WKE | MARCH 2019

PROJECT ID: 2080-00-73

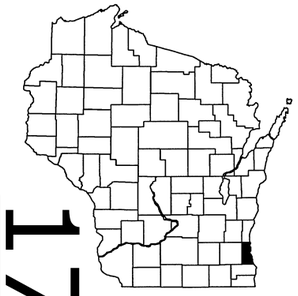
WITH: N/A

COUNTY: MILWAUKEE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 412



17

DESIGN DESIGNATION

A.A.D.T. 2010	=	4,400 - 12,400
A.A.D.T. 2030	=	5,000 - 14,300
D.H.V.	=	500 - 1,300
D.D.	=	50/50 - 53/47
T.	=	1.0%
DESIGN SPEED	=	35 MPH
ESALS	=	401,500

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- COMBINED SEWER (SSS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PLACED PER PLAN (XX(P))
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NORTH TEUTONIA AVENUE

W. GARFIELD AVE TO W. GROELING AVE

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2080-00-73	WISC 2019192	1

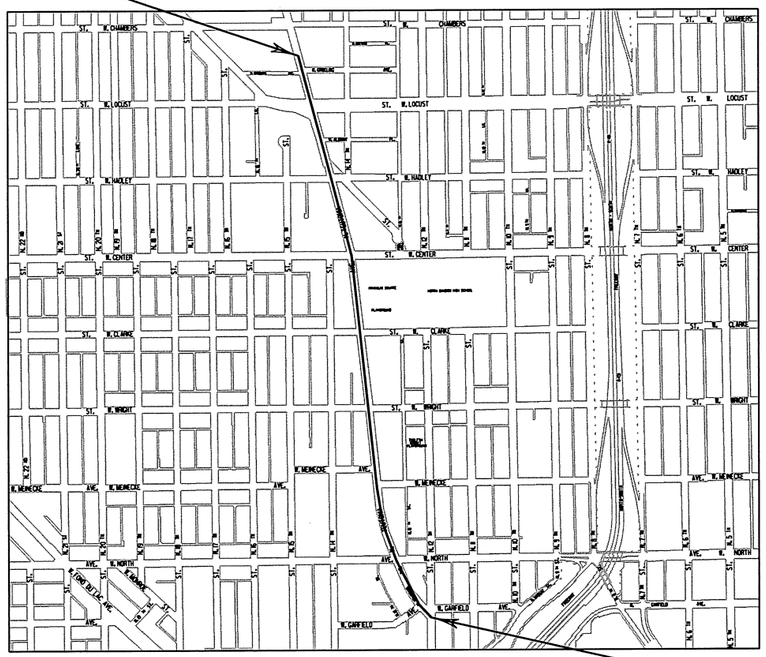
STATE PROJECT NUMBER

2080-00-73

END PROJECT 2080-00-73

STA 149+76.53

R-22-E



LAYOUT

SCALE 0 0.50 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.912 MI. (URBAN)

BEGIN PROJECT 2080-00-73

STA 101+61.14

X=2553904.086

Y=392966.143

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), SOUTH ZONE, SEWRPC NAD 1927, CONVERTED TO GROUND. SCALE AND SEA LEVEL REDUCTION FACTOR = 0.99991464

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD29).

ACCEPTED FOR CITY OF MILWAUKEE

11/1/18 (Date) City Engineer

ORIGINAL PLANS PREPARED BY

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.751.7200

WISCONSIN
NEAL STYKA
E-43008-6
MILWAUKEE
WI.
PROFESSIONAL ENGINEER

31 Oct. 2018 (Date) Neal Styka (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	Kapur & Associates, Inc
Designer	Kapur & Associates, Inc
Project Manager	Joan Bonack
District Examiner	
District Supervisor	Adeniyi Adetoye
C.O. Examiner	

APPROVED FOR DISTRICT OFFICE

DATE: 11/1/18 K Kramer (Signature)

E

GENERAL NOTES

UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. LOCATIONS SHOWN ARE TAKEN FROM EXISTING RECORDS AND BEST INFORMATION AVAILABLE FROM EXISTING PLANS. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION OF UTILITIES AND STRUCTURES SHOWN. VERIFY ALL LOCATIONS IN THE FIELD.

ALL PRIVATE EXISTING UTILITIES NOT INCLUDED IN THE PLAN ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED. WATER VALVES WILL BE ADJUSTED AND PAID FOR AS A CONTRACT BID ITEM.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. ANY UTILITIES DAMAGED DUE TO CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

THE EARTHWORK YARDAGE IS ESTIMATED BY EXPANDING THE FILL VOLUME. AN EXPANSION FACTOR OF 1.15 IS USED.

DISTURBED AREAS WITHIN RIGHT-OF-WAY OR TLE SHALL BE RESTORED IN KIND BY DIRECTION OF THE ENGINEER WITH THE FOLLOWING FINISHING ITEMS: 4" TOPSOIL AND SOD LAWN, 6" BASE AGGREGATE DENSE ¾-INCH, OR 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1¼-INCH. TOPSOIL SHALL BE APPLIED WITHIN 7 DAYS AFTER GRADING WORK IS COMPLETED. SOD SHALL BE APPLIED WITHIN 7 DAYS AFTER PLACEMENT OF TOPSOIL.

EROSION CONTROL DEVICES WILL BE PLACED IN SEQUENCE WITH CONSTRUCTION ACTIVITIES AS DETERMINED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY ENGINEER.

REMOVAL OF EROSION CONTROL DEVICES IS INCIDENTAL TO THE COST OF THEIR RESPECTIVE BID ITEMS.

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES WILL BE FILLED WITH COMPACTED GRANULAR BACKFILL UNLESS REGULATIONS REQUIRE OTHERWISE. BACKFILL GRANULAR IS INCIDENTAL TO THE REMOVAL ITEM.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE LINE. CURB AND GUTTER RADII ARE MEASURED TO THE FACE.

CURB AND GUTTER JOINTS SHALL BE ALIGNED WITH CONCRETE PAVEMENT JOINTS.

1/2-INCH FELT EXPANSION JOINT MATERIAL IS REQUIRED BETWEEN BACK OF CURB AND FRONT OF WALK OR DRIVEWAY APRON.

TRAFFIC CONTROL DEVICES WILL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

CONTRACTOR TO INSTALL BUREAU OF ELECTRICAL SERVICES CONDUIT AND COMMUNICATIONS CONDUIT AS SHOWN ON THE PLAN.

LOCATION OF STRUCTURES IN CURB AND GUTTER REFER TO CURB AND GUTTER FLOW LINE. LOCATION OF STRUCTURES NOT IN CURB AND GUTTER SECTION REFER TO CENTER OF STRUCTURE OR AS NOTED ON PLAN.

RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET OR AT CENTER OF MANHOLE. SEE STRUCTURE LOCATION DETAIL.

USE MONOLITHIC CONCRETE SHIMMING AS SHOWN ON PLANS FOR FINAL ADJUSTMENT OF DRAINAGE STRUCTURES LOCATED WITHIN THE CONCRETE PAVEMENT, AND CONCRETE CURB AND GUTTER. IF THE ADJUSTMENT IS LESS THAN 4-INCHES, THE ENGINEER MAY CHOOSE TO DIRECT THE CONTRACTOR TO USE GRADE RINGS FOR ADJUSTMENTS FOR STORM SEWER STRUCTURES.

PLAN LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND IS USED FOR ESTIMATING.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES AND PIPES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

VERIFY THE EXISTING STORM SEWER SYSTEM CONNECTION LOCATIONS AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

SEE REMOVAL PLANS FOR REMOVAL OF EXISTING STORM SEWER SYSTEM.

ALL DRAINAGE STRUCTURES, EXISTING OR PROPOSED, SUBJECT TO TRAFFIC LOADING SHALL HAVE NON-ROCKING COVERS AS DIRECTED BY THE ENGINEER IN THE FIELD. COST INCIDENTAL TO NEW COVER ON PROPOSED STRUCTURE.

PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT DURING ALL PROJECT STAGES. PROVIDING TEMPORARY POSITIVE DRAINAGE IS INCIDENTAL TO CONSTRUCTION.

CONSTRUCTION AND REMOVAL OF TEMPORARY BULKHEAD IS CONSIDERED INCIDENTAL TO COST OF STORM SEWER PIPE OR STORM SEWER STRUCTURE WHEN A PIPE OR STRUCTURE IS CONSTRUCTED OR REMOVED IN MULTIPLE STAGES.

UTILITY/AGENCY CONTACTS

AT&T WISCONSIN - COMMUNICATIONS LINE
JAY BULANEK
262-896-7669
JB5175@ATT.COM
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188-2443

CITY OF MILWAUKEE - SEWER
ZAFAR YOUSUF
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ZYOUSU@MILWAUKEE.GOV
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MILWAUKEE, WI 53202

CITY OF MILWAUKEE - STREET LIGHTS
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MILWAUKEE, WI 53202

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JCBLAKE@MILWAUKEE.GOV
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MILWAUKEE, WI 53202

CITY OF MILWAUKEE - UTILITY COORDINATION
TBD
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MILWAUKEE, WI 53202

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WIS.ENGINEERING@TWCABLE.COM
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212-4002

TIME WARNER TELECOM OF WISCONSIN LP - COMMUNICATION LINE
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BRAHIM.GADDOUR@TWTELECOM.COM
3235 INTERTECH DR., SUITE 600
BROOKFIELD, WI 53045

WE ENERGIES - GAS, ELECTRIC
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WE ENERGIES - FIELD CONTACT ELECTRIC
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WE ENERGIES - FIELD CONTACT GAS
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WEST ALLIS, WI 53214

OTHER CONTACTS

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MILWAUKEE COUNTY TRANSIT SYSTEM,
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MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
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MKLAPPASULLIVAN@MMSD.COM
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MILWAUKEE, WI 53204

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT FIELD CONTACT
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260 W. SEEBOTH ST.
MILWAUKEE, WI 53204

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MILWAUKEE, WI 53212

KAPUR & ASSOCIATES
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MILWAUKEE, WI 53217

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

DESIGN INDEX

TITLE
GENERAL NOTES AND UTILITY CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PAVING GRADES
PLAN DETAILS
EROSION CONTROL
STORM SEWER
TRAFFIC SIGNAL PLAN
UTILITY PLAN
LIGHTING PLANS
TRAFFIC INTERCONNECT PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT PLAN

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	GENERAL NOTES AND UTILITY CONTACTS	SHEET 2	E

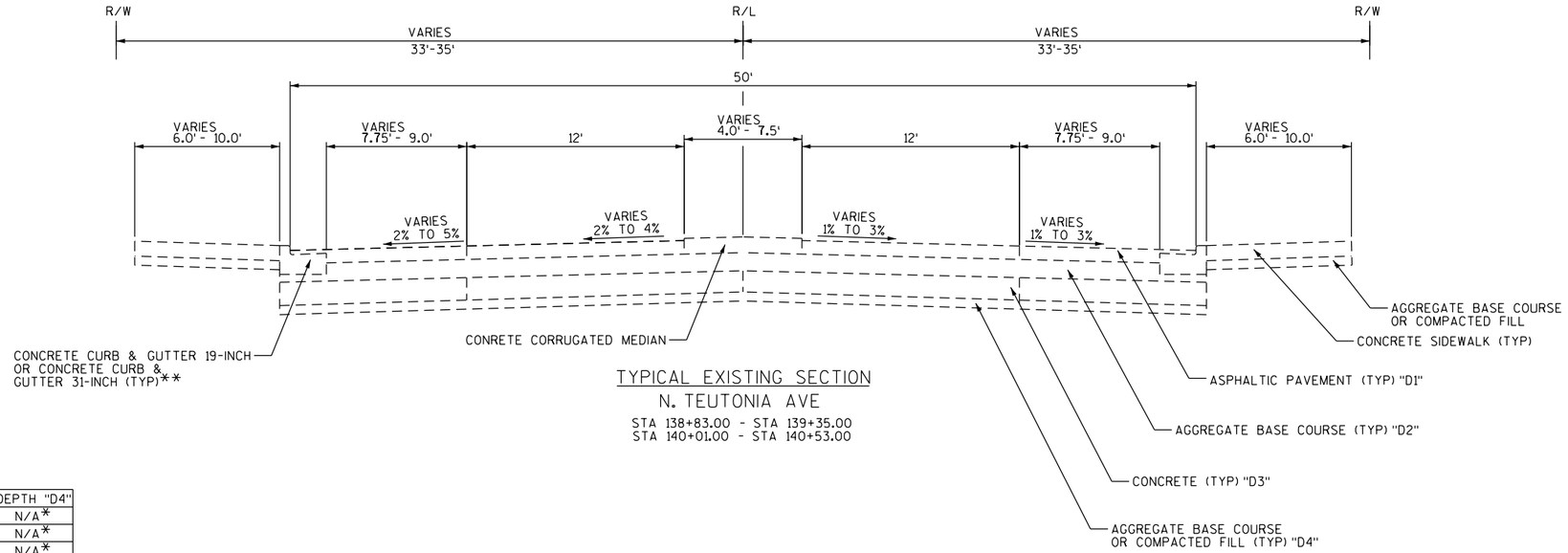
STANDARD ABBREVIATIONS

<	ANGLE
ADT	AVERAGE DAILY TRAFFIC
AC	ACRE
AE, AEW	APRON ENDWALL
AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALTIC
BC	BACK OF CURB
BF	BACK FACE
BIT	EXISTING BITUMINOUS
BM	BENCH MARK
BEG	BEGIN
BK	BACK
C & G	CURB AND GUTTER
CABC	CRUSHED AGGREGATE BASE COURSE
CB	CATCH BASIN
CMCP	CORRUGATED METAL CULVERT PIPE
CMP	CORRUGATED METAL PIPE
CP	CULVERT PIPE
CY	CUBIC YARD
CL OR C/L	CENTER LINE
CO	COUNTY
CONC	CONCRETE
CONST	CONSTRUCTION
CR	CREEK
CSO	COMBINED SEWER OVERFLOW
CTH	COUNTY TRUNK HIGHWAY
CWT	HUNDRED WEIGHT
D	DEGREE OF CURVE
△	DELTA
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DISCH	DISCHARGE
E	EAST
EA	EACH
EB	EASTBOUND
EBS	EXCAVATION BELOW SUBGRADE
EL, ELEV	ELEVATION
ELEC	ELECTRIC(AL), ELEC CABLE
EMB	EMBANKMENT
ESALS	EQUIVALENT SINGLE AXEL LOADS
ESMT	EASEMENT
EW	ENDWALL
EXC	EXCAVATION
EXIST	EXISTING BITUMINOUS
EXP	EXPANSION
FC	FACE OF CURB
FE	FIELD ENTRANCE
FF	FACE TO FACE
F/L, FL	FLOW LINE
FERT	FERTILIZER
FHWA	FEDERAL HIGHWAY
FT	FOOT (FEET)
G	GAS
GN	GRID NORTH
H	HOUSE
HMA	HOT MIX ASPHALT
HP	HIGH POINT
HR	HANDICAP RAMP
HYD	HYDRANT
I	INTERSECTION ANGLE
ID	INSIDE DIAMETER
INL	INLET
INTER	INTERSECTION
INV	INVERT
IP	IRON PIPE
JT	JOINT
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
LB	POUND
LC	LONG CHORD OF CURVE
LP	LOW POINT
LF	LINEAR FOOT(FEET)
LHF	LEFT HAND FORWARD
LS	LUMP SUM
LT	LEFT
M	MARSH
MATL	MATERIAL
MP	MARKER POST
MAX	MAXIMUM
MGAL	1000 GALLONS
MH	MANHOLE
MIN	MINIMUM
ML OR M/L	MATCH LINE
N	NORTH
NB	NORTHBOUND
NC	NORMAL CROWN OR NO CHANGE
NO	NUMBER
NW OR N/W	NORMAL WATER
OBLIT	OBLITERATE
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PRC	POINT OF REVERSE CURVE
PROJ	PROJECT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PAV'T	PAVEMENT
PCC	PORTLAND CEMENT CONCRETE
R	RADIUS OR RANGE
RC	REVERSE CURVE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCHECP	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CULVERT PIPE
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
RHF	RIGHT HAND FORWARD
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RD	ROAD
RDWY	ROADWAY
REL	RELOCATE
REM	REMAINING
REQD	REQUIRED
RO	RUN OFF LENGTH
RT	RIGHT
RW	RETAINING WALL
S	SOUTH
SALV	SALVAGED
SAN/SA	SANITARY
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPERELEVATION
SEC	SECTION
SF	SQUARE FOOT (FEET)
S/L	SURVEY LINE
SHLDR	SHOULDER(S)
SHR	SHRINKAGE
SPECS	SPECIFICATIONS
SS	STORM SEWER
STA	STATION
STH	STATE TRUNK HIGHWAY
STR	STRUCTURE
SW	SIDEWALK
SY	SQUARE YARD
TAN	TANGENT
TEL	TELEPHONE
T	(TRUCKS) PERCENT OF
TC	TOP OF CURB
TAN	TANGENT
TEMP	TEMPORARY
TL OR T/L	TRANSIT LINE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
UG	UNDERGROUND (CABLE)
UNCL	UNCLASSIFIED
VAR	VARIABLE
VCL	VERTICAL CURVE LENGTH
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPRC	VERTICAL POINT OF REVERSE CURVE
VPT	VERTICAL POINT OF TANGENCY
VLV	VALVE
VOL	VOLUME
W	WEST
WB	WESTBOUND
WV	WATER VALVE
X	EASTING OR EAST GRID COORDINATE
Y	NORTHING OR NORTH GRID COORDINATE
YD	YARD

2



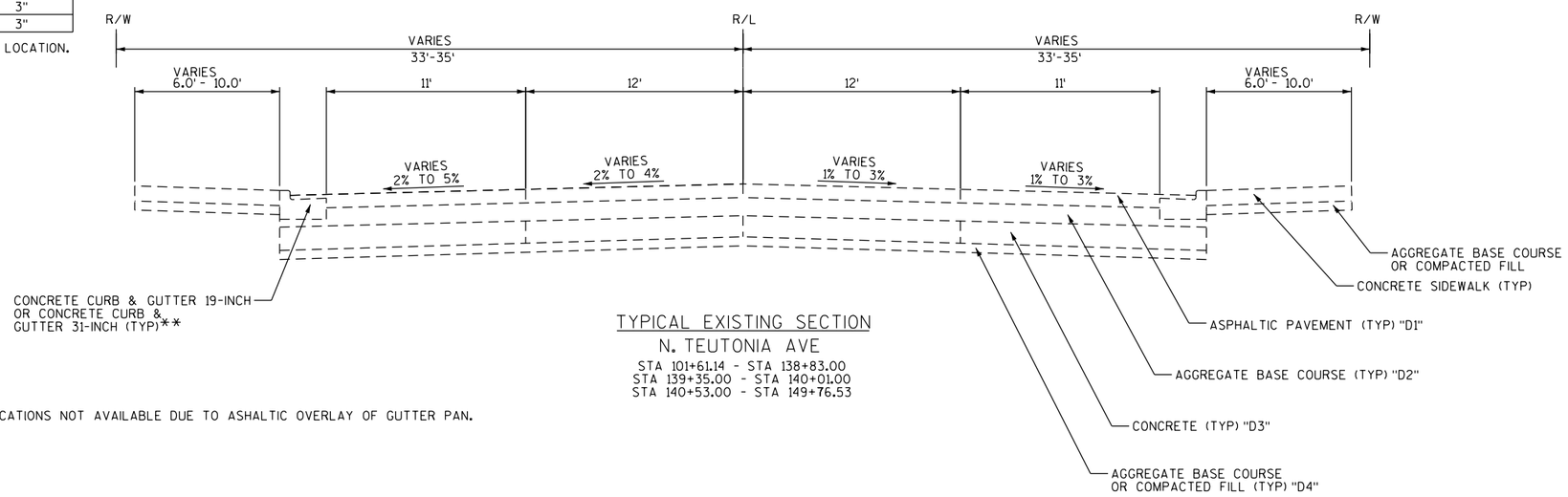
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E



TYPICAL EXISTING SECTION
N. TEUTONIA AVE
STA 138+83.00 - STA 139+35.00
STA 140+01.00 - STA 140+53.00

BORING #	STA TO STA	DEPTH "D1"	DEPTH "D2"	DEPTH "D3"	DEPTH "D4"
1	STA 100+35.05 TO STA 102+55.00	5"	N/A	8"	N/A*
2	STA 102+55.00 TO STA 105+30.00	3"	N/A	9"	N/A*
3	STA 105+30.00 TO STA 109+10.00	2"	3"	5"	N/A*
4	STA 109+10.00 TO STA 112+40.00	2"	5"	6"	N/A*
5	STA 112+40.00 TO STA 115+10.00	5"	N/A	7"	N/A*
6	STA 115+10.00 TO STA 118+35.00	3"	N/A	N/A	6"
7	STA 118+35.00 TO STA 121+70.00	4"	N/A	6"	N/A*
8	STA 121+70.00 TO STA 124+95.00	4"	N/A	N/A	6"
9	STA 124+95.00 TO STA 128+15.00	7"	N/A	6"	N/A*
10	STA 128+15.00 TO STA 131+60.00	4"	N/A	8"	N/A*
11	STA 131+60.00 TO STA 134+85.00	5"	N/A	8"	3"
12	STA 134+85.00 TO STA 137+50.00	5"	N/A	5"	2"
13	STA 137+50.00 TO STA 141+50.00	5"	N/A	6"	3"
14	STA 141+50.00 TO STA 146+35.00	5"	N/A	8"	3"
15	STA 146+35.00 TO STA 146+96.13	4"	6"	6"	3"

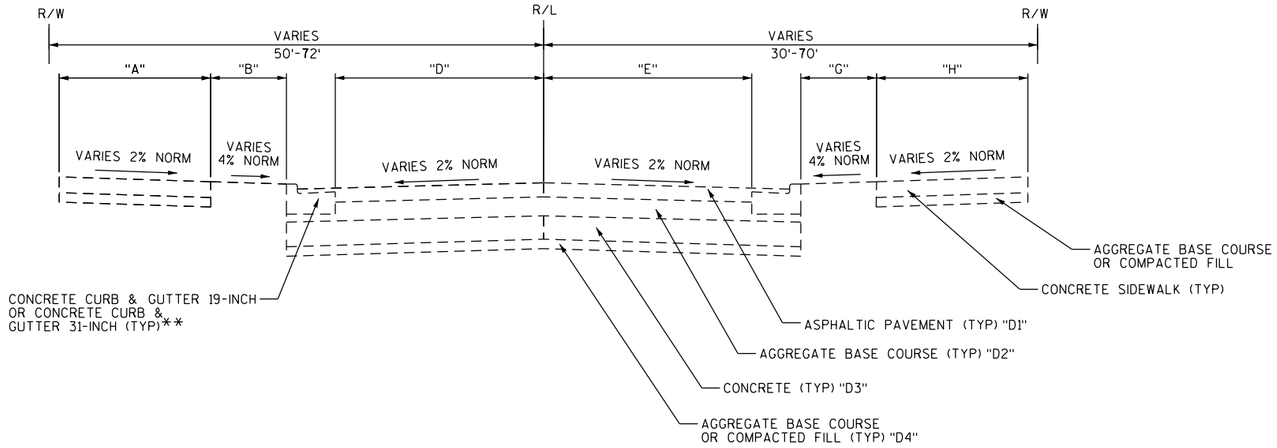
* = NO GRANULAR BASE FOUND AT BORING LOCATION.



TYPICAL EXISTING SECTION
N. TEUTONIA AVE
STA 101+61.14 - STA 138+83.00
STA 139+35.00 - STA 140+01.00
STA 140+53.00 - STA 149+76.53

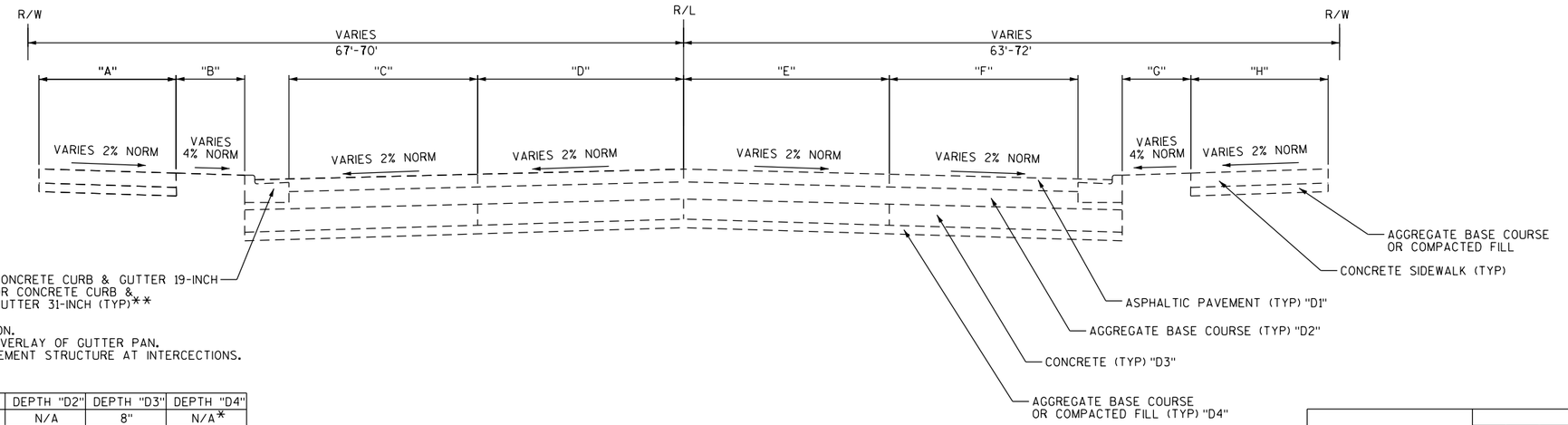
NOTE:
** = LOCATIONS NOT AVAILABLE DUE TO ASHALTIC OVERLAY OF GUTTER PAN.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 5	E



TYPICAL EXISTING SECTION
SIDE ROADS

W. MEINECKE AVE (EAST) STA 50+00.00 - STA 51+38.35
W. MEINECKE AVE (WEST) STA 49+50.51 - STA 50+00.00
W. WRIGHT ST (EAST) STA 50+00.00- STA 50+43.05
W. WRIGHT ST (WEST) STA 49+33.00 - STA 50+00.00
W. CLARKE ST (EAST) STA 50+00.00 - STA 50+67.00
W. CLARKE ST (WEST) STA 49+28.65 - STA 50+00.00
W. HADLEY ST (WEST) STA 49+32.34 - STA 50+00.00
W. HADLEY ST (EAST) STA 50+00.00 - STA 50+79.93
W. ALBANY PL STA 50+00.00 - STA 50+62.90
W. GROELING AVE (WEST) STA 49+34.88- STA 50+00.00
W. GROELING AVE (EAST) STA 50+00.00 - STA 50+67.27



NOTE:
* = NO GRANULAR BASE FOUND AT BORING LOCATION.
** = LOCATIONS NOT AVAILABLE DUE TO ASHALTIC OVERLAY OF GUTTER PAN.
*** = SIDEROADS ASSUMED TO MATCH MAINLINE PAVEMENT STRUCTURE AT INTERCECTIONS.

BORING #	SIDEROAD***	DEPTH "D1"	DEPTH "D2"	DEPTH "D3"	DEPTH "D4"
1	STA 100+35.05 TO STA 102+55.00	5"	N/A	8"	N/A*
2	STA 102+55.00 TO STA 105+30.00	3"	N/A	9"	N/A*
3	STA 105+30.00 TO STA 109+10.00	2"	3"	5"	N/A*
4	STA 109+10.00 TO STA 112+40.00	2"	5"	6"	N/A*
5	STA 112+40.00 TO STA 115+10.00	5"	N/A	7"	N/A*
6	STA 115+10.00 TO STA 118+35.00	3"	N/A	5"	6"
7	STA 118+35.00 TO STA 121+70.00	4"	N/A	6"	N/A*
8	STA 121+70.00 TO STA 124+95.00	4"	N/A	5"	6"
9	STA 124+95.00 TO STA 128+15.00	7"	N/A	6"	N/A*
10	STA 128+15.00 TO STA 131+60.00	4"	N/A	8"	N/A*
11	STA 131+60.00 TO STA 134+85.00	5"	N/A	8"	3"
12	STA 134+85.00 TO STA 137+50.00	5"	N/A	5"	2"
13	STA 137+50.00 TO STA 141+50.00	5"	N/A	6"	3"
14	STA 141+50.00 TO STA 146+35.00	5"	N/A	8"	3"
15	STA 146+35.00 TO STA 146+96.13	4"	6"	6"	3"

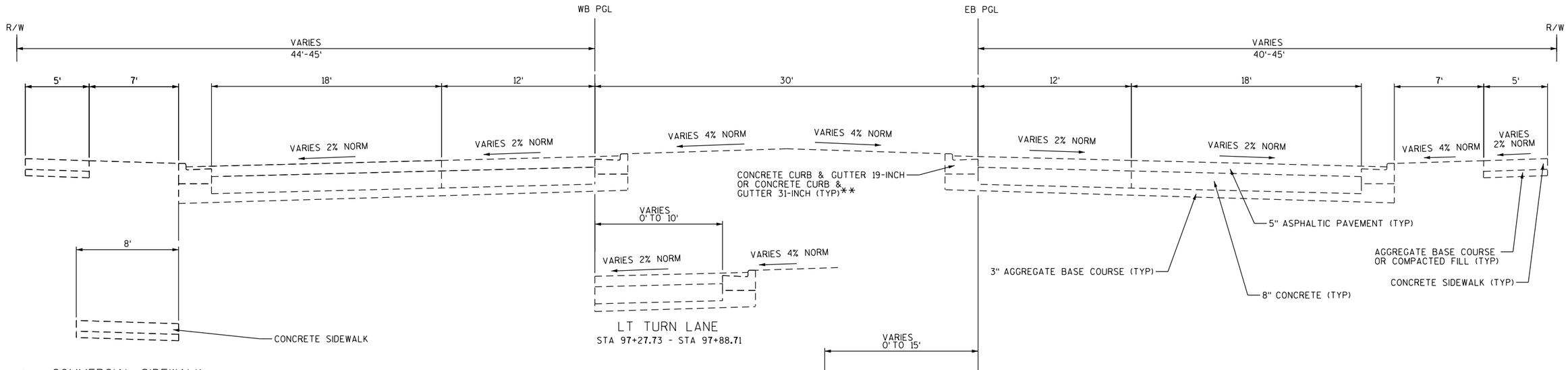
* = NO GRANULAR BASE FOUND AT BORING LOCATION.

TYPICAL EXISTING SECTION
SIDE ROADS

W. NORTH AVE STA 48+72.68 - STA 51+50.58
W. CENTER ST STA 49+05.00 - STA 51+25.00

STEET NAME	DIMENSIONS							
	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
W. NORTH AVE (WEST)	5.0'	5.0'	11.0'	12.0'	12.0'	11.0'	N/A	7.0'
W. NORTH AVE (EAST)	6.0'	N/A	11.0'	12.0'	12.0'	11.0'	N/A	7.0'
W. MEINECKE AVE (EAST)	6.0'	4.0'	N/A	14.0'	14.0'	N/A	4.0'	6.0'
W. MEINECKE AVE (WEST)	5.0'	5.0'	N/A	14.0'	14.0'	N/A	N/A	10.0'
W. WRIGHT ST (EAST)	5.0'	5.0'	N/A	13.0'	13.0'	N/A	5.0'	5.0'
W. WRIGHT ST (WEST)	5.0'	5.0'	N/A	13.0'	13.0'	N/A	5.0'	5.0'
W. CLARKE ST (EAST)	10.0'	N/A	N/A	13.0'	13.0'	N/A	4.0'	6.0'
W. CLARKE ST (WEST)	6.0'	3.0'	N/A	13.0'	13.0'	N/A	4.0'	6.0'
W. CENTER ST	10.0'	N/A	11.0'	12.0'	12.0'	11.0'	N/A	7.0'
W. HADLEY ST (WEST)	9.0'	N/A	N/A	18.0'	18.0'	N/A	N/A	9.0'
W. HADLEY ST (EAST)	6.0'	3.0'	N/A	16.0'	16.0'	N/A	N/A	9.0'
W. ALBANY PL	4.5'	N/A	N/A	10.0'	10.0'	N/A	N/A	5.5'
W. GROELING AVE	4.0'	N/A	N/A	8.0'	8.0'	N/A	N/A	4.0'
W. GROELING AVE	7.0'	N/A	N/A	14.0'	14.0'	N/A	N/A	7.0'

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 6	E



COMMERCIAL SIDEWALK
STA 95+31.67 - STA 97+24.29

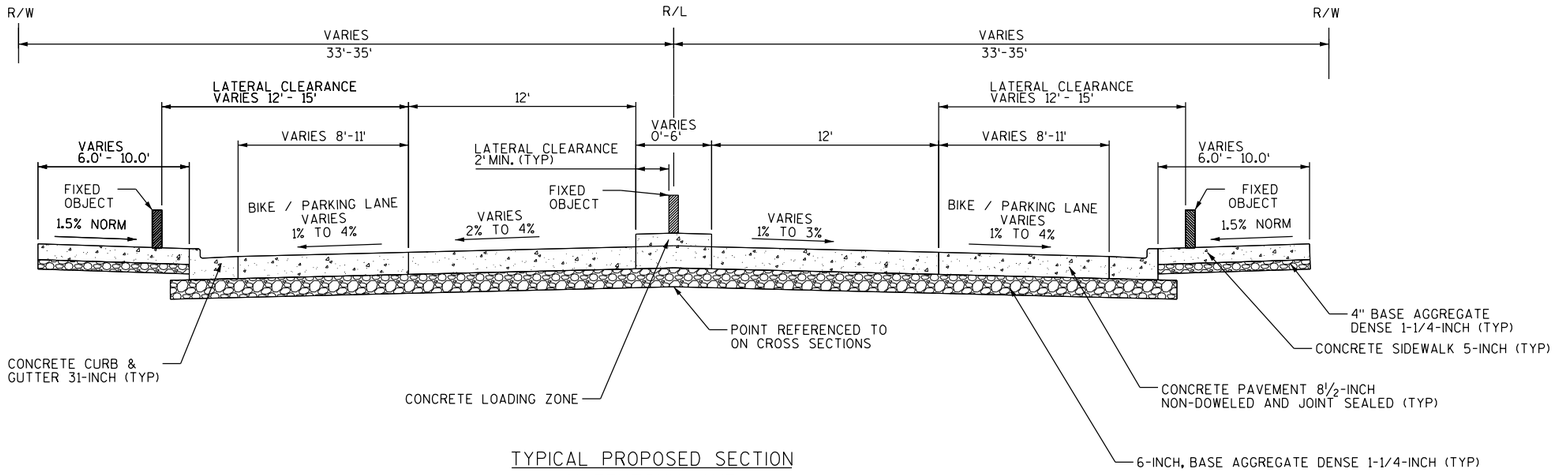
TYPICAL EXISTING SECTION
W. LOCUST ST EB & WB
(EB) STA 94+56.99 - STA 97+88.90
(WB) STA 94+59.86 - STA 97+88.67

NOTE:
* = NO GRANULAR BASE FOUND AT BORING LOCATION.
** = LOCATIONS NOT AVAILABLE DUE TO ASHALTIC OVERLAY OF GUTTER PAN.
*** = SIDEROADS ASSUMED TO MATCH MAINLINE PAVEMENT STRUCTURE AT INTERCECTIONS.

BORING #	SIDEROAD***	DEPTH "D1"	DEPTH "D2"	DEPTH "D3"	DEPTH "D4"
1	STA 100+35.05 TO STA 102+55.00	5"	N/A	8"	N/A*
2	STA 102+55.00 TO STA 105+30.00	3"	N/A	9"	N/A*
3	STA 105+30.00 TO STA 109+10.00	2"	3"	5"	N/A*
4	STA 109+10.00 TO STA 112+40.00	2"	5"	6"	N/A*
5	STA 112+40.00 TO STA 115+10.00	5"	N/A	7"	N/A*
6	STA 115+10.00 TO STA 118+35.00	3"	N/A	N/A	6"
7	STA 118+35.00 TO STA 121+70.00	4"	N/A	6"	N/A*
8	STA 121+70.00 TO STA 124+95.00	4"	N/A	N/A	6"
9	STA 124+95.00 TO STA 128+15.00	7"	N/A	6"	N/A*
10	STA 128+15.00 TO STA 131+60.00	4"	N/A	8"	N/A*
11	STA 131+60.00 TO STA 134+85.00	5"	N/A	8"	3"
12	STA 134+85.00 TO STA 137+50.00	5"	N/A	5"	2"
13	STA 137+50.00 TO STA 141+50.00	5"	N/A	6"	3"
14	STA 141+50.00 TO STA 146+35.00	5"	N/A	8"	3"
15	STA 146+35.00 TO STA 146+96.13	4"	6"	6"	3"

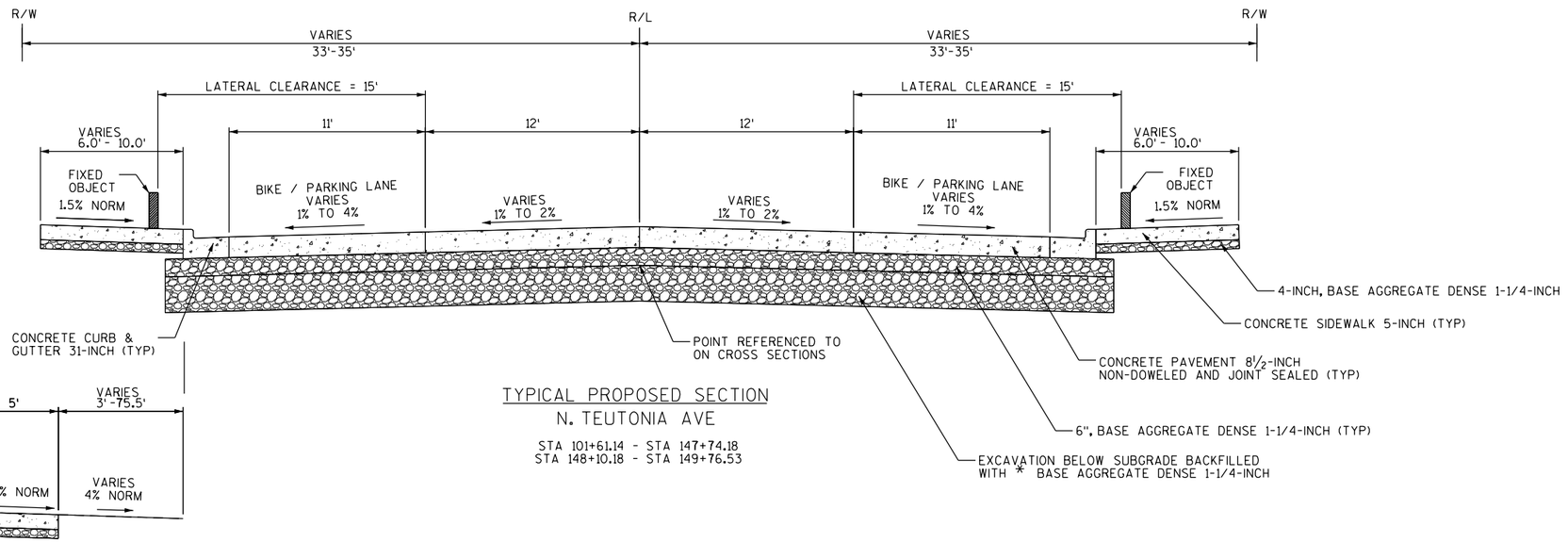
* = NO GRANULAR BASE FOUND AT BORING LOCATION.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 7	E



TYPICAL PROPOSED SECTION
N. TEUTONIA AVE

STA 147+74.18 - STA 148+10.18



TYPICAL PROPOSED SECTION
N. TEUTONIA AVE

STA 101+61.14 - STA 147+74.18
STA 148+10.18 - STA 149+76.53

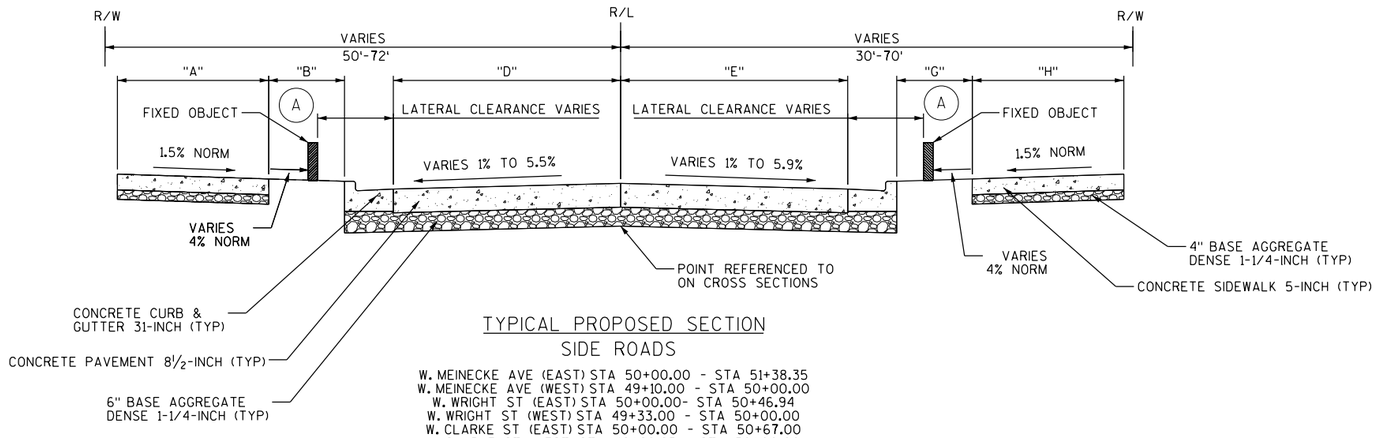
STA 140+87.00 - STA 145+00.05

* 12-INCH STA 103+00 - STA 106+00
STA 110+00 - STA 112+50
STA 124+50- STA 132+50
STA 146+50 - STA 149+00

* 24-INCH STA 106+00 - STA 110+00

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET 8	E

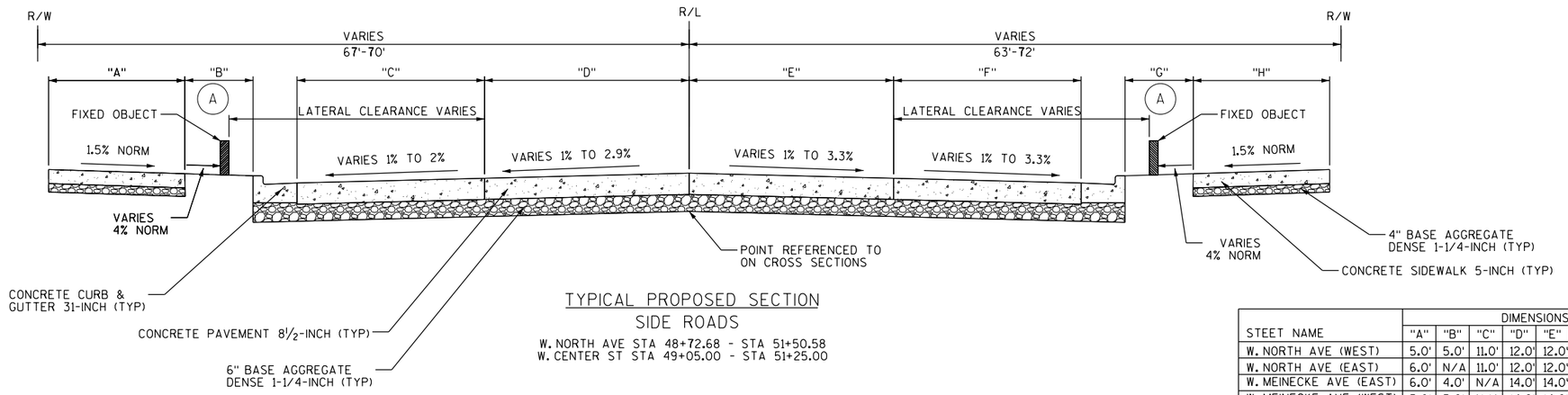
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TYPICAL PROPOSED SECTION

SIDE ROADS

W. MEINECKE AVE (EAST) STA 50+00.00 - STA 51+38.35
W. MEINECKE AVE (WEST) STA 49+10.00 - STA 50+00.00
W. WRIGHT ST (EAST) STA 50+00.00- STA 50+46.94
W. WRIGHT ST (WEST) STA 49+33.00 - STA 50+00.00
W. CLARKE ST (EAST) STA 50+00.00 - STA 50+67.00
W. CLARKE ST (WEST) STA 49+28.65 - STA 50+00.00
W. HADLEY ST (WEST) STA 49+32.34 - STA 50+00.00
W. HADLEY ST (EAST) STA 50+00.00 - STA 50+73.93
W. ALBANY PL STA 50+00.00 - STA 50+62.90
W. GROELING AVE (WEST) STA 49+34.88- STA 50+00.00
W. GROELING AVE (EAST) STA 50+00.00 - STA 50+67.27



TYPICAL PROPOSED SECTION

SIDE ROADS

W. NORTH AVE STA 48+72.68 - STA 51+50.58
W. CENTER ST STA 49+05.00 - STA 51+25.00

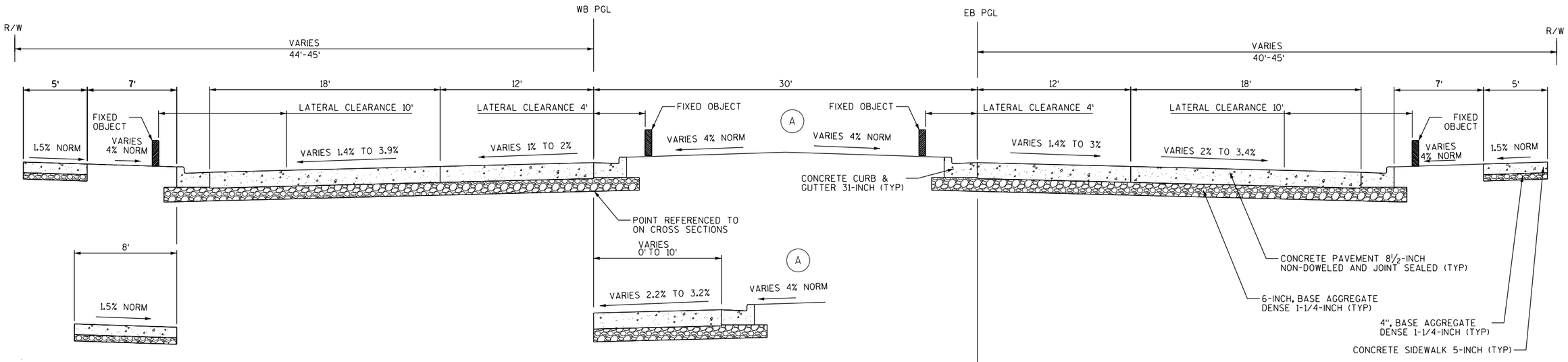
STEET NAME	DIMENSIONS								
	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"LC"
W. NORTH AVE (WEST)	5.0'	5.0'	11.0'	12.0'	12.0'	11.0'	N/A	7.0'	13.0'
W. NORTH AVE (EAST)	6.0'	N/A	11.0'	12.0'	12.0'	11.0'	N/A	7.0'	13.0'
W. MEINECKE AVE (EAST)	6.0'	4.0'	N/A	14.0'	14.0'	N/A	4.0'	6.0'	2.0'
W. MEINECKE AVE (WEST)	5.0'	5.0'	N/A	14.0'	14.0'	N/A	N/A	10.0'	2.0'
W. WRIGHT ST (EAST)	5.0'	5.0'	N/A	13.0'	13.0'	N/A	5.0'	5.0'	2.0'
W. WRIGHT ST (WEST)	5.0'	5.0'	N/A	13.0'	13.0'	N/A	5.0'	5.0'	2.0'
W. CLARKE ST (EAST)	10.0'	N/A	N/A	13.0'	13.0'	N/A	4.0'	6.0'	2.0'
W. CLARKE ST (WEST)	6.0'	3.0'	N/A	13.0'	13.0'	N/A	4.0'	6.0'	2.0'
W. CENTER ST	10.0'	N/A	11.0'	12.0'	12.0'	11.0'	N/A	7.0'	13.0'
W. HADLEY ST (WEST)	9.0'	N/A	N/A	18.0'	18.0'	N/A	N/A	9.0'	2.0'
W. HADLEY ST (EAST)	6.0'	3.0'	N/A	16.0'	16.0'	N/A	N/A	9.0'	2.0'
W. ALBANY PL	4.5'	N/A	N/A	10.0'	10.0'	N/A	N/A	5.5'	2.0'
W. GROELING AVE	4.0'	N/A	N/A	8.0'	8.0'	N/A	N/A	4.0'	2.0'
W. GROELING AVE	7.0'	N/A	N/A	14.0'	14.0'	N/A	N/A	7.0'	2.0'

LEGEND

(A) 6" TOPSOIL, SOD LAWN AND FERTILIZER TYPE B

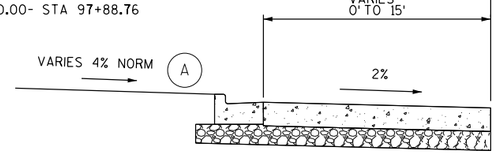
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET 9	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\020302_TS.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : NTS



COMMERCIAL SIDEWALK
STA 95+31.67 - STA 97+24.29

LT TURN LANE
STA 97+20.00- STA 97+88.76



LT TURN LANE
STA 95+31.67- STA 96+80.29

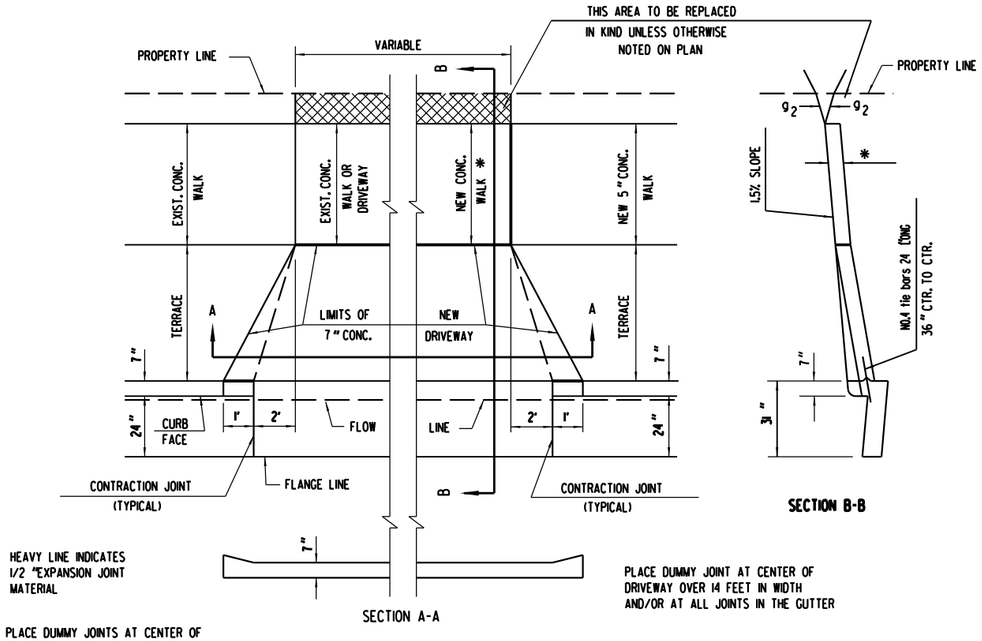
TYPICAL PROPOSED SECTION

EB W. LOCUST AVE STA 94+56.99 - STA 96+80.29
EB W. LOCUST AVE STA 97+27.73 - STA 97+88.90
WB W. LOCUST AVE 94+59.86 - STA 96+72.12
WB W. LOCUST AVE 97+20.00 - STA 97+88.67

LEGEND

(A) 6" TOPSOIL, SOD LAWN AND FERTILIZER TYPE B

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TYPICAL FINISHED SECTIONS	SHEET 10	E



HEAVY LINE INDICATES 1/2 "EXPANSION JOINT MATERIAL

PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY AND/OR AT ALL JOINTS IN THE GUTTER

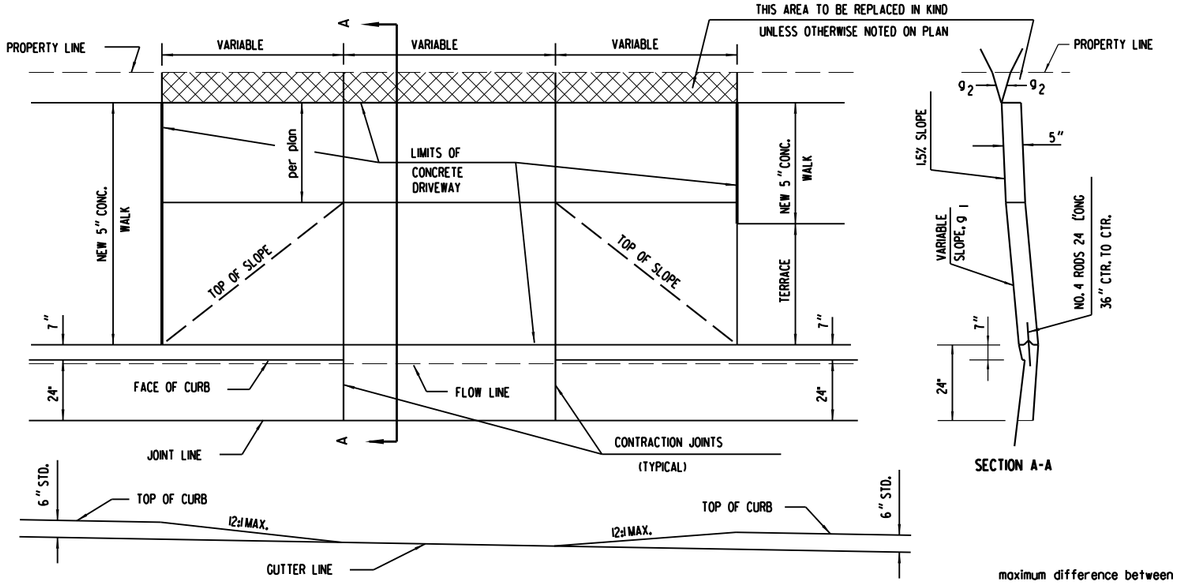
PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER

maximum difference between g_1 & g_2 not to exceed 15% desirable maximum = 10%

maximum difference between g_1 & g_2 in fill = 14%

* 8" HES CONCRETE AT FIRE STATION

FLARED CONCRETE DRIVEWAY



HEAVY LINE INDICATES 1/2 "EXPANSION JOINT MATERIAL

DRIVEWAY CONSTRUCTION NOTES

CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY AND INSTALL 1/2 "EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY. PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

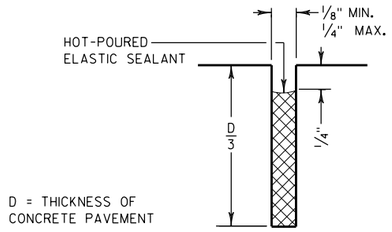
maximum difference between g_1 & g_2 not to exceed 15% desirable maximum = 10%

maximum difference between g_1 & g_2 in fill = 14%

DEPRESSED CONCRETE DRIVEWAY (MODIFIED)

NOTES

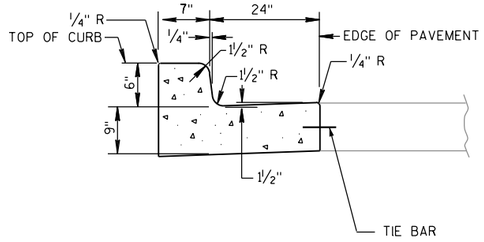
1) THIS DETAIL IS APPLICABLE TO NEW CONCRETE PAVEMENT.
2) POLYETHYLENE PLASTIC PARTING STRIPS ARE NOT ALLOWED AS AN ALTERNATIVE JOINT TYPE.
3) THIS WORK IS INCLUDED IN THE ITEMS "CONCRETE PAVEMENT 7-INCH NON DOWELED AND JOINT SEALED".



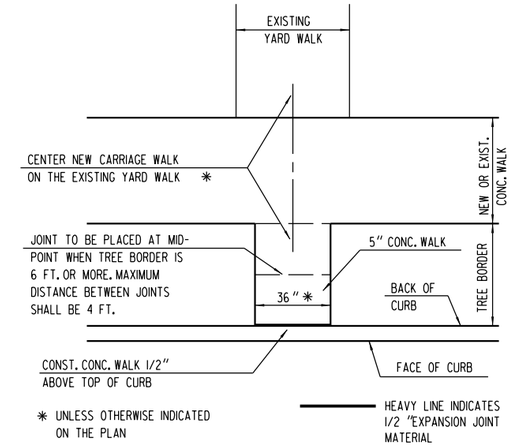
JOINT AND JOINT SEALANT FOR CONCRETE PAVEMENT DETAIL

NOTES

1) DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING WILL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

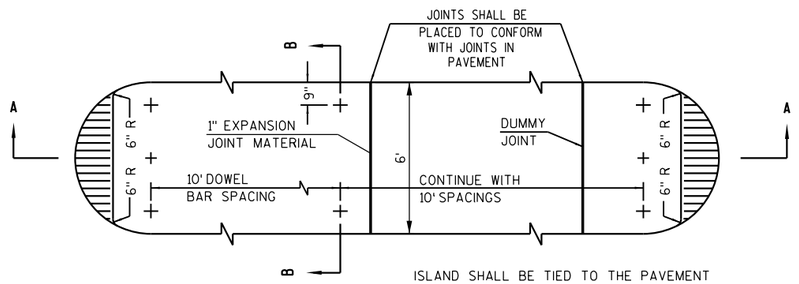


CONCRETE CURB & GUTTER 31"

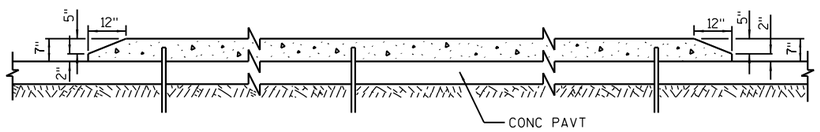


CARRIAGE WALK

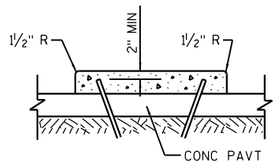
2



ISLAND SHALL BE TIED TO THE PAVEMENT BY PLACING 3/4" DIA. X 18" DOWEL BARS AS DIRECTED BY THE ENGINEER. COST INCLUDED IN COST OF CONCRETE LOADING ZONE



SECTION A-A



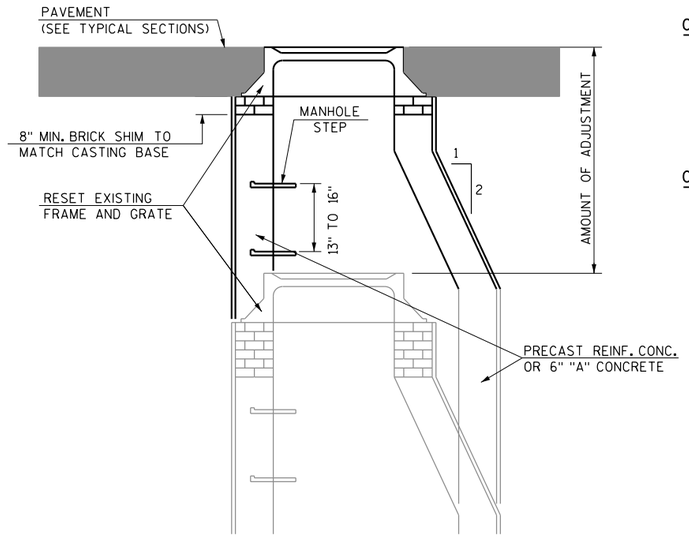
SECTION B - B

NOTE:

SIZE AND LOCATION OF CITY OF MILWAUKEE ELECTRICAL SERVICES BOXOUTS IN CONCRETE ISLANDS ON BASE TO BE DETERMINED IN FIELD AT THE TIME OF CONSTRUCTION

CONCRETE LOADING ZONE

(WITH SNOWPLOWABLE NOSE)



CORBEL MAY BE REVERSED STRAIGHT SIDE LEANED SLIGHTLY TO CLEAR CURB HEAD.

REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

CASE 1 **NEW FRAMES & COVERS FOR EXISTING STRUCTURES:**

0" TO 12" OF ADJUSTMENT WILL BE CONSIDERED INCLUDED IN THE BID ITEM OF THE NEW COVER.

MORE THAN 12" OF ADJUSTMENT WILL BE PAID AS ITEM OF "RECONSTRUCTING MANHOLES OR INLETS".

CASE 2 **EXISTING FRAMES & COVERS TO BE SET TO NEW GRADE**

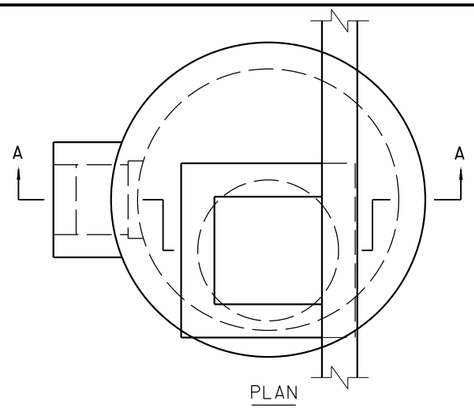
0" TO 12" OF ADJUSTMENT WILL BE PAID AS ITEM OF "ADJUSTING MANHOLE OR INLET COVERS."

MORE THAN 12" OF ADJUSTMENT WILL BE PAID AS ITEM OF "RECONSTRUCTING MANHOLES OR INLETS".

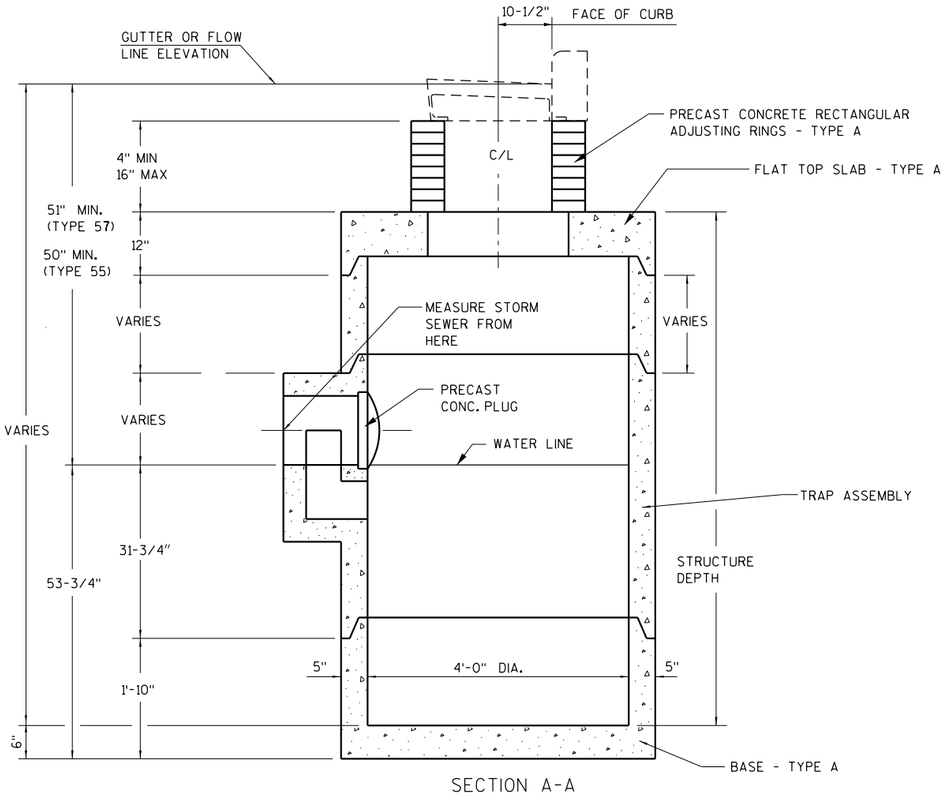
NOTES

1) IN EITHER CASE (1 OR 2), IF ANY REQUIRED ADJUSTMENT (0" TO >12") EXTENDS INTO THE CORBEL, THE ADJUSTMENT SHALL BE PAID AS ITEM OF "RECONSTRUCTING MANHOLES OR INLETS".
2) IN EITHER CASE (1 OR 2), IF THE ENGINEER IN THE FIELD, UPON INSPECTING THE EXISITNG STRUCTURE, DEEMS THE EXISITNG STRUCTURE TO BE IN A CONDITION THAT IS NOT SUITABLE FOR ITS INTENDED PURPOSE (TRAFFIC LOADING) THEN, THE STRUCTURE SHALL BE RECONSTRUCTED AND PAID UNDER THE ITEM OF "RECONSTRUCTING MANHOLES OR INLETS".
3) MANHOLE ADJUSTMENTS IN ASPHALTIC PAVEMENT WILL BE MADE AFTER THE LOWER LAYER IS PLACED.

ADJUSTING & RECONSTRUCTING MANHOLES AND INLETS



PLAN



SECTION A-A

INLET - TYPE 44A

NOTES

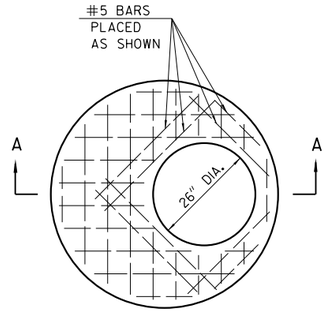
1.) REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

2.) PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

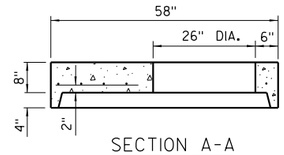
3.) PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4" IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

4.) SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.

5.) A PRECAST CONCRETE PLUG SHALL BE CEMENTED INTO THE OPENING AT THE INNER FACE OF THE CATCH BASIN TRAP ASSEMBLY.



PLAN



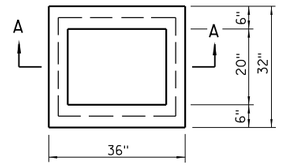
SECTION A-A

TOP SLAB - TYPE A

FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

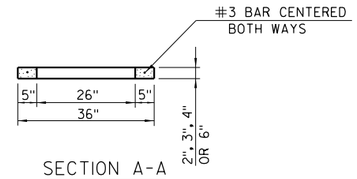
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



PLAN

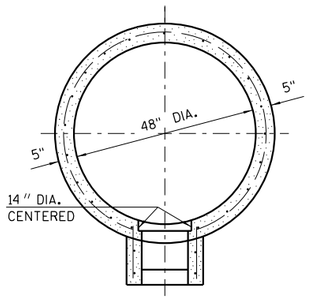
THE ADJUSTING RINGS SHALL BE 2", 3", 4" OR 6" IN HEIGHT.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

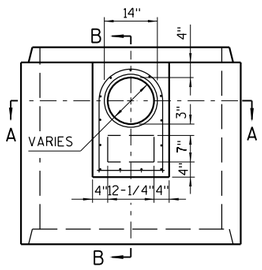


SECTION A-A

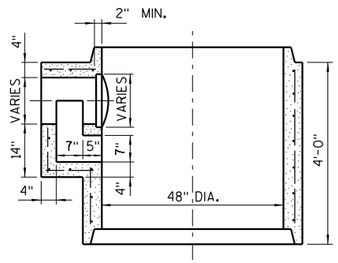
RECTANGULAR ADJUSTING RING - TYPE A



SECTION A-A



PLAN



SECTION B-B

TRAP ASSEMBLY

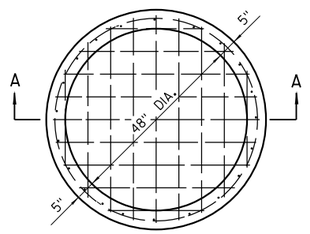
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.



PLAN

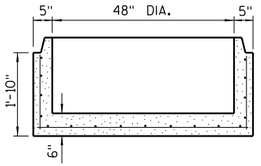
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

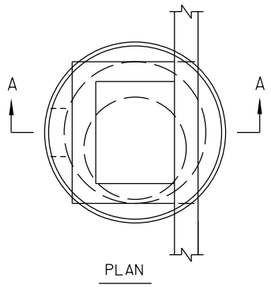
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

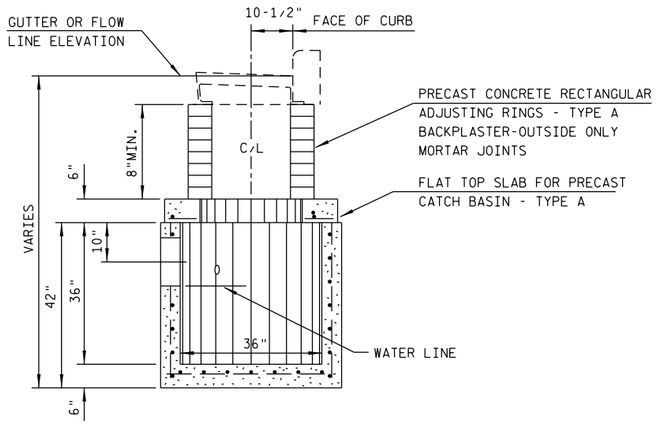


SECTION A-A

BASE - TYPE A



PLAN



SECTION A-A

CATCH BASIN - TYPE 45A

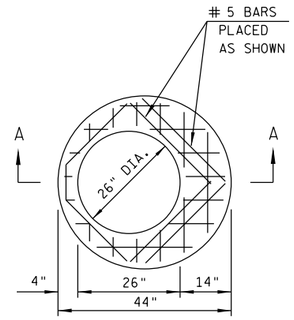
GENERAL NOTES

1. PRECAST CATCH BASIN UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199 AND ASTM DESIGNATION C-478 AND THESE DETAILED REQUIREMENTS WHICH SHALL GOVERN WHERE THEY ALTER THE AASHTO AND ASTM STANDARDS.

