

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERING DIVISION STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION (MARCH 2009)

**CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS**

**MCNICHOLS STREETScape
WYOMING AVENUE TO LIVERNOIS AVENUE**



COUNTY KEY

ROAD	YEAR	TRAFFIC DATA			SPEED DATA		LIMITS
		ADT	DHV	COMM	DESIGN	POSTED	
MCNICHOLS RD	2018	12,000	2,000	425	25	25	WYOMING AVE TO LIVERNOIS AVE



THESE PLANS WERE PREPARED BY:



CHRISTOS D. MELISTAS, P.E.
WSP MICHIGAN, INC.
500 GRISWOLD ST, SUITE 2600
DETROIT, MI 48226
313-963-5760

DATE

APPROVALS

RECOMMENDED FOR APPROVAL BY:

RICHARD DOHERTY, P.E. - CITY ENGINEER

DATE

CITY OF DETROIT

MILES: 1.02
CONTRACT FOR:
STREETSCAPE IMPROVEMENTS, INCLUDING SIDEWALK RECONSTRUCTION, CONCRETE BUS ISLANDS, HMA PAVING, STORM SEWER, LANDSCAPING, PAVEMENT MARKINGS, SIGNING, SITE FURNISHINGS, NEW STREET LIGHTING AND BIKE LANES.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

TITLE SHEET
MCNICHOLS STREETScape

DRAWING	SHEET
MCN TITLE 001	1

PUBLIC UTILITIES

The existing utilities listed below and shown on these plans represent the best information available as obtained on our surveys. This information does not relieve the contractor of the responsibility to be satisfied as to it's accuracy and the location of existing utilities.

<u>Name Of Owner</u>	<u>Type Of Utility</u>
AT&T 17651 Michigan Ave Dearborn, MI 48126 Joe Raczak Legal Mandate Engineer (313) 240-5314 JR1983@att.com or Mark Braham OSP Engineer - Metro South (313) 240-5390 MB6352@att.com	Telephone For Adjusting Frames & Covers
City of Detroit Detroit Fire Department 1301 3rd Street Detroit, MI 48226 General: (313) 596-2900 Fax: (313) 224-4128 communityrelations@detroitmi.gov	KNOX Boxes & Fire Hydrants
City of Detroit Detroit Police Department 1301 3rd Street Detroit, MI 48226 General: (313) 596-2200 Fax: (313)596-1450 publicinfo@detroitmi.gov	Police Call Boxes
City of Detroit Detroit Water & Sewerage Department Contract Services Facility 6425 Huber Detroit, MI 48211 General: (313) 267-4863 Fax: (313) 842-6480	Water Mains & Sewers
City of Detroit Public Lighting Authority 65 Cadillac Square, Suite 3100 Detroit, MI 48226 (313) 324-8290, ext. 216 Mohamed Abbas abbasm@detroitmi.gov	Street Lighting & Traffic Signals
City of Detroit Traffic Engineering, D.P.W. 2633 Michigan Avenue Detroit, MI 48207 General: (313) 224-1610 Fax: (313)224-1304 Prasad Nannapaneni (313) 628-5603 prasadn@detroitmi.gov Sunny Jacobs (313) 628-5604 sunjac@detroitmi.gov	Pavement Markings, Signs & Traffic Signals
Comcast Attn: Robert Seaney (c/o John Rieberger) Phone: (419) 874-9262 ext. 103 RSeaney@teamsigma.com	Cable

PUBLIC UTILITIES (CONT.)

<u>Name Of Owner</u>	<u>Type Of Utility</u>
Detroit Thermal LLC 3575 E Palmer St Detroit, MI 48201 Ed LaRosa (313) 921-1922 Fax: (313) 921-1972	Steam Lines
DTE One Energy Plaza Detroit, MI 48226 Gas Leak: 1-800-947-5000 Electrical: 1-800-477-4747	Electric & Gas
Great Lakes Water Authority Attn: Dale Echols Phone: (313) 267-4857 dale.echols@glwater.org	Water
Sign Shop 2425 Fenkell Detroit, MI 48238 Willie Riley (313) 628-2923 Fax: (313) 628-4966	Sign Removals & Installations

NOTES APPLYING TO STANDARD PLANS

Where the following items are called for on plans, they are to be constructed according to the standard plan given below opposite each item unless otherwise indicated.

Title	Plan No.
CITY OF DETROIT STANDARDS	
STANDARD CURB DETAILS	C-4380
DETAIL OF ALLEY RETURN AND DRIVE APPROACH	C-4384
RECONSTRUCTION OF EXISTING SUMP MANHOLES AND NEW CATCH BASIN INSTALLATIONS	C-4390
FLAT TYPE GRATE AND FRAME	C-4392
SIDEWALK JOINTING STANDARD	C-4462
INTEGRAL CURB AND WALK MODIFIED SEPARATE TYPE CURB	C-4550
PORTABLE BARRICADES	C-4552
BARRICADES AND LIGHTED ARROWS	C-4730
CATCH BASINS "A" AND "B" AND FLAT GRATE AND FRAME	C-5028
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS (R-28-I WITH CITY OF DETROIT THICKNESS AMENDMENT)	
CURB, CONC, DETAIL CD, MODIFIED	
HMA FEATHERING DETAIL	
HMA APPROACH, MODIFIED	
DWSD MANHOLE ERGO ASSEMBLY	
CATCH BASIN 5000 M4 GRATE	
CATCH BASIN 5000Z4 5000M4 ASSEMBLY	
CATCH BASIN 5000 ASSEMBLY	
A.D.A. CATCH BASIN 5000M5 GRATE	
A.D.A. CATCH BASIN 5000Z4 5000M5 ASSEMBLY	
DWSD MANHOLE ERGO COVER	
DWSD MANHOLE FRAME	
FIELD MARKING STANDARDS (STD-01 TO STD-09)	
DWSD STANDARDS	
INLET PROTECTION FABRIC DROP	
SOIL EROSION SEDIMENTATION CONTROL, TEMPORARY FACILITIES	
SOIL EROSION AND SEDIMENTATION CONTROL, MAINTENANCE NOTES	
SOIL EROSION AND SEDIMENTATION CONTROL, GENERAL NOTES	
SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (FROM 1-33)	
UTILITY CROSSING	
MANHOLE FRAME AND COVER WITH LOGO - SEWER	
CLEANOUT	
SEWER PIPE JOINT DETAIL	
SEWER PIPE CONNECTION WITH MANHOLE	
MICHIGAN DEPARTMENT OF TRANSPORATION (MDOT) STANDARDS	
ROAD	
DRAINAGE STRUCTURES	R-1-G *
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALK	R-29-I
CONCRETE CURB AND CONCRETE CURB & GUTTER	R-30-G
LONGITUDINAL PAVEMENT JOINTS	R-41-H
CONCRETE PAVEMENT REPAIR	R-44-F
TRAFFIC SIGNALS	
TRAFFIC SIGNAL MAST ARM POLE AND MAST ARM DETAILS - CATEGORY II	SIG-031-B*

TRAFFIC SIGNAL MAST ARM STANDARD FOUNDATIONS	SIG-040-A*
MAST ARM MOUNTED T.S. BRACKET ASSEMBLY	SIG-301-A*
SIGNING	
STANDARD SIGN INSTALLATIONS	SIGN-100-G
PLACEMENT OF D3-1 SIGNS ABOVE R1-1	SIGN-140-A
SIGN SUPPORT SELECTION CHARTS	SIGN-150-D
STEEL POSTS	SIGN-200-E
MISCELLANEOUS SIGN CONNECTION DETAILS	SIGN-740-B
WORK ZONE DEVICES	
GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS	WZD-100-A *
TEMPORARY TRAFFIC CONTROL DEVICES	WZD-125-E *

* Denotes Special Detail


SHEET INDEX

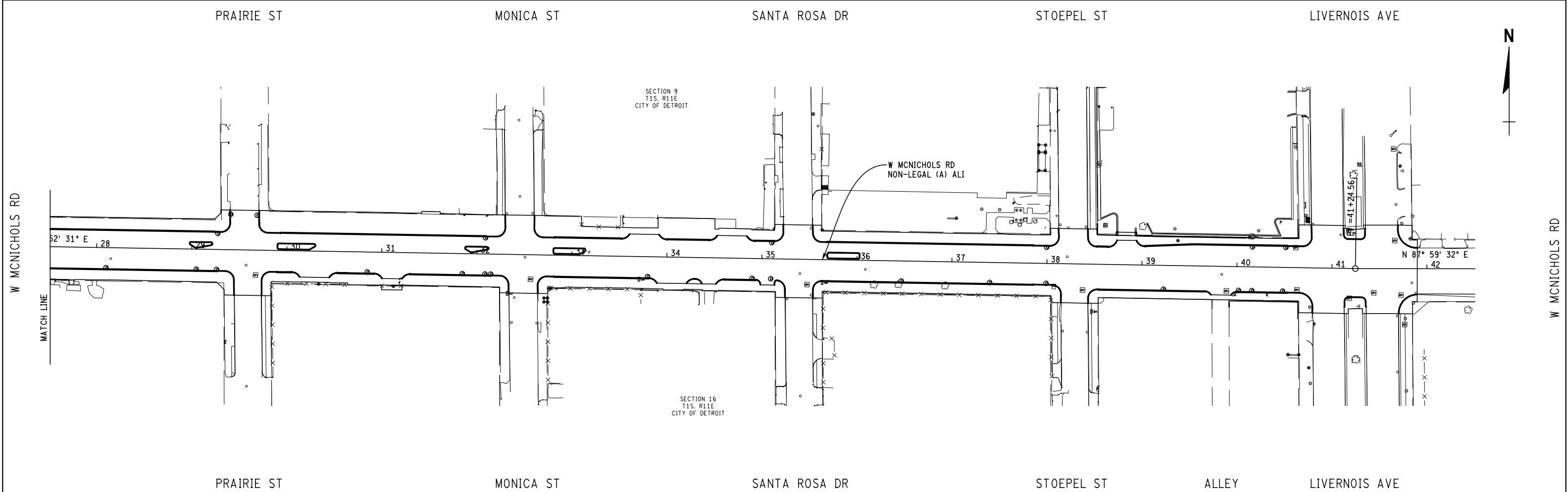
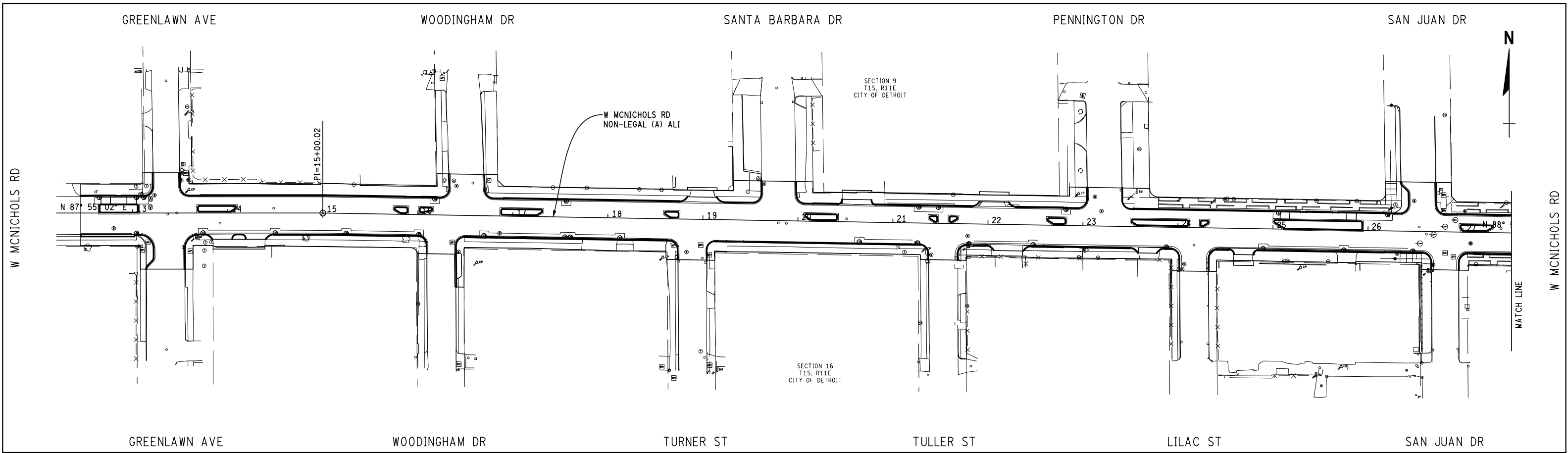
GREENLAWN AVE TO LIVERNOIS AVE	
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** Includes Wyoming Ave to Greenlawn Ave Section

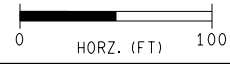
FUNDING CATEGORIES

Project Description
Category 0001 = Local Municipality

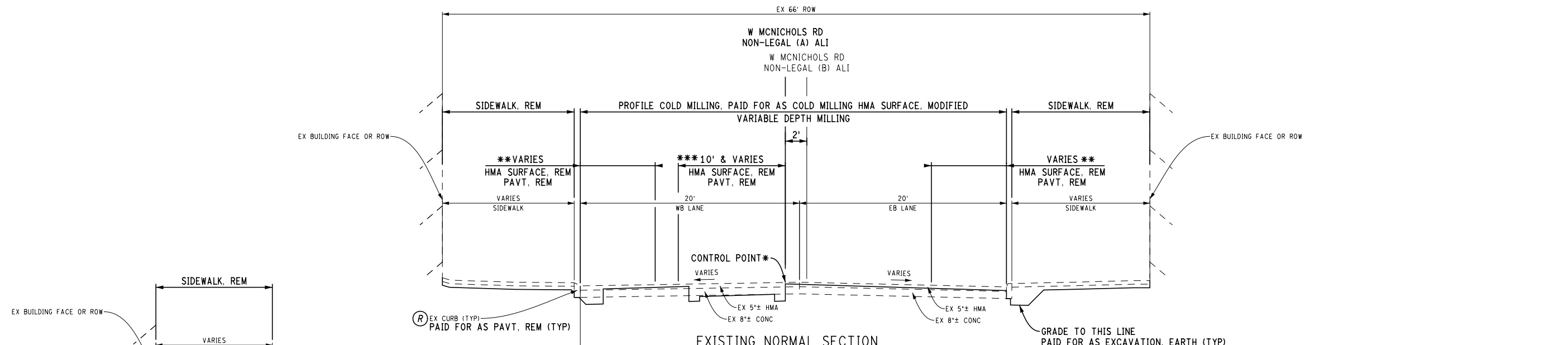
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								wsp		NO SCALE	DATE: 02/07/20	JN: PW-7004 MCNICHOLS STREETSCAPE	PROJECT INFORMATION SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION						DRAWING	SHEET
													MCN PROJ 001	2



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								DATE: 02/07/20		VICINITY SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION	JN: PW-7004		MCN VIC 001			
								MCNICHOLS STREETScape		GREENLAWN AVE TO LIVERNOIS AVE			3



FILE:



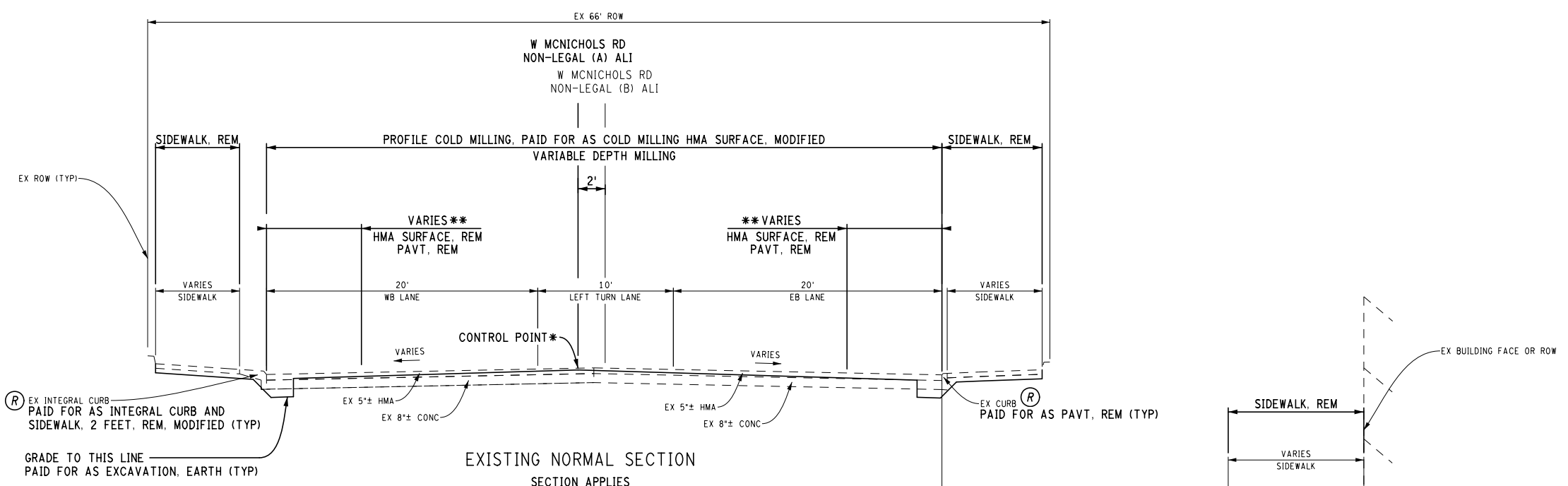
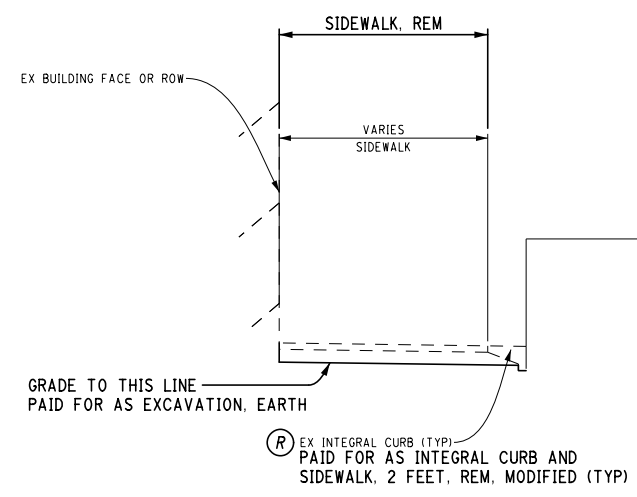
EXISTING NORMAL SECTION
SECTION APPLIES
STA 12+45.31 TO STA 38+29.52

*** HMA SURFACE, REM AND PAVT, REM APPLIES

STA 12+63.64 TO STA 13+06.81	STA 13+67.21 TO STA 14+10.23
STA 15+74.00 TO STA 15+90.45	STA 16+00.45 TO STA 16+16.64
STA 16+86.19 TO STA 17+32.50	STA 18+58.52 TO STA 18+75.85
STA 20+06.07 TO STA 20+42.56	STA 21+36.96 TO STA 21+48.12
STA 21+58.12 TO STA 21+69.28	STA 22+61.39 TO STA 22+82.96
STA 23+49.53 TO STA 24+12.32	STA 24+22.32 TO STA 24+33.45
STA 24+99.86 TO STA 25+95.35	STA 26+95.68 TO STA 27+32.22
STA 28+96.27 TO STA 29+23.09	STA 29+88.64 TO STA 30+31.52
STA 31+86.02 TO STA 32+12.84	STA 32+78.99 TO STA 33+15.84
STA 35+67.29 TO STA 36+04.29	

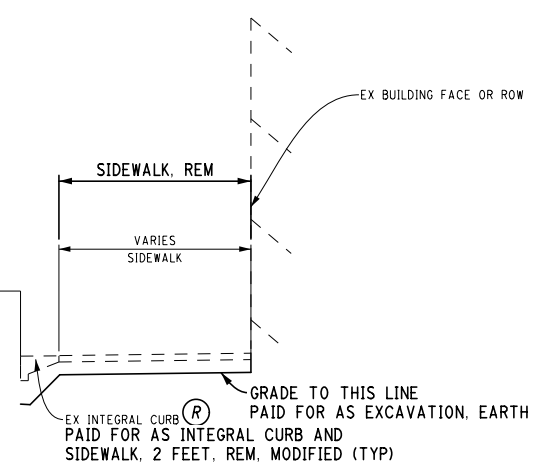
*CONTROL POINT TO BE SET AT PROP MCNICHOLS CENTERLINE.
ELEVATION OF MILLING AT CONTROL POINT IS 3.5" BELOW PROPOSED PLAN GRADE ELEVATION.
CONTRACTOR SHALL MILL AT PROPOSED CROSS SLOPE FROM THE CONTROL POINT TO THE EDGE OF MILLING LIMITS.

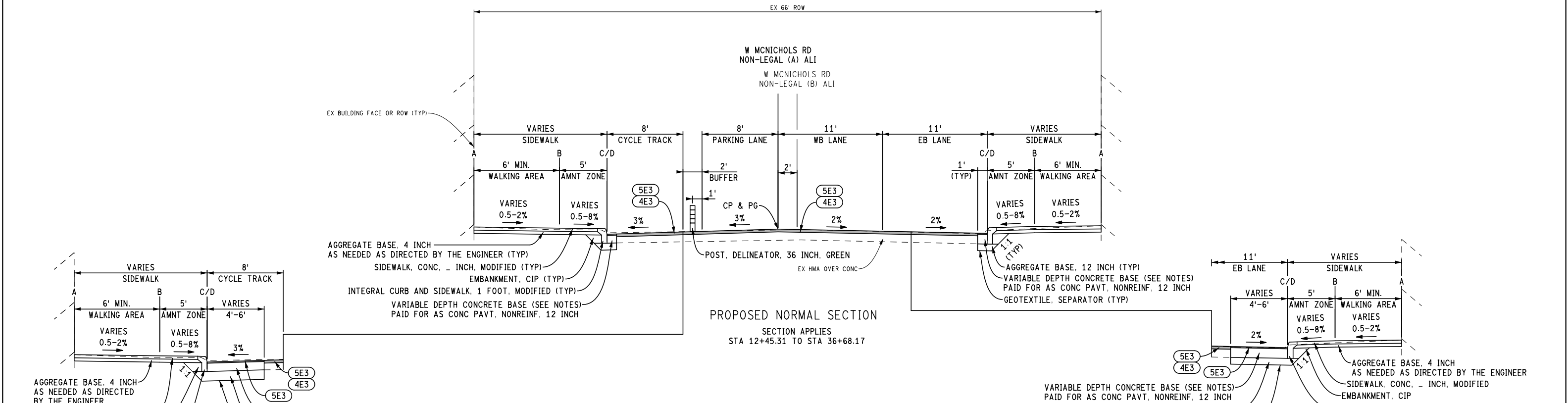
**VARIES 0-6' MEASURED FROM PROPOSED FACE OF CURB
(VARIES 0-2' FOR PROPOSED CURB INSTALLATION)
(VARIES 4-6' FOR DRAINAGE STRUCTURE AND STORM SEWER INSTALLATION)



*CONTROL POINT TO BE SET AT PROP MCNICHOLS CENTERLINE.
ELEVATION OF MILLING AT CONTROL POINT IS 3.5" BELOW PROPOSED PLAN GRADE ELEVATION.
CONTRACTOR SHALL MILL AT PROPOSED CROSS SLOPE FROM THE CONTROL POINT TO THE EDGE OF MILLING LIMITS.

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(VARIES 0-2' FOR PROPOSED CURB INSTALLATION)
(VARIES 4-6' FOR DRAINAGE STRUCTURE AND STORM SEWER INSTALLATION)



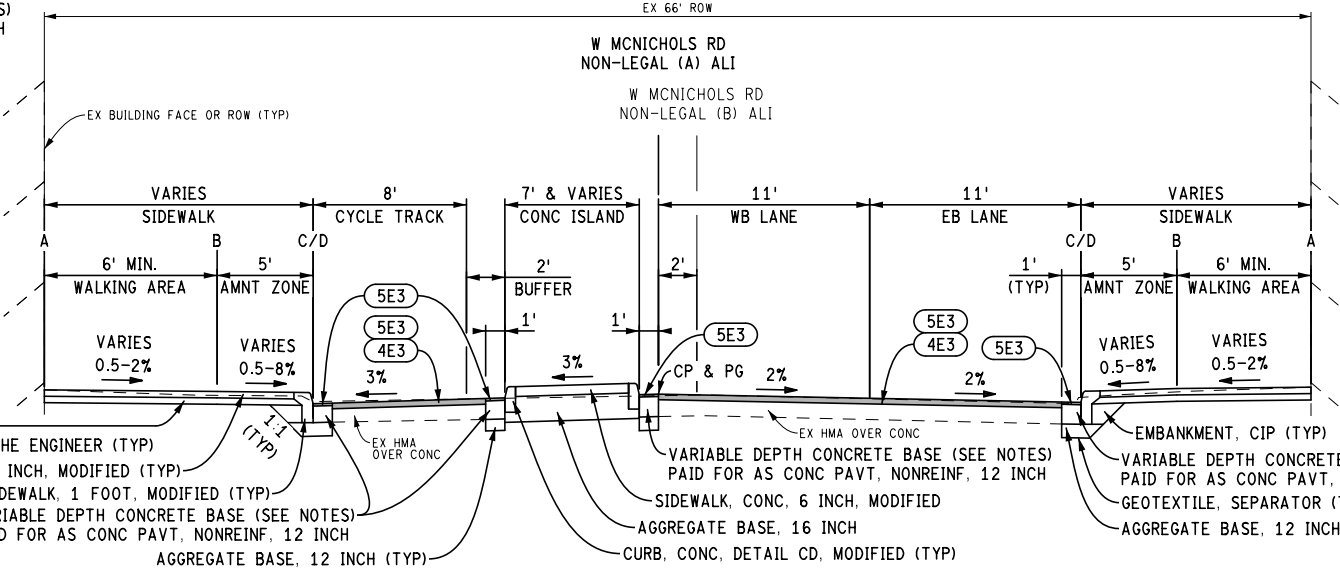


PROPOSED NORMAL SECTION
SECTION APPLIES
STA 12+45.31 TO STA 36+68.17



PROPOSED NORMAL SECTION FOR DRAINAGE IMPROVEMENTS

SECTION APPLIES
STA 12+59.88 TO STA 13+16.70
STA 16+12.68 TO STA 16+22.68
STA 17+50.97 TO STA 17+60.97
STA 21+21.26 TO STA 21+52.55
STA 22+76.91 TO STA 22+86.91
STA 24+99.86 TO STA 26+25.56
STA 29+22.41 TO STA 29+32.41
STA 32+03.87 TO STA 32+13.87
STA 35+05.16 TO STA 35+15.16



PROPOSED NORMAL SECTION WITH RAISED MEDIAN

SECTION APPLIES
STA 13+68.21 TO STA 14+09.23
STA 15+75.00 TO STA 15+89.45
STA 16+01.45 TO STA 16+15.65
STA 16+87.19 TO STA 17+31.50
STA 18+59.52 TO STA 18+74.85
STA 20+07.07 TO STA 20+41.64
STA 21+37.96 TO STA 21+47.12
STA 21+59.12 TO STA 21+68.28
STA 22+62.39 TO STA 22+81.96
STA 23+50.53 TO STA 24+11.32
STA 24+23.32 TO STA 24+32.45
STA 26+96.68 TO STA 27+31.22
STA 28+97.27 TO STA 29+22.09
STA 29+89.64 TO STA 30+30.52
STA 31+87.10 TO STA 32+11.83
STA 32+79.99 TO STA 33+14.84
STA 35+68.29 TO STA 36+03.29

PROPOSED NORMAL SECTION FOR DRAINAGE IMPROVEMENTS

SECTION APPLIES
STA 12+99.05 TO STA 13+09.05
STA 13+69.00 TO STA 16+06.48
STA 16+65.00 TO STA 18+18.00
STA 20+60.00 TO STA 21+31.36
STA 21+75.36 TO STA 22+53.00
STA 23+83.13 TO STA 23+93.13
STA 24+85.00 TO STA 26+52.52
STA 28+05.00 TO STA 29+31.41
STA 30+80.00 TO STA 32+19.90
STA 33+75.00 TO STA 35+14.63

NOTES:

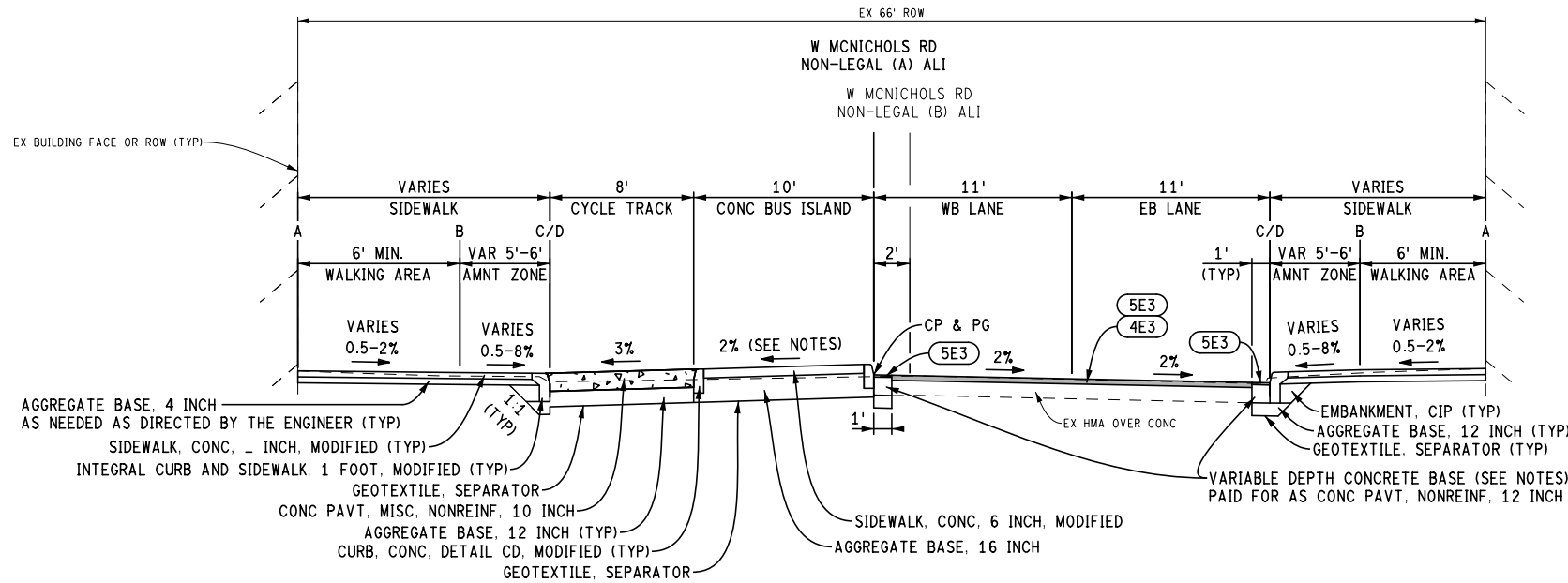
THE VARIABLE DEPTH CONCRETE BASE COURSE SHALL MATCH THE THICKNESS OF THE ADJACENT PAVEMENT STRUCTURE (EXISTING PAVEMENT AND PROPOSED LEVELING COURSE) AND COME UP FLUSH TO THE TOP OF THE ADJACENT LEVELING COURSE. THE CONCRETE BASE COURSE WILL BE OVERLAID WITH THE SAME PROPOSED HMA TOP COURSE AS THE REST OF THE ROADWAY.

SEE SHEETS DETGRD001 AND DETGRD002 FOR REFERENCE TO LOCATIONS A, B, C AND D SHOWN IN TYPICALS ABOVE.

HMA APPLICATION ESTIMATE

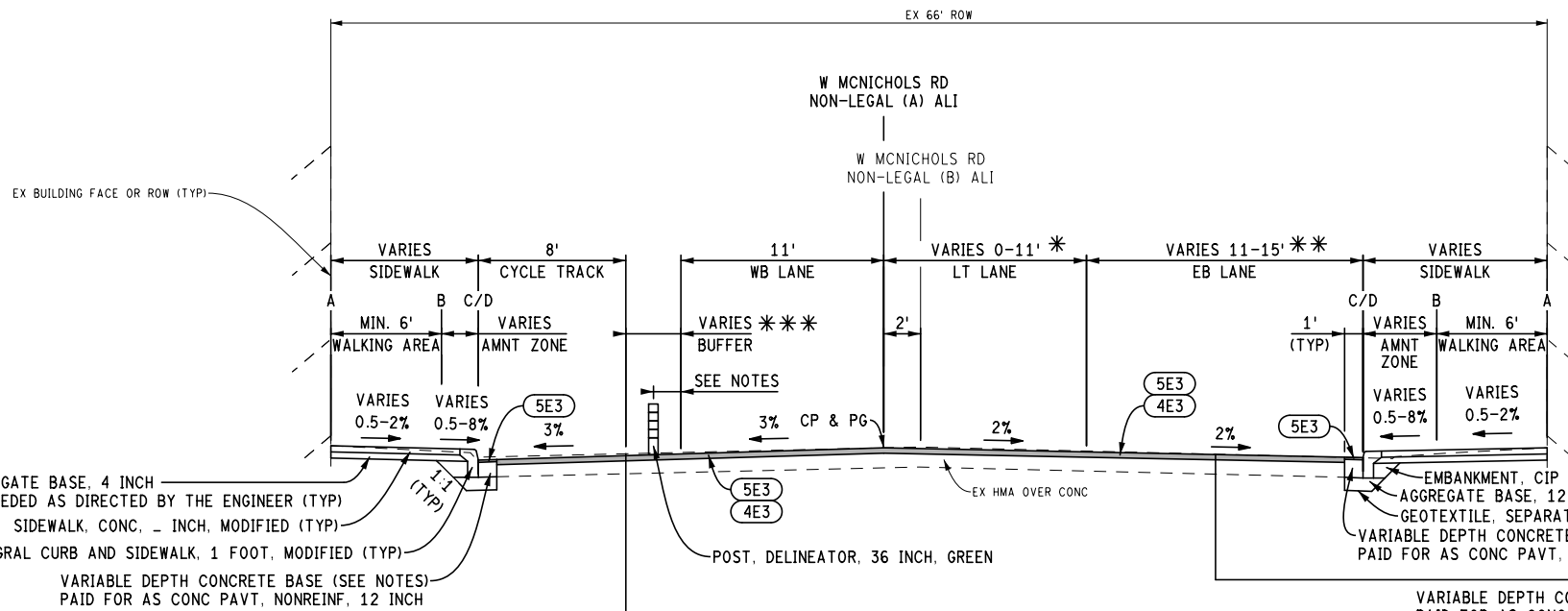
IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
5E3	HMA, 5E3	165	64-22	TOP COURSE (AWI = 260)
4E3	HMA, 4E3	220	64-22	LEVELING COURSE
HA-5E3	HMA APPROACH, MODIFIED	165	64-22	HMA APPROACH: TOP COURSE
HA-4E3	HMA APPROACH, MODIFIED	220	64-22	HMA APPROACH: LEVELING COURSE
	* BOND COAT	0.05-0.15 GAL		

*FOR INFORMATION ONLY



PROPOSED NORMAL SECTION WITH CONCRETE BUS ISLAND

SECTION APPLIES
 STA 12+64.64 TO STA 13+05.81
 STA 25+00.86 TO STA 25+94.35

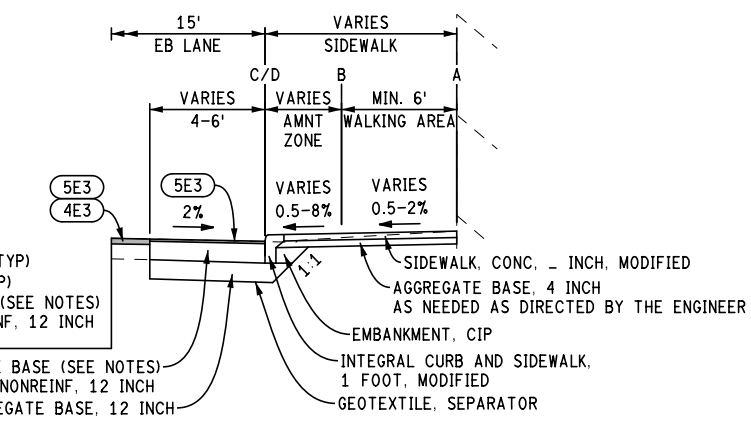


PROPOSED NORMAL SECTION WITH LEFT TURN LANE

SECTION APPLIES
 STA 36+68.17 TO STA 41+89.71 (POE)
 * VARIES 0-8': STA 36+68.17 TO STA 37+59.59
 8': STA 37+59.59 TO STA 38+99.50
 8'-11': STA 38+99.50 TO STA 39+55.68
 11': STA 39+55.68 TO STA 41+89.71

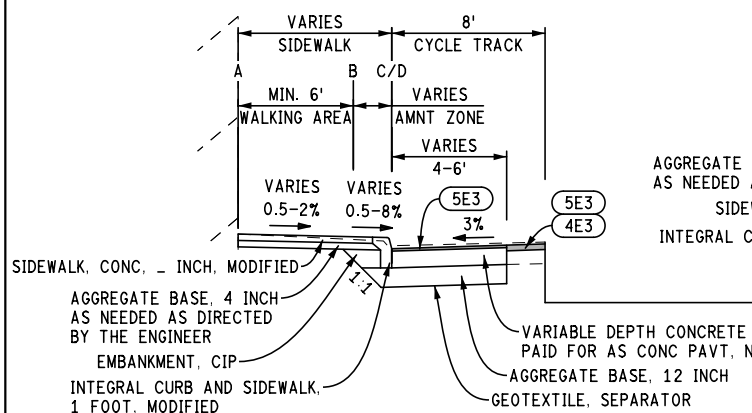
** 11': STA 36+68.17 TO STA 38+29.52
 15': STA 38+29.52 TO STA 41+89.71

*** 2': STA 36+68.17 TO STA 39+35.91
 2'-3': STA 39+35.91 TO STA 39+57.27
 3': STA 39+57.27 TO STA 41+89.71



PROPOSED NORMAL SECTION FOR DRAINAGE IMPROVEMENTS

SECTION APPLIES
 STA 36+42.00 TO STA 38+04.43
 STA 39+18.00 TO STA 40+53.38



PROPOSED NORMAL SECTION FOR DRAINAGE IMPROVEMENTS

SECTION APPLIES
 STA 37+94.39 TO STA 38+04.39
 STA 40+10.98 TO STA 40+56.12

NOTES:

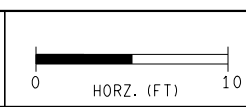
ON CONCRETE BUS ISLANDS, CURB HEIGHTS WILL BE ADJUSTED TO PROVIDE A MAXIMUM CROSS SLOPE OF 2%.

DELINEATOR POST SHALL BE PLACED IN THE MIDDLE OF THE BUFFER BETWEEN THE CYCLE TRACK AND TRAVEL LANE.

THE VARIABLE DEPTH CONCRETE BASE COURSE SHALL MATCH THE THICKNESS OF THE ADJACENT PAVEMENT STRUCTURE (EXISTING PAVEMENT AND PROPOSED LEVELING COURSE) AND COME UP FLUSH TO THE TOP OF THE ADJACENT LEVELING COURSE. THE CONCRETE BASE COURSE WILL BE OVERLAID WITH THE SAME PROPOSED HMA TOP COURSE AS THE REST OF THE ROADWAY.

SEE SHEETS DETGRD001 AND DETGRD002 FOR REFERENCE TO LOCATIONS A, B, C AND D SHOWN IN TYPICALS ABOVE.

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

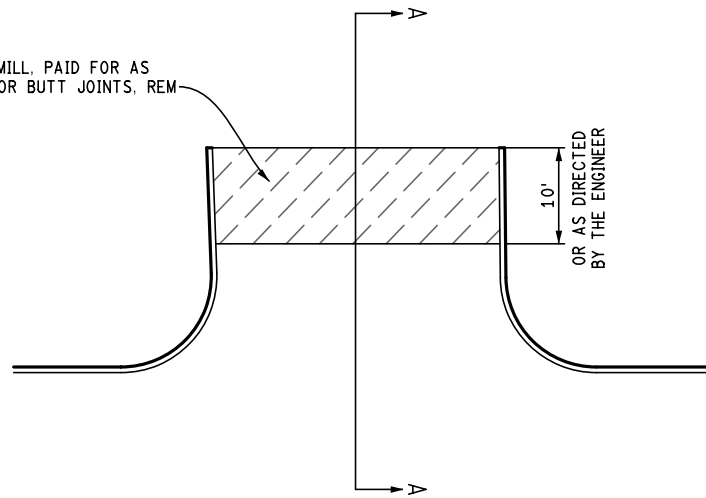


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

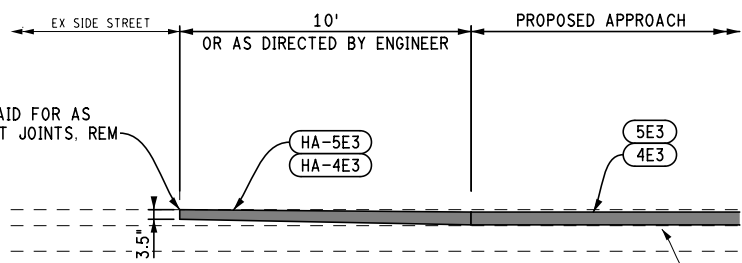
PROPOSED TYPICAL SECTIONS		DRAWING	SHEET
MCNICHOLS STREETScape		MCN TYP 003	6

TAPER MILL, PAID FOR AS PAVT FOR BUTT JOINTS, REM

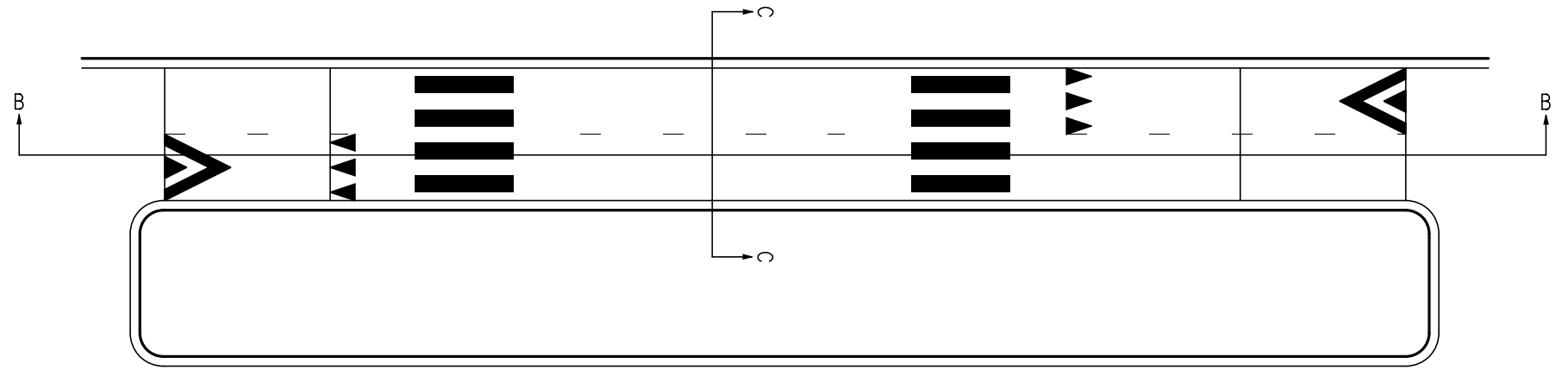


INTERSECTION BUTT JOINT DETAIL

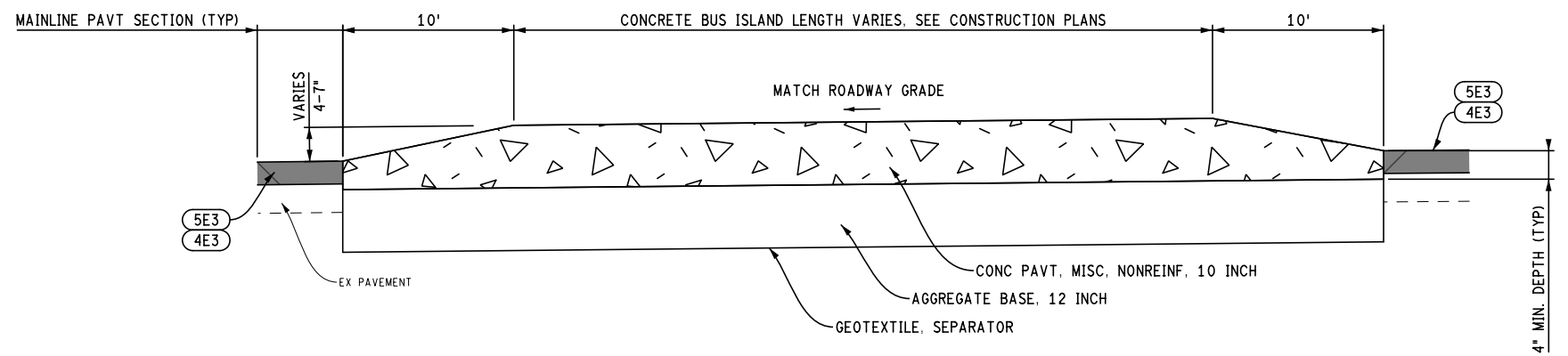
TAPER MILL, PAID FOR AS PAVT FOR BUTT JOINTS, REM



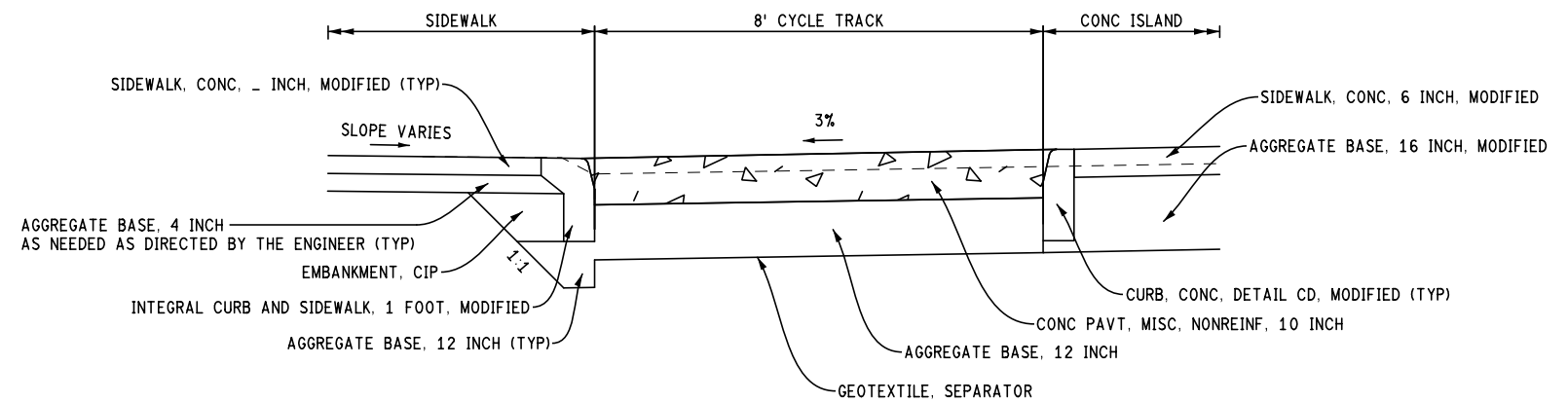
SECTION A-A - BUTT JOINT TYPICAL SECTION



CONCRETE BUS ISLAND BIKE RAMP DETAIL



SECTION B-B - CONCRETE BUS ISLAND BIKE RAMP ELEVATION VIEW



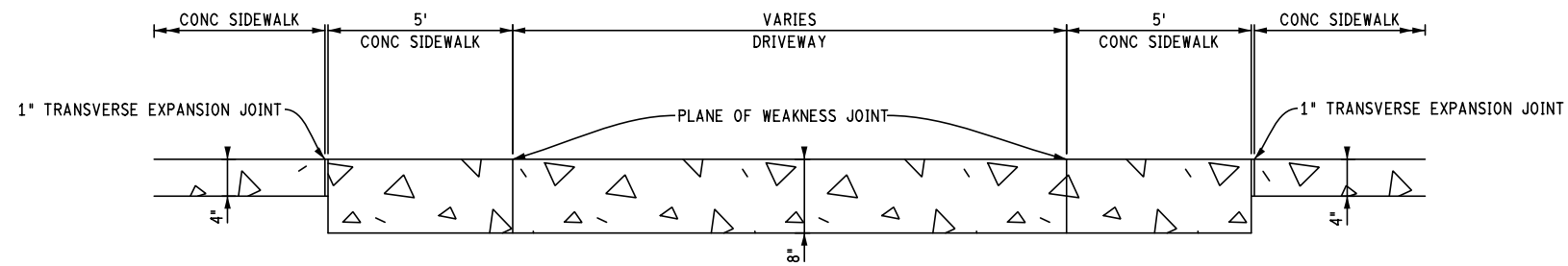
SECTION C-C - CONCRETE BUS ISLAND BIKE RAMP CROSS SECTION

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

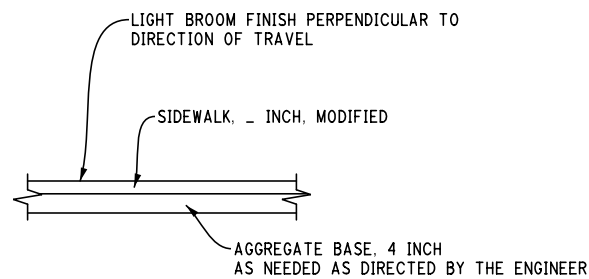


NO SCALE

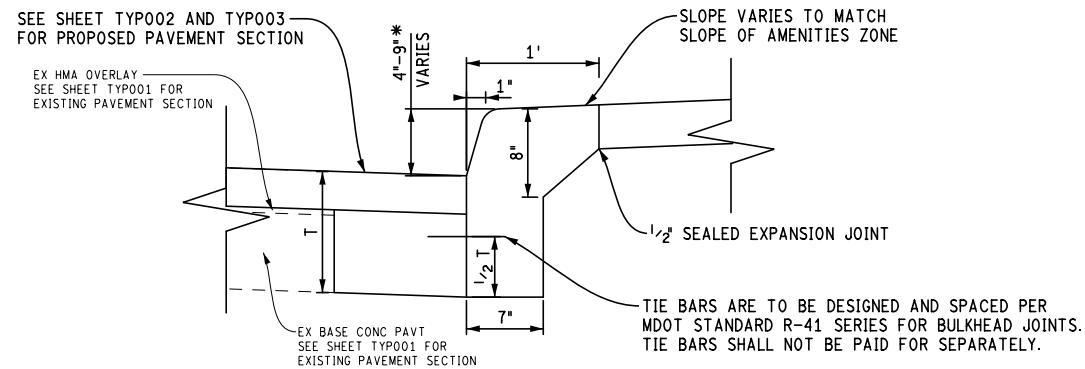
DATE: 02/07/20	JN: PW-7004	MISCELLANEOUS DETAIL SHEET	DRAWING	SHEET
FILE:	MCNICHOLS STREETScape	MCNICHOLS STREETScape	MCN	7
			MSCDET	
			001	



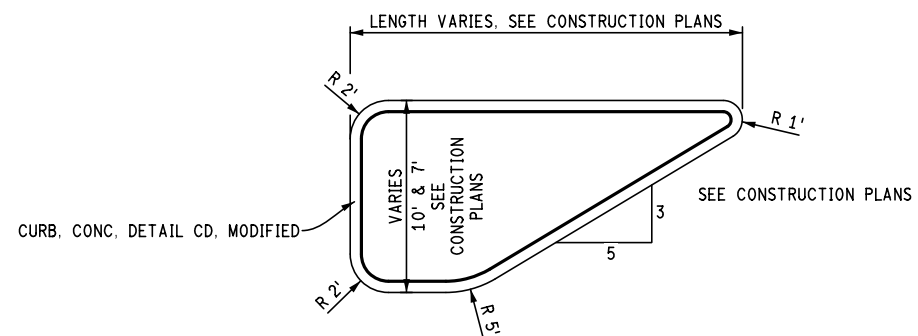
THICKENED CONCRETE SIDEWALK AT DRIVEWAY



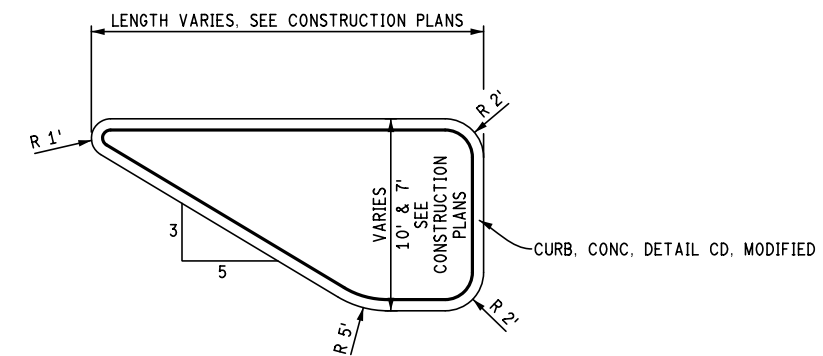
SIDEWALK, _ INCH, MODIFIED



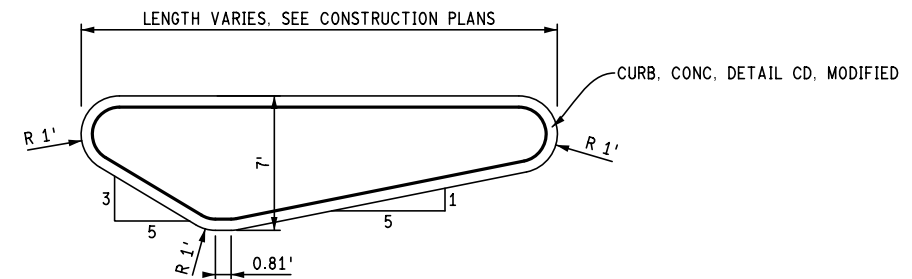
INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED



CURB, CONC, DETAIL CD, MODIFIED



CURB, CONC, DETAIL CD, MODIFIED



CONCRETE ISLAND DETAILS

NOTE:

* REFER TO ELEVATIONS "C" AND "D" ON MCN DETGRD 001 AND 002 FOR CURB REVEAL.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								DATE: 02/07/20		DRAWING SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION	MISCELLANEOUS DETAIL SHEET		MCN MSCDET 002	
								MCNICHOLS STREETSCAPE		8	
								JN: PW-7004			
								MCNICHOLS STREETSCAPE			



NO SCALE

FILE:

JN: PW-7004
MCNICHOLS STREETSCAPE

DRAWING SHEET
MCN MSCDET 002
8

GENERAL NOTES

UTILITIES

MISS DIG/UNDERGROUND UTILITY NOTIFICATION

For the protection of underground utilities and in conformance with Public Act 174 of 2013, the Contractor shall contact MISS DIG System, Inc. by phone at 811 or 800-482-7171 or via the web at either elocate.missdig.org for single address or rte.missdig.org, a minimum of 3 work days prior to excavating, excluding weekends and holidays.

MDOT's roadway lighting system, Intelligent Transportation Systems (ITS) and other miscellaneous electrical systems are not a part of Miss Dig. Contractors shall contact the following at least 5 business days in advance for staking requests. Note that these are not emergency contacts for damage to utilities.

LIGHTING AND TRAFFIC SIGNAL CABLE (within the City of Detroit):
Public Lighting Department: (313) 224-0500

MDOT ELECTRICAL SYSTEMS

Contractors shall contact the maintenance representative at the MDOT Region / TSC Office to have MDOT electrical systems staked.

ROW / REAL ESTATE

PROPERTY OWNERS

The names of property owners shown on the plans are for information only, and their accuracy is not guaranteed.

MARKETABLE TIMBER

Marketable timber shall be handled in accordance with Section 201.03 of the 2012 Standard Specifications for Construction.

LAWN SPRINKLER SYSTEMS AND LANDSCAPING

Owners of existing lawn sprinkler systems and/or landscaping shall be notified (in writing with a copy sent to the Engineer) by the Contractor two weeks in advance of any work to be done that will affect those systems and/or landscaping. If the property owner fails to relocate the lawn sprinkler system prior to the Contractor beginning work, and if the Contractor cuts the system during the construction, the Contractor shall cap the system pipe and witness the location of the cap with a wooden stake for the property owner's use. The Contractor shall place the salvaged sprinkler heads on the property owner's property. If the property owner fails to relocate the landscaping prior to the Contractor beginning work, the Contractor shall carefully salvage the landscaping items and stockpile them on the property owner's property for the property owner. Any other modification to the lawn sprinkler systems and/or landscaping is the responsibility of the owner and is not part of this contract. This work is included in other items of the project.

SURVEY

ADJUSTING MONUMENT BOXES

All government corners on this project shall be preserved, whether shown or not. It may be necessary to place or adjust monument boxes, as required.

CONTRACTOR STAKING

All staking for the project will be conducted by the Contractor in accordance with Section 824 of the 2012 Standard Specifications for Construction.

DETAILED GRADES

GRADES FOR INTERSECTIONS

All intersections are to be considered as complete units and their grades determined before construction is started.

SIDEWALK AND SIDEWALK RAMP GRADES

All sidewalk and sidewalk ramp grades shall be staked according to Standard Plan R-28 series and as shown on the plans. Prior to constructing the sidewalk and sidewalk ramps, the Engineer will verify the grades and authorize the construction of the sidewalk and sidewalk ramps.

EARTHWORK

EARTHWORK

Earthwork quantities are computed by the average end area method based upon ground survey information.

EARTH DISTURBANCE LIMITS

The earth disturbance limit for this project will be limited to 10' beyond the slope stake line or to the ROW line whichever is less. Restoration measures have been included in this set of plans for the approved areas of disturbance. The Contractor shall submit an earth change plan for any work beyond the approved limits to the Engineer to review for approval prior to the disturbance. All costs for obtaining and executing an approved earth change plan, including restoration, shall be at the Contractor's expense.

SOIL EROSION MEASURES

Appropriate soil erosion and sedimentation control measures shall be in place prior to earth-disturbing activities. Place turf establishment items as soon as possible on potential erodable slopes as directed by the Engineer.

BASES

AGGREGATE BASE

Aggregate bases shall use aggregate 21AA, unless otherwise specified.

DRAINAGE

ILLICIT CONNECTIONS TO STORM WATER SYSTEM

Connections to existing storm conveyance systems not shown on the plans must be reconnected with minimal interruption in service. Size, type and location by station and offset and any suspect illicit discharge observed shall be reported to the Engineer prior to reconnecting. Contractor shall proceed as directed by the Engineer.

TEMPORARY BULKHEADS

Temporary bulkheads may be required for the part width construction of the culverts and sewers. All cost associated with the temporary bulkheads are included in the item of the pipe.

PAVEMENT

PAVEMENT AND HMA SURFACE REMOVAL QUANTITIES

Pavement and HMA Surface removal as shown on the plans will be at the discretion of the Engineer. If in his/her judgment, areas of pavement may be left in place, or additional areas added to provide the proper cross-section and base, changes will be made in the quantities.

SOIL BORINGS

The soil boring logs represent point information. No inference should be made that subsurface or pavement conditions are the same at other locations.

CONCRETE HAND FINISHING

Hand finishing of concrete pours to be struck off and consolidated by hand methods will be permitted on variable width lanes and lanes formed by flexible forms for short radius curves, as directed by the Engineer.

INTERSECTION CONCRETE JOINT LAYOUT

The Contractor shall layout all joints for the intersections 5 days prior to concrete placement for the review of the Engineer. The Engineer will

furnish blank intersection worksheets (11" x 17") to scale (1"=30') showing all proposed curb lines, longitudinal lane lines and all existing and proposed utility/drainage structure covers within the intersections to the Engineer prior to the pre-construction meeting. These worksheets will be available for the Contractor's use.

LANDSCAPING

Existing vegetation shall not be damaged during construction operations, per the 2012 Standard Specifications for Construction.

Storage of equipment and materials will be restricted to areas designated by the Engineer. No equipment is permitted within the drip line of existing trees to remain.

Branches of all trees to be saved shall not be removed, or damaged by construction equipment. If removal of lower branches is necessary, contact the City of Detroit for proper methods.

Do not trench within the drip line of existing trees to remain unless specifically approved by the Engineer.

All excavated material will become the property of the contractor. Any excavated material not used on the project will be removed from the site and disposed of in accordance with section 205.03.P of the 2012 Standard Specifications for Construction and any applicable state and/or local ordinances.

Protect existing sidewalks from damage.

Plant material, soil, fertilizer and mulch will be inspected/approved by the Engineer or the Landscape Architect prior to installation. Plant inspection may occur at the nursery source or when plants arrive on site.

Final staking may be adjusted to avoid conflicts with utilities and legally permitted billboards.

SIGNS

GENERAL

All signs shall be installed, removed and/or salvaged according to the current edition of "Michigan Manual on Uniform Traffic Control Devices" and the current edition of Michigan Department of Transportation (MDOT) "Standard Specifications for Construction."

All signs on the plans or in the log that do not have a recommendation are to be retained.

PLAN SCALE

The final plans submitted with the proposal are not to scale. Where proposed on plan sheets, the signs and structures shall be fabricated in accordance to Typical Plans, Standards, and/or Details at locations described.

SIGN LAYOUT

Sign layouts shall be according to the current English edition of "Standard Highway Signs" manual or as detailed in plans. Legend length shall be determined using the "SignCAD" software.

SHEETING

Handling and installation of all signs shall conform to the sheeting manufacturer's specifications and guidelines.

Splice sheeting used for Type I signs with a 3" overlap.

Signs that have wrinkled or twisted sheeting will be rejected.

SIGN INSTALLATION

When attaching signs to supports, tighten the nut, not the bolt head. Nylon washers shall be placed between the steel washer and the sign face sheeting. The nylon washers are to be considered part of the

attaching devices and hardware. Nylon washers shall have a 3/8 inch inner diameter, a 7/8 inch outer diameter and a 1/16 inch thickness.

The Contractor shall attach a date sticker to the back of all signs installed on the contract.

SIGNALS

MAINTAINING AGENCY CONTACT INFORMATION

- MDOT: Statewide Signal Shop (517-322-3360)
- Wayne County Department of Public Services: (734-955-2346)
- City of Detroit: Traffic Engineering Division: (313-224-1610)

FACILITIES NOT ON PLANS

Existing O.H. & T.S. facilities are not necessarily shown on plans.



POLE BAND CLAMP ACCEPTANCE

The current basis of acceptance for this material is now part of the QPL (Qualified Product List). This can be found in the materials Acceptance Requirements Table, published in the MQAP and repeated for convenience in the Materials Source Guide.

MISCELLANEOUS

AUDIO-VISUAL FILMING

An audio-visual filming of the project conditions as described in the unique special provision must be completed before and after construction.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								 	NO SCALE	DATE: 02/07/20		NOTE SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			JN: PW-7004		MCN NOTE 001	10		
										MCNICHOLS STREETSCAPE					
								FILE:							

MISCELLANEOUS QUANTITIES

The following items of work shall be done as they apply throughout the project. These items are not detailed or included on the plan and profile sheets.

MISCELLANEOUS ITEMS FOR CONSTRUCTION

1	LS	Audio-Visual Filming
1	LS	Monitoring Vibrations
1	LS	Mobilization, Max
1	LS	Site Preparation, Max _
1	LS	Watering and Cultivating, First Season, Min _
1	LS	Watering and Cultivating, Second Season, Min _
390	Ft	Exploratory Investigation, Vertical
189	Syd	Pavt Repr, Nonreinf Conc, 9 inch
189	Syd	Pavt Repr, Rem
1000	Syd	Aggregate Base, 4 inch
3000	Syd	Cold Milling Conc Pavt
1	LS	Contractor Staking
42	Hr	Staking Plans Errors and Extras, One Person
17	Hr	Staking Plans Errors and Extras, Two Person
25	Hr	Staking Plans Errors and Extras, Three Person
6	Mo	Field Office

MAINTENANCE OF TRAFFIC QUANTITIES *

50	Ea	Barricade, Type III, High Intensity, Lighted, Furn
50	Ea	Barricade, Type III, High Intensity, Lighted, Oper
30	Ea	Pedestrian Type II Barricade, Temp
250	Ft	Pedestrian Type II Channelizer, Temp
150	Ea	Channelizing Device, 42 inch, Furn
150	Ea	Channelizing Device, 42 inch, Oper
4	Ea	Lighted Arrow, Type C, Furn
4	Ea	Lighted Arrow, Type C, Oper
1	LS	Minor Traf Devices
5000	Ft	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp
35000	Ft	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp
150	Ea	Plastic Drum, High Intensity, Furn
150	Ea	Plastic Drum, High Intensity, Oper
20	Ea	Sign Cover
4	Ea	Sign, Portable, Changeable Message, NTCIP-Compliant, Furn
4	Ea	Sign, Portable, Changeable Message, NTCIP-Compliant, Oper
3000	Sft	Sign, Type B, Temp, Prismatic, Furn
3000	Sft	Sign, Type B, Temp, Prismatic, Oper
1000	Sft	Sign, Type B, Temp, Prismatic, Special, Furn
1000	Sft	Sign, Type B, Temp, Prismatic, Special, Oper
1	LS	Traf Regulator Control
1000	Ft	Fence, Protective
12	Ea	TS Face, Bag
12	Ea	TS Face, Bag, Rem
500	Ft	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar
1000	Ft	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk
17	Ea	Pavt Mrkg, Ovly Cold Plastic, Only
7	Ea	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym
4	Ea	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym
6	Ea	Pavt Mrkg, Ovly Cold Plastic, Thru Arrow Sym
20	Ea	8ft x 2ft; Feather Flag; Single-Sided Full Color
20	Ea	Feather Flag Indoor Cross-Base Stand 8ft (Full Kit)
4	Ea	36" x 24"; Sandwich Board (Cor. Plastic); Double-Sided Full Color
4	Ea	4ft x 6ft; Premium Banner; Single-Sided Full Color
6	Ea	Bus Stop, Temp

* Quantities Include Wyoming Ave to Greenlawn Ave Section

WYOMING AVE TO GREENLAWN AVE QUANTITIES

220	Ft	Curb, Rem
63	Ft	Integral Curb and Sidewalk, 2 Feet, Rem, Modified
290	Ft	Curb, Conc, Detail CD, Modified
6	Ft	Integral Curb and Sidewalk, 2 Feet, Modified
127	Ft	Curb Ramp Opening, Conc
1775	Sft	Sidewalk Ramp, ADA, Modified
102	Ft	Detectable Warning Surface
586	Syd	Sidewalk, Rem
3635	Sft	Sidewalk, Conc, 4 inch, Modified
647	Sft	Sidewalk, Conc, 6 inch, Modified
183	Sft	Sidewalk Ramp, Conc, 6 inch
22	Syd	Conc Pavt, Nonreinf, 12 inch
11233	Syd	Cold Milling HMA Surface, Modified
927	Ton	HMA, 5E3
1236	Ton	HMA, 4E3
38	Ea	Dr Structure Cover, Adj, Case 1, Modified
1	Ea	Dr Structure Cover, Adj, Case 2, Modified
358	Syd	Pavt for Butt Joints, Rem
2	Ea	Water Shutoff, Adj, Case 1, Modified
2	Ea	Water Shutoff, Adj, Case 2, Modified
4	Ea	Gate Box, Adj, Case 2
133	Syd	Pavt, Rem
528	Syd	HMA Surface, Rem
84	Syd	Aggregate Base, 16 inch
60	Cyd	Excavation, Earth, Modified
22	Syd	Aggregate Base, 12 inch
3	Ea	Reconstructing Dr Structure, Case 1, Modified
222	Syd	Pavt Repr, Nonreinf Conc, 10 inch
222	Syd	Pavt Repr, Rem
112	Ton	HMA Approach, Modified
5	Ton	HMA Approach, Driveway, Modified
528	Syd	Geotextile, Separator
1	Ea	Tree, Rem, 19 inch to 36 inch
146	Ton	Conditioning Existing Pavement, Modified
1	Ea	Bench (Backless)
2	Ea	Bench with Back
1	Ea	Litter Receptacle
2	Ea	Bike Rack
1	Ea	Bus Shelter
4879	Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
4431	Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
586	Ft	Pavt Mrkg, Polymer Cement, 4 inch, Yellow
180	Ft	Pavt Mrkg, Polymer Cement, 6 inch, White
275	Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
160	Ft	Pavt Mrkg, Ovly Cold Plastic, 6 inch, White
223	Ft	Pavt Mrkg, Ovly Cold Plastic, 18 inch, Stop Bar
1654	Ft	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk
1237	Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching White
63	Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching Yellow
556	Ft	Pavt Mrkg, Modified Urethane, 4 inch, White
255	Ft	Pavt Mrkg, Modified Urethane, 4 inch, Cross Hatching White
4	Ea	Pavt Mrkg, Polymer Cement, Yield, Bike
37	Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
36	Ea	Pavt Mrkg, Polymer Cement, Bike
3202	Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
129	Ea	Post, Delineator, 36 inch, Green
218	Ft	Recessing for Pavt Mrkg, 18 inch
1594	Ft	Recessing for Pavt Mrkg, 12 inch
7	Ea	Pavt Mrkg, Ovly Cold Plastic, Only
3	Ea	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym
3	Ea	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym
1	Ea	Pavt Mrkg, Ovly Cold Plastic, Sharrow Symbol
380	Sft	Rem Spec Mrkg
12	Ea	Sign, Type III, Rem
122	Sft	Sign, Type IIIB
127	Ft	Post, Steel, 3 lb
20	Ea	Band, Sign
4	Ea	Post Hole Through Conc for Steel Post

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETSCAPE

MISCELLANEOUS QUANTITIES & ESTIMATES SHEET

MCNICHOLS STREETSCAPE

DRAWING SHEET
MCN MSCQNT 001 11

SURVEY

GENERAL

- △ CP ALIGNMENT POINT MONUMENT
- ⊗ MONUMENT BOX

CONTROL

- △ CP CONTROL POINT
- ⊕ BM BENCHMARK
- △ REFERENCE - GPS
- △ REFERENCE - NGS
- ⊕ REFERENCE - USGS

BOUNDARY

- CITY LIMIT - MAP
- CITY LIMIT
- PARCEL-L PARCEL - LEGAL
- PARCEL-NL PARCEL - NON-LEGAL
- PLAT-L PLAT - LEGAL
- PLAT-NL PLAT - NON-LEGAL
- ROW - FREE ACCESS
- ROW - LIMITED ACCESS
- SEC - SECTION LINE
- SEC 1/4 - SECTION LINE - QUARTER
- SEC 1/8 - SECTION LINE - EIGHTH
- SEC 1/16 - SECTION LINE - SIXTEENTH
- TOWNSHIP LINE (MAP)
- ⊠ CONCRETE MONUMENT
- CONTIGUOUS PROPERTY SYMBOL
- ⊗ PARCEL CORNER - CAPPED IRON
- ⊙ PARCEL CORNER - IRON PIN
- ⊙ PARCEL CORNER - IRON PIPE
- PARCEL CORNER - NO ID
- 123456 PARCEL NUMBER BOX
- ⊠ PLAT CORNER
- PROPERTY OWNERSHIP ARROW
- PROPERTY OWNERSHIP ARROW - DOUBLE
- ⊠ ROW MONUMENT
- ⊕ SECTION CORNER - CENTER
- ⊕ SECTION CORNER - MEANDER
- ⊕ SECTION CORNER - QUARTER
- ⊕ SECTION CORNER - QUARTER-HALF
- ⊕ SECTION CORNER - SECTION
- ⊕ SECTION CORNER - SECTION-HALF
- ⊕ SECTION CORNER - SIXTEENTH
- ⊕ SECTION CORNER - WITNESS

MONUMENT PRESERVATION

- PRESERVE MONUMENT
- PROTECT MONUMENT

GENERAL LABELING

GENERAL

- LEFT TURN ARROW
- TRAFFIC FLOW ARROW

REMOVAL

- (A) ABANDON
- (B) BULKHEAD
- (C) CLEARING
- (R) REMOVE
- (SALV) SALVAGE
- (S) SAVE

CONSTRUCTION

- (ADJ) ADJUST
- (ADJ-B) ADJUST - STRUC COVER WITH TYPE
- (ADJ-B/O) ADJUST - BY OTHERS

REMOVAL AND CONSTRUCTION

- (REL-1) RELOCATE - WITH CASE NUMBER
- (REL-B/O) RELOCATE - BY OTHERS

CONSTRUCTION LIMITS

- SLOPE STAKE LINE

BORINGS

- ⊗ BH# BORING

STRUCTURES

- BEAM UNDERCLEARANCE
- REFERENCE POINT
- 501 OF 12345 STRUCTURE NO. + CONTROL SEC. LABEL

VEGETATION

- BRUSH LINE
- HEDGE LINE
- TREE LINE - CANOPY OR TRUNK
- TREE LINE - TRUNK
- SHRUB
- TREE - CONIFER
- TREE - DECIDUOUS
- TREE - STUMP

ENVIRONMENTAL

- EROSION CONTROL - SILT FENCE
- WETLAND - LEGAL
- WETLAND - NON-LEGAL
- CONTAMINATION - MONITORING WELL
- (12) EROSION CONTROL NUMBER
- EROSION CONTROL - RIPRAP
- W.T. 12' WATER TABLE - PLAN NOTE
- WETLAND - SPOT EL
- POTENTIALLY CONTAMINATED SITE

ROADSIDE / SITE

- ANTENNA
- BIG ROCK
- FLAG POLE
- PICNIC STOVE
- PICNIC TABLE
- SATELLITE DISH

NOTE:

EXISTING ITEMS ARE REPRESENTED BY THIN LINE WEIGHTS.
PROPOSED ITEMS ARE REPRESENTED BY HEAVIER LINE WEIGHTS.

RAILROAD

- TRACK
- ⊗ CROSSING - GATE
- CROSSING - SIGNAL BOX
- CROSSING - SIGNAL FLASHING
- X CROSSING - SYMBOL

SIGNS

- TT POST - DOUBLE
- T POST - SINGLE
- STRUCTURE - CANTILEVER (EXISTING)
- STRUCTURE - CANTILEVER
- STRUCTURE - TRUSS (EXISTING)
- STRUCTURE - TRUSS
- SUSPENDED (EXISTING)

MAINTAINING TRAFFIC

- TYPE III BARRICADE
- CHANNELIZING DEVICE - CONE
- CHANNELIZING DEVICE - DRUM
- LIGHT - HIGH INTENSITY TYPE B
- LIGHT - STEADY BURN TYPE C
- LIGHTED ARROW PANEL - BAR
- LIGHTED ARROW PANEL
- PORTABLE CHANGEABLE MESSAGE SIGN
- TRAFFIC REGULATOR
- TEMPORARY SIGN
- TEMPORARY TRAFFIC SIGNAL

- WORK AREA

BARRIERS

- CABLE BARRIER - NOT TO SCALE
- CABLE BARRIER - TRUE SCALE
- CONCRETE BARRIER - DOUBLE FACE
- CONCRETE BARRIER - SINGLE FACE
- FENCE
- GUARDRAIL - NOT TO SCALE
- GUARDRAIL - TRUE SCALE
- NOISE BARRIER
- FENCE POST
- GUARDRAIL RUN NUMBER
- IMPACT ATTENUATOR
- POST - MAILBOX
- POST - NO ID

SURFACING

REMOVAL

- CONCRETE RUBBLIZING OR HMA CRUSH & SHAPE
- HMA COLDMILLING
- HMA SURFACE REMOVAL AND / OR PAVEMENT REMOVAL

PROPOSED

- AGGREGATE APPROACH
- BRIDGE APPROACH
- HMA APPROACH
- MISCELLANEOUS CONCRETE

SIDEWALK

- SIDEWALK - REMOVAL
- SIDEWALK - CONCRETE RAMP
- SIDEWALK - DETECT. WARNING SURF.
- SIDEWALK - LANDING
- (SWR-F) SIDEWALK - RAMP LABEL

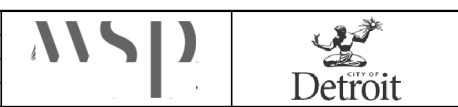
TYPICAL SECTION

- CONCRETE - PROPOSED
- HMA - PROPOSED

CURB & GUTTER

- CURB & GUTTER REMOVAL

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20
JN: PW-7004
MCNICHOLS STREETScape

LEGEND SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN LEG 001	12

UTILITIES

COMBINED SEWER

- COMBINED SEWER
- //→→//→→→→ COMBINED SEWER - OUT OF SERVICE
- COMBINED SEWER - TO BE TAKEN OUT OF SERVICE
- ×→→×→→→→ COMBINED SEWER - TO BE REMOVED

COMMUNICATION

- FO—— FIBER OPTIC
- //——FO—— FIBER OPTIC - OUT OF SERVICE
- FO-OH—— FIBER OPTIC - OVERHEAD
- Ⓜ FIBER OPTIC MARKER
- C—— CABLE
- //——C—— CABLE - OUT OF SERVICE
- C-OH—— CABLE - OVERHEAD
- Ⓜ CABLE MARKER
- ◇ CABLE PEDESTAL
- T—— TELEPHONE
- //——T—— TELEPHONE - OUT OF SERVICE
- T-OH—— TELEPHONE - OVERHEAD
- Ⓜ TELEPHONE BOX
- Ⓜ TELEPHONE MANHOLE
- ◇ TELEPHONE PEDESTAL

FUEL / PETROLEUM

- ⊖ GASOLINE FILLER PIPE
- Ⓜ GASOLINE PUMP
- Ⓜ GASOLINE UNDERGROUND TANK
- PETRO—— PETROLEUM PIPELINE
- //——PETRO—— PETROLEUM PIPELINE - OUT OF SERVICE
- Ⓜ PETROLEUM PIPELINE MARKER
- Ⓜ PETROLEUM WELL
- Ⓜ PROPANE TANK

NATURAL GAS

- G—— GAS LINE
- //——G—— GAS LINE - OUT OF SERVICE
- Ⓜ MARKER
- Ⓜ VALVE
- Ⓜ WELL

SANITARY SEWER

- Ⓜ MANHOLE WITH COVER (DIA VARIES)
- S—— SEWER
- //——S—— SEWER - OUT OF SERVICE
- SEWER - TO BE TAKEN OUT OF SERVICE
- ×—— SEWER - TO BE REMOVED

WATER

- Ⓜ FIRE HYDRANT
- ⊗ GATE VALVE AND BOX
- Ⓜ GATE VALVE IN WELL
- Ⓜ IRRIGATION CONTROL VALVE
- Ⓜ IRRIGATION SPRINKLER HEAD
- Ⓜ SERVICE METER
- ⊖ SERVICE SHUTOFF
- Ⓜ WATER WELL
- I—— IRRIGATION
- W—— WATER MAIN
- //——W—— WATER MAIN - OUT OF SERVICE
- WATER MAIN - TO BE TAKEN OUT OF SERVICE
- ×—— WATER MAIN - TO BE REMOVED

STEAM

- STEAM—— STEAM
- //——STEAM—— STEAM - OUT OF SERVICE

GENERIC EXISTING UTILITIES

- Ⓜ □ CATCH BASIN COVER
- MANHOLE COVER
- Ⓜ MARKER
- ◇ PEDESTAL
- Ⓜ SEWER CLEANOUT ACCESS
- STRUCTURE BOTTOM (DIA VARIES)
- Ⓜ UTILITY BOX
- U—— UTILITY

DRAINAGE

- Ⓜ Ⓜ Ⓜ CATCH BASIN W/ COVER (DIA VARIES)
- 12 DRAINAGE STRUCTURE NUMBER
- DRAIN CASTING
- DROP INLET
- ▷ ▷ ▷ ▷ END SECTION (SIZE VARIES)
- FLOW DIRECTION ARROW
- Ⓜ HEADWALL (SIZE VARIES)
- Ⓜ MANHOLE W/ COVER (DIA VARIES)
- Ⓜ MANHOLE BASE W/ COVER (SIZE VARIES)
- Ⓜ MANHOLE TEE W/ COVER (SIZE VARIES)
- Ⓜ OUTLET HEADWALL (SIZE VARIES)
- ——— CULVERT - EXISTING
- ——— CULVERT (SIZE VARIES)
- ——— DITCH CENTERLINE
- ▷ ▷ ▷ ▷ STORM SEWER - EXISTING
- → → → STORM SEWER
- × ▷ × ▷ × ▷ × STORM SEWER - TO BE REMOVED
- → → → UNDERDRAIN
- ——— WATER EDGE

NOTE:

EXISTING ITEMS ARE REPRESENTED BY THIN LINE WEIGHTS.
PROPOSED ITEMS ARE REPRESENTED BY HEAVIER LINE WEIGHTS.

SPECIAL LEGEND THIS PROJECT

- Ⓜ TREE WELL
- Ⓜ BUS SHELTER
SEE ENLARGEMENTS FOR BENCH (BACKLESS LOCATION)
- Ⓜ BENCH WITH BACK
- Ⓜ BIKE RACK
- Ⓜ LITTER RECEPTACLE
- Ⓜ BUS STOP SIGN
- Ⓜ STREET LIGHT

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

LEGEND SHEET
MCNICHOLS STREETScape

DRAWING SHEET
MCN LEG 002 13

ELECTRICAL

- CONTROLLER CABINET - PAD MOUNTED
- HANDHOLE
- MANHOLE
- POLE UTILITY - EXISTING
- POLE UTILITY
- TRANSFORMER - PAD MOUNTED
- TRANSFORMER - POLE MOUNTED
- E — CABLE
- x- E -x- CABLE - TO BE REMOVED
- E-OH — CABLE OVERHEAD
- x- E-OH -x- CABLE OVERHEAD - TO BE REMOVED
- I — E — I — CABLE IN CONDUIT
- x- I — E — I -x- CABLE IN CONDUIT - TO BE REMOVED
- CABLE IN CONDUIT - DIRECTIONAL BORE

ARCHITECTURAL

- EXIT SIGN WITH EMERGENCY LIGHT
- LIGHT RECESSED FIXTURE
- MOTOR
- OUTLET BOX
- OUTLET SINGLE
- OUTLET TELEPHONE
- SERVICE DISCONNECT
- SERVICE METER
- SWITCH
- SWITCH THREE WAY
- WALL BRACKET FIXTURE

LIGHTING

- CONTROL PANEL - EXISTING
- CONTROL PANEL
- LIGHT STANDARD EXISTING - TO BE REMOVED & SALVAGED
- LIGHT STANDARD DOUBLE ARM - EXISTING
- LIGHT STANDARD DOUBLE ARM
- LIGHT STANDARD POST TOP - EXISTING
- LIGHT STANDARD POST TOP
- LIGHT STANDARD SINGLE ARM - EXISTING
- LIGHT STANDARD SINGLE ARM
- LIGHT POLE - TEMPORARY
- LUMINAIRE WALL MOUNTED UNDERBRIDGE - EXISTING
- LUMINAIRE WALL MOUNTED UNDERBRIDGE
- TOWER LIGHTING UNIT - EXISTING
- TOWER LIGHTING UNIT

ITS / SIGNALS

- DYNAMIC MESSAGE SIGN - EXISTING
- DYNAMIC MESSAGE SIGN
- ENVIRONMENTAL SENSOR STATION SITE
- FIBER OPTIC SPLICE PEDESTAL
- HANDHOLE, ROUND, 3 FOOT DIAMETER
- HANDHOLE, ROUND, COMMUNICATIONS
- HANDHOLE, ROUND, ELECTRIC
- HANDHOLE, TYPE D
- ITS CABINET - EXISTING
- ITS CABINET
- MICROWAVE VEHICLE DETECTION SYSTEM - EXISTING
- MICROWAVE VEHICLE DETECTION SYSTEM
- MICROWAVE VEHICLE DETECTION SYSTEM ZONE COVERAGE - EXISTING
- MICROWAVE VEHICLE DETECTION SYSTEM ZONE COVERAGE
- SPUN CONCRETE POLE - EXISTING
- SPUN CONCRETE POLE
- SURVEILLANCE SYSTEM - EXISTING
- SURVEILLANCE SYSTEM
- WIRELESS LINK - EXISTING
- WIRELESS LINK
- COMMUNICATIONS CABLE IN CONDUIT
- COMMUNICATIONS CABLE IN CONDUIT - TO BE REMOVED
- ANTENNA
- CASE SIGN (1-WAY OR 2-WAY)
- CASE SIGN (4-WAY)
- DEDICATED SHORT RANGE COMMUNICATIONS
- CONTROLLER CABINET - POLE MOUNTED
- CONTROL EMERGENCY PREEMPTION OPTICOM
- DILEMMA ZONE DETECTION
- GLOBAL POSITIONING SYSTEM MODULE
- GUY ANCHOR
- PEDESTRIAN PEDESTAL
- PEDESTRIAN PUSHBUTTON
- POLE MAST ARM (LENGTH VARIES) - EXISTING
- POLE MAST ARM (LENGTH VARIES)
- POLE STRAIN
- ROAD SIGN W/ FLASHING SIGN OPTICAL (1-WAY)
- SIGNAL HANDHOLE - 30 INCH ROUND
- SIGNAL HANDHOLE - 36 INCH ROUND
- SIGNAL HANDHOLE - SQUARE
- SIGNAL HEAD PEDESTRIAN - EXISTING
- SIGNAL HEAD PEDESTRIAN 1-WAY
- SIGNAL HEAD PEDESTRIAN 2-WAY
- SIGNAL HEAD VEHICLE - EXISTING
- SIGNAL HEAD VEHICLE 1-WAY
- SIGNAL HEAD VEHICLE 2-WAY
- SIGNAL HEAD VEHICLE 3-WAY
- SIGNAL HEAD VEHICLE 4-WAY
- SIGNAL HEAD VEHICLE BAGGED
- SIGNAL HEAD VEHICLE PROGRAMMABLE
- VEHICLE DETECTION CAMERA
- VEHICLE DETECTION CAMERA - HEMISPHERICAL
- VEHICLE DETECTION LOOP
- VEHICLE DETECTION - RADAR
- WIRELESS VEHICLE DETECTION RADIO RECEIVER
- WIRELESS VEHICLE DETECTION RADIO REPEATER
- WIRELESS VEHICLE DETECTION SENSOR - EXISTING
- WIRELESS VEHICLE DETECTION SENSOR

CABLING / WIRING DIAGRAM

- CIRCUIT BREAKER
- COILED WIRE
- FUSE
- FUSE SWITCH
- GROUND
- ILLUMINATED CASE SIGN
- METER
- SERVICE DISCONNECT
- SIGNAL HEAD

NOTE:

EXISTING ITEMS ARE REPRESENTED BY THIN LINE WEIGHTS.
PROPOSED ITEMS ARE REPRESENTED BY HEAVIER LINE WEIGHTS.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

LEGEND SHEET
MCNICHOLS STREETScape

DRAWING	SHEET
MCN LEG 003	14

BENCHMARKS

BENCHMARK #: 200
 DESCRIPTION: SET COTTON SPINDLE ON NORTH FACE OF LIGHT POLE IN SW QUAD OF MCNICHOLS AND GREENLAWN.
 EL: = 185.53 STA.= 13+66.84 OFF = 24.91' RT

BENCHMARK #: 201
 DESCRIPTION: SET COTTON SPINDLE NORTH FACE OF UTILITY POLE IN SE QUAD OF S. ALLY AND TURNER.
 EL: = 185.40 STA.= 19+17.61 OFF = 157.41' RT

BENCHMARK #: 202
 DESCRIPTION: SET COTTON SPINDLE IN NORTH FACE OF LIGHT POLE IN SE QUAD OF MCNICHOLS AND TULLER.
 EL: = 184.13 STA.= 21+79.30 OFF = 23.00' RT

BENCHMARK #: 203
 DESCRIPTION: SET MARK ON ARROW OF FIRE HYDRANT AT SW CORNER OF SAN JUAN AND MCNICHOLS.
 EL: = 184.23 STA.= 26+63.99 OFF = 41.26' RT

BENCHMARK #: 205
 DESCRIPTION: SET COTTON SPINDLE IN NE FACE OF LIGHT POLE AT SOUTH SIDE OF MCNICHOLS ACROSS FROM CROWN LIQUOR.
 EL: = 176.92 STA.= 33+71.02 OFF = 23.81' RT

BENCHMARK #: 206
 DESCRIPTION: SET COTTON SPINDLE IN NORTH FACE OF POWER POLE AT SE CORNER OF SANTA ROSA AND MCNICHOLS.
 EL: = 175.15 STA.= 35+63.82 OFF = 24.05' RT

BENCHMARK #: 207
 DESCRIPTION: ARROW ON FIRE HYDRANT SE CORNER OF STOEPEL AND MCNICHOLS.
 EL: = 174.98 STA.= 38+47.59 OFF = 49.81' RT

BENCHMARK #: 208
 DESCRIPTION: SET "X" ON SE BOLT OF LIGHT POLE AT S. SIDE OF MCDONALDS PARKING LOT. NORTH SIDE OF MCNICHOLS JUST WEST OF LIVERNOIS.
 EL: = 177.14 STA.= 40+15.88 OFF = 31.49' LT

BENCHMARK #: 209
 DESCRIPTION: SET MARK ON ARROW OF FIRE HYDRANT AT SW CORNER OF MONICA AND MCNICHOLS.
 EL: = 180.47 STA.= 32+32.49 OFF = 40.97' RT

BENCHMARK #: 220
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF ROSELAWN AND MCNICHOLS.
 EL: = 187.53 STA.= N/A OFF = N/A

BENCHMARK #: 221
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF NORTHLAWN AND MCNICHOLS.
 EL: = 189.44 STA.= N/A OFF = N/A

BENCHMARK #: 222
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF CHERRYLAWN AND MCNICHOLS.
 EL: = 190.97 STA.= N/A OFF = N/A

BENCHMARK #: 223
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF OHIO AND MCNICHOLS.
 EL: = 190.48 STA.= N/A OFF = N/A

BENCHMARK #: 224
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF WISCONSIN AND MCNICHOLS.
 EL: = 189.93 STA.= N/A OFF = N/A

BENCHMARK #: 225
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF INDIANA AND MCNICHOLS.
 EL: = 188.71 STA.= N/A OFF = N/A



BENCHMARK #: 226
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF KENTUCKY AND MCNICHOLS.
 EL: = 186.81 STA.= N/A OFF = N/A

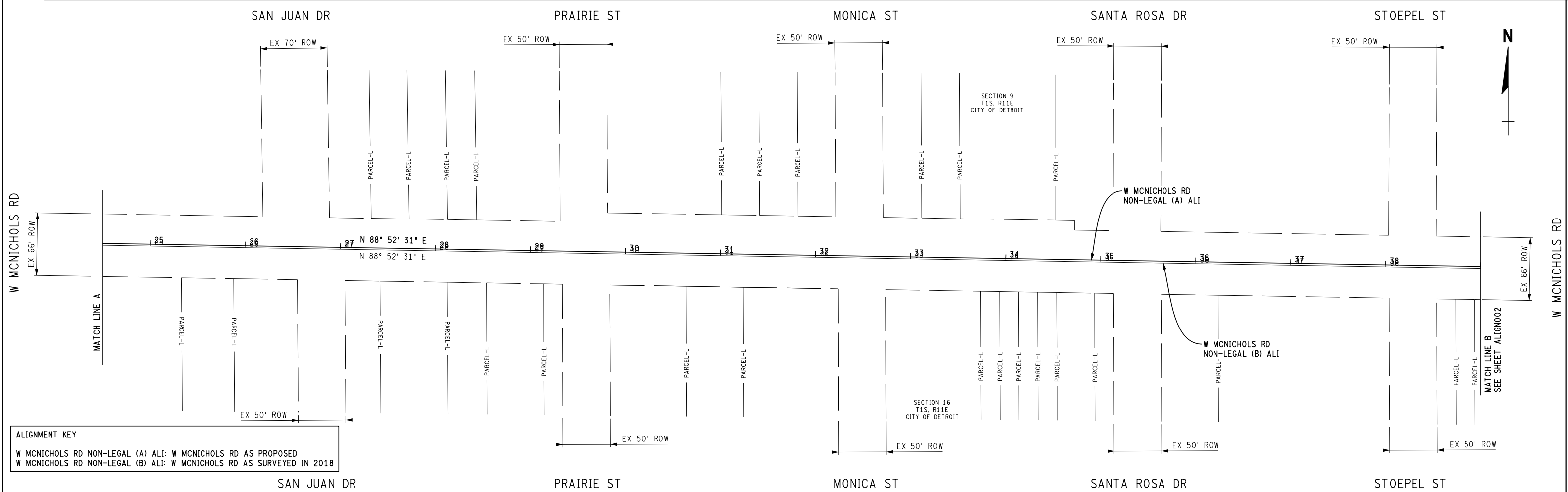
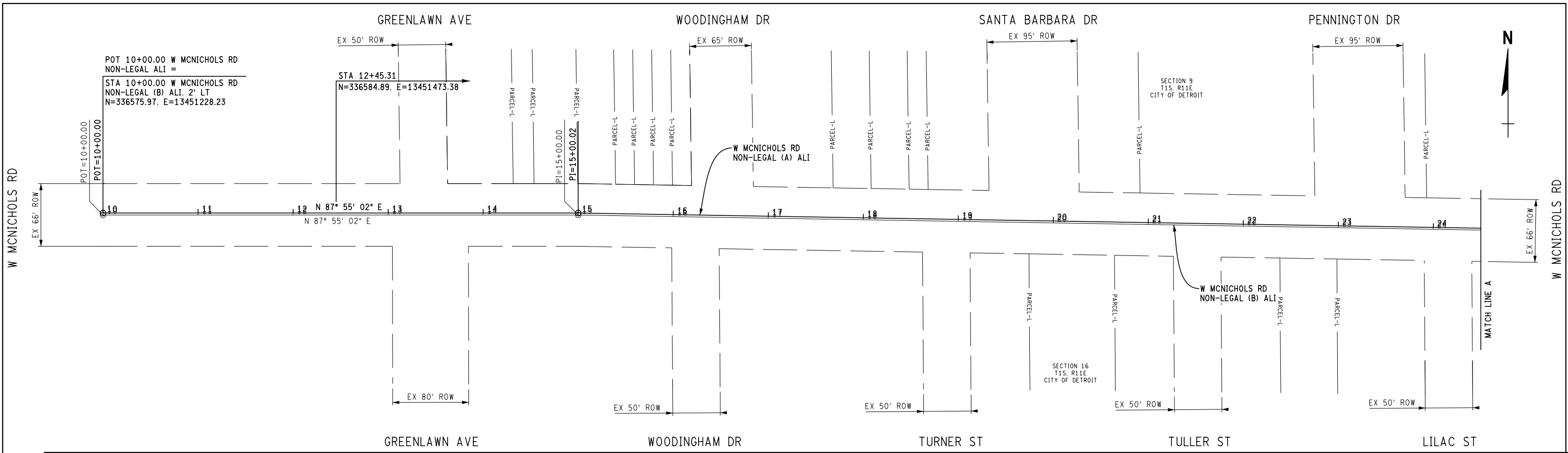
BENCHMARK #: 227
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE NORTHEAST QUADRANT OF WYOMING AND MCNICHOLS.
 EL: = 186.25 STA.= N/A OFF = N/A

BENCHMARK #: 228
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT AT NORTHWEST QUADRANT OF WASHBURN AND MCNICHOLS.
 EL: = 185.55 STA.= N/A OFF = N/A

BENCHMARK #: 229
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT AT NORTHWEST QUADRANT OF ILENE AND MCNICHOLS.
 EL: = 185.13 STA.= N/A OFF = N/A

BENCHMARK #: 231
 DESCRIPTION: ARROW ON TOP OF FIRE HYDRANT IN THE SOUTH WEST QUADRANT OF MCNICHOLS/GRIGGS.
 EL: = 185.89 STA.= N/A OFF = N/A

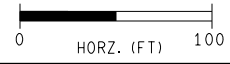
REVISIONS								 	NO SCALE	DATE: 02/07/20		SURVEY INFORMATION SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			JN: PW-7004		MCN SURVEY	16		
										MCNICHOLS STREETSCAPE		002			
								FILE:			MCNICHOLS STREETSCAPE				



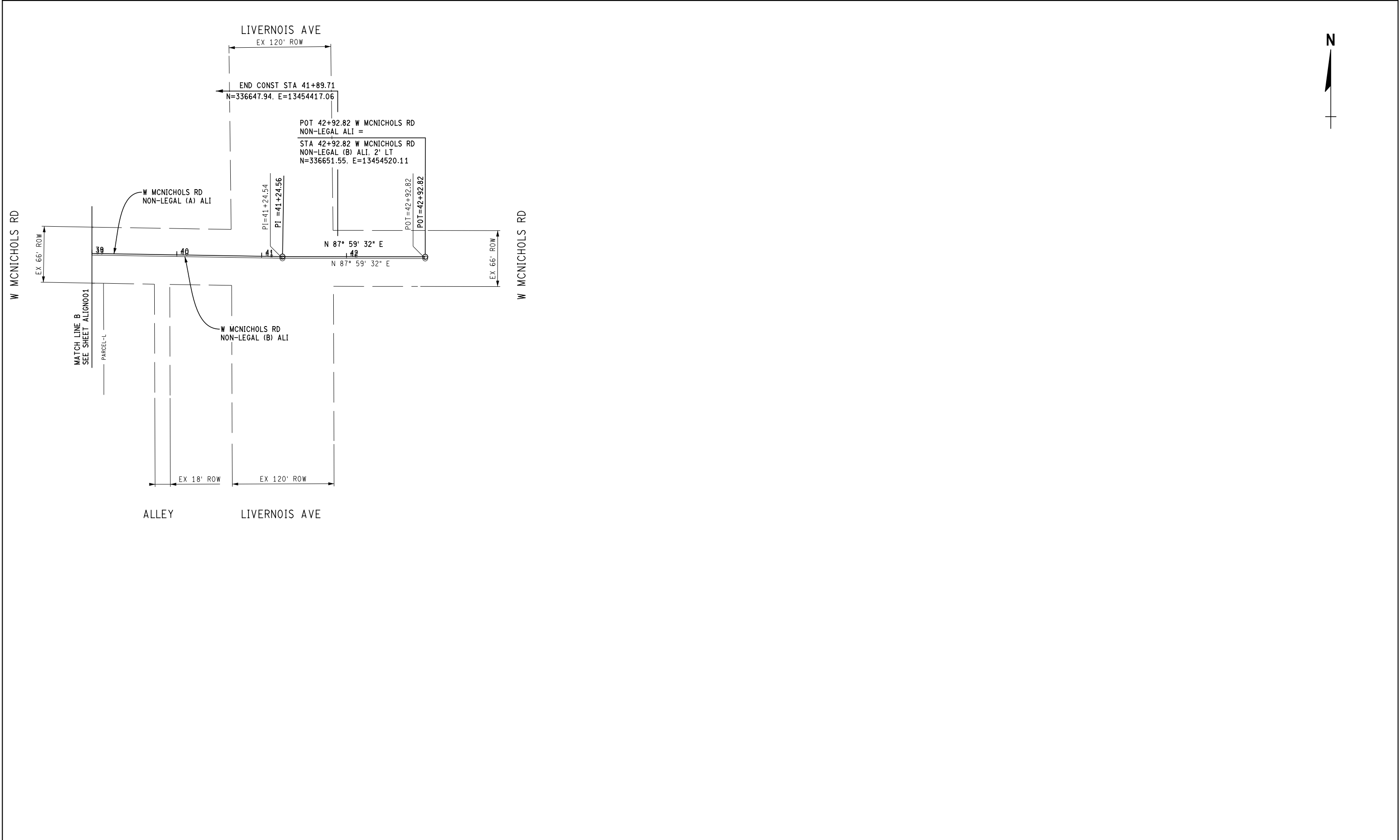
ALIGNMENT KEY

W McNichols Rd Non-Legal (A) Ali	W McNichols Rd As Proposed
W McNichols Rd Non-Legal (B) Ali	W McNichols Rd As Surveyed in 2018

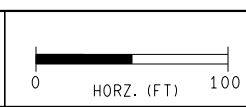
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)				DATE: 02/07/20				ALIGNMENT SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION	MCNICHOLS STREETScape		MCN	001
								JN: PW-7004			17
								MCNICHOLS STREETScape			



FILE:



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



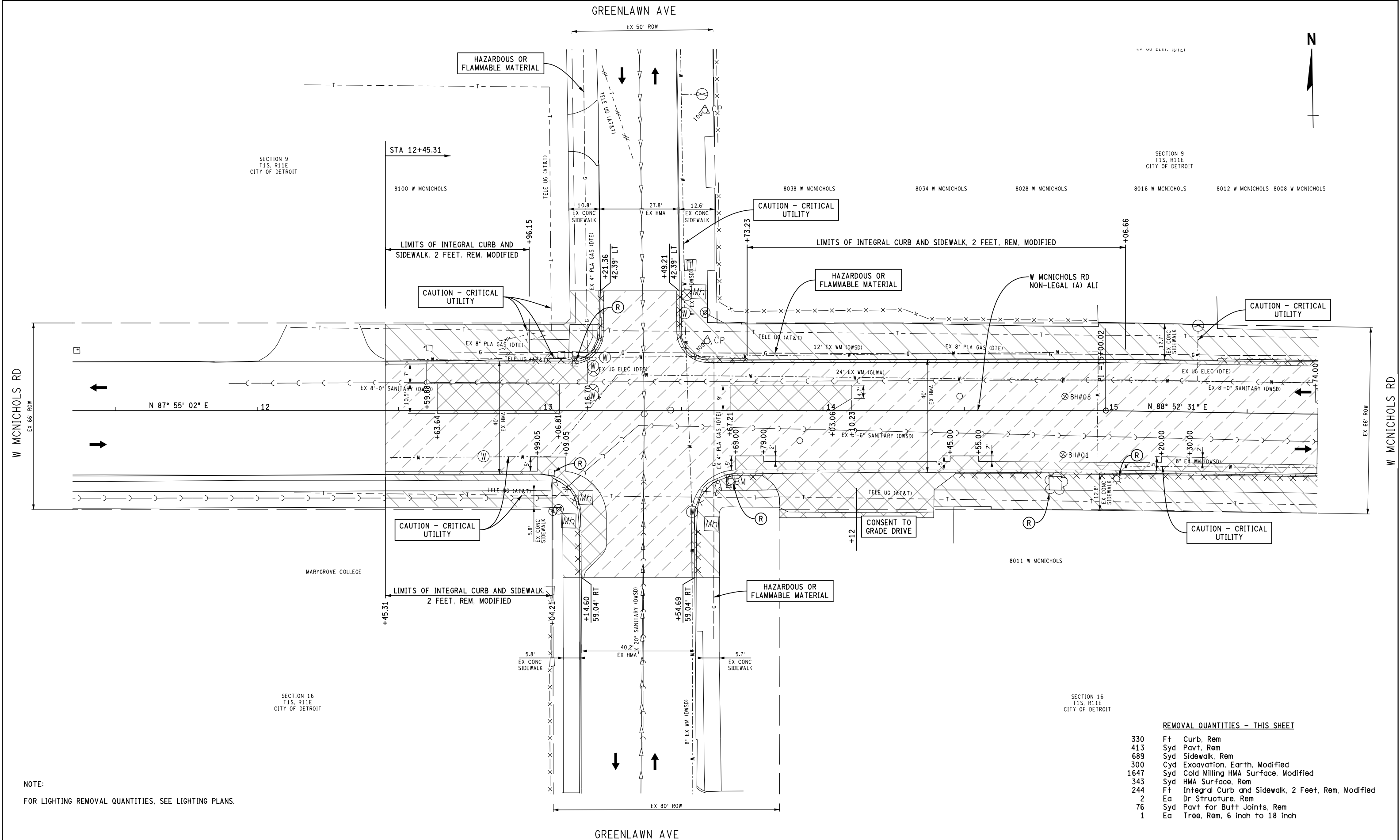
FILE:

DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

ALIGNMENT SHEET
MCNICHOLS STREETScape

DRAWING SHEET
MCN ALIGN 002 18



SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

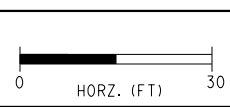
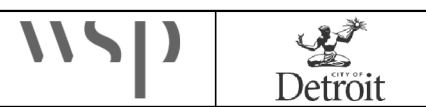
SECTION 16
T1S, R11E
CITY OF DETROIT

NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

REMOVAL QUANTITIES - THIS SHEET

330	Ft	Curb, Rem
413	Syd	Pavt, Rem
689	Syd	Sidewalk, Rem
300	Cyd	Excavation, Earth, Modified
1647	Syd	Cold Milling HMA Surface, Modified
343	Syd	HMA Surface, Rem
244	Ft	Integral Curb and Sidewalk, 2 Feet, Rem, Modified
2	Ea	Dr Structure, Rem
76	Syd	Pavt for Butt Joints, Rem
1	Ea	Tree, Rem, 6 inch to 18 inch

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

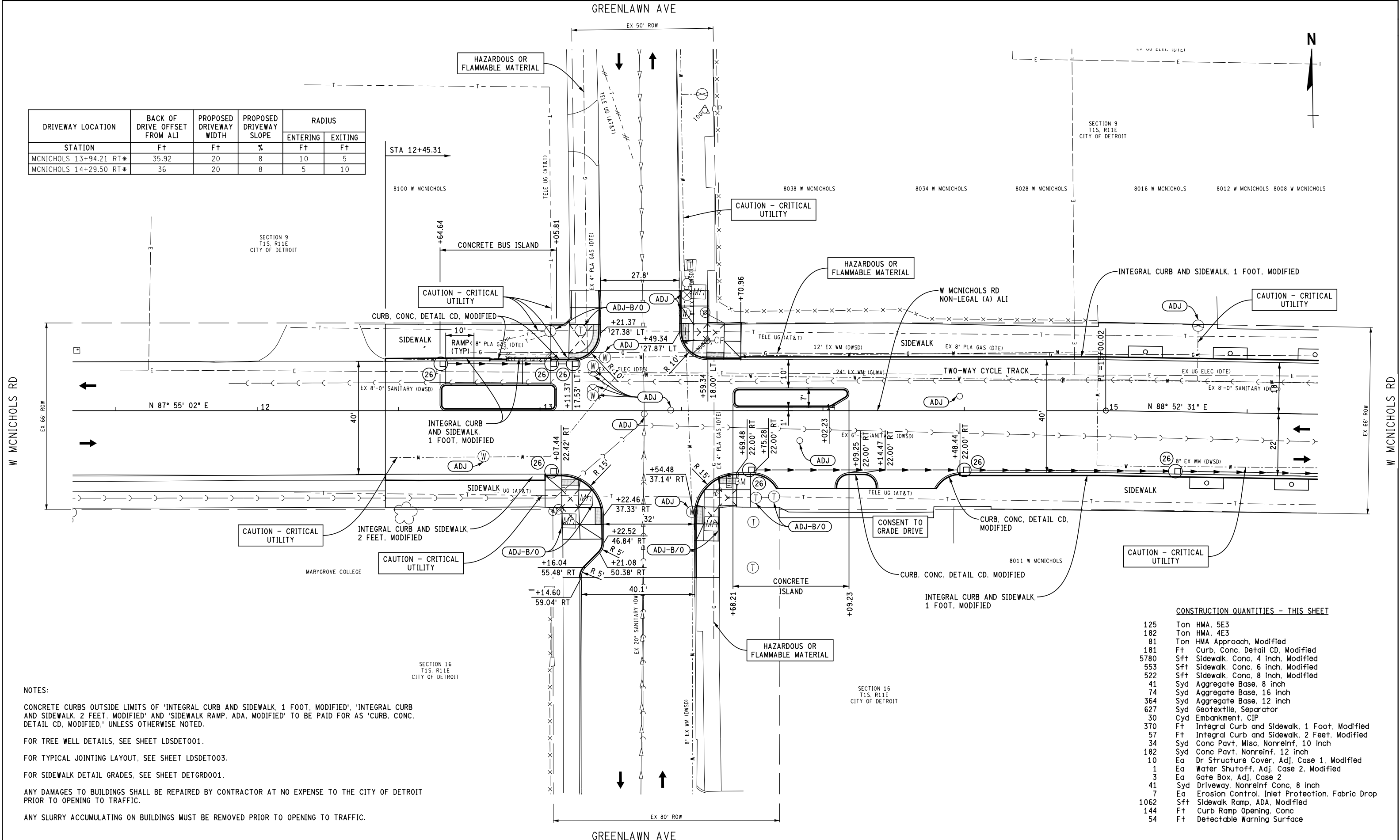


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN REM 001	19
STA 12+45.31 TO STA 15+75			

DRIVEWAY LOCATION	BACK OF DRIVE OFFSET FROM ALI	PROPOSED DRIVEWAY WIDTH	PROPOSED DRIVEWAY SLOPE	RADIUS	
				ENTERING	EXITING
STATION	F+	F+	%	F+	F+
MCNICHOLS 13+94.21 RT*	35.92	20	8	10	5
MCNICHOLS 14+29.50 RT*	36	20	8	5	10



W MCNICHOLS RD

W MCNICHOLS RD

NOTES:

CONCRETE CURBS OUTSIDE LIMITS OF 'INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED', 'INTEGRAL CURB AND SIDEWALK, 2 FEET, MODIFIED' AND 'SIDEWALK RAMP, ADA, MODIFIED' TO BE PAID FOR AS 'CURB, CONC. DETAIL CD, MODIFIED,' UNLESS OTHERWISE NOTED.

FOR TREE WELL DETAILS, SEE SHEET LDSDET001.

FOR TYPICAL JOINTING LAYOUT, SEE SHEET LDSDET003.

FOR SIDEWALK DETAIL GRADES, SEE SHEET DETGRD001.

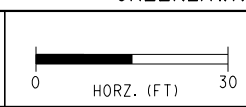
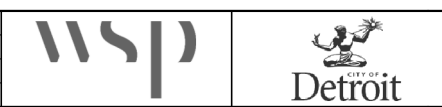
ANY DAMAGES TO BUILDINGS SHALL BE REPAIRED BY CONTRACTOR AT NO EXPENSE TO THE CITY OF DETROIT PRIOR TO OPENING TO TRAFFIC.

ANY SLURRY ACCUMULATING ON BUILDINGS MUST BE REMOVED PRIOR TO OPENING TO TRAFFIC.

CONSTRUCTION QUANTITIES - THIS SHEET

125	Ton HMA, 5E3
182	Ton HMA, 4E3
81	Ton HMA Approach, Modified
181	Ft Curb, Conc, Detail CD, Modified
5780	Sft Sidewalk, Conc, 4 inch, Modified
553	Sft Sidewalk, Conc, 6 inch, Modified
522	Sft Sidewalk, Conc, 8 inch, Modified
41	Syd Aggregate Base, 8 inch
74	Syd Aggregate Base, 16 inch
364	Syd Aggregate Base, 12 inch
627	Syd Geotextile Separator
30	Cyd Embankment, CIP
370	Ft Integral Curb and Sidewalk, 1 Foot, Modified
57	Ft Integral Curb and Sidewalk, 2 Feet, Modified
34	Syd Conc Pavt, Misc, Nonreinf, 10 inch
182	Syd Conc Pavt, Nonreinf, 12 inch
10	Ea Dr Structure Cover, Adj, Case 1, Modified
1	Ea Water Shutoff, Adj, Case 2, Modified
3	Ea Gate Box, Adj, Case 2
41	Syd Driveway, Nonreinf Conc, 8 inch
7	Ea Erosion Control, Inlet Protection, Fabric Drop
1062	Sft Sidewalk Ramp, ADA, Modified
144	Ft Curb Ramp Opening, Conc
54	Ft Detectable Warning Surface

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004

MCNICHOLS STREETScape

CONSTRUCTION SHEET

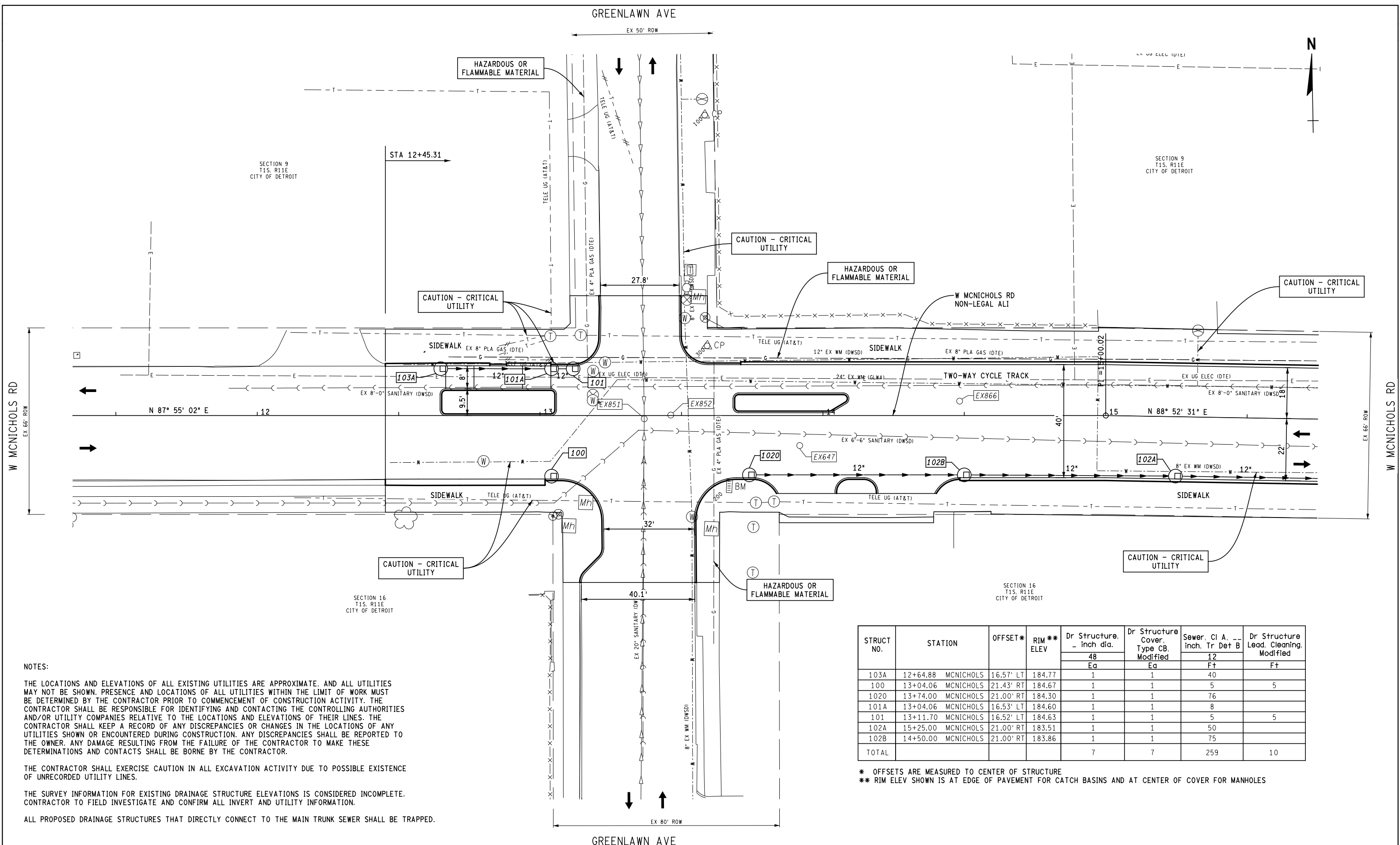
MCNICHOLS STREETScape

STA 12+45.31 TO STA 15+75

DRAWING SHEET

MCN CON 001

20



NOTES:

THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES ARE APPROXIMATE, AND ALL UTILITIES MAY NOT BE SHOWN. PRESENCE AND LOCATIONS OF ALL UTILITIES WITHIN THE LIMIT OF WORK MUST BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND CONTACTING THE CONTROLLING AUTHORITIES AND/OR UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THEIR LINES. THE CONTRACTOR SHALL KEEP A RECORD OF ANY DISCREPANCIES OR CHANGES IN THE LOCATIONS OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER. ANY DAMAGE RESULTING FROM THE FAILURE OF THE CONTRACTOR TO MAKE THESE DETERMINATIONS AND CONTACTS SHALL BE BORNE BY THE CONTRACTOR.

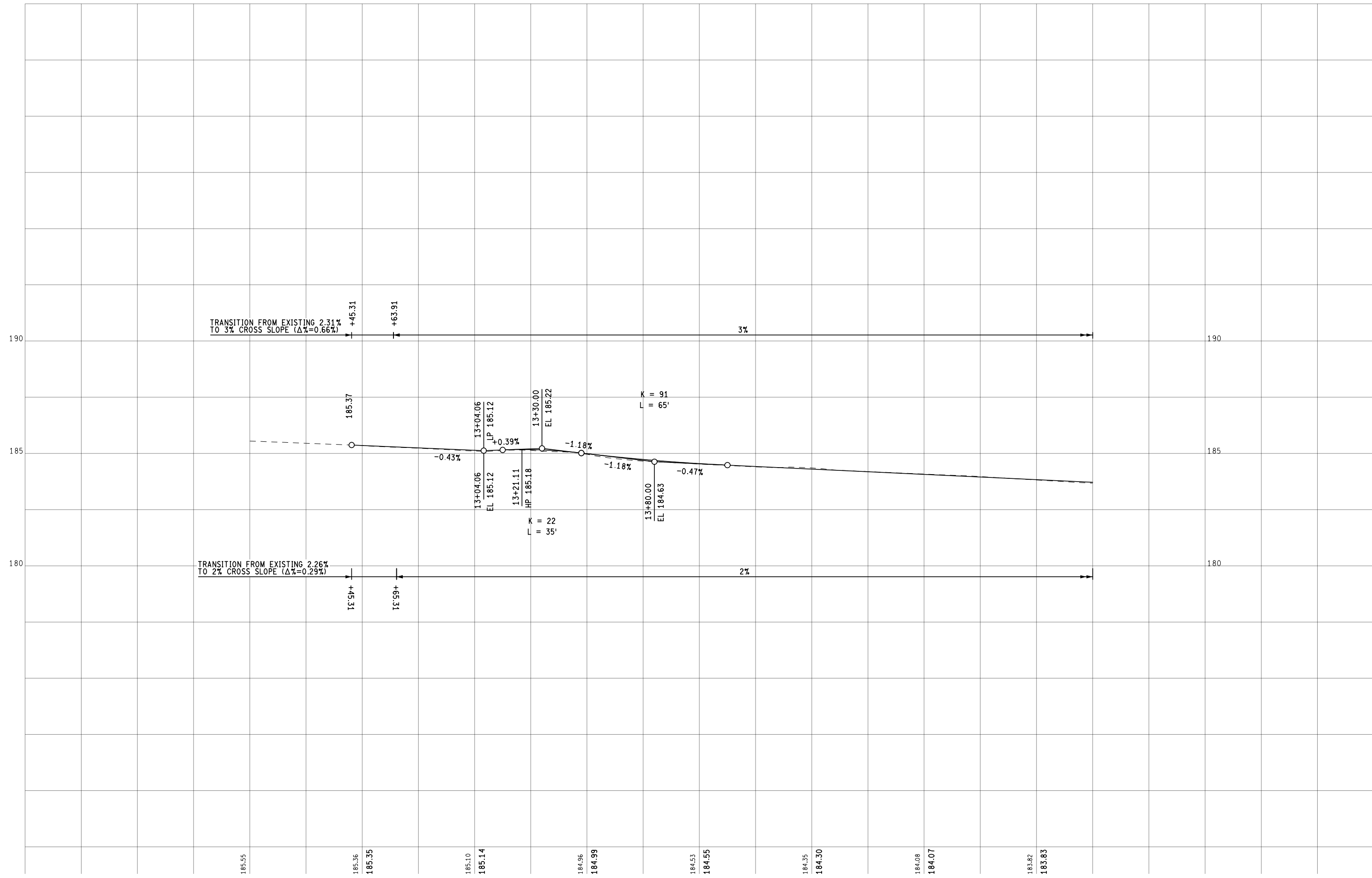
THE CONTRACTOR SHALL EXERCISE CAUTION IN ALL EXCAVATION ACTIVITY DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES.

THE SURVEY INFORMATION FOR EXISTING DRAINAGE STRUCTURE ELEVATIONS IS CONSIDERED INCOMPLETE. CONTRACTOR TO FIELD INVESTIGATE AND CONFIRM ALL INVERT AND UTILITY INFORMATION.

ALL PROPOSED DRAINAGE STRUCTURES THAT DIRECTLY CONNECT TO THE MAIN TRUNK SEWER SHALL BE TRAPPED.

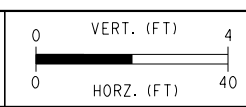
STRUCT NO.	STATION	OFFSET*	RIM** ELEV	Dr Structure		Sewer, Cl A, -- inch, Tr Det B	Dr Structure Lead, Cleaning, Modified
				- inch dia.	Cover, Type CB, Modified		
103A	12+64.88	MCNICHOLS 16.57' LT	184.77	48	Ea	F+	F+
100	13+04.06	MCNICHOLS 21.43' RT	184.67	1	1	5	5
1020	13+74.00	MCNICHOLS 21.00' RT	184.30	1	1	76	
101A	13+04.06	MCNICHOLS 16.53' LT	184.60	1	1	8	
101	13+11.70	MCNICHOLS 16.52' LT	184.63	1	1	5	5
102A	15+25.00	MCNICHOLS 21.00' RT	183.51	1	1	50	
102B	14+50.00	MCNICHOLS 21.00' RT	183.86	1	1	75	
TOTAL				7	7	259	10

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE
 ** RIM ELEV SHOWN IS AT EDGE OF PAVEMENT FOR CATCH BASINS AND AT CENTER OF COVER FOR MANHOLES



EX GROUND PROF. AT MCNICHOLS ALI
 PROP. PLAN GRADE AT MCNICHOLS ALI

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



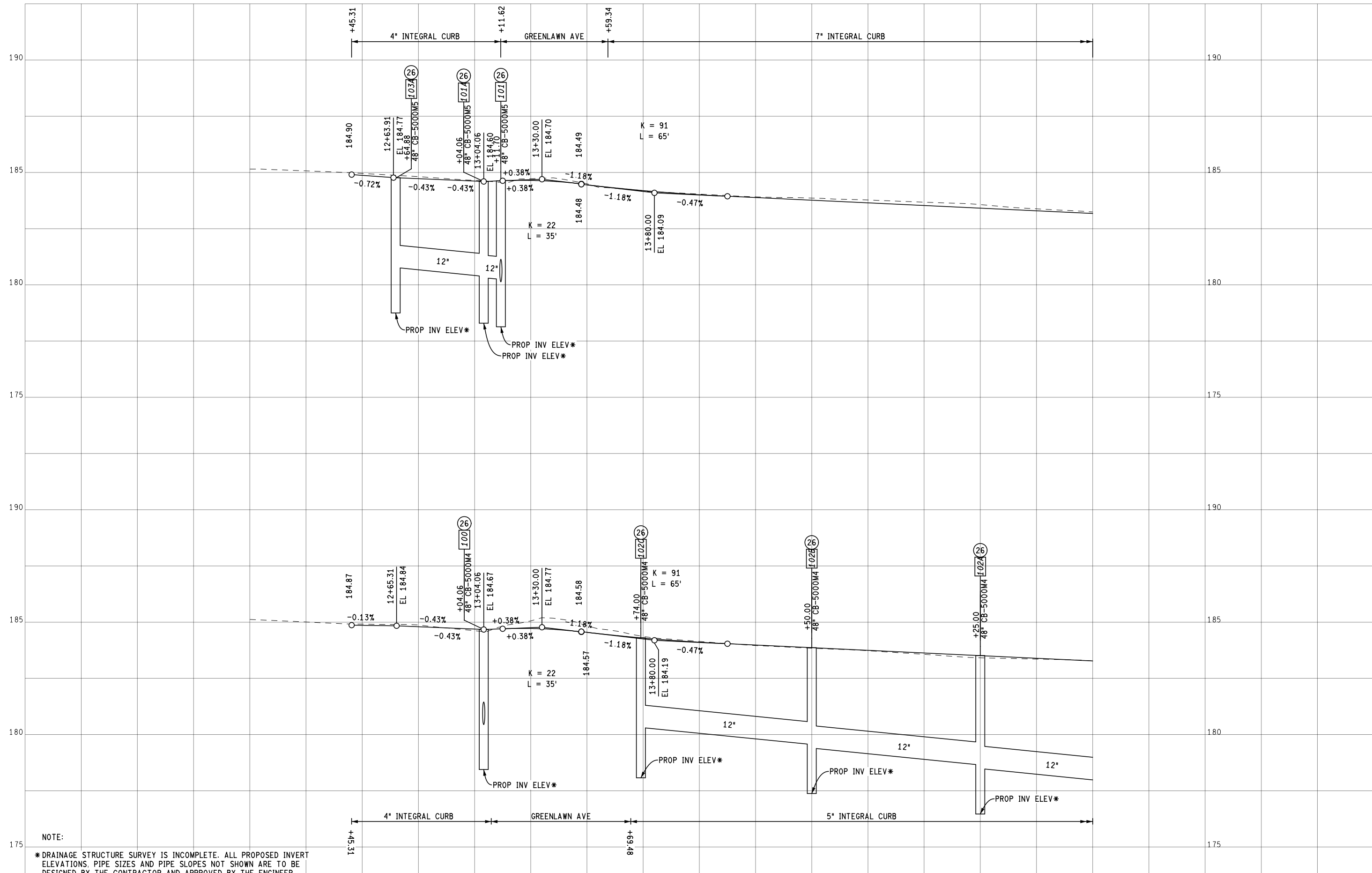
DATE: 02/07/20

FILE:

JN: PW-7004
 MCNICHOLS STREETSCAPE

PROFILE SHEET
 MCNICHOLS STREETSCAPE
 STA 12+45.31 TO STA 15+75

DRAWING SHEET
 MCN PROF 001
 22

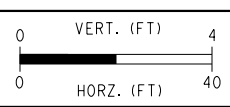


NOTE:
 *DRAINAGE STRUCTURE SURVEY IS INCOMPLETE. ALL PROPOSED INVERT ELEVATIONS, PIPE SIZES AND PIPE SLOPES NOT SHOWN ARE TO BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

--- EX GROUND LT PROF AT 17' OFFSET MCNICHOLS ALI
 - - - - - PROP LT PROF AT FACE OF CURB

--- EX GROUND RT PROF AT 21' OFFSET MCNICHOLS ALI
 - - - - - PROP RT PROF AT FACE OF CURB

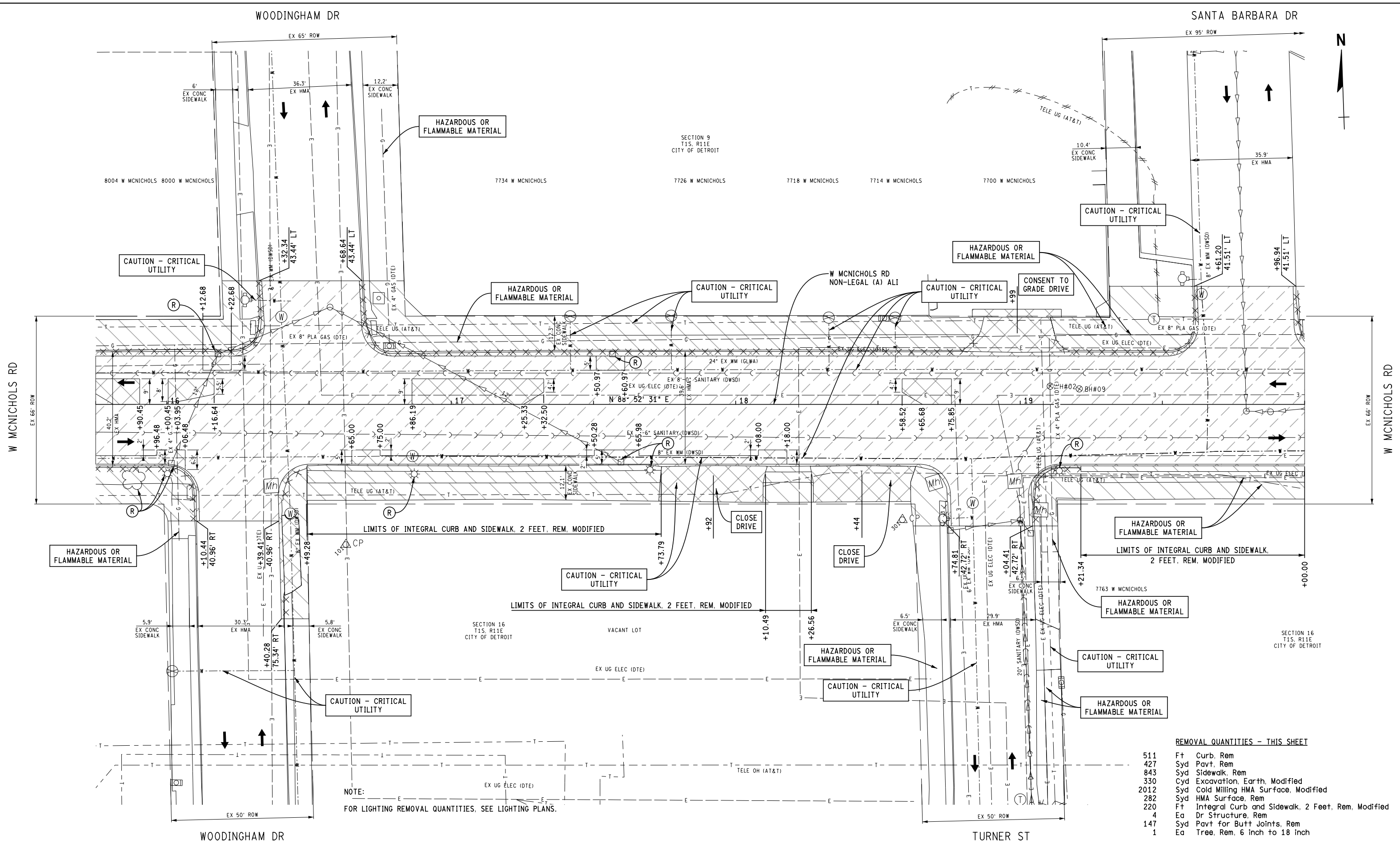
FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE: JN: PW-7004
 MCNICHOLS STREETSCAPE

PROFILE SHEET
 MCNICHOLS STREETSCAPE
 STA 12+45.31 (POB) TO STA 15+75

DRAWING	MCN PROF 002	SHEET	23
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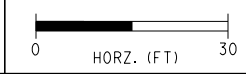


NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

REMOVAL QUANTITIES - THIS SHEET

511	Ft	Curb, Rem
427	Syd	Pavt, Rem
843	Syd	Sidewalk, Rem
330	Cyd	Excavation, Earth, Modified
2012	Syd	Cold Milling HMA Surface, Modified
282	Syd	HMA Surface, Rem
220	Ft	Integral Curb and Sidewalk, 2 Feet, Rem, Modified
4	Ea	Dr Structure, Rem
147	Syd	Pavt for Butt Joints, Rem
1	Ea	Tree, Rem, 6 inch to 18 inch

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	24
STA 15+75 TO STA 20+00		REM	002

WOODINGHAM DR

SANTA BARBARA DR

DRIVEWAY LOCATION	BACK OF DRIVE OFFSET FROM ALI	PROPOSED DRIVEWAY WIDTH	PROPOSED DRIVEWAY SLOPE	RADIUS	
				ENTERING	EXITING
STATION	Ft	Ft	%	Ft	Ft
MCNICHOLS 18+98.82 LT*	30.66	30	8	10	10

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

VACANT LOT

W MCNICHOLS RD

W MCNICHOLS RD

WOODINGHAM DR

TURNER ST

NOTES:

CONCRETE CURBS OUTSIDE LIMITS OF 'INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED' AND 'SIDEWALK RAMP, ADA, MODIFIED' TO BE PAID FOR AS 'CURB, CONC. DETAIL CD, MODIFIED,' UNLESS OTHERWISE NOTED.

FOR TREE WELL DETAILS, SEE SHEET LDSDET001.

FOR TYPICAL JOINTING LAYOUT, SEE SHEET LDSDET003.

FOR SIDEWALK DETAIL GRADES, SEE SHEET DETGRD001.

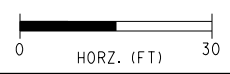
ANY DAMAGES TO BUILDINGS SHALL BE REPAIRED BY CONTRACTOR AT NO EXPENSE TO THE CITY OF DETROIT PRIOR TO OPENING TO TRAFFIC.

ANY SLURRY ACCUMULATING ON BUILDINGS MUST BE REMOVED PRIOR TO OPENING TO TRAFFIC.

CONSTRUCTION QUANTITIES - THIS SHEET

168	Ton	HMA, 5E3
222	Ton	HMA, 4E3
29	Ton	HMA Approach, Modified
260	Ft	Curb, Conc. Detail CD, Modified
6326	Sft	Sidewalk, Conc. 4 inch, Modified
423	Sft	Sidewalk, Conc. 6 inch, Modified
292	Sft	Sidewalk, Conc. 8 inch, Modified
32	Syd	Aggregate Base, 8 inch
61	Syd	Aggregate Base, 16 inch
372	Syd	Aggregate Base, 12 inch
731	Syd	Geotextile, Separator
40	Cyd	Embankment, CIP
491	Ft	Integral Curb and Sidewalk, 1 Foot, Modified
9	Ea	Dr Structure Cover, Adj, Case 1, Modified
195	Syd	Conc Pavt, Nonreinf, 12 inch
4	Ea	Water Shutoff, Adj, Case 2, Modified
1	Ea	Gate Box, Adj, Case 2
32	Syd	Driveway, Nonreinf Conc, 8 inch
7	Ea	Erosion Control, Inlet Protection, Fabric Drop
2100	Sft	Sidewalk Ramp, ADA, Modified
148	Ft	Curb Ramp Opening, Conc
84	Ft	Detectable Warning Surface

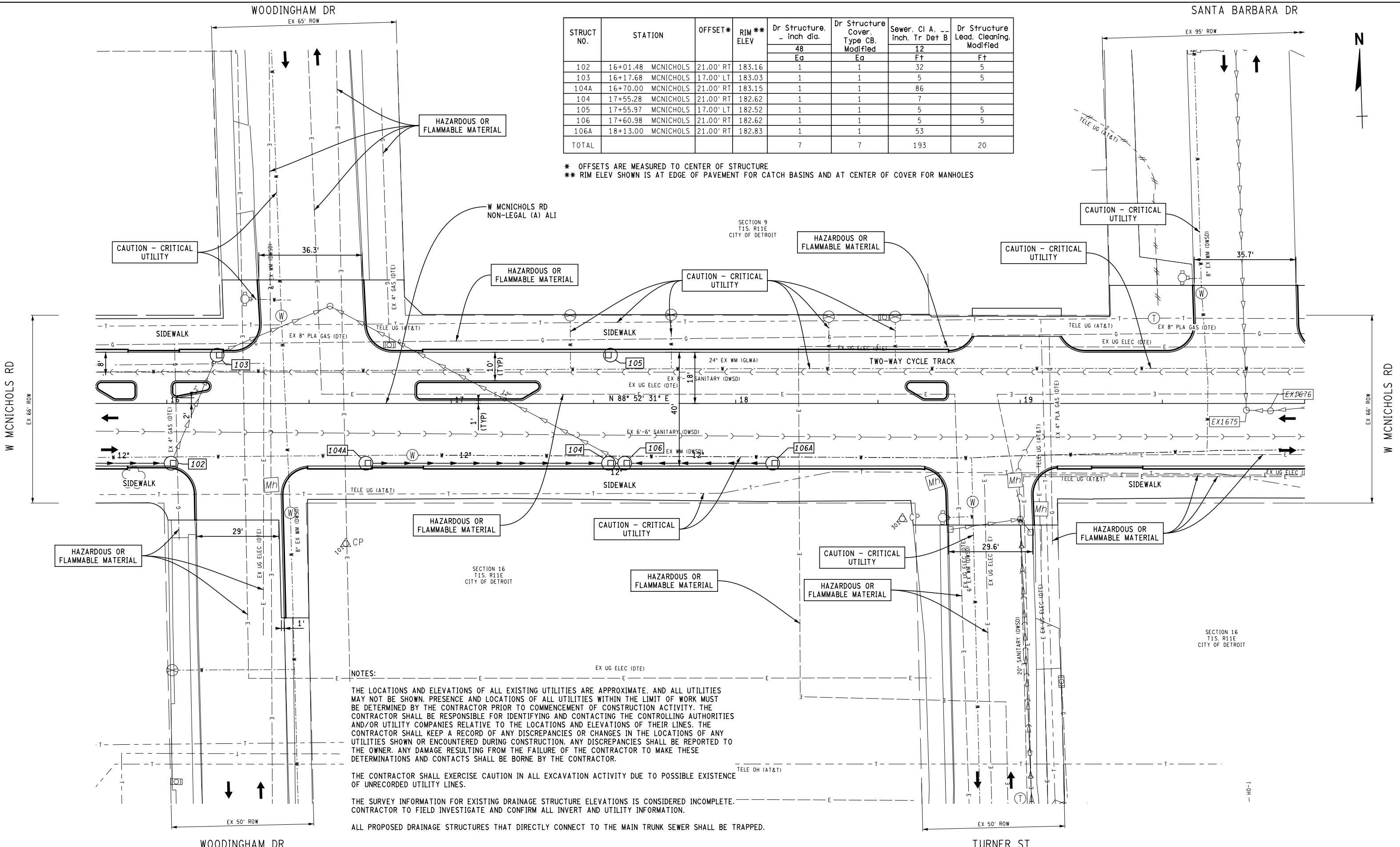
FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

CONSTRUCTION SHEET
MCNICHOLS STREETScape
STA 15+75 TO STA 20+00
DRAWING SHEET
MCN CON 002 25



STRUCT NO.	STATION	OFFSET*	RIM ** ELEV	Dr Structure	Dr Structure	Sewer, CI A, --	Dr Structure
				- inch dia.	Cover, Type CB, Modified	inch, Tr Det B	Lead, Cleaning, Modified
102	16+01.48	MCNICHOLS	21.00' RT	183.16	48	Ea	F+
103	16+17.68	MCNICHOLS	17.00' LT	183.03	1	1	5
104A	16+70.00	MCNICHOLS	21.00' RT	183.15	1	1	86
104	17+55.28	MCNICHOLS	21.00' RT	182.62	1	1	7
105	17+55.97	MCNICHOLS	17.00' LT	182.52	1	1	5
106	17+60.98	MCNICHOLS	21.00' RT	182.62	1	1	5
106A	18+13.00	MCNICHOLS	21.00' RT	182.83	1	1	53
TOTAL					7	7	193

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE
 ** RIM ELEV SHOWN IS AT EDGE OF PAVEMENT FOR CATCH BASINS AND AT CENTER OF COVER FOR MANHOLES

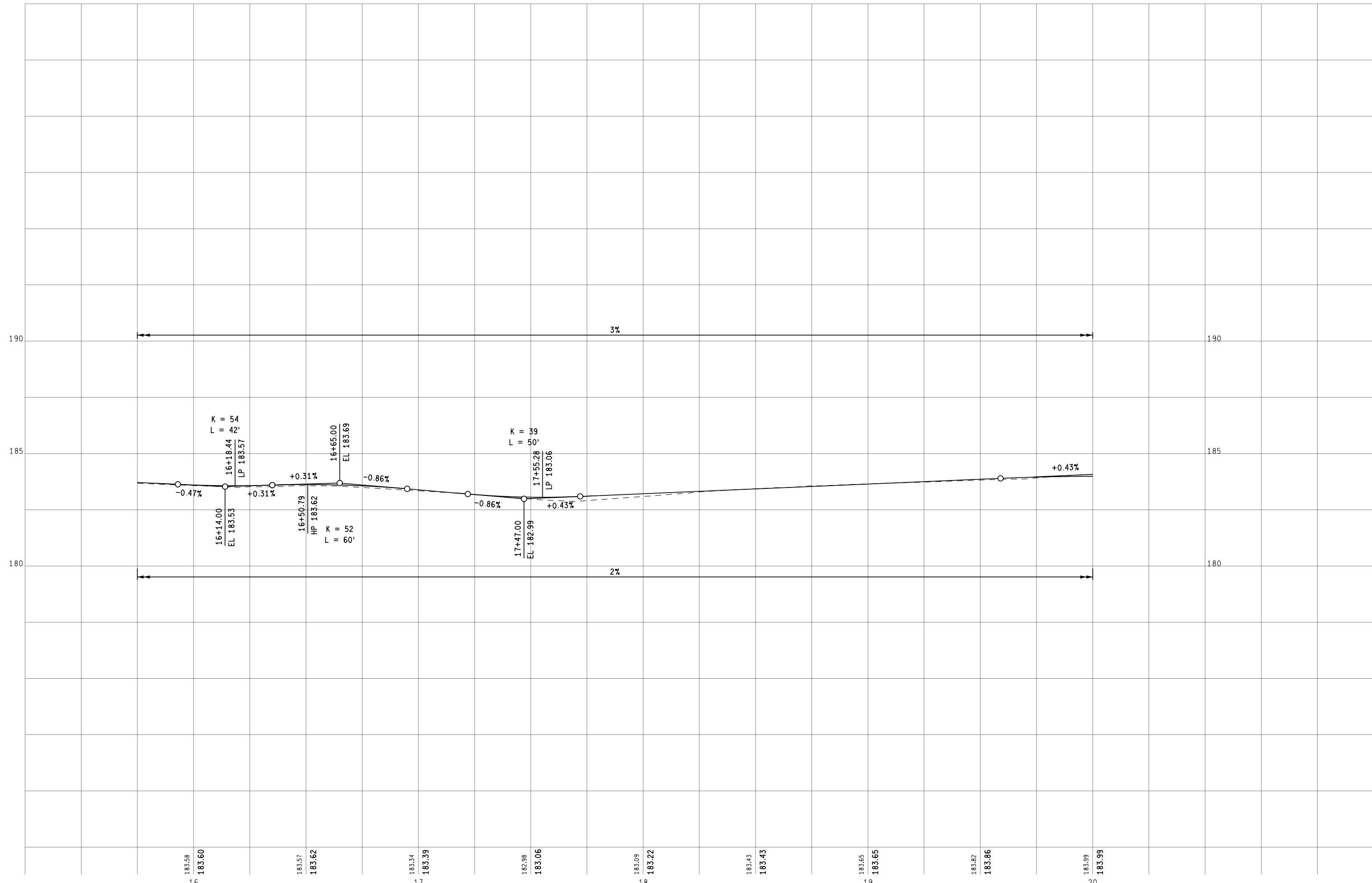
NOTES:

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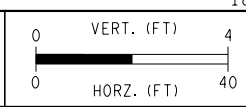
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ALL PROPOSED DRAINAGE STRUCTURES THAT DIRECTLY CONNECT TO THE MAIN TRUNK SEWER SHALL BE TRAPPED.



EX GROUND PROF AT MCNICHOLS ALI
 PROP PLAN GRADE AT MCNICHOLS ALI

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

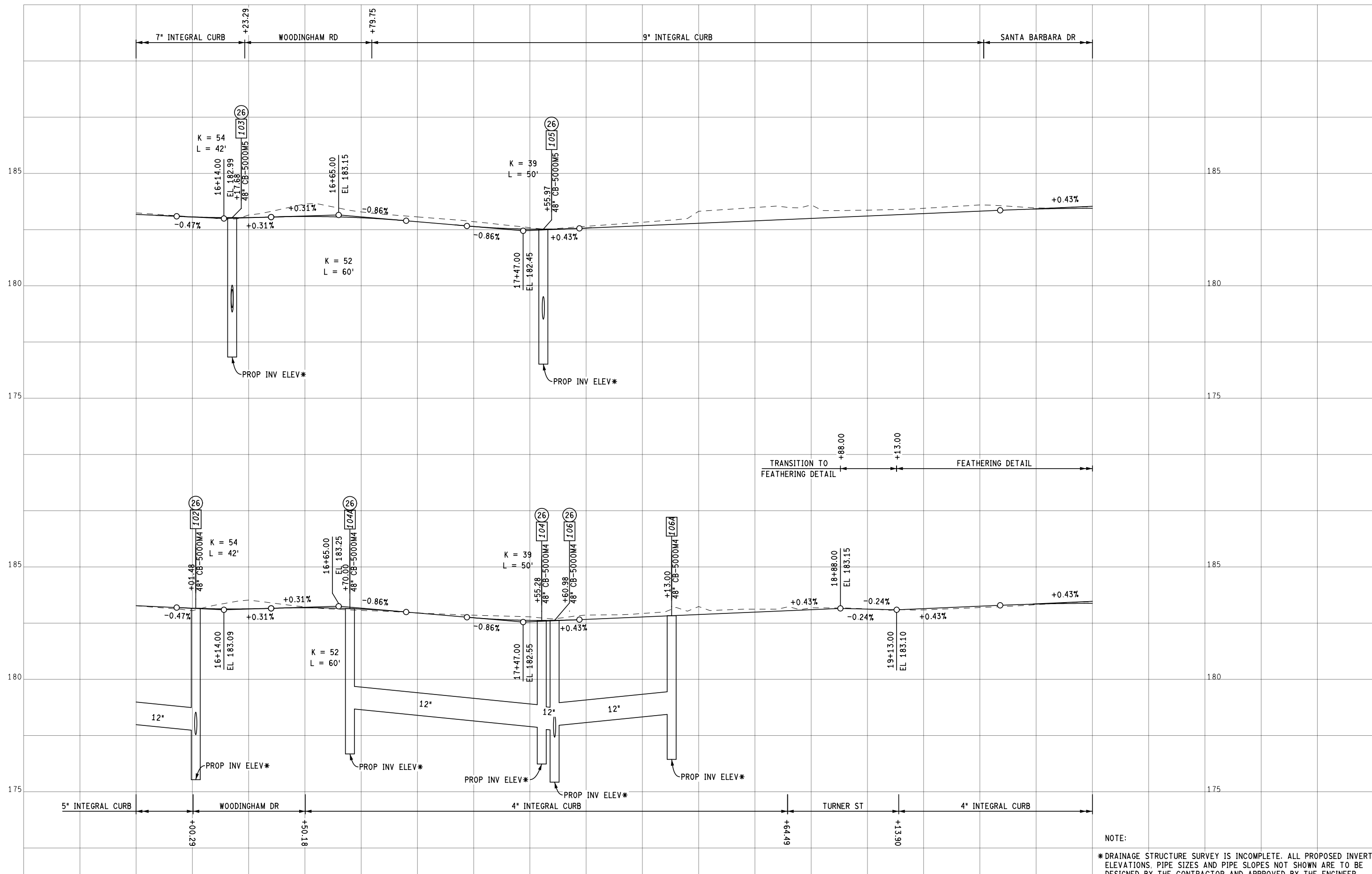


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 15+75 TO STA 20+00

DRAWING SHEET
 MCN PROF 003
 27

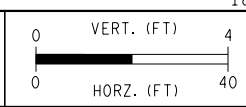


--- EX GROUND LT PROF AT 17' OFFSET MCNICHOLS ALI
 - - - - - PROP LT PROF AT FACE OF CURB

--- EX GROUND RT PROF AT 21' OFFSET MCNICHOLS ALI
 - - - - - PROP RT PROF AT FACE OF CURB

NOTE:
 * DRAINAGE STRUCTURE SURVEY IS INCOMPLETE. ALL PROPOSED INVERT ELEVATIONS, PIPE SIZES AND PIPE SLOPES NOT SHOWN ARE TO BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

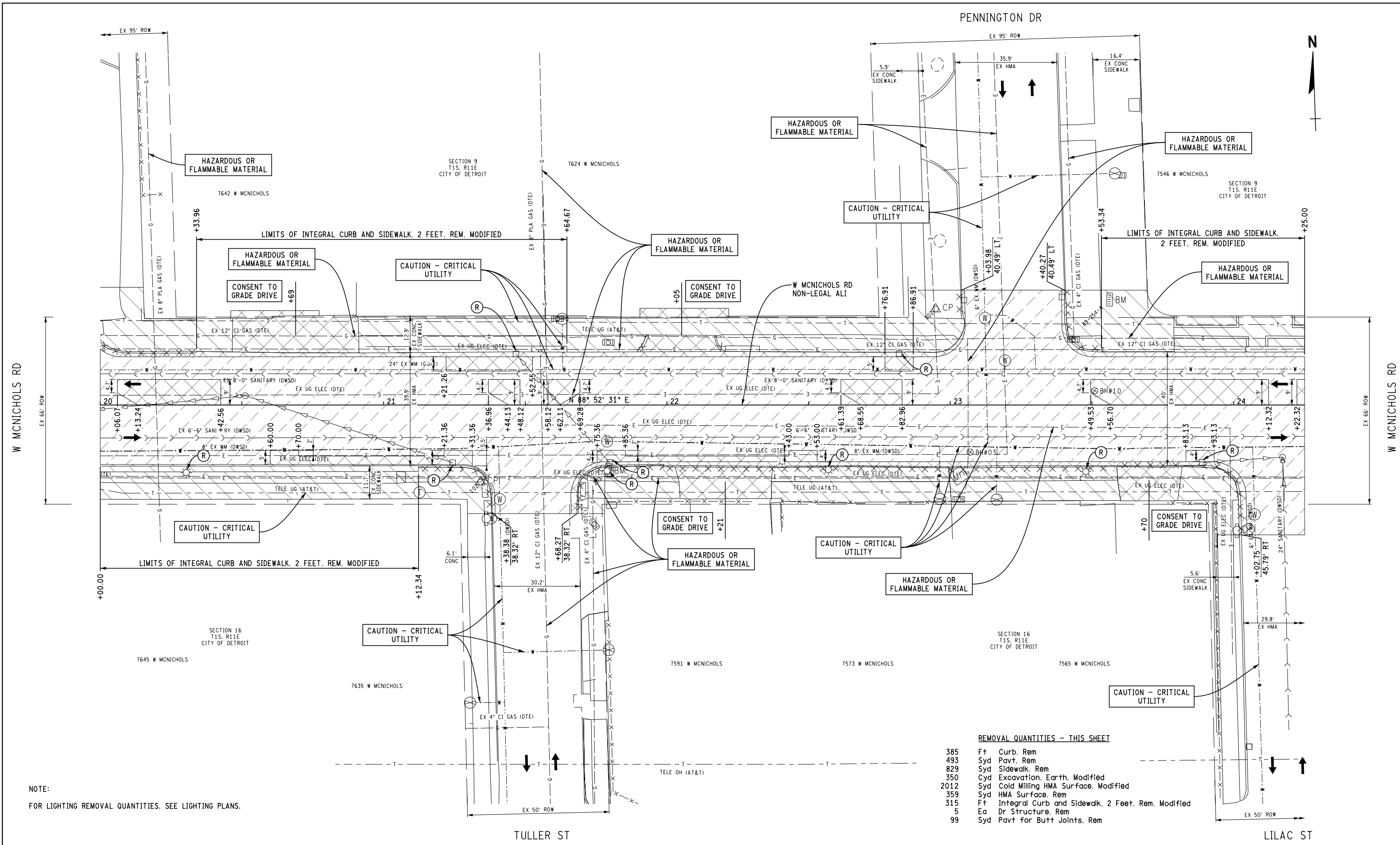


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 15+75 TO STA 20+00

DRAWING SHEET
 MCN PROF 004
 28



NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

REMOVAL QUANTITIES - THIS SHEET

385	F+	Curb, Rem
493	Syd	Pavt, Rem
829	Syd	Sidewalk, Rem
350	Cyd	Excavation, Earth, Modified
2012	Syd	Cold Milling HMA Surface, Modified
359	Syd	HMA Surface, Rem
315	F+	Integral Curb and Sidewalk, 2 Feet, Rem, Modified
5	Ea	Dr Structure, Rem
99	Syd	Pavt for Butt Joints, Rem

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

DATE: 02/07/20
FILE:

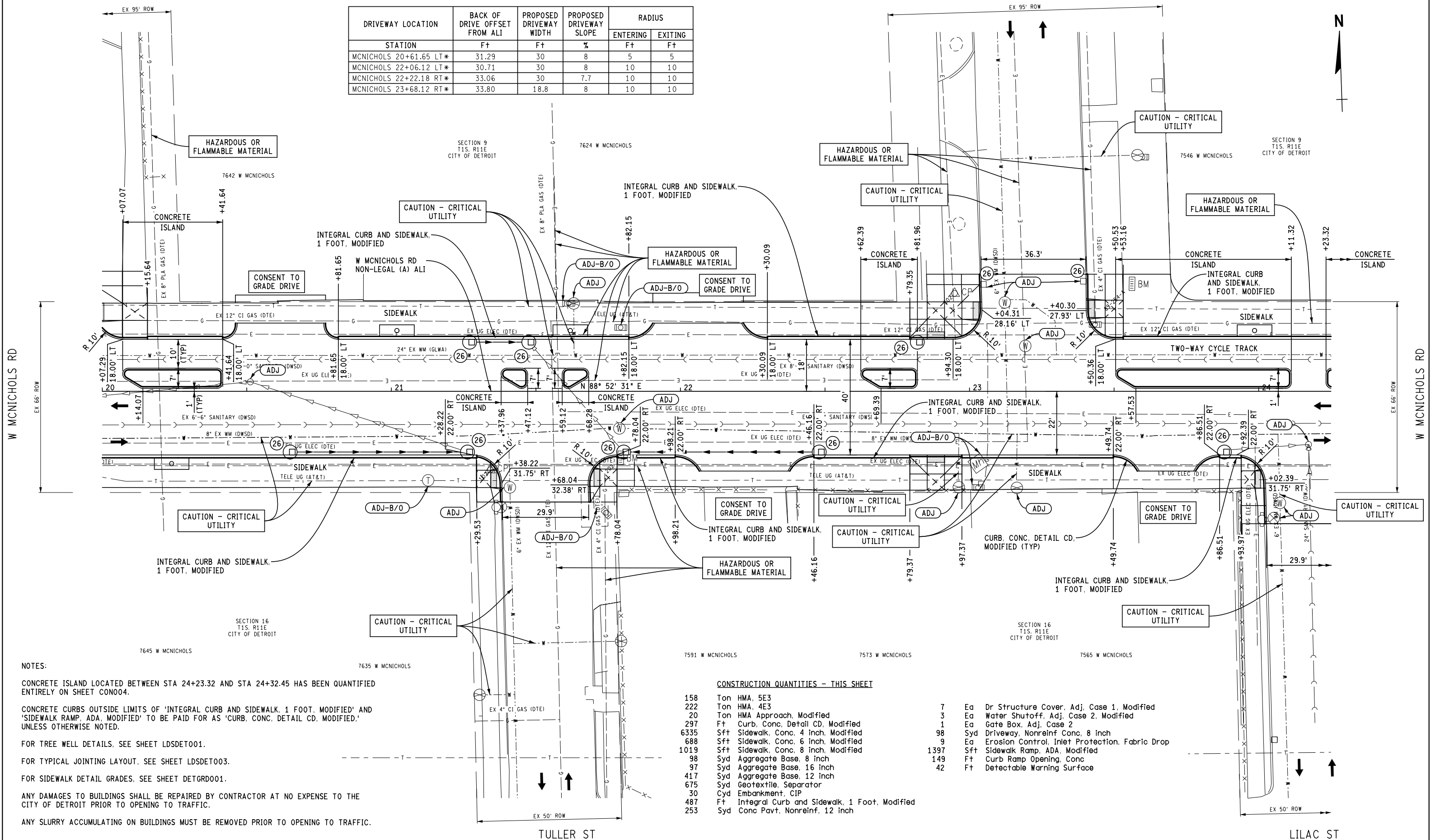
JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	29
STA 20+00 TO STA 24+25		REM	
		003	

SANTA BARBARA DR

PENNINGTON DR

DRIVEWAY LOCATION	BACK OF DRIVE OFFSET FROM ALI	PROPOSED DRIVEWAY WIDTH	PROPOSED DRIVEWAY SLOPE	RADIUS	
				ENTERING	EXITING
MCNICHOLS 20+61.65 LT*	31.29	30	8	5	5
MCNICHOLS 22+06.12 LT*	30.71	30	8	10	10
MCNICHOLS 22+22.18 RT*	33.06	30	7.7	10	10
MCNICHOLS 23+68.12 RT*	33.80	18.8	8	10	10



NOTES:

- CONCRETE ISLAND LOCATED BETWEEN STA 24+23.32 AND STA 24+32.45 HAS BEEN QUANTIFIED ENTIRELY ON SHEET CON004.
- CONCRETE CURBS OUTSIDE LIMITS OF 'INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED' AND 'SIDEWALK RAMP, ADA, MODIFIED' TO BE PAID FOR AS 'CURB, CONC. DETAIL CD, MODIFIED,' UNLESS OTHERWISE NOTED.
- FOR TREE WELL DETAILS, SEE SHEET LDSDET001.
- FOR TYPICAL JOINTING LAYOUT, SEE SHEET LDSDET003.
- FOR SIDEWALK DETAIL GRADES, SEE SHEET DETGRD001.
- ANY DAMAGES TO BUILDINGS SHALL BE REPAIRED BY CONTRACTOR AT NO EXPENSE TO THE CITY OF DETROIT PRIOR TO OPENING TO TRAFFIC.
- ANY SLURRY ACCUMULATING ON BUILDINGS MUST BE REMOVED PRIOR TO OPENING TO TRAFFIC.

