City of Overland Park

**Bridge Design Information**

## Hydraulic Design

* Non RCB bridges shall pass the 100-yr event with 2.0 ft desirable free board, 1.0 ft minimum.
* RCB's shall meet the roadway overtopping criteria as set forth in the OPMC.
* FEMA no-rise criteria shall also be met when in a FEMA defined floodway.

## Utilities

* Requests to place conduit in new slab bridges will be considered if the utility is willing to pay for the conduit construction.
* Utilities will not be allowed to attach to existing bridges.

## Bridge typical section

* Sidewalks shall be in the same plane and have the same cross-slope as the bridge deck unless crossing over another roadway.
* A dual layer polymer overlay is required prior to opening to traffic. Silica fume overlays will not be used.
* Decks shall be constructed in a single pour, using concrete as per the Overland Park specifications.
* Rebar clearance shall be 3" for top deck reinforcement.

## Bridge railing

* Use corral rail w/o curb unless crossing over another roadway.
* Black ornimental railing shall be used on Pedestrian/bike sidewalks (see 103rd St Bridge west of Rosewood, BR No. 182).
* Black ornimental railing is required on top of corral rail separating the roadway from a bike path.
* No railing is required above the corral rail separating the roadway from a pedestrian-only sidewalk.

## Approach slab

* Use Overland Park modified approach details.
* The need for approach guardrail is based on clear zone criteria.
* On low speed roads, taper corral rail from full height down to the curb.
* Flared guardrail and sidewalk should fit within r/w limits. Attenuators may be used if flared guardrail cannot be used.

## Drilled shafts

* Drilled shaft foundations require specialized inspection. If drilled shaft foundations are specified on the plans, a geotechnical firm should be hired to perform the inspection as per KDOT.

## Box Culverts

* Use standard KDOT design for RCB’s and OP details for wingwalls
* Footings for the wingwalls shall be set below the frost line.