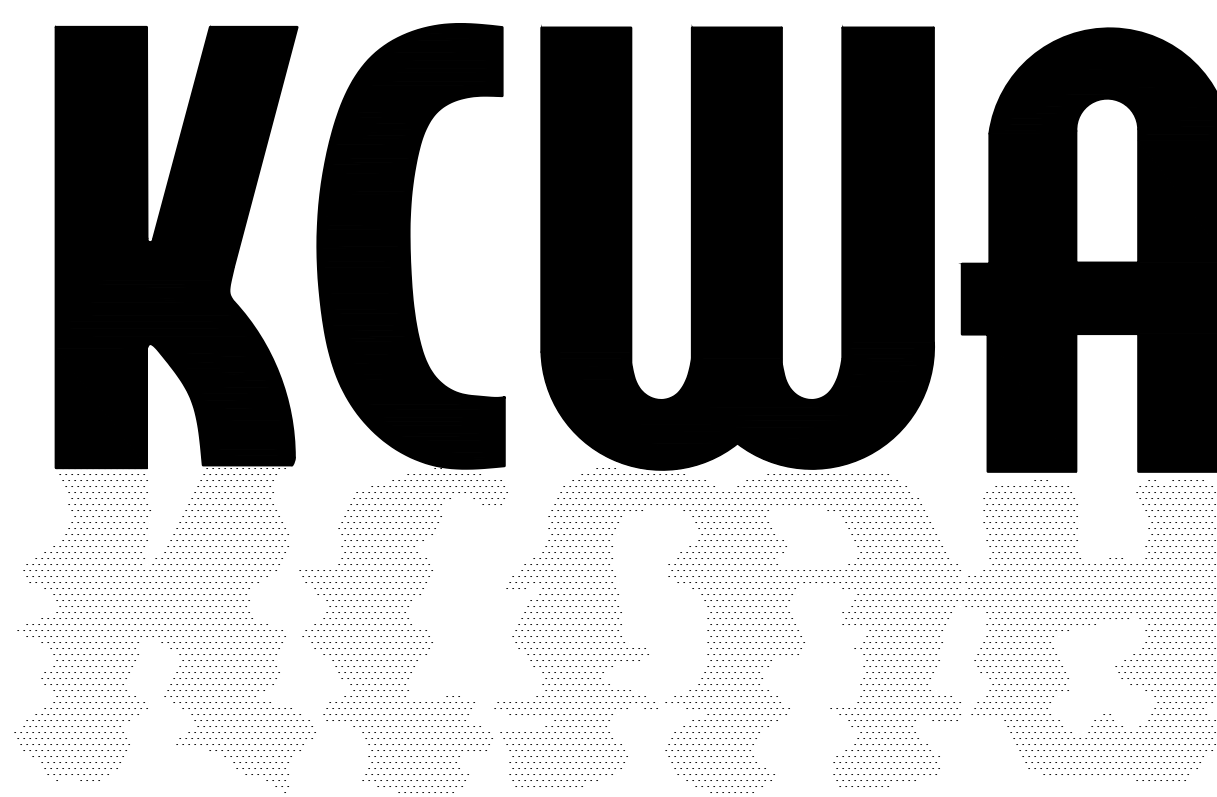


KENT COUNTY WATER AUTHORITY

2022 INFRASTRUCTURE IMPROVEMENTS



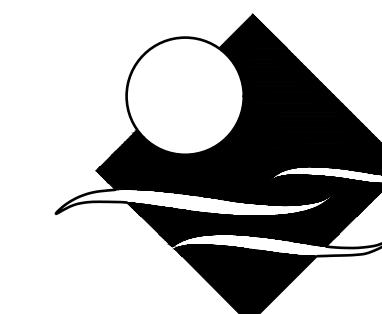
Board Members:

Robert B. Boyer PLS, Chairman
Jefferey Giusti , Vice Chairman
Russell S. Crossman, Secretary
Scott Duckworth, Treasurer
Brian Kortz, Member
Geoffrey Rousselle, Member
Charles Donovan, Member

INDEX TO DRAWINGS

DRAWING

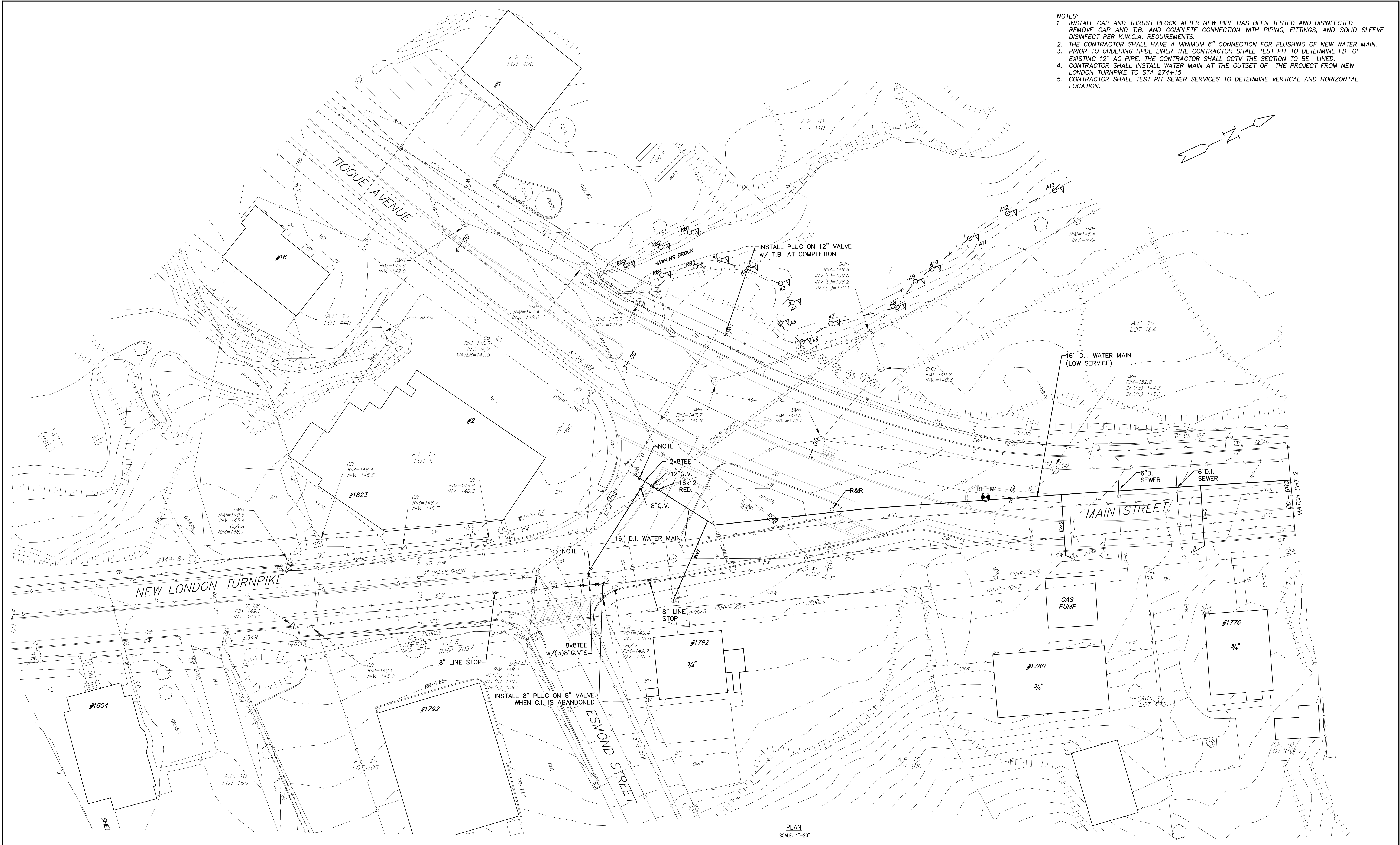
NO.	DESCRIPTION
1.	PLAN - TIOGUE AVE MAIN ST, & NEW LONDON TURNPIKE WEST WARWICK, RI
2.	PLAN - MAIN ST STA 285+00 TO STA 279+00 WEST WARWICK, RI
3.	PLAN - MAIN ST, COWESETT AVE, & EAST GREENWICH AVE STA 278+50 TO STA 272+00 WEST WARWICK, RI
4.	PLAN - COWESETT AVE, MAIN ST, & GREENWICH AVE INTERSECTION WEST WARWICK, RI
5.	PLAN - COWESETT AVE STA 272+00 TO STA 265+85 WEST WARWICK, RI
6.	PLAN - COWESETT AVE STA 265+85 TO STA 259+60 WEST WARWICK, RI
7.	PLAN - COWESETT AVE STA 259+60 TO STA 254+00 WEST WARWICK, RI
8.	PLAN - COWESETT AVE STA 254+00 TO STA 248+65 WEST WARWICK, RI
9.	PLAN - COWESETT AVE STA 248+65 TO STA 244+40 WEST WARWICK, RI
10.	PLAN - COWESETT AVE STA 244+40 TO STA 239+50 WEST WARWICK, RI
11.	PLAN - COWESETT AVE STA 239+50 TO STA 233+00 WEST WARWICK, RI
12.	PLAN - COWESETT AVE STA 233+00 TO STA 226+40 WEST WARWICK, RI
13.	PLAN - COWESETT AVE STA 226+40 TO STA 220+75 WEST WARWICK, RI
14.	PLAN - COWESETT AVE STA 220+75 TO STA 215+75 WEST WARWICK, RI
15.	PLAN - COWESETT AVE STA 215+75 TO STA 212+00 WEST WARWICK, RI
16.	PLAN - HIGHVIEW DR WEST WARWICK, RI
17.	ALTERNATE 1 PLAN - OSBORNE ST WARWICK, RI
18.	ALTERNATE 1 PLAN - ABIGAIL ST WARWICK, RI
19.	ALTERNATE 1 PLAN - ABIGAIL ST WARWICK, RI
20.	MISCELLANEOUS DETAILS I
21.	MISCELLANEOUS DETAILS II
22.	MISCELLANEOUS DETAILS III
23.	MISCELLANEOUS DETAILS IV
24.	MISCELLANEOUS DETAILS V - RIDOT RECONSTRUCTION OF COWESETT AVE ROADWAY SECTIONS
25.	TRAFFIC CONTROL PLAN I
26.	TRAFFIC CONTROL PLAN II - INTERSECTION OF MAIN ST, EAST GREENWICH AVE, AND COWESETT AVE
27.	TRAFFIC CONTROL PLAN III - INTERSECTION OF MAIN ST, EAST GREENWICH AVE, AND COWESETT AVE



JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS

272 W. Exchange ST Suite 201 Providence, RI 02903-1025
Phone: 401-454-7000 Fax: 401-454-7415

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. THE CONTRACTOR SHALL HAVE A MINIMUM 6" CONNECTION FOR FLUSHING OF NEW WATER MAIN.
 3. PRIOR TO ORDERING HPDE LINER THE CONTRACTOR SHALL TEST PIT TO DETERMINE I.D. OF EXISTING 12" AC PIPE. THE CONTRACTOR SHALL CCTV THE SECTION TO BE LINED.
 4. CONTRACTOR SHALL INSTALL WATER MAIN AT THE OUTSET OF THE PROJECT FROM NEW LONDON TURNPIKE TO STA 274+15.
 5. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.



PLAN
SCALE: 1"=20'

Scale: 1"=20'

Z: | Projects | KCWA | KCWA 2022 | 2022 KCWA INF IMP.dwg

DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JG
SCALE:	1"=20'
DATE:	JUNE 2022
NO.:	1
BY:	RH
DATE:	7/22
REMARKS:	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg
DATE PRINTED:	8/29/22

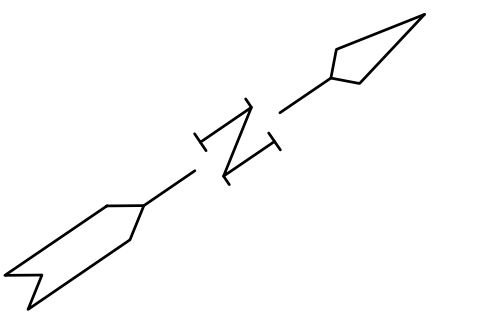
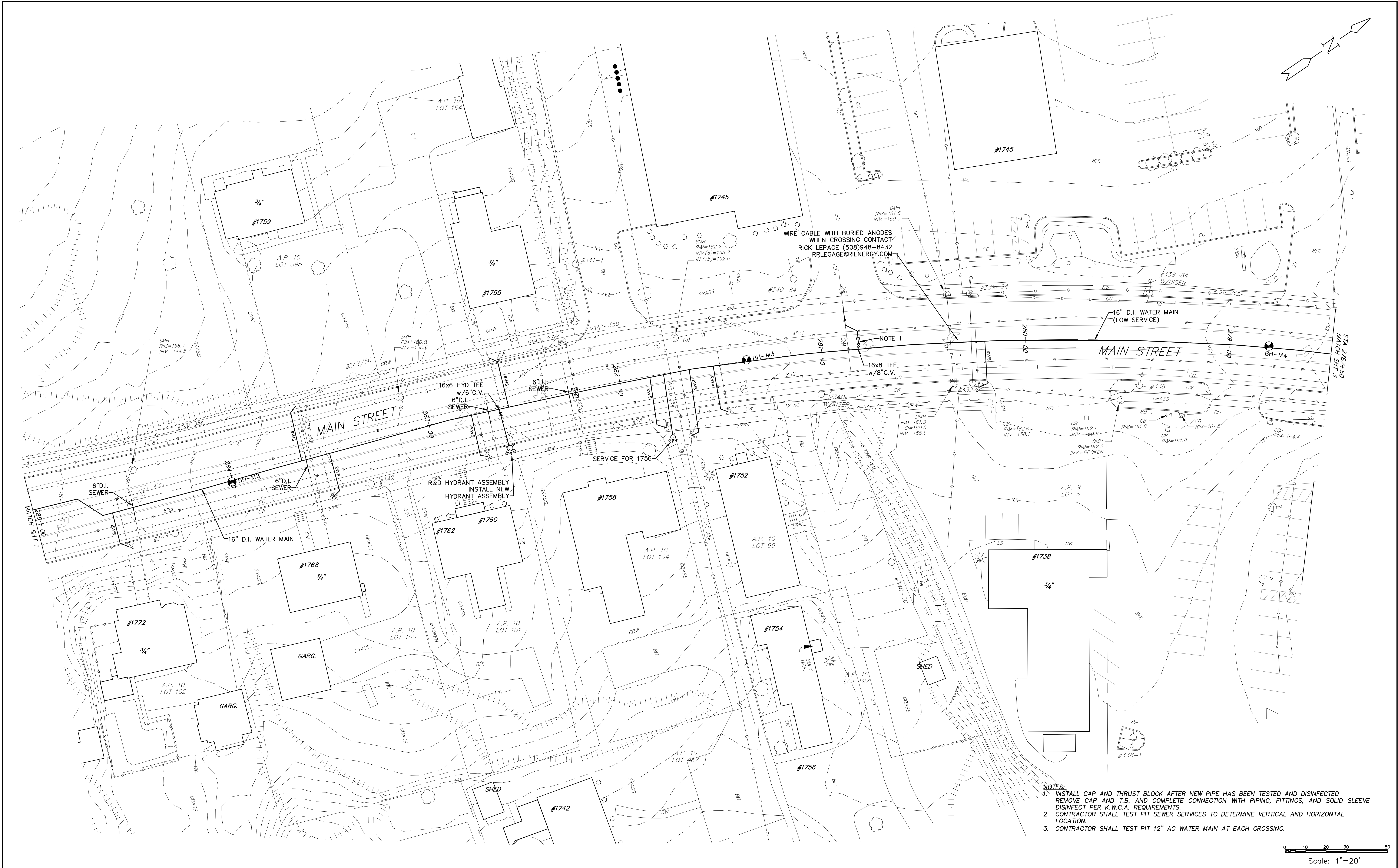
JAMES J. GEREMIA
 No. 4521
 REGISTERED PROFESSIONAL ENGINEER

JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

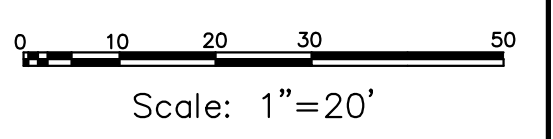
KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
 TIOGUE AVE, MAIN ST,
 & NEW LONDON TURNPIKE
 WEST WARWICK, RI

SHEET NO.
 1



- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE. DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. CONTRACTOR SHALL TEST PIT 12" AC WATER MAIN AT EACH CROSSING.



DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JG
SCALE:	1"=20'
DATE:	JUNE 2022
NO.:	1
BY:	RH
DATE:	7/22
REMARKS:	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg
DATE PRINTED:	8/29/22

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: 1"=20'
 DATE: JUNE 2022

JAMES J. GEREMIA
 No. 4521
 REGISTERED PROFESSIONAL ENGINEER

JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
MAIN STREET
STA 285+00 TO STA 279+00
WEST WARWICK, RI

SHEET NO.
2

Z: | Projects | KCWA | KCWA | 2022 | 2022 | KCWA | INF | IMP.dwg

- NOTES:
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. PRIOR TO INSTALL NEW WATER FROM STA 274+15 TO STA 273+15 THE CONTRACTOR SHALL INSTALL 16" D.I. WATER MAIN FROM 273+15 TO QUAKER LANE.
 3. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 4. CONTRACTOR SHALL TEST PIT 12" AC WATER MAIN AT EACH CROSSING.



Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JG
SCALE:	1"=20'
DATE:	JUNE 2022
NO.:	1
BY:	RH
DATE:	7/22
REMARKS:	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg
DATE PRINTED:	8/29/22

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: 1"=20'
 DATE: JUNE 2022

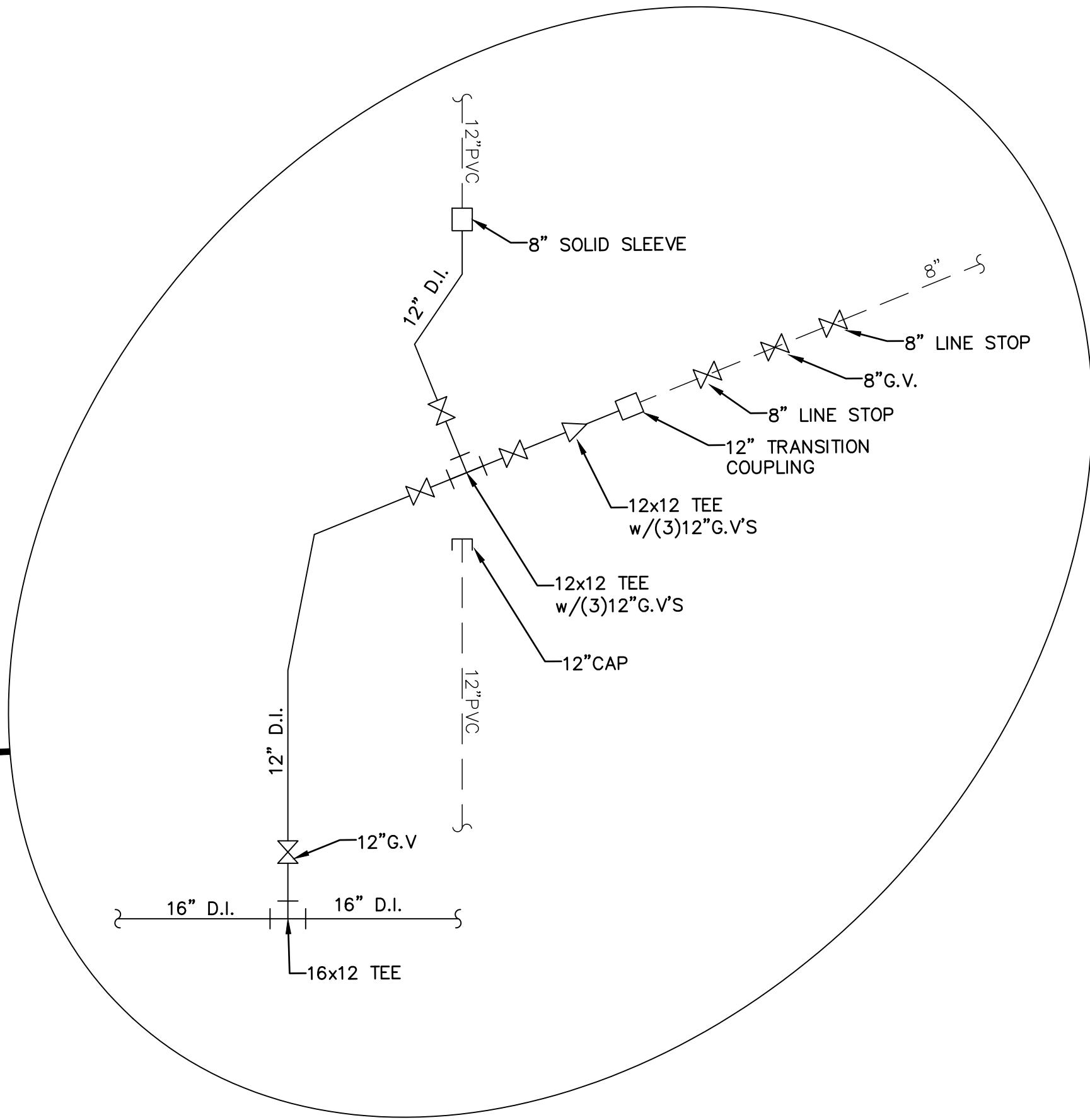
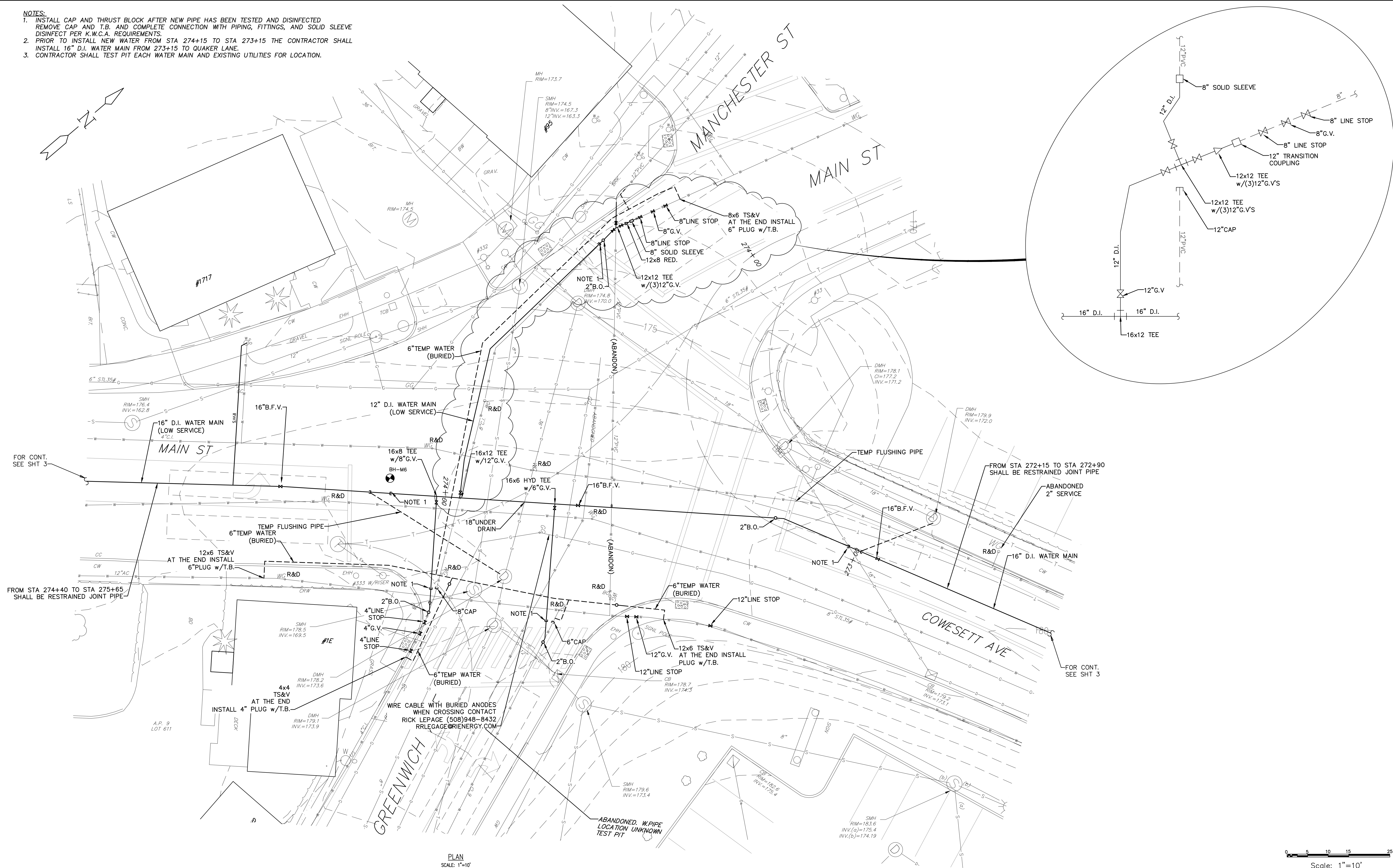
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
MAIN ST, COWESETT AVE, & EAST GREENWICH AVE
STA 278+50 TO STA 272+00
WEST WARWICK, RI

SHEET NO.
3

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. PRIOR TO INSTALL NEW WATER FROM STA 274+15 TO STA 273+15 THE CONTRACTOR SHALL INSTALL 16" D.I. WATER MAIN FROM 273+15 TO QUAKER LANE.
 3. CONTRACTOR SHALL TEST PIT EACH WATER MAIN AND EXISTING UTILITIES FOR LOCATION.



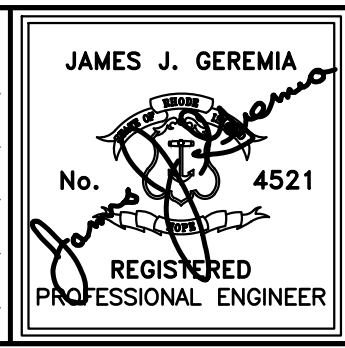
PLAN
SCALE: 1"=10'

Scale: 1"=10'

Z: | Projects | KCWA | KCWA 2022 | 2022 KCWA INF IMP.dwg

NO.	BY:	DATE:	REMARKS:
1	RH	7/22	RI ENERGY COMMENTS
CADD FILE:			2022 KCWA INF IMP.dwg
DATE PRINTED:			8/29/22

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: 1"=10'
DATE: JUNE 2022



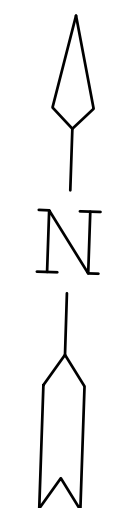
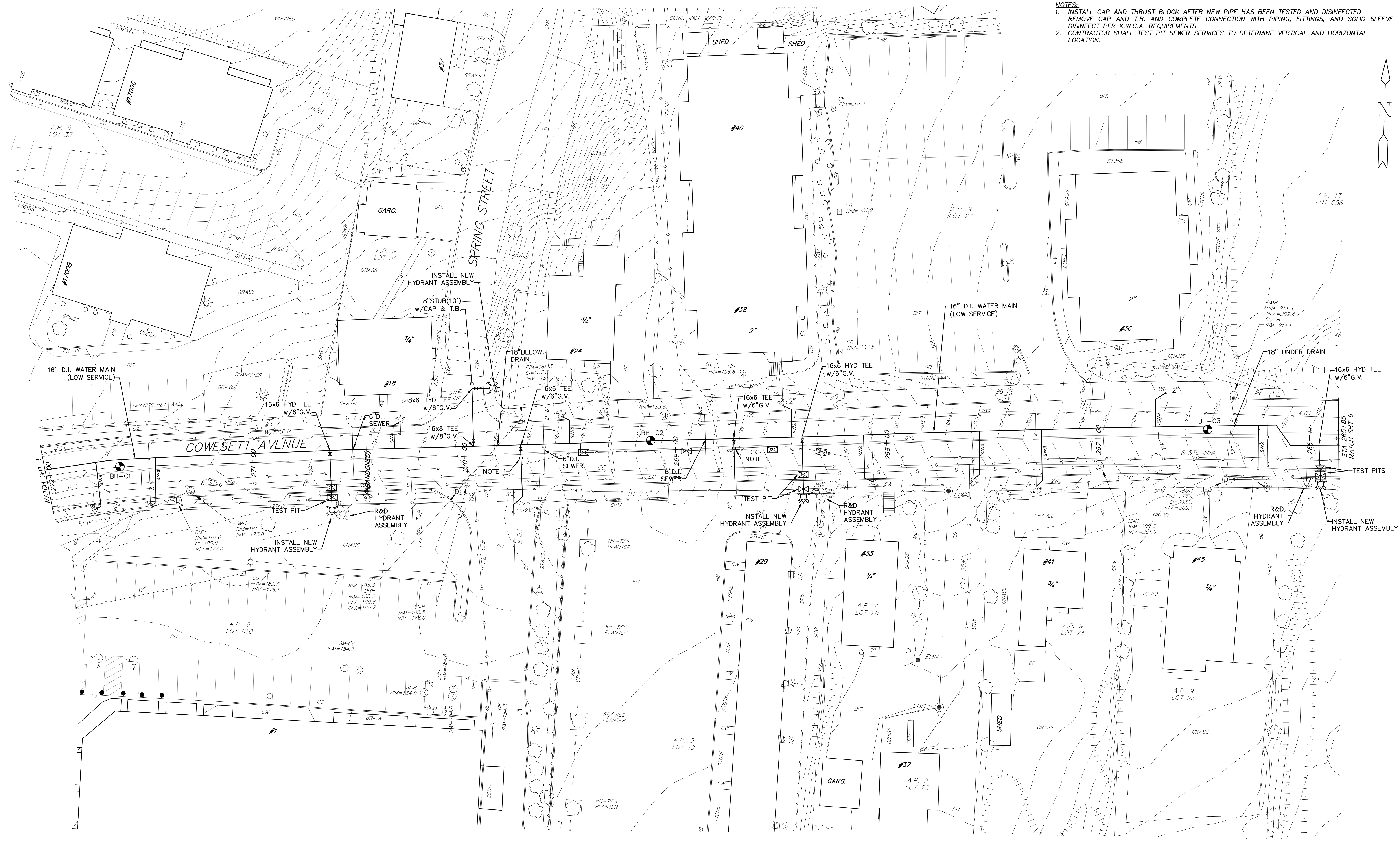
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

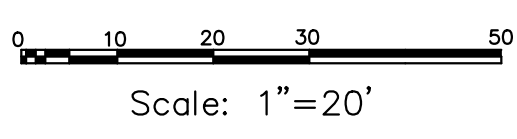
PLAN
COWESETT AVE, MAIN ST
& GREENWICH AVE INTERSECTION
WEST WARWICK, RI

SHEET NO.
4

NOTES:
 1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE. DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.



PLAN
 SCALE: 1"=20'



Z:\Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

DESIGNED BY: RH		
DRAWN BY: OL		
CHECKED BY: JG		
SCALE: 1"=20'		
NO.:	DATE:	REMARKS:
1	7/22	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg	DATE PRINTED: 8/29/22

JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS

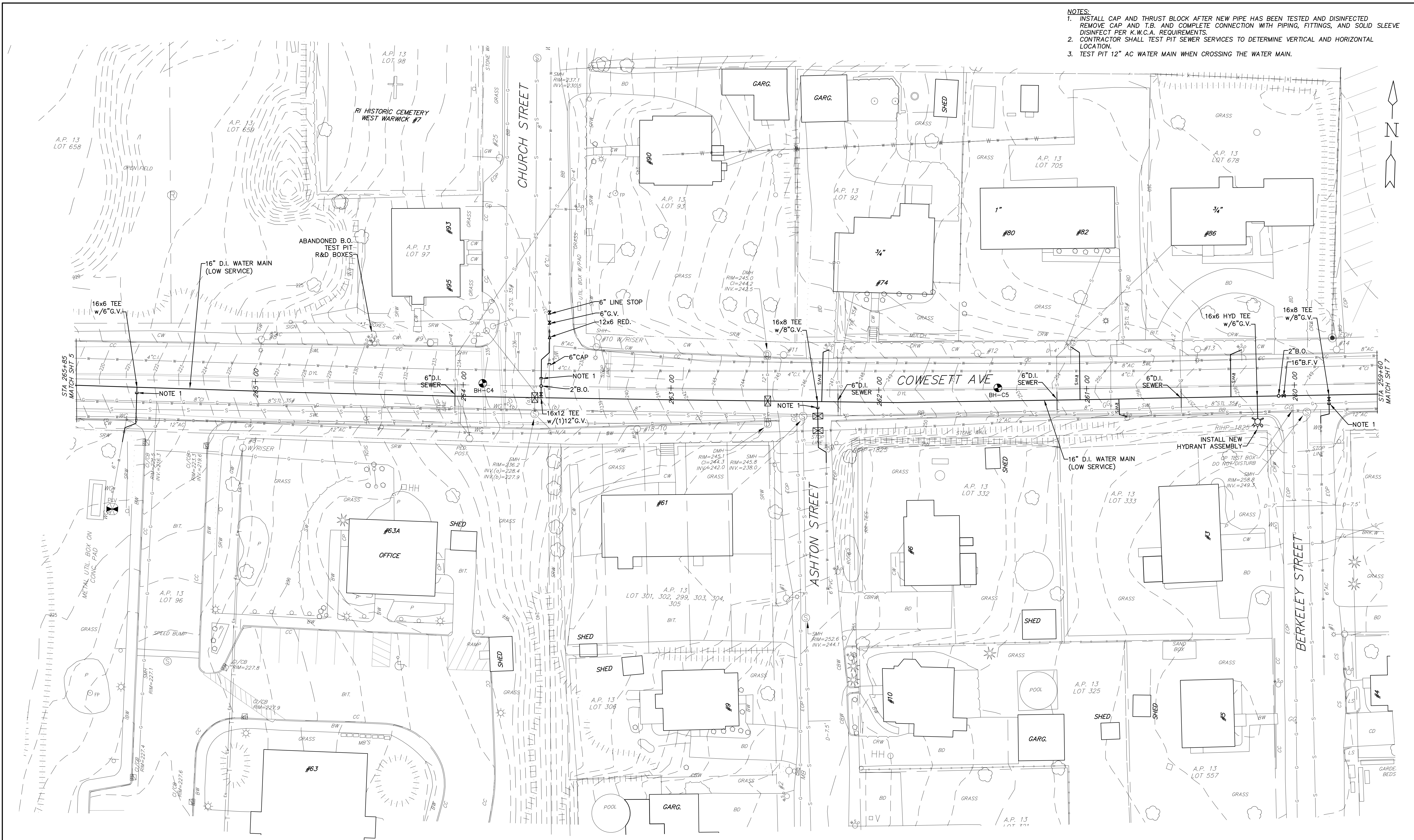
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
 COWESETT AVE
 STA 272+00 TO STA 265+85
 WEST WARWICK, RI

SHEET NO.
5

- NOTES:
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.