CONSTRUCTION QUANTITIES - THIS SHEET

158	Ton	HMA, 5E3			
222	Ton	HMA, 4E3			
20	Ton	HMA Approach, Modified			
297	Ft	Curb, Conc, Detail CD, Modified			
6335	Sft	Sidewalk, Conc, 4 inch, Modified			
688	Sft	Sidewalk, Conc, 6 inch, Modified			
1019	Sft	Sidewalk, Conc, 8 inch, Modified			
98	Syd	Aggregate Base, 8 inch			
97	Syd	Aggregate Base, 16 inch			
417	Syd	Aggregate Base, 12 inch			
675	Syd	Geotextile, Separator			
30	Cyd	Embankment, CIP			
487	Ft	Integral Curb and Sidewalk, 1 Foot, Modified			
253	Syd	Conc Pavt, Nonreinf, 12 inch			
7	Ea	Dr Structure Cover, Adj, Case 1, Modified			
3	Ea	Water Shutoff, Adj, Case 2, Modified			
1	Ea	Gate Box, Adj, Case 2			
98	Syd	Driveway, Nonreinf Conc, 8 inch			
9	Ea	Erosion Control, Inlet Protection, Fabric Drop			
1397	Sft	Sidewalk Ramp, ADA, Modified			
149	Ft	Curb Ramp Opening, Conc			
42	Ft	Detectable Warning Surface			

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

DATE: 02/07/20

FILE:

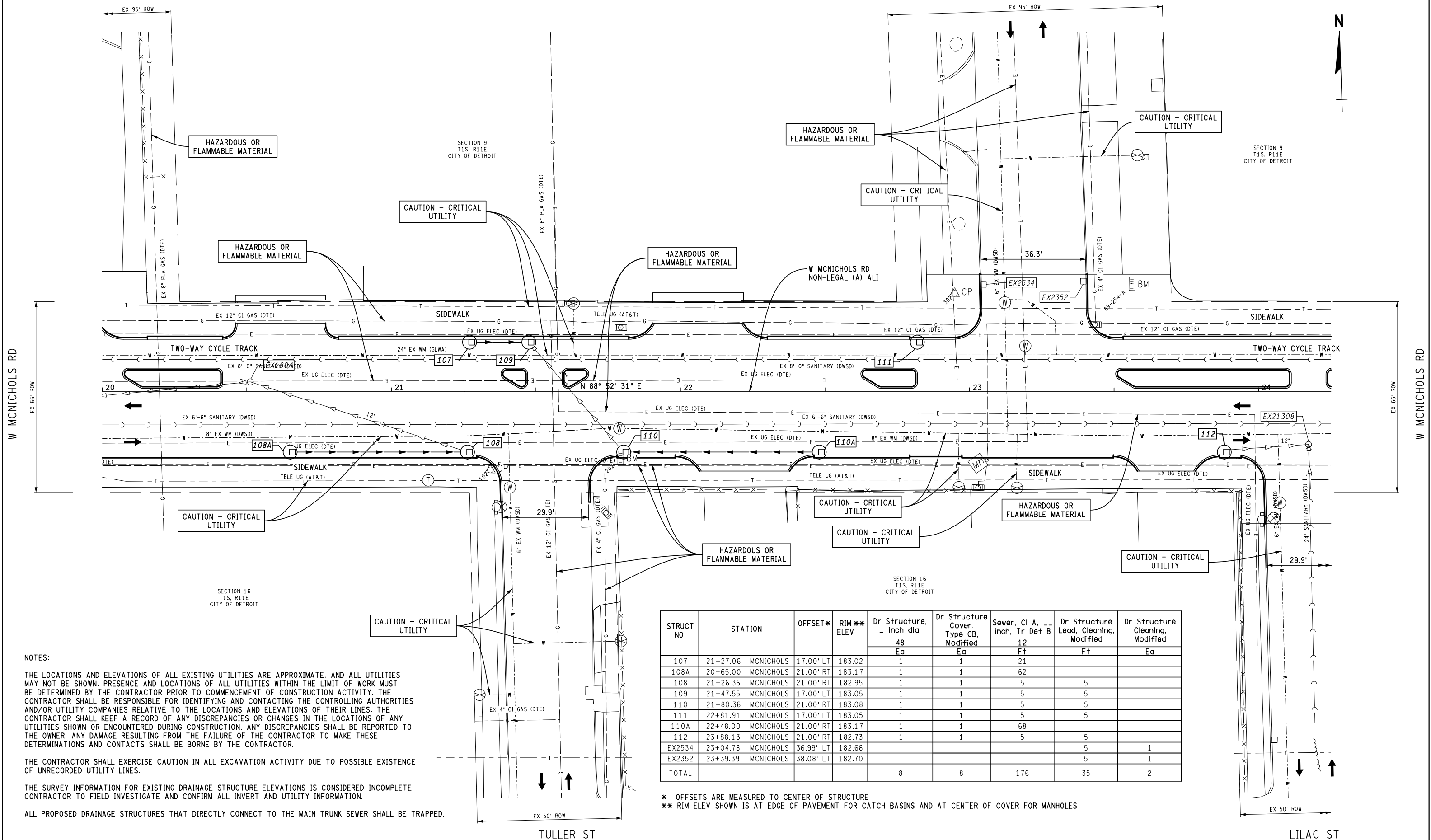
JN: PW-7004
MCNICHOLS STREETScape

CONSTRUCTION SHEET
MCNICHOLS STREETScape
STA 20+00 TO STA 24+25

DRAWING SHEET
MCN CON 003
30

SANTA BARBARA DR

PENNINGTON DR



W MCNICHOLS RD

W MCNICHOLS RD

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

NOTES:

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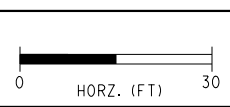
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STRUCT NO.	STATION	OFFSET*	RIM** ELEV	Dr Structure	Dr Structure	Sewer, CI A, ... inch. Tr Det B	Dr Structure	Dr Structure	
				- inch dia.	Cover, Type CB, Modified		Lead, Cleaning, Modified	Cleaning, Modified	
107	21+27.06	MCNICHOLS	17.00' LT	183.02	1	1	21	Ea	
108A	20+65.00	MCNICHOLS	21.00' RT	183.17	1	1	62		
108	21+26.36	MCNICHOLS	21.00' RT	182.95	1	1	5	5	
109	21+47.55	MCNICHOLS	17.00' LT	183.05	1	1	5	5	
110	21+80.36	MCNICHOLS	21.00' RT	183.08	1	1	5	5	
111	22+81.91	MCNICHOLS	17.00' LT	183.05	1	1	5	5	
110A	22+48.00	MCNICHOLS	21.00' RT	183.17	1	1	68		
112	23+88.13	MCNICHOLS	21.00' RT	182.73	1	1	5	5	
EX2534	23+04.78	MCNICHOLS	36.99' LT	182.66			5	1	
EX2352	23+39.39	MCNICHOLS	38.08' LT	182.70			5	1	
TOTAL					8	8	176	35	2

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE
** RIM ELEV SHOWN IS AT EDGE OF PAVEMENT FOR CATCH BASINS AND AT CENTER OF COVER FOR MANHOLES

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



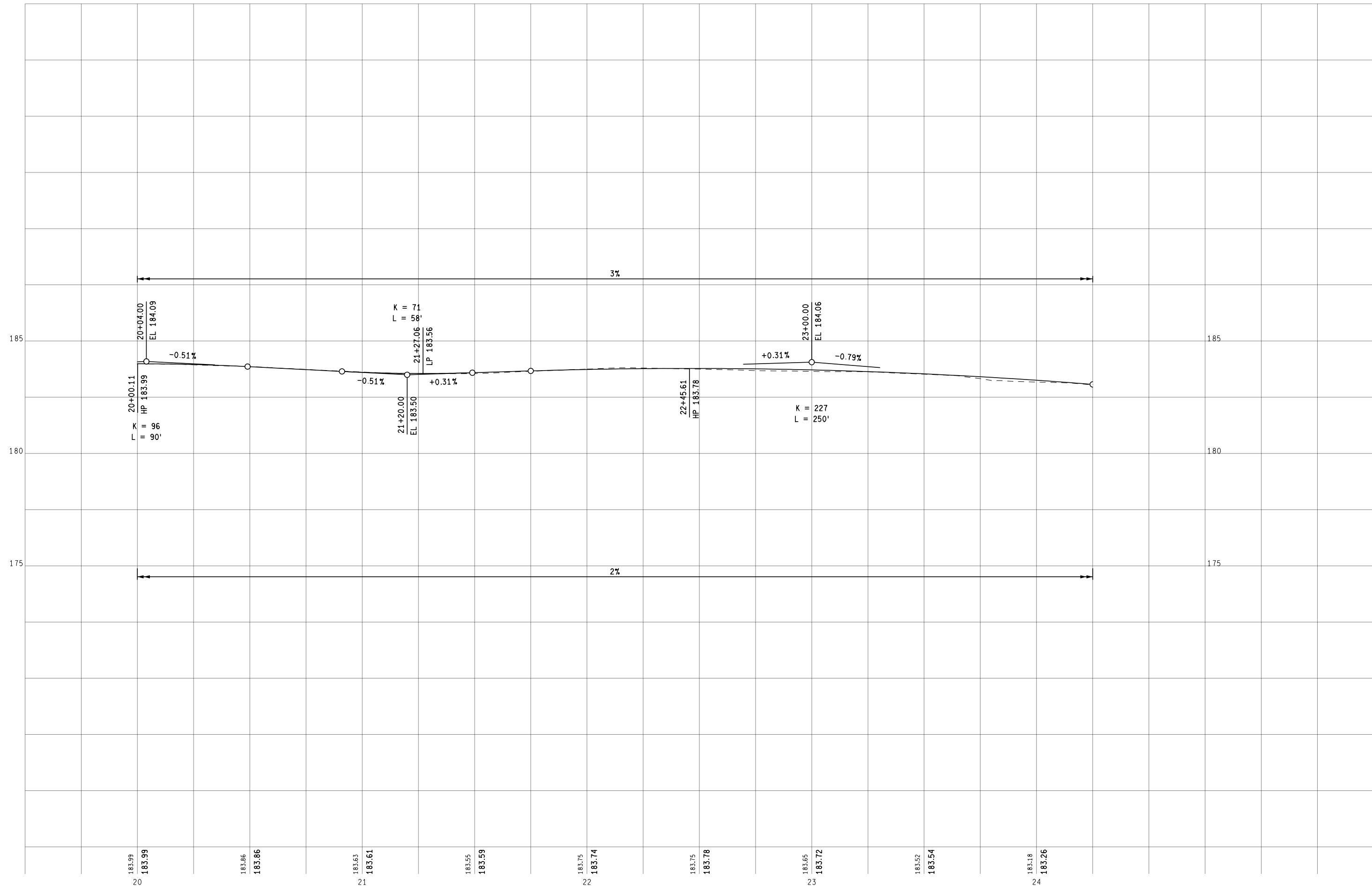
DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

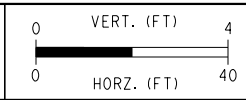
DRAINAGE SHEET
MCNICHOLS STREETScape
STA 20+00 TO STA 24+25

DRAWING SHEET
MCN DRAIN 003
31



EX GROUND PROF AT MCNICHOLS ALI
 PROP PLAN GRADE AT MCNICHOLS ALI

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

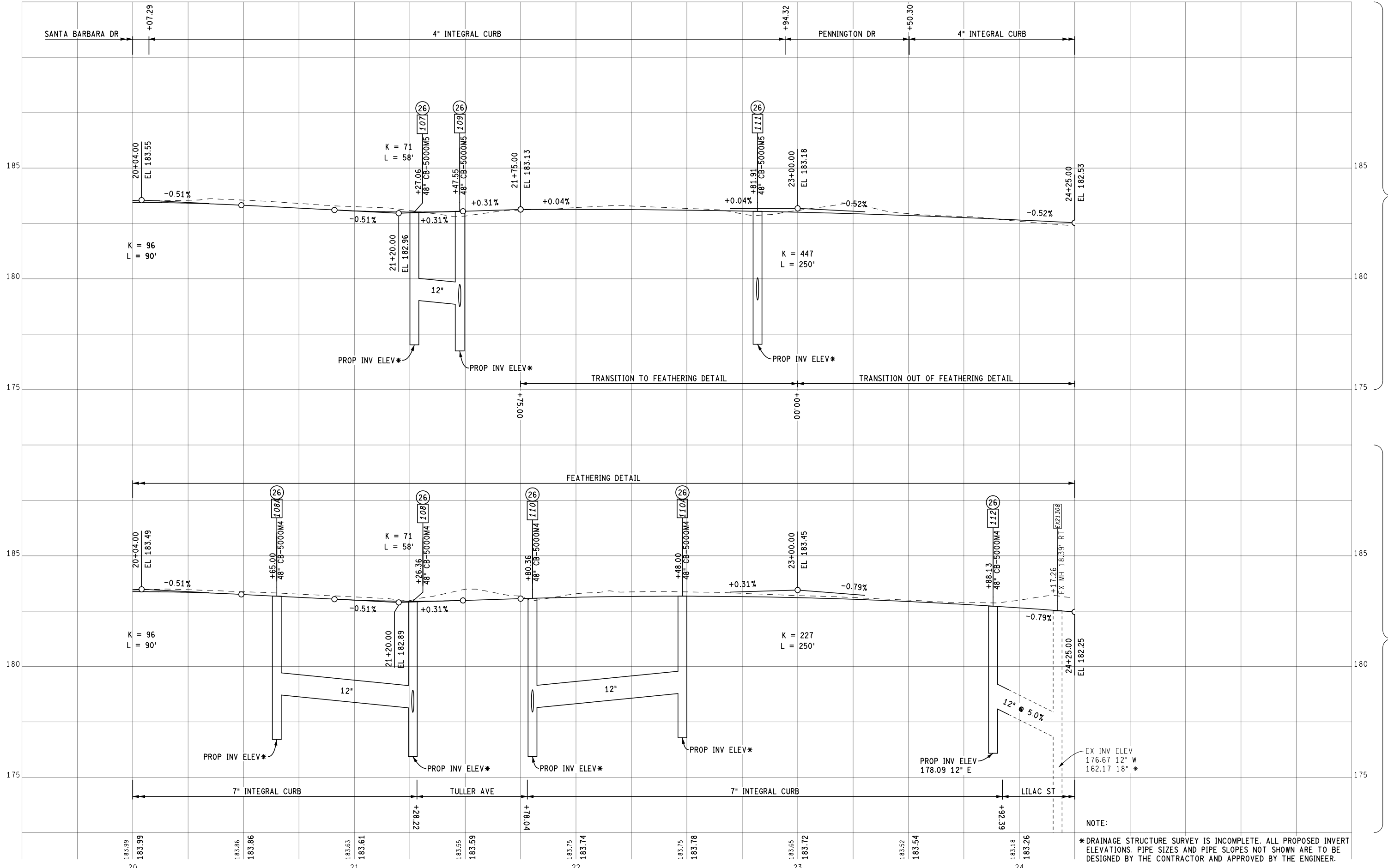


DATE: 02/07/20
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JN: PW-7004
 MCNICHOLS STREETSCAPE

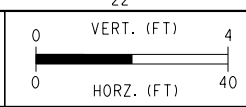
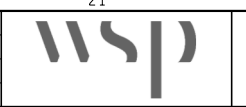
PROFILE SHEET
 MCNICHOLS STREETSCAPE
 STA 20+00 TO STA 24+25

DRAWING SHEET
 MCN PROF 005
 32



NOTE:
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FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

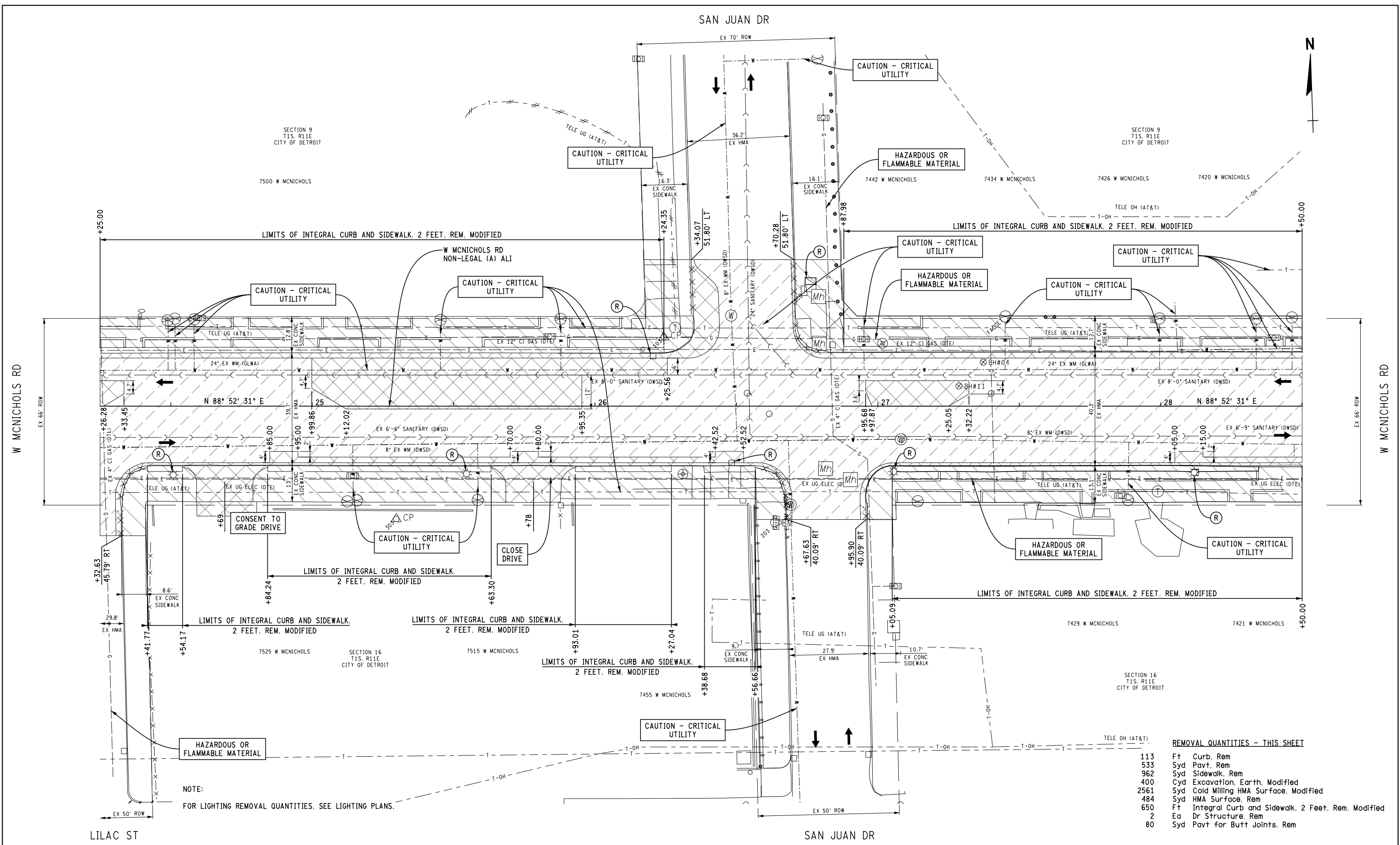


DATE: 02/07/20
 FILE: _____

JN: PW-7004
 MCNICHOLS STREETSCAPE

PROFILE SHEET
 MCNICHOLS STREETSCAPE
 STA 20+00 TO STA 24+25

DRAWING SHEET
 MCN PROF 006
33

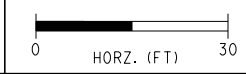


NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

REMOVAL QUANTITIES - THIS SHEET

113	Ft	Curb, Rem
533	Syd	Pavt, Rem
962	Syd	Sidewalk, Rem
400	Cyd	Excavation, Earth, Modified
2561	Syd	Cold Milling HMA Surface, Modified
484	Syd	HMA Surface, Rem
650	Ft	Integral Curb and Sidewalk, 2 Feet, Rem, Modified
2	Ea	Dr Structure, Rem
80	Syd	Pavt for Butt Joints, Rem

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



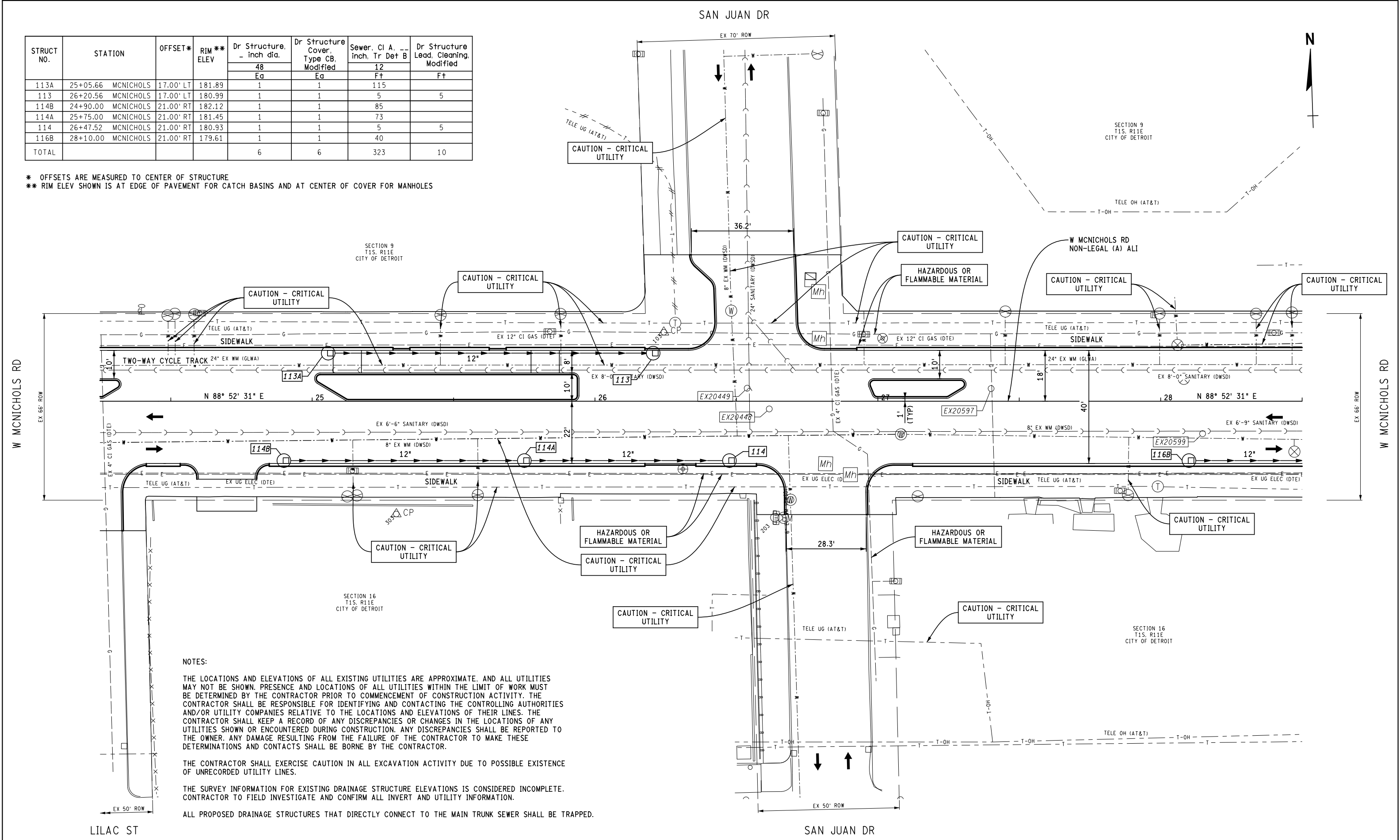
DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	004
STA 24+25 TO STA 28+50			34

STRUCT NO.	STATION	OFFSET*	RIM ELEV**	Dr Structure	Dr Structure	Sewer, CI A, --	Dr Structure
				- inch dia.	Cover, Type CB, Modified	inch, Tr Det B	Lead, Cleaning, Modified
				48		12	
				Ea	Ea	F+	F+
113A	25+05.66	MCNICHOLS	17.00' LT	181.89	1	1	115
113	26+20.56	MCNICHOLS	17.00' LT	180.99	1	1	5
114B	24+90.00	MCNICHOLS	21.00' RT	182.12	1	1	85
114A	25+75.00	MCNICHOLS	21.00' RT	181.45	1	1	73
114	26+47.52	MCNICHOLS	21.00' RT	180.93	1	1	5
116B	28+10.00	MCNICHOLS	21.00' RT	179.61	1	1	40
TOTAL					6	6	323
							10

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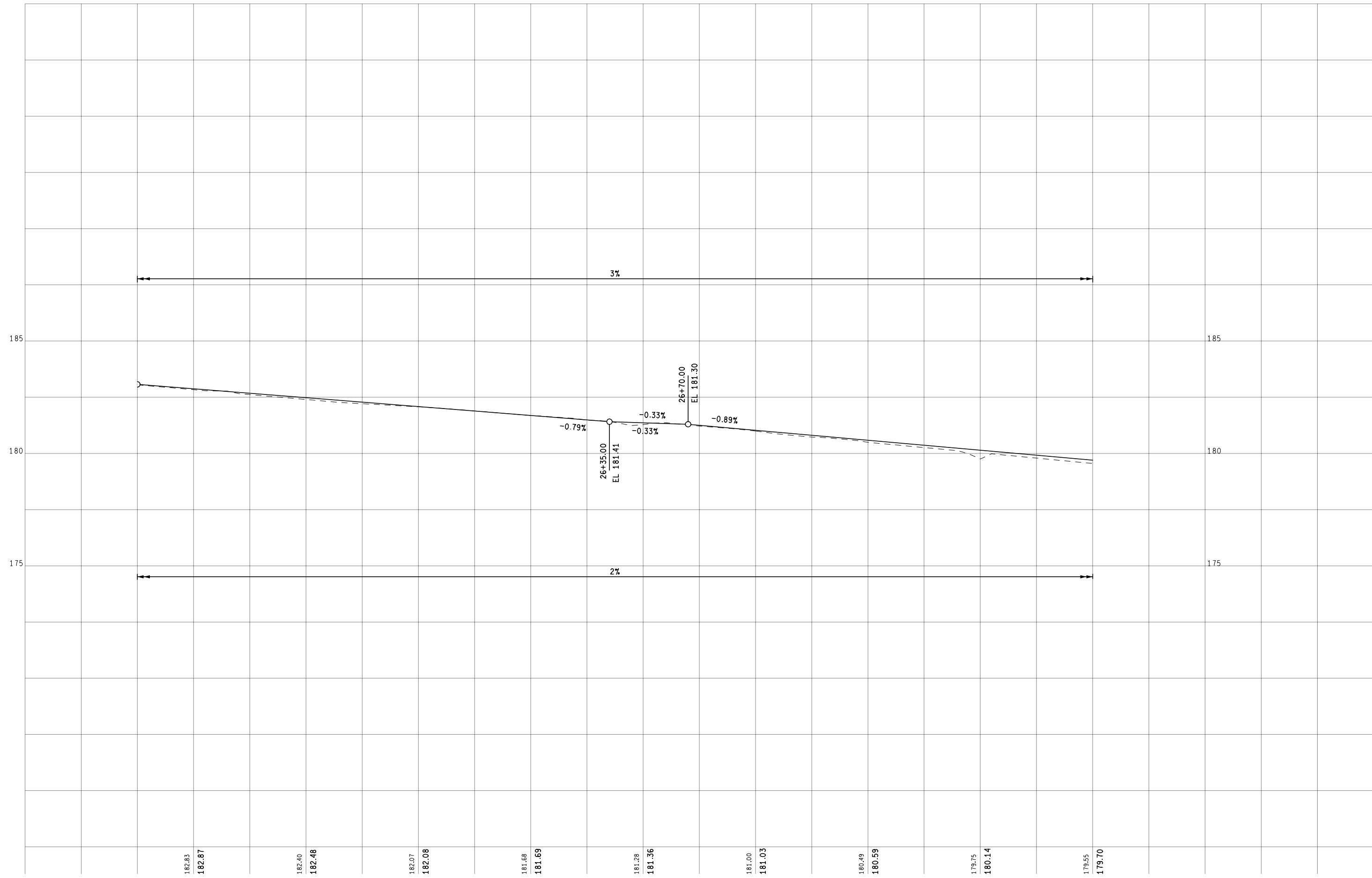
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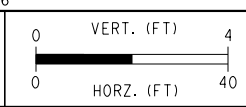
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--- EX GROUND PROF AT MCNICHOLS ALI
 ——— PROP PLAN GRADE AT MCNICHOLS ALI

NO.	DATE	AUTH	DESCRIPTION

NO.	DATE	AUTH	DESCRIPTION

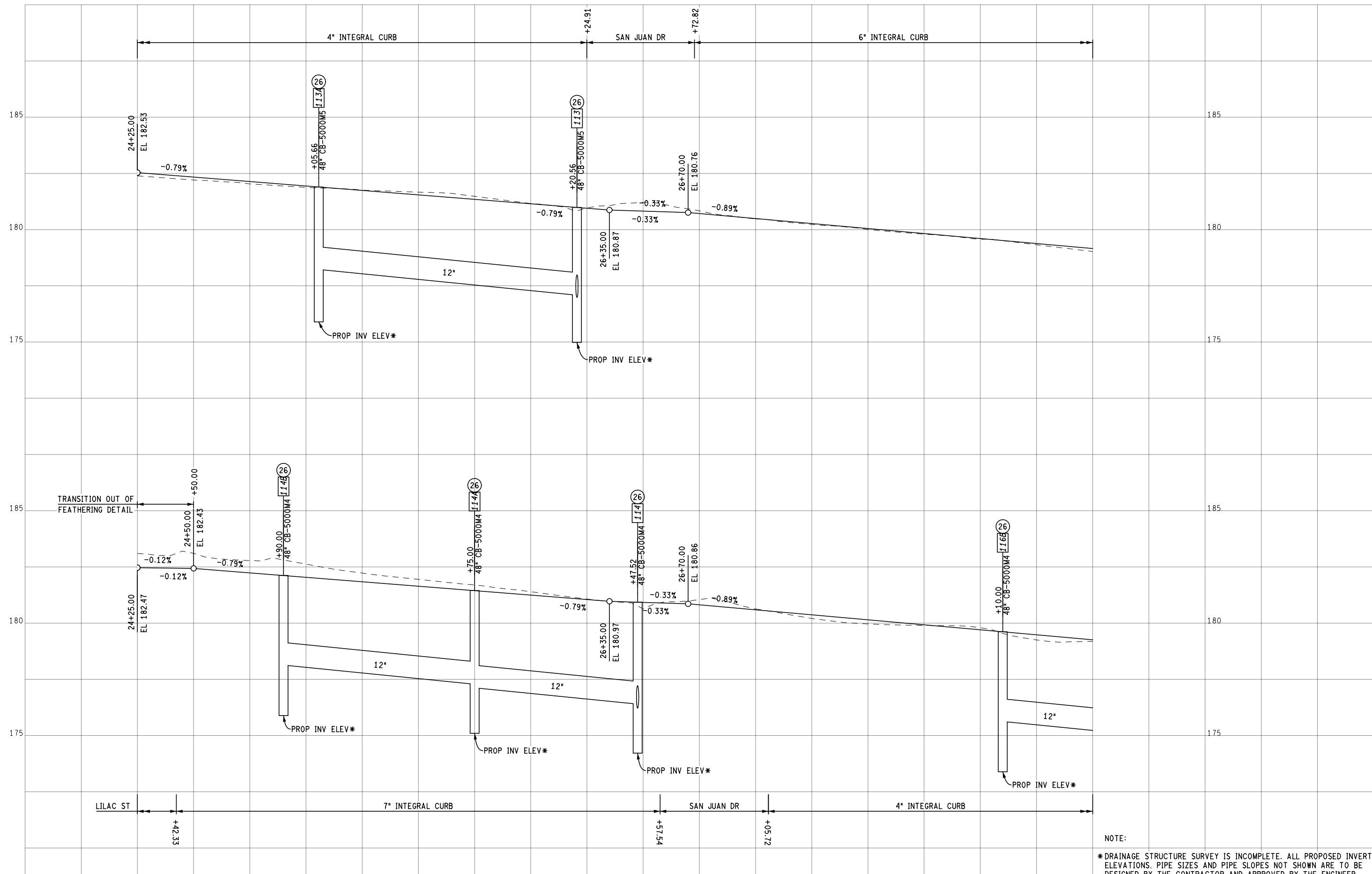


DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

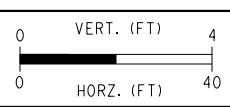
PROFILE SHEET
MCNICHOLS STREETScape
STA 24+25 TO STA 28+50

DRAWING SHEET
MCN PROF 007 37



NOTE:
 *DRAINAGE STRUCTURE SURVEY IS INCOMPLETE. ALL PROPOSED INVERT ELEVATIONS, PIPE SIZES AND PIPE SLOPES NOT SHOWN ARE TO BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

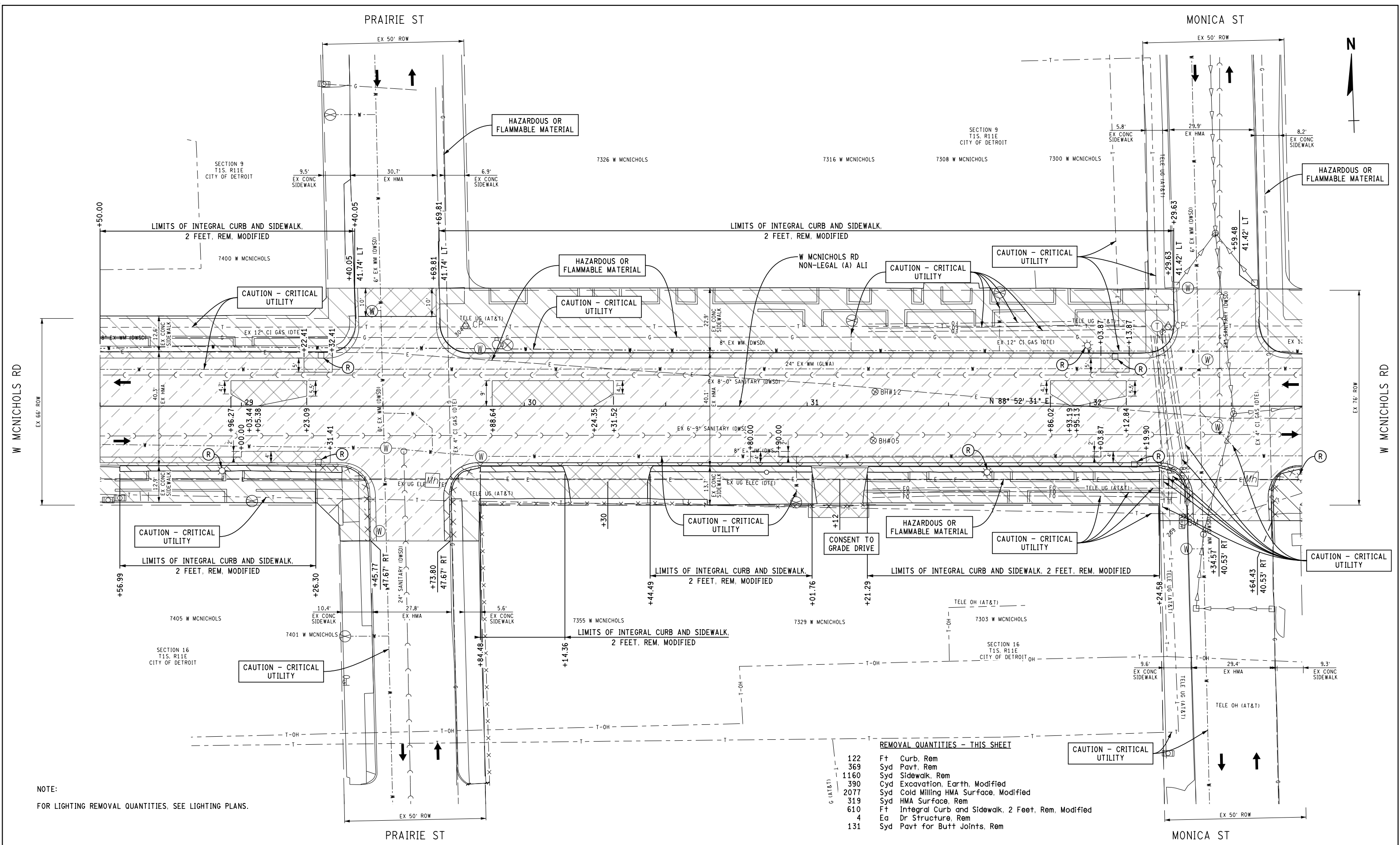


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 24+25 TO STA 28+50

DRAWING SHEET
 MCN PROF 008
 38

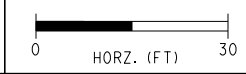


NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

REMOVAL QUANTITIES - THIS SHEET

122	Ft	Curb, Rem
369	Syd	Pavt, Rem
1160	Syd	Sidewalk, Rem
390	Cyd	Excavation, Earth, Modified
2077	Syd	Cold Milling HMA Surface, Modified
319	Syd	HMA Surface, Rem
610	Ft	Integral Curb and Sidewalk, 2 Feet, Rem, Modified
4	Ea	Dr Structure, Rem
131	Syd	Pavt for Butt Joints, Rem

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



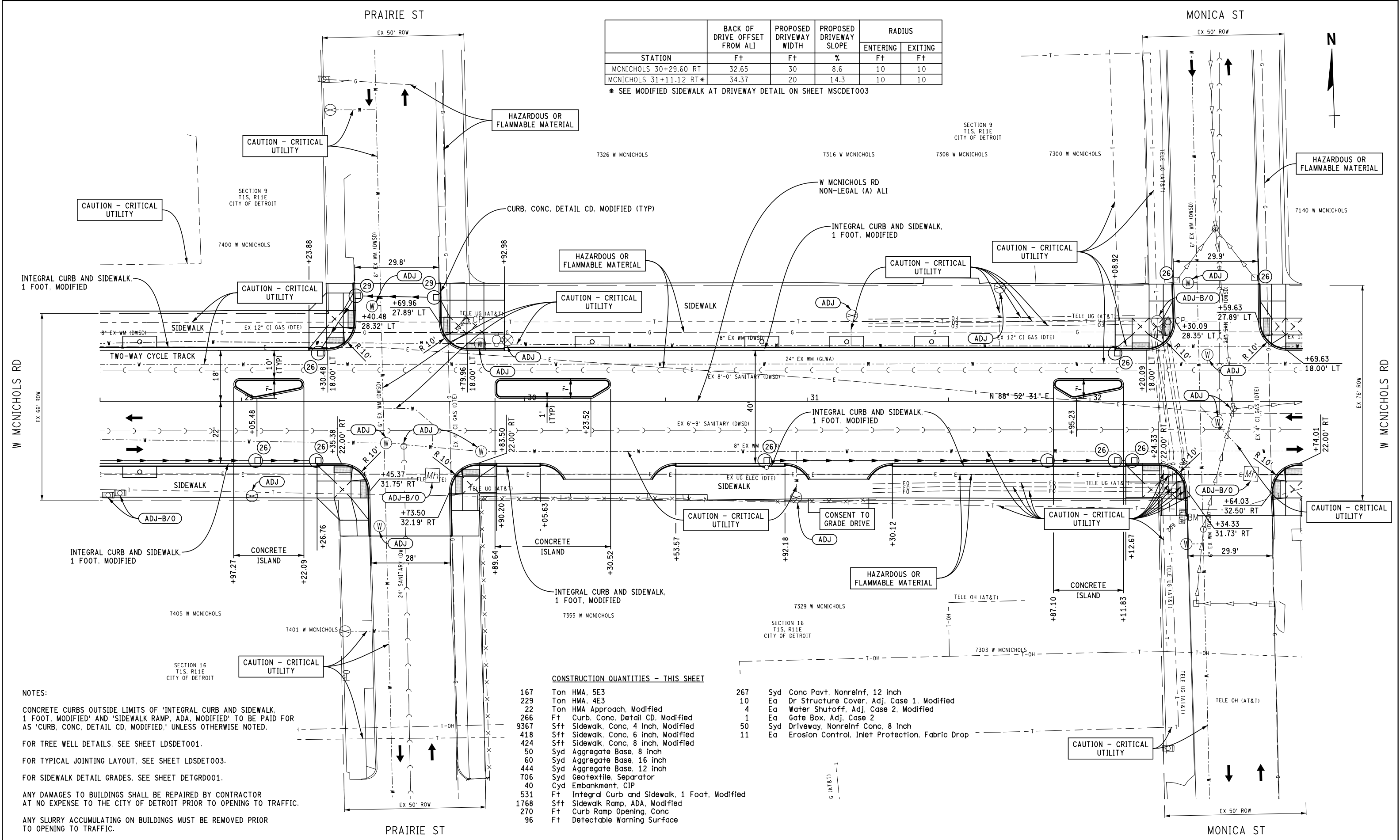
DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	39
STA 28+50 TO STA 32+75		REM	005

STATION	BACK OF DRIVE OFFSET FROM ALI	PROPOSED DRIVEWAY WIDTH	PROPOSED DRIVEWAY SLOPE	RADIUS	
				ENTERING	EXITING
MCNICHOLS 30+29.60 RT	32.65	30	8.6	10	10
MCNICHOLS 31+11.12 RT*	34.37	20	14.3	10	10

* SEE MODIFIED SIDEWALK AT DRIVEWAY DETAIL ON SHEET MSCDET003



NOTES:

CONCRETE CURBS OUTSIDE LIMITS OF 'INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED' AND 'SIDEWALK RAMP, ADA, MODIFIED' TO BE PAID FOR AS 'CURB, CONC, DETAIL CD, MODIFIED,' UNLESS OTHERWISE NOTED.

FOR TREE WELL DETAILS, SEE SHEET LDSDET001.

FOR TYPICAL JOINTING LAYOUT, SEE SHEET LDSDET003.

FOR SIDEWALK DETAIL GRADES, SEE SHEET DETGRD001.

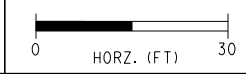
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CONSTRUCTION QUANTITIES - THIS SHEET

167	Ton	HMA, 5E3	267	Syd	Conc Pavt, Nonreinf, 12 inch
229	Ton	HMA, 4E3	10	Ea	Dr Structure Cover, Adj, Case 1, Modified
22	Ton	HMA Approach, Modified	4	Ea	Water Shutoff, Adj, Case 2, Modified
266	Ft	Curb, Conc, Detail CD, Modified	1	Ea	Gate Box, Adj, Case 2
9367	Sft	Sidewalk, Conc, 4 inch, Modified	50	Syd	Driveway, Nonreinf Conc, 8 inch
418	Sft	Sidewalk, Conc, 6 inch, Modified	11	Ea	Erosion Control, Inlet Protection, Fabric Drop
424	Sft	Sidewalk, Conc, 8 inch, Modified			
50	Syd	Aggregate Base, 8 inch			
60	Syd	Aggregate Base, 16 inch			
444	Syd	Aggregate Base, 12 inch			
706	Syd	Geotextile, Separator			
40	Cyd	Embankment, CIP			
531	Ft	Integral Curb and Sidewalk, 1 Foot, Modified			
1768	Sft	Sidewalk Ramp, ADA, Modified			
270	Ft	Curb Ramp Opening, Conc			
96	Ft	Detectable Warning Surface			

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

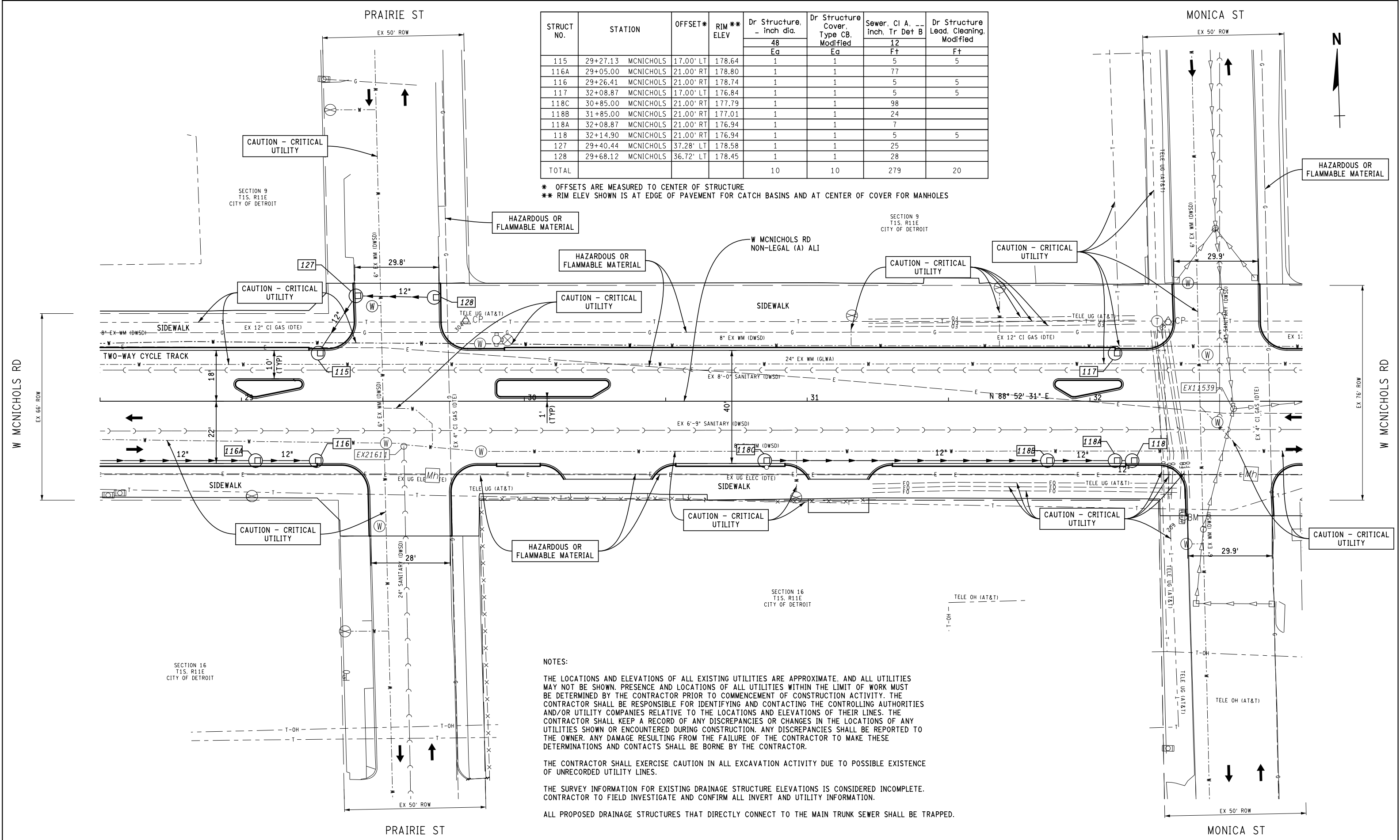
FILE:

JN: PW-7004
MCNICHOLS STREETScape

CONSTRUCTION SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN CON 005	40
STA 28+50 TO STA 32+75			

STRUCT NO.	STATION	OFFSET*	RIM ** ELEV	Dr Structure	Dr Structure	Sewer, CI A. --	Dr Structure
				- inch dia.	Cover. Type CB, Modified	inch, Tr Det B	Lead, Cleaning, Modified
				48		12	
				Ea	Ea	F+	F+
115	29+27.13	MCNICHOLS	17.00' LT	178.64	1	1	5
116A	29+05.00	MCNICHOLS	21.00' RT	178.80	1	1	77
116	29+26.41	MCNICHOLS	21.00' RT	178.74	1	1	5
117	32+08.87	MCNICHOLS	17.00' LT	176.84	1	1	5
118C	30+85.00	MCNICHOLS	21.00' RT	177.79	1	1	98
118B	31+85.00	MCNICHOLS	21.00' RT	177.01	1	1	24
118A	32+08.87	MCNICHOLS	21.00' RT	176.94	1	1	7
118	32+14.90	MCNICHOLS	21.00' RT	176.94	1	1	5
127	29+40.44	MCNICHOLS	37.28' LT	178.58	1	1	25
128	29+68.12	MCNICHOLS	36.72' LT	178.45	1	1	28
TOTAL					10	10	279
							20

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE
 ** RIM ELEV SHOWN IS AT EDGE OF PAVEMENT FOR CATCH BASINS AND AT CENTER OF COVER FOR MANHOLES



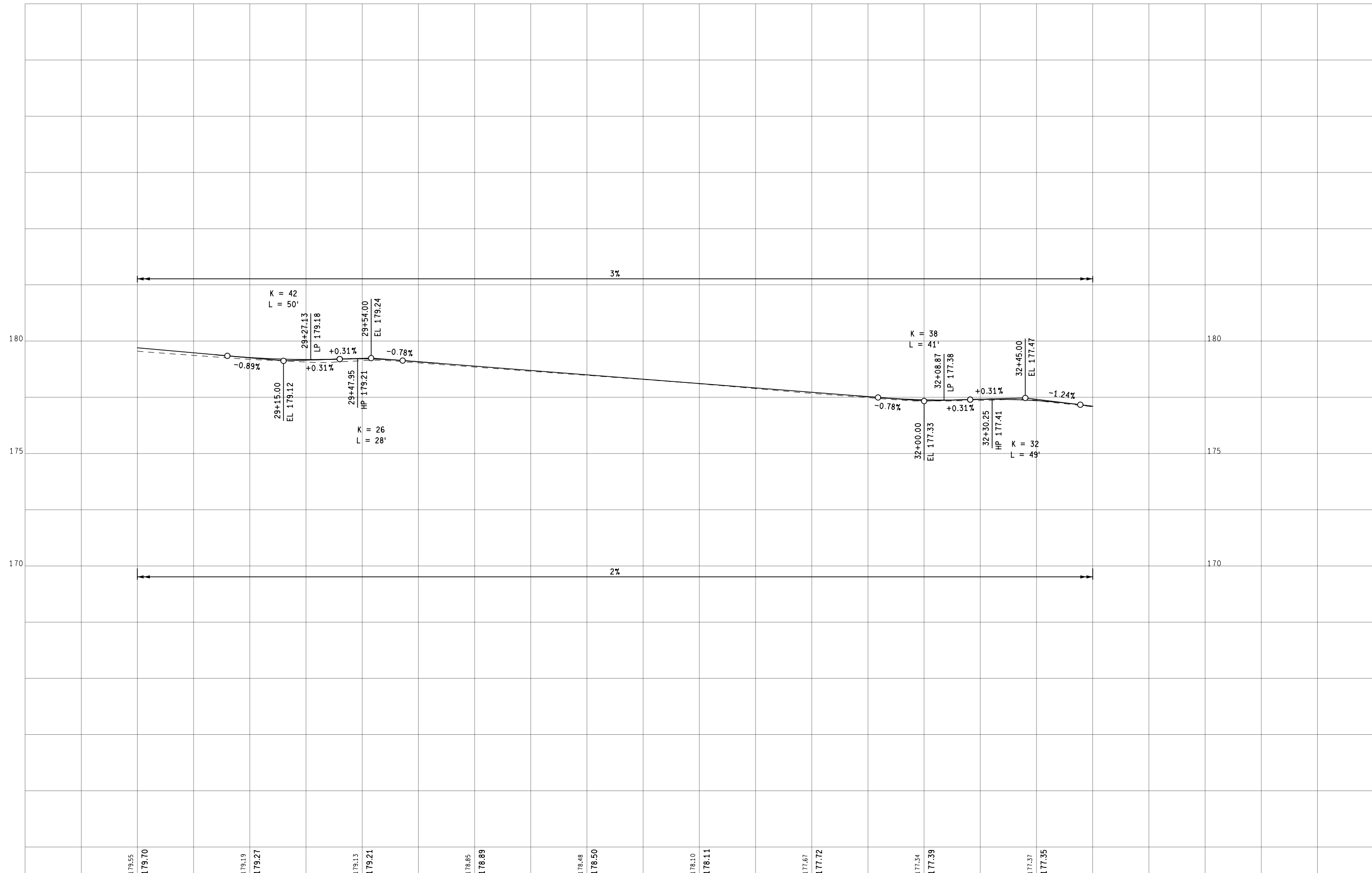
NOTES:

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THE CONTRACTOR SHALL EXERCISE CAUTION IN ALL EXCAVATION ACTIVITY DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES.

THE SURVEY INFORMATION FOR EXISTING DRAINAGE STRUCTURE ELEVATIONS IS CONSIDERED INCOMPLETE. CONTRACTOR TO FIELD INVESTIGATE AND CONFIRM ALL INVERT AND UTILITY INFORMATION.

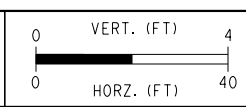
ALL PROPOSED DRAINAGE STRUCTURES THAT DIRECTLY CONNECT TO THE MAIN TRUNK SEWER SHALL BE TRAPPED.



EX GROUND PROF AT MCNICHOLS ALI
 PROP PLAN GRADE AT MCNICHOLS ALI

179.55 179.70 179.19 179.27 179.13 179.21 178.85 178.89 178.48 178.50 178.10 178.11 177.67 177.72 177.34 177.39 177.37 177.35

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

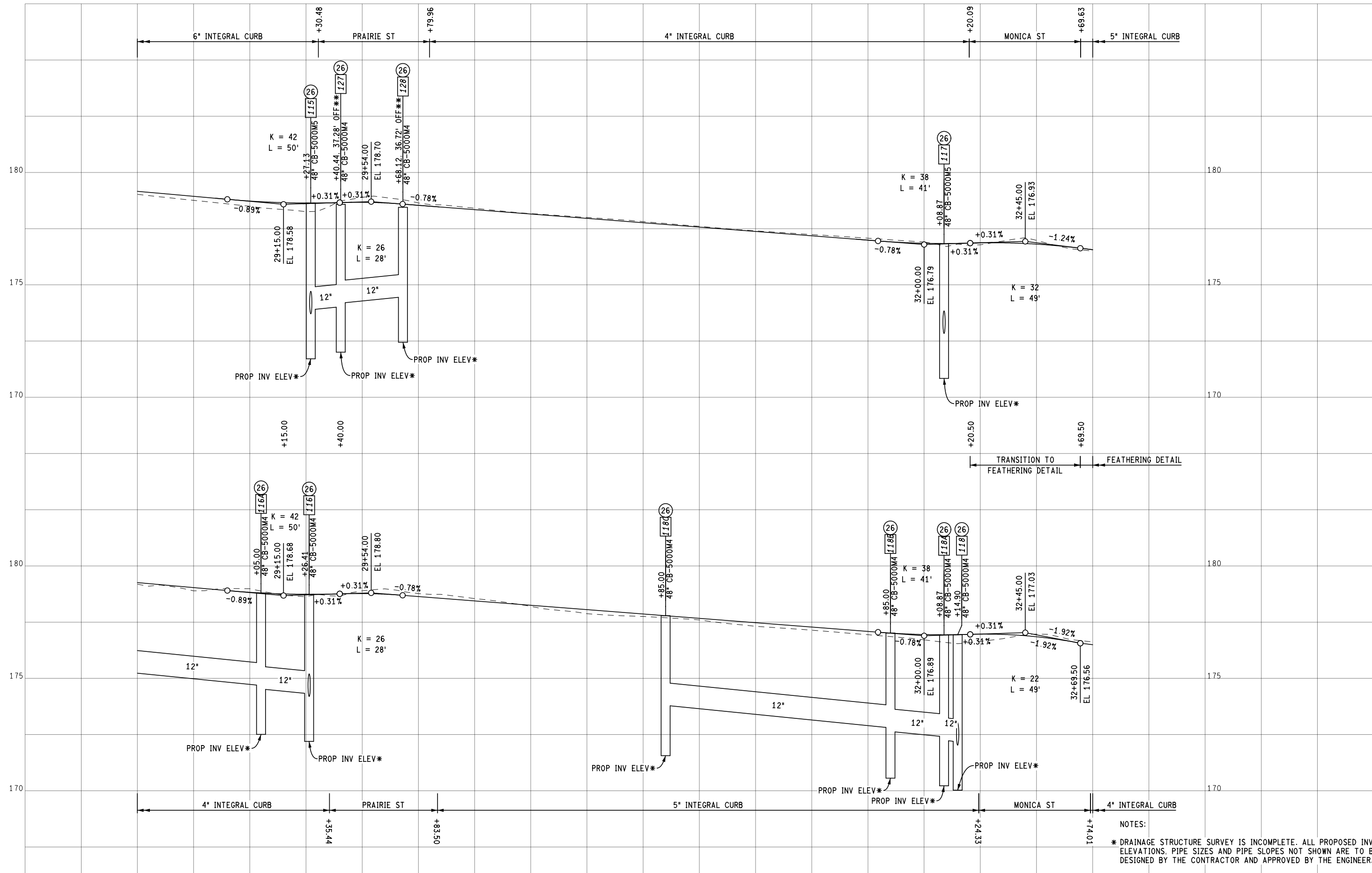


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 28+50 TO STA 32+75

DRAWING SHEET
 MCN PROF 009 42

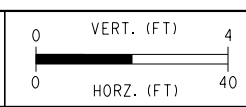


NOTES:
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 ** CATCH BASIN OFFSETS ARE MEASURED FROM PROPOSED MCNICHOLS ☺.

--- EX GROUND LT PROF AT 17' OFFSET MCNICHOLS ALI
 - - - - - PROP LT PROF AT FACE OF CURB

--- EX GROUND RT PROF AT 21' OFFSET MCNICHOLS ALI
 - - - - - PROP RT PROF AT FACE OF CURB

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

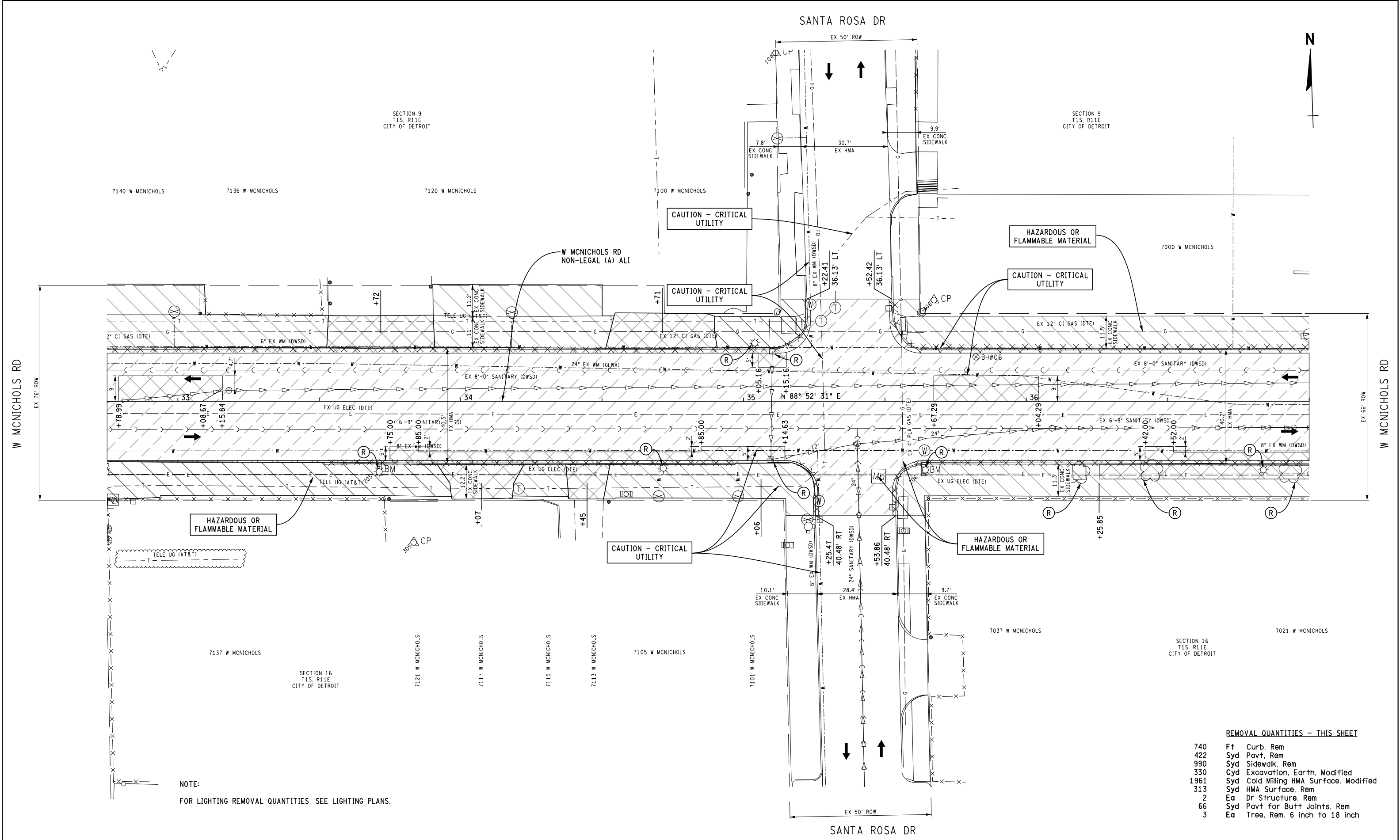


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 28+50 TO STA 32+75

DRAWING SHEET
 MCN PROF 010
 43

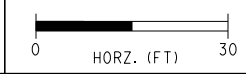


NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

REMOVAL QUANTITIES - THIS SHEET

740	Ft	Curb, Rem
422	Syd	Pavt, Rem
990	Syd	Sidewalk, Rem
330	Cyd	Excavation, Earth, Modified
1961	Syd	Cold Milling HMA Surface, Modified
313	Syd	HMA Surface, Rem
2	Ea	Dr Structure, Rem
66	Syd	Pavt for Butt Joints, Rem
3	Ea	Tree, Rem, 6 inch to 18 inch

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

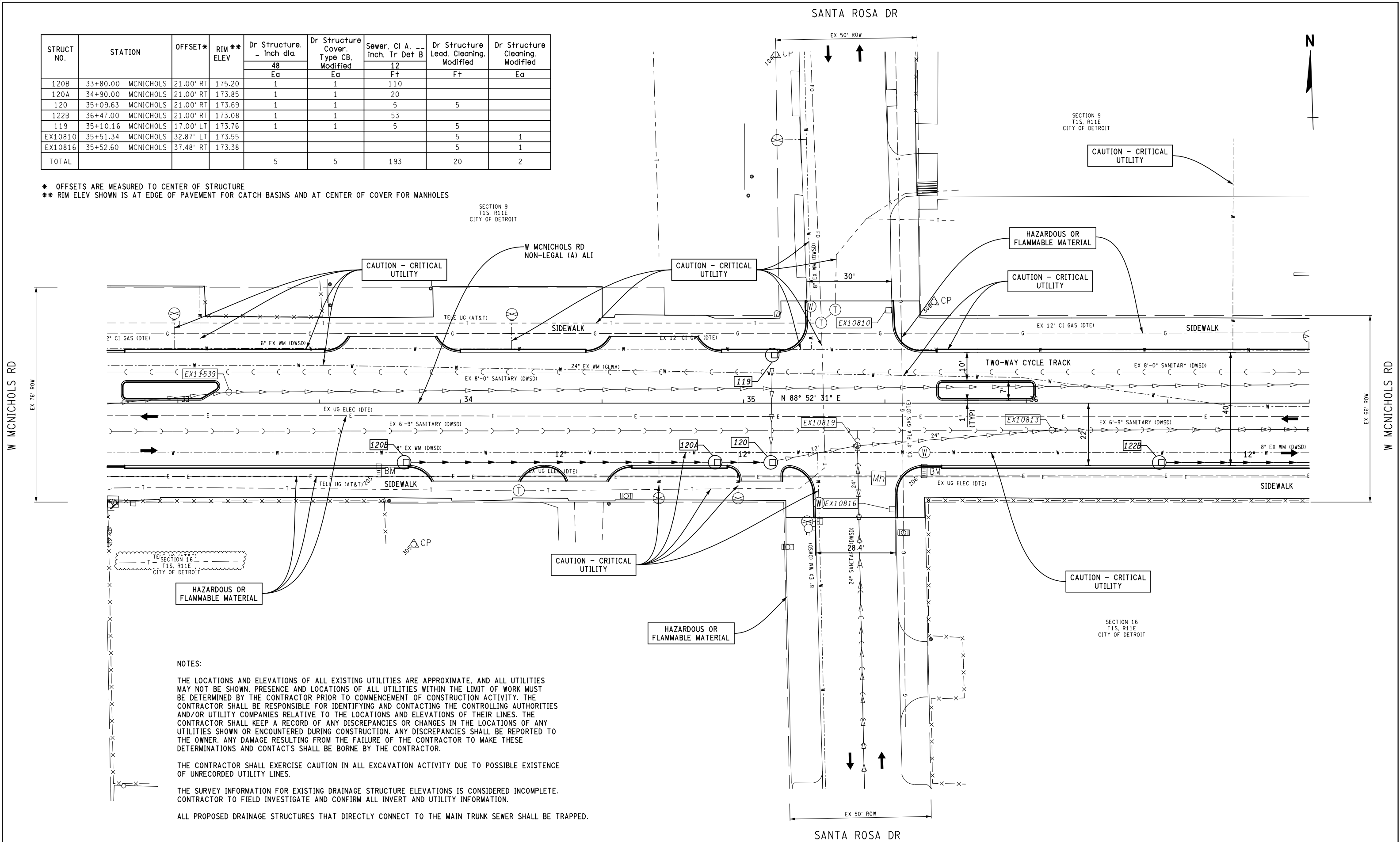
JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET
MCNICHOLS STREETScape
STA 32+75 TO STA 37+00

DRAWING SHEET
MCN REM 006
44

STRUCT NO.	STATION	OFFSET*	RIM** ELEV	Dr Structure	Dr Structure	Sewer, CI A. --	Dr Structure	Dr Structure
				- inch dia.	Cover, Type CB.	inch, Tr Det B	Lead, Cleaning, Modified	Cleaning, Modified
				Ea	Ea	F†	F†	Ea
120B	33+80.00	MCNICHOLS	21.00' RT	1	1	110		
120A	34+90.00	MCNICHOLS	21.00' RT	1	1	20		
120	35+09.63	MCNICHOLS	21.00' RT	1	1	5	5	
122B	36+47.00	MCNICHOLS	21.00' RT	1	1	53		
119	35+10.16	MCNICHOLS	17.00' LT	1	1	5	5	
EX10810	35+51.34	MCNICHOLS	32.87' LT				5	1
EX10816	35+52.60	MCNICHOLS	37.48' RT				5	1
TOTAL				5	5	193	20	2

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE
 ** RIM ELEV SHOWN IS AT EDGE OF PAVEMENT FOR CATCH BASINS AND AT CENTER OF COVER FOR MANHOLES



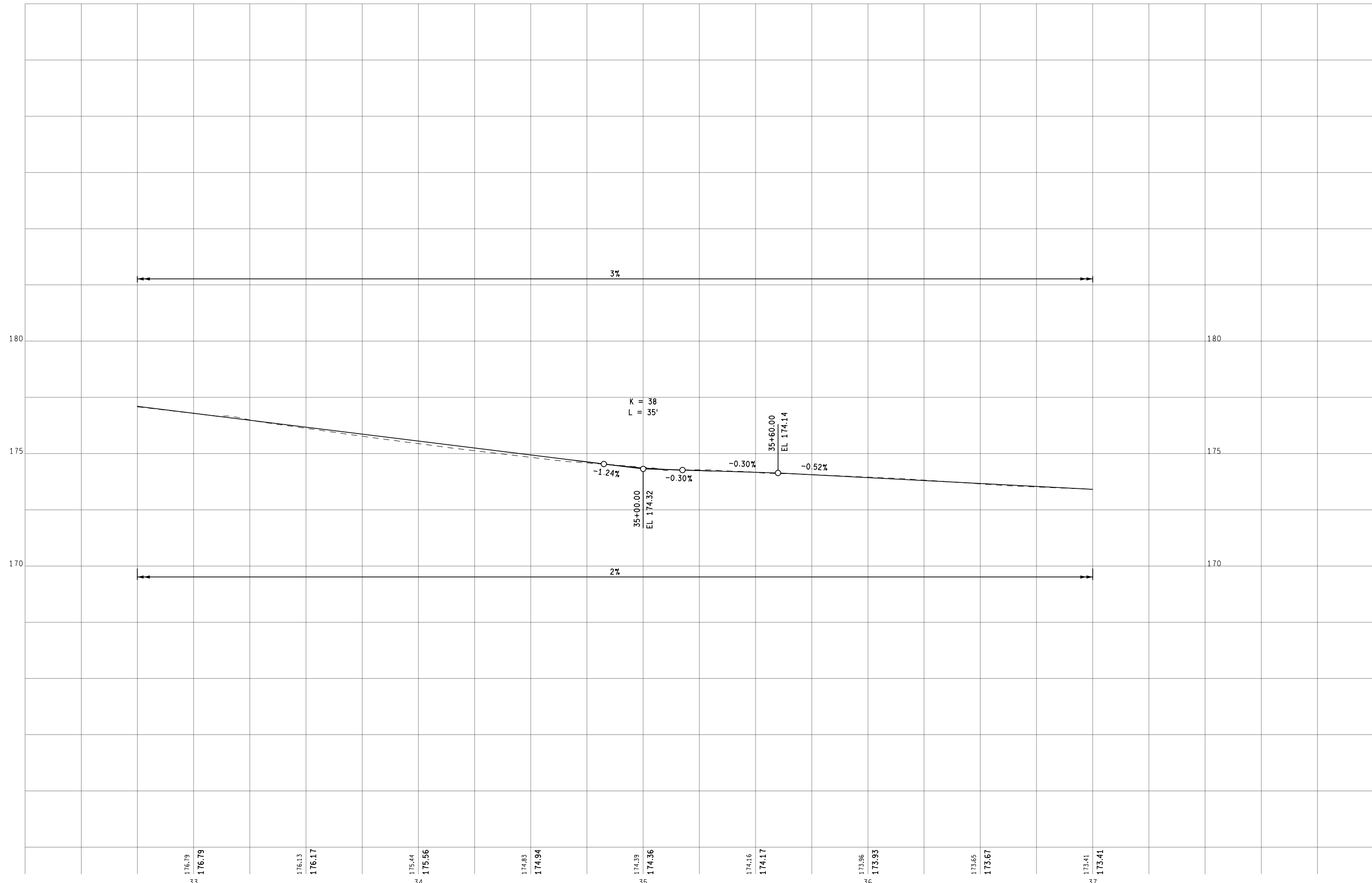
NOTES:

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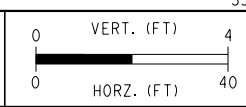
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ALL PROPOSED DRAINAGE STRUCTURES THAT DIRECTLY CONNECT TO THE MAIN TRUNK SEWER SHALL BE TRAPPED.



EX GROUND PROF AT MCNICHOLS ALI
 PROP PLAN GRADE AT MCNICHOLS ALI

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

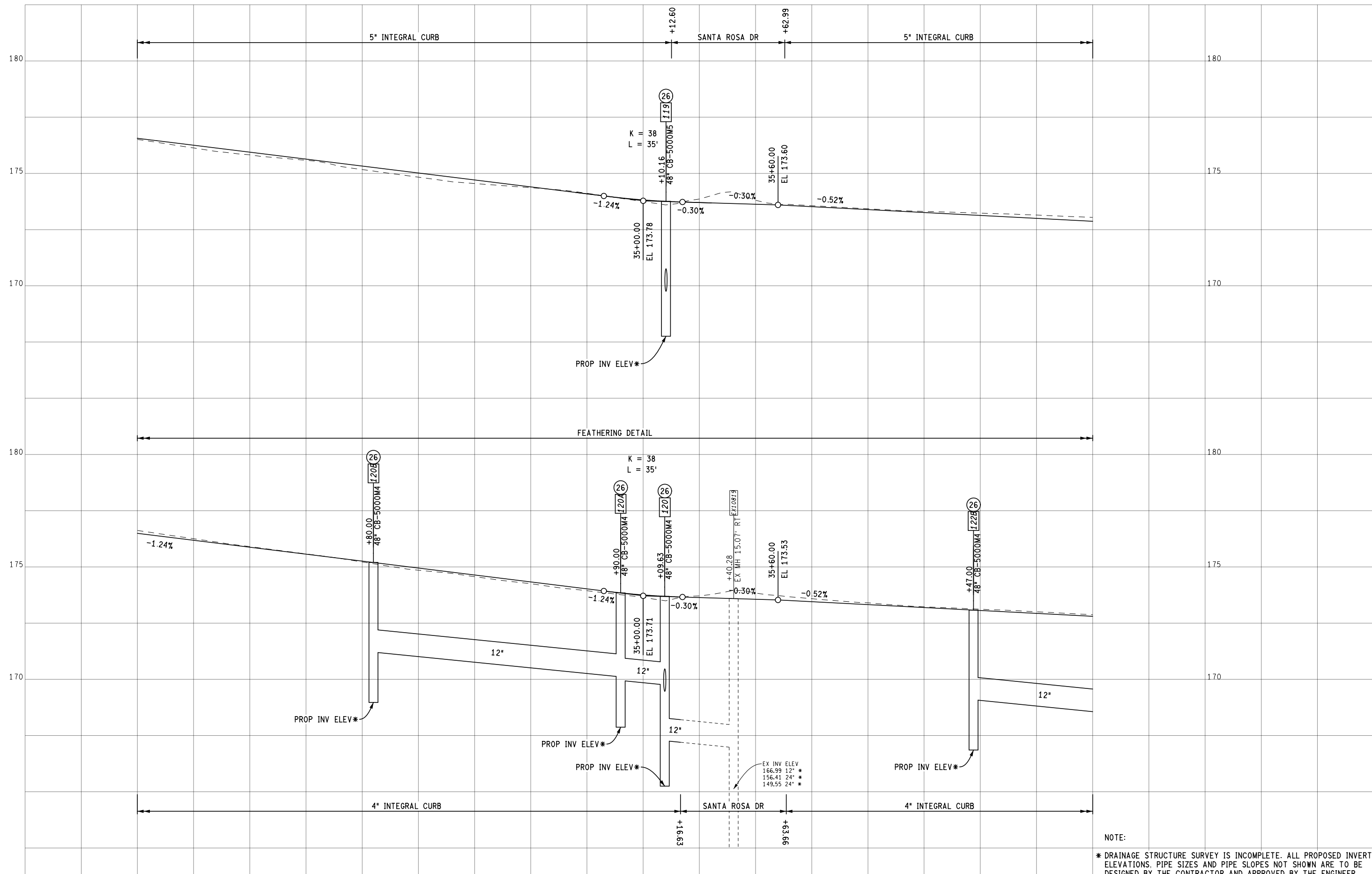


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETSCAPE

PROFILE SHEET
 MCNICHOLS STREETSCAPE
 STA 32+75 TO STA 37+00

DRAWING SHEET
 MCN PROF 011 47

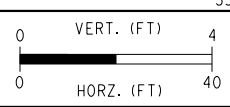


NOTE:
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--- EX GROUND LT PROF AT 17' OFFSET MCNICHOLS ALI
 - - - - - PROP LT PROF AT FACE OF CURB

--- EX GROUND RT PROF AT 21' OFFSET MCNICHOLS ALI
 - - - - - PROP RT PROF AT FACE OF CURB

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETSCAPE

PROFILE SHEET
 MCNICHOLS STREETSCAPE
 STA 32+75 TO STA 37+00

DRAWING SHEET
 MCN PROF 012
 48

STOEPEL ST

LIVEROIS AVE



SECTION 9
T15, R11E
CITY OF DETROIT

17101 LIVEROIS

7000 W MCNICHOLS

HAZARDOUS OR
FLAMMABLE MATERIAL

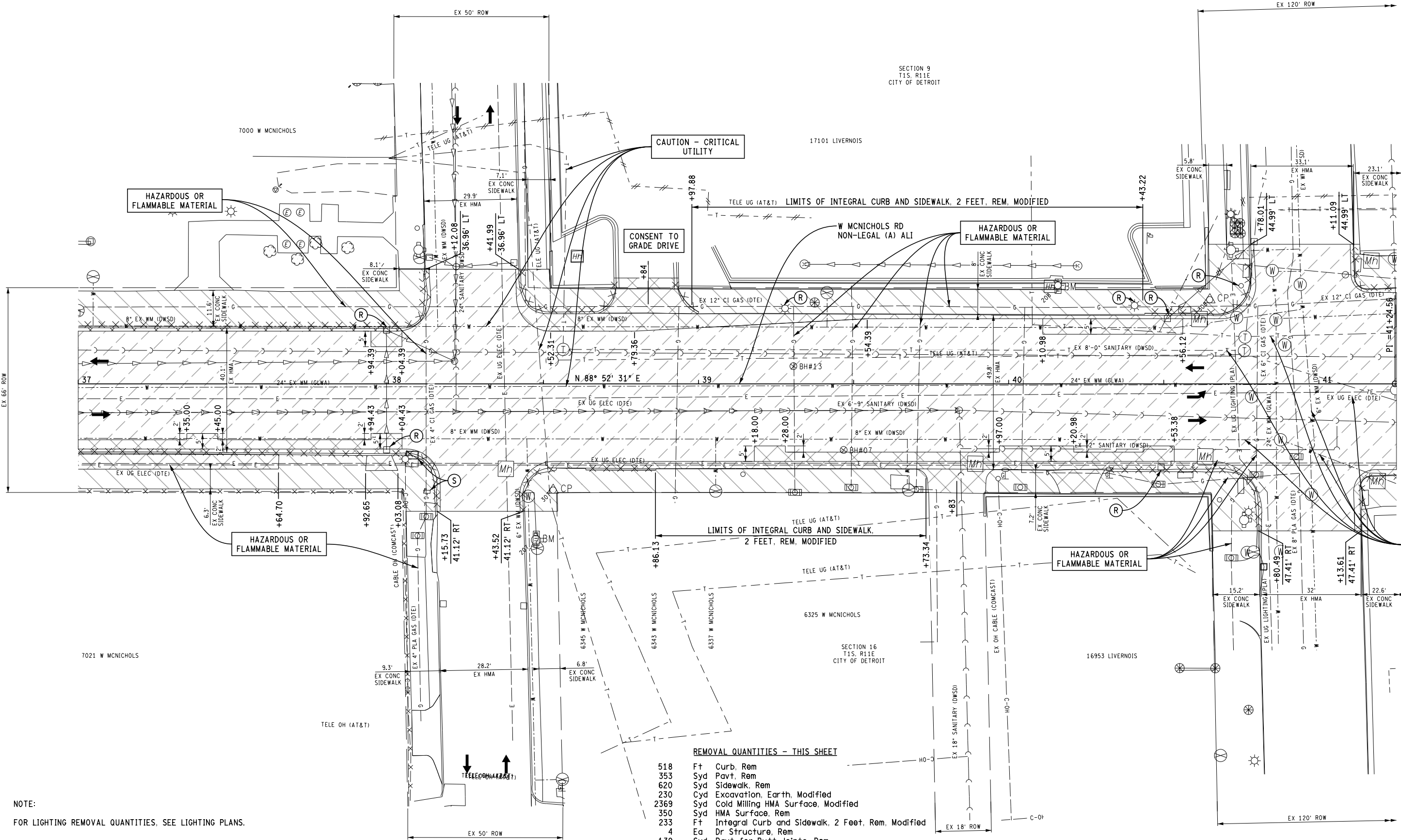
CAUTION - CRITICAL
UTILITY

CONSENT TO
GRADE DRIVE

HAZARDOUS OR
FLAMMABLE MATERIAL

W MCNICHOLS RD

W MCNICHOLS RD



HAZARDOUS OR
FLAMMABLE MATERIAL

LIMITS OF INTEGRAL CURB AND SIDEWALK,
2 FEET, REM, MODIFIED

HAZARDOUS OR
FLAMMABLE MATERIAL

CAUTION - CRITICAL
UTILITY

7021 W MCNICHOLS

6325 W MCNICHOLS

16953 LIVEROIS

SECTION 16
T15, R11E
CITY OF DETROIT

REMOVAL QUANTITIES - THIS SHEET

- 518 Ft Curb, Rem
- 353 Syd Pavt, Rem
- 620 Syd Sidewalk, Rem
- 230 Cyd Excavation, Earth, Modified
- 2369 Syd Cold Milling HMA Surface, Modified
- 350 Syd HMA Surface, Rem
- 233 Ft Integral Curb and Sidewalk, 2 Feet, Rem, Modified
- 4 Ea Dr Structure, Rem
- 139 Syd Pavt for Butt Joints, Rem

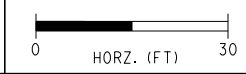
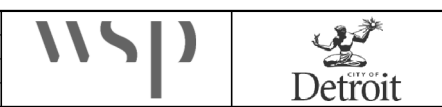
NOTE:
FOR LIGHTING REMOVAL QUANTITIES, SEE LIGHTING PLANS.

STOEPEL ST

PUBLIC ALLEY

LIVEROIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET
MCNICHOLS STREETScape
STA 37+00 TO STA 41+25

DRAWING SHEET
MCN REM 007
49

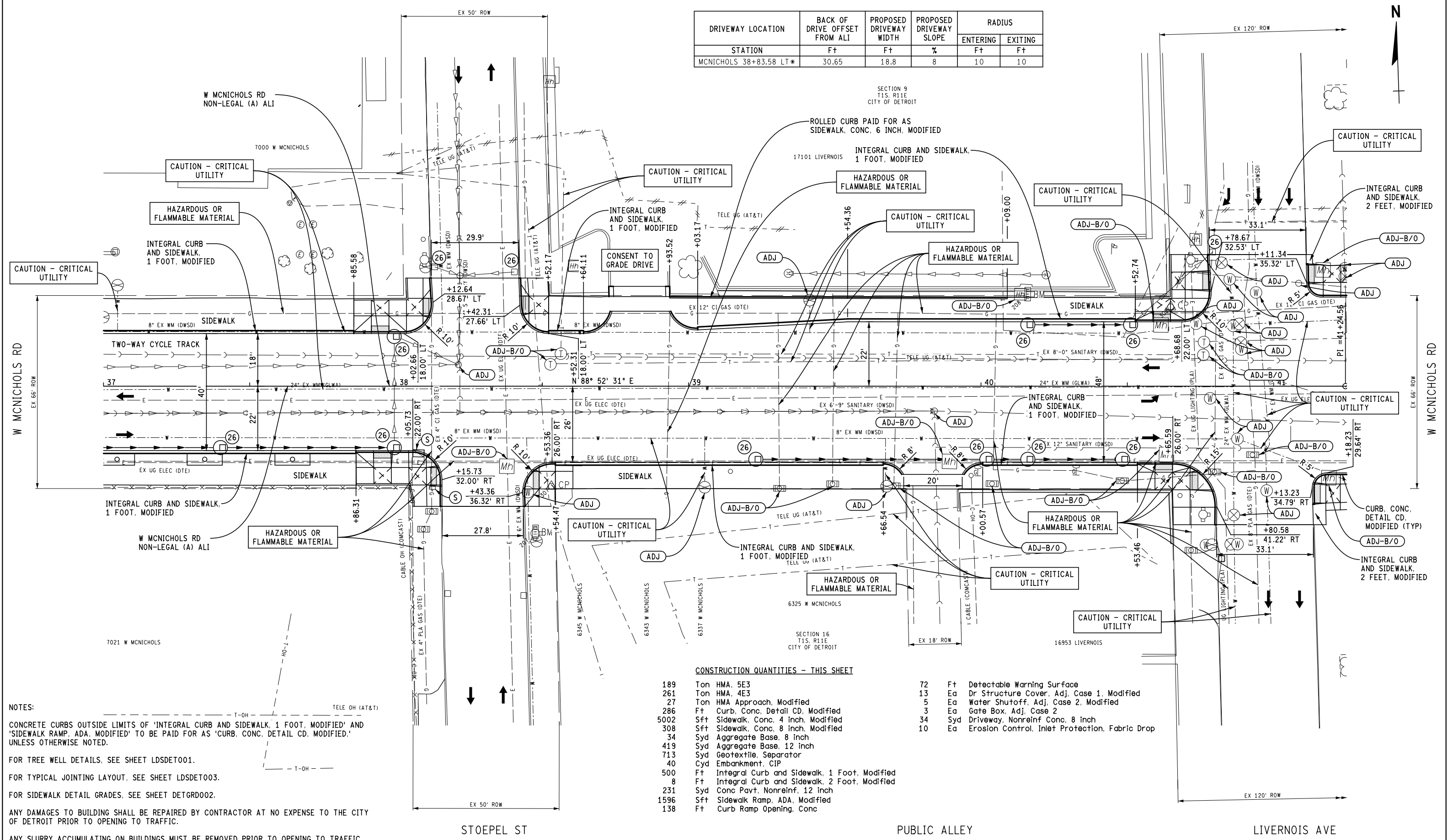
STOEPEL ST

LIVERNOIS AVE

DRIVEWAY LOCATION	BACK OF DRIVE OFFSET FROM ALI	PROPOSED DRIVEWAY WIDTH	PROPOSED DRIVEWAY SLOPE	RADIUS	
				ENTERING	EXITING
STATION	Ft	Ft	%	Ft	Ft
MCNICHOLS 38+83.58 LT*	30.65	18.8	8	10	10

SECTION 9
T15, R11E
CITY OF DETROIT

SECTION 16
T15, R11E
CITY OF DETROIT



NOTES:

CONCRETE CURBS OUTSIDE LIMITS OF 'INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED' AND 'SIDEWALK RAMP, ADA, MODIFIED' TO BE PAID FOR AS 'CURB, CONC. DETAIL CD, MODIFIED,' UNLESS OTHERWISE NOTED.

FOR TREE WELL DETAILS, SEE SHEET LSD001.

FOR TYPICAL JOINTING LAYOUT, SEE SHEET LSD003.

FOR SIDEWALK DETAIL GRADES, SEE SHEET DETGRD002.

ANY DAMAGES TO BUILDING SHALL BE REPAIRED BY CONTRACTOR AT NO EXPENSE TO THE CITY OF DETROIT PRIOR TO OPENING TO TRAFFIC.

ANY SLURRY ACCUMULATING ON BUILDINGS MUST BE REMOVED PRIOR TO OPENING TO TRAFFIC.

CONSTRUCTION QUANTITIES - THIS SHEET

189	Ton	HMA, 5E3	72	Ft	Detectable Warning Surface
261	Ton	HMA, 4E3	13	Ea	Dr Structure Cover, Adj, Case 1, Modified
27	Ton	HMA Approach, Modified	5	Ea	Water Shutoff, Adj, Case 2, Modified
286	Ft	Curb, Conc, Detail CD, Modified	3	Ea	Gate Box, Adj, Case 2
5002	Sft	Sidewalk, Conc, 4 inch, Modified	34	Syd	Driveway, Nonreinf Conc, 8 inch
308	Sft	Sidewalk, Conc, 8 inch, Modified	10	Ea	Erosion Control, Inlet Protection, Fabric Drop
34	Syd	Aggregate Base, 8 inch			
419	Syd	Aggregate Base, 12 inch			
713	Syd	Geotextile, Separator			
40	Cyd	Embankment, CIP			
500	Ft	Integral Curb and Sidewalk, 1 Foot, Modified			
8	Ft	Integral Curb and Sidewalk, 2 Foot, Modified			
231	Syd	Conc Pavt, Nonreinf, 12 inch			
1596	Sft	Sidewalk Ramp, ADA, Modified			
138	Ft	Curb Ramp Opening, Conc			

STOEPEL ST

LIVERNOIS AVE

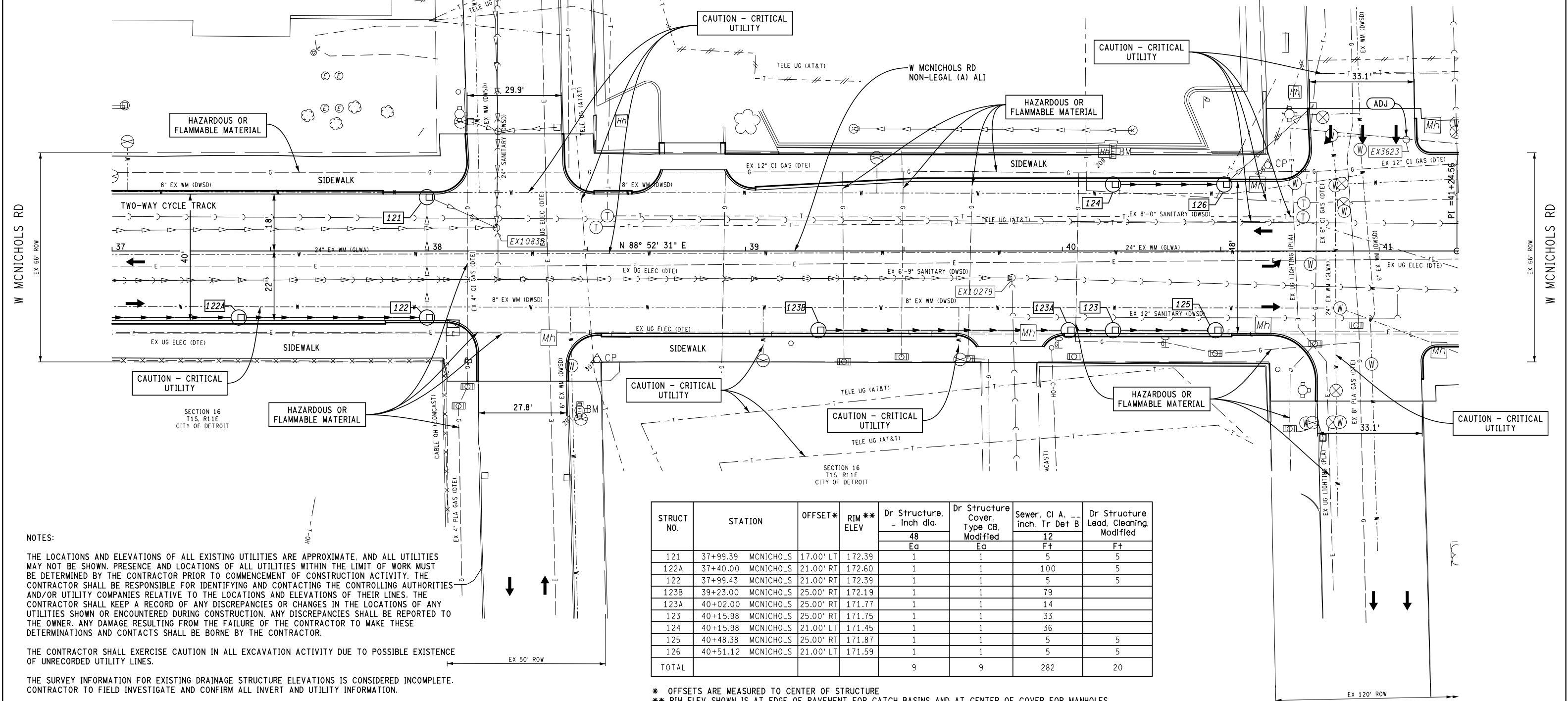


SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT



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STRUCT NO.	STATION	OFFSET*	RIM ** ELEV	Dr Structure		Sewer, CI A, Tr Det B	Dr Structure Lead, Cleaning, Modified
				inch dia.	Type CB, Modified		
121	37+99.39	MCNICHOLS 17.00' LT	172.39	48	Ea	F†	F†
122A	37+40.00	MCNICHOLS 21.00' RT	172.60	1	1	100	5
122	37+99.43	MCNICHOLS 21.00' RT	172.39	1	1	5	5
123B	39+23.00	MCNICHOLS 25.00' RT	172.19	1	1	79	
123A	40+02.00	MCNICHOLS 25.00' RT	171.77	1	1	14	
123	40+15.98	MCNICHOLS 25.00' RT	171.75	1	1	33	
124	40+15.98	MCNICHOLS 21.00' LT	171.45	1	1	36	
125	40+48.38	MCNICHOLS 25.00' RT	171.87	1	1	5	5
126	40+51.12	MCNICHOLS 21.00' LT	171.59	1	1	5	5
TOTAL				9	9	282	20

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE

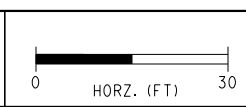
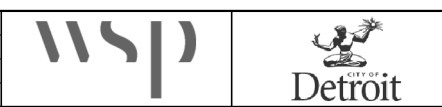
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STOEPEL ST

PUBLIC ALLEY

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

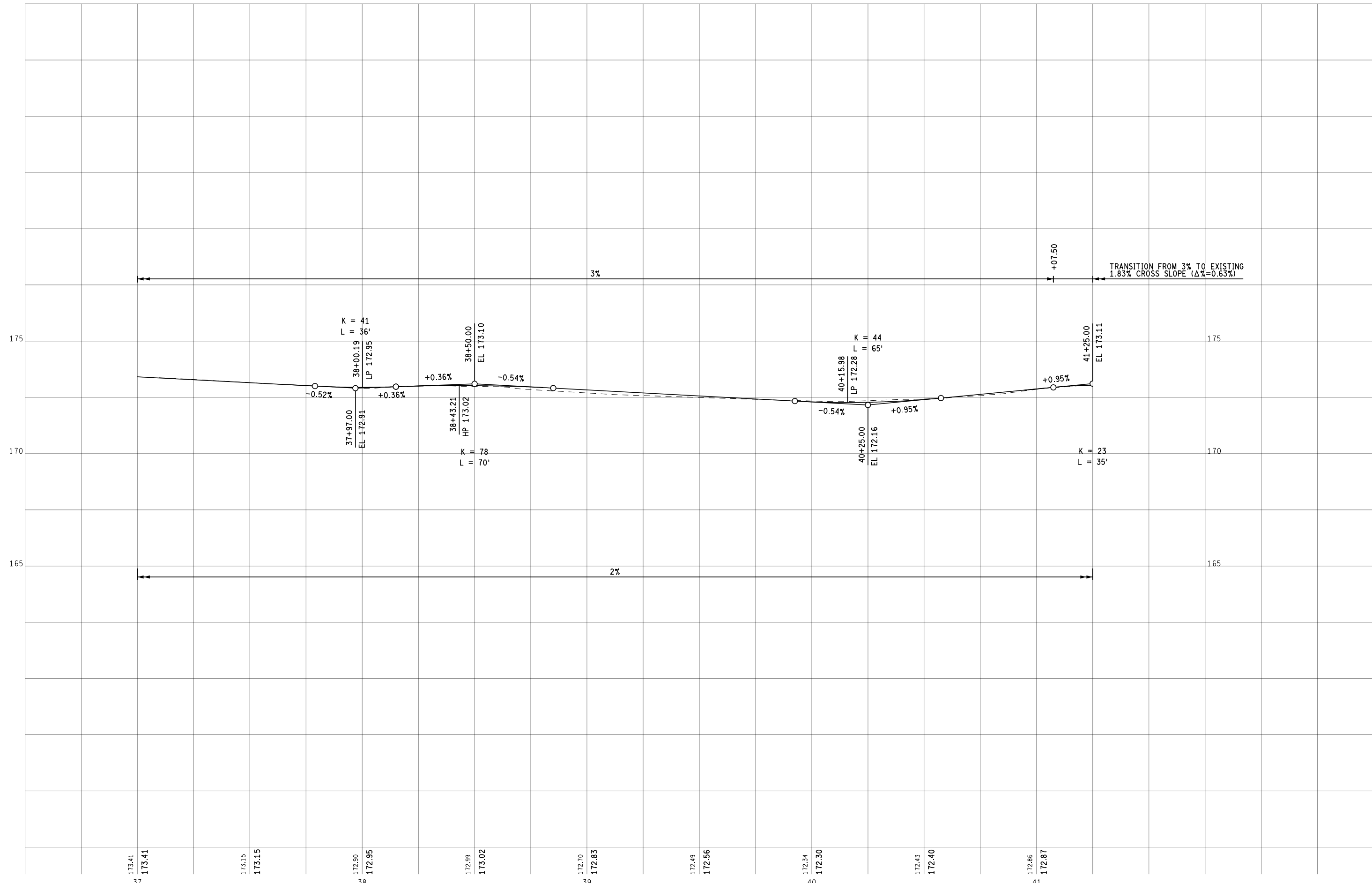


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

DRAINAGE SHEET
MCNICHOLS STREETScape
STA 37+00 TO STA 41+25

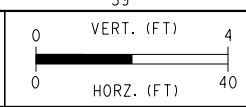
DRAWING SHEET
MCN DRAIN 007
51



--- EX GROUND PROF AT MCNICHOLS ALI
 - - - PROP PLAN GRADE AT MCNICHOLS ALI

173.41
 173.41
 173.15
 173.15
 172.90
 172.95
 172.99
 173.02
 172.70
 172.83
 172.49
 172.56
 172.34
 172.30
 172.43
 172.40
 172.86
 172.87

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
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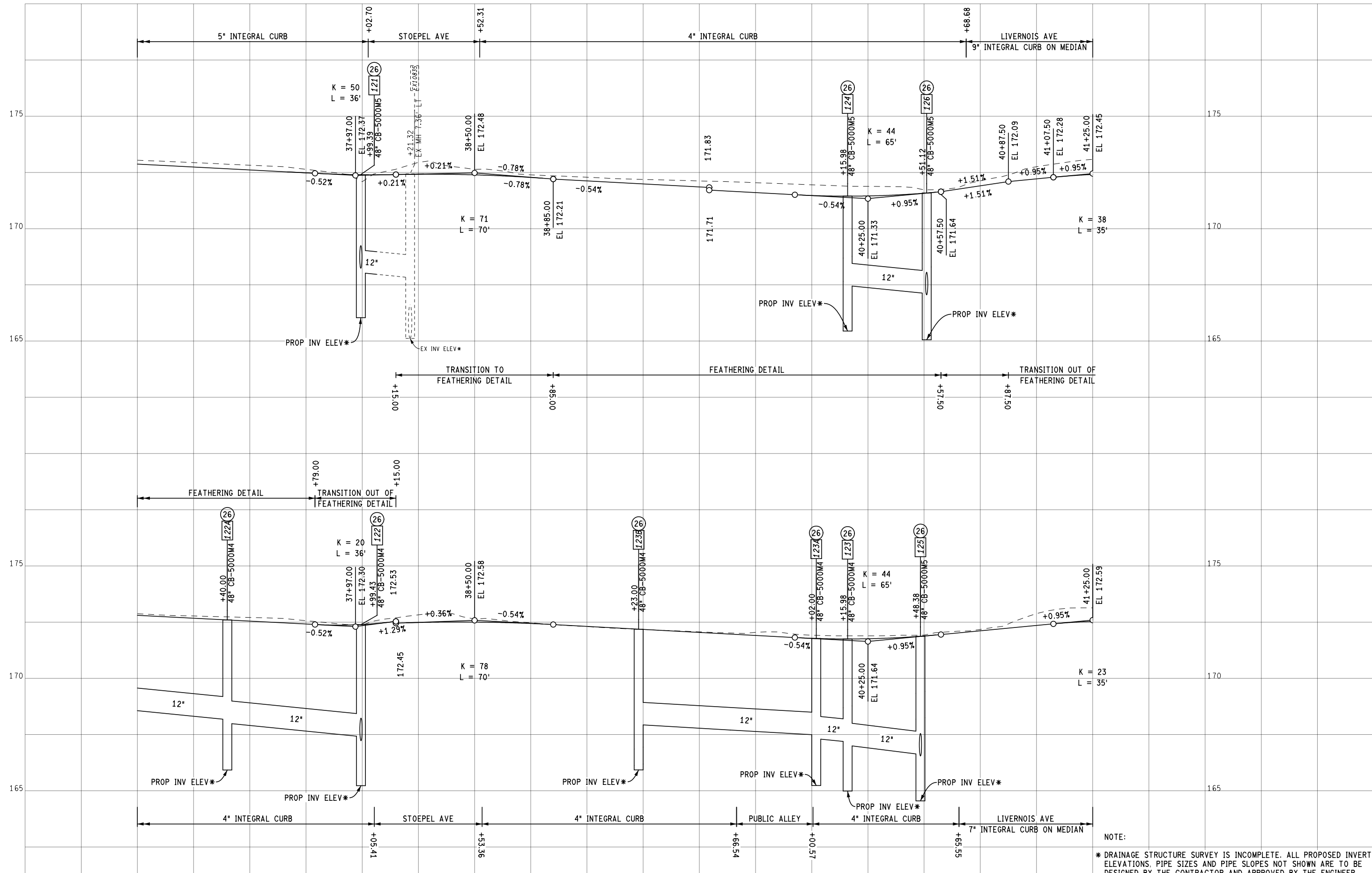


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 37+00 TO STA 41+25

DRAWING SHEET
 MCN PROF 013
 52

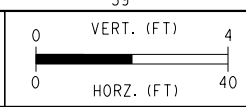
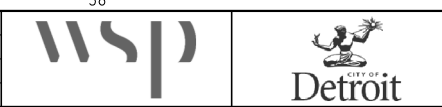


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--- EX GROUND LT PROF AT 17' OFFSET MCNICHOLS ALI
 - - - - - PROP LT PROF AT FACE OF CURB

--- EX GROUND RT PROF AT 21' OFFSET MCNICHOLS ALI
 - - - - - PROP RT PROF AT FACE OF CURB

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
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JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 37+00 TO STA 41+25

DRAWING SHEET
 MCN PROF 014
53

LIVERNOIS AVE

WARRINGTON DR



SECTION 9
T1S, R11E
CITY OF DETROIT

17100 LIVERNOIS

W MCNICHOLS RD
NON-LEGAL (A) ALI

UNIVERSITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

CAUTION - CRITICAL
UTILITY

HAZARDOUS OR
FLAMMABLE MATERIAL

CAUTION - CRITICAL
UTILITY

HAZARDOUS OR
FLAMMABLE MATERIAL

CAUTION - CRITICAL
UTILITY

NOTE:
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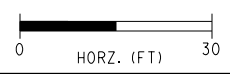
REMOVAL QUANTITIES - THIS SHEET

100	Ft	Curb, Rem
17	Syd	Pavt, Rem
85	Syd	Sidewalk, Rem
10	Cyd	Excavation, Earth, Modified
466	Syd	Cold Milling HMA Surface, Modified
16	Syd	HMA Surface, Rem
77	Syd	Pavt for Butt Joints, Rem

W MCNICHOLS RD

W MCNICHOLS RD

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE: 02/07/20

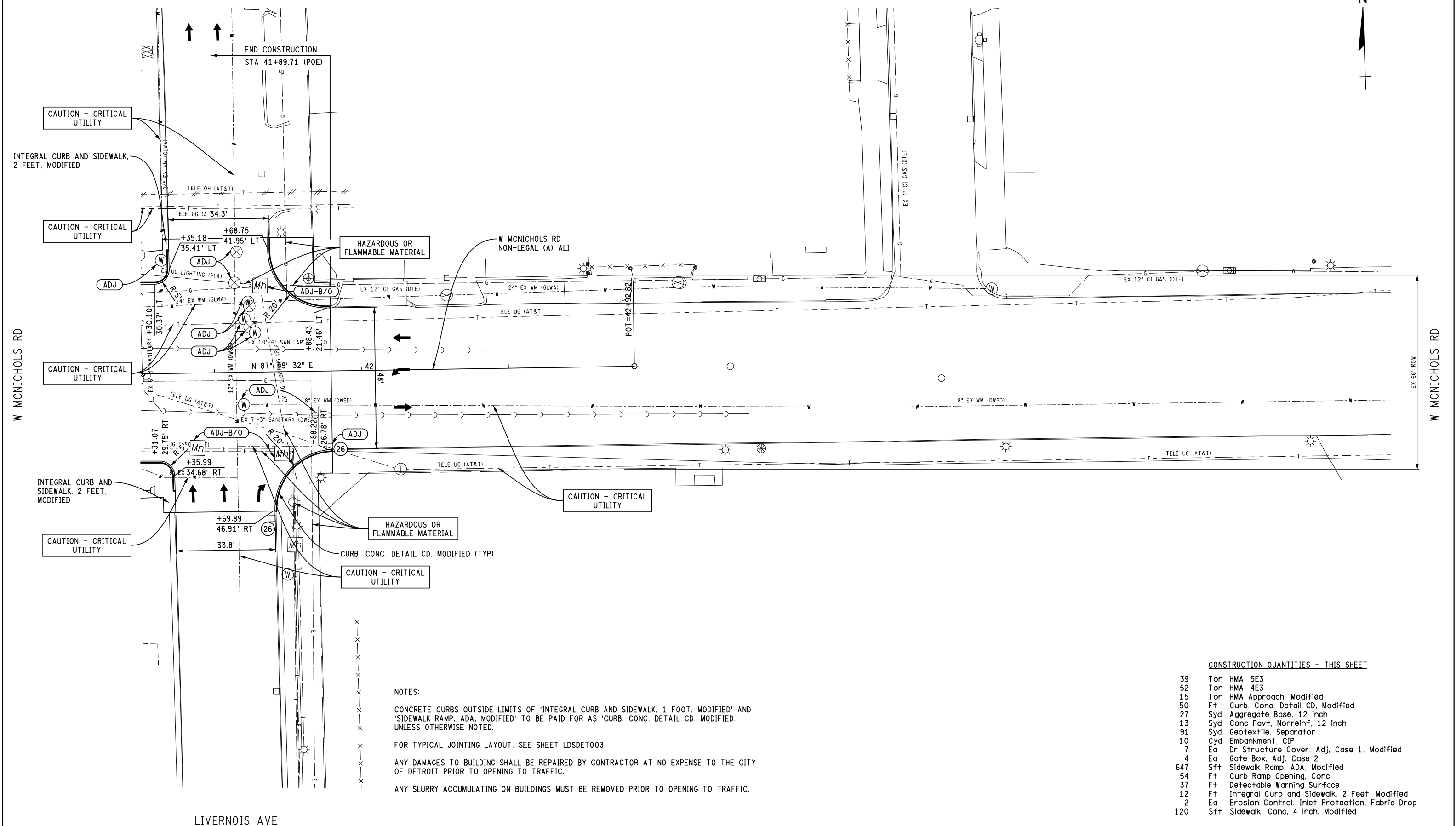
JN: PW-7004
MCNICHOLS STREETScape

REMOVAL SHEET
MCNICHOLS STREETScape
STA 41+25 TO STA 41+89.71 (POE)

DRAWING SHEET
MCN REM 008
54

LIVERNOIS AVE

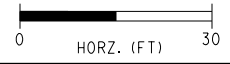
WARRINGTON DR



W MCNICHOLS RD

W MCNICHOLS RD

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004

MCNICHOLS STREETScape

CONSTRUCTION SHEET

MCNICHOLS STREETScape

STA 41+25 TO STA 41+89.71 (POE)

DRAWING SHEET

MCN CON 008

55

NOTES:

CONCRETE CURBS OUTSIDE LIMITS OF 'INTEGRAL CURB AND SIDEWALK, 1 FOOT, MODIFIED' AND 'SIDEWALK RAMP, ADA, MODIFIED' TO BE PAID FOR AS 'CURB, CONC, DETAIL CD, MODIFIED,' UNLESS OTHERWISE NOTED.

FOR TYPICAL JOINTING LAYOUT, SEE SHEET LDSDET003.

ANY DAMAGES TO BUILDING SHALL BE REPAIRED BY CONTRACTOR AT NO EXPENSE TO THE CITY OF DETROIT PRIOR TO OPENING TO TRAFFIC.

ANY SLURRY ACCUMULATING ON BUILDINGS MUST BE REMOVED PRIOR TO OPENING TO TRAFFIC.

CONSTRUCTION QUANTITIES - THIS SHEET

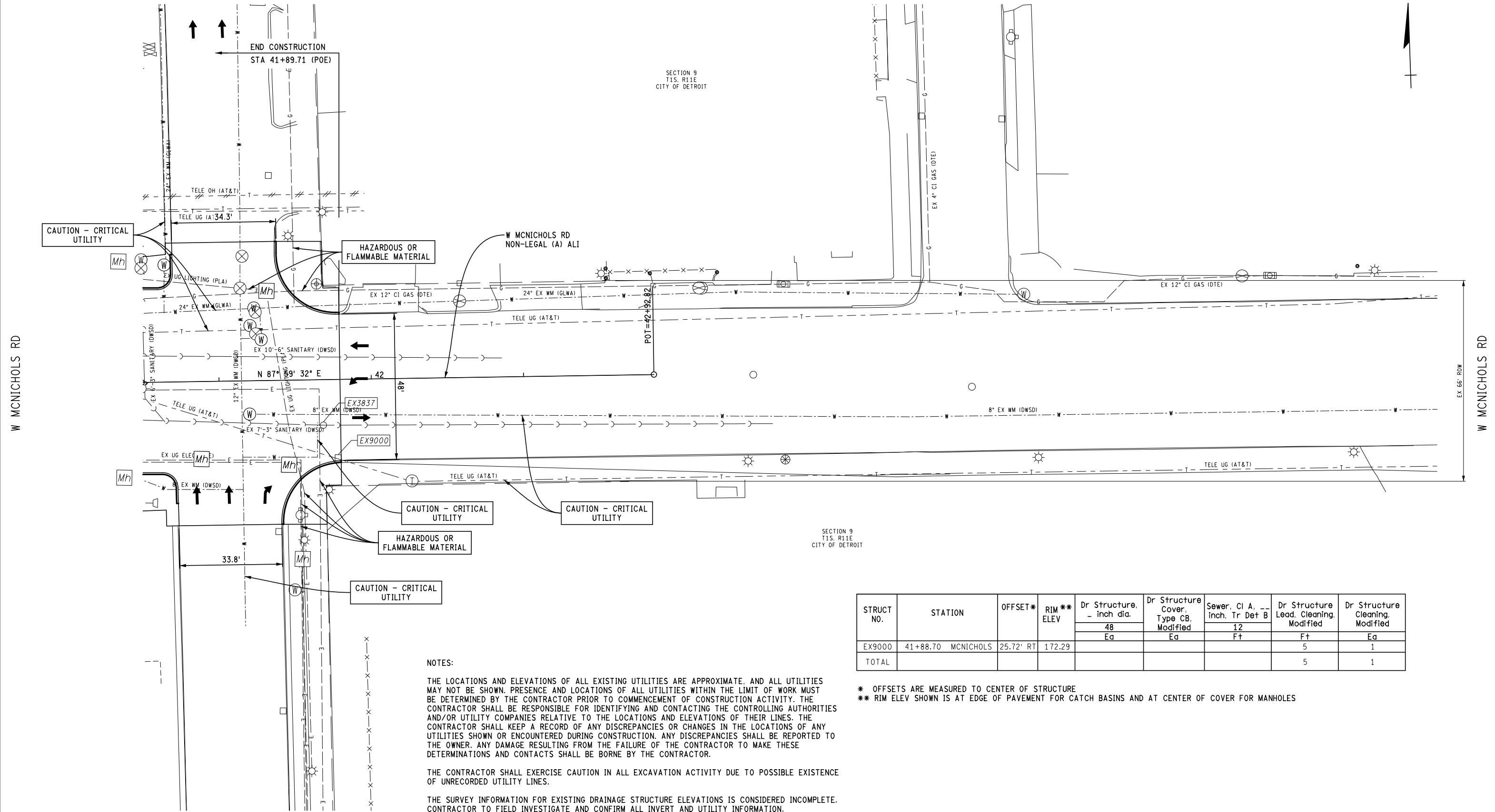
39	Ton	HMA, 5E3
52	Ton	HMA, 4E3
15	Ton	HMA Approach, Modified
50	Ft	Curb, Conc, Detail CD, Modified
27	Syd	Aggregate Base, 12 inch
13	Syd	Conc Pavt, Nonreinf, 12 inch
91	Syd	Geotextile, Separator
10	Cyd	Embankment, CIP
7	Ea	Dr Structure Cover, Adj, Case 1, Modified
4	Ea	Gate Box, Adj, Case 2
647	Sft	Sidewalk Ramp, ADA, Modified
54	Ft	Curb Ramp Opening, Conc
37	Ft	Detectable Warning Surface
12	Ft	Integral Curb and Sidewalk, 2 Feet, Modified
2	Ea	Erosion Control, Inlet Protection, Fabric Drop
120	Sft	Sidewalk, Conc, 4 inch, Modified

LIVERNOIS AVE

WARRINGTON DR



SECTION 9
T1S, R11E
CITY OF DETROIT



SECTION 9
T1S, R11E
CITY OF DETROIT

NOTES:

THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES ARE APPROXIMATE, AND ALL UTILITIES MAY NOT BE SHOWN. PRESENCE AND LOCATIONS OF ALL UTILITIES WITHIN THE LIMIT OF WORK MUST BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND CONTACTING THE CONTROLLING AUTHORITIES AND/OR UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THEIR LINES. THE CONTRACTOR SHALL KEEP A RECORD OF ANY DISCREPANCIES OR CHANGES IN THE LOCATIONS OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER. ANY DAMAGE RESULTING FROM THE FAILURE OF THE CONTRACTOR TO MAKE THESE DETERMINATIONS AND CONTACTS SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL EXERCISE CAUTION IN ALL EXCAVATION ACTIVITY DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES.

THE SURVEY INFORMATION FOR EXISTING DRAINAGE STRUCTURE ELEVATIONS IS CONSIDERED INCOMPLETE. CONTRACTOR TO FIELD INVESTIGATE AND CONFIRM ALL INVERT AND UTILITY INFORMATION.

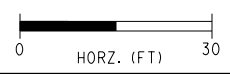
ALL PROPOSED DRAINAGE STRUCTURES THAT DIRECTLY CONNECT TO THE MAIN TRUNK SEWER SHALL BE TRAPPED.

STRUCT NO.	STATION	OFFSET*	RIM ** ELEV	Dr Structure	Dr Structure	Sewer, CI A, Tr Det B	Dr Structure	Dr Structure
				- inch dia.	Cover, Type CB Modified		inch, Tr Det B	Lead, Cleaning, Modified
EX9000	41+88.70 MCNICHOLS	25.72' RT	172.29	48 Ea	Ea	12 F+	F+	Ea
TOTAL							5	1

* OFFSETS ARE MEASURED TO CENTER OF STRUCTURE
 ** RIM ELEV SHOWN IS AT EDGE OF PAVEMENT FOR CATCH BASINS AND AT CENTER OF COVER FOR MANHOLES

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

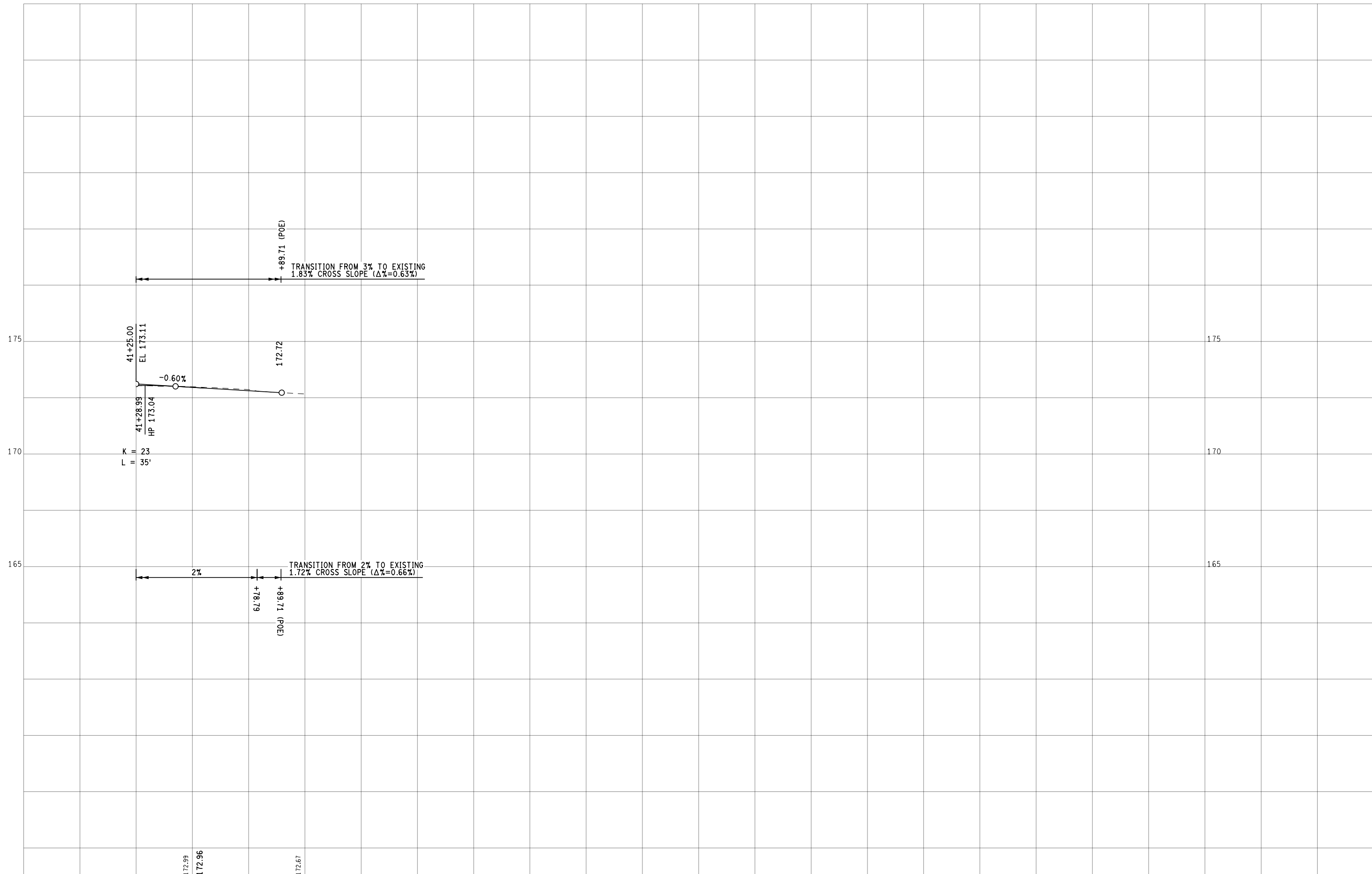


DATE: 02/07/20
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JN: PW-7004
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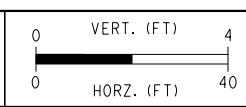
DRAINAGE SHEET
 MCNICHOLS STREETScape
 STA 41+25 TO STA 41+89.71 (POE)

DRAWING SHEET
 MCN DRAIN 008
 56



--- EX GROUND PROF AT MCNICHOLS ALI
 - - - PROP PLAN GRADE AT MCNICHOLS ALI

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



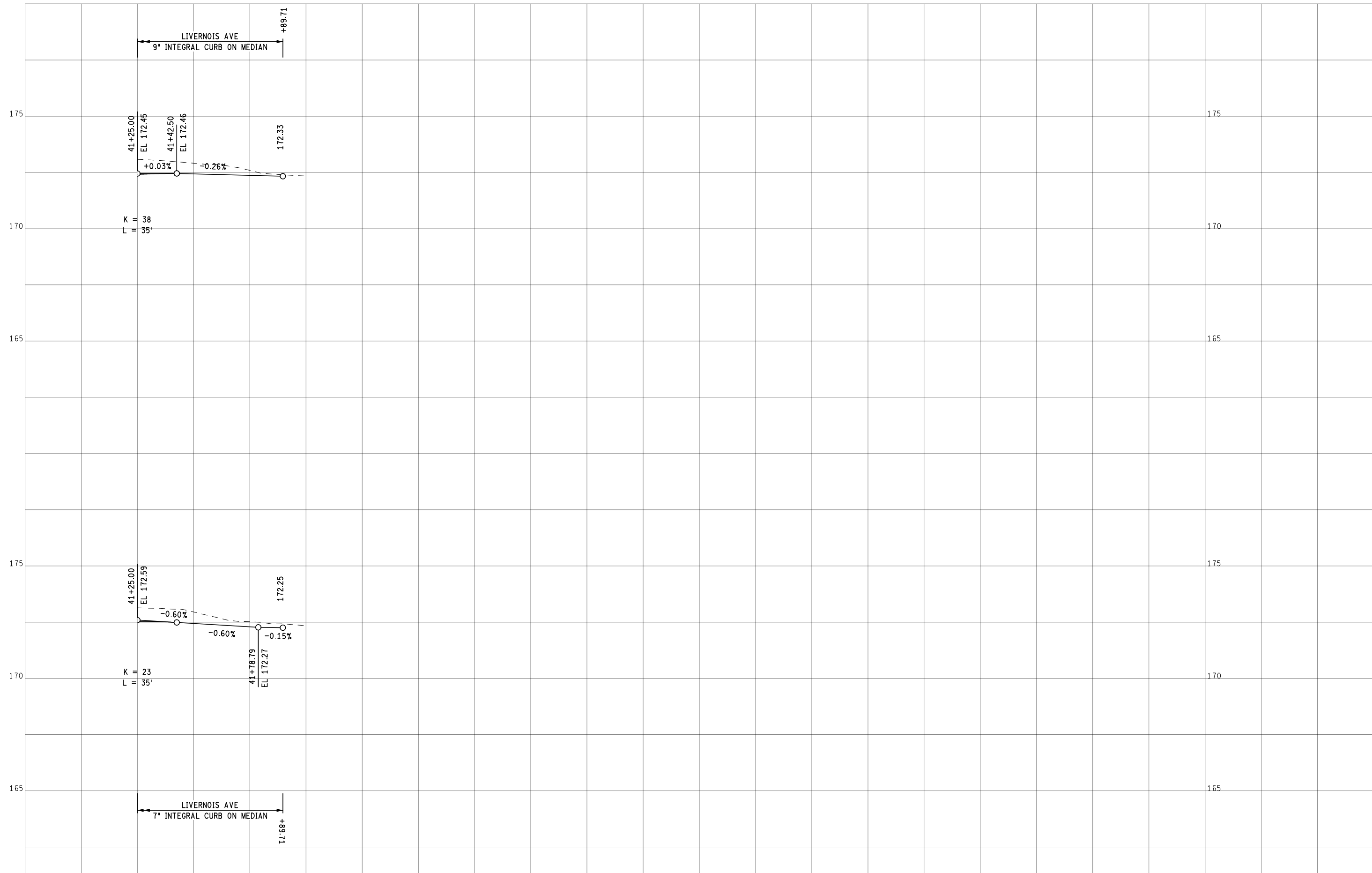
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DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 41+25 TO STA 41+89.71 (POE)

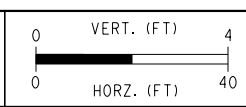
DRAWING SHEET
 MCN PROF 015
57



--- EX GROUND LT PROF AT 17' OFFSET MCNICHOLS ALI
 - - - - - PROP LT PROF AT FACE OF CURB

--- EX GROUND RT PROF AT 21' OFFSET MCNICHOLS ALI
 - - - - - PROP RT PROF AT FACE OF CURB

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PROFILE SHEET
 MCNICHOLS STREETScape
 STA 41+25 TO STA 41+89.71 (POE)

DRAWING SHEET
 MCN PROF 016
58

North Side Sidewalk Detail Grades

Sheet	Block	McNichols CL Station	Existing Elevation at Tie-In (A)	Sidewalk Width	Walking Area Width	Walking Area Cross Slope	Elev at Edge of Walking Area (B)	Ammenities Zone Width	Ammenities Zone Sidewalk Cross Slope	Edge of Sidewalk Elevation (C)	Prop LT EOP Elevation (D)
Con001	W. of Greenlawn	12+72.50	185.59	12.52	7.52	2.00%	185.44	5.00	7.47%	185.07	184.73
		13+00.00	185.22	12.50	7.50	2.00%	185.07	5.00	2.42%	184.95	184.62
		14+00.00	184.69	12.85	7.85	1.00%	184.61	5.00	0.42%	184.59	184.01
	Greenlawn to Woodingham	14+50.00	184.60	12.45	7.45	1.00%	184.53	5.00	3.56%	184.35	183.76
		15+00.00	184.33	11.79	6.79	1.00%	184.26	5.00	3.03%	184.11	183.53
		15+50.00	184.15	11.70	6.70	1.00%	184.01	5.00	4.02%	183.88	183.29
Con002	Woodingham to Santa Barbara	16+10.00	183.70	11.89	6.89	0.75%	183.65	5.00	0.51%	183.62	183.04
		17+00.00	183.87	13.25	7.25	2.00%	183.73	6.00	2.08%	183.60	182.85
		17+50.00	183.88	13.23	7.23	2.00%	183.74	6.00	7.70%	183.27	182.52
		18+00.00	183.89	13.21	7.21	2.00%	183.75	6.00	5.33%	183.43	182.68
Con003	Santa Barbara to Pennington	18+50.00	183.90	13.21	7.21	2.00%	183.76	6.00	1.92%	183.64	182.89
		20+40.00	184.05	12.52	7.52	2.00%	183.90	5.00	4.03%	183.70	183.36
		21+00.00	183.82	13.34	8.34	2.00%	183.65	5.00	5.04%	183.40	183.07
		21+50.00	183.95	13.45	8.45	2.00%	183.78	5.00	7.89%	183.39	183.05
Con004	Pennington to San Juan	22+50.00	183.80	12.80	7.80	1.00%	183.72	5.00	5.81%	183.43	183.10
		24+00.00	183.26	13.52	8.52	1.00%	183.17	5.00	3.73%	182.99	182.65
		24+50.00	182.87	13.56	8.56	1.00%	182.78	5.00	2.33%	182.67	182.33
	San Juan to Prairie	25+07.89	182.31	13.61	8.61	0.75%	182.24	5.00	0.67%	182.21	181.88
		25+50.00	182.05	13.71	8.71	1.00%	181.96	5.00	1.71%	181.88	181.54
		26+00.00	181.68	13.67	8.67	1.00%	181.59	5.00	2.22%	181.48	181.15
Con005	Prairie to Monica	27+00.00	181.44	13.88	8.88	2.00%	181.26	5.00	5.42%	180.99	180.49
		27+50.00	180.92	13.87	8.87	2.00%	180.74	5.00	3.91%	180.55	180.05
		28+00.00	180.41	13.87	8.87	2.00%	180.23	5.00	2.58%	180.10	179.60
		28+50.00	179.89	13.87	8.87	2.00%	179.71	5.00	1.06%	179.66	179.16
		29+00.00	179.48	14.13	9.13	2.00%	179.30	5.00	1.39%	179.23	178.73
		30+00.00	179.12	23.77	18.77	2.00%	178.74	5.00	1.31%	178.68	178.35
Con005	Prairie to Monica	30+50.00	178.82	23.82	18.82	2.00%	178.44	5.00	3.05%	178.29	177.96
		31+00.00	178.52	23.87	18.87	2.00%	178.14	5.00	4.79%	177.90	177.57
		31+50.00	178.25	25.61	20.61	2.00%	177.84	5.00	6.45%	177.52	177.18
		32+00.00	177.65	23.53	18.53	2.00%	177.28	5.00	1.98%	177.18	176.85

South Side Sidewalk Detail Grades

Sheet	Block	McNichols CL Station	Existing Elevation at Tie-In (A)	Sidewalk Width	Walking Area Width	Walking Area Cross Slope	Elev at Edge of Walking Area (B)	Ammenities Zone Width	Ammenities Zone Sidewalk Cross Slope	Edge of Sidewalk Elevation (C)	Prop RT EOP Elevation (D)
Con001	Greenlawn to Woodingham	14+50.00	184.39	12.01	7.01	1.00%	184.32	5.00	0.78%	184.28	183.86
		15+00.59	184.58	13.33	8.33	2.00%	184.41	5.00	7.40%	184.04	183.63
		15+50.00	184.11	13.11	8.11	2.00%	183.95	5.00	2.73%	183.81	183.39
Con002	Woodingham to Turner	16+50.00	183.79	11.71	6.71	2.00%	183.66	5.00	2.80%	183.52	183.18
		17+00.00	183.53	11.48	6.48	2.00%	183.40	5.00	2.33%	183.28	182.95
		17+50.00	183.28	11.74	6.74	2.00%	183.15	5.00	3.82%	182.96	182.62
		18+00.00	183.34	12.34	7.34	2.00%	183.20	5.00	1.76%	183.11	182.78
		18+50.00	183.55	12.20	7.20	2.00%	183.41	5.00	1.64%	183.32	182.99
Con003	Turner to Tuller	19+50.00	183.67	11.35	6.35	0.75%	183.62	5.00	0.70%	183.59	183.25
		20+00.00	183.94	11.26	6.26	2.00%	183.82	5.00	2.01%	183.71	183.38
		20+50.00	183.85	11.26	6.26	2.00%	183.72	5.00	2.70%	183.58	183.25
		21+00.00	183.60	11.12	6.12	2.00%	183.48	5.00	2.86%	183.33	183.00
		22+00.00	183.64	10.93	5.93	1.00%	183.58	5.00	2.38%	183.46	183.13
Con004	Tuller to Lilac	22+50.00	183.61	12.24	7.24	1.00%	183.54	5.00	0.61%	183.51	183.17
		23+00.00	183.60	12.04	7.04	1.00%	183.53	5.00	1.74%	183.44	183.11
		23+45.82	183.61	11.72	6.72	2.00%	183.47	5.00	3.70%	183.29	182.95
		23+89.89	183.25	11.59	6.59	2.00%	183.12	5.00	1.44%	183.05	182.72
		25+00.00	183.09	11.87	6.87	2.00%	182.96	5.00	6.68%	182.62	182.04
Con004	Lilac to San Juan	25+50.00	182.59	11.98	6.98	2.00%	182.45	5.00	4.46%	182.23	181.64
		26+00.00	182.18	10.76	5.76	2.00%	182.06	5.00	4.66%	181.83	181.25
		27+16.31	180.83	12.09	7.09	0.50%	180.80	5.00	0.35%	180.78	180.45
Con005	San Juan to Prairie	27+50.00	180.71	12.03	7.03	1.00%	180.64	5.00	3.18%	180.48	180.15
		28+00.00	180.22	12.04	7.04	1.00%	180.15	5.00	2.26%	180.04	179.70
		28+50.00	179.92	11.92	6.92	2.00%	179.78	5.00	3.77%	179.59	179.26
		29+00.00	179.59	12.12	7.12	2.00%	179.45	5.00	5.73%	179.16	178.83
Con005	Prairie to Monica	30+00.00	179.02	10.73	5.73	2.00%	178.91	5.00	0.86%	178.86	178.45
		30+60.00	178.77	10.95	5.95	2.00%	178.65	5.00	5.09%	178.40	177.98
		31+50.00	178.02	12.27	7.27	2.00%	177.87	5.00	3.52%	177.70	177.28
		32+00.00	177.58	12.45	7.45	2.00%	177.43	5.00	1.30%	177.37	176.95

NOTE:

SEE SHEETS TYP002 AND TYP003 FOR LOCATIONS OF POINTS A, B, C AND D REFERENCED ABOVE.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20	JN: PW-7004	DETAIL GRADING SHEET	DRAWING	SHEET
FILE:	MCNICHOLS STREETScape	MCNICHOLS STREETScape	MCN DETGRD 001	59

North Side Sidewalk Detail Grades											
Sheet	Block	McNichols CL Station	Existing Elevation at Tie-In (A)	Sidewalk Width	Walking Area Width	Walking Area Cross Slope	Elev at Edge of Walking Area (B)	Ammenities Zone Width	Ammenities Zone Sidewalk Cross Slope	Edge of Sidewalk Elevation (C)	Prop LT EOP Elevation (D)
Con006	Monica to Santa Rosa	33+00.00	177.30	23.36	18.36	2.00%	176.93	5.00	5.27%	176.67	176.25
		33+50.00	176.20	12.31	7.31	1.00%	176.13	5.00	1.51%	176.05	175.63
		34+00.00	175.78	23.26	18.26	1.00%	175.60	5.00	3.28%	175.43	175.02
		34+50.00	175.36	23.17	18.17	1.50%	175.09	5.00	5.44%	174.82	174.40
		35+00.00	174.33	12.01	7.01	0.75%	174.28	5.00	0.78%	174.24	173.82
Con007	Santa Rosa to Stoepel	36+00.00	173.93	12.08	7.08	1.00%	173.86	5.00	1.03%	173.81	173.39
		36+25.00	173.93	12.10	7.10	2.00%	173.79	5.00	2.29%	173.68	173.26
		36+50.00	173.86	12.12	7.12	2.00%	173.72	5.00	3.39%	173.55	173.13
		37+00.00	173.70	11.97	6.97	2.00%	173.56	5.00	5.44%	173.29	172.87
		37+50.00	173.25	12.22	7.22	1.00%	173.18	5.00	2.97%	173.03	172.61
Con007	Stoepel to Livernois	39+00.00	172.49*	11.52	6.52	0.55%	172.46	5.00	0.63%	172.43	172.09
		39+50.00	172.24*	8.73	6.00	1.00%	172.18	2.73	3.88%	172.08	171.74
		40+00.00	172.05*	8.42	6.00	1.00%	171.99	2.42	7.65%	171.81	171.47
		40+50.00	172.02	8.30	6.00	1.00%	171.96	2.30	2.11%	171.91	171.58

* 5" ROLLED CURB IS TO BE PLACED AT THE TIE-IN POINTS OF THESE LOCATIONS TO ALLOW FOR SIDEWALK CROSS SLOPES TO MEET ADA REQUIREMENTS. SEE SHEET CON007 FOR DETAILS.

