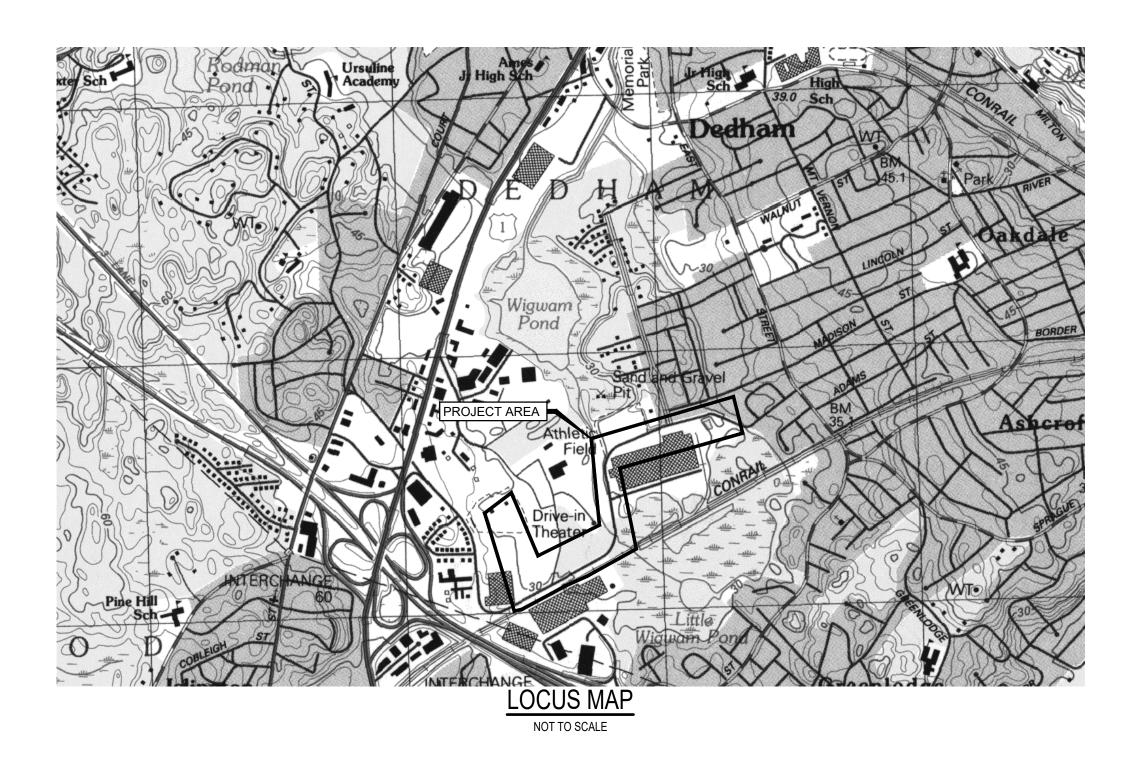
# TOWN OF DEDHAM, MASSACHUSETTS

RUSTCRAFT ROAD SEWER IMPROVEMENTS, CONTRACT 20-1 ENGINEERING DEPARTMENT: 55 RIVER STREET, DEDHAM, MA 02026





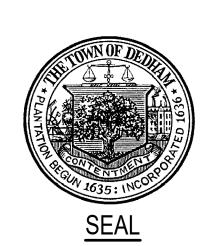
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# TOWN MANAGER LEON GOODWIN

# ENGINEERING DEPARTMENT JASON L. MAMMONE, DIRECTOR

# PUBLIC WORKS DEPARTMENT JOSEPH M. FLANAGAN, DIRECTOR





Issued Da

03/17/2020



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	ND 5105112	BB6565
DESCRIPTION  SANITARY SEWER	EXISTING	PROPOSED
SANITARY SEWER	S	—8"S PVC —
FORCE MAIN WATER MAIN	— — FM — — —	6"FM DI
TEMPORARY WATER	W	6"W DI
	D	4"W 18"D RCP
STORM DRAIN  GAS	G	— 18 D RCP —
ELECTRIC		
	E ————————————————————————————————————	E
TELEPHONE	T —— T	T
HOUSE CONNECTION		6" HOUSE CONN (TYP)
GRINDER PUMP	<u> </u>	□ GP
SANITARY SEWER MANHOLE	<u> </u>	• SMH
STORM DRAIN MANHOLE		SDMH
ELECTRICAL MANHOLE		● EMH
TELEPHONE MANHOLE		• TMH
AIR RELEASE VALVE MANHOLE	(A)	• ARMH
FORCE MAIN CLEANOUT MANHOLE	<u> </u>	• FMCO
CLEANOUT	0	• CO
CATCH BASIN	П	■ CB
CATCH BASIN (CURB INLET)		
HYDRANT	——————————————————————————————————————	-
TEMPORARY HYDRANT	<u>^</u> ~~	H
GATE VALVE	₩V	<b>H</b>
CHECK VALVE		121
CURB STOP	1.71 *\$%	
BUTTERFLY VALVE	70	M 100
BALL VALVE	<u> </u>	<u> </u>
CAP OR PLUG		<b>4</b>
	GV	
GAS GATE VALVE	$\square$	_
UTILITY POLE	\(\tau_{\text{\tint{\text{\tint{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}}\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\texi}\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\texit{\text{\ti}\text{\text{\text{\text{\texi}\text{\ti}\tint{\text{\texi}\tex{\texi}\text{\texi}\text{\texit{\texi}\text{\texi}\text{\texi}\ti	+
GUY POLE	-0	
LIGHT POST	*	
EDGE OF PAVEMENT		
EDGE OF UNPAVED ROAD		
CURB		
SIDEWALK	<u> </u>	<u> </u>
RAILROAD		
STONE WALL	000000000	
RETAINING WALL	RET WALL	RET WALL
FENCE	——×——×—	—x—x—
INDIVIDUAL DECIDUOUS TREE		
INDIVIDUAL EVERGREEN TREE	*	*
TREE LINE	~~~~	~~~~
SURVEY MARKER	⊡	
PROPERTY LINE	—— —P— ——	
EASEMENT LINE		
LIMIT OF WORK		_ · _ · _
APPROX. LIMIT OF REFUSE		
SPOT ELEVATIONS	x 141.5	x <sup>141.5</sup>
CONTOUR LINES	56	<del></del> 56 <del></del>
DEPRESSION CONTOUR LINES		<del></del>
HOUSE NUMBER	#35	
FLOOR ELEVATION	FL=56.7	
SILL ELEVATION	S=56.7	
WETLAND	_\\/\	
WETLAND FLAGS		<u>1</u> <u>2</u>
RIP RAP	****	**********
STATE HIGHWAY STATION	· · · · · · · · · · · · · · · · · · ·	
SURFACE MOUNTED DELINEATOR		ø
GUARD POST	Δ	<b>A</b>
BOLLARD	ОВ	<b>●</b> B
SIGN	-0-	
BENCH MARK	•	1
AUGER	<b>⊕</b> A−1	<b>⊕</b> A−1
PERCOLATION TEST	PT 1	<b>₽</b> PT−1
TEST PIT	TP 1	<b>□</b> TP−1
BORING	<b>⊕</b> B−10	⊕ B−11
PROBE	P-10	⊕ P-11
GROUNDWATER MONITORING WELL	⊕ ws-1	⊕ WS-1
GAS MONITORING WELL	→ GMW-10	<b>GMW</b> −10
GAS VENT HAY BALES	○ GV	<b>♣</b> GV
MAY MAILS	I	• • • •
ROCK OUTCROP	\\\\\	

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

<u>ABBRE\</u>	<u>/IATIONS</u>
AC	ASBESTOS CEMENT PIPE
ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
ARV ASTM	AIR RELEASE VALVE AMERICAN SOCIETY FOR TESTING AND MATERIALS
BC	BITUMINOUS CONCRETE
BIT BI DO	BITUMINOUS
BLDG BM	BUILDING BENCH MARK
во	BLOW OFF
BV CATV	BUTTERFLY VALVE CABLE TELEVISION
CB	CATCH BASIN
CC Cl	CONCRETE CURB CAST IRON
_	CENTERLINE
CL	CEMENT LINED
CMP CONC	CORRUGATED METAL PIPE CONCRETE
CU FT	CUBIC FEET
CY D	CUBIC YARD STORM DRAIN, DEPTH FROM RIM TO INVERT
DI	DROP INLET, DUCTILE IRON
DIA DMH	DIAMETER DRAIN MANHOLE
DWG	DRAWING
E FA	EAST, ELECTRIC
ea Ef	EACH FACE
ELEV	ELEVATION
EOP EW	EDGE OF PAVEMENT EACH WAY
EXIST	EXISTING
FLG	FLANGE FEET. FOOT
FT G	NATURAL GAS
GALV	GALVANIZED
GC GR	GRANITE CURB GRANITE
HC	HOUSE CONNECTION
HORIZ HP	HORIZONTAL HIGH PRESSURE
HYD	FIRE HYDRANT
I INV	INVERT
INV ID	INVERT INSIDE DIAMETER
IP	IRON PIPE
LB LF	POUND LINEAR FEET
LS	LUMP SUM
MAX MB	MAXIMUM MAIL BOX
MDC	METROPOLITAN DISTRICT COMMISSION
MDPW MECH	MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS MECHANICAL
MH	MANHOLE
MassDOT MIN	MASSACHUSETTS DEPARTMENT OF TRANSPORTAION MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MWRA N	MASSACHUSETTS WATER RESOURCES AUTHORITY NORTH
NE	NORTH EAST
NW NF	NORTH WEST NOT FOUND
NO OR #	NUMBER
OD PCCP	OUTSIDE DIAMETER PRESTRESSED CONCRETE CYLINDER PIPE
PE PE	PLAIN END, POLYETHYLENE
<u>ዊ</u>	PROPERTY LINE
PL PVC	PLATE POLYVINYL CHLORIDE
PVMT	PAVEMENT
RCP ROW	REINFORCED CONCRETE PIPE RIGHT-OF-WAY
RQD	ROCK QUALITY
S SE	SEWER, SOUTH SOUTH EAST
SECT	SECTION
SF	SQUARE FEET
SHT SPEC	SHEET SPECIFICATIONS
SQ FT	SQUARE FEET
SS STA	SEWER SERVICE, STAINLESS STEEL STATION
STL	STEEL
SW T	SIDEWALK, SOUTH WEST HYDROSTATIC THRUST, TELEPHONE
TBM	TEMPORARY BENCH MARK
THK	THICK (NESS)
TYP UP	TYPICAL UTILITY POLE

UTILITY POLE

**VERTICAL** WATER, WEST

WITHOUT

WITH

VITRIFIED CLAY

#### **CONSTRUCTION NOTES:**

- 1. THE CONTRACTOR SHALL CALL DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION
- 2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.
- 3. TEST PITS TO LOCATE EXISTING UTILITIES MAY BE ORDERED BY THE ENGINEER.
- 4. STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBS, LIGHT POLES, ETC, SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED. ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
- 5. ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- 6. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- 7. CONCRETE CRADLES OR ARCHES SHALL BE CONSTRUCTED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED BY THE ENGINEER. UNLESS OTHERWISE INDICATED, CONCRETE USED FOR PIPE ANCHOR BLOCKS, BACKING, PIPE CRADLES, ARCHES, AND FILL SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- 8. THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES OR WITHIN 100 FEET OF WETLANDS.
- 9. SEWER TRENCHES MAY BE EXCAVATED WIDER THAN THE 'LIMIT OF EXCAVATION AND PAYMENT FOR EARTH EXCAVATION' ABOVE THE 'LINE OF NARROW TRENCH LIMIT.' ANY SUCH ADDITIONAL EXCAVATION SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL NOT BE MEASURED FOR PAYMENT.
- 10. BELOW THE 'LINE OF NARROW TRENCH LIMIT' THE TRENCH SHOULD NOT BE EXCAVATED BEYOND THE TRENCH WIDTH 'W'. IF MATERIAL IS LOOSENED OR REMOVED BEYOND THE ABOVE MENTIONED LIMITS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE CRUSHED STONE FOR THE FULL WIDTH OF THE TRENCH AT NO ADDITIONAL COST TO THE OWNER.

