Best Practice: Integrated Lighting Pole

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CITY: TEL AVIV-YAFO **POLICY AREAS: TRANSPORTATION; CITY PLANNING**

BEST PRACTICE

The Integrated Lighting Pole is a structure that integrates the functions of the traffic light and the street light, in addition to other elements. The pole can include: (1) up to four lighting bodies—traffic lights, a vehicle pedestrian light, a flashing light, and buzzers; (2) street signs and advertising panels; (3) banners and flag docking stations; (4) trash bins; and (5) Closed Circuit TV (CCTV). Each Integrated Lighting Pole replaces at least four independent structures thus clearing sidewalk clutter and making room for pedestrians, bike paths and sidewalk cafés.

ISSUE

Before the introduction of the Integrated Lighting Pole several kinds of poles were needed to accomplish the necessary and everyday tasks of traffic control and general street functions. This generated visual clutter and took up space on the crowded, urban streets. During a broader project of street renovation a decision was made to clear up as much space as possible for pedestrians, bike paths and sidewalk cafés. The sidewalk was also widened and the road narrowed in order to promote sustainable transportation and create a pleasant urban public space.

GOALS AND OBJECTIVES

The integrated pole achieves several objectives:
1. Reduces visual and noise pollution.
2. Creates more public space for sustainable transportation and cafés.
3. Creates a uniform and clean look for the renovated modern street.
4. Adaptable to future elements.

IMPLEMENTATION

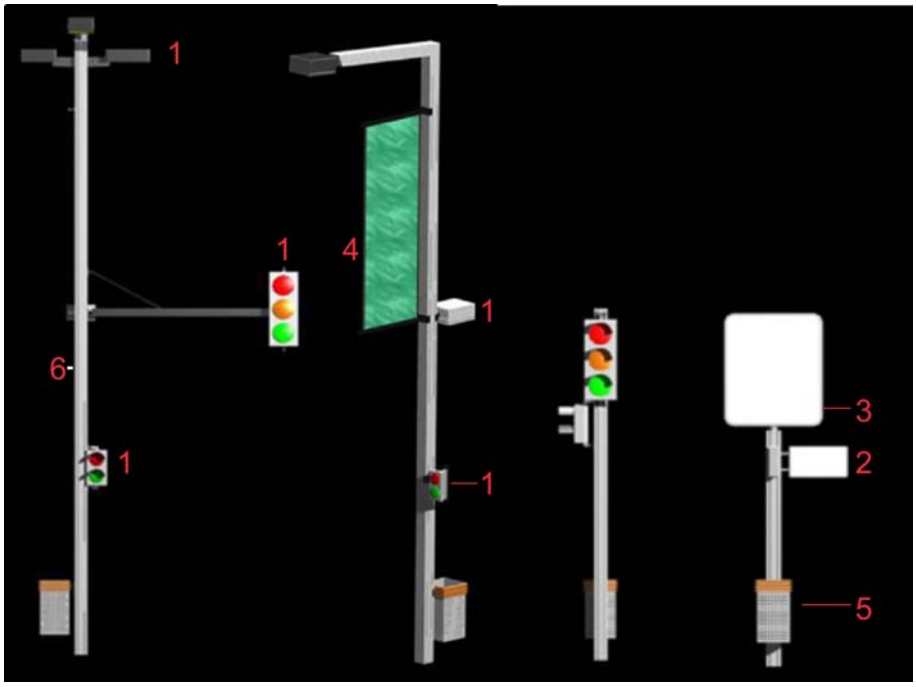
Pictured left is an image of the Integrated Lighting Pole Design, which was developed and designed by Sharon Danzig, Industrial Design Studio, for the Integrated Projects Department in the Infrastructure Wing of the Tel Aviv-Yafo Municipality.

A special effort was made to combine the traffic light pole with the street light pole. Two designs were prototyped and this version was chosen for its functionality and aesthetic appeal.

The structure was first installed on Ibn Gvirol Street (pictured right). In January 2007, a pilot installation along the main street was launched, together with a complete renovation and renewal of the street.

One of the results of the pilot project was to replace **all** the existing poles on all main streets in Tel Aviv – Yafo. The project was very well received and enough clutter was cleared to make room for cafés, bike paths or pedestrians.

