CITY OF MADISON - BARTILLON SHELTER CONNECTION

PROJECT OWNER:
CITY OF MADISON
TALETHA SKAR
210 MARTIN LUTHER KING BLVD RM 500
MADISON, WI 53703

PROJECT ENGINEER:
MULTIMEDIA COMMUNICATIONS & ENGINEERING, INC.
CONTACT: DAN BECKER
FIBER OPTIC NETWORK SPECIALIST
PO BOX 11064
GREEN BAY, WI 54307
PH. 920-301-7900 EXT. 1002
EMAIL: dbecker@mcewi.com

DESIGNED BY:
MULTIMEDIA COMMUNICATIONS & ENGINEERING, INC.
CONTACT: MINDY METOXEN
OSP DESIGN ENGINEER
PH. 920-301-7900 EXT. 1008
EMAIL: mmetoxen@mcewi.com

PERMITS REQUIRED:
SHEETS 1-2: CITY OF MADISON RIGHT OF WAY PERMIT
SHEETS 1-10: WISDOT HIGHWAY PERMIT

TABLE OF CONTENTS:

Project Location
City of Madison, WI

COORDINATE SYSTEM: HARN/WI.DaneWI-F

Legend

- = Telco
- = Cable TV
- = Electric
- = Gas
- = Water
- = Sanitary Sewer
- = Storm Sewer
- = Private Fiber Optic
- = New Underground Fiber
- = Existing Underground Fiber
- = New Handhole
- = Existing Handhole
- = Locate Station
- = Fiber Ped
- = Electric Ped
- = Telco Ped
- = Cable TV Ped
- = Traffic Control Box
- = Electric Transformer
- = Gas Valve
- = Water Valve
- = Fire Hydrant
- = Catch Basin
- = Round Catch Basin
- = Manhole
- = Utility Pole
- = Power Pole
- = Power Transformer Pole
- = Street Light
- = Pole Anchor
- = Aerial Fiber
- = Overhead Guy
- = Aerial Expansion Loop
- = Aerial Splice
- = Standoff
- = Culvert
- = Railroad Light
- = Traffic Light
- = Pull Box
- = Tree

Typical Install Depth is 36"

DIGGERS HOTLINE

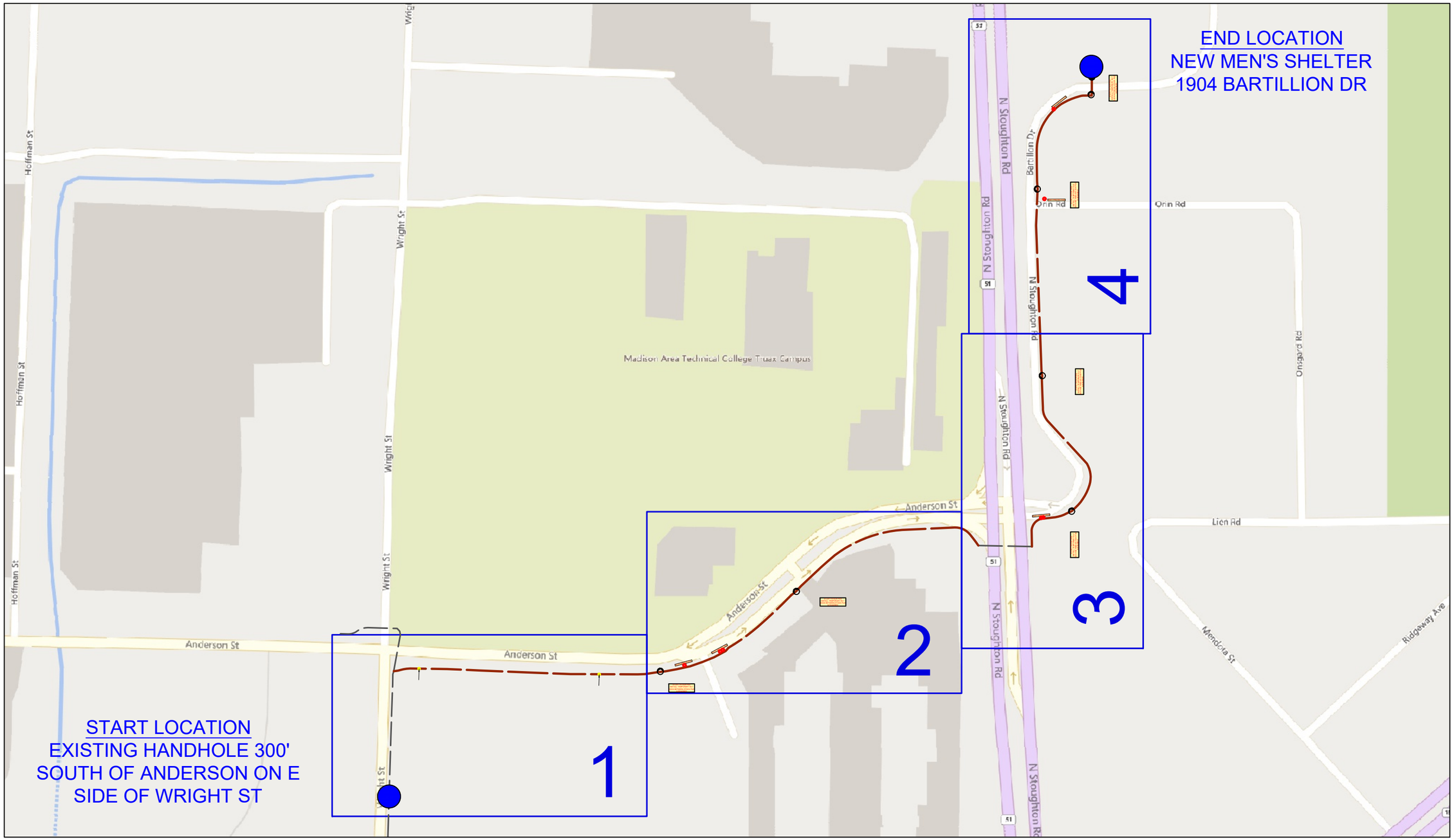
CALL DIGGERS HOTLINE 3 DAYS BEFORE DIGGING:
AT 811 OR (800) 242-8511
EMERGENCY ONLY: (262) 432-7910

ALL UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. UTILITY INFORMATION WAS PROVIDED IN RESPONSE TO PLANNING LOCATE REQUESTS. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF MUNICIPAL AND PRIVATE UTILITIES; COMPLETE REPAIR OF ANY AND ALL DAMAGES & RESTORATION INCURRED SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FACILITY PLACEMENT SUBJECT TO CHANGE UPON FIELD LOCATE COMPLETION.

