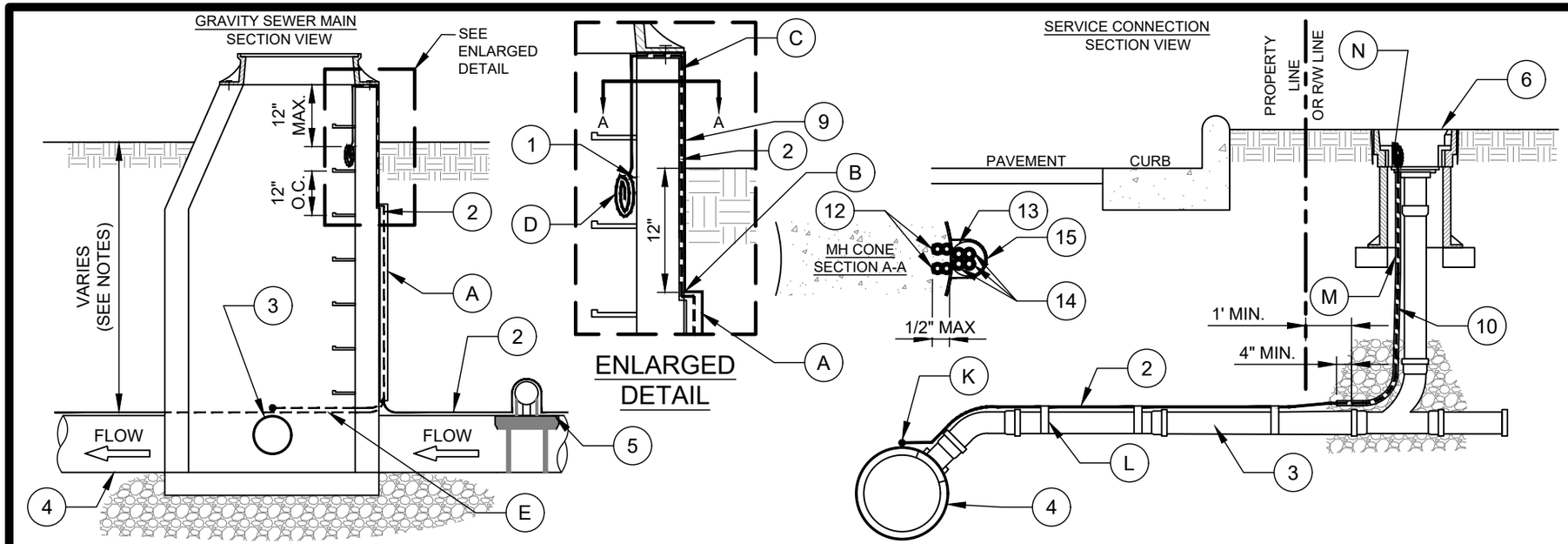


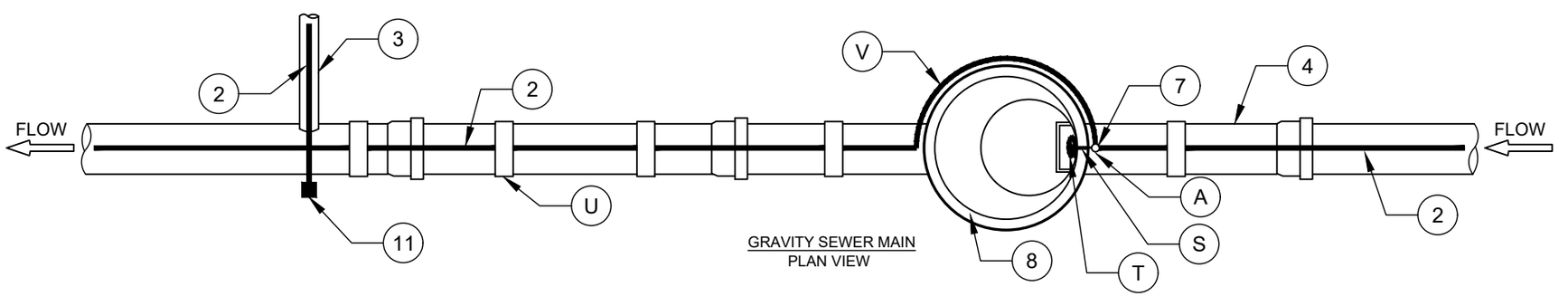
NO.	DESCRIPTION:
1.	NON-CORROSIVE FASTENER FOR TRACER WIRE (TYP.) 12" MAX. FROM TOP OF CONE.
2.	#12 GAUGE SOLID COPPER TRACER WIRES WITH 30 MILS GREEN HDPE INSULATION (TYP.).
3.	SEWER LATERAL.
4.	GRAVITY SEWER MAIN.
5.	SEWER SADDLE TAP.
6.	VALVE BOX ASSEMBLY (SEE CLTW STD. DETAIL).
7.	NO SPLICE.
8.	SEWER MANHOLE.
9.	6" WIDE BUTYL RUBBER JOINT SEALANT.
10.	1/4" OR 3/8" SDR9 PEX TUBING CONDUIT.
11.	ANODE.
12.	NOTCH CUT INTO CONCRETE.
13.	1" PVC CONDUIT.
14.	MULTIPLE TRACER WIRES.
15.	6" WIDE BUTYL RUBBER JOINT WRAP.

