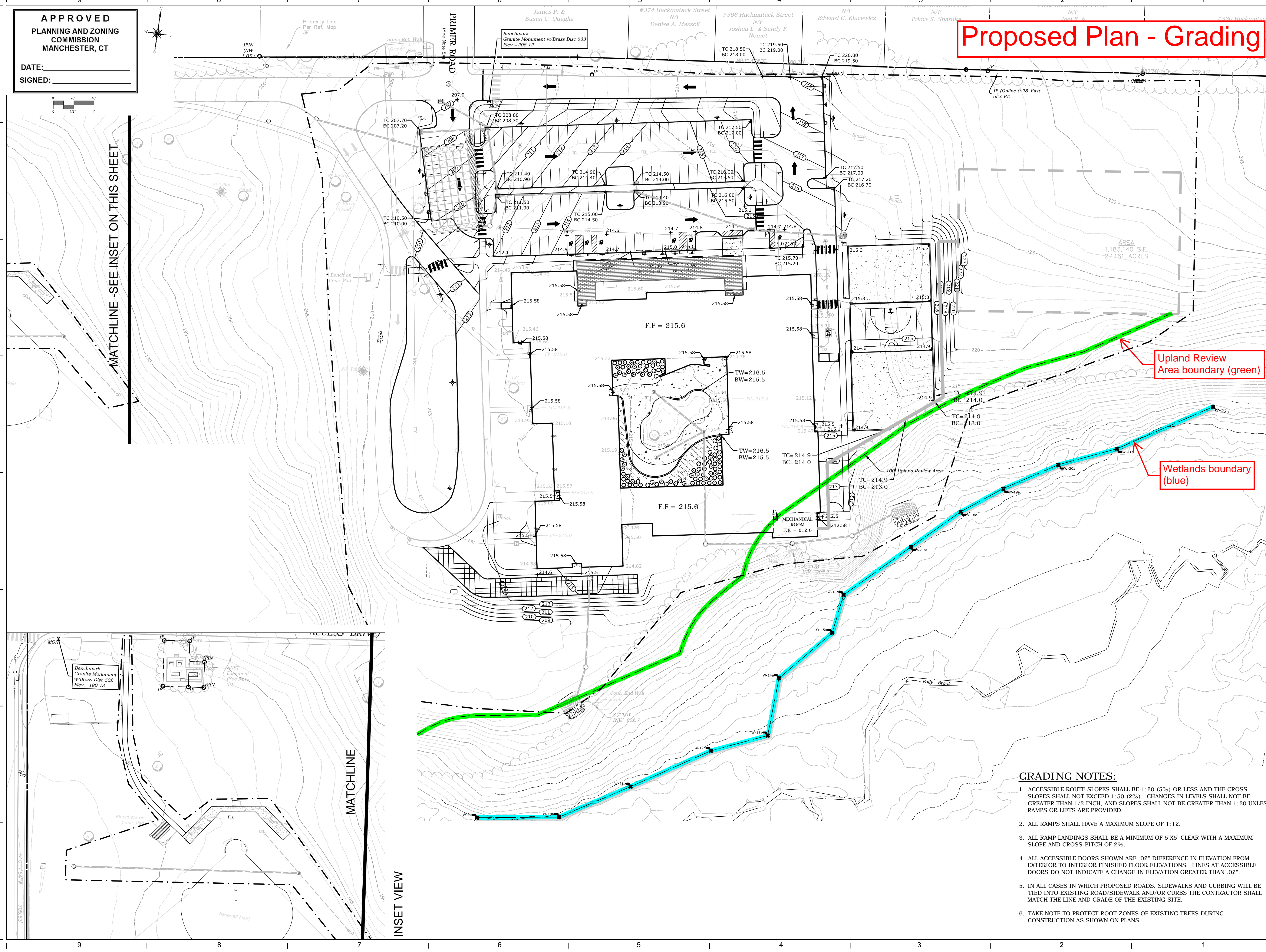


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**SITE PLAN - GRADING**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	DATE	PURPOSE

**C4.00**



Upland Review Area boundary (green)

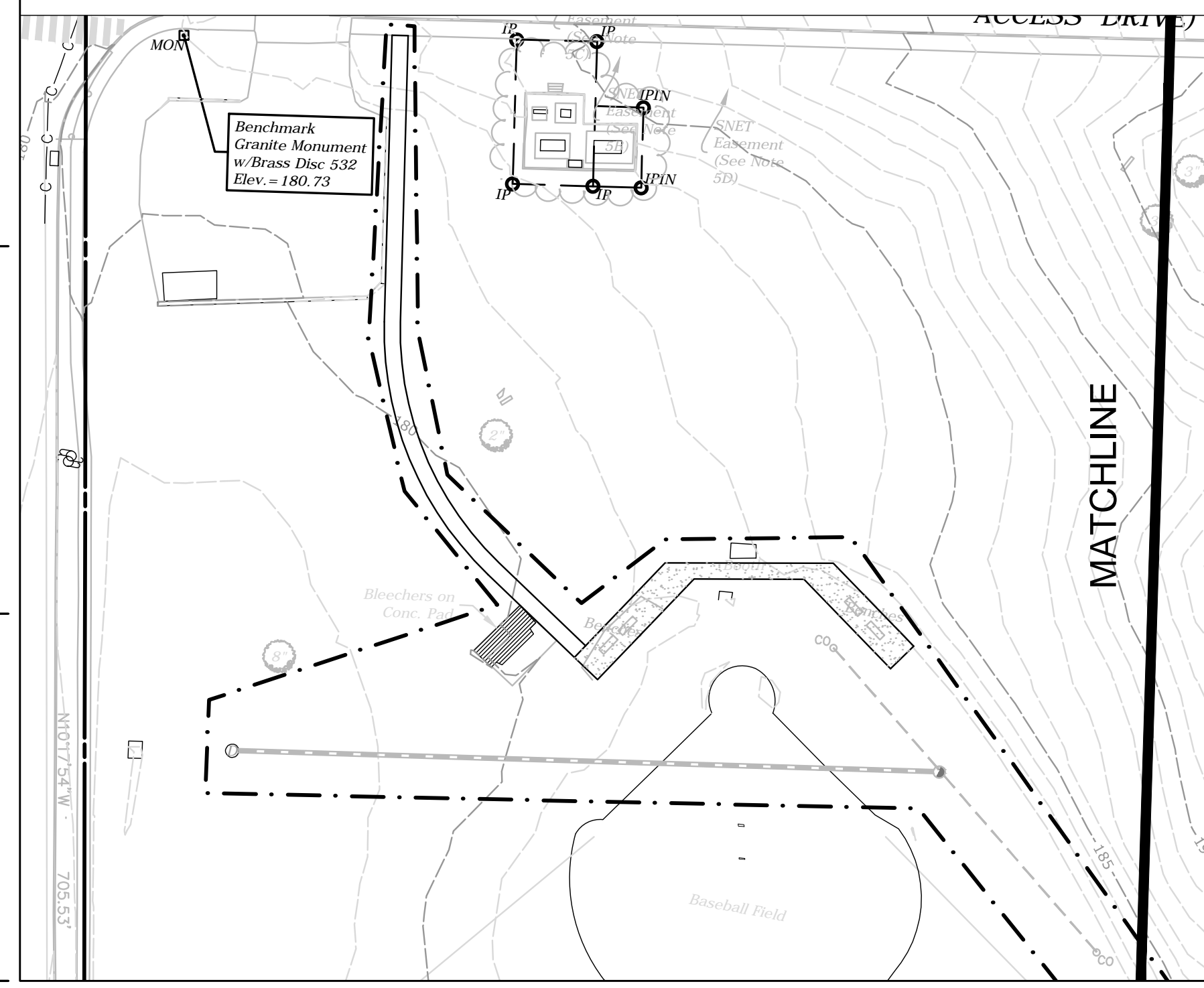
Wetlands boundary (blue)

- GRADING NOTES:**
- ACCESSIBLE ROUTE SLOPES SHALL BE 1:20 (5%) OR LESS AND THE CROSS SLOPES SHALL NOT EXCEED 1:50 (2%). CHANGES IN LEVELS SHALL NOT BE GREATER THAN 1/2 INCH, AND SLOPES SHALL NOT BE GREATER THAN 1:20 UNLESS RAMPS OR LIFTS ARE PROVIDED.
  - ALL RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12.
  - ALL RAMP LANDINGS SHALL BE A MINIMUM OF 5'X5' CLEAR WITH A MAXIMUM SLOPE AND CROSS-PITCH OF 2%.
  - ALL ACCESSIBLE DOORS SHOWN ARE .02" DIFFERENCE IN ELEVATION FROM EXTERIOR TO INTERIOR FINISHED FLOOR ELEVATIONS. LINES AT ACCESSIBLE DOORS DO NOT INDICATE A CHANGE IN ELEVATION GREATER THAN .02".
  - IN ALL CASES IN WHICH PROPOSED ROADS, SIDEWALKS AND CURBING WILL BE TIED INTO EXISTING ROAD/SIDEWALK AND/OR CURBS THE CONTRACTOR SHALL MATCH THE LINE AND GRADE OF THE EXISTING SITE.
  - TAKE NOTE TO PROTECT ROOT ZONES OF EXISTING TREES DURING CONSTRUCTION AS SHOWN ON PLANS.

MATCHLINE - SEE INSET ON THIS SHEET

MATCHLINE

INSET VIEW



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**PLANNING AND ZONING**  
**COMMISSION**  
**MANCHESTER, CT**

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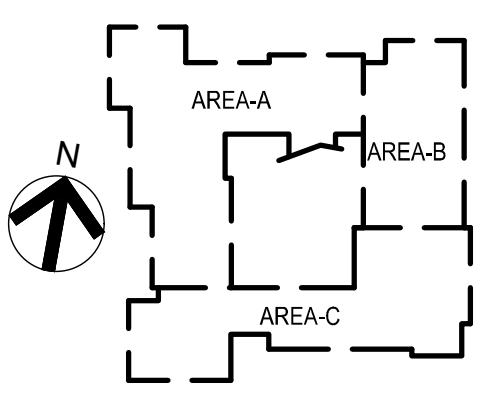
**Proposed Plan - Utilities**

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 146 Wyllys Street, Bldg 1-203  
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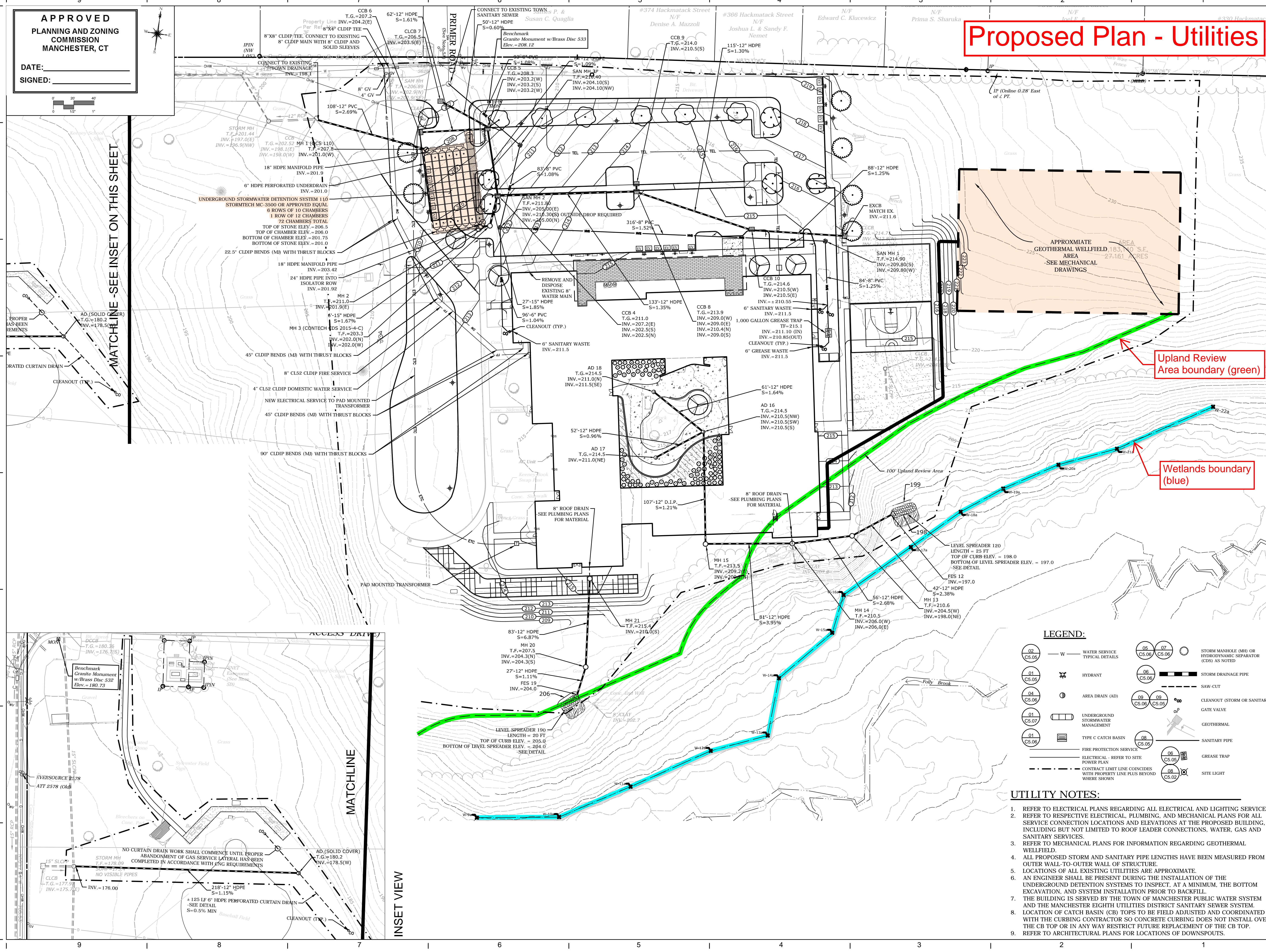
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**SITE PLAN - UTILITIES**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY:	STN
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ISSUE DATES		
NO.	DATE	PURPOSE

**C5.00**



**LEGEND:**

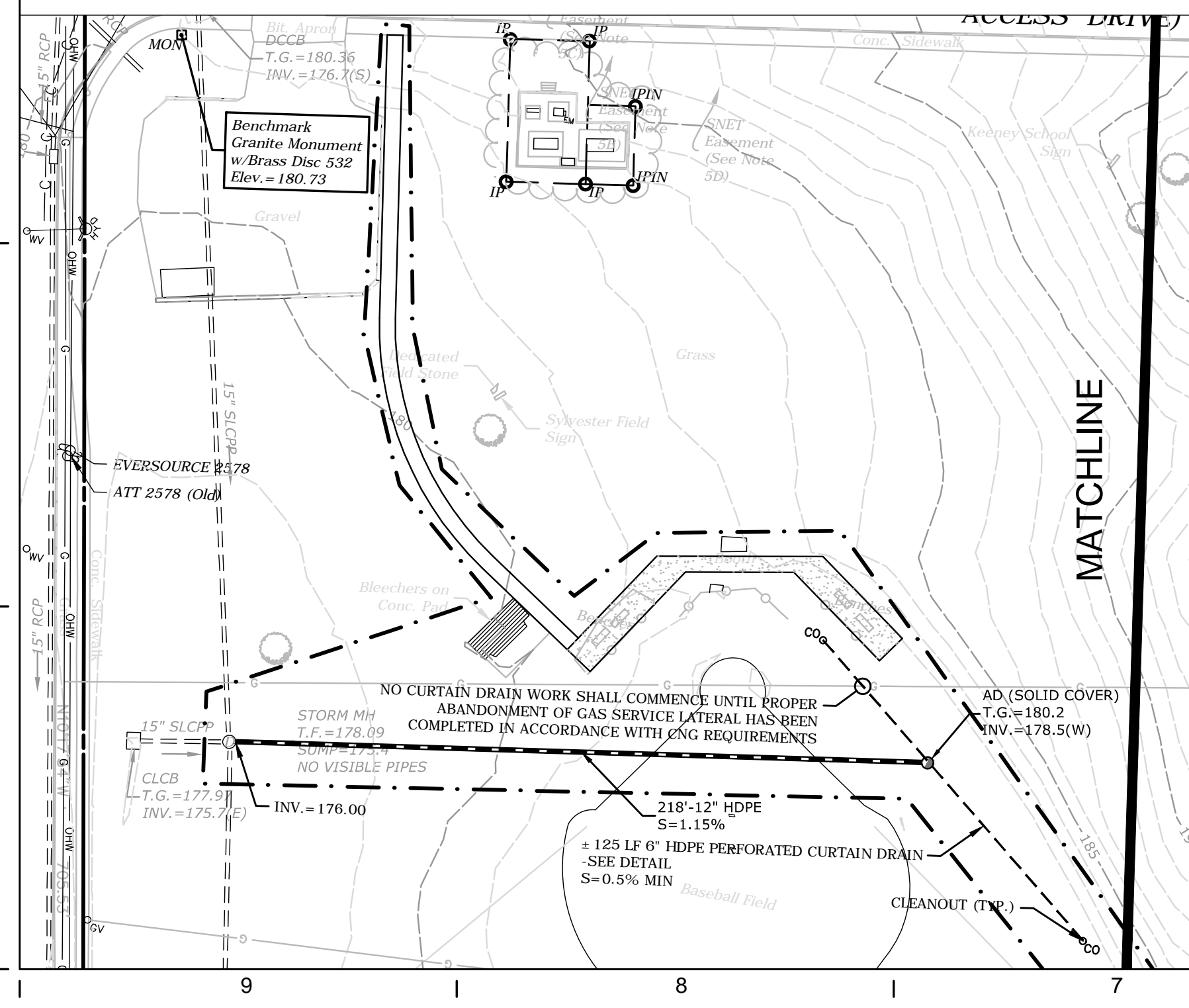
	WATER SERVICE (W)		STORM MANHOLE (MH) OR HYDRODYNAMIC SEPARATOR (HDS) AS NOTED
	HYDRANT		STORM DRAINAGE PIPE
	AREA DRAIN (AD)		SAW-CUT
	UNDERGROUND STORMWATER MANAGEMENT		CLEANOUT (STORM OR SANITARY)
	FIRE PROTECTION SERVICE		GATE VALVE
	ELECTRICAL - REFER TO SITE POWER PLAN		GEOTHERMAL
	CONTRACT LIMIT LINE COINCIDES WITH PROPERTY LINE PLUS BEYOND WHERE SHOWN		SANITARY PIPE
	TYPE C CATCH BASIN		GREASE TRAP
	SITE LIGHT		SITE LIGHT

- UTILITY NOTES:**
- REFER TO ELECTRICAL PLANS REGARDING ALL ELECTRICAL AND LIGHTING SERVICES.
  - REFER TO RESPECTIVE ELECTRICAL, PLUMBING, AND MECHANICAL PLANS FOR ALL SERVICE CONNECTION LOCATIONS AND ELEVATIONS AT THE PROPOSED BUILDING, INCLUDING BUT NOT LIMITED TO ROOF LEADER CONNECTIONS, WATER, GAS AND SANITARY SERVICES.
  - REFER TO MECHANICAL PLANS FOR INFORMATION REGARDING GEOTHERMAL WELLFIELD.
  - ALL PROPOSED STORM AND SANITARY PIPE LENGTHS HAVE BEEN MEASURED FROM OUTER WALL-TO-OUTER WALL OF STRUCTURE.
  - LOCATIONS OF ALL EXISTING UTILITIES ARE APPROXIMATE.
  - AN ENGINEER SHALL BE PRESENT DURING THE INSTALLATION OF THE UNDERGROUND DETENTION SYSTEMS TO INSPECT, AT A MINIMUM, THE BOTTOM EXCAVATION, AND SYSTEM INSTALLATION PRIOR TO BACKFILL.
  - THE BUILDING IS SERVED BY THE TOWN OF MANCHESTER PUBLIC WATER SYSTEM AND THE MANCHESTER EIGHTH UTILITIES DISTRICT SANITARY SEWER SYSTEM.
  - LOCATION OF CATCH BASIN (CB) TOPS TO BE FIELD ADJUSTED AND COORDINATED WITH THE CURBING CONTRACTOR SO CONCRETE CURBING DOES NOT INSTALL OVER THE CB TOP OR IN ANY WAY RESTRICT FUTURE REPLACEMENT OF THE CB TOP.
  - REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF DOWNSPOUTS.

MATCHLINE - SEE INSET ON THIS SHEET

MATCHLINE

INSET VIEW



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**PLANNING AND ZONING**  
**COMMISSION**  
**MANCHESTER, CT**

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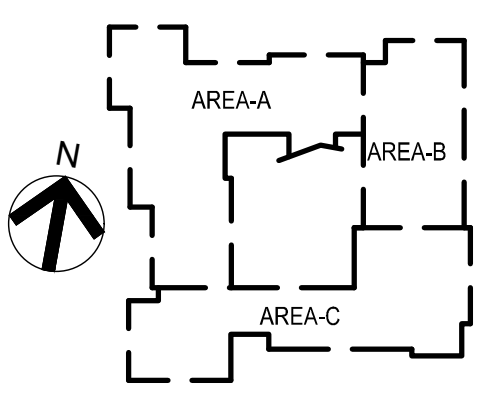
**Erosion & Sediment Control Plan**

**TSKP STUDIO**  
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 146 Wyllys Street, Bldg 1-203  
 Hartford, CT 06106  
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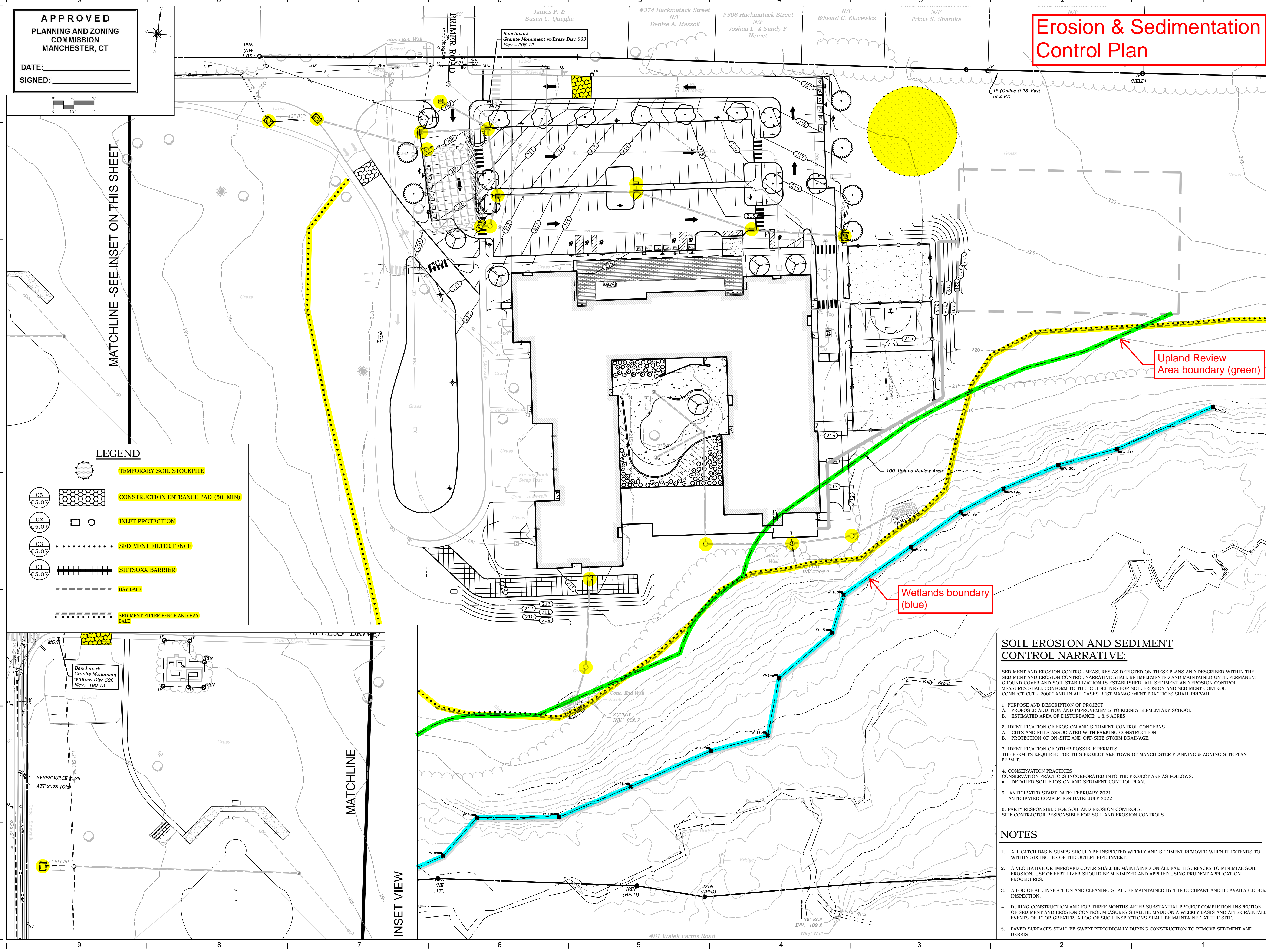
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**SITE PLAN - SEDIMENT & EROSION CONTROLS**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY:	STN
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ISSUE DATES		
NO.	ISSUE DATE	PURPOSE

**C6.00**



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**LEGEND**

- TEMPORARY SOIL STOCKPILE**
- CONSTRUCTION ENTRANCE PAD (50' MIN)**
- INLET PROTECTION**
- SEDIMENT FILTER FENCE**
- SILTSOX BARRIER**
- HAY BALE**
- SEDIMENT FILTER FENCE AND HAY BALE**

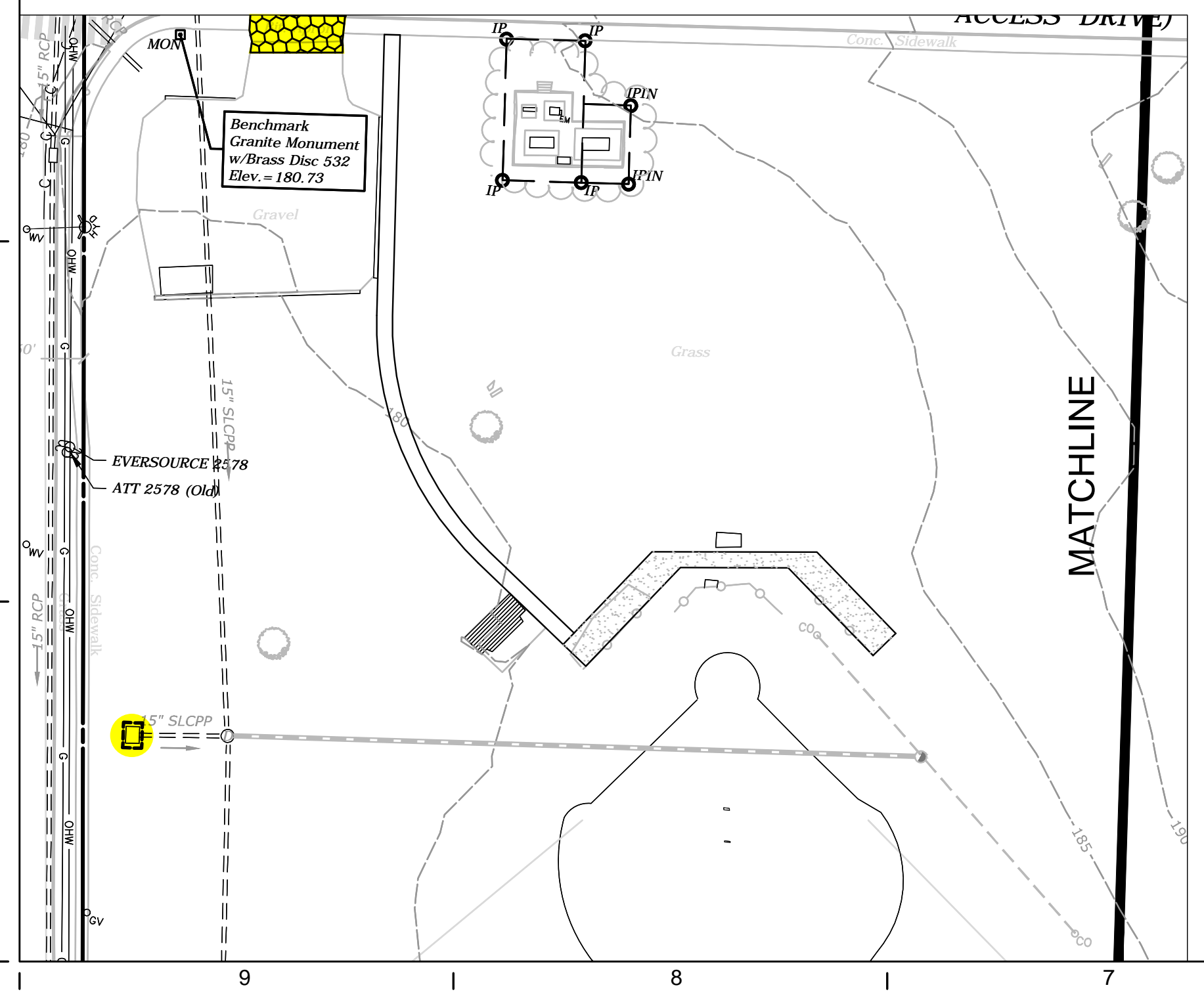
**SOIL EROSION AND SEDIMENT CONTROL NARRATIVE:**

SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT GROUND COVER AND SOIL STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002" AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

- PURPOSE AND DESCRIPTION OF PROJECT
  - PROPOSED ADDITION AND IMPROVEMENTS TO KEENEY ELEMENTARY SCHOOL
  - ESTIMATED AREA OF DISTURBANCE: ± 8.5 ACRES
- IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
  - CUTS AND FILLS ASSOCIATED WITH PARKING CONSTRUCTION.
  - PROTECTION OF ON-SITE AND OFF-SITE STORM DRAINAGE.
- IDENTIFICATION OF OTHER POSSIBLE PERMITS  
 THE PERMITS REQUIRED FOR THIS PROJECT ARE TOWN OF MANCHESTER PLANNING & ZONING SITE PLAN PERMIT.
- CONSERVATION PRACTICES  
 CONSERVATION PRACTICES INCORPORATED INTO THE PROJECT ARE AS FOLLOWS:
  - DETAILED SOIL EROSION AND SEDIMENT CONTROL PLAN.
- ANTICIPATED START DATE: FEBRUARY 2021  
 ANTICIPATED COMPLETION DATE: JULY 2022
- PARTY RESPONSIBLE FOR SOIL AND EROSION CONTROLS:  
 SITE CONTRACTOR RESPONSIBLE FOR SOIL AND EROSION CONTROLS

**NOTES**

- ALL CATCH BASIN SUMPS SHOULD BE INSPECTED WEEKLY AND SEDIMENT REMOVED WHEN IT EXTENDS TO WITHIN SIX INCHES OF THE OUTLET PIPE INVERT.
- A VEGETATIVE OR IMPROVED COVER SHALL BE MAINTAINED ON ALL EARTH SURFACES TO MINIMIZE SOIL EROSION. USE OF FERTILIZER SHOULD BE MINIMIZED AND APPLIED USING PRUDENT APPLICATION PROCEDURES.
- A LOG OF ALL INSPECTION AND CLEANING SHALL BE MAINTAINED BY THE OCCUPANT AND BE AVAILABLE FOR INSPECTION.
- DURING CONSTRUCTION AND FOR THREE MONTHS AFTER SUBSTANTIAL PROJECT COMPLETION INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE ON A WEEKLY BASIS AND AFTER RAINFALL EVENTS OF 1" OR GREATER. A LOG OF SUCH INSPECTIONS SHALL BE MAINTAINED AT THE SITE.
- PAVED SURFACES SHALL BE SWEEPED PERIODICALLY DURING CONSTRUCTION TO REMOVE SEDIMENT AND DEBRIS.



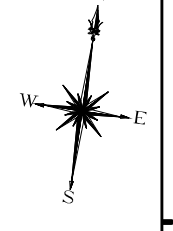
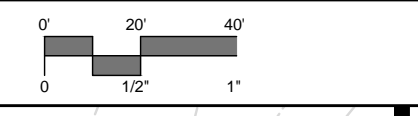
MATCHLINE

INSET VIEW



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**PLANNING AND ZONING**  
**COMMISSION**  
**MANCHESTER, CT**

DATE: \_\_\_\_\_  
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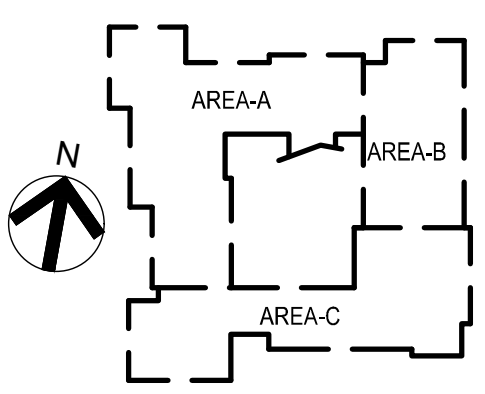
**Accessible Routes**

**TSKP**  
**STUDIO**  
 One Hartford Square West  
 146 Wyllys Street, Bldg 1-203  
 Hartford, CT 06106  
 860.547.1970  
 ARCHITECTURE | PLANNING | INTERIORS

**SLR**  
 99 REALTY DRIVE  
 CHESTER, CT 06410  
 203.271.1773  
 SLRCONSULTING.COM

**MANCHESTER - KEENEY**  
**ELEMENTARY SCHOOL**  
 7 KEENEY STREET  
 MANCHESTER, CT 06040

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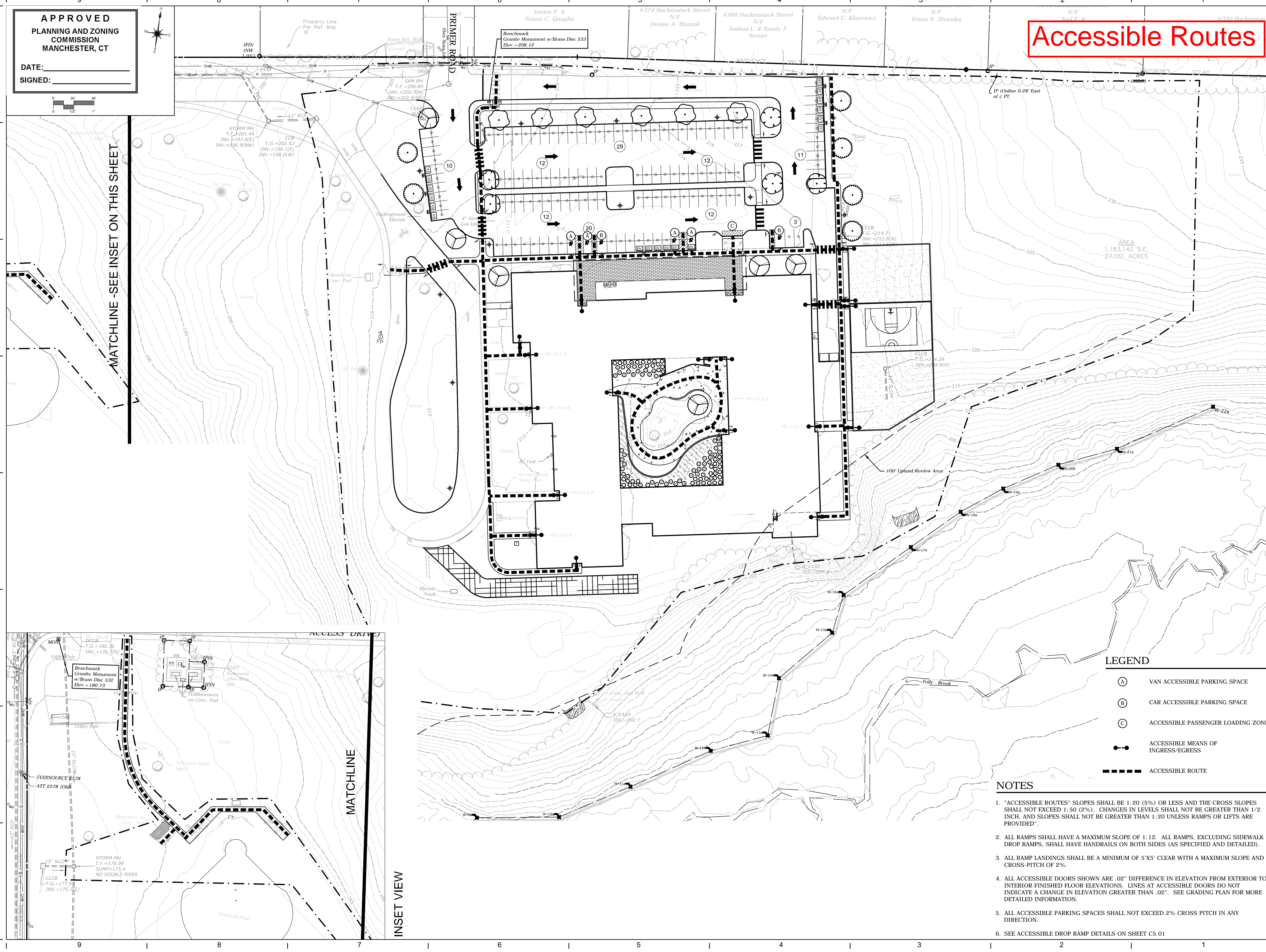
DRAWING TITLE

SITE PLAN - ACCESSIBLE ROUTES

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	1"=40'
DATE	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

