

SR 99 AURORA AVENUE BRIDGE FENCE

Design Committee

Work Book

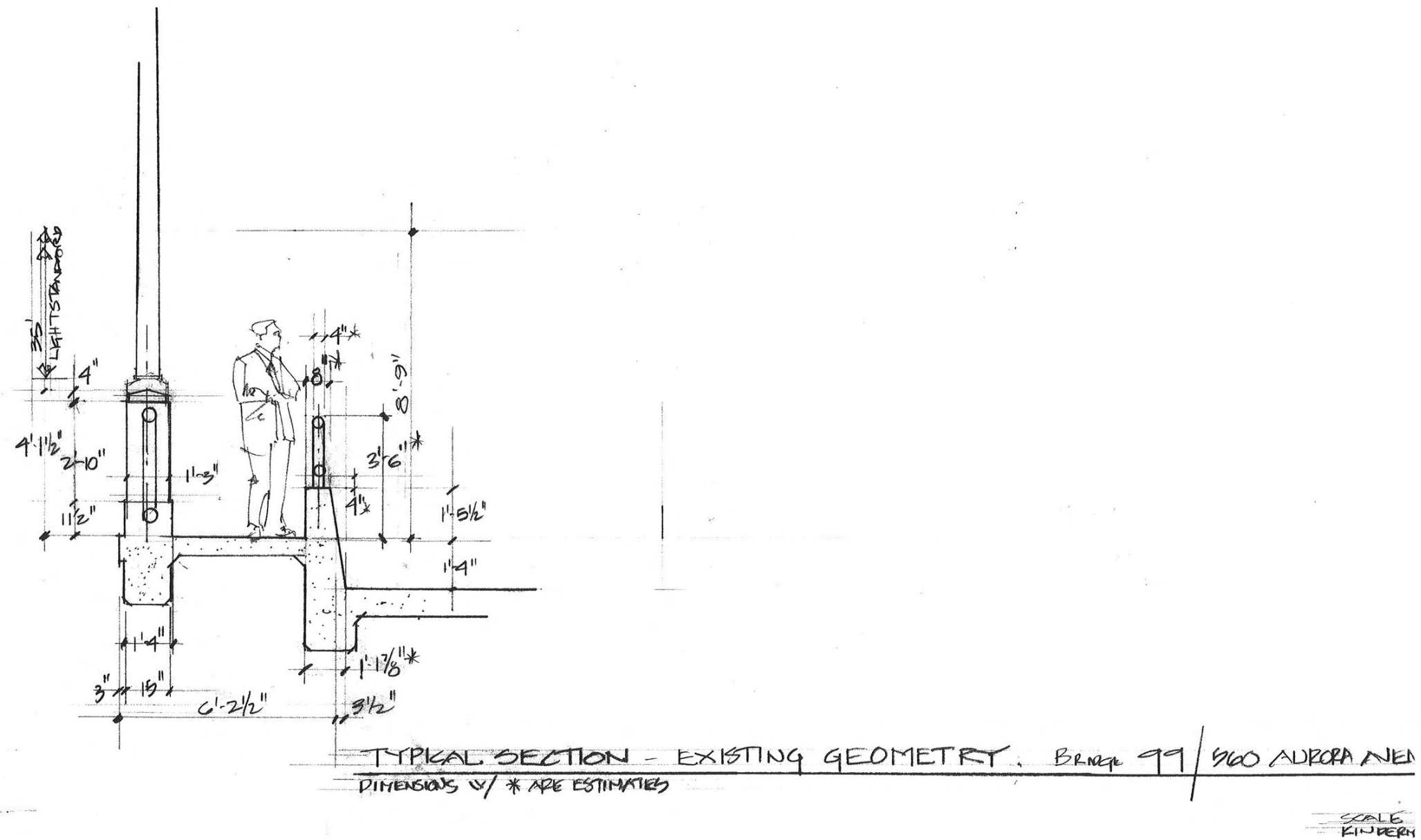


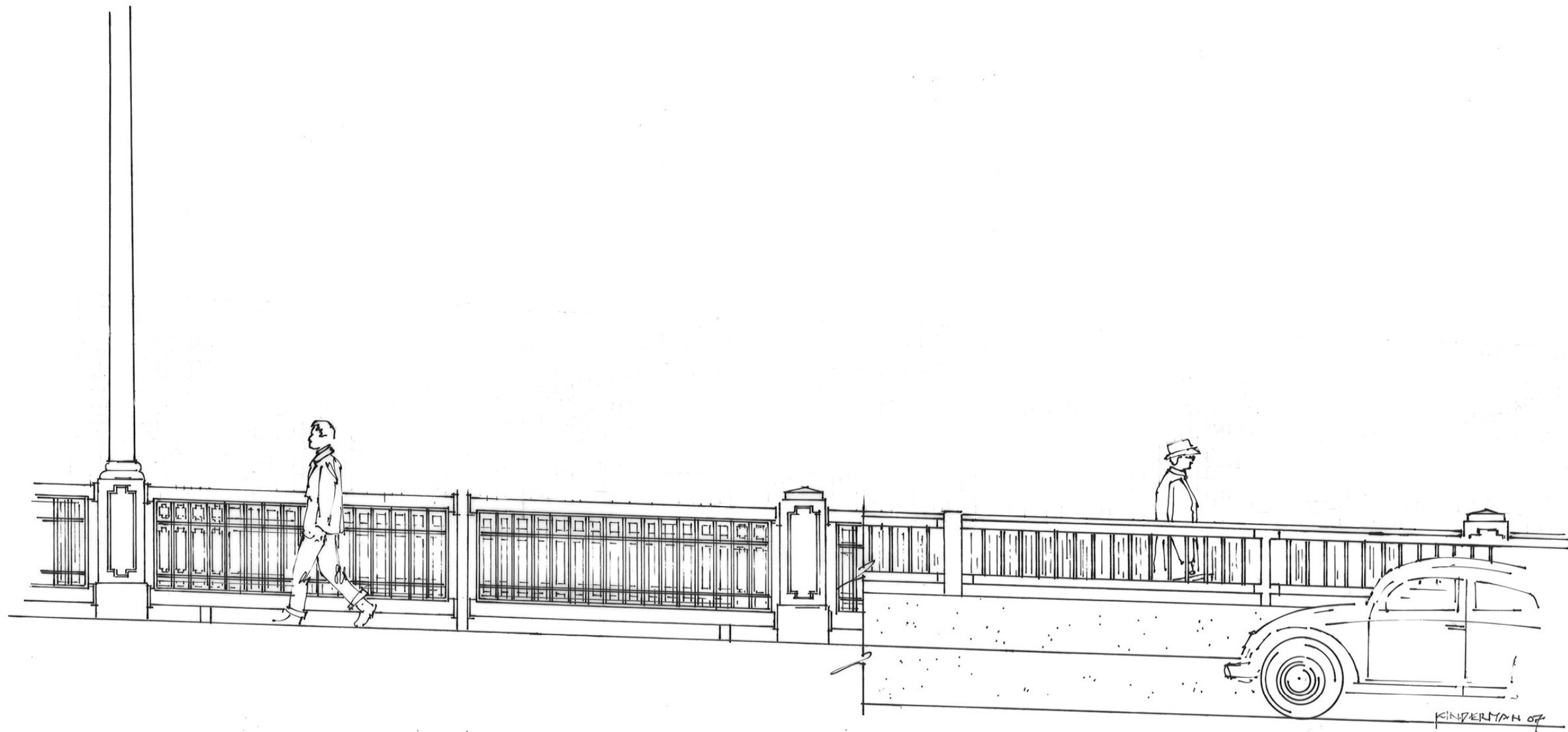
DRAFT
7 2008

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Existing Geometry

- Typical Section of sidewalk
- Elevation View from the Roadway



