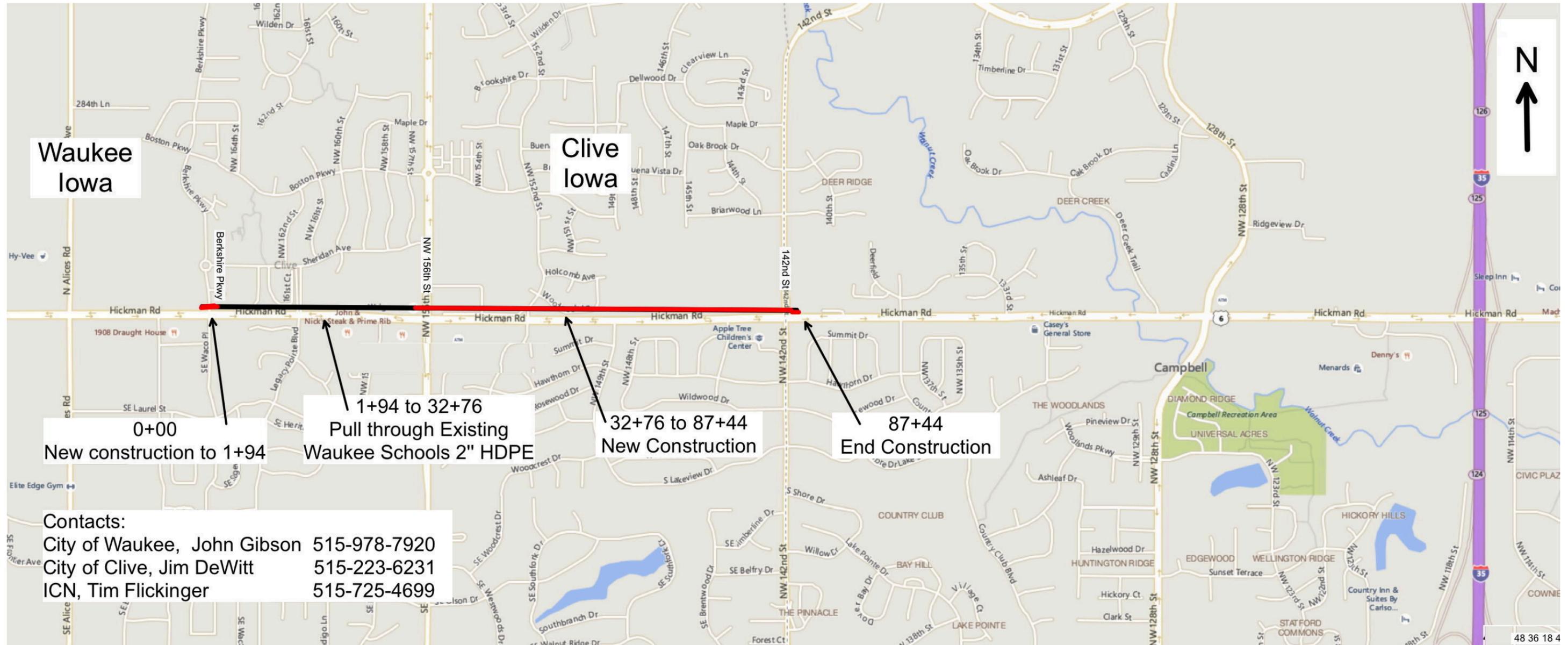


Project Location



Contacts:
 City of Waukee, John Gibson 515-978-7920
 City of Clive, Jim DeWitt 515-223-6231
 ICN, Tim Flickinger 515-725-4699

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 DES MOINES, IOWA 50319
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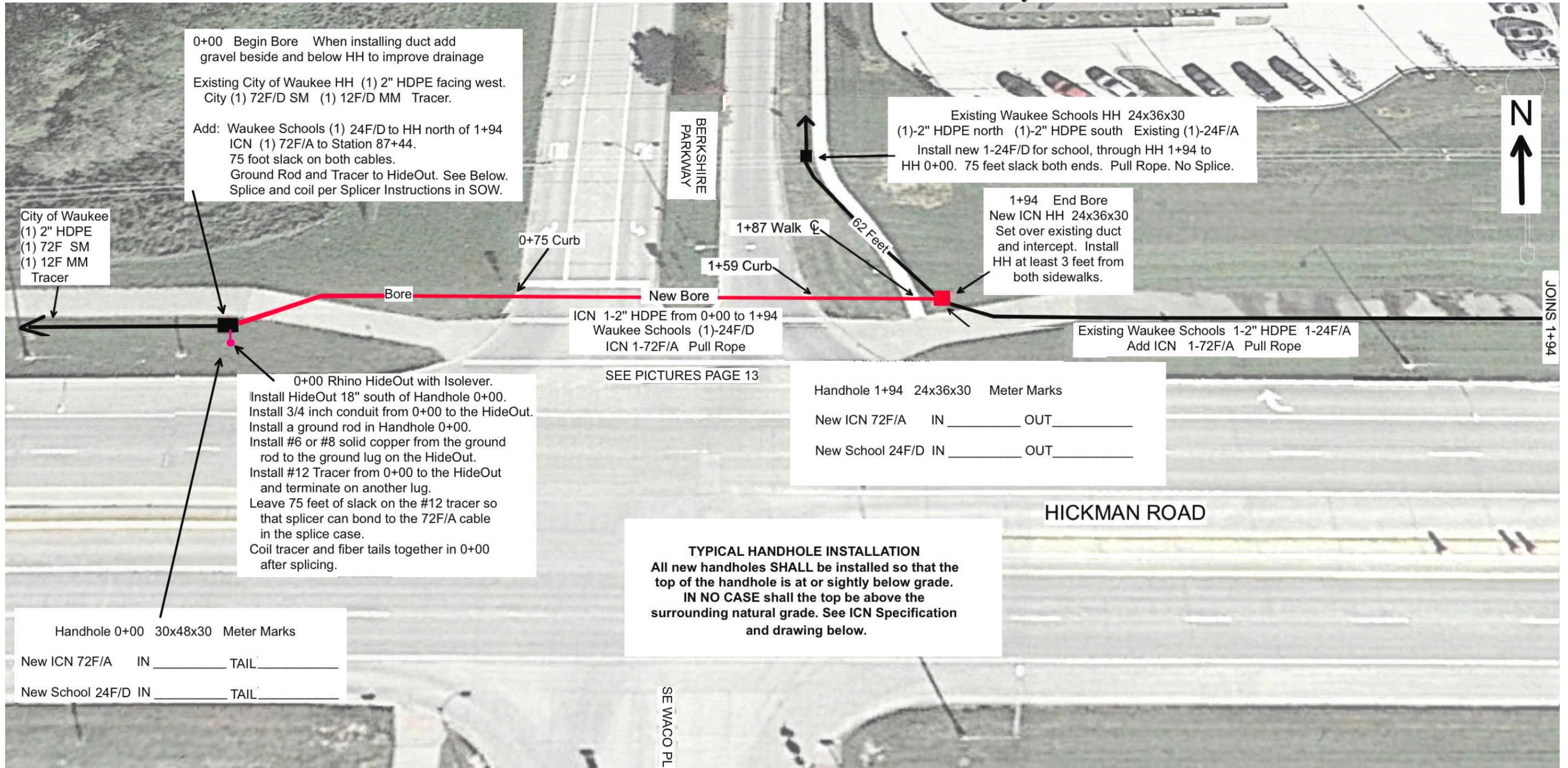
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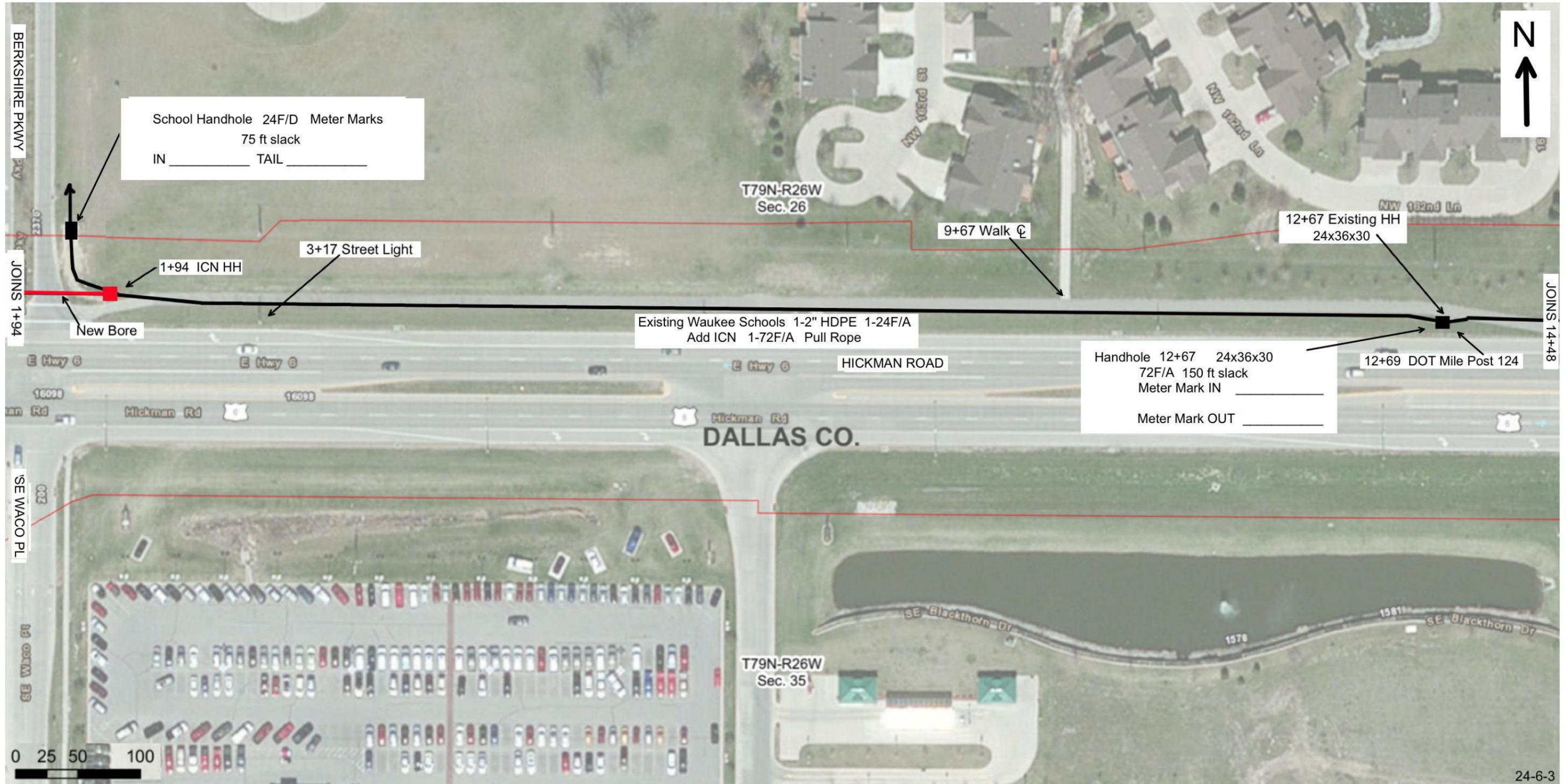
Project Name: Hickman Road Waukee-Clive
Address: Berkshire Pkwy to NW142nd St.
OSP Number: 25160205

