Welcome & Introductions

1. Approval of October 26 Committee Minutes* (page 2)

2. VOTE: Request for approval* (page 7)
   • Signal Timing and Engineering Support, Field Network Support Contract

3. Update of 2019-2020 STP Funding proposal to MO and KS STP and TTPC Committees (page 9)

4. MO and KS STP CCTV and Network Redundancy Project Update

5. MARC’s I-35 Integrated Corridor Management Project (page 13)

6. Quarterly Operations Update (page 21)
   • System upgrades and recent efforts, Communications upgrades

7. Quarterly Budget Report (to be provided later)
   • KDOT Spend Down Plan update
   • 2016 Local Funding Invoices in February

8. OGL Communications System Redundancy via KC Scout / Overland Park (page 34)


10. Other Business

Next Regularly Scheduled Meeting: Monday, April 25, 2016
Adjournment

*Action Items

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Welcome & Introductions  

1. Approval of July 27 Committee Minutes*  
   The chair asked for approval of the minutes, the group voted unanimously, and the motion carried.

2. MARC Whistleblower and Conflict of Interest Policies  
   Ray gave a brief overview of the policies, and reminded everyone of their importance. The policies are unchanged since 2013.

3. VOTE: Acknowledge New Chair, Vice-Chair Election*  
   Lideana acknowledged that Andy was elected as the new Chairperson at the July 27th meeting. Andy thanked Lideana and recognized her efforts in serving as the Chair of the OGL Steering Committee. Andy mentioned that a new Vice-chair is needed, and opened the floor for nominations. Ray nominated Steve Schooley as the new Vice-Chair, to which he accepted the nomination. No other nominations were given. The committee voted unanimously, the motion carried and Steve Schooley is elected as the new Vice-Chair of the OGL Steering Committee.

4. VOTE: Contract Extension for ATMS Support*  
   Ray gave a summary of the TransCore contract work, reminded everyone that the TransCore contract will expire on October 31st, and that a contract extension is needed in order for work to be completed. Currently, it is has a sole source approval and OGL is working off this for now. In the future, it will entail doing some systems engineering, etc., as they may end up having to solicit at the end of this contract, etc. The group voted unanimously, and the motion carried.
5. **Update of STP Funding proposal to MO and KS STP and TTPC Committees**

In 2015, after an update of the program’s strategic plan, the Operation Green Light Steering Committee developed a recommendation for MARC to consider to improve the long-term funding stability of the program by allocating a dedicated share of federal Surface Transportation Program funds to subsidize its operations. The Missouri and Kansas STP committees have evaluated and both have recommended this proposal. Missouri approved the proposal on August 11, 2015 and the Kansas Committee on August 13, 2015.

These committees recommend that in future programming cycles, TTPC allocate annual appropriations in two year increments of sub-allocated Missouri and Kansas STP funding for 50% of the Missouri and Kansas share of the annual operating and maintenance cost for Operation Green Light. Annual reports would be provided to the committee following the approval of its annual budget by the Steering Committee.

STP funding has been secured to subsidize operation of the program through 2018 through previous programming cycles at MARC. While the program budgets have not been set for the years 2019 and beyond, past budgets have typically ranged from $1M to $1.2M. An example of annual funding request based on past budget of $1 Million per year:

- **Missouri, 70%** of Regional Signals = $700,000 x 50% STP Funding = $350,000
- **Kansas, 30%** of Regional Signals = $300,000 x 50% STP Funding = $150,000

*Current cost allocation based on 70/30 split of number of signals in Mo/KS

Other programs with similar non-competitive funding arrangements include the Regional Active Transportation, Air Quality Public Education and RideShare programs. Federal Congestion, Mitigation Air Quality (CMAQ) funds for each of these programs are reserved by TTPC and the Air Quality Forum prior to allocating remaining CMAQ funds to other projects. Ongoing oversight of these MARC programs is provided by the Air Quality Forum.

Finally, this proposal is only for funds to subsidize OGL program operations. Applications to expand or enhance OGL would be treated as all other projects through MARC competitive programming processes.

On Tuesday, October 20, 2015, the MARC Total Transportation and Policy Committee voted to approve the OGL Steering Committee’s request for funding to be allocated prior to the STP call for projects.

Ray solicited the committees help in setting the budget, staffing, new intersections, etc., while keeping growth in mind. Ron recapped the TTPC process and how it relates to the proposal and what else is needed before it is presented to TTPC again. Andy requested volunteers to serve on the OGL Steering Budget Subcommittee, and recommended that if anyone who is interested contact Ray. Leslie Fowler inquired if this is due before the next meeting, and Ron replied that it is needed before then in order to present to the TTPC. It would need to be ready no later than the December 15th TTPC meeting. Ray informed everyone that most things have been factored into the spend down plan, but need further assistance in future planning. Mark Sherfy and Andy volunteered to be a part of the subcommittee, and Blake was suggested by Donna Coatsworth, to which he agreed. Ray also asked Donna to participate if she is available, and she said she will check her schedule and let him know. Andy summarized some of the points brought up during Ray’s presentation, noting:

- Maintaining the status quo,
- Include inflation for current positions,
- Identify positions that will not be filled,
- Discuss & review the equipment replacement schedule, and how it affects the budget.

Ray proposed that the new subcommittee should meet within the next couple of weeks or so, possibly November 16th. The first meeting will be face-to-face, and following meetings will be done on an as needed basis, possibly through email or phone conferences.
6. **Quarterly Budget Report** Ray

Ray provided a background on the 3rd Quarter ’15 quarterly report, and directed everyone to the handout in their packet. It reflects the new STP funds and budget the committee approved for ’15 & ’16. All local invoices have been turned in, and one has even been paid in advance. MARC is working close with KDOT on a spend-down plan to be able to spend the remaining KDOT funds by March 2016. MARC has initiated this plan by moving on the OGL Technology Plan that replaces aging backbone and field wireless communications. The MARC Board has approved $522,000 for purchases. Several the equipment orders have been placed for a majority of the equipment and installation is in progress.