South Side Sidewalk Detail Grades											
Sheet	Block	McNichols CL Station	Existing Elevation at Tie-In (A)	Sidewalk Width	Walking Area Width	Walking Area Cross Slope	Elev at Edge of Walking Area (B)	Ammenities Zone Width	Ammenities Zone Sidewalk Cross Slope	Edge of Sidewalk Elevation (C)	Prop RT EOP Elevation (D)
Con006	Monica to Santa Rosa	33+00.00	176.76	11.42	6.42	2.00%	176.63	5.00	2.25%	176.52	176.19
		33+50.00	176.08	11.37	6.37	2.00%	175.95	5.00	1.03%	175.90	175.57
		34+28.85	175.03	11.59	6.59	1.00%	174.96	5.00	0.74%	174.93	174.59
		34+73.57	174.60	12.26	7.26	2.00%	174.45	5.00	1.61%	174.37	174.04
		36+00.00	173.85	11.55	6.55	2.00%	173.72	5.00	1.23%	173.66	173.32
Con007	Santa Rosa to Stoepel	36+50.00	173.57	11.64	6.64	1.00%	173.50	5.00	2.11%	173.40	173.06
		37+00.00	173.35	11.77	6.77	1.00%	173.28	5.00	2.87%	173.14	172.81
		37+50.00	173.03	11.86	6.86	1.00%	172.96	5.00	1.64%	172.88	172.55
Con007	Stoepel to Livernois	38+60.12	173.06	9.09	6.00	2.00%	172.94	3.09	3.87%	172.82	172.49
		39+00.00	172.75	9.07	6.00	1.00%	172.69	3.07	1.44%	172.65	172.31
		39+50.00	172.54	9.17	6.00	1.00%	172.48	3.17	3.25%	172.38	172.04
		40+00.00	172.29	9.23	6.00	1.00%	172.23	3.23	3.61%	172.11	171.78
		40+50.00	172.27	9.34	6.00	0.50%	172.24	3.34	0.65%	172.22	171.88

NOTE:

SEE SHEETS TYP002 AND TYP003 FOR LOCATIONS OF POINTS A, B, C AND D REFERENCED ABOVE.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								DATE: 02/07/20		DETAIL GRADING SHEET		DRAWING SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			MCNICHOLS STREETScape		MCN	SHEET
								FILE:		JN: PW-7004		DETGRD	60
										MCNICHOLS STREETScape		002	



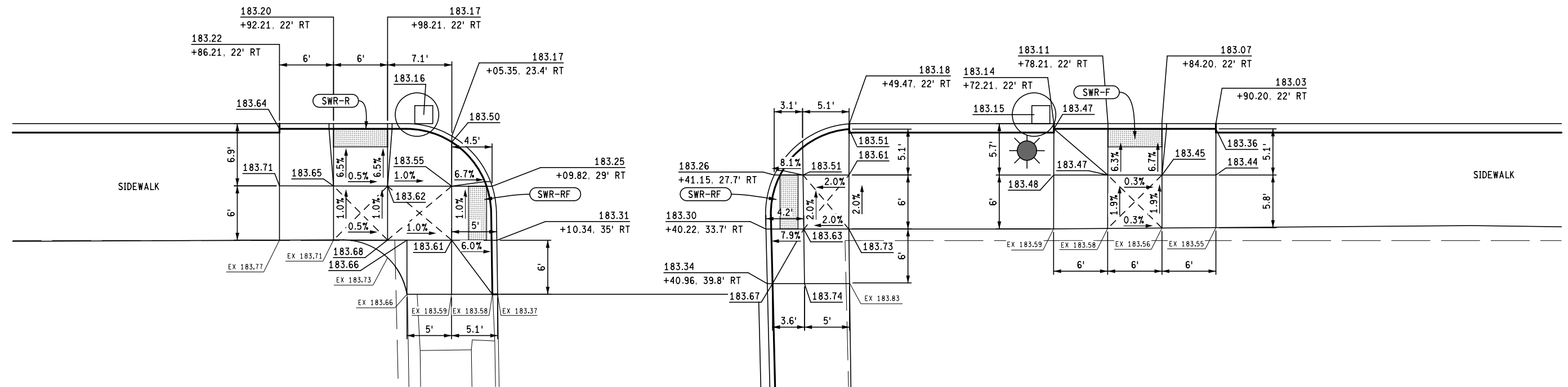
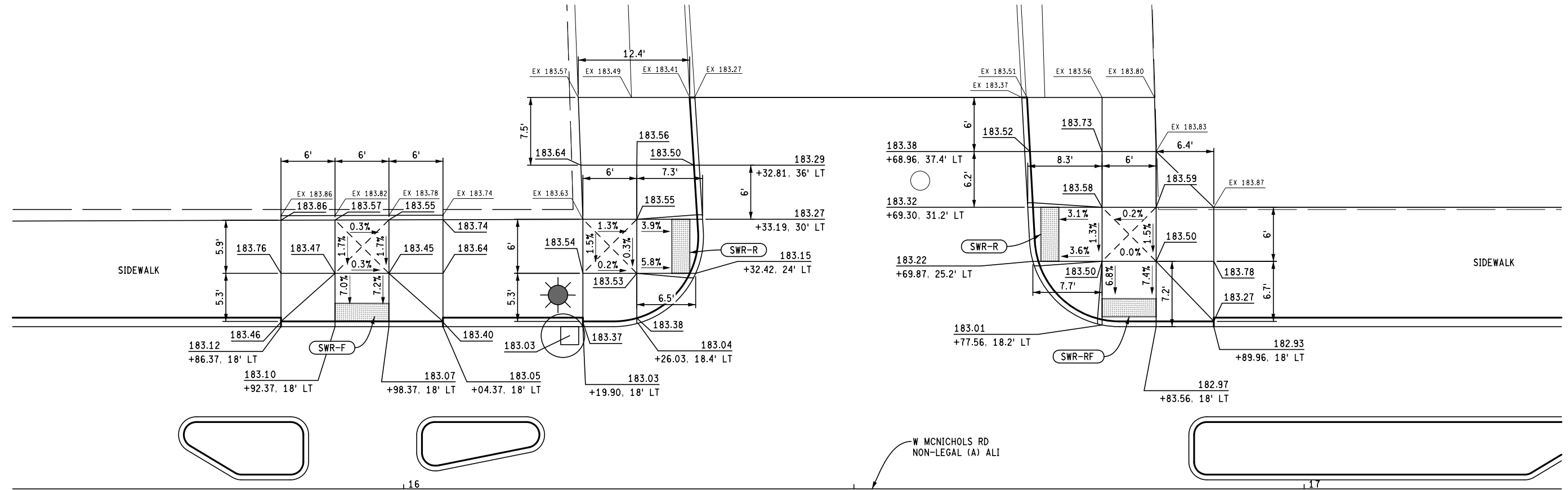
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JN: PW-7004
MCNICHOLS STREETScape

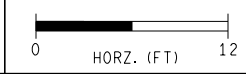
MCN
DETGRD
002
60

WOODINGHAM DR



WOODINGHAM DR

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

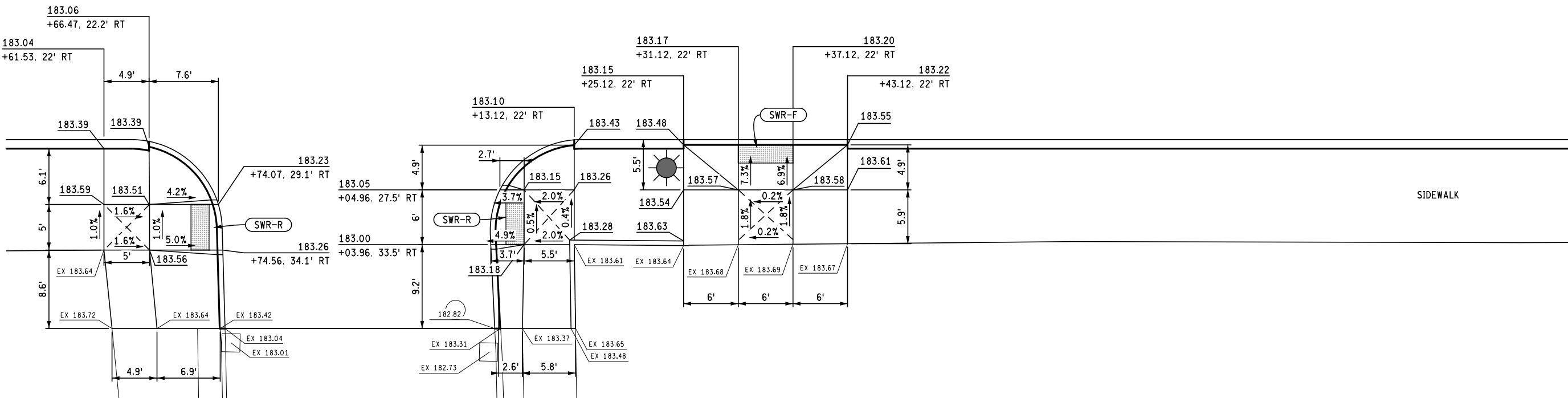
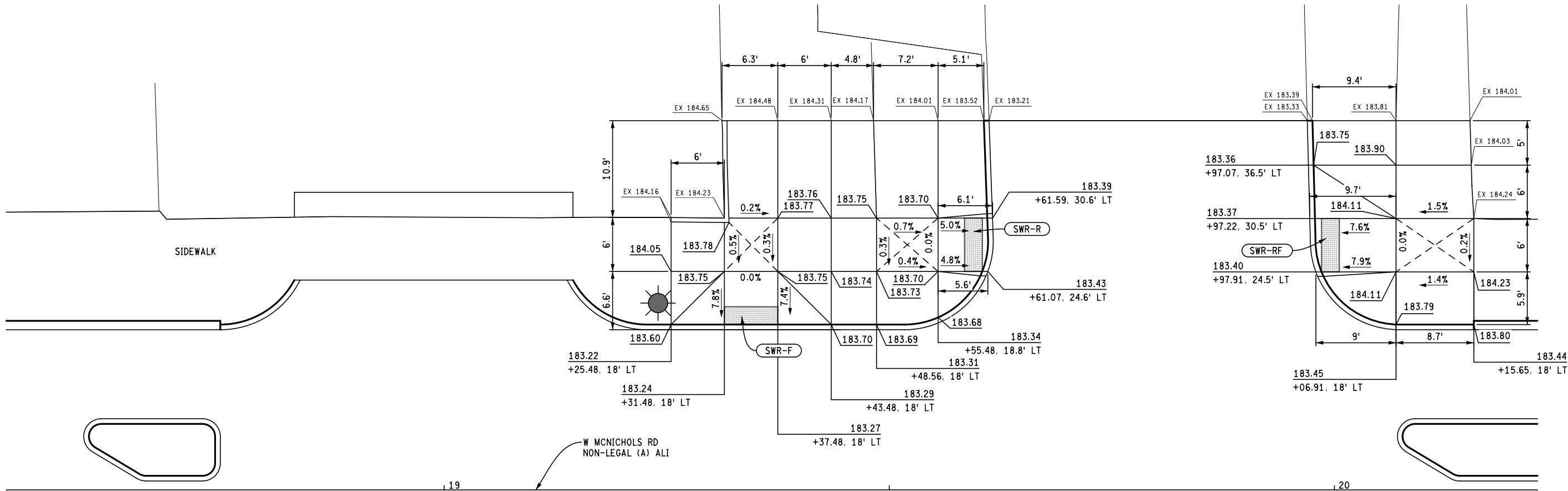


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

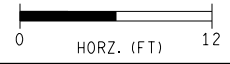
DETAIL GRADING SHEET
MCNICHOLS STREETScape
WOODINGHAM AT MCNICHOLS

DRAWING	SHEET
MCN DETGRD 004	62



TURNER ST

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



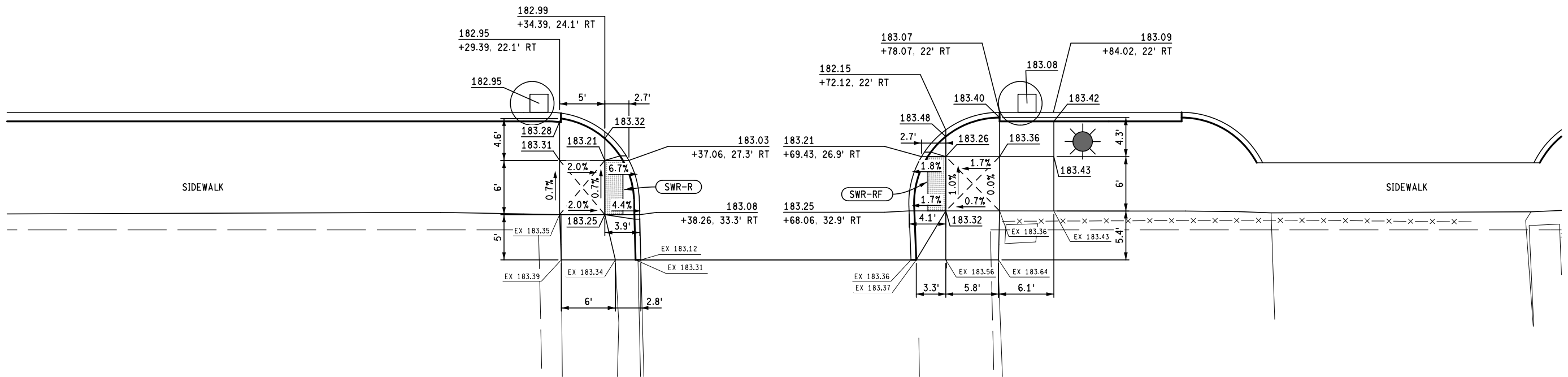
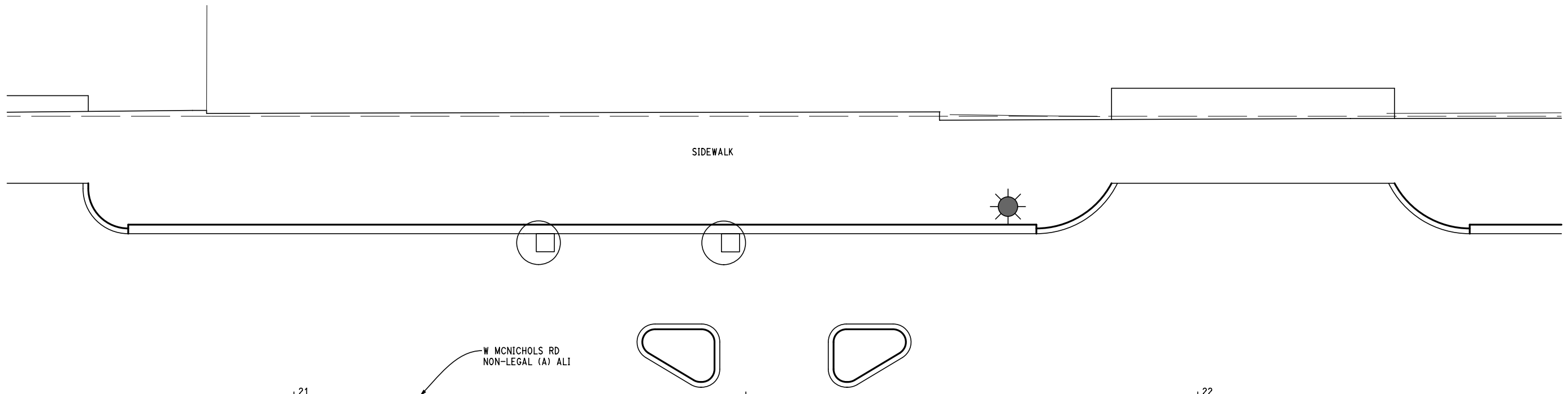
DATE: 02/07/20

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JN: PW-7004
MCNICHOLS STREETScape

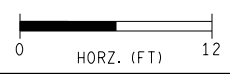
DETAIL GRADING SHEET
MCNICHOLS STREETScape
SANTA BARBARA, TURNER AT MCNICHOLS

DRAWING SHEET
MCN DETGRD 005
63



TULLER ST

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



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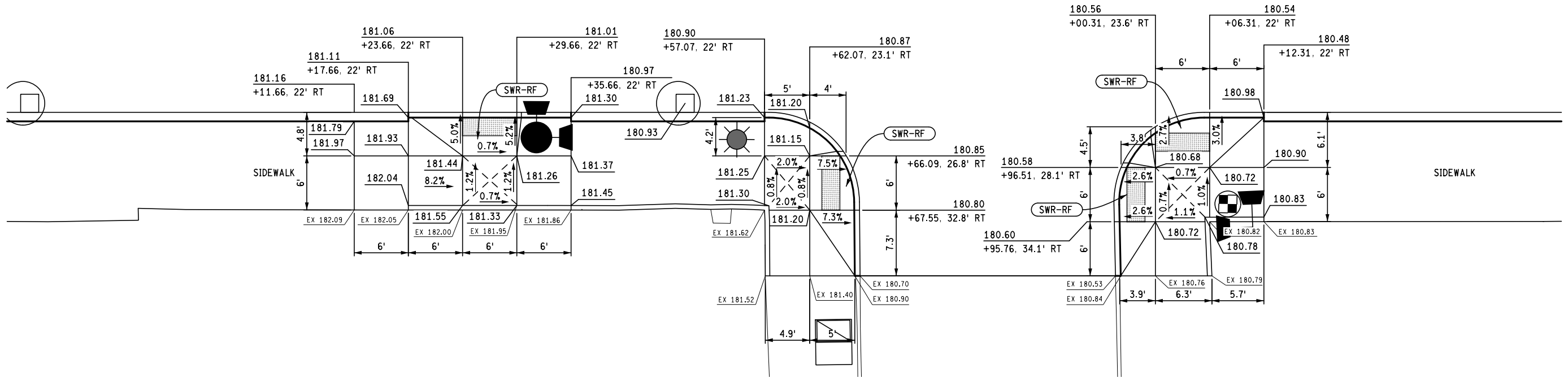
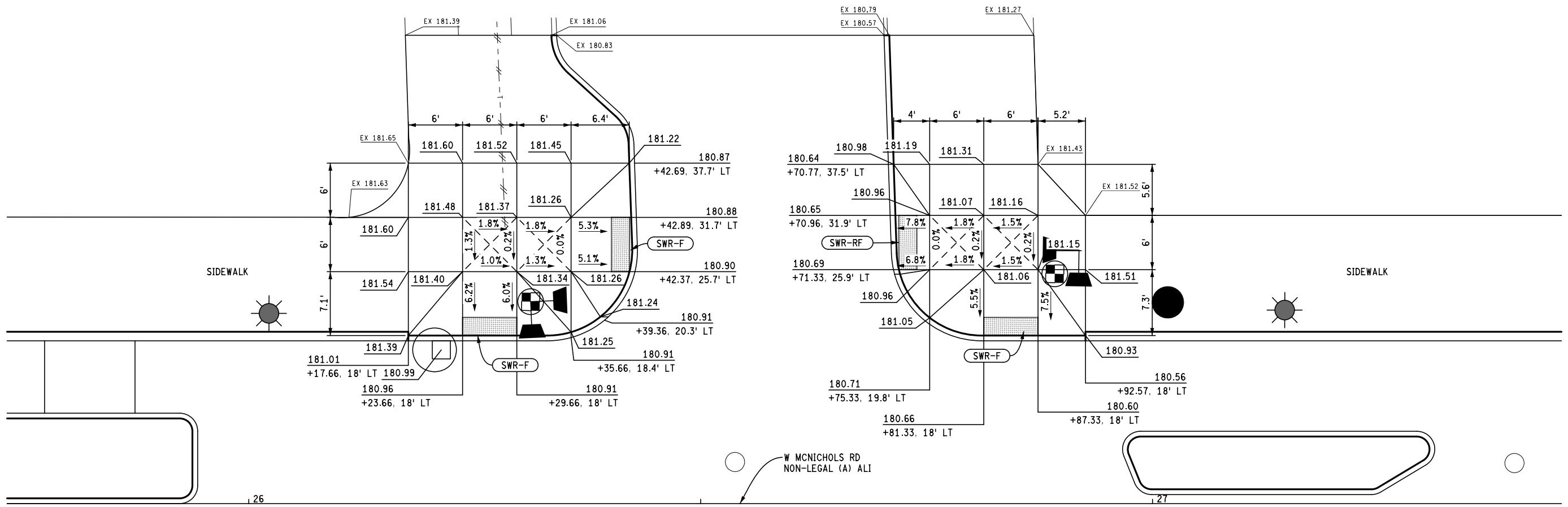
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MCNICHOLS STREETScape

DETAIL GRADING SHEET
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TULLER AT MCNICHOLS

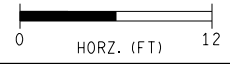
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MCN DETGRD 006
64

SAN JUAN DR



SAN JUAN DR

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



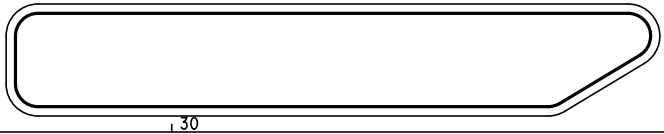
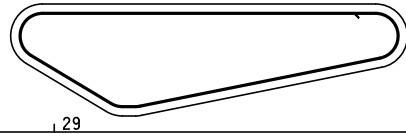
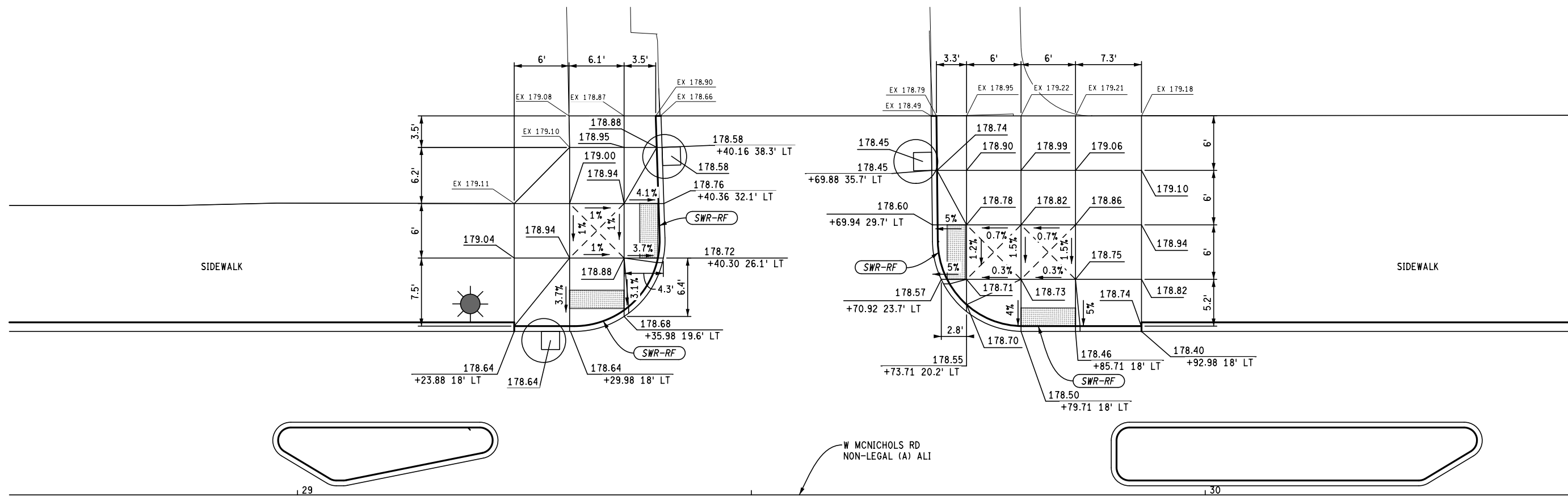
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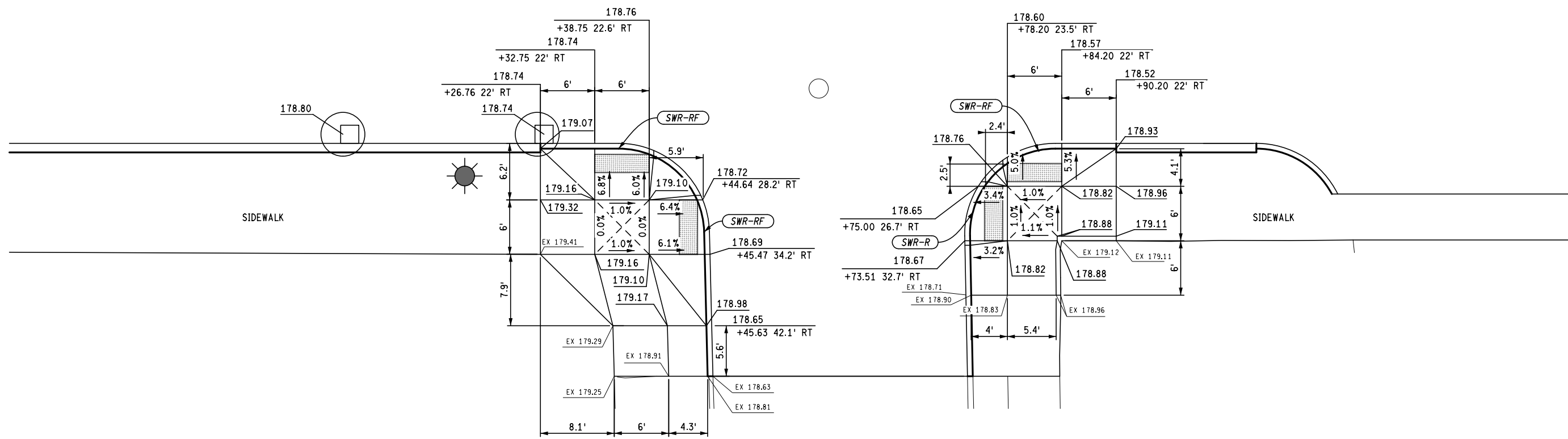
DETAIL GRADING SHEET
 MCNICHOLS STREETSCAPE
 SAN JUAN AT MCNICHOLS

DRAWING SHEET
 MCN DETGRD 008
 66

PRAIRIE ST

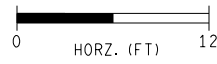


W McNICHOLS RD
NON-LEGAL (A) ALI



PRAIRIE ST

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



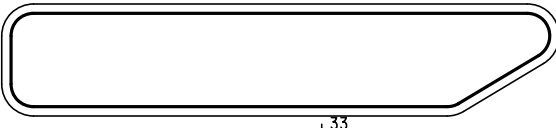
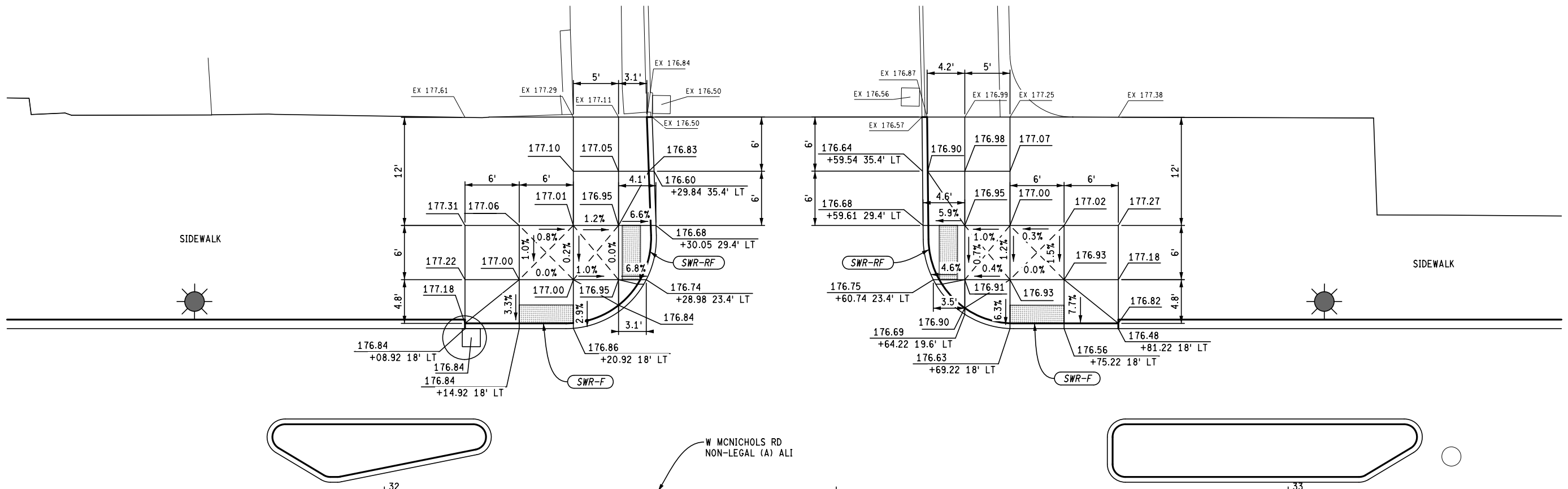
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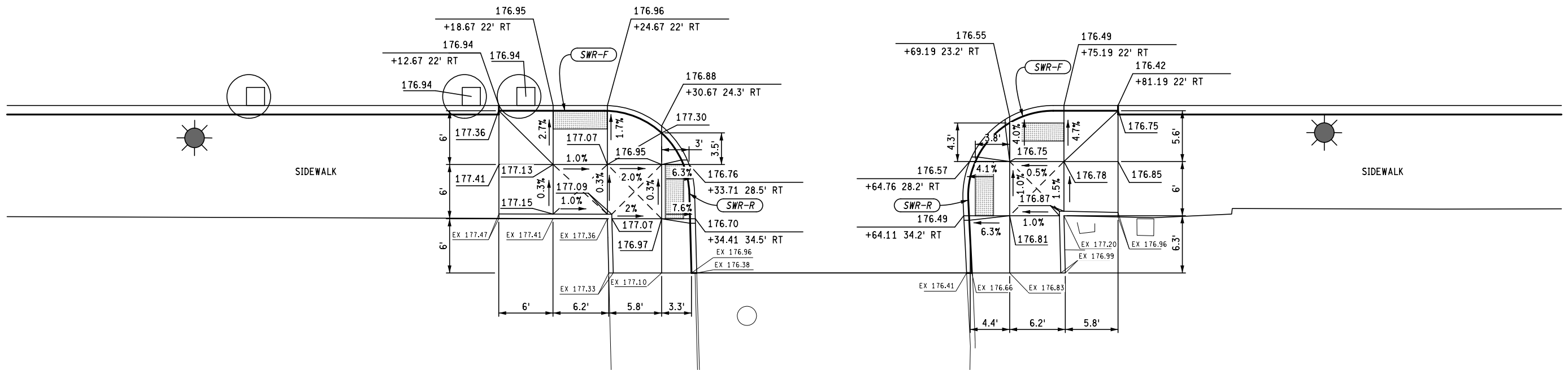
DETAIL GRADING SHEET
MCNICHOLS STREETScape
PRAIRIE AT MCNICHOLS

DRAWING SHEET
MCN DETGRD 009
67

MONICA ST

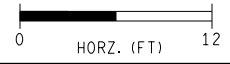


W MCNICHOLS RD
NON-LEGAL (A) ALI



MONICA ST

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



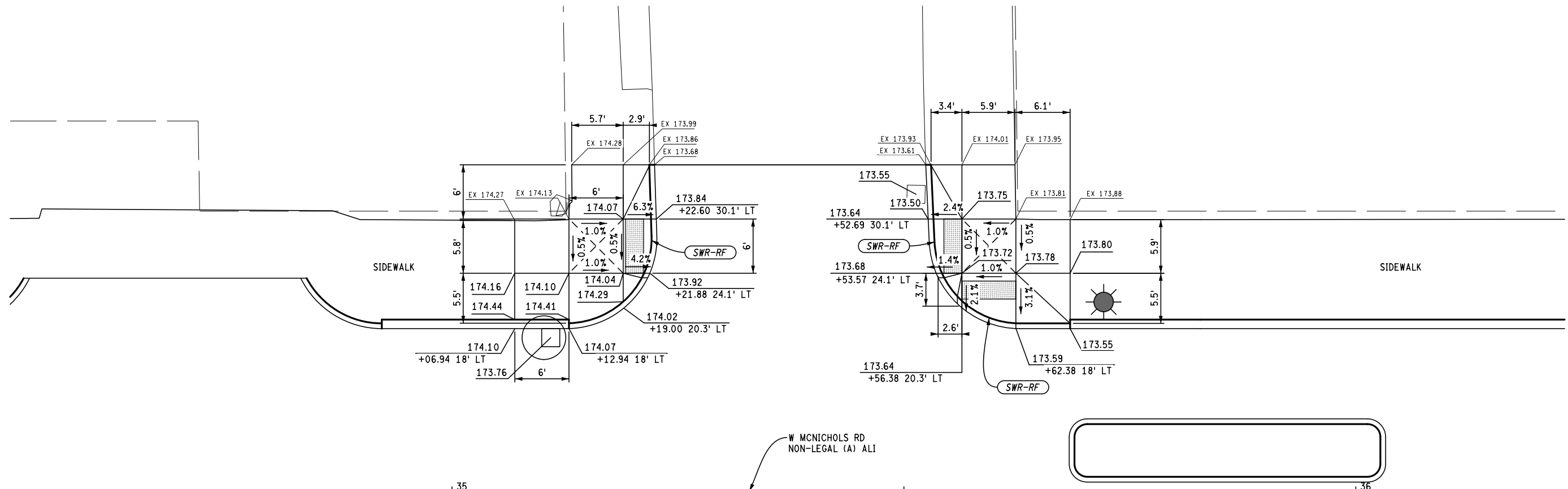
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JN: PW-7004
MCNICHOLS STREETScape

DETAIL GRADING SHEET
MCNICHOLS STREETScape
MONICA AT MCNICHOLS

DRAWING SHEET
MCN DETGRD 010
68

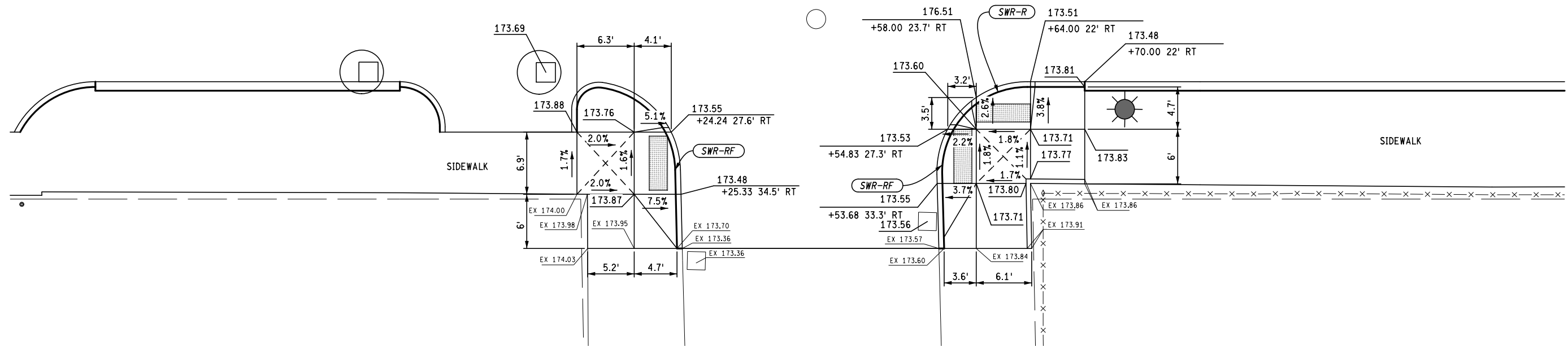
SANTA ROSA DR



W MCNICHOLS RD
NON-LEGAL (A) ALI

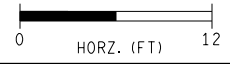
W MCNICHOLS RD

W MCNICHOLS RD



SANTA ROSA DR

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



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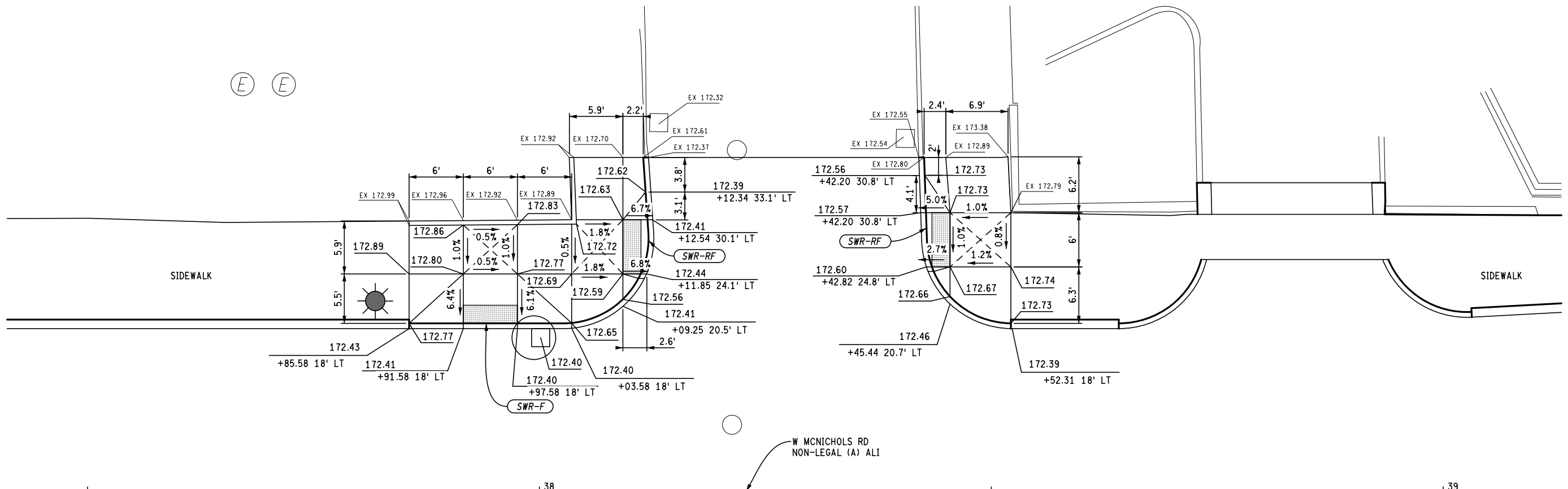
DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

DETAIL GRADING SHEET
MCNICHOLS STREETScape
SANTA ROSA AT MCNICHOLS

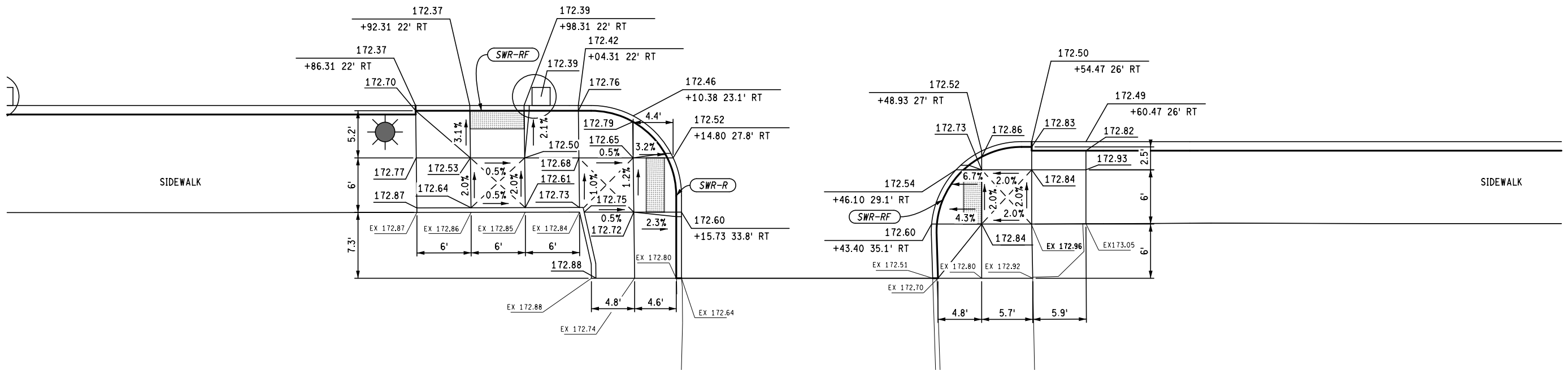
DRAWING SHEET
MCN DETGRD 011
69

STOEPEL ST



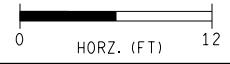
W MCNICHOLS RD

W MCNICHOLS RD



STOEPEL ST

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
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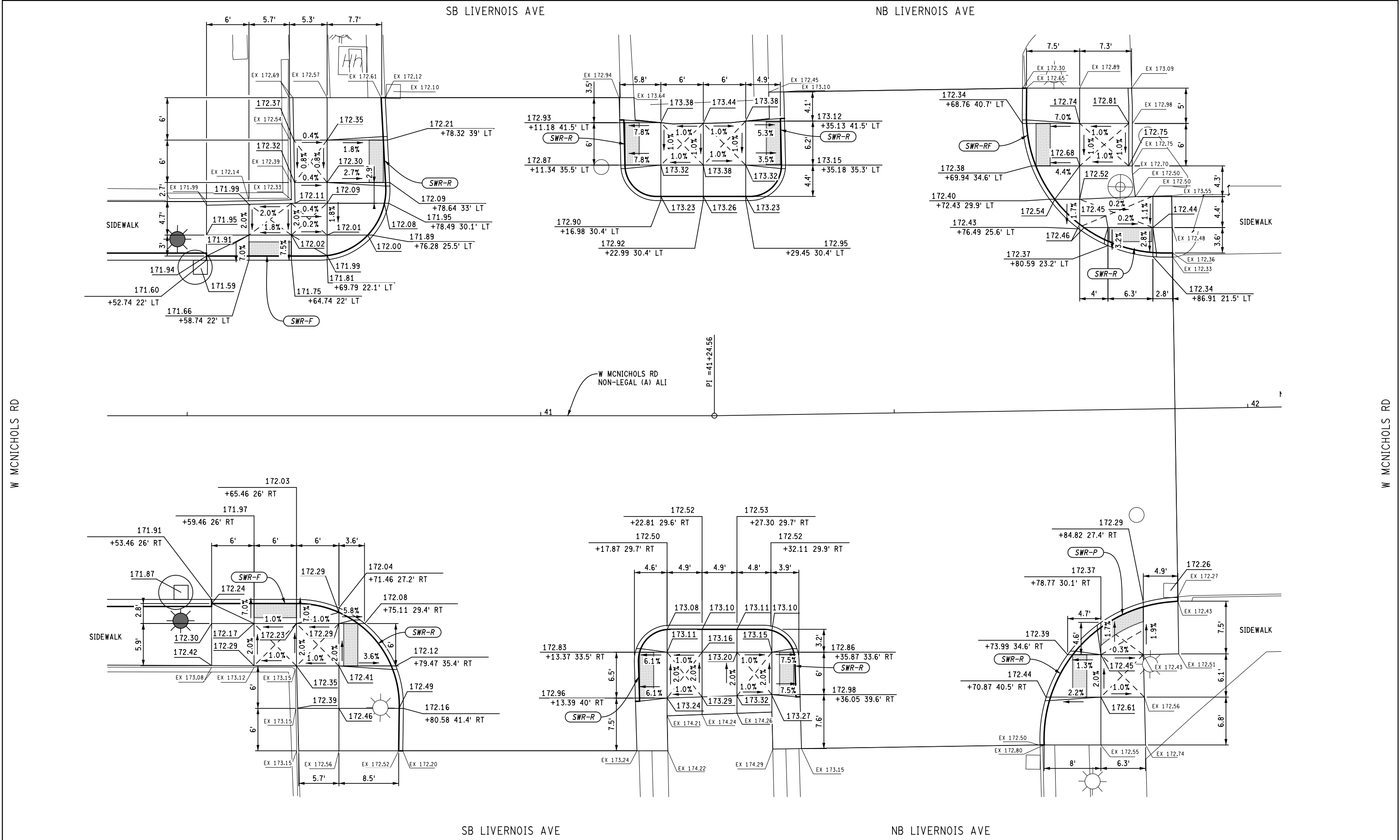


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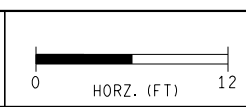
JN: PW-7004
MCNICHOLS STREETScape

DETAIL GRADING SHEET
MCNICHOLS STREETScape
STOEPEL AT MCNICHOLS

DRAWING SHEET
MCN DETGRD 012
70



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

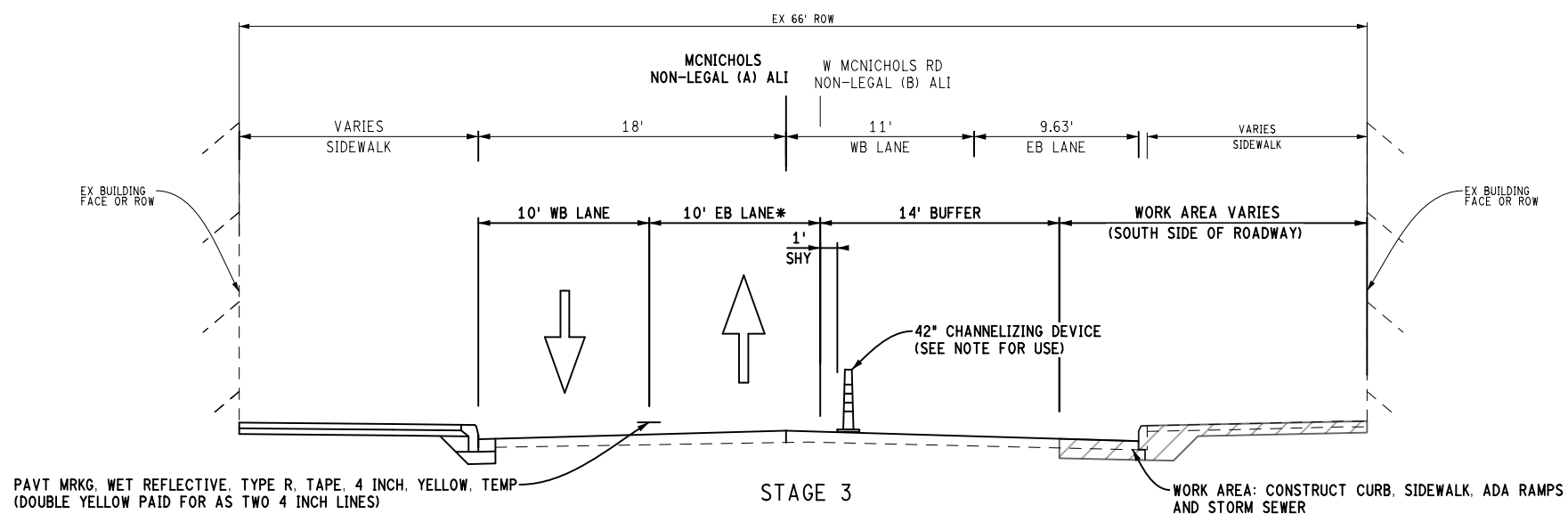
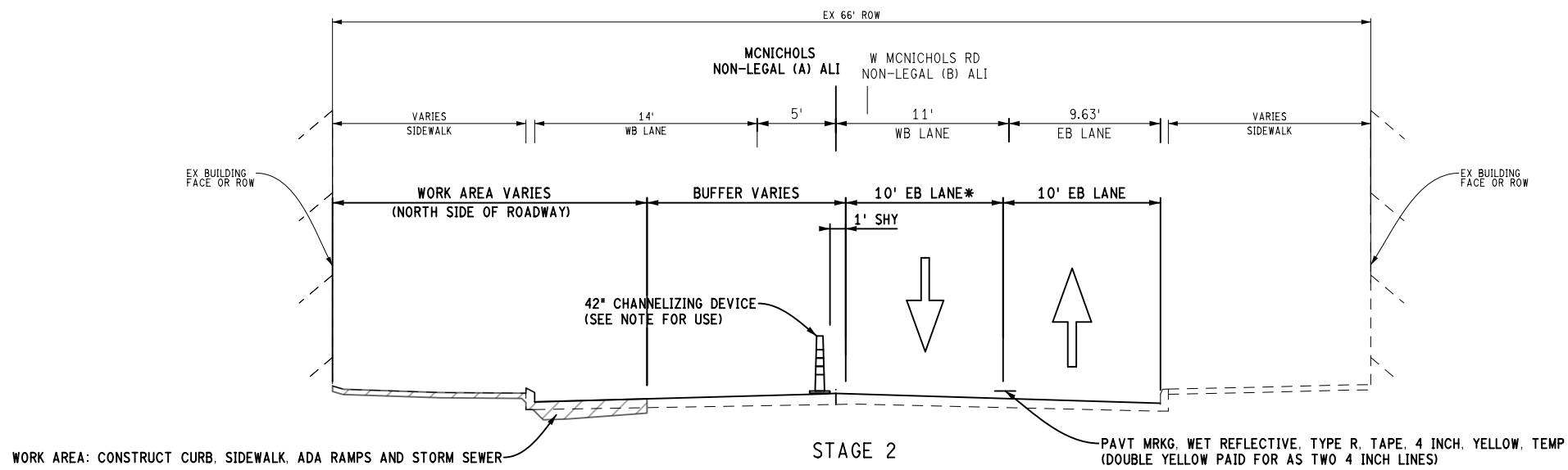
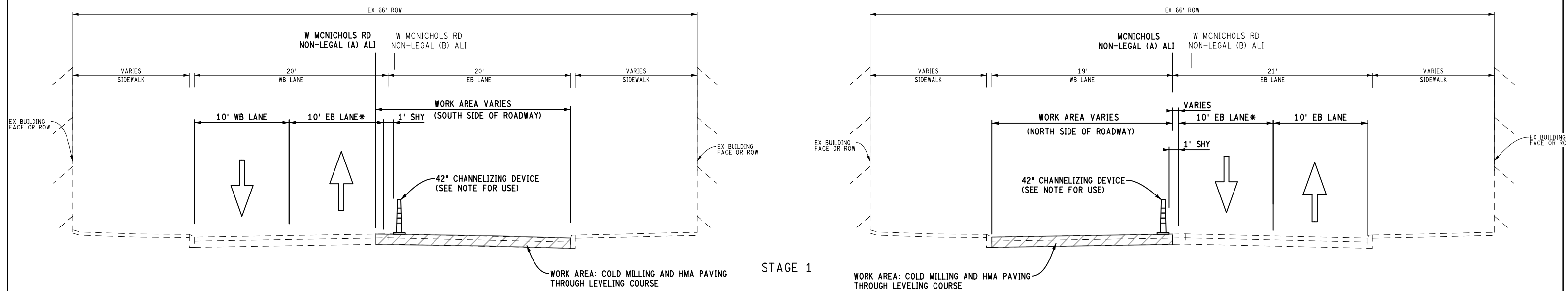


DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

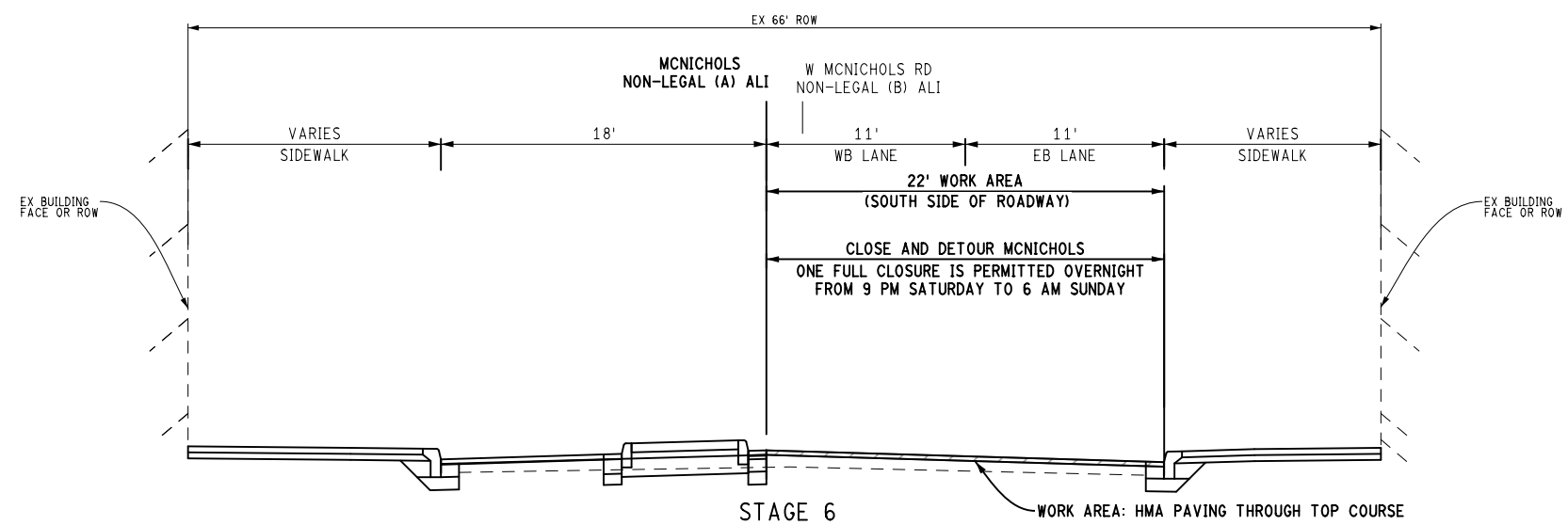
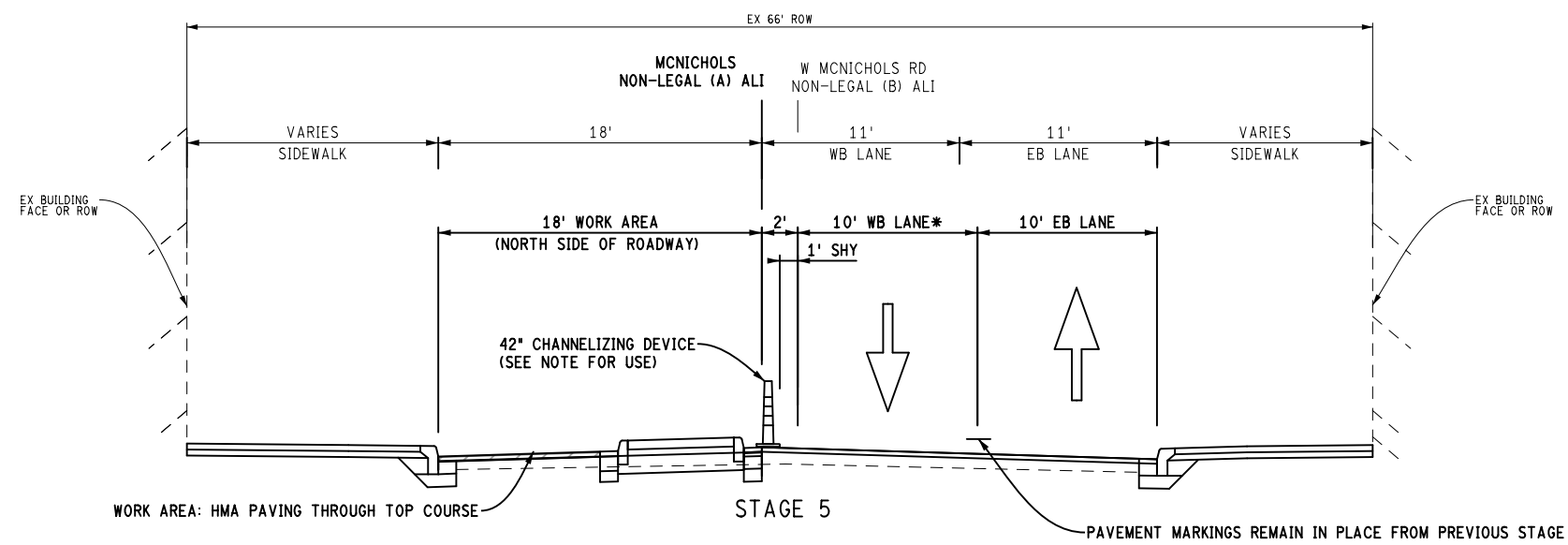
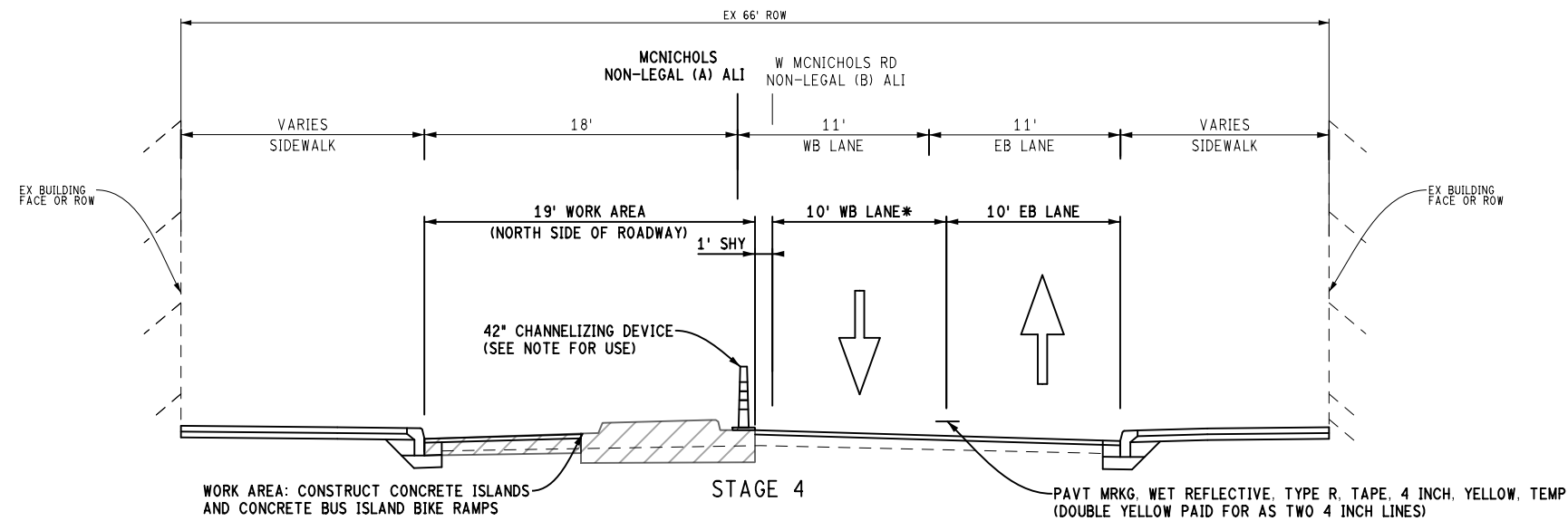
DETAIL GRADING SHEET
 MCNICHOLS STREETScape
 LIVERNOIS AT MCNICHOLS

DRAWING SHEET
 MCN DETGRD 013
71



NOTE:
 USE OF 42" CHANNELIZING DEVICES IS PERMITTED ADJACENT TO THE WORK ZONE IN THE TANGENT SECTIONS ONLY. USE PLASTIC DRUMS IN ALL SHIFTS, TAPERS AND IN THE LEAD-IN TRAFFIC CONTROL. THIS APPLIES TO ALL STAGES OF CONSTRUCTION.

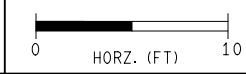
*** APPLIES TO ALL STAGES:** WHEN THE WORK AREA EXTENDS INTO THE TRAVEL LANE OR IF THE BUFFER IS INSUFFICIENT, CLOSE LANE ADJACENT TO WORK AREA AND MAINTAIN TRAFFIC IN ONE LANE VIA TRAFFIC REGULATOR. OTHERWISE MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION.



NOTE:
USE OF 42" CHANNELIZING DEVICES IS PERMITTED ADJACENT TO THE WORK ZONE IN THE TANGENT SECTIONS ONLY. USE PLASTIC DRUMS IN ALL SHIFTS, TAPERS AND IN THE LEAD-IN TRAFFIC CONTROL. THIS APPLIES TO ALL STAGES OF CONSTRUCTION.

* APPLIES TO ALL STAGES: WHEN THE WORK AREA EXTENDS INTO THE TRAVEL LANE OR IF THE BUFFER IS INSUFFICIENT, CLOSE LANE ADJACENT TO WORK AREA AND MAINTAIN TRAFFIC IN ONE LANE VIA TRAFFIC REGULATOR. OTHERWISE MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



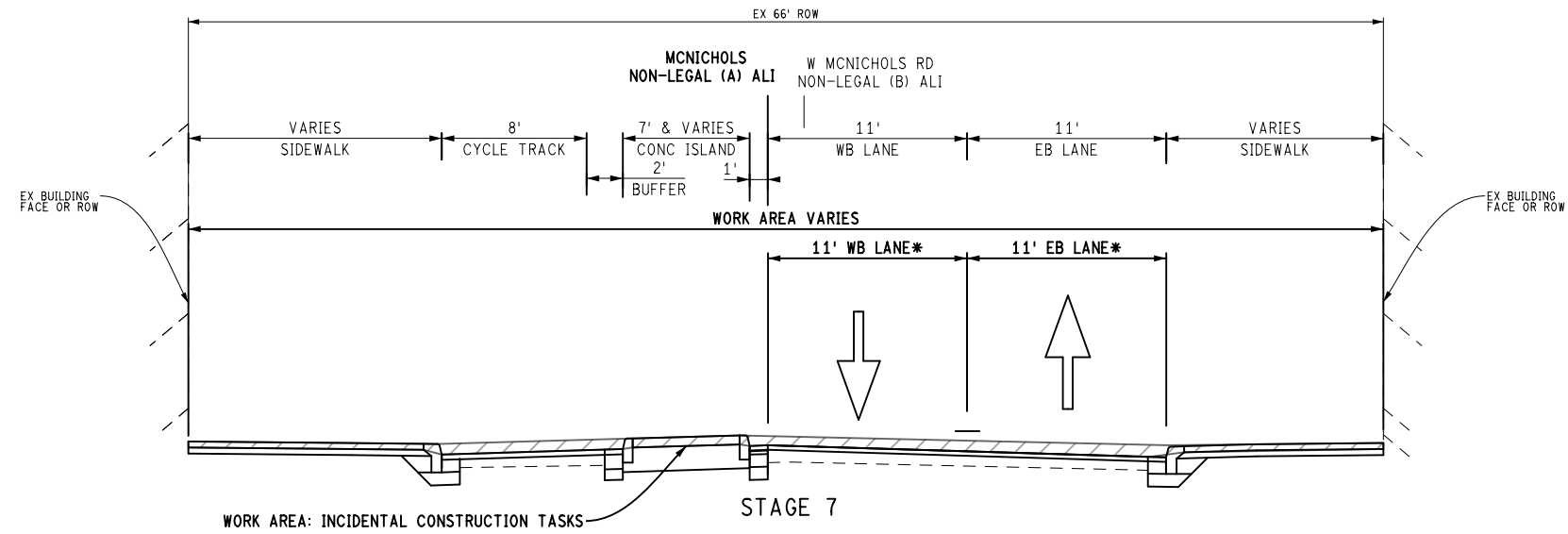
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DATE: 02/22/20

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC TYPICALS
MCNICHOLS STREETScape

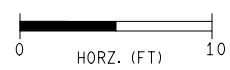
DRAWING SHEET
MCN MTTYP 002 73



NOTE:
 USE OF 42" CHANNELIZING DEVICES IS PERMITTED ADJACENT TO THE WORK ZONE IN THE TANGENT SECTIONS ONLY. USE PLASTIC DRUMS IN ALL SHIFTS, TAPERS AND IN THE LEAD-IN TRAFFIC CONTROL. THIS APPLIES TO ALL STAGES OF CONSTRUCTION.

* APPLIES TO ALL STAGES: WHEN THE WORK AREA EXTENDS INTO THE TRAVEL LANE OR IF THE BUFFER IS INSUFFICIENT, CLOSE LANE ADJACENT TO WORK AREA AND MAINTAIN TRAFFIC IN ONE LANE VIA TRAFFIC REGULATOR. OTHERWISE MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE: 02/07/20

JN: PW-7004
 MCNICHOLS STREETScape

MAINTAINING TRAFFIC TYPICALS
 MCNICHOLS STREETScape

DRAWING SHEET
 MCN MTTYP 003 74

ILENE ST

WASHBURN ST

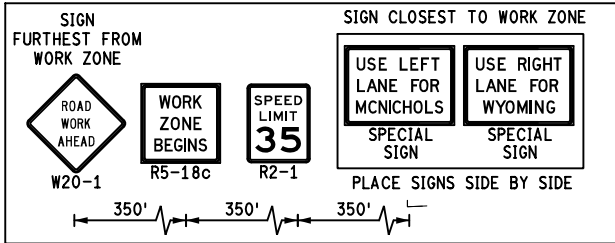


NOTES:

SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED

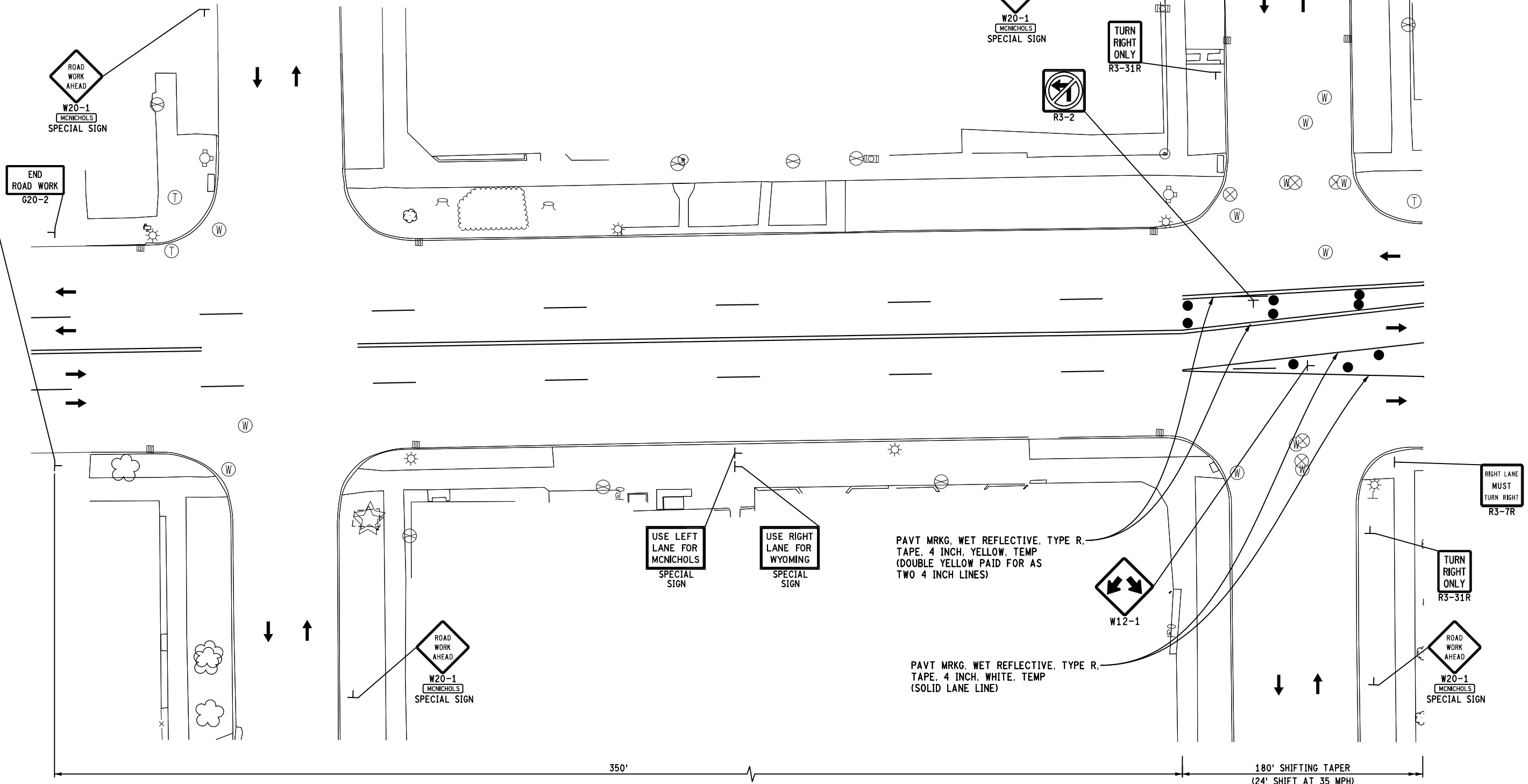
42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.

UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER



W MCNICHOLS RD

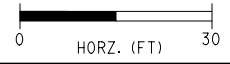
W MCNICHOLS RD



ILENE ST

WASHBURN ST

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

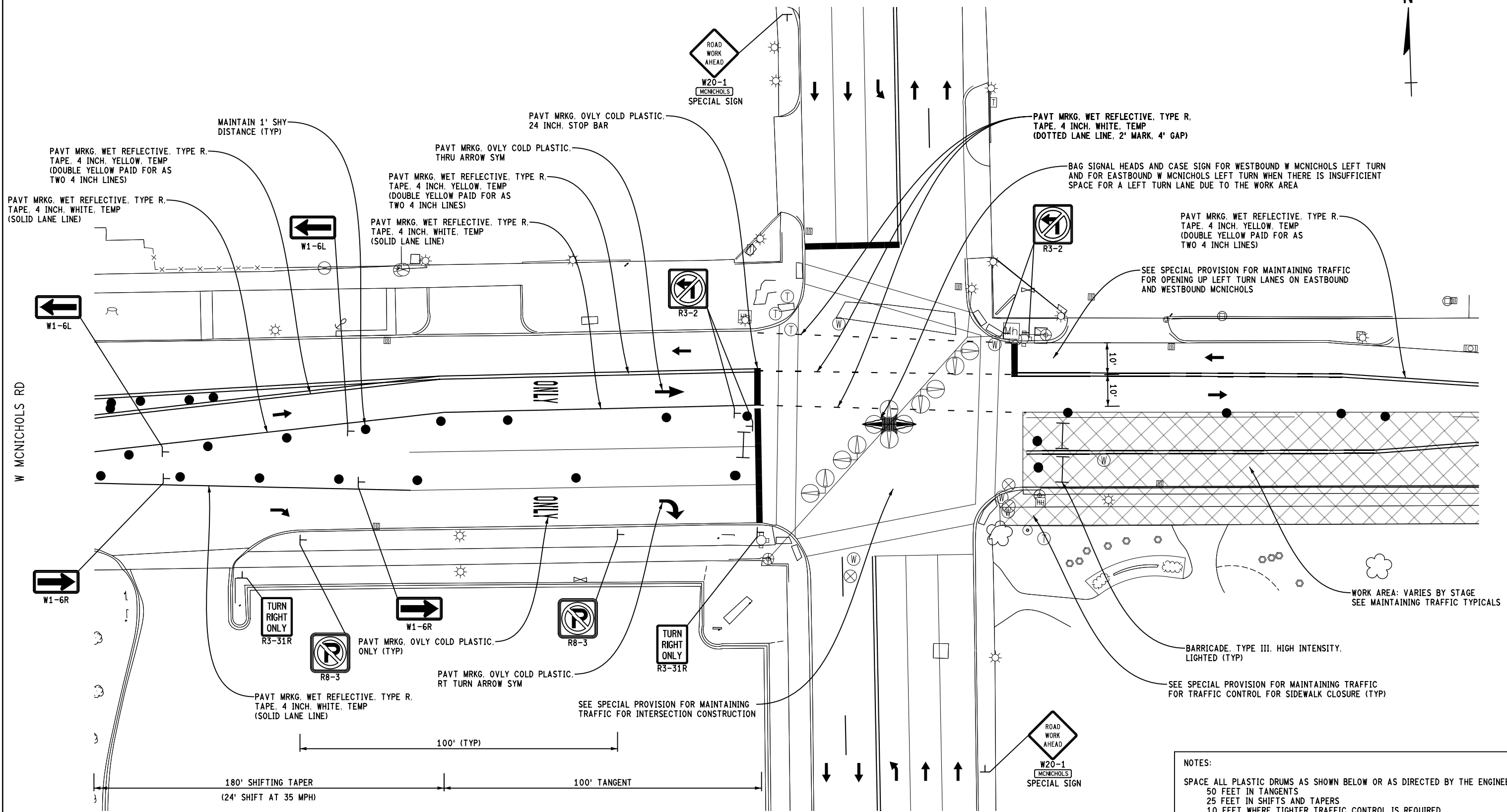
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JN: PW-7004
 MCNICHOLS STREETScape

MAINTAINING TRAFFIC: EB MCNICHOLS WORK AREA
 MCNICHOLS STREETScape
 WEST OF WYOMING AVE

DRAWING SHEET
 MCN MT_EB 001
 75

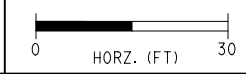
WYOMING AVE



NOTES:

- SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 - 50 FEET IN TANGENTS
 - 25 FEET IN SHIFTS AND TAPERS
 - 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
- 42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.
- UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

FINAL ROW PLAN REVISIONS			(SUBMITTAL DATE:)				
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC: EB MCNICHOLS WORK AREA
MCNICHOLS STREETScape
FROM WYOMING AVE

DRAWING SHEET
MCN MT_EB 002
76

GREENLAWN AVE



100' (TYP)

CONSTRUCTION BETWEEN WYOMING AND GREENLAWN
 STA 12+45.31
 CONSTRUCTION BETWEEN GREENLAWN AND LIVERNOIS

STOP BARS ARE ONLY IN PLACE WHEN TRAFFIC SIGNAL IS IN USE. REMOVE STOP BARS ON MCNICHOLS ONCE TRAFFIC SIGNAL IS REMOVED. ADD STOP SIGN AND ADVANCED WARNING (W3-1) OF STOP SIGN ON NORTHBOUND AND SOUTHBOUND GREENLAWN AT MCNICHOLS.

MAINTAIN 1' SHY DISTANCE (TYP)

PAVT MRKG. WET REFLECTIVE, TYPE NR. PAINT, 4 INCH, YELLOW, TEMP (DOUBLE YELLOW PAID FOR AS TWO 4 INCH LINES)

CONTINUE PLACEMENT OF R8-3 (NO PARKING) SIGNS AT 100' SPACING TO LIVERNOIS AVE

CONTINUE PLACEMENT OF R8-3 (NO PARKING) SIGNS AT 100' SPACING TO WYOMING AVE

PAVT MRKG. OVLY COLD PLASTIC, 24 INCH, STOP BAR



W MCNICHOLS RD

W MCNICHOLS RD

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR TRAFFIC CONTROL FOR SIDEWALK CLOSURE (TYP)

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION

BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED (TYP)

PAVT MRKG. WET REFLECTIVE, TYPE NR. PAINT, 4 INCH, YELLOW, TEMP (DOUBLE YELLOW PAID FOR AS TWO 4 INCH LINES)

WORK AREA: VARIES BY STAGE SEE MAINTAINING TRAFFIC TYPICALS

WORK AREA: VARIES BY STAGE SEE MAINTAINING TRAFFIC TYPICALS

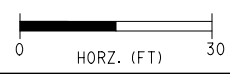
CONTINUE CONSTRUCTION AS SHOWN AND THIS MAINTAINING TRAFFIC SCHEME TO LIVERNOIS AVE



GREENLAWN AVE

NOTES:
 SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
 42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.
 UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

MAINTAINING TRAFFIC: EB MCNICHOLS WORK AREA
 MCNICHOLS STREETScape
 STA 12+45.31 TO STA 15+75

DRAWING SHEET
 MCN MT_EB 003
 77

STOEPEL ST

LIVERNOIS AVE

NOTES:

SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED

42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.

UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER



SEE MAINTAINING TRAFFIC DETAIL 1 FOR CROSS STREET TRAFFIC CONTROL

CONTINUE PLACEMENT OF R8-3 (NO PARKING) SIGNS AT 100' SPACING TO GREENLAWN AVE

MAINTAIN 1' SHY DISTANCE (TYP)

PAVT MRKG. WET REFLECTIVE, TYPE NR. PAINT, 4 INCH, YELLOW, TEMP (DOUBLE YELLOW PAID FOR AS TWO 4 INCH LINES)

PAVT MRKG. OVLY COLD PLASTIC, 24 INCH, STOP BAR

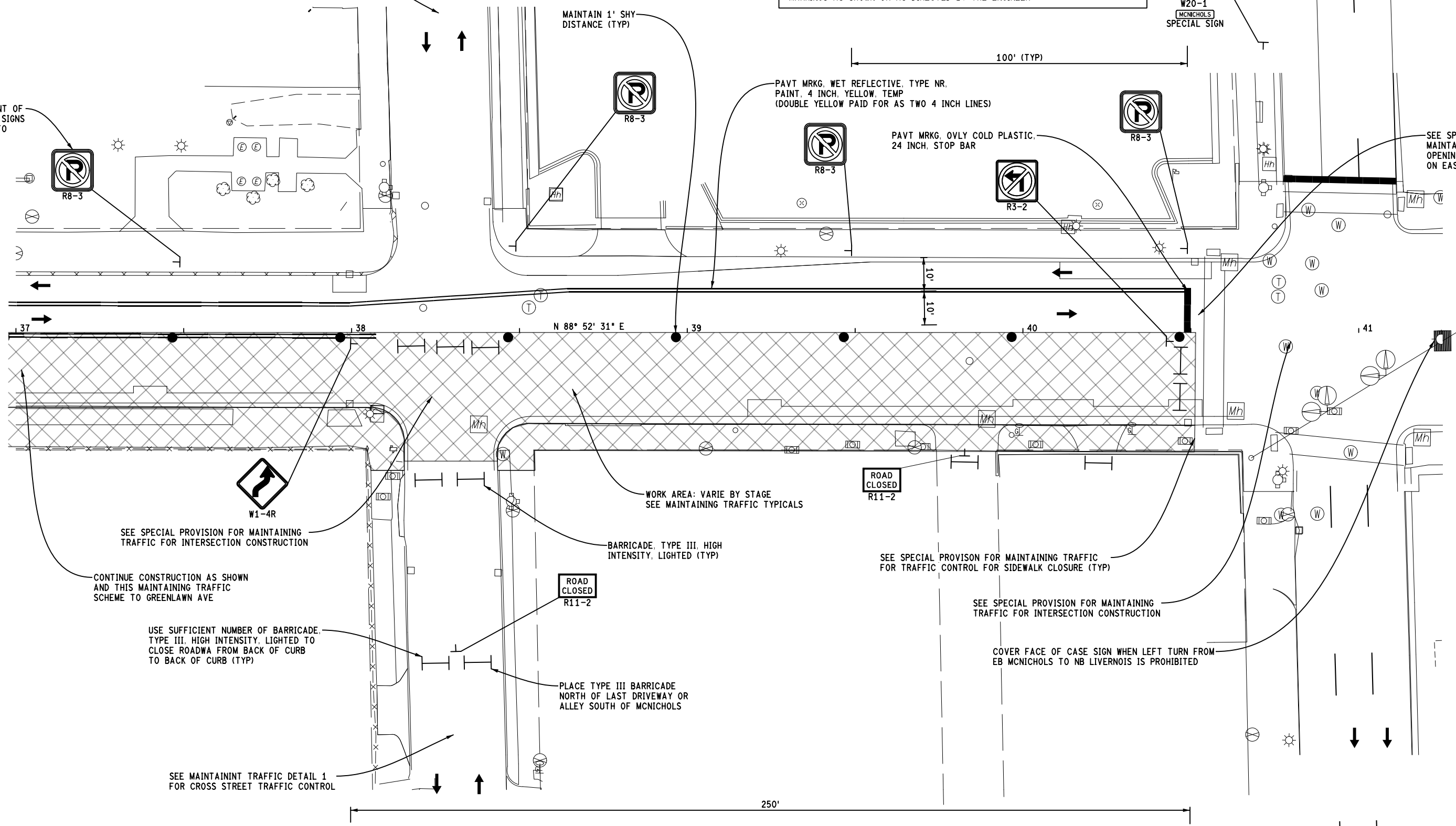


100' (TYP)

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR OPENING UP LEFT TURN LANE ON EASTBOUND MCNICHOLS

W MCNICHOLS RD

W MCNICHOLS RD



SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION

WORK AREA: VARIE BY STAGE SEE MAINTAINING TRAFFIC TYPICALS

BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED (TYP)

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR TRAFFIC CONTROL FOR SIDEWALK CLOSURE (TYP)

CONTINUE CONSTRUCTION AS SHOWN AND THIS MAINTAINING TRAFFIC SCHEME TO GREENLAWN AVE

USE SUFFICIENT NUMBER OF BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED TO CLOSE ROADWA FROM BACK OF CURB TO BACK OF CURB (TYP)

PLACE TYPE III BARRICADE NORTH OF LAST DRIVEWAY OR ALLEY SOUTH OF MCNICHOLS

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION

COVER FACE OF CASE SIGN WHEN LEFT TURN FROM EB MCNICHOLS TO NB LIVERNOIS IS PROHIBITED

SEE MAINTAININT TRAFFIC DETAIL 1 FOR CROSS STREET TRAFFIC CONTROL

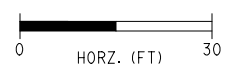
250'

STOEPEL ST

PUBLIC ALLEY

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

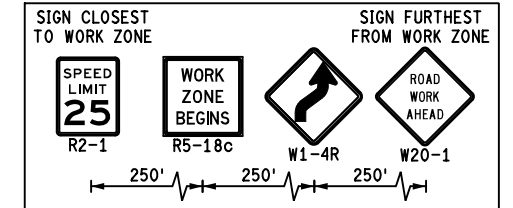
JN: PW-7004
 MCNICHOLS STREETSCAPE

MAINTAINING TRAFFIC: EB MCNICHOLS WORK AREA
 MCNICHOLS STREETSCAPE
 STA 37+00 TO STA 41+25

DRAWING SHEET
 MCN MT_EB 004
 78

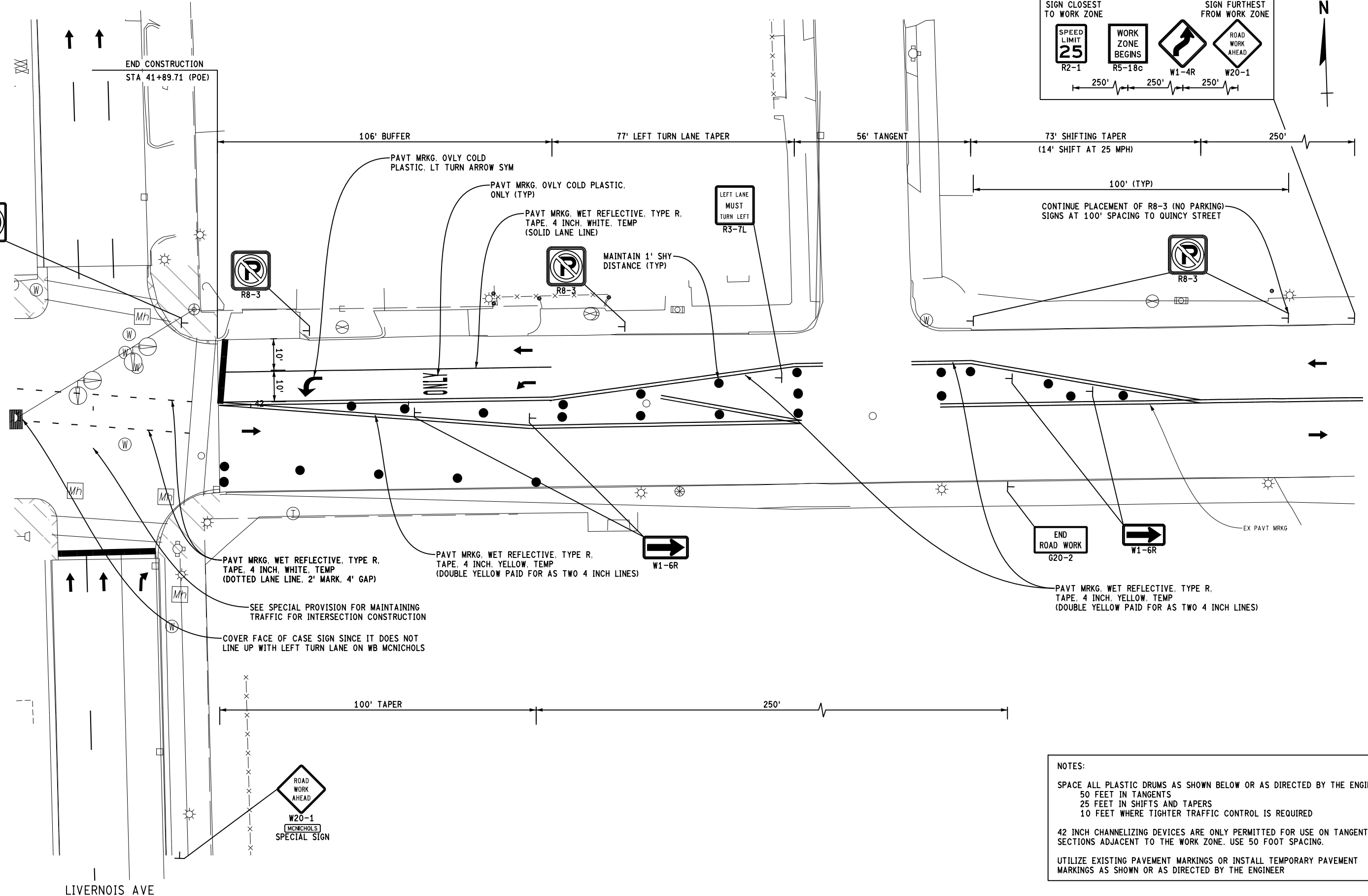
LIVERNOIS AVE

WARRINGTON DR



W MCNICHOLS RD

W MCNICHOLS RD



LIVERNOIS AVE

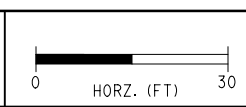
NOTES:

SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED

42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.

UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004

MCNICHOLS STREETScape

MAINTAINING TRAFFIC: EB MCNICHOLS WORK AREA

MCNICHOLS STREETScape

STA 41+25 TO STA 41+89.71 (POE)

DRAWING

MCN MT EB 005

SHEET

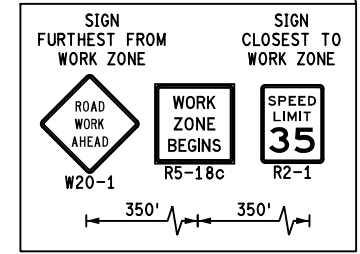
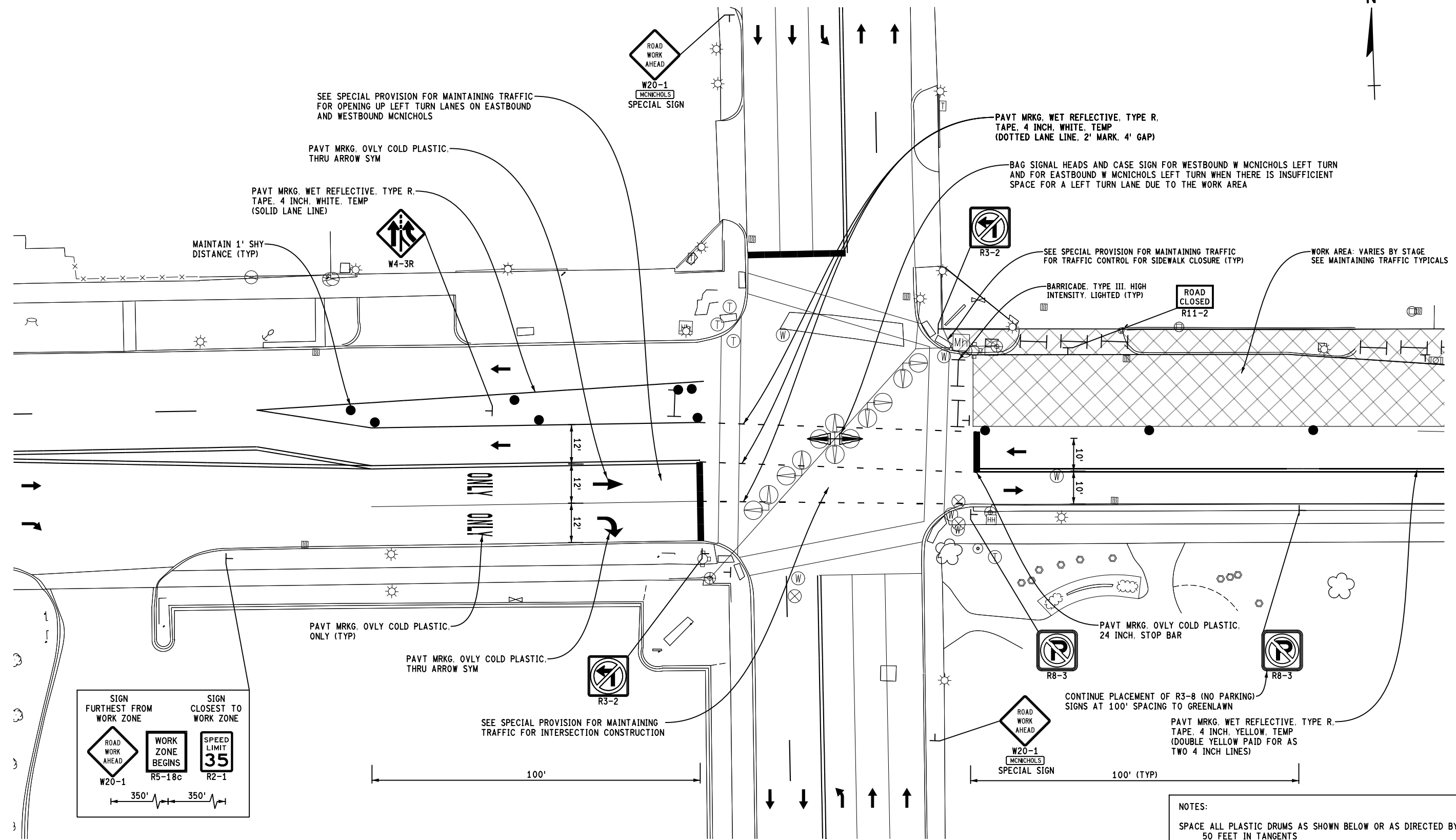
79

WYOMING AVE



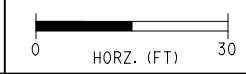
W MCNICHOLS RD

W MCNICHOLS RD



NOTES:
SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
50 FEET IN TANGENTS
25 FEET IN SHIFTS AND TAPERS
10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.
UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

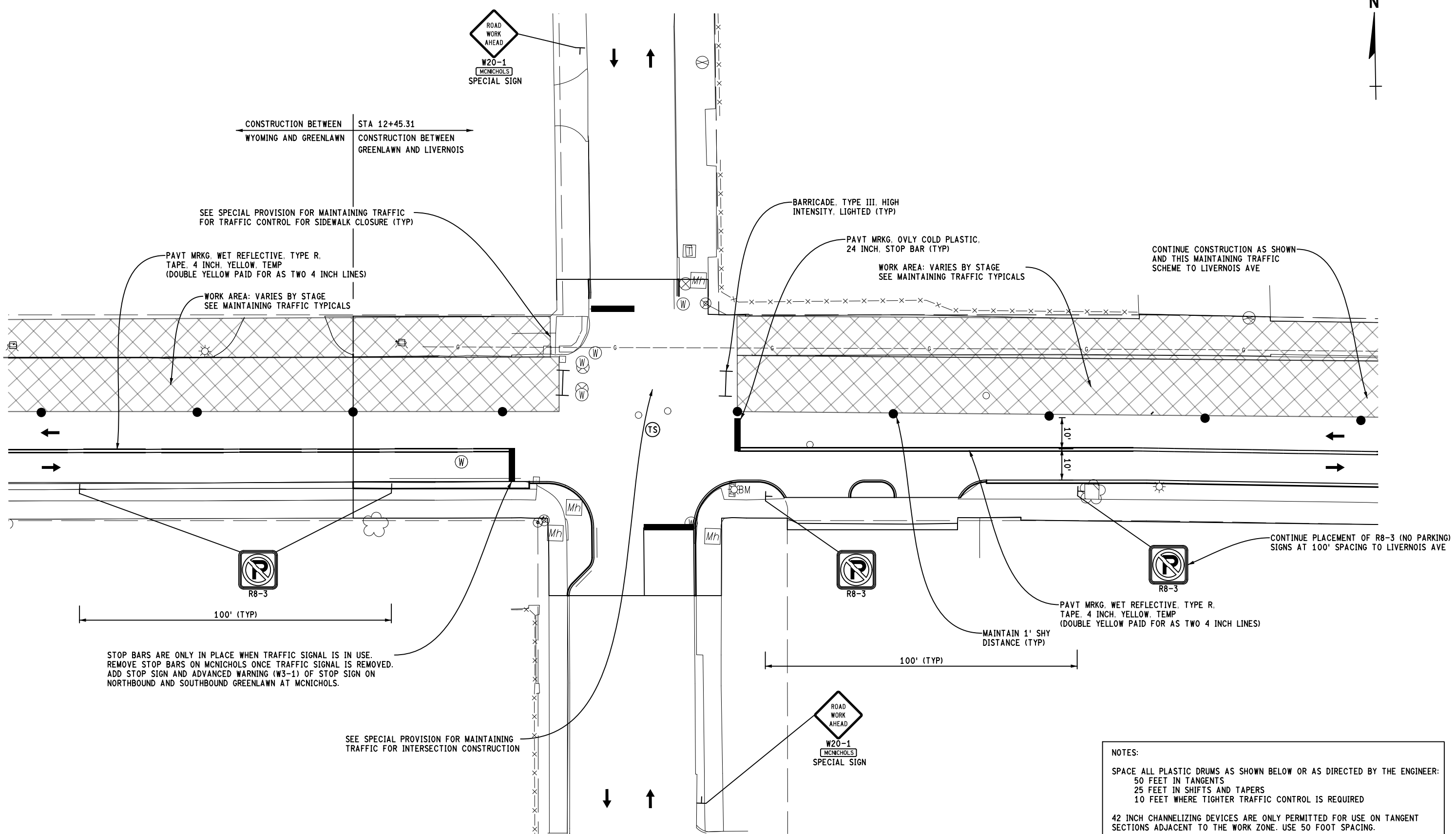
MAINTAINING TRAFFIC: WB MCNICHOLS WORK AREA	DRAWING	SHEET
MCNICHOLS STREETScape	MCN	80
FROM WYOMING AVE	MT_WB	001

GREENLAWN AVE



W MCNICHOLS RD

W MCNICHOLS RD



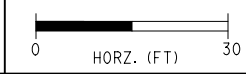
STOP BARS ARE ONLY IN PLACE WHEN TRAFFIC SIGNAL IS IN USE. REMOVE STOP BARS ON MCNICHOLS ONCE TRAFFIC SIGNAL IS REMOVED. ADD STOP SIGN AND ADVANCED WARNING (W3-1) OF STOP SIGN ON NORTHBOUND AND SOUTHBOUND GREENLAWN AT MCNICHOLS.

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION

NOTES:
 SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
 42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.
 UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

GREENLAWN AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

MAINTAINING TRAFFIC: WB MCNICHOLS WORK AREA
 MCNICHOLS STREETScape
 STA 12+45.31 TO STA 15+75

DRAWING
 MCN MT_WB 002
 SHEET
 81

STOEPEL ST

LIVERNOIS AVE



SEE MAINTAINING TRAFFIC DETAIL 2 FOR CROSS STREET TRAFFIC CONTROL

CONTINUE CONSTRUCTION AS SHOWN AND THIS MAINTAINING TRAFFIC SCHEME TO GREENLAWN AVE

ROAD CLOSED R11-2

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION RESTRICTIONS

USE SUFFICIENT NUMBER OF BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED TO CLOSE ROADWAY FROM BACK OF CURB TO BACK OF CURB (TYP) PLACE TYPE III BARRICADE NORTH OF THE LAST DRIVEWAY OR ALLEY NORTH OF MCNICHOLS



WORK AREA: VARIES BY STAGE SEE MAINTAINING TRAFFIC TYPICALS

PAVT MRKG. WET REFLECTIVE, TYPE R, TAPE, 4 INCH, WHITE, TEMP (DOTTED LANE LINE, 2' MARK, 4' GAP)

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR TRAFFIC CONTROL FOR SIDEWALK CLOSURE (TYP)

BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED (TYP)

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR OPENING THE LEFT TURN LANE ON EASTBOUND MCNICHOLS

W MCNICHOLS RD

W MCNICHOLS RD

37 38 N 88° 52' 31" E 39 41

CONTINUE PLACEMENT OF R8-3 (NO PARKING) SIGNS AT 100' SPACING TO GREENLAWN AVE



MAINTAIN 1' SHY DISTANCE (TYP)



PAVT MRKG. WET REFLECTIVE, TYPE R, TAPE, 4 INCH, YELLOW, TEMP (DOUBLE YELLOW PAID FOR AS TWO 4 INCH LINES)

100' (TYP)



SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION

COVER FACE OF CASE SIGN WHEN LEFT TURN FROM EB MCNICHOLS TO NB LIVERNOIS IS PROHIBITED

SEE MAINTAINING TRAFFIC DETAIL 2 FOR CROSS STREET TRAFFIC CONTROL

NOTES:

SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED

42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.

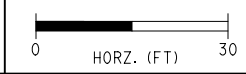
UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

STOEPEL ST

PUBLIC ALLEY

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC:WB MCNICHOLS WORK AREA

MCNICHOLS STREETScape
STA 37+00 TO STA 41+25

DRAWING SHEET
MCN MT_WB 003
82

LIVERNOIS AVE

WARRINGTON DR



END CONSTRUCTION
STA 41+89.71 (POE)

100' BUFFER

83' LEFT TURN LANE TAPER

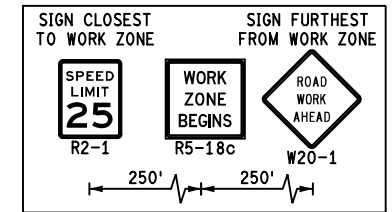
129' TANGENT

250'



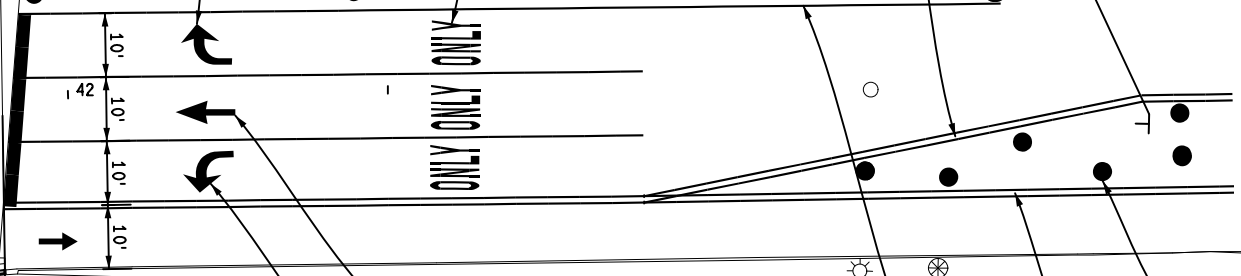
RIGHT LANE
MUST
TURN RIGHT
R3-7R

LEFT LANE
MUST
TURN LEFT
R3-7L



W MCNICHOLS RD

W MCNICHOLS RD



PAVT MRKG. WET REFLECTIVE, TYPE R,
TAPE, 4 INCH, WHITE, TEMP
(DOTTED LANE LINE, 2' MARK, 4' GAP)

PAVT MRKG. OVLY COLD
PLASTIC, THRU ARROW SYM

PAVT MRKG. WET REFLECTIVE, TYPE R,
TAPE, 4 INCH, YELLOW, TEMP
(DOUBLE YELLOW PAID FOR AS TWO 4 INCH LINES)

PAVT MRKG. WET REFLECTIVE, TYPE R,
TAPE, 4 INCH, WHITE, TEMP
(SOLID LANE LINE) (TYP)

SEE SPECIAL PROVISION FOR MAINTAINING
TRAFFIC FOR INTERSECTION CONSTRUCTION

COVER FACE OF CASE SIGN SINCE IT DOES NOT
LINE UP WITH LEFT TURN LANE ON WB MCNICHOLS



350'

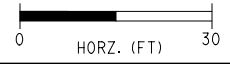
END
ROAD WORK
620-2

NOTES:

- SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
50 FEET IN TANGENTS
25 FEET IN SHIFTS AND TAPERS
10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
- 42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.
- UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

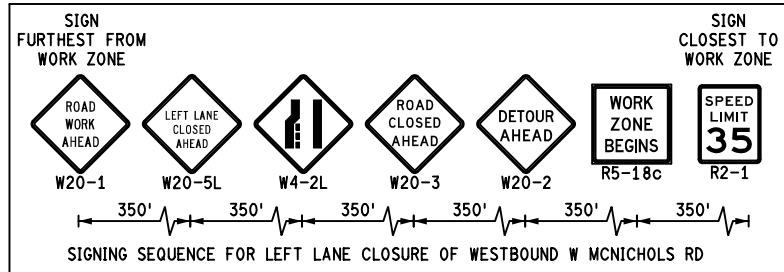
JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC: WB MCNICHOLS WORK AREA
MCNICHOLS STREETScape
STA 41+25 TO STA 41+89.71 (POE)

DRAWING
MCN
MT_WB
004
SHEET
83

ILENE ST

WASHBURN ST



NOTES:

SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED

42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.

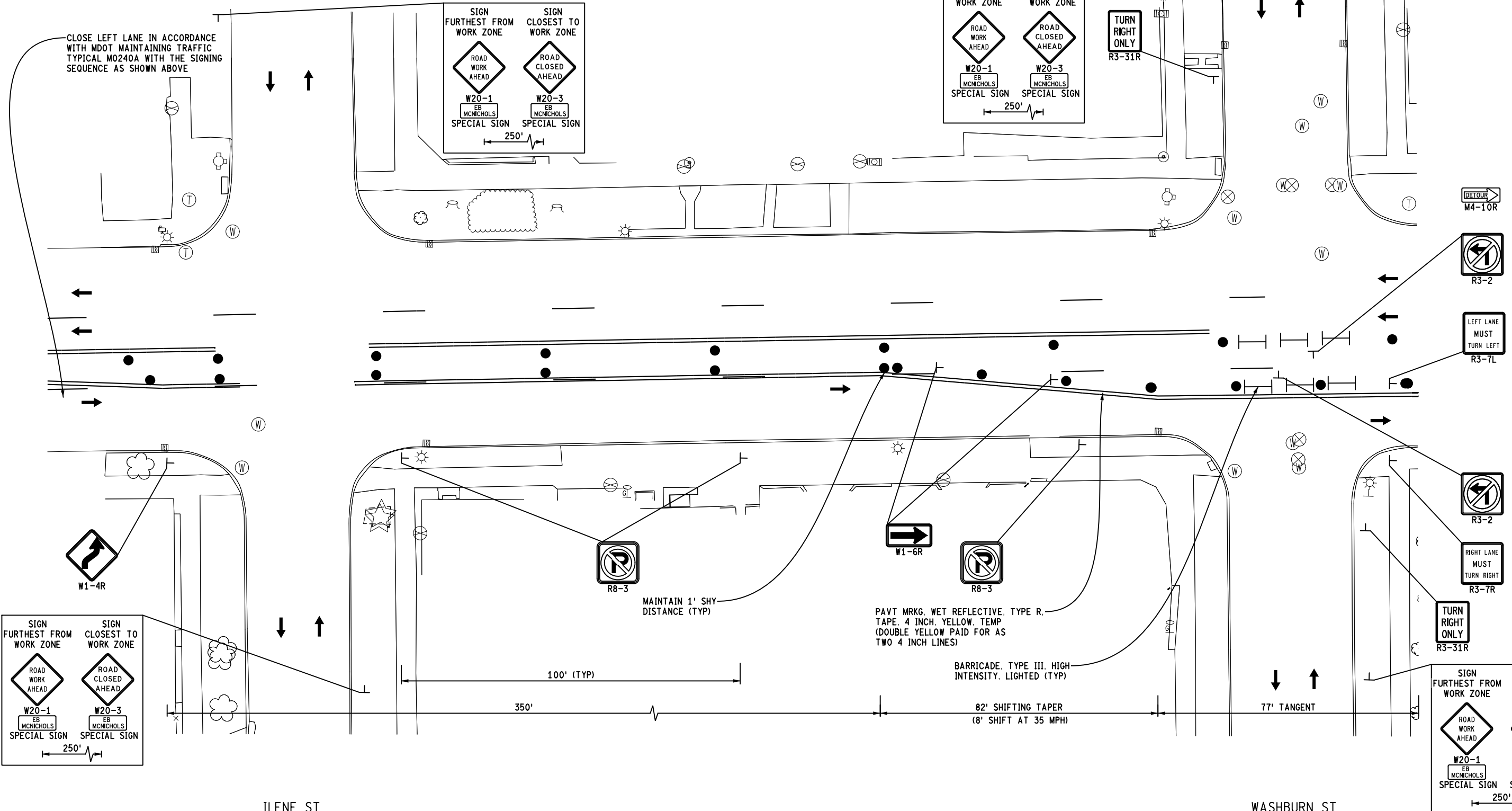
UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

USE PCMS TO DIRECT EB MCNICHOLS TRAFFIC TO FOLLOW ALTERNATE ROUTE.

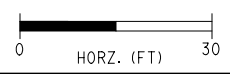


W MCNICHOLS RD

W MCNICHOLS RD



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

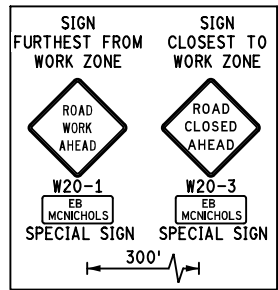
FILE:

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC STAGE 6
MCNICHOLS STREETScape
WEST OF WYOMING AVE

DRAWING SHEET
MCN MTSTG6 001
84

WYOMING AVE



MAINTAIN 1' SHY DISTANCE (TYP)

PAVT MRKG. WET REFLECTIVE, TYPE R, TAPE, 4 INCH, WHITE, TEMP (SOLID LANE LINE)

BAG SIGNAL HEADS AND CASE SIGN FOR SOUTHBOUND WYOMING LEFT TURN AND FOR WESTBOUND W MCNICHOLS LEFT TURN FOR STAGE 1 ONLY

CLOSE LEFT TURN LANE BY PLACING DRUMS AT THE START OF THE LEFT TURN LANE TAPER AND CONTINUE TO STOP BAR

W MCNICHOLS RD

W MCNICHOLS RD

WORK AREA: HMA PAVING THROUGH TOP COURSE



PAVT MRKG. WET REFLECTIVE, TYPE R, TAPE, 4 INCH, YELLOW, TEMP (DOUBLE YELLOW PAID FOR AS TWO 4 INCH LINES)

PAVT MRKG. WET REFLECTIVE, TYPE R, TAPE, 4 INCH, WHITE, TEMP (SOLID LANE LINE)

SEE SPECIAL PROVISION FOR MAINTAINING TRAFFIC FOR INTERSECTION CONSTRUCTION

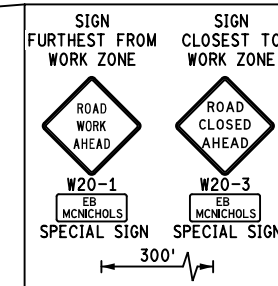
100' (TYP)

50' TAPER

160' TANGENT



BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED (TYP)

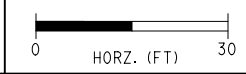


NOTES:
 SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
 50 FEET IN TANGENTS
 25 FEET IN SHIFTS AND TAPERS
 10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
 UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER
 USE PCMS TO DIRECT WB MCNICHOLS TRAFFIC TO FOLLOW ALTERNATE ROUTE

CLOSE RIGHT LANE BY PLACING DRUMS STARTING AT THE END OF THE ON-STREET PARKING AND CONTINUE TO THE STOP BAR

WYOMING AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE: JN: PW-7004
 MCNICHOLS STREETSCAPE

MAINTAINING TRAFFIC STAGE 6
 MCNICHOLS STREETSCAPE
 FROM WYOMING AVE

DRAWING	SHEET
MCN MTSTG6 002	85

STOEPEL ST

LIVERNOIS AVE



CLOSE RIGHT TURN LANE PER MDOT MAINTAINING TRAFFIC TYPICAL M0730a (TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON A DIVIDED ROADWAY, NO SPEED REDUCTION)

SEE MAINTAINING TRAFFIC DETAIL 1 FOR CROSS STREET TRAFFIC CONTROL

PLACE TYPE III BARRICADE NORTH OF LAST DRIVEWAY OR ALLEY SOUTH OF MCNICHOLS

USE SUFFICIENT NUMBER OF BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED TO CLOSE ROADWA FROM BACK OF CURB TO BACK OF CURB (TYP)

ROAD CLOSED R11-2

BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED (TYP)

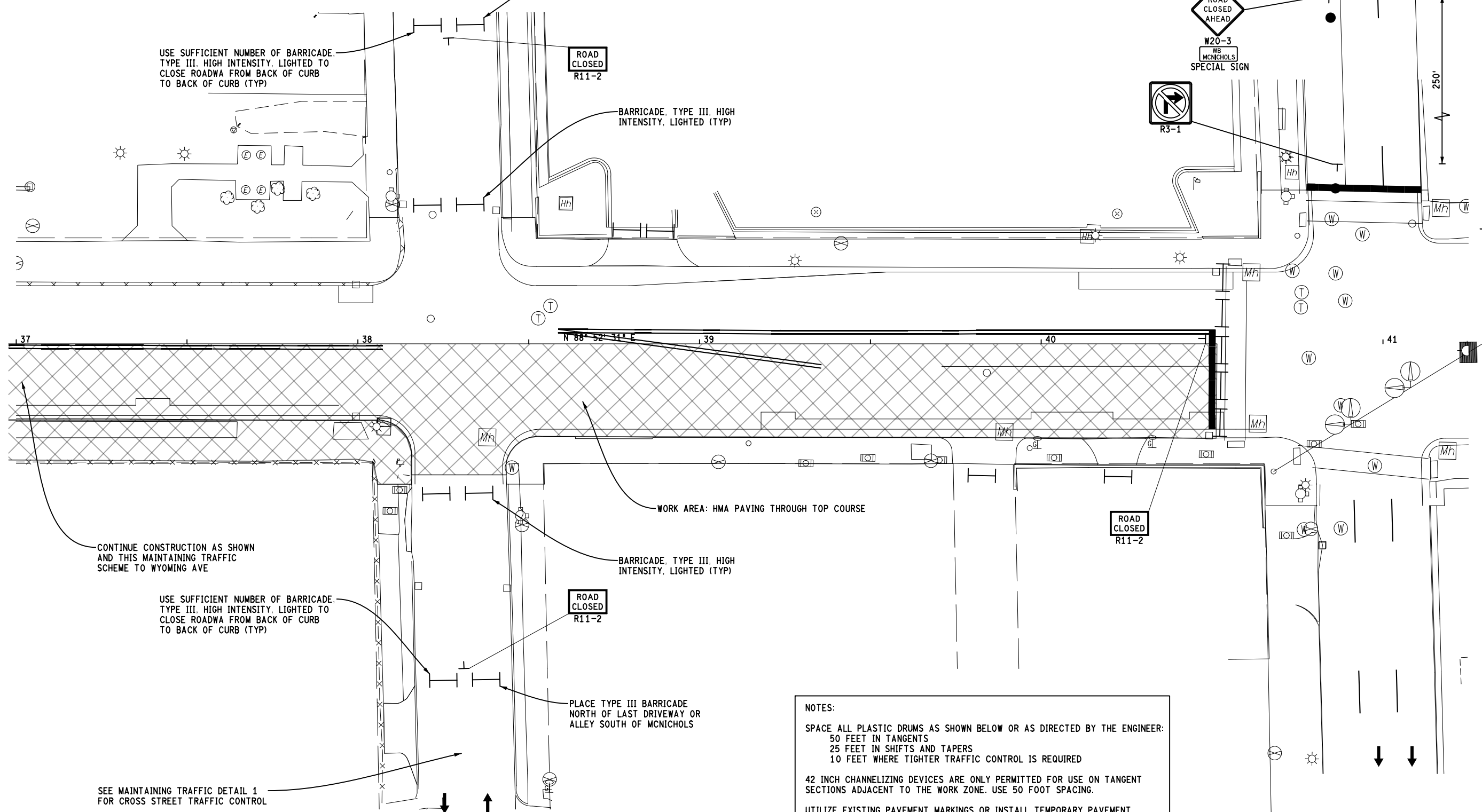
ROAD CLOSED AHEAD
W20-3
WB
MCNICHOLS
SPECIAL SIGN

R3-1

250'

W MCNICHOLS RD

W MCNICHOLS RD



CONTINUE CONSTRUCTION AS SHOWN AND THIS MAINTAINING TRAFFIC SCHEME TO WYOMING AVE

USE SUFFICIENT NUMBER OF BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED TO CLOSE ROADWA FROM BACK OF CURB TO BACK OF CURB (TYP)

WORK AREA: HMA PAVING THROUGH TOP COURSE

BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED (TYP)

ROAD CLOSED R11-2

PLACE TYPE III BARRICADE NORTH OF LAST DRIVEWAY OR ALLEY SOUTH OF MCNICHOLS

SEE MAINTAINING TRAFFIC DETAIL 1 FOR CROSS STREET TRAFFIC CONTROL

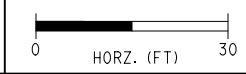
NOTES:
SPACE ALL PLASTIC DRUMS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER:
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10 FEET WHERE TIGHTER TRAFFIC CONTROL IS REQUIRED
42 INCH CHANNELIZING DEVICES ARE ONLY PERMITTED FOR USE ON TANGENT SECTIONS ADJACENT TO THE WORK ZONE. USE 50 FOOT SPACING.
UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

STOEPEL ST

PUBLIC ALLEY

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

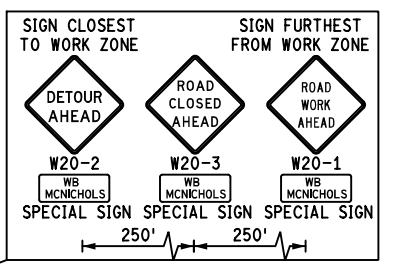
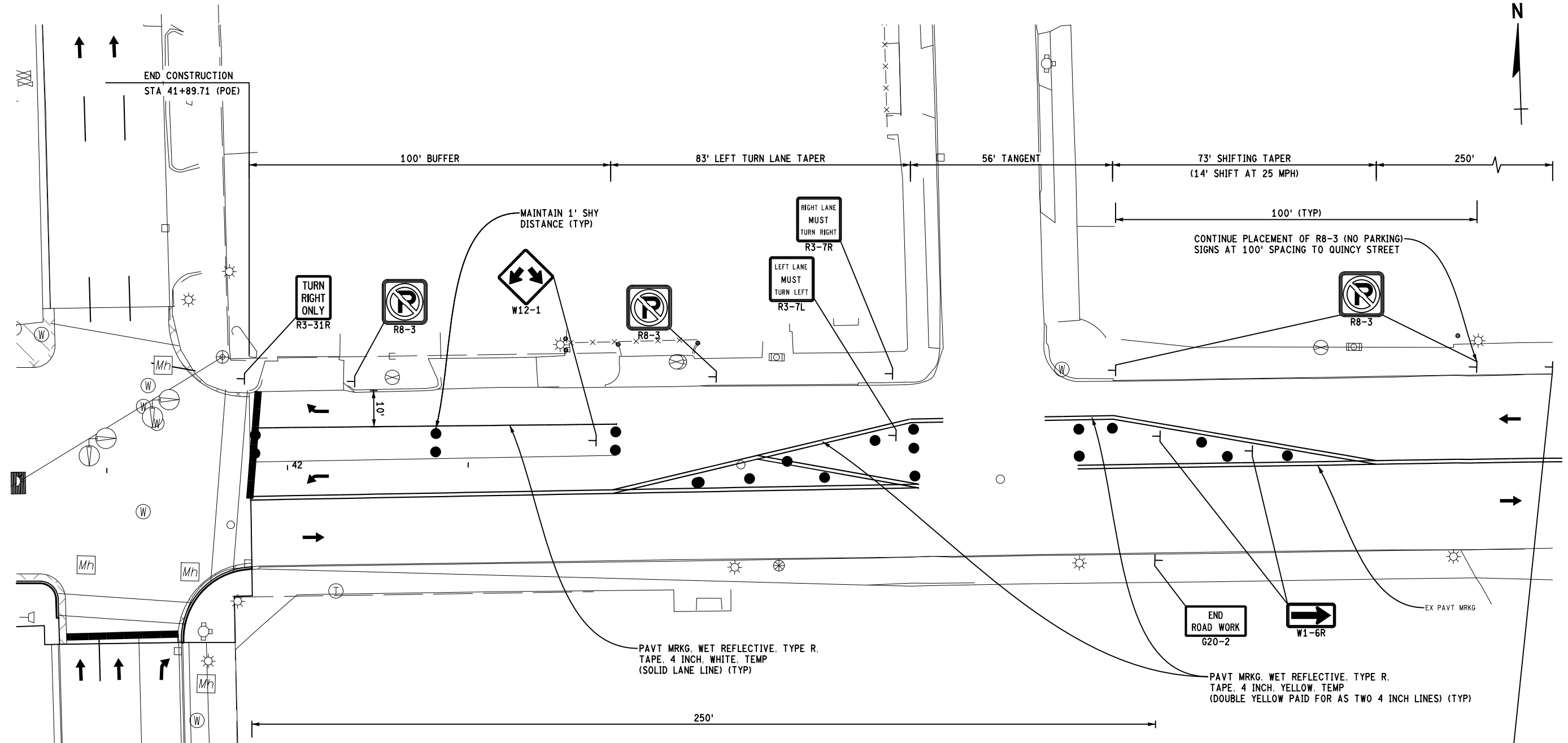
JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC STAGE 6
MCNICHOLS STREETScape
STA 37+00 TO STA 41+25

DRAWING SHEET
MCN MTSTG6 003 86

LIVERNOIS AVE

WARRINGTON DR

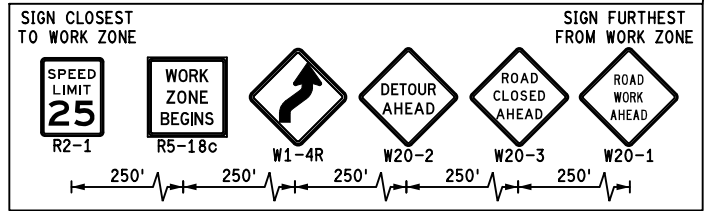


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UTILIZE EXISTING PAVEMENT MARKINGS OR INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN OR AS DIRECTED BY THE ENGINEER

USE PCMS TO DIRECT WB MCNICHOLS TRAFFIC TO FOLLOW ALTERNATE ROUTE

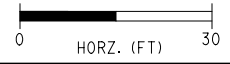


W MCNICHOLS RD

W MCNICHOLS RD

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

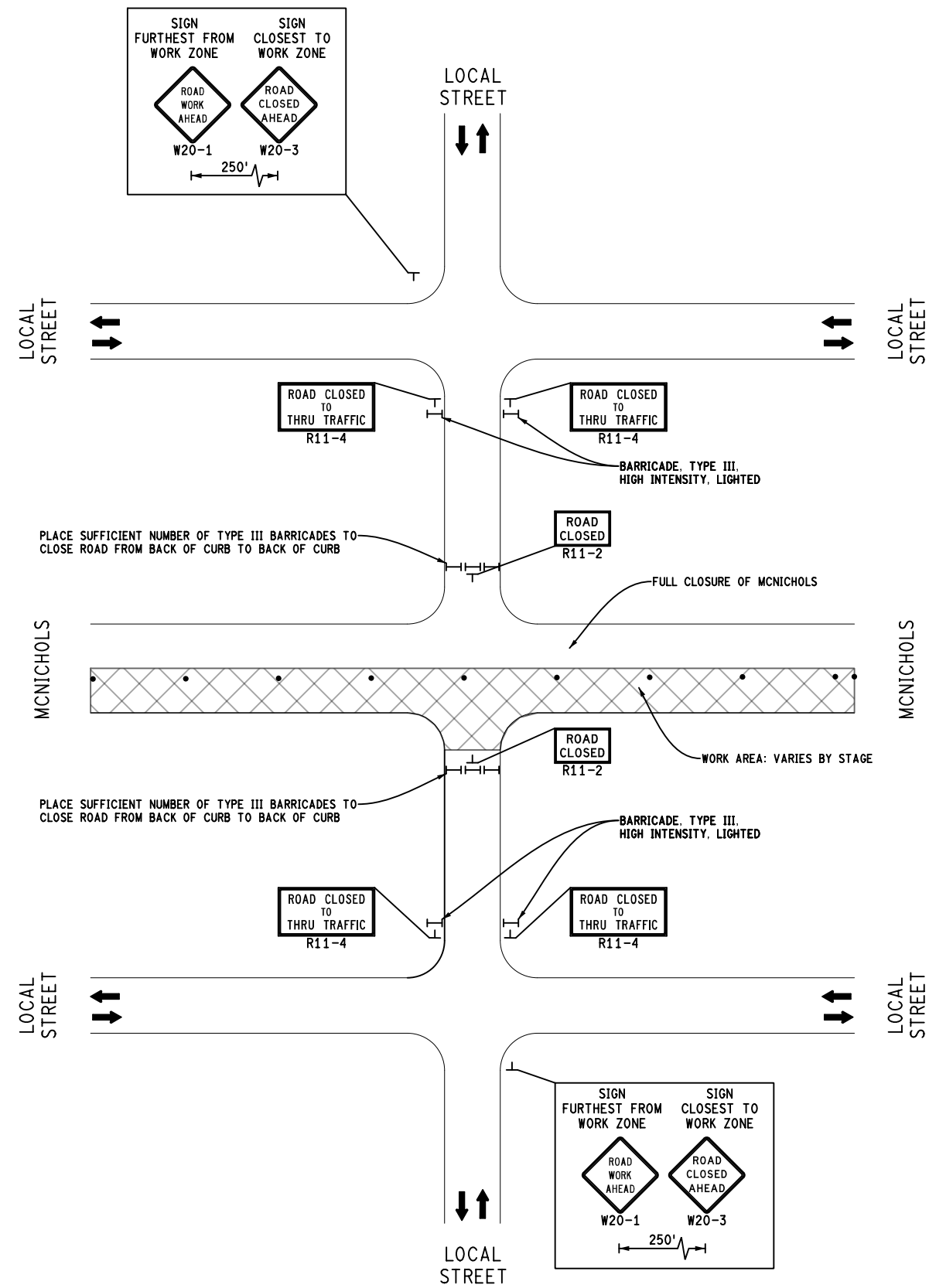
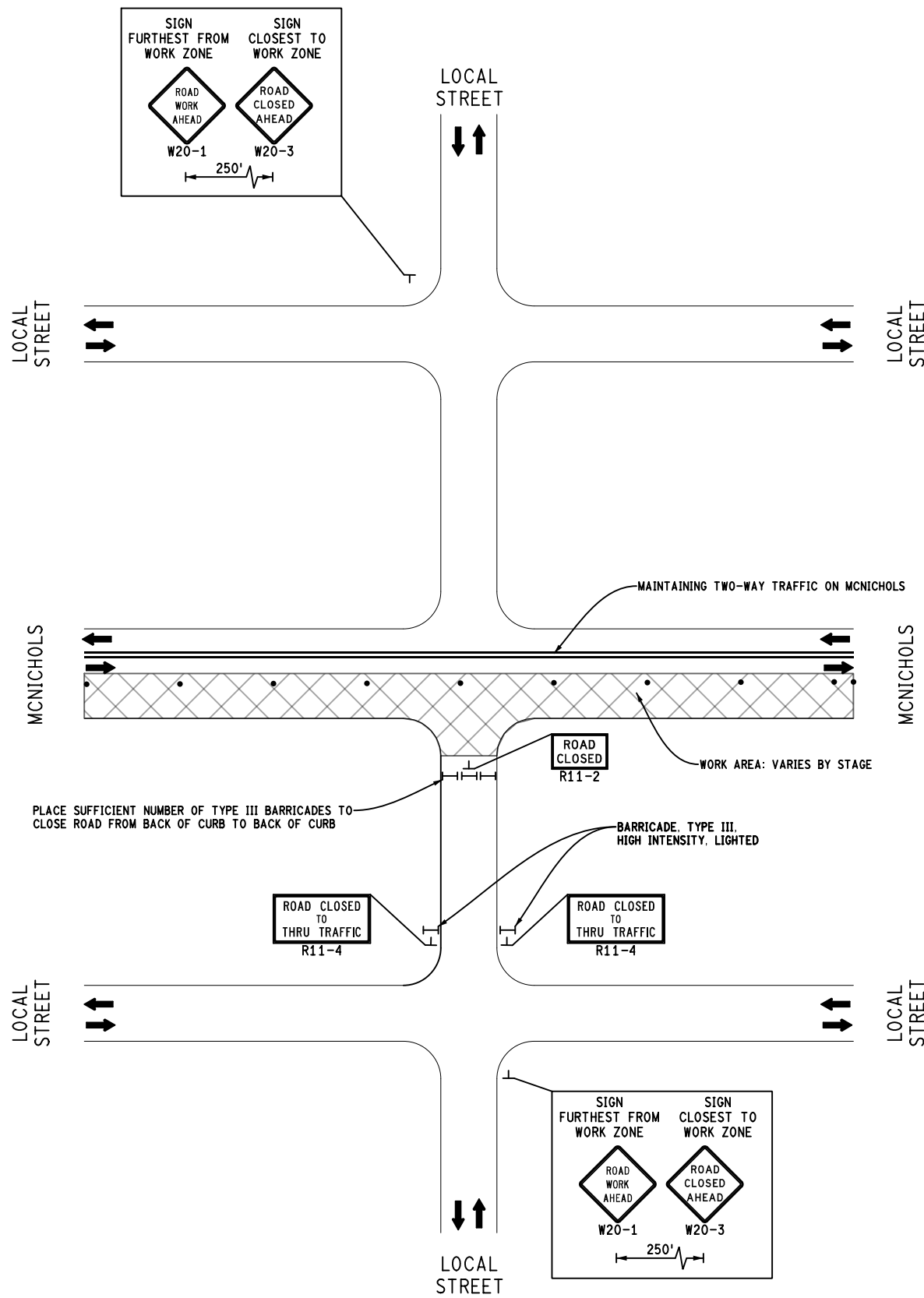


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC STAGE 6
MCNICHOLS STREETScape
STA 41+25 TO STA 41+89.71 (POE)

DRAWING SHEET
MCN MTSTG6 004
87



DETAIL 1
DETAIL FOR LOCAL STREET CLOSURE

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC DETAILS
MCNICHOLS STREETScape

DRAWING SHEET
MCN
MTSDET
001 88

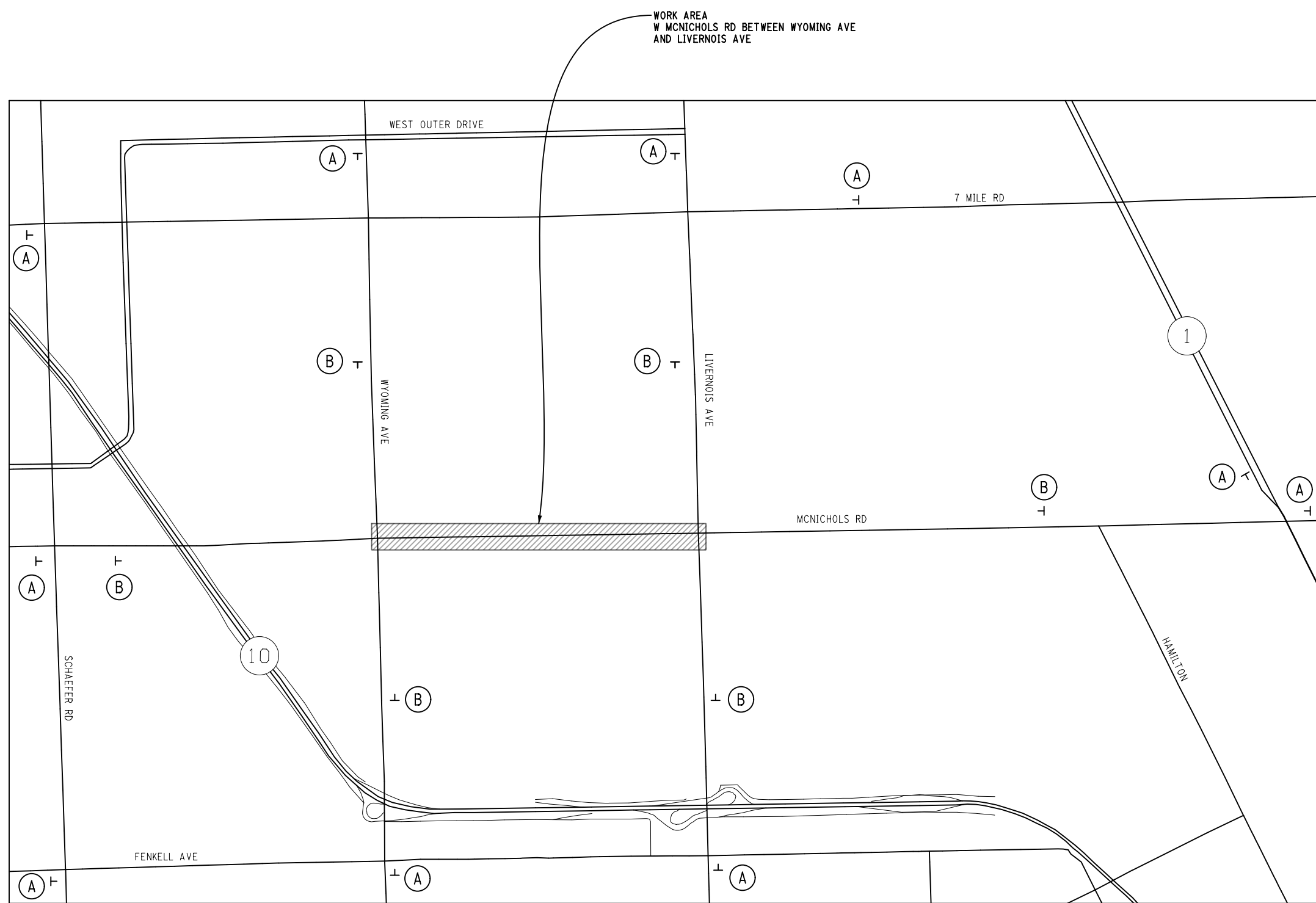


MCNICHOLS ROAD WORK
WYOMING TO
LIVERNOS

(A)

ALL MCNICHOLS
BUSINESSES
OPEN DURING
CONSTRUCTION

(B)



WORK AREA
W MCNICHOLS RD BETWEEN WYOMING AVE
AND LIVERNOIS AVE

DETAIL 2
ADVANCED SIGNING MAP

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

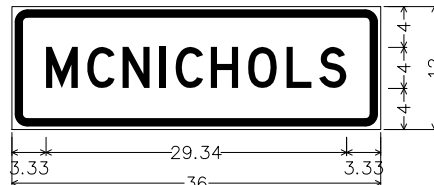
FILE:

DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETSCAPE

MAINTAINING TRAFFIC DETAILS
MCNICHOLS STREETSCAPE

DRAWING SHEET
MCN MTSDET 002 89



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [MCNICHOLS] D;

Table of distances between letter and object lefts.

3.33	M	C	N	I	C	H	O	L	S	2.68	3.33
	4.03	3.44	3.62	1.56	3.44	3.63	3.75	3.19			



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [EB] D; [MCNICHOLS] D;

Table of distances between letter and object lefts.

15.06	E	B	15.06
	3.19	2.69	

3.33	M	C	N	I	C	H	O	L	S	2.68	3.33
	4.03	3.44	3.62	1.56	3.44	3.63	3.75	3.19			



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [WB] D; [MCNICHOLS] D;

Table of distances between letter and object lefts.

14.53	W	B	14.53
	4.25	2.69	

3.33	M	C	N	I	C	H	O	L	S	2.68	3.33
	4.03	3.44	3.62	1.56	3.44	3.63	3.75	3.19			



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [DRIVEWAY] D; [OPEN] D;

Table of distances between letter and object lefts.

4.98	D	R	I	V	E	W	A	Y	4.98
	3.63	3.62	1.38	3.75	2.94	3.75	3.59	3.38	

11.37	O	P	E	N	11.37
	3.76	3.62	3.19	2.69	



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [MCNICHOLS] D; [ROAD WORK] D; [WYOMING TO] D; [LIVERNOIS] D;

Table of distances between letter and object lefts.

6.33	M	C	N	I	C	H	O	L	S	2.68	6.33
	4.03	3.44	3.62	1.56	3.44	3.63	3.75	3.19			

4.92	R	O	A	D	W	O	R	K	4.92
	3.44	3.56	4.10	6.68	4.25	3.75	3.63	2.75	

4.23	W	Y	O	M	I	N	G	T	O	4.23
	3.75	4.13	3.75	4.03	1.56	3.63	6.69	3.18	2.82	

7.62	L	I	V	E	R	N	O	I	S	7.62
	3.19	1.38	3.75	3.18	3.63	3.62	3.76	1.56	2.69	



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [ALL MCNICHOLS] D; [BUSINESSES] D; [OPEN DURING] D; [CONSTRUCTION] D;

Table of distances between letter and object lefts.

2.47	A	L	L	2.47
	4.09	3.19		

6.44	M	C	N	I	C	H	O	L	S	2.69	2.47
	4.03	3.44	3.62	1.56	3.44	3.63	3.75	3.18			

7.91	B	U	S	I	N	E	S	S	E	S	7.91
	3.62	3.63	3.62	1.56	3.63	3.19	3.43	3.63	3.19	2.68	

6.00	O	P	E	N	D	U	R	I	N	G	6.00
	3.75	3.62	3.19	6.69	3.62	3.63	3.63	1.56	3.62	2.69	

4.47	C	O	N	S	T	R	U	C	T	I	O	N	4.47
	3.44	3.75	3.62	3.44	3.19	3.62	3.63	3.18	3.19	1.56	3.75	2.69	



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange; [USE RIGHT] D; [LANE FOR] D; [WYOMING] D;

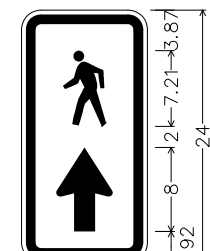
Table of distances between letter and object lefts.

3.81	U	S	E	3.81
	3.63	3.62		

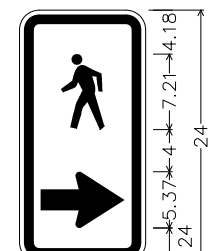
6.44	R	I	G	H	T	3.81
	3.63	1.56	3.62	3.44	2.44	

4.77	L	A	N	E	F	O	R	4.77
	2.68	4.10	3.62	6.44	3.19	3.75	2.68	

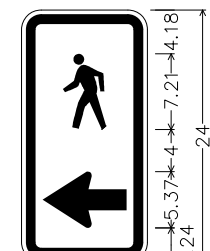
6.23	W	Y	O	M	I	N	G	6.23
	3.75	4.13	3.75	4.03	1.56	3.63	2.69	



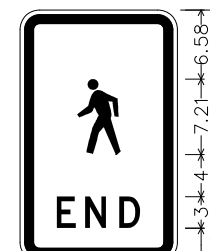
1.88" Radius, 0.75" Border, 0.50" Indent, Black on Orange; Pedestrian Crossing; Standard Arrow Custom 8.00" X 5.38" 90°;



1.88" Radius, 0.75" Border, 0.50" Indent, Black on Orange; Pedestrian Crossing; Standard Arrow Custom 8.00" X 5.38" 0°;



1.88" Radius, 0.75" Border, 0.50" Indent, Black on Orange; Pedestrian Crossing; Standard Arrow Custom 8.00" X 5.38" 180°;



1.88" Radius, 0.75" Border, 0.50" Indent, Black on Orange; [END] D 2K specified length;

SPECIAL SIGN DETAILS

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION

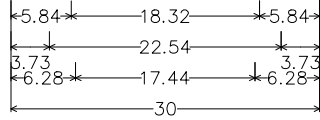


NO SCALE

DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

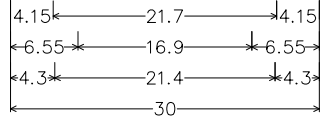
MAINTAINING TRAFFIC DETAILS	
MCNICHOLS STREETScape	
DRAWING	SHEET
MCN MTSDET 003	90



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Orange;
 [PUBLIC] D; [PARKING] D;
 [AHEAD] D;

Table of distances between letter and object lefts.

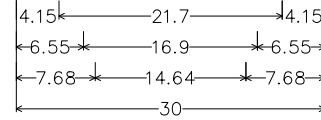
5.84	P	U	B	L	I	C	5.84
3.63	3.62	3.63	3.19	1.56	2.69	5.84	
3.73	P	A	R	K	I	N	G
3.44	4.10	3.62	3.50	1.56	3.63	2.69	3.73
6.28	A	H	E	A	D	6.28	
4.09	3.63	2.94	4.09	2.69	6.28		



1.50" Radius, 0.63" Border, 0.38" Indent,
 Black on Orange;
 [ON-STREET] D; [PARKING] D;
 [AVAILABLE] D;

Table of distances between letter and object lefts.

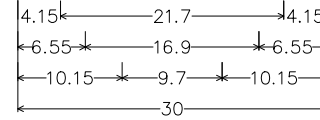
4.15	O	N	-	S	T	R	E	E	T	4.15
2.81	2.72	2.06	2.58	2.39	2.72	2.39	2.20	1.83	4.15	
6.55	P	A	R	K	I	N	G			
2.58	3.07	2.72	2.62	1.17	2.72	2.02	6.55			
4.30	A	V	A	I	L	A	B	L	E	4.30
2.70	2.43	3.07	1.18	2.01	3.07	2.72	2.39	1.83	4.30	



1.50" Radius, 0.63" Border, 0.38" Indent,
 Black on Orange;
 [ON-STREET] D; [PARKING] D;
 [STARTS] D;

Table of distances between letter and object lefts.

4.15	O	N	-	S	T	R	E	E	T	4.15
2.81	2.72	2.06	2.58	2.39	2.72	2.39	2.20	1.83	4.15	
6.55	P	A	R	K	I	N	G			
2.58	3.07	2.72	2.62	1.17	2.72	2.02	6.55			
7.68	S	T	A	R	T	S				
2.57	2.02	3.07	2.58	2.39	2.01	7.68				



1.50" Radius, 0.63" Border, 0.38" Indent,
 Black on Orange;
 [ON-STREET] D; [PARKING] D;
 [ENDS] D;

Table of distances between letter and object lefts.

4.15	O	N	-	S	T	R	E	E	T	4.15
2.81	2.72	2.06	2.58	2.39	2.72	2.39	2.20	1.83	4.15	
6.55	P	A	R	K	I	N	G			
2.58	3.07	2.72	2.62	1.17	2.72	2.02	6.55			
10.15	E	N	D	S						
2.39	2.72	2.58	2.01	10.15						

SPECIAL SIGN DETAILS

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20
FILE:

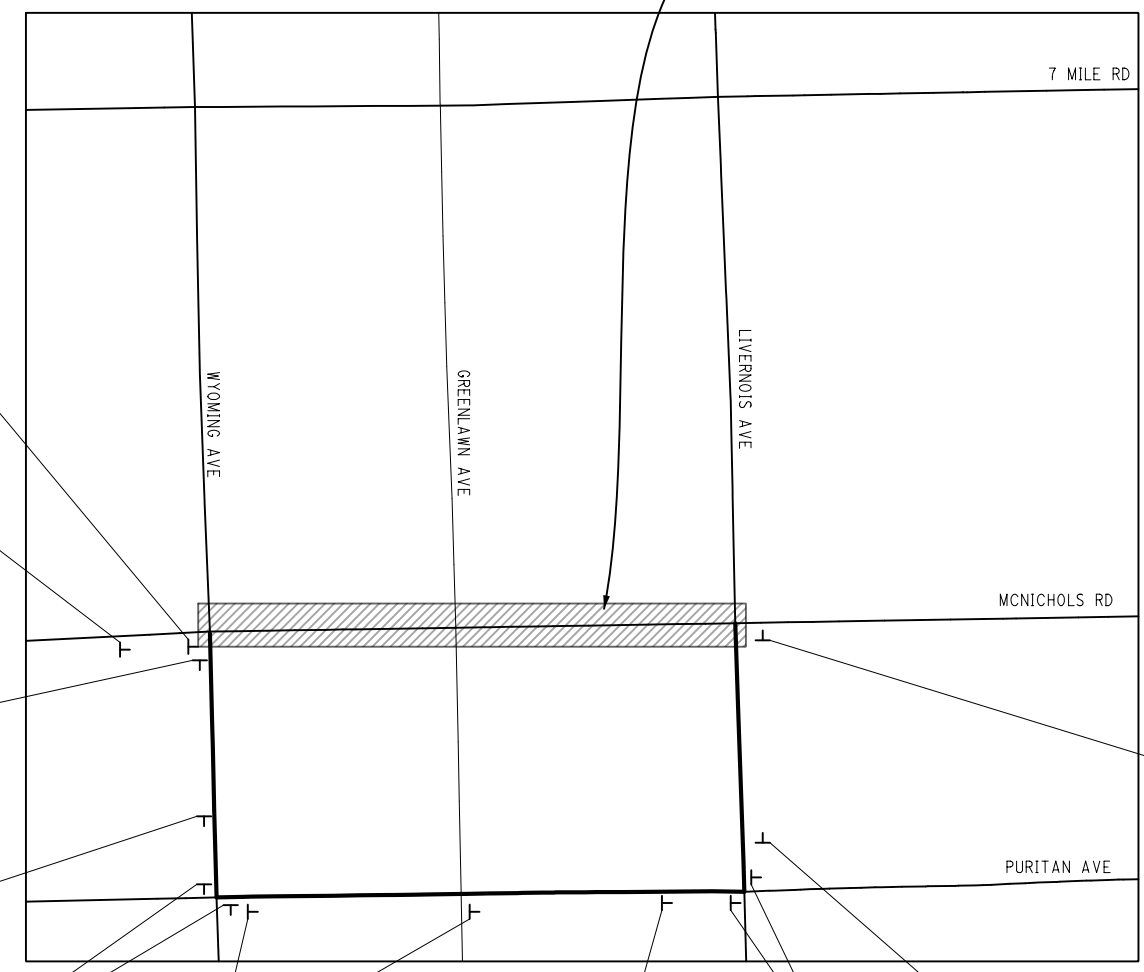
JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC DETAILS
MCNICHOLS STREETScape

DRAWING	SHEET
MCN MTSDET 004	91



WORK AREA: EASTBOUND MCNICHOLS
MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION



- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M6-1R
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M5-1R
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M6-3
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M5-1L
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M6-1L

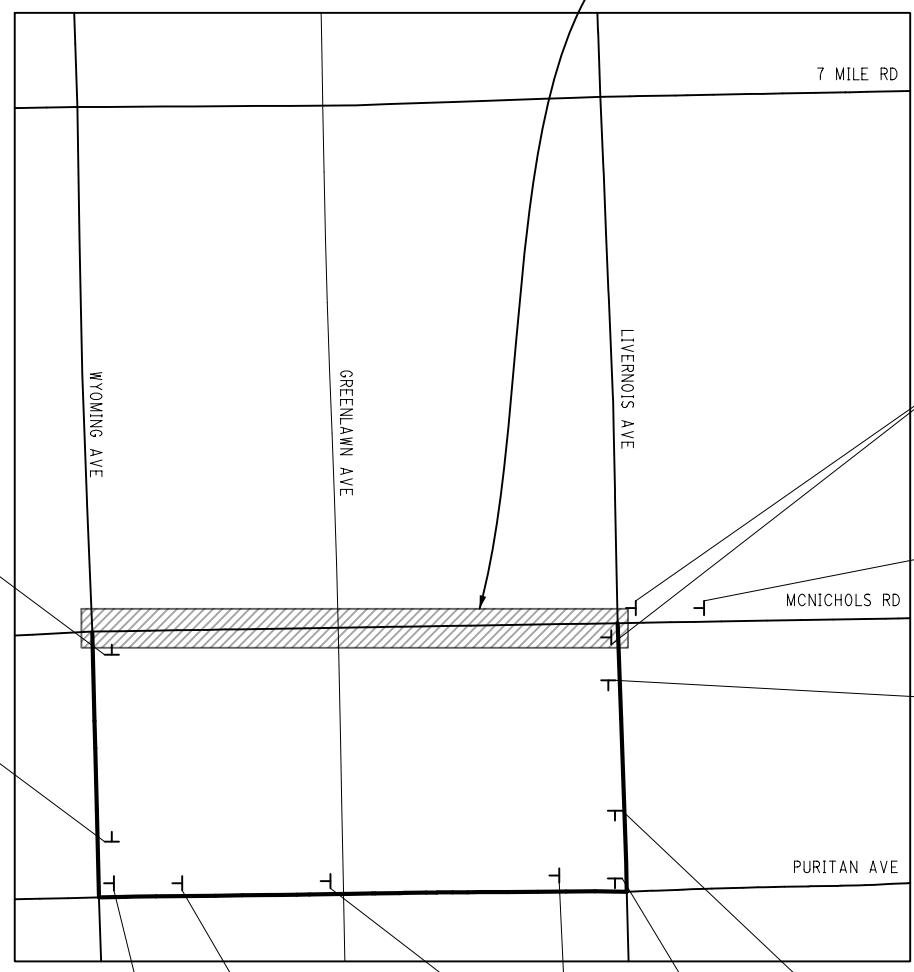
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M6-3
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M5-1L
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M6-1L
- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) M6-3

- ALTERNATE M4-1 EB MCNICHOLS D3-1(MOD) END M4-8b

ALTERNATE ROUTE 1
ALTERNATE ROUTE FOR EASTBOUND MCNICHOLS



WORK AREA: WESTBOUND MCNICHOLS
MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION



- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) END M4-8b
- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M6-3

- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M6-1R
- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M5-1R
- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M6-3
- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M6-1R
- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M5-1R

- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M6-1L
- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M5-1L

- ALTERNATE M4-1 WB MCNICHOLS D3-1(MOD) M6-3

ALTERNATE ROUTE 2
ALTERNATE ROUTE FOR WESTBOUND MCNICHOLS

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



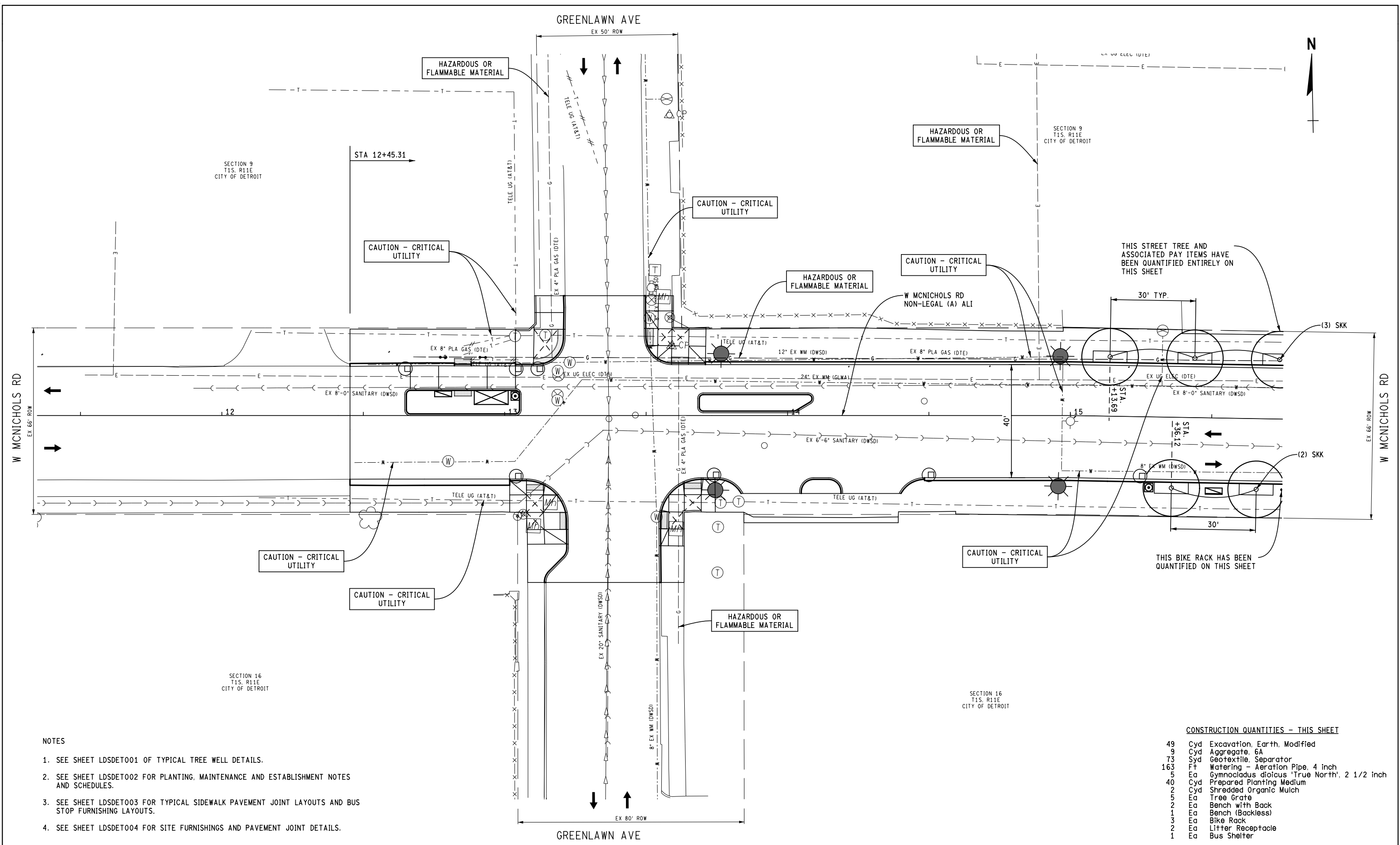
NO SCALE

DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

MAINTAINING TRAFFIC ALTERNATE ROUTE PLANS
MCNICHOLS STREETScape

DRAWING MCN MTDETR 001 SHEET 92

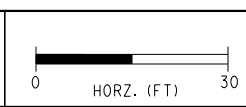


- NOTES**
- SEE SHEET LSDDET001 OF TYPICAL TREE WELL DETAILS.
 - SEE SHEET LSDDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
 - SEE SHEET LSDDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
 - SEE SHEET LSDDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

CONSTRUCTION QUANTITIES - THIS SHEET

49	Cyd	Excavation, Earth, Modified
9	Cyd	Aggregate, 6A
73	Syd	Geotextile, Separator
163	Ft	Watering - Aeration Pipe, 4 inch
5	Ea	Gymnocladus dioica 'True North', 2 1/2 inch
40	Cyd	Prepared Planting Medium
2	Cyd	Shredded Organic Mulch
5	Ea	Tree Grate
2	Ea	Bench with Back
1	Ea	Bench (Backless)
3	Ea	Bike Rack
2	Ea	Litter Receptacle
1	Ea	Bus Shelter

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004

MCNICHOLS STREETScape

LANDSCAPING SHEET

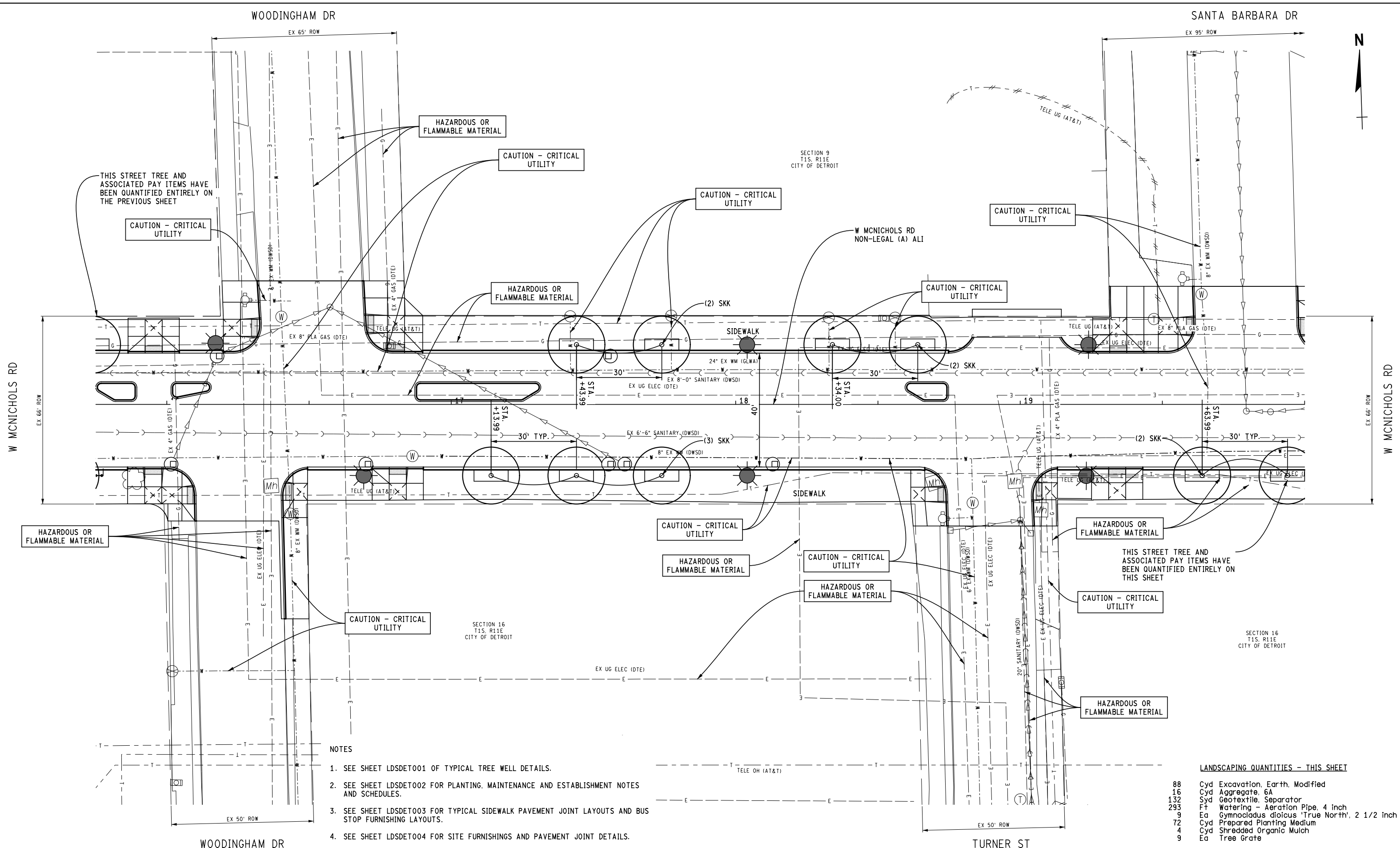
MCNICHOLS STREETScape

STA 12+45.31 TO STA 15+75

DRAWING SHEET

MCN LND5 001

93



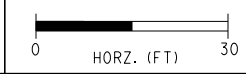
- NOTES**
1. SEE SHEET LDSDET001 OF TYPICAL TREE WELL DETAILS.
 2. SEE SHEET LDSDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
 3. SEE SHEET LDSDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
 4. SEE SHEET LDSDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

LANDSCAPING QUANTITIES - THIS SHEET

88	Cyd	Excavation, Earth, Modified
16	Cyd	Aggregate, 6A
132	Syd	Geotextile, Separator
293	Ft	Watering - Aeration Pipe, 4 inch
9	Ea	Gymnocladus dioica 'True North', 2 1/2 inch
72	Cyd	Prepared Planting Medium
4	Cyd	Shredded Organic Mulch
9	Ea	Tree Grate

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE: JN: PW-7004
 MCNICHOLS STREETScape

LANDSCAPING SHEET
 MCNICHOLS STREETScape
 STA 15+75 TO STA 20+00

DRAWING SHEET
 MCN LNS 002
94

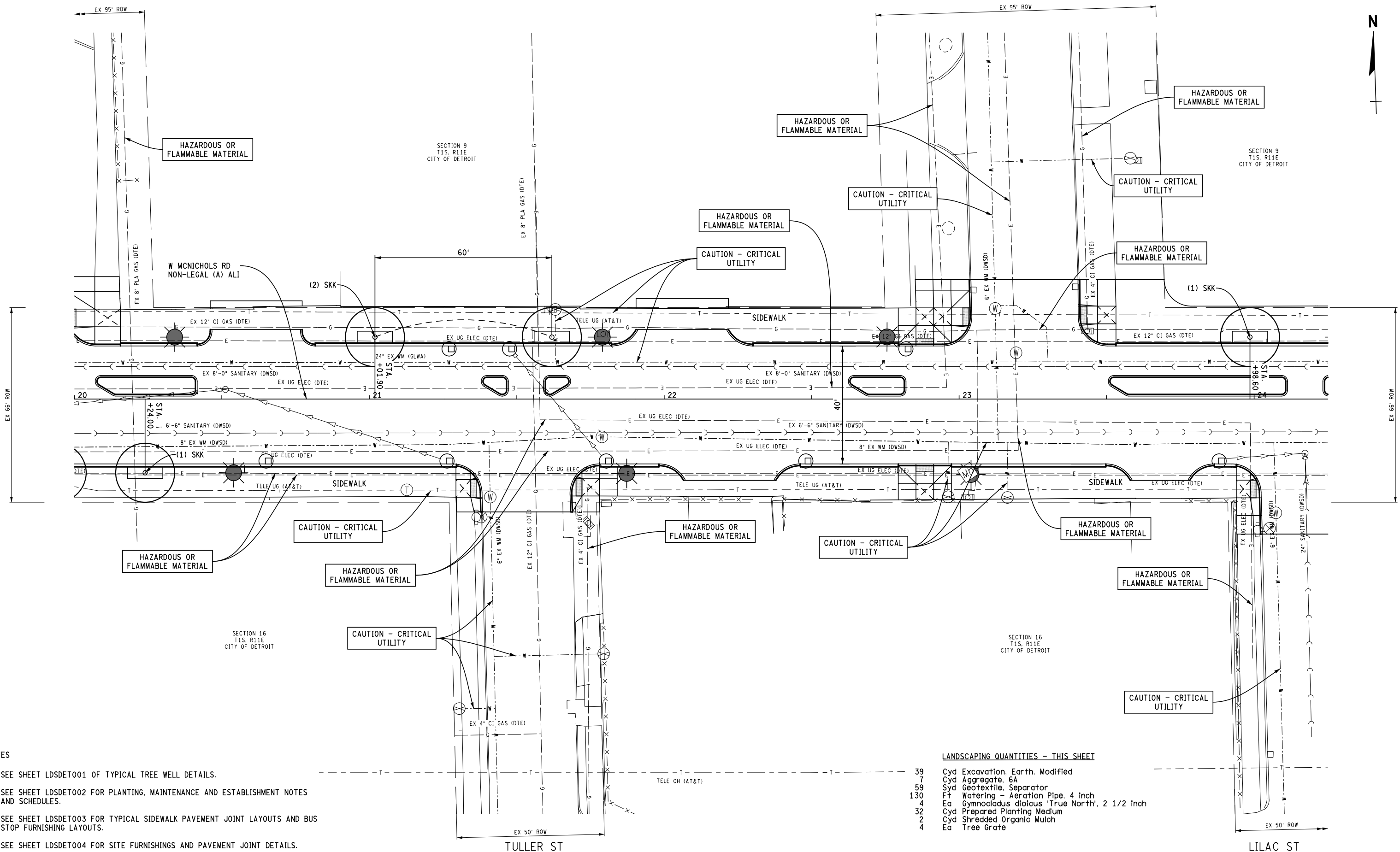
SANTA BARBARA DR

PENNINGTON DR



W MCNICHOLS RD

W MCNICHOLS RD



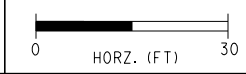
NOTES

- 1. SEE SHEET LDSDET001 OF TYPICAL TREE WELL DETAILS.
- 2. SEE SHEET LDSDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
- 3. SEE SHEET LDSDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
- 4. SEE SHEET LDSDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

LANDSCAPING QUANTITIES - THIS SHEET

39	Cyd	Excavation, Earth, Modified
7	Cyd	Aggregate, 6A
59	Syd	Geotextile, Separator
130	Ft	Watering - Aeration Pipe, 4 inch
4	Ea	Gymnocladus dioica 'True North', 2 1/2 inch
32	Cyd	Prepared Planting Medium
2	Cyd	Shredded Organic Mulch
4	Ea	Tree Gate

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



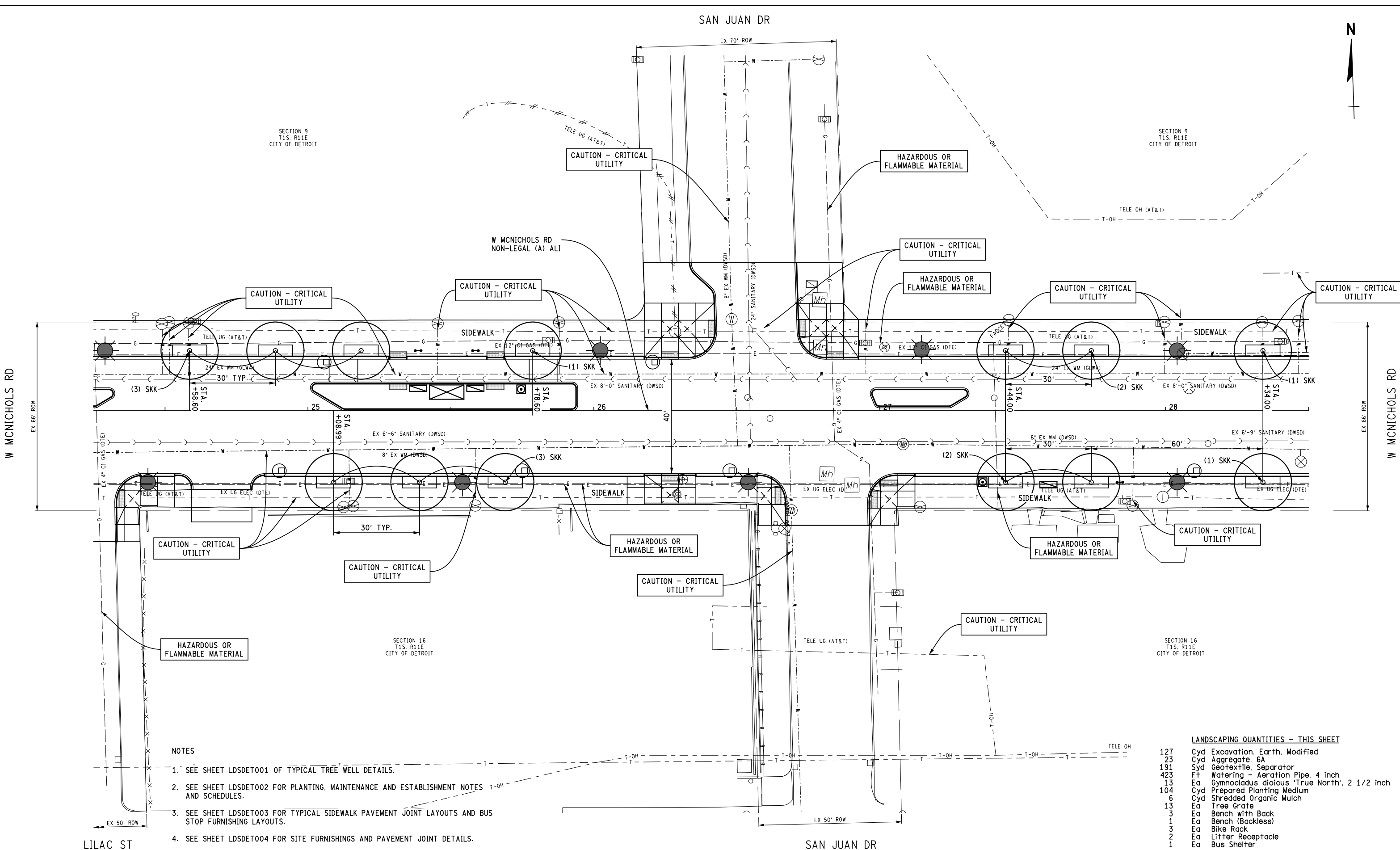
DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

LANDSCAPING SHEET
MCNICHOLS STREETScape
STA 20+00 TO STA 24+25

DRAWING SHEET
MCN LND5 003
95

SAN JUAN DR



W MCNICHOLS RD

W MCNICHOLS RD

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

NOTES

1. SEE SHEET LSDDET001 OF TYPICAL TREE WELL DETAILS.
2. SEE SHEET LSDDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
3. SEE SHEET LSDDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
4. SEE SHEET LSDDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

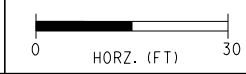
LANDSCAPING QUANTITIES - THIS SHEET

127	Cyd	Excavation, Earth, Modified
23	Cyd	Aggregate, 6A
191	Syd	Geotextile, Separator
423	Ft	Watering - Aeration Pipe, 4 inch
13	Ea	Gymnocladus dioica 'True North', 2 1/2 inch
104	Cyd	Prepared Planting Medium
6	Cyd	Shredded Organic Mulch
13	Ea	Tree Gate
3	Ea	Bench with Back
1	Ea	Bench (Backless)
3	Ea	Bike Rack
2	Ea	Litter Receptacle
1	Ea	Bus Shelter

LILAC ST

SAN JUAN DR

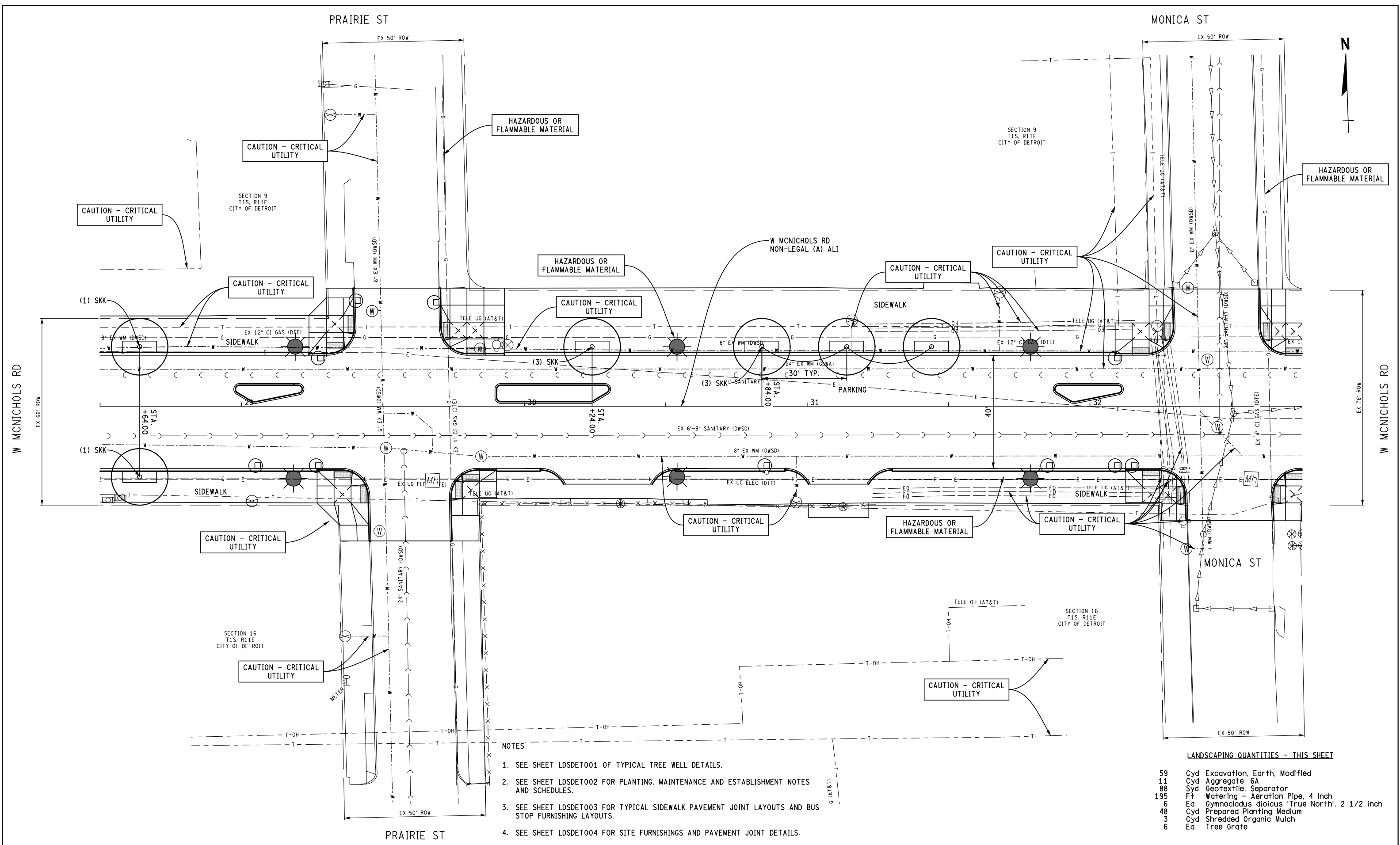
FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

LANDSCAPING SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	96
STA 24+25 TO STA 28+50		LNS	004

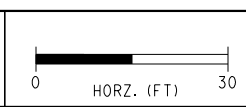


- NOTES**
1. SEE SHEET LDSDET001 OF TYPICAL TREE WELL DETAILS.
 2. SEE SHEET LDSDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
 3. SEE SHEET LDSDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
 4. SEE SHEET LDSDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

LANDSCAPING QUANTITIES - THIS SHEET

59	Cyd	Excavation, Earth, Modified
11	Cyd	Aggregate, 6A
88	Syd	Geotextile, Separator
195	Ft	Watering - Aeration Pipe, 4 inch
6	Ea	Gymnocladus dioica 'True North', 2 1/2 inch
48	Cyd	Prepared Planting Medium
3	Cyd	Shredded Organic Mulch
6	Ea	Tree Grate

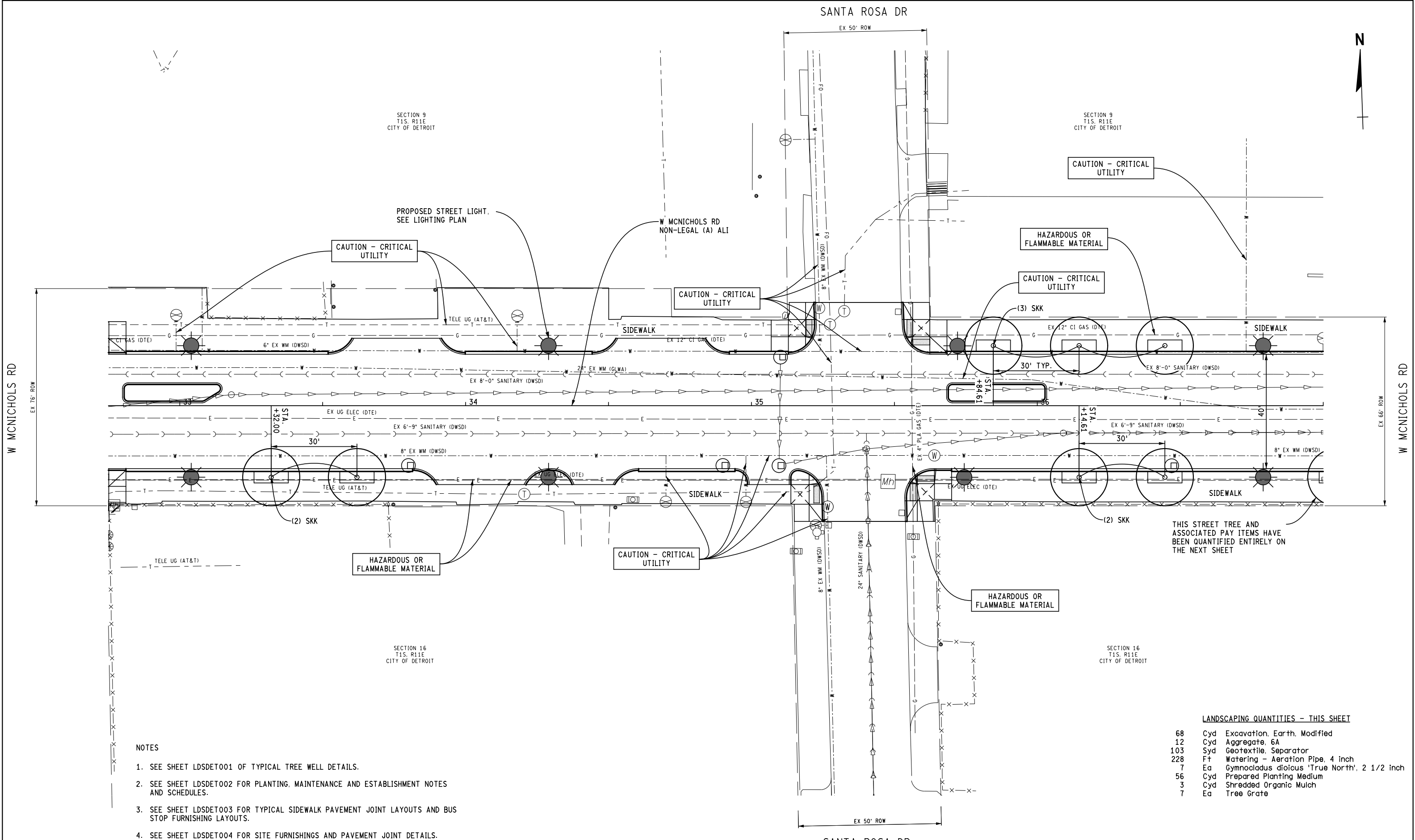
FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

LANDSCAPING SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	LNDS
STA 28+50 TO STA 32+75		005	97



SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

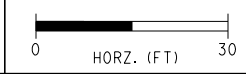
NOTES

1. SEE SHEET LDSDET001 OF TYPICAL TREE WELL DETAILS.
2. SEE SHEET LDSDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
3. SEE SHEET LDSDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
4. SEE SHEET LDSDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

LANDSCAPING QUANTITIES - THIS SHEET

68	Cyd	Excavation, Earth, Modified
12	Cyd	Aggregate, 6A
103	Syd	Geotextile, Separator
228	Ft	Watering - Aeration Pipe, 4 inch
7	Ea	Gymnocladus dioicus 'True North', 2 1/2 inch
56	Cyd	Prepared Planting Medium
3	Cyd	Shredded Organic Mulch
7	Ea	Tree Gate

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

LANDSCAPING SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	LNS
STA 32+75 TO 37+00		006	98

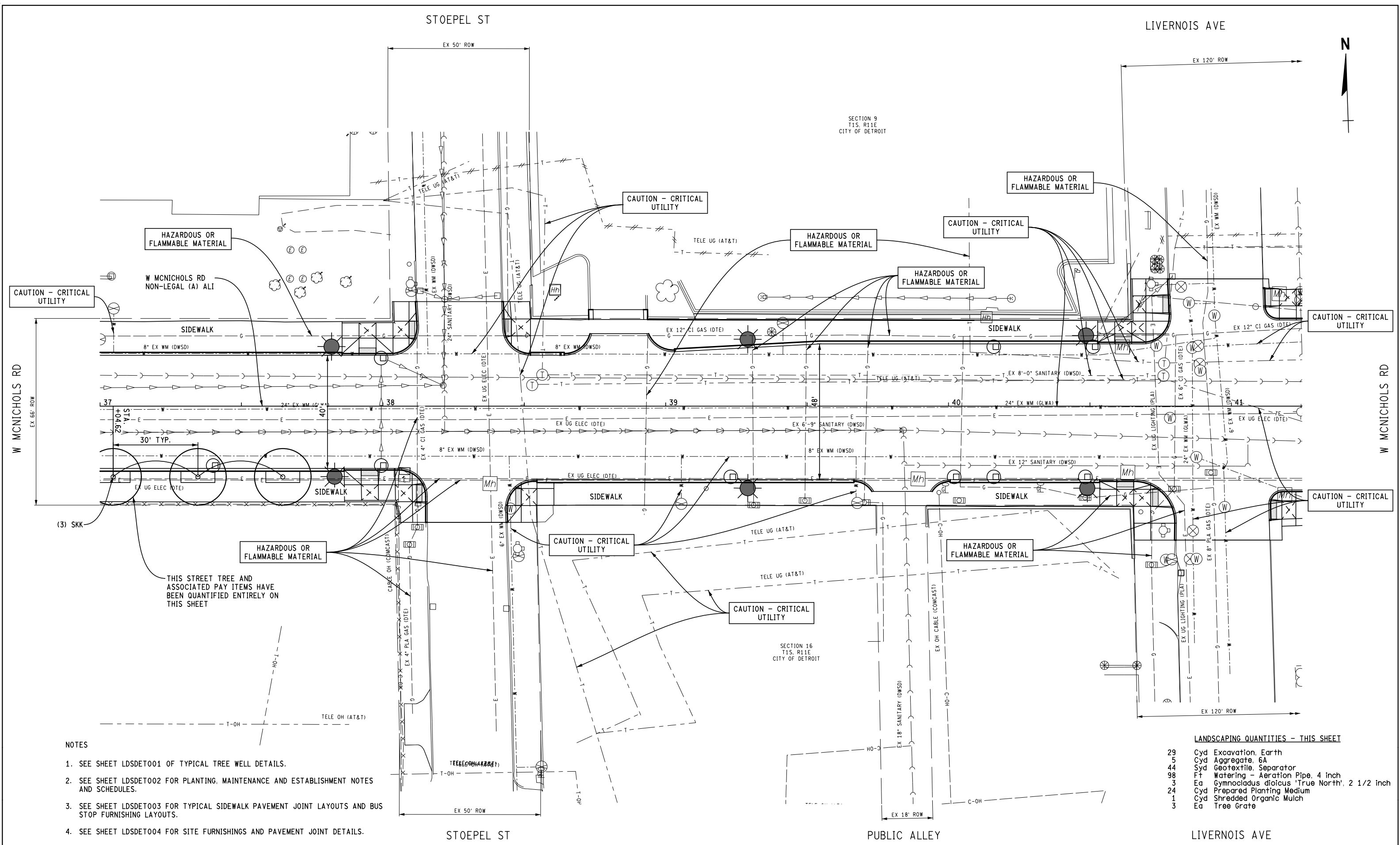
STOEPEL ST

LIVERNOIS AVE



SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT



HAZARDOUS OR FLAMMABLE MATERIAL

CAUTION - CRITICAL UTILITY

HAZARDOUS OR FLAMMABLE MATERIAL

CAUTION - CRITICAL UTILITY

HAZARDOUS OR FLAMMABLE MATERIAL

CAUTION - CRITICAL UTILITY

CAUTION - CRITICAL UTILITY

W MCNICHOLS RD
NON-LEGAL (A) ALI

HAZARDOUS OR FLAMMABLE MATERIAL

CAUTION - CRITICAL UTILITY

HAZARDOUS OR FLAMMABLE MATERIAL

CAUTION - CRITICAL UTILITY

CAUTION - CRITICAL UTILITY

HAZARDOUS OR FLAMMABLE MATERIAL

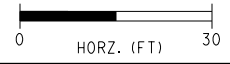
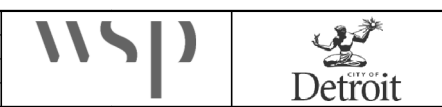
THIS STREET TREE AND
ASSOCIATED PAY ITEMS HAVE
BEEN QUANTIFIED ENTIRELY ON
THIS SHEET

- NOTES
- SEE SHEET LDSDET001 OF TYPICAL TREE WELL DETAILS.
 - SEE SHEET LDSDET002 FOR PLANTING, MAINTENANCE AND ESTABLISHMENT NOTES AND SCHEDULES.
 - SEE SHEET LDSDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS AND BUS STOP FURNISHING LAYOUTS.
 - SEE SHEET LDSDET004 FOR SITE FURNISHINGS AND PAVEMENT JOINT DETAILS.

