

**OFFICE OF THE CITY MANAGER
DES MOINES, IOWA**

**CITY COUNCIL COMMUNICATION 96-378
SEPTEMBER 3, 1996 AGENDA**

SUBJECT:	TYPE:	SUBMITTED BY:
ENGINEERING SERVICES AGREEMENT FOR DOWNTOWN SIGNAL SYSTEM	◆ RESOLUTION ORDINANCE RECEIVE/FILE	JIM THOMPSON TRAFFIC AND TRANSPORTATION DIRECTOR

SYNOPSIS —

The City of Des Moines has negotiated an agreement with Snyder and Associates, Inc., to provide engineering services to design and inspect a computerized downtown traffic control system.

FISCAL IMPACT —

The engineering services provided by Snyder and Associates, Inc., will not exceed \$491,532. Construction costs are estimated to be \$2,500,000. Tax Increment Bond funding for this improvement in the amount of \$600,000, or 20 percent of the cost, is included in the Proposed 1996-1997 Capital Improvements Program Budget, with \$2,400,000 of Federal funds, or 80 percent of the cost. Note that the proposed 1996-97 CIP has not yet been approved by Council, nor have bonds been issued for the projects contained therein. Therefore, approval of this agreement will commit the Council to the future issuance of tax increment supported bonds in an amount sufficient to pay the cost of this agreement.

RECOMMENDATION —

Approval of the Engineering Services Agreement with Snyder & Associates, Inc.

BACKGROUND —

On November 21, 1994, by Roll Call No. 94-4470, Council authorized the submittal of an application for Congestion Mitigation and Air Quality Improvement (CMAQ) program funds for the Downtown Signal System. The Iowa Department of Transportation (IDOT) has approved the CMAQ application, and on October 23, 1995, by Roll Call No. 95-4079, Council approved a standard project agreement with IDOT for funding of this project.

The Downtown Signal System consists of 96 signalized intersections, and dates back to its original construction in 1952. Because of maintenance problems due to aging components, the original three-dial, fixed-time system now operates only one timing plan for part of the system and two timing plans for the remaining intersections. In addition to the aging traffic controllers, the interconnect cable is very old and unreliable, lending to many problems in maintaining even the limited signal coordination of which the system is capable.

Over the past 10 years, the City has made significant improvements to the signal hardware in the Downtown Area by installing new controllers, reconstructing certain intersections, and installing some new interconnect cable. These new components increase the reliability and reduce the maintenance problems, but they do not increase the overall efficiency or operating capability of the system. The project for the Downtown Signal System consists of two phases: An analysis and design of the signal system in Phase 1 and construction in Phase 2.

During the analysis and design phase, Snyder & Associates, Inc., will develop a computerized signal system that will not only operate the Downtown signals in a coordinated system, but have the capability to coordinate the operation of all traffic signals in the City. This could also tie into any future traffic control systems that may be incorporated into

the reconstruction of I-235 and the construction of Martin Luther King, Jr. Parkway. Concerning the current capabilities of such computerized systems, it is expected that the system could have the capacity to coordinate the operation of all traffic signals in the Metropolitan Area.

Also included in the Phase 1 engineering services is the collection and analysis of traffic data to allow the development of timing plans for the Downtown Signal System, preparation of final construction plans and specifications, and a detailed analysis to determine the expected reductions in air pollution, traffic congestion and traffic accidents. The maximum cost of the Phase 1 engineering services is \$491,532.

Phase 2 of this project will consist of the construction work to install the new signal system components, inspection of the construction work, installation of new signal timing plans, and training of Traffic and Transportation employees in the operation and maintenance of the new system. The estimated cost for Phase 2 activities is \$2.5 million.