The OGL steering committee is to set a budget for the years of the call for projects, in this case 2019-2020. Discussions that occurred during the STP Committee meeting included the checks and balances for the funding requests. That includes MARC providing reports to the TTPC committee and the OGL Steering Committee provide recommendations of a budget to the STP and TTPC Committees. Thus, before the OGL Program staff can set a budget, direction is sought related to parameters to establish a future budget. Some possible items for considerations:

1. How should program growth and inflation be considered?
2. What should the size of staff be considered?
3. Consideration to number of signals that should be considered. Currently there are 692 signalized intersection included in OGL. By the end of 2015 at least one possibly two intersections may be added. In 2016/17 the cities of Blue Springs and Grandview may add locations, possibly 10 in total with help from the CMAQ funding that has been secured. If other agencies may add or remove signals, it should be considered as the budget is a function of the number of signals
4. What other services or functions should OGL be providing?
5. Other parameters

Andy inquired when the federal balances need to be expended, and Ray answered that the ’15 KS balance needs to be expended by the 1st quarter next year, and as long as they stay on top of it, they should be expended by then.

7. **OGL STP 2015-2016 Program Agreement Status** Ray

Since some of the material was covered in the above agenda items, Ray gave a brief summary on the agreement status. As of October 23rd, all agencies have been collected. The 2016 invoices will be generated in January/February. OGL is working with MoDOT on program budget and scope. There are personnel costs obligated for the new funds; however, nothing else has been until the timing and field maintenance rebid. KDOT has 2015 funds obligated, and OGL is working with them on a spend-down plan. Pending this and funds spent, then the 2016 funds would be obligated.

8. **MO and KS STP CCTV and Network Redundancy Project Update** Chris

Chris notified the committee that Capital Electric has recently installed 9 cameras, pulled cable at 27 locations, and will be continuing this week installing more. Additionally, one of the network links are completed and the remaining should be completed in the next two weeks. There are two new links from Woods Chapel to Independence, which will increase bandwidth and add redundancy. There is some additional configuration work to be done on the wireless links, and those are being worked out with the manufacturer. Ray added there may be small contingency left not including and change orders in which there may be some.

9. **I-35 Integrated Corridor Management, Kansas CPG funding** Ray

Ray gave an overview of the funding for this project. This project will allow MARC to identify corridor improvements to better utilize the current system. Currently, there are a number of tools as identified in the I-35 optimization study, KC Scout ramp metering and incident management plans that will be used to assist with the development of the ICM plans. Initial ground work has been done that includes an FHWA
workshop on ICM attended by a diverse group of DOT and agencies in the region. Other meetings have been held to gain an understanding of the scope and direction of the project.

Program Activities and Products (Estimated Completion Dates):
1. **ACTIVITY**: Consultant Procurement (4/30/2016).
3. **ACTIVITY**: System Overview and Operational Description (9/30/2016).
5. **ACTIVITY**: ICM Operational Scenarios (12/31/2016).

Lideana clarified that the ultimate objective of this would be to identify those corridors that could serve as detours in case of congestion, and Ray added that the study will also consider modes and other tools that may make the best use of the existing system.

10. Quarterly Operations Update  
**Chris**
Chris referred everyone to view the report in their packet for additional details. Some of the recommendations from the technology plan were infused in the updates, and the backbone links are working well and are up to date. Also part of the technology plan, some of the unlicensed technology equipment in the field has been replaced, and there are more in the works.

Andy asked if the same frequencies are being used and are the licenses up to date, and Chris responded that the frequencies will be the same and they have submitted their paperwork for the FCC licensing, which they are currently waiting for their return. Barry interjected that 2 benefit/cost studies have been completed on Barry Road, as well as the Rainbow corridor, and they are on the website.

11. 2016 Work Plan  
**Ray**
Ray gave a brief overview of OGL activities and background then proceeded to discuss issues around some of the activities listed in the plan.

Program Activities and Products (Estimated Completion Dates)
1. **ACTIVITY**: Program management. Activities included in this work include project management, stakeholder engagement, training, and all other work necessary to ensure the active prioritization of objectives to efficiently manage traffic signal infrastructure and control devices (ongoing)
2. **ACTIVITY**: Signal Timing and Synchronization. Activities include traffic data collection and analysis, field observation, controller programming and deployment, signal timing troubleshooting and traffic modeling and deployment (ongoing.)
3. **ACTIVITY**: Regional network communications. Activities include, database management, repair tracking, field investigation, equipment procurement, server administration, contractor oversight and other activities associated with the system network (ongoing.)
4. **ACTIVITY**: Strategic plan (fall 2016). Update of the existing strategic plan
5. **ACTIVITY**: Communications
Ray urged the committee to give their input on the list of item, or anything that they feel should be added or subtracted.

12. Travel Time YouTube Video Final and Script  
**Barry/Ray**
As Barry prepared the video, Ray advised everyone of its contents and its purpose. The script is in progress, and can be used for agency staff to play internally or shared with council, etc.
Link:  [https://youtu.be/GEya77wlScY](https://youtu.be/GEya77wlScY)

13. HERE data presentation  
**Barry**
Barry presented an overview of HERE, its components, and how OGL is using it.

14. I-35 Ramp Metering
Leslie directed everyone to the handout in their packet, and gave an overview of the I-35 Ramp Metering project. The English & Spanish brochures have been made, and they are working on modeling components. There have been two previous public meetings and there will be another one tonight at Wal-Mart in the area until 7pm. Most of the feedback they have received is that most people are mixed, but would prefer another lane or rail instead. Unfortunately, there is not enough funding to do all of the proposed improvements, but they are working to complete those that are most vital. They will continue their modeling work and public engagement.

