

DELAWARE DEPARTMENT OF TRANSPORTATION

REQUEST FOR PROPOSALS

29 Del.C §6981, 6982(b)



Delaware Department
of Transportation

AGREEMENT No: 1671

ELECTRONIC RED LIGHT SAFETY ENFORCEMENT SYSTEM

PROPOSAL DUE DATE/TIME: November 5, 2013 2:00 PM (local time)

Proposals are to be delivered to Contract Administration, Delaware Department of Transportation, 800 Bay Road, Dover, Delaware 19901 until **2:00 PM** local time on proposal due date shown above.

Questions pertaining to the requirements of this RFP shall be directed via e-mail to:
dot-ask@state.de.us

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1. INTRODUCTION

The Delaware Department of Transportation (DEPARTMENT) is soliciting proposals from qualified, experienced Proposers to provide a **turnkey** ELECTRONIC RED LIGHT SAFETY ENFORCEMENT SYSTEM (ERLSES) as described in this Request for Proposal. The DEPARTMENT operates a statewide Electronic Red Light Safety Enforcement Program to improve safety on its roadways by reducing red light violations. There are currently thirty (30) intersections included in this system statewide. During the course of the contract, the DEPARTMENT may expand the program by adding intersections both in municipal locations and in unincorporated locations statewide. Candidate intersections and approaches for the ERLSES will be identified by the DEPARTMENT. All new camera locations will have a 30-day minimum test period when warning citations will be issued prior to assessing violation fines.

The DEPARTMENT's contract with the current provider, American Traffic Solutions, Inc. (ATS) expires mid 2014. All current field equipment is owned by ATS, and will be removed by ATS in cooperation with the DEPARTMENT, if ATS is not the successful Proposer to this solicitation.

Appendix A contains a list of the intersections that are currently included in this program along with the approaches and individual movements to be monitored at each location. The DEPARTMENT defines approaches as all lanes of traffic moving toward an intersection in one direction; an approach can consist of one through traffic lane or multiple lanes comprising left-turn, through, right-turn and bicycle movements. Where referenced herein, the term ERLSES is defined as inclusive of all equipment and personnel required to complete the turnkey operation of the ERLSES including a violation data collection/citation processing system required for the issuance and adjudication of red light violations, and an interactive Website for payments and videos ([current Website for reference](#)).

The term of this contract will be thirty-six (36) months from the Notice to Proceed. At the option of the DEPARTMENT, this may be extended for two, thirty-six (36) month terms with negotiated modifications. The DEPARTMENT reserves the right to extend this contract as needed to prevent loss of services during transition of Vendors or other unanticipated interruptions of service. For the first intersection installation in each municipality and the first installation of an unincorporated intersection, there will be a 30-day minimum test period when warning citations will be issued prior to assessing violation fines to assure the DEPARTMENT the system is operating as intended.

[Title 21 §4101\(d\)](#) of the [Delaware Code](#) authorizes the DEPARTMENT to operate the Electronic Red Light Safety Enforcement Program and have fines assessed accordingly. Proposers are encouraged to become familiar with Delaware's laws and regulations regarding this program.

1.1 Proposers are encouraged to notify the DEPARTMENT if they are considering submitting a response to this RFP. Please send e-mail with your company name, contact person phone number, title, and e-mail address to dot-ask@state.de.us.

2. SYSTEM OVERVIEW

The DEPARTMENT, at a minimum, will consider only digital camera systems for recording violations, and anticipates proposers will identify in their proposals how and when systems will be upgraded during the life of the contract.

The DEPARTMENT intends for the system to be operated on a turnkey basis.

The total number of violations of all locations averages 35,000 to 40,000 per year. The current cost structure is as follows:

The fine for the red light violation is \$112.50. This amount is calculated using two components: a base fine of \$75.00 and a surcharge of \$37.50. The \$75.00 fee is authorized under Title 21 §4101 (d) (2). In addition, Title 11 Delaware Code §4101 requires that any fines or fees levied for violations of Title 21 include an additional 50% surcharge, in the case of the ERLSEP, an additional \$37.50. If delinquent, the fine increases by \$10 for each 30 day period past the mailing date of violation, up to \$30 for 90 days. Unpaid violations are subject to restrictions on renewal of vehicle registrations.

For the purposes of this RFP, the definition of ‘approach’ is as follows:

All lanes of traffic moving toward an intersection in one direction. An approach can consist of one through traffic lane or multiple lanes comprising left-turn, through, right-turn and bicycle movements.

The Vendor’s responsibilities include, but are not limited to the following:

- site screening
- site design
- installing and maintaining field equipment including preparing regular maintenance and repair reports which are to be provided monthly within fourteen (14) calendar days following the end of the month.
- providing office space, personnel and equipment for citation processing and related activities (NOTE: Proposer shall indicate in proposal if you have capability to provide multi-lingual services)
- recording potential violations and transmitting the data to the processing office
- processing all citations and sending out all Delaware State/Municipal Police approved citations, to all unresponsive owners and those whose registration has been flagged
- providing two-way, password-controlled electronic access to the Vendor’s database system to State/local police departments and the DEPARTMENT
- communicating electronically with the Vendor provided Lock Box service provider
- communicating electronically with the JP Criminal Court system to schedule appeals cases and determine the status/disposition of cases
- communicating electronically with Division of Motor Vehicles (DMV) to flag and un-flag owner registrations (Note: The Vendor will be responsible for providing DMV with an instruction sheet that will provide information to vehicle owners explaining why a vehicle

registration has been denied and what the vehicle owner must do to clear the denial status. Upon request from a vehicle owner, the Vendor shall reissue a duplicate citation or a comparable form of receipt that a vehicle owner can use to send overdue assessments, late charges and court fees to the Vendor Lock Box service provider and court system.)

- communicating electronically with out-of-state DMVs to obtain vehicle registration information
- provide documents in electronic format to the JP Court with transfer of data
- maintaining a database of all recorded occurrences, violations, non-violations (with reasons), accepted and rejected (with reasons) citations, notifications to owners, owner responses (both written and verbal), payments made and disbursed (through Vendor Lock Box service provider), appeals dispositions, registration flagging, and other activities and information that are pertinent to assessing system performance
- providing expert testimony for court proceedings related to citations processed and mailed by the Vendor
- providing monthly system performance reports to the Department within fourteen (14) calendar days following the end of the month
- providing toll-free telephone and secure website access to vehicle owners who have questions about citations issued and about the program in general (NOTE: Proposer shall indicate in proposal if you have capability to provide multi-lingual services)
- providing a direct access telephone line for use by agencies involved in the program
- conducting briefings for staff of various agencies on how the process will function and how complaints will be handled

Throughout the term of the contract, the Vendor must adhere to applicable state and federal standards, as amended from time to time.

The DEPARTMENT's responsibilities will include:

- overall program management
- selection of intersections where cameras will be implemented
- reviewing/approving the Vendor's site designs, including the determination of the Vendor's maintenance of traffic requirements and corresponding work hour restrictions
- connecting the ERLSES equipment to the intersection control cabinets
- installing regulatory signs on the approach to red light monitored intersections
- installing or replacing stop lines on intersection approaches where red light cameras are planned or currently exist
- conducting the program's public awareness campaign, and
- answering questions from the public about the program and about individual citations that are referred by the Vendor, who will be the initial point of contact.

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Other key participants in the program are listed below.

DELJIS / Delaware Justice of the Peace (JP) Court:

- Scheduling appeals cases based on electronic data feed from the Vendor
- Adjudicating citation appeals cases in all jurisdictions
- Collecting citation fees from those found responsible on appeal
- Communicating with the Vendor electronically concerning the disposition of appeals cases

In order to process appeals, the courts will use a modified version of the current JP Case Management system. The system will be a small subset of the current system and can have no data interchange with the existing system. It will require a data feed from the Vendor containing case and registered owner information. All required electronic documents associated with the case shall be attached to the data.

The data transmission should use an available mechanism, such as ODBC, EntireX Broker, or similar middleware. The data should be transmitted to an SQL Server database, made accessible to the Vendor for transmission purposes. Delaware Criminal Justice Information System (DELJIS) and Judicial Information Center (JIC) will determine the best option for transmitting all documents electronically from the Vendor to the court. All transactions are to be sent directly to that location. Distribution to the various court jurisdictions will be made from the central location upon receipt of the information.

The awarded Vendor will be provided access to the JP Court's computer support staff to discuss the data transmission requirements in detail. Generally, the transmission must include the name of the police agency reviewing the violation; the date, time and location of the offense; the registration number of the vehicle involved; the name, address, and license numbers (Delaware only) for appeals cases only of the first registered owner at the time of the offense; and the amount of penalties due, by category (fine, late fees, etc.). Any case or violation identifiers assigned to the case (citation number, processing number, etc.) should also be included in the data feed so that the results of any court proceeding may be properly correlated to the citation in question. It is anticipated that the Vendor will have the capability of accepting a return feed with the court's verdict and sentence.

Delaware State/Municipal Police:

- Reviewing and either accepting or rejecting citations. The Vendor shall provide each of the police departments who will review citations under this contract password-controlled access to the Vendor's database. Through this access, designated police officers will review citations on-line and apply an electronic signature to those citations that they accept and will flag, for the Vendor's information, those citations that they reject. The access system must allow the officer to note the reasons for the rejection from a Vendor-supplied menu or to make a notation if the reason is not listed on the menu. The system must also allow the officer to create a hard copy or electronic copy record of the disposition of those citations reviewed at the completion of a citation review session.
- Present citation appeals cases in court (in those municipalities without a Solicitor or, at the discretion of the municipality).

Division of Motor Vehicles (DMV):

DMV will provide the Vendor access to certified vehicle registration database (OISNET and ACF2 application). This access will require a data feed using an available mechanism, such as ODBC, EntireX Broker, or similar middleware. The data will be transmitted to an SQL Server database, made accessible to the Vendor for transmission purposes. All transactions are to be sent directly to that location.

The awarded Vendor will be provided access to DMV's computer support staff to discuss the processing requirements in detail and to brief the Vendor on all the various tag types the DMV supports. This will assist the Vendor in determining who should receive a citation and methods to determine a correct address. (Note: The awarded Vendor will be required to complete a Privacy Contract, Application and Non-Disclosure statement.)

For each violation, the Vendor will obtain the information needed from DMV to create a citation. Any vehicle registration that has an existing supporting DMV administrative flag that indicates that the vehicle is no longer owned by the owner listed in the system will be returned to the Vendor as a No Hit and a citation should not be issued.

If payment is not received within thirty (30) calendar days from the date the citation was sent,

1. The Vendor will be responsible for validating the name and address associated with the vehicle plate with DMV and reconfirming that there are no additional DMV administrative flags that indicate that the vehicle is no longer owned by the owner listed in the system. If there are flags on the registration, the citation should be deleted.
2. The Vendor will issue a second notice to the owner(s) that will advise the vehicle owner that their vehicle registration will be denied if payment is not received within fourteen (14) calendar days.

When no payment has been received after the second notice, the Vendor should reconfirm that there are no additional DMV administrative flags that indicate that the vehicle is no longer owned by the owner listed in the system. If there are flags on the registration, the citation should be deleted. If there are no flags on the registration, the Vendor will be responsible for electronically flagging the DMV owner's registration. The Vendor will also be responsible for notifying the DMV electronically to lift a denied registration within twenty-four (24) hours, when appropriate. The DMV will have read-only access to the Vendor's database and may remove a Vendor-issued flag if, in the course of processing an owner's registration request, the DMV determines that the owner(s) has paid the citation in question.

When the Vendor receives an appeal request and electronically notifies the JP Court that a hearing has been requested, the Vendor will mark the DMV database to ensure no registration denial will occur.

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3. BACKOFFICE REQUIREMENTS

The successful Vendor will be responsible for:

Project Management:

For the duration of the contract period, successful Vendor shall offer consultation and assistance by telephone during regular business hours, excluding weekends and holidays. The Vendor must designate a person whom the DEPARTMENT may contact for assistance throughout the course of the contract. In addition, the Vendor must designate a representative to serve as the point of contact for 24-hour, 365-day emergency maintenance in the event of a condition that jeopardizes the safety of the traveling public.

Site Screening and Design, Field Equipment Installation, Operation and Maintenance:

- For current locations the Vendor is responsible for designing and installing new equipment for the existing monitored intersection approaches. The Vendor will be required to have all sites in operation within the negotiated timeframe of the DEPARTMENT's Notice to Proceed. The DEPARTMENT does not anticipate ERLSES infrastructure expansion for new camera locations until all current sites are fully operational.
- For new camera locations, the DEPARTMENT will identify candidate camera locations by intersection and movement(s) (e.g., Main Street at New Street - southbound left and through) based on crash experience. The Vendor will review the DEPARTMENT's list of candidate intersections and movements and provide the DEPARTMENT with physically-observed violation and traffic volume data for a 12-hour period (minimum) for all movements at the candidate intersections to aid the DEPARTMENT with the selection of additional movements to be monitored at no charge to the DEPARTMENT. The DEPARTMENT will make the final decision regarding which intersections and movements will be monitored.
- The Vendor will design (i.e., developing type, size and location plans) and install all field equipment to include camera systems, poles, conduits, detectors, on-site electrical/communication connections, strobes/lighting systems, medium to transmit color images from cameras to citation processing center, a DEPARTMENT-approved security solution to safeguard image integrity, and any other equipment necessary for a workable system.

The DEPARTMENT will connect the Vendor-furnished 120 volt AC+ feeds to the associated red and yellow circuits and power source in the signal control cabinet. The Vendor must provide the DEPARTMENT 72-hour (three working days) advance notice of the need for DEPARTMENT employees to make the cabinet connections. The Vendor shall furnish and install fused connectors in the base of each red light system pole for each of the 120 volt AC+ service supply, red circuit and yellow circuit. The connectors shall be supplied with a 5-amp fuse and shall be a "quick disconnect" type so power may be removed while servicing the camera system components without entering the DEPARTMENT's traffic signal control cabinet. The Vendor shall be responsible for any damages that occur to the DEPARTMENT's equipment while the Vendor is working at or near a site.

- The Vendor will supply 30-scale signed and sealed engineering plans by a registered Delaware Professional Engineer with sufficient detail for the DEPARTMENT's Traffic Engineers to

determine if the red light monitoring equipment is compatible with the traffic signal control equipment. The Vendor's engineering design must be in accordance with the DE MUTCD, AASHTO Roadside Design Guide, 4th Edition, AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th Edition, with 2010 and 2011 Interim Revisions, DE Overhead High-Voltage Line Safety Act, the DEPARTMENT's current ADA guidelines, and any other applicable state or federal guidelines. At locations with limited right-of-way, the Vendor must facilitate discussions with the affected property owner(s) to determine an appropriate path forward. The Vendor must be capable of providing a non-invasive detector option for intersection approaches with DEPARTMENT-maintained stop line detection. The Vendor must be capable of providing a supplemental front-facing camera on the receiving side of the intersection approach at the DEPARTMENT's discretion.

In addition, the Vendor will be required to submit a Maintenance of Traffic plan to the DEPARTMENT's Project Manager two (2) weeks prior to working at any intersection. This plan shall specify the location, date, and applicable temporary traffic control typical application(s) from the DE MUTCD with enclosures containing the Vendor's NCHRP-350 or MASH certifications for all proposed temporary traffic control devices. Work requiring lane closures will be permitted at the DEPARTMENT's discretion and may be subject to daytime, nighttime, holiday, weekday, and/or summertime work hour restrictions (see the DEPARTMENT's website, Doing Business with DelDOT, [Design Resource Center](#) for additional information).

- The Vendor will maintain and ensure continued satisfactory performance of Vendor-supplied field equipment throughout the term of the Contract. Field equipment that is damaged by road users, vandals, or others, through no fault of the Vendor, will be the Vendor's responsibility to repair or replace. The Vendor will be required to submit correspondence to the DEPARTMENT for all non-emergency repairs and preventative maintenance. The Vendor shall provide the DEPARTMENT 48-hour (two working days) advance notice for all maintenance work requiring a lane closure, which will be subject to the DEPARTMENT's approval.
- The Vendor will be responsible for relocating the red light monitoring equipment at the Vendor's expense in advance of an approved DEPARTMENT project, including, but not limited to, roadway widening projects, roadway resurfacing projects, and third-party (private) developments requiring direct access to DEPARTMENT-maintained roadways.
- The Vendor will be responsible for registering with Miss Utility of Delmarva's utility member notification service and providing site markings for locate requests.

Violation Data Collection/Citation Processing:

- The Vendor will provide a project office, including the space and all personnel equipment and materials for processing and certifying of citations; mail the citations to violators; keep records and statistics of all citations processed and mailed; communicate with the DEPARTMENT, the JP Court, DELJIS, the Vendor Lock Box service provider, the Division of Motor Vehicles, state and local police, and the general public.
- The selected Vendor will be required to have criminal background checks done for all employees that have access to the program. The background checks may be performed in the Vendor's

home state and forwarded to DELJIS in a sealed envelope. The awarded Vendor's staff will be required to sign a DELJIS Directive 1. In addition, the Vendor will be required to sign and abide by a "non-disclosure" (confidentiality) statement.

- Any and all data generated by the system will become the property of the DEPARTMENT. Data that the Vendor receives from State agencies and generated by the system shall not be sold or disseminated and is only for the internal use of the Vendor in direct relation to the ERLSEP.
- The Vendor will furnish and integrate the system's citation-processing equipment and associated hardware and software at the Vendor's offices with the DMV's, DELJIS's, the JP Court's, and the Vendor Lock Box service provider's computer systems. (See **Appendix B** for citation process flowchart).
- The Vendor will obtain information electronically from the Division of Motor Vehicles that is necessary to process citations. The DMV title program will enable the Vendor to download the following information, to be utilized by the Vendor for the preparation of the violation notice:

Field Name	Field Length	Field Status
First Owner Name	35	A/N
Second Owner Name	35	A/N
Third Owner Name	35	A/N
Address 1	20	A/N
Address 2	20	A/N
City	15	A
State	2	A
Zip Code	9	N
Title Number	7	A/N
VIN	17	A/N
Make	4	A
Vehicle Year	4	N

The Vendor will notify the police agency with jurisdiction if a crash is recorded that occurs as a result of a red-light violation.

Certain vehicles will be exempt from receiving citations, including:

- police and emergency service vehicles responding to an emergency
- vehicles in funeral processions
- vehicles that do not completely enter the intersection on red
- vehicles making legal right turns
- vehicles with illegible or partially obstructed license plates
- vehicles being directed by a traffic official
- vehicles that have been cited by an officer at the intersection for the red light violation (when either the Vendor or the reviewing officer are aware of such citation) and
- other vehicles that may be designated in the course of the contract by the DEPARTMENT.

In addition, citations that are processed by the Vendor with an image quality that will not hold up in court will be rejected. The state or local police departments with jurisdiction will make the final decision as to which citations will be issued. Citations must be postmarked no later than thirty (30) calendar days following the occurrence of a violation.

- The Vendor will have access to the DMVs’ database system to flag the registration of vehicle owners who do not respond to issued citations, do not show for a scheduled appeal hearing or do not pay the fine and/or court fee following a court-issued responsible verdict in an appeal hearing. Registrations should not be flagged if a hearing has been scheduled and if the owner is a vehicle rental company. The database will consist of:

Field Name	Field Length	Field Status
First 5 Character of First Owner Last Name	35	A/N
Title Number	7	A/N
Action Code	1	A/N
Vehicle Identification Number	17	A/N

- The Vendor will immediately remove the flag when notified by the Vendor Lock Box service provider that the owner’s assessment has been paid. The database will consist of:

Field Name	Field Length	Field Status
First 5 Character of First Owner Last Name	35	A/N
Title Number	7	A/N
Action Code	1	N
Vehicle Identification Number	17	A/N

DMV will have read-only access to the Vendor’s database and may remove a Vendor-issued flag if, in the course of processing an owner’s registration request, DMV determines that the owner(s) has paid the citation in question.

- The Vendor will be required to operate a toll free (800) number that will enable owners to call with questions, concerns or problems. The number will be staffed by the Vendor from the hours of 8:00 AM to 4:30 PM Monday through Friday, except for Wednesday when it must be operational from 8:00 AM to 8:00 PM (NOTE: Delaware is in the Eastern Time Zone). The Vendor will also be responsible for operating a direct line local telephone number within the (302) area code, a toll free (800) number, or agree to accept collect calls from agency personnel in order to resolve customer-related issues.
- The Vendor must provide a secure website that violators can access to pay or view their citations online. Vendor shall provide violators the following payment methods: “pay by web”, “pay by telephone”, and “pay by mail”. Vendor may pass through to violators any reasonable credit card convenience fees imposed upon Vendor by its suppliers for violations paid by credit card. Vendor must justify to DEPARTMENT any credit card convenience fee issued prior to implementation. Any violator that does not wish to pay the credit card convenience fee may remit payment to vendor by mail in the form of a money order or check drawn upon a U.S. bank. The vendor may apply a \$25 return check fee for any check returned for insufficient funds. The DEPARTMENT shall have no obligation for the payment of any credit card convenience fee or insufficient funds return check fee.
- The Vendor shall remit all payments collected for DEPARTMENT and municipalities covered by the contract via ACH (Automated Clearing House) transfer to an account(s) designated by the DEPARTMENT and/or municipalities.

- The Vendor shall establish a relationship with a collection agency; approved by the DEPARTMENT, to pursue any unpaid violation and provide expert testimony related to unpaid violation should a representative be needed for a court appearance.
- The Vendor and any associated collection agency shall fully comply with the Fair Debt Collections Practices Act, 15 U.S.C. 1692. Et. Seq., and any other state or federal law.
- The DEPARTMENT may elect to take over the collection portion of the contract at any time. The DEPARTMENT will give Vendor a thirty (30) day written notice of the DEPARTMENTS intent to take over the collection portion.
- Overpayments made by violator are to be refunded within thirty (30) days from proof of overpayment to the Vendor by the violator.
- The Vendor will provide a representative to accompany DelDOT's and the municipalities' representatives at court appeals for citations issued by the Vendor in order to present expert testimony related to the citations in question and the red light enforcement system in general.
- The Vendor will provide public information to the Department for its public awareness initiatives related to this program.
- The Vendor will provide other related services, as jointly agreed to by the DEPARTMENT and the Vendor, required for turnkey operation of the ERLSES.
- At the completion of the full contract or in the event the DEPARTMENT terminates the contract for any reason, the Vendor will have thirty (30) calendar days or negotiated timeframe to remove all Vendor-owned equipment, at no cost to the DEPARTMENT.
- The Vendor will maintain approved data storage media containing untouched violation images. Any data including image files belong to the DEPARTMENT. The DEPARTMENT must have access to these files at all times. The DEPARTMENT and the Vendor will jointly decide how to best meet this requirement.
- At the completion of the contract or in the event the DEPARTMENT terminates the contract for any reason, the Vendor shall transfer all violation information contained within the Vendor's database to the DEPARTMENT at no cost to the DEPARTMENT in a format that is acceptable to the DEPARTMENT. The transfer of all violation information shall be completed within forty-five (45) calendar days from end of contract.
- The Vendor will account for recorded violations, processed citations, appeals requested and fees collected for issued citations. The Vendor shall maintain and provide sufficient records, audit trail and other readily admissible evidence consistent with applicable financial reporting standards; and consistent with recognized industry standards for accuracy, validity and reliability. All documents shall be made available to the DEPARTMENT for review upon request in order for oversight and audit purposes.