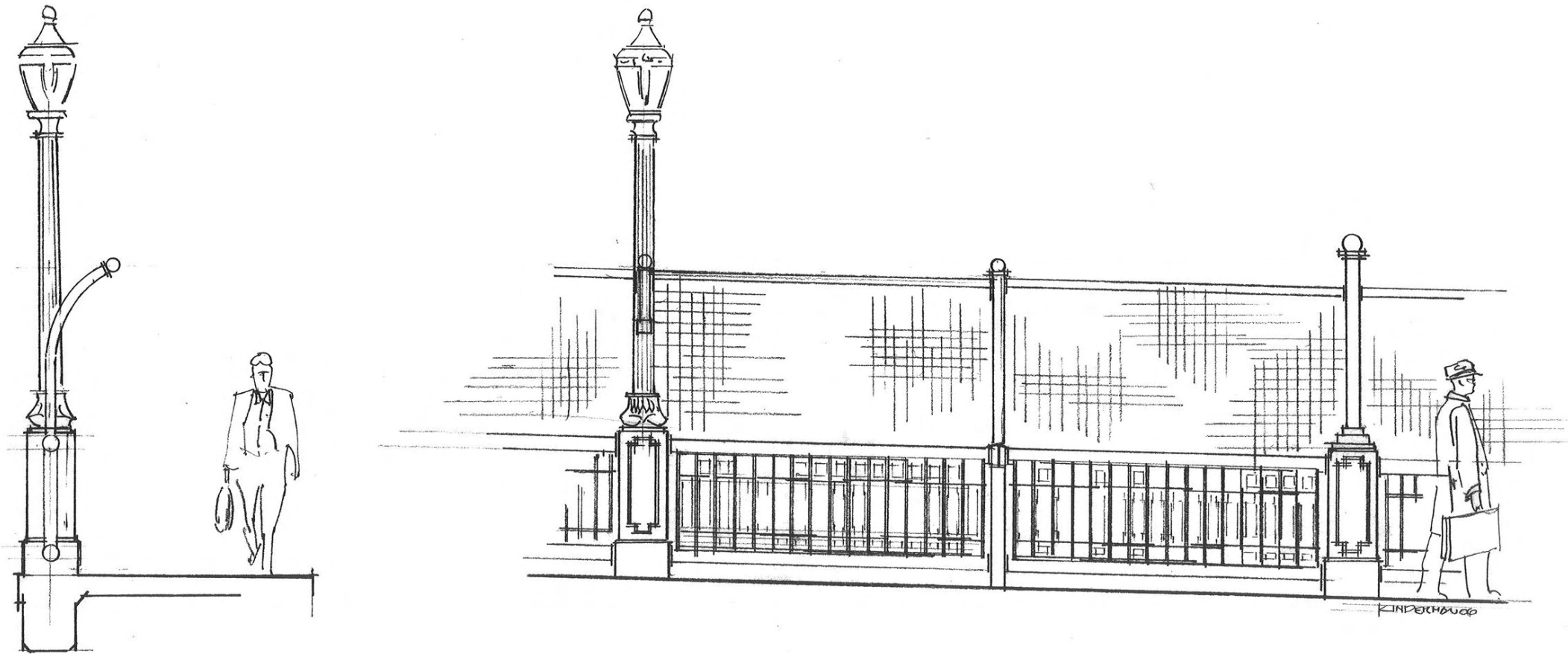


Existing Elevation

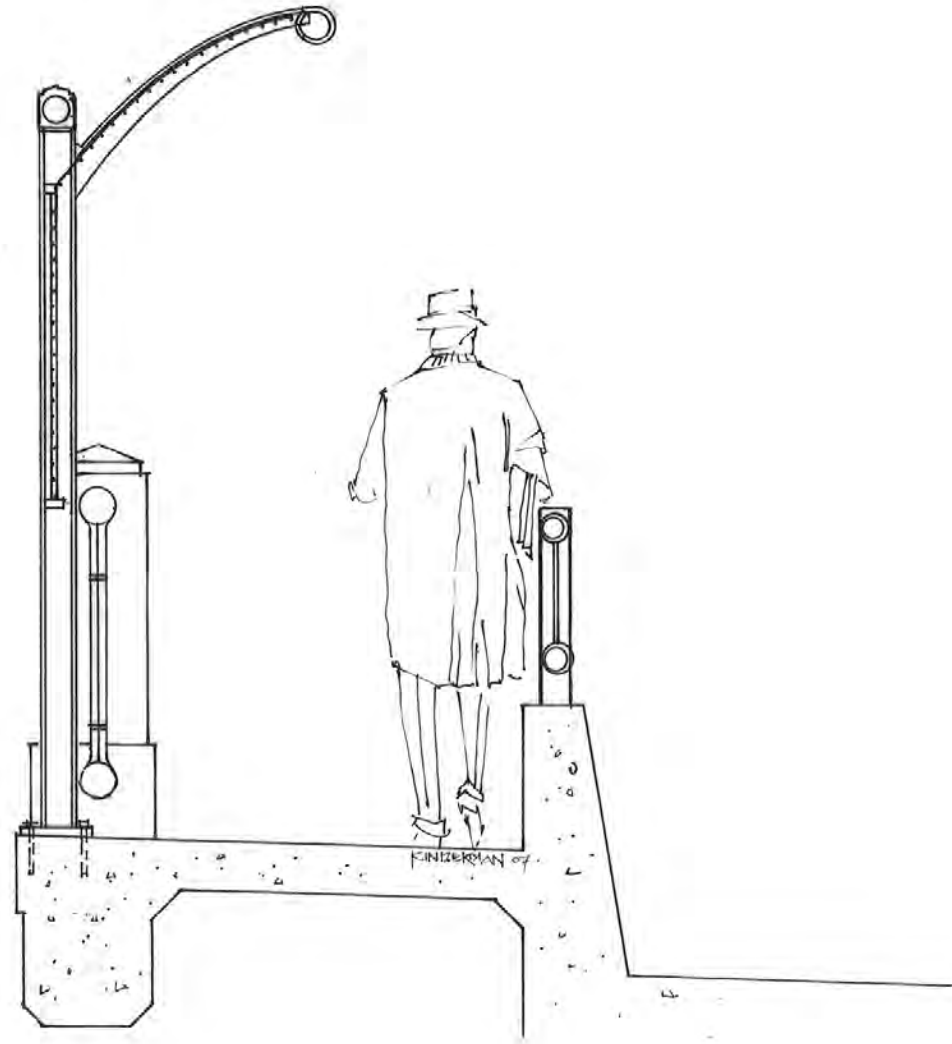
Preliminary Design Concepts

Provided during the early project funding phases

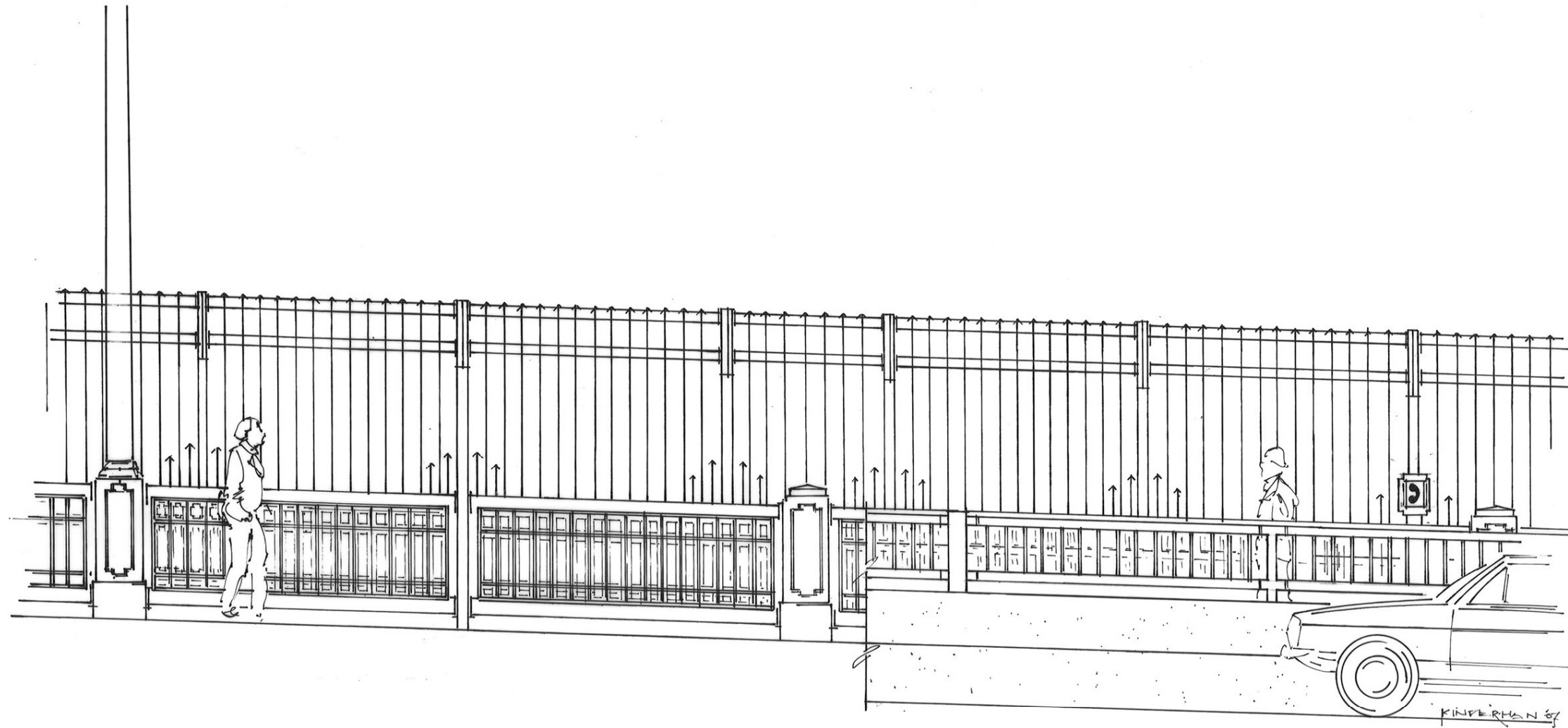
- Design for the Secretary of Transportation
- Design for the Washington State Legislature