1	Initial Drawing	10/30/15	5		
2			6		
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SIZE: 11 17

Detail – Hickman Road and Berkshire Parkway





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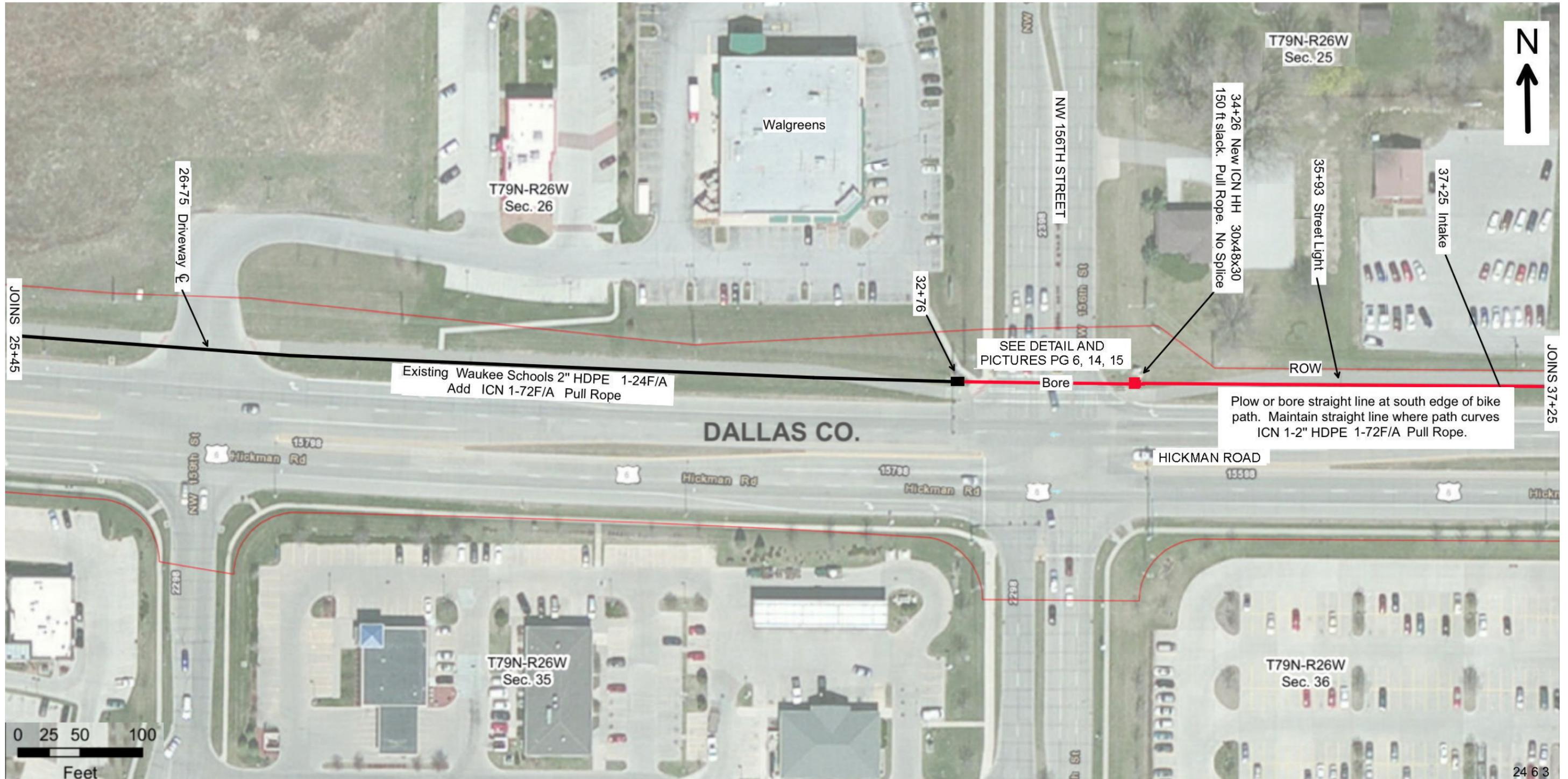
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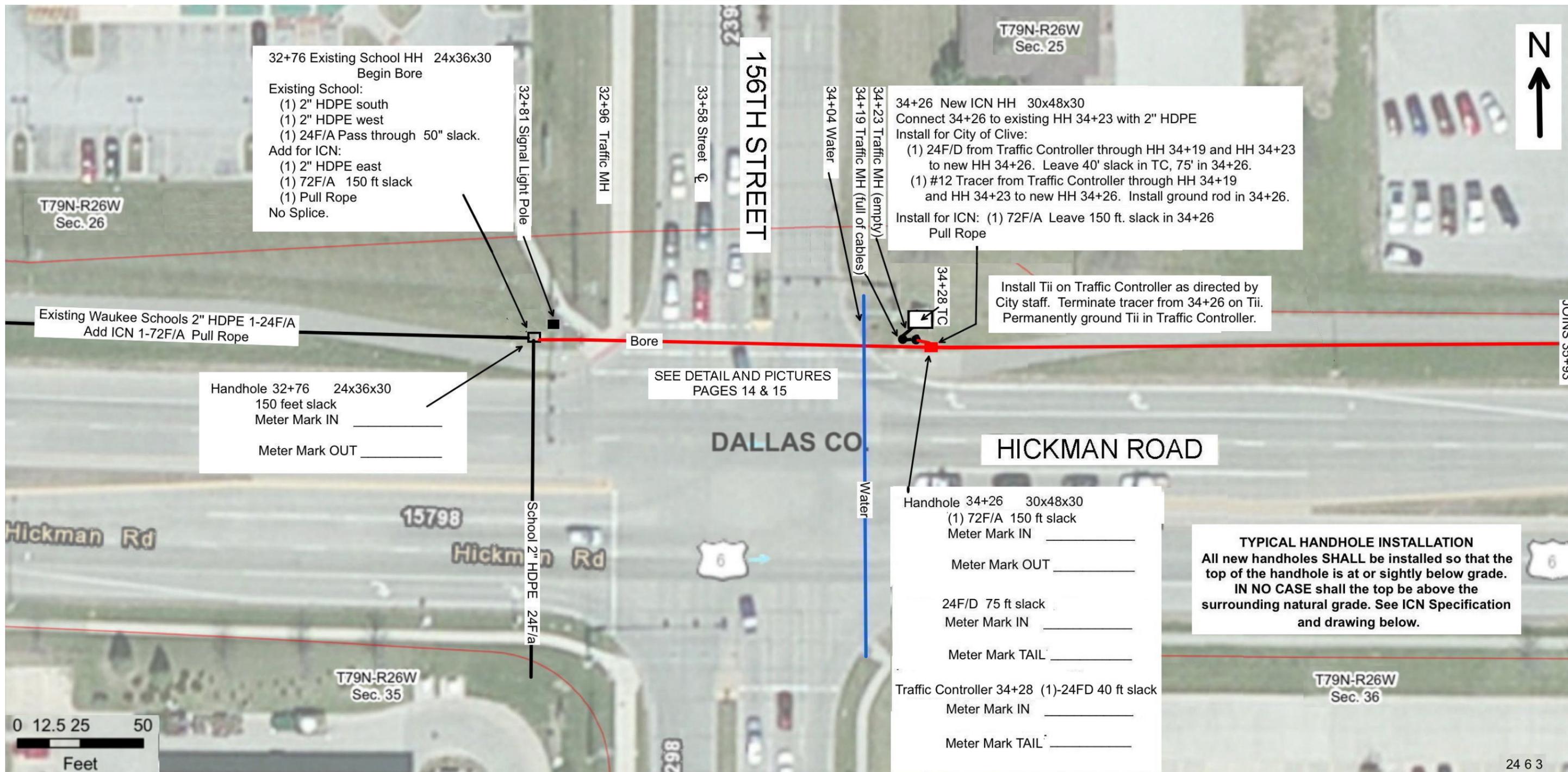
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Detail – Hickman Road and 156th Street