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- The Vendor shall provide the following monthly Activities Reports to the DEPARTMENT within fourteen (14) calendar days following the end of the month in a format acceptable to the DEPARTMENT:
 - a) The total number of events detected, citations issued and Prosecutable Image Rate by location/approach and in total. The definition of Prosecutable Image Rate shall be the sum of all violations recorded divided into the number of violations presented to the Police for final review and approval.
 - b) The total number and percentage of rejected images by reason. The sum of all events shall include all of the exceptions listed below including controllable and uncontrollable events:
 - Vendor Controllable Exceptions such as (but not limited to):
 1. False camera trigger events
 2. Improperly lit or dark images
 3. Washed out plates/reflective sheeting
 4. Plates with plate blockers
 5. Unfocused/unreadable plate images
 6. Vehicles out of position in the first or second image
 7. Images with unmatched violation event data
 8. Improper red time delay
 9. Green light in second image
 10. Wrong plate entered
 11. Red light not visible in frame
 - Uncontrollable Rejections (outside the Vendor's control)
 1. Missing plate
 2. Obstructed plate
 3. Paper/Dealer plate
 4. Unenforceable plate – police/emergency vehicle
 5. Funeral procession or other wave through
 6. No DMV Record found
 - c) The total number of violations issued, the number of violations paid and the number of violations contested.
- The Vendor shall provide to the DEPARTMENT, upon written request, at no cost to the DEPARTMENT any other data related to the program to support the DEPARTMENT's evaluation of the program.

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4. SYSTEM REQUIREMENTS

4.1 Field Equipment:

The type of equipment proposed must already be operating successfully on a full-performance, revenue-generating system elsewhere in the United States that has similar operating requirements to the DEPARTMENT's. In addition, it must satisfy the following minimum specifications:

a) Camera System Requirements

- The camera system shall consist of the camera, flash, detector system, keypad, support systems, interconnecting cable and conduit system, and associated electronics.

Preference will be given to a camera system that utilizes non-intrusive detection and that locates all camera assemblies and supports outside of the traveled way such that critical repairs and preventative maintenance can be completed without lane closures.

- The camera unit shall be portable and easily removable from the cabinet housing.
- The camera lenses shall be interchangeable.
- The camera unit shall be connected to the traffic signal controller to ensure the following:
 - o Contact closure of signal when traffic signal enters the yellow change interval.
 - o Contact closure of signal when traffic signal enters the red clearance interval.
 - o Contact for power source (120V AC, 60 Cycle power, fused to protect the camera unit).
 - o Indicator to alert field personnel of system malfunction.
- The camera unit shall allow for on-site adjustment of camera activation. At a minimum, on-site adjustment shall allow for:
 - o The Department to specify the delay time from vehicle initially entering the detection zone to declaration of a violation detection (assuming the vehicle speed exceeds the minimum established speed), in tenths of a second from 0.1 to 0.9 seconds.
 - o Adjustments to the distance between detection zones.
 - o Adjustments to the time or distance interval between the first and second violation image.
 - o The date, day, and time.
- Cameras should be aligned and positioned optimally to maximize the number of red light violations that can be photographed while minimizing potential obstructions to view (e.g., vehicle out of focus, out of range, data bar blocking critical violation element, etc.).

- The camera system shall record two (2) images in color for each violation - the first, prior to the vehicle crossing the legal stop line, and the second, at a preset delay time after the first. If a second vehicle violates the red light before the second photograph of the first violation has been taken, the second photograph shall be taken to document the violation of the second vehicle and a third photograph shall be taken to complete documentation of both the first and second violation.
- The camera system shall be capable of identifying vehicles traveling straight through a signalized intersection or making a left turn at a traffic signal. The DEPARTMENT does not intend to monitor right-turn violations.
- The camera system shall be capable of monitoring no less than four (4) violations per lane for each red phase. The processed camera images are to be of sufficient quality to permit the issuance of citations for a minimum of 55% of recorded violations.
- The camera system shall be capable of calculating and monitoring vehicle speed, so that violations shall be recorded only when vehicles have entered the detection zone during the red light and are exceeding a user-specified minimum speed. The minimum speed shall be adjustable to the nearest mile per hour within a range of 1 to 40 mph.
- The camera unit shall be capable of counting the number of violations and total through and left-turn traffic volumes, and recording this data on a DEPARTMENT-approved data storage device. Traffic volumes must be counted by lane with 2 to 4 lanes of operation.
- The equipment must be capable of storing all of the violations to be expected between retrieval intervals. Sufficient storage capacity must be provided to ensure no traffic volume or violation data loss from operational camera sites. In addition, the Vendor must store untouched violation images for a minimum of one (1) year. Violation images from cases that are being appealed must be held until that case is finally adjudicated.
- The camera system shall independently time and verify the actual yellow time for each violation. The actual yellow time shall be displayed with the violation notification/video clip.

b) Camera Flash Requirements

- The flash unit may be fully integrated into the camera unit so as to be part of a single camera system allowing for easy relocation of a single piece system. A separate flash unit is also acceptable. The area of flash coverage shall be compatible with the camera lens and slightly wider than the field of view.
- The flash unit shall be capable of providing adequate illumination for photographing violations under all light and weather conditions:
 - o For an area up to 4 traffic lanes or approximately 50 feet wide at a distance of up to 150 feet.
 - o At extreme levels of ambient light conditions.
 - o For both the first and second violation photographs.

- The flash shall be capable of operation in the following modes:
 - o Automatic - Flash activated when ambient light conditions dictate via photoelectric cell.
 - o Manual - Flash activated for all images, no matter what ambient light conditions are present.
- Flash intensity shall be determined by contractor to maximize the number of recordable images. For any single flash unit with a flash intensity greater than 200 watts, prior approval by the DEPARTMENT shall be required.
- At certain locations, additional flash units may be necessary to provide adequate illumination for photographing violations.
- The flash must be able to operate at lower intensity prior to being fully recharged.
- The flash may require a second flash of higher intensity than the first flash, to allow for the distance that the violating vehicle has traveled.

c) Camera Data Box

- Each violation photograph shall contain a clearly legible Data Box. The Data Box shall be positioned to avoid masking critical violation elements. The Data Box shall contain the following data information for each photograph:
 - o Violation number.
 - o Date (MM/DD/YY) or (DD/MM/YY).
 - o Time (24-hour clock).
 - o Lane in which violation occurred.
 - o Number of seconds (in 1/10 second increments) that the yellow indication was displayed.*
 - o Number of seconds (in 1/10 second increments) that the red indication was displayed.
 - o Location code.
 - o Vehicle speed in miles per hour (mph).*

*Designated data elements are only necessary on 1 of the 2 photographs taken for each violation.
- The system shall be capable of performing a self-test on location. Self-testing shall be recorded in the Data Box. At a minimum, the data recorded on the self-test shall include the following:

- o Date (MM/DD/YY) or (DD/MM/YY).
- o Time (24-hour clock).
- o The designation of test mode operation.
- o Lane of the test.
- o The pitch or loop distance for speed sensitivity.*
- o The time or distance interval for the 2nd photo image selected.*
- o The delay time into the red phase selected.*
- o Location code.

*Designated data elements are only necessary on 1 of the 2 photographs taken for each self-test if the self-test consists of 2 photographs.

d) Camera Housing

- A weather and vandal-proof housing shall be provided to protect the camera unit and its ancillary equipment, and shall have the following attributes:
 - o Water and spray resistant with sealed access panel.
 - o Double walled steel construction including welded joints.
 - o Rust proof finish (e.g., baked enamel).
 - o Bulletproof windows for camera and flash.
 - o Security locks.
 - o Secure mounting atop a Vendor-supplied pole to allow both horizontal and vertical adjustment at each intersection.
- The camera housing cabinet shall be designed so that the system performs as intended throughout an outside temperature range of -10 degrees Fahrenheit to 122 degrees Fahrenheit and an outside humidity limit of 100 percent.
- The camera housing shall contain a system which will activate automatically to eliminate any fogging on the windows which may obstruct the view of the camera.
- The camera housing or pole shall have a secured terminal block, in a vandal-proof location, readily accessible to accept the power, red light, and yellow light and incident detection inputs.

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e) Image Requirements

- The Vendor's image capturing process shall produce a clear and legible full color image of the following information at any time of the day or night, during all seasons of the year, and in any weather condition, including bright sunlight, extreme cold and heat, darkness, rain, sleet, snow, fog and wind (any restrictions to these capabilities must be explained in the response to Question 2 in Section II.B.6):
 - o Image 1: The scene of the violation, including a clear view of the vehicle's front tire positioned behind the stop line and at least one signal head with a red indication, including superimposed data.
 - o Image 2: A rear view of the vehicle in violation (i.e., continuing through the intersection), from which the make and model of the vehicle can be clearly identified with superimposed data specified below.
 - o Image 3: The rear license plate of the vehicle in violation, including the State of issuance and the characters, which appear on the license plate, whether reflectorized or non-reflectorized as well as superimposed data.
- The following information must be imprinted or superimposed on each image without obstructing the image of the vehicle or that of the red indication and the rear license plate.
 - o The date of the violation, stated in month, day, year.
 - o The time of the violation, stated in military time of hours, minutes, seconds and tenths of a second.
 - o A frame sequence number or violation number.
 - o The amount of elapsed time between the moment the light turned red to the time the image was captured, in tenths of a second.
 - o The intersection name and the direction of violation.
 - o The speed of the violating vehicle in miles per hour.
 - o Yellow time and speed limit superimposed
- The camera systems shall provide an ancillary video clip that can be used as supporting evidence to the violation provided in the still images.

4.2. Citation Processing Software

The Vendor shall supply a comprehensive, user-friendly software package based upon a graphic user interface that includes the following capabilities:

- Comply with [Delaware Department of Technology and Information \(DTI\) security requirements](#). The DEPARTMENT will require the selected Vendor to submit these documents prior to contract execution of the contract.

- View violation images.
- Interface with the Delaware Division of Motor Vehicles for the purpose of obtaining vehicle registration data.
- Ascertain that the vehicle description obtained for the tag appears to match the vehicle photographed in the violation (i.e., the same basic vehicle type, make, and model).
- Print citations in a format similar to DelDOT's current format (see http://deldot.gov/information/red_light/ for a sample citation) with a minimum of three (3) violation images incorporated into the document. Two of the images will be of the vehicle, the first, prior to the stop bar and the second beyond the stop bar. The third image shall be cropped, scaled, user-selected images of the vehicle registration plate, clearly readable to the average naked eye.
- Track the reasons some images do not result in citations. Provide an easy to access audit trail of all voided and discarded images rejected by the officer assigned to review all violations.
- Decompress, decode and import two high-resolution images. Violation image resolution must be of a quality acceptable to the DEPARTMENT for all on-screen, stored, and printed purposes.
- Enlarge/magnify portions of either of the first two images in order to produce a third image which clearly shows:
 - o The vehicle's registration plate, clearly readable to the average naked eye.
 - o That the registration plate image was created from either of the first two images. Accordingly, the first two images shall have the appropriate contrast and brightness to show not only the registration plate, but the vehicle itself. This is imperative in that the visual linkage between the enlarged registration plate image and the other two images serves as *prima facie* evidence that a violation occurred.
- Print violation data and images in various formats at a quality and speed acceptable to the DEPARTMENT.
- Export all data and image files in formats acceptable to the DEPARTMENT.
- Store all violations/images captured for each approach for a minimum of one (1) year period on reproducible format and shall be accessible upon request, by the DEPARTMENT. The DEPARTMENT will require secure on-line storage of all images and data for a period of one (1) month after violation and secure off-line storage of violations/images and data for one (1) year thereafter. Retrieval of this data at any time during the one (1) month and one (1) year periods shall be at no cost to the DEPARTMENT.
- Retrieval of on-line and archived off-line data information shall be provided to the DEPARTMENT within three (3) business days of a written request from DEPARTMENT for retrieval.

- Standard database functions to easily enter, access, search and sort by various parameters including:
 - o Date of violation
 - o Violation tracking number
 - o Time of violation
 - o Location of violation
 - o Vehicle Identification Number
 - o Vehicle Registration Number and Issuing State
 - o Registered Owner(s) of vehicle (dual-vehicle owner option), address(es)
 - o Date of notice
 - o Make & Year of vehicle
- Ability to print standard monthly and quarterly management information reports and any other reports requested by the DEPARTMENT at no additional cost, which may include:
 - o Total violations per location by Hour of Day, Day of Week, Week of Month, Month of Year, or and/or Year.
 - o Number of violations occurring within one (1) second (other variable) of the light turning red. (Grouped in one [1] second increments)
 - o Number of violations at various speeds.
 - o Listing of duplicate violators.
 - o Number of unpaid citations.
 - o Number of violations appealed to Justice of the Peace Court.
 - o Number of citations “nolle prossed” (not upheld in Justice of the Peace Court)
 - o Specialized reports
- Ability to generate reports based on the entry of variable parameters. Threshold fields shall allow a specific date range or other criteria. All report searches shall allow for multiple parameter selections (e.g., number of out-of-state violations that also requested court dates or number of violations occurring after two (2) seconds, during rush hour, etc.)
- Ability to record information obtained as the result of telephone calls, or other communication, regarding a violation. This information shall be attached to the violation data as a contact history file. This attached file shall record relevant data and include:
 - Date and time of contact
 - Contact (caller) name
 - Brief comments
- Ability to conduct statistical analysis of violations, processed citations and related data over a period of time. The information generated by this database will be used by the DEPARTMENT

to evaluate the implementation of the full performance system during and at the end of its term of operation.

Any and all data generated by the system and the Vendor will become the property of the DEPARTMENT. It is expected that the evaluation data may be forwarded to the State of Delaware's General Assembly and others as necessary.

- Provide data to the DEPARTMENT required to prepare the annual program updates due to the Delaware legislature on February 28th of each year ([see sample report](#)).

4.3. Equipment Maintenance

- a) All equipment, including the system's computer hardware and/or software, shall be regularly maintained by the Vendor, and be continually operable in accordance with the requirements of the Proposal. Maintenance includes all components of the system which might be capable of corruption by virus. Virus-free protection mechanisms must be provided. Once the system reaches full performance level, the successful bidder shall ensure uninterrupted service for 360 days per year throughout the term of the contract. Five (5) cumulative days downtime is allowable per year, which excludes the time required for routine maintenance up to two (2) hours per month.
- b) If a monitored approach is subject to a Monthly Per Approach Fee and is inoperable for more than twelve (12) hours per day, the DEPARTMENT will be credited the prorated daily amount of the fixed fee.
- c) The successful Vendor shall provide the DEPARTMENT with a monthly report within fourteen (14) calendar days following the end of the month. The monthly report is to include:
 - Dates of maintenance/repairs performed
 - All system errors identified
 - Total non-operational time for each camera site
 - Number of events recorded
 - Number of events transmitted for review
 - Number of violations
 - A comparison of current month vs. prior month
 - Date of last recorded event
 - Any other statistical report deemed necessary by the DEPARTMENT
- d) The system shall be capable of providing notification to DelDOT and impacted local law enforcement agencies within twenty-four (24) hours when camera equipment is not operational.

- e) Technical revisions made by the equipment and/or software supplier shall be incorporated into the ERLSES throughout the period of the Contract as they are issued. All revisions shall be approved by the DEPARTMENT prior to incorporation.

4.4 Liquidated Damages

In the event fully functional field equipment, Backoffice reporting, data collection, or violation processing functions are not performed per contract requirements on a monthly or daily basis, and Vendor has been notified of the failure in writing and the issue has not been corrected within the timetable requested; the DEPARTMENT may assess Liquidated Damages as described below.

Liquidated Damages of \$100.00 per each 24 hour period will be assessed at the DEPARTMENT's discretion, for each approach to each RLSES intersection that is not provided a fully functioning system including Backoffice services, subject to the below exclusions.

Liquidated damages of \$75.00 per calendar day will be assessed at the DEPARTMENT's discretion, for failure to notify the DEPARTMENT in writing within 36 hours of each approach system that is not fully operational.

Liquidated Damages of \$50.00 per calendar day will be assessed at the DEPARTMENT's discretion, for issues that affect only Backoffice functions that do not impede the violation notice or collection process.

Liquidated damages will not be assessed in the following situations:

- A traffic crash, vandalism, or weather significantly damages the camera's outer housing and/or the pole, and no other viable pre-wired camera location is available at that site. In the event that a pole is removed or damaged beyond repair and a viable pre-wired camera location is available at that site, the Vendor agrees to re-install an operable camera at that site within 30 days after the incident. If no other viable, pre-wired camera location is available at the site, then the Vendor may have up to 50 days following the installation of a new pole and the rewiring of such location to re-install an operable camera after the incident. Liquidated Damages would commence for each approach at the conclusion of the above specified time frames if the system and backoffice are not fully functioning.
- DEPARTMENT pre-approved and scheduled routine maintenance, or DEPARTMENT written pre-approved service outages with a specified time frame.
- A Force Majeure Event directly impacting the field or backoffice systems.
- Failure due to any lack of stop line visibility, change in traffic light height, sagging tree branch, or other DEPARTMENT-controlled item related to citation issuance unless the DEPARTMENT has corrected the problem.

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5. TERMS AND CONDITIONS

1. By submitting a bid, each Proposer shall be deemed to acknowledge that it has carefully read all sections of this RFP, including all forms, schedules and exhibits hereto, and has fully informed itself as to all existing conditions and limitations.
2. Proposers shall submit a Proposal/Bid Bond or other forms of security acceptable to the DEPARTMENT in the amount shown below with their proposal. The Vendor awarded the contract will be required to provide a performance/Payment bond and/or a Fidelity Bond acceptable to the DEPARTMENT in the amount shown below:

Proposal Bond	Fidelity and/or Performance Bond
\$100,000.00	\$2,000,000.00
One Hundred Thousand Dollars	Two Million Dollars

Surety bonds shall be written by a surety or insurance company that is licensed to do business in the State of Delaware. If the letter is submitted by co-sureties or a joint venture of sureties, the letter must clearly state that the sureties making up the co-surety or the joint venture are bound in solido for the full amount of the bond. Letters indicating “unlimited” bonding/security capability are not acceptable. Bonding must cover both the Vendor’s handling and processing of violation payments as well as the Vendor’s provision, installation, operation, and removal of all field equipment.

3. The Vendor recognizes that it is operating as an independent contractor and that it is liable for any and all losses, penalties, damages, expenses, attorney’s fees, judgments, and/or settlements incurred by reason of injury to or death of any and all persons, or injury to any and all property, of any nature, arising out of the vendor’s negligent performance under this contract, and particularly without limiting the foregoing, caused by, resulting from, or arising out of any act of omission on the part of the Vendor in their negligent performance under this contract.

The Vendor shall maintain such insurance as will protect against claims under Worker’s Compensation Act and from any other claims for damages for personal injury, including death, which may arise from operations under this contract. The Vendor is an independent contractor and is not an employee of the State of Delaware.

Certificate of Insurance and/or copies of insurance policies for the following:

- a. As a part of the contract requirements, the Vendor shall obtain at its own cost and expense and keep in force and effect during the term of this contract, including all extensions, the minimum coverage limits specified below with a carrier satisfactory to the State. All Vendors shall carry Commercial General Liability and all other coverage’s listed below.

1. Commercial General Liability - \$1,000,000.00 per person/\$3,000,000 per occurrence.

and

2. Product Liability - \$1,000,000.00 per person/\$3,000,000 per occurrence.

- b. Automotive Liability Insurance covering all automotive units used in the work with limits of not less than \$100,000 each person and \$300,000 each accident as to bodily injury and \$25,000 as to property damage to others.
- c. Forty-five (45) days written notice of cancellation or material change of any policies shall be required.
- d. Before any work is done hereunder, a Certificate of Insurance referencing the name and contract number stated herein, shall be filed with the State. The certificate holder is as follows:

**State of Delaware
Contract Administration
Delaware Department of Transportation
800 Bay Road, Dover, DE 19901**

Note: The State of Delaware shall not be named as an additional insured.

4. The RFP, the purchase order, the executed contract and any supplemental documents between the State of Delaware and the successful Vendor shall constitute the contract between the State of Delaware and the Vendor. In the event there is any discrepancy between any of these contract documents, the following order of documents governs so that the former prevails over the latter: Contract, State of Delaware RFP, Vendor's response of the RFP and purchase order. No other documents shall be considered. These documents will constitute the entire agreement between the State of Delaware and the Vendor.
5. In performing the services subject to this RFP the Vendor will agree that is will not discriminate against any employee or applicant because of race, creed, color, sex or national origin. The successful Vendor shall comply with all federal and state laws, regulations and policies pertaining to the prevention of discriminatory employment practice. Failure to perform under this provision constitutes a material breach of contract.
6. The laws of the State of Delaware shall apply, except where Federal Law has precedence. The successful Vendor consents to jurisdiction and venue in the State of Delaware.

In submitting a proposal, Vendors certify that they comply with all federal, state and local laws applicable to its activities and obligations including:

1. the laws of the State of Delaware;
2. the applicable portion of the Federal Civil Rights Act of 1964;
3. the Equal Employment Opportunity Act and the regulations issued there under by the federal government;
4. a condition that the proposal submitted was independently arrived at, without collusion, under penalty of perjury; and
5. the programs, services, and activities provided to the general public under resulting contract conform to the Americans with Disabilities Act of 1990, and the regulations issued there under by the federal government.

If any Vendor fails to comply with (1) through (5) of this paragraph, the State of Delaware reserves the right to disregard the proposal, terminate the contract, or consider the Vendor in default.

The selected Vendor shall keep itself fully informed of and shall observe and comply with all applicable existing Federal and State laws and County and local ordinances, regulations and codes, and those laws, ordinances, regulation, and codes adopted during its performance of the work.

7. By submitting a proposal, the proposing Vendor agrees that in the event it is awarded a contract, it will indemnify and otherwise hold harmless the State of Delaware, its agents and employees from any and all liability, suits, actions, or claims, together with all costs, expenses for attorney's fees, arising out of the Vendor's agents and employees' performance work or services in connection with the contract, regardless of whether such suits, actions, claims or liabilities are based upon acts or failures to act attributable, whole or part, to the State, its employees or agents.
8. Except as otherwise provided in this contract, all claims, counterclaims, disputes, and other matters in question between the DEPARTMENT and the Vendor arising out of, or relating to, this contract, or a breach of it may be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State of Delaware.
9. If it is found, after notice and hearing, by the State that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Vendor or any agent to the State with a view toward securing a contract, or securing favorable treatment with respect to the awarding, amending, or the making of any determinations with respect to the performance of this contract, the State may, by written notice to the Vendor, terminate the right of the Vendor to proceed under this contract and/or pursue such other rights and remedies provided by law or under this agreement; provided that the existence of the facts upon which the State makes such findings shall be in issue and may be reviewed in proceedings pursuant to Section 5.8. clause of this contract; and

In the event this contract is terminated pursuant to above paragraph, the State shall be entitled (i) to pursue the same remedies against the Vendor, and (ii) to exemplary damages, as a penalty in addition to any other damages to which it may be entitled by law, in an amount which shall be not less than three, nor more than ten, times the costs incurred by the Vendor in providing any such gratuities to any such officer or employee. The amount of such exemplary damages shall be in the sole discretion of the State.

10. Vendor shall warrant that all elements of its solution, including all equipment, software, documentation, services and deliverables, do not and will not infringe upon or violate any patent, copyright, trade secret or other proprietary rights of any third party. In the event of any claim, suit or action by any third party against the State of Delaware, the State of Delaware shall promptly notify the Vendor in writing and Vendor shall defend such claim, suit or action at Vendor's expense, and Vendor shall indemnify the State of Delaware against any loss, cost, damage, expense or liability arising out of such claim, suit or action (including, without limitation, litigation costs, lost employee time, and counsel fees) whether or not such claim, suit or action is successful.