RIGHTS-OF-WAY ARE DEPICTED BASED ON FIELD OBSERVATIONS AND THE LATEST STATE AND COUNTY RECORDS AVAILABLE.

DISCLAIMER:
Locations are approximate. This data has been prepared, in part, based upon information furnished by others. While this information is believed to be reliable, Multimedia Communications & Engineering, Inc. (MC&E) assumes no responsibility for the accuracy of this data or for any errors or omissions that may have been incorporated into it as a result of incorrect information provided to MC&E. Those relying on this data are advised to obtain independent verification of its accuracy.
Tickets -
20234117371 - ATT01, MATC01, TDM01: No response
20234502190 - ATT01, MATC01, TDM01, GLA01: No response
20234177182 - ATT01, MATC01, TDM01, GLA01, MCI01: No response
20234117326 - ATT01, MATC01, TDM01, GLA01: No response

WISCONSIN
ZAHOOR AHMAD
E-48760-6
WEST BEND WIS.
PROFESSIONAL ENGINEER
02/02/2024



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Scale: NTS ANSI B/Tabloid

CITY OF MADISON
BARTILLON SHELTER CONNECTION

SHEET GROUP: OVERVIEW

SHEET ID: OV1

Print Date: 6.27.2025

EXCAVATIONS

Excavations shall not remain open in excess of 24 hours unless specific permission is obtained from the City Engineer.

All excavations and trenches shall be covered and/or properly barricaded after working hours and over the weekend.

In all streets, alleys, sidewalks or other public ways, whether improved or unimproved, all excavated material shall be removed and the trench shall be backfilled with flow-able filled slurry mix.

At no time can spoils or other debris be stored or piled in the street gutter.

Excavation stock piling must remain within the public right of way and cannot be placed on or impede any roadways, driveways, sidewalks, or fire hydrants. Any areas that have minimal public right of way available must stock pile the excavated material on a truck bed or trailer. No stock piling of excavated material will be allowed on private property.

Excavations are to remain outside of wetland areas. All excavations must have proper erosion control practices to prevent stock piled materials from entering wetland areas.

Excavations are to remain 75' from the high-water mark of and waterway. Any excavations must have proper erosion control practices to prevent stock piled materials from entering waterways.

EROSION CONTROL PLAN

Any open excavations, construction areas or standing debris piles that pose the threat debris runoff will require erosion control practices such as placing silt socks, placing hay bales, or placing silt fencing downill of the area.

The Contractor must employ the following good housekeeping practices that will prevent the ingress of any excavated materials into the Municipal storm water system:

1) Cover Storm Sewer Inlet with DOT Filter Fabric (DOT Type FF, not felt or silt fence material) near areas where excavation and directional drilling operations occur. DOT Type C Inlet protection standards apply (2x4 across back of inlet with DOT Filter Fabric over inlet held in place by inlet cover). Type D Inlet Protection including waddles (fiber filled filter socks) around drains to prevent debris from entering the storm sewer system are required at any low area inlets.

2) Place Silt Fence Barrier around excavation per below typical specification Diagram. Silt Fence to be inspected prior to excavation.

3) Place silt sock Barrier around Spoils to prevent runoff ingress into Storm Water Management System.

4) Protect graded restoration area using fibrous matting to prevent erosion into Storm Water Management System

5) Place temporary soil stabilization materials to prevent erosion into Storm Water Management System.

All erosion control measures shall be inspected on a weekly basis and/or after ½" or more of rainfall to ensure the effectiveness of the erosion control measures.

DEWATERING

Dewatering of pits, trenches, handholes, or manholes must be done with the use of a sediment bag, a straw bale dewatering basin, or approved equivalent. All dewatering procedures must meet or exceed state standards. All Vacuum Excavation spoils are to be transported and disposed of offsite at an approved dumping station. Dewatering is expected to be negligible given the depth of installation and the nature of the directional boring operations for this project.

FRAC-OUT CONTINGENCY PLAN

Boring activities and bore path are to be continually monitored to observe potential frac-outs. Erosion control materials are to be accessible and onsite should a frac-out occur. Acceptable materials include silt fence, straw bales, and sand bags. As soon as a frac-out is discovered, erosion control must immediately be implemented around the frac-out material (bentonite-water mixture). A vacuum excavation machine is to be accessible on short notice to clean any frac-out material should it occur.

RESTORATION

The Contractor may be allowed to mechanically core through hard surface streets to locate existing utilities provided that the restoration of the core be performed per the specific requirements of the Municipality or Agency having jurisdiction. Core holes must be backfilled with a slurry mixture as specified by the DOT per permitting requirements. The original Concrete or Asphalt core can then be replaced using Plug and Epoxy method.

Potholing is not allowed in ADA compliant or non-compliant pedestrian ramps. Any hard surface excavations within any pedestrian ramp panels will result in the Contractor's replacement of the entire ADA Compliant panel, along with adjacent panels at the Contractor's expense.