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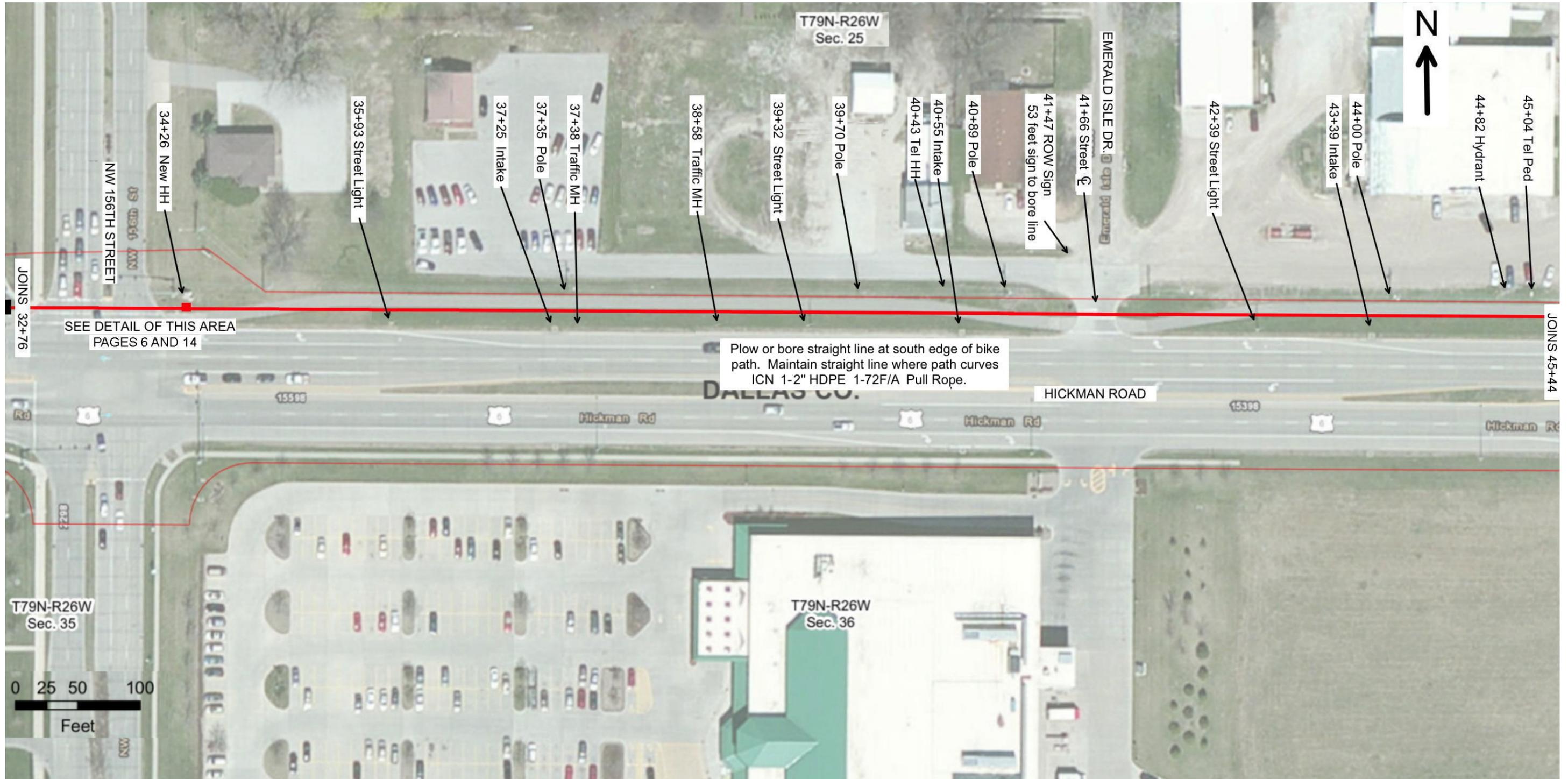
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1	Initial Drawing	10/30/15	5		
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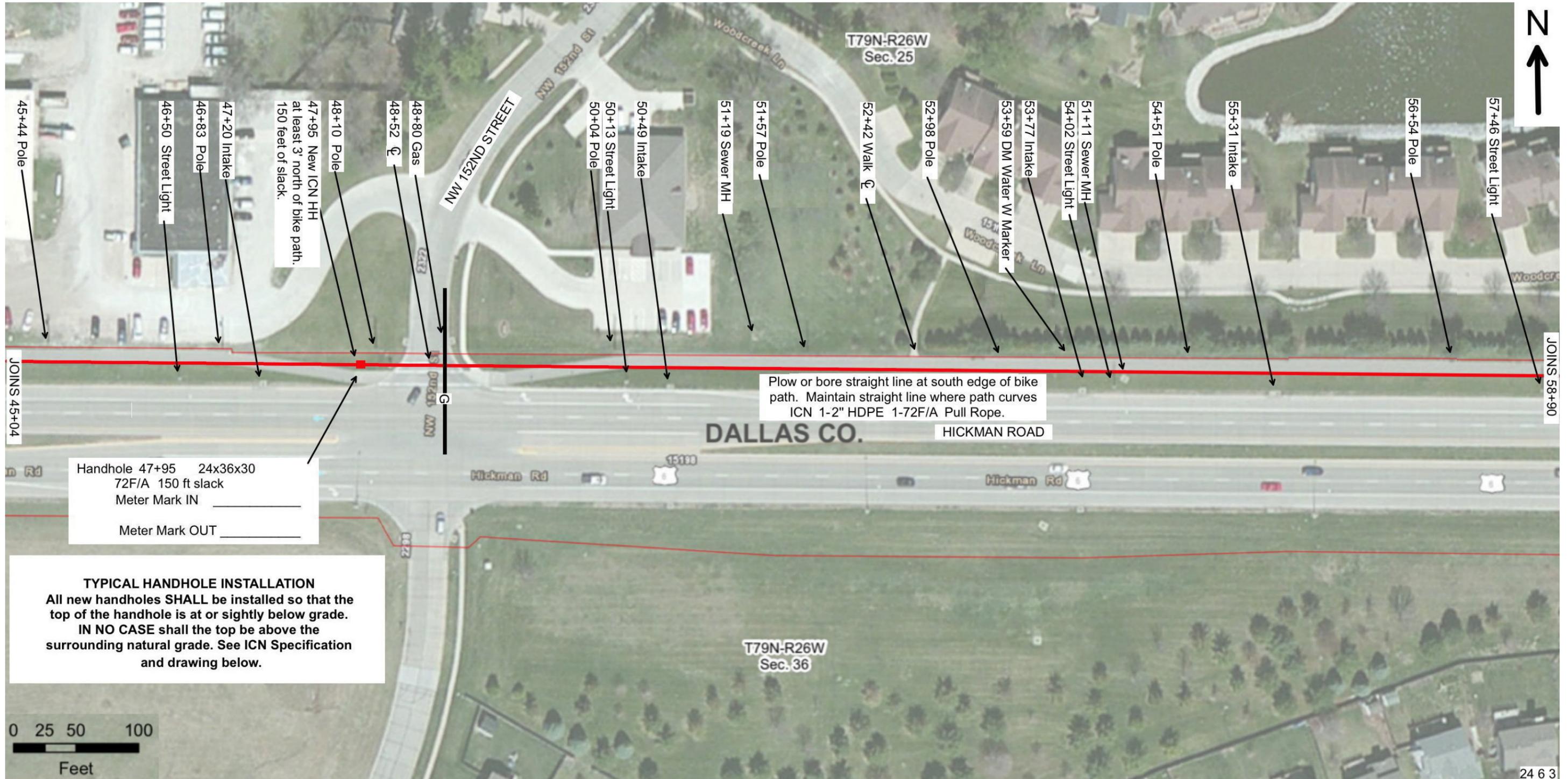
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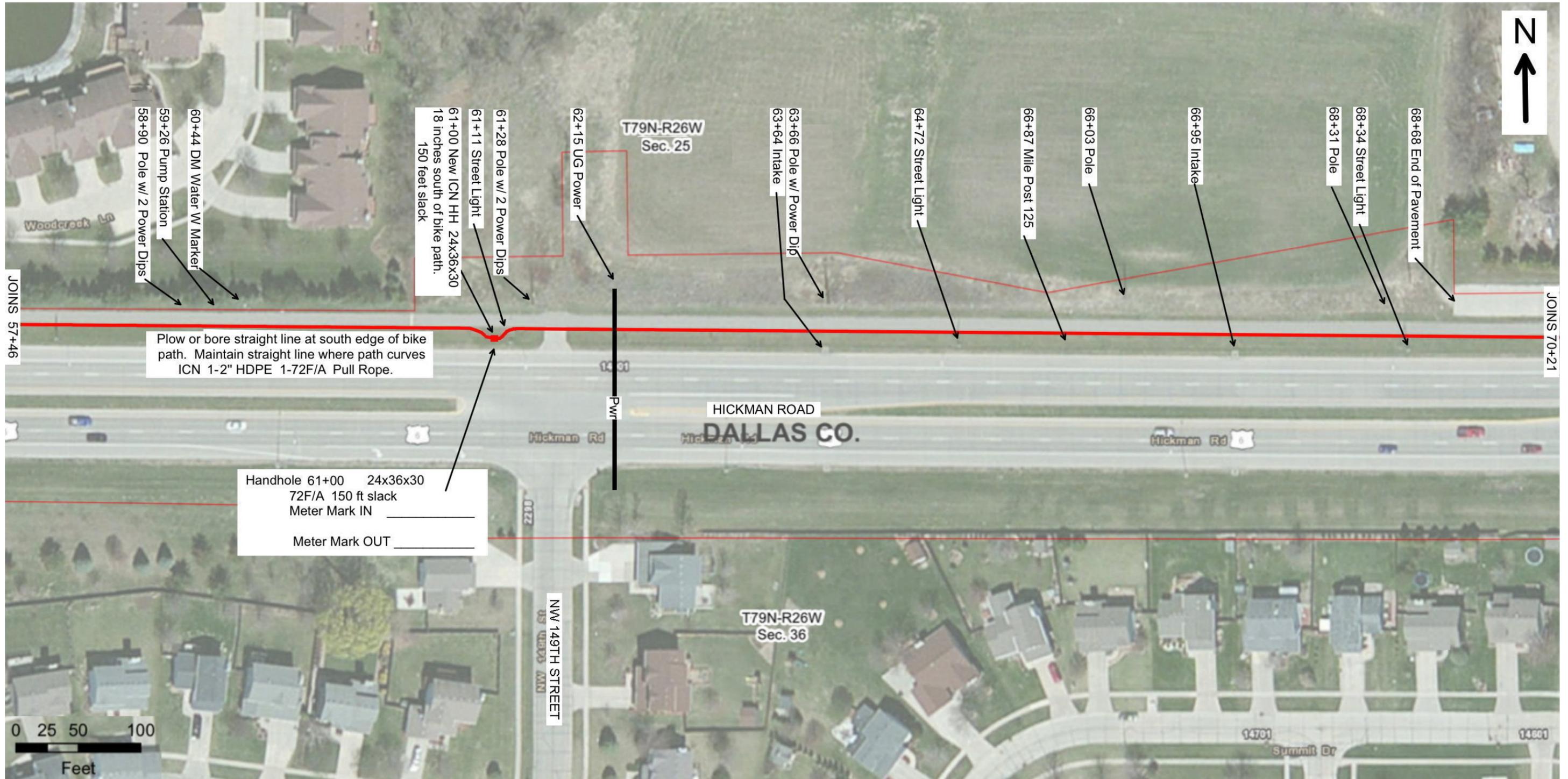
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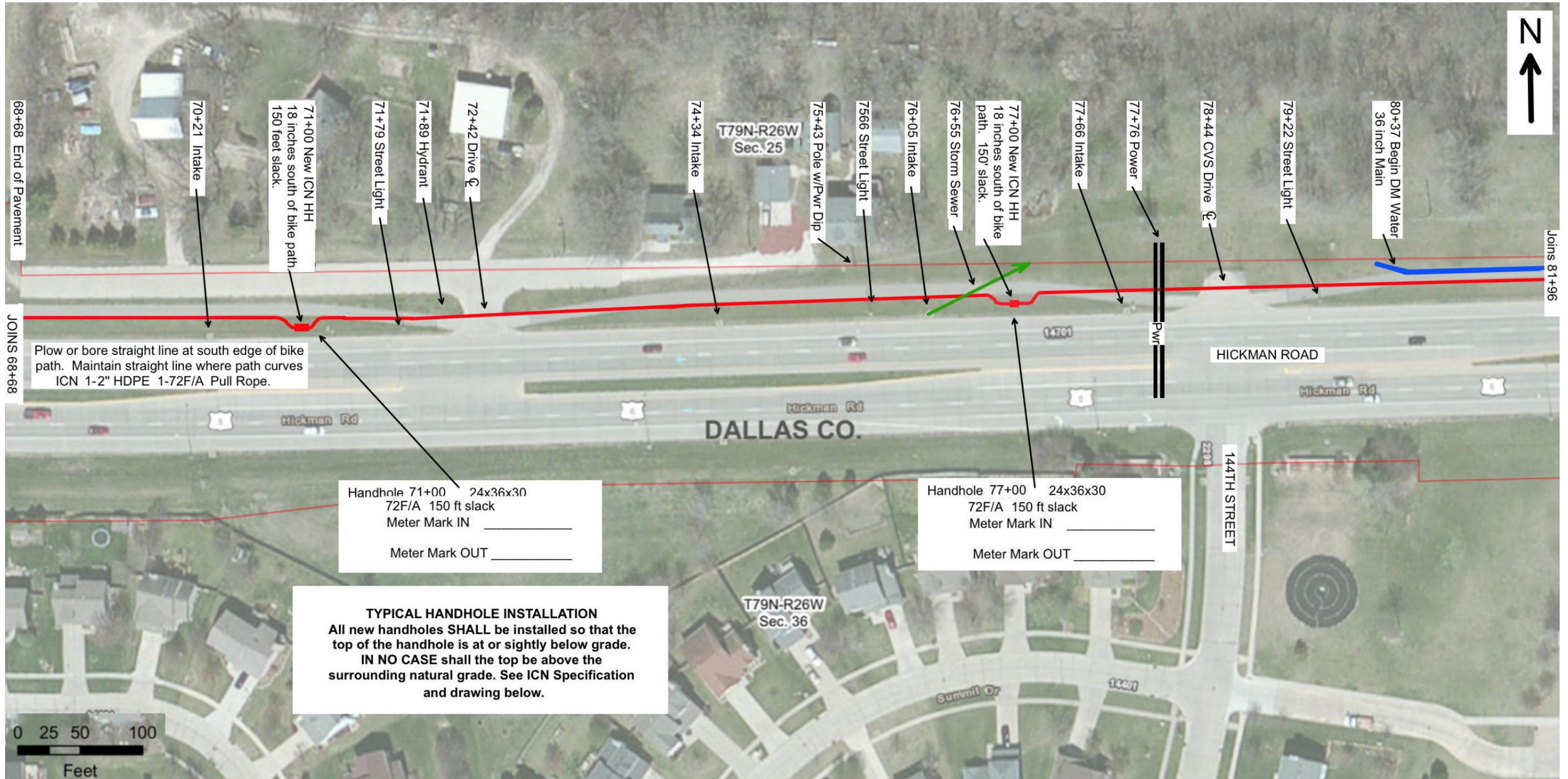