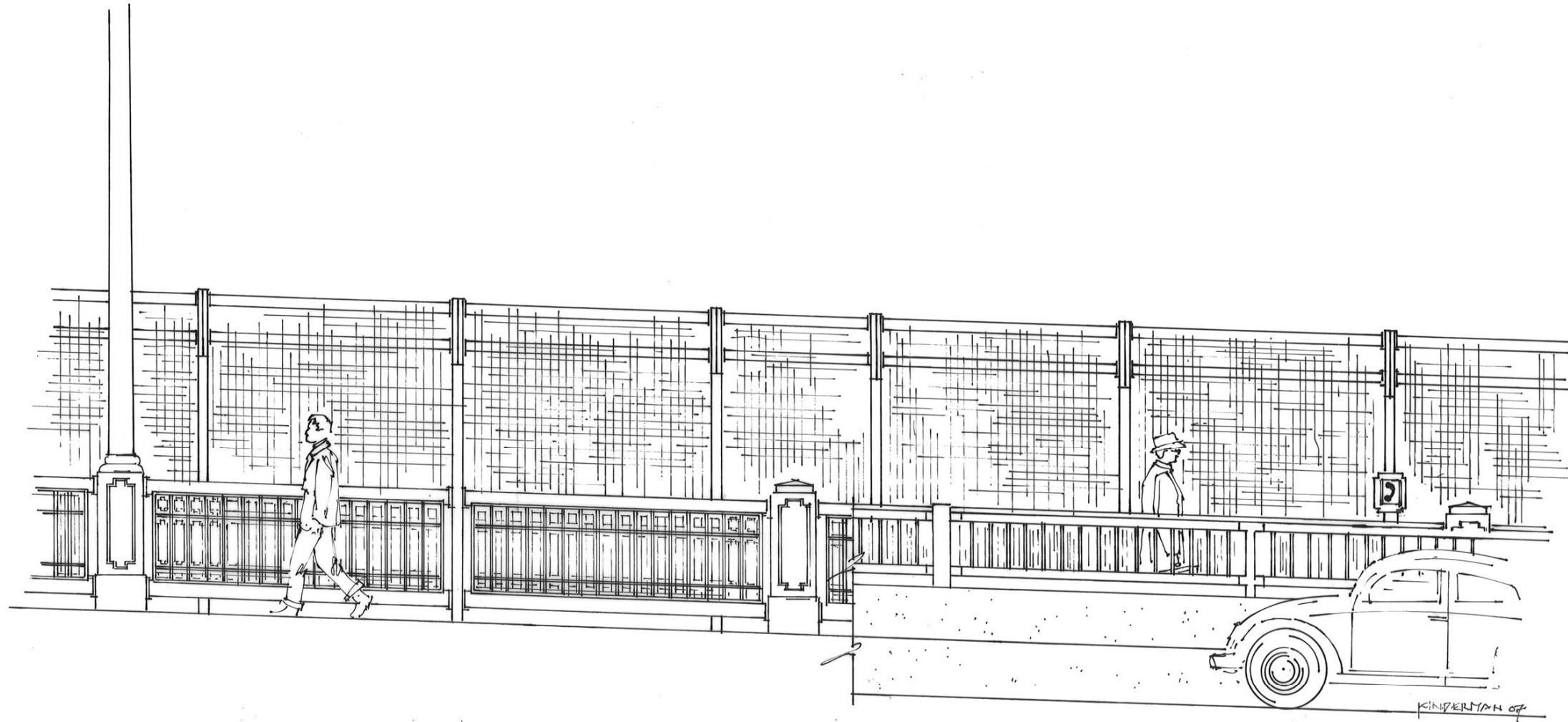
Design for the Secretary of Transportation



Design for the State Legislature



Design with Bars for the State Legislature

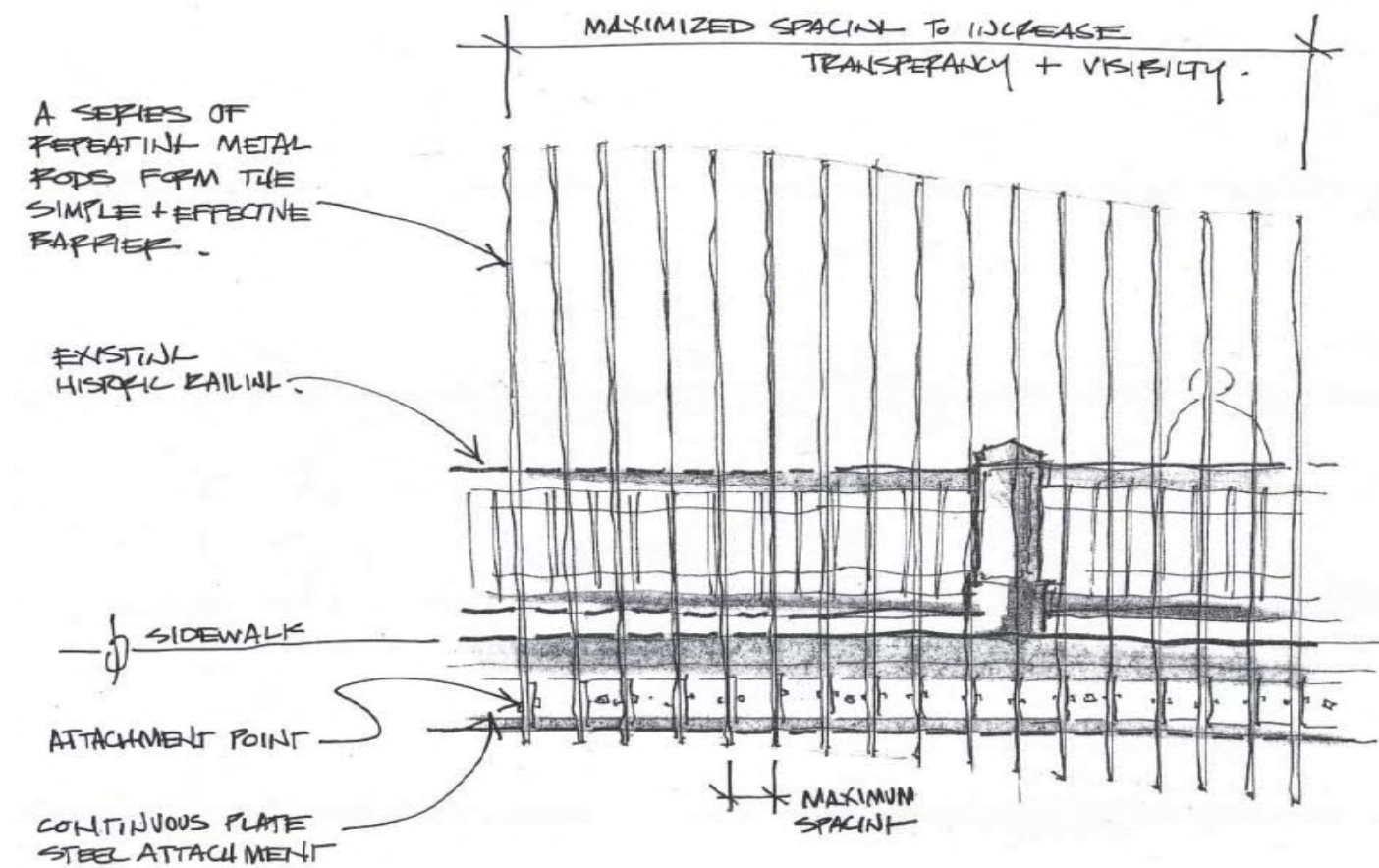
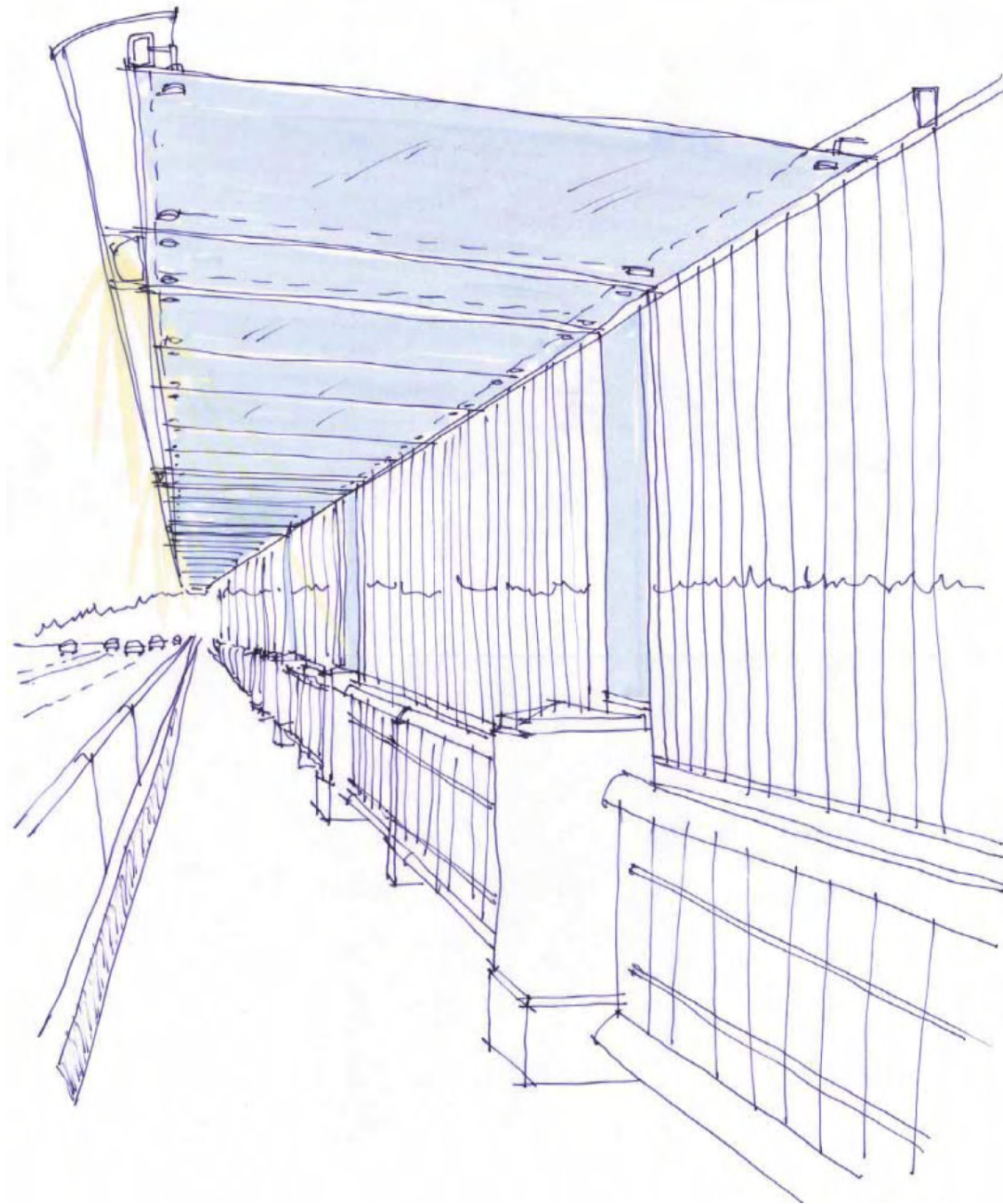