LANDSCAPING QUANTITIES - THIS SHEET

29	Cyd	Excavation, Earth
5	Cyd	Aggregate, 6A
44	Syd	Geotextile, Separator
98	Ft	Watering - Aeration Pipe, 4 inch
3	Ea	Gymnocladus dioica 'True North', 2 1/2 inch
24	Cyd	Prepared Planting Medium
1	Cyd	Shredded Organic Mulch
3	Ea	Tree Grate

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

LANDSCAPING SHEET
MCNICHOLS STREETScape
STA 37+00 TO 41+25.00

DRAWING SHEET
MCN LNS 007
99

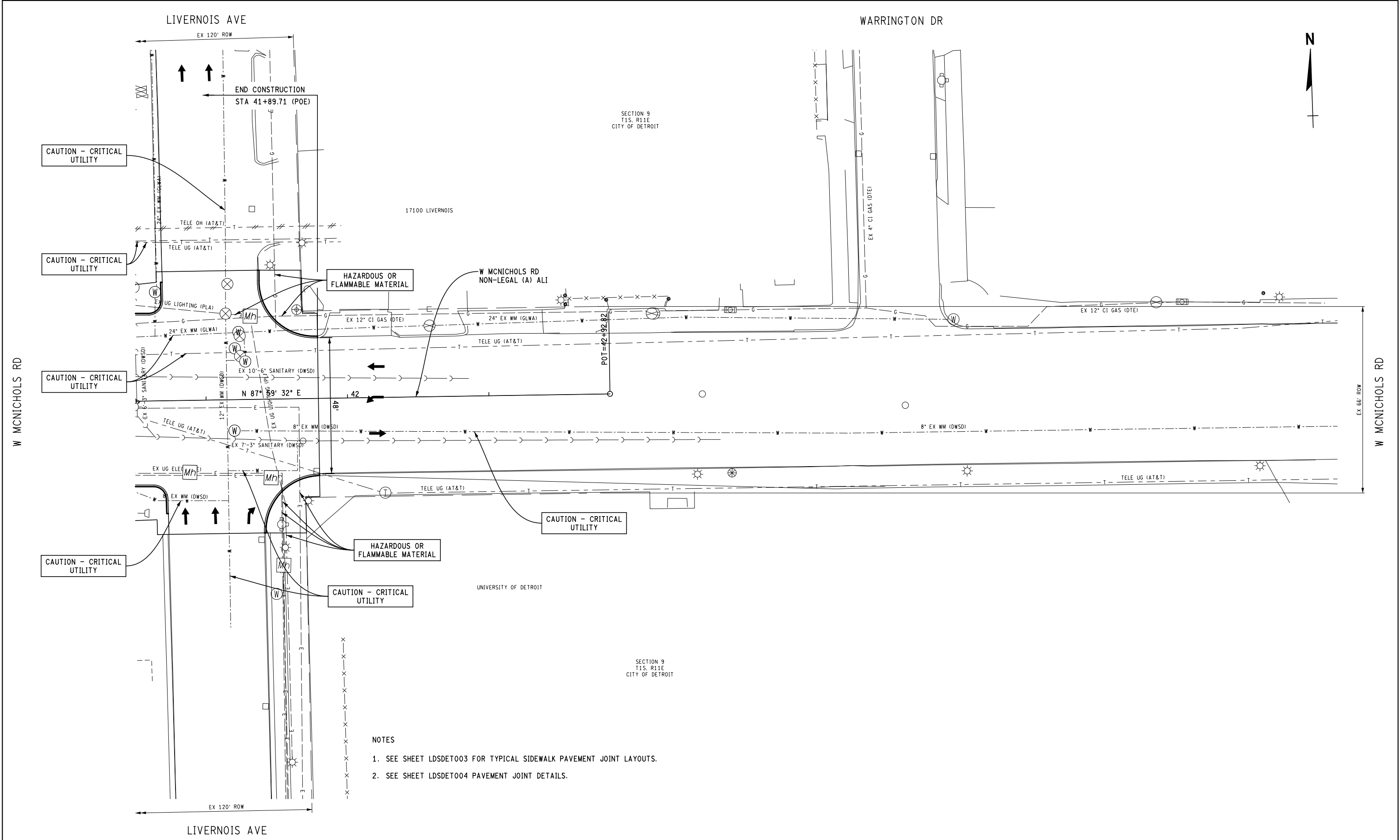
LIVERNOIS AVE

WARRINGTON DR



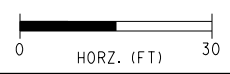
SECTION 9
T15, R11E
CITY OF DETROIT

SECTION 9
T15, R11E
CITY OF DETROIT



- NOTES
1. SEE SHEET LDSDET003 FOR TYPICAL SIDEWALK PAVEMENT JOINT LAYOUTS.
 2. SEE SHEET LDSDET004 PAVEMENT JOINT DETAILS.

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

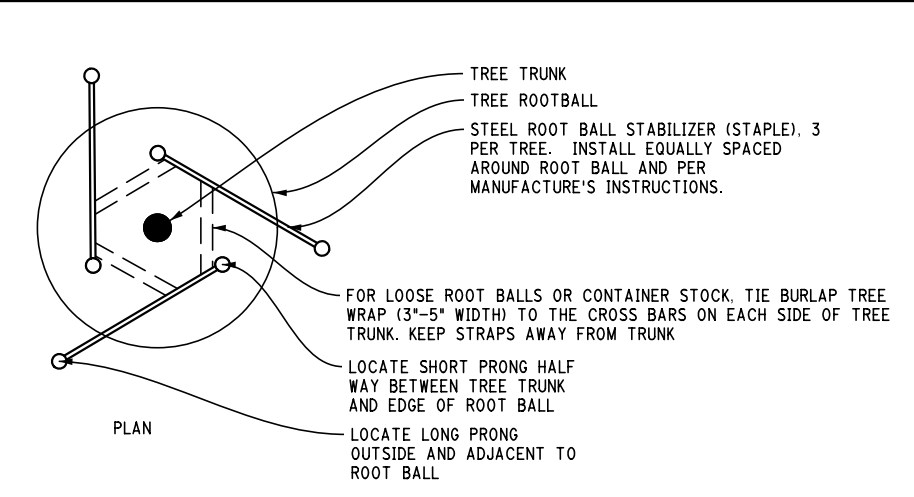
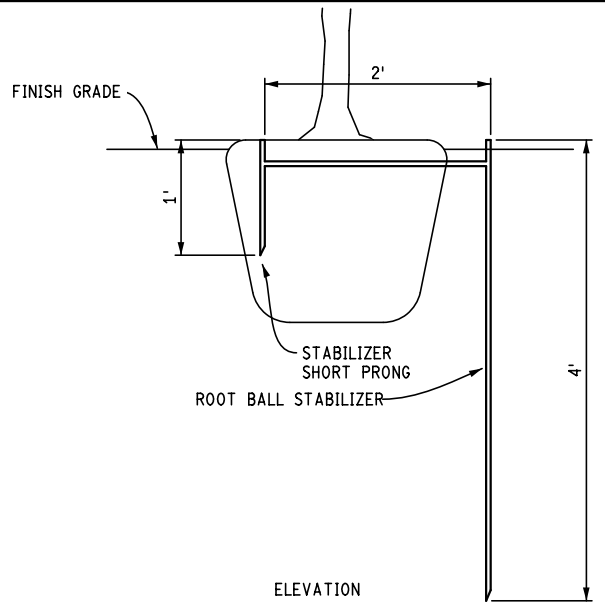
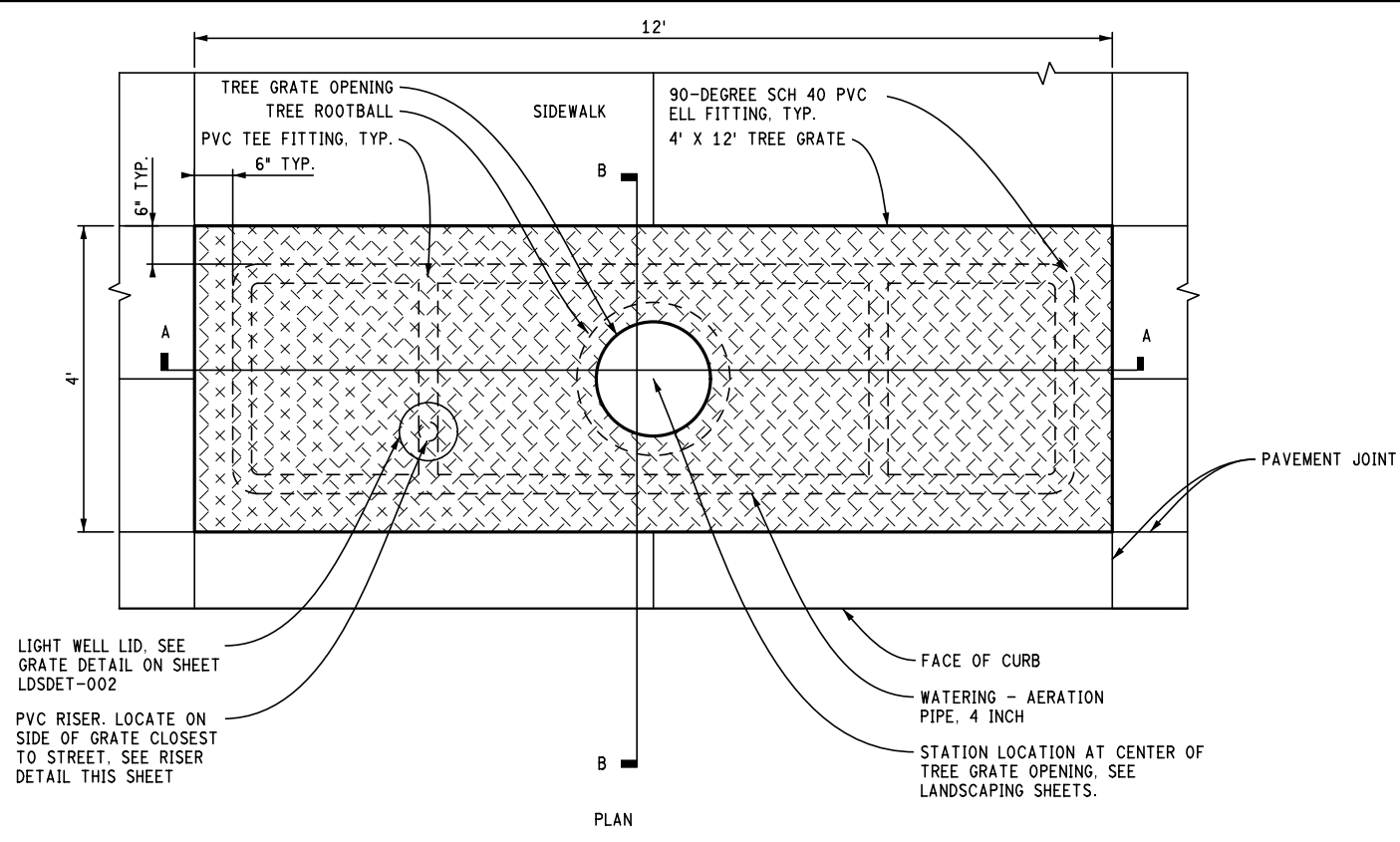


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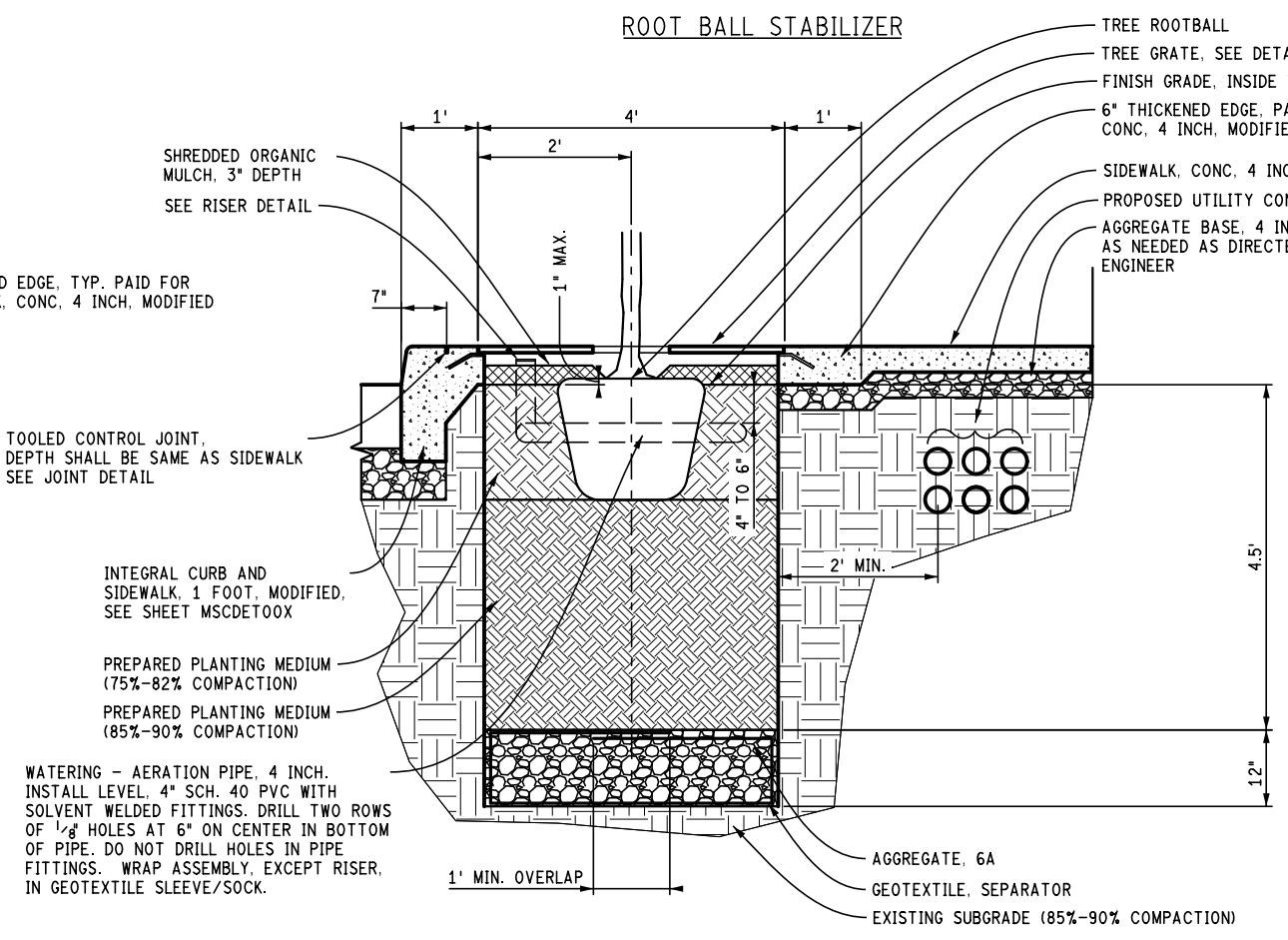
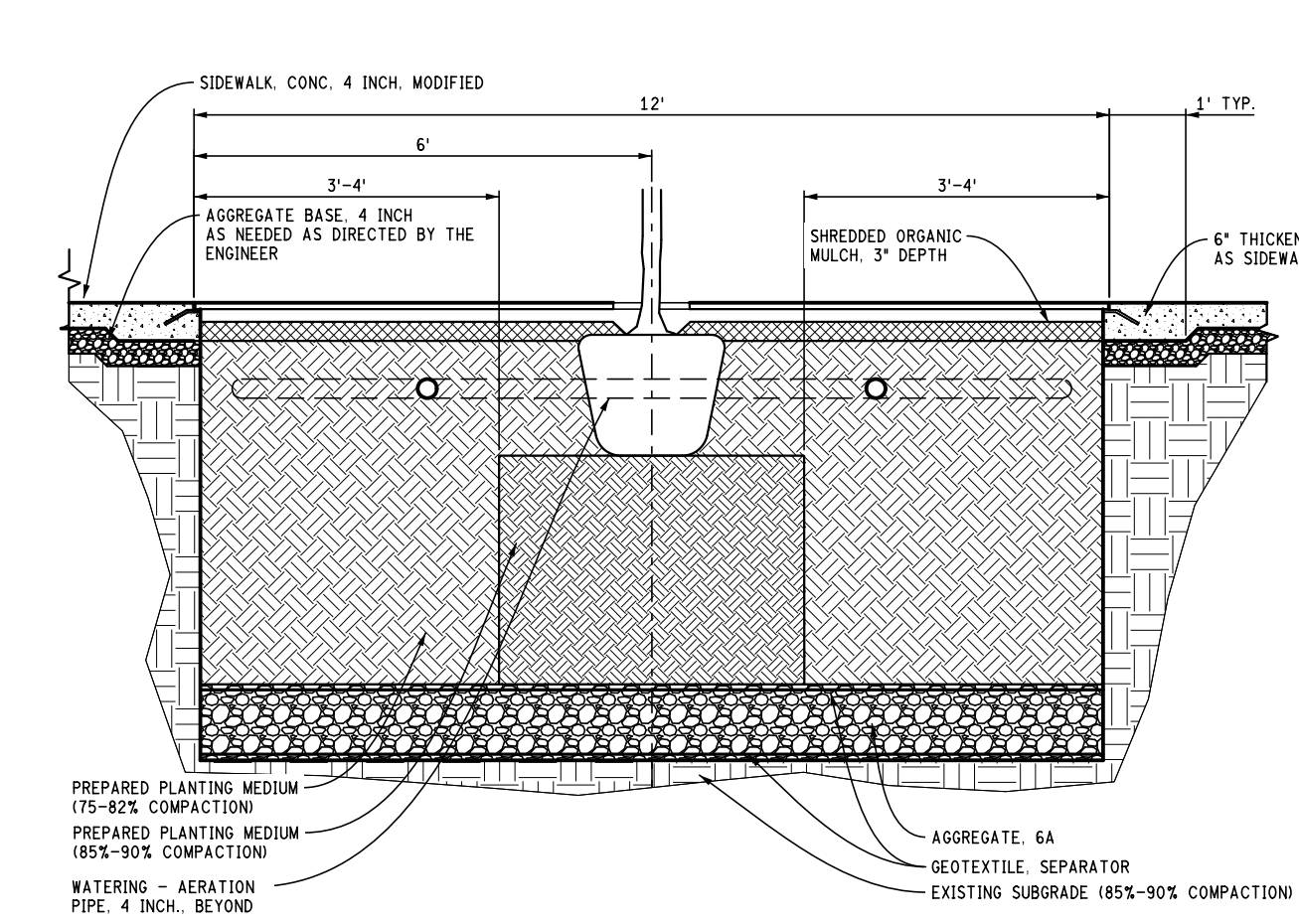
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MCNICHOLS STREETSCAPE

LANDSCAPING SHEET
MCNICHOLS STREETSCAPE
STA 41+25 TO STA 41+89.71 (POE)

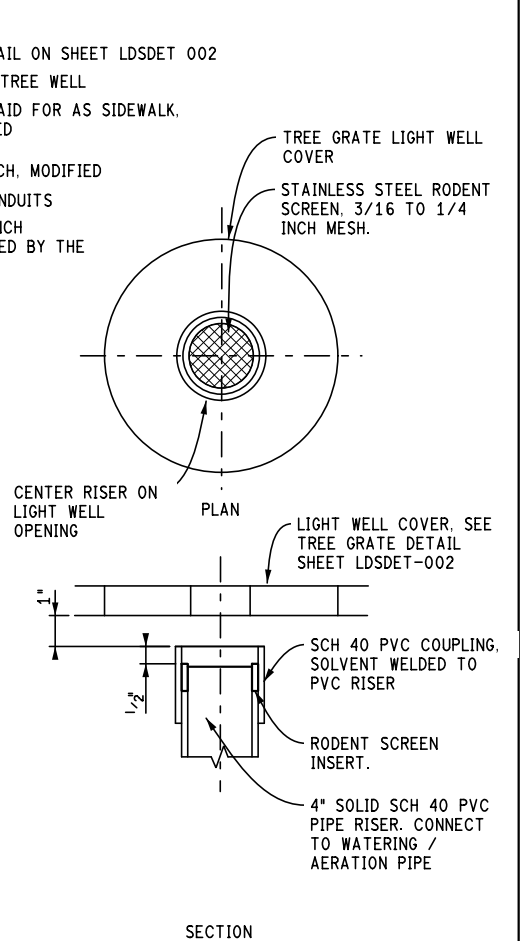
DRAWING SHEET
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100



- NOTES:
1. ONCE STABILIZER IS INSTALLED CUT AWAY BURLAP FROM UPPER 1/2 OF ROOTBALL. LEAVE TREE WRAP INTACT WITHIN 3 INCHES OF STABILIZERS. PLACE MANUFACTURER SUPPLIED SAFETY CAP ON EXPOSED ENDS OF STABILIZERS.
 2. ROOT BALL STABILIZER SHALL BE BY TREE STAPLE, INC. OR APPROVED EQUAL.
 3. VERIFY LOCATION OF UTILITIES AND PLACE ROOT STABILIZERS TO AVOID CONTACT.



- NOTES:
1. SEE PLANTING NOTES ON SHEET LDSDET-002 FOR ADDITIONAL TREE PLANTING REQUIREMENTS.



- NOTES:
1. RODENT SCREEN BY NIXALITE OF AMERICA, INC. OR APPROVED EQUAL.

TYPICAL TREE WELL DETAILS

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



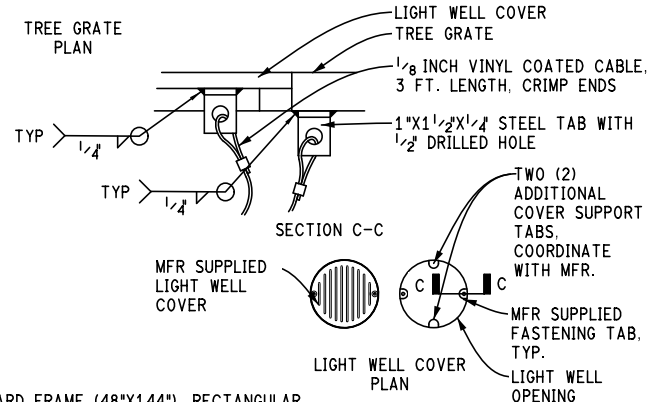
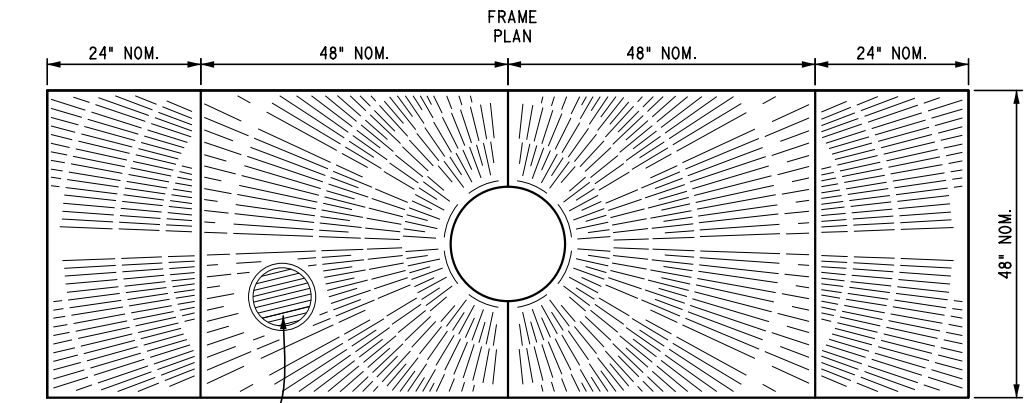
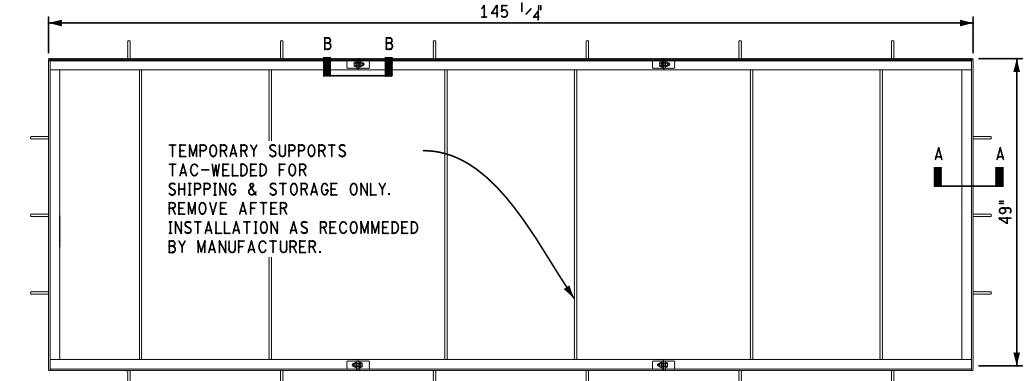
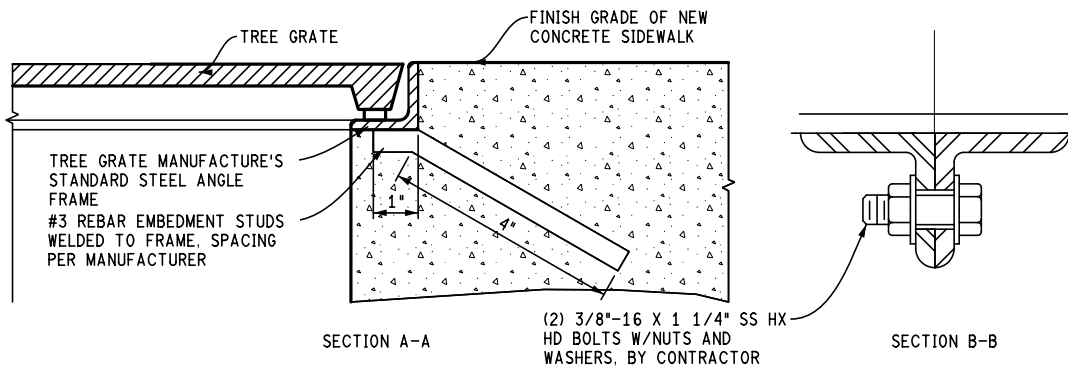
NO SCALE

DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

LANDSCAPING SHEET
MCNICHOLS STREETScape
LANDSCAPE DETAILS

DRAWING SHEET
MCN LDSDET 001
101



- ACCESS COVER CLOSEST TO STREET SHALL SERVE AS ACCESS POINT OF WATERING TUBE INSIDE THE TREE WELL. SEE NOTES.
- NOTES:
- TREE GRATE: SUNRAY TREE GRATE, MODEL 8854 BY EAST JORDAN IRON WORKS.
 - ACCESS PORTS: ONE
 - MATERIAL: GREY IRON
 - FINISH: NATURAL / UNFINISHED
 - TREE OPENING: 18" ROUND
 - ASSEMBLY SIZE: 48"x144"
 - MAXIMUM OPENING SIZE: 1/4 INCH
 - ADA COMPLIANT
 - CERTIFICATIONS: ASTM A48
 - TREE GRATE FRAME: GRATE MANUFACTURER'S STANDARD FRAME (48"x144"), RECTANGULAR.
 - TYPE: EMBEDDED
 - MATERIAL: STEEL (ASTM A36)
 - FINISH: BY MANUFACTURER'S STANDARD FLAT BLACK PAINTED FINISH.
 - INSTALL GRATE AND FRAME IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND DETAILS. PROVIDE SPREADERS OR ADEQUATE STAKING OF FORM WORK TO PREVENT THE FRAME FROM DEFORMING DURING CONCRETE PLACEMENT.
 - LIGHT WELLS SERVING WATERING-AERATION PIPE BELOW SHALL NOT BE FASTENED TO GRATE, UNLESS OTHERWISE INDICATED BY THE ENGINEER. TURN OVER FACTORY SUPPLIED LIGHT COVER SET SCREWS TO OWNER. COVERS SHALL BE ABLE TO SUPPORT WEIGHT WHEN NOT SECURED. COORDINATE ADDITIONAL SUPPORT TAB AS REQUIRED WITH MANUFACTURER AS SHOWN. WELD CABLE ATTACHMENT TABS ON UNDERSIDE OF LIGHT WELL COVER AND TREE GRATE. TETHER LIGHT WELL COVER TO TREE GRATE ATTACHMENT TABS WITH CABLE AS SHOWN.

TREE GRATE AND FRAME
NTS

LANDSCAPE MAINTENANCE SCHEDULE
PERFORM THE FOLLOWING MAINTENANCE TASKS

TASK	FREQUENCY	J	F	M	A	M	J	J	A	S	O	N	D	SCOPE OF WORK
PRUNING	AS NEEDED, INSPECT WEEKLY		✓	✓	✓	✓	✓	✓	✓	✓				PRUNE ONLY DEAD OR BROKEN BRANCHES. DO NOT USE PRUNING PAINT. (2)
SUPPLEMENTAL WATERING	WEEKLY.			✓	✓	✓	✓	✓	✓	✓				SEE SUPPLEMENTAL WATERING REQUIREMENTS ON THIS SHEET
ADJUSTING PLANTS	AS NEEDED, INSPECT WEEKLY			✓	✓	✓	✓	✓	✓	✓				ADJUST PLANTINGS THAT ARE NOT PLUMB OR HAVE SHIFTED.
PLANT REPLACEMENTS	ONCE PER GROWING SEASON, AS NEEDED.			✓	✓						✓	✓		REPLACE DISEASED, DYING OR DEAD MATERIALS AT NO ADDITIONAL COST. (1)
DEBRIS REMOVAL	AS NEEDED, INSPECT WEEKLY			✓	✓	✓	✓	✓	✓	✓				REMOVE LITTER ACCUMULATED IN OR ADJACENT TO TREE WELLS.
PLANT BRACING AND TREE WRAP	AS NEEDED, INSPECT WEEKLY			✓	✓	✓	✓	✓	✓	✓				ADJUST OR REPLACE ROOTBALL STABILIZER AS REQUIRED. REPAIR TREE WRAP AS REQUIRED. (3)
INSECT, DISEASE AND ANIMAL CONTROL	AS NEEDED, INSPECT WEEKLY			✓	✓	✓	✓	✓	✓	✓				SPRAY FOR INSECT AND FUNGAL INFESTATIONS. PESTICIDE AND FUNGICIDE APPLICATIONS SHALL BE BY LICENSED APPLICATORS.

- ALL PLANT MATERIALS DETERMINED TO BE UNACCEPTABLE BY THE ENGINEER BY THE END OF THE ESTABLISHMENT PERIOD SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER. REPLACE PLANTS IN ACCORDANCE WITH SPECIFIED SEASONAL LIMITATIONS (MARCH 1 TO MAY 15 AND OCTOBER 1 UNTIL GROUND FREEZES).
- REMOVE ONLY DEAD, DYING OR BROKEN BRANCHES. DO NOT PRUNE FOR SHAPE UNLESS DIRECTED BY THE ENGINEER AND THEN ONLY ACCORDING TO HORTICULTURAL BEST PRACTICES AND ANSI A 300. DO NOT CUT TREE LEADERS. DO NOT APPLY PRUNING PAINT TO WOUNDS.
- ROOTBALL STABILIZER MAY REMAIN IN PLACE AT THE END OF ESTABLISHMENT PERIOD. REMOVE ALL TREE WRAP AT THE END OF ESTABLISHMENT PERIOD.

PLANT SCHEDULE

KEY	COMMON NAME	BOTANICAL NAME	SIZE / CONDITION	SPACING
SKK	SEEDLESS KENTUCKY COFFEETREE	GYMNOCLADUS DIOICA 'UMNSYNER' TRUE NORTH	2 1/2" CAL B&B	AS SHOWN

PLANTING NOTES

- MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES BEFORE BEGINNING WORK. REPORT ANY CONFLICTS TO THE ENGINEER PRIOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITY LINES.
- UNLESS INDICATED FOR REMOVAL, PROTECT EXISTING UTILITIES, AND FACILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE CAUSED TO EXISTING FACILITIES AND UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- PRIOR TO PLANTING, VERIFY CONDITIONS IN TREE WELLS ARE AS DETAILED. OBTAIN APPROVAL FROM ENGINEER PRIOR TO PROCEEDING.
- TREE WELL LOCATIONS INDICATED ON THE PLANS ARE COORDINATED WITH OTHER SITE ELEMENTS. HOWEVER, THE CONTRACTOR MAY BE REQUIRED TO ADJUST THE LOCATION OF TREE WELLS TO AVOID CONFLICTS FOUND IN THE FIELD, AS APPROVED BY THE ENGINEER.
- MARK PLANT LOCATIONS AND TREE WELL EXCAVATIONS OUTLINES. OBTAIN APPROVAL FROM THE ENGINEER OF ALL LOCATIONS PRIOR TO INSTALLATION. THE ENGINEER WILL REVIEW THE LAYOUT AND APPROVE NECESSARY ADJUSTMENTS.
- THE ENGINEER RESERVES THE RIGHT TO INSPECT ALL PLANT MATERIALS BEFORE OR AFTER PLANTING. PLANT MATERIAL MAY BE REJECTED AT ANY TIME DUE TO CONDITION, FORM, DAMAGE AND IMPROPER INSTALLATION.
- ALL PLANT SUBSTITUTION REQUESTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL 10 WORKING DAYS MINIMUM PRIOR TO ORDERING PLANTS. SUBSTITUTIONS ARE NOT PERMITTED UNLESS AUTHORIZED.
- PROVIDE IDENTIFICATION TAG FROM THE SUPPLYING NURSERY SHOWING COMMON AND BOTANICAL PLANT NAMES FOR ONE OR MORE PLANTS OF EACH SPECIES DELIVERED TO THE SITE.
- PROTECT ALL PLANTS AGAINST HEAT, SUN, WIND AND FROST DURING TRANSPORTATION TO THE SITE AND WHILE BEING HELD AT THE SITE. DO NOT STORE PLANTS IN TOTAL DARKNESS MORE THAN ONE DAY.
- PLANT MATERIALS: ALL PLANT MATERIALS SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF ANSI Z60.1 OF THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION. PLANTS SHALL BE HEALTHY, VIGOROUS, FREE OF DISEASES, INSECT PESTS AND THEIR EGGS. PLANT MATERIALS SHALL BE WELL FORMED WITH FULL FOLIAGE MASS. PLANT ROOT BALLS, BRANCH STRUCTURE AND TRUNKS SHALL NOT BE DAMAGED. ROOT GROWTH SHALL BE TO THE EDGE OF CONTAINERS, BUT THERE SHALL BE LITTLE OR NO CIRCLING ROOTS OUTSIDE THE ROOT BALL OF PLANTINGS. ROOT BOUND PLANTS AND PLANT CONDITIONS THAT DO NOT CONFORM TO THESE STANDARDS SHALL BE REJECTED.
- THIN CIRCLING ROOTS SHALL BE CUT 3-4 TIMES AT A DEPTH OF APPROXIMATELY 1/2 INCH AT VARIOUS LOCATIONS AROUND THE ROOT BALL AT TIME OF INSTALLATION.
- INSTALL ALL PLANT MATERIAL IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS.

SUPPLEMENTAL WATERING REQUIREMENTS

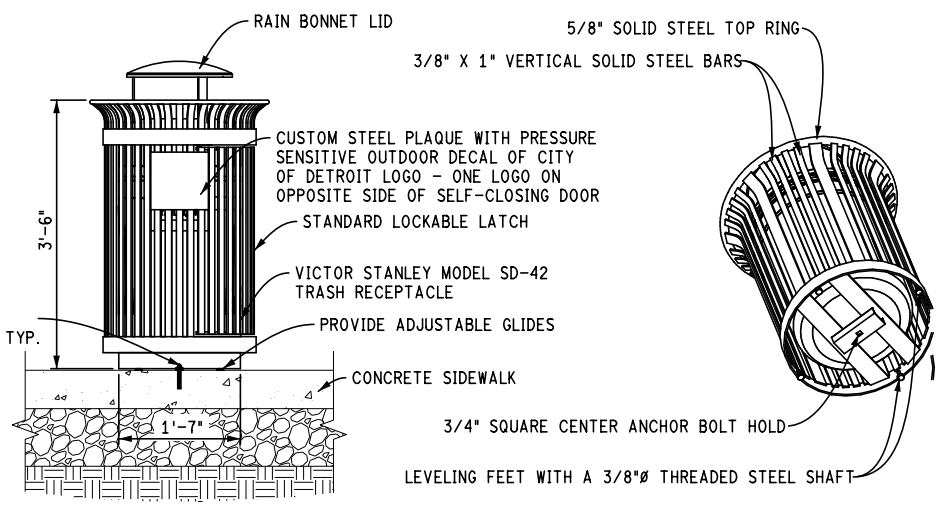
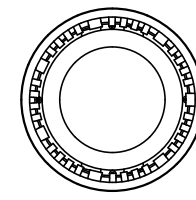
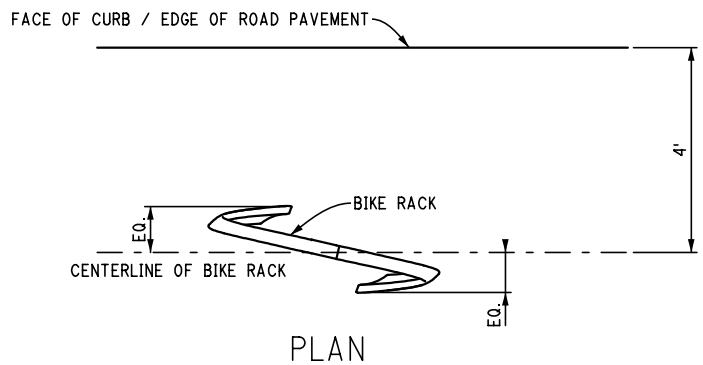
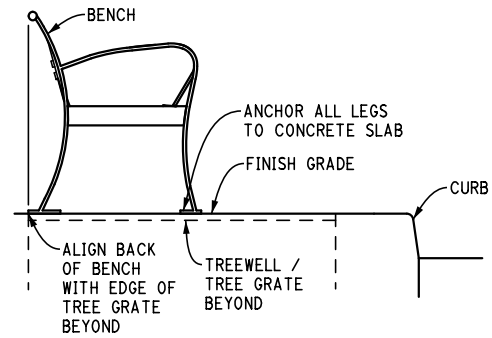
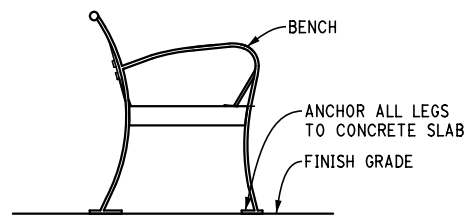
- INITIAL WATERING: WATER ALL PLANTS IMMEDIATELY AFTER INSTALLATION. FLOOD PLANTS TWICE DURING FIRST TWENTY-FOUR HOUR PERIOD FOLLOWING PLANTING. INITIAL WATERING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR TREE PLANTING AND NO SEPARATE PAYMENT SHALL BE MADE. ALL OTHER WATERING SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR WATERING AND CULTIVATING.
- SUPPLY THE FOLLOWING AMOUNTS OF WATER TO PLANTS DURING THE ESTABLISHMENT AND MAINTENANCE PERIOD:
 - TREES: 35 GALLONS PER WEEK. FILL WATERING TUBES (APPROXIMATELY 20 GALLONS). THEN PROVIDE THE BALANCE OF REQUIRED WATER (APPROXIMATELY 15 GALLONS) APPLIED DIRECTLY AROUND THE ROOTBALL.
- IN PERIODS OF HOT WEATHER, TEMPERATURES ABOVE 90 DEGREES FAHRENHEIT, ADDITIONAL SUPPLEMENTAL WATERING SHALL BE REQUIRED AND AS DIRECTED BY THE ENGINEER.
- APPLY ROOT STIMULATOR DURING INITIAL WATERING, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ROOT STIMULATOR SHALL BE AN ORGANIC / NON-CHEMICAL LIQUID CONCENTRATE BIO-STIMULANT AND ROOT STIMULATOR, SIMILAR SUPER SEAWEED BY MICROLIFE. ALL OTHER WATERING SHALL INCLUDE A NITROGEN-ENRICHED SOLUTION AS SPECIFIED.

ESTABLISHMENT AND MAINTENANCE REQUIREMENTS

- THE ESTABLISHMENT PERIOD BEGINS IMMEDIATELY AFTER ALL PLANTINGS ARE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND ACCEPTANCE OF THE PLANTINGS HAS BEEN ISSUED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WATER AND CARE FOR PLANTINGS UNTIL ALL PLANTINGS ARE REVIEWED AND ACCEPTED BY THE ENGINEER.
- PERFORM ACTIVITIES IDENTIFIED IN THE MAINTENANCE SCHEDULE ON THIS SHEET FOR THE DURATION OF THE ESTABLISHMENT PERIOD.
- PERIOD OF ESTABLISHMENT: 2 GROWING SEASONS. A GROWING SEASON IS FROM MARCH 1 TO NOVEMBER 1.
- MAINTENANCE AND ESTABLISHMENT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR WATERING AND CULTIVATING, FIRST SEASON AND WATERING AND CULTIVATING, SECOND SEASON.

PLANTING NOTES (CONT'D)

- REMOVE ALL PLANT BINDING MATERIALS AT THE TIME OF PLANTING. CONTAINERS SHALL BE COMPLETELY REMOVED FROM THE PLANT ROOT BALL AT TIME OF PLANTING. ALL WIRE BASKETS, TREE ROOT BALL WRAP/BURLAP, AND OTHER BINDINGS SHALL BE CUT AND REMOVED FROM THE UPPER 1/2 OF ROOT BALL. BINDINGS AROUND THE TRUNKS OF TREES SHALL BE REMOVED WITHOUT EXCEPTION. RETAIN PLANT TAGS AND TREE WRAP ON PLANTINGS UNTIL FINAL INSPECTION AND APPROVAL OF PLANT MATERIAL BY THE ENGINEER.
- ALL PLANTS SHALL BE SET PLUMB AND HAVE THE BEST SIDE OF PLANT FACING THE STREET.
- SCARIFY EDGES OF EXCAVATION WHERE SMOOTHED DURING EXCAVATION.
- REMOVE EXCESS DEBRIS, MULCH AND LOOSE SOIL TO EXPOSE THE NATURAL ROOT COLLAR/FLARE PRIOR TO INSTALLATION.
- TREES SHALL BE PLANTED SO ROOT COLLAR/FLARE IS SLIGHTLY ABOVE (1" MAX.) ADJACENT GRADE. SET TREE PLUMB AND IN CENTER OF PLANTING PIT AS DETAILED.
- DO NOT DISTURB ROOT BALL WHEN PLANTING. CRACKED OR OTHERWISE DAMAGED ROOT BALLS SHALL BE REJECTED.
- INSTALL TREE ROOT BALL STABILIZERS ON ALL TREES AS DETAILED.
- WHEN BACKFILLING AROUND PLANT ROOT BALL, TAMP PLANTING SOIL AND WATER THOROUGHLY. ADD REMAINING PLANTING SOIL AND THEN WATER UNTIL NO MORE WATER IS ABSORBED BY THE SOIL.
- INSTALL A LAYER OF SHREDDED ORGANIC MULCH OVER ENTIRE TREE WELL AREA AS DETAILED.
- ALL PLANT MATERIAL HEIGHTS SPECIFIED ARE SHOWN BEFORE PRUNING. ALL DEPTHS DETAILED ARE SHOWN AFTER SETTLING.



SECTION (BUS ISLAND CONDITION)

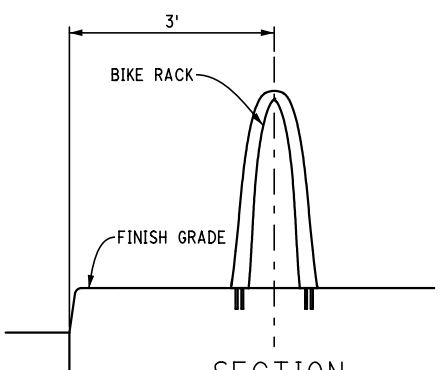
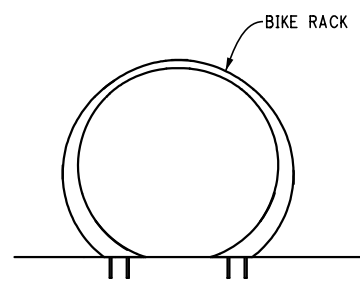
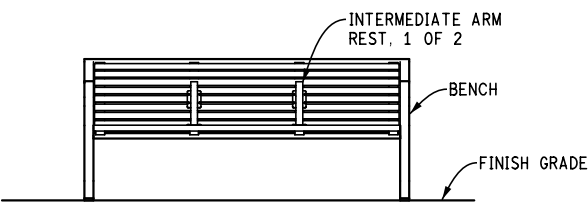
SECTION (BUS STOP CONDITION)

PLAN

PLAN

FRONT ELEVATION

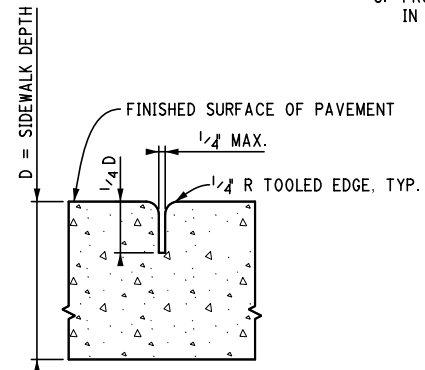
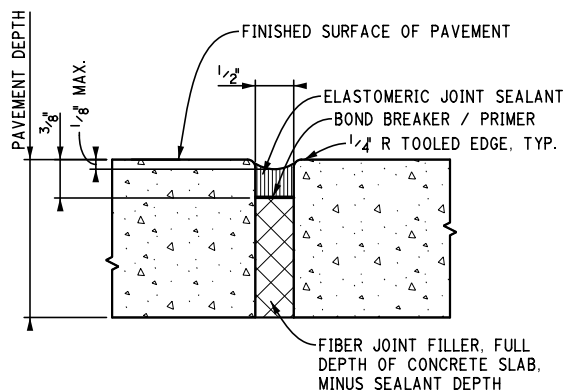
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ELEVATION

SECTION

BIKE RACK



EXPANSION JOINT SECTION

CONTROL JOINT SECTION

SIDEWALK PAVEMENT JOINTS

LITTER RECEPTACLE

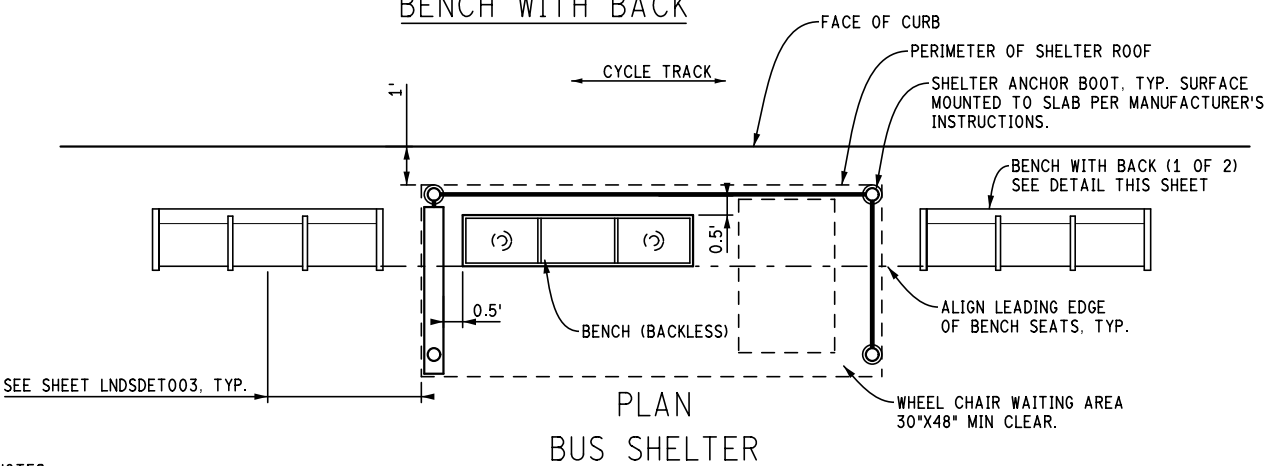
- NOTES:
- BASIS OF BENCH SHALL BE STEELITES RB COLLECTION BY VICTOR STANLEY, MODEL RBF-28.
 - MOUNTING: MANUFACTURER'S STANDARD SURFACE MOUNT
 - FINISH: MANUFACTURER'S STANDARD POWDERCOAT, BLACK
 - ARM RESTS: SIDES AND INTERMEDIATE
 - LENGTH: 6' FEET, NOMINAL
 - INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - MARK BENCH LOCATION AND ORIENTATION FOR APPROVAL PRIOR TO INSTALLATION.
 - PROTECT BENCH THROUGHOUT CONSTRUCTION. CLEAN ALL DEBRIS FROM BENCH PRIOR TO FINAL ACCEPTANCE.
 - SECURE TO PAVEMENT WITH STAINLESS STEEL EXPANSION ANCHORS, ONE PER LEG. MINIMUM 2" EMBEDMENT.

- NOTES:
- BASIS OF DESIGN BIKE RACK SHALL BE LOOP MODEL BY LANDSCAPE FORMS.
 - MOUNTING: MANUFACTURER'S STANDARD EMBEDDED
 - FINISH: MANUFACTURER'S STANDARD POWDERCOAT, MATTE BLACK
 - INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - MARK BIKE RACK LOCATION FOR APPROVAL PRIOR TO INSTALLATION.
 - ORIENT RACK AS SHOWN, UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLANS.
 - PROTECT BIKE RACKS THROUGHOUT CONSTRUCTION. CLEAN ALL DEBRIS FROM RACK PRIOR TO FINAL ACCEPTANCE.

- NOTES:
- TRASH RECEPTACLE TO BE VICTOR STANLEY, MODEL SD-42 WITH RAIN BONNET LID, 36 GALLON CAPACITY.
 - ALL FABRICATED COMPONENTS ARE STEEL HOT-DIPPED GALVANIZED WITH BLACK POWDER COAT FINISH.
 - SURFACE MOUNT USING (1) 1/2" X 4" S.S. THREADED ANCHOR RODS. FILL HOLES WITH ANCHORING ADHESIVE/EPOXY.
 - SEE LAYOUT PLANS FOR TRASH RECEPTACLE LOCATIONS. CONFIRM ALL TRASH RECEPTACLE LOCATIONS AND ORIENTATIONS WITH ENGINEER PRIOR TO INSTALLATION.
 - INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE HIGH DENSITY PLASTIC LINER. DRILL 3/4" DRAINAGE HOLES IN BOTTOM OF LINER.

- NOTES:
- EXCEPT FOR THE JOINT, LEAVE NO EMBEDDED TOOL MARKS IN THE SURFACE OF FINISHED CONCRETE.

BENCH WITH BACK



PLAN BUS SHELTER

- NOTES:
- BASIS OF DESIGN BUS SHELTER AND SHELTER BENCH SHALL BE ECLIPSE SERIES BY BRASCO INTERNATIONAL. SEE SPECIFICATIONS FOR OPTIONS.
 - SIZE: 5'X12' SHELTER AND 6' BENCH
 - INSTALL PER MANUFACTURE'S WRITTEN INSTRUCTIONS.
 - MARK SHELTER LOCATION FOR APPROVAL PRIOR TO INSTALLATION.
 - PROTECT SHELTER AND BENCH THROUGHOUT CONSTRUCTION. CLEAN ALL DEBRIS FROM SHELTER AND BENCH PRIOR TO FINAL ACCEPTANCE.
 - SECURE TO PAVEMENT WITH MANUFACTURE RECOMMENDED STAINLESS STEEL ANCHORS. MINIMUM EMBEDMENT PER MANUFACTURE'S INSTRUCTIONS.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION

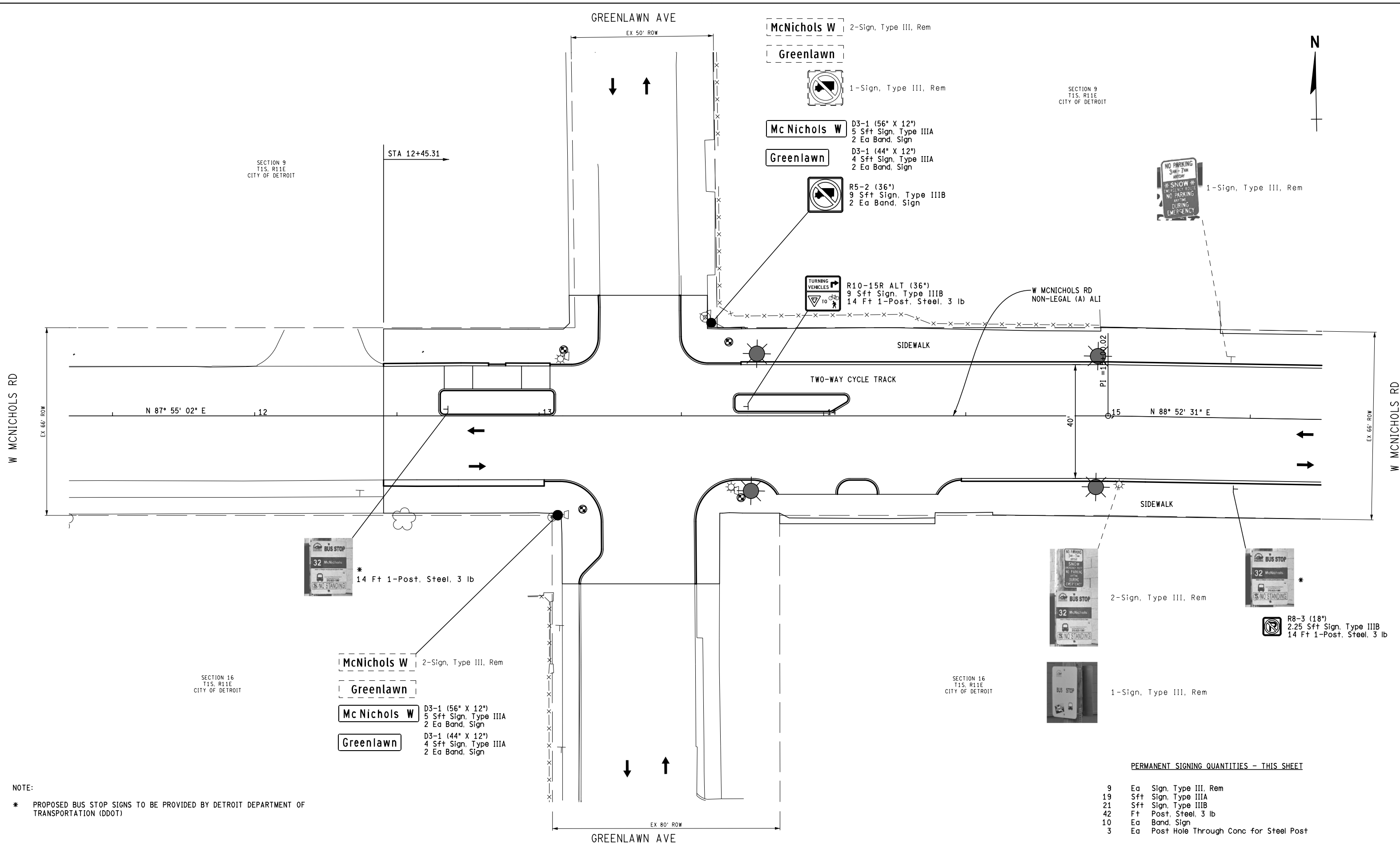


NO SCALE

DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

LANDSCAPING SHEET	DRAWING	SHEET
MCNICHOLS STREETScape	MCN	104
LANDSCAPE DETAILS	LDSDET	004



SECTION 9
T1S, R11E
CITY OF DETROIT

W MCNICHOLS RD
EX 66' ROW

W MCNICHOLS RD
EX 66' ROW

SECTION 16
T1S, R11E
CITY OF DETROIT

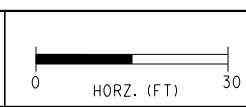
SECTION 16
T1S, R11E
CITY OF DETROIT

NOTE:
* PROPOSED BUS STOP SIGNS TO BE PROVIDED BY DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)

PERMANENT SIGNING QUANTITIES - THIS SHEET

- 9 Ea Sign, Type III, Rem
- 19 Sft Sign, Type IIIA
- 21 Sft Sign, Type IIIB
- 42 Ft Post, Steel, 3 lb
- 10 Ea Band, Sign
- 3 Ea Post Hole Through Conc for Steel Post

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

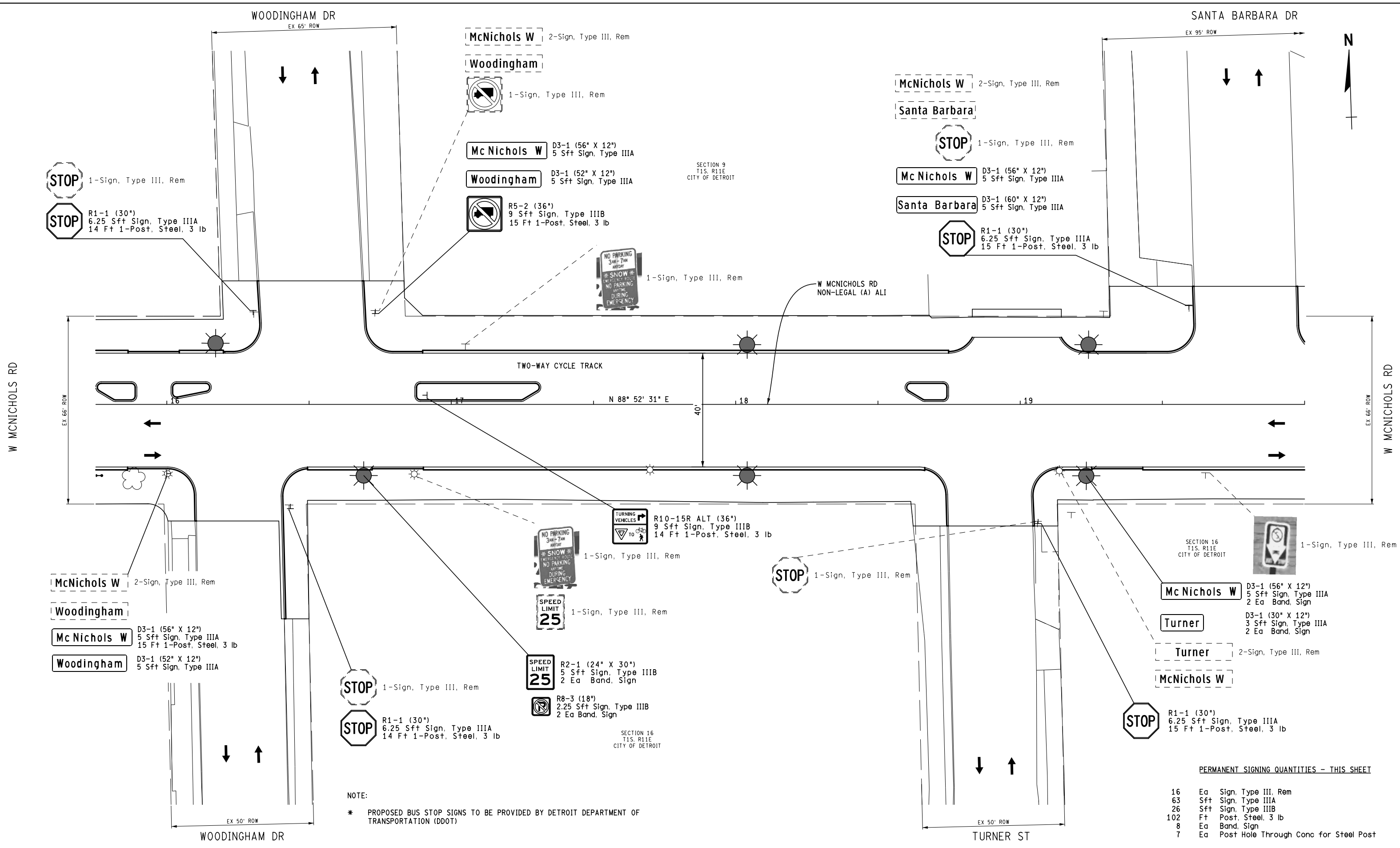


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

SIGNING SHEET
MCNICHOLS STREETScape
STA 12+45.31 TO STA 15+75

DRAWING SHEET
MCN SIGN 001
105



SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

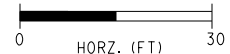
SECTION 16
T1S, R11E
CITY OF DETROIT

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PERMANENT SIGNING QUANTITIES - THIS SHEET

16	Ea	Sign, Type III, Rem
63	Sft	Sign, Type IIIA
26	Sft	Sign, Type IIIB
102	Ft	Post, Steel, 3 lb
8	Ea	Band, Sign
7	Ea	Post Hole Through Conc for Steel Post

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MKNICHOLS STREETScape

SIGNING SHEET
MKNICHOLS STREETScape
STA 15+75 TO STA 20+00

DRAWING SHEET
MKN SIGN 002
106

SANTA BARBARA DR

PENNINGTON DR



SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

TURNING VEHICLES
R10-15R ALT (36")
9 Sft Sign, Type IIIB
14 Ft 1-Post, Steel, 3 lb

STOP 1-Sign, Type III, Rem

STOP R1-1 (30")
6.25 Sft Sign, Type IIIA
14 Ft 1-Post, Steel, 3 lb

Pennington 2-Sign, Type III, Rem

McNichols W 1-Sign, Type III, Rem

McNichols W D3-1 (56" X 12")
5 Sft Sign, Type IIIA

Pennington D3-1 (48" X 12")
4 Sft Sign, Type IIIA

R5-2 (36")
9 Sft Sign, Type IIIB
15 Ft 1-Post, Steel, 3 lb

TURNING VEHICLES
R10-15R ALT (36")
9 Sft Sign, Type IIIB
14 Ft 1-Post, Steel, 3 lb

W McNichols Rd
NON-LEGAL (A) ALI

TWO-WAY CYCLE TRACK

N 88° 52' 31" E

W McNichols Rd
EX 66' ROW

W McNichols Rd
EX 66' ROW

NO PARKING
3AM-7AM
ANYDAY
NO PARKING
DURING
EMERGENCY

1-Sign, Type III, Rem

R8-3 (18")
2.25 Sft Sign, Type IIIB
2 Ea Band, Sign

SECTION 16
T1S, R11E
CITY OF DETROIT

STOP 1-Sign, Type III, Rem

McNichols W D3-1 (56" X 12")
5 Sft Sign, Type IIIA
2 Ea Band, Sign

Tuller D3-1 (28" X 12")
3 Sft Sign, Type IIIA
2 Ea Band, Sign

McNichols W 2-Sign, Type III, Rem

Tuller

TO SOUTH LODGE FWY
10

1-Sign, Type II, Rem

TO SOUTH LODGE FWY
10

M8-1a (24" X 60")
10 Sft Sign, Type IIA
2 Ea Band, Sign

NO PARKING
3AM-7AM
ANYDAY
NO PARKING
DURING
EMERGENCY

1-Sign, Type III, Rem

R8-3 (18")
2.25 Sft Sign, Type IIIB
2 Ea Band, Sign

STOP R1-1 (30")
6.25 Sft Sign, Type IIIA
15 Ft 1-Post, Steel, 3 lb

PERMANENT SIGNING QUANTITIES - THIS SHEET

- 1 Ea Sign, Type II, Rem
- 9 Ea Sign, Type III, Rem
- 10 Sft Sign, Type IIIA
- 30 Sft Sign, Type IIIA
- 33 Sft Sign, Type IIIB
- 72 Ft Post, Steel, 3 lb
- 10 Ea Band, Sign
- 5 Ea Post Hole Through Conc for Steel Post

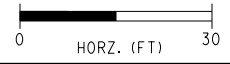
NOTE:
* PROPOSED BUS STOP SIGNS TO BE PROVIDED BY DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)

SECTION 16
T1S, R11E
CITY OF DETROIT

TULLER ST

LILAC ST

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

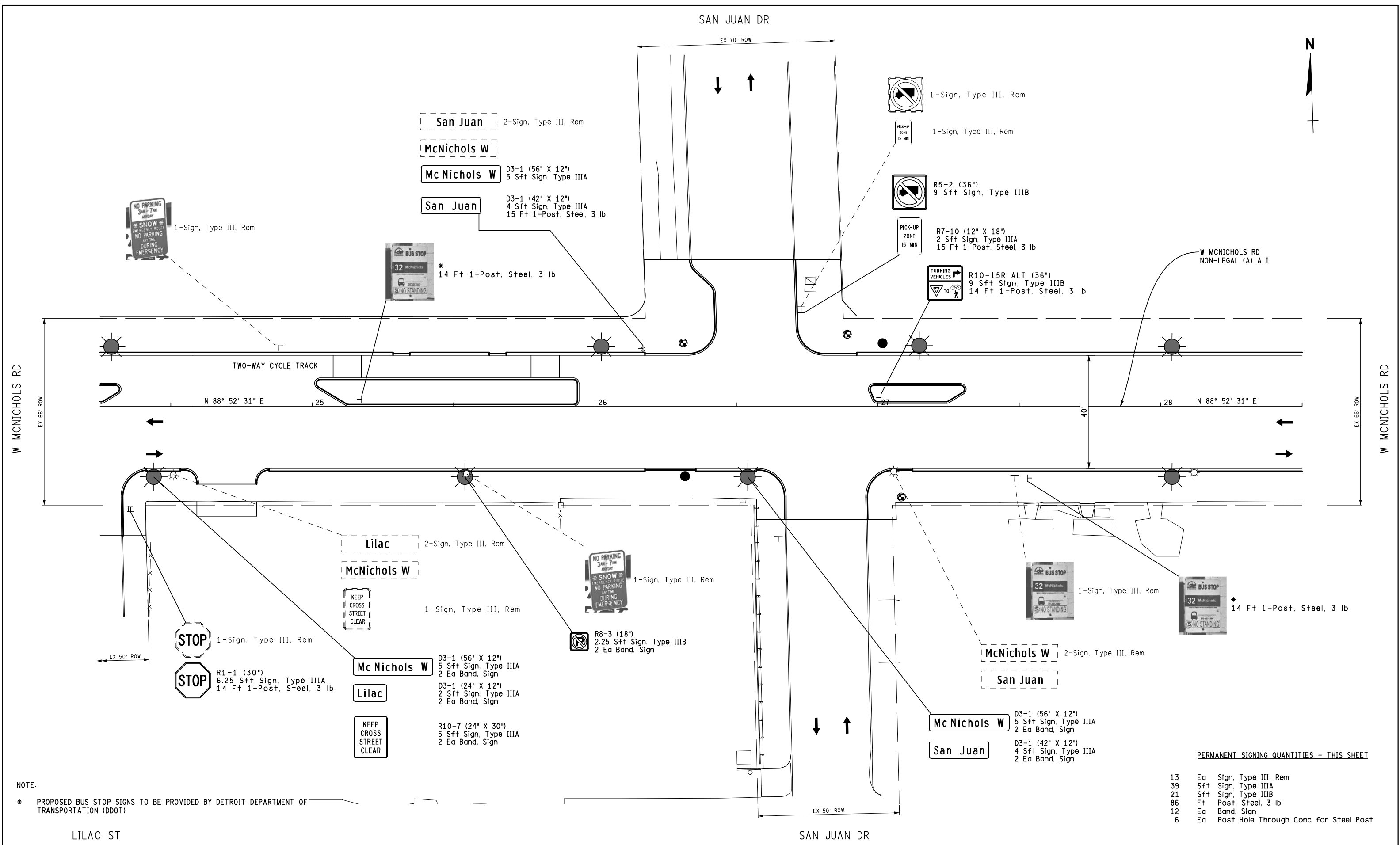


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

SIGNING SHEET
MCNICHOLS STREETScape
STA 20+00 TO STA 24+25

DRAWING SHEET
MCN SIGN 003
107



W MCNICHOLS RD

W MCNICHOLS RD

SAN JUAN DR

EX 66' ROW

EX 66' ROW

EX 50' ROW

N 88° 52' 31" E

N 88° 52' 31" E

LILAC ST

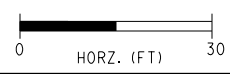
SAN JUAN DR

NOTE:
* PROPOSED BUS STOP SIGNS TO BE PROVIDED BY DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)

PERMANENT SIGNING QUANTITIES - THIS SHEET

13	Ea	Sign, Type III, Rem
39	Sft	Sign, Type IIIA
21	Sft	Sign, Type IIIB
86	Ft	Post, Steel, 3 lb
12	Ea	Band, Sign
6	Ea	Post Hole Through Conc for Steel Post

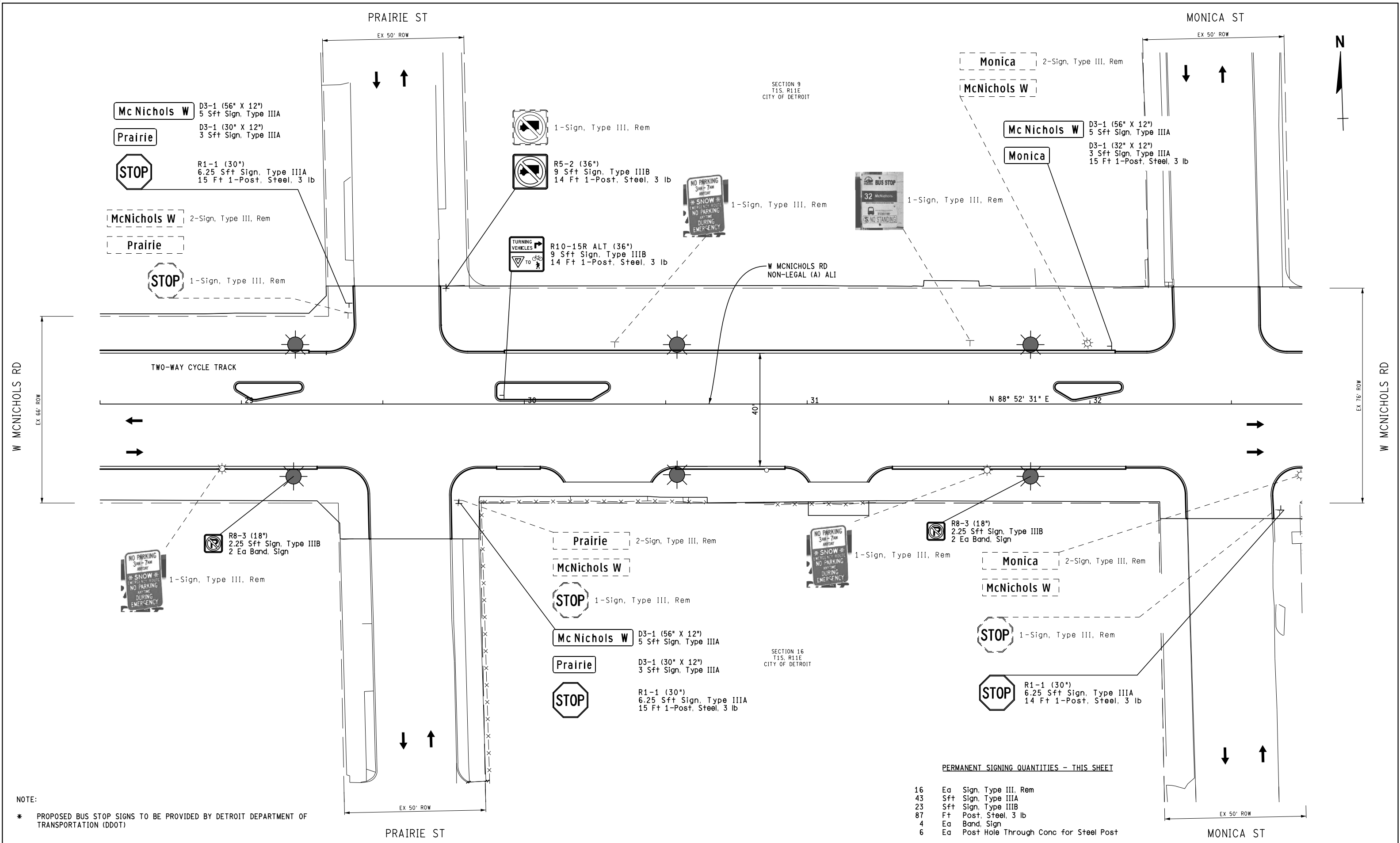
FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

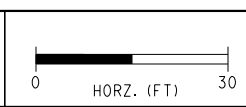
JN: PW-7004
MCNICHOLS STREETScape

SIGNING SHEET		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	108
STA 24+25 TO STA 28+50		SIGN	004



NOTE:
* PROPOSED BUS STOP SIGNS TO BE PROVIDED BY DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



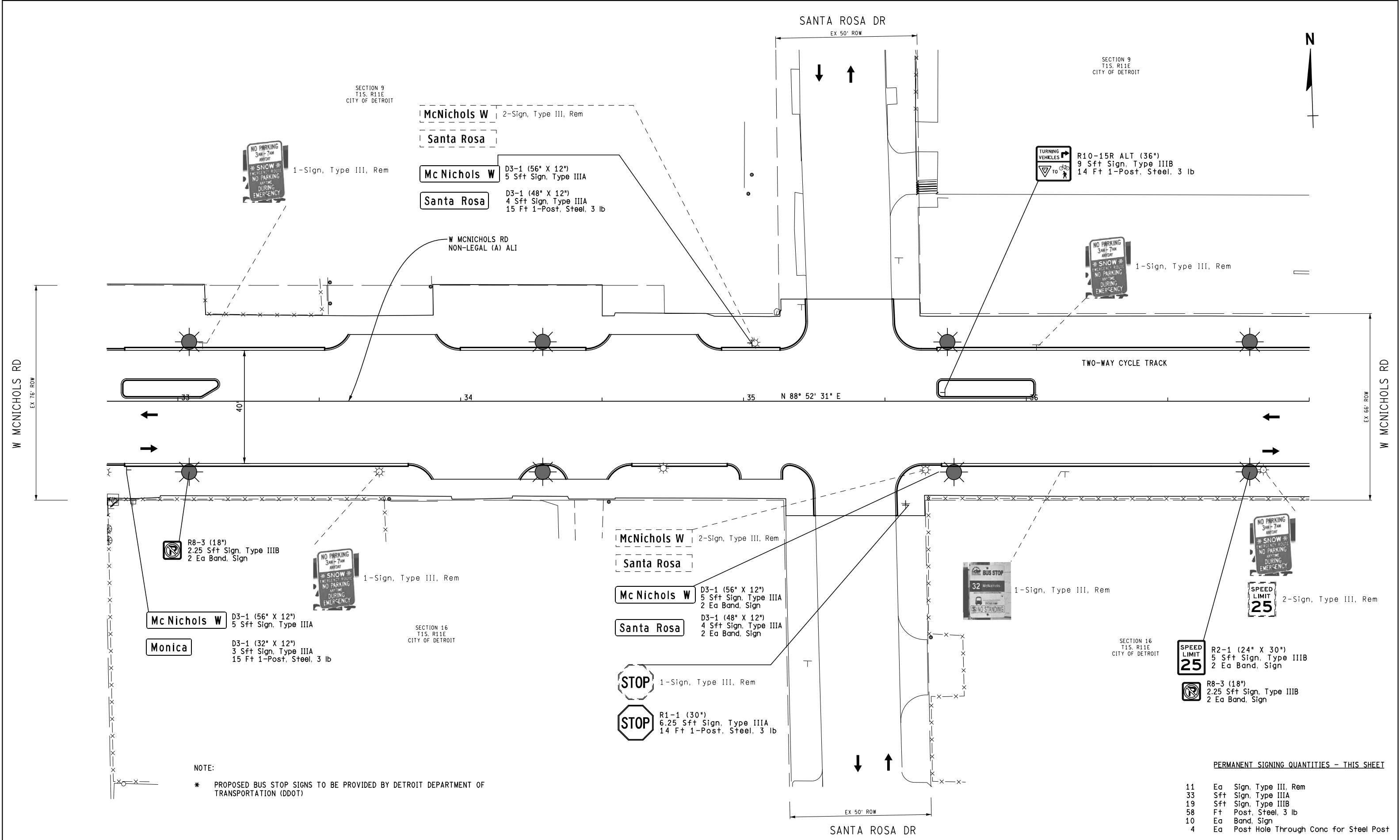
DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

SIGNING SHEET
MCNICHOLS STREETScape
STA 28+50 TO STA 32+75

DRAWING SHEET
MCN SIGN 005
109



SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT



W MCNICHOLS RD
EX 76' ROW

W MCNICHOLS RD
EX 66' ROW

SANTA ROSA DR
EX 50' ROW

N 88° 52' 31" E

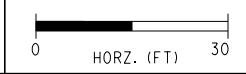
NOTE:

* PROPOSED BUS STOP SIGNS TO BE PROVIDED BY DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)

PERMANENT SIGNING QUANTITIES - THIS SHEET

- 11 Ea Sign, Type III, Rem
- 33 Sft Sign, Type IIIA
- 19 Sft Sign, Type IIIB
- 58 Ft Post, Steel, 3 lb
- 10 Ea Band, Sign
- 4 Ea Post Hole Through Conc for Steel Post

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

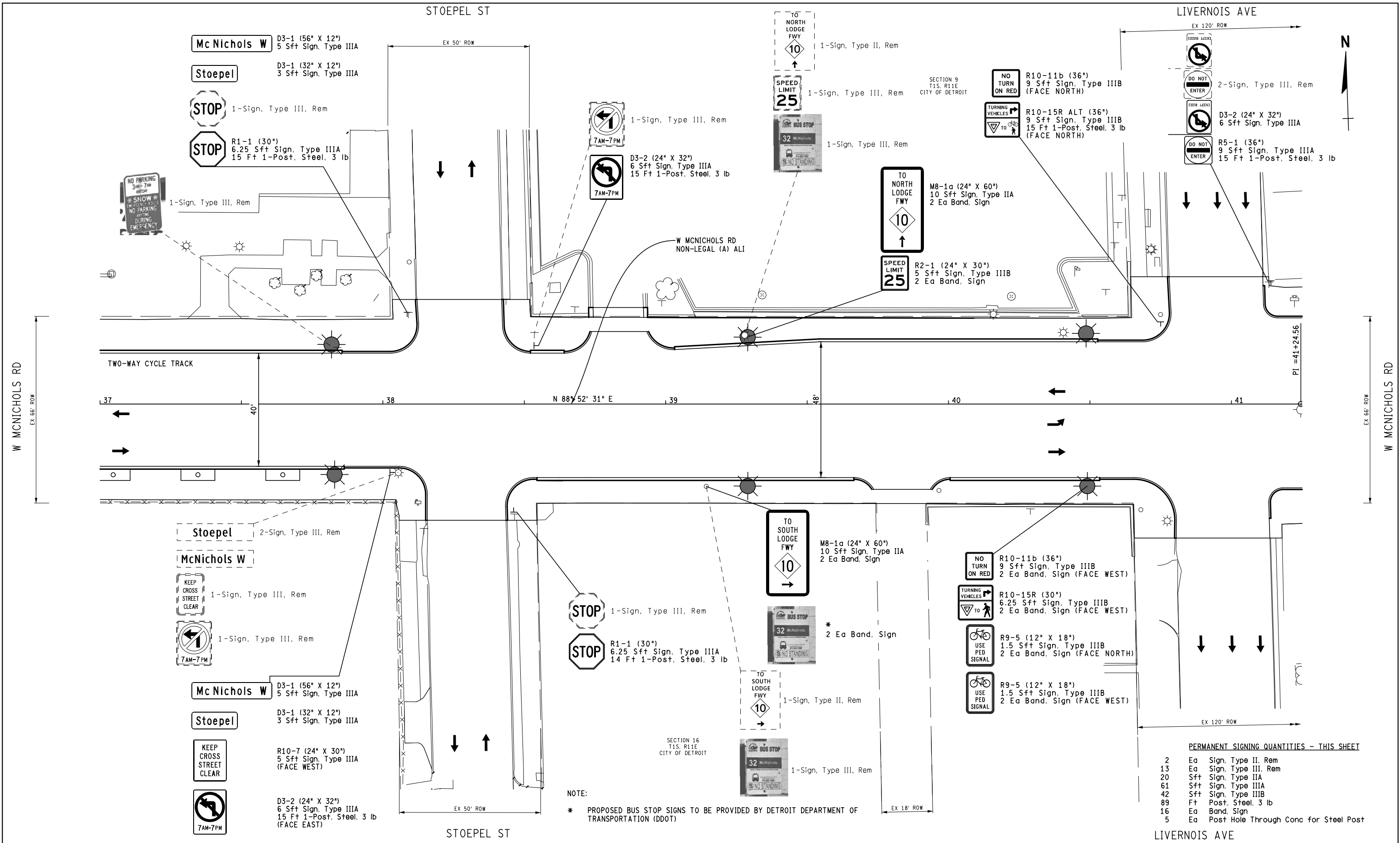


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

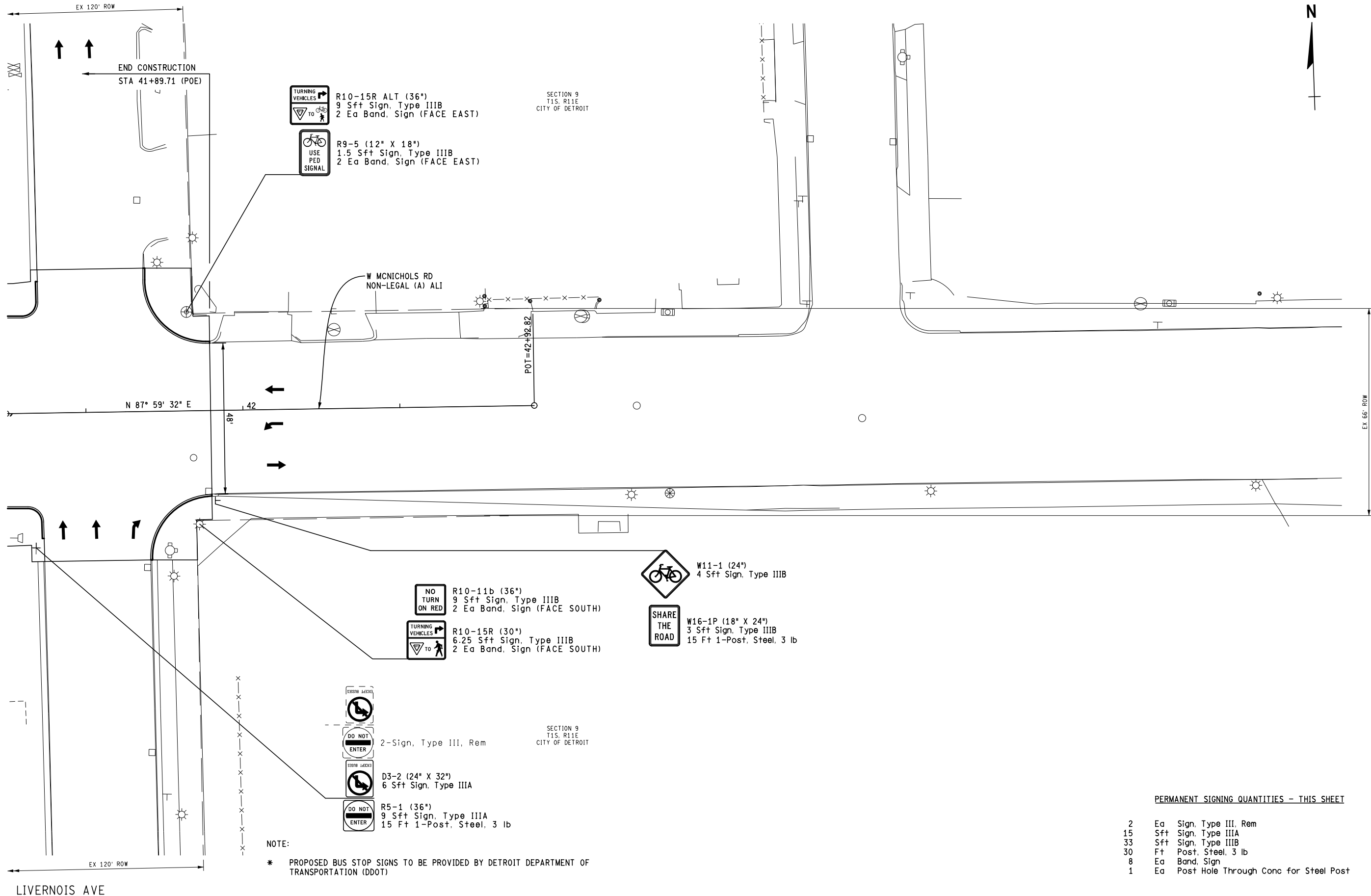
SIGNING SHEET
MCNICHOLS STREETScape
STA 32+75 TO STA 37+00

DRAWING SHEET
MCN SIGN 006
110



LIVERNOIS AVE

WARRINGTON DR

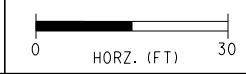


NOTE:
 * PROPOSED BUS STOP SIGNS TO BE PROVIDED BY DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)

PERMANENT SIGNING QUANTITIES - THIS SHEET

2	Ea	Sign, Type III, Rem
15	Sft	Sign, Type IIIA
33	Sft	Sign, Type IIIB
30	Ft	Post, Steel, 3 lb
8	Ea	Band, Sign
1	Ea	Post Hole Through Conc for Steel Post

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

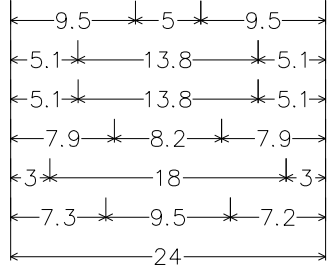
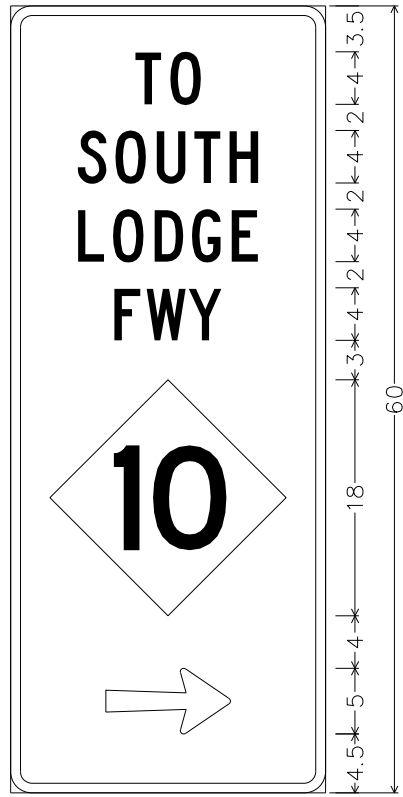


DATE: 02/07/20
 FILE:

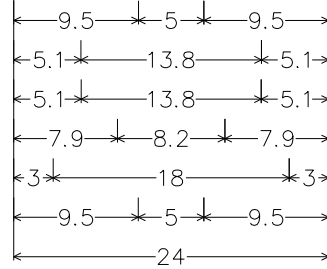
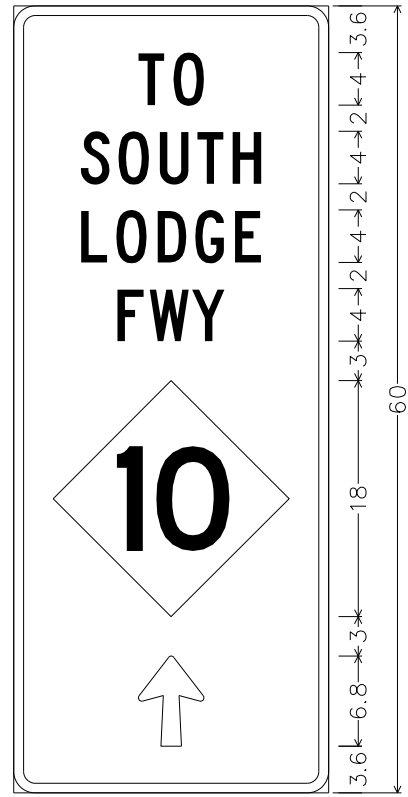
JN: PW-7004
 MCNICHOLS STREETScape

SIGNING SHEET
 MCNICHOLS STREETScape
 STA 41+25 TO STA 41+89.71 (POE)

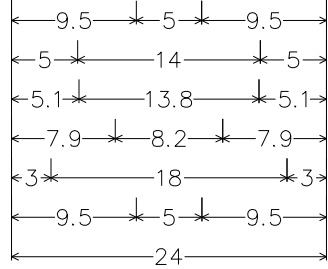
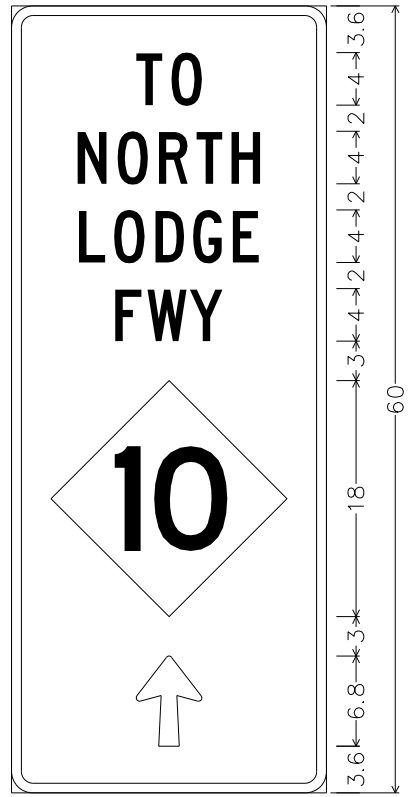
DRAWING SHEET
 MCN SIGN 008
112



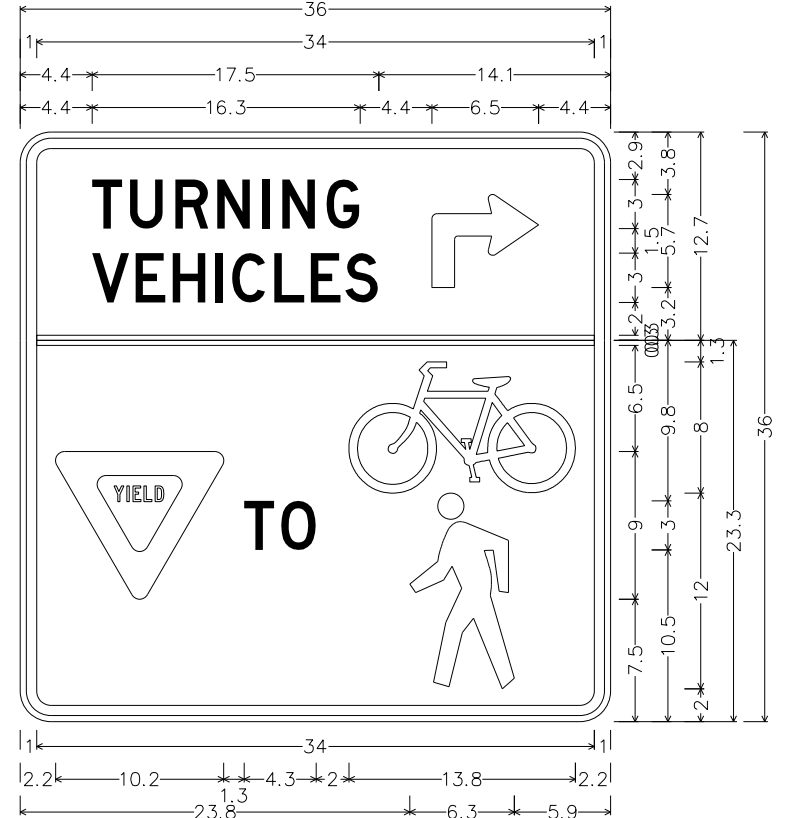
Identifier : M8-1a;
 0.8" Border, White on Green;
 [TO] C; [SOUTH] C;
 [LODGE] C; [FWY] C;
 State Highway 10 M1-6a;
 Arrow B-5 - 9.5" 0°;



Identifier : M8-1a;
 0.8" Border, White on Green;
 [TO] C; [SOUTH] C;
 [LODGE] C; [FWY] C;
 State Highway 10 M1-6a;
 Arrow A-5 - 6.9" 90°;



Identifier : M8-1a;
 0.8" Border, White on Green;
 [TO] C; [NORTH] C;
 [LODGE] C; [FWY] C;
 State Highway 10 M1-6a;
 Arrow A-5 - 6.9" 90°;



Identifier : R10-15R ALT;
 1.9" Radius, 0.6" Border, 0.4" Indent, Black on Yellow;
 [TURNING] D 2K specified length;
 [VEHICLES] D 2K specified length;
 90 Deg Advance Turn Arrow Custom 6.5" X 5.7";
 1.9" Radius, 0.6" Border, 0.4" Indent, Black on White;
 [TO] D 2K specified length; Bicycle Symbol White;

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

SIGNING DETAILS
 MCNICHOLS STREETScape

DRAWING SHEET
 MCN SIGN 010 114

GREENLAWN AVE



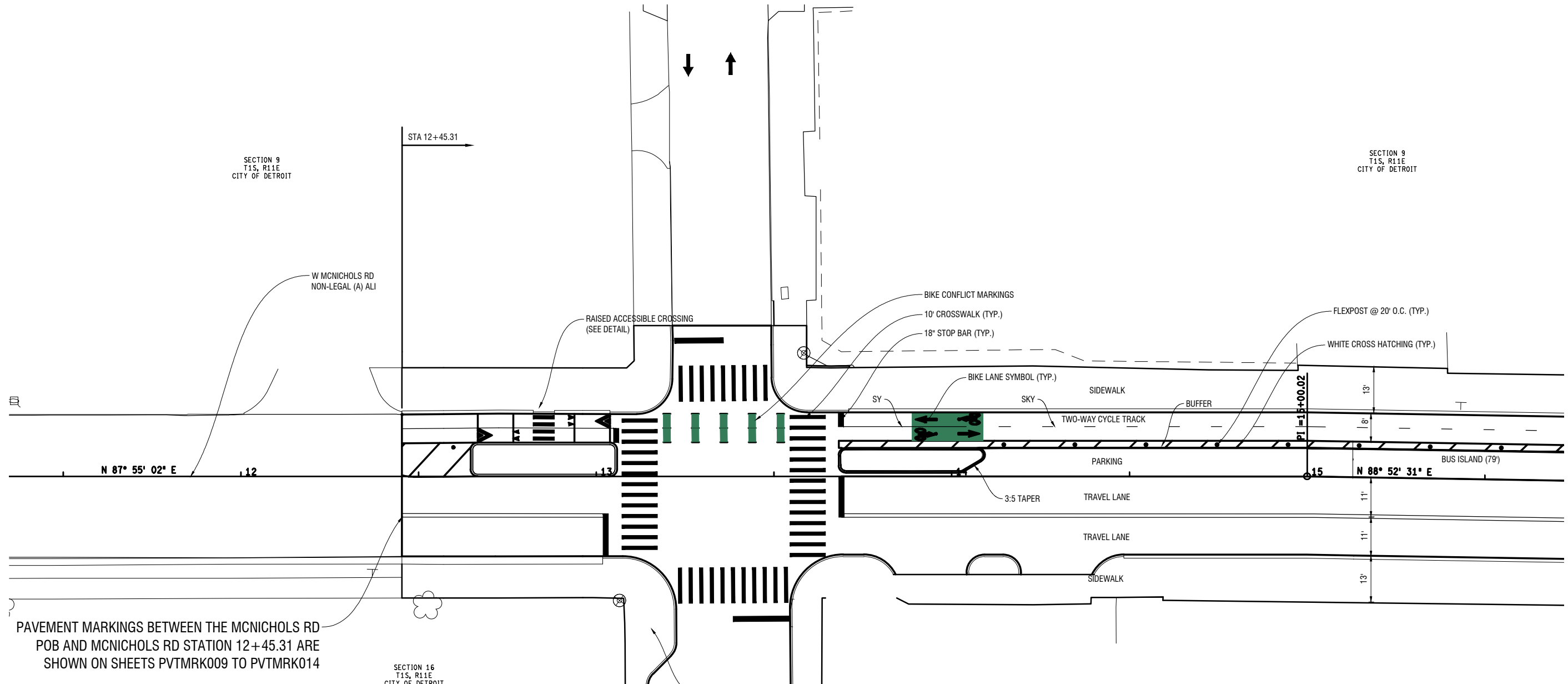
SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

STA 12+45.31

W MCNICHOLS RD

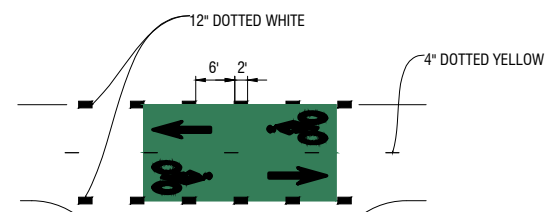
W MCNICHOLS RD



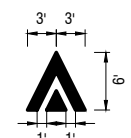
PAVEMENT MARKINGS BETWEEN THE MCNICHOLS RD
POB AND MCNICHOLS RD STATION 12+45.31
ARE SHOWN ON SHEETS PVTMRK009 TO PVTMRK014

SECTION 16
T1S, R11E
CITY OF DETROIT

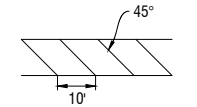
SECTION 16
T1S, R11E
CITY OF DETROIT



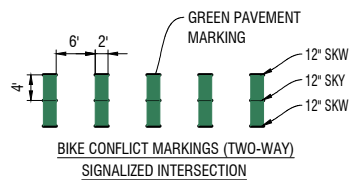
BIKE CONFLICT MARKINGS
LOCAL STREET/DRIVEWAY



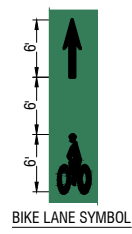
RAMP MARKING



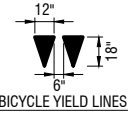
TYPICAL CROSS HATCHING
PAVEMENT MARKING



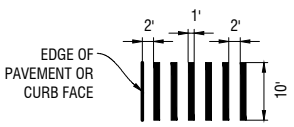
BIKE CONFLICT MARKINGS (TWO-WAY)
SIGNALIZED INTERSECTION



BIKE LANE SYMBOL



BICYCLE YIELD LINES



TYPICAL SPECIAL EMPHASIS
CROSSWALK MARKINGS

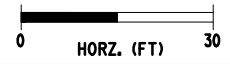
- SW SOLID WHITE
- SY SOLID YELLOW
- DSY DOUBLE SOLID YELLOW
- SKW SKIP WHITE
- SKY SKIP YELLOW

NOTES:
ALL LONGITUDINAL MARKS ARE
4" WIDE UNLESS SPECIFIED OTHERWISE

PAVEMENT MARKING QUANTITIES THIS SHEET

624 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
528 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
121 Ft	Pavt Mrkg, Polymer Cement, 4 inch, Yellow
20 Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
10 Ft	Pavt Mrkg, Polymer Cement, 12 inch, Yellow
61 Ft	Pavt Mrkg, Ovlv Cold Plastic, 18 inch, Stop Bar
494 Ft	Pavt Mrkg, Ovlv Cold Plastic, 12 inch, Crosswalk
2 Ft	Pavt Mrkg, Modified Urethane, 4 inch, White
60 Ft	Pavt Mrkg, Modified Urethane, 4 inch, Cross Hatching, White
28 Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching, White
4 Ea	Pavt Mrkg, Polymer Cement, Yield, Bike
2 Ea	Pavt Mrkg, Polymer Cement, Ramp Sym
2 Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
2 Ea	Pavt Mrkg, Polymer Cement, Bike
224 Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
10 Ea	Post, Delineator, 36 inch, Green
61 Ft	Recessing for Pavt Mrkg, 18 inch
470 Ft	Recessing for Pavt Mrkg, 12 inch

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



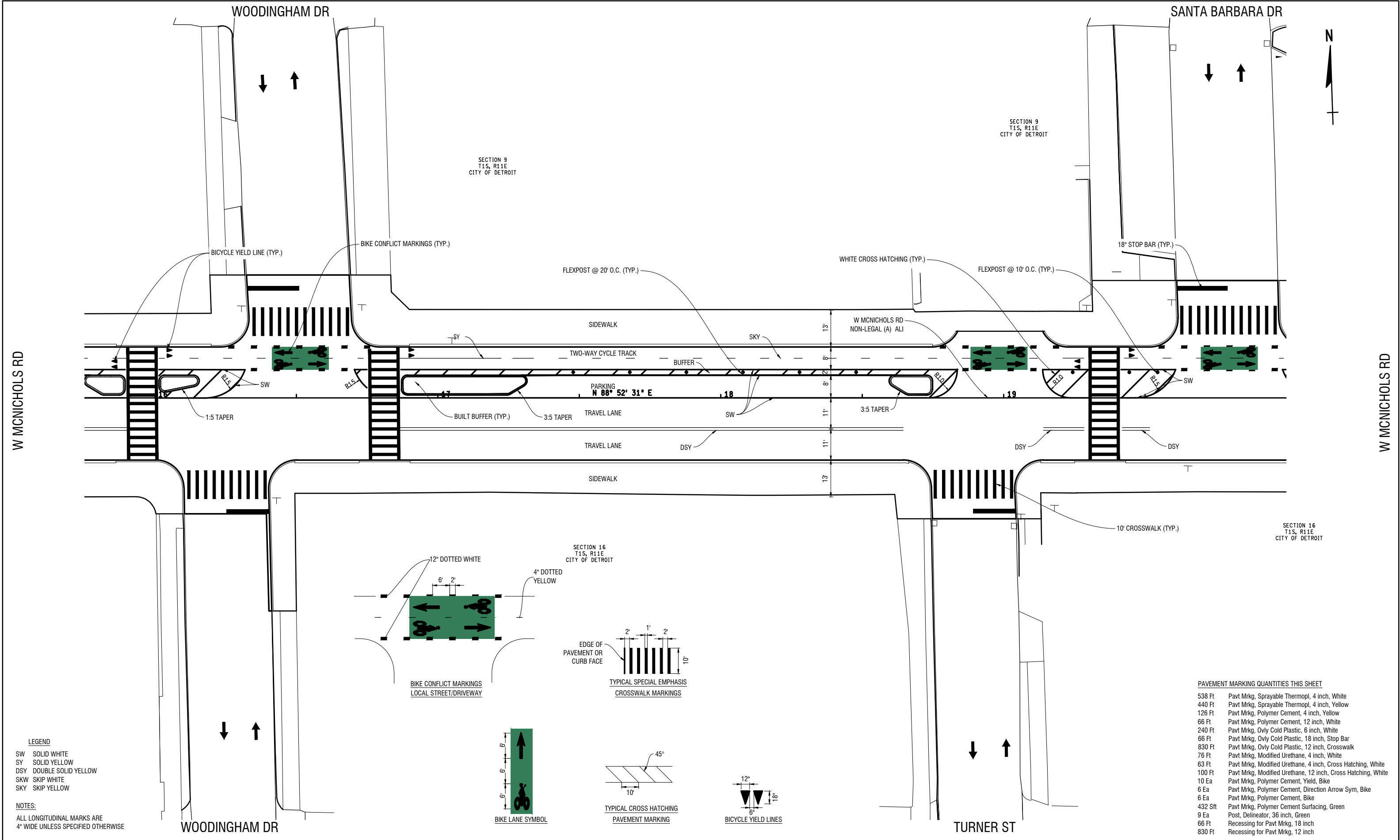
DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

PAVEMENT MARKING PLANS
MCNICHOLS STREETScape
STA 12+45.31 TO STA 15+75

DRAWING
MCN
PVTMRK
001
SHEET
115



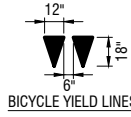
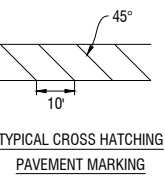
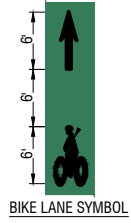
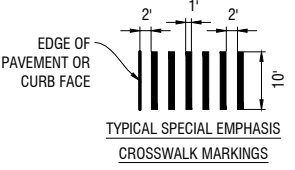
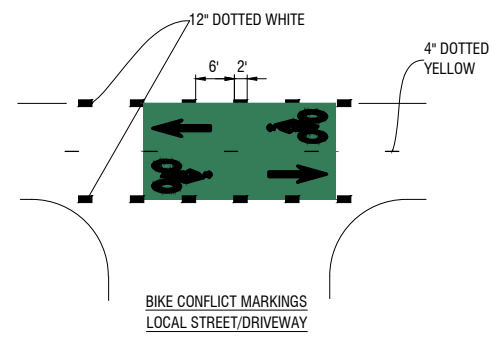
W McNichols Rd

W McNichols Rd



LEGEND
 SW SOLID WHITE
 SY SOLID YELLOW
 DSY DOUBLE SOLID YELLOW
 SKW SKIP WHITE
 SKY SKIP YELLOW

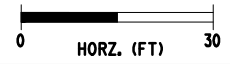
NOTES:
 ALL LONGITUDINAL MARKS ARE
 4" WIDE UNLESS SPECIFIED OTHERWISE



PAVEMENT MARKING QUANTITIES THIS SHEET

538 Ft	Pavt Mrgk, Sprayable Thermopl, 4 inch, White
440 Ft	Pavt Mrgk, Sprayable Thermopl, 4 inch, Yellow
126 Ft	Pavt Mrgk, Polymer Cement, 4 inch, Yellow
66 Ft	Pavt Mrgk, Polymer Cement, 12 inch, White
240 Ft	Pavt Mrgk, Ovly Cold Plastic, 6 inch, White
66 Ft	Pavt Mrgk, Ovly Cold Plastic, 18 inch, Stop Bar
830 Ft	Pavt Mrgk, Ovly Cold Plastic, 12 inch, Crosswalk
76 Ft	Pavt Mrgk, Modified Urethane, 4 inch, White
63 Ft	Pavt Mrgk, Modified Urethane, 4 inch, Cross Hatching, White
100 Ft	Pavt Mrgk, Modified Urethane, 12 inch, Cross Hatching, White
10 Ea	Pavt Mrgk, Polymer Cement, Yield, Bike
6 Ea	Pavt Mrgk, Polymer Cement, Direction Arrow Sym, Bike
6 Ea	Pavt Mrgk, Polymer Cement, Bike
432 Sft	Pavt Mrgk, Polymer Cement Surfacing, Green
9 Ea	Post, Delineator, 36 inch, Green
66 Ft	Recessing for Pavt Mrgk, 18 inch
830 Ft	Recessing for Pavt Mrgk, 12 inch

FINAL ROW PLAN REVISIONS			(SUBMITTAL DATE:)				
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

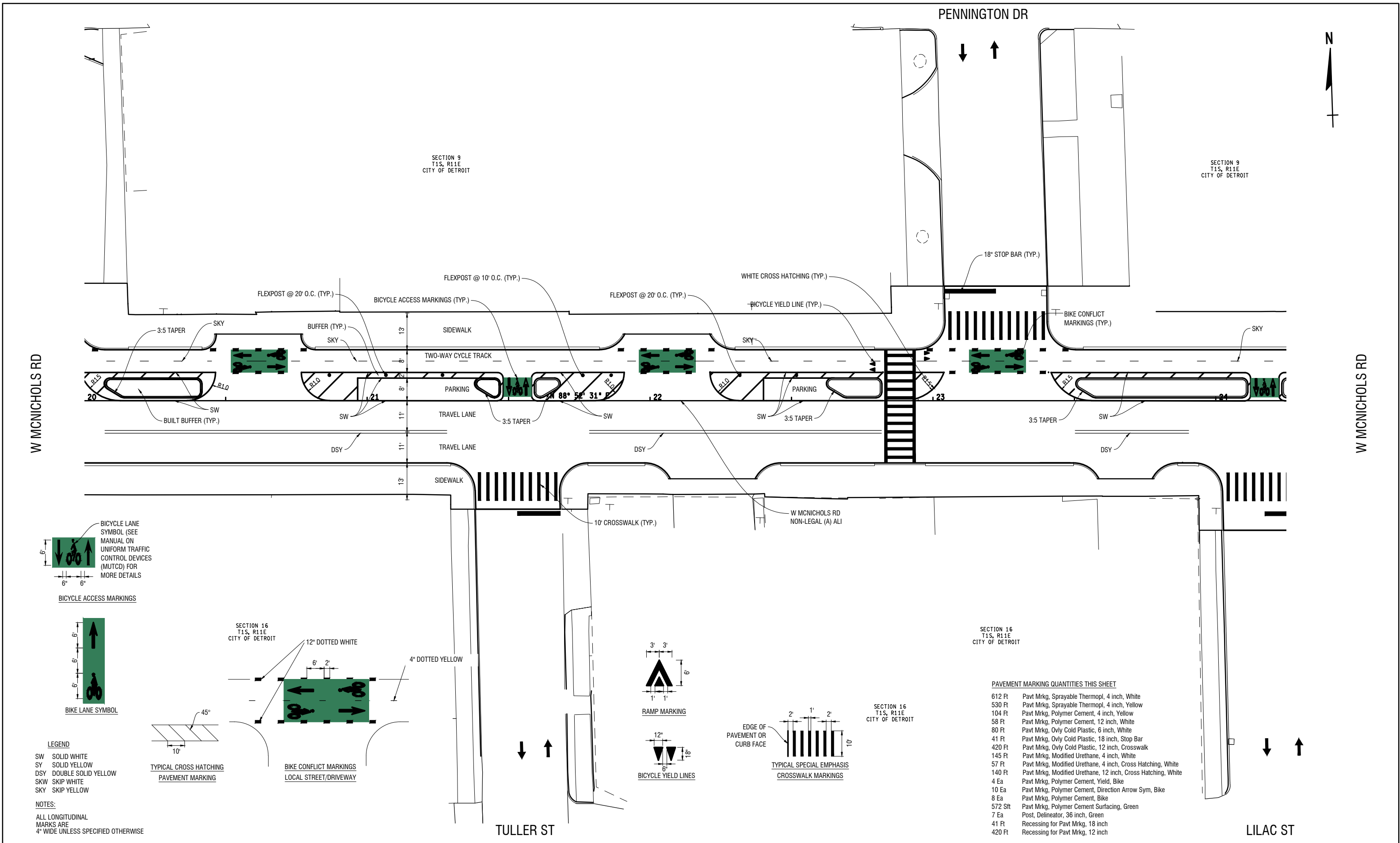


DATE: 02/07/20

FILE:

JN: PW-7004
 McNichols Streetscape

PAVEMENT MARKING PLANS		DRAWING	SHEET
McNICHOLS STREETScape		MCN PVTMRK 002	116
STA 15+75 TO STA 20+00			



W MCNICHOLS RD

W MCNICHOLS RD

PENNINGTON DR

TULLER ST

LILAC ST

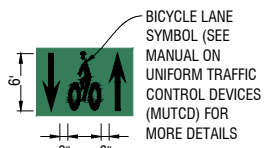
SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

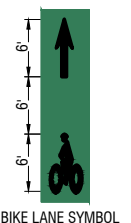
SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT



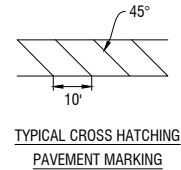
BICYCLE ACCESS MARKINGS



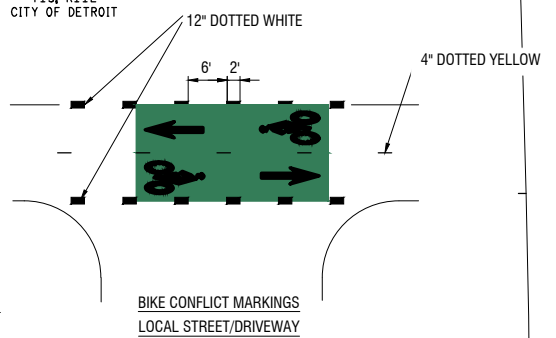
BIKE LANE SYMBOL

- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW

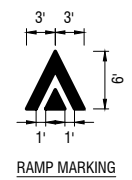
NOTES:
ALL LONGITUDINAL MARKS ARE 4" WIDE UNLESS SPECIFIED OTHERWISE



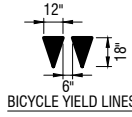
TYPICAL CROSS HATCHING PAVEMENT MARKING



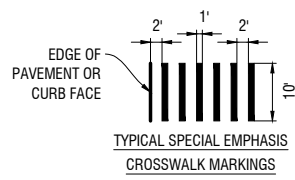
BIKE CONFLICT MARKINGS LOCAL STREET/DRIVEWAY



RAMP MARKING



BICYCLE YIELD LINES

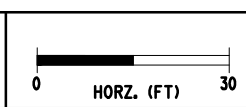


TYPICAL SPECIAL EMPHASIS CROSSWALK MARKINGS

PAVEMENT MARKING QUANTITIES THIS SHEET

612 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
530 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
104 Ft	Pavt Mrkg, Polymer Cement, 4 inch, Yellow
58 Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
80 Ft	Pavt Mrkg, Ovy Cold Plastic, 6 inch, White
41 Ft	Pavt Mrkg, Ovy Cold Plastic, 18 inch, Stop Bar
420 Ft	Pavt Mrkg, Ovy Cold Plastic, 12 inch, Crosswalk
145 Ft	Pavt Mrkg, Modified Urethane, 4 inch, White
57 Ft	Pavt Mrkg, Modified Urethane, 4 inch, Cross Hatching, White
140 Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching, White
4 Ea	Pavt Mrkg, Polymer Cement, Yield, Bike
10 Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
8 Ea	Pavt Mrkg, Polymer Cement, Bike
572 Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
7 Ea	Post, Delineator, 36 inch, Green
41 Ft	Recessing for Pavt Mrkg, 18 inch
420 Ft	Recessing for Pavt Mrkg, 12 inch

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

PAVEMENT MARKING PLANS
MCNICHOLS STREETScape
STA 20+00 TO STA 24+25

DRAWING
MCN PVTMRK 003

SHEET
117

SAN JUAN DR

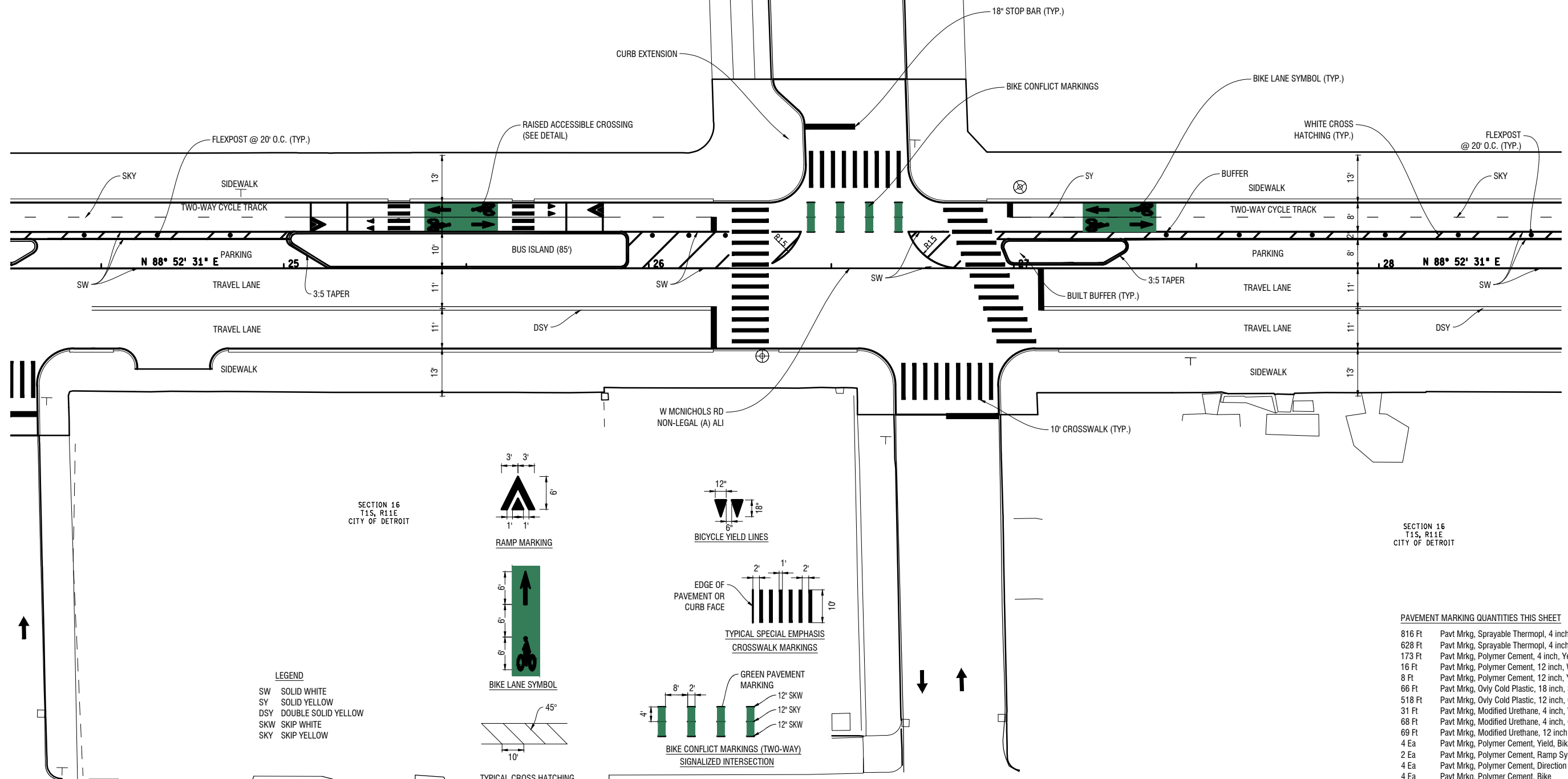
SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT



W MCNICHOLS RD

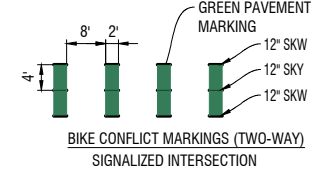
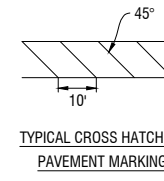
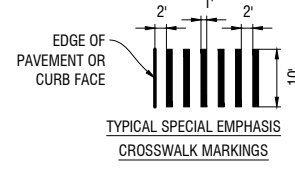
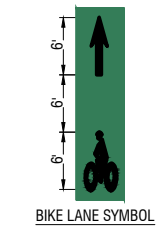
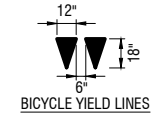
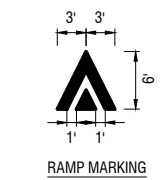
W MCNICHOLS RD



SECTION 16
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW



PAVEMENT MARKING QUANTITIES THIS SHEET

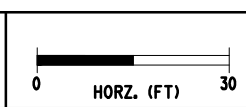
816 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
628 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
173 Ft	Pavt Mrkg, Polymer Cement, 4 inch, Yellow
16 Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
8 Ft	Pavt Mrkg, Polymer Cement, 12 inch, Yellow
66 Ft	Pavt Mrkg, Ovly Cold Plastic, 18 inch, Stop Bar
518 Ft	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk
31 Ft	Pavt Mrkg, Modified Urethane, 4 inch, White
68 Ft	Pavt Mrkg, Modified Urethane, 4 inch, Cross Hatching, White
69 Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching, White
4 Ea	Pavt Mrkg, Polymer Cement, Yield, Bike
2 Ea	Pavt Mrkg, Polymer Cement, Ramp Sym
4 Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
4 Ea	Pavt Mrkg, Polymer Cement, Bike
352 Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
12 Ea	Post, Delineator, 36 inch, Green
66 Ft	Recessing for Pavt Mrkg, 18 inch
470 Ft	Recessing for Pavt Mrkg, 12 inch

NOTES:
ALL LONGITUDINAL MARKS ARE
4" WIDE UNLESS SPECIFIED OTHERWISE

LILAC ST

SAN JUAN DR

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

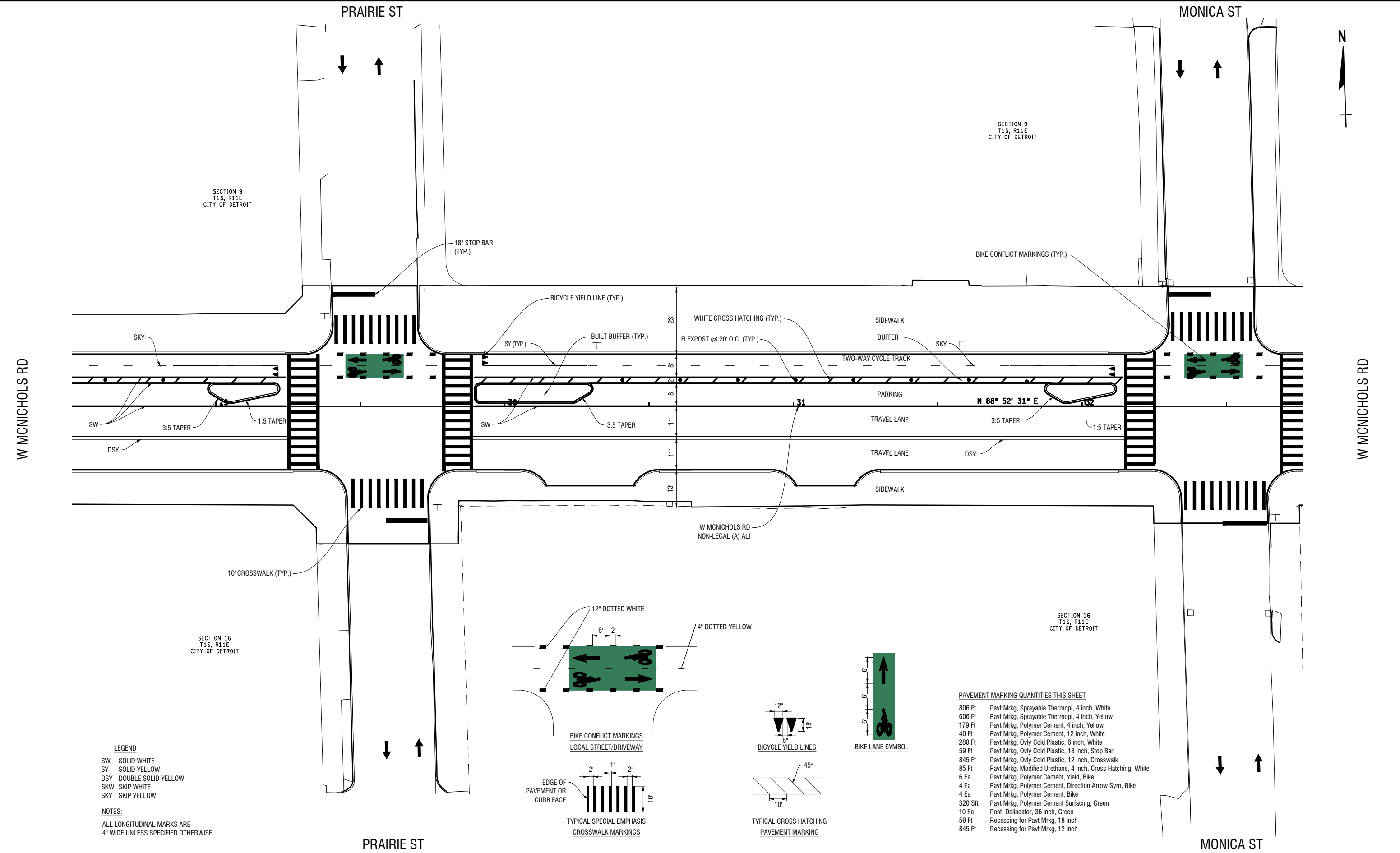


DATE: 02/07/20

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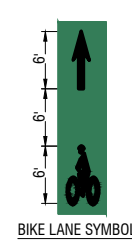
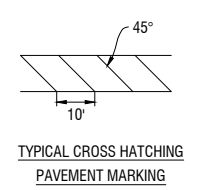
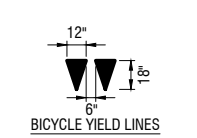
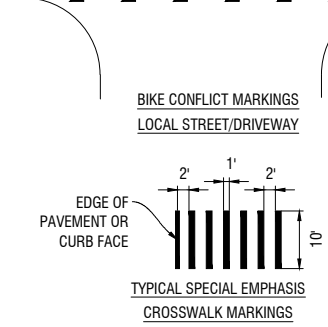
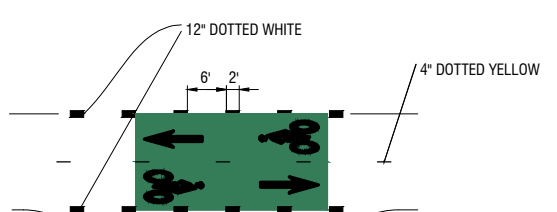
JN: PW-7004
MCNICHOLS STREETScape

PAVEMENT MARKING PLANS		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	PVTMRK
STA 24+25 TO STA 28+50		004	118



- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW

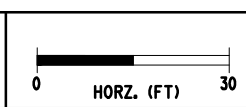
NOTES:
 ALL LONGITUDINAL MARKS ARE
 4" WIDE UNLESS SPECIFIED OTHERWISE



PAVEMENT MARKING QUANTITIES THIS SHEET

806 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
606 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
179 Ft	Pavt Mrkg, Polymer Cement, 4 inch, Yellow
40 Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
280 Ft	Pavt Mrkg, Ovly Cold Plastic, 6 inch, White
59 Ft	Pavt Mrkg, Ovly Cold Plastic, 18 inch, Stop Bar
845 Ft	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk
85 Ft	Pavt Mrkg, Modified Urethane, 4 inch, Cross Hatching, White
6 Ea	Pavt Mrkg, Polymer Cement, Yield, Bike
4 Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
4 Ea	Pavt Mrkg, Polymer Cement, Bike
320 Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
10 Ea	Post, Delineator, 36 inch, Green
59 Ft	Recessing for Pavt Mrkg, 18 inch
845 Ft	Recessing for Pavt Mrkg, 12 inch

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004
 MCNICHOLS STREETScape

PAVEMENT MARKING PLANS
 MCNICHOLS STREETScape
 STA 28+50 TO STA 32+75

DRAWING
 MCN
 PVTMRK
 005

SHEET
 119

SANTA ROSA DR

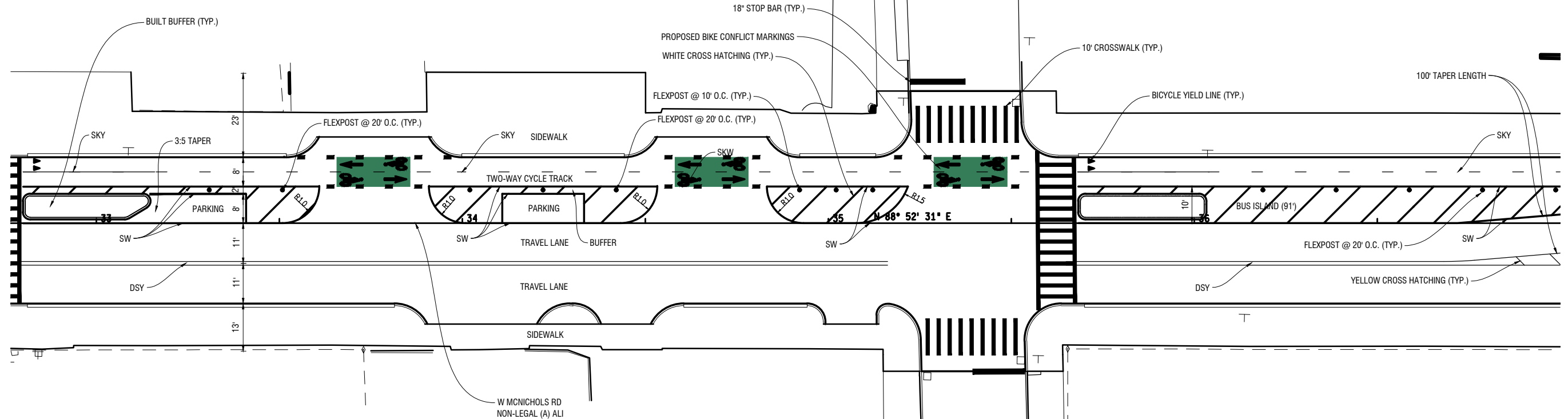


SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 9
T1S, R11E
CITY OF DETROIT

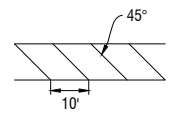
W MCNICHOLS RD

W MCNICHOLS RD

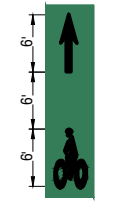


SECTION 16
T1S, R11E
CITY OF DETROIT

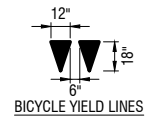
SECTION 16
T1S, R11E
CITY OF DETROIT



TYPICAL CROSS HATCHING
PAVEMENT MARKING



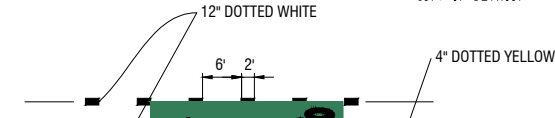
BIKE LANE SYMBOL



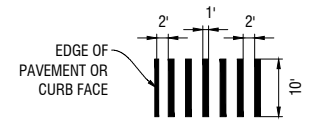
BICYCLE YIELD LINES

- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW

NOTES:
ALL LONGITUDINAL MARKS ARE
4" WIDE UNLESS SPECIFIED OTHERWISE



BIKE CONFLICT MARKINGS
LOCAL STREET/DRIVEWAY



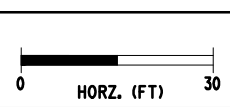
TYPICAL SPECIAL EMPHASIS
CROSSWALK MARKINGS

PAVEMENT MARKING QUANTITIES THIS SHEET

671 Ft	Pav't Mrkg, Sprayable Thermopl, 4 inch, White
746 Ft	Pav't Mrkg, Sprayable Thermopl, 4 inch, Yellow
157 Ft	Pav't Mrkg, Polymer Cement, 4 inch, Yellow
54 Ft	Pav't Mrkg, Polymer Cement, 12 inch, White
124 Ft	Pav't Mrkg, Ovl'y Cold Plastic, 6 inch, White
29 Ft	Pav't Mrkg, Ovl'y Cold Plastic, 18 inch, Stop Bar
385 Ft	Pav't Mrkg, Ovl'y Cold Plastic, 12 inch, Crosswalk
68 Ft	Pav't Mrkg, Modified Urethane, 4 inch, White
32 Ft	Pav't Mrkg, Modified Urethane, 4 inch, Cross Hatching, White
265 Ft	Pav't Mrkg, Modified Urethane, 12 inch, Cross Hatching, White
8 Ft	Pav't Mrkg, Modified Urethane, 12 inch, Cross Hatching, Yellow
4 Ea	Pav't Mrkg, Polymer Cement, Yield, Bike
6 Ea	Pav't Mrkg, Polymer Cement, Direction Arrow Sym, Bike
6 Ea	Pav't Mrkg, Polymer Cement, Bike
480 Sft	Pav't Mrkg, Polymer Cement Surfacing, Green
13 Ea	Post, Delineator, 36 inch, Green
29 Ft	Recessing for Pav't Mrkg, 18 inch
385 Ft	Recessing for Pav't Mrkg, 12 inch

SANTA ROSA DR

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

PAVEMENT MARKING PLANS		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	120
STA 32+75 TO STA 37+00		PVTMRK	006

STOEPPEL ST

LIVERNOS AVE

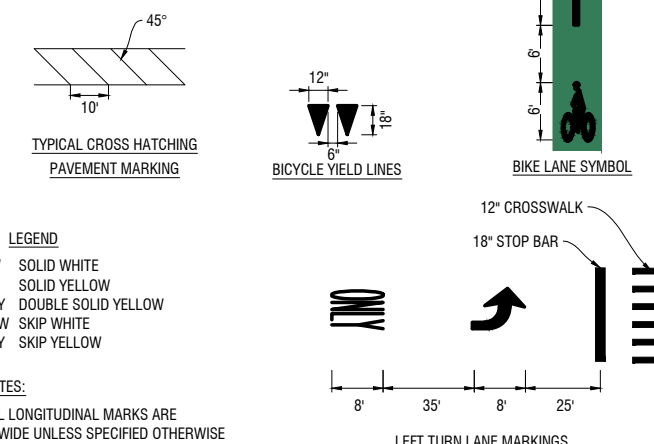
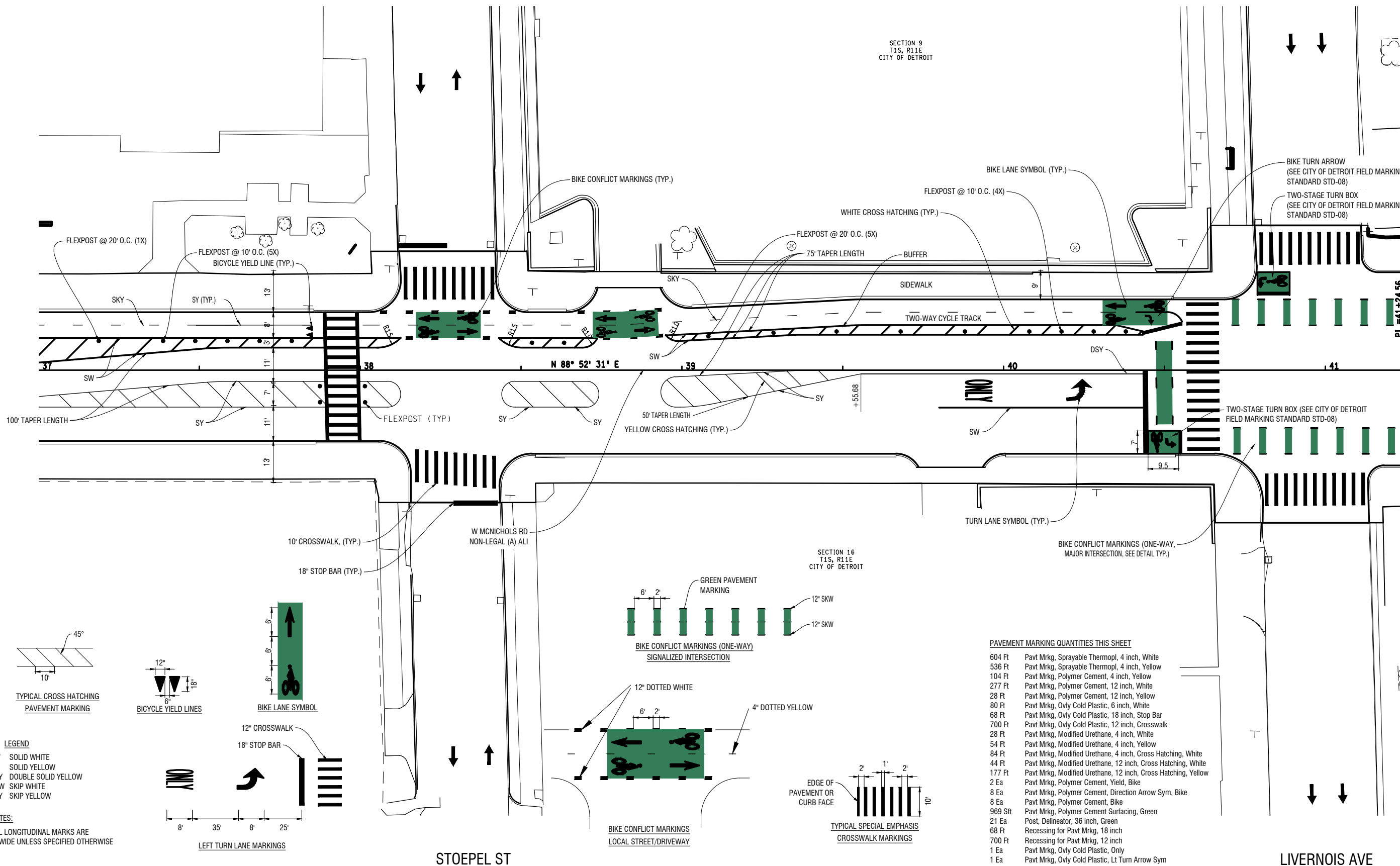


SECTION 9
T1S, R11E
CITY OF DETROIT

SECTION 16
T1S, R11E
CITY OF DETROIT

W MCNICHOLS RD

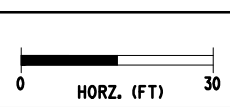
W MCNICHOLS RD



PAVEMENT MARKING QUANTITIES THIS SHEET

604 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
536 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
104 Ft	Pavt Mrkg, Polymer Cement, 4 inch, Yellow
277 Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
28 Ft	Pavt Mrkg, Polymer Cement, 12 inch, Yellow
80 Ft	Pavt Mrkg, Ovlv Cold Plastic, 6 inch, White
68 Ft	Pavt Mrkg, Ovlv Cold Plastic, 18 inch, Stop Bar
700 Ft	Pavt Mrkg, Ovlv Cold Plastic, 12 inch, Crosswalk
28 Ft	Pavt Mrkg, Modified Urethane, 4 inch, White
54 Ft	Pavt Mrkg, Modified Urethane, 4 inch, Yellow
84 Ft	Pavt Mrkg, Modified Urethane, 4 inch, Cross Hatching, White
44 Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching, White
177 Ft	Pavt Mrkg, Modified Urethane, 12 inch, Cross Hatching, Yellow
2 Ea	Pavt Mrkg, Polymer Cement, Yield, Bike
8 Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
8 Ea	Pavt Mrkg, Polymer Cement, Bike
969 Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
21 Ea	Post, Delineator, 36 inch, Green
68 Ft	Recessing for Pavt Mrkg, 18 inch
700 Ft	Recessing for Pavt Mrkg, 12 inch
1 Ea	Pavt Mrkg, Ovlv Cold Plastic, Only
1 Ea	Pavt Mrkg, Ovlv Cold Plastic, Lt Turn Arrow Sym

FINAL ROW PLAN REVISIONS			(SUBMITTAL DATE:)				
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

PAVEMENT MARKING PLANS		DRAWING	SHEET
MCNICHOLS STREETScape		MCN	121
STA 37+00 TO STA 41+25		PVTMRK	007

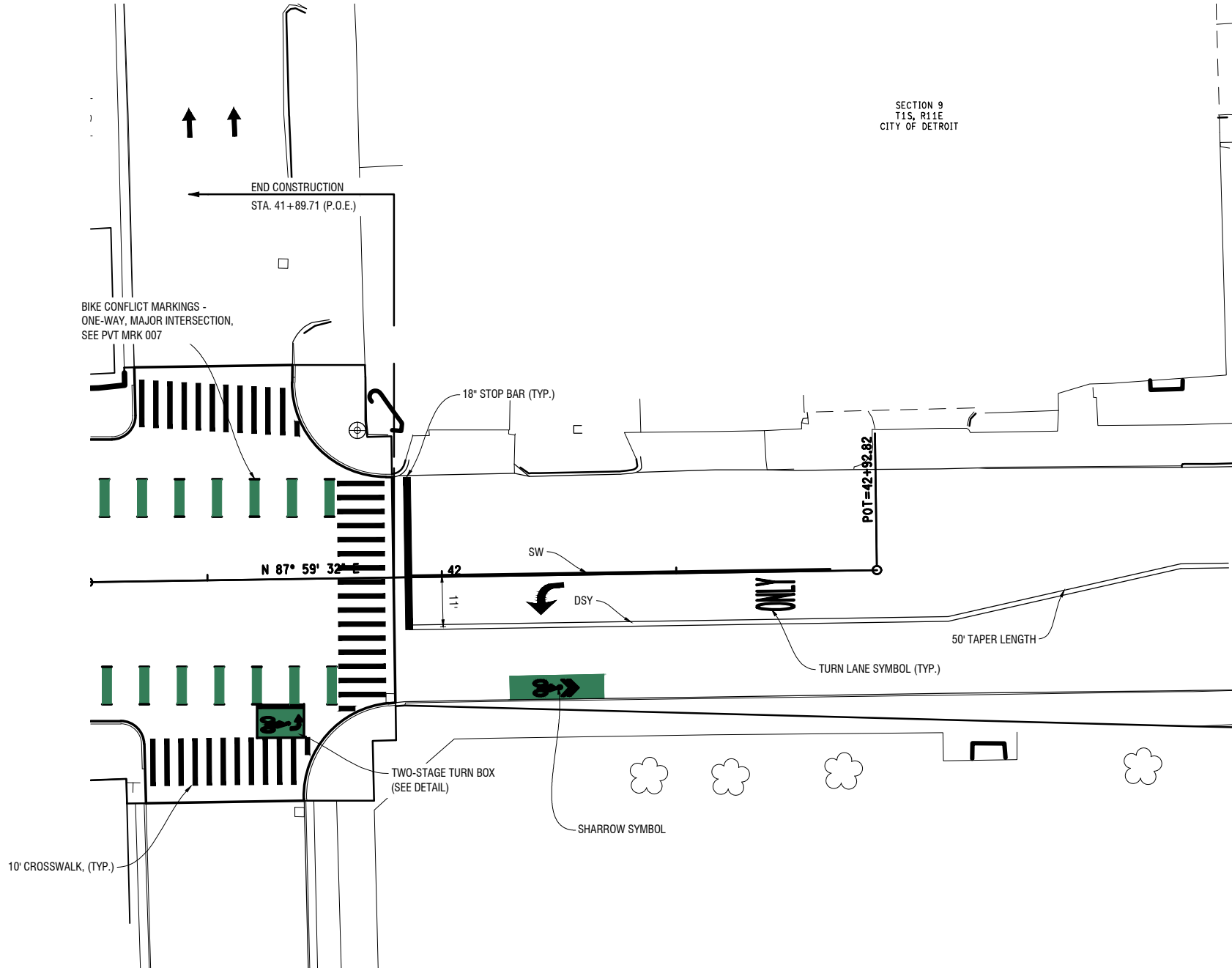
LIVERNOIS AVE



SECTION 9
T1S, R11E
CITY OF DETROIT

W MCNICHOLS RD

W MCNICHOLS RD



10' CROSSWALK, (TYP.)

