BOROUGH OF NAUGATUCK, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS
REQUIREMENTS FOR
STREET OPENING/LATERAL TRENCHES OR UTILITY SERVICE CUTS
REVISED MARCH 17, 2017

Street Opening Permit Requirements

Any excavation, mechanical or otherwise, within the Town Right-of-Way Requires a Street Opening Permit. Three exceptions are as follows: 1. Utility pole replacement in the same location; 2. Installation of mailboxes utilizing a 4"x 4" wood post, meeting the Post Office requirements; and 3. Repaving of driveways or paving of existing driveways, as long no changes in grade, dimensions or location are made. **All excavations, mechanical or otherwise, require a Call-Before-You-Dig confirmation number.**

Permits are required for all work in the right-of-way; permit fees will be only waived for work performed for the borough and certain other situations.

Permits are valid for one full year from the date of the permit, however, winter work is not permitted. The full construction season is April 15 to November 1. At the discretion of the borough engineer construction finish work may be allowed until asphalt plants are shut down for the season and startup work may be allowed before April 15. A permit may be granted under emergency conditions for winter work when no other alternative exists. Note that a permit will expire 60 days from date of issue if work has not begun.
The Contractor is responsible for himself/herself and for anyone working directly or indirectly under his/her supervision. In order to pull a permit, Contractors performing work in the Borough of Naugatuck must have the following:

1. A valid **Certificate of Liability Insurance and Worker's Compensation Insurance**, meeting Borough requirements, on file in the Borough of Naugatuck Engineering Department office.
2. A valid **Street Opening Permit Bond**, in the amount meeting borough requirements, on file in the Borough of Naugatuck Engineering Department office **(to the extent allowed by statute public utility companies are exempt from the requirement of providing certificates of insurance or bonds to the Borough, however, subcontractors for utility companies must still provide valid Certificates of Liability Insurance and Worker's Compensation Insurance meeting Borough requirements).**
3. A valid **Call-Before-You-Dig confirmation number.**
4. A **Proof of Payment of Taxes and Fees form** must be completed, showing all applicable taxes as being paid, (the tax office will provide the proof of payment form.)
5. **Large projects will require a higher bond amount as determined by the project cost estimate and approval by the Borough Engineer.**
6. Contractor must not be on list of past due contractors.
7. Contractor must not be on list of contractors with trenches or patches needing repair.
8. Permit fee must be paid in full.
9. Permit application to be filled out completely and signed.
10. A valid signed sewer permit is also required, if sewer work is to be performed.

11. An engineered drawing depicting existing utilities, storm and sanitary sewers and proposed utilities or sewer connections for major work must be submitted; an accurate sketch may be accepted for minor work.
12. A written, detailed scope of work, outlining all proposed work and work areas.
13. Long term projects must have permit numbers noted on renewed CBYD tickets.

Street Opening Permit Fees

A standard permit fee of $50 will be charged for the following:

A. Individual permits.
B. Main line utility project work on a street, up to one city block or 500 foot length. Existing lateral service trenches included in a project shall be included in the permit and company work order numbers for all included work must be included in the permit or additional permit fees will be charged.
C. A new lateral service trench off the main line whether part of a project or not.
D. As required for work not covered above and/or to ensure proper tracking of work performed.

Working Without a Permit

With the exception of emergency work, no work requiring a permit will be allowed until a permit is obtained. In the event emergency work is required, a permit shall be obtained within 48 hours of performing the emergency work. Work performed without a permit will be shut down immediately.

Guidelines

The following guidelines shall be implemented when any Street opening permit, lateral trench or utility service cut is approved within the Borough of Naugatuck's right-of-way.

