



ITS Heartland Annual Meeting

Ames Traffic Signal Master Plan – A Phased Approach to ITS





Project Overview

- ▶ The City of Ames initiated the Traffic Signal Master Plan project to identify innovative, phased approaches to developing advanced systems for improved traffic management.
- ▶ Evaluation of existing traffic signal assets is necessary to carry forward into future project phases.
- ▶ Currently, Phase 1 and Phase 2 construction is underway
- ▶ Phase 3 Design is starting soon





Team Overview

City of Ames

- ▶ Mark Gansen
- ▶ Damion Pregitzer
- ▶ Brad Becker
- ▶ Kyle Thompson

HR Green

- ▶ Tyler Wiles
- ▶ Chase Cutler
- ▶ Michael Volk

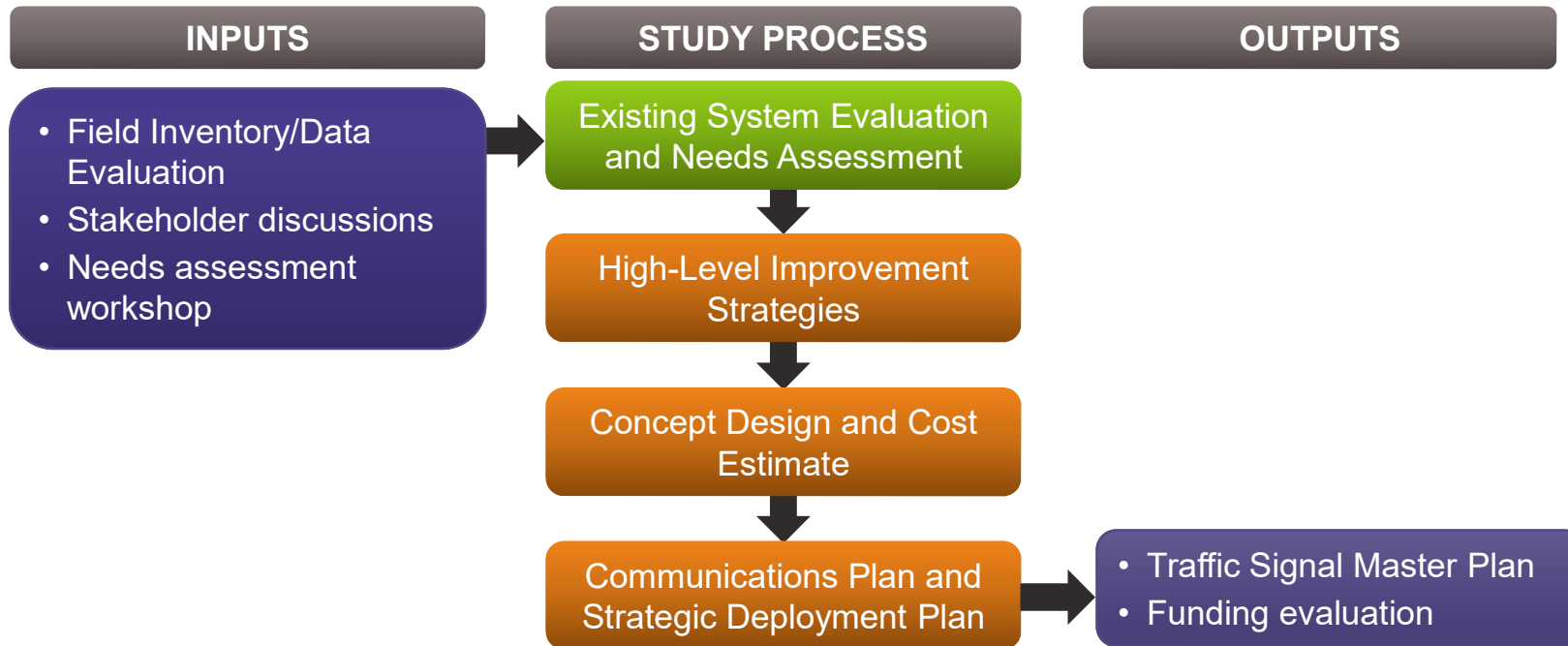
gbaSI

- ▶ Collin Dyer
- ▶ Doug Pershall
- ▶ Jamie Gilbert





Study Approach





Field Inventory

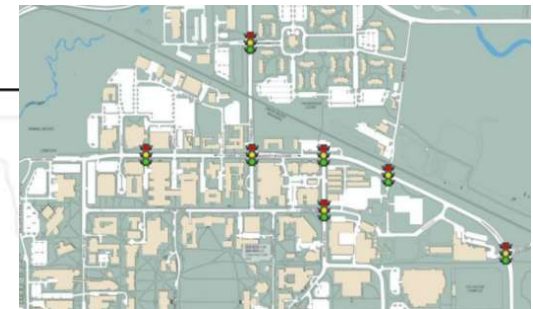
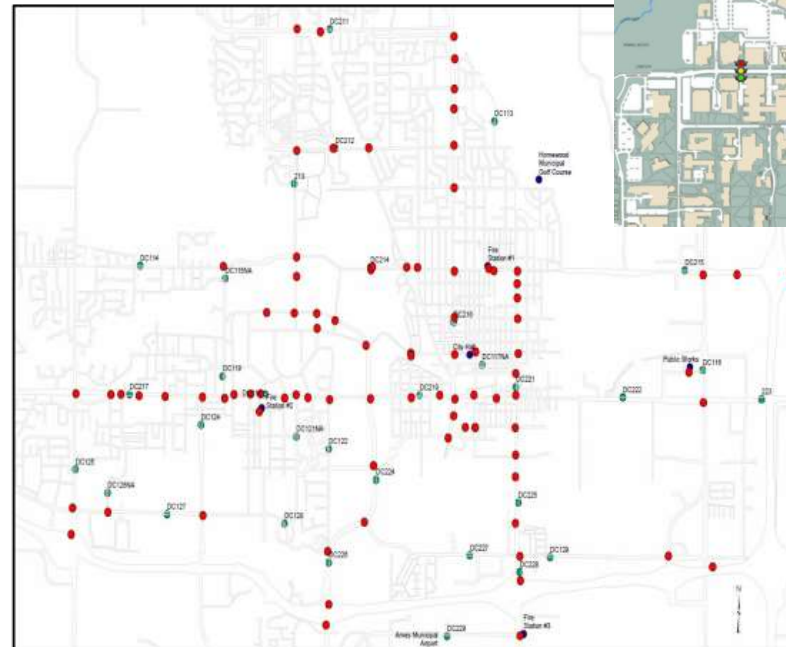
The City currently operates around:

- ▶ 78 traffic signals;
- ▶ 2 pedestrian signals;
- ▶ 6 school flashers;
- ▶ 6 School crossing signals

Iowa State University (ISU)

- ▶ 7 traffic signals
 - ▶ Could eventually be tied into Ames signal system

City Signals



ISU Signals



Field Inventory

Traffic Signal Controller Type

Type	Number
Siemens M10	5
Siemens M40	6
Siemens M42	30
Siemens M52	34
McCain ATCex2	3
Total	78