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NO.	DATE	PURPOSE

**C7.00**



MATCHLINE - SEE INSET ON THIS SHEET

MATCHLINE

INSET VIEW

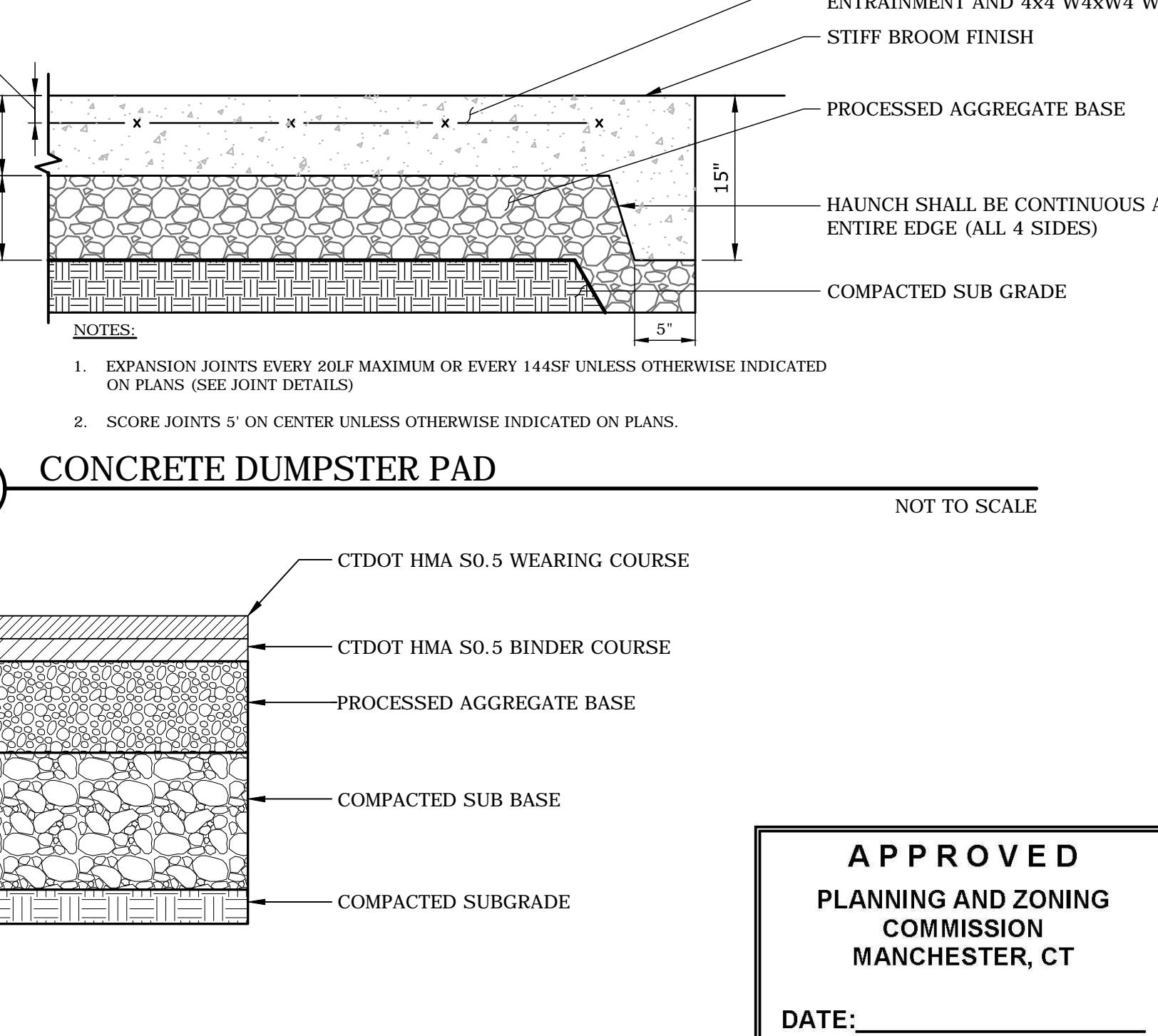
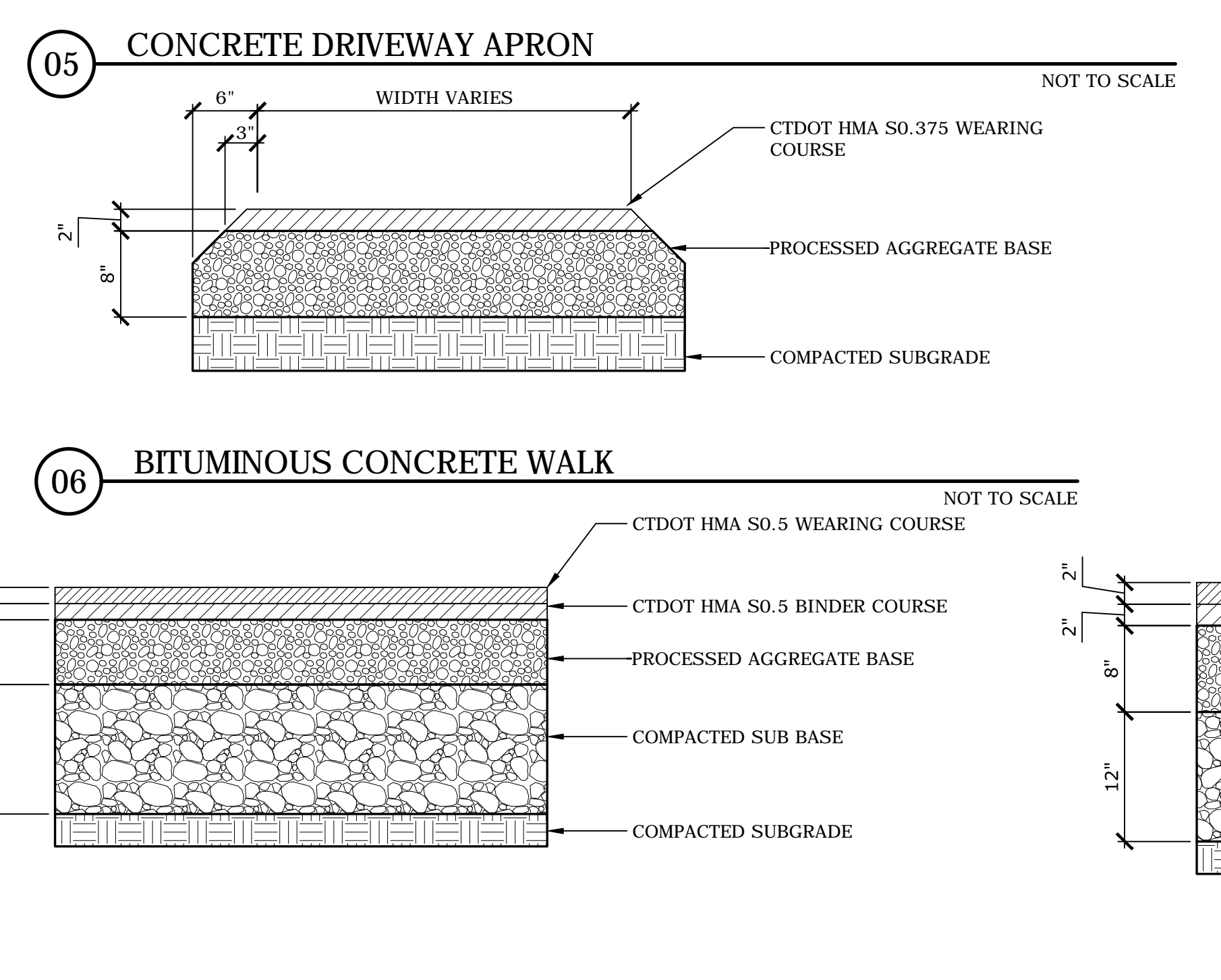
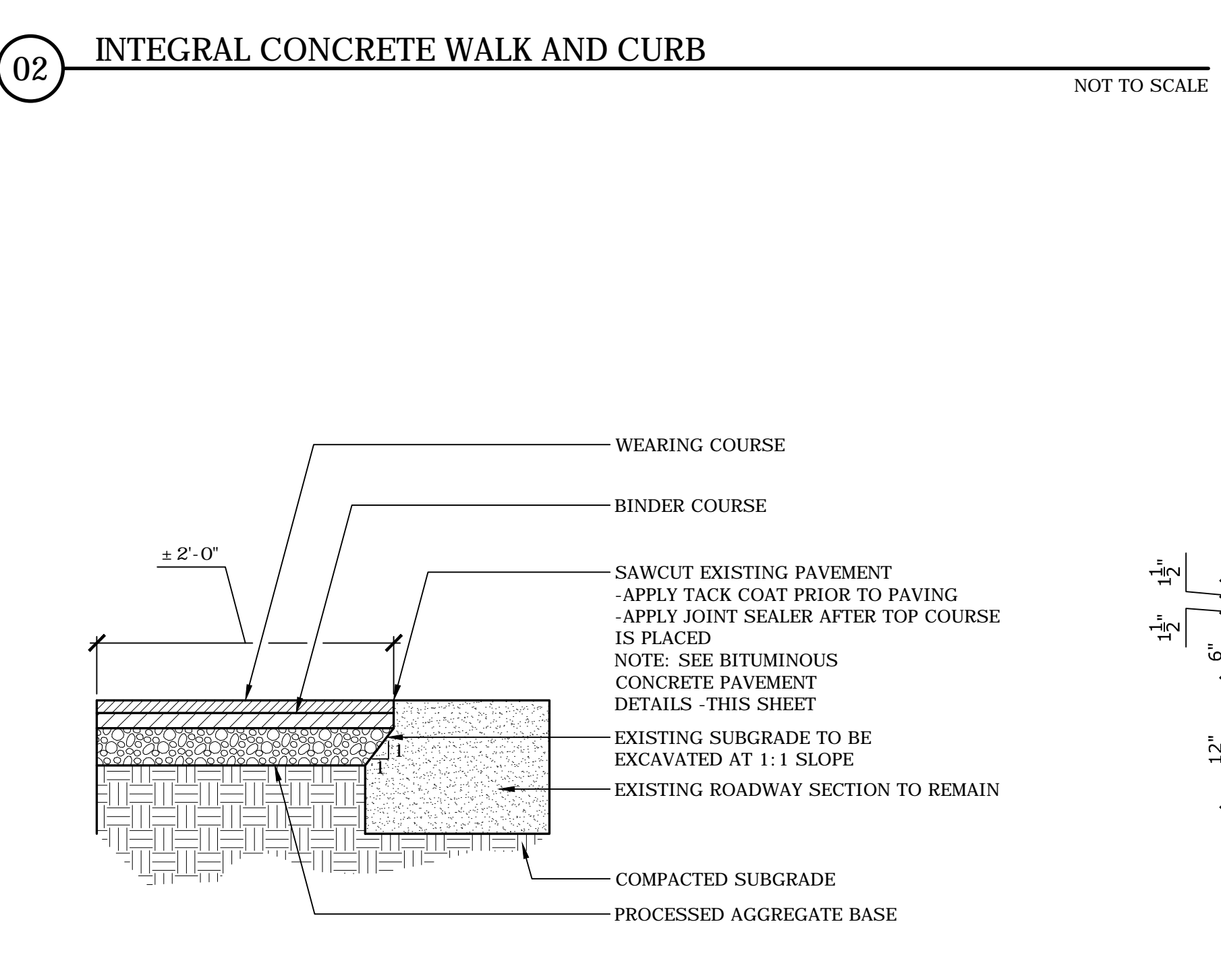
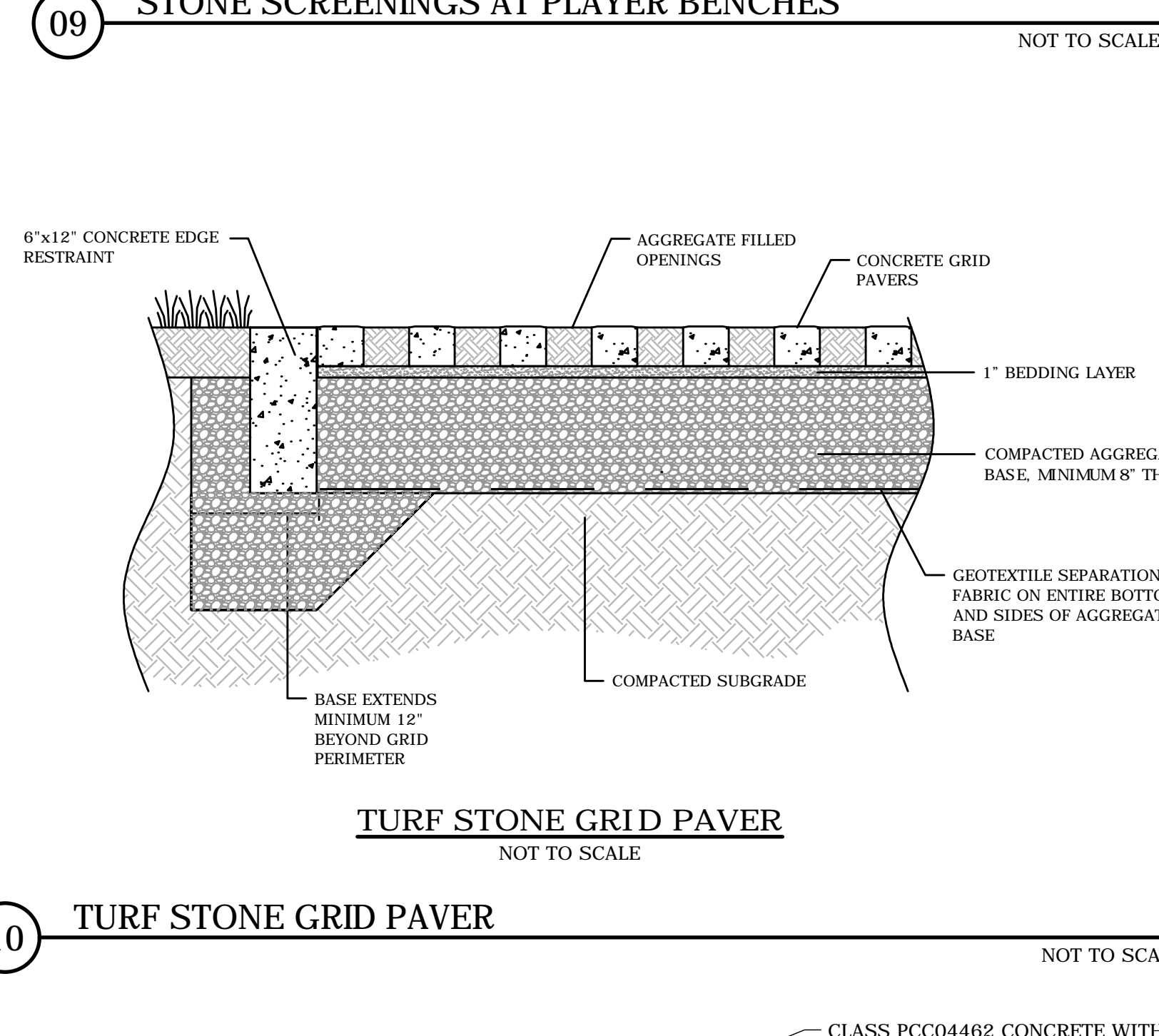
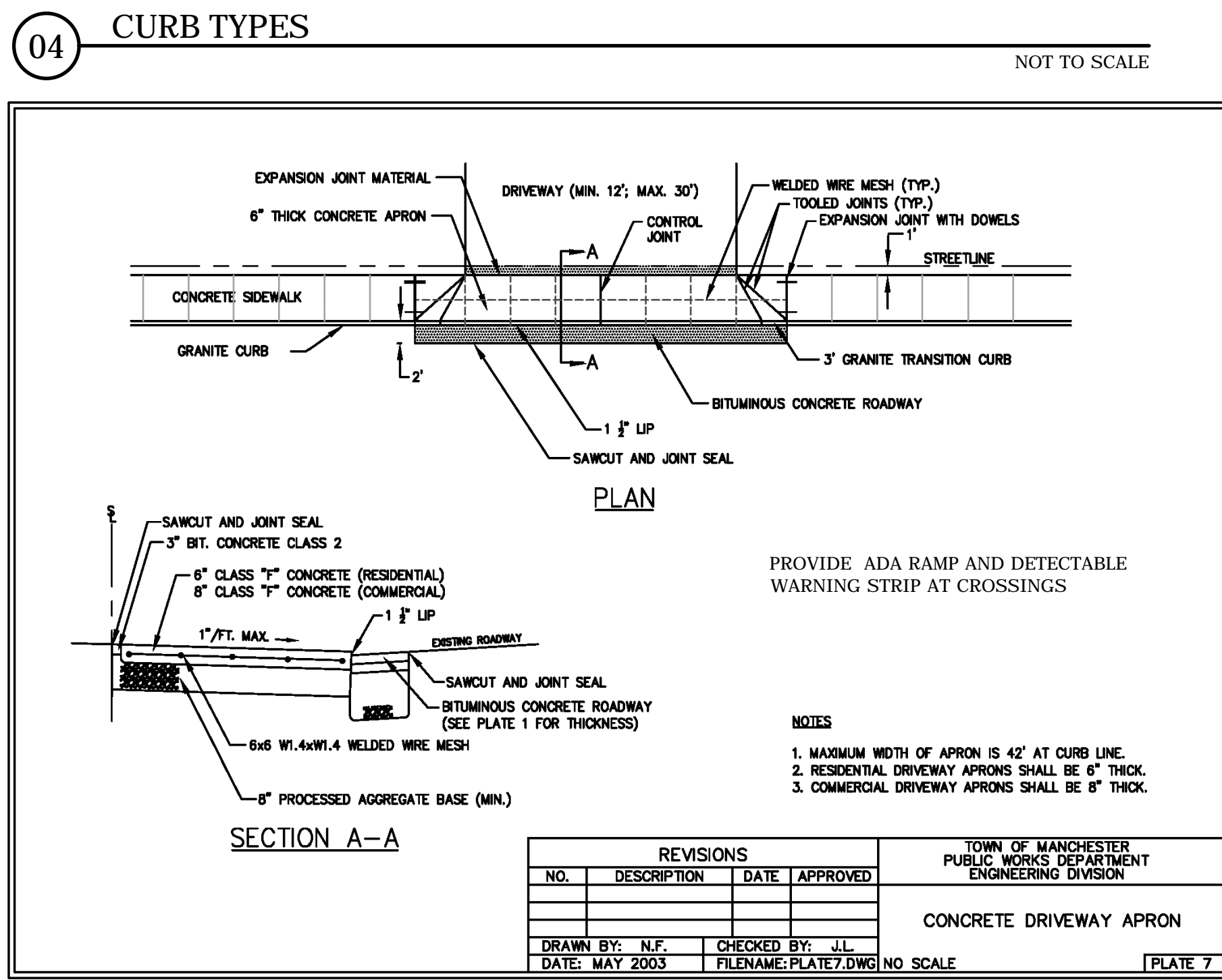
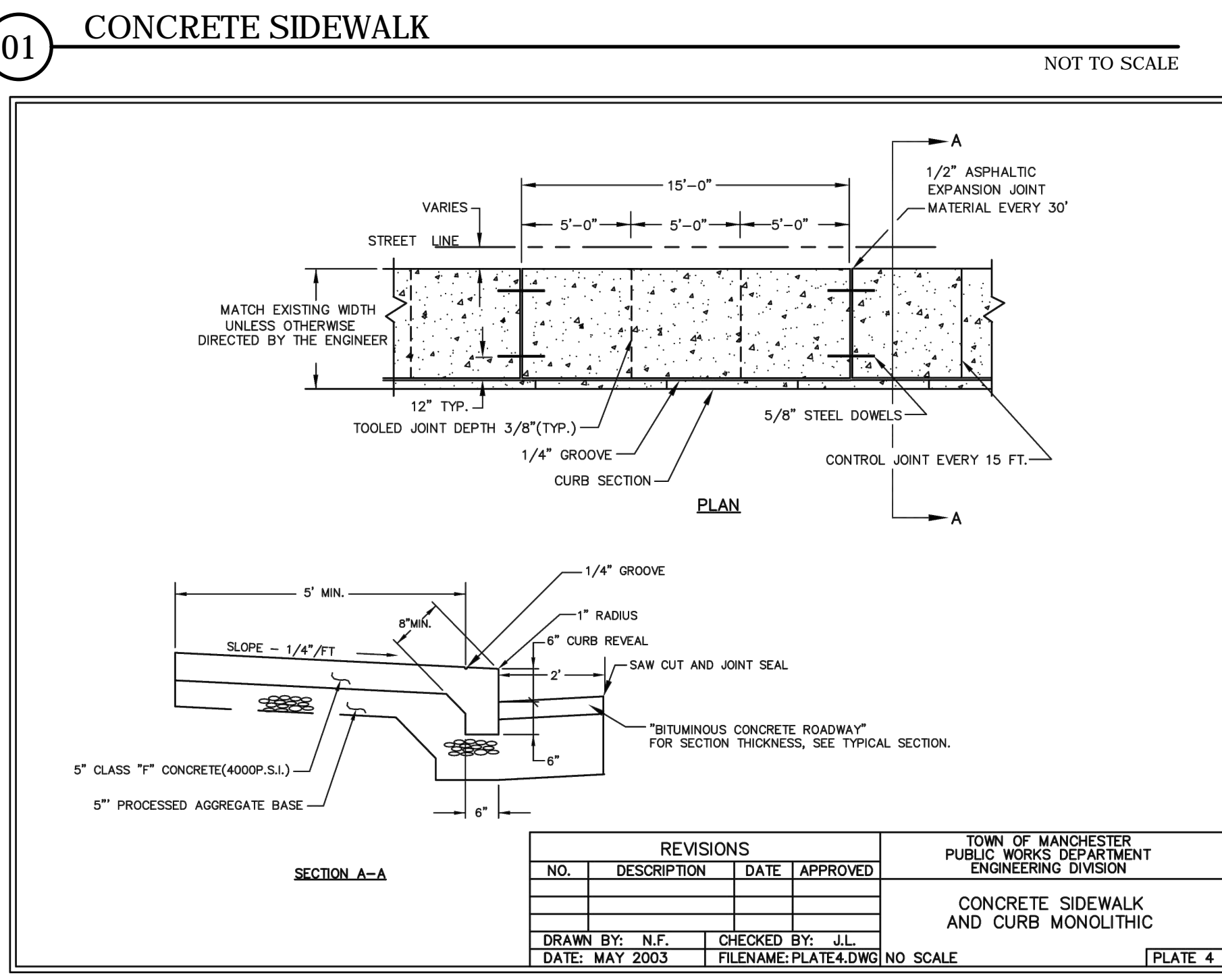
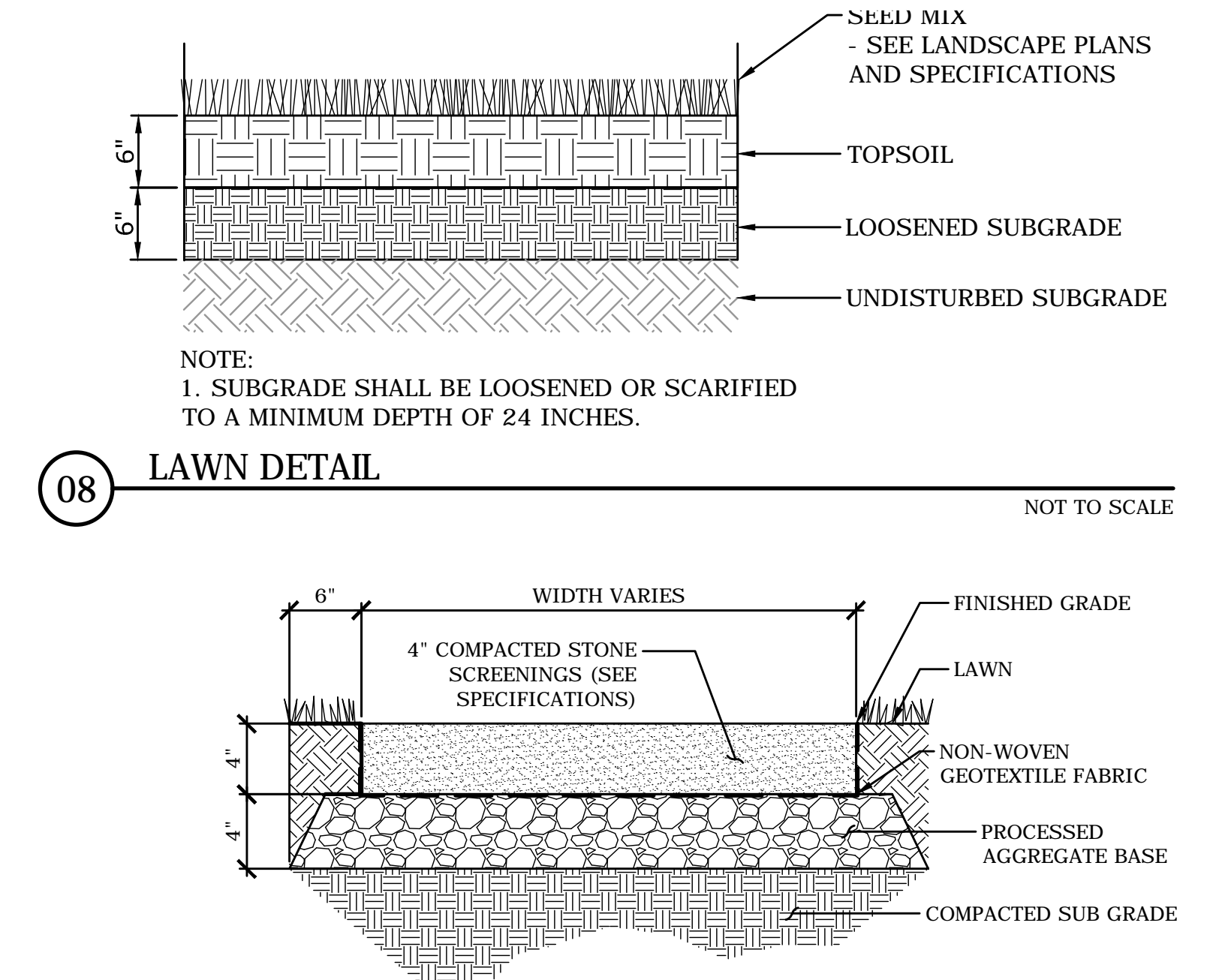
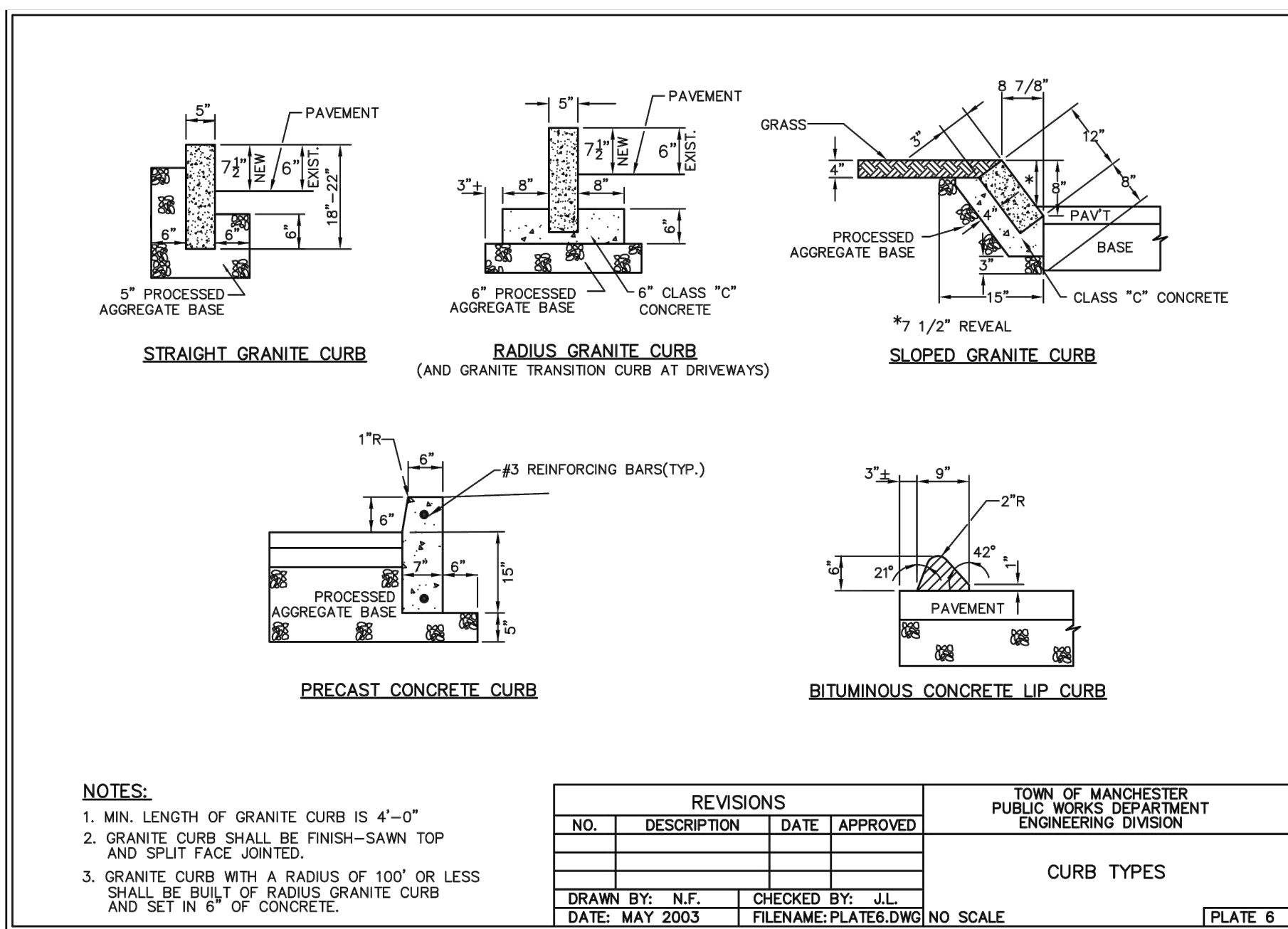
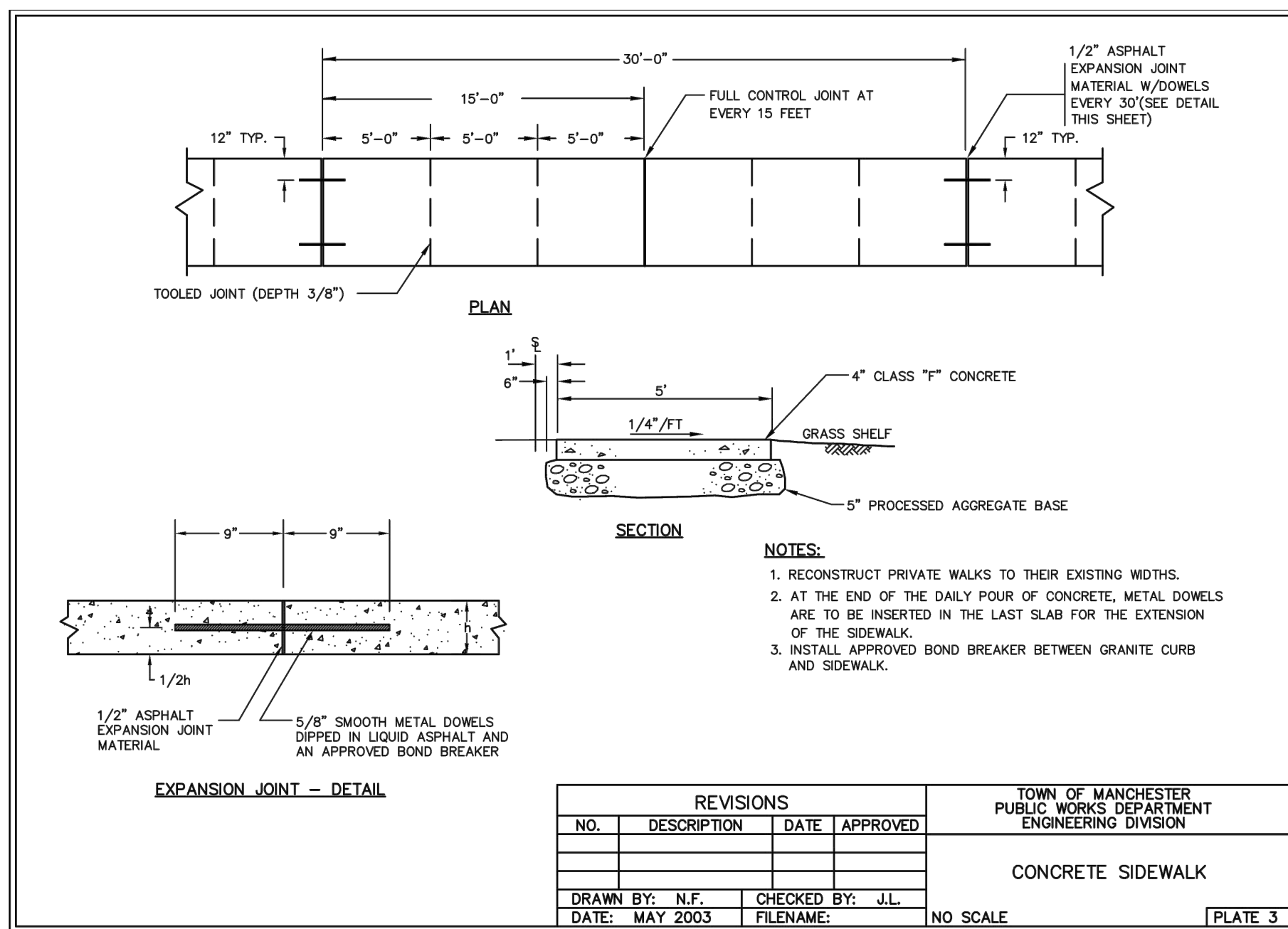
**LEGEND**

- (A) VAN ACCESSIBLE PARKING SPACE
- (B) CAR ACCESSIBLE PARKING SPACE
- (C) ACCESSIBLE PASSENGER LOADING ZONE
- ACCESSIBLE MEANS OF INGRESS/EGRESS
- ACCESSIBLE ROUTE

**NOTES**

- "ACCESSIBLE ROUTES" SLOPES SHALL BE 1:20 (5%) OR LESS AND THE CROSS SLOPES SHALL NOT EXCEED 1:50 (2%). CHANGES IN LEVELS SHALL NOT BE GREATER THAN 1/2 INCH, AND SLOPES SHALL NOT BE GREATER THAN 1:20 UNLESS RAMPS OR LIFTS ARE PROVIDED.
- ALL RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12. ALL RAMPS, EXCLUDING SIDEWALK DROP RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES (AS SPECIFIED AND DETAILED).
- ALL RAMP LANDINGS SHALL BE A MINIMUM OF 5'X5' CLEAR WITH A MAXIMUM SLOPE AND CROSS-PITCH OF 2%.
- ALL ACCESSIBLE DOORS SHOWN ARE .02" DIFFERENCE IN ELEVATION FROM EXTERIOR TO INTERIOR FINISHED FLOOR ELEVATIONS. LINES AT ACCESSIBLE DOORS DO NOT INDICATE A CHANGE IN ELEVATION GREATER THAN .02". SEE GRADING PLAN FOR MORE DETAILED INFORMATION.
- ALL ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% CROSS PITCH IN ANY DIRECTION.
- SEE ACCESSIBLE DROP RAMP DETAILS ON SHEET C5.01

DATE PLOTTED: 09/02/2022 10:00 AM



**03 BITUMINOUS CONCRETE PAVEMENT REPAIR**  
NOT TO SCALE

**07 STANDARD DUTY BITUMINOUS CONCRETE**  
NOT TO SCALE

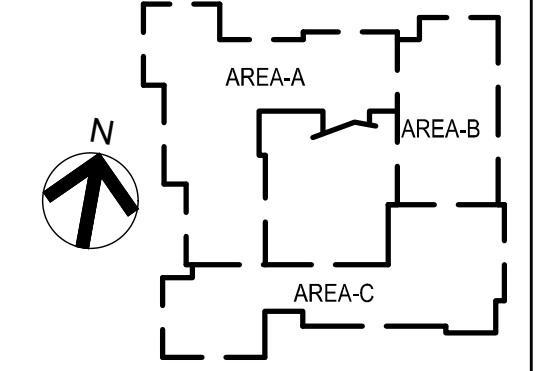
**12 HEAVY DUTY BITUMINOUS CONCRETE**  
NOT TO SCALE

**TSKP STUDIO**  
One Hartford Square West  
146 Wyllys Street, Bldg 1-203  
Hartford, CT 06106  
860.547.1970  
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**SLR**  
99 REALTY DRIVE  
CHESHIRE, CT 06610  
203.271.1773  
SLRCONSULTING.COM

**MANCHESTER - KEENEY  
ELEMENTARY SCHOOL**  
7 KEENEY STREET  
MANCHESTER, CT 06040

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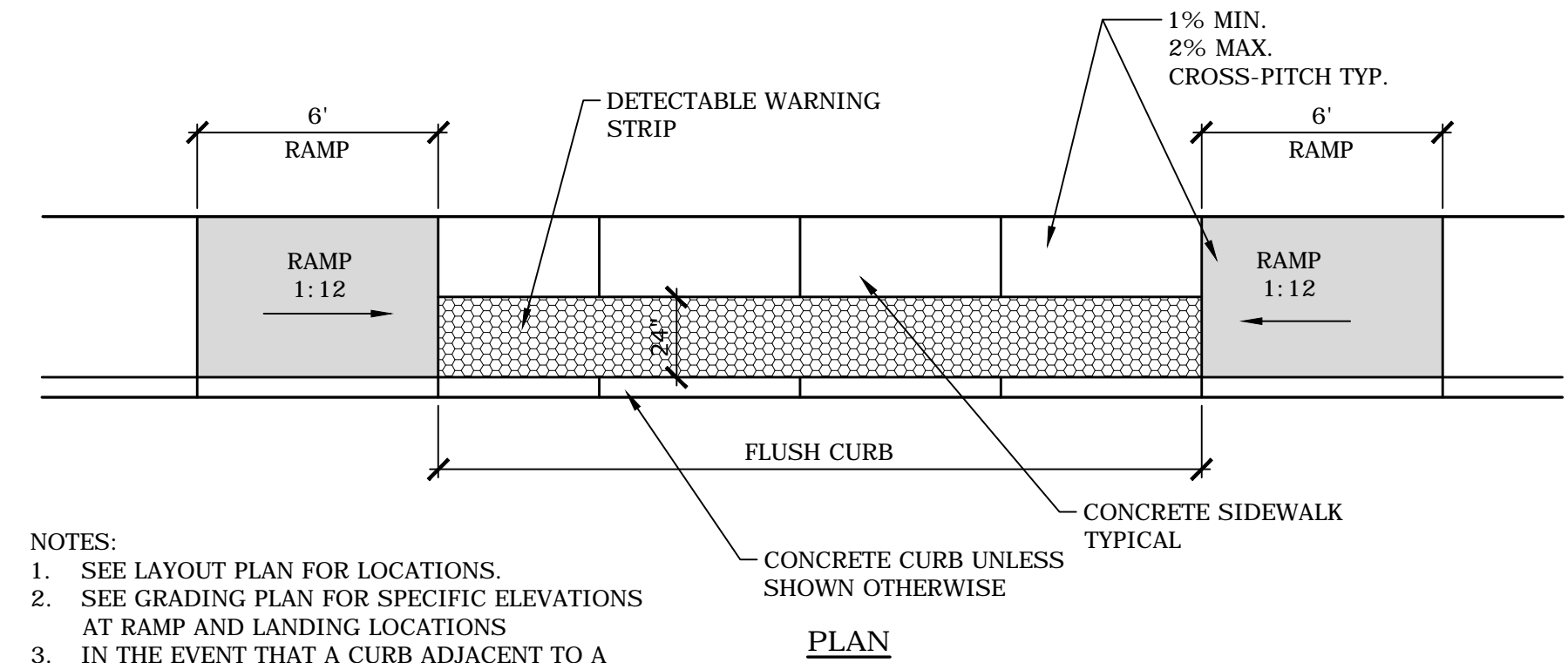
DRAWING TITLE  
**SITE DETAILS**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	AS NOTED
DATE	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	DATE	PURPOSE

**APPROVED**  
PLANNING AND ZONING  
COMMISSION  
MANCHESTER, CT  
DATE: \_\_\_\_\_  
SIGNED: \_\_\_\_\_

**C8.00**

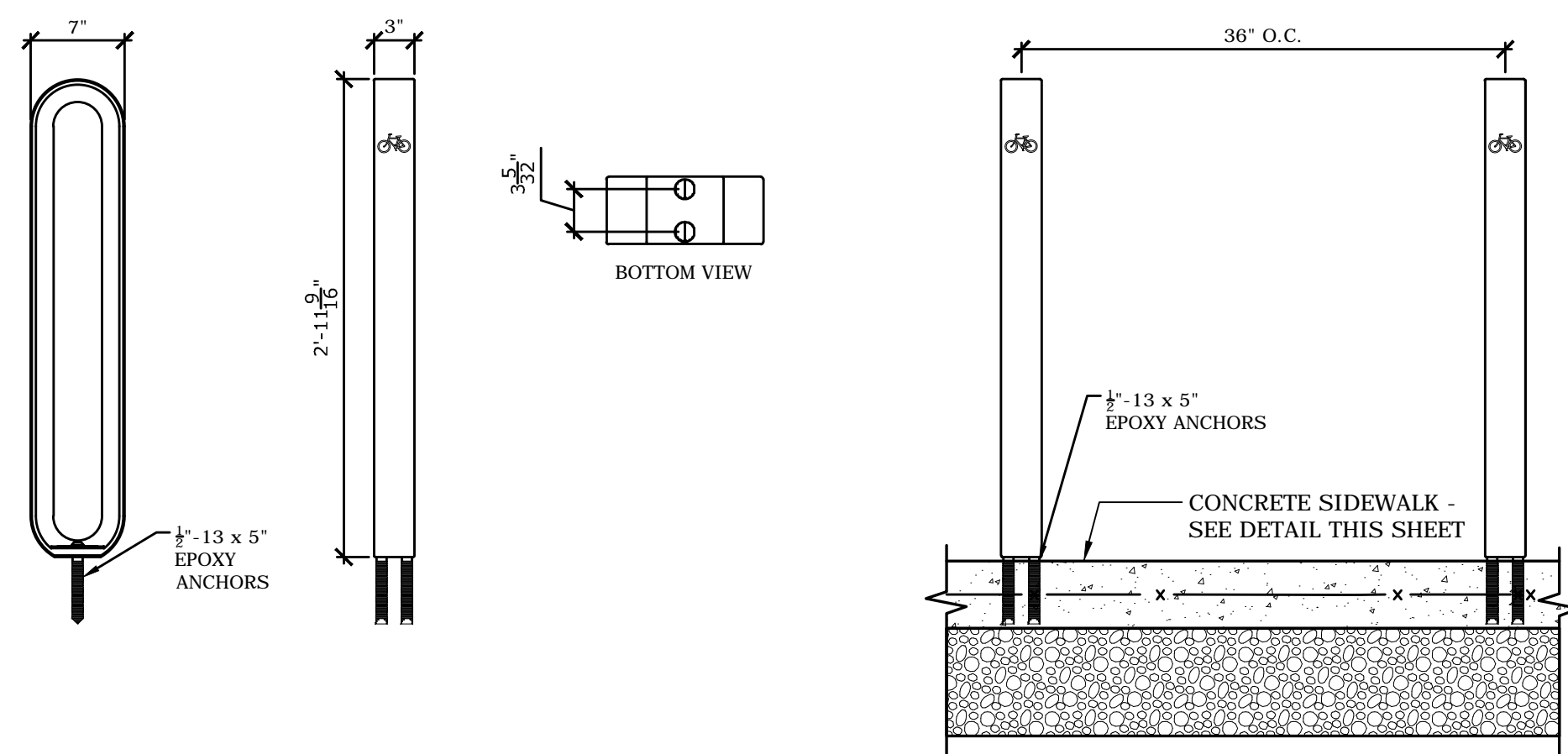


- NOTES:
1. SEE LAYOUT PLAN FOR LOCATIONS.
  2. SEE GRADING PLAN FOR SPECIFIC ELEVATIONS AT RAMP AND LANDING LOCATIONS
  3. IN THE EVENT THAT A CURB ADJACENT TO A RAMP AS SHOWN IS LESS THAN OR GREATER THAN 6", THE RAMP SLOPE SHALL BE ADJUSTED IN THE FIELD TO MAINTAIN 1" VERTICAL RISE FOR EVERY 12" HORIZONTAL (8.33%)