Winter Work

Pipe Line Projects/Small Service Projects

1. Non-emergency pipe line projects or small service projects **will not be approved or allowed to continue construction during the winter months when asphalt plants are closed**. Extenuating circumstances must be brought to the attention of the engineering office and will be reviewed for a determination as to whether the work will be allowed.
2. **Every effort shall be made not to impede or obstruct borough roads during winter storms and the ensuing cleanup.**
3. **Emergency winter work will require that all backfill be processed aggregate.**
4. **Cold Patch shall only be allowed for emergency work during the asphalt plant winter shutdown when hot material is not available. Cold patch shall be Class 5A. Cold patch must be removed and replaced with hot asphalt mix as soon as it becomes available. Emphasis must be placed on the backfilling and compaction of the trench to avoid any future settlement.**

Road/Trench Repairs in Borough Roads

In accordance with the borough's Pavement Management Program - Road Surface Rating/Pavement Condition Index the paving requirements for road/trench repairs shall be as follows: **for roads with an RSR/PCI rating of 80 or higher or pavement disturbance of more than 35% including the required pavement cutbacks, paving of the entire roadway will be required.** The pavement surrounding and including the excavation shall be milled to a depth of two (2) inches from edge of pavement to edge of pavement. When determining the starting and ending points for the milling, consideration will be given to existing pavement joints and intersection streets. The milled edges shall be vertically faced and not tapered. The entire milled area including the edges shall be swept and tack coated with approved material at the appropriate rate. Pavement for overlays shall be Class 2.

For roads with an RSR/PCI rating less than 80 or pavement disturbance of less than 35% including the required pavement cutbacks, the Contractor shall provide standard trench repair.

(See Details SD-1 & SD-2)

Traffic Control

1. Traffic control is provided by the Police Department. Uniformed police will be utilized for traffic control. Police officers can be obtained by calling the Police Department, the telephone number is 203-729-5222.
2. Roads shall not be closed unless permission is given by the Police Department.
3. All Detours shall be approved by the Police Department.
4. All lanes of traffic shall be opened at the end of the work day.
5. Signage and warning devices shall be displayed as required in the Manual on Uniform Traffic Control Devices, most current edition.

Inspections

All road work must be inspected. Inspections must be scheduled with the engineering department Street Inspector a minimum of 24 hours in advance. Cut back limits must be painted by the Contractor and approved by the Street Inspector prior to Permanent Trench Repair. Non-emergency work must be scheduled Monday through Friday 7:30 AM to 3:15 PM. Non-emergency work shall not occur after 3:15 PM. All disturbed areas within the Borough Street Right of Ways shall be restored to the satisfaction of the Street Inspector. **Excavations performed without a permit or that have not been inspected are subject to a requirement that test pits be performed by the Contractor in the presence of the Street Inspector, to verify proper installation of piping, structures and trench materials.**

Maintenance

The Contractor is responsible to repair and maintain work within the ROW, including Curbs, Trenches and Sidewalks for a minimum period of 3 years. Work shall be free from defects including cracking, heaving and/or sinking. **Contractors must perform emergency maintenance within 3 hours and minor maintenance within 24 hours of notification by the engineering department. Any work not completed within the time specified or work that does not meet Borough of Naugatuck requirements will be repaired by the Borough of Naugatuck at the Contractor's expense.** A minimum fee of $500 will be charged for any required work. Cold patch when allowed shall be Class 5A. **It is the Contractor's responsibility to notify the borough's engineering department for an inspection 24 hours prior to completing permanent patch covered by a permit**. The Contractor's limit of responsibility for work can not be determined and proper credit **will not be granted** until the engineering department has been **notified in writing** of the permanent repair and the work has been inspected.

As-built Information

It is the contractor's/utility's responsibility to as-built construction and furnish mapping, data and/or information to appropriate authorities to ensure protection of underground utilities, sewers and drainage and the safety of the general public.

