# CITY OF NEW LONDON, CONNECTICUT LEAD SERVICE LINE REPLACEMENT PROGRAM PHASE 1A

**AUGUST 2023** 

MAYOR
MICHAEL PASSERO

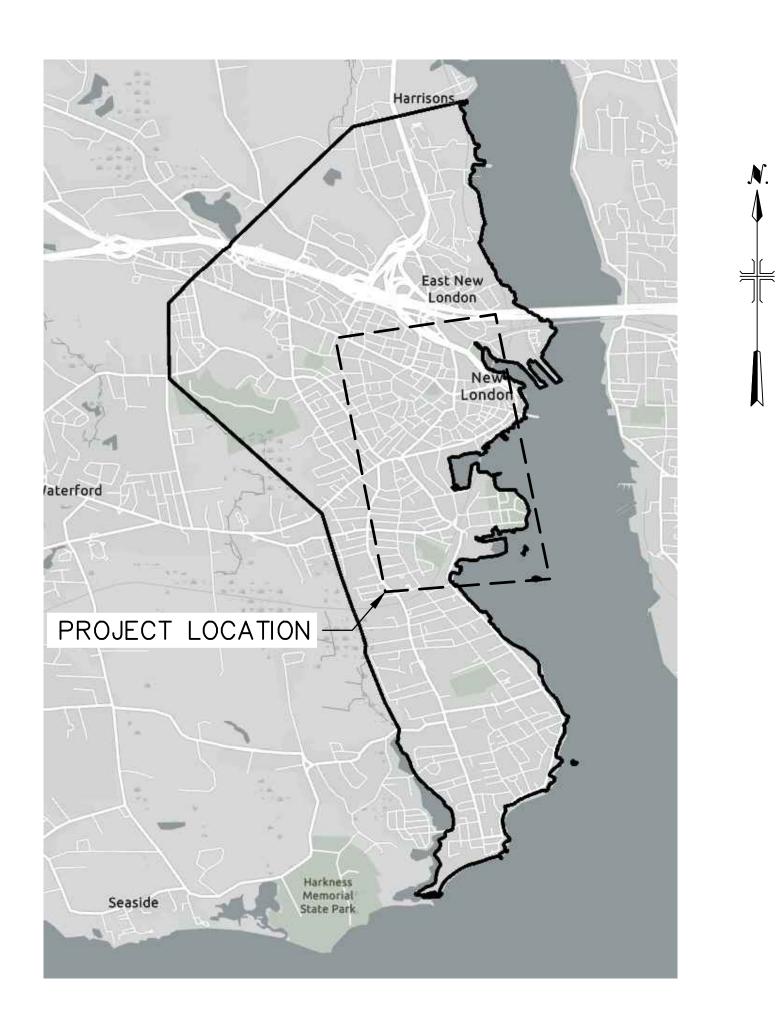
## WATER & WATER POLLUTION CONTROL AUTHORITY

BARRY J. WEINER, CHAIRMAN
JOHN RUSSELL, VICE-CHAIRMAN
ANGELA LEWIS-PETERS
MELISSA FORD
SCOTT LORING
GREGORY DZICZEK
CHRIS BAKER
JOSEPH LANZAFAME, DIRECTOR OF PUBLIC UTILITIES
REONA M. DYESS, CITY COUNCIL PRESIDENT

#### **CONSULTING ENGINEERS:**



ARCADIS, INC.
MIDDLETOWN, CONNECTICUT



#### LOCATION PLAN

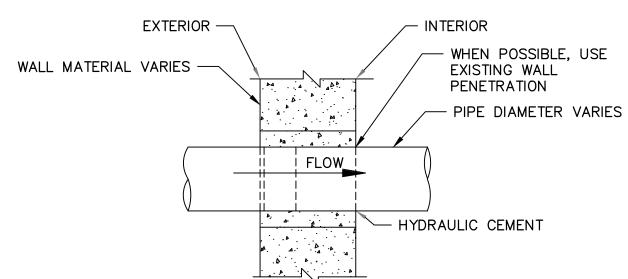
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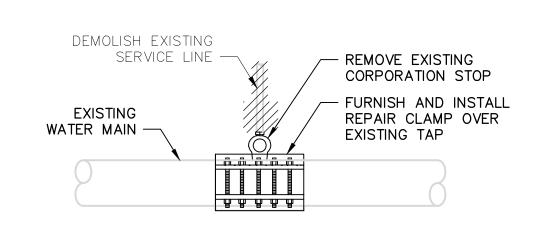
INDEX OF DRAWINGS	
G-01	COVER SHEET
C-01	WATER SERVICE INSTALLATION DETAILS
C-02	TRENCHING & CITY ROW RESTORATION 1
C-03	CITY ROW RESTORATION 2
C-04	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

