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DELDOT UTILITIES SECTION
POST-COORDINATION & CONSTRUCTION REVIEW MEETING

STATE CONTRACT: T201504401 Elkton Road, MD Line Rd. to Casho Mill Rd.
REVIEW MEETING DATE: September 5, 2024
PREPARED BY: Alan K. Marteney, P.E.
Century Engineering, LLC, a Kleinfelder Company

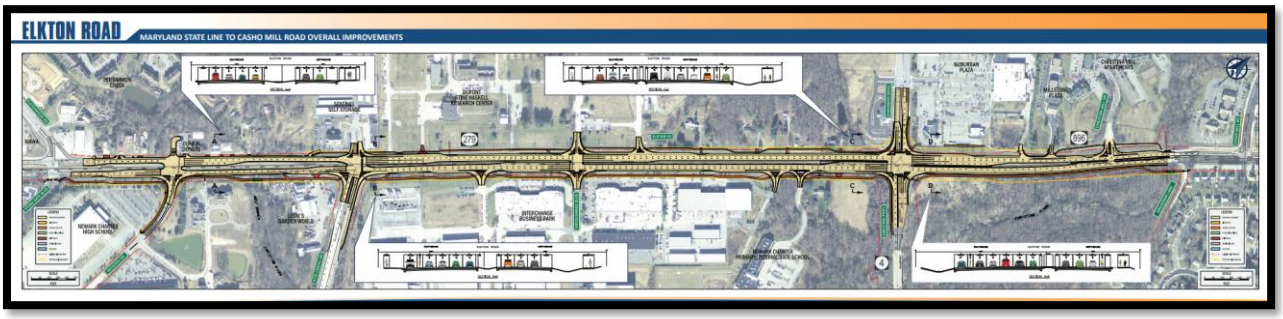
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Jason Woodyshek	Windstream	Jason.Woodyshek@windstream.com	N
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Jon Hermes	Century Engineering	jhermes@kleinfelder.com	Y

BRIEF PROJECT DESCRIPTION: The project is located on Elkton Road from the Maryland State Line to Casho Mill Rd—see picture snapshot below with the project limits lightly shaded. The existing road was a divided multi-lane Principal Arterial. The project included reconstruction of the concrete pavement and widening to provide a third eastbound through lane between Otts Chapel Road and SR 4 which involved four signalized intersections and numerous right-in/right-out entrances to residential and commercial properties. The project provided

upgraded bicycle and pedestrian facilities, including a 10' wide multi-use path. This was the second project along Elkton Road.

Project website: [Elkton Road, MD Line to Casho Mill Road Project Website - DelDOT]





UTILITIES INVOLVED:

- City of Newark – Electric
- City of Newark - Sewer
- City of Newark - Water
- Comcast Cable - Communication
- DelMarVa Power - Electric Distribution
- DelMarVa Power – Gas
- Eastern Shore Natural Gas
- Elkton Gas
- FMC Stine Research Center
- Level 3 Communications

- Lightower Fiber Networks (Crown Castle/Fibertech)
- Suez Water
- UNITI Fiber
- Unknown Utility
- Verizon Delaware-Communication
- Windstream Broadband

Relocation of City of Newark Sewer and Water and Suez Water facilities were included in the DelDOT contract.

ADVANCE UTILITY RELOCATIONS: Advance relocations were performed for a majority of the utilities.

ADVANCE CLEARING CONTRACTS: Advanced Clearing was performed by DelDOT Contractor obtained through Letter Bids and City of Newark forces.

PROJECT CONTRACTOR: Diamond Materials LLC

PROJECT CONSTRUCTION START/END DATE: May 2020 to December 2021.

DELDOT PROJECT DEVELOPMENT SECTION/PROJECT MANAGER: PD North; Breanna Kovach.

ENGINEER OF RECORD FIRM: JMT

DELDOT CONSTRUCTION REPRESENTATIVES: Evan Brodsky

CONSTRUCTION INSPECTION FIRM: KCI

DELDOT UTILITY COORDINATOR: Debbie Kukulich

MAJOR PROJECT CHALLENGES: None of the utility services could be interrupted during construction, including the multiple service lines to adjacent parcels. Limited time was available for lane closures-typically only allowed from 8PM Friday to 5AM Monday with additional restrictions for no lane closures during University of Delaware and City of Newark events as listed in the plans.

The Project's design was started with DelDOT in-house staff to approximately Preliminary Design, then the project was put on hold until assigned to JMT to complete. During the design process there were several changes in utility company coordination personnel.

LESSONS LEARNED from this project included:

- During construction, coordination and communication amongst all parties was considered to have been exceptional and was a critical part of resolving issues as quickly as possible.
- Confirm pole placement and guying requirements as part of the utility's relocation design. During relocation construction, DelMarVa Power Electric identified new guying requirements that required re-designs since additional right-of-way could not be acquired.
    - Similar constructability issues arose for other utility relocations.
    - Emphasizes the need to involve the utility company's construction personnel during the relocation design process and do early coordination of those needs with the road design engineer to determine how the needs can be accommodated, relocation designs adjusted, etc.
- Inspection was provided for the Advance Utility Relocations:
    - Having pre-relocation and progress meetings were beneficial.
    - As-built survey was not performed consistently, nor did the survey always obtain both Horizontal and Vertical information.

    - Subsequent road construction discovered advance relocations were not installed per plan, resulting in conflicts with other proposed work and resultant delays and costs.
    - Design and As-built survey needs to include locations and dimensions of thrust blocks on utility pipes since these can extend several feet beyond the pipe and affect the design of other utilities, drainage, poles, foundations, etc.
    - Protocols and expectations for recording both H&V as-built information during utility installations using bores should be established during the design, emphasized prior to construction and implemented during construction.
    - As-built H&V information on service laterals needs to be obtained.
        - This is particularly important when subsequent construction involves longitudinal drainage, utilities or other elements that will be crossing the service laterals.
- On-site inspection personnel changed during the work, resulting in loss of historic knowledge.
    - When possible, on-site inspection personnel for advance utilities should be consistent throughout the duration of the relocation activities and the personnel should have appropriate experience and coordination skills for the relocation work.
    - When possible, the on-site inspection personnel involved in the advance utility relocations should continue into the road construction inspection.
- Utility relocation designs were developed and coordinated through the design process, but some design elements such as roadway lighting and signalization were not developed until late in the design process, resulting in revisions to the relocations and subsequent impacts and changes to other design elements, RW needs, etc.
    - Having an overall plan showing the entire project and utility relocations would have been helpful. Suggestion was for a version that was being updated by the design engineers but available as read-only to the utilities.
    - Having specific utility relocation coordination meetings would be helpful, including one-on-one meetings as deemed necessary.
    - Having the as-builts updated on this overall plan would also be helpful.
- Verizon changed some of their relocations from Overhead to Underground ‘at the last minute’.
    - Horizontal installations met the plan but as-built underground elevations did not avoid conflicts with other design elements that couldn’t be changed, resulting in conflicts and Verizon second moves.
- For water relocations, the need to keep service available for customer use **and fire coverage** needs to be considered and the use of wet taps/insertion valves incorporated in the relocation designs to minimize outages.