Standard Road/Trench Repair Requirements

(See Detail SD-11)

Payment in lieu of Final Pavement

The Borough of Naugatuck may accept payment in lieu of final paving for large pipeline projects. The amount shall be agreed to by the Borough of Naugatuck and the contractor or utility. The funds collected shall be used to repave the same road in the future. The Contractor shall provide acceptable pavement base and trench pavement as approved by the Borough of Naugatuck. **The Contractor shall be responsible to maintain the trench pavement for a minimum period of 3 years.**

Backfill

The excavation shall be filled with suitable material and compacted in lifts not to exceed twelve (12) inches, 95 percent compaction must be achieved for each lift. Twenty four (24) inch lifts may be approved provided it is compacted by means of a hoe-pack to achieve a 95% modified proctor density each layer shall be carefully and thoroughly tamped with approved tools in such a manner as to prevent settlement after the backfill has been completed and to achieve a 95% modified proctor density**. Emergency winter work will require that all backfill be processed aggregate.**

If physical evidence suggests to the borough engineer or street inspector that compaction of the backfilled trench is not suitable, compaction tests may be required to verify that proper compaction was achieved. All costs for compaction tests will be borne by the Contractor. Large projects will require an inspector hired by the Contractor to be on-site, at a minimum, twice a day; once in the morning after work is underway and once in the afternoon, prior to paving for the day. The borough engineer may require that the Contractor provide additional inspection if deemed necessary. If settlement occurs, the borough engineer may require test pits to determine the character of the backfill and process materials and order appropriate repairs to be made.

Saw Cutting
The utility and/or contractor will be required to saw cut the pavement edges in a neat straight line to a depth necessary to remove the pavement to the sub base. Cut backs of 2 feet minimum around the entire excavation are required.

Temporary Trench Repair
All excavations shall be plated or temporarily paved at the end of each day, unless approved by the Borough Engineer. Hot asphalt mix shall be used. **Cold Patch shall only be allowed for emergency work during the asphalt plant winter shutdown when hot material is not available. Cold patch shall be Class 5A. Cold patch must be removed and replaced with hot asphalt mix as soon as it becomes available. Emphasis must be placed on the backfilling and compaction of the trench to avoid any future settlement.** Temporary repair shall include processed gravel to a depth as required to obtain 10 inches following permanent repair. After compaction of process gravel, the excavated area shall be paved with 2.5 inches of bituminous concrete Class 1. **Plates will not be allowed during the winter months which are defined as November 1 to April 15.**

(See Detail SD-3)

Permanent Pavement/Trench Repair
Following a settlement period of 6 to 10 weeks at a minimum, final trench repair shall be completed. This process will include the removal of temporary pavement, the compaction of the base material and the placement of five (5) inches of bituminous concrete in two lifts (2.5 inches Class 1 and 2.5 inches of Class 2). Original pavement edges shall be saw cut to neat, straight lines to a depth necessary to remove all pavement, cut backs of 2 feet minimum around the entire excavation are required. Full depth replacement is required for pavement removed during the excavation that exceeds 5". If the pavement is Portland Cement Concrete (PCC) under bituminous concrete overlay, the PCC shall be replaced with Class 4 bituminous concrete at a depth matching the existing PCC depth or six (6) inches whichever is greater**. Prior to paving the Contractor shall verify that the 10" processed gravel layer is present. If the processed gravel layer is missing or is less than 10" deep, the Contractor shall install the processed gravel layer to borough specifications and compact the area as required.**
Permanent paving is to be completed prior to the end of the construction season. The Contractor shall schedule paving early enough in the autumn to avoid delays due to weather or other conditions, which could affect the outcome of the paving.

(See Detail SD-2)

Joints
Pavement joints shall be sealed with an approved asphaltic material filling with a nozzle from the bottom up.

Safety
The Contractor shall be responsible to follow all applicable OSHA Regulations.

Driveways

New Driveways shall conform to the following standards:

1. Driveways shall have a safe alignment to the road, and a level landing area at the right-of-way as specified herein and in accordance with Borough standards.

2. The minimum driveway width shall be no less than ten (10) feet. Driveway widths should not exceed twenty (20) feet in the right-of-way.