PLAN
SCALE: 1"=20'

Scale: 1"=20'

NO.	BY:	DATE:	REMARKS:
1	RH	7/22	RI ENERGY COMMENTS
CADD FILE: 2022 KCWA INF IMP.dwg			
DATE PRINTED: 8/29/22			

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: 1"=20'
DATE: JUNE 2022

JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

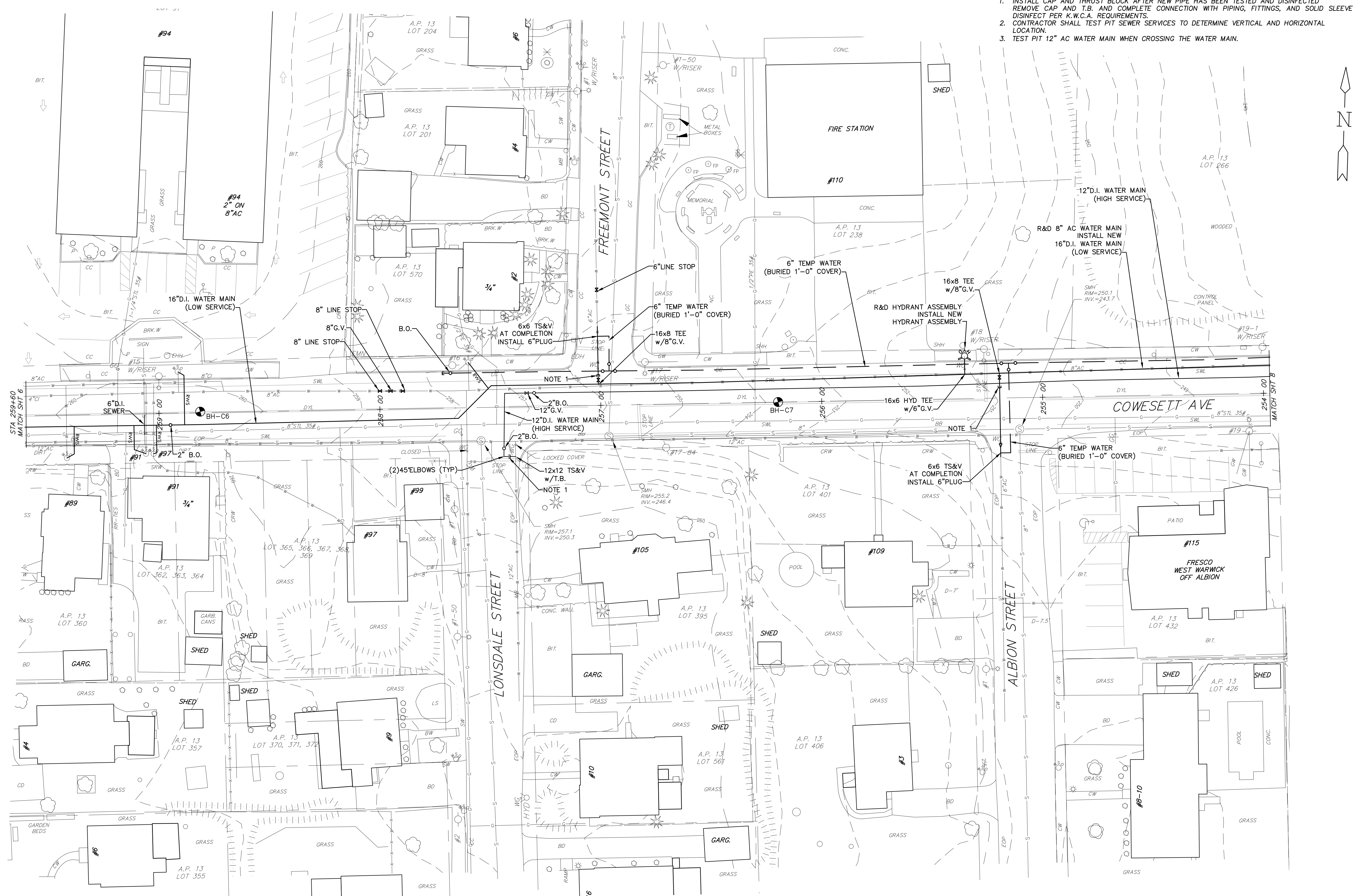
KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
COWESETT AVE
STA 265+85 TO STA 259+60
WEST WARWICK, RI

SHEET NO.
6

Z: \Projects\KCWA\2022\2022 KCWA INF IMP.dwg

- NOTES:
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.



Z:\Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JG
SCALE:	1"=20'
DATE:	JUNE 2022
NO.:	1
BY:	RH
DATE:	7/22
REMARKS:	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg
DATE PRINTED:	8/29/22

JAMES J. GEREMIA
 REGISTERED PROFESSIONAL ENGINEER

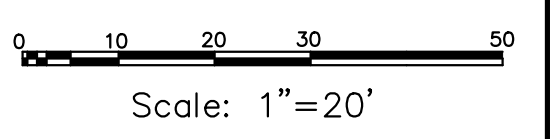
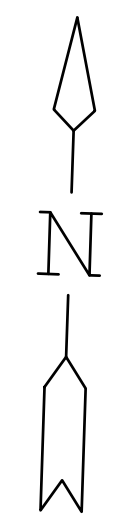
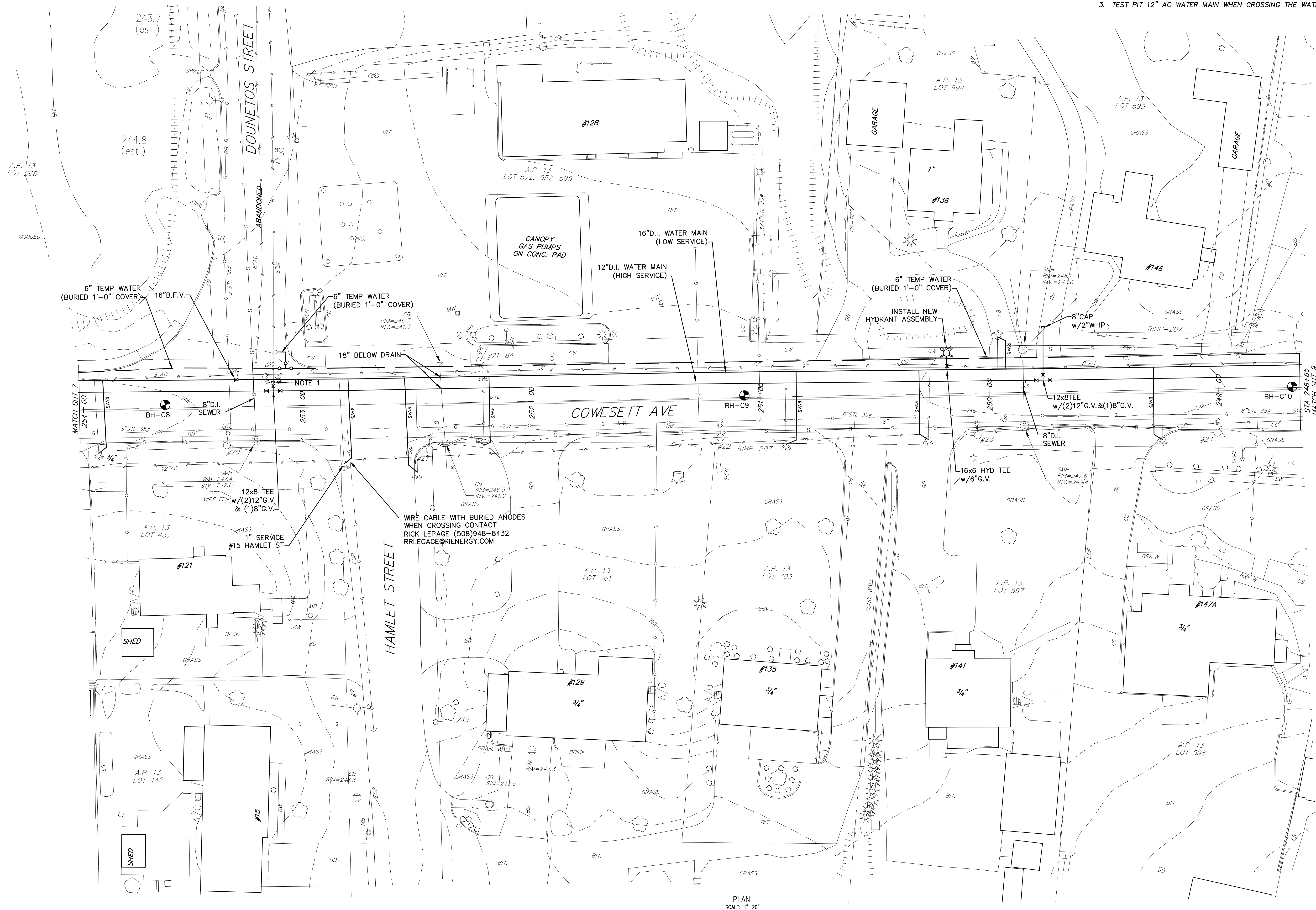
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
 COWESETT AVE
 STA 258+60 TO STA 254+00
 WEST WARWICK, RI

SHEET NO.
7

- NOTES:
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.



KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE
IMPROVEMENTS

PLAN
COWESETT AVE
STA 254+00 TO STA 248+65
WEST WARWICK, RI

SHEET NO.
8

Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

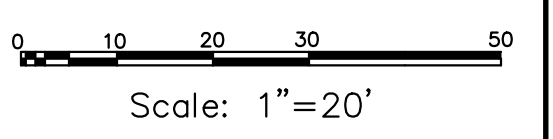
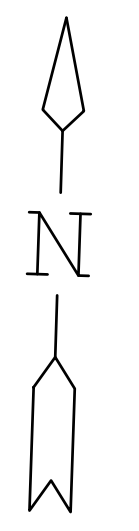
DESIGNED BY: RH	JAMES J. GEREMIA
DRAWN BY: OL	No. 4521
CHECKED BY: JC	REGISTERED PROFESSIONAL ENGINEER
SCALE: 1"=20'	
DATE: JUNE 2022	
NO.: 1	RI ENERGY COMMENTS
BY: RH	DATE: 7/22
DATE: 7/22	REMARKS:
CADD FILE: 2022 KCWA INF IMP.dwg	DATE PRINTED: 8/29/22

JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS

272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

FOR CONTINUATION SEE SHEET 16

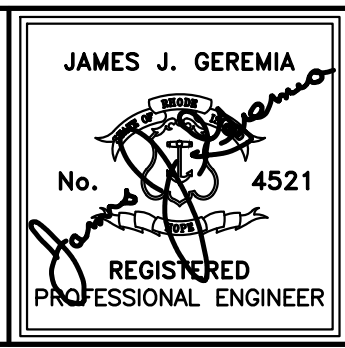
- NOTES:
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.



PLAN
SCALE: 1"=20'

Z:\Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

DESIGNED BY: RH	NO.:	BY: RH	DATE: 7/22	REMARKS: RI ENERGY COMMENTS
DRAWN BY: OL	1			
CHECKED BY: JC				
SCALE: 1"=20'				
DATE: JUNE 2022				
CADD FILE: 2022 KCWA INF IMP.dwg				
DATE PRINTED: 8/29/22				



JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS

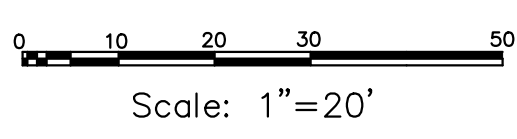
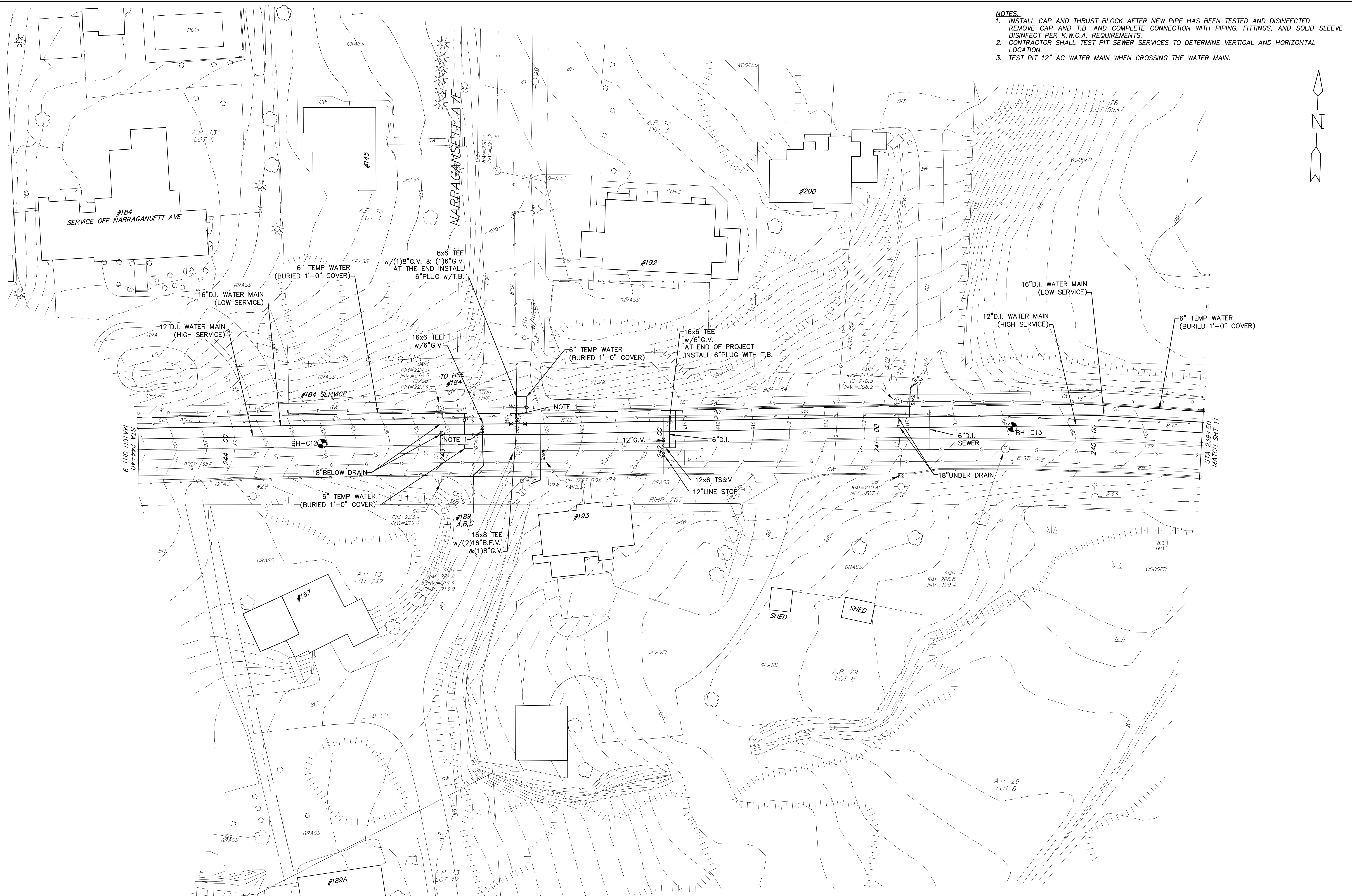
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE
IMPROVEMENTS

PLAN
COWESETT AVE
STA 248+65 TO STA 244+40
WEST WARWICK, RI

SHEET NO.
9

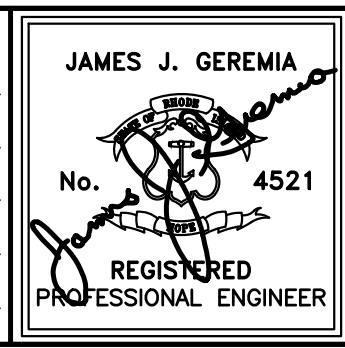
- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.



Z: | Projects | KCWA | KCWA | 2022 | 2022 | KCWA | KCWA | INF | IMP | DWG

NO.	BY:	DATE:	REMARKS:
1	RH	7/22	RI ENERGY COMMENTS
CADD FILE: 2022 KCWA INF IMP DWG			

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: 1"=20'
 DATE: JUNE 2022



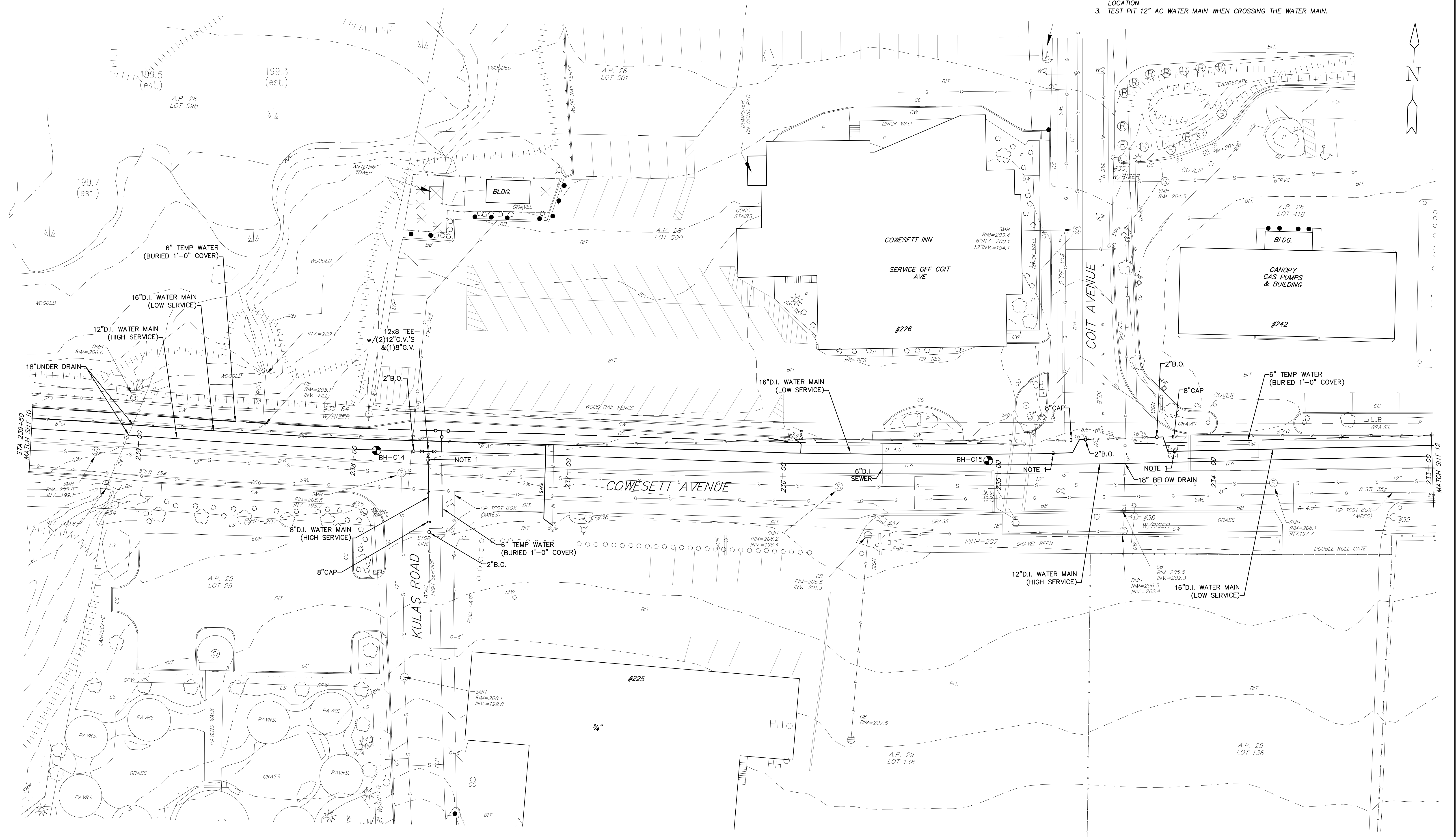
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
 COWESETT AVE
 STA 244+40 TO STA 239+50
 WEST WARWICK, RI

SHEET NO.
10

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.

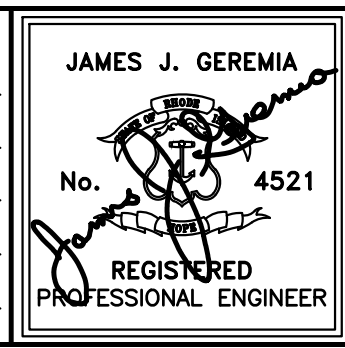


PLAN
SCALE: 1"=20'

Scale: 1"=20'

NO.	BY:	DATE:	REMARKS:
1	RH	7/22	RI ENERGY COMMENTS
CADD FILE:			2022 KCWA INF IMP.dwg
DATE PRINTED:			8/29/22

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: 1"=20'
DATE: JUNE 2022



JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

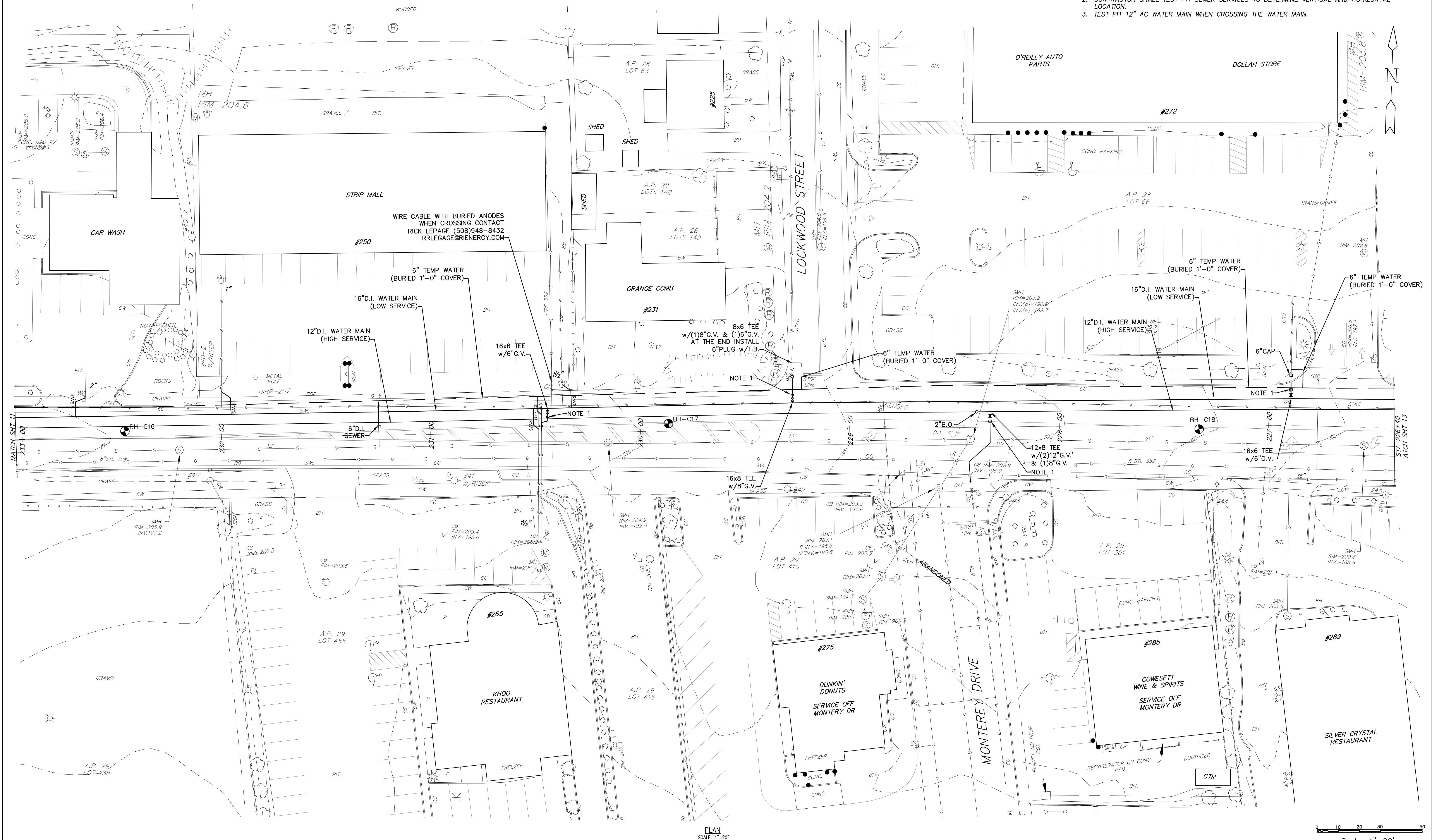
KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
COWESETT AVE
STA 239+50 TO STA 233+00
WEST WARWICK, RI

SHEET NO.
11

Z:\Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

- NOTES:
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.

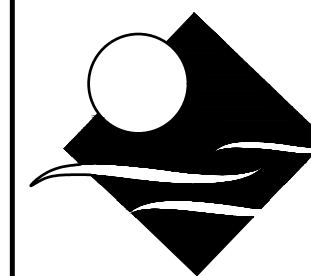
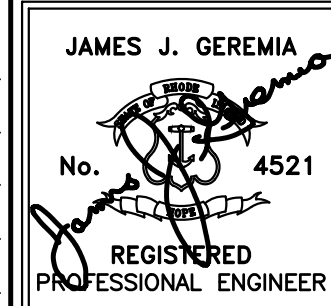


PLAN
SCALE: 1"=20'

Scale: 1"=20'

Z: \Projects\KCWA\2022\2022 KCWA INF IMP.dwg

DESIGNED BY: RH	CHECKED BY: OL	DATE: 7/22	REMARKS: RI ENERGY COMMENTS
NO. 1	BY: RH	DATE: 7/22	REMARKS: RI ENERGY COMMENTS
CADD FILE: 2022 KCWA INF IMP.dwg	DATE PRINTED: 8/29/22		



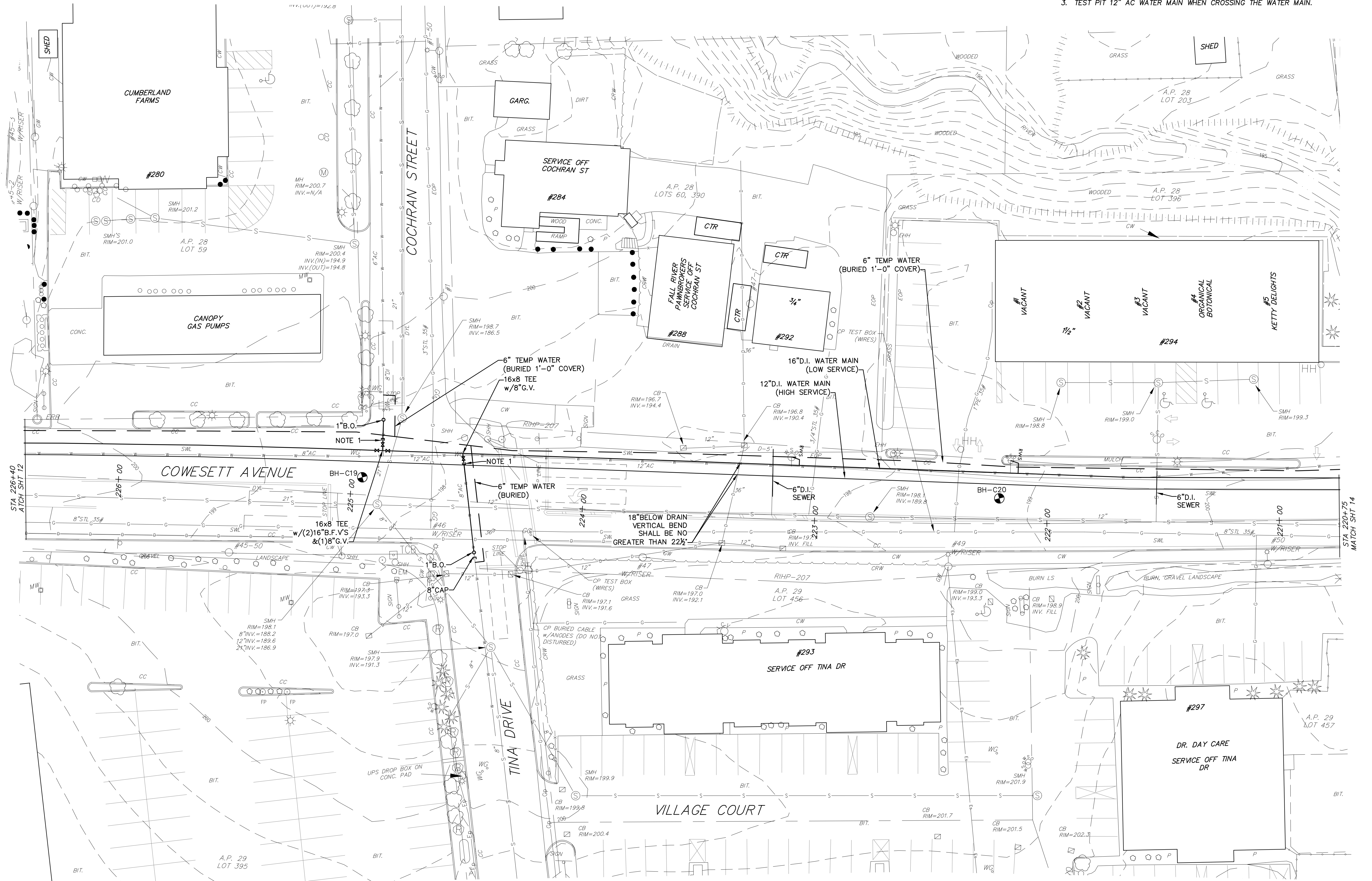
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
COWESSETT AVE
STA 233+00 TO STA 226+40
WEST WARWICK, RI

SHEET NO.
12

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED. REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.