If any equipment, software, services (including methods) products or other intellectual property used or furnished by the Vendor (collectively "Products") is or in Vendor's reasonable judgment is likely to be, held to constitute an infringing product, Vendor shall at its expense and option either:

- a. Procure the right for the State of Delaware to continue using the Product(s);
 - b. Replace the product with a non-infringing equivalent that satisfies all the requirements of the contract; or
 - c. Modify the Product(s) to make it or them non-infringing, provided that the modification does not materially alter the functionality or efficacy of the product or cause the Product(s) or any part of the work to fail to conform to the requirements of the Contract, or only alters the Product(s) to a degree that the State of Delaware agrees to and accepts in writing.
11. Invoices shall be prepared and transmitted to the DEPARTMENT within ten (10) business days after the last day of the month. The Vendor shall maintain supporting documents to substantiate invoices and shall furnish same if required by the DEPARTMENT.
 12. Vendor shall keep true and accurate records of revenue and expenses, and shall provide copies of this information to the DEPARTMENT monthly, along with invoice, in a form to be specified by the DEPARTMENT. All financial records shall be made available to a duly authorized representative of the DEPARTMENT upon request.
 13. Vendor shall provide an annual audited financial statement prepared by a licensed certified public accountant. Annual financial information should be provided no later than 90 days after the close of the contract year.
 14. Vendor shall provide results of program for an audit of records every (3) three years. The audit will be performed by a licensed certified public accountant (CPA).
 15. The DEPARTMENT will authorize and process for payment each invoice within thirty (30) days after the date of receipt of a correct invoice.
 16. The right is hereby reserved to the DEPARTMENT, its officers, agents and employees, to enter the Vendors premises at reasonable times to inspect the premises, operation and equipment, or for any purposes in connection with work necessary to the benefit of the DEPARTMENT.
 17. No activity is to be executed in an off shore facility, either by a subcontracted firm or a foreign office or division of the Vendor. The Vendor must attest to the fact that no activity will take place outside of the United States in its transmittal letter. Failure to adhere to this requirement may be cause for elimination from future consideration.
 18. Neither party shall be liable for delays in the performance of its obligations hereunder due to a Force Majeure Event. "Force Majeure Event" means conditions or other circumstances, such as acts of God, that; (i) were not foreseen, and could not have been reasonably foreseen, by the party obligated to perform, (ii) are beyond the control of the party obligated to perform, and (iii) materially hinder or interfere with the ability of the party obligated to perform to complete performance; provided, however, that no such condition or circumstance will be a Force Majeure Event if it is the result of the fault, negligence, or material breach by the party obliged to perform. Examples of Force Majeure events include, but are not limited to, government restriction, strike, flood, fire, or unforeseen catastrophe beyond either party's control. Each party shall notify other in writing of any situation that may prevent performance under the terms and conditions of this contract.

19. Vendor may not assign contract, in whole or in part, without the prior written consent of the DEPARTMENT, which consent shall not be unreasonably withheld or delayed. Notwithstanding, the Vendor may assign the contract to an affiliate or in connection with a merger or sale of substantially all of the assets related to the contract. The contract shall bind and inure to the benefit of the DEPARTMENT and Vendor and their respective successor and permitted assigns. If so assigned, the DEPARTMENT may terminate this agreement with thirty (30) days written notice.

6. PROPOSALS

In order to be considered responsive, proposers must respond to each and every requirement outlined herein. Proposals must be clear and concise. Joint venture submissions will not be considered.

6.1. Procedures and Guidelines

1. Proposals shall be clearly marked Electronic Red Light Safety System – 1671, and submitted prior to the submission date and time to the following:

Contract Administration
Department of Transportation
800 Bay Road
Dover, DE 19901

Each Submitter shall be responsible for obtaining written proof of delivery showing date, time and location of delivery. **It is the Submitter's sole responsibility to ensure delivery of its Proposal to the Department at the time and place specified.**

2. The DEPARTMENT may waive any informality, irregularity, omission, and/or error in any proposal received.
3. All proposals shall remain valid for a period of one hundred twenty (120) calendar days following opening of the proposals.
4. This contract will be awarded to the most responsible and responsive Vendor who best meets the terms, conditions and intent of this RFP, in the sole discretion of the DEPARTMENT.
5. The DEPARTMENT may extend the time and place for the opening of proposals on not less than two (2) calendar days notice, by e-mail, facsimile transmission, or other verifiable electronic means.
6. Proposers shall not contact stakeholder staff regarding this RFP. Stakeholder staff includes employees of the DEPARTMENT, its consultants, DMV, DELJIS, Delaware State or Municipal Police, and JP Court employees.
7. Any contact determined to be improper, at the sole discretion of the DEPARTMENT, may result in disqualification of the Proposer.

8. The DEPARTMENT will not be responsible for any verbal communication or any other information or contact that occurs outside of the official communication process specified herein.
9. All documents submitted by the Proposer will be deemed confidential during the evaluation process. Proposals will not be available for review by anyone other than the Evaluation Committee or its designated agents. There shall be no disclosure of any Proposer's information to a competing Proposer prior to award of the contract. All submissions become property of the DEPARTMENT and non-awarded submissions shall be retained for a period not to exceed 30 days from the selected Vendor's contract execution.
10. The State of Delaware is a public agency as defined by state law, and as such, it is subject to the Delaware Freedom of Information Act, 29 *Del. C.* Ch. 100. Under the law, all the Delaware's records are public records (unless otherwise declared by law to be confidential) and are subject to inspection and copying by any person. Proposers are advised that once a proposal is received by the State of Delaware and a decision on contract award is made, its contents will become public record and nothing contained in the proposal will be deemed to be confidential except proprietary information.

Proposers submitting confidential information must adhere to the following procedure. Proposer(s) must submit such information in a separate, sealed envelope labeled "Proprietary Information - 1671". The envelope must contain a letter from the Vendor's legal counsel describing the documents in the envelope, representing in good faith that the information referenced in each document is not "public record" as defined by 29 *Del. C.* § 10002(1), and briefly stating the reasons that each document meets the said definitions.

In order to comply with the State of Delaware's Freedom of Information Act, firms responding to this Request for Proposals should prepare one (1) copy of their Proposal submission with any proprietary or confidential information redacted. This copy should be clearly marked as "Redacted Copy" and submitted along with the other copies. Firms should review Delaware's Freedom of Information Regulations, section 6, Requests for Confidentiality, on the [DeIDOT Website](#), and Section 10002(1) "Public record" of the [Delaware Code](#) to determine what information may be considered proprietary or confidential and may be redacted from their submittal.

11. The DEPARTMENT reserves the right to reject any and/or all proposals if it is deemed to be in the best interest of the State.
12. It shall be the Proposer's responsibility to obtain any information, in addition to that contained herein, that the Proposer may need to satisfy the requirements for completing this proposal. All questions pertaining to the requirements of this RFP shall be directed via e-mail to:

[**dot-ask@state.de.us**](mailto:dot-ask@state.de.us)

Please include the requestor's name, address, telephone, and facsimile numbers.

13. Responses to questions will appear periodically on the document entitled 'Questions and Answers' posted on the Project's solicitation Webpage at: bids.delaware.gov.

14. It is the responsibility of the Proposer to check the above Webpage often for Addendums, Questions and Answers, and other information concerning this RFP.
15. The final Questions and Answers will be posted no later than the end of the day, two working days prior to the bid date.
16. All Questions and Answers posted by the DEPARTMENT on the Project's solicitation Webpage are included by reference and become part of the RFP and contract documents. The awarded Vendor will receive a hard copy of the final posted Questions and Answers.

6.2. Proposal Schedule

All dates listed in this RFP may be modified at the DEPARTMENT's discretion. Any dates changed during this RFP process will be posted on the Project Website, and/or incorporated in an addendum.

Proposers are solely responsible for all costs and expenses of any nature associated with responding to this RFP.

The following represents the anticipated schedule for the RFP. The schedule is subject to change at the discretion of the DEPARTMENT.

Activity	Due Date
RFP Availability to Proposers	September 30, 2013
E-mailed Questions Due No Later Than	October 20, 2013
Final Answers Posted to Website	October 28, 2013
RFP Submissions Due	November 5, 2013 2:00 P.M.
Proposal Presentations week of: <i>(estimated)</i>	December 9, 2013
Vendor Final Discussions week of: <i>(estimated)</i>	December 16, 2013
Contract Award	January 10, 2014
Final Execution	January 24, 2014
Issue Notice-to-Proceed	January 31, 2014

6.3. Proposal Format

One original (so marked and including original signatures), and five (5) copies of the Proposal must be provided in binders, 8.5 x 11 single sided pages with a minimum font of 11. The required contents of the proposal are to be in the order listed below, separated, tabbed, and titled as follows:

1. Cover Letter - Each proposal shall have a cover letter on the letterhead of the Proposer submitting the proposal. The cover letter, limited to two pages, shall summarize the Proposer's qualifications, experience, and primary team members; briefly discuss the field and back office systems proposed; identify any sub contractors, and include a high level overview of the proposed transition plan and schedule. A company officer must sign the letter.

2. Experience - The Proposer shall submit information demonstrating experience in the implementation of similar electronic red light enforcement systems, including furnishing, installation, maintenance, and other related services or activities, for a state or local government agency. The Proposer must demonstrate, to the satisfaction of the DEPARTMENT, that the proposed team is capable of satisfactorily performing the work of this project. Preferably, the Proposer will have acted as the prime contractor during the installation and operation of at least two (2) full-performance, revenue-generating systems that are similar in size to the DEPARTMENT's ERLSES. The Proposer must clearly describe such experience in reasonable detail. The Experience/Qualifications Component must specifically address:
- a) The Proposer's business history, revenues for the last two (2) years, and number of years in operation.
 - b) All ERLSES experience within the last three (3) years. State the current status of each program, both complete and in progress. Provide the program schedule, including the starting date and the in-service or anticipated in-service date.
 - c) A list of three (3) applicable customer references that are familiar with the services provided by the Proposer and can respond to questions about the Proposer's performance. By providing such information, the Proposer grants the DEPARTMENT permission to contact these individuals.
 - 1) Jurisdiction/Agency Name and Address;
 - 2) Contracting Officer Name, Email and Telephone Number;
 - 3) Technical Representative Name, Email and Telephone Number; and
 - 4) A brief, written description of the specific services provided by the Proposer to the jurisdiction/agency.
 - d) Any other relevant experience that the Proposer deems necessary to demonstrate the ability to successfully fulfill the requirements of this RFP.
3. Key Personnel - The name(s) and resume(s) of key personnel, including the senior-level staff member(s) who will be assigned a principal management role on this project. Designate the anticipated Proposer's Project Manager for this project, who preferably has successful experience in this role on similar projects. In addition, the Proposer must designate the person who will be the primary day-to-day contact during the Agreement if awarded.

Each resume shall be limited to two (2) pages in length and shall include detailed educational qualifications and previous work assignments related to similar projects. In the event of a future change in the key personnel named and assigned to perform services if selected, the Proposer shall submit, for approval by the DEPARTMENT, the credentials and resumes of the persons proposed as a replacement, which are to be similar or improved from those originally named.

4. Subcontractors/Subconsultants - The names, addresses (postal and e-mail), and telephone numbers of all subcontractors and subconsultants that the Proposer intends to use, along with their proposed scope of services and their previous experience performing comparable services.

5. Business Licenses - Evidence that the Proposer and all subcontractors or subconsultants are duly licensed and are in good standing in both their home state, and their state of incorporation. The selected Vendor and any subcontractors or subconsultants performing work within the state of Delaware will be required to have applied for a business license to transact business within the State of Delaware. See http://revenue.delaware.gov/information/faqs_lic.shtml for information on becoming licensed to transact business in Delaware.
6. Contract Understanding and Approach - Each proposal must contain a detailed description of how the Proposer will fulfill and guarantee contract requirements outlined in this RFP.

Answers to the following questions must be provided for the purpose of demonstrating the understanding of and approach to services that are required under this contract. Responses shall be limited to a maximum of twelve (12) pages total. Pertinent information over and above responses to the direct questions may be provided, at the Proposer's discretion, as long as the twelve page limit is not exceeded. All responses shall be consistent with the proposed methods of providing services under this contract.

- Q.1. Project Initiation: Starting at the issuance of notice of award, describe your approach to implementing a full-performance system operation (NOTE: All installed equipment must be new). What is your anticipated schedule (NOTE: Sample schedule will not count toward twelve page limit)? What information and support will be needed from the DEPARTMENT? How will you assure the DEPARTMENT that the system is ready for full-performance operation within your proposed timeframe of the contract (NOTE: The DEPARTMENT may negotiate timeframe with the successful Vendor)? What will be the role of your team members?*
- Q.2. Violation Data Collection: Describe a typical full-performance system intersection setup, including all the equipment, mounting supports, connections and power requirements. Discuss the factors and issues that are important in setting up the site to have a high rate of success in capturing violation data that can be processed as citations. What type of digital camera equipment and detector equipment, both in-ground and non-invasive, will be used and why it is the best choice for the ERLSES? Discuss the means/methods of storing/encrypting the images to maintain their integrity and of communicating the recorded data to the processing office.*
- Q.3. Citation Processing/Performance Accounting: Describe the backoffice setup, including equipment and personnel proposed for screening the recorded data and processing recorded violations into citations. Where will the office be located and why? Describe any special features of your processing setup and the advantages of the proposed features. How do you propose to coordinate your efforts with the DEPARTMENT and the other state and local agencies noted. Discuss the interface between the citation processing office the Vendor Lock Box service provider, DELJIS, and the JP Court system. Based on past experience, discuss the anticipated timeframes for issuing citations, receiving payments and appeal requests, issuing notices, assessing late charges and completing the remainder of the processing cycle. Describe the approach to processing out-of-state violations and past related experience. Describe the system database/reporting system that will be used to record all activities and track the performance of the ERLSES. Discuss your approach to providing expert testimony and public information/interface services, including the toll-free number and agency-access number (note staffing, wait times, automated features, etc.).*

- Q.4. Sample Citation: Provide a sample of a finished citation (both sides, if applicable) from a system that the Proposer is presently operating, with violation photos and accompanying sub-image of the vehicle license plate. The citation should be in a format that is similar to what is currently used for the Delaware system (see http://deldot.gov/information/red_light/ for a sample citation). (NOTE: The Sample citation will not count toward twelve page limit).*
- Q.5. Sample Design: Provide a sample of an equipment installation plan, including the maintenance of traffic considerations, from a system that the Proposer is presently operating. The plan should be in a format that is similar to what is proposed to be used for the Delaware system (see Appendix C – Sample Construction Plan). Describe your plan development process and the factors that should be considered when selecting ERLSES equipment locations. Describe your team’s experience with developing sample plans for other agencies. Describe your team’s experience with installing electrical devices (e.g., ERLSES equipment, traffic signals, etc.). What information and support will be needed from the DEPARTMENT?*
7. Transition Procedures – Each proposal must provide a description of Proposer transition procedures for starting this contract, and at this contract expiration or termination. The Proposer must ensure that the DEPARTMENT does not experience any adverse impact from the transfer of the responsibility of providing equipment/services from the current Vendor to a successor Vendor. The turnover plan should detail the proposed schedule, activities, and resource requirements associated with the transition tasks. The transition shall be at no cost to the DEPARTMENT and must be approved by the DEPARTMENT prior to implementation.
8. Implementation Schedule - Include an anticipated implementation schedule, including major program tasks, milestones and the time frame for completion. Include both the field and backoffice components. Base the schedule on the number of days following the DEPARTMENT issuing a ‘Notice to Proceed’.
9. Required Forms - The following provided forms are required to be completed, signed, notarized if applicable, and submitted within the Proposal binder:
- BID PRICE FORM (*Sealed Envelope*)
 - SUBMISSION FORM
 - CERTIFICATION FORM
 - PROPOSAL/BID BOND FORM
 - TRUTH-IN-NEGOTIATION CERTIFICATION FORM
10. Bid Price – *One original and five (5) copies of the completed Bid Price Form are to be submitted in one sealed envelope placed inside the rear cover of the ‘original’ proposal binder. The outside of the envelope is to be marked with the Proposer’s company name, and the notation ‘Bid Price for 1671’. This is the only proposal binder that is to contain pricing information.*

Bid prices must be inclusive of all services, materials, equipment and incidentals necessary for turnkey implementation of the full performance system and for ongoing maintenance, technical support and engineering updates for both field and Backoffice equipment. The specified Bid Prices will remain in effect for the thirty-six (36) month contract period.

- a) Proposers shall specify Bid Prices using the attached Bid Price Form on a price-per-month-per-approach basis and a price-per-collected-citation basis. If the price-per-collected-citation price varies by quantity, Proposers shall fill in the “break point(s)” at which the price-per-collected-citation issued cost will decrease as the quantity of citations issued increases. All figures entered on the Bid Price form must be typewritten.
- b) In addition to the required Bid Price Form, Proposers may also choose to submit Alternate Pricing for the DEPARTMENT’s consideration. Alternate Pricing must be contained on one page, including pricing explanations. The page must be 8.5 x 11 and contain the same information as on the bottom of the Bid Price Form including signature blocks, the Proposer’s company name, submittal date, pricing information and signatures. Multiple Alternate Pricing submissions are allowed. Alternate Pricing sheets are to include one page with original signatures and five copies. The Alternate Pricing sheets are to be submitted in the same sealed envelope as the Bid Price Form.

7. SELECTION AND AWARD PROCESS

1. Proposals are the DEPARTMENT’s primary method of obtaining the essential information on which this contract award decision will be based.
2. A preliminary review of the proposal package will be performed to ensure that the proposal is complete. The DEPARTMENT has the option to reject a proposal that it deems to be materially incomplete, if the proposal fails to provide required information as specified in this RFP.

A Vendor’s proposal may be excluded from further consideration if it is unable to satisfy the minimum requirements, or is determined unlikely to be selected for award.

3. A Selection Committee, appointed by the DEPARTMENT, will evaluate all proposals that contain the required information. The Selection Committee members are confidential. The Selection Committee will assign a score, up to the maximum number of points, according to the following evaluation criteria:

Evaluation Criteria	Maximum Points
Proposer and Key Personnel Previous Experience	20
Proposed Backoffice Solution	20
Proposed Equipment and Field Systems	20
Fees Proposed	15
Clarity and completeness of the Proposal	15
Transition Overview	10
TOTAL POINTS:	100

4. Sample drawings or brochures may be required by the DEPARTMENT for evaluation purposes. They shall be such as to permit the DEPARTMENT to compare and determine if the item offered complies with the intent of the specifications.
5. Any one of the following causes may be considered as sufficient for the disqualification of a Vendor and the rejection of its proposal or proposals:
 - a. More than one proposal for the same contract from an individual, firm, or corporation under the same or different names.
 - b. Evidence of collusion among Vendors.
 - c. Unsatisfactory performance record as evidenced by past experience with the State of Delaware or on a State of Delaware contract.
 - d. Any suspension or debarment of the parent company, subsidiary or individual involved with the Vendor by federal, any state or any local governments within the last 5 years.
6. At the conclusion of ranking by the Selection Committee, a preliminary list will be compiled, in the order of ranking, of the most responsive and responsible proposals. The top ranked Proposers may be contacted for an interview or oral presentation.
7. The DEPARTMENT reserves the right to request modification to proposals from any or all Vendors during the review and negotiation. The DEPARTMENT may negotiate any aspect of the proposal with any Proposer and negotiate with more than one Proposer at the same time.
8. The DEPARTMENT reserves the right to enter into negotiations and/or entertain the option of requesting a Best and Final Offer from the top ranked Proposers in order to reach a final selection. If a Best and Final Offer is requested, Proposers will be given adequate time to develop a response and provide it in writing to the Department.
9. The DEPARTMENT intends to award the contract to the most responsive and responsible Vendor. If a successful Vendor cannot be chosen, the DEPARTMENT reserves the right to reject any and all proposals.
10. All Vendors shall fully bear the costs associated with pre-contract activities, including proposal preparation, negotiations, and/or proposed contracts.
11. The Vendor offering these services shall swear that it has not employed or retained any company or person, other than a bona fide employee working primarily for this Vendor offering services, to solicit or secure the proposal, and that the Vendor has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working primarily for the Vendor, any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from award or making of this proposal. For the breach or violation of this provision, the DEPARTMENT shall have the right to reject the proposal, or, if discovered after the award, reject the agreement, without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

12. To appeal the selection of a successful Vendor, the appealing Proposer must have been an applicant in the competition and must first meet all the requirements as described in this request for proposals. A letter of protest must be submitted to the Contract Services Administrator within ten (10) days of the notice. The Secretary of Transportation or designee will make final determination of the merits of the appeal. In the letter, the applicant must state the reasons for the appeal. Appeals must be based on pertinent issues relating to the selection process. Appeals based on specifications contained in the proposal will not be accepted. Appeals that meet these conditions will be reviewed and respectively answered.
13. If the State of Delaware or General Assembly revises the Delaware Code such that the ERLSEP is no longer permitted by law, the DEPARTMENT may terminate the contract by giving thirty (30) calendar days written notice to the selected Vendor.

8. REQUIRED FORMS

The following forms are required to be completed, signed, and submitted with the Proposal:

- 8.1 Bid Price Form
- 8.2 Submission Form
- 8.3 Certification Form
- 8.4 Bid Bond
- 8.5 Truth-In-Negotiation Certification Form

SUBMISSION FORM
Department of Transportation

ELECTRONIC RED LIGHT SAFETY ENFORCEMENT SYSTEM

Attention: Contract Administration
Delaware Department of Transportation
800 Bay Road
Dover, DE 19903

We have read Request for Proposal 1671 and fully understand the intent of the proposal as stated, certify that we have adequate personnel and equipment to fulfill the requirements thereof, and agree to furnish such services in accordance with the contract documents as indicated should we be awarded the contract.

Non-Collusion: Proposals are made without any previous understanding, contract, or with any person, firm, or corporation making a proposal for the same services, or supplies, or equipment, and is without collusion or fraud.

Date: _____ **Submitted By:** _____

Proposer Firm: _____

Address: _____

Designated Contact Person: _____

E-Mail: _____ **Phone No.:** _____

Signature of Company Authorized Person: _____

Title of Authorized Person: _____

Printed Name of Authorized Person: _____

Federal E.I. No.: _____

State of DE Business License No.: _____

Proposer is a [state whether Sole Proprietor, Partnership, Corporation, other]: _____

**CERTIFICATION
ELECTRONIC RED LIGHT SAFETY ENFORCEMENT SYSTEM**

The undersigned Proposer, _____ whose address is _____ and telephone number is _____ hereby certifies the following:

I/We have carefully examined the Request for Proposal and will be bound, upon award of this contract by the Department of Transportation, to execute in accordance with such award, a contract with necessary surety bond, to provide all services necessary, and to do all the work and to furnish all the materials necessary to perform and complete the said contract as required in accordance with the requirements of the Department of Transportation, and at the prices for the various items as listed on the preceding pages.

I/We are licensed, or have initiated the license application as required by Section 2502, Chapter 25, Title 30, of the Delaware Code.

By submission of this proposal, each bidder and each person signing on behalf of any bidder, certifies as to its own organization, under penalty of perjury, that to the best of each signer's knowledge and belief:

1. The prices in this proposal have been arrived at independently without collusion, consultation, communication, or Agreement with any other bidder or with any competitor for the purpose of restricting competition.
2. Unless required by law, the prices which have been quoted in this proposal have not been knowingly disclosed and will not knowingly be disclosed by the bidder, directly or indirectly, to any other bidder or competitor prior to the opening of proposals.
3. No attempt has been made or will be made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a proposal for the purpose of restricting competition.