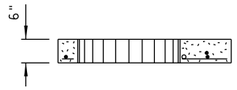
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4 IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.



PLAN



SECTION A-A

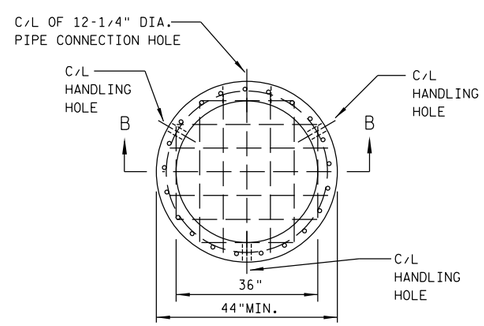
TOP SLAB - TYPE A

FLAT TOP SLAB SHALL BE 6" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED NEAR THE BOTTOM OF THE SLAB WITH 1" CLEAR COVER.

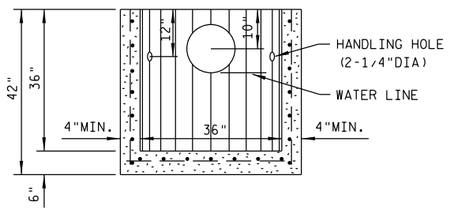
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

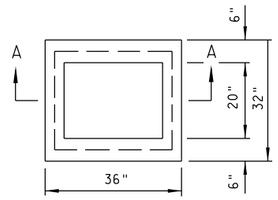
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.



RISER SECTION WITH INTEGRAL BASE PLAN



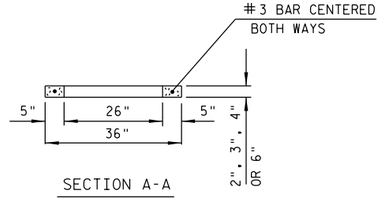
SECTION B-B



PLAN

THE ADJUSTING RINGS SHALL BE 2", 3", 4" OR 6" IN HEIGHT.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A

RECTANGULAR ADJUSTING RING - TYPE A

CIRCUMFERENTIAL AND LONGITUDINAL REINFORCEMENT IN THE RISER SECTON SHALL EACH CONSIST OF ONE LAYER OF STEEL NOT LESS THAN 0.12 SQ. IN. PER FOOT AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

THE BASE SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER FOOT IN BOTH DIRECTIONS, PLACED ABOVE THE MIDPOINT OF THE SLAB.

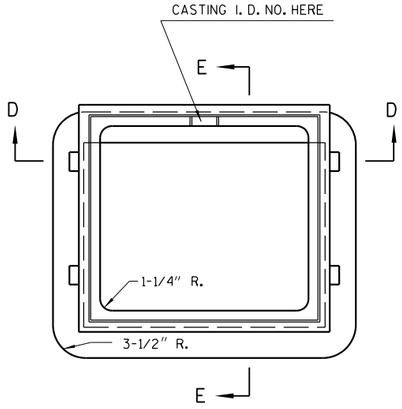
RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

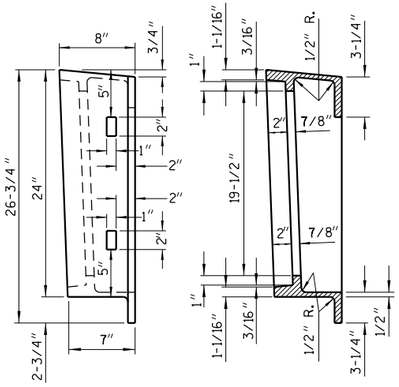
TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE 12-1/4" IN DIAMETER SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

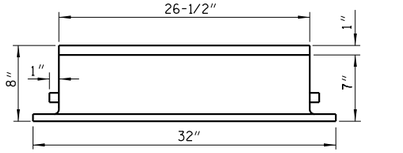
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.

RISER SECTION MAY TAPER TO A 33" INTERNAL DIAMETER AT IT'S BOTTOM PROVIDED A 44" MINIMUM OUTSIDE DIAMETER IS MAINTAINED.

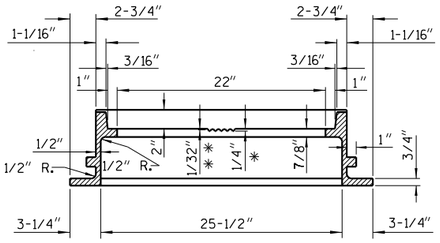




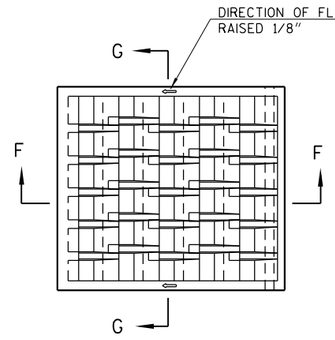
SECTION E-E



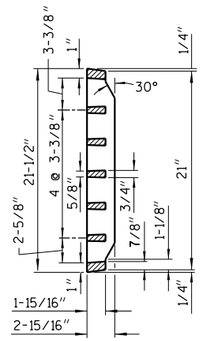
FRAME



SECTION D-D



GRATE



SECTION G-G

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

GENERAL NOTES

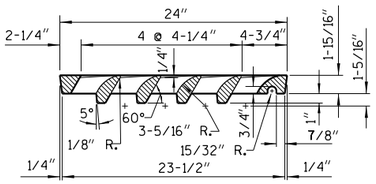
1) ALL EDGES ARE TO BE GROUND
2) ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8"
3) WHEN CONSTRUCTING CONCRETE CURB ADJACENT TO INLET COVER TYPE 57, TWO (2) DEFORMED TIE BARS SHALL BE PLACED LONGITUDINALLY THROUGH THE CURB SECTION AND EXTENDED ONE (1) FOOT BEYOND EACH SIDE OF THE FRAME. A DUMMY JOINT SHALL BE CUT IN THE CURB AT EACH SIDE OF THE FRAME.

ON THE FRAME

1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

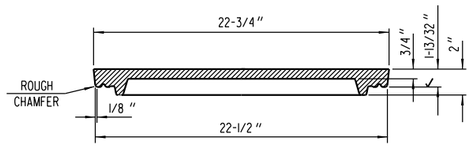
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.



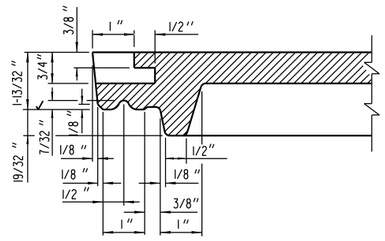
SECTION F-F

INLET COVER - TYPE 57

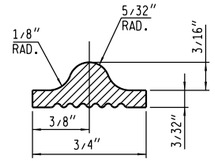
LID-145 LBS., FRAME-204 LBS.



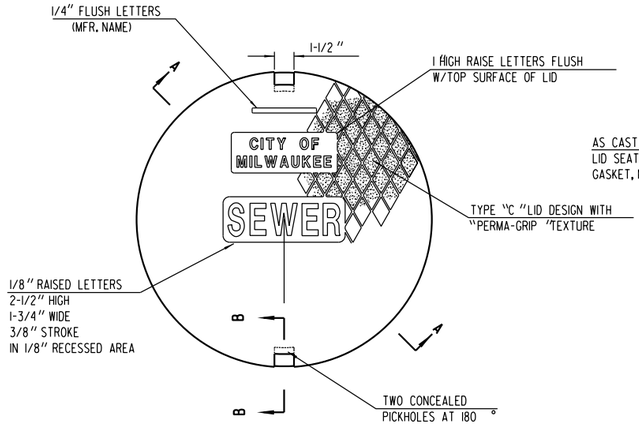
SECTION A-A



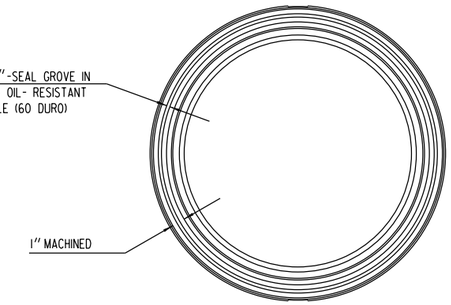
SECTION B-B



"T" GASKET DETAIL



TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

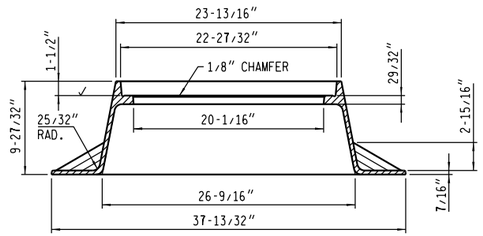
LID - 107 LBS.

NOTE:

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 HAVING A DIGIT OR LETTER HEIGHT OF ONE INCH ON LOWER FACE OF LID:

1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

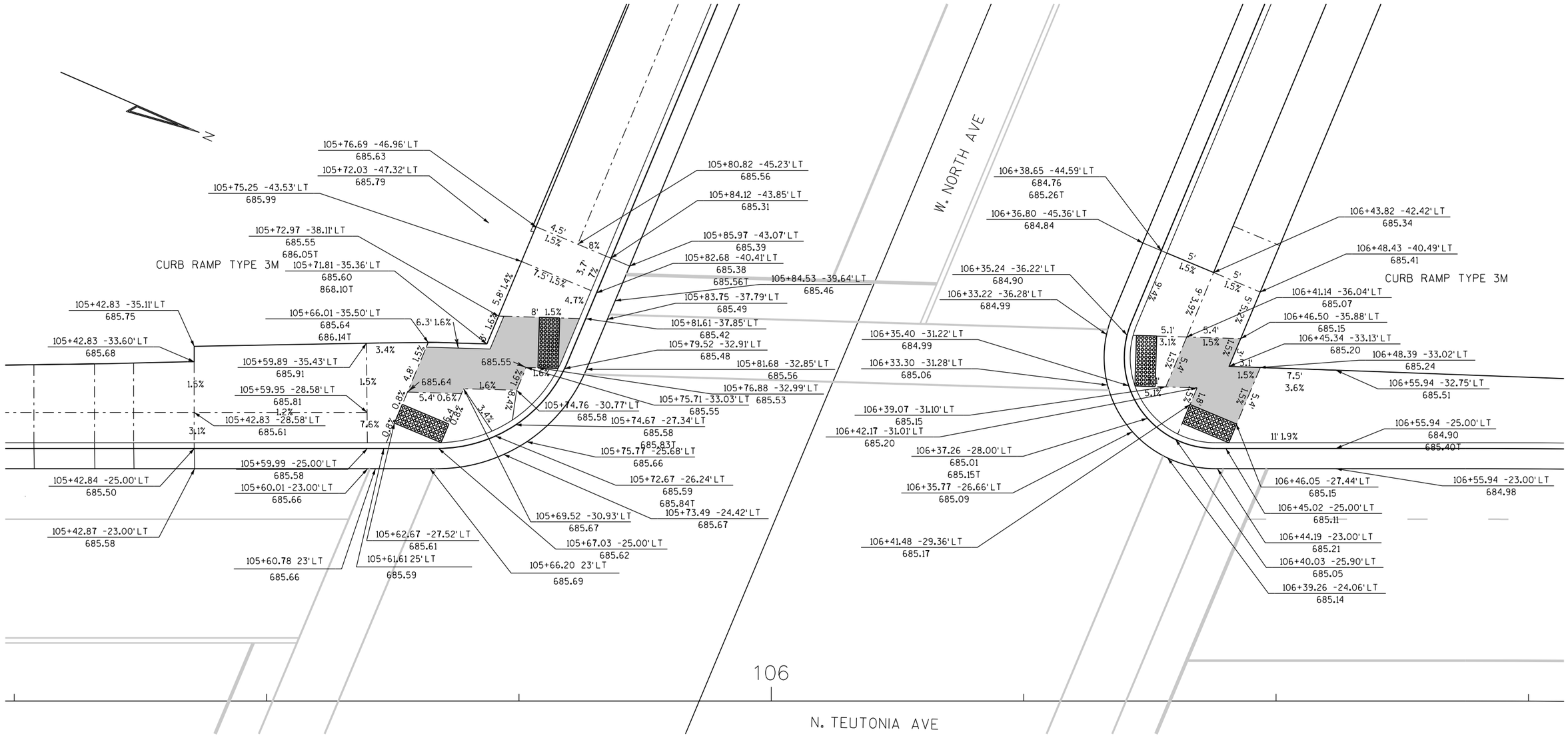
NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 16	E

2

106

N. TEUTONIA AVE

W. NORTH AVE

105+38.30 30.65' RT
686.26

105+41.50 23.00' RT
686.26

105+40.67 25.00' RT
686.18

105+46.67 23.60' RT
686.29

105+45.90 25.45' RT
686.21

105+42.91 32.58' RT
686.34

105+29.99 23.00' RT
686.18

105+29.99 25.00' RT
686.10
686.60T

105+51.30 27.06' RT
686.33

105+49.69 28.25' RT
686.25
686.75T

105+43.88 32.59' RT
686.40

105+49.40 32.64' RT
686.31

105+51.25 32.66' RT
686.29

105+53.25 32.69' RT
686.37

105+52.14 37.67' RT
686.45

105+49.98 37.65' RT
686.37

105+43.83 37.59' RT
686.48

105+41.79 37.56' RT
686.51

105+45.89 47.41' RT
686.40
686.90T

105+47.73 48.18' RT
686.48

105+29.99 32.59' RT
686.71

105+37.49 32.58' RT
686.57

105+45.03 27.51' RT
686.26

105+38.89 44.48' RT
687.01

9.9'
4.1%

7'
1.5%

5.5' 1.5%

5.5' 1.5%

7.5'
1.9%

5' 1.5%

1.6'

2.2'

1'
6%

5'

7'
6.6%

10.4'
5.1%

7'
1.5%

5.5'
1.5%

1%

CURB RAMP TYPE 3M

106+11.75 23.05' RT
685.93

106+12.90 24.68' RT
685.86
686.11T

106+09.11 25.25' RT
685.95

106+10.51 26.68' RT
685.90
686.15T

106+12.64 29.04' RT
685.95

106+03.88 33.22' RT
686.05

106+06.03 33.24' RT
685.96

106+01.79 38.20' RT
686.10

106+03.95 38.22' RT
686.01

105+99.47 43.73' RT
686.15

106+01.32 44.51' RT
686.07
686.57T

106+21.10 19.26' RT
685.84

106+20.17 21.47' RT
685.77

106+16.01 31.40' RT
685.98

106+25.79 21.00' RT
685.70

106+26.63 19.00' RT
685.76
685.73

106+32.63 19.00' RT
685.61

106+32.63 21.00' RT
685.53
686.03T

106+17.94 26.79' RT
685.90

106+22.55 28.72' RT
685.83

106+15.20 33.33' RT
686.02

106+20.62 33.33' RT
685.91

106+14.40 33.33' RT
686.03

106+12.19 33.31' RT
686.07

106+12.13 38.31' RT
686.15

106+06.61 38.25' RT
686.07

106+03.59 45.46' RT
686.60

106+08.31 47.44' RT
686.68

2.6'

7.7'

5.5'
1.5%

5'

1.5%

5.5'
1.5%

5.5'
1.5%

5'

1.5%

5.5'
1.5%

2.3'

1.9%

7.8'
6.1%

7.1'
6.1%

5.1'
1.5%

CURB RAMP TYPE 3M

N

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 17	E

2

2

112+32.85 -31.96'LT
682.29

112+38.85 -31.99'LT
681.76

112+43.85 -32.03'LT
681.74

112+49.85 -32.16'LT
682.19

5' 0.6%

6.4' 1.5%

6.4' 1.5%

6.4' 1.5%

6.4' 1.5%

5' 0.6%

112+43.85 -25.58'LT
681.64

CURB RAMP TYPE 7A

112+49.85 -25.00'LT
681.59
682.09T

112+49.85 -23.00'LT
681.67

112+43.85 -25.00'LT
681.62

112+43.85 -23.00'LT
681.70

112+38.85 -25.58'LT
681.67

112+38.85 -25.00'LT
681.65

112+38.85 -23.00'LT
681.73

112+32.85 -23.00'LT
681.77

112+32.85 -25.00'LT
681.69
682.19T

112

113

N. TEUTONIA AVE

W. MEINECKE AVE

112+38.85 23.00'RT
681.66

112+38.85 25.00'RT
681.58

112+43.85 23.60'RT
681.61

112+43.85 25.69'RT
681.52

112+43.85 28.30'RT
681.56

112+47.35 28.11'RT
681.61

112+47.43 27.46'RT
681.46
681.61T

112+49.71 29.41'RT
681.42
681.67T

112+25.49 28.58'RT
681.99

3' 8%

112+38.85 28.30'RT
681.63

4' 1.5%

112+25.49 32.58'RT
682.05

112+38.85 32.60'RT
681.70

4.3' 1.5%

4.3' 1.5%

1.5%

1.5%

5' 1.5%

3.8%

112+47.31 32.64'RT
681.54

112+54.21 32.69'RT
681.43

112+52.00 32.68'RT
681.36

112+55.45 37.70'RT
681.36

112+53.45 37.69'RT
681.28

112+47.86 37.64'RT
681.47

112+55.30 41.89'RT
681.33

112+53.31 41.69'RT
681.25

112+55.06 44.28'RT
681.34

112+53.07 44.08'RT
681.26

112+48.51 43.63'RT
681.54

112+25.47 37.08'RT
682.15

112+38.14 35.58'RT
682.22

112+43.31 32.61'RT
681.63

112+42.88 37.61'RT
681.56

5' 1.5%

5' 1.5%

5' 1.5%

CURB RAMP TYPE 3M

112+37.45 42.53'RT
682.15

112+42.42 43.01'RT
6891.63

N

112+96.55 33.02'RT
681.34

113+05.80 33.09'RT
681.83
681.90T

112+99.92 33.10'RT
681.40
682.08T

112+90.48 32.97'RT
681.24

112+85.00 32.93'RT
681.12

112+87.18 32.95'RT
681.05

112+83.83 37.92'RT
681.06

112+85.84 37.94'RT
680.98

112+83.68 39.46'RT
681.05

112+85.67 39.66'RT
680.97
681.47T

112+90.44 37.97'RT
681.18

112+90.23 40.11'RT
681.34

2.6'
7%

6.1' 1.5%

5' 1.5%

5' 1.5%

4.2%

2.1'
8%

2.7'
5.9%

5.7' 1.5%

5.7' 1.5%

CURB RAMP TYPE 4A
MODIFIED

112+96.10 38.02'RT
681.26
681.81T

112+95.87 40.67'RT
681.42
681.77T

112+98.60 40.94'RT
681.84

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 18	E

2

CURB RAMP TYPE 3M

CURB RAMP TYPE 3M

W. MEINECKE AVE

113+99.57 44.1873'LT
680.54

113+97.58 44.3860'LT
680.46

113+92.39 44.9050'LT
681.03

113+97.01 -44.44'LT
680.96

113+87.41 45.4016'LT
681.10

113+86.80 -39.76'LT
680.94

113+86.77 34.91'LT
680.98

113+91.83 -39.79'LT
680.89

113+85.76 33.69'LT
681.00

113+97.13 39.81'LT
680.49

113+81.77 -33.71'LT
681.07

113+99.14 39.82'LT
680.57

113+81.77 32.2865'LT
681.04

113+98.07 34.82'LT
680.64

113+95.92 34.81'LT
680.57

113+91.86 -34.79'LT
680.84

113+74.77 32.11'LT

113+92.72 -30.79'LT
680.82T

113+81.77 28.63'LT 681.48
680.99

113+94.66 29.0830'LT
680.73

113+90.77 -28.93'LT
680.87T

113+92.37 26.9128'LT
680.78

113+74.77 23.00'LT
680.96

113+89.78 32.27'LT
680.89

113+74.77 25.00'LT
680.88

113+81.77 23.01'LT
680.93

681.38T

113+81.77 25.01'LT
680.85

113+86.77 28.63'LT
680.96

113+81.77 -26.63'LT
680.91

113+86.77 26.01'LT
680.77

113+86.77 23.89'LT
680.86

114+30.58 46.91'LT
680.74

114+30.83 39.98'LT
680.27

114+30.00 46.96'LT
680.24

114+35.18 46.45'LT
680.76

114+28.01 47.16'LT
680.32

114+40.15 45.95'LT
680.84

114+29.96 39.98'LT
680.26

114+34.57 40.00'LT
680.49

114+29.38 39.98'LT
680.24

114+39.59 40.03'LT
680.57

114+27.38 39.98'LT
680.32

114+34.09 35.00'LT
680.51

114+30.86 34.98'LT
680.32

114+39.11 35.02'LT
680.60

114+30.32 34.78'LT
680.30

114+39.09 29.90'LT
680.50

114+28.44 34.08'LT
680.38

114+39.09 26.58'LT
680.45

114+31.82 32.92'LT
680.49

114+50.06 32.58'LT
681.25

114+31.31 32.64'LT
680.32

114+29.57 31.66'LT
680.40

114+30.27 30.51'LT
680.41

114+31.93 31.63'LT
680.33

114+32.25 28.09'LT
680.44

114+32.41 31.95'LT
680.50

114+33.68 29.49'LT
680.36

114+34.09 29.90'LT
680.38

114+38.14 24.18'LT
680.51

114+38.88 26.05'LT
680.43

114+50.06 25.58'LT
681.14

114+50.06 25.00'LT
680.64

114+50.06 23.00'LT
680.72

114+43.40 25.61'LT
680.77

114+43.36 25.03'LT

114+43.87 32.60'LT
680.88

114+43.22 23.04'LT 680.60
680.68

114

N. TEUTONIA AVE

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 19	E

2

2

W. MEINECKE AVE

114

N. TEUTONIA AVE

113+75.79 25.00' RT
680.88

113+75.77 23.00' RT
680.96

113+75.77 25.58' RT
681.38

113+81.77 23.00' RT
680.94

113+81.77 25.00' RT
680.86

113+81.77 25.58' RT
680.88

113+86.77 23.00' RT
680.92

113+86.77 25.00' RT
680.84

113+86.77 25.58' RT
680.86

113+92.77 23.00' RT
680.90

113+92.77 25.00' RT
680.82

113+92.77 25.58' RT
681.32

0.5%, 7'

1.75%, 7'

7%, 6'

0.4%, 5'

1.6%, 7'

7%, 6'

1.0%, 7'

113+92.77 32.5799' RT
681.39

113+75.77 32.5799' RT
681.42

113+81.77 32.58' RT
681.00

113+86.77 32.58' RT
680.97

CURB RAMP TYPE 7A

114+34.09 23.00' RT
680.77

114+34.09 25.00' RT
680.69

114+34.09 25.58' RT
680.71

114+28.34 23.00' RT
680.79

114+28.34 25.00' RT
680.71

681.21T

114+28.34 32.58' RT
681.21

0.6%, 35.6'

0.4%, 7'

1.8%, 7'

7%, 6'

0.8%, 5'

1.5%, 7'

114+39.09 25.58' RT
680.69

114+39.09 25.00' RT
680.67

114+39.09 23.00' RT
680.75

114+42.59 23.00' RT
680.74

114+42.59 25.00' RT
680.66

114+42.59 25.58' RT
680.91

114+44.62 23.00' RT
680.73

114+44.62 25.00' RT
680.65

114+44.62 25.58' RT
681.67

2.5%, 2'

4.5%, 2'

1.5%, 5'

8%, 2'

0.4%, 9.2'

1.5%, 5'

8%, 2'

0.5%, 9.2'

114+53.81 23.00' RT
680.69

114+53.81 25.00' RT
680.61

114+53.81 25.58' RT
680.63

114+59.81 23.00' RT
680.65

114+59.81 25.00' RT
680.57

681.07T

1.5%, 2'

5.2%, 6'

1.5%, 5'

114+59.81 27.58' RT
681.10

114+59.81 32.71' RT
681.18

114+34.09 32.58' RT
680.88

114+39.09 32.58' RT
680.87

114+42.59 27.58' RT
680.99

7%, 3.5'

10.8%, 5.8'

10.2%, 5.8'

114+53.81 27.58' RT
680.79

114+53.81 32.58' RT
680.87

114+53.81 38.39' RT
681.46

114+42.59 32.58' RT
681.07

114+44.62 32.58' RT
680.91

114+44.62 27.58' RT
680.83

114+44.62 38.39' RT
681.54

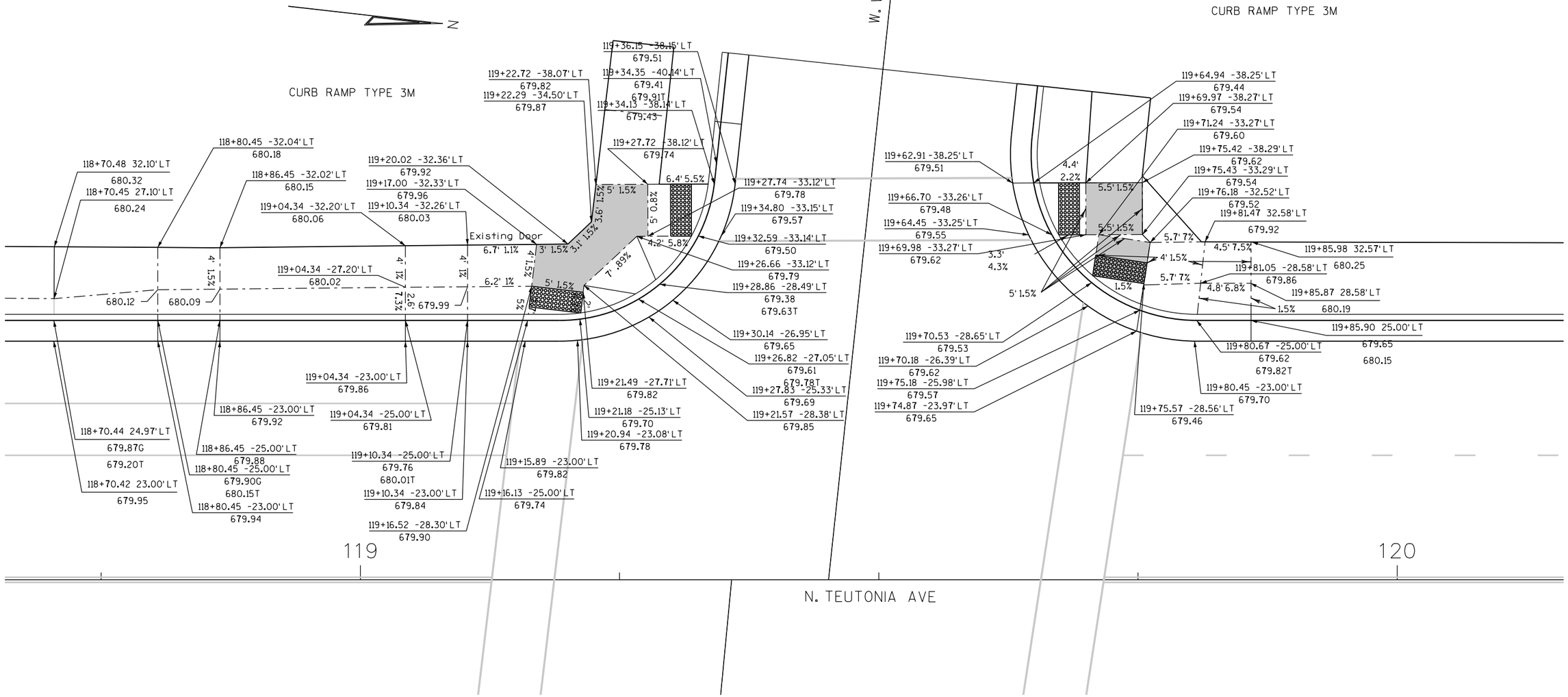
CURB RAMP TYPE 7A

N

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 20	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021054a_CD.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:10

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 21	E

2

119

120

N. TEUTONIA AVE

W. WRIGHT ST

CURB RAMP TYPE 2M

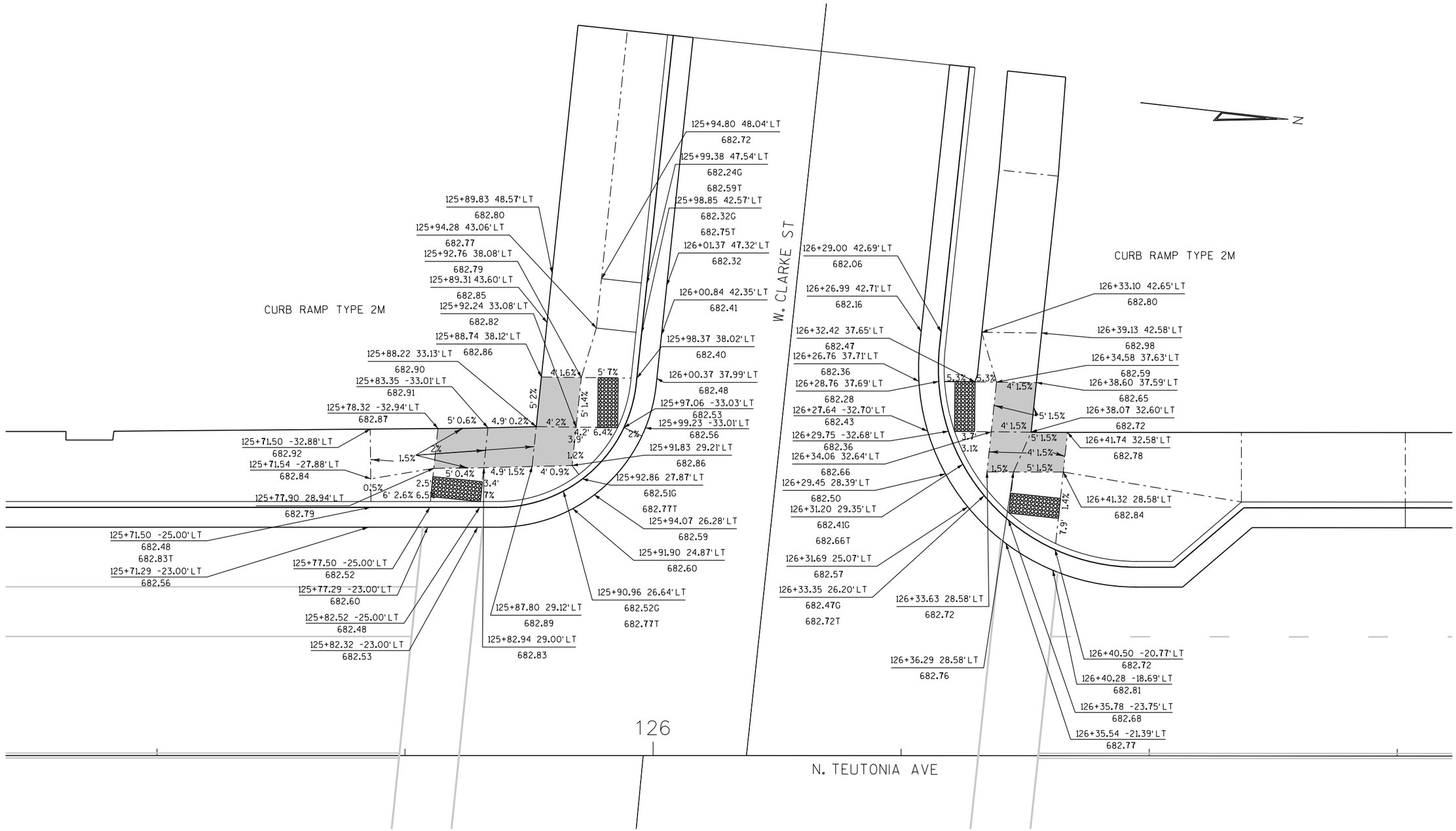
CURB RAMP TYPE 3M

119+10.18 25.18' RT
679.63
119+09.92 27.36' RT
679.53
119+09.35 32.16' RT
679.61
119+04.36 25.21' RT
679.65
680.15T
119+14.77 28.95' RT
679.49
119+14.43 31.82' RT
679.38
119+15.76 34.39' RT
679.35
679.53T
119+13.82 36.89' RT
679.46
119+16.58 37.16' RT
679.31
119+18.64 37.35' RT
679.38
119+16.71 42.19' RT
679.23
119+18.70 42.38' RT
679.31
119+15.50 42.08' RT
679.25
119+13.24 41.86' RT
679.40
119+10.56 41.60' RT
679.44
119+08.37 41.39' RT
679.47
119+01.85 32.08' RT
680.17
680.33T
119+06.20 33.38' RT
680.06
119+05.90 36.14' RT
679.58
680.08T
119+08.85 36.42' RT
679.54
119+05.36 41.11' RT
679.51
680.01T
119+04.62 43.28' RT
680.09
119+03.67 53.23' RT
680.10
119+09.39 53.78' RT
680.04
6.5'
1.5%
4.2'
1.5%
4.3'
1.5%
12.2'
4.9%
5'
1.5%
2.2'
6.4%
119+62.26 23.00' RT
679.70
119+62.22 25.00' RT
679.62
119+62.24 25.57' RT
679.64
119+61.92 28.58' RT
679.73
119+67.27 23.00' RT
679.69
119+67.26 25.00' RT
679.61
119+67.27 25.58' RT
679.63
119+67.21 26.11' RT
680.65
119+66.95 28.58' RT
679.72
119+66.52 32.58' RT
679.78
119+52.29 26.13' RT
679.53
119+53.45 27.76' RT
679.45
119+53.78 28.24' RT
679.70
119+49.88 32.38' RT
679.51
119+49.39 32.07' RT
679.34
119+47.69 31.01' RT
679.42
119+47.63 40.12' RT
679.22
119+47.05 40.06' RT
679.20
119+45.06 39.87' RT
679.28
119+44.58 44.85' RT
679.24
119+46.57 45.04' RT
679.16
119+47.15 45.09' RT
679.18
119+44.29 47.96' RT
679.22
119+46.16 48.14' RT
679.14
119+46.61 48.18' RT
679.64
119+61.49 32.60' RT
679.75
119+59.03 33.25' RT
679.65
119+53.36 32.71' RT
679.61
119+58.22 41.13' RT
679.60
119+52.60 40.59' RT
679.57
119+57.71 46.10' RT
679.63
119+57.41 49.09' RT
679.82
119+51.84 48.56' RT
679.74
119+52.13 45.57' RT
679.53
1.5%, 0.5'
3.0%, 3.0'
0.4%, 8.1'
3.0%, 2.5'
0.5%, 4.1'
1.5%, 4.0'
0.6%, 5.0'
4.0%, 2.5'
2.9%, 3.5'
0.7%, 5.7'
0.5%, 7.9'
0.6%, 7.9'
7.0%, 5.0'
0.5%, 5.6'
0.8%, 5.0'
0.6%, 5.0'
1.8%, 5.6'
1.9%, 5.2'
2.0%, 3.0'
1.4%, 5.6'
2.3%, 3.0'

N

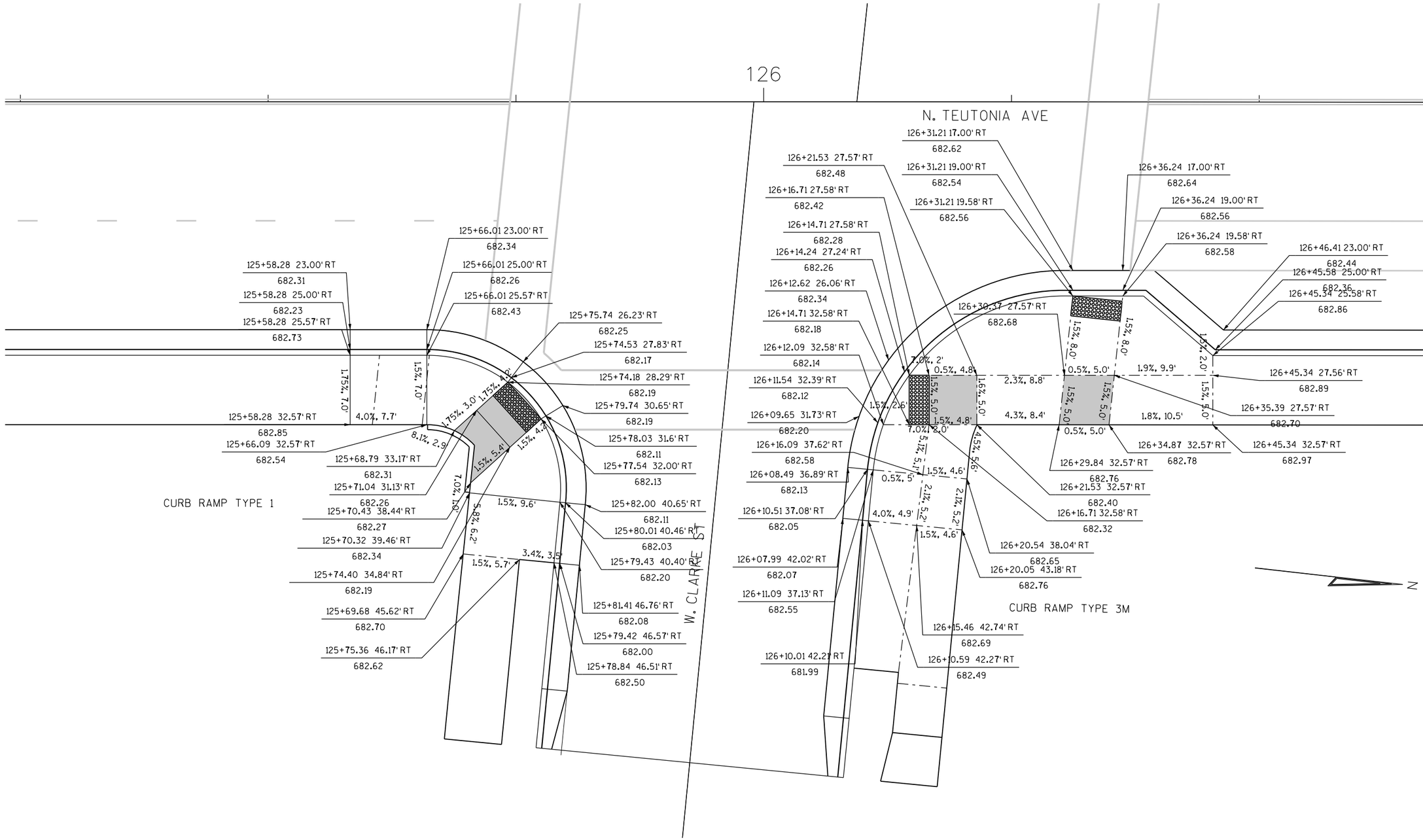
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 22	E

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 23	E

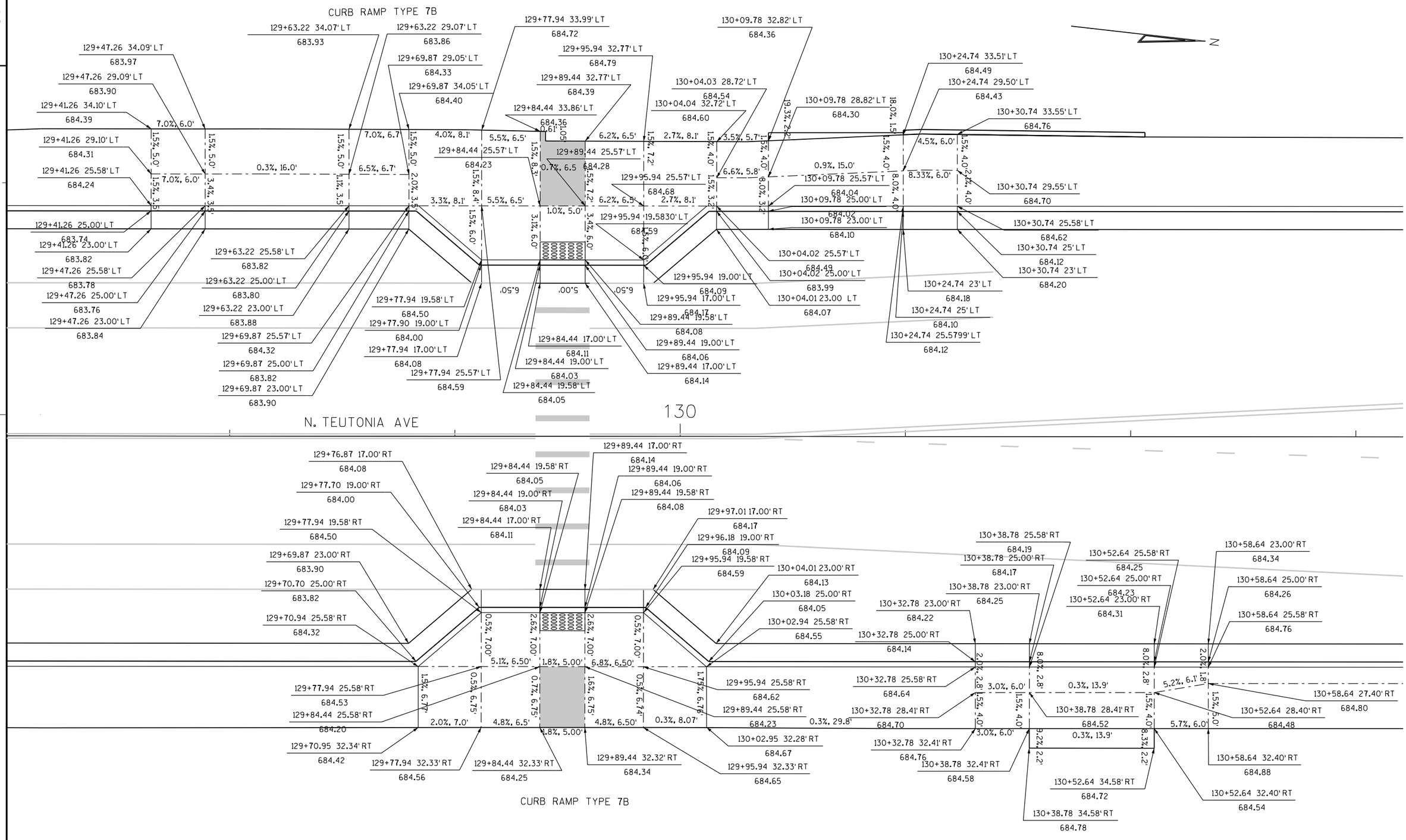
2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 24	E

2

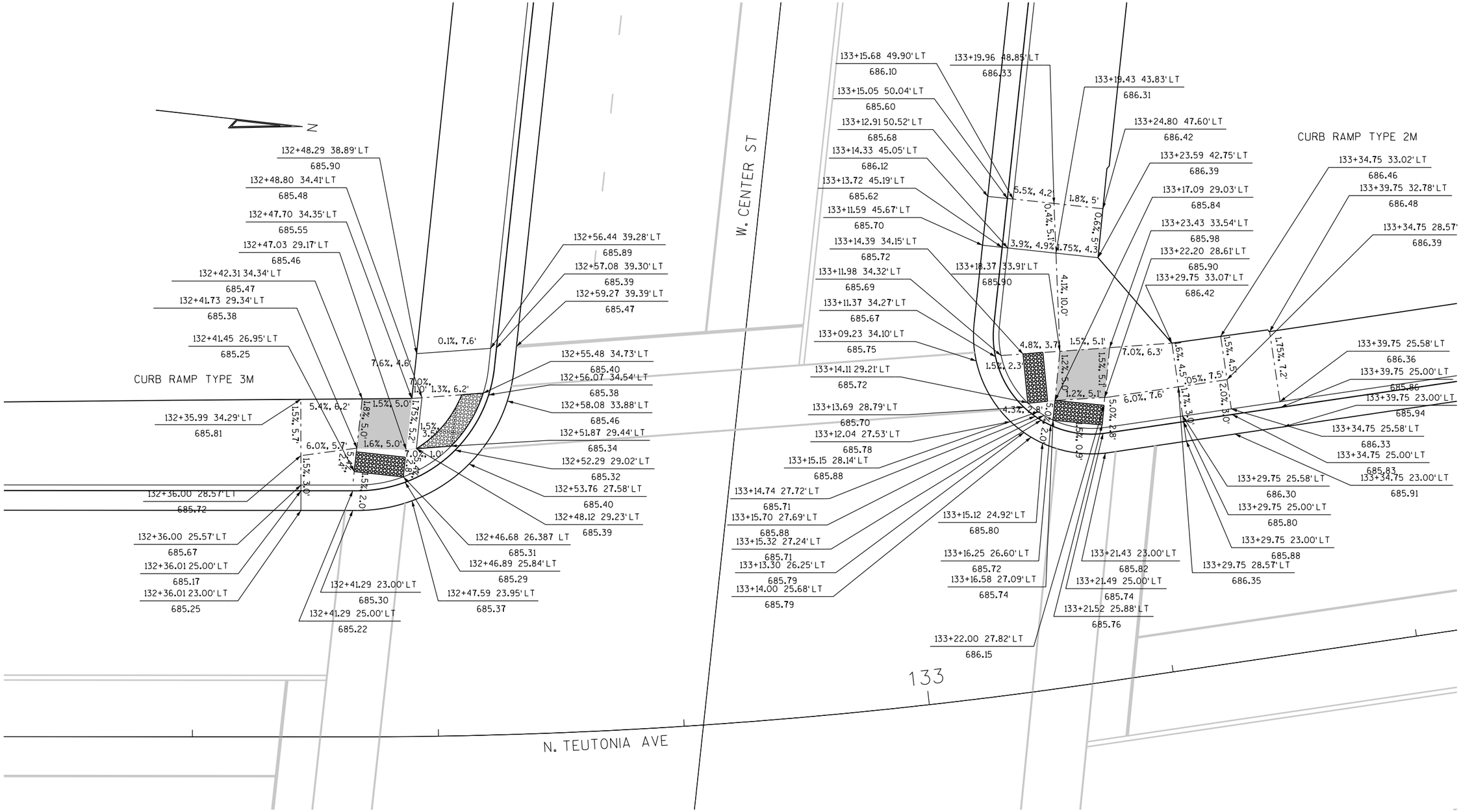
CURB RAMP TYPE 7B



CURB RAMP TYPE 7B

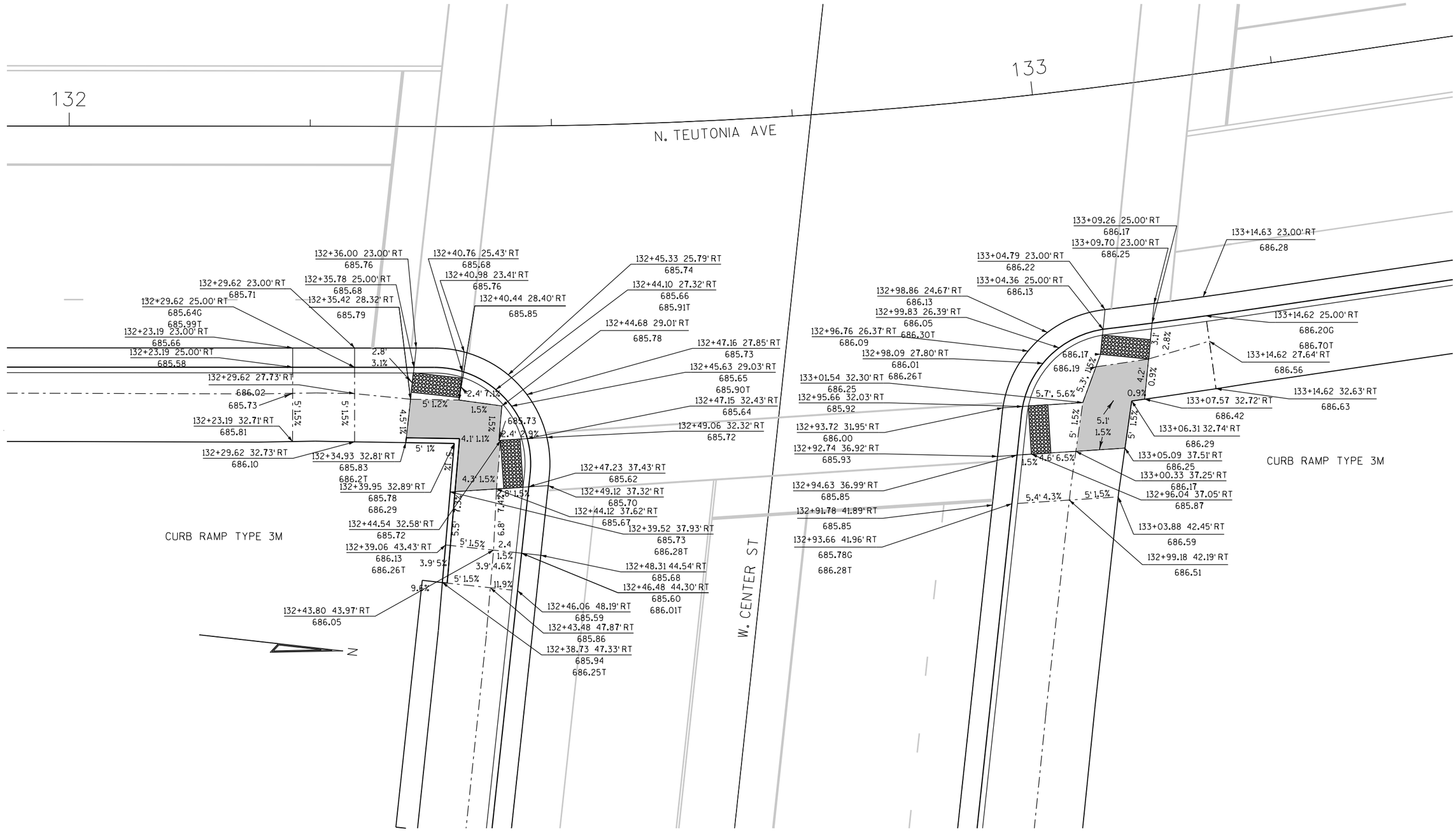
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 25	E

2



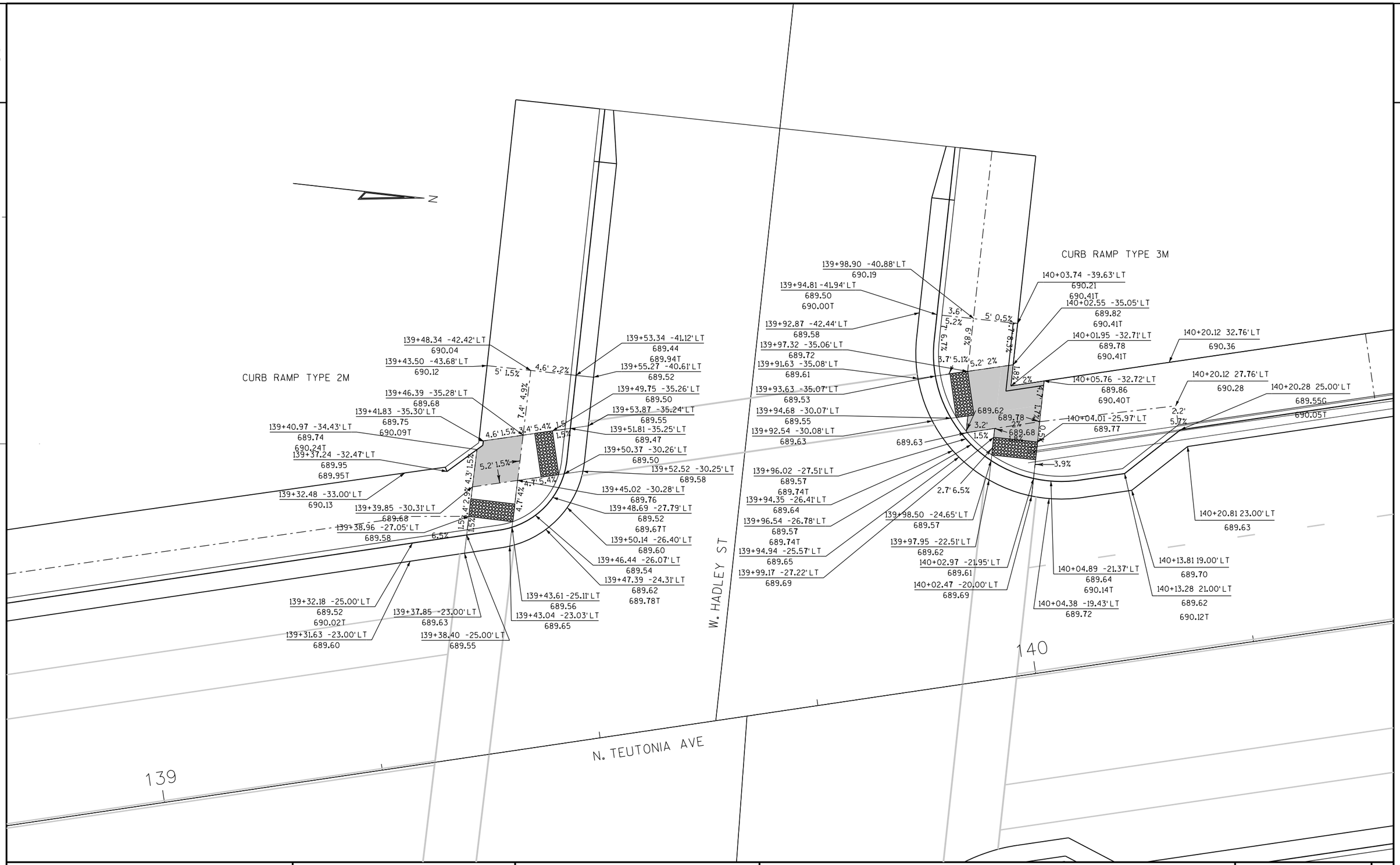
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 26	E

2



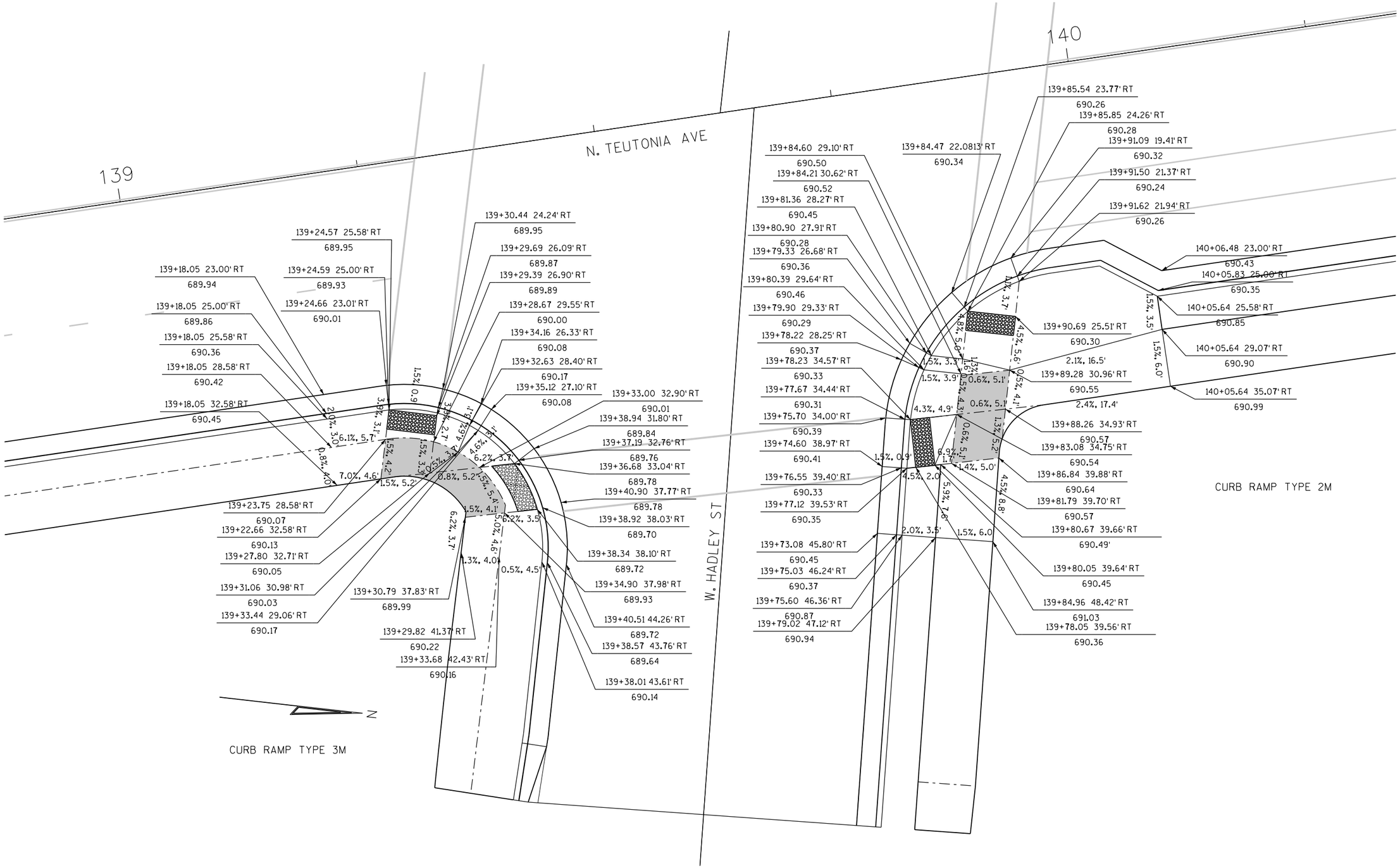
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 27	E

2



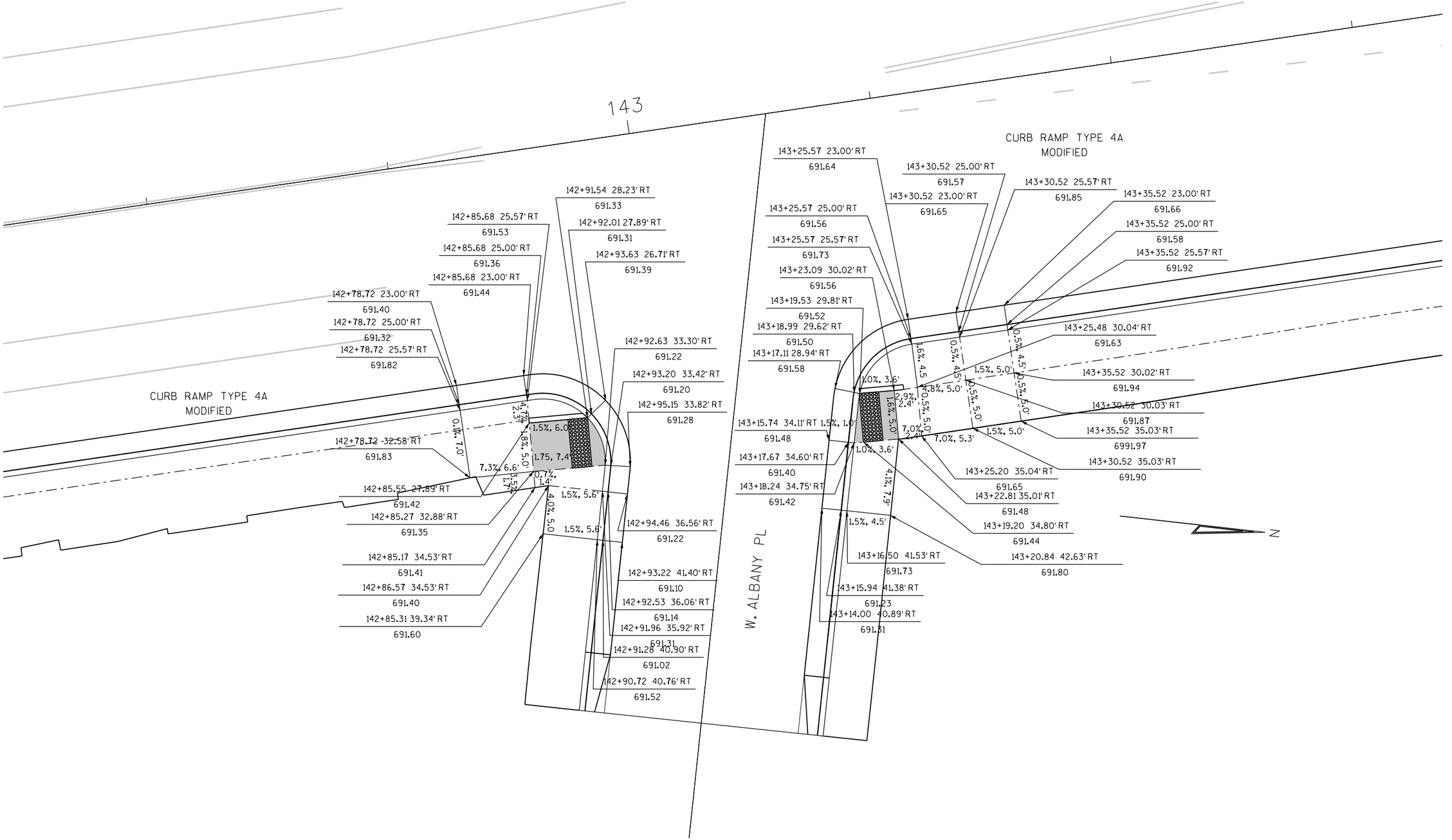
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 28	E

2



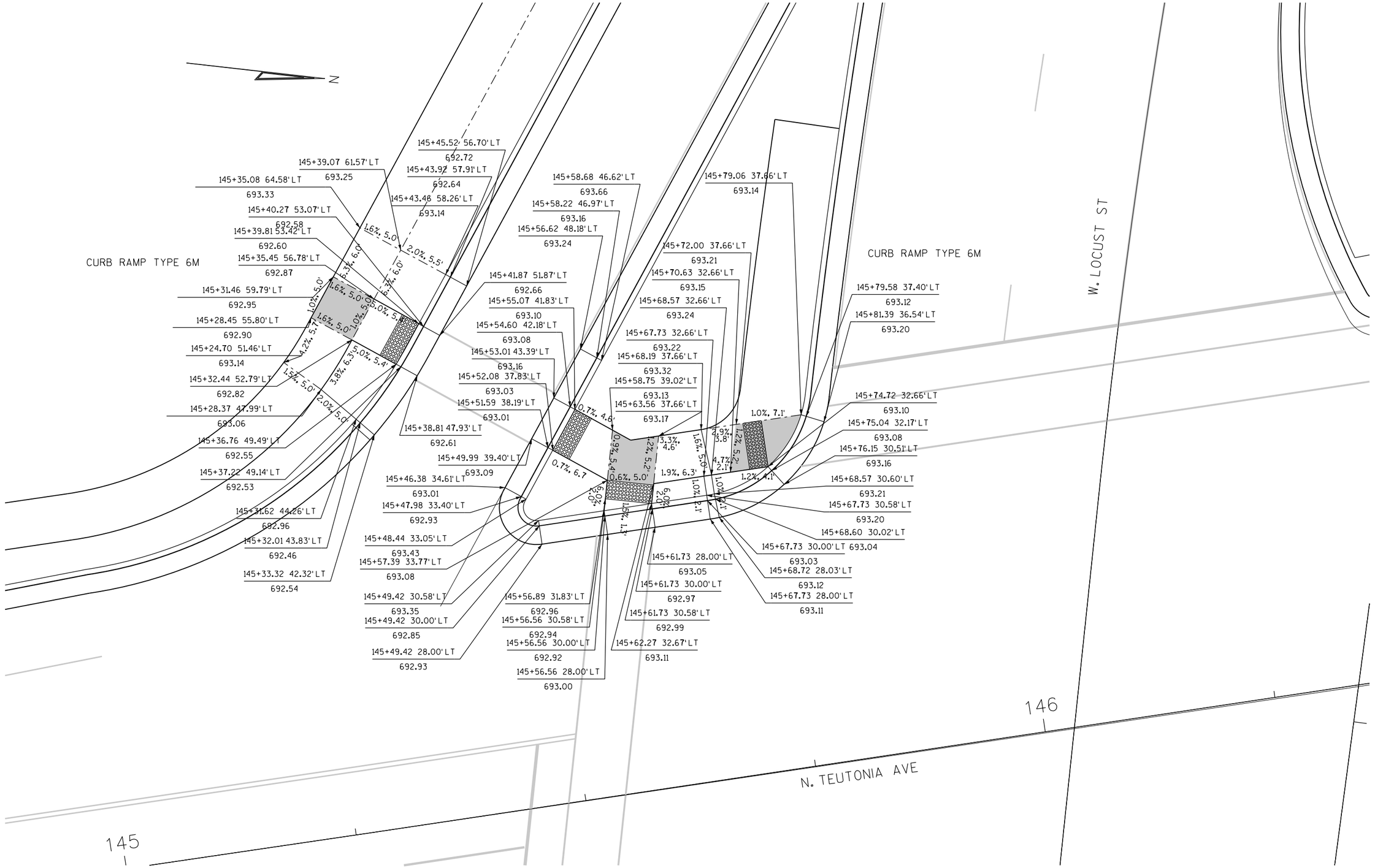
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 29	E

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 30	E

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 31	E

2

W. LOCUST ST

N

146+82.22 51.26'LT
693.82G
694.32T
146+80.30 51.81'LT
693.90

146+85.54 50.30'LT
694.52
146+83.77 44.18'LT
694.34
146+90.34 48.91'LT
694.60
146+88.58 42.79'LT
694.42
146+93.09 41.49'LT
694.55
146+91.49 -35.95'LT
694.31
146+83.38 -32.59'LT
694.14
146+95.60 -35.95'LT
694.47
146+95.60 -32.58'LT
694.36
146+95.60 28.58'LT
694.30
146+95.60 -25.00'LT
694.10
146+95.60 -23.00'LT
694.18

146+84.67 -37.59'LT
694.22
146+78.85 -39.59'LT
693.94
694.44T
146+76.93 -40.15'LT
694.02
146+79.12 -37.59'LT
693.96
146+76.28 -37.59'LT
694.04
146+78.31 -37.59'LT
693.95
146+78.51 -32.59'LT
693.99
146+76.44 -32.59'LT
694.07
146+79.48 -30.30'LT
694.01
694.17T
146+77.74 -29.30'LT
694.09
146+80.27 -29.10'LT
694.02
694.19T
146+78.68 -27.89'LT
694.10
146+82.68 -29.88'LT
694.10

146+89.83 -37.59'LT
694.30
146+82.01 -27.32'LT
694.03
146+81.47 -25.23'LT
694.12
146+86.63 -25.19'LT
694.06
146+86.12 -23.25'LT
694.13
146+88.64 -25.00'LT
694.09
694.59T
146+88.65 -23.00'LT
694.14
146+88.54 -32.59'LT
694.22
146+87.52 -28.63'LT
694.16
146+87.02 -26.69'LT
694.08

5' 1.5%
1.5%
7' 2%
4.2' 2.8%
1.5%
7%
4.2' 1.5%
1.2%
8.1' 1.5%
3.1' 6.7%
6%
1.5%

CURB RAMP TYPE 2M

147+38.95 32.58'LT
694.74
147+44.95 32.58'LT
694.67
147+44.95 28.58'LT
694.61
147+44.95 25.00'LT
694.45
694.95T
147+44.95 23.00'LT
694.53
147+38.95 28.58'LT
694.68
147+38.95 25.00'LT
694.43
147+38.95 23.00'LT
694.51

4' 1.5%
3' 8.3%

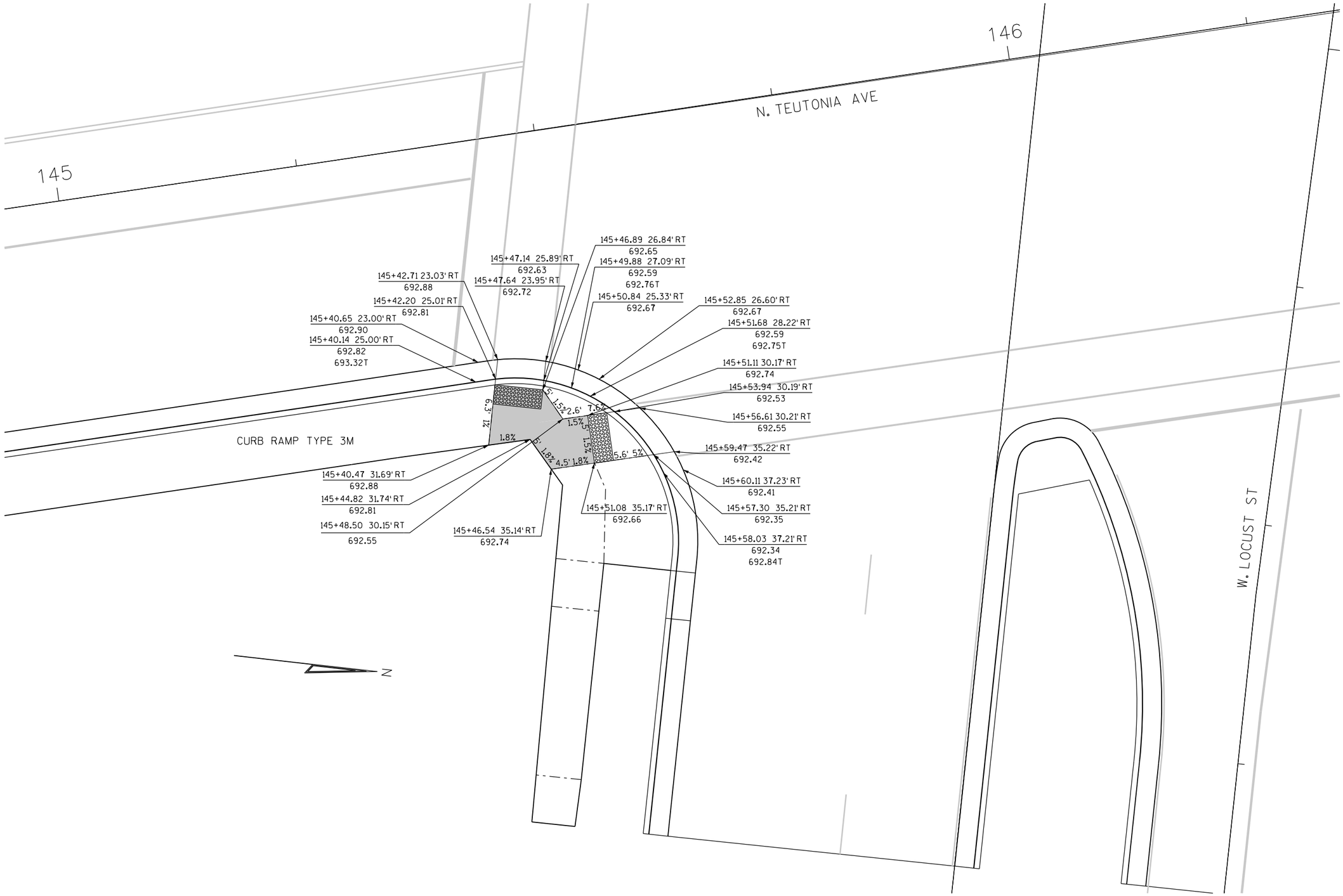
147

N. TEUTONIA AVE

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 32	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021067_CD.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:10

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 33	E

2

N. TEUTONIA AVE

146

147

97

AVE

W. LOCUST ST

146+74.17 23.00' RT
693.61

146+73.66 25.00' RT
693.53

146+68.92 23.36' RT
693.59

146+64.65 24.86' RT
693.57

146+68.35 25.55' RT
693.51

146+65.56 26.64' RT
693.49
693.66T

146+61.17 27.21' RT
693.55

146+62.49 28.72' RT
693.47
693.64T

146+58.02 30.89' RT
693.52

146+60.45 30.90' RT
693.45

146+66.96 30.95' RT
693.52

146+55.88 35.87' RT
693.49

146+57.95 35.89' RT
693.42

146+55.33 38.02' RT
693.41

146+57.26 38.52' RT
693.33
693.83T

146+54.58 40.93' RT
693.31

146+56.51 41.43' RT
693.23

146+79.76 25.00' RT
693.53
693.78T

146+79.76 23.00' RT
693.61

146+84.76 23.00' RT
693.60

146+84.76 25.00' RT
693.52
693.77T

146+88.25 23.00' RT
693.59

146+88.25 25.00' RT
693.51

146+88.25 27.58' RT
693.65

146+88.25 31.58' RT
693.71

146+84.76 31.58' RT
693.86

146+88.33 35.50' RT
694.03

146+79.76 32.58' RT
693.89

147+14.22 23.00' RT
693.62

147+14.22 25.00' RT
693.54

147+14.22 27.58' RT
693.72

147+20.22 23.00' RT
693.63

147+20.22 25.00' RT
693.52
694.02T

147+20.22 27.58' RT
694.05

147+20.22 31.58' RT
694.11

147+14.22 31.58' RT
693.78

147+14.13 35.50' RT
694.17

146+73.02 27.46' RT
693.58

146+72.11 30.98' RT
693.60

146+71.61 32.93' RT
693.62

146+70.71 32.77' RT
693.63

146+69.89 35.97' RT
693.59

146+64.73 35.93' RT
693.51

146+67.73 44.32' RT
693.49

146+62.89 43.07' RT
693.41

693.63

693.80

693.81

28.