### BID SET

#### WATER SERVICE LINE NOTES

- 1. CONTRACTOR SHALL PROTECT ALL STRUCTURES, EQUIPMENT, PIPING, AND VALVES FROM DAMAGE DURING CONSTRUCTION AND DEMOLITION. ALL DAMAGE SHALL BE REPAIRED TO THE COMPLETE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- 2. THE CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION, ANY WALLS, STAIRS, FENCES, SIGNS, GUARDRAILS, CURBS, DRIVEWAYS, SIDEWALKS, AND ANY OTHER ITEMS AFFECTED BY THEIR OPERATIONS.
- 3. SEDIMENT CONTROL MEASURES SHALL BE FOLLOWED ACCORDING TO
- 4. ALL PIPE PENETRATIONS THROUGH INTERIOR AND EXTERIOR WALLS AND FLOORS
- 5. ALL DISTURBED LAWN AREAS ARE TO BE REPAIRED WITH SCREENED LOAM. FERTILIZER, SEEDED AND MULCHED AND SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ESTABLISHED GROUND COVER HAD DEVELOPED AND BEEN
- 7. TRENCH SHALL NOT BE BACKFILLED UNTIL SERVICE HAS BEEN INSPECTED AND
- APPROVED BY THE CITY OF NEW LONDON ..
- 9. ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12
- 10. SERVICE SHALL BE FLUSHED BEFORE ACTIVATING TO AVOID METER CLOGGING.
- 11. THERE SHALL BE A HORIZONTAL SEPARATION OF 10 FEET FROM ANY SEWER
- 13. UTILIZE EXISTING WALL PENETRATION LOCATION, WHERE POSSIBLE. CORE AS
- 14. THE CITY OF NEW LONDON AND ENGINEER RESERVE THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION.





#### TYPICAL WATER TAP SERVICE TERMINATION (2" WATER SERVICE AND SMALLER)

TWO-PIECE SCREW TYPE 2

EXTENSION WITH COVER:

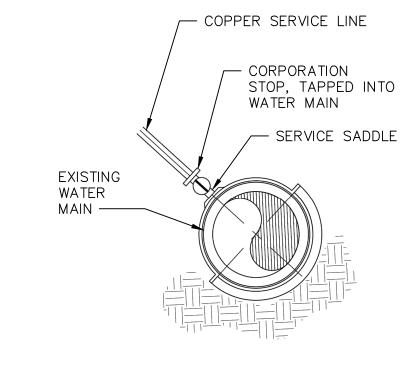
12" X12" X2" PRECAST

CONCRETE BLOCK ON UNDISTURBED EARTH (TYP) -

(INSTALL VERTICAL)

VALVE BOX AND \=

CURB STOP -



SERVICE SADDLE DETAIL

TWO-PIECE SCREW TYPE

WITH COVER (INSTALL

12" X12" X2" PRECAST

CONCRETE BLOCK ON

UNDISTURBED EARTH (TYP)

VERTICAL)

- CURB STOP

VALVE BOX AND EXTENSION

NOT TO SCALE

-SERVICE SADDLE

NOT TO SCALE

TYPICAL NEARSIDE WATER

SERVICE CONNECTION DETAIL

TYPE K-COPPER LINE

CORPORATION

WATER MAIN -

STOP W/ GASKET

SEALS

ARCADIS

LEGAL ENTITY:

CONSULTANTS

ARCADIS U.S., INC.

CITY OF NEW LONDON

NEW LONDON LEAD SERVICE LINE REPLACEMENT PHASE 1A

ARCADIS PROJ. NO. 30078536

NO. DATE ISSUED FOR

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AUGUST 2023 PROJECT NO.: 30078536 C-01 DESIGNED BY: AME

DRAWN BY: CHECKED BY: WBC

SHEET TITLE CIVIL

WATER SERVICE INSTALLATION DETAILS

C - 01SHEET 02 OF 05

---- WALL MATERIAL VARIES FULL FLOW \_FULL FLOW BALL VALVE BALL VALVE TYPE-K COPPER COPPER SERVICE PIPE FROM CURB WATER METER HYDRAULIC CEMENT CLAMP #4 AWG ALUMINUM or #6 AWG COPPER GROUND WIRE 

ELEVATION

NOTES:

1. THE SAME WATER METER ORIENTATION APPLIES FOR WALL AND FLOOR PENETRATIONS.

#### WATER METER DETAIL

SURFACE RESTORATION,

TYPE-K COPPER LINE \_\_ ADJUSTABLE

AS REQUIRED

VALVE BOX —

12"x12"x2"

MASONRY

WATER SERVICE - UTILITY SIDE

TYPICAL FARSIDE WATER SERVICE CONNECTION DETAIL

EXISTING ROADWAY WIDTH

TYPE K-COPPER LINE -

NOT TO SCALE



EXISTING BUILDING FOUNDATION INTERIOR DWELLING (MATERIAL VARIES) -SURFACE RESTORATION, AS REQUIRED -CONNECT GROUNDING WIRE FINISHED GRADE - COUPLING (TYP ¾" x №" ) EXISTING WATER METER TYPE-K COPPER LINE — ADJUSTABLE VALVE BOX — -CURB STOP SERVICE VALVE CORPORATION STOP W/ GASKET EX. WATER MAIN -CORE FOUNDATION FLOOR SEAL AT PENETRATION 12"x12"x2" MASONRY WATER SERVICE - UTILITY SIDE WATER SERVICE - CUSTOMER SIDE

WATER SERVICE CONNECTION - FLOOR PENETRATION NOT TO SCALE

WATER SERVICE CONNECTION — WALL PENETRATION

WATER SERVICE - CUSTOMER SIDE

NOT TO SCALE

CORPORATION

EX. WATER MAIN ----

STOP W/ GASKET

SPECIFICATION 01 57 05 TEMPORARY CONTROLS. SHALL BE SEALED WATERTIGHT.