I/We acknowledge receipt and incorporation of addenda to this proposal as follows:

No.	Date								
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Sealed and dated this _____ day of _____ in the year of our Lord 20____.

Name of Bidder (Organization)

Corporate
Seal

By: _____
Authorized Signature

Attest _____

Title

SWORN TO AND SUBSCRIBED BEFORE ME this _____ day of _____, 20____.

Notary
Seal

Notary

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That:

_____ of _____
in the County of _____ and State of _____ as **Principal**,
and _____ of _____
in the County of _____ and State of _____ as **Surety**,
legally authorized to do business in the State of Delaware ("**State**"), are held and firmly unto the **State** in the
sum of ONE HUNDRED THOUSAND Dollars (\$100,000.00) on Contract No. 1671 - ERLSES, to be paid
to the **State** for the use and benefit of its Department of Transportation ("**DelDOT**") for which payment well
and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and
successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bounden **Principal**
who has submitted to the **DelDOT** a certain proposal to enter into this contract for the furnishing of certain
materiel and/or services within the **State**, shall be awarded this Contract, and if said **Principal** shall well and
truly enter into and execute this Contract as may be required by the terms of this Contract and approved by
the **DelDOT**, this Contract to be entered into within twenty days after the date of official notice of the award
thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and
remain in full force and virtue.

Sealed with _____ seal and dated this _____ day of _____ in the year of our Lord two
thousand and _____ (20____).

SEALED, AND DELIVERED IN THE
presence of

Name of Bidder (Organization)

Corporate
Seal

By: _____
Authorized Signature

Attest _____

Title

Name of **Surety**

Witness: _____

By: _____

Title

TRUTH-IN-NEGOTIATION CERTIFICATION

KNOW ALL MEN BY THESE PRESENCE, that the firm hereinafter listed, by and through the undersigned, its lawful agent, in accordance with 29 Del. C. §6982 (b) (3), and pursuant to **AGREEMENT NUMBER 1671** by and between said firm and the State of Delaware, Department of Transportation, **HEREBY CERTIFIES THAT:**

Wage rates and other factual unit costs supporting the compensation under the aforesaid **AGREEMENT** are accurate, complete and current at the time the **AGREEMENT** was executed.

The undersigned, on behalf of the firm hereinafter listed below, further **CERTIFIED** that said firm **AGREES** that:

In the event that the State of Delaware, Department of Transportation determines the compensation was, in fact, increased due to inaccurate, incomplete or noncurrent wage rates or other factual unit costs, the original compensation and additions thereto shall be adjusted to exclude any such sum. All such adjustments shall be made within one year following the termination of said **AGREEMENT**.

IT IS AGREED that this document be attached to the aforementioned **AGREEMENT** and become a part thereof.

SIGNED, SEALED AND DATED THIS _____ **day of** _____ **20**___

FIRM NAME: _____

ADDRESS: _____

(Print Name of authorized signer)

Signature

.....
State of _____

County of _____

SWORN TO AND SUBSCRIBED before me, a Notary Public, for the State and County aforesaid, in this _____ day of _____ 20____.

Signature of Notary Public _____

My Commission Expires _____

REQUEST FOR PROPOSALS
AGREEMENT NO: 1671
ELECTRONIC RED LIGHT SAFETY ENFORCEMENT SYSTEM

APPENDIX A: Current Intersections & Movements

New Castle County:

- Old Baltimore Pike at Salem Church Road/Salem Woods Drive (one approach)
 1. Westbound through
 2. Westbound left-turn
- Route 2 at Harmony Road (two approaches)
 1. Eastbound through
 2. Westbound through
 3. Westbound left-turn
- Route 2 at Red Mill Road/Polly Drummond Hill Road (four approaches)
 1. Eastbound through
 2. Eastbound left-turn
 3. Westbound through
 4. Westbound left-turn
 5. Northbound through
 6. Northbound left-turn
 7. Southbound through
 8. Southbound left-turn
- Route 2 at Route 41 (three approaches)
 1. Eastbound through
 2. Northbound left-turn
 3. Northbound through
 4. Southbound left-turn
 5. Southbound through
- Route 2 at Route 7 (three approaches)
 1. Northbound through
 2. Southbound through
 3. Westbound left-turn
- Route 4 at Marrows Road (three approaches)
 1. Westbound through
 2. Eastbound left-turn
 3. Northbound left-turn
- Route 40 at Route 72 (one approach)
 1. Northbound through
- Route 40 at Route 896 (one approach)
 1. Westbound through
- Route 40 at Scotland Drive (one approach)
 1. Eastbound through

APPENDIX A: Current Intersections & Movements (cont.)

- Route 58/Churchman's Road at Route 1 NB Ramps (one approach)
 1. Westbound through
 2. Westbound left-turn
- Route 92/Naaman's Road at Shipley Road/Brandywine Parkway (one approach)
 1. Eastbound through
- Route 273 at Harmony Road/Gerald Drive (two approaches)
 1. Eastbound through
 2. Southbound left-turn
 3. Southbound through
- Route 273 at Route 7 (four approaches)
 1. Northbound left-turn
 2. Northbound through
 3. Southbound left-turn
 4. Southbound through
 5. Eastbound left-turn
 6. Eastbound through
 7. Westbound left-turn
 8. Westbound through
- U.S.13 at Roosevelt Avenue (one approach)
 1. Northbound through
- U.S.202 at Route 92 (two approaches)
 1. Northbound through
 2. Westbound left-turn

Sussex County

- Route 1 at Munchy Branch Road/Miller Road (two approaches)
 1. Northbound left-turn
 2. Southbound through
- Route 1 at Old Landing Road (two approaches)
 1. Northbound left-turn
 2. Southbound left-turn
 3. Southbound through
- U.S. 13 at Road 40/Redden Road (two approaches)
 1. Northbound left-turn
 2. Northbound through
 3. Southbound left-turn
 4. Southbound through
- U.S. 113 at Route 20 (one approach)
 1. Southbound left-turn
 2. Southbound through

APPENDIX A: Current Intersections & Movements (cont.)

City of Newark (enforced by Newark Police)

- Route 896 at Route 4 (one approach)
 1. Northbound through
 2. Northbound left-turn
- Elkton Road at Route 4 (one approach)
 1. Westbound left-turn

City of Elsmere (enforced by Elsmere Police)

- Route 2 at Dupont Road (one approach)
 1. Eastbound left-turn
 2. Eastbound through

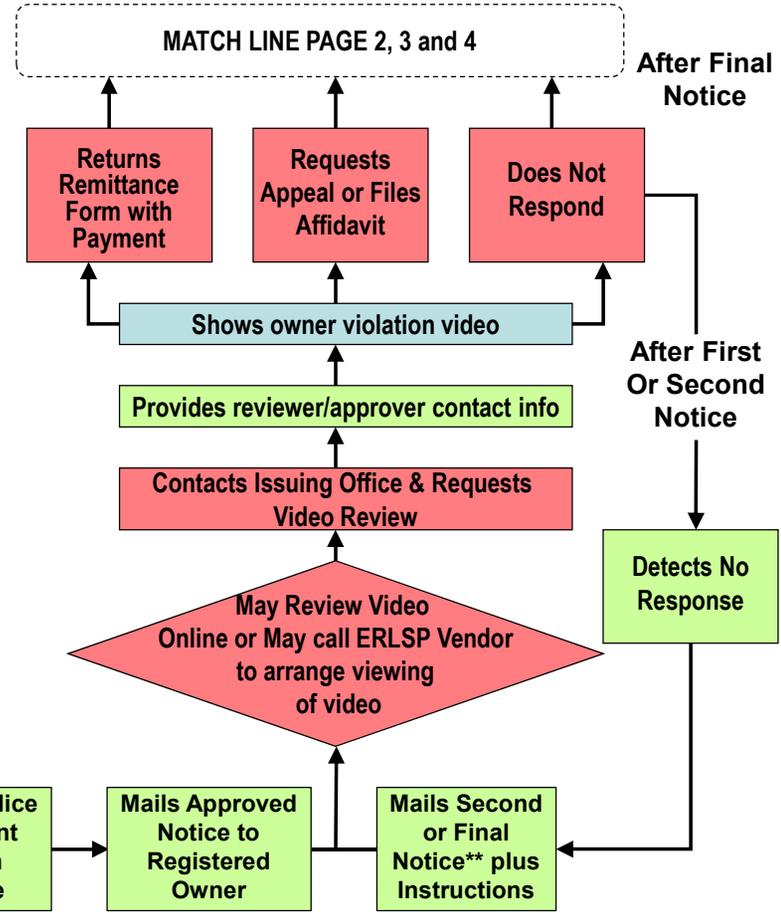
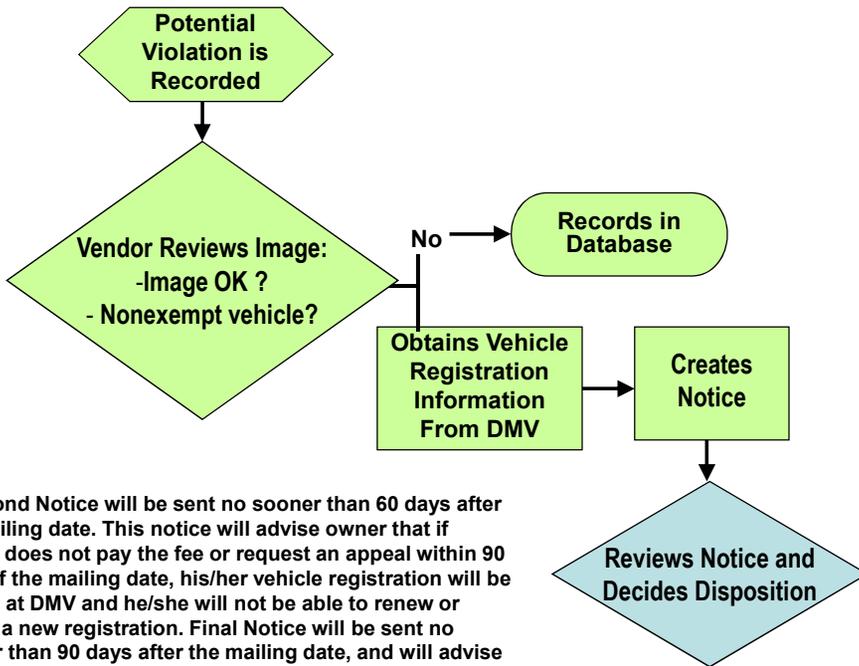
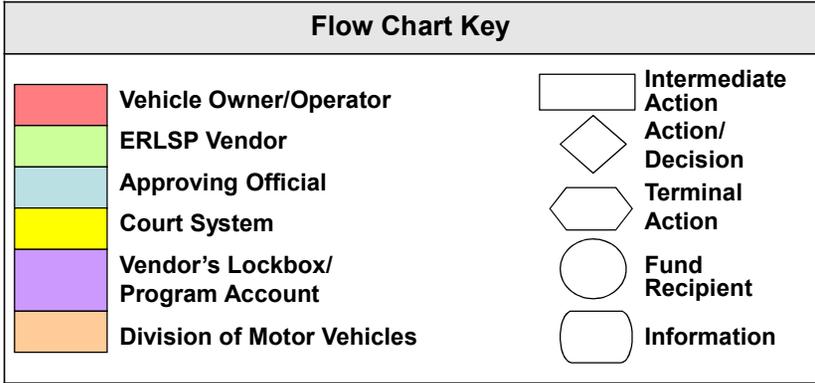
City of Dover (enforced by Dover Police)

- Governor's Avenue at North Street (one approach)
 1. Southbound through
 2. Southbound left-turn
- U.S. 13 at Division Street/Route 8 (one approach)
 1. Southbound through
- U.S. 13 at Kings Highway/White Oak Road (one approach)
 1. Northbound through
- U.S. 13 at Loockerman Street (one approach)
 1. Northbound left-turn
- U.S. 13 at Roosevelt Avenue (one approach)
 1. Northbound through
 2. Northbound left-turn (monitoring only as of 7/1/13, not currently enforcing)
- U.S. 13 at Scarborough Road (two approaches)
 1. Northbound through
 2. Southbound through
 3. Southbound left-turn
- U.S. 13 at Webbs Lane (two approaches)
 1. Northbound through
 2. Southbound through

City of Seaford (enforced by Seaford Police)

- U.S. 13 at Tharp Road (two approaches)
 1. Northbound left-turn
 2. Southbound through

**Delaware's Electronic Red Light Safety Program
Flow Chart**

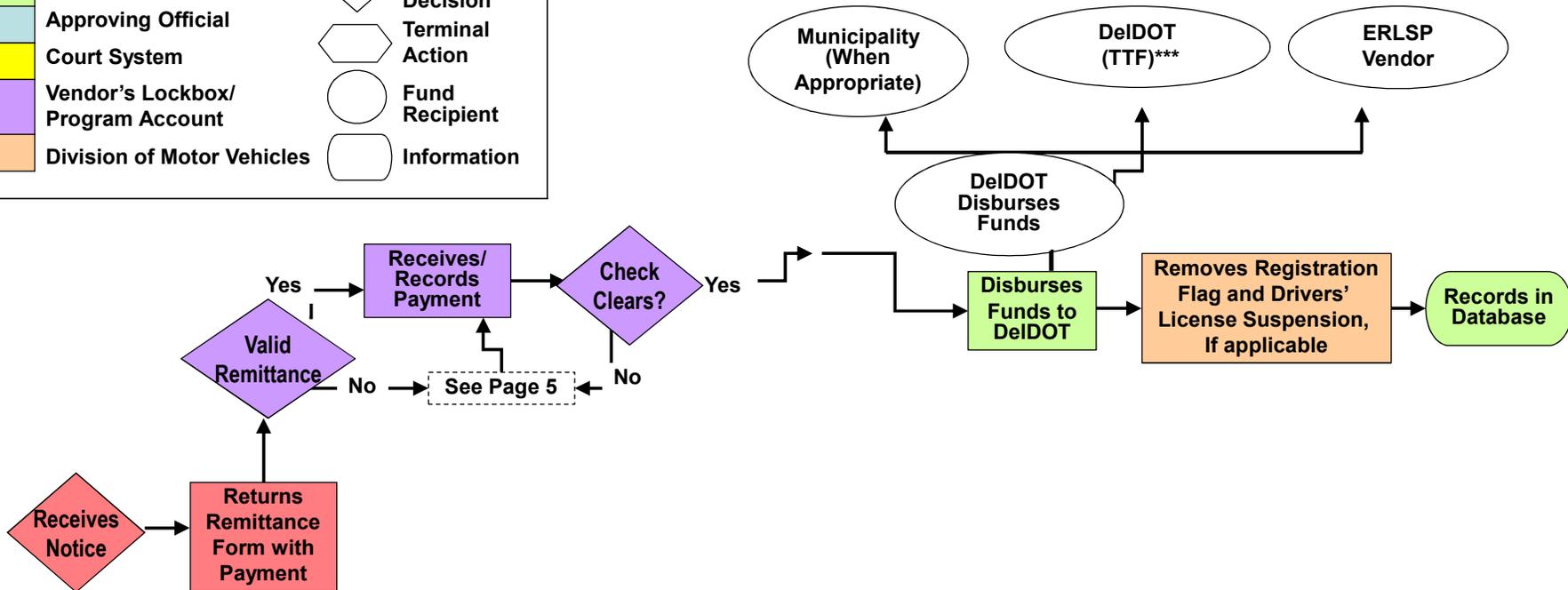
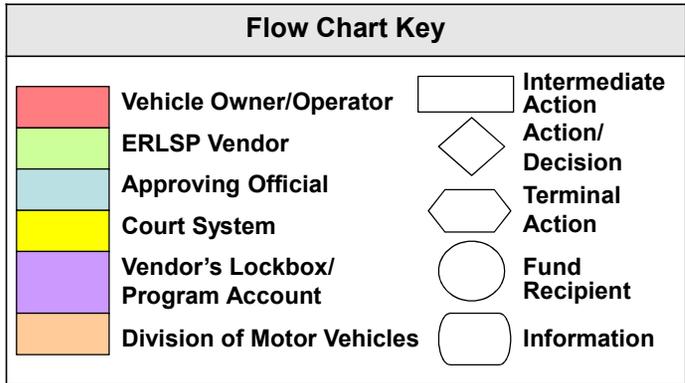


Notes:
 - "Notice of Civil Violation" shortened to "Notice"
 - Payment Irregularities include Overpayment, Underpayment, Bounced Check, No Tear-off, Improper Endorsee

* Late Charges per Senate Bill No. 262
 - Additional \$10 charge after 30 days
 - Additional \$20 charge after 60 days
 - Additional \$30 charge after 90 days

Delaware's Electronic Red Light Safety Program Flow Chart

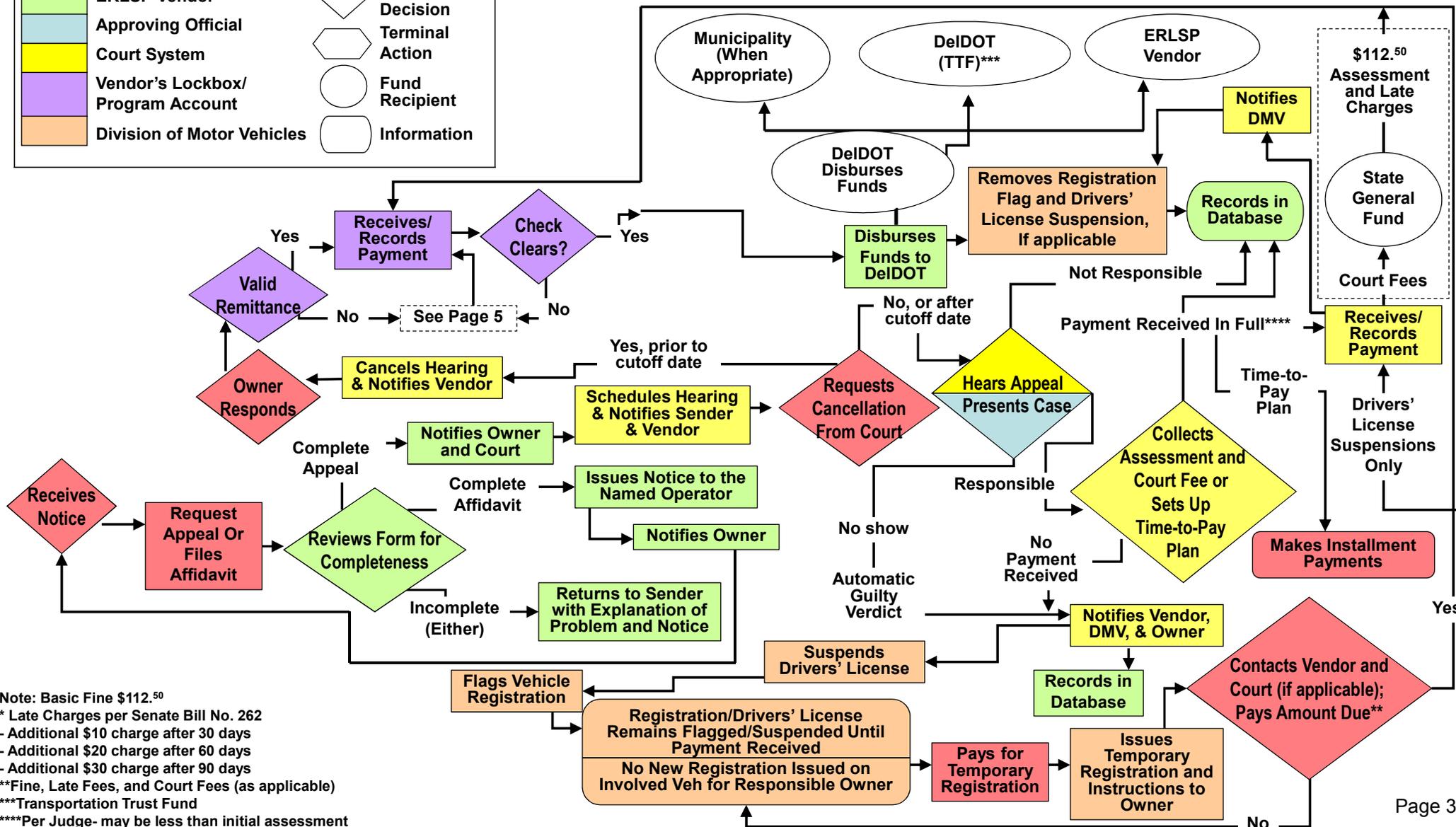
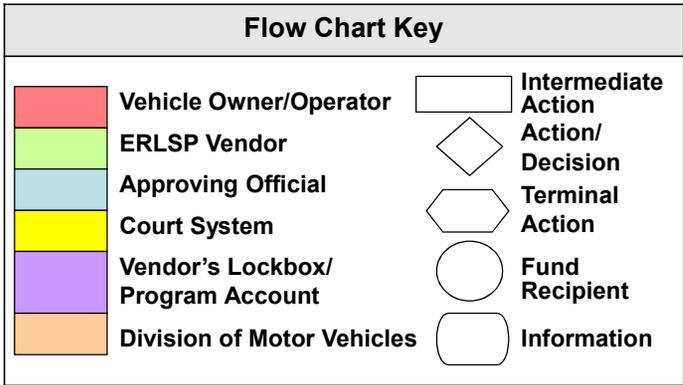
Notes:
 -Notice of Civil Violation shortened to "Notice"
 -Payment Irregularities include Overpayment, Underpayment, Bounced Check, No Tear-off, Improper Endorsee



Note: Basic Fine \$112.⁵⁰
 * Late Charges per Senate Bill No. 262
 - Additional \$10 charge after 30 days
 - Additional \$20 charge after 60 days
 - Additional \$30 charge after 90 days
 **Fine, Late Fees, and Court Fees (as applicable)
 ***Transportation Trust Fund
 ****Per Judge- may be less than initial assessment

**Delaware's Electronic Red Light Safety Program
Flow Chart**

Notes:
 -Notice of Civil Violation shortened to "Notice"
 -Payment Irregularities include Overpayment, Underpayment, Bounced Check, No Tear-off, Improper Endorsee