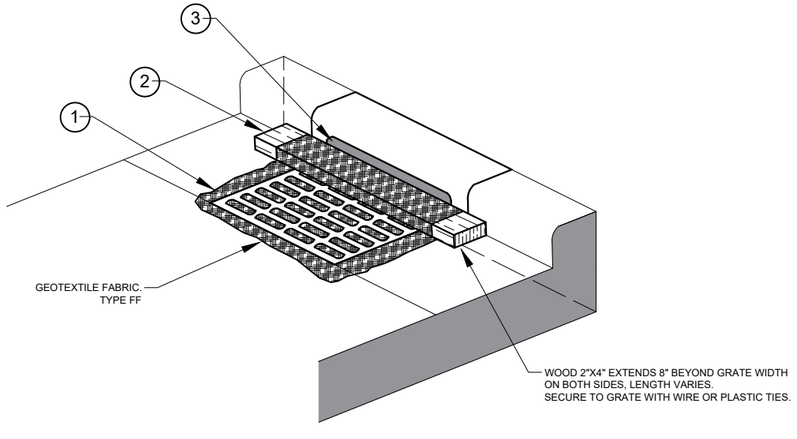
At no time can the Contractor perform any excavation that undermines the adjacent in-tact surfaces, thereby making vertical mechanical compaction impossible and creating future potential for subsurface failure. This scenario will result in the replacement of the effected hard-surface to the permitting authority's specifications.

All disturbed lawns, vegetation, flowers, shrubbery, trees, landscaping, etc. must be replaced or restored to its previous condition or better. Lawn repair will require a minimum of 4" of black dirt and municipal approved grass blends are to be applied.

All areas of restoration using Black Dirt and Seed must be protected with biodegradable net-free fibrous matting. Placement of loose straw or other materials that can be easily blown away or otherwise eroded/removed from the restored area will not be permitted. Fibrous matting materials will must be included in the Contractor Cut Sheets and approved by the Owner for use prior to placement.

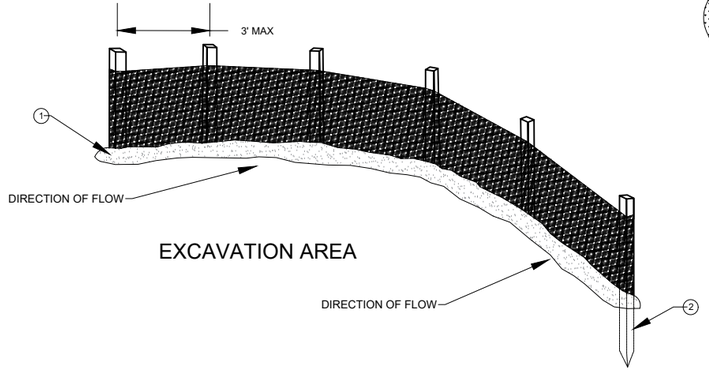
INLET PROTECTION

1. FINISHED SIZE INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES.
3. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING TO FACILITATE OVERFLOW DRAINAGE DURING HIGH WATER EVENTS.



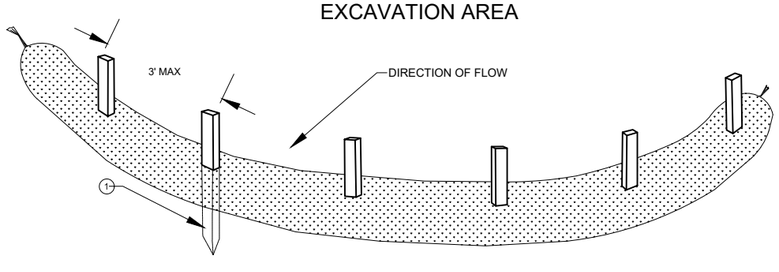
SILT FENCE

1. MOUND BLACK DIRT OVER BOTTOM 6" OF SILT FENCE TO PREVENT SEDIMENT EGRESS FROM EXCAVATION AREA
2. STAKE 12" MINIMUM DEPTH INTO GROUND



SILT SOCK

1. STAKE 12" MINIMUM DEPTH INTO GROUND



CONSTRUCTION QUANTITIES

DESCRIPTION OF WORK

THE PURPOSE OF THIS PROJECT IS TO CREATE A CONNECTION BETWEEN AN EXISTING SPLICE POINT 300 FEET SOUTH OF ANDERSON ON E SIDE OF WRIGHT ST AND A NEW MEN'S SHELTER BEING BUILT AT 1904 BARTILLION DR. THE NEW DUCT WILL BE A (1) - 3" DUCT WITH A SINGLE 48 STRAND FIBER OPTIC CABLE.

USE OF QUANTITIES SHOWN

THE FOLLOWING LISTS REPRESENT A HIGH-LEVEL OVERVIEW OF THE PROJECT TASKS ASSOCIATED WITH EACH PORTION OF THE PROJECT AND SHOULD NOT BE SOLELY RELIED ON FOR BIDDING PURPOSES. IT IS THE CONTRACTORS RESPONSIBILITY TO THOROUGHLY REVIEW AND CALCULATE THEIR OWN QUANTITIES AND FOOTAGES IN ORDER TO COMPLETE THIS PROJECT AS OUTLINED IN THIS DOCUMENT. THE BID AMOUNT MUST BE ADEQUATE TO FULFILL THE INTENT OF THE ENTIRE PROJECT.