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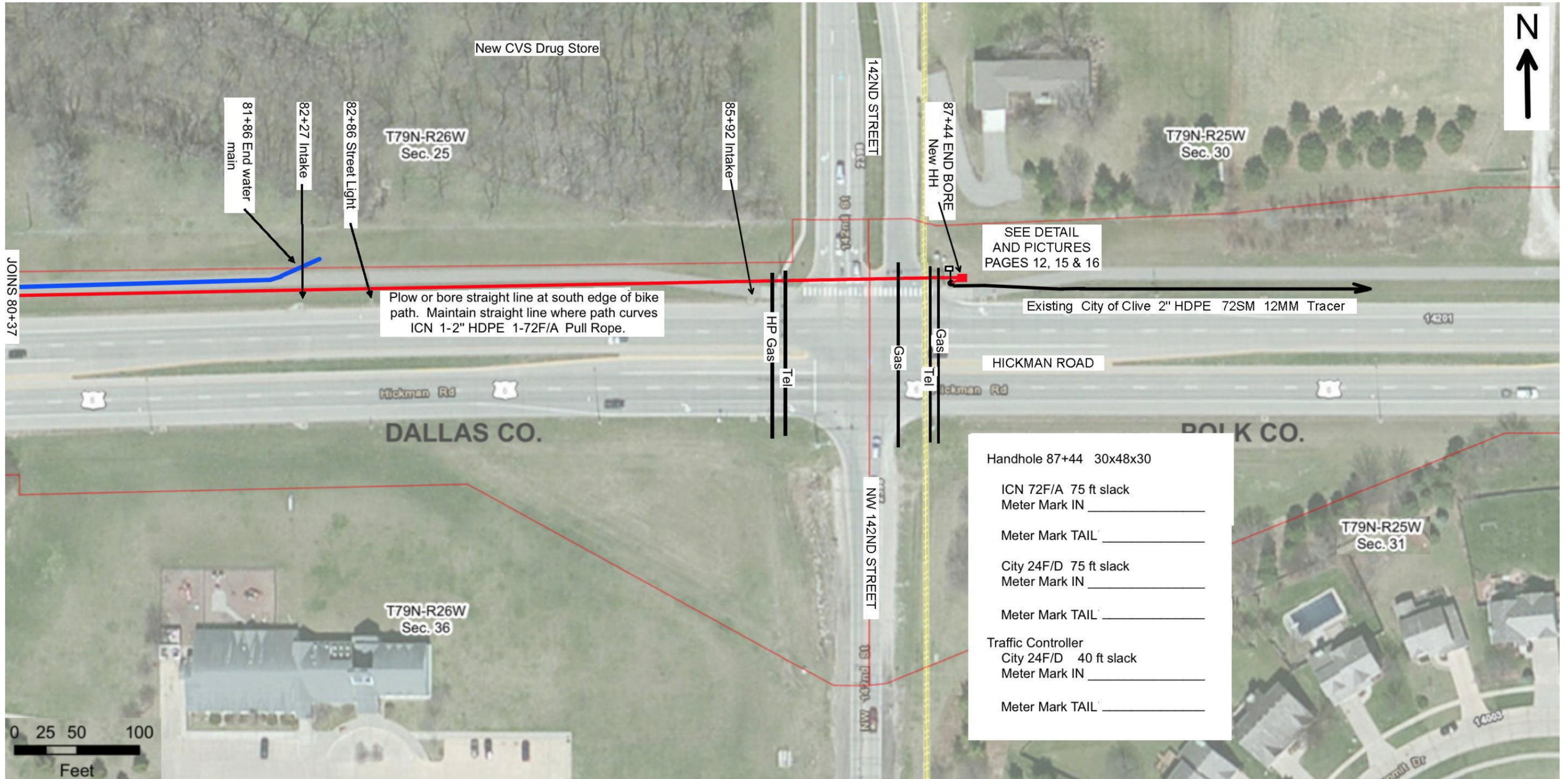

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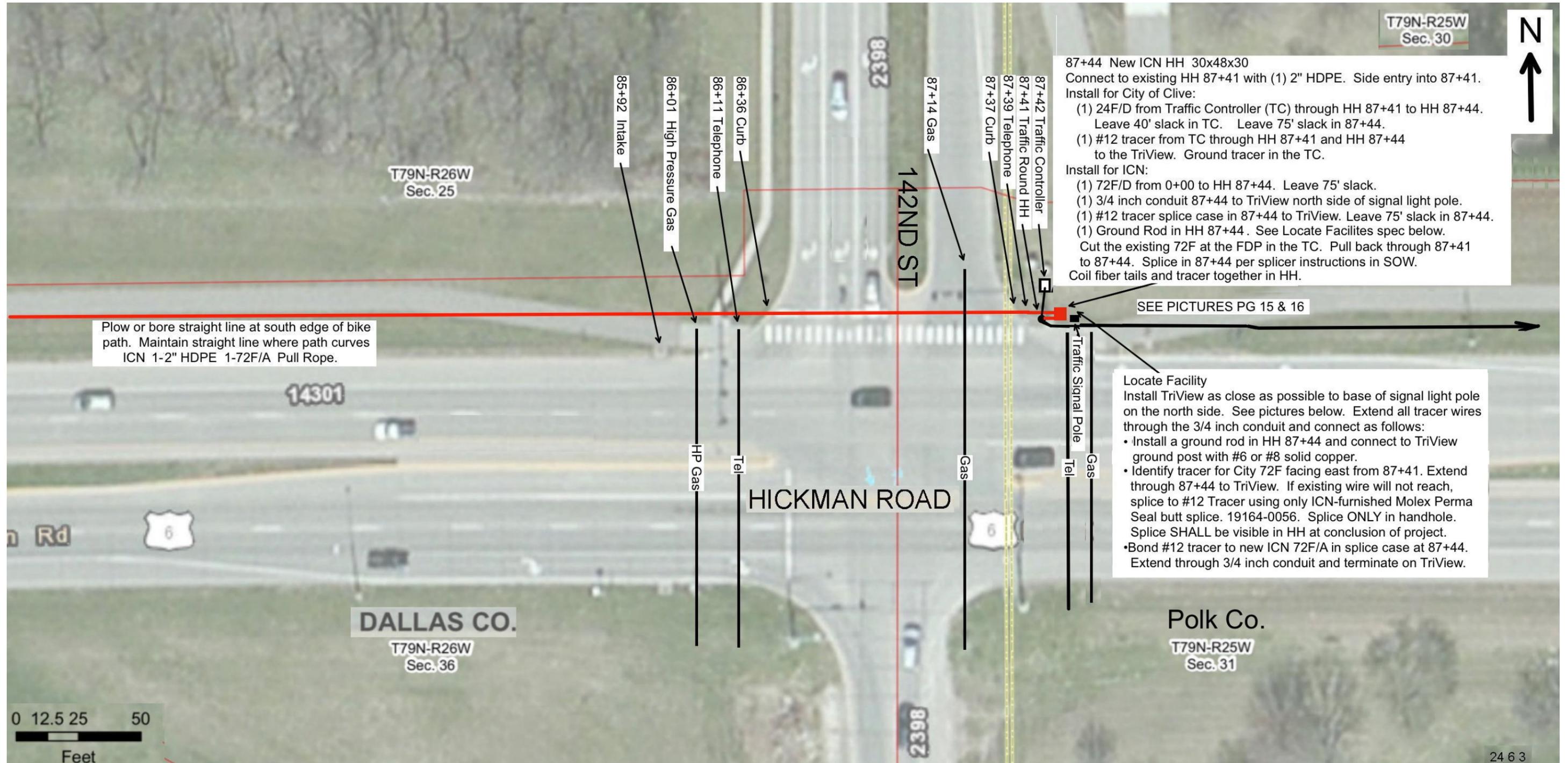
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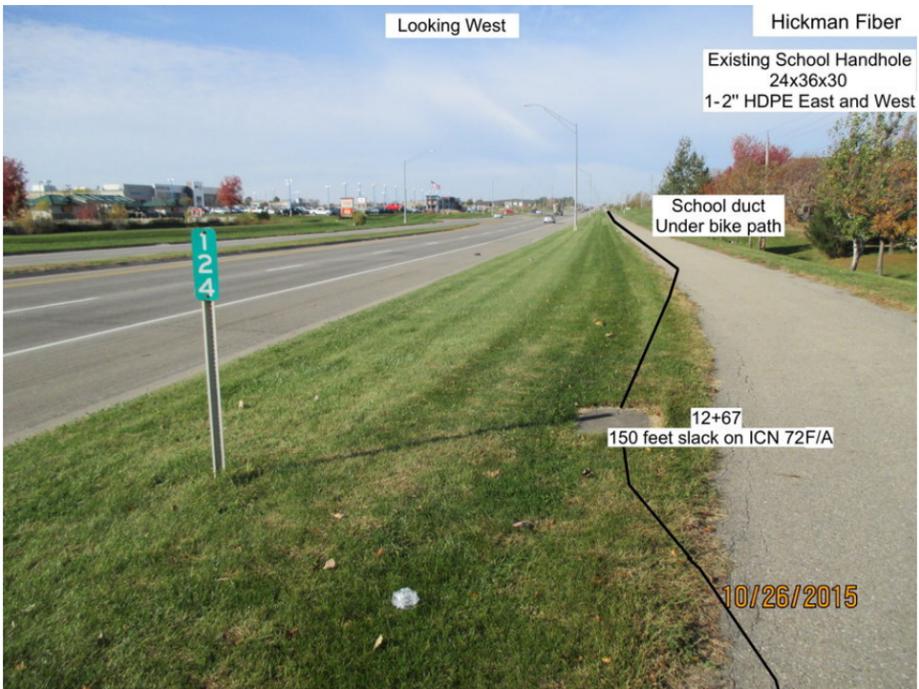
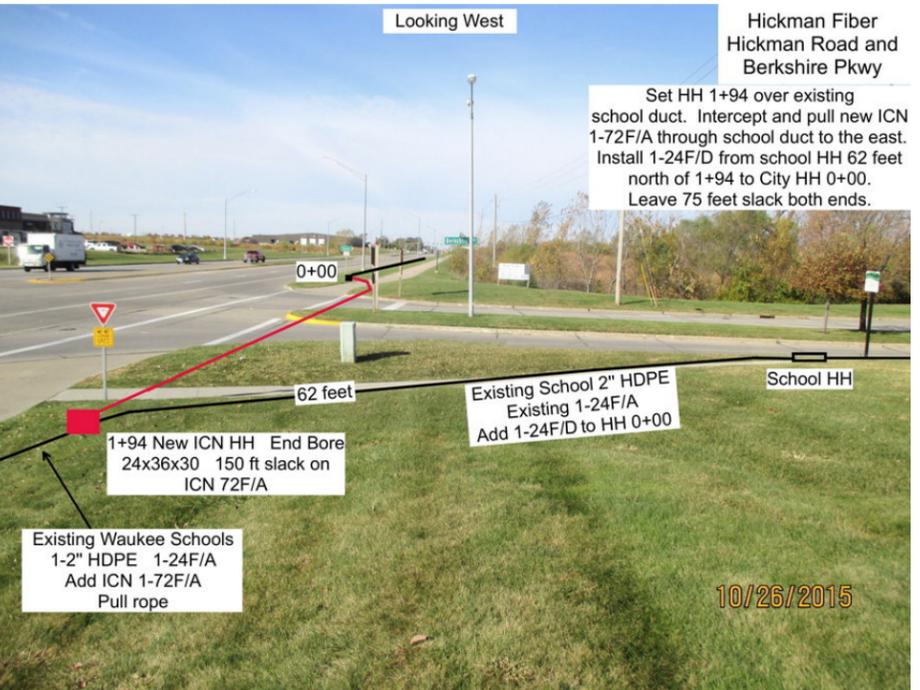
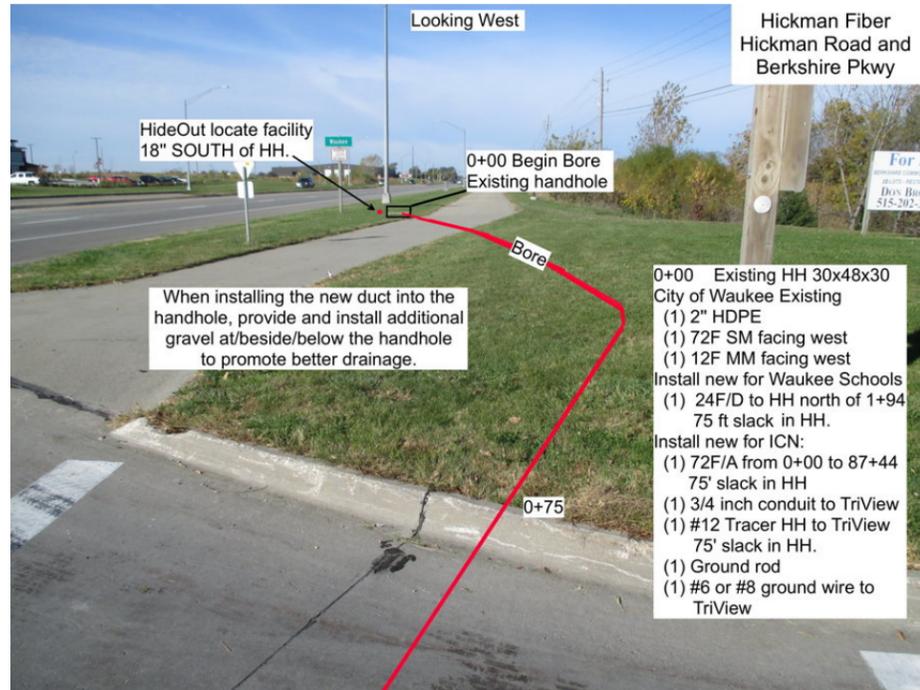
Detail – Hickman Road and 142nd Street



