

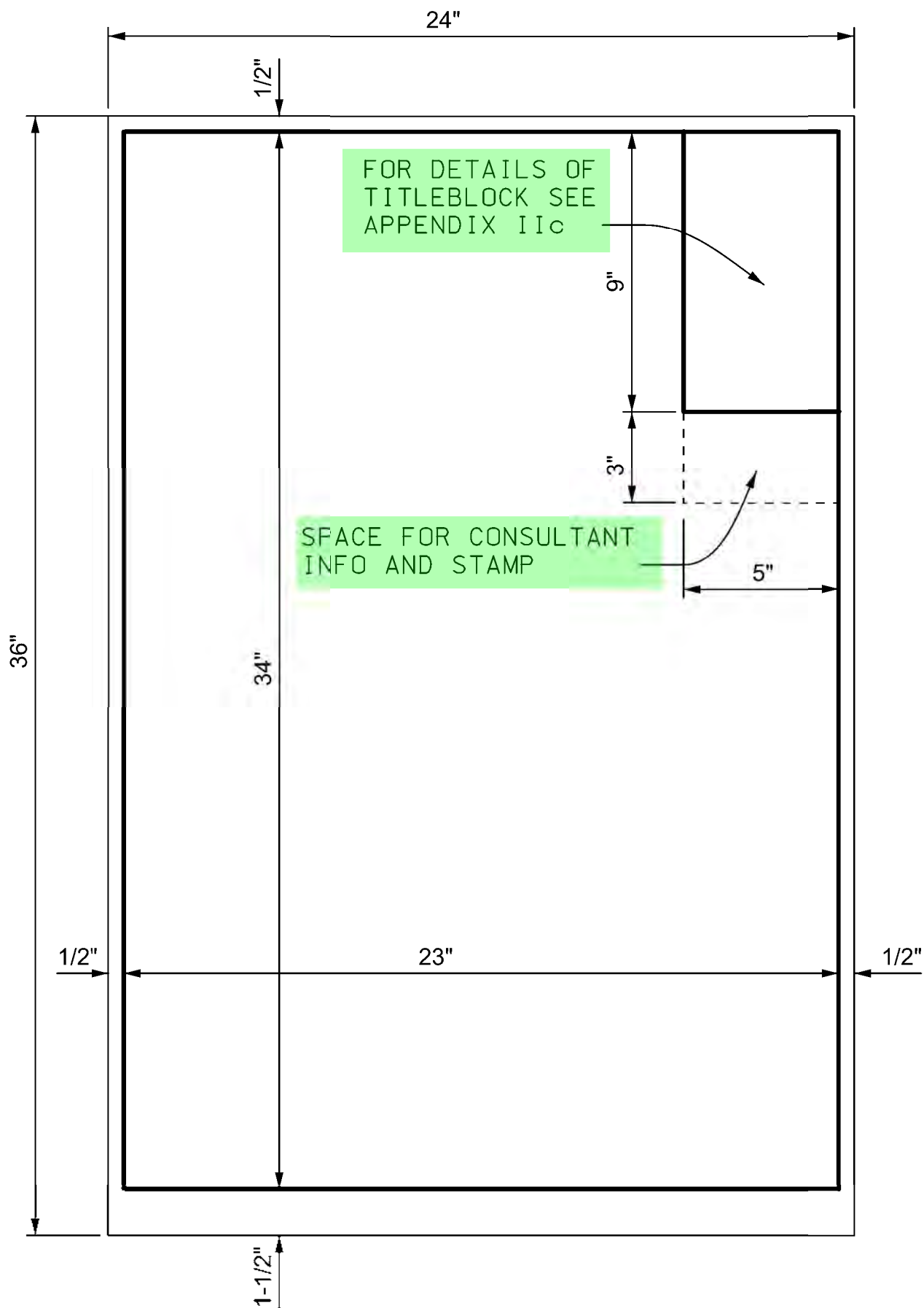
DRAWING STANDARDS

Appendix

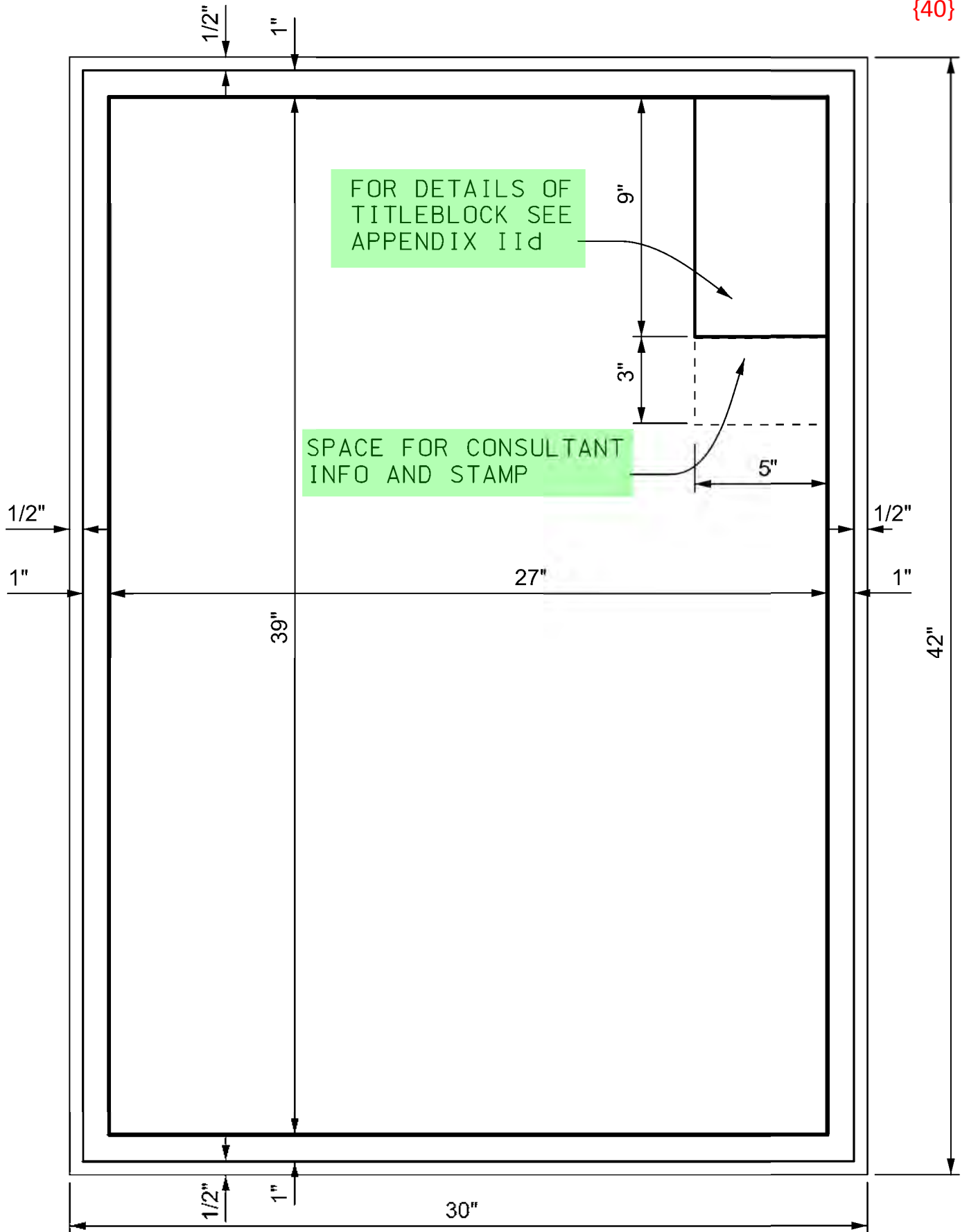
II

{15} {39} {50} {75}

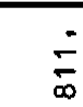
- [a](#) – Drawing Size and Borders (Water)
- [b](#) – Drawing Size and Borders (Sewer)
- [c](#) – Title Block (Water Drawing)
- [d](#) – Title Block (Sewer Drawing)
- [e](#) – Line Styles
- [f](#) – Lettering
- [g](#) – Arrow Symbols
- [h](#) – Symbols for Water Main Fittings
- [i](#) – Standard Notes for Water Sheets
- [j](#) – Legend for Sewer Sheets
- [k](#) – Manholes, Inlets and Appurtenances
- [m](#) – Standard Notes for Sewer Sheets
- [n](#) – Symbols for Green Appurtenances