1) DIRECTIONAL BORE - 3" DUCT -	2,808'
2) PLACE TYPE I 17X30X24 HANDHOLE -	4
3) PLACE TYPE V 24X36X24 HANDHOLE -	1
4) PLACE TYPE VII 30X48X36 HANDHOLE -	3
5) INSTALL 48 STRAND FIBER OPTIC CABLE INSIDE NEW EMPTY 3" DUCT -	2,808'
6) INSTALL EXPANSION LOOP INSIDE HANDHOLES -	1,050'
7) INSTALL #10 STRANDED, JACKETED, COPPER TRACER WIRE INSIDE 3" DUCT -	2,808'
8) INSTALL 1800-POUND MULE TAPE - CARLON TL38203 OR EQUIVALENT INSIDE 3" DUCT -	3,230'
9) INSTALL 48 STRAND FIBER OPTIC CABLE INSIDE EXISTING EMPTY 3" DUCT -	422'
10) INSTALL TYCO C CASE IN HH 4-3 FOR FUTURE SPLICING	1
11) INSTALL INLET PROTECTION	7
12) ASPHALT SIDEWALK REPLACEMENT	400 SQ FT
SPLICE INDIVIDUAL FIBER STRANDS INSIDE OUTDOOR SPLICE CASE -	24 TOTAL - 24 IN ONE CASE

CITY PROVIDED MATERIAL LIST

THE CITY OF MADISON WILL NOT BE PROVIDING ANY MATERIALS FOR THIS PROJECT.

CONTRACTOR PROVIDED MATERIAL LIST

THE CONTRACTOR MUST PURCHASE AND PROVIDE ALL THE FOLLOWING MATERIALS FOR THIS PROJECT:

1. ALL OUTSIDE PLANT FIBER OPTIC CABLES - 48 STRAND SINGLEMODE OS2 GLASS; LOOSE TUBE, SINGLE ARMOR; SINGLE JACKET CONSTRUCTION.
2. UNDERGROUND PLOWDUCT - 3" INSIDE DIAMETER FIRST-RUN SDR-11 HDPE ORANGE SMOOTH EXTERIOR/SMOOTH INTERIOR WITH MULE TAPE. CARLON A16C6N1JNNA (3"), OR EQUIVALENT.
3. TYPE I FLUSH-MOUNT HANDHOLE - COMPOSITE CONCRETE FIBERGLASS CONSTRUCTION 17"X24"X24H" WITH 2 BOLT EXTRA HEAVY DUTY COVER MARKED "FIBER OPTICS". QUAZITE #PG1730BB24 BASE / #PG1724HH21 (ANSI TIER 22) COVER, OR EQUIVALENT.
4. TYPE V FLUSH-MOUNT HANDHOLE - COMPOSITE CONCRETE FIBERGLASS CONSTRUCTION 24"X36"X24H" WITH 2 BOLT EXTRA HEAVY DUTY COVER MARKED "FIBER OPTICS". QUAZITE #PG2436BB24 BASE / #PG2436HH21 (ANSI TIER 22) COVER, OR EQUIVALENT
5. TYPE VII FLUSH-MOUNT HANDHOLE - COMPOSITE CONCRETE FIBERGLASS CONSTRUCTION 30"X48"X36H" WITH 2 BOLT EXTRA HEAVY DUTY COVER MARKED "FIBER OPTICS". QUAZITE #PG3048BB36 BASE / #PG3048HH21 (ANSI TIER 22) 2-PIECE COVER, OR EQUIVALENT.
6. SPLICE CASE FOR HH 4-3 - COMMSCOPE FOSC-450-C6-6-NT-0-C6V
7. 1800-POUND MULE TAPE - CARLON TL38203 OR EQUIVALENT.
8. LOCATE WIRE - #10 AWG UL TYPE USE 2/RHH/RHW-2. NON-MANUFACTURER SPECIFIC.
9. SPLIT DUCT PLUG - 3" OUTSIDE DIAMETER SPLIT PLUGS WITH INTERIOR PORT DIAMETER SUFFICIENT FOR CABLE SIZE. CARLON OR EQUIVALENT.
10. FUSION SPLICE SLEEVES - CLEAR HEAT SHRINK FUSION SPLICE SLEEVE WITH STEEL REINFORCING ROD. NON-MANUFACTURER SPECIFIC.
11. FIBER OPTIC CABLE LABELS - LABELLED WITH OWNER - STRAND COUNT - START POINT - END POINT.
12. CONSUMABLES AND INSTALLATION HARDWARE - CONTRACTOR REQUIRED CONSUMABLES FOR THE INSTALLATION OF ALL THE ABOVE ITEMS PER THESE REQUEST FOR BID DOCUMENTS.
13. BIODEGRADABLE NET-FREE MATTING DESIGNED FOR SHORT TERM USE SIMILAR TO THE AMERICAN EXCELSIOR COMPANY'S CURLEX ® CL BLANKET.

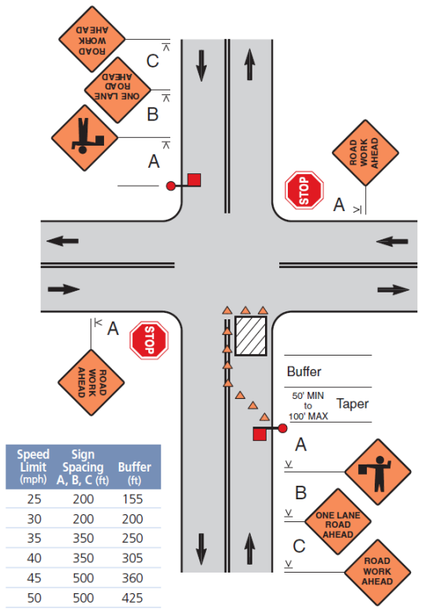
CONTRACTOR COMPLETION CLAUSE

THE CONTRACTOR IS REQUIRED TO COMPLETE THE INSTALLATION WITH THE MATERIAL INCLUDED IN THEIR BID RESPONSE.

Maintain a 10' wide travel lane at all times

Lane Closure in Advance of an Intersection

(Work Area on the Through Road)



Speed Limit (mph)	Sign Spacing A, B, C (ft)	Buffer (ft)
25	200	155
30	200	200
35	350	250
40	350	305
45	500	360
50	500	425
55	500	495

Notes

1. Depending on traffic conditions, consider additional traffic control on the side road approaches, such as flaggers and appropriate signs.
2. The flaggers shall use approved flagging procedures according to the MUTCD and as shown on page 57.