APPROVED BY ENGINEER OR OWNER. 6. NO WATER PIPE SHALL EXCEED 5 FEET FROM FINISHED GRADE.

8. WATER SERVICE LINES SHALL BE 3/4" (MINIMUM) AND MATCH EXISTING SIZE IF GREATER THAN 3/4".

INCH LIFTS.

12. SERVICE SHALL BE LAID PERPENDICULAR TO THE WATER MAIN UNTIL PROPERTY

NECESSARY TO INCREASE PENETRATION SIZE FOR NEW WATER SERVICE LINE.

SERVICE SADDLE

WALL PENETRATIONS NOT TO SCALE

CORPORATION

STOP W/ GASKET

INTERIOR DWELLING

CORE FOUNDATION WALL

SEE WALL PENETRATION DETAIL

SERVICE VALVE

CONNECT GROUNDING WIRE

- COUPLING (TYP ¾ x № )

- EXISTING WATER METER

— TYPE-L COPPER SERVICE

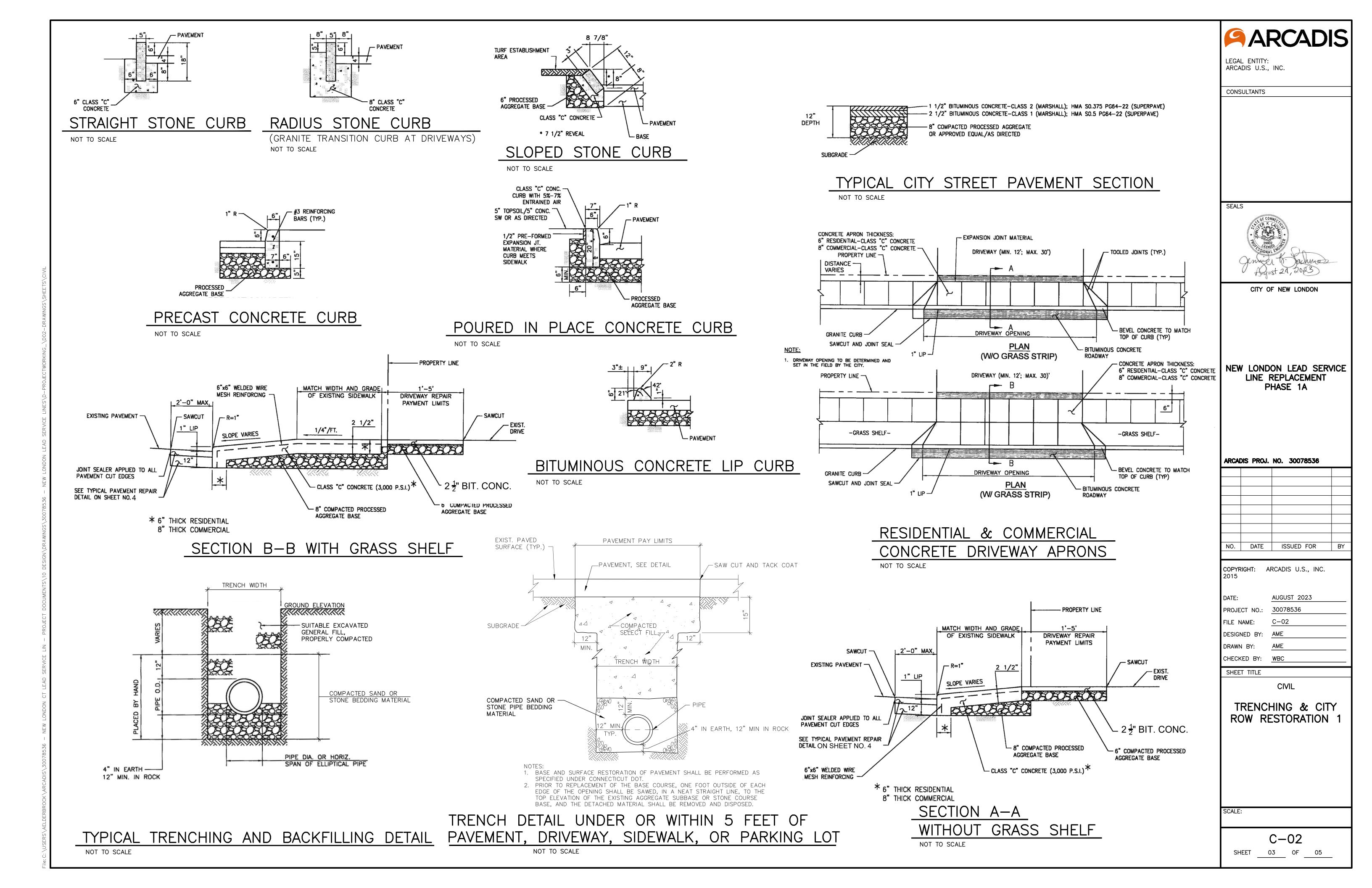
EXISTING BUILDING

(MATERIAL VARIES) -

FOUNDATION

FINISHED GRADE

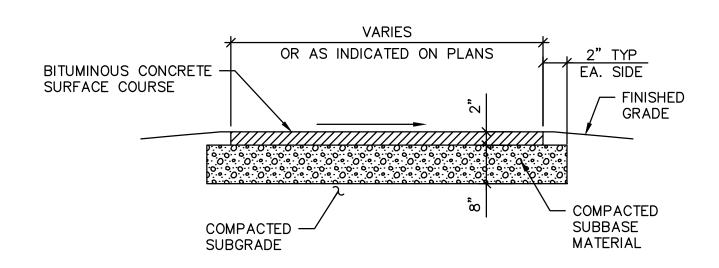
SEAL AT PENETRATION -



- 1. MAXIMUM SLOPE OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP SHOULD NOT EXCEED 20:1.
- 2. CARE SHALL BE TAKEN TO ASSURE UNIFORM SLOPE ON THE RAMPS, FREE OF SAGS AND ABRUPT GRADE CHANGES.
- ALL ADA (AMERICAN DISABILITY ACT) CONCRETE RAMPS SHALL BE CONSTRUCTED OF CLASS "C" CONCRETE AND SHALL MEET ALL THE REQUIRED TECHNICAL AND MATERIAL SPECIFICATIONS AS SPECIFIED WITHIN THE STATE OF CONNECTICUT STANDARD SPECIFICATION FORM 816 AS AMENDED. 4. ALL RAMP SURFACES SHALL BE TREATED WITH A STIFF BROOM FINISH TRANSVERSE TO THE SLOPE
- OF THE RAMP. 5. AS PER FEDERAL AND STATE REGULATIONS, DETECTABLE DOMED WARNING PADS MEASURING A
- STANDARD 2-FEET BY 4-FEET SHALL BE INSTALLED WITHIN EACH RAMP. THE PAD COLOR SHALL BE GRAY UNLESS OTHERWISE INSTRUCTED. NO SURFACE GLUING OF THE PAD TO THE CONCRETE RAMP WILL BE ALLOWED. ALL PADS ARE TO BE ATTACHED WITH THE PROPER HARDWARE. PLACE EDGE OF RAMP 8-INCHES FROM THE EDGE OF THE ROAD.