15. Agency updates, construction projects, closures, etc. affecting traffic signals
   - The Independence Event Center has changed its name to Silverstein Eye Centers Arena.
   - The traffic engineering unit at KDOT will have a vacant position in December, as one of their employees is retiring. They will be down to 1 Senior Engineer.
   - The Gateway project in Lenexa is closing down the interchange at 95th & I-35 for about 6 months, and commuters will have to find another route. There will be signed detours.
   - Karen Gilbertson will be retiring at the end of the month from FHWA. She may continue some work on a by project basis or seasonal

16. Other Business
   There was no additional business.

Next Regularly Scheduled Meeting and Schedule for 2016: Steering Committee, Monday, January 25, 2016

Adjournment
ISSUE
VOTE: Authorization to enter into a contract with Olsson & Associates for Traffic Signal Timing and Engineering Support services for MARC’s Operation Green Light Program.

BACKGROUND
Operation Green Light (OGL) is a regional traffic signal coordination and operations system involving local governments and the State Departments of Transportation in Kansas and Missouri. This initiative improves regional traffic flow, air quality and fuel consumption. As a key part of this work, OGL develops traffic signal timing plans for implementation by participating state and local governments and monitors real-time operations on roadway intersections in the system.

Continued traffic signal timing and engineering support services will be integral to the successful operation of the OGL program. These services are needed to continue efforts to keep signal timing at its peak level of performance at the nearly 700 traffic signals that OGL currently supports for 24 agencies. The consultant will support MARC staff in updating and maintaining traffic signal timing plans, system performance measures, signal engineering, troubleshooting and other related work. While the contract with Olsson and Associates, does not expire till June 2016 MARC’s federal funding oversight partner, MoDOT, requires a new solicitation required to access new grant funds.

On November 17, 2015, MARC published a Request for Qualifications (RFQ) from qualified firms to provide traffic signal timing and engineering services. The RFQ closed on December 9, 2015. The RFP was advertised via DemandStar and MARC’s website as well as MoDOT’s LPA site. Notifications were sent throughout Missouri for those signed up to receive MoDOT’s bid notifications. DemandStar notified 208 potential firms. Four firms provided responses and a team of OGL partner agencies selected Olsson and Associates through a scoring process.

Olsson and Associates is recommended to be accepted to enter a contract with MARC. The Operation Green Light Steering Committee will meet January 25th to review and approve the selection.

BUDGET CONSIDERATIONS
Funds for this purchase are included in the Operation Green Light operations budget. This procurement will be funded through Federal Grants administered by the Kansas and Missouri Departments of Transportation. Participating local governments provide matching funds for this grant.

RECOMMENDATION
Authorize the Executive Director to enter into a contract with Olsson & Associates for Traffic Signal Timing and Engineering Support Services for the Operation Green Light Program with a length of three years and a contract amount not to exceed $600,000.

STAFF CONTACT
Ron Achelpohl
Ray Webb
ISSUE
VOTE: Authorization to enter into an agreement for the OGL field network support contract for field network support services.

BACKGROUND
Operation Green Light (OGL) is an initiative that helps state and local governments that own and operate traffic signals on regional arterial roadways work together to coordinate traffic signal timing to improve traffic flow, reduce excessive fuel consumption and reduce emissions. MARC staff currently assists in the management and operation of traffic signal timing for nearly 700 intersections in 24 jurisdictions throughout the region.

MARC owns and maintains an extensive field network to support the regional traffic signal control system. The network consists of over 1000 pieces of equipment ranging from the licensed 18Ghz microwave backhaul equipment to unlicensed radios at the traffic signals and various network switches and supporting equipment. The components of the network are located throughout the region in 16 locations on water towers and rooftops. Due to the specialized nature of the work that includes tower climbing, bucket trucks, testing equipment and specialized personnel background, this work continues to be contracted. While the contract with ETI, Inc. did not expire till July 2016 MARC’s federal funding oversight partner MoDOT requires a new solicitation required to access new grant funds.

On November 5, 2015, a Request for Proposal was released and closed on December 2, 2015. The RFP was advertised via DemandStar and MARC’s website as well as MoDOT’s LPA site. Notifications were sent throughout Missouri for those signed up to receive MoDOT bid notifications. DemandStar notified 241 possible vendors. A single vendor responded, Electronic Technologies, Inc.

ETI is recommended to be accepted to enter a contract with MARC. The Operation Green Light Steering Committee will meet January 25th to review and approve the selection.

BUDGET CONSIDERATIONS
Funds for this purchase are included in the Operation Green Light operations budget. This procurement will be funded through Federal Grants administered by the Kansas and Missouri Departments of Transportation. Participating local governments provide matching funds for this grant.

RECOMMENDATION
Authorize the Executive Director to enter into an agreement with ETI, Inc. for the OGL field network support for up to three years in an amount not to exceed $300,000.

STAFF CONTACT
Ron Achelpohl
Ray Webb
OPEN MEETING NOTICE
TOTAL TRANSPORTATION POLICY COMMITTEE
Councilman Chuck Adams, Kansas Co-Chair
Mayor Carson Ross, Missouri Co-Chair

There will be a meeting of MARC’s Total Transportation Policy Committee on Tuesday, October 20, 2015 at 9:30 a.m. in the Board Room on the second floor of the Rivergate Center, 600 Broadway, Kansas City, Missouri.

AGENDA

1. Welcome and Introductions – 9:30am
2. VOTE: Minutes of September 15, 2015 Meeting* – 9:35am
3. VOTE: Approval of Self-Certification Statement * – 9:40am
4. VOTE: Approval of 2016-2020 TIP* – 9:50am
5. VOTE: Release of Draft 2016 UPWP for Public Review and Comment* – 10:00am
6. VOTE: Recommendations from Programming Process Review* – 10:10 am
7. REPORT: 2015 Urban Mobility Scorecard – 10:15am
8. REPORT: Broadway/North Loop PEL Study – 10:20am
9. REPORT: Air Quality Update – 10:35am
10. REPORT: Discuss MARC Federal Legislative Agenda – 10:40am
11. REPORT: Review MARC Conflict of Interest and Whistleblower Policies – 10:50am
12. Other Business – 10:55am

*Action Items

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ISSUE

VOTE: Programming Evaluation Process Review Recommendations*

BACKGROUND

One of the primary uses of the region’s Metropolitan Transportation Plan is to provide policy guidance for the programming of federal transportation funds in the Transportation Improvement Program. In anticipation of the adoption of the update to Transportation Outlook 2040 and consideration of feedback following the most recent programming round in 2014, MARC programming committees and staff have begun reviewing current allocation processes to identify issues and opportunities and to better align MARC’s programming processes with the policy framework of the new plan.

