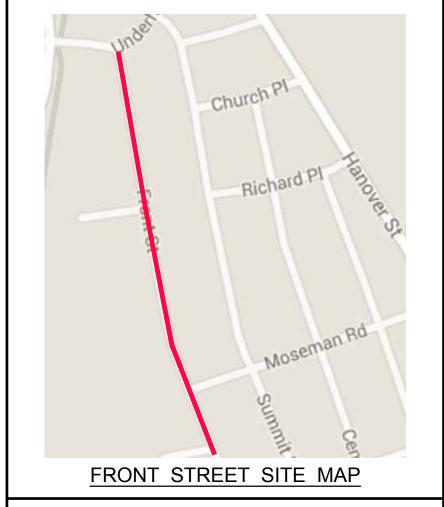


YORKTOWN LOCATION MAP





LOCATION MAPS

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TOWN OF YORKTOWN, NEW YORK

CLEANING AND CEMENT MORTAR LINING OF WATER MAIN ALONG STRAWBERRY ROAD (2021 CONSTRUCTION) HANOVER STREET (2022 CONSTRUCTION) FRONT STREET (2022 BID ALTERNATE) UNDERHILL AVENUE (2022 BID ALTERNATE)

WATER SUPERINTENDENT **KEN RUNDLE**

ASSISTANT SUPERINTENDENT PAUL VASILLO

SEPTEMBER 2021



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BID SET#

DESCRIPTION SANITARY SEWER		
SANITARY SEWER	EXISTING	PROPOSED
	ss	
WATER MAIN	ww-	
WATER MAIN (ABANDONED)		xx
GRINDER PUMP	○ GP	● GP
SANITARY SEWER MANHOLE	(S)	● SMH
STORM DRAIN MANHOLE	(D)	● DMH
UTILITY MANHOLE	<u> </u>	● UMH
TELEPHONE MANHOLE	<u> </u>	● TMH
HOUSE CONNECTION		6" HOUSE CONN (TYP
AIR RELEASE VALVE MANHOLE	(A)	● ARMH
FORCE MAIN CLEANOUT MANHOLE	(Ē)	● ҒММН
CLEANOUT	0	• co
CATCH BASIN	⊞	■ CB
CATCH BASIN (CURB INLET)		
HYDRANT	ŞŞ	Ä
TEMPORARY HYDRANT		Θ
GATE VALVE	H	H
CHECK VALVE	<i>1</i> ∕7	7
CURB STOP	*\$	**
BUTTERFLY VALVE	M	M
BALL VALVE	<u> </u>	4
REDUCER		
CAP OR PLUG		L
GAS GATE VALVE	€ ¥	
UTILITY POLE GUY POLE		
LIGHT POST	ф ————————————————————————————————————	
EDGE OF PAVEMENT	<u> </u>	
UNPAVED ROAD		
CURB		<u> </u>
SIDEWALK		
RAILROAD		
STONE WALL	000000000	000000000
RETAINING WALL	RET WALL	RET WALL
FENCE	xx	
INDIVIDUAL DECIDUOUS TREE	\odot	\odot
INDIVIDUAL EVERGREEN TREE		***
TREE LINE		~~~
SURVEY MARKER	·	
PROPERTY LINE		
EASEMENT LINE		
LIMIT OF WORK		- · - · -
APPROX. LIMIT OF REFUSE		
SPOT ELEVATIONS	× 100.2	×101.5
CONTOUR LINES	56	
DEPRESSION CONTOUR LINES		
UNDERGROUND GAS MAIN		
UNDERGROUND FIBER OPTIC BUNDLE		
HOUSE NUMBER	#35	
FLOOR ELEVATION	FL=56.7	
SILL ELEVATION	S=56.7	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
WETLAND FLACS	**************************************	}}}}
WETLAND FLAGS	•1	_
RIP RAP GUARD POST	Δ	
GUARD PUSI	O B	В
	-6-	<u> </u>
BOLLARD	•	
BOLLARD SIGN	— /	
BOLLARD SIGN BENCH MARK	Ψ' PT Ω1	₽ PT−1
BOLLARD SIGN BENCH MARK PERCOLATION TEST	PT ⊕1 TP	⊕ PT−1
BOLLARD SIGN BENCH MARK PERCOLATION TEST TEST PIT	PT ⊕1	
BOLLARD SIGN BENCH MARK PERCOLATION TEST TEST PIT BORING	PT	□ TP–1
BOLLARD SIGN BENCH MARK PERCOLATION TEST TEST PIT	PT	■ TP-1 ● B-3 ● P-1
BOLLARD SIGN BENCH MARK PERCOLATION TEST TEST PIT BORING PROBE	PT	■ TP-1 ⊕ B-3
BOLLARD SIGN BENCH MARK PERCOLATION TEST TEST PIT BORING PROBE GROUNDWATER MONITORING WELL	PT	☐ TP-1
BOLLARD SIGN BENCH MARK PERCOLATION TEST TEST PIT BORING PROBE GROUNDWATER MONITORING WELL AUGER	PT	● TP-1 ● B-3 ● P-1 ● GW-1 ⊕ A-1

NOTE: ITEMS SHOWN IN THE LEGEND MAY NOT BE PRESENT IN THESE PLANS

CB

DIA

FT

HYD

INV

ID

MAX

MECH

MIN

MISC

NO OR

NYSDOT

NYSDEC

PCCP

PVC

PVMT

RCP

ROW

RQD

SE

SECT

SPEC

SQ FT

STA

STL

SW

TBM

THK

TYP

UD

UP

VC

VERT

WCDOH

SECTION

SHEET

STATION

TYPICAL

VERTICAL

WITHOUT

WITH

STEEL

SQUARE FEET

SPECIFICATIONS

SIDEWALK, SOUTH WEST

TEMPORARY BENCH MARK

HYDROSTATIC THRUST, TELEPHONE

WESTCHESTER COUNTY DEPARTMENT OF HEALTH

SQUARE FEET

THICK (NESS)

UNDER DRAIN

UTILITY POLE

WATER, WEST

VITRIFIED CLAY

PE

ABBREVIATIONS ASBESTOS CEMENT PIPE **ACCMP** ASPHALT COATED CORRUGATED METAL PIPE **ARBE** AS REQUIRED BY ENGINEER ARV AIR RELEASE VALVE **ASTM** AMERICAN SOCIETY FOR TESTING AND MATERIALS BITUMINOUS CONCRETE BITUMINOUS **BLDG** BUILDING BENCH MARK **BLOW OFF** BV **BUTTERFLY VALVE** CATV CABLE TELEVISION CATCH BASIN CC CONCRETE CURB CAST IRON **CENTERLINE CEMENT LINED** CORRUGATED METAL PIPE CONC CONCRETE CUBIC FEET CUBIC YARD STORM DRAIN. DEPTH FROM RIM TO INVERT DROP INLET, DUCTILE IRON DIAMETER DRAIN MANHOLE DWG DRAWING EAST, ELECTRIC EΑ EACH EACH FACE EF **ELEV ELEVATION** EOP EDGE OF PAVEMENT EW EACH WAY **EXIST EXISTING** FLG **FLANGE** FEET, FOOT NATURAL GAS **GALV** GALVANIZED GRANITE CURB GRANITE HOUSE CONNECTION **HORIZ** HORIZONTAL

HIGH PRESSURE FIRE HYDRANT **INVERT INVERT** INSIDE DIAMETER IRON PIPE POUND LINEAR FEET LUMP SUM MAXIMUM MAIL BOX **MECHANICAL** MANHOLE MINIMUM **MISCELLANEOUS**

MECHANICAL JOINT NORTH NORTH EAST NORTH WEST NOT FOUND NUMBER NEW YORK STATE DEPT. OF TRANSPORTATION NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION OUTSIDE DIAMETER PRESTRESSED CONCRETE CYLINDER PIPE

PLAIN END, POLYETHYLENE PROPERTY LINE POLYVINYL CHLORIDE PAVEMENT REINFORCED CONCRETE PIPE RIGHT-OF-WAY **ROCK QUALITY** SEWER, SOUTH SOUTH EAST

ROADWAY. 17. ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING. COVERING WITH STEEL PLATES MAY BE ALLOWED IF APPROVED BY THE ENGINEER. SEWER SERVICE, STAINLESS STEEL

DRAWINGS.

CONSTRUCTION NOTES

THE PROJECT.

AT 28 DAYS.

SPECIFICATIONS.

100 FEET OF WETLANDS.

DRAWINGS SHALL BE MAINTAINED.

TO THE SATISFACTION OF THE ENGINEER.

SATISFACTION OF THE ENGINEER.

WITH A SECURELY FASTENED BURLAP BAG.

DISINFECTION REQUIREMENTS.

1. THE CONTRACTOR SHALL CALL DIG SAFELY NY AT

2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS

3. TEST PITS TO LOCATE EXISTING UTILITIES MAY BE REQUIRED BY

4. STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBS, LIGHT POLES,

5. ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS

6. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT

ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.

EXISTING UTILITY LOCATION, SIZE AND TYPE.

AND AS SHOWN ON THE DRAWINGS.

1-800-962-7962 AT LEAST 48 HOURS, SATURDAYS, SUNDAYS,

AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY

AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE

CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT

THE ENGINEER TO DETERMINE WHETHER TO RAISE OR LOWER THE

PROPOSED WATER MAIN TO CLEAR EXISTING UTILITIES OR VERIFY

ETC. SHALL BE REMOVED AS NECESSARY TO PERFORM THE WORK

AND REPLACED TO A CONDITION AT LEAST EQUAL TO THAT

BEFORE CONSTRUCTION BEGAN. UNLESS OTHERWISE INDICATED,

ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF

SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS

LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE

UNLESS OTHERWISE INDICATED, CONCRETE USED FOR PIPE

8. APPROVED JOINT RESTRAINT METHODS SHALL BE PROVIDED FOR

9. THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS,

10. NEW WATER MAINS AND SERVICES SHALL BE INSTALLED AT THE

11. EXISTING SERVICES SHALL NOT BE CONNECTED TO THE PROPOSED

12. ALL HYDRANTS REMOVED SHALL BE SALVAGED AND DELIVERED TO

13. ANY HYDRANT WHICH IS NOT IN SERVICE SHALL BE COVERED

14. VALVE BOXES ON MAINS TO BE ABANDONED SHALL BE REMOVED

15. THE LOCATION OF PIPES, CAPS, REDUCERS, BENDS, AND OTHER

ANCHOR BLOCKS, BACKING, PIPE CRADLES, ARCHES, AND FILL

SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI

WATER MAINS WHERE ANY BENDS, TEES, PLUGS, OR WYES ARE

INSTALLED. CONCRETE THRUST BLOCKS. ANCHOR BLOCKS AND TIE

RODS MAY BE USED FOR 6-INCH AND 8-INCH PIPE WHERE JOINT

RESTRAINT IS NOT FEASIBLE. FOR THRUST BLOCK DETAILS AND

MINIMUM BLOCK BEARING AREAS, SEE DETAILS AND

SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES OR WITHIN

MINIMUM DEPTH FROM FINISH GRADE TO TOP OF PIPE AS SHOWN

ON THE DRAWINGS. WHERE NECESSARY, NEW WATER MAINS SHALL

BE INSTALLED AT A GREATER DEPTH TO CLEAR OBSTACLES

SHOWN ON THE DRAWINGS AT NO ADDITIONAL COST TO THE

OWNER. MINIMUM CLEARANCES TO UTILITIES, AS SHOWN ON THE

WATER MAIN UNTIL THAT MAIN HAS PASSED PRESSURE TEST AND

A LOCATION TO BE DETERMINED BY THE OWNER. SALVAGED ITEMS

SHALL BE CLEANED AND RETURNED IN OPERATIONAL CONDITION

AND SALVAGED BY THE CONTRACTOR AND DELIVERED TO A

LOCATION TO BE DETERMINED BY THE OWNER. ITEMS SHALL BE

CLEANED AND RETURNED IN OPERATIONAL CONDITION TO THE

FITTINGS AT POINTS OF CONNECTIONS TO EXISTING MAINS IS

APPROXIMATE. CONTRACTOR SHALL DIG A TEST PIT AT EACH

LOCATION TO DETERMINE THE DIAMETER AND MATERIAL OF THE

EXISTING PIPE AND THE LOCATION OF THE TIE-IN POINT IN

ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE

TWO (2) DAYS PRIOR TO THE START OF WORK IN A STATE

16. THE CONTRACTOR SHALL NOTIFY THE OWNER/ENGINEER AT LEAST

18. THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES WHICH HOLD WATER IN THE SYSTEM. THE OWNER WILL, ON 24 HOURS NOTICE FROM THE CONTRACTOR. OPEN AND/OR CLOSE ANY VALVES REQUIRED FOR DRAINING OR ADMITTING WATER TO THE VARIOUS SECTIONS OF THE WATER MAINS. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY IN WRITING 24 HOURS IN ADVANCE, ANY OCCUPANT THAT WILL BE WITHOUT WATER DUE TO A SHUTDOWN.

19. SOME WATER SERVICE CONNECTIONS MAY NOT BE SHOWN ON THE DRAWINGS. THE OWNER WILL MARK THE LOCATION OF SUCH CONNECTIONS. PROVIDED THE CONTRACTOR GIVES THE OWNER AT LEAST 24 HOURS ADVANCE NOTICE.

20. WHENEVER PIPE LAYING IS NOT IN PROGRESS, CONTRACTOR SHALL KEEP A TEMPORARY PLUG IN PLACE TO AVOID ENTRY OF ANY FORM OF CONTAMINATION.

GENERAL NOTES

- 1. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING UTILITIES SHALL BE 1. DETERMINED ON INFORMATION COMPILED FROM DRAWINGS OF RECORD AND INFORMATION BY THE CONTRACTOR. THE CONTRACTOR SHALL COMPLY WITH CODE RULE 53 TO NOTIFY ALL UTILITIES PRIOR TO DIGGING.
- 2. THE APPROXIMATE LOCATION OF THE PROPOSED PIPELINE IS INDICATED ON THE PLANS, BUT THE ACTUAL LOCATION WILL BE GOVERNED BY THE ACTUAL LOCATION OF THE UNDERGROUND UTILITIES OR OTHER CONTROLLING FACTORS AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
- 3. MINIMUM COVER ON ALL NEW PIPELINE SHALL BE 4.5' MEASURED FROM FINISHED GROUND SURFACE EXCEPT AS OTHERWISE NOTED.
- 4. WHERE THE CLEARANCE BETWEEN THE WATERMAIN AND ANY EXISTING UTILITY OR SERVICE CONNECTIONS IS LESS THAN 1', A SAND CUSHION SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- 5. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS, UNINTERRUPTED SERVICE THROUGH THE EXISTING AND/OR TEMPORARY WATER LINES DURING THE COURSE OF THE CONSTRUCTION PERIOD.
- 6. ROADWAY DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF
- 7. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS. THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME, ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS IN CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD AND SHALL PERFORM THE WORK TO MEET FIELD CONDITIONS. THE CONTRACTOR SHALL PERFORM ALL REPAIR WORK AS SHOWN ON THE PLANS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND AS REQUIRED BY THE ENGINEER.
- 8. THE CONTRACTOR SHALL COMPLETE ALL WORK IN A MANNER SUCH THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE. THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- 9. THE CONTRACTOR SHALL GIVE PARTICULAR ATTENTION AND CARE TO PROTECT FROM DAMAGE ALL VEGETATION, INCLUDING TURF, TREES AND SHRUBS NOT IN THE CONTRACT AREA.
- 10. WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE PRICE BID.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING AND RE-SEEDING ANY EARTH AREA DISTURBED BY HIS OPERATION WITHIN OR OUTSIDE OF THE ACTUAL WORK AREA AND AS REQUIRED BY THE ENGINEER. ALL THE WORK SHALL BE DONE IN A WORKMANLIKE MANNER AND TO THE SATISFACTION OF THE ENGINEER.
- 12. MAINTENANCE AND PROTECTION OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION. AS WELL AS THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION SUPPLEMENT TO THE MUTCD. A.O.B.E.. WITH THE SPECS. AND AS SHOWN ON THE DRAWINGS.
- 13. THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL DEVICES IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- 14. THE CONTRACTOR SHALL PERFORM ALL NECESSARY SURVEY AND STAKEOUT REQUIRED TO PERFORM THE WORK DESCRIBED HEREIN.
- 15. IF GROUNDWATER IS FOUND WITHIN 7' OF THE GROUND SURFACE THEN HYDRANT DRAINS SHOULD BE PLUGGED. WHEN THE DRAINS ARE PLUGGED THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED. A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10' OF SANITARY SEWERS. STORM SEWERS. OR STORM
- 16. THE SUPPLIER'S RECORDS INDICATE ADEQUATE PRESSURE AND CAPACITY IS AVAILABLE FOR THE AREA IF THIS PROJECT RESULTS IN AN INCREASE IN 1
- IMPROVEMENTS SHOWN ON THE PLANS ARE APPLICABLE.
- 18. THE DESIGN AND LOCATION OF SANITARY FACILITIES (WATER AND SEWER 3. SYSTEMS) SHALL NOT BE CHANGED.
- 19. THIS SHEET IS INCOMPLETE AND INVALID UNLESS ACCOMPANIED BY EACH OF THE OTHER SHEETS.
- 20. BASE MAPPING PROVIDED BY THE TOWN OF YORKTOWN.
- 21. UTILITY LAYOUTS BASED ON HISTORICAL G.I.S. UTILITY MAPPING PROVIDED BY THE TOWN OF YORKTOWN.

MATERIALS AND SCHEDULE:

- THE YORKTOWN WATER DEPARTMENT WILL SUPPLY THE FOLLOWING MATERIALS FOR THE 6-INCH AND 8-WATER MAINS:
 - DUCTILE IRON PIPE COUPLINGS - BENDS AND FITTINGS - VALVE BOXES - SERVICE PIPING VAI VFS - SERVICE COUPLINGS - REDUCERS - FIRE HYDRANT ASSEMBLIES
- 2. THE MATERIALS WILL BE AVAILABLE AT THE YORKTOWN CONSOLIDATED WATER DISTRICT FACILITY LOCATED AT 1080 SPILLWAY ROAD, SHRUB OAK, NEW YORK
- 3. IT IS THE CONTRACTORS RESPONSIBLITY TO EXERCISE CARE WHEN HANDLING THE WATER DISTRICT'S SUPPLIED MATERIALS. IF, IN THE OPINION OF THE ENGINEER, MATERIALS ARE DAMAGED AS A RESULT OF THE CONTRACTOR'S ACTIONS, THE WATER DISTRICT SHALL BE FULLY COMPENSATED FOR THE COST OF THE REPLACEMENT ITEM AND RESULTING DELAYS FOR MATERIAL PROCUREMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 4. WORK ON FRONT STREET, UNDERHILL AVENUE, AND HANOVER STREET TO BE CONDUCTED IN 2016. WORK ON BALDWIN ROAD, STRAWBERRY ROAD AND GRANITE SPRINGS AREA TO BE CONDUCTED IN 2017.
- 5. EXISTING FIRE HYDRANTS, GATE VALVES, AND VALVE BOXES ARE TO BE SALVAGED AND RETURNED TO THE YORKTOWN CONSOLIDATED WATER DISTRICT FACILITY LOCATED AT 1080 SPILLWAY ROAD, SHRUB OAK, NEW YORK 10588.