Design with screen for the State Legislature

Design Concepts

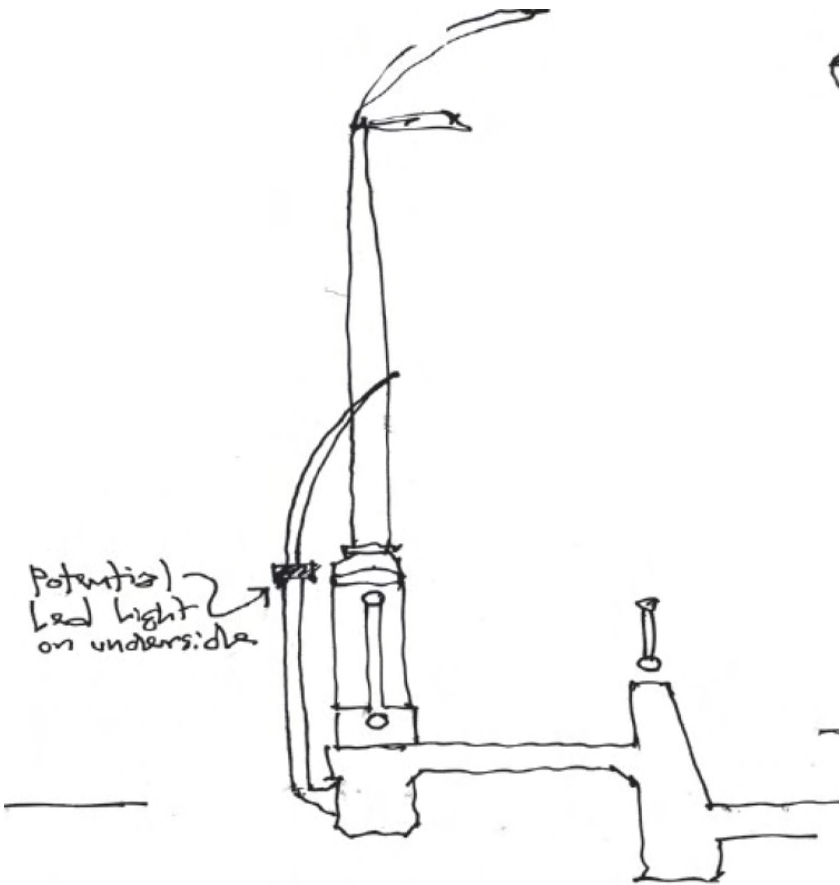
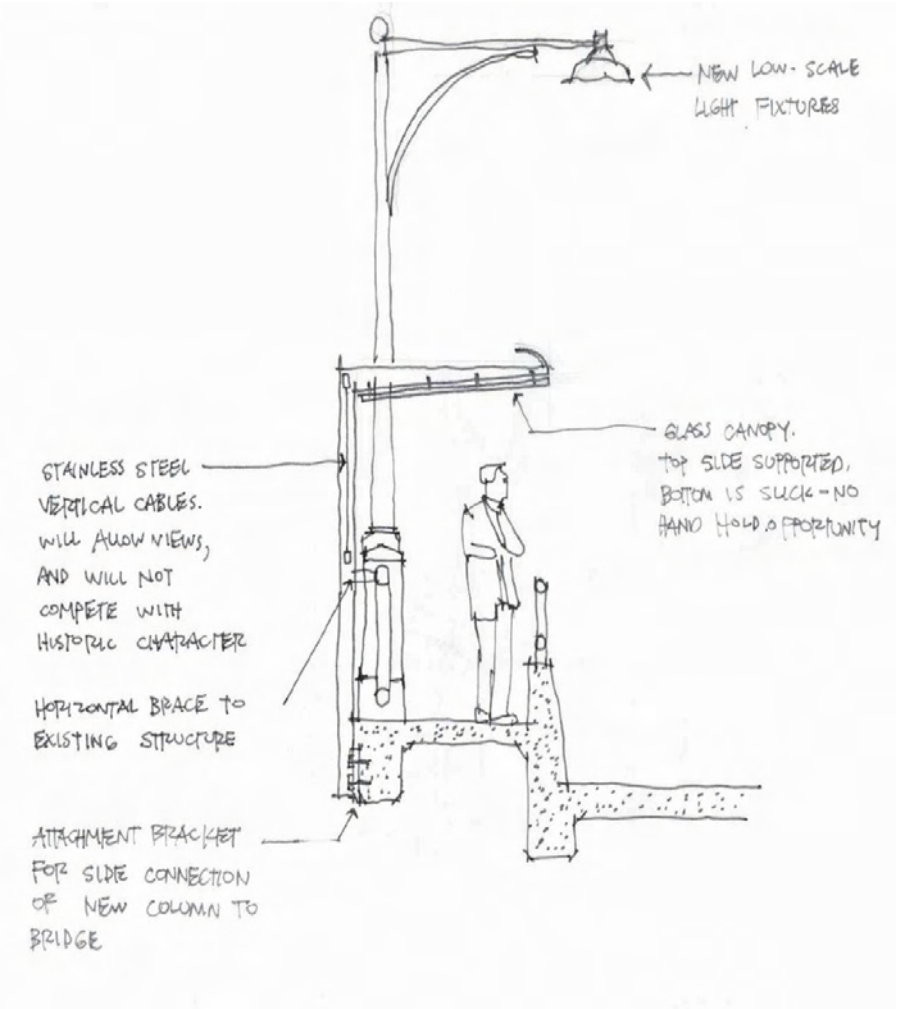
- Designs concepts from the *Community Conceptual Design Report 2007* to be integrated into the final design