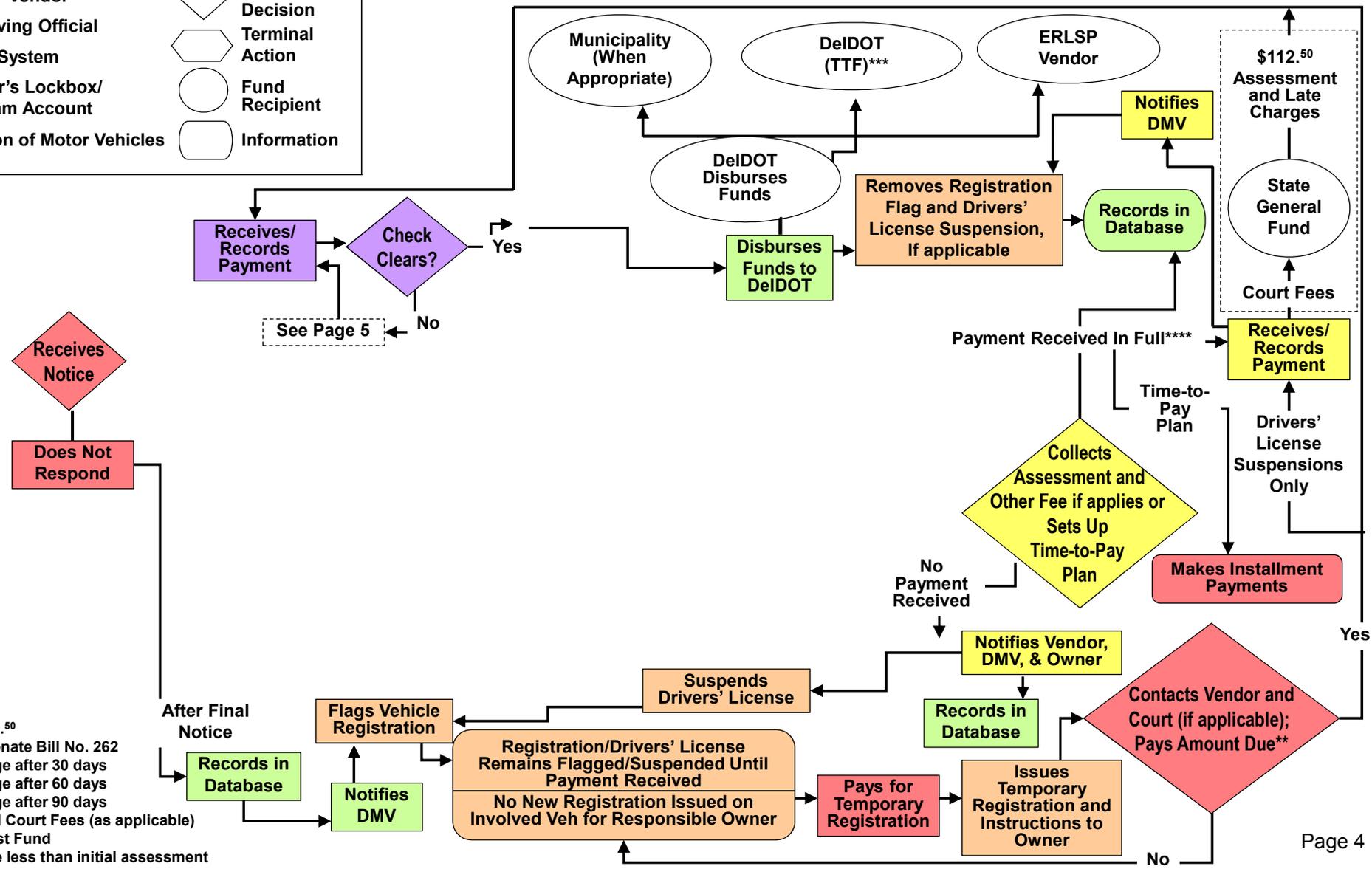
Note: Basic Fine \$112.⁵⁰
 * Late Charges per Senate Bill No. 262
 - Additional \$10 charge after 30 days
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 **Fine, Late Fees, and Court Fees (as applicable)
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Delaware's Electronic Red Light Safety Program Flow Chart

Notes:
 -Notice of Civil Violation shortened to "Notice"
 -Payment Irregularities include Overpayment, Underpayment, Bounced Check, No Tear-off, Improper Endorsee

Flow Chart Key

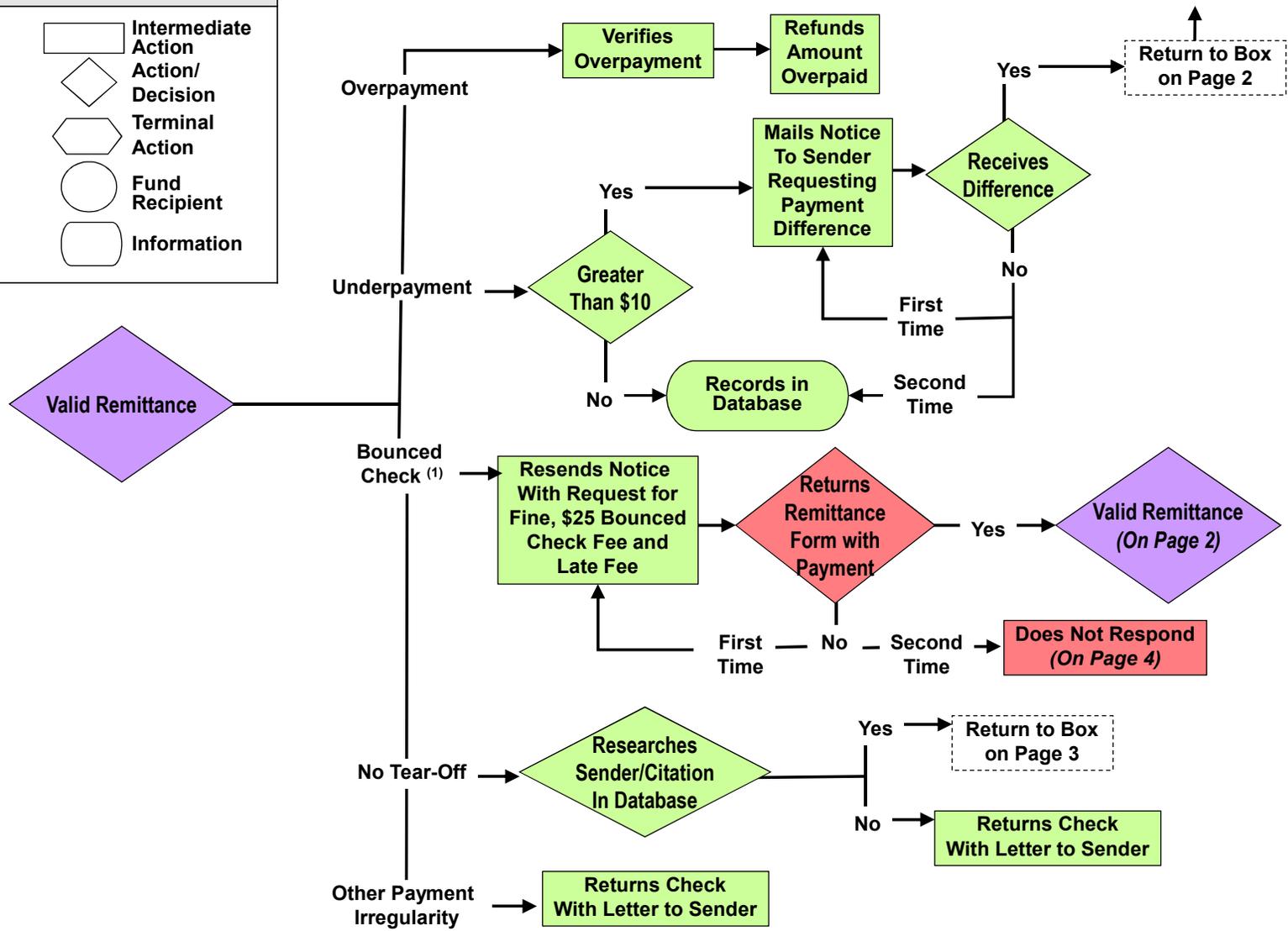
	Vehicle Owner/Operator		Intermediate Action
	ERLSP Vendor		Action/Decision
	Approving Official		Terminal Action
	Court System		Fund Recipient
	Vendor's Lockbox/Program Account		Information
	Division of Motor Vehicles		



Note: Basic Fine \$112.⁵⁰
 * Late Charges per Senate Bill No. 262
 - Additional \$10 charge after 30 days
 - Additional \$20 charge after 60 days
 - Additional \$30 charge after 90 days
 **Fine, Late Fees, and Court Fees (as applicable)
 ***Transportation Trust Fund
 ****Per Judge- may be less than initial assessment

Delaware's Electronic Red Light Safety Program Flow Chart

Flow Chart Key	
Vehicle Owner/Operator	Intermediate Action
ERLSP Vendor	Action/Decision
Approving Official	Terminal Action
Court System	Fund Recipient
Vendor's Lockbox/Program Account	Information
Division of Motor Vehicles	



(1) Check that is Returned by Sender's Bank due to Insufficient Funds or Improper Endorsement

GOVERNING SPECIFICATIONS:
THE MOST CURRENT EDITION OF DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS" AND "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" HEREIN SHALL GOVERN. WHERE APPLICABLE.

NOTES
A COPY OF THE FINAL VERSION OF THIS PLAN, SIGNED AND APPROVED BY DELAWARE DEPARTMENT OF TRANSPORTATION, SHALL BE PROVIDED TO MISS UTILITY.



STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

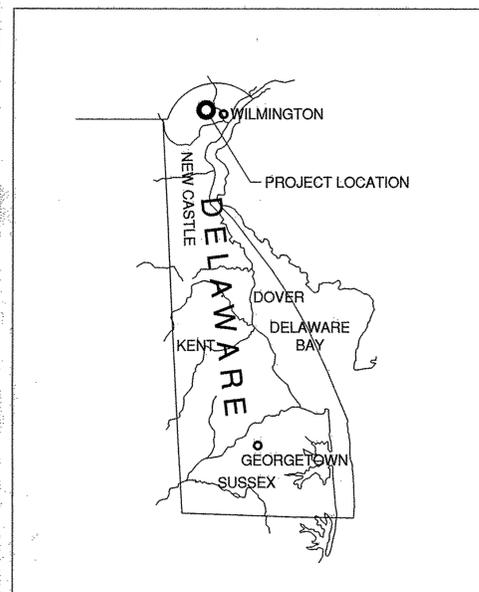
APPENDIX C (sample construction plans)

TOWN OF ELSMERE, DELAWARE

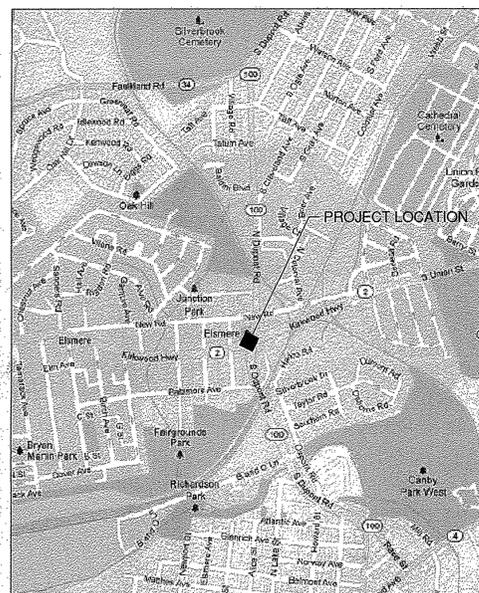
ELECTRONIC RED LIGHT SAFETY PROGRAM
CONSTRUCTION PLANS FOR:

SR 2 (KIRKWOOD HWY) AT
SR 100 (S. DUPONT ROAD)

LOCATION DIAGRAM



VICINITY SKETCH

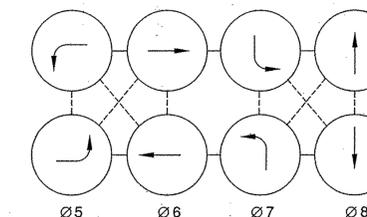
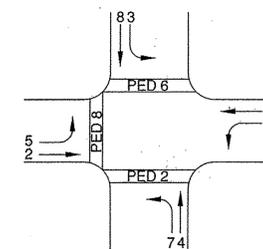


SHEET INDEX

SHEET NO.	SITE ID	DESCRIPTION
1		COVER SHEET
2	DEE01	INTERSECTION PLAN
3		POLE CROSS SECTIONS
4		GENERAL NOTES
5		REAR POLE DETAILS
6		DRILLED ANCHOR FOUNDATION
7		REINFORCED CONCRETE FOUNDATION
8-10		SPREAD FOOTING FOUNDATION

SIGNAL PHASING

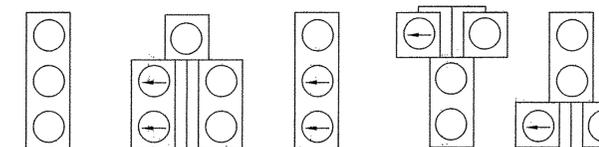
APPENDIX C



PHASING NOTES

- PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM



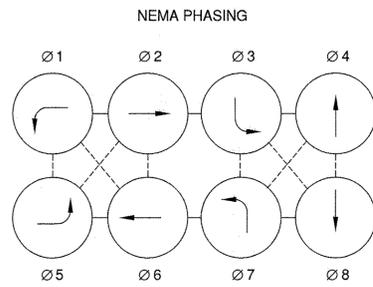
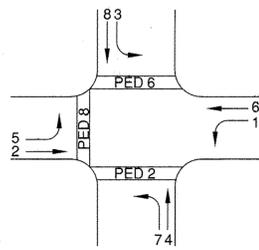
LEGEND

<ul style="list-style-type: none"> ■ PROPOSED SIGNAL CABINET □ EXISTING SIGNAL CABINET ○ PROPOSED SIGNAL POLE BASE ⊗ EXISTING SIGNAL POLE BASE ● PROPOSED PEDESTRIAN POLE BASE ⊙ EXISTING PEDESTRIAN POLE BASE ○ PROPOSED WOOD POLE ⊗ EXISTING WOOD POLE ■ PROPOSED JUNCTION WELL □ EXISTING JUNCTION WELL → PROPOSED SIGNAL HEAD ← EXISTING SIGNAL HEAD → PROPOSED PEDESTRIAN SIGNAL HEAD ← EXISTING PEDESTRIAN SIGNAL HEAD → PROPOSED PEDESTRIAN PUSHBUTTON ← EXISTING PEDESTRIAN PUSHBUTTON ■ PROPOSED VIDEO DETECTION □ EXISTING VIDEO DETECTION → PROPOSED MICROWAVE DETECTION ← EXISTING MICROWAVE DETECTION → PROPOSED OPTICOM RECEIVER ← EXISTING OPTICOM RECEIVER → PROPOSED MAST ARM ← EXISTING MAST ARM → PROPOSED LUMINAIRE ← EXISTING LUMINAIRE → PROPOSED LOOP DETECTOR (TYPE 1 OR 2) ← EXISTING LOOP DETECTOR (TYPE 1 OR 2) → GUARDRAIL ← FENCE → REAR MONITOR CAMERA ON ATS POLE ← RADAR UNIT 	<ul style="list-style-type: none"> ⊗ REMOVE BY CONTRACTOR ⊙ REMOVE BY OTHERS ⊗ ABANDON ⊙ PROPOSED POLE BASE IDENTIFIER (# OF POLE BASE) ⊙ EXISTING POLE BASE IDENTIFIER (# OF POLE BASE) ⊙ PROPOSED JUNCTION WELL IDENTIFIER (# OF JUNCTION WELL) ⊙ EXISTING JUNCTION WELL IDENTIFIER (# OF JUNCTION WELL) ⊙ PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) ⊙ EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) ⊙ PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) ⊙ EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) ⊙ PROPOSED MAST ARM IDENTIFIER (LENGTH OF MAST ARM) ⊙ EXISTING MAST ARM IDENTIFIER (LENGTH OF MAST ARM) ⊙ PROPOSED CABINET IDENTIFIER (TYPE OF CABINET) ⊙ EXISTING CABINET IDENTIFIER (TYPE OF CABINET) —XX— PROPOSED SPAN WIRE —XX— EXISTING SPAN WIRE —P— RIGHT OF WAY LINE —P— SERVICE PEDESTAL CONDUIT —D— DIRECTIONAL BORE —D— EXISTING CONDUIT
---	--

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RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	RECOMMENDED <i>[Signature]</i> DATE: 3/20/13	APPROVED TRAFFIC ENGINEER <i>[Signature]</i> DATE: 3/20/13	APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER <i>[Signature]</i> DATE: 3/20/13																	
<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">ADDENDUM / REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>		ADDENDUM / REVISIONS								<table border="1" style="width: 100%;"> <tr> <td>CONTRACT</td> <td>PERMIT NO. N272</td> </tr> <tr> <td>COUNTY</td> <td>DESIGNED BY: SM DATE: 3-3-13</td> </tr> <tr> <td>NEW CASTLE</td> <td>CHECKED BY: BDR DATE: 3-6-13</td> </tr> </table>	CONTRACT	PERMIT NO. N272	COUNTY	DESIGNED BY: SM DATE: 3-3-13	NEW CASTLE	CHECKED BY: BDR DATE: 3-6-13	<table border="1" style="width: 100%;"> <tr> <td>COVER SHEET</td> <td>SHEET NO. 1</td> </tr> <tr> <td>SR 2 (KIRKWOOD HWY) AT SR 100 (S. DUPONT ROAD)</td> <td>TOTAL SHEETS 10</td> </tr> </table>	COVER SHEET	SHEET NO. 1	SR 2 (KIRKWOOD HWY) AT SR 100 (S. DUPONT ROAD)	TOTAL SHEETS 10
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		DELDOT ERLSP																			



INTERCONNECT PHASES	
MONITORED DIRECTIONS	CONTROLLER PHASE
EASTBOUND STRAIGHT	Ø 2
EASTBOUND LEFT TURN	Ø 5

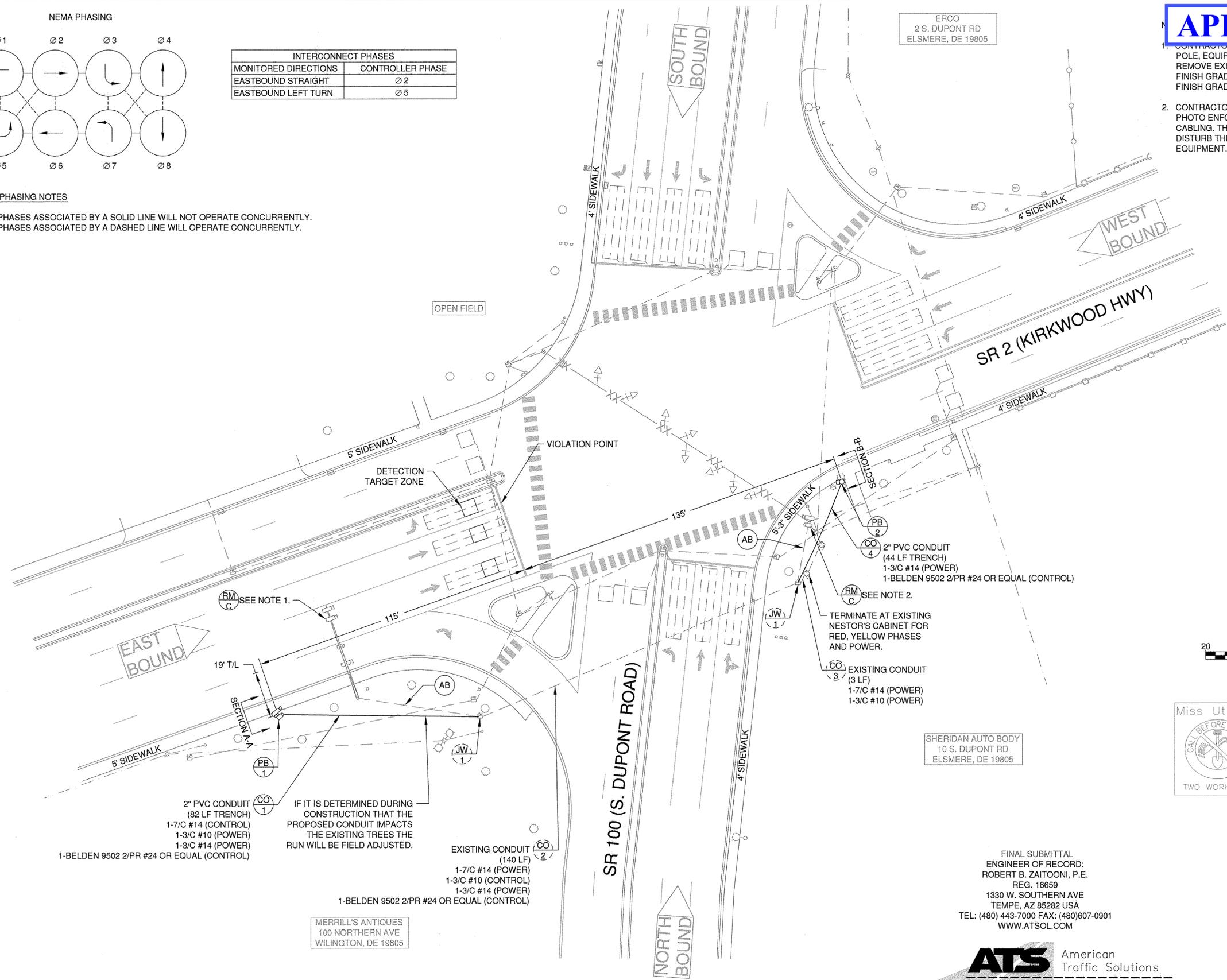
PHASING NOTES

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ERCO
2 S. DUPONT RD
ELSMERE, DE 19805

APPENDIX C

1. CONTRACTOR SHALL REMOVE MAST ARM, POLE, EQUIPMENT AND CABLING; CUT AND REMOVE EXISTING FOUNDATION 2' BELOW FINISH GRADE AND RESTORE GROUND TO FINISH GRADE.
2. CONTRACTOR SHALL REMOVE EXISTING PHOTO ENFORCEMENT EQUIPMENT AND CABLING. THE CONTRACTOR SHALL NOT DISTURB THE EXISTING TRAFFIC SIGNAL EQUIPMENT.



2" PVC CONDUIT (82 LF TRENCH)
1-7/C #14 (CONTROL)
1-3/C #10 (POWER)
1-3/C #14 (POWER)
1-BELDEN 9502 2/PR #24 OR EQUAL (CONTROL)

IF IT IS DETERMINED DURING CONSTRUCTION THAT THE PROPOSED CONDUIT IMPACTS THE EXISTING TREES THE RUN WILL BE FIELD ADJUSTED.

EXISTING CONDUIT (140 LF)
1-7/C #14 (POWER)
1-3/C #10 (CONTROL)
1-3/C #14 (POWER)
1-BELDEN 9502 2/PR #24 OR EQUAL (CONTROL)

MERRILL'S ANTIQUES
100 NORTHERN AVE
WILMINGTON, DE 19805

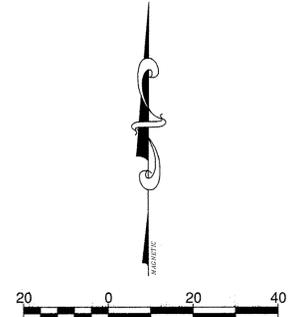
2" PVC CONDUIT (44 LF TRENCH)
1-3/C #14 (POWER)
1-BELDEN 9502 2/PR #24 OR EQUAL (CONTROL)

TERMINATE AT EXISTING NESTOR'S CABINET FOR RED, YELLOW PHASES AND POWER.

