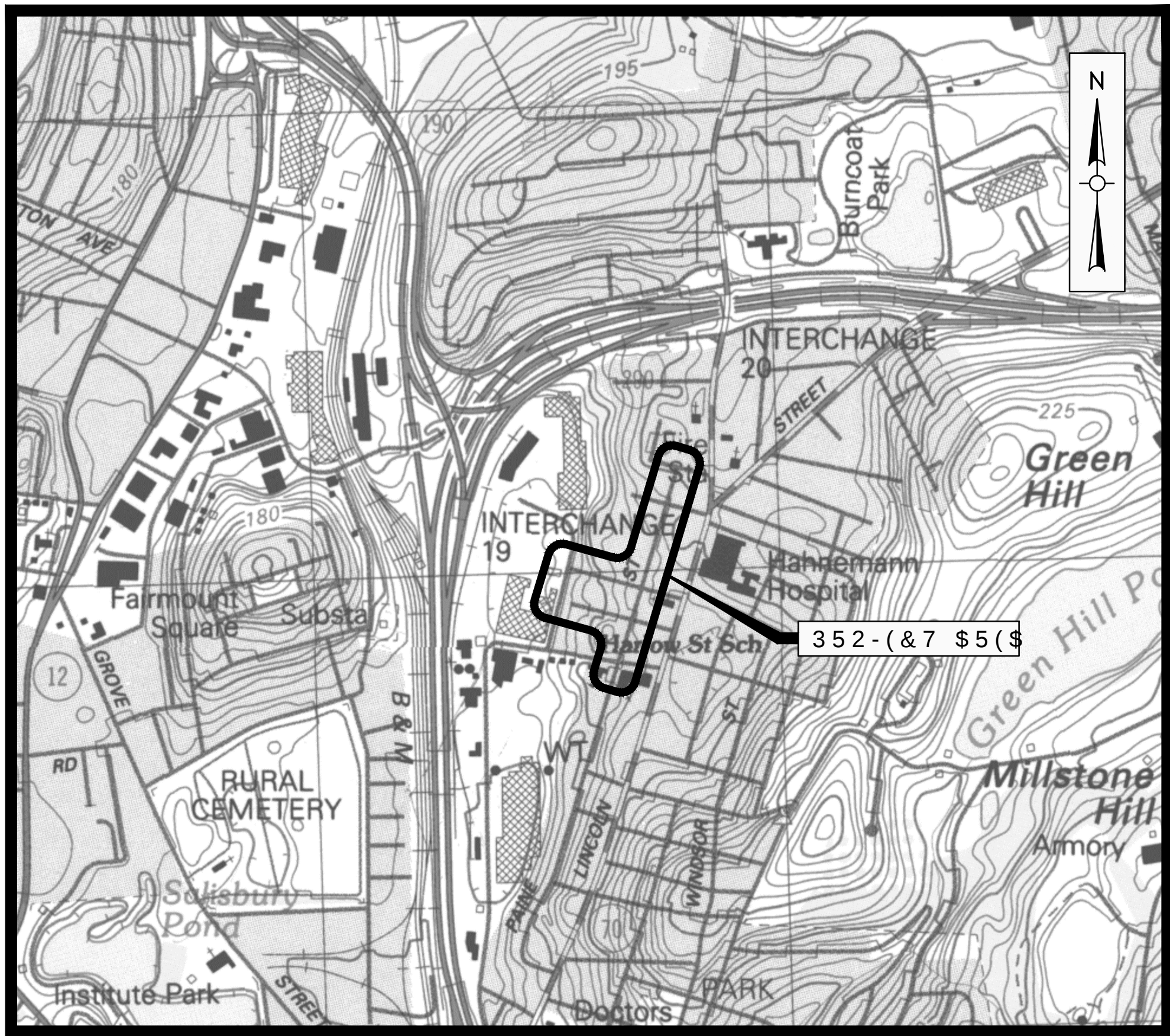


CITY OF WORCESTER, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS AND PARKS
VARIOUS STREETS CONSTRUCTION AND RECONSTRUCTION OF SANITARY
AND SURFACE SEWERS AND WATERMAIN REPLACEMENT PROJECT
PAINE STREET, VINTON STREET, GILMAN STREET AND NORTON STREET



DRAWING INDEX	
SHEET	TITLE
G000	COVER
G101	ABBREVIATIONS, NOTES AND LEGEND
C101	PAINE STREET SEWER AND DRAIN REPLACEMENT STA 0+00 TO STA 4+48
C102	PAINE STREET SEWER AND DRAIN REPLACEMENT STA 4+58 TO STA 9+66
C103	PAINE STREET SEWER AND DRAIN REPLACEMENT STA 9+66 TO STA 14+45
C104	VINTON STREET EAST STA 0+00 TO STA 1+19, GILMAN STREET EAST STA 0+00 TO STA 1+30, AND NORTON STREET EAST STA 0+00 TO STA 0+42 SEWER AND DRAIN REPLACEMENT
C105	VINTON STREET WEST SEWER AND DRAIN REPLACEMENT STA 0+00 TO STA 4+22
C106	GILMAN STREET WEST SEWER AND DRAIN REPLACEMENT STA 0+00 TO STA 4+16
C107	PAINE STREET WATER MAIN REPLACEMENT
C108	PAINE STREET WATER MAIN REPLACEMENT
C109	VINTON STREET WATER MAIN REPLACEMENT
C501	DETAILS I
C502	DETAILS II
C503	WORCESTER STANDARD DETAILS
C504	CONSTRUCTION ZONE SAFETY PLAN

12 & 86 0 \$ 3
6 & \$ / (.

CONTRACT NO. S23-3 - ARPA
BID # 7981-M3



ERIC D. BATISTA, CITY MANAGER
JAY J. FINK, PE, COMMISSIONER OF PUBLIC WORKS AND PARKS

Seal:



Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

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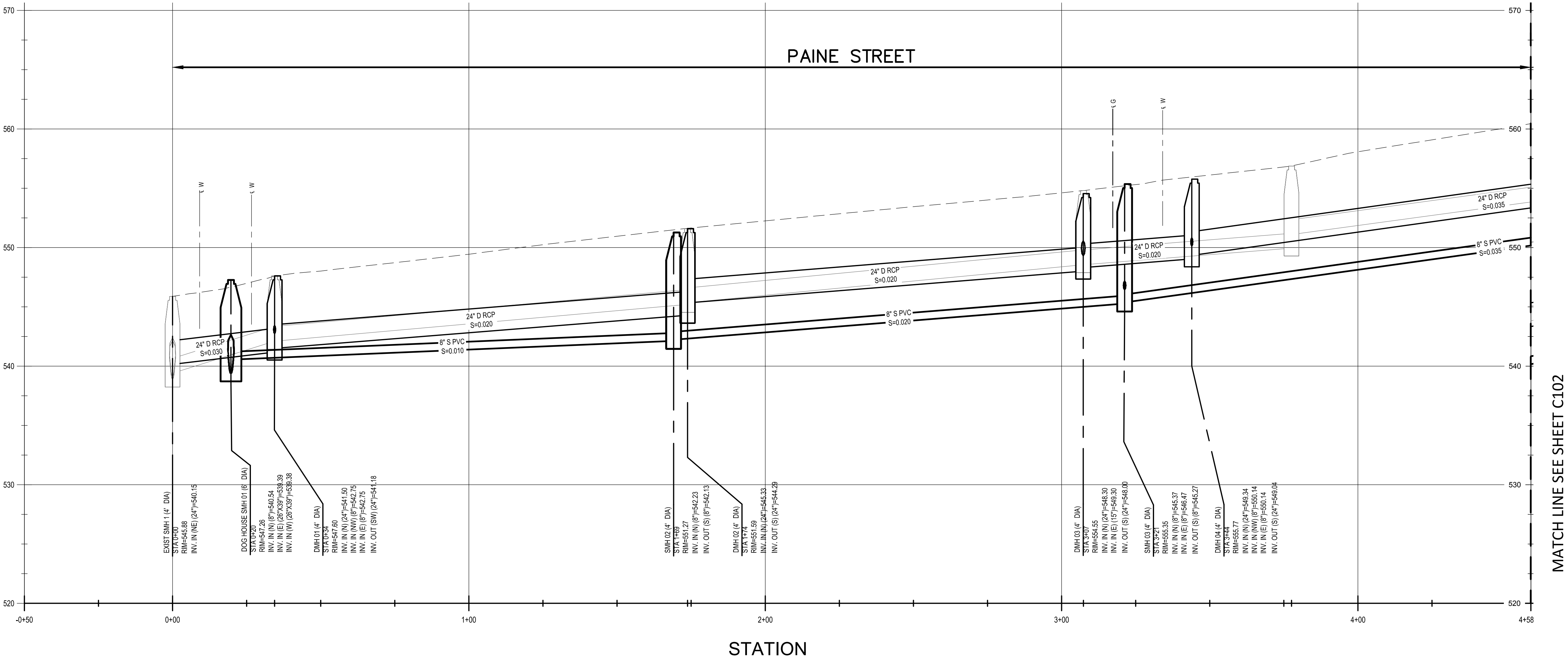
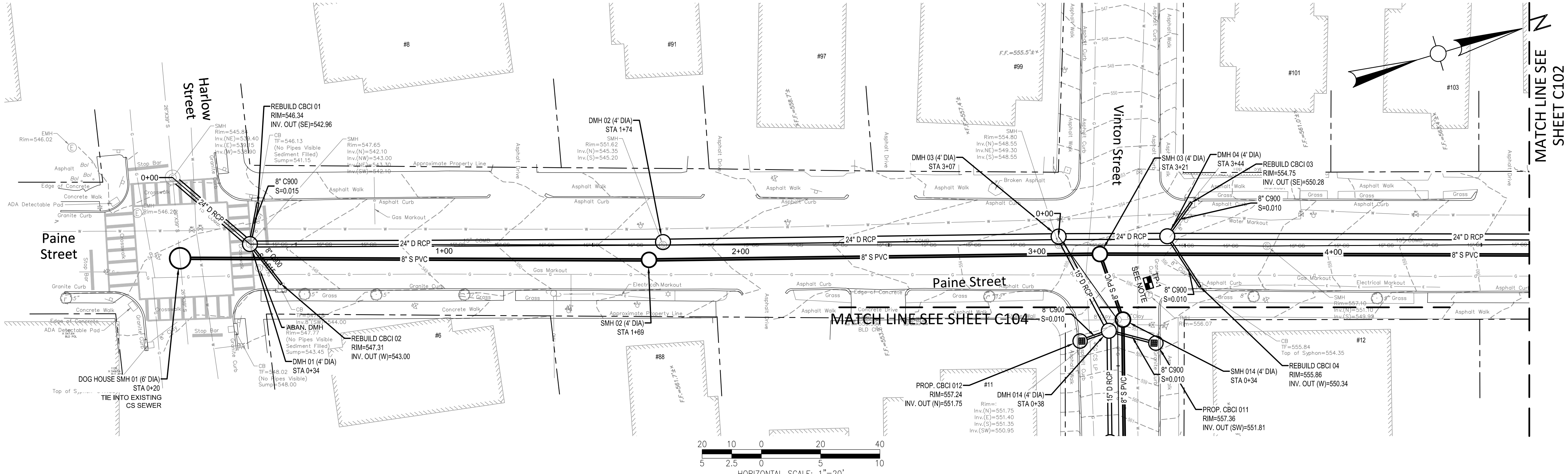
MAY 2023



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- NOTES:
- SEWER AND DRAIN BUILDING CONNECTIONS SHALL BE INSTALLED TO THE PROPERTY LINE. PRIOR TO CONNECTION TO THE NEW SEWER OR DRAIN, CONTRACTOR SHALL VERIFY ALL ACTIVE SERVICES BY TV AND/OR DYE TESTING. ALL ACTIVE SERVICE CONNECTIONS SHALL BE REINSTATED DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL SEPARATE ANY ILLICIT CONNECTIONS AND REINSTATE ALL ACTIVE SERVICE CONNECTIONS DURING CONSTRUCTION. SEWER LATERALS SHALL BE CONNECTED TO THE PROPOSED SEWER AND DRAIN LATERAL SHALL BE CONNECTED TO THE PROPOSED DRAIN.
 - CONTRACTOR SHALL REMOVE AND REPLACE EXISTING SEWER AND DRAIN PIPE AND MANHOLES EXCEPT WHERE TYING INTO EXISTING STRUCTURES AS INDICATED ON THE DRAWINGS.
 - CONTRACTOR SHALL DIG TEST PIT TO VERIFY LINE AND GRADE OF TELEPHONE TP-1.

Revisions:		
No.	Date	Description

COA:



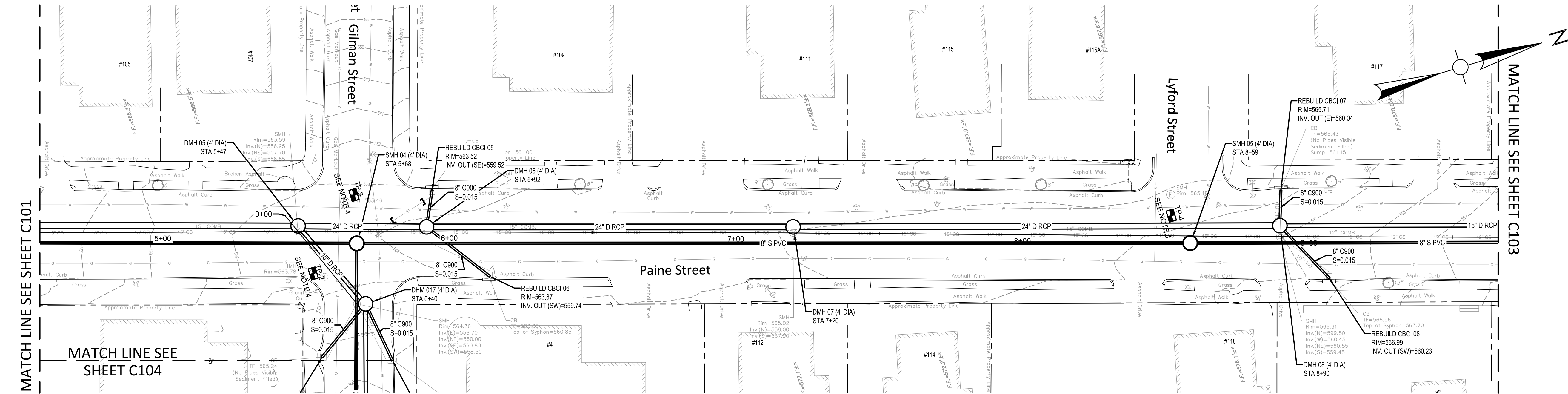
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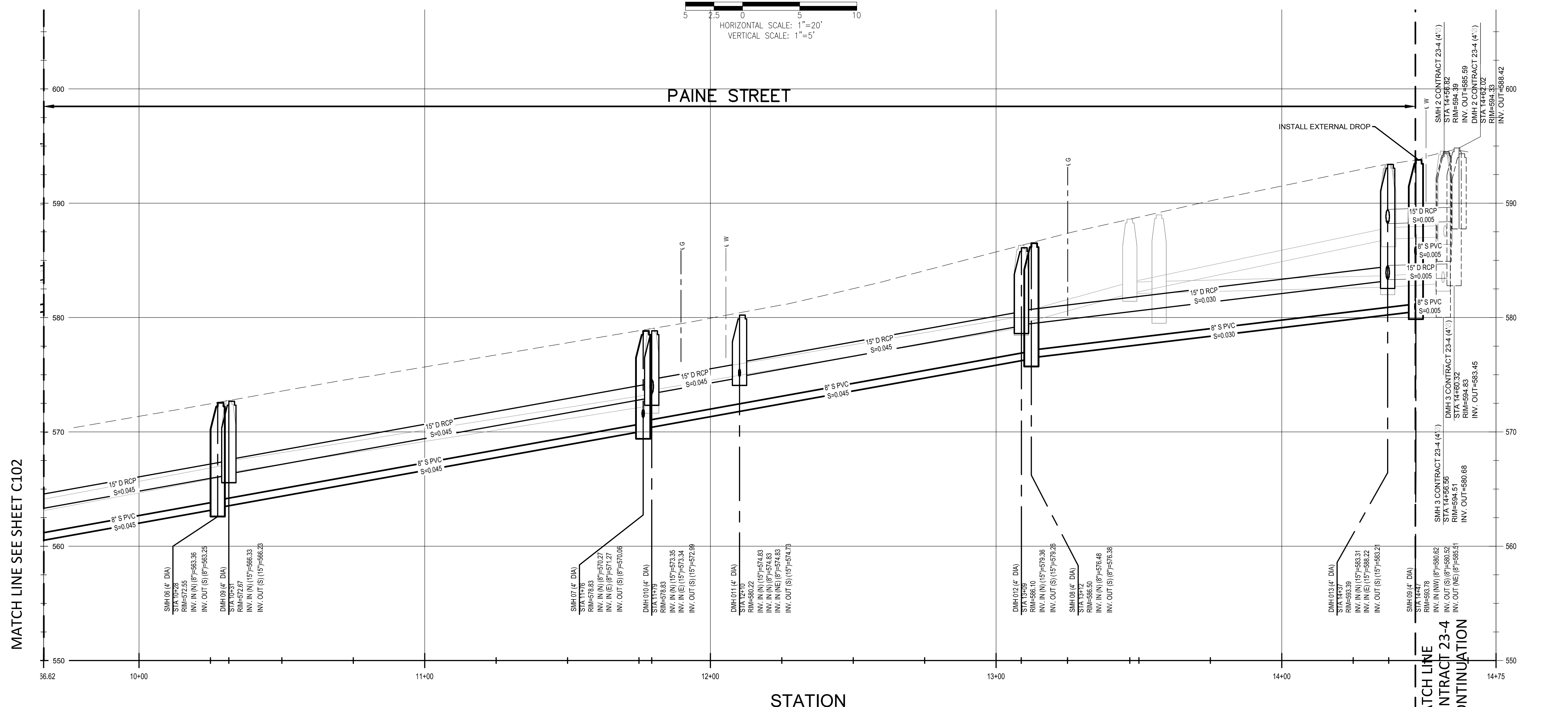
Date: MAY 2023
Drawn By: ABS
Reviewed By: FEO
Approved By: DGG
W&S Project No.: ENG22-0378
W&S File No.:

Drawing Title:
**PAINE STREET
STA 0+00 TO STA 4+58**

Sheet Number:
C101

P:\M\Worces\MA222017\Various Streets Sewer Replacement\C102\PAINE STREET\Various Streets Sewer Replacement\C102.dwg





- NOTES:**
1. SEWER AND DRAIN BUILDING CONNECTIONS SHALL BE INSTALLED TO THE PROPERTY LINE. PRIOR TO CONNECTION TO THE NEW SEWER OR DRAIN, CONTRACTOR SHALL VERIFY ALL ACTIVE SERVICES BY TV AND/OR DYE TESTING. ALL ACTIVE SERVICE CONNECTIONS SHALL BE REINSTATED DURING CONSTRUCTION.
 2. THE CONTRACTOR SHALL SEPARATE ANY ILICIT CONNECTIONS AND REINSTATE ALL ACTIVE SERVICE CONNECTIONS DURING CONSTRUCTION. SEWER LATERALS SHALL BE CONNECTED TO THE PROPOSED SEWER AND DRAIN LATERAL SHALL BE CONNECTED TO THE PROPOSED DRAIN.
 3. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING SEWER AND DRAIN PIPE AND MANHOLES EXCEPT WHERE TYING INTO EXISTING STRUCTURES AS INDICATED ON THE DRAWINGS.
 4. CONTRACTOR SHALL FURNISH AND INSTALL A FULL PIPE LENGTH FROM SMH 09 AND DMH 013 AT LINE AND GRADE FOR FUTURE CONTRACT 23-4. PIPES SHALL BE CAPPED AT BELL AND BURIED WITH WITNESS STICK.

Project:

CITY OF WORCESTER,
MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
AND PARKS



VARIOUS STREETS SEWER
REPLACEMENT PROJECT
CONTRACT S23-3 ARPA

Weston & SampsonSM

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427 Main Street, Suite 400
Worcester, MA 01608
978.532.1900 800.SAMPSON
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Consultants

[illegible]

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Approved By:	DGG

W&S Project No.: ENG22-0378

W&S File No.:

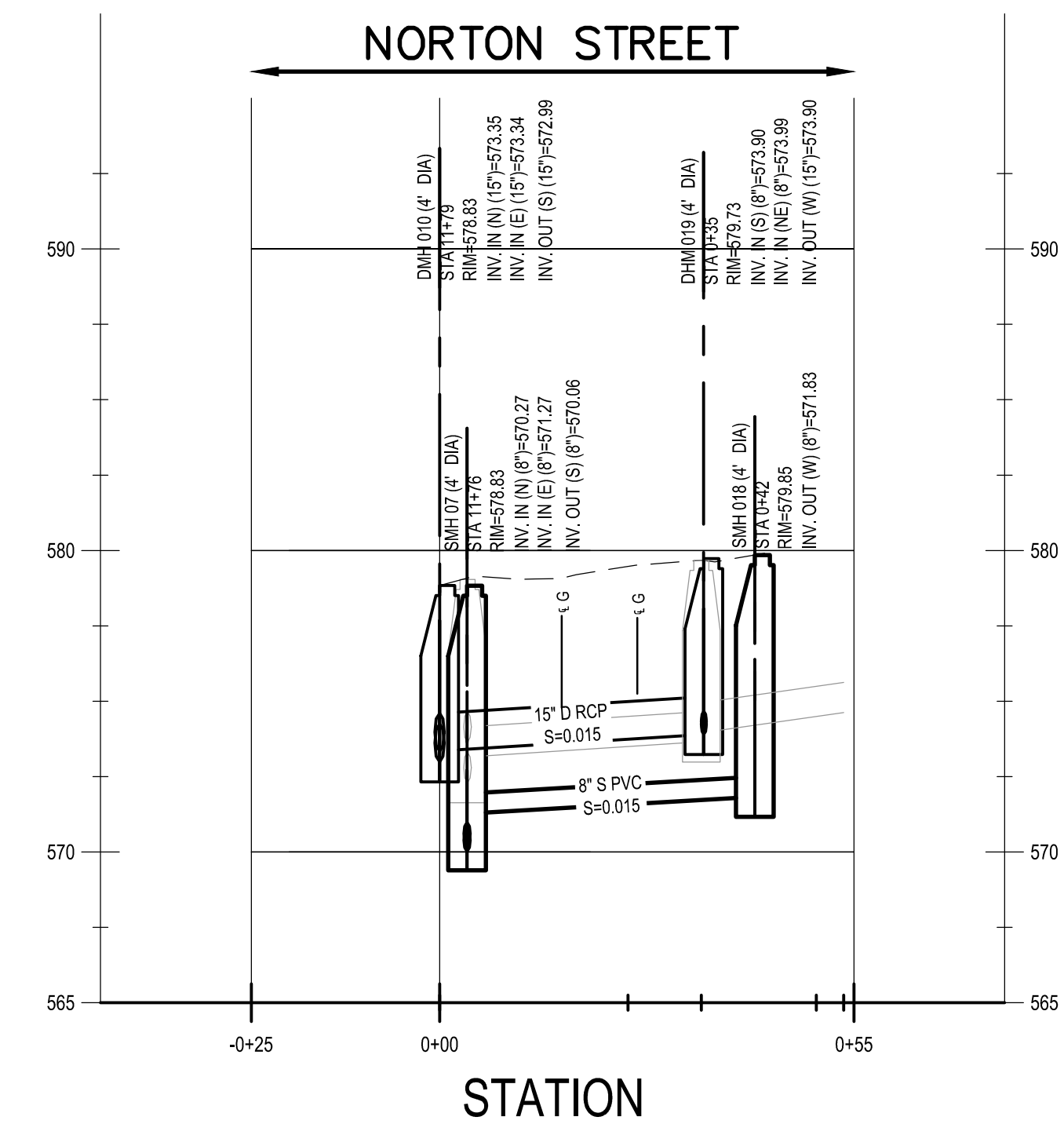
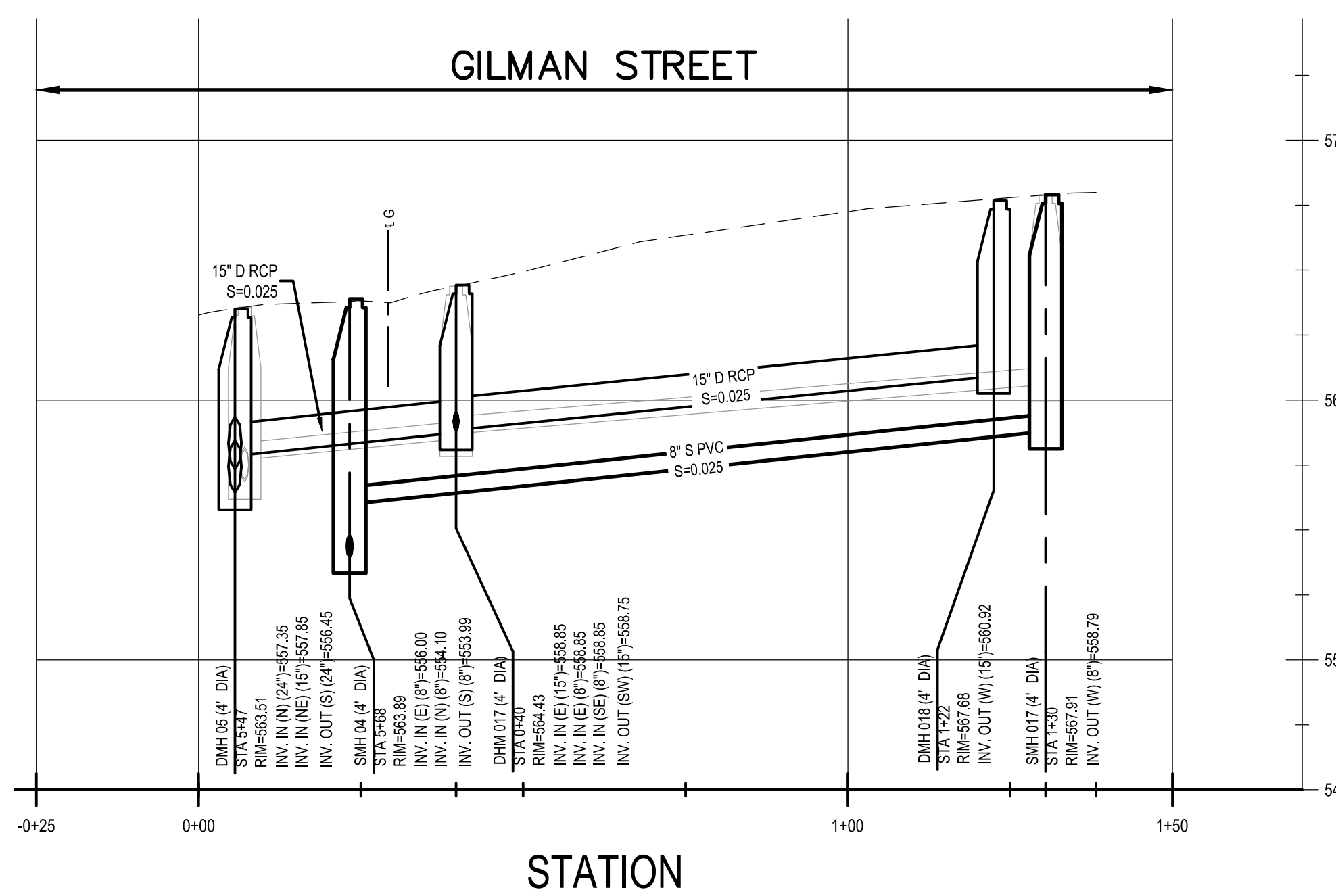
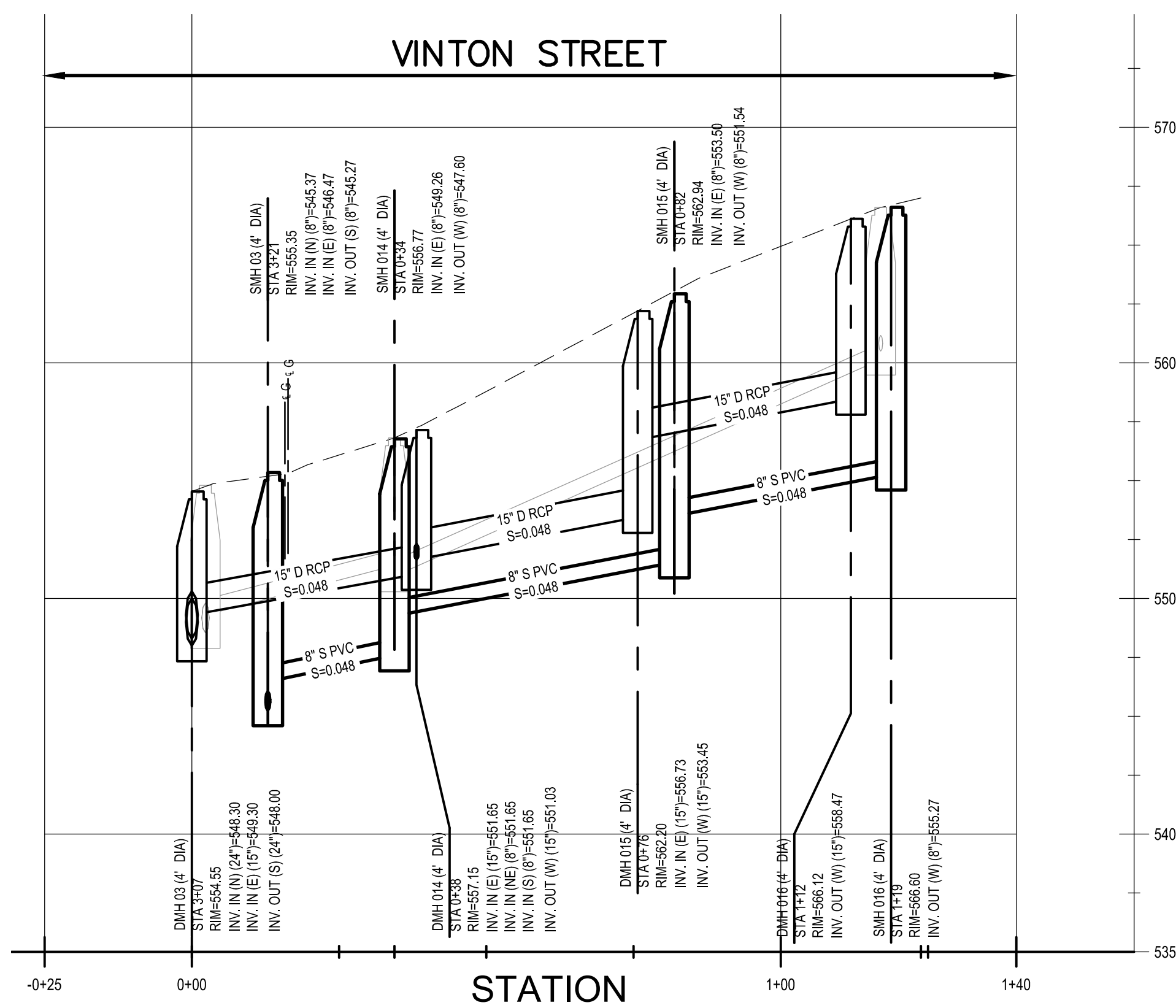
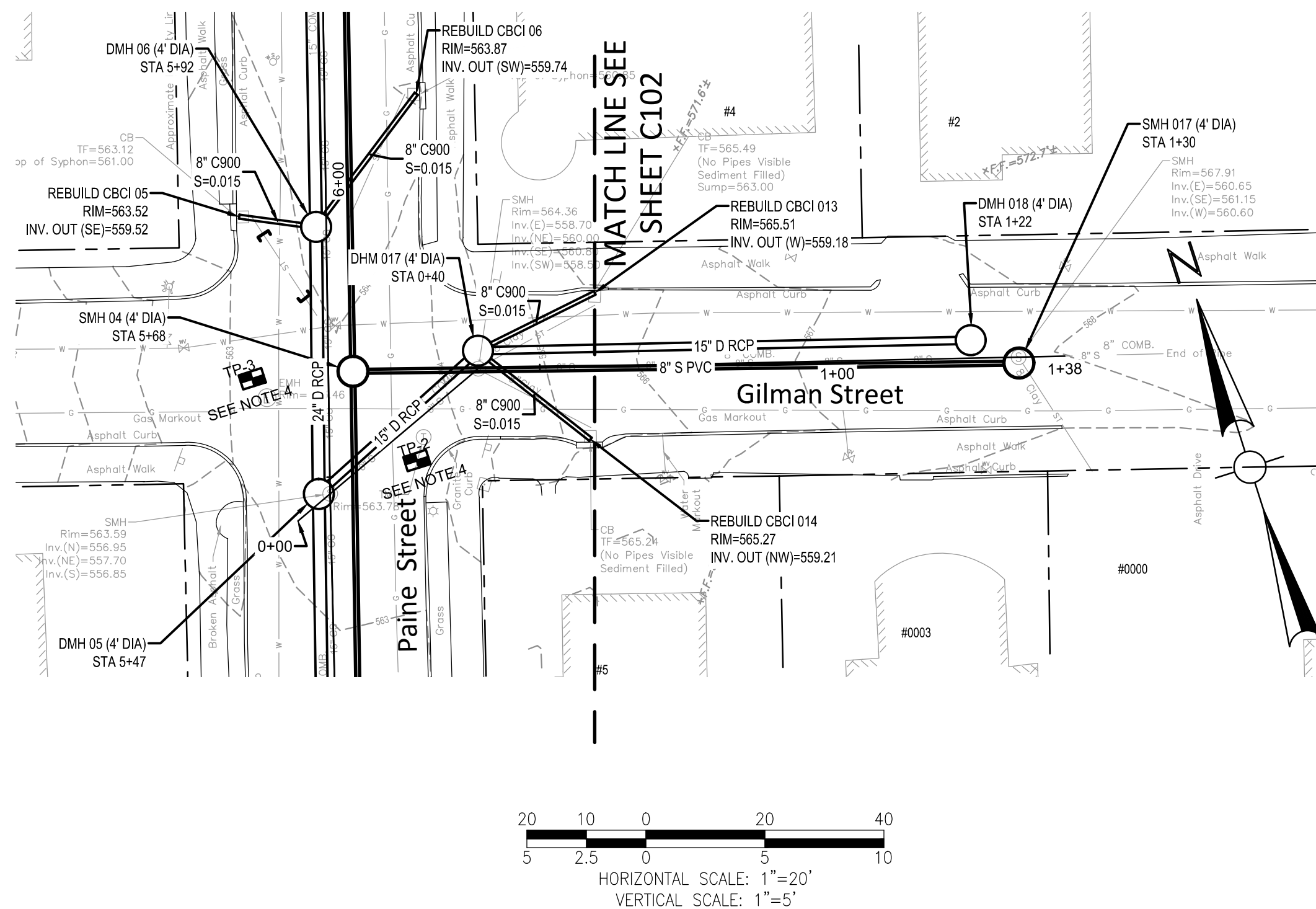
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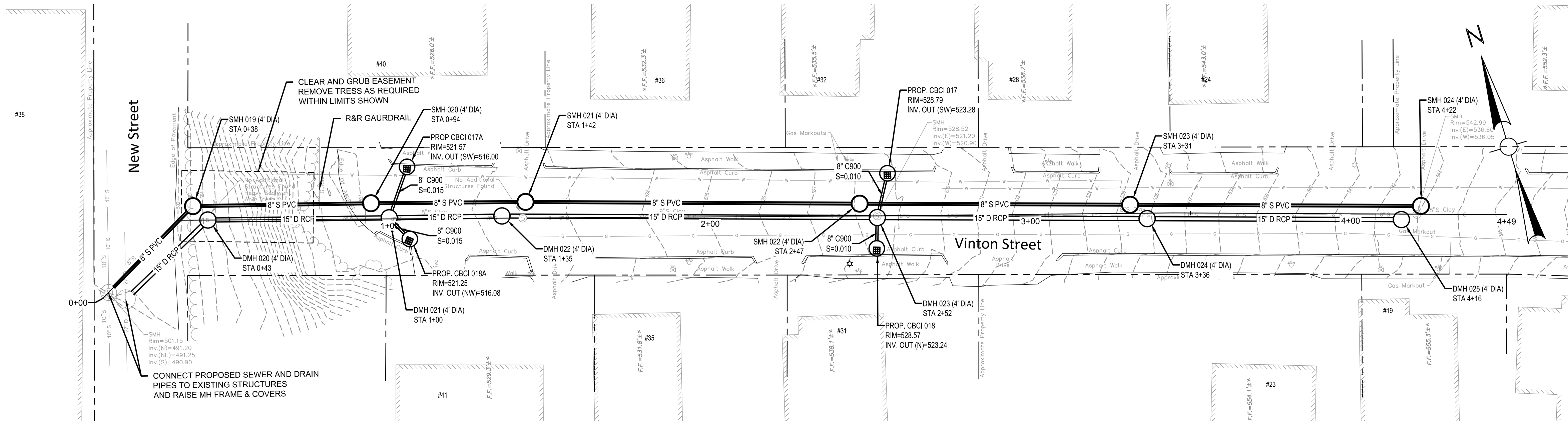
PAINE STREET
STA 9+66 TO STA 14+45