Traffic Signal Detection Type

Type	Number
Inductive Loops	26
Video	1
Radar	32

Traffic Signal Cabinet Type

Type	Number
TS1	88
TS2 Type 1	3
ATC Low Voltage	1
Total	92

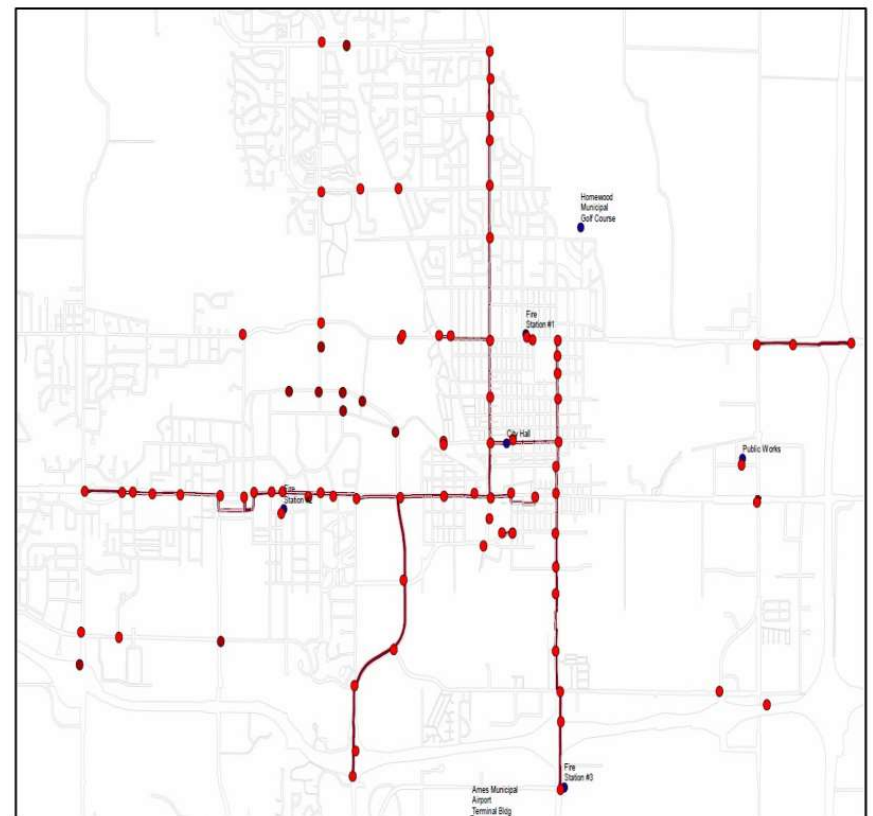
- ▶ 36 Traffic detection sensors (Wavetronix – Cell comm.)
- ▶ 28 of 78 Signals with UPS (Tesco majority)
- ▶ 52 of 78 Signals with EVP (Tomar majority)
- ▶ Closed Loop System and Software
 - ▶ Tactics V 2.1.0 Software for Four corridors
 - ▶ University Avenue, Lincoln Way, Duff Avenue, Grand Avenue
 - ▶ Three On-Site Master Controllers
 - ▶ Twisted-wire pair Copper & Serial Type Comm. Protocols



Field Inventory

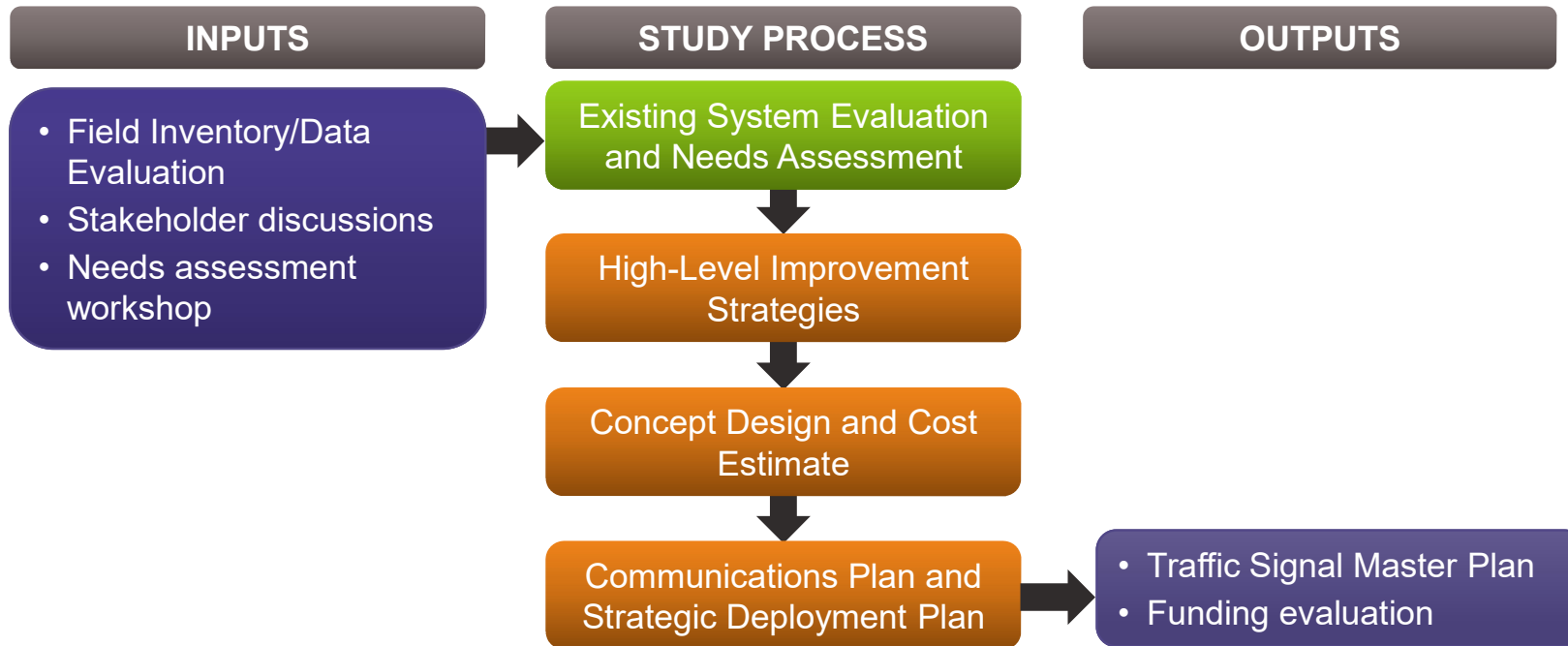
- ▶ No existing Fiber Optic Cable dedicated or Ames Traffic Department
 - ▶ Municipal Services Electric Department has overhead fiber
 - ▶ No Memo of Understanding
 - ▶ Security Concerns
- ▶ TWP Copper (Majority 12-pair cable)
 - ▶ Manual on-site downloads/uploads of signal timing data
- ▶ Existing conduit to not be used moving forward due to condition
 - ▶ Four corridors
 - ▶ University Avenue, Lincoln Way, Duff Avenue, Grand Avenue

Existing Communications / Conduit Infrastructure





Study Approach





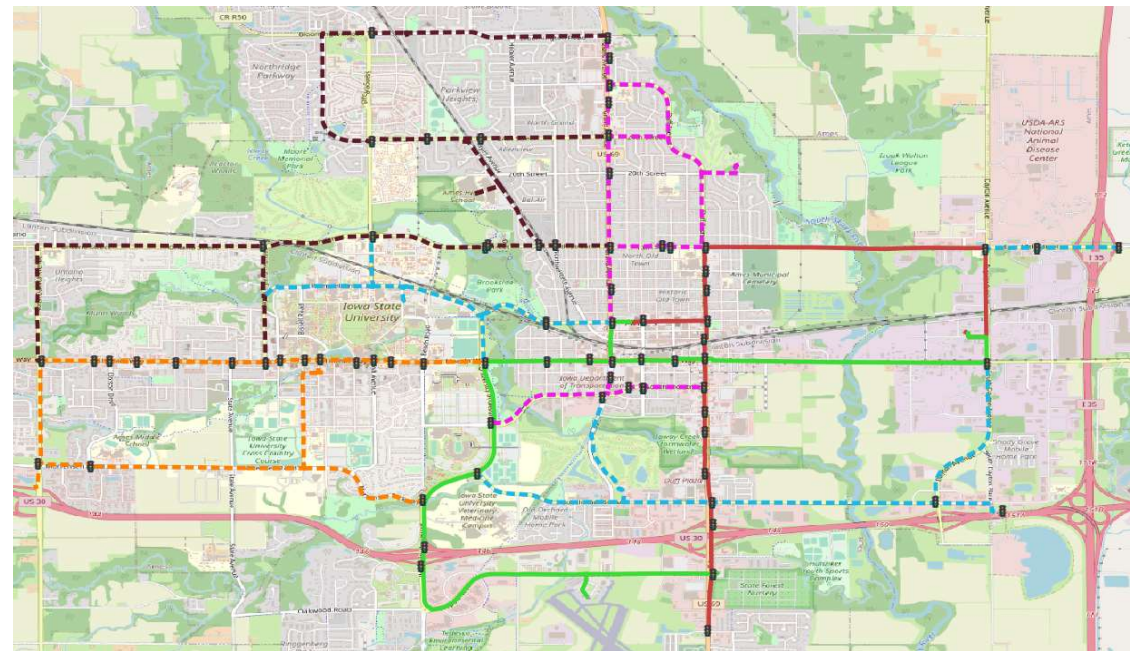
Deployment Plan

6-Phase Master Plan that is based upon:

- ▶ Multi-year / Budget
- ▶ Priority
- ▶ Communication
- ▶ Field equipment
- ▶ Software
- ▶ Integration

2020 Dollars

Total for Phase One –	\$1,517,600
Total for Phase Two –	\$1,711,000
Total for Phase Three –	\$1,654,000
Total for Phase Four –	\$1,681,626
Total for Phase Five –	\$2,079,000
<u>Total for Phase Six –</u>	<u>\$1,011,035</u>
Total for Project –	\$9,654,261

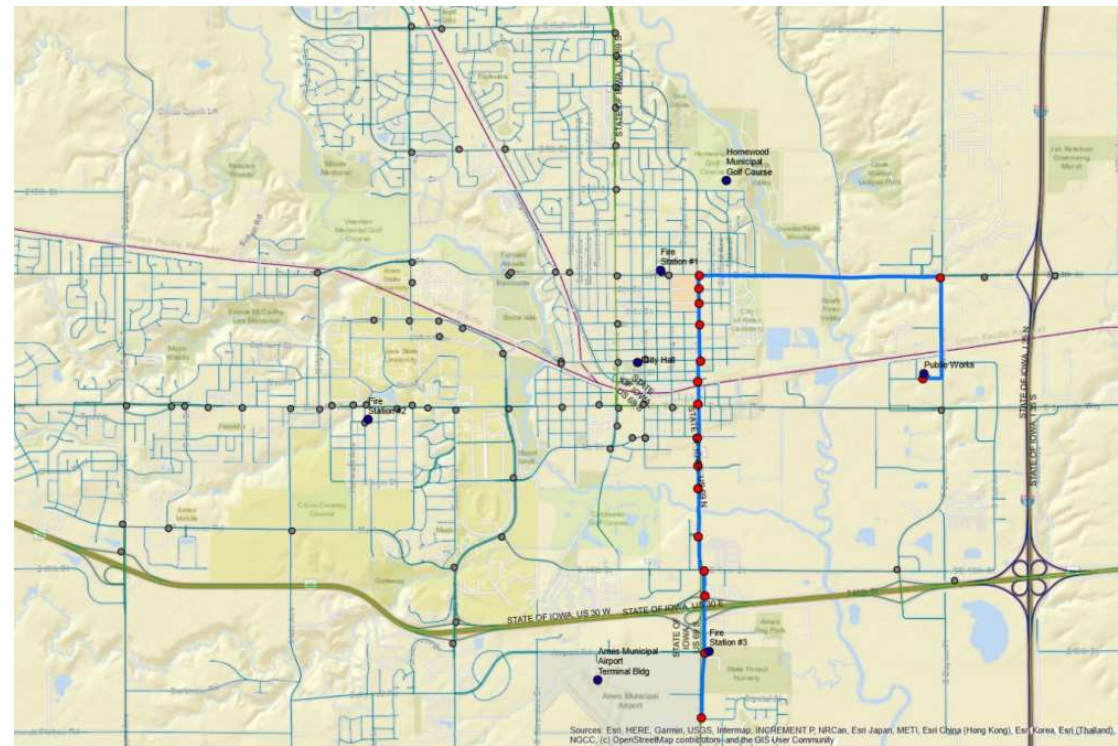




Phase 1 Plan

- ▶ 16 Intersections
 - ▶ Controller, Ethernet Switch, Detection, PTZ, UPS, Web Power Switch
- ▶ 25,000' of Conduit / Fiber
- ▶ 4 Cross Connect Cabinets
- ▶ 2 Hub Sites
 - ▶ Fire Station #3
 - ▶ Public Works Building
- ▶ ATMS Software Procurement

Phase 1 Location Map

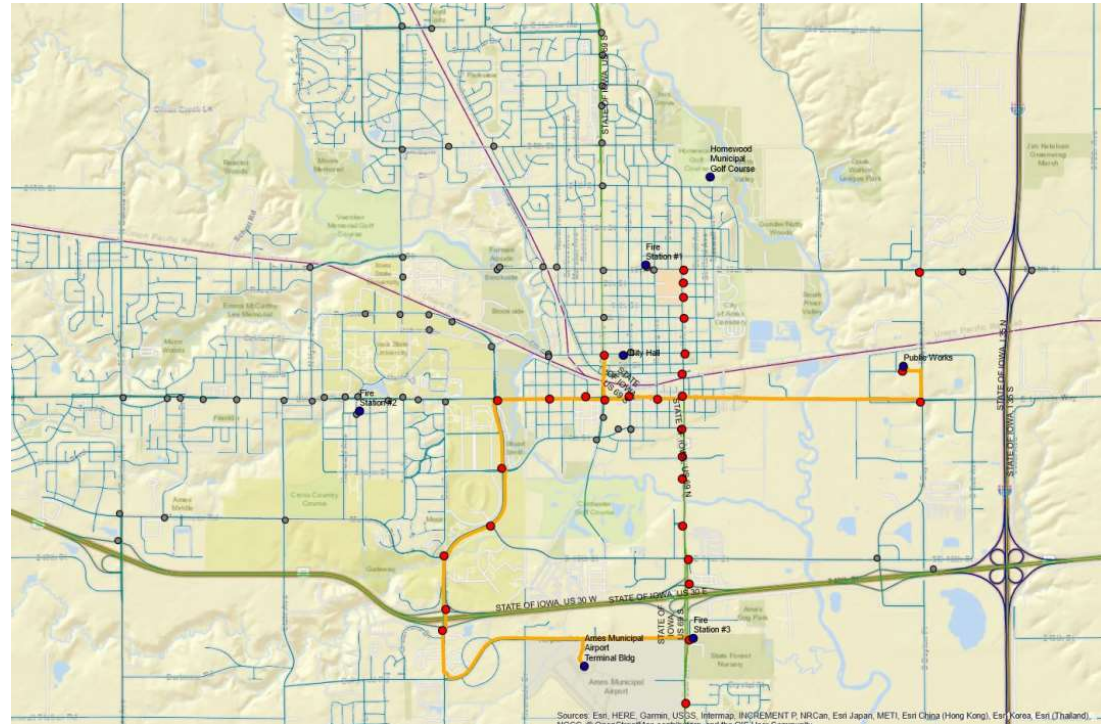




Phase 2 Plan

- ▶ 14 Intersections
 - ▶ Controller, Ethernet Switch, Detection, PTZ, UPS, Web Power Switch
- ▶ 37,000' of Conduit / Fiber
- ▶ 3 Cross Connect Cabinets
- ▶ 2 Hub Sites
 - ▶ City Hall
 - ▶ Airport (Spur Connection)