TWO-STAGE TURN BOX
(SEE DETAIL)

SHARROW SYMBOL

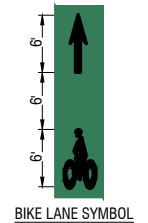
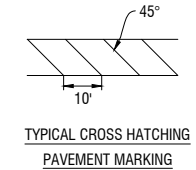
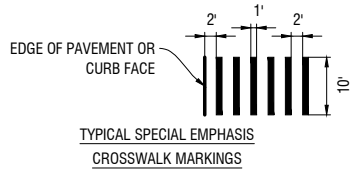
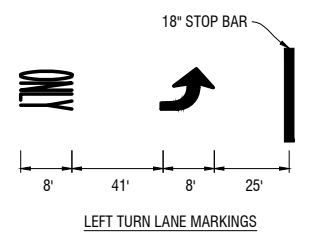
TURN LANE SYMBOL (TYP.)

50' TAPER LENGTH

SECTION 9
T1S, R11E
CITY OF DETROIT

- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW

NOTES:
ALL LONGITUDINAL MARKS ARE
4" WIDE UNLESS SPECIFIED OTHERWISE

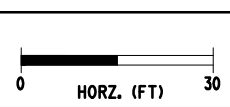


PAVEMENT MARKING QUANTITIES THIS SHEET

190 Sft	Rem Spec Mrkg
82 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, White
352 Ft	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow
56 Ft	Pavt Mrkg, Polymer Cement, 12 inch, White
28 Ft	Pavt Mrkg, Polymer Cement, 12 inch, Yellow
32 Ft	Pavt Mrkg, Ovlv Cold Plastic, 18 inch, Stop Bar
410 Ft	Pavt Mrkg, Ovlv Cold Plastic, 12 inch, Crosswalk
1 Ea	Pavt Mrkg, Polymer Cement, Direction Arrow Sym, Bike
1 Ea	Pavt Mrkg, Polymer Cement, Bike
374 Sft	Pavt Mrkg, Polymer Cement Surfacing, Green
32 Ft	Recessing for Pavt Mrkg, 18 inch
410 Ft	Recessing for Pavt Mrkg, 12 inch
1 Ea	Pavt Mrkg, Ovlv Cold Plastic, Only
1 Ea	Pavt Mrkg, Ovlv Cold Plastic, Lt Turn Arrow Sym
1 Ea	Pavt Mrkg, Ovlv Cold Plastic, Sharrow Symbol

LIVERNOIS AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004

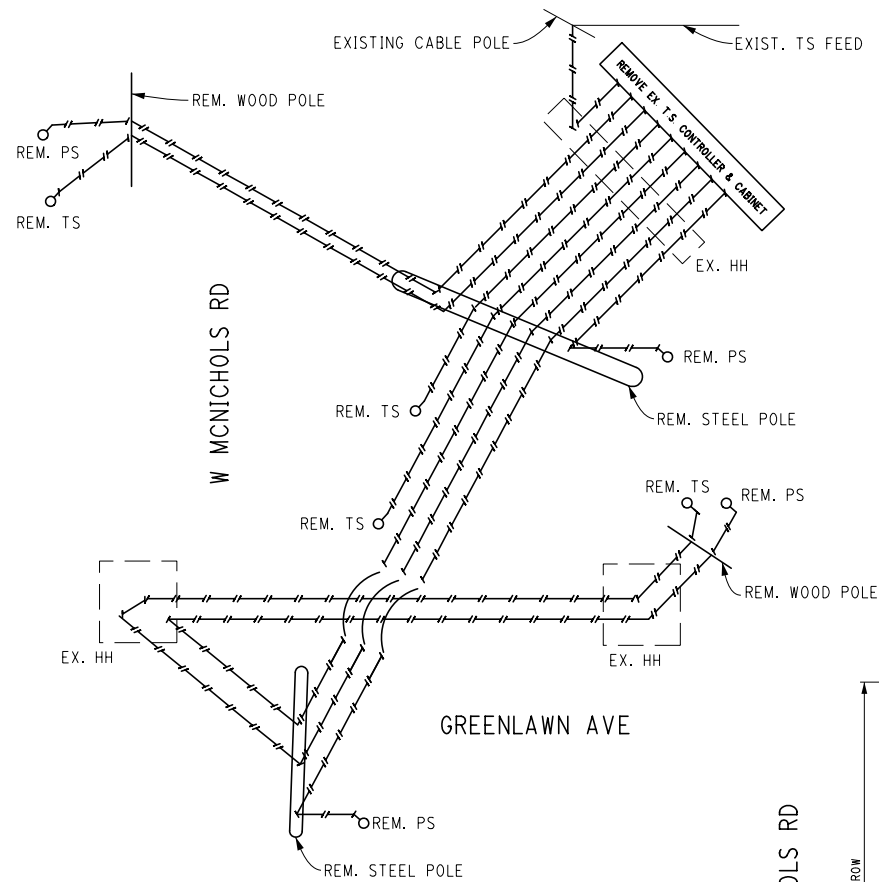
MCNICHOLS STREETScape

PAVEMENT MARKING PLANS

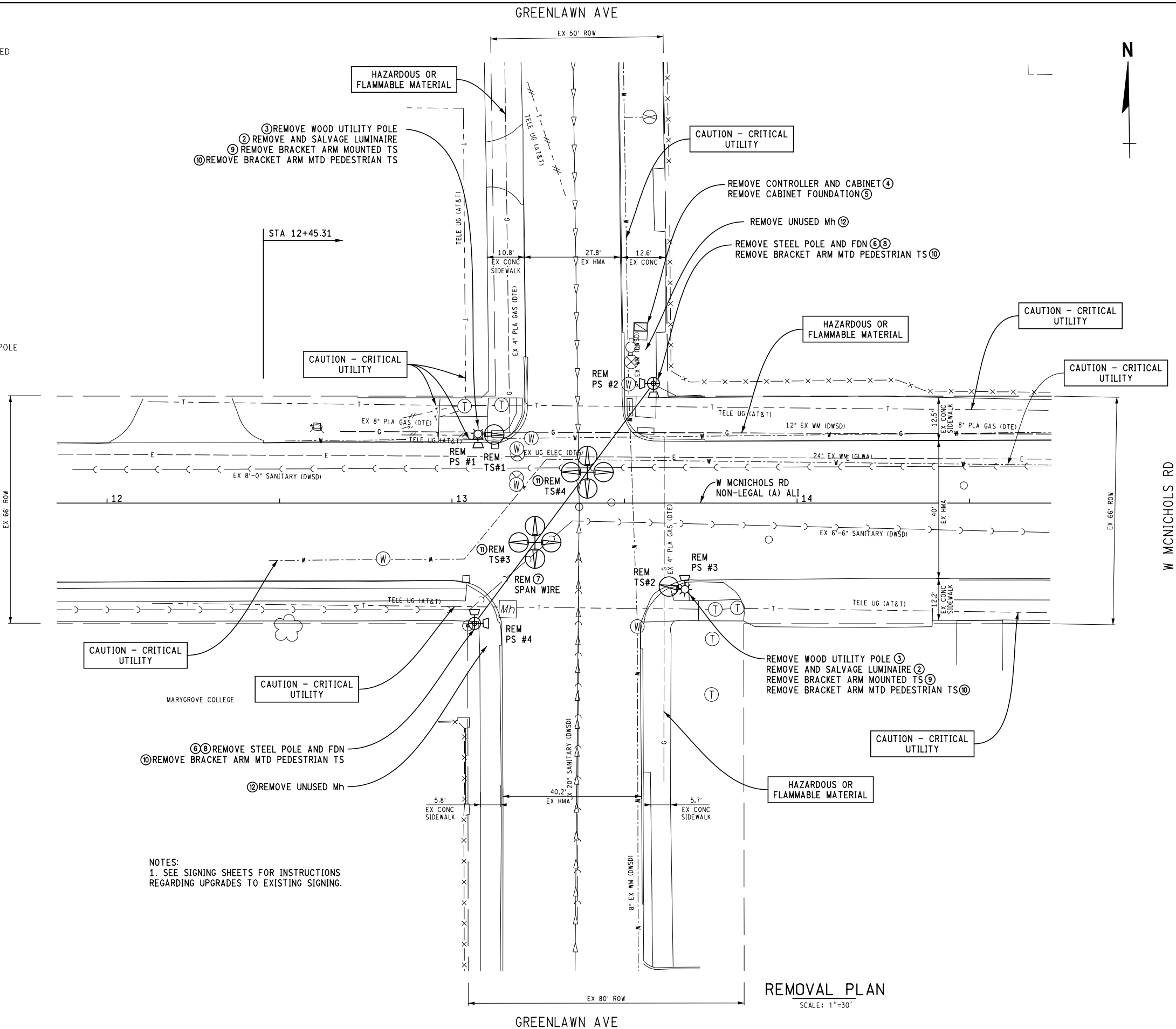
MCNICHOLS STREETScape

STA 41+25 TO STA 41+89.71 (POE)

DRAWING	SHEET
MCN PVTMRK 008	122



REMOVAL WIRING DIAGRAM
N.T.S.

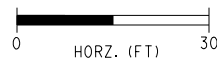


REMOVAL PLAN
SCALE: 1"=30'

LIST OF MATERIALS		
NO.	ITEMS	QUANTITIES
①	Cable, Sec. Rem	50 ft
②	Luminaire, Rem and Salv	2 ea
③	Wood Pole, Rem	2 ea
④	Controller and Cabinet, Rem	1 ea
⑤	Controller Fdn, Rem	1 ea
⑥	Fdn, Rem	2 ea
⑦	Span Wire, Rem	1 ea
⑧	Steel Pole, Rem	2 ea
⑨	TS, Bracket Arm Mtd, Rem	2 ea
⑩	TS, Pedestrian, Bracket Arm Mtd, Rem	4 ea
⑪	TS, Span Wire Mtd, Rem	2 ea
⑫	Hh, Rem	2 ea

NOTES:
1. SEE SIGNING SHEETS FOR INSTRUCTIONS REGARDING UPGRADES TO EXISTING SIGNING.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



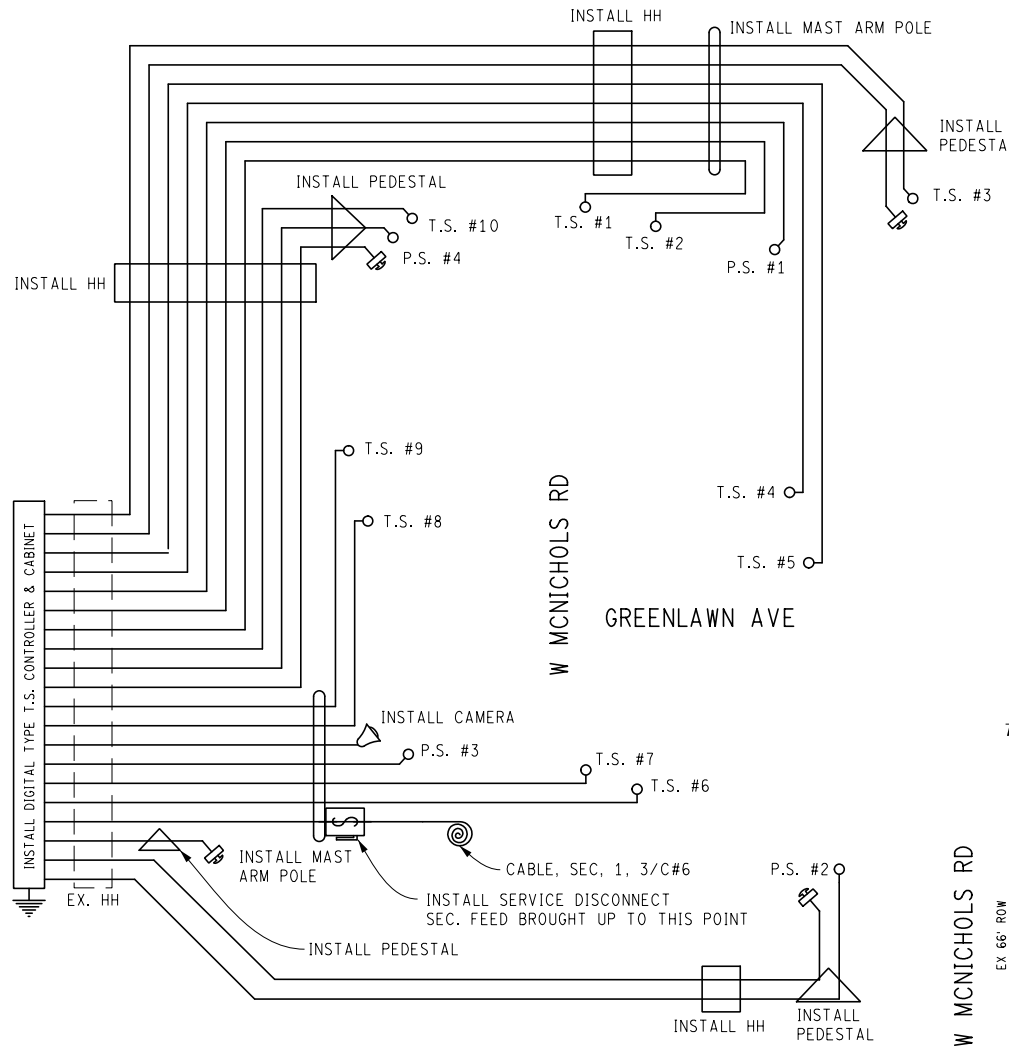
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DATE: 02/07/20

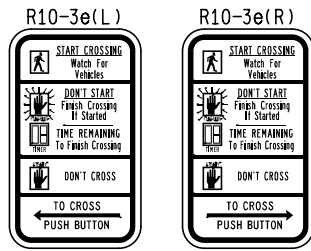
JN: PW-7004
MCNICHOLS STREETScape

TRAFFIC SIGNAL REMOVAL SHEET
MCNICHOLS STREETScape
W MCNICHOLS RD AT GREENLAWN AVE

DRAWING SHEET
MCN SIGNAL 001
123

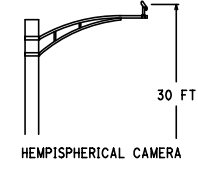


WIRING DIAGRAM
N.T.S.

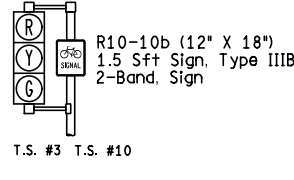
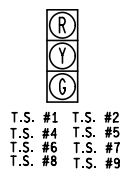


- ①⑩ INSTALL ONE-WAY PEDESTAL MTD., T.S. (12" LENSES) WITH BICYCLE SIGNAL SIGN
- ⑫ INSTALL PUSHBUTTON & SIGN (R10-3e(L)) FOR CROSSING MCNICHOLS
- ⑬ INSTALL TWO-WAY PEDESTAL MTD., PEDESTRIAN T.S. WITH COUNTDOWN TIMERS
- ⑭⑮ INSTALL PEDESTAL AND PEDESTAL FDN

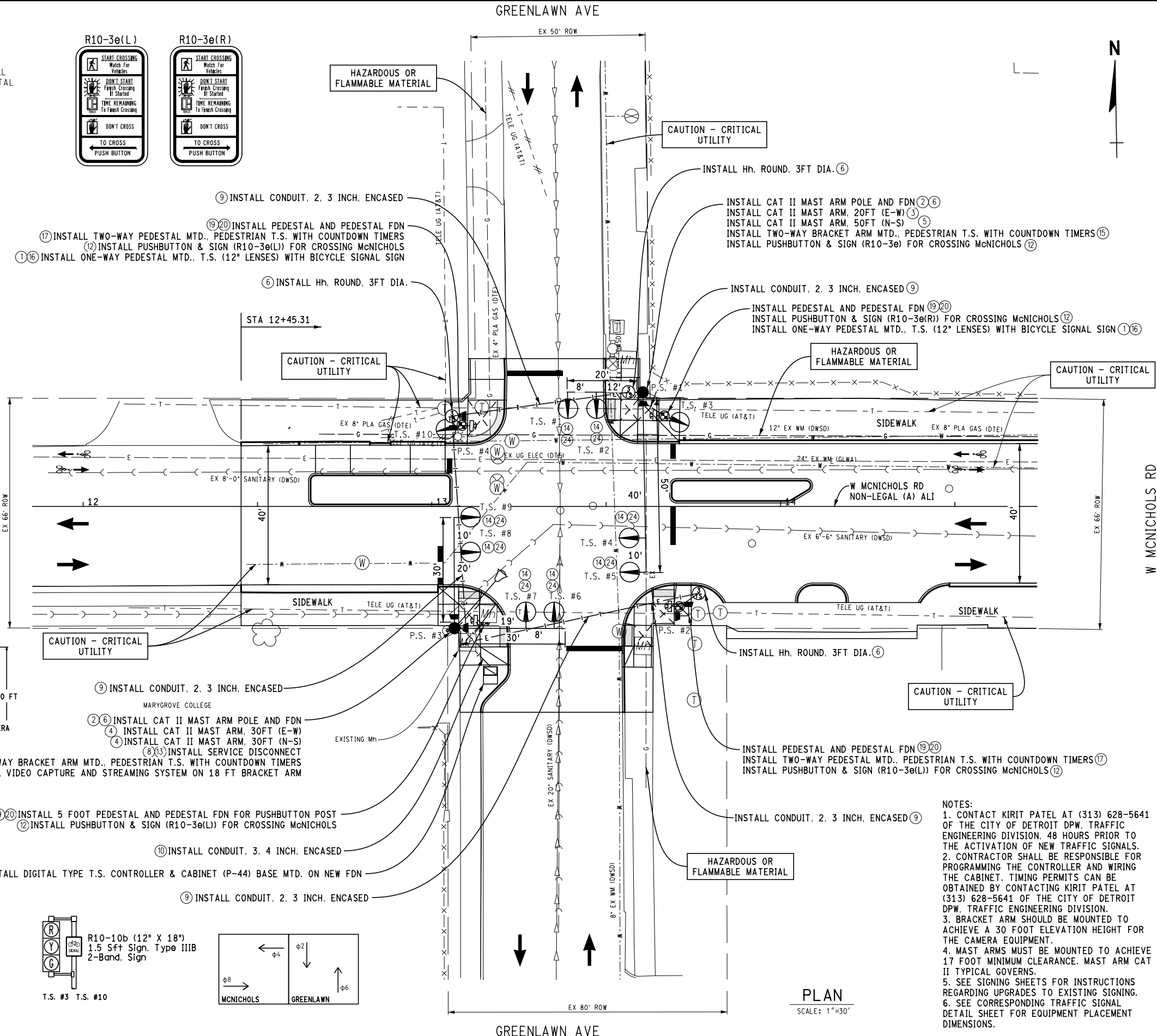
NO.	ITEMS	QUANTITIES
①	Sign, Type III B	3 sft
②	Mast Arm Pole, Cat II	2 ea
③	Mast Arm, 20 foot, Cat II	1 ea
④	Mast Arm, 30 foot, Cat II	2 ea
⑤	Mast Arm, 50 foot, Cat II	1 ea
⑥	Mast Arm Pole Fdn, 6 Bolt	30 ft
⑦	Hh, Round, 3 foot dia	3 ea
⑧	Cable, Sec, 600V, 1, 3/C#6	100 ft
⑨	Conduit, Encased, 2, 3 inch, Modified	225 ft
⑩	Conduit, Encased, 3, 4 inch, Modified	6 ft
⑪	Controller Fdn, Base Mount	1 ea
⑫	Pushbutton and Sign	4 ea
⑬	Serv Disconnect	1 ea
⑭	T.S. One Way Mast Arm Mtd (LED)	6 ea
⑮	T.S. Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	2 ea
⑯	T.S. One Way Pedestal Mtd (LED)	2 ea
⑰	T.S. Pedestrian, Two Way Pedestal Mtd (LED) Countdown	2 ea
⑱	Bracket, Truss, With 18 Foot Arm	1 ea
⑲	Pedestal Alum, Modified	4 ea
⑳	Pedestal Fdn, Modified	4 ea
㉑	Controller and Cabinet, Digital Type, ITS	1 ea
㉒	Video Detection and Analytics System	1 ea
㉓	Video Capture and Streaming System	1 ea
㉔	Louvered Backplate	8 ea
○	Wireless Data Acquisition, Alerts and Analytics System	1 ea
○	Cellular Data Service for 2 Year	1 ea
○	Cellular Data Streaming for 2 hours per month and for 3 Year	1 ea



- ⑮ INSTALL TWO-WAY BRACKET ARM MTD., PEDESTRIAN T.S. WITH COUNTDOWN TIMERS
- ⑯⑰⑱ INSTALL VIDEO CAPTURE AND STREAMING SYSTEM ON 18 FT BRACKET ARM



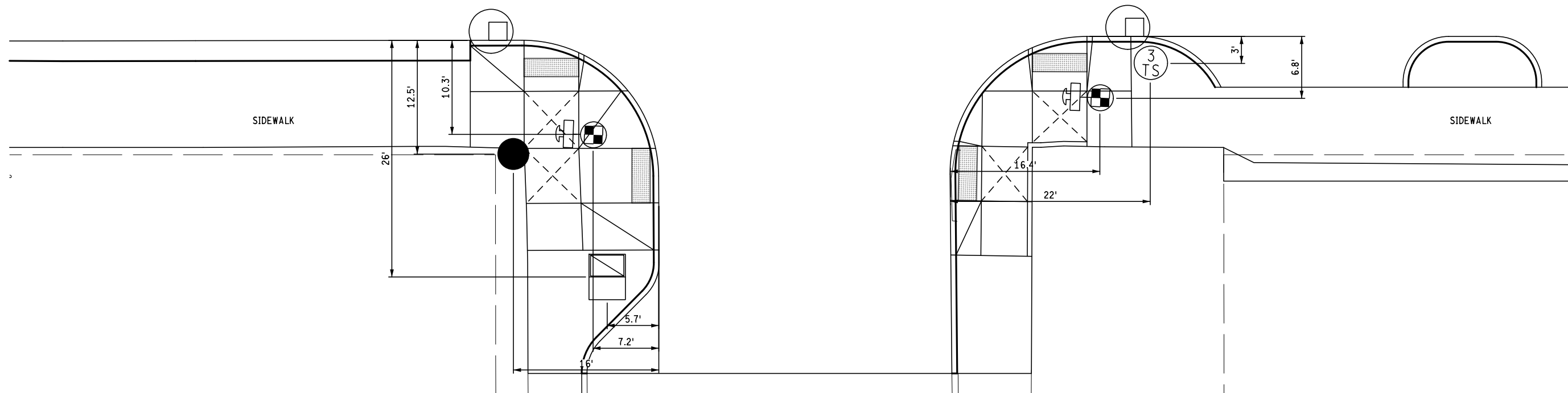
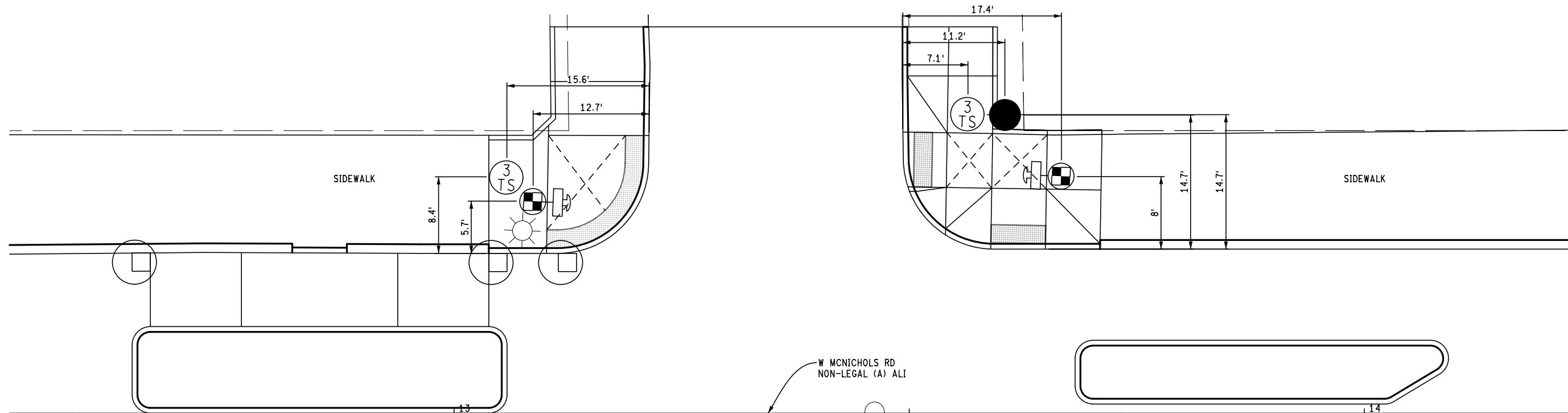
- ⑲⑳ INSTALL 5 FOOT PEDESTAL AND PEDESTAL FDN FOR PUSHBUTTON POST
- ㉑ INSTALL PUSHBUTTON & SIGN (R10-3e(L)) FOR CROSSING MCNICHOLS
- ⑩ INSTALL CONDUIT, 3, 4 INCH, ENCASED
- ⑨ INSTALL CONDUIT, 2, 3 INCH, ENCASED



PLAN
SCALE: 1"=30'

NOTES:
 1. CONTACT KIRIT PATEL AT (313) 628-5641 OF THE CITY OF DETROIT DPW, TRAFFIC ENGINEERING DIVISION, 48 HOURS PRIOR TO THE ACTIVATION OF NEW TRAFFIC SIGNALS.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING THE CONTROLLER AND WIRING THE CABINET. TIMING PERMITS CAN BE OBTAINED BY CONTACTING KIRIT PATEL AT (313) 628-5641 OF THE CITY OF DETROIT DPW, TRAFFIC ENGINEERING DIVISION.
 3. BRACKET ARM SHOULD BE MOUNTED TO ACHIEVE A 30 FOOT ELEVATION HEIGHT FOR THE CAMERA EQUIPMENT.
 4. MAST ARMS MUST BE MOUNTED TO ACHIEVE 17 FOOT MINIMUM CLEARANCE. MAST ARM CAT II TYPICAL GOVERNS.
 5. SEE SIGNING SHEETS FOR INSTRUCTIONS REGARDING UPGRADES TO EXISTING SIGNING.
 6. SEE CORRESPONDING TRAFFIC SIGNAL DETAIL SHEET FOR EQUIPMENT PLACEMENT DIMENSIONS.

GREENLAWN AVE

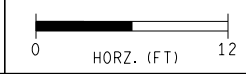


GREENLAWN AVE

W MCNICHOLS RD

W MCNICHOLS RD

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



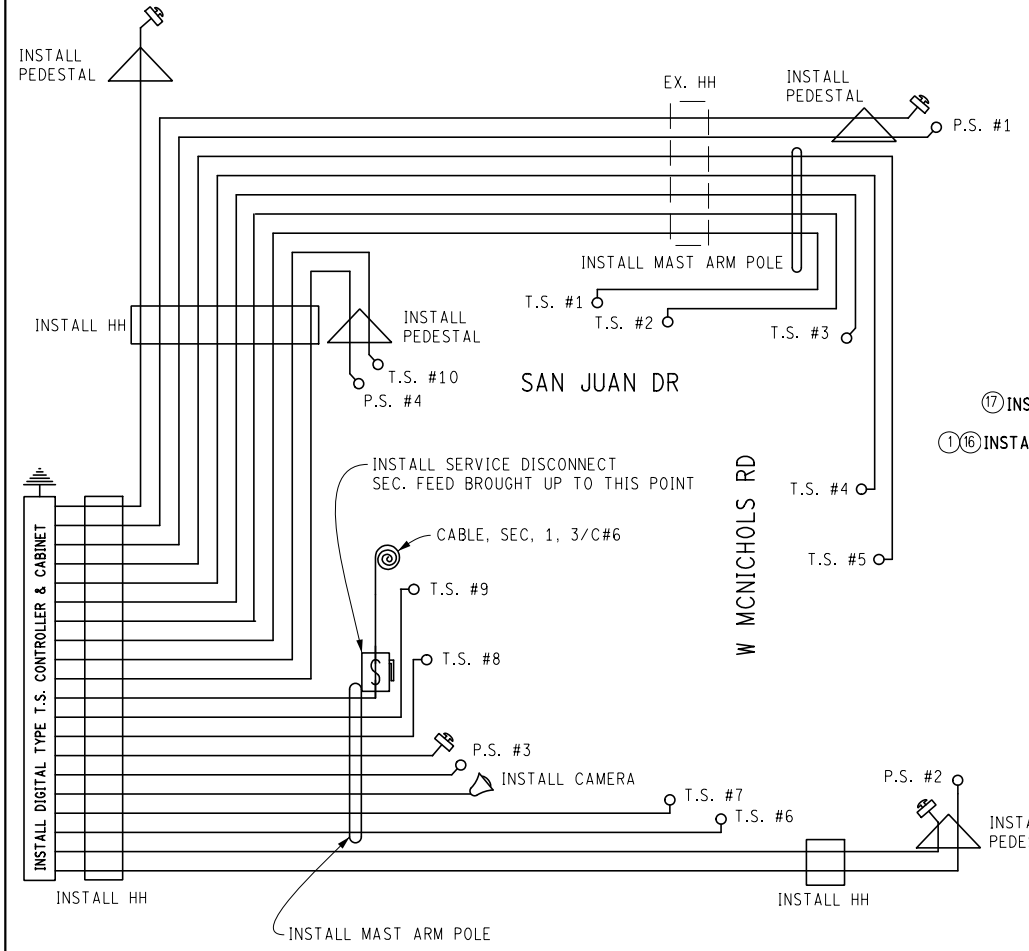
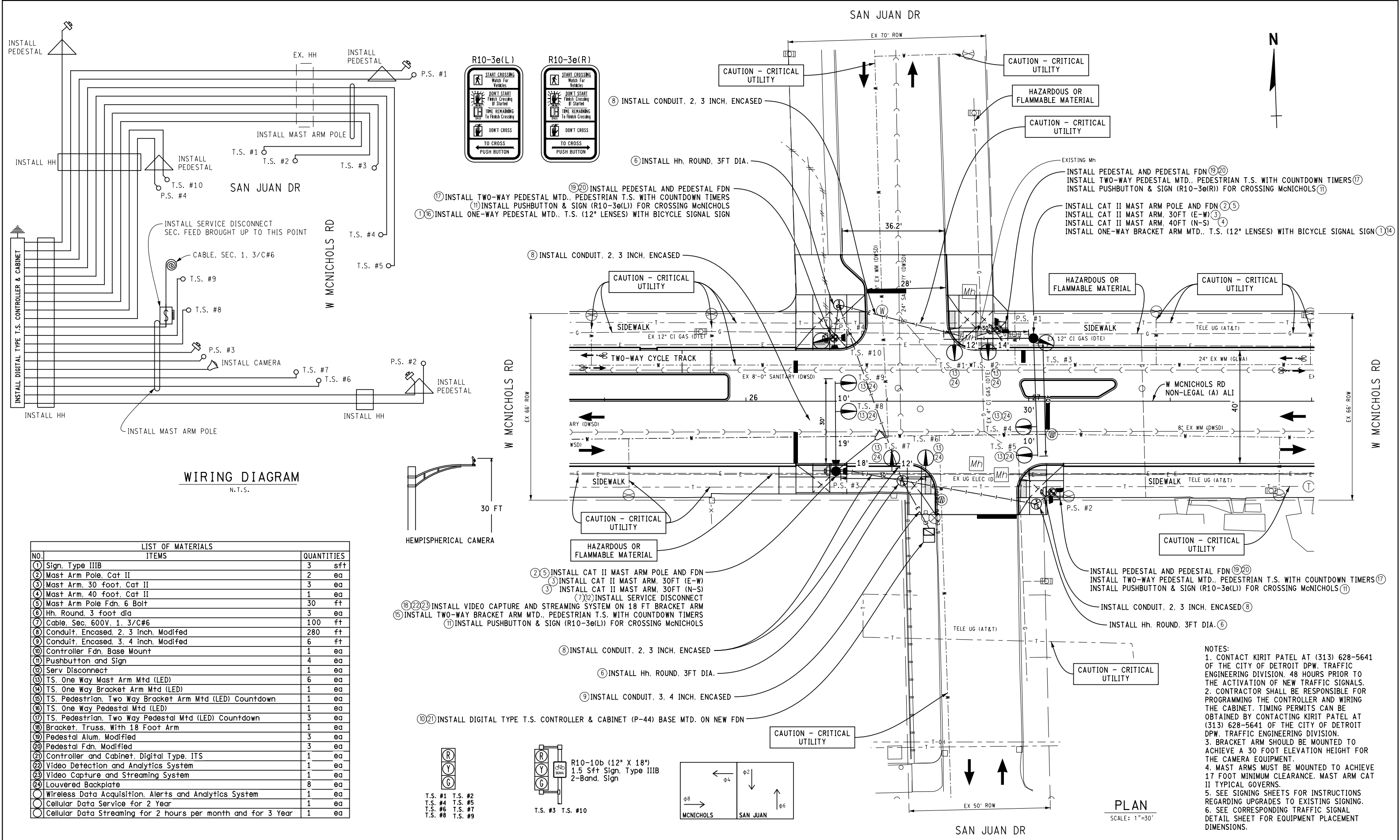
FILE:

DATE: 02/07/20

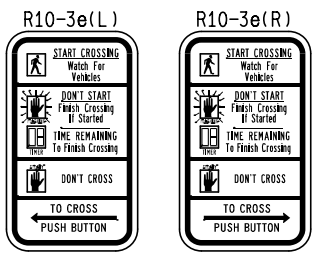
JN: PW-7004
MCNICHOLS STREETSCAPE

TRAFFIC SIGNAL DETAIL SHEET
MCNICHOLS STREETSCAPE
W MCNICHOLS RD AT GREENLAWN AVE

DRAWING SHEET
MCN SIGNAL 003
125



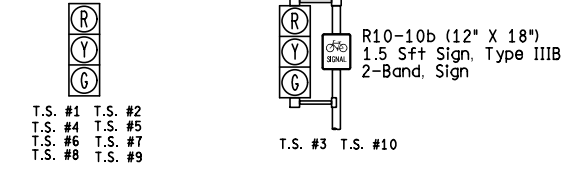
WIRING DIAGRAM
N.T.S.



- ①⑩ INSTALL ONE-WAY PEDESTAL MTD., T.S. (12" LENSES) WITH BICYCLE SIGNAL SIGN
- ⑪ INSTALL PUSHBUTTON & SIGN (R10-3e(L)) FOR CROSSING McNICHOLS
- ⑬⑭ INSTALL PEDESTAL AND PEDESTAL FDN
- ⑮⑯ INSTALL TWO-WAY PEDESTAL MTD., PEDESTRIAN T.S. WITH COUNTDOWN TIMERS

- ⑫⑬ INSTALL SERVICE DISCONNECT
- ⑭⑮ INSTALL TWO-WAY BRACKET ARM MTD., PEDESTRIAN T.S. WITH COUNTDOWN TIMERS
- ⑯ INSTALL PUSHBUTTON & SIGN (R10-3e(L)) FOR CROSSING McNICHOLS

- ⑰⑱ INSTALL DIGITAL TYPE T.S. CONTROLLER & CABINET (P-44) BASE MTD. ON NEW FDN



T.S. #1 T.S. #2
T.S. #4 T.S. #5
T.S. #6 T.S. #7
T.S. #8 T.S. #9

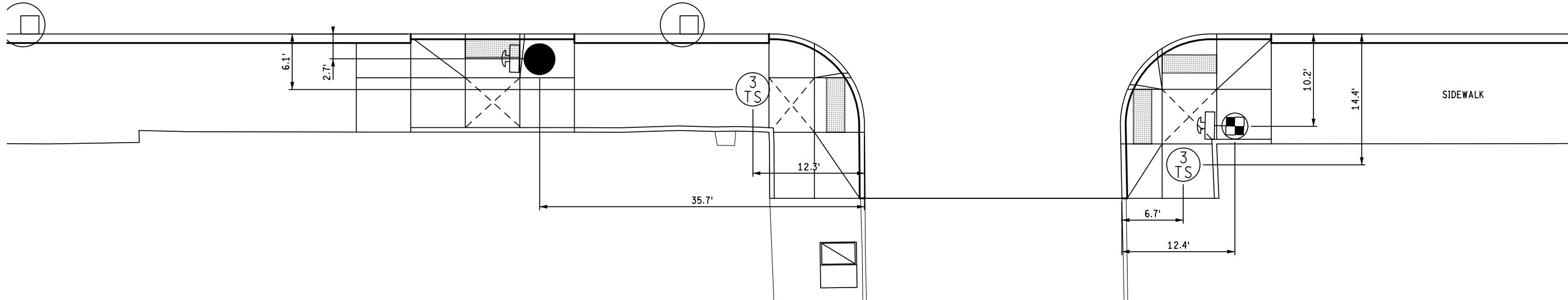
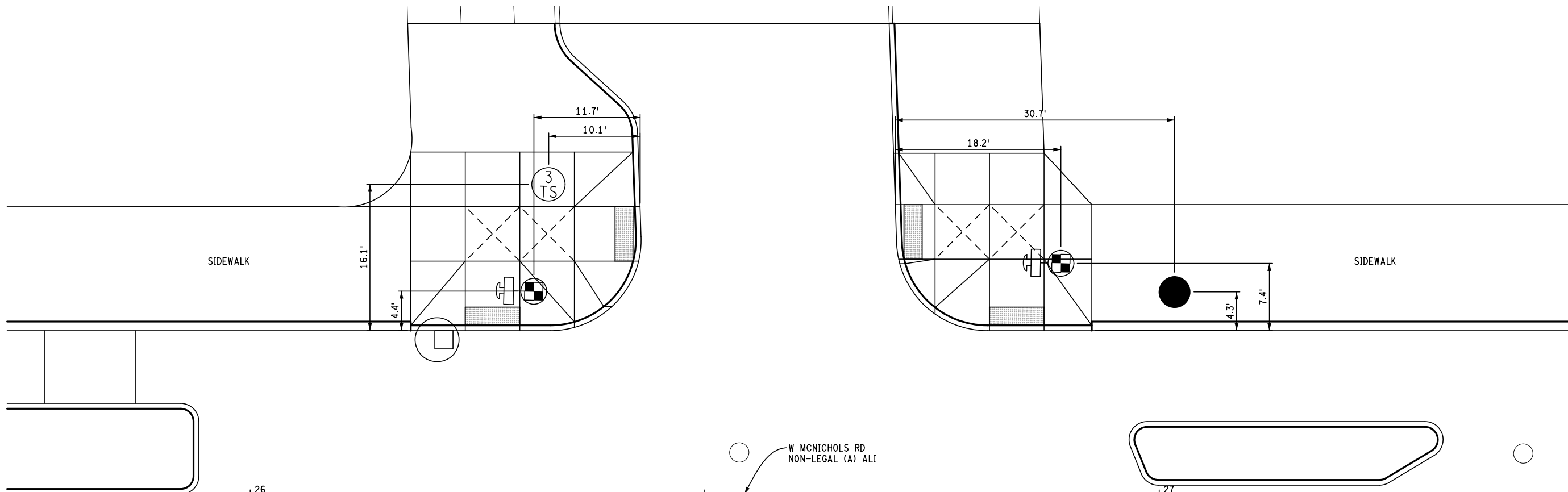
T.S. #3 T.S. #10

NO.	LIST OF MATERIALS ITEMS	QUANTITIES
①	Sign, Type III B	3 sft
②	Mast Arm Pole, Cat II	2 ea
③	Mast Arm, 30 foot, Cat II	3 ea
④	Mast Arm, 40 foot, Cat II	1 ea
⑤	Mast Arm Pole Fdn, 6 Bolt	30 ft
⑥	Hh, Round, 3 foot dia	3 ea
⑦	Cable, Sec. 600V, 1, 3/C#6	100 ft
⑧	Conduit, Encased, 2, 3 inch, Modified	280 ft
⑨	Conduit, Encased, 3, 4 inch, Modified	6 ft
⑩	Controller Fdn, Base Mount	1 ea
⑪	Pushbutton and Sign	4 ea
⑫	Serv Disconnect	1 ea
⑬	TS, One Way Mast Arm Mtd (LED)	6 ea
⑭	TS, One Way Bracket Arm Mtd (LED)	1 ea
⑮	TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	1 ea
⑯	TS, One Way Pedestal Mtd (LED)	1 ea
⑰	TS, Pedestrian, Two Way Pedestal Mtd (LED) Countdown	3 ea
⑱	Bracket, Truss, With 18 Foot Arm	1 ea
⑲	Pedestal Alum, Modified	3 ea
⑳	Pedestal Fdn, Modified	3 ea
㉑	Controller and Cabinet, Digital Type, ITS	1 ea
㉒	Video Detection and Analytics System	1 ea
㉓	Video Capture and Streaming System	1 ea
㉔	Louvered Backplate	8 ea
○	Wireless Data Acquisition, Alerts and Analytics System	1 ea
○	Cellular Data Service for 2 Year	1 ea
○	Cellular Data Streaming for 2 hours per month and for 3 Year	1 ea

NOTES:
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 6. SEE CORRESPONDING TRAFFIC SIGNAL DETAIL SHEET FOR EQUIPMENT PLACEMENT DIMENSIONS.

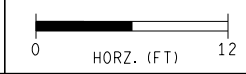
PLAN
SCALE: 1"=30'

SAN JUAN DR



SAN JUAN DR

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



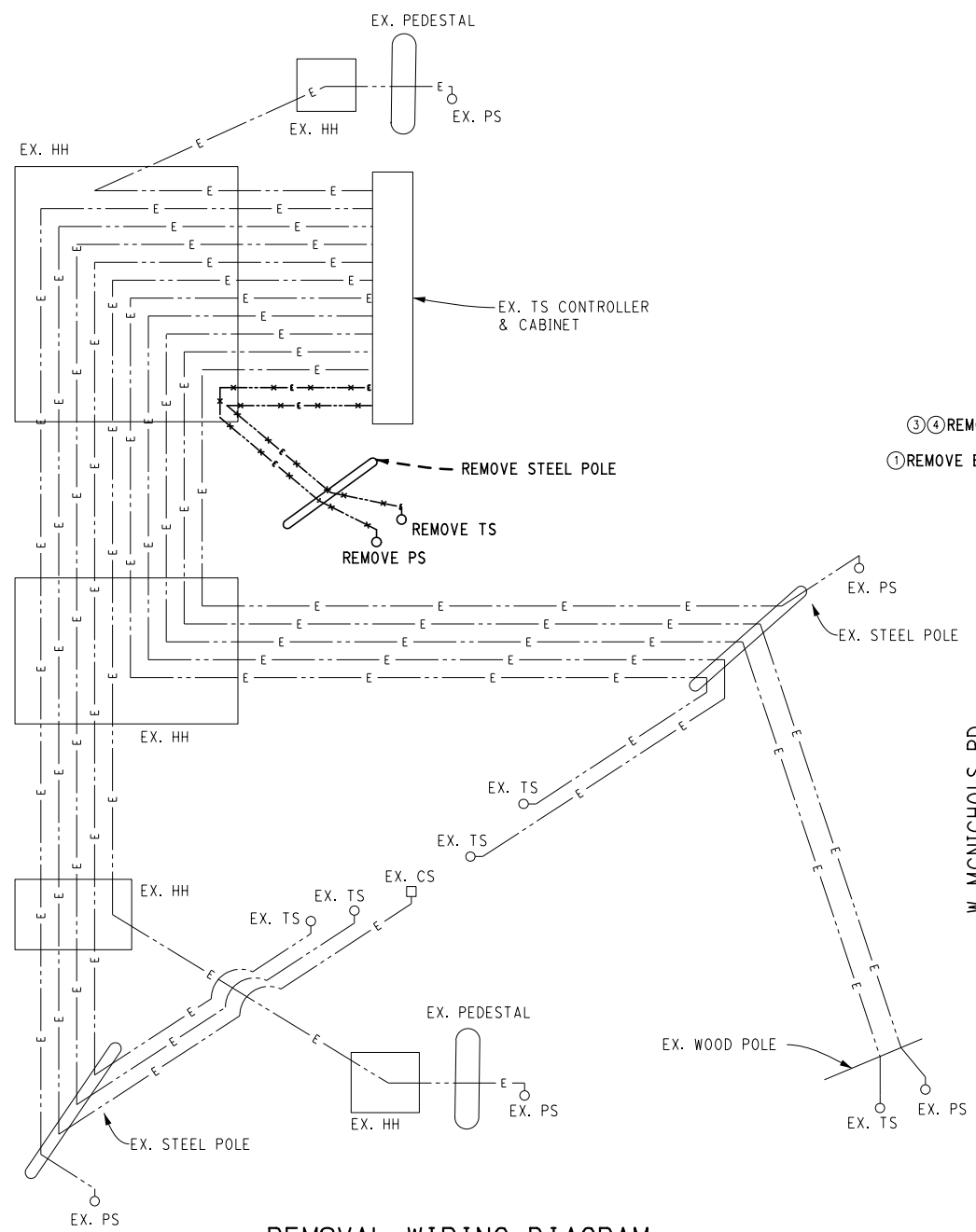
DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

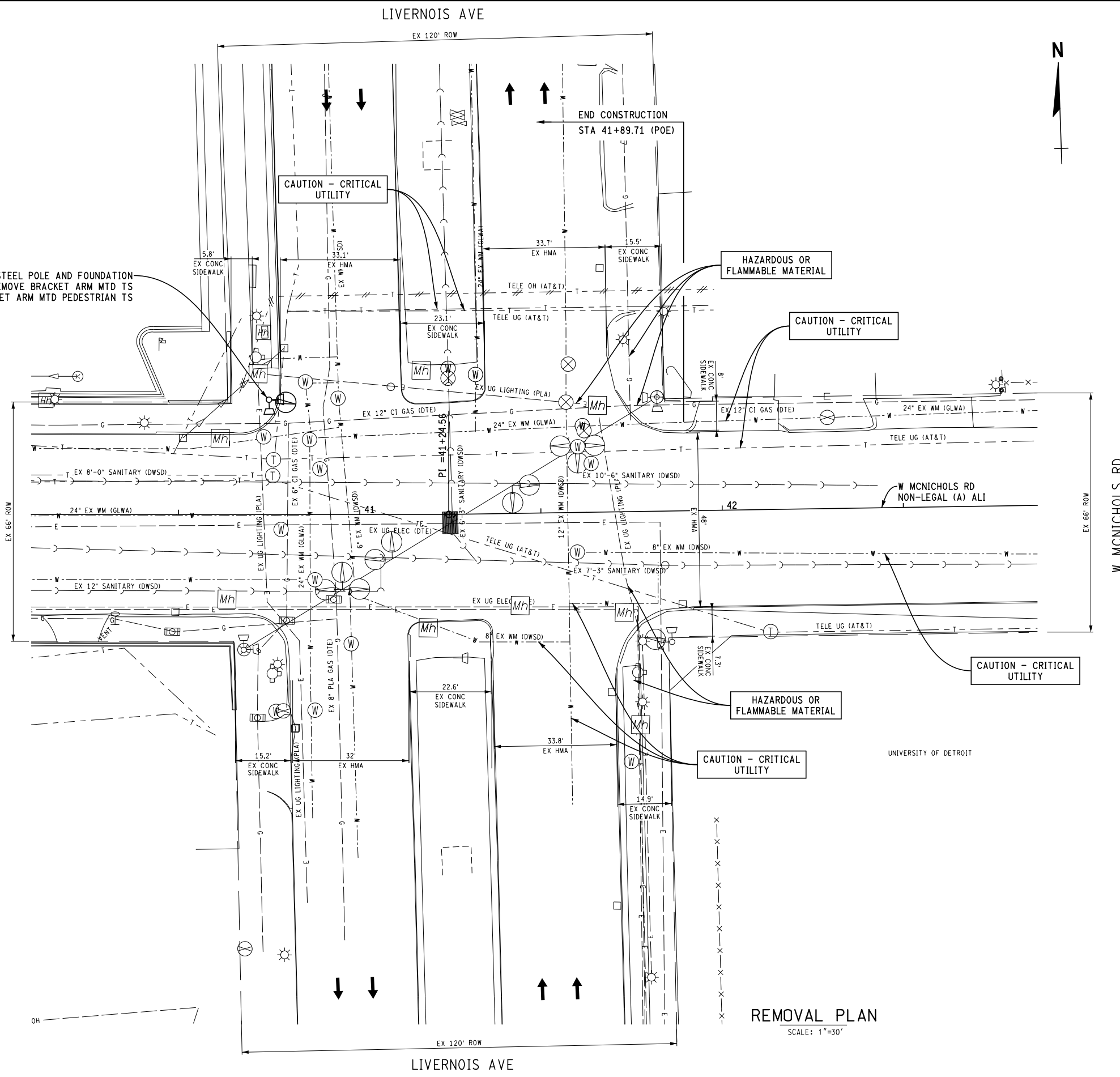
TRAFFIC SIGNAL DETAIL SHEET
MCNICHOLS STREETScape
W MCNICHOLS RD AT SAN JUAN ST

DRAWING SHEET
MCN SIGNAL 006
128



REMOVAL WIRING DIAGRAM
N.T.S.

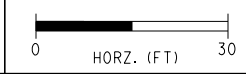
- ③④ REMOVE STEEL POLE AND FOUNDATION
- ② REMOVE BRACKET ARM MTD TS
- ① REMOVE BRACKET ARM MTD PEDESTRIAN TS



REMOVAL PLAN
SCALE: 1"=30'

LIST OF MATERIALS		
NO.	ITEMS	QUANTITIES
①	TS, Pedestrian, Bracket Arm Mtd, Rem	1 ea
②	TS, Bracket Arm Mtd, Rem	1 ea
③	Steel Pole, Rem	1 ea
④	Fdn, Rem	1 ea

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

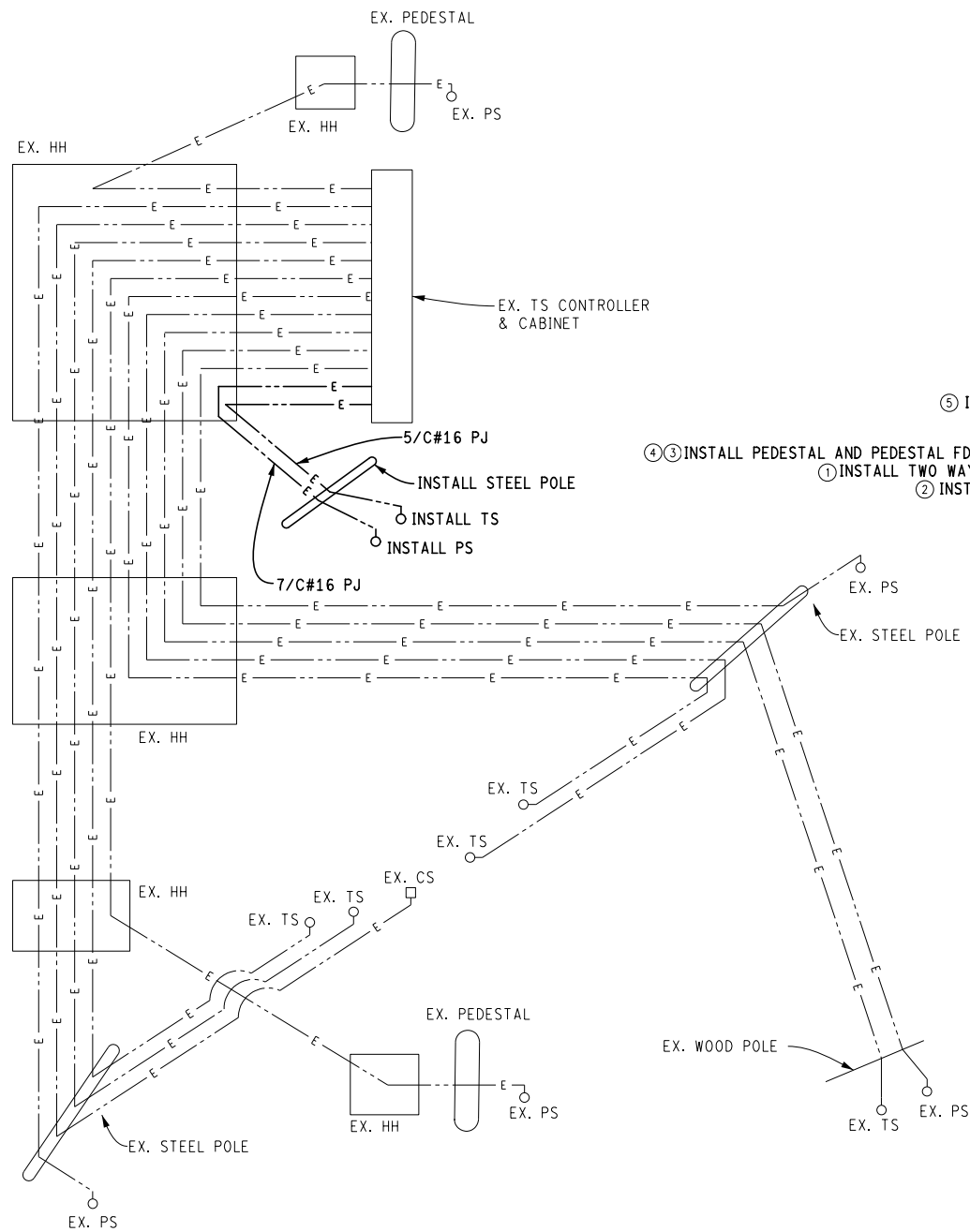


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETSCAPE

TRAFFIC SIGNAL REMOVAL SHEET
MCNICHOLS STREETSCAPE
W MCNICHOLS RD AT LIVERNOIS AVE

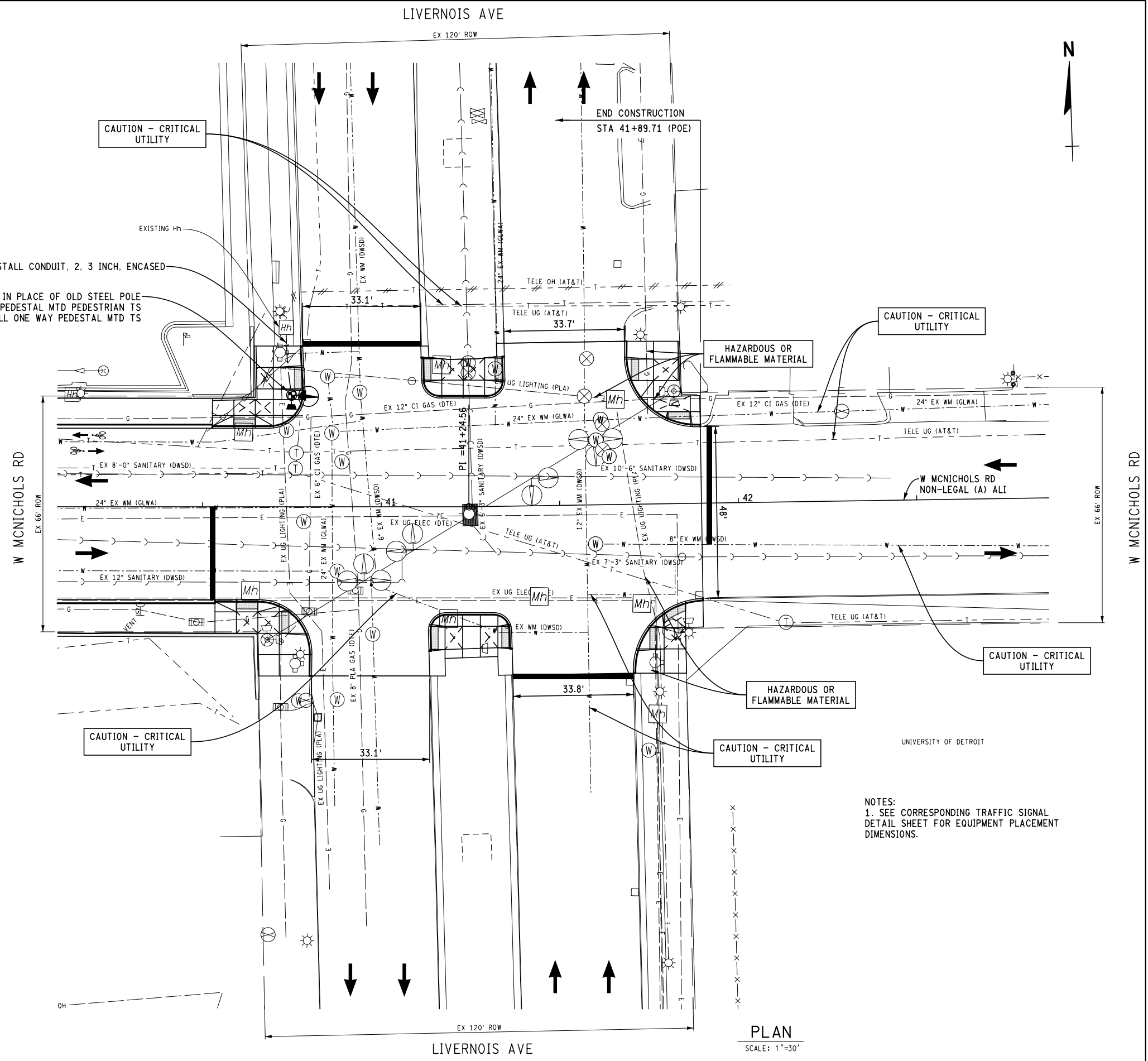
DRAWING SHEET
MCN SIGNAL 007
129



WIRING DIAGRAM
N.T.S.

LIST OF MATERIALS		
NO.	ITEMS	QUANTITIES
①	TS, Pedestrian, Two Way Pedestal Mtd (LED) Countdown	1 ea
②	TS, One Way Pedestal Mtd (LED)	1 ea
③	Pedestal, Alum, Modified	1 ea
④	Pedestal, Fdn, Modified	1 ea
⑤	Conduit, Encased, 2, 3 Inch, Modified	30 ft

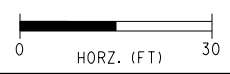
- ⑤ INSTALL CONDUIT, 2, 3 INCH, ENCASED
- ④③ INSTALL PEDESTAL AND PEDESTAL FDN IN PLACE OF OLD STEEL POLE
- ① INSTALL TWO WAY PEDESTAL MTD PEDESTRIAN TS
- ② INSTALL ONE WAY PEDESTAL MTD TS



PLAN
SCALE: 1"=30'

NOTES:
1. SEE CORRESPONDING TRAFFIC SIGNAL
DETAIL SHEET FOR EQUIPMENT PLACEMENT
DIMENSIONS.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



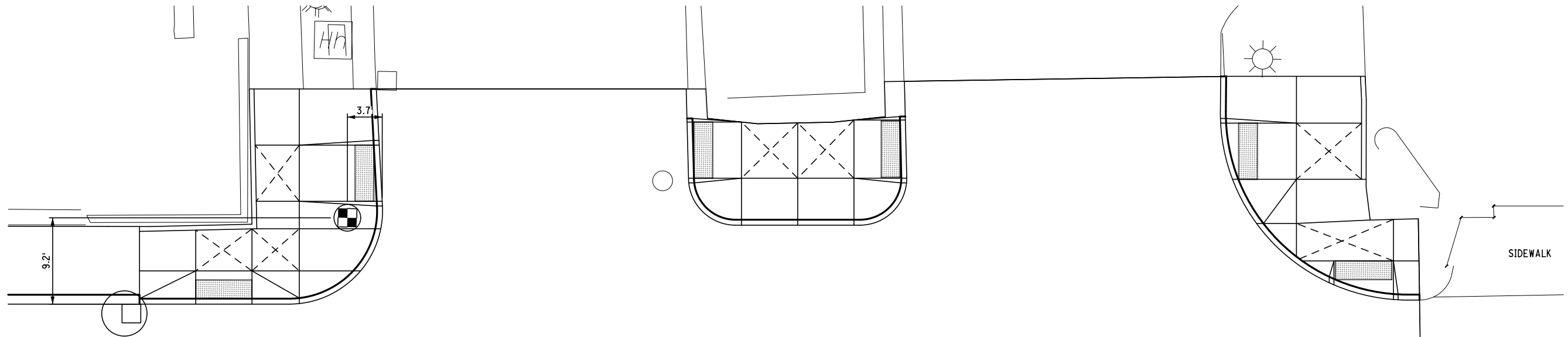
DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

TRAFFIC SIGNAL CONSTRUCTION SHEET
MCNICHOLS STREETScape
W MCNICHOLS RD AT LIVERNOIS AVE
DRAWING SHEET
MCN SIGNAL 008
130

SB LIVERNOIS AVE

NB LIVERNOIS AVE



W MCNICHOLS RD
NON-LEGAL (A) ALI

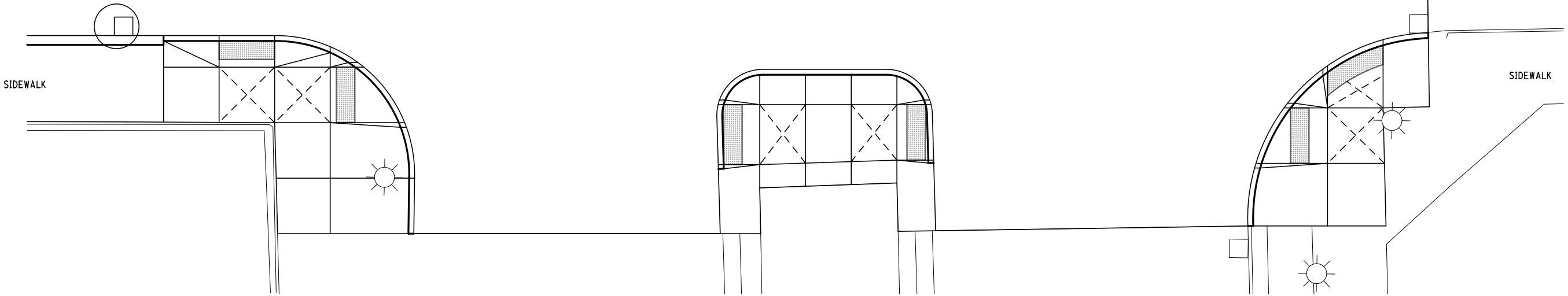
PI = 41+24.56

41

42

W MCNICHOLS RD

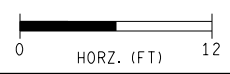
W MCNICHOLS RD



SB LIVERNOIS AVE

NB LIVERNOIS AVE

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



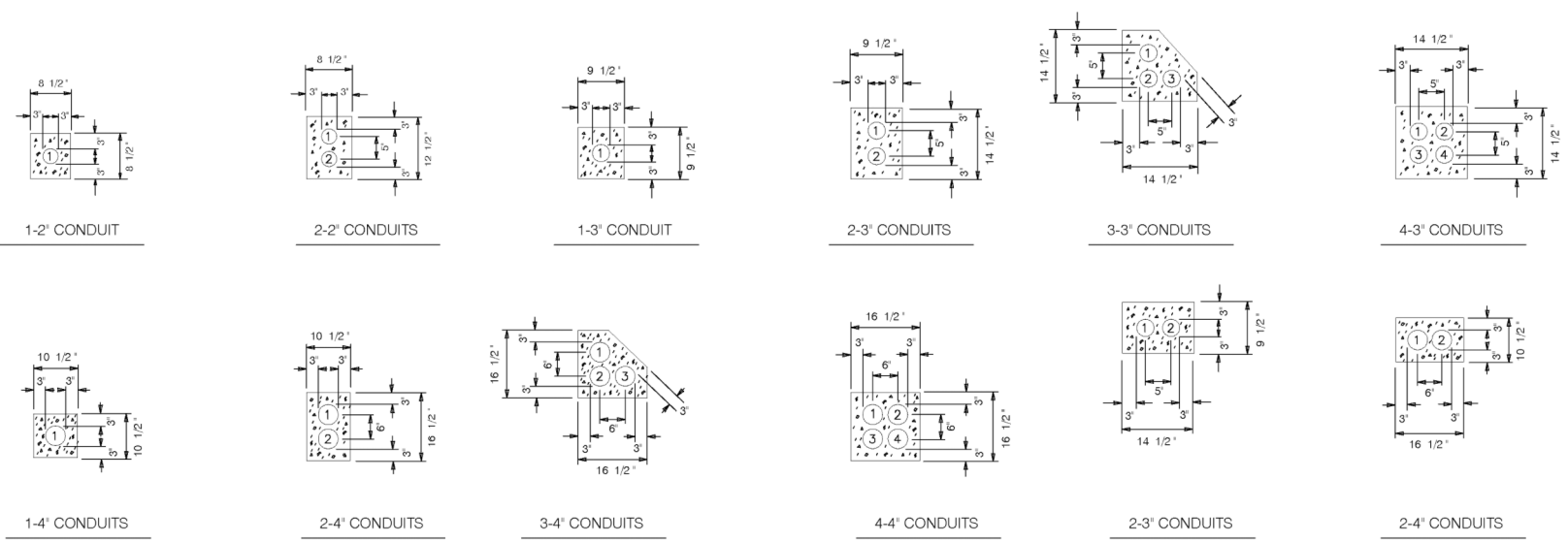
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JN: PW-7004
MCNICHOLS STREETScape

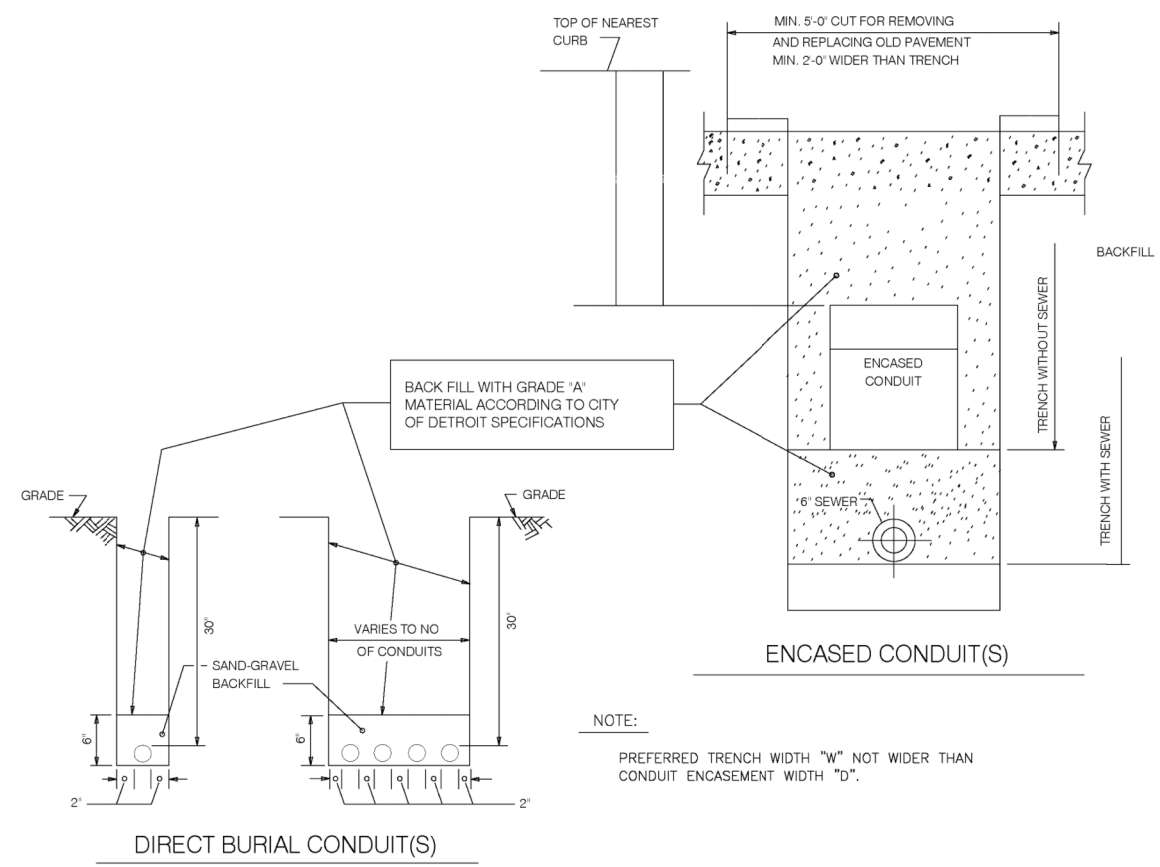
TRAFFIC SIGNAL DETAIL SHEET
MCNICHOLS STREETScape
W MCNICHOLS RD AT LIVERNOIS AVE

DRAWING SHEET
MCN SIGNAL 009
131

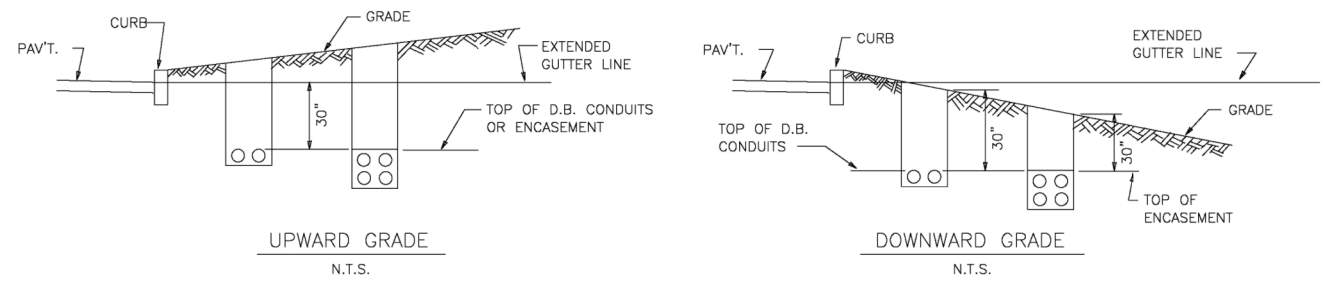


ALTERNATE CONDUITS ARRANGEMENTS

(TO SUIT FIELD CONDITIONS)
(TO BE APPROVED BY THE ENGINEER)

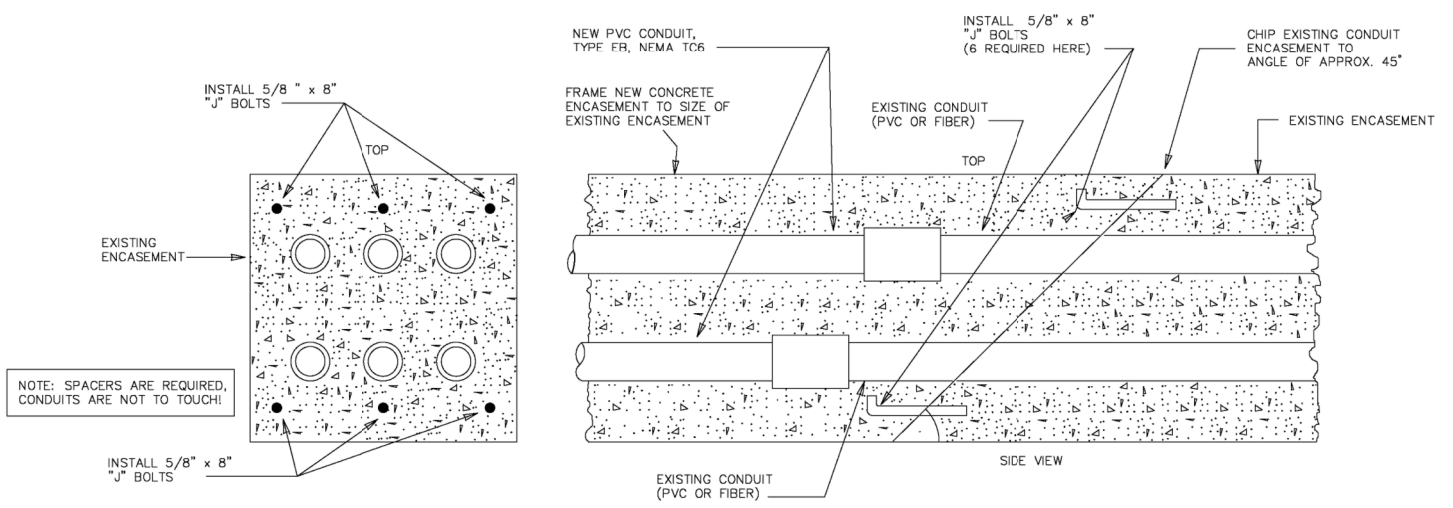


NOTE:
PREFERRED TRENCH WIDTH "W" NOT WIDER THAN CONDUIT ENCASEMENT WIDTH "D".

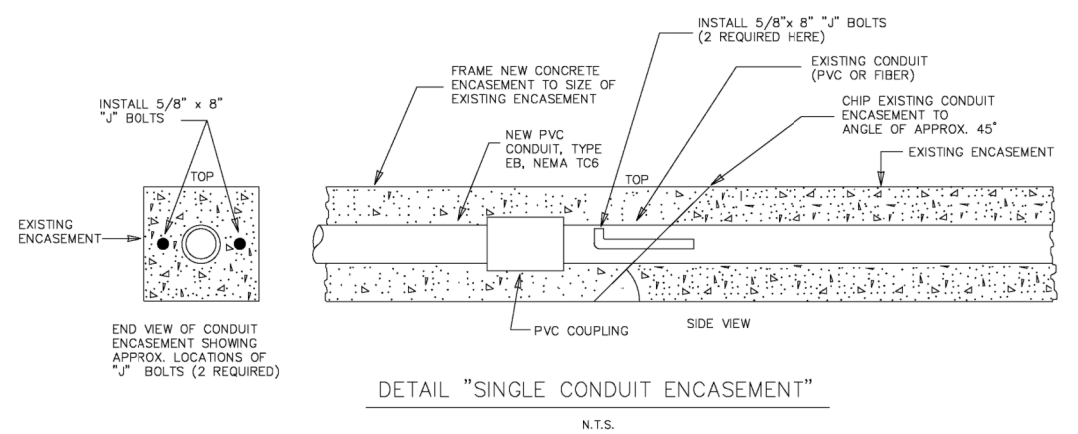


UPWARD GRADE
N.T.S.

DOWNWARD GRADE
N.T.S.



DETAIL "MULTIPLE CONDUIT ENCASEMENT"
N.T.S.



DETAIL "SINGLE CONDUIT ENCASEMENT"
N.T.S.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

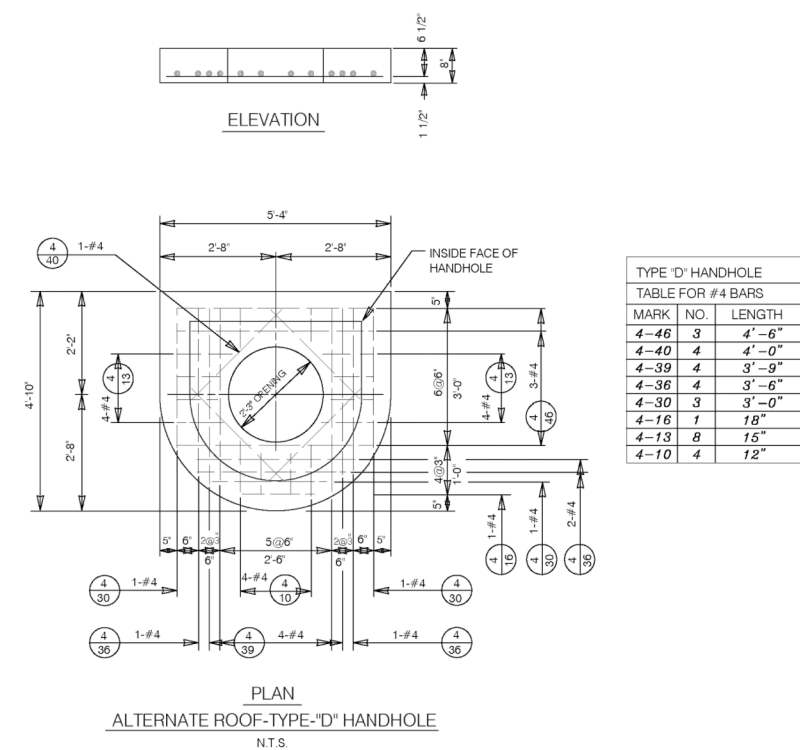
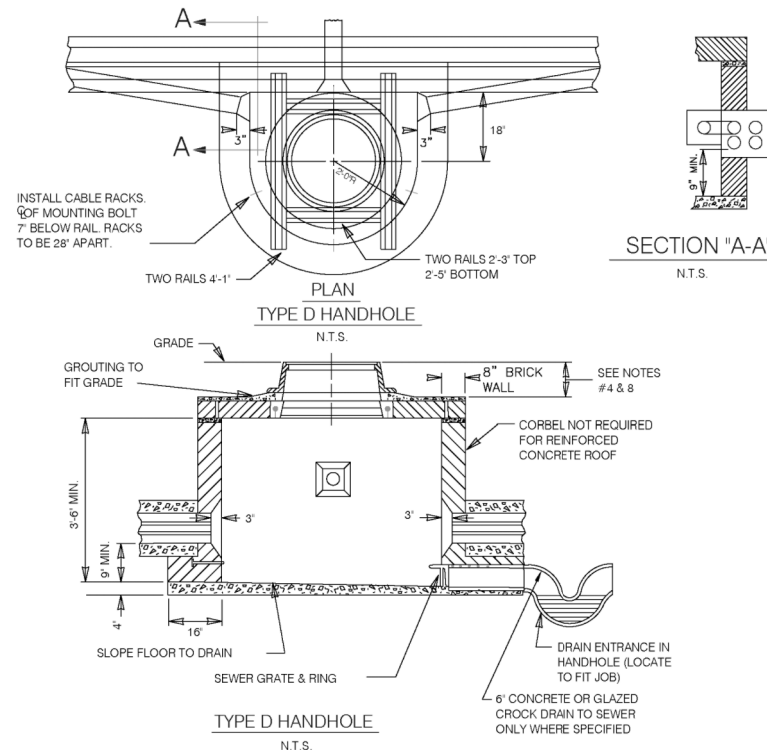
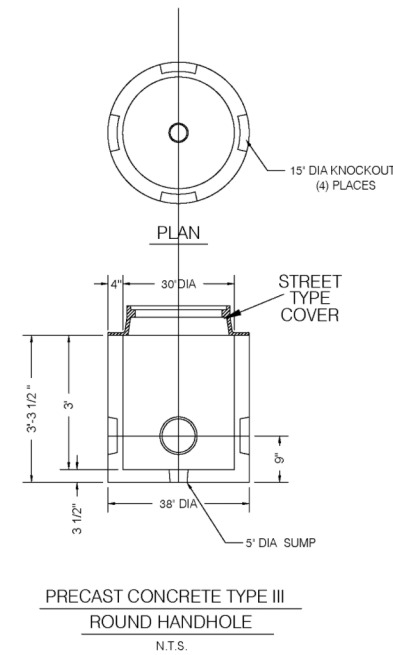
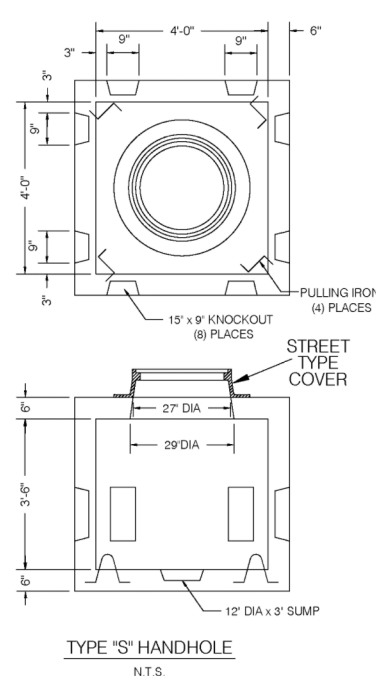
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DATE: 02/07/20

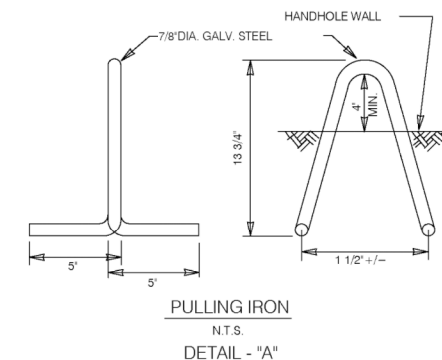
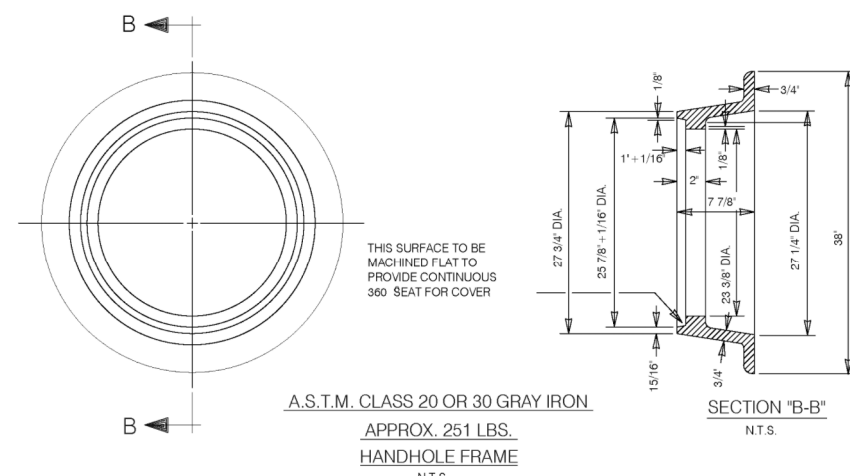
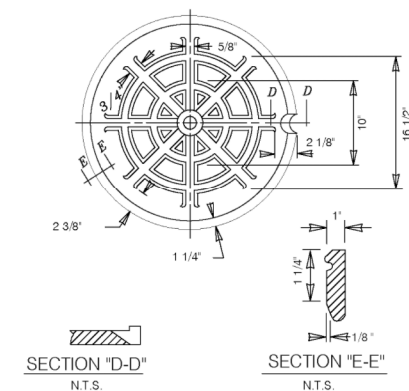
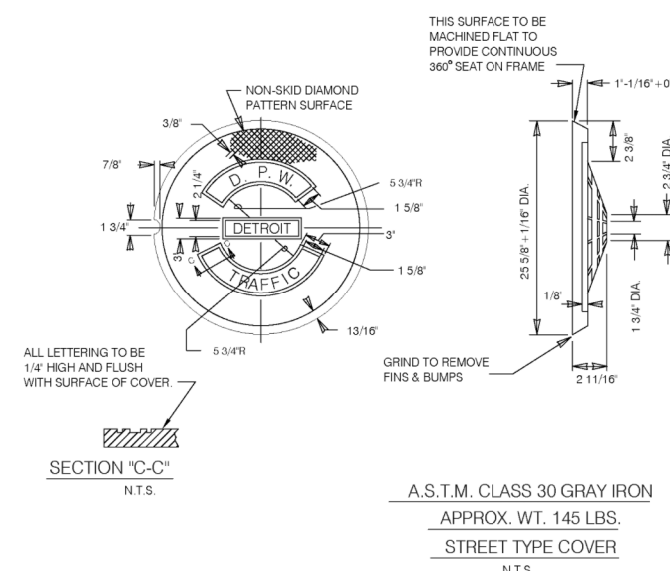
JN: PW-7004
MCNICHOLS STREETScape

TRAFFIC SIGNAL DETAIL SHEET
MCNICHOLS STREETScape
CONDUIT DETAIL

DRAWING SHEET
MCN SIGNAL 010
132



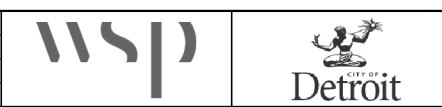
NOTE
 BELL ENDS ARE REQUIRED ON EACH CONDUIT BROKEN OUT IN HANDHOLE. TYPE AND SIZE SHALL BE IDENTICAL TO CONDUIT TYPE AND SIZE.



NOTE
 ALL FILLETS ARE 1/2" RADIUS & ALL ROUNDS ARE 1/4" RADIUS

- NOTES:**
- DUCT ENTRANCE TO BE BUILT AS REQUIRED.
 - ALL RAILS TO BE 60 #/YD. OR HEAVIER.
 - CABLE PULLING IRONS TO BE GALVANIZED
 - IN PAVEMENT PROVIDE AT LEAST 6" BETWEEN ROOF AND BASE OF PAVEMENT. WHERE EXISTING GRADE IS HIGHER THAN PROP. FUTURE GRADE INSTALL BRICK RING OR GROUT (AS REQ'D.) UNDER FRAME TO ALLOW FOR FUTURE FRAME ADJUSTMENT.
 - BAR NUMBERS DENOTE THE SIZE OF BAR REQUIRED IN ACCORDANCE WITH CURRENT USAGE SPECIFIED BY THE CONCRETE REINFORCING STEEL INSTITUTE.
 - EXCAVATION LIMITS FOR DEPARTMENT OF PUBLIC WORKS HANDHOLES SHALL BE ON VERTICAL PLANES OF THE FOOTING OUTLINE.
 - INSTALL ANCHORS & CABLE-RACKS AS SHOWN.
 - WHERE HANDHOLES ARE LOCATED BACK OF CURBS ROOF MUST BE BUILT 18" BELOW CURB GRADE, TO PROVIDE FOR FUTURE WIDENING.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
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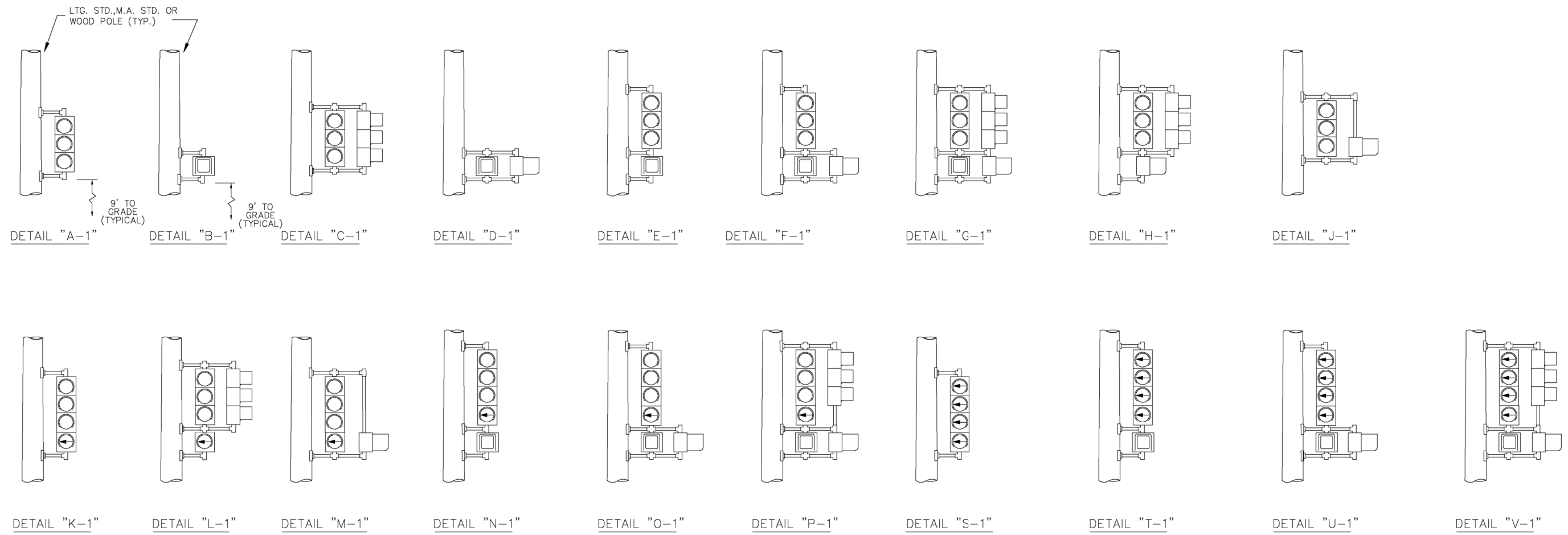
NO SCALE

DATE: 02/07/20
 FILE:

JN: PW-7004
 MCNICHOLS STREETScape

TRAFFIC SIGNAL DETAIL SHEET
 MCNICHOLS STREETScape
 HANDHOLE DETAILS

DRAWING SHEET
 MCN SIGNAL 011
133



NOTE:
 THE RELATIVE POSITION OF 2-WAY T.S. & PEDESTRIAN BRACKET ARM SIGNALS WITHIN THE BRACKET ASSEMBLY SHALL BE REVERSED (I.E. THE SIGNAL NEAREST THE POLE GOES TO THE OUTSIDE OF THE BRACKET ASSEMBLY & THE OUTSIDE SIGNAL GOES INBOARD OR NEAREST TO POLE) ACCORDING TO THE PLAN VIEW TO PROVIDE CLEAR VEHICULAR AND PEDESTRIAN VIEWING.

NOTE:
 PIPE ASSEMBLY SHALL BE OF SUCH LENGTH AND HEIGHT AS TO ACCOMMODATE TRAFFIC SIGNALS AND PEDESTRIAN SIGNALS FOR PROPER MAINTENANCE AND CLEAR VEHICULAR AND PEDESTRIAN VIEWING.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

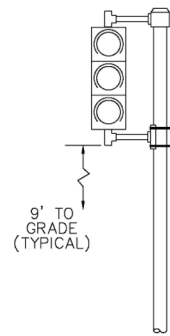
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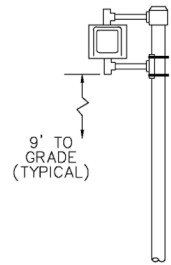
JN: PW-7004
 MCNICHOLS STREETScape

TRAFFIC SIGNAL DETAIL SHEET
 MCNICHOLS STREETScape
 T.S. BRACKET ARM ASSEMBLY DETAILS

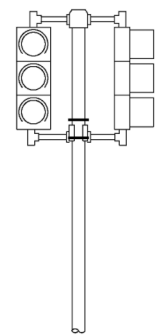
DRAWING SHEET
 MCN SIGNAL 012 **134**



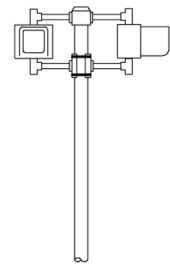
DETAIL "A-2"



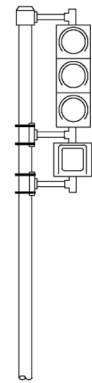
DETAIL "B-2"



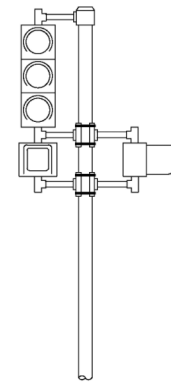
DETAIL "C-2"



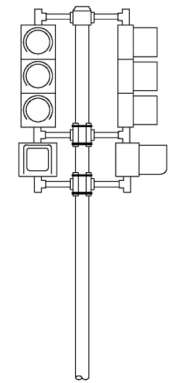
DETAIL "D-2"



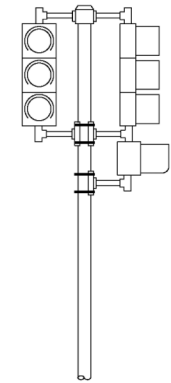
DETAIL "E-2"



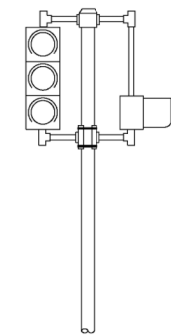
DETAIL "F-2"



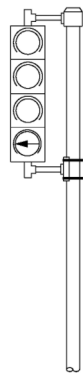
DETAIL "G-2"



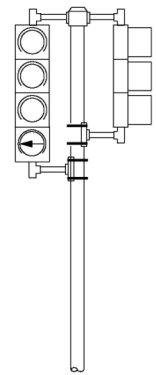
DETAIL "H-2"



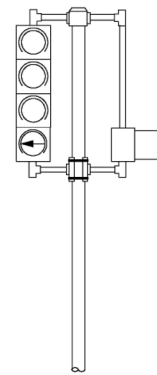
DETAIL "J-2"



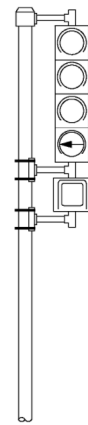
DETAIL "K-2"



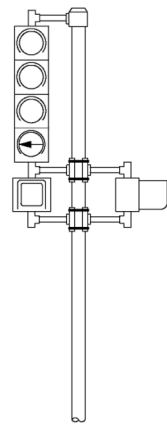
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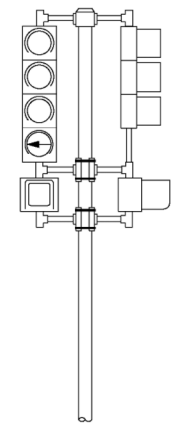
DETAIL "M-2"



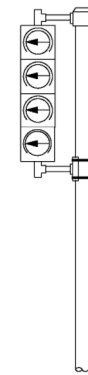
DETAIL "N-2"



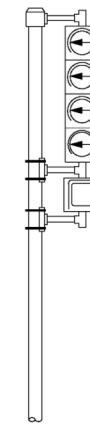
DETAIL "O-2"



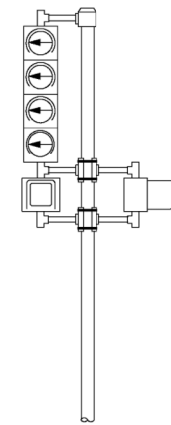
DETAIL "P-2"



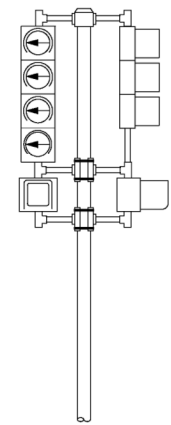
DETAIL "S-2"



DETAIL "T-2"



DETAIL "U-2"



DETAIL "V-2"

NOTE:
THE RELATIVE POSITION OF 2-WAY T.S. & PEDESTRIAN BRACKET ARM SIGNALS WITHIN THE BRACKET ASSEMBLY SHALL BE REVERSED (I.E. THE SIGNAL NEAREST THE POLE GOES TO THE OUTSIDE OF THE BRACKET ASSEMBLY & THE OUTSIDE SIGNAL GOES INBOARD OR NEAREST TO POLE) ACCORDING TO THE PLAN VIEW TO PROVIDE CLEAR VEHICULAR AND PEDESTRIAN VIEWING.

NOTE:
PIPE ASSEMBLY SHALL BE OF SUCH LENGTH AND HEIGHT AS TO ACCOMMODATE TRAFFIC SIGNALS AND PEDESTRIAN SIGNALS FOR PROPER MAINTENANCE AND CLEAR VEHICULAR AND PEDESTRIAN VIEWING.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

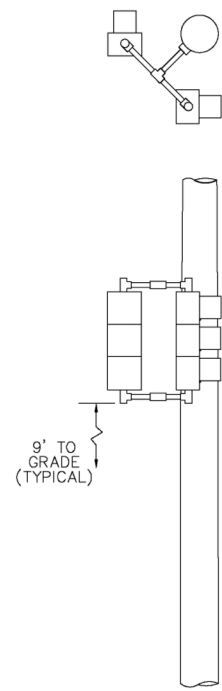
FILE:

DATE: 02/07/20

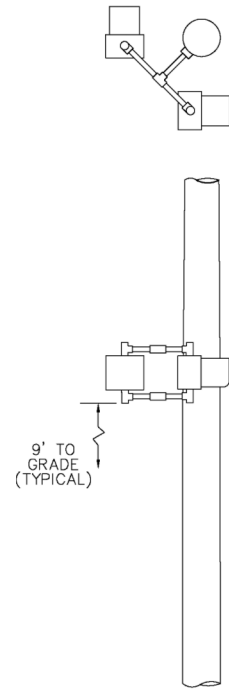
JN: PW-7004
MCNICHOLS STREETScape

TRAFFIC SIGNAL DETAIL SHEET
MCNICHOLS STREETScape
T.S. PEDESTAL ASSEMBLY DETAILS

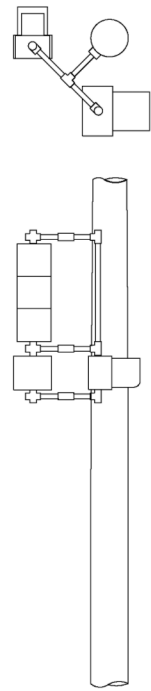
DRAWING SHEET
MCN SIGNAL 013 **135**



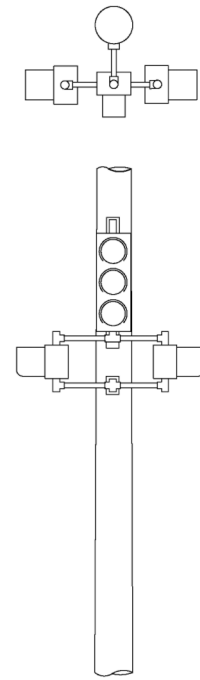
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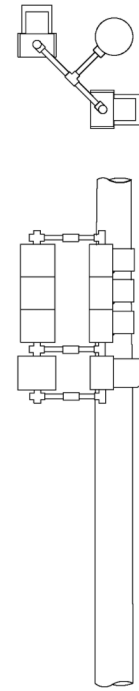
DETAIL "D-3"



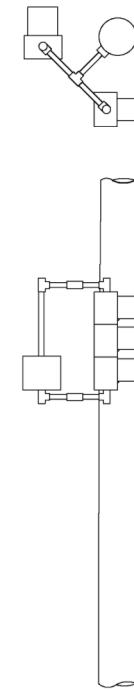
DETAIL "E-3"



DETAIL "F-3"



DETAIL "G-3"



DETAIL "J-3"

NOTE:
 THE RELATIVE POSITION OF 2-WAY T.S. & PEDESTRIAN BRACKET ARM SIGNALS WITHIN THE BRACKET ASSEMBLY SHALL BE REVERSED (I.E. THE SIGNAL NEAREST THE POLE GOES TO THE OUTSIDE OF THE BRACKET ASSEMBLY & THE OUTSIDE SIGNAL GOES INBOARD OR NEAREST TO POLE) ACCORDING TO THE PLAN VIEW TO PROVIDE CLEAR VEHICULAR AND PEDESTRIAN VIEWING.

NOTE:
 PIPE ASSEMBLY SHALL BE OF SUCH LENGTH AND HEIGHT AS TO ACCOMMODATE TRAFFIC SIGNALS AND PEDESTRIAN SIGNALS FOR PROPER MAINTENANCE AND CLEAR VEHICULAR AND PEDESTRIAN VIEWING.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

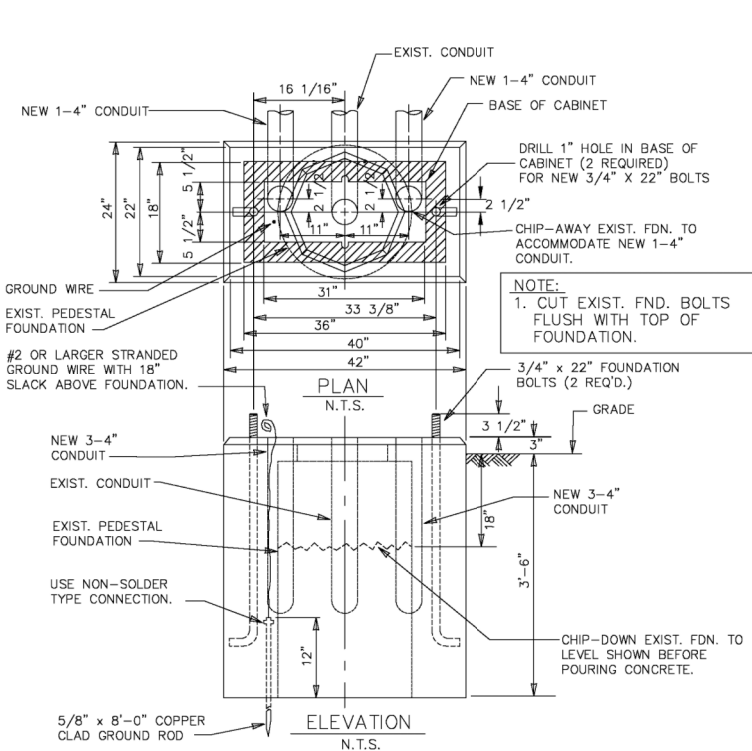
FILE:

DATE: 02/07/20

JN: PW-7004
 MCNICHOLS STREETScape

TRAFFIC SIGNAL DETAIL SHEET
 MCNICHOLS STREETScape
 T.S. BRACKET ARM ASSEMBLY DETAILS

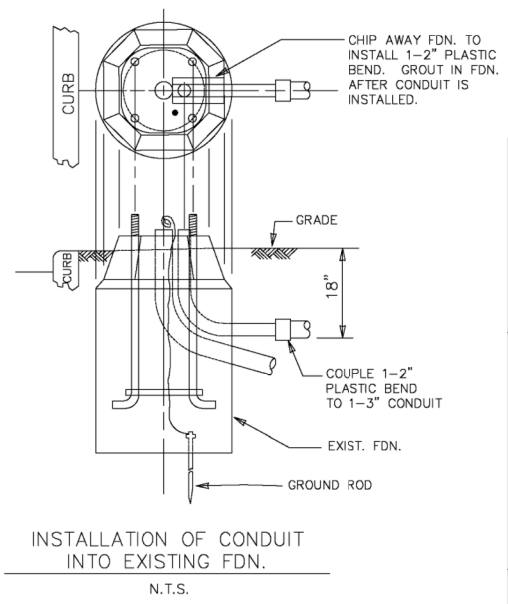
DRAWING SHEET
 MCN SIGNAL 014 **136**



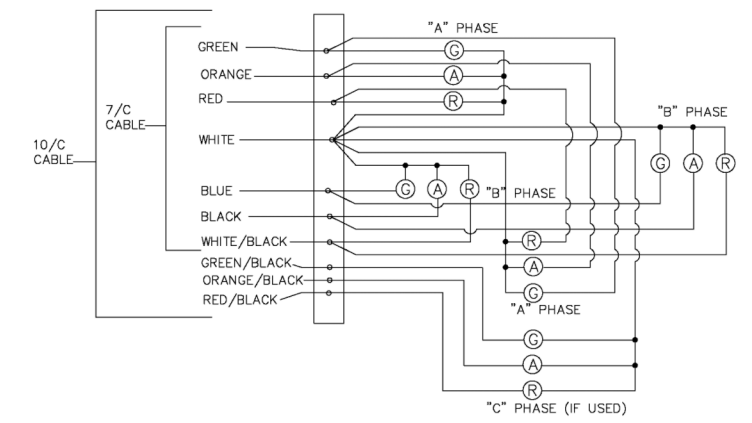
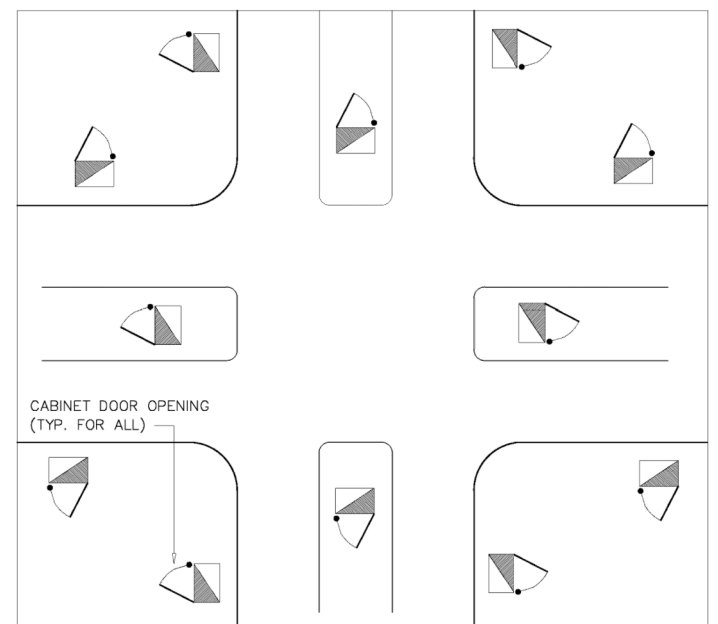
MODIFICATION OF PEDESTAL FDN. FOR BASE MOUNTED T.S. CONTROLLER (M-36)
N.T.S.

NOTE:
GROUNDING SYSTEM SHALL MEASURE 10 OHM OR LESS TO GROUND.

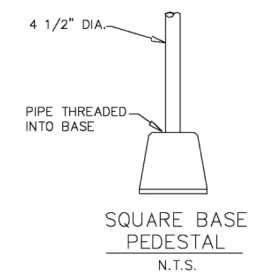
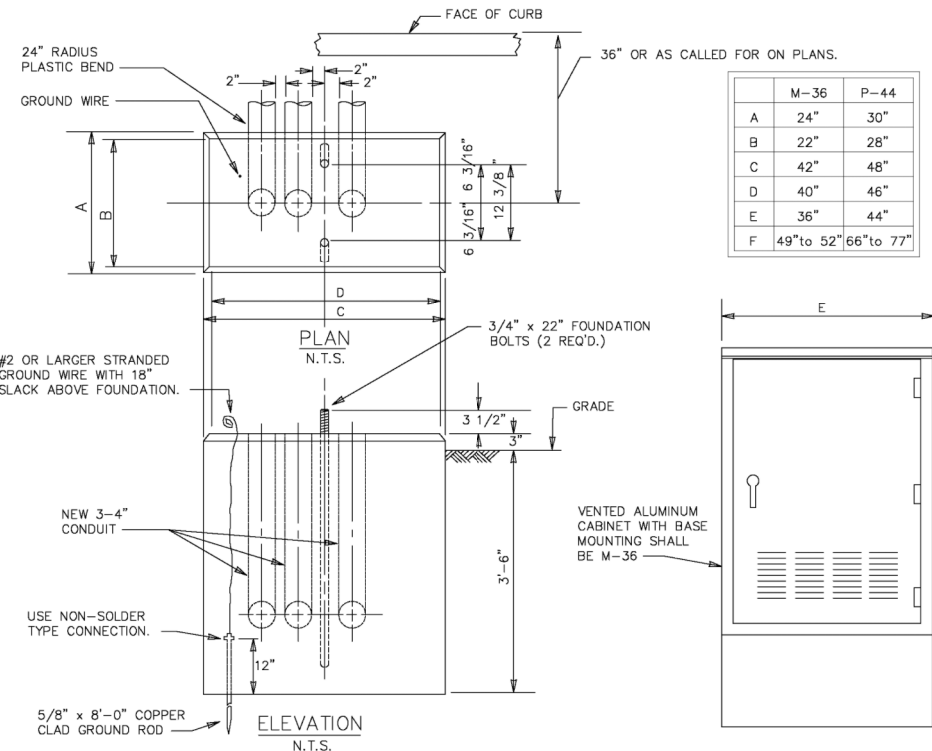
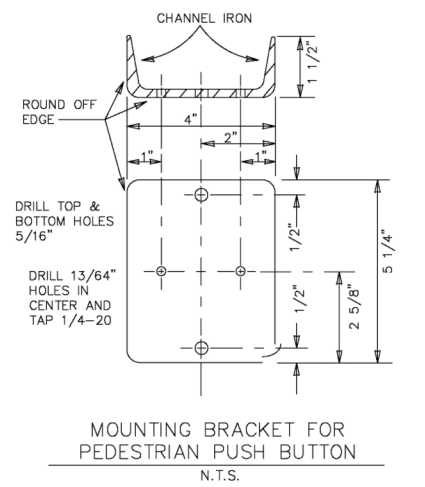
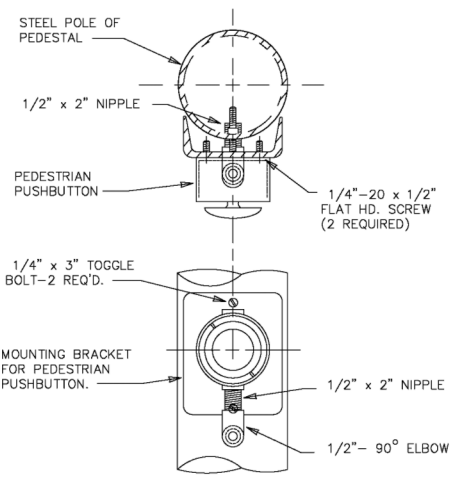
ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTION ABOVE CAP SHALL BE CLEAN OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH.



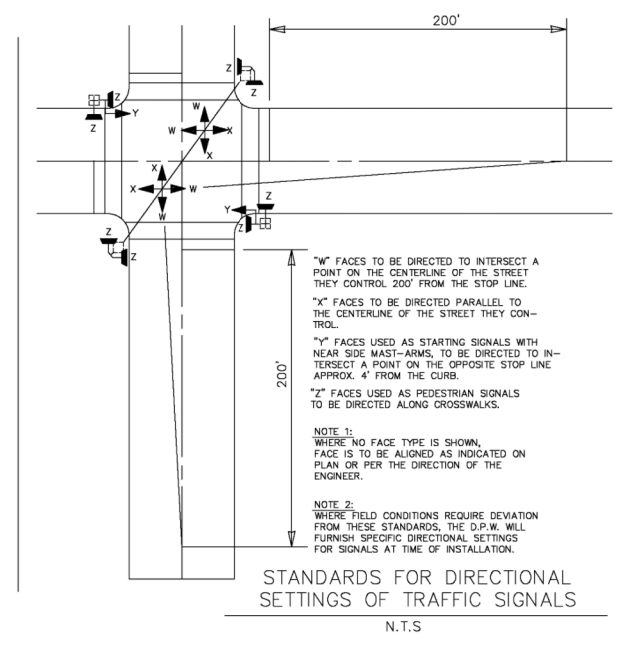
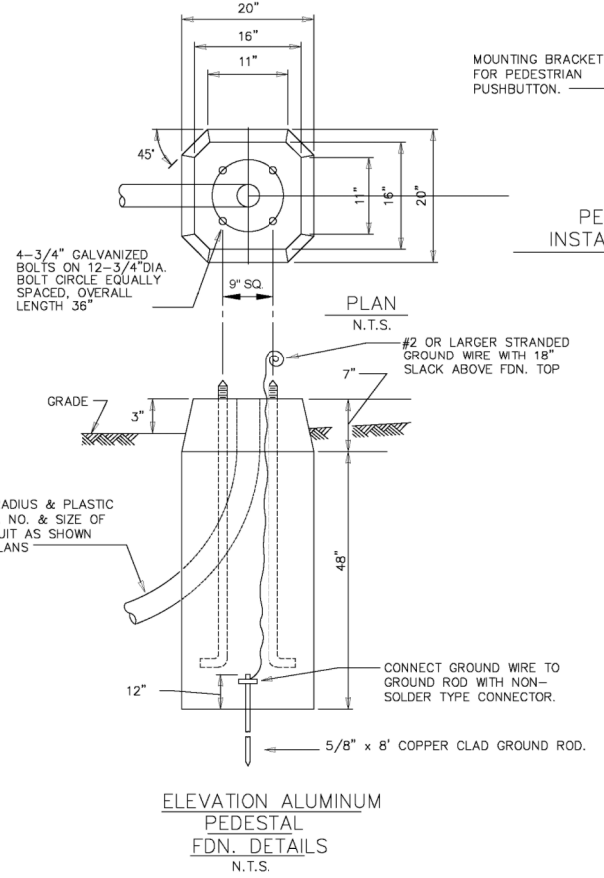
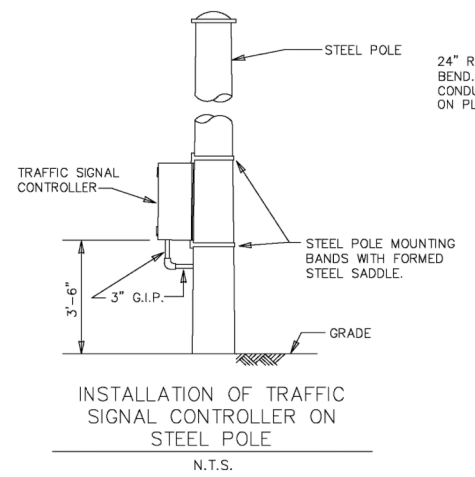
UNLESS APPROVED BY CITY TRAFFIC ENGINEER CABINET ORIENTATION MUST MATCH ONE OF THE ABOVE STANDARD ORIENTATIONS



THE INCOMING CABLE FROM THE CONTROLLER IS TO BE CONNECTED TO THE TERMINAL BLOCK IN ONE FACE OF THE SIGNAL ASSEMBLY. THE OTHER FACES IN THE ASSEMBLY ARE TO BE CONNECTED TO THIS TERMINAL BLOCK BY #14 TW WIRES THROUGH THE ASSEMBLY FRAMEWORK.
COLOR CODING & CABLE CONNECTIONS FOR TRAFFIC SIGNAL LAMPS
N.T.S.



BASE MOUNTED TRAFFIC SIGNAL CONTROLLER & CABINET (M-36/P-44)
N.T.S.



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

TRAFFIC SIGNAL DETAIL SHEET
MCNICHOLS STREETScape
MISCELLANEOUS TRAFFIC SIGNAL DETAILS

DRAWING SHEET
MCN SIGNAL 015
137

PUBLIC LIGHTING AUTHORITY OF DETROIT
 CITY OF DETROIT, WAYNE COUNTY, MICHIGAN
 CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221
 STREETScape PROJECT

PROJECT DESCRIPTION

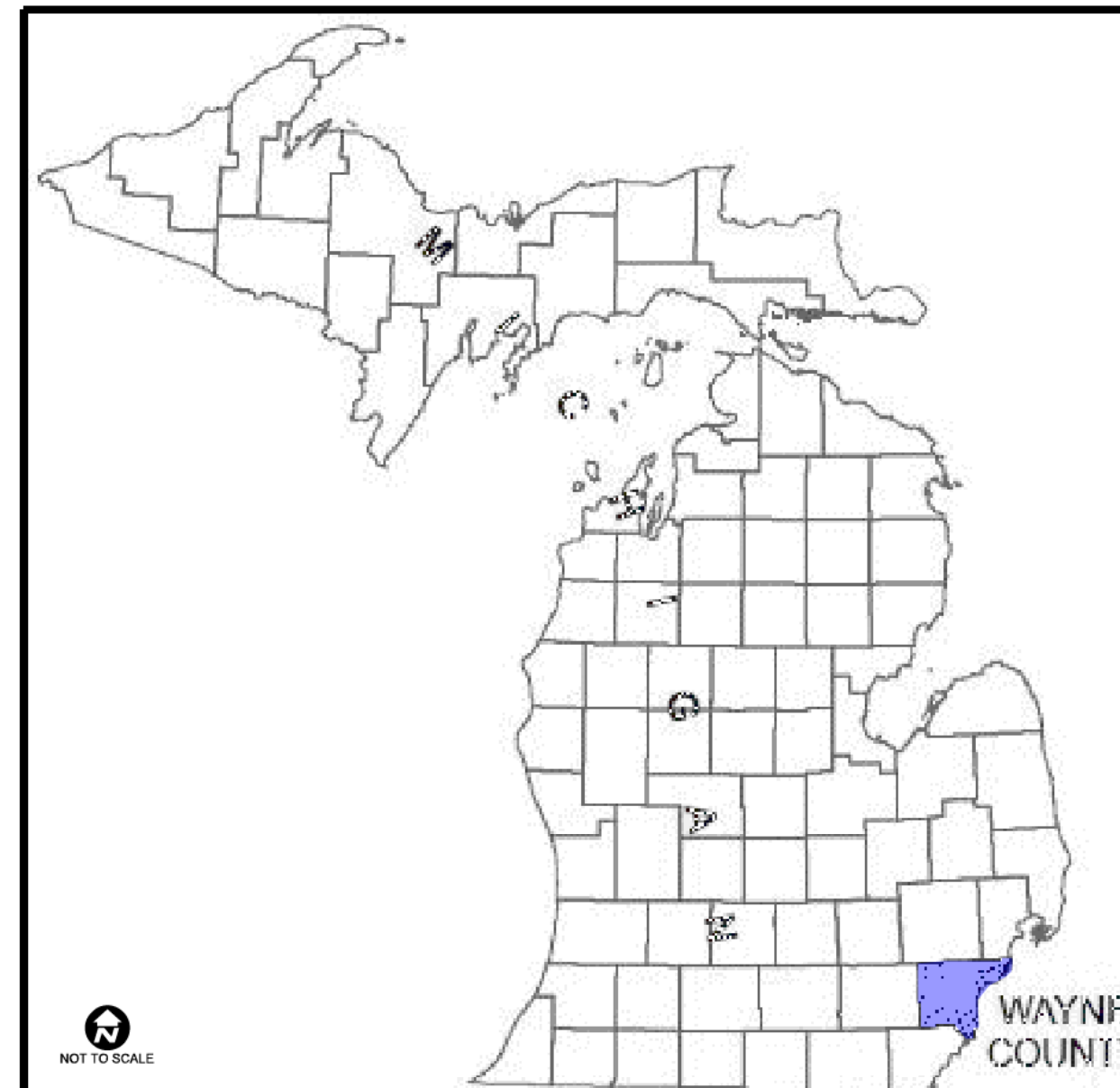
THIS PROJECT CONSISTS OF UPGRADING THE STREET LIGHTING ON McNICHOLS FROM GREENLAWN TO LIVERNOIS TO DUAL FIXTURE LIGHTING STANDARDS WITH STREET SIDE AND SIDEWALK SIDE LUMINAIRES.

CONSTRUCTION PLANS SHEET INDEX

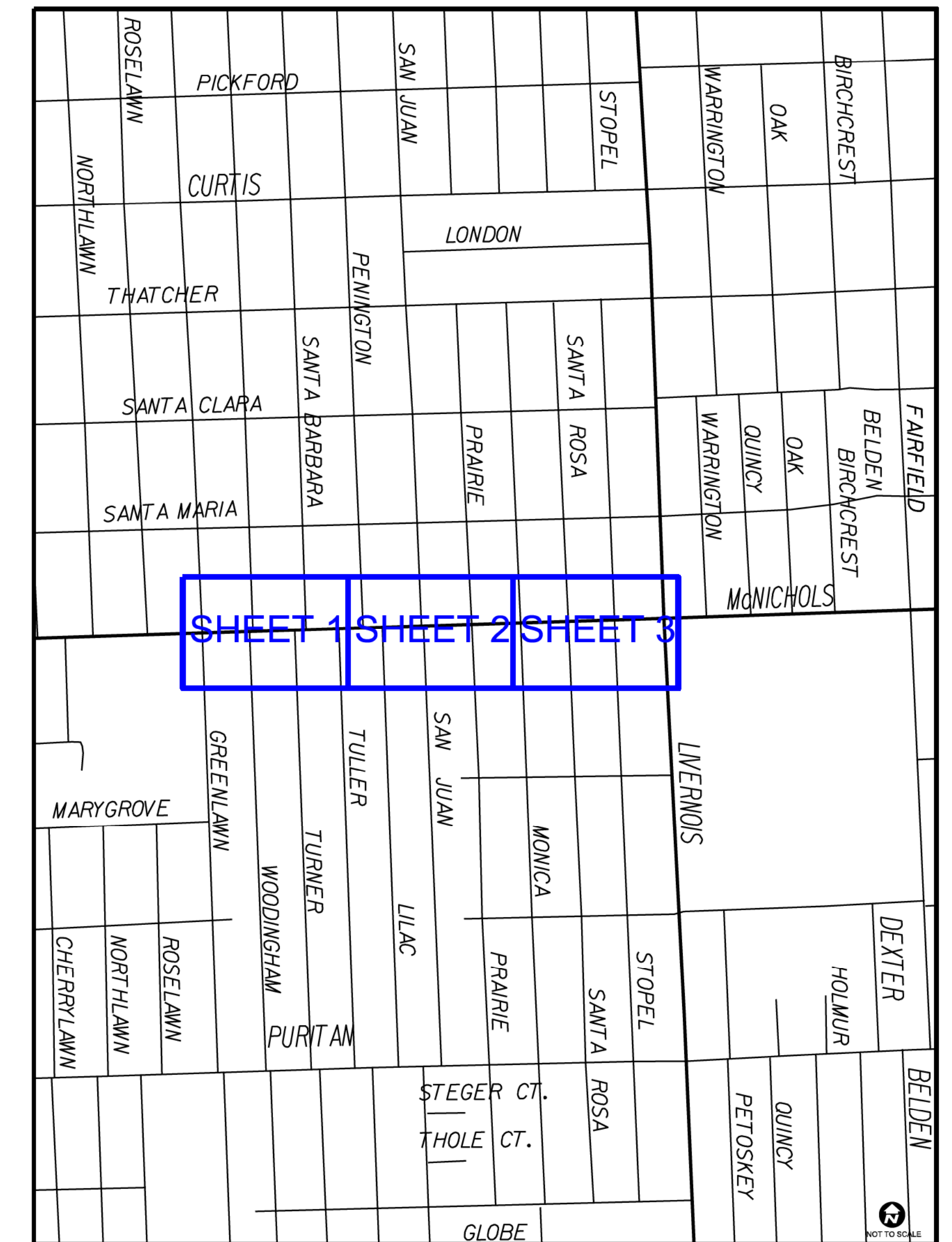
CO-01	COVER
LQ-01	LEGEND AND QUANTITIES
GI-01	GENERAL INFORMATION
UG-01 TO UG-03	UNDERGROUND CONSTRUCTION AND REMOVALS PLANS
IN-01 TO IN-03	OVERHEAD CONSTRUCTION AND CABLING PLANS
ED-01	LC 21W10 ELECTRICAL DIAGRAM
ED-02	LC 21W11 ELECTRICAL DIAGRAM
ED-03	LC 21M14 ELECTRICAL DIAGRAM
DT-01	ROUND TAPERED ALUMINUM STANDARD DETAILS
DT-02	111W STREET LUMINAIRE DETAILS (2 SHEETS)
DT-03	82 W SIDEWALK LUMINAIRE DETAILS
DT-04	UNDERGROUND ALUMINUM 4 AWG 600V XHHW-2 CABLE DETAILS (2 SHEETS)
DT-05	OVERHEAD ALUMINUM 4 AWG 600V TRIPLEX CABLE DETAILS (2 SHEETS)
DT-06	UNDERGROUND FED LIGHTING STANDARD BASE ELECTRICAL CONNECTIONS DETAILS (2 SHEETS)
DT-07	LAMP CORD CABLE DETAILS (2 SHEETS)
DT-08	RECEPTACLE CORD CABLE DETAILS (2 SHEETS)
DT-09	FUSE HOLDER DETAILS (2 SHEETS)
DT-10	OVERHEAD CONSTRUCTION DETAILS (2 SHEETS)
DT-11	IDENTIFICATION TAG DETAILS (2 SHEETS)
DT-12	STREET LIGHTING PHOTO CONTROLLER DETAILS
DT-13	UNDERGROUND LIGHTING AND RECEPTACLE CIRCUITS TYPICAL WIRING SCHEMA DETAILS (3 SHEETS)
DT-14	OVERHEAD LIGHTING CIRCUITS TYPICAL WIRING SCHEMA DETAILS (3 SHEETS)
DT-15	UNDERGROUND STRUCTURES DETAILS (6 SHEETS)

* Note: Designed by CEA/Wade Trim Partnership 7/24/19. Details updated by MES 2/10/20.

COUNTY LOCATION MAP



PLAN SHEET INDEX



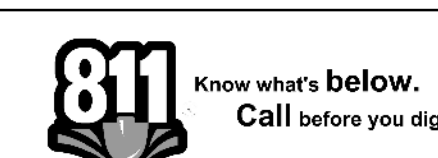
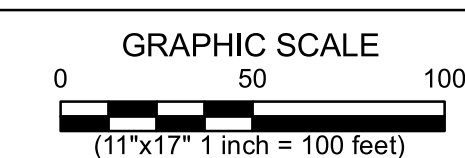
PROJECT LOCATION MAP



PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	BRENDAN MULLANE
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
CO-01	TOTAL SHEETS
	45
CO-01	SHEET NO.
	1

LEGENDS

GENERAL LEGEND

- EGC Equipment Ground Conductor
- PLA Detroit Public Lighting Authority
- PLD Detroit Public Lighting Department
- EGC Equipment Ground Conductor
- C.P. Cable Pole
- Existing Lighting Controller (LC)
- Existing Wood Pole
- Existing Wood Pole with Bracket Arm and Luminaire
- Existing Lighting Standard
- Existing Double Fixture Lighting Standard
- Existing Strain Pole with Bracket Arm and Luminaire
- Existing Traffic Signal Pedestal
- Existing Polymer Handhole
- Existing Polymer Manhole
- Existing PLA Precast Concrete Round Handhole
- PLD Existing Polymer Handhole

LUMINAIRE ID TAG FORMAT

- TAG FORMAT WYYYZZZZZ-OO
- CODES DESCRIPTION
- W Luminaire Type - Options Are:
L = LED Luminaire
S = Sodium Luminaire
- YYY Luminaire Wattage Such as 150 for a 150W Luminaire
- ZZZZZ The Assigned Alphanumeric ID Code Such as ABC123
- OO Work Code Option That Is Not Part of ID Tag - Options Are:
- AX = Connect Luminaire to Circuit AX Phase Where X Is:
A1 = A1 Phase - Multiple Circuits
A2 = A2 Phase - Multiple Circuits
- BX = Connect Luminaire to Circuit BX Phase Where X Is:
B1 = B1 Phase - Multiple Circuits
B2 = B2 Phase - Multiple Circuits
- O = Connect Luminaire to Next Phase in Sequence to Source Luminaire Location
- X = Luminaire Circuit Phase Connection Unknown
- RT = Install or Replace Luminaire ID Tag Where No Other Work is Being Performed
- RA = Replace Bracket Arm While Replacing the Luminaire
- R = Location With a Receptacle

UNDERGROUND CONSTRUCTION AND REMOVAL PLANS

- Remove Luminaire, Bracket Arm, Lighting Standard and Foundation
- Remove (2) Luminaires, (2) Bracket Arms, Lighting Standard and Foundation
- Remove and Salvage Luminaire, Bracket Arm and Lighting Standard Remove Lighting Standard Foundation
- Remove Luminaire, Bracket Arm and Lighting Standard Remove the Lighting Standard Foundation as Necessary Install a New Lighting Standard Foundation as Necessary
- Install Tapered Aluminum Lighting Standard Foundation (Unless Noted Otherwise)
- Remove Wood Pole
- Remove Luminaire, Bracket Arm and Wood Pole
- Install Wood Pole
- Remove Strain Pole and Foundation
- Existing Conduit
- Existing Overhead Street Lighting Cable (Unless Otherwise Noted)
- Remove Cable
- Remove Underground (3) 1/C Phase Conductors (Unless Otherwise Noted)
- Remove Underground Cable (3) 1/C Phase Conductors for Street Lighting Along With (3) 1/C Phase Conductors for Receptacles in Existing Conduit (Unless Otherwise Noted)
- Install (2) 3" Direct Buried Conduits (Unless Otherwise Noted)
- Install (6) 3" Direct Buried Conduits (Unless Otherwise Noted)
- Install (6) 3" Encased Conduits (Unless Otherwise Noted)
- Install (2) 3" Directional Bored Conduits (Unless Otherwise Noted)
- Install Polymer Handhole
- Install Precast Concrete Round Handhole
- Install Polymer Manhole
- Install Ground Rod

OVERHEAD CONSTRUCTION AND CABLING PLANS

- Install Tapered Aluminum Lighting Standard Assembly With a 111W Street Luminaire and a 82W Sidewalk Luminaire
- Existing Overhead Street Lighting Cable (Unless Otherwise Noted)
- Remove Overhead Cable Overhead Triplex (Unless Otherwise Noted)
- Install 600V Aluminum Underground Cable (4) 1/C 4 AWG Phase Conductors and (1) 1/C 4 AWG EGC for Street Lighting Along With (2) 1/C 4 AWG Phase Conductors and (1) 1/C 4 AWG EGC for Receptacles Along With (Unless Otherwise Noted)
- Install 600V Aluminum Underground Cable (3) 1/C 4 AWG Phase Conductors and (1) 1/C 4 AWG EGC for Street Lighting Along With (3) 1/C 4 AWG Phase Conductors and (1) 1/C 4 AWG EGC for Receptacles Along With (Unless Otherwise Noted)
- Install 600V Aluminum Overhead Quadruplex Cable - Hackney (3) 1/C 4 AWG Phase Conductors and (1) 1/C 4 AWG EGC for Street Lighting (Unless Otherwise Noted)
- Remove Luminaire on Existing Bracket Arm and Wood Pole
- Install Luminaire on Existing Bracket Arm and Wood Pole
- Remove Luminaire and Install Luminaire on Existing Bracket Arm and Lighting Standard
- Remove Luminaire and Bracket Arm on Existing Wood Pole
- Install Luminaire and Bracket Arm on Existing Wood Pole
- Install Lighting Controller (LC)
- Remove Lighting Controller (LC)

ELECTRICAL DIAGRAMS

- Existing Lighting Controller Not Connected to Circuit
- Lighting Controller Connected to Circuit
- Lighting Standard Luminaire Not Connected to the Lighting Controller
- Lighting Standard Luminaire Connected to the Lighting Controller
- Pole Mounted Luminaire Not Connected to the Lighting Controller
- Pole Mounted Luminaire Connected to the Lighting Controller
- Overhead Street Lighting Cable Not Connected to the Lighting Controller
- 600V Aluminum Underground Cable Connected to the Lighting Controller (2) 1/C #4 AWG Phase Conductors and (1) 1/C #4 EGC (Unless Otherwise Noted)
- 600V Aluminum Underground Cable Connected to the Lighting Controller (3) 1/C #4 AWG Phase Conductors and (1) 1/C #4 EGC (Unless Otherwise Noted)
- 600V Aluminum Overhead Quadruplex Cable Connected to the Lighting Controller (3) 1/C #4 AWG Phase Conductors and (1) 1/C #4 EGC (Unless Otherwise Noted)

		QUANTITIES								
MDOT CODE	DESCRIPTION	SHEET	UG-01	UG-02	UG-03	IN-01	IN-02	IN-03	MISC	TOTAL
MDOT CODE	DESCRIPTION		QTY	QTY	QTY	QTY	QTY	QTY		
2040055	Sidewalk, Rem			120						120
8037010	Sidewalk, Conc, 6 inch, Modified			1075						1,075
8190016	Cable, Rem					975	1,275	1,160		3,410
8190032	Conduit, DB, 2, 3 inch		120	200	125					445
8190063	Conduit, Encased, 6, 3 inch		390	540	490					1,420
8190365	Luminaire, Rem and Salv		8	10	11					29
8190473	Wood Pole, Cl 4, 40 foot				1					1
8190490	Wood Pole, Fit Up, Metered Sec Elec Serv with Photo Control						2			2
8190495	Wood Pole, Fit Up, Sec Cable Pole						2			2
8190505	Wood Pole, Rem		7	8	10					25
8190604	Conduit, Directional Bore, 2, 3 inch			295						295
8197001	Cable, Equipment Grounding Wire, 1/C#4, Modified					4,120	5,835	4,030		13,985
8197001	Cable, Sec, 600V, 2, 1/C#4, Modified					650	220	615		1,485
8197001	Cable, Sec, 600V, 3, 1/C#4, Modified					3,335	5,395	3,275		12,005
8197001	Cable, Sec, 600V, 4, 1/C#4, Modified					135	220	140		495
8197001	Cable, Sec, Triplex, Aluminum, 4 AWG							220		220
8197001	Conduit, DB, 6, 3 inch		1,370	1,325	1,210					3,905
8197050	Bracket Arm, Bolt On, Install					14	16	14		44
8197050	Bracket Arm, Bolt On, Rem		8	10	11					29
8197050	Bracket Arm, Clamp On, Install					14	16	14		44
8197050	Hh, Polymer Conc, Modified		6	11	6					23
8197050	Hh, Round, Modified								1	1
8197050	Light Std Fdn, Modified		14	16	14					44
8197050	Light Std, Tapered Aluminum, Install					14	16	14		44
8197050	Luminaire, 82W, Install					14	16	14		44
8197050	Luminaire, 111W, Install					14	16	14		44
8197050	Mh, Polymer Conc		12	12	14					38
8197050	Photo Control, Lighting						2			2
8197050	Photo Control, Lighting, Rem						1			1
8197050	Tag Pole							1		1

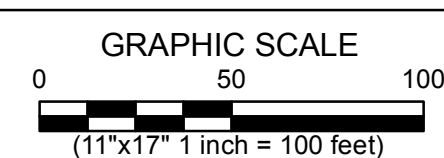
MDOT CODE	DESCRIPTION	SHEET	UG-01	UG-02	UG-03	IN-01	IN-02	IN-03		TOTAL
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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION		
LQ-01		
TOTAL SHEETS	45	SHEET NO.
		2

GENERAL INFORMATION

1. ALL MATERIAL AND EQUIPMENT FURNISHED BY THE CONTRACTOR MUST BE NEW AND MUST COMPLY WITH THE SPECIFICATIONS FOR THAT MATERIAL AND EQUIPMENT. THE OWNER SHALL HAVE THE RIGHT TO REJECT ANY EQUIPMENT WHICH DOES NOT MEET WITH SPECIFICATIONS.
2. CONSTRUCTION MUST BE PERFORMED BY QUALIFIED AND EXPERIENCED PERSONNEL. ALL WORK MUST MEET THE STANDARDS AND PRACTICES OF THE PUBLIC LIGHTING AUTHORITY (PLA), THE NATIONAL ELECTRICAL CODE, THE ELECTRIC CODE OF THE CITY OF DETROIT AND THE NATIONAL ELECTRICAL SAFETY CODE.
3. THE CONTRACTOR MUST USE PUBLIC LIGHTING AUTHORITY (PLA) SPECIFICATIONS FOR THIS PROJECT.
4. THE CONSTRUCTION CONTRACTOR SHALL RETURN ALL SALVAGED PUBLIC LIGHTING AUTHORITY (PLA) EQUIPMENT TO THE PLA.

LOCATION: 1135 BEAUFAIT STREET, DETROIT, MICHIGAN 48207
 CONTACT: MELANIE STEELE (STATELINE) AT (313) 909-7509 AND
 JOHN VERNON (PLA) AT (313) 324-8290
 HOURS: MONDAY FRIDAY FROM 9:30 A.M. TO 3:30 P.M. MUST PROVIDE 48 HOURS NOTICE.

THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING ALL SALVAGED EQUIPMENT TO THE PLA YARD.

5. THE CONSTRUCTION CONTRACTOR SHALL RETURN ALL REMOVED DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) EQUIPMENT TO THE PLD.

 THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING DECOMMISSIONED EQUIPMENT TO THE PLD YARD.
6. ALL SHOP DRAWINGS MUST BE APPROVED BY THE PUBLIC LIGHTING AUTHORITY (PLA). CONTACT (313) 324-8290.
7. CALL MISS DIG AT 811 OR (800) 482-7171 A FULL THREE WORKING DAYS BEFORE TO ANY EXCAVATION FOR THE LOCATIONS OF UNDERGROUND UTILITIES.
8. THE CONTRACTOR IS TO NOTIFY DTE GAS AT (800) 477-4747 IF A PROTECTIVE COATED GAS MAIN IS EXPOSED OR DAMAGED.
9. THE CONTRACTOR IS TO NOTIFY DTE ELECTRIC AT (800) 477-4747 IF THE PROTECTIVE COATING OF ANY DTE ELECTRIC HIGH VOLTAGE UNDERGROUND LINE IS EXPOSED OR DAMAGED.

10. ALL EXISTING DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) LIGHTING, PRIMARY TRANSMISSION, ETC., CIRCUITS MUST ALWAYS BE MAINTAINED IN AN OPERATIONAL CONDITION. NOTIFY THE PLD SYSTEM OPERATOR AT (313) 961-1364 48 HOURS BEFORE TO BEGINNING WORK ON PLD CIRCUITS AND KEEP THE OPERATOR INFORMED DAILY.
11. ALL VEHICLE DIRECTION, STREET NAME, AND PARKING SIGNS ON CITY OF DETROIT ROADS ARE THE PROPERTY OF THE CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS (DPW). THE CONTRACTOR WILL NOT REMOVE OR RELOCATE ANY VEHICLE DIRECTION, STREET NAME OR PARKING SIGNS UNLESS CITY OF DETROIT DPW GRANTS ADVANCE AUTHORIZATION. FOR ANY VEHICLE DIRECTION, STREET NAME OR PARKING SIGN ENCOUNTERED ON A STREET LIGHT POLE, THE CONTRACTOR WILL STOP WORK AND CALL THE DETROIT DPW SIGN SHOP AT (313) 224-6950 TO COORDINATE 72 HOURS PRIOR TO THE REMOVAL OR RELOCATION.
12. ANY PERMANENT SIGNS THAT ARE DAMAGED OR REMOVED MUST EITHER BE REINSTALLED, IF IN USABLE CONDITION, OR REPLACED WITH A UNIT THAT MEETS THE CURRENT SPECIFICATIONS OF THE SIGN'S MAINTAINING AGENCY.
13. REMOVAL, REPLACEMENT, EXCAVATION, AND BACKFILL RELATED TO PAVEMENT, SIDEWALKS AND CURBS MUST BE DONE ACCORDING TO THE CITY OF DETROIT, DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION OR THE SPECIFICATION OF THE AUTHORITY HAVING JURISDICTION.
14. WITHIN FIVE DAYS OF COMPLETING EACH SECTION OF THE UNDERGROUND OR OVERHEAD WORK, THE CONTRACTOR SHALL FURNISH TO THE PUBLIC LIGHTING AUTHORITY (PLA) AN EXACT RECORD, AS-BUILT DRAWINGS, OF ALL UNDERGROUND AND OVERHEAD WORK INSTALLED. THE AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT LIMITED TO, STREET LIGHTING COMPONENTS, STRUCTURES, CONDUIT LENGTHS AND CABLE ROUTING INCLUDING THEIR LOCATIONS.
15. THE CONTRACT UNIT PRICE SHALL BE PAYMENT IN FULL FOR FOUNDATION REMOVAL AND BACKFILLING THE HOLE WITH GRANULAR MATERIAL. DISPOSAL OF WASTE EXCAVATED MATERIAL ALONG WITH REMOVING PAVEMENT, SIDEWALK, CURB AND GUTTER ALONG WITH ANY ASSOCIATED REPLACEMENT IS ALSO INCLUDED.
16. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS COVERING CONSTRUCTION OPERATIONS INCLUDING PERMITS FROM THE PUBLIC AUTHORITIES HAVING JURISDICTION OVER THE STREETS OR OTHER PUBLIC PROPERTIES IN WHICH THE WORK IS LOCATED AND THE IMPROVEMENT THEREIN. THE BIDDER SHALL ASCERTAIN THE AMOUNT OF ANY CHARGES REQUIRED BY SUCH AUTHORITIES AND WILL INCLUDE THE COST THEREOF IN THE BID PRICES.

17. THE CONTRACTOR MUST ASCERTAIN THE REQUIREMENTS OF THE PUBLIC AUTHORITIES HAVING JURISDICTION OVER THE STREETS OR OTHER PUBLIC PROPERTIES; OR THE PRIVATE PROPERTY OWNER AND INCLUDE IN HIS BID PRICE ALL EXISTING INFRASTRUCTURE RESTORATION COSTS INCLUDING SIDEWALKS, PAVEMENT AND LANDSCAPING TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION OR PROPERTY OWNER IN EACH CASE, WHICH MAY INCLUDE UPGRADES FROM THE EXISTING CONDITION.
18. THE CONTRACTOR ASSUMES ALL RISKS AND RESPONSIBILITIES BECAUSE OF EXISTING SOIL CONDITIONS AND MUST COMPLETE THE WORK IN WHATEVER MATERIAL AND UNDER WHATEVER GROUND CONDITIONS MAY BE ENCOUNTERED OR CREATED WITHOUT ADDITIONAL COST TO THE PUBLIC LIGHTING AUTHORITY (PLA).
19. THE LOCATIONS OF EXISTING UNDERGROUND OBSTRUCTIONS OR UTILITY FACILITIES ARE NOT NECESSARILY INDICATED ON THE PLANS. WHERE UTILITY FACILITIES ARE SHOWN, LOCATIONS ARE ONLY APPROXIMATIONS. CORRECTNESS OF EXACT UTILITY LOCATIONS IS NOT GUARANTEED. THE CONTRACTOR MUST EXERCISE CAUTION IN AVOIDING DAMAGE TO UTILITIES AND MUST NOTIFY THE UTILITIES THAT THEY ARE PROPOSING TO BREAK PAVEMENT OR EXCAVATE SO THAT THEY MAY PROVIDE THE CONTRACTOR WITH THE VERY LATEST LOCATION INFORMATION OF THEIR EXISTING FACILITIES.
20. HANDHOLE AND MANHOLE STRUCTURE LOCATIONS ARE SHOWN IN PROXIMITY TO WHERE THEY ARE TO BE INSTALLED. STRUCTURES ARE NOT TO BE INSTALLED IN ADA RAMPS. STRUCTURE INSTALLATION IN SIDEWALKS, ROADWAYS OR DRIVEWAYS IS TO BE AVOIDED WHERE POSSIBLE UNLESS CALLED FOR BY THE PLANS. STRUCTURES INSTALLED IN ROADWAYS OR DRIVEWAYS SHALL BE OF THE PRECAST CONCRETE TYPE. STRUCTURES SHALL NOT BE INSTALLED ON PRIVATE PROPERTY UNLESS CALLED FOR SPECIFICALLY BY THE PLANS WITH AN AUTHORIZED EASEMENT. FURTHER, STRUCTURES ARE TO BE INSTALLED CLEAR OF FIRE HYDRANTS, TREES, UTILITIES, AND ANY OTHER UNDERGROUND STRUCTURES.
21. NO SPLICING WILL BE ALLOWED BETWEEN THE CONTROL CABINET AND HANDHOLE/MANHOLE; HANDHOLE/MANHOLE TO HANDHOLE/MANHOLE; HANDHOLE/MANHOLE TO UNDERGROUND STREET LIGHTING STANDARD; AND HANDHOLE/MANHOLE TO CABLE RISER.
22. THE FOLLOWING WIRE COLOR CODING IS TO BE USED FOR THE UNDERGROUND STREET LIGHTING AND RECEPTACLES ON THIS PROJECT: BLACK (A PHASE); RED (B PHASE); WHITE (NEUTRAL); GREEN (GROUND).
23. THE FOLLOWING CABLE IDENTIFICATION IS TO BE USED FOR GROUNDED OVERHEAD TRIPLEX AND QUADRUPLX ON THIS PROJECT: NO RIB (A PHASE); ONE RIB (NEUTRAL); TWO RIBS (B PHASE); BARE MESSENGER (EQUIPMENT GROUNDING CONDUCTOR OR EGC).

 THE CABLE IDENTIFICATION FOR INSTANCES OF EXISTING UNGROUNDED OVERHEAD DUPLEX OR TRIPLEX ALONG WITH CONNECTIONS TO THE EXISTING UNGROUNDED OVERHEAD ON THIS PROJECT: NO RIB (A PHASE); ONE RIB (B PHASE); BARE MESSENGER (NEUTRAL).

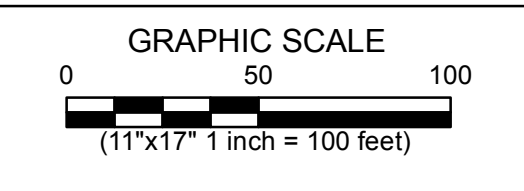
 IF ANY EXISTING OVERHEAD CABLE DOES NOT MATCH EITHER OF THESE SCENARIOS, CONTACT THE PROJECT ENGINEER BEFORE MAKING ANY CONNECTIONS.
24. THE CONTRACTOR MUST CORE INTO PRECAST HANDHOLES AND MANHOLES.
25. THE CONTRACTOR IS TO TRIM EXISTING TREES TO PROVIDE A CLEAR 10 FOOT RADIUS AROUND EACH LUMINAIRE.
26. ALL UNDERGROUND STREET LIGHTING STANDARD LOCATIONS ARE TO BE INSTALLED WITH THE CENTER 3 FEET BACK OF CURB FACE (BOC) UNLESS OTHERWISE INDICATED ON THE PLANS.
27. THE CONTRACTOR IS TO CALL THE DETROIT PUBLIC LIGHTING DEPARTMENT (PLD) SENIOR SYSTEM OPERATOR AT (313) 267-4151 FOR ANY PLD FACILITIES COORDINATION. COORDINATION INCLUDES BEING GRANTED ACCESS TO PLD MANHOLES AND HANDHOLES; GAINING LOCKOUT/TAGOUT PROTECTION FOR WORKING ON PLD EQUIPMENT; ANY OTHER WORK INVOLVING PLD FACILITIES.
28. THE CONTRACTOR IS TO CALL (313) 224-1610 FOR COORDINATING ANY DETROIT DEPARTMENT OF PUBLIC WORKS TRAFFIC SIGNAL WORK.
29. LUMINAIRE WOOD POLE MOUNTING HEIGHT SHALL BE AT 30 FEET UNLESS THE PLANS SPECIFY OTHERWISE.
30. REPLACEMENT LUMINAIRE LOCATIONS SHALL BE CONNECTED TO THE SAME CIRCUIT PHASE OF THE LUMINAIRE LOCATION THEY ARE REPLACING. NEW LUMINAIRE LOCATIONS WILL BE CONNECTED TO THE CIRCUIT PHASE CALLED FOR ON THE PLAN SHEETS.
31. INSTALL SHORTING CAPS ON ALL LUMINAIRES UNLESS OTHERWISE DIRECTED BY THE PLANS.
32. REFER TO THE STREETScape PAVING PLANS FOR UNDERGROUND UTILITY LOCATIONS.