87+44 New ICN HH 30x48x30
 Connect to existing HH 87+41 with (1) 2" HDPE. Side entry into 87+41.
 Install for City of Clive:
 (1) 24F/D from Traffic Controller (TC) through HH 87+41 to HH 87+44.
 Leave 40' slack in TC. Leave 75' slack in 87+44.
 (1) #12 tracer from TC through HH 87+41 and HH 87+44
 to the TriView. Ground tracer in the TC.
 Install for ICN:
 (1) 72F/D from 0+00 to HH 87+44. Leave 75' slack.
 (1) 3/4 inch conduit 87+44 to TriView north side of signal light pole.
 (1) #12 tracer splice case in 87+44 to TriView. Leave 75' slack in 87+44.
 (1) Ground Rod in HH 87+44. See Locate Facilities spec below.
 Cut the existing 72F at the FDP in the TC. Pull back through 87+41
 to 87+44. Splice in 87+44 per splicer instructions in SOW.
 Coil fiber tails and tracer together in HH.

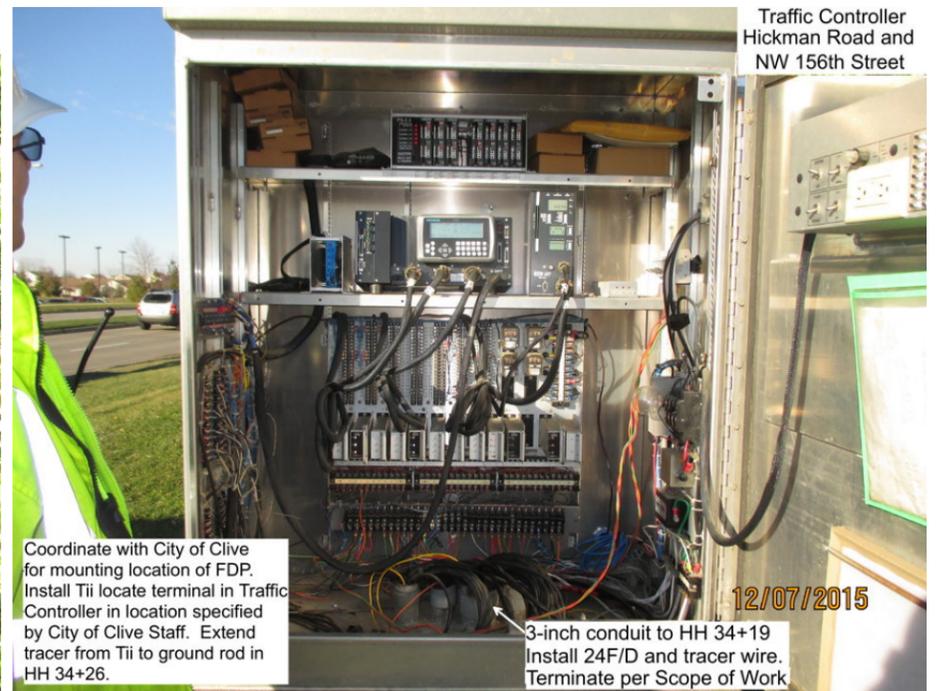
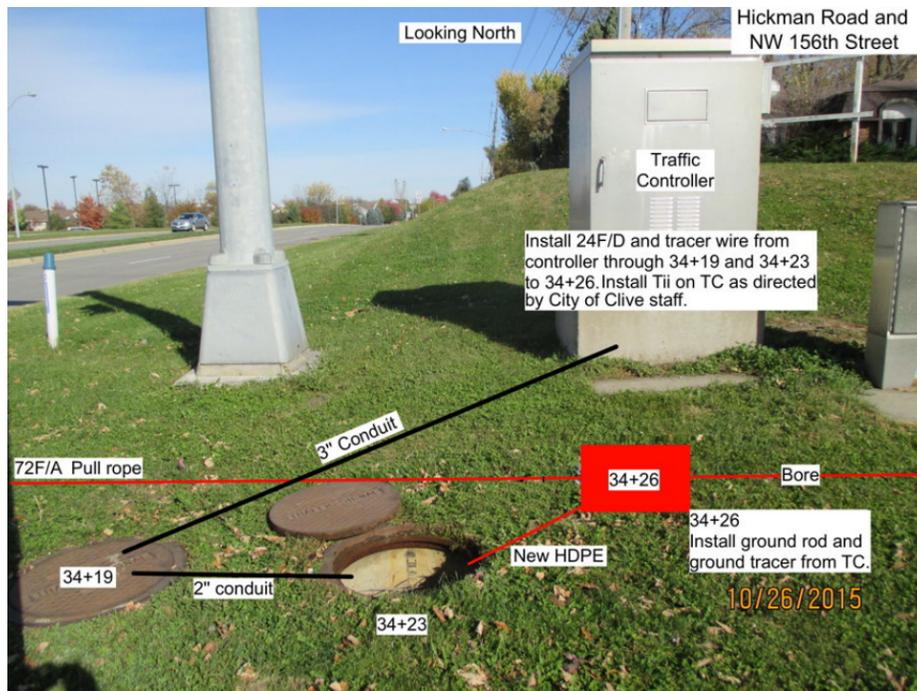
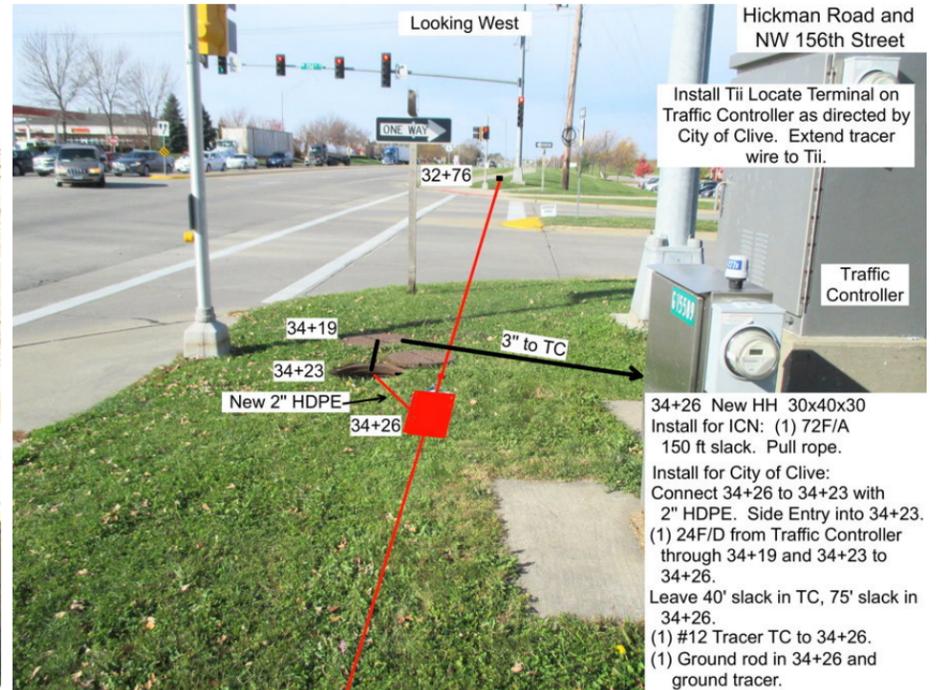
Locate Facility
 Install TriView as close as possible to base of signal light pole
 on the north side. See pictures below. Extend all tracer wires
 through the 3/4 inch conduit and connect as follows:
 • Install a ground rod in HH 87+44 and connect to TriView
 ground post with #6 or #8 solid copper.
 • Identify tracer for City 72F facing east from 87+41. Extend
 through 87+44 to TriView. If existing wire will not reach,
 splice to #12 Tracer using only ICN-furnished Molex Perma
 Seal butt splice. 19164-0056. Splice ONLY in handhole.
 Splice SHALL be visible in HH at conclusion of project.
 • Bond #12 tracer to new ICN 72F/A in splice case at 87+44.
 Extend through 3/4 inch conduit and terminate on TriView.