6.8' 1.3%

5.8' 1%

3.4%

0.6%

4.3%

1.5%

1.2%

8%

2%

6%

4' 1.5%

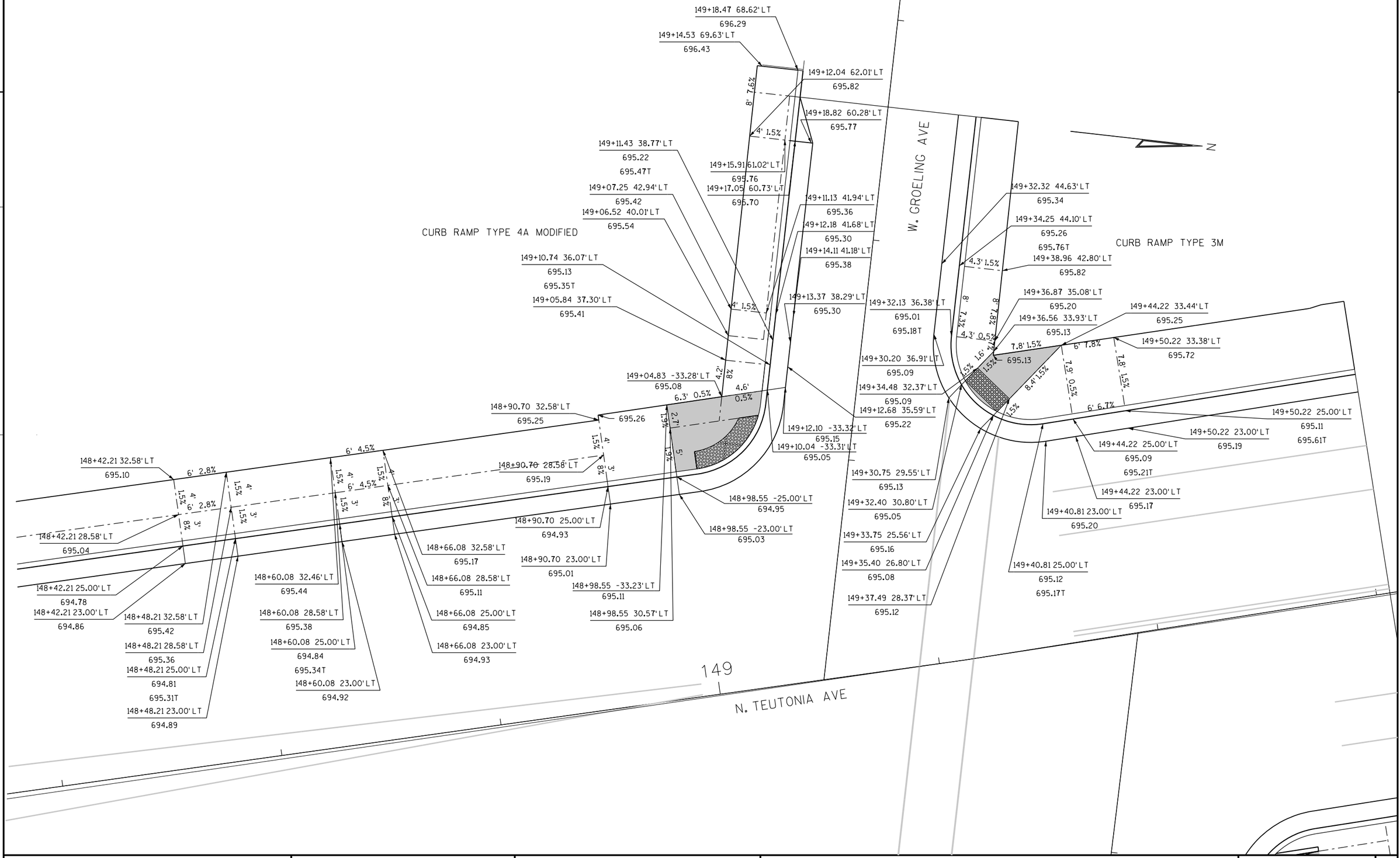
3.9' 8.1%

CURB RAMP TYPE 2M

N

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 34	E

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 35	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021070_CD.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:10

149

N. TEUTONIA AVE

150

2

148+98.55 23.00' RT
694.85
148+98.55 25.00' RT
695.77
695.27

149+07.19 23.00' RT
694.94
149+07.20 25.00' RT
694.86
695.36T

149+12.71 23.00' RT
694.99
149+12.71 25.00' RT
694.91
694.96T

149+15.78 28.23' RT
694.95

148+87.19 23.00' RT
694.74
148+87.19 25.00' RT
694.66
695.02T

148+93.07 23.00' RT
694.80
148+93.07 25.00' RT
694.72
695.08T

148+82.19 23.00' RT
694.69
148+82.19 25.00' RT
694.61
695.11T

149+19.38 25.25' RT
694.88
149+17.79 26.57' RT
694.81
149+22.56 29.11' RT
694.77
149+20.97 30.42' RT
694.67
149+18.96 32.08' RT
694.87
149+21.41 36.31' RT
694.44
694.90T
149+23.34 36.83' RT
694.52
149+22.16 41.28' RT
694.38
149+20.23 40.76' RT
694.30
694.80T
149+17.73 40.10' RT
694.83

149+07.22 31.25' RT
695.41
149+12.14 31.23' RT
695.02
149+13.49 36.60' RT
694.96
149+12.90 38.82' RT
694.91
149+17.39 37.64' RT
694.96

148+82.19 31.58' RT
695.20
148+87.19 31.39' RT
695.11
148+93.07 31.31' RT
695.16
148+98.55 31.29' RT
695.36

5.5' 7.3%
5.5' 0.8%
5.9' 1%
5.5' 1.5%
4.9' 8%
1%
1.9%
2%
1.5%
1.6%
5.8'
4' 1.5%
2.1%
5' 1.5%

CURB RAMP TYPE 1

149+72.06 23.00' RT
694.87
149+72.03 25.00' RT
694.79
695.29T

149+65.06 23.00' RT
694.87
149+65.03 25.00' RT
694.79
695.05T

149+64.02 27.58' RT
694.94
149+57.71 27.58' RT
694.84
149+55.09 27.58' RT
694.91
149+55.07 32.58' RT
694.79
149+52.99 32.58' RT
694.85

149+71.94 32.58' RT
695.40
695.77T
149+64.02 32.08' RT
694.90
695.58T
149+62.73 32.58' RT
694.88
695.56T
149+60.74 40.34' RT
695.24
695.34T

149+51.52 37.72' RT
694.72
149+53.45 38.27' RT
694.64
695.14T

2' 1.5%
5.5' 1.5%
7.9' 4.8%
4.5' 1.1%
7.9' 6.3%
7.1' 1.2%
5.9' 5.9%
8' 4.5%
7' 1.5%

CURB RAMP TYPE 4A MODIFIED

N

W. GROELING AVE

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS - CURB RAMPS	SHEET 36	E

2

N

W. GARFIELD AVE

N. TEUTONIA AVE

N. 12TH STREET

R/L N. TEUTONIA AVE

BEGIN PROJECT
STA 101+61.14
X=2553904.086
Y=392966.143

48
49
50
101
102
103
104
105
1
2
3

RM

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 37	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021201_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

BEGIN CONSTRUCTION
STA 48+72.68

W. NORTH AVE

R/L W. NORTH AVE

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

49 50 51

105 106 107 108 109 110 111

RM

END CONSTRUCTION
STA 51+50.58

N

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 38	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021202_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

2

N

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

W. MEINECKE AVE

49

R/L N. TEUTONIA AVE

111 112 113 114 115 116 117

N. TEUTONIA AVE

RM

51

R/L W. MEINECKE AVE

END CONSTRUCTION
STA 51+38.35

W. MEINECKE AVE

52

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 39	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021203_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

2

N

BEGIN CONSTRUCTION
STA 49+50.51

R/L W. WRIGHT ST

W. WRIGHT ST

49

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

117 118 119 120 121 122 123

END CONSTRUCTION
STA 50+46.94

R/L W. WRIGHT ST

W. WRIGHT ST

51

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- X X X X X SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 40	E

2

N

BEGIN CONSTRUCTION
STA 49+28.65

R/L W. CLARKE ST

W. CLARKE ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

END CONSTRUCTION
STA 50+67.00

R/L W. CLARKE ST

W. CLARKE ST

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 41	E

NOTE:
1) SEE MARKING - W. CENTER ST FOR MARKING ALONG W. CENTER ST

R/L W. CENTER ST

BEGIN CONSTRUCTION
STA 49+05.00

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

W. CENTER ST

END CONSTRUCTION
STA 51+25.00

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 42	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021206_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

R/L W. HADLEY ST

BEGIN CONSTRUCTION
STA 49+32.34

W. HADLEY ST

49

R/L N. TEUTONIA AVE

135 136 137 138 139 140 141

N. TEUTONIA AVE

END CONSTRUCTION
STA 50+73.93

R/L W. HADLEY ST

51

52

N

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 43	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021207_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

LEGEND

REMOVING PAVEMENT

REMOVING CONCRETE SIDEWALK

X X X X X SAWCUT

—RM— REMOVING STORM SEWER

REMOVING INLETS

N

BEGIN CONSTRUCTION
STA 94+56.99

W. LOCUST ST

R/L W. LOCUST ST EB

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

141 142 143 144 145 146 147

W. ALBANY PL

R/L W. ALBANY PL

END CONSTRUCTION
STA 50+62.90

END CONSTRUCTION
STA 97+88.90

END CONSTRUCTION
STA 97+88.67

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 44	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021208_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

2

W. LOCUST ST

W. GROELING AVE

BEGIN CONSTRUCTION
STA 49+34.88

R/L W. GROELING AVE

R/L N. TEUTONIA AVE

END PROJECT
STA 149+76.53

147 148 149 150

N. TEUTONIA AVE

W. GROELING AVE

END CONSTRUCTION
STA 50+67.27

R/L W. GROELING AVE

N

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - N. TEUTONIA AVE	SHEET 45	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021209_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

N

N. TEUTONIA AVE

W. LOCUST ST

W. LOCUST ST

BEGIN CONSTRUCTION
STA 94+59.86

R/L W. LOCUST ST WB

END CONSTRUCTION
STA 97+88.67

BEGIN CONSTRUCTION
STA 94+56.99

R/L W. LOCUST ST EB

END CONSTRUCTION
STA 97+88.90

Can we expand sidewalk here? Need to get ROW determined
Bus Stop This corner

N. TEUTONIA AVE

94 95 96 97 98 99

147 146 145 144

RM

MH WV SSS SS WH(P) GV VEW

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- XXXXX SAWCUT
- —RM— REMOVING STORM SEWER
- REMOVING INLETS

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - W. LOCUST ST	SHEET 46	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021210_RM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

N

W. GARFIELD AVE

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

BEGIN PROJECT
STA 101+61.14
X=2553904.086
Y=392966.143

N. 12TH STREET

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 47	E

2

BEGIN CONSTRUCTION
STA 48+72.68

R/L W. NORTH AVE

W. NORTH AVE

R/L N. TEUTONIA AVE

N TEUTONIA AVE

NOTES:
1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND
XXX.XX = SPOT ELEVATION
= PROPOSED INLET

N

END CONSTRUCTION
STA 51+50.58

2

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 48	E

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

N

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

W. MEINECKE AVE

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

R/L W. MEINECKE AVE

END CONSTRUCTION
STA 51+38.35

W. MEINECKE AVE

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 49	E

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

N

BEGIN CONSTRUCTION
STA 49+50.51

R/L W. WRIGHT ST

W. WRIGHT ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

END CONSTRUCTION
STA 50+46.94

R/L W. WRIGHT ST

W. WRIGHT ST

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 50	E

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

N

BEGIN CONSTRUCTION
STA 49+28.65

R/L W. CLARKE ST

W. CLARKE ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

END CONSTRUCTION
STA 50+67.00

R/L W. CLARKE ST

W. CLARKE ST

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 51	E

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25'INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

N

BEGIN CONSTRUCTION
STA 49+05.00

R/L W. CENTER ST

R/L N. TEUTONIA AVE

W. CENTER ST

N. TEUTONIA AVE

END CONSTRUCTION
STA 51+25.00

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 52	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021216_PG.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

BEGIN CONSTRUCTION
STA 49+32.34

R/L W. HADLEY ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

W. HADLEY ST

END CONSTRUCTION
STA 50+73.93

R/L W. HADLEY ST

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 53	E

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

4) SEE PAVING GRADES - W. LOCUST ST FOR ADDITIONAL INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

BEGIN CONSTRUCTION
STA 94+56.99

R/L W. LOCUST ST EB

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

R/L W. ALBANY PL

W. ALBANY PL

W. LOCUST ST

END CONSTRUCTION
STA 97+88.90

END CONSTRUCTION
STA 97+88.67

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 54	E

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

4) SEE PAVING GRADES - W. LOCUST ST FOR ADDITIONAL INFORMATION.

LEGEND

XXX.XX = SPOT ELEVATION

= PROPOSED INLET

N

W. LOCUST ST

W. GROELING AVE

R/L W. GROELING AVE

BEGIN CONSTRUCTION
STA 49+34.88

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

END PROJECT
STA 149+76.53

END CONSTRUCTION
STA 50+67.27

W. GROELING AVE

R/L W. GROELING AVE

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - N TEUTONIA AVE	SHEET 55	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021219_PG.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

NOTES:

1) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER.

2) PAVING GRADES ARE SHOWN AT 25' INTERVALS.

3) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

4) SEE PAVING GRADES - N. TEUTONIA AVE FOR ADDITIONAL INFORMATION.

LEGEND

= PROPOSED INLET

N

BEGIN CONSTRUCTION
STA 94+59.86

BEGIN CONSTRUCTION
STA 94+56.99

R/L W. LOCUST ST WB

R/L W. LOCUST ST EB

W. LOCUST ST

END CONSTRUCTION
STA 97+88.67

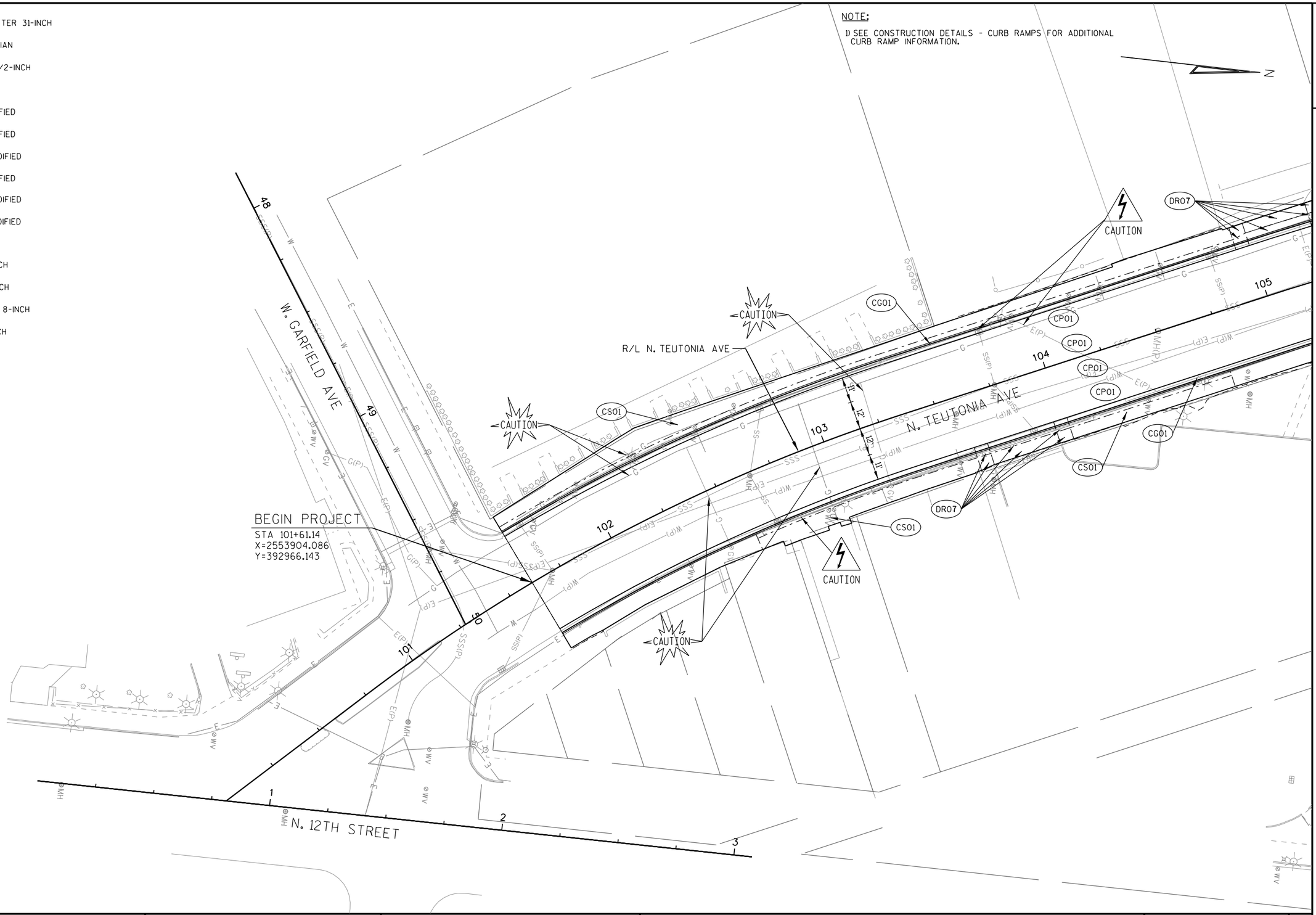
END CONSTRUCTION
STA 97+88.90

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVING GRADES - W LOCUST ST	SHEET 56	E

- CGO1 CONCRETE CURB AND GUTTER 31-INCH
- CGO7 CONCRETE CURB PEDESTRIAN
- CPO1 CONCRETE PAVEMENT 8 1/2-INCH
- CMO9 CONCRETE LOADING ZONE
- CRO1 CURB RAMP TYPE 2 MODIFIED
- CRO2 CURB RAMP TYPE 3 MODIFIED
- CRO3 CURB RAMP TYPE 4A MODIFIED
- CRO5 CURB RAMP TYPE 6 MODIFIED
- CRO7 CURB RAMP TYPE 7A MODIFIED
- CRO8 CURB RAMP TYPE 7B MODIFIED
- CR10 CURB RAMP TYPE 1
- CSO1 CONCRETE SIDEWALK 5-INCH
- DRO7 CONCRETE DRIVEWAY 7-INCH
- DRO8 CONCRETE DRIVEWAY HES 8-INCH
- PV10 ASPHALTC SURFACE, 3-INCH

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 57 E

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

N

BEGIN CONSTRUCTION
STA 48+72.68

W. NORTH AVE

R/L W. NORTH AVE

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

STA 106+43.97, 34.00'LT R/L N. TEUTONIA AVE =
STA 49+48.88, 34.00'LT R/L W. NORTH AVE
R=9'

STA 105+66.91, 39.00'LT
R/L N. TEUTONIA AVE =
STA 49+74.05, 39.00'RT
R/L W. NORTH AVE
R=14'

STA 106+85.39
25.00'RT

STA 106+81.38
21.00'RT

STA 106+23.14, 39.00'RT R/L N. TEUTONIA AVE =
STA 50+24.26, 43.00'LT R/L W. NORTH AVE
R=18'

STA 105+43.25, 33.00'RT
R/L N. TEUTONIA AVE =
STA 50+49.60, 33.00'RT
R/L W. NORTH AVE
R=8'

END CONSTRUCTION
STA 51+50.58

CAUTION

CG01	CONCRETE CURB AND GUTTER 31-INCH
CG07	CONCRETE CURB PEDESTRIAN
CP01	CONCRETE PAVEMENT 8 1/2-INCH
CM09	CONCRETE LOADING ZONE
CR01	CURB RAMP TYPE 2 MODIFIED
CR02	CURB RAMP TYPE 3 MODIFIED
CR03	CURB RAMP TYPE 4A MODIFIED
CR05	CURB RAMP TYPE 6 MODIFIED
CR07	CURB RAMP TYPE 7A MODIFIED
CR08	CURB RAMP TYPE 7B MODIFIED
CR10	CURB RAMP TYPE 1
CS01	CONCRETE SIDEWALK 5-INCH
DR07	CONCRETE DRIVEWAY 7-INCH
DR08	CONCRETE DRIVEWAY HES 8-INCH
PV10	ASPHALTC SURFACE, 3-INCH

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 58	E

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

N

W. MEINECKE AVE

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

STA 113+81.17, 41.00'LT R/L N. TEUTONIA AVE =
STA 49+61.99, 32.00'RT R/L W. MEINECKE AVE
R=16'

STA 114+44.38, 40.00'LT R/L N. TEUTONIA AVE =
STA 49+56.71, 31.00'LT R/L W. MEINECKE AVE
R=15'

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

STA 112+39.51, 39.00'RT R/L N. TEUTONIA AVE =
STA 50+42.17, 30.00'RT R/L W. MEINECKE AVE
R=14'

STA 112+99.80, 39.00'RT R/L N. TEUTONIA AVE =
STA 50+36.21, 30.00'LT R/L W. MEINECKE AVE
R=14'

R/L W. MEINECKE AVE

END CONSTRUCTION
STA 51+38.35

W. MEINECKE AVE

CAUTION

CG01	CONCRETE CURB AND GUTTER 31-INCH
CG07	CONCRETE CURB PEDESTRIAN
CP01	CONCRETE PAVEMENT 8 1/2-INCH
CM09	CONCRETE LOADING ZONE
CR01	CURB RAMP TYPE 2 MODIFIED
CR02	CURB RAMP TYPE 3 MODIFIED
CR03	CURB RAMP TYPE 4A MODIFIED
CR05	CURB RAMP TYPE 6 MODIFIED
CR07	CURB RAMP TYPE 7A MODIFIED
CR08	CURB RAMP TYPE 7B MODIFIED
CR10	CURB RAMP TYPE 1
CS01	CONCRETE SIDEWALK 5-INCH
DR07	CONCRETE DRIVEWAY 7-INCH
DR08	CONCRETE DRIVEWAY HES 8-INCH
PV10	ASPHALTC SURFACE, 3-INCH

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 59	E

2

CGO1 CONCRETE CURB AND GUTTER 31-INCH
CGO7 CONCRETE CURB PEDESTRIAN
CPO1 CONCRETE PAVEMENT 8 1/2-INCH
CM09 CONCRETE LOADING ZONE
CRO1 CURB RAMP TYPE 2 MODIFIED
CRO2 CURB RAMP TYPE 3 MODIFIED
CRO3 CURB RAMP TYPE 4A MODIFIED
CRO5 CURB RAMP TYPE 6 MODIFIED
CRO7 CURB RAMP TYPE 7A MODIFIED
CRO8 CURB RAMP TYPE 7B MODIFIED
CRI0 CURB RAMP TYPE 1
CSO1 CONCRETE SIDEWALK 5-INCH
DRO7 CONCRETE DRIVEWAY 7-INCH
DRO8 CONCRETE DRIVEWAY HES 8-INCH
PV10 ASPHALTC SURFACE, 3-INCH

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

N

2

R/L W. WRIGHT ST

W. WRIGHT ST

49

BEGIN CONSTRUCTION
STA 49+50.51

STA 119+19.25, 40.00'LT R/L N. TEUTONIA AVE =
STA 49+62.97, 30.00'RT R/L W. WRIGHT ST
R=15'

STA 119+80.70, 41.00'LT R/L N. TEUTONIA AVE =
STA 49+55.46, 31.00'LT R/L W. WRIGHT ST
R=16'

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

STA 119+01.85, 40.00'RT R/L N. TEUTONIA AVE =
STA 50+43.05, 30.00'RT R/L W. WRIGHT ST
R=15'

STA 119+62.12, 40.00'RT R/L N. TEUTONIA AVE =
STA 50+37.32, 30.00'LT R/L W. WRIGHT ST
R=15'

END CONSTRUCTION
STA 50+46.94

R/L W. WRIGHT ST

W. WRIGHT ST

51

CAUTION

117 118 119 120 121 122 123

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 60	E

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

N

BEGIN CONSTRUCTION
STA 49+28.65

R/L W. CLARKE ST

W. CLARKE ST

R/L N. TEUTONIA AVE

STA 125+84.39, 39.00'LT R/L N. TEUTONIA AVE =
STA 49+63.86, 29.00'RT R/L W. CLARKE ST
R=14'

STA 126+48.72, 39.00'LT R/L N. TEUTONIA AVE =
STA 49+57.09, 35.00'LT R/L W. CLARKE ST
R=20'

STA 126+52.52
19.00'LT

STA 126+59.53
25.00'LT

STA 126+45.58
25.00'RT

STA 126+38.58
19.00'RT

STA 126+30.41, 39.00'RT R/L N. TEUTONIA AVE =
STA 50+35.80, 35.00'LT R/L W. CLARKE ST
R=20'

STA 125+66.09, 39.00'RT R/L N. TEUTONIA AVE =
STA 50+42.00, 29.00'RT R/L W. CLARKE ST
R=14'

END CONSTRUCTION
STA 50+67.00

R/L W. CLARKE ST

N. TEUTONIA AVE

CAUTION

13'

11'

12'

CG01	CONCRETE CURB AND GUTTER 31-INCH
CG07	CONCRETE CURB PEDESTRIAN
CP01	CONCRETE PAVEMENT 8 1/2-INCH
CM09	CONCRETE LOADING ZONE
CR01	CURB RAMP TYPE 2 MODIFIED
CR02	CURB RAMP TYPE 3 MODIFIED
CR03	CURB RAMP TYPE 4A MODIFIED
CR05	CURB RAMP TYPE 6 MODIFIED
CR07	CURB RAMP TYPE 7A MODIFIED
CR08	CURB RAMP TYPE 7B MODIFIED
CR10	CURB RAMP TYPE 1
CS01	CONCRETE SIDEWALK 5-INCH
DR07	CONCRETE DRIVEWAY 7-INCH
DR08	CONCRETE DRIVEWAY HES 8-INCH
PV10	ASPHALTC SURFACE, 3-INCH

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 61	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021225_PD.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

N

BEGIN CONSTRUCTION
STA 49+05.00

R/L W. CENTER ST

W. CENTER ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

STA 129+77.70
18.00' LT

STA 129+70.70
25.00' LT

STA 129+96.18
18.00' LT

STA 130+03.19
25.00' LT

STA 132+41.79, 39.00' LT R/L N. TEUTONIA AVE =
STA 49+64.93, 39.00' RT R/L W. CENTER ST
R=14'

STA 133+21.79, 35.00' LT R/L N. TEUTONIA AVE =
STA 49+55.23, 35.00' LT R/L W. CENTER ST
R=10'

STA 129+70.70
25.00' RT

STA 129+77.70
18.00' RT

STA 130+03.18
25.00' RT

STA 129+96.18
18.00' RT

STA 132+37.87, 35.00' RT R/L N. TEUTONIA AVE =
STA 50+38.92, 35.00' RT R/L W. CENTER ST
R=10'

STA 133+04.63, 35.00' RT R/L N. TEUTONIA AVE =
STA 50+27.34, 35.00' LT R/L W. CENTER ST
R=10'

END CONSTRUCTION
STA 51+25.00

CAUTION

129 130 131 132 133 134 135

49 50 51

23' 23' 11' 12' 12' 11'

CGO1 CONCRETE CURB AND GUTTER 31-INCH
CGO7 CONCRETE CURB PEDESTRIAN
CPO1 CONCRETE PAVEMENT 8 1/2-INCH
CMO9 CONCRETE LOADING ZONE
CRO1 CURB RAMP TYPE 2 MODIFIED
CRO2 CURB RAMP TYPE 3 MODIFIED
CRO3 CURB RAMP TYPE 4A MODIFIED
CRO5 CURB RAMP TYPE 6 MODIFIED
CRO7 CURB RAMP TYPE 7A MODIFIED
CRO8 CURB RAMP TYPE 7B MODIFIED
CR10 CURB RAMP TYPE 1
CSO1 CONCRETE SIDEWALK 5-INCH
DRO7 CONCRETE DRIVEWAY 7-INCH
DRO8 CONCRETE DRIVEWAY HES 8-INCH
PV10 ASPHALTC SURFACE, 3-INCH

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 62	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021226_PD.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

R/L W. HADLEY ST

CAUTION

BEGIN CONSTRUCTION
STA 49+32.34

W. HADLEY ST

CAUTION

STA 140+08.12, 35.50'LT
R/L N. TEUTONIA AVE =
STA 49+54.37, 34.50'LT
R/L W. HADLEY ST
R=15'

STA 140+13.28
21.00'LT
STA 140+20.28
25.00'LT

STA 139+42.18, 34.00'LT R/L N. TEUTONIA AVE =
STA 49+72.42, 29.00'RT R/L W. HADLEY ST
R=9'

R/L N. TEUTONIA AVE

CAUTION

N. TEUTONIA AVE

CAUTION

CAUTION

STA 139+24.05, 40.00'RT R/L N. TEUTONIA AVE =
STA 50+48.33, 33.12'RT R/L W. HADLEY ST
R=15'

STA 140+05.83
25.00'RT
STA 140+00.33
21.00'RT

STA 139+95.14, 39.00'RT R/L N. TEUTONIA AVE =
STA 50+31.97, 36.00'LT R/L W. HADLEY ST
R=18'

END CONSTRUCTION
STA 50+73.93

R/L W. HADLEY ST

CG01 CONCRETE CURB AND GUTTER 31-INCH
CG07 CONCRETE CURB PEDESTRIAN
CP01 CONCRETE PAVEMENT 8 1/2-INCH
CM09 CONCRETE LOADING ZONE
CR01 CURB RAMP TYPE 2 MODIFIED
CR02 CURB RAMP TYPE 3 MODIFIED
CR03 CURB RAMP TYPE 4A MODIFIED
CR05 CURB RAMP TYPE 6 MODIFIED
CR07 CURB RAMP TYPE 7A MODIFIED
CR08 CURB RAMP TYPE 7B MODIFIED
CR10 CURB RAMP TYPE 1
CS01 CONCRETE SIDEWALK 5-INCH
DR07 CONCRETE DRIVEWAY 7-INCH
DR08 CONCRETE DRIVEWAY HES 8-INCH
PV10 ASPHALTC SURFACE, 3-INCH

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 63	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\021227_PD.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

CGO1 CONCRETE CURB AND GUTTER 31-INCH
CGO7 CONCRETE CURB PEDESTRIAN
CPO1 CONCRETE PAVEMENT 8 1/2-INCH
CMO9 CONCRETE LOADING ZONE
CRO1 CURB RAMP TYPE 2 MODIFIED
CRO2 CURB RAMP TYPE 3 MODIFIED
CRO3 CURB RAMP TYPE 4A MODIFIED
CRO5 CURB RAMP TYPE 6 MODIFIED
CRO7 CURB RAMP TYPE 7A MODIFIED
CRO8 CURB RAMP TYPE 7B MODIFIED
CR10 CURB RAMP TYPE 1
CSO1 CONCRETE SIDEWALK 5-INCH
DRO7 CONCRETE DRIVEWAY 7-INCH
DRO8 CONCRETE DRIVEWAY HES 8-INCH
PV10 ASPHALTC SURFACE, 3-INCH

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

2) SEE PLAN DETAILS - W. LOCUST ST FOR ADDITIONAL INFORMATION.

BEGIN CONSTRUCTION
STA 94+56.99

R/L W. LOCUST ST EB

STA 145+00.27, 79.94'LT R/L N. TEUTONIA AVE =
STA 96+55.27, 119.82'RT R/L W. LOCUST ST EB
R=48'

CAUTION

STA 143+48.78
25.00'LT

R/L N. TEUTONIA AVE

STA 145+00.38
31.94'LT

N. TEUTONIA AVE

W. LOCUST ST

STA 142+86.34, 32.00'RT R/L N. TEUTONIA AVE =
STA 50+37.90, 19.00'RT R/L W. HADLEY ST
R=7'

STA 143+25.57, 32.00'RT R/L N. TEUTONIA AVE =
STA 50+28.16, 19.00'LT R/L W. HADLEY ST
R=7'

STA 145+41.72, 42.00'RT R/L N. TEUTONIA AVE =
STA 97+60.02, 49.00'RT R/L W. LOCUST ST EB
R=17'

STA 146+72.37, 40.00'RT
R/L N. TEUTONIA AVE =
STA 97+23.81, 47.84'LT
R/L W. LOCUST ST WB
R=15'

END CONSTRUCTION
STA 50+62.90

END CONSTRUCTION
STA 97+88.90

END CONSTRUCTION
STA 97+88.67

R/L W. ALBANY PL

W. ALBANY PL

W. LOCUST ST

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 64	E

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

2) SEE PLAN DETAILS - W. LOCUST ST FOR ADDITIONAL INFORMATION.

N

W. LOCUST ST

W. GROELING AVE

N. TEUTONIA AVE

R/L W. GROELING AVE

R/L N. TEUTONIA AVE

R/L W. GROELING AVE

BEGIN CONSTRUCTION
STA 49+34.88

END PROJECT
STA 149+76.53

END CONSTRUCTION
STA 50+67.27

STA 146+88.60, 35.50'LT R/L N. TEUTONIA AVE =
STA 96+46.77, 42.50'LT R/L W. LOCUST ST WB
R=11'

STA 149+00.92, 34.00'LT R/L N. TEUTONIA AVE =
STA 49+69.77, 19.00'RT R/L W. GROELING AVE
R=9'

STA 149+40.81, 34.00'LT R/L N. TEUTONIA AVE =
STA 49+59.82, 19.00'LT R/L W. GROELING AVE
R=9'

STA 147+77.18
0.00
R=2'

STA 148+07.18
0.00
R=2'

STA 149+12.71, 34.00'RT R/L N. TEUTONIA AVE =
STA 50+42.19, 25.00'RT R/L W. GROELING AVE
R=9'

STA 149+64.02, 34.00'RT R/L N. TEUTONIA AVE =
STA 50+28.23, 25.00'LT R/L W. GROELING AVE
R=9'

CAUTION

147 148 149 150

CG01	CONCRETE CURB AND GUTTER 31-INCH
CG07	CONCRETE CURB PEDESTRIAN
CP01	CONCRETE PAVEMENT 8 1/2-INCH
CM09	CONCRETE LOADING ZONE
CR01	CURB RAMP TYPE 2 MODIFIED
CR02	CURB RAMP TYPE 3 MODIFIED
CR03	CURB RAMP TYPE 4A MODIFIED
CR05	CURB RAMP TYPE 6 MODIFIED
CR07	CURB RAMP TYPE 7A MODIFIED
CR08	CURB RAMP TYPE 7B MODIFIED
CR10	CURB RAMP TYPE 1
CS01	CONCRETE SIDEWALK 5-INCH
DR07	CONCRETE DRIVEWAY 7-INCH
DR08	CONCRETE DRIVEWAY HES 8-INCH
PV10	ASPHALTC SURFACE, 3-INCH

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - N TEUTONIA AVE	SHEET 65	E

NOTE:

1) SEE CONSTRUCTION DETAILS - CURB RAMPS FOR ADDITIONAL CURB RAMP INFORMATION.

2) SEE PLAN DETAILS - N. TEUTONIA AVE FOR ADDITIONAL INFORMATION.

N

BEGIN CONSTRUCTION
STA 94+59.86

BEGIN CONSTRUCTION
STA 94+56.99

END CONSTRUCTION
STA 97+88.67

END CONSTRUCTION
STA 97+88.90

N. TEUTONIA AVE

W. LOCUST ST

R/L W. LOCUST ST WB

R/L W. LOCUST ST EB

CAUTION

STA 96+46.77, 42.50'LT R/L W. LOCUST ST WB =
STA 146+88.60, 35.50'LT R/L N. TEUTONIA AVE
R=11'

STA 97+23.81, 47.84'LT R/L W. LOCUST ST WB=
STA 146+72.37, 40.00'RT R/L N. TEUTONIA AVE
R=15'

STA 95+18.24
32.00'LT

STA 94+86.54
32.00'LT

STA 94+86.54
2.00'RT

STA 95+18.24
2.00'RT

STA 95+58.27
14.00'LT

STA 96+17.95
14.00'LT

STA 96+53.22
3.50'RT
R=2'

STA 97+45.84
6.53'LT
R=3'

STA 97+76.09
18.00'LT

STA 97+46.43
4.64'LT
R=3'

STA 95+22.27
30.00'RT

STA 95+76.51
38.06'RT

STA 96+21.33
34.00'RT
R=2'

STA 96+71.55
45.00'RT
R=13'

STA 96+86.45
60.05'RT
R=2'

STA 96+55.27, 119.82'RT R/L W. LOCUST ST EB =
STA 145+00.27, 79.94'LT R/L N. TEUTONIA AVE
R=48'

STA 97+60.02, 49.00'RT R/L W. LOCUST ST EB =
STA 145+41.72, 42.00'RT R/L N. TEUTONIA AVE
R=17'

R=440'
R=248'
R=58'

147
146
145
144

94 95 96 97 98 99

CG01	CONCRETE CURB AND GUTTER 31-INCH
CG07	CONCRETE CURB PEDESTRIAN
CP01	CONCRETE PAVEMENT 8 1/2-INCH
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CM09	CONCRETE LOADING ZONE
CR01	CURB RAMP TYPE 2 MODIFIED
CR02	CURB RAMP TYPE 3 MODIFIED
CR03	CURB RAMP TYPE 4A MODIFIED
CR05	CURB RAMP TYPE 6 MODIFIED
CR07	CURB RAMP TYPE 7A MODIFIED
CR08	CURB RAMP TYPE 7B MODIFIED
CR010	CURB RAMP TYPE 1
CS01	CONCRETE SIDEWALK 5-INCH
DR07	CONCRETE DRIVEWAY 7-INCH
DR08	CONCRETE DRIVEWAY HES 8-INCH
PV10	ASPHALTC SURFACE, 3-INCH

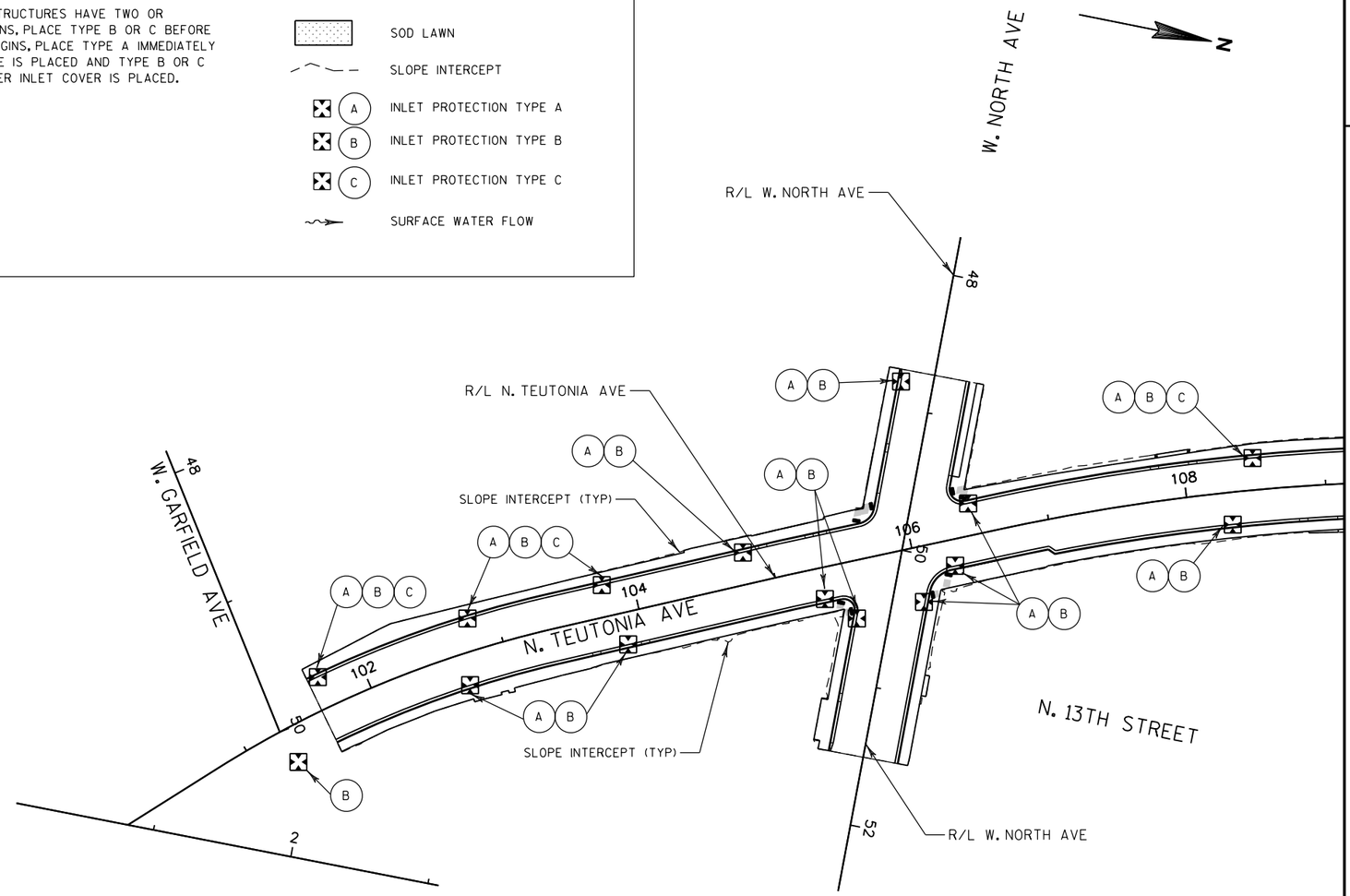
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS - W LOCUST ST	SHEET 66	E

NOTES:

1) WHEN DRAINAGE STRUCTURES HAVE TWO OR THREE PROTECTIONS, PLACE TYPE B OR C BEFORE CONSTRUCTION BEGINS, PLACE TYPE A IMMEDIATELY AFTER STRUCTURE IS PLACED AND TYPE B OR C IMMEDIATELY AFTER INLET COVER IS PLACED.

LEGEND

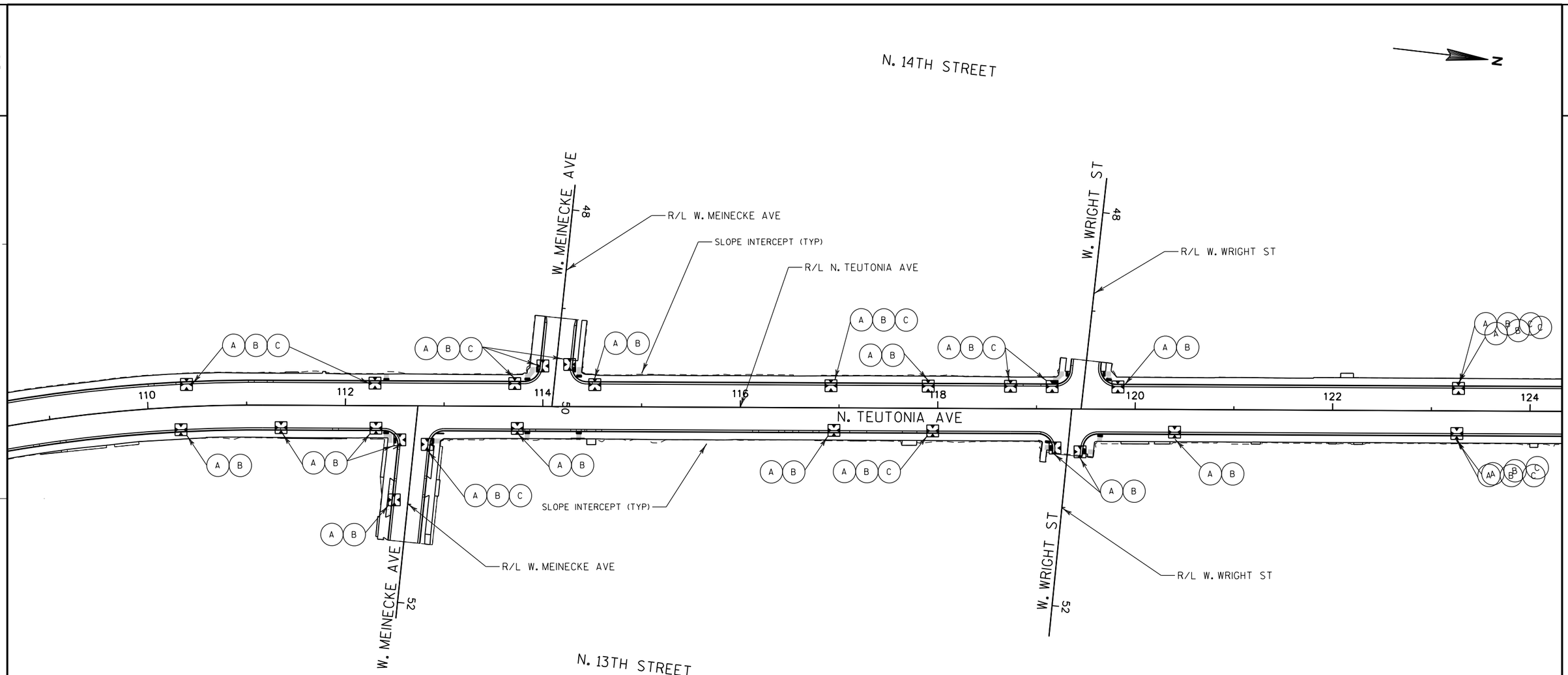
- SOD LAWN
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- SURFACE WATER FLOW



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 67	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022001_EC.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



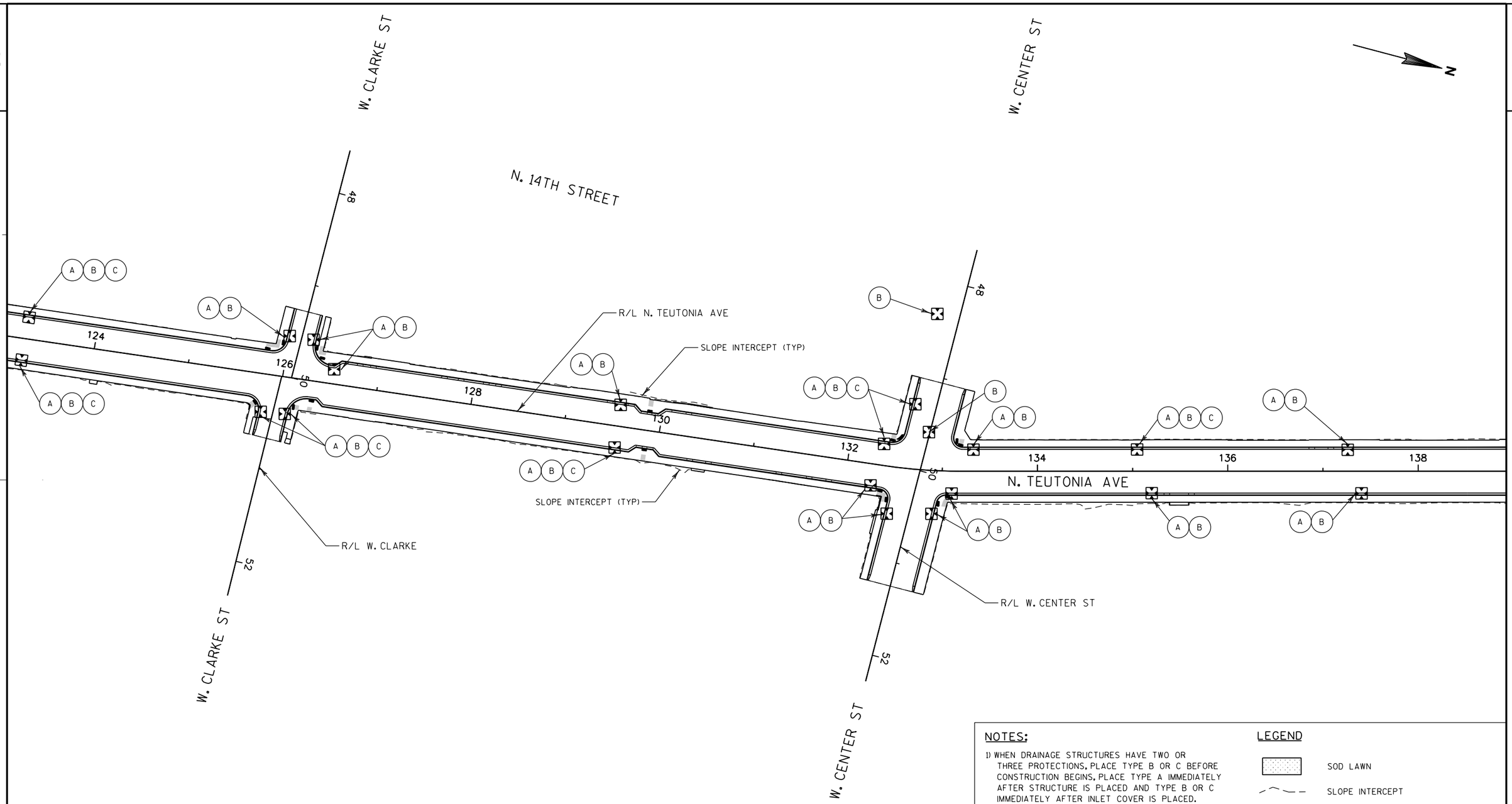
NOTES:

1) WHEN DRAINAGE STRUCTURES HAVE TWO OR THREE PROTECTIONS, PLACE TYPE B OR C BEFORE CONSTRUCTION BEGINS, PLACE TYPE A IMMEDIATELY AFTER STRUCTURE IS PLACED AND TYPE B OR C IMMEDIATELY AFTER INLET COVER IS PLACED.

LEGEND

- SOD LAWN
- SLOPE INTERCEPT
- A — INLET PROTECTION TYPE A
- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SURFACE WATER FLOW

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 68	E



NOTES:

1) WHEN DRAINAGE STRUCTURES HAVE TWO OR THREE PROTECTIONS, PLACE TYPE B OR C BEFORE CONSTRUCTION BEGINS, PLACE TYPE A IMMEDIATELY AFTER STRUCTURE IS PLACED AND TYPE B OR C IMMEDIATELY AFTER INLET COVER IS PLACED.

LEGEND

- SOD LAWN
- SLOPE INTERCEPT
- A — INLET PROTECTION TYPE A
- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SURFACE WATER FLOW

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 69	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022003_EC.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

N

N. 15TH STREET

W. LOCUST ST

W. GROELING AVE

N. TEUTONIA AVE

W. HADLEY ST

W. ALBANY PL

W. LOCUST ST

W. GROELING AVE

R/L W. HADLEY ST

R/L N. TEUTONIA AVE

SLOPE INTERCEPT (TYP)

R/L W. LOCUST ST

R/L W. GROELING AVE

R/L W. ALBANY PL

SLOPE INTERCEPT (TYP)

R/L W. GROELING AVE

48 94 96 140 142 144 146 148 150

52 86 98 52 100 52

A B C

NOTES:

1) WHEN DRAINAGE STRUCTURES HAVE TWO OR THREE PROTECTIONS, PLACE TYPE B OR C BEFORE CONSTRUCTION BEGINS, PLACE TYPE A IMMEDIATELY AFTER STRUCTURE IS PLACED AND TYPE B OR C IMMEDIATELY AFTER INLET COVER IS PLACED.

LEGEND

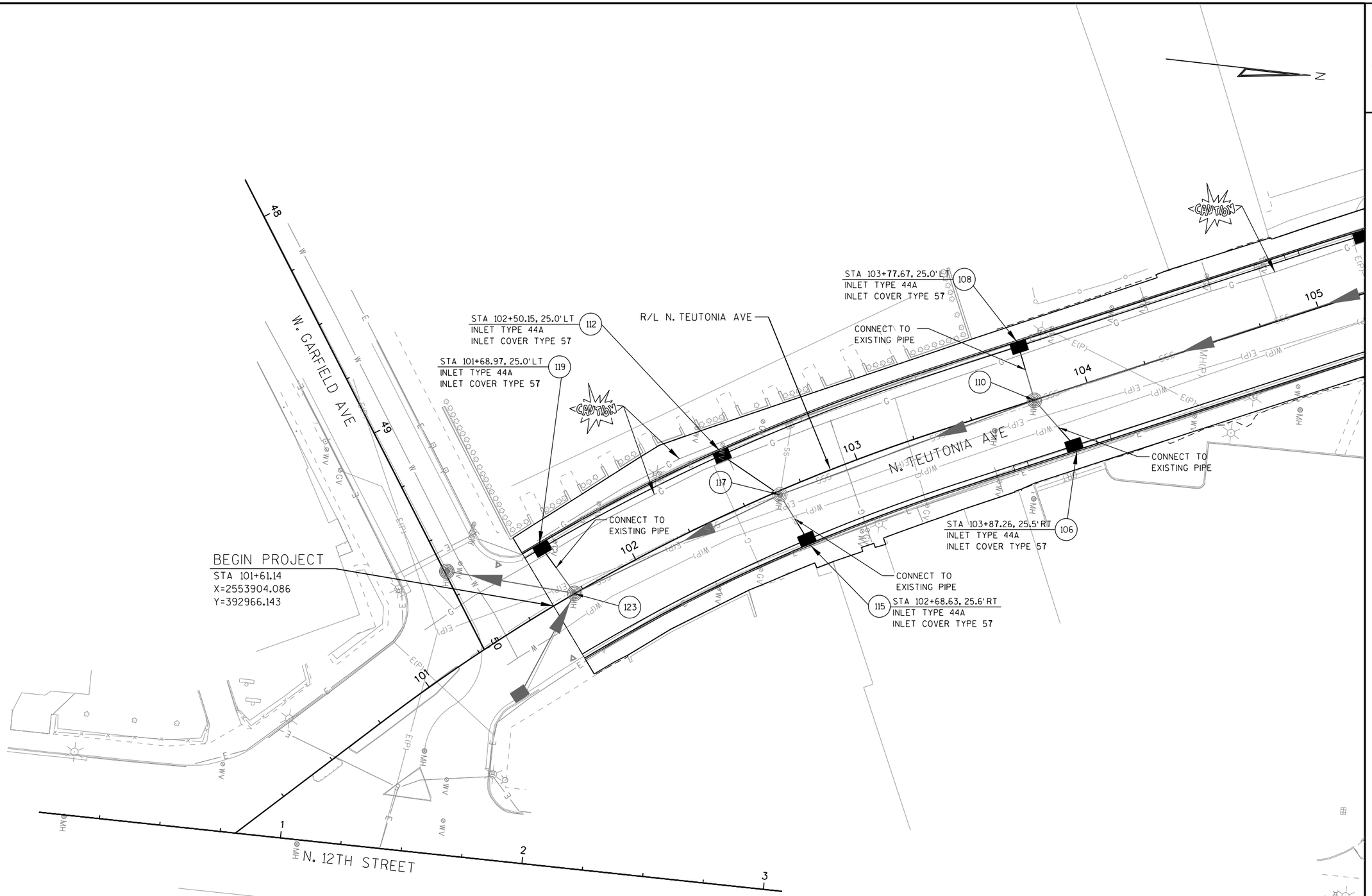
- SOD LAWN
- SLOPE INTERCEPT
- A — INLET PROTECTION TYPE A
- B — INLET PROTECTION TYPE B
- C — INLET PROTECTION TYPE C
- SURFACE WATER FLOW

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 70	E

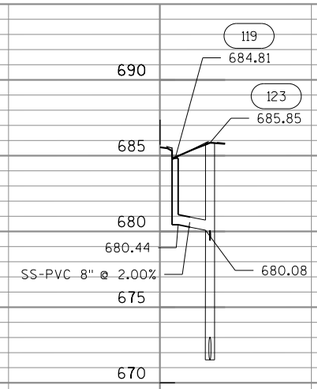
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022004_EC.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

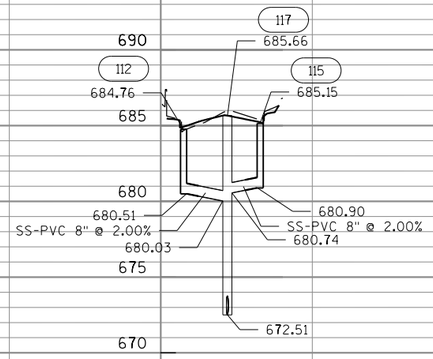
WISDOT/CADDS SHEET 42

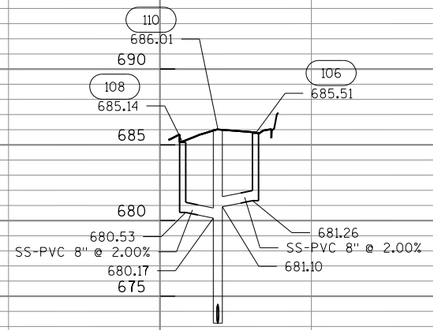
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 71	E







PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN - PROFILES	SHEET 72	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022501a_SS.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100.013
WISDOT/CADDS SHEET 42

BEGIN CONSTRUCTION
STA 48+72.68

R/L W. NORTH AVE

W. NORTH AVE

STA 48+81.38, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
210

CONNECT TO
EXISTING PIPE

300 STA 106+46.83, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57

310 STA 108+49.54, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO
EXISTING PIPE

312

CONNECT TO
EXISTING PIPE

STA 110+39.65, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
316

318

CONNECT TO
EXISTING PIPE

104 STA 105+25.15, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57

N. TEUTONIA AVE

304

R/L N. TEUTONIA AVE

308 STA 108+30.75 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57

STA 110+32.57, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
314

102

206

105

CONNECT TO
EXISTING PIPE

302 STA 106+28.25, 21.0' RT
INLET TYPE 44A
INLET COVER TYPE 57

204 STA 50+32.90, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO EXISTING PIPE

STA 105+32.80, 24.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
100

STA 50+54.69, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
202

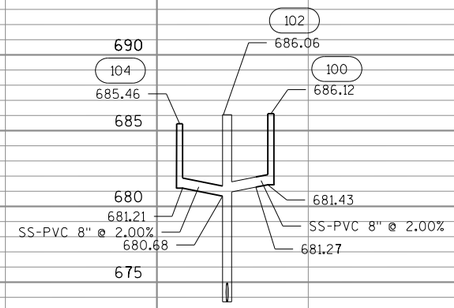
CONNECT TO
EXISTING PIPE

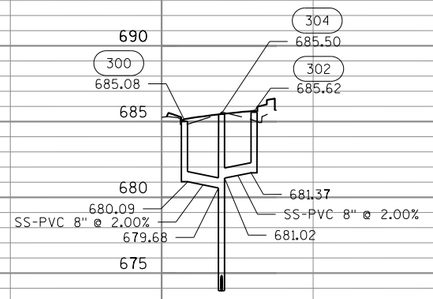
END CONSTRUCTION
STA 51+50.58

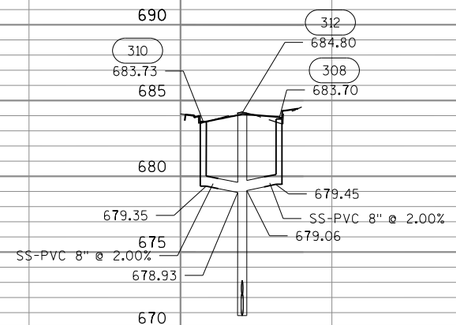
CAUTION

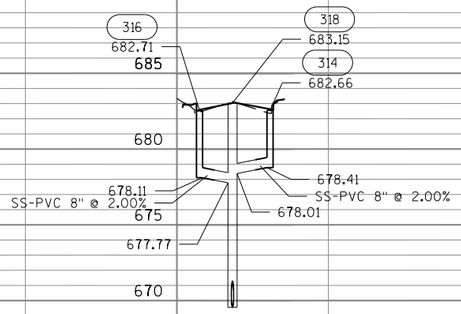
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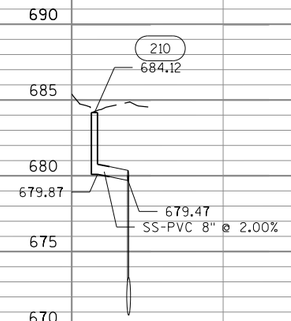
N

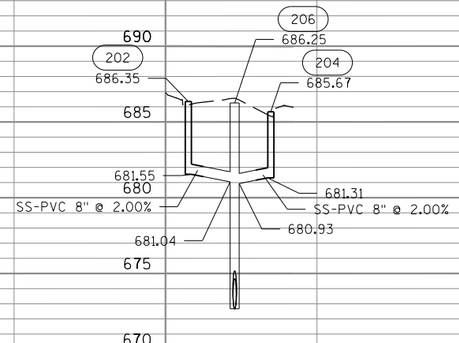

102
686.06
104
685.46
100
686.12
690
685
680
675
670
681.43
681.21
SS-PVC 8" @ 2.00%
680.68
SS-PVC 8" @ 2.00%
681.27


304
685.50
300
685.08
302
685.62
690
685
680
675
670
681.37
680.09
SS-PVC 8" @ 2.00%
679.68
SS-PVC 8" @ 2.00%
681.02


312
684.80
310
683.73
308
683.70
690
685
680
675
670
679.45
679.35
SS-PVC 8" @ 2.00%
679.06
SS-PVC 8" @ 2.00%
678.93


316
682.71
318
683.15
314
682.66
685
680
675
670
665
678.41
678.11
SS-PVC 8" @ 2.00%
678.01
677.77


210
684.12
690
685
680
675
670
679.87
679.47
SS-PVC 8" @ 2.00%


206
686.25
202
686.35
204
685.67
690
685
680
675
670
681.55
SS-PVC 8" @ 2.00%
681.04
681.31
SS-PVC 8" @ 2.00%
680.93

2

2

N

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

W. MEINECKE AVE

49

CONNECT TO EXISTING MANHOLE

CONNECT TO EXISTING PIPE
350

STA 49+60.09, 16.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
346

STA 49+55.65, 16.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
348

STA 112+29.89, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
324

R/L N. TEUTONIA AVE

STA 113+71.25, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
342

STA 114+52.54, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
400

STA 116+62.50, 25.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
404

CAUTION

CONNECT TO EXISTING PIPE
326

CONNECT TO EXISTING PIPE

CONNECT TO EXISTING PIPE

CONNECT TO EXISTING PIPE

408

111 112 113 114 115 116 117

50

N. TEUTONIA AVE

402

CONNECT TO EXISTING PIPE

CONNECT TO EXISTING PIPE

STA 111+35.10, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
320

STA 112+31.26, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
322

STA 116+50.00, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
406

CAUTION

CAUTION

STA 113+74.39, 25.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
344

STA 50+41.72, 16.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
334

338

332

STA 50+37.65, 16.0' LT
INLET TYPE 44A
INLET COVER TYPE 57
336

CONNECT TO EXISTING MANHOLE

STA 50+96.95, 16.0' RT
INLET TYPE 44A
INLET COVER TYPE 57
330

51

R/L W. MEINECKE AVE

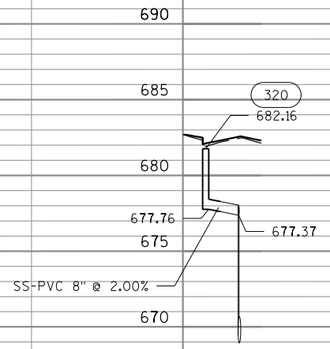
CONNECT TO EXISTING MANHOLE

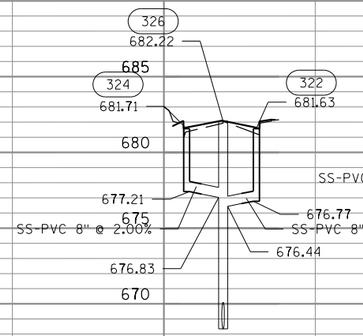
END CONSTRUCTION
STA 51+38.35

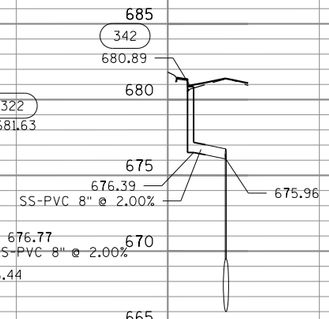
W. MEINECKE AVE

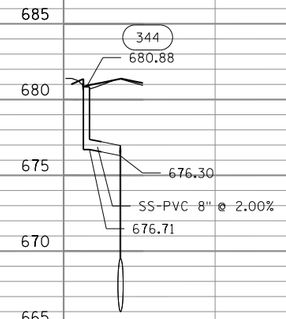
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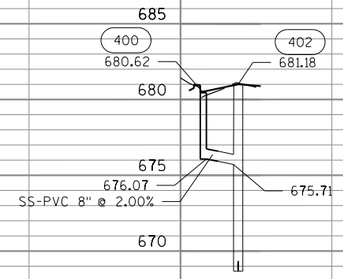
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 75	E

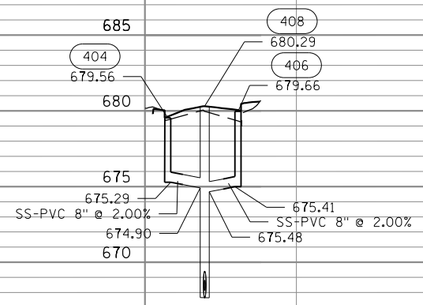


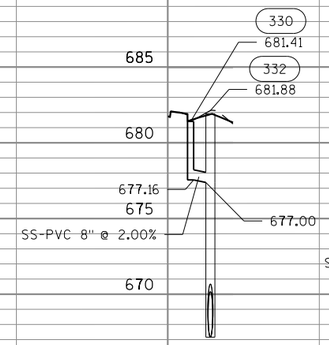


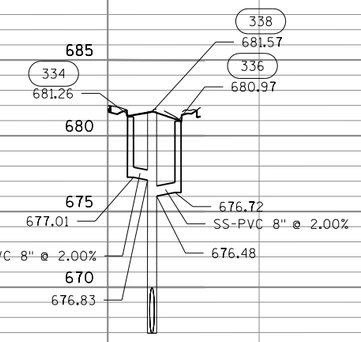


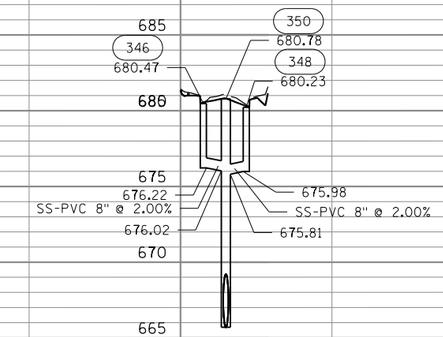


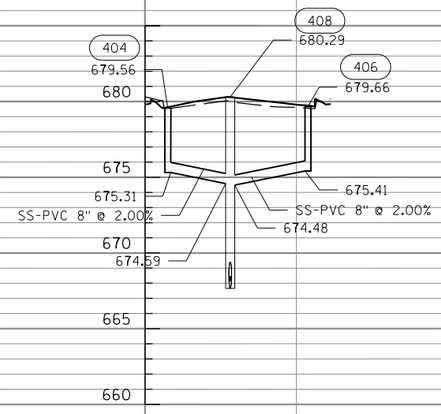












PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN - PROFILES	SHEET 76	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022503a_SS.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100.013