3. The slope of paved driveways shall not exceed fifteen (15) percent (10% max. preferred) and shall have a maximum slope of five (5) percent within ten (10) feet of right-of-way. Unpaved driveway slopes shall not exceed ten (10) percent (8% max. preferred). The right-of-way area shall be graded toward the street as specified herein and in accordance with Borough standards.

4. Driveways shall be located as far as possible from street intersections. No driveway shall have an access within 30 feet of a street intersection as measured from the right-of-way line unless approved by the Borough Engineer.
5. Driveway aprons within the Borough right-of-way shall be paved. The Borough Engineer may require that shared driveways, driveways with the potential for erosion, and driveways to interior lots be paved. Pavements may be bituminous asphalt, reinforced concrete, or special pavements of a design and material acceptable to the Borough Engineer and shall be constructed in accordance with Borough standards and with standards contained herein.

6. Sight lines from driveways onto adjacent public roads shall allow a driver to safely exit the driveway.

7. Driveways shall be graded to prevent the drainage from creating icing problems, causing erosion, or impacting septic systems, wells or neighboring properties.

8. Drainage structures and/or drywells or galleries may be required by the borough engineer to control stormwater runoff.

Curbs

Curbing shall match the type of curbing existing in the immediate vicinity and shall be constructed as follows:

1. Bituminous concrete curbing shall be machine formed and shall be constructed on the pavement, with a standard cross section approved by the Borough Engineer and having a height of 7 inches and a base width of approximately 10 inches. The material shall conform to the requirements of Section 8.15, "Bituminous Concrete Lip Curbing", of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Forms 816. The surface of the pavement where the bituminous concrete curb is to be constructed shall have been cleared of all loose and foreign material, shall be perfectly dry and shall be coated with an RC-2 tack coat or other approved bitumen just before placing the material. The material shall be properly compacted to the required cross-section by use of a suitable machine specifically designed for that purpose. After completion of the curbing, traffic shall be kept at a safe distance for a period of not less than 24 hours and until the curbing has set sufficiently to prevent injury to the work.

2. Portland Cement concrete curbs shall be precast or cast in place concrete, constructed in a manner approved by the Borough Engineer. Curbs shall be six (6) inches wide at the top, nine (9) inches wide at the bottom and except at driveway cuts shall have a minimum depth of 18 inches, six (6) inches of which is exposed above the pavement. The concrete shall have a 28-day compressive strength of 4,000 pounds per square inch and shall conform to Section 8.11, "Concrete Curbing", of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816 for Class "C" concrete.

Sidewalk Design and Construction

All sidewalks and walkways shall conform to Borough construction and design standards and shall be concrete and as required herein. All sidewalks shall include ramps at all pedestrian crosswalks for the handicapped in accordance the Connecticut General Statutes and constructed to the current standards of the Americans with Disabilities Act (ADA).

a. Sidewalks shall be a minimum of four (4) feet in width and shall be located within the street ROW. All sidewalks shall be laid on six (6) inch bank run gravel base, watered and rolled to optimum moisture content and compacted prior to pouring.

b. The sidewalks shall be constructed of concrete (4) inches thick with 6x6-6/7 wire mesh reinforcement in the middle of the slab. The concrete shall have an ultimate 28 day compressive strength of 4,000 pounds per square inch and having expansion joints with premolded fillers spaced not more than 25 feet apart and with suitable weakened plain joints every five (5) feet. The walk shall have a cross slope of ¼ inch per foot, shall be poured in one pour and shall be finished with the use of a wood float.

c. Sidewalks shall continue through driveway aprons unless otherwise approved by the Street Commission. At driveways the thickness shall be increased to six (6) inches with an eight (8) inch base and a 6 x 6-6/6 wire mesh reinforcement shall be placed in the middle of the slab.

