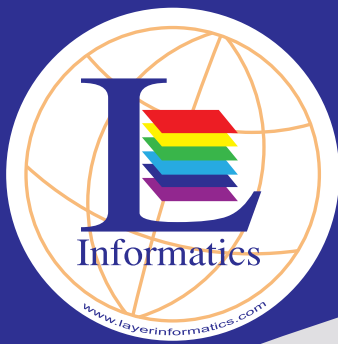




WATER / SEWER NETWORK MAPPING

A Case Study



CHALLENGES:

- Drainage pipeline networks play an important role for urban environment and safety. Understanding the concepts & developing customized tool was the challenge with this project. Planning, Management, maintenance and emergency-response of drainage pipeline network require a series of professional analysis tools, which are closely related to the spatial modality and spatial distribution.

INTRODUCTION:

Design of water / sewer distribution network is one of the most important infrastructure actions. Provision of effective water and sewerage services underpins environmental, economic and public health outcomes. The industry participants have a clear understanding of the processes and key parameters to be applied in undertaking long term planning of sustainable water and sewerage networks. The objective of this guideline is to provide a framework for undertaking water services planning in a manner which is consistent across the region, accommodates current and future demands and delivers sustainable outcomes.

KEY ASPECTS:

- Scrubbing of water, sewer and reclaimed water feature.
- Highlight features and attributes to be captured from each plan using a color-coded system to distinguish between systems (i.e., water, sewer and reclaim).
- Transfer all attribute information from various sources to the primary source map drawing
- Geo-referencing of water, sewer and reclaimed water plans with reference to color aerial images.
- Capture water, sewer and reclaim network with their accessories such as lateral lines, manholes and valves etc.
- Link the attributes from the primary drawing source.

METHODOLOGY:

➤ Geo-Referencing

- Find the appropriate Locate of the water, reclaimed and sewer maps on the color aerial image and insert them in the nearby location.
- Common reference point will be identified on water, reclaimed and sewer maps and color aerial images.
- Minimum 6 to 8 points are selected, which are well distributed throughout the map for geo-referencing for better result. No warping shall be done of the as-built tiff images.

➤ Digitization & Attributions

- Water, Reclaimed & Sewer network will be digitized with reference to geo-referenced water/sewer maps as per the International CAD standards and Client's specification.
- Attribution will be carries as per the data structure / tables provided by Client.

➤ Quality Control

- Quality checks will be carried as per the QC check list and Acceptance criteria provided by Client.

Head Office:

Layer Informatics Pvt.Ltd.
#48/49, Sathyams, 3rd
Floor, 9th Cross, Sarakki
Main Road, J.P Nagar, 1st
Phase, Bangalore-560078.



WATER / SEWER NETWORK MAPPING

Page 2

TESTIMONIALS:

I was very happy with your work. Your performance was very efficient and you hit deadlines, right on target.

▶ Edge-matching

- Edge matching is performed by pulling up the adjoining section and establishes the common boundary.
- Water/Sewer mains will be aligned properly with respect to common boundary.
- Nodes on each and every boundary should be the same. There should not be any mismatch so that when you attach both the section a common boundary will exist.

▶ Quality Assurance

- A random sample data will be considered for this round of Quality Assurance and the dataset will be checked as per the Acceptance criteria. If errors found entire data will be rejected and sent for thorough quality checking again.