In addition to project evaluation criteria updates, these reviews often lead to changes in the committee rules and procedures. As part of the most recent review of the programming process, the following recommendations have been approved:

Missouri STP Priorities Committee
- Addition of an attendance policy to the committee roles and responsibilities document
- Updates to the excluded uses of funds section of the committee roles and responsibilities document

Kansas and Missouri STP Priorities Committees
- Provide annual appropriations in two year increments off the top of the available amount of suballocated Missouri and Kansas STP funding for 50% of the Missouri and Kansas share of the annual operations and management costs for Operation Green Light.
- Require annual reports to the Kansas and Missouri STP Priorities Committees following the approval of the annual budget by the OGL Steering Committee.

POLICY CONSIDERATIONS

Evaluation criteria and committee processes are to be reviewed and updated by each programming committee after major updates to the Long-Range Transportation Plan, after enactment of new Federal or State authorizing legislation or regulations and after completion of each programming cycle.

BUDGET CONSIDERATIONS

None.

COMMITTEE ACTION

The Missouri STP Priorities Committee approved modifications to their Roles and Responsibilities document to include an attendance policy and revisions to the excluded uses of funds at their meeting on August 11, 2015.

The Kansas STP Priorities Committee approved the Operation Greenlight funding proposal at their meeting on August 13, 2015.

The Missouri STP Priorities Committee approved the Operation Greenlight funding proposal at their meeting on August 11, 2015.

RECOMMENDATION
Approve the inclusion of an attendance policy and updated list of excluded uses of funds for the Missouri STP Priorities Committee.
Approve the Operation Greenlight funding proposal as recommended by the Kansas and Missouri STP Priorities Committees.

STAFF CONTACT
Marc Hansen
OPERATION GREEN LIGHT
Surface Transportation Program Funding Proposal

BACKGROUND:
Operation Green Light is a long-standing and successful regional program to improve air quality, energy consumption and traffic flow by coordinating traffic signals on major roadways.

The program’s 24 partner agencies have invested several million dollars of federal, state and local funds in building and operating communication network equipment, shared regional traffic signal software and shared computer systems. This has allowed agencies from small to large to get modern traffic signal systems without bearing the costs entirely on their own. Continued investment in the operation of these systems will ensure that they will continue to perform as designed and expected.

In 2015, after an update of the program’s strategic plan, the Operation Green Light Steering Committee developed a recommendation for MARC to consider to improve the long-term funding stability of the program by allocating a dedicated share of federal Surface Transportation Program funds to subsidize its operations. The Missouri and Kansas STP committees have evaluated and both have recommended this proposal. Missouri approved the proposal on August 11, 2015 and the Kansas Committee on August 13, 2015.

These committees recommend that in future programming cycles, TTPC allocate annual appropriations in two year increments of suballocated Missouri and Kansas STP funding for 50% of the Missouri and Kansas share of the annual operating and maintenance cost for Operation Green Light. Annual reports would be provided to the committee following the approval of its annual budget by the Steering Committee.

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*Current cost allocation based on 70/30 split of number of signals in Mo/KS

Other programs with similar non-competitive funding arrangements include the Regional Active Transportation, Air Quality Public Education and RideShare programs. Federal Congestion, Mitigation Air Quality (CMAQ) funds for each of these programs are reserved by TTPC and the Air Quality Forum prior to allocating remaining CMAQ funds to other projects. Ongoing oversight of these MARC programs is provided by the Air Quality Forum.

Finally, this proposal is only for funds to subsidize OGL program operations. Applications to expand or enhance OGL would be treated as all other projects through MARC competitive programming processes.

RECOMMENDATION:
That TTPC allocate annual appropriations in two year increments of suballocated Missouri and Kansas STP funding for 50% of the Missouri and Kansas share of the annual operating cost for Operation Green Light, in amounts to be authorized by TTPC prior to each future call for projects.
REQUEST FOR PROPOSALS

I-35 Integrated Corridor Management Planning

Requested by
The Mid-America Regional Council

January 1, 2016
Request for Proposals
I-35 Integrated Corridor Management Planning
Proposals Due: 5:00 pm CST, Friday, January 22, 2016

The Mid-America Regional Council (MARC) is requesting proposals from transportation consulting firms to conduct planning for Integrated Corridor Management along the I-35 corridor on the Kansas side of the Kansas City metropolitan area.

The project will be subject to MARC’s procurement process. Proposals that exceed a budget of $90,000 will not be considered. Proposals must be received at the MARC office, either physically or via electronic mail, by 5:00 pm CST, Friday, January 22, 2016. Any proposals received after this deadline will not be considered. Confirmation of the receipt of proposals is the responsibility of the submitting entity.

Background

MARC is the designated metropolitan planning organization (MPO) for the bi-state, 8-county Kansas City region. As the MPO, one of MARC’s responsibilities is to develop, maintain, and support multi-modal transportation strategies recommended in Transportation Outlook 2040, the region’s long-range transportation plan. Several strategies in the plan relate to management of the transportation system to achieve reliable and efficient performance, maximizing the use of existing infrastructure and investments. One particular strategy the plan promotes is Integrated Corridor Management.

Integrated Corridor Management (ICM) is the operational coordination of multiple transportation networks and cross-network connections comprising a corridor and the institutional coordination of those agencies and entities responsible for corridor mobility. The integration of operations among all transportation networks within a corridor is one solution to the growing congestion problem and its resulting mobility reductions within the I-35 corridor. Integration maximizes the effectiveness of operations and mitigates the effect of incidents that affect the movement of people and goods within the corridor.

A domestic scan of ICM implementation activities (see NCHRP Project 20-68A, Scan 12-02) evaluated several successful practices around the United States. The Scan Team Report published in October 2014 identified three common themes to ICM implementation examples: institutional integration, technical integration and operational integration. It will be important to consider and address each of these areas in the I-35 ICM Planning project.