Sheet Number:

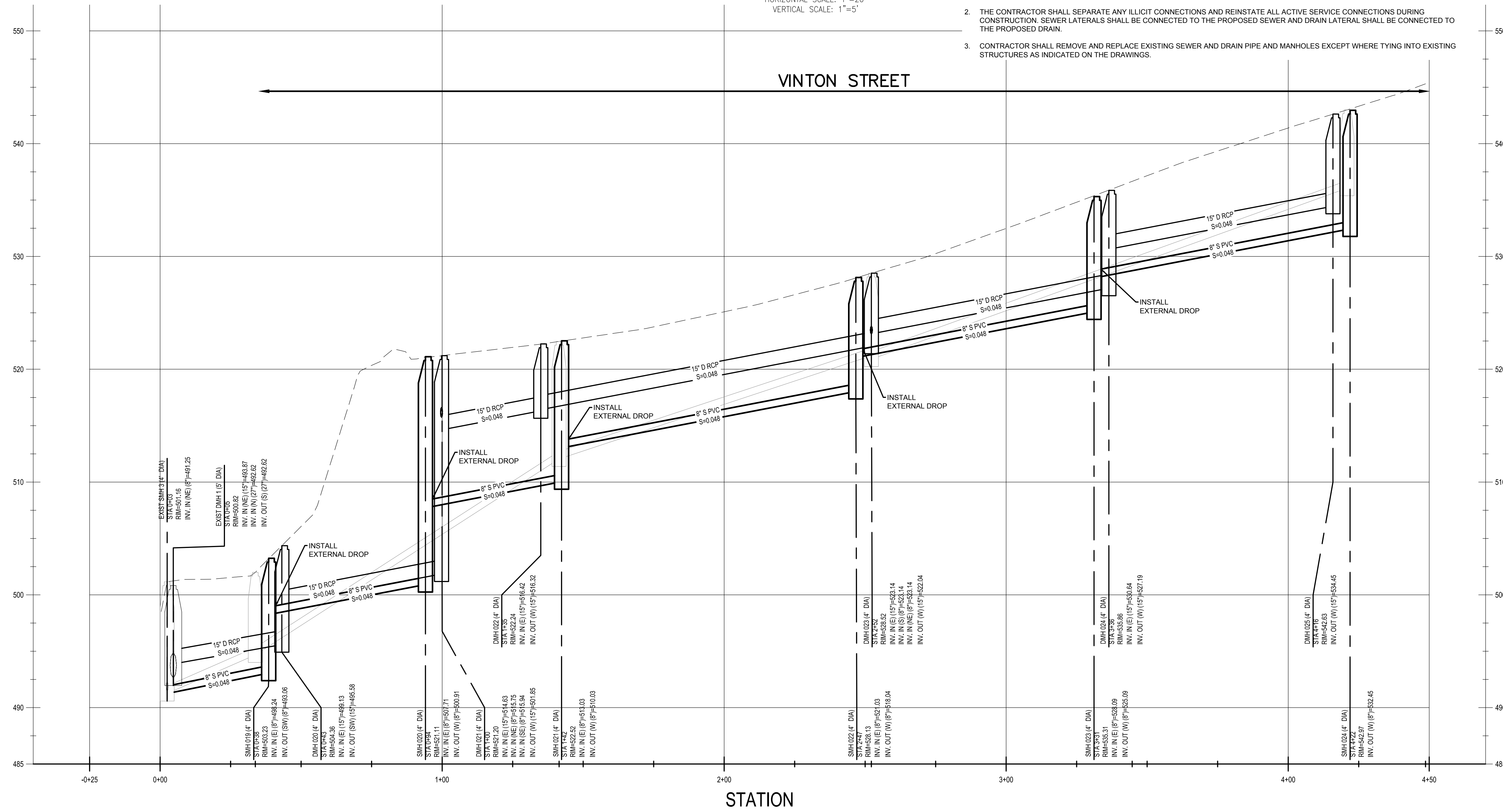
C103

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- NOTES:
- SEWER AND DRAIN BUILDING CONNECTIONS SHALL BE INSTALLED TO THE PROPERTY LINE. PRIOR TO CONNECTION TO THE NEW SEWER OR DRAIN, CONTRACTOR SHALL VERIFY ALL ACTIVE SERVICES BY TV AND/OR DYE TESTING. ALL ACTIVE SERVICE CONNECTIONS SHALL BE REINSTATED DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL SEPARATE ANY ILLICIT CONNECTIONS AND REINSTATE ALL ACTIVE SERVICE CONNECTIONS DURING CONSTRUCTION. SEWER LATERALS SHALL BE CONNECTED TO THE PROPOSED SEWER AND DRAIN LATERAL SHALL BE CONNECTED TO THE PROPOSED DRAIN.
 - CONTRACTOR SHALL REMOVE AND REPLACE EXISTING SEWER AND DRAIN PIPE AND MANHOLES EXCEPT WHERE TYING INTO EXISTING STRUCTURES AS INDICATED ON THE DRAWINGS.



Project:

CITY OF WORCESTER,
MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
AND PARKS

VARIOUS STREETS SEWER
REPLACEMENT PROJECT
CONTRACT S23-3 ARPA

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Date: MAY 2023
Drawn By: ABS
Reviewed By: FEO
Approved By: DGG

W&S Project No.: ENG22-0378
W&S File No.:

Drawing Title:

VINTON STREET
STA 0+00W TO STA 4+22W

Sheet Number:

C105

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COA:

Seal:

COMMONWEALTH OF MASSACHUSETTS
DONALD G. GALLUCCI
CIVIL
No. 37973
REGISTERED
PROFESSIONAL ENGINEER

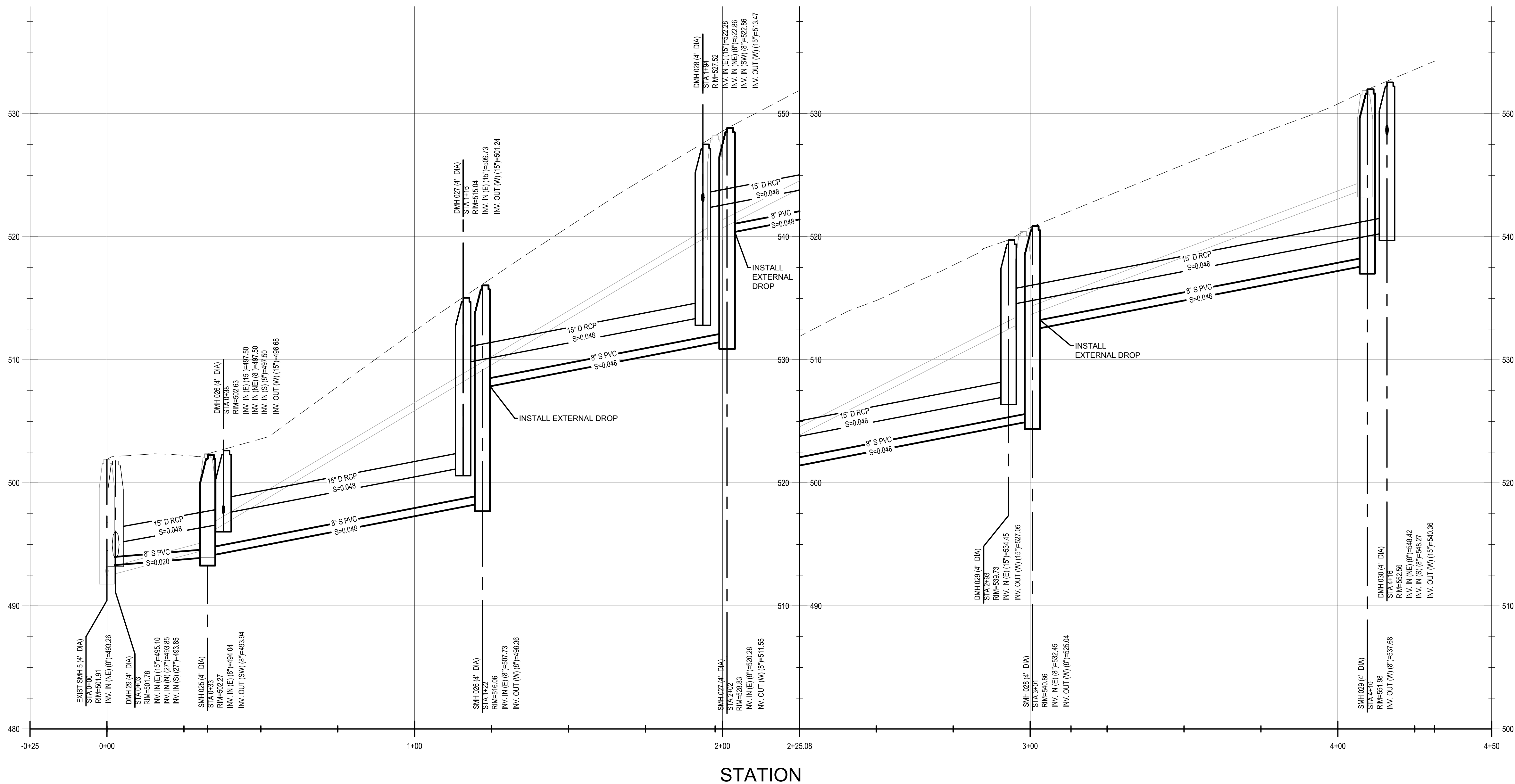
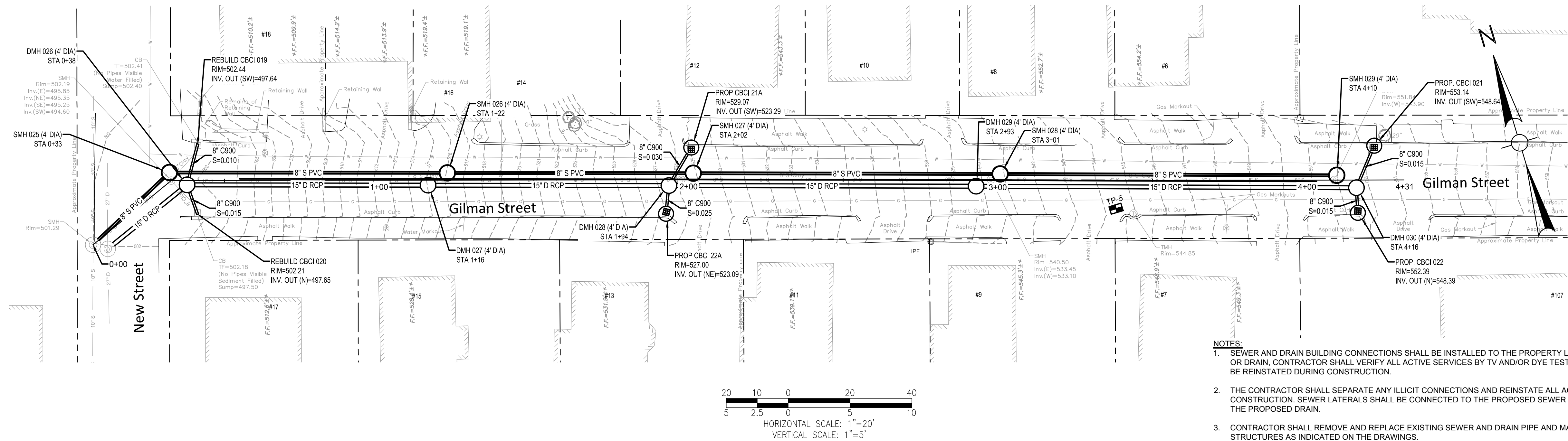
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**RELEASED
FOR CONSTRUCTION**

