

STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

DESIGN-BUILD PROJECT

for

MID-COUNTY DMV FACILITY

State Contract T201259401
Federal Contract CMAQ-2012001

REQUEST FOR PROPOSALS

APPENDIX A SCOPE OF WORK

Draft Issue Date: August 6, 2012

A MEETING WITH THE SELECTED SHORT-LISTED FIRMS WILL BE HELD AT THE
DelDOT ADMINISTRATION BUILDING, 800 BAY ROAD, DOVER, DELAWARE 19901 AT:
XX:00 A.M. - SOMEDAY SEPTEMBER XX, 2012.

Responses must be delivered to the Delaware Department of Transportation, Administration Building, Attention:
Contract Administration, 800 Bay Road, Dover, Delaware, 19901 by the Dates specified in Section XXX

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PART 1 – PROJECT SCOPE

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1.0 INTRODUCTION

The Project Scope of Work provides a summary description of the physical components of the Project that the Design-Builder shall design, construct, and/or install and the associated management, control, monitoring, compliance, and professional services and other elements of the Work required in accordance with the Design-Build (DB) Agreement.

The Design-Builder shall not rely solely on the description contained herein to identify all Project components to be designed, constructed, and/or installed. The Design-Builder shall determine the full scope of the Project through thorough examination of the Contract Documents and the Project Site or as may be reasonably inferred from such examination.

The Design-Builder shall, for the generally described improvements, perform all design engineering and analysis; provide construction engineering; provide quality control services; and furnish, construct, and/or install all materials and components of the Project required to meet the requirements of the Contract Documents.

1.1 Project-Specific Requirements

Mid-County DMV Design Requirements

Site work to meet DeIDOT Standard Specifications

Building to meet DFM Standard Specifications unless otherwise noted below.

Plans will be submitted to DeIDOT and DFM for review at the 30%, 60%, and 90% (final plans) for review and approval.

An exploratory plan has been submitted to New Castle County. The contractor will be responsible for submitting plans for permits.

The contractor will be responsible for special inspections required by NCCo. Additionally, the contractor will submit and obtain approval from the State Fire Marshal's office for the site and building, from DNREC for stormwater design, and from the State Architectural Accessibility Board (AAB).

The State will either provide inspection services in-house or will contract for inspection services as outlined below:

- Site
 - Compaction testing
 - Concrete samples- breaks at 7 and 28 days
 - Asphalt samples
 - Concrete/asphalt plant inspections
- Building
 - Foundations
 - Concrete slabs- tolerance FF=50 (1/8in in 10FT)
 - Steel
 - Roofing
 - MEP/ceiling inspection prior to drywall
 - Electrical
 - Plumbing
 - Full commissioning- include DFM commissioning spec

1. Site -

- a. Exploratory Plan - Has been submitted to NCC for approval. The Department is currently requesting variances for a slight ROW encroachment and reduced site-required perviousness percentage through NCC Board of Adjustment; hearing anticipated Sept./Oct. 2012.
- b. Paving - All paving and associated materials shall meet DelDOT standards.
 - i. Ring Road and Entrance
 - 2" Type C (surface)
 - 3" Type B (base)
 - 8" GABC (stone base)
 - ii. Parking Lots
 - 2" Type C (surface)
 - 2.5" Type B (base)
 - 6" GABC (stone base)
 - iii. Pervious Concrete Testing and Training Pad
 - 8" Pervious Concrete
 - 12" #57 Stone
- c. Sidewalks – DelDOT standard – 5' minimum width, DelDOT Class A concrete (4500 PSI) on 4" GABC.
- d. Exterior concrete- all exposed slabs DelDOT Class A
- e. Lighting
 - i. Zoned and controlled by BAS
 - ii. Fixture type?
- f. Stormwater Management – In accordance with DNREC standards and approval process.
- g. Landscaping – Native Delaware, low maintenance, minimize grass, wildflowers/low mow
- h. No small islands with trees- no island with trees less than 8FT wide in any direction
- i. Signage – MUTCD, directional signs (signage package to be an allowance)
- j. Pedestrian/Bike Paths – Sidewalks shall be constructed as shown on the enclose Site Plan, including out of the entrance of the park and ride and from the park and ride bus stop canopy to US 13, continuing south to the entrance, then continuing from the south side of the entrance to the southern property line. Pavement markings for a 5' wide bike path shall be placed along the shoulder of US 13 from the south side of the US 13/Wrangle Hill Road intersection to the southern site property line.
- k. Bike Racks
- l. Fencing
 - i. Height – 6'
 - ii. Style – Ornamental post and picket.
 - iii. Location - As shown on the site rendering, along the south side of the entrance road right of way line to the point where sidewalk enters the DMV site, along SB US 13 setback 50' from the right of way line, then turning with the SE property corner setback 30' from the property line to the 100' riparian buffer line.