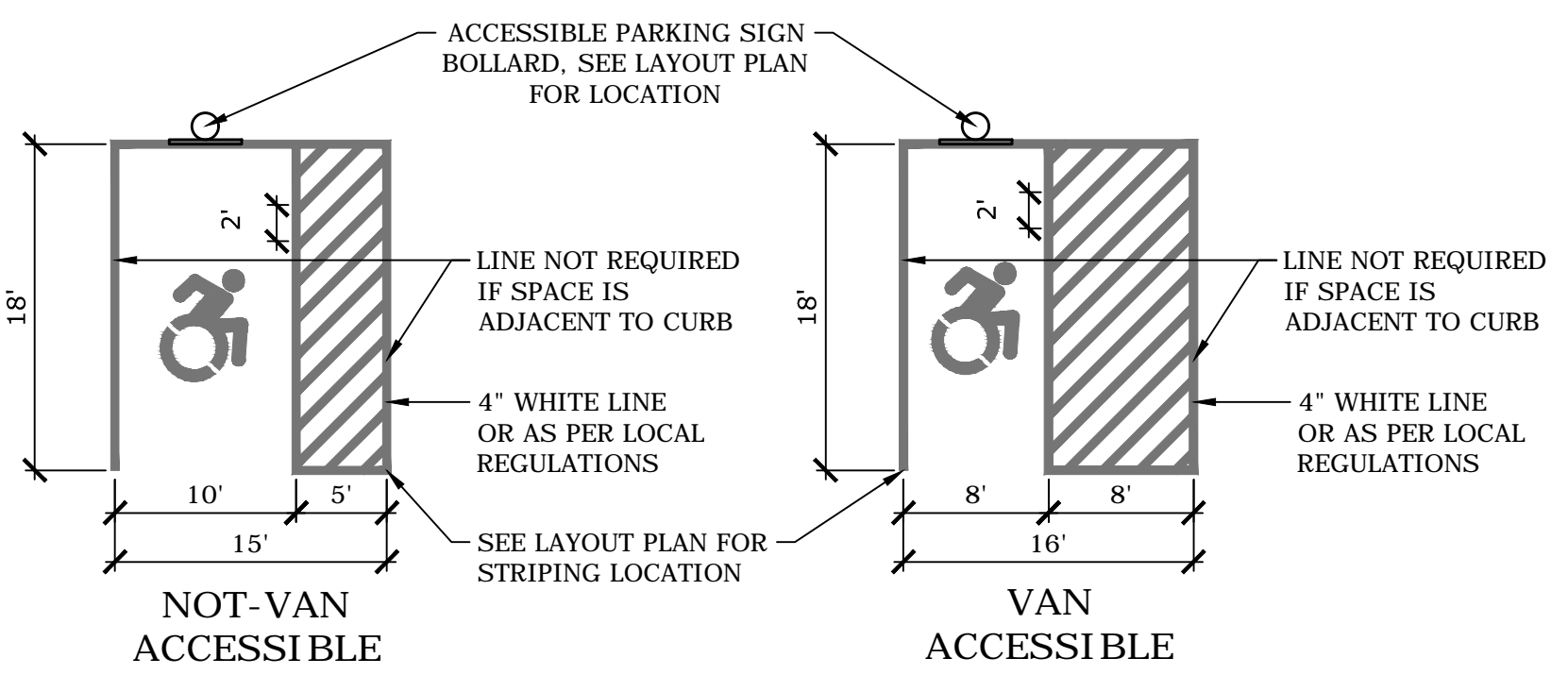
**01 ACCESSIBLE DROP RAMP - TYPE D** NOT TO SCALE

**ACCESSIBLE DROP RAMP NOTES:**

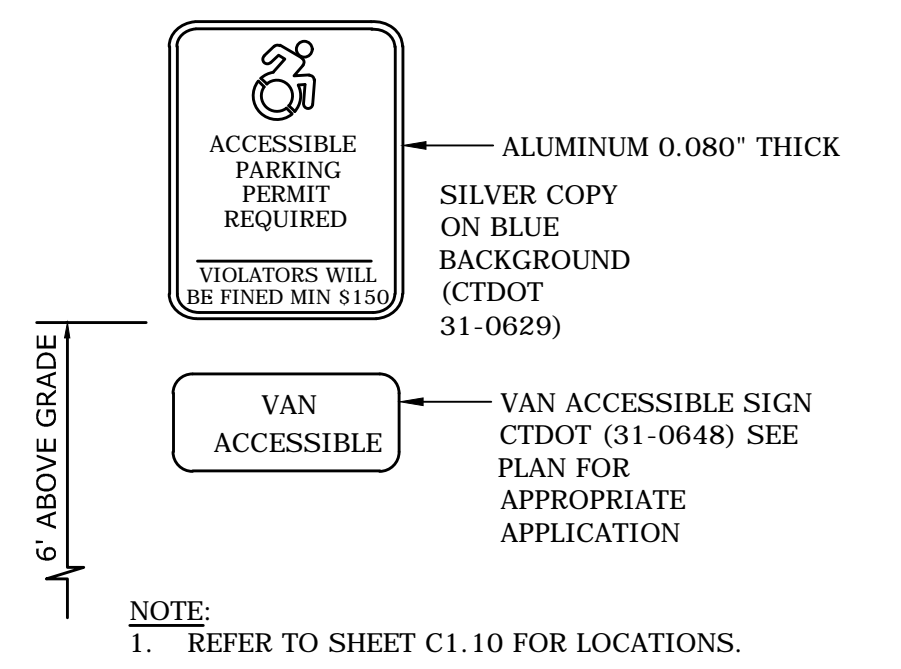
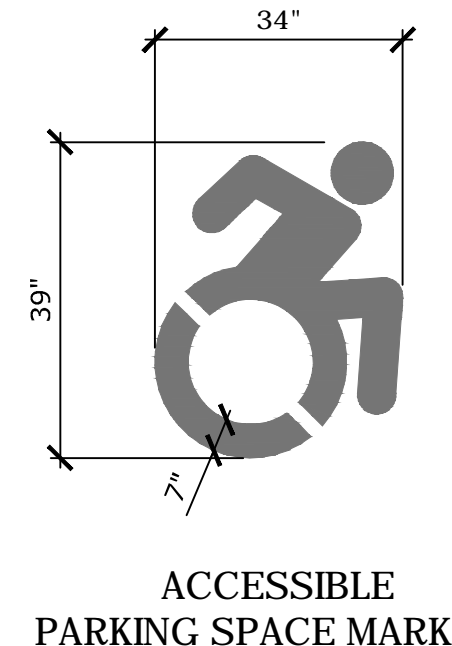
1. MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP OR ACCESSIBLE ROUTE SHOULD NOT EXCEED 1:20.
2. CARE SHALL BE TAKEN TO ASSURE UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND ABRUPT GRADE CHANGES.
3. ALL RAMP SHALL BE CONSTRUCTED OF 4,000 PSI CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS ARTICLE M.03.01.
4. SIDEWALK RAMP SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE ALONG ACCESSIBLE ROUTES SHALL BE STABLE, FIRM AND SLIP RESISTANT IN COMPLIANCE WITH ADA ACCESSIBILITY GUIDELINES SECTION 4.5.
5. DIAGONAL SIDEWALK RAMP AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
6. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION/CONTRACTION JOINT OR DUMMY JOINT. 1:12 MAY NOT BE ACHIEVABLE DUE TO SIDEWALK GRADE. IN RECOGNITION OF THIS, A MINIMUM LIMIT OF 15' FOR A PARALLEL RAMP SHALL BE USED. REMOVAL SHALL NOT BE FURTHER THAN 2' FROM THE PROPOSED RAMP UNLESS DIRECTED BY THE ENGINEER. SAW CUT REQUIRED FOR DUMMY JOINTS SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK".
7. EXPANSION JOINTS & TOOLED EDGES IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' UNLESS OTHERWISE NOTED.
8. RAISED ISLANDS IN MARKED CROSSINGS SHALL HAVE SIDEWALK RAMP AT BOTH SIDES AND A LEVEL AREA AT LEAST 4' LONG BETWEEN THE RAMP. IF THIS CAN NOT BE ACHIEVED, THE RAISED ISLAND SHALL BE CUT THROUGH LEVEL WITH THE ROADWAY AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
9. CURBING WITHIN THE LIMITS OF THE NEW SIDEWALK RAMP SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE REQUIREMENTS OF FORM 818.
10. HANDICAP RAMP CONFORMING WITH CONNECTICUT GENERAL STATUTES, SEC. 7-118a, SHALL BE INCORPORATED IN ALL PROPOSED SIDEWALKS AT ALL STREET INTERSECTIONS, AND AT ALL OTHER LOCATIONS WHERE THE GRADE OF A DRIVEWAY OR OTHER FACILITY TAKES PRECEDENCE OVER THE GRADE OF THE PROPOSED SIDEWALK.
11. TRANSITION TO FULL HEIGHT CURB. MATCH THE ADJACENT CURBING MATERIAL UNLESS OTHERWISE NOTED ON PLANS. INSTALL THE EDGE OF THE DETECTABLE WARNING 6" FROM THE EDGE OF ROAD.
12. TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID. IN THE DIRECTION OF PEDESTRIAN TRAVEL.



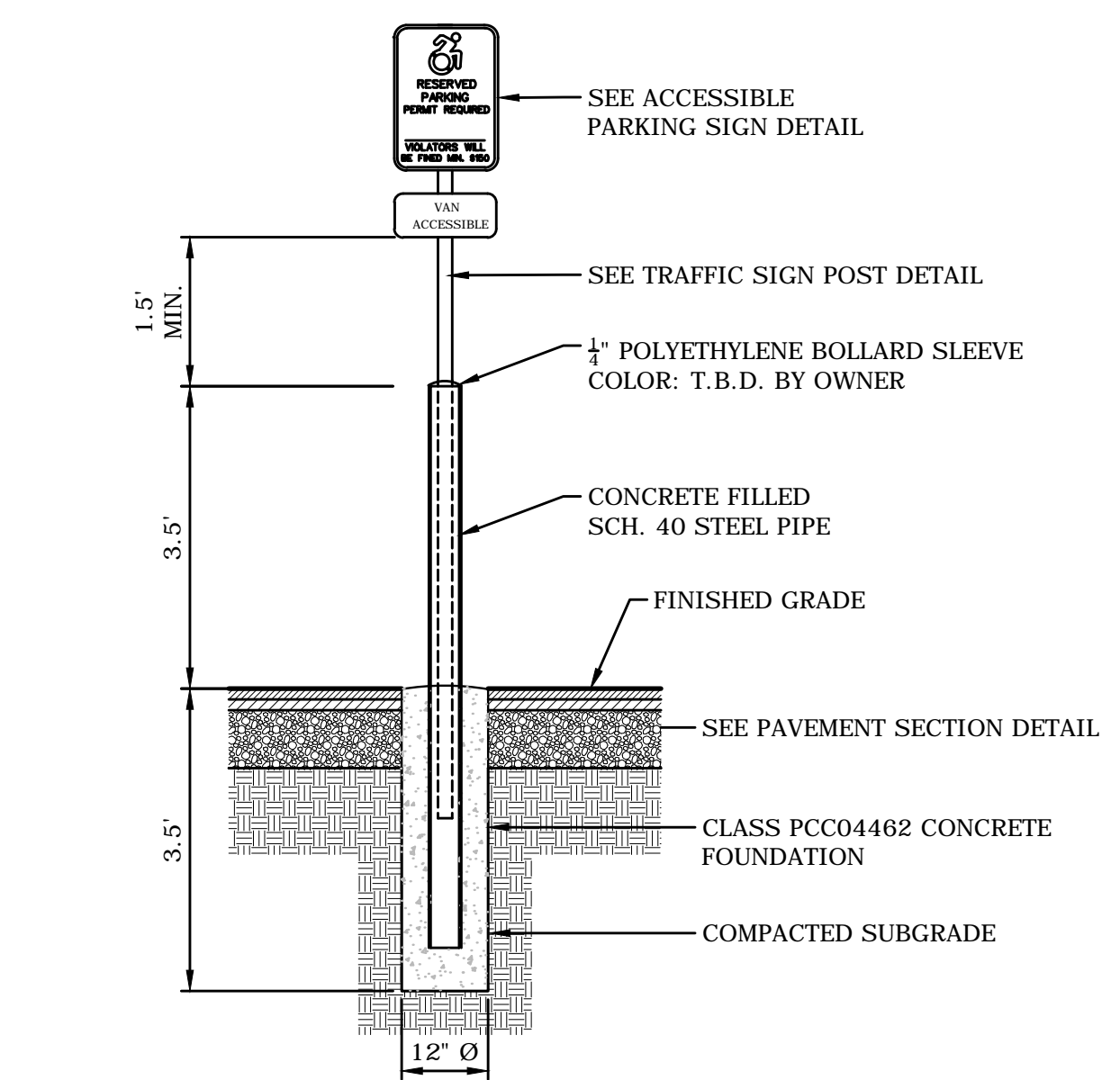
**02 SURFACE MOUNTED BIKE RACK** NOT TO SCALE



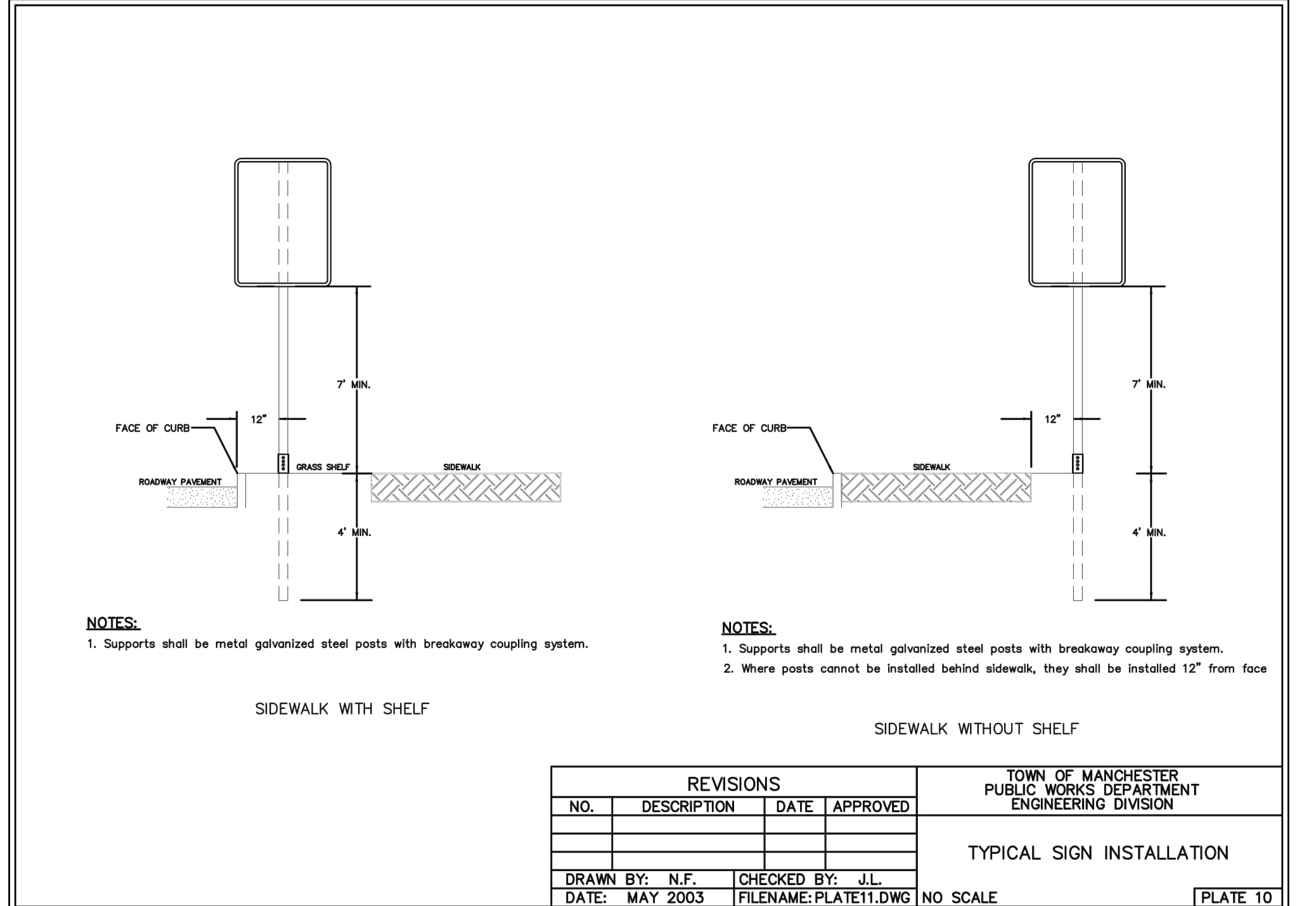
**03 ACCESSIBLE PARKING** NOT TO SCALE



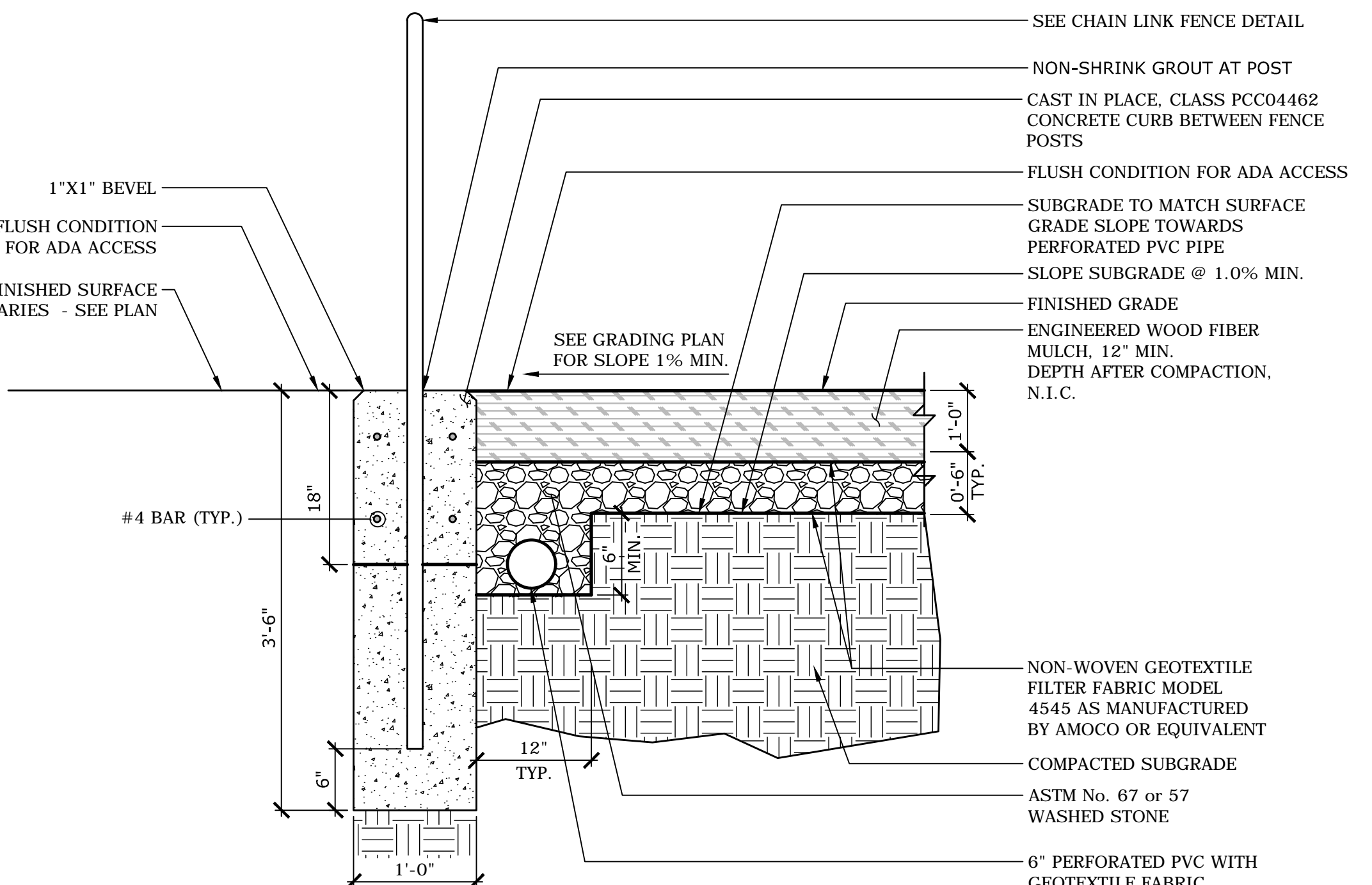
**06 ACCESSIBLE PARKING SIGN** NOT TO SCALE



**04 ACCESSIBLE PARKING SIGN BOLLARD** NOT TO SCALE



**07 TYPICAL SIGN INSTALLATION** NOT TO SCALE

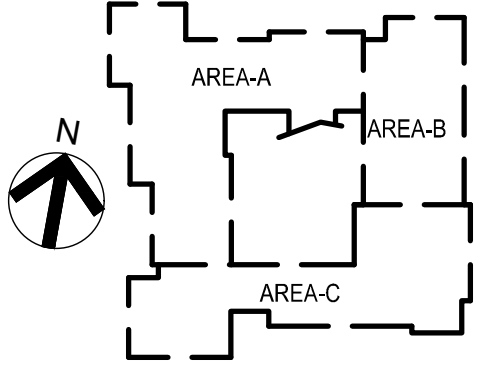


- NOTES:  
1. SEE PLANS FOR PIPE LOCATION AND INVERTS.  
2. PROVIDE EXPANSION JOINTS IN CURB AT 20' MAXIMUM O.C.

**05 C.I.P. CONCRETE CURB WITH FENCE AT PLAYScape AREAS** NOT TO SCALE

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PLANNING AND ZONING COMMISSION  
MANCHESTER, CT

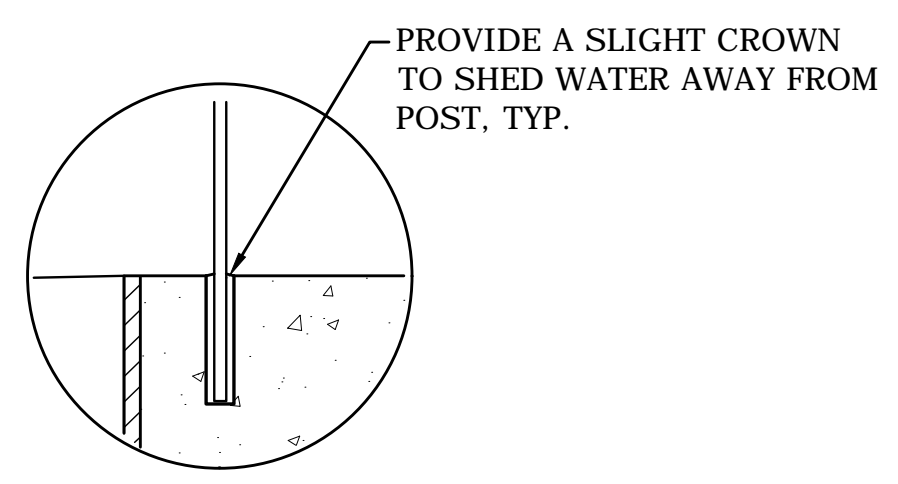
DATE: \_\_\_\_\_  
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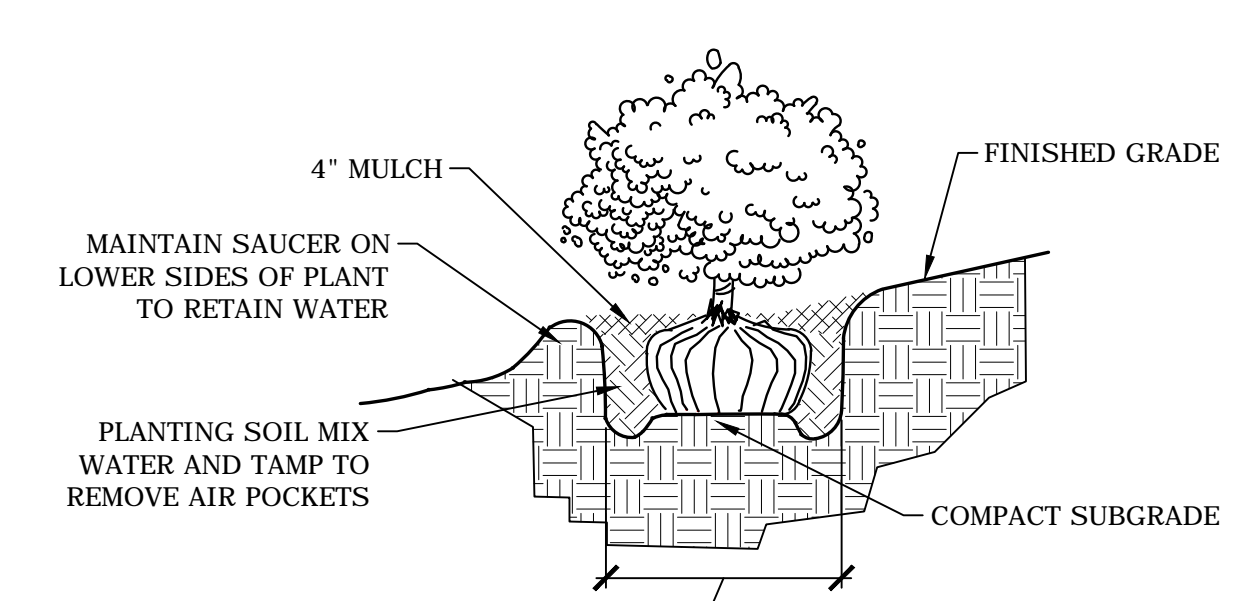
DRAWING TITLE  
**SITE DETAILS**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	AS NOTED
DATE	09/02/2022
DRAWN BY:	STN
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ISSUE DATES		
NO.	ISSUE DATE	PURPOSE



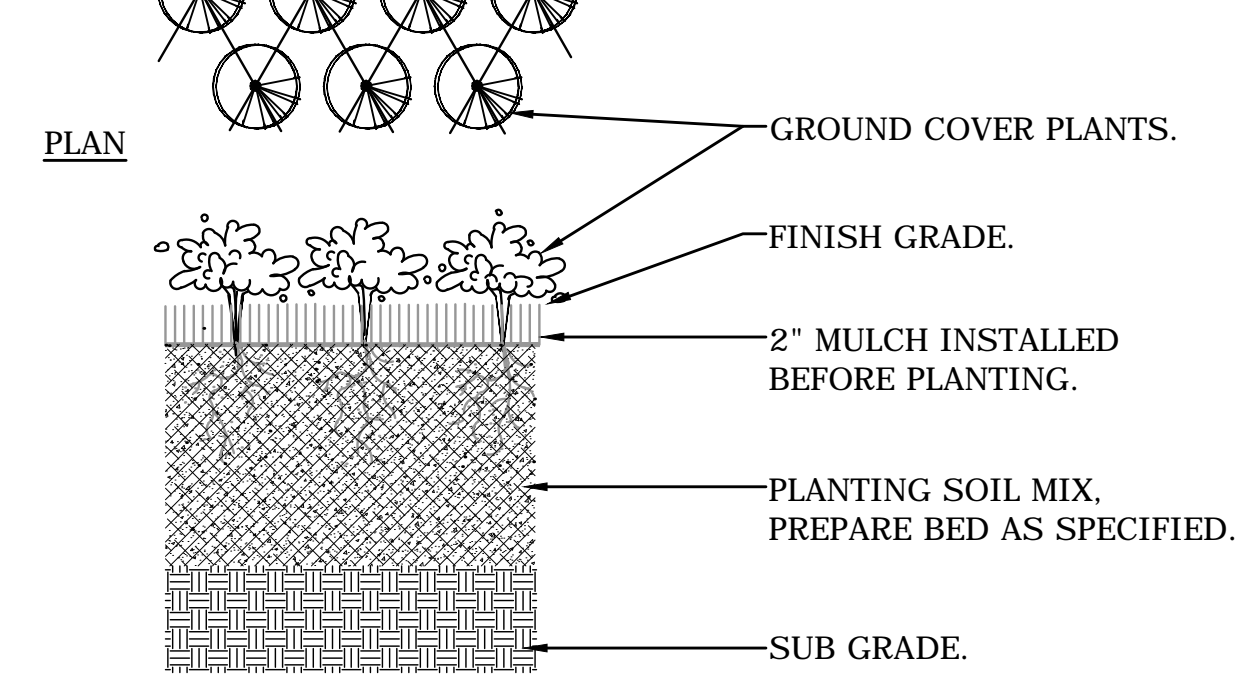
01 TYPICAL POST SETTING DETAIL NOT TO SCALE



02 SHRUB PLANTING NOT TO SCALE

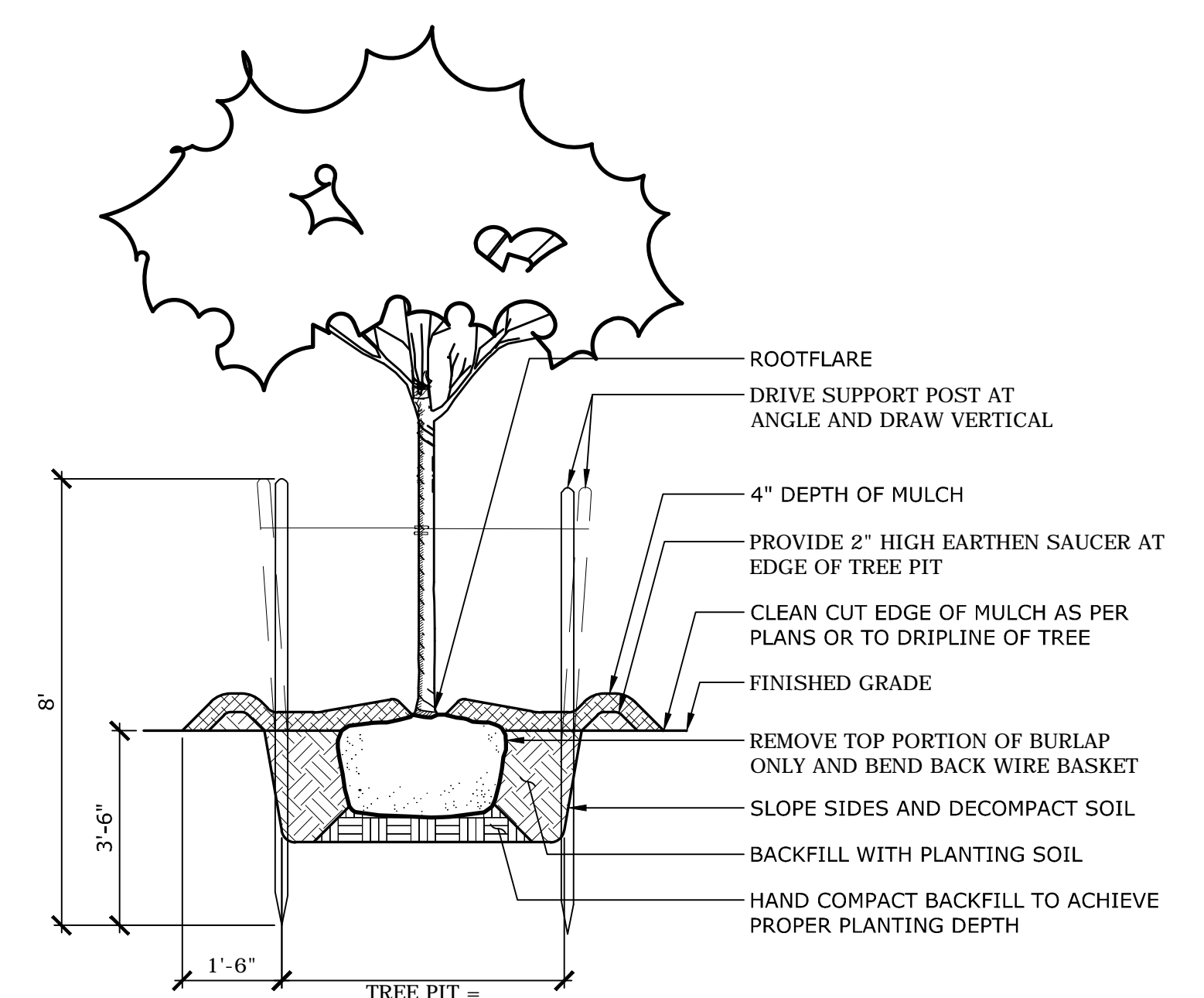
GROUND COVER SPACING TABLE

PLANT SPACING "A"	ROW SPACING "B"	NO. OF PLANTS	AREA UNIT
6" O.C.	5.2"	4.61	1 SQ. FT.
8" O.C.	6.93"	2.6	1 SQ. FT.
10" O.C.	8.66"	1.66	1 SQ. FT.
12" O.C.	10.4"	1.15	1 SQ. FT.



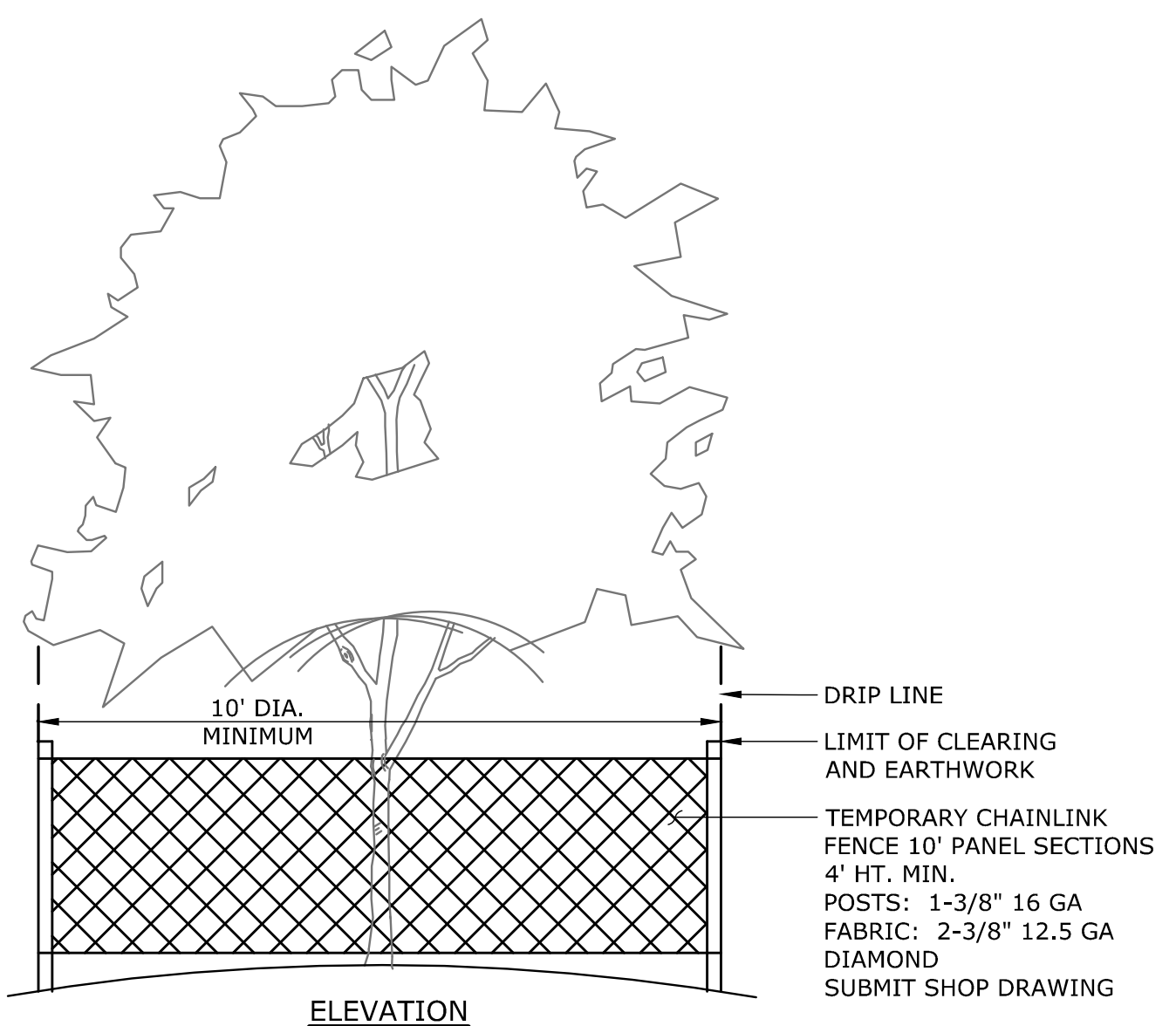
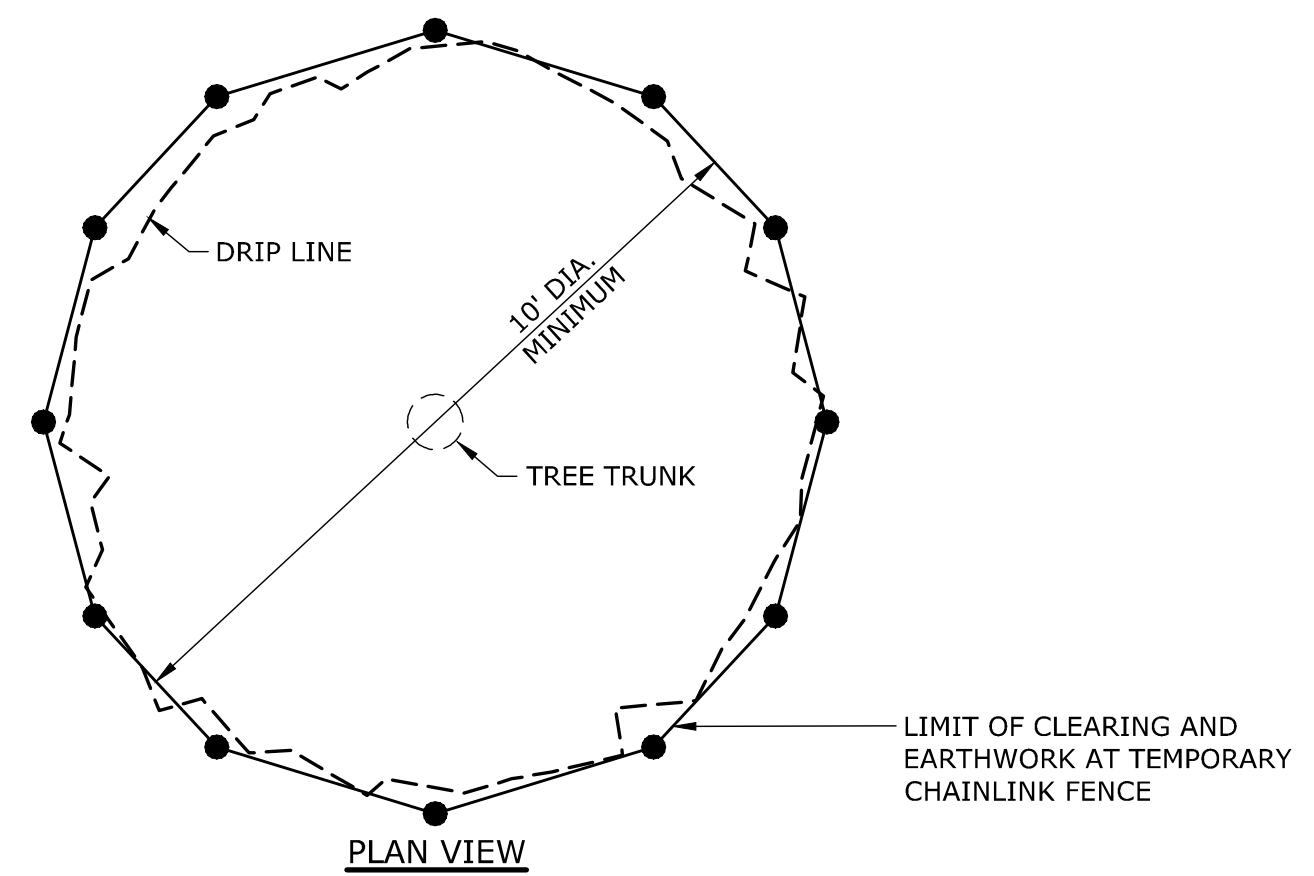
NOTES:  
1. ALL GROUND COVER TO BE PLANTED IN TRIANGULAR PATTERN. SEE DETAIL PLAN AND GROUND COVER SPACING TABLE.