(See Detail SD-48)

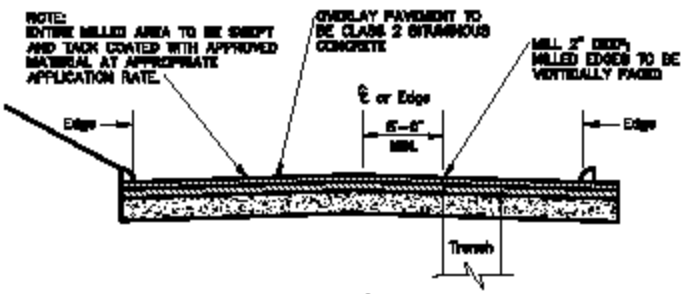
Bituminous Concrete

Bituminous Concrete Base (Binder) Course: On the prepared and approved processed aggregate base course hot bituminous concrete (asphalt) base course pavement shall be laid in maximum lifts not exceeding 2.5-inches in thickness. Bituminous Concrete Base (Binder) Course shall conform to Section M.04, Class 1, of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816. The placement methods shall conform to Section 4.06, "Bituminous Concrete", of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816.

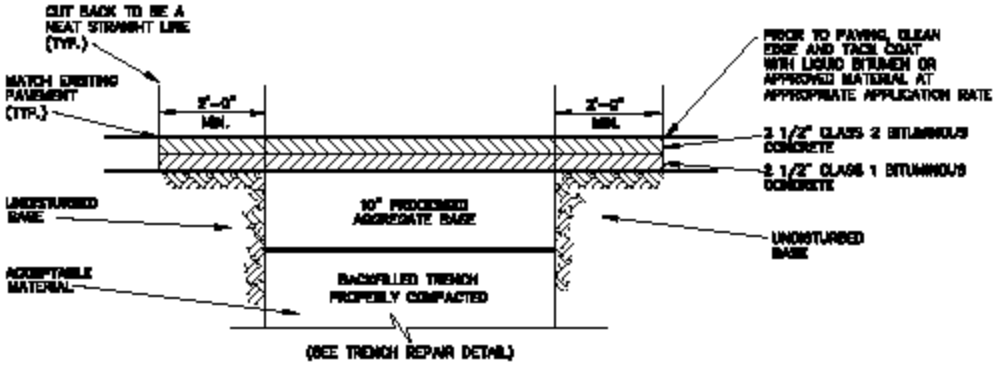
Bituminous Concrete Base Surface (Wearing) Course: On the prepared and approved bituminous base course, hot bituminous concrete (asphalt) surface course pavement shall be laid in maximum lifts not exceeding 2.5-inches in thickness. Bituminous Concrete Base (Wearing) Course shall conform to Section M.04, Class 2, of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816. The placement methods shall conform to Section 4.06, "Bituminous Concrete", of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816.

Bituminous Concrete Cold Patch: Cold Patch shall only be allowed for emergency work during the asphalt plant winter shutdown when hot material is not available. Cold Patch Bituminous Concrete pavement shall be laid in maximum lifts not exceeding 2.5-inches in thickness. Cold Patch Bituminous Concrete shall conform to Section M.04, Class 5A, of the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816. The placement methods shall conform to the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816.

Point of Grade Application
CL
15'
Lane Width
15'
Lane Width
Shoulder Width
Shoulder Width
3/8-IN/FT
3/8-IN/FT
Bituminous Concrete Lip Curbing
4" Loam and Seed
2 1/2" Bituminous Concrete Class 2
2 1/2" Bituminous Concrete Class 1
Subbase-Processed Stone or Milled/Reclaimed Asphalt Base to 10" depth compacted
3"-Min
3"-Min
ROAD CROSS SECTION
BOROUGH OF NAUGATUCK
ENGINEERING DEPARTMENT
STANDARD DETAIL
229 Church Street, Naugatuck, CT 06770
www.naugatuck-ct.gov
Scale: NTS
Drawing No.
SD-1
Date:10/2011