WATER MAIN TESTING AND DISINFECTION NOTES

- WATER FOR TESTING AND FLUSHING SHALL BE OBTAINED FROM EXISTING WATER SYSTEM. ARRANGEMENTS SHALL BE MADE WITH THE WATER SUPERINTENDENT FOR PAYMENT OF WATER USED.
- 2. FLUSH MAINS AND SERVICES BEFORE TESTING. MINIMUM FLUSHING VELOCITY SHALL BE 2.5 FEET PER SECOND.
- THE SECTION UNDER TEST SHALL BE MAINTAINED FULL OF WATER FOR A PERIOD OF 24 HOURS PRIOR TO THE PRESSURE AND LEAKAGE TEST BEING APPLIED. FURNISH ALL WATER, EQUIPMENT, CONNECTIONS, PIPING, METERS, MEASURING DEVICES, PUMPS. AND TEMPORARY ENCLOSURES NECESSARY TO PERFORM THE REQUIRED TESTS, SUBJECT TO THE REVIEW AND APPROVAL BY THE TOWN WATER SUPERINTENDENT AND ENGINEER. TESTING SHALL BE MADE ON SECTIONS OF WATER MAIN NOT EXCEEDING 2000 FEET IN LENGTH.
- TESTING SHALL MEET THE MINIMUM REQUIREMENTS OF AWWA C-600 SECTION 5, EXCEPT WHERE MORE RIGID REQUIREMENTS ARE ESTABLISHED BY THESE SPECIFICATIONS. BEFORE APPLYING TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. AFTER THE PIPE HAS BEEN FILLED, IT SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE OF 150 PSI OR 1.5 TIMES THE WORKING PRESSURE OF THE SYSTEM AS A MINIMUM, WHICHEVER IS GREATER, FOR A PERIOD OF TWO HOURS.
- A PRELIMINARY TEST OF 150 PSI OR 1.5 TIMES THE WORKING PRESSURE OF THE SYSTEM AS A MINIMUM, WHICHEVER IS GREATER, SHALL BE PERFORMED BY THE CONTRACTOR. AFTER THE PRELIMINARY TEST IS SATISFACTORY, THE ENGINEER SHALL BE GIVEN 24 HOURS NOTICE AND A FINAL TEST PERFORMED.
- LEAKAGE SHALL BE DETERMINED AT 30 MINUTE INTERVALS BY MEANS OF VOLUMETRIC MEASUREMENT OF THE WATER ADDED DURING THE TEST.
- TEST PRESSURE SHALL BE BASED ON THE ELEVATION OF THE LOWEST POINT UNDER TEST. PRESSURE SHALL BE APPLIED BY A PUMP CONNECTED TO THE PIPE. THE PUMP, PIPE, CONNECTIONS, GAUGES, AND MEASURING DEVICES SHALL BE CALIBRATED TO THE SATISFACTION OF THE ENGINEER.
- LEAKAGE SHALL BE DEFINED AS THE QUANTITY OF WATER SUPPLIED TO THE SECTION OF THE PIPE UNDER TEST NECESSARY TO MAINTAIN THE REQUIRED PRESSURE. SHOULD ANY TEST DISCLOSE LEAKAGE GREATER THAN THE ALLOWABLE. THE DEFECT SHALL BE LOCATED AND REPAIRED BY THE CONTRACTOR.
- ALL WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651-05 EXCEPT FOR SECTION 4.4.2 OR LATEST AWWA STANDARD DISINFECTING WATER MAINS, ITEM 5.1 DELETED, AND THE REQUIREMENTS OF N.Y.S. DEPARTMENT OF HEALTH, USING THE CONTINUOUS FEED METHOD. THE REQUIREMENTS OF N.Y.S. DEPARTMENT OF HEALTH SHALL GOVERN WHEN THERE IS A CONFLICT. USE 25 PPM INITIAL CHLORINE DOSE. DISINFECTANT SHALL REMAIN IN THE SYSTEM FOR A PERIOD OF 24 HOURS AFTER WHICH THE RESIDUAL SHALL BE AT LEAST 10 PPM. FOLLOWING DISINFECTION, ALL TREATED WATER SHALL BE THOROUGHLY FLUSHED FROM THE MAIN AND DECHLORINATED AS REQUIRED BEFORE BEING DISCHARGED. TABLET METHOD OF DISINFECTION IS NOT ACCEPTABLE.
- 10. THE INTERIORS OF ALL APPURTENANCES AND SECTIONS OF WATER MAIN THAT CANNOT NORMALLY BE DISINFECTED SHALL BE SWABBED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER, WITH A CONCENTRATED CHLORINE SOLUTION CONTAINING NO LESS THAN 200 PPM OF FREE CHLORINE. THE CONTRACTOR SHALL ALSO DISINFECT ALL EXISTING WATER LINES AND APPURTENANCES WHICH WERE BROKEN, DAMAGED, CONTAMINATED, OR SUSPECTED OF BEING CONTAMINATED AS A RESULT OF WORK DONE WITH THIS PROJECT.
- FOR EVERY 1200' OF WATER MAIN, 2 CONSECUTIVE WATER SAMPLES SHALL BE COLLECTED AT LEAST 24 HOURS APART BY THE CONTRACTOR AND ANALYZED BY A NEW YORK STATE DEPARTMENT OF HEALTH APPROVED TESTING LABORATORY TO BE FREE OF COLIFORM BACTERIA AND OTHER BACTERIOLOGICAL CONTENT. THE WORK WILL NOT BE ACCEPTED UNTIL A REPORT IS SUBMITTED TO THE ENGINEER AND THE TOWN WATER DISTRICT SHOWING THAT A WATER SAMPLE IS SATISFACTORY AND THE SYSTEM IS READY FOR USE.
- CEMENT-MORTAR LINING AND ASSOCIATED WORK WILL BE PERFORMED IN ACCORDANCE WITH AWWA STANDARD C602-00 OR LATEST AWWA STANDARD.
- 13. AFTER DISINFECTION OF THE CLEANED WATER MAINS, OR PORTIONS THEREOF, THE WATER MAINS SHALL BE FILLED WITH FRESH WATER AND TWO BIOLOGICAL SAMPLES WILL BE COLLECTED AT AN INTERVAL OF 24 HOURS AT THE SAME LOCATION. IN ADDITION, THE WATER MAINS SHALL BE TESTED FOR DH AT THE SAME SAMPLE POINTS AND UPSTREAM. TESTING SHALL BE PREFORMED BY A NEW YORK STATE CERTIFIED LABORATORY. BIOLOGICAL AND pH TEST RESULTS OF THE NEWLY CLEANED WATER MAINS SHALL BE SUBMITTED TO, AND APPROVED IN WRITING BY, THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH PRIOR TO PLACING THE MAIN

WATER MAIN PRESSURE TESTING NOTES

- THE CONTRACTOR SHALL NOTIFY THE VILLAGE ENGINEER, SUPERINTENDENT OF WATER AND SEWER AND THE ENGINEER 48 HOURS PRIOR TO TESTING THE SERVICE LINES.
- 17. ONLY DETAILS RELEVANT TO THE SPECIFIC PUBLIC WATER SUPPLY 2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL PIPES TAPS REQUIRED FOR TESTING AS SPECIFIED.
 - ALL NEW WATER INSTALLATIONS SHALL BE HYDROSTATICALLY TESTED PER A.W.W.A. STANDARD C600 (LATEST VERSION) AT A PRESSURE OF 150PSI, OR 1.5 TIMES THE WORKING PRESSURE OF THE SYSTEM AS A MINIMUM. ALLOWABLE LEAKAGE OF THE TEST SHALL BE AS DEFINED IN SECTION 5.2 OF REFERENCED A.W.W.A. SPECIFICATIONS.

ALLOWABLE LEAKAGE

WHERE: L = ALLOWABLE LEAKAGE, (GPH)FOR WATER MAIN S = LENGTH OF PIPE TESTED, (FT)D = NOMINAL DIAMETER. (IN)

4. THE ENGINEER REPRESENTING THE TOWN OF YORKTOWN MUST WITNESS THE TESTING OR REVIEW THE RESULTS AND APPROVE THE SYSTEM FOR USE.

P = AVERAGE TEST. (PSI)

5. PRIOR TO COMPLETION OF CONTRACT, RESULTS OF ALL LEAKAGE TESTING SHALL BE SUBMITTED TO THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH ALONG WITH ENGINEERS CERTIFICATE OF COMPLETION.

TEMPORARY WATER SERVICE NOTES:

- TEMPORARY WATER SERVICE TO BE INSTALLED PER AWWA STANDARDS AND SHALL BE DISINFECTED AND APPROVED BY THE WCDOH PRIOR TO BEING INSTATED.
- 2. AFTER DISINFECTION OF THE TEMPORARY WATER MAINS, OR PORTIONS THEREOF. THE TEMPORARY WATER MAINS SHALL BE FILLED WITH FRESH WATER AND TWO (2) BIOLOGICAL SAMPLES WILL BE COLLECTED AT AN INTERVAL OF 24 HOURS AT THE SAME LOCATION. IN ADDITION, THE TEMPORARY WATER MAINS SHALL BE TESTED FOR PH AT THE SAME SAMPLE POINTS AND UPSTREAM. TESTING SHALL BE PREFORMED BY A NEW YORK STATE CERTIFIED LABORATORY. BIOLOGICAL AND ho H TEST RESULTS OF THE TEMPORARY WATER MAINS SHALL BE SUBMITTED TO. AND APPROVED IN WRITING BY, THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH PRIOR TO PLACING THE TEMPORARY MAINS INTO SERVICE.
- TEMPORARY WATER SERVICE MAIN CONNECTION LOCATIONS SHOWN ON THE DRAWINGS IN A PHASED APPROACH. TEMPORARY WATER SERVICE ROUTING SHOWN IS SCHEMATIC ONLY. ACTUAL LAYOUT SHALL BE REFLECTED IN CONTRACTOR'S DETAILED PLAN. CONTRACTOR TO PROVIDE A DETAILED PLAN PROPOSED STREET CROSSINGS AND CONNECTIONS BETWEEN CONNECTION LOCATIONS FOR APPROVAL OF THE ENGINEER.
- 4. LINE VALVES TO BE PROVIDED EVERY 1,000 LF (MIN.).
- 5. TEMPORARY HYDRANTS TO BE PROVIDED AT EACH LOCATION WHERE AN EXISTING HYDRANT IS OUT OF SERVICE AS A RESULT OF THE WORK.
- 6. BASED ON AVAILABLE RECORDS, BUILDINGS SHOWN WITH GRAY HATCH ARE BELIEVED TO BE CONNECTED TO A WATER MAIN THAT IS TO BE CLEANED AND CEMENT LINED. THE CONTRACTOR IS TO VERIFY ALL BUILDINGS THAT ARE CONNECTED TO WATER MAIN THAT IS TO BE CLEANED AND RELINED AND IS RESPONSIBLE FOR PROVIDING TEMPORARY WATER SERVICE TO ALL AFFECTED BUILDINGS FOR THE ENTIRE DURATION OF THE WORK. COPYRIGHT 2021 WESTON & SAMPSO

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SHEET 2 of 22

NOTE

THE PROJECT AREAS SHOWN ON THIS SHEET ARE TO BE CONSTRUCTED IN 2021.

STRAWBERRY ROAD - 2021 CONSTRUCTION

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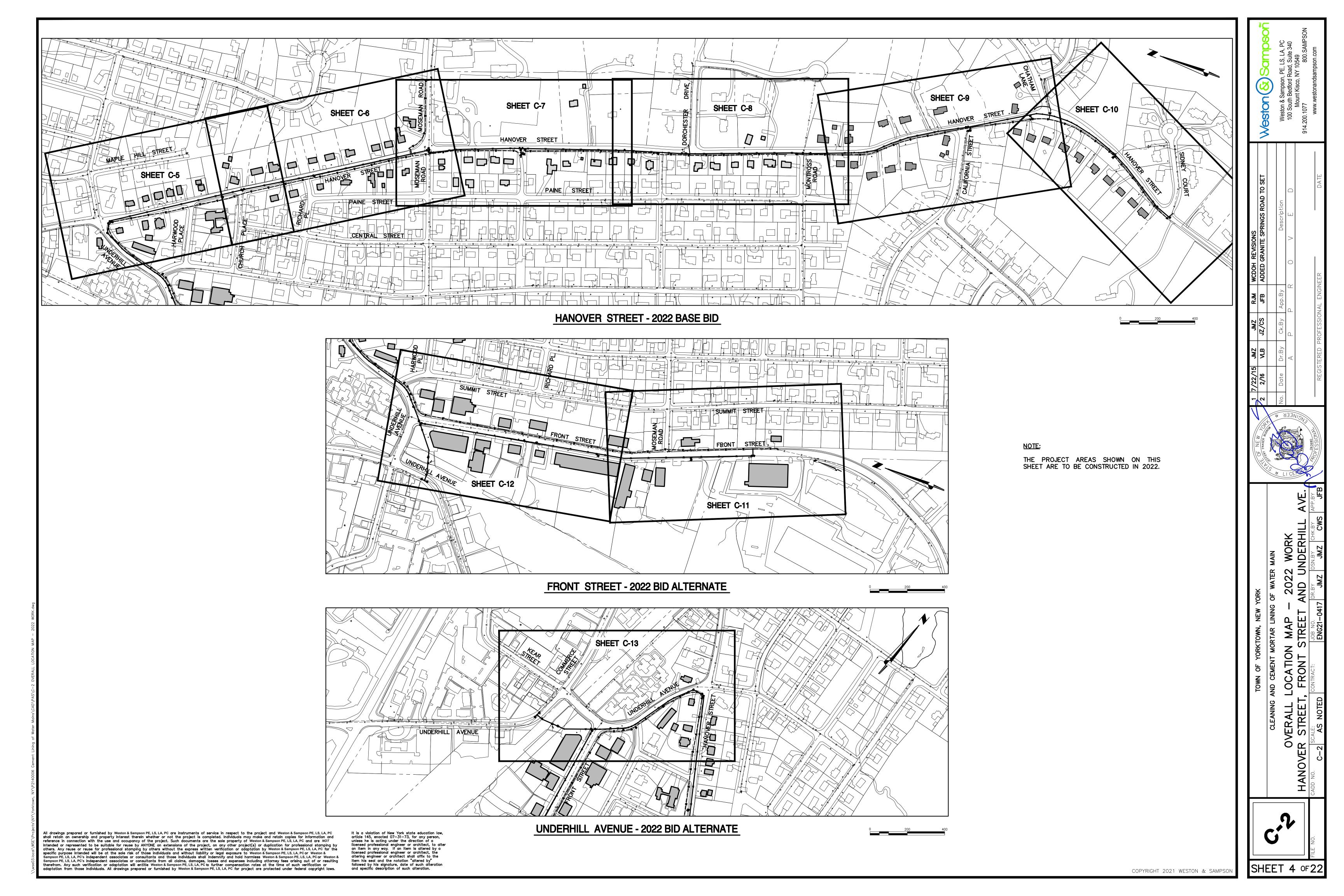
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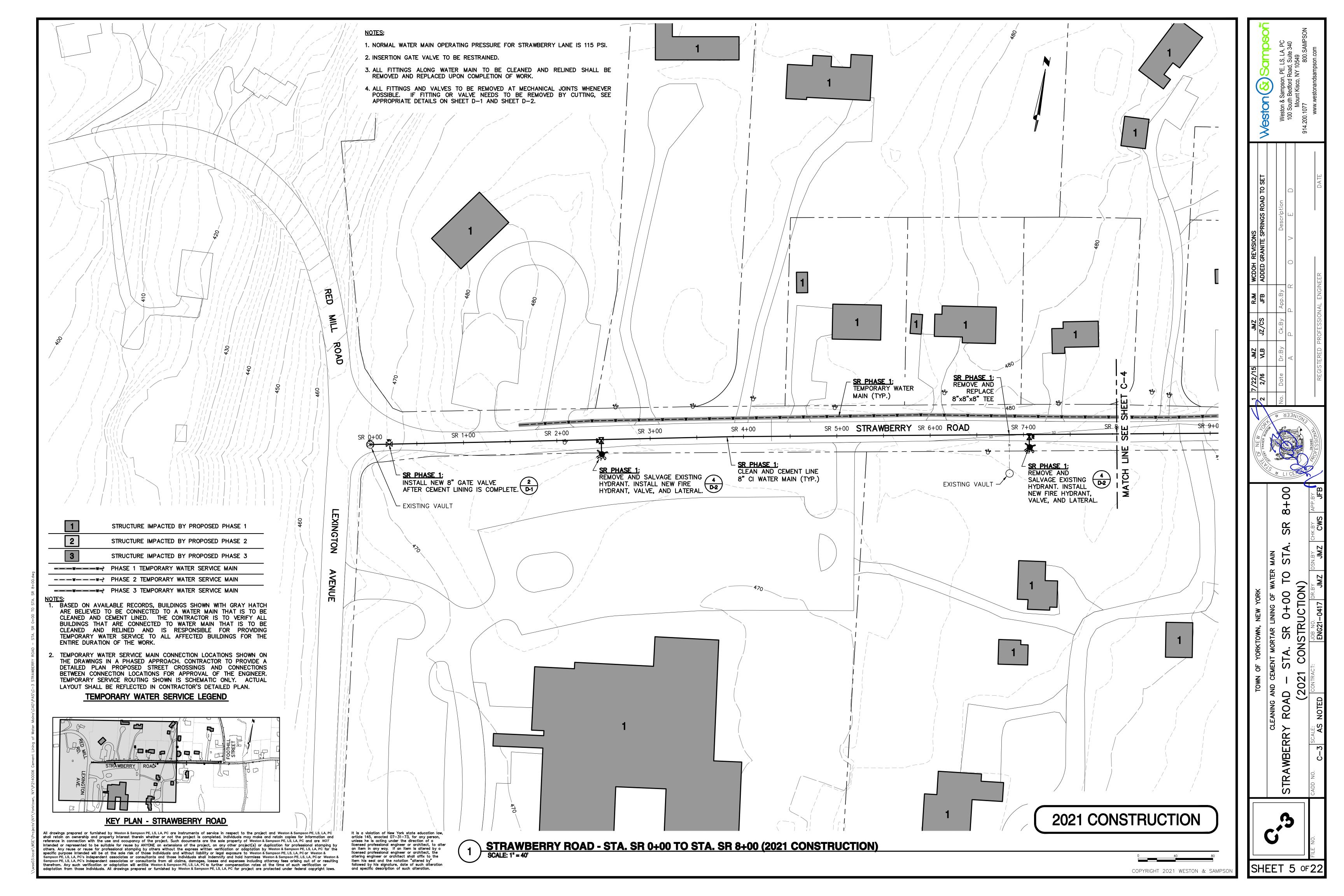
SHEET 3 OF 2

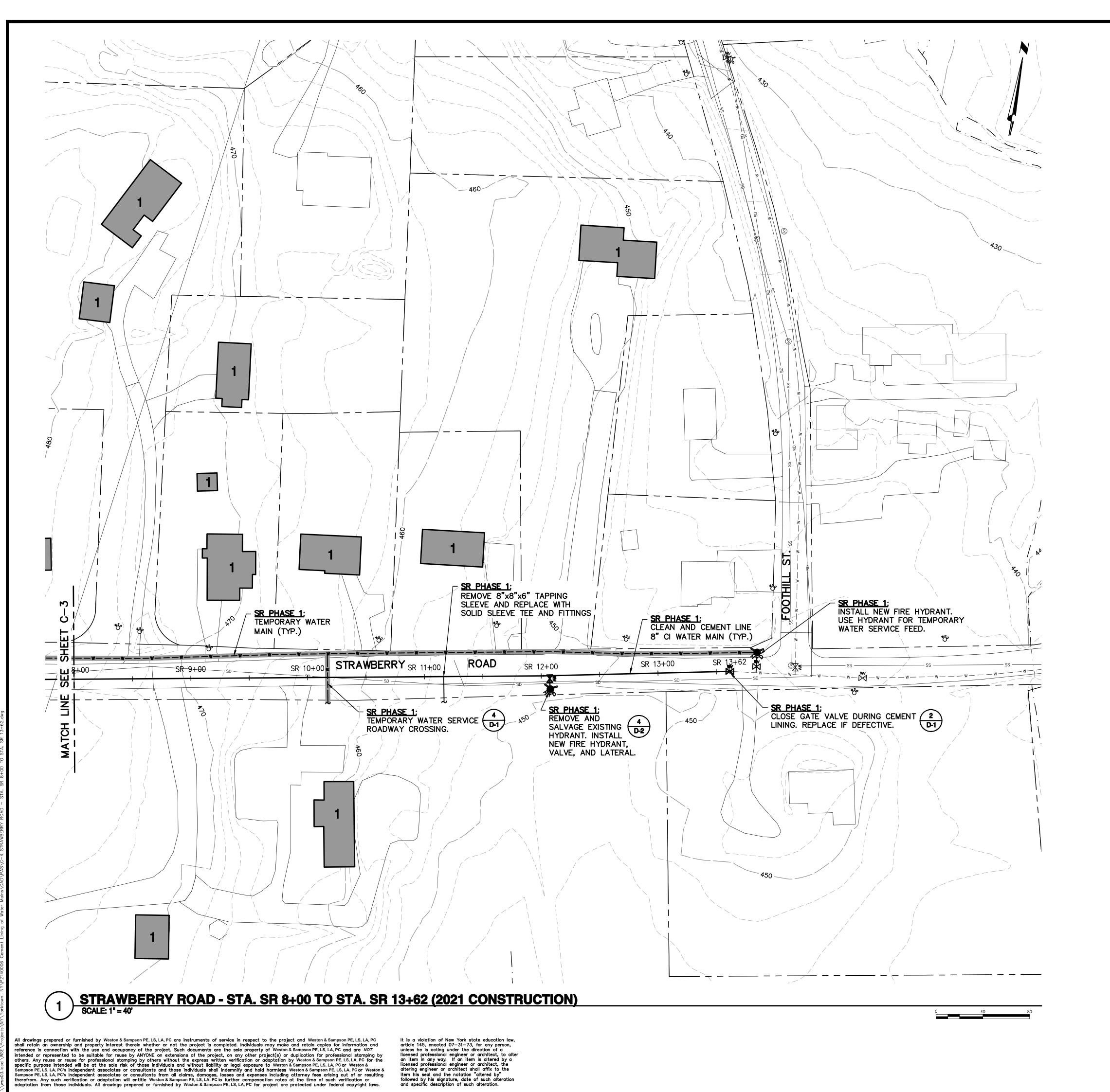
F WATER

TOWN OF YORKTOWN, NEW AND CEMENT MORTAR LININ LOCATION MAP

STRAWBERRY

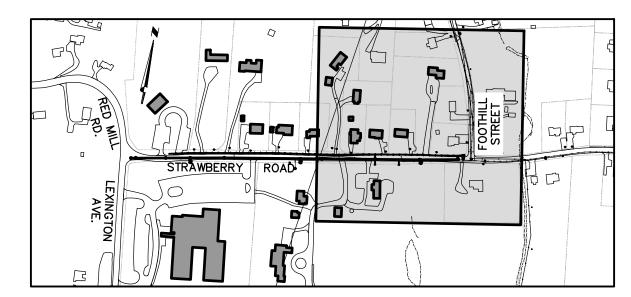






N

- 1. NORMAL WATER MAIN OPERATING PRESSURE FOR STRAWBERRY LANE IS 115 PSI.
- 2. INSERTION GATE VALVE TO BE RESTRAINED.
- 3. ALL FITTINGS ALONG WATER MAIN TO BE CLEANED AND RELINED SHALL BE REMOVED AND REPLACED UPON COMPLETION OF WORK.
- 4. ALL FITTINGS AND VALVES TO BE REMOVED AT MECHANICAL JOINTS WHENEVER POSSIBLE. IF FITTING OR VALVE NEEDS TO BE REMOVED BY CUTTING, SEE APPROPRIATE DETAILS ON SHEET D-1 AND SHEET D-2.