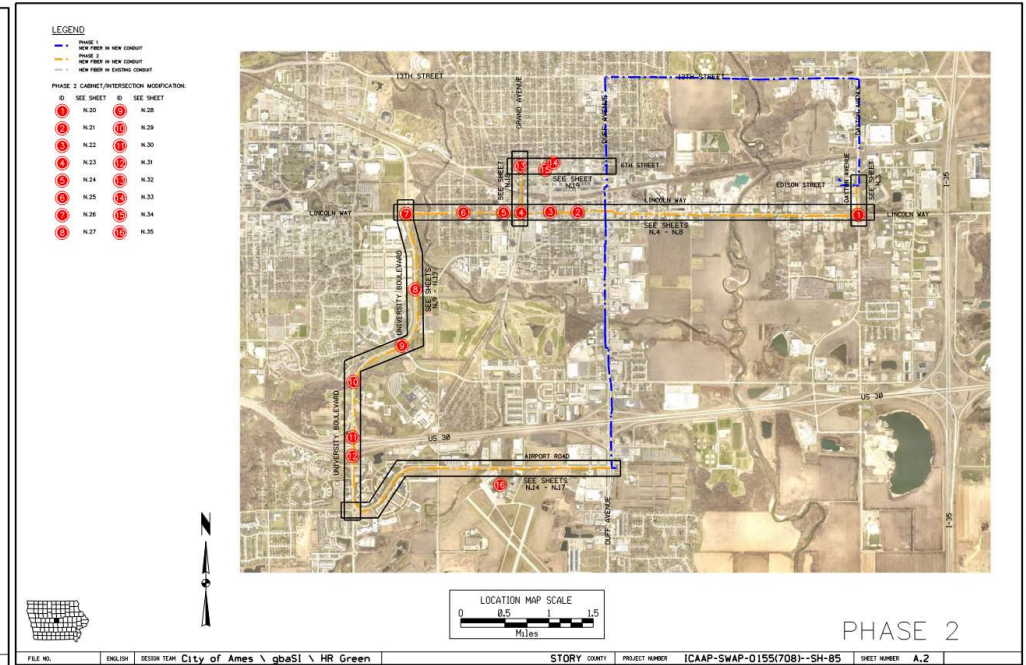
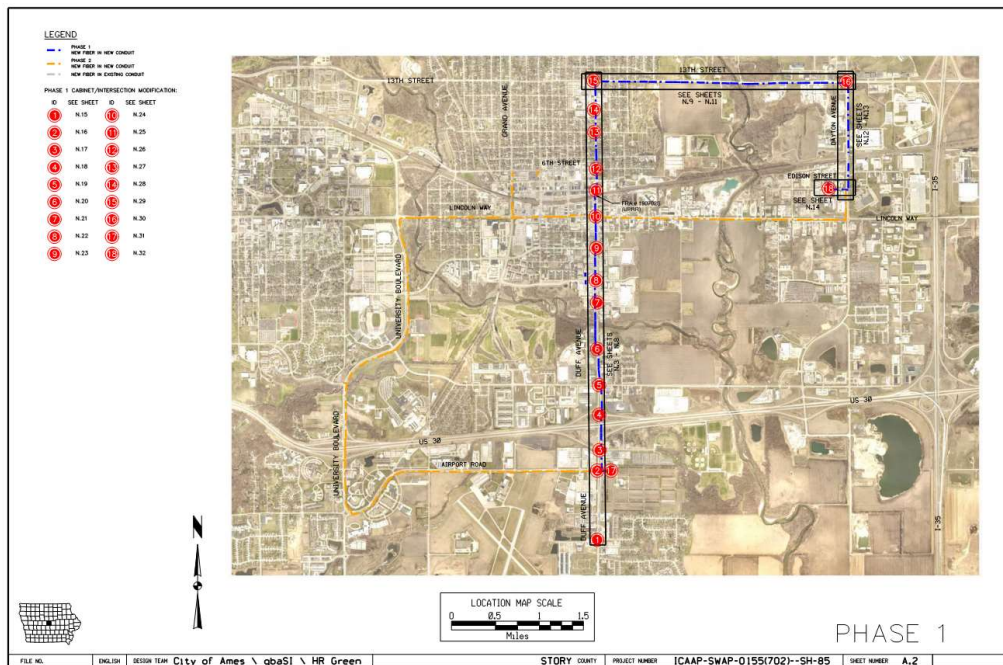
Phase 2 Location Map





Phase 1 & 2 Implementation

Two Separate Combined Plan Sets





Phase 1 & 2 Implementation

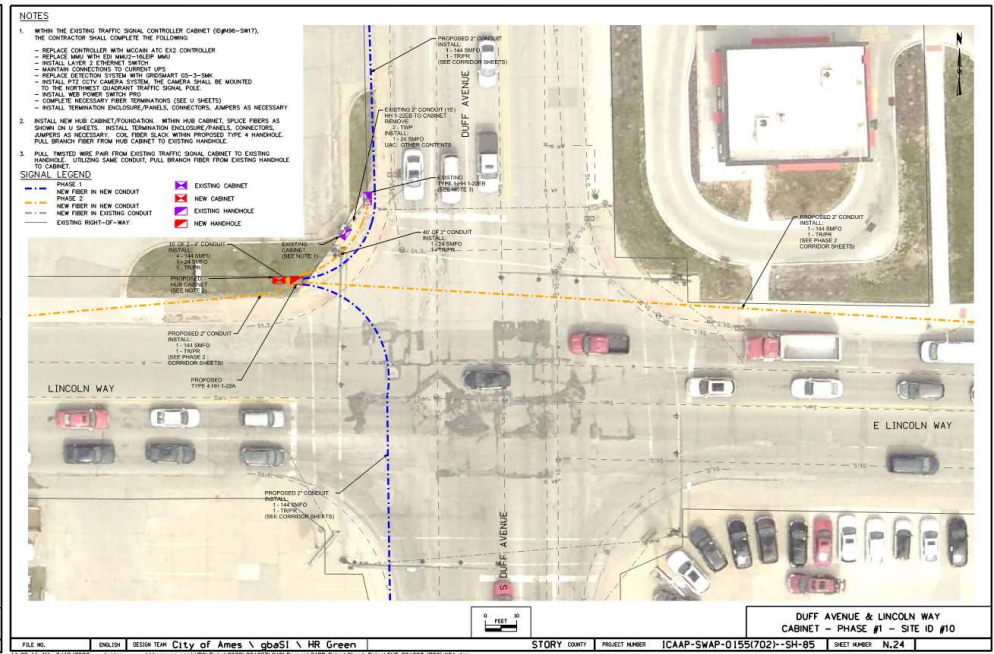
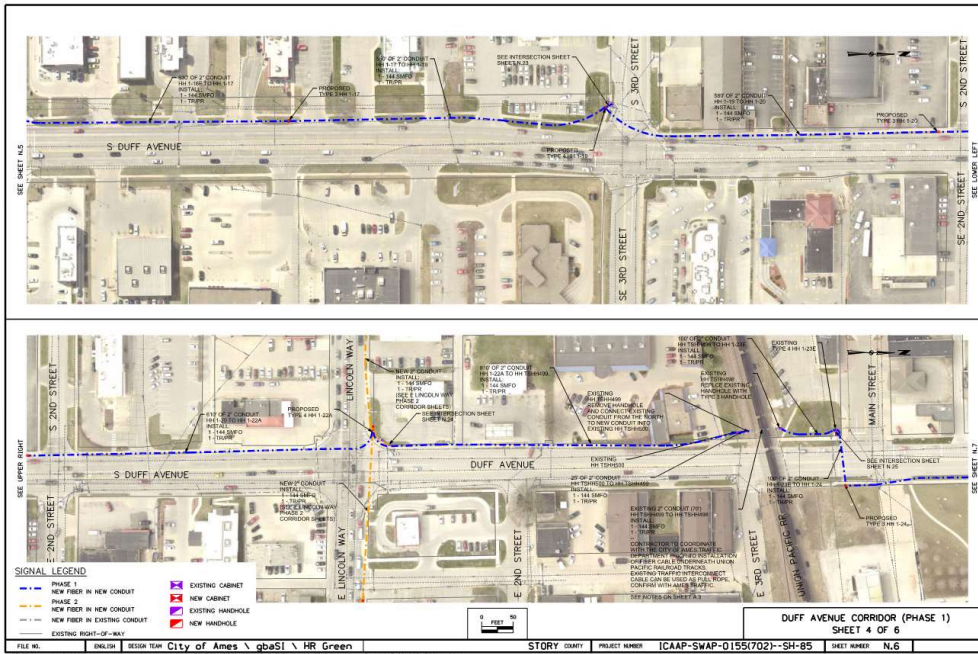
Fieldwork