Scale: AS SHOWN

Date: MAY 2023
Drawn By: ABS
Reviewed By: FEO
Approved By: DGG
W&S Project No.: ENG22-0378
W&S File No.:

Drawing Title:
**GILMAN STREET
STA 0+00W TO STA 4+22W**

Sheet Number:
C106





1. ALL LOCATIONS DENOTED AS "CHANGE OF SERVICE" SHALL RECEIVE A NEW SERVICE CONNECTION WHICH CONSTITUTES INSTALLATION OF 1" POLYETHYLENE PIPE FROM THE MAIN TO THE CURB STOP, A NEW CORPORATION STOP, A NEW CURB STOP AND NEW CURB BOX.

2. ALL PROPOSED WATER MAIN SHALL BE CONCRETE LINED ZINC COATED DUCTILE IRON PIPE.

3. ALL PROPOSED WATER MAIN, VALVES AND APPURTENANCES SHALL BE POLYETHYLENE ENCASED.

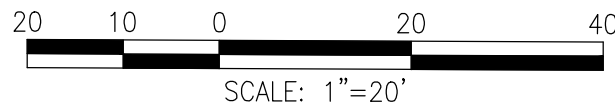
4. ALL EXISTING WATER MAIN SHALL BE PROTECTED BY A MINIMUM OF 6" MINIMUM OF COVER AS MEASURED FROM THE TOP OF PIPE TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.

5. SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" SECTION 300, ITEM 316 FOR TEMPORARY BY-PASS INSTALLATION, MAINTENANCE AND REMOVAL REQUIREMENTS.

6. HYDRANTS TO BE REMOVED AND STACKED SHALL REMAIN CITY PROPERTY AND THE CONTRACTOR SHALL DELIVER AND UNLOAD SAID HYDRANTS AT A LOCATION TO BE DETERMINED BY CITY OF WORCESTER PERSONNEL.

7. EXISTING WATER MAIN AND ASSOCIATED VALVES AND APPURTENANCES SHALL BE REMOVED AND NEW PIPE INSTALLED WITHIN THE SAME TRENCH. THE EXISTING WATER PIPE, VALVES AND APPURTENANCES TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF AT NO ADDITIONAL COST TO THE CITY. SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" SECTION 300 FOR ADDITIONAL INFORMATION.

8. SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" FOR MORE INFORMATION ON TEMPORARY BYPASS, WATER MAIN, WATER SERVICE, HYDRANT INSTALLATION, AND OTHER APPLICABLE DETAILS ASSOCIATED WITH EARTHWORK, WATER, PAVEMENT AND TRAFFIC MANAGEMENT REQUIREMENTS.



Seal:



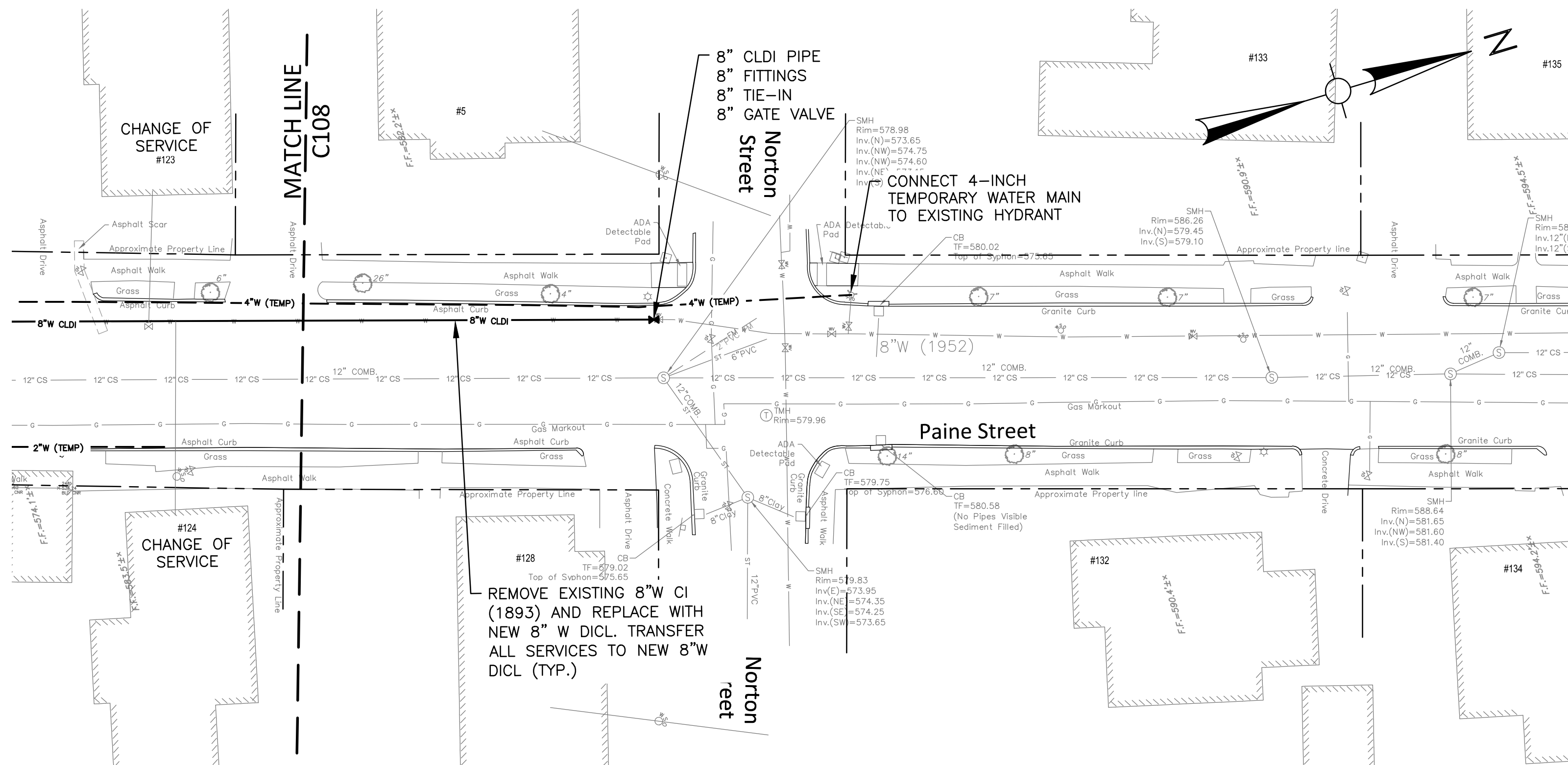
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Scale: AS SHOWN

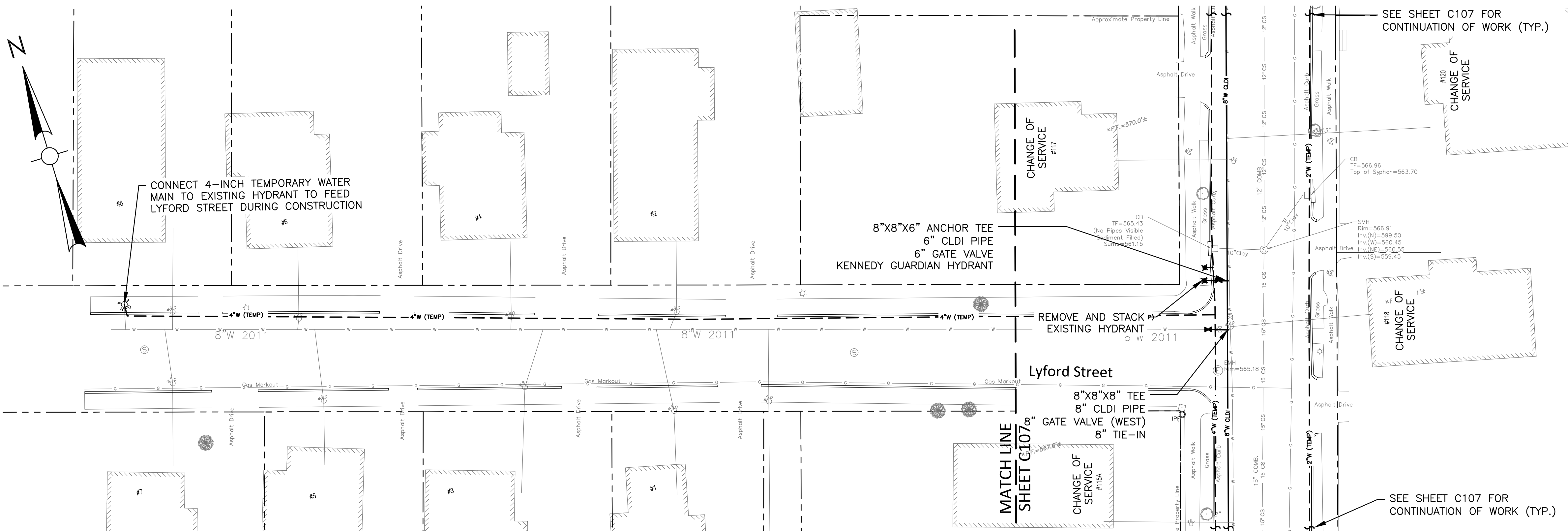
W&S Project No.: ENG22-0378
W&S File No.:

Paine Street Water Main Replacement

C107



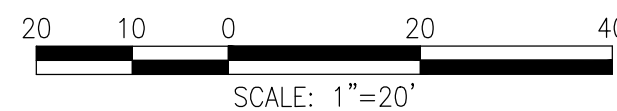
PLAN
SCALE: 1" = 20'



PLAN
SCALE: 1" = 20'

NOTES:

- ALL LOCATIONS DENOTED AS "CHANGE OF SERVICE" SHALL RECEIVE A NEW SERVICE CONNECTION WHICH CONSTITUTES INSTALLATION OF 1" POLYETHYLENE PIPE FROM THE MAIN TO THE CURB STOP, A NEW CORPORATION STOP, A NEW CURB STOP AND NEW CURB BOX.
- ALL PROPOSED WATER MAIN SHALL BE CONCRETE LINED ZINC COATED DUCTILE IRON PIPE.
- ALL PROPOSED WATER MAIN, VALVES AND APPURTENANCES SHALL BE POLYETHYLENE ENCASED.
- ALL NEW WATER MAIN MUST BE INSTALLED TO A DEPTH OF 5 FEET MINIMUM AND 8 FOOT MAXIMUM OF COVER AS MEASURED FROM THE TOP OF PIPE TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
- SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" SECTION 300, ITEM 316 FOR TEMPORARY BY-PASS INSTALLATION, MAINTENANCE AND REMOVAL REQUIREMENTS.
- HYDRANTS TO BE REMOVED AND STACKED SHALL REMAIN CITY PROPERTY AND THE CONTRACTOR SHALL DELIVER AND UNLOAD SAID HYDRANTS AT A LOCATION TO BE DETERMINED BY CITY OF WORCESTER PERSONNEL.
- EXISTING WATER MAIN AND ASSOCIATED VALVES AND APPURTENANCES SHALL BE REMOVED AND NEW PIPE INSTALLED WITHIN THE SAME TRENCH. THE EXISTING WATER PIPE, VALVES AND APPURTENANCES TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF AT NO ADDITIONAL COST TO THE CITY. SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" SECTION 300 FOR ADDITIONAL INFORMATION.
- SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS" FOR MORE INFORMATION ON TEMPORARY BYPASS, WATER MAIN, WATER SERVICE, HYDRANT INSTALLATION, AND OTHER APPLICABLE DETAILS ASSOCIATED WITH EARTHWORK, WATER, PAVEMENT AND TRAFFIC MANAGEMENT REQUIREMENTS.



