

*Metropolitan Atlanta Municipalities:
Manhole Inspection*

Project:	Manhole Inspection
Clients:	DeKalb County, City of East Point, City of Atlanta, City of College Park
Location:	Throughout Metropolitan Atlanta
Completion:	Ongoing

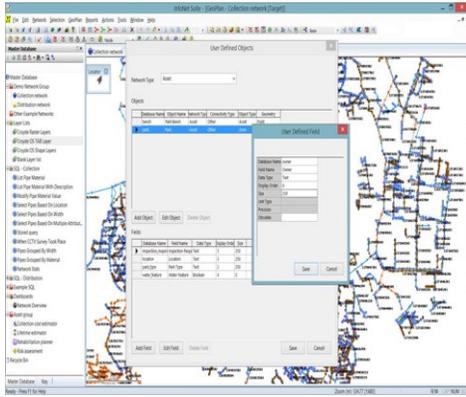


In performing the manhole condition assessments, MME field inspection personnel are trained and certified to account for the following:

- (a) General:
 - i. Manhole identification as provided by East Point City maps
 - ii. Address
 - iii. Location (pavement or easement)
 - iv. Size and condition of cover
 - v. Condition of ring and frame,
 - vi. Material
 - vii. Size of manhole
 - viii. Inlet and outlet pipe sizes.
- (b) Structural
 - i. Condition of steps, cone, riser, bench and channel.
- (c) Hydraulic
 - i. Inflow indicators
 - ii. Evidence of surcharging
 - iii. Clarity of flow
 - iv. Flow comparisons with adjacent manholes
 - v. Depth of flow
 - vi. Evidence of vermin
 - vii. Drop manhole (inlet/outlet).



To facilitate uniformity in the preparation of manhole condition assessment reports, MME utilizes either client mandated or other industry standardized inspection forms similar to the form attached.



The information obtained from the completed manhole condition assessment forms prepared in the field are reviewed for consistency and any missing or ambiguous information is revisited and updated based on field clarification. The data from completed and reviewed forms can be used to populate manhole modules within software either mandated by the client or other industry standard software such as InfoNet software. It should be noted that InfoNet is a widely used industry software for evaluating sewer system assets and is presently used by large metro Atlanta utilities.

The InfoNet software has the capability to process the severity of the defects and generate a ranking for each manhole asset, based on structural integrity. In addition, an estimate of I&I potential can also be computed for the manholes using InfoNet in conjunction with a database of Inflow & Infiltration (I&I) values developed from I&I estimates.

A professional engineering review of manhole inspection forms and the use of industry standard software in conjunction with the database of I&I values are tools used for analyzing the condition of manhole inspection data.

Date: _____

MANHOLE CONDITION ASSESSMENT

Page 1 of 2

1 - GENERAL INFORMATION

District: _____	Basin: _____	Sewer Shed: _____
Point ID: _____	DS Point ID: _____	Map No.: _____
Type: AG- AnglePoint, CSS- CombStorm&Sanitary, CO LH-LampHole, T- Tee, END of Line, MH, STB- Stub, SMT- Summit, DO DischargeOpen		SURFACE COVER TYPE: A - MainRoadUrban, B- MainRoadRural, C- LightRoad, D- FootPath/RoadShoulder, E- Field, F- Garden, G- Woodland, X- DifficultAccess
Address: _____ Location Comment: _____		SURFACE COVER MATERIAL: A- Asphalt, BML- BldgMoveable, BU- BldgUnmove, C- Concrete, CKC- CreekCross, D- Dirt, EBH- Elev'dBridgeHang, EP- Elev'dPier, F- Fence, G- grass, PA- PipeAboveGround, R- Gravel, S- Sod, TS- Trees/Shrubs, U- Utility, W- Water, Z- other