- iv. Gate – A pad lockable steel pipe style swing arm gate shall be installed across the access road, at a point just beyond the right turn lane out of the DART maintenance facility. Gate shall be high reflectivity yellow on black with dual stop signs attached facing each direction.
- m. Flag Poles – Separate poles for Delaware and US flags, lighted. 30' height?
- n. Traffic Signal and Entrance Lighting –
 - i. Intersection shall be designed prior to signal design.
 - ii. Contractor/subcontractor's engineer shall have previous experience and familiarity with DelDOT's signal design process and standards.
 - iii. Contractor's engineer shall develop a schedule for the signal design and roadway lighting submittals which assumes layout of the intersection geometry is complete and approved:
 - 1. Scoping meeting with Project Management and Traffic Section
 - 2. Preliminary submission
 - 3. Attend Project Progress meeting
 - 4. Semi-Final/Final submission
 - 5. Pre-construction meeting and field meeting
 - iv. Intersection design shall comply with current Americans' with Disabilities Act (ADA) and Manual on Uniform Traffic Control Devices (MUTCD) standards and best practices. The installation of the said signal shall include:
 - 1. Installation of all necessary pedestrian and vehicular signal equipment, such as poles, buttons, junction wells, loop detection, system loops, conduits, etc.
 - 2. Construction of ADA-compliant curb ramps
 - 3. Installation of corresponding MUTCD compliant roadway signing and pavement markings
 - 4. Installation of channelizing islands on the northwest and southwest corners of the intersection for pedestrian refuge. Islands should conform to DelDOT standards.
 - 5. Installation of corresponding signal equipment required for fiber optic interconnection between the traffic signals at US 13 & SR 72 and US 13 & DMV/DTC site access. The approximate location of the existing type 4 junction well is shown on the attached plan at the intersection of SR 72 and US 13. The exact location must be confirmed with a field visit. This type 4 junction well shall be replaced with a type 7 junction well. From that well a 4 inch schedule 80 PVC conduit with interduct shall be trenched. The conduit run shall be no more than 600 feet. Once the 600 feet is met, a type 14 junction well shall be installed. Another 4 inch schedule 80 PVC conduit shall be installed to the proposed intersection of the DMV and US 13. If the cabinet is located on the northwest corner of

the proposed intersection of the DMV and US 13, the conduit run shall run to a type 14 junction well installed in front of the cabinet base. If the cabinet is located on the southwest corner of the proposed intersection of the DMV and US 13, the conduit run shall run to a type 14 junction well placed in the northwest corner and a 4 inch SDR-13.5 HDPE conduit with interduct shall be bored under the entrance road to a type 14 junction well placed in front of the cabinet base. Refer to attached draft plan for approximate location of fiber optic route and equipment.

6. Intersection design and signal layout must accommodate the potential future fourth approach at intersection from the east.
7. Design and implementation of appropriate Maintenance of Traffic.
- v. DelDOT will be responsible for constructing the above ground traffic signal and roadway lighting work, while contractor will be responsible for all underground traffic signal and roadway lighting work.
 1. The following items are considered underground:
 - a. Installation and removal of cabinet base
 - b. Supply, installation, and removal of conduit
 - c. Supply, installation and removal of junction wells
 - d. Installation and removal of signal and pedestrian concrete pole bases.
 2. The following items are considered above ground:
 - a. Installation and removal of signal cabinet
 - b. Supply, installation, removal, and splicing of all cable
 - c. Electric service
 - d. Installation and removal of all poles, mast arms, and weatherheads
 - e. Assembly, installation, and removal of signal heads, signal head brackets,
 - f. pedestrian heads, span/mast arm mounts, and opticoms
 - g. Supply, installation, and removal of span and messenger wire and span wire attachments
 - h. Installation and removal of span wire/mast arm signs
 - i. Supply and installation of vehicle detectors
 - j. Supply and installation of optical equipment
 - k. Supply and installation of all pedestrian equipment
 - l. Supply of strain poles, mast arm poles and mast arms
 - m. Supply of pedestrian poles
 - n. Supply and installation of all signal head equipment
 - o. Supply and installation span bullrings
- vi. A Transportation Management Plan will be required to be completed by the contractor's engineer due to US 13 being on the National Highway System.

Guidance on the Transportation Management Plan can be obtained on the deldot.gov website under the Delaware Manual on Uniform Traffic Control Device section in Publications.