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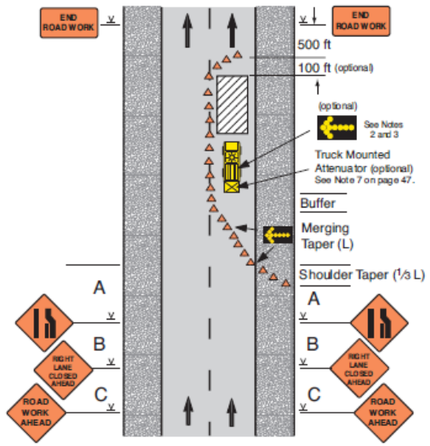
Lane Closure on Divided or One-Way Roadway



Notes

1. When a side road intersects the roadway within the work zone, additional devices shall be erected to channelize traffic to/from the side road, and a ROAD WORK AHEAD sign shall be placed on each side of road approach.
2. An arrow board shall be used when a freeway lane is closed. When more than one lane is closed, a separate arrow board shall be used for each.

Speed Limit (mph)	Sign Spacing (ft) A	B	C	Merging Taper (ft) for 12' lane	Buffer (ft)
30	200	200	200	180	200
35	350	350	350	245	250
40	350	350	350	320	305
45	500	500	500	540	360
50	1000	1500	2640	600	425
55	1000	1500	2640	660	495
60	1000	1500	2640	720	570
65	1000	1500	2640	780	645
70	consult WisDOT				

3. Except for freeways, an arrow board is optional based on traffic volume, speed, and visibility. Generally, it is a good practice where speeds are 35 mph or greater. When used, it should be placed near the beginning of the taper or on a vehicle in the work area.
4. If an arrow board is not used, a Large Arrow sign or directional indicator barricades in the taper can be used to provide added guidance.

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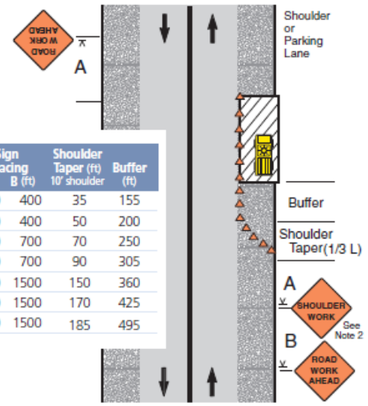
Work on Shoulder or Parking Lane on Two-Lane Two-Way Road



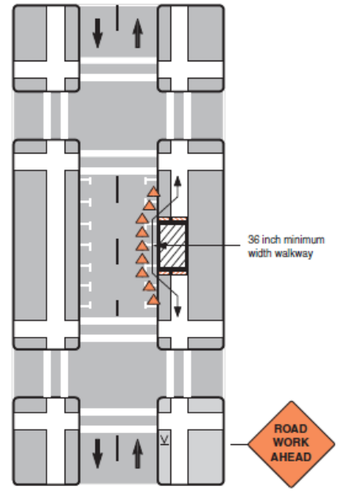
Speed Limit (mph)	Sign Spacing A	B (ft)	Shoulder Taper (ft) 10' shoulder	Buffer (ft)
25	200	400	35	155
30	200	400	50	200
35	350	700	70	250
40	350	700	90	305
45	500	1500	150	360
50	500	1500	170	425
55	500	1500	185	495

Notes

1. Encroachment into the traffic lane is allowable, but a 10-foot minimum travel lane width should be maintained. A lane closure should be considered if there is encroachment on roads with speeds greater than 35 mph, or for other conditions where workers, equipment, or the work activity would benefit from the lateral buffer (see pages 22 and 23).
2. If there is encroachment into the traffic lane, a ROAD NARROWS sign may be used instead of SHOULDER WORK. For roads with low volume, the SHOULDER WORK or ROAD NARROWS sign can be omitted.
3. For short duration work, the channelizing devices may be omitted if a vehicle with activated high intensity lights is used. For short duration work with no lane encroachment, the signs may also be omitted.
4. WORKERS, UTILITY WORK AHEAD, SHOULDER WORK AHEAD, or SURVEY CREW signs may be used instead of SHOULDER WORK or ROAD WORK AHEAD.
5. When work area is at least 2' from traffic lane on roads with low volume and speeds of 35 mph or less, the sign on opposite side can be omitted.

Sidewalk Closure

(Pedestrian Walkway Provided)



Notes

1. Additional advance warning may be necessary.
2. Only the traffic control devices related to pedestrians are shown. Other devices such as lane closure signs, ROAD NARROWS or LANE NARROWS signs may be needed to control traffic on the streets.
3. For nighttime closures, Type A flashing warning lights may be used on barricades supporting signs and closing walkways. Type C or Type D steady-burn lights may be used on channelizing devices separating the temporary walkway from vehicular traffic.
4. Where high speeds are likely, a barrier should separate the temporary walkway from vehicular traffic. Refer to Section 6D.01of Part 6 of the MUTCD for information on barriers.
5. Signs may be placed along a temporary walkway to guide pedestrians; for example, Keep Right or Keep Left signs.
6. Pedestrian walkways should be ADA accessible (i.e., ramps, surfaces).