#### 11. OPENINGS FOR PIPE IN PRECAST MANHOLE BASES SHALL BE CAST IN THE REQUIRED LOCATIONS DURING MANHOLE MANUFACTURE. FIELD CUT OPENINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE

- 12. IN PAVED AREAS THE TOP OF THE MANHOLE COVER SHALL BE SET FLUSH WITH THE PAVED SURFACE. IN OTHER AREAS THE TOP OF THE COVER SHALL EXTEND 6 INCHES ABOVE FINISHED GRADE, OR AS SHOWN ON THE DRAWINGS, OR AS REQUIRED BY THE ENGINEER.
- 13. PROTECTION OF WATER SUPPLIES WHENEVER A SEWER MUST CROSS UNDER A WATER MAIN, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENT. THE WATER MAIN SHALL BE RELOCATED BY THE CONTRACTOR AS REQUIRED BY THE ENGINEER TO PROVIDE THIS SEPARATION, THE WATER MAIN SHALL BE ENCASED IN 3,000 PSI CONCRETE, OR THE CONTRACTOR SHALL CONSTRUCT THE NEW SEWER OF CLASS 150 PRESSURE PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN. ONE FULL LENGTH OF CLASS 150 PRESSURE PIPE SEWER SHOULD BE CENTERED ON THE WATER MAIN AS MUCH AS POSSIBLE. THE SEWER CONSTRUCTED OF THE PRESSURE PIPE MUST BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS.
- 14. ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING OR COVERING WITH STEEL PLATES.
- 15. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF MASSACHUSETTS GENERAL LAW CHAPTER 82A, TRENCH EXCAVATION AND SAFETY REQUIREMENTS, TO PREVENT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES.
- 16. ELEVATIONS REFERENCED ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 17. EXISTING UTILITY INFORMATION. TOPOGRAPHIC INFORMATION. EDGE OF PAVEMENT. UTILITY POLE LOCATIONS, AND LOCATIONS OF EXISTING ABOVE GROUND STRUCTURES ARE FROM A PLAN TITLED "SOUTHERN EXTRA HIGH PIPELINE SECTION 111 (DEDHAM — SOUTH) MWRA CONTRACT NO. 7505", SUPPLEMENTED WITH A FIELD SURVEY PERFORMED BY WESTON & SAMPSON IN NOVEMBER 2019.
- 18. POWER/UTILITY POLES MAY NEED TO BE SUPPORTED WITH POLE SUPPORTING DEVICES AT VARIOUS LOCATIONS. CONTRACTOR SHALL CONTACT THE APPROPRIATE ELECTRIC/POWER COMPANY 10 DAYS PRIOR TO NEEDING SUCH SUPPORTS, AT NO ADDITIONAL COST TO THE OWNER.

### MWRA WATER OPERATIONS SPECIAL TERMS AND CONDITIONS:

- 1. PERMITTEE OR ITS DESIGNEE TO PROVIDE AT LEAST 72-HOUR PRIOR NOTICE TO THE MWRA'S INSPECTION DEPARTMENT, BY CALLING WARREN MURPHY (617) 305-5833, LOCATED AT 2 GRIFFIN WAY, CHELSEA, MA 02150.
- 2. A MINIMUM VERTICAL CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE AUTHORITY'S WATER MAINS AND OTHER UTILITY CROSSINGS UNLESS OTHERWISE NOTED.
- 3. A MINIMUM OF THREE (3) FEET TO FIVE (5) FEET HORIZONTAL CLEARANCE IS REQUIRED BETWEEN ADJACENT UTILITIES AND THE SIDE (SPRING LINE) OF ANY MWRA MAIN. (EXCEPT FOR SPECIAL PROVISIONS, I.E. CAPPED OR PLUGGED PIPES, THRUST BLOCKS AND OR PIPE BENDS WHICH WOULD REQUIRE A GREATER CLEARANCE SEPARATION)
- 4. CROSSINGS OF MWRA WATER MAINS SHALL BE LOCATED A MINIMUM HORIZONTAL DISTANCE OF AT LEAST FOUR (4) FEET FROM ANY JOINTS OF THE AUTHORITY'S MAINS.
- 5. PROPOSED PIPE/UTILITY CROSSINGS OF THE AUTHORITY'S WATER MAINS SHALL CROSS AT A 90-DEGREE ANGLE TO MINIMIZE INTERFERENCE.
- 6. FOR DISTANCES OVER FOUR (4) FEET OF THE AUTHORITY'S MAINS WHICH ARE TO BE UNDERMINED THE METHOD AND TYPE OF PIPE SUPPORT PLAN SHALL BE SUBMITTED AND STAMPED BY A PROFESSIONAL ENGINEER (P.E.) LICENSED IN MASSACHUSETTS FOR PRIOR APPROVAL BY THE AUTHORITY.
- 7. FOR DISTANCES UNDER FOUR (4) FEET OF THE AUTHORITY'S MAINS WHICH ARE TO BE UNDERMINED, THE ON-SITE MWRA INSPECTOR SHALL REVIEW AND APPROVE THE PROPOSED SUPPORT OF THE MAIN. UNDER NO CIRCUMSTANCES SHALL THE AUTHORITY'S MAIN BE LEFT IN AN UNSUPPORTED, UNDERMINED
- 8. DURING CONSTRUCTION, APPROPRIATE SHEETING MEASURES MUST BE TAKEN TO PROTECT THE INTEGRITY OF THE AUTHORITY'S WATER MAINS. THE SHEETING DESIGN MUST BE REVIEWED BY THE AUTHORITY PRIOR TO THE START OF THE CONSTRUCTION. THE DESIGN SHALL BE STAMPED BY A PROFESSIONAL ENGINEER, LICENSED IN MASSACHUSETTS. THE USE OF A TRENCH BOX IS NOT PERMITTED.
- 9. SUITABLE COMPACTION METHODS SHALL BE EMPLOYED IN RESTORING THE BEDS OF THE MWRA'S MAINS BACKFILLING AROUND THE MWRA'S MAIN SHALL BE PLACED IN MAXIMUM 6-INCH LIFTS AND COMPACTED BY HAND VIBRATORY COMPACTORS.
- 10. THE MWRA PIPELINE MUST BE PROTECTED AT ALL TIMES DURING CONSTRUCTION. THE AUTHORITY MAY REQUIRE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS TO SUBMIT A CONSTRUCTION PLAN AND OR PIPELINE ANALYSIS.
- 11. SCREENED GRAVEL SHALL BE UNIFORMLY GRADED WITH MAXIMUM SIZE OF A PARTICLE BETWEEN 3/8 INCH AND 3/4 INCH. SCREENED GRAVEL SHALL CONSIST OF CLEAN, HARD AND DURABLE PARTICLES FREE FROM AN EXCESS OF SOFT, ELONGATED AND DISINTEGRATED PIECES OR OTHER OBJECTIONABLE MATERIAL. CRUSHED ROCK OF SUITABLE SIZE AND GRADING MAY BE USED IN PLACE OF SCREENED GRAVEL AT THE OPTION OF THE MWRA INSPECTOR.
- 12. FOR TEST PIT EXCAVATIONS OR UNEARTHING OF THE AUTHORITY'S WATER MAIN THE PERMITTEE MUST EXCAVATE THE LAST 2-FEET, BEFORE THE TOP OF PIPE, BY HAND OR USE A VACUUM BORING METHOD AND BACKFILL WITH APPROVED MATERIAL WITHIN AN EASEMENT OR ROADWAY AREA.
- 13. ALL MWRA MANHOLE OPENINGS THAT WERE COVERED DURING PAVEMENT INSTALLATION SHALL BE MADE ACCESSIBLE WITHIN 48-HOURS.
- 14. MWRA INSPECTION PERSONNEL MUST BE ON SITE WHENEVER EXCAVATION, CONSTRUCTION AND HOISTING OR RIGGING OCCURS AROUND AN MWRA WATER MAIN PIPELINE.
- 15. NO CONSTRUCTION EQUIPMENT INCLUDING CRANES, BACKHOES OR MATERIAL MAY BE PARKED, STATIONED, SET UP OR STORED ON TOP OF THE MWRA'S WATER MAINS OR INFRASTRUCTURE.
- 16. REPLACEMENT (SHUTDOWN) OF THE MWRA'S MAINS SHALL BE COORDINATED WITH THE AUTHORITY. FOUR (4) WEEKS-ADVANCED NOTICE IN WRITING IS REQUIRED FOR SHUTDOWNS.

- 17. THE PERMITTEE OR ITS DESIGNEE SHALL CONTACT THE AUTHORITY THREE (3) WEEKS IN ADVANCE WHEN AN MWRA WATER MAIN VALVE MUST BE OPERATED. ONLY MWRA PERSONNEL WILL OPERATE MWRA VALVES. THE PERMITTEE OR ITS DESIGNEE SHALL NOT OPERATE ANY MWRA VALVES. MWRA VALVE OPERATIONS ARE LIMITED DURING PEAK DEMAND PERIODS AND MAY NOT BE AVAILABLE BETWEEN THE DATES OF MAY 15TH AND SEPTEMBER 15TH OF EACH CALENDAR YEAR.
- 18. THE PERMITTEE WILL BE RESPONSIBLE TO PROTECT AND CORRECT ANY DAMAGE(S) TO THE AUTHORITY'S PROPERTY OR PIPELINE AT NO COST TO THE MWRA.
- 19. AS-BUILT DRAWINGS SHALL BE FURNISHED TO THE AUTHORITY UPON THE COMPLETION OF PERMITTED WORK. A PROFESSIONAL MASSACHUSETTS REGISTERED LAND SURVEYOR OR ENGINEER SHALL STAMP AS-BUILT DRAWINGS.
- 20. MWRA DETAIL RECORDS 'FIELD SKETCHES" SHALL BE UPDATED (WITH ACCURATE FIELD TIES) BY THE PERMITTEE AND SHALL BE FURNISHED TO THE AUTHORITY UPON THE COMPLETION OF THE PERMITTED
- 21. THE PERMITTEE SHALL INDEMNIFY AND HOLD HARMLESS THE AUTHORITY AND ITS SUCCESSORS AND ASSIGNS FROM ANY AND ALL DAMAGES AND/OR CLAIMS FOR DAMAGE TO THE PERMITTEE'S CONDUITS. FACILITIES AND/OR PROPERTY AS A RESULT OF THE AUTHORITY'S OPERATION, MAINTENANCE, REPAIR, AND/OR REPLACEMENT OF AUTHORITY PROPERTY. OR AS A RESULT OF THE FAILURE OF AN AUTHORITY WATER PIPE.
- 22. THIS PERMIT ADDRESSES ONLY MWRA-OWNED AND OPERATED INFRASTRUCTURE. THE PERMITTEE IS REQUIRED TO OBTAIN NEEDED SEPARATE APPROVALS FROM THE CITY, TOWN AND OTHER STATE
- 23. THE PERMITTED WORK AND LOCATION OF INSTALLED FACILITIES AND APPURTENANCES SHALL NOT DEVIATE FROM THE CONSTRUCTION PLAN THAT IS REFERENCED IN THIS PERMIT. NO FIELD CHANGES ARE ALLOWED WITHOUT PRIOR REVIEW AND WRITTEN APPROVAL BY THE MWRA 8M PERMIT PROJECT MANAGER. AN MWRA ON SITE INSPECTOR SHALL REVIEW ALL FIELD CHANGES AND COORDINATE WITH THE PERMITTEE REGARDING SUBMITTING A CHANGE OF WORK PLAN TO THE AUTHORITY FOR REVIEW AND COMMENT. IF MWRA FIELD INSPECTION INDICATES CHANGES UNDERTAKEN WITHOUT APPROVAL. THE PERMITTEE MAY BE ISSUED A CEASE AND DESIST ORDER AND BE REQUIRED TO CORRECT/RECONSTRUCT
- 24. THE AUTHORITY MAY REQUIRE A CONSTRUCTION PLAN ALONG WITH AN ANALYSIS OF THE MWRA'S PIPELINE (PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS). THE PIPELINE ANALYSIS SHALL TAKE INTO CONSIDERATION THE CONSTRUCTION EQUIPMENT. WHICH WOULD BE USED OVER THE AUTHORITY'S PIPELINE IN INSTANCES WHERE THE EXISTING ROADWAY SURFACE WILL BE COMPLETELY EXCAVATED AWAY REMOVING THE PROTECTION OF THE HS-20 SURFACE LOADING BARRIER. THIS PLAN AND SUPPORTING CALCULATIONS WILL NEED TO BE SUBMITTED TO THE MWRA FOR REVIEW.
- 25. PERMITTEE SHALL NOT EXPOSE THE SPRING LINE OR UNDERMINE THE MWRA'S PIPELINE. THE PERMITTEE OR ITS DESIGNEE SHALL CEASE EXCAVATION OPERATIONS AND SECURE THE OPEN TRENCH BY BACKFILLING THE OPEN TRENCH TO SECURE THE MWRA'S PIPELINE WHENEVER THE SPRING LINE IS
- 26. THE PERMITTEE SHALL MARK PROPOSED TEST PIT LOCATIONS ON THE GROUND USING PAINT AND/OR STAKES AND SUBMIT ENGINEERING DOCUMENTS TO THE AUTHORITY SHOWING THE PROPOSED TEST PIT LOCATIONS. AUTHORITY OPERATIONS STAFF WILL REVIEW ALL TEST PIT LOCATIONS AT THE SITE.
- 27. UPON WRITTEN CLEARANCE OF THE PROPOSED TEST PIT LOCATIONS BY AUTHORITY OPERATIONS STAFF AND SUBJECT TO PERMITTEE PROVIDING THE AUTHORITY WITH SEVENTY-TWO (72) HOURS PRIOR NOTICE, PERMITTEE MAY COMMENCE WORK AT THE SITE.
- 28. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE LOCATIONS OF THE PROPOSED TEST PITS REGARDLESS OF ANY ACT OR OMISSION OF THE AUTHORITY. THE PERMITTEE SHALL BE RESPONSIBLE FOR REPAIRING AND/OR REPLACING, AT THE AUTHORITY'S ELECTION, THE AUTHORITY'S PROPERTY OR INFRASTRUCTURE, WHICH IS DAMAGED AS A RESULT OF THE PERMITTEE'S, ITS CONTRACTORS, AGENTS, REPRESENTATIVES, EMPLOYEES, AND/OR INVITEES ACTIVITIES PURSUANT TO THIS PERMIT. THE PERMITTEE'S OBLIGATIONS UNDER THIS PARAGRAPH SHALL INCLUDE PAYMENT TO THE AUTHORITY FOR ALL COSTS TO REPAIR ALL SUCH DAMAGE CAUSED TO THE AUTHORITY'S PROPERTY.