The USDOT has supported extensive research on the subject of ICM. One particularly helpful resource is the ICM Knowledgebase on the website of the USDOT Intelligent Transportation Systems Joint Program Office website. The ICM Knowledgebase is intended to be a highly-useable, reliable 'one-stop' searchable online reference that provides transportation professionals the tools, strategies, sample documents and knowledge they need to successfully implement ICM in their corridors. See more at: http://www.its.dot.gov/icms/knowledgebase.htm
Study Area

This project is focused generally on the I-35 corridor in Wyandotte and Johnson Counties on the Kansas side of the Kansas City region (see Figure 1 below).

Figure 1. I-35 Corridor

From a transportation operations perspective, the I-35 corridor involves multiple modes, agencies and jurisdictions. Transportation infrastructure comprises not just the Interstate, but adjacent arterials, transit routes and facilities, and intelligent transportation systems (ITS) technologies. Cities, counties, State DOTs, transit operators, law enforcement, emergency responders, transportation management agencies, and traveler information providers are all key stakeholders and participants in the process of ICM planning and implementation.

Previous Planning

Several transportation operations strategies for the I-35 corridor have been identified through previous plans pertaining to the study area. These include:

- Transportation Outlook 2040
- I-35 Moving Forward: Corridor Optimization Plan
- 5-County Regional Transportation Study (Phase 2)
The I-35 ICM Planning project is not intended to implement all operational strategies recommended in previous planning studies, nor should it be strictly limited to those strategies. Proposals should demonstrate general knowledge and familiarity with previous plans and strategies identified in the corridor.

The Kansas City region has already begun to take steps toward ICM development with FHWA conducting a workshop in the region over one year ago. Key stakeholders have met following the workshop to begin early discussions of ICM concepts.

**Project Purpose**

This purpose of this project is to conduct the necessary planning work in order to develop a Concept of Operations (Con Ops) for the eventual implementation of an Integrated Corridor Management System (ICMS) along the I-35 corridor on the Kansas side of the MARC region. The goal of this (and any) Concept of Operations is to answer the questions of who, what, when, where, why and how for the application of an ICMS within the corridor. Given that an ICMS is a “system of systems,” involving multiple agencies and stakeholders, it is also essential that the Con Ops define the roles and responsibilities of these participating agencies and other involved entities.

**Scope of Work**

The tasks involved with this project are organized around Steps 1-3 of the ICM Implementation Process identified in the document titled “Integrated Corridor Management: Implementation Guide and Lessons Learned.” (USDOT Research and Innovative Technology Administration, FHWA-JPO-12-075)

http://ntl.bts.gov/lib/47000/47600/47670/FHWA-JPO-12-075_FinalPKG_508.pdf

The Scope of Work outlined in this RFP should serve as a guide for the development of proposals. The incorporation of additional tasks based on ICM experience is welcome and encouraged.

**Task 1. Stakeholder Identification and Engagement**

Institutional integration is a common and fundamental theme of successful ICM planning and implementation. For the I-35 ICM Planning, it will be critical to identify and involve a comprehensive set of transportation operations stakeholders. At a minimum this should include KC Scout, Operation Green Light (OGL), MARC, KDOT, MoDOT, RideShare, local public works agencies, law enforcement, and first responders. In addition to solicitation of input and feedback from stakeholders, engagement activities should be conducted with the goal of achieving buy-in from participating entities. Other considerations may include the development of a project charter and memorandums of understanding (MOUs).

**Task 2. System Overview and Assessment**

The I-35 ICM Concept will be based on a strong understanding of the institutional, technological and operational elements of the corridor. The concept of an ICM Capability Maturity Model (CMM) is one possible approach to analyzing and documenting the current operational state of affairs in a transportation corridor or area. Documentation of the current system address the following.

- Understanding of the corridor—define relevant regional ITS Architecture applicable to the corridor, capture recommendations from I-35 optimization study, identify relevant
requirements and recommendations from KC Scout ramp metering and incident management plan, describe the physical characteristics of the corridor, major adjacent highways, and stakeholders.

- Existing transportation assets—describe the transportation modes and facilities within the corridor that the proposal will impact, including arterials, transit facilities, ramp meters, and other existing ITS infrastructure.
- Current operations of the corridor—peak travel demand characteristics, special event impact, types of transportation challenges facing the efficient and effective operation and management of transportation facilities and services in the corridor.

Documentation of the future system should address planned projects along the corridor that may impact the operations of the highway or adjacent arterials, economic development that may impact the use of the highway system.

**Task 3. Develop Initial Planning Documents**

3.1 Project Management Plan – A project management plan (PMP) will outline project management activities, determine roles and responsibilities, and identify supporting plans. Other elements may include identification of one or more implementing agencies and an ICM champion for the corridor.

3.2 Systems Engineering Management Plan – A systems engineering management plan (SEMP) will address the transition of critical technologies, define needed systems and engineering processes, and specify integration activities.

3.3 Concept of Operations (ConOps) – A concept of operations (ConOps) is the primary purpose and ultimate goal of the I-35 ICM Planning project. This will identify and synthesize operational scenarios and define the anticipated impacts of the proposal. Impacts to operations and stakeholder organizations shall be defined. Improvements recommended for road geometry, operations, and hardware will be identified. Expectations for system safety, security, and reliability, availability, and maintainability (RAM) shall be defined for the proposed plan. System constraints shall be defined. Risks associated with implementation will also be captured and identified. Potential mitigations may be included. Training needs associated with the proposed changes will be identified.

**Task 4. Subsequent ICM Implementation Activities**

While a Concept of Operations is a key outcome of this project, it is by no means a final activity in the implementation of ICM in the I-35 corridor. Subsequent activities will likely include, but not be limited to:

- Specification and design of ICM system architecture,
- Purchase and implementation of technologies;
- Building and testing of integrated systems; and
- Operation and maintenance of systems

This project will include a task to develop a list of future activities critical to the advancement and implementation of ICM in the I-35 corridor with estimates of cost and implementation timeframe.
Proposal Submittal Requirements

To be eligible for consideration, proposals must be received by MARC no later than 5:00 pm CST on Friday, January 22, 2016. Proposals should not exceed 15 pages in length (not including required attachments) and must use at least a 10-pt font size. Proposals may be submitted in either electronic or hardcopy format, and it is the responsibility of the submitting entity to confirm receipt.