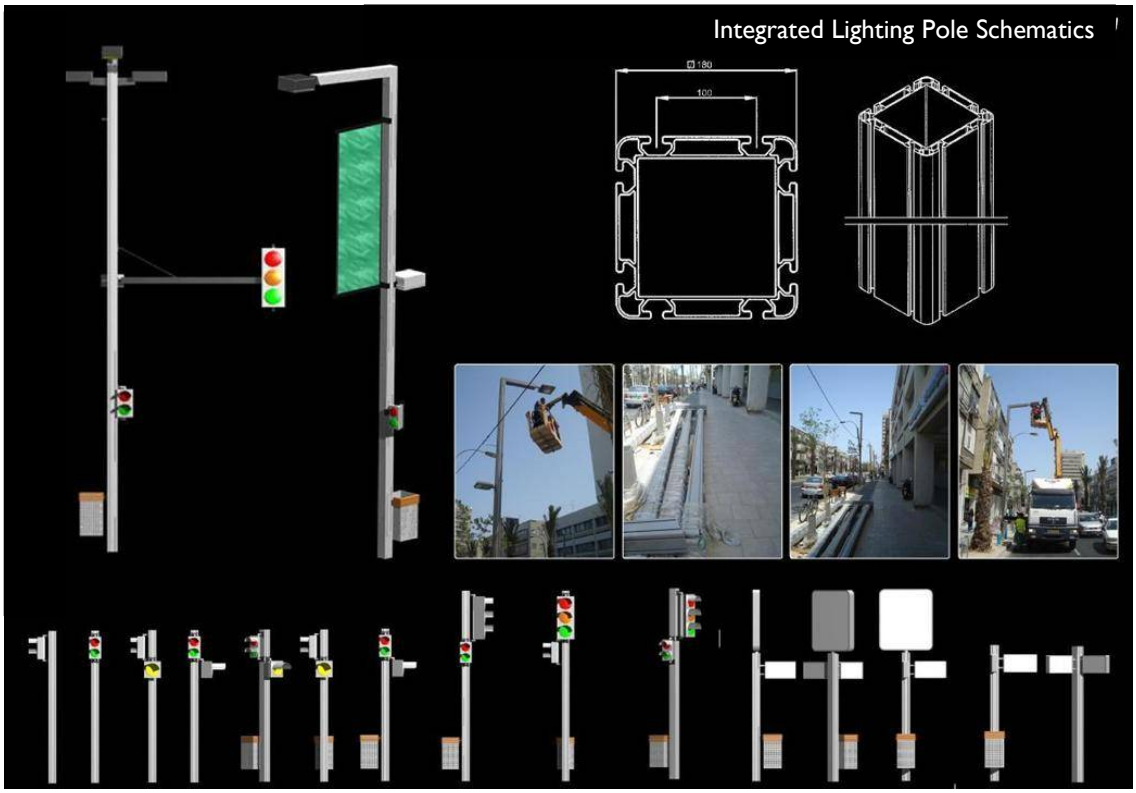
Best Practice: Integrated Lighting Pole



Possible mounted elements:

1. Carries up to 4 lighting bodies: Traffic lights, vehicle pedestrian light, flashing light (orange flashing light to encourage drivers to drive safely), buzzers (for hearing impaired)
2. Street signs
3. Advertising panels
4. Banners and Flag docking stations
5. Trash bins
6. CCTV

Design of basic lighting pole.



Pictures of installation.

Possible variations of the lighting poles with different mounted elements.

Best Practice: Integrated Lighting Pole

COST

A 9 meter pole which includes two light features, a trash can and flag docking station costs approximately $10,000 USD. Each additional lighting feature costs approximately $1,400 USD, and each additional arm costs approximately $550 USD. These prices include delivery and installation.

RESULTS AND EVALUATION

The Integrated Lighting Pole has been successful in accomplishing its objectives. Its design enables the pole to serve multiple functions, removing excess poles and objects from the streets while still maintaining traffic and street functions. Additionally, its minimalist design creates uniformed looking streets.

The pole structure was recognized by Israel's Ministry of Trade, Industry and Labor in 2009 for its innovative industrial design, winning the first place award in the Furniture and Lighting category.

The Integrated Lighting Pole reduced a total of 100 elements per kilometer, clearing 1 meter of space for every element removed. The sidewalk where the Integrated Lighting Poles were installed is now less prone to vandalism, is cleaner and wider, allowing a bike path to be added. The Mayor of Tel Aviv – Yafo plans to have all poles and other street elements on main streets replaced within the next few years.

TIMELINE

August 2005 – Municipality declared a need for reducing clutter on the city's sidewalks.
November 2005 – Developed broader street renovation program (what it would look like, what it would contain)
December 2005 – Request for Information sent to manufacturers
January 2006 – Created prototypes of two suggested designs
June to September 2006 – Municipality selected pole and designed specified standards
October 2006 – Ordered poles and mounted elements
January 2007 till October 2010 – Installed the Integrated Lighting Poles

2009 – The Integrated Lighting Pole "Ibn Gvirol Street Pole" awarded Design Prize by Ministry of Trade, Industry and Labor

LEGISLATION

No legislation necessary.

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LESSONS LEARNED

Several lessons were learned in the implementation of the Integrated Lighting Pole project: (1) consider pole adaptations for both current and potential future needs; (2) be sure to specify a need and ask manufacturers to come up with ideas to meet it; (3) competition encourages creative designs; (4) have more than one manufacturer for better prices and backup – there is only one manufacturer of Integrated Lighting Poles for Tel Aviv – Yafo Municipality.

The Integrated Lighting Pole is twice as costly as a regular one, thus it is worthwhile installing where it replaces at least four existing elements.

TRANSFERABILITY

The Integrated Lighting Pole structure is transferable to any larger city that wishes to maximize the functionality and efficiency of its light and street poles. In addition, the practical design gives a modern and uniformed appearance to city streets.

CONTACTS

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Facts and figures in this report were provided by the highlighted city agency to New York City Global Partners.