WISDOT/CADDS SHEET 42

2

2

N

BEGIN CONSTRUCTION
STA 49+50.51

R/L W. WRIGHT ST

W. WRIGHT ST

CONNECT TO EXISTING RISER
STA 119+14.39, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
420

STA 117+90.22, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
410

STA 118+73.16, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
414

424

422

446 STA 119+82.16, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO
EXISTING PIPE

R/L N. TEUTONIA AVE

448

CONNECT TO
EXISTING PIPE

CONNECT TO
EXISTING PIPE

413

CONNECT TO
EXISTING PIPE

408

CONNECT TO
EXISTING PIPE

N. TEUTONIA AVE

CONNECT TO
EXISTING PIPE

STA 118+92.72, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
416

STA 120+40.09, 25.6'RT
INLET TYPE 44A
INLET COVER TYPE 57
444

STA 117+95.26, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
412

STA 50+45.44, 15.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
432

434

STA 50+45.44, 15.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
430

END CONSTRUCTION
STA 50+46.94

R/L W. WRIGHT ST

W. WRIGHT ST

CAUTION

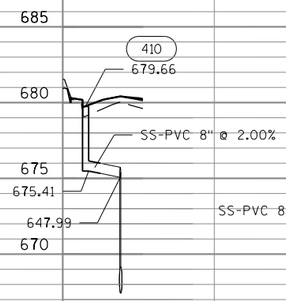
117 118 119 120 121 122 123

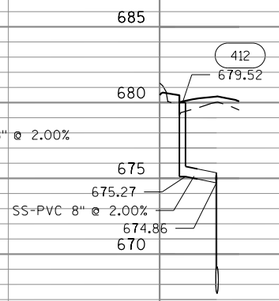
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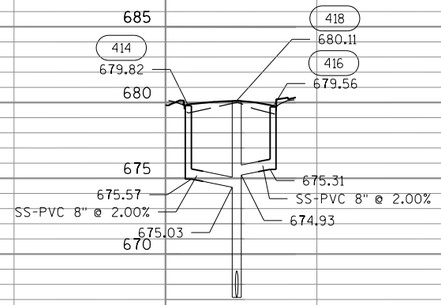
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 77	E

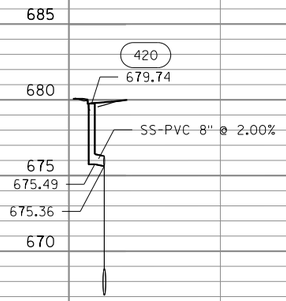
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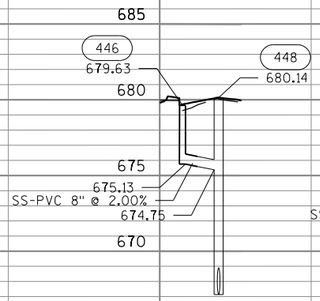
WISDOT/CADDS SHEET 42

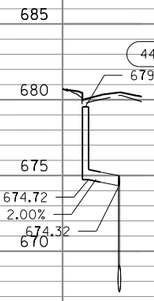

685
680
675
670
665
660
410
679.66
SS-PVC 8" @ 2.00%
675.41
647.99

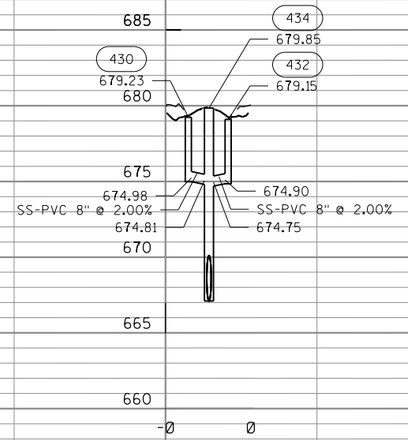

685
680
675
670
665
660
412
679.52
675.27
SS-PVC 8" @ 2.00%
674.86


685
680
675
670
665
660
418
680.11
414
679.82
416
679.56
675.31
675.57
SS-PVC 8" @ 2.00%
SS-PVC 8" @ 2.00%
674.93
675.03


685
680
675
670
665
660
420
679.74
SS-PVC 8" @ 2.00%
675.49
675.36


685
680
675
670
665
660
446
679.63
448
680.14
675.13
SS-PVC 8" @ 2.00%
674.75


685
680
675
670
665
660
444
679.96
674.72
SS-PVC 8" @ 2.00%
674.32


685
680
675
670
665
660
434
679.85
430
679.23
432
679.15
674.90
674.98
SS-PVC 8" @ 2.00%
SS-PVC 8" @ 2.00%
674.81
674.75

2

2

N

W. CLARKE ST

R/L W. CLARKE ST

BEGIN CONSTRUCTION
STA 49+28.65

STA 49+41.98, 15.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
521

525
CONNECT TO EXISTING MANHOLE

523
STA 49+55.44, 15.0'LT
INLET TYPE 44A
INLET COVER TYPE 57

508
STA 126+63.34, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57

438
STA 123+27.43, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO
EXISTING PIPE

R/L N. TEUTONIA AVE

CONNECT TO EXISTING MANHOLE

CAUTION

436

442

506

123 124 125 126 127 128 129

N. TEUTONIA AVE

CONNECT TO
EXISTING PIPE

512

440
STA 123+25.94, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57

STA 50+41.53, 15.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
515

519

510
STA 126+51.58, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57

517
STA 50+42.00, 15.0'LT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO EXISTING MANHOLE

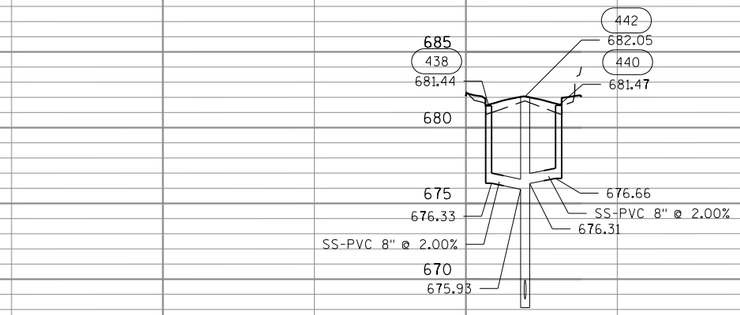
END CONSTRUCTION
STA 50+67.00

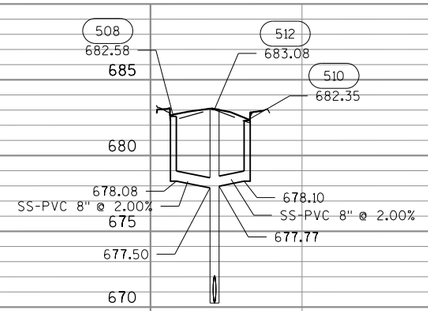
R/L W. CLARKE ST

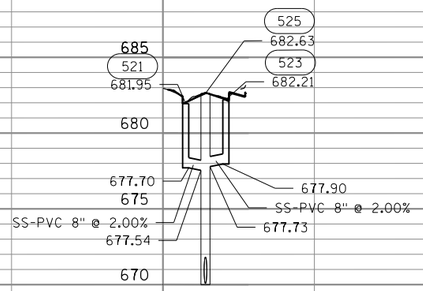
W. CLARKE ST

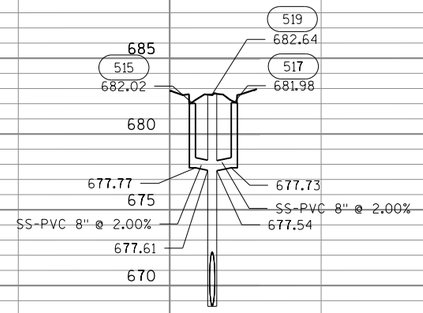
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 79	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022505_SS.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40


442
682.05
438
681.44
440
681.47
685
680
675
676.33
676.66
SS-PVC 8" @ 2.00%
676.31
SS-PVC 8" @ 2.00%
670
675.93
665
660


508
682.58
512
683.08
510
682.35
685
680
678.08
SS-PVC 8" @ 2.00%
678.10
SS-PVC 8" @ 2.00%
675
677.77
677.50
670
665
660


525
682.63
521
681.95
523
682.21
685
680
677.70
677.90
675
SS-PVC 8" @ 2.00%
SS-PVC 8" @ 2.00%
677.73
677.54
670
665
660


519
682.64
515
682.02
517
681.98
685
680
677.77
677.73
675
SS-PVC 8" @ 2.00%
SS-PVC 8" @ 2.00%
677.54
677.61
670
665

2

N

BEGIN CONSTRUCTION
STA 49+05.00

R/L W. CENTER ST

W. CENTER ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

STA 129+55.63, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
500

CONNECT TO
EXISTING PIPE

STA 129+56.11, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
502

CONNECT TO
EXISTING PIPE

504

600

STA 132+35.19, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
604

CONNECT TO EXISTING PIPE

606

CONNECT TO EXISTING PIPE

STA 132+27.49, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
602

STA 49+33.45, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
643

CONNECT TO
EXISTING PIPE

645

STA 50+52.35, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
639

CONNECT TO
EXISTING PIPE

641

STA 133+32.66, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
631

CONNECT TO
EXISTING PIPE

633

STA 135+04.78, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
622

CONNECT TO
EXISTING PIPE

STA 133+10.39, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
629

STA 50+40.70, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
637

CONNECT TO
EXISTING PIPE

END CONSTRUCTION
STA 51+25.00

129 130 131 132 133 134 135

49 50 51

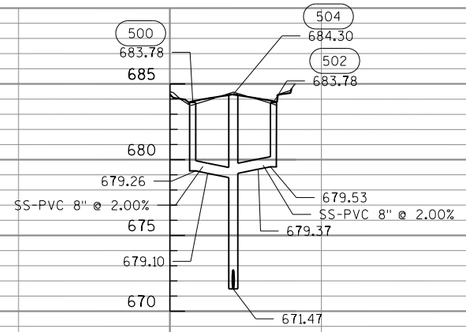
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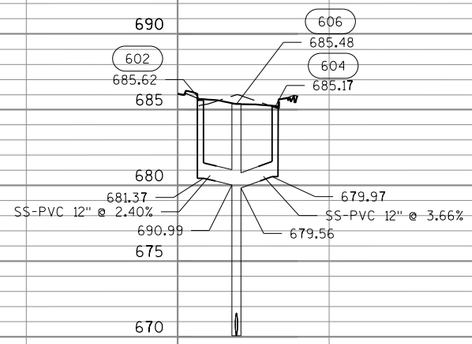
CAUTION

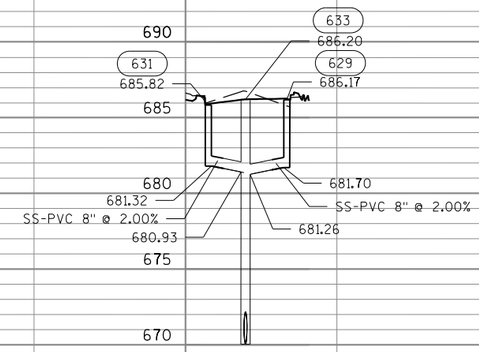
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 81	E

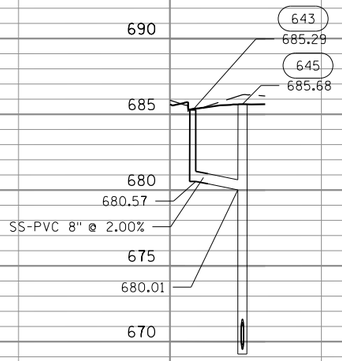
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022506_SS.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

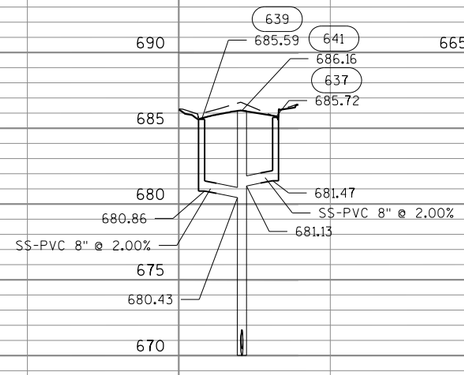
WISDOT/CADDS SHEET 42





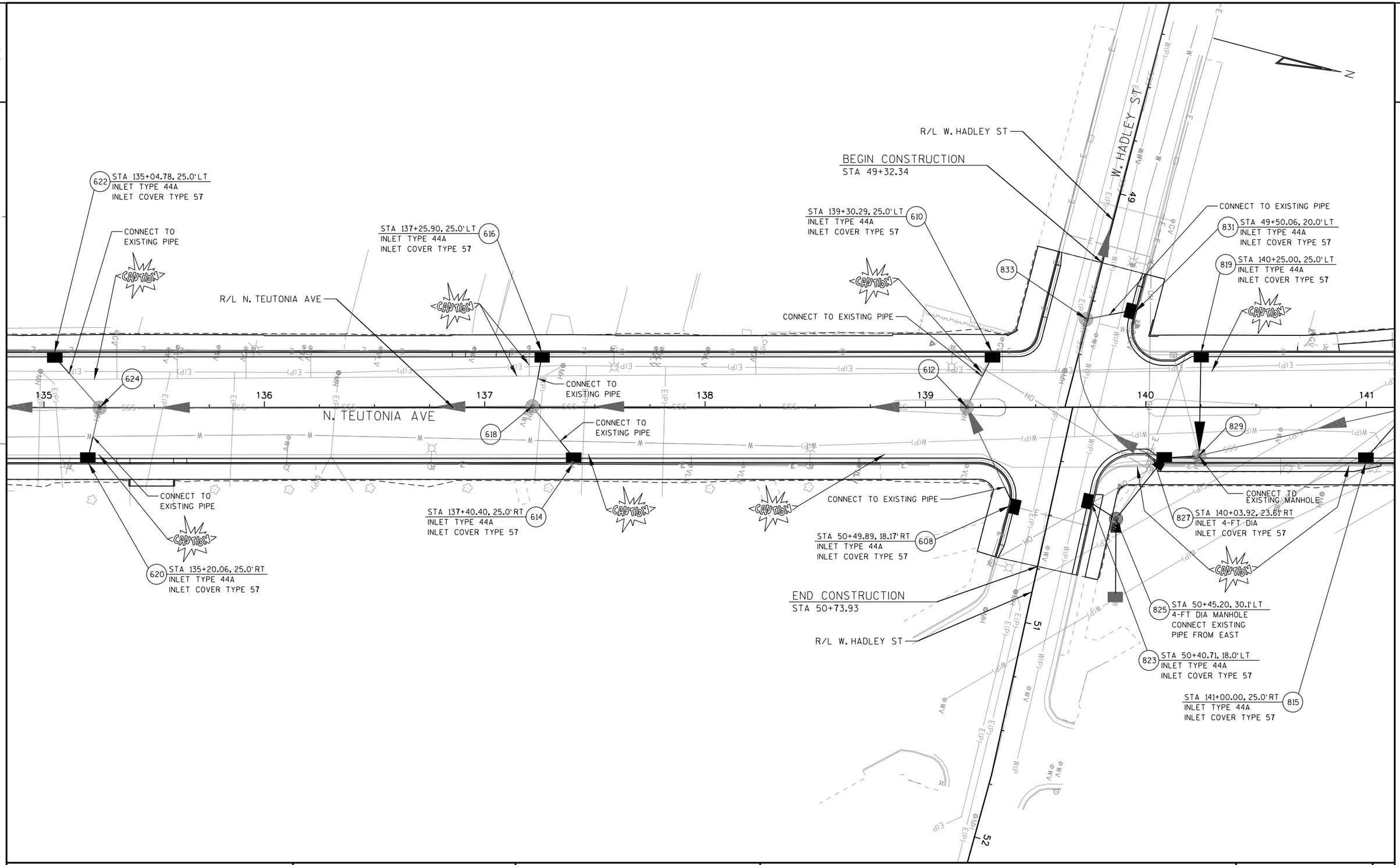




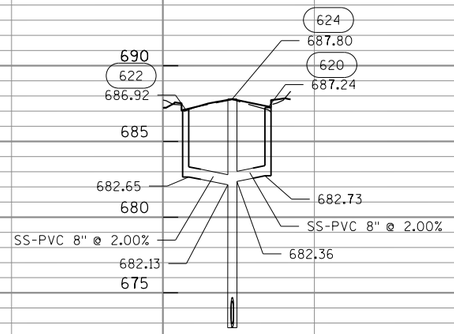


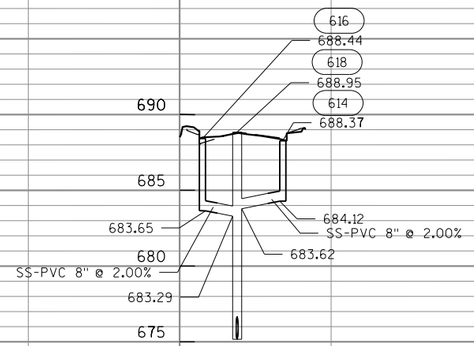
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN - PROFILES	SHEET 82 E

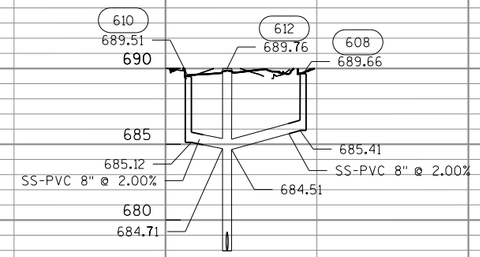
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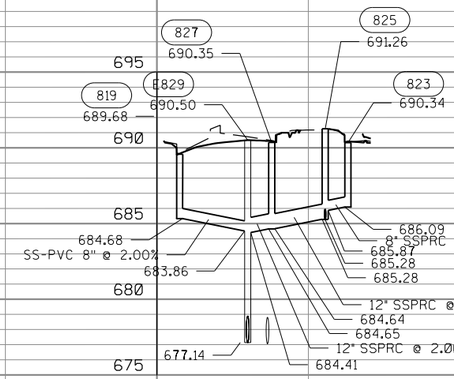


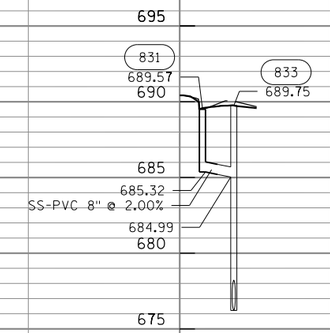
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 83	E











PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN - PROFILES	SHEET 84	E

2

BEGIN CONSTRUCTION
STA 94+56.99

N

W. LOCUST ST

R/L W. LOCUST ST EB

STA 96+36.41, 62.6'LT
INLET 4-FT DIA
INLET COVER TYPE 57
916

STA 96+34.84, 23.0'LT
CATCH BASIN TYPE 45A
INLET COVER TYPE 57
914

CONNECT TO EXISTING MANHOLE

STA 96+67.07, 31.9'RT
INLET 4-FT DIA
INLET COVER TYPE 57
924

STA 96+65.23, 72.5'RT
CATCH BASIN TYPE 45A
INLET COVER TYPE 57
920

1015
1013
1011
926
1009
1100
912

STA 142+57.43, 25.0'LT
INLET TYPE 44A
INLET COVER TYPE 57
810

STA 143+67.92, 25.9'LT
INLET TYPE 44A
INLET COVER TYPE 57
802

CONNECT TO EXISTING PIPE

R/L N. TEUTONIA AVE

STA 145+51.25, 30.0'LT
CATCH BASIN TYPE 45A
INLET COVER TYPE 57
922

829
812
806
800

CONNECT TO EXISTING PIPE

141 142 143 144 145 146 147

N. TEUTONIA AVE

STA 146+82.76, 22.7'LT
INLET TYPE 45A
INLET COVER TYPE 57
918

CONNECT TO EXISTING PIPE

815
STA 141+00.00, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO EXISTING PIPE

STA 142+79.63, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57
808

804
STA 143+30.37, 25.0'RT
INLET TYPE 44A
INLET COVER TYPE 57

CONNECT TO EXISTING PIPE

END CONSTRUCTION
STA 50+62.90

W. ALBANY PL

R/L W. ALBANY PL

END CONSTRUCTION
STA 97+88.90

W. LOCUST ST

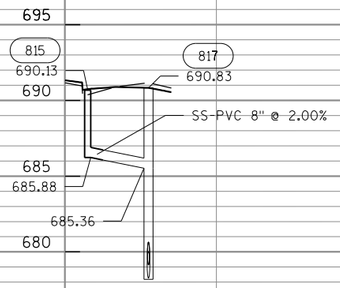
STA 146+66.31, 25.0'RT
INLET TYPE 45A
INLET COVER TYPE 57
912

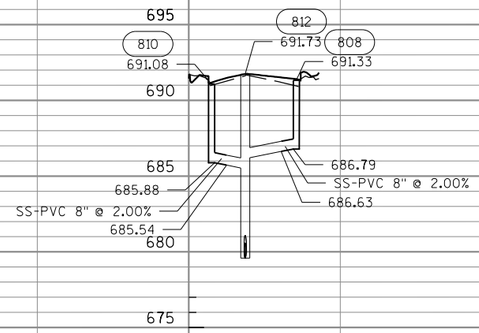
END CONSTRUCTION
STA 97+88.67

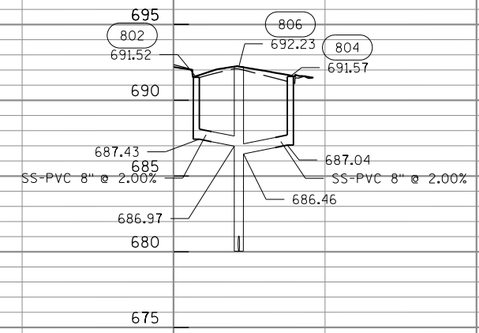
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 85	E

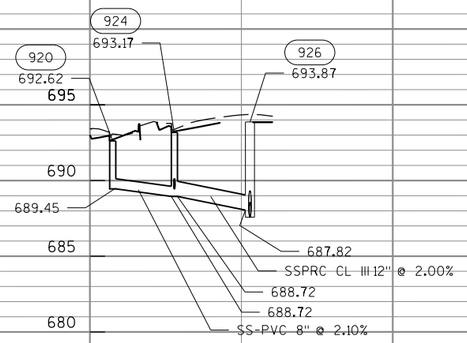
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\022508_SS.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

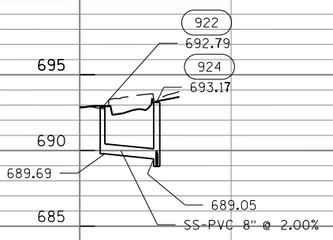
WISDOT/CADDS SHEET 42

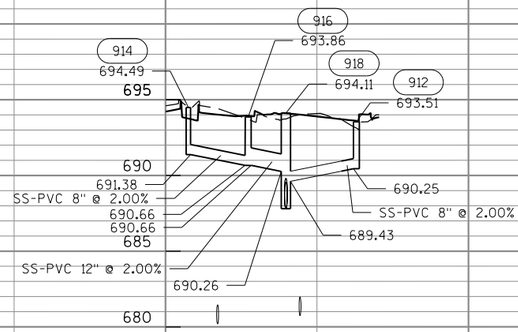

695
690
685
680
675
815
690.13
817
690.83
SS-PVC 8" @ 2.00%
685.88
685.36


695
690
685
680
675
812
691.73
810
691.08
808
691.33
686.79
SS-PVC 8" @ 2.00%
686.63
685.88
SS-PVC 8" @ 2.00%
685.54

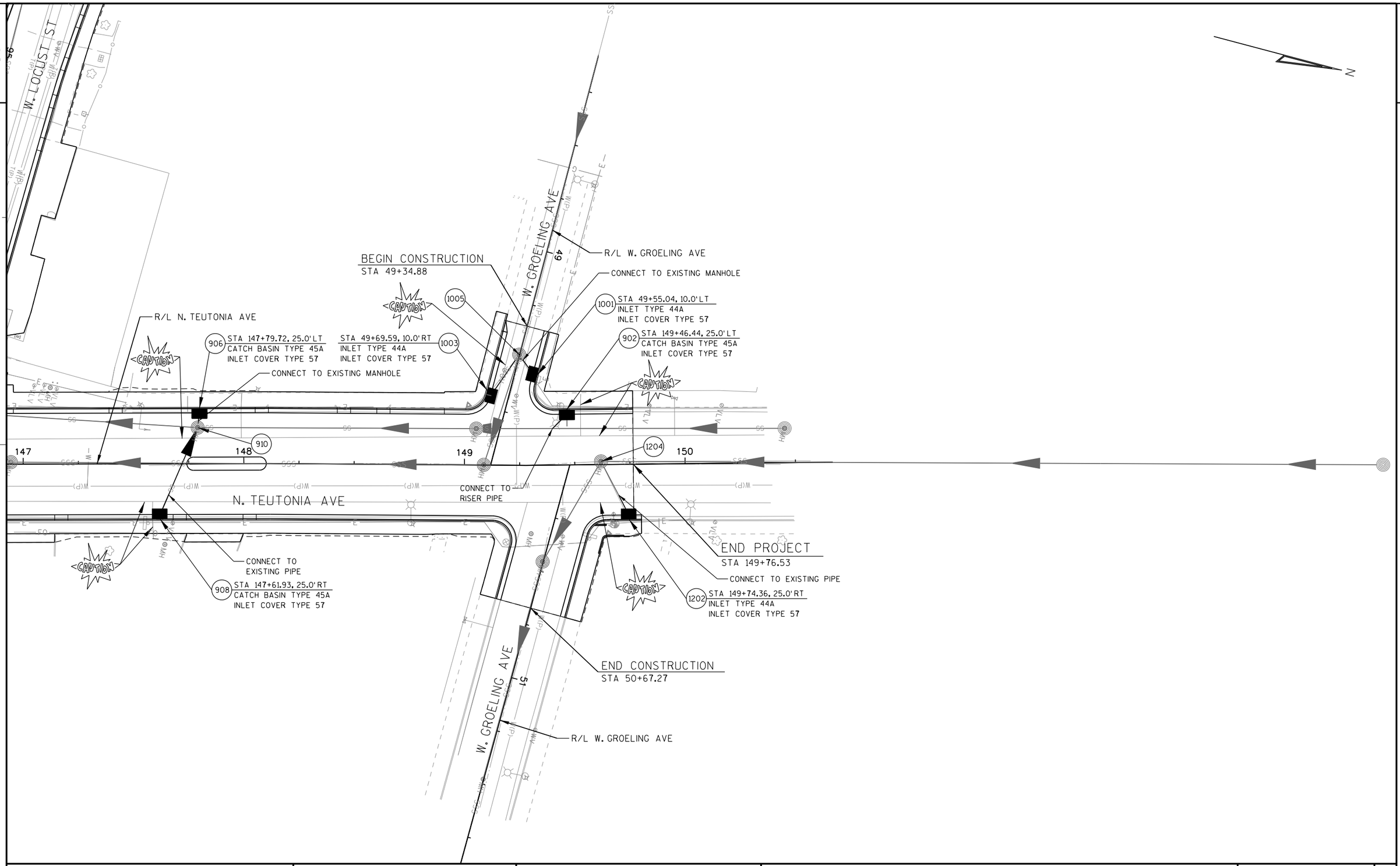

695
690
685
680
675
806
692.23
802
691.52
804
691.57
687.43
SS-PVC 8" @ 2.00%
687.04
SS-PVC 8" @ 2.00%
686.46
686.97


695
690
685
680
675
924
693.17
920
692.62
926
693.87
689.45
687.82
SSPRC CL III 12" @ 2.00%
688.72
688.72
SS-PVC 8" @ 2.10%

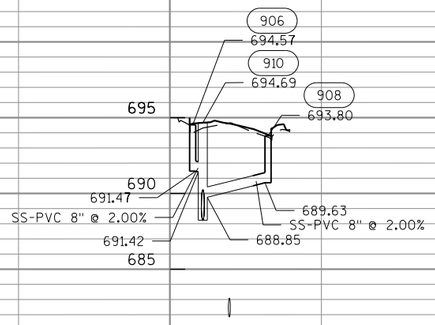

695
690
685
680
675
922
692.79
924
693.17
689.69
689.05
SS-PVC 8" @ 2.00%

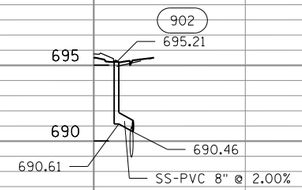

695
690
685
680
675
916
693.86
914
694.49
918
694.11
912
693.51
691.38
SS-PVC 8" @ 2.00%
690.66
690.66
690.25
SS-PVC 8" @ 2.00%
689.43
SS-PVC 12" @ 2.00%
690.26

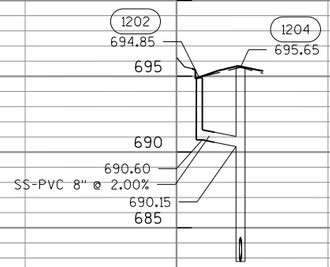
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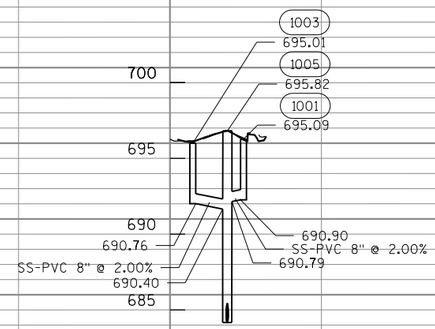


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	DRAINAGE PLAN	SHEET 87	E

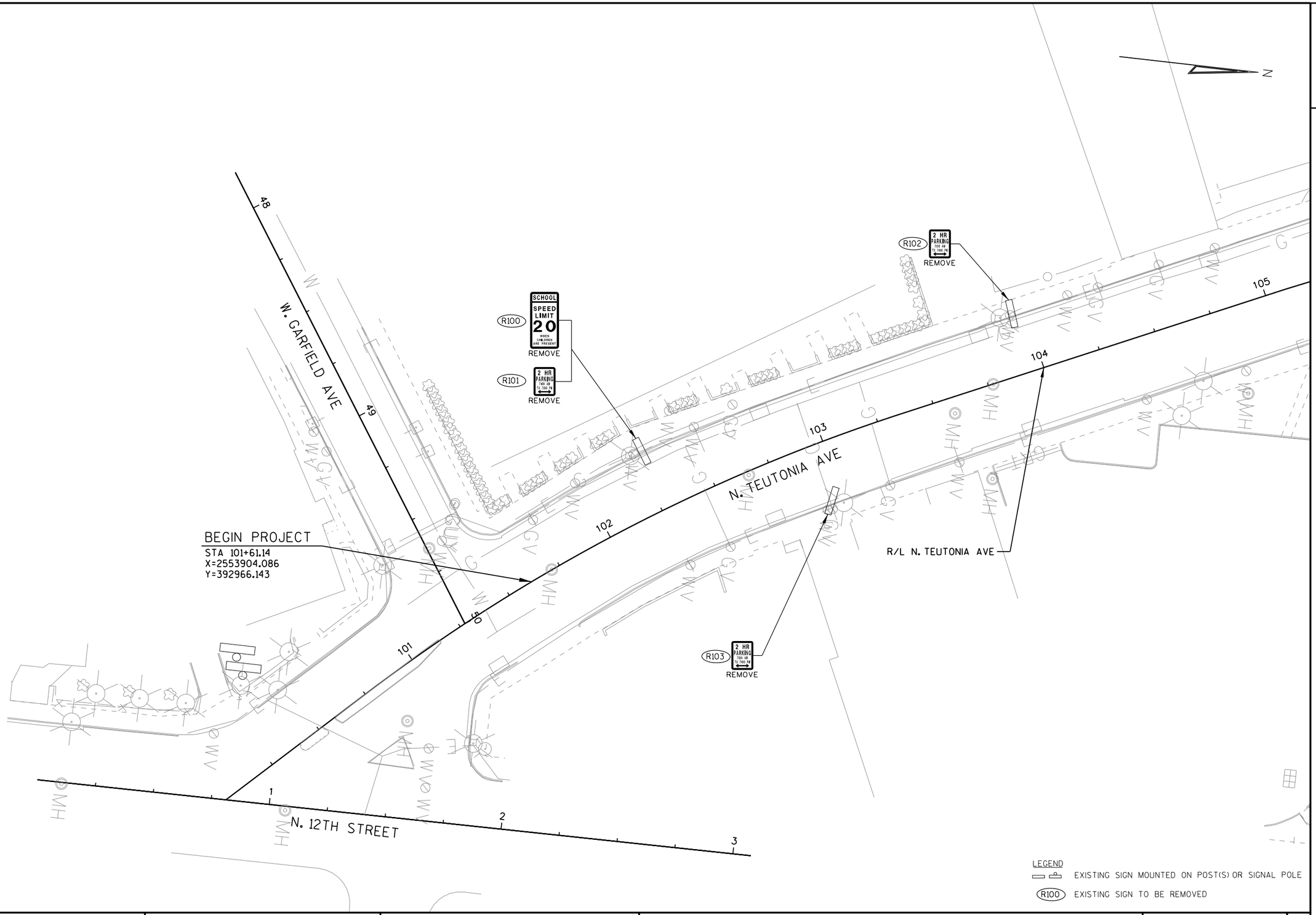

906
694.57
910
694.69
908
693.80
695
690
691.47
SS-PVC 8" @ 2.00%
691.42
689.63
SS-PVC 8" @ 2.00%
688.85
685
680
675


902
695.21
700
695
690
690.61
690.46
SS-PVC 8" @ 2.00%
685
680


1202
694.85
1204
695.65
700
695
690
690.60
SS-PVC 8" @ 2.00%
690.15
685
680


1003
695.01
1005
695.82
1001
695.09
700
695
690
690.76
SS-PVC 8" @ 2.00%
690.40
690.90
SS-PVC 8" @ 2.00%
690.79
685
680
675

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 89	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\023201_SR.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

BEGIN CONSTRUCTION
STA 48+72.68

W. NORTH AVE

R/L W. NORTH AVE

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

49

50

51

105

106

107

108

109

110

111

R200 REMOVE

R201 REMOVE

R202 1 HR PARKING THIS SIDE TO THIS PM REMOVE

R203 NO PARKING BUS STOP REMOVE

R204 NO STOPPING ANY TIME REMOVE

R205 1 HR PARKING THIS SIDE TO THIS PM REMOVE

R206 NO STOPPING ANY TIME REMOVE

R207 REMOVE

R208 LEFT LANE MUST TURN LEFT REMOVE

R209 TO REMOVE

R210 INTERSTATE 43 REMOVE

R211 REMOVE

R212 SPEED LIMIT 30 REMOVE

R213 1 HR PARKING THIS SIDE TO THIS PM REMOVE

R214 1 HR PARKING THIS SIDE TO THIS PM REMOVE

END CONSTRUCTION
STA 51+50.58

LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

(R100) EXISTING SIGN TO BE REMOVED

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 90	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\023202_SR.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

N

W. MEINECKE AVE

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

R/L N. TEUTONIA AVE

R300 REMOVE

R301 REMOVE

R302 STOP REMOVE

R303 W MEINECKE AVE REMOVE

R304 N TEUTONIA AV REMOVE

R305 REMOVE

AHEAD R306 REMOVE

R307 REMOVE

R308 REMOVE

R323 REMOVE

NO PARKING R309 REMOVE

2 HR PARKING 7:00 AM TO 7:00 PM R310 REMOVE

R311 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT REMOVE

R312 FINES HIGHER REMOVE

111 112 113 114 115 116 117

49 50 51 52

N. TEUTONIA AVE

SIGN

PHONE

1 HR PARKING 7:00 AM TO 7:00 PM R313 REMOVE

NO PARKING BUS STOP R314 REMOVE

R315 REMOVE

R316 REMOVE

R317 REMOVE

STOP R318 REMOVE

R319 REMOVE

R320 REMOVE

2 HR PARKING 7:00 AM TO 7:00 PM R321 REMOVE

NO PARKING R322 REMOVE

R/L W. MEINECKE AVE

END CONSTRUCTION
STA 51+38.35

W. MEINECKE AVE

LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

(R100) EXISTING SIGN TO BE REMOVED

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 91	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\023203_SR.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

N

BEGIN CONSTRUCTION
STA 49+50.51

W. WRIGHT ST

49

R/L W. WRIGHT ST

R400 REMOVE

AHEAD R401 REMOVE

R402 REMOVE

R/L N. TEUTONIA AVE

117 118 119 120 121 122 123

N. TEUTONIA AVE

R403 END SCHOOL ZONE REMOVE

R404 REMOVE

R405 N. TEUTONIA AV REMOVE

R409 3 TONS OR OVER REMOVE

R406 W WRIGHT ST REMOVE

R407 REMOVE

2 HR PARKING 7AM AM TO 7PM PM R408 REMOVE

END CONSTRUCTION
STA 50+46.94

W. WRIGHT ST

51

R/L W. WRIGHT ST

LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

R100 EXISTING SIGN TO BE REMOVED

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 92	E

2

N

R513
REMOVE

R/L W. CLARKE ST

W. CLARKE ST

49

BEGIN CONSTRUCTION
STA 49+28.65

R500 SPEED LIMIT 30
REMOVE

R501 2 HR PARKING 7:00 AM TO 7:00 PM
REMOVE

R502 N. TEUTONIA AVE
REMOVE

R503 STOP
REMOVE

R/L N. TEUTONIA AVE

R504
REMOVE

R505 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
REMOVE

R506 NO PARKING
REMOVE

123 124 125 126 127 128 129

50

N. TEUTONIA AVE

R507 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
REMOVE

R508 2 HR PARKING 7:00 AM TO 7:00 PM
REMOVE

R509 NO PARKING BUS STOP
REMOVE

R510
REMOVE

END CONSTRUCTION
STA 50+67.00

R512 W CLARKE ST
REMOVE

R511 STOP
REMOVE

51

R/L W. CLARKE ST

W. CLARKE ST

LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

(R100) EXISTING SIGN TO BE REMOVED

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 93	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\023205_SR.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

2

N

BEGIN CONSTRUCTION
STA 49+05.00

R/L W. CENTER ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

W. CENTER ST

R600 LEFT LANE MUST TURN LEFT REMOVE

R601 W CENTER ST REMOVE

R602 REMOVE

R603 W CENTER ST REMOVE

R604 N. TEUTONIA AVE REMOVE

R605 REMOVE

R606 REMOVE

R607 NO PARKING BUS STOP REMOVE

R608 NO PARKING REMOVE

R609 REMOVE

R610 NO PARKING REMOVE

R611 W CENTER ST REMOVE

R612 NO PARKING ANY TIME REMOVE

R613 LEFT LANE MUST TURN LEFT REMOVE

R614 REMOVE

END CONSTRUCTION
STA 51+25.00

LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

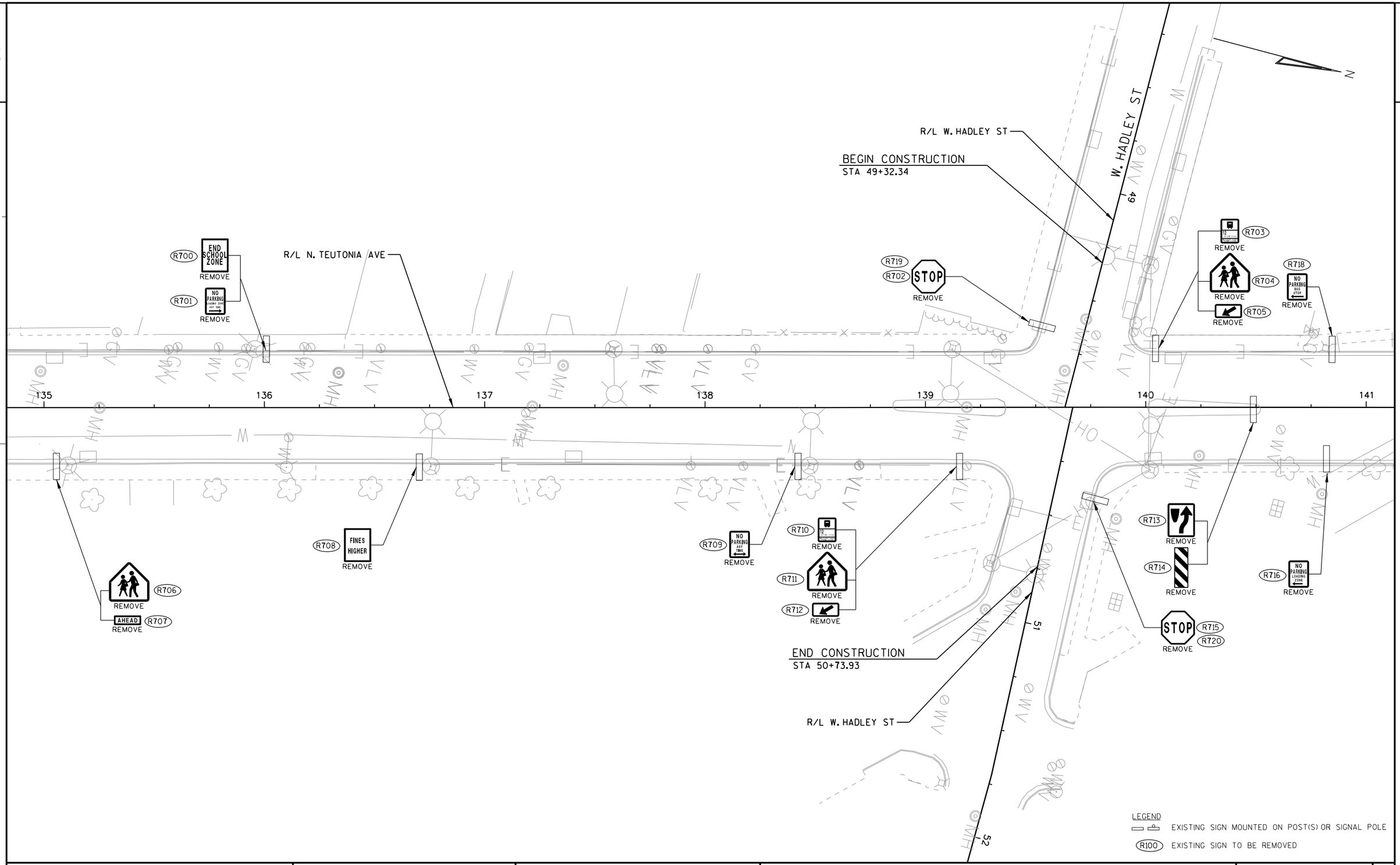
(R100) EXISTING SIGN TO BE REMOVED

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 94	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\023206_SR.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 95	E

LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

R100 EXISTING SIGN TO BE REMOVED

N

BEGIN CONSTRUCTION
STA 94+56.99

R818 TO
R819 INTERSTATE 43
REMOVE
R820
REMOVE

W. LOCUST ST

R/L W. LOCUST ST EB

R806 R807 NO PARKING
REMOVE

R808 FIRE DEPT. VEHICLE PARKING ONLY
REMOVE

R809 N TEUTONIA AVE
REMOVE

R804 R805 NO TURN ON RED
REMOVE

R803 STOP
REMOVE

R801
REMOVE

R802 NO PARKING ANY TIME
REMOVE

R800 NO PARKING
REMOVE

R/L N. TEUTONIA AVE

141 142 N. TEUTONIA AVE 143 144 145 146 147

R806
REMOVE

R817
REMOVE

R810 NO PARKING LOADING ZONE
REMOVE

END CONSTRUCTION
STA 50+62.90

W. ALBANY PL

R/L W. ALBANY PL

R811
REMOVE

R812
REMOVE

R813
REMOVE

END CONSTRUCTION
STA 97+88.90

W. LOCUST ST

R815 W. LOCUST ST
REMOVE

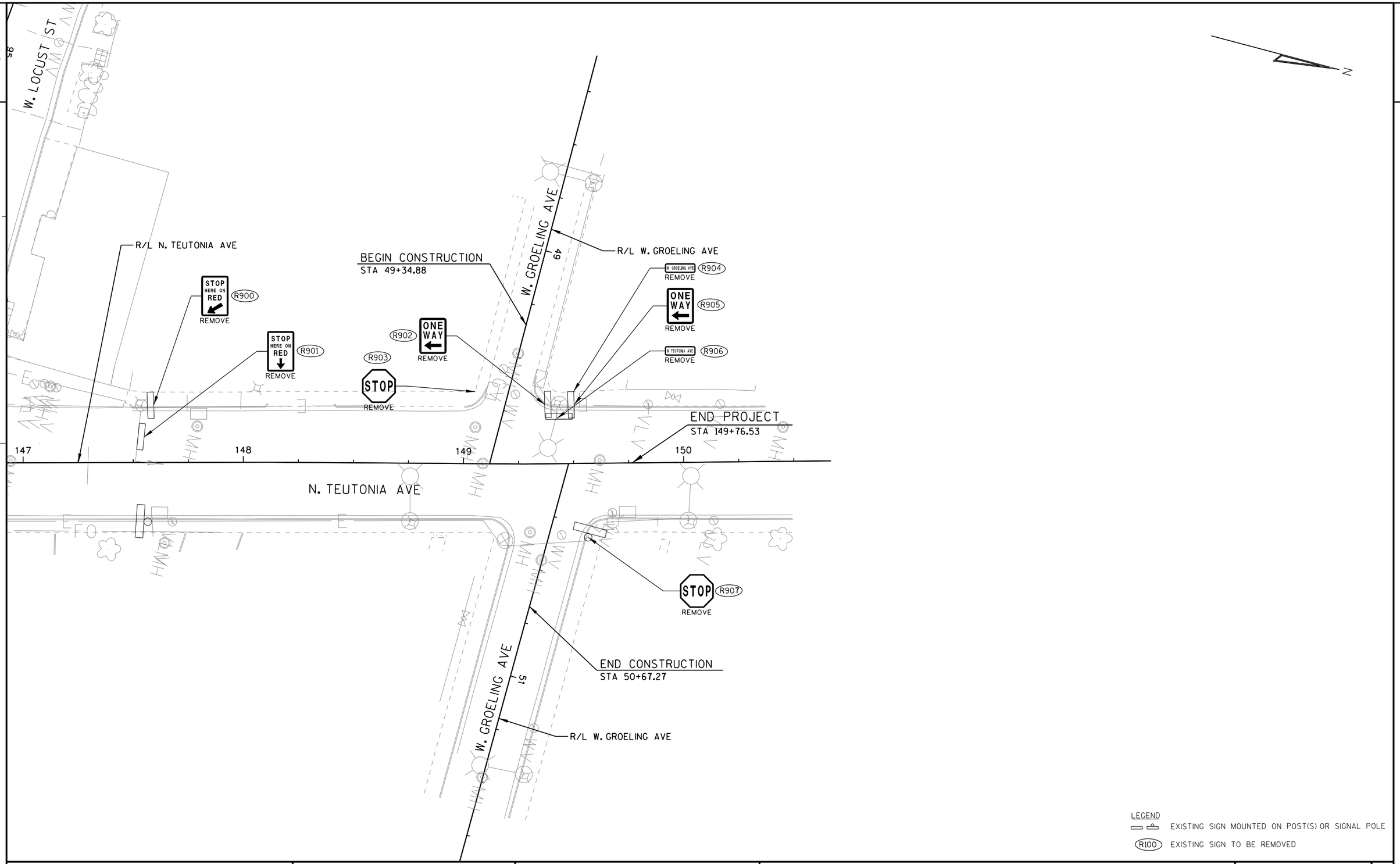
R814
REMOVE

END CONSTRUCTION
STA 97+88.67

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 96	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\023208_SR.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42



LEGEND

EXISTING SIGN MOUNTED ON POST(S) OR SIGNAL POLE

R100 EXISTING SIGN TO BE REMOVED

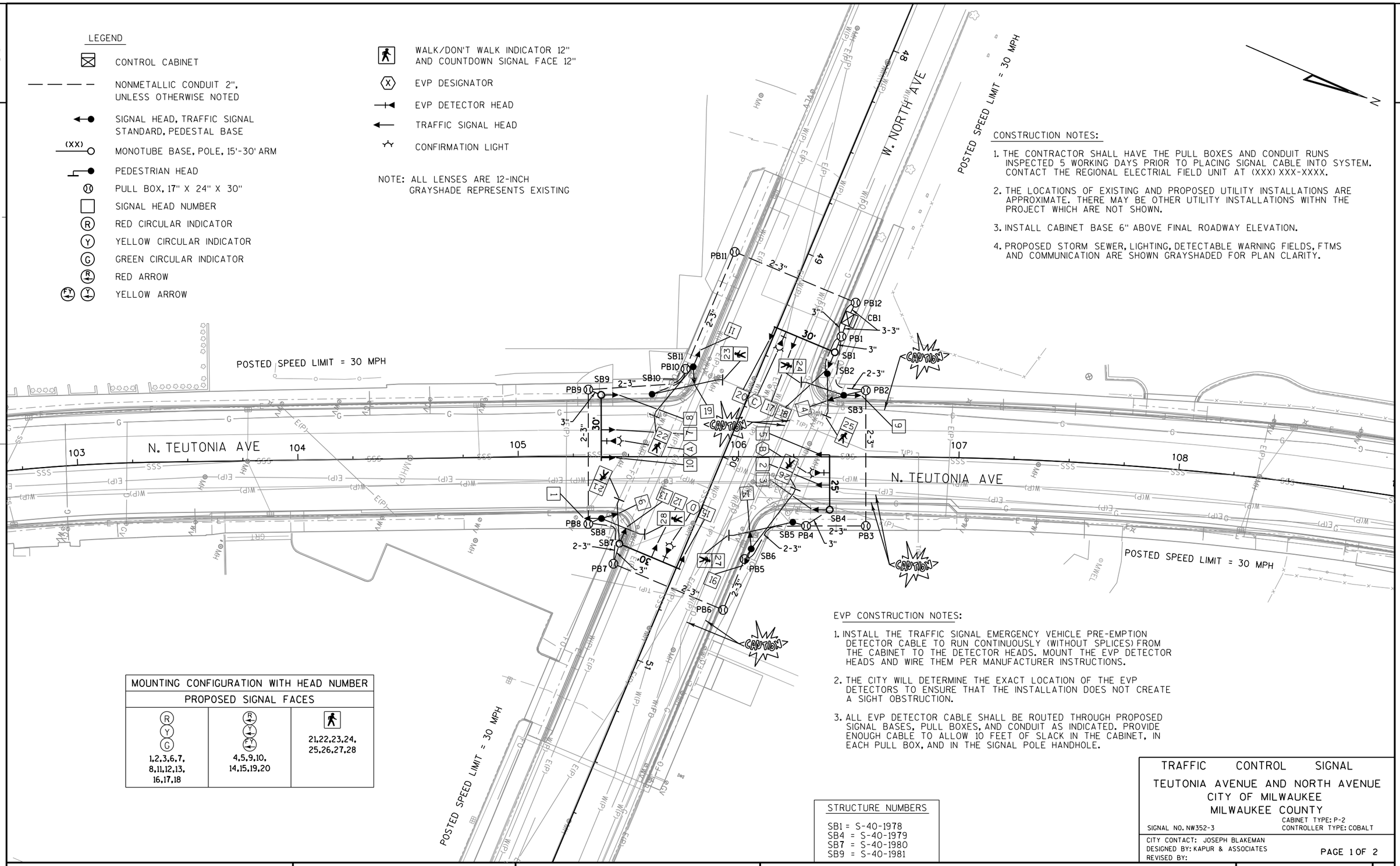
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN - N. TEUTONIA AVE	SHEET 97	E

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD
- PULL BOX, 17" X 24" X 30"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- WALK/DON'T WALK INDICATOR 12" AND COUNTDOWN SIGNAL FACE 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- TRAFFIC SIGNAL HEAD
- CONFIRMATION LIGHT

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRIAL FIELD UNIT AT (XXX) XXX-XXXX.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL CABINET BASE 6" ABOVE FINAL ROADWAY ELEVATION.
4. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, FTMS AND COMMUNICATION ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE CITY WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

MOUNTING CONFIGURATION WITH HEAD NUMBER		
PROPOSED SIGNAL FACES		
(R) (Y) (G)	(R) (Y) (G)	
1,2,3,6,7, 8,11,12,13, 16,17,18	4,5,9,10, 14,15,19,20	21,22,23,24, 25,26,27,28

STRUCTURE NUMBERS

SB1 = S-40-1978
SB4 = S-40-1979
SB7 = S-40-1980
SB9 = S-40-1981

TRAFFIC CONTROL SIGNAL

TEUTONIA AVENUE AND NORTH AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. NW352-3
CABINET TYPE: P-2
CONTROLLER TYPE: COBALT

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAPUR & ASSOCIATES
REVISED BY:

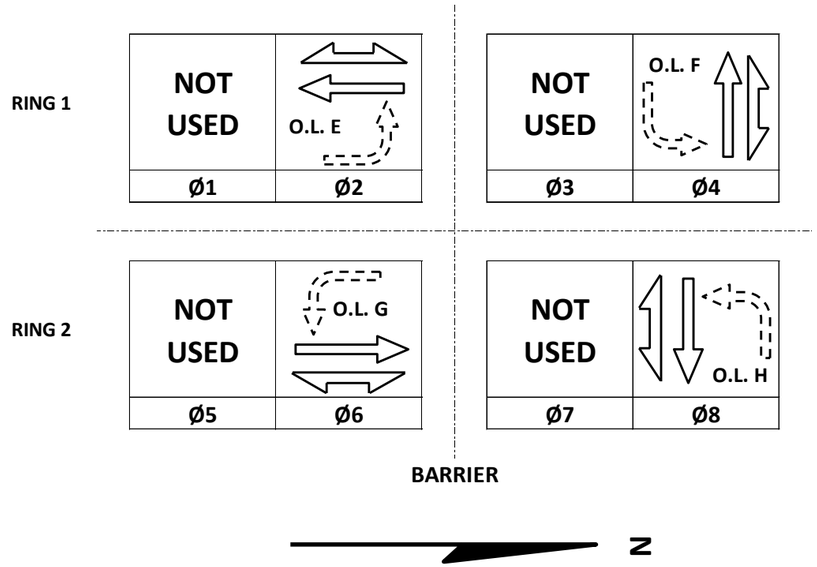
PAGE 1 OF 2

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS: TRAFFIC SIGNAL PLAN	SHEET 98	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024001_sp.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	6,7,8	R
Ø3		
Ø4	16,17,18	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	11,12,13	R
Ø2P	23,24	
Ø4P	25,26	
Ø6P	27,28	
Ø8P	21,22	
OLE	4,5	R ←
OLF	14,15	R ←
OLG	9,10	R ←
OLH	19,20	R ←



TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MAX	X
3				
4		8		X
5				
6	X	2	MAX	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+6	6+2	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TEUTONIA AVENUE & NORTH AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	NW352-3	CABINET TYPE: P-2
		CONTROLLER TYPE: ECONOLITE
DATE:	11/2018	PAGE NUMBER: 2 OF 2

TEUTONIA AVENUE & NORTH AVENUE

2

PROJECT ID:	2080-00-73
INTERSECTION:	TEUTONIA AVENUE AND NORTH AVENUE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	12	17	RED	ORG	GRN								
		18	RED	ORG	GRN								
		20				RED/BLK	ORG/BLK		BLK/WHT				
SB2	7	25								BLU	BLK		
SB3	12	4				RED/BLK	ORG/BLK		BLK/WHT				
		6	RED	ORG	GRN								
		24								BLU	BLK		
SB4	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK		BLK/WHT				
SB5	7	27								BLU	BLK		
SB6	12	14				RED/BLK	ORG/BLK		BLK/WHT				
		16	RED	ORG	GRN								
		26								BLU	BLK		
SB7	12	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		15				RED/BLK	ORG/BLK		BLK/WHT				
		21								BLU	BLK		
SB8	12	1	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK		BLK/WHT				
		28								BLU	BLK		
SB9	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK		BLK/WHT				
SB10	7	23								BLU	BLK		
SB11	12	11	RED	ORG	GRN								
		19				RED/BLK	ORG/BLK		BLK/WHT				
		22								BLU	BLK		

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ON TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

(CONTINUED ON NEXT SHEET)

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET NO: 100	E

FILE NAME: S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\reference\Signals\CableRoutingSheet20180726.North.PPT
ORIGINATOR: Josh Koopmann
ORIG. DATE: July 31, 2018
PLOTTED DATE: 10/11/2018 9:03 AM

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB3
PB3	SB4
PB4	SB4
PB5	SB6
PB6	SB6
PB7	SB7
PB8	SB8
PB9	SB9
PB10	SB11
PB11	SB11
PB12	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB9 (HEAD A)
CB1	SB4 (HEAD B)
CB1	SB1 (HEAD C)
CB1	SB7 (HEAD D)

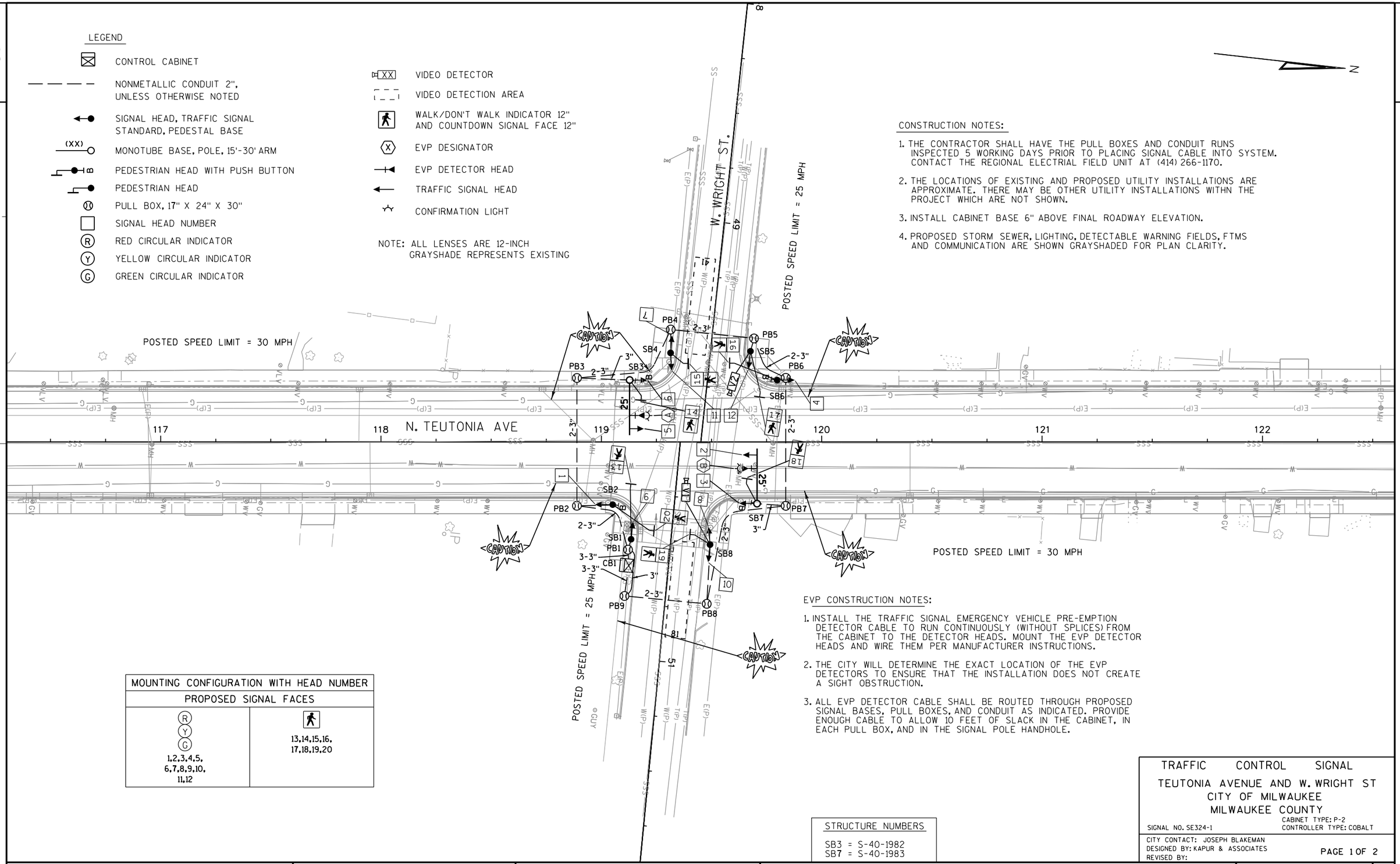
CONFIRMATION BEACON CABLE TRAFFIC SIGNAL 3-14 AWG	
FROM	TO
CB1	SB9 (HEAD A)
CB1	SB4 (HEAD B)
CB1	SB1 (HEAD C)
CB1	SB7 (HEAD D)

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PEDESTRIAN HEAD
- PULL BOX, 17" X 24" X 30"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- XX VIDEO DETECTOR
- VIDEO DETECTION AREA
- WALK/DON'T WALK INDICATOR 12" AND COUNTDOWN SIGNAL FACE 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- TRAFFIC SIGNAL HEAD
- CONFIRMATION LIGHT

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRIAL FIELD UNIT AT (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL CABINET BASE 6" ABOVE FINAL ROADWAY ELEVATION.
4. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, FTMS AND COMMUNICATION ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE CITY WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

MOUNTING CONFIGURATION WITH HEAD NUMBER	
PROPOSED SIGNAL FACES	
(R) (Y) (G) 1,2,3,4,5, 6,7,8,9,10, 11,12	13,14,15,16, 17,18,19,20

STRUCTURE NUMBERS

SB3 = S-40-1982
SB7 = S-40-1983

TRAFFIC CONTROL SIGNAL

TEUTONIA AVENUE AND W. WRIGHT ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. SE324-1
CABINET TYPE: P-2
CONTROLLER TYPE: COBALT

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAPUR & ASSOCIATES
REVISED BY:

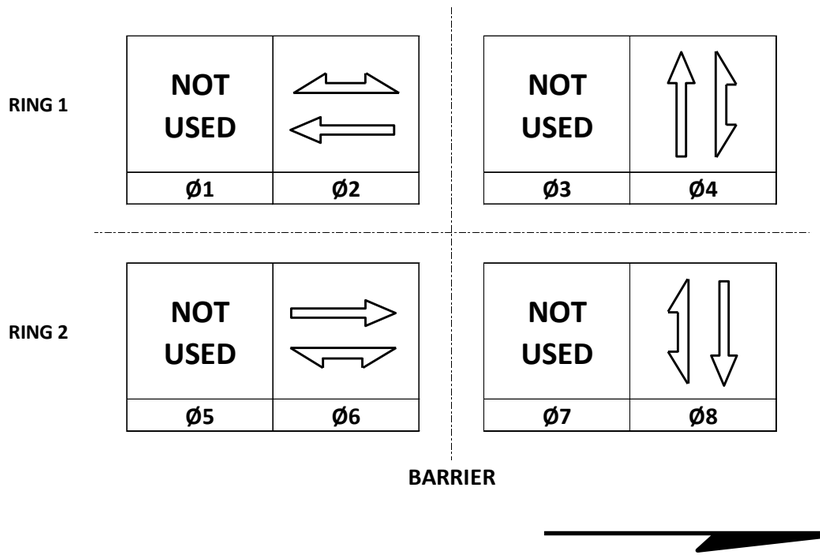
PAGE 1 OF 2

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS: TRAFFIC SIGNAL PLAN	SHEET 102	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024002_sp.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P	15,16	
Ø4P	17,18	
Ø6P	19,20	
Ø8P	13,14	



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MAX	X
3				
4		8		X
5				
6	X	2	MAX	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B
MOVEMENT	← →	← →
PHASE	2+6	6+2

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	41																PLAN LOOP DETECTOR*(S)
CALLED PHASE	4																CALLED PHASE
CALL OPTION	X																CALL OPTION
DELAY TIME	X																DELAY TIME
EXTENTION OPTION																	EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL																	USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	81																PLAN LOOP DETECTOR*(S)
CALLED PHASE	8																CALLED PHASE
CALL OPTION	X																CALL OPTION
DELAY TIME	X																DELAY TIME
EXTENTION OPTION																	EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL																	USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

TEUTONIA AVENUE & WRIGHT STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	SE324-1	CABINET TYPE: P-2
		CONTROLLER TYPE: ECONOLITE
DATE:	11/2018	PAGE NUMBER: 2 OF 2

TEUTONIA AVENUE & WRIGHT STREET

2

PROJECT ID:	2080-00-73
INTERSECTION:	TEUTONIA AVENUE AND WRIGHT STREET

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	7	8	RED	ORG	GRN								
		9	RED	ORG	GRN								
		13								BLU	BLK		
SB2	12	1	RED	ORG	GRN								
		20								BLU	BLK		
		B										WHT/BLK	
SB3	12	5	RED	ORG	GRN								
		6	RED	ORG	GRN								
		14								BLU	BLK		
		B										WHT/BLK	
SB4	7	7	RED	ORG	GRN								
		15								BLU	BLK		
SB5	7	11	RED	ORG	GRN								
		12	RED	ORG	GRN								
		17								BLU	BLK		
SB6	12	4	RED	ORG	GRN								
		16								BLU	BLK		
		B										WHT/BLK	
SB7	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		18								BLU	BLK		
		B										WHT/BLK	
SB8	7	10	RED	ORG	GRN								
		19								BLU	BLK		

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ON TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

(CONTINUED ON NEXT SHEET)

FILE NAME: S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\reference\Signals\CableRoutingSheet20180726.Wright.PPT
ORIGINATOR: Josh Koopmann
ORIG. DATE: July 31, 2018
PLOTTED DATE: 10/11/2018 9:29 AM

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB2	SB2
PB3	SB3
PB4	SB4
PB5	SB5
PB6	SB6
PB7	SB7
PB8	SB8
PB9	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3 (HEAD A)
CB1	SB7 (HEAD B)

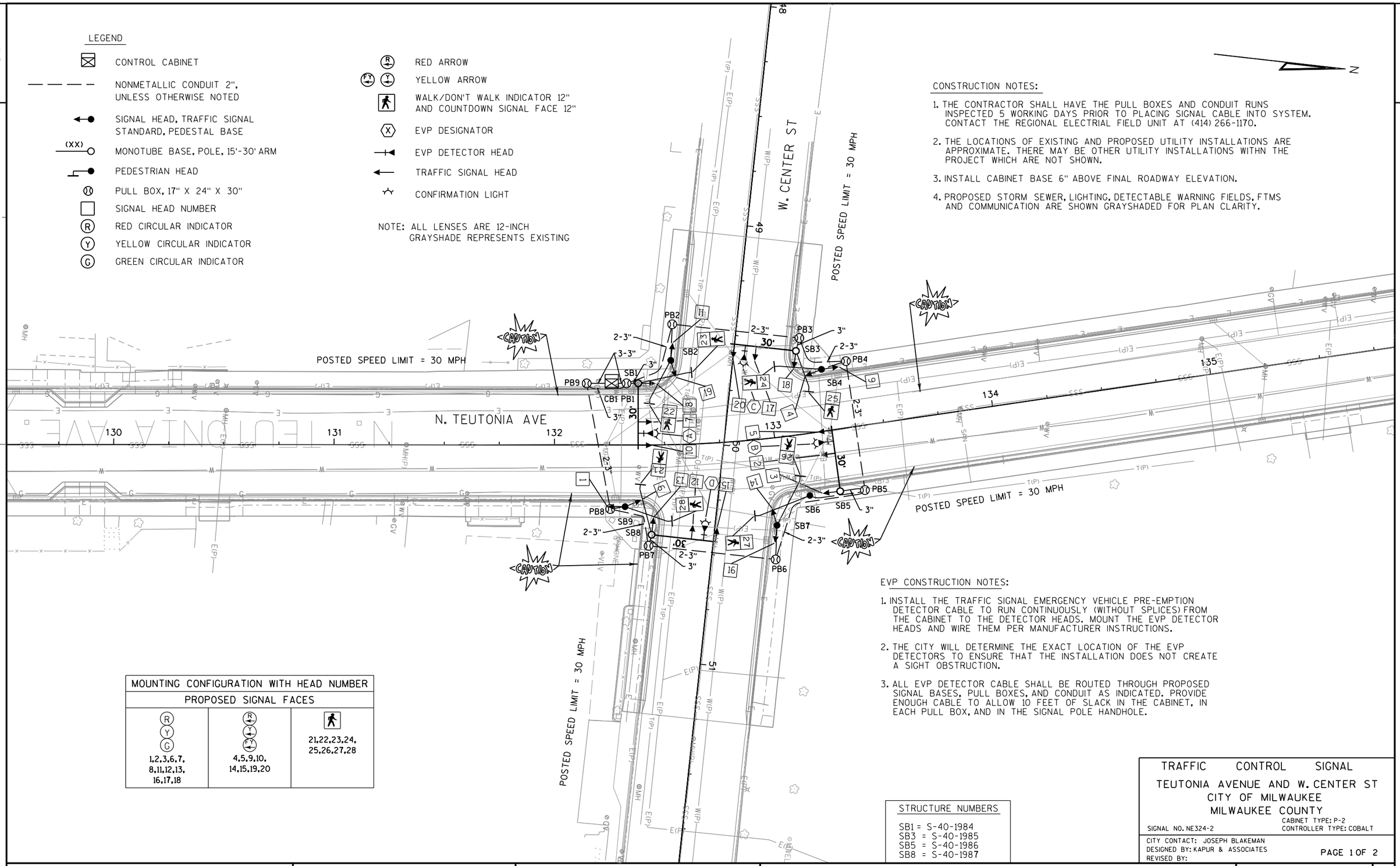
CONFIRMATION BEACON CABLE TRAFFIC SIGNAL 3-14 AWG	
FROM	TO
CB1	SB3 (HEAD A)
CB1	SB7 (HEAD B)

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB8 (V1)
CB1	SB5 (V2)

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD
- PULL BOX, 17" X 24" X 30"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- WALK/DON'T WALK INDICATOR 12" AND COUNTDOWN SIGNAL FACE 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- TRAFFIC SIGNAL HEAD
- CONFIRMATION LIGHT

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRIAL FIELD UNIT AT (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL CABINET BASE 6" ABOVE FINAL ROADWAY ELEVATION.
4. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, FTMS AND COMMUNICATION ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE CITY WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