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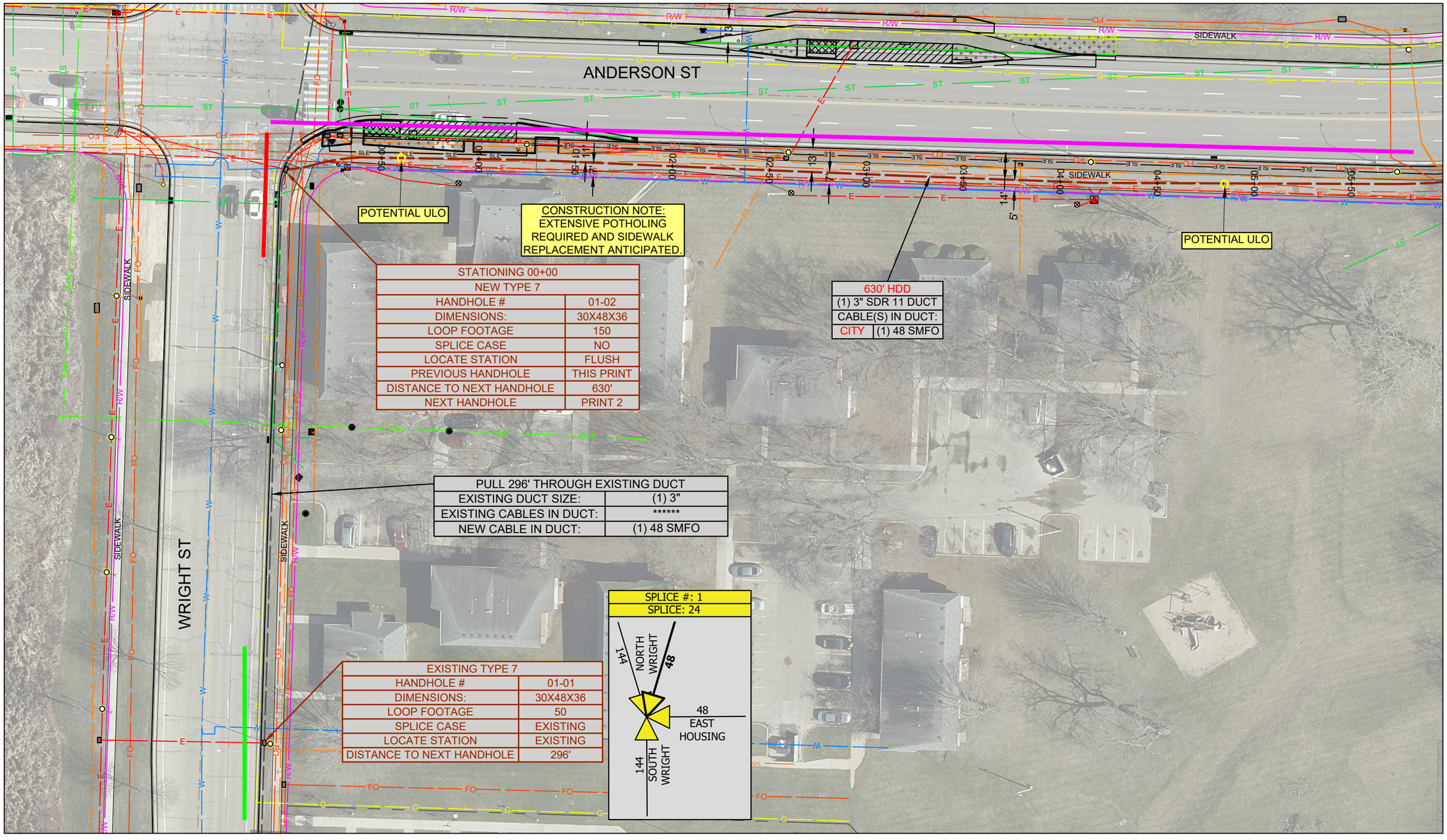


SEE SHEET 2

Multimedia Communications & Engineering, Inc.
PO Box 11064 Green Bay, WI 54307
P: 920.301.7900 | 877.870.6968

0 50' 100' N

Scale: 1" = 50' ANSI B/Tabloid

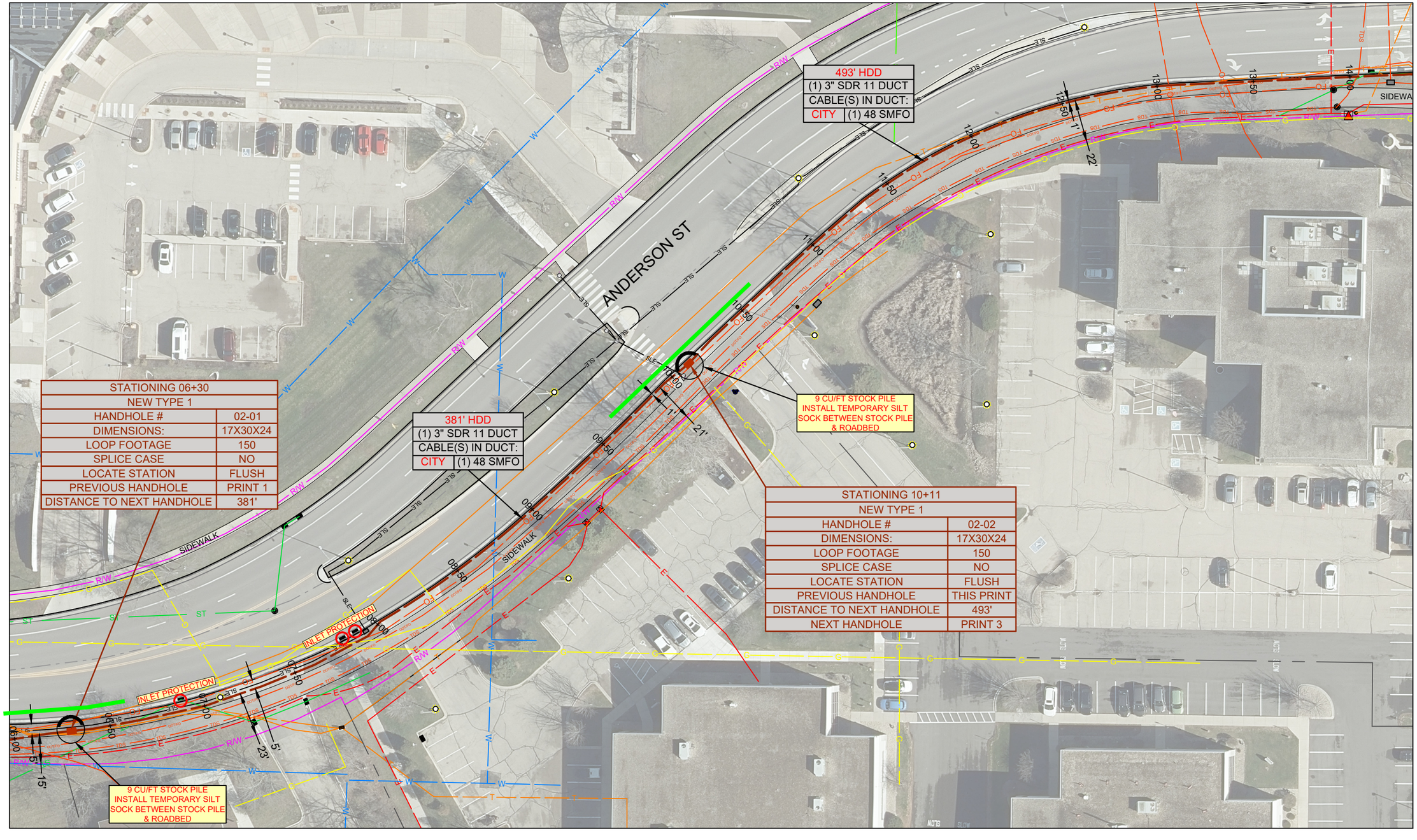
CITY OF MADISON
BARTILLON SHELTER CONNECTION