#### **ENVIRONMENTAL NOTES:**

POSITION OVERNIGHT.

- 1. THE CONTRACTOR SHALL SUBMIT AN EXCAVATED MATERIALS MANAGEMENT PLAN (EMMP) FOR ENGINEER APPROVAL PRIOR TO EXCAVATION, GENERATION OF SURPLUS SOIL, OR ANY SUBSURFACE DISTURBANCE. THE EMMP REQUIREMENTS ARE DETAILED IN SECTION 02130 - TRANSPORTATION AND DISPOSAL OF IMPACTED MATERIAL. EXCAVATION OR GENERATION OF SURPLUS SOILS SHALL NOT BEGIN UNTIL THE EMMP HAS BEEN APPROVED BY THE ENGINEER.
- 2. THE CONTRACTOR SHALL BE AWARE OF PROPERTIES LISTED WITH THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MASSDEP) WITH RELEASE TRACKING NUMBERS (RTNS) AS LISTED IN SECTION 00320 - SUBSURFACE DATA. ACTIVITY AND USE LIMITATION (AUL) AREAS ARE LISTED WITH THE MASSDEP UNDER RELEASE TRACKING NUMBER (RTN) 3-1196, 3-26872, AND 3-23517. ALL WORK WITHIN THE AUL AREA WILL REQUIRE ADVANCE CONTRACTOR COORDINATION WITH THE ENGINEER AND THE SITE LSP(S), AND IN COMPLIANCE WITH ALL MASSACHUSETTS CONTINGENCY PLAN (MCP) REQUIREMENTS. THE CONTRACTOR SHALL NOTE EXCAVATION AND MANAGEMENT OF IMPACTED MATERIALS WILL BE CONDUCTED AS A UTILITY-RELATED ABATEMENT MEASURE (URAM) IN ACCORDANCE WITH THE REQUIREMENTS OF THE MCP.
- 3. THE CONTRACTOR SHALL BE AWARE THAT SOIL AND GROUNDWATER WITHIN AREAS OF THE PROJECT MAY BE IMPACTED. EXCAVATED SOIL, IF STOCKPILED, MUST BE PLACED ON AND COVERED WITH POLYETHYLENE SHEETING, PER SECTION 02113 - EXCAVATION AND STOCKPILING OF IMPACTED MATERIAL.

- 4. IF THE CONTRACTOR'S HANDLING OF EXCAVATED MATERIALS CONTAMINATES OTHER MATERIAL, THE CONTRACTOR SHALL REMEDIATE, TRANSPORT, AND DISPOSE OF ALL NEWLY CONTAMINATED MATERIAL AT NO ADDITIONAL COST TO THE OWNER.
- 5. DURING EARTHWORK OPERATIONS, THE CONTRACTOR SHALL TAKE CARE NOT TO DISTURB EXISTING MATERIALS TO REMAIN, INCLUDING BUT NOT LIMITED TO OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL, AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
- 6. THE CONTRACTOR SHALL HANDLE EXCAVATED MATERIALS AS DESCRIBED IN SECTION 02113 -EXCAVATION AND STOCKPILING OF IMPACTED MATERIAL. SECTION 02130 - TRANSPORTATION AND DISPOSAL OF IMPACTED MATERIAL, AND SECTION 02240 - DEWATERING. THE CONTRACTOR SHALL ALSO HANDLE THE EXCAVATED MATERIALS AND FLUIDS IN ACCORDANCE WITH SECTION 01380 -HEALTH AND SAFETY PLAN, SECTION 01562 - DUST CONTROLS, SECTION 01570 - ENVIRONMENTAL PROTECTION, AND ALL OTHER APPLICABLE CONTRACT DOCUMENTS.

Weston & Sampson Engineers, Inc 55 Walkers Brook Drive, Suite 100 Reading, MA 01867

TOWN OF DEDHAM, MASSACHUSETTS

RUSTCRAFT ROAD SEWER

IMPROVEMENTS,

CONTRACT 20-1

ENGINEERING DEPARTMENT

JASON MAMMONE, DIRECTOR

55 RIVER STREET

**DEDHAM**, MA 02026

www.westonandsampson.com

Consultants:

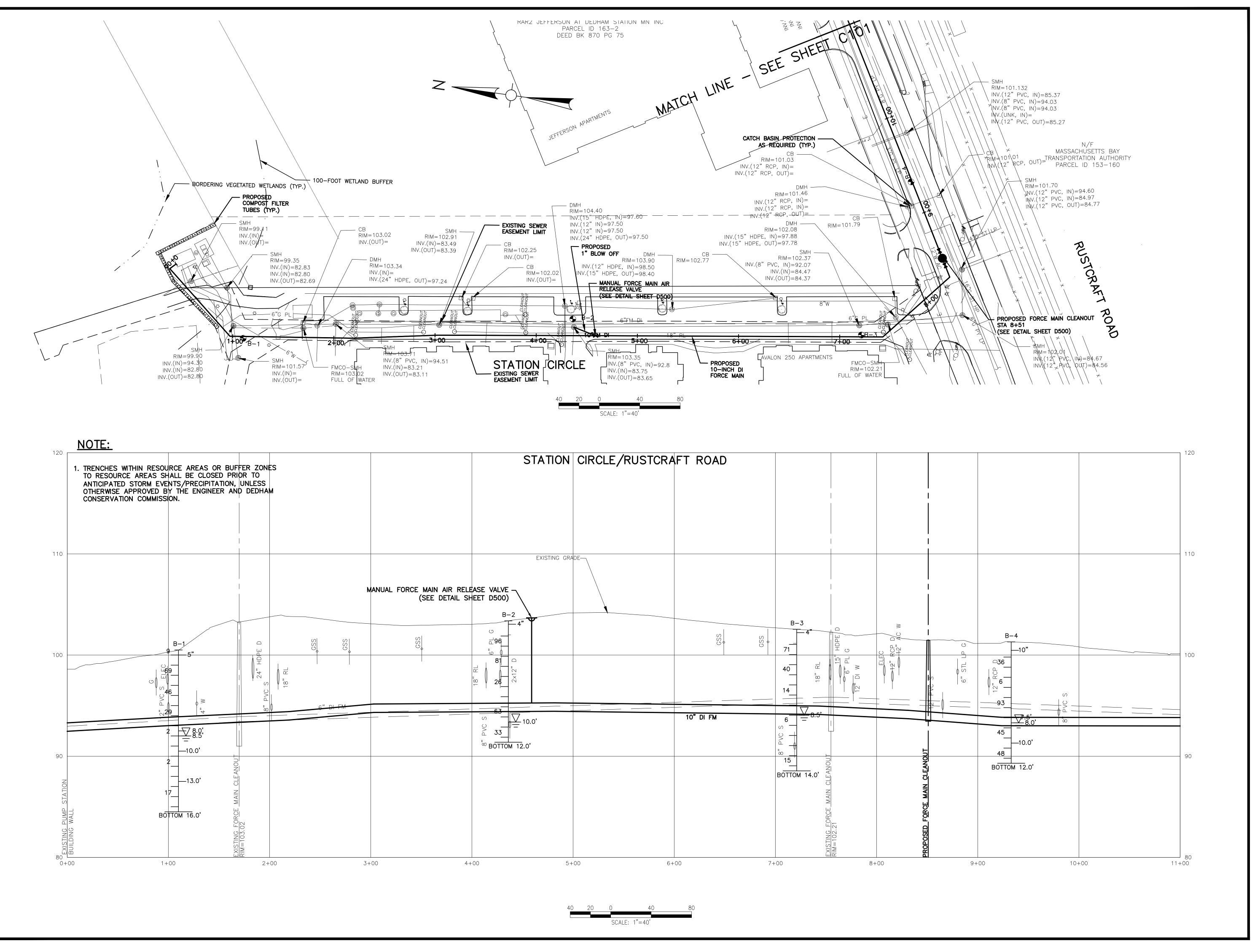
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	NOTED 03/17/2020
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Scale: Date: Drawn By:	03/17/2020 PFM
Scale:	03/17/2020
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Drawing Title:

NOTES, **ABBREVIATIONS** AND LEGEND

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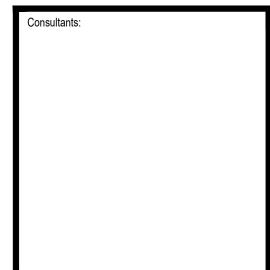
Project:
TOWN OF DEDHAM,
MASSACHUSETTS