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1	Initial Drawing	10/30/15	5		
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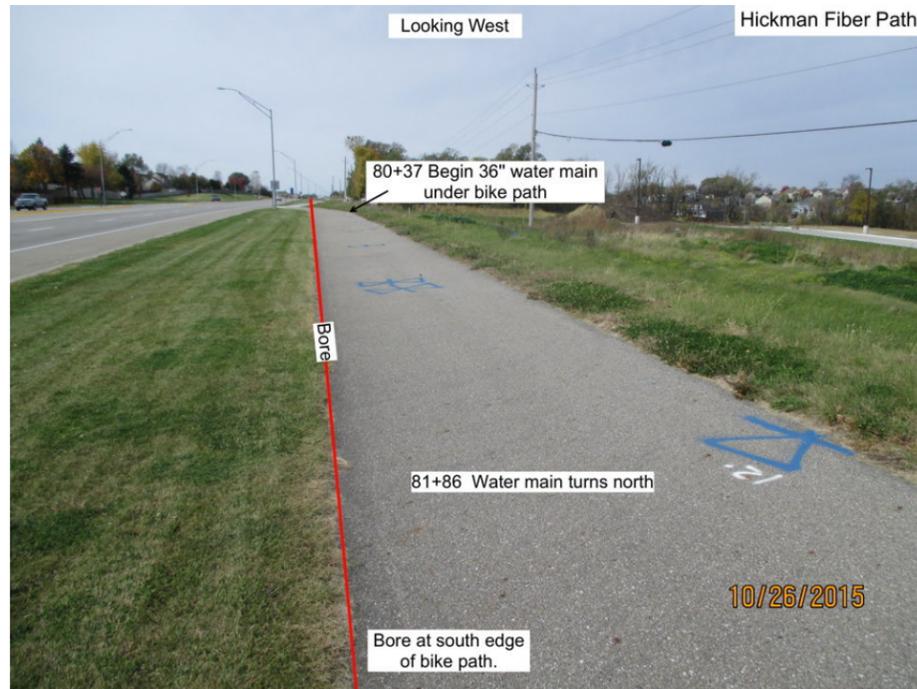
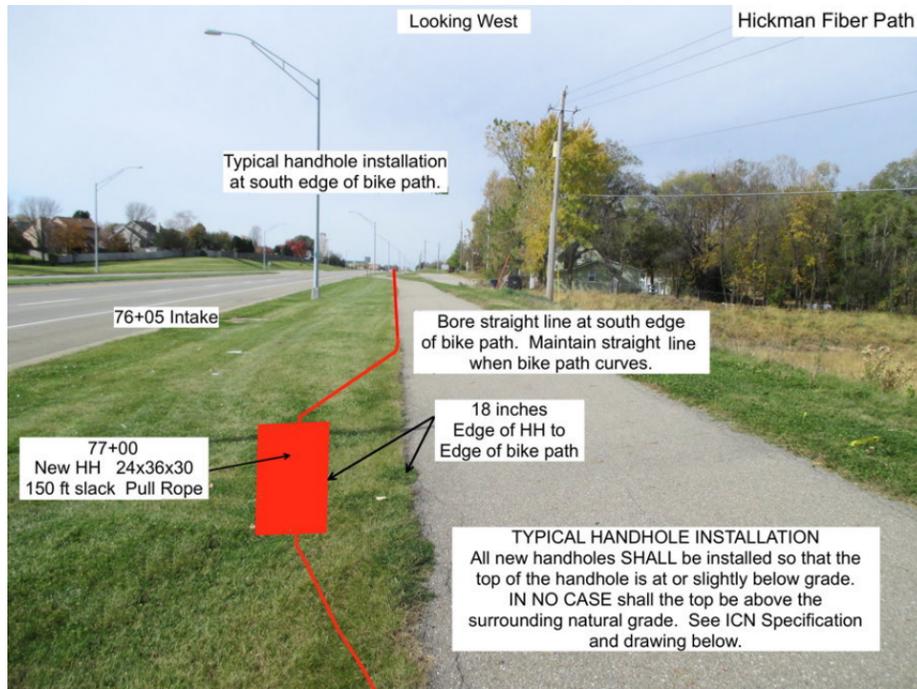
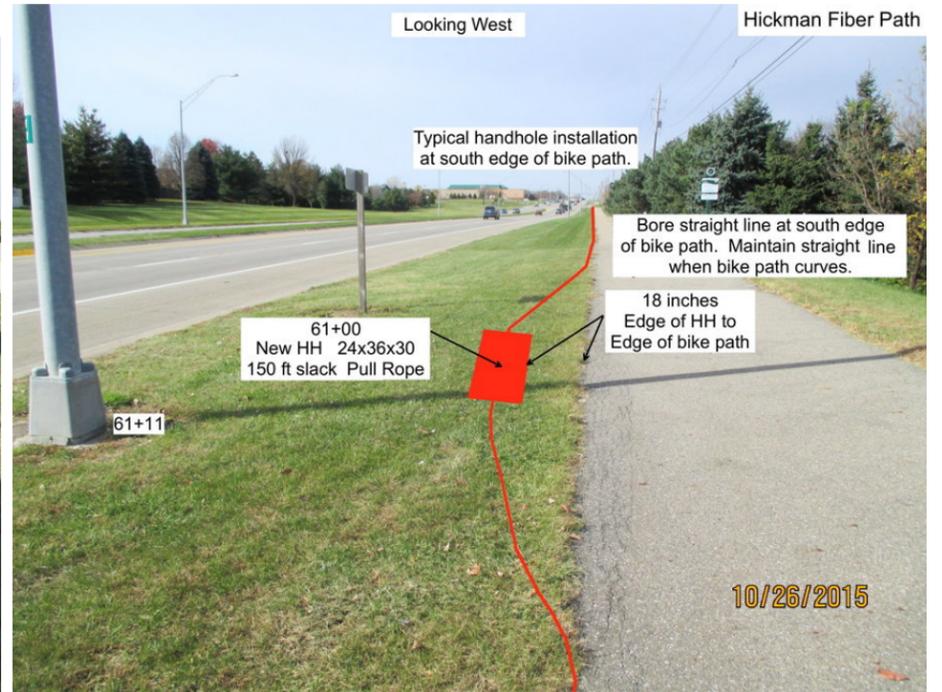
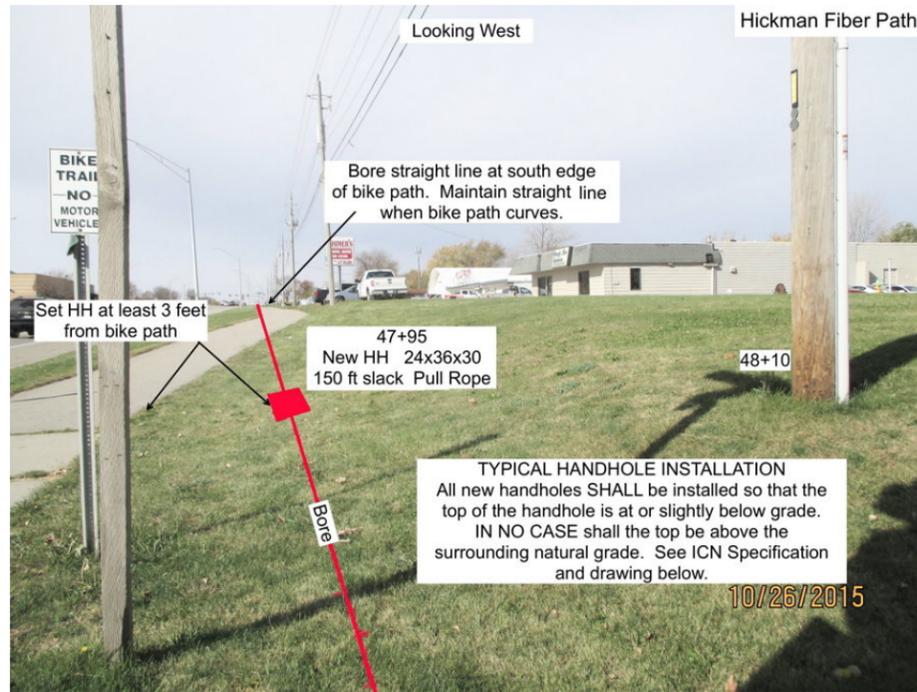
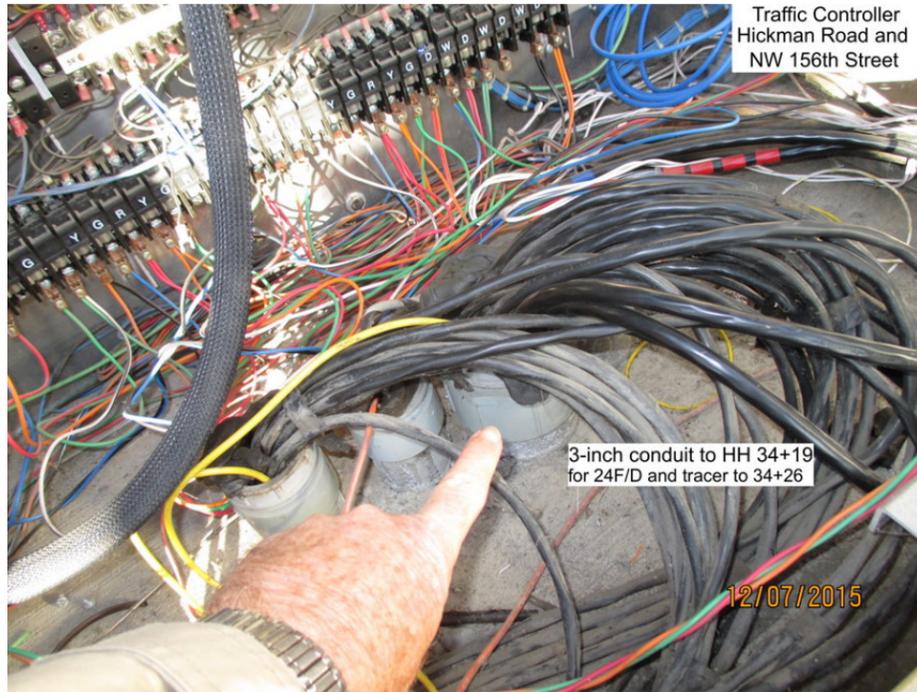
SIZE: 11 17 Page 13 of 19