04 GROUND COVER - PERENNIAL PLANTING NOT TO SCALE

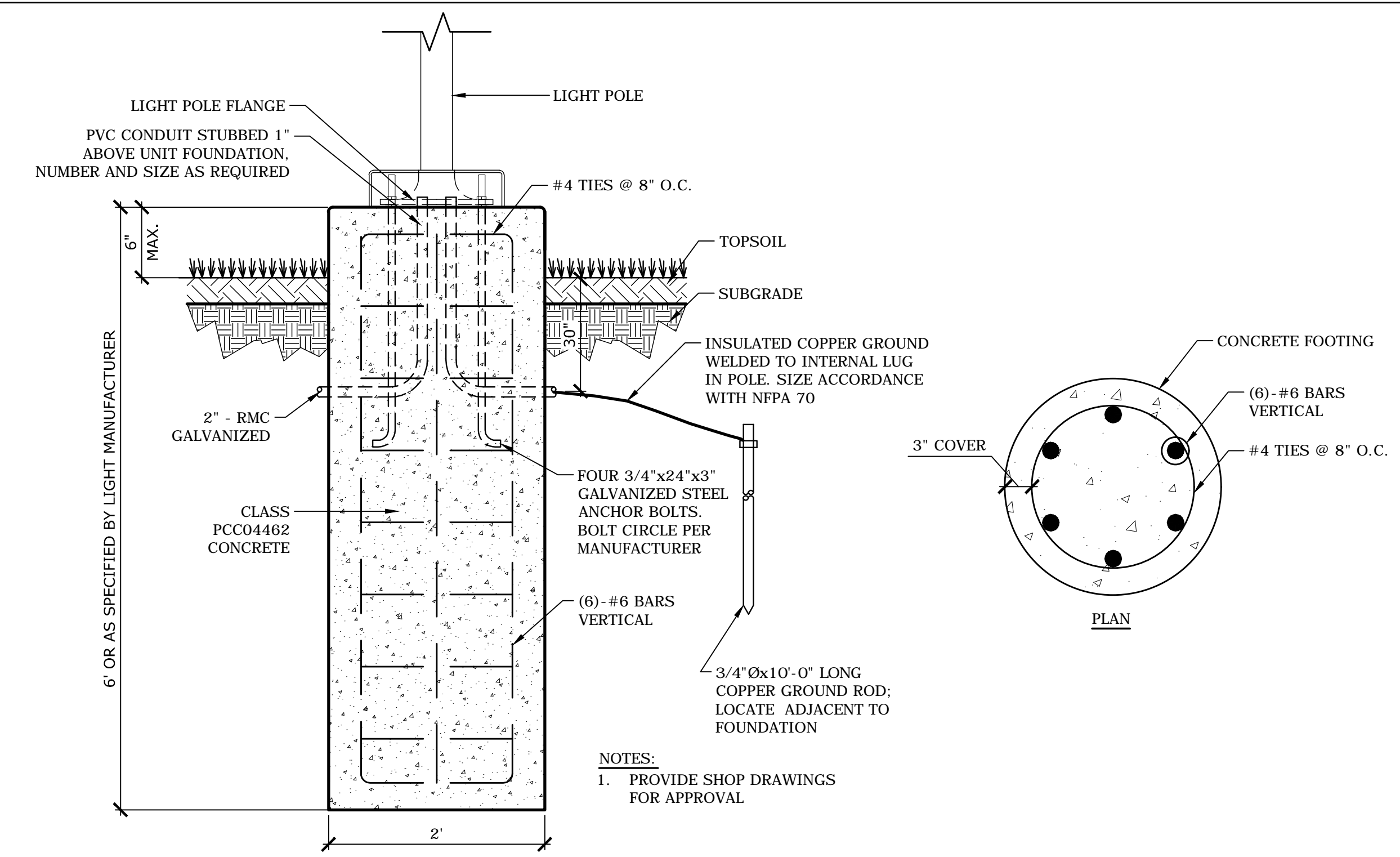


NOTES:  
1. SUPPORT POSTS SHALL BE REMOVED BY THE CONTRACTOR ONE YEAR AFTER INSTALLATION  
2. WHERE TREES ARE PLANTED IN COMPACTED SOILS CONTRACTOR TO INSURE PLANT PIT DRAINS 1.5" HOUR DO NOT COVER TREE TRUNK WITH MULCH

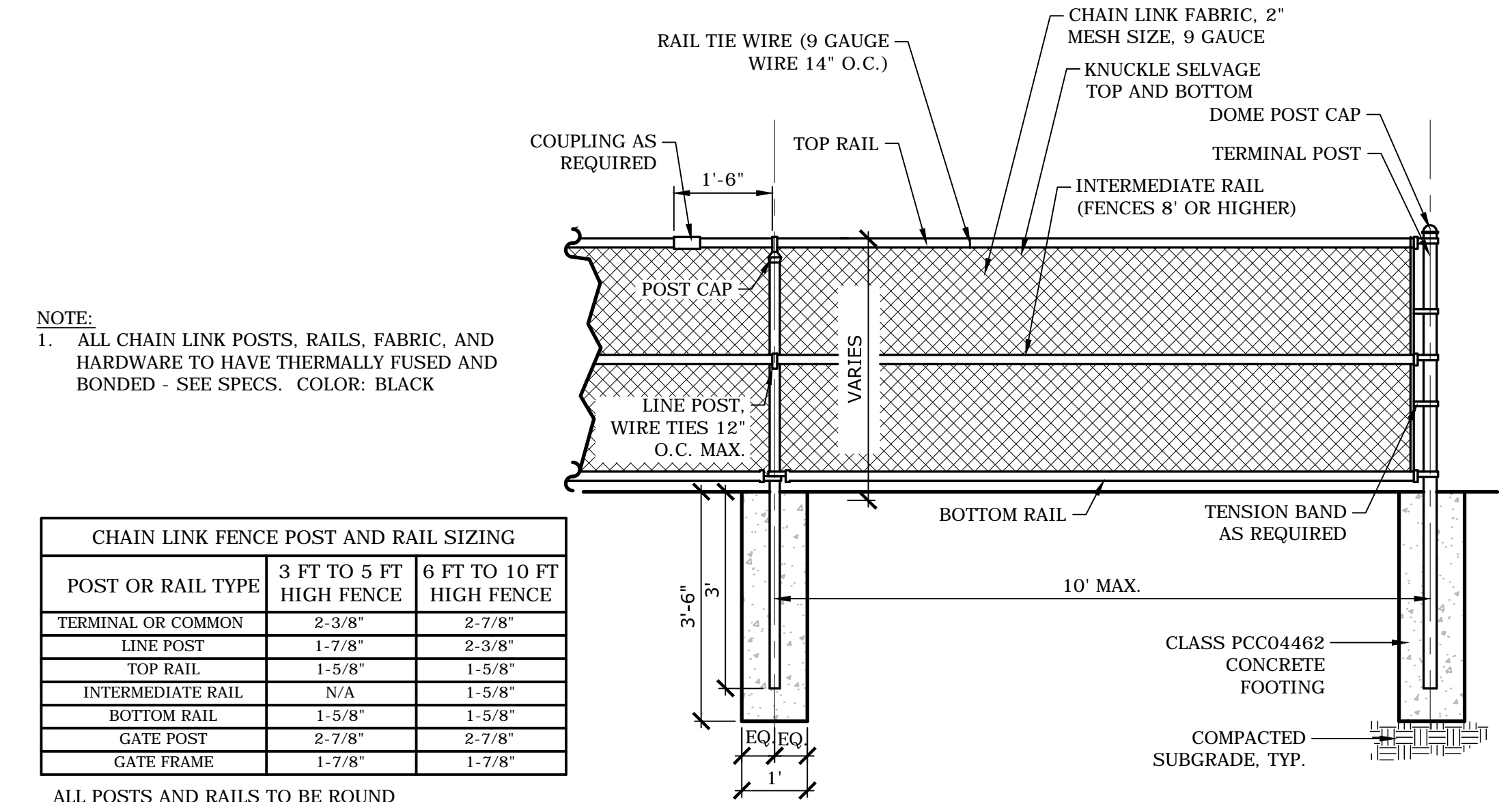
03 TREE PLANTING NOT TO SCALE



05 TREE PROTECTION NOT TO SCALE



06 LIGHT POLE FOUNDATION NOT TO SCALE



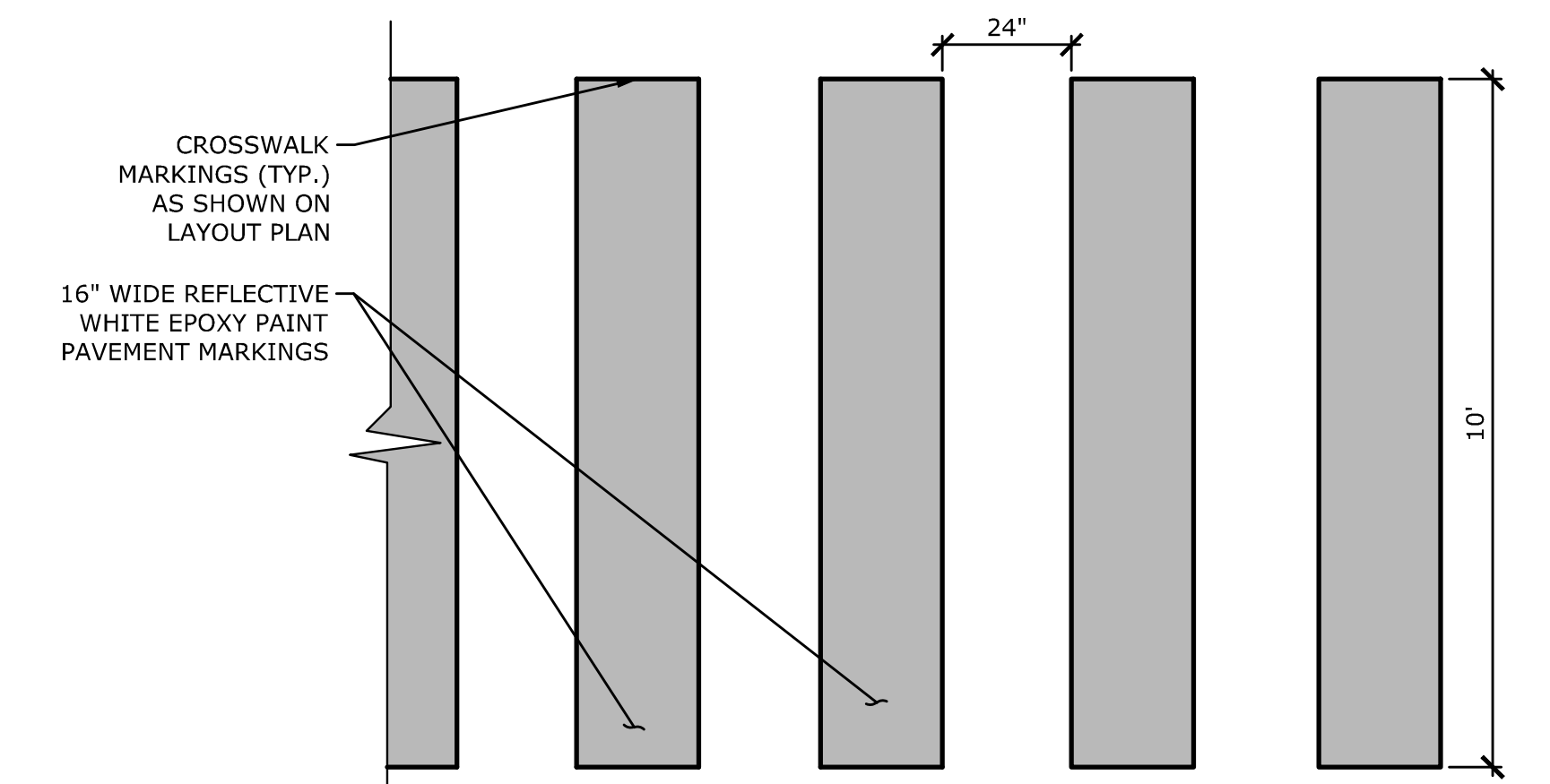
NOTE:  
1. ALL CHAIN LINK POSTS, RAILS, FABRIC, AND HARDWARE TO HAVE THERMALLY FUSED AND BONDED - SEE SPECS. COLOR: BLACK

CHAIN LINK FENCE POST AND RAIL SIZING

POST OR RAIL TYPE	3 FT TO 5 FT HIGH FENCE	6 FT TO 10 FT HIGH FENCE
TERMINAL OR COMMON	2-3/8"	2-7/8"
LINE POST	1-7/8"	2-3/8"
TOP RAIL	1-5/8"	1-5/8"
INTERMEDIATE RAIL	N/A	1-5/8"
BOTTOM RAIL	1-5/8"	1-5/8"
GATE POST	2-7/8"	2-7/8"
GATE FRAME	1-7/8"	1-7/8"

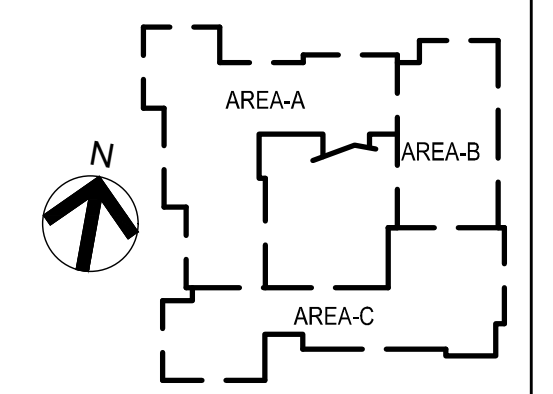
ALL POSTS AND RAILS TO BE ROUND

07 CHAIN LINK FENCE NOT TO SCALE



08 WHITE PAINTED CROSSWALK NOT TO SCALE

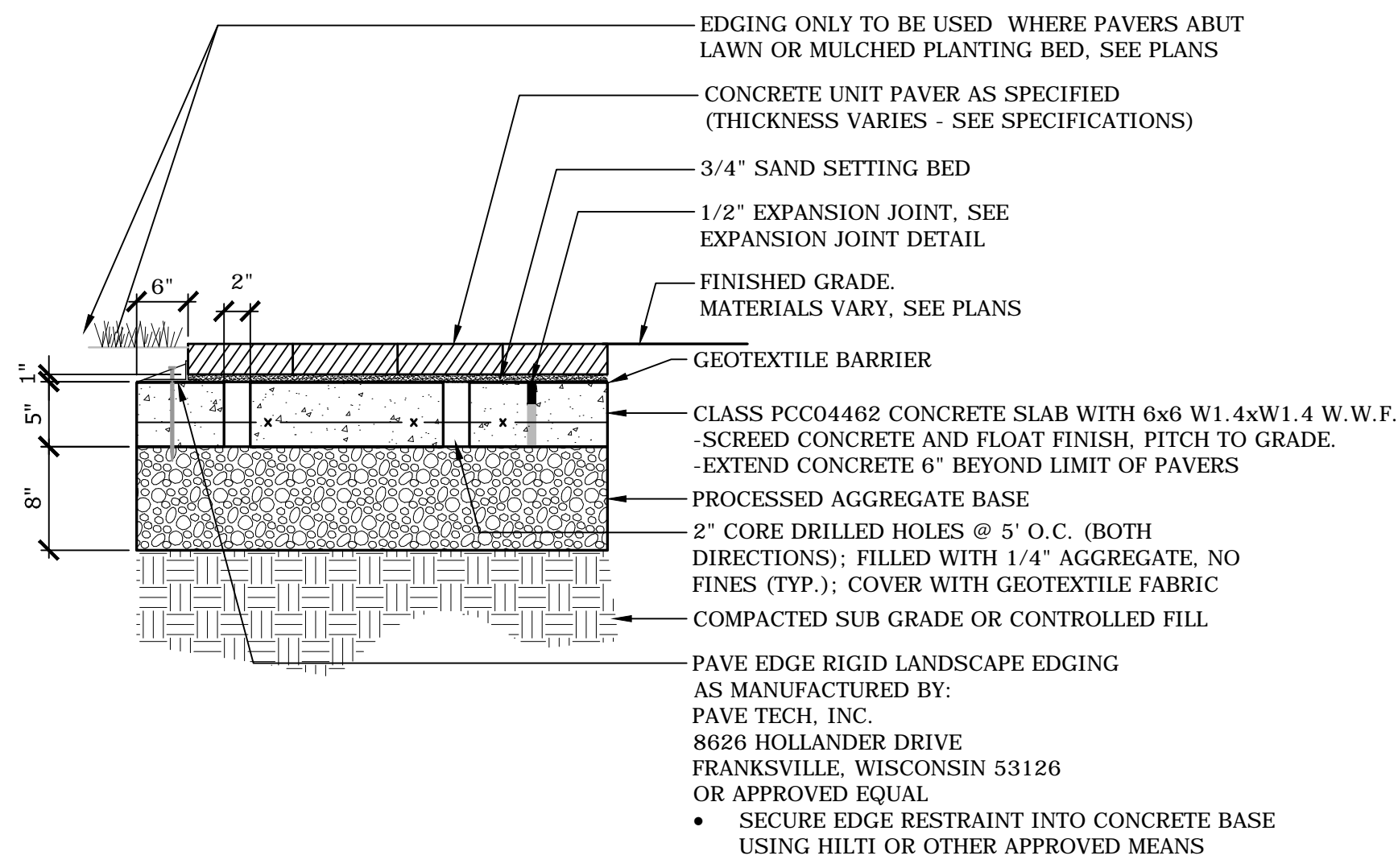
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STATE PROJ. NO.	###
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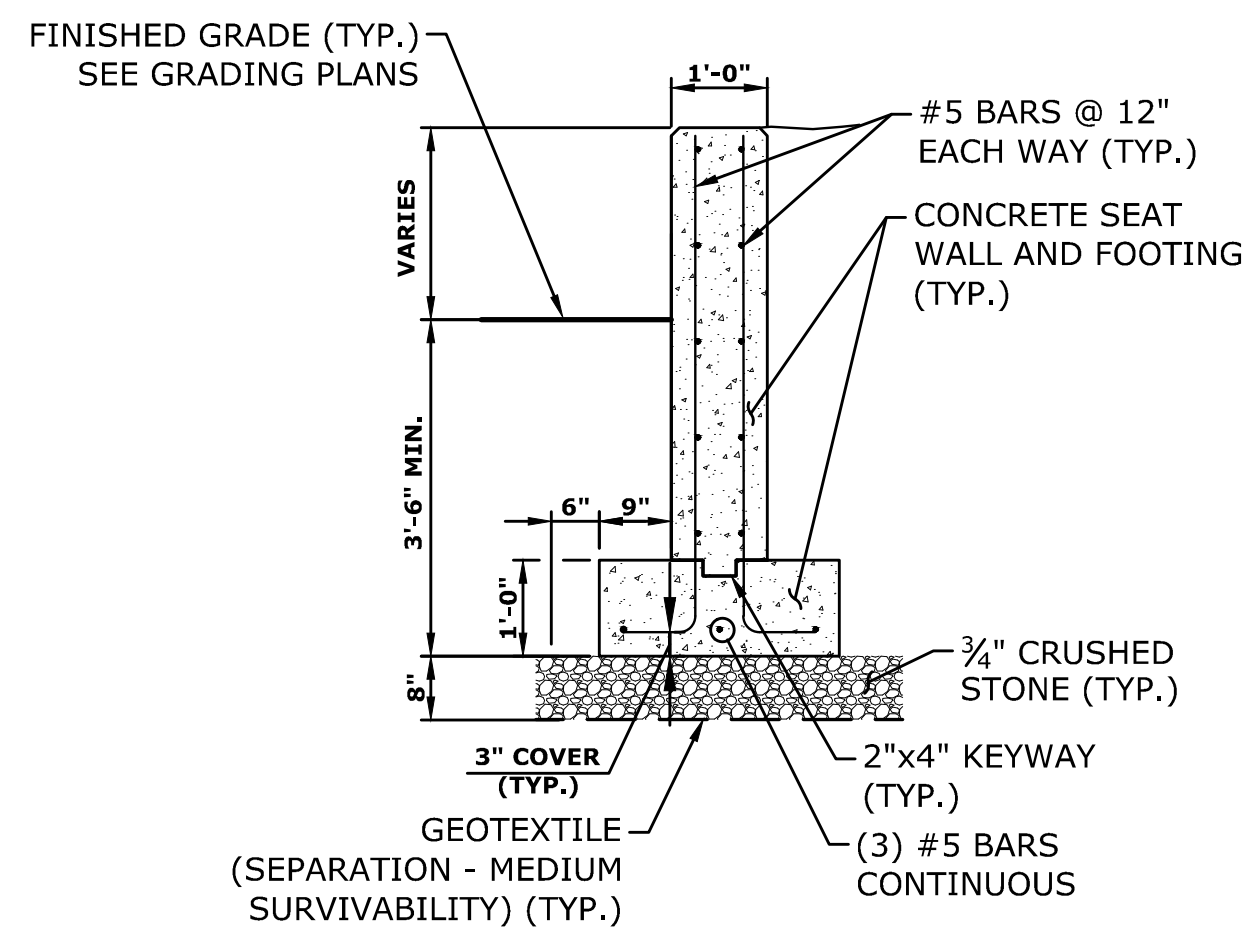
ISSUE DATES		
NO.	DATE	PURPOSE

- PAVERS SHALL BE EITHER PRE-CAST CONCRETE UNIT PAVER AS SPECIFIED ON PLANS.
- EXPANSION JOINTS IN CONCRETE BASE SHALL BE 20' O.C. OR 144 S.F. MAX.
- CONCRETE BASE SHALL BE SCREEDED WITH A FLOAT FINISH, TROWELED, AND PITCHED TO GRADE.
- TO BE ACCEPTED, PAVERS SHALL BE INSTALLED IN SUCH A MANNER THAT:
  - THE PAVER WALKING SURFACES ARE WITHIN 1/8" OF EACH OTHER AND ADJACENT FINISHED SURFACES (I.E. CONCRETE WALK)
  - THE PAVERS HAVE NO JOINTS GREATER THAN 1/16" - NOTE "SQUARE EDGE" PAVERS MUST HAVE A "TROWEL'S WIDTH" SPACE PROVIDED BETWEEN PAVERS, TO ACCEPT THE POLYMERIC SAND
  - POLYMERIC SAND SWEEP BETWEEN JOINTS IS VIBRATED AND WITHIN 3/16" OF THE PAVER WALKING SURFACE
  - NO PAVER IS CRACKED OR BROKEN
  - PAVERS ARE VIBRATED IN PLACE
- CONTRACTOR SHALL CONSTRUCT A PAVER SAMPLE PATTERN (MIN. 5'X5') FOR EACH PATTERN (AS SPECIFIED) AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO AUTHORIZATION TO INSTALL PAVERS.



01 PRECAST PAVERS ON CONCRETE

3/8" = 1'-0"



02 COURTYARD SEAT WALL TYPICAL SECTION

1/2" = 1'-0"

GENERAL NOTES AND SPECIFICATIONS

IF ANY CONDITIONS ARISE DURING CONSTRUCTION THAT PRECLUDE COMPLIANCE WITH THE DETAILS SHOWN ON THESE DRAWINGS, THE WORK IN THE AFFECTED AREAS SHALL CEASE AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

CONCRETE AND REINFORCING NOTES

ALL CONCRETE SHALL BE CLASS PCC04462.

CONCRETE MIX SHALL HAVE 4%-6% ENTRAINED AIR.

ANY PROPOSED CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

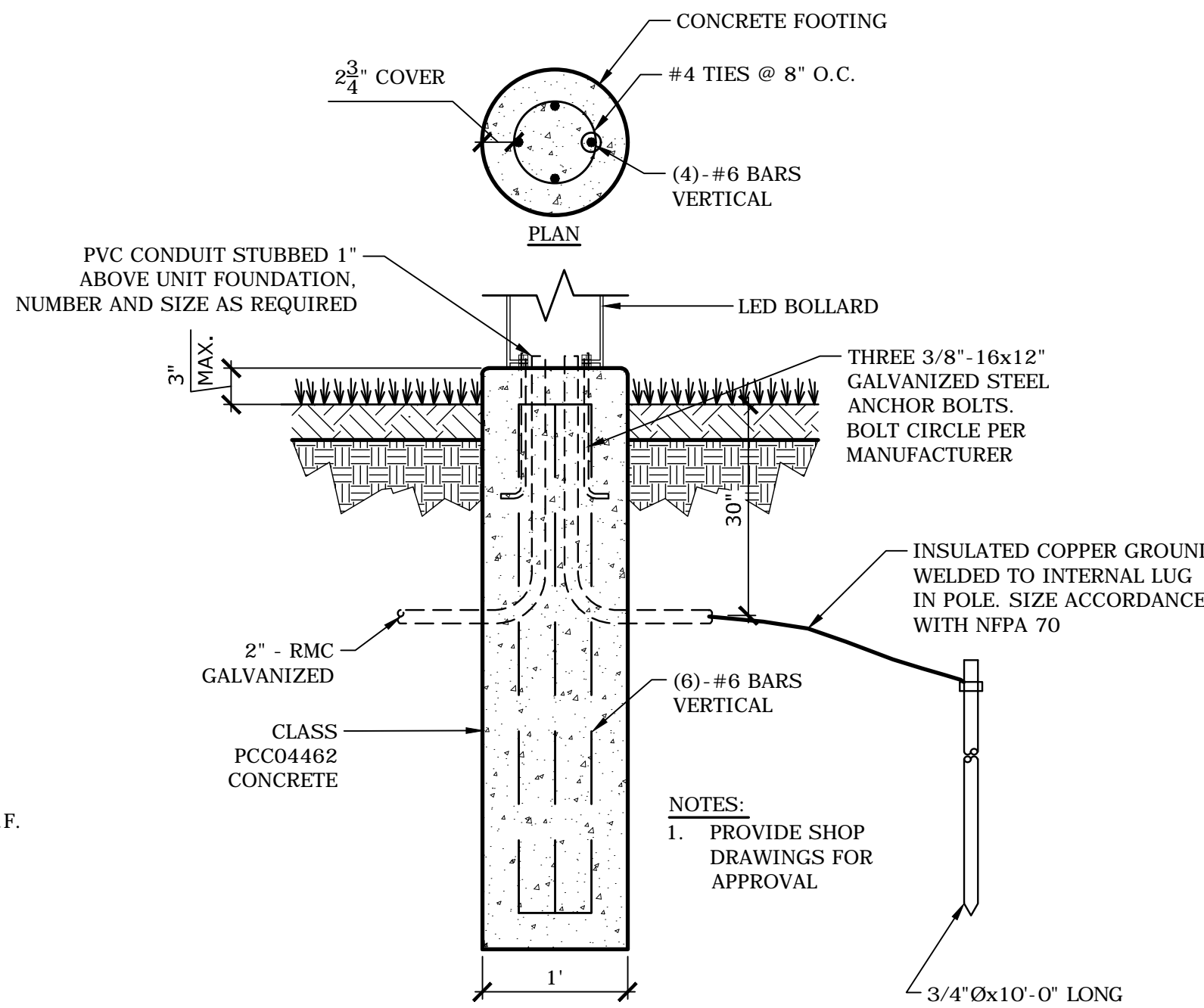
PREFORMED EXPANSION JOINT FILLER TO BE USED AT ALL EXPANSION JOINTS. JOINT SEALER SHALL BE APPLIED ALONG THE FRONT FACE OF WALL UNLESS OTHERWISE NOTED. COLOR OF SEALER TO BE DETERMINED BY OWNER.

REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60 AND WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

THE BOTTOM OF ALL FOOTINGS SHALL BE A MINIMUM OF 3'-6" BELOW FINISHED GRADE. FOOTINGS SHALL BEAR ON COMPACTED GRANULAR FILL.

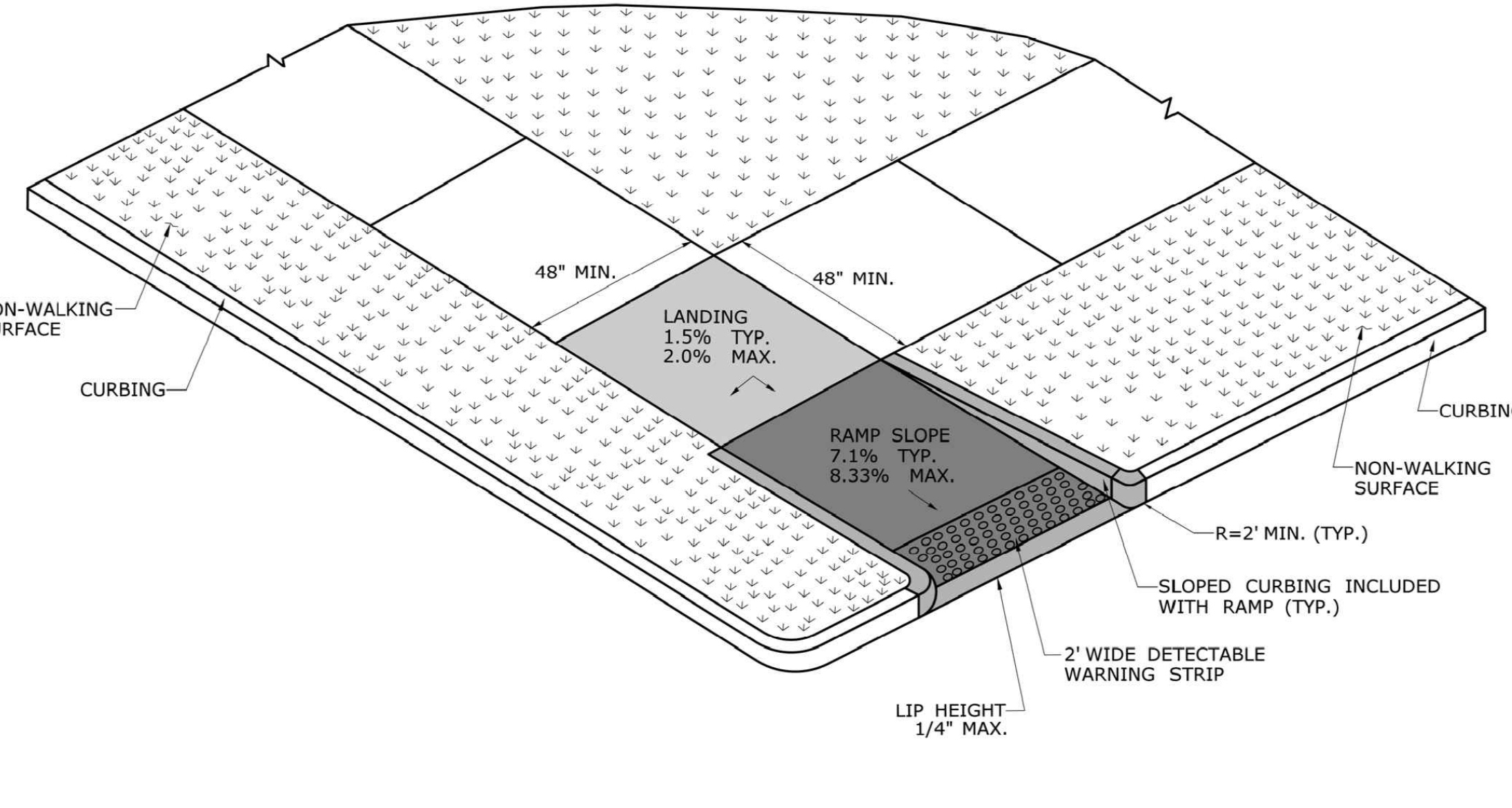
ALL ITEMS TO BE CAST INTO THE CONCRETE SUCH AS REINFORCING, SLEEVES, DOWELS, WALL MOUNTED POSTS, ETC. SHALL BE SECURELY POSITIONED IN THE FORMS ACCORDING TO ACI 301, LATEST EDITION BEFORE PLACING CONCRETE.

REINFORCING COVER: 3" AT BOTTOMS OF FOOTINGS; 2" ELSEWHERE UNLESS NOTED OTHERWISE.