Phase 1 & 2 Implementation

50 Scale Corridor Sheets / 10 Scale Intersection Sheets



Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023



Phase 1 & 2 Implementation

Layer 2 / Layer 3

- ▶ Layer 2 Switch: Pepperl + Fuchs
- ▶ Layer 3 Switch: Cisco

Network Performance Monitor Software

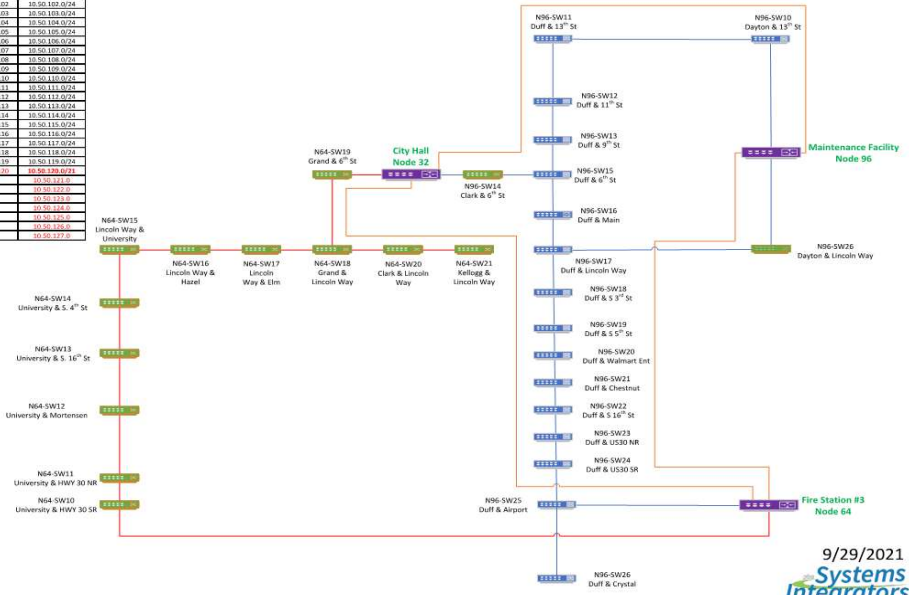
- ▶ Solarwinds

ATMS / ASCT Software

- ▶ McCain Transparity

Location Name	City Hall		Fire Station #3		Ames Maintenance Facility	
Device ID	10.50.32.0/24		10.50.64.0/24		10.50.96.0/24	
Network Subnet	10.50.32.0/24		10.50.64.0/24		10.50.96.0/24	
Device Type	VLAN	Subnet ID	VLAN	Subnet ID	VLAN	Subnet ID
Mgmt	2013	10.50.32.0/24	2014	10.50.64.0/24	2015	10.50.96.0/24
AMM	2012	10.50.32.0/24	2016	10.50.64.0/24	2017	10.50.96.0/24
LPI	2014	10.50.32.0/24	2018	10.50.64.0/24	2019	10.50.96.0/24
LVP	2015	10.50.32.0/24	2017	10.50.64.0/24	2018	10.50.96.0/24
RT	2016	10.50.32.0/24	2018	10.50.64.0/24	2019	10.50.96.0/24
PTZ	2017	10.50.32.0/24	2019	10.50.64.0/24	2100	10.50.112.0/24
EMS	2018	10.50.32.0/24	2019	10.50.72.0/24	2101	10.50.112.0/24
WiFi	2019	10.50.32.0/24	2021	10.50.72.0/24	2101	10.50.112.0/24
AP	2040	10.50.48.0/24	2027	10.50.72.0/24	2104	10.50.112.0/24
WebS	2041	10.50.48.0/24	2021	10.50.72.0/24	2105	10.50.112.0/24
LPI	2042	10.50.48.0/24	2024	10.50.72.0/24	2106	10.50.112.0/24
RT	2044	10.50.48.0/24	2026	10.50.72.0/24	2107	10.50.112.0/24
Access	2044	10.50.48.0/24	2026	10.50.72.0/24	2108	10.50.112.0/24
PowerSwitch	2045	10.50.48.0/24	2027	10.50.72.0/24	2109	10.50.112.0/24
Future	2046	10.50.48.0/24	2028	10.50.72.0/24	2110	10.50.112.0/24
Future	2047	10.50.48.0/24	2029	10.50.72.0/24	2111	10.50.112.0/24
Future	2048	10.50.48.0/24	2030	10.50.72.0/24	2112	10.50.112.0/24
Future	2049	10.50.48.0/24	2031	10.50.72.0/24	2113	10.50.112.0/24
Future	2050	10.50.48.0/24	2032	10.50.72.0/24	2114	10.50.112.0/24
Future	2051	10.50.48.0/24	2033	10.50.72.0/24	2115	10.50.112.0/24
Future	2052	10.50.48.0/24	2034	10.50.72.0/24	2116	10.50.112.0/24
Future	2053	10.50.48.0/24	2035	10.50.72.0/24	2117	10.50.112.0/24
Future	2054	10.50.48.0/24	2036	10.50.72.0/24	2118	10.50.112.0/24
WebServer	2055	10.50.48.0/24	2040	10.50.72.0/24	2120	10.50.112.0/24
Client	2056	10.50.48.0/24	2041	10.50.72.0/24	2121	10.50.112.0/24
Client	2057	10.50.48.0/24	2042	10.50.72.0/24	2122	10.50.112.0/24
Client	2058	10.50.48.0/24	2043	10.50.72.0/24	2123	10.50.112.0/24
Client	2059	10.50.48.0/24	2044	10.50.72.0/24	2124	10.50.112.0/24
Client	2060	10.50.48.0/24	2045	10.50.72.0/24	2125	10.50.112.0/24
Client	2061	10.50.48.0/24	2046	10.50.72.0/24	2126	10.50.112.0/24
Client	2062	10.50.48.0/24	2047	10.50.72.0/24	2127	10.50.112.0/24
Client	2063	10.50.48.0/24	2048	10.50.72.0/24	2128	10.50.112.0/24
Client	2064	10.50.48.0/24	2049	10.50.72.0/24	2129	10.50.112.0/24
Client	2065	10.50.48.0/24	2050	10.50.72.0/24	2130	10.50.112.0/24
Client	2066	10.50.48.0/24	2051	10.50.72.0/24	2131	10.50.112.0/24
Client	2067	10.50.48.0/24	2052	10.50.72.0/24	2132	10.50.112.0/24
Client	2068	10.50.48.0/24	2053	10.50.72.0/24	2133	10.50.112.0/24
Client	2069	10.50.48.0/24	2054	10.50.72.0/24	2134	10.50.112.0/24
Client	2070	10.50.48.0/24	2055	10.50.72.0/24	2135	10.50.112.0/24

City of Ames Traffic Signal Network Phase 1 & 2 Architecture



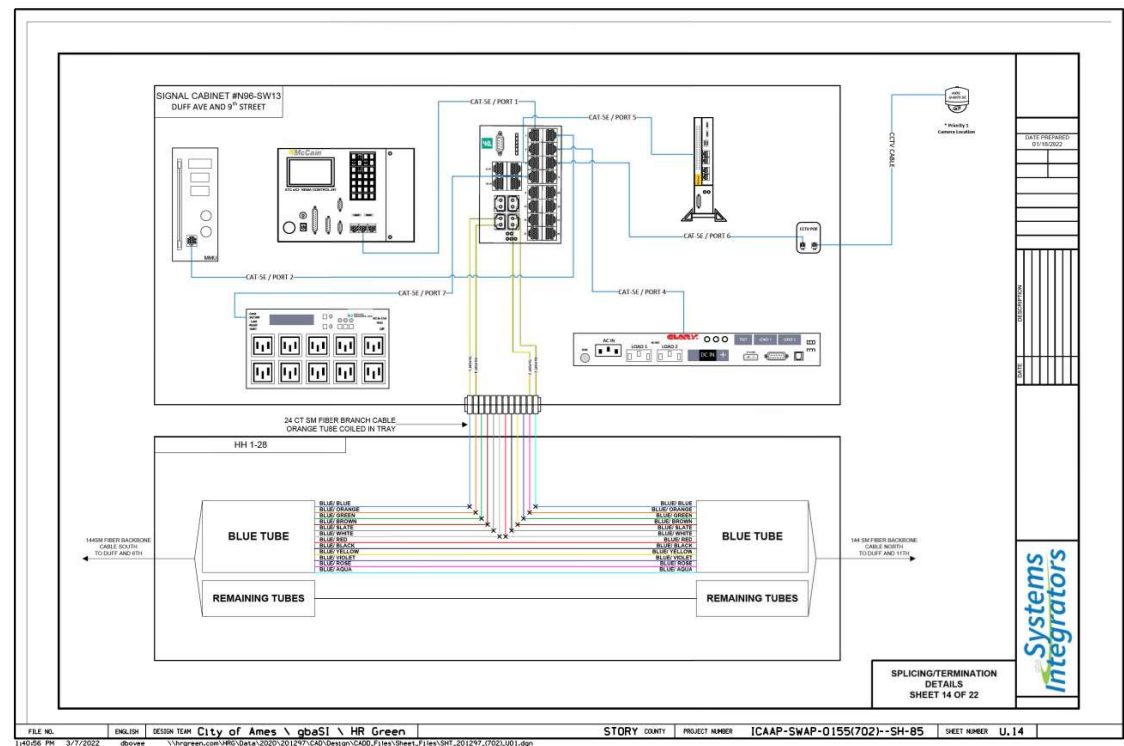
Phase 1 & 2 Implementation

Splice / Termination Sheets

- ▶ One sheet per cabinet location
- ▶ Splice Enclosure Splices
- ▶ Termination Panel Connections