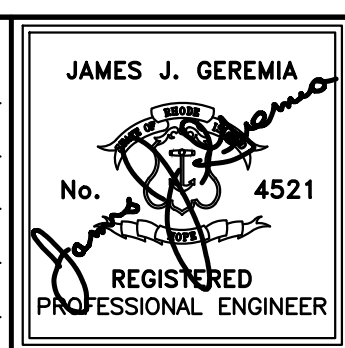


PLAN
SCALE: 1"=20'

Scale: 1"=20'

NO.	BY:	DATE:	REMARKS:
1	RH	7/22	RI ENERGY COMMENTS
CADD FILE: 2022 KCWA INF IMP.dwg			
DATE PRINTED: 8/29/22			

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: 1"=20'
DATE: JUNE 2022



JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

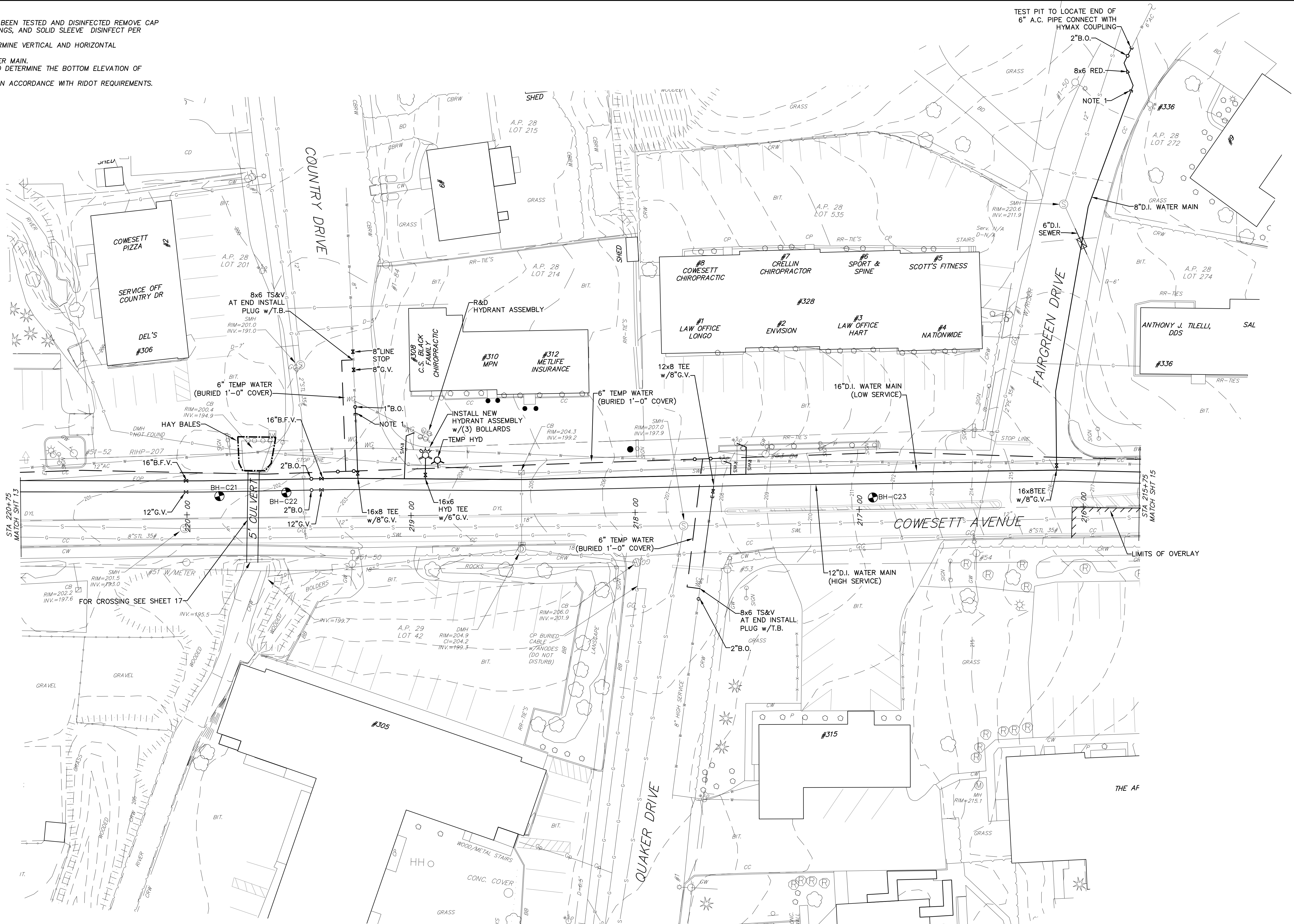
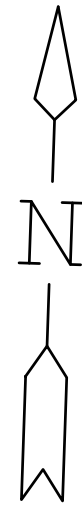
KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
COWESETT AVE
STA 226+40 TO STA 220+75
WEST WARWICK, RI

SHEET NO.
13

Z: \Projects\KCWA\2022\2022 KCWA INF IMP.dwg

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.
 4. CONTRACTOR SHALL TEST AT THE CULVERT CROSSING TO DETERMINE THE BOTTOM ELEVATION OF CULVERT.
 5. IF STEEL PLATES ARE USED THEY SHALL BE INSTALLED IN ACCORDANCE WITH RIDOT REQUIREMENTS.

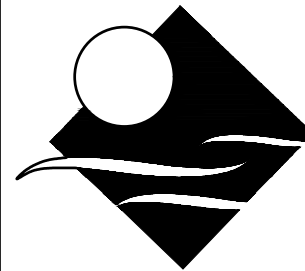


Scale: 1"=20'

Z: |Projects|KCWA|KCWA 2022|2022 KCWA INF IMP.dwg

DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JC
SCALE:	1"=20'
DATE:	JUNE 2022
NO.:	1
BY:	RH
DATE:	7/22
REMARKS:	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg
DATE PRINTED:	8/29/22

JAMES J. GEREMIA
 No. 4521
 REGISTERED PROFESSIONAL ENGINEER



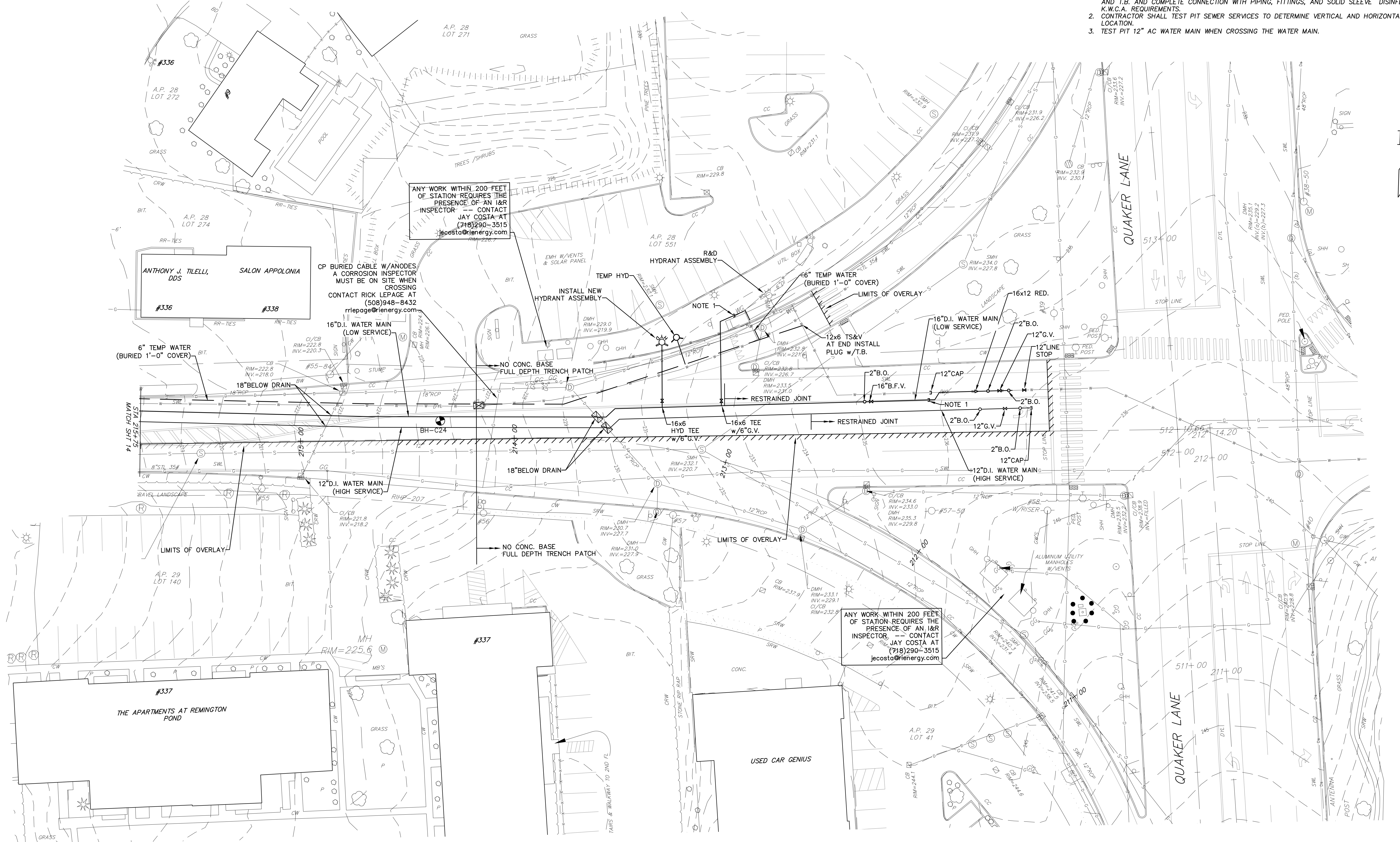
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

**KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE
 IMPROVEMENTS**

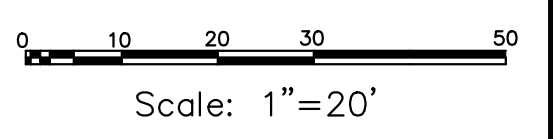
PLAN
 COWESETT AVE
 STA 220+75 TO STA 215+75
 WEST WARWICK, RI

SHEET NO.
14

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. CONTRACTOR SHALL TEST PIT SEWER SERVICES TO DETERMINE VERTICAL AND HORIZONTAL LOCATION.
 3. TEST PIT 12" AC WATER MAIN WHEN CROSSING THE WATER MAIN.

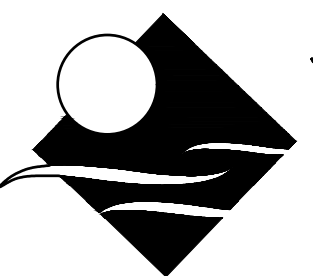
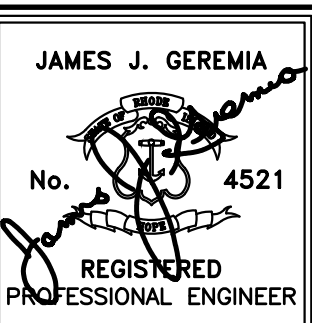


PLAN
SCALE: 1"=20'



Z: |Projects|KCWA|2022|2022 KCWA INF IMP.dwg

DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JG
SCALE:	1"=20'
DATE:	JUNE 2022
NO.:	1
BY:	RH
DATE:	7/22
REMARKS:	RI ENERGY COMMENTS
CADD FILE:	2022 KCWA INF IMP.dwg
DATE PRINTED:	8/29/22



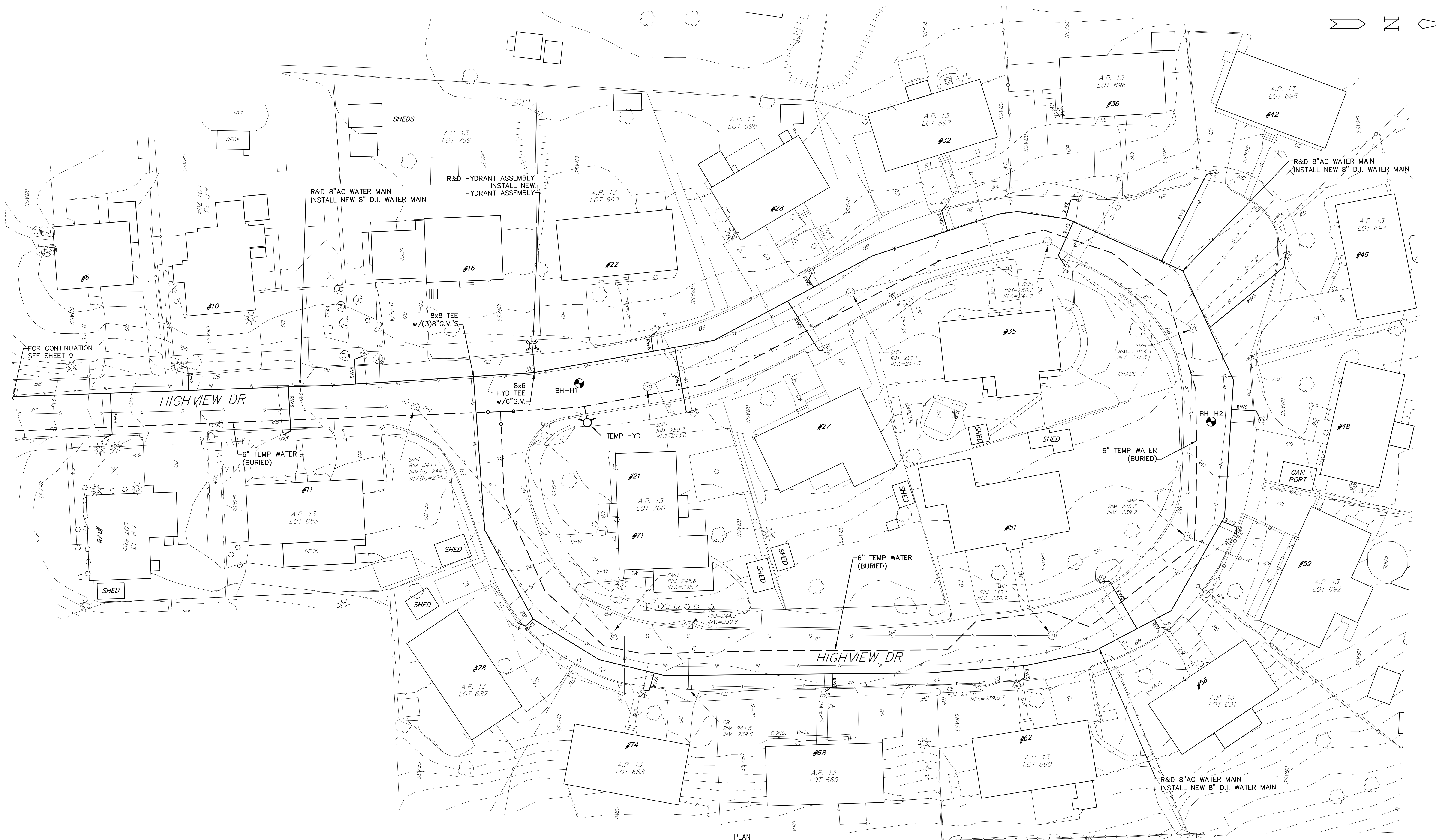
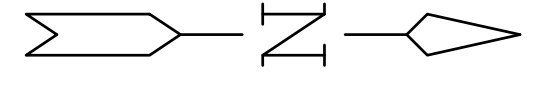
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

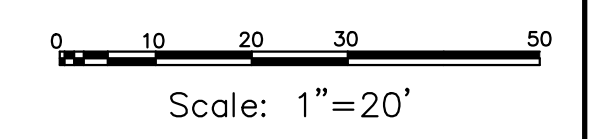
PLAN
COWESETT AVE
STA 215+75 TO STA 212+00
WEST WARWICK, RI

SHEET NO.
15

NOTES:
 1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. THE NEW WATER MAIN SHALL HAVE A MINIMUM COVER OF 4'-6".
 3. THE CONTRACTOR SHALL TEST PIT EACH SEWER SERVICE TO DETERMINE LOCATION AND DEPTH.



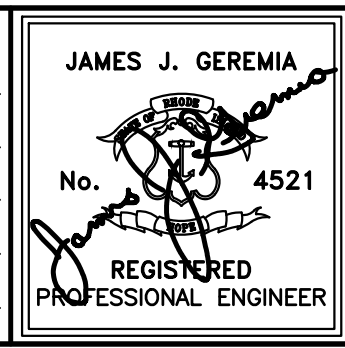
PLAN
SCALE: 1"=20'



Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg	DATE PRINTED:	8/29/22

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: 1"=20'
 DATE: MAY 2022



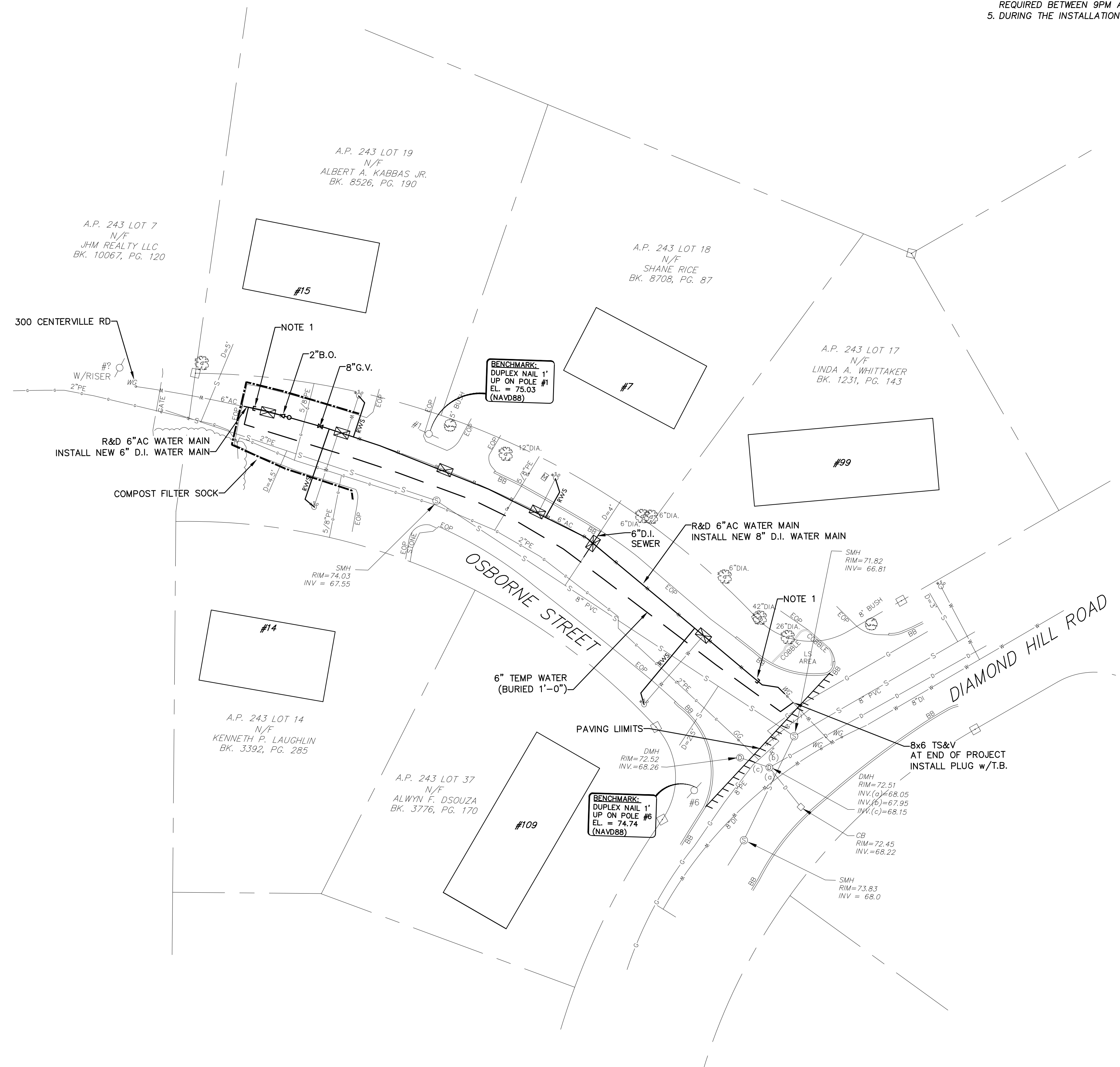
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

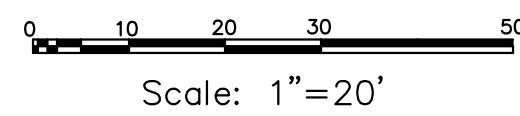
PLAN
 HIGHVIEW DR
 WEST WARWICK, RI

SHEET NO.
 16

- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
 2. THE NEW WATER MAIN SHALL HAVE A MINIMUM COVER OF 4'-6".
 3. THE CONTRACTOR SHALL TEST PIT EACH SEWER SERVICE TO DETERMINE LOCATION AND DEPTH.
 4. CONTRACTOR SHALL COORDINATE SHUT DOWN WITH 300 CENTERVILLE RD. SHUT DOWNS MAY BE REQUIRED BETWEEN 9PM AND 5 AM.
 5. DURING THE INSTALLATION OF THE SEWER SYSTEM LEDGE WAS ENCOUNTER 1.5' TO 2.0' BELOW GRADE.



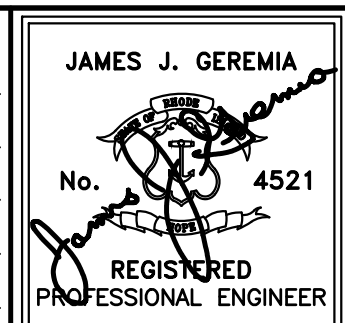
PLAN
SCALE: 1"=20'



Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg		
DATE PRINTED:			8/29/22

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: 1"=20'
DATE: AUG 2022



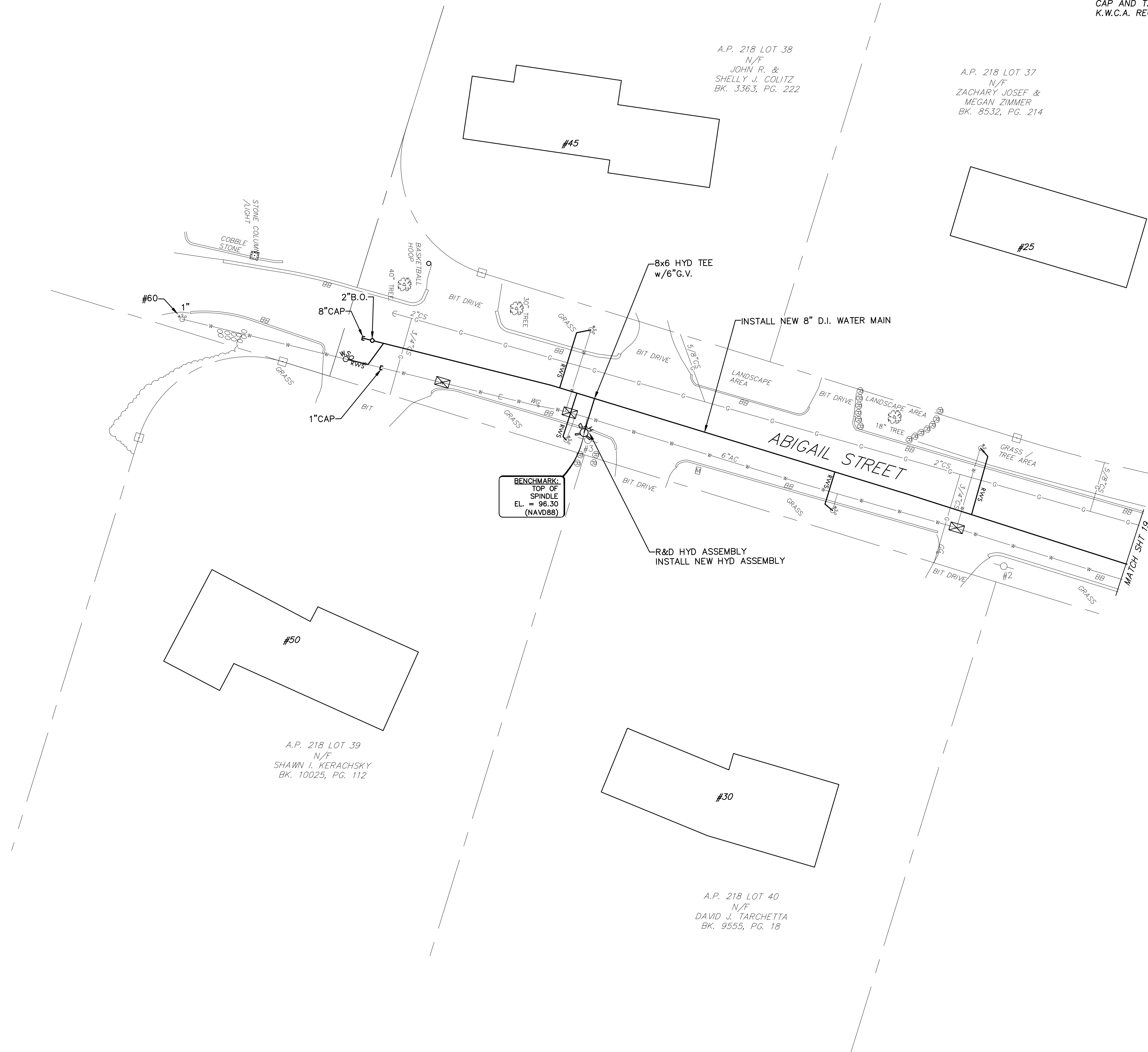
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
ALTERNATE 1
OSBORNE STREET
WARWICK, RI

SHEET NO.
17

NOTES:
 1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.



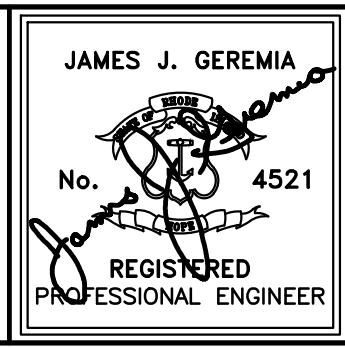
BENCHMARK:
 TOP OF
 SPINDLE
 EL. = 96.30
 (NAVD88)

PLAN
 SCALE: 1"=20'

Scale: 1"=20'

J:\kwa 2022\2022 KCWA INF IMP.dwg

DESIGNED BY: RH	NO.:	BY:	DATE:	REMARKS:
DRAWN BY: OL				
CHECKED BY: JG				
SCALE: 1"=20'				
DATE: AUG 2022				
CADD FILE: 2022 KCWA INF IMP.dwg				
DATE PRINTED: 8/30/22				



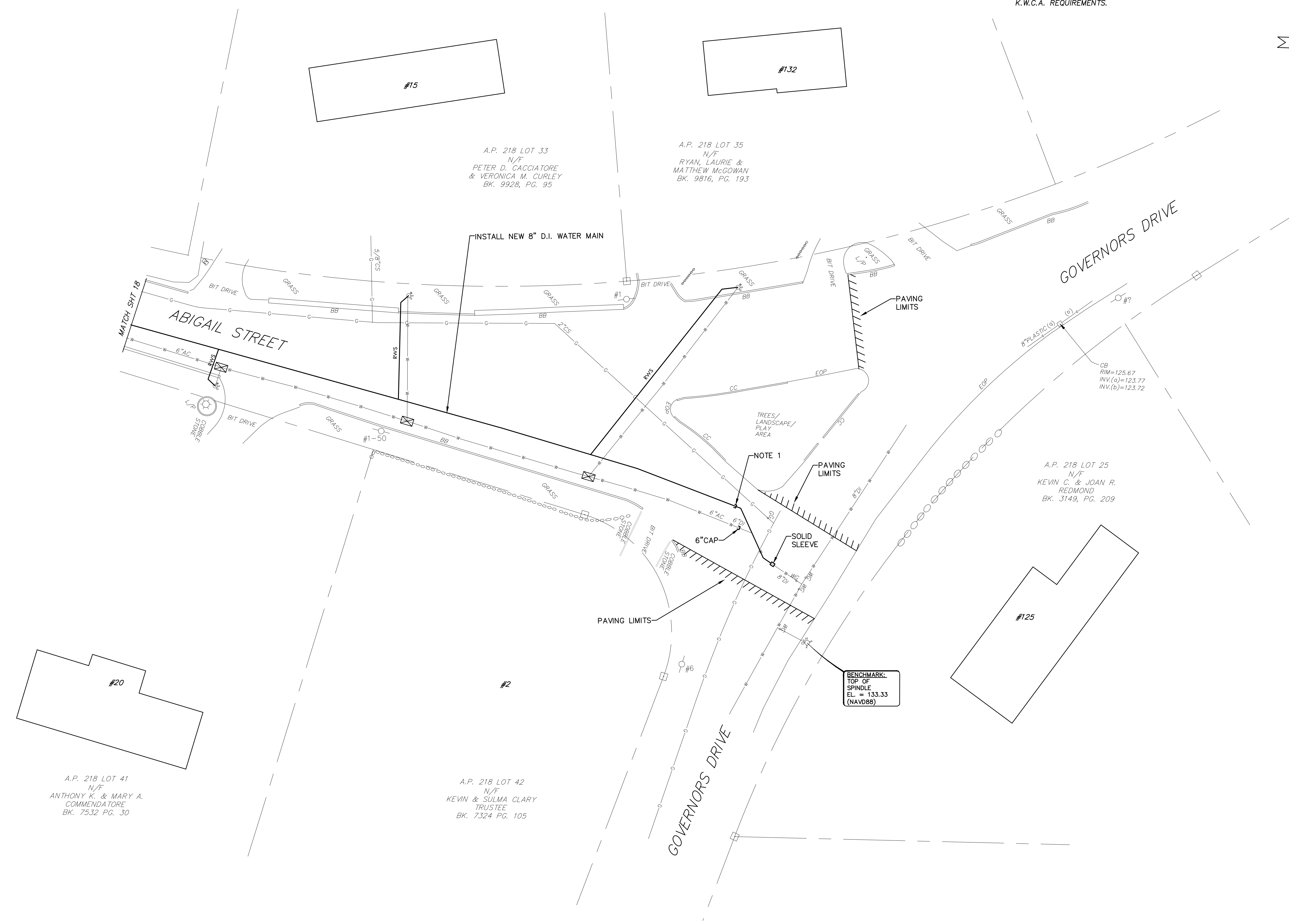
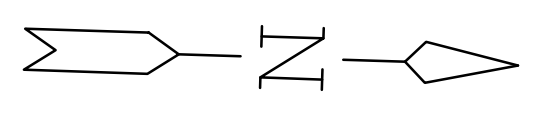
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
 ALTERANTE 1
 ABGAIL STREET
 EAST GREENWICH, RI

SHEET NO.
 18

NOTES:
 1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.