RUSTCRAFT ROAD SEWER IMPROVEMENTS, CONTRACT 20-1

ENGINEERING DEPARTMENT JASON MAMMONE, DIRECTOR 55 RIVER STREET DEDHAM, MA 02026

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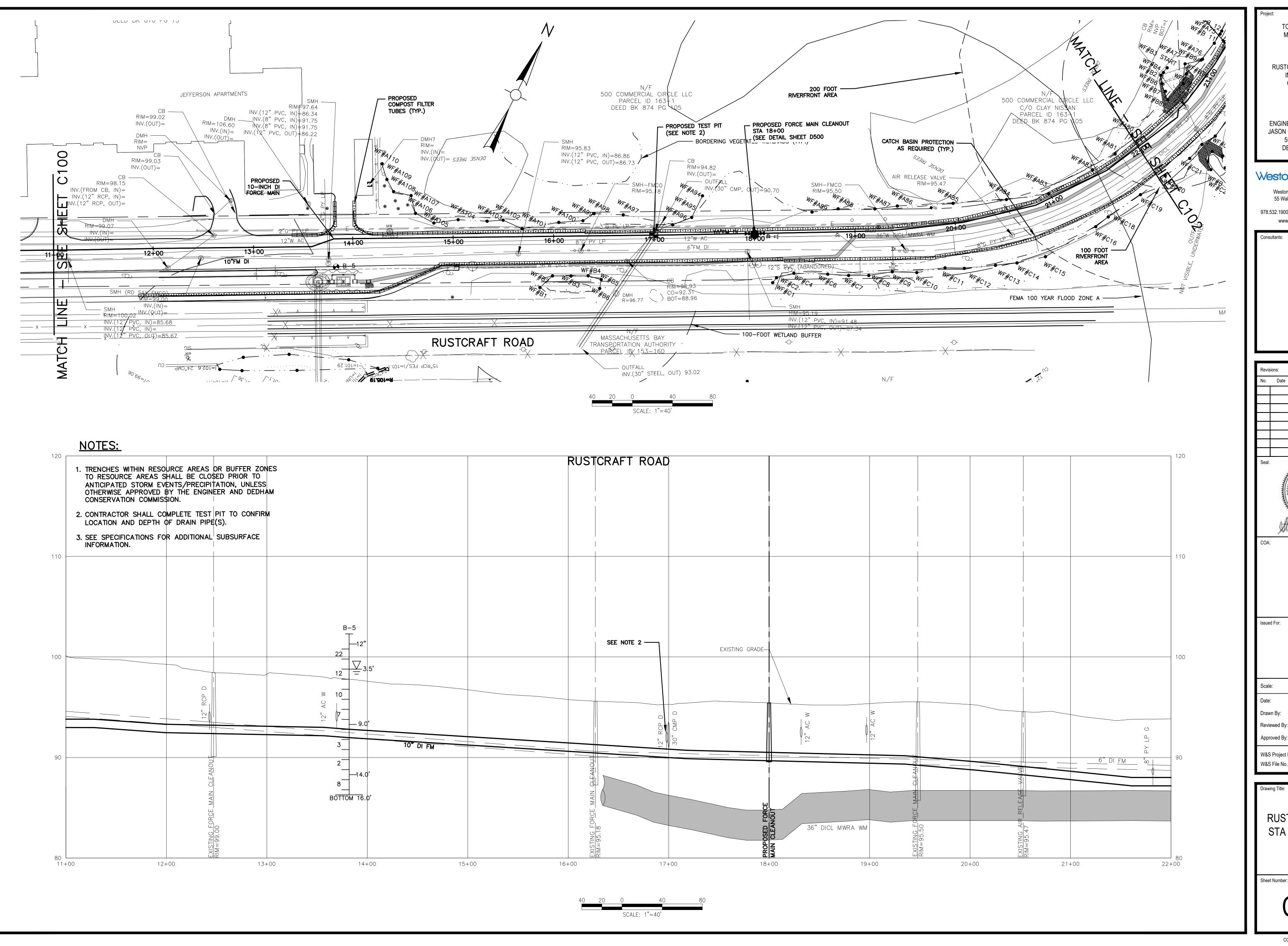
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Reviewed By:	MEP
Approved By:	SKP
W&S Project No.:	2190027 243-53

Drawing Title:

RUSTCRAFT ROAD STA 0+00 TO STA

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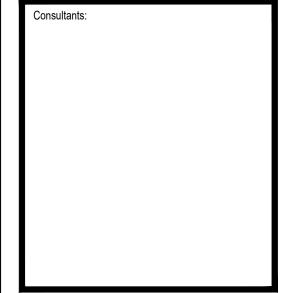
> RUSTCRAFT ROAD SEWER IMPROVEMENTS, CONTRACT 20-1

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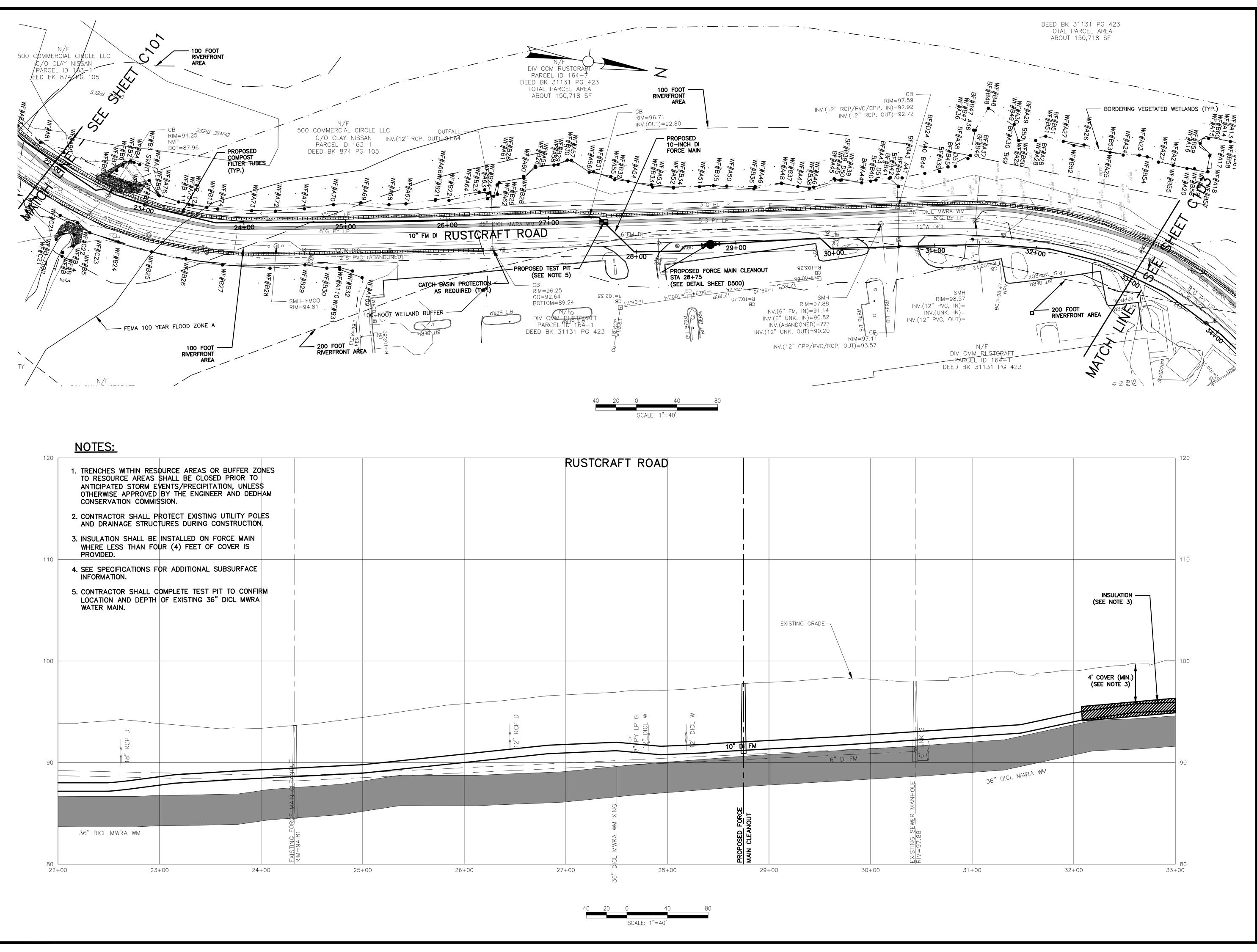


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RUSTCRAFT ROAD STA 11+00 TO STA 22+00

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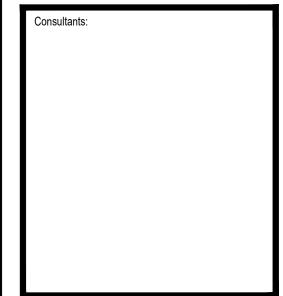
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RUSTCRAFT ROAD SEWER

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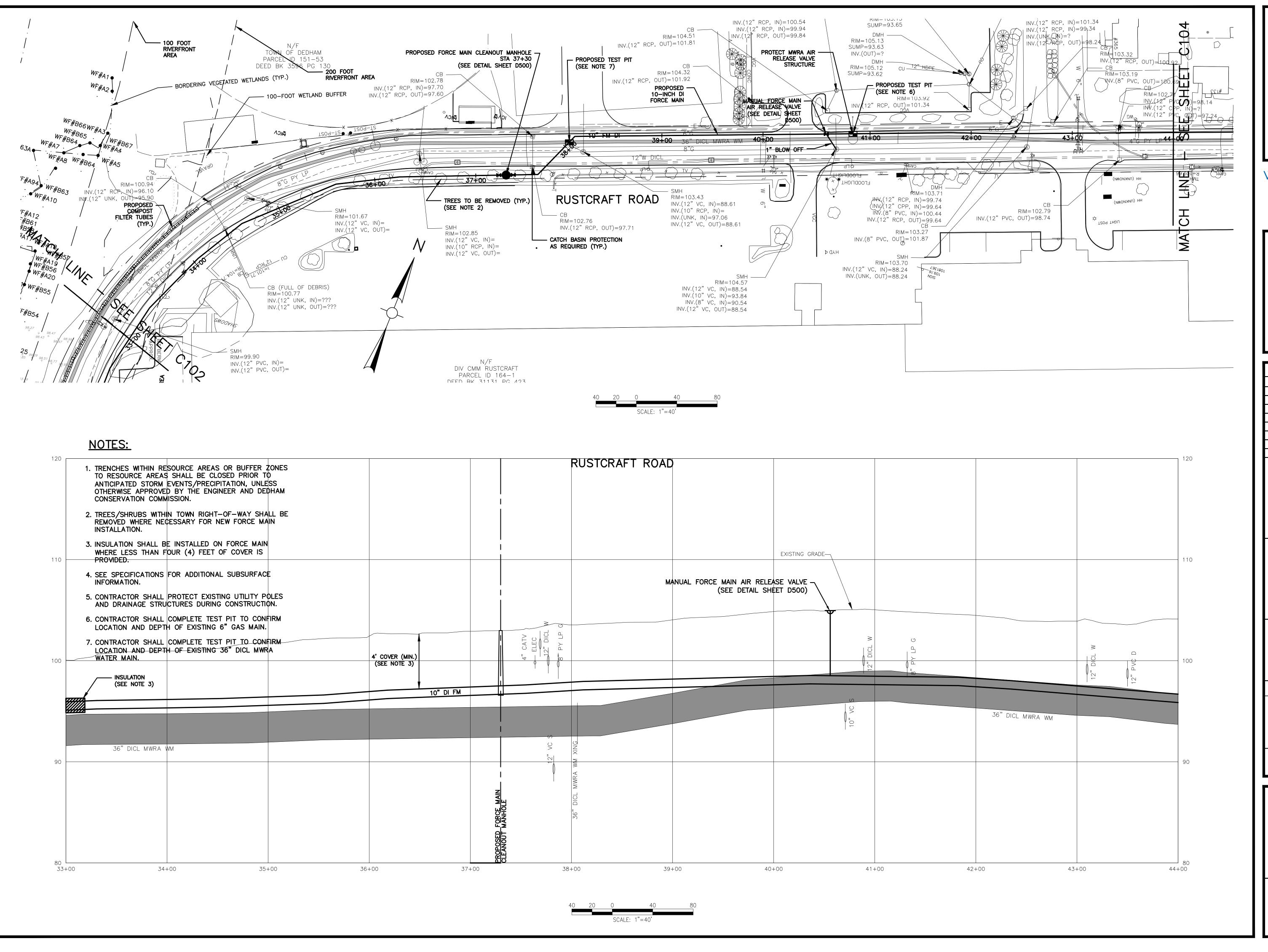


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RUSTCRAFT ROAD STA 22+00 TO STA 33+00