Device Connections:

- ▶ Controller: McCain ATC EX2
- ▶ Conflict Monitor: EDI MMU2-16LEIP
- ▶ UPS: Clary SP 1250DLE
- ▶ PTZ CCTV: Axis Q6075-SE
- ▶ Detection: Gridsmart
- ▶ Layer 2 Switch: Pepperl + Fuchs
- ▶ Layer 3 Switch: Cisco
- ▶ Web Power Switch: Digital Loggers





Phase 1 & 2 Implementation

FAA Coordination



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Issued Date: 09/28/2022

Mark Gansen
 City of Ames
 515 Clark Avenue
 Ames, IA 50010

****DETERMINATION OF NO HAZARD TO AIR NAVIGATION FOR TEMPORARY STRUCTURE****

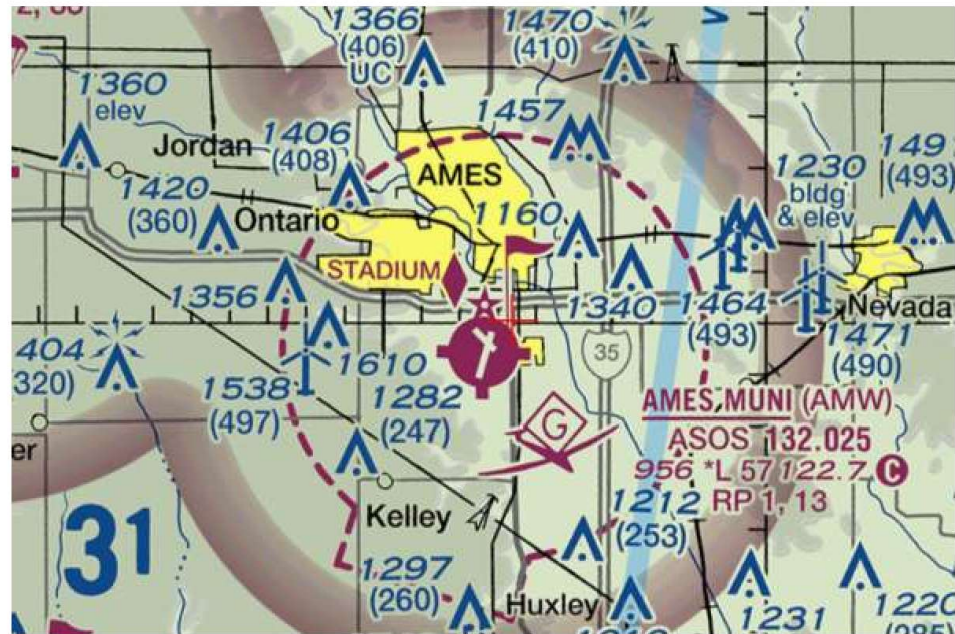
The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Drilling Rig Airport Road
Location:	Ames, IA
Latitude:	42-00-03.40N NAD 83
Longitude:	93-37-21.19W
Heights:	920 feet site elevation (SE)
	10 feet above ground level (AGL)
	930 feet above mean sea level (AMSL)

This aeronautical study revealed that the temporary structure does not exceed obstruction standards and would not be a hazard to air navigation provided the condition(s), if any, in this letter is (are) met:

Aeronautical Study No.
 2022-ACE-48-OE

Sectional Map for ASN 2022-ACE-48-OE





Phase 1 & 2 Implementation

Duff Avenue Union Pacific Railroad Coordination



February 15, 2022
Folder: 3314-60

CITY OF AMES – PUBLIC WORKS
MARK GANSEN
515 CLARK AVENUE
AMES, IA 50010

RE: Proposed one (1) underground fiber optic wireline crossing at Mile Post 188.54, on the Clinton Subdivision at or near Ames, Story County, Iowa.

Dear Mark Gansen,

This will acknowledge receipt of the following documentation relating to your intent to install one (1) underground fiber optic wireline crossing over Union Pacific Railroad Company's tracks and right of way at Mile Post 188.54, on the Clinton Subdivision at or near Ames, Story County, Iowa:

Notice of Intent to construct
Specification Exhibit A
The \$750.00 License Fee. (if applicable)

You are required to comply with Iowa Code Section 476.27 and 199 IAC Chapter 42, including but not limited to, providing Union Pacific Railroad Company with written notice at least ten days prior to your commencing any construction, maintenance or repair of your facilities on Union Pacific's right of way. Please, contact the following parties directly before commencing any work on Railroad property:

https://www.up.com/real_estate/third-party-flaging/index.htm

Jeremy A. Batterton
SR MGR SIGNAL MNTCE
4909 EDGEWOOD RD SW
CEDAR RAPIDS, IA 52404
319 390-2257
jabatter@up.com



Ames Traffic Signal Master Plan – A Phased Approach to ITS ITS Heartland Annual Meeting – 2023

7/2/2024



Phase 1 & 2 Implementation

Iowa DOT Coordination



Public Interest Finding Request

Project Number: ICAP-SWAP-0155(702)-SH-85 Contracting Authority: Iowa Department of Transportation
Project Description: Second Phase Deployment Ames Traffic Signal Master Plan - Various Locations

A public interest finding for one or more of the following conditions is requested. A description of each of these conditions and submittal instructions for projects where a Local Public Agency is the Contracting Authority are provided in [IA 5.502] Public Interest Findings. When the Iowa DOT is the Contracting Authority, refer to Section 15.7 of the Design Manual.

1. All of the applicable project clearances will not be obtained by the 1st Tuesday, 2 months prior to letting.
An explanation of why it is in the public interest to proceed toward letting, including a description of the clearance not yet obtained, the reason(s) it has not yet been obtained, the current efforts being made to secure the clearance, and the negative impacts that would occur if the project were delayed, are provided in the attached supporting documentation as follows:

The project will be withdrawn from the letting if the clearance is not obtained by: _____

2. The contract documents direct the contractor to provide a single proprietary product.
Specification of a single proprietary product is justified for one or more of the following reasons:
A. The Contracting Authority certifies the product is necessary for synchronization with existing facilities on the basis of:
 Function - the product is necessary for the satisfactory operation of existing facilities.
 Aesthetics - the product is necessary to match the visual appearance of existing facilities.
 Logistics - the product must be interchangeable with parts in the agency's existing inventory.
B. The Contracting Authority certifies there are no other suitable products available.
C. The product is being used for research purposes or for a distinctive type of construction on a limited, experimental basis. The approved experimental product evaluation work plan is attached.
D. The Contracting Authority believes it is in the public's best interest to specify a single proprietary product, even though other suitable products are available.

Additional information and / or supporting documentation is attached or provided below, as per the instructions referenced at the top of this form.
See attached memorandum for additional information.

3. The Contracting Authority will directly perform some or all of the construction work using its own labor, materials, or equipment; and the Contracting Authority will request Federal-aid participation in the work.

Documentation of prior approval based on cost-effectiveness is attached, as per the instructions referenced at the top of this form.

Page 1 of 3



FOR DEPARTMENT USE ONLY			
Project Number 85U-2022-003	Highway Number U.S. 69	County Story (85)	Form Number Form 810202 (03-16)
DOT Project Number ICAAP-SWAP-0155(702)-SH-85		Expiration/Completion Date 1/4/23	
APPLICANT (INDIVIDUAL OR COMPANY)			
First Name Mark	Last Name Gansen	Phone Number 515-239-5291	City IA
Company Name City of Ames	Street Address 515 Clark Avenue	City/Town Ames	State IA
Zip Code 50010	Secondary e-mail Address mark.gansen@cityofames.org		
INSTALLATION TO BE ACCOMMODATED			
Approval is hereby requested to enter within the state highway right-of-way for the accommodation of a utility installation as detailed on the attachments and further described as follows: The installation shall consist of: The installation of City of Ames owned/maintained 144-count single mode fiber optic cable (traffic signal interconnect cable) within new 2" HDPE conduit between the intersections of Duff Avenue (US Highway 69) & Crystal Street to Duff Avenue (US Highway 69) & Lincoln Way (US Highway 69) to Lincoln Way (US Highway 69) & Grand Avenue (US Highway 69) & 6th Street. Project will also consist of installation of City of Ames owned/maintained traffic signal interconnect handholes and modifications to existing traffic signal cabinets along the corridor described above. Work Site Location: See attached plans and Sheets A.2 and A.3 for key map of project location.			

and shall be located as shown on the detailed plan attached hereto. (See current Iowa Department of Transportation Utility Accommodation Policy for submittal of detailed plan requirements, See Section 115.8 (3).)