Consultants:

Revisions:

No.	Date	Description

COA:

Seal:



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Reviewed By: JJP
Approved By:

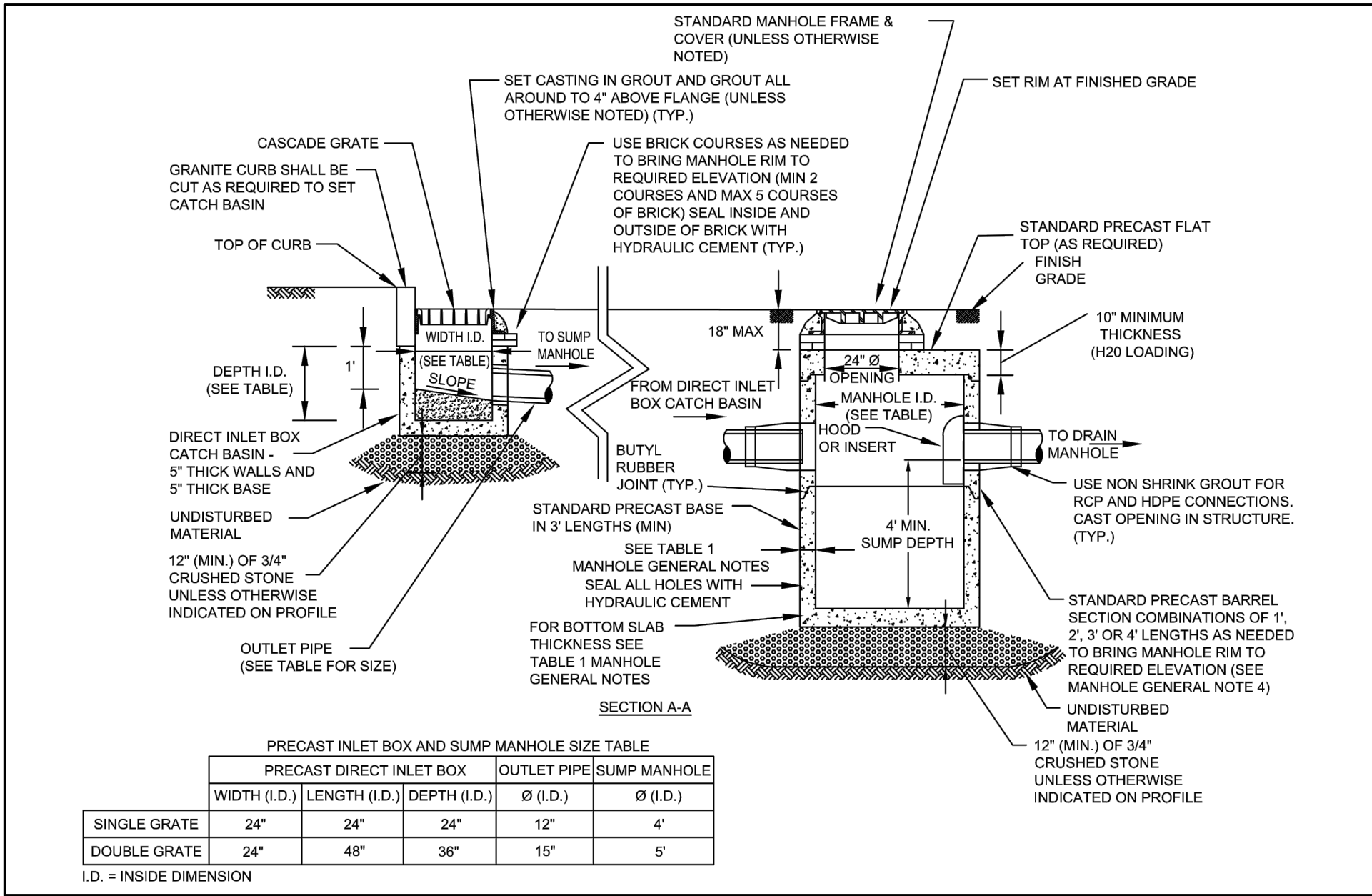
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W&S File No.:

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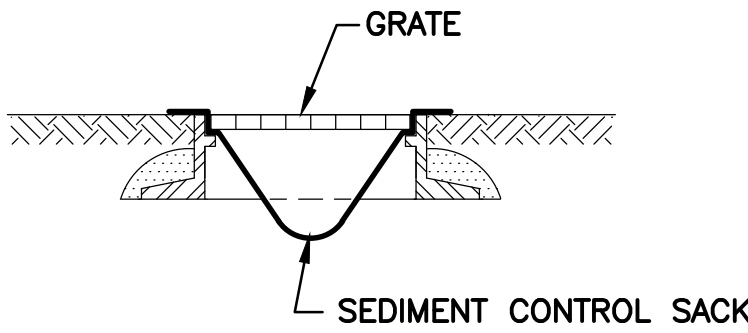
Paine Street
Water Main
Replacement

Sheet Number:

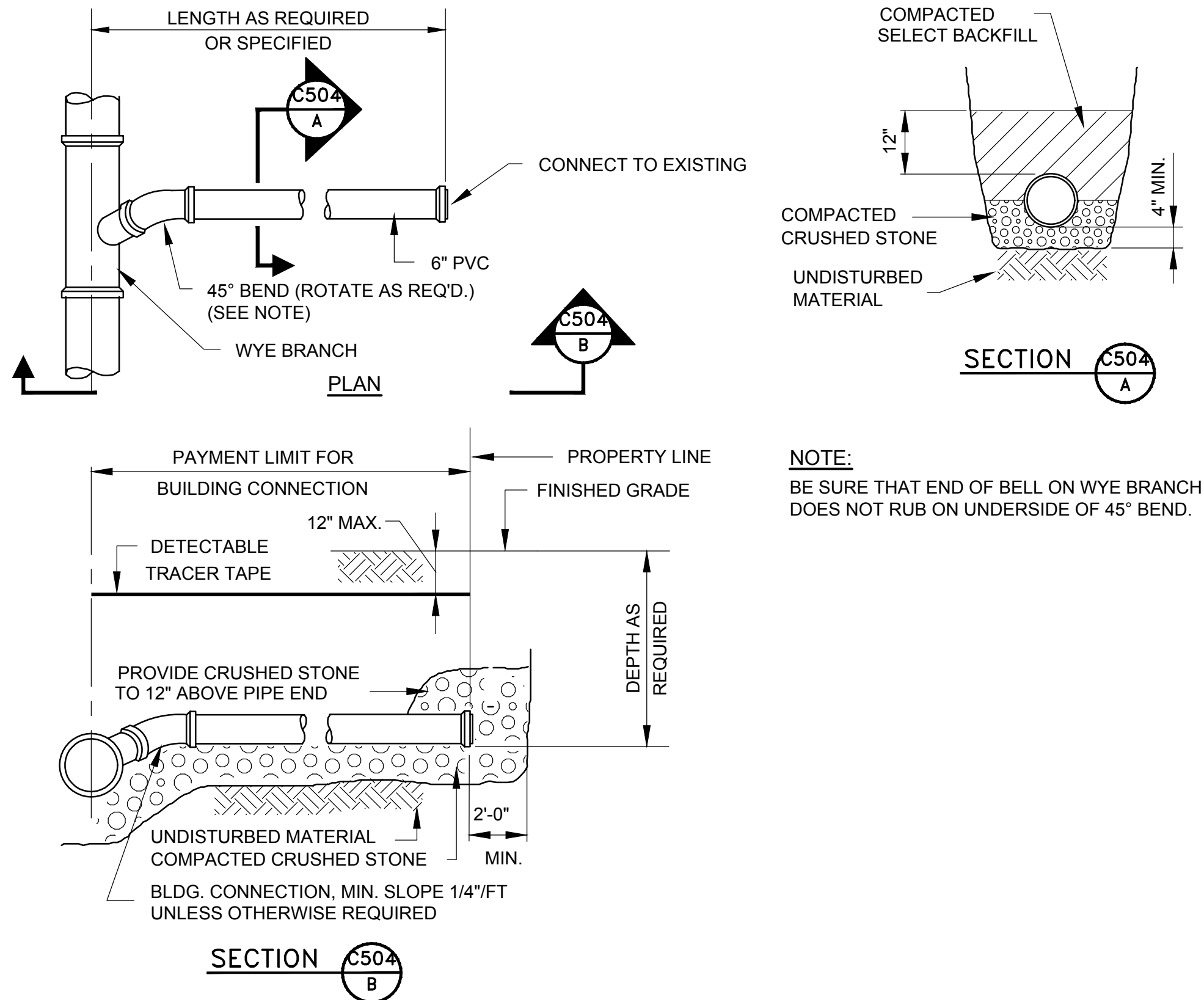
C108



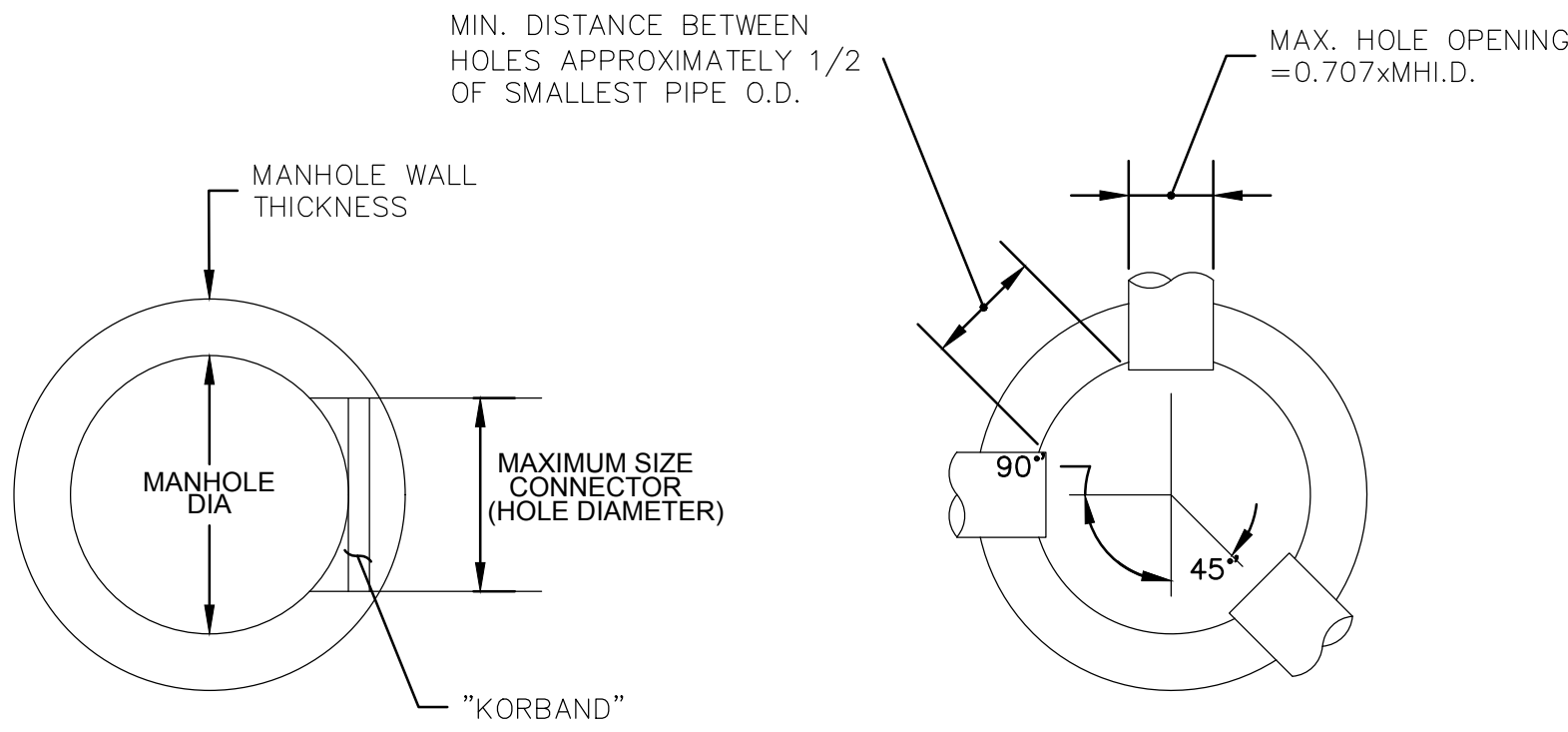
GUTTER INLET DETAIL
N.T.S.



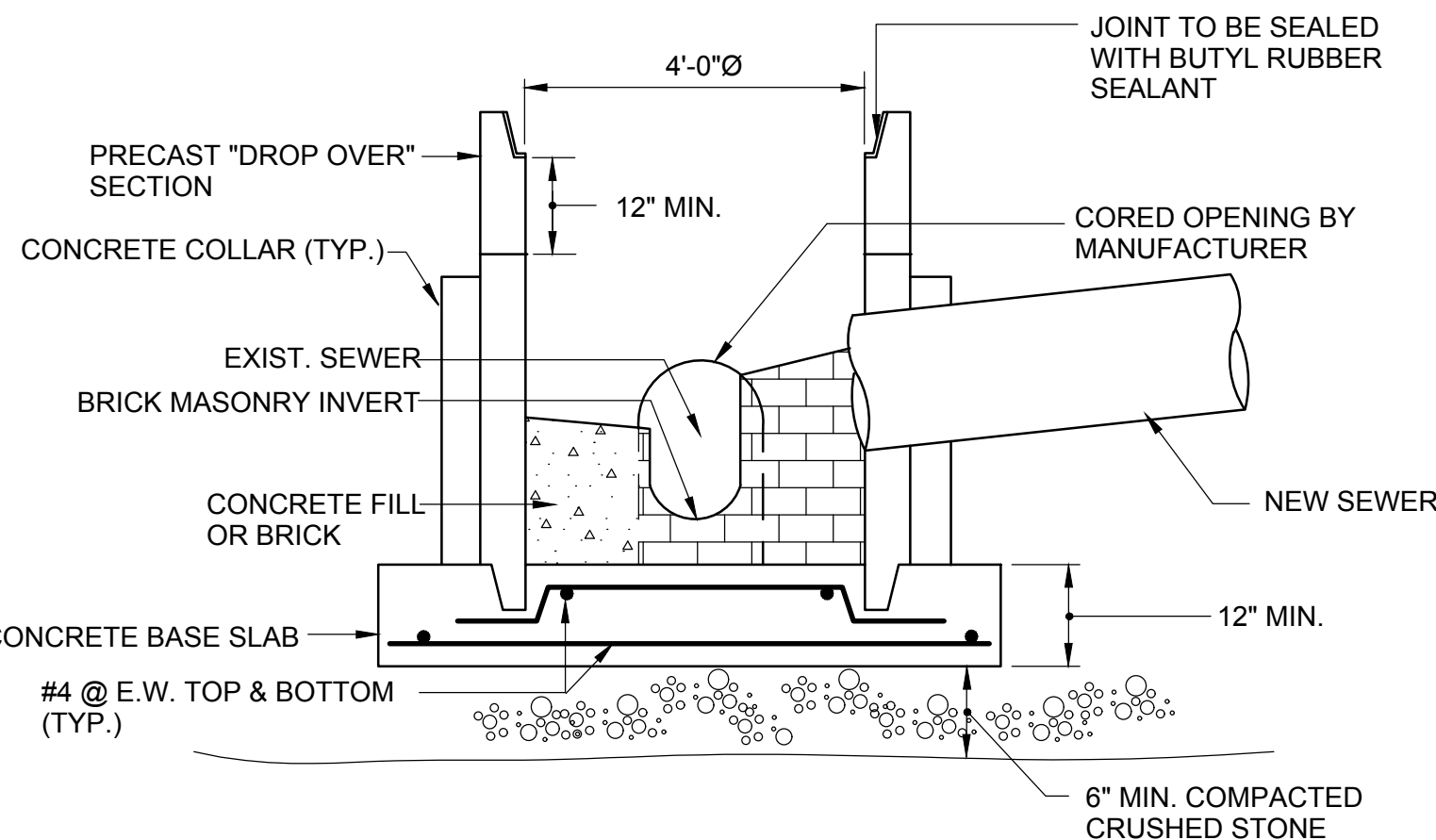
CATCH BASIN PROTECTION DETAIL
N.T.S.



TYPICAL BUILDING CONNECTION DETAIL
N.T.S.