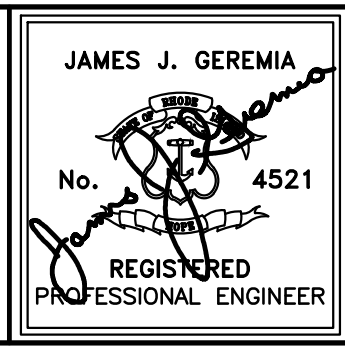
J:\kwa 2022\2022 KCWA INF IMP.dwg

PLAN
 SCALE: 1"=20'

Scale: 1"=20'

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg		
DATE PRINTED:			8/30/22

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: 1"=20'
 DATE: AUG 2022



JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

PLAN
 ALTERNATE 1
 ABIGAIL STREET
 EAST GREENWICH, RI

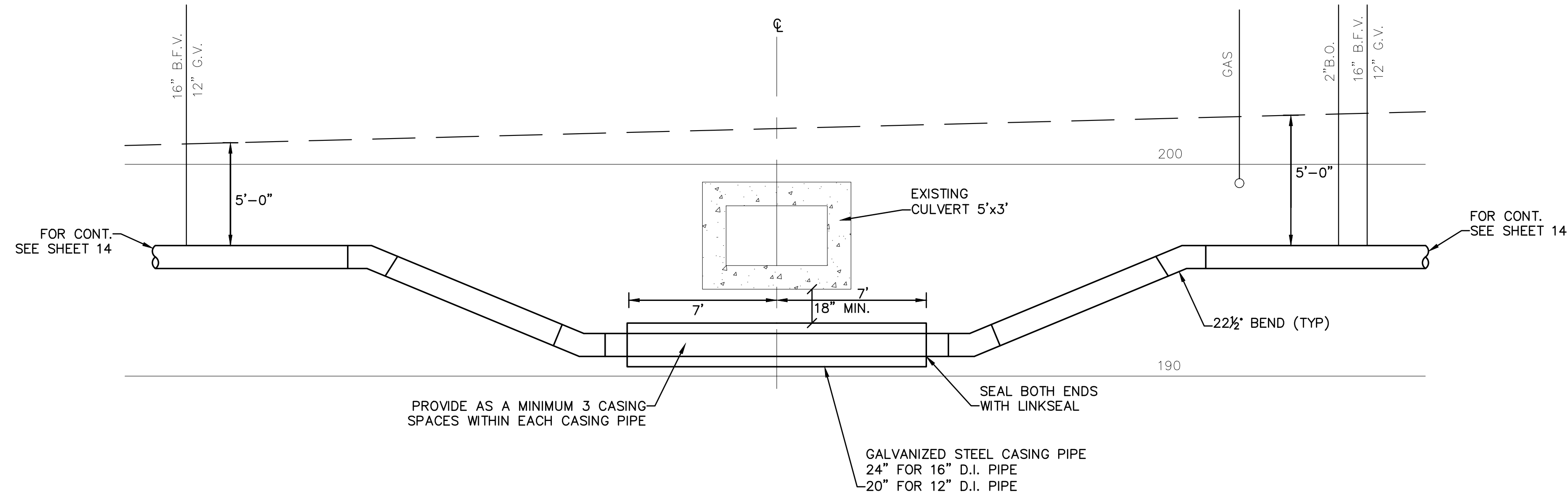
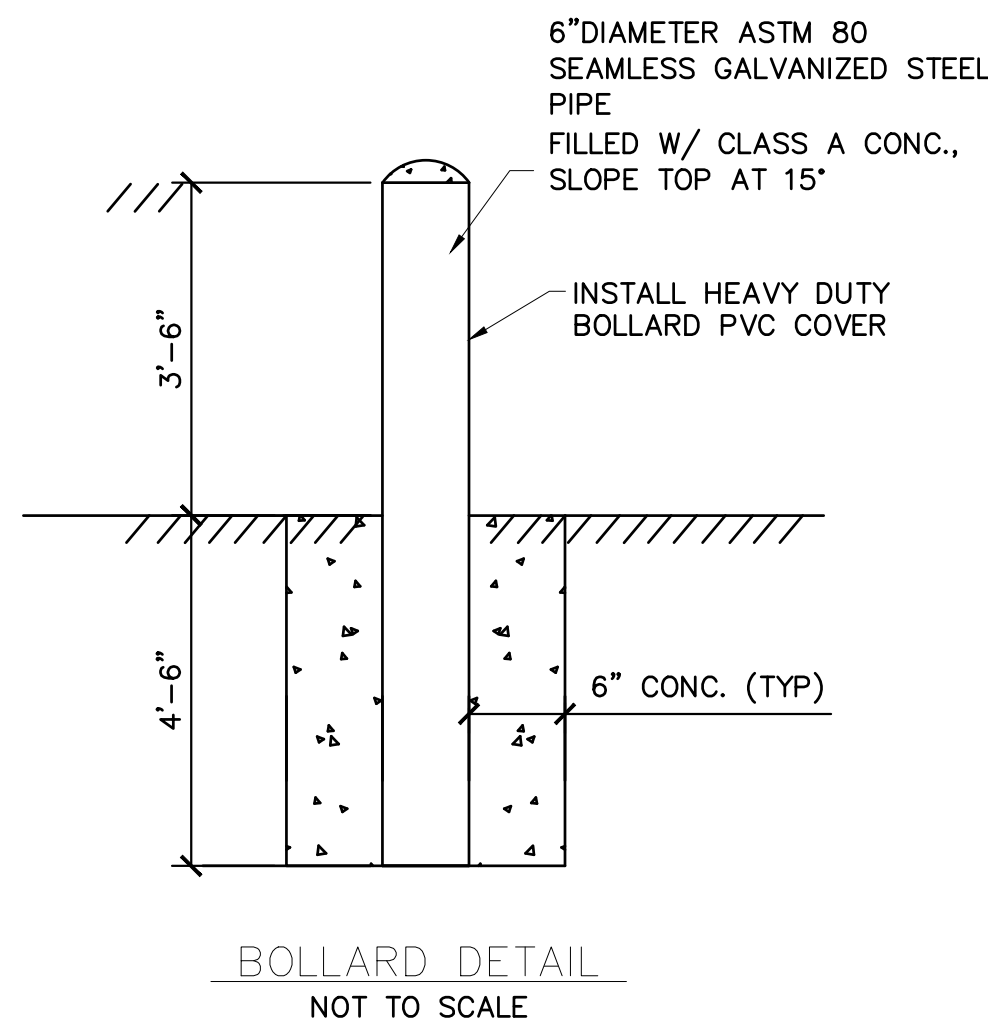
SHEET NO.
 19

GENERAL NOTES:

1. PLANIMETRIC AND TOPOGRAPHIC MAPPING BY GAROFALO AND ASSOCIATES, INC.
2. FIELD EDITING BY GAROFALO AND ASSOCIATES, INC.
3. ALL EXISTING GATE BOXES SHALL BE REMOVED & DISPOSED.
4. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION BY MARC NYBERG & ASSOC. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXIST. UTILITIES AND NOTIFY THE APPROPRIATED UTILITY AUTHORITIES INCLUDING "DIG SAFE" PRIOR TO STARTING WORK, ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION PURPOSES TO WITHIN THE STREET LINES.
6. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
7. WATER, GAS, SEWER AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
8. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDED.
9. TOPOGRAPHIC MAPPING BASED ON NAD83 HORIZONTAL DATUM & NAVD88 VERTICAL DATUM.
10. SAW CUT PAVEMENT FULL-DEPTH PRIOR TO THE INSTALLATION OF UTILITIES.
11. EACH DWELLING UNIT & COMMERCIAL ESTABLISHMENT SHALL BE ACCESSIBLE FOR TRASH REMOVAL AND POSTAL SERVICE.
12. AT THE END OF EACH WORK DAY THE TRENCH SHALL BE TOTALLY BACKFILLED AND TEMPORARY PAVEMENT INSTALLED.
13. DEWATERING SYSTEMS EFFLUENT FOR TRENCH EXCAVATIONS SHALL BE DISCHARGED INTO DEWATERING BASINS. THE EFFLUENT FROM THE DEWATERING BASINS SHALL HAVE NO VISUAL SEDIMENTATION PRESENT AND SHALL NOT CAUSE SILTATION OF EXISTING DRAINAGE SYSTEMS AND REGULATED WETLANDS. THE DEWATERING BASINS SHALL HAVE A VOLUME NOT LESS THAN THE TOTAL VOLUME OF WATER THAT WILL BE PUMPED DURING A FOUR - HOUR PERIOD.
14. THE DEWATERING BASINS SHALL BE DESIGNED IN ACCORDANCE WITH THE R.I. SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK AND THE EDGES SHALL BE PAVED.
15. THE CONTRACTOR SHALL SUBMIT CALCULATIONS FOR SIZING OF DEWATERING BASINS TO THE ENGINEER FOR REVIEW.
16. THE CONTRACTOR WILL BE RESPONSIBLE FOR SEDIMENTATION THAT ENTERS THE DRAINAGE SYSTEM AND REGULATED WETLANDS. THE WETLANDS SHALL BE RESTORED IN ACCORDANCE WITH RIDEM REQUIREMENTS AND THE DRAINAGE SYSTEM SHALL BE FLUSHED AND CLEANED IN ACCORDANCE WITH RIDOT REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR WILL BE RESPONSIBLE FOR FINES THAT MAY BE IMPOSED BY THE RIDEM, AND THE OWNER WILL NOT REIMBURSE THE CONTRACTOR.
17. PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, SILT FENCE SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING ADJOINING REGULATED WETLANDS.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE DAILY AND AFTER EACH RAINFALL. REPAIRS SHALL BE MADE IMMEDIATELY.
19. ALL SEDIMENT MUST BE REMOVED WHEN THE HEIGHT OF THE SEDIMENT REACHES THE HEIGHT OF THE SEDIMENT BARRIER (SILT FENCE).
20. THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE LATEST EDITION, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
21. IF DRAIN PIPES ARE REMOVED THEY SHALL BE RESET OR REPLACED IMMEDIATELY IN KIND IN ACCORDANCE WITH THE DEPARTMENT OF PUBLIC WORKS AND/OR RIDOT.
22. CONTRACTOR SHALL NOTIFY KCWA WATER CUSTOMERS A MINIMUM OF 48 HOURS PRIOR TO ANY DISRUPTION OF SERVICE IN ACCORDANCE WITH KCWA REQUIREMENTS.
23. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE CERTIFICATION BY A PROFESSIONAL ENGINEER THAT THE SOIL COMPACTION OF TRENCHES MEETS SPECIFIED STANDARDS.
24. TEMPORARY WATER CONNECTION(S) BETWEEN NEW WATER MAIN & EXISTING WATER MAIN SHALL NOT BE LESS THAN 6" IN DIAMETER. BACKFLOW PREVENTER SHALL BE REMOVED WHEN THE DISINFECTION RESULTS ARE APPROVED BY KCWA. BACKFLOW PREVENTER SHALL BE REPLACED WITH A SECTION OF PIPE. TEMPORARY CONNECTION(S) SHALL STAY IN SERVICE UNTIL ALL WATER SERVICES HAVE BEEN RELOCATED TO NEW WATER MAIN INCLUDING HYDRANTS & TIE-INS AS REQ'D. TEMPORARY CONNECTION(S) SHALL BE THE LAST CONNECTION(S) TO BE REMOVED.
25. ALL TREE PRUNING MUST BE IN ACCORDANCE WITH THE ANSI A-300. IN EACH COMMUNITY THE TREE WARDEN SHALL BE CONTACTED PRIOR TO TREE PRUNING. SNAPPING TREE BRANCHES BY CONTRACTOR'S EQUIPMENT IS NOT ALLOWED. TREE PRUNING AND ROOT PRUNING SHALL BE PERFORMED BY A R.I. LICENSED ARBORIST.
26. CONNECTIONS BETWEEN NEW WATER MAINS AND EXISTING WATER MAINS SHALL BE MADE WITH RESTRAINED JOINTS.
27. THE ALIGNMENT OF THE NEW WATER MAIN WILL BE DETERMINED AFTER THE TEST PITS ARE PERFORMED.
28. AT THE END OF EACH DAY THE CONTRACTOR SHALL SWEEP THE ROADWAY USING MECHANICAL SWEEPERS. DUST CONTROL SHALL BE EMPLOYED BY SPRAYING WATER FROM CONTRACTORS PORTABLE WATER TRUCK & USE OF CALCIUM CHLORIDE.
29. EXISTING VALVE BOXES & HYDRANTS SHALL BE REMOVED AND DISPOSED. 30. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY TO SECURE POLES AND PROVIDE SHIELDS AS REQUIRED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
31. IF GAS FACILITIES BECOME EXPOSED THE CONTRACTOR SHALL NOTIFY NEW ENGLAND GAS CO. (NEGC) BEFORE BACKFILLING. BACKFILL AND COMPACTION AT GAS FACILITY CROSSINGS SHALL CONFORM TO "GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES- PERMANENT BACKFILL AND COMPACTION."
32. WHERE THE PROPOSED WATER MAIN CROSSES EXISTING GAS FACILITIES "GUIDELINES FOR SUPPORT OF GAS PIPES-TEMPORARY SUPPORT OF GAS PIPES" SHALL BE ADHERED TO.
33. CONTRACTOR SHALL RENEW WATER SERVICES TO ALL EXISTING CUSTOMERS & SERVICE SIZE SHALL MATCH EXISTING.
34. EXISTING HYDRANTS SHALL REMAIN IN SERVICE UNTIL NEW HYDRANTS ARE ACTIVATED.
35. CONTRACTOR SHALL NOT INTERFERE WITH SCHOOL BUSES PICKING UP STUDENTS OR DROPPING OFF STUDENTS.
36. AT ALL TIE-INS TO EXISTING WATER MAINS THE CONTRACTOR SHALL PERFORM TEST PITS TO LOCATE EXISTING PIPES, VERTICALLY & HORIZONTALLY & CONNECT TO EXISTING PIPE WITH FITTINGS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. BENDS WILL BE PAID FOR UNDER APPROPRIATE BID ITEMS. ALL PIPING AND FITTINGS FOR TIE INS SHALL BE MECHANICAL JOINT WITH RESTRAINED JOINTS.
37. THE ABANDONED WATER GATE BOXES AND HYDRANTS SHALL BE REMOVED AND DISPOSED OF.
38. CONTRACTOR SHALL PERFORM TEST PITS TO LOCATE EXISTING SEWER SERVICES, WATER MAINS AND WATER SERVICES.
39. EXISTING GAS GATE BOXES THAT CAN NOT BE ADJUSTED SHALL BE REPLACES WITH NEW GAS GATE BOXES. THE COST OF THE WORK SHALL BE PART OF THE BID ITEM FOR FULL WIDTH OVERLAY. NEW BOXES CAN BE OBTAINED FROM 477 DEXTER ST. PROVIDENCE, RI.
40. ALL WORK DONE WITHIN THE STATE RIGHT OF WAY SHALL CONFORM TO R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED MARCH 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS 1988 EDITION WITH ALL REVISIONS.
41. THE TRANSPORTATION MANAGEMENT CENTER(TMC) SHALL BE NOTIFIED 7 DAYS IN ADVANCE OF WHEN WORK BEGINS.
42. THE PAVEMENT MANAGEMENT WORKING COMMITTEE (PMWC) SHALL BE NOTIFIED 7 DAYS IN ADVANCE OF WHEN WORK BEGINS. AN EMAIL TO DOT.PMWC@DOT.RI.GOV IS REQUIRED.
43. THE CONTRACTOR SHALL SUBMIT A TRAFFIC MANAGEMENT PLAN (TMP) TO THE RIDOT FOR APPROVAL.
46. ALL EXISTING STRIPING SHALL BE REPLACED IN-KIND.
47. WATERBORNE PAVEMENT MARKINGS SHALL BE USED ON COLD PLANED SURFACES AND INTERMEDIATE LAYERS WHICH WILL BE OPEN TO TRAFFIC AT THE COMPLETION OF EACH DAY'S PAVING OPERATION.
48. TEMPORARY WATERBORNE PAVEMENT MARKINGS SHALL BE PLACED ON THE FINAL SURFACE COURSE LAYER WHICH WILL BE OPENED TO TRAFFIC AT THE COMPLETION OF EACH DAY'S PAVING OPERATION.
49. EPOXY RESIN PAVEMENT MARKINGS SHALL BE PLACED IN THE FINAL SURFACE COURSE LAYER NO SOONER THAN 2 WEEKS BUT NO LONGER THAN 4 WEEKS FROM THE COMPLETION OF EACH DAY'S PAVING OPERATION.
50. THE FINAL PAVEMENT RESTORATION TAKES PLACE AFTER WINTER SHUTDOWN. TEMPORARY EPOXY RESIN PAVEMENT MARKINGS SHALL BE USED ON ANY TEMPORARY PAVEMENT SO THAT THE MARKINGS DO NOT FADE OVER THE WINTER.
51. THE CONTRACTOR SHALL PERFORM A TEST PIT AT ALL UTILITY CROSSINGS.
52. THE CONTRACTOR SHALL MAINTAIN ADA ACCESSIBILITY AND PROVIDE TEMPORARY PEDESTRIAN ROUTES AS REQUIRED.
53. CONTRACTOR SHALL TIE-IN WITH EACH COMMERCIAL ESTABLISHMENT. TIE-INS MAY BE REQUIRED TO BE COMPLETED BETWEEN 9PM AND 5AM

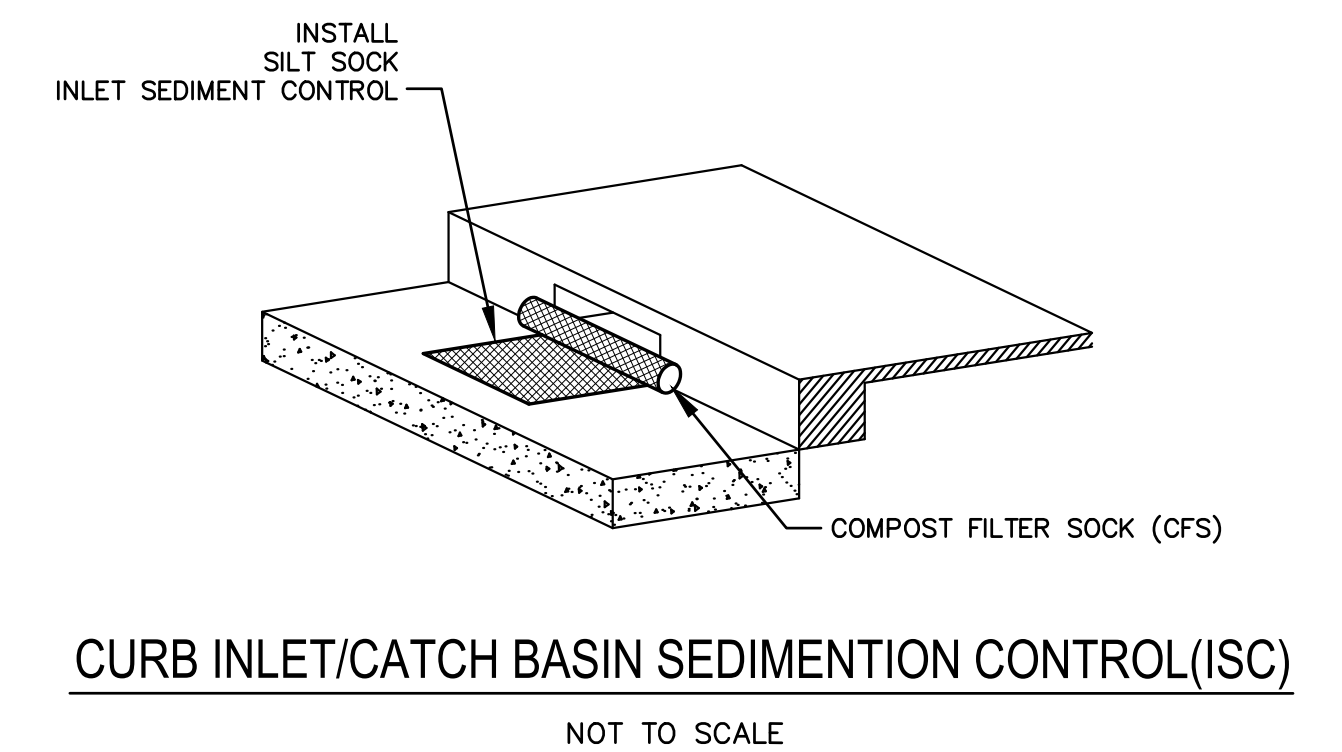
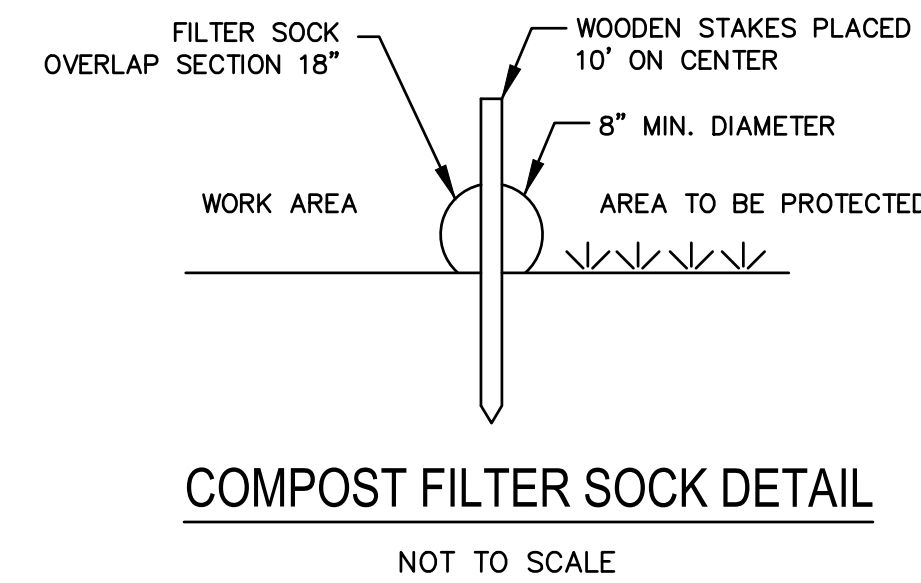
NATIONAL GRID GAS:

1. CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN NATIONAL GRID'S "GUIDELINES FOR WORKING AROUND GAS UTILITIES".
2. DEPTH OF GAS FACILITIES ARE UNKNOWN AND COULD BE SHALLOW, USE CAUTION WHEN WORKING IN THE VICINITY OF ANY GAS FACILITY, HAND DIGGING ONLY.
3. NATIONAL GRID REQUIRES A MINIMUM OF ONE FOOT OF SEPARATION BETWEEN CROSSING UTILITIES AND EXISTING GAS FACILITIES.
4. NATIONAL GRID REQUIRES A MINIMUM OF THREE FEET OF SEPARATION BETWEEN THE GAS MAIN AND THE PARALLEL FACILITY FOR STEEL AND PLASTIC GAS MAINS. FOR CAST IRON GAS MAINS SEE LINE ITEM FOR ENCROACHMENT GUIDELINES.
5. AT A PROPOSED UTILITY AND CRITICAL GAS MAIN CROSSING, A NATIONAL GRID GAS DAMAGE PREVENTION INSPECTOR MUST BE ON SITE WHEN CROSSING. CALL DAVID SOLTYS AT 401-623-0579 OR RICK LEPAGE AT 508-948-8432.
6. IF A GAS MAIN IS EXPOSED OR GOING TO BE EXPOSED CALL NATIONAL DISPATCH OFFICE AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE TO INSPECT THE LINE BEFORE BACKFILL.
7. IF A GAS MAIN OR GAS MAIN COATING IS DAMAGED CALL NATIONAL DISPATCH OFFICE AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE FOR REPAIR BEFORE BACKFILL.
8. FOR ANY EXPOSED GAS FACILITY, PROVIDE BACKFILL MATERIALS AND COMPACT THE BACKFILL MATERIALS IN ACCORDANCE WITH NATIONAL GRID'S "GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES".
9. WHEN CROSSING OR EXPOSING A STEEL OR PLASTIC GAS FACILITY SUPPORT MAY BE REQUIRED. FOLLOW THE GUIDELINES LISTED AND ILLUSTRATED IN NATIONAL GRID'S "SUPPORT REQUIREMENTS FOR EXPOSED & UNDERMINED STEEL OR PLASTIC GAS FACILITIES".
10. ALL GAS VALVE BOXES SHALL BE ADJUSTED TO THE NEW ROAD/SIDEWALK SURFACE. VALVE BOXES, IF REQUIRED FOR REPLACEMENT, CAN BE OBTAINED AT NATIONAL GRID'S PROVIDENCE LOCATION, 477 DEXTER STREET, PROVIDENCE, RI OR LINCOLN LOCATION, 642 GEORGE WASHINGTON HIGHWAY (QUANTITIES 5 OR LESS). GAS VALVE BOXES NEED TO BE ACCESSIBLE AT ALL TIMES TO BE OPERATED BY NATIONAL GRID IN THE EVENT OF AN EMERGENCY.
11. ALL CATHODIC PROTECTION BOXES (BOXES THAT CONTAIN WIRES THAT GO DOWN TO THE GAS MAIN) SHALL BE ADJUSTED TO THE NEW ROAD/SIDEWALK SURFACE. CARE SHALL BE EXERCISED WHEN ADJUSTING SO AS NOT TO DAMAGE THE WIRES. IF THE WIRES ARE DAMAGED OR IF ASSISTANCE IS NEEDED, CONTACT NATIONAL GRID CORROSION ENGINEER TO VISIT THE SITE. CONTACT ASAD AKINFORLARIN AT 401-215-5678 OR RON VINCENT AT 617-438-5192. NEW BOXES, IF REQUIRED, CAN BE OBTAINED AT NATIONAL GRID'S PROVIDENCE FACILITY, 477 DEXTER ST. PROVIDENCE, RI OR NATIONAL GRID'S LINCOLN FACILITY, 642 GEORGE WASHINGTON HIGHWAY, LINCOLN, RI (QUANTITIES 5 OR LESS). CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN NATIONAL GRID'S "GUIDELINES FOR WORKING AROUND CORROSION CONTROL SYSTEM COMPONENTS".
12. DUE TO SYSTEM RELIABILITY AND PUBLIC SAFETY CONCERNS, IT IS NATIONAL GRID'S PRACTICE TO RESTRICT ALL CONSTRUCTION WORK ON OR NEAR GAS FACILITIES BETWEEN NOVEMBER 15TH AND APRIL 15TH. ALL SCHEDULED WORK SHOULD BE COMPLETED BETWEEN APRIL 15TH AND NOVEMBER 15TH. AS GAS USAGE PEAK DURING THE MONTHS OF DECEMBER TO MARCH DRIVEN BY HEATING NEEDS, NATIONAL GRID'S PRIORITY IS TO PROVIDE OUR CUSTOMERS WITH SAFE AND RELIABLE GAS SERVICE. ANY WORK ON OR NEAR GAS FACILITY WILL EXPOSE OUR CUSTOMERS TO UNNECESSARY RISK. EXCEPTIONS WILL BE CONSIDERED ON A CASE BY CASE BASIS. APPROVALS FROM GAS CONTROL, OPERATIONAL ENGINEERING, AND PROJECT ENGINEERING WILL BE REQUIRED FOR THESE CASES.
13. FOR A GAS LEAK CALL 800-640-1595.
14. FOR A DAMAGED GAS FACILITY CALL 800-870-1664.
15. PROPER SUPPORT, PROTECTION AND BACKFILL AND COMPACTION OF GAS FACILITIES IS REQUIRED. A DAMAGE PREVENTION INSPECTOR MUST BE CALLED OUT TO THE JOBSITE TO VERIFY THAT THE FACILITY IS PROPERLY SUPPORTED AND PROTECTED. CALL RICK LEPAGE AT 508-948-8432 OR DAVID SOLTYS AT 401-623-0579.



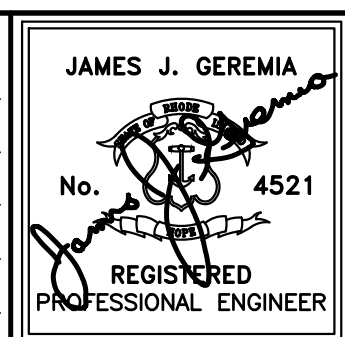
GENERAL LEGEND & ABBREVIATIONS:

N/F	NOW OR FORMERLY	LOCUS PROPERTY LINE	TREE (VARIOUS SPECIES)	SHRUBS FROM AERIAL CO.
A.P.	ASSESSOR PLAT	ASSESSORS LINE	TELEPHONE MANHOLE	CATCH BASIN FROM AERIAL CO.
S.F.	SQUARE FEET	EASEMENT LINE	ELECTRIC MANHOLE	MANHOLES FROM AERIAL CO.
AC.	ACRES	CONTOUR (10')	ELECTRIC HANDHOLE	TRAFFIC LIGHTS FROM AERIAL CO.
Bit.	BITUMINOUS	CONTOUR (2')	SEWER MANHOLE	FLAG POLE FROM AERIAL CO.
Conc.	CONCRETE	SPOT GRADE	ROUND GRATED CATCH BASIN	ROCK/BOULDERS FROM AERIAL CO.
FF.	FINISH FLOOR	GUARD RAIL	GRATED CATCH BASIN	WATER SHUT OFF/CURB STOP
C.L.F.	CHAIN LINK FENCE	CHAIN LINK FENCE	DRAIN MANHOLE	SOIL BORING
C.I.	CAST IRON	IRON RAIL FENCE	COMMUNICATIONS MANHOLE	TEST PITS TO BE PERFORMED
PL.	PLASTIC	POST & RAIL FENCE	UNKNOWN MANHOLE	SMH - SEWER MANHOLE
R.C.P.	REINFORCED CONCRETE PIPE	STOCKADE/WOOD FENCE	FIRE HYDRANT	C.O. - CLEAN OUT
V.C.	VITRIFIED CLAY	STONE WALL	WATER GATE	
TRANS.	TRANSITE	SEWER LINE	GAS GATE	
C.M.P.	CORRUGATED METAL PIPE	DRAIN LINE	LIGHT POLE	
AC.	ASBESTOS CONCRETE	WATER LINE	TRAFFIC SIGNAL POLE	
(FND)	FOUND	GAS LINE	MONITORING WELL	
IGB	GRANITE BOUND	TELEPHONE LINE	SIGN	
ICB	CONCRETE BOUND	ELECTRIC LINE	LOOP DETECTORS	
IP	IRON PIPE	COMMUNICATIONS LINE	UTILITY POLE	
DH	DRILL HOLE	OVERHEAD WIRES	BOLLARD	
OREBAR	REBAR	TREE LINE	GATE CONTROL BOX	



Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

DESIGNED BY: RH	CHECKED BY: JG
DRAWN BY: OL	SCALE: AS SHOWN
DATE: MAY 2022	DATE PRINTED: 8/29/22
NO.:	REMARKS:
CADD FILE: 2022 KCWA INF IMP.dwg	

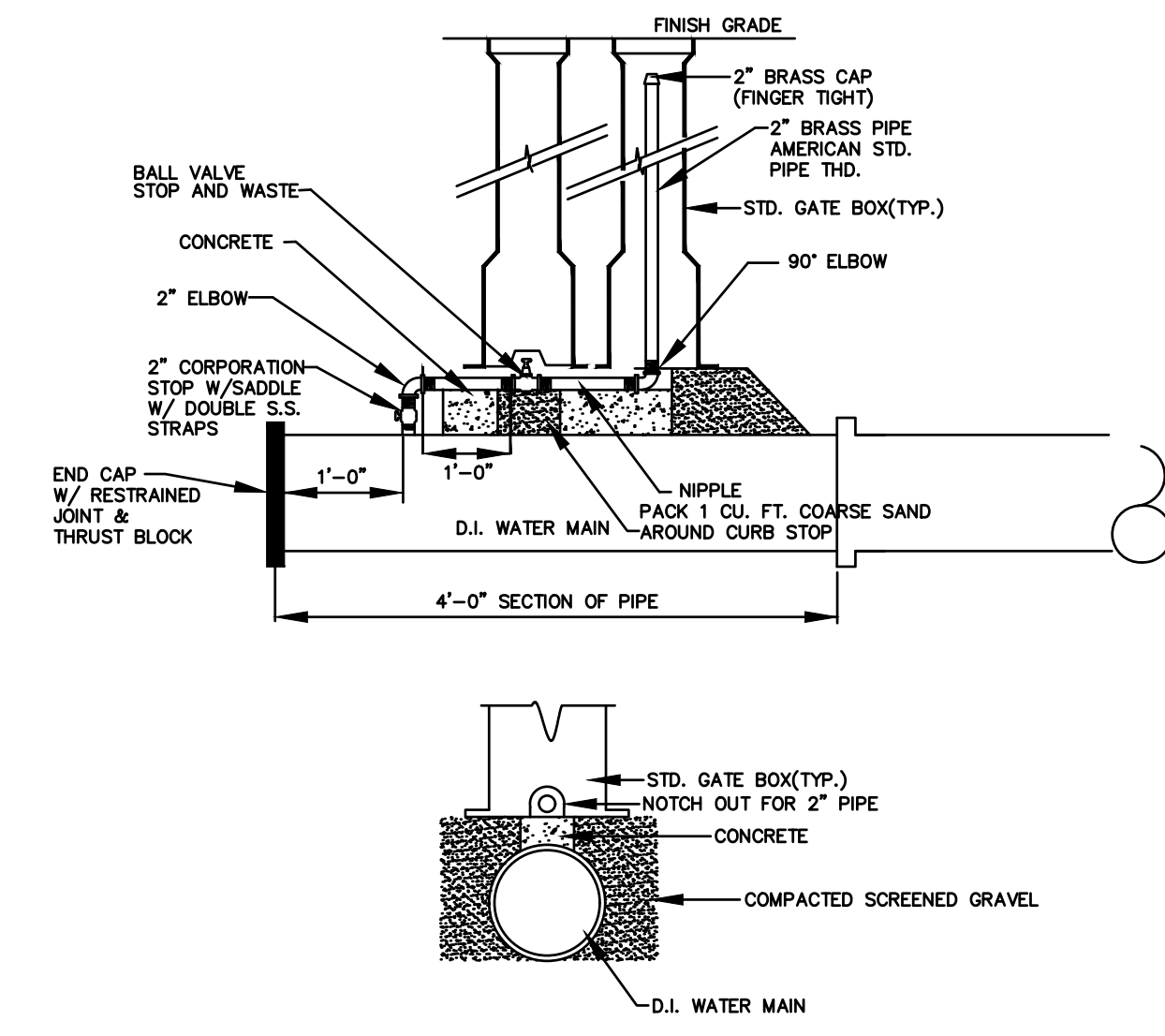


JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

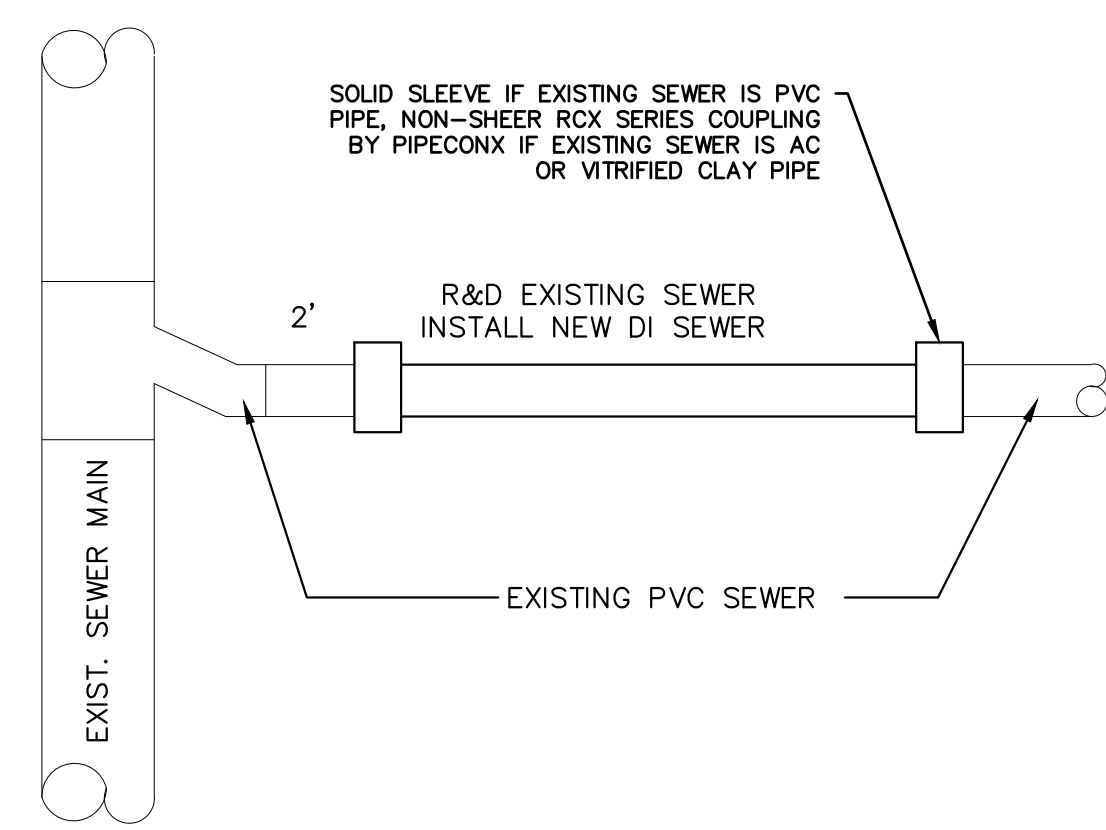
KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