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RUSTCRAFT ROAD SEWER
IMPROVEMENTS,
CONTRACT 20-1

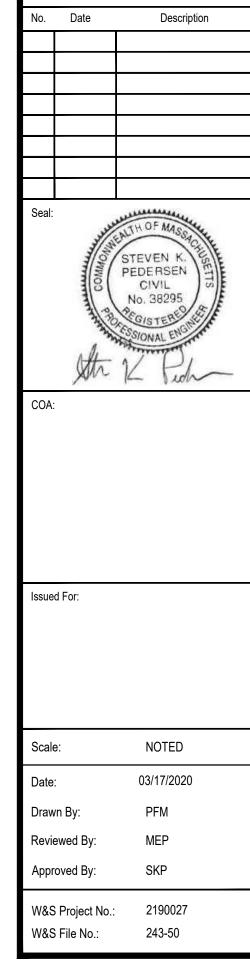
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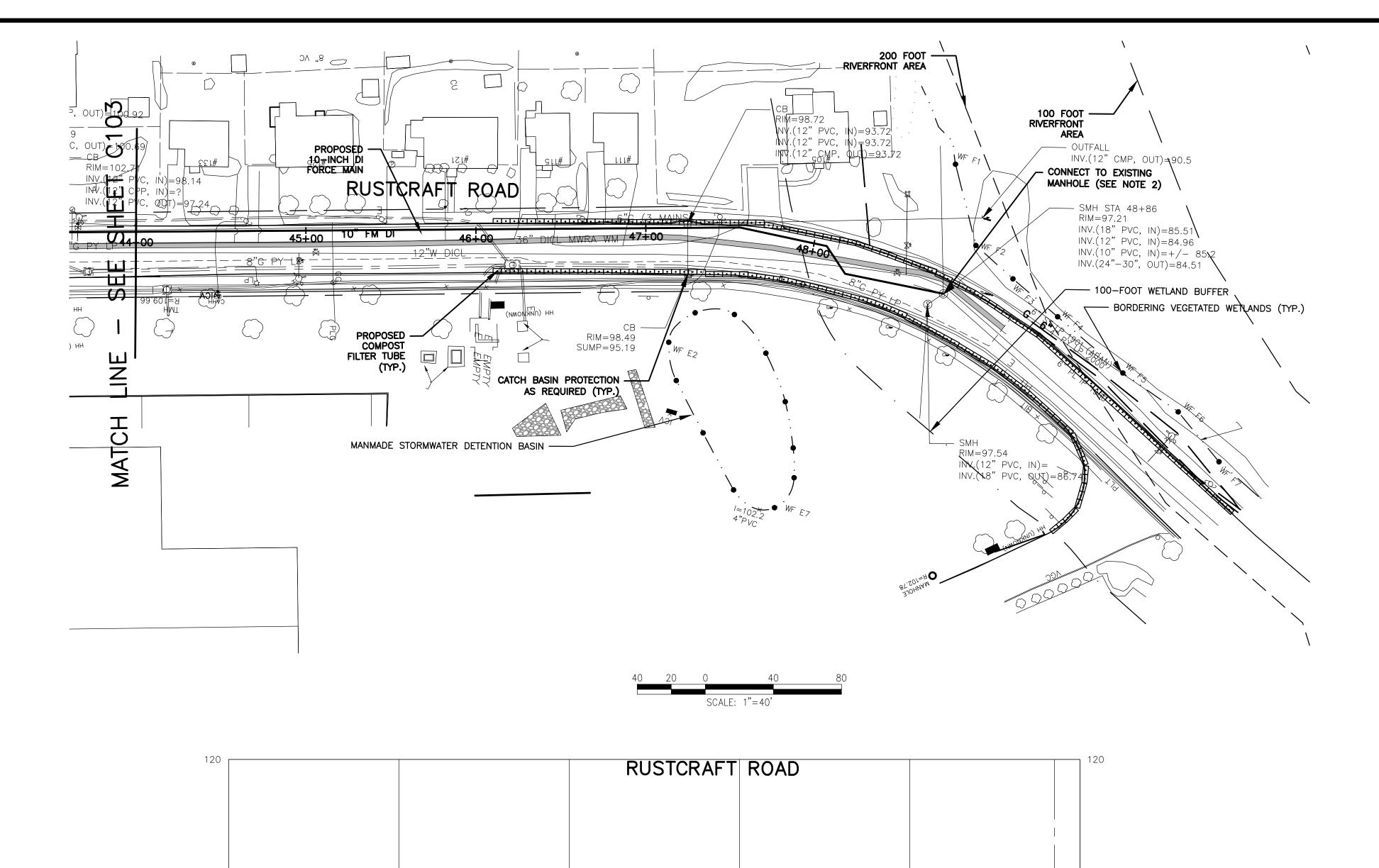
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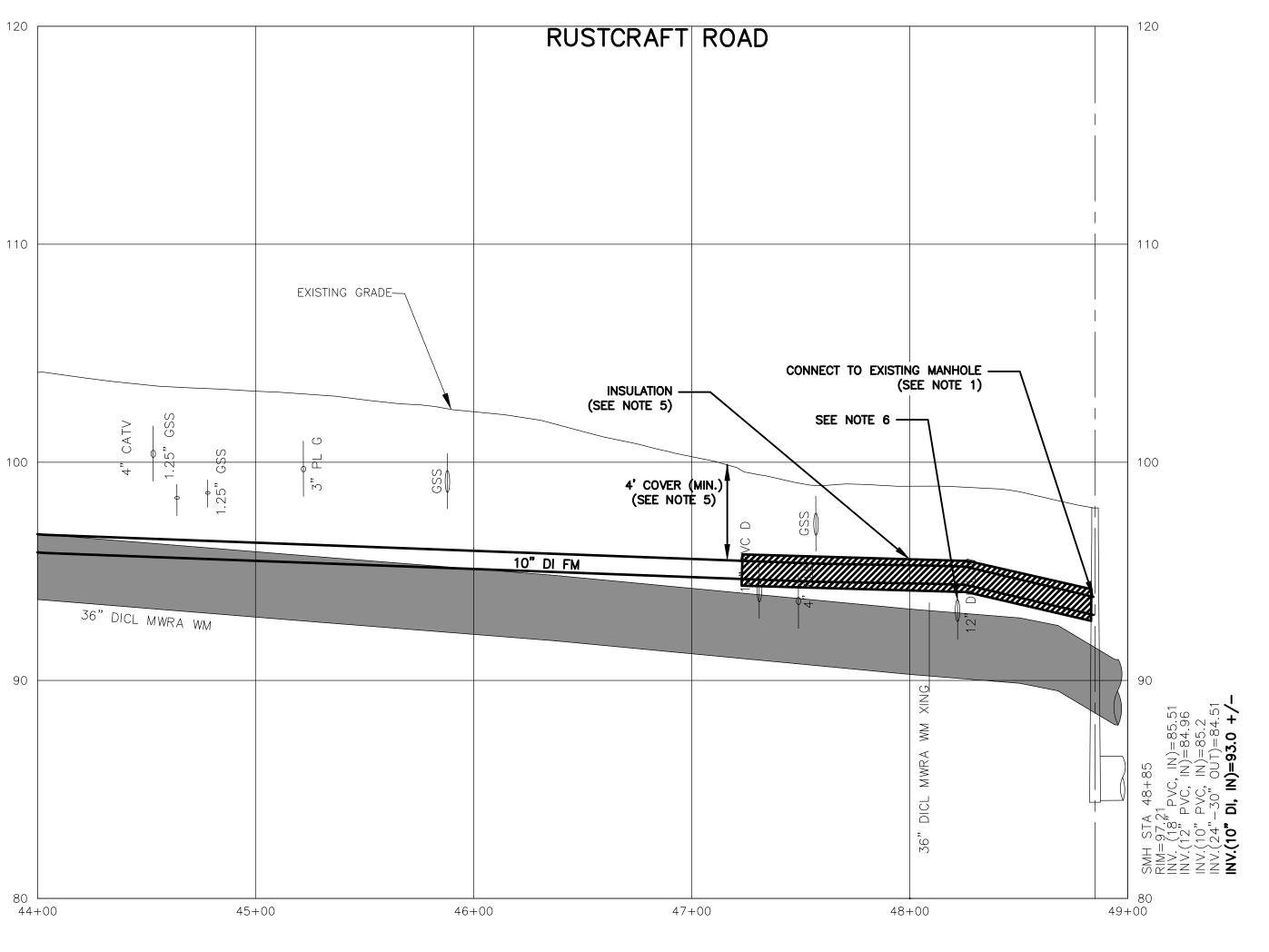


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RUSTCRAFT ROAD STA 33+00 TO STA 44+00

Sheet Number:





### NOTES:

- CONTRACTOR SHALL CONNECT TO EXISTING MANHOLE
  AS NEEDED, INCLUDING CORE NEW OPENING, AND
  REBUILD INVERT.
- 2. CONTRACTOR SHALL PROTECT AND RESTORE EXISTING CATCH BASINS AS NECESSARY.
- 3. CONTRACTOR SHALL PERFORM ALL WORK IN CONFORMANCE WITH THE ORDER OF CONDITIONS INCLUDED IN SPECIFICATION SECTION 00890, INCLUDING CONTROL OF WORK PROVISIONS.
- 4. TRENCHES WITHIN RESOURCE AREAS OR BUFFER ZONES TO RESOURCE AREAS SHALL BE CLOSED PRIOR TO ANTICIPATED STORM EVENTS/PRECIPITATION, UNLESS OTHERWISE APPROVED BY THE ENGINEER AND DEDHAM CONSERVATION COMMISSION.
- 5. INSULATION SHALL BE INSTALLED ON FORCE MAIN WHERE LESS THAN FOUR (4) FEET OF COVER IS PROVIDED.
- 6. ENCASE 12" WATER MAIN CROSSING IN CONCRETE WHERE LESS THAN 12" SEPARATION TO PROTECT WATER MAIN.
- 7. SEE SPECIFICATIONS FOR ADDITIONAL SUBSURFACE INFORMATION.

Pro

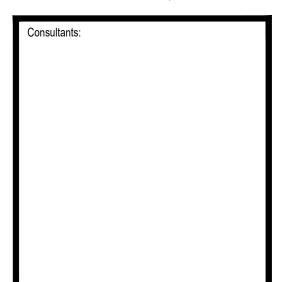
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Drawn By: PFM