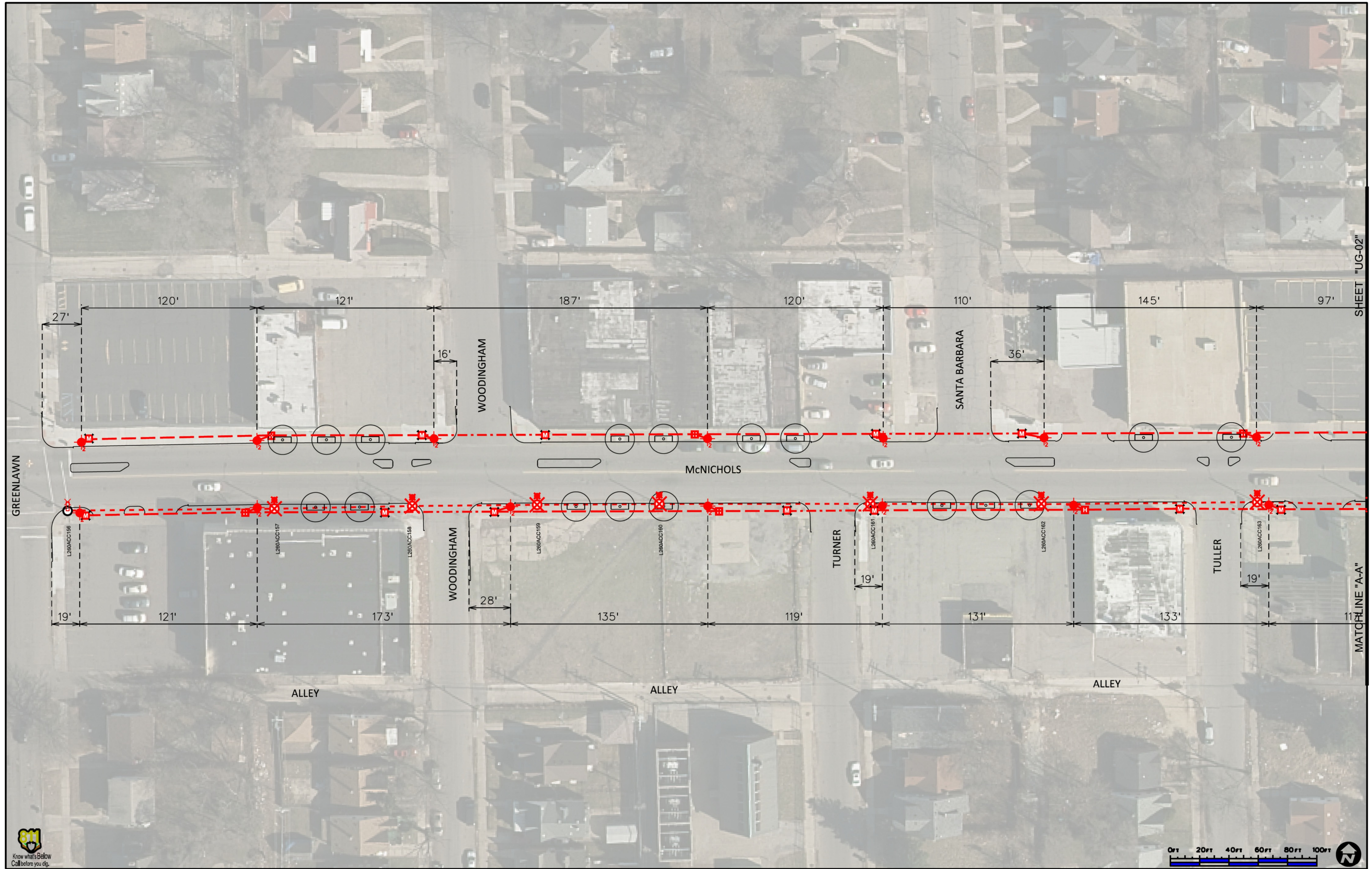
PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	

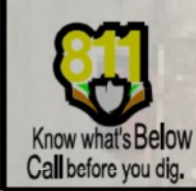


SHEET INFORMATION		
GI-01	TOTAL SHEETS	45
	SHEET NO.	3



SHEET "UG-02"

MATCHLINE "A-A"

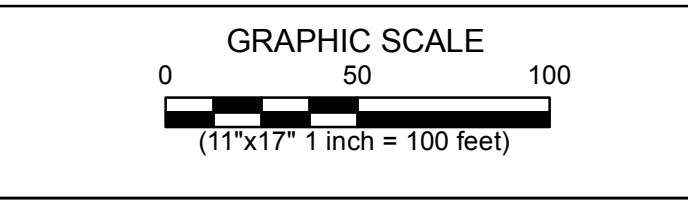


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MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
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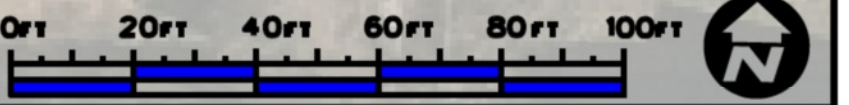
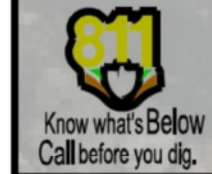
PUBLIC LIGHTING AUTHORITY OF DETROIT

PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



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SHEET INFORMATION	
UG-01	
TOTAL SHEETS	45
SHEET NO.	4

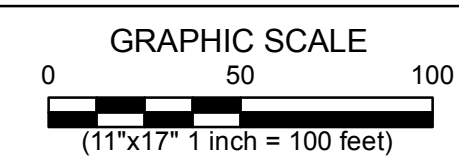


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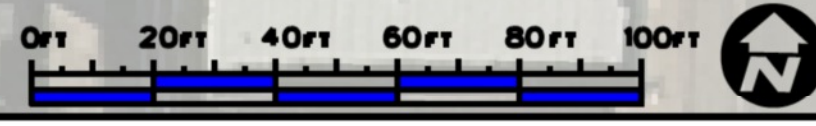
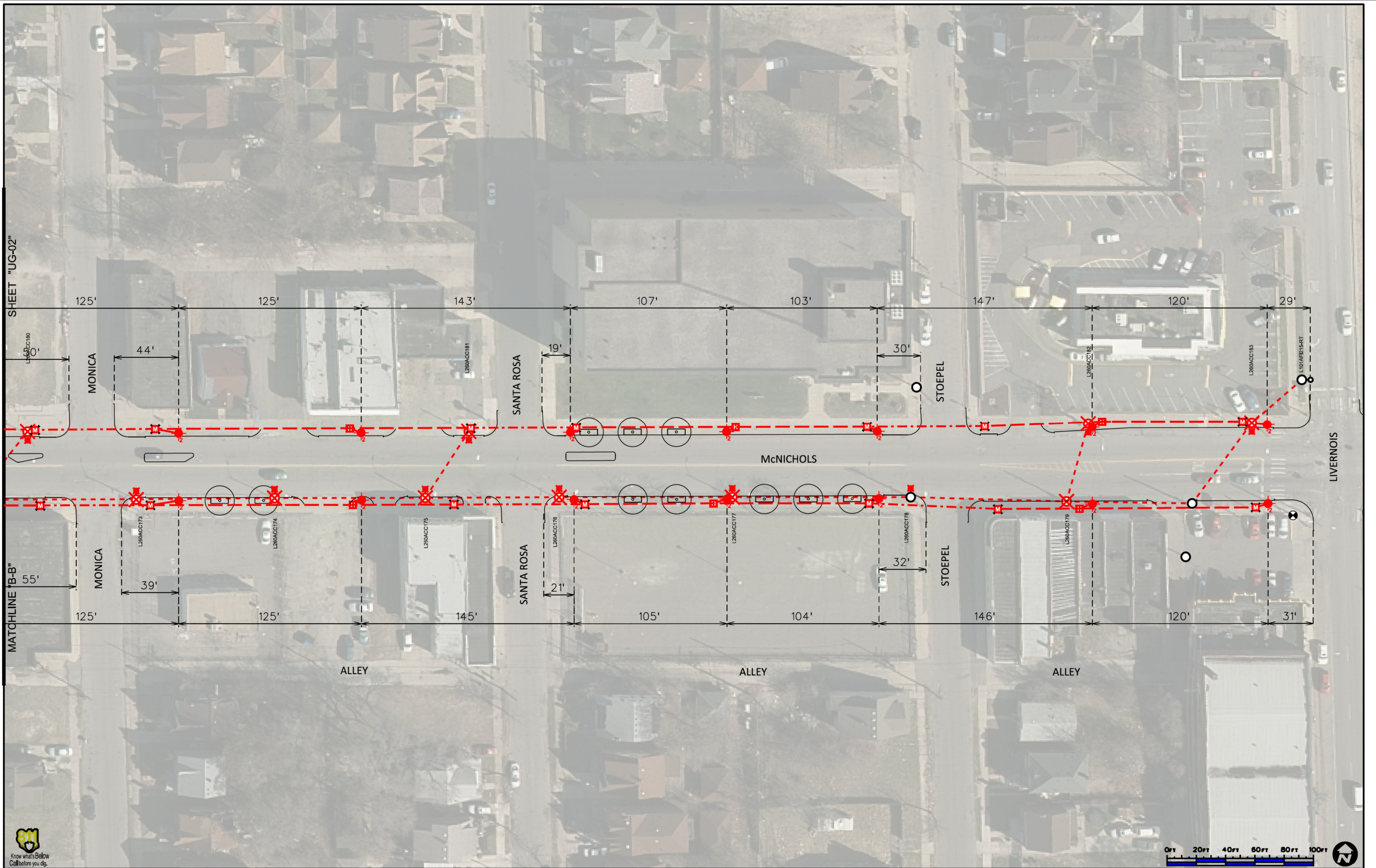
PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
UG-02	
TOTAL SHEETS	SHEET NO.
45	5

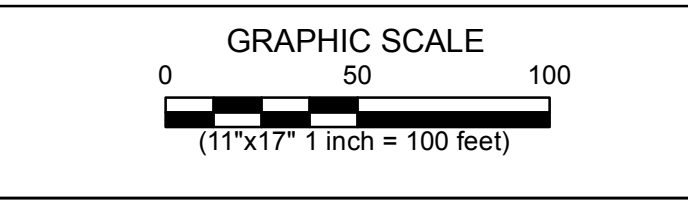


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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020

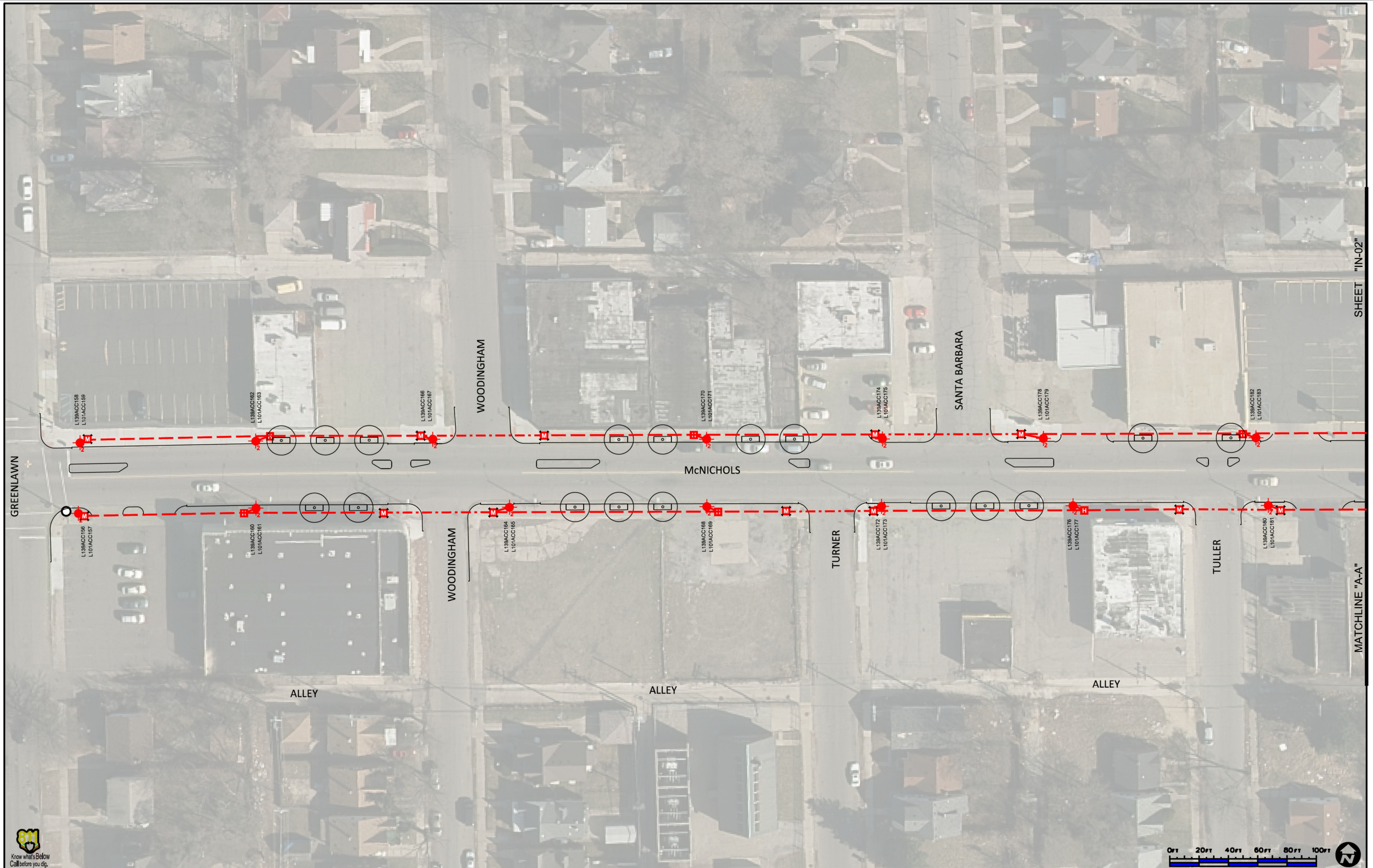
PUBLIC LIGHTING AUTHORITY OF DETROIT

PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



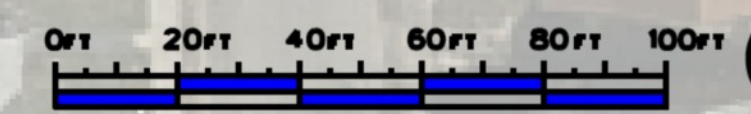
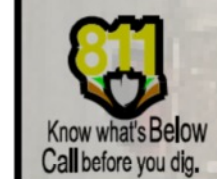
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SHEET INFORMATION	
UG-03	
TOTAL SHEETS	45
SHEET NO.	6



SHEET "IN-02"

MATCHLINE "A-A"

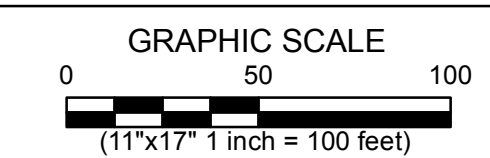


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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
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DATE:	2/6/2020

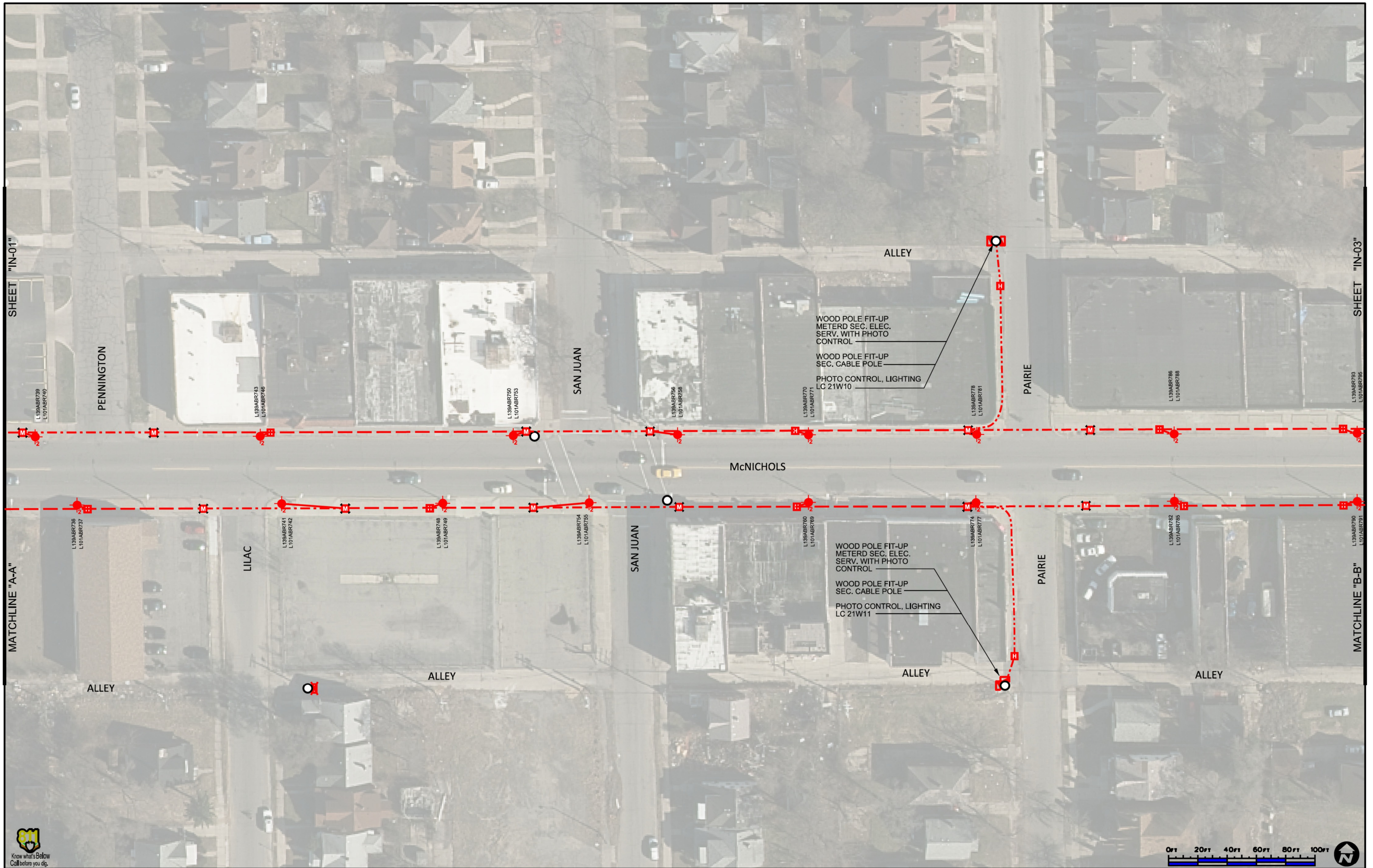
PUBLIC LIGHTING AUTHORITY OF DETROIT

PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



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SHEET INFORMATION	
IN-01	
TOTAL SHEETS	SHEET NO.
45	7

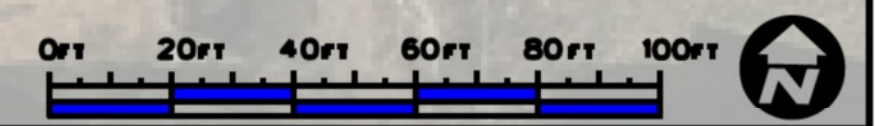
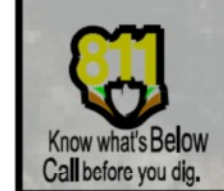


SHEET "IN-01"

SHEET "IN-03"

MATCHLINE "A-A"

MATCHLINE "B-B"

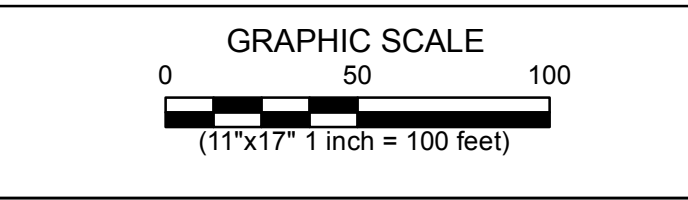


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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020

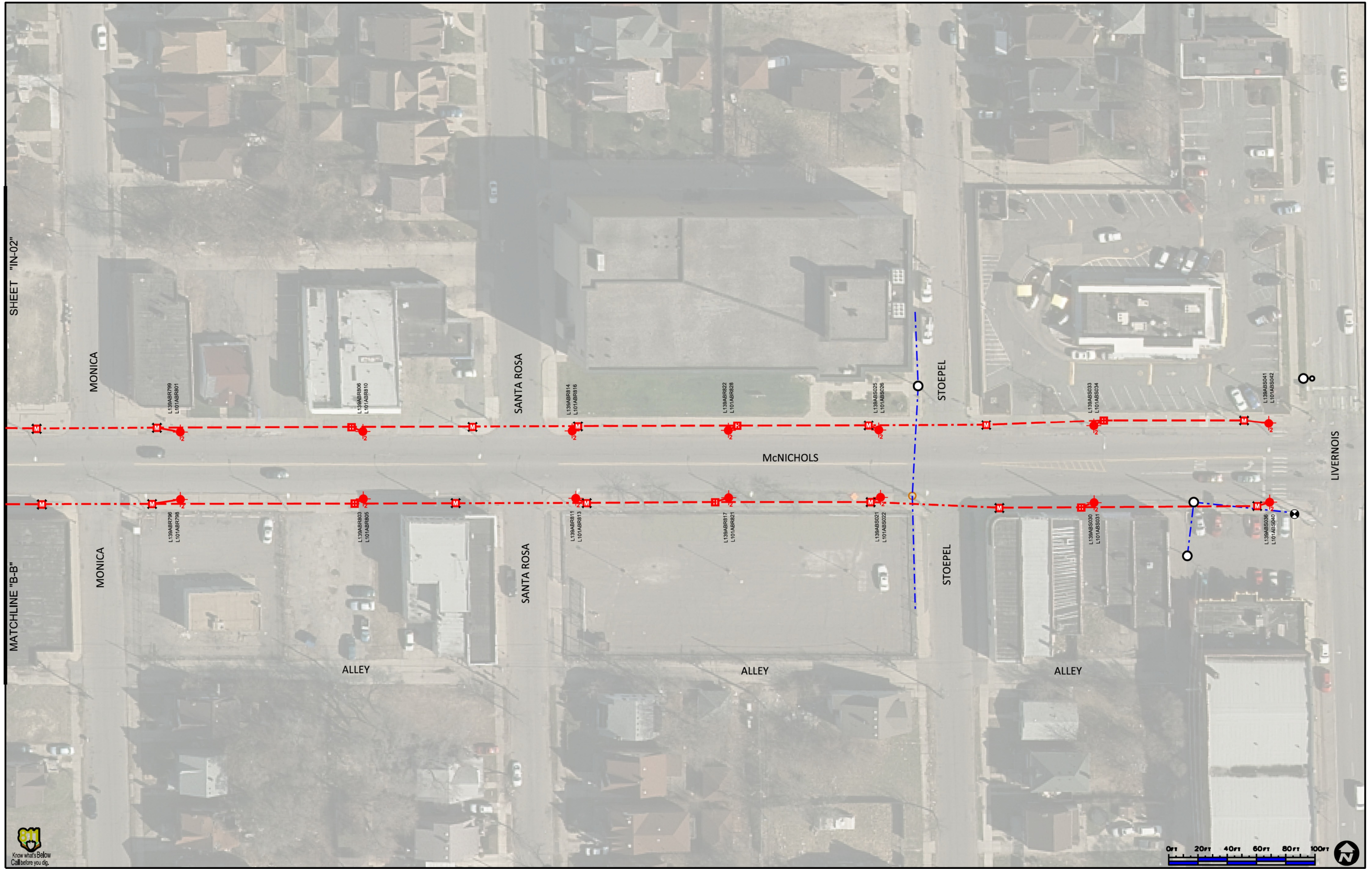
PUBLIC LIGHTING AUTHORITY OF DETROIT

PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



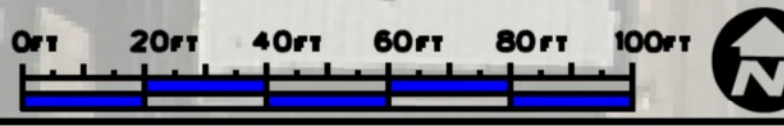
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SHEET INFORMATION	
IN-02	
TOTAL SHEETS	45
SHEET NO.	8



SHEET "IN-02"

MATCHLINE "B-B"

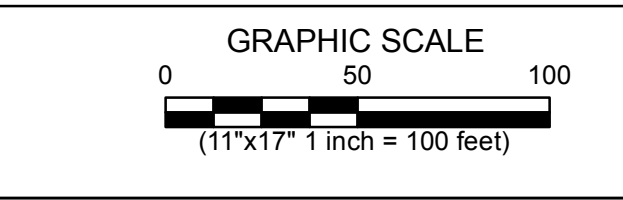


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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020

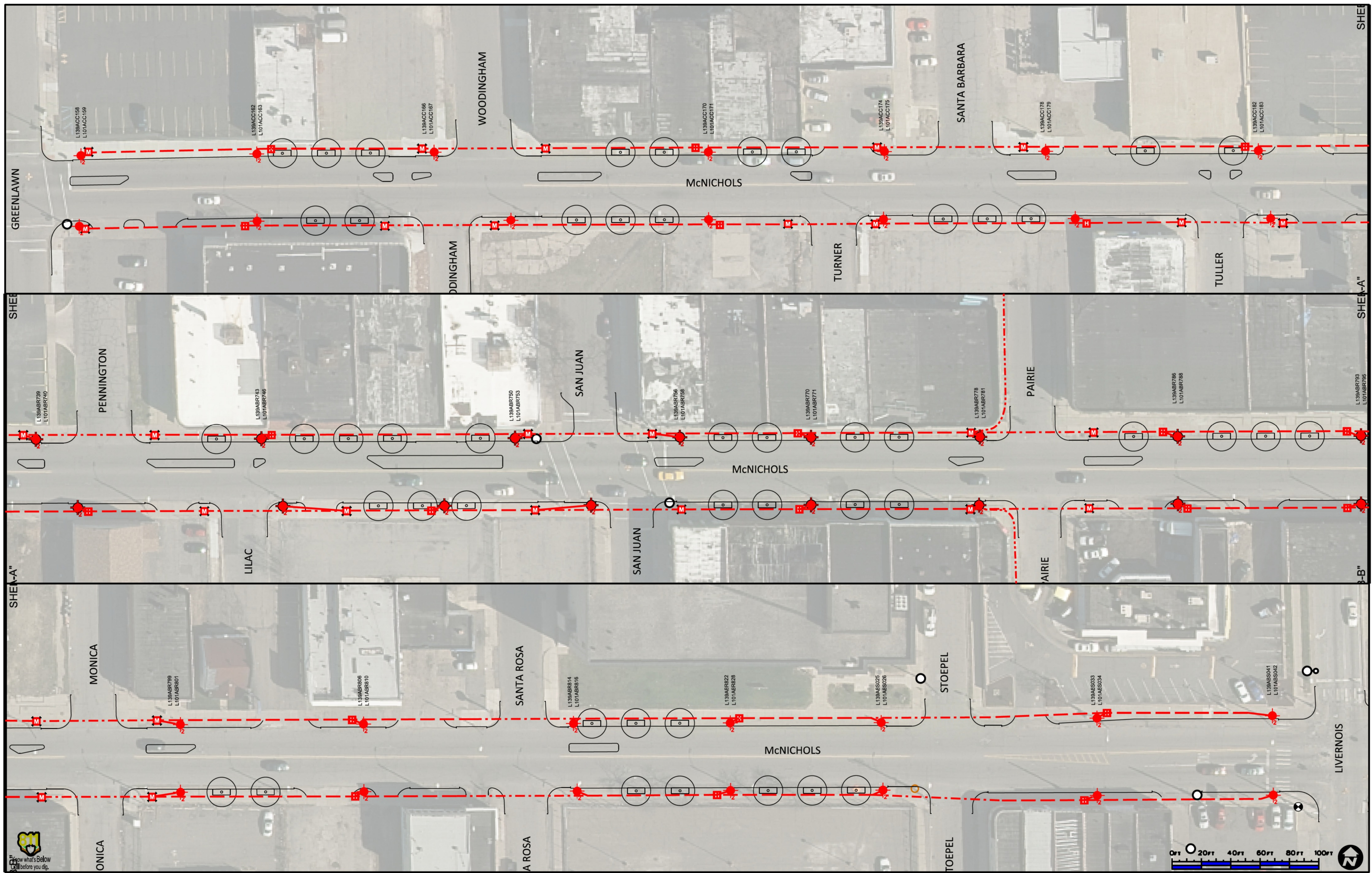
PUBLIC LIGHTING AUTHORITY OF DETROIT

PUBLIC LIGHTING AUTHORITY OF DETROIT	
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CITY OF DETROIT	
WAYNE COUNTY, MI	



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SHEET INFORMATION	
IN-03	
TOTAL SHEETS	45
SHEET NO.	9

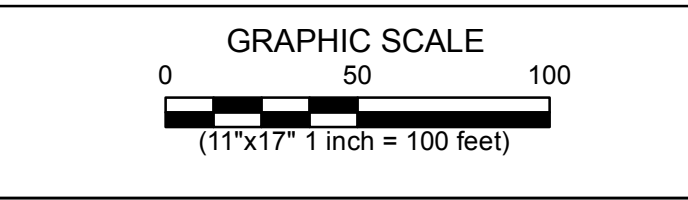


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PLOT SCALE:	1 inch = 100 feet
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DATE:	2/6/2020

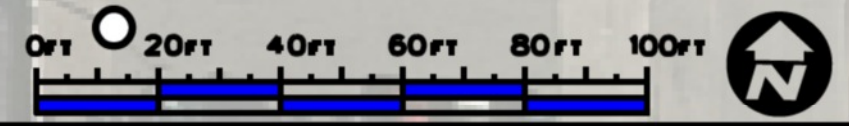
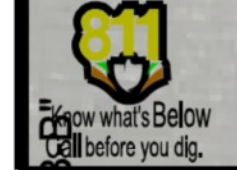
PUBLIC LIGHTING AUTHORITY OF DETROIT

PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
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WAYNE COUNTY, MI	



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SHEET INFORMATION	
ED-01	
TOTAL SHEETS	45
SHEET NO.	10

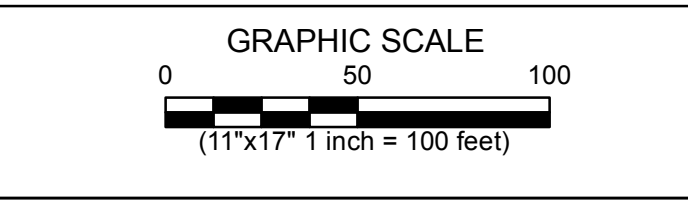


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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
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CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020

PUBLIC LIGHTING AUTHORITY OF DETROIT

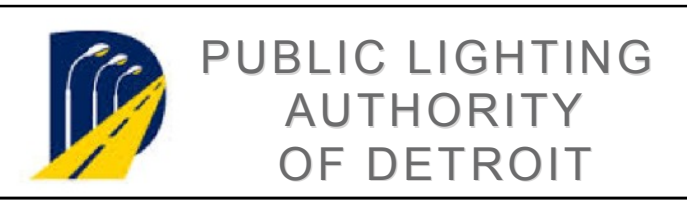
PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



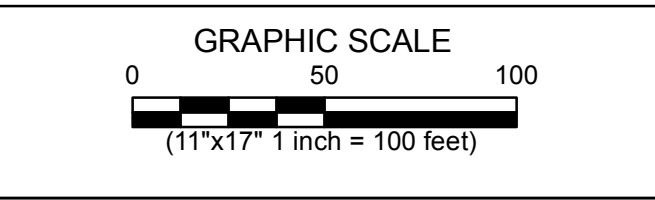
SHEET INFORMATION		
ED-02	TOTAL SHEETS	45
	SHEET NO.	11



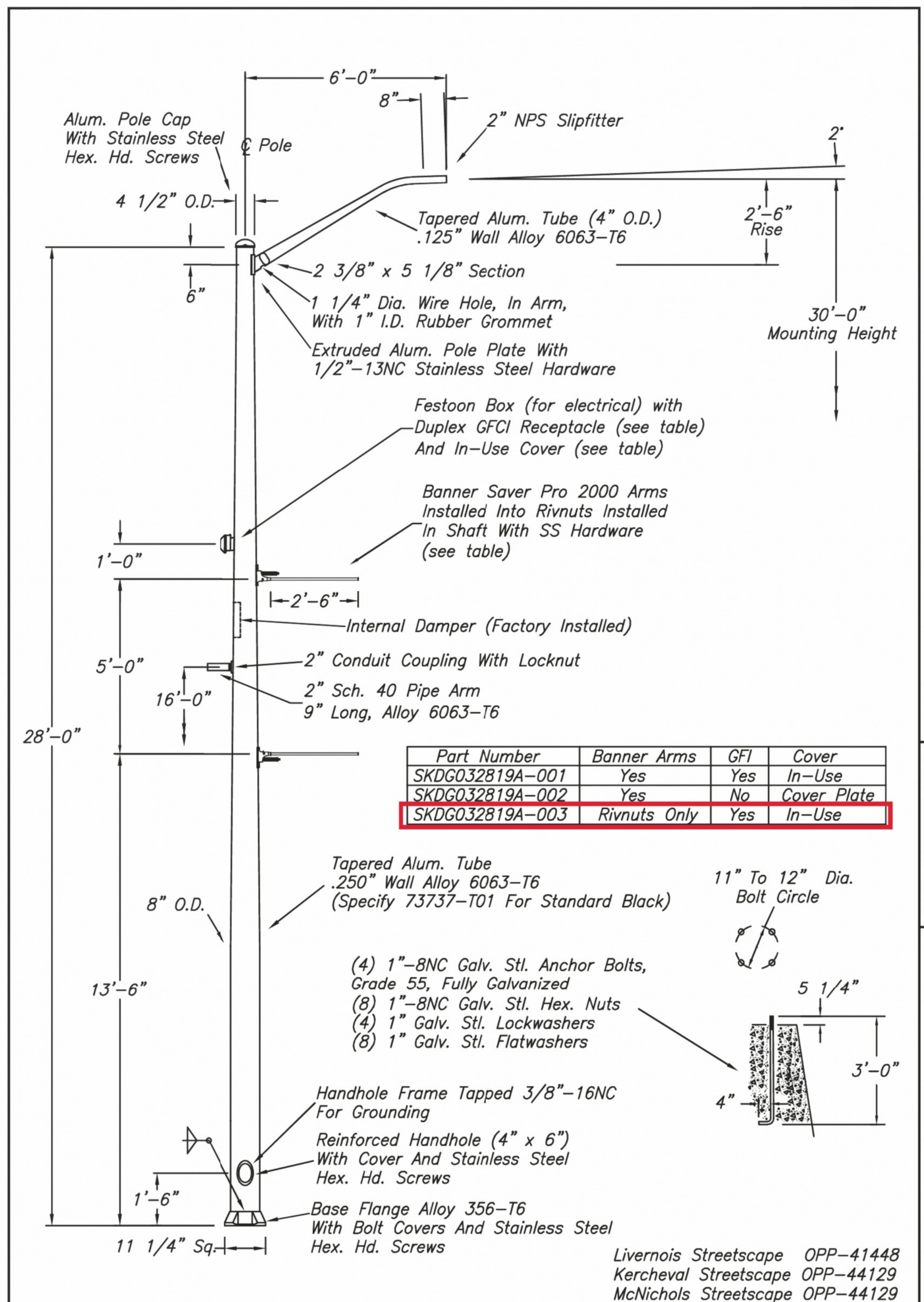
PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



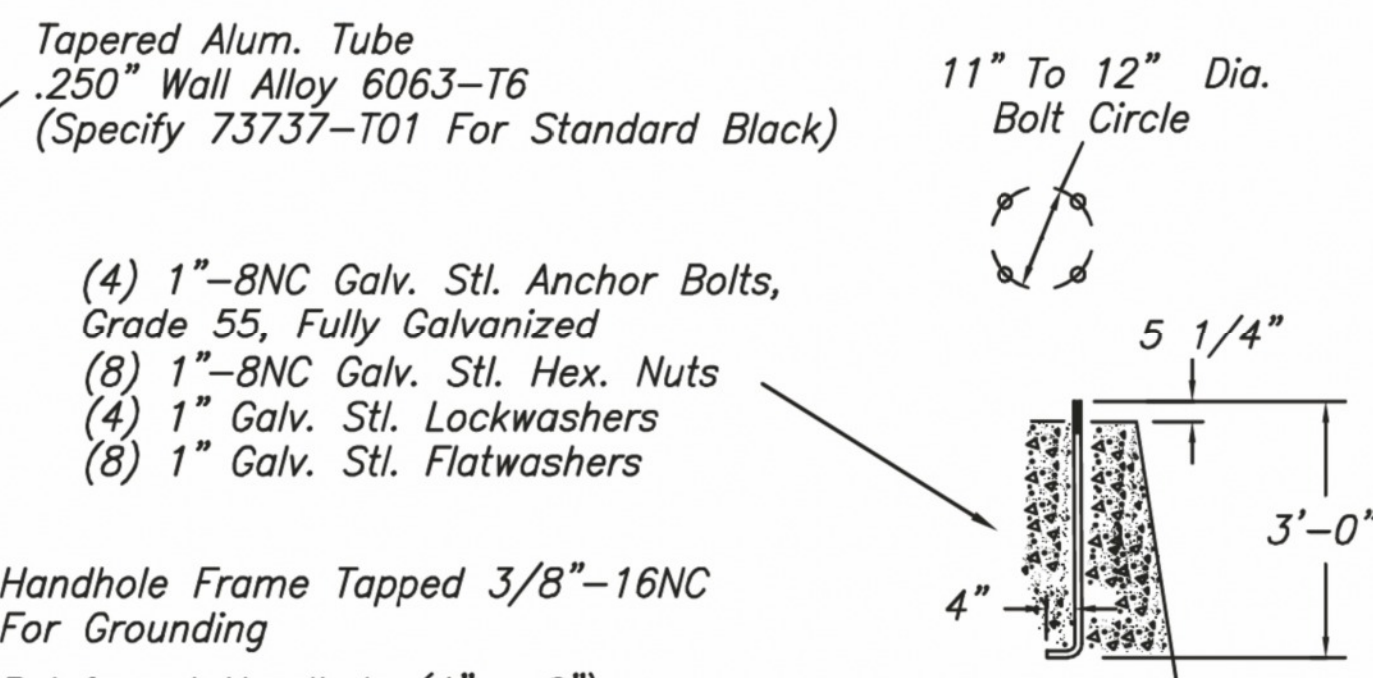
PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR McNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
ED-03	
TOTAL SHEETS	45
SHEET NO.	12



Part Number	Banner Arms	GFI	Cover
SKDGO32819A-001	Yes	Yes	In-Use
SKDGO32819A-002	Yes	No	Cover Plate
SKDGO32819A-003	Rivnuts Only	Yes	In-Use



Livernois Streetscape OPP-41448
 Kercheval Streetscape OPP-44129
 McNichols Streetscape OPP-44129

Ref: 33265, 52925

NO.	REVISIONS	DATE
1	Add Table And Project Notes (DG)	5.19

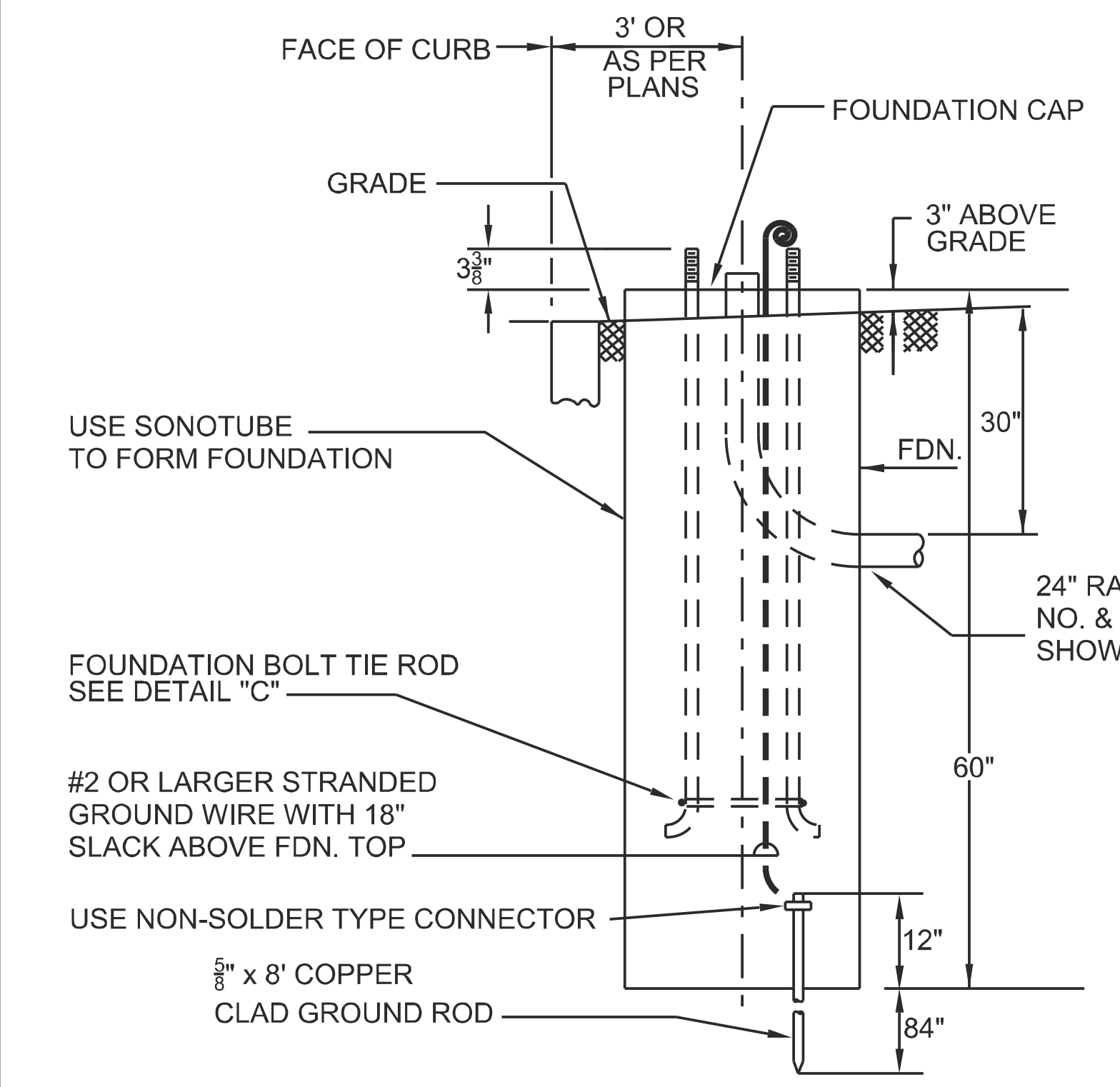
WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES

hapco
Abingdon, Va.

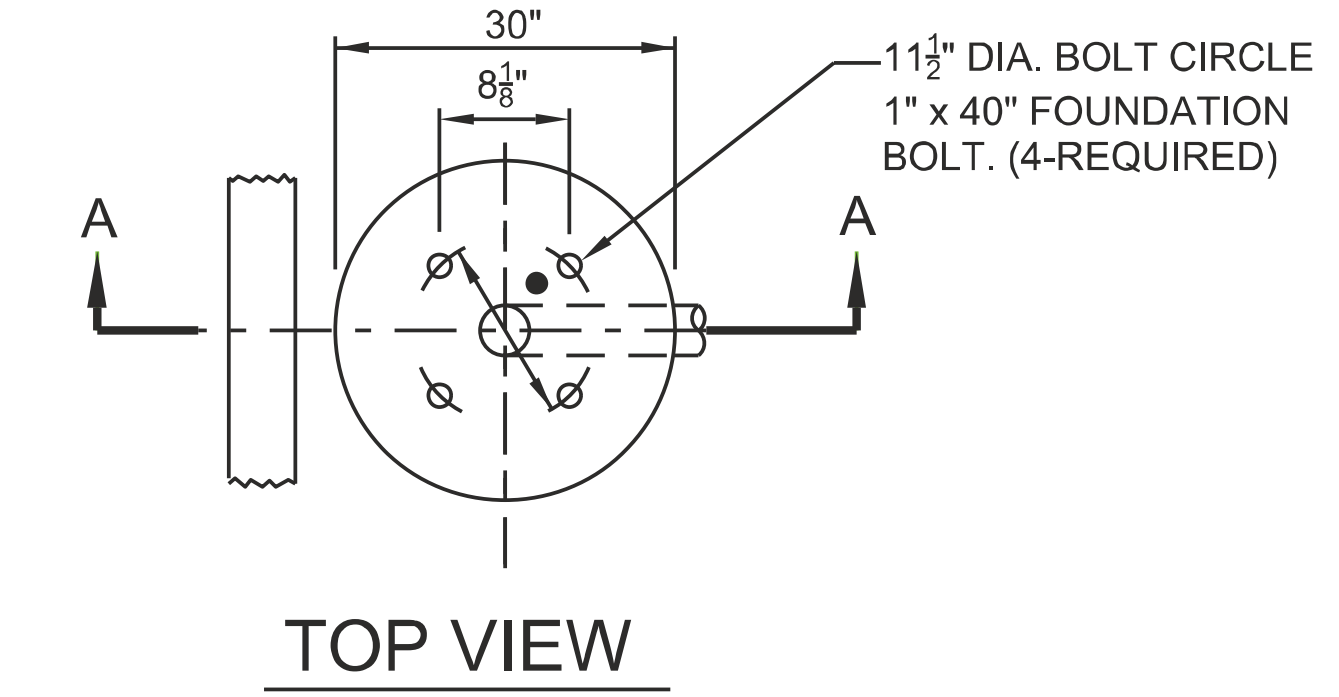
TITLE 30' Light Pole
 CUSTOMER PLA - Detroit -ELUS
 SCALE NTS DATE 3.28.19
 BY RDG DWG. NO.
 CHK'D SKDGO32819A

SKDGO32819A

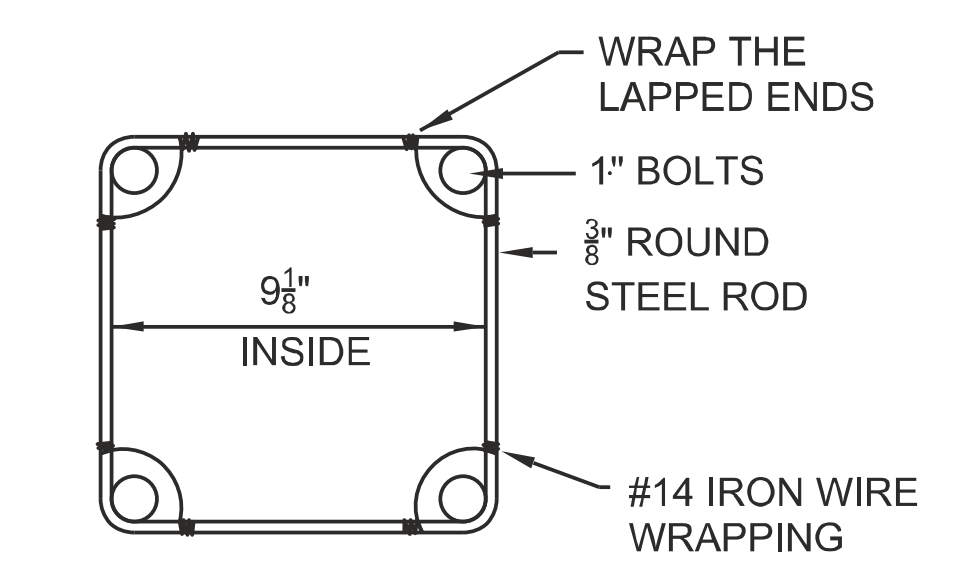
ANCHOR BASE FOUNDATION PLAN
NOT TO SCALE



SECTION A-A



TOP VIEW



DETAIL "C"

ANCHOR BOLT TIE ROD

ALL FOUNDATION CAPS SHALL HAVE A SMOOTH FINISH WITH BEVELED EDGES & SHALL BE SHAPED TO ALLOW COMPLETE DRAINAGE OF WATER. ANCHOR BOLT PROJECTIONS ABOVE CAP SHALL BE CLEANED OF ALL CONCRETE & FULLY USABLE THEIR FULL LENGTH.

GE Evolve® LED Roadway Lighting

ERL1-ERLH-ERL2



Project name _____
Date _____
Type _____

Typical Specifications: ERL1-ERLH-ERL2

LED & Optical

- **Output Range:** 1900 – 30000 lm
- **Photometric Options:** Type II Narrow, Type II Wide, Type III, Type IV
- **System Efficacy:** 100 - 145 LPW
- **CCT:** 2700K, 3000K, 4000K; LEDs @ 70 CRI

Lumen Maintenance Tables

Projected Lxx per IES TM-21 at 25°C for reference:

ERL1 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	60,000 HR
02,03,04,05,06	L96	L95	L94
07,08,09	L95	L91	L89
10	L89	L80	L76

ERLH LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	60,000 HR
10, 11	L97	L96	L96
13, 14	L95	L93	L92
15, 16	L94	L91	L91

ERL2 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	60,000 HR
16, 18, 19, 21, 23	L96	L94	L95
25, 27, 28	L95	L93	L92
30	L94	L91	L90

Note: Projected Lxx based on LM80 (10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Electrical

- **Input Voltage:** 120-277 volt and 347-480 volt
- **Input Frequency:** 50/60Hz
- **Power Factor (PF)*:** >90%
- **Total Harmonic Distortion (THD)*:** <20%

*Power factor and THD tolerance exceptions: ERL1 "02" Lumen output: PF and THD within tolerances above only at 120 volt. ERL1 "03" Lumen output: @120 volt PF~0.89; @480 volt THD~26% ERL1 "04" Lumen output: @480 volt THD~22%

Ratings

- **Surge Protection:** per ANSI C136.2-2015:
(Driver Internal):
 - 6kV/3kA "Basic: (120 Strikes)" - Standard on ERL1 (02-06)
 - 10kV/5kA "Enhanced: (40 Strikes)" - Standard on ERL1 (07 - 10), ERLH, ERL2
- **(Additional Separate Secondary SPD)**
 - 10kV/5kA "Enhanced: (40 Strikes)" - Option "R"
 - 20kV/10kA "Elevated" (40 Strikes) - Option "T"
- **Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations (UL/cUL)
- **Environmental:** Compliant with the materials restrictions of RoHS
- **EMI:** Title 47 CFR Part 15 Class A
- **Vibration:** 3G per ANSI C136.31-2010
- LM-79 testing in accordance with IESNA Standards
- Std. Optical enclosure rated per ANSI C136.25-2009:
 - ERL1/ERLH/ERL2 = IP65, Optional: IP66



International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

Operating Temperature:

PRODUCT ID	LUMEN OUTPUT	AMBIENT READING
ERL1	02-10	-40°C to 50°C
ERLH	10-11, 13	-40°C to 50°C
ERLH	14-16	-40°C to 45°C
ERL2	16-28	-40°C to 50°C
ERL2	30	-40°C to 45°C

Delayed start may be experienced < -35°C

Construction & Finish

- **Housing:**
 - Die Cast Enclosure
 - Casting-integral heat sink for maximum heat transfer
- **Lensing:** Impact resistant tempered glass, standard
- **Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
 - Standard Colors: Dark Bronze, Black, & Gray
 - RAL & custom colors available
 - Optional coastal finish available.
- **Weight:** 12.4lbs (5.6kg) - 24lbs (10.9kg)

Warranty

- **System Warranty:** 5 Year Standard, 10 Year Optional

Controls

- **Dimming:**
 - Standard: 0-10V; Optional: DALI (120-277V Only)
- **Sensors:**
 - Photo electric sensors (PE) available.
- LightGrid™ compatible

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Suggested HID Replacement Lumen Levels

- ~4,000-5,000 lumens to replace 100W HPS Cobra-head
- ~7,000-8,800 lumens to replace 150W HPS Cobra-head
- ~8,500-11,500 lumens to replace 200W HPS Cobra-head
- ~11,500-14,000 lumens to replace 250W HPS Cobra-head
- ~21,000-30,000 lumens to replace 400W HPS Cobra-head

Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

CONVERSION FROM PREVIOUS GENERATION OPTICS TO CURRENT GENERATION OPTICS**			
PREVIOUS	DESCRIPTION	CURRENT	DESCRIPTION
A1, B1	Extra Narrow/Narrow Asymmetric	A3	Type II Narrow
C1, E1	Asymmetric Short/Medium	B3	Type II Wide
D1, G1	Asymmetric Forward/Extra Wide	C3	Type III
F1	Asymmetric Wide	D3	Type IV
		E3	Type II Enhanced Back Light

**The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is to do a lighting layout Utilizing AGI.

GE Evolve®
LED Roadway Lighting
 ERL1-ERLH-ERL2



Project name _____
 Date _____
 Type _____

E R L H 0 10 B3 40 A BLCK LRY

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION*	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve	0 = 120-277V*	10	A3 = Type II Narrow	27 = 2700K <>	A = ANSI C136.41 7-pin	GRAY = Gray	A = 4 Bolt Slipfitter †
R = Roadway	1 = 120	11	B3 = Type II Wide	30 = 3000K <>	D = ANSI C136.41 7-pin with Shorting Cap	BLCK = Black	F = Fusing
L = Local	2 = 208	13	C3 = Type III	40 = 4000K	E = ANSI C136.41 7-pin with non-Dimming PE Control.*	DKBZ = Dark Bronze	G = Internal Bubble Level
H = High Output	3 = 240	14	D3 = Type IV	<> Select 2700K or 3000K CCT for IDA approved units.	*PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete.		I = IP66 Optical
	4 = 277	15	E3 = Type II Enhanced Back Light		NOTE: Dimming controls wired for 0-10V standard unless DALI option "U" requested.		L = Tool-Less Entry
	5 = 480	16					R = Secondary 10kV/5kA SPD
	D = 347	See Table	See Table				T = Secondary 20kV/10kA SPD
	H = 347-480*#		*Nominal IES Type classing subject to typical variation, individual units may differ.				U = DALI Programmable ^
							V1 = Variable Output via Field Adjustable Module**
							X = Single Package #
							Y = Coastal Finish*
							XXX = Special Options
							† Contact manufacturer for Lead-Time.
							# "X" option provides single pack box per fixture. Std Packaging = 20 units per Magna pak container.
							* Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time.
							+ Compatible with LightGrid 2.0 nodes.
							^ Not available in 347V, 480V or 347-480V.
							** Not available with DALI (U) option.

LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE			BUG RATING			IES FILE NUMBER						
		4000K	3000K	2700K	120-277V	347-480V	4000K	3000K	2700K	4000K	3000K	2700K					
10	A3								B2-U0-G2	B2-U0-G2	B2-U0-G2	ERLH_10A340	IES	ERLH_10A330	IES	ERLH_10A327	IES
	B3								B2-U0-G2	B2-U0-G2	B2-U0-G2	ERLH_10B340	IES	ERLH_10B330	IES	ERLH_10B327	IES
	C3	10000	9600	9300			82		B2-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_10C340	IES	ERLH_10C330	IES	ERLH_10C327	IES
	D3								B1-U0-G3	B1-U0-G2	B1-U0-G2	ERLH_10D340	IES	ERLH_10D330	IES	ERLH_10D327	IES
	E3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_10E340	IES	ERLH_10E330	IES	ERLH_10E327	IES
11	A3								B3-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_11A340	IES	ERLH_11A330	IES	ERLH_11A327	IES
	B3								B3-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_11B340	IES	ERLH_11B330	IES	ERLH_11B327	IES
	C3	11500	11000	10700			98		B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_11C340	IES	ERLH_11C330	IES	ERLH_11C327	IES
	D3								B1-U0-G3	B1-U0-G2	B1-U0-G2	ERLH_11D340	IES	ERLH_11D330	IES	ERLH_11D327	IES
	E3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_11E340	IES	ERLH_11E330	IES	ERLH_11E327	IES
13	A3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_13A340	IES	ERLH_13A330	IES	ERLH_13A327	IES
	B3								B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_13B340	IES	ERLH_13B330	IES	ERLH_13B327	IES
	C3	13000	12500	12100			111		B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_13C340	IES	ERLH_13C330	IES	ERLH_13C327	IES
	D3								B2-U0-G3	B2-U0-G3	B1-U0-G3	ERLH_13D340	IES	ERLH_13D330	IES	ERLH_13D327	IES
	E3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_13E340	IES	ERLH_13E330	IES	ERLH_13E327	IES
14	A3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_14A340	IES	ERLH_14A330	IES	ERLH_14A327	IES
	B3								B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_14B340	IES	ERLH_14B330	IES	ERLH_14B327	IES
	C3	14000	13400	13000			122		B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_14C340	IES	ERLH_14C330	IES	ERLH_14C327	IES
	D3								B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_14D340	IES	ERLH_14D330	IES	ERLH_14D327	IES
	E3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_14E340	IES	ERLH_14E330	IES	ERLH_14E327	IES
15	A3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_15A340	IES	ERLH_15A330	IES	ERLH_15A327	IES
	B3								B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_15B340	IES	ERLH_15B330	IES	ERLH_15B327	IES
	C3	15000	14400	13900			136		B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_15C340	IES	ERLH_15C330	IES	ERLH_15C327	IES
	D3								B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_15D340	IES	ERLH_15D330	IES	ERLH_15D327	IES
	E3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_15E340	IES	ERLH_15E330	IES	ERLH_15E327	IES
16	A3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_16A340	IES	ERLH_16A330	IES	ERLH_16A327	IES
	B3								B3-U0-G3	B3-U0-G3	B2-U0-G3	ERLH_16B340	IES	ERLH_16B330	IES	ERLH_16B327	IES
	C3	16000	15300	14900			149		B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_16C340	IES	ERLH_16C330	IES	ERLH_16C327	IES
	D3								B2-U0-G3	B2-U0-G3	B2-U0-G3	ERLH_16D340	IES	ERLH_16D330	IES	ERLH_16D327	IES
	E3								B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_16E340	IES	ERLH_16E330	IES	ERLH_16E327	IES

GE Evolve® LED Roadway Lighting

ERL1-ERLH-ERL2



Project name _____
Date _____
Type _____

Typical Specifications: ERL1-ERLH-ERL2

LED & Optical

- Output Range:** 1900 – 30000 lm
- Photometric Options:** Type II Narrow, Type II Wide, Type III, Type IV
- System Efficacy:** 100 - 145 LPW
- CCT:** 2700K, 3000K, 4000K; LEDs @ 70 CRI

Lumen Maintenance Tables

Projected Lxx per IES TM-21 at 25°C for reference:

ERL1 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	60,000 HR
02,03,04,05,06	L96	L95	L94
07,08,09	L95	L91	L89
10	L89	L80	L76

ERLH LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	60,000 HR
10, 11	L97	L96	L96
13, 14	L95	L93	L92
15, 16	L94	L91	L91

ERL2 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	60,000 HR
16, 18, 19, 21, 23	L96	L94	L95
25, 27, 28	L95	L93	L92
30	L94	L91	L90

Note: Projected Lxx based on LM80 (10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Electrical

- Input Voltage:** 120-277 volt and 347-480 volt
- Input Frequency:** 50/60Hz
- Power Factor (PF)*:** >90%
- Total Harmonic Distortion (THD)*:** <20%

*Power factor and THD tolerance exceptions: ERL1 "02" Lumen output; PF and THD within tolerance above only at 120 volt. ERL1 "03" Lumen output: @120 volt PF~0.89; @480 volt THD~26% ERL1 "04" Lumen output: @480 volt THD~22%

Ratings

- Surge Protection:** per ANSI C136.2-2015: (Driver Internal):
 - 6kV/3kA "Basic: (120 Strikes)" - Standard on ERL1 (02-06)
 - 10kV/5kA "Enhanced: (40 Strikes)" - Standard on ERL1 (07 - 10), ERLH, ERL2
- (Additional Separate Secondary SPD)**
 - 10kV/5kA "Enhanced: (40 Strikes)" - Option "R"
 - 20kV/10kA "Elevated" (40 Strikes) - Option "T"
- Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations (W) (L)
- Environmental:** Compliant with the materials restrictions of RoHS
- EMI:** Title 47 CFR Part 15 Class A
- Vibration:** 3G per ANSI C136.31-2010
- LM-79 testing in accordance with IESNA Standards
- Std. Optical enclosure rated per ANSI C136.25-2009:
 - ERL1/ERLH/ERL2 = IP65, Optional: IP66



International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

Operating Temperature:

PRODUCT ID	LUMEN OUTPUT	AMBIENT READING
ERL1	02-10	-40°C to 50°C
ERLH	10-11, 13	-40°C to 50°C
ERLH	14-16	-40°C to 45°C
ERL2	16-28	-40°C to 50°C
ERL2	30	-40°C to 45°C

Delayed start may be experienced < -35°C

Construction & Finish

- Housing:**
 - Die Cast Enclosure
 - Casting-integral heat sink for maximum heat transfer
- Lensing:** Impact resistant tempered glass, standard
- Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
 - Standard Colors: Dark Bronze, Black, & Gray
 - RAL & custom colors available
 - Optional coastal finish available.
- Weight:** 12.4lbs (5.6kg) – 24lbs (10.9kg)

Warranty

- System Warranty:** 5 Year Standard, 10 Year Optional

Controls

- Dimming:**
 - Standard: 0-10V; Optional: DALI (120-277V Only)
- Sensors:**
 - Photo electric sensors (PE) available.
- LightGrid™ compatible

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Suggested HID Replacement Lumen Levels

- ~4,000–5,000 lumens to replace 100W HPS Cobra-head
- ~7,000–8,800 lumens to replace 150W HPS Cobra-head
- ~8,500–11,500 lumens to replace 200W HPS Cobra-head
- ~11,500–14,000 lumens to replace 250W HPS Cobra-head
- ~21,000–30,000 lumens to replace 400W HPS Cobra-head

Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

PREVIOUS	DESCRIPTION	CURRENT	DESCRIPTION
A1, B1	Extra Narrow/Narrow Asymmetric	A3	Type II Narrow
C1, E1	Asymmetric Short/Medium	B3	Type II Wide
D1, G1	Asymmetric Forward/Extra Wide	C3	Type III
F1	Asymmetric Wide	D3	Type IV
		E3	Type II Enhanced Back Light

**The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is to do a lighting layout Utilizing AGI.

GE Evolve® LED Roadway Lighting

ERL1-ERLH-ERL2



Project name _____
Date _____
Type _____

ERLH 0 10 B3 40 A BLCK LRY

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION*	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve	0 = 120-277V*	10	A3 = Type II Narrow	27 = 2700K <	A = ANSI C136.41 7-pin	GRAY = Gray	A = 4 Bolt Slipfitter †
R = Roadway	1 = 120	11	B3 = Type II Wide	30 = 3000K <	D = ANSI C136.41 7-pin with Shorting Cap	BLCK = Black	F = Fusing
L = Local	2 = 208	13	C3 = Type III	40 = 4000K	E = ANSI C136.41 7-pin with non-Dimming PE Control.*	DKBZ = Dark Bronze	G = Internal Bubble Level
H = High Output	3 = 240	14	D3 = Type IV	< Select 2700K or 3000K CCT for IDA approved units.	*PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete.		I = IP66 Optical
	4 = 277	15	E3 = Type II Enhanced Back Light	See Table			L = Tool-Less Entry
	5 = 480	16					R = Secondary 20kV/10kA SPD
	D = 347						T = DALI Programmable**
	H = 347-480*#						U = Variable Output via Field Adjustable Module**
							X = Single Package #
							Y = Coastal Finish*
							XXX = Special Options
							† Contact manufacturer for Lead-Time.
							# "X" option provides single pack box per fixture. Std Packaging = 20 units per Magna pak container.
							* Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time.
							+ Compatible with LightGrid 2.0 nodes.
							^ Not available in 347V, 480V or 347-480V.
							** Not available with DALI (U) option.

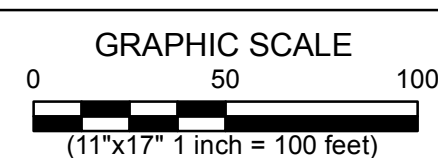
LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE			BUG RATING			IES FILE NUMBER			
		4000K	3000K	2700K	120-277V	347-480V	4000K	3000K	2700K	4000K	3000K	2700K		
10	A3	10000	9600	9300	82	B2-U0-G2	B2-U0-G2	B2-U0-G2	ERLH_10A340	JES	ERLH_10A330	JES	ERLH_10A327	JES
	B3					B2-U0-G2	B2-U0-G2	B2-U0-G2	ERLH_10B340	JES	ERLH_10B330	JES	ERLH_10B327	JES
	C3					B2-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_10C340	JES	ERLH_10C330	JES	ERLH_10C327	JES
	D3					B1-U0-G3	B1-U0-G2	B1-U0-G2	ERLH_10D340	JES	ERLH_10D330	JES	ERLH_10D327	JES
	E3					B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_10E340	JES	ERLH_10E330	JES	ERLH_10E327	JES
11	A3	11500	11000	10700	98	B3-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_11A340	JES	ERLH_11A330	JES	ERLH_11A327	JES
	B3					B3-U0-G3	B2-U0-G2	B2-U0-G2	ERLH_11B340	JES	ERLH_11B330	JES	ERLH_11B327	JES
	C3					B2-U0-G3	B2-U0-G3	ERLH_11C340	JES	ERLH_11C330	JES	ERLH_11C327	JES	
	D3					B1-U0-G3	B1-U0-G2	B1-U0-G2	ERLH_11D340	JES	ERLH_11D330	JES	ERLH_11D327	JES
	E3					B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_11E340	JES	ERLH_11E330	JES	ERLH_11E327	JES
13	A3	13000	12500	12100	111	B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_13A340	JES	ERLH_13A330	JES	ERLH_13A327	JES
	B3					B2-U0-G3	B2-U0-G3	ERLH_13B340	JES	ERLH_13B330	JES	ERLH_13B327	JES	
	C3					B2-U0-G3	B2-U0-G3	ERLH_13C340	JES	ERLH_13C330	JES	ERLH_13C327	JES	
	D3					B2-U0-G3	B2-U0-G3	ERLH_13D340	JES	ERLH_13D330	JES	ERLH_13D327	JES	
	E3					B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_13E340	JES	ERLH_13E330	JES	ERLH_13E327	JES
14	A3	14000	13400	13000	122	B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_14A340	JES	ERLH_14A330	JES	ERLH_14A327	JES
	B3					B2-U0-G3	B2-U0-G3	ERLH_14B340	JES	ERLH_14B330	JES	ERLH_14B327	JES	
	C3					B2-U0-G3	B2-U0-G3	ERLH_14C340	JES	ERLH_14C330	JES	ERLH_14C327	JES	
	D3					B2-U0-G3	B2-U0-G3	ERLH_14D340	JES	ERLH_14D330	JES	ERLH_14D327	JES	
	E3					B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_14E340	JES	ERLH_14E330	JES	ERLH_14E327	JES
15	A3	15000	14400	13900	136	B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_15A340	JES	ERLH_15A330	JES	ERLH_15A327	JES
	B3					B2-U0-G3	B2-U0-G3	ERLH_15B340	JES	ERLH_15B330	JES	ERLH_15B327	JES	
	C3					B2-U0-G3	B2-U0-G3	ERLH_15C340	JES	ERLH_15C330	JES	ERLH_15C327	JES	
	D3					B2-U0-G3	B2-U0-G3	ERLH_15D340	JES	ERLH_15D330	JES	ERLH_15D327	JES	
	E3					B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_15E340	JES	ERLH_15E330	JES	ERLH_15E327	JES
16	A3	16000	15300	14900	149	B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_16A340	JES	ERLH_16A330	JES	ERLH_16A327	JES
	B3					B3-U0-G3	B2-U0-G3	ERLH_16B340	JES	ERLH_16B330	JES	ERLH_16B327	JES	
	C3					B2-U0-G3	B2-U0-G3	ERLH_16C340	JES	ERLH_16C330	JES	ERLH_16C327	JES	
	D3					B2-U0-G3	B2-U0-G3	ERLH_16D340	JES	ERLH_16D330	JES	ERLH_16D327	JES	
	E3					B3-U0-G3	B3-U0-G3	B3-U0-G3	ERLH_16E340	JES	ERLH_16E330	JES	ERLH_16E327	JES



PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1038-20-1074
DRAWN BY:	BRENDAN MULLANE
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
DT-03	
TOTAL SHEETS	45
SHEET NO.	16

SIMpull XHHW-2® Aluminum XHHW Wire & Cable



600 Volt Alumaflex® Brand Aluminum Alloy (AA-8176) Conductor. Cross-linked Polyethylene (XLPE) Insulation. Moisture Resistant High Heat. Sunlight Resistant in Sizes 6 AWG and Larger. CT Rated in Sizes 1/0 AWG and Larger.

APPLICATIONS

Southwire SIMpull XHHW-2® aluminum conductors are primarily used in conduit or recognized raceways for service and feeder wiring as specified in the National Electrical Code. XHHW-2 conductors may be used in wet or dry locations at temperatures not to exceed 90°C. Voltage rating for XHHW-2 conductors is 600 volts. Suitable for use in Health Care Facilities per section 517.160 of the NEC where a dielectric constant of 3.5 or less may be specified. This product is designed to be installed without the application of pulling lubricant.



STANDARDS & REFERENCES

Southwire Aluminum Type XHHW-2 conductors comply with the following:

- ASTM- All Applicable Standards
- UL Standard 44
- NOM-ANCE 90° C
- Federal Specification A-A-59544
- National Electrical Code, NFPA 70
- NEMA WC-70 (ICEA S-95-658) Construction Requirements
- RoHS/Reach Compliant

CONSTRUCTION

Southwire Type XHHW-2 aluminum conductors are Alumaflex® brand AA-8000 series aluminum alloy, compact stranded. The insulation is an abrasion, moisture and heat resistant SIMpull® thermoset cross-linked polyethylene. Conductor sizes 6 AWG and larger are listed and marked sunlight resistant in all colors. Available in black, white, red, blue, brown, orange, yellow, purple, gray, and green. Some colors are subject to economic order quantity.

Revised March 12, 2018

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One Southwire Drive, Carrollton, GA 30119, USA

Conductor		Insulation Thickness (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands				60°C	75°C	90°C	
8	7	45	227	30	35	40	45	BCD
6	7	45	259	39	40	50	55	BCD
4	7	45	303	57	55	65	75	BCD
2	6	45	358	85	75	90	100	BCD
1	8	55	413	108	85	100	115	BC
1/0	10	80	450	180	115	135	150	ABC
2/0	12	55	490	161	115	135	150	ABCD
3/0	16	55	537	198	130	155	175	BCD
4/0	19	55	589	243	150	180	205	ABCD
250	22	55	650	293	170	205	230	BCD
300	35	65	700	346	195	230	260	BC
350	35	65	746	398	210	250	280	BCD
400	35	65	789	449	225	270	305	CD
500	35	65	866	552	260	310	350	ABCDE
600	58	80	973	675	285	340	385	ABD
700	58	80	1037	777	315	375	425	N/A
750	58	80	1068	829	320	385	435	ABCE
900	58	80	1162	979	355	425	480	N/A
1000	58	80	1220	1085	375	445	500	C

+ Allowable Ampacities shown are for general use as specified by the National Electrical Code, Sections 310.15 and 240.4(D). Unless the equipment is marked for use at higher temperatures, the conductor ampacities shall be limited to the following per NEC 110.14(C): 60°C - When terminated to equipment for circuits rated 100 amperes or less marked for 14 through 1 AWG conductors. 75°C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG. 90°C - THHN dry locations and THWN wet or dry locations for ampacity adjustment purposes using NEC section 310.15.

Package Codes
A-500'
B-2,500'
C-1,000'
D-5,000'

RECOMMENDED SAMPLE SPECIFICATIONS:

Conductors shall be UL-listed Type XHHW-2, suitable for operation at 600 volts or less in wet or dry locations at temperatures not to exceed 90 °C. Conductors shall be annealed Alumaflex® brand aluminum alloy as manufactured by Southwire Company or approved equal.

Revised March 12, 2018

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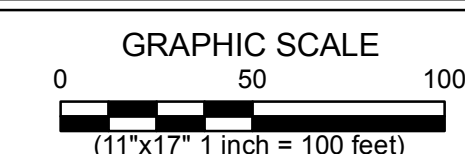
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One Southwire Drive, Carrollton, GA 30119, USA



PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION

DT-04.1	TOTAL SHEETS	SHEET NO.
	45	17

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
8	7	Stock #: N/A
6	7	Stock #: BK:112706, BN:591209, OE:591210, YW:591211, GN:585321
4	7	Stock #: BK:112714, RD:591114, BE:591115, WE:591116, BN:591201, OE:591202, YW:591203, GN:585320
2	7	Stock #: BK:112722, BN:591213, OE:591214, YW:591215, GN:585319
1	18	Stock #: BK:112730, RD:591204, BE:591205, WE:591206, BN:591207, OE:591208, YW:591216, GN:585318, GY:596497
1/0	18	Stock #: BK:112748, RD:591284, BE:591285, WE:591286, BN:585291, OE:585292, YW:585293, GY:585294, GN:585290, PE:596423
2/0	18	Stock #: BK:112755, RD:591288, BE:591289, WE:591290, BN:585296, OE:585297, YW:585298, GY:585300, GN:585295, PE:596422
3/0	18	Stock #: BK:112763, RD:585302, BE:585303, WE:585304, BN:585305, OE:585306, YW:585308, GY:585309, GN:585301, PE:596421
4/0	18	Stock #: BK:112771, RD:585317, BE:585316, WE:585314, BN:585313, OE:585312, YW:585311, GY:585310, GN:567439, PE:592563
250	22	Stock #: BK:278341, RD:576390, BE:576391, WE:576392, BN:576385, OE:576386, YW:576387, GY:576388, GN:567440, PE:592468
300	35	Stock #: BK:278358, RD:576382, BE:576383, WE:576384, BN:576133, OE:576134, YW:576135, GY:576136, GN:576361, PE:593380
350	35	Stock #: BK:278366, RD:576378, BE:576379, WE:576380, BN:576374, OE:576375, YW:576376, GY:576377, GN:567437, PE:592562
400	35	Stock #: BK:278374, RD:576370, BE:576372, WE:576373, BN:576127, OE:576129, YW:576130, GY:576131, GN:567384, PE:593379
500	35	Stock #: BK:278382, RD:576367, BE:576368, WE:576369, BN:576362, OE:576364, YW:576365, GY:576366, GN:576394, PE:589196
600	58	Stock #: BK:278390, RD:576350, BE:576351, WE:576352, BN:576345, OE:576346, YW:576347, GY:576349, GN:567375, PE:589197
700	58	Stock #: BK:278408, RD:591293, BE:591294, WE:591295, BN:576341, OE:576342, YW:576343, GY:576344, GN:591296
750	58	Stock #: BK:278416, RD:592233, BE:592234, WE:592235, BN:567432, OE:567433, YW:567434, GY:567435, GN:567436, PE:592469
900	58	Stock #: BK:554059, BN:560445, OE:560446, YW:560447, GY:560448, PE:596424
1000	58	Stock #: BK:278424

Color Abbreviations
 BK-Black RD- Red BE-Blue WE-White BN-Brown
 OE-Orange YW- Yellow GY-Grey GN-Green PE-Purple

Revised March 12, 2018

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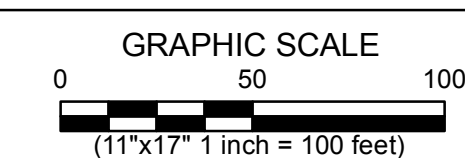
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 One Southwire Drive, Carrollton, GA 30119, USA



PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
DT-04.2	
TOTAL SHEETS	SHEET NO.
45	18

Triplex Service Drop

Aluminum Conductors. Polyethylene or Crosslinked Polyethylene Insulation.



APPLICATIONS

Used to supply power, usually from a pole-mounted transformer, to the user's service head where connection to the service entrance cable is made. To be used at voltages of 600 volts phase-to-phase or less and at conductor temperatures not to exceed 75°C for polyethylene insulated conductors or 90°C for crosslinked polyethylene (XLP) insulated conductors.

SPECIFICATIONS

Southwire's triplex service drop cable meets or exceeds the following ASTM specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes.
- B-231 Aluminum Conductors, Concentric-Lay-Stranded.
- B-232 Aluminum Conductors, Concentric-Lay-Stranded, Coated Steel Reinforced(ACSR).
- B-399 Stranded 6201-T81 Aluminum Alloy Conductors.
- B-901 Compressed Round Stranded Aluminum Conductors Using Single Input Wire.

Southwire's triplex service drop cable meets or exceeds all applicable requirements of ANSI/ICEA S-76-474.

CONSTRUCTION

Conductors are concentrically stranded, compressed 1350-H19 aluminum. Insulated with either polyethylene or crosslinked polyethylene (XLP). Neutral messengers are concentrically stranded 6201, AAC, or ACSR.



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Page 1 of 4

Triplex Service Drop

Code* Word	Phase Conductor			Bare Neutral Messenger				Weight Per 1000 ft.(lbs.)		Allowable Ampacities+	
	Size (AWG)	Strand- ing	Insul. Thick. (mils)	Equiv. Dia. (AWG)++	Size++ (kcmil)	Strand- ing	Rated Strength (lbs.)	XLP	POLY	XLP	POLY
6201 ALLOY NEUTRAL-MESSENGER											
Minex	6	1	45	6	30.58	7	1110	101	101	85	70
Hippa	6	7	45	6	30.58	7	1110	107	107	85	70
Prawn	4	1	45	4	48.69	7	1760	152	152	115	90
Barnacle	4	7	45	4	48.69	7	1760	160	160	115	90
Shrimp	2	7	45	2	77.47	7	2800	243	243	150	120
Gammarus	1/0	7	60	1/0	123.3	7	4460	390	390	205	160
Leda	1/0	9	60	1/0	123.3	7	4460	384	384	205	160
Dungenese	2/0	7	60	2/0	155.4	7	5390	483	483	235	185
Cyclops	2/0	11	60	2/0	155.4	7	5390	474	474	235	185
Flustra	3/0	17	60	3/0	195.7	7	6790	587	587	275	215
Lepas	4/0	18	60	4/0	246.9	7	8560	728	728	315	245

*Code words for XLP insulated products are formed by adding "/XLP" to the conventional code words above (e.g.-Haiotis/XLP).
 +Conductor temperature of 90°C for XLP, 75°C for Poly; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.
 ++Designated sizes are: ACSR 6/1 diameter equivalent and AAC with equivalent resistivity per ASTM B-399 for 6201.

Code* Word	Phase Conductor			Bare Neutral Messenger				Weight Per 1000 ft. (lbs.)		Allowable Ampacities+	
	Size (AWG)	Strand- ing	Insul. Thick. (mils)	Equiv. Dia. (AWG)++	Size (kcmil)	Strand- ing	Rated Strength (lbs.)	XLP	POLY	XLP	POLY
6201 ALLOY REDUCED NEUTRAL-MESSENGER											
Artemia	4	1	45	6	30.58	7	1110	135	135	115	90
Crab	4	7	45	6	30.58	7	1110	143	143	115	90
Solaster	2	7	45	4	48.69	7	1760	216	216	150	120
Sandcrab	1/0	7	60	2	77.47	7	2800	347	347	205	160
Echinus	1/0	9	60	2	77.47	7	2800	341	341	205	160
Fulgar	3/0	17	60	1/0	123.3	7	4460	519	519	275	215
Arca	4/0	18	60	2/0	155.4	7	5390	643	643	315	245

*Code words for XLP insulated products are formed by adding "/XLP" to the conventional code words above (e.g.-Haiotis/XLP).
 +Conductor temperature of 90°C for XLP, 75°C for Poly; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.
 ++Designated sizes are: ACSR 6/1 diameter equivalent and AAC with equivalent resistivity per ASTM B-399 for 6201.



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Page 2 of 4

Triplex Service Drop

Code* Word	Phase Conductor			Bare Neutral Messenger			Weight Per 1000 ft. (lbs.)		Allowable Ampacities+	
	Size (AWG or kcmil)	Strand-ing	Insul. Thick. (mils)	Size (AWG or kcmil)	Strand-ing	Rated Strength (lbs.)	XLP	POLY	XLP	POLY
AAC NEUTRAL-MESSENGER										
Patella	6	7	45	6	7	563	103	103	85	70
Oyster	4	7	45	4	7	881	154	154	115	90
Clam	2	7	45	2	7	1350	233	233	150	120
Murex	1/0	7	60	1/0	7	1990	374	374	205	160
Purpura	1/0	9	60	1/0	7	1990	368	368	205	160
Nassa	2/0	7	60	2/0	7	2510	462	462	235	185
Melita	3/0	17	60	3/0	19	3310	562	562	275	215
Portunus	4/0	18	60	4/0	19	4020	696	696	315	245
Nannynose	336.4	19	80	336.4	19	6146	1118	1118	420	325

* Code words for XLP insulated products are formed by adding "/XLP" to the conventional code words above (e.g.-Haiotis/XLP).
 + Conductor temperature of 90°C for XLP, 75°C for Poly; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.

Code* Word	Phase Conductor			Bare Neutral Messenger			Weight Per 1000 ft. (lbs.)		Allowable Ampacities+	
	Size (AWG or kcmil)	Strand-ing	Insul. Thick. (mils)	Size (AWG or kcmil)	Strand-ing	Rated Strength (lbs.)	XLP	POLY	XLP	POLY
ACSR NEUTRAL-MESSENGER										
Paludina	6	1	45	6	6/1	1190	109	109	85	70
Voluta	6	7	45	6	6/1	1190	114	114	85	70
Whelk	4	1	45	4	6/1	1860	--	164	115	90
Periwinkle	4	7	45	4	6/1	1860	172	172	115	90
Conch	2	7	45	2	6/1	2850	262	262	150	120
Neritina	1/0	7	60	1/0	6/1	4380	420	420	205	160
Cenia	1/0	9	60	1/0	6/1	4380	414	414	205	160
Runcina	2/0	7	60	2/0	6/1	5310	520	520	235	185
Triton	2/0	11	60	2/0	6/1	5310	512	512	235	185
Mursia	3/0	17	60	3/0	6/1	6620	635	635	275	215
Zuzara	4/0	18	60	4/0	6/1	8350	789	789	315	245
Limpet	336.4	19	80	336.4	18/1	8680	1167	1167	420	325

*Code words for XLP insulated products are formed by adding "/XLP" to the conventional code words above (e.g.-Haiotis/XLP).
 +Conductor temperature of 90°C for XLP, 75°C for Poly; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.



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Page 3 of 4

Triplex Service Drop

Code* Word	Phase Conductor			Bare Neutral Messenger			Weight Per 1000 ft. (lbs.)		Allowable Ampacities+	
	Size (AWG)	Strand-ing	Insul. Thick. (mils)	Size (AWG)	Strand-ing	Rated Strength (lbs.)	XLP	POLY	XLP	POLY
ACSR REDUCED NEUTRAL-MESSENGER										
Scallop	4	1	45	6	6/1	1190	--	142	115	90
Strombus	4	7	45	6	6/1	1190	151	151	115	90
Cockle	2	7	45	4	6/1	1860	228	228	150	120
Janthina	1/0	7	60	2	6/1	2853	366	366	205	160
Ranella	1/0	9	60	2	6/1	2853	360	360	205	160
Cavolinia	2/0	7	60	1	6/1	3550	453	453	235	185
Clio	2/0	11	60	1	6/1	3550	444	444	235	185
Aega	3/0	17	60	1/0	6/1	4380	549	549	275	215
Cerapus	4/0	18	60	2/0	6/1	5310	681	681	315	245

*Code words for XLP insulated products are formed by adding "/XLP" to the conventional code words above (e.g.-Haiotis/XLP).
 +Conductor temperature of 90°C for XLP, 75°C for Poly; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.



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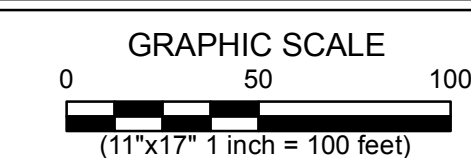
Page 4 of 4



PUBLIC LIGHTING AUTHORITY OF DETROIT			
MES JOB #:	1036-20-1074	DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet	CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020	DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
DT-05.2	
TOTAL SHEETS	SHEET NO.
45	20

LAMP CORD
120V FEED
BLACK INSULATED
MINIMUM SIZE:
ALUMINUM 12 AWG
COPPER 14 AWG

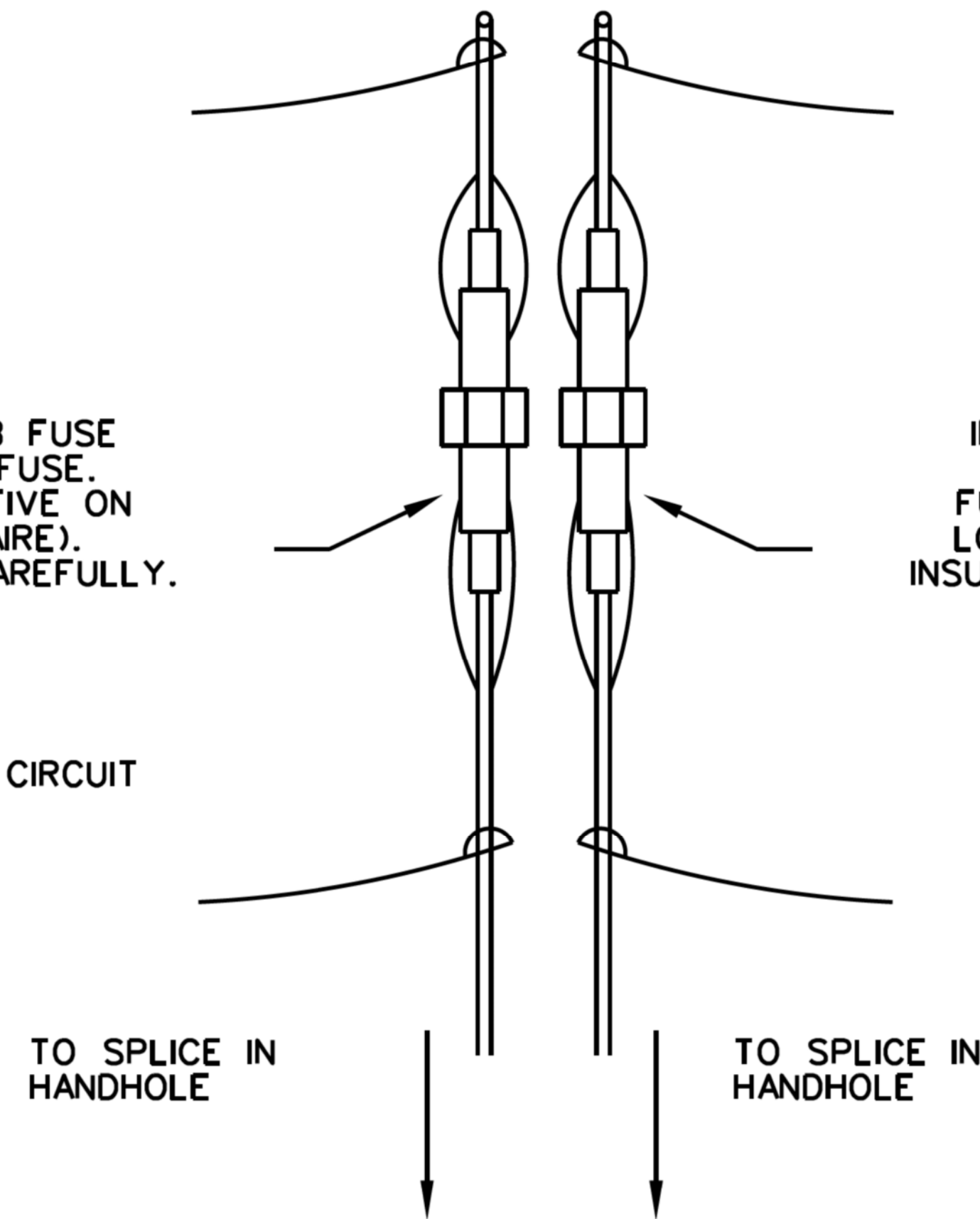
LAMP CORD
INSTALL TRON-HEB FUSE
HOLDER WITH 5A FUSE.
FUSE TO BE CAPTIVE ON
LOAD END (LUMINAIRE).
INSULATE ENDS CAREFULLY.

STREET LIGHTING CIRCUIT
120V FEED
BLACK INSULATED
MINIMUM SIZE:
ALUMINUM 12 AWG
COPPER 14 AWG

RECEPTACLE CORD
120V FEED
BLACK INSULATED
MINIMUM SIZE 12 AWG
COPPER ONLY

RECEPTACLE CORD
INSTALL TRON-HEB FUSE
HOLDER WITH 3A FUSE.
FUSE TO BE CAPTIVE ON
LOAD END (RECEPTACLE).
INSULATE ENDS CAREFULLY.

RECEPTACLE CIRCUIT
120V FEED
BLACK INSULATED
MINIMUM SIZE:
ALUMINUM 10 AWG
COPPER 12 AWG



** ALL CABLES TO BE SIZED AT MINIMUM SIZE OR AS INDICATED ON PLANS
** ADDITIONAL LUMINAIRES REQUIRE ADDITIONAL FUSE HOLDERS

LUMINAIRE AND RECEPTACLE 120V POWER FEED POLE BASE CONNECTION

NOT TO SCALE

LAMP CORD
NEUTRAL
WHITE INSULATED
MINIMUM SIZE:
ALUMINUM 12 AWG
COPPER 14 AWG

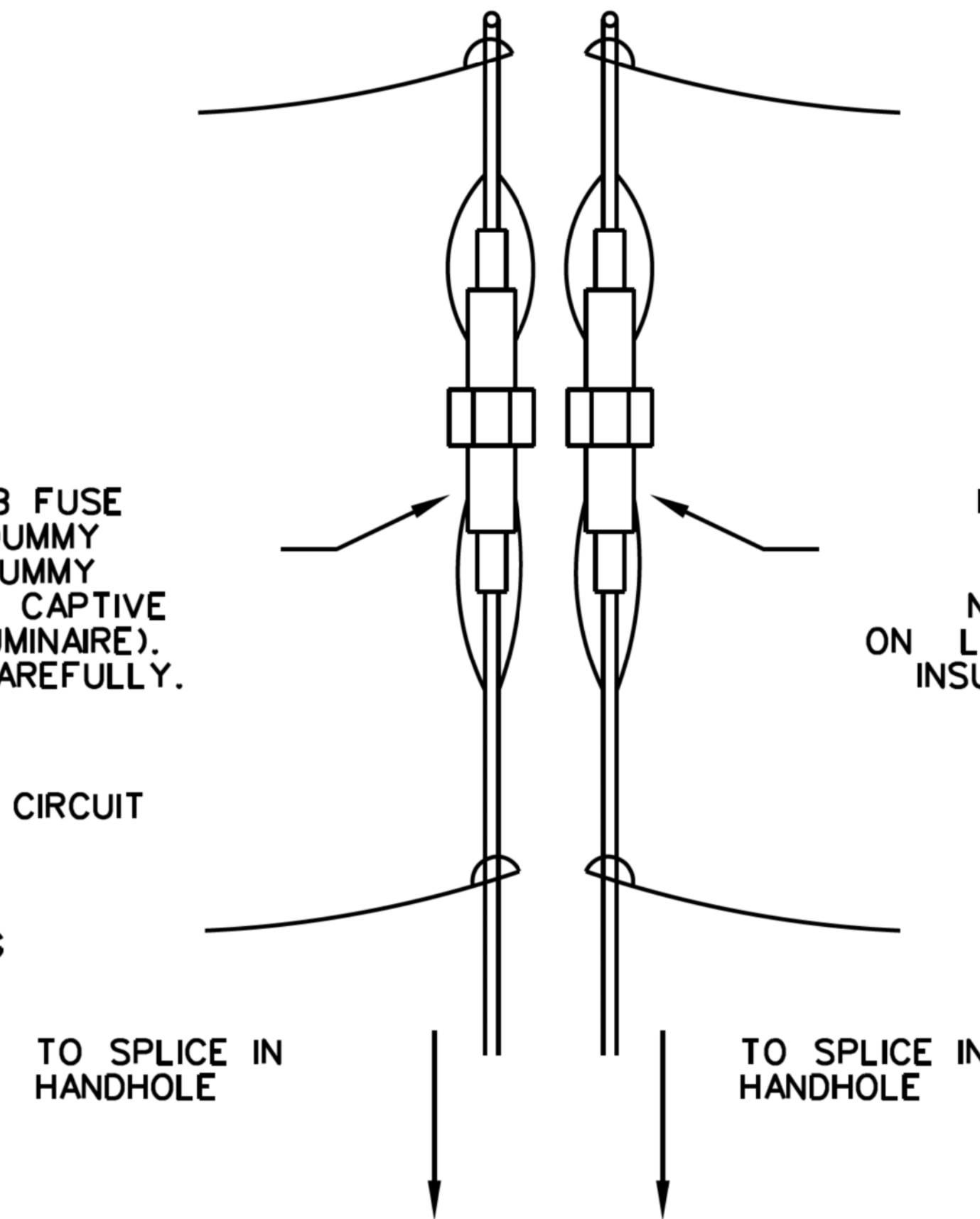
LAMP CORD
INSTALL TRON-HEB FUSE
HOLDER WITH A DUMMY
"NEUTRAL". THE DUMMY
"NEUTRAL" TO BE CAPTIVE
ON LOAD END (LUMINAIRE).
INSULATE ENDS CAREFULLY.

STREET LIGHTING CIRCUIT
NEUTRAL
WHITE INSULATED
MINIMUM SIZE:
ALUMINUM 12 AWG
COPPER 14 AWG

RECEPTACLE CORD
NEUTRAL
WHITE INSULATED
MINIMUM SIZE 12 AWG
COPPER ONLY

RECEPTACLE CORD
INSTALL TRON-HEB FUSE
HOLDER WITH A DUMMY
NEUTRAL. THE DUMMY
NEUTRAL TO BE CAPTIVE
ON LOAD END (RECEPTACLE).
INSULATE ENDS CAREFULLY.

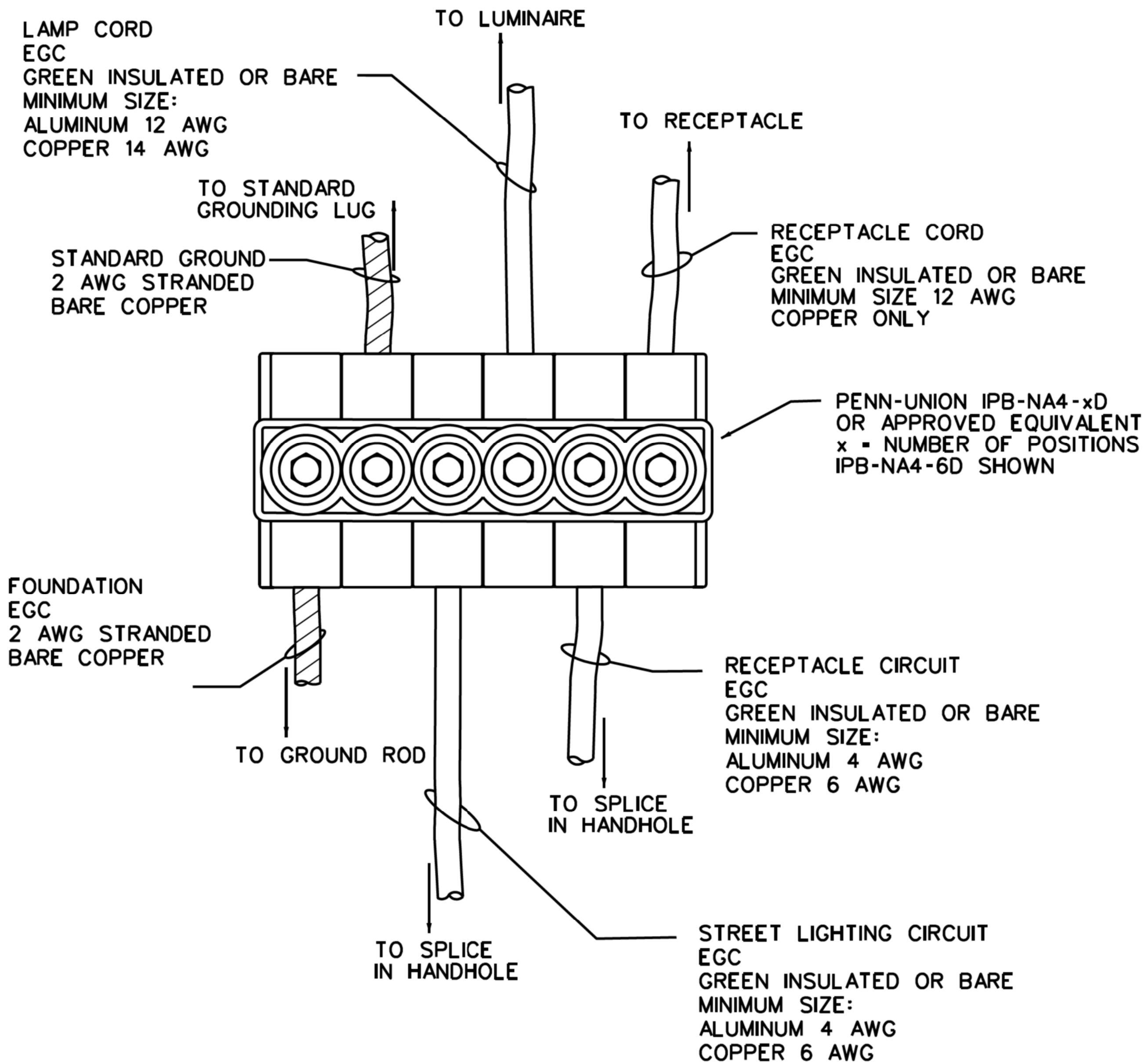
RECEPTACLE CIRCUIT
NEUTRAL
WHITE INSULATED
MINIMUM SIZE:
ALUMINUM 10 AWG
COPPER 12 AWG



** ALL CABLES TO BE SIZED AT MINIMUM SIZE OR AS INDICATED ON PLANS
** ADDITIONAL LUMINAIRES REQUIRE ADDITIONAL FUSE HOLDERS

LUMINAIRE AND RECEPTACLE 120V NEUTRAL POLE BASE CONNECTION

NOT TO SCALE



** ALL CABLES TO BE SIZED AT MINIMUM SIZE OR AS INDICATED ON PLANS
 ** SIZE THE POWER BAR AS NEEDED FOR LUMINAIRES AND RECEPTACLE

EQUIPMENT GROUND CONDUCTOR (EGC) POLE BASE CONNECTION

NOT TO SCALE

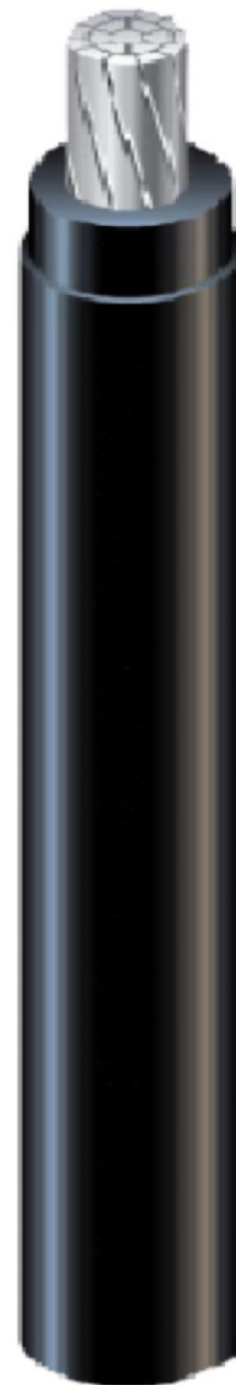
SIMpull THHN® Aluminum THHN Wire & Cable with Alumaflex® Brand Conductors



600 Volt Alumaflex® Brand Aluminum Alloy (AA-8176) Conductor. Thermoplastic Insulation/SIM Nylon Sheath, Heat, Moisture, Gasoline and Oil Sunlight Resistant. Also Rated THWN-2. SIM Technology® for Easier Pulling

APPLICATIONS

Southwire SIMpull THHN® Aluminum THHN Wire & Cable with Alumaflex® Brand conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications as specified in the 2011 National Electrical Code. When used as Type THHN or T90 Nylon conductor is suitable for use in dry locations at temperatures not to exceed 90°C. When used as Type THWN-2 or TWN75, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C when exposed to oil or coolant. Voltage for all applications is 600 volts. This cable should be installed without application of pulling lubricant.



STANDARDS & REFERENCES

Southwire Aluminum SIMpull THHN® conductors comply with the following:

- ASTM B-800 and B-801
- UL Standard 83
- CSA
- Federal Specification A-A-59544
- VW-1 – Sizes 4 through 1 AWG
- CT - Sizes 1/0 AWG and larger Sizes Rated for CT use
- FT1 - Sizes 4 AWG through 750 kcmil
- T90 Nylon – Sizes 4 AWG through 750 kcmil
- TWN 75 – Sizes 8 AWG through 750 kcmil
- National Electrical Code, NFPA 70
- NEMA WC-70 Construction Requirements
- RoHS/Reach Compliant

CONSTRUCTION

Southwire SIMpull THHN® conductors are Alumaflex® Brand AA-8000 series aluminum alloy, compact stranded. Insulated with a tough heat and moisture-resistant polyvinyl chloride (PVC), over which a SIM (SLIKQWIK® Infused Membrane) nylon (polyamide) or UL-listed equal jacket is applied. Conductor sizes 1/0 AWG and larger are listed and marked sunlight resistant in colors. Available in black, white, red, blue,

Revised March 12, 2018

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purple, green, yellow, orange, brown, and gray. Also available in striped configurations. Some colors are subject to economic order quantity.

Conductor		Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal O.D. (mils)	Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands					60°C	75°C	90°C	
8	7	30	5	204	27	35	40	45	B
6	7	30	5	239	38	40	50	60	C
4	7	40	6	305	62	55	65	75	BCD
2	6	40	6	360	91	75	90	100	BC
1	8	50	7	413	117	85	100	115	BC
1/0	10	50	7	450	141	100	120	135	BCD
2/0	12	50	7	490	172	115	135	150	BCD
3/0	16	50	7	537	210	130	155	175	BCD
4/0	19	50	7	589	257	150	180	205	BCD
250	22	60	8	656	311	170	205	230	ABC
300	35	60	8	706	365	190	230	255	BC
350	35	60	8	752	418	210	250	280	BC
400	35	60	8	795	471	225	270	305	BC
500	35	60	8	872	576	260	310	350	BC
600	58	70	9	971	700	285	340	385	BC
700	58	70	9	1035	804	310	375	420	C
750	58	70	9	1066	856	320	385	435	ABC
900	58	70	9	1139	1013	355	425	480	N/A
1000	58	70	9	1218	1117	375	445	500	N/A

+ Allowable Ampacities shown are for general use as specified by the National Electrical Code, Sections 310.15 and 240.4(D). Unless the equipment is marked for use at higher temperatures, the conductor ampacities shall be limited to the following per NEC 110.14(C): 60°C - When terminated to equipment for circuits rated 100 amperes or less marked for 14 through 1 AWG conductors. 75°C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG. 90°C - THHN dry locations and THWN wet or dry locations for ampacity adjustment purposes using NEC section 310.15.H17

Package Codes
A-500'
B-2,500'
C-1,000'
D-5,000'

RECOMMENDED SAMPLE SPECIFICATIONS:

Conductors shall be UL-listed Type THHN and THWN-2, suitable for operation at 600 volts, as specified in the National Electrical Code. Sizes 8 through 1 AWG shall be rated VW-1, larger sizes shall be rated for CT Use. Conductors shall be Alumaflex aluminum alloy, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon or UL-listed equivalent as manufactured by Southwire Company or approved equal.

Revised March 12, 2018

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Conductor		Stock Numbers
Size (AWG or kcmil)	No. of strands	
8	7	Stock #: N/A
6	7	Stock #: BK:563768, RD:573834, BE:573835, WE:578332, GN:566358
4	7	Stock #: BK:563769, RD:573544, BE:573833, WE:577628, GN:562211
2	7	Stock #: BK:563770, RD:573541, BE:573542, WE:563493, BN:587026, OE:587027, YW:587028, GY:578329, GN:562745
1	18	Stock #: BK:563771, RD:583155, BE:583156, WE:578328, BN:587023, OE:587024, YW:587025, GY:578327, GN:562746
1/0	18	Stock #: BK:562747, RD:562748, BE:562749, WE:562750, BN:562753, OE:562754, YW:562752, GY:562755, GN:562756, PE:573380
2/0	18	Stock #: BK:562212, RD:562214, BE:562621, WE:562213, BN:562758, OE:562759, YW:562757, GY:562760, GN:562761, PE:573370
3/0	18	Stock #: BK:562663, RD:562665, BE:562666, WE:562664, BN:562763, OE:562764, YW:562762, GY:562765, GN:562766, PE:573371
4/0	18	Stock #: BK:562671, RD:562673, BE:562674, WE:562672, BN:561805, OE:561806, YW:561807, GY:562767, GN:562768, PE:573372
250	22	Stock #: BK:560444, RD:562626, BE:562627, WE:562625, BN:561863, OE:561864, YW:561865, GY:561866, GN:561867, PE:573373
300	35	Stock #: BK:562667, RD:562669, BE:562670, WE:562668, BN:562771, OE:562772, YW:562770, GY:562773, GN:562774, PE:573374
350	35	Stock #: BK:560443, RD:562623, BE:562624, WE:562622, BN:561858, OE:561859, YW:561861, GY:561862, GN:562775, PE:573375
400	35	Stock #: BK:562677, RD:562776, BE:562778, WE:562779, BN:562781, OE:562782, YW:562780, GY:562783, GN:562699, PE:573376
500	35	Stock #: BK:560442, RD:562696, BE:562697, WE:562698, BN:561853, OE:561854, YW:561855, GY:561856, GN:561857, PE:573377
600	58	Stock #: BK:560441, RD:562630, BE:562631, WE:562628, BN:561847, OE:561848, YW:561849, GY:561850, GN:561851, PE:573379
700	58	Stock #: BK:562689, RD:562690, BE:562691, WE:562692, BN:561843, OE:561844, YW:561846, GY:562693
750	58	Stock #: BK:562632, RD:562634, BE:562635, WE:562633, BN:561838, OE:561839, YW:561840, GY:561841, GN:561842, PE:573481
900	58	Stock #: BK:562679, RD:562681, BE:562682, WE:562683, BN:561782, OE:561783, YW:561785, GY:561786, GN:562684
1000	58	Stock #: BK:562680, BN:564280, OE:564281, YW:564282, GY:564283

Color Abbreviations			
BK-Black	RD-Red	BE-Blue	WE-White
	OE-Orange	YW-Yellow	GY-Grey
			GN-Green

Revised March 12, 2018

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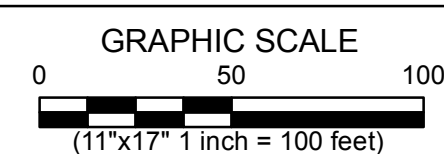
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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #: 1036-20-1074	DRAWN BY:
PLOT SCALE: 1 inch = 100 feet	CHECKED BY: BRENDAN MULLANE
PLOT DATE: 2/6/2020	DATE: 2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
DT-07.2	
TOTAL SHEETS: 45	SHEET NO.: 24

SIMpull THHN®

Copper THHN Wire & Cable



600 Volts. Copper Conductor. Thermoplastic Insulation/Nylon Sheath, Heat, Moisture, Gasoline and Oil Resistant II. All Sizes Rated Both THHN and either THWN (sizes 14, 12, and 10 AWG) or THWN-2 (sizes 8 AWG and larger). Also Rated MTW and AWM (See Below). SIMpull® Technology for Easier Pulling.

APPLICATIONS

Southwire® SIMpull THHN® copper conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications as specified in the National Electrical Code. Voltage for all applications is 600 volts. SIMpull THHN® copper conductors are designed to be installed without application of a pulling lubricant.

These conductors have multiple ratings. Depending upon the product application, allowable temperatures are as follows:

- THHN or T90 Nylon- Dry locations not to exceed 90° C
- THWN-2- Wet or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- THWN- Wet locations not to exceed 75° C or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- TWN75- Wet locations not to exceed 75° C
- MTW- Wet locations or when exposed to oil at temperatures not to exceed 60° C or dry locations not to exceed 90° C (with ampacity limited to that for 75° C conductor temperature per NFPA 79)
- AWM- Dry locations not to exceed 105° C only when rated and used as appliance wiring material

STANDARDS & REFERENCES

Southwire® SIMpull THHN® copper conductors comply with the following:

- ASTM - B3, B8, and B787 (19 Wire Combination Unilay-Stranded)
- UL Standards 83, 758, 1063, and 1581
- CSA C22.2 No. 75, T90 Nylon/TWN75 Sizes through 1000 kcmil
- NOM-ANCE 90° C
- Federal Specification A-A-59544
- NEMA WC-70 (ICEA S-95-658) Construction Requirements
- National Electrical Code, NFPA 70
- CT Rated in Sizes 1/0 AWG and larger
- VW-1 - Sizes 14 through 1 AWG
- FT1 - All Sizes
- Sunlight Resistant – Sizes 2 AWG and larger
- AWM - Sizes 14 through 6 AWG
- MTW - Stranded Constructions Only
- RoHS/REACH Compliant

CONSTRUCTION

Southwire® SIMpull THHN® copper conductors are made with soft drawn copper. Sizes 14 through 4/0 AWG use a combination-unilay stranding while 250 kcmil and larger sizes use a compressed copper stranding. The wire is covered with a tough heat and moisture resistant PVC insulation with an overall nylon jacket utilizing SIMpull® Technology. Available in black, white, red, blue, purple, green, yellow, orange, brown, and gray. Also available in striped configurations. Some colors are subject to economic order quantity. Marked as THHN in all sizes. Also marked as THWN-2 in sizes 8 AWG and larger or marked as THWN in sizes 14, 12, and 10 AWG. Marked sunlight resistant in sizes 2 AWG and larger. Sizes 14, 12, and 10 AWG are available with SIMpull® Technology only in SIMpull BARREL™ cable drum or SIMpull® CoilPAK™ configurations.



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Conductor Size (AWG or kcmil)	No. of strands	Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
						60°C	75°C	90°C	
14*	1	15	4	102	15	15	15	AC	
12*	1	15	4	119	23	20	20	AC	
10*	1	20	4	150	36	30	30	AC	
14*	19	15	4	109	16	15	15	AC	
12*	19	15	4	128	24	20	20	AC	
10*	19	20	4	161	38	30	30	AC	
8	19	30	5	213	63	40	50	ABCD	
6	19	30	5	249	95	55	65	ABCD	
4	19	40	6	318	152	70	85	ABCD	
3	19	40	6	346	189	85	100	ABCD	
2	19	40	6	378	234	95	115	ABCD	
1	19	50	7	435	299	110	130	ABCD	
1/0	19	50	7	474	372	125	150	ABCD	
2/0	19	50	7	518	462	145	175	ABCD	
3/0	19	50	7	568	575	165	200	ABCD	
4/0	19	50	7	624	718	195	230	ABCD	
250	37	60	8	694	851	215	255	ABCD	
300	37	60	8	747	1012	240	285	ABC	
350	37	60	8	797	1174	260	310	ABC	
400	37	60	8	842	1334	280	335	ABC	
500	37	60	8	926	1655	320	380	ABCD	
600	61	70	9	1024	1987	350	420	ABC	
750	61	70	9	1126	2464	400	475	BC	
1000	61	70	9	1275	3257	455	545	C	

* Sizes 14, 12, and 10 AWG are available with SIMpull® Technology only in SIMpull® Barrel or CoilPAK® configurations. Standard put ups vary from the ones shown on this chart for standard 14-10 AWG THHN.

+Allowable ampacities shown are for general use as specified by the 2014 Edition of the National Electrical Code Sections 310.15 and 240.4(D).

Unless the equipment is marked for use at higher temperatures the conductor shall be limited to the following per NEC 110.14(C):

60° C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 - 1 AWG conductors.

75° C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90° C - THHN dry locations and THWN-2 wet or dry locations for ampacity adjustment purposes using NEC section 310.15.

Package Codes:
A - 2500' Reel
B - 1000' Reel
C - 500' Spool
D - 5000' Reel

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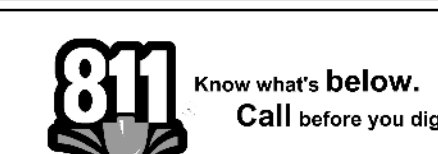
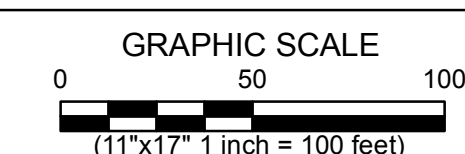
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PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
DT-08.1	
TOTAL SHEETS	SHEET NO.
45	25

Conductor		Stock Numbers												
Size (AWG or kcmil)	No. of strands													
14*	1	SIMPull THHN® CU Stock #: BK:580285, WE:580294, WE/RD:580622, RD:580293, BE:580287, GN:580291, YW:580295, OE:580292, BN:580288, PE:580286, GY:580289 Standard THHN CU Stock #: BK:115790, WE:115808, RD:115816, BE:115824, GN:115832, YW:115840, OE:115857, BN:115865, PE:211243, GY:214668, TN:302539, PK:255331												
12*	1	SIMPull THHN® CU Stock #: BK:580265, WE:580275, WE/BK:580280, WE/BE:580281, WE/RD:580283, RD:580273, GN:580271, GN/YW:584566, BE:580267, PE:580264, YW:580276, OE:580272, BN:580268, GY:580269, GY/BN:580277, GY/OE:580278, GY/PE:580263, GY/YW:580279, PK:581931 Standard THHN CU Stock #: BK:115873, WE:115881, WE/BK:565284, WE/BE:611410, WE/RD:565285, Red:115899, GN:115915, GN/YW:401000, BE:115907, PE:212043, YW:115923, OE:115931, BN:115949, GY:228700, GY/BN:575303, GY/OE:575304, GY/YW:575305, PK:256479, TN:320127												
10*	1	SIMPull THHN® CU Stock #: BK:580203, WE:580215, WE/BK:580216, WE/BE:580218, WE/RD:580219, RD:580214, GN:580211, GN/YW:580212, BE:580204, PE:580202, YW:580220, OE:580213, BN:580205, GY:580206, GY/BN:580226, GY/OE:580208, GY/PE:580201, GY/YW:580210 Standard THHN CU Stock #: BK:115956, WE:115964, WE/BK:551545, WE/BE:551547, WE/RD:551546, RD:115972, GN:115998, GN/YW:611757, BE:115980, YW:116004, OE:116012, BN:116020, GY:229823, GY/BN:575300, GY/OE:575301, GY/YW:575302, PK:253336												
14*	19	SIMPull THHN® CU Stock #: BK:585485, WE:580180, WE/BK:585484, WE/BE:581899, RD:585494, BE:585486, BE/WE:592686, GN:585490, YW:580181, OE:580177, BN:580172, BN/RD:592685, PE:580178, GY:580173, PK:581933 Standard THHN CU Stock #: BK:229559, WE:229567, RD:229575, RD/BK:662817, BE:229583, GN:229591, YW:229609, OE:229617, BN:229625, PE:239566, GY:229633, PK:244863, TN:320150												
12*	19	SIMPull THHN® CU Stock #: BK:580182, WE:580199, WE/BK:580192, WE/BE:580193, WE/RD:580194, RD:580198, BE:580222, GN:580195, GN/YW:583863, YW:580200, OE:580196, BN:585461, PE:580197, GY:580250, GY/BN:580207, GY/OE:580189, GY/PE:580188, GY/YW:580190, PK:581932 Standard THHN CU Stock #: BK:229641, WE:229658, WE/BK:311514, WE/BE:566441, WE/RD:566440, RD:229666, BE:229674, BE/WE:662981, GN:229682, GN/YW:663013, YW:229690, OE:229708, BN:229716, PE:232124, GY:229724, GY/BN:575307, GY/OE:575309, GY/YW:575310, TN:320168, PK:242503												
10*	19	SIMPull THHN® CU Stock #: BK:580221, WE:580255, WE/BK:580260, WE/BE:580261, WE/RD:580262, RD:580254, BE:580222, GN:585464, GN/YW:584567, YW:585470, OE:585465, BN:580223, PE:580253, GY:580250, GY/BN:580207, GY/OE:580257, GY/PE:580227, GY/YW:580259, PK:581930 Standard THHN CU Stock #: BK:229732, WE:229740, WE/BK:610028, WE/BE:556199, WE/RD:556198, RD:229757, RD/WE:663039, BE:229765, GN:229773, GN/YW:663112, PE:256594, YW:229781, OE:229799, BN:229807, GY:229815, GY/BN:575297, GY/OE:575298, GY/YW:575299, PK:260539, TN:320176												
<p style="text-align: center;">Color Abbreviations</p> <table style="width: 100%; border: none;"> <tr> <td>BK-Black</td> <td>WE-White</td> <td>RD-Red</td> <td>BE-Blue</td> <td>GN-Green</td> <td>YW-Yellow</td> </tr> <tr> <td>OE-Orange</td> <td>BN-Brown</td> <td>GY-Grey</td> <td>PK-Pink</td> <td>PE-Purple</td> <td>TN-Tan</td> </tr> </table>			BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow	OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan
BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow									
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan									

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One Southwire Drive, Carrollton, GA 30119, USA

Conductor		Stock Numbers												
Size (AWG or kcmil)	No. of strands													
8	19	SIMPull THHN® CU Stock #: BK:204883, WE:204891, RD:204909, BE:204917, GN:204925, YW:238485, OE:238493, BN:238477, GY:238501, PK:577515, PE:256586												
6	19	SIMPull THHN® CU Stock #: BK:204933, WE:204941, RD:204958, BE:204966, GN:204974, YW:260687, OE:260679, BN:260695, GY:254649, PE:485607												
4	19	SIMPull THHN® CU Stock #: BK:204990, WE:205005, RD:204982, BE:205633, GN:251728, YW:411694, OE:411710, BN:411702, GY:611778, PE:552486												
3	19	SIMPull THHN® CU Stock #: BK:243469, WE:243477, RD:243485, BE:372763, GN:601971, YW:551080, OE:551079, BN:551078, GY:551081, PE:552533												
2	19	SIMPull THHN® CU Stock #: BK:205021, WE:205039, RD:205013, BE:315812, GN:295832, YW:420653, OE:610171, BN:610169, GY:610172, PE:552534												
1	19	SIMPull THHN® CU Stock #: BK:205047, WE:344580, RD:344598, BE:481945, GN:400192, YW:550887, OE:550888, BN:550890, GY:550891, PE:552488												
1/0	19	SIMPull THHN® CU Stock #: BK:205054, WE:558771, RD:558773, BE:558774, GN:556315, YW:558777, OE:558779, BN:558778, GY:558781, PE:551539												
2/0	19	SIMPull THHN® CU Stock #: BK:205062, WE:556111, RD:556113, BE:556114, GN:556115, YW:556116, OE:556117, BN:556119, GY:558784, PE:552535												
3/0	19	SIMPull THHN® CU Stock #: BK:205070, WE:556120, RD:556121, BE:556122, GN:556123, YW:556124, OE:556125, BN:556127, GY:556698, PE:551541												
4/0	19	SIMPull THHN® CU Stock #: BK:205088, WE:556128, RD:556129, BE:556130, GN:556131, YW:556132, OE:556133, BN:556135, GY:556697, PE:551540												
250	37	SIMPull THHN® CU Stock #: BK:205096, WE:556136, YW:556140, OE:556141, BN:556143, GY:556552, BE:556138, GN:556139, PK:592681, PE:551025, RD:556137, TN:592682												
300	37	SIMPull THHN® CU Stock #: BK:205104, WE:556144, RD:556145, BE:556146, GN:556147, YW:556148, OE:556149, BN:556150, GY:556551, PE:551026												
350	37	SIMPull THHN® CU Stock #: BK:205112, WE:556151, RD:556152, BE:556153, GN:556154, YW:556155, OE:556156, BN:556157, GY:556707, PE:551027												
400	37	SIMPull THHN® CU Stock #: BK:205120, WE:556158, RD:556160, BE:556161, GN:556162, YW:556163, OE:556164, BN:556165, GY:556550, PK:581797, PE:551029, TN:581798												
500	37	SIMPull THHN® CU Stock #: BK:205138, WE:556166, RD:556168, BE:556169, GN:556170, YW:556171, OE:556172, BN:556173, GY:556549, PK:581782, PE:551599, TN:581783												
600	61	SIMPull THHN® CU Stock #: BK:321471, WE:556174, RD:556176, BE:556177, GN:556178, YW:556179, OE:556180, BN:556181, GY:558859, PE:552485												
750	61	SIMPull THHN® CU Stock #: BK:320994, WE:564945, RD:564946, BE:564944, GN:551700, YW:550907, OE:550908, BN:550909, GY:550910, PE:552536												
1000	61	SIMPull THHN® CU Stock #: BK:289710, BN:552644, OE:552645, YW:552647												
<p style="text-align: center;">Color Abbreviations</p> <table style="width: 100%; border: none;"> <tr> <td>BK-Black</td> <td>WE-White</td> <td>RD-Red</td> <td>BE-Blue</td> <td>GN-Green</td> <td>YW-Yellow</td> </tr> <tr> <td>OE-Orange</td> <td>BN-Brown</td> <td>GY-Grey</td> <td>PK-Pink</td> <td>PE-Purple</td> <td>TN-Tan</td> </tr> </table>			BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow	OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan
BK-Black	WE-White	RD-Red	BE-Blue	GN-Green	YW-Yellow									
OE-Orange	BN-Brown	GY-Grey	PK-Pink	PE-Purple	TN-Tan									

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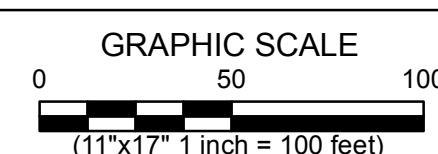
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One Southwire Drive, Carrollton, GA 30119, USA



PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #:	1036-20-1074
DRAWN BY:	
PLOT SCALE:	1 inch = 100 feet
CHECKED BY:	BRENDAN MULLANE
PLOT DATE:	2/6/2020
DATE:	2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION	
DT-08.2	
TOTAL SHEETS	SHEET NO.
45	26



TRON® In-Line Fuse Holders

HEB Series Single-Pole Breakaway & Non-Breakaway for 1 3/32" x 1 1/2" Fuses



Non-Breakaway Fuse Holders

See page 2 for breakaway holders

Catalog Symbol: HEB

Description:

Water resistant, single-pole non-breakaway in-line fuse holders for 1 3/32" x 1 1/2" midget fuses. Typical fuse types: BAF, DCM, FNM, FNQ and KTK.

Ratings:

Volts: 600V (or less)

Amps: Up to 30A*

Agency Information:

⁽¹⁾UL Recognized, Guide IZLT2, File E14853

⁽²⁾CSA Certified, Class 6225-01, File 47235

⁽³⁾CE

Coupling Nut Torque: 10-20lb-in.

Part Number Explanation

Example: HEB-AK

- HEB = Holder series
- A = Loadside terminal (copper crimp for #12 copper wire)
- K = Lineside terminal (copper setscrew for two #6 copper wires)

Part Number Selection

From the table on page three, select the combination of desired loadside and lineside terminals for the application (define terminal type, wire size, number of wires per terminal and whether the terminal accepts solid and/or stranded conductors). Then in the right hand two columns, select either the non-breakaway or breakaway holder part number to order.

Available Part Numbers

HEB-AA⁽¹⁾ ⁽²⁾ ⁽³⁾, HEB-AB⁽²⁾, HEB-AC⁽²⁾, HEB-AD⁽²⁾, HEB-AE⁽²⁾, HEB-AJ, HEB-AK, HEB-AL, HEB-AR, HEB-AY, HEB-BA⁽²⁾, HEB-BB⁽²⁾, HEB-BC⁽²⁾, HEB-BD⁽²⁾, HEB-CC⁽²⁾, HEB-DD⁽²⁾, HEB-JJ, HEB-JK, HEB-JL, HEB-JY, HEB-LL, HEB-NN, HEB-PP⁽²⁾, HEB-QQ⁽²⁾, HEB-RR⁽²⁾, HEB-SS, HEB-TT⁽²⁾, HEB-ZA.

Insulating Boots

For insulating boots, see page 2. Insulating boots are not included with non-breakaway holders and must be ordered separately. They come standard with the breakaway holders. When insulating boots are utilized, extra heat retention requires that fuses are sized at a minimum of 200% of the RMS load current.

*Amp rating limited by conductor size.

Specification Data - Non-Breakaway & Loadside Breakaway

Conductor Terminals

Terminal Type	Conductor Size	Conductor Data			Catalog Symbol Load & Line (2) & (3)
		No. Per Terminal	Solid	Stranded	
Copper Crimp	#12 to #8	1	•	•	A
	#12	2	•	•	
	#10	2	•	•	
	#6	1	•	•	
	#8	2	•	•	
Copper Setscrew	#4	1	—	•	C
	#6	2	•	•	
	#2	1	—	•	
	#4	2	•	•	
	#20 to #18	1	•	•	Z

Copper Setscrew

Copper Crimp	#12 to #3	1	•	•	J
		2	•	•	
Copper Setscrew	#12 to #3	2	•	•	K
		1	•	•	

Solid Copper Terminal for Aluminum Wire Connector

Copper Crimp	#8 to #12	1	•	—	S
		1	—	•	
Copper Setscrew	#10 to #4	1	—	•	T
		1	—	•	

Aluminum Crimp

Copper Crimp	#8	1	—	•	N
		1	•	—	
		1	—	•	
		1	•	—	
		1	•	—	
Copper Setscrew	#3, #4	1	—	•	Q
		1	•	—	
		1	•	—	
Copper Crimp	#2	1	•	—	R
		1	—	•	
Copper Setscrew	#1, #2	1	—	•	R
		1	—	•	
Copper Crimp	#1/0	1	—	•	T
		1	—	•	

Aluminum Setscrew

Copper Crimp	#12 to #2	1	•	•	L
		2	•	•	
Copper Setscrew	#12 to #3	2	•	•	Y
		1	•	•	

Breakaway Fuse Holders

Catalog Symbol: HEB

Description:

Single-pole breakaway in-line fuse holders for 1 3/32" x 1 1/2" midget fuses. Typical fuse types: BAF, DCM, FNM, FNQ AND KTK.

Ratings:

Volts: 600V (or less)

Amps: Up to 30A*

Agency Information:

⁽¹⁾UL Recognized, Guide IZLT2, File E14853

⁽²⁾CSA Certified, Class 6225-01, File 47235

⁽³⁾CE

Coupling Nut Torque: 10-20lb-in.

Part Number Explanation

Example: HEB-AW-RYC

- HEB = Holder series
- AW = Loadside terminal (copper crimp for #12 copper wire)
- RYC = Lineside terminal (copper setscrew for two #6 copper wires)

Part Number Selection

From the table on page three, select the combination of desired loadside and lineside terminals for the application (define terminal type, wire size, number of wires per terminal and whether the terminal accepts solid and/or stranded conductors). Then in the right hand two columns, select either the non-breakaway or breakaway holder part number to order.

Available Part Numbers

Breakaway Units:

(Includes fuse holder, breakaway part and insulating boots):

HEB-AW-RLA, HEB-AW-RLC-A⁽¹⁾ ⁽²⁾ ⁽³⁾, HEB-AW-RLC-B, HEB-AW-RLC-C, HEB-AW-RLC-J, HEB-AW-RYA, HEB-AW-RYC, HEB-BW-RLC-A, HEB-BW-RLC-B, HEB-BW-RYC, HEB-JW-RLC-J, HEB-JW-RYC, HEB-KW-RLC-J, HEB-KW-RYC, HEB-LW-RLA, HEB-LW-RLC-J, HEB-LW-RYA

Fuse Holder Only: HEB-AW⁽²⁾, HEB-BW⁽²⁾, HEB-DW⁽²⁾, HEB-JW, HEB-LW

Breakaway Part: RLC-A, RLC-B, RLC-C, RLC-J, RYC, RLA, RYA

*Amp rating limited by conductor size.

Specification Data - Lineside Breakaway

Breakaway Receptacles

Terminal Type	Conductor Size	Conductor Data			Catalog Symbol
		No. Per Terminal	Solid	Stranded	
Copper Crimp	#12 to #8	1	•	•	-RLC-A
	#6	1	•	•	
	#4	1	•	•	

Copper Setscrew

Copper Crimp	#12 to #2	1	•	•	-RLC-J
		2	•	•	

Aluminum Setscrew

Copper Crimp	#12 to #3	2	•	•	-RYC
		1	•	•	

Aluminum Setscrew

Copper Crimp	#12 to #2	1	•	•	-RLA
		2	•	•	

Aluminum Setscrew

Copper Crimp	#12 to #3	2	•	•	-RYA
		1	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

Solid Breakaway

Copper Crimp	(Required with Breakaway Receptacle)	1	•	•	W
		2	•	•	

For HEB Holders Only

Directions: To select complete holder P/N, work from left to right starting with loadside terminal options and then lineside terminal options. Then determine breakaway or non-breakaway style.

Loadside Terminal					Lineside Terminal					Available P/N's	
Terminal Type	Wire Size	No. of Wires per Terminal	Solid Wire	Stranded Wire	Terminal Type	Wire Size	No. of Wires per Terminal	Solid Wire	Stranded Wire	Non-Breakaway P/N (Boots not included)	Breakaway P/N (Boots included)
Copper Crimp	#12 to #8	1	Y	Y	Copper Crimp	#12 to #8	1	Y	Y	HEB-AA ⁽¹⁾⁽²⁾ (3)	HEB-AW-RLC-A ⁽¹⁾⁽²⁾ (3)
Copper Crimp	#12 to #8	2	Y	Y	Copper Crimp	#6	1	Y	Y	HEB-AB ⁽²⁾	HEB-AW-RLC-B
Copper Crimp	#12 to #8	1	Y	Y	Copper Crimp	#10	2	Y	Y	HEB-AC ⁽²⁾	HEB-AW-RLC-C ⁽⁴⁾
Copper Crimp	#12 to #8	2	Y	Y	Copper Crimp	#4	1	N	Y	HEB-AD ⁽²⁾	N/A
Copper Crimp	#12 to #8	1	Y	Y	Copper Crimp	#8	2	Y	Y	HEB-AE ⁽²⁾	N/A
Copper Crimp	#12 to #8	2	Y	Y	Copper Crimp	2/0	1	N	Y	HEB-AJ	HEB-AW-RLC-J
Copper Crimp	#12 to #8	1	Y	Y	Copper Crimp	#3	2	N	Y	HEB-AK	HEB-AW-RYC
Copper Crimp	#12 to #8	2	Y	Y	Copper Setscrew	#12 to #3	1	Y	Y	HEB-AL	HEB-AW-RLA
Copper Crimp	#12 to #8	1	Y	Y	Aluminum Setscrew	#12 to #3	2	Y	Y	HEB-AY	HEB-AW-RYA
Copper Crimp	#12 to #8	2	Y	Y	Aluminum Setscrew	#12 to #2	1	Y	Y	HEB-AR	N/A
Copper Crimp	#12 to #8	1	Y	Y	Aluminum Setscrew	#12 to #2	2	Y	Y	HEB-BA ⁽²⁾	HEB-BW-RLC-A
Copper Crimp	#12 to #8	2	Y	Y	Aluminum Crimp	#1, #2	1	N	Y	HEB-BB ⁽²⁾	HEB-BW-RLC-B
Copper Crimp	#6	1	Y	Y	Copper Crimp	#12 to #8	1	Y	Y	HEB-BC ⁽²⁾	N/A
Copper Crimp	#10	2	Y	Y	Copper Crimp	#6	1	Y	Y	HEB-BD ⁽²⁾	N/A
Copper Crimp	#10	2	Y	Y	Copper Crimp	#10	2	Y	Y	HEB-CC ⁽²⁾	N/A
Copper Crimp	#6	1	Y	Y	Copper Crimp	#4	1	N	Y	HEB-DD ⁽²⁾	N/A
Copper Crimp	#10	2	Y	Y	Copper Crimp	#8	2	Y	Y	HEB-ZA	N/A
Copper Crimp	#6	1	Y	Y	Copper Crimp	#2	1	N	Y	HEB-JJ	HEB-JW-RLC-J
Copper Crimp	#10	2	Y	Y	Copper Crimp	#6	2	Y	Y	HEB-JK	HEB-JW-RYC
Copper Crimp	#4	1	N	Y	Copper Crimp	#8	2	Y	Y	HEB-JL	N/A
Copper Crimp	#8	2	Y	Y	Copper Crimp	#2	1	N	Y	HEB-JY	N/A
Copper Crimp	#2	1	N	Y	Copper Crimp	#6	2	Y	Y	HEB-LL	HEB-LW-RLA
Copper Crimp	#6	2	Y	Y	Copper Crimp	#4	1	N	Y	HEB-NN	N/A
Copper Crimp	#20, #18	1	Y	Y	Copper Crimp	#12 to #8	1	Y	Y	HEB-PP ⁽²⁾	N/A
Copper Crimp	#12 to #3	1	Y	Y	Copper Crimp	#12	2	Y	Y	HEB-QQ ⁽²⁾	N/A
Copper Crimp	#12 to #3	1	Y	Y	Copper Crimp	#12 to #3	1	Y	Y	HEB-RR ⁽²⁾	N/A
Copper Crimp	#12 to #3	1	Y	Y	Copper Crimp	#12 to #3	2	Y	Y	HEB-TT ⁽²⁾	N/A
Copper Crimp	#12 to #3	1	Y	Y	Aluminum Crimp	#12 to #2	1	Y	Y	HEB-SS	N/A
Copper Crimp	#12 to #3	1	Y	Y	Aluminum Crimp	#12 to #2	2	Y	Y		
Aluminum Crimp	#12 to #2	1	Y	Y	Aluminum Crimp	#12 to #2	1	Y	Y		
Aluminum Crimp	#8	1	N	Y	Aluminum Crimp	#8	1	N	Y		
Aluminum Crimp	#6	1	Y	N	Aluminum Crimp	#6	1	Y	N		
Aluminum Crimp	#6	1	N	Y	Aluminum Crimp	#6	1	N	Y		
Aluminum Crimp	#4	1	Y	N	Aluminum Crimp	#4	1	Y	N		
Aluminum Crimp	#3, #4	1	N	Y	Aluminum Crimp	#3, #4	1	N	Y		
Aluminum Crimp	#2	1	Y	N	Aluminum Crimp	#2	1	Y	N		
Aluminum Crimp	#1, #2	1	N	Y	Aluminum Crimp	#1, #2	1	N	Y		
Aluminum Crimp	1/0	1	N	Y	Aluminum Crimp	1/0	1	N	Y		
Solid Terminal for aluminum connector	#8 to #12	1	Y	N	Solid Terminal for aluminum connector	#8 to #12	1	Y	N		
Solid Terminal for aluminum connector	#10 to #14	1	N	Y	Solid Terminal for aluminum connector	#10 to #14	1	N	Y		

(1) UL Recognized, Guide IZLT2, File E14853
 (2) CSA Certified, Class 6225-01, File 47235
 (3) CE
 (4) HEB-AW-RLC-C is for (1) #4 stranded wire only.

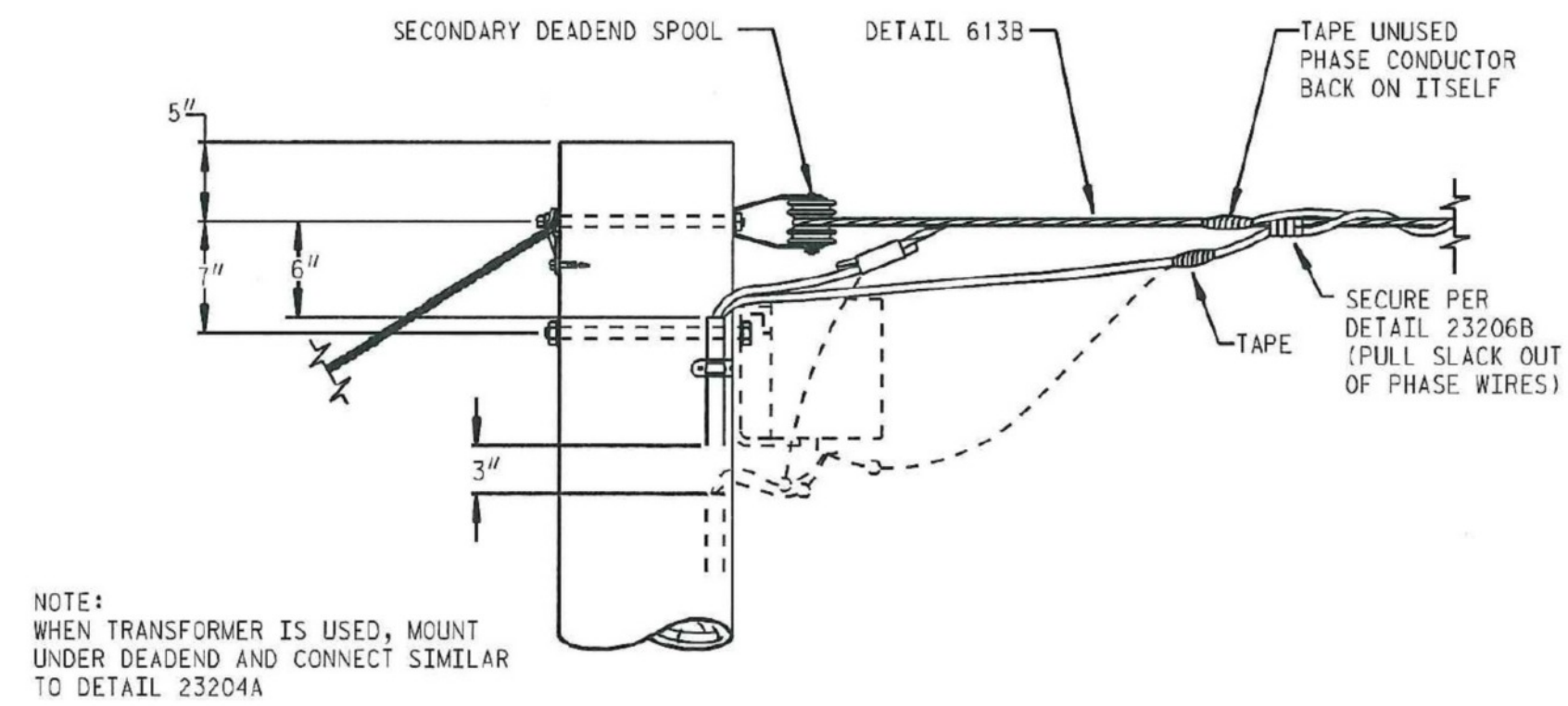
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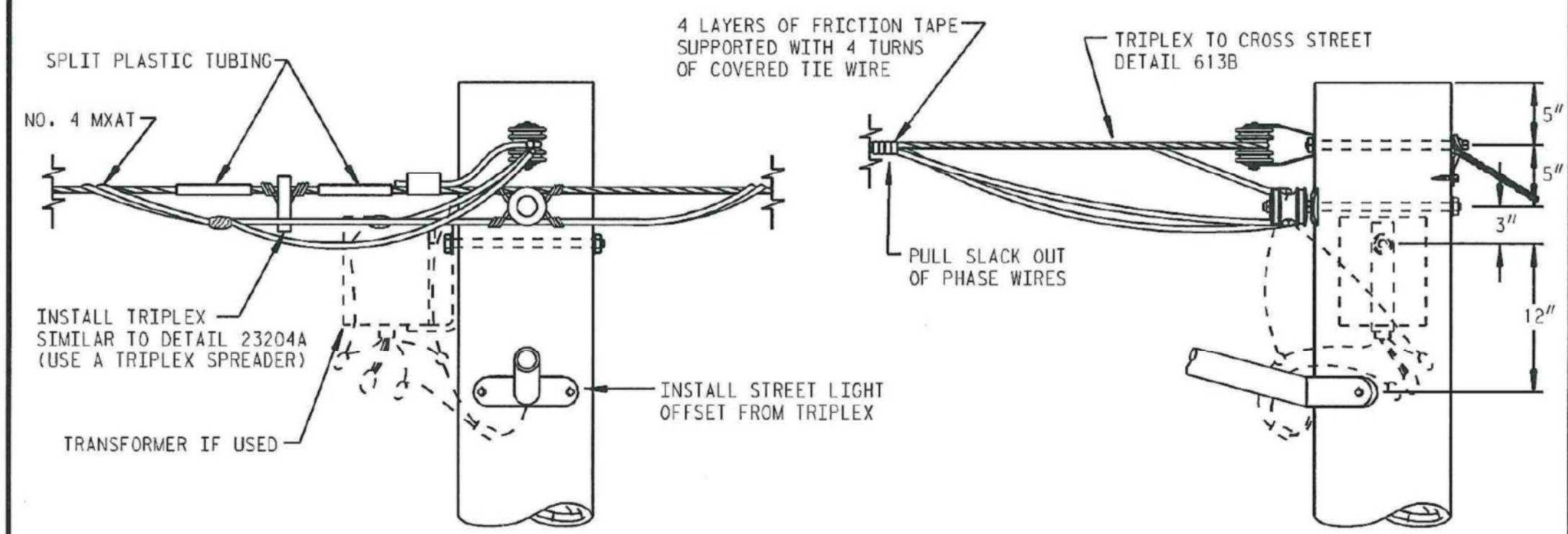
 2021 S. SCHAEFER HWY. DETROIT, MICHIGAN 48217 PHONE: 734-483-1427 FAX: 734-483-3431 www.metroes.net	PUBLIC LIGHTING AUTHORITY OF DETROIT		 PUBLIC LIGHTING AUTHORITY OF DETROIT	PUBLIC LIGHTING AUTHORITY OF DETROIT		GRAPHIC SCALE 0 50 100 (11"x17" 1 inch = 100 feet)		SHEET INFORMATION	
	MES JOB #: 1036-20-1074	DRAWN BY:		CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221				CITY OF DETROIT	
PLOT SCALE: 1 inch = 100 feet	CHECKED BY: BRENDAN MULLANE	WAYNE COUNTY, MI		WAYNE COUNTY, MI		TOTAL SHEETS	SHEET NO.		
PLOT DATE: 2/6/2020	DATE: 2/6/2020					45	28		

23-STREET LIGHTING



NOTE:
WHEN TRANSFORMER IS USED, MOUNT UNDER DEADEND AND CONNECT SIMILAR TO DETAIL 23204A

DEADEND POLE
DETAIL 23206A

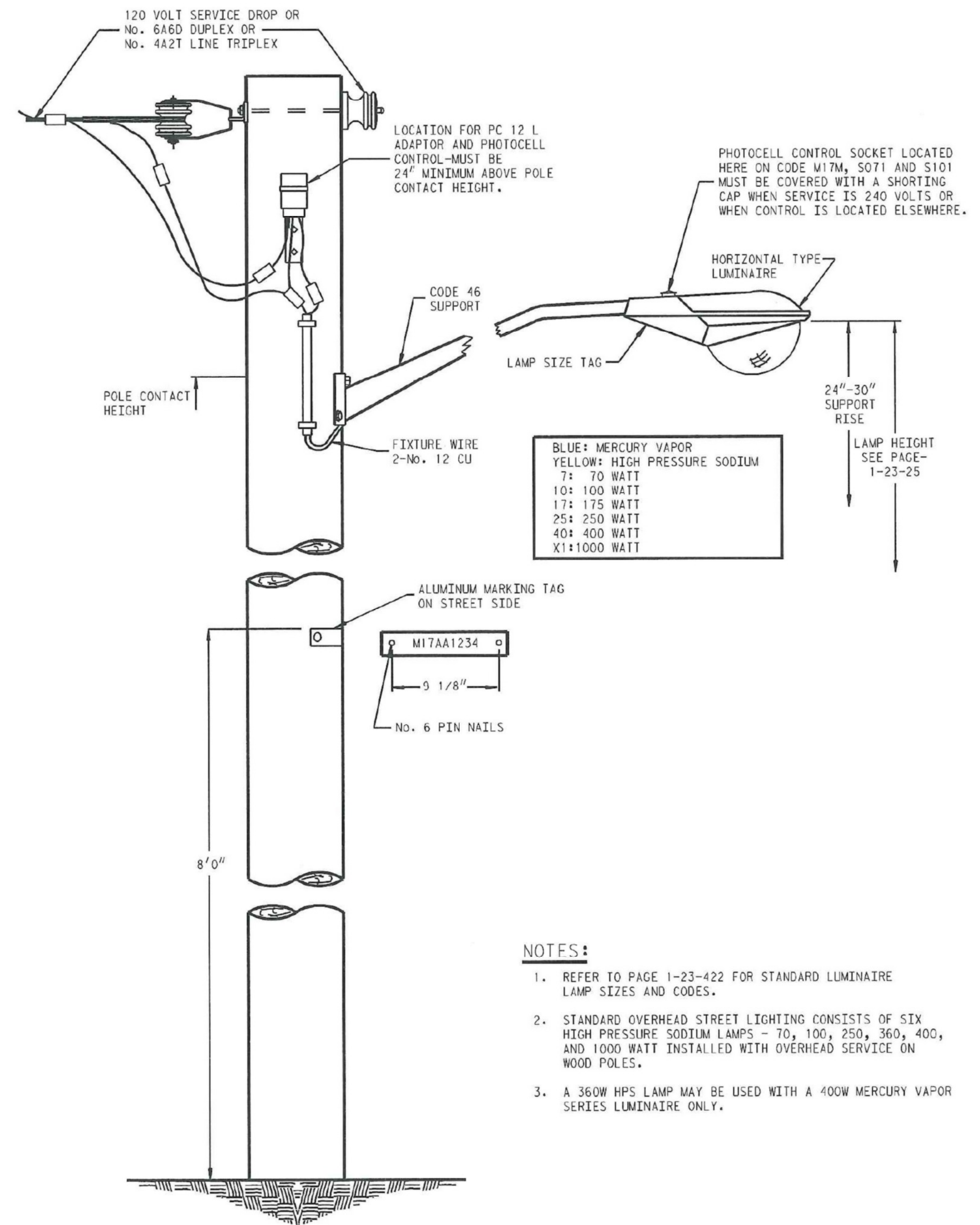


TRIPLEX TEE FEED
DETAIL 23206B

120 OR 240 VOLT CIRCUIT
NO. 4A2T LINE TRIPLEX

N:\DGN\HSH\23206.DGN
JUN-06-2000 DKR\RUSSELL REVIEWED 10/2002

23-STREET LIGHTING



BLUE:	MERCURY VAPOR
YELLOW:	HIGH PRESSURE SODIUM
7:	70 WATT
10:	100 WATT
17:	175 WATT
25:	250 WATT
40:	400 WATT
X1:	1000 WATT

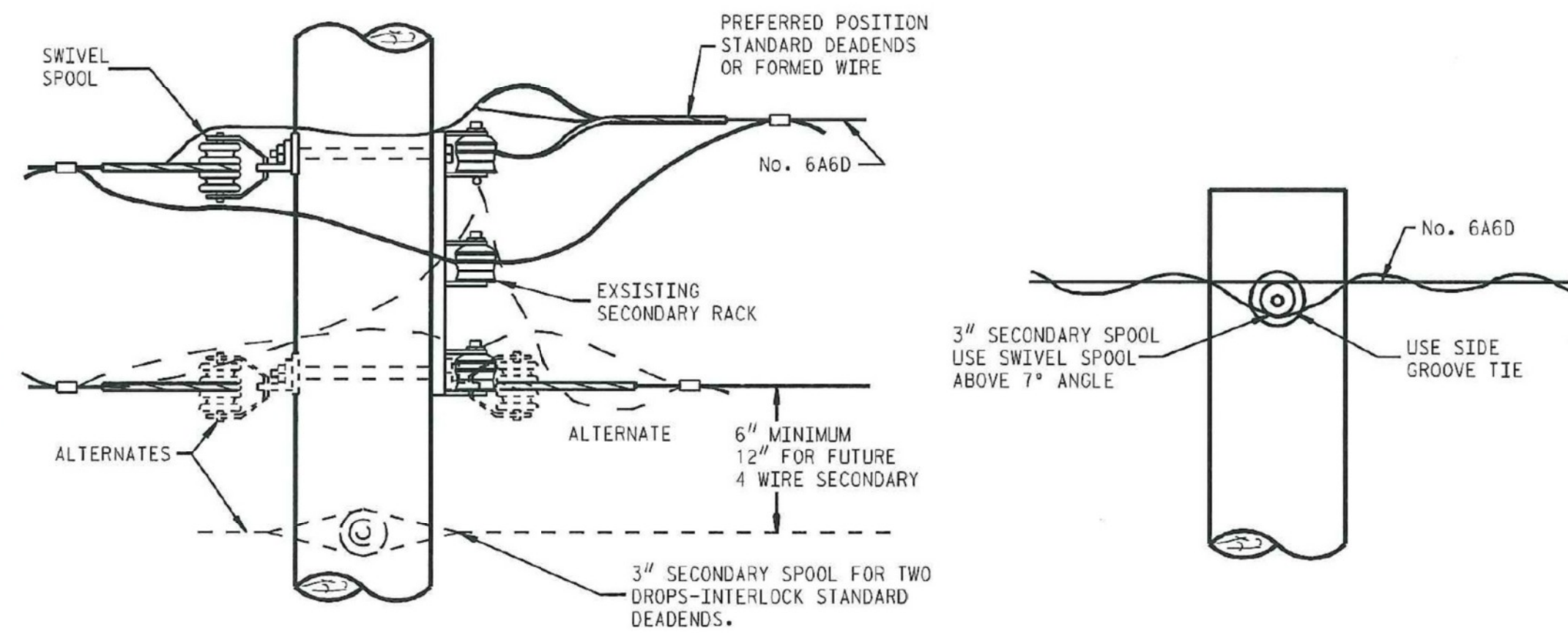
- NOTES:
- REFER TO PAGE 1-23-422 FOR STANDARD LUMINAIRE LAMP SIZES AND CODES.
 - STANDARD OVERHEAD STREET LIGHTING CONSISTS OF SIX HIGH PRESSURE SODIUM LAMPS - 70, 100, 250, 360, 400, AND 1000 WATT INSTALLED WITH OVERHEAD SERVICE ON WOOD POLES.
 - A 360W HPS LAMP MAY BE USED WITH A 400W MERCURY VAPOR SERIES LUMINAIRE ONLY.

REFER TO PG. 1-23-236 FOR POLE SETTING AND RAKING

STANDARD OVERHEAD
STREET LIGHT INSTALLATION

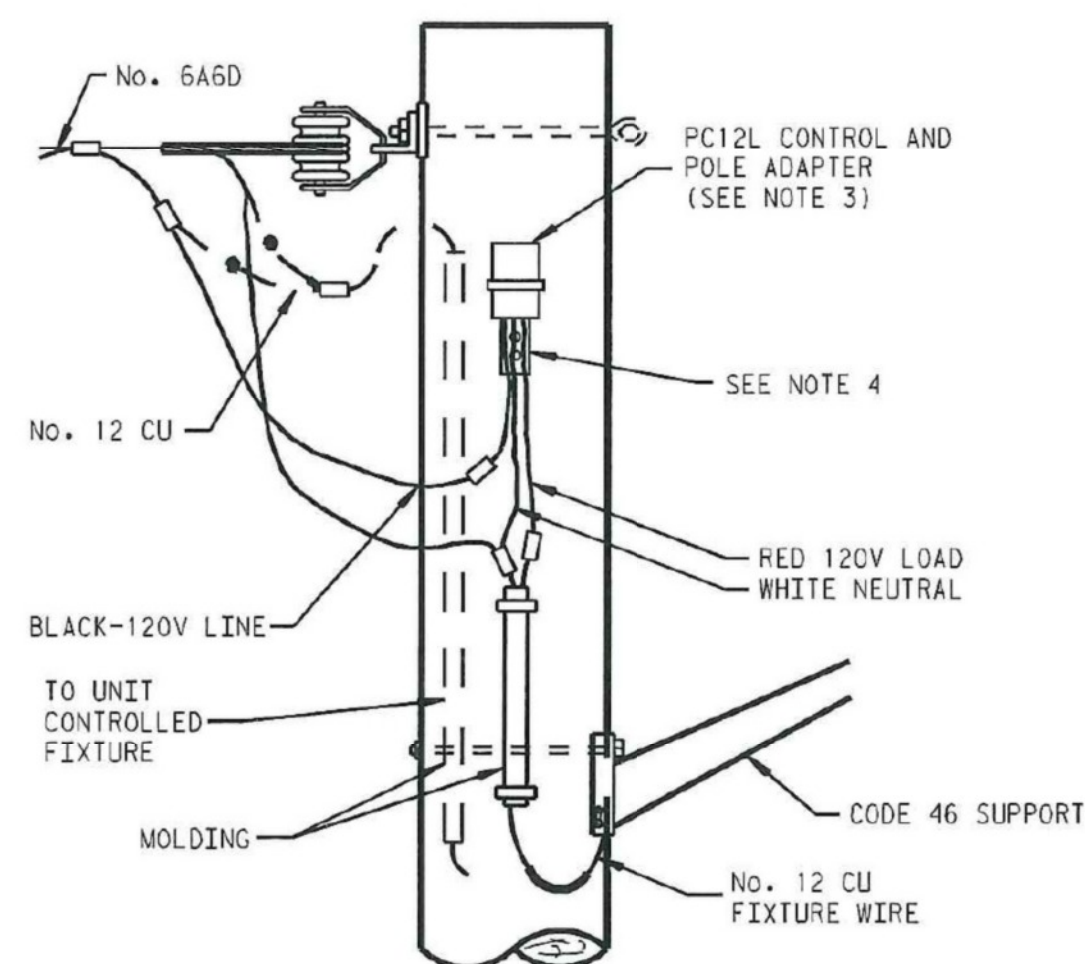
DETROIT, MICHIGAN
C:\DGN\23201.DGN (12/17)
FEB-06-1998 TRM\HERRING REVIEWED 10/2002

23-STREET LIGHTING



120 VOLT DUPLEX DROP FROM LINE POLE
DETAIL 23202A

120 VOLT DUPLEX DROP TANGENT POLE
DETAIL 23202C



120 VOLT DUPLEX DROP ON FIXTURE POLE
DETAIL 23202B

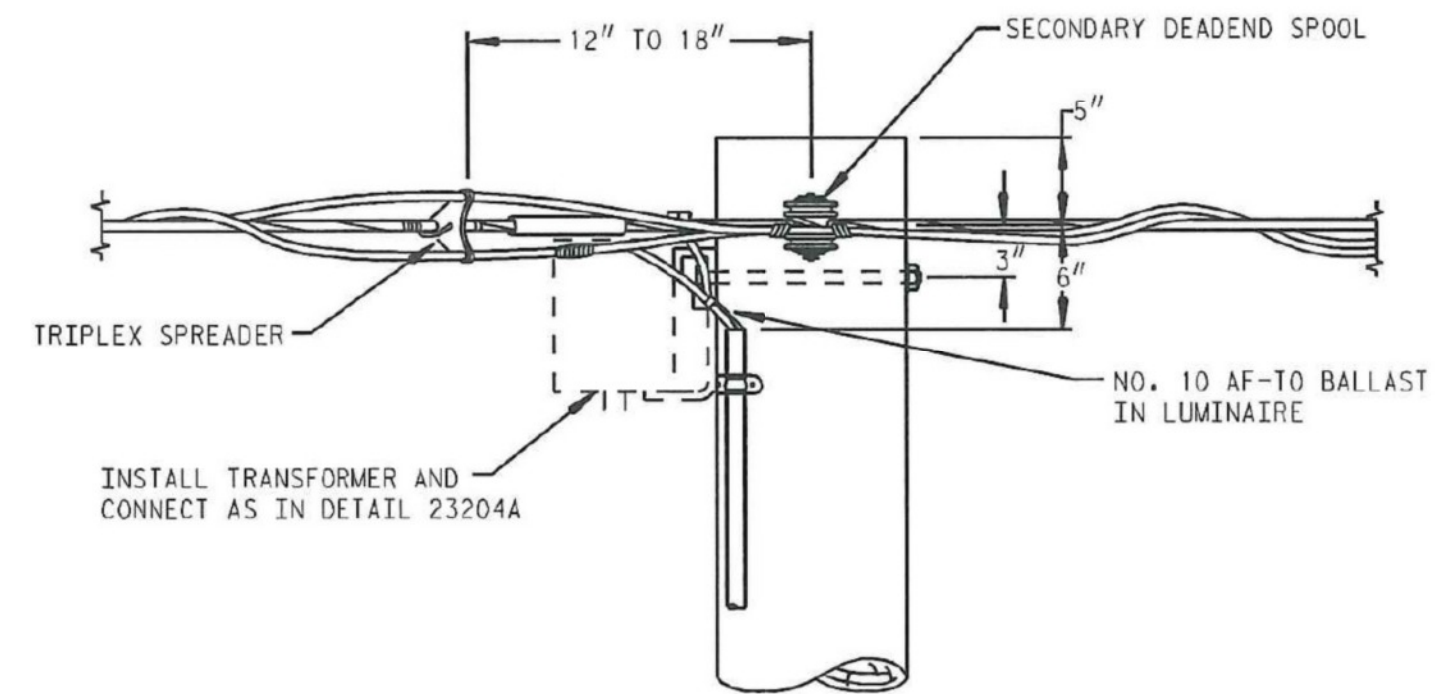
NOTES:

- DROP MAY BE:
1. 120 VOLT SERVICE TO A STREET LIGHT CONTROL.
 2. 120 VOLT STREET CIRCUIT FROM A STREET LIGHT CONTROL.
 3. SEE CONTROL DETAILS FOR MOUNTING & CONNECTION
 4. FUSED FEED TO ORNAMENTAL LIGHTS-SEE PAGE 1-23-227

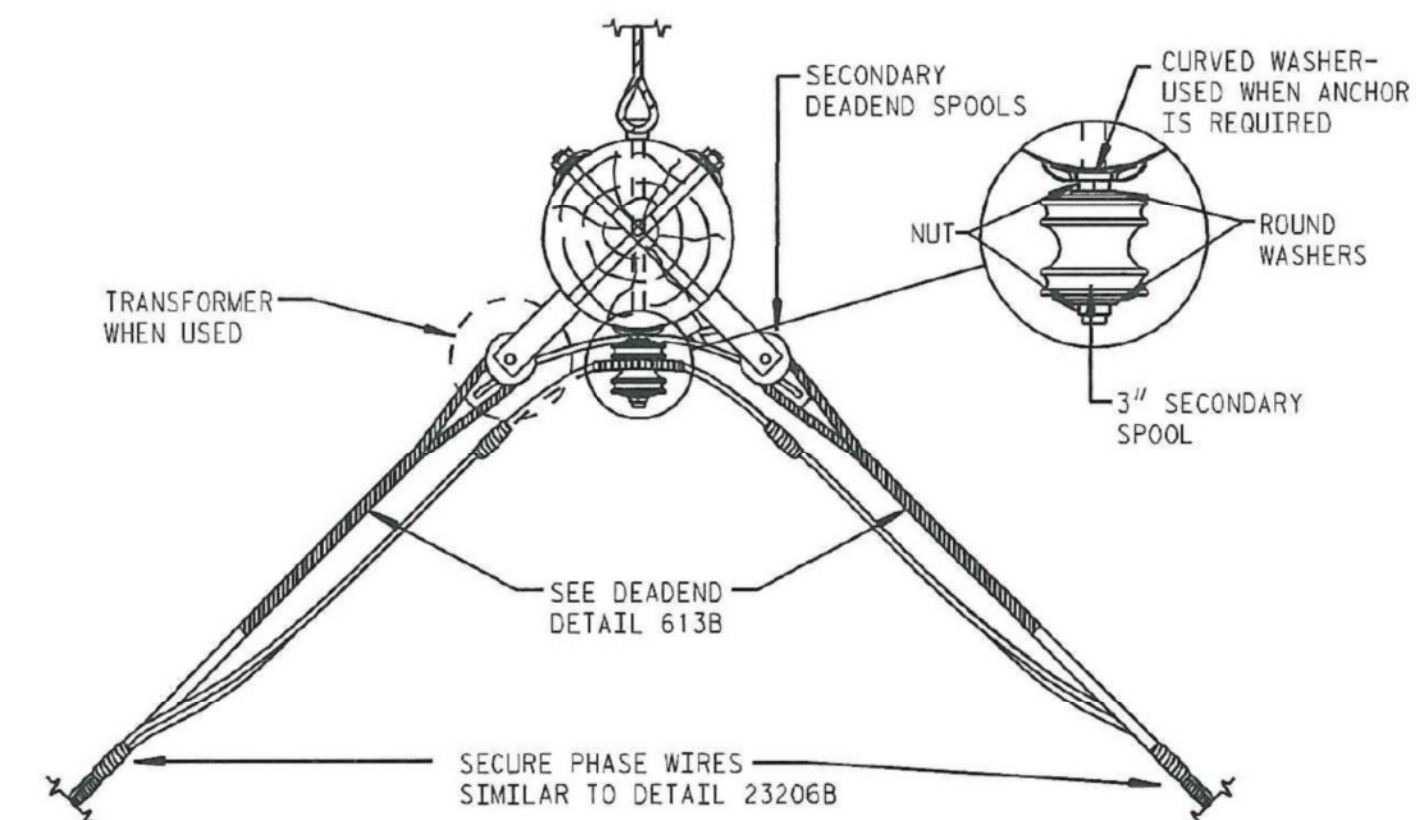
STREET LIGHT DROP 120 VOLT SERVICE OR CIRCUIT

DETROIT, MICHIGAN C:\DGN\123202.DGN(120.17) FEB-06-1999 TRH/HRMG REVIEWED 10/2002

23-STREET LIGHTING

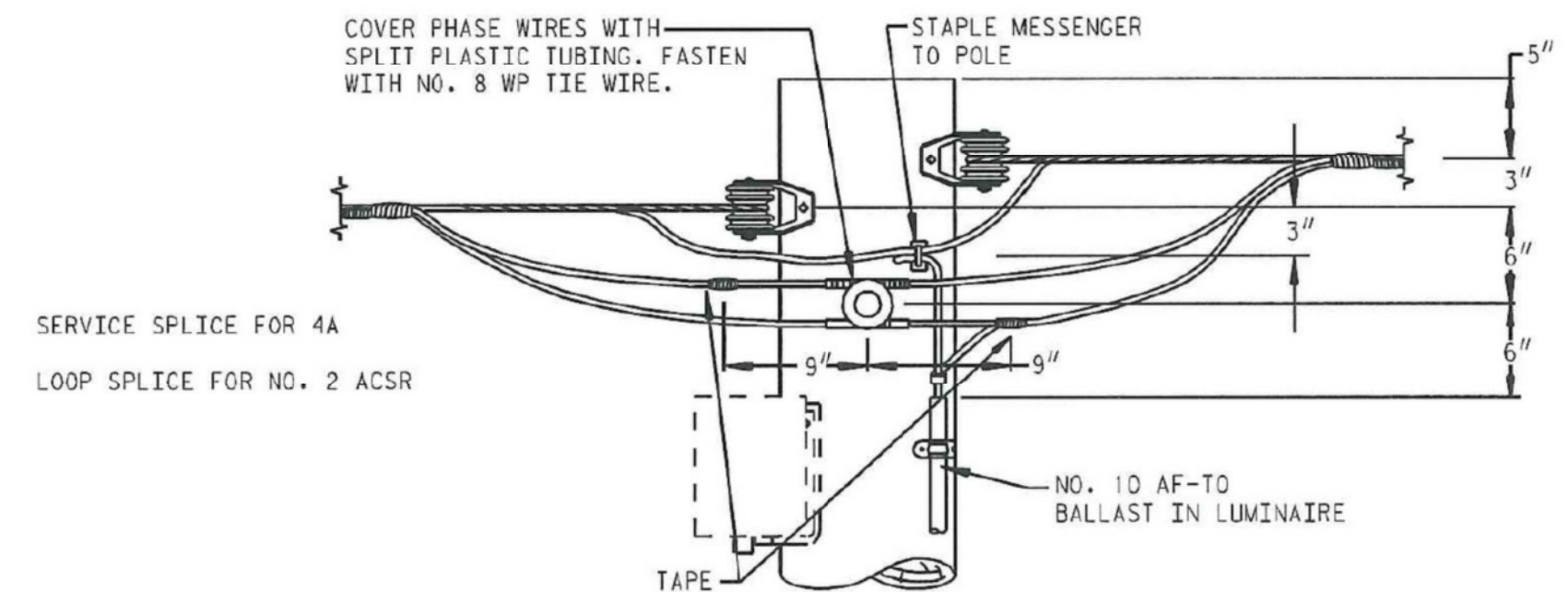


ANGLE POLE (5° TO 15°)
DETAIL 23205A



ANGLE POLE OVER 15°
DETAIL 23205B

120 OR 240 VOLT CIRCUIT NO. 4A2T LINE TRIPLEX



.JDN-UG123205.DGN MAY-30-2000 DGR/RUSSELL REVIEWED 10/2002

IDENTIFICATION TAG TEXT LEGEND

LIGHTING CONTROLLER (LC) ID TAG NAMING CONVENTION LEGEND

THE FORMAT FOR LIGHTING CONTROLLER ID TAGS SHALL FOLLOW THE FOLLOWING PATTERN:

LCVVWXX

THE SECTIONS SEPARATED FOR CLARITY ARE LC-VV-W-XX. THE LC STAND FOR LIGHTING CONTROLLER. THE V, W AND X ARE AS FOLLOWS:

VV LAST TWO DIGITS OF THE ZIP CODE WHERE THE LIGHTING CONTROLLER IS LOCATED

W ID ASSIGNED TO THE FIRM DESIGNING THE CIRCUIT. EXAMPLES INCLUDE:

M	METRO ENGINEERING SOLUTIONS
T	TETRA TECH
W	C.E.A. AND WADE TRIM JOINT VENTURE

XX ID ASSIGNED TO THE LIGHTING CONTROLLER (LC)

THE TAG SHALL HAVE THE LETTERS MOUNTED HORIZONTALLY WITH THE HOLDER MOUNTED VERTICALLY.