APPENDIX IIa Border Size - Water



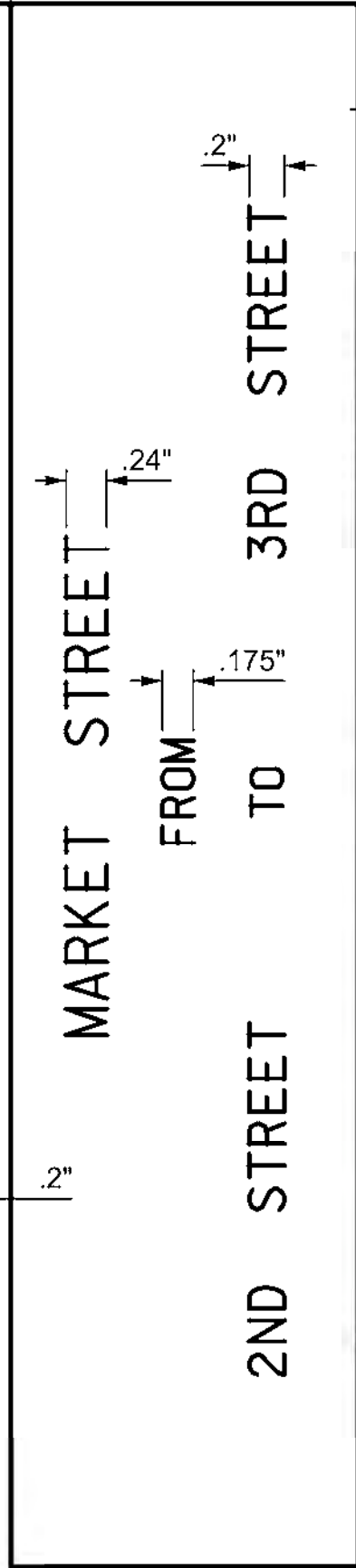
APPENDIX IIb Border Size - Sewer

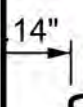
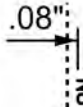
NOTICE:  

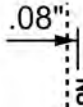
PURSUANT TO THE REQUIREMENTS OF PENNSYLVANIA ACT 121 OF 2008,
THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 OR 811,
AT LEAST 3 DAYS PRIOR TO EXCAVATION.

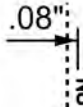
HIGHWAY DISTRICT NO. 3 WARD NO. 5
SURVEY DISTRICT NO. 2 WATER PLATE NO. 28A
ONE CALL SERIAL NO. 12345678 GPIS NO. G0000-00000

 **WATER MAIN RELAY PROJECT**

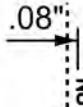


 **APPROVED** 

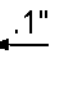
 CHIEF, DESIGN BRANCH, ENGINEERING DIVISION
(OR APPROPRIATE FIRM NAME)

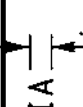
APPROVED 

GENERAL MANAGER, PLANNING AND ENGINEERING
LEAD SHEET ONLY

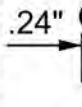
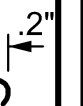
APPROVED 

WATER COMMISSIONER

SCALES:
PLAN 1" = 20'
AND AS NOTED 

CITY OF PHILADELPHIA
WATER DEPARTMENT 

WORK NO. S-40345-RD (5 SHEETS)
SHEET NO. W-1 OF 2 SHEETS

 TOTAL NUMBER OF WATER SHEETS 

(TOTAL NUMBER OF SHEETS IN THE PROJECT)