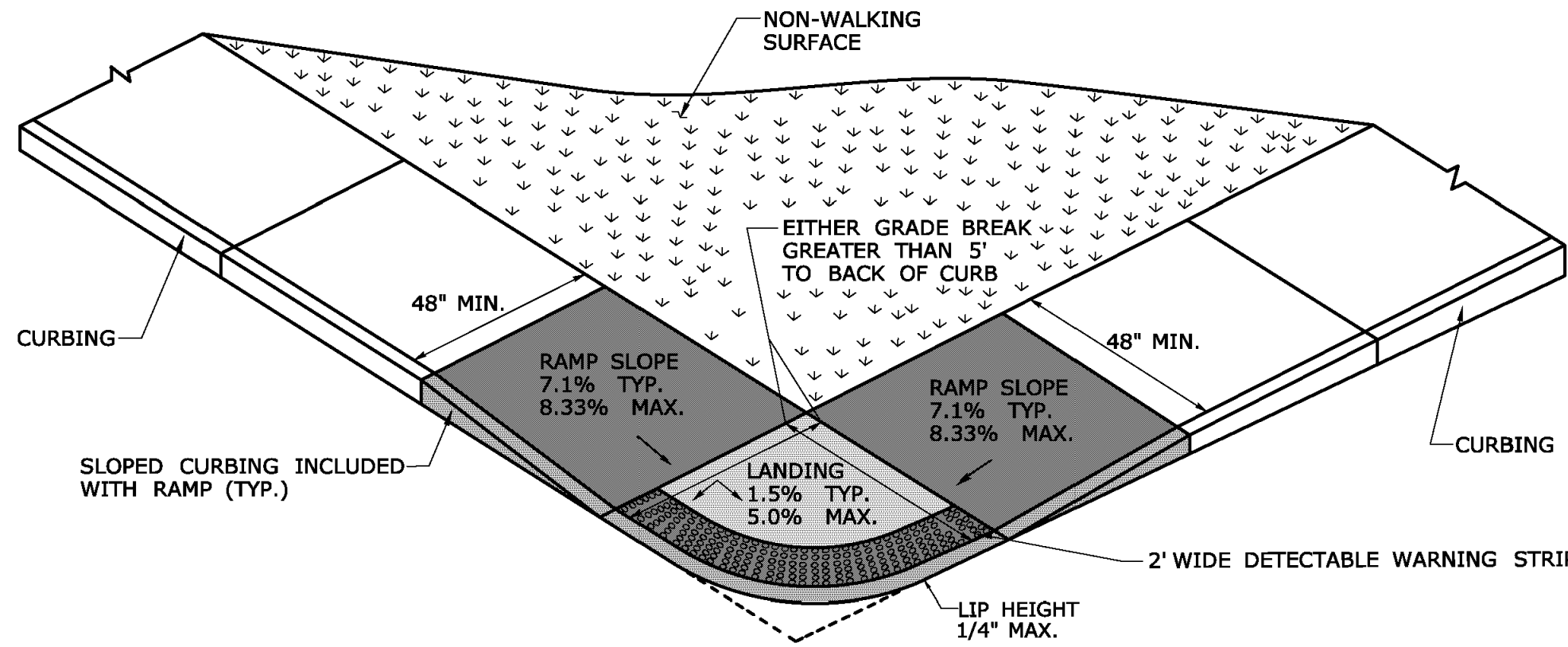
03 LED BOLLARD FOUNDATION

NOT TO SCALE



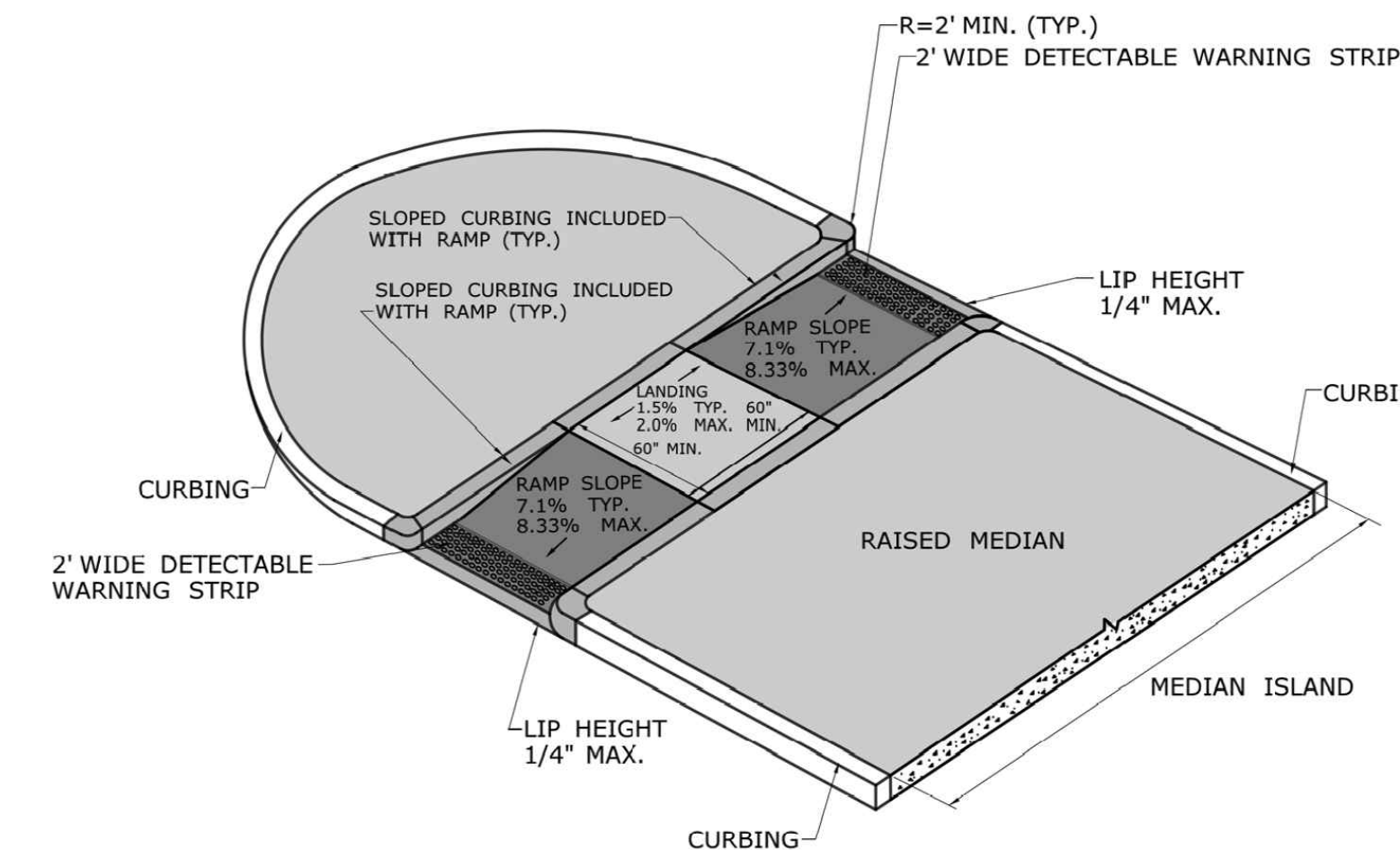
06 ACCESSIBLE RAMP - TYPE 20

NOT TO SCALE



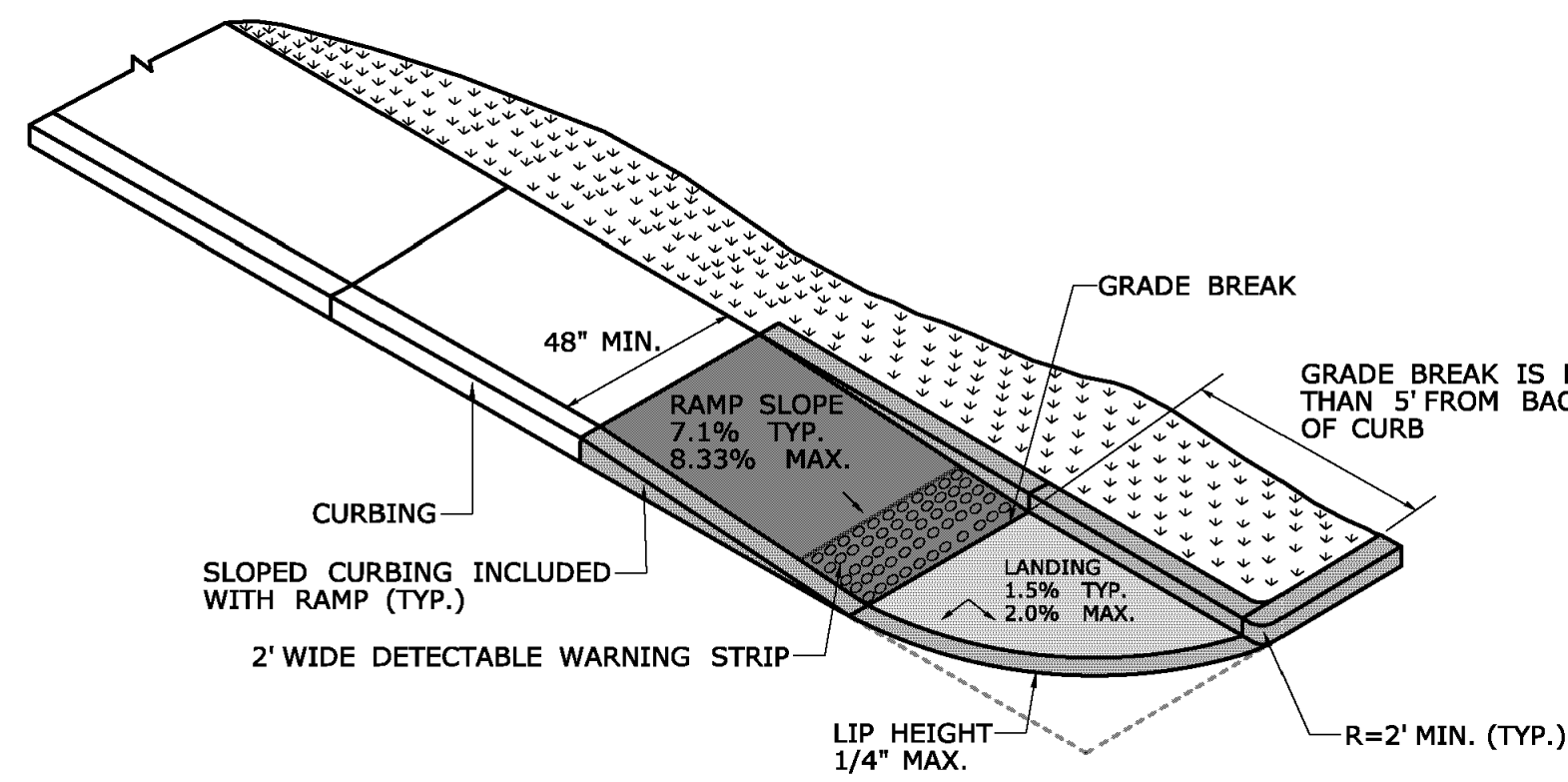
04 ACCESSIBLE RAMP - TYPE 2

NOT TO SCALE



07 ACCESSIBLE RAMP - TYPE 24

NOT TO SCALE



05 ACCESSIBLE RAMP - TYPE 15

NOT TO SCALE

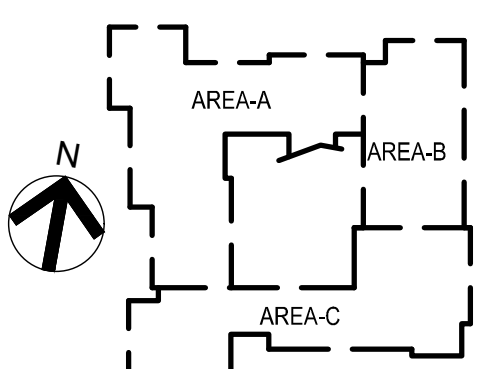
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COMMISSION  
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tskp.com  
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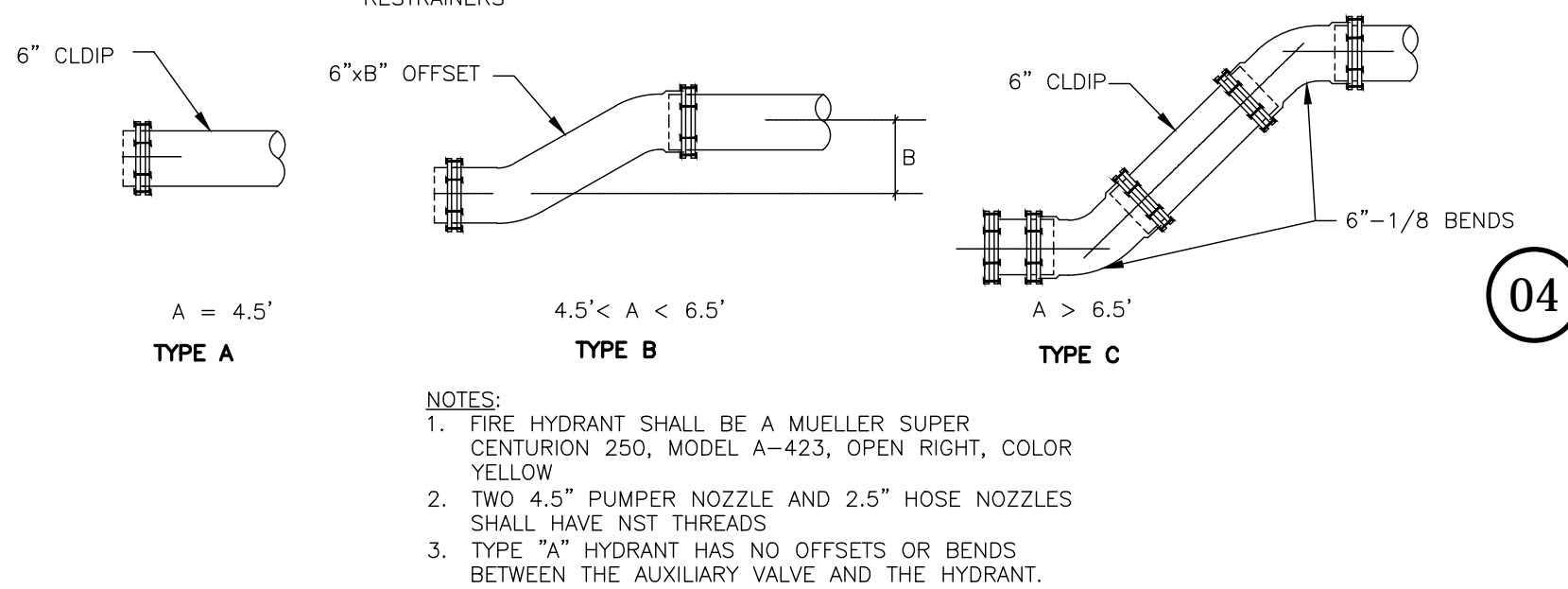
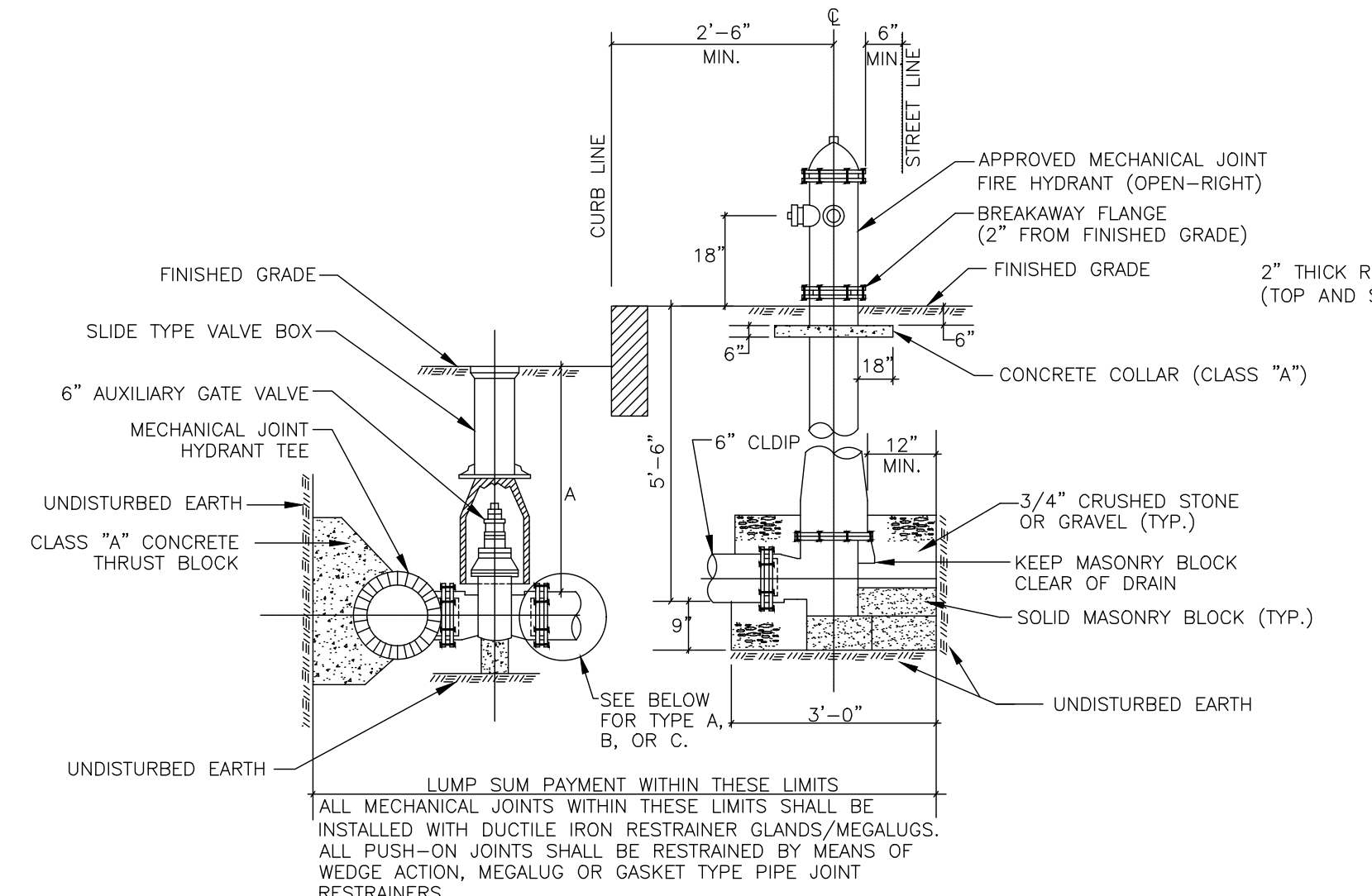
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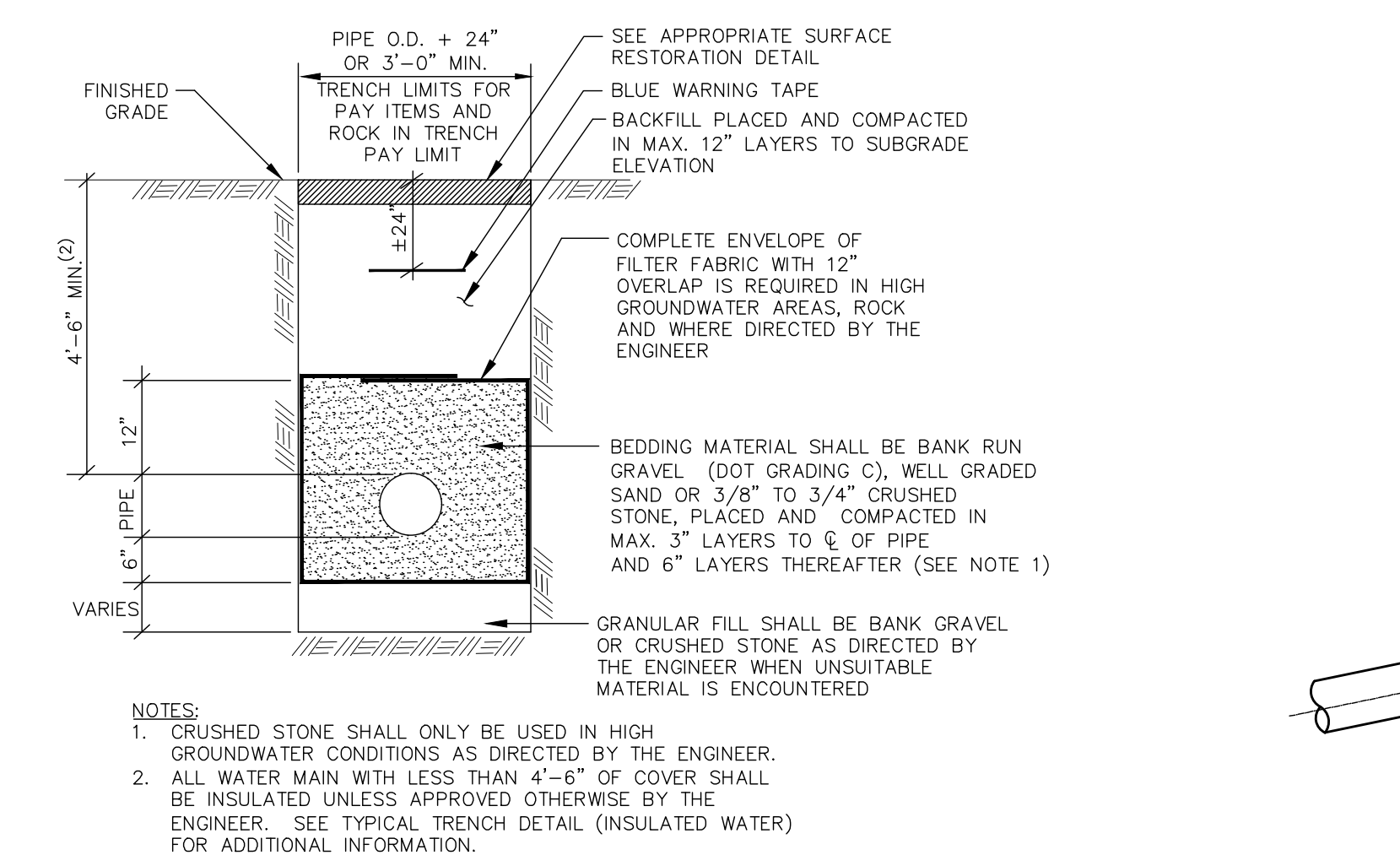
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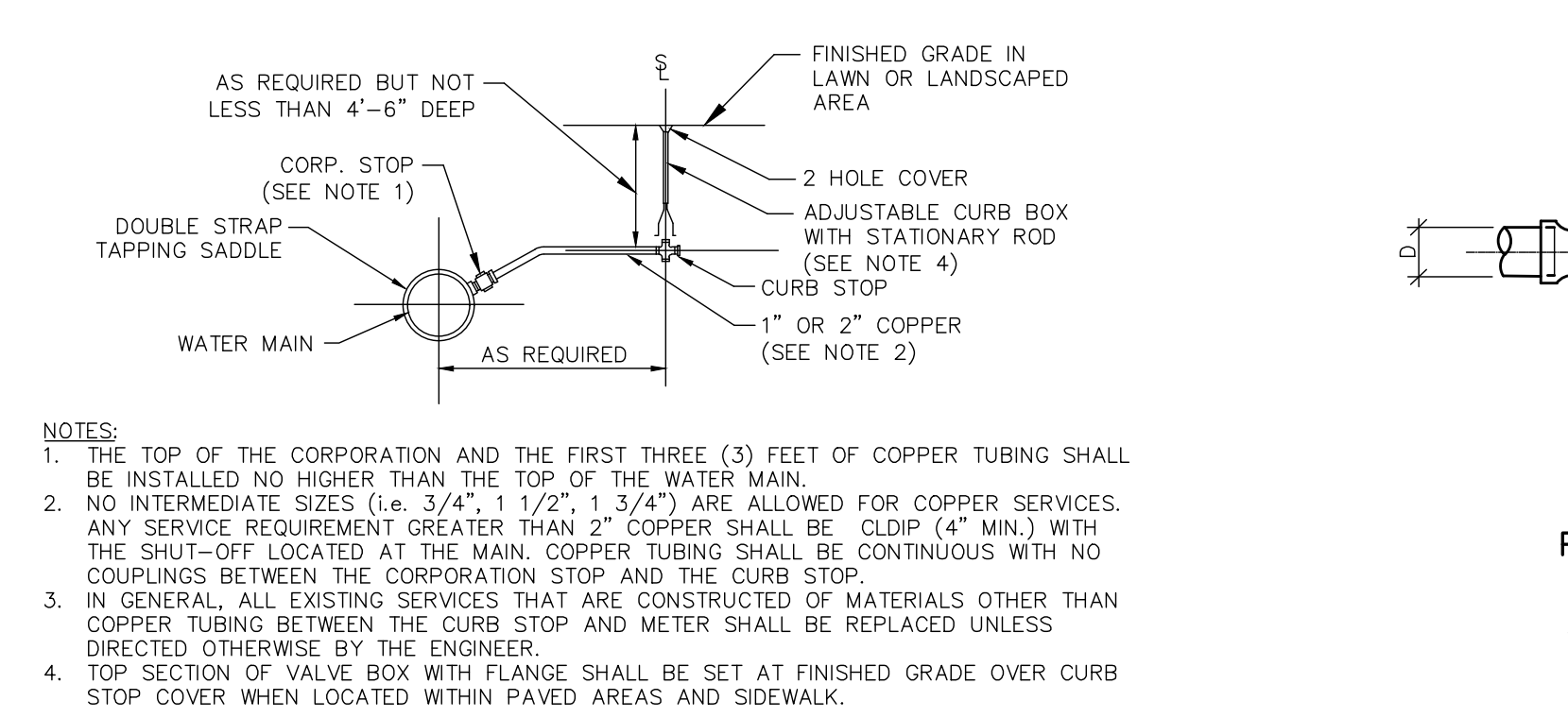
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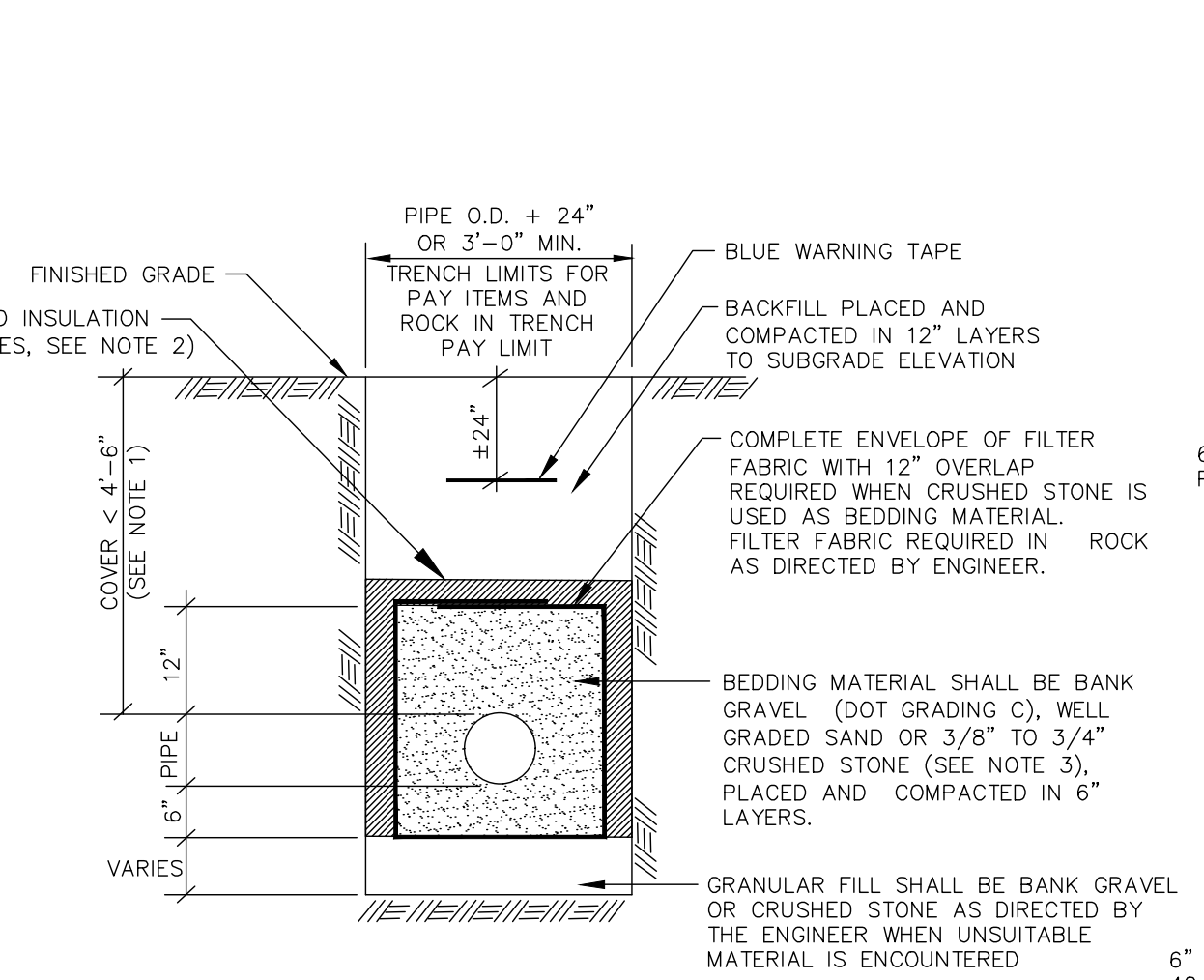
**01 HYDRANT ASSEMBLY** NOT TO SCALE



**02 TYPICAL WATER TRENCH DETAIL** NOT TO SCALE



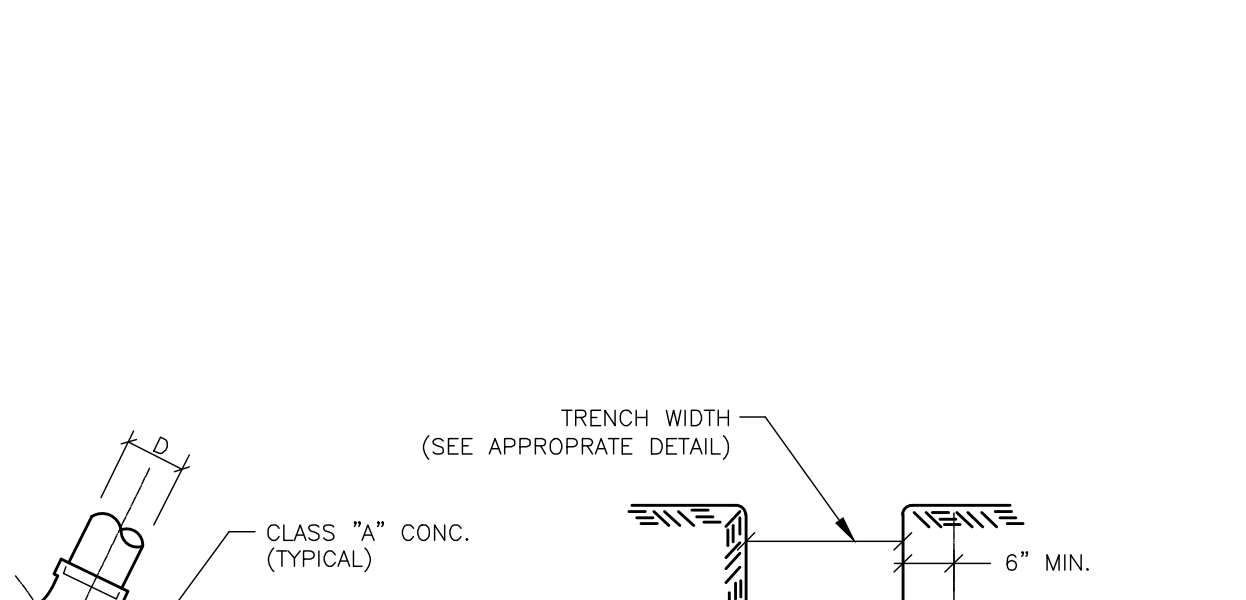
**03 TYPICAL WATER SERVICE CONNECTION** NOT TO SCALE



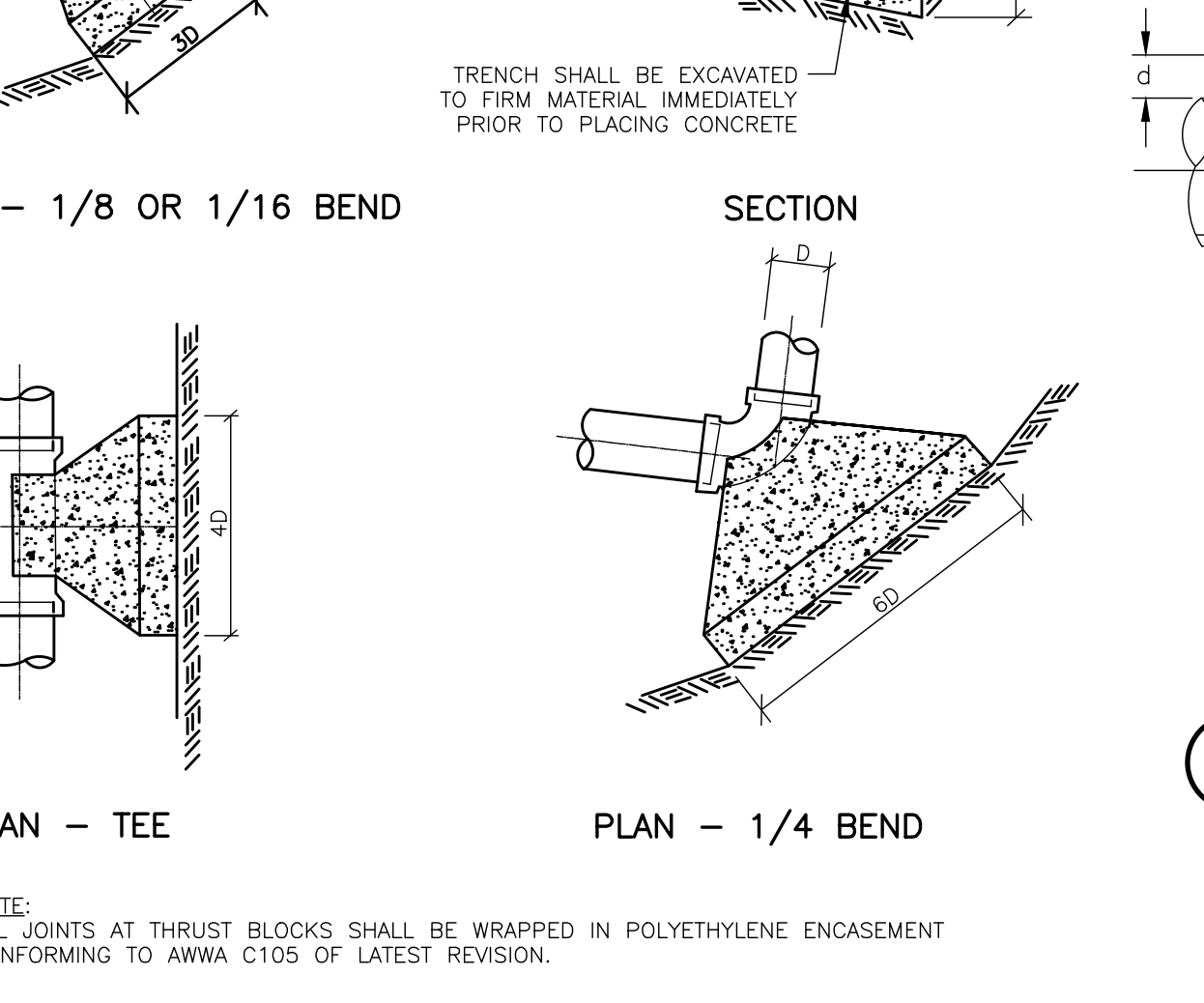
**04 TYPICAL INSULATED WATER TRENCH DETAIL** NOT TO SCALE



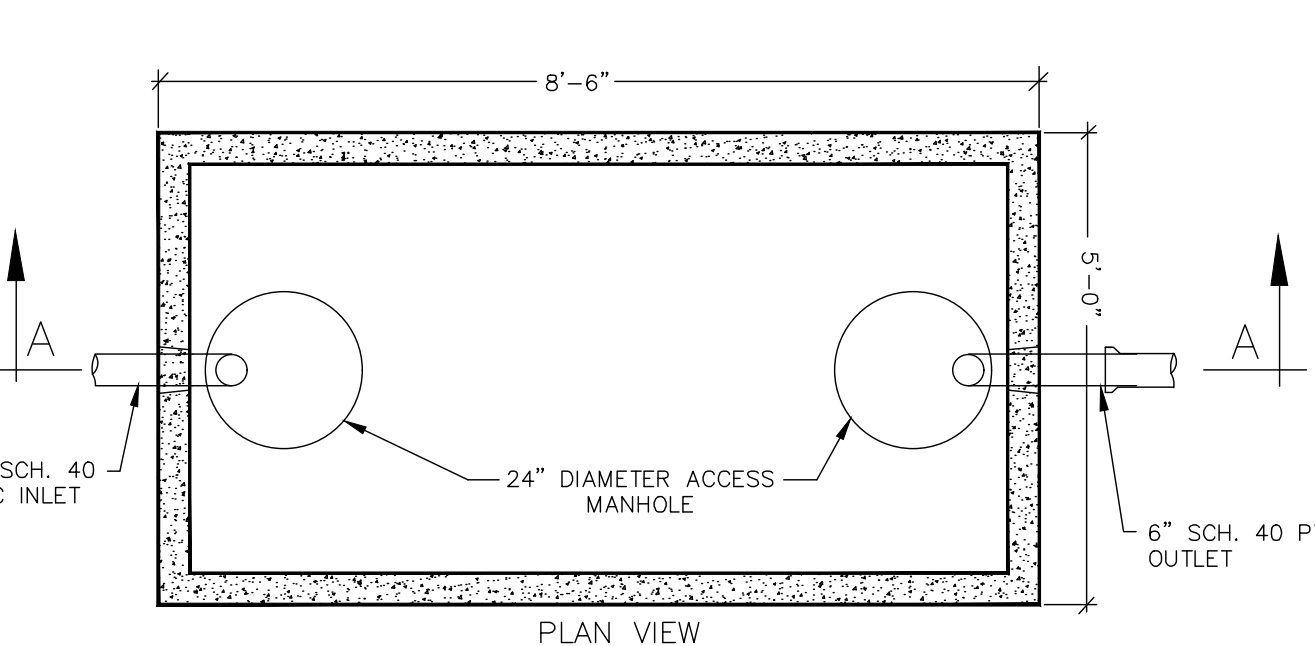
**06 GREASE TRAP** NOT TO SCALE



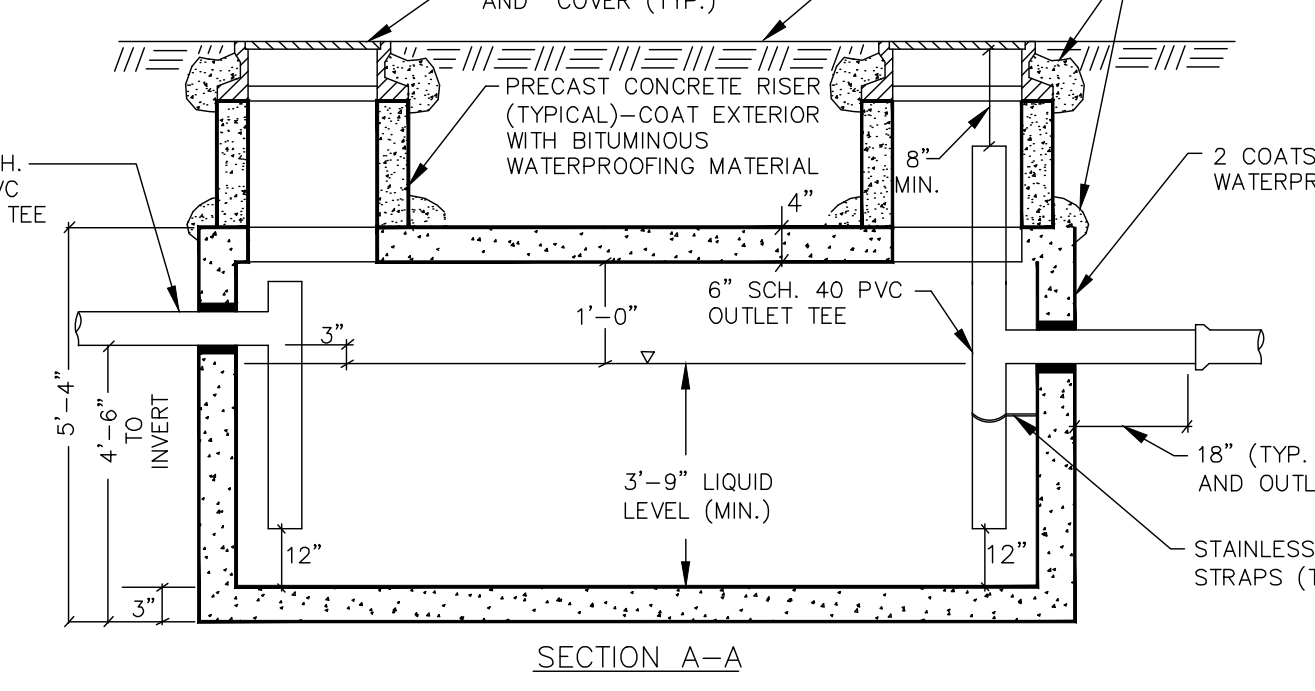
**07 TYPICAL UTILITY SUPPORTS** NOT TO SCALE



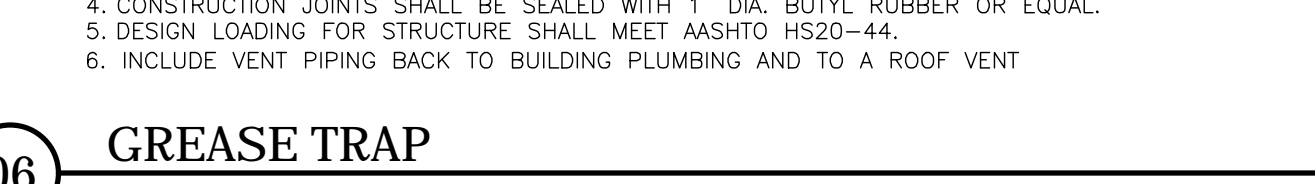
**05 CONCRETE THRUST BLOCK** NOT TO SCALE



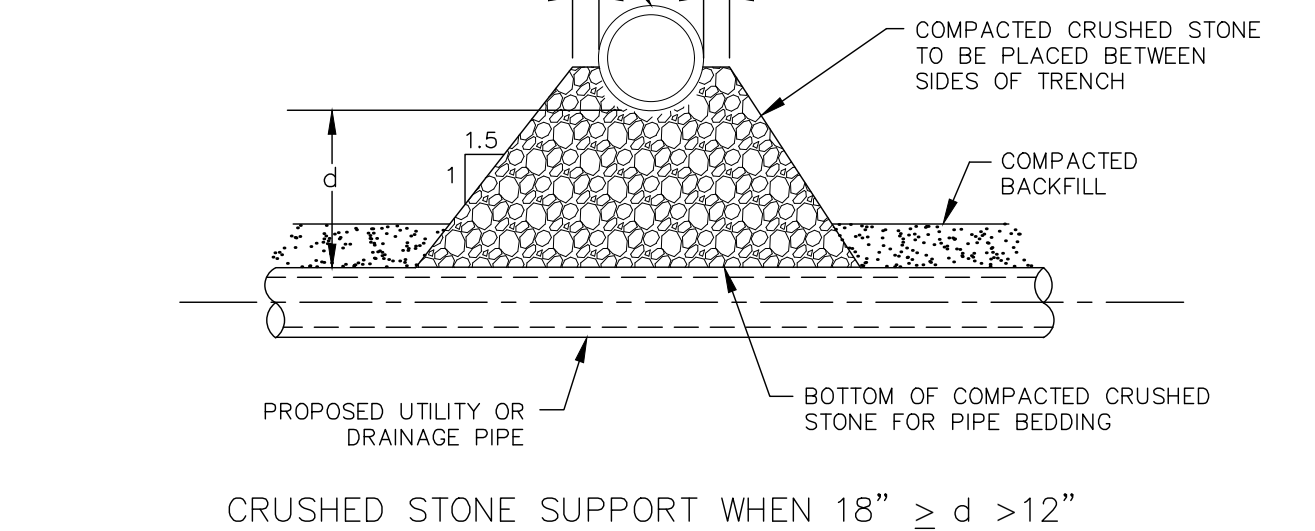
**09 SANITARY SEWER CLEANOUT** NOT TO SCALE



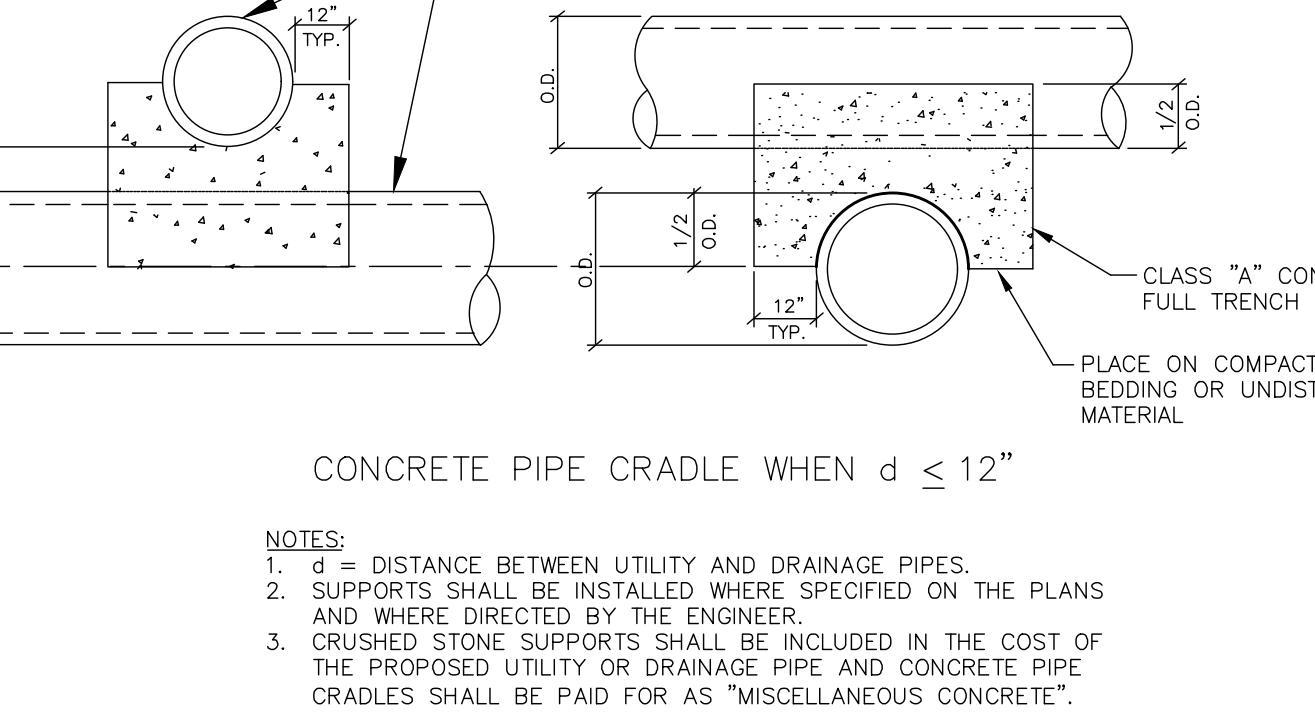
**10 6 INCH SANITARY LATERAL CONNECTION** NOT TO SCALE



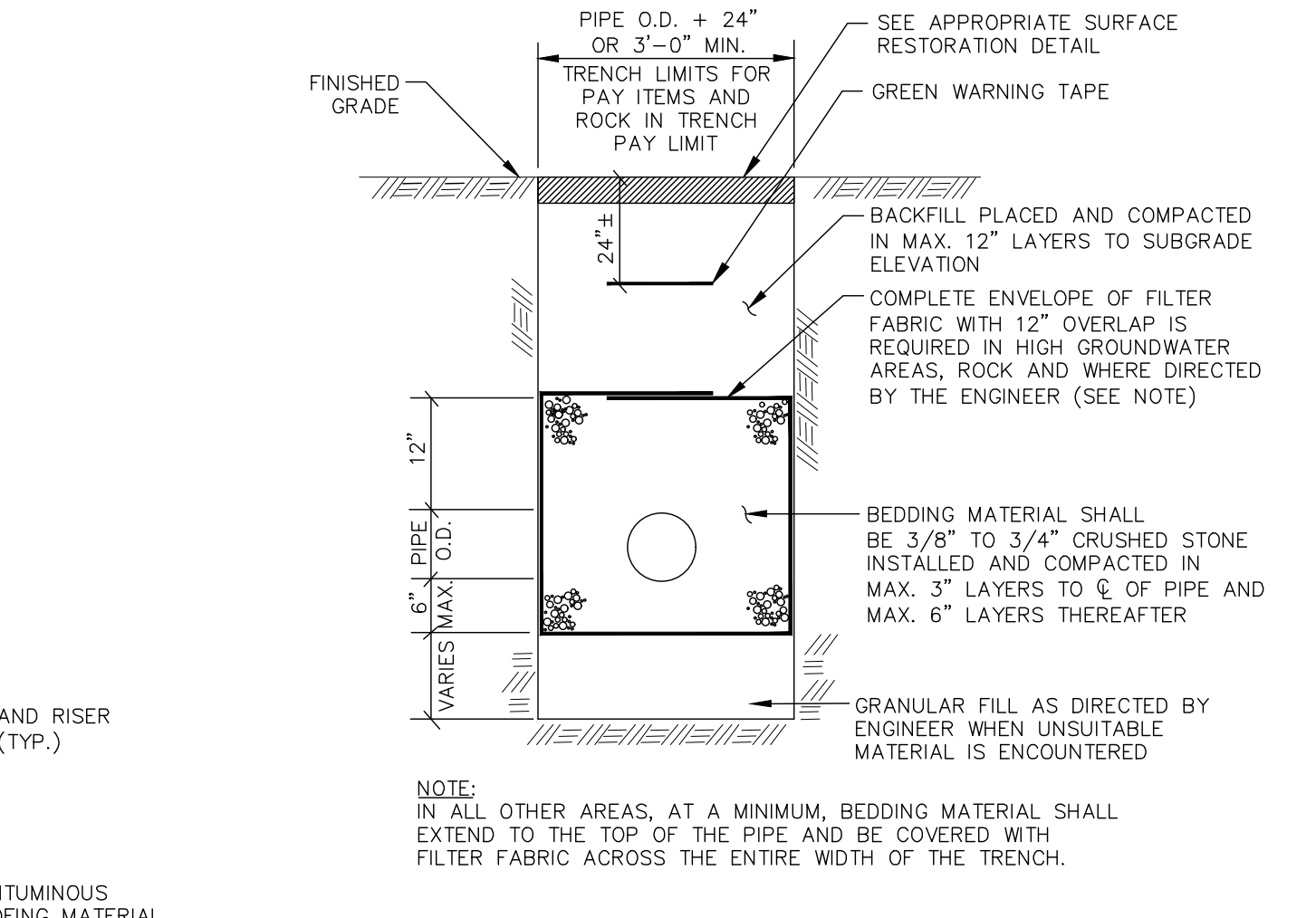
**08 TYPICAL SANITARY SEWER TRENCH DETAIL** NOT TO SCALE