Vertical Elements

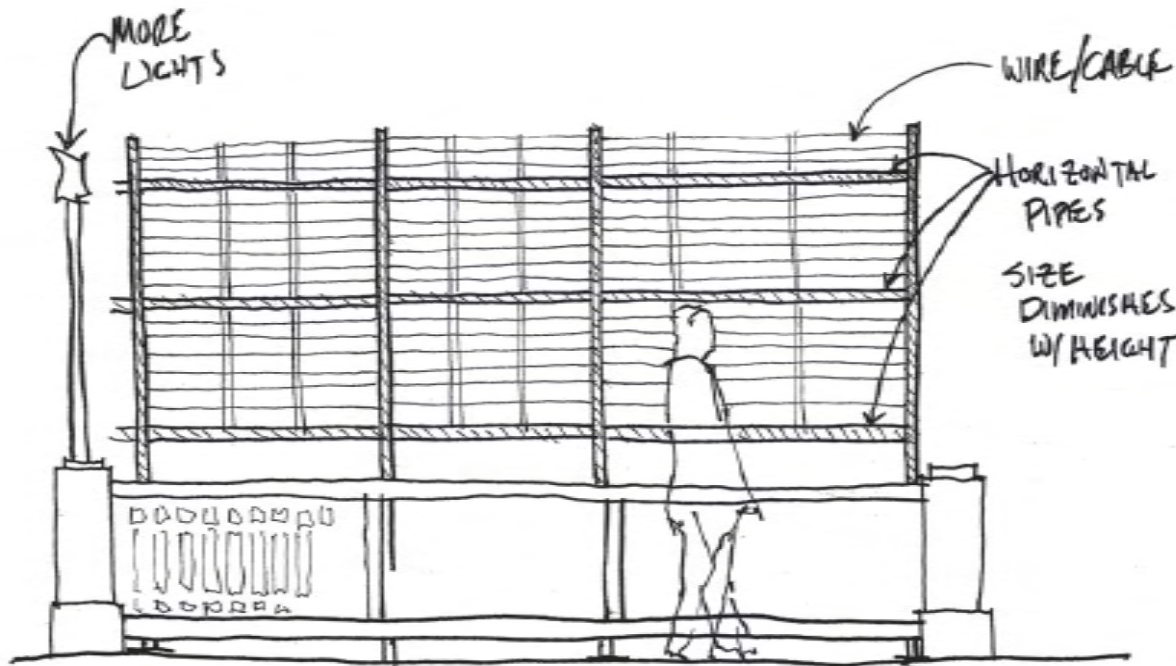




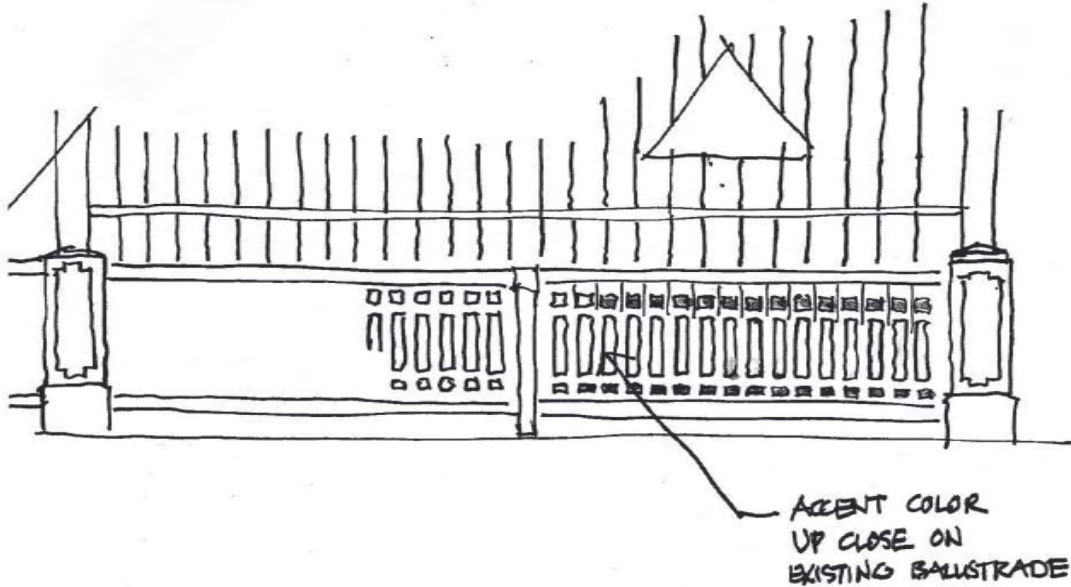
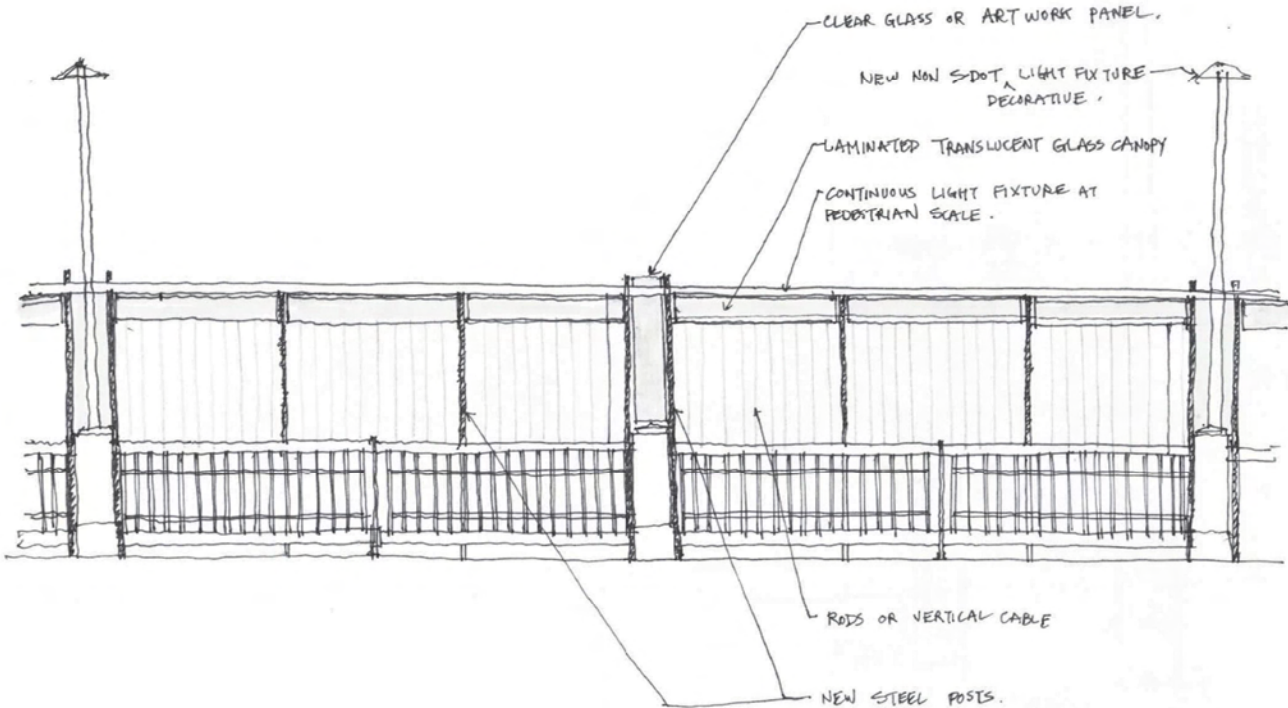
Pedestrian Lighting



Historic Character



Pedestrian Scale



Urban Design Standards

- City of Seattle Pedestrian Lighting Standards



Z11



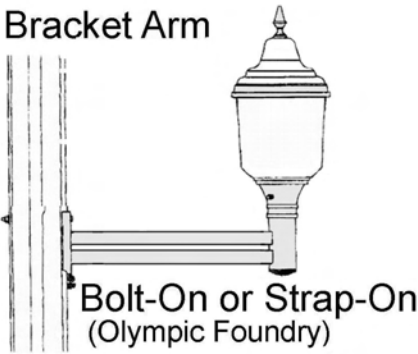
Z15



Z40



Z47A



Colors



BKTX, Textured Black



GYTX, Textured Grey

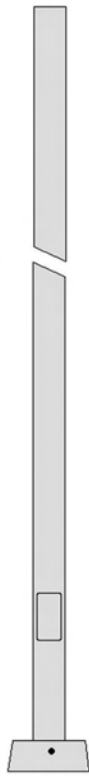


GN8TX, Textured Dark Green

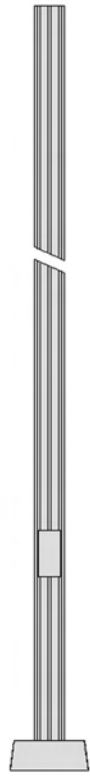


BRTX, Textured Bronze

Poles
and
Bases



APR4



P134A



B104

Preapproved Manufacturer - Lumec

City of Seattle Pedestrian Lighting Design Standards

- City of Seattle Right of Way Manual figure 4-21

Anthropometric Data

- Human Dimensions

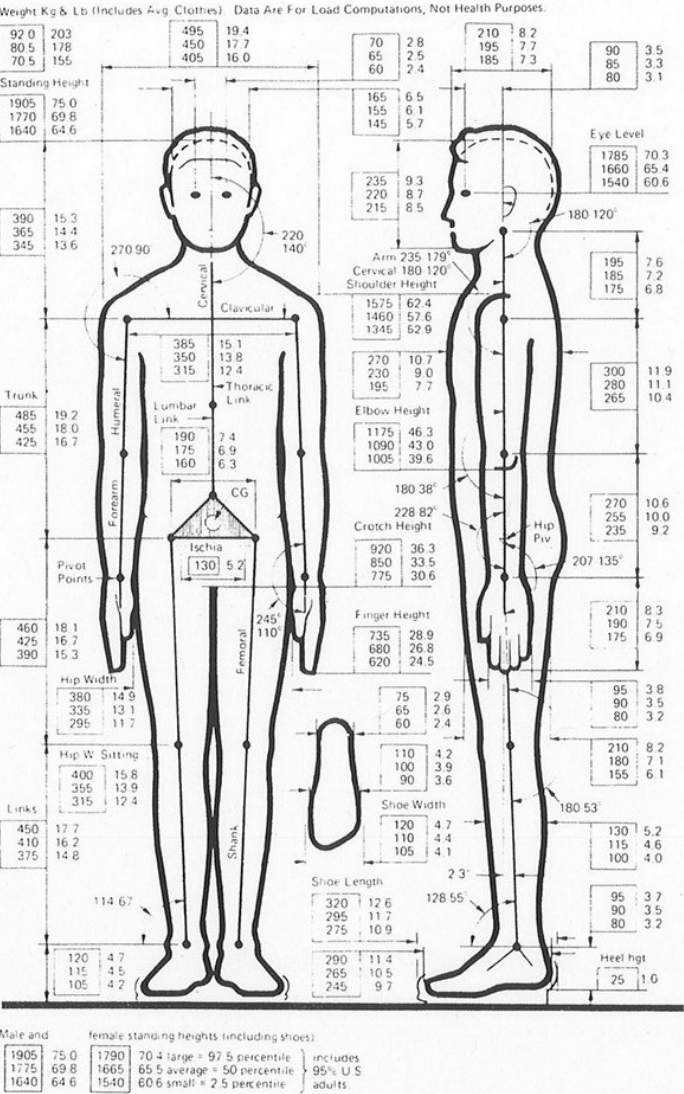
INTRODUCTION TO
ANTHROPOMETRIC DATA

The following anthropometric drawings show three values for each measurement: the top figure is for the large person or 97.5 percentile; the middle figure, the average person or 50 percentile; and the lower figure, the small person or 2.5 percentile. The chosen extreme percentiles thus include 95%. The remaining 5% include some who learn to adapt and others, not adequately represented, who are excluded to keep designs for the majority from becoming too complex and expensive. Space and access charts are designed to accept the 97.5 percentile large man and will cover all adults except a few giants. Therefore, use the 97.5 percentile to determine space envelopes, the 2.5 percentile to determine the maximum "kinetospheres" or reach areas by hand or foot, and the 50 percentile to establish control and display heights. To accommodate both men and women, it is useful at times to add a dimension of the large man to the corresponding dimension of the small woman and divide by 2 to obtain data for the average adult. This is the way height standards evolve. Youth data are for combined sex. Although girls and boys do not grow at the same

rate, differences are small when compared with size variations.