MISCELLANEOUS DETAIL I

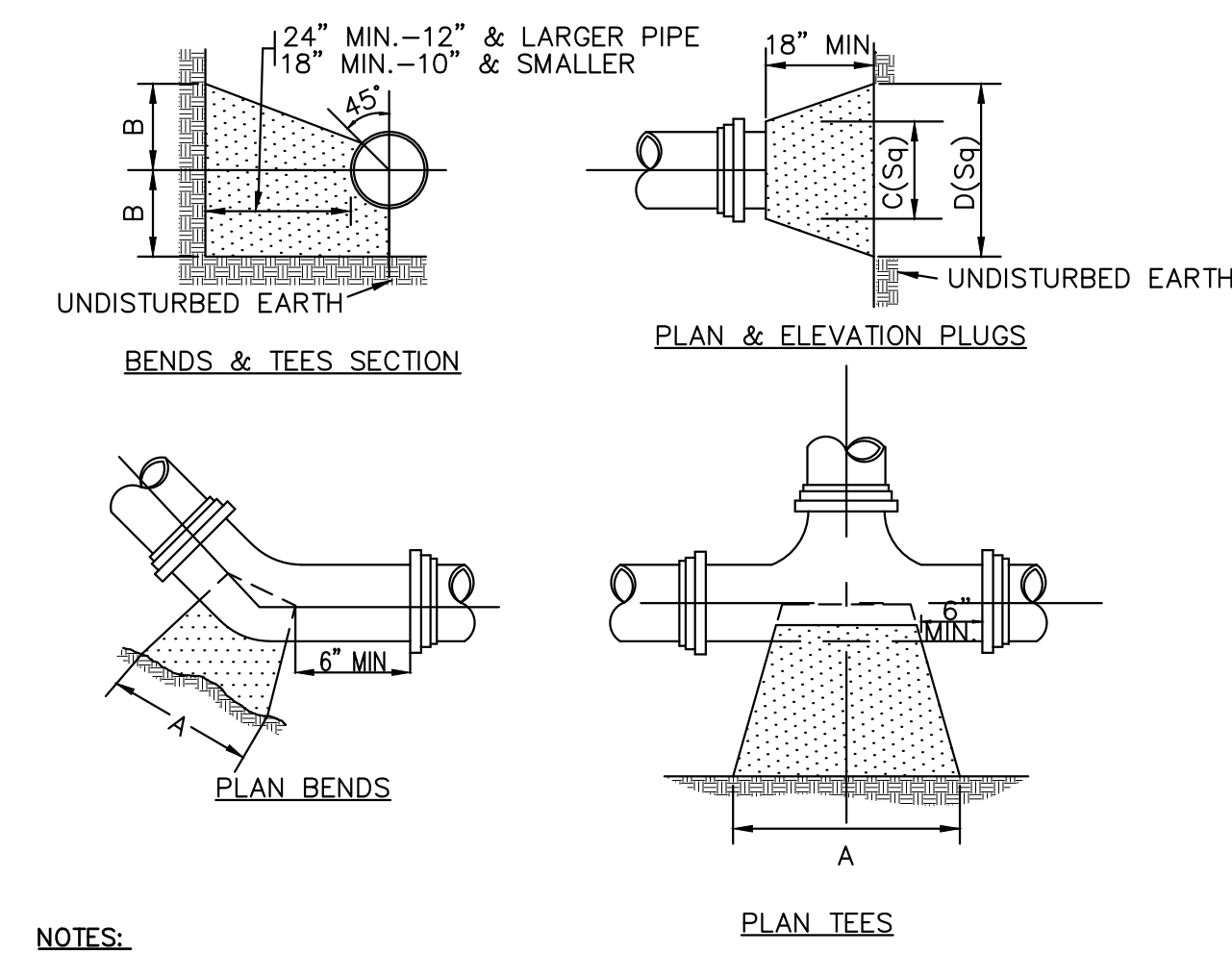
SHEET NO.
20



2\"/>



SEWER CONNECTION REPLACEMENT DETAIL
NOT TO SCALE



- NOTES:**
- 1.) ALL CONCRETE SHALL BE 4000 P.S.I @ 28 DAYS.
 - 2.) CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
 - 3.) FORMS TO BE USED AS NECESSARY.
 - 4.) ALL BOLTS AND NUTS TO BE PROTECTED FROM CONCRETE AND EASILY ACCESSIBLE WHEN THRUST BLOCK INSTALLED.
 - 5.) REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF R.I. SHALL VERIFY ALL CALCULATIONS DURING DESIGN TO MEET CONDITIONS OF PROJECT AND KCWA REQUIREMENTS.

SIZE	TEES	PLUGS	90° BEND	45° BEND	22½° BEND	1½° BEND						
	A	B	C	D	A	B	A	B	A	B		
6"	20"	10"	10"	21"	24"	12"	18"	9"	13"	7"	9"	5"
8"	26"	13"	12"	26"	32"	16"	24"	12"	17"	9"	12"	6"
10"	34"	17"	14"	34"	40"	20"	30"	15"	22"	11"	15"	8"
12"	41"	20"	16"	41"	48"	24"	35"	18"	25"	13"	18"	9"
16"	54"	27"	20"	54"	64"	32"	47"	23"	34"	17"	24"	12"

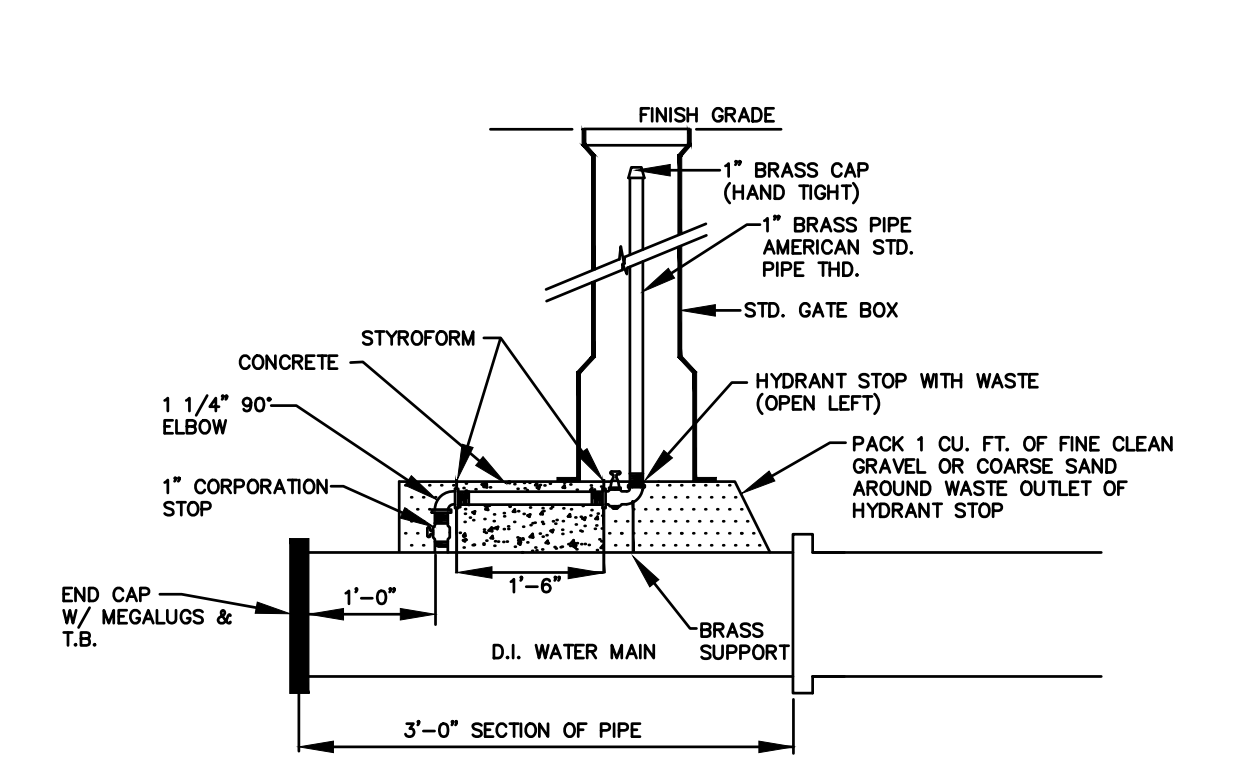
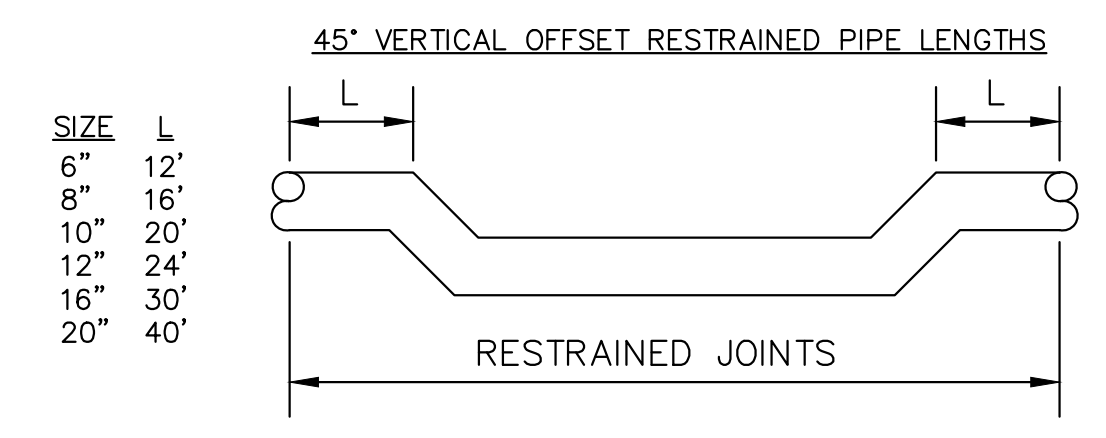
THRUST BLOCK
NOT TO SCALE

- NOTES:**
1. ALL JOINTS, INCLUDING PIPE JOINTS, VALVE JOINTS AND FITTING JOINTS, SHALL BE RESTRAINED WITHIN THE LIMITS OF RESTRAINED LENGTHS LISTED ON THIS TABLE. MECHANICAL JOINT PIPE AND MEGALUG RESTRAINTS WILL BE IN ACCORDANCE WITH THE ABOVE TABLE
 2. THE TABLE SHOWS LENGTHS OF PIPES WHICH MUST BE RESTRAINED ON BOTH SIDES OF THE FITTING.
 3. ALL DEAD END PIPE SHALL BE PROPERLY RESTRAINED WITH MEGA-LUG AND MECHANICAL JOINT PIPE PRIOR TO PRESSURE TESTING.
 4. WHERE ONE OR MORE FITTINGS FALL WITHIN THE RESTRAINED LENGTH OF ANOTHER THE RESTRAINED LENGTH SHALL BE ADDED.
 5. ALL VALVES, SOLID SLEEVES AND PIPING WITHIN TIE-INS TO BE RESTRAINED.
 6. RUN JOINTS ON TEES SHALL BE RESTRAINED
 7. THRUST BLOCK SHALL BE INSTALLED WHEN THERE IS NOT ENOUGH PIPE LENGTH TO BE RESTRAINED.

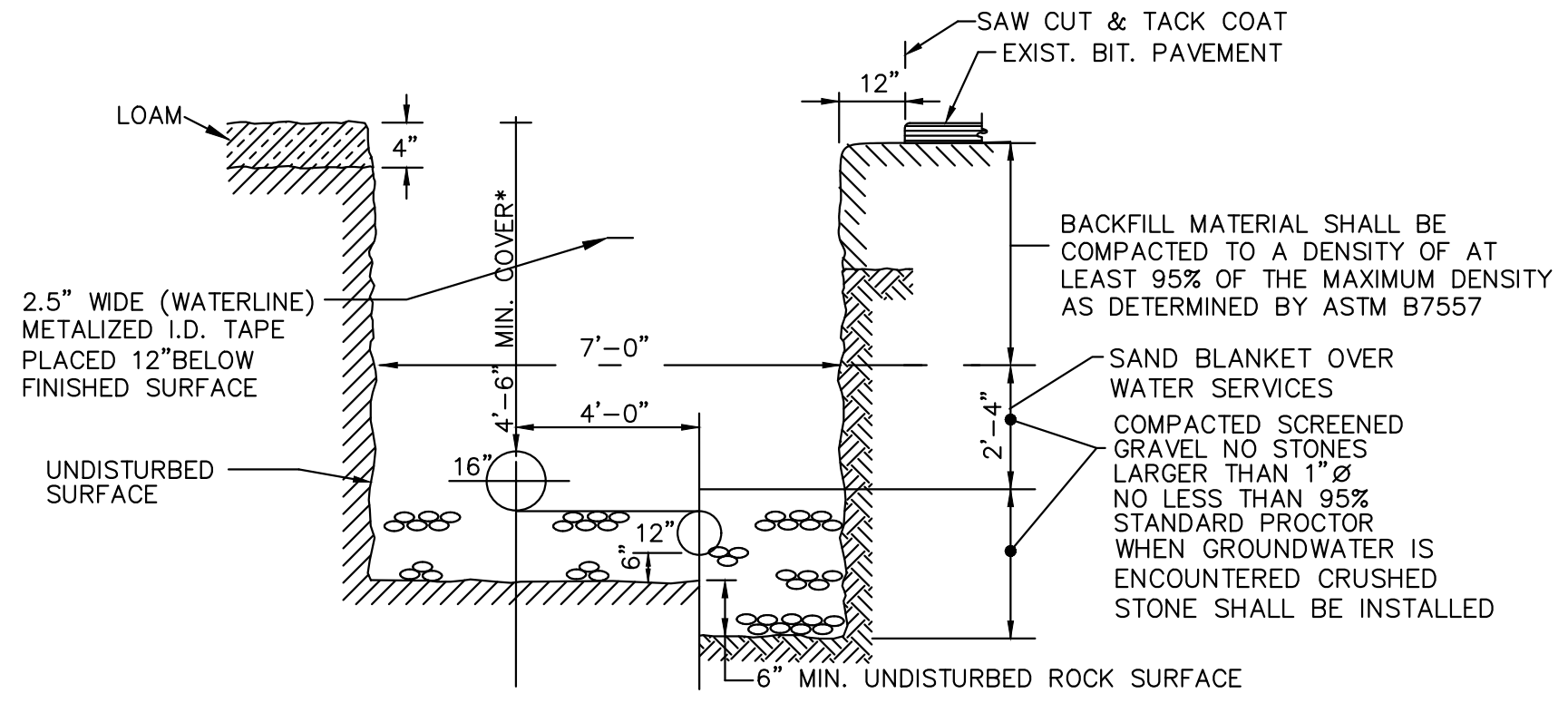
RESTRAINED PIPE LENGTHS
NOT TO SCALE

FITTING	RESTRAINED LENGTH
16" CAP	71'
16x16 TEE	66'
16x12 TEE	46'
16x10 TEE	35'
16x8 TEE	25'
16x6 TEE	13'
16" 90°	30'
16" 45°	13'
16" 22-1/2°	6'
16" 11-1/4°	6'
16x12 REDUCER	30' ON 16"
16x10 REDUCER	42' ON 16"
16x8 REDUCER	52' ON 16"
16x6 REDUCER	60' ON 16"
12" CAP	55'
12"x12" TEE	50'
12x8 TEE	29'
12x6 TEE	17'
12" 90°	24'
12" 45°	10'
12" 22-1/2°	5'
12" 11½°	3'
12x8 REDUCER	29' ON 12"
12x6 REDUCER	40' ON 12"
8" CAP	39'
8x8 TEE	33'
8x6 TEE	22'
8" 90°	17'
8" 45°	7'
8" 22½°	4'
8" 11½°	4'
8x6 REDUCER	16' ON 8"
8x4 REDUCER	28' ON 8"
6" CAP	29'
6" TEE	24'
6" 90°	13'
6" 45°	6'
6" 22½°	3'
6" 11½°	3'
16" B.F.V.	71'
12" G.V.	55'
10" G.V.	46'
8" G.V.	39'
6" G.V.	29'
4" G.V.	21'

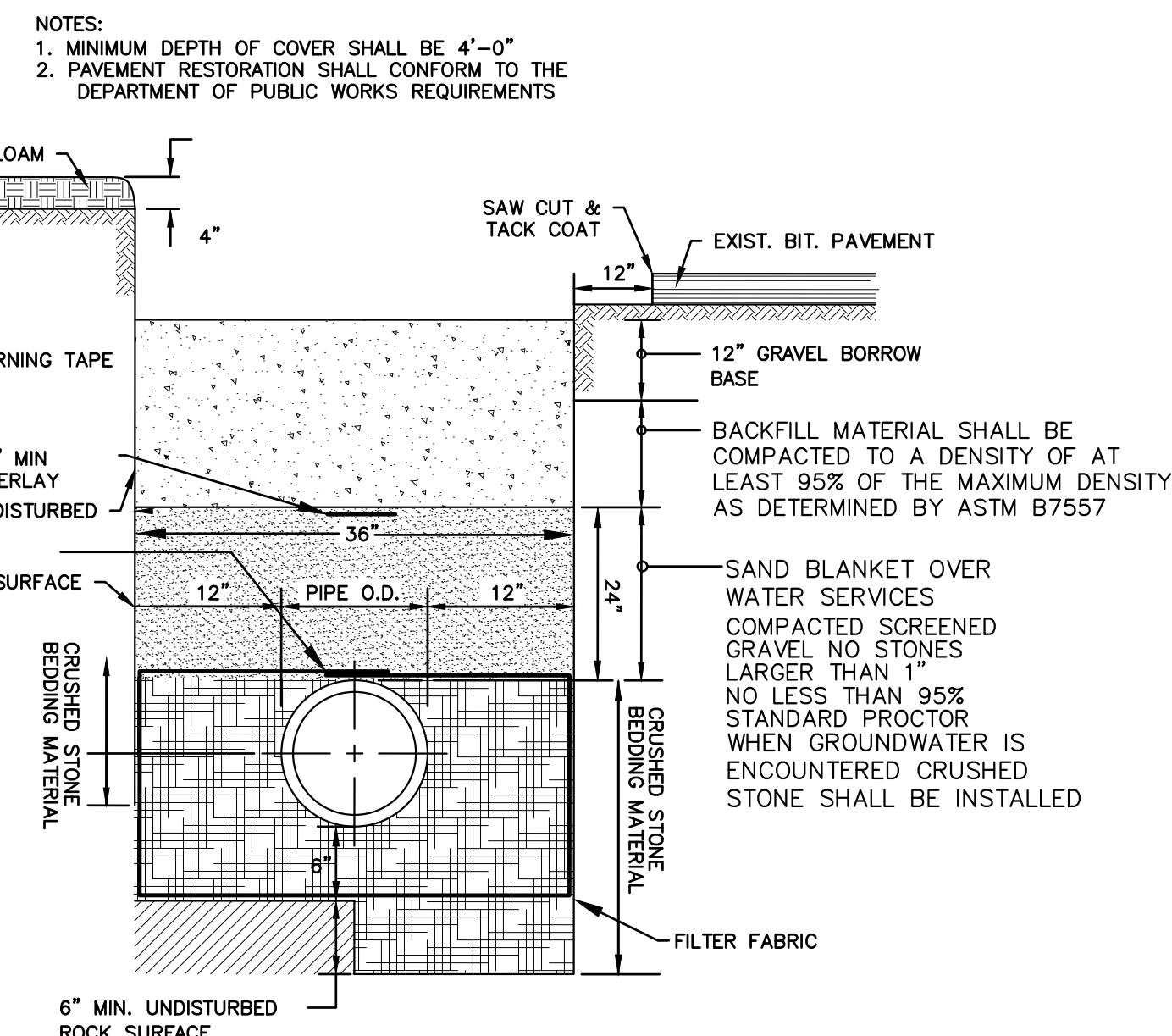
RESTRAINED PIPE LENGTHS
NOT TO SCALE



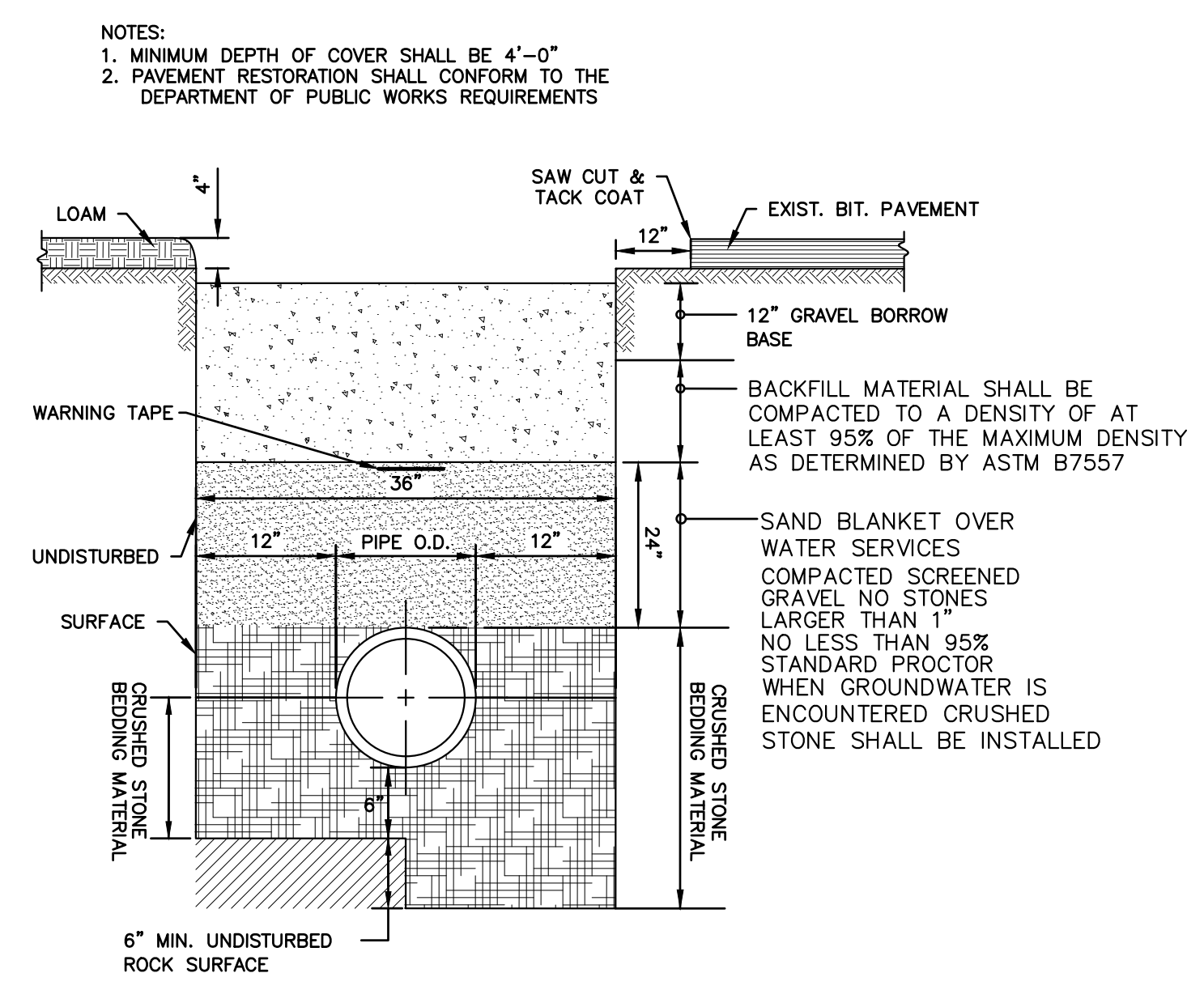
1\"/>



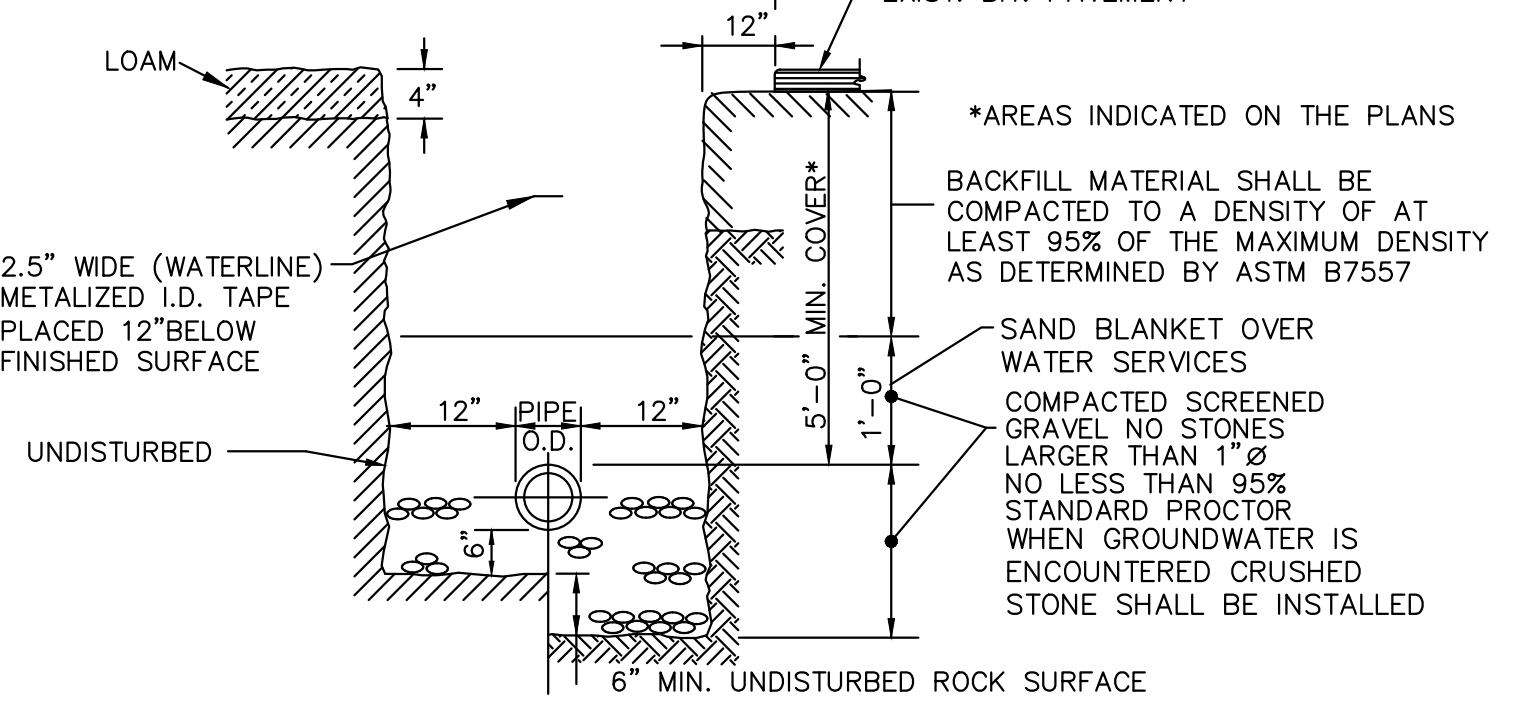
WATER TRENCH DETAIL 12\"/>



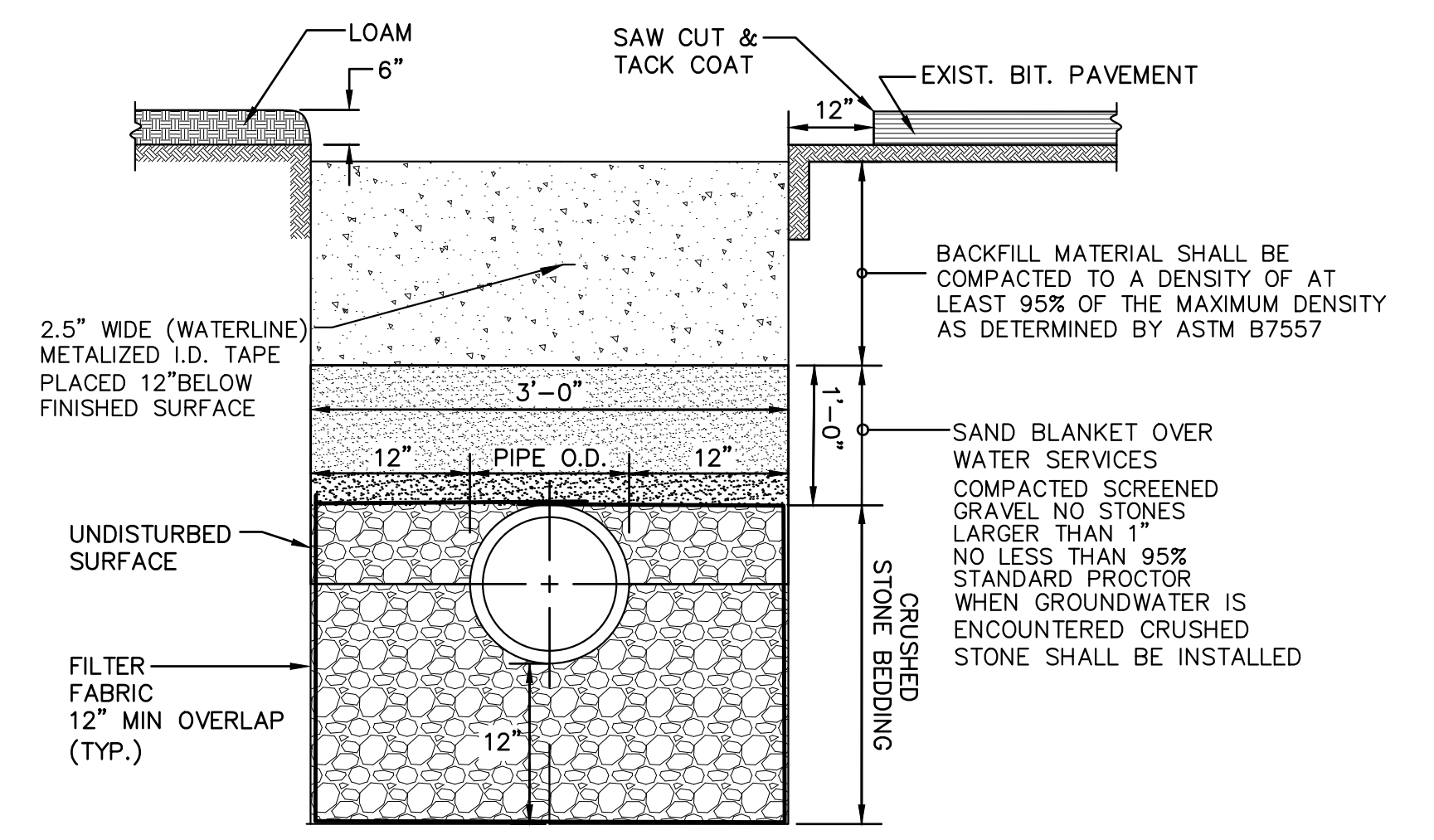
SEWER TRENCH DETAIL (WET AREA)
NOT TO SCALE



SEWER TRENCH DETAIL (DRY AREA)
NOT TO SCALE



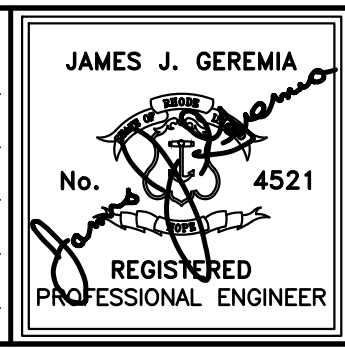
WATER TRENCH DETAIL (DRY AREA)
NOT TO SCALE



WATER TRENCH DETAIL (WET AREA)
NOT TO SCALE

Z: | Projects | KCWA | KCWA | 2022 | KCWA | INF | IMP | DWG

DESIGNED BY: RH	CHECKED BY: JG	SCALE: AS SHOWN	DATE: MAY 2022
DRAWN BY: OL	REMARKS:	DATE PRINTED: 8/29/22	
NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP DWG		