Reviewed By: MEP

Approved By: SKP

W&S Project No.: 2190027

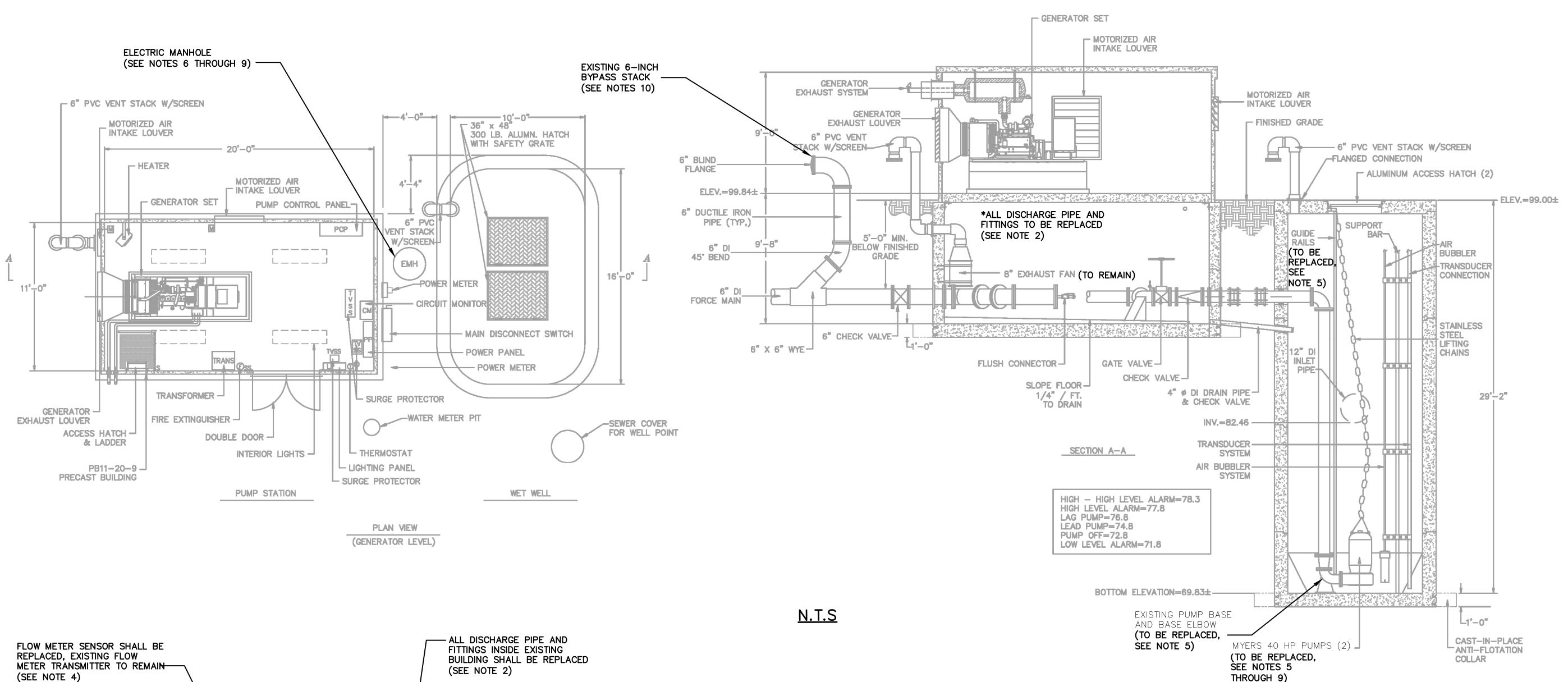
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RUSTCRAFT ROAD STA 44+00 TO STA 48+86

243-49

Sheet Number:



(SEE NOTE 4) --| |---- 4'-0"----| |--—10<sup>\*</sup>—0<sup>\*\*</sup>— -- 19°-8"-----ALL PIPES 6" FLANGED DUCTILE-IRON FLOW METER -UNLESS OTHERWISE SHOWN INTERIOR LIGHTS CHECK VALVES -KNIFE GATE VALVE 8" EXHAUST FAN 6" PVC VENT STACK W/SCREEN-GATE VALVES -6" GATE VALVE AND VALVE BOX -FORCE \_ -6" X 6" WYE 1" BRASS PIPE -EMERGENCY LIGHTS PARAMATER BASICAN PARAMATER SANCES - SEWAGE PUMP #2 LADDER -SEWAGE PUMP #1 PIG LAUNCH AREA--12" DI INLET PIPE THERMOSTAT-INVERT = 82.46FLUSH CONNECTION-└ 4" ø DI DRAIN PIPE FIRE EXTINGUISHER -& CHECK VALVE HOSE BIBB -

WATTS 1" BACKFLOW PREVENTER -

ZURN POST HYDRANT -

L HEATER

PLAN VIEW

(PUMP LEVEL)

#### **NOTES:**

- 1. AS-BUILT PUMP STATION PLAN AND SECTION VIEW INFORMATION TAKEN FROM PLANS TITLED "RUSTCRAFT ROAD PUMP STATION AND SEWER DESIGN" BY STANTEC CONSULTING SERVICES INC. AND DATED JANUARY 2009, WHICH ARE ATTACHED TO THE SPECIFICATIONS AS ATTACHMENT E.
- 2. ALL 6-INCH DISCHARGE PIPING, VALVES AND FITTINGS FROM THE CHECK VALVES INSIDE THE VALVE PIT OF THE EXISTING BUILDING UP TO AND INCLUDING THE BYPASS PIPE STACK OUTSIDE OF THE EXISTING BUILDING SHALL BE REPLACED WITH NEW 10-INCH PIPING, VALVES, AND FITTINGS, INCLUDING PIG LAUNCH AREA PIPING AND APPURTENANCES.
- 3. EXHAUST FAN LOCATED INSIDE THE VALVE PIT OF THE EXISTING BUILDING SHALL REMAIN, INCLUDING THE VENT STACK WITH SCREEN, LOCATED OUTSIDE OF THE EXISTING BUILDING.
- 4. EXISTING 6-INCH FLOW METER SENSOR SHALL BE REMOVED AND REPLACED WITH NEW 10-INCH FLOW METER SENSOR. NEW SENSOR SHALL BE SIEMENS MODEL SITRANS FM MAGFLOW MAG 5100W, TO FIT NEW 10-INCH FORCE MAIN PIPE FLANGES AND COMPATIBLE WITH EXISTING SIEMENS SITRANS FM MAG 5000 FLOW METER TRANSMITTER (TO REMAIN).
- 5. EXISTING PUMPS SHALL BE REPLACED WITH NEW PUMPS (AS SPECIFIED). PUMP BASE, BASE ELBOW AND GUIDE RAILS SHALL ALSO BE REPLACED WITH NEW PUMP INSTALLATION.
- 6. CONTRACTOR SHALL MAKE SAFE EXISTING POWER FEED TO EXISTING PUMPS FROM PUMP CONTROL PANEL INSIDE PUMP STATION.
- 7. EXISTING PUMP, PUMP CABLE AND WIRING SHALL BE REMOVED BACK TO THE ELECTRIC MANHOLE (EMH). MAINTAIN EXISTING POWER FEED FROM THE CONTROL PANEL TO THE ELECTRIC MANHOLE FOR CONNECTION TO THE NEW PUMP CABLES.
- 8. NEW PUMPS SHALL BE INSTALLED IN PLACE OF THE EXISTING. NEW MANUFACTURERS PUMP CABLE SHALL BE INSTALLED IN THE EXISTING CONDUIT BETWEEN THE WET WELL AND THE EXISTING ELECTRIC MANHOLE. NEW EXPLOSION PROOF CONDUIT SEAL FITTINGS SHALL BE INSTALLED AT THE EXIT POINT OF THE WET WELL AND PRIOR TO ENTRY INTO THE ELECTRIC MANHOLE.
- 9. NEW MANUFACTURER PROVIDED PUMP CABLES SHALL BE A MINIMUM OF 60 FEET IN LENGTH AND SHALL BE CONNECTED TO THE EXISTING POWER WIRING FROM THE PUMP CONTROL PANEL IN THE EXISTING ELECTRIC MANHOLE. AFTER TESTING, THE LINES SHALL BE RE-ENERGIZED.
- 10. UPON COMPLETION OF 10-INCH FORCE MAIN AND PIPING INSTALLATION (INCLUDING PUMP STATION WORK), NEW 6-INCH BYPASS STACK SHALL BE INSTALLED ON EXISTING 6-INCH FORCE MAIN AT PUMP STATION SITE (ENTIRE REMAINING LENGTH OF EXISTING 6-INCH FORCE MAIN TO REMAIN IN PLACE), LOCATION OF NEW 6-INCH BYPASS STACK TO BE CONFIRMED BY ENGINEER IN FIELD.

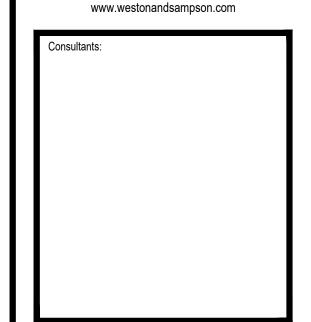
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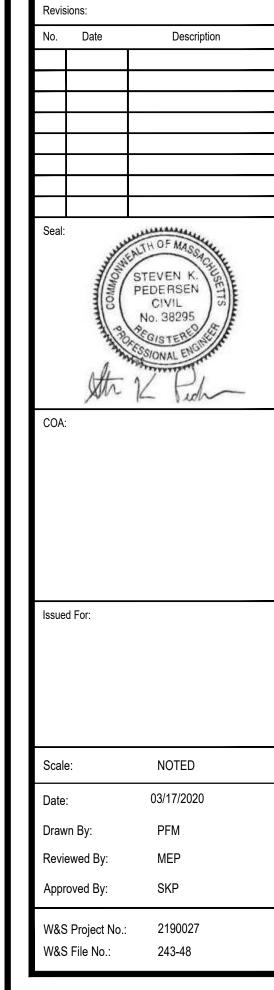
RUSTCRAFT ROAD SEWER IMPROVEMENTS, CONTRACT 20-1

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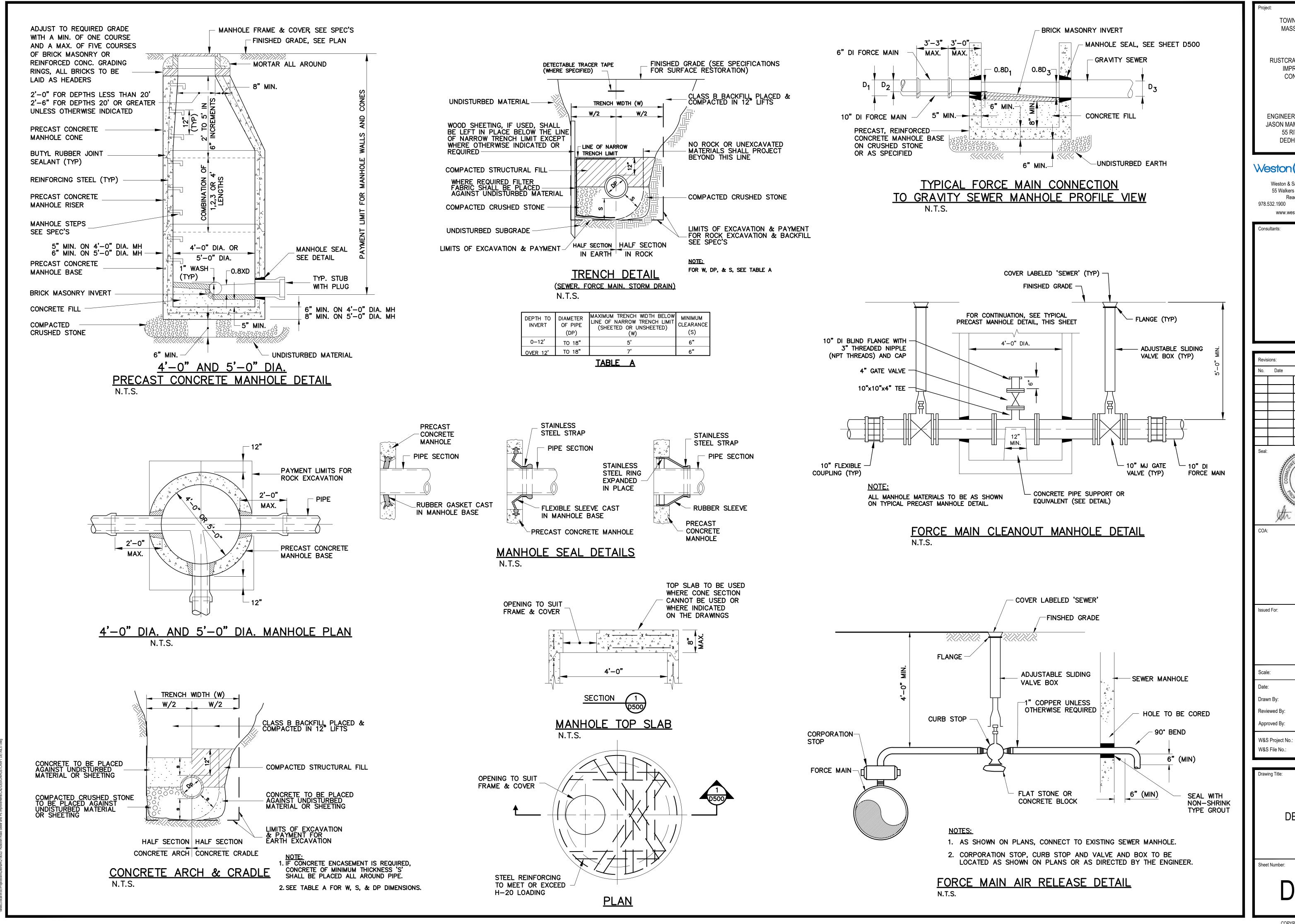