AN EXAMPLE LIGHTING CONTROLLER ID TAG IS:

LC16W30 AN LC INSTALLED IN THE 48230 ZIP THAT WAS LAID OUT BY THE C.E.A AND WADE TRIM JOINT VENTURE AND HAS BEEN ASSIGNED AN ID OF 30 IN THAT ZIP CODE.

CABLE ID TAG NAMING CONVENTION LEGEND

THE FORMAT FOR CABLE TAGS SHALL FOLLOW THE FOLLOWING PATTERN:

UUUVVWXXYZ

THE SECTIONS SEPARATED FOR CLARITY ARE UUU-VV-W-XX-Y-Z. THE VV-W-XX COMES FROM THE ASSIGNED LIGHTING CONTROLLER ID. THE VARIOUS VALUES STAND FOR:

UUU	PLA	FOR STREET LIGHTING CIRCUITS
	REC	FOR RECEPTACLE CIRCUITS
VVWXX		THE ASSIGNED LC ID. SEE THE LC NAMING CONVENTION
Y		THE CIRCUIT BRANCH ID (1, 2, 3, 4, ETC.)
Z		THE CONDUCTOR CLASSIFICATION

CLASSIFICATIONS ARE:

A	A PHASE CONDUCTOR
B	B PHASE CONDUCTOR
N	NEUTRAL CONDUCTOR
G	EQUIPMENT GROUND CONDUCTOR (EGC)

THE TAG SHALL HAVE THE LETTERS MOUNTED AND THE HOLDER MOUNTED HORIZONTALLY.

NOTE: CABLE TAG LABELS ARE GENERATED FOR THE CABLE(S) BEING TAGGED DEPENDING ON WHAT IS INCLUDED UNDER THE TAG. FOR INSTANCE, AN ENTIRE BRANCH CIRCUIT 4 CABLE BUNDLE INCLUDING 2 POWER LEGS, 1 NEUTRAL AND 1 EGC COULD BE TAGGED WITH A SINGLE UUU-VV-W-XXY TAG AS LONG AS THE CABLES ARE ALL PHYSICALLY TIED TOGETHER. WHEN AN ENTIRE BRANCH CIRCUIT IS BUNDLED AND TAGGED TOGETHER WITH A CIRCUIT IDENTIFIER OF UUU-VV-W-XX-Y THEN THE INDIVIDUAL CABLES IN THAT BUNDLE CAN BE TAGGED WITH JUST AN "A", "B", "N" OR "G".

NOTE: AN EQUIPMENT GROUND CONDUCTOR (EGC) CAN BE SHARED BETWEEN BRANCH CIRCUITS OR EVEN LIGHTING CONTROLLER CIRCUITS IF ALL THE CABLES SHARE THE SAME CONDUIT WHICH CREATES A UNIQUE TAGGING CONVENTION. THE EGC, IF TAGGED SEPARATELY, IS TAGGED TO INDICATE WHAT LEVEL OF SHARING IS USING THE EGC. THE LEVELS OF EGC TAGGING ARE:

UUUVVWXXYG	AN EGC FOR A BRANCH CIRCUIT OR INDIVIDUAL PHASE BUNDLE
UUUVVWXXG	AN EGC SHARED BETWEEN MULTIPLE BRANCH CIRCUITS
EGC	AN EGC SHARED BETWEEN DIFFERENT TYPES OF CIRCUITS OR LCS

NOTE: THERE EXISTS DECORATIVE LIGHTING WITHIN THE DETROIT LIGHTING AREA UTILIZING STRAND LIGHTING. THOSE CIRCUITS ARE BUNDLED TOGETHER AND GET A UNIQUE TAG OF "STRAND".

EXAMPLE CABLES TAGS ARE:

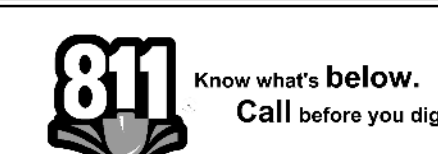
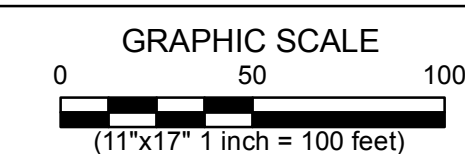
PLA26W5A1A	PLA STREET LIGHTING BRANCH CIRCUIT BUNDLE
PLA26W5A1AA	PLA STREET LIGHTING BRANCH CIRCUIT LAMP LOOP
REC26W5A1A	RECEPTACLE BRANCH CIRCUIT BUNDLE
STRAND	STRAND LIGHTING FEED CABLE BUNDLE



PUBLIC LIGHTING AUTHORITY OF DETROIT	
MES JOB #: 1036-20-1074	DRAWN BY:
PLOT SCALE: 1 inch = 100 feet	CHECKED BY: BRENDAN MULLANE
PLOT DATE: 2/6/2020	DATE: 2/6/2020



PUBLIC LIGHTING AUTHORITY OF DETROIT	
CONSTRUCTION PLANS FOR MCNICHOLS STREET LIGHTING - 48221	
CITY OF DETROIT	
WAYNE COUNTY, MI	



SHEET INFORMATION		
DT-11.1	TOTAL SHEETS	SHEET NO.
	45	31

IDENTIFICATION TAG TEXT LEGEND - CONTINUED

LUMINAIRE ID TAG NAMING CONVENTION LEGEND

THE FORMAT FOR LUMINAIRE ID TAGS SHALL FOLLOW THE FOLLOWING PATTERN:

WXXXXYYZZZ

THE SECTIONS SEPARATED FOR CLARITY ARE W-XXX-YYY-ZZZ. THE W, X, Y AND Z ARE AS FOLLOWS:

W THE LUMINAIRE TYPE. SOME LUMINAIRE TYPES ARE:

L LIGHT EMITTING DIODE (LED) FIXTURE
S SODIUM VAPOR FIXTURE

XXX THE LUMINAIRE WATTAGE. SOME EXAMPLES ARE:

118 118W LUMINAIRE
152 152W LUMINAIRE

THESE WATTAGES ARE REGARDLESS OF THE LUMINAIRE TYPE.

YYY THE ALPHA PORTION OF THE PLA ASSIGNED LUMINAIRE ID.

ZZZ THE NUMERIC PORTION OF THE PLA ASSIGNED LUMINAIRE ID.

THE TAG SHALL HAVE THE LETTERS MOUNTED HORIZONTALLY WITH THE HOLDER MOUNTED VERTICALLY.

AN EXAMPLE LUMINAIRE ID TAG IS:

L118AFK941 A 118W LED LUMINAIRE WITH THE PLA ID OF AFK941.

MATERIALS

CABLE CIRCUIT IDENTIFICATION TAGS

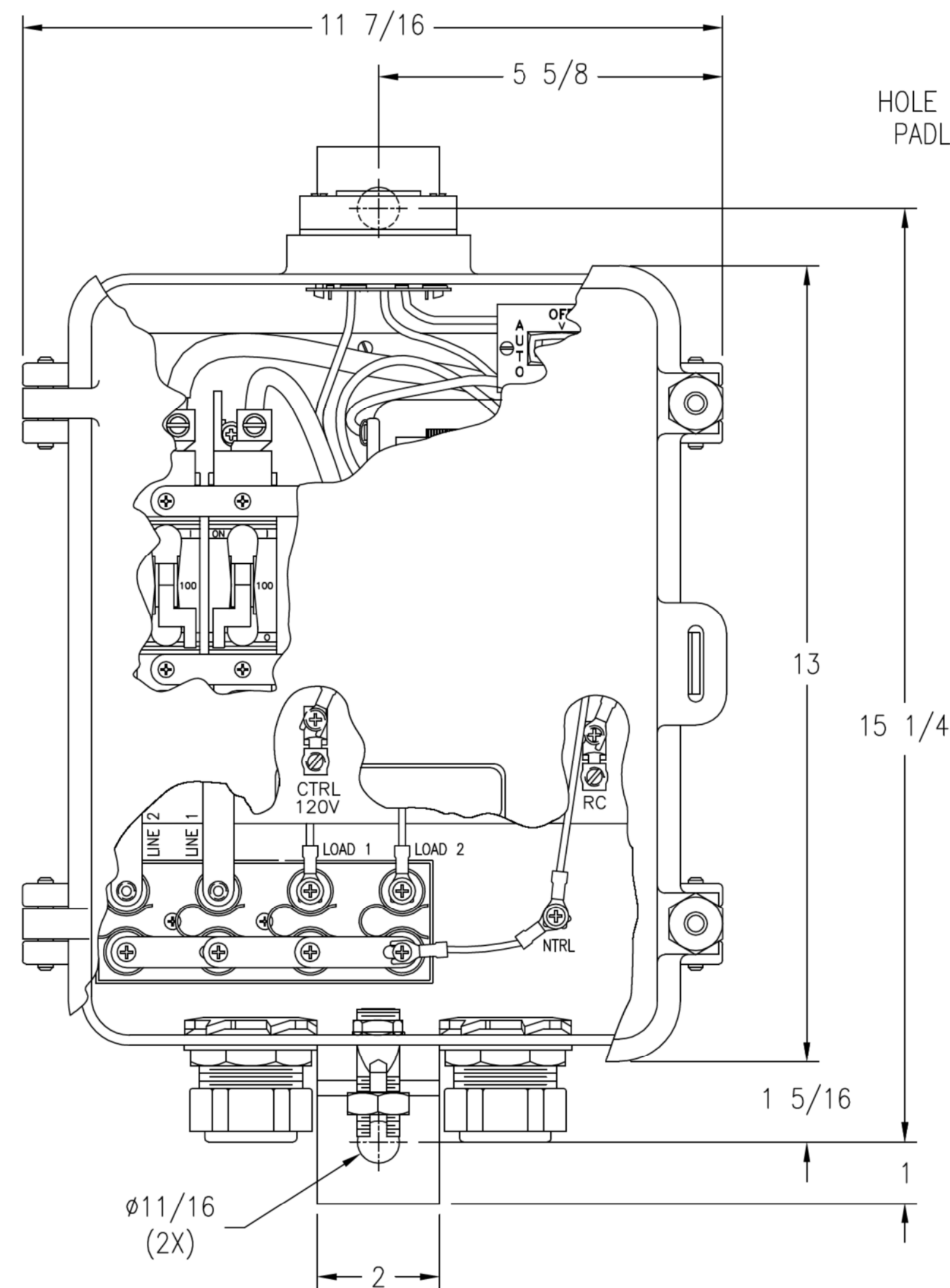
THE IDENTIFICATION TAGS FOR CABLE CIRCUITS SHALL USE TECH PRODUCTS, INC. FASTTAGS MINIATURE MARKERS. THE TAGS SHALL HAVE BLACK RAISED LETTERING ON A YELLOW BACKGROUND. THE LETTERING SHALL BE ORIENTATED HORIZONTALLY AND IN A SINGLE LINE.

LIGHTING CONTROLLER IDENTIFICATION TAGS

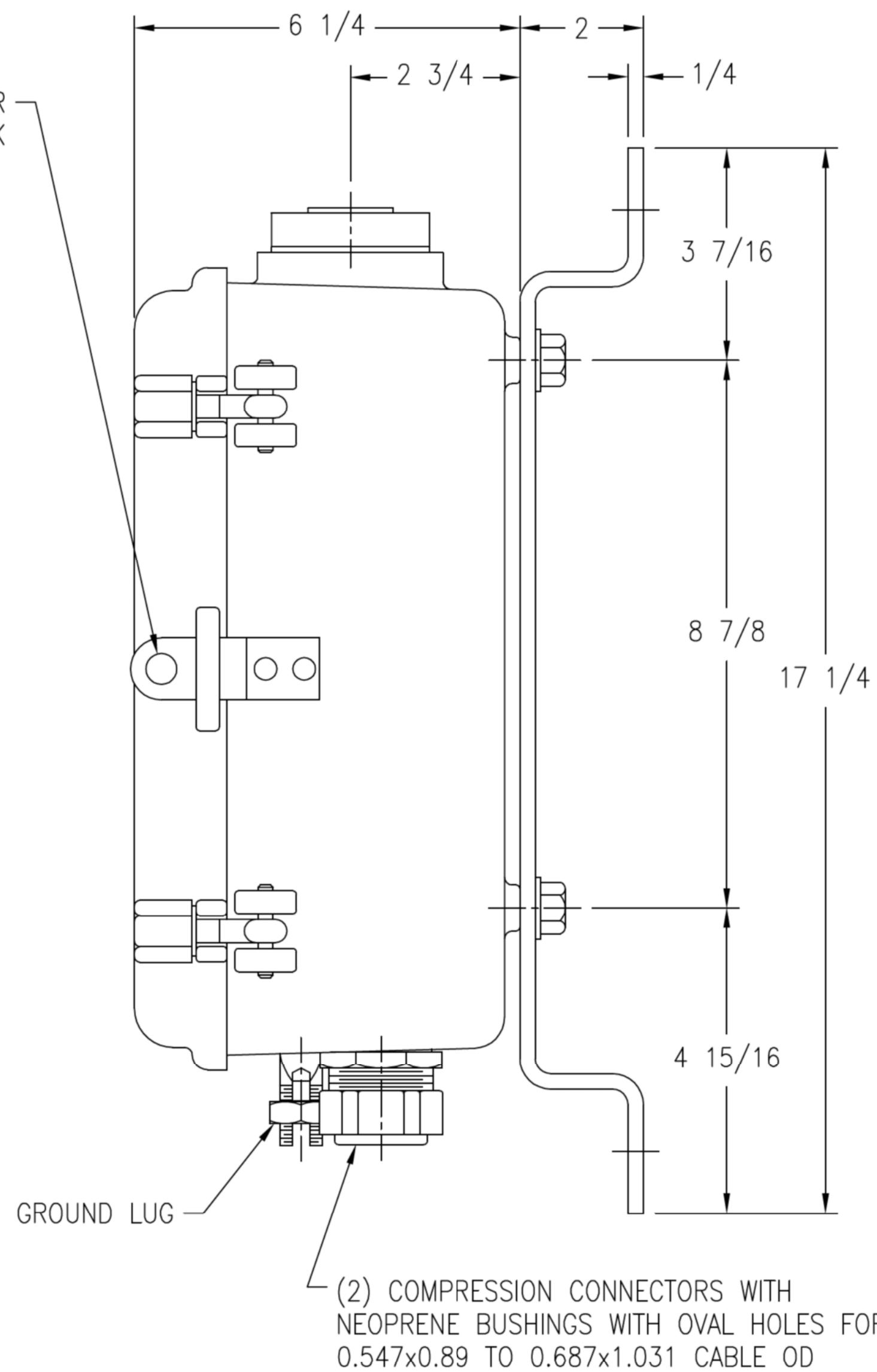
THE IDENTIFICATION TAGS FOR LIGHTING CONTROLLERS SHALL USE TECH PRODUCTS, INC. EVERLAST 1" VERTICALLY MOUNTED NUMBERS AND LETTERS WITH SOLID BLACK POLYPROPYLENE CHARACTERS EMBEDDED IN A BRIGHT YELLOW POLYPROPYLENE BACKGROUND. THE LETTERS SHALL BE STACKED VERTICALLY WITH THE HOLDER MOUNTED VERTICALLY ON THE POLE. EACH CHARACTER SHALL BE 0.70" TALL WHEN MOUNTED. THE TAG SHALL BE MOUNTED ON THE POLE'S STREETSIDE.

LUMINAIRE IDENTIFICATION TAGS

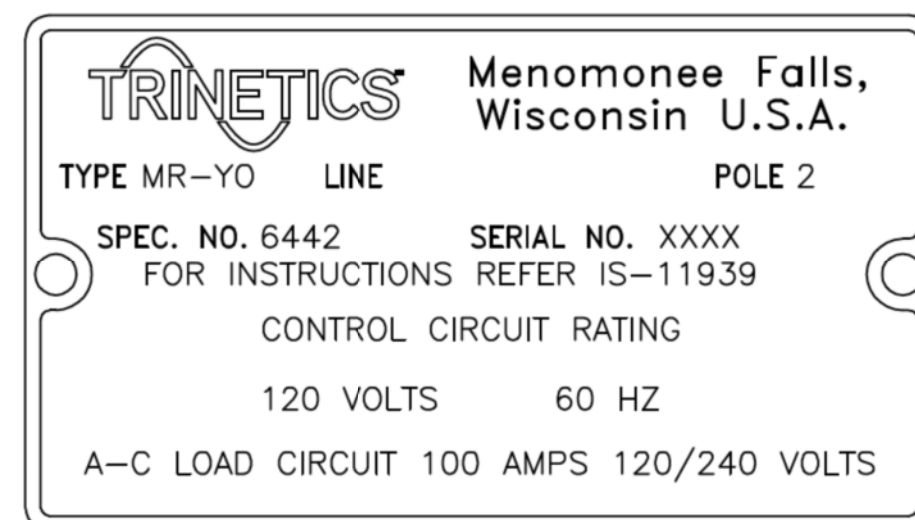
THE IDENTIFICATION TAGS FOR LUMINAIRES SHALL USE TECH PRODUCTS, INC. EVERLAST 1" VERTICALLY MOUNTED NUMBERS AND LETTERS WITH SOLID BLACK POLYPROPYLENE CHARACTERS EMBEDDED IN A BRIGHT YELLOW POLYPROPYLENE BACKGROUND. THE LETTERS SHALL BE STACKED VERTICALLY WITH THE HOLDER MOUNTED VERTICALLY ON THE POLE. EACH CHARACTER SHALL BE 0.70" TALL WHEN MOUNTED. A TAG IS MOUNTED ON THE POLE FOR EACH INDIVIDUAL LUMINAIRE ON THE POLE. THE TAG(S) SHALL BE MOUNTED ON THE POLE'S STREETSIDE.



CONTROL TERMINALS WILL ACCEPT #6 THRU #14 AWG WIRE
 LINE/LOAD TERMINALS WILL ACCEPT #4 THRU #1/0 AWG WIRE

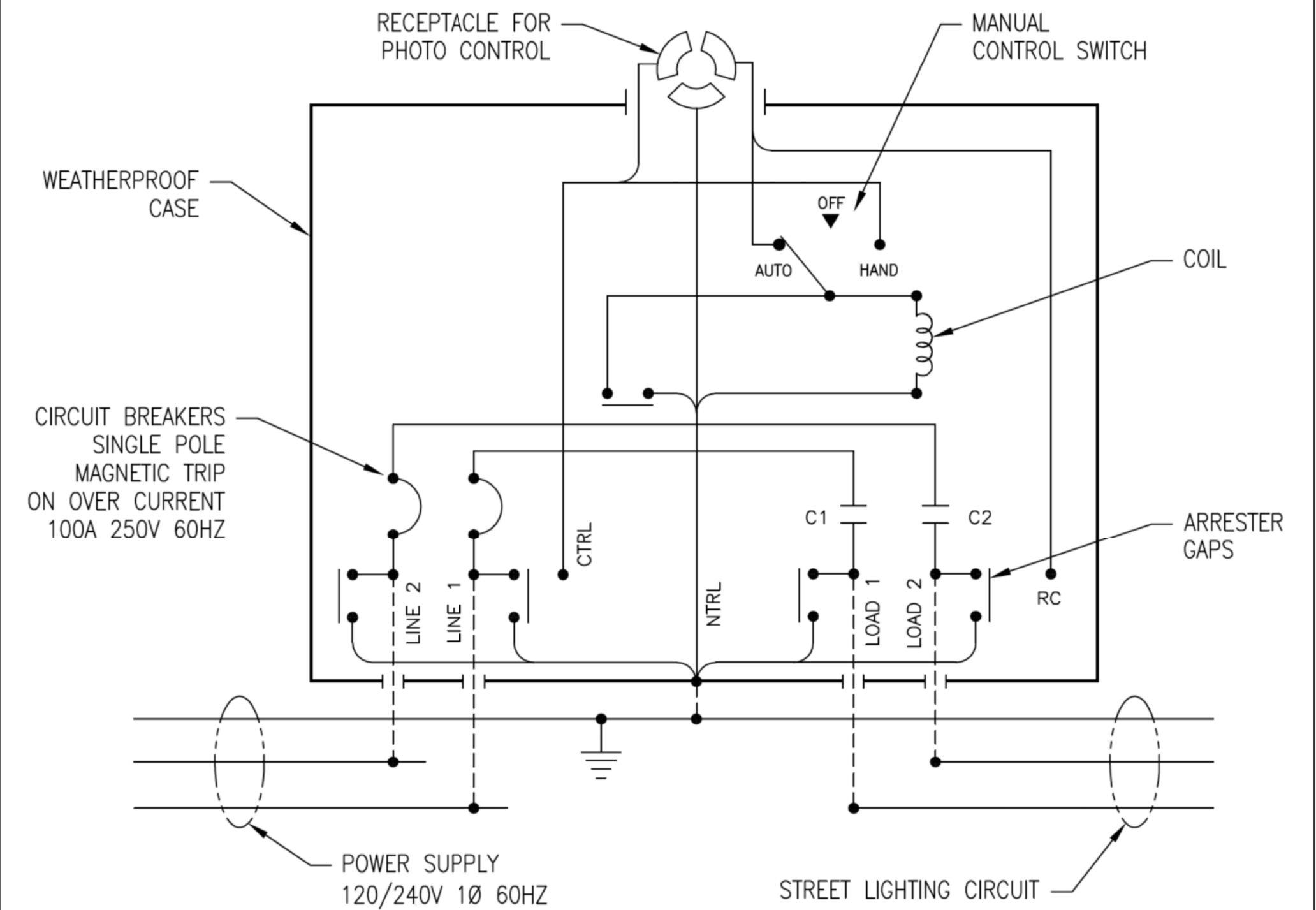


CAST ALUMINUM WEATHERPROOF CASE WITH BRACKET



NAMEPLATE DETAIL

CONNECTIONS FOR TYPE MR-YO SPEC 6442 STREET LIGHT CONTROL ASS'Y WITH SINGLE POLE MAGNETIC TRIP ON OVERLOAD CIRCUIT BREAKERS.



TWO POLE STREET LIGHT CONTROL ASS'Y WIRED FOR OPERATION WITH 120V PHOTO CONTROL UNIT AND RATED FOR SWITCHING A STREET LIGHTING LOAD WITH NORMAL CURRENT WHICH DOES NOT EXCEED THE LOAD CURRENT RATING SHOWN ON THE NAMEPLATE. IF SUPPLY IS 240/480V, A SEPARATE 120V SOURCE MUST BE CONNECTED TO "CTRL" TERMINAL FOR PC OPERATION.

THE LOCATION OF THE PHOTO CONTROL UNIT MAY BE EITHER AT THE CONTROL ASS'Y AND PLUGGED INTO THE RECEPTACLE PROVIDED FOR SAME, OR AT A REMOTE POINT SUCH AS AN AUXILIARY PHOTO CONTROL MOUNTING ADAPTER OR ANOTHER STREET LIGHT CONTROL ASS'Y.

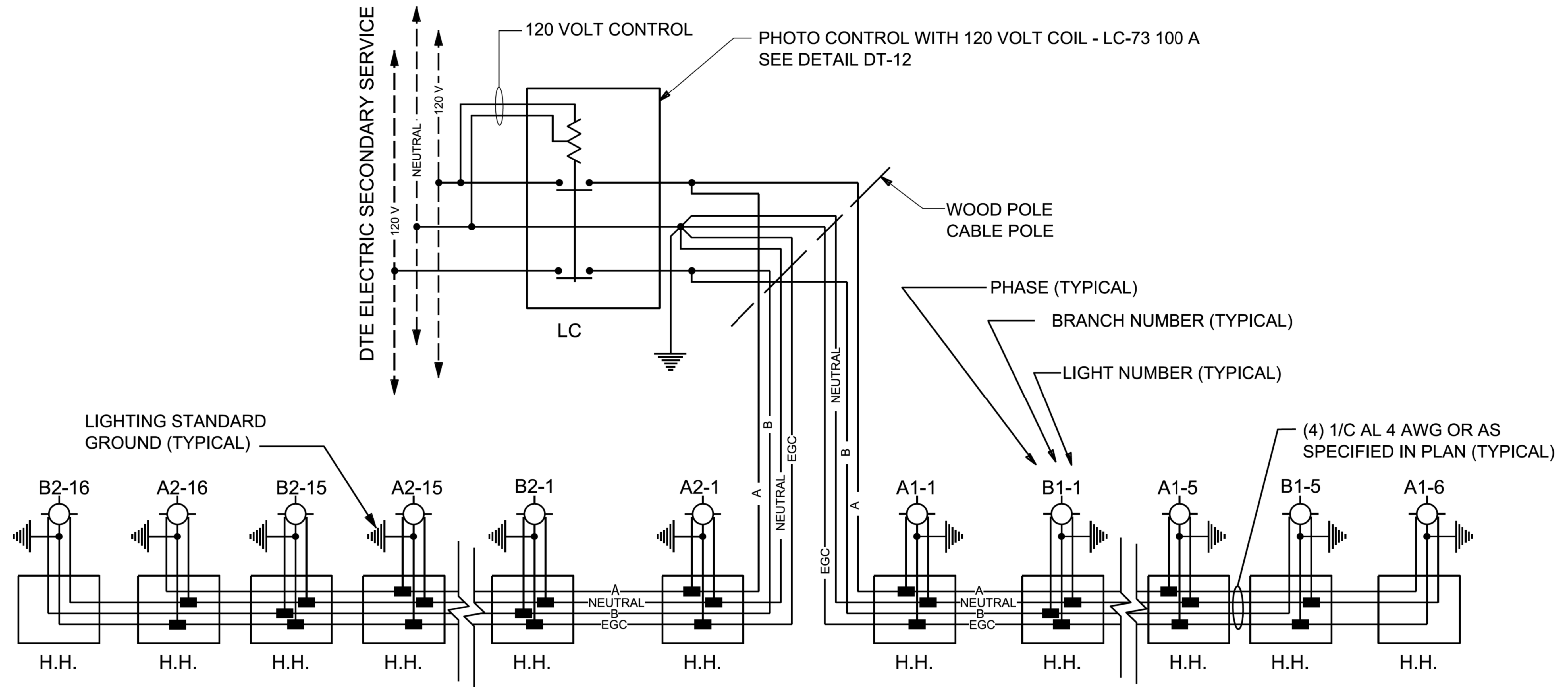
WHEN PHOTO CONTROL IS TO BE REMOTE, CLOSE THE SELF CONTAINED RECEPTACLE FOR PHOTO CONTROL WITH AN OPEN CIRCUITED CAP. ESTABLISH THE OPERATING CIRCUIT BY WIRING FROM THE "RC" TERMINAL TO THE LOAD LEAD OF THE REMOTELY LOCATED AUXILIARY PHOTO CONTROL MOUNTING ADAPTER, OR TO THE "RC" TERMINAL OF ANOTHER STREET LIGHT CONTROL ASS'Y. INTERCONNECTION OF "RC" TERMINALS OF TWO OR MORE STREET LIGHT CONTROL ASSEMBLIES PROVIDES GANG OPERATION WITH A SINGLE PC UNIT.

MANUAL CONTROL SWITCH IS SHOWN IN "AUTO" POSITION AND PHOTO CONTROL ESTABLISHES ON-OFF STREET LIGHT OPERATING SCHEDULE. MANUAL CONTROL SWITCH IN HAND OR OFF POSITIONS BY-PASSES PHOTO CONTROL TO PROVIDE, RESPECTIVELY, STREET LIGHT CIRCUIT ON OR OFF OPERATION. REMOTE PC LOCATION OR GANG OPERATION CONNECTIONS ARE NOT AFFECTED BY OPERATION OF INDIVIDUAL MANUAL CONTROL SWITCHES. HOWEVER, 120V MUST BE AVAILABLE AT EACH STREET LIGHT CONTROL ASSEMBLY TO PERMIT HAND-ON CIRCUIT OPERATION WITH RESPECTIVE MANUAL CONTROL SWITCH.

THE RELAY MUST BE ENERGIZED CONTINUOUSLY AT 120V DURING THE TIME OF RELAY CONTACT CLOSURE.

THIS DRAWING AND ALL INFORMATION THEREON IS THE SOLE PROPERTY OF TRINETICS. IT MUST NOT BE COPIED, REPRODUCED OR SUBMITTED TO OTHERS WITHOUT WRITTEN AUTHORIZATION. ALL REPRODUCTIONS ARE SUBJECT TO RETURN ON DEMAND.

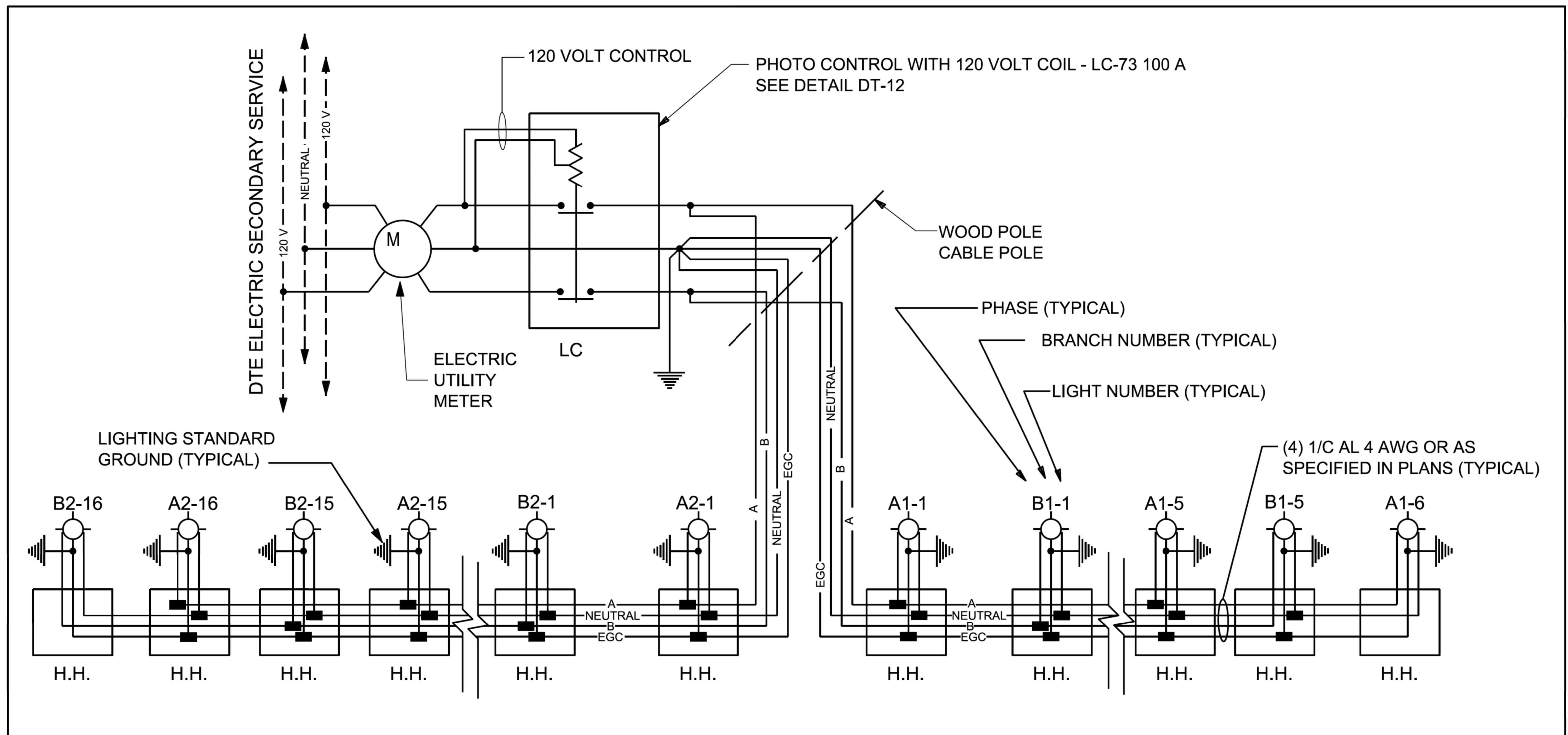
TRINETICS		RELAY ASSEMBLY MR-YO SPEC 6442	
THIRD ANGLE PROJECTION	SIZE B	DRAWN BY G Pietschmann	DATE 7/14/11
PART NUMBER		31183000	
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	FAMILY ID C1643	APPROX. WEIGHT 24 LB	SCALE 5/16



UNDERGROUND STREET LIGHTING CIRCUIT TYPICAL WIRING SCHEMATIC THREE CONDUCTOR AND EQUIPMENT GROUND CONDUCTOR (EGC)

NOT TO SCALE

- UNDERGROUND FED LIGHTING STANDARD
- HANDHOLE
- HOMAC RAB 1/0-xx MECHANICAL CONNECTOR INSTALLED IN HANDHOLE
xx = IS THE OUTLET CONFIGURATION RAB 1/0-21 IS SHOWN
SIZE AS NECESSARY FOR MULTIPLE LUMINAIRES OR CIRCUIT BRANCHES



RECEPTACLE CIRCUIT TYPICAL WIRING SCHEMATIC THREE CONDUCTOR AND EQUIPMENT GROUND CONDUCTOR (EGC)

NOT TO SCALE

- 
UNDERGROUND FED LIGHTING STANDARD
- 
HANDHOLE
- 
HOMAC RAB 1/0-xx MECHANICAL CONNECTOR INSTALLED IN HANDHOLE
xx = IS THE OUTLET CONFIGURATION RAB 1/0-21 IS SHOWN
SIZE AS NECESSARY FOR MULTIPLE RECEPTACLES OR CIRCUIT BRANCHES

CABLES IN HANDHOLES AND MANHOLES:

STREET LIGHTING AND RECEPTACLE CABLES IN HANDHOLES AND MANHOLES SHALL BE PULLED STRAIGHT THROUGH THE STRUCTURE UNLESS THERE IS A TAP REQUIRED TO SERVICE A STREET LIGHT, RECEPTACLE OR CIRCUIT BRANCH LOCATION.

LOCATIONS REQUIRING A SERVICE TAP WILL HAVE THE SERVICE PHASE TAPPED WITH THE APPROPRIATE HOMAC RAB CONNECTOR AND THE NON-SERVICE PHASE PULLED STRAIGHT THROUGH.

LOCATIONS REQUIRING CIRCUIT TAPS FOR CIRCUIT BRANCHES WILL BE IDENTIFIED ON THE PLANS WITH THE REQUIRED TAP SIZE AND PHASE PROVIDED.

EXAMPLE 1 - LAMP LOOP:

AN EXAMPLE IS A HANDHOLE LOCATION WITH BOTH THE A PHASE AND THE B PHASE COMING IN AND CONTINUING ALONG TO FEED ADDITIONAL STREET LIGHT LOCATIONS. THE HANDHOLE ALSO FEEDS A STREET LIGHTING STANDARD THAT HAS 2 LUMINAIRES THAT ARE TO BE CONNECTED TO THE B PHASE CABLE AND NO RECEPTACLE. THE B PHASE CABLE WILL HAVE A 4-WAY HOMAC RAB CONNECTOR INSTALLED. THE NEUTRAL WILL HAVE A 4-WAY HOMAC RAB CONNECTOR INSTALLED. THE EGC WILL HAVE A 3-WAY HOMAC RAB CONNECTOR INSTALLED. THE A PHASE CABLE WILL BE PULLED STRAIGHT THROUGH.

EXAMPLE 2 - CIRCUIT BRANCH:

AN EXAMPLE IS A HANDHOLE LOCATION WITH BOTH THE A PHASE AND THE B PHASE COMING IN AND FEEDING TWO DIFFERENT DIRECTIONS GOING OUT WITHOUT A STREET LIGHT LOCATION DIRECTLY CONNECTED TO THE HANDHOLE. THIS EXAMPLE REQUIRES CABLE 3-WAYS (ALSO CALLED A T-TAP OR BRANCH) TO BE INSTALLED TO FEED THE TWO DIFFERENT DIRECTIONS. A 3-WAY HOMAC RAB WILL BE INSTALLED ONTO EACH OF THE A PHASE, B PHASE, NEUTRAL AND EGC CABLES.

UNDERGROUND PHASE IDENTIFICATION

CURRENT UNDERGROUND CONSTRUCTION WIRING STANDARD

CONDUCTOR ID	BLACK	WHITE/WHITE STRIPE	RED/RED STRIPE	GREEN/BARE
PHASE	A PHASE	NEUTRAL	B PHASE	EGC

OBSOLETE UNDERGROUND CONSTRUCTION WIRING STANDARD

CONDUCTOR ID	BLACK	WHITE/WHITE STRIPE	RED/RED STRIPE	GREEN/BARE
PHASE	A PHASE	NEUTRAL	B PHASE	---

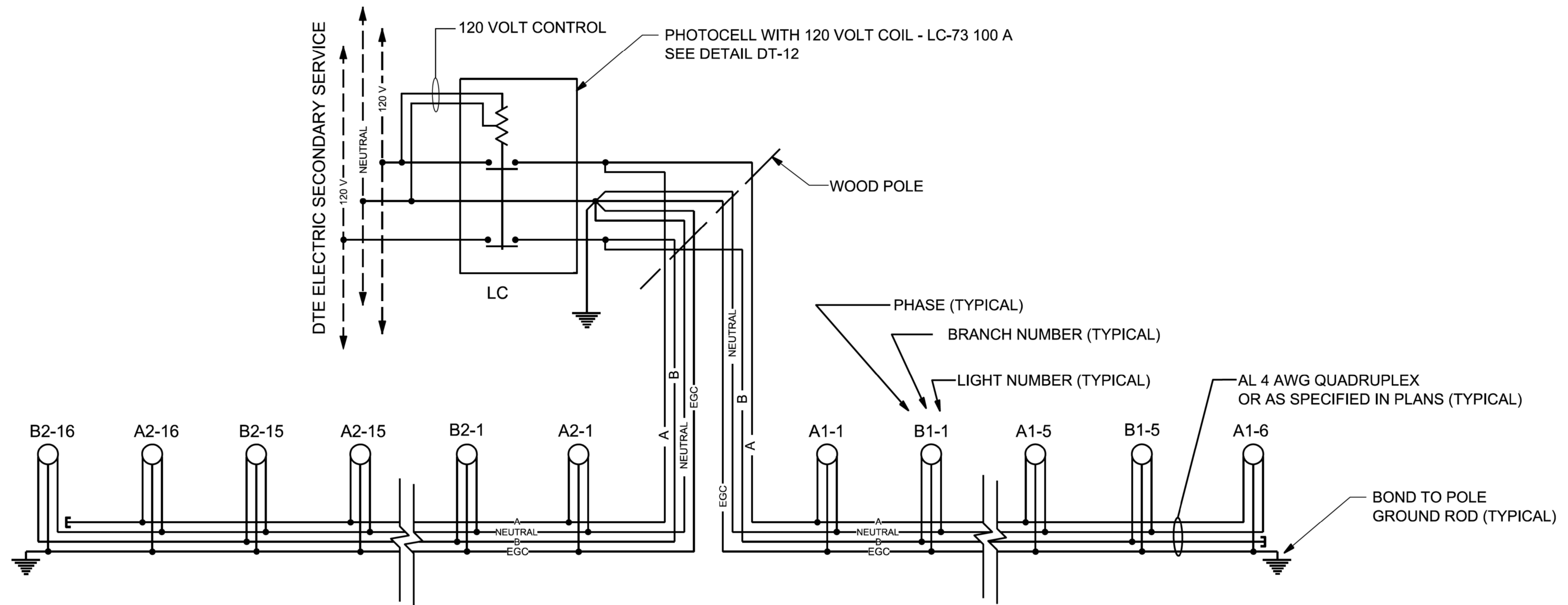
*** WHEN MODIFICATIONS OR ADDITIONS ARE REQUIRED ON OBSOLETE STYLE CONSTRUCTION CIRCUITS, THE CHANGES SHOULD BE MADE WITH THE OBSOLETE STYLE OR THE ENTIRE CIRCUIT MUST BE UPDATED.

*** THE CURRENT UNDERGROUND CONSTRUCTION AND THE OBSOLETE UNDERGROUND CONSTRUCTION STANDARDS SHALL NOT BE INTERMINGLED EXCEPT AT THE CIRCUIT SOURCE POINT WHERE THE NEUTRAL IS BONDED TO THE GROUND AT THE MAIN BREAKER.

*** THERE ARE INSTALLATIONS WHERE NEITHER COLOR-CODED, EITHER COLORED INSULATION OR PHASE MARKED, CONDUCTORS ARE USED SO THAT ALL THE CONDUCTORS ARE THE SAME COLOR, TYPICALLY BLACK. PHASING MUST BE FIELD VERIFIED PRIOR TO CONNECTING ANY COLOR-CODED CONDUCTORS TO NON-CODED CONDUCTORS.

*** PRIOR TO CONNECTING ANY NEW CIRCUIT CABLING TO EXISTING CIRCUIT CABLING, CARE IS TO BE TAKEN BY VERIFYING THE EXISTING CIRCUIT CABLING PHASING TO ENSURE THAT PROPER ELECTRICAL CONNECTIONS ARE MADE. IF THE EXISTING CIRCUIT CABLING IS FOUND TO HAVE IMPROPER PHASE IDENTIFICATIONS THEN THE EXISTING CIRCUIT CABLING MUST BE CORRECTED PRIOR TO CONNECTING ANY NEW CABLING.

*** THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CIRCUIT PHASE IDENTIFICATIONS PRIOR TO CONNECTING ANY NEW CIRCUIT CABLING TO EXISTING CIRCUIT CABLING. IF THE EXISTING CIRCUIT CABLING IS FOUND TO HAVE IMPROPER PHASE IDENTIFICATIONS THEN THE EXISTING CIRCUIT CABLING MUST BE CORRECTED PRIOR TO CONNECTING ANY NEW CABLING.

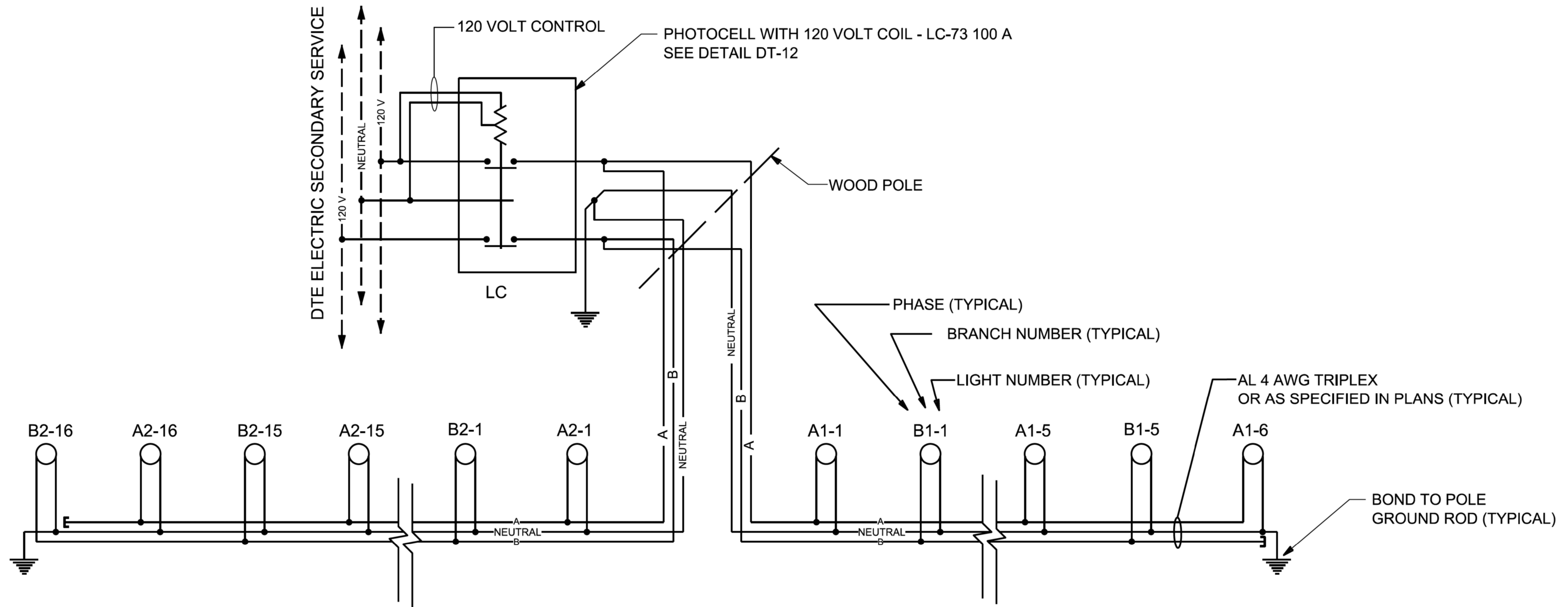


CURRENT LIGHTING CONTROL DIAGRAM QUADRUPLEX WITH EQUIPMENT GROUND CONDUCTOR (EGC)

NOT TO SCALE



OVERHEAD FED STREET LIGHT STANDARD OR POLE



OBSOLETE LIGHTING CONTROL DIAGRAM TRIPLEX WITH NEUTRAL BONDED TO GROUND

NOT TO SCALE



OVERHEAD FED STREET LIGHT STANDARD OR POLE

OVERHEAD PHASE IDENTIFICATION

CURRENT OVERHEAD CONSTRUCTION WIRING STANDARD

CABLE TYPE	NO RIB	1 RIB	2 RIBS	MESSENGER
QUADRUPLEX	A PHASE	NEUTRAL	B PHASE	EGC
TRIPLEX	A PHASE	NEUTRAL	----	EGC
DUPLEX	----	----	----	----

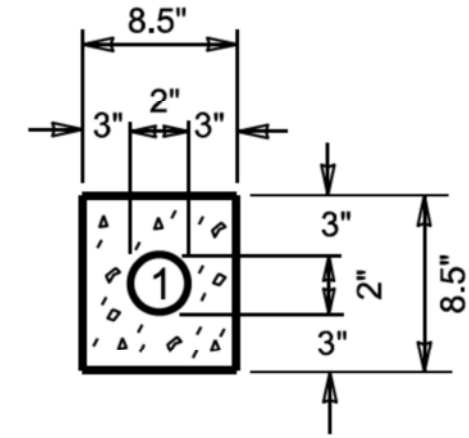
OBSOLETE OVERHEAD CONSTRUCTION WIRING STANDARD

CABLE TYPE	NO RIB	1 RIB	2 RIBS	MESSENGER
QUADRUPLEX	----	----	----	----
TRIPLEX	A PHASE	B PHASE	----	NEUTRAL
DUPLEX	A PHASE	----	----	NEUTRAL

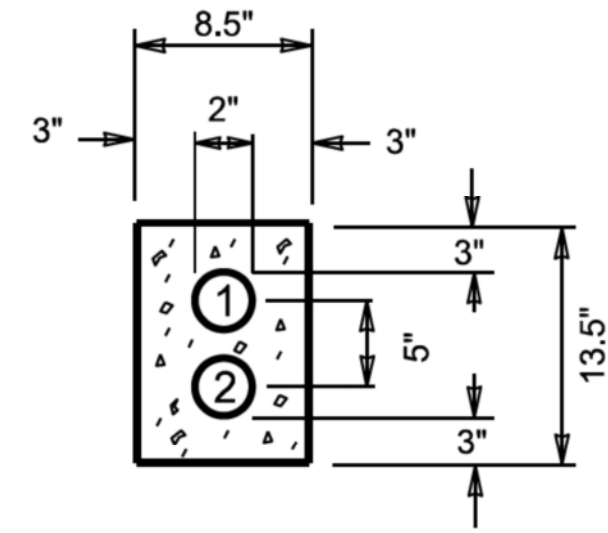
*** WHEN MODIFICATIONS OR ADDITIONS ARE REQUIRED ON OBSOLETE STYLE CONSTRUCTION CIRCUITS, THE CHANGES SHOULD BE MADE WITH THE OBSOLETE STYLE OR THE ENTIRE CIRCUIT MUST BE UPDATED.

*** THE CURRENT OVERHEAD CONSTRUCTION AND THE OBSOLETE OVERHEAD CONSTRUCTION STANDARDS SHALL NOT BE INTERMINGLED EXCEPT AT THE CIRCUIT SOURCE POINT WHERE THE NEUTRAL IS BONDED TO THE GROUND AT THE MAIN BREAKER.

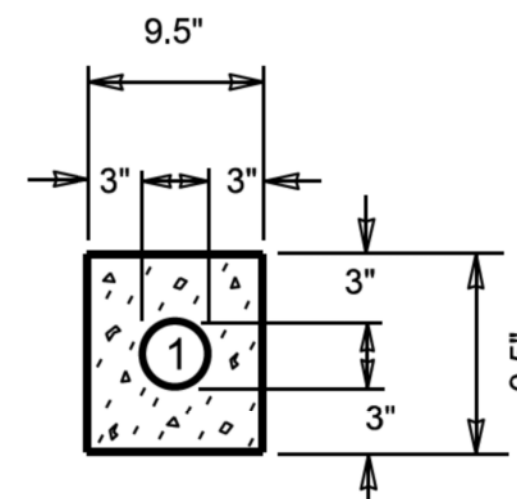
*** THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CIRCUIT PHASE IDENTIFICATIONS PRIOR TO CONNECTING ANY NEW CIRCUIT CABLING TO EXISTING CIRCUIT CABLING. IF THE EXISTING CIRCUIT CABLING IS FOUND TO HAVE IMPROPER PHASE IDENTIFICATIONS THEN THE EXISTING CIRCUIT CABLING MUST BE CORRECTED PRIOR TO CONNECTING ANY NEW CABLING.



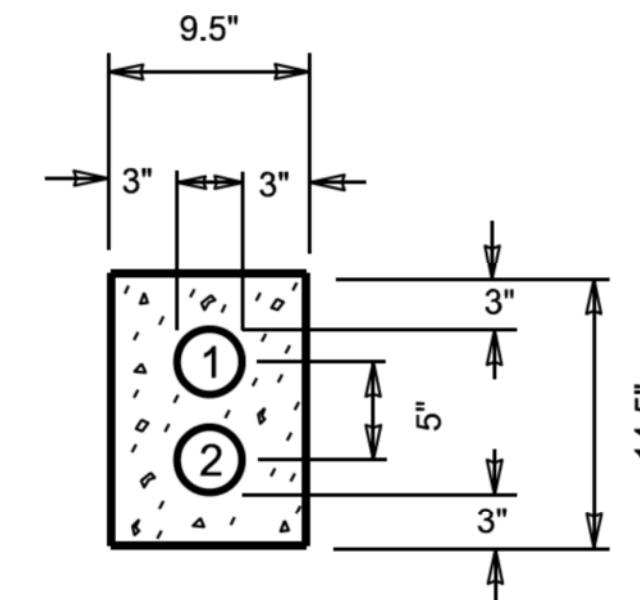
1 - 2" CONDUIT



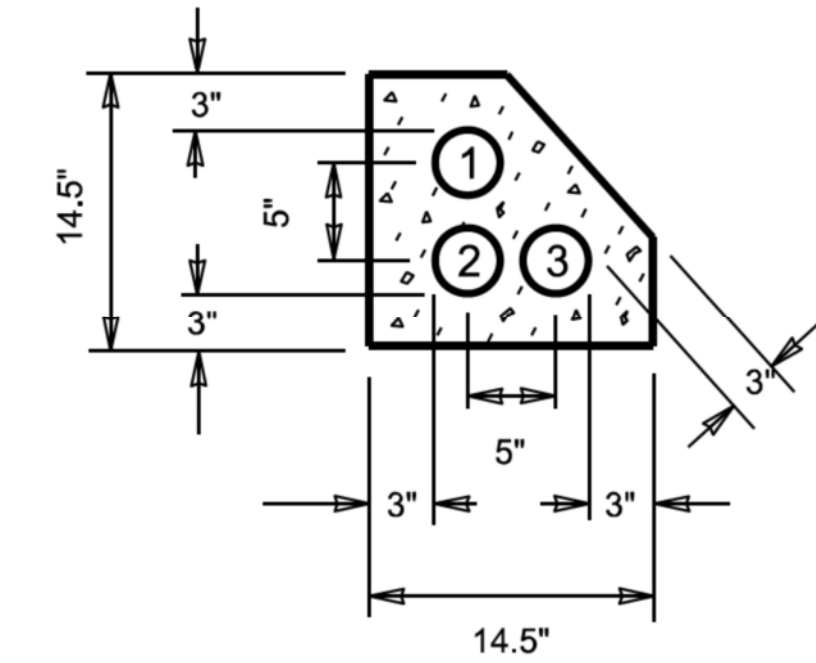
2 - 2" CONDUITS



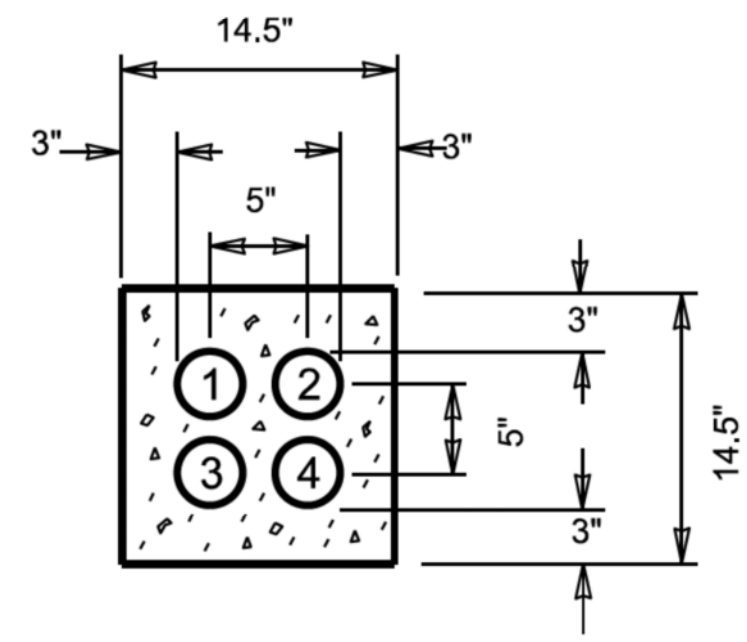
1 - 3" CONDUIT



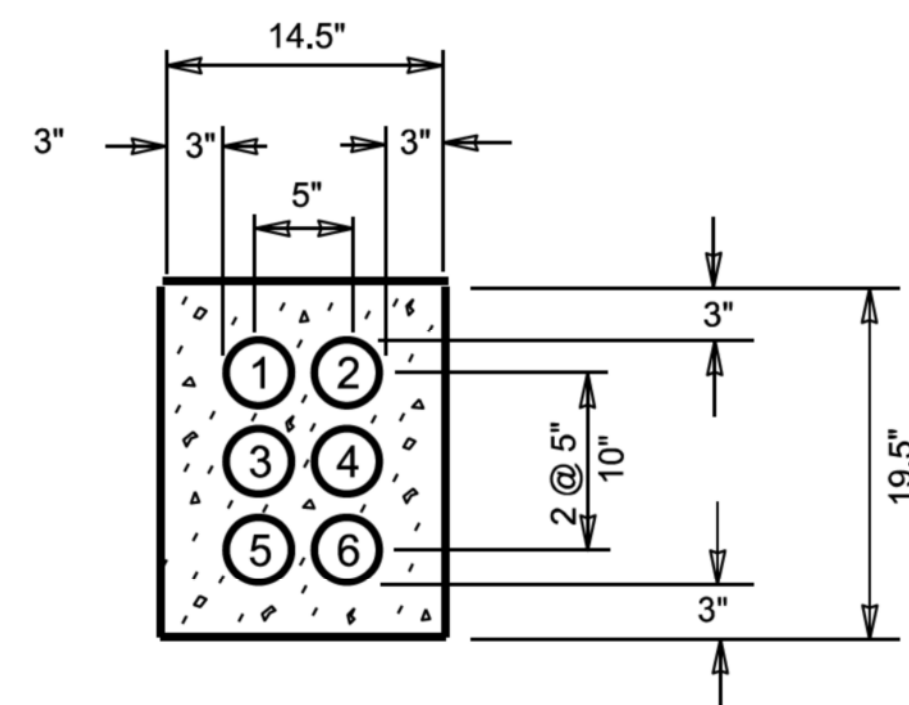
2 - 3" CONDUITS



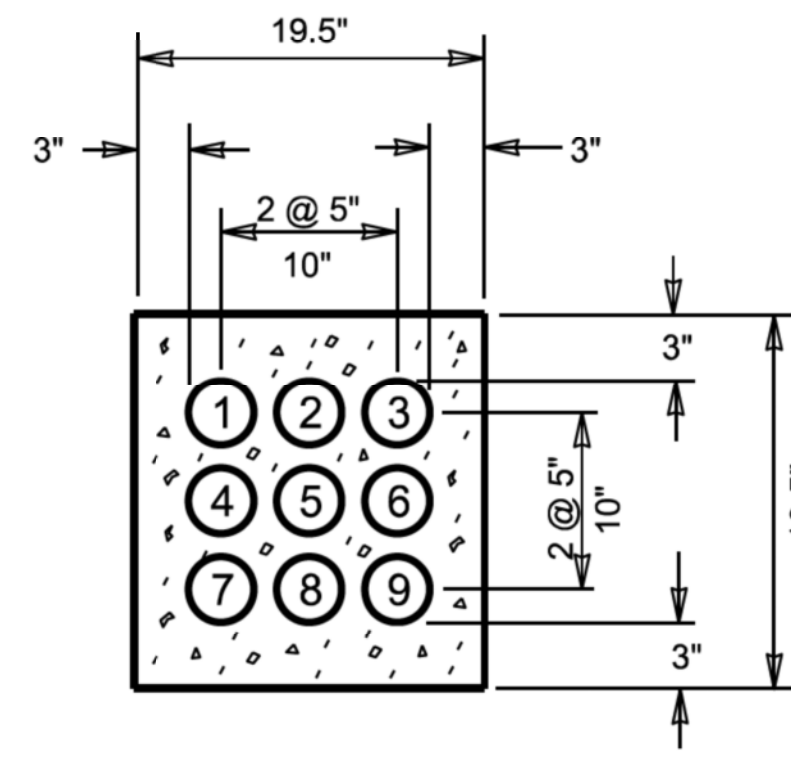
3 - 3" CONDUITS



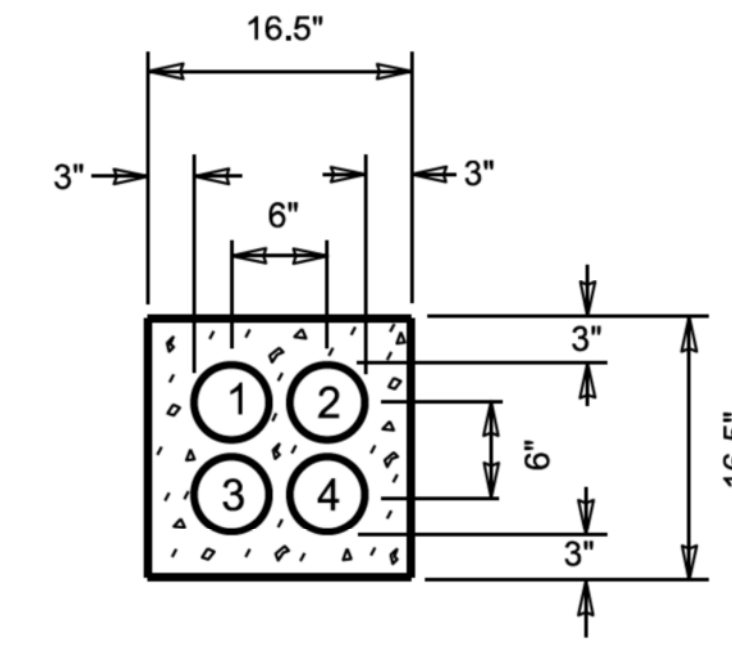
4 - 3" CONDUITS



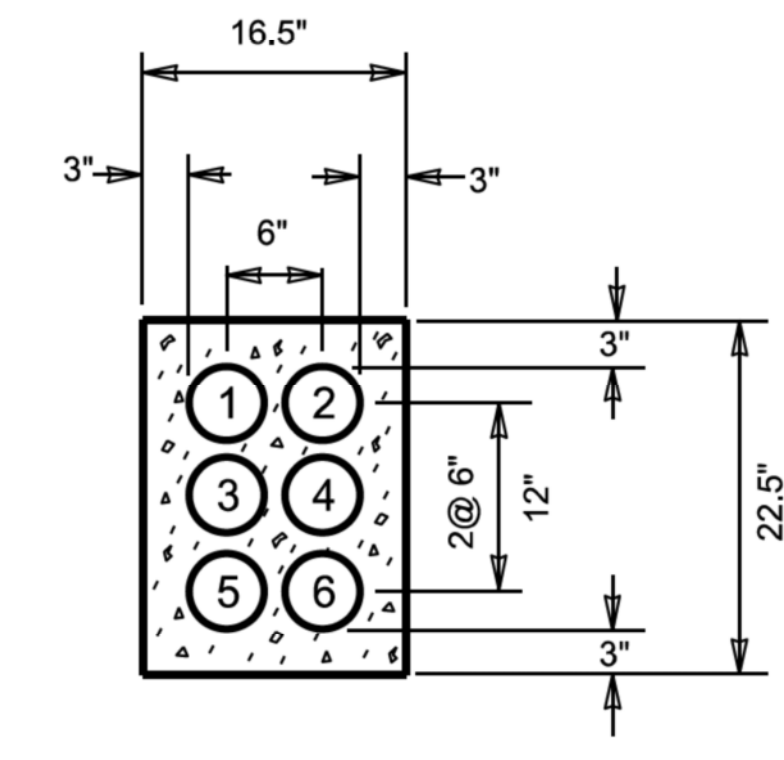
6 - 3" CONDUITS



9 - 3" CONDUITS



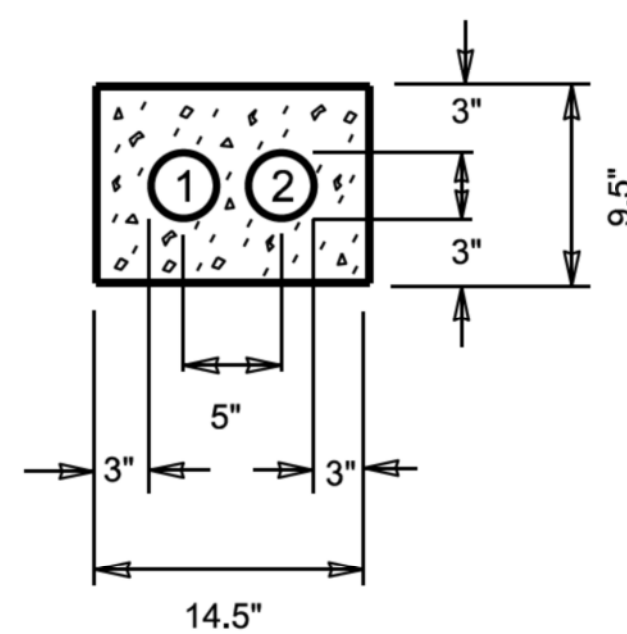
4 - 4" CONDUITS



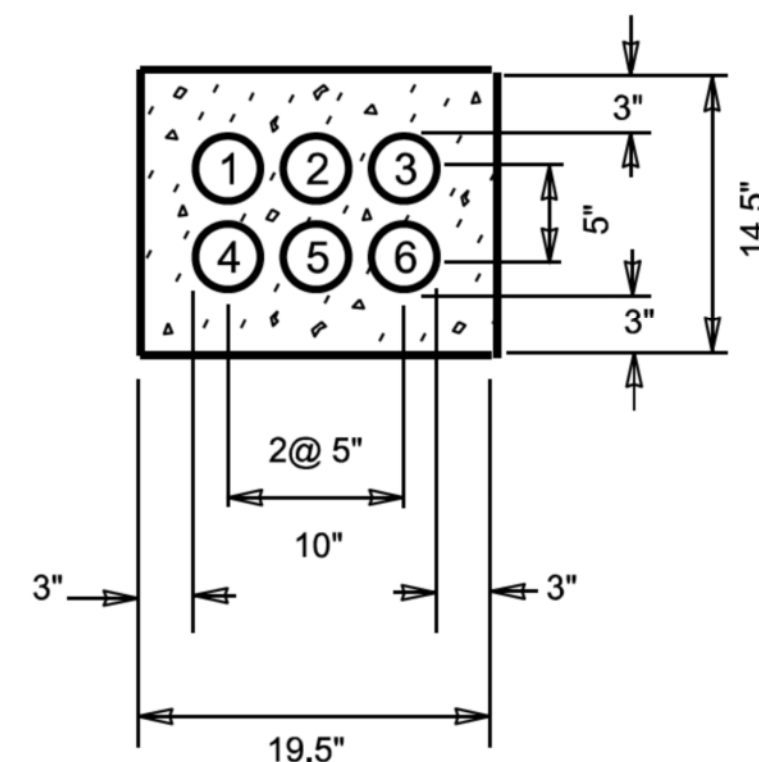
6 - 4" CONDUITS

ALTERNATE ARRANGEMENT OF 3" CONDUIT

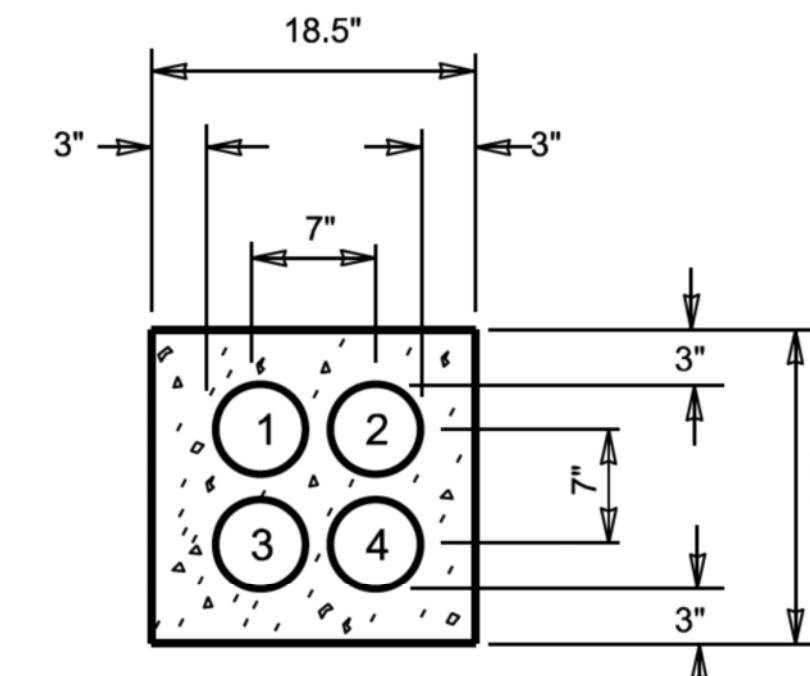
(TO SUIT FIELD CONDITIONS)
(TO BE APPROVED BY THE ENGINEER)



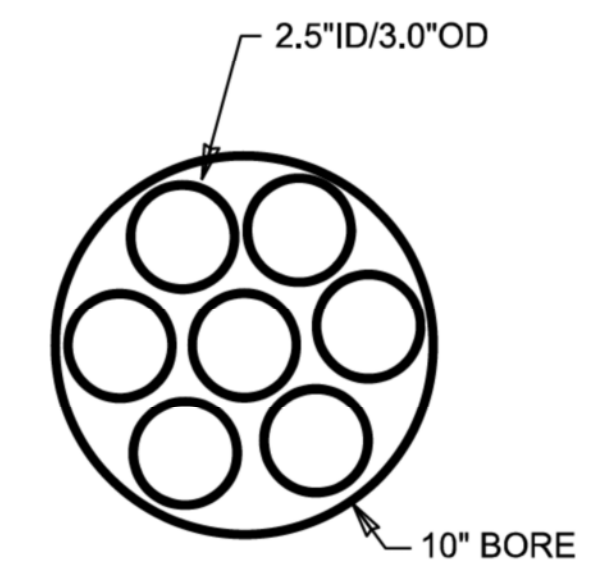
2-3" CONDUITS



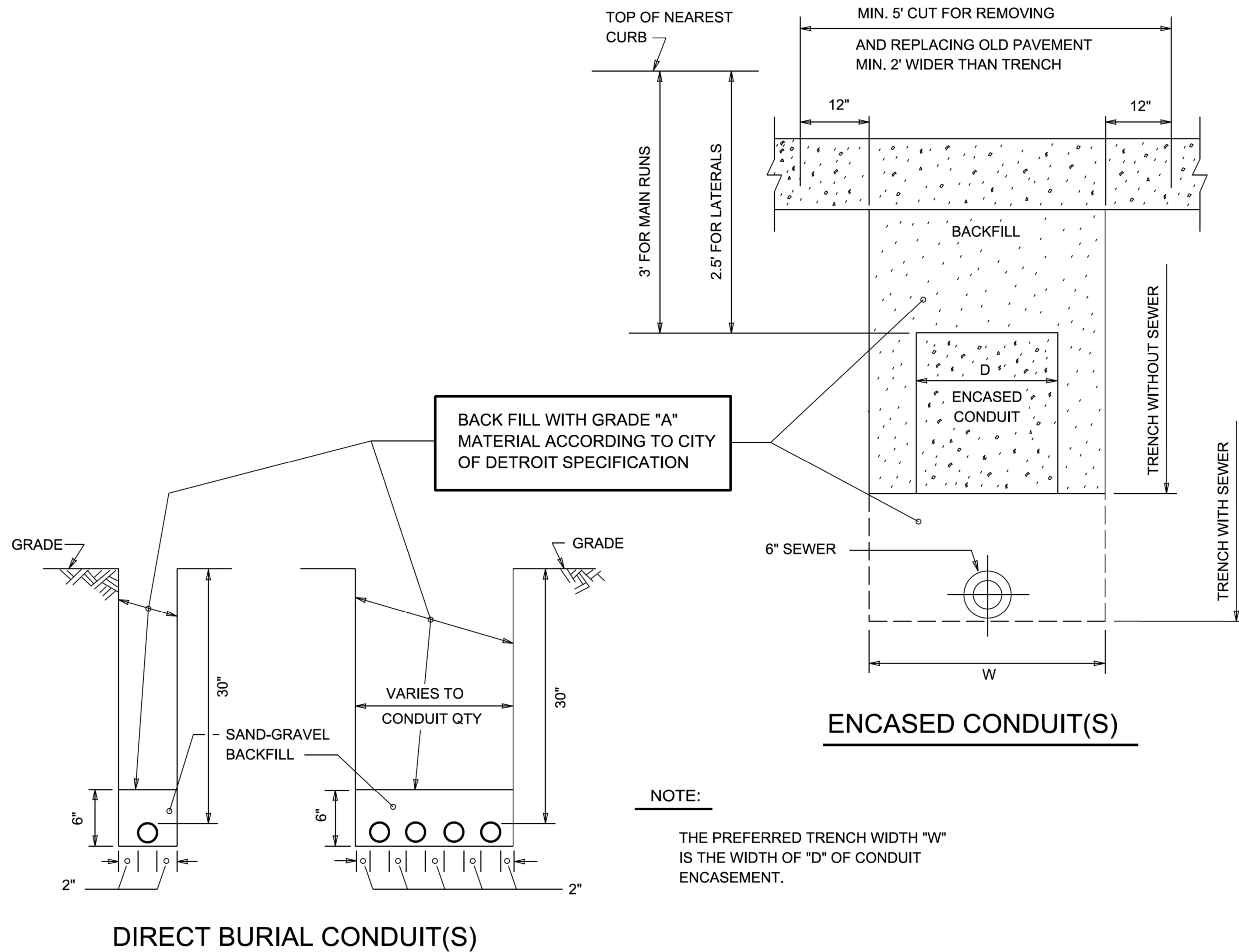
6-3" CONDUITS

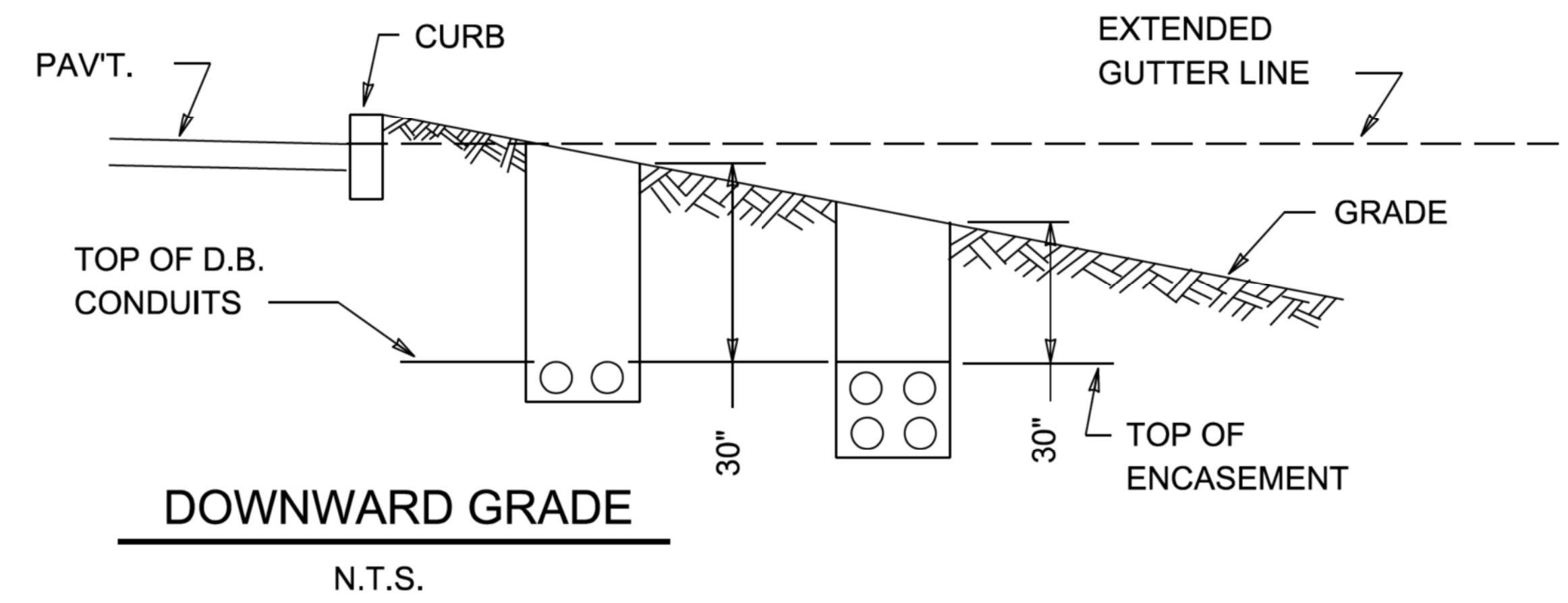
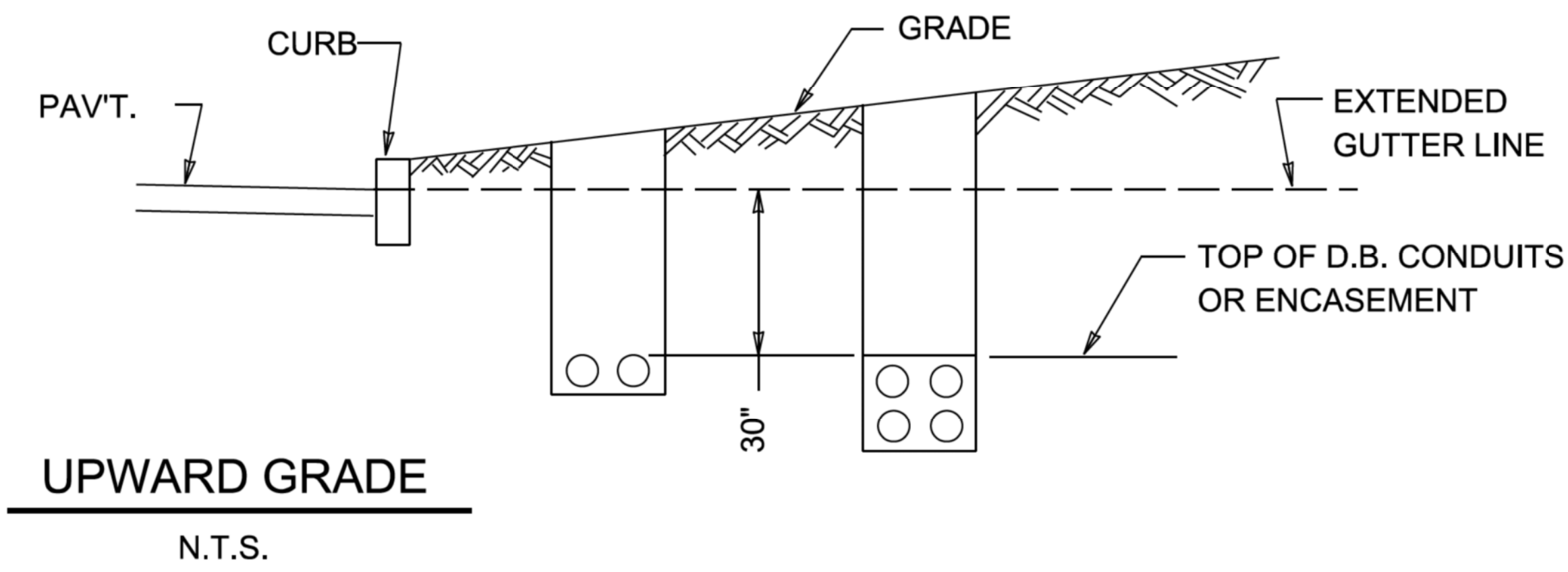


4 - 5" CONDUITS

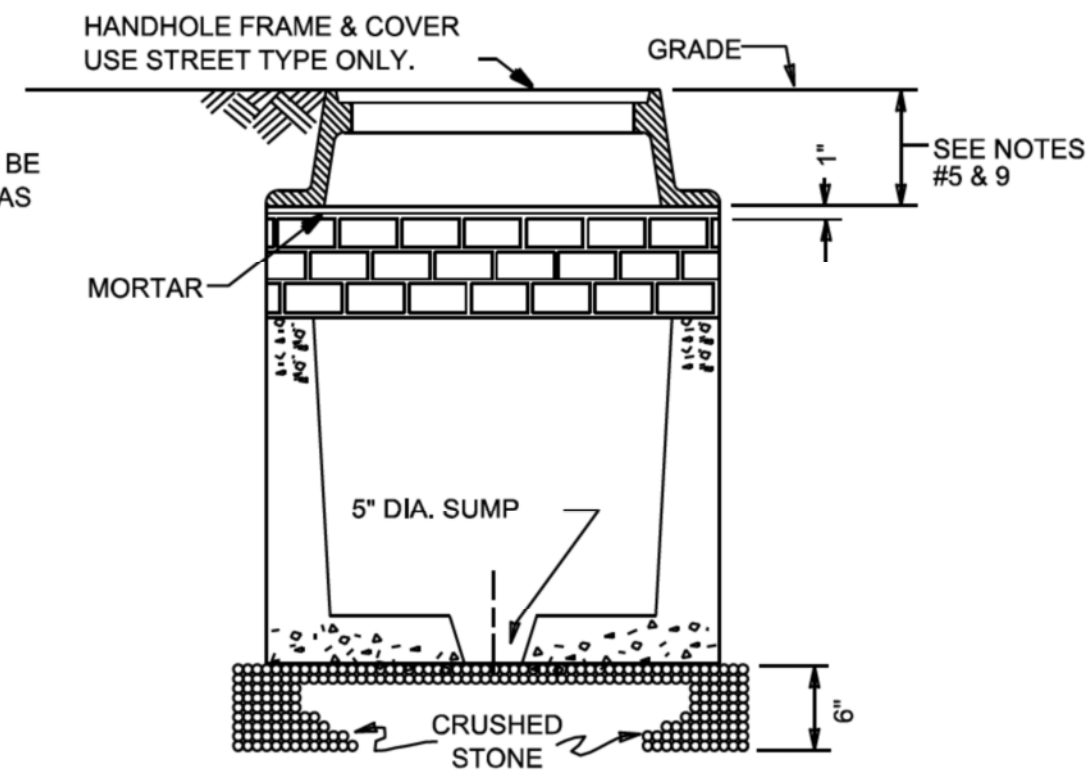
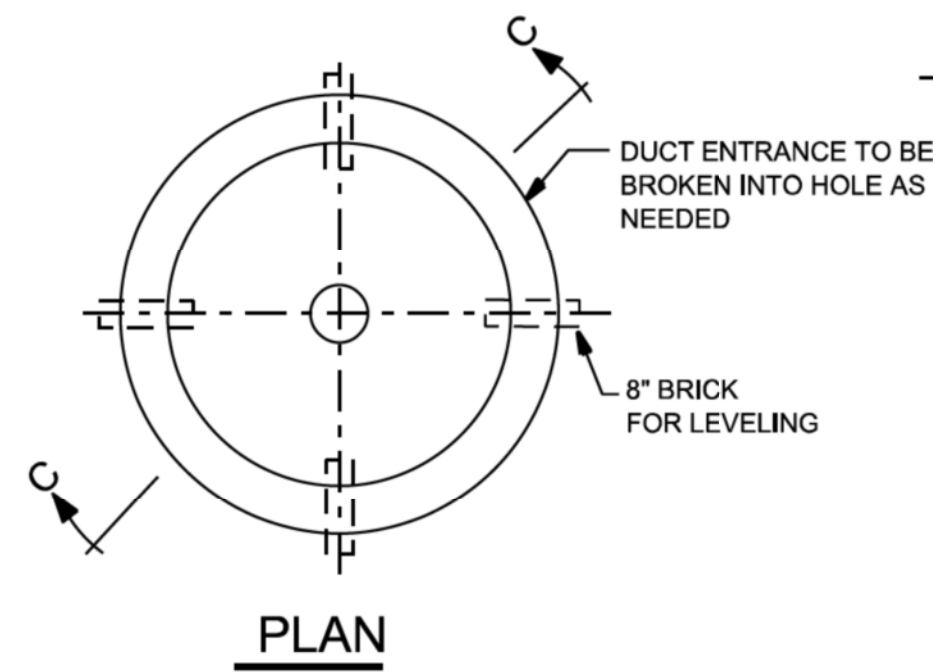


7-2.5" CONDUITS
IN
10" DIRECTIONAL BORE



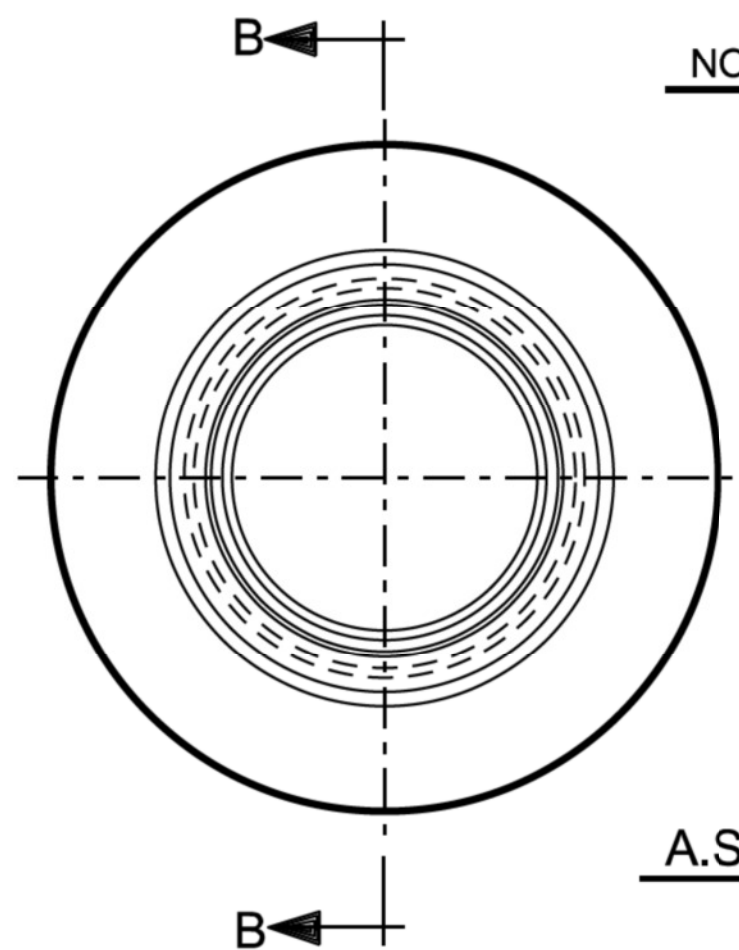


ROUND PRECAST HANDHOLE DETAILS



SECTION "C-C"
30" DIAMETER X 36" DEEP TYPE III
PRECAST ROUND HANDHOLE
 N.T.S.

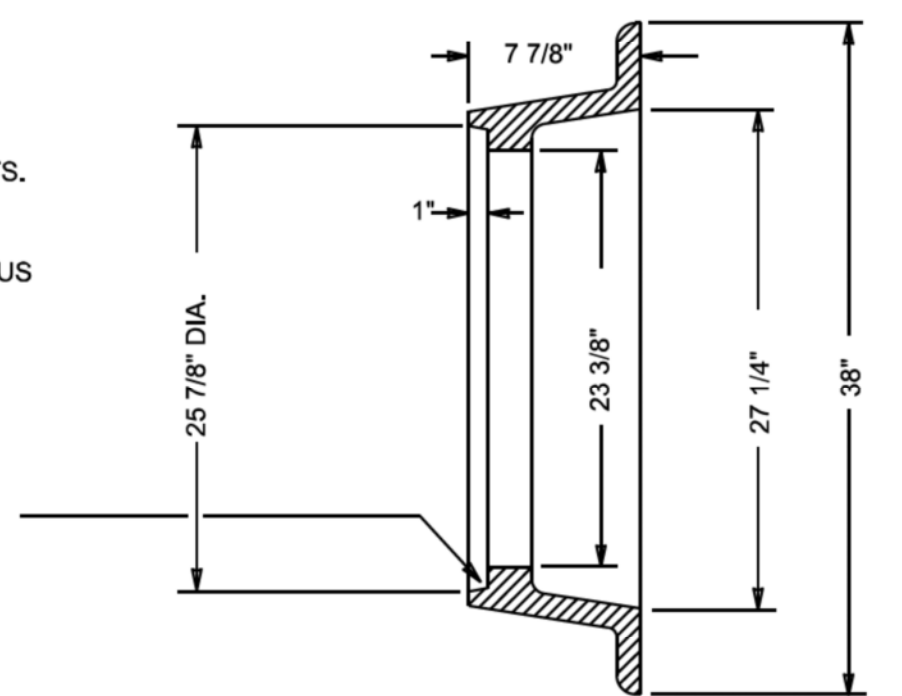
NOTE:
 BELL ENDS ARE REQUIRED ON EACH CONDUIT BROKEN OUT IN HANDHOLE. TYPE AND SIZE SHALL BE IDENTICAL TO CONDUIT TYPE AND SIZE.



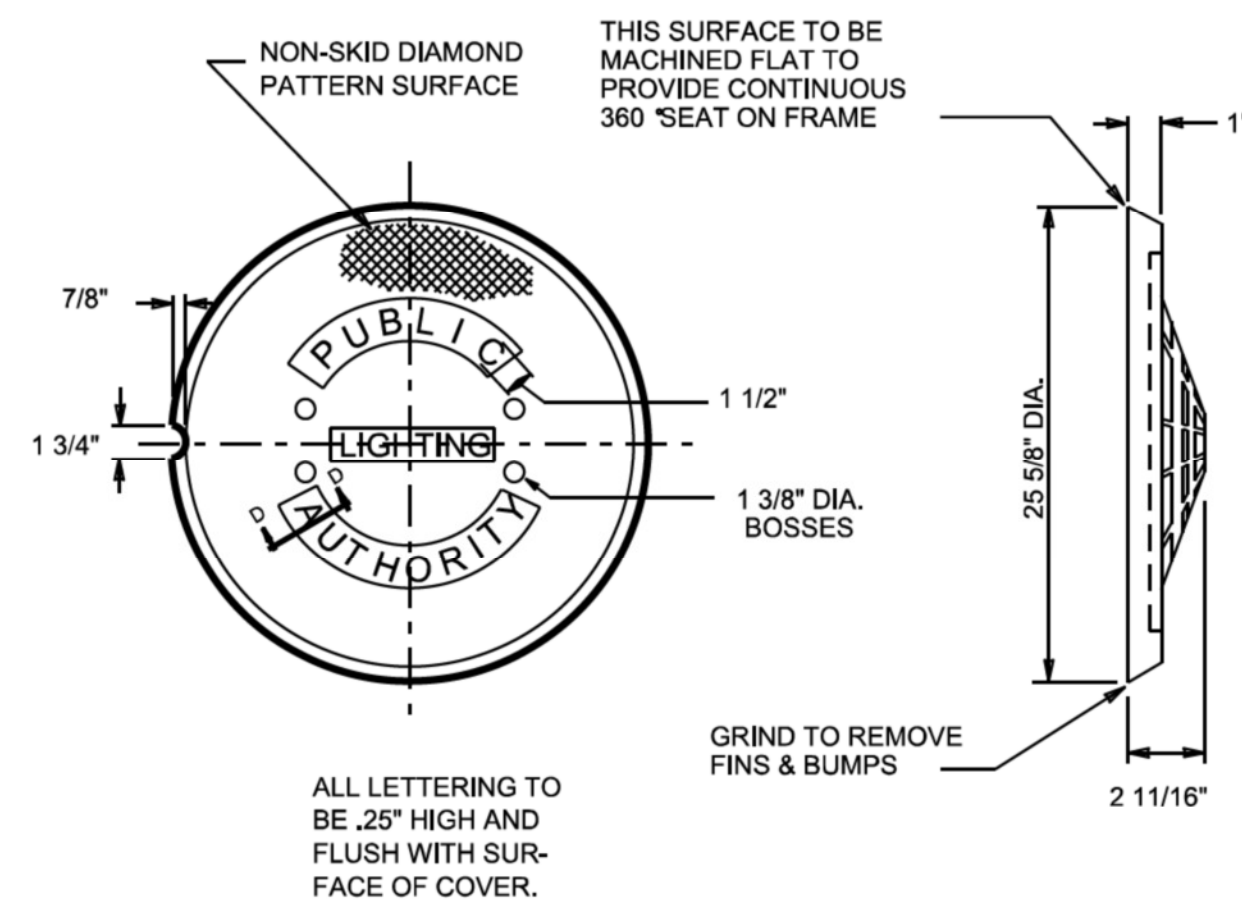
NOTE:
 1. FRAMES MAY BE A.S.T.M. CLASS 30 GRAY IRON IF THE CONTRACTOR SO ELECTS.
 2. ALL FILLETS ARE .5" RADIUS & ALL ROUNDS ARE .25" RADIUS

THIS SURFACE TO BE MACHINED FLAT TO PROVIDE CONTINUOUS 360° SEAT FOR COVER

A.S.T.M. CLASS 20 OR 30 GRAY IRON
APPROX. 255 LBS.
HANDHOLE FRAME
 N.T.S.

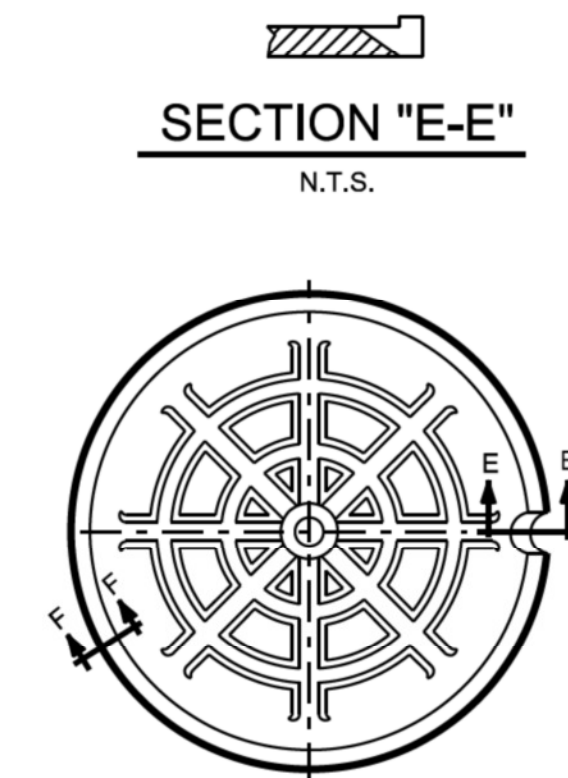


SECTION "B-B"
 N.T.S.

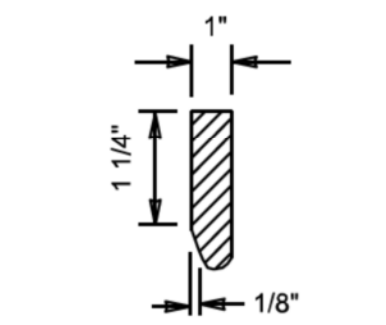


SECTION "D-D"
 N.T.S.

A.S.T.M. CLASS 30 GRAY IRON
APPROX. WT. 145 LBS.
STREET TYPE COVER
TO BE USED IN STREETS & DRIVES
 N.T.S.

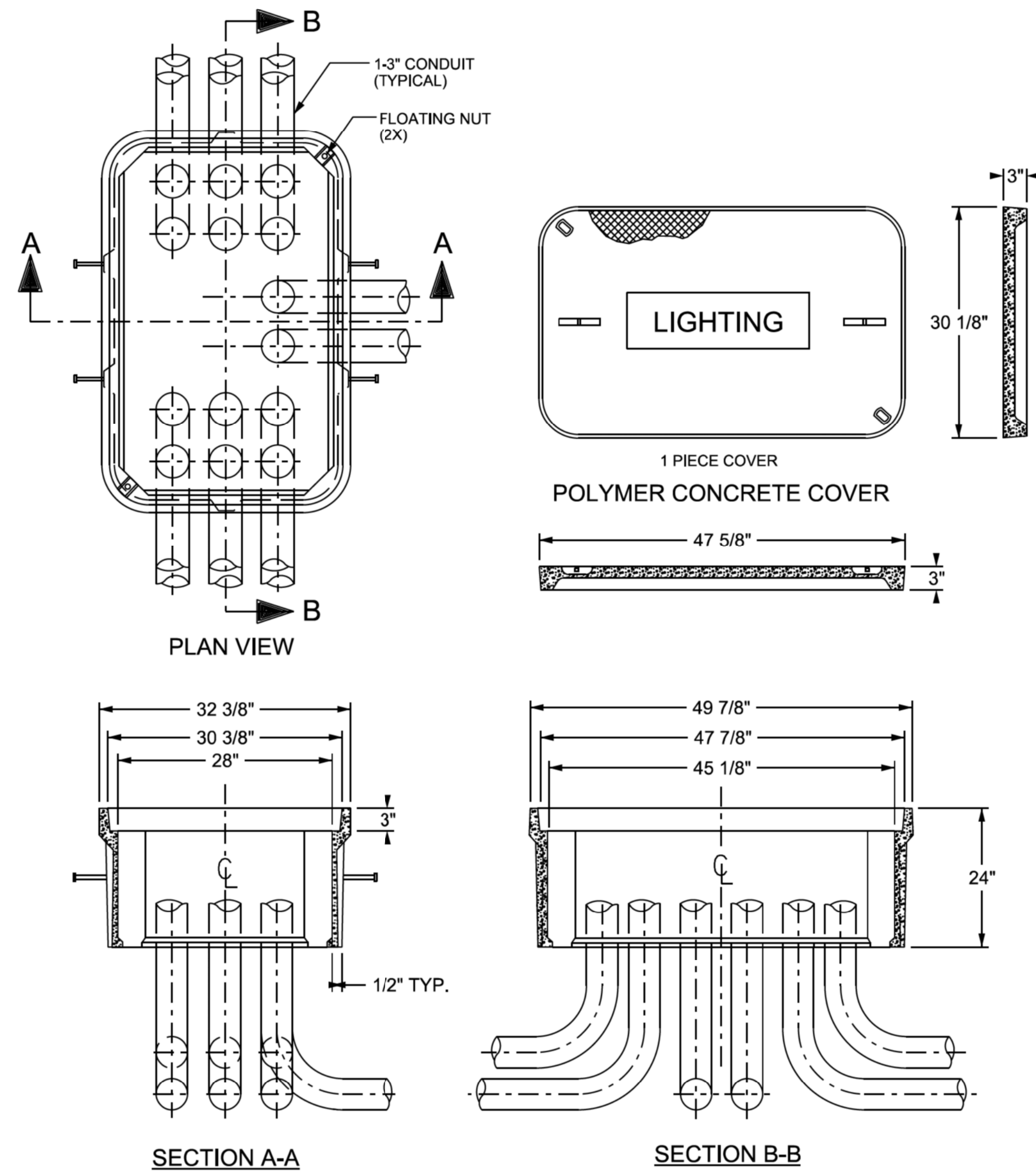


SECTION "E-E"
 N.T.S.



SECTION "F-F"
 N.T.S.

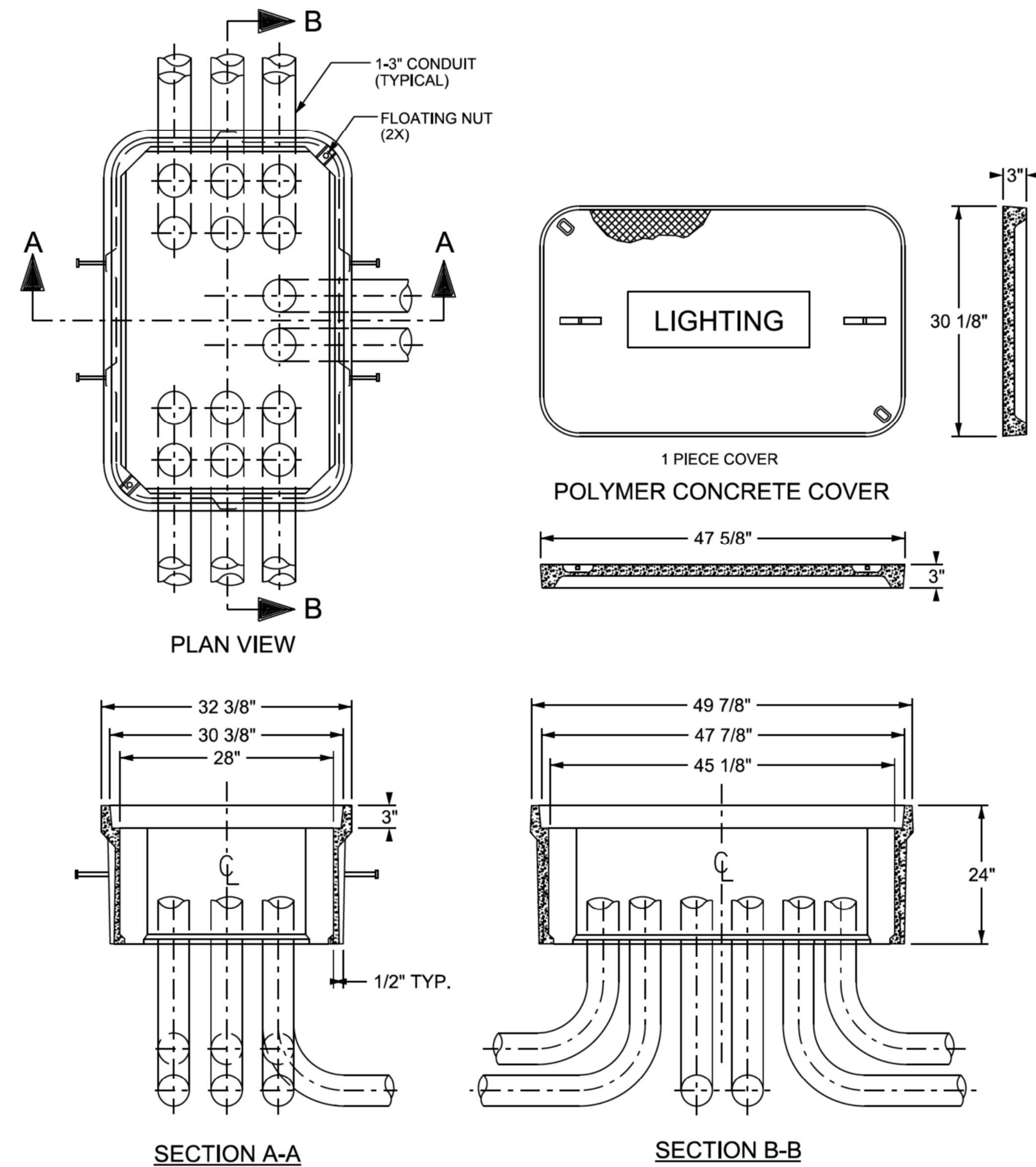
POLYMER CONCRETE MANHOLE ASSEMBLY
30" X 48" X 24" DEEP



ASSEMBLY TO HAVE AN OPEN BOTTOM
LOAD RATING: ANSI TIER 15/22 - 20K POUNDS

NOT TO SCALE

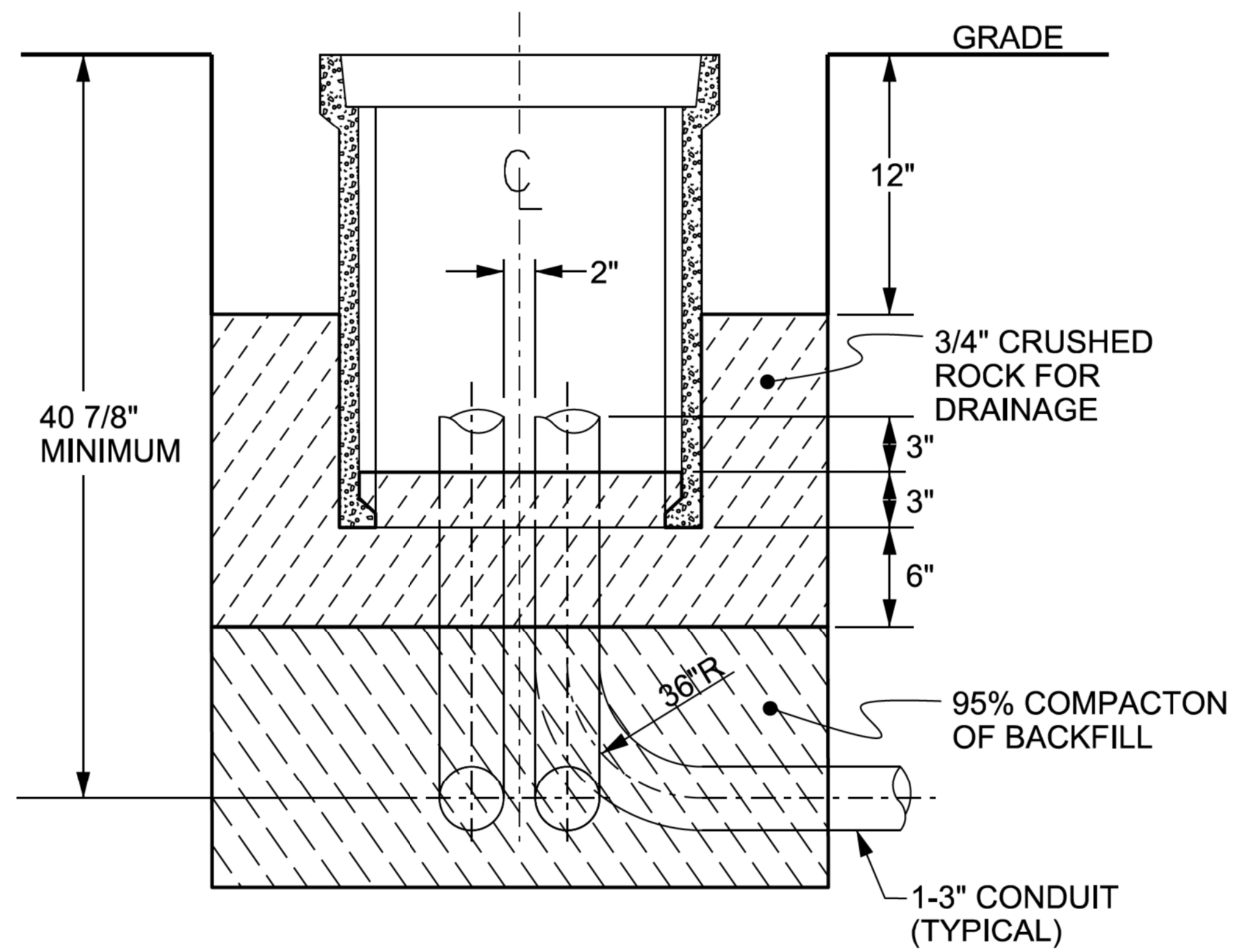
POLYMER CONCRETE MANHOLE ASSEMBLY
30" X 48" X 24" DEEP



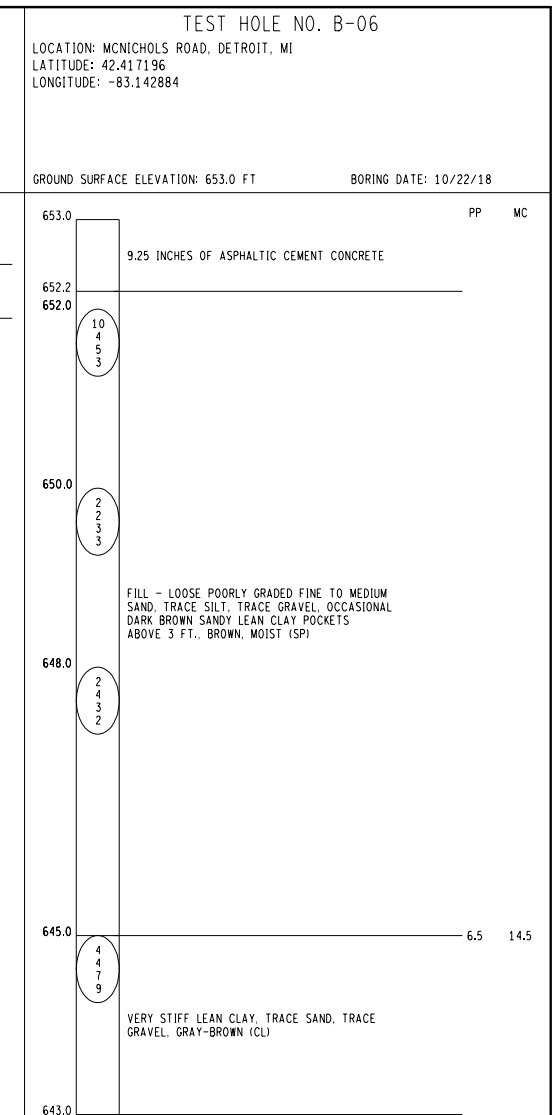
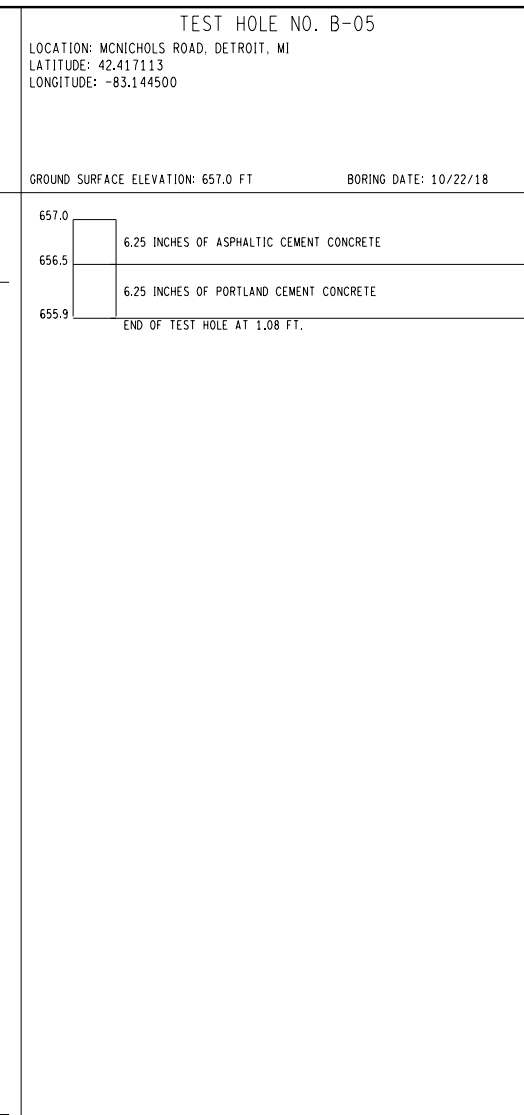
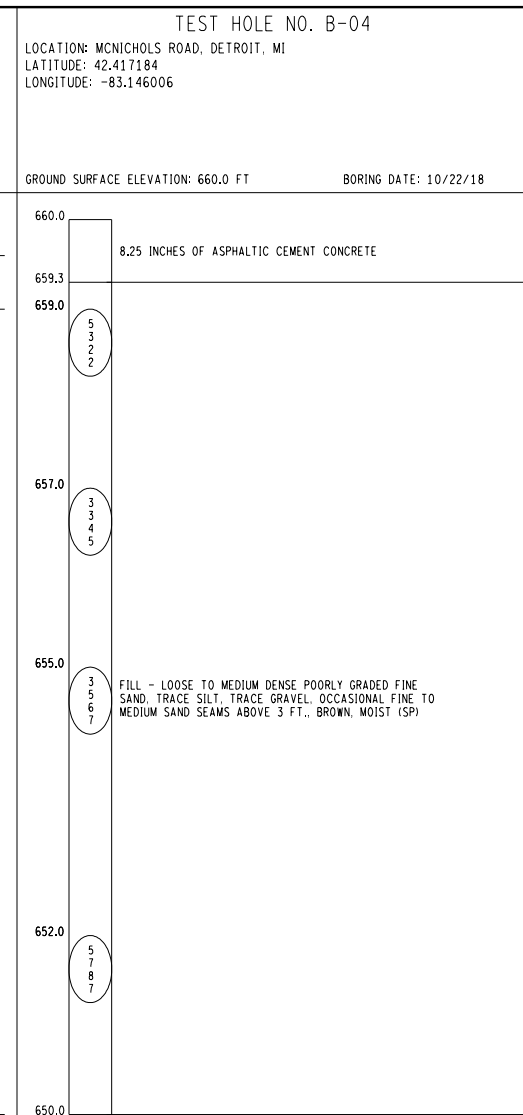
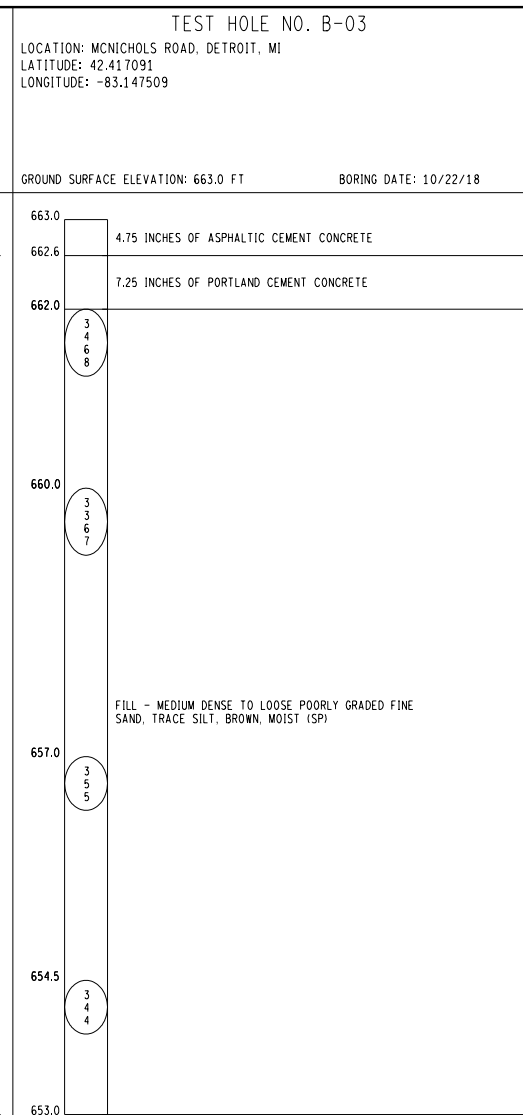
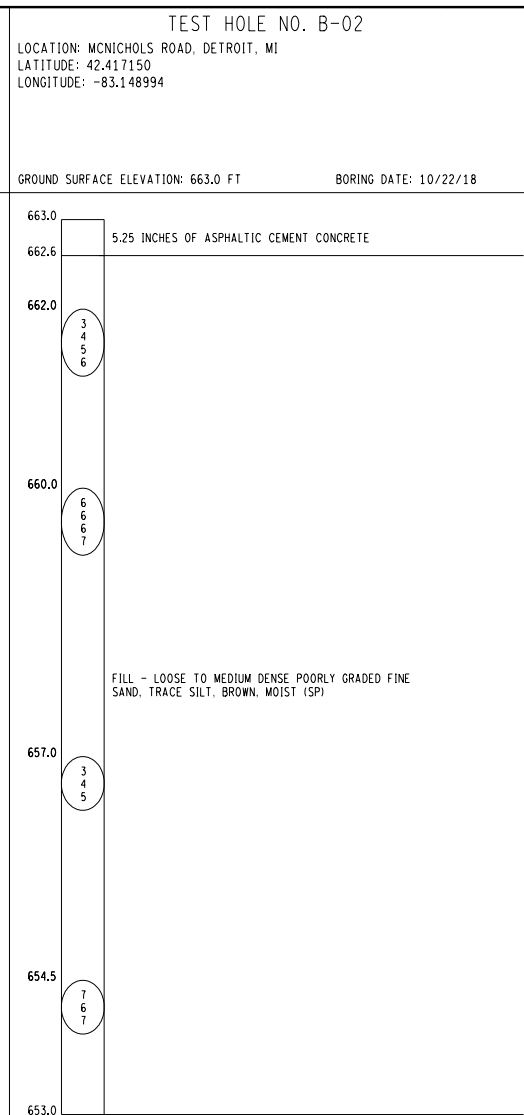
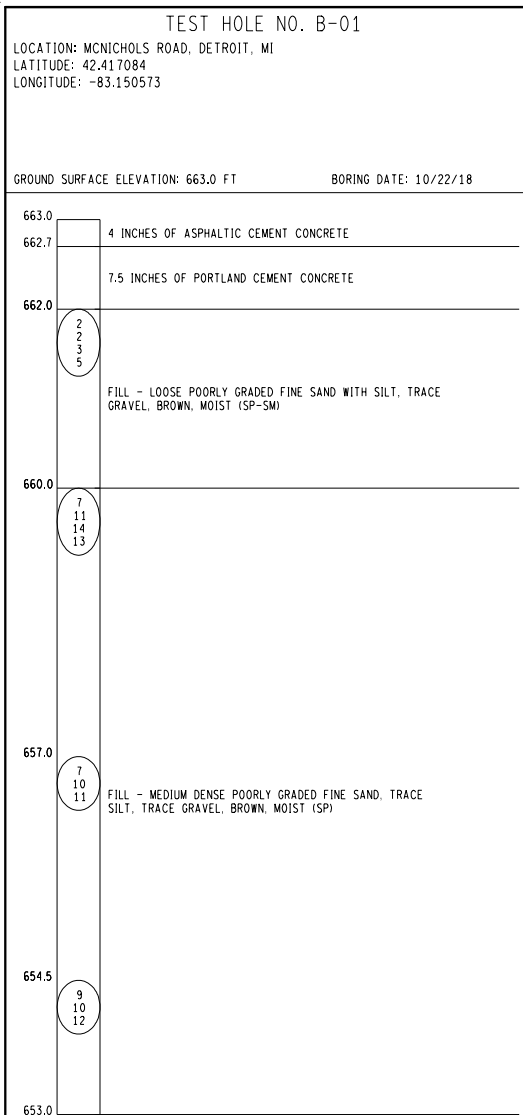
ASSEMBLY TO HAVE AN OPEN BOTTOM
LOAD RATING: ANSI TIER 15/22 - 20K POUNDS

NOT TO SCALE

POLYMER CONCRETE STRUCTURE INSTALLATION



NOT TO SCALE



NOTES:
 - GROUNDWATER LEVEL DURING DRILLING: NOT ENCOUNTERED
 - GROUNDWATER LEVEL UPON COMPLETION: NOT ENCOUNTERED
 - LOGGED BY: H. VERDUCE (SOMAT)
 - CHECKED BY: J. ABADIR (SOMAT)
 - DRILL RIG: CME 45; METHOD: SPT_AUTO
 - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND HAND-HELD GPS UNIT.

LEGEND:
 N_{spt} NUMBERS IN CIRCLES DENOTE NUMBER OF BLOWS REQUIRED TO DRIVE A 2-IN. O.D. X 1.5-IN. I.D. SPLIT SPOON SAMPLER 3 SUCCESSIVE 6-IN. INCREMENTS USING A 140 LB HAMMER FALLING 30 IN. A 4TH 6-IN. INCREMENT IS SHOWN WHERE APPLICABLE.
 (50/4) WHERE IN EXCESS OF 50 BLOWS REQUIRED TO DRIVE THE SAMPLER 6 IN. THE NUMBER OF BLOWS IS SHOWN OVER THE DISTANCE DRIVEN.
 (ST) SHELBY TUBE (DP) DIRECT PUSH
 (VS) VANE SHEAR TEST (HA) HAND AUGER
 (RC) ROCK CORE (NR) NO RECOVERY

PP = POCKET PENETROMETER, UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF)
 UCS = LAB DETERMINED UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF)
 TV = TORVANE SHEAR TEST, UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF)
 MC = MOISTURE CONTENT - (%)
 DD = DRY DENSITY - LBS/CU.FT (PCF)
 DCP = DYNAMIC CONE PENETRATION - (MM/BLOW)
 REC = ROCK CORE RECOVERY (%)
 ROD = ROCK QUALITY DESIGNATION (%)

UNDRAINED SHEAR STRENGTH IS EQUAL TO ONE-HALF OF UNCONFINED COMPRESSIVE STRENGTH. STANDARD PENETRATION TEST (SPT) VALUES ARE UNCORRECTED.
 THE DCP INDEX IS REPORTED AT DEPTHS EXHIBITING DISTINCT CHANGES IN SLOPE ON A PLOT OF CUMULATIVE PENETRATION VS. NUMBER OF BLOWS. EACH DCP INDEX REPRESENTS THE AVERAGE PENETRATION PER BLOW FOR THE SOIL BELOW THAT POINT. 'ETO' = END TEST DEPTH.
 <> = DISTURBED SAMPLE

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) GROUP SYMBOL DETERMINED PER ASTM D2488 (VISUAL-MANUAL) OR ASTM D2487 (STANDARD USCS), WHERE APPLICABLE.
 'PHYSICAL REFERENCE' AND 'PHYSICAL OFFSET' ARE BASED ON EXISTING FEATURES AS OF THE 'BORING DATE':
 E.O.M. = EDGE OF METAL
 B.O.C. = BACK OF CURB
 F.O.B. = FACE OF BARRIER
 C.L. = CENTERLINE

GROUNDWATER LEVELS REPRESENT THE CONDITIONS AT THE TIME THE MEASUREMENTS WERE OBTAINED AND SHOULD BE EXPECTED TO FLUCTUATE THROUGHOUT THE YEAR. GROUNDWATER LEVELS MAY ALSO BE INFLUENCED BY RESIDUAL BORING WATER.
 THE SOIL BORING LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT THE SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF THE BORING.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								DATE: 02/07/20		SOIL BORING LOG SHEET		DRAWING		SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			MCNICHOLS STREETScape		MCN BORING 001		183	
								FILE:		JN: PW-7004					
										MCNICHOLS STREETScape					



NO SCALE

TEST HOLE NO. B-07		TEST HOLE NO. B-08		TEST HOLE NO. B-09		TEST HOLE NO. B-10		TEST HOLE NO. B-11		TEST HOLE NO. B-12					
LOCATION: MCNICHOLS ROAD, DETROIT, MI LATITUDE: 42.417098 LONGITUDE: -83.141525		LOCATION: MCNICHOLS ROAD, DETROIT, MI LATITUDE: 42.417128 LONGITUDE: -83.150596		LOCATION: MCNICHOLS ROAD, DETROIT, MI LATITUDE: 42.417136 LONGITUDE: -83.148984		LOCATION: MCNICHOLS ROAD, DETROIT, MI LATITUDE: 42.417141 LONGITUDE: -83.147391		LOCATION: MCNICHOLS ROAD, DETROIT, MI LATITUDE: 42.417152 LONGITUDE: -83.145992		LOCATION: MCNICHOLS ROAD, DETROIT, MI LATITUDE: 42.417152 LONGITUDE: -83.144528					
GROUND SURFACE ELEVATION: 652.0 FT BORING DATE: 10/22/18		GROUND SURFACE ELEVATION: 663.0 FT BORING DATE: 4/5/19		GROUND SURFACE ELEVATION: 663.0 FT BORING DATE: 4/5/19		GROUND SURFACE ELEVATION: 663.0 FT BORING DATE: 4/5/19		GROUND SURFACE ELEVATION: 660.0 FT BORING DATE: 4/5/19		GROUND SURFACE ELEVATION: 657.0 FT BORING DATE: 4/5/19					
NOTES: - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED - LOGGED BY: H. VERDUCE (SOMAT) - CHECKED BY: J. ABADIR (SOMAT) - DRILL RIG: n/g METHOD: PAVEMENT CORE - DUE TO THE HIGH NUMBER OF UTILITIES IN THE VICINITY OF THE SOIL BORING LOCATION, THE INVESTIGATION DID NOT INCLUDE SOIL BORING, ONLY PAVEMENT CORING. - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND HAND-HELD GPS UNIT.		NOTES: - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED - LOGGED BY: S. WHOOLERY (SOMAT) - CHECKED BY: J. ABADIR (SOMAT) - DRILL RIG: n/g METHOD: PAVEMENT CORE - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND MEASURED OFFSETS.		NOTES: - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED - LOGGED BY: S. WHOOLERY (SOMAT) - CHECKED BY: J. ABADIR (SOMAT) - DRILL RIG: n/g METHOD: PAVEMENT CORE - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND MEASURED OFFSETS.		NOTES: - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED - LOGGED BY: S. WHOOLERY (SOMAT) - CHECKED BY: J. ABADIR (SOMAT) - DRILL RIG: n/g METHOD: PAVEMENT CORE - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND MEASURED OFFSETS.		NOTES: - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED - LOGGED BY: S. WHOOLERY (SOMAT) - CHECKED BY: J. ABADIR (SOMAT) - DRILL RIG: n/g METHOD: PAVEMENT CORE - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND MEASURED OFFSETS.		NOTES: - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED - LOGGED BY: S. WHOOLERY (SOMAT) - CHECKED BY: J. ABADIR (SOMAT) - DRILL RIG: n/g METHOD: PAVEMENT CORE - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND MEASURED OFFSETS.					
N _{spt} NUMBERS IN CIRCLES DENOTE NUMBER OF BLOWS REQUIRED TO DRIVE A 2-IN. O.D. X 1.5-IN. I.D. SPLIT SPOON SAMPLER 3 SUCCESSIVE 6-IN. INCREMENTS USING A 140 LB HAMMER FALLING 30 IN. A 4TH 6-IN. INCREMENT IS SHOWN WHERE APPLICABLE. WHERE IN EXCESS OF 50 BLOWS REQUIRED TO DRIVE THE SAMPLER 6 IN. THE NUMBER OF BLOWS IS SHOWN OVER THE DISTANCE DRIVEN.		(ST) SHELBY TUBE (DP) DIRECT PUSH (VS) VANE SHEAR TEST (HA) HAND AUGER (RC) ROCK CORE (NR) NO RECOVERY		PP = POCKET PENETROMETER, UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF) UCS = LAB DETERMINED UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF) TV = TORVANE SHEAR TEST, UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF) MC = MOISTURE CONTENT - (%) DD = DRY DENSITY - LBS/CU.FT (PCF) DCP = DYNAMIC CONE PENETRATION - (MM/BLOW) REC = ROCK CORE RECOVERY (%) ROD = ROCK QUALITY DESIGNATION (%)		UNDRAINED SHEAR STRENGTH IS EQUAL TO ONE-HALF OF UNCONFINED COMPRESSIVE STRENGTH. STANDARD PENETRATION TEST (SPT) VALUES ARE UNCORRECTED. THE DCP INDEX IS REPORTED AT DEPTHS EXHIBITING DISTINCT CHANGES IN SLOPE ON A PLOT OF CUMULATIVE PENETRATION VS. NUMBER OF BLOWS. EACH DCP INDEX REPRESENTS THE AVERAGE PENETRATION PER BLOW FOR THE SOIL BELOW THAT POINT. 'ETO' = END TEST DEPTH. <> = DISTURBED SAMPLE		UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) GROUP SYMBOL DETERMINED PER ASTM D2488 (VISUAL-MANUAL) OR ASTM D2487 (STANDARD USCS), WHERE APPLICABLE. 'PHYSICAL REFERENCE' AND 'PHYSICAL OFFSET' ARE BASED ON EXISTING FEATURES AS OF THE 'BORING DATE': E.O.M. = EDGE OF METAL B.O.C. = BACK OF CURB F.O.B. = FACE OF BARRIER C.L. = CENTERLINE		HORIZONTAL DATUM: NGS-84 VERTICAL DATUM: NAVD 88		GROUNDWATER LEVELS REPRESENT THE CONDITIONS AT THE TIME THE MEASUREMENTS WERE OBTAINED AND SHOULD BE EXPECTED TO FLUCTUATE THROUGHOUT THE YEAR. GROUNDWATER LEVELS MAY ALSO BE INFLUENCED BY RESIDUAL BORING WATER. THE SOIL BORING LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT THE SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF THE BORING.			
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)				DATE: 02/07/20				SOIL BORING LOG SHEET				DRAWING		SHEET	
NO. DATE AUTH DESCRIPTION				NO. DATE AUTH DESCRIPTION				JN: PW-7004				MCN BORING		184	
								MCNICHOLS STREETScape				002			



NO SCALE

FILE:

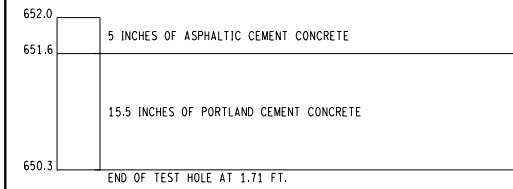
MCNICHOLS STREETScape

184

TEST HOLE NO. B-13

LOCATION: MCNICHOLS ROAD, DETROIT, MI
 LATITUDE: 42.417165
 LONGITUDE: -83.141541

GROUND SURFACE ELEVATION: 652.0 FT BORING DATE: 4/5/19



NOTES:
 - GROUNDWATER LEVEL DURING DRILLING: NOT RECORDED
 - GROUNDWATER LEVEL UPON COMPLETION: NOT RECORDED
 - LOGGED BY: S. WHOOLERY (SOMAT)
 - CHECKED BY: J. ABADIR (SOMAT)
 - DRILL RIG: n/a METHOD: PAVEMENT CORE
 - LOCATIONS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM GOOGLE EARTH SATELLITE IMAGERY AND MEASURED OFFSETS.

N_{spt} NUMBERS IN CIRCLES DENOTE NUMBER OF BLOWS REQUIRED TO DRIVE A 2-IN. O.D. X 1.5-IN. I.D. SPLIT SPOON SAMPLER 3 SUCCESSIVE 6-IN. INCREMENTS USING A 140 LB HAMMER FALLING 30 IN. A 4TH 6-IN. INCREMENT IS SHOWN WHERE APPLICABLE.
 WHERE IN EXCESS OF 50 BLOWS REQUIRED TO DRIVE THE SAMPLER 6 IN. THE NUMBER OF BLOWS IS SHOWN OVER THE DISTANCE DRIVEN.

ST SHELBY TUBE
VS VANE SHEAR TEST
RC ROCK CORE
DP DIRECT PUSH
HA HAND AUGER
NR NO RECOVERY

PP = POCKET PENETROMETER, UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF)
UCS = LAB DETERMINED UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF)
TV = TORVANE SHEAR TEST, UNCONFINED COMPRESSIVE STRENGTH - KIPS/SQ.FT (KSF)
MC = MOISTURE CONTENT - (%)
DD = DRY DENSITY - LBS/CU.FT (PCF)
DCP = DYNAMIC CONE PENETRATION - (MM/BLOW)
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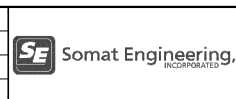
UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) GROUP SYMBOL DETERMINED PER ASTM D2488 (VISUAL-MANUAL) OR ASTM D2487 (STANDARD USCS), WHERE APPLICABLE.

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 C.L. = CENTERLINE
 HORIZONTAL DATUM: NGS-84
 VERTICAL DATUM: NAVD 88

GROUNDWATER LEVELS REPRESENT THE CONDITIONS AT THE TIME THE MEASUREMENTS WERE OBTAINED AND SHOULD BE EXPECTED TO FLUCTUATE THROUGHOUT THE YEAR. GROUNDWATER LEVELS MAY ALSO BE INFLUENCED BY RESIDUAL BORING WATER.

THE SOIL BORING LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT THE SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF THE BORING.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION



NO SCALE

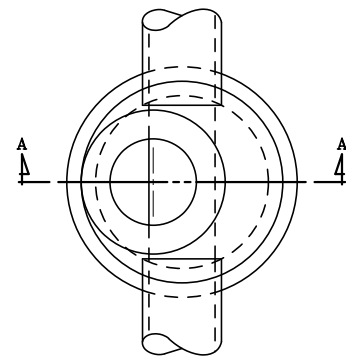
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DATE: 02/07/20

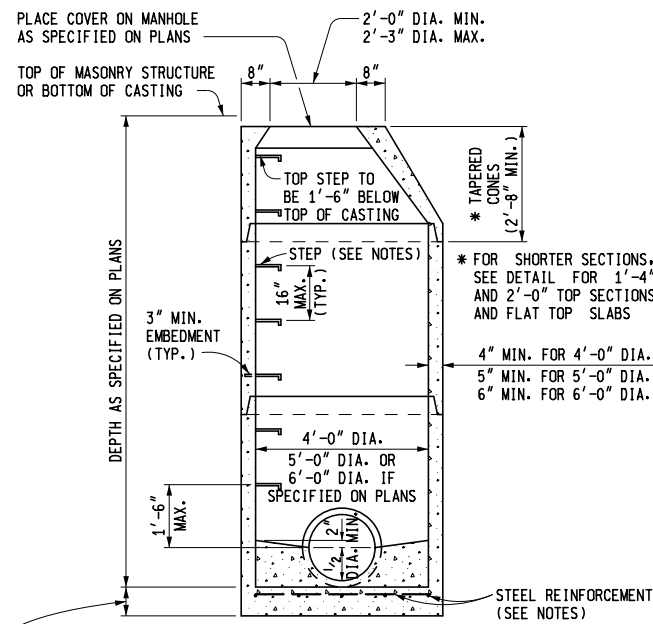
JN: PW-7004
 MCNICHOLS STREETScape

SOIL BORING LOG SHEET
 MCNICHOLS STREETScape

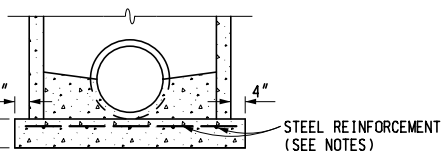
DRAWING SHEET
 MCN BORING 003 185



PLAN VIEW



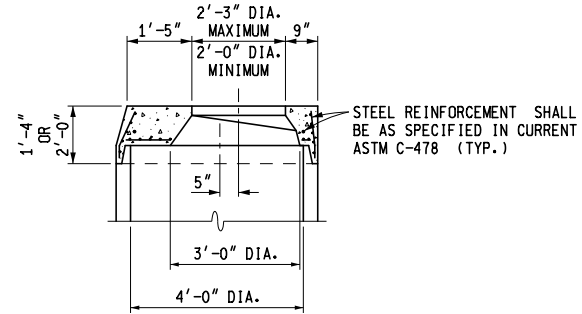
CONCRETE FOOTING SHALL BE 8" THICK FOR DEPTHS TO 25'-0" AND 1'-0" THICK FOR DEPTHS OVER 25'-0"



CONCRETE FOOTING SHALL BE 8" THICK FOR DEPTHS TO 25'-0" AND 1'-0" THICK FOR DEPTHS OVER 25'-0"

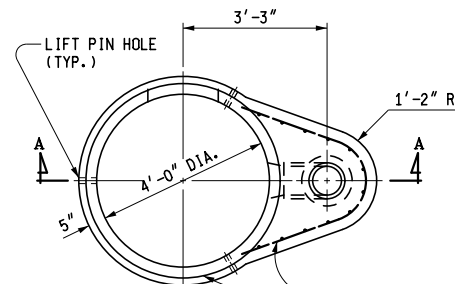
SECTION A - A TYPICAL MANHOLE

PRECAST REINFORCED CONCRETE SHOWN OTHER OPTIONS INCLUDE CONCRETE BLOCK, BRICK, OR CAST-IN-PLACE WALL SECTIONS SEE TYPICAL WALL SECTIONS FOR WALL THICKNESS



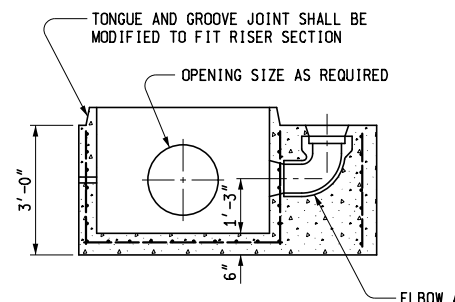
DETAIL FOR 1'-4" & 2'-0" TOP SECTIONS

SHAPE MAY VARY FROM DETAIL SHOWN BUT MUST COMPLY WITH ASTM C-478 AND JOINTS SHALL BE COMPATIBLE WITH THE RISER



SECTION A - A

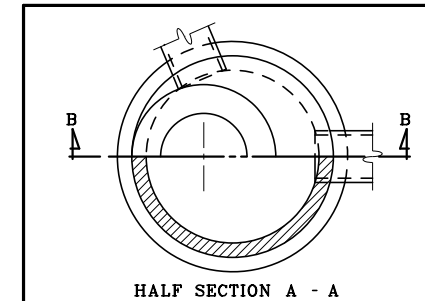
TYPICAL PRECAST REINFORCED BOTTOM SECTION FOR DROP MANHOLE



MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR

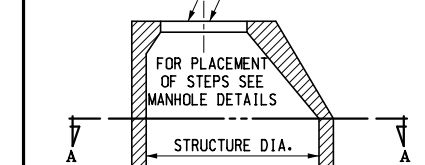
DRAINAGE STRUCTURES

F.H.W.A. APPROVAL 6-15-2016 PLAN DATE R-1-G SHEET 1 OF 9

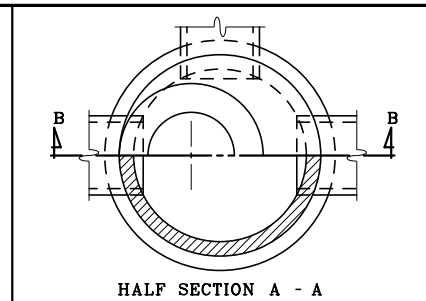


TOP OF MASONRY STRUCTURE OR BOTTOM OF CASTING

PLACE CASTING ON INLET AS SPECIFIED ON PLANS

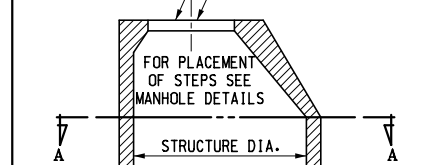


SEE MANHOLE DETAILS FOR SIZE AND BASE OPTIONS SECTION B - B INLET

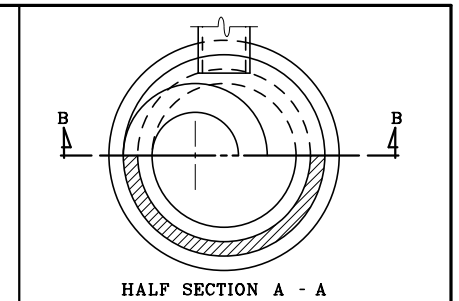


TOP OF MASONRY STRUCTURE OR BOTTOM OF CASTING

PLACE CASTING ON CATCH BASIN AS SPECIFIED ON PLANS

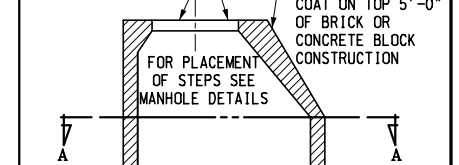


SEE MANHOLE DETAILS FOR SIZE AND BASE OPTIONS SECTION B - B CATCH BASIN

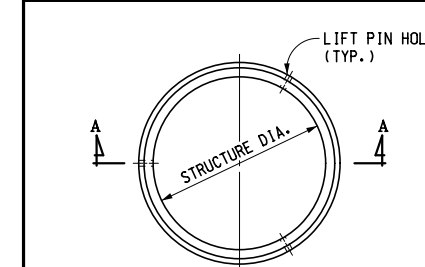


TOP OF MASONRY STRUCTURE OR BOTTOM OF CASTING

PLACE CASTING ON LEACHING BASIN AS SPECIFIED ON PLANS

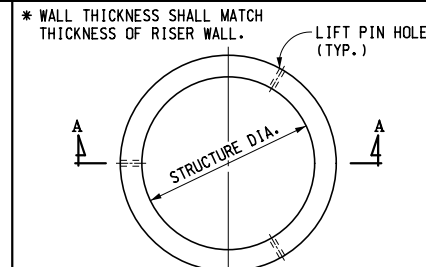


SEE MANHOLE DETAILS FOR BASE OPTIONS SECTION B - B LEACHING BASIN



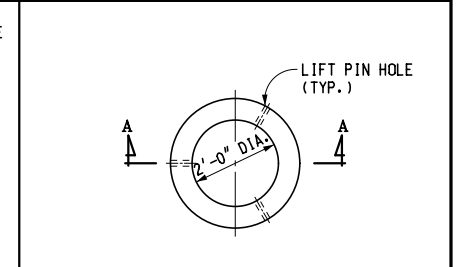
SECTION A - A PRECAST SUMP FOR PRECAST RISERS

SEE MANHOLE DETAILS FOR SIZE AND BASE OPTIONS



SECTION A - A PRECAST SUMP FOR BRICK OR BLOCK CONSTRUCTION

SEE TYPICAL BRICK AND BLOCK SECTION FOR SIZE AND BASE OPTIONS



SECTION A - A PRECAST SUMP FOR 2'-0" DIA. STRUCTURES

SEE TYPICAL BRICK AND BLOCK SECTION FOR SIZE AND BASE OPTIONS

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

F.H.W.A. APPROVAL 6-15-2016 PLAN DATE R-1-G SHEET 2 OF 9



DEPARTMENT DIRECTOR Kirk T. Steudle

APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES

PREPARED BY DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT

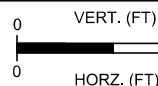
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

F.H.W.A. APPROVAL 6-15-2016 PLAN DATE R-1-G SHEET 1 OF 9

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



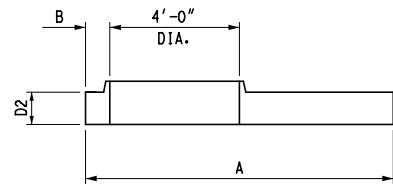
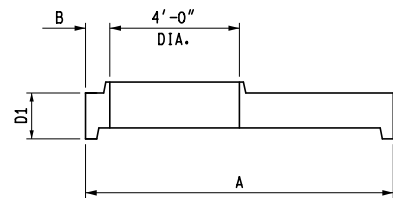
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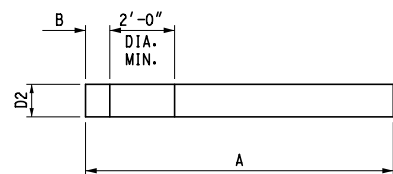
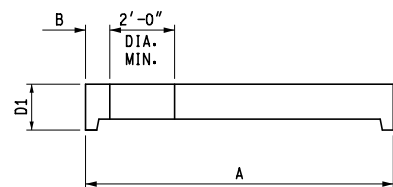
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JN: PW-7004 MCNICHOLS STREETSCAPE

SPECIAL DETAILS MCNICHOLS STREETSCAPE

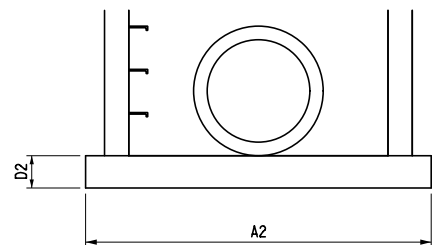
DRAWING SHEET 186



PRECAST REDUCER CAP



PRECAST FLAT SLAB TOP



SEPARATE BASE OPTION

REDUCER CAP DIMENSIONS				
STRUCTURE DIAMETER	CAP DIAMETER "A"	B	CAP DEPTH "D1"	CAP DEPTH "D2"
7'-0"	101 1/2"	8 3/4"	1'-5"	12"
8'-0"	114"	9"	1'-5"	12"
9'-0"	128"	10"	1'-5"	12"
10'-0"	140"	10"	1'-6"	12"

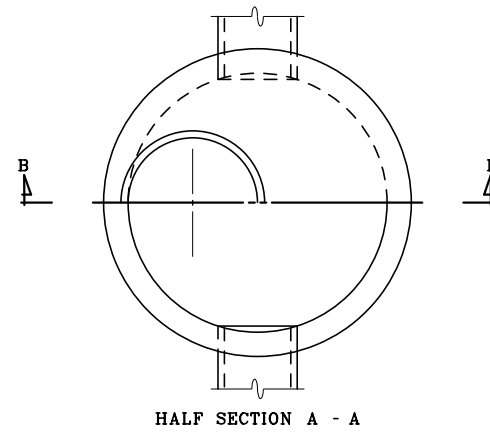
FLAT SLAB TOP DIMENSIONS				
STRUCTURE DIAMETER	COVER DIAMETER "A"	B	COVER DEPTH "D1"	COVER DEPTH "D2"
7'-0"	101 1/2"	8 3/4"	1'-5"	12"
8'-0"	114"	9"	1'-5"	12"
9'-0"	128"	10"	1'-5"	12"
10'-0"	140"	10"	1'-6"	12"

BASE AND RISER DIMENSIONS					
STRUCTURE DIAMETER	BASE DIAMETER "A1"	BASE DIAMETER "A2"	MIN. WALL THICKNESS "T"	BASE DEPTH "D1"	BASE DEPTH "D2"
7'-0"	101 1/2"	108"	7"	8"	12"
8'-0"	114"	128"	8"	8"	12"
9'-0"	128"	140"	9"	8"	12"
10'-0"	140"	154"	10"	8"	12"

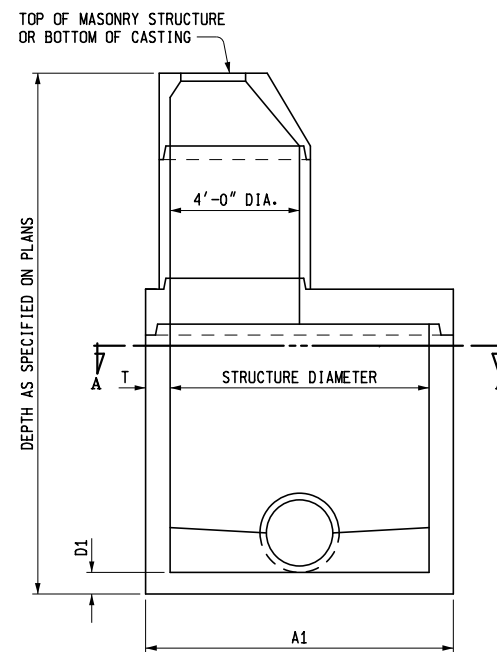
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

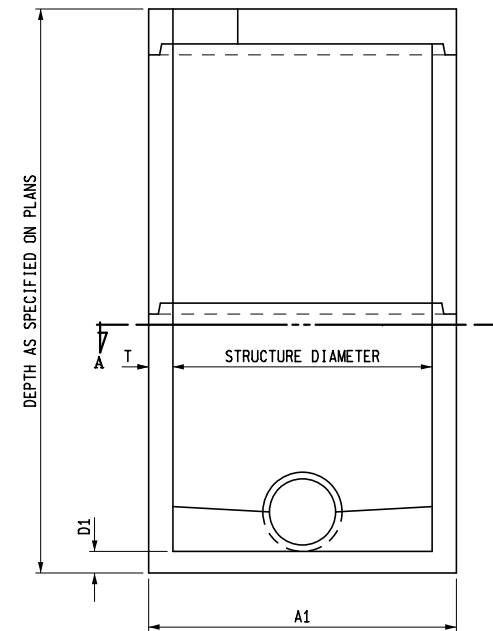
F.H.W.A. APPROVAL	6-15-2016 PLAN DATE	R-1-G	SHEET 5 OF 9
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HALF SECTION A - A



SECTION B - B
SHOWING REDUCER CAP



SECTION B - B
SHOWING FLAT SLAB TOP

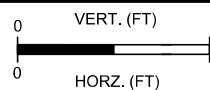
PRECAST MANHOLE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

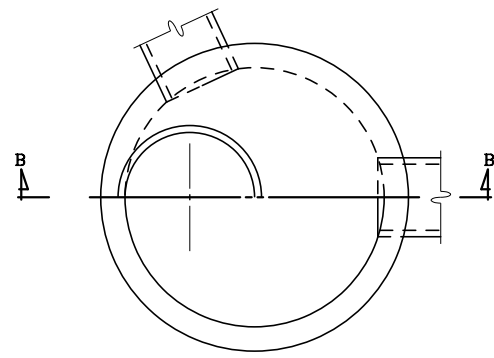
F.H.W.A. APPROVAL	6-15-2016 PLAN DATE	R-1-G	SHEET 6 OF 9
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AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

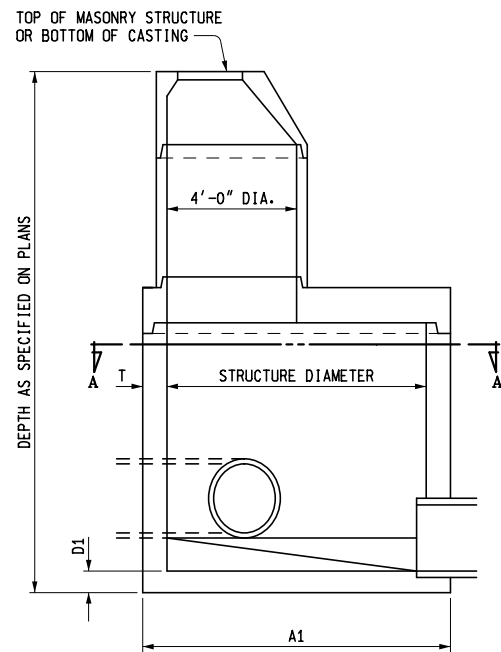


DATE: 02/07/20	CS:
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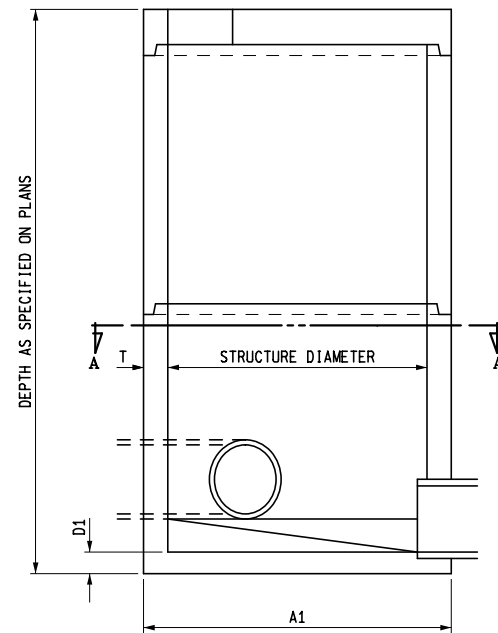
SPECIAL DETAILS		DRAWING	SHEET
MCNICHOLS STREETSCAPE			188



HALF SECTION A - A



SECTION B - B
SHOWING REDUCER CAP



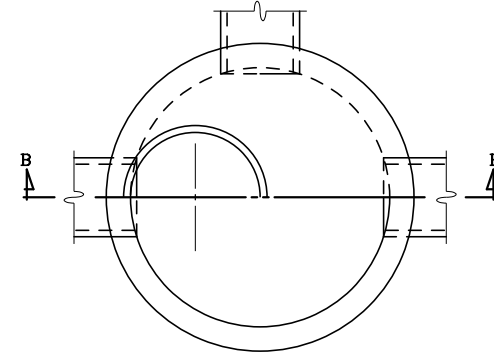
SECTION B - B
SHOWING FLAT SLAB TOP

PRECAST INLET

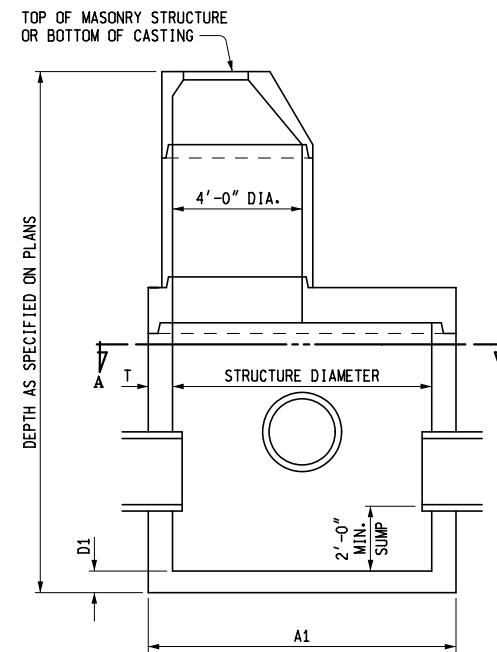
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

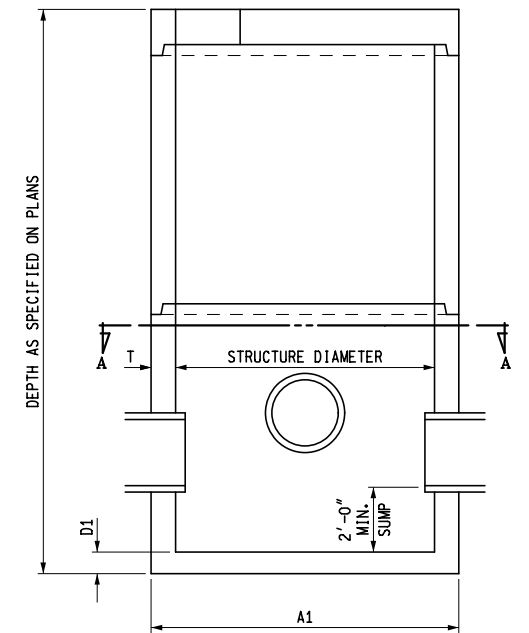
F.H.W.A. APPROVAL	6-15-2016 PLAN DATE	R-1-G	SHEET 7 OF 9
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HALF SECTION A - A



SECTION B - B
SHOWING REDUCER CAP



SECTION B - B
SHOWING FLAT SLAB TOP

PRECAST CATCH BASIN

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

F.H.W.A. APPROVAL	6-15-2016 PLAN DATE	R-1-G	SHEET 8 OF 9
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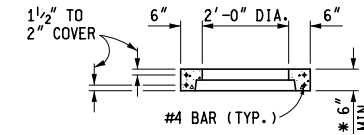
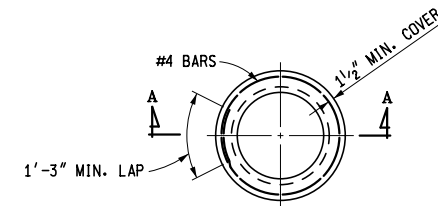
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20	CS:
DESIGN UNIT:	JN: PW-7004 MCNICHOLS STREETSCAPE
FILE:	TSC:

SPECIAL DETAILS	
MCNICHOLS STREETSCAPE	

DRAWING	SHEET
	189



SECTION A - A

* WHEN RISER TONGUE LENGTH IS GREATER THAN 3", USE 2 TIMES THE TONGUE LENGTH.