NOTES FOR GRAVITY SEWER MAIN (SECTION VIEW):

A. ALL VERTICAL WIRES AT MANHOLES SHALL BE PLACED IN 1 INCH ID PVC ELECTRICAL CONDUIT.
B. EXTEND CONDUIT UP AND TURN INTO NOTCH. TURN IN CONDUIT 12" BELOW GRADE FOR ALL MANHOLES. NEED 12" SO THE CONDUIT IS NOT IN ASPHALT IN ROADWAYS.
C. 1/2" MAX. DEEP NOTCH INTO CONCRETE (SIDE OF MANHOLE). ADD NOTCH IN TOP OF CONE FOR WIRE BETWEEN FRAME AND CONE. COVER NOTCH AND CONDUIT WITH 6" WIDE BUTYL RUBBER JOINT WRAP.
D. COIL AND SECURE WIRE TO FASTENER. LEAVE ENOUGH FREE WIRE TO EXTEND A MIN. OF 24".
E. WRAP EACH TRACER WIRE WIRE AROUND OUTSIDE OF MANHOLE (NO SPLICE).
F. TRACER WIRE SHALL BE AWG #12 GAUGE SOLID COPPER WITH 30 MILS GREEN HDPE INSULATION.
G. FOR GRAVITY MAIN AND OR LATERAL INSTALLATIONS LESS THAN 15', THE TRACING WIRE SHALL BE ATTACHED TO THE PIPE. TRACER WIRE SHALL BE LAID FLAT AND SECURELY AFFIXED TO THE PIPE AT 10' INTERVALS USING ZIP TIES OR DUCT TAPE. FOR GRAVITY MAIN AND OR LATERAL INSTALLATION DEEPER THAN 15', THE TRACING WIRE SHALL BE ATTACHED TO THE PIPE AND PLACED AT A DEPTH OF 4' DIRECTLY ABOVE THE SEWER PIPE. THE WIRE SHALL BE PROTECTED FROM DAMAGE DURING THE EXECUTION OF THE WORK. NO BREAKS OR CUTS IN THE TRACER WIRE OR INSULATION SHALL BE PERMITTED.
H. WHERE LATERAL TAPS ARE MADE BY SERVICE SADDLES, THE TRACER WIRE SHALL NOT BE PLACED BETWEEN THE SADDLE AND MAIN.
I. SPLICES IN THE PRIMARY TRACER WIRE ALONG THE SEWER MAIN SHALL INCLUDE 2' OF SLACK WIRE ON EACH SIDE OF EACH SPLICE.
J. FOR INSTALLING A NEW LATERAL ON AN EXISTING MAIN WITH TRACER WIRE, ONLY SPLICE TO EXISTING WIRE WITH 2' OF SLACK ON NEW LATERAL.

NOTES FOR SERVICE CONNECTION (SECTION VIEW):

K. SPLICE TO PRIMARY MAIN TRACER WIRE FOR SERVICE LATERAL. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. WHERE SPLICES ARE NECESSITATED IN THE WIRE, THE SPLICES SHALL BE SECURELY BONDED TOGETHER WITH AN APPROVED INDUSTRIAL CONNECTOR TO PROVIDE ELECTRICAL CONTINUITY. CONNECTOR SHALL BE COPPER AND INSULATION SHALL BE REPAIRED TO SEAL OUT MOISTURE AND CORROSION AND SHALL BE INSTALLED IN A MANNER SO AS TO PREVENT ANY UNINSULATED WIRE EXPOSURE. (SEE CLTW STD. DETAIL).
L. FASTEN TRACER WIRE TO PIPE WITH ZIP TIES OR DUCT TAPE AROUND THE CIRCUMFERENCE OF PIPE AT 10' INTERVALS. (TYP.)
M. ALL VERTICAL WIRE AT CLEANOUTS SHALL BE PLACED IN 1/4" OR 3/8" ID CONDUIT SDR 9 PEX TUBING - ASTM F876. (TYP.)
N. EXTEND CONDUIT TO JUST ABOVE CLEANOUT PLUG. PROVIDE 24" NEATLY COILED WIRE IN BOX.
O. THE CLEANOUT AT THE RIGHT OF WAY AND OR EASEMENT SHALL SERVE AS THE TEST PORT.
P. SPLICED CONNECTIONS SHALL BE ALLOWED BETWEEN THE PRIMARY MAIN LINE TRACER WIRE AND THE LATERAL TRACER WIRE.
Q. FOR NEW SEWER TAPS ON EXISTING MAINS VOID OF ANY TRACER WIRE, PROVIDE AN ANODE FOR THE TRACING WIRE TERMINATION AT THE POINT OF THE NEW TAP ON THE EXISTING SEWER MAIN. PLACE ANODE AT BOTTOM EDGE OF TRENCH AWAY FROM MAIN & LATERAL.
R. PRIOR TO ACCEPTANCE (POST PUNCH LIST) EACH WIRE SEGMENT SHALL PASS A CONDUCTIVITY TEST, WITNESSED BY THE ENGINEER OR ENGINEER'S REPRESENTATIVE.



NOTES FOR GRAVITY SEWER MAIN (PLAN VIEW):

S. NOTCH ON TOP OF CONE (BETWEEN CONE AND FRAME) FOR TRACER WIRE.
T. MULTIPLE COILED AND SECURED WIRES.
U. FASTEN TRACER WIRE TO PIPE WITH ZIP TIES OR DUCT TAPE AROUND THE CIRCUMFERENCE OF PIPE OR AT 10' INTERVALS (TYP.).
V. WRAP TRACER WIRE AROUND OUTSIDE OF MANHOLE.

CHARLOTTE WATER
A CITY OF CHARLOTTE DEPARTMENT
STANDARD DETAILS
GRAVITY SEWER

TRACER WIRE - GRAVITY SEWER

NO SCALE
VERSION 1.0
DATE 04/2024
DETAIL 11.5.2