- vii. Coordinate with DelDOT Traffic Safety.
- viii. Investigation and acquisition of right-of-way is the responsibility of the contractor's engineer.
- ix. Investigation and relocation of utilities is the responsibility of the contractor's engineer.
- x. As part of final submission, a copy of the digital files for the intersection and traffic signal should be submitted to DelDOT Traffic.
- xi. Roadway lighting shall comply with DelDOT Lighting Design Manual standards and guidelines. The design and installation of the said roadway lighting shall include:
 - 1. Roadway lighting must be designed to cover the entire entrance including turn lanes and tapers, as described in the Manual. Specific lighting coverage will be determined after an entrance plan is developed and the site is reviewed by DelDOT Traffic.
- xii. Roadway luminaries may either be DelDOT standard (on aluminum poles) or tariff-based lighting on existing (wooden) utility poles; A combination will be considered but is not desired.
- xiii. Contractor's engineer shall propose locations for the lighting cabinet and service pedestal as part of the lighting design.
- xiv. Coordination with the Power Company and DelDOT Traffic is required for the installation of tariff-based lighting and/or new service location(s).
- xv. Contractor's engineer shall display the location (and identify) of underground utilities on the proposed lighting plan sheets.
- o. Contractor's engineer shall provide roadway lighting design plans with appropriate calculations and electronic files to be reviewed by DelDOT Traffic
- p. Entrance Design – Designed and constructed in accordance with the completed Traffic Impact Statement (TIS) and DelDOT Standards. The current layout shown on the Site Plan is considered a preliminary plan, and shall be further developed to a final plan in accordance with the DelDOT Entrance and Subdivision Manual.
- q. MOT
 - i. Maintenance of Traffic shall be in accordance with Delaware Manual on Uniform Traffic Control Devices and shall be approved by the Department.
 - ii. Maintenance of traffic shall be designed and carried out to cause the least possible obstruction to traffic.
 - iii. 2 lane paved unobstructed access shall be provided into the DART Maintenance Facility at all times.

- r. Grades – Minimum and maximum grades for parking lot, loop road and testing pad shall be 1% to 4% .
- s. Site Lighting – In accordance with NCC Standards and capable of off hours zone reduction. Light type and style shall be similar to Georgetown.

2. Building

- a. LEED- Building shall be designed to and will be applied for certification by the US Green Building Council (USGBC) for a LEED Silver NC (new construction) or greater rating.
- b. Customer Stations- Utilize stations as installed in Georgetown with the addition of cameras for driver photos (aka “superstations”). Solid surface countertops. See additions details attached.
- c. Restrooms
 - i. Public – Touchless fixtures (lavatory and toilets)
 - ii. Occupancy Sensors for lighting. Dual technology (PIR and US).
 - iii. Low flow- 1 pint urinals, 1 GPM faucet aerators
 - iv. Single user restrooms- touchless lavatories, dual flush toilets
- d. Greeter Station – provide station as outlined on attached details. Station shall be sized for 3 to 4 individuals and will have a clear view of the entrance.
- e. Doors and Hardware
 - i. Sliding doors with airlock at vestibule
 - ii. ADA compliant- lever handles on all doors
 - iii. Card access system- Best Locks – with patented cores
- f. Card Access
 - i. Exterior doors, between public and private space, other rooms as noted- State will contract separately with security provider. Contractor to coordinate with State security installer. Contractor to provide raceways (conduit) were necessary for installation.
- g. Secure ID Room (see drawing)
 - i. Walls- bullet resistant. 3 5/8” 20 gage metal studs at 16” O.C. 3” thermafiber SAFB insulation, meeting UL classification. 5/16” fiberglass barrier panel (one outer face of studs). 1 layer 5/8” type X drywall each side
 - ii. Ceiling- bullet resistant. Metal ceiling framing, size and spacing as required to accommodate design. thermafiber SAFB insulation. 5/16” fiberglass barrier panel (one upper face of ceiling structure). 1 layer 5/8” type X drywall on lower face of structure
 - iii. Separate HVAC system.
 - iv. Transaction Window- Bullet resistant. Approximately 2’ w X 3’ h. 12 gage stainless steel jamb frames, with “natural voice spacers” (2 per jamb), filled with fiberglass barrier panel material. 16 gage stainless steel