KEY PLAN - STRAWBERRY ROAD

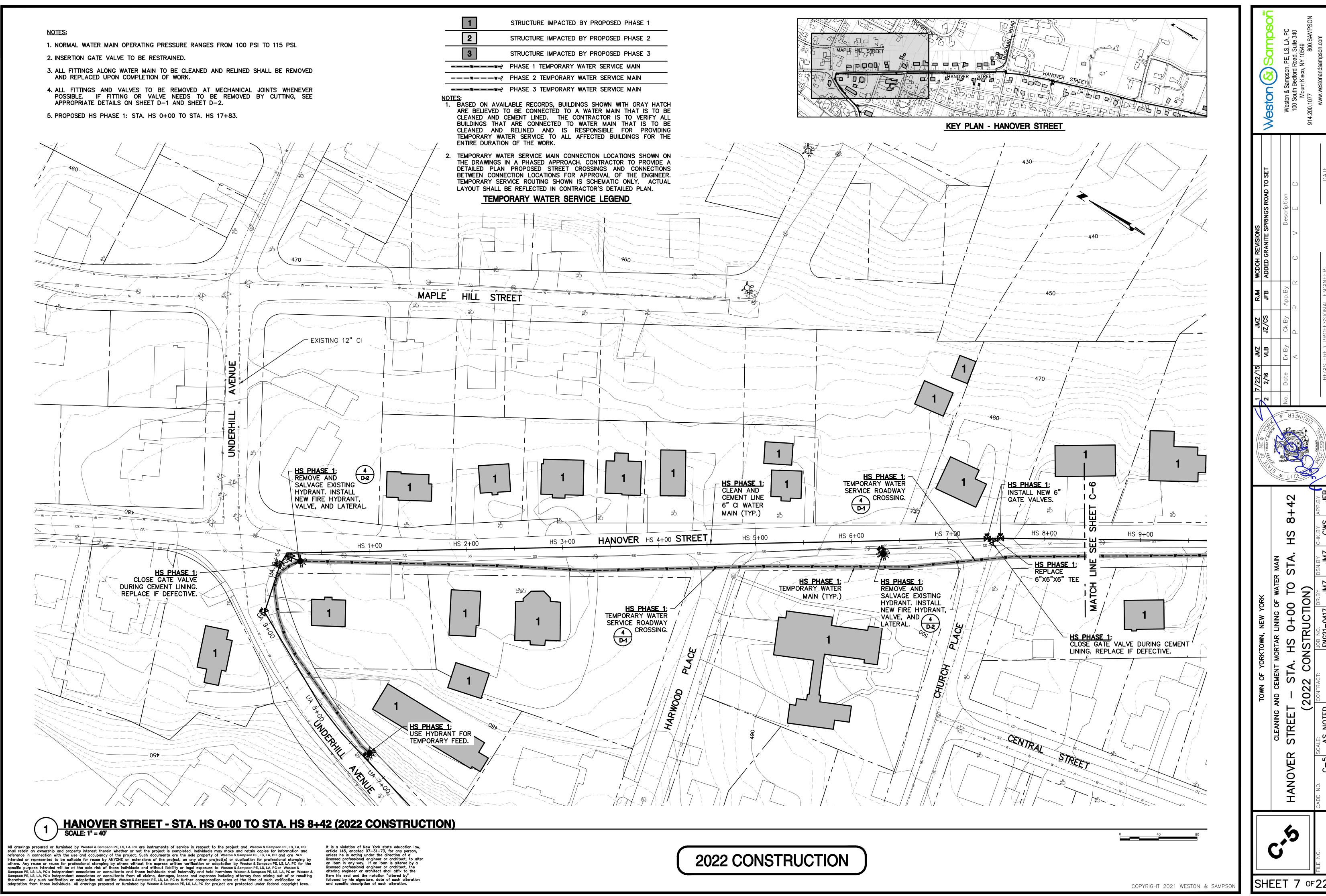
1	STRUCTURE IMPACTED BY PROPOSED PHASE 1
2	STRUCTURE IMPACTED BY PROPOSED PHASE 2
3	STRUCTURE IMPACTED BY PROPOSED PHASE 3
ww-	PHASE 1 TEMPORARY WATER SERVICE MAIN
ww-	PHASE 2 TEMPORARY WATER SERVICE MAIN
	PHASE 3 TEMPORARY WATER SERVICE MAIN

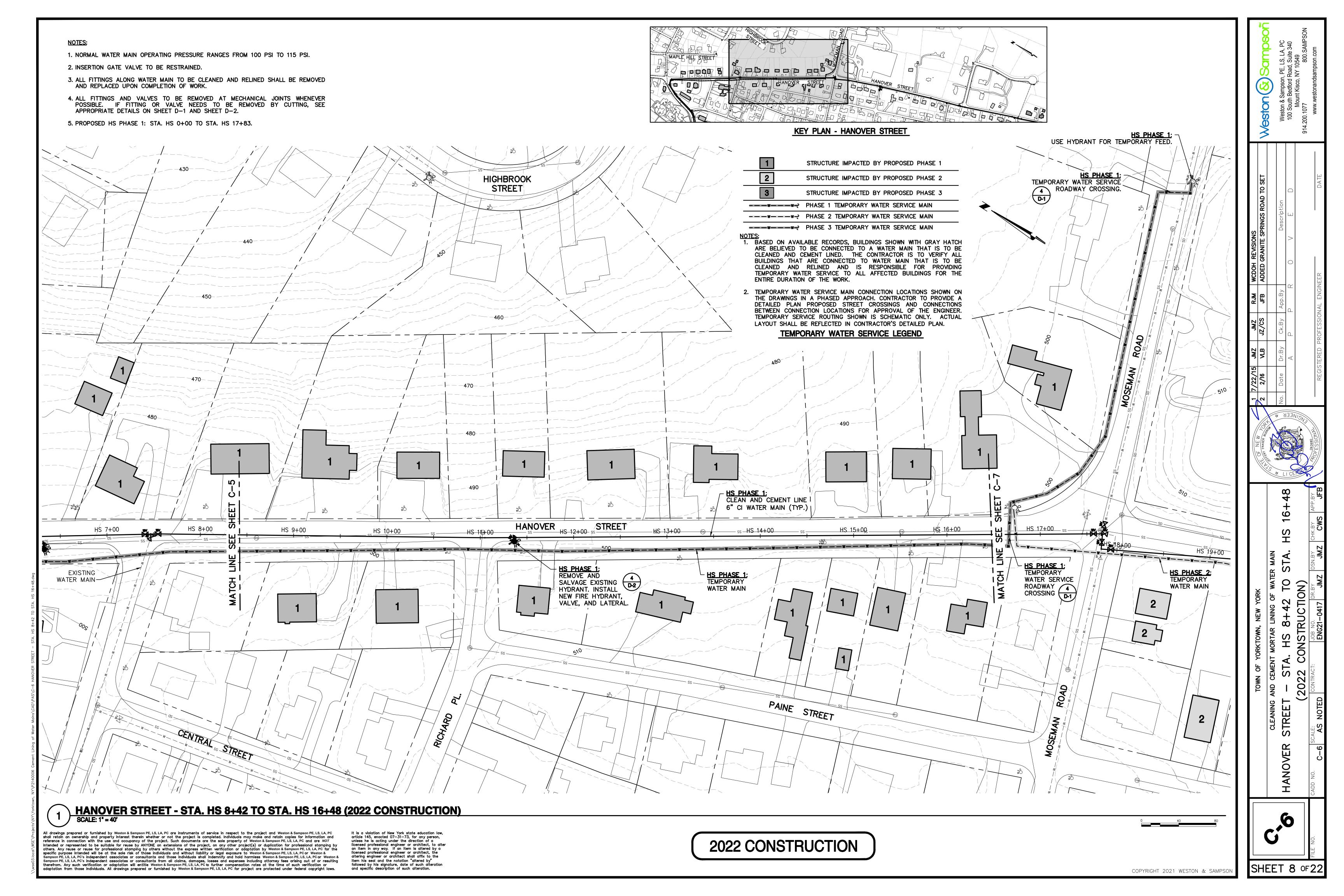
NOTES

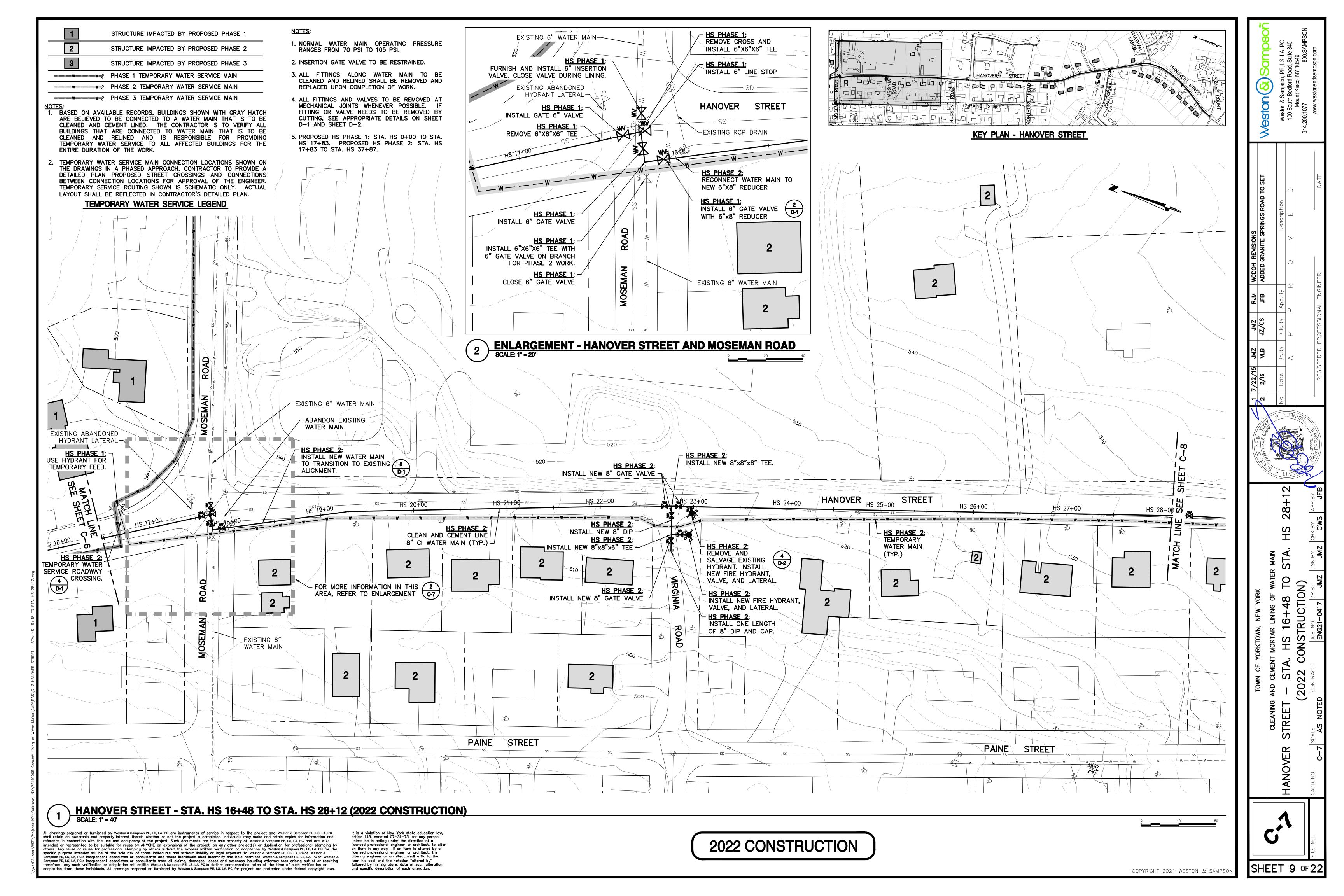
- 1. BASED ON AVAILABLE RECORDS, BUILDINGS SHOWN WITH GRAY HATCH ARE BELIEVED TO BE CONNECTED TO A WATER MAIN THAT IS TO BE CLEANED AND CEMENT LINED. THE CONTRACTOR IS TO VERIFY ALL BUILDINGS THAT ARE CONNECTED TO WATER MAIN THAT IS TO BE CLEANED AND RELINED AND IS RESPONSIBLE FOR PROVIDING TEMPORARY WATER SERVICE TO ALL AFFECTED BUILDINGS FOR THE ENTIRE DURATION OF THE WORK.
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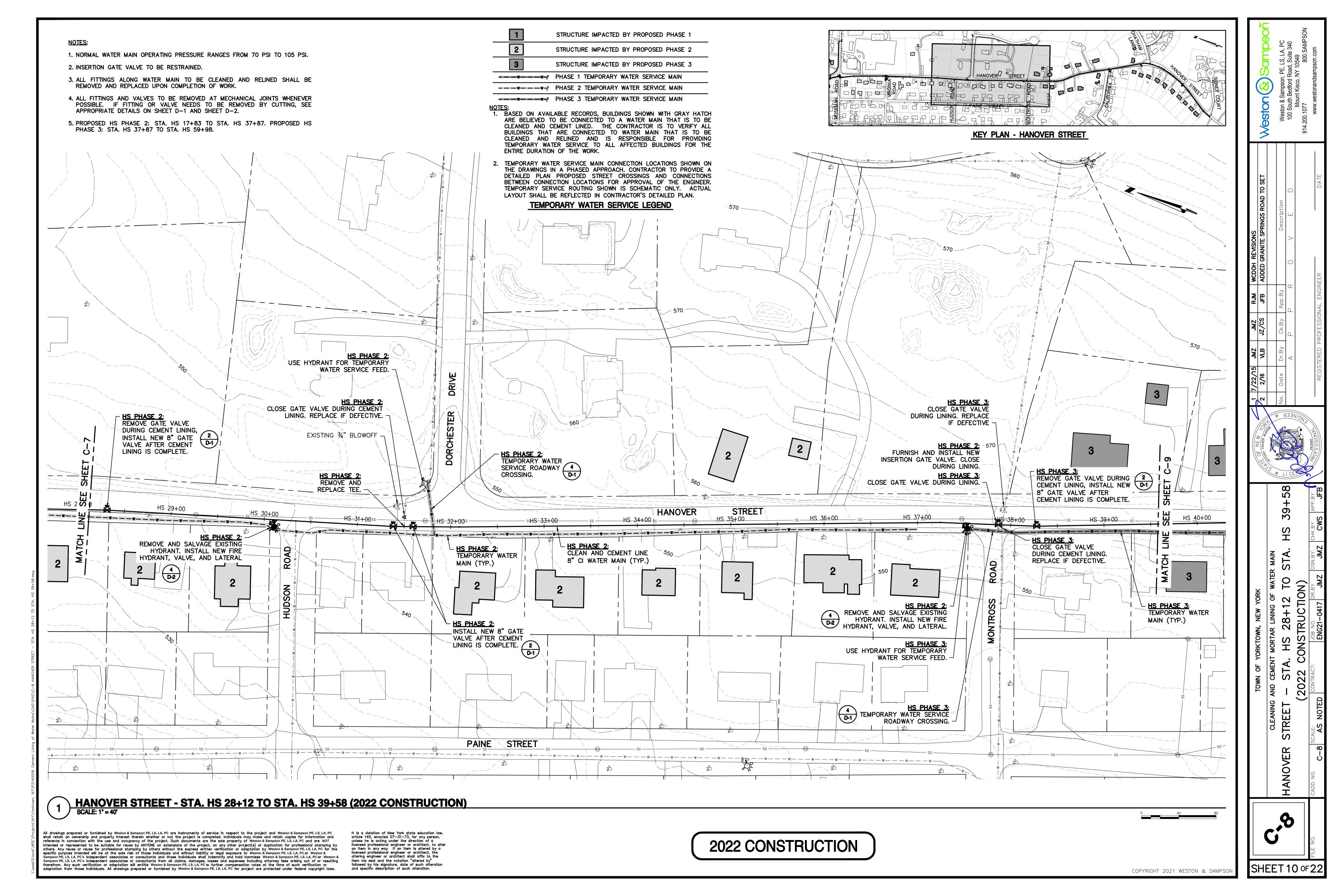
TEMPORARY WATER SERVICE LEGEND