Electronic proposals may be submitted as a single PDF document via email to Jim Hubbell, Principal Transportation Planner (jhubbell@marc.org). Late submittals will not be considered.

For hardcopy proposals, five (5) copies of the proposal must be delivered to the MARC office, 600 Broadway Blvd., Suite 200, Kansas City, MO 64105. The envelope should be marked “I-35 ICM Planning.” Late submittals will not be considered and will be returned to the submitter unopened.

The following items must be addressed and forms provided in all proposals.

1. **Scope of Work:** MARC staff has developed a general outline of work tasks associated to the Scope of Work. The Contractor will be required to recommend and expand and/or revise upon this study’s Scope of Work.

2. **Contract Price:** Proposals should indicate the cost of services to be provided. Also required is a schedule by task of man-hours, equipment, and services.

3. **Qualifications:** Proposals should indicate general and specific qualification of the proposer in planning, engineering and disciplines appropriate to this project. A brief narrative (four pages maximum) regarding the firm’s capabilities to carry out this project, including special assets, areas of expertise, analytical tools, and data sources, etc. to which the firm may have access. Proposals shall also include:
   a. A listing and written description of similar projects undertaken within the last five (5) year, by proposing firm and/or its subcontractors, showing contract amounts, description of work performed, client contact persons, phone numbers, and e-mail addresses;
   b. Resumes of key professional staff who will be assigned to this project (does not count towards the page total);
   c. Description of the workload of individuals assigned to this project during the period of this study. Any reassignment of designated key staff will not occur without mutual consultation and consent by MARC.
   d. References

4. **Disadvantaged Business Enterprise (DBE) Requirements and Participation:** MARC’s DBE policy requires that qualified DBE’s be afforded an equitable opportunity to participate in contracts. Proposers are encouraged to involve DBEs in subcontracts or joint ventures. Per KDOT, the goal placed on this project is 10%. DBE proposers should submit, with their proposals, Intent to Perform as a Disadvantage Business Enterprise (DBE), Attachment D, for each proposed DBE contractor, subcontractor, or
joint venture. Certification of DBEs will be made in accordance with KDOT’s DBE program. The DBE must be certified in Kansas.

5. **Affirmative Action Checklist:** If applicable, proposers must complete and enclose with their proposal company’s Affirmative Action Plan (see Attachment C Affirmative Action Checklist).

6. **Certification Regarding Debarment:** Each proposer is required to certify by signing the “Certification Regarding Debarment, Suspension, and Other Ineligibility and Voluntary Exclusion” (Attachment A). “Certification Regarding Debarment, Suspension, and Other Ineligibility and Voluntary Exclusion” is a certification that the proposer is not on the U.S. Comptroller General’s Consolidated Lists of Persons or Firms Currently Debarred for Violations of Various Contracts Incorporating Labor Standards Provisions.

7. **Certification Regarding Lobbying:** See Attachment B.

8. **KDOT Special Terms:** See Attachment C and return form 07-19-80-R12 (MPO)

**Selection Procedure**

A short list of proposers and/or proposer teams will be selected on or about January 29, 2016 by MARC, after MARC and the study’s selection committee analyzes all proposal information. Short-list proposers should be available for interviews and/or presentations prior to the selection of a Contractor. The final selection of a Contractor shall occur in early February 2016 (contingent upon approval by MARC’s Board of Directors). MARC reserves the right to negotiate a contract, including a scope of work, and contract price, with any proposers or other qualified party.

This Request for Proposal does not commit MARC to award a contract, to pay any cost incurred in preparation of a response to this Request, or to procure or contract for services or supplies. MARC reserves the right to accept or reject any and all responses received as a result of this Request, or cancel this Request in part or in its entirety if it is in the best interests of MARC to do so. Proposers shall not offer any gratuities, favors, or anything of monetary value to any officer, employee, agent, or director of MARC for the purpose of influencing favorable disposition toward either their proposal or any other proposal submitted as a result of the Request for Proposal.

MARC reserves the right to suggest to any or all proposers to the Request for Proposals that such proposers form into teams of consulting firms or organizations deemed to be advantages to MARC in performing the Scope of Work. MARC will suggest such formation when such relationships appear to offer combinations of expertise or abilities not otherwise available. Proposers have the right to refuse to enter into any suggested relationships.

All Proposals submitted hereunder become the exclusive property of MARC.

**Proposal Evaluation**

The proposals submitted by each Contractor, Firm, or Contractor Team, will be evaluated according to the following factors.

1. Specialized experience and technical competence of the contractor and assigned staff relative to the scope of work and task requirements outlined in this RFP. (30%)
   a. Experience of the project manager
   b. Experience of the prime contractor(s) and subcontractor(s)
c. Experience of other assigned individuals

2. Quality of Proposed Approach (25%)
   a. Understanding the proposed scope of work
   b. Comprehensive understanding of transportation operations issues in the I-35 corridor
   c. General understanding of transportation agencies and operators in the I-35 corridor
   d. General organization and clarity of the proposal

3. References reflecting previous work experience of the project team and satisfactory accomplishment of contractor responsibilities. (25%)
   a. Client satisfaction with quality of final product
   b. Ability to meet work schedules
   c. Responsiveness to client input

4. Ability to complete project on schedule (10%)
   a. Reasonable and appropriate allocation of labor resources
   b. Project schedule and timeliness of products
   c. Consideration of other commitments

5. DBE participation (10%)
   a. Level of DBE participation

Contract Award

MARC will notify the selected candidate by telephone, e-mail and in writing. Following verbal notification, MARC will negotiate a standard professional service agreement with the selected candidate. The selected candidate’s proposal will be incorporated by reference in the contract. Additionally, MARC will notify, in writing, the candidates who are not selected.