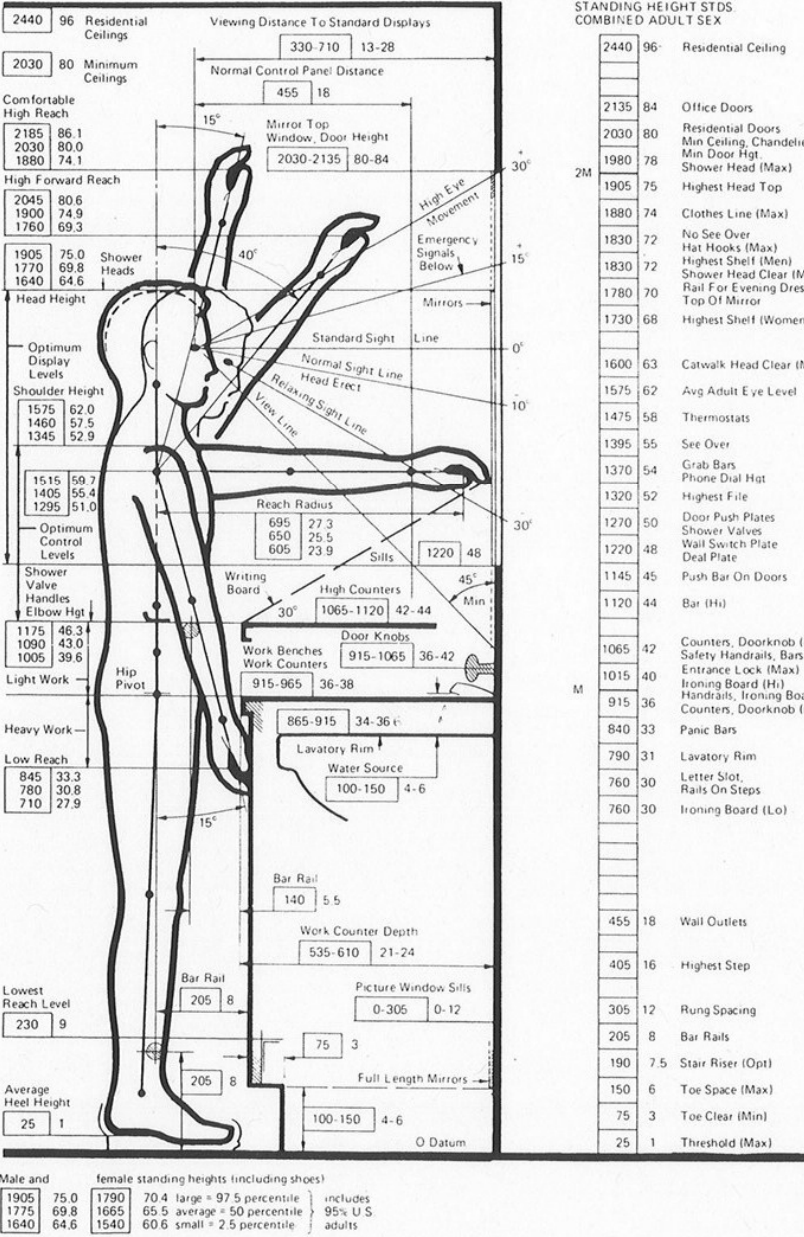
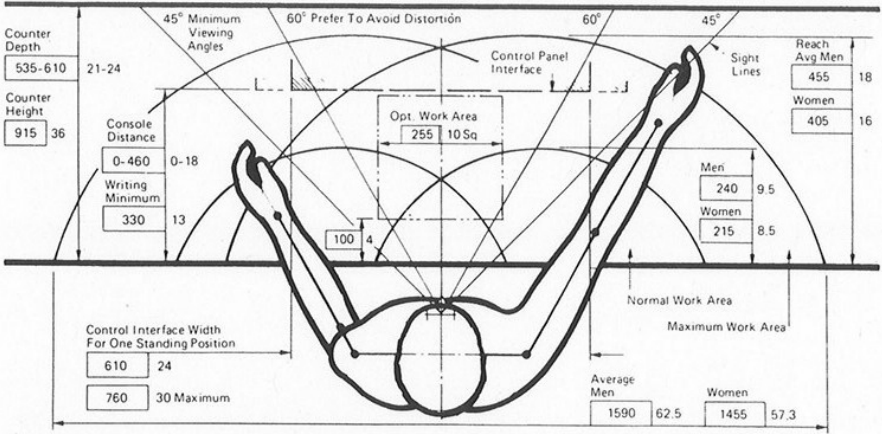
Pivot point and link systems make it easy to construct articulating templates and manikins. Links are simplified bones. The spine is shown as a single link; since it can flex, pivot points may be added. All human joints are not simple pivots, though it is convenient to assume so. Some move in complicated patterns like the roving shoulder. Reaches shown are easy and comfortable; additional reach is possible by bending the trunk and by extending the shoulder. Stooping to reach low is better than stretching to reach high. The dynamic body may need 10% more space than the static posture allows. Shoes have been included in all measurements; allowance may need to be made for heavy clothing. Sight lines and angles of vision given in one place or another apply to all persons.

The metric system of measurement has been included, since it is used in scientific work everywhere and is the most practical system of measurement ever devised. Millimeters have been chosen to avoid use of decimals. Rounding to 5 mm aids mental retention while being within the tolerance of most human measurements.