MOUNTING CONFIGURATION WITH HEAD NUMBER		
PROPOSED SIGNAL FACES		
(R) (Y) (G)	(R) (Y) (G)	
1,2,3,6,7, 8,11,12,13, 16,17,18	4,5,9,10, 14,15,19,20	21,22,23,24, 25,26,27,28

STRUCTURE NUMBERS

SB1 = S-40-1984
SB3 = S-40-1985
SB5 = S-40-1986
SB8 = S-40-1987

TRAFFIC CONTROL SIGNAL

TEUTONIA AVENUE AND W. CENTER ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY

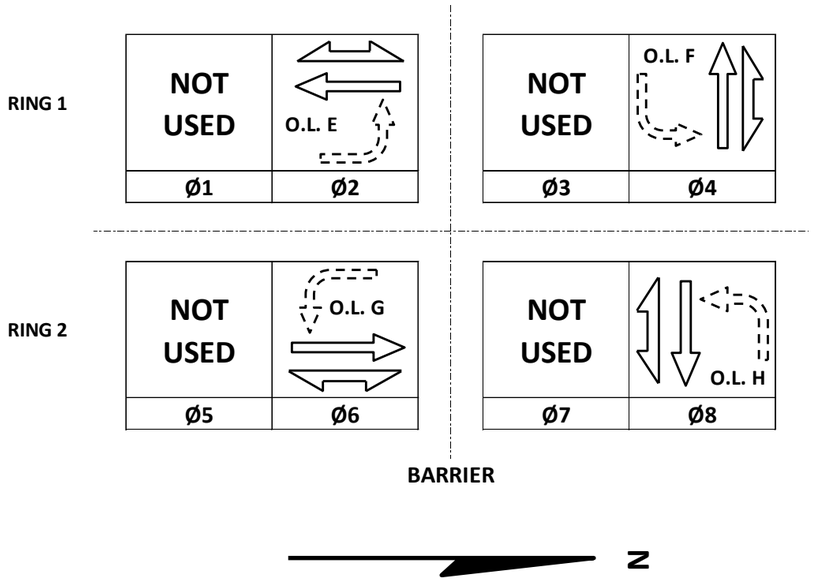
SIGNAL NO. NE324-2
CABINET TYPE: P-2
CONTROLLER TYPE: COBALT

CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAPUR & ASSOCIATES
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS: TRAFFIC SIGNAL PLAN	SHEET 106	E

	HEAD NUMBERS	FLASH
Ø1		
Ø2	6,7,8	R
Ø3		
Ø4	16,17,18	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	11,12,13	R
Ø2P	23,24	
Ø4P	25,26	
Ø6P	27,28	
Ø8P	21,22	
OLE	4,5	R ←
OLF	14,15	R ←
OLG	9,10	R ←
OLH	19,20	R ←



TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MAX	X
3				
4		8		X
5				
6	X	2	MAX	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+6	6+2	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TEUTONIA AVENUE & CENTER STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	NE324-2	CABINET TYPE: P-2
		CONTROLLER TYPE: ECONOLITE
DATE:	11/2018	PAGE NUMBER: 2 OF 2

FILE NAME: \\kapur-assoc.com\kna\milw\s-drive\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\reference\Signals\Econolite_SEQ_Center.xlsx PLOT DATE: ######## PLOT NAME: Econolite_SEQ_Center.xlsx PLOT BY: _____ PLOT SCALE: 1:1

TEUTONIA AVENUE & CENTER STREET

2

PROJECT ID:	2080-00-73
INTERSECTION:	TEUTONIA AVENUE AND CENTER STREET

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK		BLK/WHT				
		23								BLU	BLK		
SB2	12	11	RED	ORG	GRN								
		19				RED/BLK	ORG/BLK		BLK/WHT				
		22								BLU	BLK		
SB3	12	17	RED	ORG	GRN								
		18	RED	ORG	GRN								
		20				RED/BLK	ORG/BLK		BLK/WHT				
		25								BLU	BLK		
SB4	12	4				RED/BLK	ORG/BLK		BLK/WHT				
		6	RED	ORG	GRN								
		24								BLU	BLK		
SB5	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK		BLK/WHT				
SB6	7	27								BLU	BLK		
SB7	12	14				RED/BLK	ORG/BLK		BLK/WHT				
		16	RED	ORG	GRN								
		29								BLU	BLK		
SB8	12	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		15				RED/BLK	ORG/BLK		BLK/WHT				
		21								BLU	BLK		
SB9	12	1	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK		BLK/WHT				
		28								BLU	BLK		

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ON TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

(CONTINUED ON NEXT SHEET)

FILE NAME: S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\reference\Signals\CableRoutingSheet20180726.Center.PPT
ORIGINATOR: Josh Koopmann
ORIG. DATE: July 31, 2018
PLOTTED DATE: 10/11/2018 8:46 AM

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB2	SB2
PB3	SB3
PB4	SB4
PB5	SB5
PB6	SB7
PB7	SB8
PB8	SB9
PB9	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB1 (HEAD A)
CB1	SB5 (HEAD B)
CB1	SB3 (HEAD C)
CB1	SB8 (HEAD D)

CONFIRMATION BEACON CABLE TRAFFIC SIGNAL 3-14 AWG	
FROM	TO
CB1	SB1 (HEAD A)
CB1	SB5 (HEAD B)
CB1	SB3 (HEAD C)
CB1	SB8 (HEAD D)

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PEDESTRIAN HEAD
- PULL BOX, 17" X 24" X 30"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- XX VIDEO DETECTOR
- VIDEO DETECTION AREA
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (G) GREEN ARROW
- WALK/DON'T WALK INDICATOR 12" AND COUNTDOWN SIGNAL FACE 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- TRAFFIC SIGNAL HEAD
- CONFIRMATION LIGHT

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRIAL FIELD UNIT AT (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL CABINET BASE 6" ABOVE FINAL ROADWAY ELEVATION.
4. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, FTMS AND COMMUNICATION ARE SHOWN GRAYSHADED FOR PLAN CLARITY.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE CITY WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

MOUNTING CONFIGURATION WITH HEAD NUMBER			
PROPOSED SIGNAL FACES			
(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G) (G)	
1,2,3,6,7, 8,9,10,11, 12,15,16,17	13,14,18,19	4,5	20,21,22,23, 24,25,26,27

STRUCTURE NUMBERS

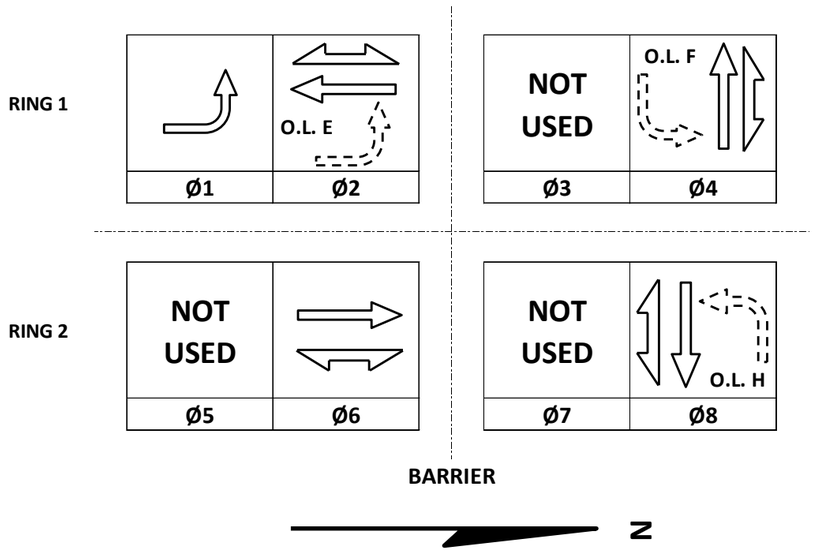
SB3 = S-40-1988
SB5 = S-40-1989
SB10 = S-40-1990
SB12 = S-40-1991

TRAFFIC CONTROL SIGNAL
TEUTONIA AVENUE AND W. LOCUST ST
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. SE311-3
CABINET TYPE: P-2
CONTROLLER TYPE: COBALT
CITY CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: KAPUR & ASSOCIATES
REVISED BY:
PAGE 1 OF 2

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN DETAILS: TRAFFIC SIGNAL PLAN	SHEET 110 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024004_sp.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

	HEAD NUMBERS	FLASH
Ø1	4,5	-
Ø2	6,7,8,9	R
Ø3		
Ø4	15,16,17	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	10,11,12	R
Ø2P	22,23	
Ø4P	24,25	
Ø6P	26,27	
Ø8P	20,21	
OLE	4,5	R ←
OLF	18,19	R ←
OLH	13,14	R ←



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MAX	X
3				
4		8		X
5				
6	X	2	MAX	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	→	↑	↑
PHASE	2+6	6+1	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	
IN SEPARATE LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11							
CALLED PHASE	1							
CALL OPTION	X							
DELAY TIME								
EXTENTION OPTION	X							
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)								
CALLED PHASE								
CALL OPTION								
DELAY TIME								
EXTENTION OPTION								
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

TEUTONIA AVENUE & LOCUST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO:	SE311-3	CABINET TYPE: P-2
		CONTROLLER TYPE: ECONOLITE
DATE:	11/2018	PAGE NUMBER: 2 OF 2

FILE NAME: \\kapur-assoc.com\kna\milw\s-drive\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\reference\Signals\Econolite_SEQ_Locust.xlsx PLOT DATE: ######## PLOT NAME: Econolite_SEQ_Locust.xlsx PLOT BY: _____ PLOT SCALE: 1:1

TEUTONIA AVENUE & LOCUST STREET

2

PROJECT ID:	2080-00-73
INTERSECTION:	TEUTONIA AVENUE AND LOCUST AVENUE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	7	20								BLU	BLK		
SB2	12	1	RED	ORG	GRN								
		8	RED/BLK	ORG/BLK	GRN/BLK								
		27								BLU	BLK		
SB3	7	9	RED	ORG	GRN								
		21								BLU	BLK		
SB4	12	10	RED	ORG	GRN								
		18				RED/BLK	ORG/BLK		BLK/WHT				
		22								BLU	BLK		
		B										WHT/BLK	
SB5	12	16	RED	ORG	GRN								
		17	RED	ORG	GRN								
		19				RED/BLK	ORG/BLK		BLK/WHT				
SB6	12	4				RED	ORG	GRN	BLK/WHT				
		24								BLU	BLK		
		B										WHT/BLK	
SB7	7	23								BLU	BLK		
SB8	7	7	RED	ORG	GRN								
SB9	7	6	RED	ORG	GRN								
SB10	15	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		26								BLU	BLK		
SB11	12	13				RED/BLK	ORG/BLK		BLK/WHT				
		15	RED	ORG	GRN								
		25								BLU	BLK		
SB12	12	11	RED	ORG	GRN								
		12	RED	ORG	GRN								
		14				RED/BLK	ORG/BLK		BLK/WHT				

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ON TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

(CONTINUED ON NEXT SHEET)

FILE NAME: S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\reference\Signals\CableRoutingSheet20180726.Locust.PPT
ORIGINATOR: Josh Koopmann
ORIG. DATE: July 31, 2018
PLOTTED DATE: 10/11/2018 8:50 AM

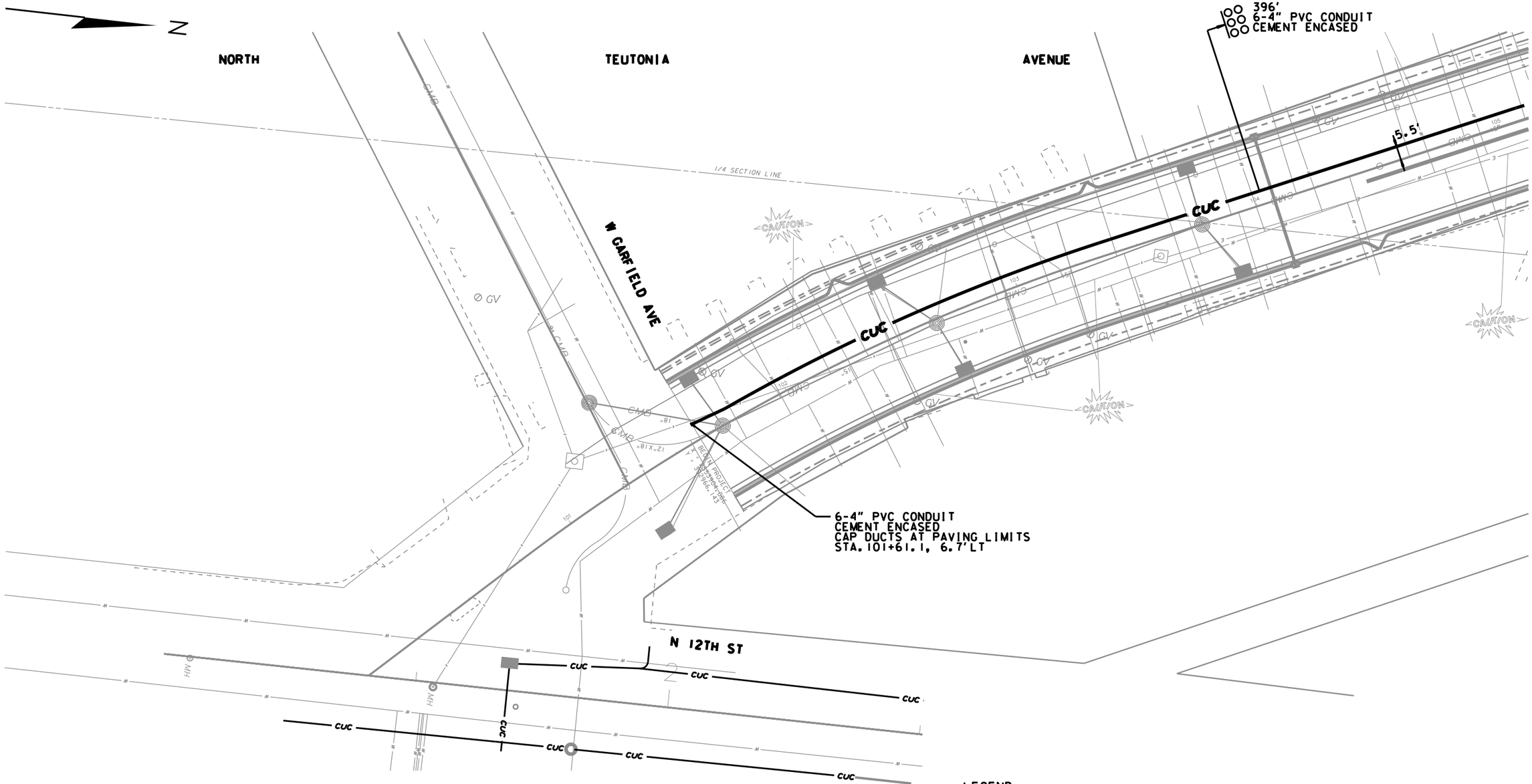
EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB2
PB3	SB2
PB4	SB3
PB5	SB3
PB6	SB5
PB7	SB6
PB8	SB7
PB9	SB8
PB10	SB8
PB11	SB9
PB12	SB10
PB13	SB10
PB14	SB11
PB15	SB11
PB16	SB12
PB17	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3 (HEAD A)
CB1	SB10 (HEAD B)
CB1	SB5 (HEAD C)
CB1	SB12 (HEAD D)

CONFIRMATION BEACON CABLE TRAFFIC SIGNAL 3-14 AWG	
FROM	TO
CB1	SB3 (HEAD A)
CB1	SB10 (HEAD B)
CB1	SB5 (HEAD C)
CB1	SB12 (HEAD D)

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB10 (V1)



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 1 OF 12

STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO:

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 100-105.DGN

2

N

NORTH TEUTONIA AVENUE

W NORTH AVE

EXISTING CUC MH 602
STA. 105+89.9, 35.6'LT

17'
6-4" PVC CONDUIT
CEMENT ENCASED

REMOVE CUC MH 603R
STA. 105+57.8, 6.7'LT

∠PT STA. 105+49.7,
29.8' RT

EXISTING 3"FIB DUCT
CEMENT ENCASED

ABANDON
DUCTS

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

441'
6-4" PVC CONDUIT
CEMENT ENCASED

443'
6-4" PVC CONDUIT
CEMENT ENCASED

PROPOSED 4'DIA. CUC MH 605
STA. 110+21, 5.5'LT

REMOVE BY OTHERS
EXISTING POLICE CALL BOX
STA. 106+37.7, 37.6'LT
APPROXIMATE LOCATION

ABANDON MH 604A
STA. 106+32.2, 6.1'LT

PROPOSED CUC MH 601
STA. 105+77.9, 5.5'LT
PRECAST 5'DIA. "DOGHOUSE"
INSTALLED OVER CONDUIT

PROPOSED CUC MH 600
STA. 105+57.3, 5.6'LT
PRECAST 5'DIA. "DOGHOUSE"

57'
2-4" PVC CONDUIT
CEMENT ENCASED

1/4 SECTION LINE

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — —	CONDUIT TO BE ABANDONED

SHEET 2 OF 12

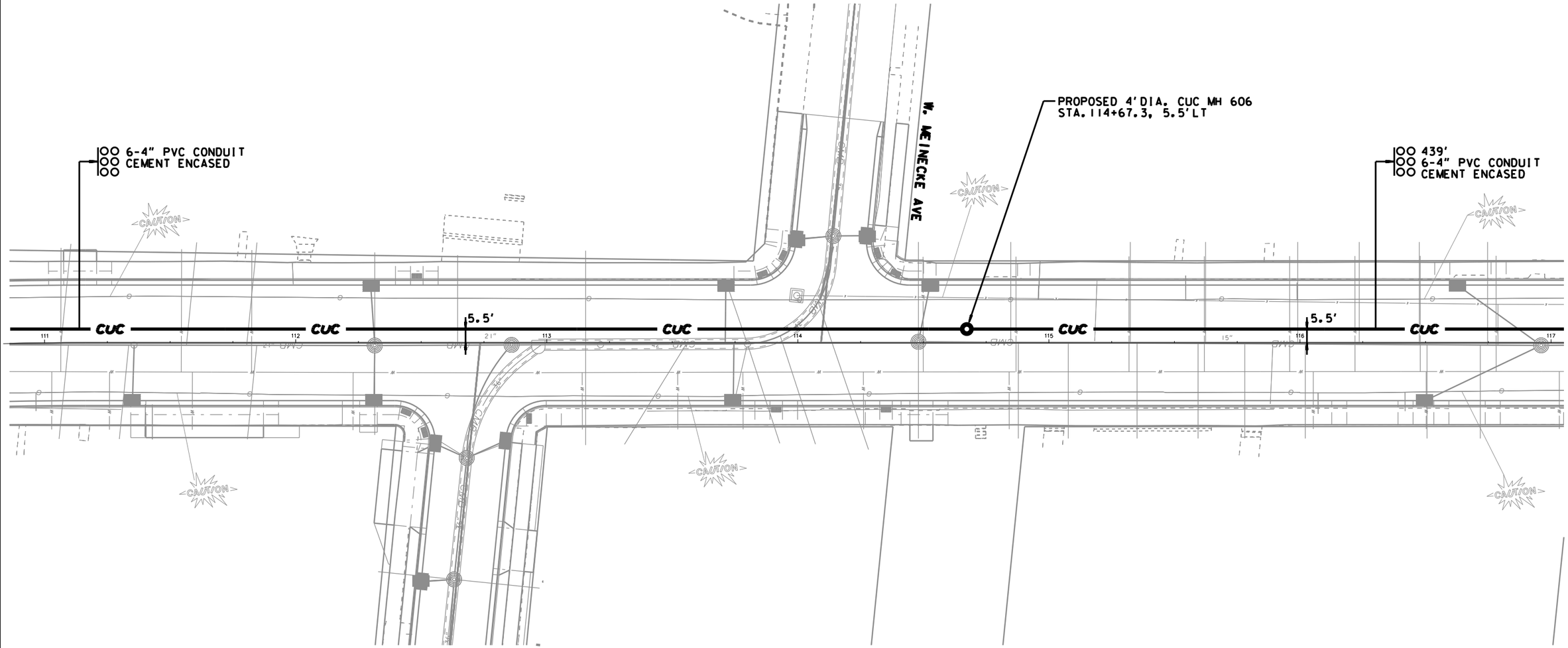
STATE PROJECT NUMBER 2080-00-73 - -	HWY: N. TEUTONIA	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 115	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 105-111.DGN

2

NORTH TEUTONIA AVENUE

N



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
◘	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 3 OF 12

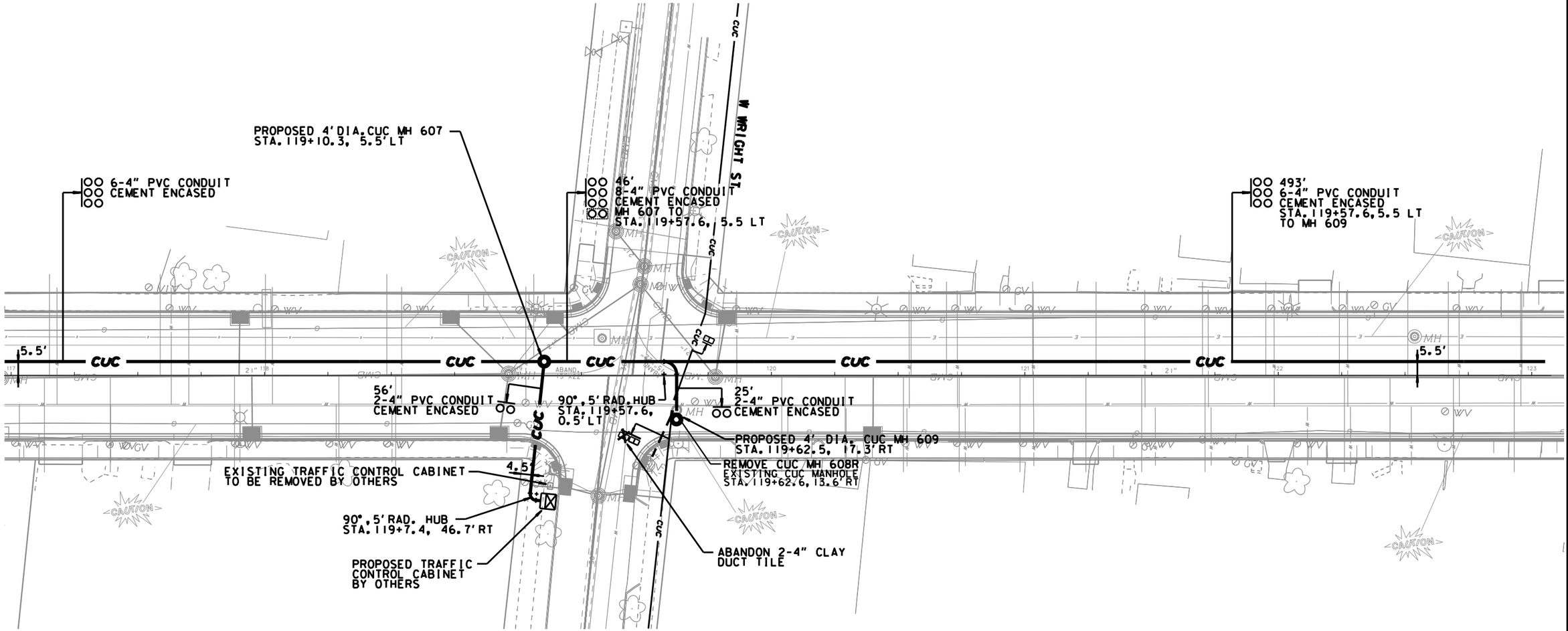
STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 116	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 111-117.DGN

2

NORTH TEUTONIA AVENUE

N



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 4 OF 12

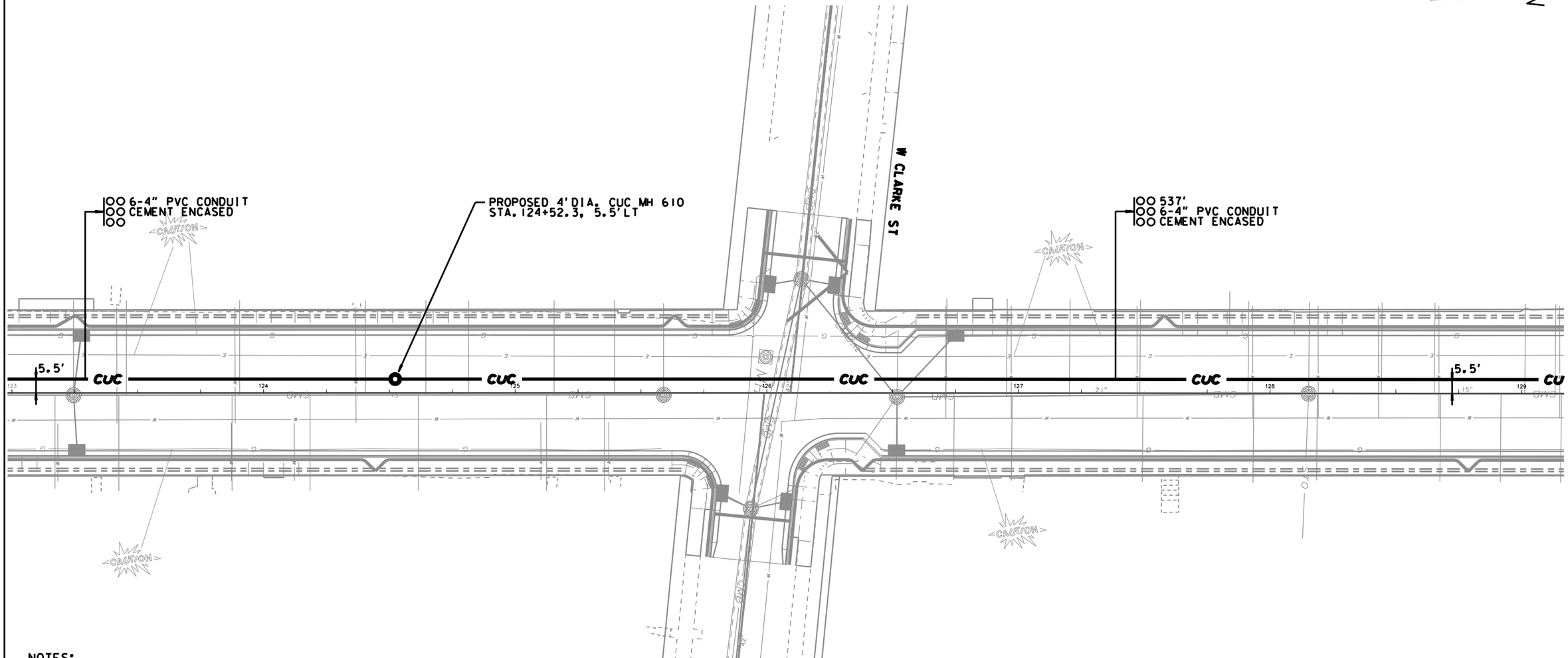
STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 117	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 117-123.DGN

2

NORTH TEUTONIA AVENUE

N



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
◙	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 5 OF 12

STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 118	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 123-129.DGN

2

N

NORTH TEUTONIA AVENUE

W CENTER ST

5° BEND STA. 132+40.0, 5.5'LT.

PROPOSED 4'DIA. CUC MH 611
STA. 129+93.9, 5.5'LT

EXISTING TRAFFIC
CONTROL CABINET
REMOVED BY OTHERS

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

25'
2-4"PVC CONDUIT
CONCRETE ENCASED

90°, 5'RAD. HUB
STA. 132+30.5, 10.5'LT

6-4" PVC CONDUIT
CEMENT ENCASED

234'
6-4" PVC CONDUIT
CEMENT ENCASED

267'
6-4" PVC CONDUIT
CEMENT ENCASED

5° STA. 133+18.3, 5.5'LT.

5.5'

CUC

33'
8-4" PVC CONDUIT
CEMENT ENCASED
CUC MH 612 TO
STA. 132+30.6

REMOVE CUC MH 613R
STA. 132+65.3, 10.3'LT

PROPOSED CUC MH 612
STA. 132+65.3, 8.9'LT
PRECAST 5'DIA. "DOGHOUSE"

24.1'

22.5'

132'
4-4" PVC CONDUIT
CEMENT ENCASED
CAP DUCTS AT PROJECT LIMITS

CAUTION

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

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●	PROPOSED CUC MANHOLE
◻	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 6 OF 12

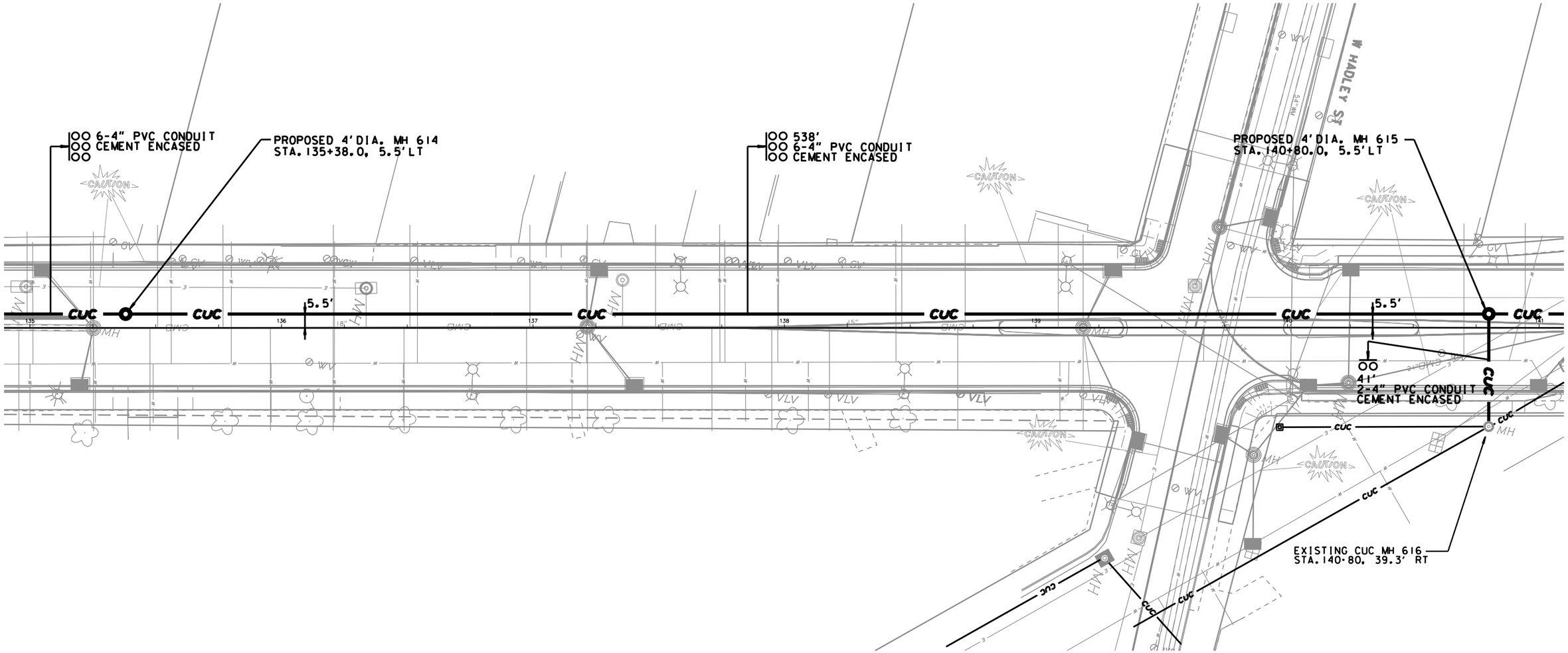
STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 119	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 129-135.DGN

2

NORTH TEUTONIA AVENUE

N



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

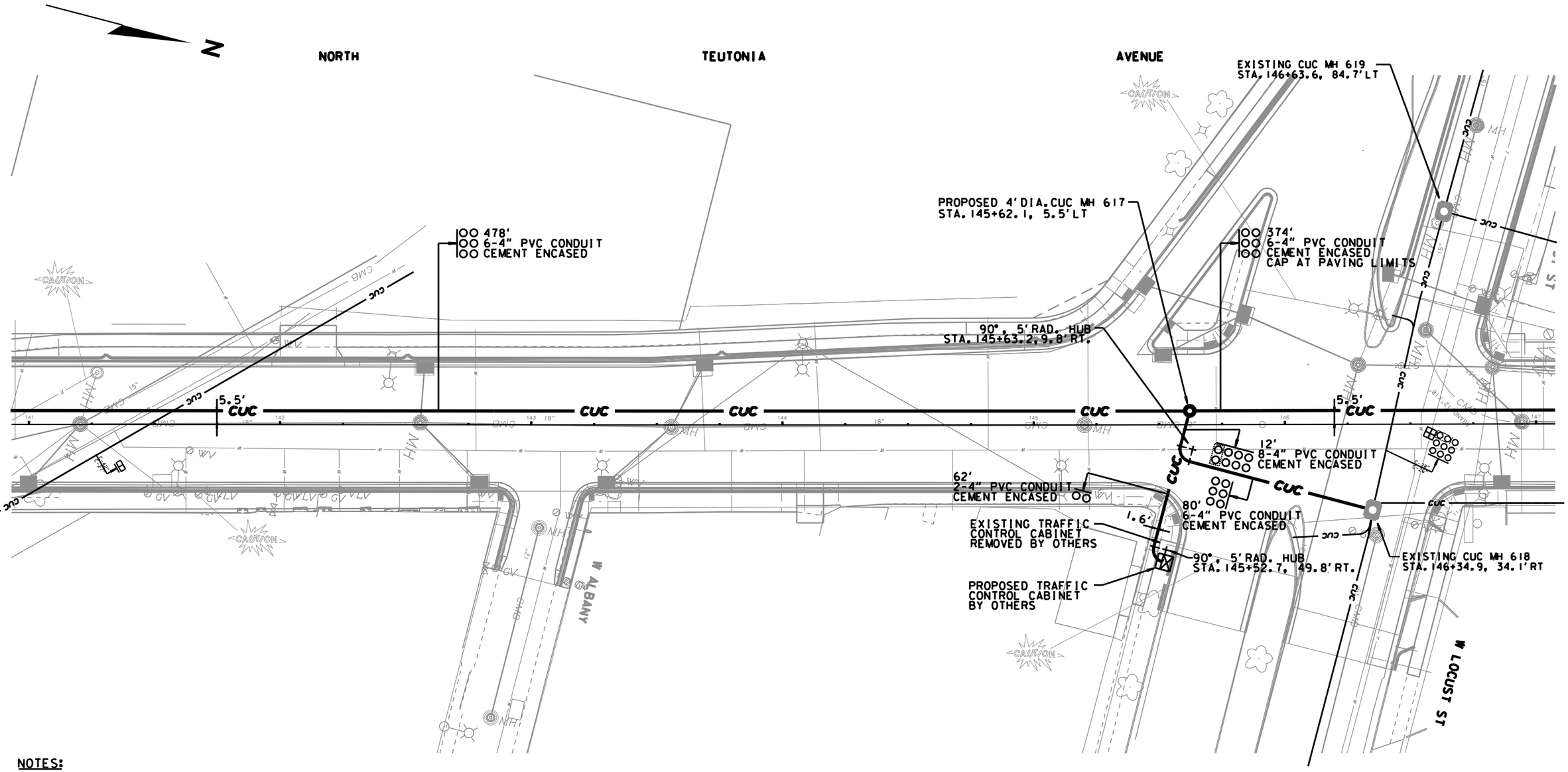
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
◘	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 7 OF 12

STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 120	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 135-141.DGN

2



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
◻	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 8 OF 12

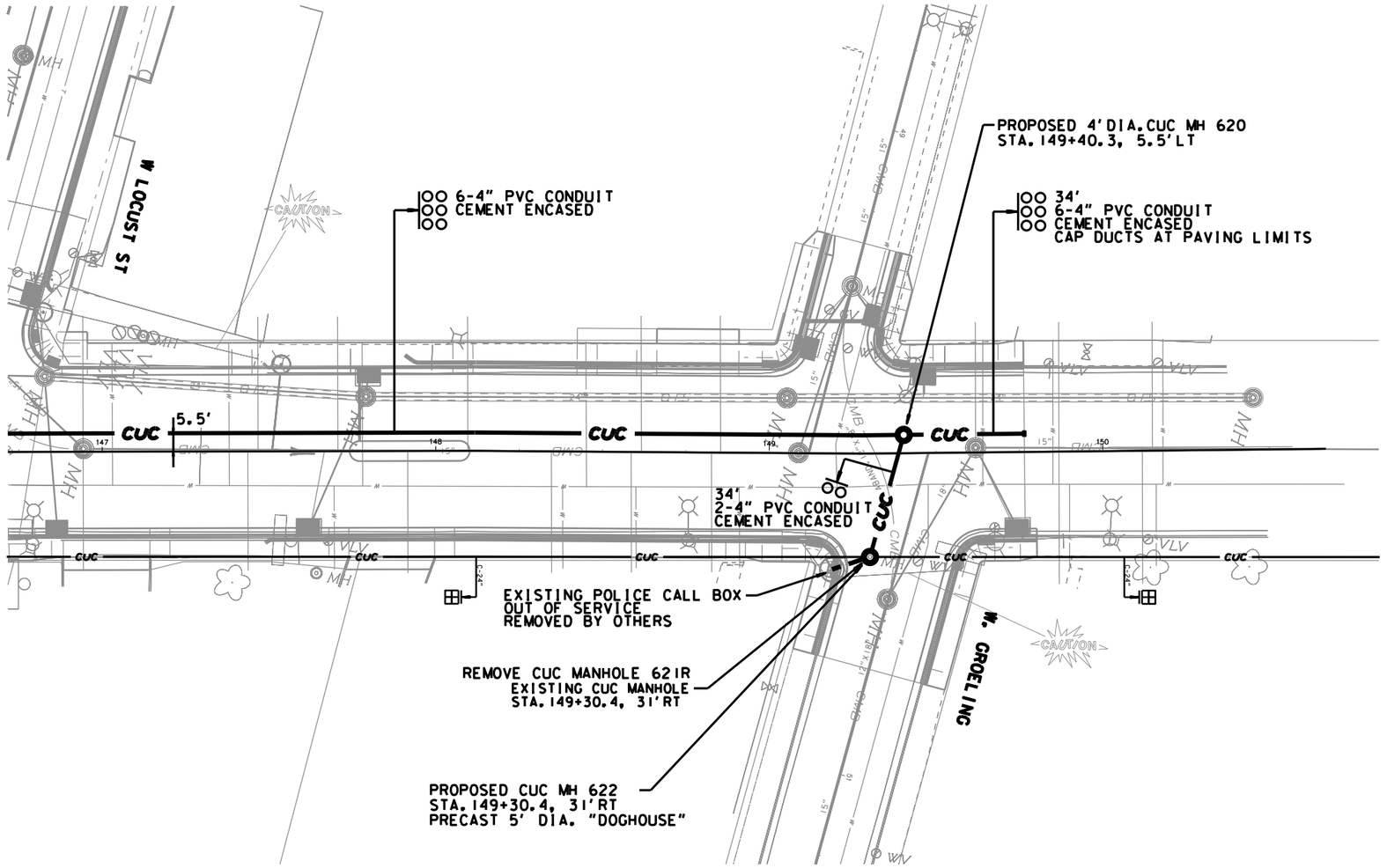
STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 121	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 141-147.DGN

2

NORTH TEUTONIA AVENUE

N



NOTES:

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LEGEND

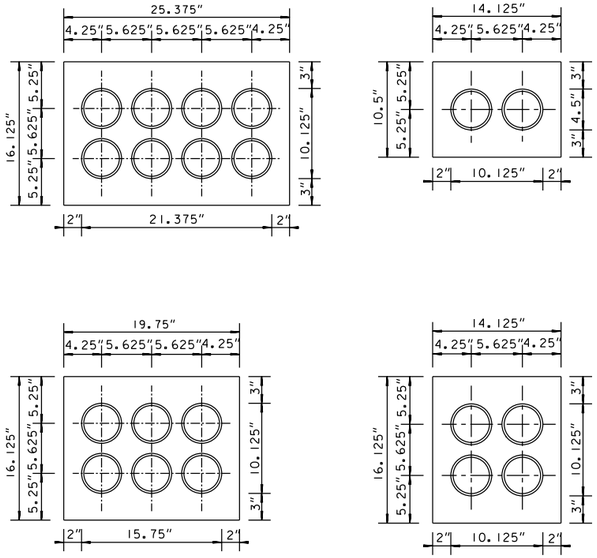
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
◘	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
— — — —	CONDUIT TO BE ABANDONED

SHEET 9 OF 12

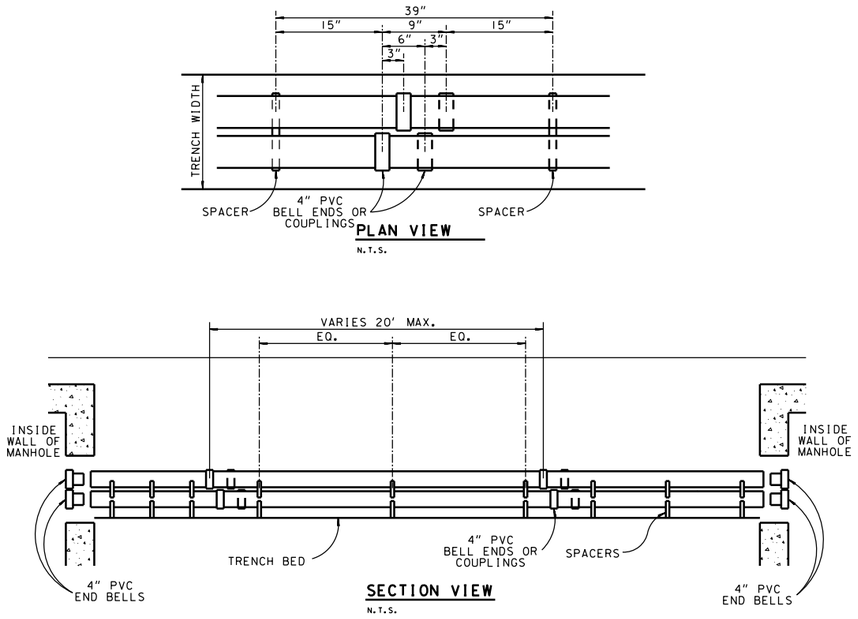
STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 122	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\STA 147-150.DGN

2

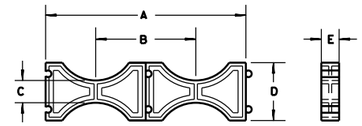


CROSS SECTION VIEW
N.T.S.



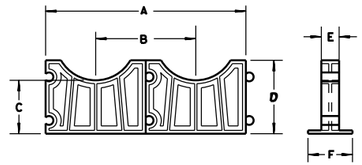
DUCT INSTALLATION DETAIL

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	1 ½"	1 ½"
D	3 ¼"	3 ¼"
E	1"	1"



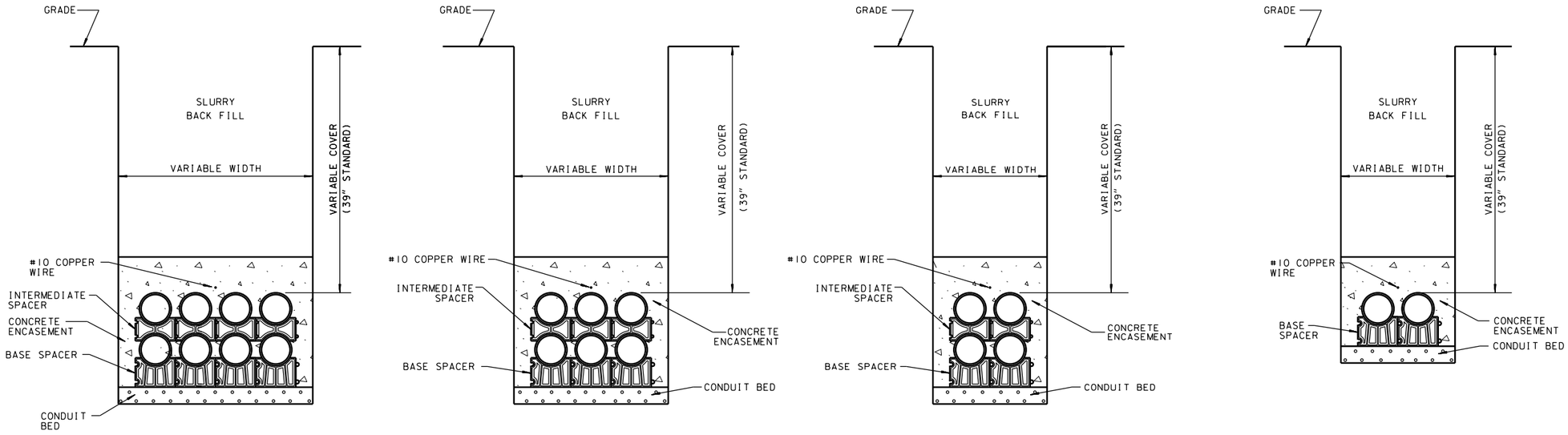
INTERMEDIATE SPACER

COND.	3"	4"
A	10"	11 ¼"
B	5"	5 ⅝"
C	3"	3"
D	3 ⅞"	4 ⅛"
E	1"	1"
F	2 ½"	2 ½"



BASE SPACER

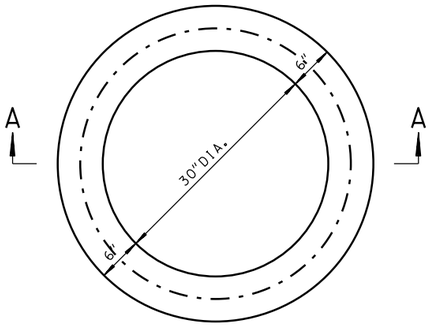
INTERMEDIATE AND BASE SPACER DETAIL



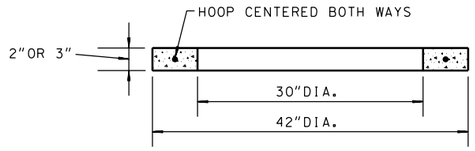
CROSS SECTION VIEW, TYP.
N.T.S.

STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (CUC)	SCALE FEET	SHEET NO: 123	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\DETAILS.DGN



PLAN



SECTION A-A

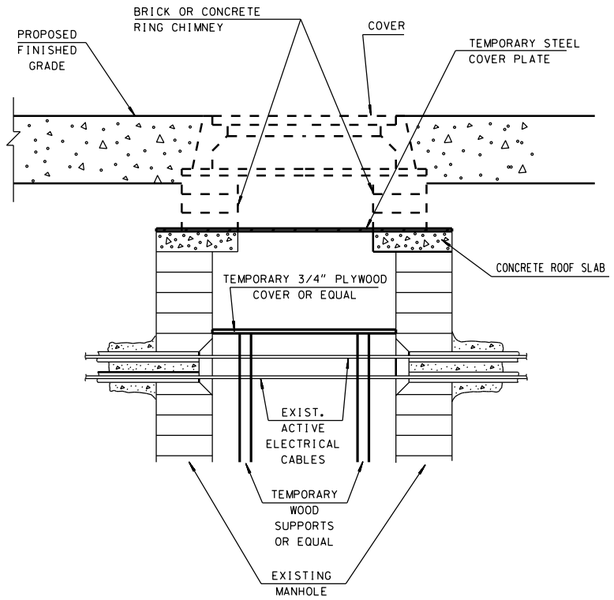
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

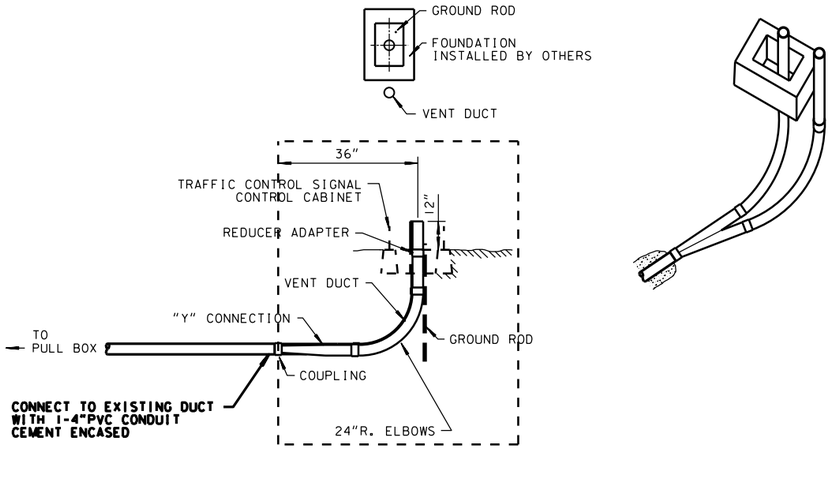
AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

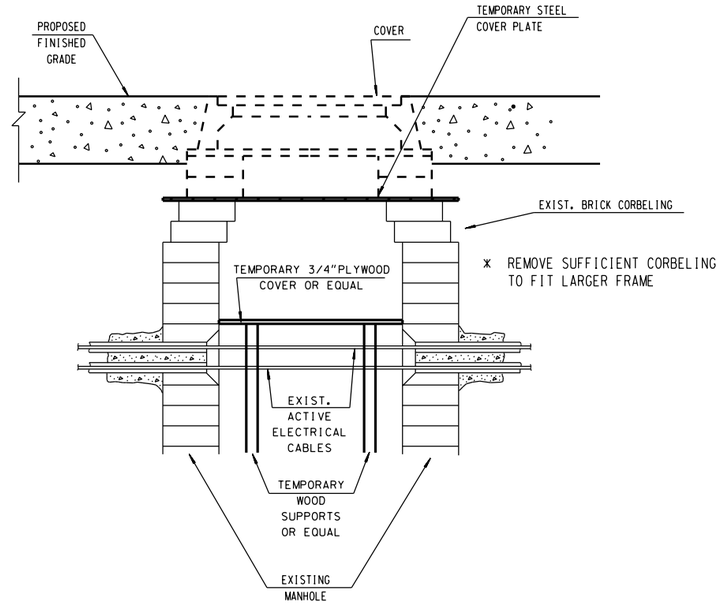
CONCRETE ADJUSTING RING



BLOCK OR PRECAST MANHOLE



CONTROL CABINET

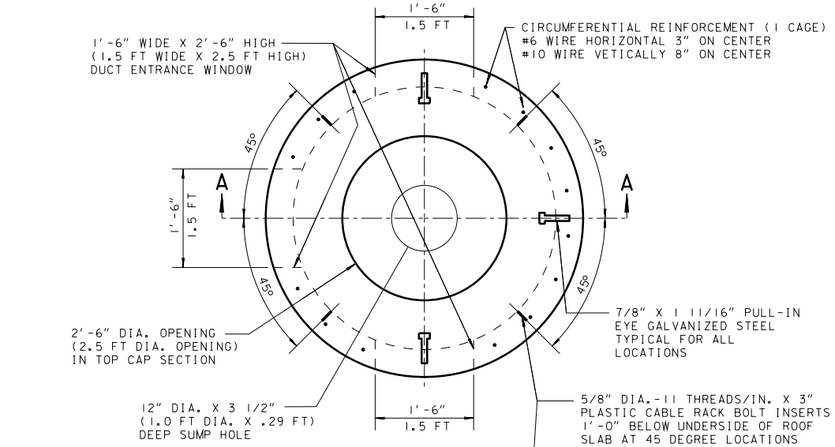


BRICK ROUND MANHOLE

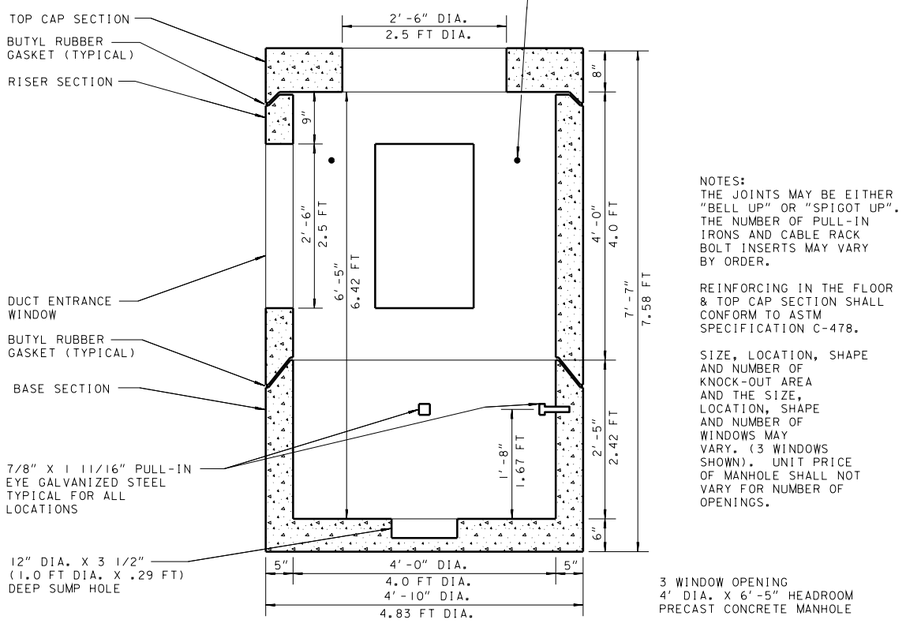
SHEET 11 OF 12

STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET	SHEET NO: 124	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\DETAILS.DGN



TOP VIEW



NOTES:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER.

REINFORCING IN THE FLOOR & TOP CAP SECTION SHALL CONFORM TO ASTM SPECIFICATION C-478.

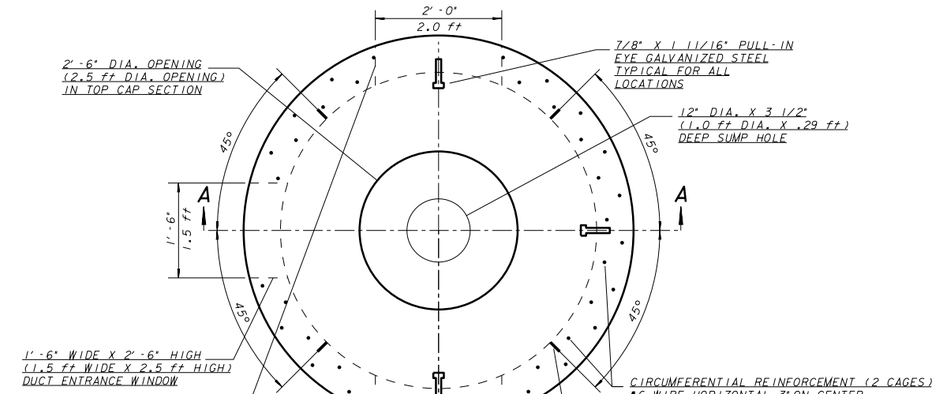
SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREA AND THE SIZE, LOCATION, SHAPE AND NUMBER OF WINDOWS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

3 WINDOW OPENING
4' DIA. X 6'-5" HEADROOM
PRECAST CONCRETE MANHOLE

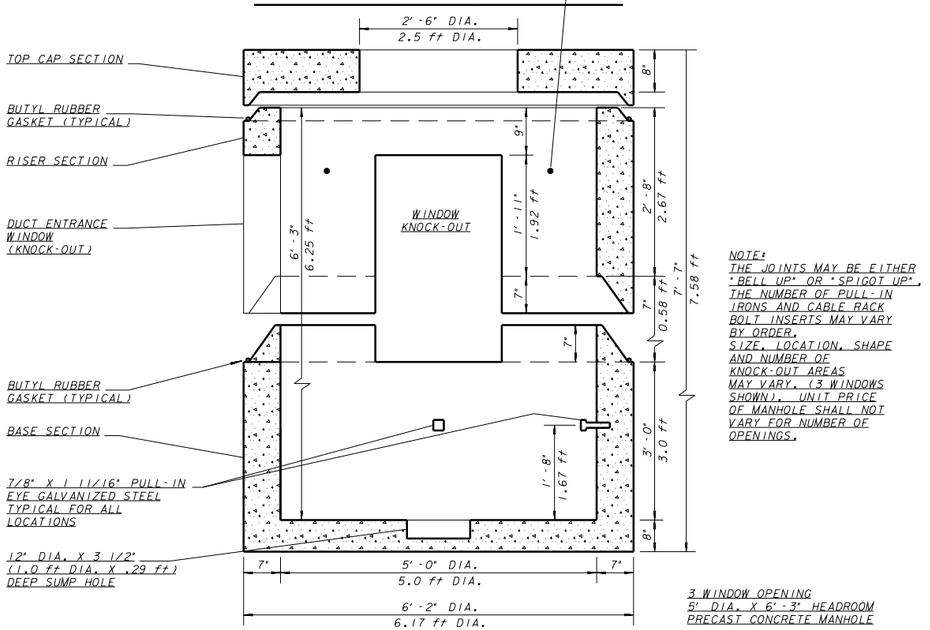
SECTION VIEW "A-A"

N.T.S.

4' DIAMETER STANDARD MANHOLE



TOP VIEW



NOTE:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP", THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER. SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREAS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

3 WINDOW OPENING
5' DIA. X 6'-3" HEADROOM
PRECAST CONCRETE MANHOLE

SECTION VIEW "A-A"

N.T.S.

5' DIAMETER STANDARD "DOGHOUSE" MANHOLE

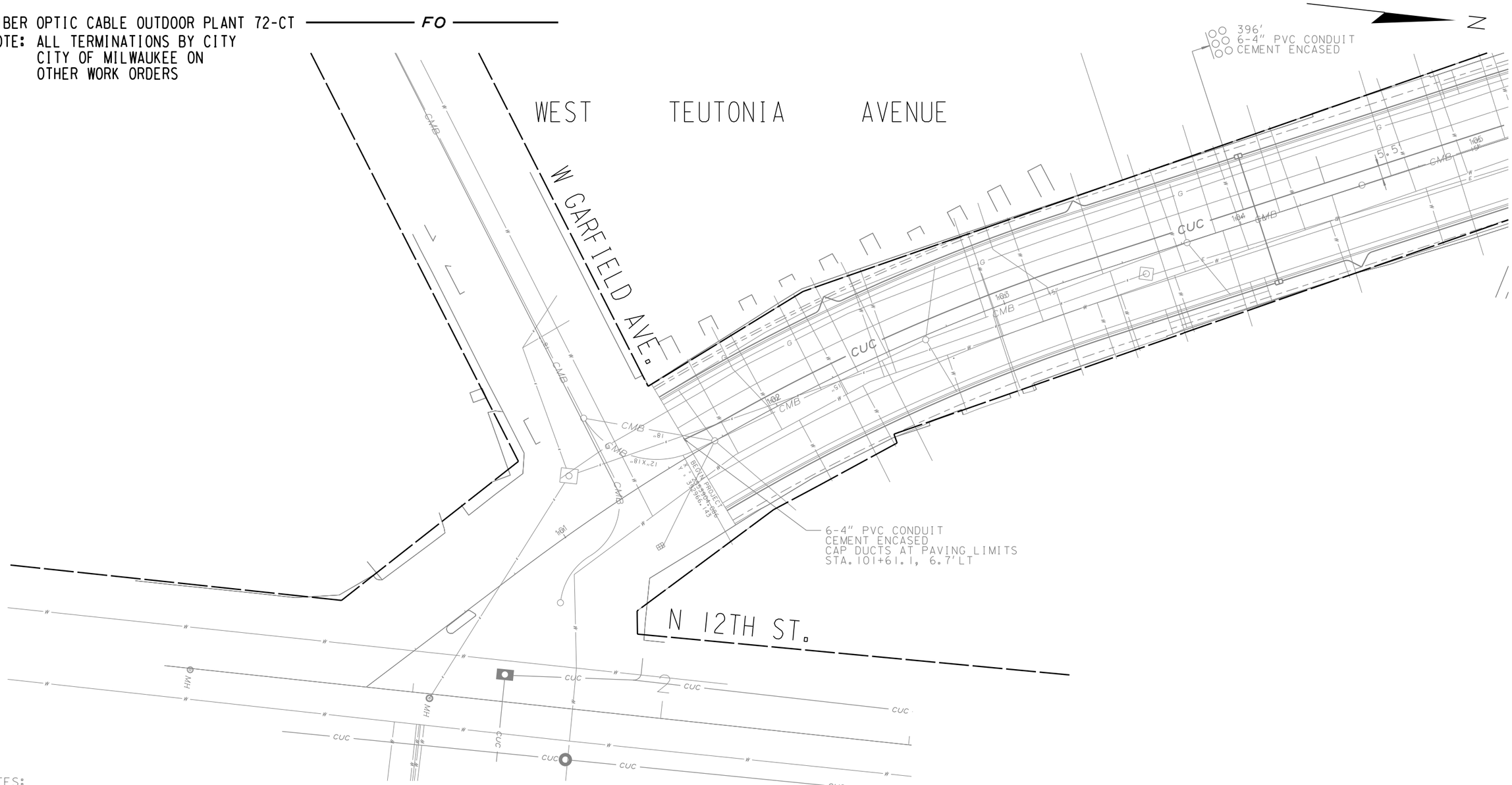
SHEET 12 OF 12

STATE PROJECT NUMBER 2080-00-73	HWY: N. TEUTONIA	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET	SHEET NO: 125	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2018\N TEUTONIA AVE - W GARFIELD AVE TO W GROELING AVE\DGN\DETAILS.DGN

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

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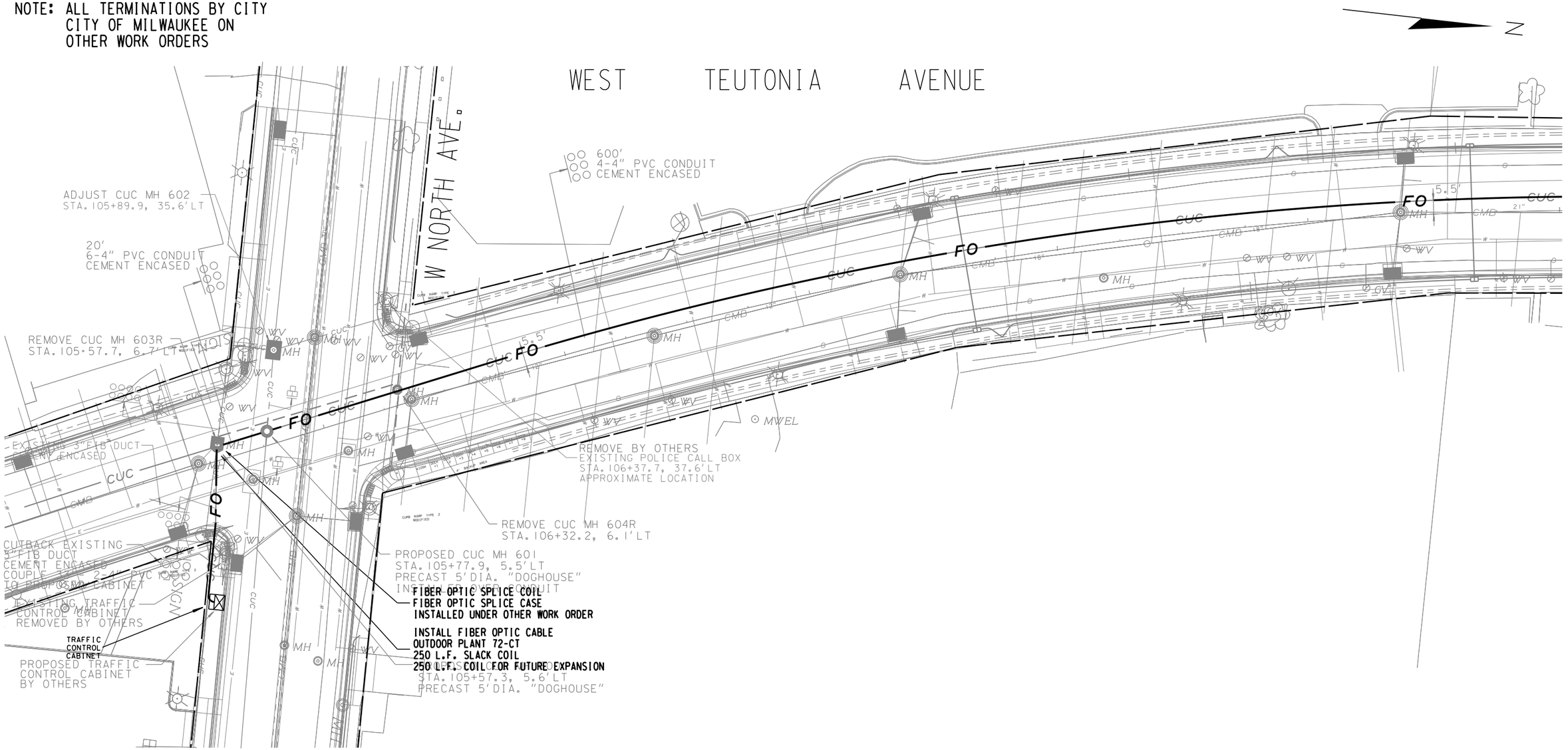
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■	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
— — — —	ABANDONED CONDUIT

SHEET 1 OF 9

PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 126	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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CITY OF MILWAUKEE ON
OTHER WORK ORDERS



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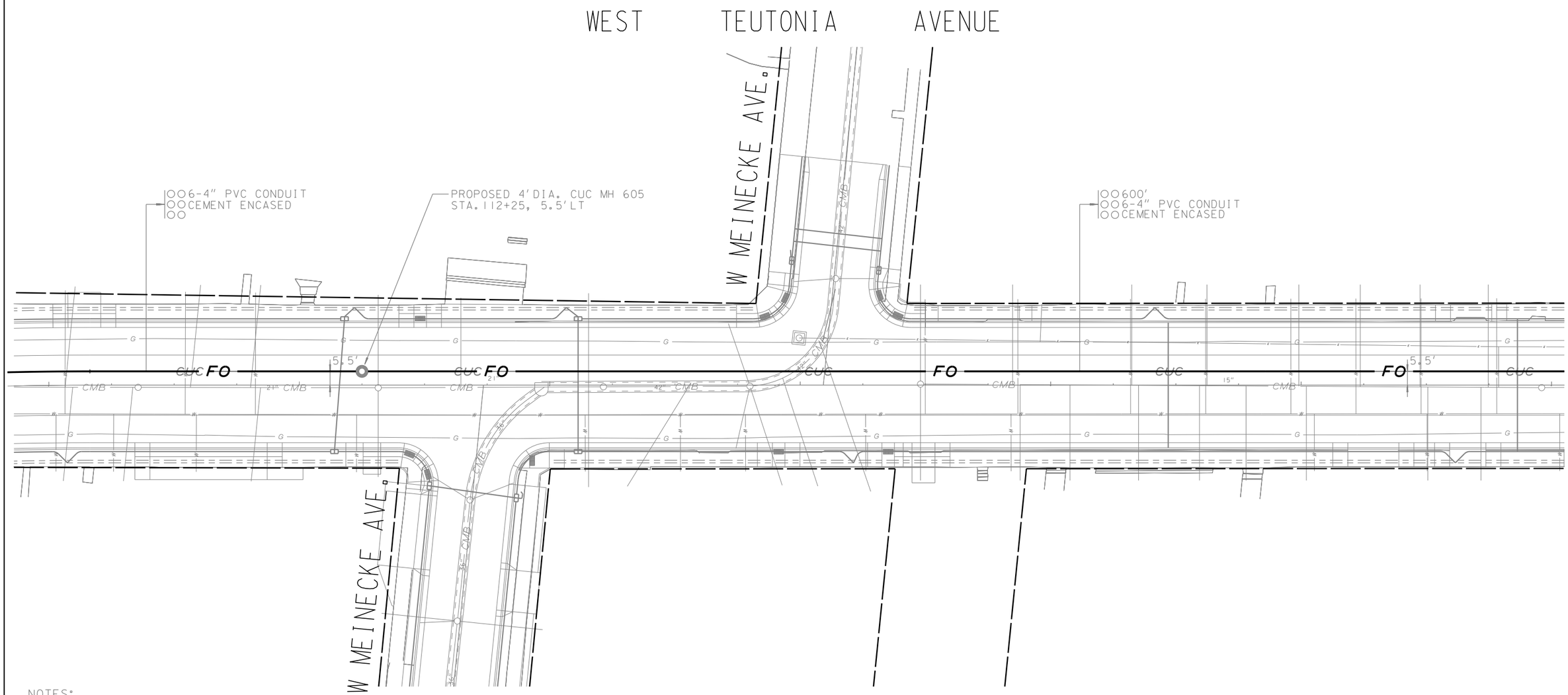
SHEET 2 OF 9

PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 127	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
OTHER WORK ORDERS