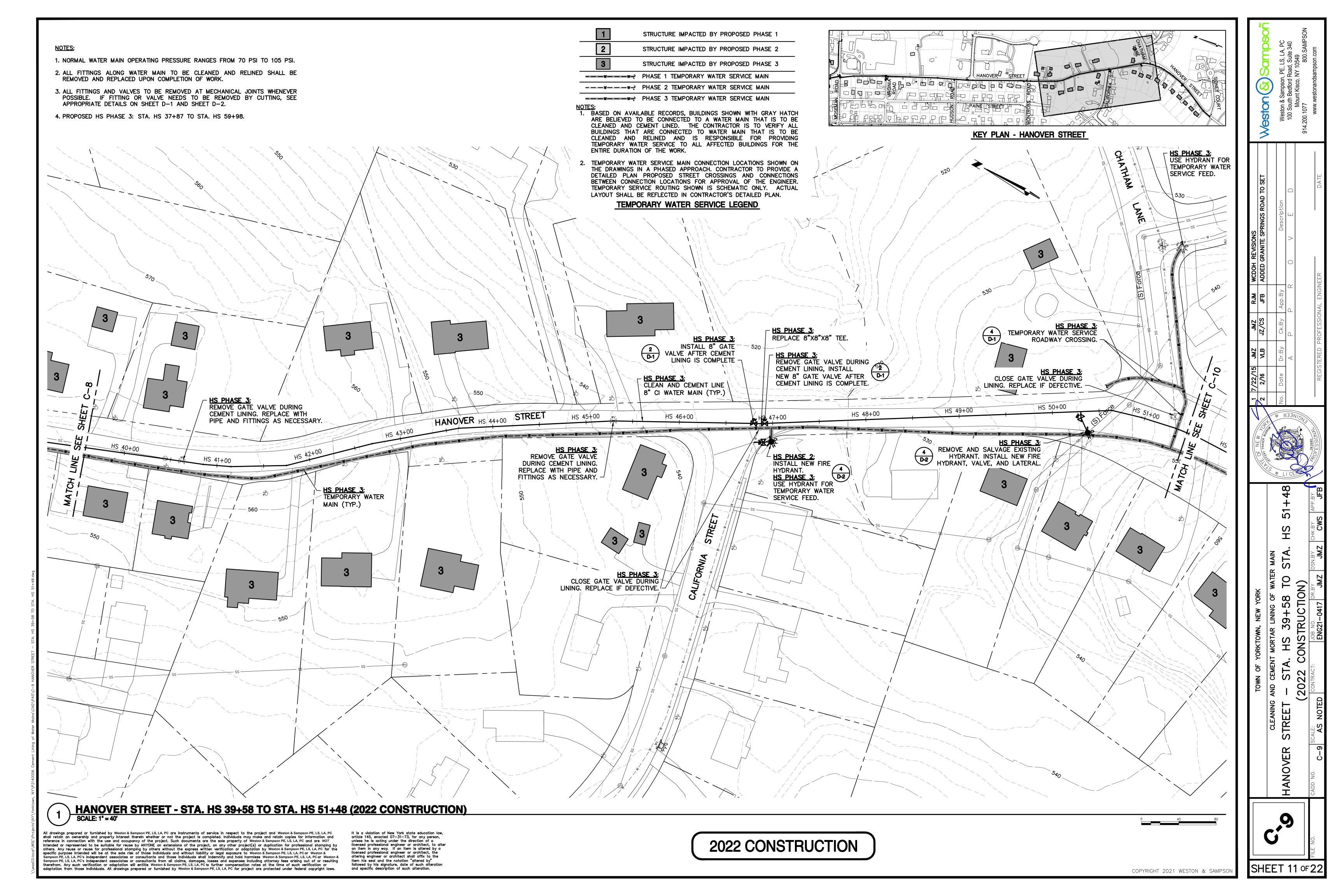
2021 CONSTRUCTION

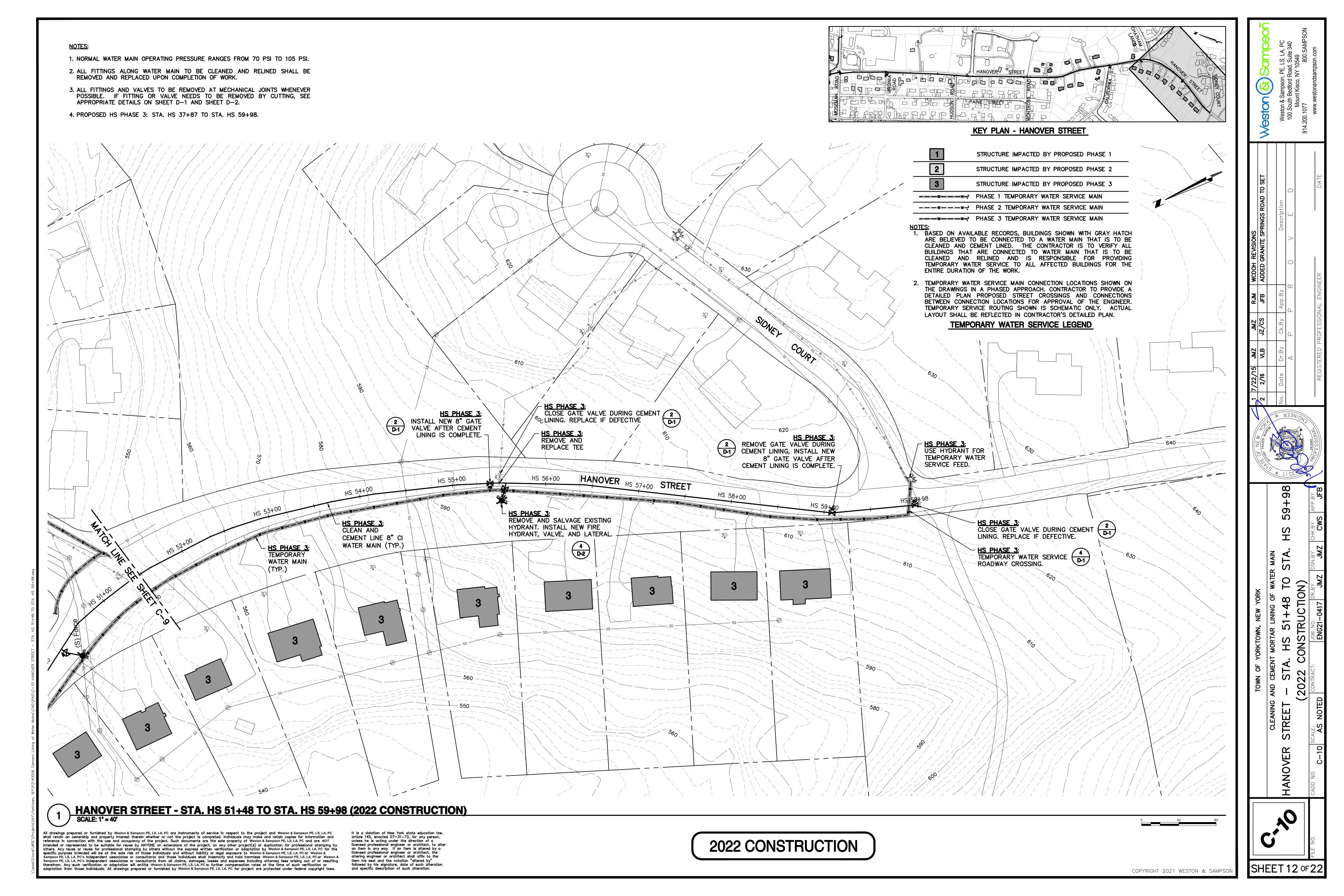


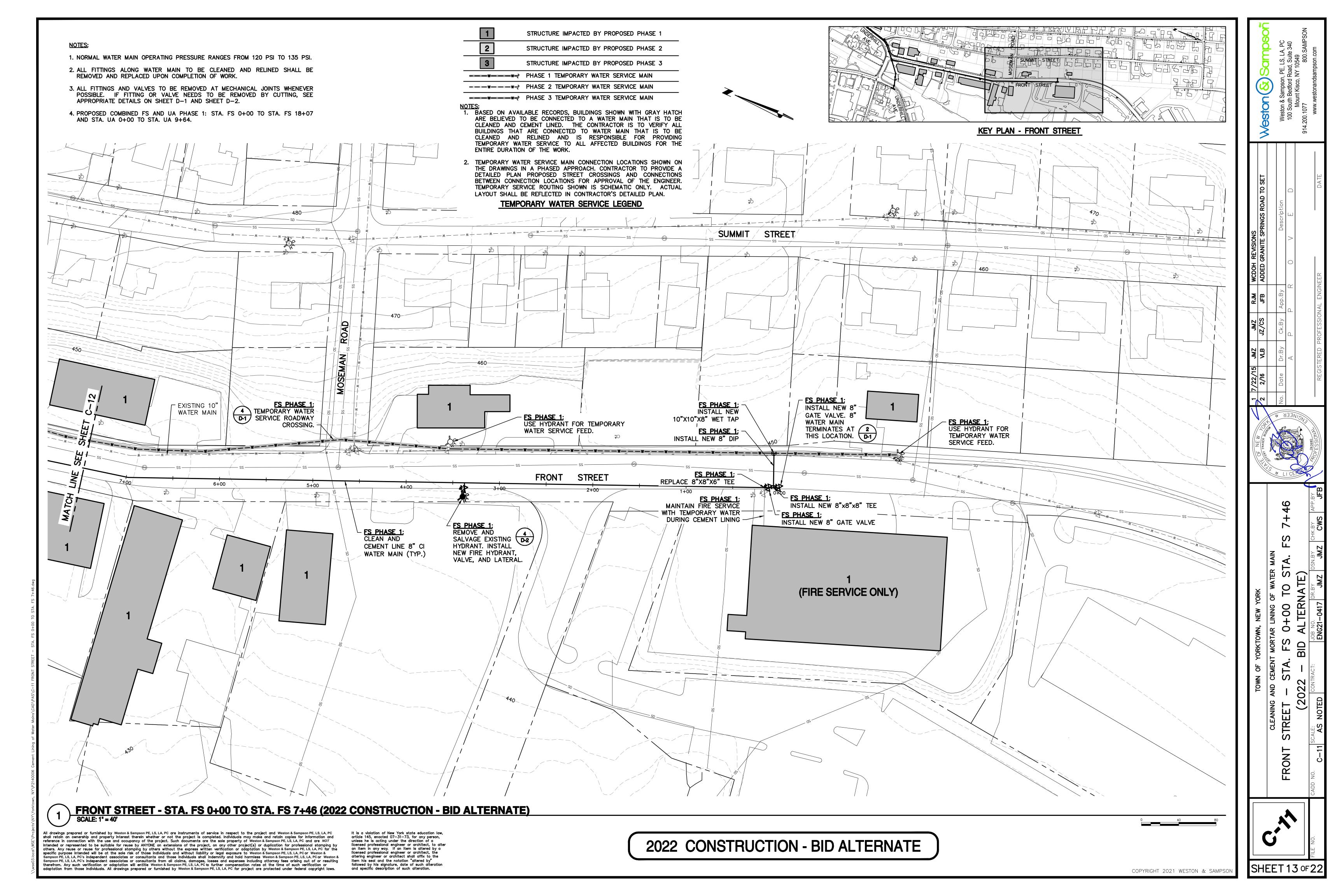


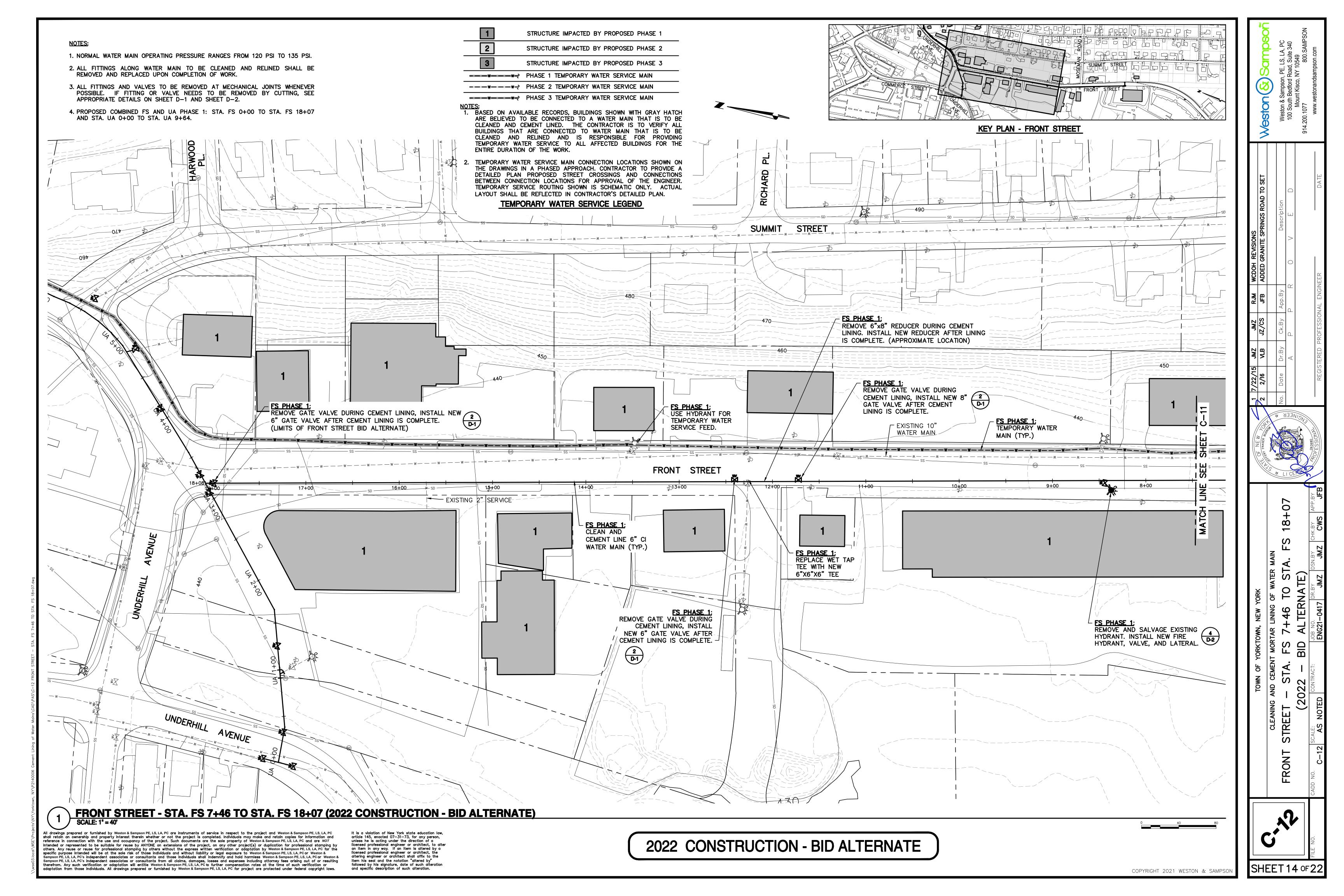


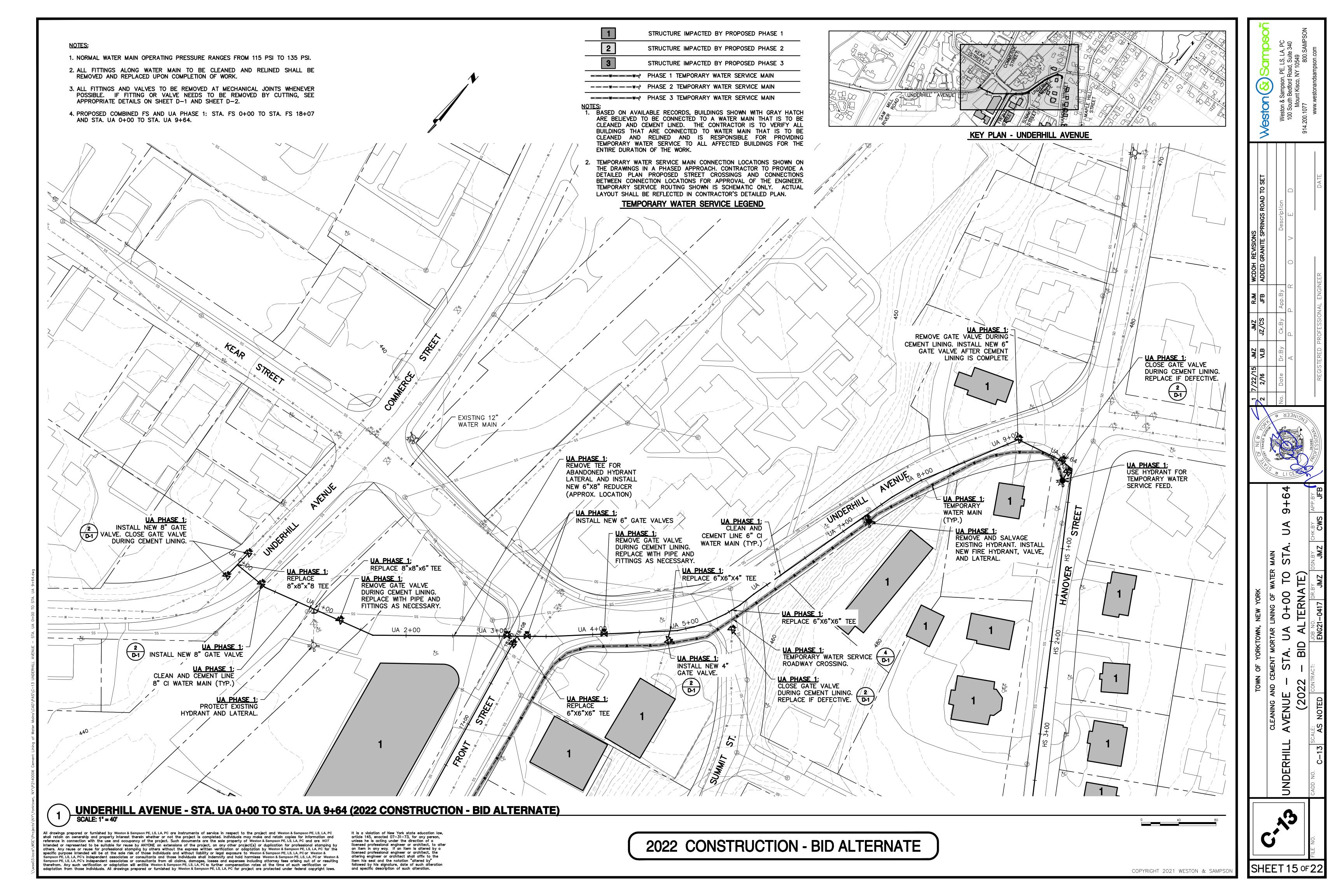


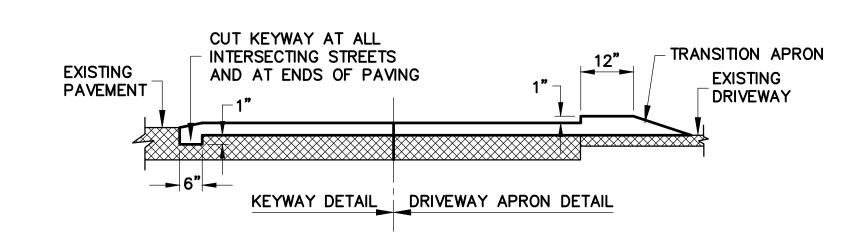


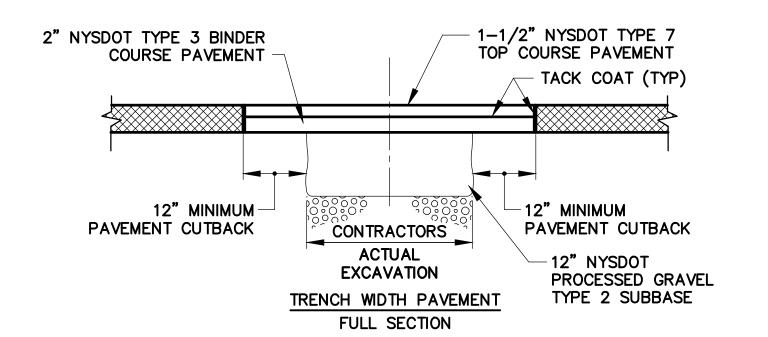




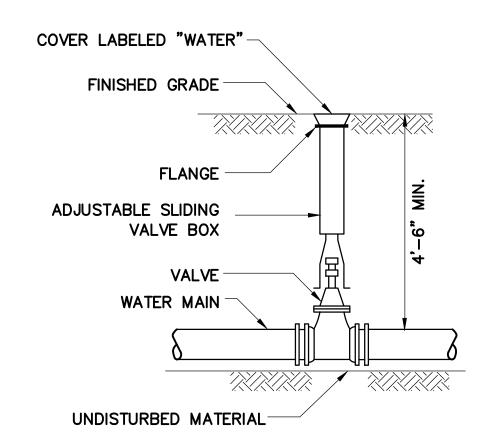




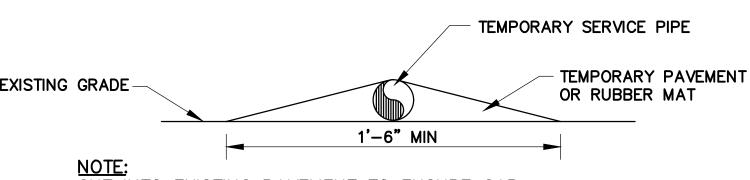




PAVEMENT REPLACEMENT DETAILS

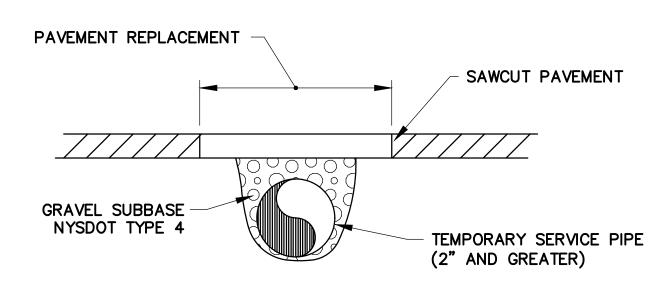


VALVE AND BOX DETAIL SCALE: N.T.S.



CUT INTO EXISTING PAVEMENT TO ENSURE CAR CAN SAFELY PASS CROSSING IF REQUIRED.

2 INCH TEMPORARY SERVICE PIPE DRIVEWAY CROSSING DETAIL



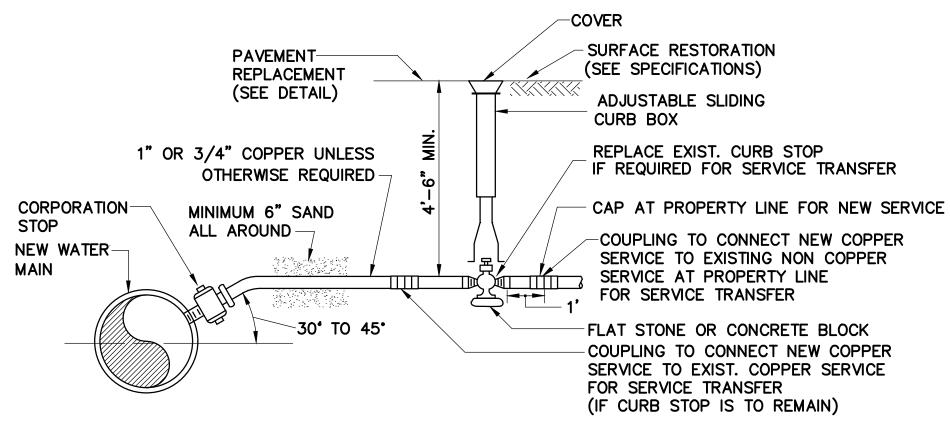
TEMPORARY SERVICE PIPE ROADWAY CROSSING DETAIL SCALE: N.T.S.

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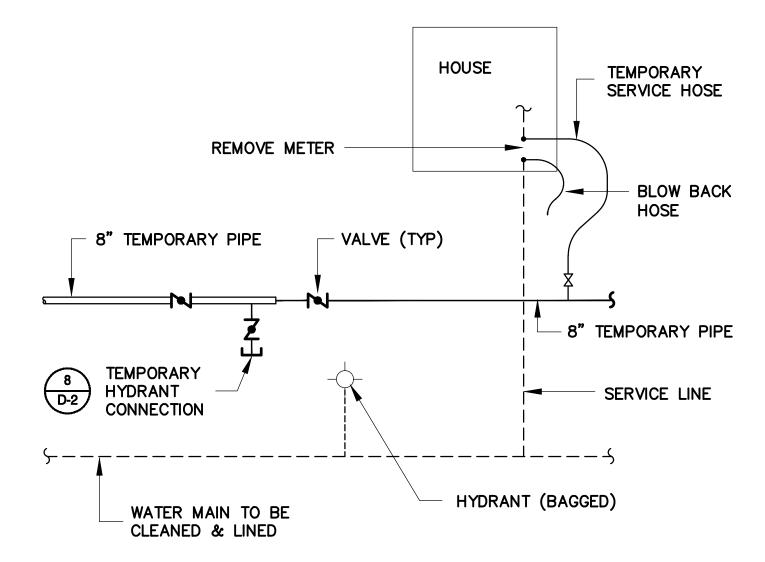
COVER WITH WORD FINISHED GRADE 'WATER' (TYP) - FLANGE (TYP) ADJUSTABLE SLIDING 1" COPPER UNLESS VALVE BOX (TYP) OTHERWISE SPECIFIED-CORPORATION CURB STOP WITH DRAIN FLAT STONE OR CONCRETE BLOCK WATER MAIN

CURB STOP BLOW-OFF DETAIL SCALE: N.T.S.

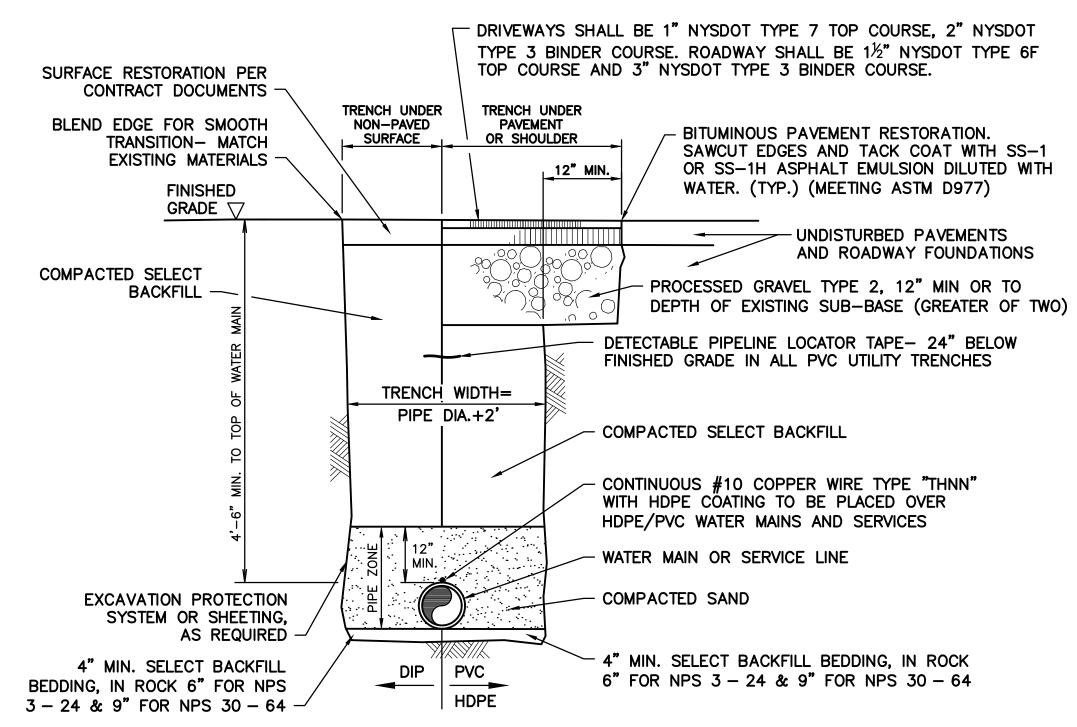


NOTE: PROVIDE SADDLE FOR ALL AC AND PVC MAINS AND ALL 2" OR LARGER STOPS

WATER SERVICE DETAIL SCALE: N.T.S.



TEMPORARY SERVICE PIPE DETAIL



TRENCH/SIDE SLOPE STABILIZATION AND JOB SAFETY ARE THE RESPONSIBILITY OF THE CONTRACTOR. COMPLY WITH ALL APPLICABLE STATE AND FEDERAL REGULATIONS.

FINISHED

TYPICAL WATER MAIN TRENCH DETAIL

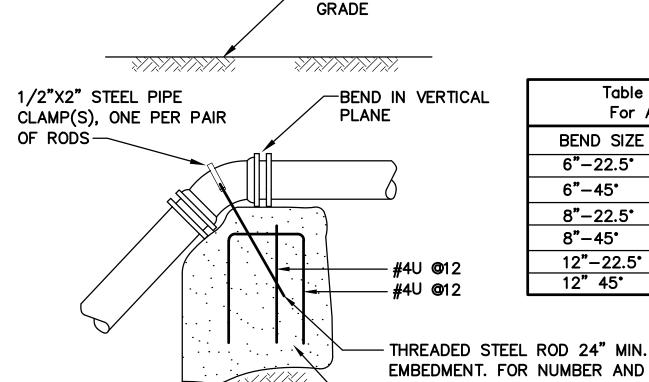
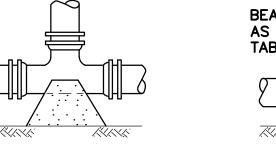


Table Of Dimensions NO. AND SIZE OF THREADED RODS For Anchor Blocks NO. DIAM. BEND SIZE Volume 6"-22.5" 0.6 C.Y. 6"-45° 1.0 C.Y. 8"-22.5° 1.0 C.Y. 8"-45* 1.8 C.Y. 3/4" 12"-22.5° 2.5 C.Y. 12" 45° 4 3/4" 4.0 C.Y.

EMBEDMENT. FOR NUMBER AND DIAMETER, SEE TABLE CONCRETE ANCHOR BLOCK UNDISTURBED MATERIAL (VOLUME AS NOTED IN TABLE) **BEARING AREA**



AS SHOWN IN

BEND DETAIL

(PLAN VIEW)

TEE DETAIL (PLAN VIEW)

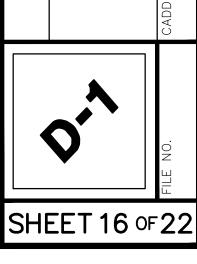
TABLE OF CONCRETE THRUST RESTRAINT MINIMUM BEARING AREAS IN SQUARE 22-1/2° BENDS 11-1/4° BENDS CAPS AND PLUGS AND WYES

FEET AGAINST UNDISTURBED MATERIAL FOR WATER MAIN FITTINGS SIZE OF MAIN 6", 8" 10", 12" 12 9

CAP DETAIL (PLUG SIMILAR)

1. CONTRACTOR SHALL USE CARE TO AVOID PLACEMENT OF CONCRETE ON THE FITTING JOINTS

CONCRETE THRUST BLOCK DETAILS
SCALE: N.T.S.