Niels Diffrient, Alvin R. Tilley, Henry Dreyfuss Associates, New York, New York

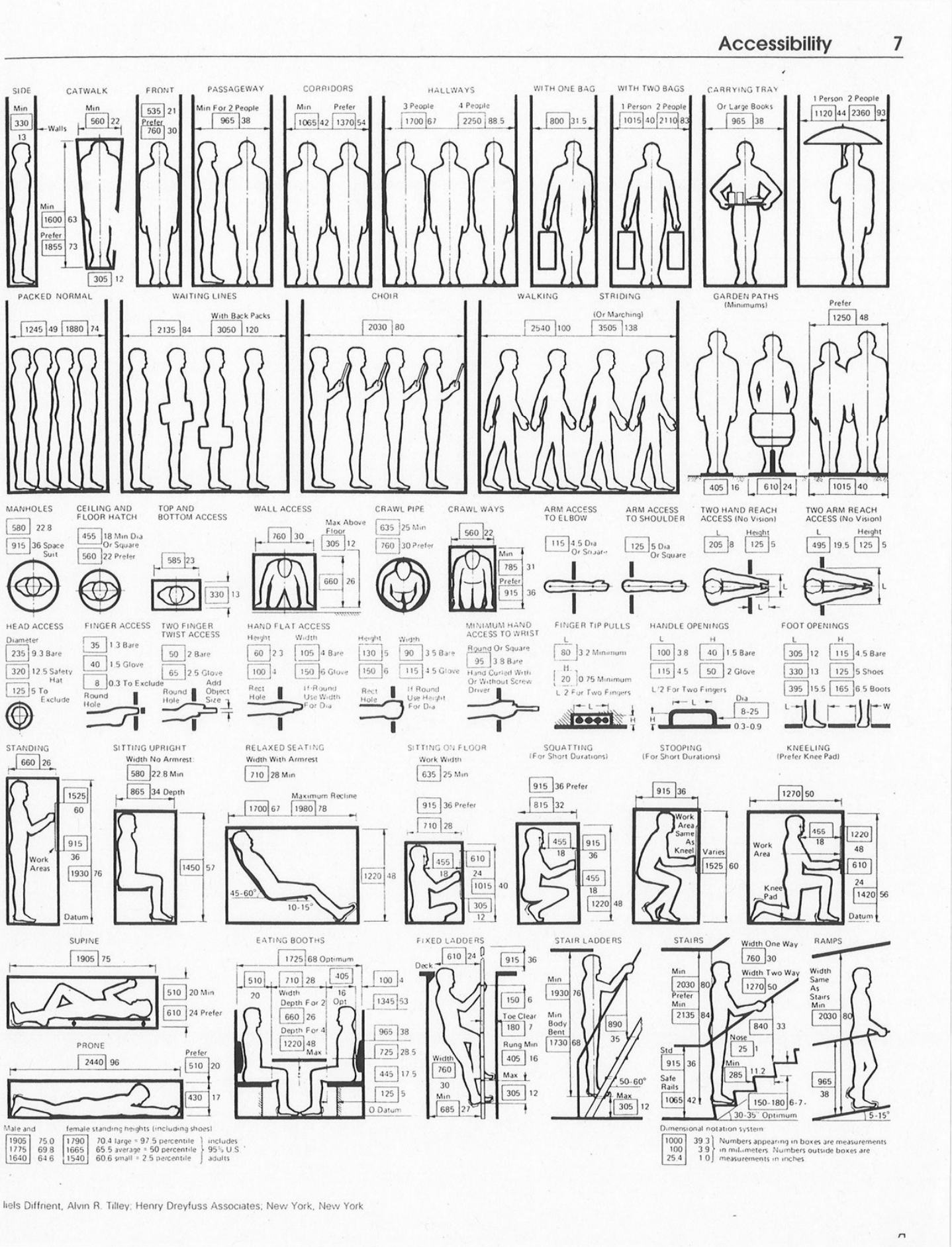
1 HUMAN DIMENSIONS



Niels Diffrient, Alvin R. Tilley, Henry Dreyfuss Associates, New York, New York

1 HUMAN DIMENSIONS

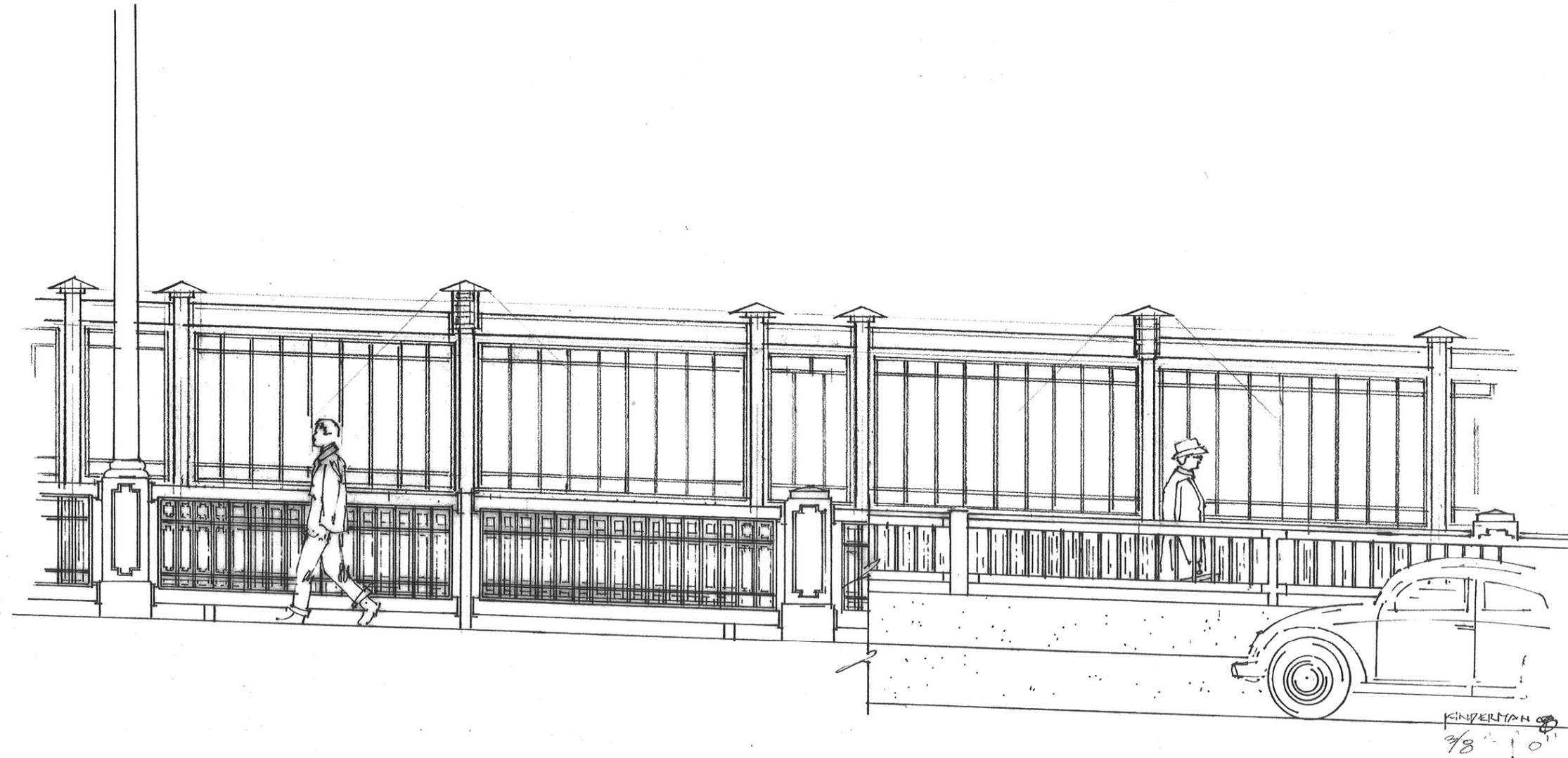
Anthropometric
Data



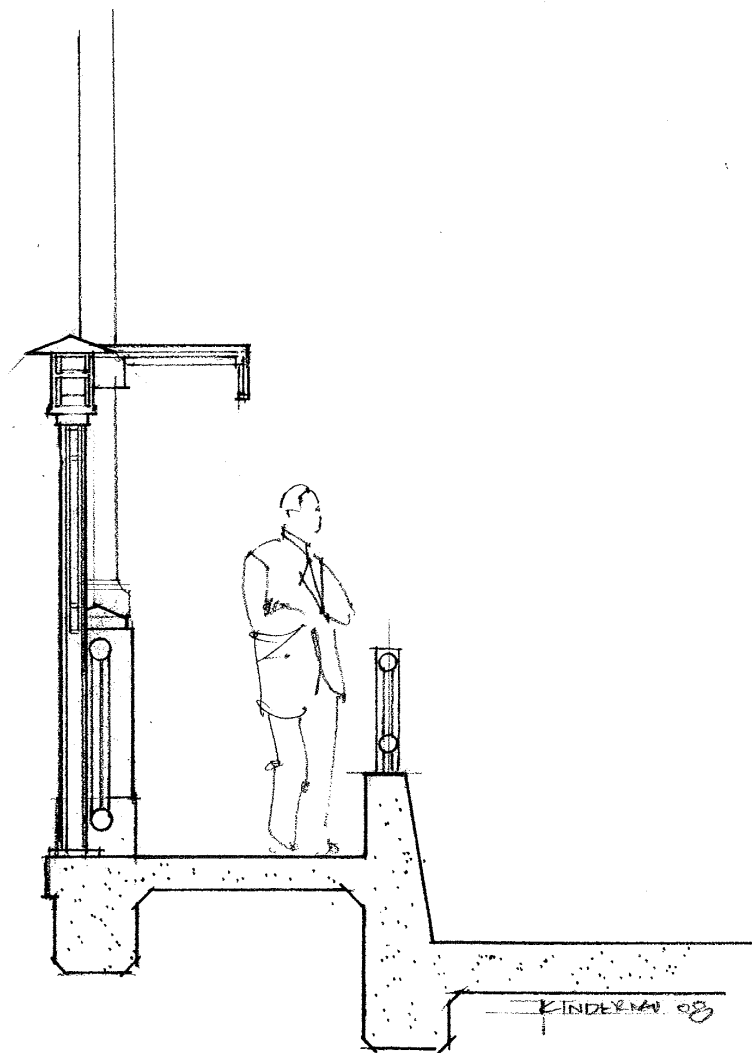
Design Concepts

Following the *Community Conceptual Design Report 2007*

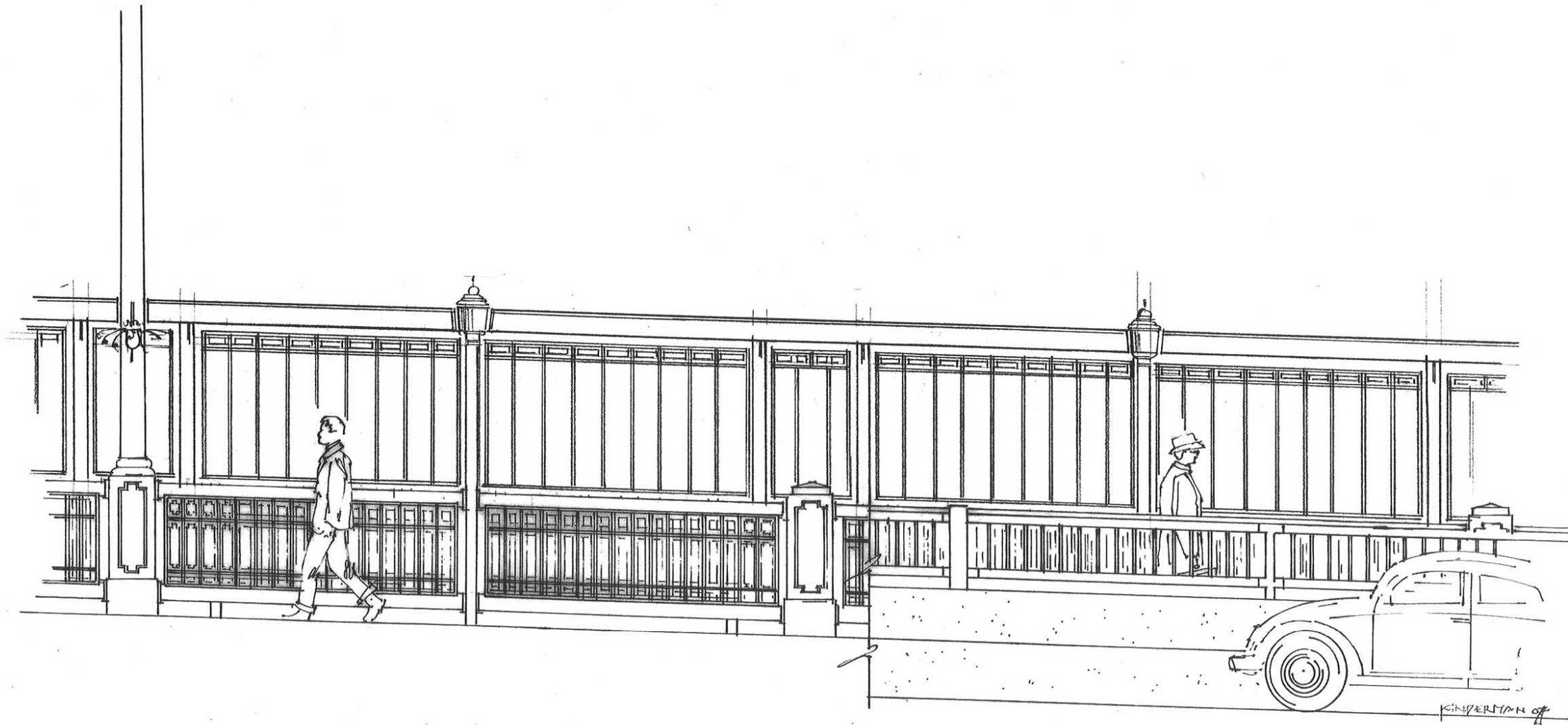
- Designs of classic fence with pedestrian lights