Procurement Schedule

The following is a tentative schedule for the Contractor selection process.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Schedule</th>
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<tr>
<td>RFP Issued</td>
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<tr>
<td>Deadline for Proposals</td>
<td>January 22, 2016</td>
</tr>
<tr>
<td>Short List Announced</td>
<td>Late January to early February, 2016</td>
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<tr>
<td>Project Completion</td>
<td>TBD after contract negotiation</td>
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</table>

Project Budget and Period

The budget available for this project is $90,000. The Kansas Department of Transportation and MARC have committed federal planning funds and required local funds to this project. It is estimated the project period will be 12 months.
Mid-America Regional Council’s Quarterly Report
For Operation Green Light

4th Quarter 2015 Report
January 25th, 2015

Prepared For:
OGL Steering Committee

Prepared By:
OGL Operations Team
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Introduction

Operation Green Light (OGL) is a bi-state regional effort to improve traffic flow and reduce vehicle emissions. Managed by the Mid-America Regional Council (MARC), Operation Green Light works with federal, state and local agencies to operate a system that coordinates traffic signal timing and communication between intersections across jurisdictional boundaries.

This report details the work performed on the Operation Green Light communications network during the 4th Quarter (October, November, and December) of 2015 and highlights of signal timing and agency coordination. OGL currently monitors/operates 692 signals and manages over 1200 network devices. These devices include intersection controllers, wireless radios, switches, cameras, routers, serial-to-IP converters and servers. For more information on the program, visit http://www.marc.org/Transportation/Commuting.

Operations Summary

A summary of the operational results and activities of the OGL program staff during the reporting period is presented below.

Repair tickets

- OGL staff actively responded to 47 repair tickets, representing about a 10% increase compared to last quarter.

Corridor Timing Efforts

- 10/21 & 10/22 New signal coordination timings were implemented on M58 in Raymore, MO
- 11/18 & 11/19 – New signal coordination timings were implemented on sections of Paseo Blvd and Troost Ave in Kansas City, MO

Training Sessions/Panels/Events

- 11/12 – Ray Webb attended the regional KCITE Chapter Business Meeting
- 11/17 – OGL staff participated in Implementing ICM: Scan, Findings, Updates, and Next Steps webinar
- 11/19 – Ray Webb attended the TCC Traffic Expo at Kauffman Stadium

Additional Information

- OGL staff set up and scheduled the Miovision equipment to conduct 12 counts. Most of these were 13-hour turning movement counts and the remaining were 24-hour ADT counts.
- OGL staff completed 1 AM, 1 off-peak, and 1 PM travel time studies.
Notes on Operations Summary

1. Repair ticket levels used by OGL staff are defined in Exhibit I Scope of Services as follows:
   - Minor – investigate and resolve communication problem within 5 business days, weather permitting
   - Major – investigate and resolve communication problem within 2 business days, weather permitting
   - Critical – investigate and resolve communication problem within 24 hours, weather permitting

System Hardware/Software Activities/Issues

The following list represents major software or hardware activities performed during the 4th Quarter of 2015:

- ETI began replacing the wireless radios in the north sector of at Pod 5 KCMO City Hall. This was outlined in the OGL Technology Plan. New Radwin radios were purchased in anticipation of completing the planned replacement of Alvarion equipment for 2015/16 and for some other problem areas. This work will continue for the next few months. This is the reason for the spike in repair tickets created in November. There were a total of 25 radios replaced so far. The image below show what radios were replaced.
Interagency Coordination

During the 4th Quarter, OGL staff participated in the following interagency activities:

- 10/1, 10/5, 10/8, 10/12, 10/15, 10/19, 10/22, 10/26, 10/29 – Barry Viss worked at the KCMO TOC
- 10/2 – Ray Webb and Barry Viss met with Raymore and Olsson Associates staff to discuss proposed changes to signal operation on M-58
- 10/5 – Ray Webb and Barry Viss met with KC Scout staff and Independence, MO Public Works and Police Department staff to discuss signal timing coordination concerning the Silverstein Events Center
- 10/8 – OGL staff met with Affinis staff to discuss current STP project
- 10/14 – Ray Webb and Barry Viss participated in conference call regarding recent signal timing concerns at Shawnee Mission Pkwy & Rainbow
- 10/15, 11/19, 12/17 – OGL staff participated in monthly regional TransCore conference call
- 10/16, 10/30, 11/13, 12/18 – OGL staff participated in bi weekly conference call with Olsson Associates regarding current signal timing efforts
- 10/19 – OGL staff met with KCMO staff regarding coordination plan implementation
- 10/26 – OGL staff participated in the Quarterly Steering Committee meeting
- 10/28 – OGL staff met with CBB to discuss TransSuite operations
- 11/2, 11/5, 11/9, 11/12, 11/16, 11/23, 11/30 – Barry Viss worked at the KCMO TOC
- 11/5 – OGL staff participated with STP CCTV and Network Redundancy project meeting with Affinis, MoDOT, and KCMO staff
- 11/9 – Barry Viss participated in the KCMO Traffic Staff meeting
- 11/9 – OGL staff met with Olsson staff to discuss incident management
- 11/16 – Barry Viss met with KC Scout staff, Independence, MO Public Works and Police Department staff to discuss signal timing coordination concerning the Silverstein Events Center
- 11/17 – KDOT staff visited and toured the OGL TOC
- 11/18 – OGL staff conducted an OGL Communications Support RFP Pre-Proposal meeting
- 12/1 – Ray Webb and Barry Viss met with Belton and Olsson Associates staff to discuss proposed signal timings for Route Y/163rd St
- 12/4 – Ray Webb and Barry Viss met with KCK, KCMO, KDOT, MoDOT and the consultant team to discuss replacement of the Lewis and Clark Viaduct bridge and the transportation management plan
- 12/3, 12/7, 12/10, 12/14, 12/17, 12/21, 12/28 – Barry Viss worked at the KCMO TOC
- 12/7 – Chris Jenkins worked with Shawnee staff to complete federation of Genetec systems
- 12/9 – OGL and MoDOT staff met with Miovision to discuss current project and new products
- 12/10 – OGL staff met with MoDOT staff to discuss signal operations on M-58 in Belton, MO
- 12/16 – OGL staff participated with numerous agencies in a discussion led by Olsson Associates about Regional Incident Management planning
- 12/18 – OGL staff met with several agency representatives to select a consultant team from those who had responded to the OGL Signal Timing and Engineering RFQ
Quarterly Repair Ticket Statistics by Month

In the 4th Quarter of 2015, OGL staff created and responded to 47 repair tickets in the Kansas City area. This number represents an decrease of about 23% compared to the 4th Quarter of 2014 and a 10% decrease compared to the 3rd quarter of 2015. All repair tickets are shown by month in Figure 1.