DRAWN BY	
PROJECT ENGR.	
SUPERVISOR	
DATE	



APPENDIX IIc
Title Block - Water

[7] [10] [94]
Back to Appendix II

DATE _____

{14} {36} {49}
{66}

	Houseline	0.80mm
	Curbline	0.50mm
	Right of Way	0.50mm
	Confirmed Curb	0.25mm
	Physical Curb	0.25mm
	Edge of Paving	0.25mm
	Ex. Water Line	0.25mm
	Gas Line	0.25mm
	Ex. Sewer Line	0.25mm
	Verizon, PECO, SEPTA, Cable, Keystone, ATT, and Misc. Duct Lines	0.25mm
	Railroad	0.25mm
	Property Line	0.25mm
	Proposed Water Main	0.70mm
	Proposed Sewer	0.70mm
	Proposed Water Main (on Sewer Sheet)	0.70mm
	Proposed Sewer (on Water Sheet)	0.70mm
	Ex. Separate System	0.25mm
	Proposed Separate System	0.70mm
	Profile Grid	0.20mm
	Exist Sewer in Profile	0.50mm

Water, Sewer and Gas Lines (Existing and Proposed) 24" and Over are to be drawn Double-Line.

All Other utilities 42" and Over are to be drawn Double-Line



APPENDIX IIe Line Styles

{14} {36} {49}
{66}

[Back to Appendix II](#)

Street Names - Upper Case, Arial font

{8} {27} {42}

DE STREET

NO PARKING
PARKING

Existing Callouts and Utility Labels
Slanted Lower Case, Engineering Font

PROPOSED 18" R.C.P. SEWER

Sewer 3'-0" x 2'-0" Brick, 5'-6" Cov.

Water 6", 4'-0" Cov. (TO BE ABAND.)

Gas 6", 2'-10" Cov.

Sewer

Manhole
Rim El. 19.
Inv. El. 12.11
D44-00545

PROPOSE
R.C.P. SE

SEE SHEET

S-4

9" BRICK BULKHEAD

MANHOLE
INV. EL. 10.76
D44-000545

CHANGE IN SIZE

Open Lot

C. Ftw.

St. Curb

Bituminous Paving

Dep. Curb

C. Ftw.

12" VC VENT

MANHOLE
INV. EL. 12.10
D44-U000650

1355

302

306

310

S-3

Proposed Callouts,
Upper Case, Arial Bold Font

Gas 4", 2'-6" Cov.

Water 6", 4'-0" Cov. (TO BE ABAND.)