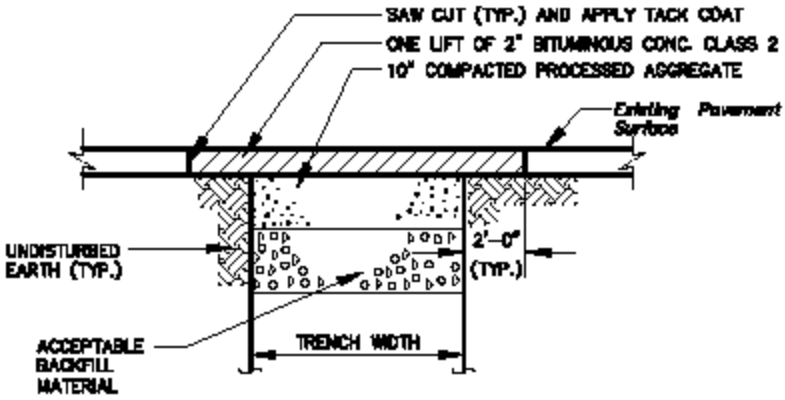
ROAD PAVING WITH AN RSR/PCI RATING OF 80 OR HIGHER
OR HAVING PAVEMENT DISTURBANCE MORE THAN 35%



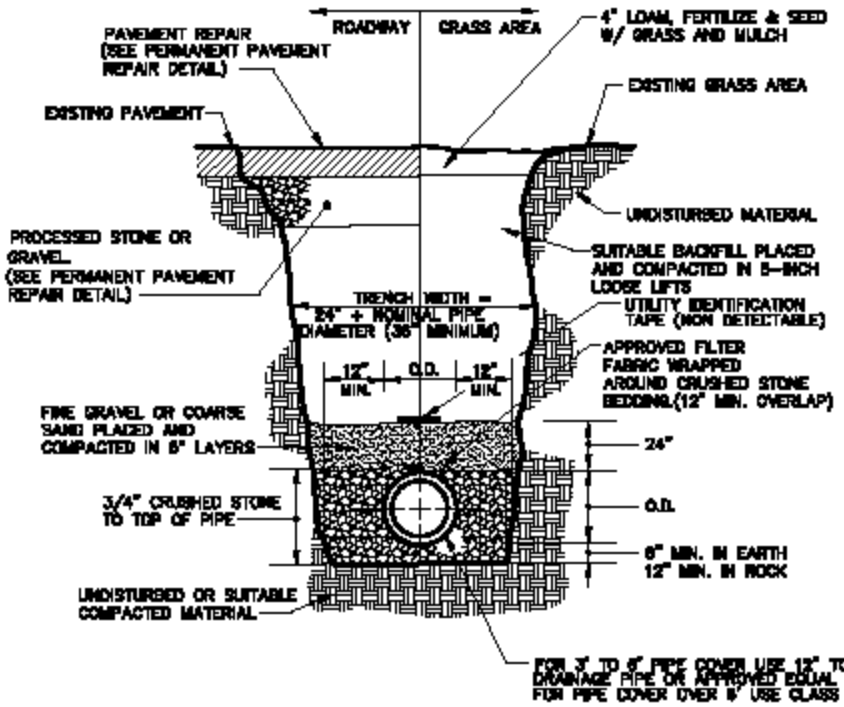
ROAD PAVING WITH AN RSR/PCI RATING LESS THAN 80
OR HAVING PAVEMENT DISTURBANCE LESS THAN 35%

NOTES:
ACCEPTABLE MATERIAL COMPACTED IN LIFTS NOT TO EXCEED 12" WITH 95% COMPACTION FOR EACH LIFT.
24" LIFTS MAY BE APPROVED IF COMPACTED BY HOE-PACK WITH 95% COMPACTION FOR EACH LIFT.
COMPACTION TO MEET 95% MODIFIED PROCTOR DENSITY REQUIREMENTS.
COMPACTION TESTS MAY BE REQUIRED PER INSPECTOR. ALL COSTS FOR COMPACTION TESTS TO BE BORNE BY CONTRACTOR.