**Figure 1 – Quarterly Repair Ticket Statistics by Month**

![Quarterly Repair Ticket Statistics by Month](image)

Additional Repair Ticket Details:

**Figure 2 – Monthly Repair Ticket Statistics / Prior 12 months**

Figure 2 shows the number of repair tickets that OGL staff responded to for the last 12 months. It is intended to show long-term trends in incidents that are occurring on the OGL network.
Additional Statistics

OGL Network Pod Diagram

Figure 3 shows the overall design of the OGL Network and Pod Locations. It is noted that the different color of lines between the Pods are representing the different type of network connections. A black line represents a FCC licensed link, an orange line represents a fiber optic connection, and a light blue line represents an unlicensed radio link.

Figure 3 – OGL Network Pod Diagram
Repair Tickets by Network Pod

OGL staff is continually working on improving the reliability of the OGL network. Therefore, staff monitors and tracks which network pods continually have incidents. Figure 4 shows the number of repair tickets for each Pod and Figure 5 shows the number of repair tickets year-to-date for each Pod.

Figure 4 – Repair Tickets by Network Pod

![Figure 4 – Repair Tickets by Network Pod](image)

Figure 5 – Repair Tickets by Network Pod / Year – to – date

![Figure 5 – Repair Tickets by Network Pod / Year – to – date](image)
Repair Tickets by Equipment Type

Figure 6 – Repair Tickets by Equipment Type

Figure 6 shows the number and percentage of incidents that occur for each equipment type for the quarter.

![Pie chart showing repair tickets by equipment type.](image)

Figure 7 – Repair Tickets by Equipment Type / Year – to – Date

Figure 7 shows the percentage of repair tickets year – to – date for each equipment type.

![Pie chart showing repair tickets by equipment type year-to-date.](image)
Repair Ticket Statistics by Severity Level

Figure 8 – Repair Ticket Statistics by Severity Level

Figure 8 shows the number and percentage of incidents by severity level for the quarter.

![Pie chart showing repair ticket statistics by severity level, with 98% minor, 2% major, and 0% critical.]

Figure 9 – Repair Ticket Statistics by Severity Type / Prior 12 months

Figure 9 shows the number of incidents by severity type that OGL staff has managed in the last 12 months.

![Bar chart showing repair ticket statistics by month and severity level for 2015.]

0 Critical
24 Major
37 Minor
Summary of Critical Events
The OGL staff responded to 0 critical events during the 4th Quarter of 2015.

Preventative Maintenance
Each year at the Pod locations for the OGL network, preventative maintenance is performed according to Exhibit I Scope of Services.

There was no preventative maintenance performed in the final quarter of 2015.

CCTV Operations
As part of the MO ARRA project, CCTV cameras were installed at numerous locations throughout the project at select locations. Since final installation, these cameras have proved valuable at many times. During times of timing plan implementation, construction and detours, OGL staff, engineers, and signal electricians have routinely used these cameras to observe traffic and signal operations. Through the use of CCTV combined with TransSuite, malfunctions can be investigated remotely for a variety of issues including detection problems and timing concerns.

Using funds that were awarded from the 2013/14 STP Call for Projects, installation of 65 PTZ cameras and 10 point-to-point wireless radios began. These new cameras were installed in areas to supplement existing camera coverage or where no coverage existed in the past. The radios were installed in an effort to upgrade some of the existing unlicensed backhaul links and to create new links in an effort to provide more network redundancy. This project is in the final stages of acceptance and should be completed soon.
## Traffic Signal Event Tracking

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</table>

**Total** 180
OGL, OP, KCSCOUT Connection

Background:

1. MARC maintains communication infrastructure for OGL from the MODOT Kansas City District building (Scout data center, Hereafter "MODOT") to the Sheraton hotel in Overland Park. These wireless links provide more than sufficient capacity for OGL purposes, but are prone to go down (lose signal) during heavy rain. Additionally, these radio links have been designated at end-of-life and MARC will likely not be able to replace them for a couple more years. MARC has spare parts to repair/replace the wireless links in the event of damage, but down time could be several days depending on contractor availability.

2. The OGL network already interfaces with the KC Scout network at the MODOT building and with Overland Park network at the Sheraton.

3. Overland Park and KC Scout already interface with each other such that they can communicate for their own purposes. This link is currently down due to construction at I-435 & Roe, but should be available again by Spring, 2015.

4. OGL's data rate on the Pod 1 to Pod 1B link averages 10-15 Mbps, 95th percentile traffic is 60 Mbps.

Proposal: That the three agencies work together to allow a backup redundant network path through the Overland Park and KC Scout networks for use by OGL in the event one of OGL's network links goes down. Overland Park and KC Scout will provide connectivity for OGL network equipment to run an Ethernet-over-IP tunnel through their networks. They will provide connectivity between 10.6.236.X (will reside on a MARC-owned router at the Sheraton) and 10.6.236.Y (will reside on a MARC-owned router at MODOT) to communicate with each other using IP protocol 47 (GRE tunneling protocol) and TCP port 8291 (router management). The exact IP addresses will be per KCSCOUT staff preference. MARC and Overland Park will enter into an agreement prior to authorizing staff to make the necessary configuration changes. See Figure 1. below.

Figure 1. Existing and Proposed OGL Backbone Links. Node 1 is MODOT. Node 8 is the Sheraton Hotel.