SHEET GROUP: 1:50 Scaled Plans

SHEET ID: 01

Print Date: 6.27.2025

PERMITS REQUIRED ON THIS SHEET: CITY OF MADISON RIGHT OF WAY PERMIT



STATIONING 06+30	
NEW TYPE 1	
HANDHOLE #	02-01
DIMENSIONS:	17X30X24
LOOP FOOTAGE	150
SPLICE CASE	NO
LOCATE STATION	FLUSH
PREVIOUS HANDHOLE	PRINT 1
DISTANCE TO NEXT HANDHOLE	381'

STATIONING 10+11	
NEW TYPE 1	
HANDHOLE #	02-02
DIMENSIONS:	17X30X24
LOOP FOOTAGE	150
SPLICE CASE	NO
LOCATE STATION	FLUSH
PREVIOUS HANDHOLE	THIS PRINT
DISTANCE TO NEXT HANDHOLE	493'
NEXT HANDHOLE	PRINT 3

SEE SHEET 3

SEE SHEET 1

Multimedia Communications & Engineering, Inc.
PO Box 11064 Green Bay, WI 54307
P: 920.301.7900 I 877.870.6968

0 50' 100' N

Scale: 1" = 50' ANSI B/Tabloid

CITY OF MADISON
BARTILLON SHELTER CONNECTION

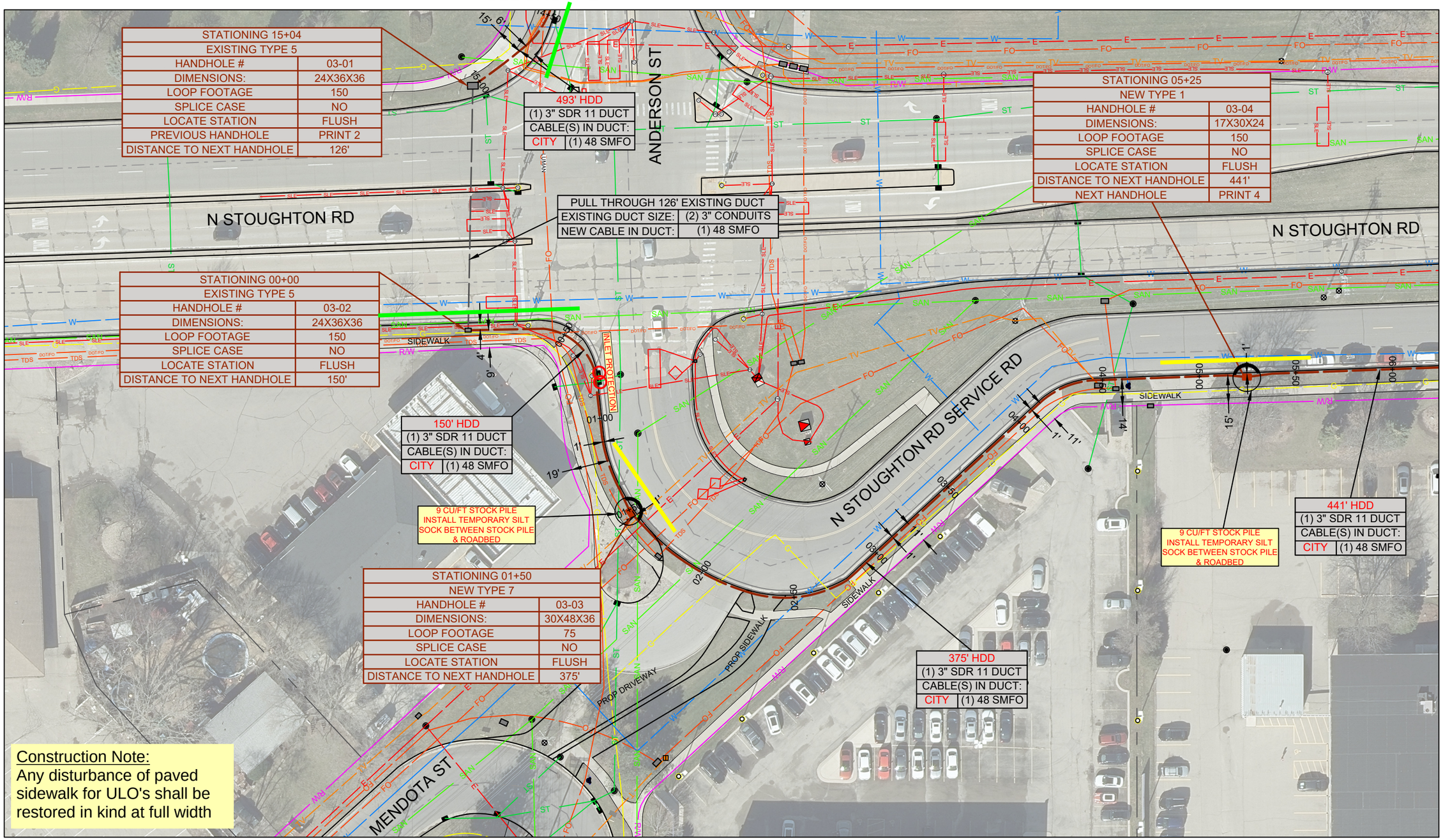
SHEET GROUP:
1:50 Scaled Plans

SHEET ID:
02

PERMITS REQUIRED ON THIS SHEET: CITY OF MADISON RIGHT OF WAY PERMIT