- CONCRETE SHALL BE USED IN THE TRANSITION SECTIONS TO EACH RAMP. NO STONE CURBING IS REQUIRED. THE EDGE OF THE RAMP SHALL MATCH EVENLY WITH THE EDGE OF PAVEMENT. NO "RISE" BETWEEN THE RAMP AND PAVEMENT WILL BE ALLOWED. THE CONTRACTOR WILL BE MADE RESPONSIBLE TO MAKE ALL THE NECESSARY CORRECTIONS.
- 8. ALL ADA RAMPS ARE TO HAVE A MAXIMUM SLOPE OF 12:1
- 9. ALL RAMPS TO BE CONSTRUCTED WITH 6"x6" WELDED WIRE MESH REINFORCING. 10. ALL STONE CURB SHALL CONFORM TO THE STATE OF CONNECTICUT STANDARD SPECIFICATION
- FORM 816, ARTICLE M12.06 FOR GRANITE CURBING.
- 11. MINIMUM LENGTH OF STONE CURB IS 4'-0".
- 12. STONE CURB SHALL BE FINISH-SAWN TOP AND SPLIT FACE JOINTED.
- 13. STONE CURB WITH A RADIUS OF 100' OR LESS SHALL BE BUILT OF CURVED STONE CURB AND SET IN 8" OF CLASS "C" CONCRETE AS SHOWN ON THE DETAIL
- 14. ALL OPEN BOTTOM JOINTS BETWEEN SECTIONS OF STRAIGHT STONE CURB SHALL BE BACKFILLED WITH CLASS "C" CONCRETE. 15. ALL BACKFILL MATERIAL AROUND STRAIGHT, RADIUS OR RESET STONE CURBING SHALL BE CLASS
- "C" CONCRETE (3,000 PSI). 16. TOP OF CONCRETE BACKFILL SHALL BE 10" ON PAVEMENT SIDE AND 5" ON BACK SIDE, MEASURED
- DOWN, FROM TOP OF CURB. 17. AT ALL BEGINNING AND ENDING POINTS OF ALL STONE CURBING INSTALLATIONS, A 3-FOOT
- TAPERED CURB SHALL BE USED TO TRANSITION BETWEEN THE EXISTING PAVEMENT/GROUND AND HEIGHT OF THE NEW CURBING, OR AS DIRECTED.
- 18. RECONSTRUCT ANY EXISTING WALKS TO THEIR EXISTING WIDTH.
- 19. ALL SURFACES AREAS TO HAVE A STIFF BROOM FINIS
- 20. PAVEMENT SHALL BE IN ACCORDANCE WITH CTDOT STANDARDS AND SPECIFICATIONS.
- 21. WHERE EXISTING SUBBASE AND PAVEMENT DEPTH(S) ARE GREATER THAN WHAT IS SHOWN IN THE DETAILS ABOVE, SUBBASE AND PAVEMENT SHALL MATCH THE EXISTING PAVEMENT.