ONSTRUC

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TIE ROD JOINT RESTRAINT SHALL ONLY BE USED WHERE OTHER MEANS OF RESTRAINT ARE NOT FEASIBLE.

12" 4 3/4"

REMOVE AND REPLACE

TABLE 1 REQUIRED LENGTH OF RESTRAINED JOINTS FROM FITTINGS (FEET)

PIPE SIZE	90° BEND	45° BEND OR WYE BRANCH	22 1/2° BEND	11 1/4° BEND	PLUG OR CAP	TEE (BRANCH)
6"	25 (30.5)	10.5 (12.5)	5 (6)	2.5 (3)	43 (64)	34 (51)
8"	33 (40)	13.5 (16.5)	6.5 (8)	3 (4)	55 (82)	47 (70)
10"	40 (48.5)	16.5 (20)	8 (9.5)	4 (5)	67 (100)	58 (87)
12"	47 (56.5)	19.5 (23.5)	9.5 (11.5)	4.5 (5.5)	79 (118)	70 (105)
16"	59.5 (72)	24.5 (30)	12 (14.5)	6 (7)	101 (152)	92 (139)
20"	72 (86.5)	30 (36)	14.5 (17)	7 (8.5)	123 (184)	114 (171)
24"	84 (100)	35 (41)	16.5 (20)	8 (10)	144 (216)	134 (202)
30"	100 (120)	41 (50)	20 (24)	10 (12)	174 (261)	165 (247)

NOTES:

1. RESTRAINED LENGTHS LISTED IN PARENTHESES ARE FOR PIPE WRAPPED IN POLYETHYLENE. THE OTHER ASSOCIATED LENGTHS ARE FOR PLAIN UNWRAPPED DUCTILE IRON PIPE.

BURLAP BAG OVER

HYDRANT WHILE OUT OF SERVICE

FINISHED GRADE

2. THE CONTRACTOR SHALL USE THIS TABLE IN CONJUNCTION WITH THE APPROPIATE PIPE SPECIFICATION SECTION.

EDGE OF PAVEMENT

VALVE

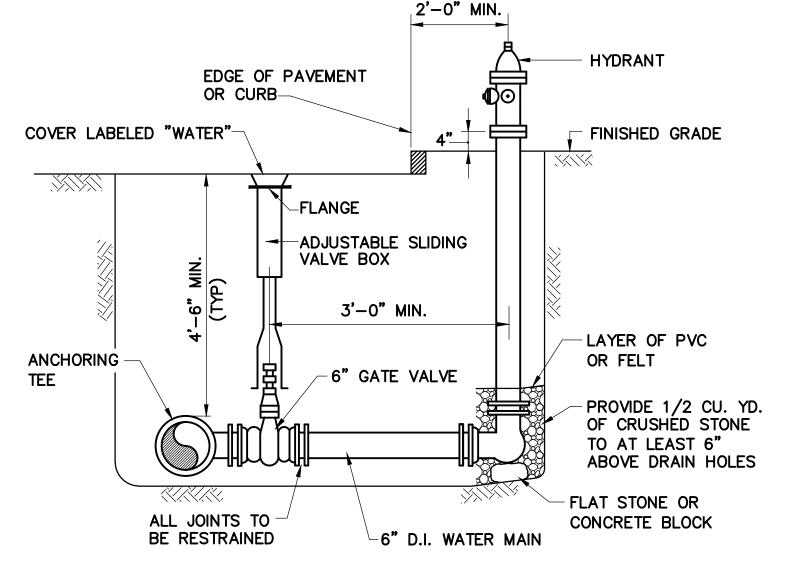
OR CURB -

NEW RIGID COUPLING

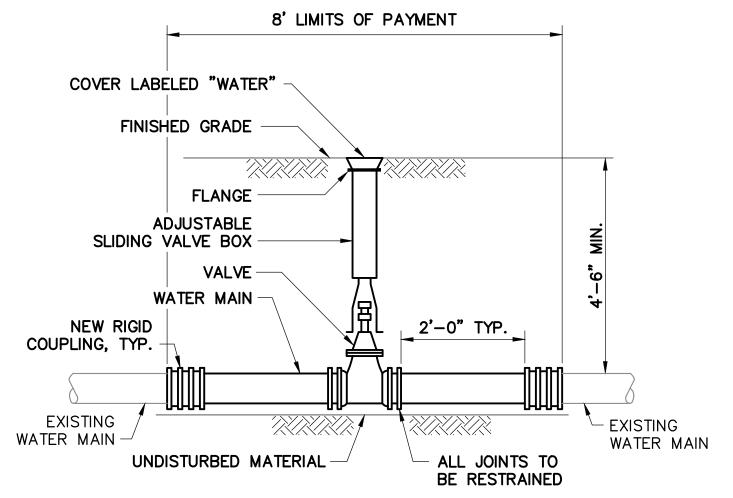
EXISTING ADJUSTABLE SLIDING VALVE BOX -

JOINT RESTRAINT TIE RODS DETAIL SCALE: N.T.S.

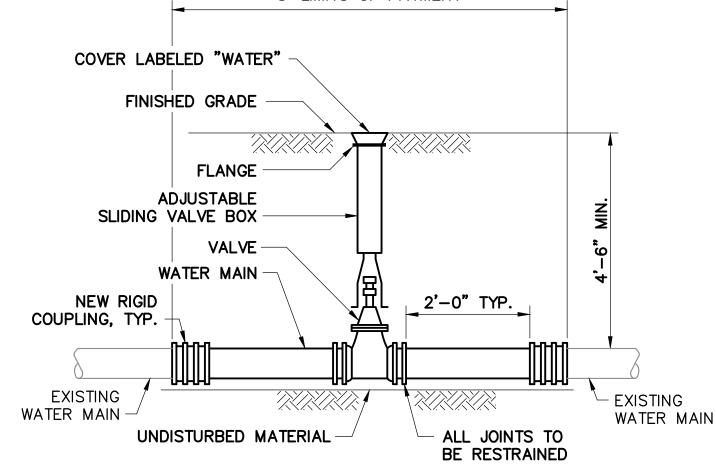
LIMITS OF PAYMENT



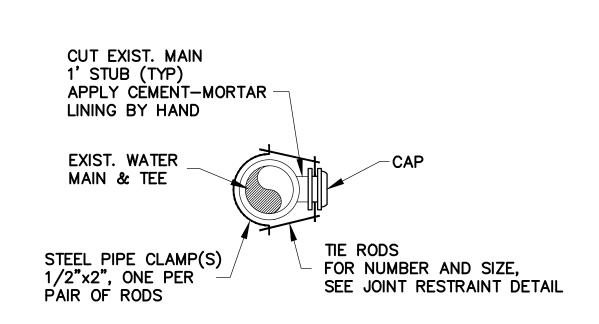
NEW FIRE HYDRANT AND LATERAL DETAIL SCALE: N.T.S.



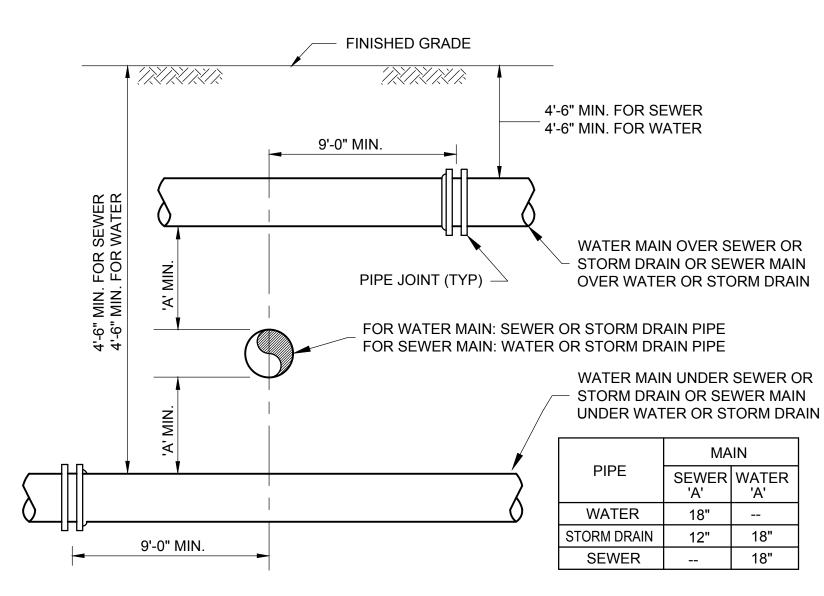
VALVE REPLACEMENT RECONNECTION DETAIL



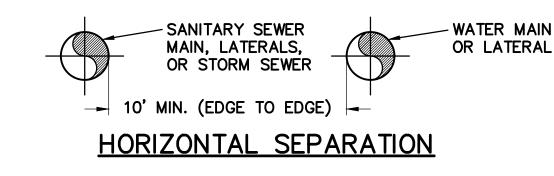
SCALE: N.T.S.



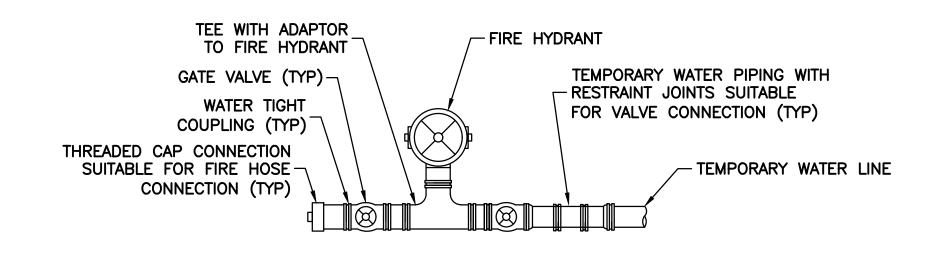
CAP INSTALLATION DETAIL SCALE: N.T.S.



VERTICAL SEPARATION



PIPE CROSSING DETAIL SCALE: N.T.S.



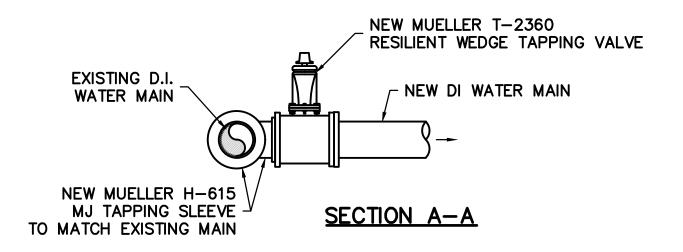
<u>PLAN</u>

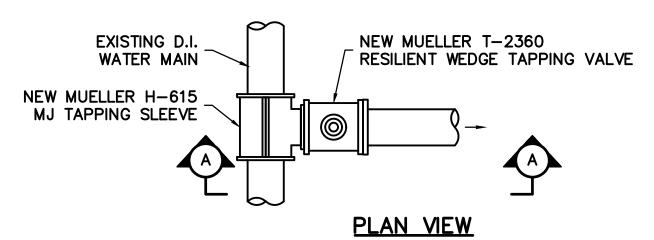
GATE VALVE (TYP) FIRE HYDRANT ─ 45° FITTING WATER TIGHT COUPLING (TYP) TEMPORARY WATER PIPING WITH THREADED CAP CONNECTION RESTRAINT JOINTS SUITABLE SUITABLE FOR FIRE HOSE FOR VALVE CONNECTION (TYP) CONNECTION (TYP) TEMPORARY WATER LINE. SUPPORT FOR - SEE TEMPORARY PIPE TEMPORARY PIPING INSTALLATION DETAIL. **EXISTING GRADE-**NOTE: CONTRACTOR TO SUBMIT PROPOSED TEMPORARY WATER SERVICE TO **ELEVATION** HYDRANT CONNECTION FOR ENGINEER'S

TEMPORARY WATER MAIN FIRE HYDRANT CONNECTION DETAIL SCALE: N.T.S.

APPROVAL PRIOR TO INSTALLATION.

~\/\\\\\ NEW 6" D.I. WATER MAIN ALL JOINTS TO BE RESTRAINED -FIRE HYDRANT LATERAL RECONNECTION DETAIL SCALE: N.T.S.

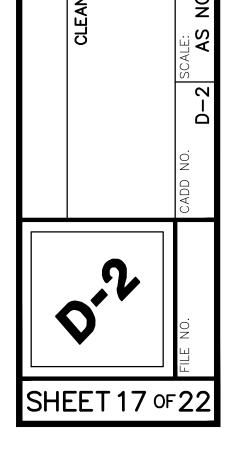




WET TAP DETAIL
SCALE: N.T.S.

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ONSTRUCTION

SUGGESTED EROSION CONTROL CONSTRUCTION SCHEDULE:

- AREA BEYOND THE GRADING LIMITS FOR PROTECTION. INSTALL TEMPORARY CONSTRUCTION ENTRANCE AT APPROXIMATE LOCATION OF DRIVEWAY IF DRIVEWAY
- STONE HAS NOT YET BEEN PLACED. INSTALL PROTECTIVE MEASURES AROUND TREES TO BE RETAINED WITHIN GRADING LIMITS.
- INSTALL BRIGHTLY COLORED CONSTRUCTION FENCE ALONG ROAD TO LIMIT VEHICULAR ACCESS TO STONE DRIVEWAY OR CONSTRUCTION ACCESS DRIVE. INSTALL INLET PROTECTION DEVICES AT CATCH BASINS
- DOWN SLOPE FROM THE SITE THAT ARE VULNERABLE TO SEDIMENT ACCUMULATIONS.
- IN DESIGNATED AREAS. INSTALL SILT FENCES IN LOCATIONS AROUND THE
- PERIMETER OF SITE WORK, STOCKPILE AREA AND ALONG THE CONTOUR OF ALL DISTURBED SLOPES AT A MINIMUM OF EVERY 50' OF HORIZONTAL DISTANCE OR AS SPECIFIED, MEASURED PERPENDICULAR TO THE
- ROUGH GRADE SWALES AROUND PROPOSED EARTHWORK AND STRUCTURES TO EXTENT POSSIBLE WITHIN GRADING LIMITS, INSTALL SILT FENCES, STRAW BALE DIKES DIVERSION SWALES AND OTHER EROSION CONTROL MEASURES AS SHOWN ON PLANS, AND AS NECESSARY TO COMPLY WITH THE SWPPP AND ENSURE WATER
- QUALITY OF RUNOFF. CONTRACTOR MUST ROUTINELY INSPECT AND MAINTAIN EROSION CONTROL DEVICES AND BEST MANAGEMENT SEPARATE CONTRACTOR'S LOG.
- O. ROUTE ALL DEWATERING AND SUMP PUMP OUTFALLS, OF TURBID QUALITY, DIRECTLY TO SEDIMENT BASINS OR OTHER APPROPRIATE BMP.
- THE CONTRACTOR SHALL INITIATE STABILIZATION OF ANY BARE SOIL AREAS. AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN 14 DAYS AFTER INITIAL DISTURBANCE OF THE RESPECTIVE AREAS OF THE SITE. THE CONTRACTOR SHALL RETAIN SITE RECORDS OF THE EXCEPTIONS TO THIS POLICY CAN BE GRANTED UNDER NORMAL CONDITIONS IN THE FOLLOWING INSTANCES:
- A. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
- WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN TWENTY-ONE (21) DAYS, TEMPORARY STABILIZATION MEASURES <u>NEED</u> <u>NOT</u> BE INITIATED ON THAT PORTION OF THE SITE IF REQUESTED IN WRITING AND APPROVED BY THE ENGINEER.
- 12. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ATTAINED. REMOVAL OF ANY EROSION CONTROL MEASURES MUST FIRST BE APPROVED BY THE ENGINEER AND/OR THE JURISDICTION HAVING AUTHORITY
- 3. WHEN WEATHER CONDITIONS PROHIBIT SEED GERMINATION, DISTURBED GROUND SHOULD BE MULCHED STRAW OR FIBER MULCH AND BINDER/TACK APPLICATION OR EQUIVALENT
- THE SCHEDULE DESCRIPTIONS ABOVE ARE SUGGESTIONS PROVIDED TO ASSIST THE CONTRACTOR(S) IN DEVELOPING THEIR STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SCHEDULE SPECIFIC TO THIS PROJECT. THE ACTUAL SCHEDULING AND IMPLEMENTATION OF THE SWPPP AND MAINTENANCE OF REQUIRED WATER QUALITY IS THE RESPONSIBILITY OF THE CONTRACTOR(S). THE EROSION AND SEDIMENT CONTROL PLAN AND DEVICES SHOWN ARE CONSIDERED TO COMPRISE THE MAJORITY OF EFFORTS NEEDED, BUT NOT NECESSARILY ALL THAT WILL BE REQUIRED. WEATHER, SITE AND UNFORESEEN CONDITIONS CAN DICTATE THAT GREATER EFFORTS WILL BE NECESSARY. IN THE CASE OF PROJECTS THAT DISTURB MORE THAN 1 ACRE OF LAND, THE OWNER, OR OWNER'S REPRESENTATIVE, WILL DEVELOP THE SWPPP WITH SUBMITTED CONTRIBUTIONS FROM THE ASSIGNED CONTRACTORS PERFORMING PROJECT SITE WORK. THESE CONTRIBUTIONS WILL CONSIST OF AN EROSION AND CONTROL SCHEDULE (AS SPECIFIED IN THE PROJECT MANUAL), SHORT NARRATIVE OF ANTICIPATED EROSION CONTROL ACTIVITIES, INSPECTION REPORTS AND LOGS AND SIGNED CERTIFICATION STATEMENTS AND PRE-CONSTRUCTION PHOTOGRAPHS AS SPECIFIED. THIS COMPETENT PERSON SHALL BE EITHER A LICENSED ENGINEER, LANDSCAPE ARCHITECT OR CERTIFIED EROSION CONTROL SPECIALIST.

GENERAL MAINTENANCE PLAN:

- FLAG THE GRADING LIMITS AND MARK A 10' BUFFER 1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK, IN ACCORDANCE WITH THE SWPPP AND NYSDEC SPDES GENERAL PERMIT No. GP-0-10-01. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
 - 2. SEDIMENT WILL BE REMOVED FROM BEHIND STRAW BALE DIKES AND BEHIND SILT FENCES WHEN IT BECOMES 6" DEEP AT THE DIKE/FENCE OR WHEN ACCUMULATIONS HAVE ADVERSELY AFFECTED IT'S FUNCTION. STRAW BALE DIKES AND SILT FENCES WILL BE REPAIRED BY REMOVING SILT AND SEDIMENTS AND THEN TAMPING LOOSE SOIL ALONG BASE, REPLACING DAMAGED OR WEAKENED POSTS AND STAKES, OR AS NECESSARY TO MAINTAIN A BARRIER.
- COMPLETE SITE CLEARING, STOCKPILE SAVED MATERIALS 3. SEDIMENT WILL BE REMOVED AND FILTER DEVICES CLEANED OR REPLACED AT CATCH BASINS WHEN THE SEDIMENT POOL NO LONGER DRAINS FREELY. SEDIMENT ACCUMULATIONS WITHIN DRAINAGE STRUCTURES AND PIPING SHALL BE CLEANED OUT AT THE PROJECT COMPLETION AND AS ORDERED BY ENGINEER WHEN DETERMINED THAT PRE-COMPLETION INSTALLATIONS NO LONGER FUNCTION PROPERLY DUE TO SEDIMENT OR DEBRIS. EVENTUAL SYSTEM CLEANING IS NOT AN EXCUSE TO NOT IMPLEMENT APPROPRIATE CONTROLS UPSTREAM. THE ENGINEER SHALL BE THE FINAL JUDGE REGARDING WHETHER THE PIPING SYSTEM REQUIRES CLEANING. THE CONTRACTOR CAN MINIMIZE THE NECESSITY OF EXTENSIVE SILT AND SEDIMENT ACCUMULATION REMOVALS BY EFFECTIVE IMPLEMENTATION OF THE SWPPP.
 - 4. ALL DISTURBED AREAS WILL BE FERTILIZED, SEEDED AND MULCHED ACCORDING TO LANDSCAPE RESTORATION SPECIFICATIONS TO MAINTAIN VIGOROUS, DENSE VEGETATION. REPAIR ANY ERODED SLOPES, REAPPLY TOPSOIL, RESEED AND STABILIZE REPAIR AREA AS REQUIRED FOR PERMANENT OR TEMPORARY MEANS. REPAIR SOIL AREAS DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
- PRACTICES (BMP'S). DOCUMENT WEEKLY INSPECTIONS IN 5. IMMEDIATELY REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT, MAINTENANCE OR OTHER ACTIVITY TO ANY EROSION CONTROL MEASURE. OR BEST MANAGEMENT PRACTICE OR DEVICE.
 - 6. THE PRIME CONTRACTOR(S) ARE RESPONSIBLE FOR THE PERFORMANCE AND COMPLIANCE OF THEIR SUB-CONTRACTOR'S ACTIVITIES RELATING TO THE SWPPP. THEY SHALL MAKE FREQUENT INSPECTIONS OF THEIR WORK AND COORDINATE APPROPRIATE INSTALLATION AND MAINTENANCE OF EROSION CONTROL AND WATER QUALITY DEVICES.
- EARTHWORK AND STABILIZATION WORK PERFORMED. 7. EMPLOY POLLUTION PREVENTION MEASURES TO CONTROL LITTER, CONSTRUCTION CHEMICALS, SEDIMENT AND CONSTRUCTION DEBRIS INCLUDING, BUT NOT LIMITED, TO THE FOLLOWING: SALVAGE AND REUSE OF MATERIALS, MINIMIZING PACKAGING WASTE, RECYCLING, PROPER DISPOSAL AT FREQUENT INTERVALS IN ACCORDANCE WITH PREVAILING LAWS, ONSITE INSTRUCTION REGARDING APPROPRIATE SEPARATION/HANDLING/RECYCLING, PERIODIC DEBRIS REMOVAL AT DRAINAGE STRUCTURES (GRATES AND SUMPS)/SEDIMENT TRAPS/ FOREBAY AND OTHER BMP'S, PROPER MAINTENANCE OF SEDIMENT/ EROSION CONTROL SYSTEMS, ROUTINE AND EVENT RELATED INSPECTIONS OF DRAINAGE AND BMP SYSTEMS PER PERMIT REQUIREMENTS, PROVIDE APPROPRIATE SANITARY FACILITIES FOR ONSITE PERSONNEL, PICK UP TRASH AND DEBRIS FREQUENTLY AND USE WATER MIST, CALCIUM CHLORIDE OR OTHER LEGAL MEANS TO LIMIT THE SPREAD OF DUST AND SOIL PARTICLES.