EXISTING CONDUIT (3 LF)
1-7/C #14 (POWER)
1-3/C #10 (POWER)

SHERIDAN AUTO BODY
10 S. DUPONT RD
ELSMERE, DE 19805

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Miss Utility, Delaware Section

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Call: TOLL FREE
1-800-257-7777

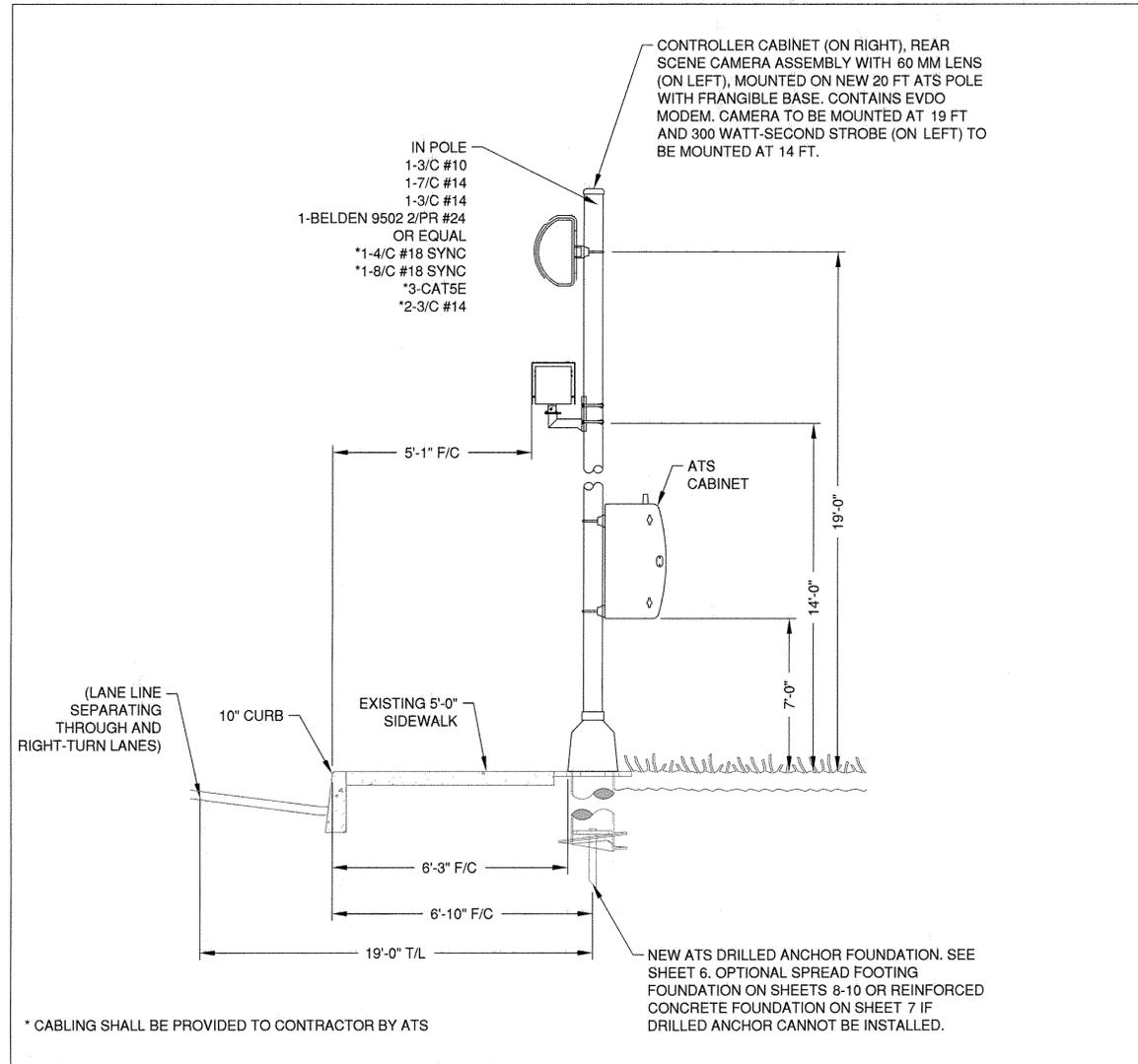
TWO WORKING DAYS BEFORE YOU DIG



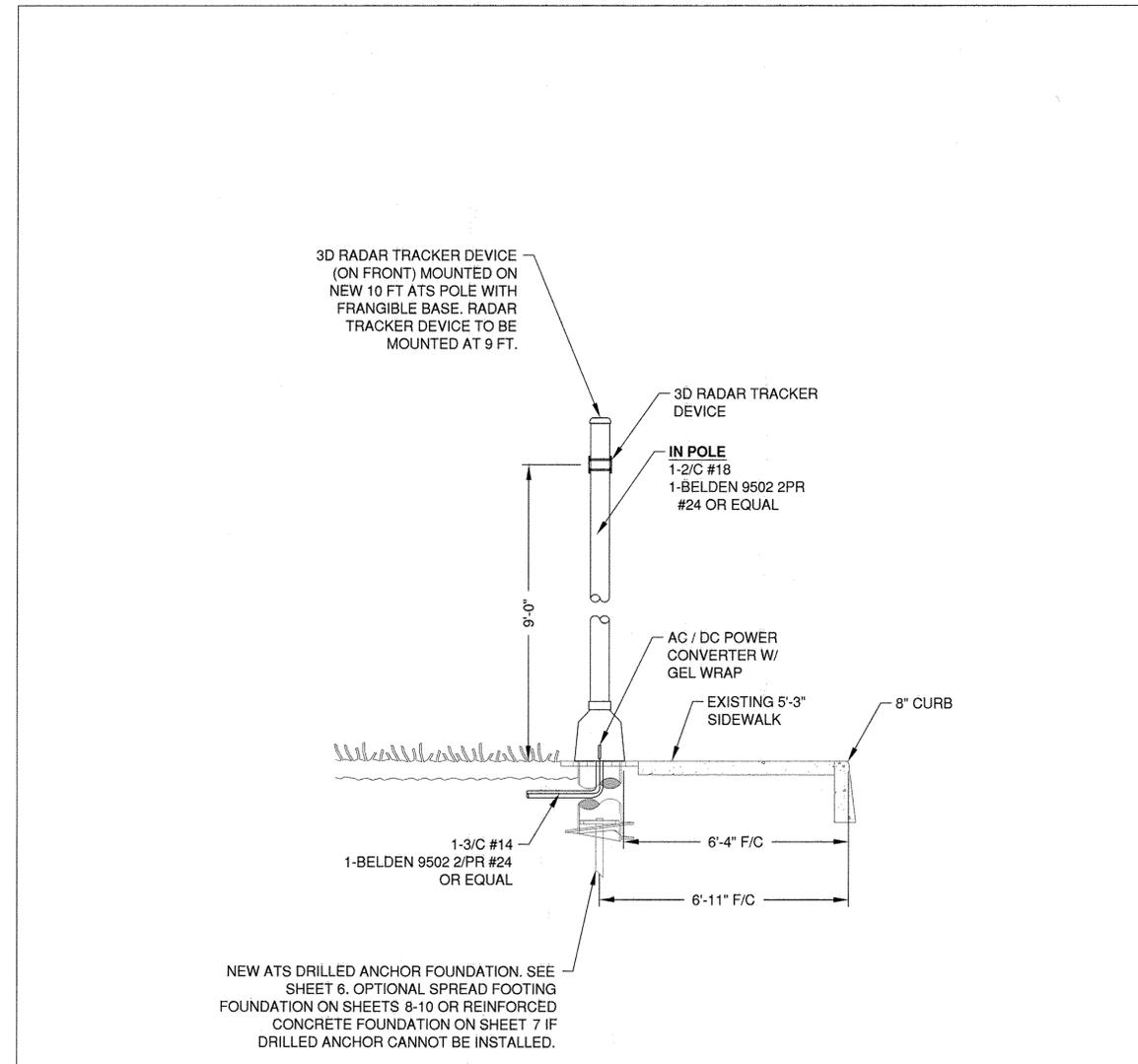
ADDENDUM / REVISIONS	



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SECTION A-A



SECTION B-B

* CABLING SHALL BE PROVIDED TO CONTRACTOR BY ATS

NEW ATS DRILLED ANCHOR FOUNDATION. SEE SHEET 6. OPTIONAL SPREAD FOOTING FOUNDATION ON SHEETS 8-10 OR REINFORCED CONCRETE FOUNDATION ON SHEET 7 IF DRILLED ANCHOR CANNOT BE INSTALLED.

NOTE: INSTALLATION OF ATS CABINET SHALL NOT PROTRUDE OVER EXISTING SIDEWALK.

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DELDOT ERLSP

CONTRACT	PERMIT NO.	N272
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POLE CROSS SECTIONS
 SR 2 (KIRKWOOD HWY) AT
 SR 100 (S. DUPONT ROAD)

SHEET NO. 3
 TOTAL SHEETS 10

GENERAL & CONSTRUCTION NOTES

APPENDIX C

1. SEPARATE RIGHT-OF-WAY PERMITS ARE REQUIRED FOR WORK WITHIN PUBLIC AGENCY RIGHT-OF-WAY. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING APPLICATION PERMITS & FEES, AND COMPLY WITH ALL PUBLIC REQUIREMENTS.
2. UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE BASED ON AVAILABLE INFORMATION. CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT DESIGNATED AGENCY TO LOCATE ALL UNDERGROUND UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE TO APPLY AND OBTAIN AN APPROVED TRAFFIC CONTROL PLAN IN ACCORDANCE WITH 2011 DELAWARE MUTCD, PART 6. SHOULDER CLOSURES AND SINGLE LANE CLOSURES ALONG SR 2 (KIRKWOOD HWY) SHALL BE IN ACCORDANCE WITH TA-3A AND TA-33, RESPECTIVELY.
4. CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITION TO AGENCY SATISFACTION AT NO ADDITIONAL COMPENSATION.
5. CONTRACTOR SHALL TERMINATE ALL POWER CIRCUITS INTO ATS CABINET.
6. INSTALL INLINE 30 AMP FUSE INSIDE HAND HOLE ON ATS CAMERA POLE.
7. INSTALL FOUNDATION POLE AND GROUNDING WIRE FOR ATS EQUIPMENT. SEE LOCATIONS IN DRAWINGS AND POLE FOUNDATION DETAIL.
8. THE CONTRACTOR SHALL HAVE A LEVEL II IMSA CERTIFIED TECHNICIAN / ELECTRICIAN ON-SITE AT ALL TIMES DURING CONSTRUCTION. CONDUCTOR SPLICES AND TERMINATIONS SHALL BE MADE BY A QUALIFIED JOURNEYMAN ELECTRICIAN, WHO HAS SUCCESSFULLY COMPLETED A RECOGNIZED FOUR (4) YEAR APPRENTICESHIP PROGRAM UNDER THE DIRECT SUPERVISION OF A JOURNEYMAN ELECTRICIAN.
9. ALL WORK SHALL CONFORM TO ALL APPLICABLE ELECTRICAL CODES EXCEPT WHEN DELDOT STANDARDS SUPERSEDE.
10. CONTRACTOR SHALL TRIM EXISTING TREES TO IMPROVE LINE OF SIGHT AS NEEDED. CONTRACTOR SHALL NOTIFY THE AGENCIES AND OBTAIN APPROVAL PRIOR TO TRIMMING.
11. CONNECT POLE TO SOLID BARE BOND GROUND & GROUNDING ROD (OR COIL 25' OF NO. 6 BARE COPPER) IN POLE FOUNDATION & TO SYSTEM GROUND BONDED BACK TO ATS CABINET.
12. CONTRACTOR SHALL PLACE THE POLES / FOUNDATIONS IN A LOCATION TO MAINTAIN A 10' CLEAR SPACE FROM THE OVERHEAD POWER LINES.
13. CONTRACTOR TO LABEL EACH END OF ALL CABLE RUNS.
14. CONTRACTOR TO INSTALL AND LEAVE IN PLACE NYLON DRAW STRING IN ALL CONDUIT RUNS.
15. WHERE INDICATED ON PLANS, CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ATS PROJECT MANAGER FOR REMOVAL AND SALVAGE OF EXISTING ENFORCEMENT EQUIPMENT.
16. WHERE INDICATED ON PLANS, CONTRACTOR SHALL REMOVE 2' BELOW FINISH GRADE AND RESTORE GROUND TO GRADE WITH SUITABLE MATERIAL..
17. EXISTING TRAFFIC SIGNALS AND TRAFFIC CONTROL SIGNS SHALL REMAIN IN PLACE AND IN OPERATION AT ALL TIMES.
18. THE LIMITS OF WORK ARE ENCOMPASSED BY THE RIGHT OF WAY AND SHALL INCLUDE ONLY SUCH WORK SHOWN ON THIS PLAN.
19. ALL NEW ABOVE GROUND FACILITIES SHALL PROVIDE MINIMUM SETBACK SPECIFIED IN THE DELAWARE DOT ROAD DESIGN MANUAL AND AASHTO 2011 - ROADSIDE DESIGN GUIDE. NEW ABOVE GROUND FACILITIES INSTALLED WITH SIDEWALK AREAS SHALL MEET ADA CLEARANCE REQUIREMENTS.
20. THE MINIMUM YELLOW LIGHT CHANGE INTERVALS SHALL BE ESTABLISHED BY THE DELAWARE DOT TRAFFIC ENGINEER IN ACCORDANCE WITH DELAWARE DOT REGULATIONS.
21. THE CONTRACTOR SHALL SUBMIT THE TRAFFIC CONTROL PLAN, INCLUDING NECESSARY NCHRP 350 OR MASH CERTIFICATIONS FOR ALL DEVICES THAT WILL BE UTILIZED, TO DELDOT'S DISTRICT SAFETY OFFICER OR CHIEF SAFETY OFFICER AT 169 BRICK STORE LANDING ROAD, SMYRNA, DE 19977 FOR EACH LOCATION BEFORE THE START OF CONSTRUCTION. WRITTEN APPROVAL MUST BE RECEIVED BEFORE THE START OF WORK AT EACH AND EVERY LOCATION.
22. IF WORK IS BEING CONDUCTED WITHIN A SIGNALIZED INTERSECTION OR SERIES OF SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL NOTIFY DELDOT TMC AT 302-659-4600 AND DELDOT'S DISTRICT SAFETY OFFICER OR CHIEF SAFETY OFFICER AT 302-222-5977. NOTIFICATIONS SHALL ALSO BE GIVEN TO THE TMC WHEN THE CLOSURE OF LANES IS LIFTED. THE CONTRACTOR SHALL NOTIFY THE TMC AND THE DISTRICT SAFETY OFFICER OR CHIEF SAFETY OFFICER IF LANE CLOSURES CANNOT BE REMOVED PRIOR TO THE END OF ALLOWABLE WORK HOURS.
23. SINGLE LANE CLOSURES ALONG SR 2 (KIRKWOOD HWY) SHALL BE RESTRICTED TO 10 AM TO 2 PM, MONDAY THROUGH FRIDAY.
24. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE ARCHIVED PLAN FOR SIGNAL PERMIT N272 UNDER CONTRACT NO. 96-007-02.
25. THE CONTRACTOR SHALL CONTACT JIM BUNTING , DELDOT SIGNAL MAINTENANCE MANAGER, AT 302-222-5971 OR ROB KERN, DELDOT SIGNAL MAINTENANCE SUPERVISOR, AT 302-222-5950 A MINIMUM OF 5 DAYS PRIOR TO THE START OF CONSTRUCTION TO COORDINATE THE TEMPORARY DISCONNECTION OF THE ATS-DELDOT INTERCONNECT CABLES THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL CONTACT JIM BUNTING OR ROB KERN IMMEDIATELY UPON COMPLETION OF ALL CONSTRUCTION ACTIVITIES TO THE REESTABLISH THE ATS-DELDOT CABLES.

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ADDENDUM / REVISIONS



DELDOT ERLSP

CONTRACT	PERMIT NO.	N272
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GENERAL NOTES
 SR 2 (KIRKWOOD HWY) AT
 SR 100 (S. DUPONT ROAD)

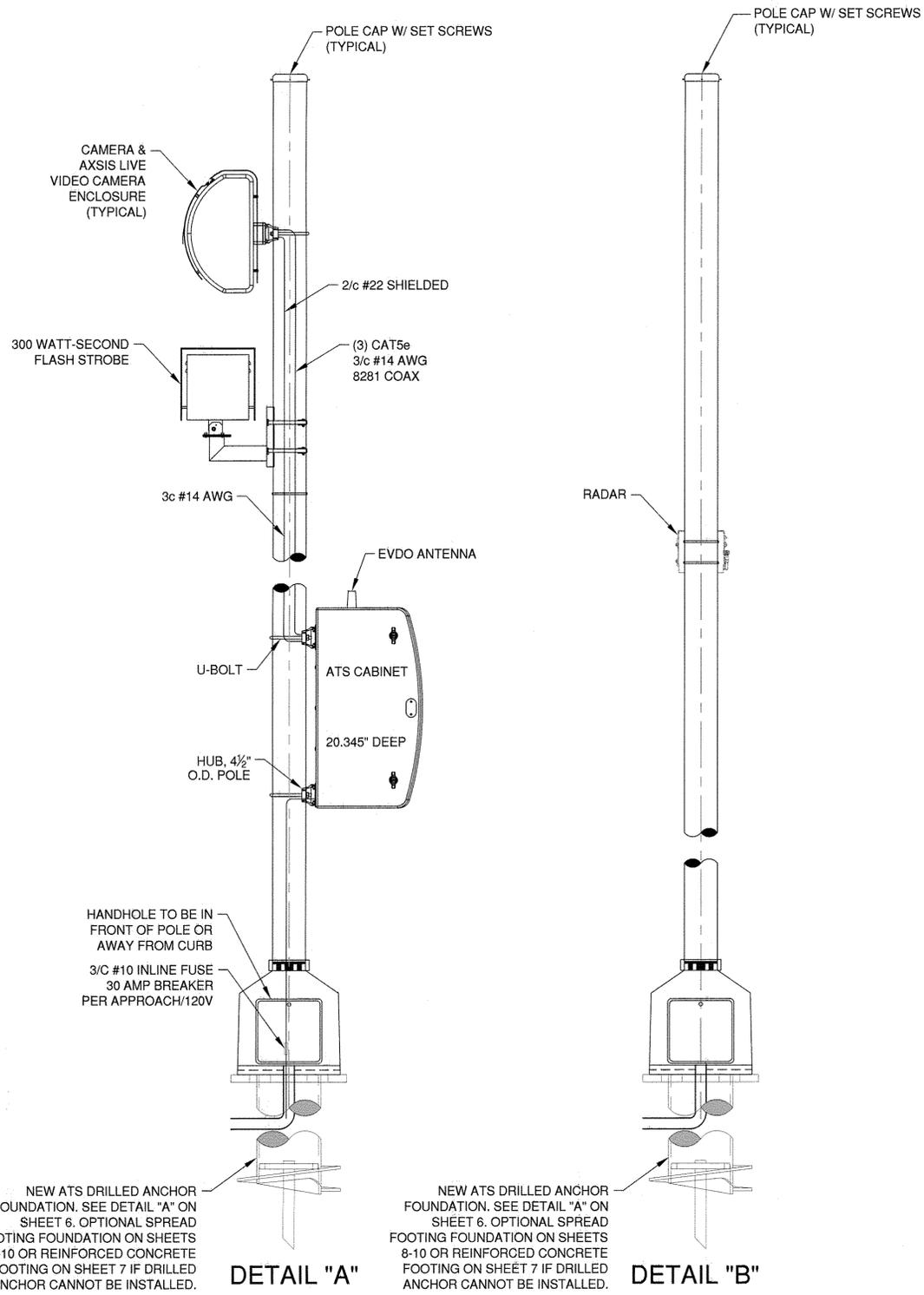
SHEET NO.	4
TOTAL SHEETS	10

REAR CAMERA POLE

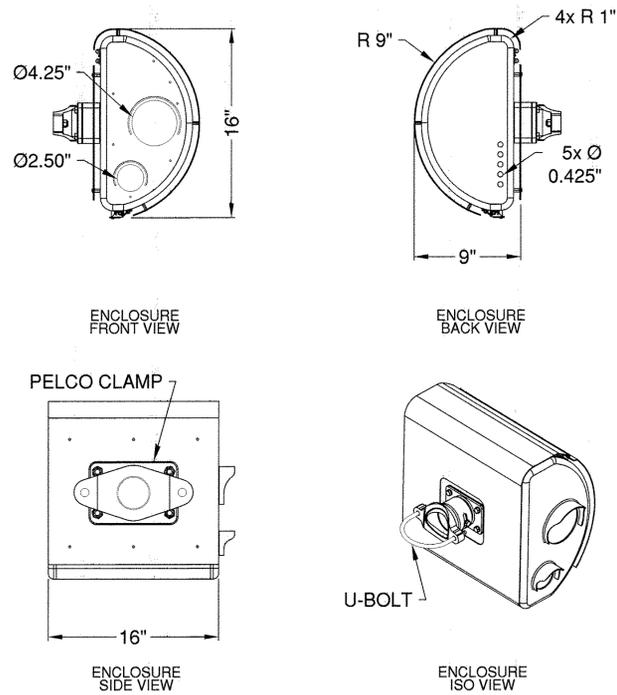
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(6061 T6 ALUMINUM)

FRONT RADAR POLE

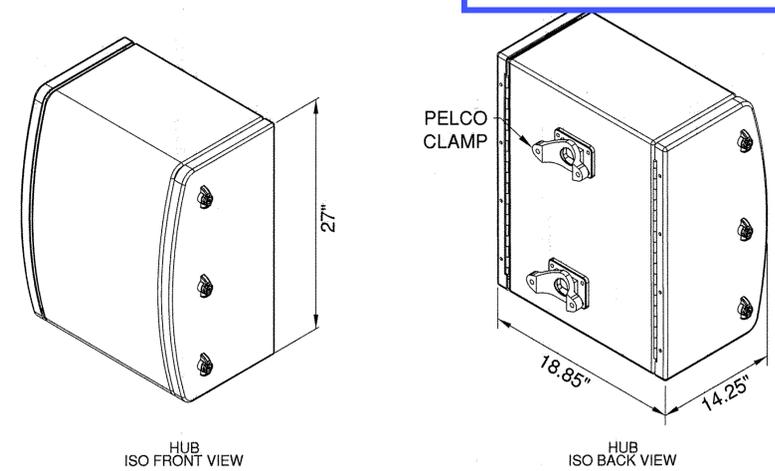
20' - 4.5" O.D. SCHEDULE 80
(6061 T6 ALUMINUM)



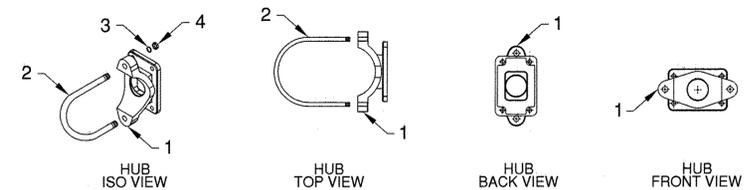
CAMERA & VIDEO CAMERA ENCLOSURE



ATS CABIN

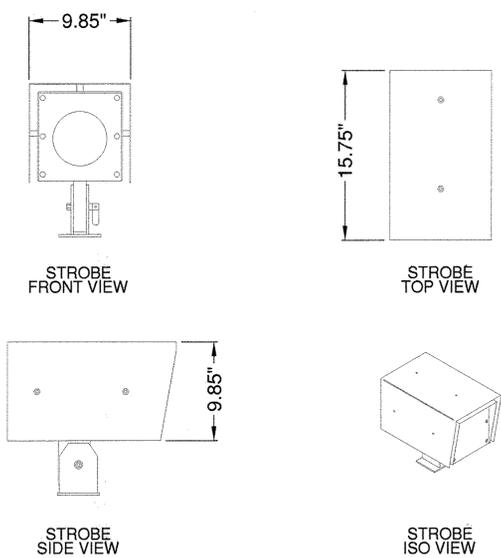


PELCO CLAMPS

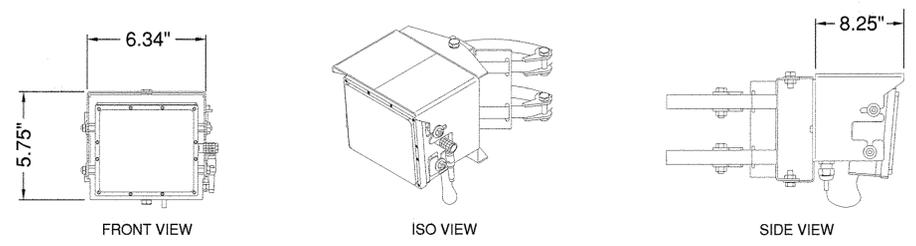


ITEM	DESCRIPTION	PART NO.
1	HUB, 4 1/2" O.D. POLE	SE-0384
2	U-BOLT, 3/8"-16 x 4-15/16" x 1-3/8"	FS-2501
3	LOCKWASHER, SPLIT, 3/8"	FS-4205
4	NUT, HEX, 3/8"-16	FS-1003

FLASH STROBE



RADAR



NOTES:

1. SEE SHEET 6 FOR DRILLED ANCHOR FOUNDATION DETAILS.
2. CABINET TO BE ROTATED PERPENDICULAR TO CURB.
3. ORIENT (AIM) RADAR TOWARDS THE MIDDLE OF THE TOTAL NUMBER OF LANES ON THE FRONT SIDE OF THE FRONT POLE.
3. LOCATE POLE PER PLAN.
4. BASE TO BE BREAK-AWAY.