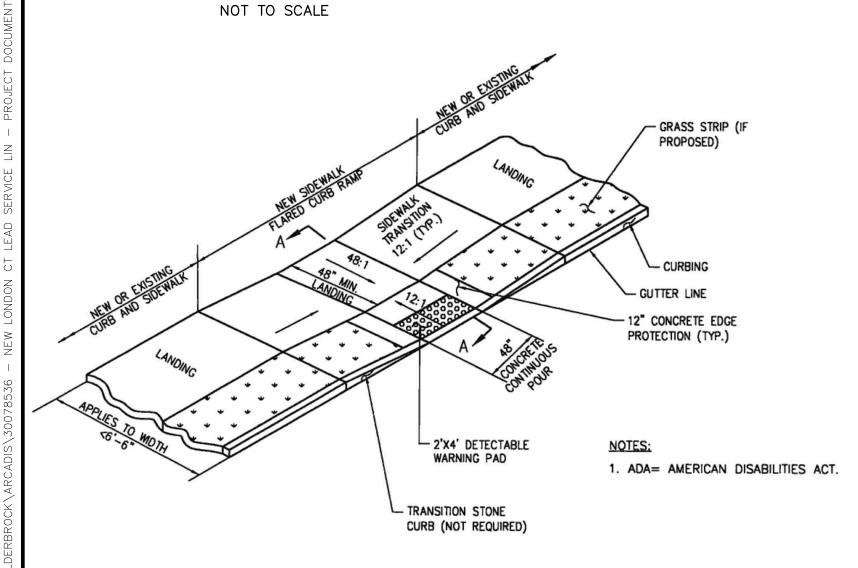
22. PROCESS GRAVEL BASE COURSE SHALL BE COMPACTED IN TWO LIFTS AT 5" TO 95% OF THE

- MAXIMUM DRY DENSITY. 23. THE ENTIRE AREA TO BE PAVED, INCLUDING THE EDGES, SHALL BE SWEPT PRIOR TACK COAT AND
- 24. PERMANENT PAVEMENT SHALL BE COMPLETED AFTER TEMPORARY PAVEMENT HAS SETTLED OVER A
- FULL FREEZE/THAW SEASON. 25. ALL PAVEMENT MARKINGS REMOVED OR DAMAGED TO BE RESTORED FOLLOWING TEMPORARY AND
- PERMANENT PAVEMENT RESTORATION. 26. WHERE LOOP DETECTORS ARE DAMAGED BY TRENCHING OR PAVING WORK, LOOP DETECTORS TO BE
- REPAIRED/REPLACED IN ACCORDANCE WITH CTDOT AND CITY OF NEW LONDON'S STANDARDS AND SPECIFICATIONS.



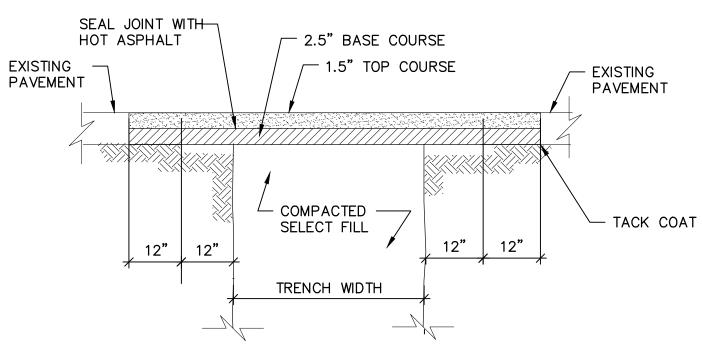
#### TEMPORARY BITUMINOUS

CONCRETE WALK DETAIL



ADA PERPENDICULAR SIDEWALK RAMP

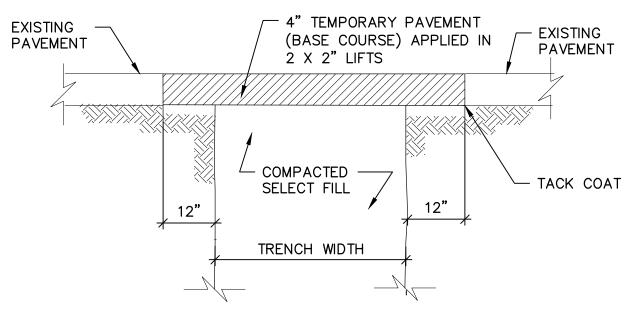
NOT TO SCALE



BEFORE FINAL PAVING, MILL TOP 1.5-INCHES OF TEMPORARY TRENCH PAVEMENT AND MILL TOP 1.5-INCHES OF EXISTING PAVEMENT TO THE AREA INDICATED. INSTALL TACK COAT AND 1.5-INCH TOP COURSE.