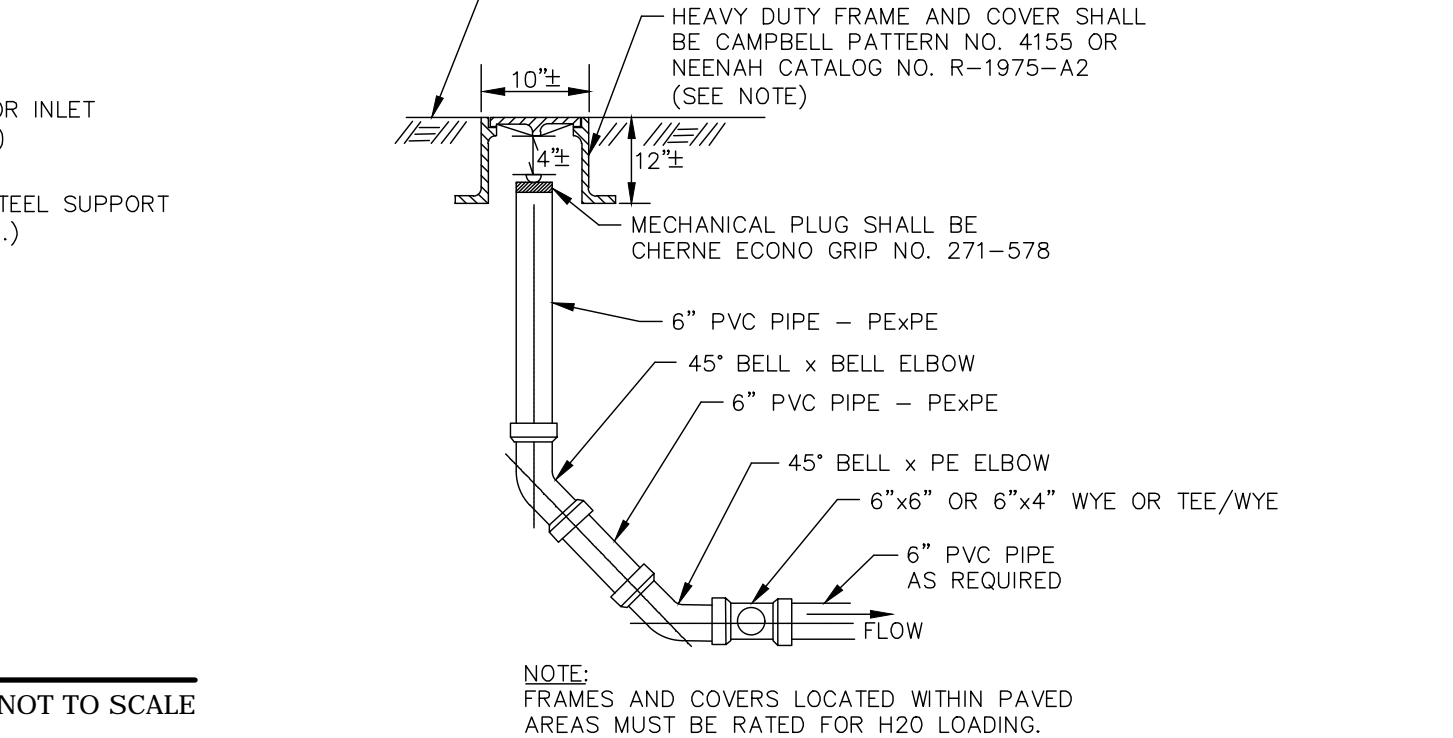
**06 CRUSHED STONE SUPPORT WHEN 18\"/>**



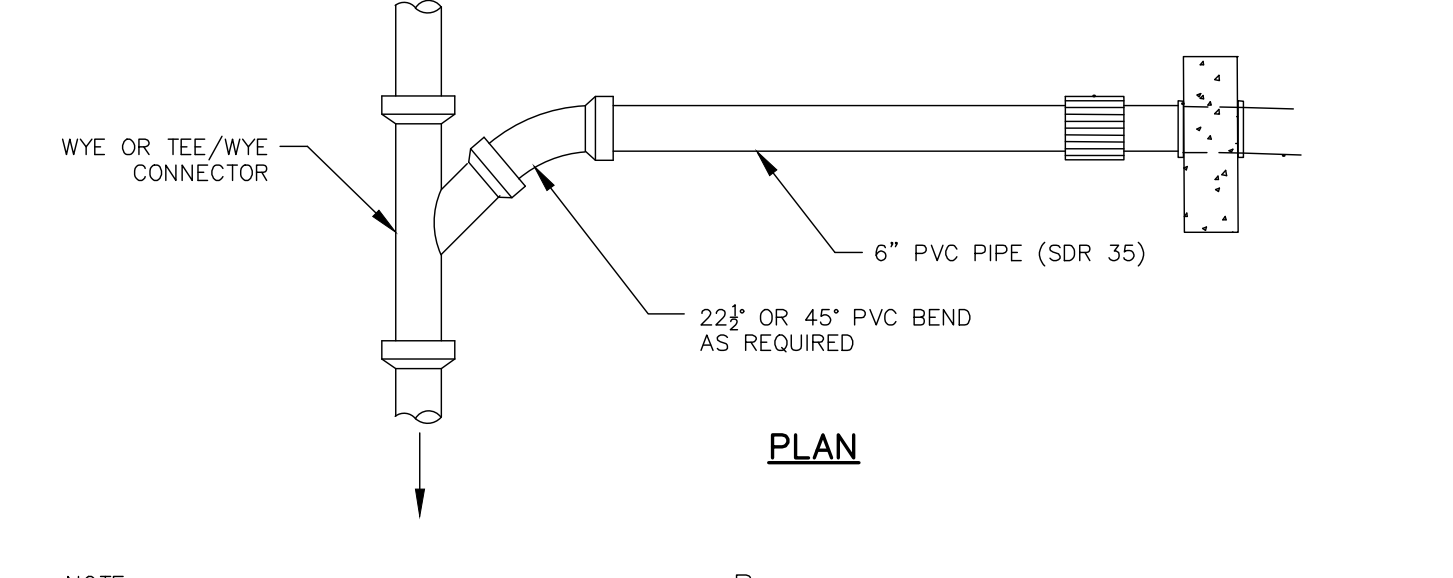
**07 CONCRETE PIPE CRADLE WHEN d ≤ 12\"/>**



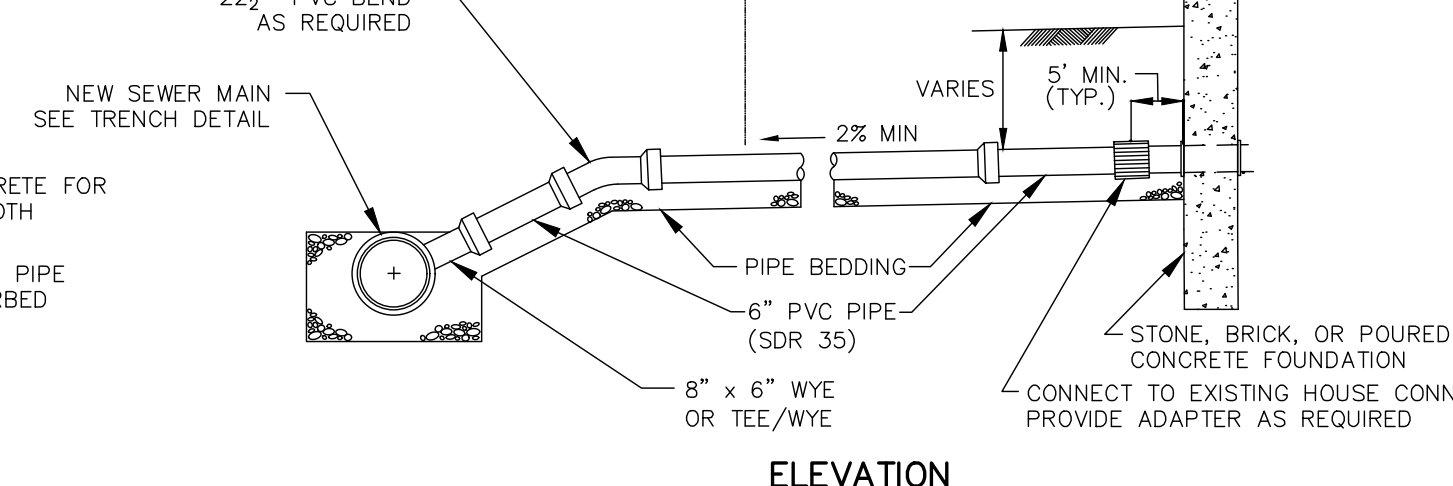
**08 TYPICAL SANITARY SEWER TRENCH DETAIL** NOT TO SCALE



**09 SANITARY SEWER CLEANOUT** NOT TO SCALE



**10 6 INCH SANITARY LATERAL CONNECTION** NOT TO SCALE



**10 6 INCH SANITARY LATERAL CONNECTION** NOT TO SCALE

**07 TYPICAL UTILITY SUPPORTS** NOT TO SCALE

**GENERAL NOTE**  
1. DETAILS INCLUDED ON THIS SHEET ARE TOWN OF MANCHESTER STANDARD DETAILS.

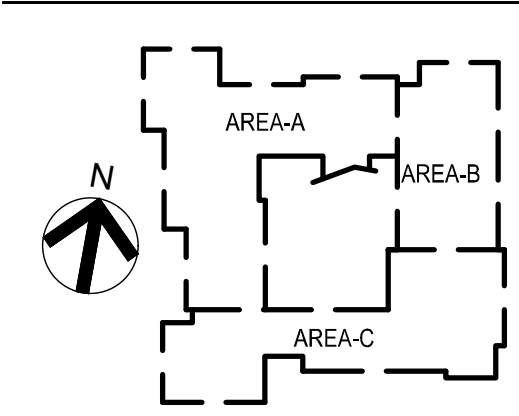
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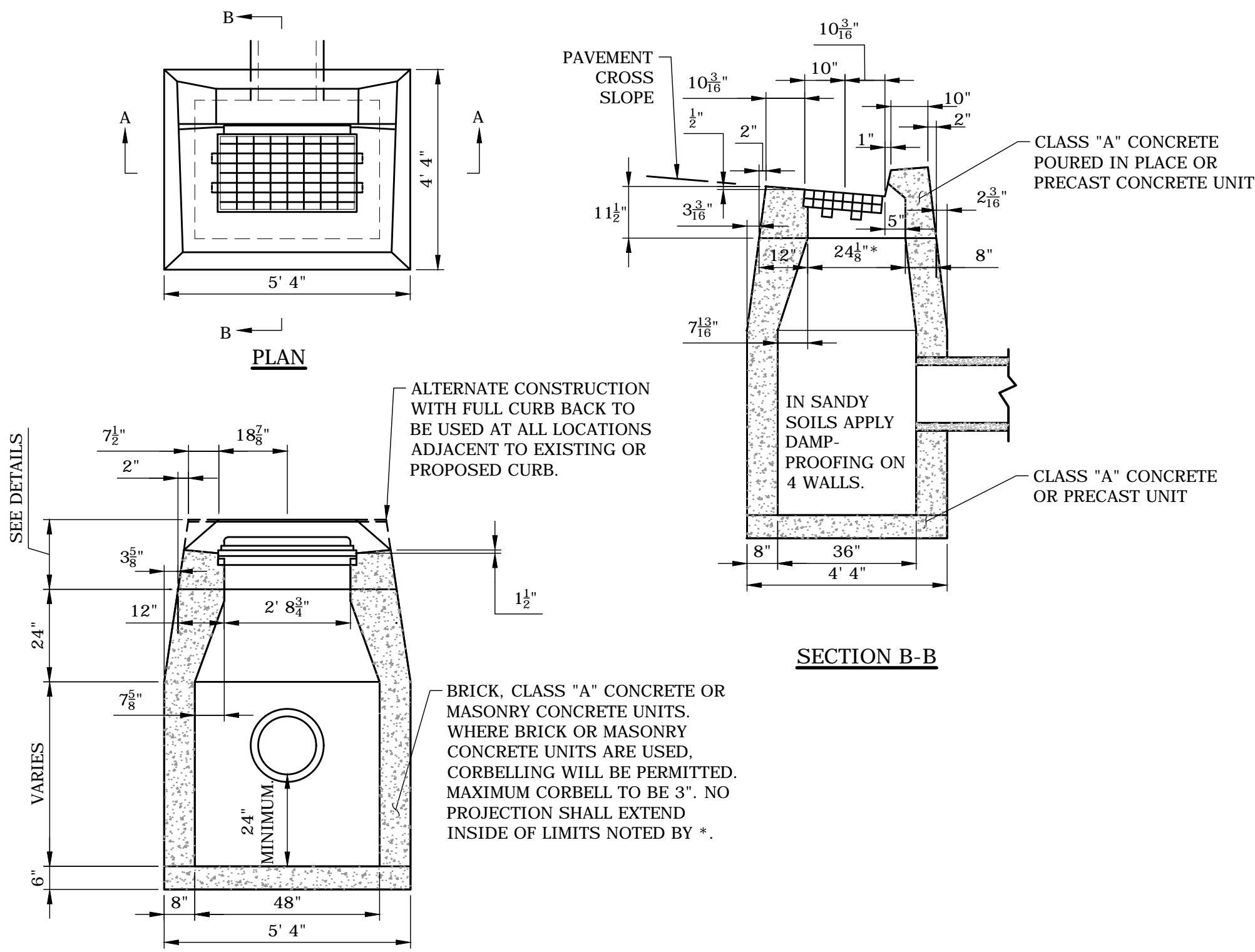


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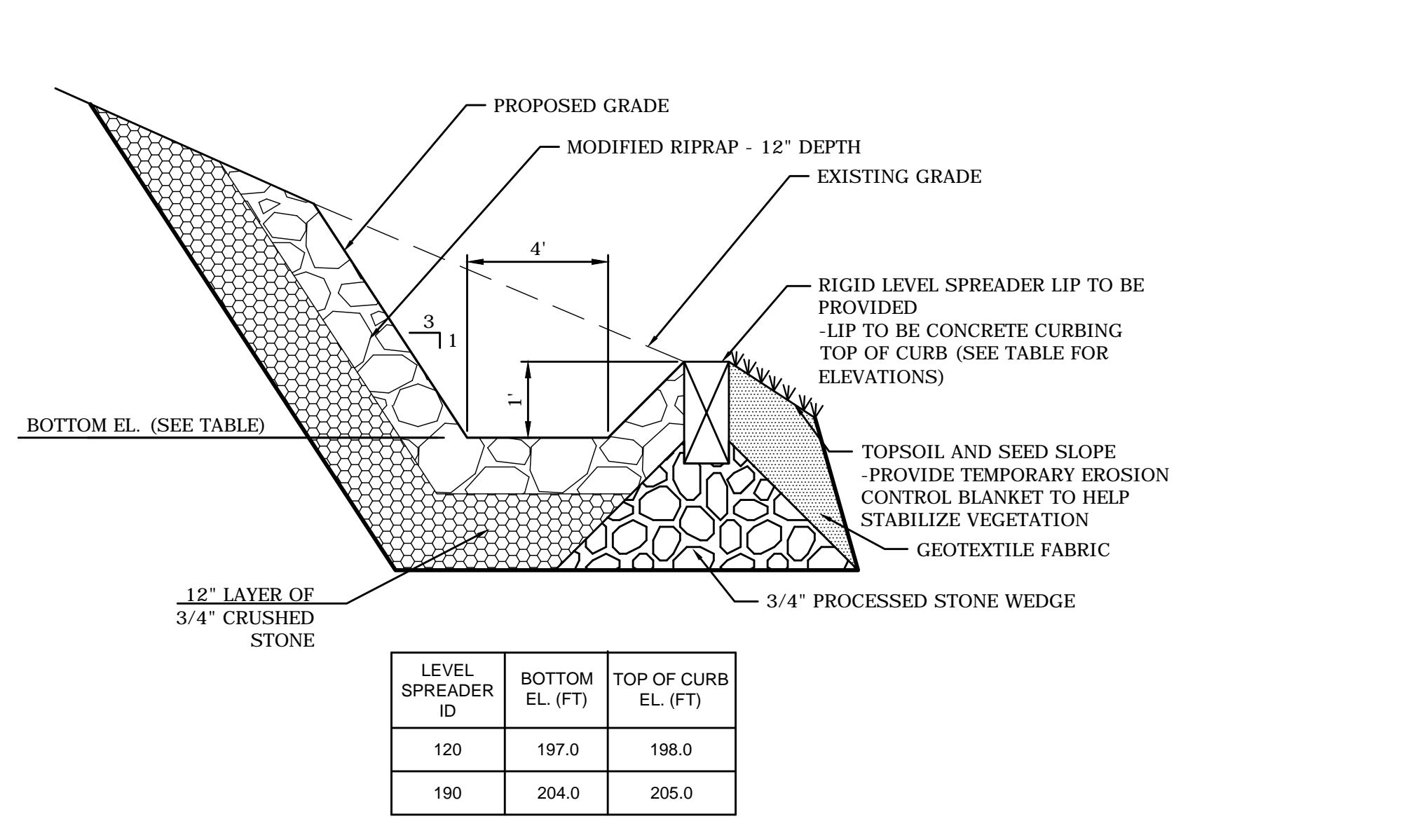
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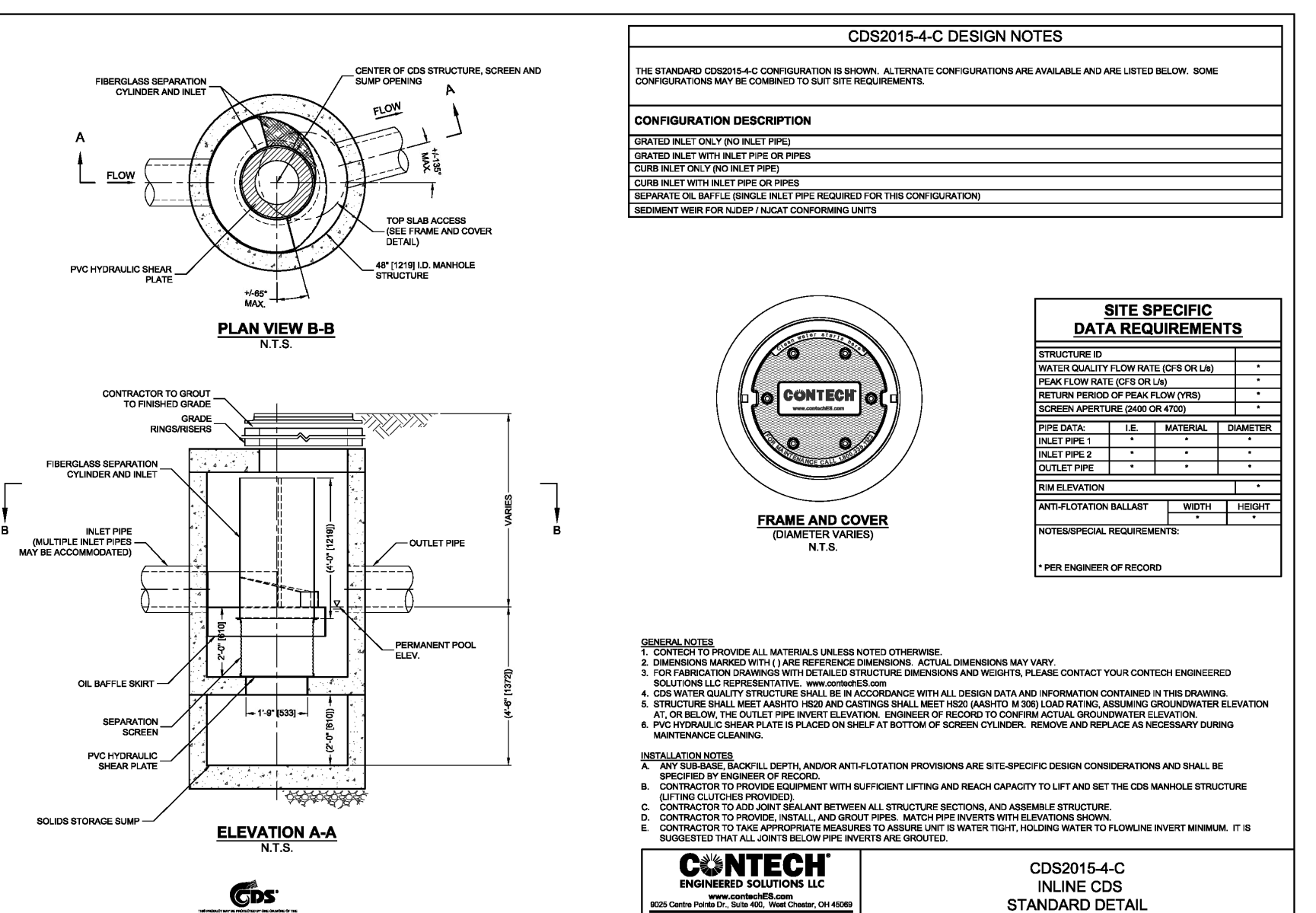


**01 TYPE C CATCH BASIN**  
NOT TO SCALE

NOTES:  
1. WHEN CATCH BASIN IS SET IN CONCRETE PAVEMENT, THE 1/2" SLOPE ON THE TOP SURFACE SHALL BE CHANGED TO MATCH ADJOINING PAVEMENT.  
2. WHERE PRECAST CONCRETE UNIT IS USED FOR SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLET FROM THE CATCH BASIN.

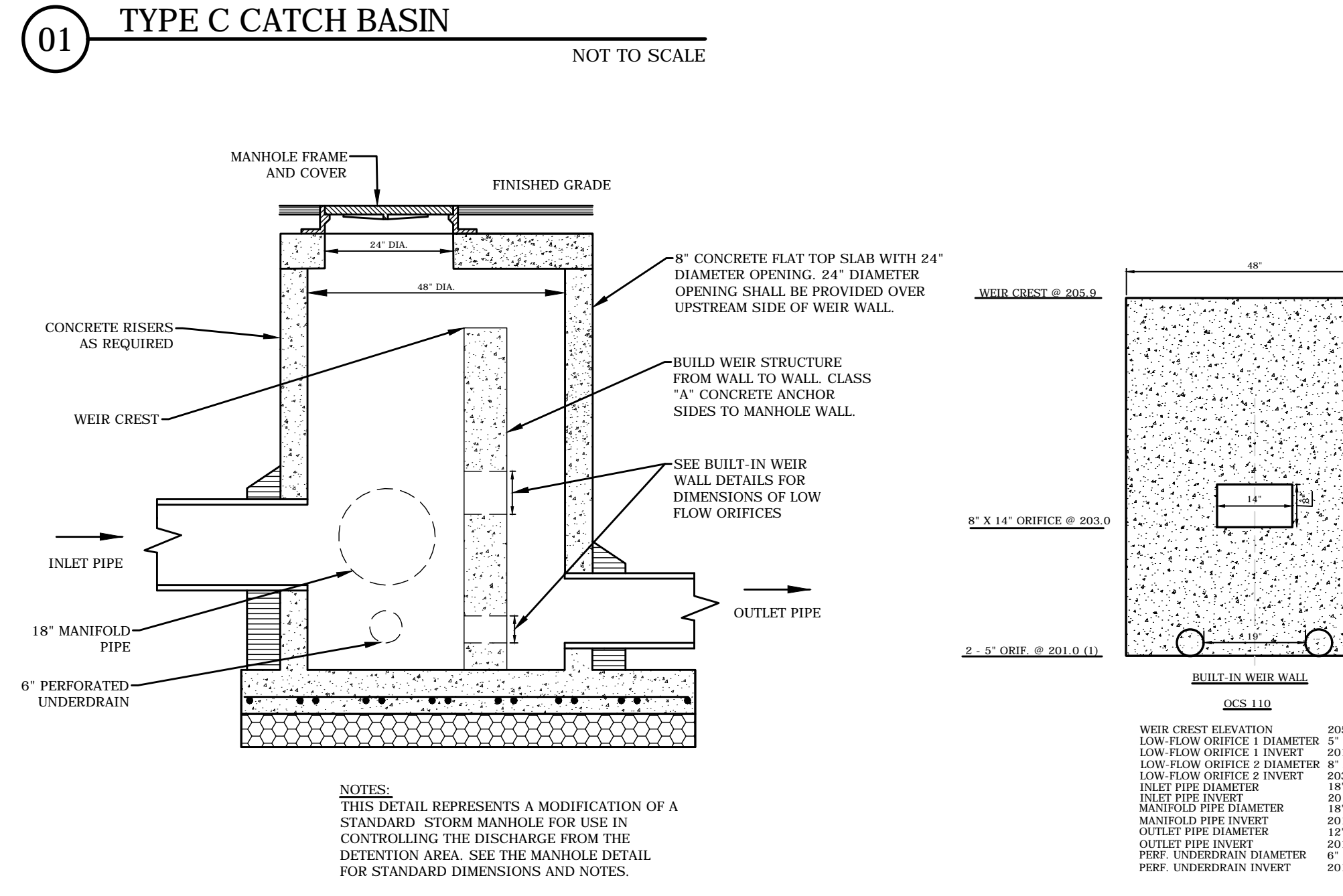


**02 LEVEL SPREADER**  
NOT TO SCALE

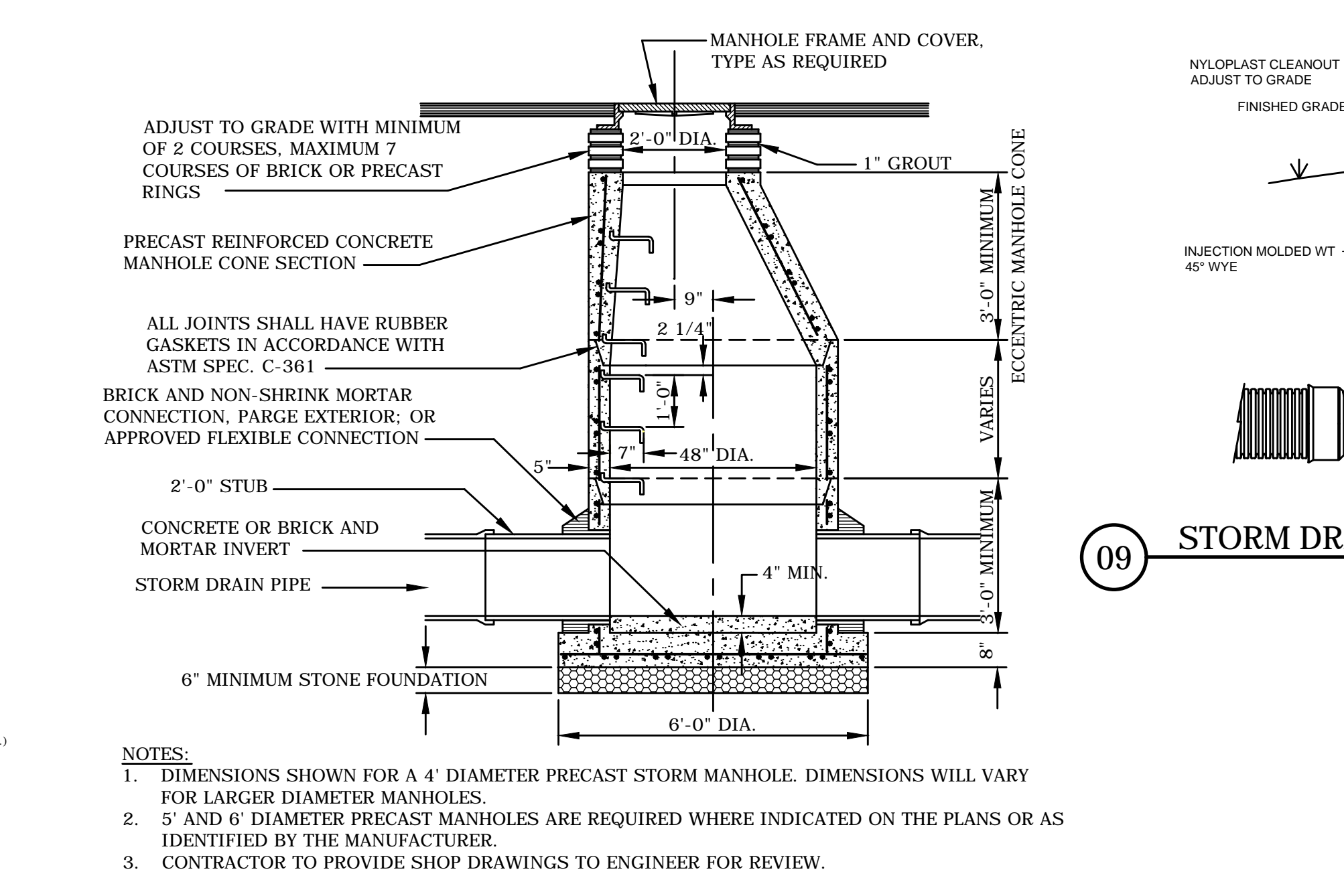


**07 CONTECH CDS 2015-4-C**  
NOT TO SCALE

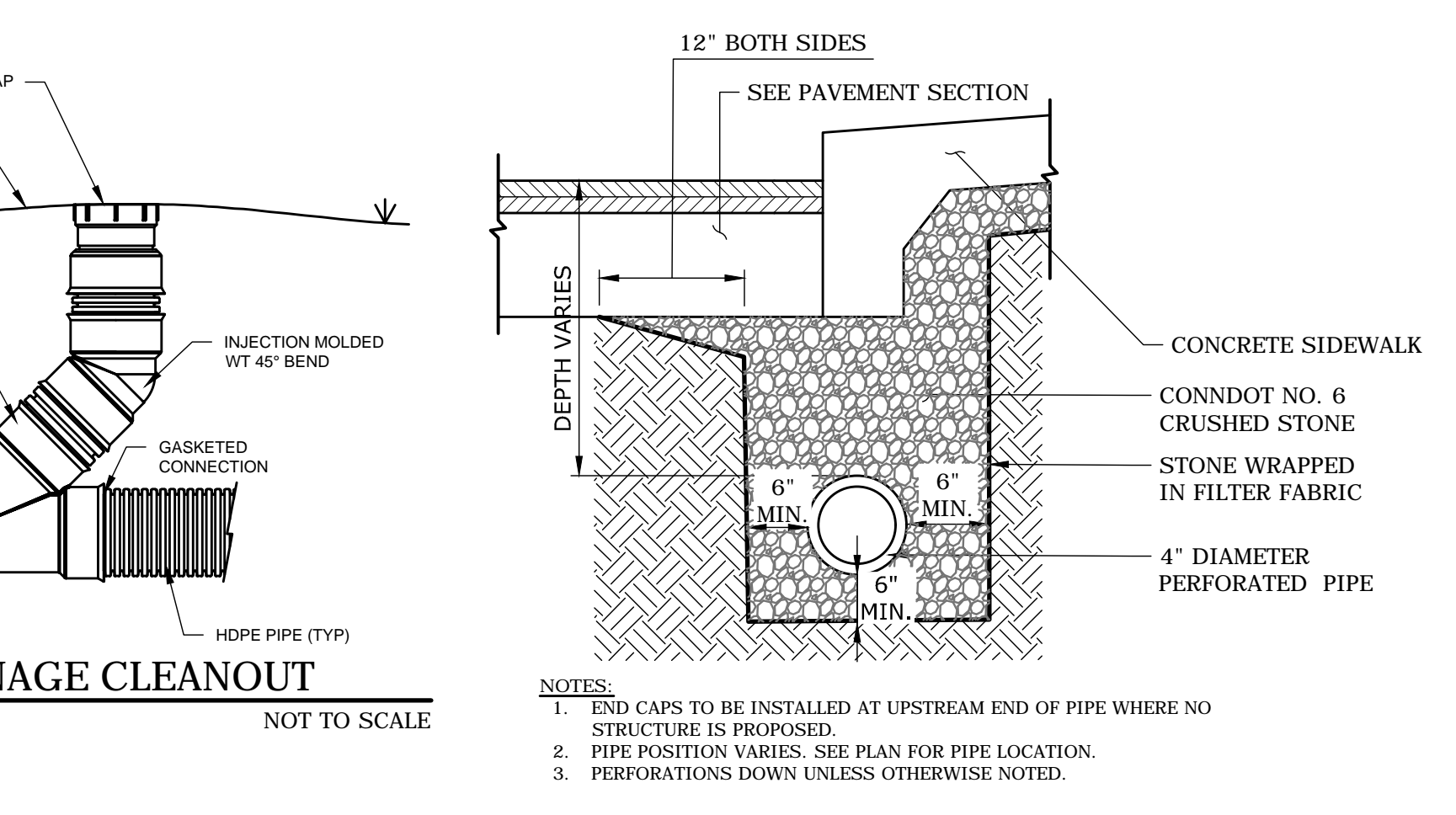
**CDS HYDRODYNAMIC SEPARATOR UNIT NOTES:**  
1. EACH STORMWATER TREATMENT SYSTEM UNIT MUST BE DESIGNED TO REMOVE A MINIMUM OF 80% OF THE TOTAL SUSPENDED SOLIDS FROM THE WATER QUALITY FLOW OF 0.41 CFS FOR HDS 100 AND 1.09 CFS FOR HDS 200, WITH INTERNAL BYPASS OF THE 10-YEAR DESIGN STORM FLOW OF 2.76 CFS FOR HDS 100 AND 6.52 CFS FOR HDS 200. THE SYSTEM MUST BE INSPECTED AND CLEANED EVERY SIX (6) MONTHS OR PER THE MANUFACTURER'S RECOMMENDATION, WHICHEVER IS MORE FREQUENT. SHOP DRAWINGS OF THE PROPOSED SYSTEM MUST FIRST BE APPROVED BY THE DESIGN ENGINEER THEN SUBMITTED TO THE TOWN FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWING SUBMITTALS MUST INCLUDE:  
1.1. "TREATED" FLOW FOR THE SPECIFIED SYSTEM AND MODEL, WHICH MUST EQUAL OR EXCEED THE WATER QUALITY FLOW  
1.2. "CONVEYED" FLOW FOR THE SPECIFIED SYSTEM AND MODEL, WHICH MUST EQUAL OR EXCEED THE DESIGN STORM FLOW  
1.3. CALCULATIONS OR DOCUMENTATION VERIFYING THAT 80% (MIN) OF THE AVERAGE ANNUAL TOTAL SUSPENDED SOLIDS WILL BE REMOVED FROM THE WATER QUALITY FLOW  
1.4. CALCULATIONS OF THE HYDRAULIC GRADE LINE ELEVATIONS FOR THE DESIGN STORM EVENT IN THE FIRST STRUCTURE LOCATED UPSTREAM OF THE SYSTEM AND ANY OTHER CRITICAL LOCATIONS  
1.5. ORIENTATION OF THE SYSTEM IN PLAN VIEW WITH RESPECT TO THE APPROVED SITE PLAN (IF DIFFERENT THAN SHOWN ON THE APPROVED PLANS)  
1.6. PROPOSED SIZE AND ELEVATION OF CRITICAL WEIR, ORIFICE, PIPE INVERT ELEVATIONS, AND OTHER DESIGN ELEMENTS THAT CORRESPOND TO THE HYDRAULIC CHARACTERISTICS OF THE SYSTEM



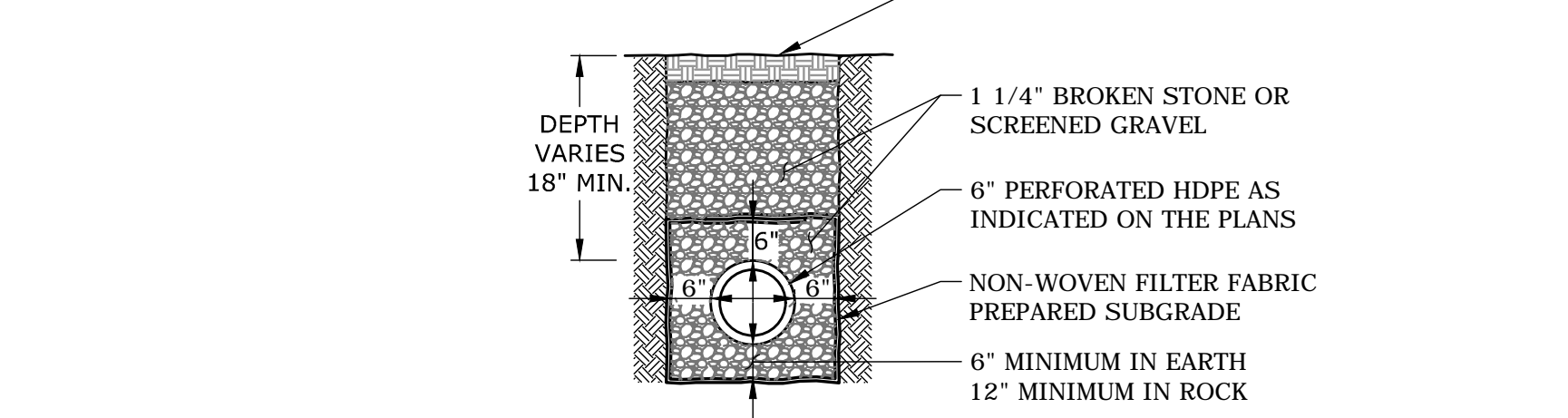
**03 OCS FOR UNDERGROUND DETENTION SYSTEM 110**  
NOT TO SCALE



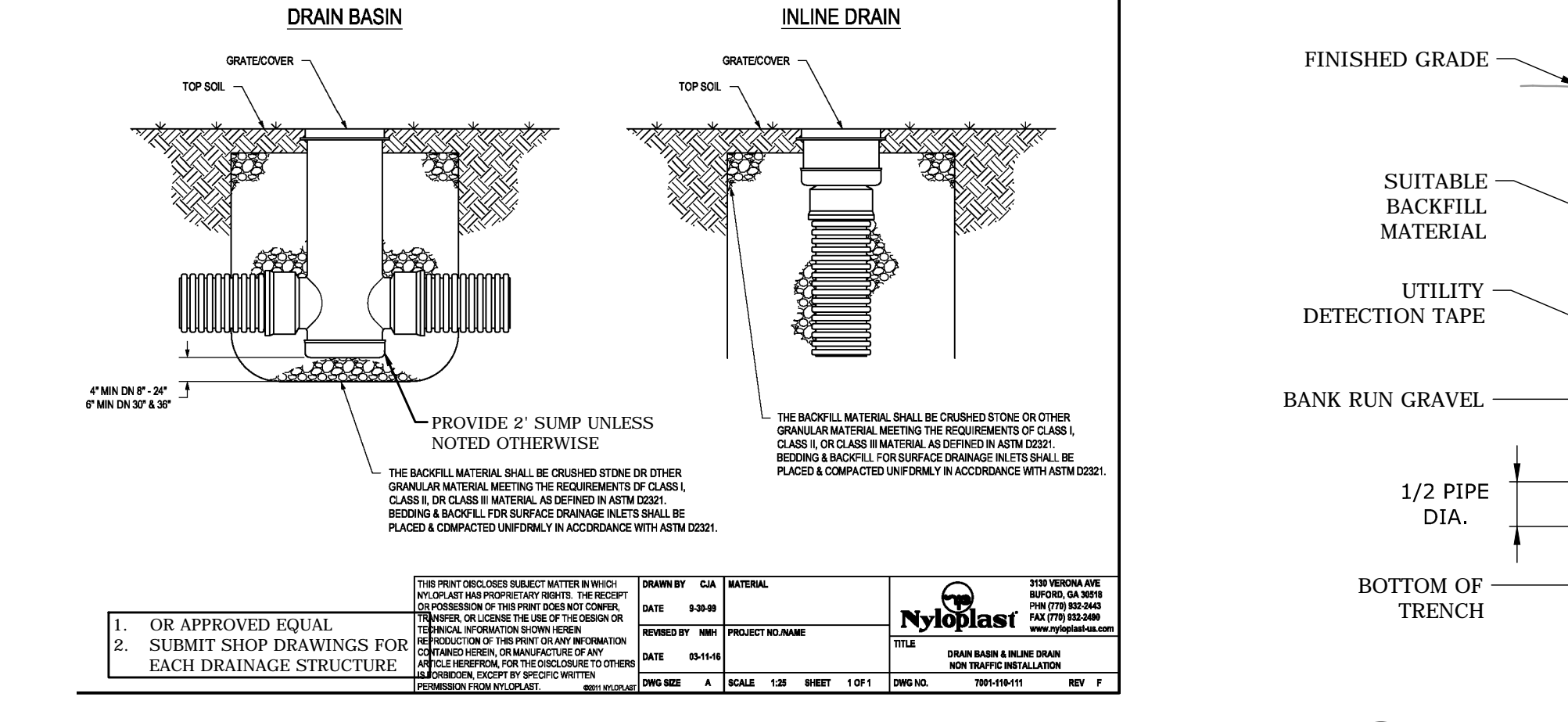
**05 STORM MANHOLE**  
NOT TO SCALE



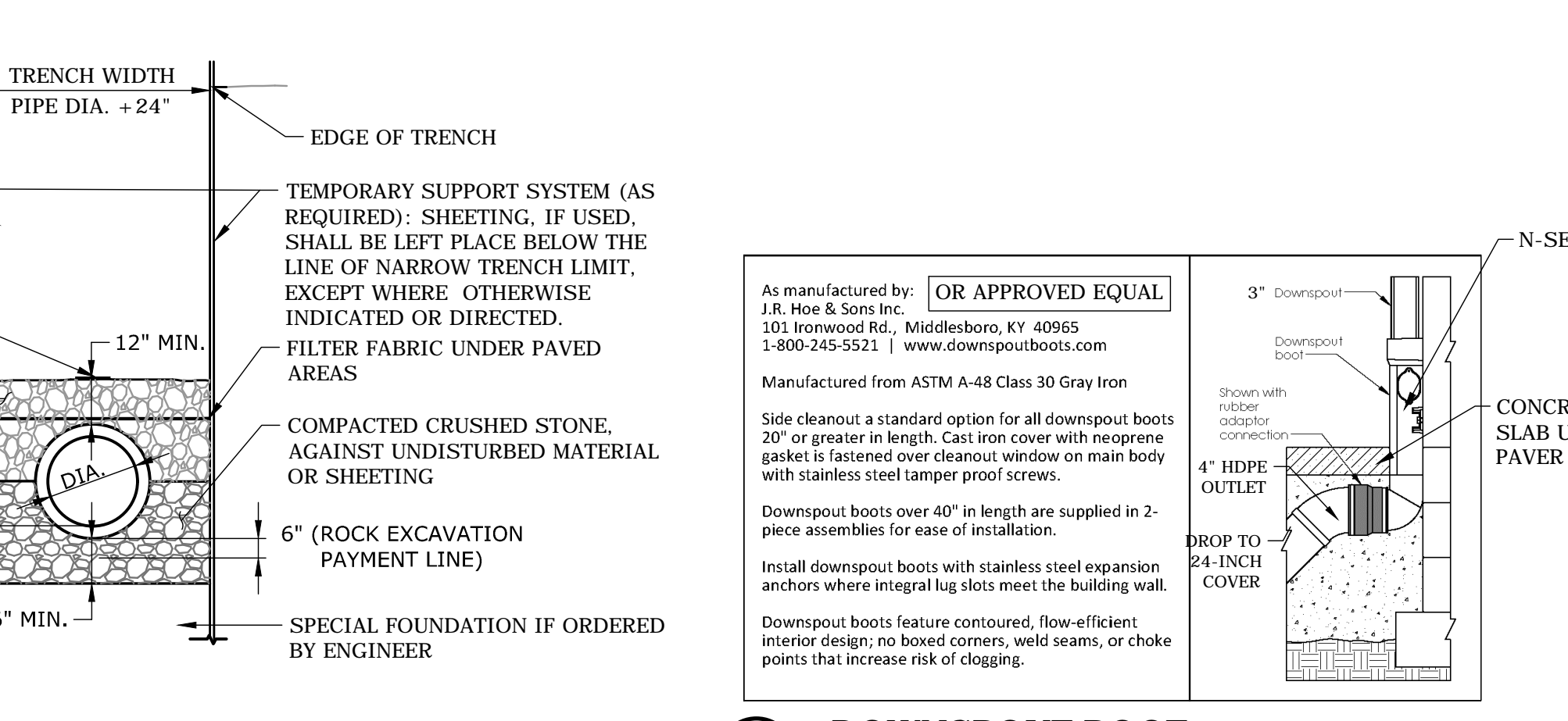
**09 STORM DRAINAGE CLEANOUT**  
NOT TO SCALE



**10 PAVEMENT UNDERDRAIN**  
NOT TO SCALE



**04 AREA DRAIN**  
NOT TO SCALE



**06 STORM DRAINAGE TRENCH**  
NOT TO SCALE



**11 PERFORATED HDPE UNDERDRAIN/CURTAIN DRAIN**  
NOT TO SCALE

As manufactured by: **OR APPROVED EQUAL**  
J.R. Hoe & Sons Inc.  
101 Ironwood Rd., Middletown, KY 40965  
1-800-245-5521 | www.downspoutboots.com

Manufactured from ASTM A-48 Class 30 Gray Iron

Side cleanout a standard option for all downspout boots 20" or greater in length. Cast iron cover with neoprene gasket is fastened over cleanout window on main body with stainless steel tamper proof screws.