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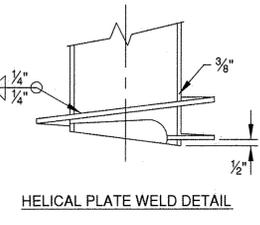
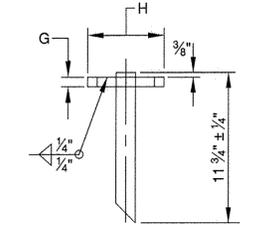
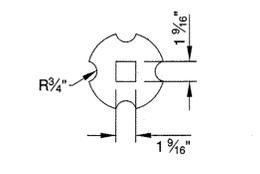
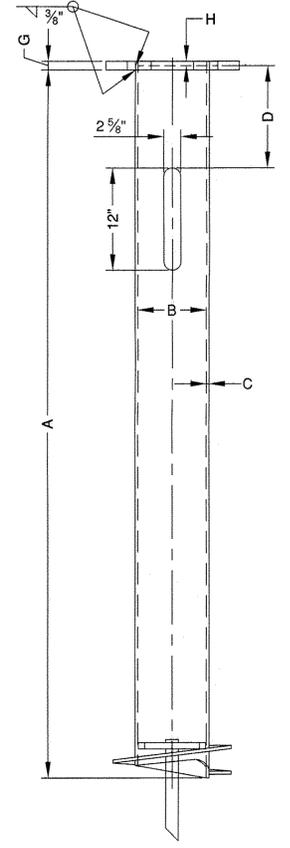
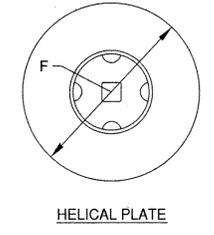
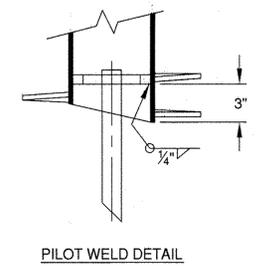
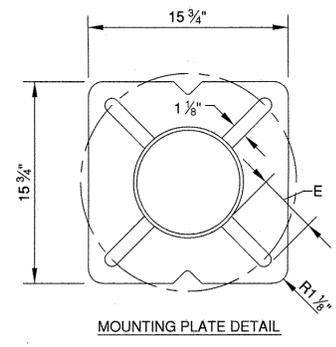


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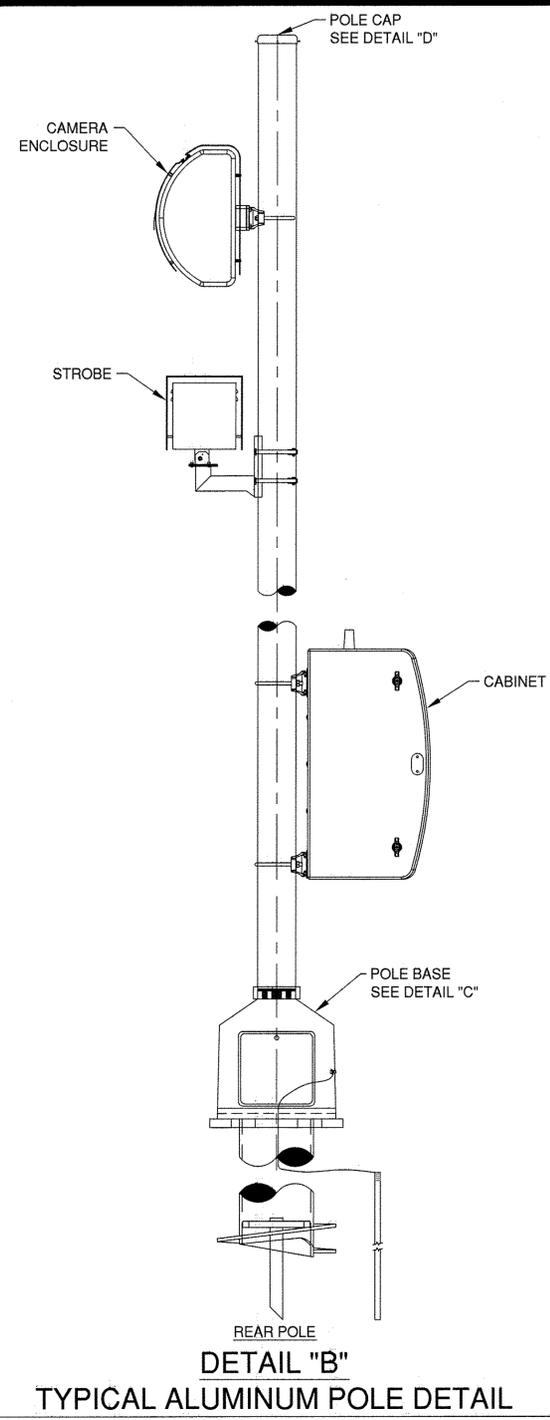


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APPENDIX C



DETAIL "A"
DRILLED ANCHOR FOUNDATION DETAIL

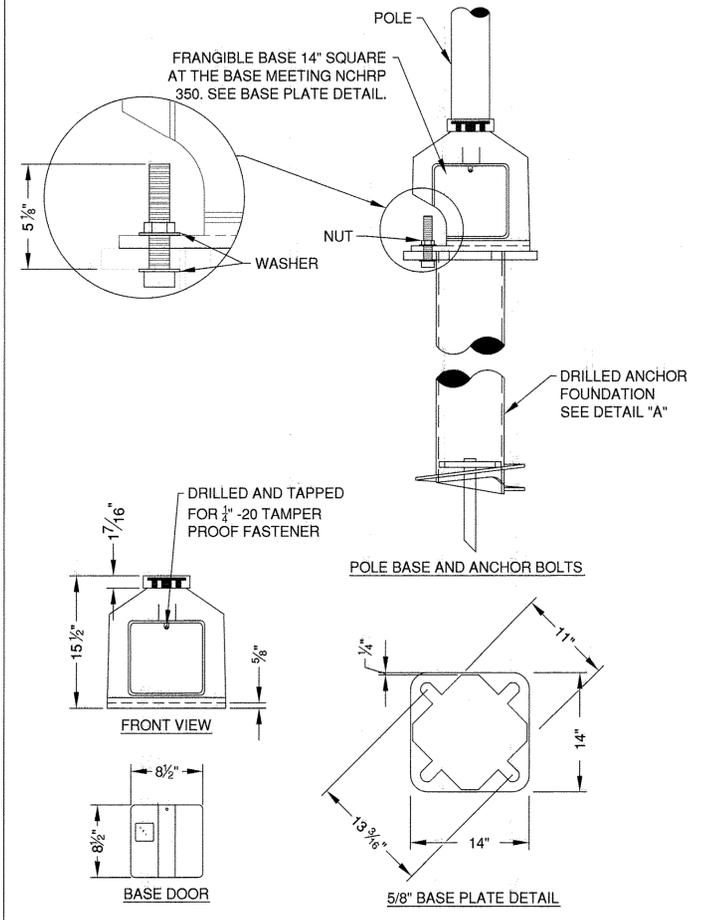


DRILLED ANCHOR FOUNDATION DATA

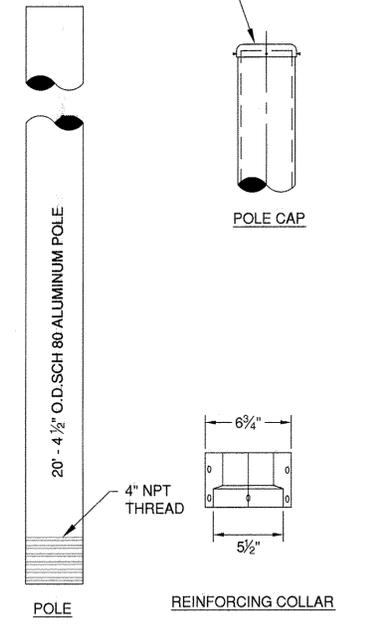
POLE HEIGHT	ANCHOR SHAFT			HAND HOLE	BASE PLATE	HELICAL PLATE	PILOT DETAIL	
	A	B	C	D	E	F	G	H
20'	84"	6 5/8"	1/4"	18"	5 1/2"	14"	1"	5 15/16"

POLE DATA

POLE TUBE		POLE BASE			ANCHOR BOLT			
POLE O.D.	LENGTH	WALL THK	SQUARE	BOLT CIRCLE	THK	DIA	LENGTH	THREAD LENGTH
4 1/2"	20'	49/128"	14"	13 3/16"	5/8"	1"	5 1/8"	5 1/8"



DETAIL "C"
POLE BASE DETAIL



DETAIL "D"
POLE DETAIL

GENERAL NOTES:

- DESIGN SHALL BE IN ACCORDANCE WITH 2009 (5TH) EDITION AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS AND INTERIMS.
- POLE MATERIAL SHALL BE SCHEDULE 80 ALUMINUM POLE FABRICATED USING 6061-T6 ALUMINUM ALLOY, THREADED ONE END NPT CUT TO LENGTH.
- ALL NUTS, BOLTS, WASHERS AND THREADED BARS/STUDS SHALL BE GALVANIZED PER F2329-05.
- UNLESS OTHERWISE NOTED ON THE PLANS, LOCATE HANDHOLE 180 DEGREES FROM CURB & GUTTER (FACING SIDEWALK).
- PROVIDE NUT AND WASHER WITH EACH BOLT.
- THREADS OF BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT. THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.
- HELICAL PLATE SHALL BE HOT DIP GALVANIZED PER ASTM A123 GRADE 100 KSI.
- SQUARE BAR PILOT SHALL BE PER ASTM A576.

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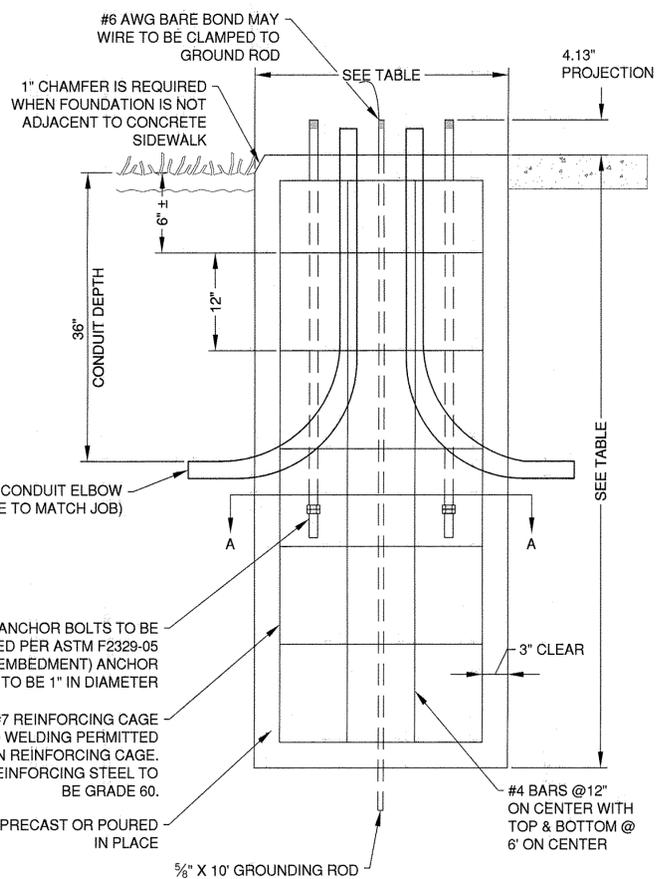
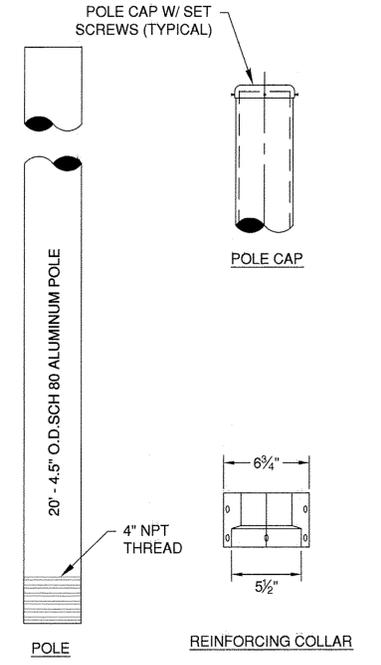
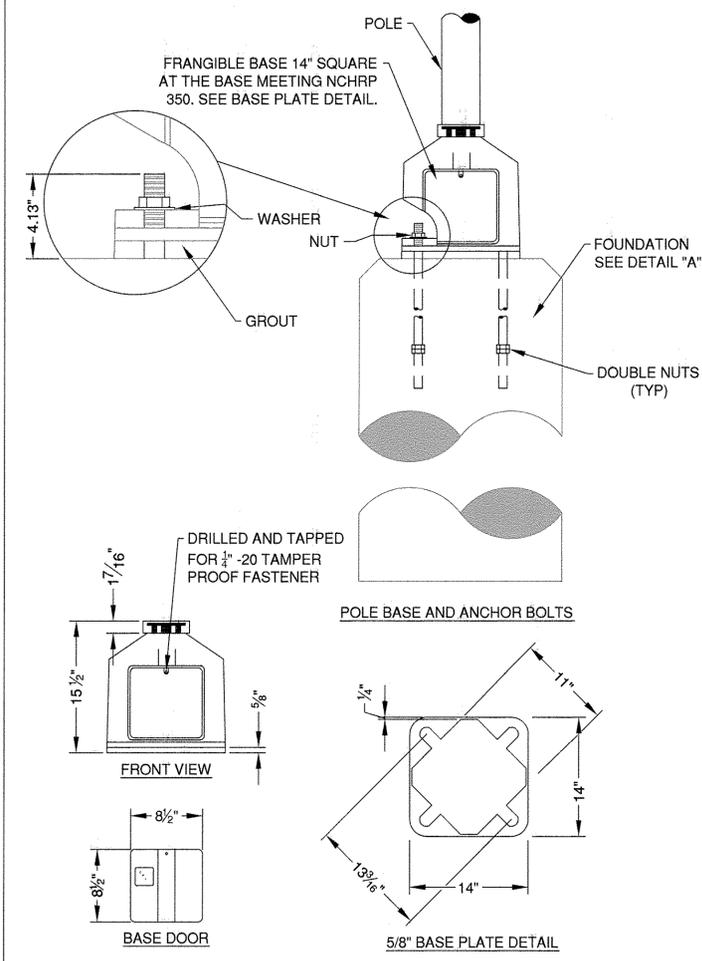
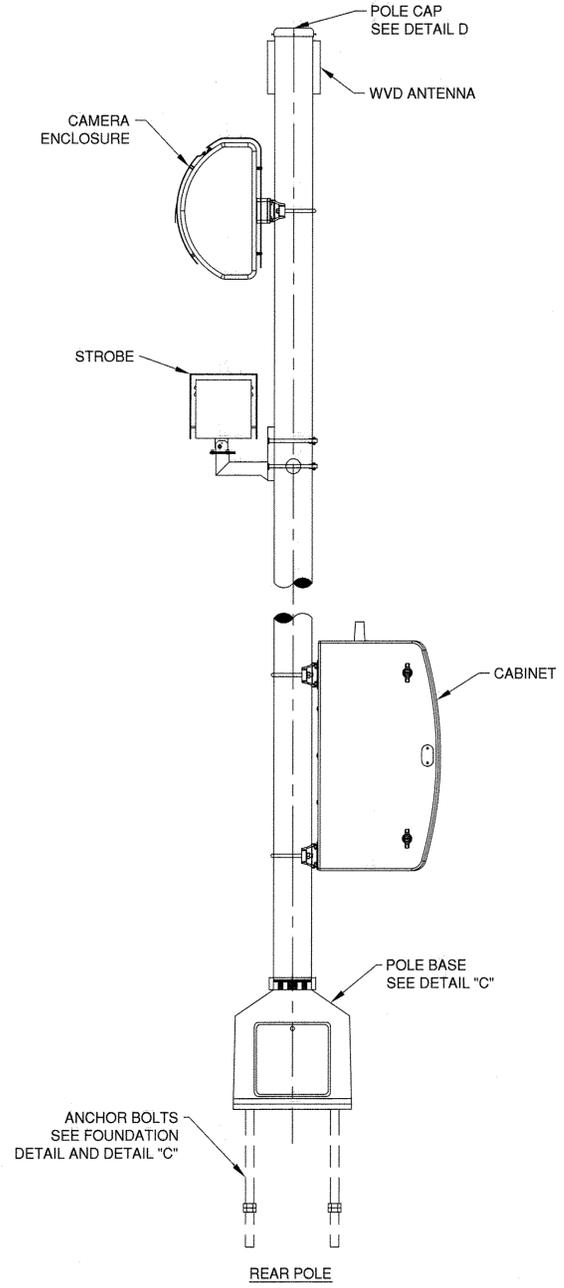
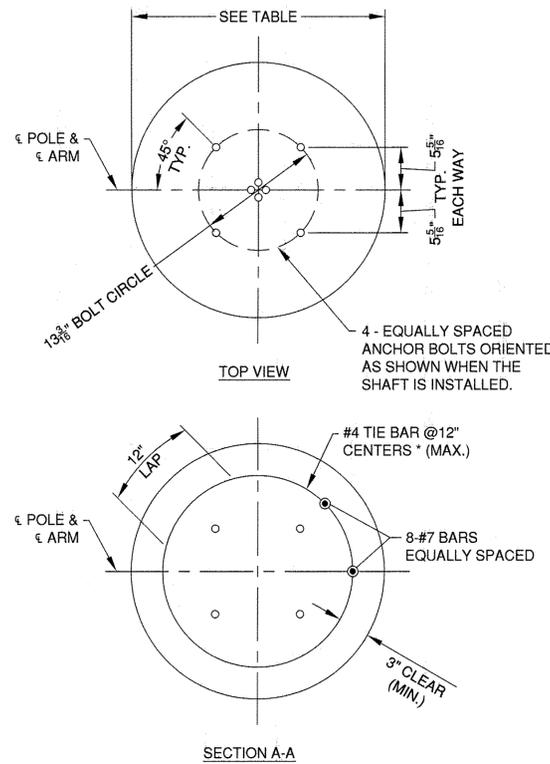
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NEW CASTLE	CHECKED BY: BDR	DATE: 3-6-13

DRILLED ANCHOR FOUNDATION
SR 2 (KIRKWOOD HWY) AT
SR 100 (S. DUPONT ROAD)

APPENDIX C



POLE DATA

POLE TUBE		POLE BASE		ANCHOR BOLT		FOUNDATION				
POLE O.D. (IN)	LENGTH (FT)	WALL THK (IN)	SQUARE (IN)	BOLT CIRCLE (IN)	THK (IN)	DIA (IN)	LENGTH (IN)	WIDTH (IN)	DEPTH (IN)	
4.50	20.00	0.337	14.00	13.18	0.63	1.00	42.00	3.5	24.00	60.00
4.50	15.00	0.337	14.00	13.18	0.63	1.00	42.00	3.5	24.00	48.00
4.50	10.00	0.337	14.00	13.18	0.63	1.00	42.00	3.5	24.00	42.00

- GENERAL NOTES:**
- DESIGN SHALL BE IN ACCORDANCE WITH 2009 (5TH) EDITION AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS AND INTERIMS.
 - POLE MATERIAL SHALL BE SCHEDULE 80 ALUMINUM POLE FABRICATED USING 6061-T6 ALUMINUM ALLOY, THREADED ONE END NPT CUT TO LENGTH.
 - ANCHOR BOLTS SHALL BE PER ASTM F1554 GRADE 55 KSI.
 - REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 KSI.
 - ALL NUTS, BOLTS, WASHERS AND THREADED BARS/STUDS SHALL BE GALVANIZED PER F2329-05.
 - UNLESS OTHERWISE NOTED ON THE PLANS, LOCATE HANDHOLE 180 DEGREES FROM CURB & GUTTER (FACING SIDEWALK).
 - PROVIDE NUT AND WASHER WITH EACH ANCHOR BOLT.
 - ANCHOR BOLT THREADS SHALL BE TAPED PRIOR TO POURING CONCRETE. THREADS OF ANCHOR BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT. THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.
 - ALL EXPOSED FOUNDATION SHALL BE FINISHED SMOOTH AND SHALL BE FLUSH WITH ADJACENT SIDEWALKS WHEN APPLICABLE.

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ADDENDUM / REVISIONS



CONTRACT	PERMIT NO.	N272
COUNTY	DESIGNED BY: SM	DATE: 3-3-13
NEW CASTLE	CHECKED BY: BDR	DATE: 3-6-13

GENERAL NOTES

1. SOIL SHOULD BE COMPACTED EVENLY AND FREE OF ORGANIC MATERIAL. EXERCISE CAUTION TO AVOID DAMAGE TO EXISTING UTILITIES.
2. PROTECT ADJACENT STRUCTURES AND FACILITIES. RESTORE ALL DAMAGED ITEMS (INCLUDING GRASSED AREAS) TO ORIGINAL CONDITION.
3. TOP OF FOUNDATION SHALL MATCH THE ADJACENT EXISTING SIDEWALK ELEVATION AND SHALL MATCH THE LONGITUDINAL GRADE & TRANSVERSE CROSS-SLOPE OF THE EXISTING SIDEWALK.
4. NEW SIDEWALKS SHALL MATCH EXISTING GRADE, CROSS-SLOPE, & ELEVATION OF EXISTING SIDEWALKS.
5. PROVIDE A BROOM FINISH ON TOP OF THE FOUNDATION AND NEW SIDEWALKS. ENSURE THAT SURFACE VARIATIONS DO NOT EXCEED 1/4" UNDER A 10 FOOT STRAIGHTEDGE OR 1/8" UNDER A 5 FOOT TRANSVERSE SECTION. FINISH EDGES WITH AN EDGING TOOL HAVING A 1/2 INCH RADIUS.
6. VERIFY UTILITIES (TYPE, LOCATION, & CONDITION) BEFORE STARTING CONSTRUCTION.

DESIGN CRITERIA

1. THE SPREAD FOUNDATIONS ARE DESIGNED TO SUPPORT ALUMINUM POLES WITH NEW GENERATION EQUIPMENT SHOWN.
2. DESIGN CONFORMS TO THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS (CURRENT EDITION).
3. DESIGN WIND SPEED: 150 MPH
4. TO ALLOW FOR WIND FROM VARYING ANGLES, A TRANSVERSE COMPONENT OF 20% OF THE NORMAL WIND LOAD FORCES IS APPLIED SIMULTANEOUS WITH THE NORMAL WIND FORCES.
5. MAXIMUM ALLOWABLE DESIGN BEARING PRESSURE = 1000 PSF
6. FOUNDATIONS ARE DESIGNED TO LIMIT UPLIFT TO A MAXIMUM OF ONE CORNER AND TO LIMIT THE TENSION AREA TO LESS THAN 25% OF FOUNDATION AREA.