Print Date: 6.27.2025

SEE SHEET 2



SEE SHEET 4

Construction Note:
Any disturbance of paved sidewalk for ULO's shall be restored in kind at full width

Multimedia Communications & Engineering, Inc.
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0 50' 100'
Scale: 1" = 50' ANSI B/Tabloid

CITY OF MADISON
BARTILLON SHELTER CONNECTION

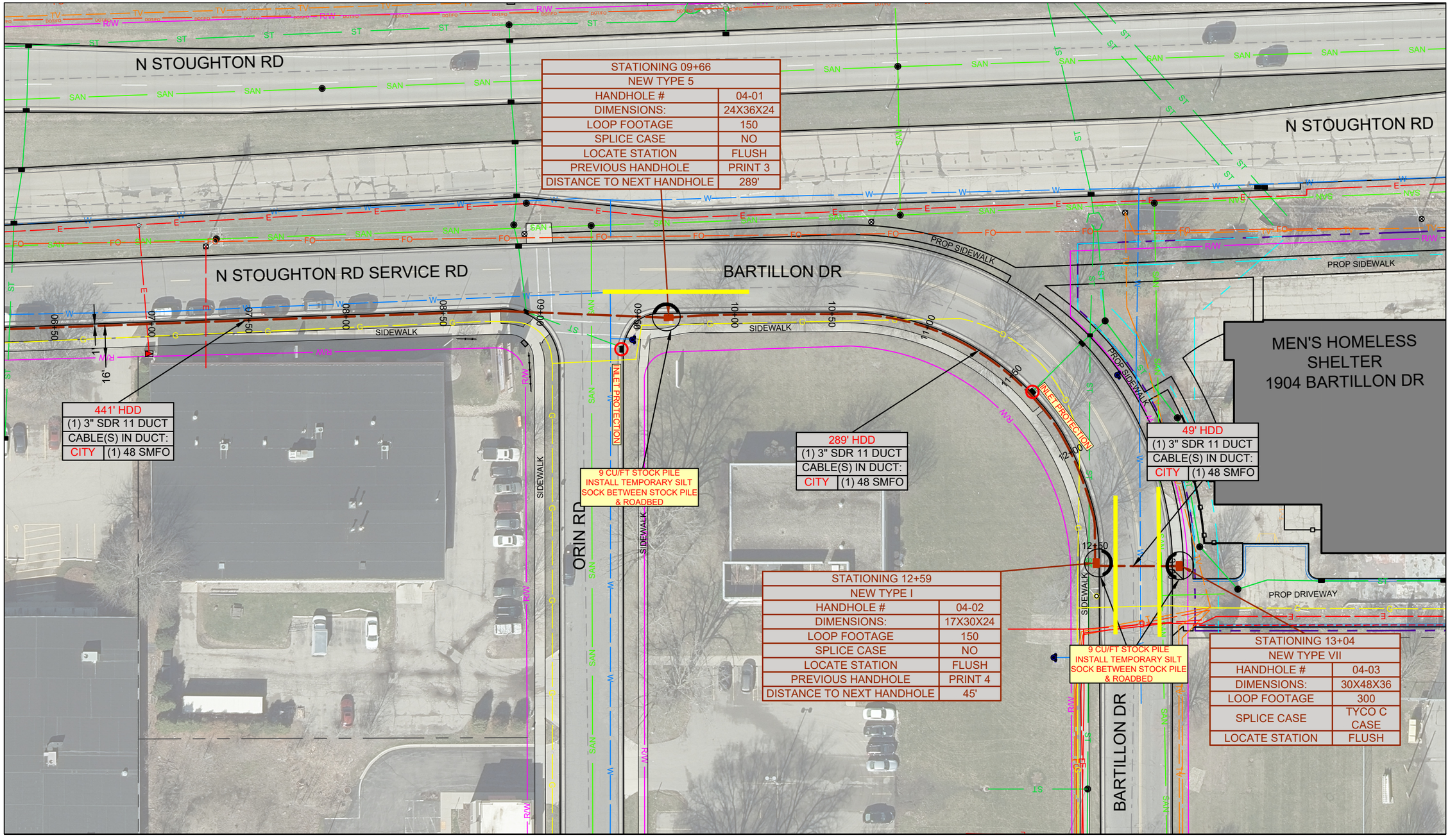
SHEET GROUP:
1:50 Scaled Plans

SHEET ID:
03

Print Date: 6.27.2025

PERMITS REQUIRED ON THIS SHEET: CITY OF MADISON RIGHT OF WAY PERMIT/ WISDOT HIGHWAY PERMIT

SEE SHEET 3



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Fiber Optic Specialists

0 50' 100'
Scale: 1" = 50' ANSI B/Tabloid

CITY OF MADISON
BARTILLON SHELTER CONNECTION

SHEET GROUP:
1:50 Scaled Plans

SHEET ID:
04

Print Date: 6.27.2025

PERMITS REQUIRED ON THIS SHEET: CITY OF MADISON RIGHT OF WAY PERMIT/WISDOT HIGHWAY PERMIT