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RUSTCRAFT ROAD
PUMP STATION
DETAILS AND
SECTIONS

Sheet Number:



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RUSTCRAFT ROAD SEWER
IMPROVEMENTS,
CONTRACT 20-1

ENGINEERING DEPARTMENT
JASON MAMMONE, DIRECTOR
55 RIVER STREET

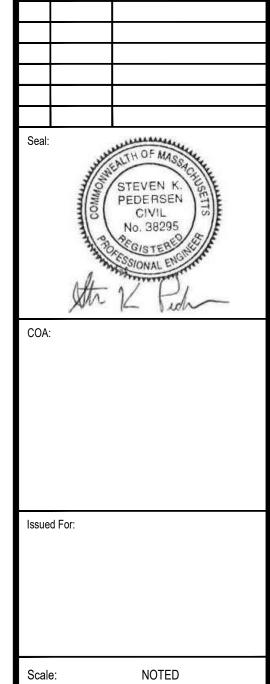
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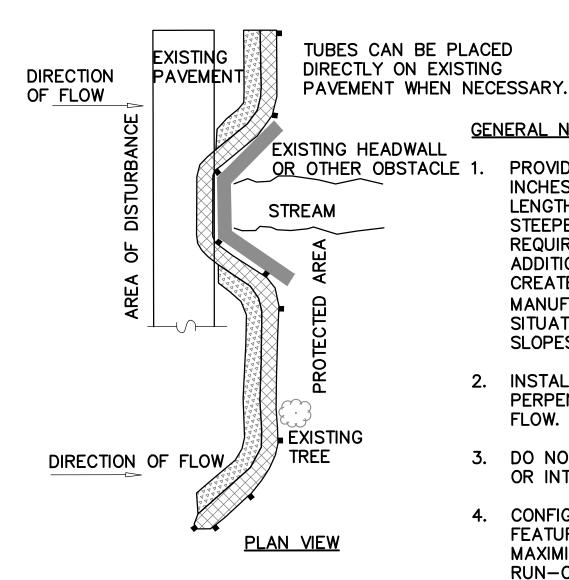
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PLACING TUBES AGAINST THE UPHILL SIDE OF WELL- ANCHORED, STATIONARY FEATURES SUCH5. AS EXISTING TREES CAN PROVIDE ADDITIONAL BRACING.

CURVE ENDS UPHILL TO PREVENT DIVERSION OF UNFILTERED RUN-OFF.

SOIL SURFACE AND TUBES. **GENERAL NOTES:** PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H: 1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR

SLOPES.

2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED

SITUATIONS WITH LONGER OR STEEPER

- 3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
- 4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.

MULCH MATERIAL FOR THE FILTER TUBES SHALL BE WEED-FREE STRAW, WOOD EXCELSIOR, COMPOST, OR WOOD CHIPS, OR COIR. STRAW SHALL BE WEED FREE AND DERIVED FROM THRESHING OF GRAIN CROP.

**BORING NUMBER** 

GROUNDWATER LEVEL AND

IF NO SYMBOL IS PRESENT)

DEPTH FROM TOP OF BORING (NO WATER WAS RECORDED

SOIL STRATA CHANGE AND

INDICATES BORING WAS

INDICATES BORING WAS

MADE IN ROCK

INDICATES DEPTH OF BORING

MADE IN WEATHERED ROCK

DEPTH FROM TOP OF BORING

COMPOST FILTER TUBE MINIMUM 12 INCHES IN DIAMETER WITH AN EFFECTIVE HEIGHT OF 9.5 INCHES. TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.

TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES INTO EXISTING GRADE.

2 INCH X 2 INCH X 3 FEET UNTREATED HARDWOOD STAKES, UP TO 5 FT. APART OR AS REQUIRED TO SECURE TUBES IN PLACE.

WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN TUBES MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR CINDER BLOCKS CAN BE USED BEHIND TUBES UP TO 5 FT. APART OR AS REQUIRED TO SECURE TUBES IN PLACE.

LIMIT OF WORK

UNDISTURBED SUBGRADE

PROVIDE A 3 FT. MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW. STAKE JOINING TUBES SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM. SECURE ENDS OF TUBES WITH STAKES SPACED 18 IN. APART THROUGH TOPS OF TUBES. PROTECTED AREA

UNTREATED HARDWOOD STAKE (TYP.)

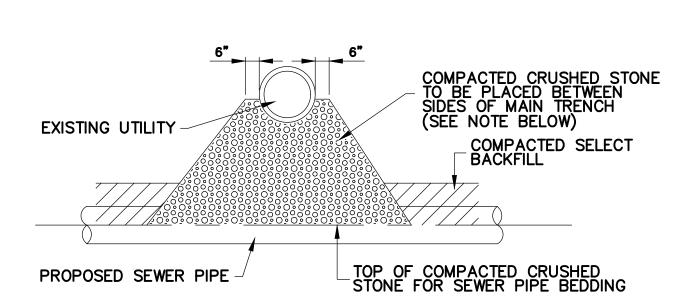
COMPOST FILTER TUBE (TYP.) - LOOSE COMPOST LAYER

PLAN VIEW - JOINING DETAIL

DIRECTION OF FLOW

### COMPOST FILTER TUBE DETAIL

N.T.S.



### UTILITY CROSSING DETAIL

WHERE ASBESTOS CEMENT (A.C.) PIPE IS ENCOUNTERED CONTROLLED DENSITY FILL SHALL BE INSTALLED IN LIEU OF CRUSHED STONE

**BLOWS REQUIRED TO PENETRATE -**EACH TWELVE INCH CHANGE IN

**ELEVATION USING A 140 POUND** 

WEIGHT FALLING 30 INCHES

FIGURE WHEN BELOW BEDROCK -

OF ROCK USING STANDARD

NOTES: 1. FOR DRILLER'S NAME, SOILS ENCOUNTERED AND OTHER PERTINENT DATA SEE BORING LOGS BOUND IN SPECIFICATIONS

2. REFUSALS (WHEN RECORDED)

ARE SHOWN ON THE BORING LOG.

SEE BORING LOG FOR REFUSAL TYPE.

**PROCEDURES** 

INDICATES THE MINUTES REQUIRED

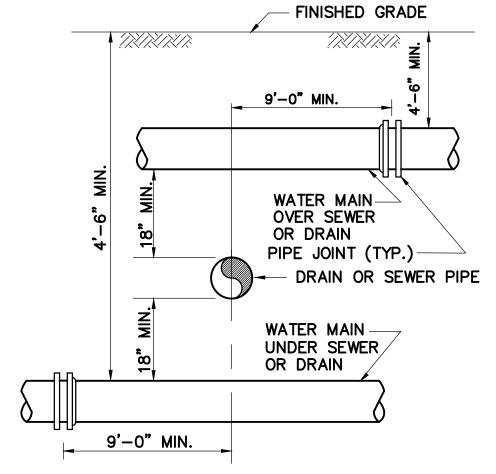
TO PENETRATE TWELVE INCH DEPTH

TOP OF BORING -

120

BOTTOM 22.0'

**BORING LOG LEGEND** 



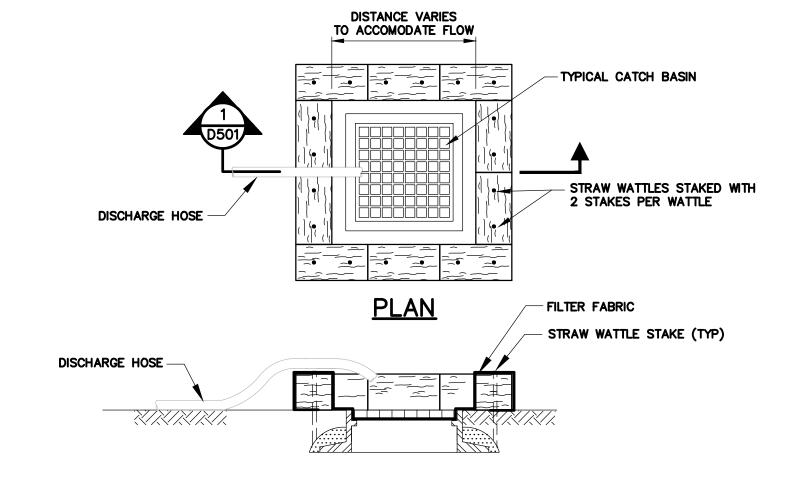
2 IN. DEEP x 12 IN. WIDE LAYER —

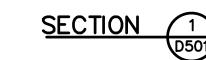
PLACED ON UPHILL/FLOW SIDE OF

TUBES TO FILL SPACE BETWEEN

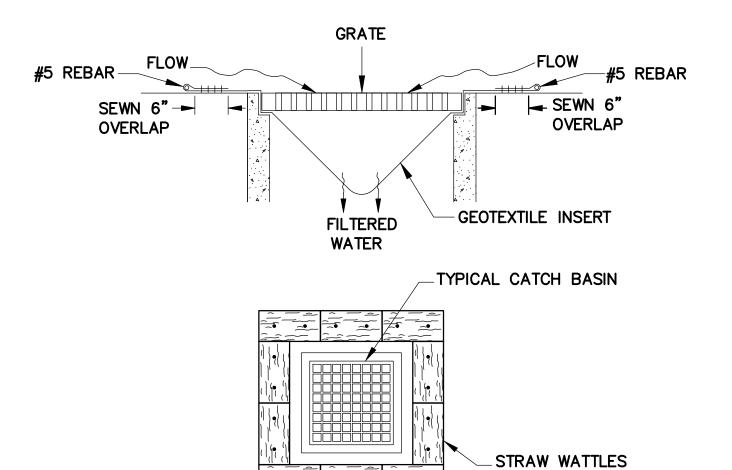
OF LOOSE COMPOST MATERIAL

SEWER OR DRAIN CROSSING DETAIL

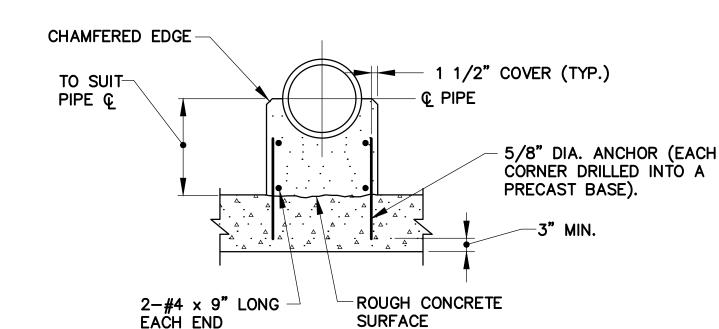




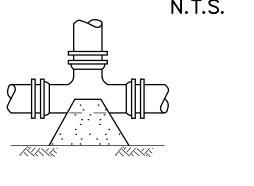
### DEWATERING DISCHARGE DISPOSAL TO CATCH BASIN DETAIL



CATCH BASIN PROTECTION DETAIL



## **CONCRETE PIPE SUPPORT**



**BEARING AREA** AS SHOWN IN-TABLE (TYP)

TEE DETAIL (PLAN VIEW)

CAP DETAIL (PLUG SIMILAR) (SECTION VIEW)

BEND DETAIL (PLAN VIEW)

TABLE OF CONCRETE THRUST RESTRAINT MINIMUM BEARING AREAS IN SQUARE FEET AGAINST UNDISTURBED MATERIAL					
SIZE OF MAIN	90° BENDS, TEES, CAPS AND PLUGS	45° BENDS AND WYES	22-1/2° BENDS	11-1/4° BENDS	
6", 8"	5	4	2	2	
10", 12"	12	9	5	2	
16"	20	15	8	4	
20"	36	24	13	7	

NOTES: 1. ALL FITTINGS SHALL HAVE CONCRETE BACKING FOR THRUST RESTRAINT UNLESS OTHERWISE SPECIFIED. 2. CONTRACTOR SHALL USE CARE TO AVOID PLACEMENT OF CONCRETE ON THE FITTING JOINTS

CONCRETE THRUST RESTRAINT FOR FITTINGS N.T.S.