- sill/shelf/dip tray. Armortex bullet resistant glazing, with speaker unit, set into side jambs, with 20 gage stainless steel caps (top & bottom).
- v. Counter- solid surface
 - vi. Door- Bullet resistant. 16 gage steel door & frame. Door to be filled with urethane foam insulation (in place), with UL listed armortex bullet resistant composites. View lite in door to be 4" w X 22" h, UL listed bullet resistant glass. Install 5/16" fiberglass barrier panels materials on wall jamb before installation of door frame. Barrier panel to "wrap" frame opening. Install 5 /16" fiberglass barrier panel material in outside face of door frame flange.
 - vii. Speaker/Display
- h. Finishes
- i. Restrooms – 12 X 12 tile floors and 4X 4 ceramic (glazed) tile wainscoting, toilet partitions- DFM standard
 - ii. Transaction Counters – solid surface
 - iii. Flooring – Recessed (flush) installed walk-off grating to be installed in lobby vestibule. Lobby floor to utilize terrazzo or high-quality tile (quartz or solid vinyl, no VCT). All other areas to receive carpeting (commercial grade, 32 oz., loop pile) unless noted in floor finish schedule.
 - iv. Walls
 - 1. Paint- low VOC latex paint, washable surface. Public areas to have a durable finish with either tile or cementitious wainscoting or vinyl wall covering.
 - v. Ceilings
 - 1. Suspended – 2 x 2 grid and tiles
 - 2. Minimum 8 FT ceilings in office areas.
 - 3. Minimum 12 FT ceilings in public areas except restrooms.
 - 4. Lobby- sloped ceiling with minimum 20 FT height at peak. Skylights not desired. Clearstory windows not required, but if installed shall be facing north and have adequate louvers/shading to prevent sunlight glare.
 - i. Exterior- no vinyl siding allowed. Block, brick or metal siding. Minimum of 4 FT high wainscoting. Exterior to be similar in appearance to Georgetown
 - j. Lighting – All interior lighting to be F32 T-8 (25 watt systems) or LED
 - i. Daylight harvesting shall be provided in the lobby
 - ii. Occupancy Sensors shall be installed in restrooms, offices and other high-traffic spaces
 - k. Mechanical – Life Cycle Cost Analysis required. Energy budget for the facility shall be 140 kBTU/SF winter, 110 kBTU/SF summer or better.
 - i. Office- Spaces larger than 200 SF to receive individual control.
 - ii. Lanes

1. Heating required to temper the space. Booths to receive either forced air heating or radiant heat flooring.
- iii. BAS- Utilize DFM standard
- iv. VFDs- Utilize DFM standard
- l. Life Safety
 - i. Fire Alarm - Addressable
 - ii. Sprinklers as required by Fire Marshal
 - iii. Fire Extinguishers – cabinets to be recessed into wall.
 - iv. Exit signs- LED
- m. Phone – Data- IT cabling to be installed by State contract vendor. Contractor to install raceways (conduit) in all exterior and interior wall to above suspended ceiling for installation of cabling by State vendor.
 - i. 2 Phone – 2 Data per drop.
 - ii. Cat 6 cabling
- n. Loading Dock with leveler-
- o. Drive-Thru Lanes
 - i. Green Arrow/Red X signage (included in signage allowance)
 - ii. Current design is for 2 drive through lanes with potential to expand to 4 lanes.
 - iii. Service conduit from tellers to lanes shall be above ground and provide minimum 14' clearance over the bypass lane.
- p. Inspection Lanes
 - i. Lifts – axle lifts Shall be installed in lanes 1 and 2. Specs to be provided by DMV.
 - ii. VMS – one. Provided and installed similar to Georgetown.
 - iii. Green Arrow/Red X
 - iv. Exhaust/CO monitor
 - v. Booths- See attached drawings/specs for details
- q. Roof – Sloped roof to be standing seam metal with 4/12 slope or greater. Flat roof areas to be minimized (except lanes). Solar panels (if required for LEED points) to be installed over office building (south side) or on flat roof with Solar Dock system at inspection lane building.
 - i. Provide ladder access to all flat roof areas over 400 SF.
- r. Windows/Storefront
- s. Signage – internal to be similar in style and construction to Georgetown. Contractor to include allowance of \$???K in proposal.
- t. Motorcycle storage building- See attached spec/drawings for details.
 - i. Security alarm to be installed. Contractor to provide two one inch raceways from main DMV building to motorcycle building for phone/data/security.
 - ii. Heating only for freeze control

- u. Future Bays- Provide end wall of inspection building that can be easily removed for adding future lanes.
- v. Attic Stock-
- w. Warranties- standard 2 year contractors warranty (DFM)
 - i. Roof- 20 year limited
 - ii. HVAC- 5 year parts and labor
 - iii. Electrical-
- x. QueMatic – At each station, dispenser at greeter station. Included in signage allowance.

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