BOROUGH OF NAUGATUCK CONNECTICUT	PERMANENT PAVEMENT REPAIR IN BOROUGH STREET	Scale: NTS
		Drawing No. SD-2
	BOROUGH OF NAUGATUCK ENGINEERING DEPARTMENT STANDARD DETAIL	
	229 Church Street, Naugatuck, CT 06770 www.naugatuck-ct.gov	Date:10/2011



BOROUGH OF NAUGATUCK CONNECTICUT	TEMPORARY PAVEMENT REPAIR IN BOROUGH STREET	Scale: NTS
		Drawing No. SD-3
	BOROUGH OF NAUGATUCK ENGINEERING DEPARTMENT STANDARD DETAIL	
	229 Church Street, Naugatuck, CT 06770 www.naugatuck-ct.gov	Date:10/2011

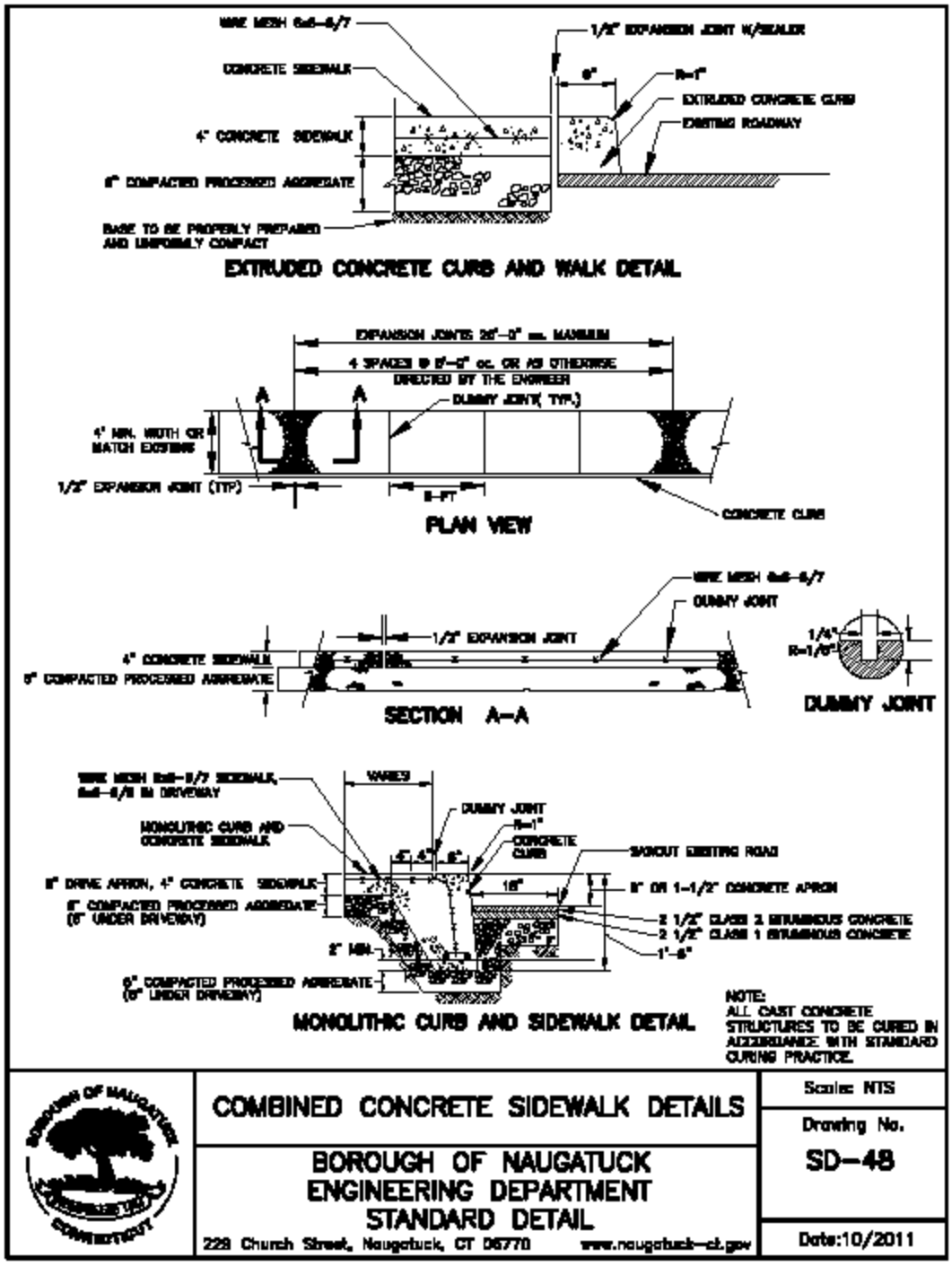


NOTES:

1) ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF SEWER AND DRAINAGE PIPES AND OTHER GRAVITY FLOW APPLICATIONS.

2) ALL TRENCH WORK TO BE SUPPORTED AS REQUIRED.

	TYPICAL PIPE TRENCH	Scale: NTS
		Drawing No. SD–11
	BOROUGH OF NAUGATUCK ENGINEERING DEPARTMENT STANDARD DETAIL	
	229 Church Street, Naugatuck, CT 06770 www.naugatuck-ct.gov	Date:10/2011


WIRE MESH 6x6-6/7
1/2" EXPANSION JOINT W/SEALER
CONCRETE SIDEWALK
6"
R=1"
EXTRUDED CONCRETE CURB
4" CONCRETE SIDEWALK
EXISTING ROADWAY
6" COMPACTED PROCESSED AGGREGATE
BASE TO BE PROPERLY PREPARED AND UNIFORMLY COMPACT