PROTECTION OF TREES:

PROTECT EXISTING TREES WHICH ARE TO REMAIN AND WHICH MAY BE INJURED, BRUISED, DEFACED, OR OTHERWISE DAMAGED BY CONSTRUCTION OPERATIONS, UTILIZING STANDARD TREE PROTECTION CRITERIA INCLUDING:

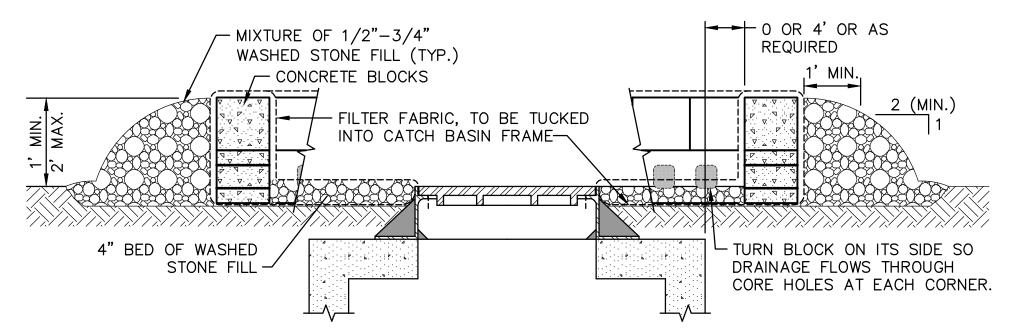
- INSTALLATION OF SAFETY ORANGE PLASTIC FENCING (MINIMUM 4' IN HEIGHT) AROUND INDIVIDUAL TREES DESIGNED FOR PROTECTION. FENCING SHALL BE INSTALLED AT THE OUTWARD LIMIT OF THE TREE'S DRIPLINE OR EXTENT OF CANOPY COVER.
- INSTALLATION OF SAFETY ORANGE PLASTIC FENCING (MINIMUM 4' IN HEIGHT AROUND GROUPS OF TREES DESIGNATED FOR PROTECTION. C. TREE AND/OR SHRUB BRANCHES IN THE WAY OF EQUIPMENT SHALL BE TRIMMED
- ACCORDING TO PROFESSIONAL HORTICULTURAL STANDARDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR AND SUB-CONTRACTORS USE EQUIPMENT TO DEMOLISH BRANCHES AS WORK PROCEEDS.

REQUIRED FENCING SHALL BE INSTALLED PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND SHALL BE REMOVED AT THE CONCLUSION OF CONSTRUCTION. REMOVE DISPLACED ROCKS FROM UNCLEARED AREAS. BY APPROVED EXCAVATION, REMOVE TREES WITH 30 PERCENT OR MORE OF THEIR ROOT SYSTEMS DESTROYED. REMOVAL OF TREES AND THE PROCEDURE FOR REMOVAL REQUIRES APPROVAL OF THE CONTRACTING OFFICER. TREES DESIGNATED FOR REMOVAL SHALL BE REMOVED IN A MANNER THAT WILL NOT IMPACT ADJACENT TREES.

LANDSCAPE REPLACEMENT

REMOVE TREES AND OTHER LANDSCAPE FEATURES SCARRED OR DAMAGED BY EQUIPMENT OPERATIONS, AND REPLACE WITH EQUIVALENT, UNDAMAGED TREES AND LANDSCAPE FEATURES. OBTAIN CONTRACTING OFFICER'S APPROVAL BEFORE REPLACEMENT. REPLACEMENT OF TREES SHALL OCCUR ON A ONE-TO-ONE BASIS. REGIONALLY NATIVE PLANTS AS SPECIFIED BY THE STATION "INTEGRATED NATURAL RESOURSES MANAGEMENT PLAN" (INRMP) SHALL BE USED AS REPLACEMENT LANDSCAPE FEATURES.

PROTECTION AND REPLACEMENT OF TREES



STONE AND BLOCK DROP INLET PROTECTION STRUCTURE SCALE: N.T.S.

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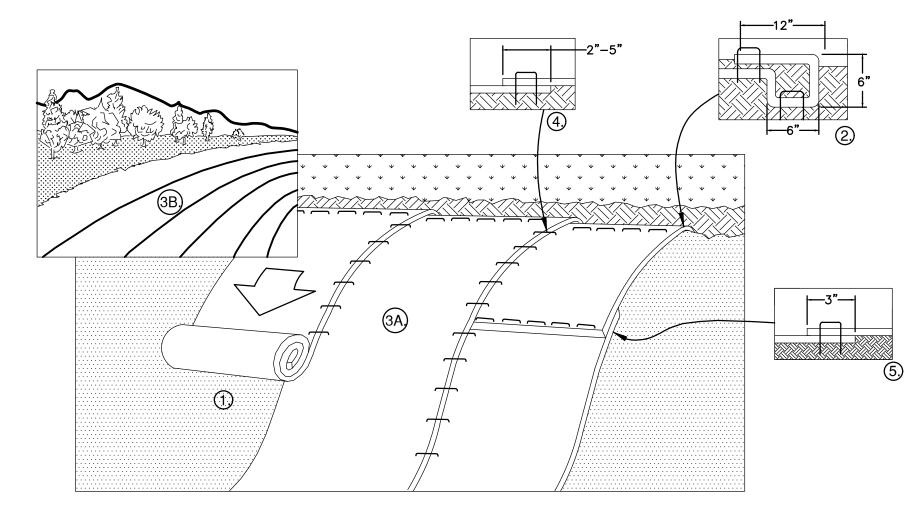
SWPPP

(STORMWATER POLLUTION PREVENTION PLAN)

HAS BEEN DETERMINED TO BE REQUIRED BASED ON SCOPE OF PROJECT. SWPPP REQUIRES DOCUMENTS FROM CONSTRUCTION TEAM.

HAS BEEN DETERMINED NOT TO BE REQUIRED BASED ON SCOPE OF PROJECT

REFER TO REQUIREMENTS LISTED ON THIS SHEET AND SPECIFICATION SECTION 01560 ENCLOSED IN THE SWPPP. IF SCOPE OF PROJECT CHANGES. THE REQUIREMENT FOR A SWPPP AND NYSDEC PERMITTING MAY REQUIRE **RE-EVALUATION.**



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED, NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.

-2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRÊNCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.

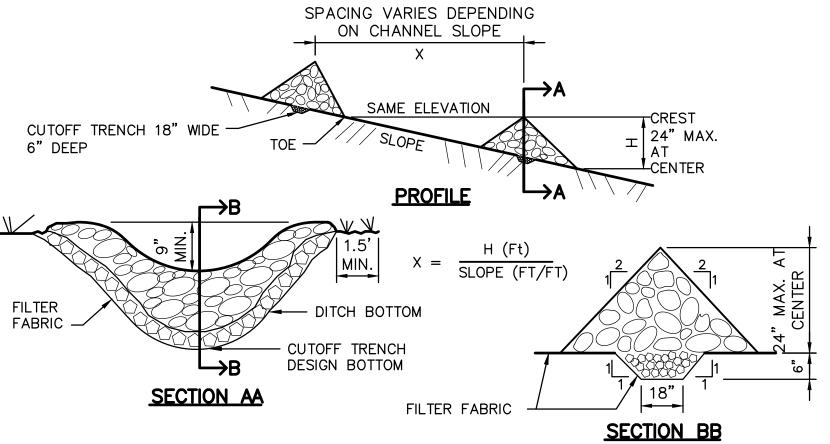
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" — 5" OVERLAP DEPENDING ON RECP's TYPE.

5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE ON RECP's TYPE.

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

SLOPE STABILIZATION MATTING INSTALLATION DETAIL

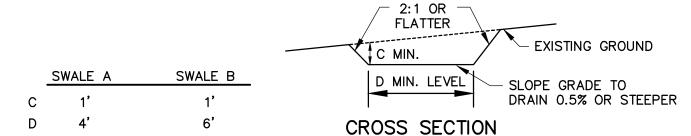


CONSTRUCTION SPECIFICATIONS

- 1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
- 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM. 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE
- 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE
- OR LINER AS APPROPRIATE. 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE. MAXIMUM DRAINAGE AREA = 2 ACRES.

6. STONE SHALL BE A WELL GRADED STONE MATRIX 2 TO 9 INCHES IN SIZE. (NYSDOT LIGHT STONE FILL MEETS THESE REQUIREMENTS).

STONE CHECK DAM DETAIL



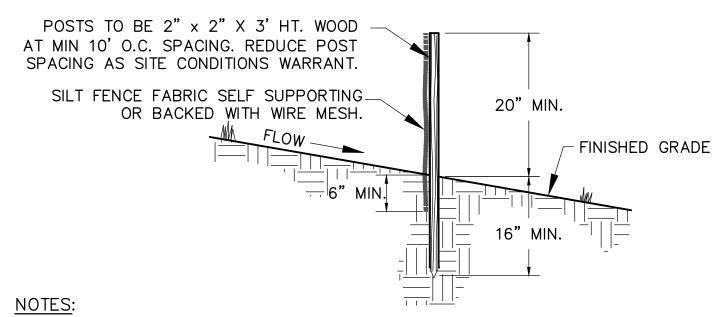
- 1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET
- 2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE
- 3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
- 4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
- 5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- 6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
- 7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
- 8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

MINIMUM FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	SWALE A (5ac. OR LESS)	SWALE B (5ac10ac.)
1	0.5 - 3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1 - 5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1 - 8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1 - 20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

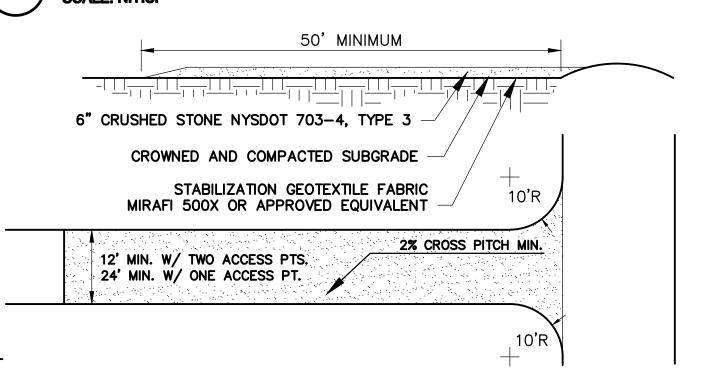
- 9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT
- 10. FLOW CHANNEL STABILIZATION SHOWN ABOVE WILL REQUIRE SUBSEQUENT MAINTENANCE AND ATTENTION. SINCE RUNOFF PATTERNS, QUANTITY, QUALITY AND SEDIMENT CONTENT VARY WIDELY FROM SITE TO SITE, ACTUAL STABILIZATION MAY EXCEED THAT SHOWN IN THE CONTRACT DOCUMENTS. REMOVE SILT ACCUMULATIONS ROUTINELY AND DISPOSE OF PROPERLY SUCH THAT WATER QUALITY IS NOT IMPAIRED. DO NOT INTRODUCE SILT INTO TOPSOIL/RESTORATION AREAS.
- 11. REMOVE TEMPORARY SWALE WHEN SITE IS SUBSTANTIALLY OR COMPLETELY STABILIZED AND SWALE IS NO LONGER REQUIRED. PERFORM FINAL GRADING AND ESTABLISH VEGETATION AT ALL DISTURBED AREAS.

DIVERSION SWALE DETAIL



- 1. SILT FENCE FABRIC SHALL BE FIRMLY ATTACHED TO POSTS USING WIRE TIES OR STAPLES.
- EMBED FILTER CLOTH A MINIMUM OF 6" BELOW FINISHED GRADE. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED A MINIMUM OF SIX INCHES AND FOLDED.
- 4. MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH THE "GENERAL MAINTENANCE
- PLAN" OR WHEN BULGES OF MATERIAL DEVELOP IN FENCES.
- ENCIRCLE ALL SOIL STOCKPILES, TEMPORARY OR PERMANENT 6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUIVALENT.

SILT FENCE DETAIL



- 1. STABILIZATION FABRIC SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA PRIOR TO PLACING OF STONE. OVERLAP FABRIC PER MANUFACTURER'S SPECIFICATIONS.
- 2. ALL SURFACE WATER FLOWING OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE ROAD.
- 3. WHEN EQUIPMENT WASHING IS REQUIRED IT SHALL BE DONE ON A SEPARATE AREA ADJACENT TO THE ENTRANCE ROAD AND STABILIZED WITH STONE. EQUIPMENT WASHING WILL BE REQUIRED IF ROAD RECEIVES SIGNIFICANT SOILS OR DEBRIS ACCORDING TO JUDGMENT BY OWNER OR OWNER'S REPRESENTATIVE.
- 4. KEEP ROADS CLEAR OF STONES, MUD, AND OTHER CONSTRUCTION DEBRIS. CLEAN PAVEMENT AS ACCUMULATIONS WARRANT AND AS ORDERED BY ENGINEER.
- 5. REMOVE SILT ACCUMULATIONS ROUTINELY AND DISPOSE OF PROPERLY SUCH THAT WATER QUALITY IS NOT IMPAIRED. DO NOT INTRODUCE SILT INTO DRAINAGE SYSTEM OR TOPSOIL/RESTORATION AREAS.

STABILIZED CONSTRUCTION ENTRANCE PAD DETAIL

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MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

GENERAL MAINTENANCE AND PROTECTION OF TRAFFIC

- 1. THE MAINTENANCE AND PROTECTION PLANS SHOWN ARE STANDARDS FOR THE MOST COMMON SITUATIONS. ADDITIONAL PROTECTION SHALL BE PROVIDED WHERE SPECIAL CIRCUMSTANCES OCCUR.
- 2. ALL TRAFFIC CONTROL DEVICES USED FOR MAINTENANCE AND PROTECTION OF TRAFFIC SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS AS SET FORTH IN THE NYSDOT M.U.T.C.D. (LATEST REVISIONS & AMENDMENTS) AND THE STANDARD SPECIFICATIONS (LATEST REVISIONS & AMENDMENTS).
- 3. THE CONTRACTOR MAY SUBMIT REVISIONS TO THIS PLAN FOR APPROVAL, BUT ANY CHANGE THAT ALTERS THE BASIC CONCEPTS OF THE PLAN MUST BE APPROVED BY THE REGIONAL DIRECTOR OR HIS DESIGNEE.
- 4. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH ALL THE PROVISIONS OF STANDARD SPECIFICATIONS. ITEM 619.01 M - BASIC MAINTENANCE AND PROTECTION OF TRAFFIC, AND ITEM 619.02 M - CONSTRUCTION SIGNS, OR AS AMENDED ON THIS SHEET.
- NO TEMPORARY LANE CLOSURES SHALL BE ALLOWED BEFORE SUNRISE OR AFTER SUNSET, OR AT OTHER TIMES WHEN VISIBILITY IS REDUCED TO LESS THAN 1000 FEET, UNLESS REQUIRED BY THE ENGINEER.
- 6. THE TRAVEL LANE WIDTH AVAILABLE SHALL BE 10 FEET MINIMUM AT ALL TIMES AND 10 FEET MINIMUM ON ALL OTHER ROADS, UNLESS OTHERWISE SHOWN IN THE PLANS.
- MOST WORK OPERATIONS ARE CONSIDERED TO BE LONG DURATION. OPERATIONS WHERE THE EQUIPMENT BEING USED PROGRESSES ALONG THE ROADWAY MORE OR LESS CONTINUOUSLY, AS IN SEEDING AND PAVEMENT MARKING OPERATIONS, CAN BE CONSIDERED MOVING WORK AREAS.
- 8. ALL SHADOW VEHICLES SHALL WEIGHT IN EXCESS OF 8,200 KG. SHADOW VEHICLES SHALL BE EQUIPPED WITH MOBILE CONSTRUCTION ZONE IMPACT ATTENUATOR, AS CALLED FOR UNDER STANDARD SPECIFICATIONS SUBSECTION 619-1.02. BASIC MAINTENANCE AND PROTECTION OF TRAFFIC
- 9. VEHICLES BELONGING TO THE CONTRACTOR, OR THE CONTRACTOR'S EMPLOYEES, SHALL NOT BE PARKED ON THE PAVEMENT OR SHOULDER, OR WITHIN 20 FEET OF THE EDGE OF PAVEMENT ALONG OR ADJACENT TO TRAVEL LANES OPEN TO TRAVEL, WITHIN THE
- 10. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OR STORE MATERIAL OVERNIGHT WHERE IT IS DEEMED BY THE ENGINEER TO BE HAZARD TO TRAFFIC.
- 11. ALL VEHICLES THAT WILL BE MOVING IN AND OUT OF TRAFFIC AT WORK AREAS SHALL BE EQUIPPED WITH AN APPROVED AMBER ROTATING SAFETY LIGHT. THE LIGHTS SHALL BE MOUNTED SO AS TO BE EASILY SEEN BY APPROACHING TRAFFIC.
- 12. DRIVING AGAINST TRAFFIC AT ANY TIME, REGARDLESS OF WHETHER THE AREA HAS BEEN CLOSED TO TRAFFIC, SHALL NOT BE PERMITTED, EXCEPT FOR TRAFFIC CONE PICKUP, AND AS SPECIFICALLY PERMITTED BY THE ENGINEER.
- 13. ESCORT VEHICLES EQUIPPED WITH AN AMBER LIGHT OR AN OPERATING ARROW-BOARD WILL BE REQUIRED WHEN TRANSPORTING SLOW MOVING CONSTRUCTION EQUIPMENT ALONG ANY PORTION OF THE ROADWAY OPEN TO TRAFFIC.
- 14. WHEN REOPENING DRIVING LANES TO TRAFFIC, THE CONTRACTOR SHALL START BY REMOVING THE CONES AT THE FAR END OF THE LANE CLOSURE AND WORKING TOWARDS THE SIGNS AT THE BEGINNING OF THE LANE CLOSURE. THE SIGNS ARE NOT BE TAKEN DOWN UNTIL ALL TRAFFIC CONTROL DEVICES HAVE BEEN REMOVED.
- 15. PRIOR TO ANY REDUCTION IN EXISTING LANE WIDTH(S), THE CONTRACTOR SHALL PROVIDE THE ENGINEER TWENTY-ONE (21) DAYS NOTICE SO HE MAY INFORM THE REGIONAL PERMIT ENGINEER OF THE WIDTH REDUCTION(S) IN A TIMELY MANNER.
- 16. SEE SUBSECTION 619-3.01 IN THE STANDARD SPECIFICATIONS (LATEST REVISION) FOR REQUIRED TREATMENT OF PAVEMENT EDGE DROP-OFFS AND DELINEATION.
- 17. EXCAVATIONS THAT PRODUCE DROP-OFFS ON BOTH SIDES OF THE TRAVEL WAY AT THE SAME TIME SHALL NOT BE PERMITTED. SHOULDER AREAS SHOULD BE PREPARED TO RECEIVE THE SHOULDER PAVEMENT MATERIAL IMMEDIATELY AHEAD OF THE SHOULDER PAVING OPERATIONS TO MINIMIZE THE TIME A DROP-OFF EXISTS. "NO SHOULDER" (W4-13C) SIGNS SHALL BE ERECTED NO MORE THAN 400 METERS APART THROUGHOUT THE PROJECT WHERE A DROP-OFF EXISTS.
- 18. THE BOTTOM OF ALL TEMPORARY CONSTRUCTION SIGNS SHALL BE A MINIMUM OF 7
- 19. THE CONTRACTOR SHALL PROVIDE FULL PATTERN PAVEMENT WARNINGS FOR TRAFFIC CONTROL IN CONFORMANCE WITH THE REQUIREMENTS OF STANDARD SPECIFICATIONS. ITEM 619.21 OX M - CONSTRUCTION ZONE PAVEMENT MARKINGS. IT MAY BE NECESSARY TO MARK, REMARK, ALTER AND/OR OBLITERATE PAVEMENT MARKINGS ON TEMPORARY AND PERMANENT PAVEMENT WHERE REQUIRED BY THE ENGINEER. THE MARKING SHALL BE REMOVED BY MEANS WHICH COMPLETELY REMOVE ALL TRACES OF STRIPES. THE ENGINEER SHALL CONTACT THE REGIONAL TRAFFIC ENGINEER ONE WEEK PRIOR TO TOP COURSE STRIPPING TO VERIFY PATTERN AND LIMITS. ALL TOP COURSE STRIPPING SHALL CONFORM TO THE PROJECT'S FINAL MARKINGS WITH RESPECT TO COLOR AND PATTERN.
- 20. ALL TEMPORARY STRIPING IS TO BE REMOVED WITHIN 48 HOURS AFTER THE INSTALLATION OF PERMANENT STRIPPING.
- 21. EXISTING GUIDE RAIL SHALL REMAIN IN PLACE UNTIL CONSTRUCTION ACTIVITIES NECESSITATE REMOVAL. NEW GUIDE RAIL SHALL BE INSTALLED WITHIN TWO WEEKS OF EXISTING RAIL REMOVAL UNLESS OTHERWISE APPROVED BY THE ENGINEER. TEMPORARY PROTECTION DEVICES OR DELINEATION SHALL BE INSTALLED AS REQUIRED BY THE FNGINFER. WHENEVER GUIDE RAILING IS REMOVED. THE CONTRACTOR SHALL INSTALL VERTICAL PANELS OR DRUMS IN ACCORDANCE WITH SECTION 292.3 AND 292.4 OF THE NYS MUTCD. THEY SHALL BE PLACED AT 30 FEET INTERVALS. THEY SHALL BE LEFT IN PLACE UNTIL THE NEW GUIDE RAIL IS INSTALLED OR THE SLOPE FLATTENING WORK IS
- 22. SHORT DURATION ALTERNATING ONE-WAY TRAFFIC SHALL NOT BE ALLOWED UNLESS APPROVAL HAS BEEN GRANTED BY THE REGIONAL DIRECTOR OR HIS DESIGNEE. ALTERNATING ONE-WAY TRAFFIC MAY BE MAINTAINED ON SIDE ROADS DURING WORKING HOURS IN ACCORDANCE WITH DETAILS ON MPT NOTE 5 ABOVE, HOWEVER, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TWO UNOBSTRUCTED LANES FOR TWO-WAY TRAFFIC DURING NON-WORKING HOURS. FLAGGERS WILL BE REQUIRED TO USE RADIO OR SIMILAR CONTACT WHEN THEY ARE MAINTAINING ONE-WAY TRAFFIC WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER OR IF, IN THE OPINION OF THE ENGINEER, THIS COMMUNICATION IS NECESSARY. THE COST OF ANY RADIO OR FIELD TELEPHONES USED SHALL BE INCLUDED IN THE BID PRICE.
- 23. THE COST OF PROVIDING AND MAINTAINING SAFE AND ADEQUATE INGRESS AND EGRESS TO AND FROM HOMES AND COMMERCIAL ESTABLISHMENTS AT ALL TIMES, TO THE SATISFACTION OF THE ENGINEER, SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROVIDING SAFE PEDESTRIAN ACCESS
- 24. IF NYSDOT NOTIFIES THE CONTRACTOR OR HIS SUPERINTENDENT OF ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THAT AREA SHALL BE DISCONTINUED AND IMMEDIATE REMEDIAL ACTION SHALL BE TAKEN TO THE SATISFACTION OF NYSDOT BEFORE WORK IS RESUMED.
- 25. IN ORDER TO MAINTAIN EFFECTIVE TRAFFIC CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC CONTROL: MAKING SURE ALL SIGNS, CONES, FLASHERS, DRUMS, ETC. ARE IN PLACE AND IN GOOD CONDITION. THE SOLE JUDGE OF THE EFFECTIVENESS OF THE CONTRACTOR'S EFFORTS TOWARDS THE PROTECTION OF TRAFFIC AND PERSONNEL SHALL BE NYSDOT.
- 26. FLAGGERS SHALL BE LOCATED AT ALL ACTIVE WORK AREAS AND AT OTHER LOCATIONS WITHIN A WORK AREA WHERE RESTRICTED SIGHT DISTANCE IMPEDES THE FLOW OF
- 27. EXISTING TRAFFIC SIGNS SHALL BE COVERED AND UNCOVERED AS NECESSARY DURING CONSTRUCTION.
- 28. IF, IN THE JUDGEMENT OF THE OWNER, FLAGS ON SIGNS ARE NECESSARY DUE TO LIMITED SIGHT DISTANCE, THEY SHALL BE PROVIDED BY THE CONTRACTOR.
- 29. THE WORK AREA IS TO BE CLEANED DAILY AND LEFT IN AN ACCEPTABLE MANNER.
- 30. THE UNEVEN TRANSVERSE PAVEMENT SURFACES, (I.E., PAVEMENT REBATES, END OF PAVED OR MILLED SECTIONS) SHALL BE DUAL POSTED WITH "BUMP" (W4-1C) SIGNS SHALL BE PLACED ON A TYPE III BARRICADE AND ILLUMINATED WITH A FLASHING BEACON, ALL PAVEMENT TRANSITIONS SHALL HAVE NO STEEPER THAN 1 ON 4 LONGITUDINAL SLOPE AS MEASURED IN THE DIRECTION OF TRAVEL.
- 31. ALL REBATES SHALL BE PAVED WITHIN TWENTY-FOUR (24) HOURS.