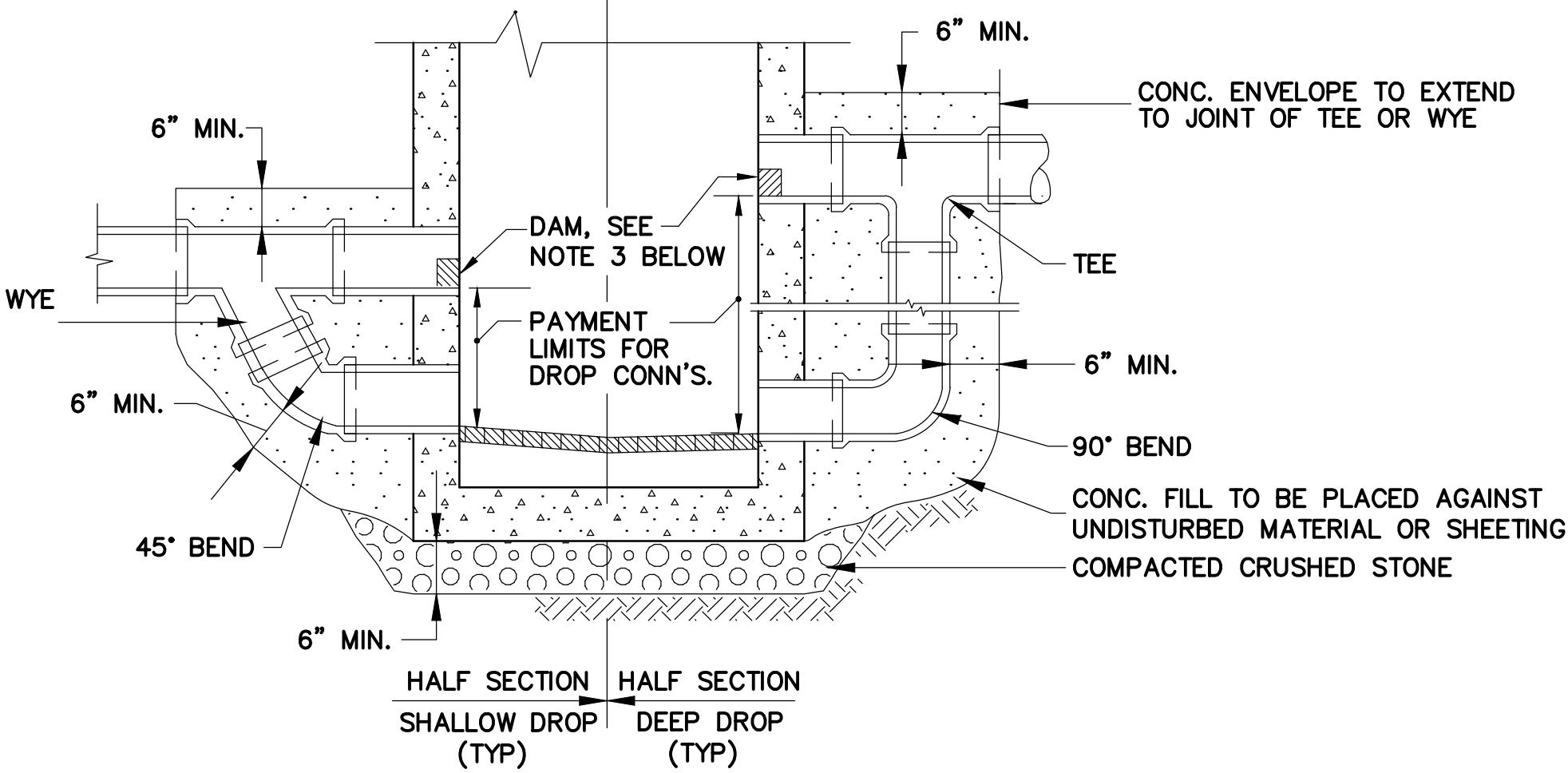


MH DIA.	MINIMUM WALL THICKNESS	FOR CORED CONNECTIONS		CAST-IN-PLACE CONNECTIONS	
		STRAIGHT OR 45 DEG DEFL.	90 DEGREE DEFLECTION	STRAIGHT OR 45 DEG DEFL.	90 DEGREE DEFLECTION
4 FOOT	5 INCH	28 INCH	25 INCH	31.5 INCH	25 INCH
5 FOOT	6 INCH	34 INCH	32 INCH	42 INCH	32 INCH
6 FOOT	7 INCH	42 INCH	38 INCH	51 INCH	38 INCH
7 FOOT	8 INCH	48 INCH	44 INCH	59 INCH	44 INCH
8 FOOT	9 INCH	56 INCH	50 INCH	73.5 INCH	50 INCH



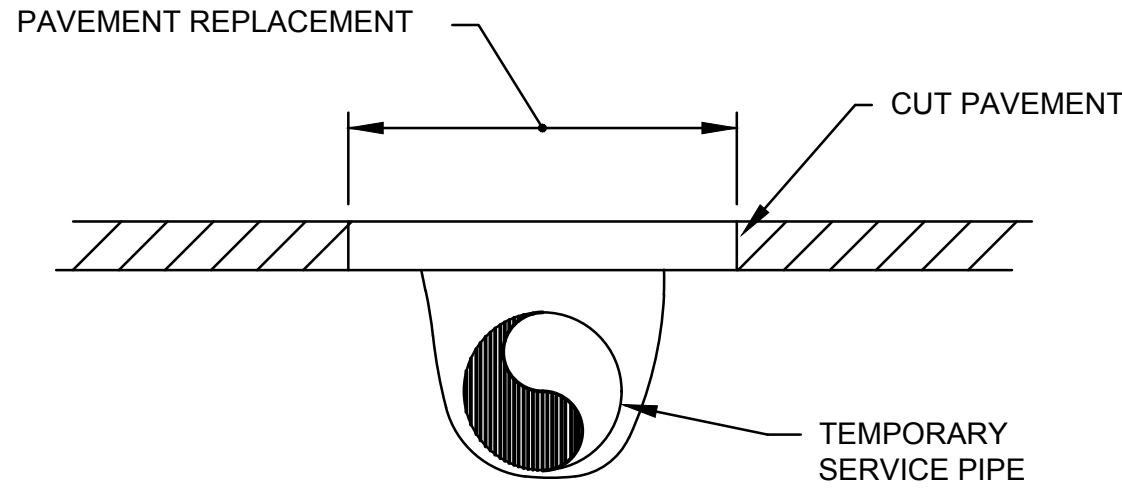
NOTE:
THE "DROP OVER" SECTION SHALL BE INDEPENDENTLY SUPPORTED TO ALLOW FOR PROPER CURING OF THE BASE SLAB

DROPOVER MANHOLE BASE
N.T.S.



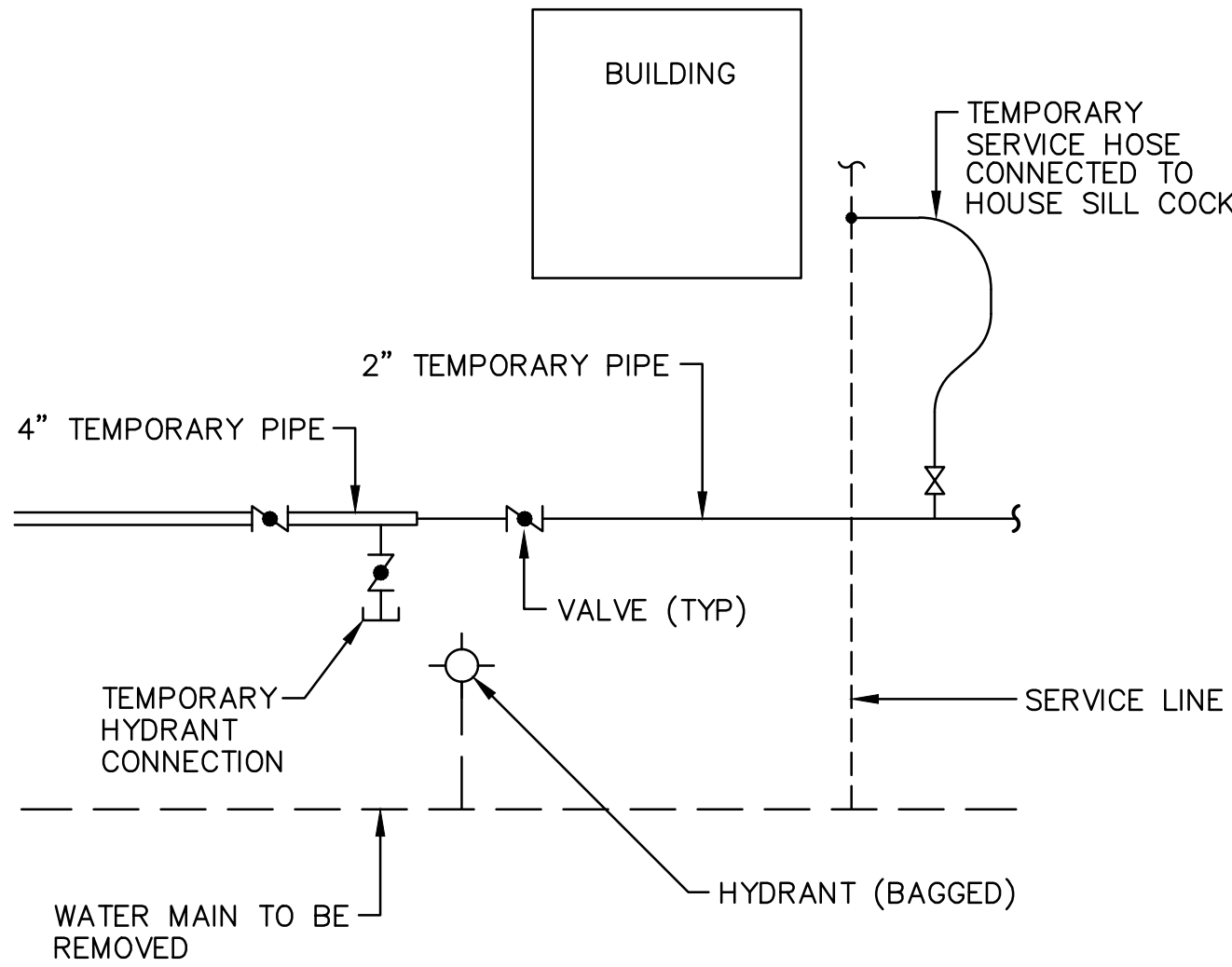
NOTES:
1. DROP PIPE TO BE SAME DIAMETER AS SEWER DISCHARGE INTO MANHOLE UNLESS OTHERWISE SHOWN ON DRAWINGS.
2. DIMENSIONS & CONSTRUCTION OF DROP MANHOLE TO BE SIMILAR TO TYPICAL MANHOLE EXCEPT AS SHOWN.
3. FOR PVC PIPE, EPOXY HALF PLUG TO PIPE. FOR DI, VC AND RC PIPE, MORTAR AND BRICK IN PIPE.

DROP CONNECTION DETAIL
N.T.S.

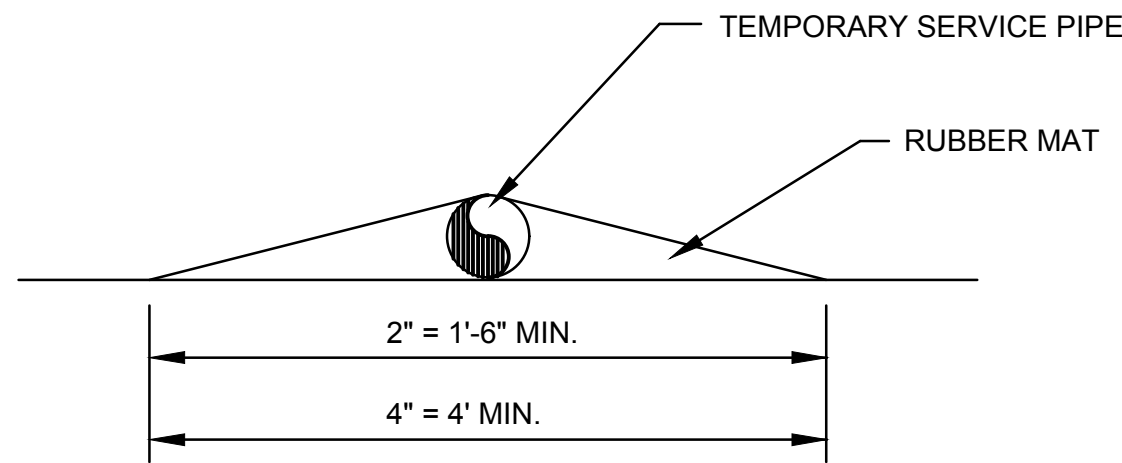


NOTES:
1. ALL TEMPORARY SERVICE PIPE SHALL BE BURIED AT ALL ROADWAY AND DRIVEWAY CROSSINGS.

**TEMPORARY SERVICE PIPE
ROADWAY CROSSING DETAIL**
N.T.S.

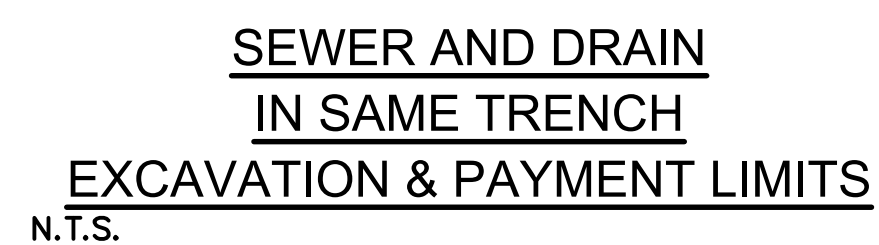
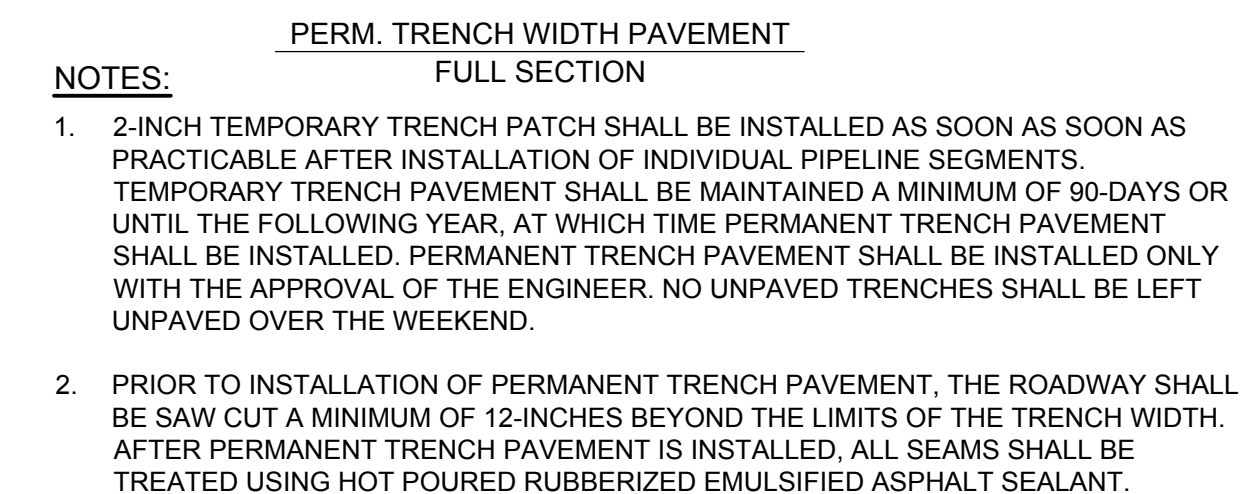