2 - CHARACTERISTICS

ITEM	TYPE/SHAPE	MAT/ LINER	DEPTH TO BOTTOM	SIZE	MISCELLANEOUS
Cover:		CI-Cast Iron CO-Concrete PL-Plastic	NA		+ / - Grade: _____ inches Inflow Dish: Yes No
Frame:	NA	CI-Cast Iron CO-Concrete PL-Plastic			Number of Landings: _____ Number of Steps: _____
Rings:					Comments: _____
Cone:	O- Concentric E- Eccentric			NA	
Wall:					
Bench:	NA			NA	
Channel:	NA				
Base:			NA	NA	
Steps:	NA	CI-Cast Iron RB-Rebar CO-Concrete	NA	NA	

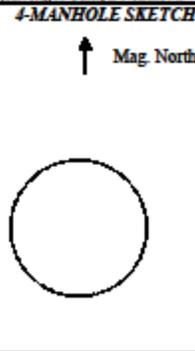
Circle Appropriate
 Answer where codes
 Are embedded in form

MH Cover Types: B-Bolted, C-Concrete, E-Concealed Pickholes, Open Pickhole, Type A Lift Hole L-Lockdown, S-Solid, V022-Vented 2 EA.0.5" V023-Vented 2 EA.0.75" V024-Vented 2 EA/1.0" V042, V043, V044, V122, V123, V124, V242, V243, V244 Shapes Rings, Cone, Wall Shape Codes: N-None, C-Circular, R-Rectangle, S-Square	MH Material Codes: BRK-Brick, CLBK-Clay Block, CON- Cast-In-Place Conc. COBK-ConcreteBlock, STON-Cobblestone, FG-Fiberglass, MBK-ManholeBlock, PE-Polyethylene, PRC-PrecastConcrete, ROC-Rock, VCP-VitrifiedClay	MH & Pipe Liner Codes: BL-Bitumin, CPP-CureInPlace, CL-Cement, IS-SoftInversion, PI-Plastic, RL-ResinLiner, XXX-Other, ZZZ-NotKnown	Pipe Shape Codes: A-Arched, B-Barrel (Beer Barrel) C-Circular, E-Egg Shape H-Horseshoe, O-Oval, R-Rectangular, S-Square, T-Trapezoidal, U-U Shape w/Flat Top X-Other (Comments)	Pipe Material Codes: AK-Alkathene, AC-Asbestos Cement, BR-Brick, CI-Cast iron, SI-SpunGreyIron, CMP-CorMetalPipe, CSB-ConcSegBolt, CSU-ConcSegNoBolt, CO-Concrete, CC-BoxCulvert, DI-DuctileIron, GDC-GlassReinConc, GRP-Fiberglass, PSC-Plastic/SteelComp, PE-Polyethylene, PLP-PVCFold&Form, PVC, RCP-ReinConc, RPM-ReinPlastic, Matrix, ST-Steel, VC-ClayPipe, PP-PolyPropylene, WOD-Wood, PF-Pitchfibre, MA-Masonry, XXX-Other, ZZZ-NotKnown	Notes: 1. 'Depth to Bottom' and 'Entry Depth' are measured in feet to the nearest hundredth of a foot. Measure from center of cover to the bottom/invert of the object being measured. 2. 'Size' is measured in feet to the nearest hundredth of a foot.
---	--	--	---	--	--

Step Codes: CI-Cast Iron, CO-Concrete, PL-Plastic, BRK-Brick, RB-Rebar
 Note: If Pipe SHAPE is not round, give Height x Width Pipe Type Codes: C-Combined, F-Foul, S-SurfWater, T-Trade Effluent, W-Watercourse (culvert), X-Other, Z-NotKnown

3 - PIPE DATA

NO.	IN/ OUT	SIZE	SHAPE	MAT'L	ENTRY DEPTH	ENTRY CLOCK	LINER	COMMENTS (Also indicate whether CCTV should be performed on pipe for locating connecting manhole)
1	OUT							
2								
3								
4								
5								
6								
7								
8								



Manhole Condition Assessment

PointGISID _____

4 - MANHOLE SKETCH