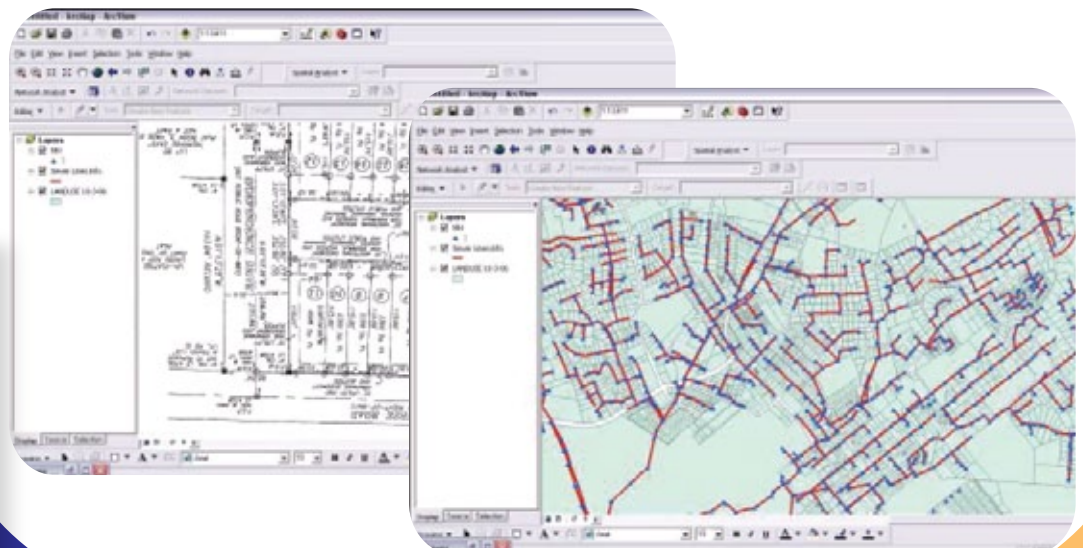
TECHNOLOGY:

- ▶ AutoCAD Map 2004
- ▶ AutoCAD In-house customized tools.
- ▶ ArcGIS 9.2

APPLICATION:

- ▶ The program will be in use for storm water pipe systems planning. It also helps designer perform municipal drainage pipe network planning more efficiently and take less time on pipe planning.

SCREEN SHOTS:



UK Office:

Edinburgh EH2 4AT,
Scotland, UK.

US Office:

Scranton, PA 18505

Middle East Office:

Doha, Qatar.

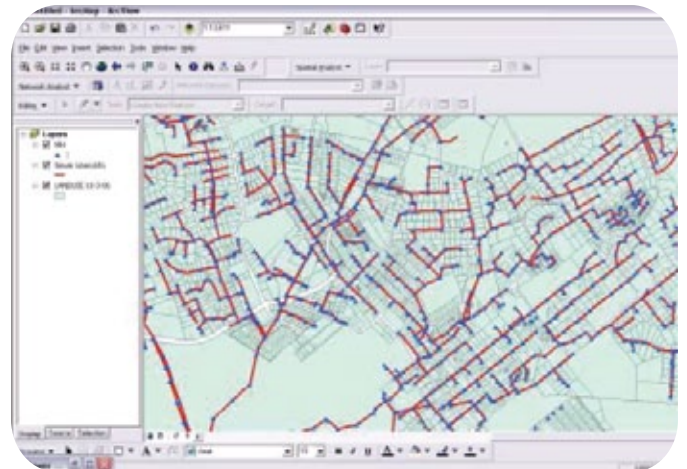
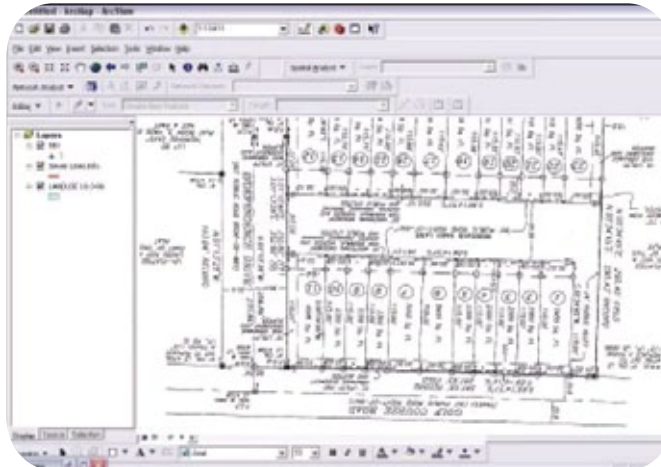


Layer Informatics Pvt. Ltd.
Vision Through Mapping



WATER / SEWER NETWORK MAPPING

Page 2



UK Office:

Edinburgh EH2 4AT,
Scotland, UK.

US Office:

Scranton, PA 18505

Middle East Office:

Doha, Qatar.



Layer Informatics Pvt. Ltd.
Vision Through Mapping