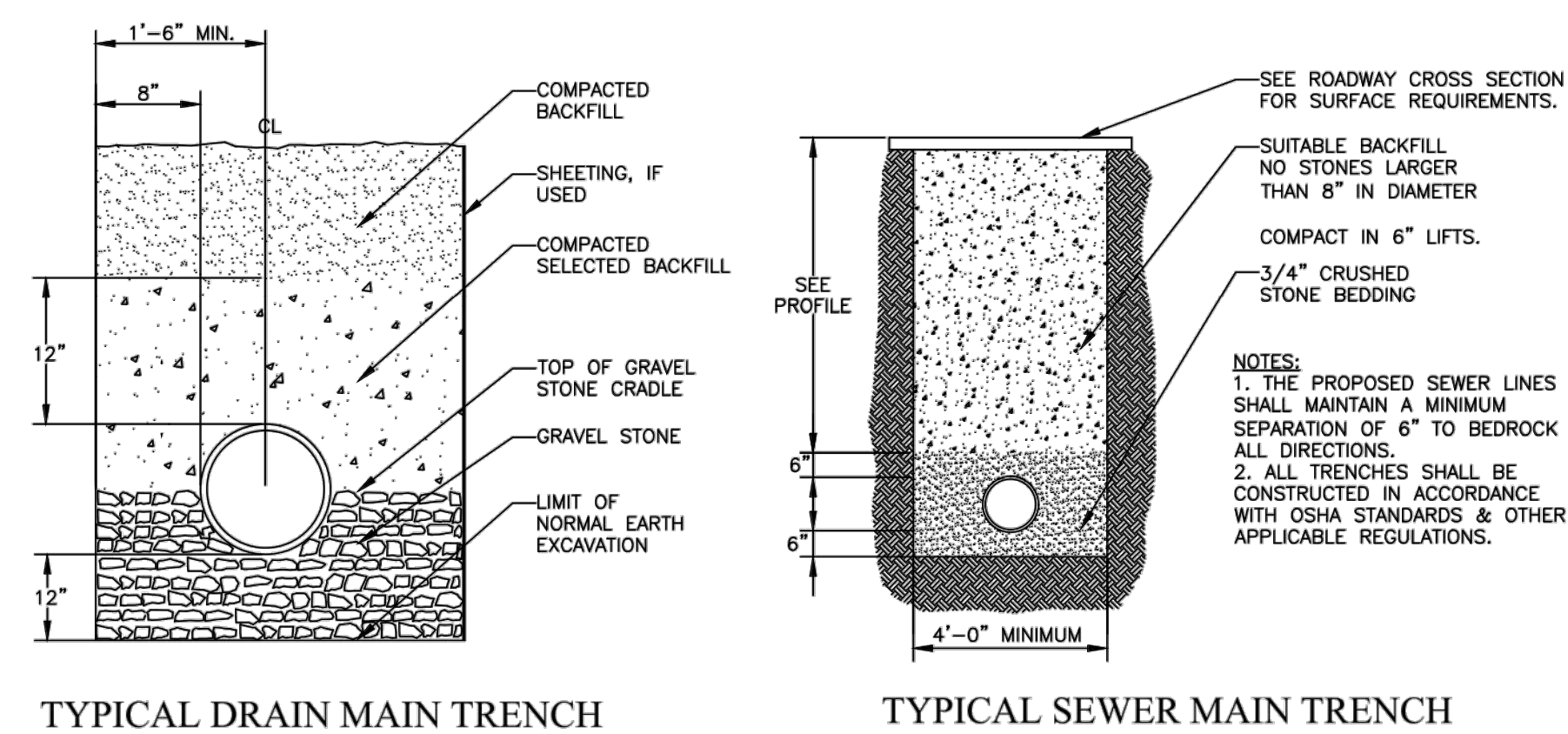
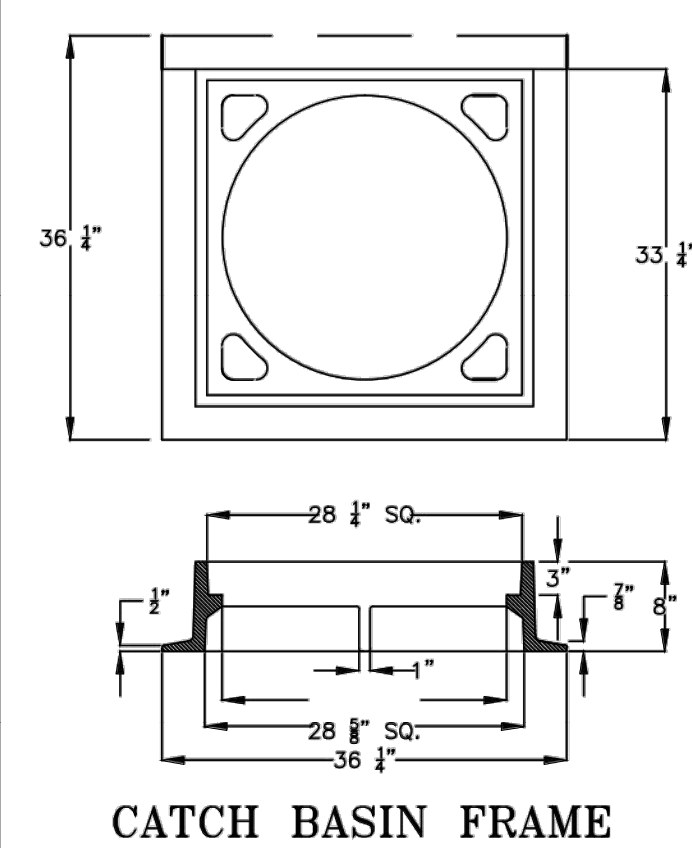
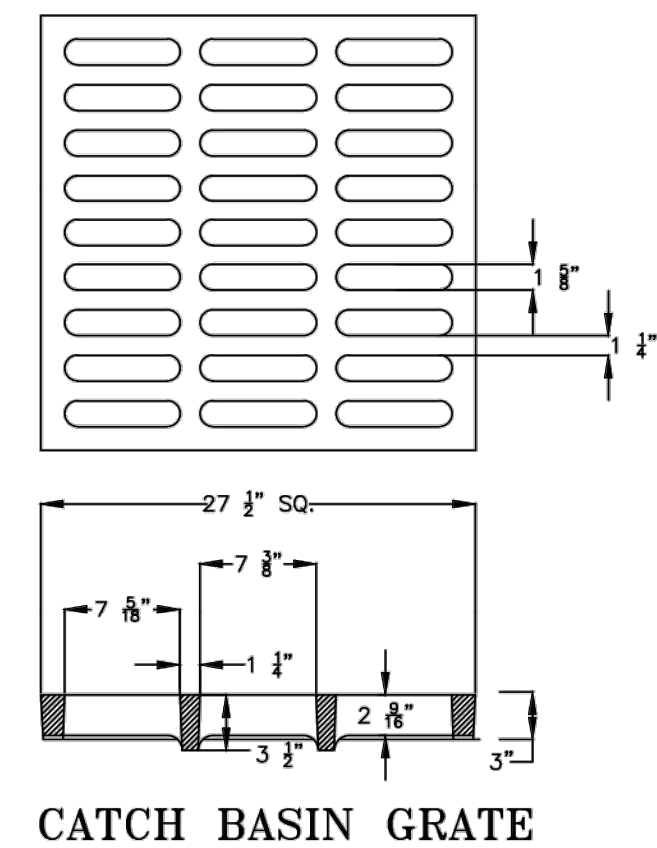
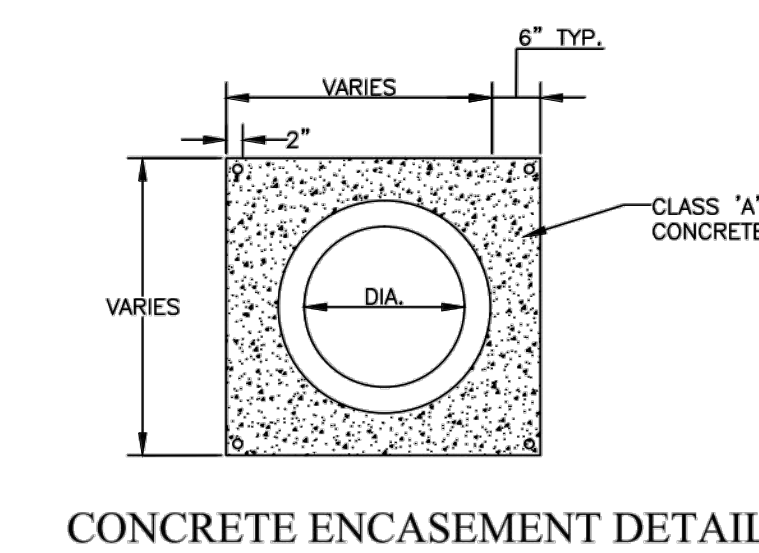
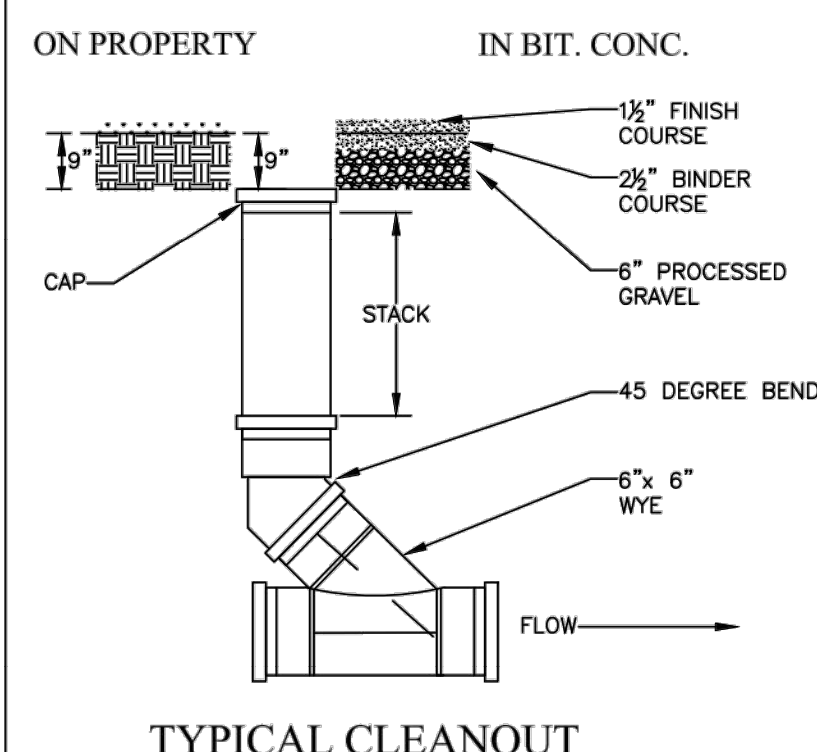
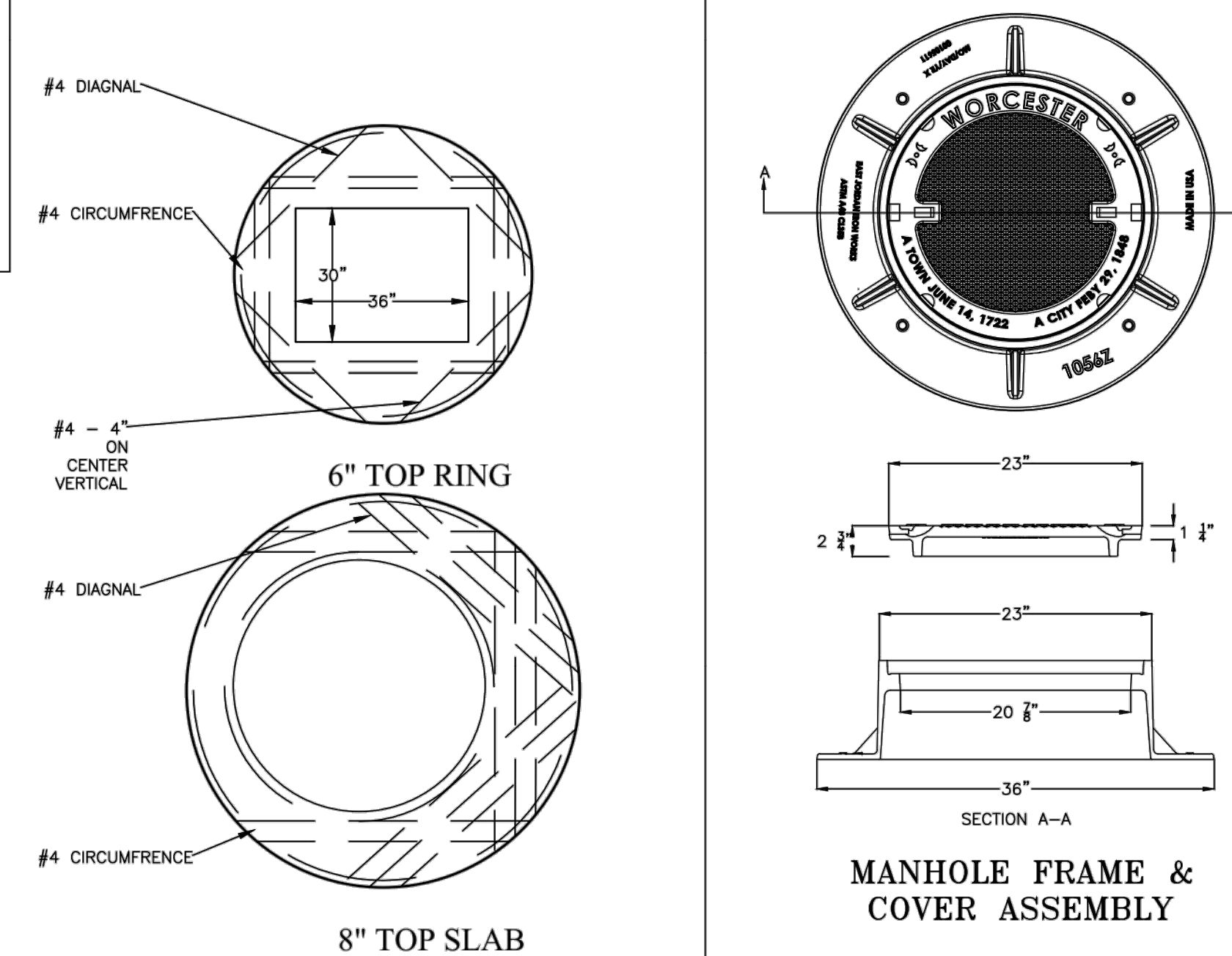
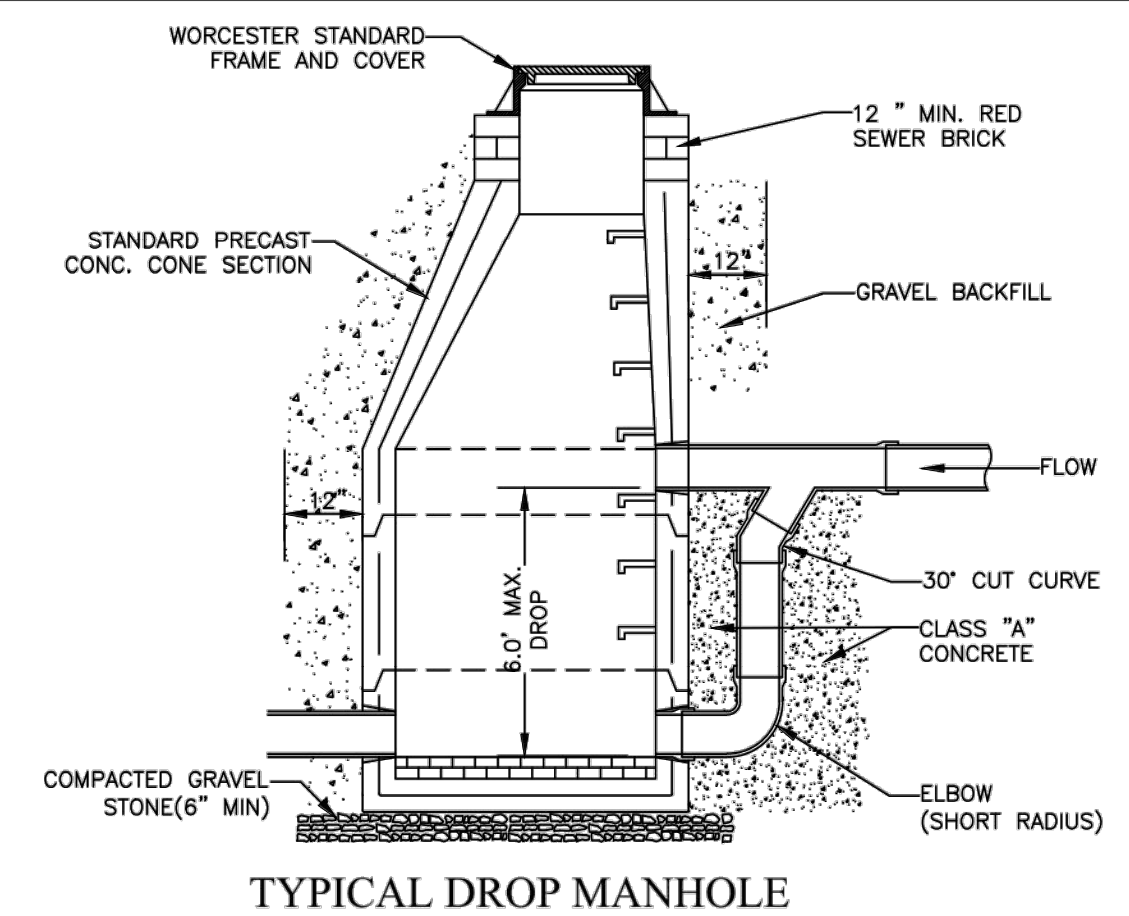
TEMPORARY WATER SERVICE DETAIL
N.T.S.