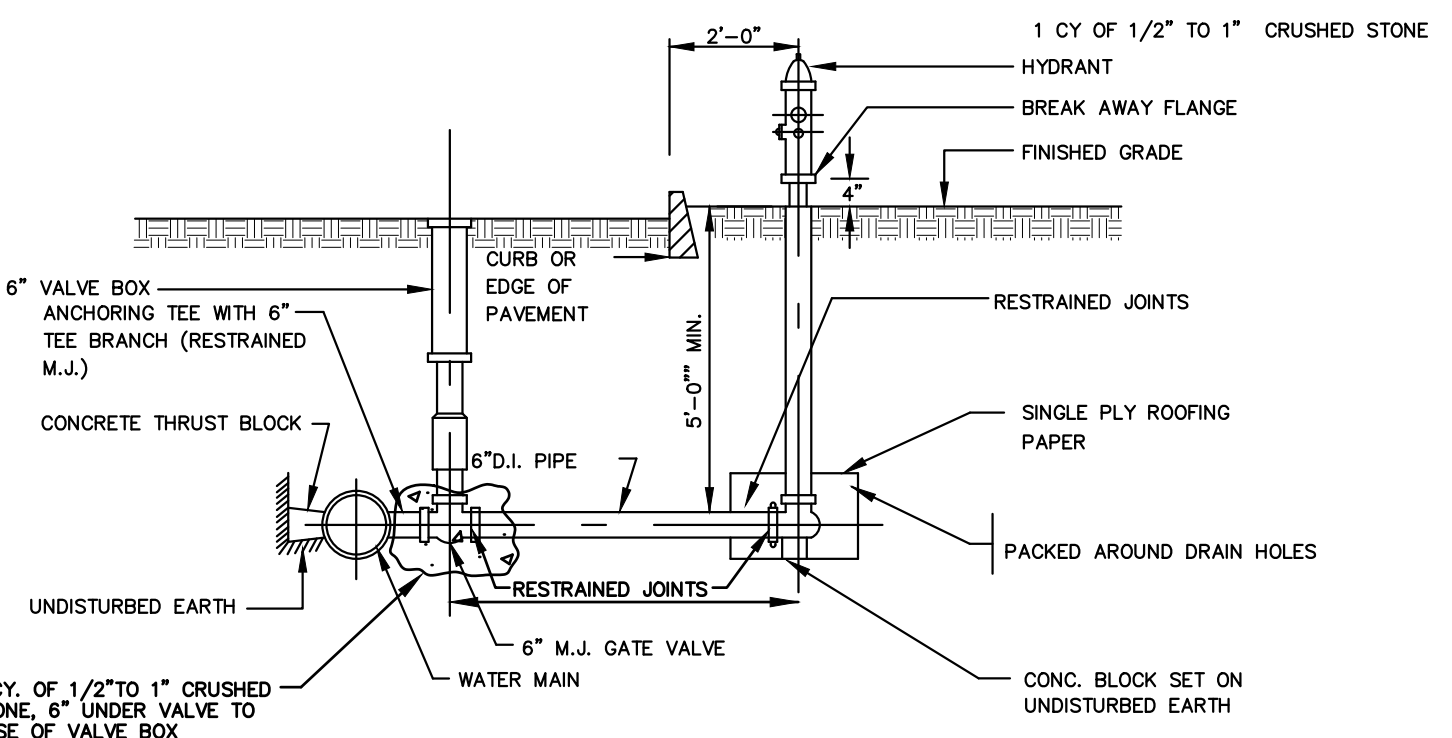
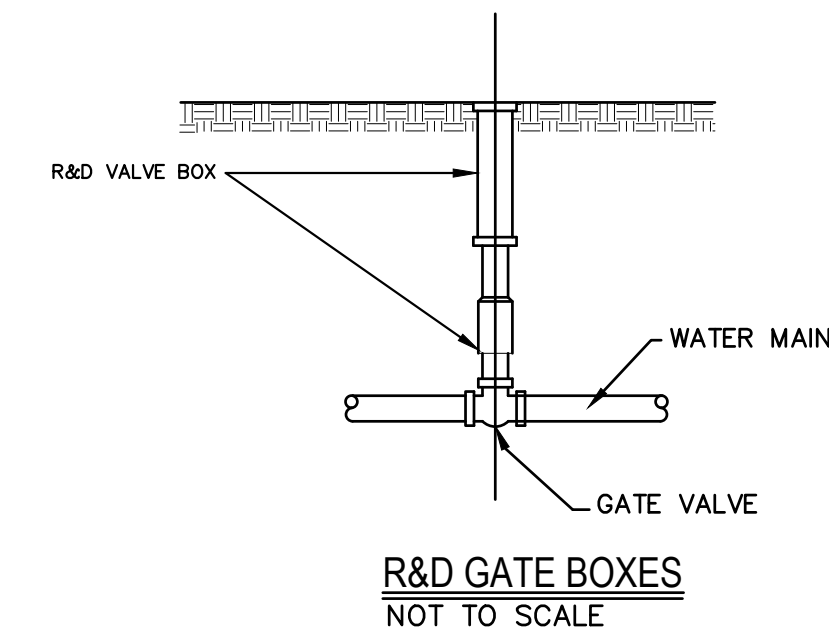
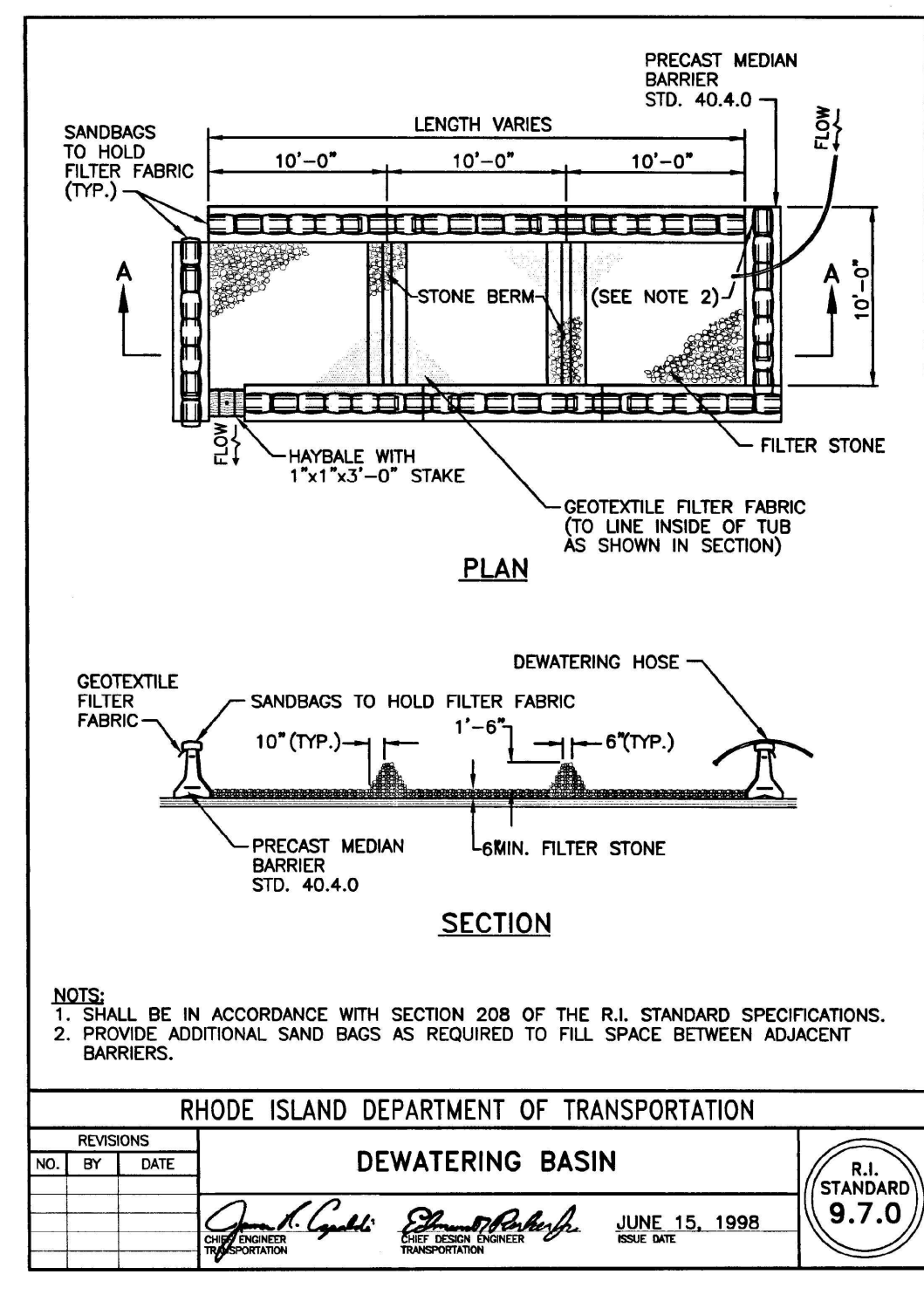
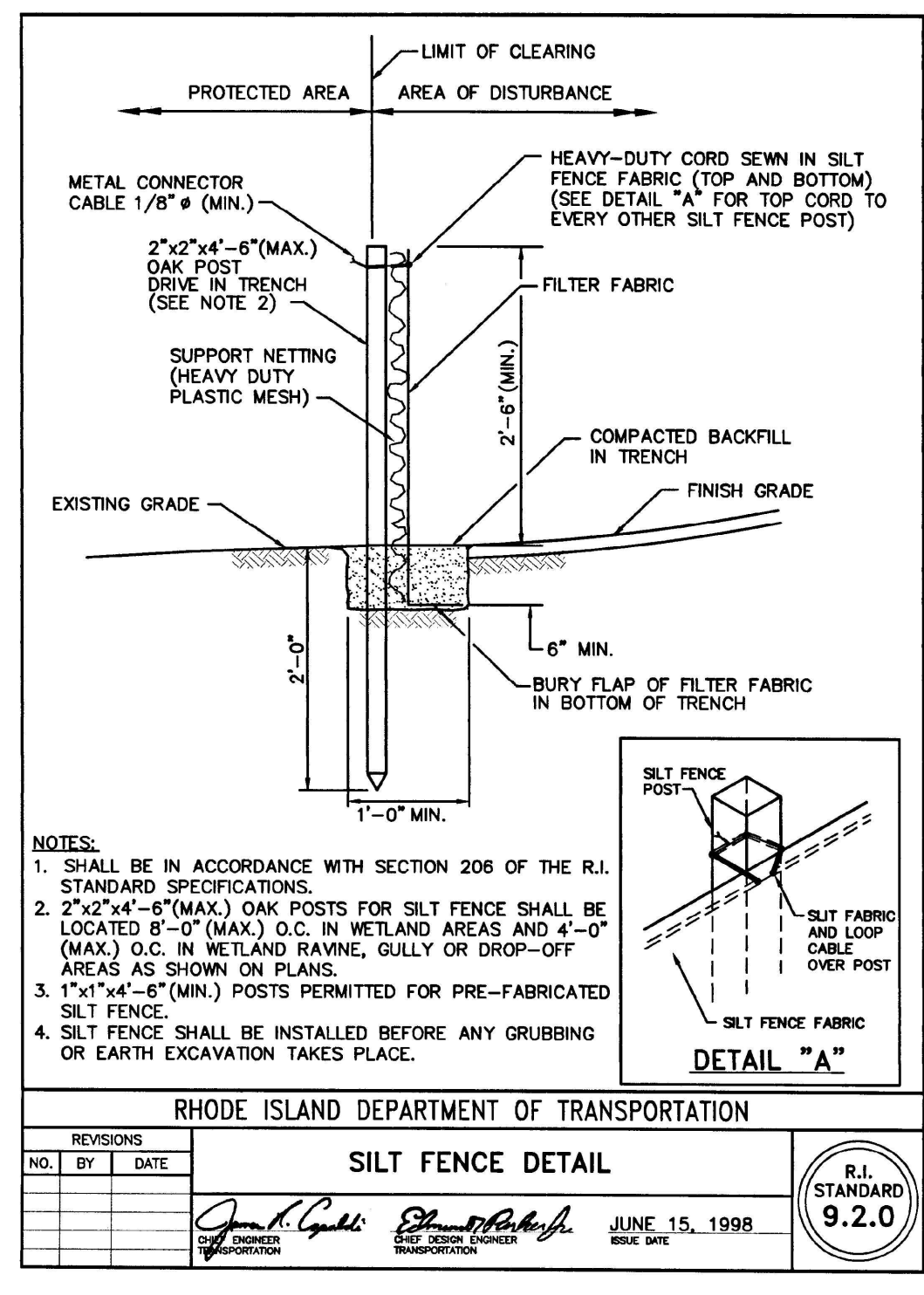
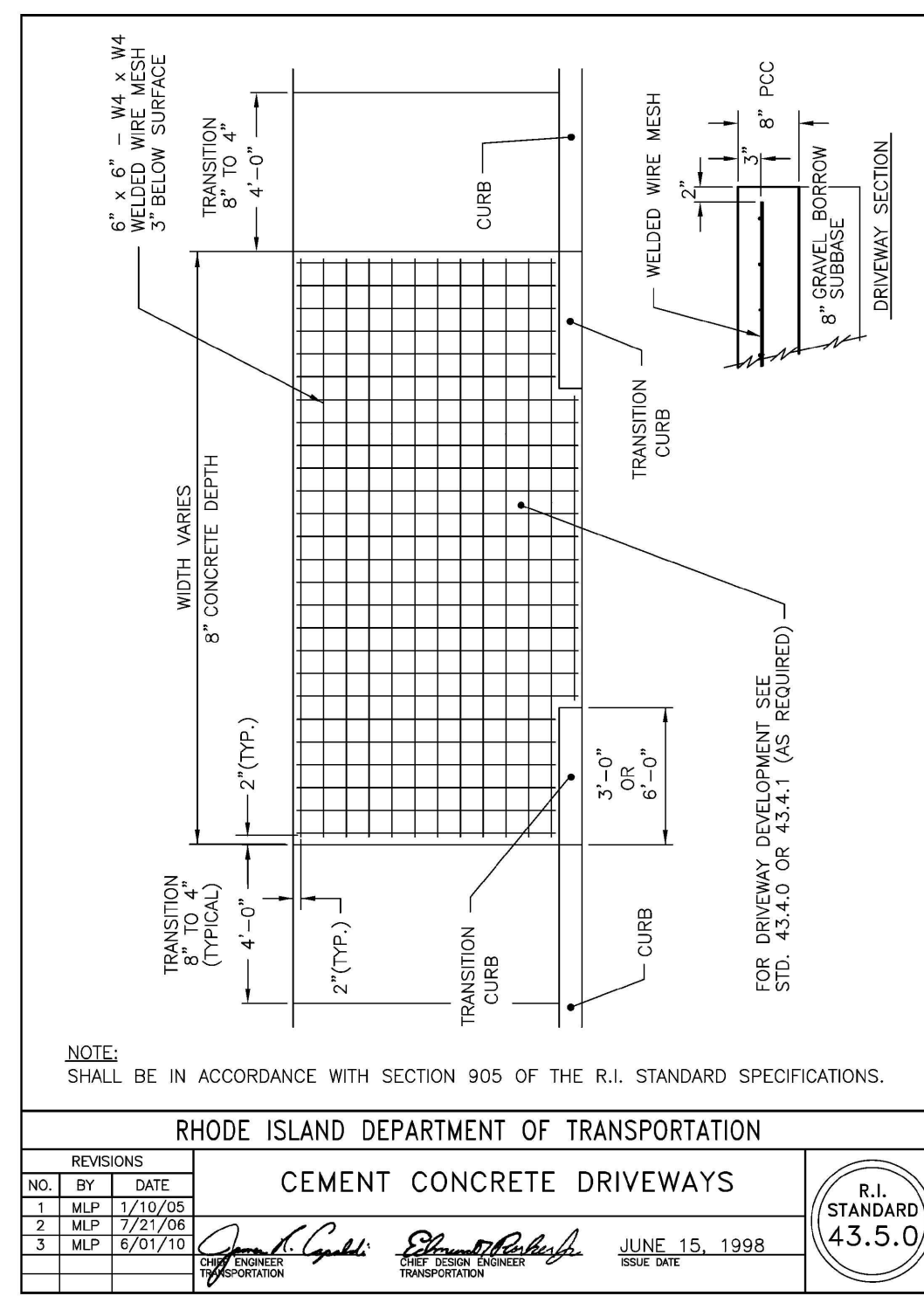
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS

272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

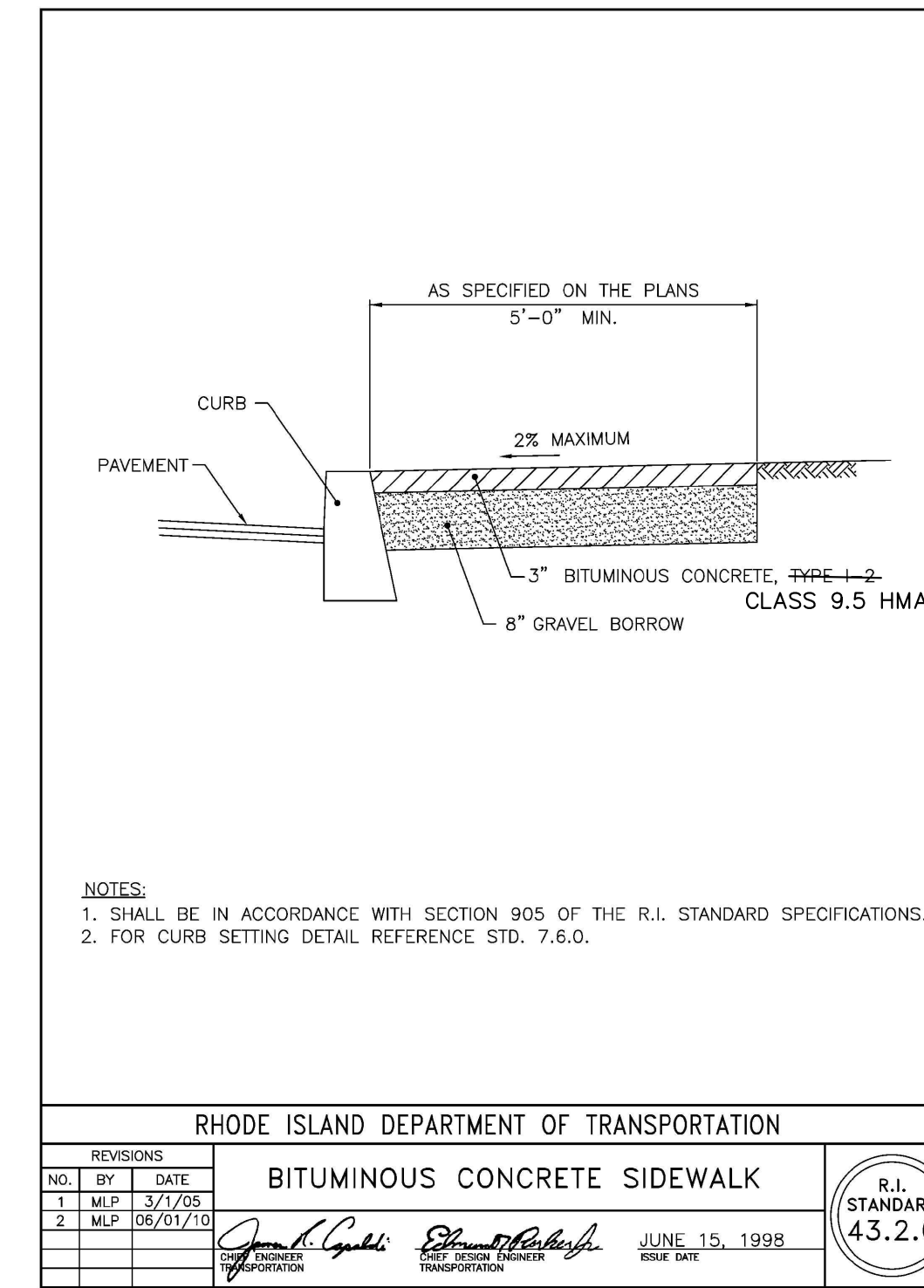
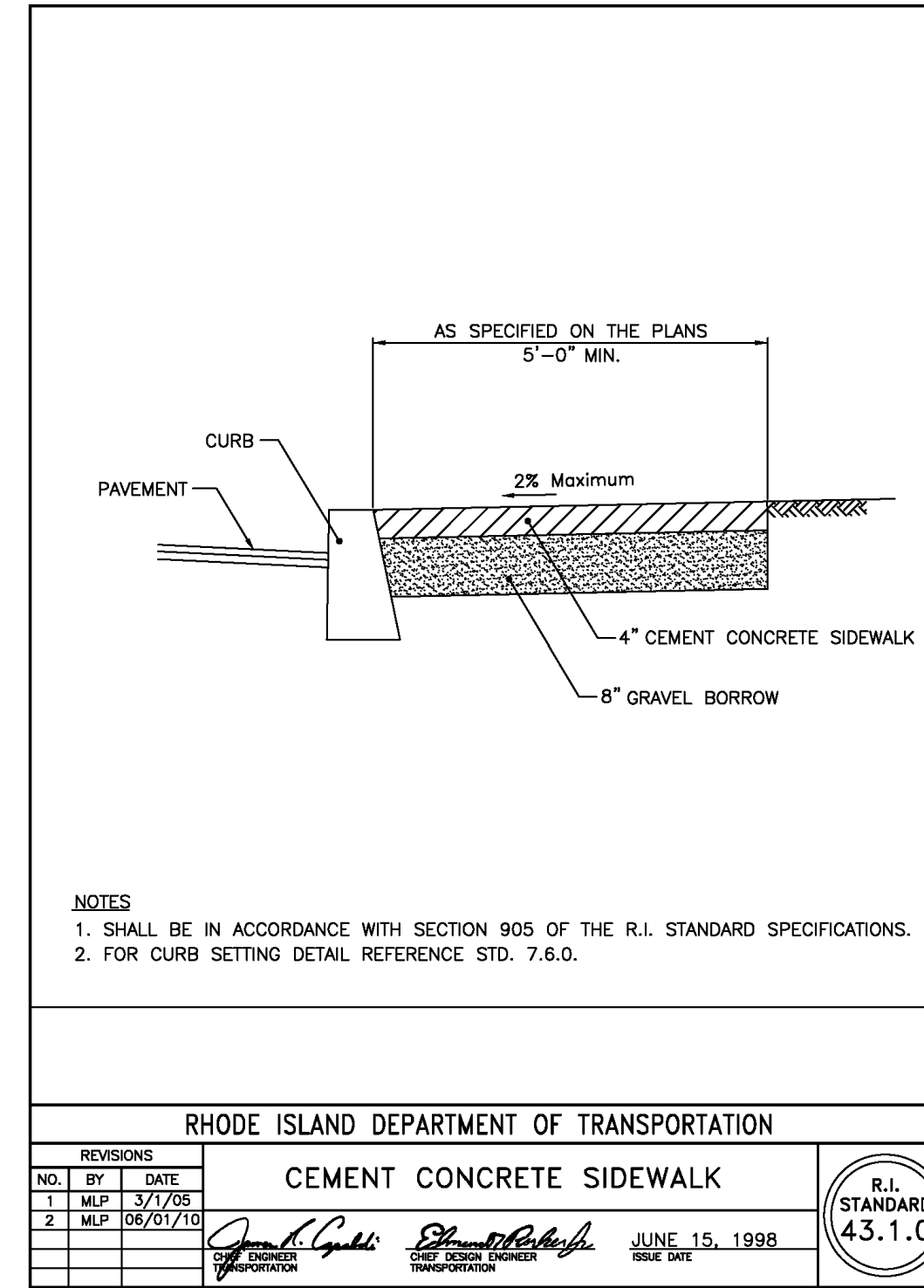
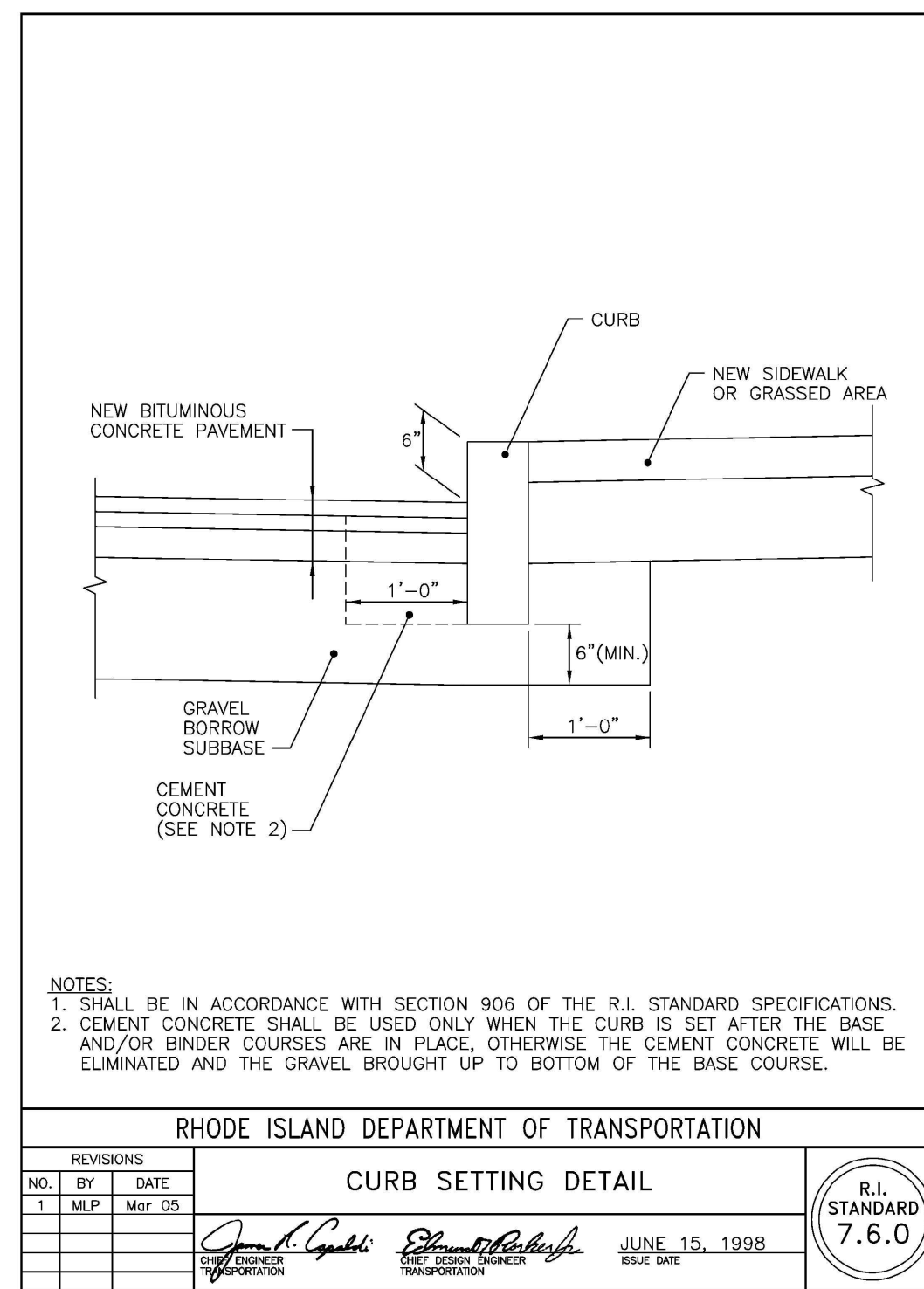
MISCELLANEOUS DETAIL II

SHEET NO. 21

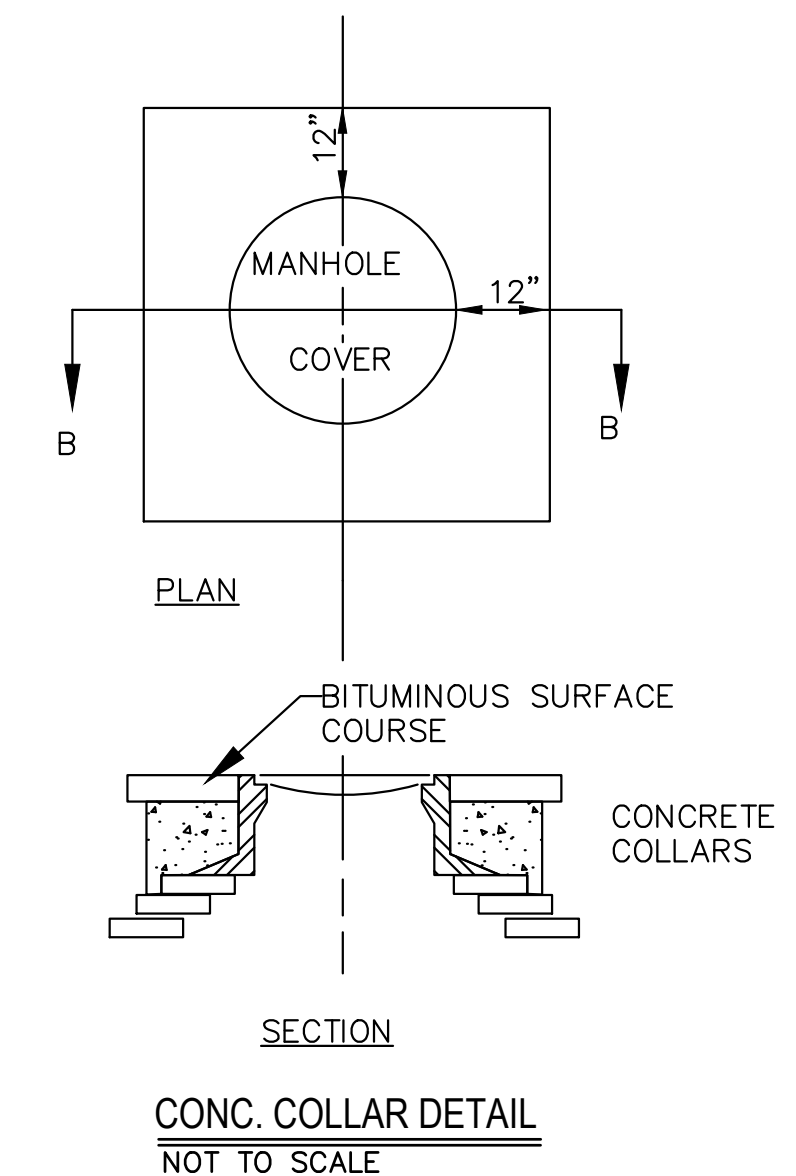
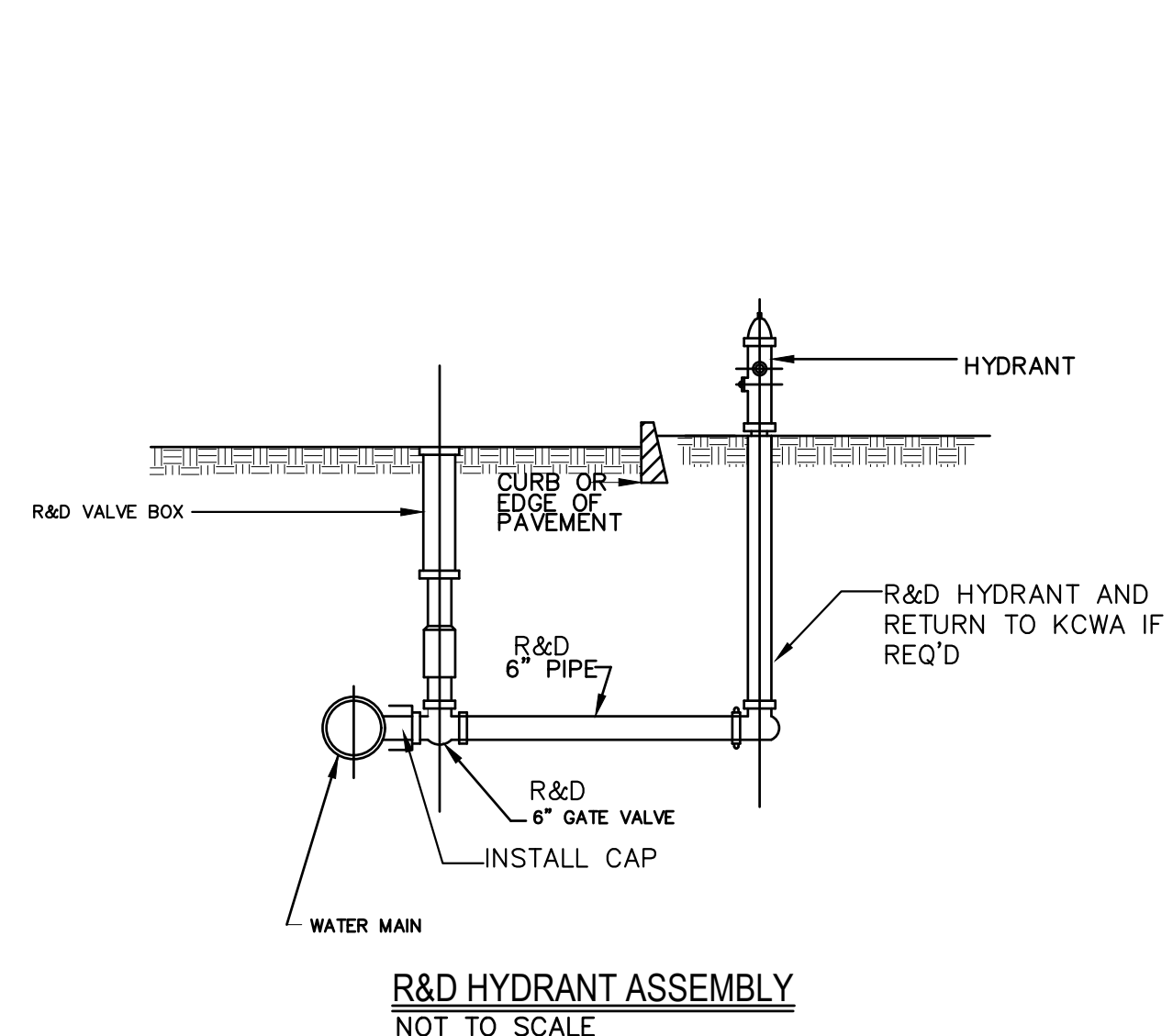


- NOTE:
- 1.) KCWA COLOR SCHEME FOR HYDRANT.
 - 2.) INSTALLATION SHALL NOT OBSTRUCT SIDEWALK TO PEDESTRIAN OR PHYSICALLY IMPAIRED.
 - 3.) REMOVAL OF EXISTING HYDRANT MAY REQUIRE ADDITIONAL RESTRAINT DESIGNED BY A PROFESSIONAL ENGINEER.