- 33. THE CONTRACTOR SHOULD NOTE THAT BURIED UTILITIES EXIST WITHIN THE PROJECT LIMITS AND MAY ENCOUNTERED DURING CONSTRUCTION. EXTREME CARE SHOULD BE EXERCISED TO AVOID DAMAGE TO THESE FACILITIES. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND TO THE OWNER OF THE UTILITY. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIRS.
- 34. PEDESTRIAN AND BICYCLIST TRAFFIC SHALL BE MAINTAINED AND PROTECTED AT ALL TIMES IN ACCORDANCE WITH SECTION 619 OF THE NYSDOT STANDARD SPECIFICATIONS. ALL PEDESTRIAN ACCESS SHALL CONFORM WITH THE CURRENT AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.
- 35. NEW SIDEWALK CONSTRUCTION SHALL BE SCHEDULED SO THAT REMOVAL AND REPLACEMENT SHALL BE INITIATED AND COMPLETED ON ONE SIDE OF THE STREET PRIOR TO THE COMMENCEMENT OF WORK ON THE OPPOSITE SIDE. WORK IS TO BE SCHEDULED AND COMPLETED BETWEEN LOGICAL TERMINI; I.E., BETWEEN INTERSECTING STREETS IN ORDER TO ENSURE SAFE PEDESTRIAN CROSSING AND
- 36. "SIDEWALK CLOSED" SIGNS PLACED ON TYPE III BARRICADES (R8-3C) SHALL BE USED WHERE SIDEWALKS ARE CLOSED DUE TO CONSTRUCTION ACTIVITIES.
- 37. "SHARED ROADWAY" SIGNS (W5-6C AND W5-17 X MOD) SHALL BE INSTALLED, AS APPROPRIATE, WHERE TRAVEL LANES AND/OR SHOULDERS ARE BEING RECONSTRUCTED.
- 38. STOP/SLOW PADDLES USED AS SIGNALING DEVICES SHALL COMPLY WITH SECTION 293.2 OF THE NYSMUTCD, EXCEPT THAT THE MOUNTING HEIGHT SHALL BE 6 FEET MINIMUM.
- 39. THE CLEAR ROADSIDE AREA IS DEFINED AS THE AREA ADJACENT TO THE EDGE OF TRAVEL LANE WHICH MUST BE FREE OF OBSTACLES OR HAZARDS, THE CLEAR ROADSIDE AREA SHALL BE 20 FEET.
- 40. IN THE EVENT THAT THE CONTRACTOR ELECTS (WITH APPROVAL FROM THE ENGINEER), OR IS REQUIRED BY THE ENGINEER. TO SHUT DOWN OPERATIONS FOR THE WINTER SEASON PRIOR TO PROJECT COMPLETION, THE CONTRACTOR SHALL MAINTAIN TRAFFIC PATTERNS OF THE CONSTRUCTION PHASE IN EFFECT WHEN OPERATIONS CEASE. THE CONTRACTOR SHALL PROVIDE UNOBSTRUCTED TRAVEL LANES AT WIDTHS CORRESPONDING TO THOSE SHOWN ON THE CONSTRUCTION SEQUENCING PLANS, ON HARD ROADWAY SURFACES THROUGHOUT THE LENGTH OF THE PROJECT. FULL PAVEMENT STRIPING SHALL BE PROVIDED AND MAINTAINED AS SPECIFIED ON THE PLANS AND IN NOTE 20. DELINEATION DEVICES SHALL BE MOVED TO A DISTANCE OF 4 FEET MINIMUM FROM THE EDGE OF TRAVEL LANE TO PROVIDE FOR SNOW STORAGE. UNLESS OTHERWISE REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL B RESPONSIBLE FOR REMOVING SNOW WHICH ACCUMULATES AROUND DELINEATION DEVICES AND FOR KEEPING ALL IN PROPER WORKING CONDITION. ALL APPROACH CONSTRUCTION SIGNING SHALL REFLECT THE ACTUAL CONDITIONS AT ALL TIMES AS PER NYSMUTCD. IN ADDITION THE CONTRACTOR SHALL BE REQUIRED TO DO THE FOLLOWING:
 - A) PROVIDE ASPHALT WEDGES, WITH SUITABLE BOND BREAKERS, AROUND ALL DRAINAGE STRUCTURES WITHIN THE PAVEMENT AREA. ALL WATER VALVE BOXES AND MANHOLES SHALL BE SET AT THE PAVEMENT GRADE AT THE TIME OF SHUT DOWN AND SHALL BE ADJUSTED TO FINISHED GRADE THE FOLLOWING SEASON.
 - B) PROVIDE FULL PAVEMENT DELINEATION USING REFLECTORIZED PAVEMENT MARKING PAINT. CONFORMING TO SECTION 640 OF THE STANDARD SPECIFICATIONS.
 - ALL MISCELLANEOUS WORK REQUIRED TO PREPARE THE ROADWAY FOR WINTER SHUTDOWN SHALL BE INCLUDED IN THE BID PRICE.
- 41. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING CULVERT AND DRAINAGE INSTALLATION TO PROVIDE ADEQUATE STORM WATER RUNOFF COLLECTION DURING ALL CONSTRUCTION PHASES. ANY TEMPORARY DRAINAGE CONNECTIONS, INLET ELEVATION ADJUSTMENTS, OR OTHER WORK NECESSARY OR ORDERED BY THE ENGINEER TO ENSURE RUNOFF COLLECTION SHALL BE INCLUDED IN THE BID PRICE.
- 42. THE CONTRACTOR SHALL LIMIT THE LENGTH OF THE WORK ZONE TO 1000 FEET OR AS SHOWN ON THE CONTRACT DRAWINGS. THE MINIMUM DISTANCE BETWEEN WORK ZONES SHALL BE 1000 FEET.
- 43. RUMBLE STRIPS, STANDARD SPECIFICATIONS ITEM 18619.6460 SHALL BE INSTALLED UPSTREAM OF ALL G11-1C SIGNS. EACH RUMBLE STRIP PATTERN SHALL CONSIST OF SIX (6) SEPARATE STRIPS PLACED ON 10 FEET CENTERS, WITH EACH STRIP TRAVERSING THE FULL WIDTH OF THE TRAVEL LANE. RUMBLE STRIPS FORMED BY APPLYING MULTIPLE LAYERS OF REMOVABLE PERFORMED PAVEMENT MARKING TAPE SHOULD NORMALLY BE USED. MILLED-IN, SAWCUT, OR RAISED ASPHALT STRIPS MAY BE USED ON PAVEMENT SURFACES THAT ARE SCHEDULED TO BE OVERLAID, REMOVED, OR REPLACED. THE CONTRACTOR SHALL REMOVE OR FILL IN THE RUMBLE STRIPS WHEN THEY ARE NO LONGER NECESSARY. RUMBLE STRIPS SHALL BE REMOVED OR FILLED IN BEFORE THE WINTER PLOWING SEASON AND BEFORE THE PLACEMENT OF AN OVERLAY.

HOLIDAY CONSTRUCTION RESTRICTIONS

1. THE CONTRACTOR SHALL CONSULT WITH THE REGIONAL DIRECTOR OR DESIGNEE FOR THE LATEST CALENDAR YEAR CONSTRUCTION RESTRICTIONS AND DURATION FOR ANY AND ALL HOLIDAYS THAT FALL WITHIN THE CONSTRUCTION PERIOD.

II. CONSTRUCTION ACTIVITIES

- WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL NOT OVERLAP. A WORK ZONE IS DEFINED AS THAT AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES OR THAT AREA
- 2. NO MATERIAL IS TO BE STORED WITHIN THE ROADSIDE AREA (DEFINED FOR THIS PROJECT AS THE AREA WITHIN 10 FEET OF THE EDGE OF PAVEMENT), EXCEPT THAT WHICH IS TO BE PLACED THAT DAY WITH THE APPROVAL OF THE ENGINEER.
- 3. CONSTRUCTION EQUIPMENT SHALL BE REMOVED FROM THE ROADSIDE AREA OF ALL HIGHWAY PAVEMENT DURING THE HOURS THAT THE CONTRACTOR IS NOT WORKING. THIS REQUIREMENT SHALL NOT BE LIMITED TO THE CONTRACT LIMITS.
- 4. CONTRACTOR VEHICLES NOT IN USE AND PRIVATE VEHICLES OWNED BY CONTRACTOR'S EMPLOYEES SHALL BE PARKED IN DESIGNATED PARKING AREA.
- 5. ALL OPERATIONS INCLUDING PAVING, ROLLING, GRADING, SUPPLYING OF MATERIAL AND THE TRAVEL OF SUPERVISORY PERSONNEL THROUGH THE WORK ZONE, AND THE ENTIRE LENGTH OF THE CONTRACT. WILL ALWAYS BE IN THE DIRECTION OF NORMAL TRAFFIC EXCEPT WHERE SPECIFICALLY ALLOWED OTHERWISE BY NYSDOT TO PERFORM A PARTICULAR OPERATION.
- 6. WHEN TRAFFIC IS TO BE MAINTAINED ON AN UNPAVED SURFACE DURING THE WORK DAY, A MINIMUM OF 12 INCHES OF SUBBASE MATERIAL, (ITEM 304.12) SHALL FIRST BE PLACED AND COMPACTED. THE CONTRACTOR SHALL USE CALCIUM CHLORIDE AS A MEANS OF DUST CONTROL. "PAVEMENT ENDS" SIGNS (W4-3C) SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 234 OF THE NYSMUTCD IN ADVANCE OF ALL SUCH AREAS AS REQUIRED BY THE ENGINEER. DURING NON-WORKING HOURS THROUGH-TRAFFIC WILL BE MAINTAINED ON A PAVED SURFACE CONSISTING OF A MINIMUM OF 12 INCHES OF SUBBASE MATERIAL (ITEM 302.12) AND 2 INCHES OF TEMPORARY PAVEMENT (ITEM
- 7. DUE TO THE HIGH DENSITY OF RESIDENTIAL AND COMMERCIAL PROPERTIES WITHIN THE CONTRACT LIMITS, THE FOLLOWING WORK HOUR RESTRICTIONS SHALL BE STRICTLY ENFORCED: NO WORK MAY BE PERFORMED BETWEEN THE HOURS OF 11:00 P.M. AND 7:00 A.M.

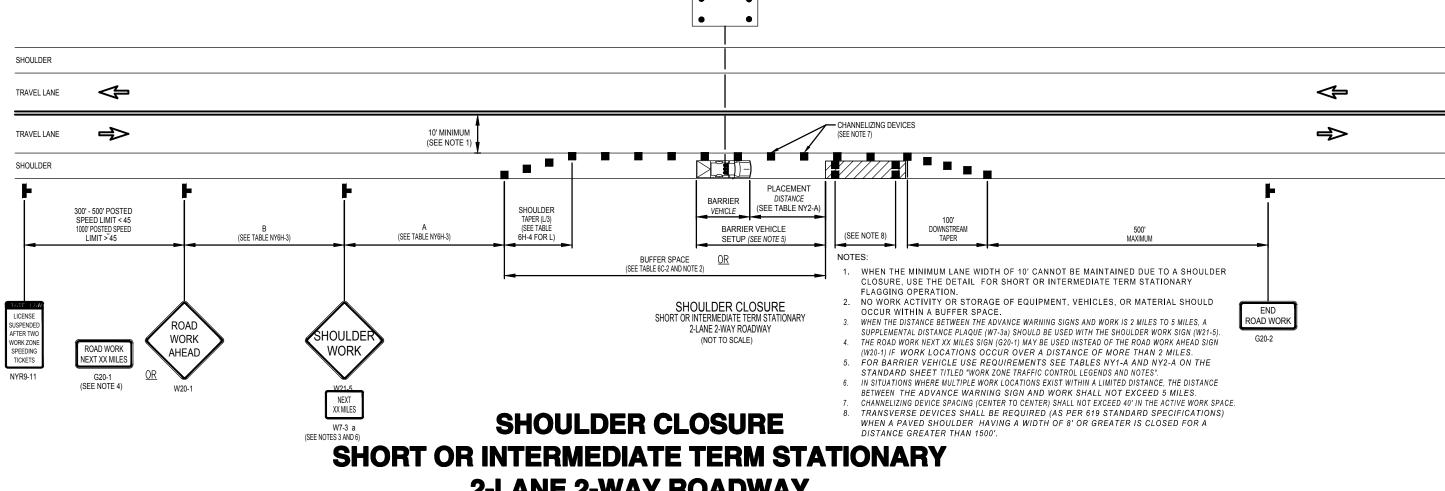
NO WORK MAY BE PERFORMED BETWEEN THE HOURS OF 11:00 P.M. AND 7:00 A.M.

TRAFFIC SIGNALS:

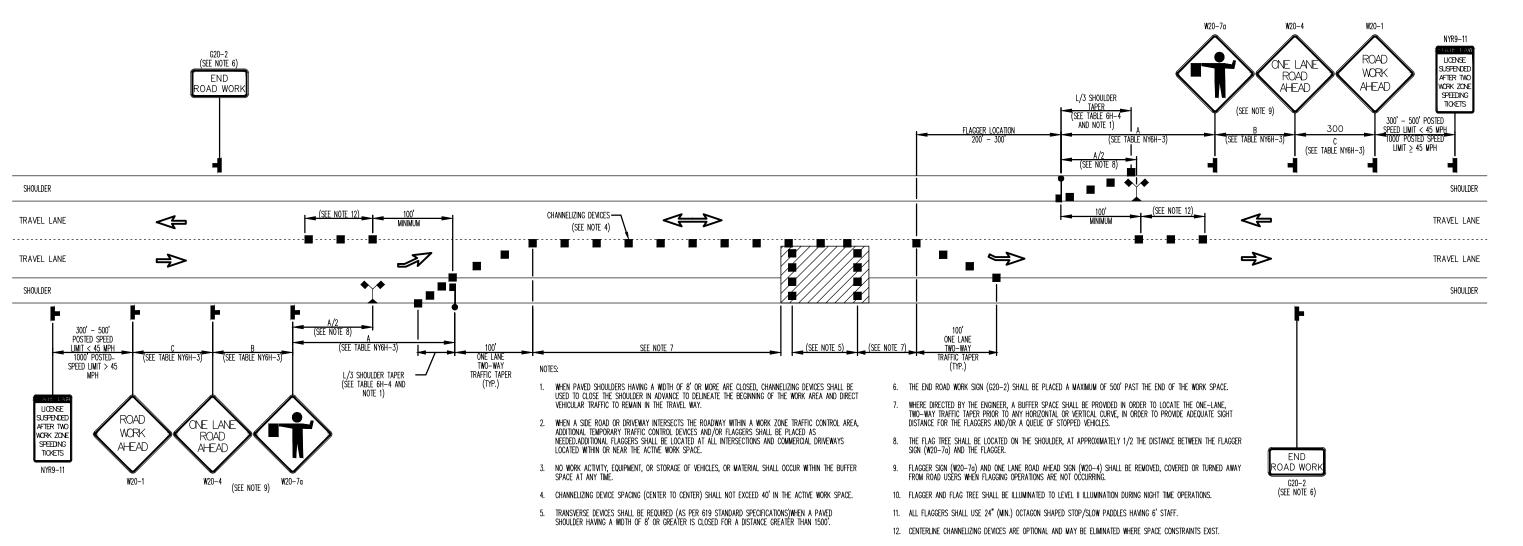
COORDINATION WITH UTILITIES

THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH ALL OTHER CONTRACTORS AND UTILITY COMPANIES OCCUPYING THE WORK SITE. THE FOLLOWING UTILITY COMPANIES MAY BE REQUIRED TO BE

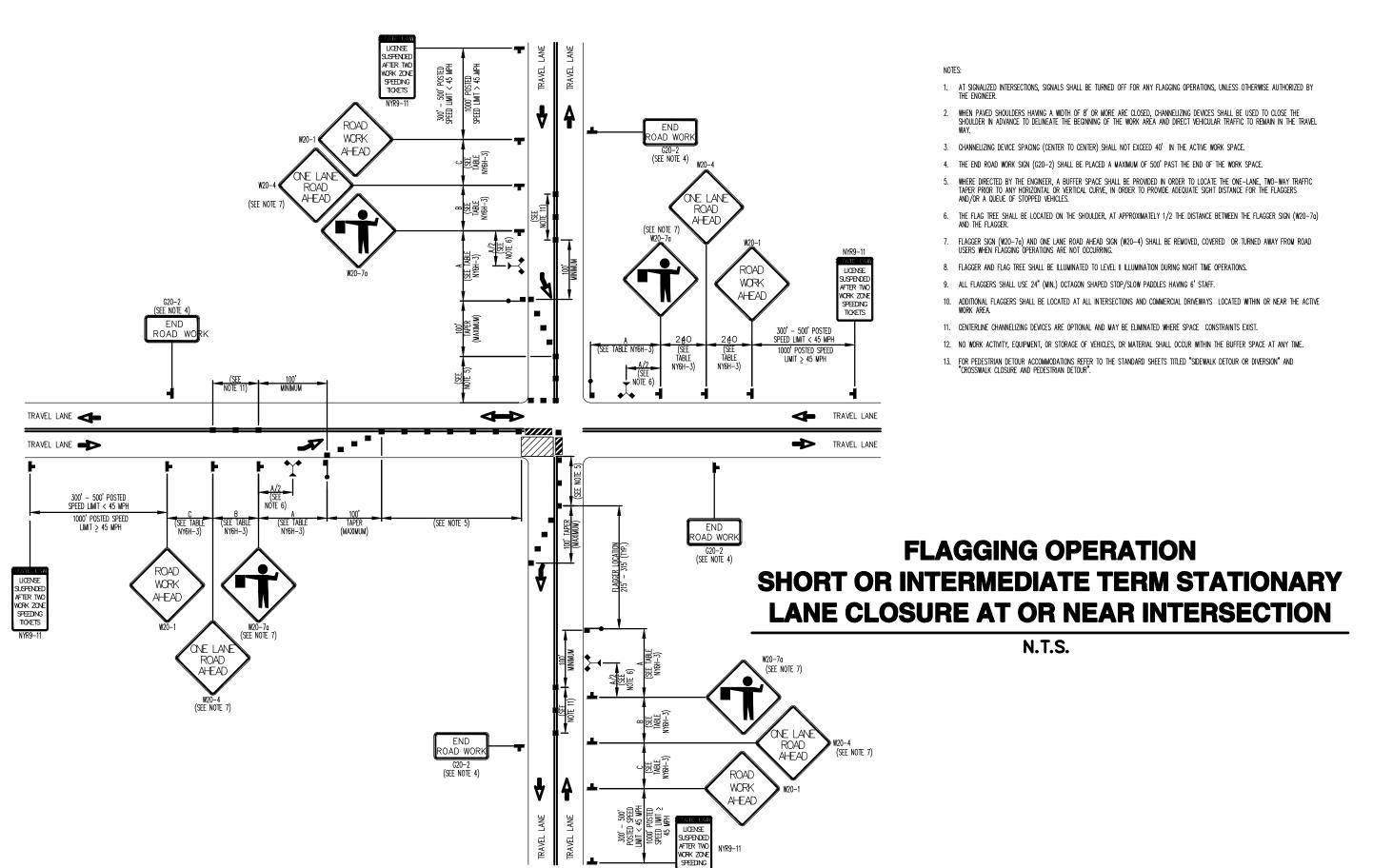
ALGONQUIN GAS & ELECTRIC	914-737-1892
AT&T	800-286-8313
CABLEVISION	914-962-4948
COMCAST	800-266-2278
CON EDISON	914-789-6818
NY TELEPHONE	914-890-6611
NYS DEPARTMENT OF PUBLIC WORKS	914-232-3060
TIME WARNER CABLE	800-431-8878
VERIZON	914-890-7711
NYSEG (GAS)	800-572-1121
NYSEG (ELECTRIC)	800-572-1131
OPTIMUM (TELEPHONE)	866-472-0117
OPTIMUM (CABLE)	845-624-8200



2-LANE 2-WAY ROADWAY



FLAGGING OPERATION SHORT OR INTERMEDIATE TERM STATIONARY **LANE CLOSURE ON 2-LANE 2-WAY ROADWAY**



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TABLE NY1-A BARRIER VEHICLE USE REQUIREMENTS (LONG TERM, INTERMEDIATE TERM, AND SHORT TERM STATIONARY CLOSURES)

		USE REQUIREMENTS 4,5					
CLOSURE TYPE	EXPOSURE CONDITION 1	FREEWAY	NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT)				
		FREEWAT	w 45 MPH	35-40 MPH	I 30 MPH		
LANE OLOGUDE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	REQUIRED ³	REQUIRED ³	OPTIONAL ²		
LANE CLOSURE	NON-TRAVERSABLE HAZARD (IE. EQUIPMENT, MATERIALS, EXCAVATION) ONLY NO WORKERS EXPOSED	REQUIRED ³	REQUIRED ³	OPTIONAL ²	OPTIONAL ²		
	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	REQUIRED ³	OPTIONAL ²	OPTIONAL ²		
SHOULDER CLOSURE	NON-TRAVERSABLE HAZARD (IE. EQUIPMENT, MATERIALS, EXCAVATION) ONLY NO WORKERS EXPOSED	REQUIRED ³	OPTIONAL ²	OPTIONAL ²	OPTIONAL ²		

- THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NY1-A ASSUMES THERE IS NO POSITIVE PROTECTION (TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.
- 2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
- 3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE HAZARDS SHALL REMAIN IN PLACE DURING BOTH WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. EXCEPTIONS TO THESE REQUIREMENTS MAY BE MADE, AS APPROVED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.
- 4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
- 5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE6C-2) SHALL BE PROVIDED.