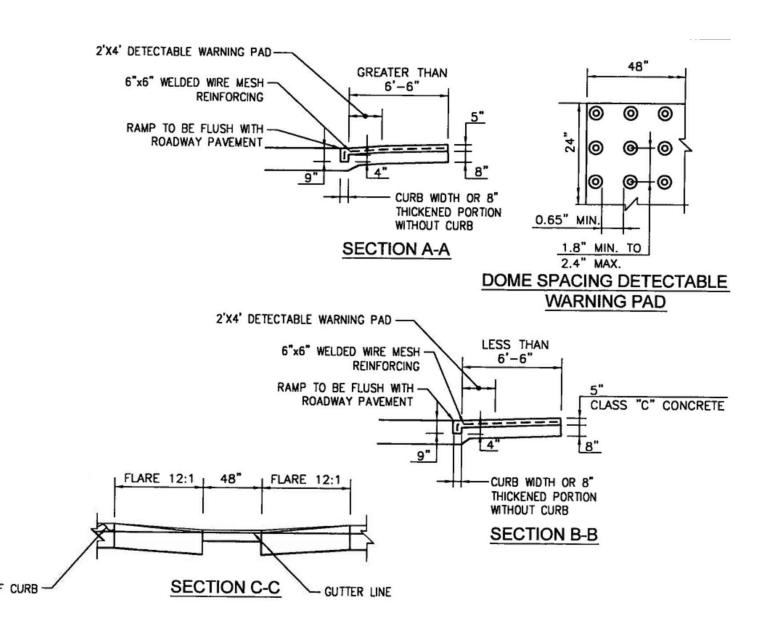
#### CITY STREET PERMANENT PAVEMENT RESTORATION

NOT TO SCALE



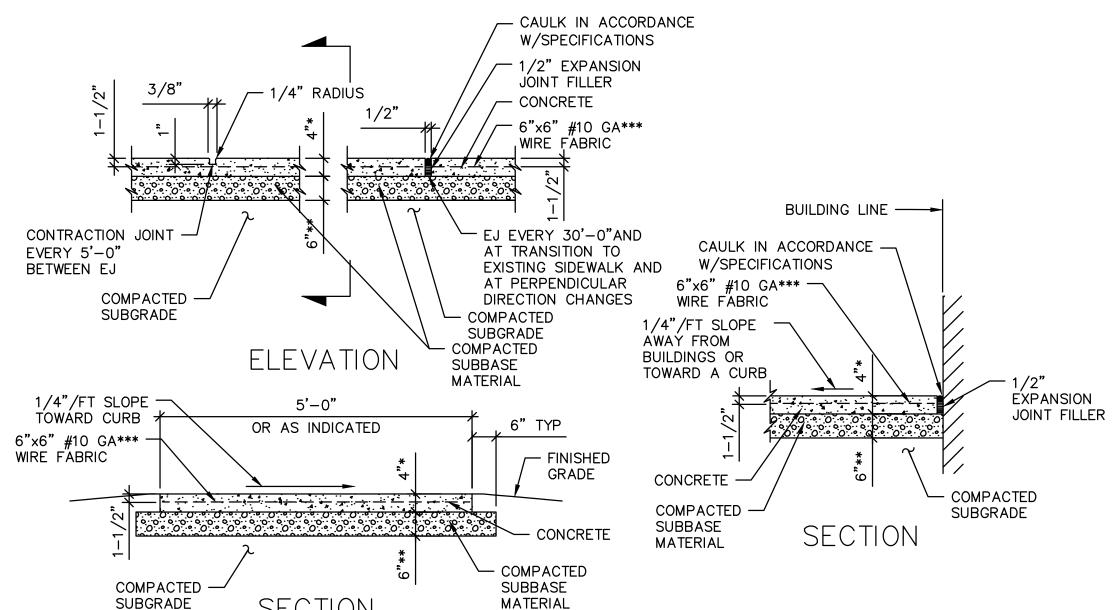
#### CITY STREET TEMPORARY PAVEMENT RESTORATION

NOT TO SCALE



ADA SIDEWALK RAMP NOTES AND DETAILS

NOT TO SCALE



\* CONCRETE SIDEWALK SHALL BE 8" THICK IN DRIVEWAY AREA

\*\*\* WIRE FABRIC SHALL BE #6 GA IN DRIVEWAY AREA.

\*\* COMPACTED SUBBASE MATERIAL SHALL BE 12" THICK IN DRIVEWAY AREA.