Downspout boots over 40" in length are supplied in 2-piece assemblies for ease of installation.

Install downspout boots with stainless steel expansion anchors where integral lug slots meet the building wall.

Downspout boots feature contoured, flow-efficient interior design: no boxed corners, weld seams, or choke points that increase risk of clogging.

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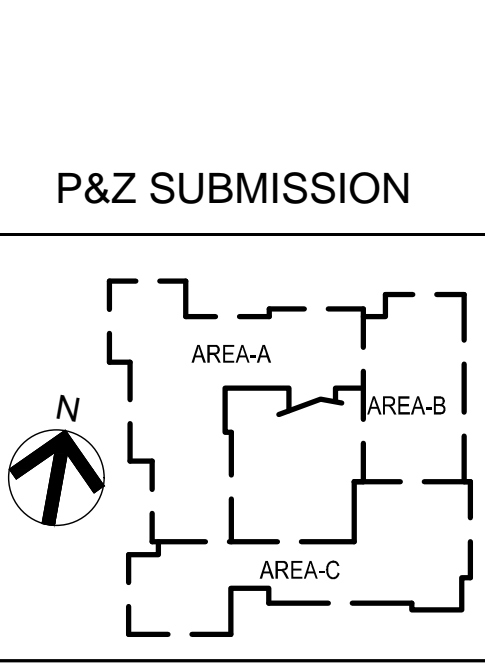
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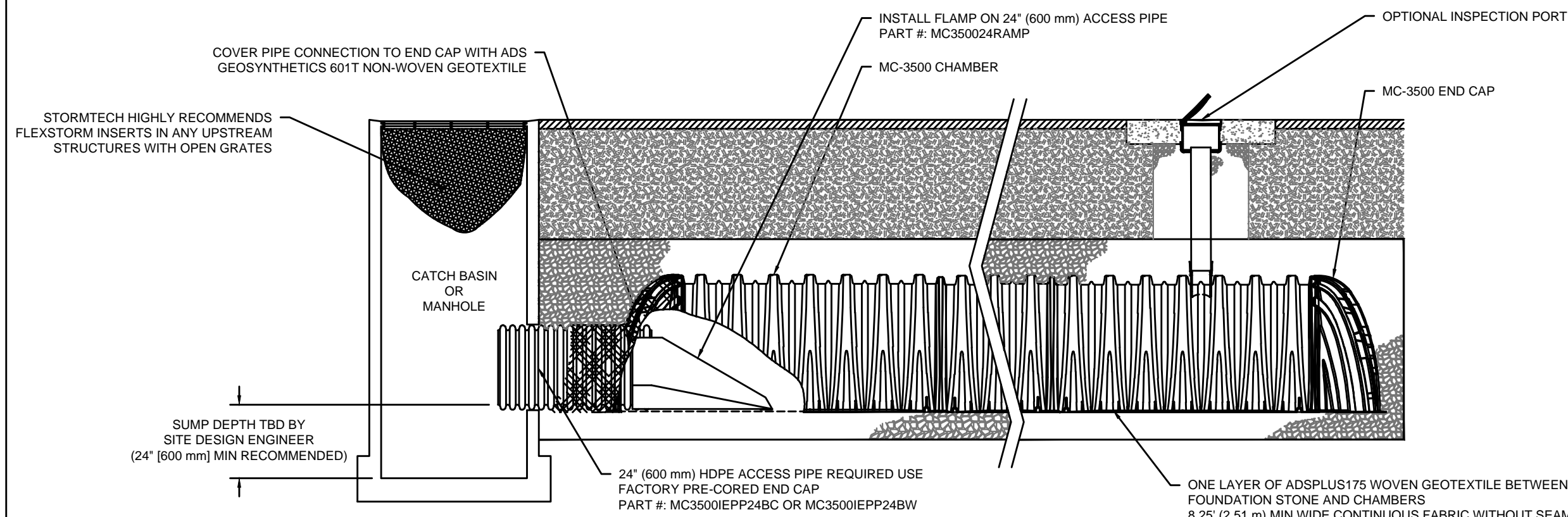
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MC-3500 ISOLATOR ROW PLUS DETAIL  
NTS

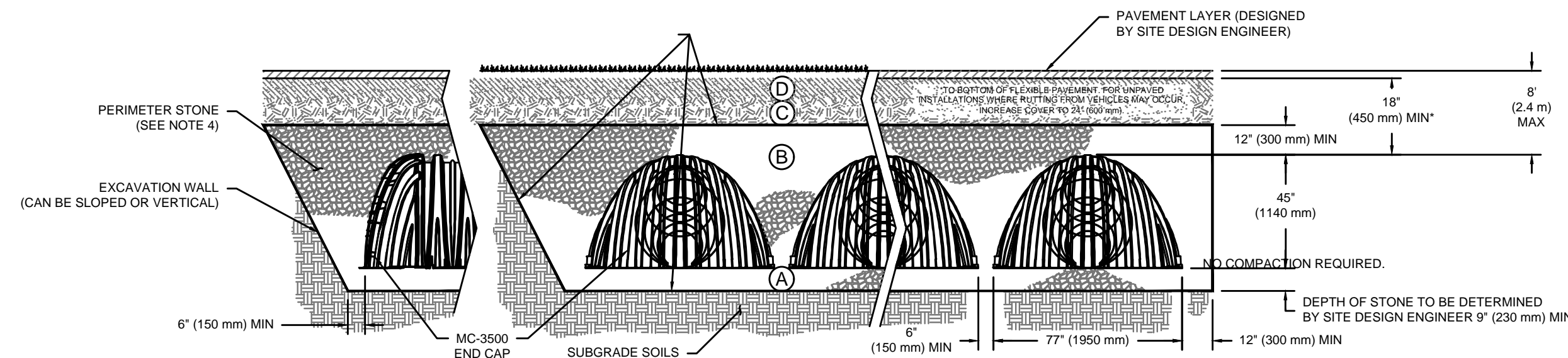
**INSPECTION & MAINTENANCE**

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
    - A.1. REMOVE OPEN LID ON NYLOPLAST INLINE DRAIN
    - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
    - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
    - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
    - A.5. IF SEDIMENT IS AT OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
  - B. ALL ISOLATOR PLUS ROWS
    - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
    - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
      - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
      - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
    - B.3. IF SEDIMENT IS AT OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
  - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
  - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

**NOTES**

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

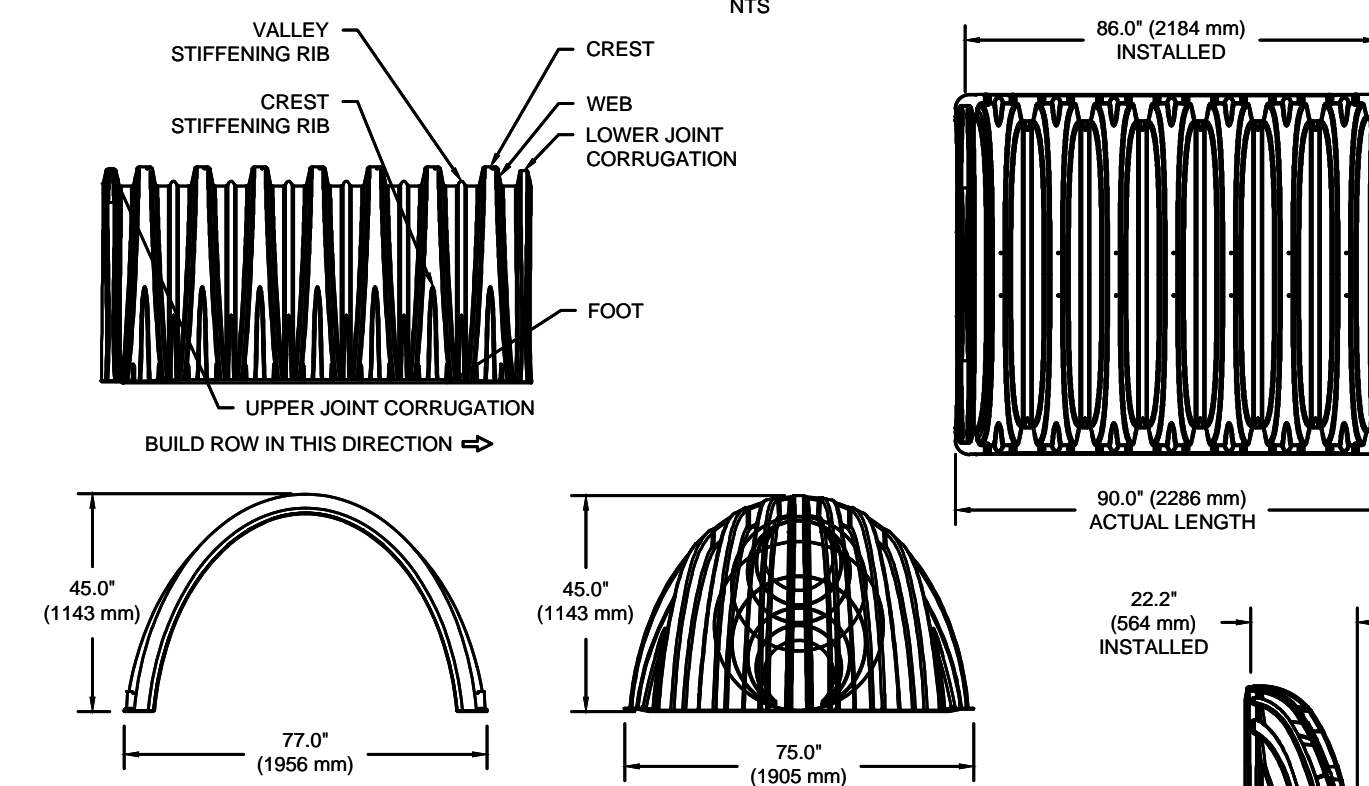
**ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS**



**NOTES:**

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN<sup>2</sup>.
  - AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

**MC-3500 TECHNICAL SPECIFICATION**



**NOMINAL CHAMBER SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m <sup>3</sup> )
WEIGHT	134 lbs.	(60.8 kg)

**NOMINAL END CAP SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m <sup>3</sup> )
WEIGHT	49 lbs.	(22.2 kg)

\*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T" END CAPS WITH A WELDED CROWN PLATE END WITH "C" END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

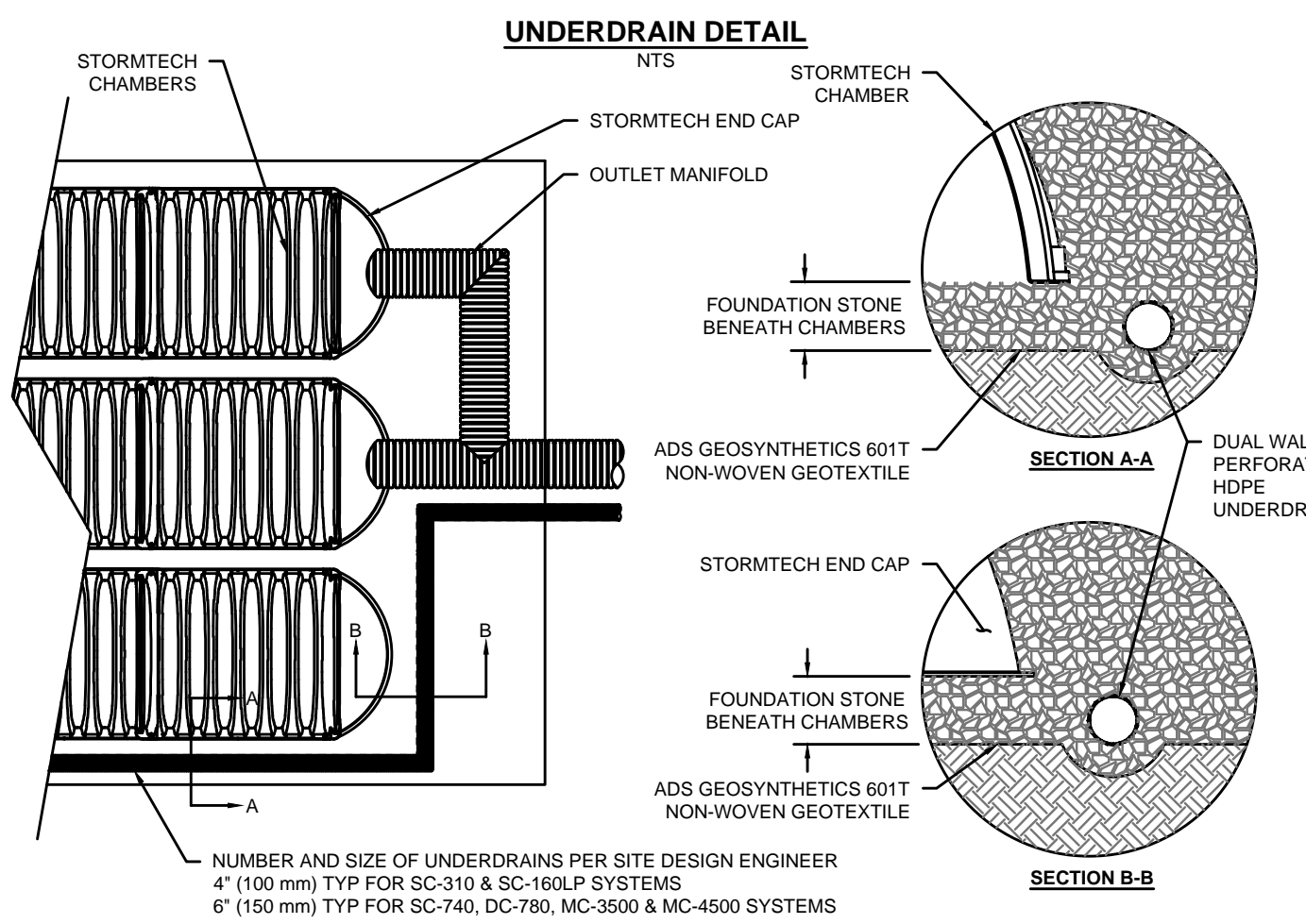
PART #	STUB	B	C
MC3500EPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500EPP06B	---	---	0.66" (17 mm)
MC3500EPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500EPP08B	---	---	0.81" (21 mm)
MC3500EPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500EPP10B	---	---	0.93" (24 mm)
MC3500EPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500EPP12B	---	---	1.35" (34 mm)
MC3500EPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500EPP15B	---	---	1.50" (38 mm)
MC3500EPP18T	18" (450 mm)	20.03" (509 mm)	---
MC3500EPP18B	---	---	1.77" (45 mm)
MC3500EPP24T	24" (600 mm)	14.48" (368 mm)	---
MC3500EPP24B	---	---	2.06" (52 mm)
MC3500EPP24BW	---	---	2.75" (70 mm)
MC3500EPP24BC	---	---	---

NOTE: ALL DIMENSIONS ARE NOMINAL

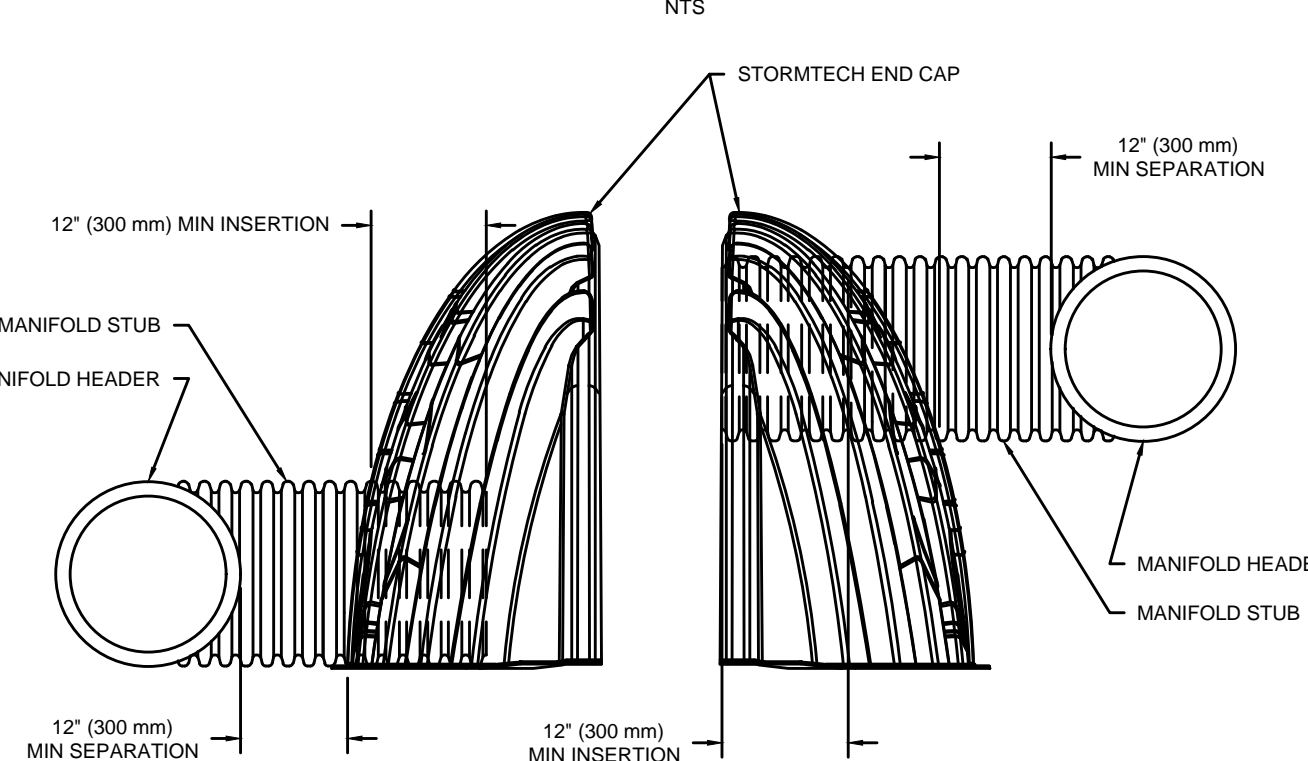
CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVERTED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3 OR AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 4	
A FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR A LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



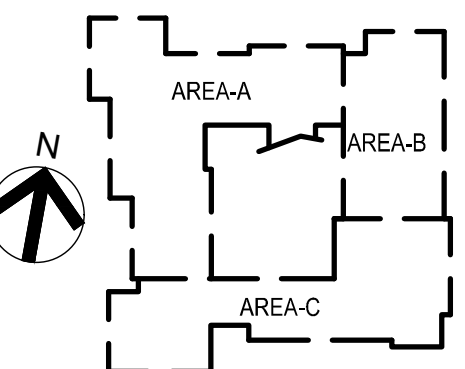
**MC-SERIES END CAP INSERTION DETAIL**



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

**APPROVED**  
PLANNING AND ZONING COMMISSION  
MANCHESTER, CT

DATE: \_\_\_\_\_  
SIGNED: \_\_\_\_\_



STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	AS NOTED
DATE:	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	ISSUE DATE	PURPOSE



**SEDIMENT & EROSION CONTROL SPECIFICATIONS**

**GENERAL:**  
 THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.  
 IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATER BODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INsofar AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATER BODIES, AND TO PREVENT, INsofar AS POSSIBLE, EROSION ON THE SITE.

**LAND GRADING**

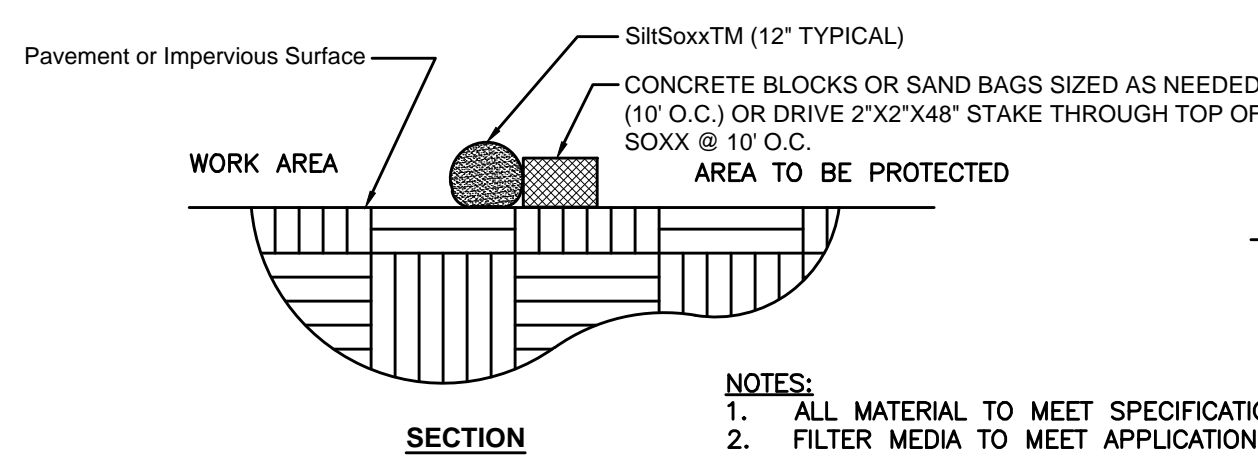
- GENERAL:**
- THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
    - THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
    - THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
    - THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).
    - PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
    - EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.
    - NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATER BODIES.
    - PRIOR TO ANY REGRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

**TOPSOIL**

- GENERAL:**
- TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.
  - UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL.
  - REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS.
  - APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE. MATERIAL: 1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.
  - TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE. 3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF STONES LARGER THAN 1.25" LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.
  - AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL. SUITABLE. AVOID TIDAL MARSH SOILS BECAUSE OF HIGH SALT CONTENT
  - SOLUBLE SALT CONTENT OF OVER 500 PARTS PER MILLION (PPM) IS LESS 6. THE pH SHOULD BE 5.5 TO 7 IF LESS, ADD LIME TO INCREASE pH TO AN ACCEPTABLE LEVEL.

**EXECUTION**

- AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
- SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST SIX INCHES (6"), OR TO THE DEPTH SHOWN ON THE LANDSCAPING PLANS.



**01 8 INCH SILT SOXX**

- NOTES:**
- ALL MATERIAL TO MEET SPECIFICATIONS.
  - FILTER MEDIA TO MEET APPLICATION REQUIREMENTS.
  - FILTER MEDIA TO BE DISPersed ON SITE, AS DETERMINED BY ENGINEER.

**VEGETATIVE COVER SELECTION AND MULCHING**

**TEMPORARY VEGETATIVE COVER:**  
 PERENNIAL RYEGRASS 5 LBS./1,000 SQ.FT. (LOLIUM PERENNE)  
 \* PERMANENT VEGETATIVE COVER: SEE SPECIFICATIONS

**TEMPORARY MULCHING:**  
 CLEAN DRY STRAW OR HAY FREE OF WEEDS WITH A MULCH TACKIFIER 70-90 LBS./1,000 SQ.FT. (TEMPORARY VEGETATIVE AREAS)  
 WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

**ESTABLISHMENT:**

- SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
- SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION, NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. ABOVE).
- APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
- MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION ABOVE).
- USE PROPER INOCULANT ON ALL LEGUME SEEDINGS. USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
- USE SOD WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

- MAINTENANCE:**
- TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.
  - ON SITES WHERE GRASSES PREDOMINATE. BROADCAST ANNUALLY 500 POUNDS OF 10-10-10 FERTILIZER PER ACRE (12 LBS. PER 1,000 SQ. FT.) OR AS NEEDED ACCORDING TO ANNUAL SOIL TESTS.
  - ON SITES WHERE LEGUMES PREDOMINATE. BROADCAST EVERY THREE (3) YEARS OR AS INDICATED BY SOIL TEST 300 POUNDS OF 0-20-20 OR EQUIVALENT PER ACRE (8 LBS PER 1,000 SQ. FT.).

**EROSION CHECKS**

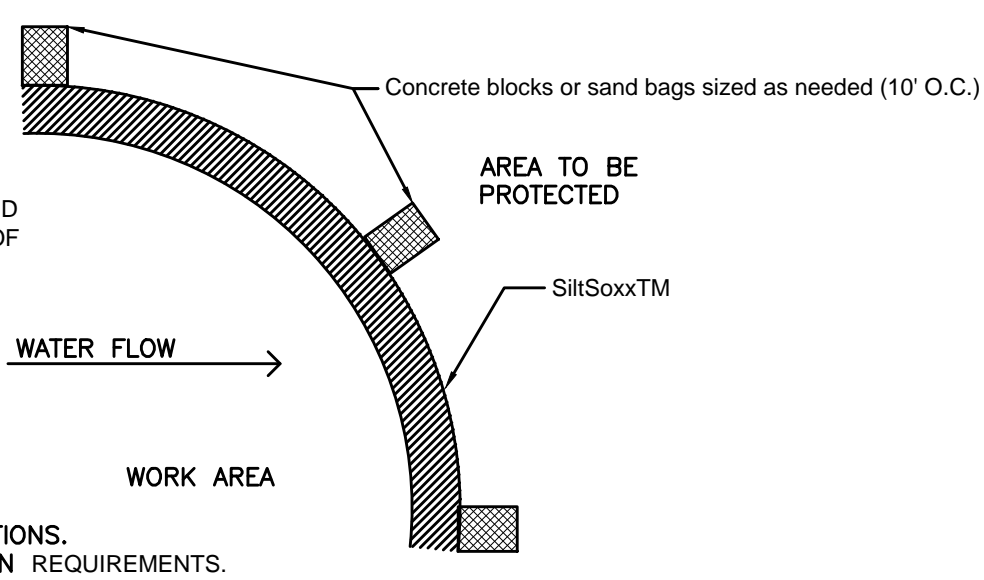
**GENERAL:**  
 TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

**CONSTRUCTION:**

- BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (6") INCHES.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3) HIGH FENCE AND BURIED A MINIMUM OF SIX INCHES (6") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

**INSTALLATION AND MAINTENANCE:**

- BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS.
- BALED HAY EROSION BARRIERS AND GEOTEXTILE FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
- ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
- INSPECTION SHALL BE FREQUENT (PER TABLE BELOW) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM WATER FLOW OR DRAINAGE.



**02 ANTI-TRACKING APRON**

NOT TO SCALE

**TEMPORARY VEGETATIVE COVER**

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDDED BY SEPTEMBER 1.

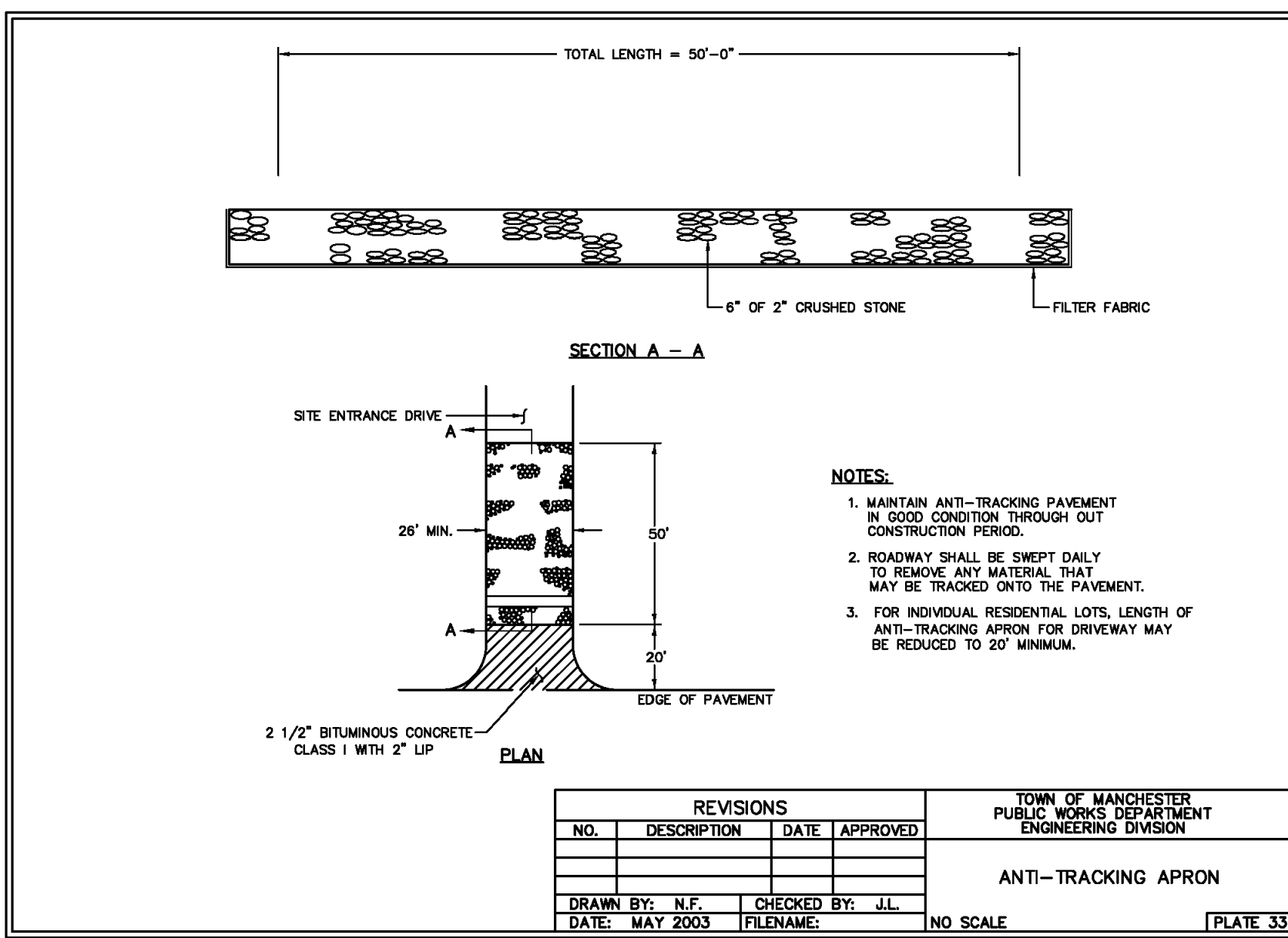
**GENERAL:**

- INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
- APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF TWO (2) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQ. FT.).
- APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQ. FT.) AND SECOND APPLICATION OF 200 LBS. OF 10-10-10 (5 LBS. PER 1,000 SQ. FT.) WHEN GRASS IS FOUR INCHES (4") TO SIX INCHES (6") HIGH. APPLY ONLY WHEN GRASS IS DRY.
- UNLESS HYDROSEEDED, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT.
- TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

- SITE PREPARATION:**
- SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING).
  - APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
  - UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL USING SUITABLE EQUIPMENT.
  - MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE)

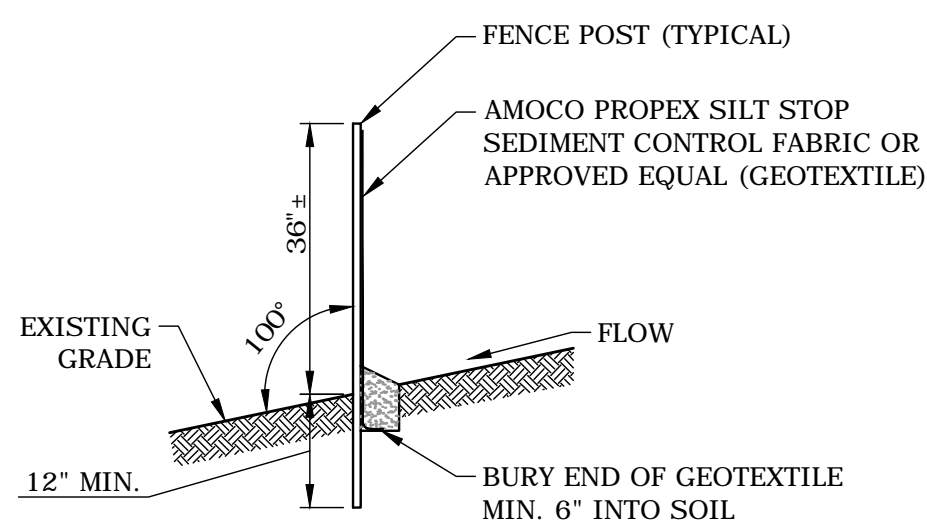
**GENERAL:**  
 PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

- SITE PREPARATION:**
- INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
  - REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
  - PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
  - APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
  - APPLY FERTILIZER ACCORDING TO SOIL TEST OR PER THE TECHNICAL SPECIFICATIONS.



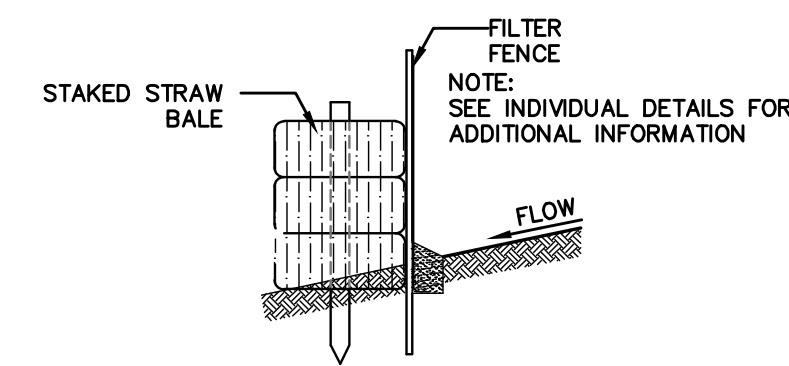
**02 ANTI-TRACKING APRON**

NOT TO SCALE



**03 SEDIMENT FILTER FENCE**

NOT TO SCALE



**04 SEDIMENT FILTER FENCE AND HAYBALE**

NOT TO SCALE

**REVISIONS**

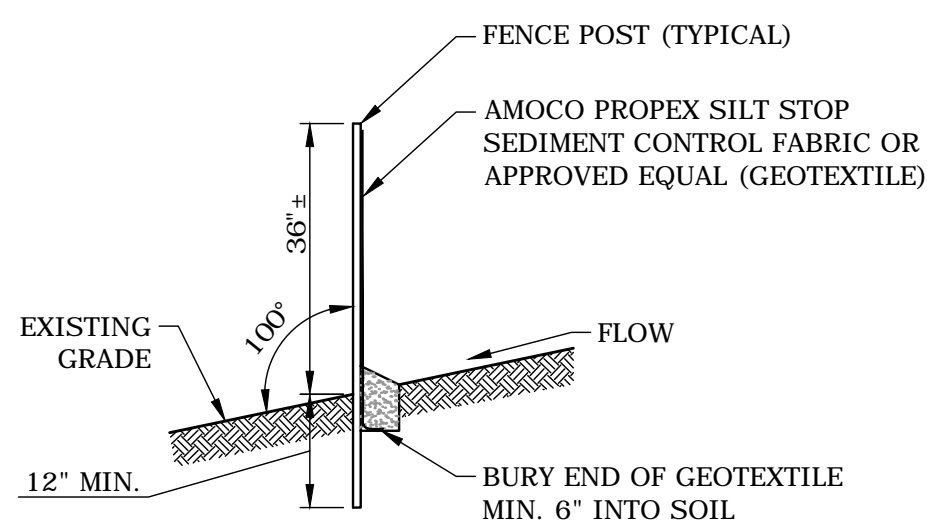
NO.	DESCRIPTION	DATE	APPROVED

DRAWN BY: N.F. CHECKED BY: J.L.  
 DATE: MAY 2003 FILENAME: NO SCALE [PLATE 33]

TOWN OF MANCHESTER  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 ANTI-TRACKING APRON  
 [PLATE 33]

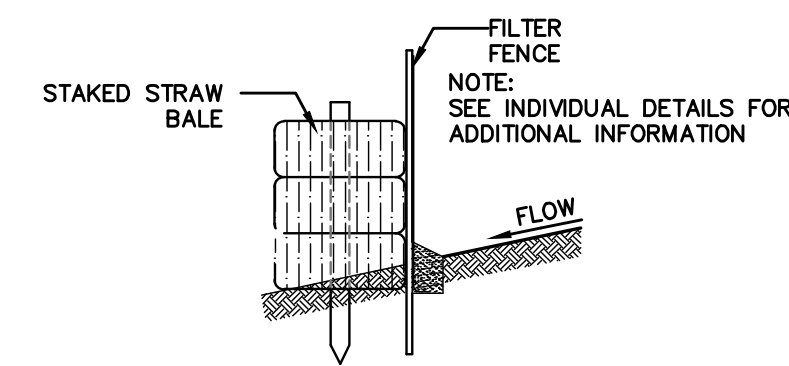
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NOT TO SCALE