WORK SITE LOCATION

The proposed work as described above is located in Section 11.14, Twp. T83N, Range R24W, on Highway No. 69, generally located starting at Lincoln Way Duff Ave Int. south to near crystal drive (direction) from _____ (city, county line, or other landmark). Work proposed is more specifically located as being from 113.50 (Milepost #) and 491+00 (Highway Station) to 115.40 (Milepost #) and 592+22 (Highway Station) on the BOTH side of highway.



PROJECT DEVELOPMENT CERTIFICATION

Note: For instructions, refer to Instructional Memorandum (I.M.) 5.090, Project Development Certification Instructions.

City Ames County Story Project Number ICAAP-SWAP-0155(702)-SH-85

- RAILROADS**
 - Is there a railroad crossing or railroad property within or adjacent to the project limits? Yes No (If No, skip to No. 2)
 - Is any work on railroad facilities or railroad right-of-way required? Yes No (If No, skip to No. 2)
 - Has the railroad agreement been fully signed? Yes No (If No, attach a copy of the railroad agreement. If No, the project will not be submitted for letting, unless a Public Interest Finding is requested and approved for this condition - see instructions for more information.)
- UTILITIES**
 - Are any utility relocations or adjustments required by this project? Yes No (If No, skip to No. 3)
 - Have all the known affected utilities been notified? Yes No (If Yes, skip to No. 3)
 - Have all the known affected utilities been notified? Yes No (If Yes, give date of notice)
 - For any affected utilities not yet relocated, are all required to relocate by an existing permit, franchise agreement, or executed relocation agreement? Yes No (If No, the project will not be submitted for letting, unless a Public Interest Finding is requested and approved for this condition - see instructions for more information.)
- PRIMARY HIGHWAY**
 - Will work be performed on Iowa DOT right-of-way or will access to Iowa DOT right-of-way be affected? Yes No (If No, skip to No. 4)
 - Have the applicable permits for work on Iowa DOT right-of-way been obtained? Yes No (If No, when are they anticipated?) 85U-2022-003 85U-2022-004 (approximate date)
- RIGHT OF WAY**
 - Is additional right-of-way (permanent or temporary easements, fee title) required? Yes No (Permanent right-of-way and/or access rights for _____ parcels have been acquired, except the _____ parcels scheduled for condemnation listed on page 2.)
 - Temporary construction easements for _____ parcels have been acquired, except the _____ parcels scheduled for condemnation listed on page 2.
 - Were all of the parcels acquired using the Waiver Valuation Provision? Yes No
Note: Exceptions should only be listed for Items 4 b or 4 c if the parcel is scheduled for condemnation. Possession of all other parcels and / or access rights shall be acquired by the date this form is submitted. After the condemnation hearings for the parcels listed on page 2 are complete, provide written confirmation to the Iowa DOT that the condemnation hearings were held. This confirmation shall be received as soon as possible, but no later than 10 days prior to letting, otherwise the project may be withdrawn from the letting.
- RELOCATION**
 - Will any persons or businesses be displaced by this project? Yes No (Permanent right-of-way and/or access rights for _____ parcels listed on the reverse side have been obtained and relocated into replacement housing and business locations. An inspection of the project was made on site. Decent, safe, and sanitary housing has been offered and is available to residential relocations. Barring unforeseen circumstances beyond our control, the listed occupants will relocate by the date and manner indicated.)
 - If yes to 6 a., have all environmental or cultural resources been included in the plans or specifications to inform the contractor of any mitigation required as part of this project? Yes No (If No, the project will not be submitted for letting. Review plans and specifications as necessary.)
- ENVIRONMENTAL AND CULTURAL RESOURCES**
 - Were any environmental or cultural resources identified during the development of this project? Yes No (If No, sign and date in the space provided below.)
 - If yes to 6 a., have all environmental or cultural resources been included in the plans or specifications to inform the contractor of any mitigation required as part of this project? Yes No (If No, the project will not be submitted for letting. Review plans and specifications as necessary.)

LPA CONTACT INFORMATION

List the LPA representative who will be signing the Construction Contract, and include that person's contact information.

Name Mark Gansen, P.E. Title Civil Engineer II
Phone mark.gansen@cityofames.org 515-239-5291

LPA CERTIFICATION

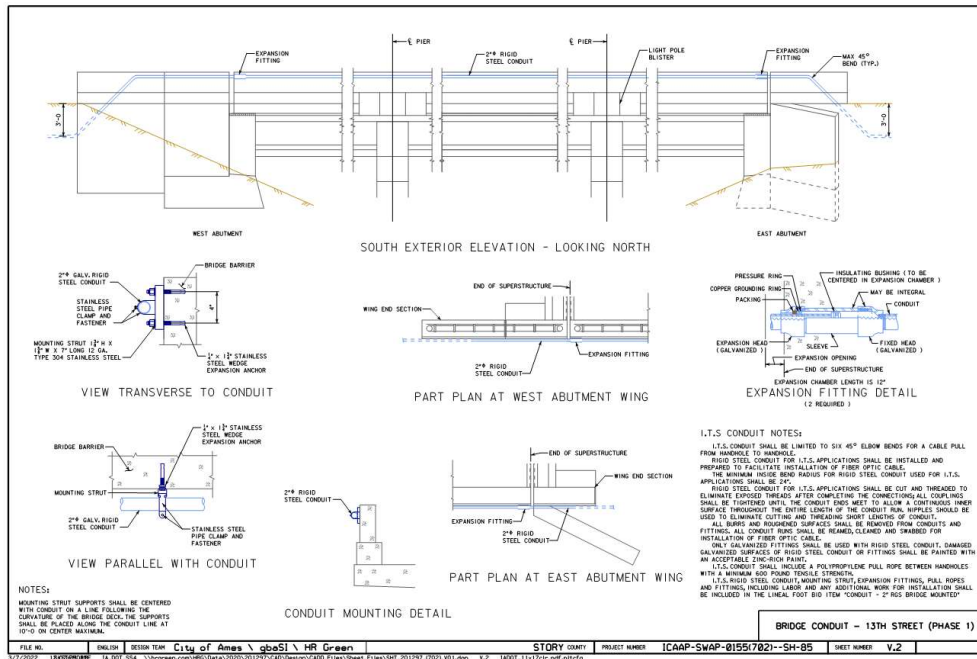
As the authorized representative of the LPA named above, I hereby certify the following: (1) I have read and understand the instructions for this form and the information supplied on this form is correct. (2) The LPA has complied with all applicable Federal and State laws, rules, and policies related to the development of this project. (3) All of the necessary railroad and utility work has either been completed or the necessary arrangements have been made to complete this work concurrent with the project construction without undue delay or additional cost to the project. (4) If any exceptions are listed for Items 4 or 5 above, it is in the public's best interest for this project to enter the Iowa DOT letting process. The LPA shall provide the notice(s) required for them above and is aware of the possible consequences for failing to do so.