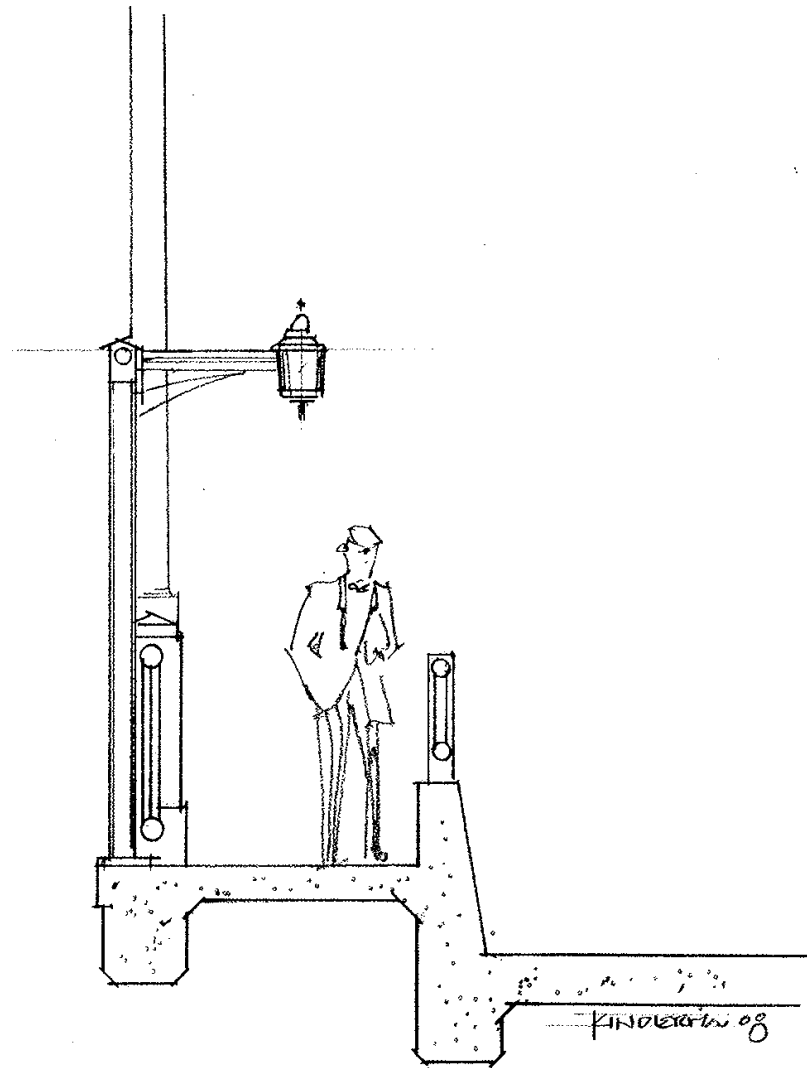
Concept A
Classic Fence with Pedestrian Lights
Niland Aspen Series light standard similar



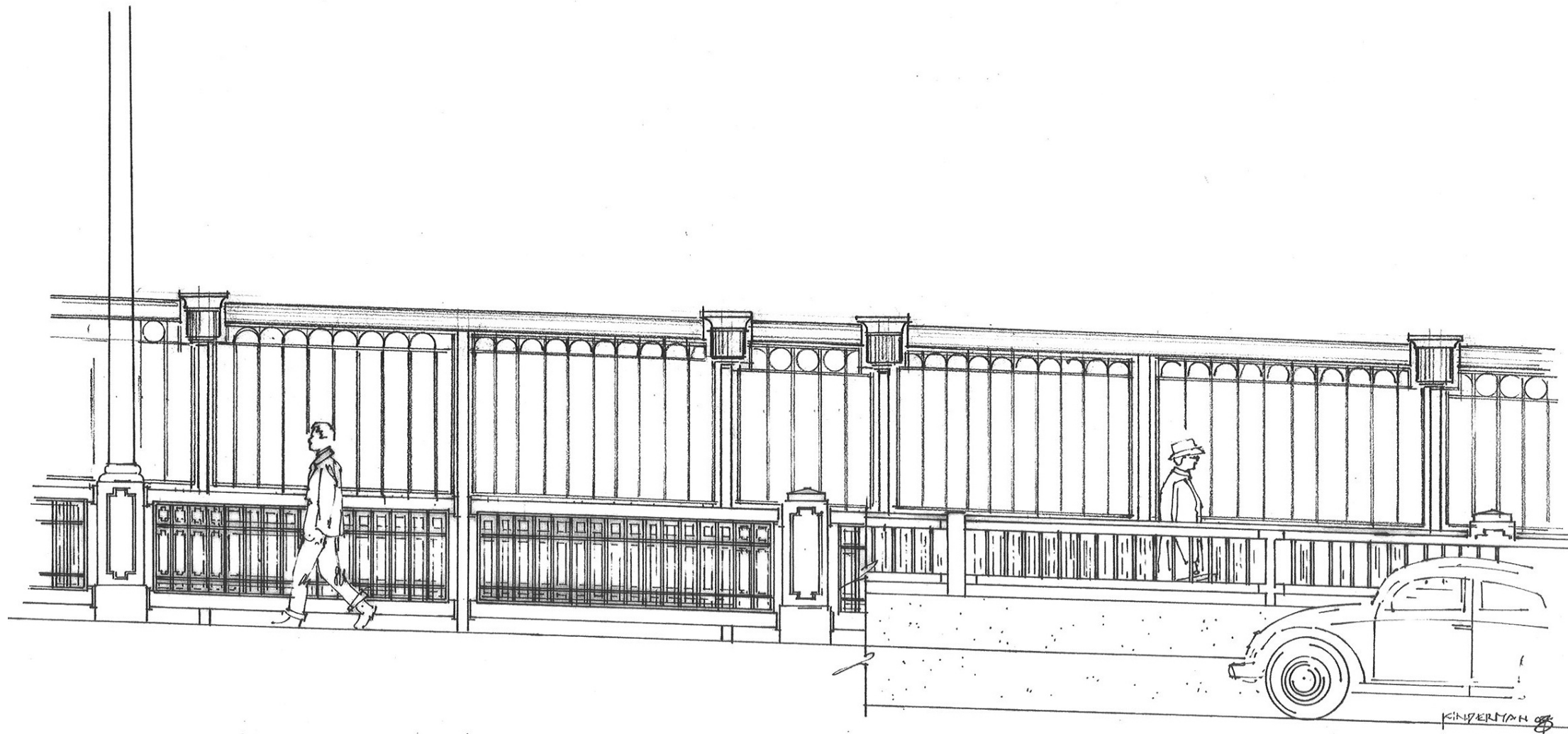
Concept A Typical Section
Classic Fence with Pedestrian Lights
Niland Aspen Series light standard similar



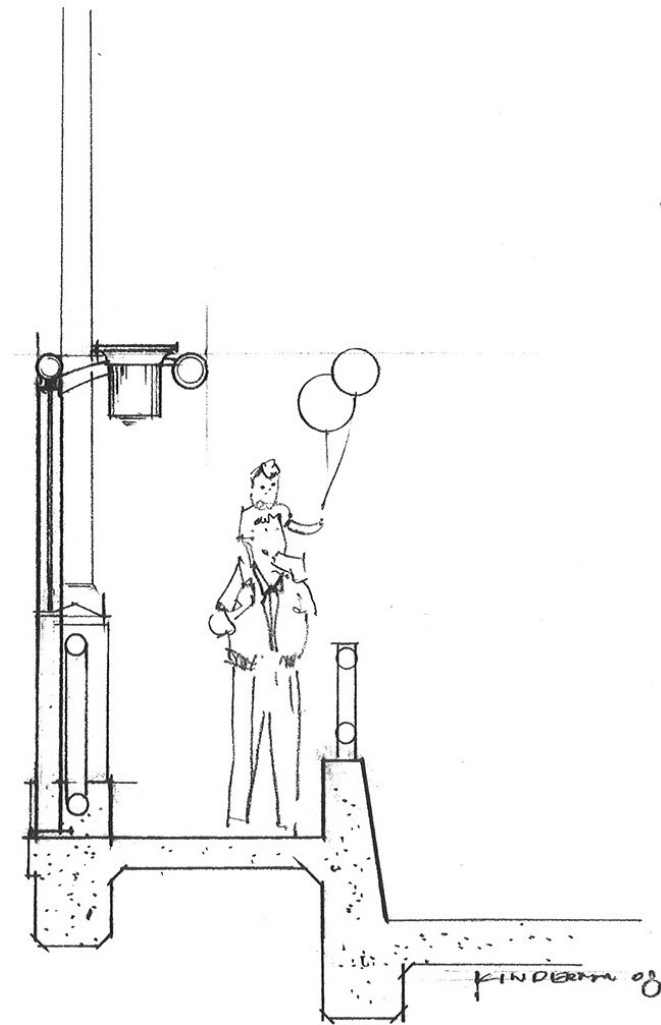
Concept B
Classic Fence with Pedestrian Lights
Lumec Z47A light standard similar



Concept B Typical Section
Classic Fence with Pedestrian Lights
Lumec Z47A light standard similar



Concept C
Classic Fence with Pedestrian Lights
Lumec Z11 light standard similar



Concept C Typical Section
Classic Fence with Pedestrian Lights
Lumec Z11 light standard similar