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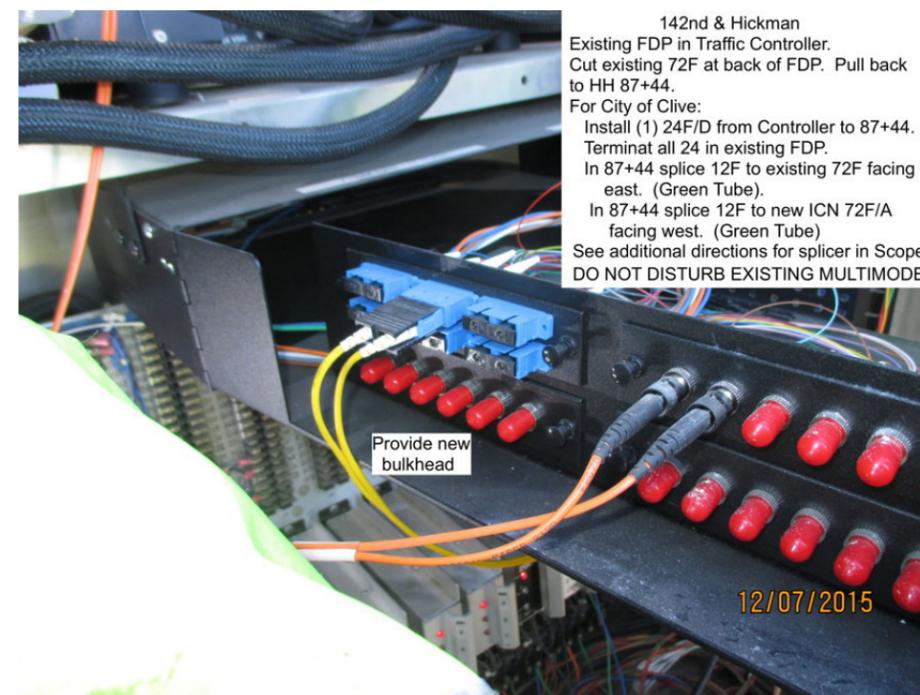
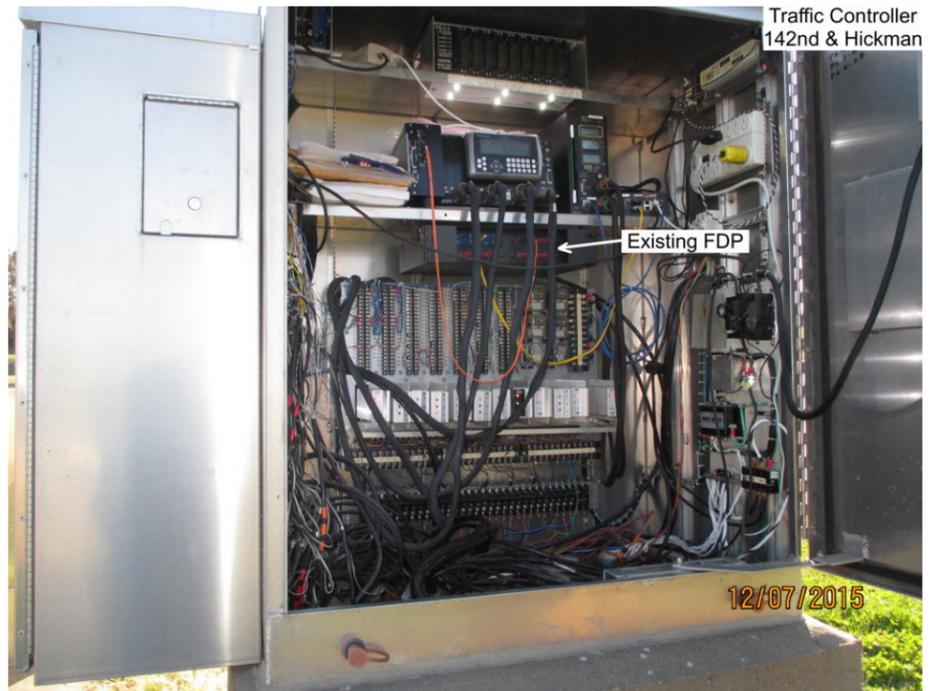
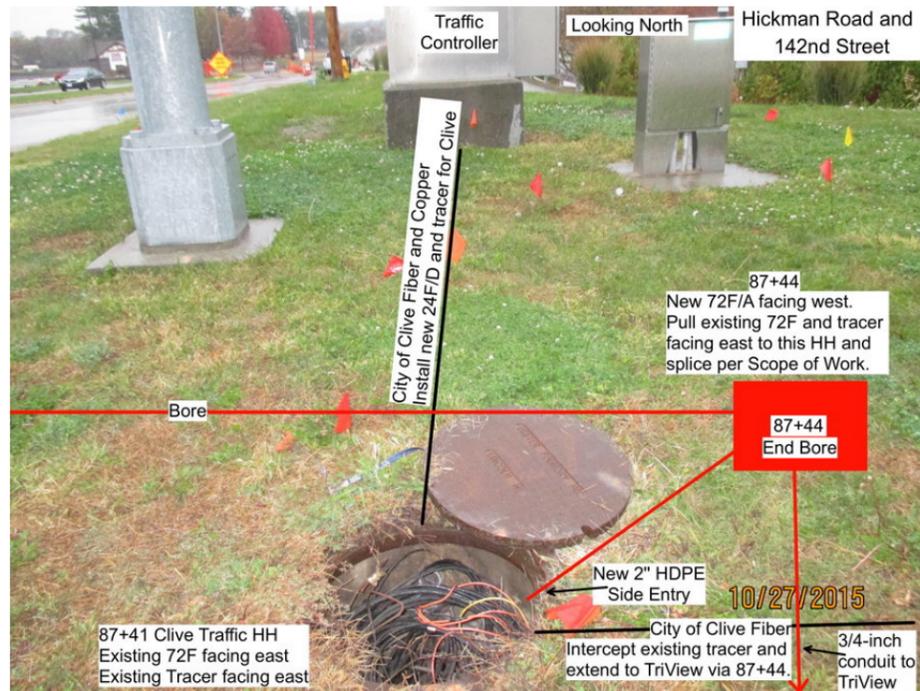
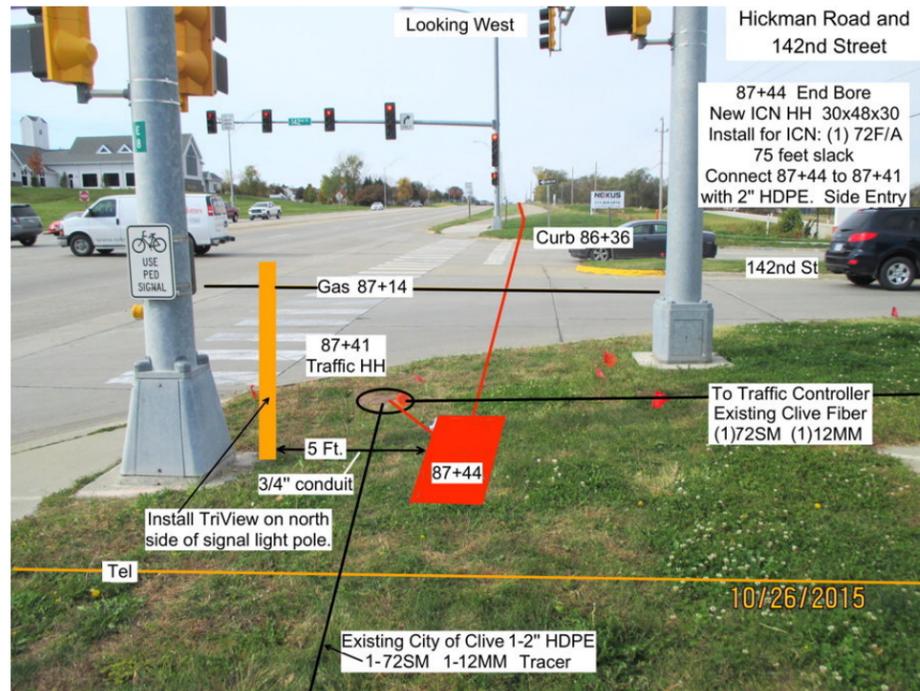
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1	Initial Drawing	10/30/15	5		
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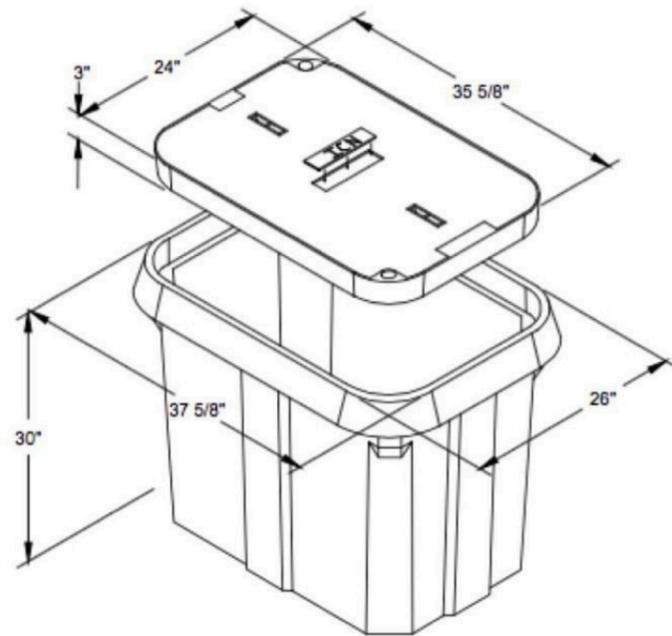
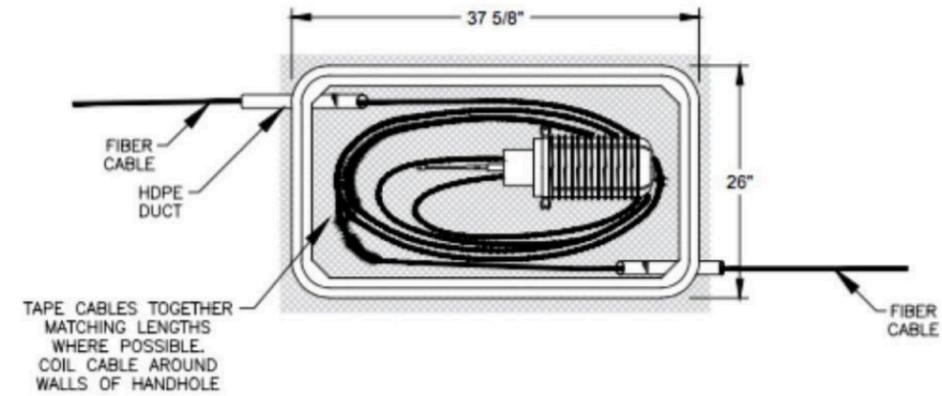
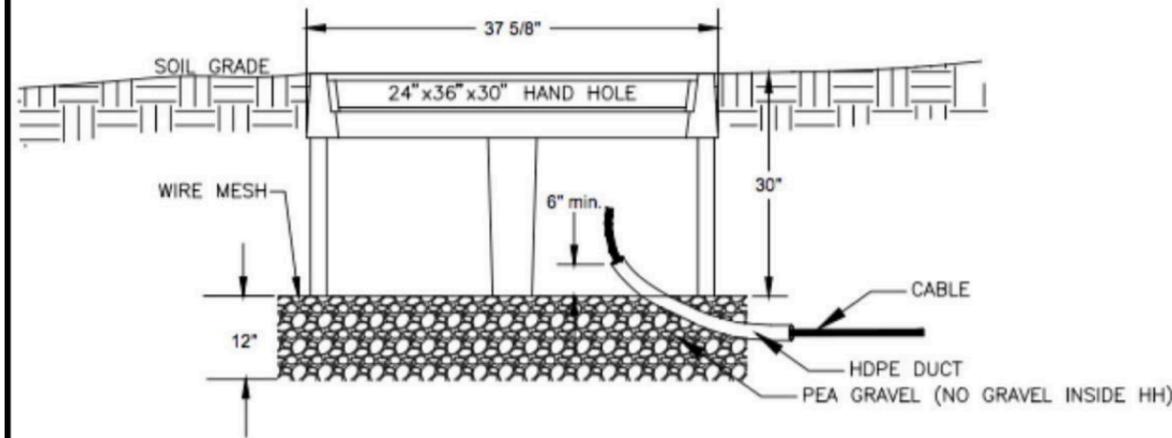


1	Initial Drawing	10/30/15	5		
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HANDHOLE PLACEMENT - TRACER WIRE TERMINATION - TYPICAL

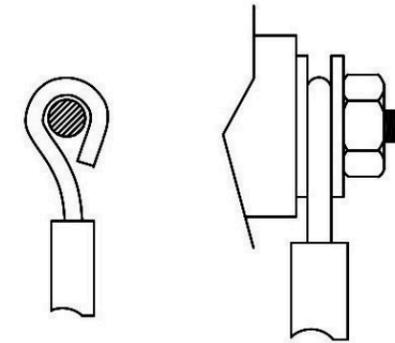
24" X 36" X 30" NEW BASIS HAND HOLE



TRACER WIRE TERMINATION DETAIL

Termination of the locate wire at either a pedestal, puck, or in a splice case shall be made in the following fashion:

Strip off a minimum of 3/4" of insulation. Using a needle nose pliers bend a wire "eyelet" on the wire end in a clockwise manner. Use a flat washer on both sides of the wire eyelet when cinching it down on the stud. Flat washers shall be of appropriate size such that the hole matches the diameter of the stud and the outside diameter of the flat washer matches reasonably close to the eyelet diameter.