**2" AND 4" TEMPORARY SERVICE PIPE
DRIVEWAY CROSSING DETAIL**
N.T.S.

Revisions:		
No.	Date	Description





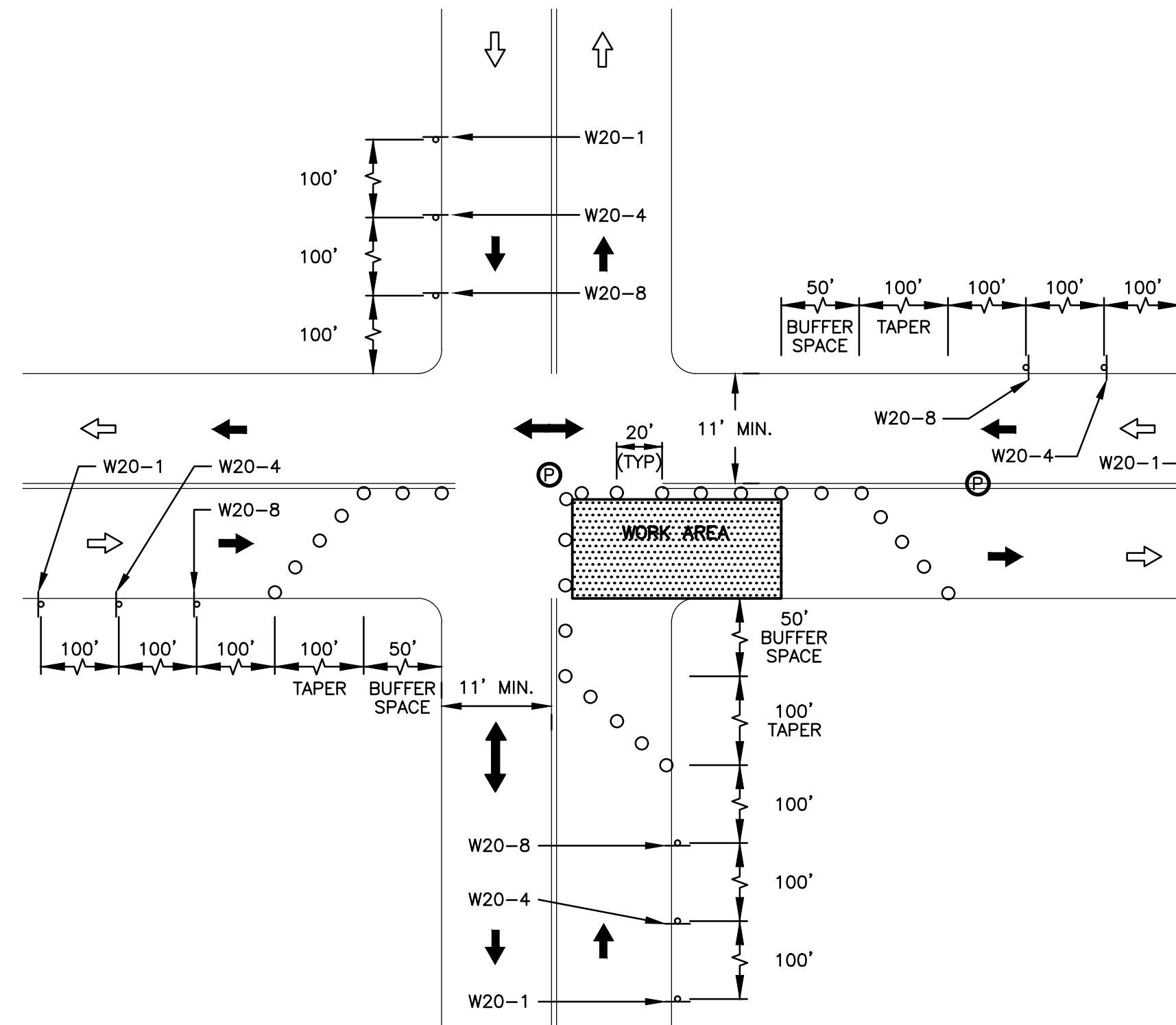
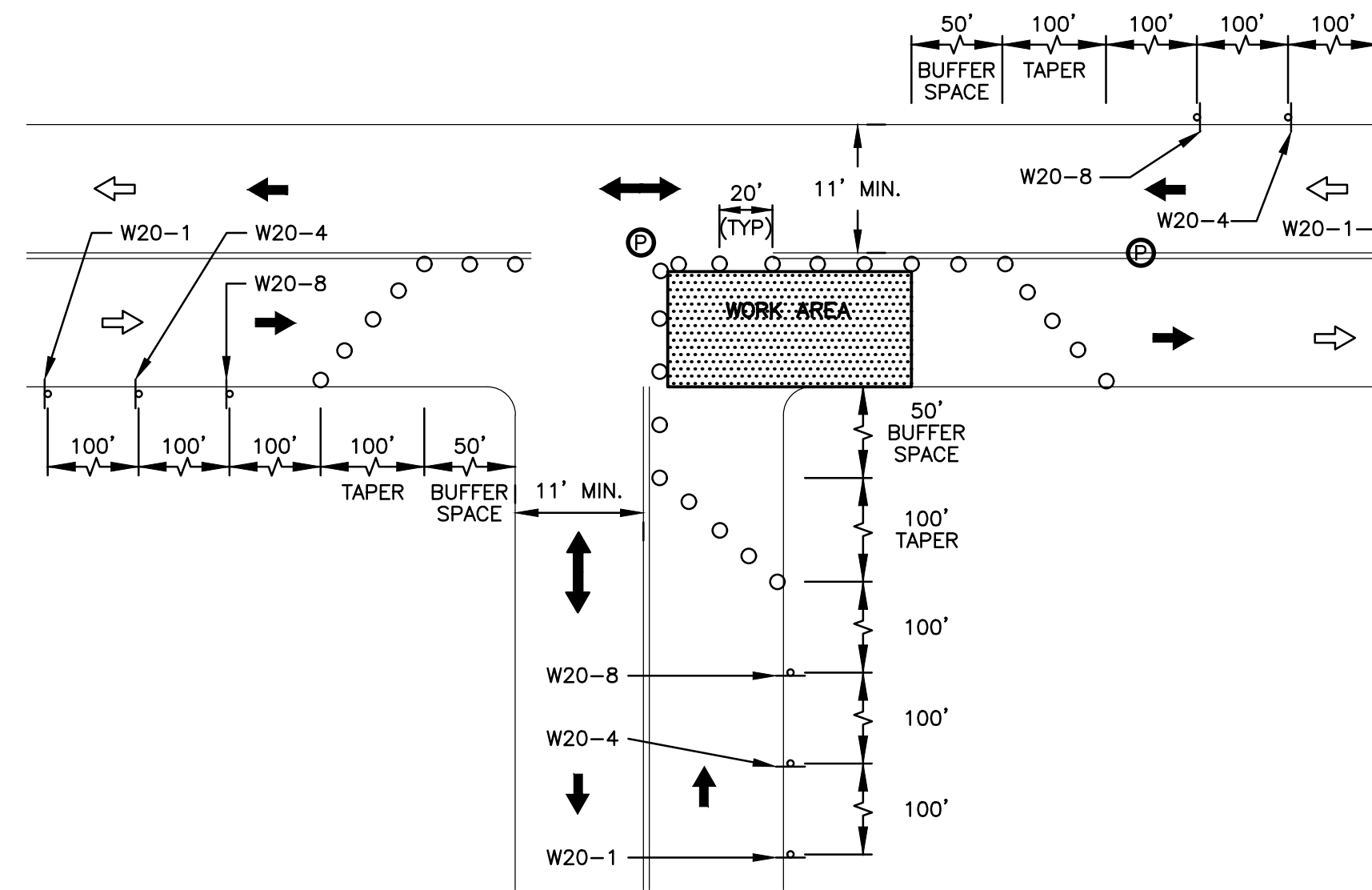
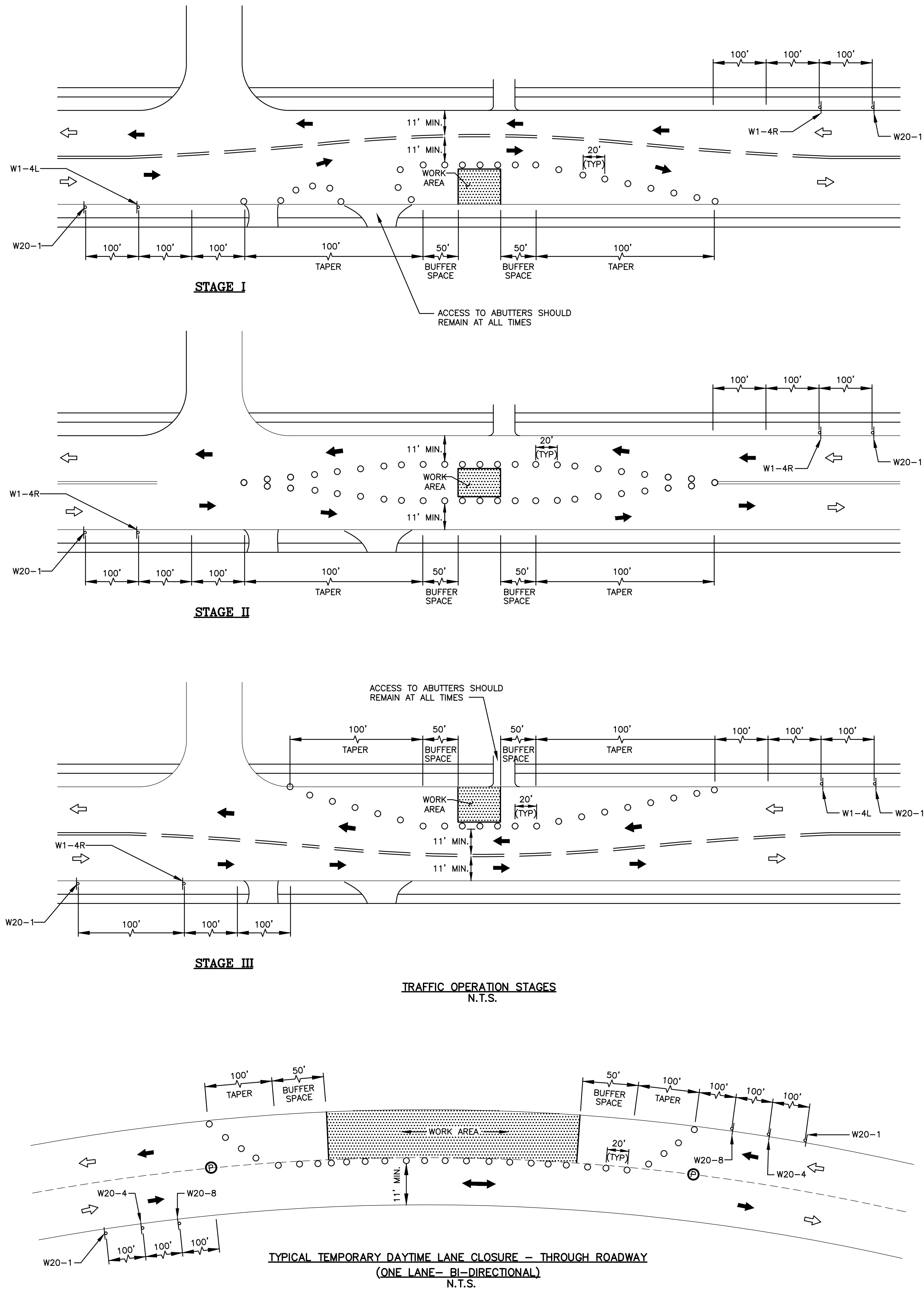
- NOTES:
1. CONTRACTOR SHALL REFER TO THE CITY OF WORCESTER STANDARD SPECIFICATIONS & DETAILS FOR TYPICAL TEMPORARY/PERMANENT PATCH DETAIL FOR ROADWAY

Drawing Title:

WORCESTER
STANDARD DETAILS

Sheet Number:

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TEMPORARY TRAFFIC SIGN SUMMARY			
MUTCD CODE	SIZE OF SIGN		SIGN
	WIDTH	HEIGHT	
W1-4L	30"	30"	
W1-4R	30"	30"	
W20-1	36"	36"	
W20-4	36"	36"	
W20-8	36"	36"	
G20-2	36"	18"	

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:

- 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 DESIGNATIONS 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.

Consultants:

Revisions:

No.	Date	Description

COA:

Seal:



Issued For:

RELEASED
FOR CONSTRUCTION

Scale: NO SCALE

Date: MAY 2023

Drawn By: ABS

Reviewed By: FEO

Approved By: DGG

W&S Project No.: ENG22-0378

W&S File No.:

Drawing Title:

CONSTRUCTION ZONE
SAFETY PLAN

Sheet Number:

C504