EXTRUDED CONCRETE CURB AND WALK DETAIL
EXPANSION JOINTS 20'-0" m. MAXIMUM
4 SPACES @ 5'-0" oc. OR AS OTHERWISE DIRECTED BY THE ENGINEER
DUMMY JOINT(TYP.)
A
A
4' MIN. WIDTH OR MATCH EXISTING
1/2" EXPANSION JOINT (TYP)
5'-0"
CONCRETE CURB
PLAN VIEW
WIRE MESH 6x6-6/7
DUMMY JOINT
1/2" EXPANSION JOINT
4" CONCRETE SIDEWALK
6" COMPACTED PROCESSED AGGREGATE
SECTION A-A
1/4"
R=1/8"
DUMMY JOINT
WIRE MESH 6x6-6/7 SIDEWALK, 6x6-6/6 IN DRIVEWAY
VARIES
DUMMY JOINT
R=1"
MONOLITHIC CURB AND CONCRETE SIDEWALK
CONCRETE CURB
SAWCUT EXISTING ROAD
6" DRIVE APRON, 4" CONCRETE SIDEWALK
6" COMPACTED PROCESSED AGGREGATE (8" UNDER DRIVEWAY)
18"
8" OR 1-1/2" CONCRETE APRON
2 1/2" CLASS 2 BITUMINOUS CONCRETE
2 1/2" CLASS 1 BITUMINOUS CONCRETE
1'-6"
2" MIN.
6" COMPACTED PROCESSED AGGREGATE (8" UNDER DRIVEWAY)
MONOLITHIC CURB AND SIDEWALK DETAIL
NOTE:
ALL CAST CONCRETE STRUCTURES TO BE CURED IN ACCORDANCE WITH STANDARD CURING PRACTICE.
COMBINED CONCRETE SIDEWALK DETAILS
Scale: NTS
Drawing No.
SD-48
BOROUGH OF NAUGATUCK
ENGINEERING DEPARTMENT
STANDARD DETAIL
229 Church Street, Naugatuck, CT 06770
www.naugatuck-ct.gov
Date:10/2011