NOTE: MECHANICAL JOINT PIPE W/ RESTRAINED JOINTS FOR BRANCHES OVER ONE LENGTH OF PIPE



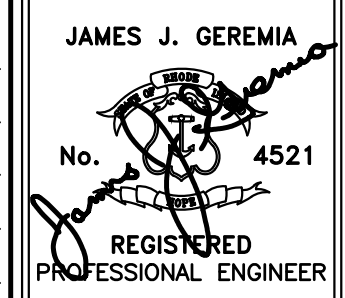
HYDRANT DETAIL
 NOT TO SCALE



Z: | Projects | KCWA | KCWA | 2022 | 2022 | KCWA | KCWA | INF | IMP | DWG

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP DWG		

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: AS SHOWN
 DATE: MAY 2022

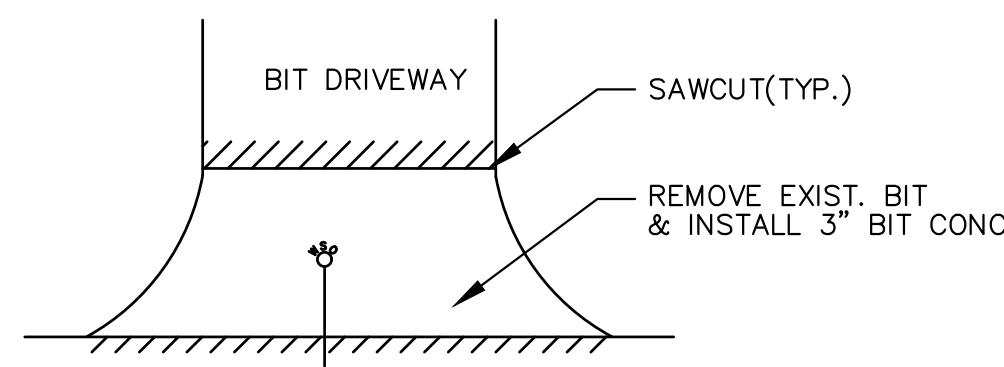


JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

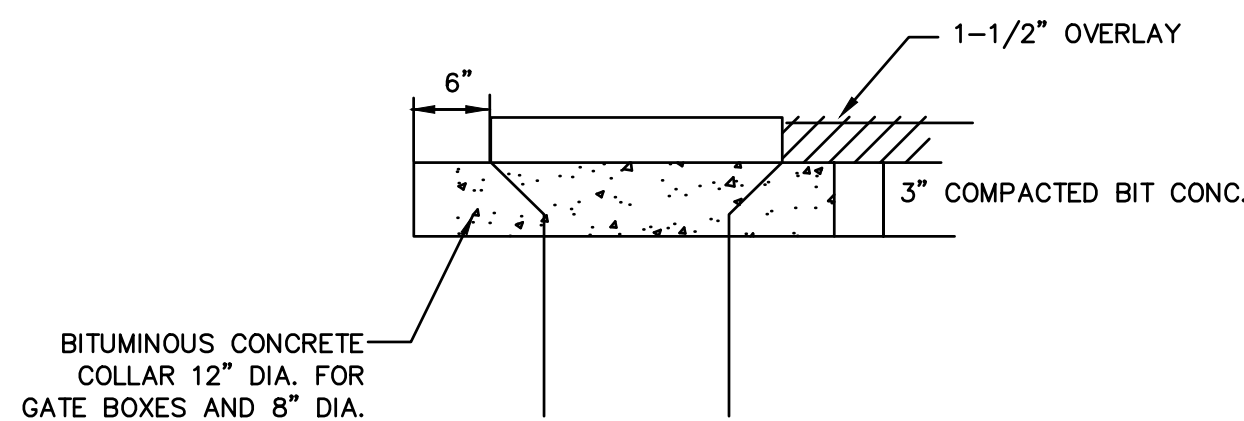
KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

MISCELLANEOUS DETAIL III

SHEET NO. 22

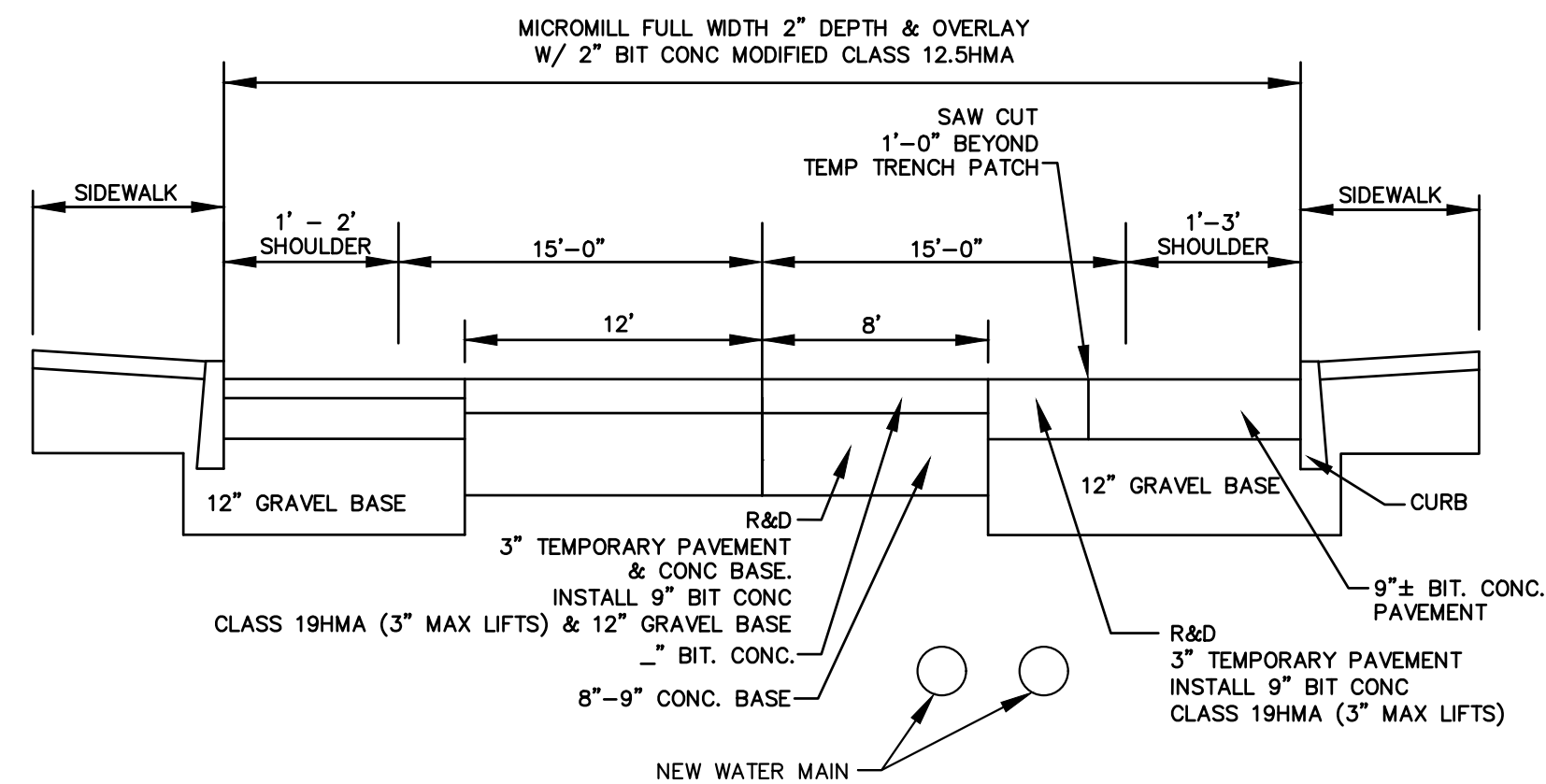


PERMANENT PAVEMENT (BIT, DRIVEWAYS & SIDEWALKS)
NOT TO SCALE

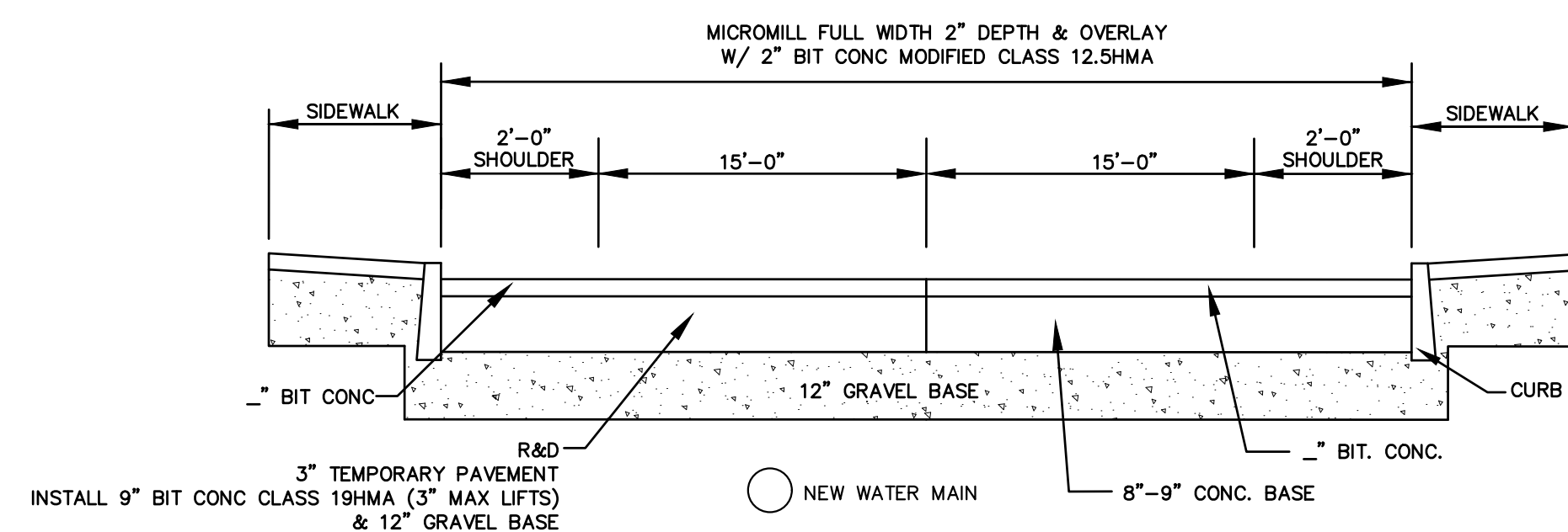


GATE BOXES AND CURB STOP BOXES

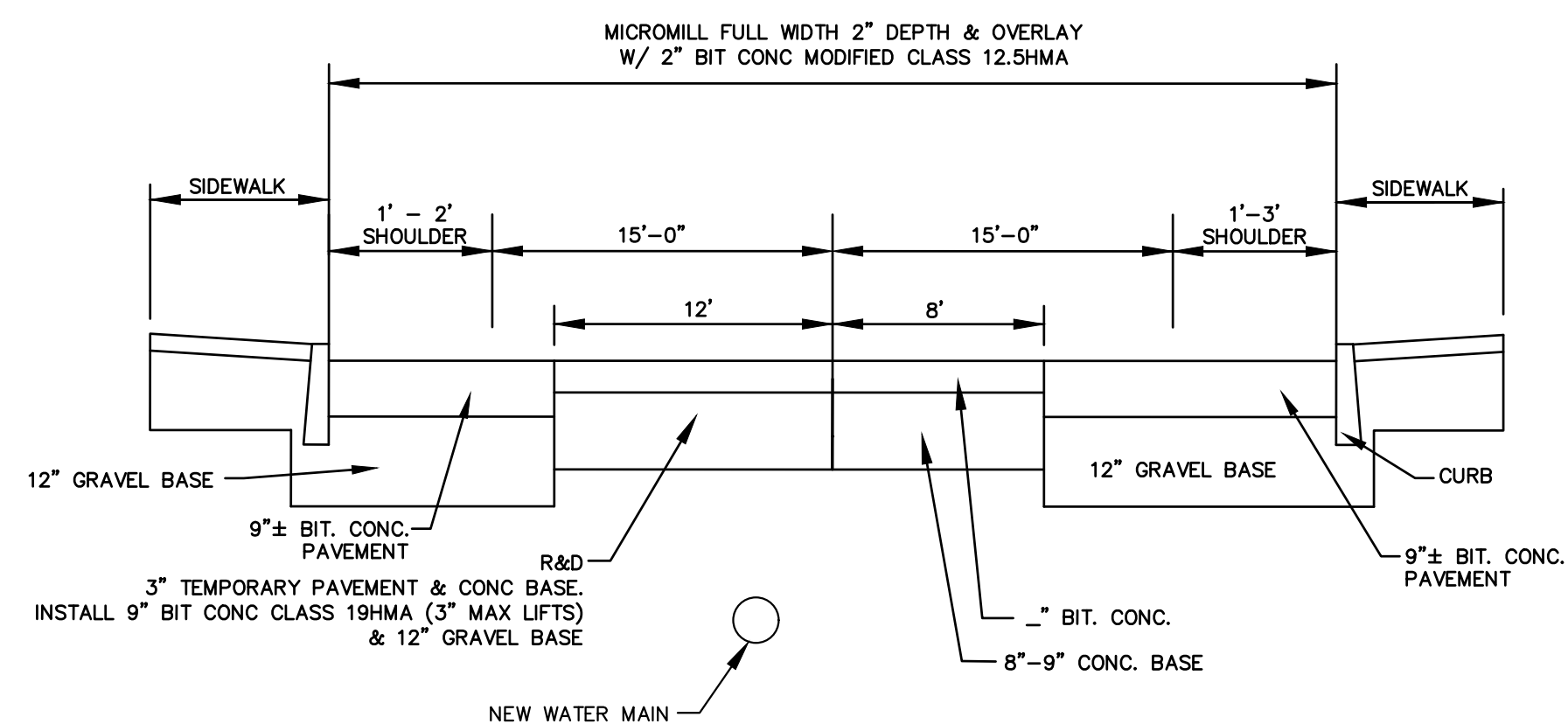
BITUMINOUS CONCRETE COLLAR
NOT TO SCALE



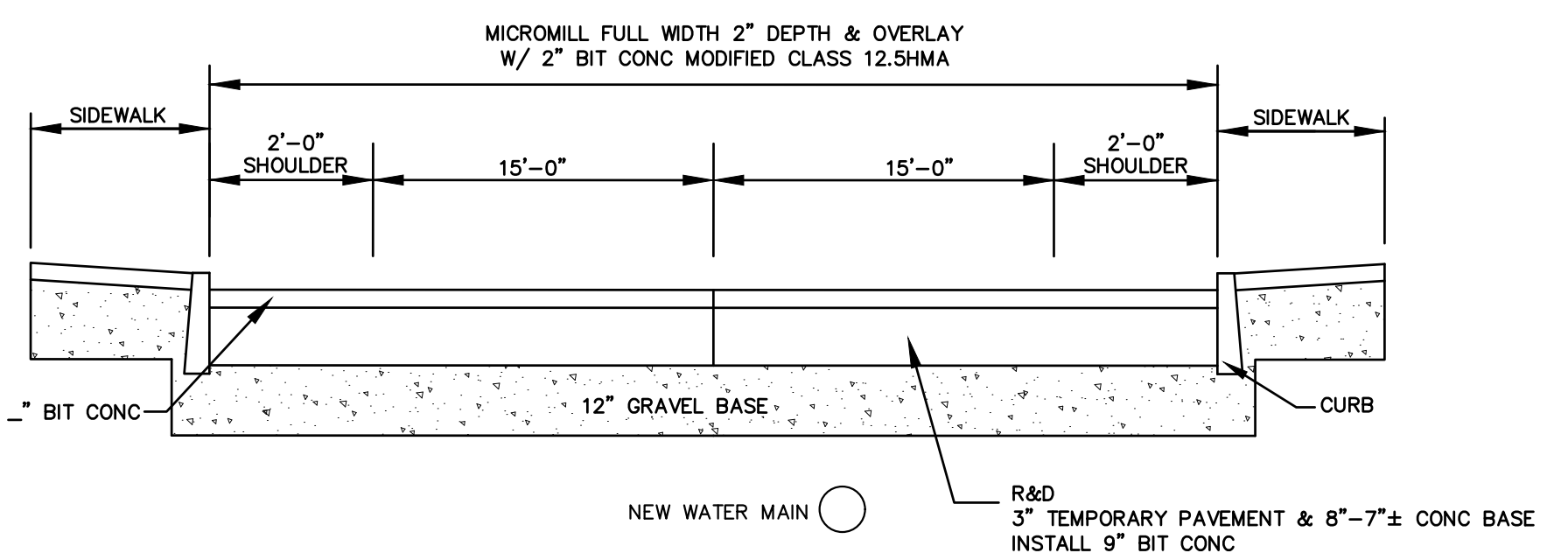
PERMANENT PAVEMENT RESTORATION COWESETT AVE STA 257+50 TO 213+50
NOT TO SCALE



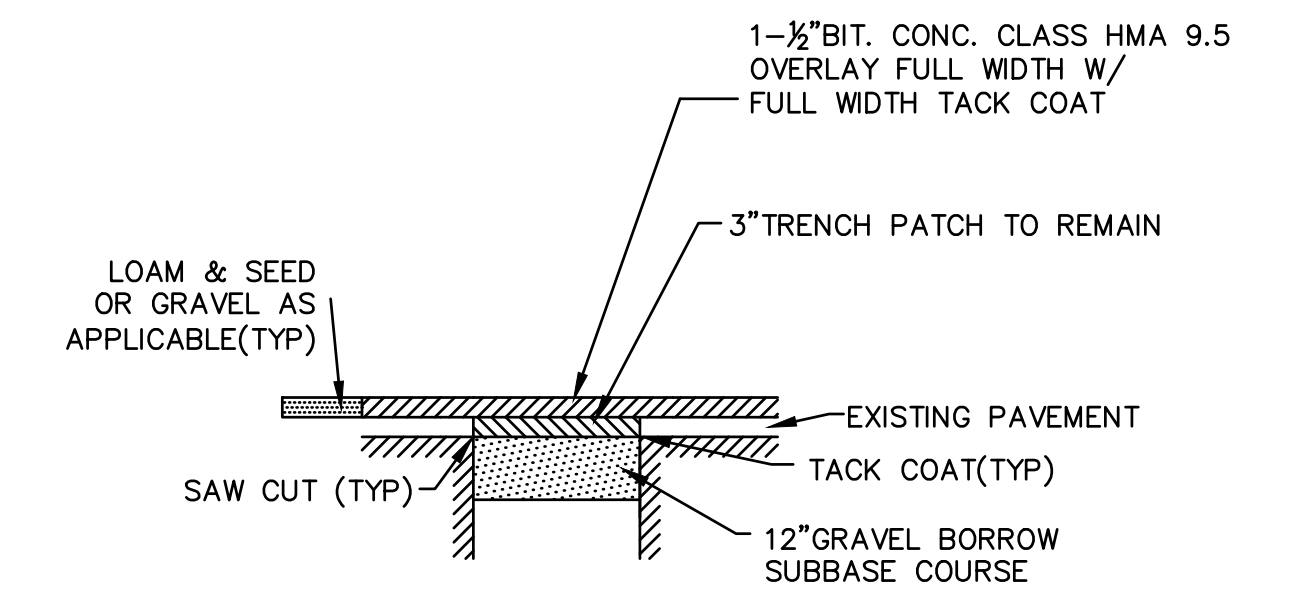
PERMANENT PAVEMENT RESTORATION COWESETT AVE STA 260+00 TO 266+15
NOT TO SCALE



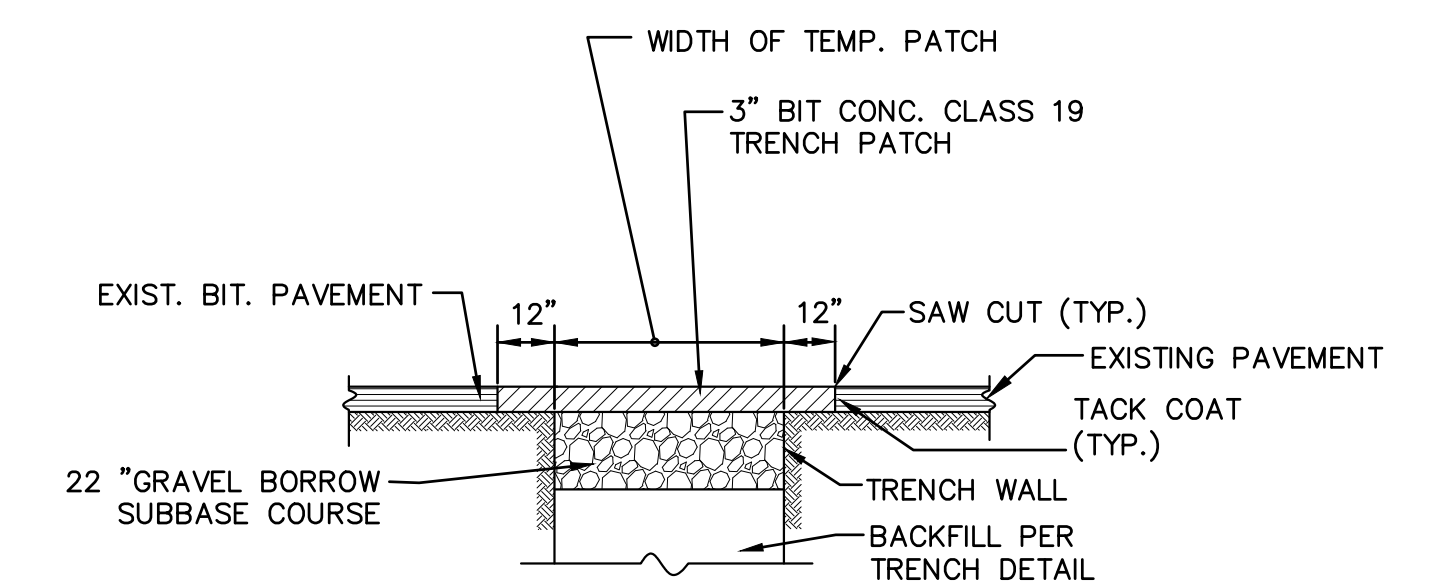
PERMANENT PAVEMENT RESTORATION COWESETT AVE STA 266+00 TO 257+50
NOT TO SCALE



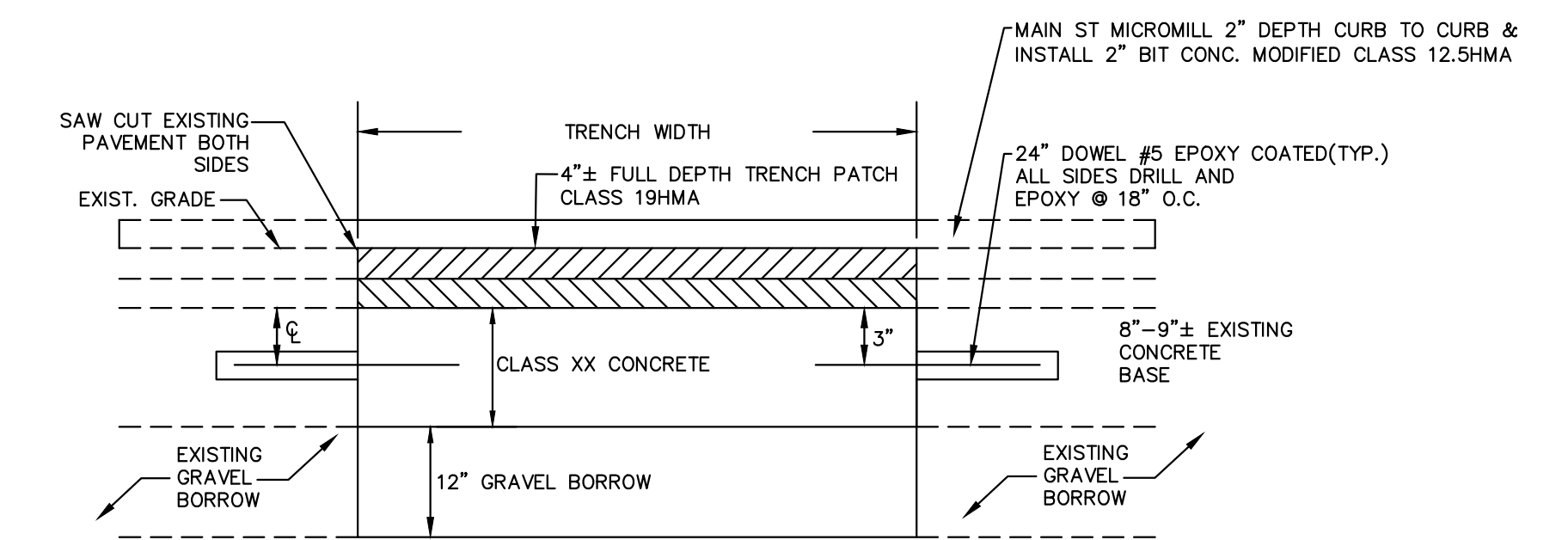
PERMANENT PAVEMENT RESTORATION COWESETT AVE STA 273+50 TO 266+15
NOT TO SCALE



PAVEMENT RESTORATION - WEST WARWICK & WARWICK, RI
NOT TO SCALE
NOTE:
1. MICROMILL FULL WIDTH OF ROAD TO A DEPTH OF 1-1/2"



TEMPORARY TRENCH PATCH (MAIN ST AND COWESETT AVE)
NOT TO SCALE



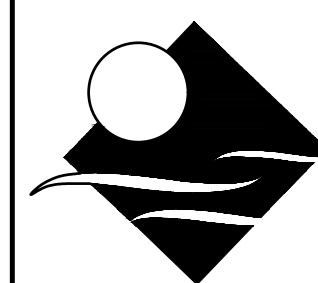
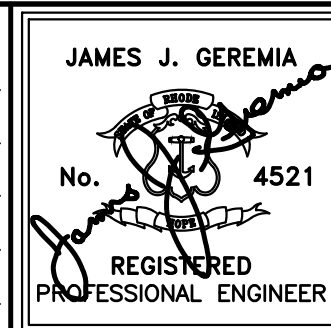
SECTION
NOTES:
1. CONTRACTOR SHALL POUR CONCRETE BASE TO MATCH EXISTING CONCRETE BASE.
2. DOWELS SHALL BE EPOXY COATED BARS CONFORMING TO AASHTO DESIGNATION M-31 (ASTM DESIGNATION A 615) GRADE 60
3. PAINT (MOVABLE) END OF DOWEL WITH AN APPROVED STEEL PRIMER
4. PAINTED PORTION OF THE DOWEL TO BE WIPED CLEAN AND COATED WITH A THIN FILM OF LUBRICATING OIL BEFORE CONCRETE IS PLACED.
5. ALL WORK DONE SHALL CONFORM TO SECTION 5010F R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED SEPTEMBER 2018 WITH ALL REVISIONS AND ADDENDA.

PERMANENT PAVEMENT RESTORATION MAIN ST & COWESETT AVE (LONG SIDE SERVICES, HYDRANT BRANCHES & INTERSECTIONS)
NOT TO SCALE

- NOTE:
1. ALL WORK DONE WITHIN THE STATE RIGHT OF WAY SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED SEPTEMBER 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS 1998 EDITION WITH ALL REVISIONS
2. ASPHALT EMULSION TACK COAT IS TO BE PLACED IN MILLED AND VERTICAL SURFACES PRIOR TO PLACEMENT OF HMA

Z: | Projects | KCWA | KCWA 2022 | 2022 KCWA INF IMP.dwg

DESIGNED BY: RH	
DRAWN BY: OL	
CHECKED BY: JG	
SCALE: AS SHOWN	
DATE: MAY 2022	
NO.:	REMARKS:
BY:	DATE PRINTED: 8/29/22
DATE:	
CADD FILE: 2022 KCWA INF IMP.dwg	

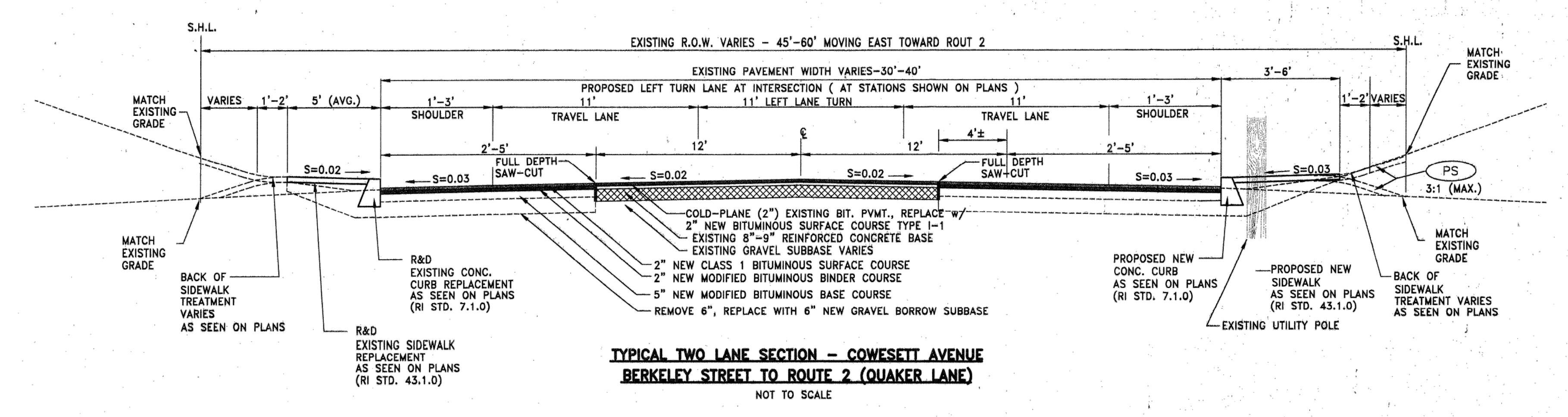
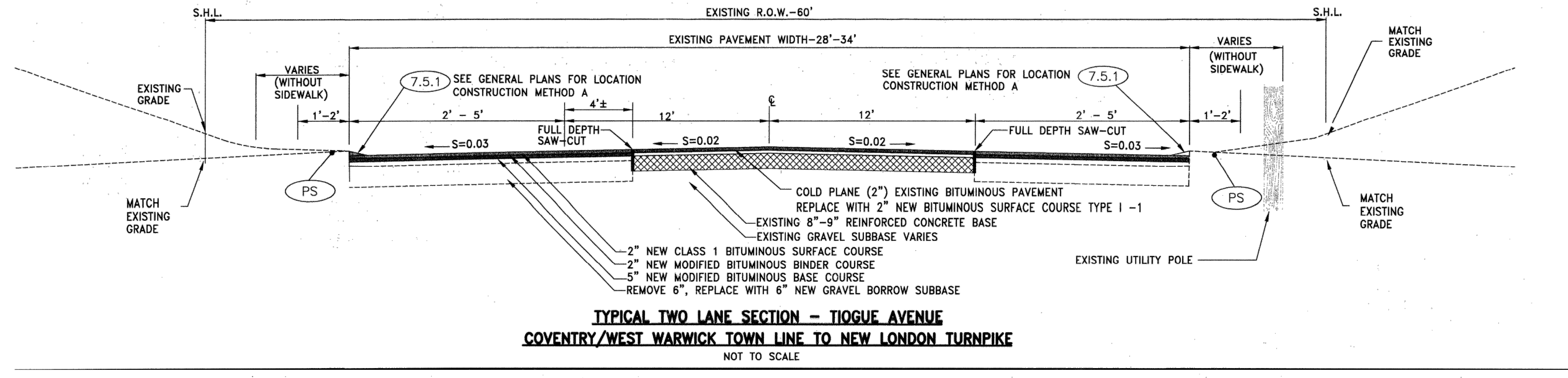
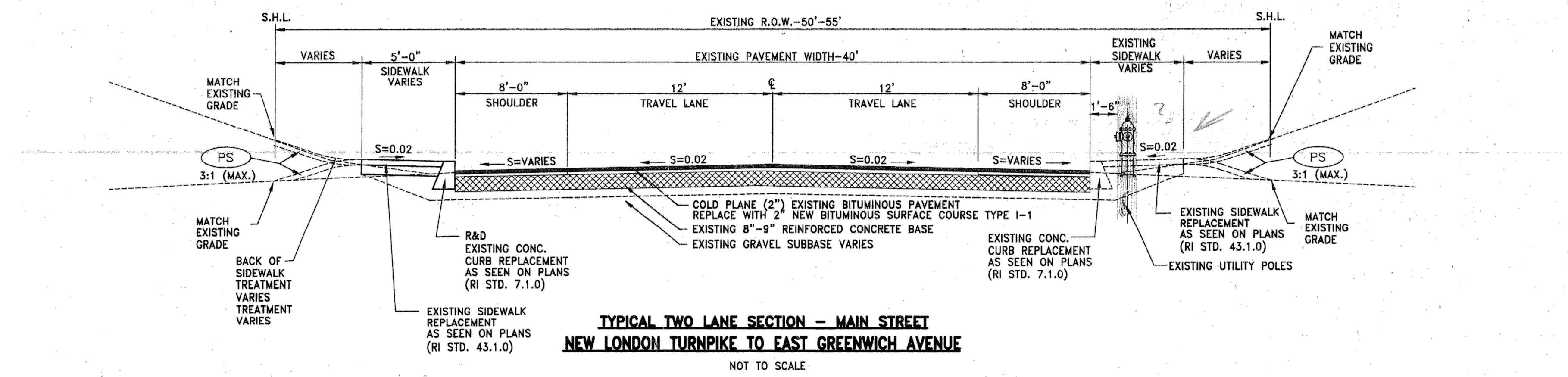
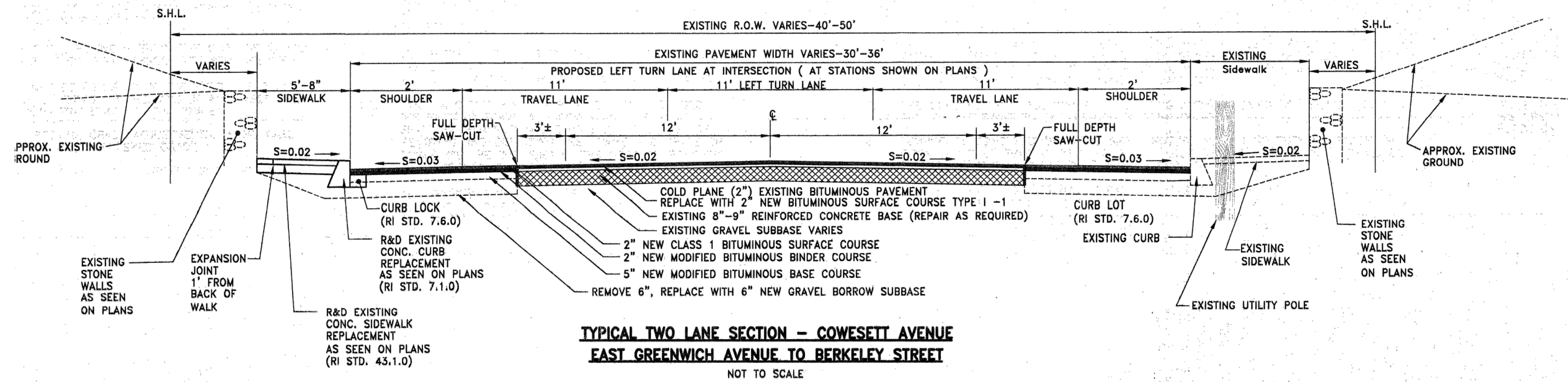


JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

MISCELLANEOUS DETAIL IV

SHEET NO.
23



Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg	DATE PRINTED:	8/29/22

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: AS SHOWN
 DATE: MAY 2022

JAMES J. GEREMIA
 No. 4521
 REGISTERED PROFESSIONAL ENGINEER

JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

**KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE
 IMPROVEMENTS**

**MISCELLANEOUS DETAIL V
 RIDOT RECONSTRUCTION OF COWESSET AVE
 ROADWAY SECTIONS**

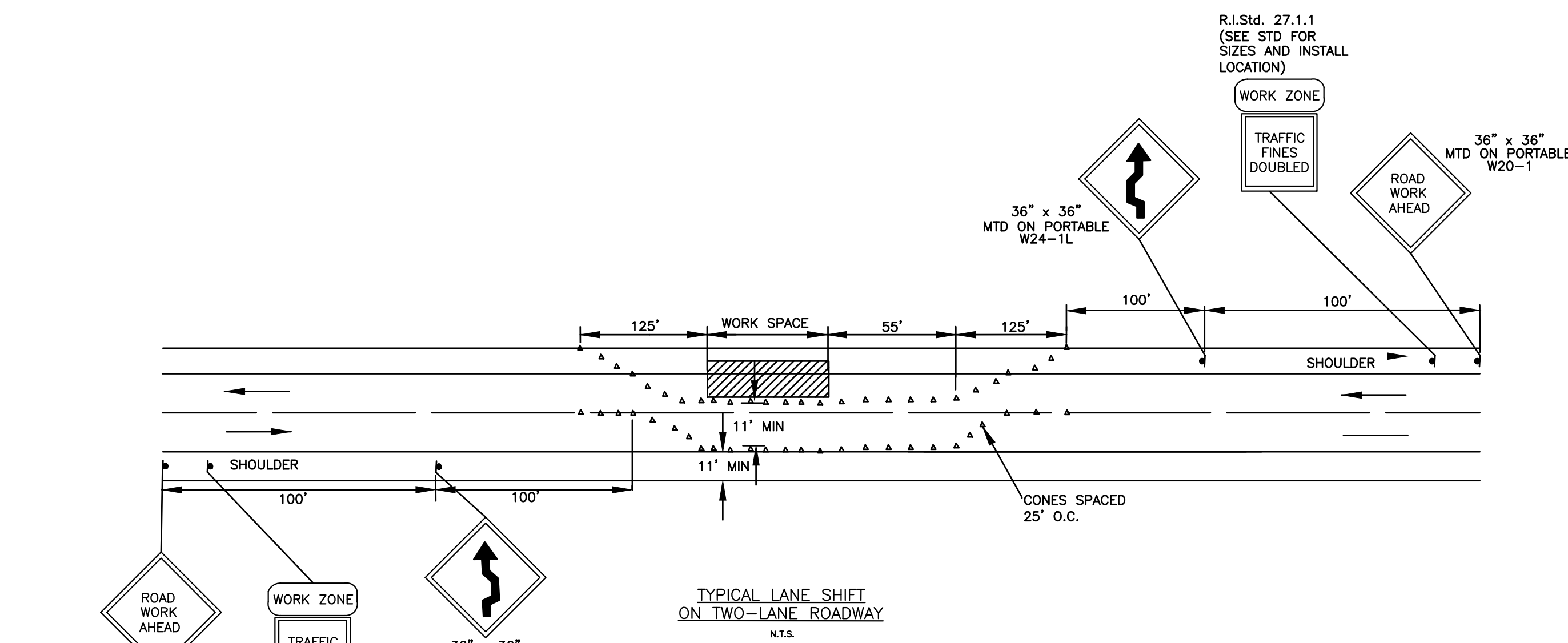
SHEET NO.
24

NOTES:

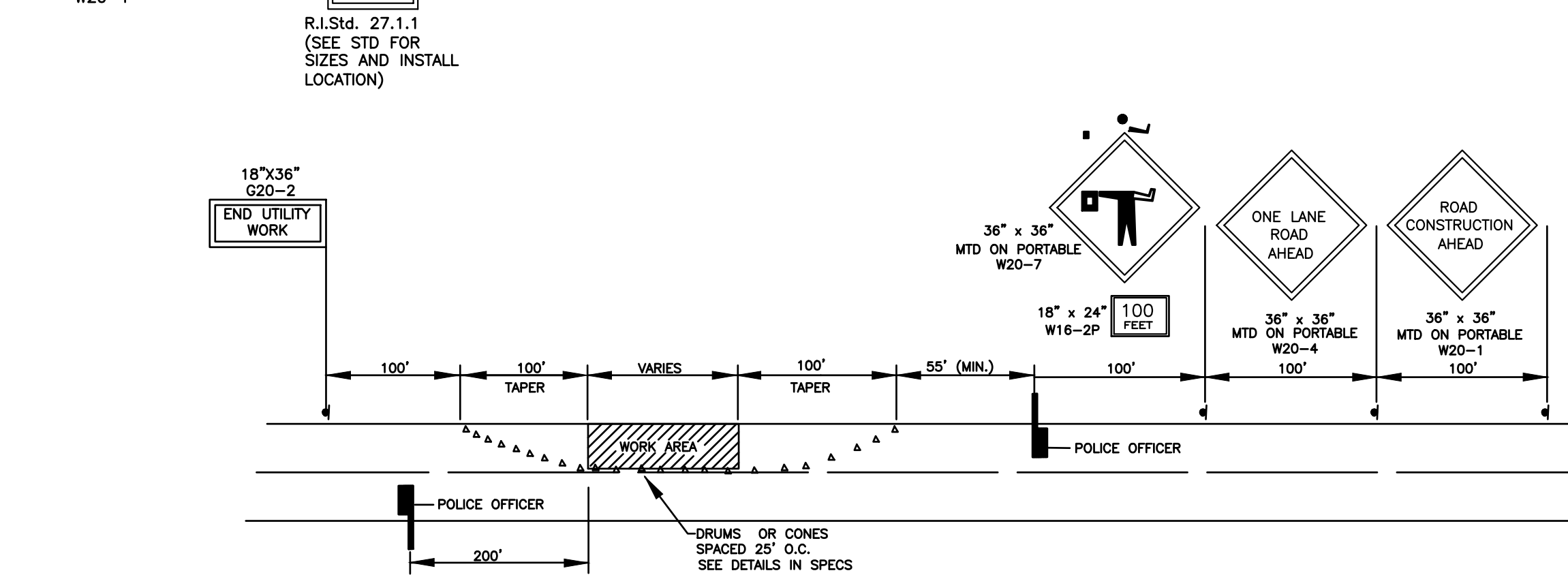
1. CONTRACTOR SHALL MODIFY TRAFFIC CONTROL PLAN AS REQUIRED FOR CONSTRUCTION OPERATION
2. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO RIDOT AND A TRAFFIC MANAGEMENT PLAN FOR APPROVAL PRIOR TO START OF CONSTRUCTION OPERATIONS
3. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
4. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO HE START OF WORK.
5. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
6. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
7. THE BUFFER SPACES SHOULD BE EXTENDED IF NECESSARY SO THAT THE 100' MAX. TWO-WAY TRAFFIC TAPERS ARE PLACED BEFORE HORIZONTAL (OR CREST VERTICAL) CURVES TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND QUEUES OF STOPPED VEHICLES.
8. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN THE 100' MAX. TWO-WAY TRAFFIC TAPERS IS 25 FEET. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
9. MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIERS.
10. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
11. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO HE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
5. THE MAXIMUM ALLOWABLE LENGTH OF THE SHIFTED TANGENT SECTION FOR THE TEMPORARY TRAFFIC CONTROL SET-UP SHOWN IS 600 FEET.
6. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH. SHORTER SPACINGS SHOULD BE USED FOR CHANNELIZATION DEVICES INSTALLED BETWEEN TRAFFIC TRAVELING IN OPPOSITE DIRECTIONS WHERE ADDITIONAL EMPHASIS IS NEEDED TO CLEARLY DEFINE THE DESIRED TRAVEL PATHS.
7. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
9. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.

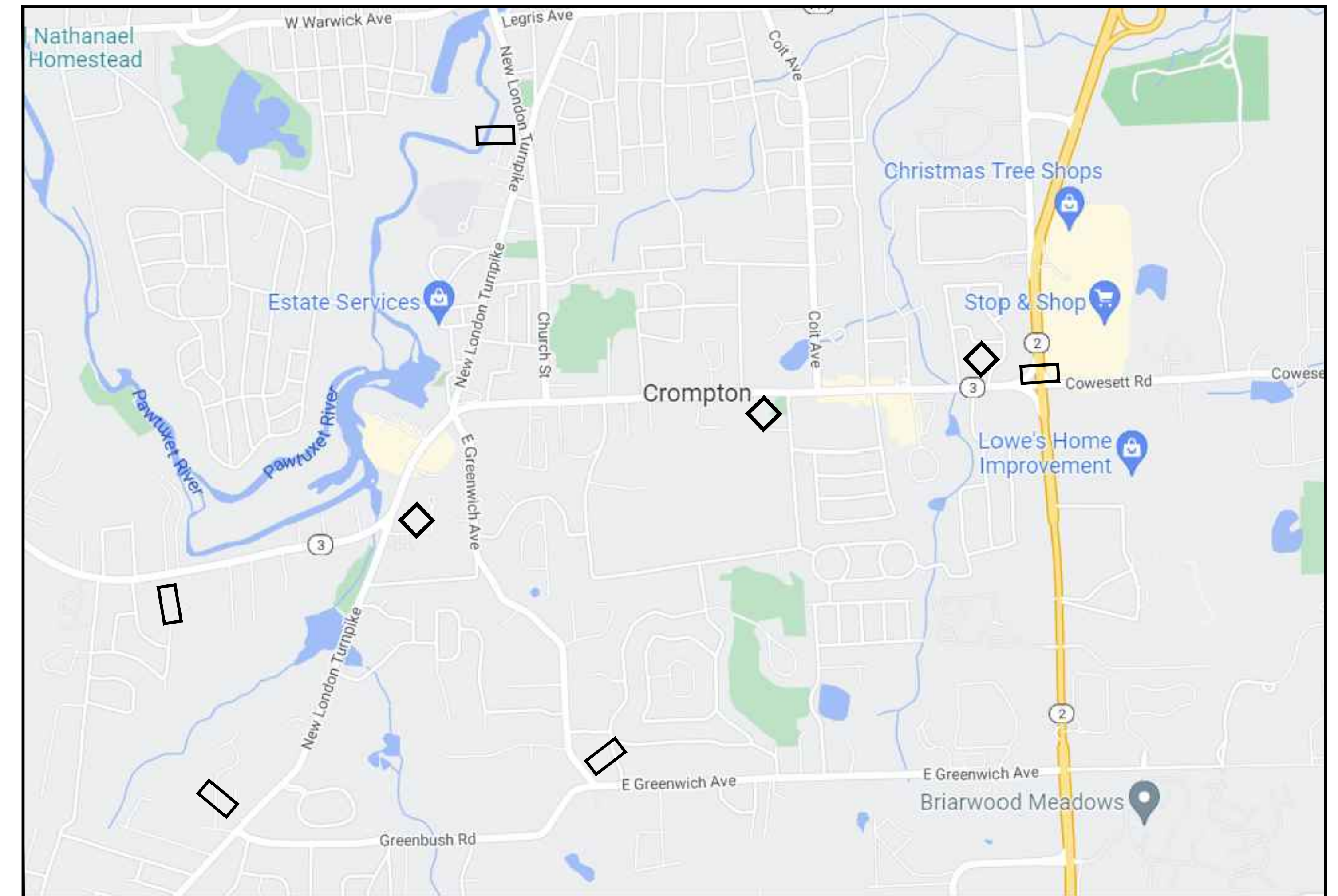


TYPICAL LANE SHIFT ON TWO-LANE ROADWAY
N.T.S.



TRAFFIC CONTROL PLAN (ONE LANE CLOSED)
NOT TO SCALE

- NOTES:**
1. CONTRACTOR SHALL MODIFY TRAFFIC CONTROL PLAN AS REQUIRED FOR CONSTRUCTION OPERATION
 2. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO DPW PRIOR TO START OF CONSTRUCTION OPERATIONS



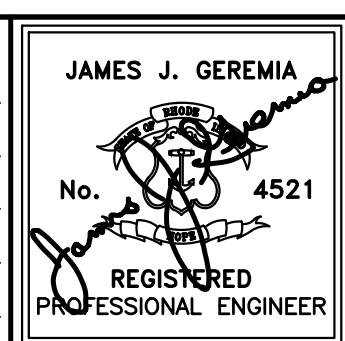
MESSAGE BOARD SIGN LOCATION MAP
N.T.S.

- MESSAGE BOARD
- BUSINESS OPEN DURING CONSTRUCTION
36" x 36"

Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg	DATE PRINTED:	8/29/22

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: AS SHOWN
DATE: MAY 2022



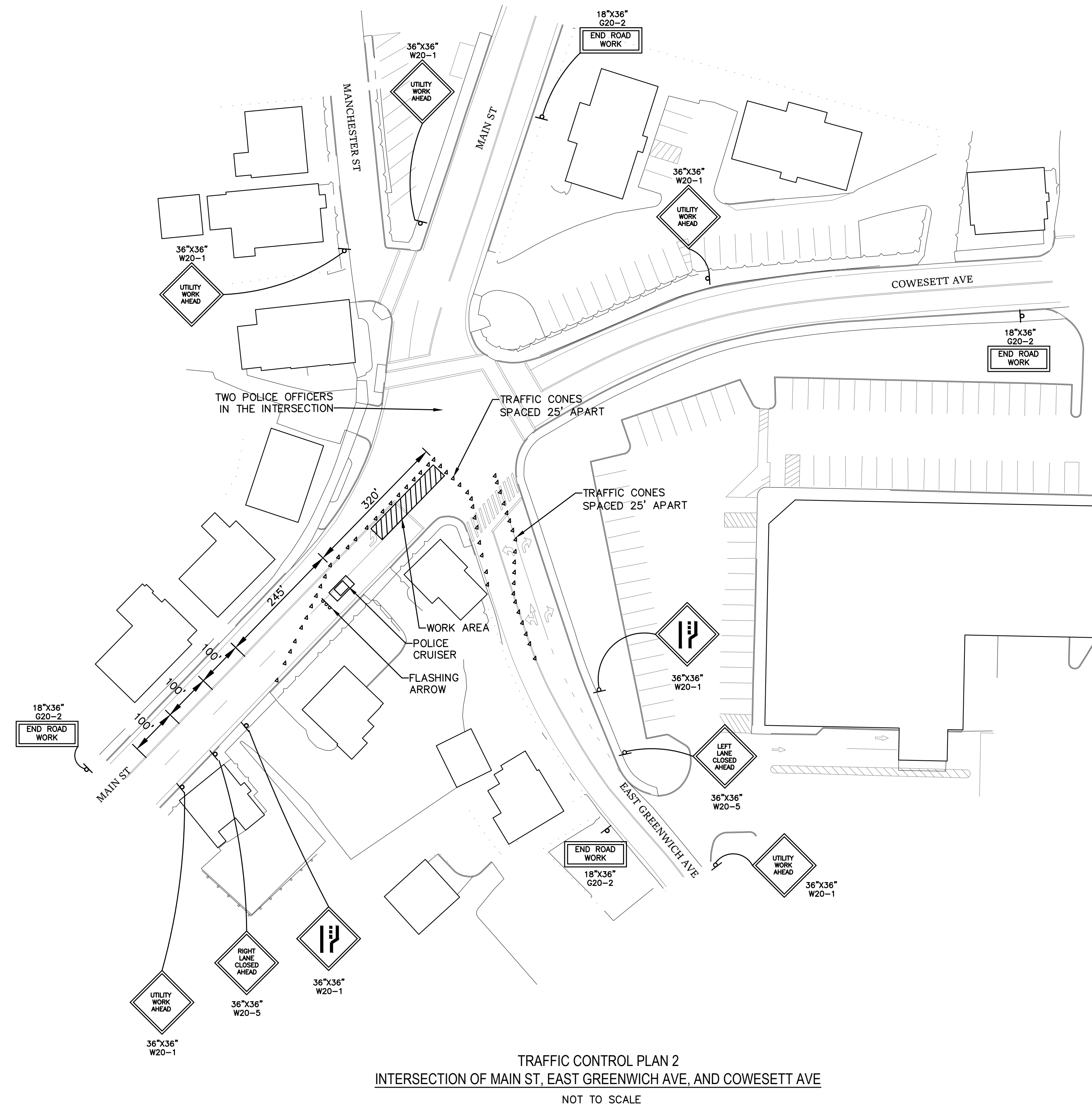
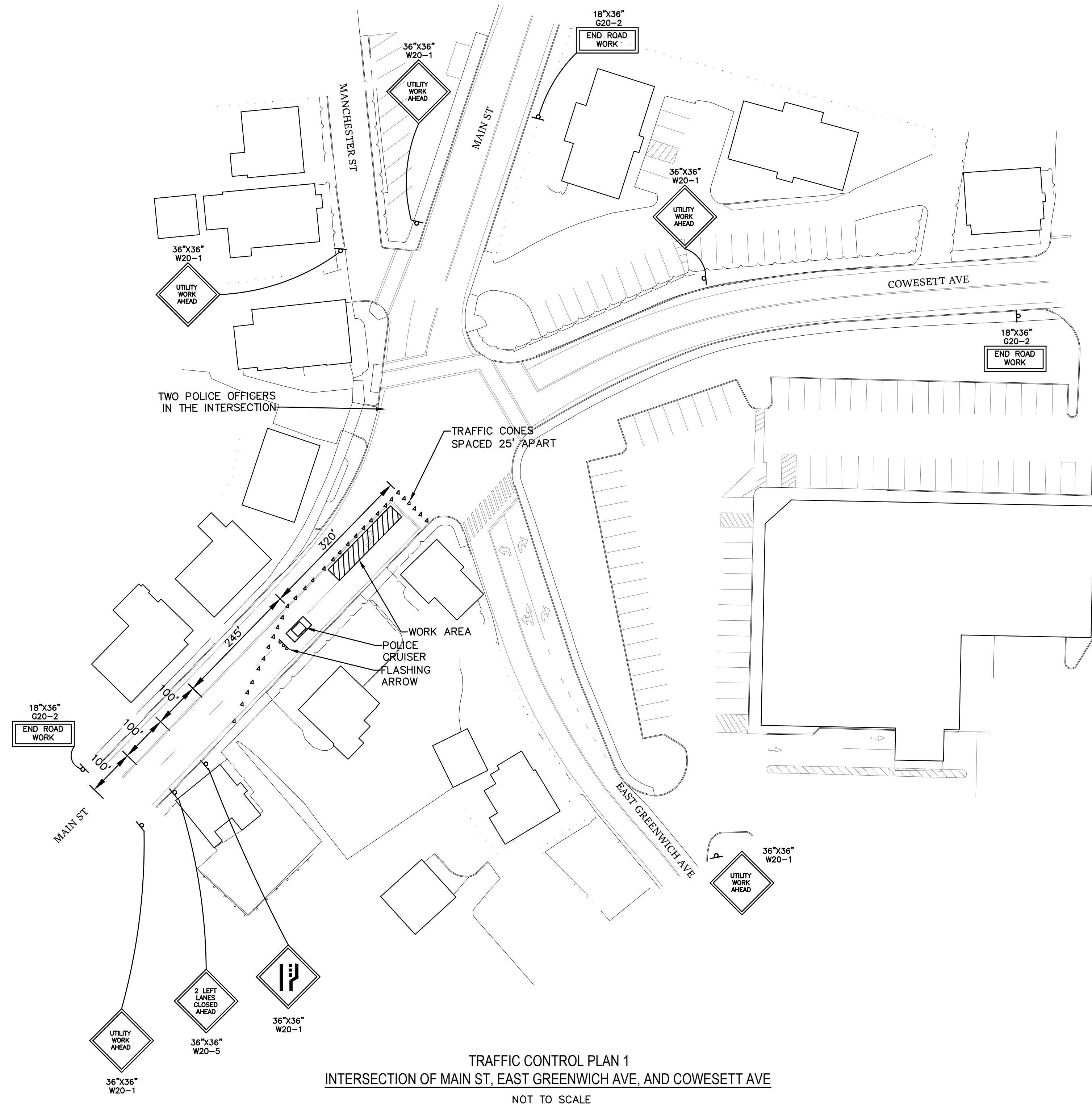
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

TRAFFIC CONTROL PLAN I

SHEET NO.
25

Z: \Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg



NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg	DATE PRINTED:	8/29/22

DESIGNED BY: RH
DRAWN BY: OL
CHECKED BY: JG
SCALE: AS SHOWN
DATE: MAY 2022

JAMES J. GEREMIA
No. 4521
REGISTERED PROFESSIONAL ENGINEER

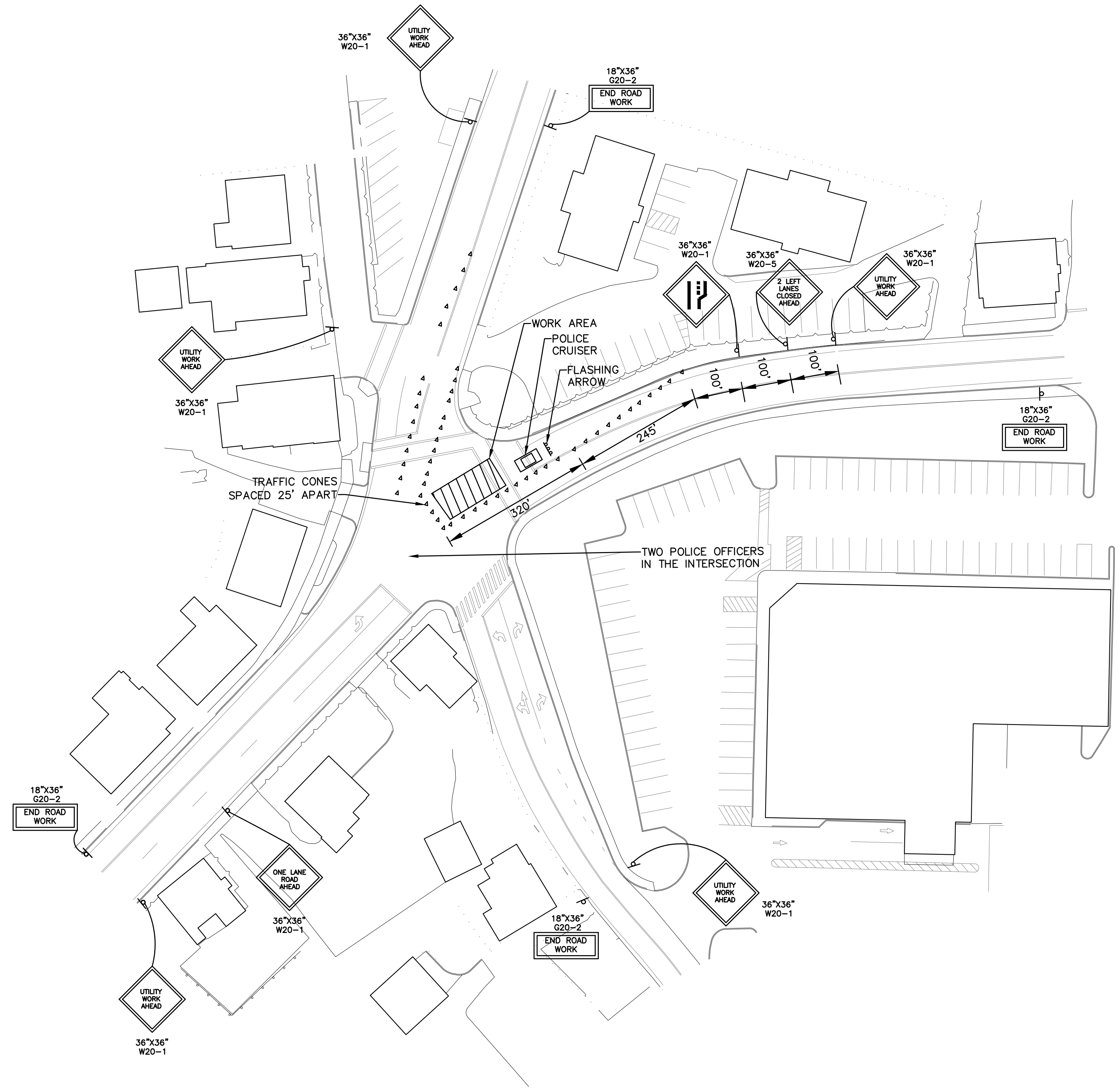
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1061
Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
2022 INFRASTRUCTURE IMPROVEMENTS

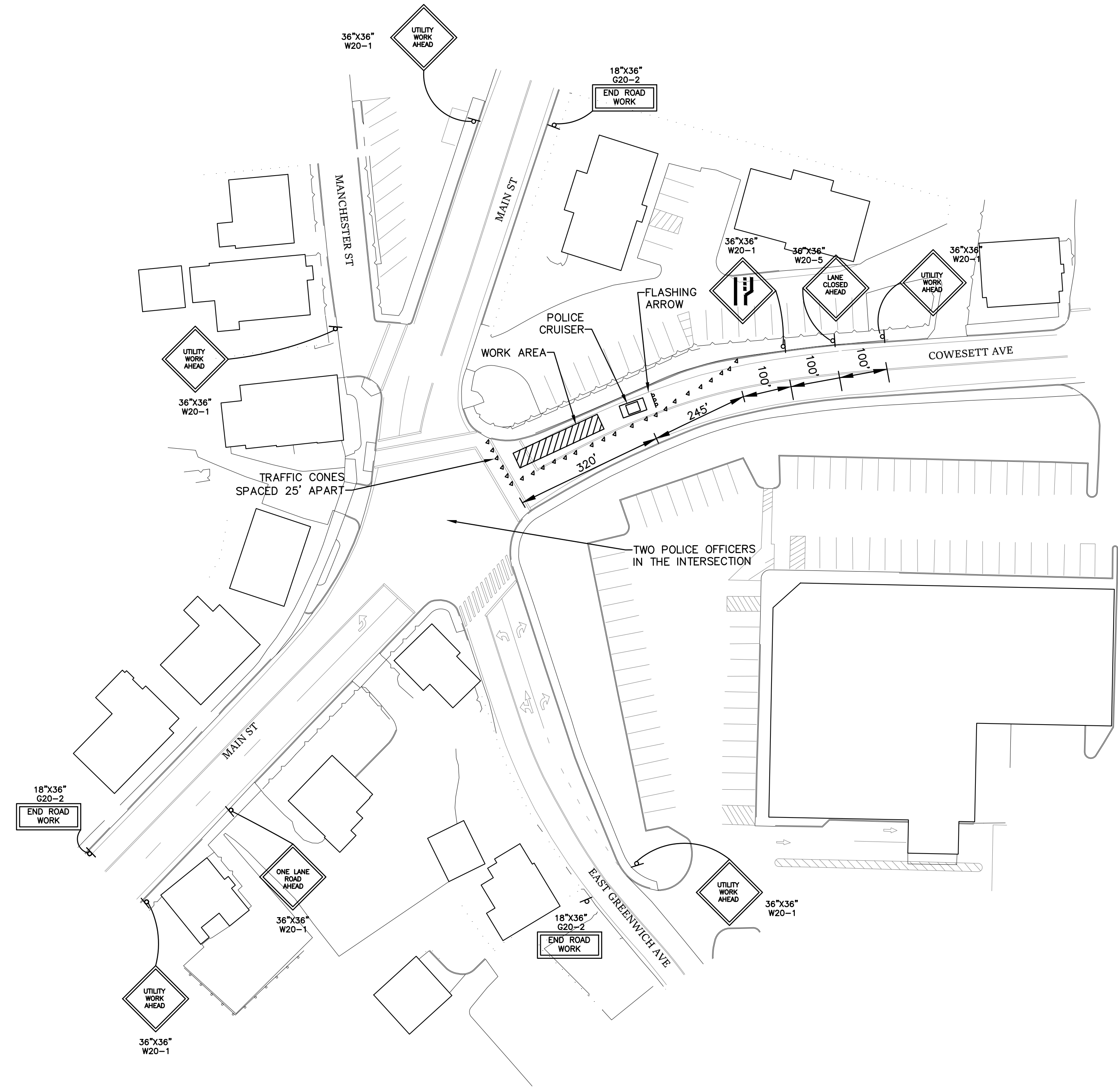
TRAFFIC CONTROL PLAN II
INTERSECTION OF MAIN ST,
EAST GREENWICH AVE, AND COWESETT AVE

SHEET NO.
26

Z:\Projects\KCWA\KCWA 2022\2022 KCWA INF IMP.dwg



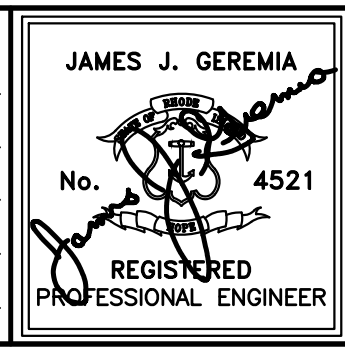
TRAFFIC CONTROL PLAN 3
 INTERSECTION OF MAIN ST, EAST GREENWICH AVE, AND COWESETT AVE
 NOT TO SCALE



TRAFFIC CONTROL PLAN 4
 INTERSECTION OF MAIN ST, EAST GREENWICH AVE, AND COWESETT AVE
 NOT TO SCALE

NO.:	BY:	DATE:	REMARKS:
CADD FILE:	2022 KCWA INF IMP.dwg		
DATE PRINTED:			8/29/22

DESIGNED BY: RH
 DRAWN BY: OL
 CHECKED BY: JG
 SCALE: AS SHOWN
 DATE: MAY 2022



JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
 272 W. Exchange Street Suite 201 Providence, RI 02903-1061
 Phone: 401-454-7000 Fax: 401-454-7415

KENT COUNTY WATER AUTHORITY
 2022 INFRASTRUCTURE IMPROVEMENTS

TRAFFIC CONTROL PLAN III
 INTERSECTION OF MAIN ST,
 EAST GREENWICH AVE, AND COWESETT AVE

SHEET NO.
 27