LEE'S SUMMIT
MISSOURI

DESIGN & CONSTRUCTION MANUAL
DESIGN CRITERIA MODIFICATION REQUEST

PROJECT NAME: MIDCONTINENT PUBLIC LIBRARY

ADDRESS: 150 SW OLDHAM PARKWAY

PERMIT NUMBER: PRCOM20212128

OWNER'S NAME: Mid-Continent Public Library, Consolidated Library District No. 3

TO: Deputy Director of Public Works / City Engineer

In accordance with the City of Lee's Summit's Design and Construction Manual (DCM), I wish to apply for a modification to one or more provisions of the code as I feel that the spirit and intent of the DCM is observed and the public health, welfare and safety are assured. The following articulates my request for your review and action. (NOTE: Cite specific code sections, justification, and all appropriate supporting documents.)

Per Article 8, Division II, Sec 8.620 – Parking Lot Design, Letter F. Improvement of Parking and Loading areas.

1. Surface
   a. All Vehicle parking areas and access drives shall be improved with one of the following:
      i. (3) states "The City Engineer is authorized to consider an alternative design for an asphaltic concrete or Portland cement concrete surface engineered to support the weight of the anticipated loads."

Olsson is proposing an alternative design for "Vehicle Parking Areas and Access Drives". The provided geotechnical report is a certified recommendation and the section provided in the report is designed to support the anticipated loads for the lot. The section that is recommended can be found on page 13 of the geotechnical report.

SUBMITTED BY:

NAME: Terry M. Parsons (Olsson) ( ) OWNER (X) OWNER'S AGENT
ADDRESS: 7301 W 133rd St, Ste 200 PHONE #: (913) 634-0903
CITY, STATE, ZIP: Overland Park, KS 66213
Email: tparsons@olsson.com SIGNATURE:

KENT MONTER, P.E.
DEVELOPMENT ENGINEERING MANAGER (X) APPROVAL ( ) DENIAL
SIGNATURE: Kent Monter Kent Monter I have reviewed this document 2022.01.26 13:13:03-06'00' DATE: _____

JEFF THORN, P.E.
WATER UTILITIES ASSITANT DIRECTOR OF ENGINEERING SERVICES ( ) APPROVED ( ) DENIAL
SIGNATURE: _____ DATE: _____

GEORGE M. BINGER III, P.E.
DEPUTY DIRECTOR OF PUBLIC WORKS/CITY ENGINEER (X) APPROVED ( ) DENIAL
SIGNATURE: George M Binger III Digitally signed by George Binger III Date: 2022.02.08 10:12:16 -06'00' DATE: _____

COMMENTS: See comments below.

A COPY MUST BE ATTACHED TO THE APPROVED PLANS ON THE JOB SITE

COMMENTS:

A copy of the Geotechnical Engineering Report, Mid-Continent Public Library, Lee's Summit Branch, prepared by Olsson, Olsson Project No. A18-03300.650, Dated March 11, 2021, in its entirety, shall be attached to this design modification approval form.

Parking lot subgrade shall be a "prepared subgrade" consisting of low volume change material and placed as described in Sections G.1, F.2, E.1 and other applicable sections of the report.

The project geotechnical engineer shall provide a an as-built report documenting the observations and testing that the parking lot and subgrade were installed in accordance with the recommendation in the reference Geotehcnial report.

or through areas to be paved. Improper subgrade preparation, such as inadequate vegetation removal, failure to identify soft or unstable areas by proofrolling, and inadequate or improper compaction, can also produce non-uniform subgrade support.

G.2. Estimates of Pavement Section Thickness

Table 2 summarizes typical pavement sections for full depth asphaltic concrete (AC), AC with a granular base, and full depth Portland cement concrete. The sections represent typical minimum thicknesses. Routine maintenance of these pavement will be required, consisting of periodic seal coats, possibly one intermediate mill, and regular crack maintenance.

Table 2: Minimum Recommended Pavement Sections

Parking Areas	Drive Areas	Heavy Vehicle Areas
Full Depth AC: 2" AC Surface 4" AC Base 9" Chemically Stabilized Soils	Full Depth AC: 2" AC Surface 6" AC Base 9" Chemically Stabilized Soils	Full Depth PCC: 8" PCC 4" Clean Rock Base 9" Chemically Stabilized Soils *Applies to trash receptacle pads
AC with Granular Base: 2" AC Surface 3" AC Base 6" MoDOT Type 5 Baserock 9" Prepared Subgrade	AC with Granular Base: 2" AC Surface 4" AC Base 6" MoDOT Type 5 Baserock 9" Prepared Subgrade	

PCC pavements are recommended for trash receptacle pads and other areas where heavy wheel loads will be concentrated. Concrete pavements in these areas should have a minimum thickness of 8 inches. It is also recommended that a 4-inch leveling, and drainage course of clean, crushed rock be placed below all PCC pavements. The clean rock base for PCC pavements should be uniform. The granular section should be graded to adjacent storm sewer inlets and provisions should be made to provide drainage from the granular section into the storm sewers. Drainage of the granular base is particularly important where two different pavement sections (such as AC and PCC) abut, so that water does not pond beneath the pavements and saturate the subgrade soils. We further recommend that the length of concrete sections be such that no heavy truck wheels rest on asphaltic concrete sections during loading/unloading operations.

The performance of the pavements will be dependent upon a number of factors, including subgrade conditions at the time of paving, rainwater runoff, and traffic. Rainwater runoff should not be allowed to seep below pavements from adjacent areas. Pavements should be sloped approximately ¼ inch per foot to provide for rapid surface drainage.

Proper drainage below the pavement section helps prevent softening of the subgrade and has a significant impact on pavement performance and pavement life. Therefore, we recommend that