Name Mark Gansen Signature [Signature] Date 3/1/2022
Title Civil Engineer II



Phase 1 & 2 Implementation

Bridge Structure Coordination





Next Steps

13 Intersections

- ▶ Controller, Ethernet Switch, Detection, PTZ, UPS, Web Power Switch

36,000' of Conduit / Fiber

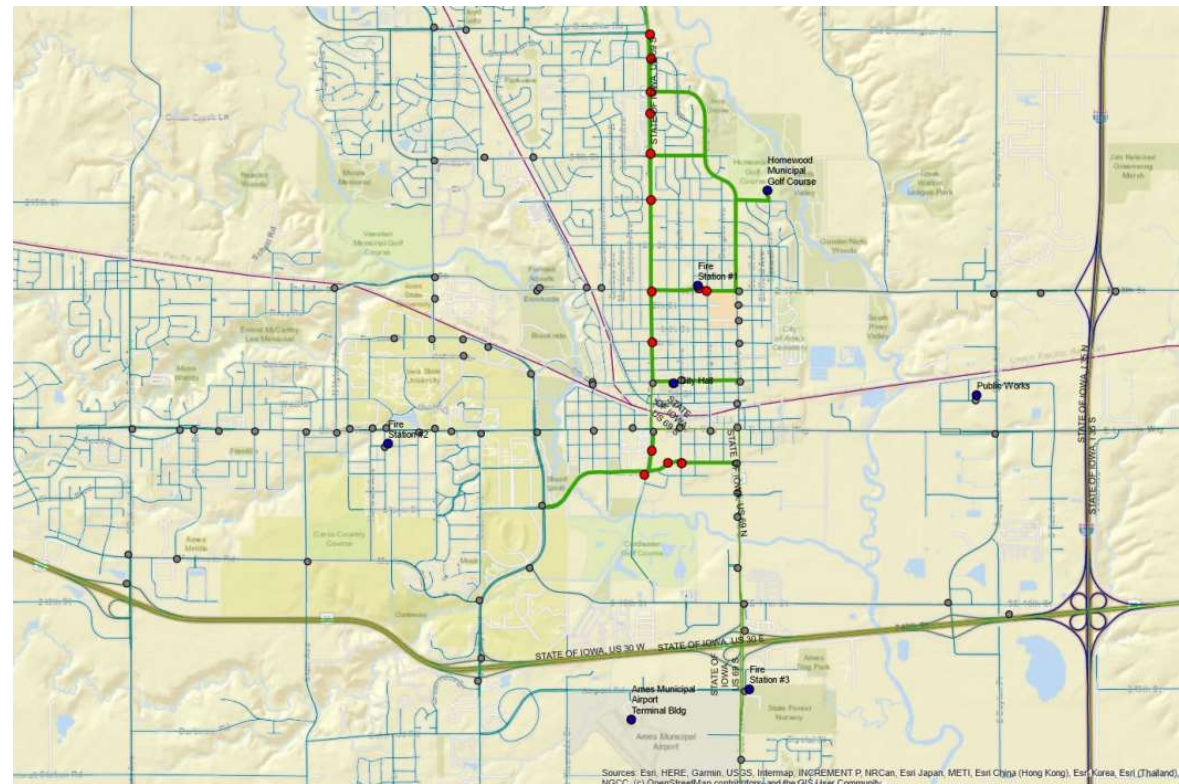
2 Hub Sites

- ▶ Fire Station #1
- ▶ Homewood Municipal Golf Course

Phase 1 / Phase 2 Construction

- ▶ Van Maanen – 2023 Construction Season

Phase 3 Location Map





Questions?



Tyler Wiles,
PE, PTOE, LEED-AP
Senior Project Manager
HR Green, Inc.
twiles@hrgreen.com
(515) 657 - 5294



Collin Dyer, PE, CCNA
Senior Systems Integrator
GBA Systems Integrators
cdyer@gbasi.com
(563) 449 - 2998

Ames Traffic Signal Master Plan – A Phased Approach to ITS
ITS Heartland Annual Meeting – 2023

7/2/2024





HRGreen®

Building Communities.
Improving Lives.



Project Overview

The City of Des Moines initiated the Intelligent Transportation Systems (ITS) Master Plan project to identify innovative, phased approaches to developing advanced systems for improved traffic management.

Evaluation of existing ITS systems is necessary to carry forward into future project phases.

Currently, Phase 1 design is underway



Project Overview



HRGreen®

Building Communities.
Improving Lives.

Project Title

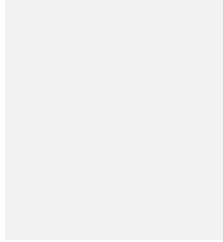
Edit subtitle | Location

Picture (Place & size picture, right click, then click Send to Back, and delete this)



HRGreen®

Building Communities.
Improving Lives.



Ames Traffic Signal Master Plan – A Phased Approach to ITS
ITS Heartland Annual Meeting – 2023

7/2/2024



Ames Traffic Signal Master Plan – A Phased Approach to ITS
ITS Heartland Annual Meeting – 2023



Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023



Ames Traffic Signal Master Plan – A Phased Approach to ITS
ITS Heartland Annual Meeting – 2023



Ames Traffic Signal Master Plan – A Phased Approach to ITS
ITS Heartland Annual Meeting – 2023



Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023





Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023



Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023



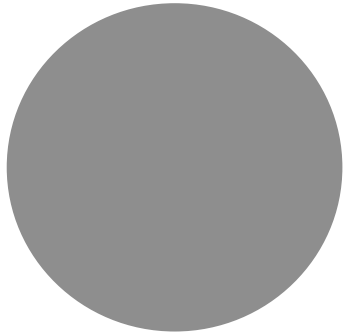
Ames Traffic Signal Master Plan – A Phased Approach to ITS
ITS Heartland Annual Meeting – 2023





HRGreen®

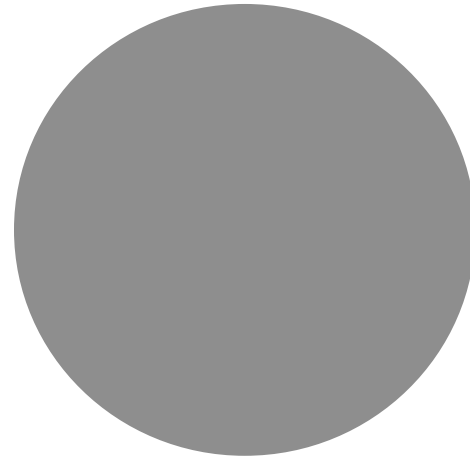
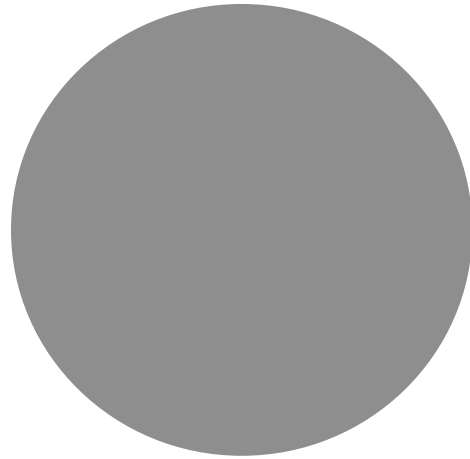
Building Communities.
Improving Lives.





HRGreen®

Building Communities.
Improving Lives.





HRGreen®

Building Communities.
Improving Lives.

Transition Title

Transition subtitle

Picture (Place & size picture, right click, then click Send to Back, and delete this)



HRGreen®

Building Communities.
Improving Lives.

Title of Project

Client Name | Location



HRGreen®

Building Communities.
Improving Lives.

Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023



“

”



Questions



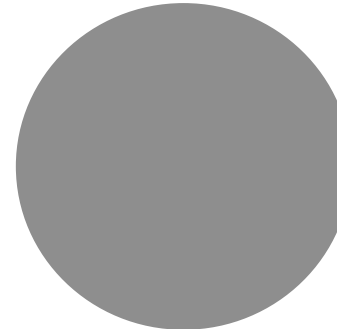
Ames Traffic Signal Master Plan – A Phased Approach to ITS

ITS Heartland Annual Meeting – 2023



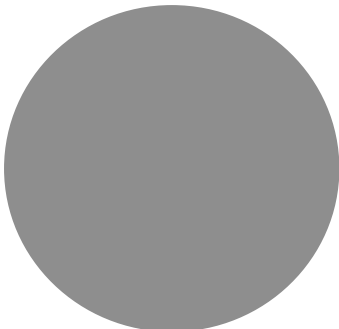
Name, Credentials

Office Address | City | State
Phone
email@hrgreen.com



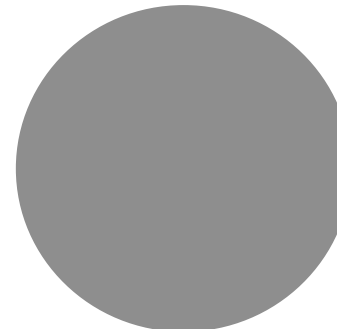
Name, Credentials

Office Address | City | State
Phone
email@hrgreen.com



Name, Credentials

Office Address | City | State
Phone
email@hrgreen.com



Name, Credentials

Office Address | City | State
Phone
email@hrgreen.com