N



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SHEET 3 OF 9

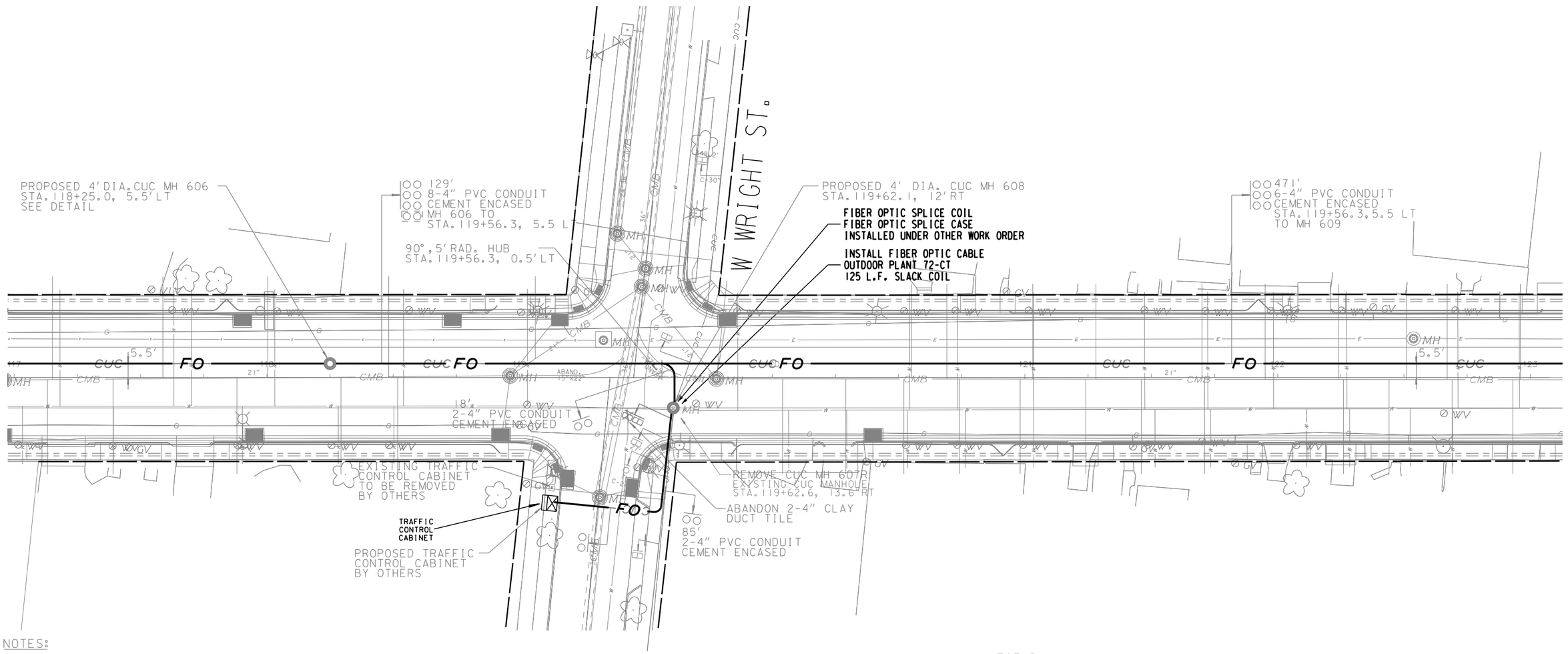
PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 128	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
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N

WEST TEUTONIA AVENUE



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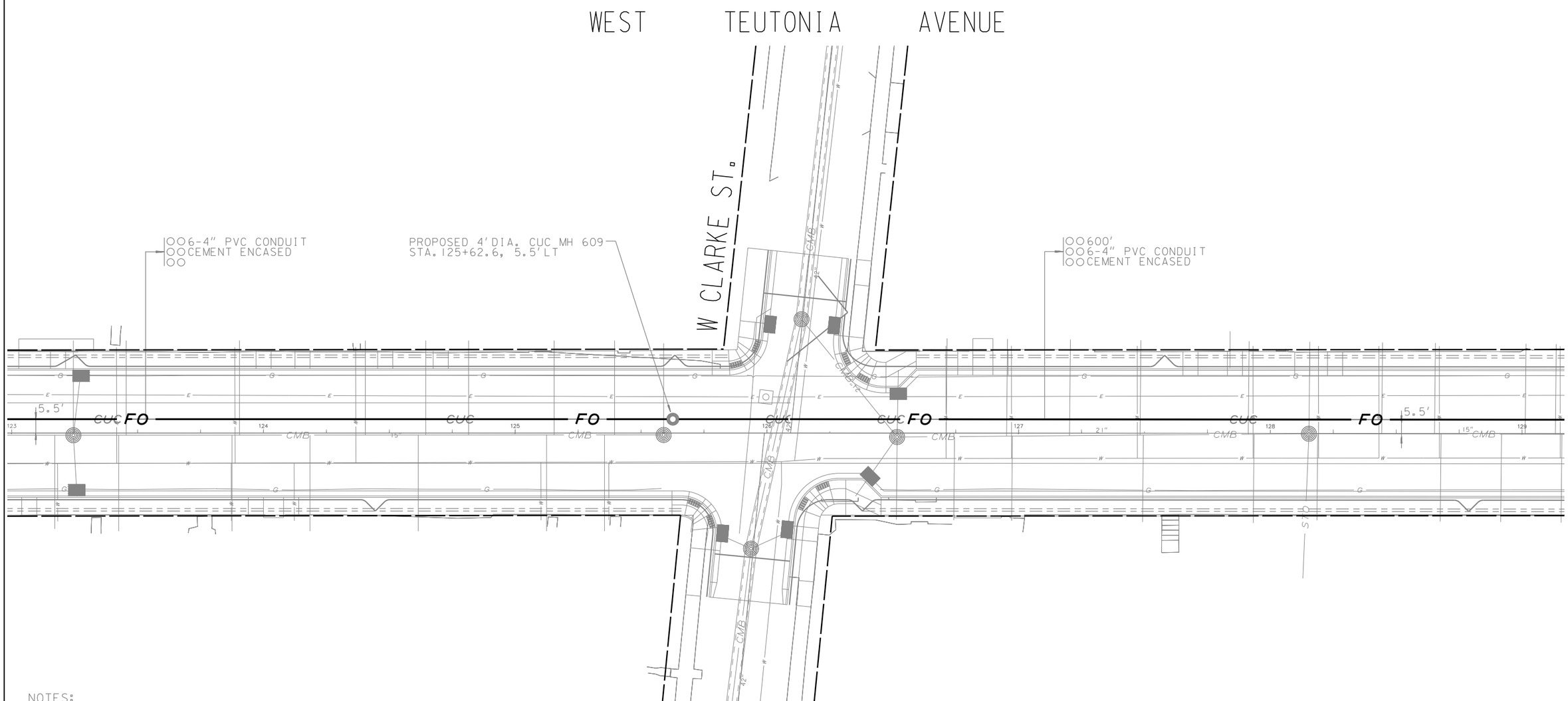
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SHEET 4 OF 9

PROJECT NO: 2080–00–73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 129	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——
NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
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SHEET 5 OF 9

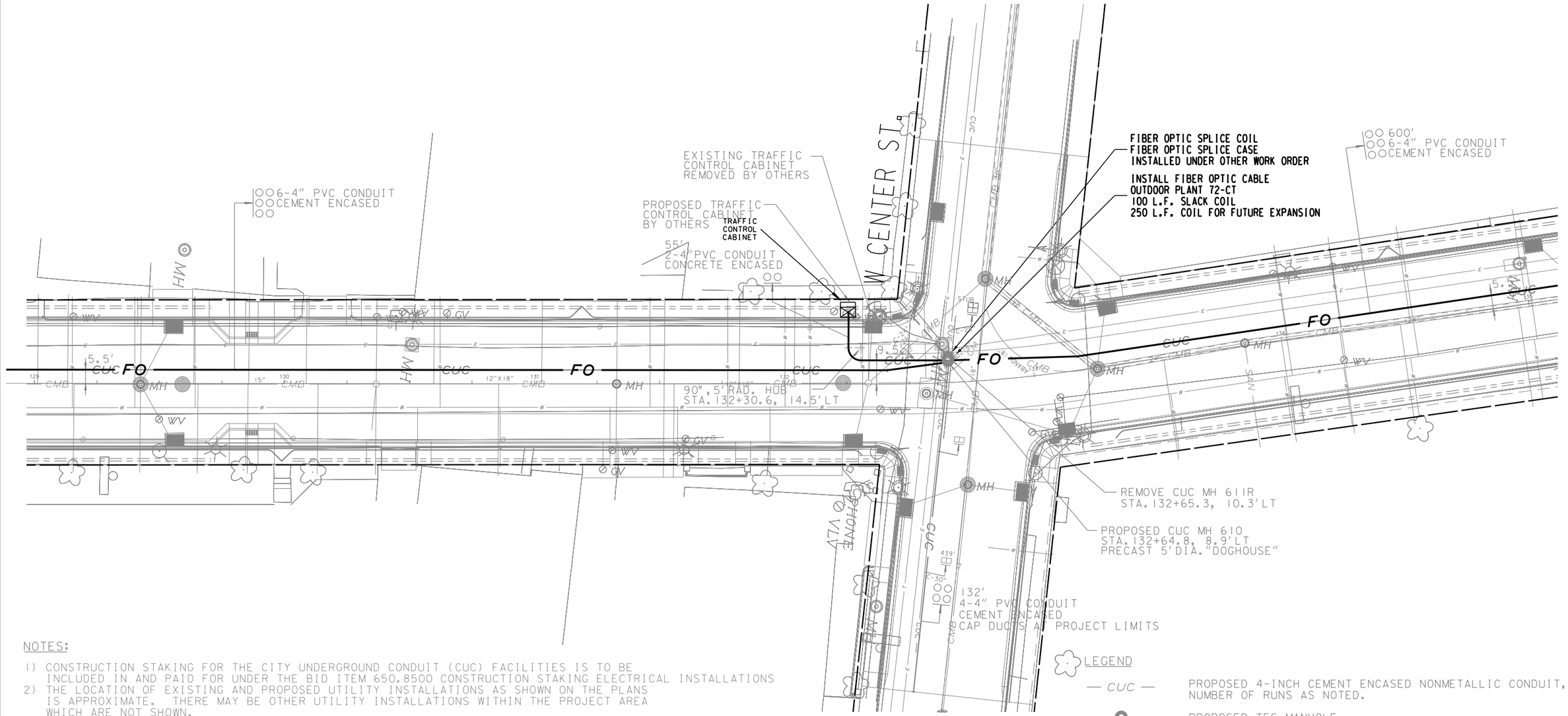
PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 130	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
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WEST TEUTONIA AVENUE



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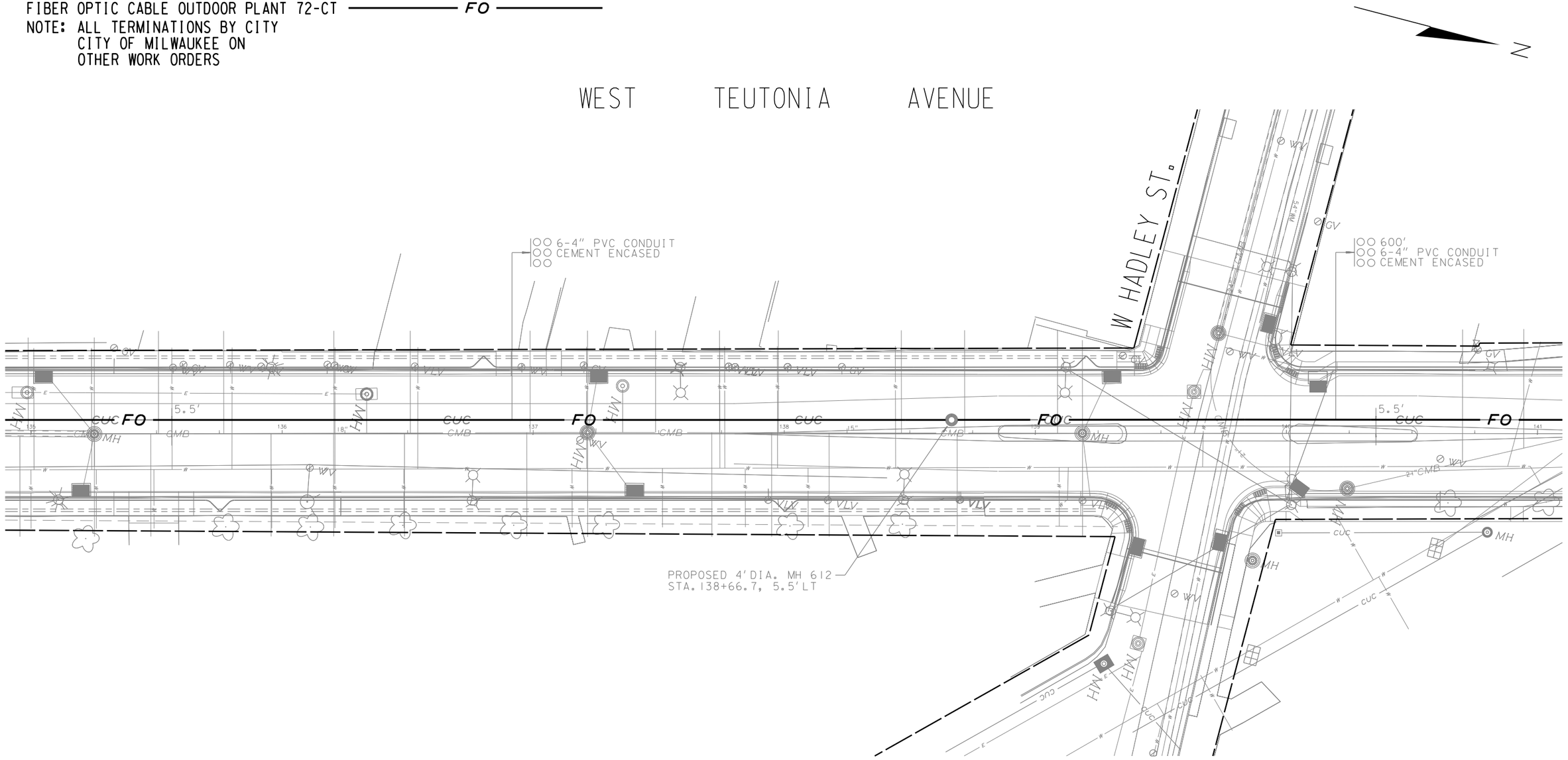
SHEET 6 OF 9

PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 131	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2080-00-73 Teutonia Garfield to Groeling\Fiber Optics\2080-00-73 Traffic Interconnect Plan.dgn PLOT DATE : 02-AUG-2018 07:09 PLOT BY : jaortiz PLOT NAME : PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

NOTE: ALL TERMINATIONS BY CITY
CITY OF MILWAUKEE ON
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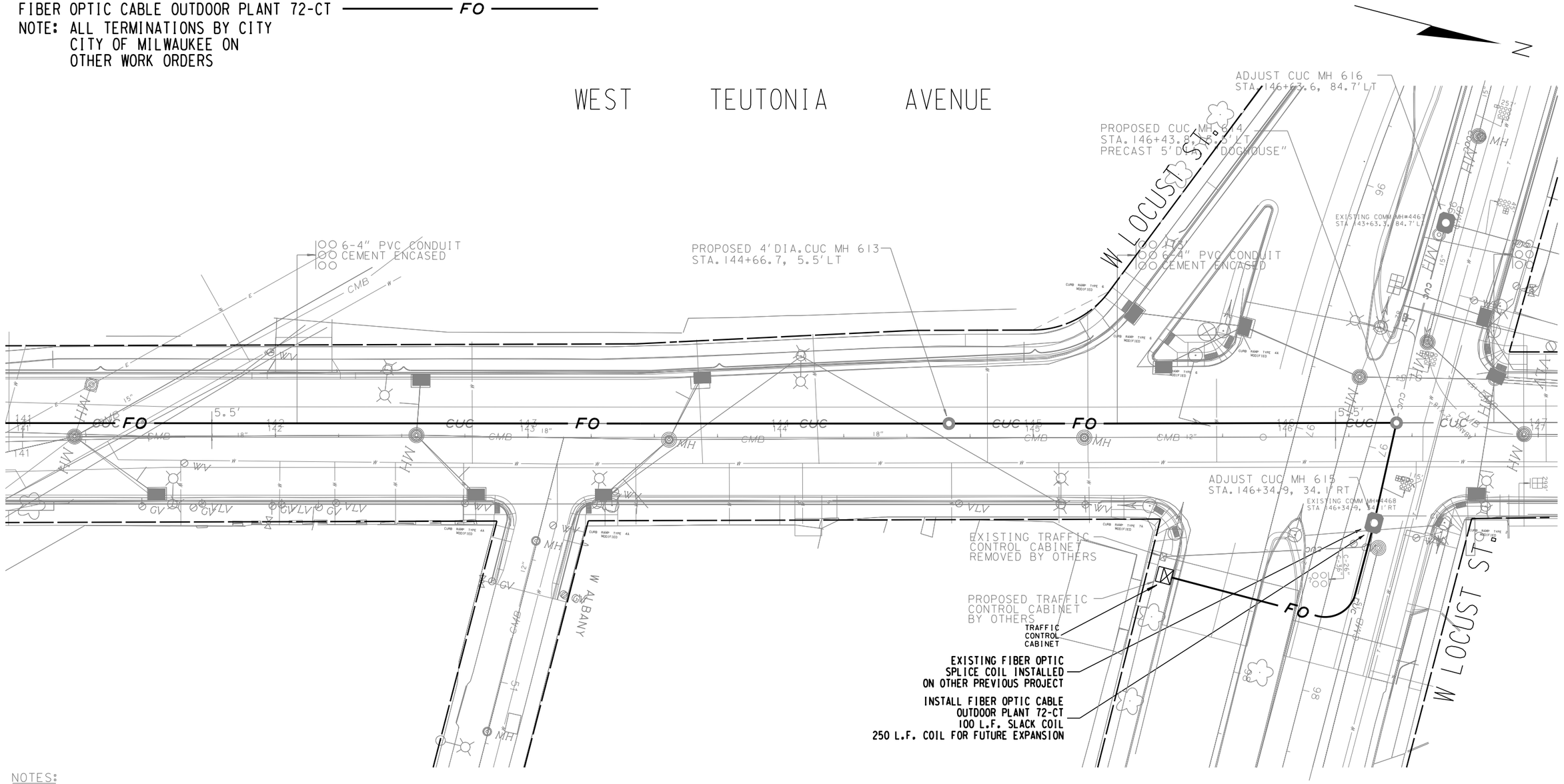
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SHEET 7 OF 9

PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 132	E

FIBER OPTIC CABLE OUTDOOR PLANT 72-CT —— FO ——

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SHEET 8 OF 9

PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 133	E

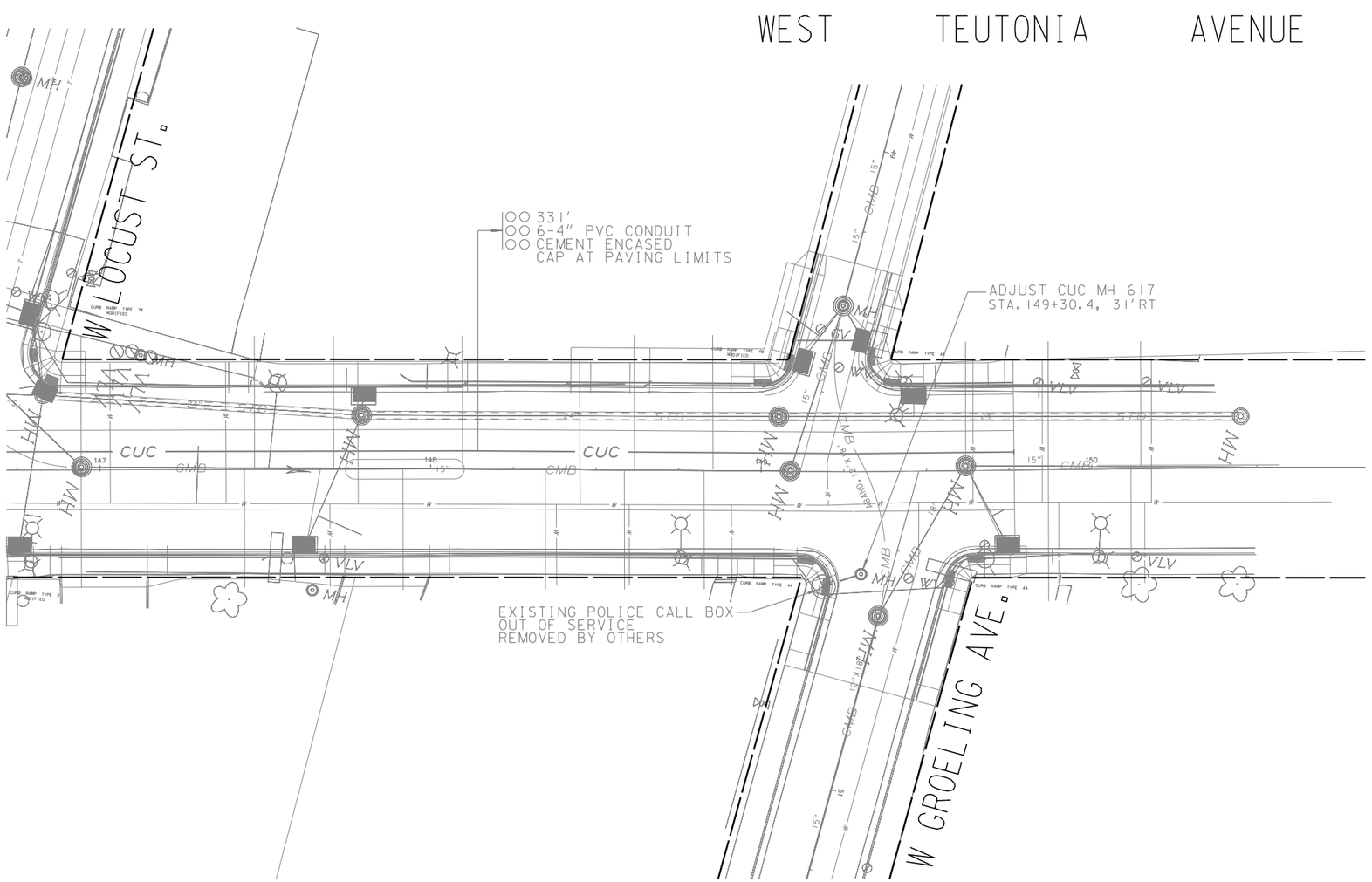
FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2080-00-73 Teutonia Garfield to Groeling\Fiber Optics\Fiber Optics Plan.dgn PLOT DATE : 01-AUG-2018 18:35 PLOT BY : jaortiz PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

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SHEET 9 OF 9

PROJECT NO: 2080-00-73	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC INTERCONNECT PLAN	SHEET 134	E

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

1 DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT A DISTANCE OF 6 INCHES AWAY FROM THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND 18 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH.

7 ANY EXCEPTION TO THE MINIMUM OR MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

9 BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

12 ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

13 CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX OR JUNCTION BOX OR BASE TO BASE, ETC.).

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A PULL BOX / VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND PULL BOXES / VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR PULL BOXES / VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

20 LIGHT POLES AND TRAFFIC STANDARDS INSTALLED BEHIND THE CURB MUST MEET A MINIMUM DISTANCE OF 24 INCHES FROM THE FACE OF CURB TO THE CURB SIDE FACE OF THE POLE OR TRAFFIC STANDARD.

21 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/ VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

22 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - NEAL KARWEIK (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-5941 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

23 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

24 CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

25 CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

26 ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL.

27 Provide three sets as-built drawings detailing the final placement of conduit, cabling, equipment, and geometric modifications under the contract. Provide PDF copy conforming to CMM 1-65.14, or record all changes in Red ink Only on the As-Let (Design) paper drawings. The City will reject as-builts with incomplete or incorrect content or not conforming to CMM standards.

28 RETURN ALL REMOVED STREET LIGHTING FIXTURES TO STREET LIGHTING FIELD OFFICE
(ATTN: MIKE GUERRERO)
1540 W. CANAL ST. MILWAUKEE WI 53233

UTILITY LINE CODE

SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
G	PROPOSED GAS
E	ELECTRIC
TE&ES	TRAFFIC & STREET LIGHTING
	OLD CITY UNDERGROUND CONDUIT
CUC	PROPOSED CITY UNDERGROUND CONDUIT
T	TELEPHONE
TV	CABLE

SHEET 1 OF 8

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET OF 135	E

TRAFFIC & STREET LIGHTING GENERAL NOTES:

AS-BUILT GUIDELINES:

PROVIDE AS-BUILT DRAWINGS DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE PDF COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.

IT IS CRITICAL THAT THE CONTRACTOR WORK ON THE AS-BUILT DRAWINGS WHILE THE JOB IS PROGRESSING, SO CHANGES ARE DOCUMENTED WHILE THEY ARE STILL FRESH IN YOUR MIND.

IF THERE IS A STRUCTURE DRAWING, INCLUDE ALL STRUCTURES DRAWING SHEETS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSERT ANY ADDENDUM OR REPLACEMENT DRAWING SHEETS. TO DO THIS, RENUMBER THEM SIMILARLY TO THE ORIGINAL DRAWING SHEET.

FOR EXAMPLE:
REVISED SHEET 5 WOULD REPLACE SHEET 5. HOWEVER, ALL THE ORIGINAL SHEETS SHALL REMAIN IN THE AS-BUILT. IF THE SHEET HAS BEEN REPLACED CROSS IT OUT WITH AN X AND INDICATE THE NUMBER OF ITS REPLACEMENT SHEET. IF ADDITIONAL SHEETS WERE ADDED, INSERT THEM IN THE ORIGINAL LOCATION AND LABEL THEM WITH THE PREVIOUS SHEET NUMBER FOLLOWED BY AN "A", "B", "C", ETC.

NOTE THE SHEET CHANGES ON THE TITLE SHEET UNDER THE ORDER OF SHEETS.

THE TITLE SHEET OF THE AS-BUILT DRAWING SHOULD INCLUDE THE FOLLOWING INFORMATION:
AS-BUILT DRAWING
SUPERVISOR:
PROJECT MANAGER:
CONTRACTOR LEADER:
CONTRACTOR COMAPNY:
WORK STARTED:
WORK COMPLETED:

LINE OUT OR CROSS OUT ALL CHANGED INFORMATION AND WRITE-IN THE CORRECTED INFORMATION ABOVE THE ORIGINAL OR CLOSE TO IT WHEREVER POSSIBLE. USE BLANK SPACES ON THE DRAWING SO NOTES ARE NOT SUPERIMPOSED. DRAWINGS WITH EXCESSIVE DETAIL MAY REQUIRE AN ALTERNATE APPROACH. NUMBERED CHANGES OR ADDITIONS MAY BE SHOWN ON SUPPLEMENTAL NON-DRAWING SHEETS.

- LOCATE AND CLEARLY LABEL ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO DIRECTIONS. SWING TIES SHOULD BE MADE FROM THE OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORIGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3'). ALL VERTICAL DISTANCES SHALL BE TO THE NEAREST INCH (I.E., 24")
- SHOW LOCATION AND ELEVATIONS ON PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS MAY BE REQUIRED WHERE INSTALLATIONS ARE NOT SHOWN ON APPROVED CONSTRUCTION DRAWINGS FOR WHATEVER REASON OR WHERE REQUIRED FOR CLARITY.
- TYPICAL SERVICE INSTALLATION DETAILS WITH DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- NO ARBITRARY MARK-UPS WILL BE PERMITTED.

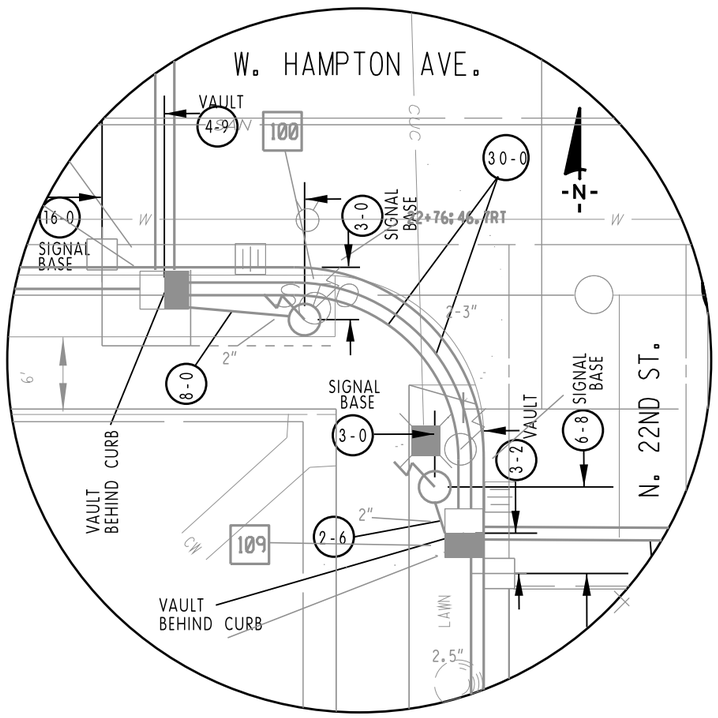
IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET WITH ALL OTHER REQUIRED AS-BUILT INFORMATION.

SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION
STREET LIGHTING & CUC MANAGER
841 NORTH BROADWAY
ROOM 920
MILWAUKEE, WISCONSIN 53202

RECORD RETENTION REQUIREMENTS:

- CONTRACTOR TO LOCATE AND CLEARLY DIMENSION ALL OF THERE NEWLY INSTALLED CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO (2) DIRECTIONS. SWING TIES SHOULD BE MADE FROM OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3'). ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST INCH (I.E. 24").
- SHOW LOCATION AND ELEVATIONS OF PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS WILL BE SUPPLIED WHERE REQUIRED FOR CLARITY.
- DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET.

SUPERVISOR:_____
PROJECT MANAGER:_____
CONTRACTOR LEADER:_____
CONTRACTOR COMPANY:_____
WORK STARTED:_____
WORK COMPLETED:_____



FIELD RECORD EXAMPLE DETAIL NOT TO SCALE

TYPICAL DIMENSIONING OF CONDUIT, VAULTS, AND CONCRETE BASES

MEASURING GUIDE LINES

IF CONDUIT IS NOT PLACED DIRECTLY BEHIND THE CURB IN THE ISLANDS & SIDE TERRACE AREAS, A MEASURED DISTANCE FROM THE FACE OF CURB TO THE CONDUIT WILL NEED TO BE PROVIDED.

PROVIDE A MEASURED DISTANCE OF UNINTERRUPTED CONDUIT RUNS

USE PERMANENT OBJECTS LIKE HYDRANTS, CATCH BASINS, OR EVEN CURB FACE LINES EXTENED TO MEASURE OFF WHEN LOCATING CONDUIT, VAULTS AND CONCRETE BASES.

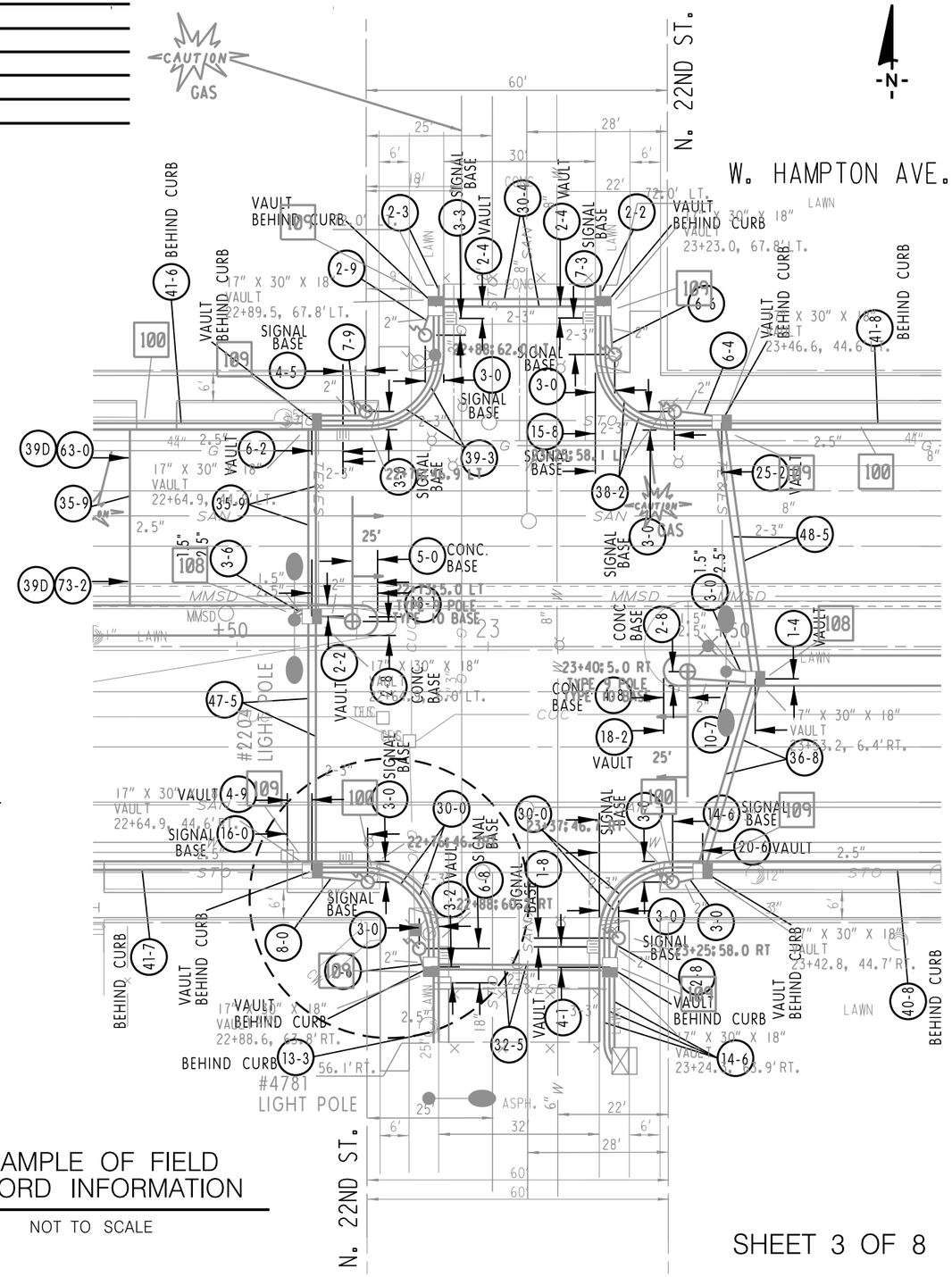
MEASURE TO OR FROM THE CENTERS OF OBJECTS FOR DISTANCE TAKING.

(39D) MEANS = CONDUIT IS 39" DEEP

(48-5) MEANS = LENGTH OF CONDUIT IS 48.5 FT. LONG (MEASURED TO NEAREST TENTH OF A FOOT)

OR

(25-6) MEANS = DISTANCE OF 25.6 FT. BETWEEN PERMANENT OBJECT OR CURB FACE TO CONDUIT, VAULT, AND CONCRETE BASE (MEASURED TO NEAREST TENTH OF A FOOT)



EXAMPLE OF FIELD RECORD INFORMATION

NOT TO SCALE

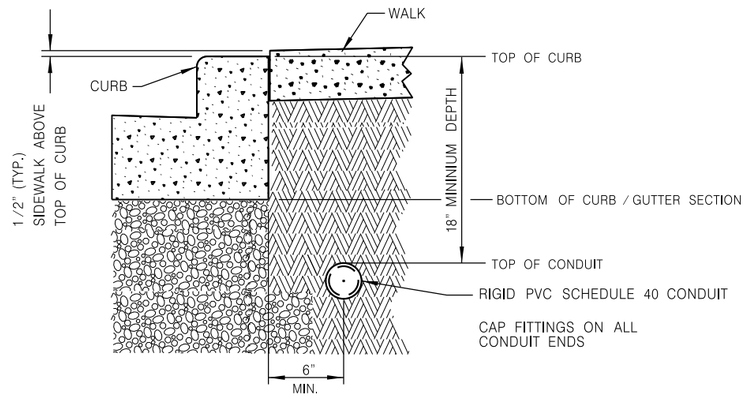
SHEET 3 OF 8

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET OF 137	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave – Garfield to Groeling (2080–00–73)\SL Conduit\SL Details.dgn PLOT DATE : 29–OCT–2018 14:46 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

2

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A"

NOT TO SCALE

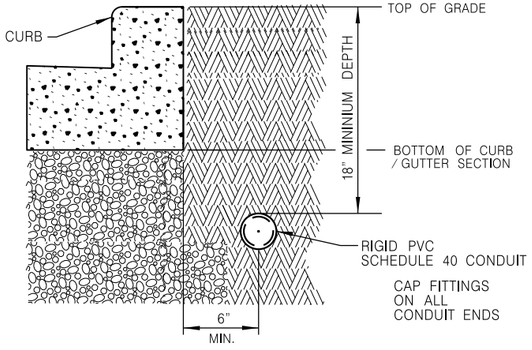
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

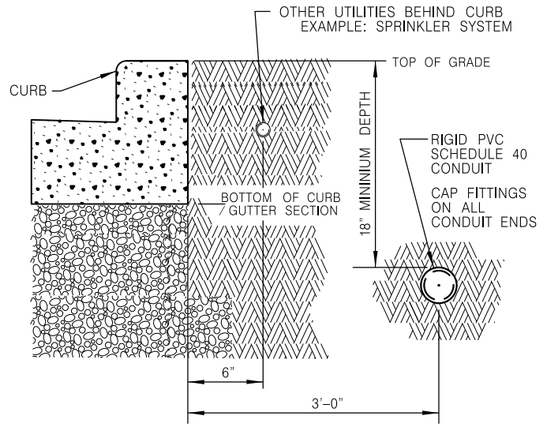
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED 6" ON CENTER DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"

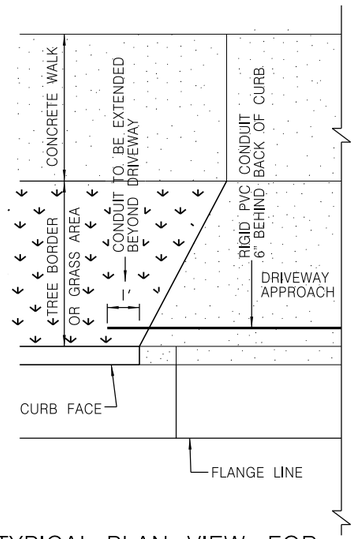


100 DETAIL "B" & "C"

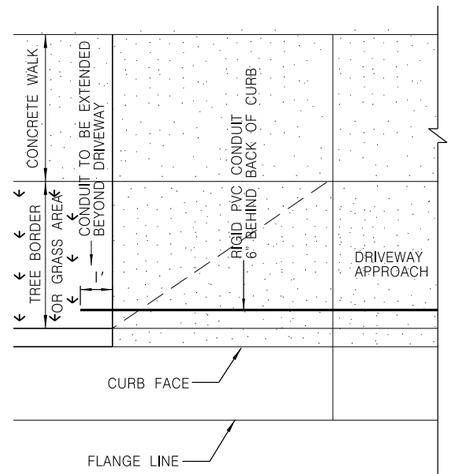
NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

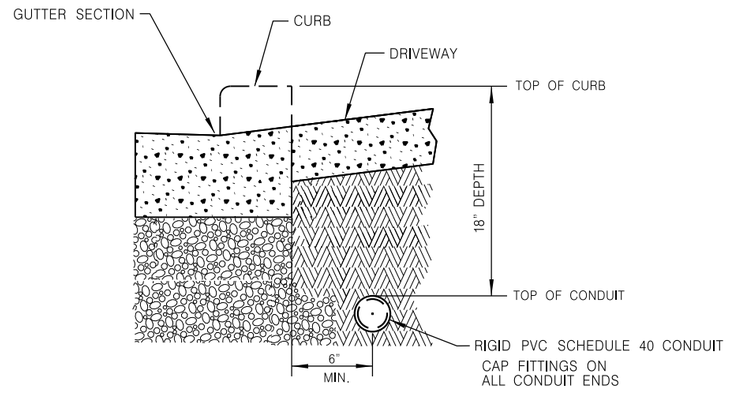


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



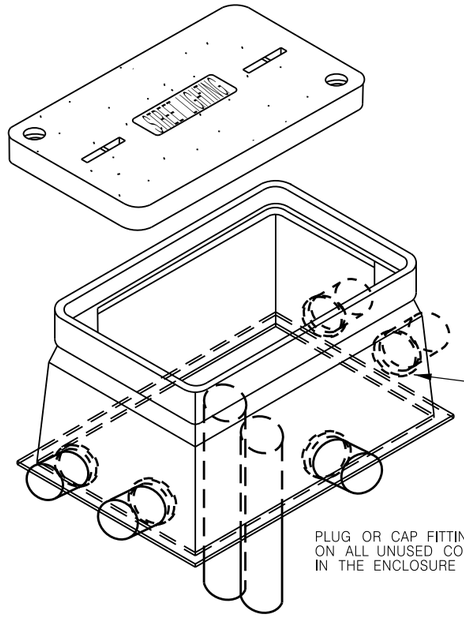
101 DETAIL

NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 4 OF 8

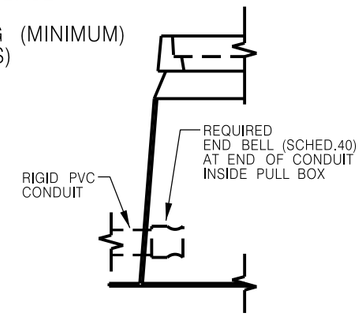


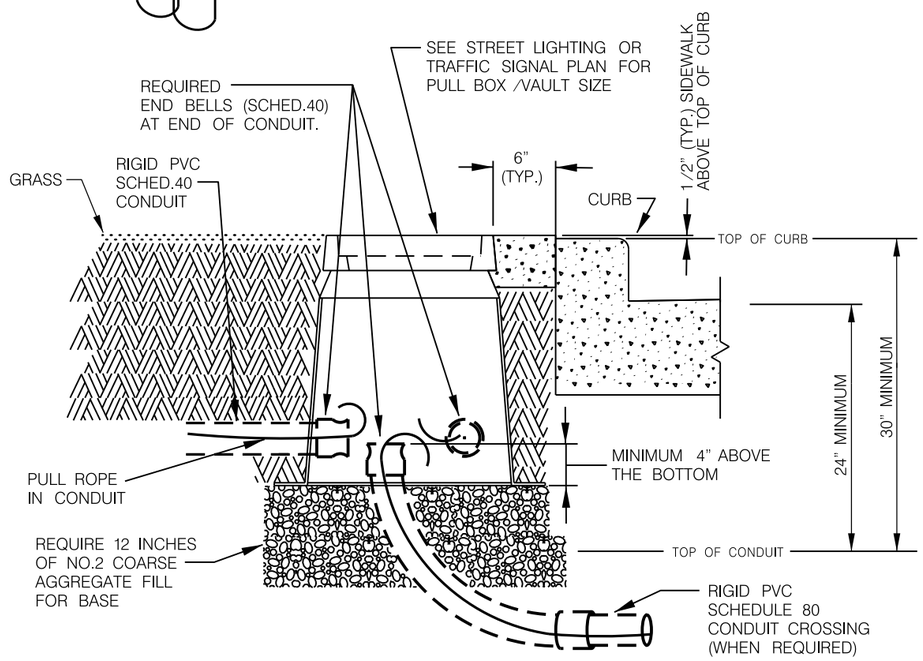
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY
TIER 15 RATING (MINIMUM)

PULL BOX /VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY
TIER 15 RATING (MINIMUM)
(VARIOUS SIZES)

REQUIRED
END BELLS
(SCHED.40)
AT END OF
CONDUIT.

PLUG OR CAP FITTINGS
ON ALL UNUSED CONDUITS
IN THE ENCLOSURE





112 DETAIL

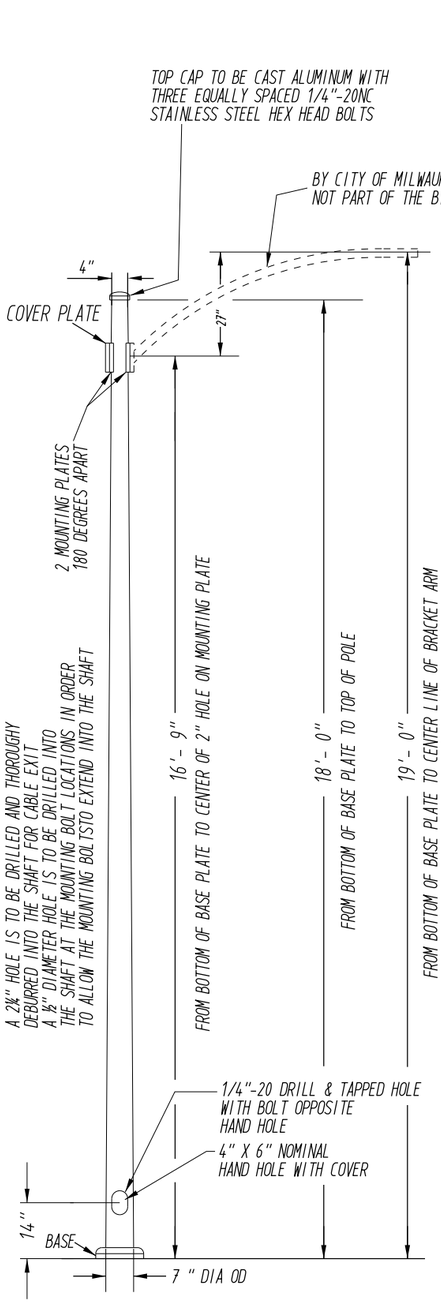
TYPICAL PULL BOX /VAULT INSTALLATION
IN EITHER PAVEMENT OR GRASS AREAS

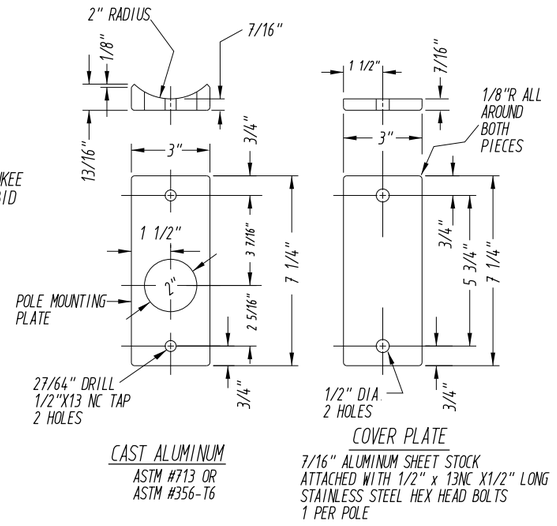
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

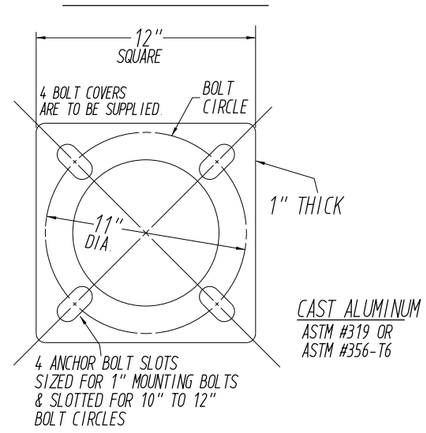
NOT TO SCALE

SHEET 5 OF 8

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET OF 139	E

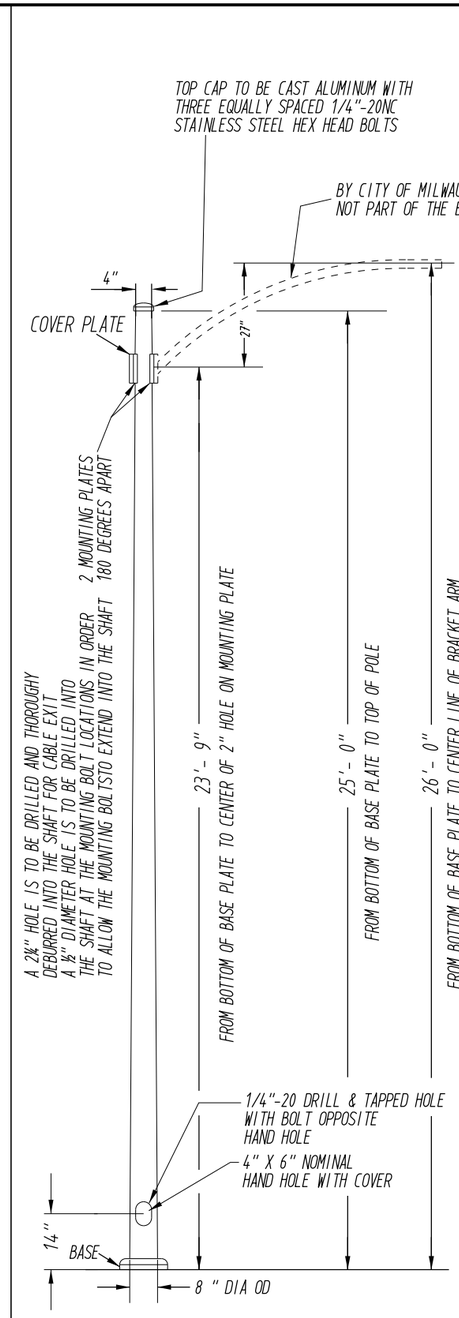


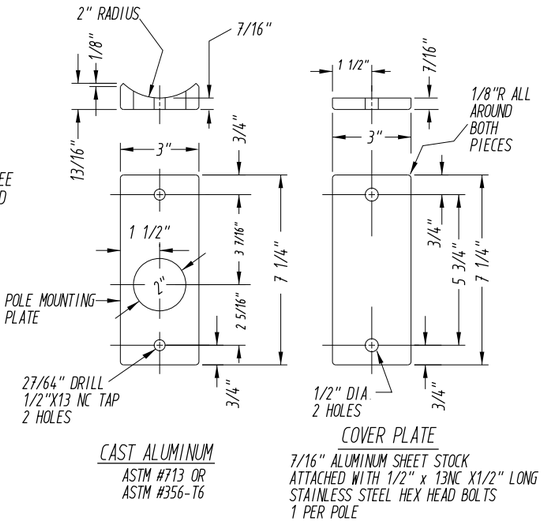


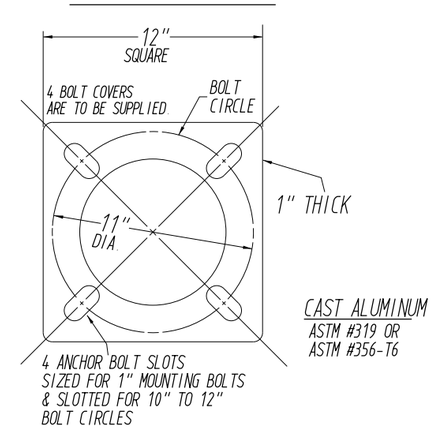


REVISED DATE:	REVISED BY:
SPEC NO. 12c-C-1	
BOLT DOWN ALUMINUM POLE 19 FOOT MOUNTING HEIGHT	
CITY OF MILWAUKEE D.P.W. TRANSPORTATION SECTION INFRASTRUCTURE SERVICES DIVISION	
STREET LIGHTING DIVISION	
DATE: 11-14-14 / SCALE: NONE / DRAWN: DK / DESIGN: BES / CHECKED: Jim / APPROVED: RWB	
SUPERSEDES	DRG. # B-14-11
SUPERSEDED BY	

POLES TYPE –11 (19 FT. ALUMINUM, BOLT DOWN))





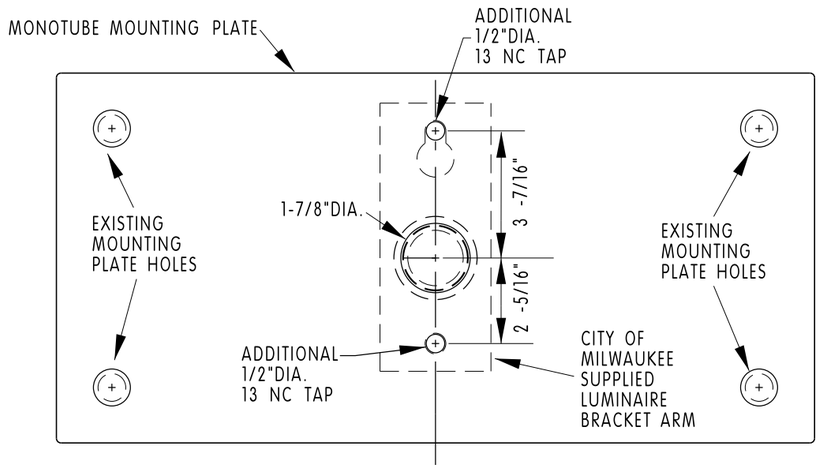


REVISED DATE:	REVISED BY:
SPEC NO. 12c-C-1	
BOLT DOWN ALUMINUM POLE 26 FOOT MOUNTING HEIGHT	
CITY OF MILWAUKEE D.P.W. TRANSPORTATION SECTION INFRASTRUCTURE SERVICES DIVISION	
STREET LIGHTING DIVISION	
DATE: 11-14-14 / SCALE: NONE / DRAWN: DK / DESIGN: BES / CHECKED: Jim / APPROVED: RWB	
SUPERSEDES	DRG. # B-14-13
SUPERSEDED BY	

POLES TYPE –12 (25 FT. ALUMINUM, BOLT DOWN))

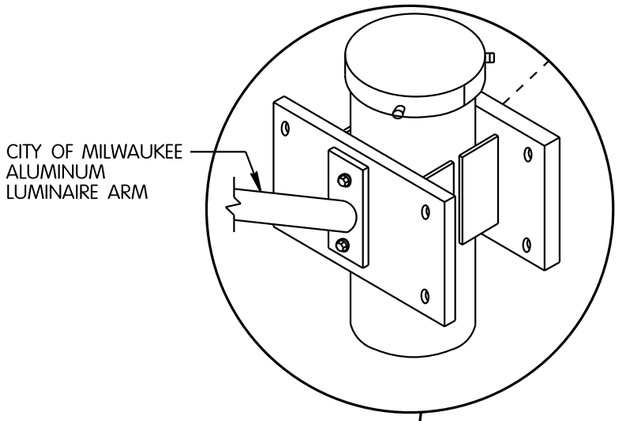
SHEET 6 OF 8

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET OF 140	E

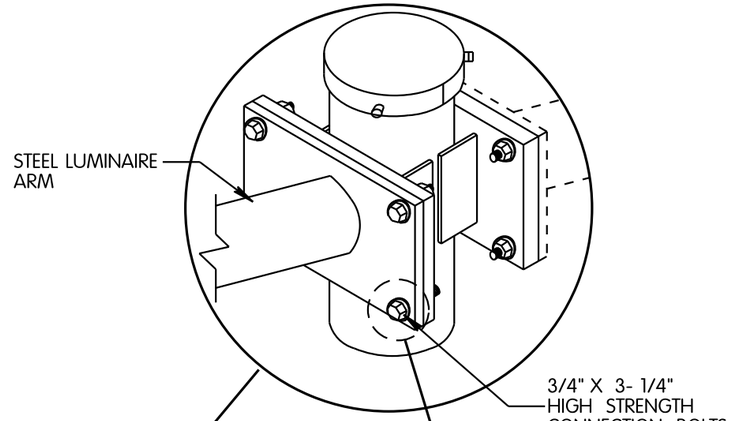


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE

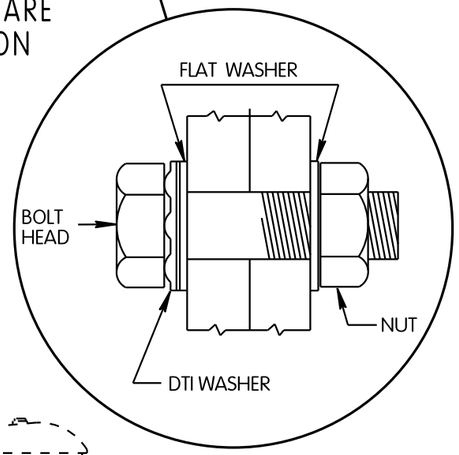
NOT TO SCALE



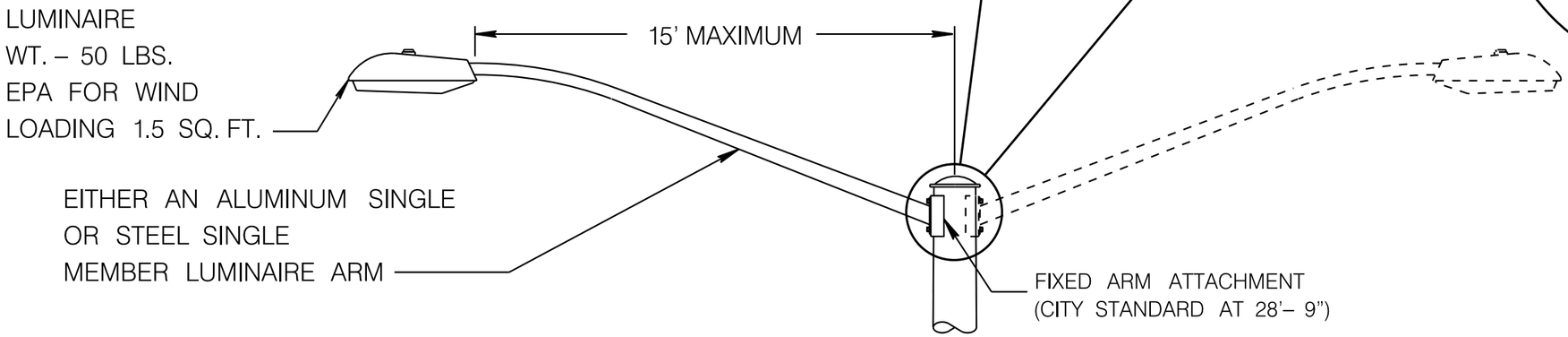
ALUMINUM LUMINIARE ARM OPTION



STEEL LUMINIARE ARM OPTION



RECOMMENDED BOLT ASSEMBLY DETAIL



ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE FOR WISDOT POLES: TYPE 10 (Bid Item: 657.1350) & TYPE 13(Bid Item: 657.1360)

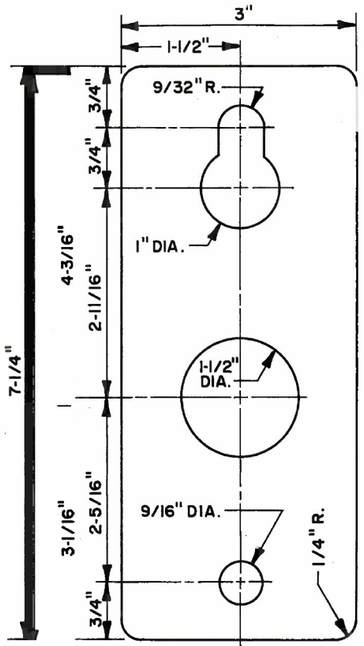
NOT TO SCALE

SHEET 7 OF 8

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET OF 141	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave – Garfield to Groeling (2080–00–73)\SL Conduit\SL Details.dgn PLOT DATE : 29–OCT–2018 14:46 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

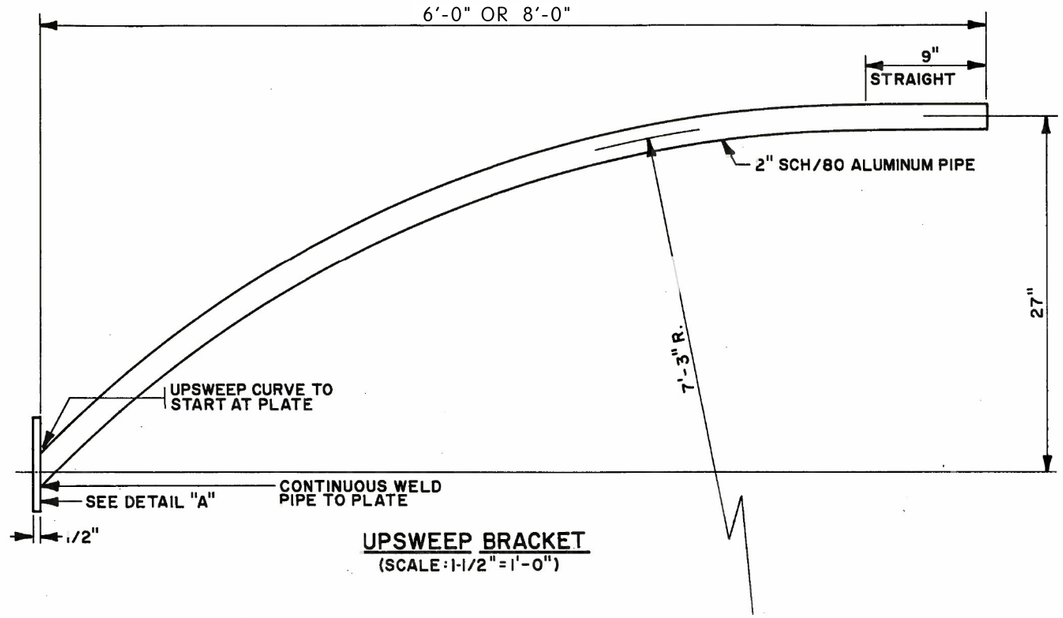
2



DETAIL "A" - MTG. PLATE

MOUNTING PLATE EITHER CAST ALUMINUM 1/2" AA#713 OR EXTRUDED 6063-T6 BAR STOCK

(SCALE: 3/4"=1")



UPSWEEP BRACKET

(SCALE: 1-1/2"=1'-0")

ALUMINUM UPSWEEP BRACKET

BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES
D.P.W. CITY OF MILWAUKEE

STREET LIGHTING DIVISION

DATE	SCALE	DRAWN	DESIGN	CHECKED	APPROVED
12/07/87	SHOWN	R.P.P.			

SUPERSEDES C-80-2

SUPERSEDED BY

DRG. # C-87-76

LUMINAIRE ARMS SINGLE MEMBER 6-Ft. - CITY FURNISHED
OR
LUMINAIRE ARMS SINGLE MEMBER 8-Ft. - CITY FURNISHED

SHEET 8 OF 8

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET OF 142	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave - Garfield to Groeling (2080-00-73)\SL Conduit\SL Details.dgn PLOT DATE : 29-OCT-2018 14:46 PLOT BY : cblack PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

GENERAL LEGEND
STREET LIGHTING AND TRAFFIC SIGNAL PLAN

TEMPORARY LIGHTING:

35' WOOD POLES WILL BE INSTALLED 2'– 4' BACK OF CURB WITH OVERHEAD CABLE ATTACHED AT TOP OF ALL STREET LIGHT POLES WITHIN THE LIMITS OF THIS PROJECT FOR PROVIDING LIGHTING.

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

- PULLBOX INSTALLED ON STREET LIGHTING PLAN
- PULLBOX INSTALLED AT SIGNALIZED INTERSECTIONS
- EXISTING TRAFFIC AND/OR STREET LIGHTING CONDUIT
- CONDUIT INSTALLED ON STREET LIGHTING PLAN
- CONDUIT INSTALLED ON TRAFFIC SIGNAL PLAN
- EXISTING STREET LIGHT POLE
- PROPOSED BOLT DOWN STREET LIGHT POLE ON CONCRETE BASE TYPE 5 WITH TRANSFORMER BASE, BRACKET ARM & LUMINAIRE
- XX' ARM — STREET LIGHT BRACKET ARM & LUMINAIRE TO BE INSTALLED ON MONTUBE
- EXISTING TRAFFIC SIGNAL STANDARD
- PROPOSED SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE INSTALLED ON TRAFFIC SIGNAL PLAN
- TRAFFIC CONTROL CABINET BASE INSTALLED ON TRAFFIC SIGNAL PLAN
- MONOTUBE MAST ARM BASE INSTALLED ON TRAFFIC SIGNAL PLAN
- EVP DETECTOR WITH CONFORMATION LIGHT INSTALLED ON TRAFFIC SIGNAL PLAN
- XX' ARM — MAST ARM INSTALLED ON TRAFFIC SIGNAL PLAN

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 143 OF	E

2

N

W. GARFIELD AVE.

48TH

102

50

2

EXISTING 2.5"PVC

CONNECT TO EXISTING CONDUIT COORDINIATE WITH STREET LIGHTING FORCES

POLE REMOVAL BY CITY FORCES

3#8/1#8LTP CIR. T6C-E

2.5"PVC TO PB3

2.5"PVC

2.5"PVC SCH.80

2.5"PVC TO PB2

PB 13"X 24"X 24" STA. 104+07.3' 27.0' LT.

PB 13"X 24"X 24" STA. 104+07.3' 27.0' RT.

STA. 102+35.6', 27.5' LT.

STA. 103+38.7', 27.5' LT.

STA. 104+40.7', 27.5' RT.

#2219 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3

#2231 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM.

#2246 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM.

CAUTION

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 1 OF 9

PROJECT NO: 2080–00–73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET 144 OF	E

SEE TRAFFIC SIGNAL PLAN FOR LOCATIONS OF POLES, PULL BOXES AND CONDUIT AT SIGNALIZED INTERSECTIONS

N

TEUTONIA AVENUE

NORTH

W. NORTH AVE.

#1333 EXISTING LIGHT POLE 3S3 (250W HPS)
COORDINATE CONNECTION TO UNIT #1333 WITH CITY OF MILWAUKEE STREET LIGHTING FORCES

CONNECT TO EXISTING CONDUIT
EXISTING 2.5"PVC
CAP END AT PAVING LIMITS
3#8/1#8LTP CIR.T6C-E
100 2.5"PVC TO PB4
2.5"PVC TO PB5 100
#1301 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.49+67.5' 27.5'RT.
#1302 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. ON MONOTUBE
3#8/1#8LTP CIR.WR-H
POLE REMOVAL BY CITY FORCES
2-3"PVC
101 2.5"PVC TO PB3
#2255 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. ON MONOTUBE
3#8/1#8LTP CIR.T6C-E
100 2.5"PVC TO PB2
#1237 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. ON MONOTUBE
3"PVC PB1 TO PB11
2.5"PVC TO PB11 100
2.5"PVC TO PB10 101
3#8/1#8LTP CIR.T6C-E
#1215 26' CONC. POLE STA.51+57.8' 28.3'RT. INSTALLED BY CITY FORCES PRE-CONSTR.
EXISTING 2-2.5"PVC
#1240 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.50+33.5' 27.5'LT.
POLE RELOCATION BY CITY FORCES PRE-CONSTRUCTION
COORDINIATE WITH STREET LTG. PERSONNEL TO CONNECT TO EXISTING CONDUIT
#2302 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. ON MONOTUBE
#2318 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA. 107+50.8', 27.5'RT.
#2332 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.108+72.8', 27.5'RT.
#2343 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA. 109+89.8', 27.5'LT.
#2364 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.111+07.2', 27.5'RT.
PB 13"X 24"X 24" STA.108+63.1' 27.0'LT.
PB 13"X 24"X 24" STA.108+63.1' 27.0'RT.
PB 13"X 24"X 24" STA.110+65.3' 27.0'LT.
PB 13"X 24"X 24" STA.110+65.3' 27.0'RT.
2.5"PVC SCH.80
3#8/1#8LTP CIR.WR-H
3#6/1#8LTP CIR.WR-H
POLE REMOVAL BY CITY FORCES
SIGN
CAUTION

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 2 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 145	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave – Garfield to Groeling (2080-00-73)\SL Conduit\TEES Sheet 02.dgn
PLOT DATE : 29-OCT-2018 15:15
PLOT BY : cblack
PLOT NAME :
PLOT SCALE : 40.000000:1.000000
WISDOT/CADDS SHEET 42

NORTH TEUTONIA AVENUE

W. MEINECKE AVE.

#1332
CONC. BASE TYPE 5
TRANSFORMER BASE
POLES TYPE 11
2#12UF W/GRD RISER
6' ALUM. ARM
2LED2 LUM.
STA. 49+49.1', 17.9' LT.

#1334
EXISTING LIGHT POLE
POLE REMOVAL
BY CITY FORCES
AFTER CONSTR.

CAP END
AT PAVING LIMITS

2.5"PVC 100
CAP END
STA. 49+42.0' LT.

PB
13"X 24"X 24"
STA. 49+49.0'
18.0' RT.

PB
13"X 24"X 24"
STA. 49+49.4', 18.0' LT.

POLE REMOVAL
BY CITY FORCES

#2383
CONC. BASE TYPE 5
TRANSFORMER BASE
POLES TYPE 12
2#12UF W/GRD RISER
6' ALUM. ARM
3LED3 LUM.
STA. 112+22.0', 27.5' LT.

#2435
CONC. BASE TYPE 5
TRANSFORMER BASE
POLES TYPE 12
2#12UF W/GRD RISER
6' ALUM. ARM
3LED3 LUM.
STA. 115+41.6', 27.0' LT.

PB 13"X 24"X 24"
STA. 112+18.0'
27.0' LT.

PB 13"X 24"X 24"
STA. 113+11.3'
27.0' LT.

PB 13"X 24"X 24"
STA. 115+47.0'
27.0' LT.

PB 13"X 24"X 24"
STA. 116+86.4'
27.0' LT.

3#6/1#8LTP CIR. WR-H
3#2/1#8LTP CIR. WR-H
3#8/1#8LTP CIR. WR-H
3#8/1#8LTP CIR. WR-I

2.5"PVC SCH. 80

PB
13"X 24"X 24"
STA. 50+42.1'
18.0' RT.

PB
13"X 24"X 24"
STA. 50+42.5'
18.0' LT.

#2402
CONC. BASE TYPE 5
TRANSFORMER BASE
POLES TYPE 12
2#12UF W/GRD RISER
6' ALUM. ARM
3LED3 LUM.
STA. 113+11.3
27.0' RT.

PB 13"X 24"X 24"
STA. 113+11.3' 27.0' RT.

#2416
CONC. BASE TYPE 5
TRANSFORMER BASE
POLES TYPE 12
2#12UF W/GRD RISER
6' ALUM. ARM
3LED3 LUM.
STA. 114+21.6', 27.5' RT.

PB 13"X 24"X 24"
STA. 115+47.0'
27.0' RT.

#2448
CONC. BASE TYPE 5
TRANSFORMER BASE
POLES TYPE 12
2#12UF W/GRD RISER
6' ALUM. ARM
3LED3 LUM.
STA. 116+61.6', 27.5' RT.

#1313
LIGHT ON UTILITY POLE # T.M. #27-6607
EXISTING PEDESTAL

CAUTION

ALL PVC IS SCH. 40 (SCHEDULE 40)
EXCEPT WHEN NOTED AS SCH. 80.
(SCHEDULE 80 PVC IS USED AT ALL
LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 3 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 146	E

NORTH TEUTONIA AVENUE

W. WRIGHT ST.

SEE TRAFFIC SIGNAL PLAN FOR LOCATIONS OF POLES, PULL BOXES AND CONDUIT AT SIGNALIZED INTERSECTIONS

#1344 EXISTING LIGHT POLE POLE REMOVAL BY CITY FORCES AFTER CONSTR.

2.5"PVC 1'OFF WALK STA.49+45.0'RT. CAP END

2.5"PVC 1'OFF WALK STA.49+37.0'LT. CAP END

#1332 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE II 2#12UF W/GRD RISER 6'ALUM.ARM 2LED2 LUM. STA.49+42.8',19.0'LT.