TABLE NY1-B SHADOW VEHICLE USE REQUIREMENTS (MORILE CLOSURES)

(MODILE CLOSURES)							
		USE REQUIREMENTS					
CLOSURE TYPE	EXPOSURE CONDITION		NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT				
		FREEWAY	w 45 MPH	35-40 MPH	I 30 MPH		
LANE CLOSURE	WHEN ANY WORKER, VEHICLE, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED 2,4	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{2,4}		
SHOULDER CLOSURE	WHEN ANY WORKER, VEHICLE, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED 2,4	REQUIRED 2,4	REQUIRED ^{2,4}	REQUIRED ^{2,4}		

- 1. A MOBILE CLOSURE SHALL BE USED FOR ANY WORK ACTIVITY THAT MOVES CONTINUOUSLY OR INTERMITTENTLY ALONG THE TRAVELED WAY OR SHOULDER SLOWER THAN THE PREVAILING SPEED OF TRAFFIC. CHANNELIZING DEVICES ARE NOT USED FOR MOBILE CLOSURES.
- 2. SHADOW VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED ATTENUATOR (TRUCK MOUNTED OR TRAILER MOUNTED) FOR THE FOLLOWING MOBILE CLOSURES: LANE CLOSURES ON FREEWAYS, LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 35 MPH OR MORE, SHOULDER CLOSURES ON FREEWAYS, AND SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE.
- 3. FOR MOBILE LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 30 MPH OR LESS AND MOBILE SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 40 MPH OR LESS, SHADOW VEHICLES ARE NOT REQUIRED TO BE EQUIPPED WITH A REAR MOUNTED ATTENUATOR.
- 4. A SHADOW VEHICLE IS USED TO PROTECT EXPOSED WORKERS (ON FOOT OR IN A VEHICLE) AND SHALL BE REQUIRED FOR ALL MOBILE CLOSURES. SHADOW VEHICLE REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE SHADOW VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. ADDITIONAL SHADOW VEHICLES MAY BE REQUIRED TO PROMOTE THE SAFE OPERATION OF TRAFFIC AND THE INCREASED PROTECTION OF EXPOSED WORKERS, AS DIRECTED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE.

TABLE 6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S) (MPH)	TAPER LENGTH (L) (FT.)	I _ TADED LENGTH
(40 MPH) OR LESS	$L = WS^2 /60$	L = TAPER LENGTH W = WIDTH OF OFFSET (FT.) S = PRECONSTRUCTION POSTED SPEED LIMIT (MPH)
(45 MPH) OR MORE	L = WS	

STANDARD TAPER LENGTHS

	STANDARD TAPER LENGTHS										
LATERAL SHIFT OF TRAFFIC		TEMPORARY TRAFFIC CONTROL ZONE POSTED SPEED LIMIT									
FLOW PATH	(25 MPH)	(30 MPH)	(35 MPH)	(40 MPH)	(45 MPH)	(50 MPH)	(55 MPH)	(60 MPH)	(65 MPH)	(70 MPH	
4	45	60	85	110	180	200	220	240	260	280	
5	55	75	105	135	225	250	275	300	325	350	
6	65	90	125	160	270	300	330	360	390	420	
7	75	105	145	190	315	350	385	420	455	490	
8	85	120	165	215	360	400	440	480	520	560	
9	95	135	185	240	405	450	495	540	585	630	
10	105	150	205	270	450	500	550	600	650	700	
11	115	165	225	295	495	550	605	660	715	770	
12	125	180	245	320	540	600	660	720	780	840	

TABLE 6C-2

LONGITUDINAL BUFFER SPACE

TABLE NY2-A PLACEMENT DISTANCE FOR BARRIER VEHICLES

200 FT.

200 FT.

165 FT.

(18000 LBS.)

MINIMUM

100 FT.

100 FT.

85 FT.

* AS DEFINED IN NYSDOT STANDARD SPECIFICATION 619:

BARRIER VEHICLE - VEHICLE USED FOR STATIONARY SHOULDER

MINIMUM DISTANCE SHOWN REFLECTS THE ACTUAL ROLL AHEAD

CLOSURES. LANE CLOSURES, AND OTHER STATIONARY WORK ZONES.

(18000 LBS.)

SHADOW VEHICLE - VEHICLE USED FOR MOBILE OR SHORT DURATION

MINIMUM DISTANCE SHOWN REFLECTS THE ACTUAL ROLL AHEAD

MINIMUM

230 FT.

180 FT.

100 FT.

* AS DEFINED IN NYSDOT STANDARD SPECIFICATION 619:

TABLE NY2-B PLACEMENT DISTANCE FOR SHADOW VEHICLES

DISTANCE

PLACEMENT DISTANCE (FT.)

| MAXIMUM | MINIMUM

PLACEMENT DISTANCE (FT.)

SHADOW VEHICLES**

| MAXIMUM |

330 FT.

280 FT.

200 FT.

100 FT.

85 FT.

50 FT.

(24000 LBS.)

(24000 LBS.)

MAXIMUM

280 FT.

250 FT.

200 FT.

MINIMUM

180 FT.

150 FT.

100 FT.

MAXIMUM

200 FT.

165 FT.

100 FT.

BARRIER VEHICLES*

PRECONSTRUCTION

SPEED LIMIT (MPH)

PRECONSTRUCTION

POSTED

SPEED LIMIT

> 55

45 - 55

PRECONSTRUCTION

POSTED

SPEED LIMIT

> 55

45 - 55

< 45

WORK OPERATIONS.

DISTANCE FROM MANUFACTURER.

DISTANCE FROM MANUFACTURER.

< 45

TABLE 6C-3 TAPER LENGTH FOR TEMPORARY TRAFFIC CONTROL ZONES

TIVILLO CONTINOL ZONES				
TYPE OF TAPER	TAPER LENGTH (L)			
MERGING TAPER	L			
SHIFTING TAPER	L/2			
SHOULDER TAPER	L/3			
ONE-LANE, TWO-WAY TRAFFIC TAPER	100 FT. MAXIMUM			
DOWNSTREAM TAPER	100 FT. PER LANE			
·	_			

TABLE 619-4

TEME WITES FOR FOOTHVE BANKER										
	POSTED SPEED LIMIT									
TYPE OF POSITIVE BARRIER	30	40	50	55	65					
	MPH	MPH	MPH	MPH	MPH					
TEMPORARY CONCRETE BARRIER	8:1	11:1	14:1	16:1	20:1					
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1					

TABLE NY6H-3

ABTAINGE WARRING SIGH SI MORE							
	DISTANCE	BETWEEN	SIGN I	SIGN LEGEND			
ROAD TYPE	A (FT.)	B (FT.)	C (FT.)	XX	YY		
URBAN (30 MPH*)	100	100	100	AHEAD	AHEAD		
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD		
URBAN (w 45 MPH*)	350	350	350	1000 FT.	AHEAD		
RURAL	500	500	500	1500 FT.	1000 FT.		
EXPRESSWAY / FREEWAY	1000	1500	2640	1 MILE	? MILE		

* PRECONSTRUCTION POSTED SPEED LIMIT

URBAN: (MEETS MORE THAN 1 OF THE FOLLOWING CRITERIA) SIDEWALKS, BICYCLE USAGE, CURBING, CLOSED DRAINAGE SYSTEMS. DRIVEWAY DENSITIES GREATER THAN 24 DRIVEWAYS PER MILE, MINOR COMMERCIAL DRIVEWAY DENSITIES OF 10 DRIVEWAYS PER MILÉ OR GREATER, MAJOR COMMERCIAL DRIVEWAYS, NUMEROUS RIGHT OF WAY CONSTRAINTS, HIGH DENSITY OF CROSS STREETS, 85TH PERCENTILE

EXPRESSWAY: DIVIDED HIGHWAYS FOR TRAFFIC WITH FULL OR PARTIAL CONTROL OF ACCESS AND GENERALLY WITH GRADE SEPARATIONS AT MAJOR CROSSROADS.

FREEWAYS/INTERSTATE: LOCAL OR INTER REGIONAL HIGH-SPEED, DIVIDED, HIGH-VOLUME FACILITIES WITH FULL OR PARTIAL CONTROL OF ACCESS.

LONG-TERM STATIONARY IS WORK THAT OCCUPIES A LOCATION MORE

INTERMEDIATE-TERM STATIONARY IS WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.

SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

FLARE RATES FOR POSITIVE BARRIER

	POSTED SPEED LIMIT					
TYPE OF POSITIVE BARRIER	30 MPH	40 MPH	50 MPH	55 M PH	65 MPH	
TEMPORARY CONCRETE BARRIER	8:1	11:1	14:1	16:1	20:1	
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1	

ADVANCE WARNING SIGN SPACING

SPEEDS OF 45 MPH OR LESS.

RURAL: ANY AREA NOT EXHIBITING MORE THAN ONE OF THE ABOVE CHARACTERISTICS.

WORK DURATION DEFINITIONS

THAN 3 CONSECUTIVE DAYS.

W	ORK ZONE TRAFFIC CONTROL LEGEND						
SYMBOL	DESCRIPTION						
•••••	ARROW PANEL						
• •	ARROW PANEL, CAUTION MODE						
555	ARROW PANEL TRAILER OR SUPPORT						
Н	CHANGEABLE MESSAGE SIGN (PVMS)						
	CHANNELIZING DEVICE						
	CRASH CUSHION/TEMPORARY IMPACT ATTENUATOR						
L	DIRECTION OF TEMPORARY TRAFFIC DETOUR						
	DIRECTION OF TRAFFIC						
_	FLAGGER						
•	FLAG TREE						
-	LUMINAIRE						
11111	PAVEMENT MARKINGS THAT SHALL BE REMOVED FOR A LONG TERM PROJECT						
F	SIGN, TEMPORARY						
	TEMPORARY BARRIER						
	TEMPORARY BARRIER WITH WARNING LIGHTS						
<u> </u>	TRAFFIC OR PEDESTRIAN SIGNAL						
	TYPE III BARRICADE						
<u>Q</u>	WARNING LIGHTS						
	WORK SPACE						
	WORK VEHICLE						
	WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR						

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OTECTION AINTEN,

	WORK	ZONE TRAF	FIC CONTROL SIGN	N TABLE	
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
STATE LAW LICENSE SUSPENDED AFTER TWO WORK ZONE SPEEDING TICKETS	NYR9-11	В	24"X42"	48"X84"	48"X84"
STATE LAW FINES DOUBLED FOR SPEEDING IN WORK ZONES	NYR9-12	В	24"X36"	36"X54"	48"X72"
RUMBLE STRIPS	NYW4-17	А	36"X36"	48"X48"	48"X48"
WET PAINT	NYW8-30	А	48"X24"	48"X24"	48"X24"
STAY IN LANE	NYW8-31	А	48"X24"	48"X24"	48"X24"
DO NOT PASS	NYW8-32	А	48"X24"	48"X24"	48"X24"
LANE CLOSED	NYW8-33	А	48"X24"	48"X24"	48"X24"
STOP	R1-1	D	36"X36"	36"X36"	48"X48"
YIEL	R1-2	E	36"X36"X36"	48"X48"X48"	60"X60"X60"
SPEED LIMT XX	R2-1	В	24"X30" OR 30"X36" (SEE NOTE 5)	36"X48"	36"X48"
END HG-ER FINES ZONE	R2-11	В	24"X30"	36"X48"	36"X48"
END WORK ZONE SPEED LIMT	R2-12	В	24"X36"	36"X54"	36"X54"
DO NOT PASS	R4-1	В	24"X30"	36"X48"	36"X48"
V	R4-7	В	24"X30"	36"X48"	36"X48"
	R4-7c NARROW	В	18"X30"		
(1)	R4-8	В	24"X30"	36"X48"	36"X48"
1	R4-8c NARROW	В	18"X30"		
STAY IN LANE	R4-9	В	24"X30"	36"X48"	36"X48"
DO NOT ENTER	R5-1	E	36"X36"	36"X36"	48"X48"
PEDESTRIAN CROSSWALK	R9-8	В	36"X18"	36"X18"	
OTOZED ADEMATK	R9-9	В	24"X12"	24"X12"	
SDEWALK CLOSED USE OTHER SIDE SDEWALK CLOSED USE OTHER SIDE	R9-10L R9-10R	В	24"X12"	24"X12"	
SDEWAK CLOSED AFEAD CROSS HERE SDEWAK CLOSED AFEAD AFEAD CROSS HERE	R9-11L R9-11R	В	24"X18"	24"X18"	
SDEWALK CLOSED OROSS HERE SDEWALK CLOSED OROSS HERE	R9-11aL R9-11aR	В	24"X12"	24"X12"	
STOP HERE ON RED	R10-6	В	24"X36"	24"X36"	
ROAD	R11-2	В	48"X30"	48"X30"	48"X30"

WORK ZONE TRAFFIC CONTROL SIGN TABLE								
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY			
ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	R11-3a	В	60"X30"	60"X30"				
	W1-4L W1-4R	А	36"X36"	48"X48"	48"X48"			
	W1-4bL W1-4bR	Α	36"X36"	48"X48"	48"X48"			
****>	W1-4cL W1-4cR	А	36"X36"	48"X48"	48"X48"			
+	W1-6L	А						
	W1-6R	А	48"X24"	60"X30"	60"X30"			
	W1-8L	A (NO BORDER)	40"\\0.1"	70"\/70"	70"\\70"			
	W1-8R	(NO BORDER)	18"X24"	30"X36"	30"X36"			
	W3-1	A ⁴	36"X36"	48"X48"	48"X48"			
	W3-2	A ⁴	36"X36"	48"X48"	48"X48"			
	W3-3	A ⁴	36"X36"	48"X48"	48"X48"			
BE PREPARED TO STOP	W3-4	А	36"X36"	48"X48"	48"X48"			
	W3-5	A ⁴	36"X36"	48"X48"	48"X48"			
	W4-1L W4-1R	А	36"X36"	48"X48"	48"X48"			
	W4-2L W4-2R	А	36"X36"	48"X48"	48"X48"			

ROADWAY DEFINITIONS:

CONVENTIONAL ROAD — A STREET OR HIGHWAY OTHER THAN A FREEWAY, OR EXPRESSWAY.

EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

FREEWAY - A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

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	COI	LOR CODE LEGEND
	CODE	DESCRIPTION
	А	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
	В	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
	С	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
	D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
	E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
	F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
	G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

NOTES:

- 1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
- 2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
- 3. COLORS FOR DIRECTION PLAQUES, ADVANCE TURN ARROWS, AND DIRECTIONAL ARROWS SHALL MATCH THE ROUTE OR INTERSTATE SIGN THAT THEY SUPPLEMENT AS PER THE M.U.T.C.D.
- 4. MULTICOLORED SYMBOL IMPOSED ON SIGN WITH BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND.
- 5. FOR R2-1 SIGN LARGER DIMENSIONS SHALL BE USED WHEN SIGN FACES MULTIPLE LANES ON A CONVENTIONAL ROAD.

PROTECTION

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	WORK ZONE	TRAFFIC (CONTROL SIGN T	ABLE	
SIGN	DESIGNATION	COL OR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
ROAD	W5-1	А	36"X36"	48"X48"	48"X48"
RAMP NARROWS	W5-4	А	36"X36"	48"X48"	48"X48"
	W6-3	А	36"X36"	48"X48"	48"X48"
NEXT X MLES	W7-3aP	А	24"X18"	36"X30"	36"X30"
BUMP	W8-1	А	36"X36"	48"X48"	48"X48"
PAVEMENT ENDS	W8-3	А	36"X36"	48"X48"	48"X48"
LCOSE GRAVEL	W8-7	А	36"X36"	48"X48"	48"X48"
ROUGH	W8-8	А	36"X36"	48"X48"	48"X48"
LOW SHOULDER	W8-9	А	36"X36"	48"X48"	48"X48"
NO CENTER UNE	W8-12	А	36"X36"		
FALLEN	W8-14	А	36"X36"	48"X48"	48"X48"
GROOVED PAVEMENT	W8-15	А	36"X36"	48"X48"	48"X48"
	W8-17	А	36"X36"	48"X48"	48"X48"
SHOUDER DROP-OFF	W8-17p	А	24"X18"	30"X24"	30"X24"
NO SHOULDER	W8-23	А	36"X36"	48"X48"	48"X48"
STEEL PLATE ON PAVEMENT	W8-24	А	36"X36"	48"X48"	48"X48"
CENTER LANE (LOSED) AHEAD	W9-3	А	36"X36"	48"X48"	48"X48"
(A) (A)	W11-1L W11-1R	A OR F	36"X36"	36"X36"	
(1) (1)	W11-2L W11-2R	F	36"X36"	36"X36"	
(\$\frac{1}{1}\)	W11-15L W11-15R	F	36"X36"	36"X36"	

	WORK ZONE	TRAFFIC (CONTROL SIGN TA	ABLE	
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
XX MPH	W13-1P	А	24"X24"	30"X30"	30"X30"
ON RAMP	W14-3	А	36"X36"	36"X36"	36"X36"
NO PASSING ZONE	W13-4P	А	48"X48"X36"		
SHARE THE ROAD	W16-1P	NOTE 3 A OR F	18"X24"	24"X30"	
XXX feet	W16-2P	А	24"X18"	30"X24"	
NEXT XXX FT	W16-4P	NOTE 3 A OR F	30"X24"		
←	W16-5PL W16-5PR	А	24"X18"		
	W16-7PL W16-7PR	NOTE 3 A OR F	24"X12"	30"X18"	
AHEAD	W16-9P	NOTE 3 A OR F	24"X12"	30"X18"	
ROAD WORK AHEAD ROAD WORK XXX FT X MILE	W20-1	А	36"X36"	48"X48"	48"X48"
DETOUR AHEAD DETOUR XXX FT X MILE	W20-2	А	36"X36"	48"X48"	48"X48"
ROAD CLOSED XXX FT X MILE	W20-3	А	36"X36"	48"X48"	48"X48"
ONE LANE ROAD AHEAD ONE LANE ROAD XXX FT X MILE	W20-4	А	36"X36"	48"X48"	48"X48"
LAYE CLOSED 1500 FT LAYE CLOSED AFEAD RIGHT LAYE CLOSED AFEAD RIGHT LAYE CLOSED AFEAD RIGHT LAYE CLOSED CLOSED 1500 FT 1 MILE	W20-5	А	36"X36"	48"X48"	48"X48"
LEFT LANES CLOSED AHEAD 2 LEFT LANES CLOSED X MILE RIGHT LANES CLOSED AHEAD 2 RIGHT LANES CLOSED AHEAD 2 RIGHT LANES CLOSED X MILE X MILE X MILE X MILE	W20-5a	А	36"X36"	48"X48"	48"X48"
	W20-7	А	36"X36"	48"X48"	48"X48"

Т		1	CONTROL SIGN T	ADLE TO THE TRANSPORT OF THE TRANSPORT O	
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	W21-1	А	36"X36"	48"X48"	48"X48"
BLOW MOMNO VEHICLE	W21-4	А	36"X18"	48"X24"	48"X24"
SHOULDER	W21-5	А	36"X36"	48"X48"	48"X48"
LEFT SHOULDER QLOSED QLOSED	W21-5aL W21-5aR	А	36"X36"	48"X48"	48"X48"
SHOUDER QUOSED AMEAD LEFT SHOUDER QUOSED XXX FT X MILE RIGHT SHOUDER QUOSED AMEAD RIGHT SHOUDER QUOSED AMEAD RIGHT SHOUDER QUOSED AMEAD RIGHT SHOUDER QUOSED AMEAD RIGHT SHOUDER QUOSED XXX FT X MILE	W21-5bL W21-5bR	Α	36"X36"	48"X48"	48"X48"
MOWING AHEAD	W21-8	А	36"X36"	48"X48"	48"X48"
BLASTING ZONE AHEAD BLASTING ZONE 1500 FT 1/2 MLE	W22-1	А	36"X36"	48"X48"	48"X48"
TURN OFF 2-WAY RADIO AND CELL PHONE	W22-2	А	42"X36"	42"X36"	42"X36"
END BLASTING ZONE	W22-3	А	42"X36"	42"X36"	42"X36"
NEW TRAFFIC PATTERN AHEAD	W23-2	А	36"X36"	48"X48"	48"X48"
	W24-1L W24-1R	А	36"X36"	48"X48"	48"X48"
	W24-1aL W24-1aR	А	36"X36"	48"X48"	48"X48"
\(\frac{\)\}}}}}}}}\)}\)}\)	W24-1bL W24-1bR	А	36"X36"	48"X48"	48"X48"

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CONVENTIONAL ROAD - A STREET OR HIGHWAY OTHER THAN

A FREEWAY, OR EXPRESSWAY.

EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL

OF ACCESS.

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NOTE

- 1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
- 2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
- 3. WHEN USED IN CONJUNCTION WITH A BICYCLE SIGN (W11-1) OR PEDESTRIAN CROSSING (W11-2) COLOR CODE SHALL MATCH.

PROTECTION MAINTENANCE

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