#### TYPICAL CONCRETE SIDEWALK DETAIL

NOT TO SCALE

ADDITIONAL CONCRETE SIDEWALK NOTES:

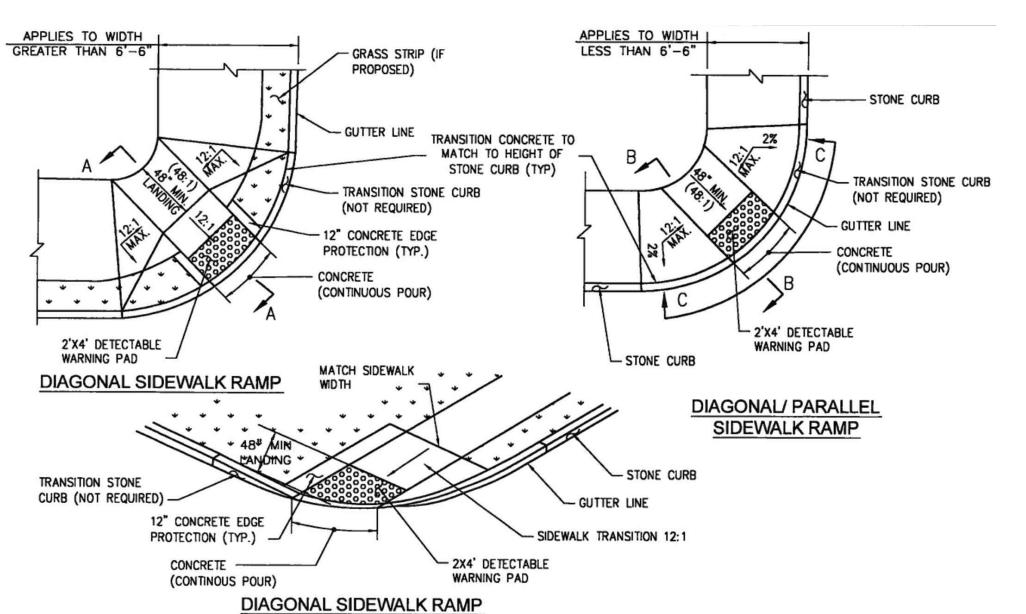
1. BASE SHALL BE KEPT THOROUGHLY WET DURING COMPACTION AND SHALL BE DAMP WHEN

CONCRETE IS POURED (NO POOLS ALLOWED) 2. ADDITIONAL EXPANSION JOINTS TO BE PROVIDED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURES INCLUDING, BUT NOT LIMITED TO, CURBS, BUILDINGS, WALLS, APRONS, PADS, OTHER SIDEWALKS, ETC.

3. EXPANSION JOINT FILLER SHALL BE PREFORMED BITUMINOUS CELLULAR (FIBER) TYPE PER AASHTO M 213 REQUIREMENTS. 4. CONTRACTOR SHALL REMOVE UNSUITABLE MATERIAL AND REPLACE WITH FILL MATERIAL

APPROVED BY ENGINEER AT NO ADDITIONAL COST TO THE OWNER

- GRASS STRIP (IF



ADA SIDEWALK RAMP AT INTERSECTIONS

NOT TO SCALE

ARCADIS LEGAL ENTITY: ARCADIS U.S., INC. CONSULTANTS

SEALS

CITY OF NEW LONDON

NEW LONDON LEAD SERVICE LINE REPLACEMENT PHASE 1A

ARCADIS PROJ. NO. 30078536 DATE | ISSUED FOR

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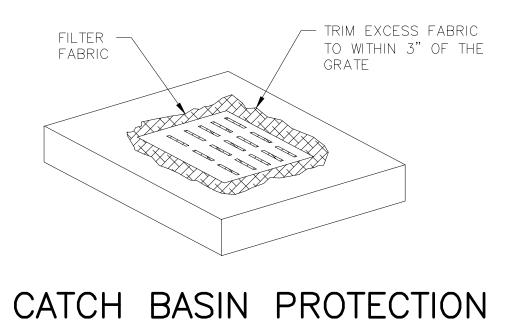
CITY ROW **RESTORATION 2** 

C - 03

SHEET 04 OF 05

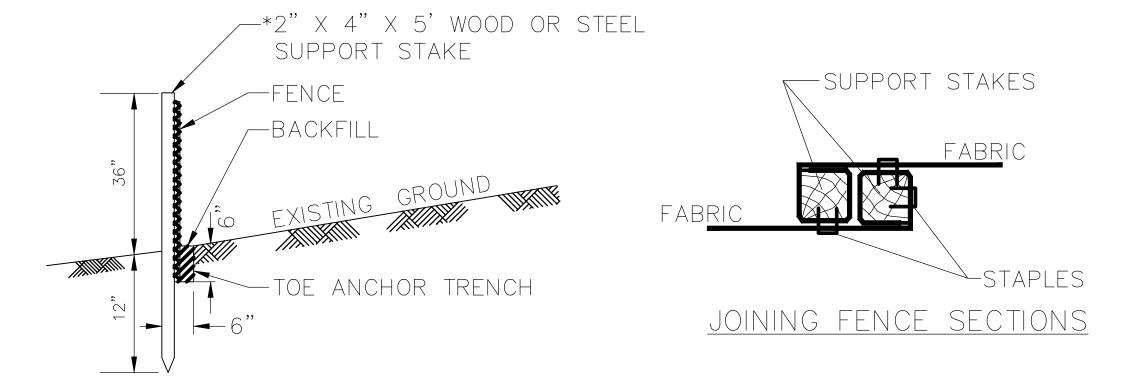
#### **EROSION AND SEDIMENT CONTROL NOTES:**