2.5" PVC 1'OFF WALK

POLE REMOVAL BY CITY FORCES

#2465 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6'ALUM.ARM 3LED3 LUM. STA.117+84.1',27.5'LT.

#2481 2#12UF W/GRD RISER 6'ALUM.ARM 3LED3 LUM. ON MONOTUBE

#2531 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6'ALUM.ARM 3LED3 LUM. STA.121+92.2',27.5'LT.

#2564 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6'ALUM.ARM 3LED3 LUM. STA.123+25.4',27.5'LT.

PB 13"X 24"X 24" STA.123+35.0' 27.0'LT.

3#6/1#8LTP CIR.WR-I

3#8/1#8LTP CIR.WR-J

3#2/1#8LTP CIR.WR-I

2.5"PVC SCH.80

2-3"PVC

3"PVC PBI TO PB9

WOOD POLE REMOVAL BY CITY FORCES

POLE REMOVAL BY CITY FORCES

#2502 2#12UF W/GRD RISER 6'ALUM.ARM 3LED3 LUM. ON MONOTUBE

#1330 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE II 2#12UF W/GRD RISER 6'ALUM.ARM 2LED2 LUM. STA.50+49.1',17.9'LT.

#2516 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6'ALUM.ARM 3LED3 LUM. STA.120+91.4',27.5'RT.

2.5"PVC 2.5"PVC

100 101 100 101 100 101 100 101 100 101 100 101 100 101 100 101 100 101 100 112 112 100

CAUTION

118 120 122

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 4 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 147	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave – Garfield to Groeling (2080-00-73)\SL Conduit\TEES Sheet 04.dgn PLOT DATE : 29-OCT-2018 15:15 PLOT BY : cblack PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

NORTH TEUTONIA AVENUE

W. CLARKE ST.

100 2.5"PVC CONNECT TO EXISTING CONDUIT

#1343 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 11 2#12UF W/GRD RISER 6' ALUM. ARM 2LED2 LUM. STA. 49+60.1', 17.5' RT.

POLE REMOVAL BY CITY FORCES PRE-CONSTR.

3#2/1#8LTP CIR. WR-J

2.5" PVC

2.5"PVC SCH.80

2.5"PVC CAP END AT PAVING LIMITS

PB 13"X 24"X 24" STA. 123+63.3' 27.0' LT.

3#8/1#8LTP CIR. WR-J

POLE REMOVAL BY CITY FORCES

CONC. BASE TYPE 5 TRANSFORMER BASE #2617 POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 127+58.0', 27.5' LT.

PB 13"X 24"X 24" STA. 128+83.8' 27.0' LT.

POLE REMOVAL BY CITY FORCES

2.5"PVC

POLE REMOVAL BY CITY FORCES

3#6/1#8LTP CIR. WR-J

CONC. BASE TYPE 5 TRANSFORMER BASE #2577 POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 125+63.4' 27.5' LT.

PB 13"X 24"X 24" STA. 125+68.4' 27.0' LT.

POLE REMOVAL BY CITY FORCES

CAUTION

124 126 128 130

2.5"PVC SCH.80

3#8/1#8LTP CIR. WR-J

3#2/1#8LTP CIR. WR-J

3#8/1#8LTP CIR. WR-J

2.5"PVC SCH.80

2.5"PVC SCH.80

2.5"PVC SCH.80

2.5"PVC

POLE REMOVAL BY CITY FORCES

CONC. BASE TYPE 5 TRANSFORMER BASE #2564 POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 124+44.4', 27.5' RT.

3#6/1#8LTP CIR. WR-J

POLE REMOVAL BY CITY FORCES

2.5"PVC

PB 13"X 24"X 24" STA. 125+63.4' 27.0' RT.

POLE REMOVAL BY CITY FORCES

#1339 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 11 2#12UF W/GRD RISER 6' ALUM. ARM 2LED2 LUM. STA. 50+45.5', 18.0' RT.

PB 13"X 24"X 24" STA. 50+50.7' 17.0' RT.

2.5"PVC 1' OFF WALK CAP END AT PAVING LIMITS

3#6/1#8LTP CIR. WR-J

POLE REMOVAL BY CITY FORCES

CONC. BASE TYPE 5 TRANSFORMER BASE #2602 POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 126+38.0', 27.5' RT.

PB 13"X 24"X 24" STA. 126+63.3' 27.0' RT.

PB 13"X 24"X 24" STA. 50+50.7' 17.0' LT.

2.5"PVC CAP END AT PAVING LIMITS

3#8/1#8LTP CIR. WR-J

2.5"PVC

CAUTION

POLE REMOVAL BY CITY FORCES

CONC. BASE TYPE 5 TRANSFORMER BASE #2632 POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 128+78.9', 27.5' RT.

PB 13"X 24"X 24" STA. 128+83.8' 27.0' RT.

2.5"PVC

POLE REMOVAL BY CITY FORCES

CONC. BASE TYPE 5 TRANSFORMER BASE #2651 POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 129+99.0', 27.5' RT.

2.5"PVC

3#8/1#8LTP CIR. WR-K

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 5 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET 148 OF	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave - Garfield to Groeling (2080-00-73)\SL Conduit\TEES Sheet 05.dgn PLOT DATE : 29-OCT-2018 15:15 PLOT BY : cblack PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

SEE TRAFFIC SIGNAL PLAN FOR LOCATIONS OF POLES, PULL BOXES AND CONDUIT AT SIGNALIZED INTERSECTIONS

N

NORTH TEUTONIA AVENUE

W. CENTER ST.

POLE REMOVAL BY CITY FORCES

100 2.5"PVC

#2663 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 131+18.9', 27.5 LT.

CAUTION

3#8/1#8LTP CIR. WR-K

#1343 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 49+64.3', 28.0' RT.

2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. ON MONOTUBE #2679

3#2/1#8LTP CIR. WR-K

POLE REMOVAL BY CITY FORCES

2-3" PVC

3"PVC PBI TO PB9 REQUIRED

2-2"PVC

COORDINIATE WITH STREET LTG. PERSONNEL TO CONNECT TO EXISTING PVC

2"PVC

#1343 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. ON MONOTUBE

POLE REMOVAL BY CITY FORCES AFTER-CONSTRUCTION

3#8/1#8LTP CIR. WR-L

POLE REMOVAL BY CITY FORCES

STA. 134+47.3', 27.5 LT.

#2717 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM.

112 PB 13"X 24"X 24" STA. 134+52.3' 27.0' LT.

132

134

50

3#2/1#8LTP CIR. WR-K

3#2/1#8LTP CIR. WR-L

2-3"PVC

2.5"PVC SCH. 80

112

PB 13"X 24"X 24" STA. 134+52.3' 27.0' RT.

#2702 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. ON MONOTUBE

POLE REMOVAL BY CITY FORCES

101 2.5"PVC

100 2.5"PVC

3#8/1#8LTP CIR. WR-K

#1339 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. ON MONOTUBE

PB 112 13"X 24"X 24" STA. 51+16.0' 26.5' RT.

2"PVC

COORDINIATE WITH STREET LTG. PERSONNEL TO CONNECT TO EXISTING PVC

CAP END AT PAVING LIMITS

ALL PVC IS SCH. 40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH. 80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

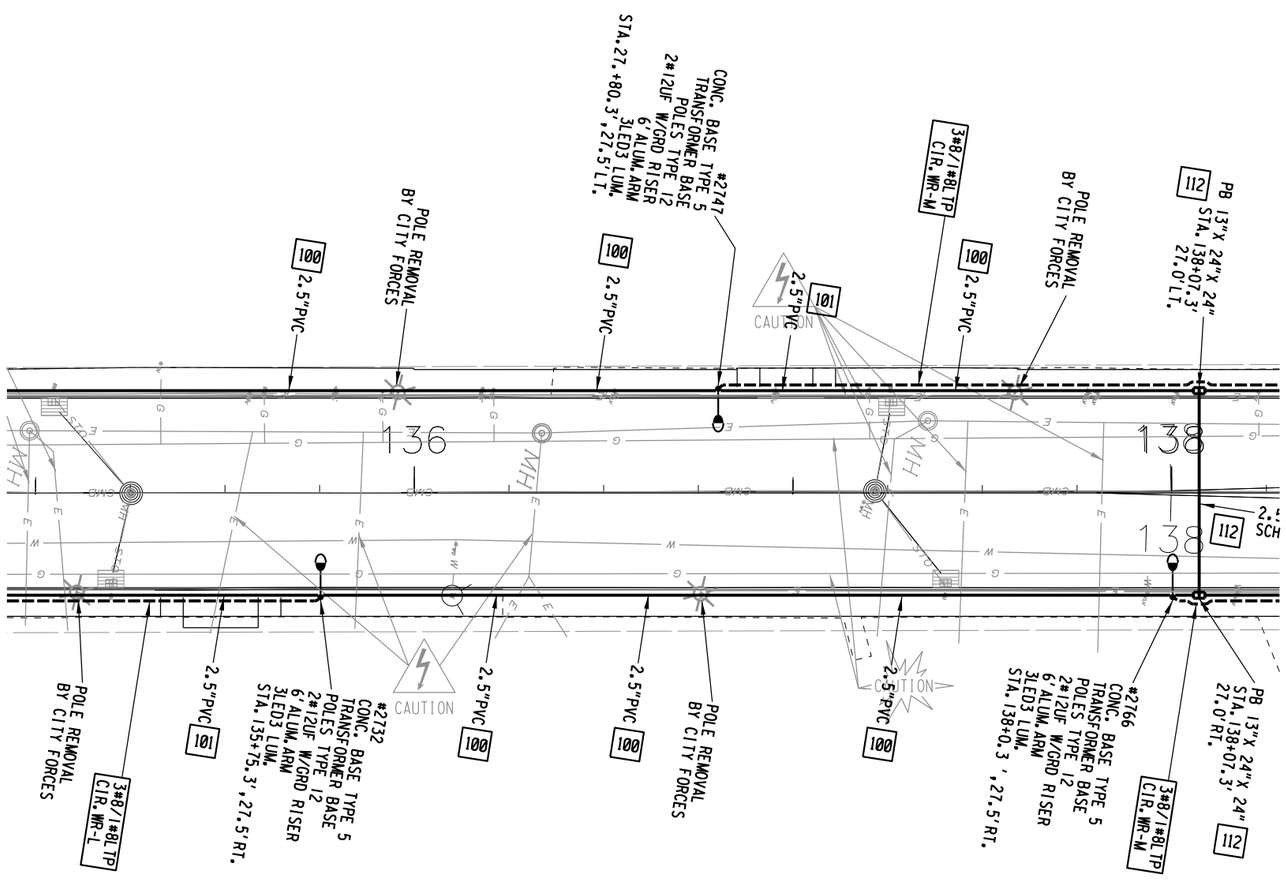
SHEET 6 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 149	E

2

N

NORTH TEUTONIA AVENUE



ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 7 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 150	E

NORTH TEUTONIA AVENUE

N

W. HADLEY ST.

W. ALBANY PL.

#1332 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 2LED3 LUM. STA. 49+37.4' 22.5'LT.

#2779 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 139+20.3', 27.5'LT.

#2817 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 141+30.7', 27.5'LT.

#2833 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 142+50.7', 27.5'LT.

#2851 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 143+75.7', 28.8'LT.

#2840 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 8' ALUM. ARM 2LED2 LUM. STA. 143+28.4', 27.5'RT.

#2804 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM. ARM 3LED3 LUM. STA. 140+10.7', 28.0'RT.

#1403 EXISTING LIGHT POLE

3#8/1#8LTP CIR.WR-M

3#2/1#8LTP CIR.WR-M

3#2/1#8LTP CIR.WR-N

PB 13"X 24"X 24" STA. 49+42.8' 22.0'RT.

PB 13"X 24"X 24" STA. 49+42.8' 22.0'LT.

PB 13"X 24"X 24" STA. 140+08.6' 27.0'LT.

PB 13"X 24"X 24" STA. 142+69.0' 27.0'LT.

PB 13"X 24"X 24" STA. 139+13.9' 27.0'LT.

PB 13"X 24"X 24" STA. 139+96.7' 27.0'RT.

PB 13"X 24"X 24" STA. 142+69.0' 27.0'RT.

PB 13"X 24"X 24" STA. 50+54.8' 20.3'RT.

PB 13"X 24"X 24" STA. 50+54.8' 20.3'LT.

PB 13"X 24"X 24" STA. 50+35.6' 14.0'LT.

2.5"PVC

2.5"PVC SCH. 80

2.5"PVC SCH. BO

2.5"PVC CAP END AT PAVING LIMITS

POLE REMOVAL BY CITY FORCES

CAUTION

EXISTING 2.5"PVC

COORDINATE WITH STREET LIGHTING PERSONNEL TO MAKE CONNECTIONS TO EXISTING CIRCUITRY

140 142 144

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

SHEET 8 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 151	E

FILE NAME : W:\bes\pavings\2019work\nTeutonia Ave – Garfield to Groeling (2080-00-73)\SL Conduit\TEES Sheet 08.dgn PLOT DATE : 29-OCT-2018 15:15 PLOT BY : cblack PLOT NAME : PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

SEE TRAFFIC SIGNAL PLAN FOR LOCATIONS OF POLES, PULL BOXES AND CONDUIT AT SIGNALIZED INTERSECTIONS

ALL PVC IS SCH.40 (SCHEDULE 40) EXCEPT WHEN NOTED AS SCH.80. (SCHEDULE 80 PVC IS USED AT ALL LOCATIONS CROSSING UNDER ROADWAYS.

NORTH TEUTONIA AVENUE

W. LOCUST ST.

W. GROELING AVE.

CAP END AT PAVING LIMITS

2.5"PVC 100

CONNECT TO EXISTING 2"PVC

2"PVC 2' BACK OF CURB

2.5"PVC 101

2.5"PVC SCH.80 FOR SIGNAL SERVICE (T.S.)

#1460 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2-2#12UF W/GRD RISER 2-8' ALUM.ARM 2-3LED3 LUM. STA.95+21.1', 8.0'RT. (WEST BOUND ALIGNMENT LINE)

#1445 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.96+35.4', 63.0'RT. (EAST BOUND ALIGNMENT LINE)

#1446 2-2#12UF W/GRD RISER 2-8' ALUM.ARM 2-3LED3 LUM. ON MONOTUBE SEE SIGNAL PLAN FOR LOCATION

#2867 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.145+0.7', 34.5'LT.

#2915 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. ON MONOTUBE SEE TRAFFIC SIGNAL PLAN FOR POLE LOCATION

#1514 EXISTING LIGHT POLE 2S2 (150W HPS)

COORDINATE CONNECTION TO UNIT #1514 WITH CITY OF MILWAUKEE STREET LIGHTING FORCES

#2935 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.149+49.5', 27.5'LT.

#2928 CONC. BASE TYPE 5 TRANSFORMER BASE POLES TYPE 12 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. STA.148+75.6' 27.5'RT.

#1438 2-2#12UF W/GRD RISER 2-8' ALUM.ARM 2-3LED3 LUM. ON MONOTUBE SEE SIGNAL PLAN FOR LOCATION

#2902 2#12UF W/GRD RISER 6' ALUM.ARM 3LED3 LUM. ON MONOTUBE SEE TRAFFIC SIGNAL PLAN FOR LOCATION

3#4/1#8LTP CIR.WR-N

3#2/1#8LTP CIR.WR-M

3#2/1#8LTP CIR.WR-N

3#8/1#8LTP CIR.WR-N

3#6/1#8LTP CIR.WR-N

2-3"PVC

3"PVC PBI TO PB16

2.5"PVC SPECIAL 1' OFF HIGH SIDE OF WALK

2.5"PVC 1' OFF HIGH SIDE OF WALK 14.0'LT. CAP END AT PAVING LIMITS STA.49+34.9'

2.5"PVC SCH.80

2.5"PVC CAP END AT PAVING LIMITS

PB 13"X 24"X 24" STA.149+42.6' 27.0'LT.

PB 13"X 24"X 24" STA.148+96.0' 27.0'LT.

PB 13"X 24"X 24" STA.149+17.3' 27.0'RT.

PB 13"X 24"X 24" STA.148+96.0' 27.0'RT.

PB 13"X 24"X 24" STA.50+50.9' 18.0'LT.

PB 13"X 24"X 24" STA.50+50.9' 18.0'RT.

POLE REMOVAL BY CITY FORCES

EXISTING POLE REMOVAL BY CITY FORCES PRE-CONSTRUCTION

CAUTION

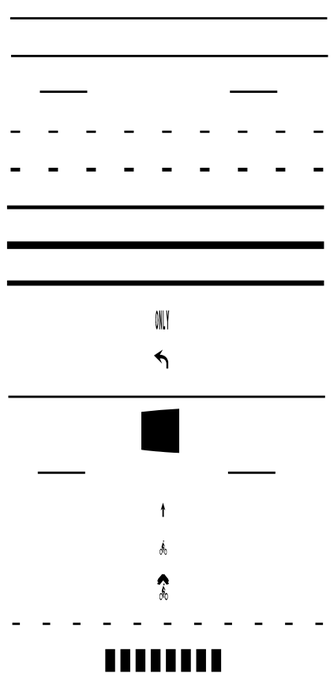
146 148 150 98 51

SHEET 9 OF 9

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN	SHEET OF 152	E

2

LEGEND



(1) MARKING EPOXY 4-INCH DOUBLE (YELLOW)

(2) MARKING EPOXY 4-INCH (WHITE)

(3) MARKING EPOXY 4-INCH DOUBLE (YELLOW)
(10 FT LINE 30 FT SKIP)

(4) MARKING EPOXY 4-INCH (DOT PATTERN WHITE)
(2 FT LINE 6 FT SKIP)

(5) MARKING EPOXY 8-INCH (DOT PATTERN WHITE)
(2 FT LINE 6 FT SKIP)

(6) MARKING EPOXY 8-INCH (WHITE)

(8) MARKING EPOXY STOP LINE 18-INCH (WHITE)

(9) MARKING EPOXY CROSSWALK 12-INCH (WHITE)

(14) MARKING WORDS EPOXY (WHITE)

(16) MARKING ARROWS EPOXY TYPE 2 (WHITE)

(20) MARKING CURB EPOXY (YELLOW)

(21) MARKING ISLAND NOSE EPOXY (YELLOW)(SEE DETAIL)

(30) MARKING EPOXY 4-INCH (DASHED WHITE)
(10 FT LINE 30 FT SKIP)

(34) MARKING ARROWS BIKE LANE EPOXY (WHITE)

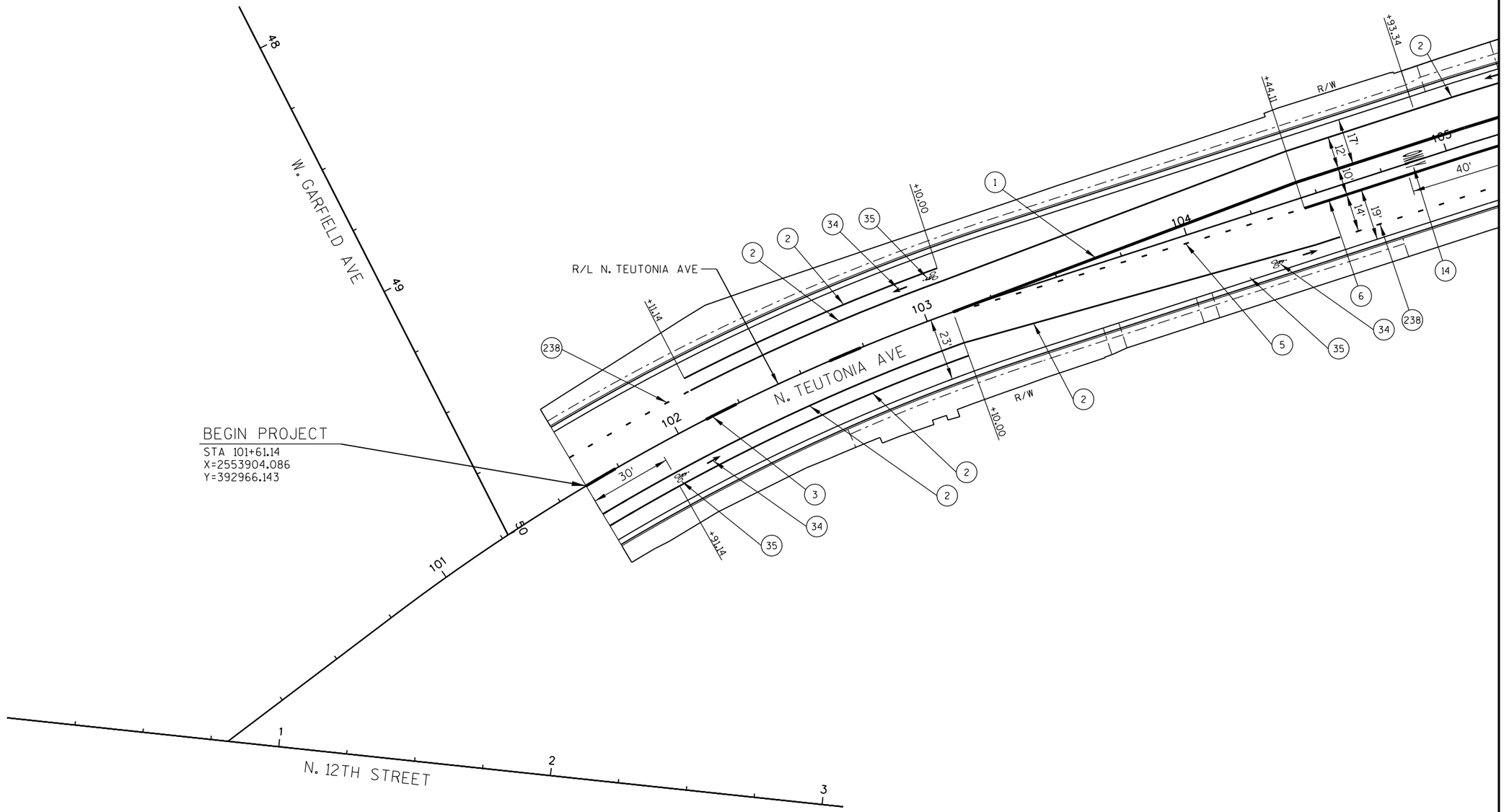
(35) MARKING SYMBOLS BIKE LANE EPOXY (WHITE)

(74) MARKING BIKE SYMBOL FOR SHARED USED LANE EPOXY (WHITE)

(238) MARKING EPOXY 6-INCH (DASHED WHITE)
(2 FT LINE 6 FT SKIP)

(250) MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 154	E

NOTE:

1) SEE MARKING - W. NORTH AVE FOR MARKING ALONG W. NORTH AVE

N

BEGIN CONSTRUCTION
STA 48+72.68

W. NORTH AVE

R/L W. NORTH AVE

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

BUS STOP

BUS STOP

BUS STOP

BUS STOP

END CONSTRUCTION
STA 51+50.58

1 DOUBLE

R/W

+93.34

+16.04

+26.35

+16.04

+16.06

+18.00

+24.86

+41.05

+16.04

105

106

107

108

109

110

111

40'

30'

20'

30'

20'

13'

12'

60'

60'

60'

51

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 155	E

2

N

W. MEINECKE AVE

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

49

50

51

52

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

R/W

111 112 113 114 115 116 117

30'

100'

110'

250

9

238

1 2 3 34 35

6'(TYP)

2'(TYP)

3.5'(TYP)

1'

1'

1'(TYP)

℄ ROADWAY

R/L W. MEINECKE AVE

END CONSTRUCTION
STA 51+38.35

MARKING CROSSWALK EPOXY
LADDER PATTERN 24-INCH DETAIL

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 156	E

2

N

BEGIN CONSTRUCTION
STA 49+50.51

R/L W. WRIGHT ST

W. WRIGHT ST

49

BUS STOP

+24.12

R/L N. TEUTONIA AVE

R/W

117 118 119 120 121 122 123

N. TEUTONIA AVE

+60.88

END CONSTRUCTION
STA 50+46.94

51

R/L W. WRIGHT ST

W. WRIGHT ST

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 157	E

2

N

W. CLARKE ST

49

R/L W. CLARKE ST

BEGIN CONSTRUCTION
STA 49+28.65

R/L N. TEUTONIA AVE

BUS STOP

R/W

30'

80'

123 124 125 126 127 128 129

50

N. TEUTONIA AVE

68+22.89

END CONSTRUCTION
STA 50+67.00

51

R/L W. CLARKE ST

W. CLARKE ST

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 158	E

2

NOTE:
1) SEE MARKING - W. CENTER ST FOR MARKING ALONG W. CENTER ST

N

R/L W. CENTER ST

BEGIN CONSTRUCTION
STA 49+05.00

W. CENTER ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

BUS STOP

BUS STOP

BUS STOP

BUS STOP

DOUBLE (1)

DOUBLE (1)

DOUBLE (1)

R/W

R/W

R/W

R/W

+34.74

+08.33

+08.63

+33.53

+51.47

+46.84

+47.14

+11.19

129

130

131

132

133

134

135

40'

40'

60'

40'

40'

30'

29'

17'

25'

30'

50

51

40"

40"

40"

40"

END CONSTRUCTION
STA 51+25.00

6' (TYP)

2' (TYP)

3.5' (TYP)

1'

1'

1' (TYP)

℄ ROADWAY

MARKING CROSSWALK EPOXY
LADDER PATTERN 24-INCH DETAIL

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 159	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024506_PM.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:40

2

N

W. HADLEY ST

49

R/L W. HADLEY ST

BEGIN CONSTRUCTION
STA 49+32.34

R/L N. TEUTONIA AVE

+11.19

+72.06

R/W

5

74

2

2

30'

BUS STOP

3

238

2

2

250

9

80'

135

136

137

138

139

140

141

N. TEUTONIA AVE

23'

9

9

30'

30'

R/W

+72.06

3

2

2

+80.26

238

35

34

2

2

1

BUS STOP

END CONSTRUCTION
STA 50+73.93

R/L W. HADLEY ST

51

52

6' (TYP)

2' (TYP)

3.5' (TYP)

1'

1'

℄

ROADWAY

1' (TYP)

9

250

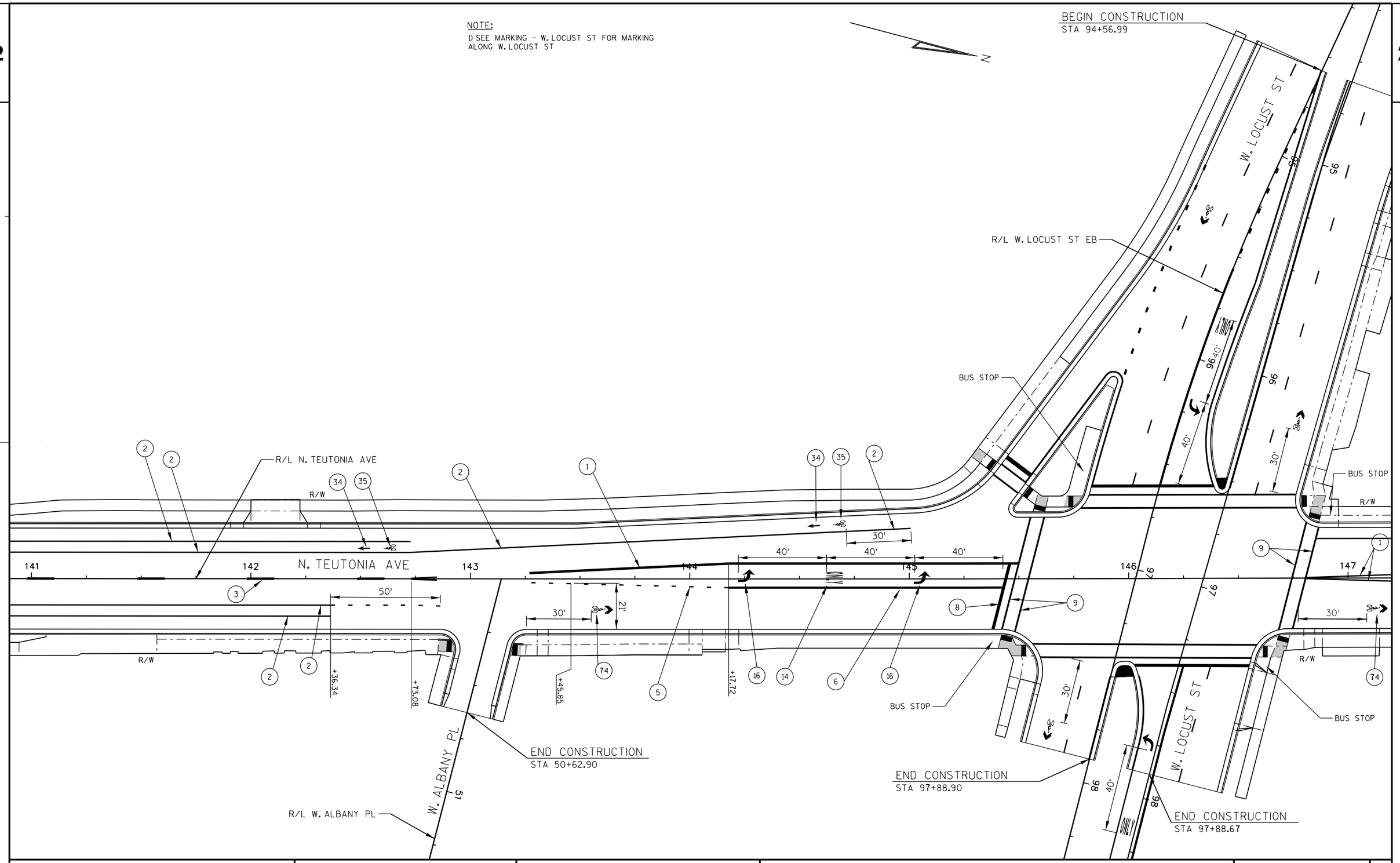
MARKING CROSSWALK EPOXY
LADDER PATTERN 24-INCH DETAIL

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 160	E

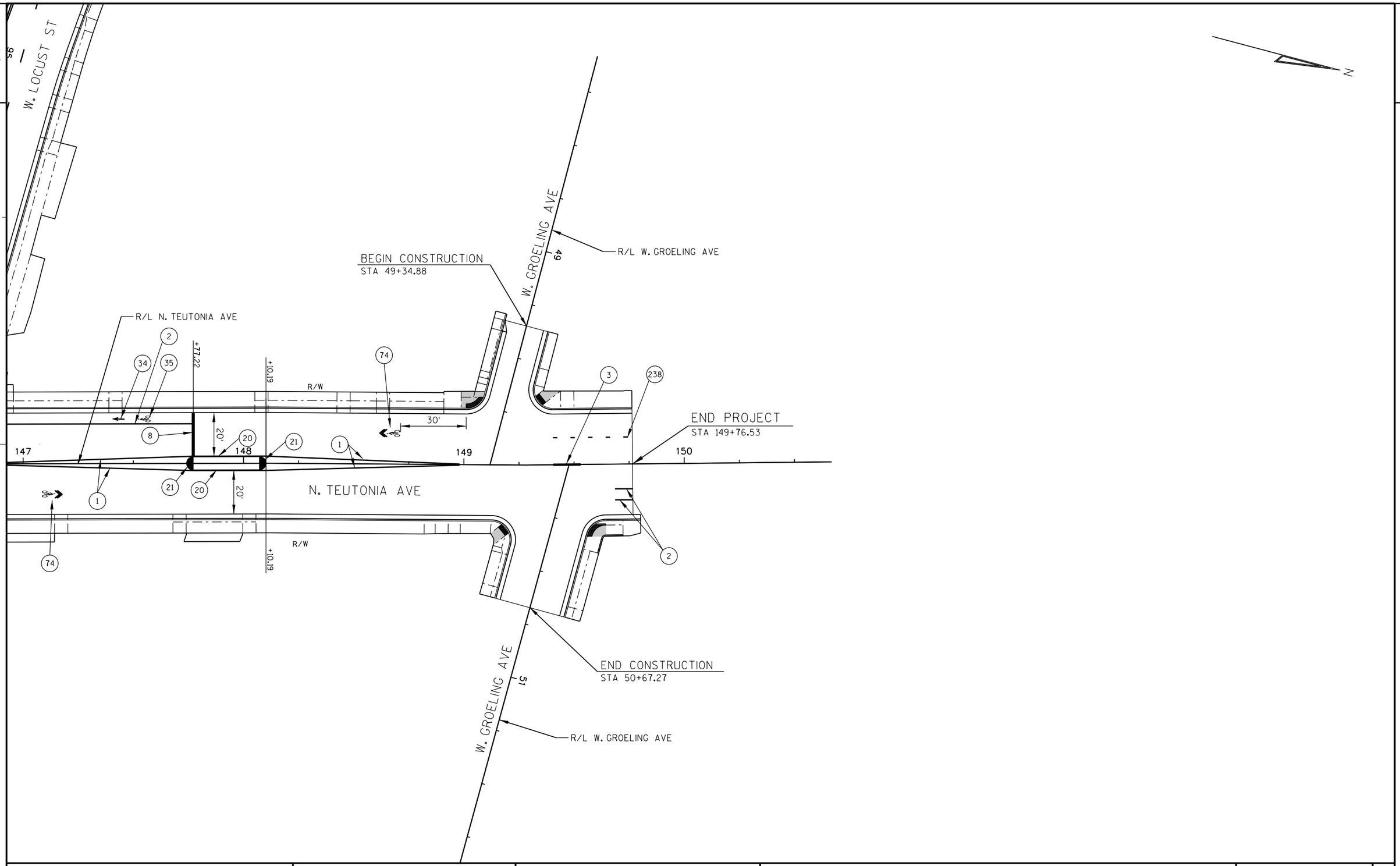
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024507_PM.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:40

NOTE:

1) SEE MARKING - W. LOCUST ST FOR MARKING ALONG W. LOCUST ST



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 161	E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - N. TEUTONIA AVE	SHEET 162	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024509_PM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

2

N

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

101

BUS STOP

BUS STOP

BEGIN CONSTRUCTION
STA 48+72.68

END CONSTRUCTION
STA 51+50.58

R/W

R/W

+98.28

+81.51

+2.26
+98.23

R/L W. NORTH AVE

48

49

50

51

52

106

W. NORTH AVE

W. NORTH AVE

+76.63

+81.51

+98.30

R/W

R/W

BUS STOP

BUS STOP

N. TEUTONIA AVE

101

104

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - W. NORTH AVE	SHEET 163	E

2

N

N. TEUTONIA AVE

R/L N. TEUTONIA AVE

BEGIN CONSTRUCTION
STA 49+05.00

END CONSTRUCTION
STA 51+25.00

R/L W. CENTER ST

W. CENTER ST

BUS STOP

R/W

+49.04

+32.32

+91.49

+91.50

+74.78

48

49

50

51

52

133

134

30'

W. CENTER ST

N. TEUTONIA AVE

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - W. CENTER ST	SHEET 164	E

2

N

N. TEUTONIA AVE

W. LOCUST ST

BEGIN CONSTRUCTION
STA 94+59.86

BEGIN CONSTRUCTION
STA 94+56.99

END CONSTRUCTION
STA 97+88.67

END CONSTRUCTION
STA 97+88.90

BUS STOP

R/L W. LOCUST ST WB

R/L W. LOCUST ST EB

R/W

30'

+58.27

+17.82

+65.31

+48.61

+66.48

94 95 96 97 98 99

147

146

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN - W. LOCUST ST	SHEET 165	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\024512_PM.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:40

TRAFFIC CONTROL LEGEND

= WORKZONE AREA

= WORK COMPLETED IN PREVIOUS STAGE

= DIRECTION OF TRAFFIC FLOW

= TYPE II BARRICADE (4-FOOT EQUIVALENT) WITH ONE WARNING LIGHT, TYPE A WITH / WITHOUT SIGN

= TYPE III BARRICADE (8-FOOT EQUIVALENT) WITH WARNING LIGHTS, TYPE A WITH / WITHOUT SIGN

= POST MOUNTED SIGN

= FLEXIBLE TUBULAR MARKERS

= DRUM WITH WARNING LIGHT TYPE C

= DRUM

(1) - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

(2) - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, DOUBLE YELLOW

(3) - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

(4) - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW (2' SKIP, 6' SPACE)

(5) - TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE (2' SKIP, 6' SPACE)

(6) - TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH, WHITE

(7) - TEMPORARY MARKING LINE REMOVABLE TAPE 18-INCH, WHITE

(8) - TEMPORARY MARKING LINE PAINT 4-INCH, DOUBLE YELLOW

(9) - TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

(10) - TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW (2' SKIP, 6' SPACE)

2

GENERAL NOTES:

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

2) ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

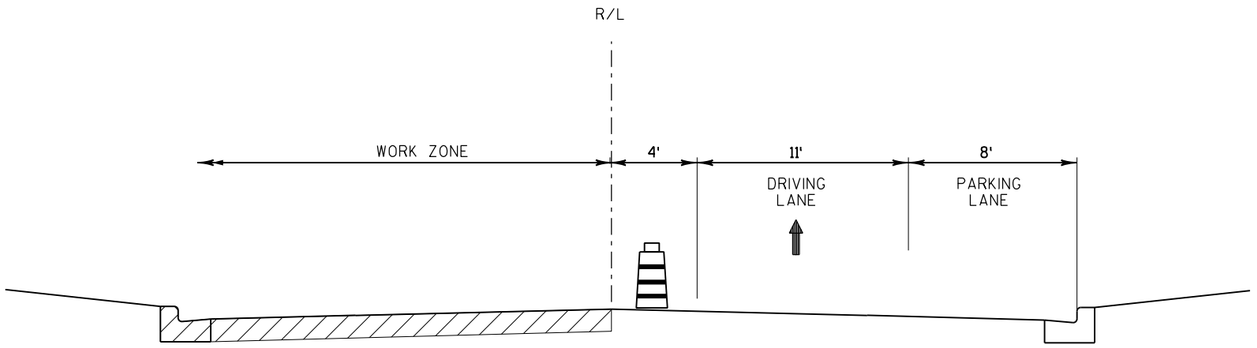
3) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

4) ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" WILL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

5) CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELLED LANE WHEN WORK IS NOT IN PROGRESS.

6) WARNING SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

7) PAVEMENT GAP REQUIRED AT HES CONCRETE DRIVEWAYS.



STAGE 1 TYPICAL SECTION

ONE WAY TRAFFIC

NOTES:

STAGE 1 WORK ZONE INVOLVES CONSTRUCTION OF SOUTHBOUND LANES OF N. TEUTONIA AVENUE AND SIDE ROADS ON THE WEST SIDE OF N. TEUTONIA AVENUE.

MAINTAIN 1 NORTHBOUND DRIVING LANE ON EAST HALF OF N. TEUTONIA AVENUE DURING STAGE 1.

MAINTAIN A MINIMUM 4' BUFFER BETWEEN DRIVING LANE AND LIMITS OF SOUTHBOUND WORKZONE.

2

GENERAL NOTES:

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

2) ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

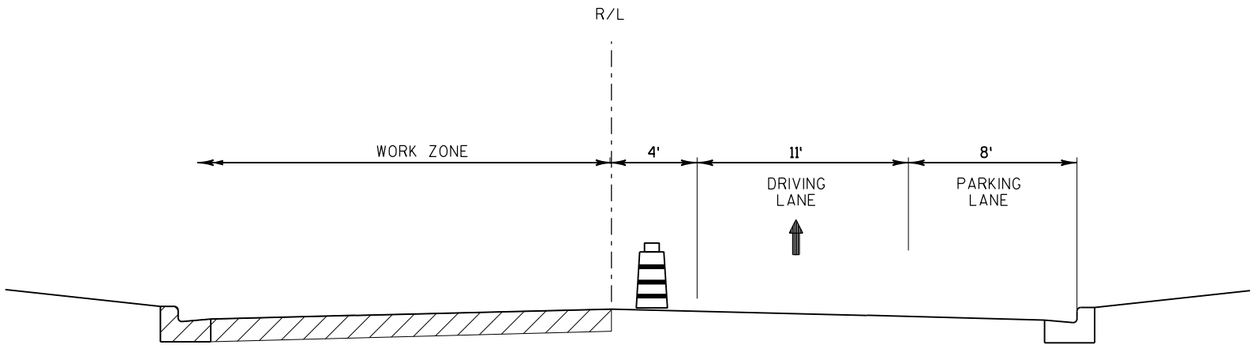
3) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

4) ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" WILL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

5) CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELLED LANE WHEN WORK IS NOT IN PROGRESS.

6) WARNING SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

7) PAVEMENT GAP REQUIRED AT HES CONCRETE DRIVEWAYS.



STAGE 1 TYPICAL SECTION

ONE WAY TRAFFIC

NOTES:

STAGE 1 WORK ZONE INVOLVES CONSTRUCTION OF SOUTHBOUND LANES OF N. TEUTONIA AVENUE AND SIDE ROADS ON THE WEST SIDE OF N. TEUTONIA AVENUE.

MAINTAIN 1 NORTHBOUND DRIVING LANE ON EAST HALF OF N. TEUTONIA AVENUE DURING STAGE 1.

MAINTAIN A MINIMUM 4' BUFFER BETWEEN DRIVING LANE AND LIMITS OF SOUTHBOUND WORKZONE.

PEDESTRIAN TRAFFIC CONTROL NOTES:
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

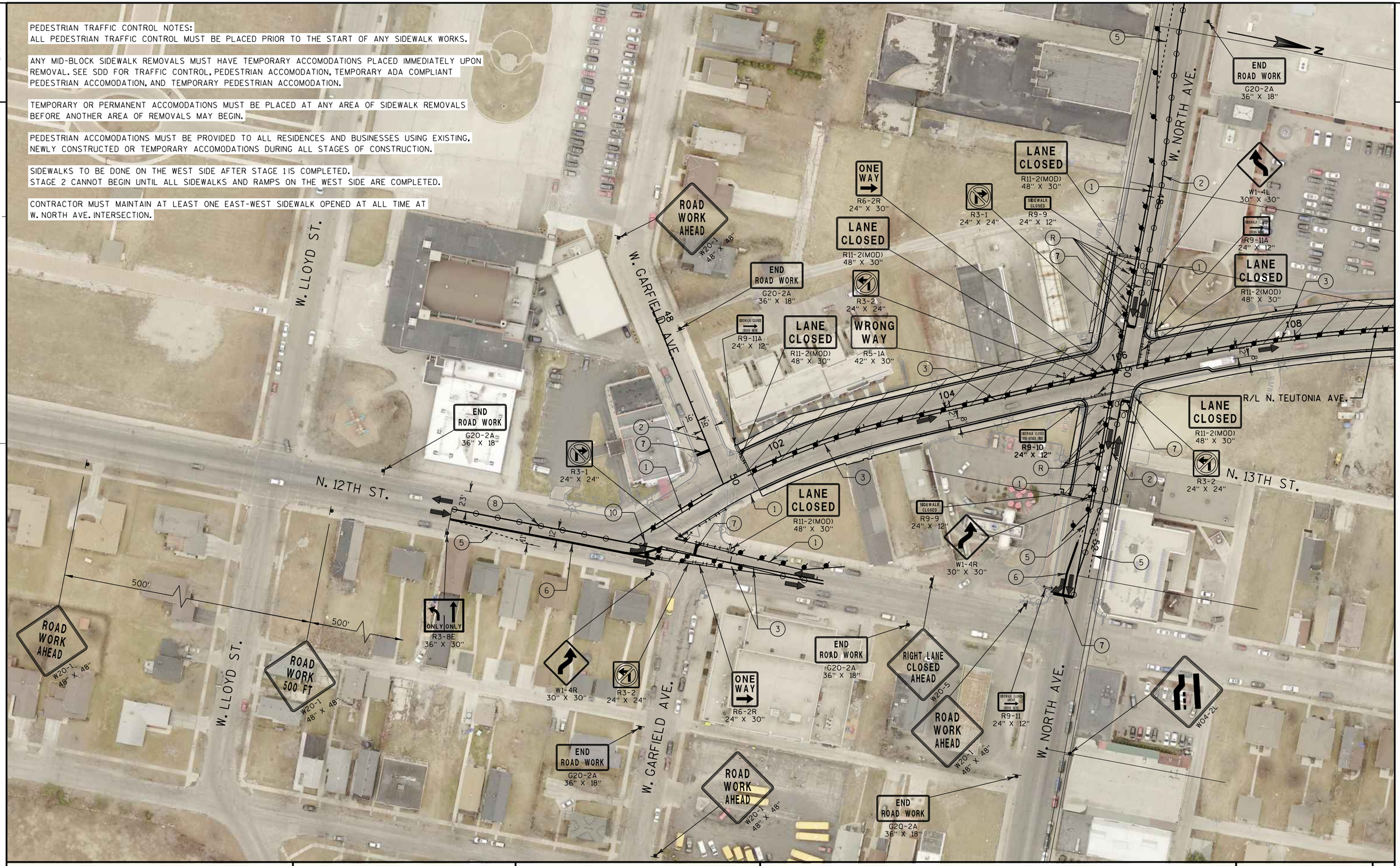
ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD FOR TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMODATION, AND TEMPORARY PEDESTRIAN ACCOMODATION.

TEMPORARY OR PERMANENT ACCOMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMODATIONS DURING ALL STAGES OF CONSTRUCTION.

SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED.
STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME AT W. NORTH AVE. INTERSECTION.



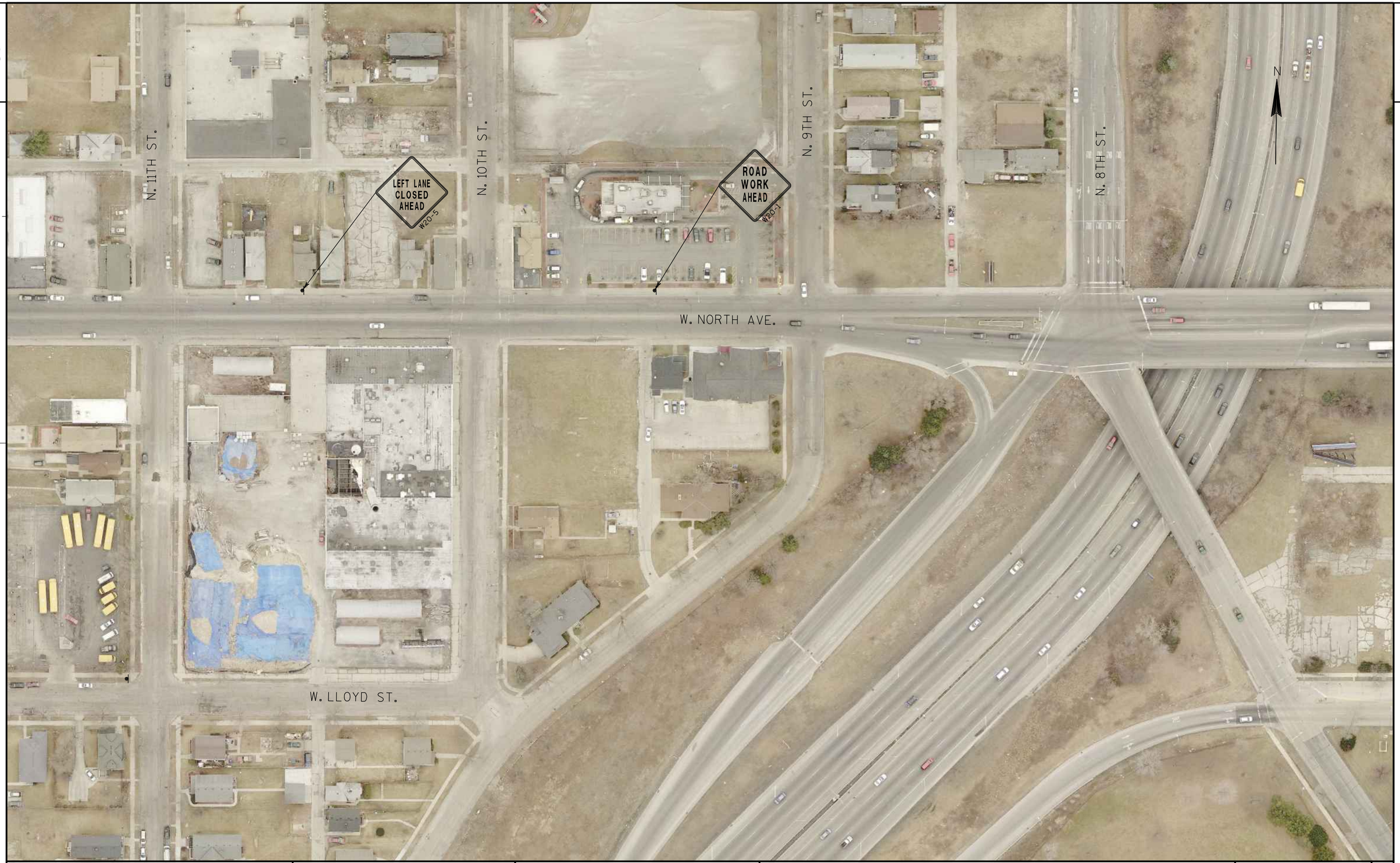
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 169	E

2



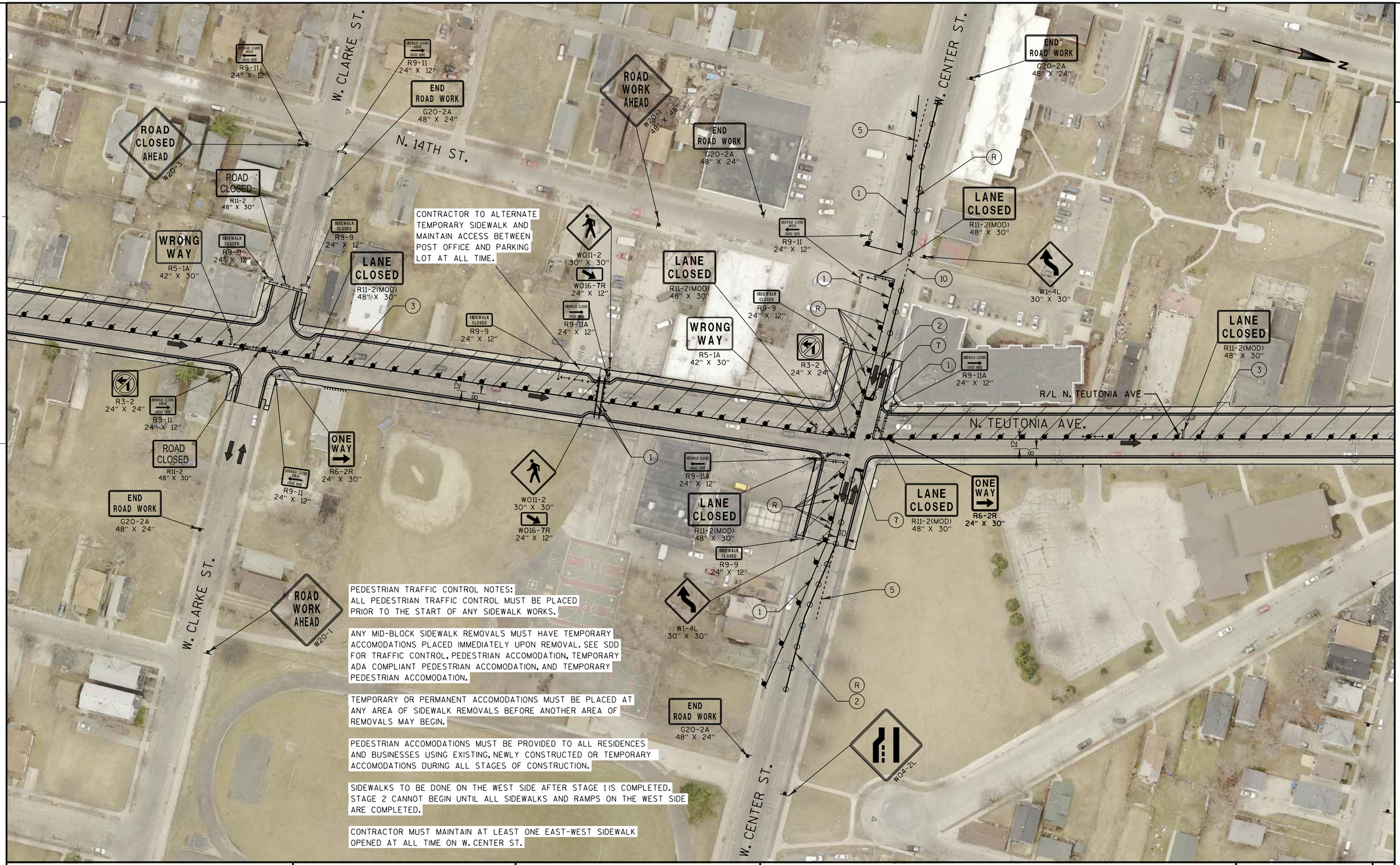
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 170	E

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 171	E


N. 14TH ST.
W. MEINECKE AVE.
W. WRIGHT ST.
N. TEUTONIA AVE.
R/L N. TEUTONIA AVE.
N. 13TH ST.
N. 12TH ST.
W. MEINECKE AVE.
W. WRIGHT ST.
110
112
114
116
118
120
122
124
ROAD CLOSED AHEAD W20-3
R9-11 24" X 12"
END ROAD WORK G20-2A 48" X 24"
ROAD CLOSED R11-2 48" X 30"
WRONG WAY R5-1A 42" X 30"
SIDEWALK CLOSED R9-9 24" X 12"
R3-2 24" X 24"
LANE CLOSED R11-2(MOD) 48" X 30"
ONE WAY R6-2R 24" X 30"
END ROAD WORK G20-2A 36" X 18"
ROAD WORK AHEAD W20-1
SIDEWALK CLOSED AHEAD CROSS HERE
SIDEWALK CLOSED AHEAD CROSS HERE
SIDEWALK CLOSED AHEAD CROSS HERE



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 173	E

2

N

W. CENTER ST.

ROAD WORK AHEAD W20-1

RIGHT LANE CLOSED AHEAD W20-5

W04-2R

R9-11 24" X 12"

2

5

1

N. 18TH ST.

N. 17TH ST.

N. 16TH ST.

N. 15TH ST.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 174	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025103A_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

2

N. 12TH ST.

N. 11TH ST.

N. 10TH ST.

N. 9TH ST.

N

LEFT LANE CLOSED AHEAD
W20-5

ROAD WORK AHEAD
W20-1

W. CENTER ST.

ALLEY CLOSED AHEAD
CROSS HERE
R9-11
24" X 12"

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 175 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025103B_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

PEDESTRIAN TRAFFIC CONTROL NOTES:
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD FOR TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMODATION, AND TEMPORARY PEDESTRIAN ACCOMODATION.

TEMPORARY OR PERMANENT ACCOMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMODATIONS DURING ALL STAGES OF CONSTRUCTION.

SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED. STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME ON W. LOCUST ST. AVE. INTERSECTION.

N. 15TH ST.
W. LOCUST ST.
W. GROELING AVE.
N. TEUTONIA AVE
W. HADLEY ST.
W. ALBANY PL
N. 14TH ST.
W. CHAMBERS ST.
R/L N. TEUTONIA AVE NB PGL

SIDEWALK CLOSED AHEAD CROSS HERE R9-11 24" X 12"
ROAD CLOSED AHEAD W20-3
END ROAD WORK G20-2A 48" X 24"
SIDEWALK CLOSED R9-9 24" X 12"
ROAD CLOSED R11-2 48" X 30"
WRONG WAY R5-1A 42" X 30"
ONE WAY R6-2R 24" X 30"
ONLY ONLY R3-8E 36" X 30"
LANE CLOSED R11-2(MOD) 48" X 30"
ONE WAY R6-1L 36" X 12"
W12-1D 24" X 24"
W4-3L 30" X 30"
W4-2R 36" X 36"
ROAD CLOSED 200 FT W20-3(MOD)
ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"
R3-2 24" X 24"
R9-11A 24" X 12"
R3-60R 30" X 36"
ROAD WORK AHEAD W20-1
SIDEWALK CLOSED CROSS HERE R9-11A 24" X 12"

PLACE SIGN IN SOUTHWEST CORNER OF THE W. CHAMBERS ST. INTERSECTION FACING SOUTHBOUND TRAFFIC 3 DAYS PRIOR TO CLOSURE.
FIXED MESSAGE:
ROAD CLOSED AHEAD
USE ALT ROUTE

PLACE MID BLOCK BETWEEN 13TH ST. AND 14TH ST. FACING WESTBOUND TRAFFIC.

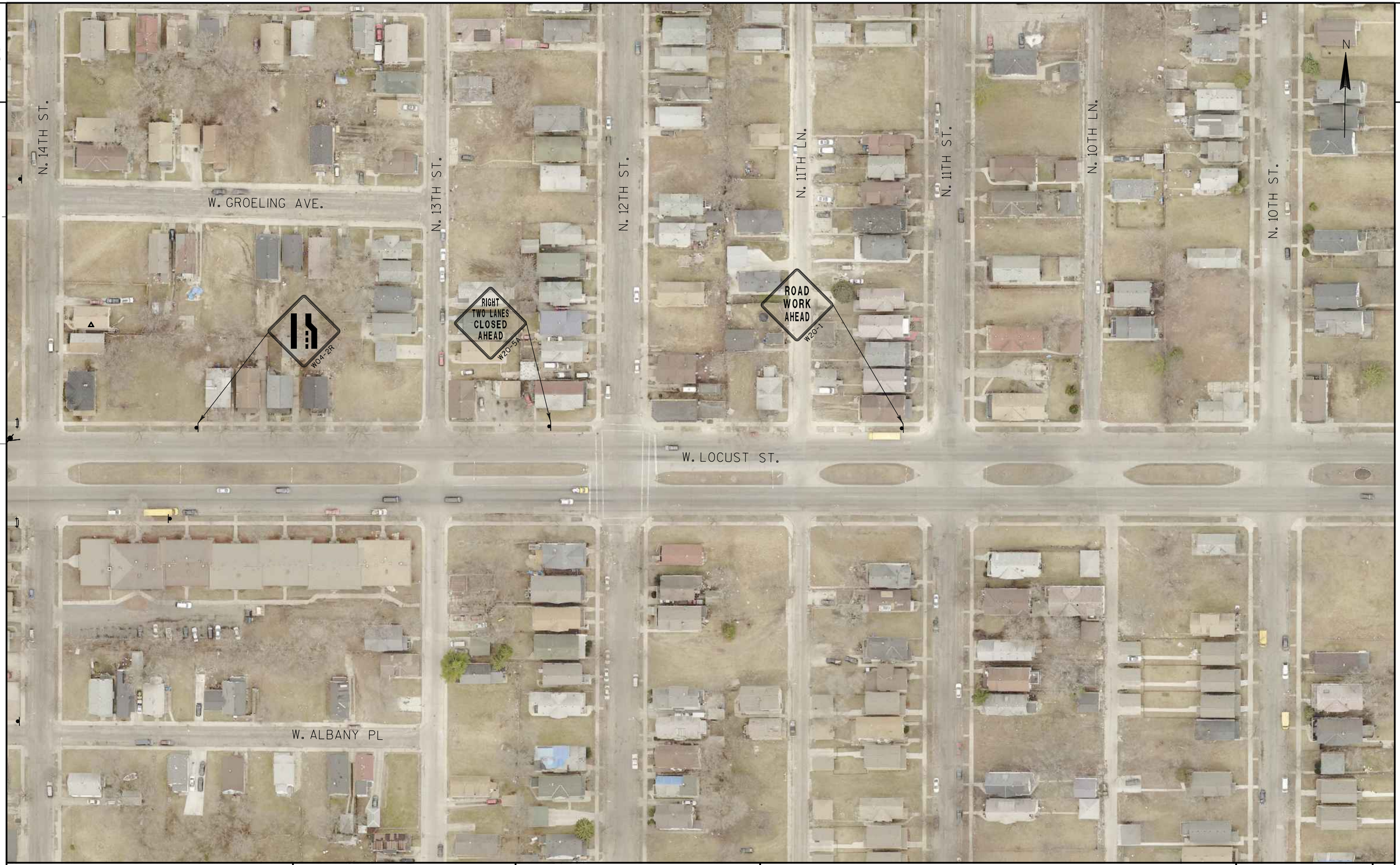
PLACE SIGN IN NORTHWEST CORNER OF THE 13TH ST. INTERSECTION FACING WESTBOUND TRAFFIC.

MB

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 176	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025104_TC.dgn
PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

2



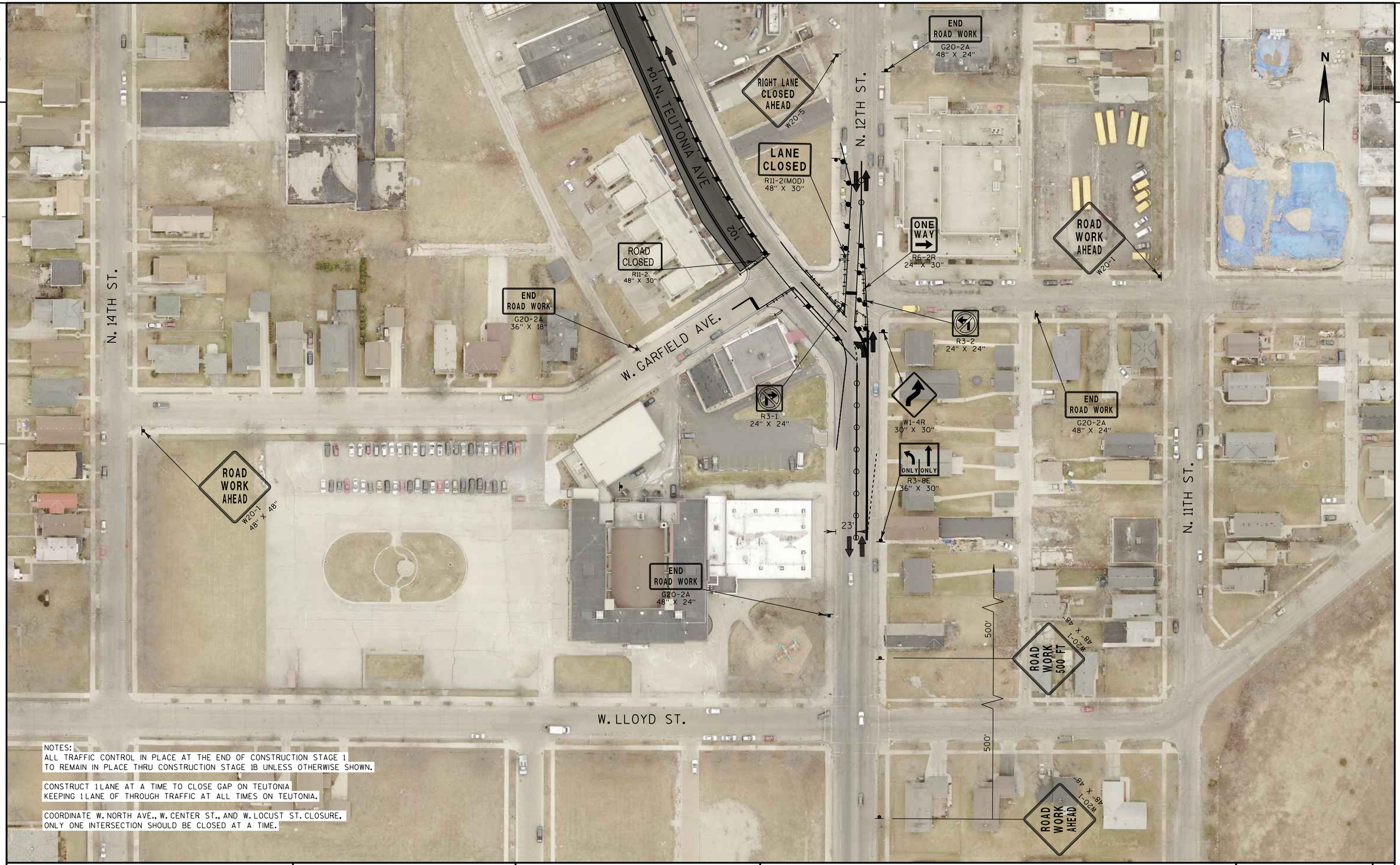
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 177	E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 178	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025105_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



NOTES:
ALL TRAFFIC CONTROL IN PLACE AT THE END OF CONSTRUCTION STAGE 1 TO REMAIN IN PLACE THRU CONSTRUCTION STAGE 1B UNLESS OTHERWISE SHOWN.

CONSTRUCT 1 LANE AT A TIME TO CLOSE GAP ON TEUTONIA KEEPING 1 LANE OF THROUGH TRAFFIC AT ALL TIMES ON TEUTONIA.

COORDINATE W. NORTH AVE., W. CENTER ST., AND W. LOCUST ST. CLOSURE, ONLY ONE INTERSECTION SHOULD BE CLOSED AT A TIME.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1b	SHEET 179	E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1b	SHEET 180	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025109_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

NOTES:
ALL TRAFFIC CONTROL IN PLACE AT THE END OF CONSTRUCTION STAGE 1 TO REMAIN IN PLACE THRU CONSTRUCTION STAGE 1B UNLESS OTHERWISE SHOWN.

CONSTRUCT 1 LANE AT A TIME TO CLOSE GAP ON TEUTONIA KEEPING 1 LANE OF THROUGH TRAFFIC AT ALL TIMES ON TEUTONIA.

COORDINATE W. NORTH AVE., W. CENTER ST., AND W. LOCUST ST. CLOSURE, ONLY ONE INTERSECTION SHOULD BE CLOSED AT A TIME.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD FOR TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMODATION, AND TEMPORARY PEDESTRIAN ACCOMODATION.

TEMPORARY OR PERMANENT ACCOMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMODATIONS DURING ALL STAGES OF CONSTRUCTION.

SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED. STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME AT W. NORTH AVE. INTERSECTION.

N

N. TEUTONIA AVE

144

141

138

136

W. ALBANY PL.

N. 14TH ST.

W. HADLEY ST

N. 15TH ST.

N. 12TH ST.

W. HOPKINS ST.

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

1000

ROAD WORK AHEAD
W20-1

ONE WAY
R6-2R
24" X 30"

R3-2
24" X 24"

END ROAD WORK
G20-2A
48" X 24"

ROAD CLOSED AHEAD
W20-3

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

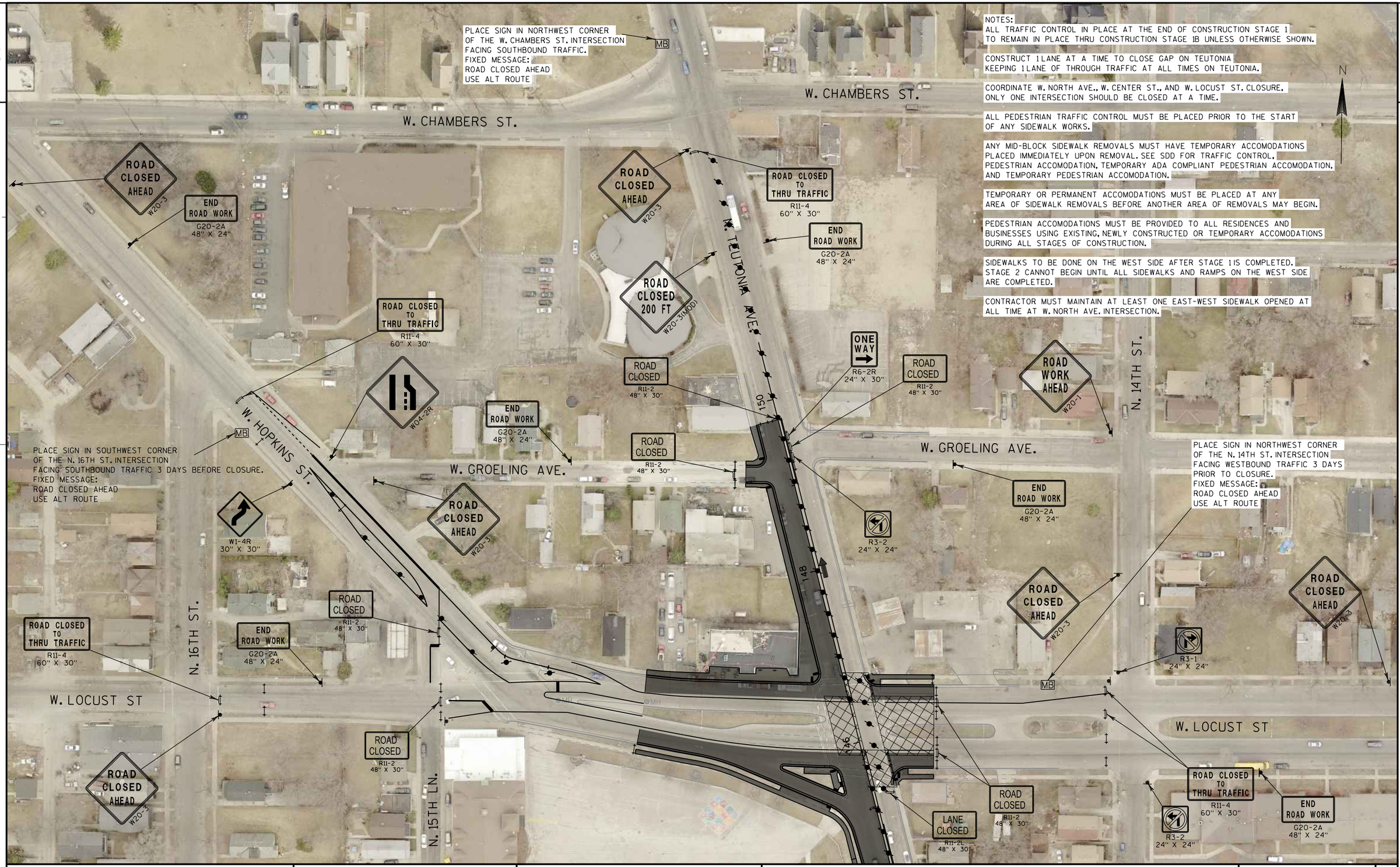
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1b	SHEET 181	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025110_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



NOTES:
ALL TRAFFIC CONTROL IN PLACE AT THE END OF CONSTRUCTION STAGE 1 TO REMAIN IN PLACE THRU CONSTRUCTION STAGE 1B UNLESS OTHERWISE SHOWN.