BRICK
BULKHEAD



APPENDIX II f Lettering

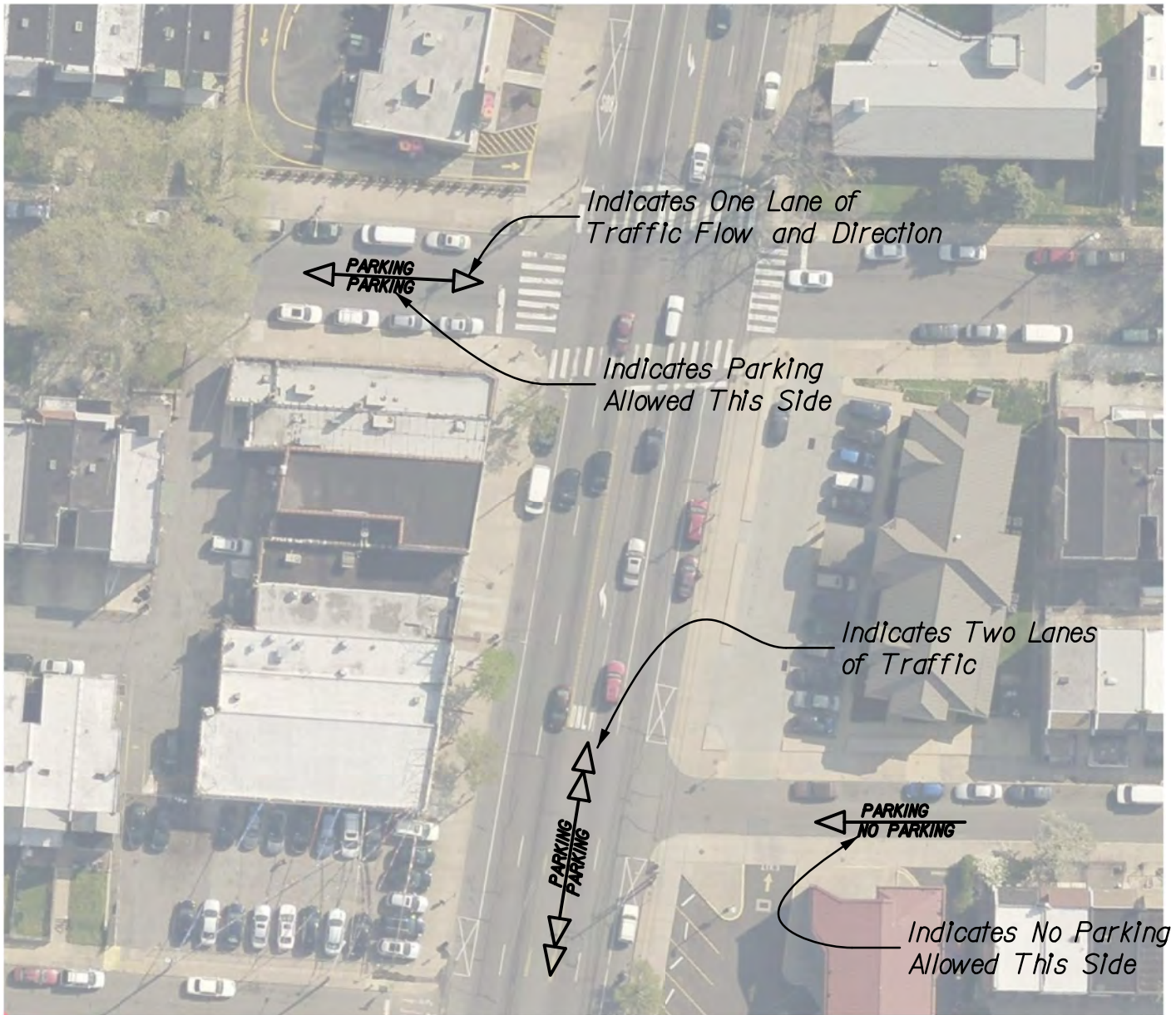
{8} {27} {42}

Back to Appendix II

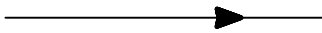
CHECKED BY: FM

DATE: 01/15/2014

PAGE NO. 1 OF 1



TRAFFIC FLOW ARROWS



Curb Flow Arrow -
Place on Curbs Lines
to Indicate Stormwater Flow
In Gutter

CURB FLOW ARROW



NORTH ARROW

PROPOSED FITTINGS (AS THEY APPEAR ON THE WATER CONTRACT DRAWINGS)	PROPOSED FITTINGS (AS THEY APPEAR ON THE SEWER CONTRACT DRAWINGS)	EXISTING FITTINGS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
•	•	◦	HYDRANT
⊞	⊞	NA	HYDRANT ANCHOR TEE
○	○	○	VALVE
⊞	⊞	NA	CROSS
⊞	⊞	NA	TEE
⌞	⌞	NA	1/4 BEND(90°)
⌞	⌞	NA	1/8 BEND(45°)
⌞	⌞	NA	1/16 BEND(22.5°)
⌞	⌞	NA	1/32 BEND(11.25°)
⊞	⊞	NA	VERT. BENDS
◄	◄	◄	REDUCER
		NA	SLEEVE
⊞	⊞	⊞	CAP
⊞	⊞	⊞	PLUG
⌞	⌞	⌞	OFFSET