NOTE: PRECAST RISER SHALL FULLY ENGAGE THE TONGUE OF THE RISER PIPE.

PRECAST RISER RING
(FOR 2'-0" DIAMETER STRUCTURE)

NOTES:

THE DRAINAGE STRUCTURE COVERS ALLOWED FOR USE ON THESE DRAINAGE STRUCTURES ARE SPECIFIED IN SUBSEQUENT STANDARD PLANS AND ARE INTERCHANGEABLE ON ANY STRUCTURE.

THE TOPS OF MASONRY STRUCTURES SHALL BE SUFFICIENTLY LOW TO PERMIT PROPER ADJUSTMENT OF COVER TO GRADE USING MORTAR OR BRICK AS DIRECTED BY THE ENGINEER.

PREMIUM JOINTS ARE REQUIRED ON ALL SANITARY MANHOLES. SEE ASTM DESIGNATION C-923.

GRANULAR MATERIAL CLASS III SHALL BE USED IN BACKFILLING AROUND ALL STRUCTURES THAT FALL WITHIN THE 1:1 INFLUENCE LINES FROM THE EDGE OF PAVEMENT OR BACK OF CURB.

STEPS FOR DRAINAGE STRUCTURES SHALL BE OF AN APPROVED DESIGN AND MADE FROM CAST IRON, ALUMINUM, OR PLASTIC COATED STEEL. RUNGS SHALL BE A MINIMUM OF 10" IN CLEAR LENGTH, DESIGNED TO PREVENT THE FOOT FROM SLIPPING OFF THE END. THE MINIMUM HORIZONTAL PULL OUT LOAD SHALL BE 400 LBS. THE MINIMUM VERTICAL LOAD SHALL BE 800 LBS.

THE BELL SHALL BE REMOVED FOR THE FIRST LENGTH OF OUTLET PIPE PROJECTING THROUGH THE WALL OF THE MANHOLE.

PRECAST CONCRETE SECTIONS, SUMPS, AND FLAT TOP SLABS SHALL BE BUILT ACCORDING TO CURRENT ASTM C-478 AND ACCORDING TO DETAILS SPECIFIED ON THIS PLAN. PRECAST REINFORCED CONCRETE FLAT TOP SLAB SHALL BE MARKED TO SHOW LOCATION OF REINFORCEMENT. THE WALLS OF THE PRECAST UNITS MAY HAVE A SLIGHT TAPER TO ALLOW FOR FORM REMOVAL. PRECAST CONCRETE 2'-0" DIAMETER DRAINAGE STRUCTURES SHALL HAVE A MINIMUM 3" WALL THICKNESS WITH A 6" MINIMUM BEARING SURFACE ON TOP. SEE PRECAST RISER RING FOR 2'-0" DIAMETER STRUCTURE.

THE MAXIMUM INSIDE DIAMETER OF PIPES ENTERING OR LEAVING PRECAST DRAINAGE STRUCTURES SHALL BE 2'-0" LESS THAN THE INSIDE DIAMETER OF THE DRAINAGE STRUCTURE. A PIPE LEAVING A 2'-0" DIAMETER DRAINAGE STRUCTURE IS ALLOWED TO HAVE 1'-0" INSIDE DIAMETER OR LESS.

THE NUMBER OF PIPE OPENINGS IN A RISER SHALL BE DETERMINED BY THE DESIGNER. SPACING BETWEEN OPENINGS SHALL BE 1'-0" MINIMUM. OPENINGS MAY BE CONSTRUCTED BY CASTING OR SCRIBING IN PRECAST STRUCTURES DURING FABRICATION OR BY CORING THE CURED CONCRETE.

PRECAST CONCRETE FOOTINGS OR BASES SHALL BE REINFORCED WITH #4 BARS SPACED AT 1'-0" BOTH WAYS OR WITH TWO LAYERS OF WELDED WIRE FABRIC OF EQUIVALENT CROSS SECTIONAL AREA LAID AT RIGHT ANGLES AND WIRED TOGETHER. REINFORCEMENT SHALL BE PLACED IN TOP OF FOOTING AND SHALL BE MARKED.

PRECAST CONCRETE FOOTINGS SHALL BE SUPPORTED BY A COMPACTED 6" GRANULAR SUBBASE.

THE MINIMUM WALL THICKNESS FOR ALL 2'-0", 4'-0", 5'-0", AND 6'-0" DRAINAGE STRUCTURES USING CONCRETE BLOCK, BRICK, OR CAST-IN-PLACE CONCRETE SHALL BE AS SPECIFIED IN TYPICAL WALL SECTIONS.

THE CONICAL SECTION OF MANHOLES OR CATCH BASINS CONSTRUCTED OF BLOCK OR BRICK SHALL BE SHROUDED WITH GEOTEXTILE FABRIC TO A MINIMUM DEPTH OF 5'-0" OR THROUGH THE FROST ZONE. ENOUGH GEOTEXTILE MATERIAL SHALL BE LEFT ON THE TOP (8" OR MORE) TO ROLL OVER THE TOP OF THE CONE.

PREFORMED HIGH DENSITY POLYSTYRENE FILLER PIECES MAY BE USED TO CHANNEL FLOW IN THE BOTTOM OF MANHOLES PROVIDED THEY HAVE AT LEAST 2" OF CONCRETE COVER. THE USE OF THIS MATERIAL FOR CHANNEL FLOW IS RESTRICTED TO MANHOLES WHERE THE BOTTOM SECTION IS NOT SUBJECT TO FREEZING. THE USE OF THIS MATERIAL MUST BE APPROVED BY THE ENGINEER.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

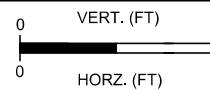
F.H.W.A. APPROVAL	PLAN DATE	SHEET OF
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MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

DRAINAGE STRUCTURES

F.H.W.A. APPROVAL	6-15-2016 PLAN DATE	R-1-G	SHEET 9 OF 9
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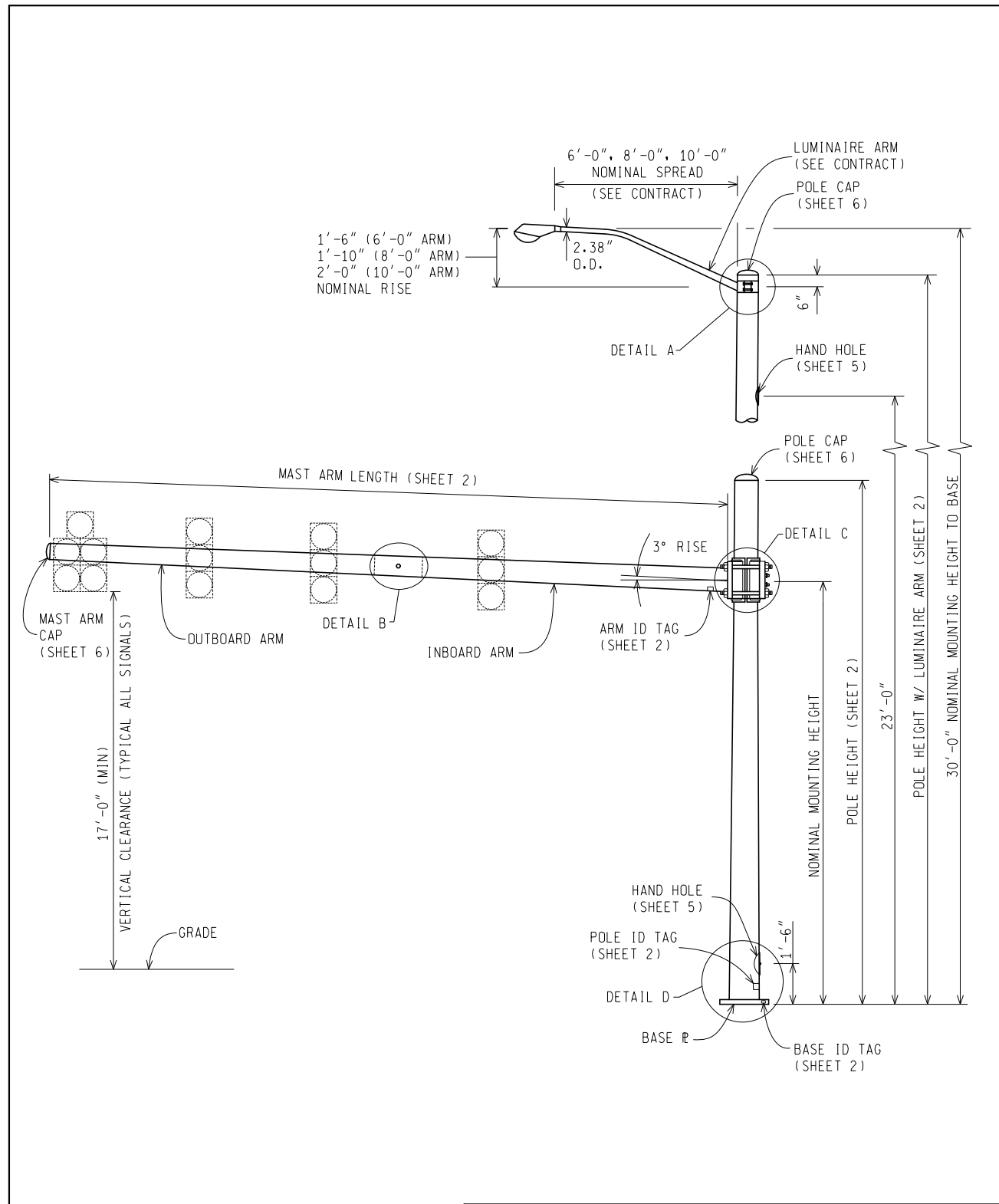
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20	CS:
DESIGN UNIT:	JN: PW-7004 MCNICHOLS STREETSCAPE
TSC:	
FILE:	

DATE: 02/07/20	CS:
DESIGN UNIT:	JN: PW-7004 MCNICHOLS STREETSCAPE
TSC:	
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SPECIAL DETAILS		DRAWING	SHEET
MCNICHOLS STREETSCAPE			190



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MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

**TRAFFIC SIGNAL MAST ARM POLE AND
MAST ARM DETAILS - CATEGORY II**

SIG-031-B SHEET 1 of 6

PREPARED BY
TRAFFIC AND SAFETY

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT

(SPECIAL DETAIL)

FHWA APPROVAL DATE

PLAN DATE

ROUND TAPERED STEEL MAST ARM			
MAST ARM LENGTH	* MAST ARM DIMENSIONS	MTG HT SINGLE	MTG HT TWIN
20'-0"	0.2500"-8.50" x 5.70" x 20'-0"	19'-0"	18'-6" & 21'-0"
25'-0"	0.2500"-9.50" x 6.00" x 25'-0"		
30'-0"	0.2500"-10.50" x 6.30" x 30'-0"		
35'-0"	0.4290"-12.00" x 10.60" x 10'-0"		
40'-0"	0.1793"- ** x 7.50" x **		
45'-0"	0.5000"-12.00" x 9.90" x 15'-0"		
50'-0"	0.1793"- ** x 6.10" x **		
	0.7500"-12.0" x 9.20" x 20'-0"		
	0.1793"- ** x 5.36" x **		

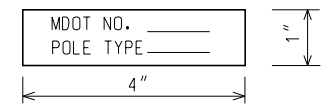
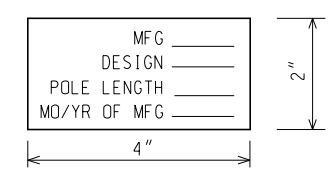
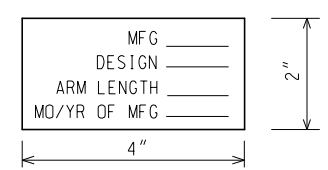
ROUND TAPERED STEEL MAST ARM POLE		
* POLE DIMENSIONS	LUMINAIRE ARM	MAST ARM LENGTH (FT)
0.313"-14.00" x 10.92" x 22'-0"	NO	20, 25
0.313"-14.00" x 9.94" x 29'-0"	YES	30, 35
0.358"-14.00" x 10.92" x 22'-0"	NO	40, 45
0.358"-14.00" x 9.94" x 29'-0"	YES	
0.478"-14.00" x 10.92" x 22'-0"	NO	50
0.478"-14.00" x 9.94" x 29'-0"	YES	

POLE TUBE TAPER IS 0.140 IN/FT
* DIAMETERS GIVEN ARE O.D.
NOTE: ONLY USE THE MAST ARM LENGTHS WITH POLE SIZES AS INDICATED IN TABLE ABOVE

MAST ARM TUBE TAPER IS 0.140 IN/FT
* DIAMETERS GIVEN ARE O.D.
** TO BE DETERMINED BY CONTRACTOR BASED ON REQUIRED MAST ARM LENGTH AND TELESCOPIC SPLICE LENGTH.

NOTES:

- THE DESIGN OF THIS STRUCTURE IS BASED ON THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS FOR 90 MPH WIND LOAD AND CATEGORY II WITH GALLOPING, NATURAL WIND GUSTS, AND TRUCK INDUCED FATIGUE LOADS.
- WELD THE LONGITUDINAL ARM SEAM ON THE INBOARD AND OUTBOARD SECTIONS OF THE TELESCOPIC FIELD SPLICE WITH A COMPLETE JOINT PENETRATION (CJP) WELD A MINIMUM OF 36 INCHES LONG. IN ADDITION, LONGITUDINAL SEAM WELDS MUST BE CJP FOR A MINIMUM OF 6 INCHES FROM TUBE TO PLATE CJP WELDS.
- SEAM WELDS MUST BE 90° ± FROM HAND HOLE AT BASE.
- LUMINAIRE ARM IS 11 GAUGE ROUND STEEL WITH 0.140 INCH PER FOOT TAPER.
- BACKING BAR FOR PIPE TO BASE PLATE (Ø) AND MAST ARM TO MAST ARM PLATE MUST BE MINIMUM 5/16 INCH X 2 INCH PLATE.
- 1/2 INCH DIAMETER (Ø) ROUND STOCK C-HOOK ATTACHED TO ALL POLE SIZES. 3/4 INCH SCHEDULE (SCH.) 40 PIPE ATTACHED TO ALL POLE SIZES AND INBOARD AND OUTBOARD ARM.
- S.S. DENOTES STAINLESS STEEL. GA. DENOTES GAUGE. O.D. DENOTES OUTSIDE DIAMETER. I.D. DENOTES INSIDE DIAMETER. H.S. DENOTES HIGH STRENGTH.



ARM/POLE S.S. ID TAG DETAIL

TO BE ATTACHED TO POLE OR MAST ARM AT LOCATIONS SHOWN 4" FROM BASE OF TUBE BELOW HANDHOLE WITH (4) #8 X 3/8" S.S. TYPE U DRIVE SCREWS. (LETTERS STAMPED IN 3/8" CHARACTERS)

BASE S.S. ID TAG DETAIL

WELD TAG TO EDGE OF BASE Ø (LETTERS STAMPED IN 3/8" CHARACTERS)

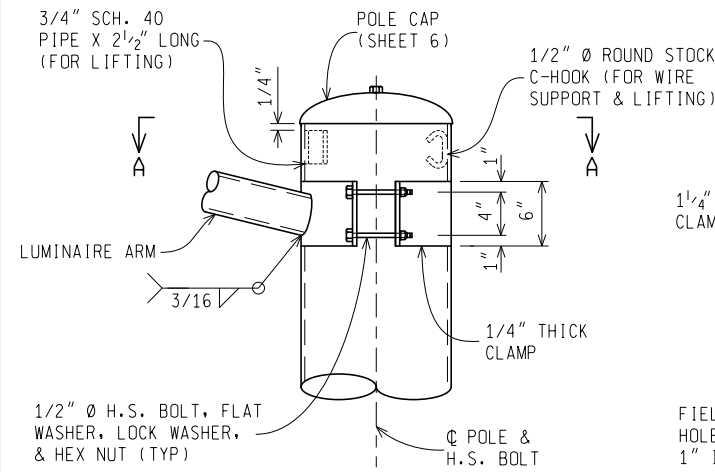
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN

FHWA APPROVAL DATE

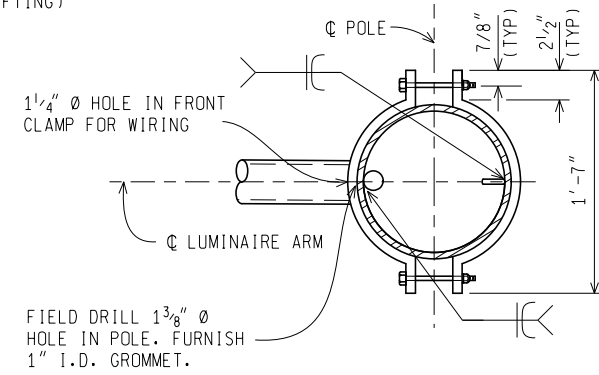
PLAN DATE

SIG-031-B SHEET 2 of 6

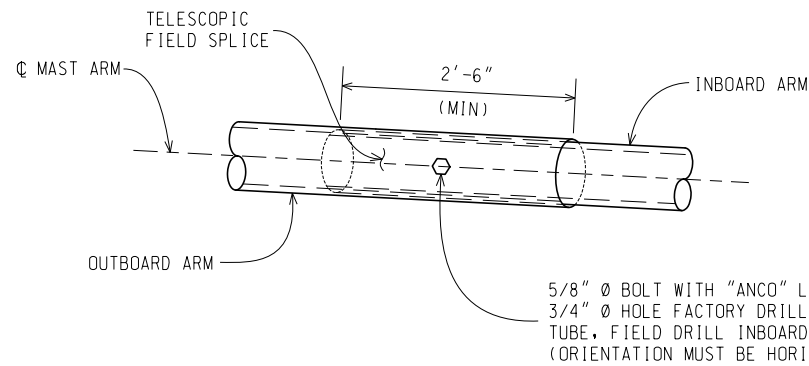


DETAIL A

ORIENTATION OF SCH. 40 PIPE 180° FROM HAND HOLE AT BASE & C-HOOK 180° FROM SCH. 40 PIPE

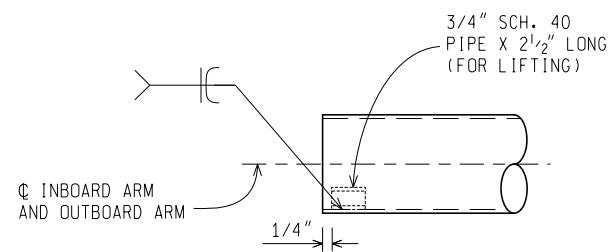


SECTION A-A



DETAIL B

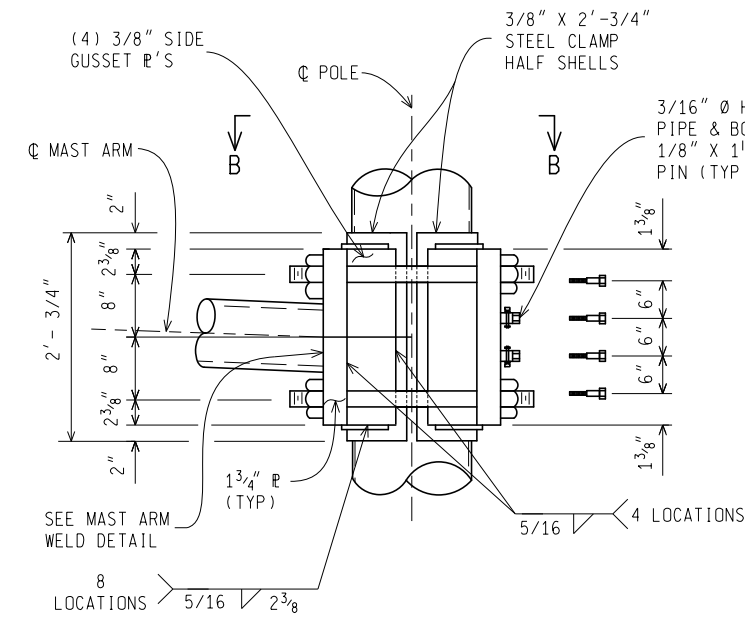
(35'-0" ARMS AND GREATER)



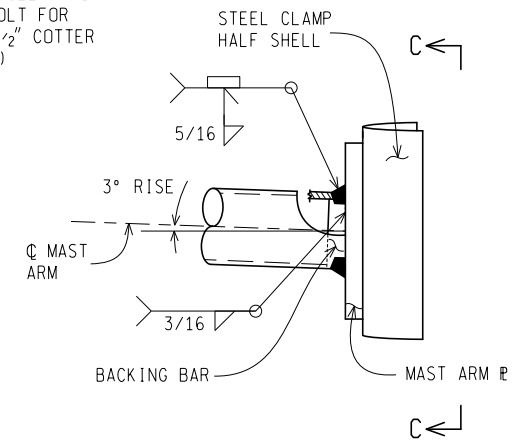
INBOARD/OUTBOARD ARM LIFTING DEVICE

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		FHWA APPROVAL DATE		PLAN DATE	SIG-031-B	SHEET 3 of 6
File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG031B.dgn	Rev. 11/05/18					

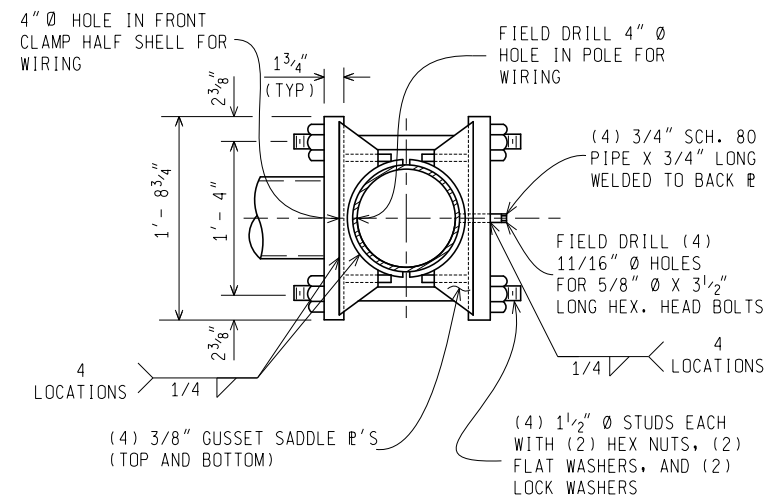


DETAIL C

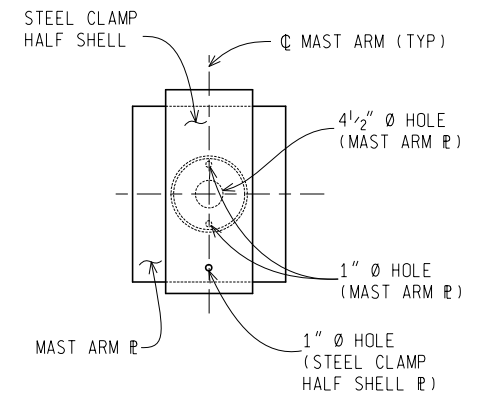


MAST ARM WELD DETAIL

SIDE GUSSET R'S AND SADDLE R'S NOT SHOWN FOR CLARITY



SECTION B-B



SECTION C-C

SIDE GUSSET R'S AND SADDLE R'S NOT SHOWN FOR CLARITY

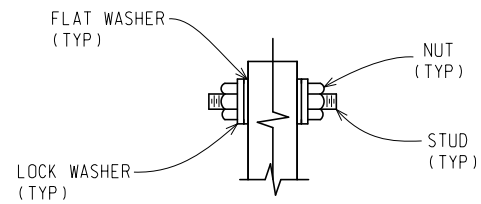
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MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		FHWA APPROVAL DATE		PLAN DATE	SIG-031-B	SHEET 4 of 6
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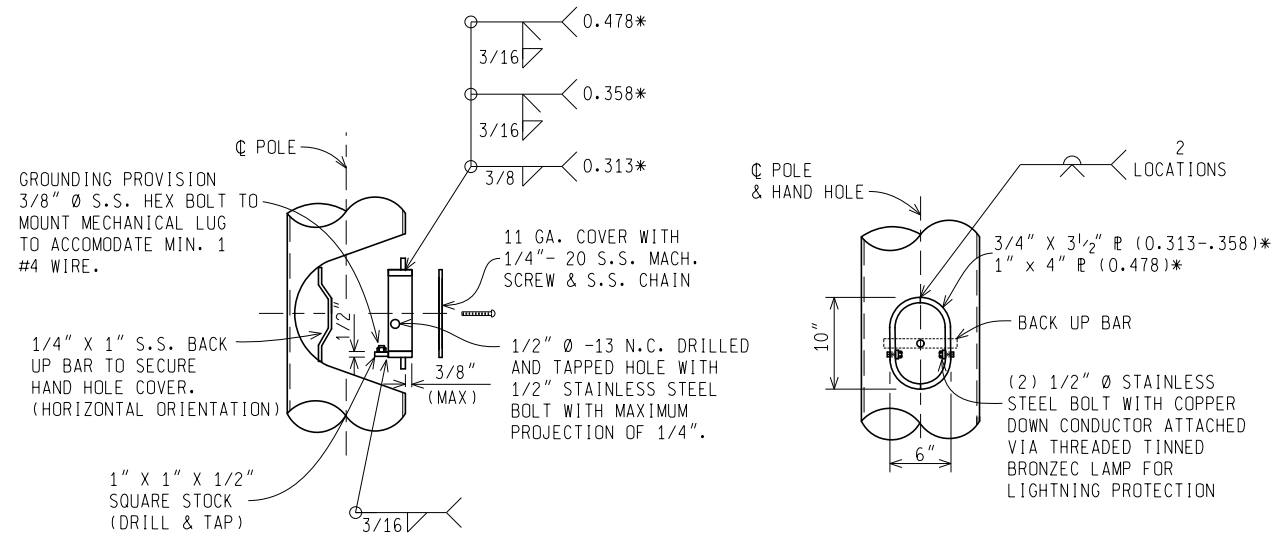
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20	CS:	SPECIAL DETAILS MCNICHOLS STREETScape	DRAWING	SHEET
DESIGN UNIT:	JN: PW-7004 MCNICHOLS STREETScape			
FILE:	TSC:			192



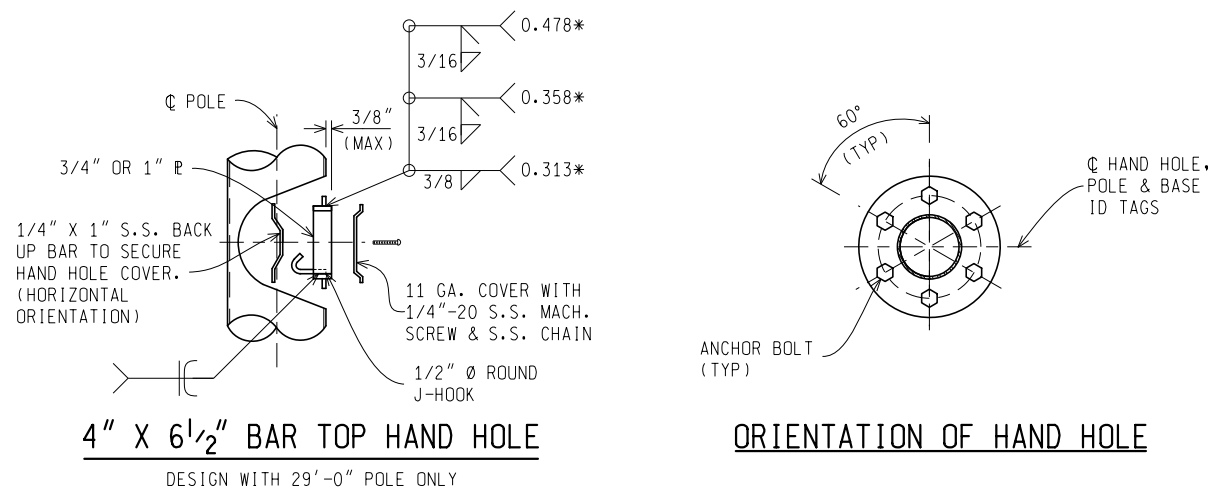
MAST ARM CLAMP WASHER PLACEMENT



6" X 10" BAR BOTTOM HAND HOLE

6" X 10" BAR BOTTOM HAND HOLE

(VIEW ROTATED 90 DEGREES)



4" X 6 1/2" BAR TOP HAND HOLE

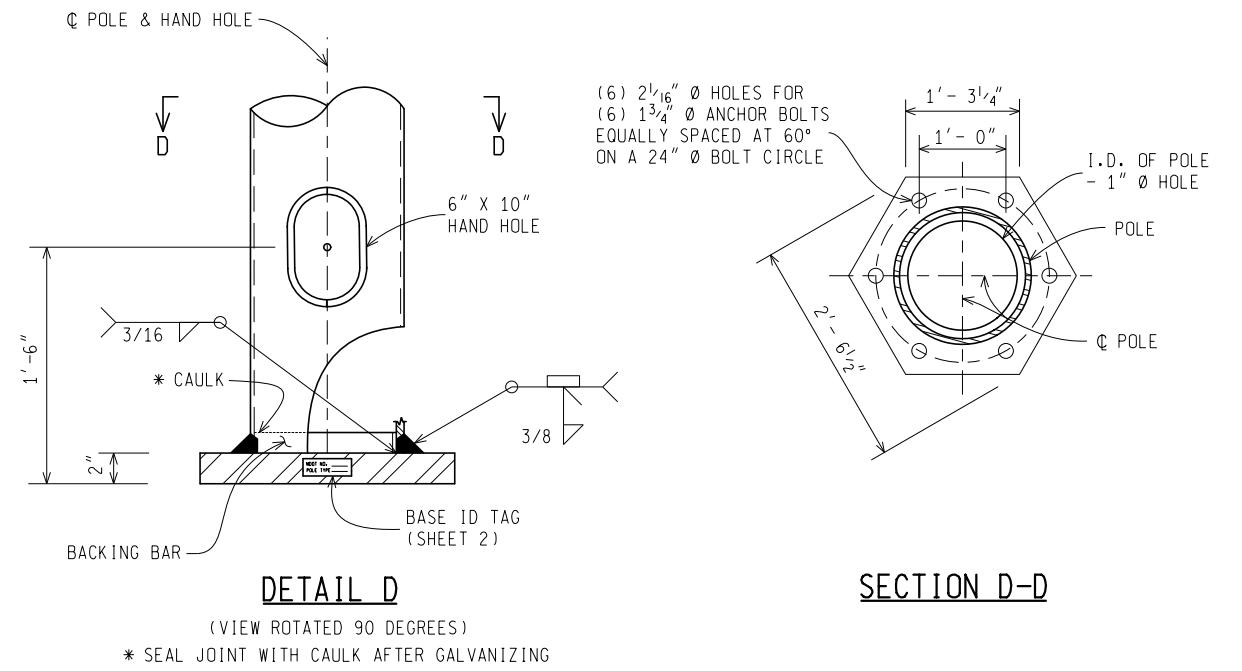
ORIENTATION OF HAND HOLE

DESIGN WITH 29'-0" POLE ONLY

* THICKNESS OF POLE

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		FHWA APPROVAL DATE		PLAN DATE		SIG-031-B		SHEET 5 of 6	
File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG031B.dgn		Rev. 11/05/18							

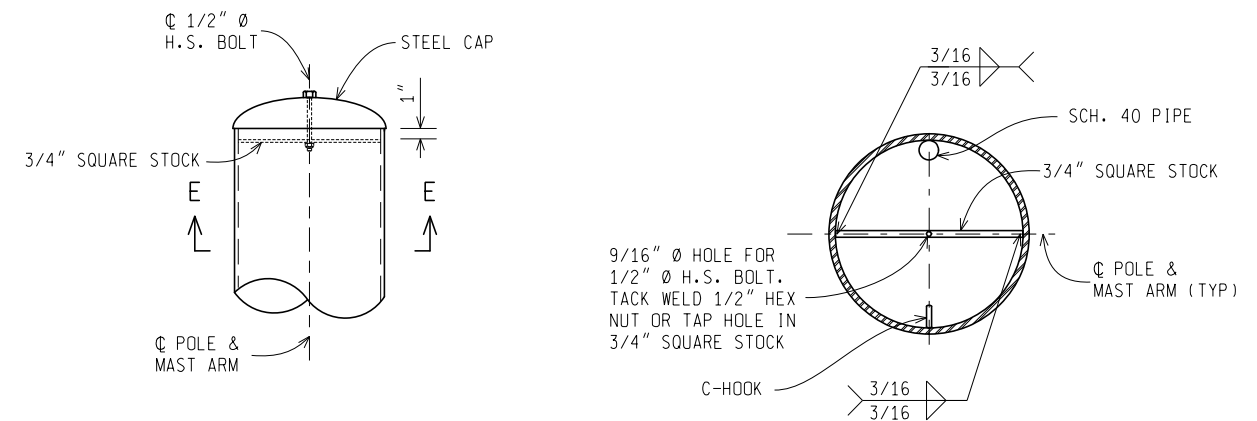


DETAIL D

(VIEW ROTATED 90 DEGREES)

* SEAL JOINT WITH CAULK AFTER GALVANIZING

SECTION D-D



POLE AND MAST ARM CAP DETAIL

SECTION E-E

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN		FHWA APPROVAL DATE		PLAN DATE		SIG-031-B		SHEET 6 of 6	
File: RefDoc/TR/Signals/Web/Sp Det/F in/SIG031B.dgn		Rev. 11/05/18							

AS-LET PLAN REVISIONS

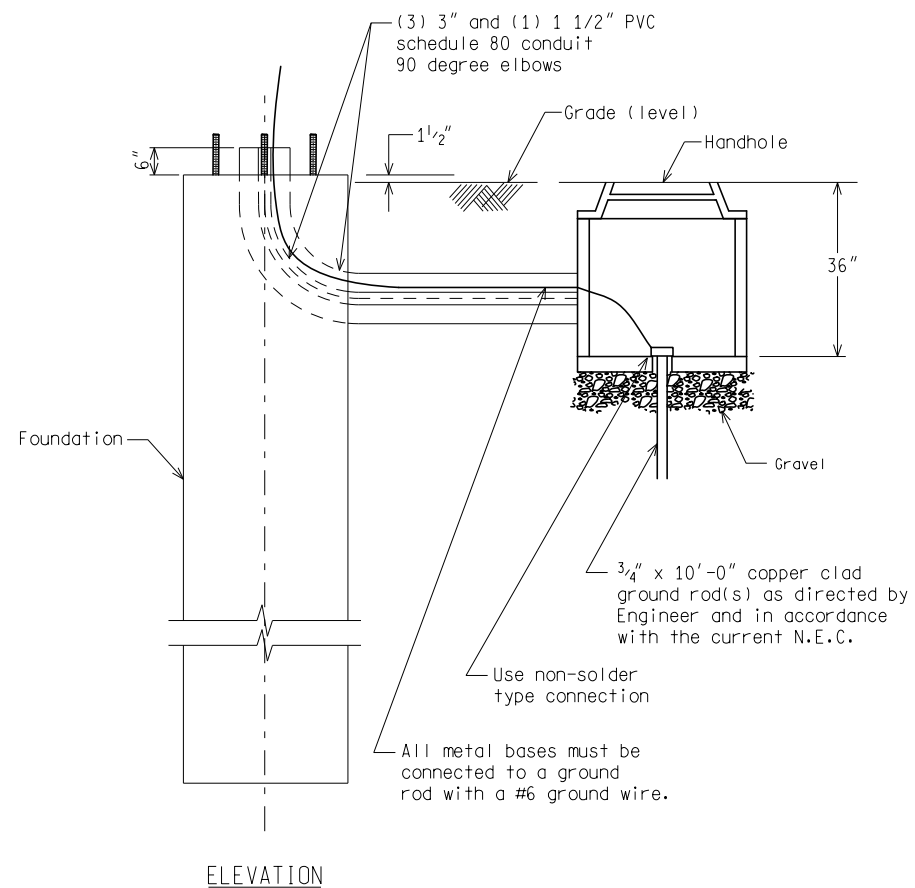
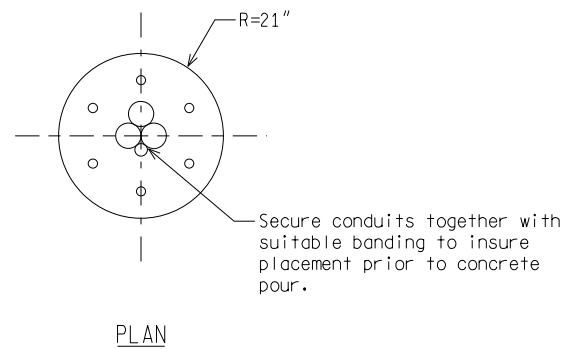
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DATE: 02/07/20	CS:	SPECIAL DETAILS MCNICHOLS STREETSCAPE	DRAWING	SHEET
DESIGN UNIT:	JN: PW-7004 MCNICHOLS STREETSCAPE			
FILE:	TSC:			193

NOTES:

- 1) All ground rods shall be 3/4"x10' copper clad rod a minimum of 2 ground rods shall be used (one for the service disconnect and one for the messenger cable & pole).
- 2) Ground rod placement shall not be less than 12" from the foundation with a minimum of 6' between ground rods. Placement shall be as directed by the Engineer and in compliance with N.E.C.
- 3) Ground wire connection to grounding rod(s) shall utilize a non-solder type connection.
- 4) Indicate the direction of conduits in foundation top with an arrow.
- 5) Install pole that the foundation & anchor bolts are plumb.
- 6) All grounds shall provide less than 10 ohm resistance to ground.



MAST ARM FOUNDATION CONDUIT AND GROUNDING

NOT TO SCALE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG040A.dgn Rev. 02/16/17



PREPARED BY
TRAFFIC AND SAFETY

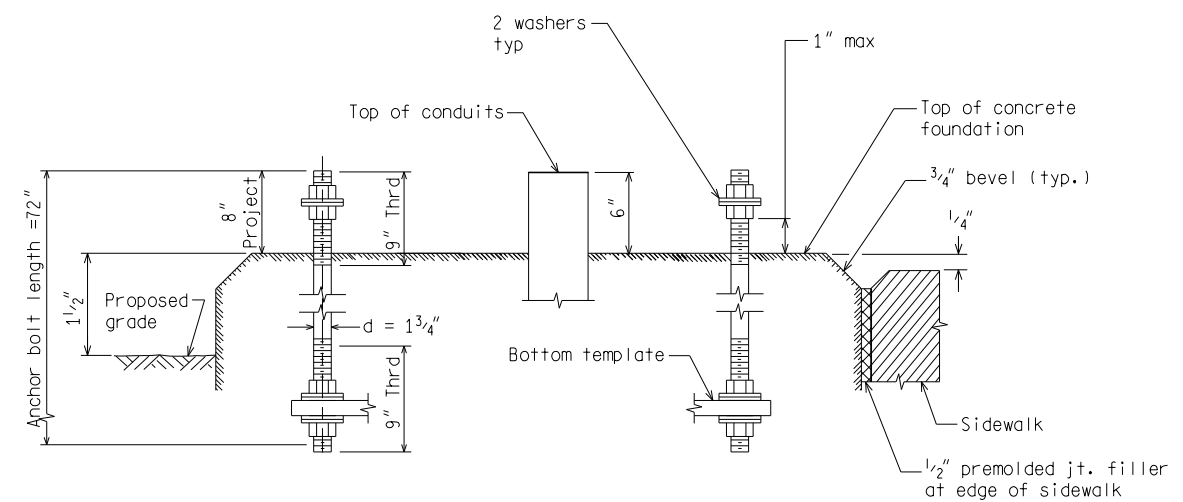
DRAWN BY:
CHECKED BY:

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT
(SPECIAL DETAIL)
FHWA APPROVAL DATE

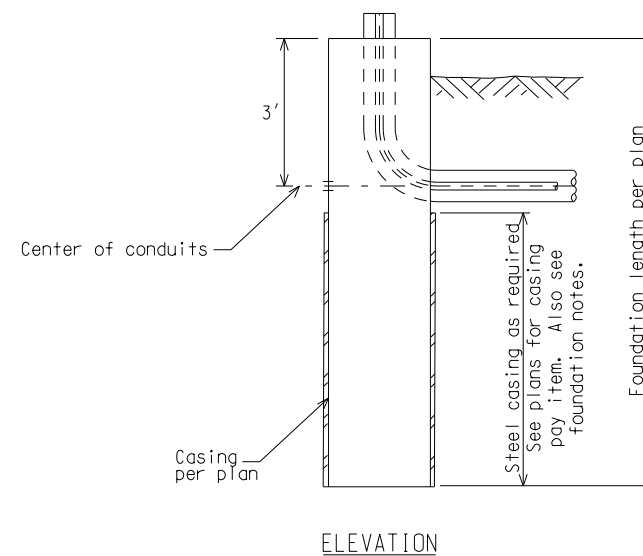
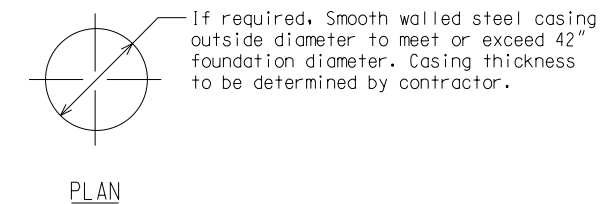
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR
TRAFFIC SIGNAL MAST
ARM STANDARD FOUNDATIONS

PLAN DATE SIG-040-A SHEET 1 of 4



ANCHOR BOLTS

NOTE:
Trench for placement of conduits after casing is in place and before dewatering.



DRILLED FOUNDATION SHAFT (SHOWN WITH CASING PAY ITEM)

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN (SPECIAL DETAIL)
FHWA APPROVAL DATE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG040A.dgn Rev. 02/16/17

PLAN DATE

SIG-040-A

SHEET 2 of 4

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE: 02/07/20

DESIGN UNIT:

TSC:

CS:

JN: PW-7004 MCNICHOLS STREETSCAPE

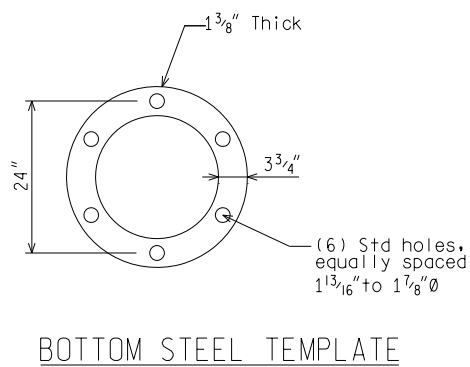
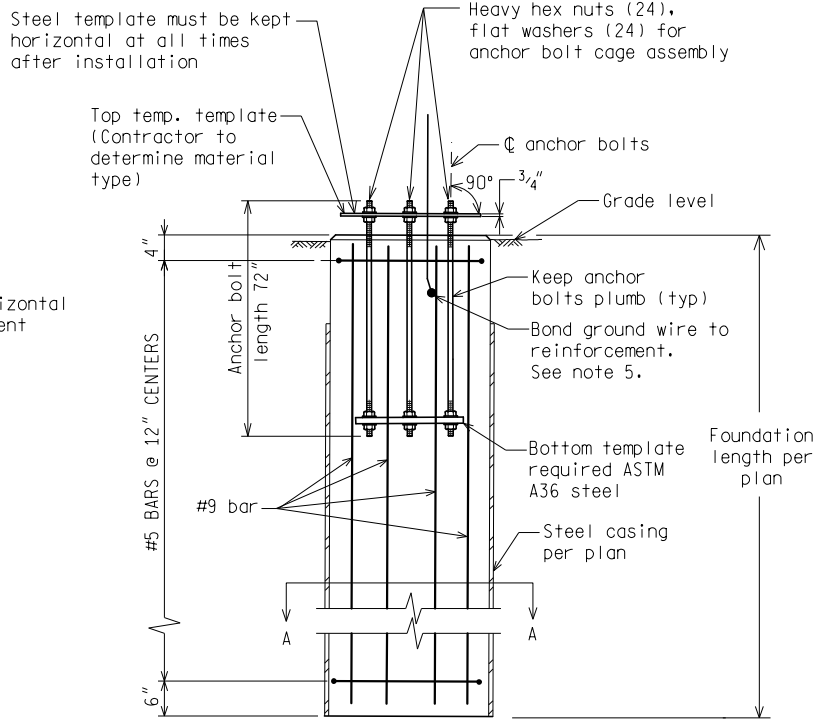
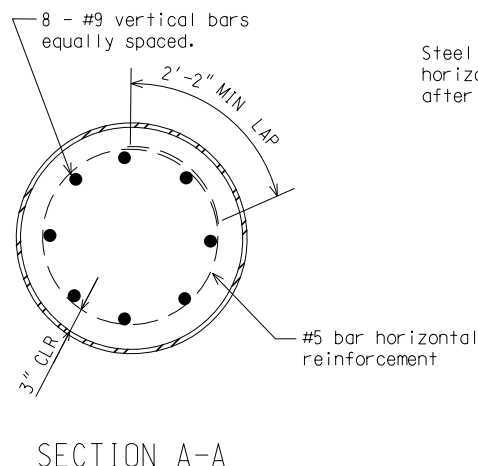
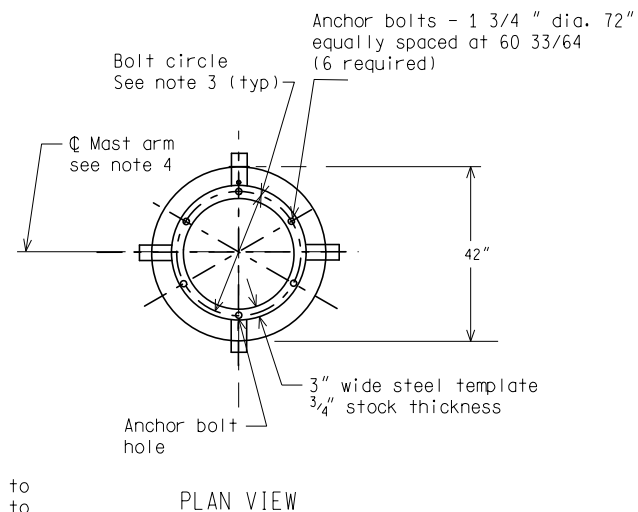
SPECIAL DETAILS
MCNICHOLS STREETSCAPE

DRAWING SHEET

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NOTES:

- Anchor bolts shall be set and held vertical at the correct location and at the proper elevation with a 3/4" steel (or approved equal) template a minimum of 24 hours after the concrete placement has been completed.
- (6) 1 3/4" - 72" Anchor bolts with (4) Hex nuts and (4) washers per bolt.
- 24" dia bolt circle for Category I, Category II, and Category III Mast Arms.
- Mast arm orientation is not dependent on anchor bolt position.
- Use #4 AWG or larger standard bare ground wire bonded by mechanical connection to foundation reinforcing steel and having 24" of slack above the top of foundation.
- Galvanize all exposed nuts, bolts, and washers according to ASTM F2329. Galvanize all other steel items according to ASTM A123. Embedded nuts, bolts, washers, and steel ring need not be galvanized.



MAST ARM FOUNDATION (SHOWN WITH CASING PAY ITEM)

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	SIG-040-A	SHEET 3 of 4
File: RefDoc/TR/Signals/Web/Sp Def/F in/SIG040A.dgn Rev. 02/16/17				

Foundation Notes:

- Refer to the following special provisions related to 6 anchor bolt mast arm poles:
Traffic Signal Mast Arm Pole and Mast Arm Mast Arm Pole Foundation and Anchor Bolts Casing Used With Strain Poles and Mast Arm Poles
- Templates shall be shop fabricated and assembled prior to being approved by MDOT for shipping.
- Diameter of bolt holes in template shall be 1/16" larger than anchor bolt diameter.
- Conduits and anchor bolts shall be rigidly installed before concrete is placed. The center of the template shall coincide with the center of the foundation. The template and handles shall be well supported, horizontally level and firmly anchored in place a minimum of 24 hours after the concrete placement is completed.
- Due care shall be taken during the concrete placement to avoid displacing the anchor bolts.
- No hammering on the anchor bolts or template will be allowed.
- After template is removed, thread nuts on to the bolt flush with the bolt end to protect threads until signal support is erected.
- For anchor bolt material refer to section 908.14 A and B of the Michigan Standard Specifications for Construction. For anchor bolt installation and tightening refer to section 810.03 N.
- Dewatering of wet shafts is not allowed. A wet shaft is defined as having more than 3 inches of standing water or as having water infiltrating at a rate equal to or exceeding 12 inches per hour. For wet shafts, concrete is to be placed in accordance with section 718.03. (wet construction method) with a tremie tube or concrete pump beginning at the shaft bottom. Grade T concrete must be used for underwater placement. Grade S2 may be used in dry excavations only. See MDOT standard specifications Tables 701-1A and 701-1B (Concrete Structure Mixtures).
- Per MDOT standard specifications 718.02, the Grade S2 acceptable slump range is 6-8 inches. The Grade T acceptable slump range is 7-9 inches.
- If soil conditions indicate there is no need for a casing pay item as shown on the plans, the contractor should request permission of the engineer to install the foundation without casing.
- When the casing pay item is included on the plans for a foundation (due to granular soils or a wet hole), steel casing (smooth walled) is to be installed to enable the foundation to be poured. The thickness of the steel is to be determined by the contractor. The steel casing shall be left in place. A suitable method of compaction must be employed to ensure the soil immediately outside the casing is compacted properly.
- When the casing pay item is called for on the plans, the steel casing may stop at the conduit entrance to foundation. Top of foundation must then be formed separately. The casing pay item quantity will be paid for based on actual linear feet installed.
- Construct mast arm foundations, according to subsections 718.03 of the Standard Specifications for Construction. All work and materials shall be in accordance with the MDOT Standard Specifications.
- Steel reinforcement shall be ASTM A615 grade 60 without epoxy coating.
- Exposed concrete surfaces shall be cast in forms. Exposed concrete edges shall be beveled 3/4".
- Steel reinforcement shall have a clear cover of 3 inches unless noted otherwise. Steel Reinforcement may be adjusted to ensure proper clear cover.
- Grounding of pole includes adding #4 bare copper ground wire bonded by mechanical connection to foundation reinforcing steel and having 24" of slack above the top of foundation.

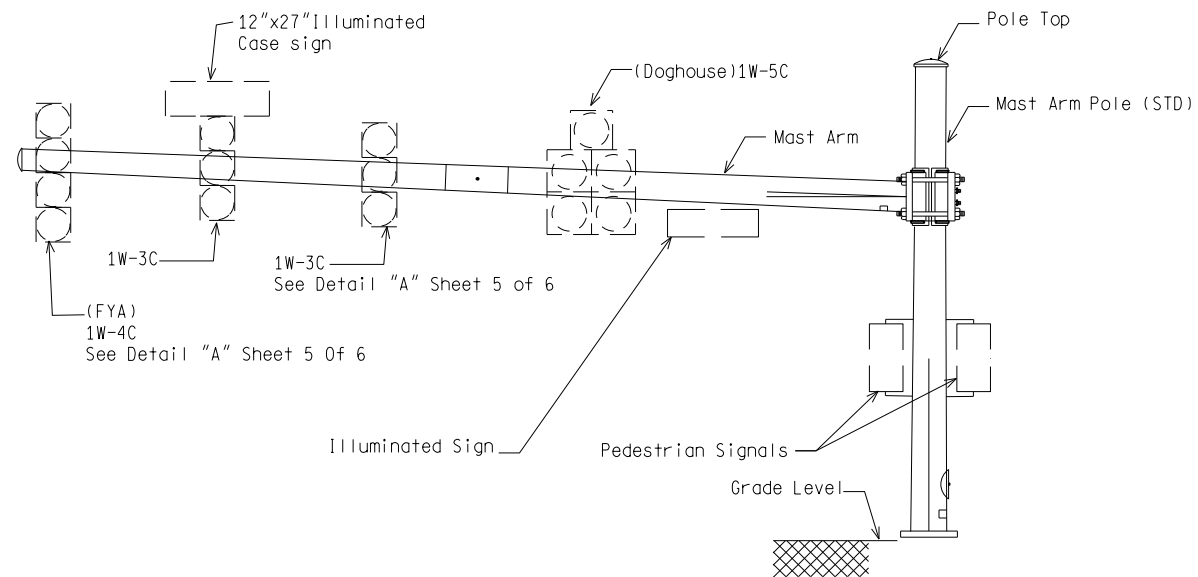
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	SIG-040-A	SHEET 4 of 4
File: RefDoc/TR/Signals/Web/Sp Def/F in/SIG040A.dgn Rev. 02/16/17				

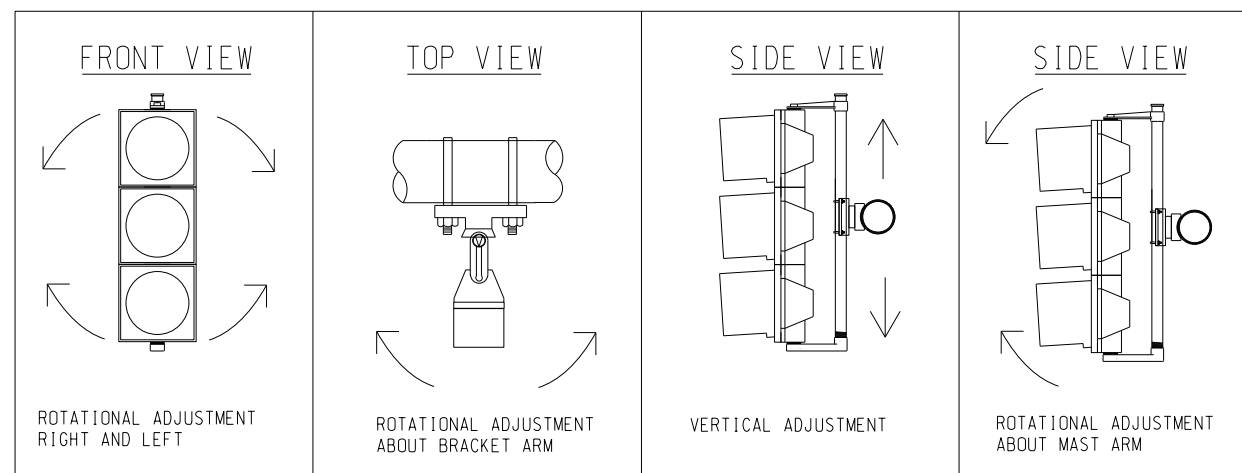
AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20	CS:	SPECIAL DETAILS MCNICHOLS STREETScape	DRAWING	SHEET
DESIGN UNIT:	JN: PW-7004 MCNICHOLS STREETScape			195
FILE:	TSC:			



TYPICAL SIGNAL DISPLAYS



SIGNAL HEAD BRACKET ADJUSTMENT

NOT TO SCALE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG301A.dgn Rev. 02/16/17



PREPARED BY
TRAFFIC AND SAFETY

DRAWN BY: JEV

CHECKED BY:

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT

(SPECIAL DETAIL)
FHWA APPROVAL DATE

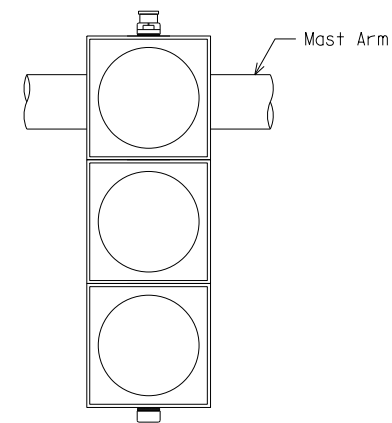
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

MAST ARM MOUNTED
T.S. BRACKET ASSEMBLY

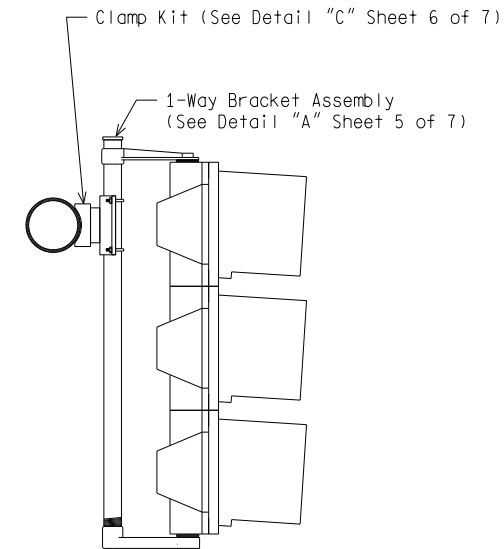
PLAN DATE

SIG-301-A

SHEET
1 of 7

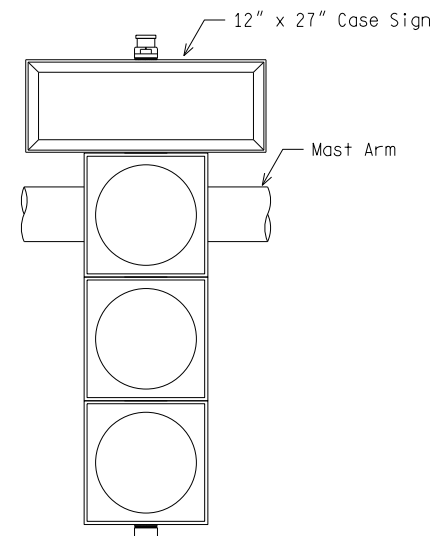


FRONT VIEW

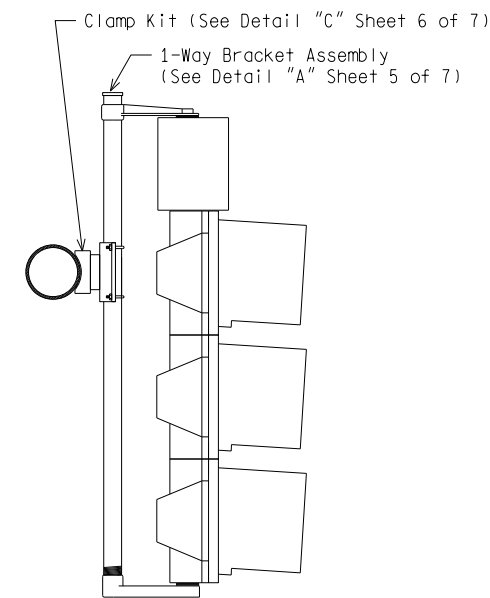


SIDE VIEW

1W-3C



FRONT VIEW



SIDE VIEW

1W-3C With 12" x 27" Case Sign

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN

(SPECIAL DETAIL)
FHWA APPROVAL DATE

File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG301A.dgn Rev. 02/16/17

PLAN DATE

SIG-301-A

SHEET
2 of 7

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE:

DESIGN UNIT:

TSC:

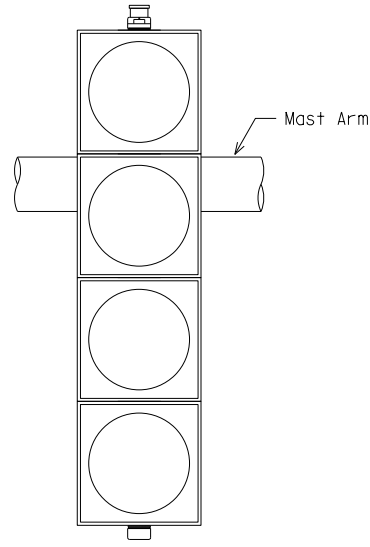
CS:

JN:

SPECIAL DETAILS
MCNICHOLS STREETSCAPE

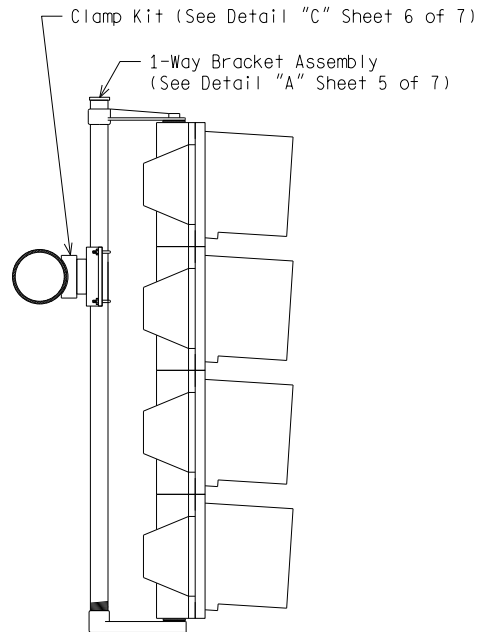
DRAWING SHEET

196

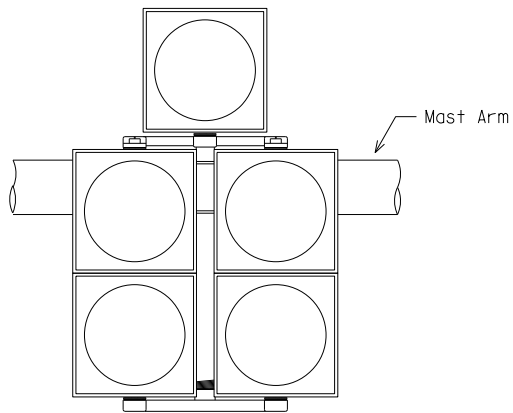


FRONT VIEW

1W-4C (FYA)

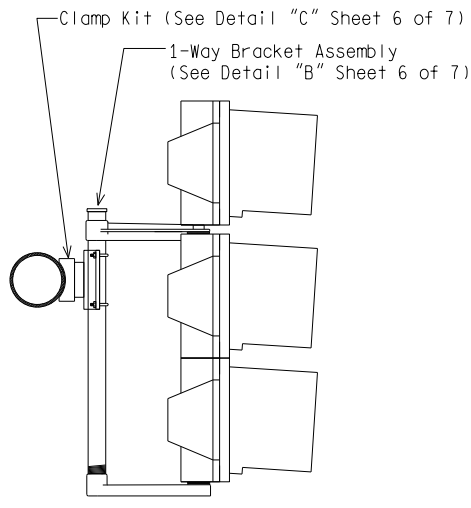


SIDE VIEW



FRONT VIEW

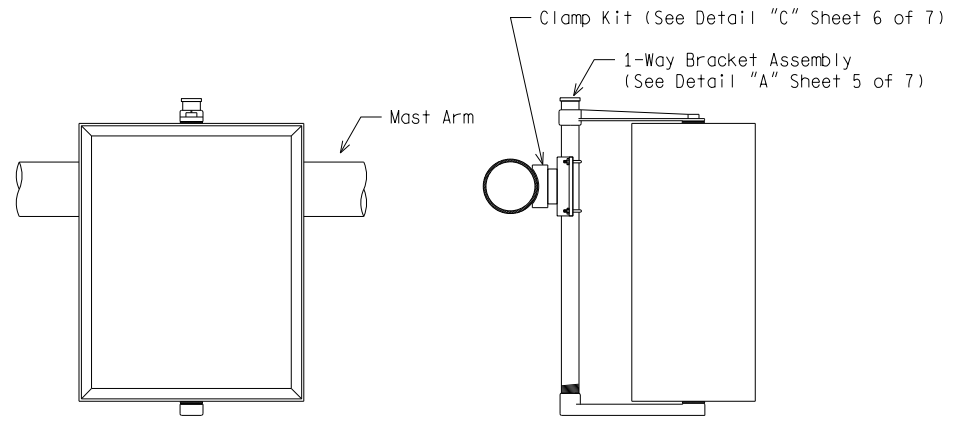
1W-5C (Doghouse)



SIDE VIEW

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	SIG-301-A	SHEET 3 of 7
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG301A.dgn Rev. 02/16/17				



FRONT VIEW

SIDE VIEW

1W-Case Sign (24" x 30" Shown)

NOT TO SCALE

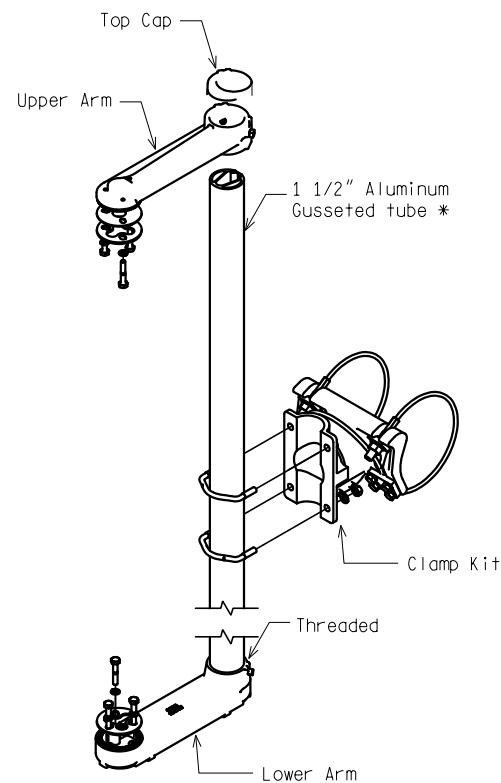
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File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG301A.dgn Rev. 02/16/17				

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

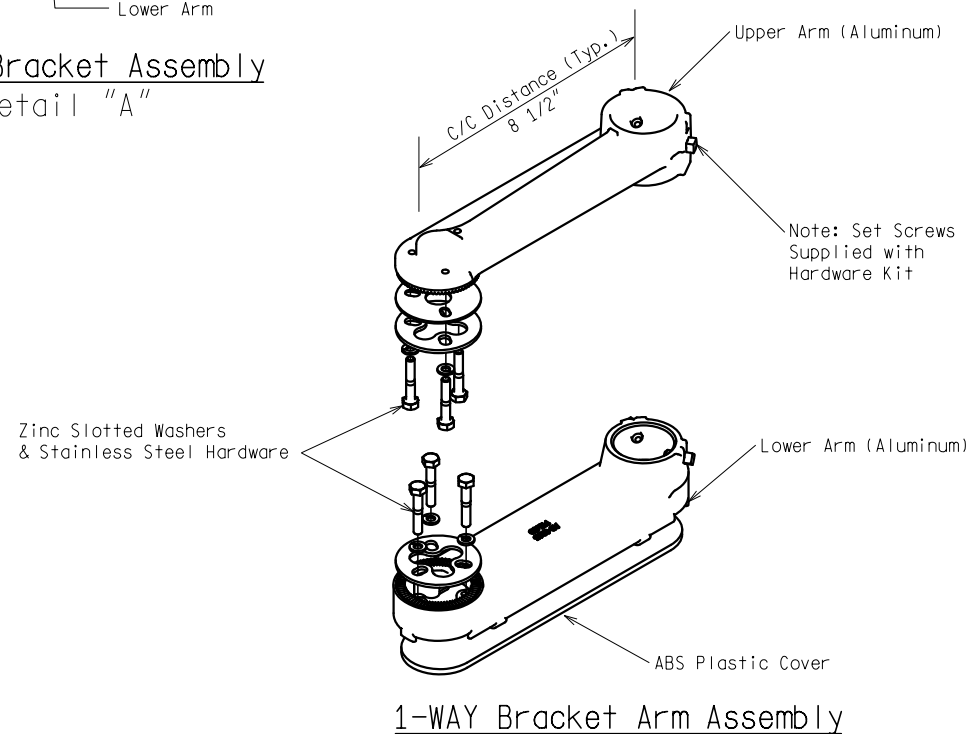


DATE:	CS:	SPECIAL DETAILS MCNICHOLS STREETSCAPE	DRAWING	SHEET
DESIGN UNIT:	JN:			
TSC:				197
FILE:				



* Note: Use 46" tube for 3 section T.S.
Use 58" tube for 4 section T.S.

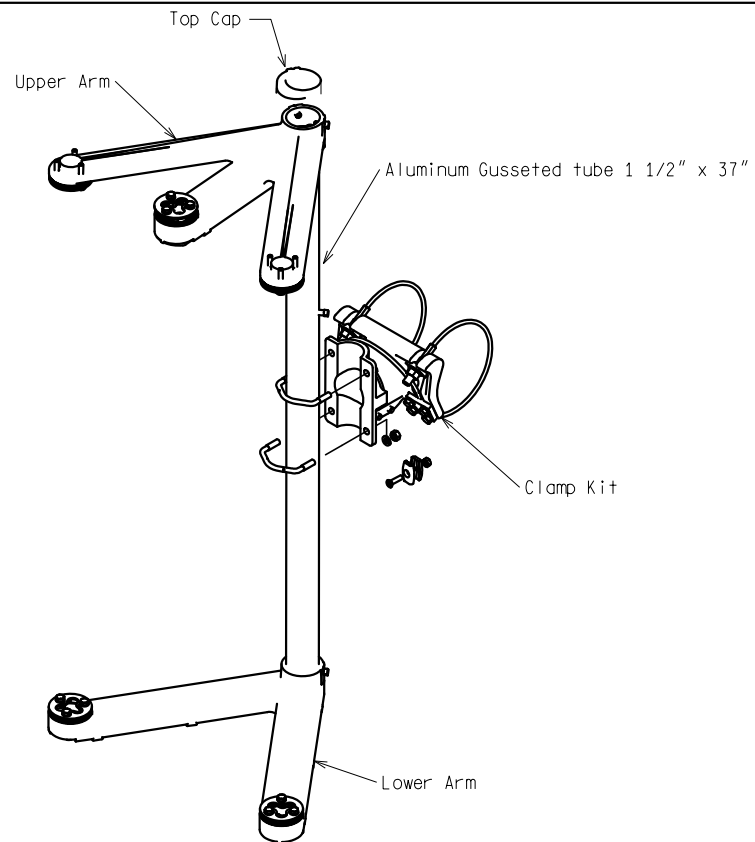
1-WAY Bracket Assembly
Detail "A"



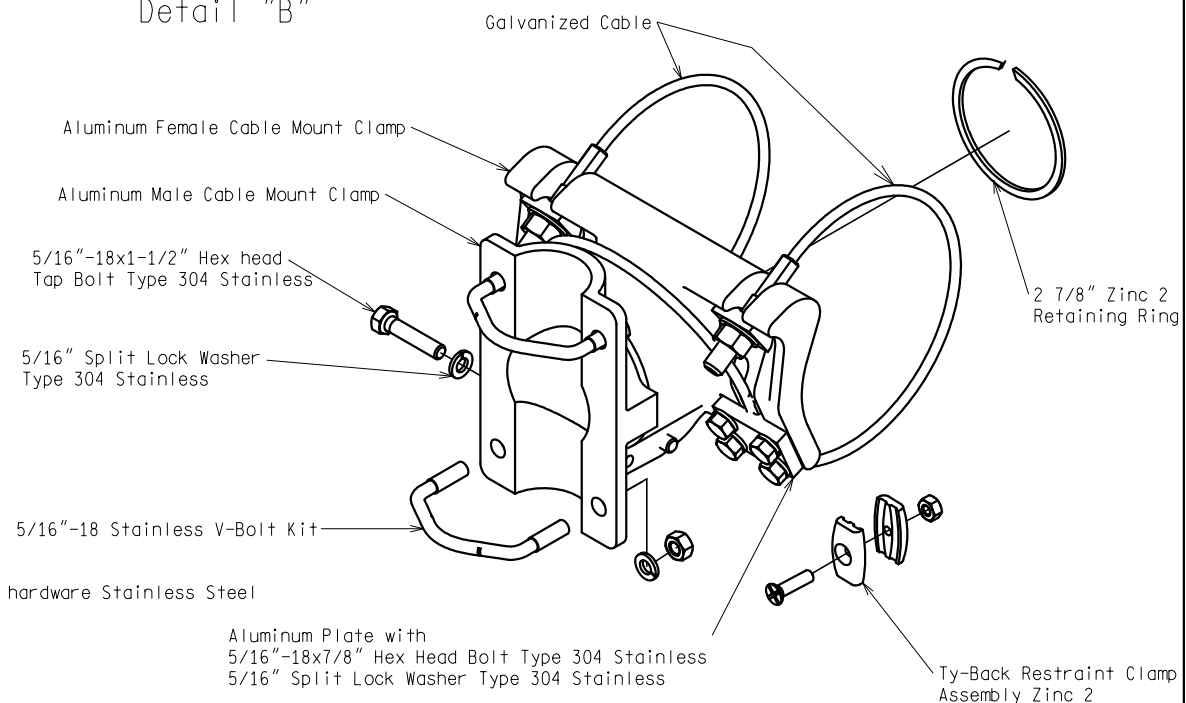
1-WAY Bracket Arm Assembly

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE		SIG-301-A	SHEET 5 of 7
File: RefDoc/TR/Signals/Web/Sp Det/FIn/SIG301A.dgn Rev. 02/16/17		PLAN DATE		



1-WAY 5-Section Cluster Bracket Assembly
Detail "B"



Note: All hardware Stainless Steel

Aluminum Plate with
5/16"-18x7/8" Hex Head Bolt Type 304 Stainless
5/16" Split Lock Washer Type 304 Stainless

Aluminum Clamp With Galvanized Cable
Detail "C"

NOT TO SCALE

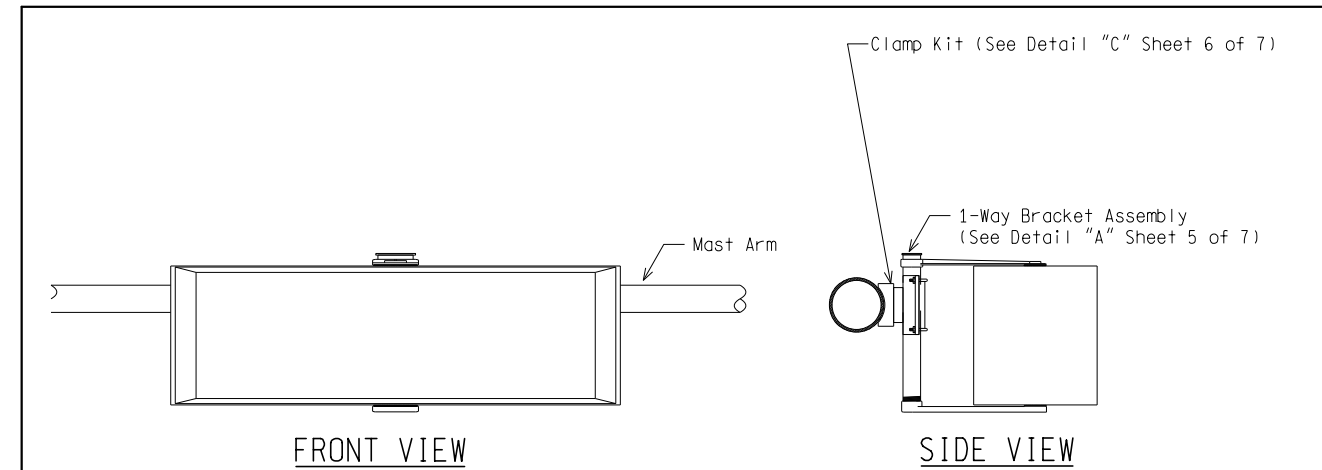
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File: RefDoc/TR/Signals/Web/Sp Det/FIn/SIG301A.dgn Rev. 02/16/17		PLAN DATE		

AS-LET PLAN REVISIONS

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



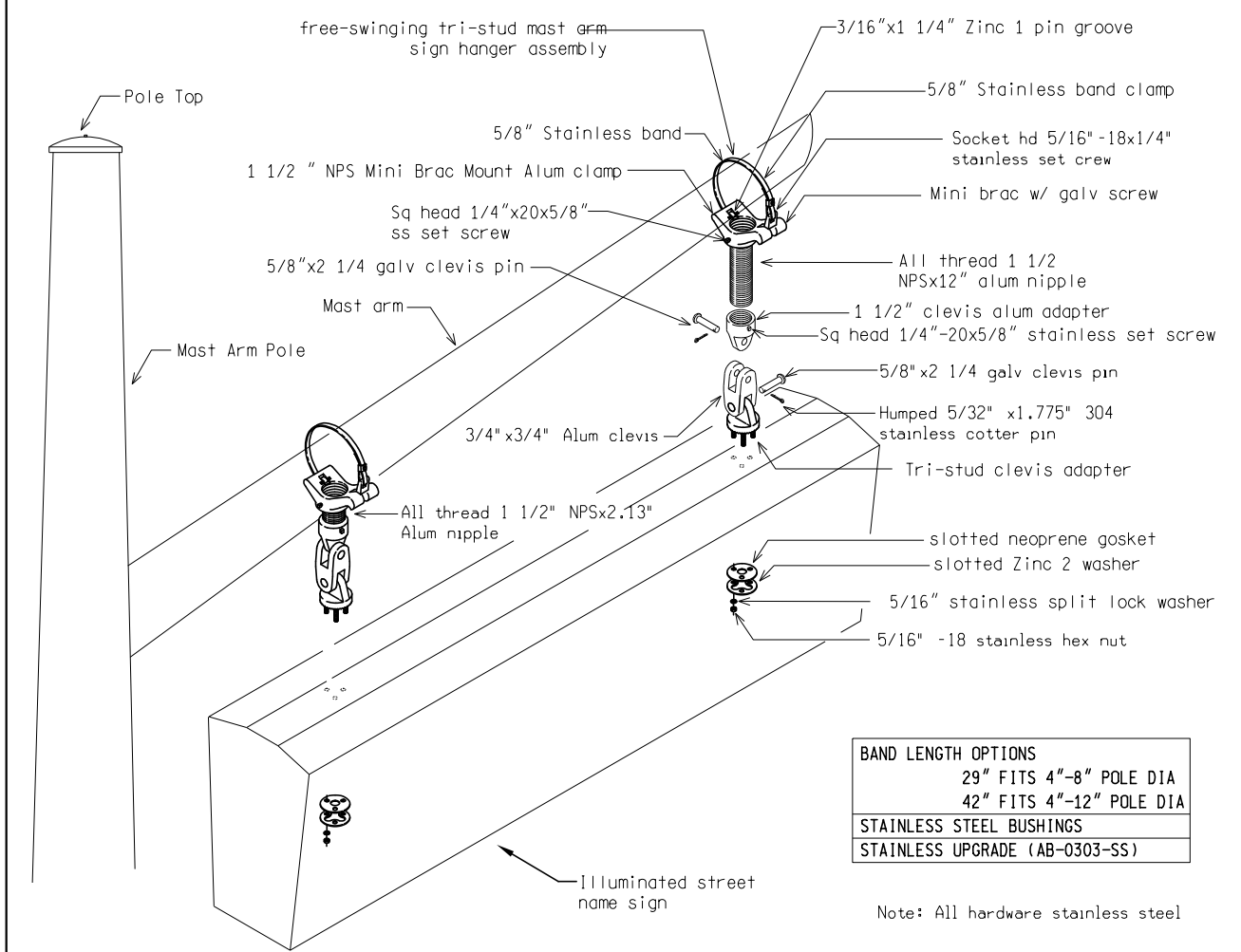
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DESIGN UNIT:	JN:			
TSC:				
FILE:				198



FRONT VIEW

SIDE VIEW

1W-Illuminated Street Name Sign



BAND LENGTH OPTIONS	
29"	FITS 4"-8" POLE DIA
42"	FITS 4"-12" POLE DIA
STAINLESS STEEL BUSHINGS	
STAINLESS UPGRADE (AB-0303-SS)	

Note: All hardware stainless steel

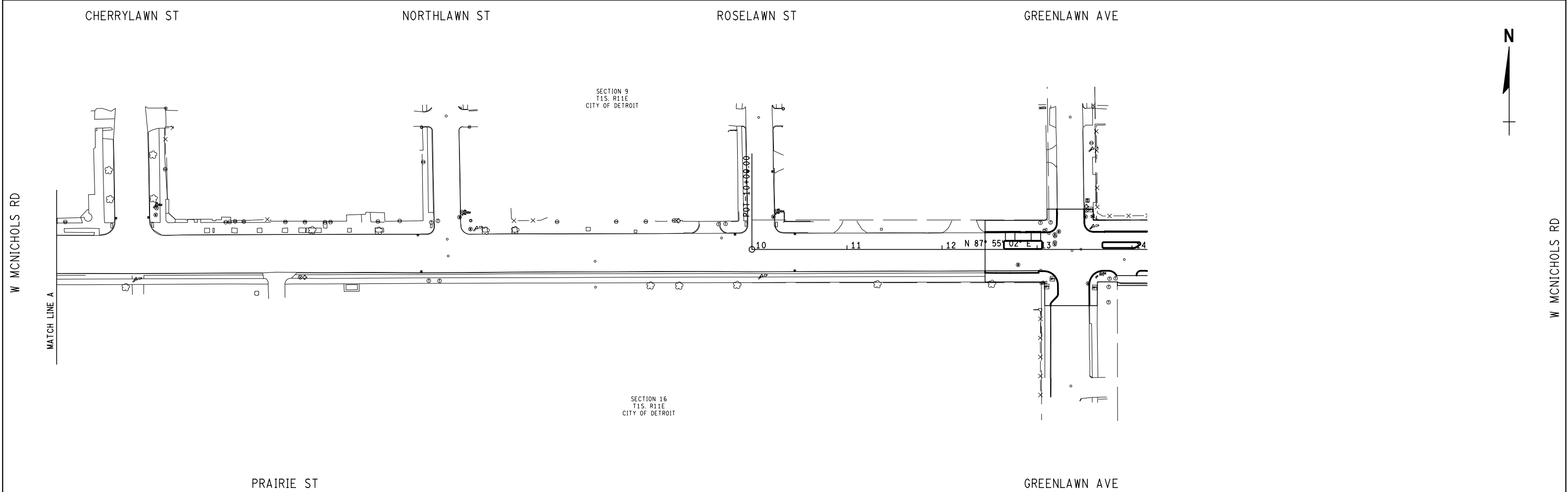
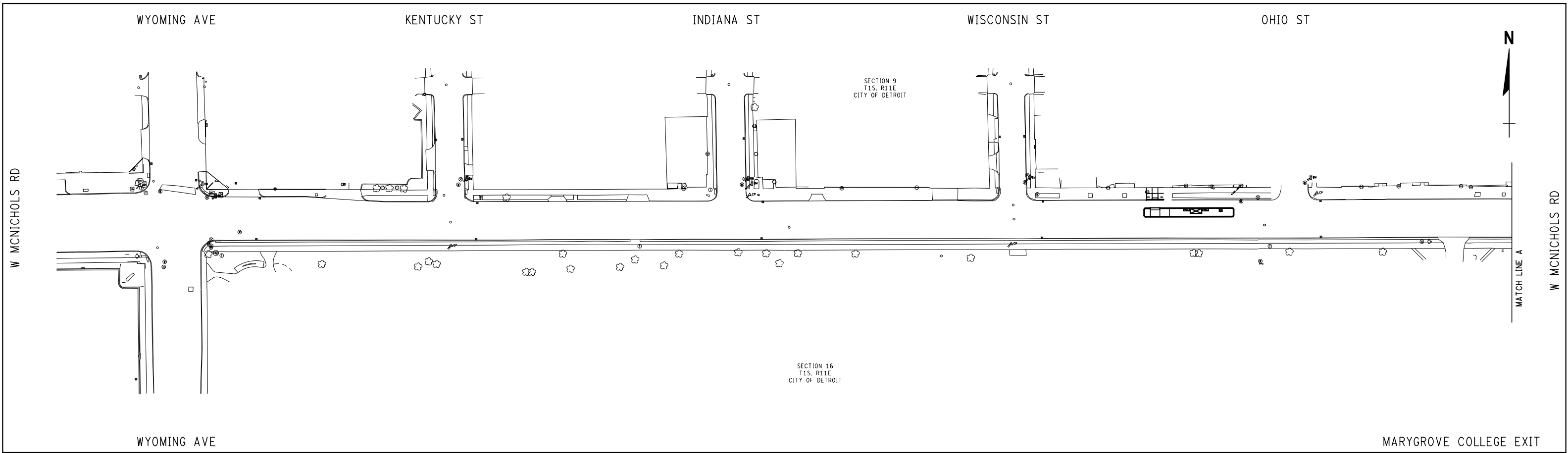
2W-Illuminated Street Name Sign

NOT TO SCALE		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	SIG-301-A	SHEET 7 of 7
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG301A.dgn Rev. 02/16/17						

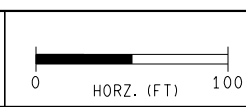
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE:	CS:	SPECIAL DETAILS MCNICHOLS STREETSCAPE	DRAWING	SHEET
DESIGN UNIT:	JN:			
FILE:	TSC:			199



FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



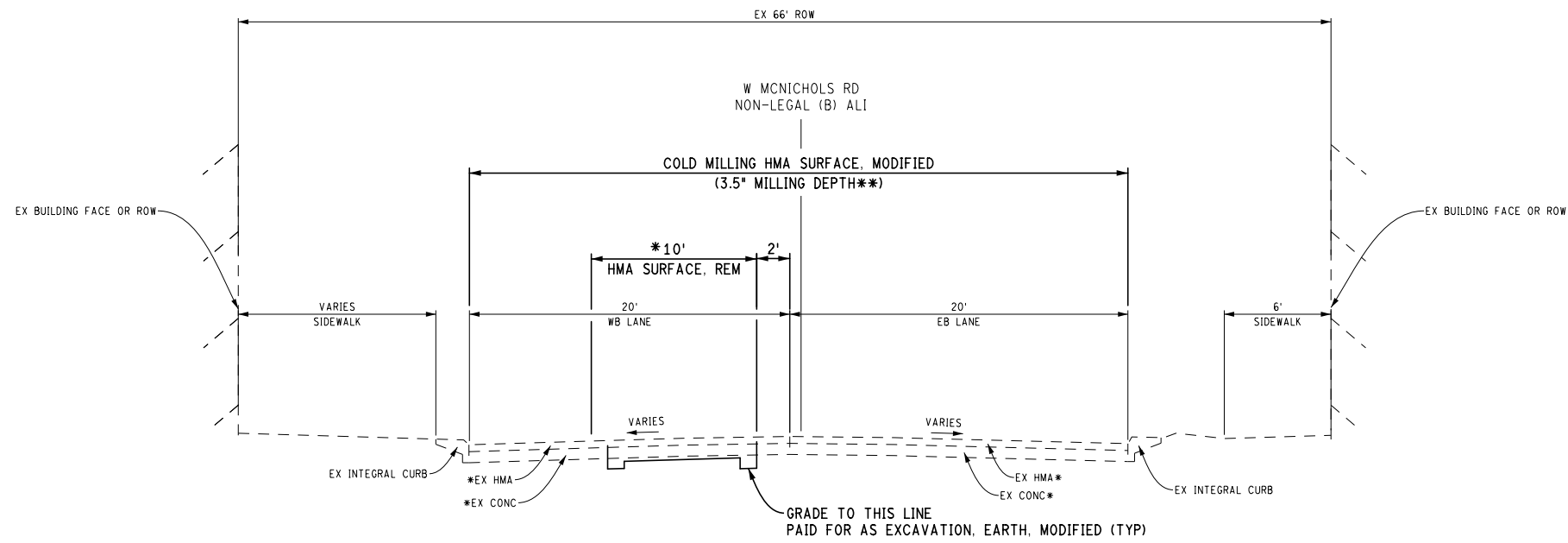
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DATE: 02/07/20

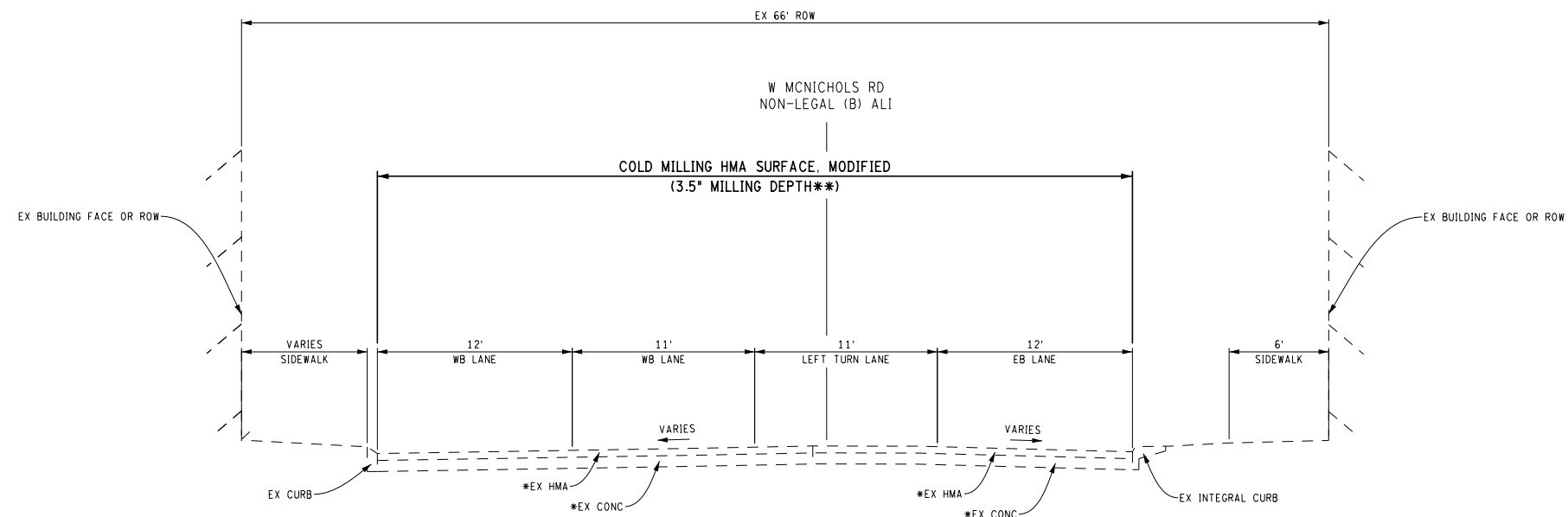
JN: PW-7004
MCNICHOLS STREETScape

VICINITY SHEET
MCNICHOLS STREETScape
WYOMING AVE TO GREENLAWN AVE

DRAWING SHEET
MCN VIC 002
200



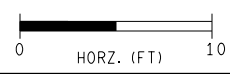
EXISTING NORMAL SECTION
 SECTION APPLIES
 APPROX. 220' EAST OF WYOMING AVE € TO STA 12+45.31
 * HMA SURFACE, REM AND PAVT. REM APPLIES
 AT LOCATION OF CONCRETE BUS ISLAND
 (SEE SHEET CON009 FOR DETAILS)



EXISTING NORMAL SECTION
 SECTION APPLIES
 POB (APPROX. 42' WEST OF WYOMING AVE €) TO APPROX. 220' EAST OF WYOMING AVE €

**NOTE:
 EXISTING PAVEMENT INVESTIGATION WAS NOT COMPLETED FOR THE WYOMING TO GREENLAWN SECTION OF PROJECT. CONTRACTOR SHALL MILL TO A DEPTH OF 3.5' OR TO TOP OF EXISTING CONCRETE, WHICHEVER IS LESS.

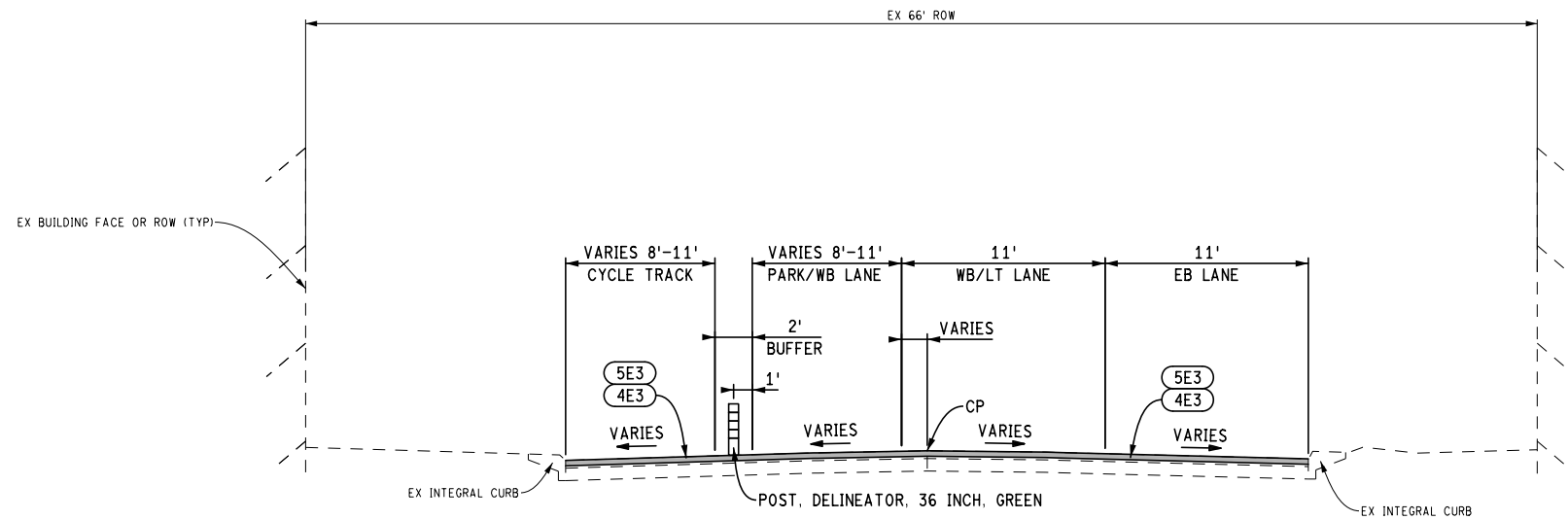
FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



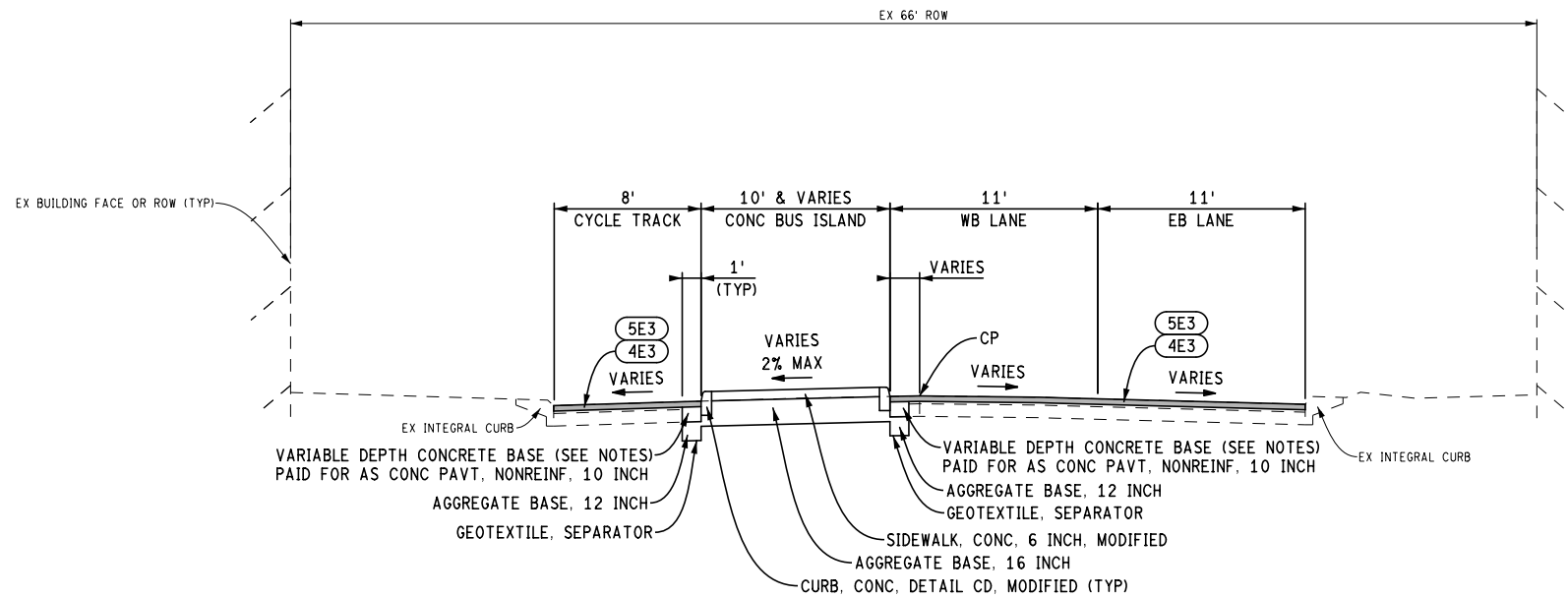
DATE: 02/07/20
 FILE:

JN: PW-7004
 McNichols Streetscape

EXISTING TYPICAL SECTIONS		DRAWING	SHEET
McNichols Streetscape		MCN TYP 004	201



PROPOSED NORMAL SECTION
SECTION APPLIES
POB (APPROX. 42' WEST OF WYOMING AVE &) TO STA 12+45.31



PROPOSED NORMAL SECTION WITH CONCRETE BUS ISLAND
SEE SHEET CON009 FOR LOCATION DETAILS OF CONCRETE BUS ISLAND

HMA APPLICATION ESTIMATE

IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
5E3	HMA, 5E3	165	64-22	TOP COURSE (AWI = 260)
4E3	HMA, 4E3	220	64-22	LEVELING COURSE
	* BOND COAT	0.05-0.15 GAL		

*FOR INFORMATION ONLY

NOTES:

PROPOSED CROSS SLOPES AND CROWN POINT SHALL MATCH EXISTING.

DELINEATOR POST SHALL BE PLACED IN THE MIDDLE OF THE BUFFER BETWEEN THE CYCLE TRACK AND TRAVEL LANE.

THE VARIABLE DEPTH CONCRETE BASE COURSE SHALL MATCH THE THICKNESS OF THE EXISTING PAVEMENT STRUCTURE AND COME UP FLUSH TO THE TOP OF THE ADJACENT MILLED SURFACE. THE CONCRETE BASE COURSE WILL BE OVERLAID WITH THE SAME PROPOSED HMA SECTION AS THE REST OF THE ROADWAY.

IF UNABLE TO MILL 3.5", THE CONTRACTOR SHALL MAINTAIN THE TOP COURSE THICKNESS WHILE VARYING THE LEVELING COURSE AS APPROVED BY THE ENGINEER.

WISCONSIN AVE

OHIO AVE



SECTION 9
T1S, R11E
CITY OF DETROIT

LIMITS OF INTEGRAL CURB AND SIDEWALK,
2 FEET, REM, MODIFIED

N=336562.02
E=13450111.91
N=336548.95
E=13450112.46

N=336563.14
E=13450138.38
N=336549.99
E=13450138.94

N=336545.55
E=13450205.74

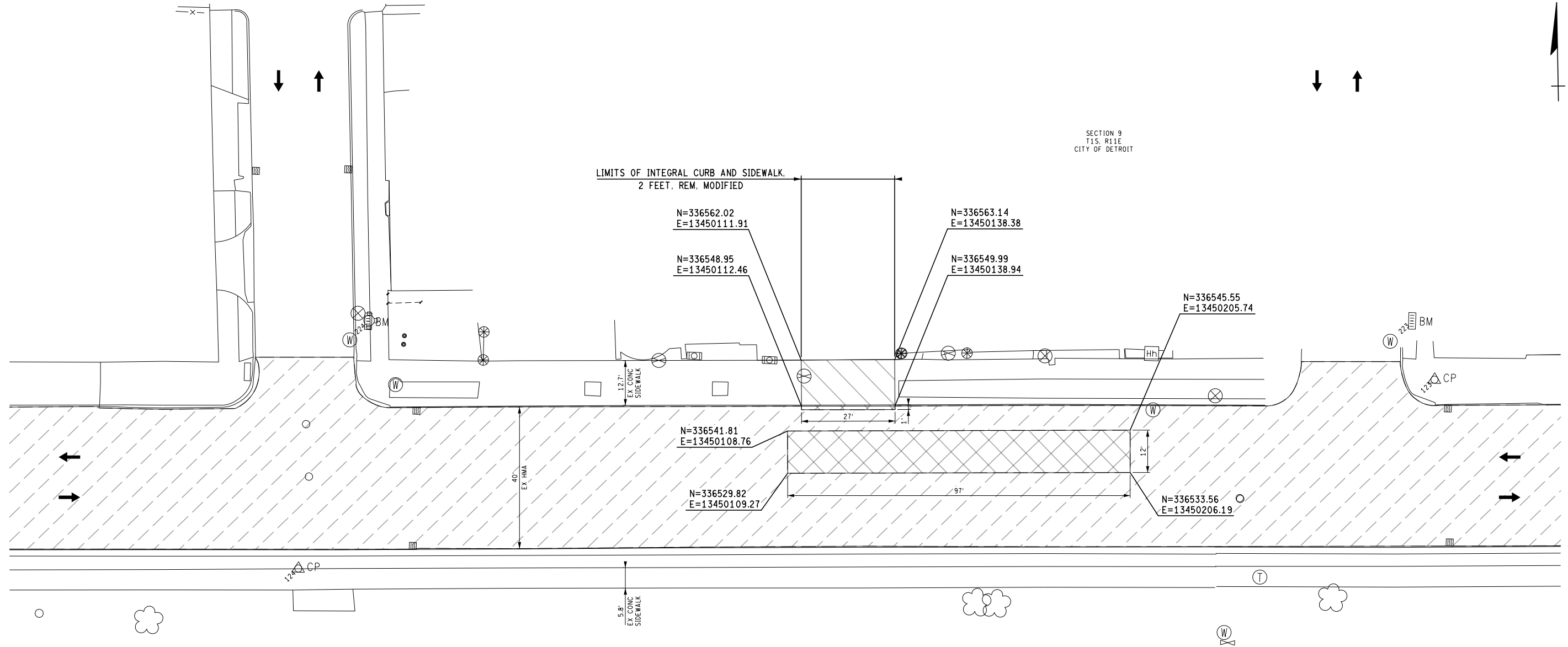
N=336541.81
E=13450108.76

N=336529.82
E=13450109.27

N=336533.56
E=13450206.19

W MCNICHOLS RD

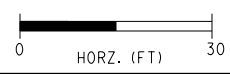
W MCNICHOLS RD



SECTION 16
T1S, R11E
CITY OF DETROIT

NOTE:
FOR REMOVAL QUANTITIES, SEE SHEET MSCQNT001.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETScape

BUS ISLAND REMOVAL SHEET
MCNICHOLS STREETScape
W MCNICHOLS BETWEEN WISCONSIN AND OHIO

DRAWING SHEET
MCN REM 009
203

WISCONSIN AVE

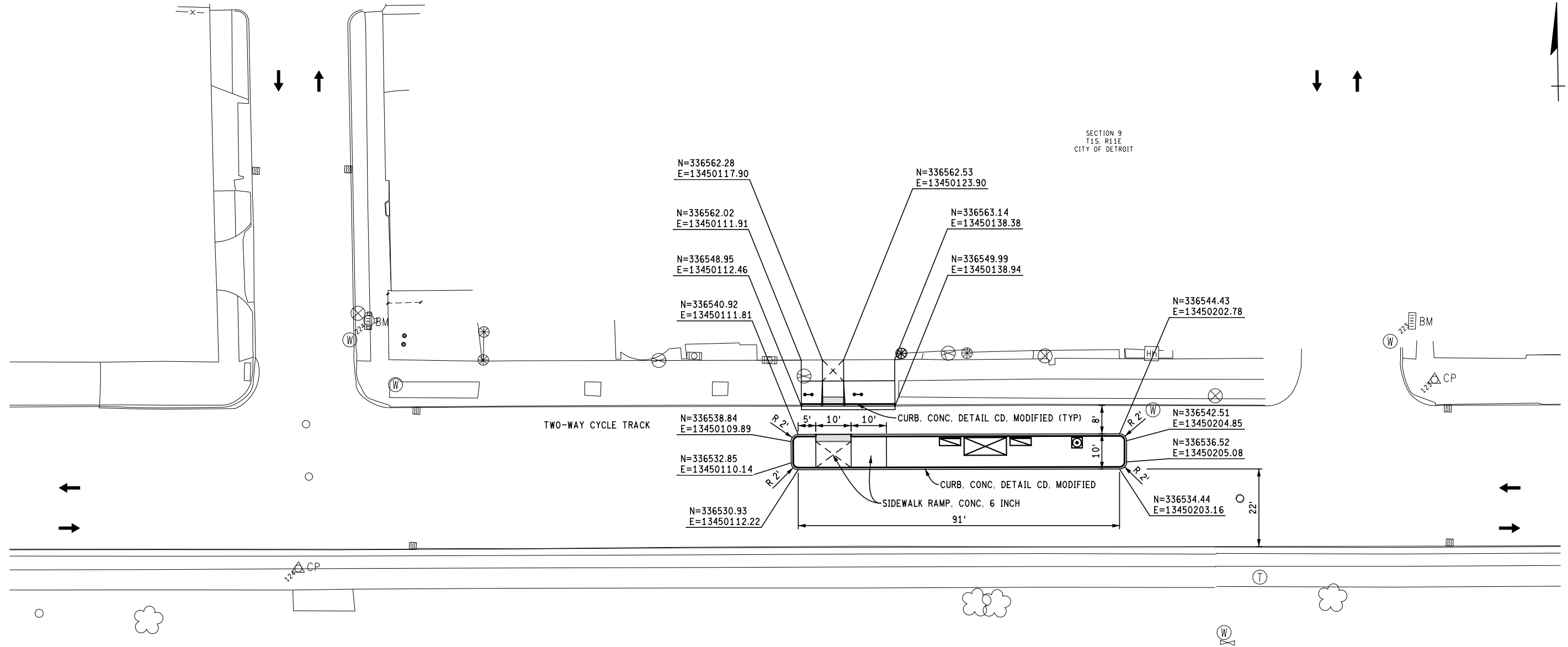
OHIO AVE



SECTION 9
T1S, R11E
CITY OF DETROIT

W MCNICHOLS RD

W MCNICHOLS RD

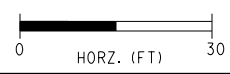


SECTION 16
T1S, R11E
CITY OF DETROIT

NOTES:

- FOR TYPICAL JOINTING LAYOUT, SEE SHEET LDSDET003.
- FOR CONSTRUCTION QUANTITIES, SEE SHEET MSCQNT001.
- ANY DAMAGES TO BUILDINGS SHALL BE REPAIRED BY CONTRACTOR AT NO EXPENSE TO THE CITY OF DETROIT PRIOR TO OPENING TO TRAFFIC.
- ANY SLURRY ACCUMULATING ON BUILDINGS MUST BE REMOVED PRIOR TO OPENING TO TRAFFIC.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004

MCNICHOLS STREETScape

BUS ISLAND CONSTRUCTION SHEET

MCNICHOLS STREETScape

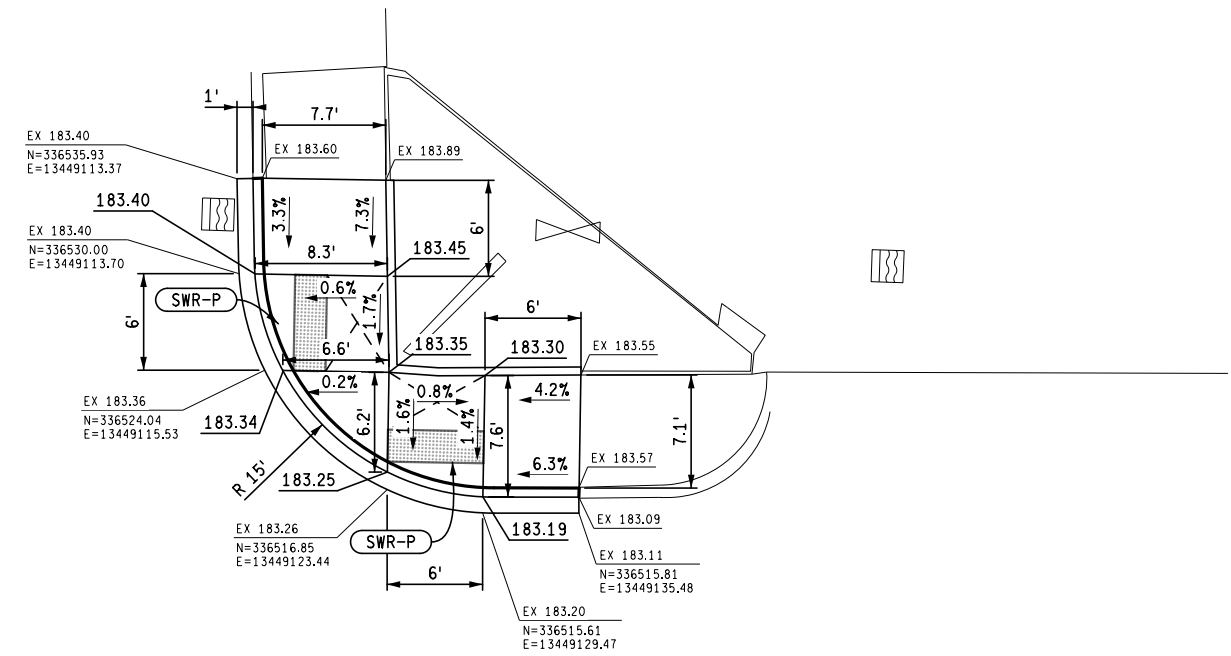
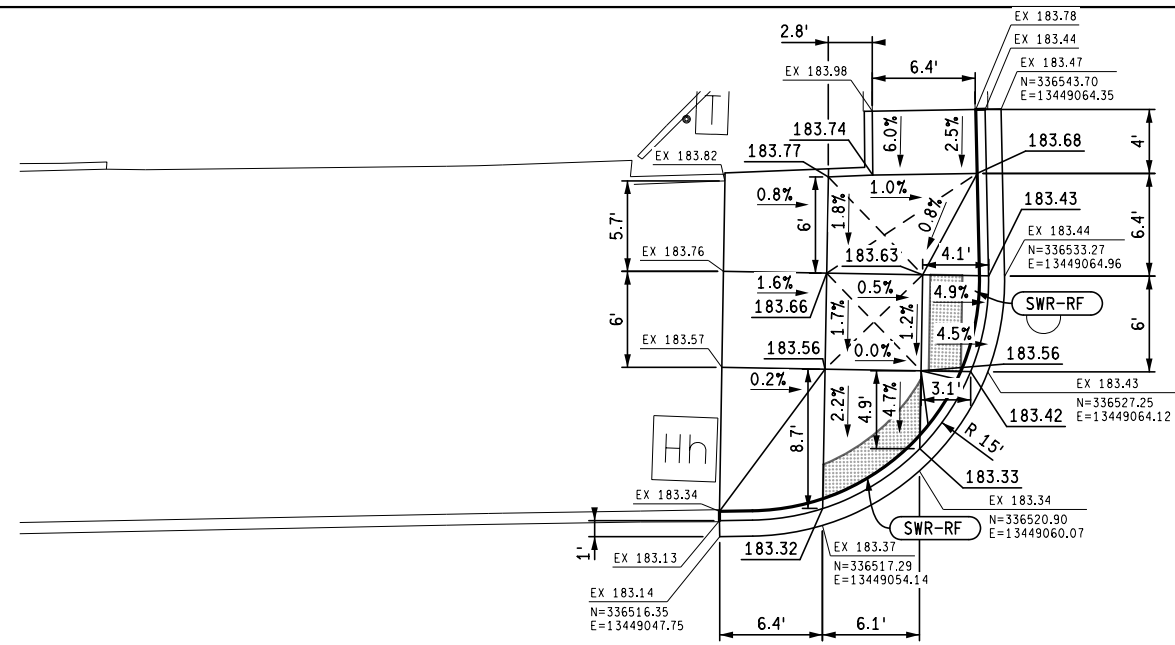
W MCNICHOLS BETWEEN WISCONSIN AND OHIO

DRAWING SHEET

MCN CON 009

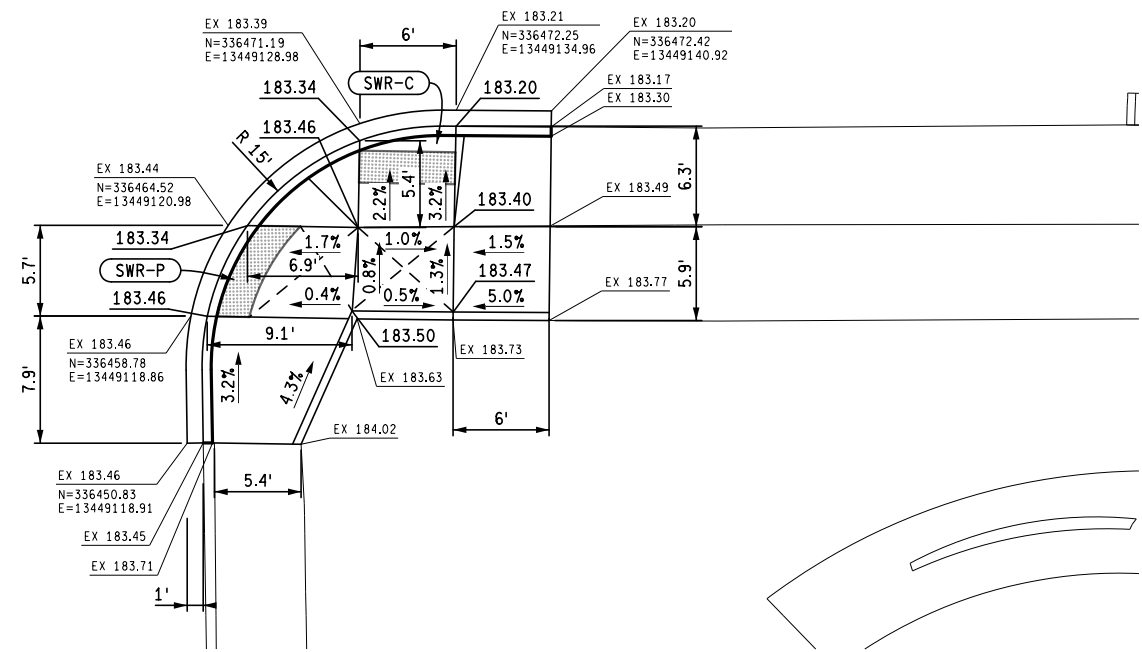
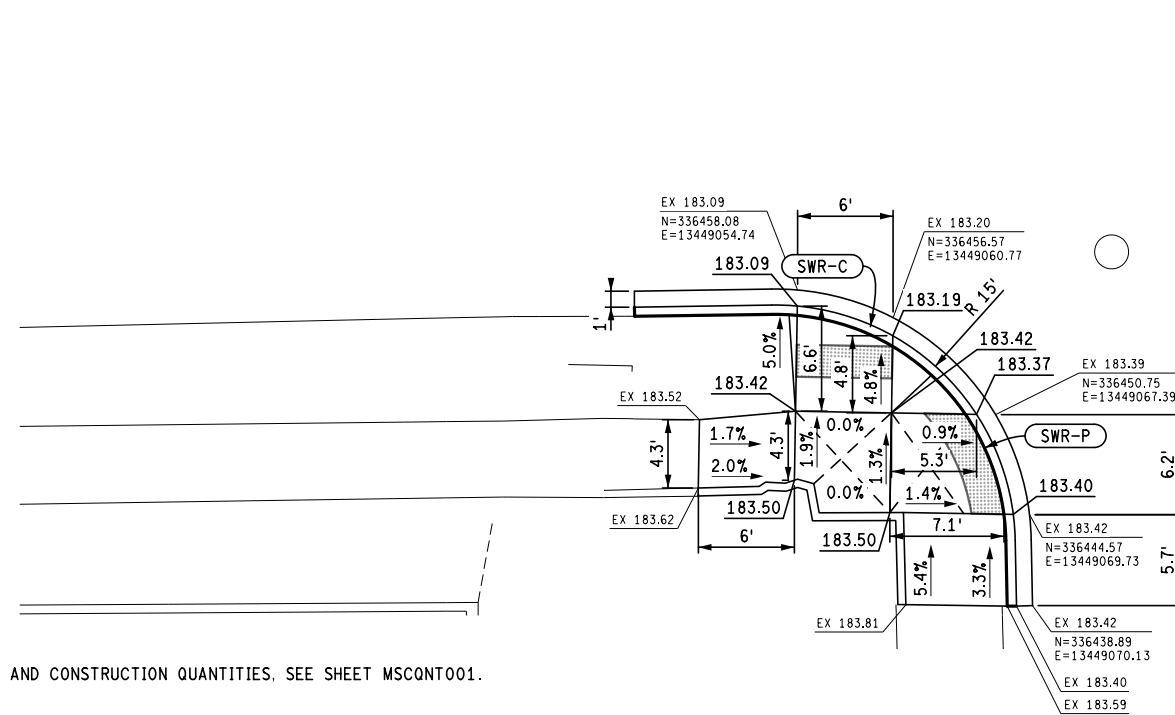
204

WYOMING AVE



W MCNICHOLS RD

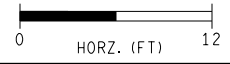
W MCNICHOLS RD



NOTE:
FOR REMOVAL AND CONSTRUCTION QUANTITIES, SEE SHEET MSCQNT001.

WYOMING AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION

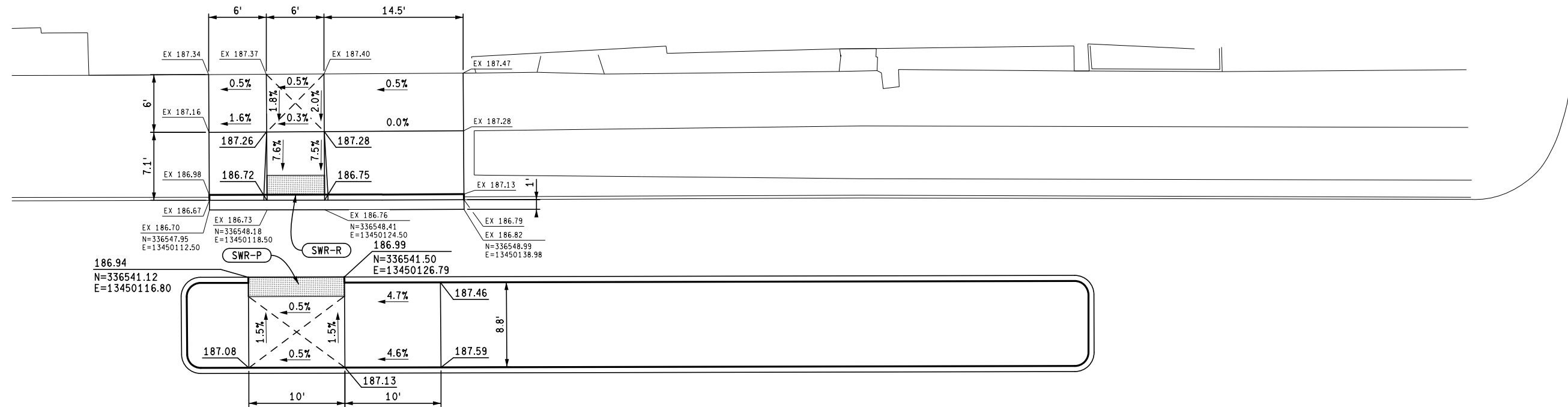


DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

DETAIL GRADING SHEET
MCNICHOLS STREETScape
WYOMING AT MCNICHOLS

DRAWING SHEET
MCN DETGRD 014
205



186.94
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E=13450116.80

EX 186.67
EX 186.70
N=336547.95
E=13450112.50

EX 186.73
N=336548.18
E=13450118.50

EX 186.76
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EX 186.79
EX 186.82
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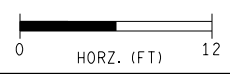
EX 187.13
EX 187.28
EX 187.47

W MCNICHOLS RD

W MCNICHOLS RD

NOTE:
FOR REMOVAL AND CONSTRUCTION QUANTITIES, SEE SHEET MSCQNT001.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

DETAIL GRADING SHEET
MCNICHOLS STREETScape
OHIO AT MCNICHOLS

DRAWING SHEET
MCN DET GRD 015
206

WYOMING AVE

KENTUCKY ST



W11-1 (30")
6.25 Sft Sign, Type IIIB
15 Ft 1-Post, Steel, 3 lb

R9-5 (12" X 18")
1.5 Sft Sign, Type IIIB
2 Ea Band, Sign

R10-15R ALT (36")
9 Sft Sign, Type IIIB
2 Ea Band, Sign

R9-5 (12" X 18")
1.5 Sft Sign, Type IIIB
2 Ea Band, Sign

R10-15R ALT (36")
9 Sft Sign, Type IIIB
2 Ea Band, Sign

R3-17 (30" X 24")
5 Sft Sign, Type IIIB
2 Ea Band, Sign

R3-17bP (30" X 12")
2.5 Sft Sign, Type IIIB
2 Ea Band, Sign

R10-15R ALT (36")
9 Sft Sign, Type IIIB
14 Ft 1-Post, Steel, 3 lb

R9-5 (12" X 18")
1.5 Sft Sign, Type IIIB
2 Ea Band, Sign

R10-15R ALT (36")
9 Sft Sign, Type IIIB
2 Ea Band, Sign

R9-5 (12" X 18")
1.5 Sft Sign, Type IIIB
2 Ea Band, Sign

R10-15R ALT (36")
9 Sft Sign, Type IIIB
2 Ea Band, Sign

LEGEND
SW SOLID WHITE
SY SOLID YELLOW
DSY DOUBLE SOLID YELLOW
SKW SKIP WHITE
SKY SKIP YELLOW

NOTES:
ALL LONGITUDINAL MARKS ARE 4" WIDE UNLESS SPECIFIED OTHERWISE.
ALL EXISTING SIGNS NOT SHOWN ON PLANS SHALL REMAIN IN PLACE AND NOT BE IMPACTED.
FOR SIGNING AND PAVEMENT MARKING QUANTITIES, SEE SHEET MSCONT001.

W MCNICHOLS RD

W MCNICHOLS RD

WYOMING AVE

FINAL ROW PLAN REVISIONS		(SUBMITTAL DATE:)	
NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20
FILE:

JN: PW-7004
MCNICHOLS STREETScape

SIGNING AND PAVEMENT MARKING PLANS
MCNICHOLS STREETScape

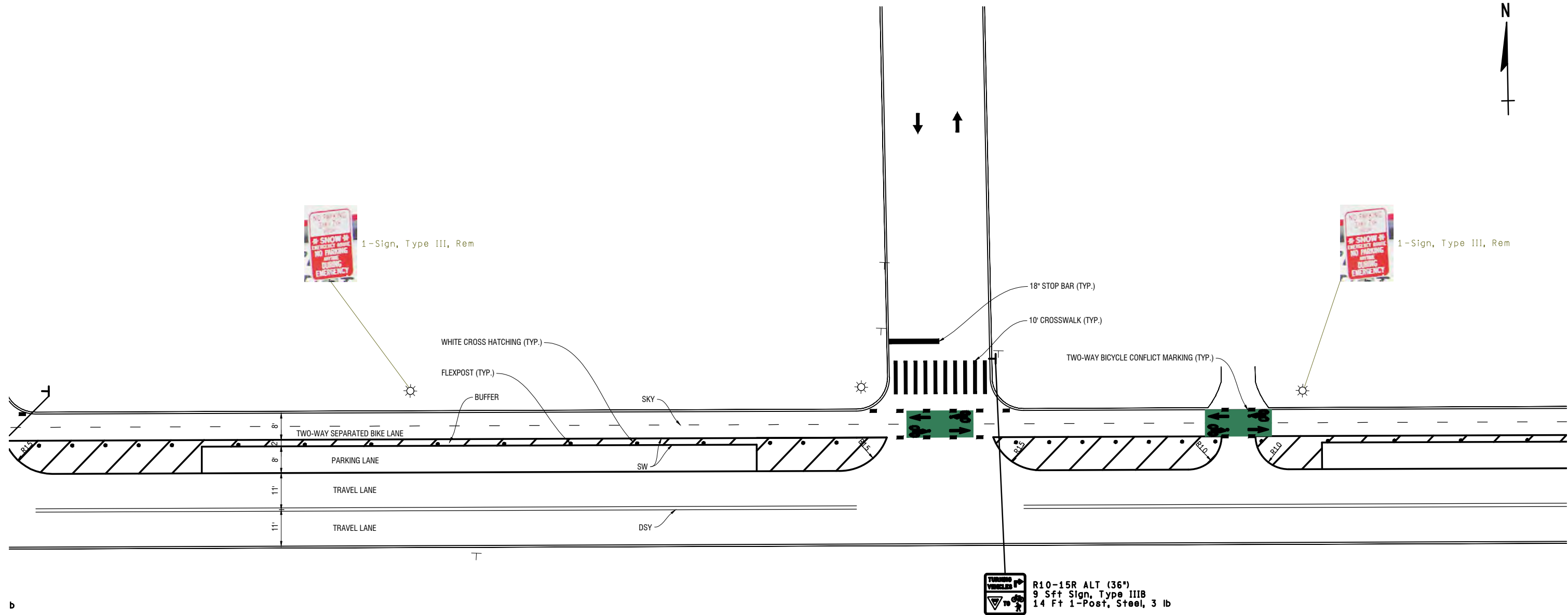
DRAWING
MCN
PVTMRK
009
SHEET
208

INDIANA AVE



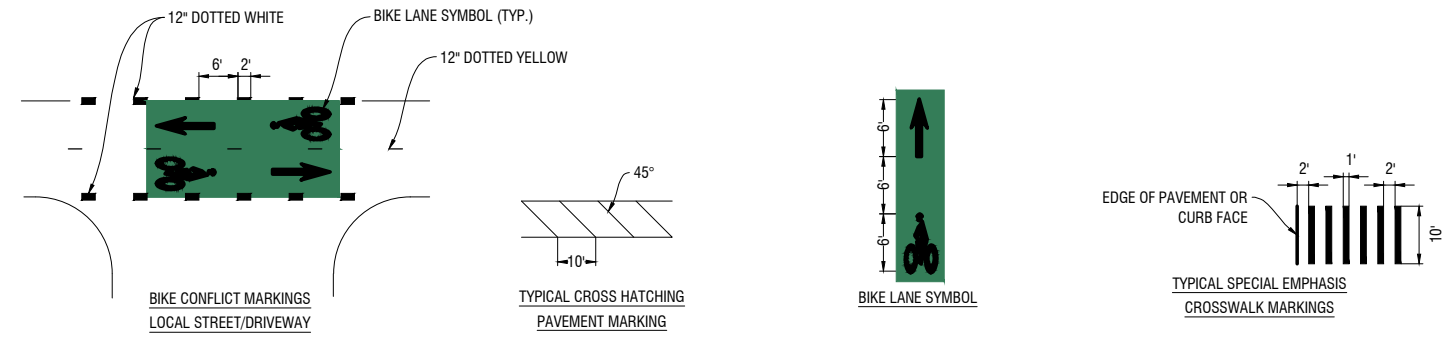
W MCNICHOLS RD

W MCNICHOLS RD

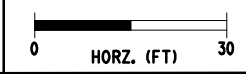


- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW

- NOTES:**
- ALL LONGITUDINAL MARKS ARE 4" WIDE UNLESS SPECIFIED OTHERWISE.
 - ALL EXISTING SIGNS NOT SHOWN ON PLANS SHALL REMAIN IN PLACE AND NOT BE IMPACTED.
 - FOR SIGNING AND PAVEMENT MARKING QUANTITIES, SEE SHEET MSCQNT001.



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 02/07/20

FILE:

JN: PW-7004
MCNICHOLS STREETScape

SIGNING AND PAVEMENT MARKING PLANS
MCNICHOLS STREETScape

DRAWING SHEET
MCN PVTMRK 010 209

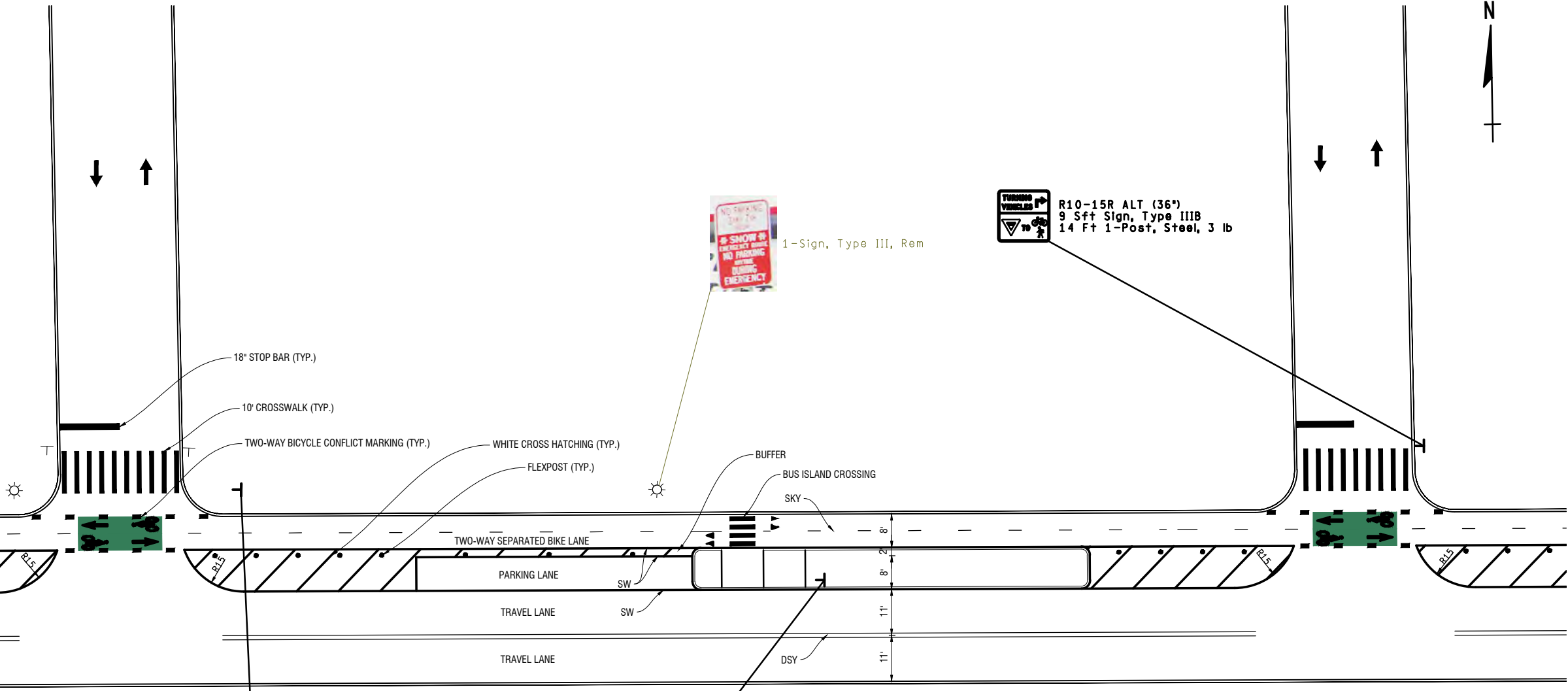
WISCONSIN ST

OHIO ST

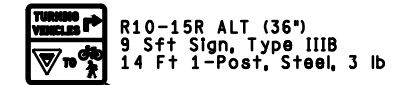


W MCNICHOLS RD

W MCNICHOLS RD



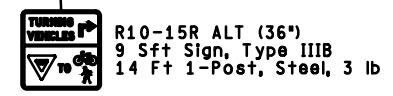
1-Sign, Type III, Rem



R10-15R ALT (36")
9 Sft Sign, Type IIIB
14 Ft 1-Post, Steel, 3 lb



1- Sign, Type III, Rem



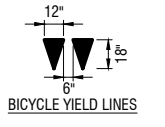
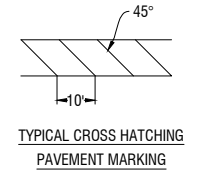
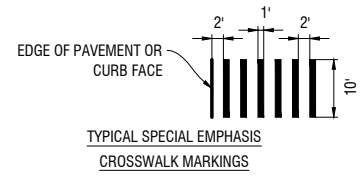
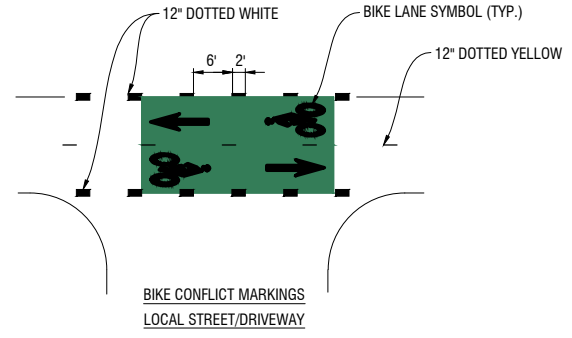
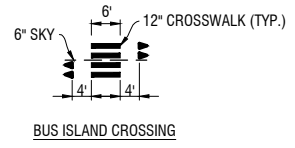
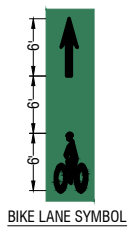
R10-15R ALT (36")
9 Sft Sign, Type IIIB
14 Ft 1-Post, Steel, 3 lb



14 Ft 1-Post, Steel, 3 lb

- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
 - SKY SKIP YELLOW

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DATE: 02/07/20

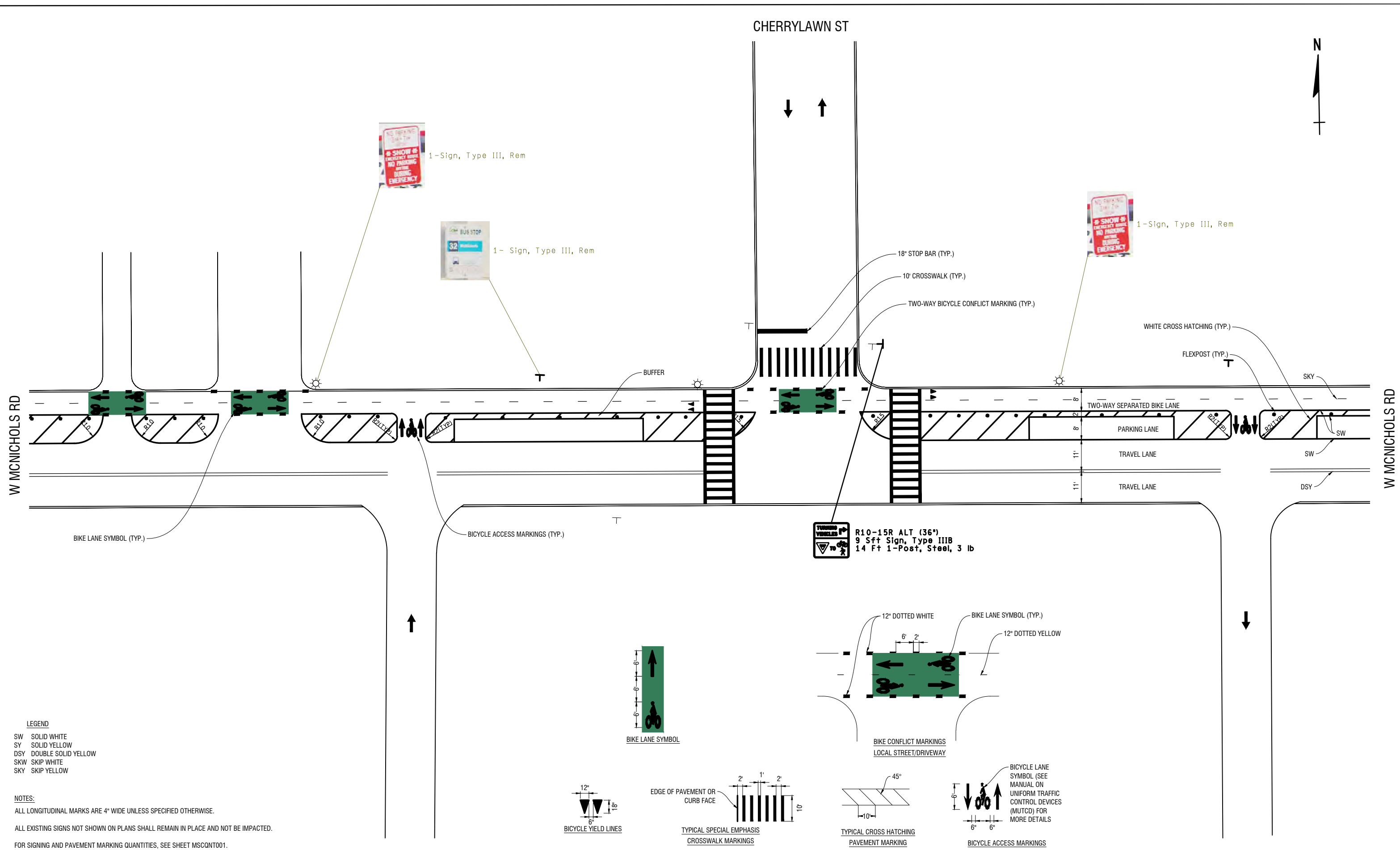
FILE:

JN: PW-7004
 MCNICHOLS STREETScape

SIGNING AND PAVEMENT MARKING PLANS
 MCNICHOLS STREETScape

DRAWING SHEET
 MCN PVTMRK 011 210

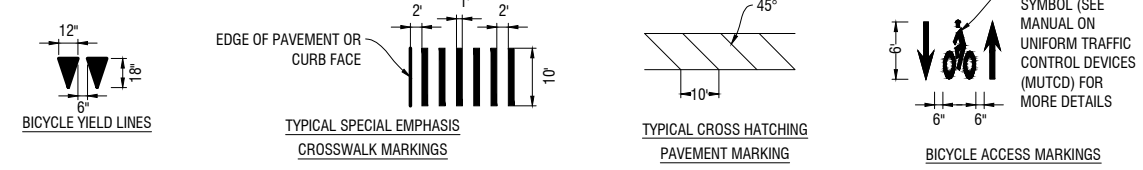
CHERRYLAWN ST



W MCNICHOLS RD

W MCNICHOLS RD

- LEGEND**
- SW SOLID WHITE
 - SY SOLID YELLOW
 - DSY DOUBLE SOLID YELLOW
 - SKW SKIP WHITE
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R10-15R ALT (36")
 9 Sft Sign, Type IIIB
 14 Ft 1-Post, Steel, 3 lb

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



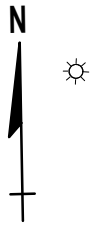
DATE: 02/07/20

FILE:

JN: PW-7004
 MCNICHOLS STREETSCAPE

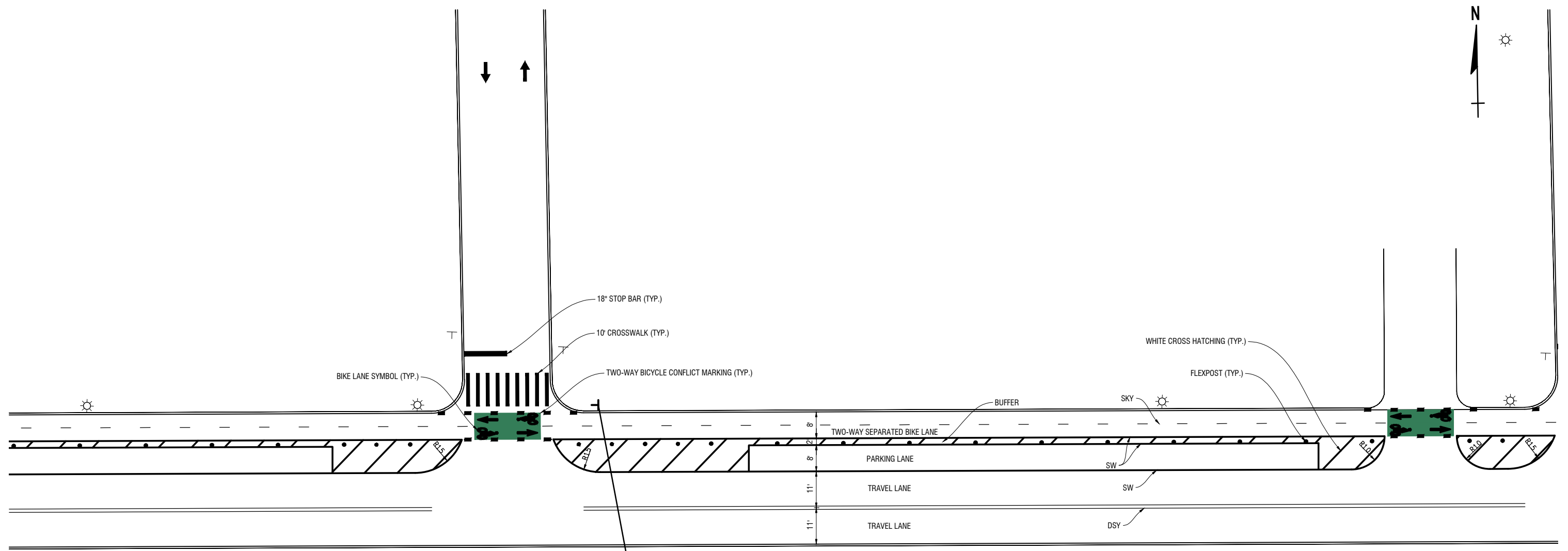
SIGNING AND PAVEMENT MARKING PLANS		DRAWING	SHEET
MCNICHOLS STREETSCAPE		MCN PVTMRK 012	211

NORTHLAWN ST



W MCNICHOLS RD

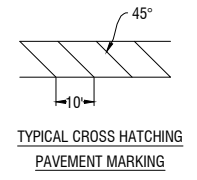
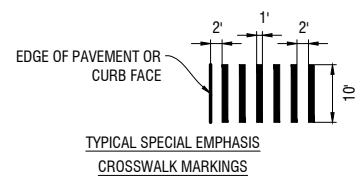
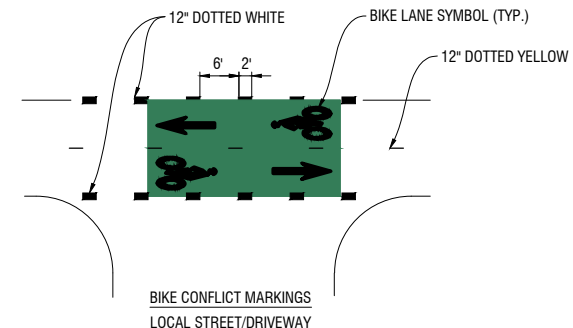
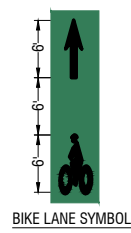
W MCNICHOLS RD



R10-15R ALT (36'')
9 Sft Sign, Type IIIB
14 Ft 1-Post, Steel, 3 lb

LEGEND
 SW SOLID WHITE
 SY SOLID YELLOW
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 SKY SKIP YELLOW

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FILE:

DATE: 02/07/20

JN: PW-7004
MCNICHOLS STREETSCAPE

SIGNING AND PAVEMENT MARKING PLANS
MCNICHOLS STREETSCAPE

DRAWING SHEET
MCN PVTMRK 013 212

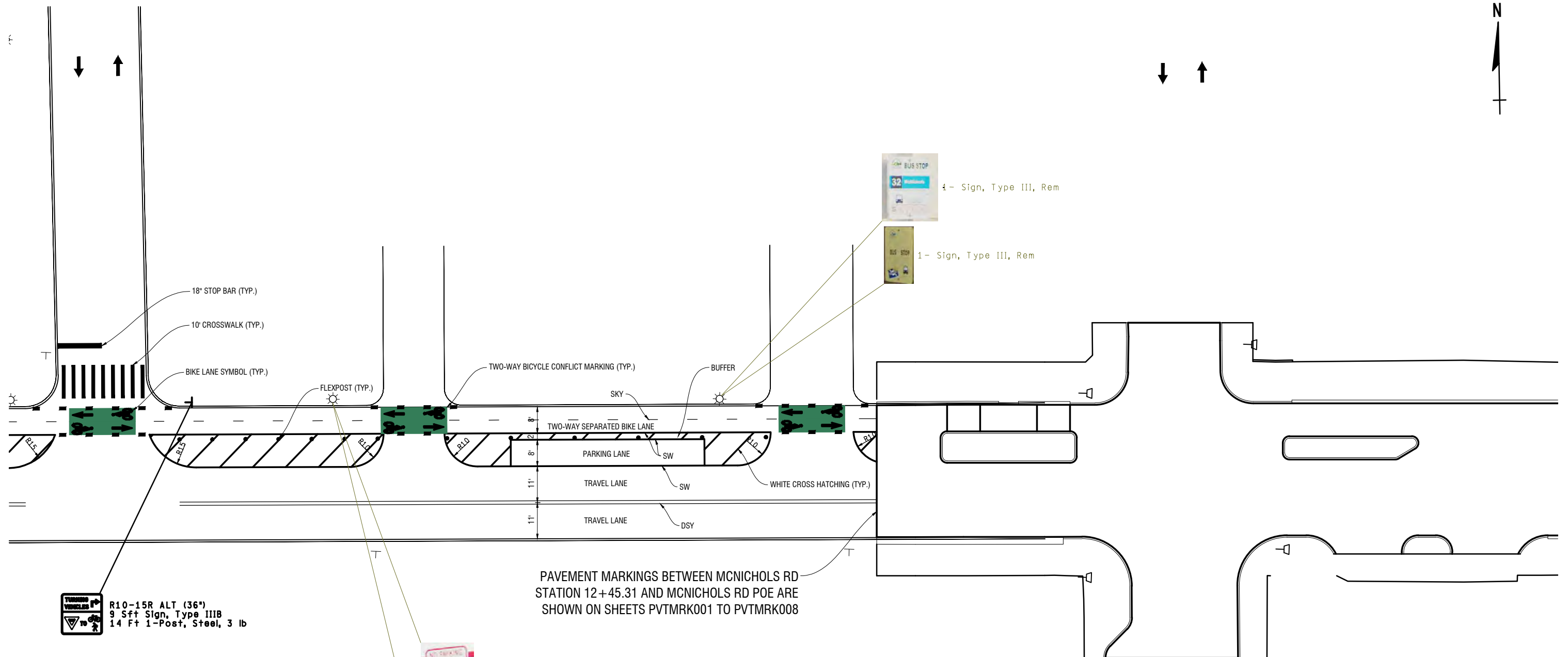
ROSELAWN ST

GREENLAWN AVE



W MCNICHOLS RD

W MCNICHOLS RD



PAVEMENT MARKINGS BETWEEN MCNICHOLS RD STATION 12+45.31 AND MCNICHOLS RD POE ARE SHOWN ON SHEETS PVTMRK001 TO PVTMRK008

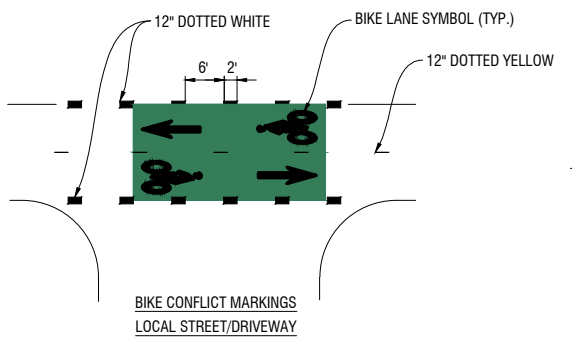
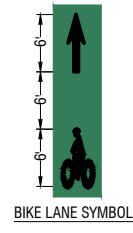
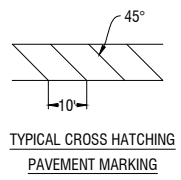
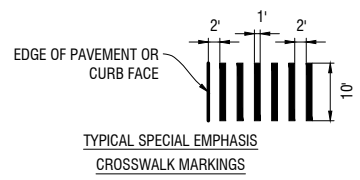
R10-15R ALT (36")
 9 Sft Sign, Type III B
 14 Ft 1-Post, Steel, 3 lb

1-Sign, Type III, Rem

1-Sign, Type III, Rem

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GREENLAWN AVE

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JN: PW-7004
 MCNICHOLS STREETScape

SIGNING AND PAVEMENT MARKING PLANS		DRAWING	SHEET
MCNICHOLS STREETScape		MCN PVTMRK 014	213