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL DEVICES DURING CONSTRUCTION WHERE DIRECTED BY THE ENGINEER, CITY OF NEW LONDON, OR OTHER AUTHORITIES HAVING JURISDICTION. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY STORM EVENT. ANY REPAIRS OR REQUIRED MAINTENANCE TO EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONDUCTED IMMEDIATELY FOLLOWING THE INSPECTION.
- 2. ALL SOIL EROSIONS AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN CONNECTICUT AND THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", MAY 2002 (AND ALL AMENDMENTS) BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION. INSTALL ALL SOIL EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO ANY SOIL DISTURBANCE, EXCAVATION, OR SEWER BYPASS WORK.
- 3. CATCH BASIN PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS SUBJECT TO RUNOFF FROM CONSTRUCTION AREAS.
- 4. ALL DEBRIS IS TO BE REMOVED FROM SITE AND DISPOSED OF PROPERLY IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. NO DEBRIS IS TO REMAIN ON SITE.
- 5. UPON COMPLETION OF THE WORK, IF THE SEASON PREVENTS THE ESTABLISHMENT OF A PERMANENT COVER, THE AREA TO BE RESTORED WILL BE TEMPORARILY SEEDED.
- 6. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER THEM SUITABLE FOR VEGETATIVE GROUND COVER.
- 7. WATER FROM DEWATERING OPERATIONS SHALL BE DISCHARGED INTO A DEWATERING BAG, DESIGNED TO FILTER OIL AND SEDIMENT, PRIOR TO A SURFACE WATER BODY. FILTER BAG SHALL BE PLACED ON CRUSHED STONE TO SUFFICIENT TO PREVENT EROSION FROM DISCHARGE WATER ON ADJACENT AREAS. FILTER BAG SHALL BE REPLACED WHEN DAMAGED OR NO LONGER FUNCTIONING AN AN APPROPRIATE LEVEL FOR EFFICIENT DEWATERING.
- 8. PREVENTATIVE AND CONTAINMENT MEASURES SHALL BE TAKEN TO AVOID SPILLAGE AND RELEASE OF PETROLEUM PRODUCTS AND OTHER POLLUTANTS. IN THE EVENT OF ANY SPILLAGE, PROMPT REMEDIAL ACTION SHALL BE TAKEN IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- 9. FOLLOWING COMPLETION OF THE WORK, CONTRACTOR SHALL ELIMINATE ALL SIGNS OF TEMPORARY CONSTRUCTION FACILITIES AS DIRECTED BY THE ENGINEER OR CITY OF NEW LONDON.
- 10. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH ALL PERMITS.



SPACING OF SUPPORT STAKES @ 10' MAX

STANDARD SECTION



#### FILTER FABRIC FENCE NOTES

- 1. THE FENCE INSTALLATION SHALL BE INSPECTED AFTER EVERY PRECIPITATION EVENT OR AT LEAST ONCE EVERY WEEK. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
- 2. ACCUMULATED SEDIMENTS SHALL BE REMOVED AS REQUIRED TO KEEP THE FENCE FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE THE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
- 3. FILTER FABRIC WILL BE REPLACED PER MANUFACTURERS RECOMMENDATIONS FOR WEATHERING.
- 4. FOR EACH SPECIFIC USE, ONLY GEOTEXTILES WHICH ARE ALREADY ON THE CONNECTICUT DEPARTMENT OF TRANSPORTATION'S GEOTEXTILE APPROVED LIST FOR THE GEOTEXTILE TYPE ARE TO BE USED.
- 5. ALL EROSION CONTROL SYSTEMS TO BE INSTALLED PRIOR TO ANY CONSTRUCTION.
- 5. INSTALL FILTER FENCES AROUND CANOPY DRIPLINES OF ANY AFFECTED TREES IN WORK AREA, EXCEPT WHERE WORK LIMITS WITHIN DRIPLINES ARE APPROVED BY ENGINEER OR OWNER.

FILTER FABRIC FENCE DETAIL

NOT TO SCALE



CONSULTANTS

SEALS



CITY OF NEW LONDON

NEW LONDON LEAD SERVICE LINE REPLACEMENT PHASE 1A

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FILE NAME: <u>C</u>-04

DRAWN BY: AME

CHECKED BY: WBC

SHEET TITLE

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SCALE:

AS MENTIONED

C-04
SHEET 05 OF 05