PROPOSED FITTINGS (AS THEY APPEAR ON THE WATER CONTRACT DRAWINGS)	PROPOSED FITTINGS (AS THEY APPEAR ON THE SEWER CONTRACT DRAWINGS)	EXISTING FITTINGS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
			BLOW OFF
			AIR VALVE
NA	NA		HIGH PRESSURE FIRE HYDRANT
NA	NA		HIGH PRESSURE FIRE VALVE AND CHAMBER
			DISTRICT BOUNDRY VALVE
NA	NA		ELECTROLYSIS TEST STATION
		NA	MECHANICAL COUPLING
			DOUBLE LINE FITTING 24" AND OVER

NOTES:

- ① REMOVE FRAME & COVER – SEE SPEC'S.
- ② REMOVE FIRE HYDRANT – SEE SPEC'S.
- ③ REMOVE PIPE AND/OR FITTING & RECONNECT.
- ④ ROTATE FITTINGS AS REQUIRED.
- ⑤ REMOVE AND RETURN VALVE – SEE SPEC'S.

WHERE APPLICABLE

- ⑥ INDICATES LIMITS OF DISTURBANCE. DISTURBANCE OF HANDICAP RAMP IS PROHIBITED. SAW CUT JOINT(S) IF NEEDED TO MINIMIZE DISTURBANCE TO SIDEWALK. HYDRANT TO BE REMOVED TO A POINT 2 FEET BELOW SURFACE.
- ⑦ INDICATES LIMITS OF DISTURBANCE. DISTURBANCE OF HANDICAP RAMP IS PROHIBITED. SAW CUT JOINT(S) IF NEEDED TO MINIMIZE DISTURBANCE TO SIDEWALK. REMOVE FRAME AND COVER.

GENERAL NOTES:

- EXISTING WATER MAINS SHALL BE CUT & PLUGGED AS APPROVED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM 6-INCH CLEARANCE BETWEEN ALL UNDERGROUND STRUCTURES AND THE NEW WATER MAINS.
- BILLS OF MATERIAL AND PIPE TOTALS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND PAYMENT WILL BE MADE ONLY FOR THE ACTUAL AMOUNT OF PIPE AND APPURTENANCES INSTALLED.
- FIRE HYDRANTS SHALL NOT BE CONSTRUCTED OR RELOCATED UNTIL SUCH LOCATIONS HAVE BEEN APPROVED BY THE WATER DEPARTMENT CONSTRUCTION DIVISION IN THE FIELD.
- ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT.



APPENDIX Iii Standard Water Notes

[Back to Appendix II](#)

Legend Items

{16} {25} {26}

{61} {62} {80}

	Vent Box - Sewer
	Water Curb Box
	Gas Curb Box
	Unknown Curb Box
	Pole
	Lamp Post
	PECo Pole
	PECo Pole W/Light
	SEPTA Pole
	Traffic Light
	Traffic Sign
	Iron Pole
	Bollard
	Parking Meter
	Parking Kiosk
	StandPipe
	Clean Out
	Down Spout
	Mail Box
	Hand Hole
CATV	Cable Handhole
	Survey Stone
Traffic Control	Traffic Control Box(Above Ground)
Verizon	Verizon Junction Box(Above Ground)
	Sewer Manhole
	Water Valve
	Fire Hydrant
	Electrolysis Test Station
	Open Mouth Grate Inlet
	City Inlet (4 Denotes 4 FT. 6 Denotes 6 FT.)
	Old City Inlet (*1,*2,*3 or *4 Denotes Size)
	Old Grate Inlet (*1,*2,*3 or *4 Denotes Size)

	Gas Valve
	Door Sill
	Unknown Utility Manhole
	Utility Manhole
	Grating
	Cellar Door
	Steps
	Porch
	Planter
	Bus Shelter
	Curb Ramp
	Tree/Trunk Size In "
	Tree Stump/w Trunk In "
	Hedge
	Trash Receptacle
	Fence
	Bike Rack
	Domed Riser
C. Curb	Concrete Curb
G. Curb	Granite Curb
Sl. Curb	Slate Curb
C. Ftw.	Concrete Footway
Br. Ftw.	Brick Footway
Sl. Ftw.	Slate Footway
Dep. Curb	Depressed Curb
Br. Gutter	Brick Gutter
D/W	Driveway
St. Wall	Stone Wall
Br. Wall	Brick Wall
C. Wall	Concrete Wall
S.R.E.	Sewer Return Elevation
S.R.L.	Sewer Return Location