**03 SEDIMENT FILTER FENCE**

NOT TO SCALE

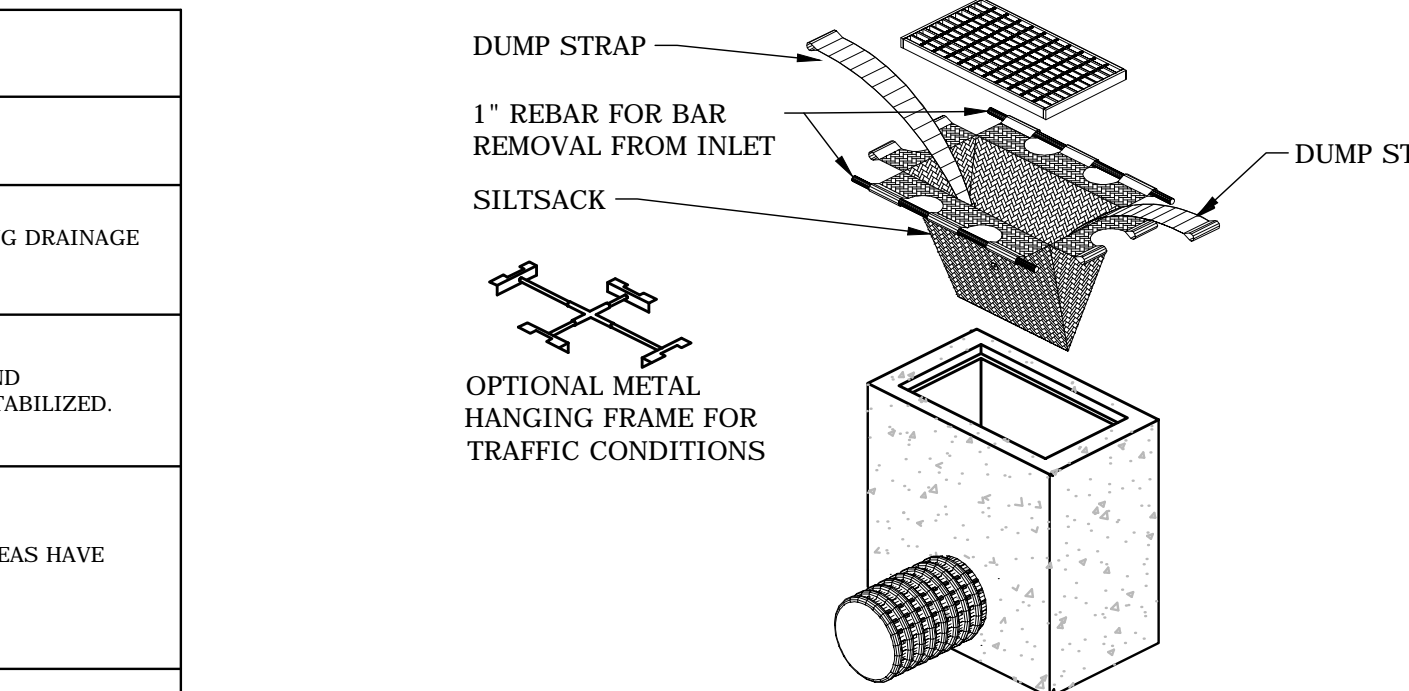
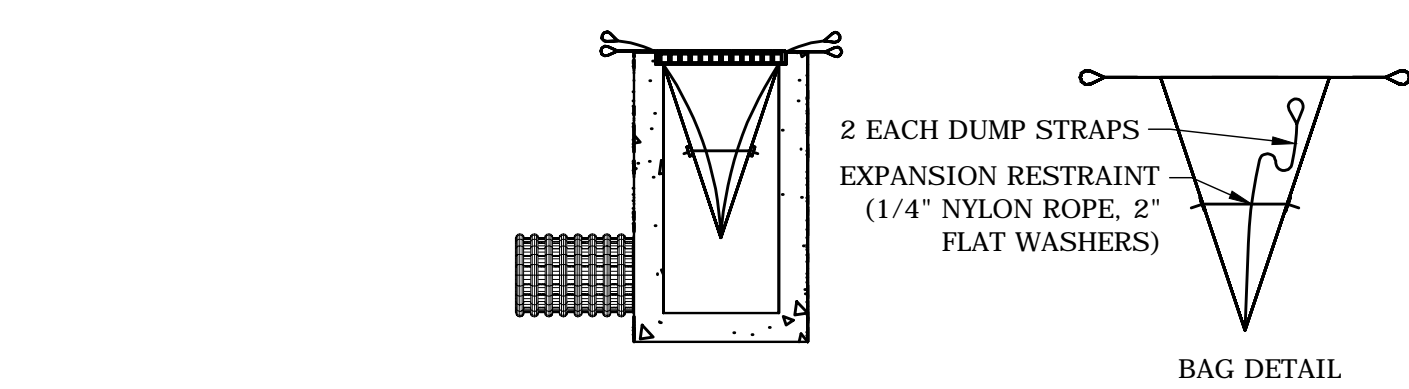


**04 SEDIMENT FILTER FENCE AND HAYBALE**

NOT TO SCALE

**04 TYPICAL TEMPORARY SEDIMENT TRAP**

NOT TO SCALE



**05 TEMPORARY INLET PROTECTION**

NOT TO SCALE

**APPROVED**  
 PLANNING AND ZONING  
 COMMISSION  
 MANCHESTER, CT  
 DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

**EROSION CONTROL MAINTENANCE INTERVALS**

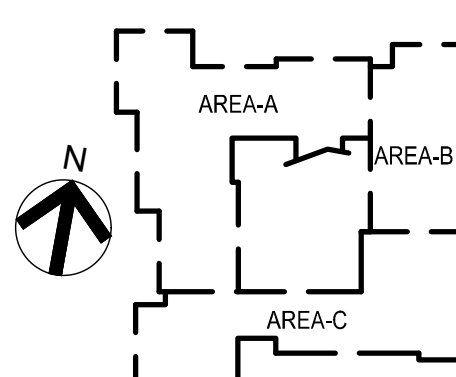
EROSION CONTROL MEASURE	CONTROL OBJECTIVE	INSPECTION /MAINTENANCE	FAILURE INDICATORS	REMOVAL
TEMPORARY SEDIMENT TRAP (TST)	- DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW A MAJORITY OF THE SEDIMENT TO SETTLE OUT.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. STONE OUTLET SHOULD BE AT LEAST 1 FOOT BELOW CREST OF EMBANKMENT. SEDIMENT MUST BE REMOVED WHEN ACCUMULATION REACHES 1/2 OF THE REQUIRED WET STORAGE.	- TURBID WATER - EXCESSIVE SEDIMENT ACCUMULATION - OVERTOPPING EVIDENCE	TST MAY BE REMOVED ONCE THE CONTRIBUTING DRAINAGE AREA IS PERMANENTLY STABILIZED.
SILT FENCE (SF) (RELATED: IP, STK)	- INTERCEPT, AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS. - DECREASE VELOCITY OF SHEET FLOW. - PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE ITS DEPTH IS EQUAL TO 1/2 THE TRENCH HEIGHT. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.	- PHYSICAL DAMAGE OR DECOMPOSITION - EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE - EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE - REPETITIVE FAILURE	SILT FENCE MAY BE REMOVED AFTER UPHILL AND SENSITIVE AREAS HAVE BEEN PERMANENTLY STABILIZED.
HAY BALES (HB)	- INTERCEPT, AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS. - DECREASE VELOCITY OF SHEET FLOW. - PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE THE DEPTH OF SEDIMENT IS EQUAL TO 1/2 THE HEIGHT OF THE BARRIER. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.	- PHYSICAL DAMAGE OR DECOMPOSITION - EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE - EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE - REPETITIVE FAILURE	HAY BALES MAY BE REMOVED AFTER UPHILL AREAS HAVE BEEN PERMANENTLY STABILIZED.
TEMPORARY DIVERSION BERM/SWALE (TBS) OR TEMPORARY SWALE (TBS)	- MINIMIZE VELOCITY AND CONCENTRATION OF SHEET FLOW ACROSS CONSTRUCTION SITE TO A SEDIMENT TRAPPING FACILITY. - DIVERT WATER ORIGINATING FROM UNDISTURBED AREA AWAY FROM CONSTRUCTION.	WHEN LOCATED WITHIN CLOSE PROXIMITY TO ONGOING CONSTRUCTION ACTIVITIES, INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. OTHERWISE INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. REPAIR THE TEMPORARY MEASURE AND ANY OTHER ASSOCIATED MEASURES WITHIN 24 HOURS.	- PHYSICAL DAMAGE - EXCESSIVE SCOURING/EROSION - REPETITIVE FAILURE	TEMPORARY DIVERSIONS MAY BE REMOVED ONCE CONSTRUCTION HAS CEASED AND THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
CONSTRUCTION ENTRANCE (CE) / ANTI-TRACKING APRON	- REDUCE THE TRACKING OF SEDIMENT OFF-SITE ONTO PAVED SURFACES.	INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC ADDITION OF STONE, OR LENGTHENING OF ENTRANCE MAY BE REQUIRED AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES AS A RESULT OF INEFFICIENCY OF CONSTRUCTION ENTRANCE SHALL BE IMMEDIATELY REMOVED.	- SEDIMENT IN ROADWAY ADJACENT TO SITE	CONSTRUCTION ENTRANCE MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL OTHER SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
CATCH BASIN INLET PROTECTION (IP)	- PROHIBIT SILT IN CONSTRUCTION-RELATED RUNOFF FROM ENTERING STORM DRAINAGE SYSTEM.	INSPECT AFTER ANY RAIN EVENT. IF FILTER BAG INSIDE CATCH BASIN CONTAINS MORE THAN 6\"/>	- RIPPED BAG - FAILED HAY BALES / SILT FENCE - SIGNIFICANT SILT PRESENCE IN STORM DRAINAGE SYSTEM OUTFLOW.	INLET PROTECTION MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
STOCKPILE PROTECTION (STK)	- RETAIN SOIL STOCKPILE IN LOCATIONS SPECIFIED, AND REDUCE WATER TRANSPORT.	INSPECT SILT FENCE AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC REINFORCEMENT OF SILT FENCE, OR ADDITION OF HAY BALES MAY BE NECESSARY.	- EVIDENCE OF STOCK PILE DIMINISHING DUE TO RAIN EVENTS - FAILURE OF SILT FENCE	STOCKPILE PROTECTION MAY BE REMOVED ONCE THE STOCKPILE IS USED OR REMOVED.

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**P&Z SUBMISSION**



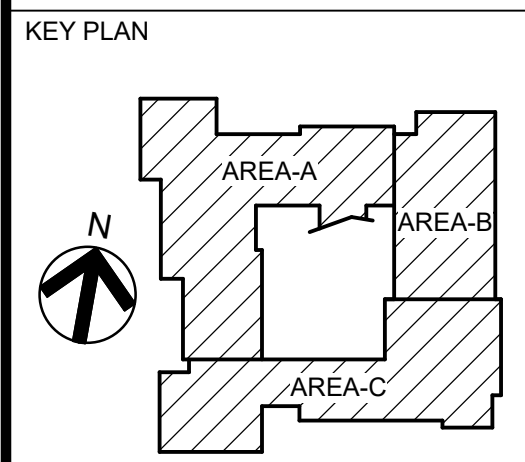
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**SITE DETAILS**

STATE PROJ. NO.	###
PROJECT NO.	SLR 12351.00094
SCALE	AS NOTED
DATE:	09/02/2022
DRAWN BY:	STN
CHECKED BY:	DLO

ISSUE DATES		
NO.	ISSUE DATE	PURPOSE

**C8.07**



STATE PROJ. NO.	077-0241 RNV
PROJ. NO.	220208
SCALE	1" = 20'-0"
DATE	09/02/2022
DRAWN BY	ZTS
APPROVED BY	DDY

ISSUE DATES

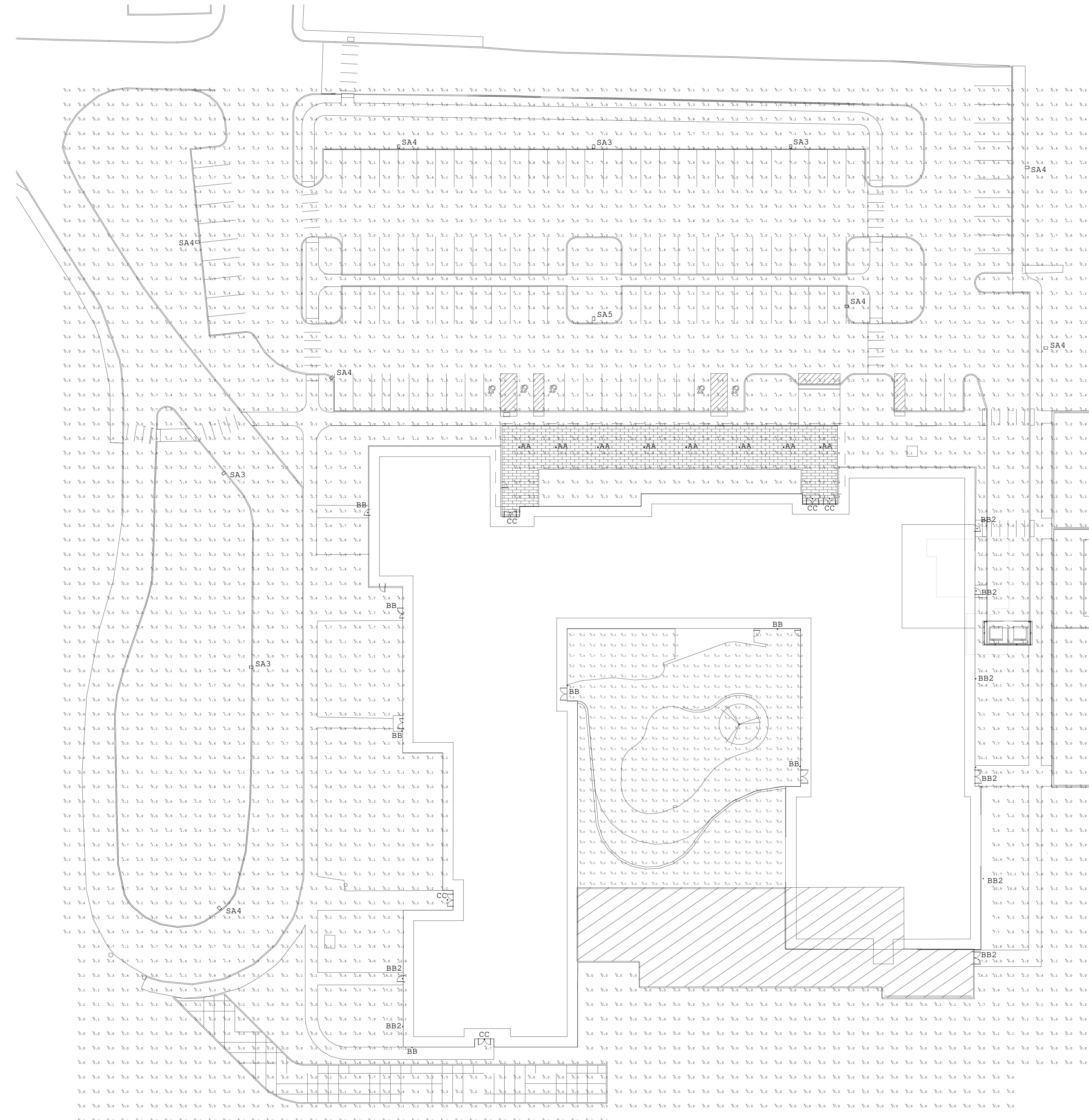
NO.	DATE	PURPOSE

**SITE LUMINAIRE SCHEDULE**

QTY	LABEL	ARRANGEMENT	LUM. LUMENS	LUM. WATTS	LLF Factor	MODEL	MOUNTING	FILENAME
8	AA	SINGLE	2433	28	0.9	SOLEIRA #SRBP-6-15-6X15-3235-3000K-UNV-AC24-XX-WB-UD-XX	10' AFF	D:\03-30-308-XXX-XXX-40WD-XXX.ies
8	BB	SINGLE	2687	30	0.9	GARCOO #101L-16L-530-WW-G1-3-EBPC-120-DA50-IMR2-F1-XX	8' AFF	1011-16L-530-mw-g2-3.ies
8	BB2	SINGLE	9797	106	0.9	GARCOO #101L1000L-530-WW-G1-3-EBPC-120-DA50-IMR2-F1-XX	8' AFF	1011-32L-1000-mw-g2-4.ies
4	CC	SINGLE	953	10	0.9	PRESCOLITE #LTR-6RD-H-ML20L-DM1-LTR-6RD-T-ML40K8MD-S-WT	RECESSED	LTR-6RD-H-ML20L-DM1-LTR-6RD-T-ML40K8MD-S-WT.ies
4	SA3	SINGLE	24270	216	0.9	US ARCHITECTURAL #RZR-PLD-III-W-80LED-875mA-30K	20' POLE	RZR-PLD-III-W-80LED-875mA-30K.ies
6	SA4	SINGLE	23634	216	0.9	US ARCHITECTURAL #RZR-PLD-IV-FT-80LED-875mA-30K	20' POLE	RZR-PLD-IV-80LED-875mA-30K.ies
1	SA5	SINGLE	25954	216	0.9	US ARCHITECTURAL #RZR-PLD-V-FT-80LED-875mA-30K	20' POLE	RZR-PLD-VSQ-W-80LED-875mA-30K.ies

**CALCULATION SUMMARY**

LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN	DESCRIPTION
MAIN ENTRYWAY	ILLUMINANCE	FC	3.70	16.0	0.3	12.33	53.3	10FT GRID
EAST WALKWAY	ILLUMINANCE	FC	4.29	27.8	0.2	21.45	139.0	10FT GRID
SOUTH WALKWAY	ILLUMINANCE	FC	2.83	7.9	0.2	14.15	39.5	10FT GRID
WEST WALKWAY	ILLUMINANCE	FC	2.80	25.9	0.2	14.00	129.5	10FT GRID
PARKING LOT	ILLUMINANCE	FC	2.88	10.5	0.2	2.88	52.50	10FT GRID
BUS LOOP	ILLUMINANCE	FC	3.77	8.1	0.3	12.57	27.00	10FT GRID



**SITE PHOTOMETRIC PLAN**  
 1" = 20'-0"

# TOWN OF MANCHESTER, CT



## KEENEY ELEMENTARY SCHOOL

STATE PROJECT # 077 0241 RNV

09/02/2022

PLANNING AND ZONING SUBMISSION

## TSKP STUDIO

ARCHITECT

**TSKP STUDIO, LLC**  
ONE HARTFORD SQUARE WEST  
146 WYLLYS STREET, BLDG 1-203  
HARTFORD, CT 06106

SITE&CIVIL ENGINEER  
LANDSCAPE ARCHITECT  
**SLR INTERNATIONAL CORP.**  
99 REALTY DRIVE  
CHESHIRE, CT 06410

ENVIRONMENTAL  
ENGINEER  
**TRC COMPANIES, INC**  
21 Griffin Road North  
Windsor, CT 06095

STRUCTURAL  
ENGINEER  
**MACCHI ENGINEERS, LLC**  
44 Gillett Street,  
Hartford, CT 06105

MECHANICAL  
ENERGY/LIGHTING  
**CMTA INC.**  
161 WORCESTER ROAD  
FRAMINGHAM, MA 01701

ELECTRICAL / PLUMBING  
AND FIRE PROTECTION  
**BEMIS ASSOCIATES LLC**  
185 MAIN STREET  
FARMINGTON CT 06032

FOOD  
SERVICE  
**FSDC**  
10 MIDDLE DRIVE  
WINDSOR LOCKS , CT

**APPROVED**  
PLANNING AND ZONING  
COMMISSION  
MANCHESTER, CT  
DATE: \_\_\_\_\_  
SIGNED: \_\_\_\_\_

### DRAWINGS LIST

Cover

#### Survey

TOPO 1 - SURVEY  
TOPO 2 - SURVEY  
TOPO 3 - SURVEY  
TOPO 4 - SURVEY

#### Civil and Landscape

C0.00 - SITE NOTES & INDEX PLAN  
C1.00 - SITE PLAN - EXISTING CONDITIONS  
C2.00 - SITE PLAN - REMOVALS  
C3.00 - SITE PLAN - LAYOUT & LANDSCAPING  
C4.00 - SITE PLAN - GRADING  
C5.00 - SITE PLAN - UTILITIES  
C6.00 - SITE PLAN - SEDIMENT & EROSION  
CONTROLS  
C7.00 - SITE PLAN - ACCESSIBLE ROUTES  
C8.00 - SITE DETAILS  
C8.01 - SITE DETAILS  
C8.02 - SITE DETAILS  
C8.03 - SITE DETAILS  
C8.04 - SITE DETAILS  
C8.05 - SITE DETAILS  
C8.06 - SITE DETAILS  
C8.07 - SITE DETAILS

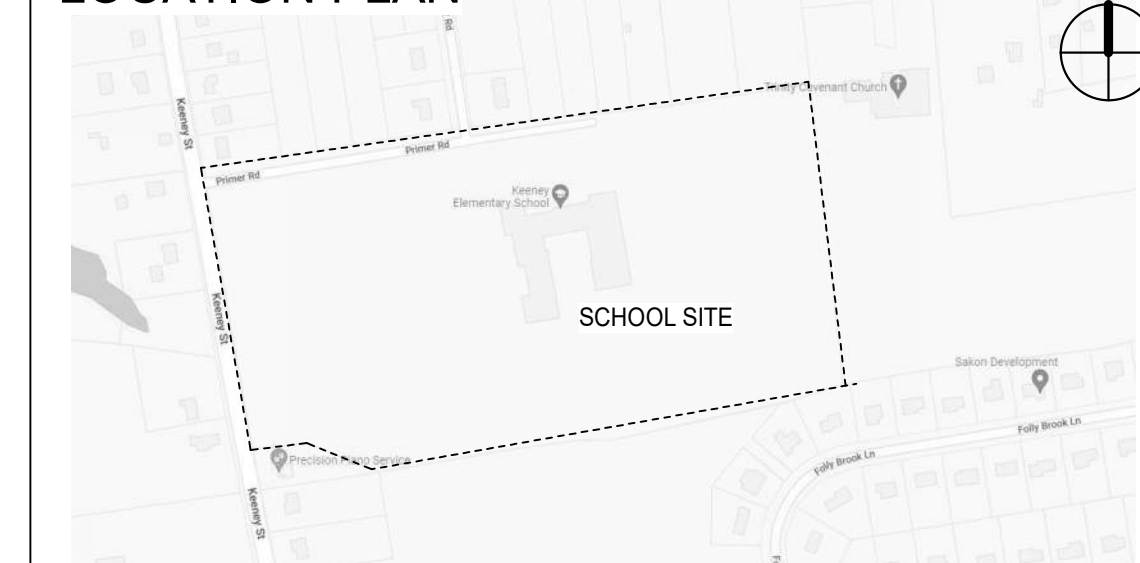
#### Site Electrical

UE100 - SITE LIGHTING PLAN

#### Architectural

A100 - MAIN FLOOR PLAN  
A200 - ROOF PLAN  
A300 - ELEVATIONS  
A400 - SECTIONS

### LOCATION PLAN



### APPROVALS

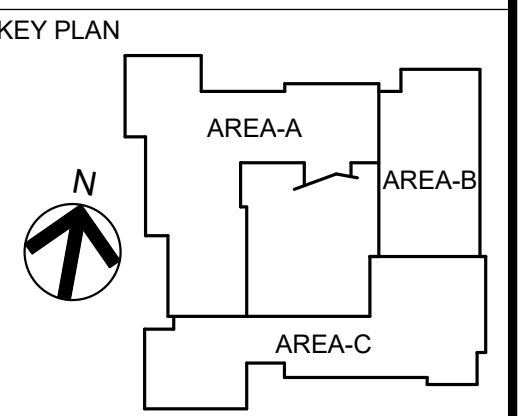
PUBLIC WORKS DATE

AGENCY DATE



**MANCHESTER - KEENEY  
 ELEMENTARY SCHOOL**  
 179 KEENEY STREET  
 MANCHESTER, CT 06040

P&Z SUBMISSION



DRAWING TITLE  
**ROOF PLAN**

STATE PROJ. NO.	077-0241 RNV
OFFICE PROJ. NO.	220208
SCALE	As Indicated
DATE	09/02/2022
DRAWN BY	Author
CHECKED BY	Checker

ISSUE DATES

NO.	ISSUE DATE	PURPOSE

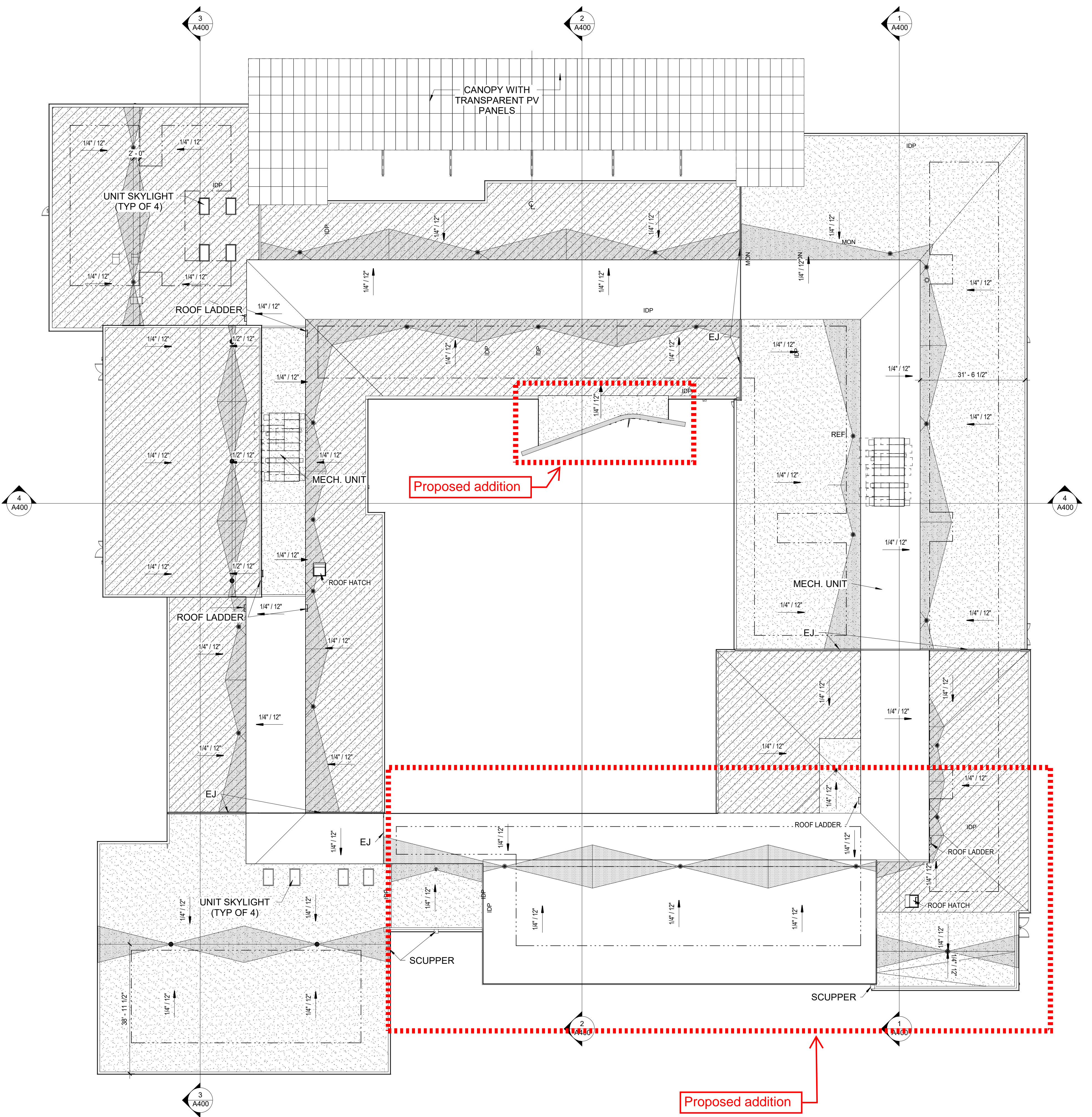
**APPROVED**  
 PLANNING AND ZONING  
 COMMISSION  
 MANCHESTER, CT

DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

**A200**

**ROOF PLAN LEGEND**

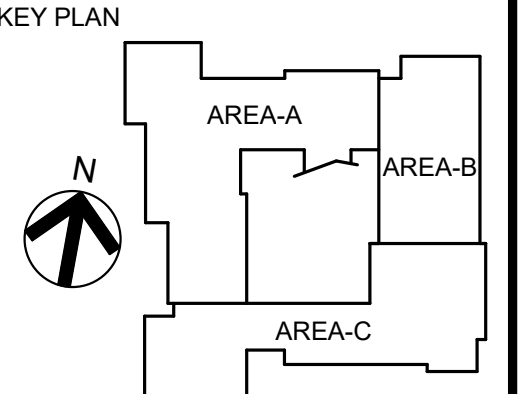
- EPDM ROOFING SYSTEM OVER RIGID INSUL. (6 MIN.)
- EPDM ROOFING SYSTEM OVER TAPERED INSUL. (6 MIN.)
- ROOF CRICKET AND SADDLE - SLOPE AS RECOMMENDED BY NRCA
- EPDM ROOFING SYSTEM 1/8" / 12" TAPERED INSUL. (6" MIN.) OVER EXISTING 1/8" SLOPED DECK. OVERALL ROOF SLOPE TO BE MIN 1/4" SLOPE (V/F)
- TRANSPARENT PV PANELS
- NEW ROOF DRAIN
- LINE OF PV PANELS



1 ROOF PLAN  
 1/16" = 1'-0"

**MANCHESTER - KEENEY  
 ELEMENTARY SCHOOL**  
 179 KEENEY STREET  
 MANCHESTER, CT 06040

P&Z SUBMISSION



DRAWING TITLE

ELEVATIONS

STATE PROJ. NO.	077-0241 RNV
OFFICE PROJ. NO.	220208
SCALE	3/32" = 1'-0"
DATE	09/02/2022
DRAWN BY	Author
CHECKED BY	Checker

ISSUE DATES

NO.	ISSUE DATE	PURPOSE

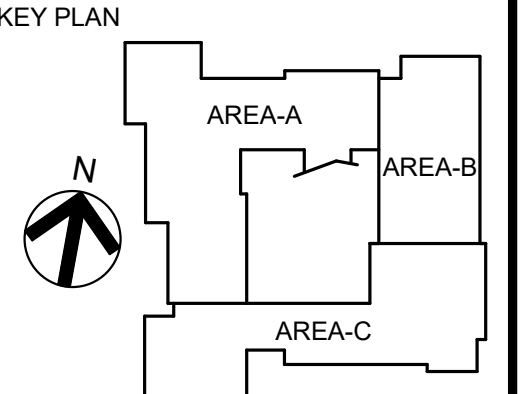
**APPROVED**  
 PLANNING AND ZONING  
 COMMISSION  
 MANCHESTER, CT  
 DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

**A300**



**MANCHESTER - KEENEY  
 ELEMENTARY SCHOOL**  
 179 KEENEY STREET  
 MANCHESTER, CT 06040

P&Z SUBMISSION



DRAWING TITLE

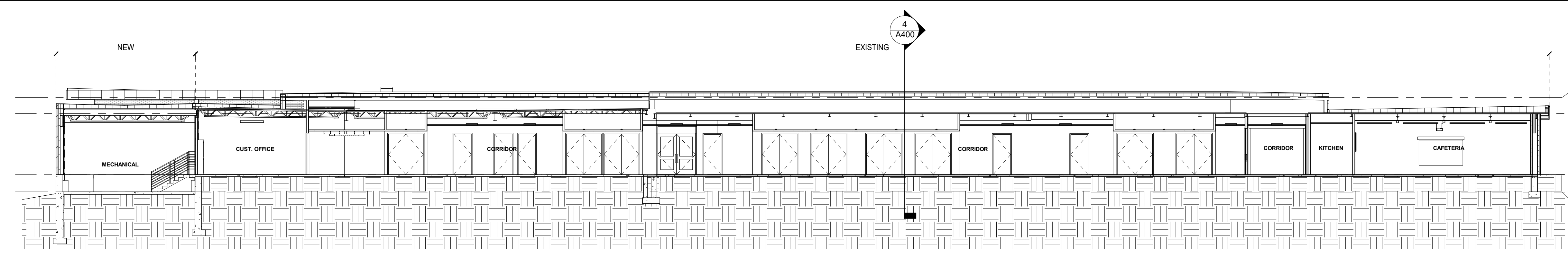
**SECTIONS**

STATE PROJ. NO.	077-0241 RNV
OFFICE PROJ. NO.	220208
SCALE	3/32" = 1'-0"
DATE	09/02/2022
DRAWN BY	Author
CHECKED BY	Checker

ISSUE DATES

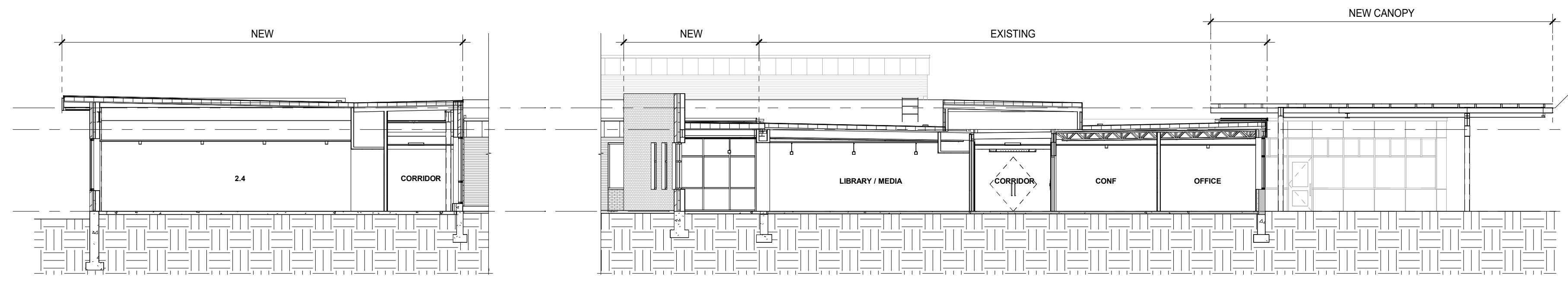
NO.	ISSUE DATE	PURPOSE

- NEW ROOF / DOG HOUSE 13' - 4"
- ROOF -1955 10' - 6 1/2"
- MAIN FLOOR 0"
- MECH. ROOM -3' - 0"



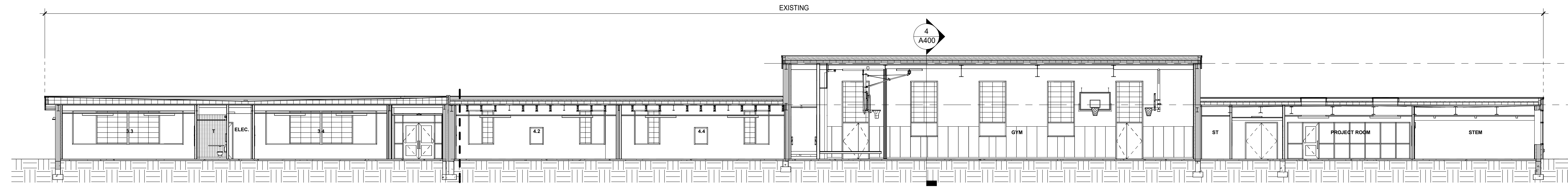
1 BUILDING SECTION - EAST WING - NORTH/SOUTH  
 3/32" = 1'-0"

- NEW ROOF / DOG HOUSE 13' - 4"
- ROOF -1955 10' - 6 1/2"
- MAIN FLOOR 0"



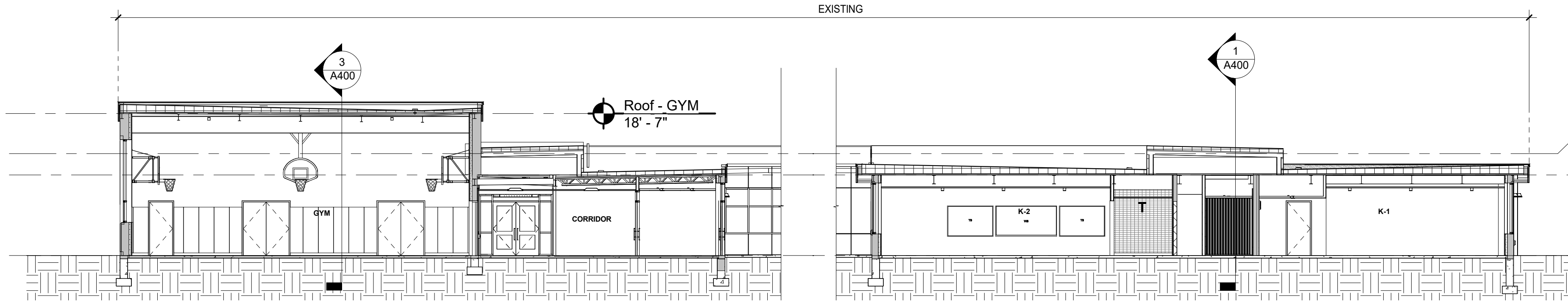
2 BUILDING SECTION - NORTH/SOUTH  
 3/32" = 1'-0"

- Roof - GYM 18' - 7"
- ROOF -1955 10' - 6 1/2"
- MAIN FLOOR 0"



3 BUILDING SECTION - WEST WING - NORTH/SOUTH  
 3/32" = 1'-0"

- NEW ROOF / DOG HOUSE 13' - 4"
- ROOF -1955 10' - 6 1/2"
- MAIN FLOOR 0"



4 BUILDING SECTION - EAST/ WEST  
 3/32" = 1'-0"



**APPROVED**  
 PLANNING AND ZONING  
 COMMISSION  
 MANCHESTER, CT

DATE: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_

**A400**

**TOWN OF MANCHESTER  
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT**

**TO:** Planning & Zoning Commission

**FROM:** David Laiuppa, Environmental Planner/Wetlands Agent DL

**DATE:** October 13, 2022

**RE:** Manchester Country Club – 305 South Main Street  
Inland Wetlands Permit Determination of Significance (IWP-0027-2022)

***Introduction***

The applicant is requesting approval of a wetland permit for the expansion of the 18<sup>th</sup> tee box at the Manchester Country Club, near the southern bank of Globe Hollow Reservoir.

***Project Description***

The parcel at 305 South Main Street is a 113-acre parcel which is used as a golf course with accessory buildings. The northern portion of the parcel is largely occupied by a portion of the Globe Hollow Reservoir. The proposed project area is situated near the southern bank of the reservoir, on a portion of the golf course, in proximity of South Main Street.

The proposed project will expand the area of the existing 18th tee at Manchester Country Club by adding an additional 30' by 40' (approximate) rectangular area to the northeast corner of the tee. This will "square off" the shape of the tee. The turf on the tee will also be renewed with sod. The project is intended to increase the usable tee area reducing the frequency of use of each area of the tee, allowing the turf more time to recover between uses.

***Inland Wetlands Permit***

Given the proximity of the project to Globe Hollow Reservoir, the applicant contracted with a soil scientist to delineate the wetland to the north of the tee. The location of the wetland boundary is shown on the attached grading plan.

The permanent impacts of the proposed project will be from fill material that will be brought in to raise the elevation of the tee box area. None of this fill will be placed within the wetland area but rather within the upland review area. Temporary impacts from the project will be from construction and access during the project. As with the permanent impacts, this activity will take place within the upland review area, not within the wetland system itself.

The total proposed area of **direct and permanent disturbance within the watercourse and wetland is 0 square feet**. The total proposed area of direct and permanent **impact to the upland review area is 0.2 acres**.



### *Determination of Significance*

The Inland Wetlands Agency is required to make a determination of significance regarding any impact of the proposed activities on wetlands, watercourses, and/or water bodies. In making its determination, the Commission should be guided by the definition of "Significant Impact Activity" as found in the Inland Wetlands and Watercourses Regulations, which means any activity including, but not limited to, the following activities which may have a major effect or significant impact:

- a. Any activity involving a deposition or removal of material which will or may have a substantial effect on the wetland or watercourse or on wetlands or watercourses outside the area for which the activity is proposed; or
- b. Any activity which substantially changes the natural channel or may inhibit the natural dynamics of a watercourse system; or
- c. Any activity which substantially diminishes the natural capacity of an inland wetland or watercourse to support aquatic, plant or animal life, prevent flooding, supply water, assimilate waste, facilitate drainage, provide recreation or open space or perform other functions; or
- d. Any activity which is likely to cause or has the potential to cause substantial turbidity, siltation or sedimentation in a wetland or watercourse; or
- e. Any activity which causes a substantial diminution of flow of a natural watercourse or groundwater levels of the wetland or watercourse; or
- f. Any activity which is likely to cause or has the potential to cause pollution of a wetland or watercourse; or
- g. Any activity which damages or destroys unique wetland or watercourse areas or such areas having demonstrable scientific or educational value.

If the Agency finds the proposed activity may have a significant impact on the wetlands, a public hearing is required. A public hearing shall also be held if either 1) a petition signed by at least twenty-five persons who are eighteen years of age or older and who reside in the municipality is filed no later than fourteen days after the receipt of such application, or 2) the Agency finds that a public hearing regarding such application would be in the public interest. Should the Agency find that none of the above circumstances applies to the application, then no public hearing is required.

### *Staff Review*

Town staff is still reviewing the materials submitted with this application. Any outstanding comments will be provided to the Commission during the final decision meeting.

dl/kw

R:\Planning\PZC\2022\10 - October 17\Packet\IWP-0027 MCC - Memo.docx

**Attach.**

Town of  
Manchester, CT



Geographic Information  
Systems

305 South Main Street

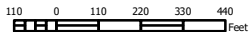
- Roads
- Manchester Town Boundary
- AA - Residence AA
- PRD - Planned Residence Development
- RA - Residence A
- RB - Residence B
- RR - Rural Residence



DISCLAIMER:  
The Town of Manchester, CT assumes no legal responsibility for the information contained in this map. This map is provided "AS IS" without warranty of any kind.

NOTES:  
Planimetric and topographic information were compiled by stereophotogrammetric methods from photography dated April 24, 1999 in accordance with ASPR accuracy standards for 1"=40' large scale Class I maps. Real property compiled from recorded deeds, subdivision plans and other public records. Utility networks compiled from record plans, as-builts and/or field survey data. Aerial photography dated April 24, 1999.

1 inch = 500 feet



Date: 9/27/2022



# MCC 18 Tee



**Notes:**

Install Silt Fence and Straw Wattle Erosion & Sedimentation Control before beginning any work.  
 Install Temporary Process Stone Vehicle Access Ramp before accessing site with vehicular traffic.  
 Permanently stabilize all disturbed areas prior to removing Erosion & Sedimentation Control  
 Remove vehicle access ramp after all work is complete.  
 No work activity outside of limit of work shown.



Town of Manchester, CT  
 DISCLAIMER: This map is compiled from other maps, deeds, dimensions and other sources of information. Not to be construed as accurate surveys and subject to final changes as a more accurate survey may disclose.  
 NOTES: Original planimetric and topographic data were compiled by stereophotogrammetric methods from photography dated April 1999 in accordance with ASPR accuracy standards for 1 inch = 40ft large scale Class I mapping. The updating of the GIS data is performed by the GIS/Maps & Records Unit on a continual basis utilizing the best and most appropriated sources available.

- ◆ Wetland Flag
- Temporary Processed Stone Ramp for Vehicle Access
- Wetland Boundary
- 270 Proposed Contours
- - - Silt Fence & Straw Wattle
- Limits of Work

1 inch = 40 feet



## Manchester Country Club 18th Tee Proposed Grading Plan

Author: Gordon Daring, PE

Date: 7/16/2022