NOTED 03/17/2020 2190027 W&S Project No.: 243-46 W&S File No.: Drawing Title:

Issued For:

TOWN OF DEDHAM, MASSACHUSETTS

RUSTCRAFT ROAD SEWER

IMPROVEMENTS,

CONTRACT 20-1

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Description

STEVEN K.

PEDERSEN

CIVIL

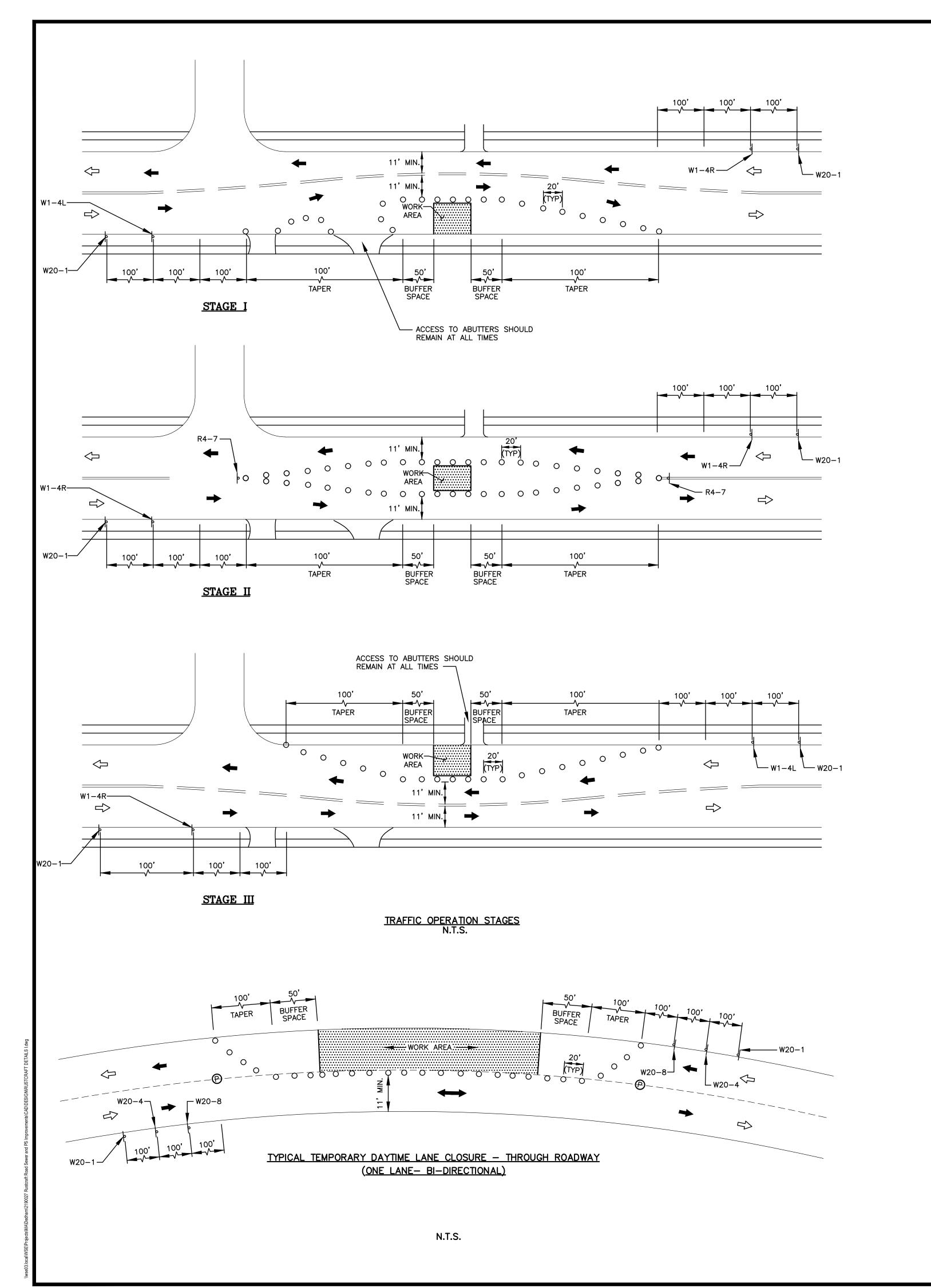
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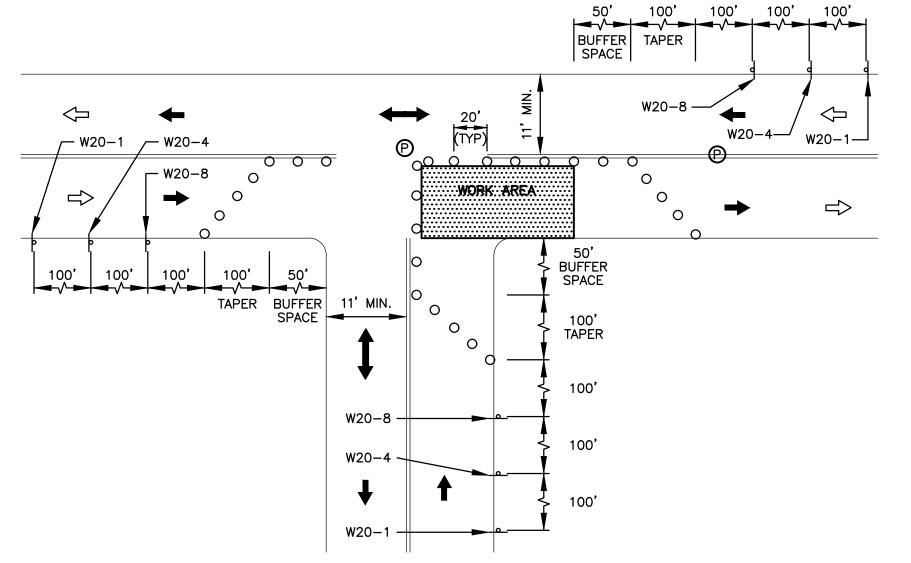
**DETAILS II** 

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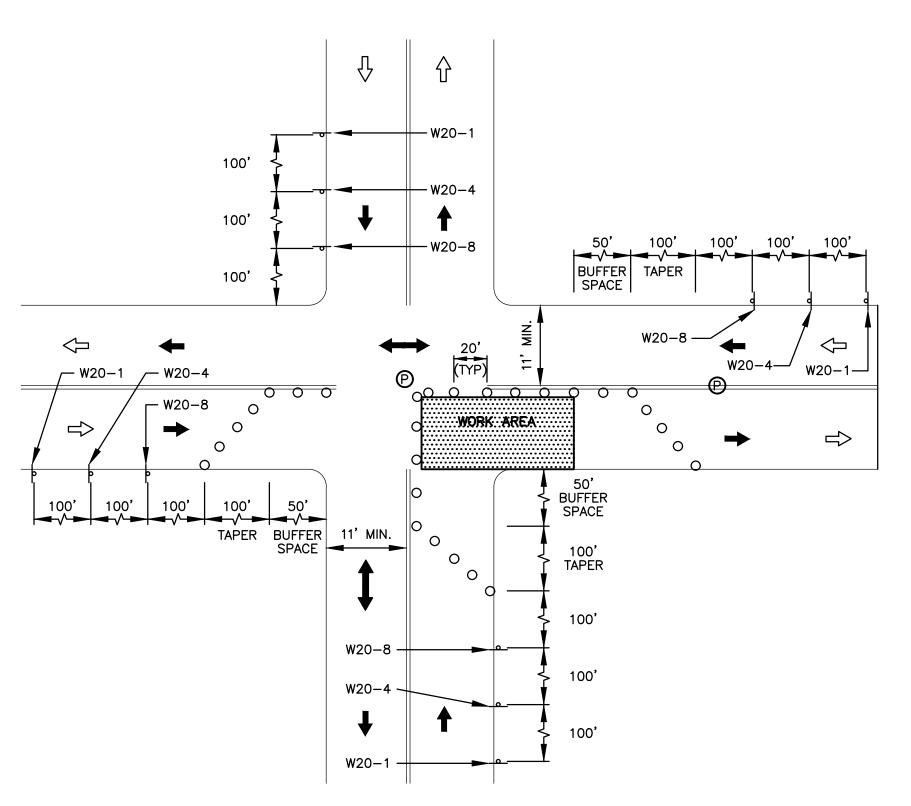
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"T" INTERSECTION LANE CLOSURE



CLOSURE AT SIDE OF INTERSECTION

TEMPORARY TRAFFIC SIGN SUMMARY

MUTCD	SIZE O	F SIGN	SIGN
CODE	WIDTH	HEIGHT	SIGN
W1 – 4L	30"	30"	<b>(\$)</b>
W1-4R	30"	30"	
W20-1	36"	36"	ROAD WORK AHEAD
W20-4	36"	36"	ONE LANE ROAD AHEAD
W20-8	36"	36"	POLICE OFFICER AHEAD
G20-2	36"	18"	END CONSTRUCTION
R4-7	24"	30"	7

#### NOTE:

1. FOR THE LATEST SPECIFICATION ON TEXT DIMENSIONS AND COLOR, CONTRACTOR SHALL REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

#### LEGEND:

- O REFLECTORIZED DRUM
- TRAFFIC FLOW DURING CONSTRUCTION
- ✓ NORMAL TRAFFIC FLOW
- POLICE DETAIL OFFICER
- CONSTRUCTION SIGN

#### WORK AREA

#### **GENERAL NOTES:**

- 1. PLACEMENT OF ALL CONSTRUCTION SIGNS, DRUMS, BARRICADES, TRAFFIC DEVICES AND THE SHAPE, SIZE & COLOR OF ALL TEMPORARY TRAFFIC SIGNS SHALL CONFORM WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 2. ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH TO BE ADJUSTED ACCORDING TO STREET CONDITIONS AND DRIVEWAY OPENINGS.
- 3. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
- 4. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- 5. NONESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
- 6. PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
- 7. W20-8 SHALL BE TAKEN DOWN OR COVERED AFTER EACH WORKING DAY OR WHEN OTHERWISE NOT APPLICABLE, OR WHEN POLICE OFFICERS ARE NOT PRESENT TO DIRECT TRAFFIC.
- 8. ADVISORY SPEED PLATES (W13-1 SEE CURRENT EDITION OF MUTCD) SHALL BE USED IF APPLICABLE AND AS REQUIRED BY THE ENGINEER.
- 9. NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
- 10. SAMPLE TRAFFIC PLANS INCLUDED ON THIS PLAN SHEET ARE BASED ON AN URBAN (LOW SPEED) ROAD TYPE FROM THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 11. DASHED LINES SHOW LANE DESIGATIONS TO BE USED DURING CONSTRUCTION.
- 12. THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY PLAN TO THE ENGINEER FOR APPROVAL.
- 13. THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF HIS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.

SIZE OF SICN JASON MAMMONE, DIRECTOR

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RUSTCRAFT ROAD SEWER

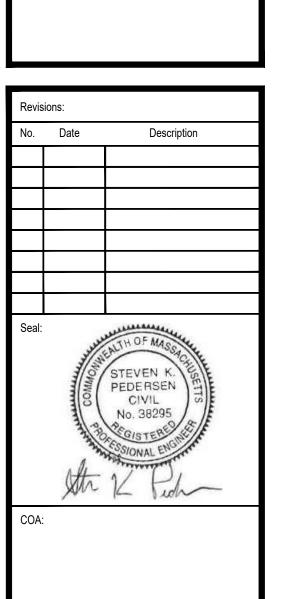
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Issued For: NOTED 03/17/2020 PFM Reviewed By: SKP Approved By: W&S Project No.: 2190027 W&S File No.: 243-45

CONSTRUCTION ZONE SAFETY PLAN	1

Drawing Title:

Sheet Number:

D502