APPENDIX IIj Legend

{16} {25} {26}

{61} {62} {80}

Back to Appendix II

PROPOSED ITEMS (AS THEY APPEAR ON THE SEWER CONTRACT DRAWINGS)	PROPOSED ITEMS (AS THEY APPEAR ON THE WATER CONTRACT DRAWINGS)	EXISTING ITEMS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
			MANHOLE
			WELLHOLE
			EXTERIOR DROP MANHOLE
			INTERIOR DROP MANHOLE
			SUMMIT MANHOLE
			TRANSITION MANHOLE
			CONCRETE COLLAR
		NA	9" BRICK BULKHEAD
			4FT. CITY INLET
			6FT. CITY INLET
			4 FT. OPEN MOUTH GRATE INLET
			6 FT. OPEN MOUTH GRATE INLET
			4 FT. HIGHWAY GRATE INLET
			6 FT. HIGHWAY GRATE INLET
NA	NA		OLD #1,2,3,4 GRATE INLETS
NA	NA		OLD #1,2,3,4 CITY INLETS
		NA	FLOWABLE FILL

NOTES:

(ONLY USE APPLICABLE NOTES)

ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT. PAYMENT FOR ALL WORK WILL BE BASED UPON THAT STANDARD.

THE LOCATIONS AND ELEVATIONS OF THE EXISTING SEWERS ARE APPROXIMATE. THE ELEVATIONS OF THE EXISTING SEWER AT THE TERMINATING CONNECTION POINTS TO THE PROPOSED SEWER MUST BE FIELD CHECKED PRIOR TO CONSTRUCTING THE NEW SEWER.

THE THICKNESS OF THE ARCHES AND THE CHARACTER AND THE EXTENT OF THE CRADLES OF THE EXISTING SEWERS ARE UNKNOWN

SEAL OPEN ENDS OF SEWER WITH VITRIFIED PIPE STOPPERS AND OPEN ENDS OF STORMWATER CONDUITS WITH BRICK BULKHEADS.

REMOVE EXISTING PIPE STOPPERS AND BRICK BULKHEADS PRIOR TO CONNECTING TO EXISTING SEWERS OR STORMWATER CONDUITS.

(ASSESSIBLE PROJECTS ONLY)

REGISTERED PROPERTY OWNERS' NAMES AND ZONING CLASSIFICATIONS ARE CORRECT AS OF ____/____/____ THE DATE THE SEWER BASE PLAN WAS APPROVED.

- Ⓐ DENOTES EXISTING INLET TO BE ABANDONED.
- Ⓡ DENOTES EXISTING INLET TO BE RECONNECTED.
- ④ DENOTES 4 FT. CITY INLET.
- ⑥ DENOTES 6 FT. CITY INLET.
- ▨ ④ DENOTES 4 FT. OPEN MOUTH GRATE INLET.
- ▨ ⑥ DENOTES 6 FT. OPEN MOUTH GRATE INLET.
- ▨ ④ DENOTES 4 FT. HIGHWAY GRATE INLET.
- ▨ ⑥ DENOTES 6 FT. HIGHWAY GRATE INLET.



APPENDIX IIIm

Standard Sewer Notes

{71}

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PROPOSED ITEMS (AS THEY APPEAR ON THE GSI CONTRACT DRAWINGS)	PROPOSED ITEMS (AS THEY APPEAR ON THE WATER AND SEWER CONTRACT DRAWINGS)	EXISTING ITEMS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
			4FT. GREEN CITY INLET
			4 FT. GREEN HIGHWAY GRATE INLET
			STORMWATER TRENCH
			TREE PIT
I	I	NA	ANTI-SEEP COLLAR
			CLEANOUT
			DOMED RISER
			OVERFLOW STRUCTURE
o	o	o	OBSERVATION WELL
_____	_____	_____	GREEN SOLID PIPE
-----	-----	-----	GREEN PERFORATED PIPE