EQUIPMENT DATA

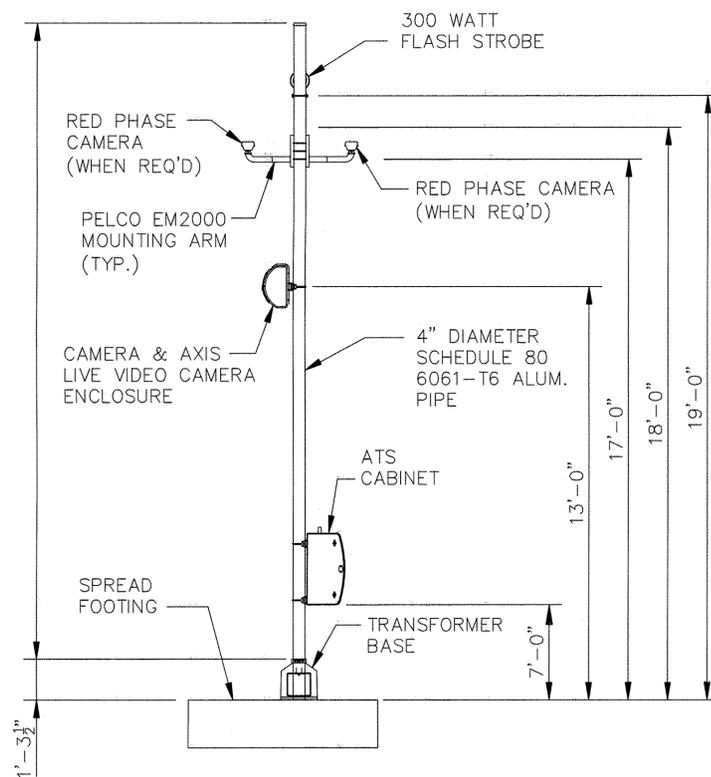
	WEIGHT (LBS)	EPA (SF) OR DIMENSION
300 WATT FLASH STROBE:	40	1.00
WVD ANTENNA:	5	0.25
RED PHASE CAMERA (EACH):	40	0.60
CAMERA & AXIS LIVE VIDEO CAMERA ENCLOSURE:	100	2.50
ATS CABINET:	125	14.25" X 18.85" X 27"
		Cd=1.70

TRANSFORMER BASE: COMPONENT PRODUCTS, INC. CPI-BAS-1P

DESIGN LOADING

WIND DIRECTION LOADING TYPE	CASE 1 TRANSVERSE UNIAXIAL	CASE 2 TRANSVERSE BIAXIAL	CASE 3 LONGITUDINAL UNIAXIAL	CASE 4 LONGITUDINAL BIAXIAL
POLE/EQUIPMENT AXIAL	480	480	480	480
POLE/EQUIPMENT MOMENT (MZ)	0	0	0	0
WIND SHEAR (VX)	1,190	1,190	0	240
WIND SHEAR (VZ)	0	240	1,190	1,190
WIND MOMENT (MX)	0	2,150	11,120	11,120
WIND MOMENT (MZ)	11,120	11,120	0	2,150

AXIAL AND SHEAR FORCES ARE IN LBS. MOMENTS ARE IN FOOT*LBS



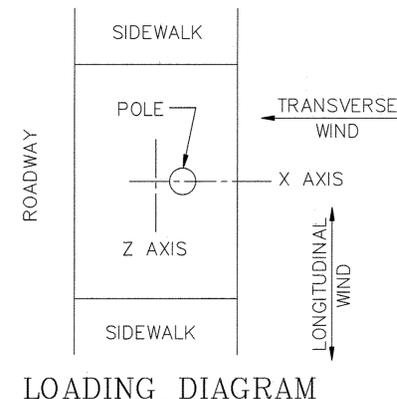
APPLICABILITY

THE DETAILS HEREIN ARE FOR SPREAD FOUNDATIONS FOR USE WITH THE AMERICAN TRAFFIC SOLUTIONS ALUMINUM REAR POLE WITH NEW GENERATION EQUIPMENT AS SHOWN.

THESE FOUNDATIONS ARE NOT APPLICABLE FOR USE WITH OTHER TYPES OF POLES AND/OR EQUIPMENT.

MATERIAL NOTES

1. CONCRETE: CLASS C (28-DAY MINIMUM COMPRESSIVE STRENGTH = 3,600 PSI)
2. REINFORCING STEEL: ASTM A615, GRADE 60
3. ANCHOR RODS:
 - A. RODS: ASTM F1554, GRADE 55
 - B. NUTS: ASTM A563, GRADE A HEAVY HEX
 - C. GALVANIZE RODS & NUTS IN ACCORDANCE WITH ASTM F2329.
4. CONCRETE COVER: 3" TOP, 3" SIDES, 3" BOTTOM



THESE SPREAD FOUNDATIONS SHALL NOT BE USED OVER:

- 1) GAS, PROPANE, LNG, OR OTHER FLAMMABLE UTILITIES;
- 2) CONCRETE ENCASED DUCTBANK;
- 3) CONDUITS OTHER THAN PVC CONDUITS

OR

- 4) MULTIPLE UTILITIES

WITHOUT THE PRIOR REVIEW AND SIGNED & SEALED WRITTEN APPROVAL OF A REGISTERED PROFESSIONAL ENGINEER.

ALUMINUM REAR POLE WITH NEW GENERATION EQUIPMENT

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ADDENDUM / REVISIONS



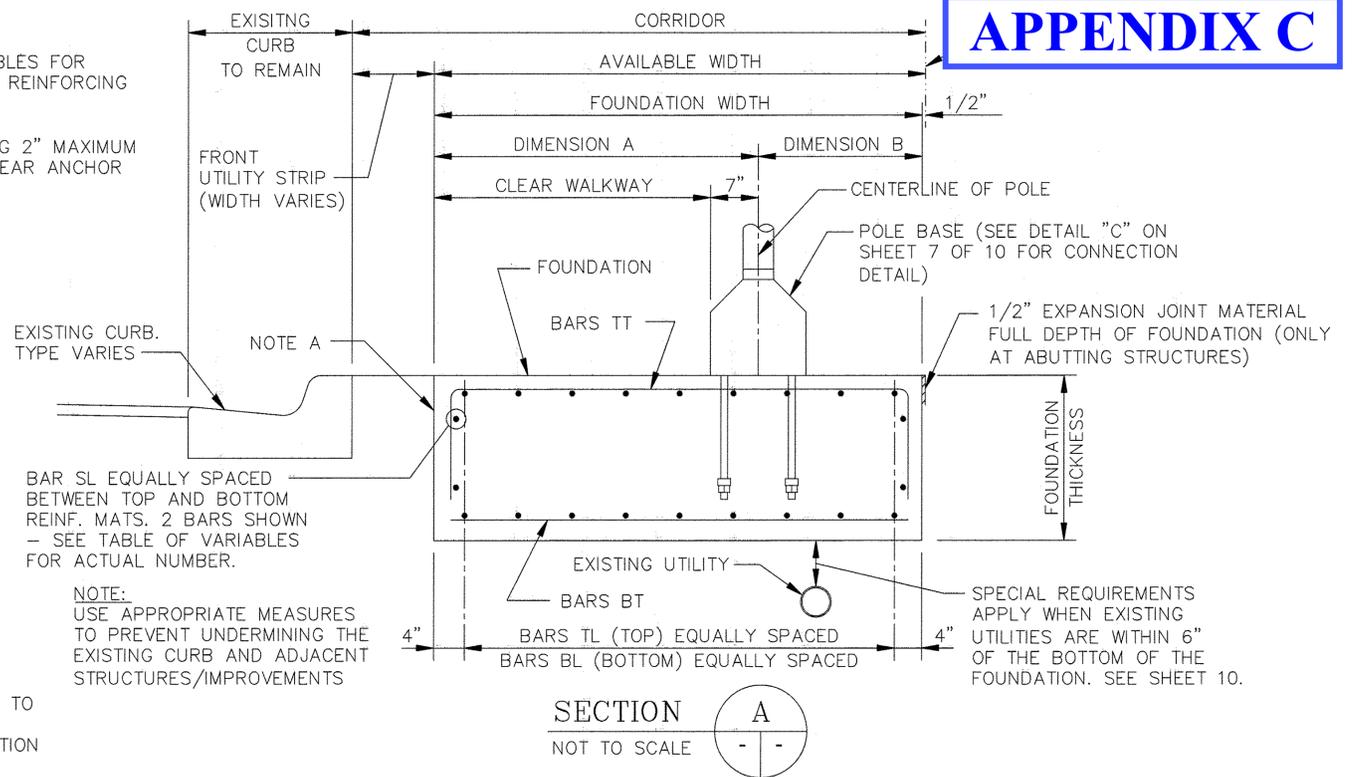
DELDOT ERLSP

CONTRACT	PERMIT NO.	N272
COUNTY	DESIGNED BY: SM	DATE: 3-3-13
NEW CASTLE	CHECKED BY: BDR	DATE: 3-6-13

SPREAD FOOTING NOTES
SR 2 (KIRKWOOD HWY) AT
SR 100 (S. DUPONT ROAD)

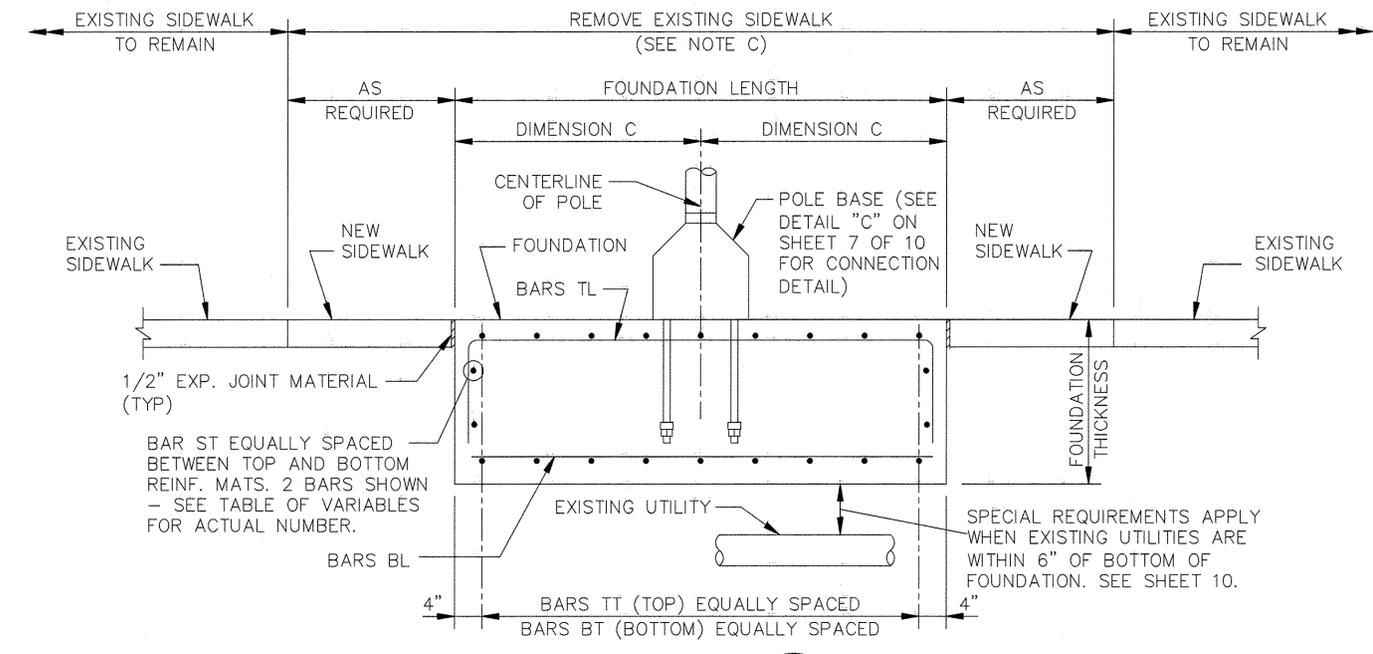
APPENDIX C

- REINFORCING NOTES:**
- SEE TABLE OF VARIABLES FOR NUMBER AND SIZE OF REINFORCING BARS.
 - SHIFT TOP REINFORCING 2" MAXIMUM WHERE NEEDED TO CLEAR ANCHOR RODS.



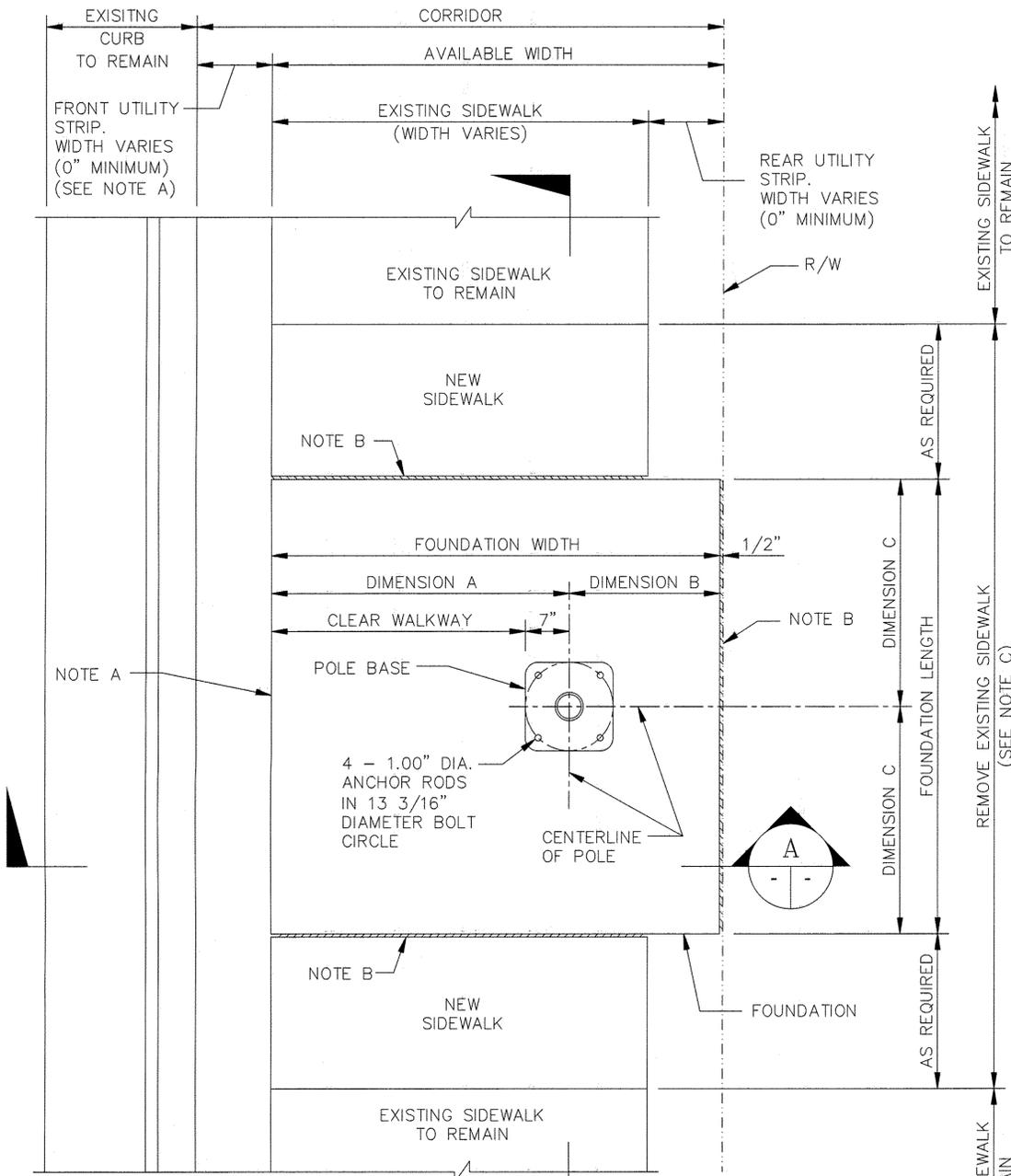
SECTION A
NOT TO SCALE

NOTE C:
LIMIT SIDEWALK REMOVAL TO THAT NECESSARY TO CONSTRUCT THE FOUNDATION



SECTION B
NOT TO SCALE

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PLAN
NOT TO SCALE

NOTE A:
WHEN CURB ABUTS FOUNDATION (FRONT UTILITY STRIP WIDTH = 0"), PROVIDE 1/2" EXPANSION JOINT MATERIAL BETWEEN FOUNDATION AND EXISTING CURB (FULL DEPTH OF CURB)

NOTE B:
PROVIDE 1/2" EXPANSION JOINT MATERIAL BETWEEN FOUNDATION AND
1) NEW SIDEWALK
2) ADJACENT STRUCTURES AS APPLICABLE



ADDENDUM / REVISIONS	



DELDOT ERLSP

CONTRACT	PERMIT NO.	N272
COUNTY	DESIGNED BY: SM	DATE: 3-3-13
NEW CASTLE	CHECKED BY: BDR	DATE: 3-6-13

SPREAD FOOTING DETAILS
SR 2 (KIRKWOOD HWY) AT
SR 100 (S. DUPONT ROAD)

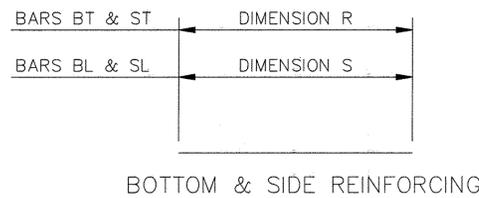
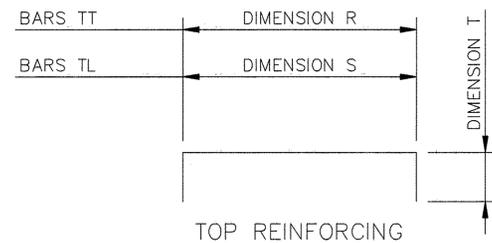
SHEET NO. 9
TOTAL SHEETS 10

APPENDIX C

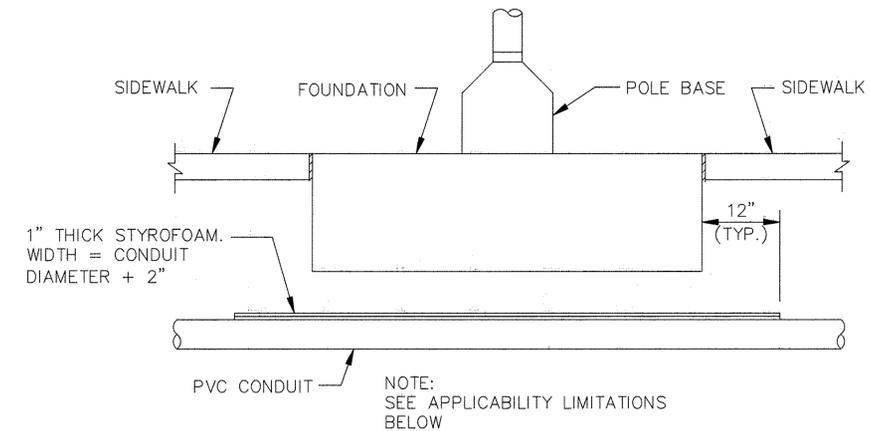
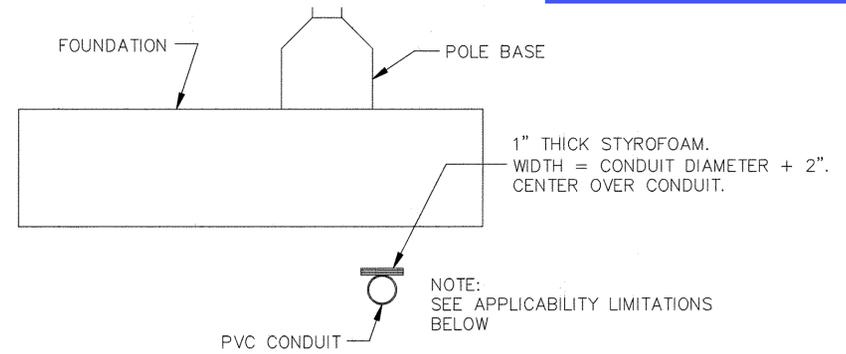
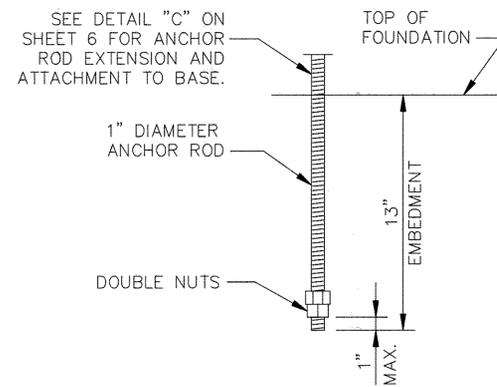
TABLE OF VARIABLES

	AVAILABLE WIDTH					
	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"
FOUNDATION WIDTH ①	4'-11 1/2"	5'-5 1/2"	5'-11 1/2"	6'-5 1/2"	6'-11 1/2"	7'-5 1/2"
FOUNDATION LENGTH	8'-6"	8'-6"	9'-0"	8'-6"	7'-6"	7'-0"
FOUNDATION THICKNESS	34"	27"	20"	18"	18"	18"
REINFORCING BARS TT	13 - #4	10 - #4	11 - #4	11 - #4	9 - #4	9 - #4
REINFORCING BARS TL	8 - #4	7 - #4	7 - #4	8 - #4	9 - #4	10 - #4
REINFORCING BARS ST	3 - #5	2 - #5	1 - #5	1 - #5	1 - #5	1 - #5
REINFORCING BARS SL	3 - #5	2 - #5	1 - #5	1 - #5	1 - #5	1 - #5
REINFORCING BARS BT	13 - #5	10 - #5	11 - #5	11 - #5	9 - #5	9 - #5
REINFORCING BARS BL	8 - #5	7 - #5	7 - #5	8 - #5	9 - #5	10 - #5
CLEAR WALKWAY ①	2'-8 1/2"	2'-8 1/2"	3'-0 1/2"	3'-6 1/2"	3'-6 1/2"	3'-6 1/2"
DIMENSION A ①	3'-3 1/2"	3'-3 1/2"	3'-7 1/2"	4'-1 1/2"	4'-1 1/2"	4'-1 1/2"
DIMENSION B	1'-8"	2'-2"	2'-4"	2'-4"	2'-10"	3'-4"
DIMENSION C	4'-3"	4'-3"	4'-6"	4'-3"	3'-9"	3'-6"
DIMENSION R	4'-5"	4'-11"	5'-5"	5'-11"	6'-5"	6'-11"
DIMENSION S	8'-0"	8'-0"	8'-6"	8'-0"	7'-0"	6'-6"
DIMENSION T	2'-1"	1'-6"	0'-11"	0'-9"	0'-9"	0'-9"

① Decrease dimension by 1/2" if curb abuts front face of sidewalk



REINFORCING BARS



SPECIAL REQUIREMENTS AT UTILITES

NOT TO SCALE

APPLICABILITY LIMITATIONS:

1. DETAILS SHOWN ARE APPLICABLE ONLY FOR A SINGLE PVC CONDUIT WITH A MINIMUM OF 1" CLEAR DISTANCE FROM THE TOP OF THE CONDUIT TO THE UNDERSIDE OF THE FOUNDATION.
2. NO MODIFICATIONS ARE NEEDED FOR A SINGLE PVC CONDUIT WITH MORE THAN 6" CLEAR DISTANCE FROM THE TOP OF THE CONDUIT TO THE UNDERSIDE OF THE FOUNDATION.
3. ALL OTHER CONDITIONS (DIFFERENT TYPE OF CONDUIT, MULTIPLE CONDUITS, ETC.) REQUIRE THE REVIEW AND APPROVAL OF A PROFESSIONAL ENGINEER.

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