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Address: Berkshire Pkwy to NW142nd St.
OSP Number: 25160205

1	Initial Drawing	10/30/15	5		
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TYPICAL INSTALLATION OF HIDE-OUT LOCATE PEDESTAL

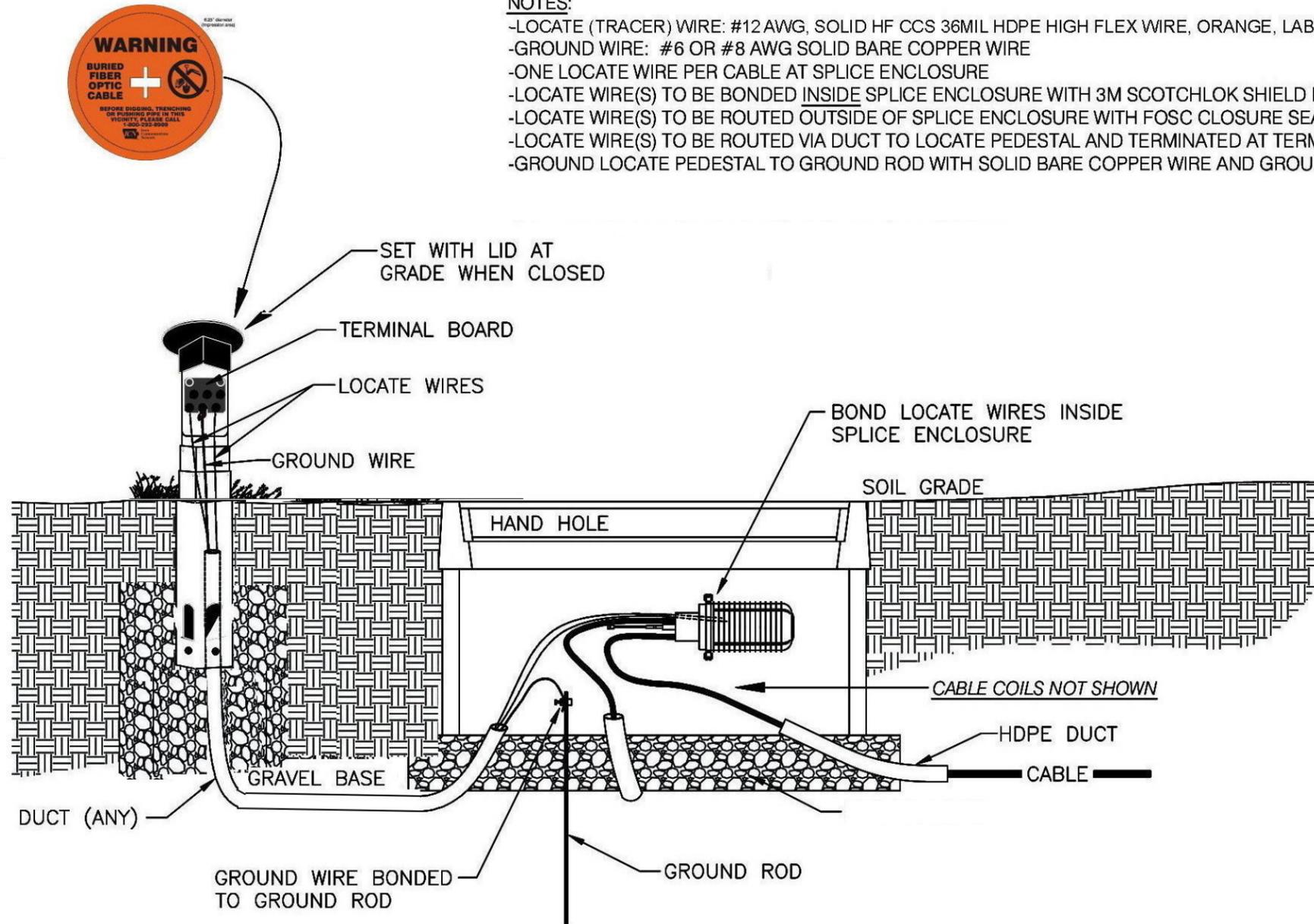
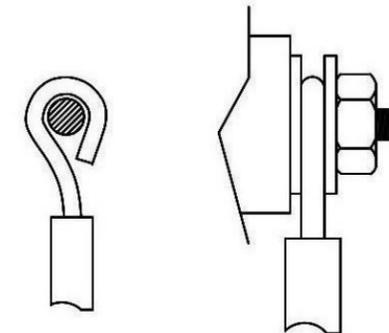
NOTES:

- LOCATE (TRACER) WIRE: #12 AWG, SOLID HF CCS 36MIL HDPE HIGH FLEX WIRE, ORANGE, LABELED "CAUTION COMMUNICATION LINE"
- GROUND WIRE: #6 OR #8 AWG SOLID BARE COPPER WIRE
- ONE LOCATE WIRE PER CABLE AT SPLICE ENCLOSURE
- LOCATE WIRE(S) TO BE BONDED INSIDE SPLICE ENCLOSURE WITH 3M SCOTCHLOK SHIELD BONDING KIT
- LOCATE WIRE(S) TO BE ROUTED OUTSIDE OF SPLICE ENCLOSURE WITH FOSC CLOSURE SEALING KIT
- LOCATE WIRE(S) TO BE ROUTED VIA DUCT TO LOCATE PEDESTAL AND TERMINATED AT TERMINAL BOARD
- GROUND LOCATE PEDESTAL TO GROUND ROD WITH SOLID BARE COPPER WIRE AND GROUND CLAMP

TRACER WIRE TERMINATION DETAIL

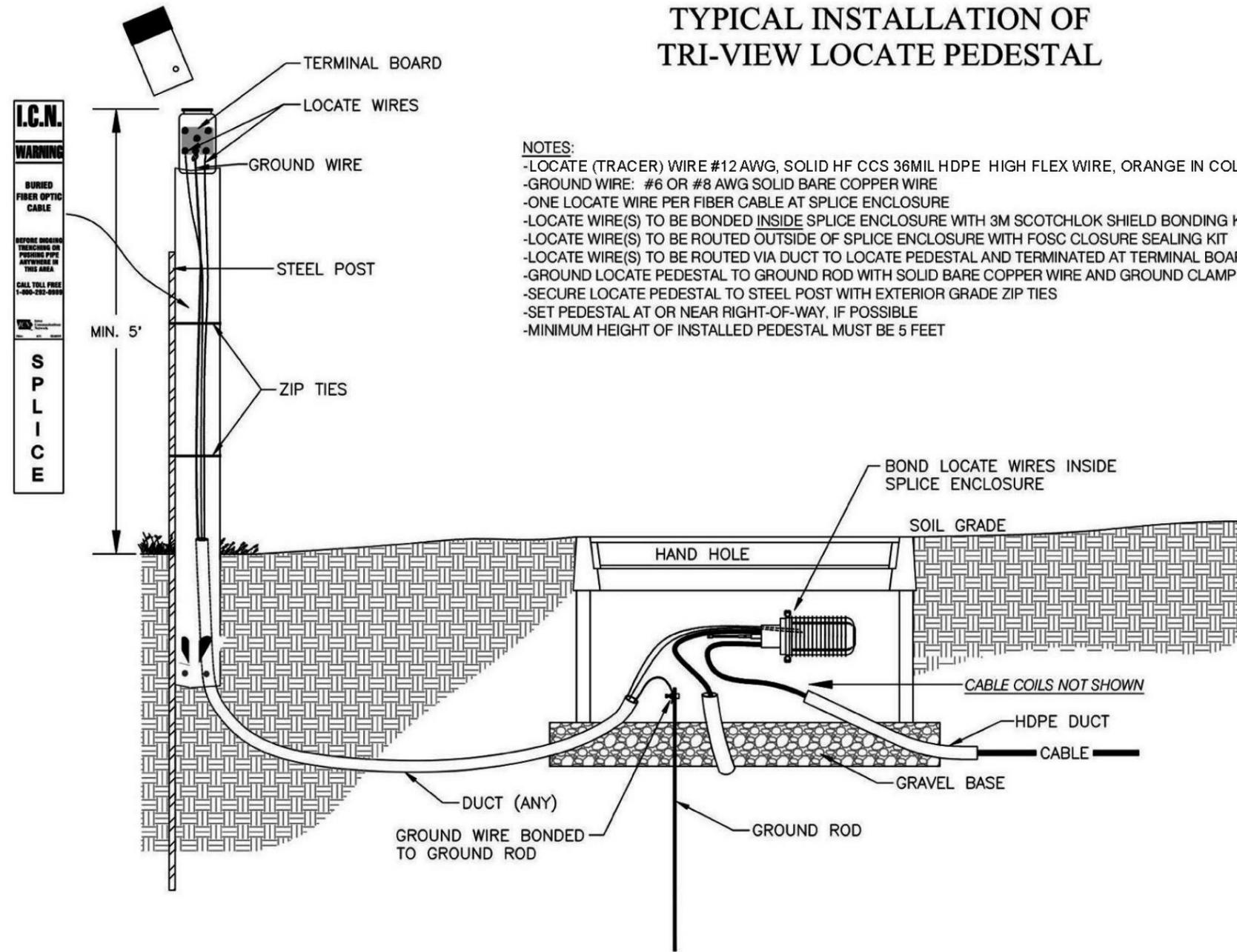
Termination of the locate wire at either a pedestal, puck, or in a splice case shall be made in the following fashion:

Strip off a minimum of 3/4" of insulation. Using a needle nose pliers bend a wire "eyelet" on the wire end in a clockwise manner. Use a flat washer on both sides of the wire eyelet when cinching it down on the stud. Flat washers shall be of appropriate size such that the hole matches the diameter of the stud and the outside diameter of the flat washer matches reasonably close to the eyelet diameter.



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TYPICAL INSTALLATION OF TRI-VIEW LOCATE PEDESTAL

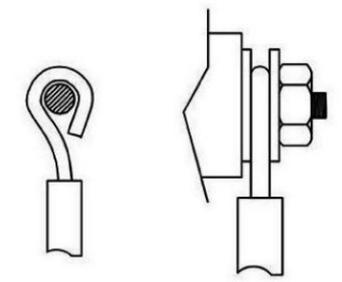


- NOTES:**
- LOCATE (TRACER) WIRE #12 AWG, SOLID HF CCS 36MIL HDPE HIGH FLEX WIRE, ORANGE IN COLOR, LABELED "CAUTION COMMUNICATIONS LINE"
 - GROUND WIRE: #6 OR #8 AWG SOLID BARE COPPER WIRE
 - ONE LOCATE WIRE PER FIBER CABLE AT SPLICE ENCLOSURE
 - LOCATE WIRE(S) TO BE BONDED INSIDE SPLICE ENCLOSURE WITH 3M SCOTCHLOK SHIELD BONDING KIT
 - LOCATE WIRE(S) TO BE ROUTED OUTSIDE OF SPLICE ENCLOSURE WITH FOSC CLOSURE SEALING KIT
 - LOCATE WIRE(S) TO BE ROUTED VIA DUCT TO LOCATE PEDESTAL AND TERMINATED AT TERMINAL BOARD
 - GROUND LOCATE PEDESTAL TO GROUND ROD WITH SOLID BARE COPPER WIRE AND GROUND CLAMP
 - SECURE LOCATE PEDESTAL TO STEEL POST WITH EXTERIOR GRADE ZIP TIES
 - SET PEDESTAL AT OR NEAR RIGHT-OF-WAY, IF POSSIBLE
 - MINIMUM HEIGHT OF INSTALLED PEDESTAL MUST BE 5 FEET

TRACER WIRE TERMINATION DETAIL

Termination of the locate wire at either a pedestal, puck, or in a splice case shall be made in the following fashion:

Strip off a minimum of 3/4" of insulation. Using a needle nose pliers bend a wire "eyelet" on the wire end in a clockwise manner. Use a flat washer on both sides of the wire eyelet when cinching it down on the stud. Flat washers shall be of appropriate size such that the hole matches the diameter of the stud and the outside diameter of the flat washer matches reasonably close to the eyelet diameter.



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