CONSTRUCT 1 LANE AT A TIME TO CLOSE GAP ON TEUTONIA KEEPING 1 LANE OF THROUGH TRAFFIC AT ALL TIMES ON TEUTONIA.

COORDINATE W. NORTH AVE., W. CENTER ST., AND W. LOCUST ST. CLOSURE, ONLY ONE INTERSECTION SHOULD BE CLOSED AT A TIME.

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD FOR TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMODATION, AND TEMPORARY PEDESTRIAN ACCOMODATION.

TEMPORARY OR PERMANENT ACCOMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMODATIONS DURING ALL STAGES OF CONSTRUCTION.

SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED. STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME AT W. NORTH AVE. INTERSECTION.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1b	SHEET 182	E

2

GENERAL NOTES:

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

2) ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

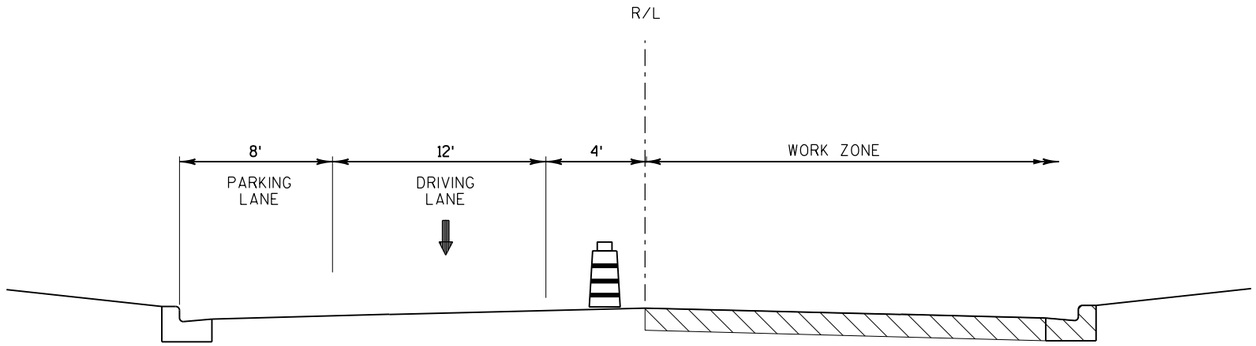
3) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

4) ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" WILL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

5) CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELLED LANE WHEN WORK IS NOT IN PROGRESS.

6) WARNING SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

7) PAVEMENT GAP REQUIRED AT HES CONCRETE DRIVEWAYS.



STAGE 2 TYPICAL SECTION

ONE WAY TRAFFIC

NOTES:

STAGE 2 WORK ZONE INVOLVES CONSTRUCTION OF NORTHBOUND LANES OF N. TEUTONIA AVENUE AND SIDE ROADS ON THE EAST SIDE OF N.TEUTONIA AVENUE.

MAINTAIN ONE NORTHBOUND DRIVING LANE ON NEWLY CONSTRUCTED WEST HALF OF N. TEUTONIA AVENUE DURING STAGE 2.

MAINTAIN A MINIMUM 4'BUFFER BETWEEN DRIVING LANE AND LIMITS OF NORTHBOUND WORKZONE.

PEDESTRIAN TRAFFIC CONTROL NOTES:
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

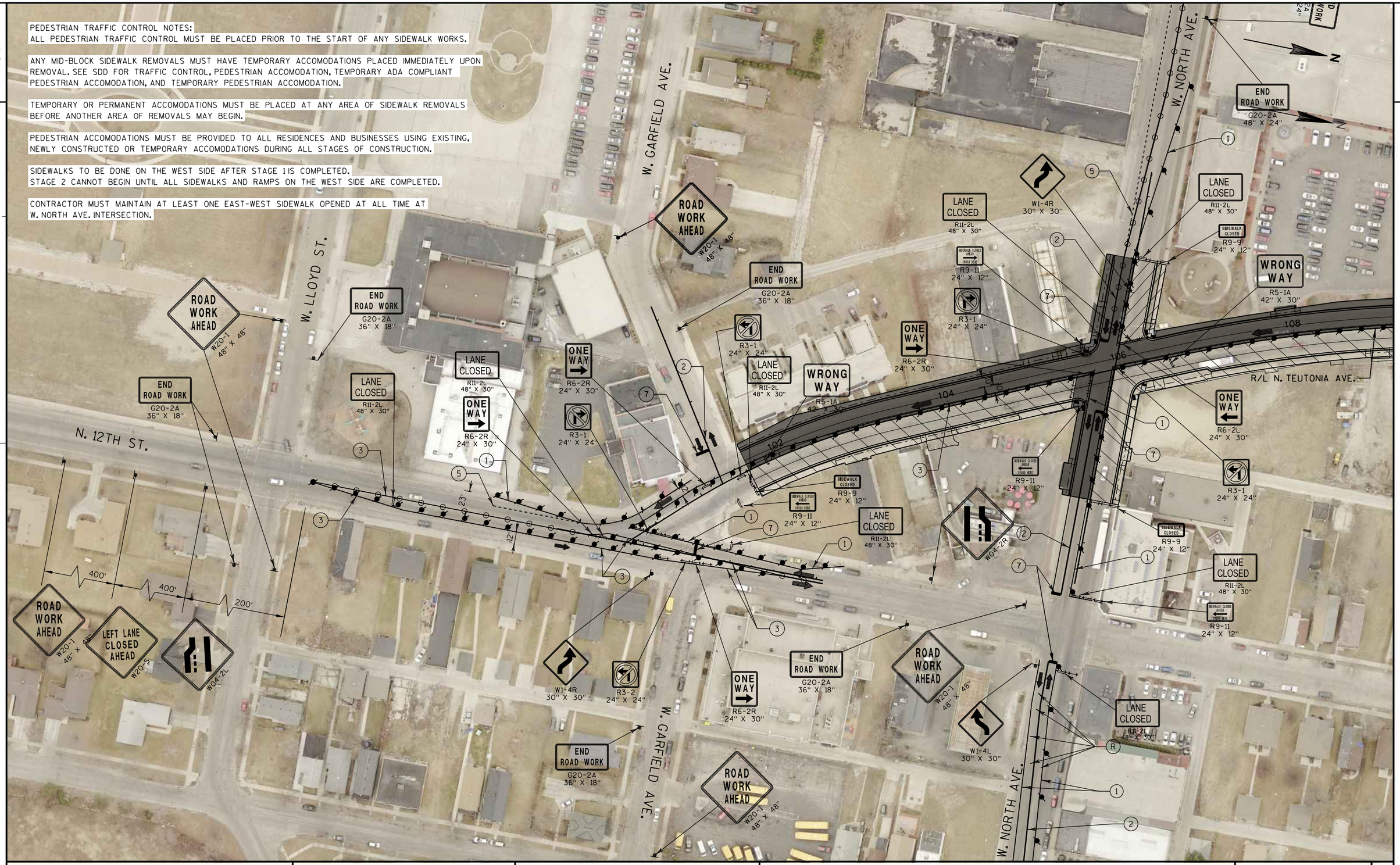
ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD FOR TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMODATION, AND TEMPORARY PEDESTRIAN ACCOMODATION.

TEMPORARY OR PERMANENT ACCOMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMODATIONS DURING ALL STAGES OF CONSTRUCTION.

SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED.
STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME AT W. NORTH AVE. INTERSECTION.



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 184	E

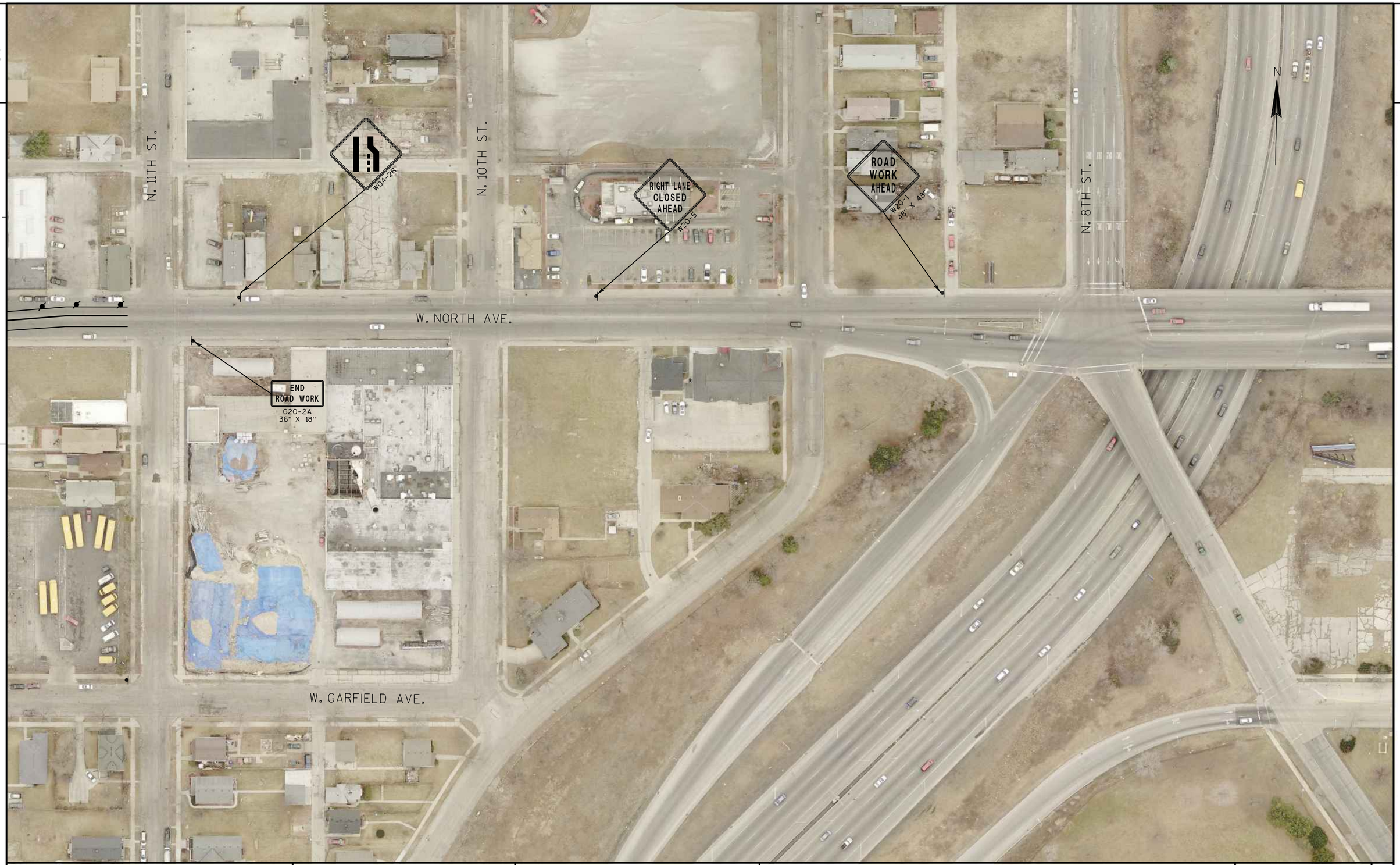


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 185 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025201A_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 186	E

PEDESTRIAN TRAFFIC CONTROL NOTES:
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

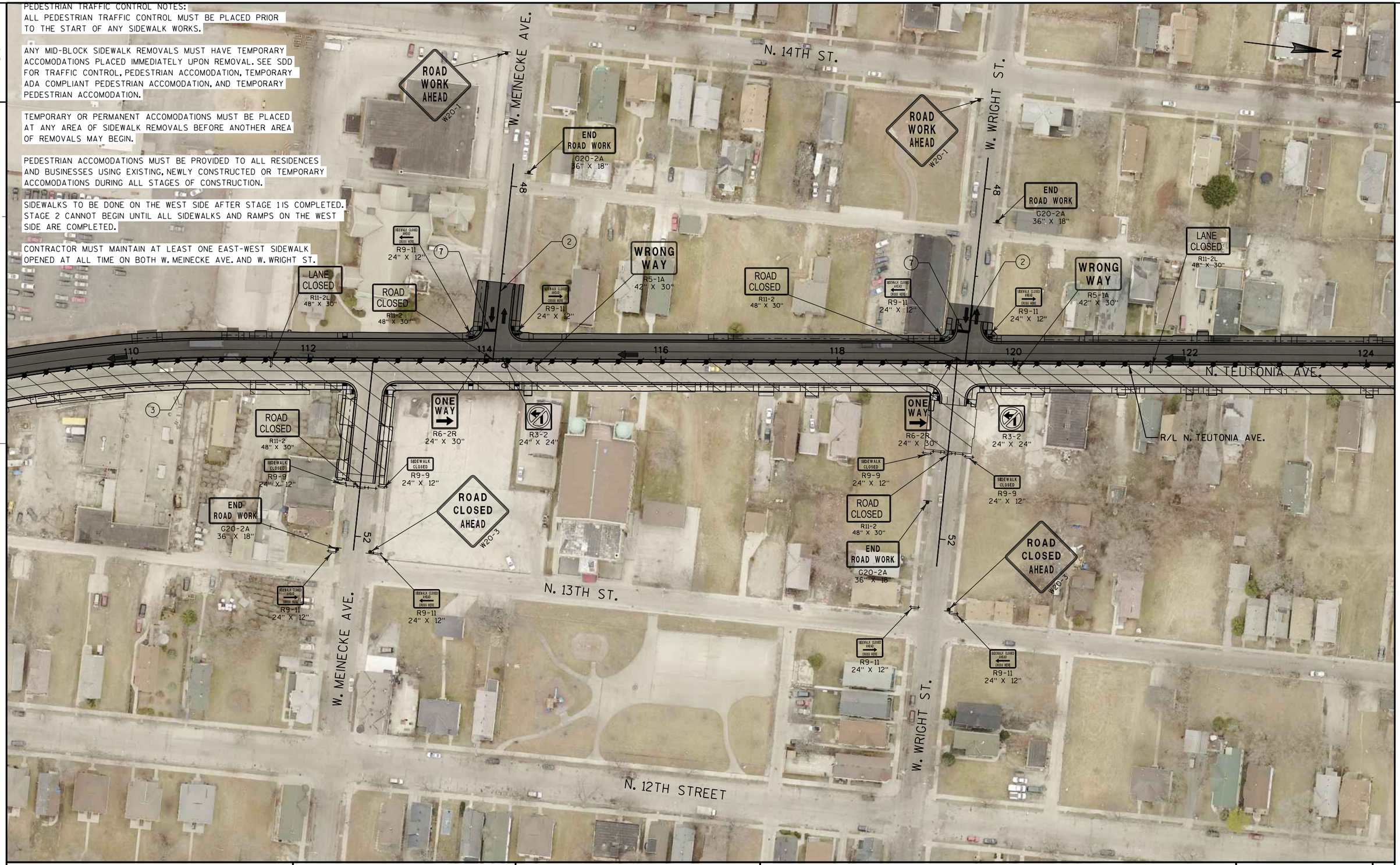
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SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED. STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME ON BOTH W. MEINECKE AVE. AND W. WRIGHT ST.



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 187 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025202_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

N. 14TH ST.

W. CLARKE ST.

W. CENTER ST.

N. TEUTONIA AVE.

R/L N. TEUTONIA AVE.

124 126 128 130 132 134 136 138

48

52

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

WRONG WAY
R5-1A
42" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

ONE WAY
R6-2R
24" X 30"

W1-4L
30" X 30"

R9-11
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"

R9-11A
24" X 12"

R3-2
24" X 24"

W011-2
30" X 30"

W016-7R
24" X 12"

ROAD CLOSED AHEAD
W20-3

CONTRACTOR TO ALTERNATE TEMPORARY SIDEWALK AND MAINTAIN ACCESS BETWEEN POST OFFICE AND PARKING LOT AT ALL TIME.

PEDESTRIAN TRAFFIC CONTROL NOTES:
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

ANY MID-BLOCK SIDEWALK REMOVALS MUST HAVE TEMPORARY ACCOMODATIONS PLACED IMMEDIATELY UPON REMOVAL. SEE SDD FOR TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMODATION, AND TEMPORARY PEDESTRIAN ACCOMODATION.

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SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED. STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME ON W. CENTER ST.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 188	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025203_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

2

2

N

W. CENTER ST.

ROAD WORK AHEAD
W20-1

RIGHT LANE CLOSED AHEAD
W20-5

W04-2L

END ROAD WORK
G20-2A
48" X 24"

N. 18TH ST.

N. 17TH ST.

N. 16TH ST.

N. 15TH ST.

W. CLARKE ST.

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 189	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025203A_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 190	E

PEDESTRIAN TRAFFIC CONTROL NOTES:
ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORKS.

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SIDEWALKS TO BE DONE ON THE WEST SIDE AFTER STAGE 1 IS COMPLETED. STAGE 2 CANNOT BEGIN UNTIL ALL SIDEWALKS AND RAMPS ON THE WEST SIDE ARE COMPLETED.

CONTRACTOR MUST MAINTAIN AT LEAST ONE EAST-WEST SIDEWALK OPENED AT ALL TIME ON W. LOCUST ST. AVE. INTERSECTION.

PLACE SIGN IN NORTHWEST CORNER OF THE 13TH ST. INTERSECTION FACING WESTBOUND TRAFFIC.

N. 15TH LN.
N. 15TH ST.
W. HADLEY ST.
W. GROELING AVE.
N. TEUTONIA AVE.
R/L N. TEUTONIA AVE.
R/L N. TEUTONIA AVE. NB PGL
W. LOCUST ST.
N. 14TH ST.
ALBANY PL.
W. CHAMBERS ST.

ROAD WORK AHEAD W20-1
LANE CLOSED R11-2(MOD) 48" X 30"
ROAD CLOSED AHEAD W20-3
ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"
ROAD CLOSED R11-2 48" X 30"
ONE WAY R6-2R 24" X 30"
WRONG WAY R5-1A 42" X 30"
STOP R1-1 30" X 30"
END ROAD WORK G20-2A 48" X 24"
R3-2 24" X 24"
W4-2R 36" X 36"
W4-3L 30" X 30"
W12-1D 24" X 24"
W1-4R 30" X 30"
SIDEWALK CLOSED R9-9 24" X 12"
SIDEWALK CLOSED AHEAD CROSS HERE R9-11 24" X 12"
SIDEWALK CLOSED AHEAD OTHER SIDE CROSS HERE R9-10 24" X 12"

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 191 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025204_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 192	E

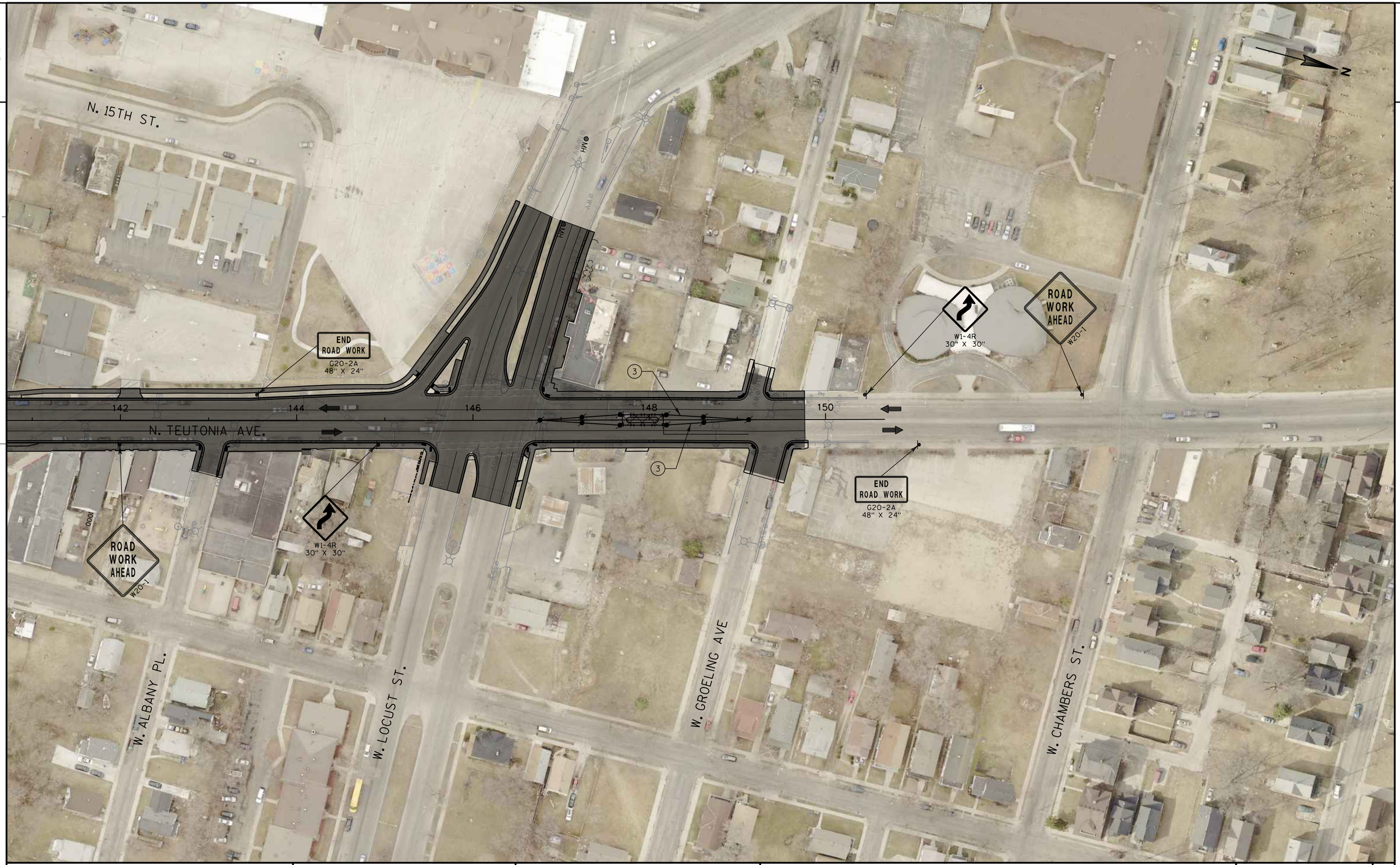
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 193	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\025205_TC.dgn PLOT DATE : 12/18/2018 PLOT BY : nstyka PLOT NAME : PLOT SCALE : 1:100

2



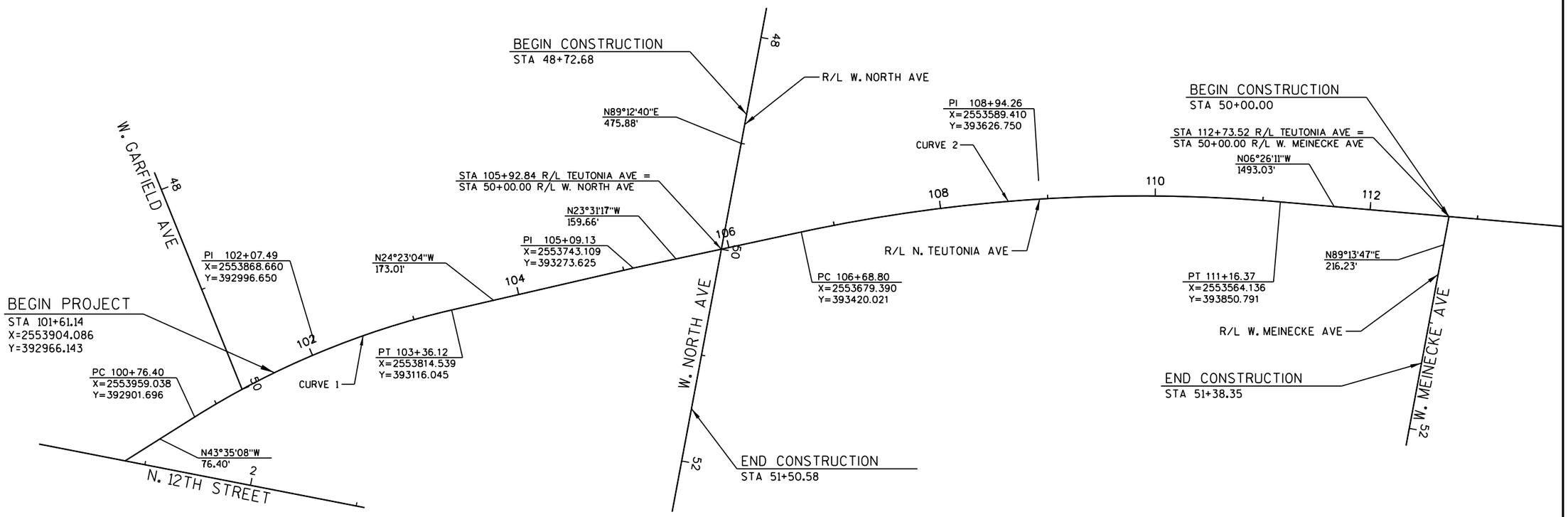
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2B	SHEET 194	E

2

CURVE 1
PC = 100+76.40
X = 2553959.04
Y = 392901.70
PI = 102+07.49
X = 2553868.66
Y = 392996.65
PT = 103+36.12
X = 2553814.54
Y = 393116.05
R = 775.0000
DELTA = 19°12'04" RT
D = 7°23'35"
L = 259.7200
T = 131.0892
BK = N 43°35'08" W
AH = N 24°23'04" W

CURVE 2
PC = 106+68.80
X = 2553679.39
Y = 393420.02
PI = 108+94.26
X = 2553589.41
Y = 393626.75
PT = 111+16.37
X = 2553564.14
Y = 393850.79
R = 1501.0000
DELTA = 17°05'05" RT
D = 3°49'02"
L = 447.5787
T = 225.4624
BK = N 23°31'17" W
AH = N 6°26'11" W

N



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 195	E

2

N

W. MEINECKE AVE

48

N89°15'52"E
225.60'

R/L W. MEINECKE AVE

BEGIN CONSTRUCTION
STA 49+10.00

END CONSTRUCTION
STA 50+00.00

STA 114+09.23 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. MEINECKE AVE

W. WRIGHT ST

48

N89°39'01"E
235.11'

R/L W. WRIGHT ST

BEGIN CONSTRUCTION
STA 49+50.51

END CONSTRUCTION
STA 50+00.00

STA 119+35.81 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. WRIGHT ST

N06°26'11"W
1493.03'

R/L N. TEUTONIA AVE

STA 119+45.15 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. WRIGHT ST

BEGIN CONSTRUCTION
STA 50+00.00

END CONSTRUCTION
STA 50+46.94

N89°01'14"E
231.34'

R/L W. WRIGHT ST

W. WRIGHT ST

52

114 116 118 120 122 124 126 128

N. TEUTONIA AVE

W. CLARKE ST

48

BEGIN CONSTRUCTION
STA 49+28.65

N89°38'07"E
246.37'

END CONSTRUCTION
STA 50+00.00

R/L W. CLARKE ST

STA 126+09.41 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. CLARKE ST

STA 125+99.01 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. CLARKE ST

N06°23'44"W
631.62'

BEGIN CONSTRUCTION
STA 50+00.00

END CONSTRUCTION
STA 50+67.00

PI 126+09.41
X=2553396.766
Y=395334.413

R/L W. CLARKE ST

N89°06'22"E
237.01'

W. CLARKE ST

52

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 196	E

2

CURVE 3
PC = 132+41.03
X = 2553326.41
Y = 395962.11
PI = 132+79.69
X = 2553322.10
Y = 396000.53
PT = 133+18.21
X = 2553312.22
Y = 396037.90
R = 525.0000
DELTA = 8°25'23" LT
D = 10°54'49"
L = 77.1792
T = 38.6592
BK = N 6°23'44" W
AH = N 14°49'06" W

N

R/L W. CENTER ST

N89°41'14"E
467.51'

BEGIN CONSTRUCTION
STA 49+05.00

STA 132+76.96 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. CENTER ST

N06°23'44"W
631.62'

CURVE 3

PI 132+79.69
X=2553322.103
Y=396000.525

N14°49'06"W
533.39'

END CONSTRUCTION
STA 51+25.00

W. CENTER ST

R/L N. TEUTONIA AVE

N. TEUTONIA AVE

STA 137+80.26 R/L TEUTONIA AVE =
STA 137+80.40 R/L TEUTONIA AVE SB PGL=
STA 137+80.40 R/L TEUTONIA AVE NB PGL=

R/L W. HADLEY ST

BEGIN CONSTRUCTION
STA 49+32.34

END CONSTRUCTION
STA 50+00.00

STA 139+63.29 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. HADLEY ST

N14°52'16"W
98.09'

R/L N. TEUTONIA AVE SB PGL

PI 138+85.44
X=2553164.259
Y=396585.315

PI 138+51.60
X=2553175.797
Y=396553.552

N16°28'19"W
105.04'

N13°11'56"W
105.04'

N14°52'16"W
131.75'

PI 138+85.44
X=2553170.058
Y=396586.855

N14°52'16"W
98.09'

R/L N. TEUTONIA AVE NB PGL

BEGIN CONSTRUCTION
STA 50+00.00

STA 139+66.86 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. HADLEY ST

END CONSTRUCTION
STA 50+73.93

R/L W. HADLEY ST

W. HADLEY ST

N89°44'04"E
269.15'

STA 143+14.16 R/L TEUTONIA AVE =
STA 50+00.00 R/L W. ALBANY PL

BEGIN CONSTRUCTION
STA 50+00.00

PI 139+83.40
X=2553139.082
Y=396680.128

STA 141+57.17 R/L TEUTONIA AVE =
STA 141+57.25 R/L TEUTONIA AVE SB PGL=
STA 141+57.38 R/L TEUTONIA AVE NB PGL=

N14°46'32"W
68.80'

PI 140+52.20
X=2553121.535
Y=396746.657

N13°08'20"W
105.04'

N14°46'32"W
361.20'

N16°18'45"W
111.83'

N14°46'32"W
68.79'

N89°35'54"E
244.47'

PI 139+83.36
X=2553141.982
Y=396680.896

PI 140+52.34
X=2553127.336
Y=396748.187

PI 139+83.54
X=2553144.882
Y=396681.664

END CONSTRUCTION
STA 50+62.90

R/L W. ALBANY PL

W. ALBANY PL

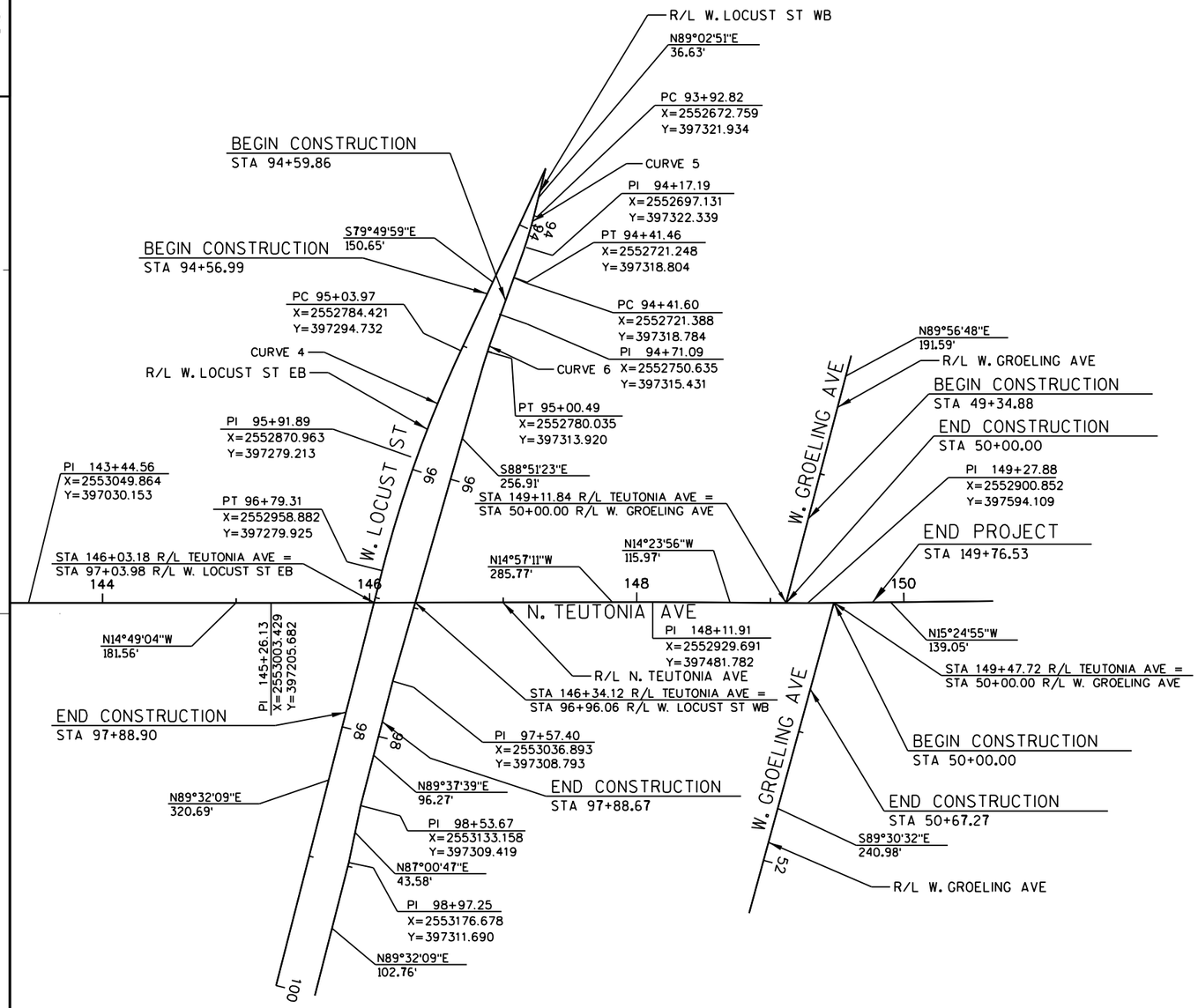
N87°39'04"E
170.72'

PI 51+70.72
X=2553316.792
Y=396671.949

S89°26'11"E
111.05'

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\027203_ad.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100



CURVE 4
PC = 95+03.97
X = 2552784.42
Y = 397294.73
PI = 95+91.89
X = 2552870.96
Y = 397279.21
PT = 96+79.31
X = 2552958.88
Y = 397279.92
R = 945.0000
DELTA = 10°37'51" LT
D = 6°03'47"
L = 175.3396
T = 87.9222
BK = S 79°49'59" E
AH = N 89°32'09" E

CURVE 5
PC = 93+91.59
X = 2552671.53
Y = 397321.91
PI = 94+07.16
X = 2552687.10
Y = 397322.17
PT = 94+22.71
X = 2552702.61
Y = 397320.81
R = 300.0000
DELTA = 5°56'33" RT
D = 19°05'55"
L = 31.1152
T = 15.5716
BK = N 89°02'59" E
AH = S 85°00'27" E

CURVE 6
PC = 94+86.54
X = 2552766.20
Y = 397315.26
PI = 95+02.40
X = 2552782.00
Y = 397313.88
PT = 95+18.24
X = 2552797.86
Y = 397313.56
R = 472.0000
DELTA = 3°50'57" LT
D = 12°08'20"
L = 31.7086
T = 15.8603
BK = S 85°00'27" E
AH = S 88°51'24" E

2

2080-00-73

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Pavement	SY	34,413.000	34,413.000
0004	204.0155	Removing Concrete Sidewalk	SY	8,542.000	8,542.000
0006	204.0210	Removing Manholes	EACH	1.000	1.000
0008	204.0220	Removing Inlets	EACH	82.000	82.000
0010	204.0245	Removing Storm Sewer (size) 001. 8-Inch	LF	966.000	966.000
0012	204.0245	Removing Storm Sewer (size) 002. 12-Inch	LF	118.000	118.000
0014	204.0250	Abandoning Manholes	EACH	1.000	1.000
0016	205.0100	Excavation Common	CY	20,836.000	20,836.000
0018	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	2,150.000	2,150.000
0020	213.0100	Finishing Roadway (project) 001. 2080-00-73	EACH	1.000	1.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	29,141.000	29,141.000
0024	415.0085	Concrete Pavement 8 1/2-Inch	SY	30,881.000	30,881.000
0026	415.0210	Concrete Pavement Gaps	EACH	12.000	12.000
0028	416.0170	Concrete Driveway 7-Inch	SY	2,061.000	2,061.000
0030	416.0280	Concrete Driveway HES 8-Inch	SY	34.000	34.000
0032	416.0610	Drilled Tie Bars	EACH	213.000	213.000
0034	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	54.000	54.000
0036	520.8000	Concrete Collars for Pipe	EACH	46.000	46.000
0038	601.0331	Concrete Curb & Gutter 31-Inch	LF	11,628.000	11,628.000
0040	601.0600	Concrete Curb Pedestrian	LF	158.000	158.000
0042	602.0410	Concrete Sidewalk 5-Inch	SF	66,435.000	66,435.000
0044	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	620.000	620.000
0046	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	55.000	55.000
0048	602.1000	Concrete Loading Zone	SF	781.000	781.000
0050	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	126.000	126.000
0052	608.6008	Storm Sewer Pipe Composite 8-Inch	LF	1,313.000	1,313.000
0054	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0056	611.2004	Manholes 4-FT Diameter	EACH	3.000	3.000
0058	611.8110	Adjusting Manhole Covers	EACH	55.000	55.000
0060	616.0700.S	Fence Safety	LF	500.000	500.000
0062	619.1000	Mobilization	EACH	1.000	1.000
0064	623.0200	Dust Control Surface Treatment	SY	45,269.000	45,269.000
0066	624.0100	Water	MGAL	134.000	134.000
0068	625.0100	Topsoil	SY	1,865.000	1,865.000
0070	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0074	628.7005	Inlet Protection Type A	EACH	79.000	79.000
0076	628.7010	Inlet Protection Type B	EACH	135.000	135.000

2080-00-73

Line	Item	Item Description	Unit	Total	Qty
0078	628.7015	Inlet Protection Type C	EACH	26.000	26.000
0080	628.7020	Inlet Protection Type D	EACH	10.000	10.000
0082	629.0210	Fertilizer Type B	CWT	1.100	1.100
0084	631.0300	Sod Water	MGAL	42.100	42.100
0086	631.1000	Sod Lawn	SY	1,865.000	1,865.000
0088	638.2602	Removing Signs Type II	EACH	132.000	132.000
0090	638.3000	Removing Small Sign Supports	EACH	31.000	31.000
0092	642.5001	Field Office Type B	EACH	1.000	1.000
0094	643.0300	Traffic Control Drums	DAY	61,910.000	61,910.000
0096	643.0420	Traffic Control Barricades Type III	DAY	34,900.000	34,900.000
0098	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	70.000	70.000
0100	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	70.000	70.000
0102	643.0705	Traffic Control Warning Lights Type A	DAY	69,800.000	69,800.000
0104	643.0715	Traffic Control Warning Lights Type C	DAY	61,910.000	61,910.000
0106	643.0900	Traffic Control Signs	DAY	29,308.000	29,308.000
0108	643.1000	Traffic Control Signs Fixed Message	SF	147.000	147.000
0110	643.5000	Traffic Control	EACH	1.000	1.000
0112	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	2,500.000	2,500.000
0114	644.1420.S	Temporary Pedestrian Surface Plywood	SF	2,150.000	2,150.000
0116	644.1430.S	Temporary Pedestrian Surface Plate	SF	200.000	200.000
0118	644.1601.S	Temporary Curb Ramp	EACH	34.000	34.000
0120	644.1616.S	Temporary Pedestrian Safety Fence	LF	782.000	782.000
0122	646.1020	Marking Line Epoxy 4-Inch	LF	19,448.000	19,448.000
0124	646.3020	Marking Line Epoxy 8-Inch	LF	1,264.000	1,264.000
0126	646.5020	Marking Arrow Epoxy	EACH	49.000	49.000
0128	646.5120	Marking Word Epoxy	EACH	10.000	10.000
0130	646.5220	Marking Symbol Epoxy	EACH	44.000	44.000
0132	646.6120	Marking Stop Line Epoxy 18-Inch	LF	418.000	418.000
0134	646.7520	Marking Crosswalk Epoxy Ladder Pattern 24-Inch	LF	120.000	120.000
0136	646.8120	Marking Curb Epoxy	LF	79.000	79.000
0138	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0140	646.9000	Marking Removal Line 4-Inch	LF	2,222.000	2,222.000
0142	646.9210	Marking Removal Line Water Blasting Wide	LF	91.000	91.000
0144	646.9300	Marking Removal Special Marking	EACH	10.000	10.000
0146	649.0105	Temporary Marking Line Paint 4-Inch	LF	412.000	412.000
0148	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	28,190.000	28,190.000
0150	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	551.000	551.000
0152	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	346.000	346.000
0154	650.4000	Construction Staking Storm Sewer	EACH	82.000	82.000
0156	650.4500	Construction Staking Subgrade	LF	5,999.000	5,999.000

2080-00-73

Line	Item	Item Description	Unit	Total	Qty
0158	650.5000	Construction Staking Base	LF	5,999.000	5,999.000
0160	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	19,395.000	19,395.000
0162	650.8500	Construction Staking Electrical Installations (project) 001. 2080-00-73	LS	1.000	1.000
0164	650.9000	Construction Staking Curb Ramps	EACH	39.000	39.000
0166	650.9910	Construction Staking Supplemental Control (project) 001. 2080-00-73	LS	1.000	1.000
0168	650.9920	Construction Staking Slope Stakes	LF	5,999.000	5,999.000
0170	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	488.000	488.000
0172	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	11,033.000	11,033.000
0174	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,328.000	3,328.000
0176	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	1,500.000	1,500.000
0178	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	1,085.000	1,085.000
0180	652.0610	Conduit Special 2 1/2-Inch	LF	100.000	100.000
0182	652.0615	Conduit Special 3-Inch	LF	2,092.000	2,092.000
0184	654.0101	Concrete Bases Type 1	EACH	20.000	20.000
0186	654.0102	Concrete Bases Type 2	EACH	6.000	6.000
0188	654.0105	Concrete Bases Type 5	EACH	46.000	46.000
0190	654.0110	Concrete Bases Type 10	EACH	13.000	13.000
0192	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0194	655.0210	Cable Traffic Signal 3-14 AWG	LF	2,220.000	2,220.000
0196	655.0230	Cable Traffic Signal 5-14 AWG	LF	2,372.000	2,372.000
0198	655.0240	Cable Traffic Signal 7-14 AWG	LF	3,387.000	3,387.000
0200	655.0260	Cable Traffic Signal 12-14 AWG	LF	5,383.000	5,383.000
0202	655.0270	Cable Traffic Signal 15-14 AWG	LF	273.000	273.000
0204	655.0305	Cable Type UF 2-12 AWG Grounded	LF	2,335.000	2,335.000
0206	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	6,774.000	6,774.000
0208	655.0900	Traffic Signal EVP Detector Cable	LF	3,364.000	3,364.000
0210	656.0200	Electrical Service Meter Breaker Pedestal (location) 001. N. Teutonia Ave & W. North Ave.	LS	1.000	1.000
0212	656.0200	Electrical Service Meter Breaker Pedestal (location) 002. N. Teutonia Ave & W. Wright St.	LS	1.000	1.000
0214	656.0200	Electrical Service Meter Breaker Pedestal (location) 003. N. Teutonia Ave & W. Center St.	LS	1.000	1.000
0216	656.0200	Electrical Service Meter Breaker Pedestal (location) 004. N. Teutonia Ave & W. Locust St.	LS	1.000	1.000
0218	657.0100	Pedestal Bases	EACH	20.000	20.000
0220	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	53.000	53.000
0222	657.0310	Poles Type 3	EACH	5.000	5.000
0224	657.0345	Poles Type 9	EACH	1.000	1.000
0226	657.0350	Poles Type 10	EACH	12.000	12.000

2080-00-73

Line	Item	Item Description	Unit	Total	Qty
0228	657.0360	Poles Type 13	EACH	1.000	1.000
0230	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	13.000	13.000
0232	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
0234	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	6.000	6.000
0236	657.0525	Monotube Arms 25-FT	EACH	5.000	5.000
0238	657.0530	Monotube Arms 30-FT	EACH	8.000	8.000
0240	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0242	658.0173	Traffic Signal Face 3S 12-Inch	EACH	69.000	69.000
0244	658.0174	Traffic Signal Face 4S 12-Inch	EACH	2.000	2.000
0246	658.0412	Pedestrian Signal Face 12-Inch	EACH	32.000	32.000
0248	658.0500	Pedestrian Push Buttons	EACH	6.000	6.000
0250	658.5069	Signal Mounting Hardware (location) 001. N. Teutonia Avenue & W. North Avenue	LS	1.000	1.000
0252	658.5069	Signal Mounting Hardware (location) 002. N. Teutonia Avenue & W. Wright Street	LS	1.000	1.000
0254	658.5069	Signal Mounting Hardware (location) 003. N. Teutonia Avenue & W. Center Street	LS	1.000	1.000
0256	658.5069	Signal Mounting Hardware (location) 004. N. Teutonia Avenue & W. Locust Street	LS	1.000	1.000
0258	690.0150	Sawing Asphalt	LF	805.000	805.000
0260	690.0250	Sawing Concrete	LF	1,503.000	1,503.000
0262	715.0415	Incentive Strength Concrete Pavement	DOL	9,264.330	9,264.330
0264	740.0440	Incentive IRI Ride	DOL	3,648.000	3,648.000
0266	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,100.000	2,100.000
0268	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	3,600.000	3,600.000
0270	SPV.0060	Special 001. Inlet Covers Type 57	EACH	82.000	82.000
0272	SPV.0060	Special 003. Manhole Cover Type 58A	EACH	1.000	1.000
0274	SPV.0060	Special 004. Inlets Type 44A	EACH	73.000	73.000
0276	SPV.0060	Special 005. Catch Basin Type 45A	EACH	7.000	7.000
0278	SPV.0060	Special 010. Adjusting Water Boxes	EACH	163.000	163.000
0280	SPV.0060	Special 011. Adjusting Water Manholes	EACH	10.000	10.000
0282	SPV.0060	Special 06. Utility Line Opening (ULO)	EACH	40.000	40.000
0284	SPV.0060	Special 12. Pipe Connection to Existing Structure	EACH	75.000	75.000
0286	SPV.0060	Special 212. Fiber Optic Patch Panel	EACH	3.000	3.000
0288	SPV.0060	Special 213. Ethernet Switch	EACH	7.000	7.000
0290	SPV.0060	Special 214. Fiber Optic Patch Cords	EACH	3.000	3.000
0292	SPV.0060	Special 302. Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH	52.000	52.000
0294	SPV.0060	Special 303. Pull Boxes 17-Inch x 30-Inch x 24-Inch	EACH	47.000	47.000
0296	SPV.0060	Special 317. Pedestrian Countdown Signal Face 12-Inch	EACH	32.000	32.000
0298	SPV.0060	Special 319. Poles Type-11	EACH	5.000	5.000

Line	Item	Item Description	Unit	Total	Qty
0300	SPV.0060	Special 320. Poles Type-12	EACH	42.000	42.000
0302	SPV.0060	Special 375. Luminaire Utility LED 2	EACH	7.000	7.000
0304	SPV.0060	Special 376. Luminaire Utility LED 3	EACH	54.000	54.000
0306	SPV.0060	Special 400. Adjusting CUC Manhole Cover	EACH	4.000	4.000
0308	SPV.0060	Special 401. 4' Diameter Manhole Type CUC	EACH	10.000	10.000
0310	SPV.0060	Special 412. 5' Diameter "Doghouse" Manhole Type CUC	EACH	1.000	1.000
0312	SPV.0060	Special 413. 5' Diameter "Doghouse" Manhole Type CUC Install Over Conduit	EACH	3.000	3.000
0314	SPV.0060	Special 420. Removing CUC Manhole	EACH	4.000	4.000
0316	SPV.0060	Special 425. Installing Conduit Into Existing Manhole	EACH	2.000	2.000
0318	SPV.0060	Special 838. Luminaire Arms Single Member 6-Ft - City Furnished	EACH	57.000	57.000
0320	SPV.0060	Special 839. Luminaire Arms Single Member 8-Ft. - City Furnished	EACH	7.000	7.000
0322	SPV.0090	Special 001. Construction Staking Concrete Sidewalk	LF	19,395.000	19,395.000
0324	SPV.0090	Special 002. Marking Crosswalk Epoxy 12-Inch White	LF	2,669.000	2,669.000
0326	SPV.0090	Special 201. Install Fiber Optic Cable Outdoor Plant 72CT Contractor Supplied	LF	5,920.000	5,920.000
0328	SPV.0090	Special 305. Cable Type 3#8/1#8 LTP	LF	5,606.000	5,606.000
0330	SPV.0090	Special 306. Cable Type 3#6/1#8 LTP	LF	1,355.000	1,355.000
0332	SPV.0090	Special 307. Cable Type 3#4/1#8 LTP	LF	357.000	357.000
0334	SPV.0090	Special 308. Cable Type 3#2/1#8 LTP	LF	3,297.000	3,297.000
0336	SPV.0090	Special 402. 2-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic DB-60	LF	294.000	294.000
0338	SPV.0090	Special 404. 4-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic DB-60	LF	132.000	132.000
0340	SPV.0090	Special 406. 6-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic DB-60	LF	4,771.000	4,771.000
0342	SPV.0090	Special 408. 8-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic DB-60	LF	91.000	91.000
0344	SPV.0105	Special 001. Trnsprt & Inst. Traffic Sig Ctrl Cab Base, N. Teutonia Ave & W. North Ave.	LS	1.000	1.000
0346	SPV.0105	Special 002. Trnsprt. & Inst. Traffic Sig Ctrl Cab Base, N. Teutonia Ave & W. Wright St.	LS	1.000	1.000
0348	SPV.0105	Special 003. Trnsprt. & Inst. Traffic Sig Ctrl Cab Base, N. Teutonia Ave & W. Center St.	LS	1.000	1.000
0350	SPV.0105	Special 004. Trnsprt. & Inst. Traffic Sig Ctrl Cab Base, N. Teutonia Ave & W. Locust St.	LS	1.000	1.000
0352	SPV.0105	Special 005. Traffic Signal Cabinet, N. Teutonia Ave & W. North Ave.	LS	1.000	1.000
0354	SPV.0105	Special 006. Traffic Signal Cabinet, N. Teutonia Ave & W. Wright St.	LS	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0356	SPV.0105	Special 007. Traffic Signal Cabinet, N. Teutonia Ave & W. Center St.	LS	1.000	1.000
0358	SPV.0105	Special 008. Traffic Signal Cabinet, N. Teutonia Ave & W. Locust St.	LS	1.000	1.000
0360	SPV.0105	Special 009. Video Vehicle Detection System, N. Teutonia Ave & W. Wright St.	LS	1.000	1.000
0362	SPV.0105	Special 010. Video Vehicle Detection System, N. Teutonia Ave & W. Locust St.	LS	1.000	1.000
0364	SPV.0105	Special 011. EVP Detector Heads w/ Confirmation Beacons, N. Teutonia Ave & W. North Ave	LS	1.000	1.000
0366	SPV.0105	Special 012. EVP Detector Heads w/ Confirmation Beacons, N. Teutonia Ave & W. Wright St	LS	1.000	1.000
0368	SPV.0105	Special 013. EVP Detector Heads w/Confirmation Beacons, N. Teutonia Ave & W. Center St	LS	1.000	1.000
0370	SPV.0105	Special 014. EVP Detector Heads w/Confirmation Beacons, N. Teutonia Ave & W. Locust St	LS	1.000	1.000
0372	SPV.0180	Special 001. Joint Sealing	SY	30,881.000	30,881.000
0374	SPV.0195	Special 001. Excavation, Hauling, & Disposal of Metals and VOC Contaminated Soil	TON	1,981.000	1,981.000

3

CONCRETE ITEMS

STATION	-	STATION	LOCATION	415.0085 CONCRETE PAVEMENT 8 1/2 - INCH SY	SPV.0180.001 JOINT SEALING SY	602.0410 CONCRETE SIDEWALK 5-INCH SF	416.0170 CONCRETE DRIVEWAY 7-INCH SY	416.0280 CONCRETE DRIVEWAY HES 8-INCH SY	602.1000 CONCRETE LOADING ZONE SF
101+61	-	113+50	TEUTONIA AVE	6,023	6,023	13,285	753	--	--
113+50	-	136+00	TEUTONIA AVE	11,422	11,422	23,644	702	--	--
136+00	-	149+77	TEUTONIA AVE	6,935	6,935	12,860	201	34	781
48+73	-	49+71	W. NORTH AVE (WEST)	533	533	1,061	51	--	--
50+27	-	51+51	W. NORTH AVE (EAST)	649	649	1,279	73	--	--
49+10	-	49+74	W. MEINECKE AVE (WEST)	224	224	1,037	--	--	--
50+26	-	51+38	W. MEINECKE AVE (EAST)	371	371	1,019	83	--	--
49+51	-	49+74	W. WRIGHT ST (WEST)	91	91	454	--	--	--
50+26	-	50+53	W. WRIGHT ST (EAST)	83	83	420	62	--	--
49+29	-	49+74	W. CLARKE ST (WEST)	147	147	768	--	--	--
50+26	-	50+67	W. CLARKE ST (EAST)	136	136	682	--	--	--
49+05	-	49+71	W. CENTER ST (WEST)	374	374	1,100	--	--	--
50+23	-	51+25	W. CENTER ST (EAST)	530	530	1,564	40	--	--
49+32	-	49+74	W. HADLEY AVE (WEST)	183	183	783	--	--	--
50+27	-	50+74	W. HADLEY AVE (EAST)	195	195	764	--	--	--
50+26	-	50+63	ALBANY PL	92	92	371	--	--	--
94+57	-	96+67	W. LOCUST AVE (WEST)	2,091	2,091	3,894	39	--	--
97+23	-	97+89	W. LOCUST AVE (EAST)	578	578	623	34	--	--
49+35	-	49+73	W. GROELING AVE (WEST)	80	80	272	24	--	--
50+26	-	50+67	W. GROELING AVE (EAST)	142	142	555	--	--	--
TOTALS CATEGORY 0010				**30,881**	**30,881**	**66,435**	**2,061**	**34**	**781**

3

EARTH WORK SUMMARY

Division	From/To Station	Location	205.0100 Excavation Common (CY) (1)		Salvaged/ Unusable Pavement Material (CY) (2)	Available Material (4)	EBS Backfill (CY) (3)	Unexpanded Fill	Expanded Fill (5)	Mass Ordinate +/- (6)	Waste (7)	Borrow	Comment:
			Cut (2)	EBS Excavation (3)			Factor 1.15		Factor 1.15			Item 208.0100	
	101+61 TO 131+50	TEUTONIA AVENUE	12,157	4,829	8,180	3,977	5,553	20	23	3,954	8,782	0	
	48+73 TO 51+50	NORTH AVENUE	583	0	387	196	0	2	2	194	194	0	
	49+10 TO 51+38	MEINECKE AVENUE	421	0	164	257	0	0	0	257	257	0	
	49+51 TO 50+47	WRIGHT STREET	88	0	121	-33	0	0	0	-33	-33	0	
	49+29 TO 50+67	CLARKE STREET	173	0	121	52	0	0	0	52	52	0	
	49+05 TO 51+25	CENTER STREET	387	0	234	153	0	0	0	153	153	0	
	49+32 TO 50+74	HADLEY STREET	204	0	130	74	0	0	0	74	74	0	
	50+24 TO 50+63	ALBANY PLACE	54	0	37	17	0	0	0	17	17	0	
	94+60 TO 97+89	LOCUST AVENUE	1,867	0	765	1,102	0	0	0	1,101	1,101	0	
	49+35 TO 50+67	GROELING AVENUE	146	0	107	39	0	0	0	39	39	0	
Total			16,007	4,829	10,193	5,815	5,553	22	26	5,789	10,618	0	
Grand Total Category 0010			20,836		10,193	5,815	5,553	22	26	5,789	10,618	0	

NOTES:

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100.
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation (CY) to be backfilled with Base Aggregate Dense 1 1/4-Inch. EBS Excavation volume based on EBS Locations shown in the plan.
   All EBS Excavation to be wasted offsite. EBS Backfill Factor = 1.15.
   Actual extents and depths of EBS Excavation will be determined by the engineer in the field.
4) Available Material = Cut - Salvaged/Unusuable Pavement Material
5) Expanded Fill. Factor = 1.15 Expanded Fill = Unexpanded Fill * Fill Factor
   Due to potential soil variability, actual quantities may vary. No quantity adjustments will be made for differing soil expansion factors encountered in the field.
6) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
7) The storm sewer excavation is not included in this table and should be considered additional waste and are considered incidental to the storm sewer items.

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

STATION	-	STATION	LOCATION	465.012 ASPHLATIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
101+61	-	113+50	TEUTONIA AVE	20
113+50	-	136+00	TEUTONIA AVE	8
136+00	-	149+77	TEUTONIA AVE	13
50+26	-	51+38	W. MEINECKE AVE (EAST)	10
49+35	-	49+73	W. GROELING AVE (WEST)	3
TOTALS CATEGORY 0010				**54**

MOBILIZATION

PROJECT ID	DESCRIPTION	619.1000 MOBILIZATION EACH
2080-00-73	TEUTONIA AVE	1
TOTAL CATEGORY 0010		**1**

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AGGREGATE ITEMS

STATION	-	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1-1/4-INCH TON
101+61	-	113+50	TEUTONIA AVE	3,343
113+50	-	136+00	TEUTONIA AVE	5,975
136+00	-	149+77	TEUTONIA AVE	3,473
48+73	-	49+71	W. NORTH AVE (WEST)	284
50+27	-	51+51	W. NORTH AVE (EAST)	351
49+10	-	49+74	W. MEINECKE AVE (WEST)	134
50+26	-	51+38	W. MEINECKE AVE (EAST)	251
49+51	-	49+74	W. WRIGHT ST (WEST)	54
50+26	-	50+53	W. WRIGHT ST (EAST)	73
49+29	-	49+74	W. CLARKE ST (WEST)	92
50+26	-	50+67	W. CLARKE ST (EAST)	84
49+05	-	49+71	W. CENTER ST (WEST)	194
50+23	-	51+25	W. CENTER ST (EAST)	276
49+32	-	49+74	W. HADLEY AVE (WEST)	105
50+27	-	50+74	W. HADLEY AVE (EAST)	111
50+26	-	50+63	ALBANY PL	57
94+57	-	96+67	W. LOCUST AVE (WEST)	1081
97+23	-	97+89	W. LOCUST AVE (EAST)	285
49+35	-	49+73	W. GROELING AVE (WEST)	64
50+26	-	50+67	W. GROELING AVE (EAST)	82
103+00	-	106+00	*TEUTONIA AVE	1562
106+00	-	110+00	**TEUTONIA AVE	4166
110+00	-	112+50	*TEUTONIA AVE	1302
124+50	-	132+50	*TEUTONIA AVE	4166
146+50	-	149+00	*TEUTONIA AVE	1575
TOTALS			**CATEGORY 0010**	**29,141**

* 12" OF EBS FILLED WITH BASE AGGREGATE DENSE 1 1/4"

** 24" OF EBS FILLED WITH BASE AGGREGATE DENSE 1 1/4"

CONCRETE PAVEMENT GAPS

STAGE	STATION	LOCATION	415.0210 CONCRETE PAVEMENT GAPS EACH
1	105+98	TEUTONIA AVE	1
	132+79	TEUTONIA AVE	1
	145+90	TEUTONIA AVE	1
	147+08	TEUTONIA AVE	1
2	105+98	TEUTONIA AVE	1
	132+79	TEUTONIA AVE	1
	145+90	TEUTONIA AVE	1
	UNDISTRIBUTED		5
TOTALS CATEGORY 0010			**12**

CONCRETE CURB AND GUTTER

STATION	-	STATION	LOCATION	601.0331 CONCRETE CURB & GUTTER 31-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF
101+61	-	113+50	TEUTONIA AVE	2,220	--
113+50	-	136+00	TEUTONIA AVE	4,218	--
136+00	-	149+77	TEUTONIA AVE	2,315	--
48+73	-	49+71	W. NORTH AVE (WEST)	195	18
50+27	-	51+51	W. NORTH AVE (EAST)	246	--
49+10	-	49+74	W. MEINECKE AVE (WEST)	123	18
50+26	-	51+38	W. MEINECKE AVE (EAST)	221	32
49+51	-	49+74	W. WRIGHT ST (WEST)	42	12
50+26	-	50+53	W. WRIGHT ST (EAST)	36	
49+29	-	49+74	W. CLARKE ST (WEST)	92	--
50+26	-	50+67	W. CLARKE ST (EAST)	84	10
49+05	-	49+71	W. CENTER ST (WEST)	130	10
50+23	-	51+25	W. CENTER ST (EAST)	82	21
49+32	-	49+74	W. HADLEY AVE (WEST)	81	19
50+27	-	50+74	W. HADLEY AVE (EAST)	93	--
50+26	-	50+63	ALBANY PL	71	--
94+57	-	96+67	W. LOCUST AVE (WEST)	1,011	--
97+23	-	97+89	W. LOCUST AVE (EAST)	215	--
49+35	-	49+73	W. GROELING AVE (WEST)	74	18
50+26	-	50+67	W. GROELING AVE (EAST)	79	--
TOTALS CATEGORY 0010				**11,628**	**158**

3

3

FENCE SAFETY

LOCATION	616.0700.S FENCE SAFETY LF
UNDISTRIBUTED	500
TOTAL CATEGORY 0010	**500**

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STATION		STATION	LOCATION	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF
112+41			N. TEUTONIA AVE	10	--
113+84			N. TEUTONIA AVE	10	--
114+37			N. TEUTONIA AVE	10	--
129+87			N. TEUTONIA AVE	20	--
48+73	-	49+71	W. NORTH AVE (WEST)	40	--
50+27	-	51+51	W. NORTH AVE (EAST)	40	--
49+10	-	49+74	W. MEINECKE AVE (WEST)	40	--
50+26	-	51+38	W. MEINECKE AVE (EAST)	30	--
49+51	-	49+74	W. WRIGHT ST (WEST)	40	--
50+26	-	50+53	W. WRIGHT ST (EAST)	40	--
49+29	-	49+74	W. CLARKE ST (WEST)	40	--
50+26	-	50+67	W. CLARKE ST (EAST)	30	--
49+05	-	49+71	W. CENTER ST (WEST)	30	14
50+23	-	51+25	W. CENTER ST (EAST)	40	--
49+32	-	49+74	W. HADLEY AVE (WEST)	40	--
50+27	-	50+74	W. HADLEY AVE (EAST)	30	11
50+26	-	50+63	ALBANY PL	20	--
94+57	-	96+67	W. LOCUST AVE (WEST)	50	--
97+23	-	97+89	W. LOCUST AVE (EAST)	40	--
49+35	-	49+73	W. GROELING AVE (WEST)	10	17
50+26	-	50+67	W. GROELING AVE (EAST)	10	13
TOTALS CATEGORY 0010				**620**	**55**

REMOVING CONCRETE ITEMS

STATION		STATION	LOCATION	OFFSET	204.0100 REMOVING PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY
101+61	-	113+50	TEUTONIA AVE	LT/RT	6777	1758
113+50	-	136+00	TEUTONIA AVE	LT/RT	12822	3281
136+00	-	149+77	TEUTONIA AVE	LT/RT	7966	1695
48+73	-	49+71	W. NORTH AVE (WEST)	LT/RT	570	147
50+27	-	51+51	W. NORTH AVE (EAST)	LT/RT	711	192
49+10	-	49+74	W. MEINECKE AVE (WEST)	LT/RT	246	102
50+26	-	51+38	W. MEINECKE AVE (EAST)	LT/RT	423	172
49+51	-	49+74	W. WRIGHT ST (WEST)	LT/RT	94	38
50+26	-	50+53	W. WRIGHT ST (EAST)	LT/RT	80	24
49+29	-	49+74	W. CLARKE ST (WEST)	LT/RT	169	70
50+26	-	50+67	W. CLARKE ST (EAST)	LT/RT	150	62
49+05	-	49+71	W. CENTER ST (WEST)	LT/RT	381	115
50+23	-	51+25	W. CENTER ST (EAST)	LT/RT	583	175
49+32	-	49+74	W. HADLEY AVE (WEST)	LT/RT	194	79
50+27	-	50+74	W. HADLEY AVE (EAST)	LT/RT	208	70
50+26	-	50+63	ALBANY PL	LT/RT	102	42
94+57	-	96+67	W. LOCUST AVE (WEST)	LT/RT	2094	348
97+23	-	97+89	W. LOCUST AVE (EAST)	LT/RT	592	80
49+35	-	49+73	W. GROELING AVE (WEST)	LT/RT	94	32
50+26	-	50+67	W. GROELING AVE (EAST)	LT/RT	157	60
TOTALS CATEGORY 0010					**34,413**	**8,542**

DRILLED TIE BARS

ROADWAY	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH
N. TEUTONIA AVE	101+61	LT/RT	18
N. TEUTONIA AVE	149+62	LT/RT	18
W. NORTH AVE (WEST)	48+73	LT/RT	15
W. NORTH AVE (EAST)	51+51	LT/RT	15
W. MEINECKE AVE (WEST)	49+10	LT/RT	12
W. MEINECKE AVE (EAST)	51+38	LT/RT	18
W. WRIGHT ST (WEST)	49+51	LT/RT	18
W. WRIGHT ST (EAST)	50+53	LT/RT	18
W. CLARKE ST (WEST)	49+29	LT/RT	18
W. CLARKE ST (EAST)	50+67	LT/RT	12
W. CENTER ST (WEST)	49+05	LT/RT	12
W. CENTER ST (EAST)	51+25	LT/RT	12
W. HADLEY AVE (WEST)	49+32	LT/RT	12
W. HADLEY AVE (EAST)	50+74	LT/RT	15
ALBANY PL	50+63	LT/RT	12
W. LOCUST AVE (WEST)	94+57	LT/RT	36
W. LOCUST AVE (EAST)	97+89	LT/RT	36
W. GROELING AVE (WEST)	49+35	LT/RT	15
W. GROELING AVE (EAST)	50+67	LT/RT	18
TOTAL CATEGORY 0010			**213**

FIELD OFFICE TYPE B

PROJECT ID	DESCRIPTION	642.5001 FIELD OFFICE TYPE B EACH
2080-00-73	N. TEUTONIA AVE	1
TOTAL CATEGORY 0010		**1**

FINISH ROADWAY

ROADWAY	213.0100 FINISHING ROADWAY (2080-00-73) EACH
N. TEUTONIA AVE	1
TOTAL CATEGORY 0010	**1**

SAWING

ROADWAY	STATION		TO STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
N. TEUTONIA AVE						
	101+61			LT/RT	--	65
	104+99	-	105+27	LT	--	28
	105+27	-	105+60	LT	--	19
	107+81	-	108+07	LT	24	4
	108+86	-	109+07	RT	21	--
	109+07	-	109+54	RT	46	--
	109+62	-	109+88	RT	25	--
	110+07	-	110+30	LT	25	--
	111+33	-	111+58	LT	25	--
	111+34	-	112+01	RT	67	--
	112+25	-	112+33	RT	10	--
	114+45	-	114+54	RT	--	9
	114+71	-	114+75	RT	--	4
	114+98	-	115+06	RT	--	8
	115+18	-	115+65	RT	--	47
	115+77	-	115+85	RT	--	8
	117+11	-	117+28	RT	17	--
	117+64	-	117+79	RT	--	15
	118+86	-	119+04	LT	--	8
	119+86	-	120+14	RT	28	--
	120+20	-	120+35	RT	--	16
	120+81	-	120+90	LT	10	--
	121+19	-	121+29	RT	--	10
	121+96	-	122+04	RT	--	8
	122+08	-	122+21	LT	13	--
	122+04	-	121+96	RT	--	8
	122+19	-	122+31	RT	--	12
	123+03	-	123+33	LT	30	--
	124+00	-	124+08	RT	--	8
	126+81	-	126+90	LT	--	9
	129+47	-	129+63	LT	16	--
	130+10	-	130+25	LT	15	--
	130+39	-	130+53	RT	14	--
	131+19	-	131+60	RT	15	26
	131+86	-	132+23	RT	--	37
	135+39	-	135+59	RT	20	--
	136+85	-	137+11	RT	--	26
	142+00	-	142+22	LT	22	--
	144+06	-	144+16	RT	--	11
	146+90	-	147+39	LT	68	--
	146+88	-	147+14	RT	26	--
	147+73	-	147+98	RT	25	--
	148+42	-	149+00	LT	63	--
	149+77	-	149+80	LT/RT	--	68

SAWING (CONTINUED)

ROADWAY	STATION		TO STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
W. NORTH AVE						
	48+73			LT/RT	--	58
	49+28	-	49+63	RT	--	36
	50+85	-	51+00	LT	--	15
	51+15	-	51+45	RT	--	30
	51+51			LT/RT	--	65
W. MEINECKE AVE						
	49+10			LT/RT	--	43
	50+38	-	51+38	LT	107	--
	50+42	-	50+91	RT	17	30
	51+38			LT/RT	--	44
W. WRIGHT ST						
	49+51			LT/RT	--	43
	50+46			LT/RT	--	43
W. CLARKE ST						
	49+51			LT/RT	--	46
	50+67			LT/RT	--	43
W. CENTER ST						
	49+51			LT/RT	--	68
	50+67			LT/RT	--	64
W. HADLEY ST						
	49+32			LT/RT	--	59
	50+74			LT/RT	--	53
W. ALBANY PL						
	50+63			LT/RT	--	35
W. LOCUST ST						
	94+60			LT/RT	--	75
	94+79	-	94+94	LT	--	14
	95+19	-	95+33	LT	--	14
	97+29	-	97+55	LT	26	--
	97+89			LT/RT	--	90
W. GROELING AVE						
	49+35	-	49+40	LT/RT	--	34
	49+40	-	49+67	RT	30	-
	50+67			LT/RT	--	47
TOTALS CATEGORY 0010					**805**	**1,503**

REMOVING STORM SEWER PIPES

ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.001 REMOVING STORM SEWER 8-INCH LF	204.0245.002 REMOVING STORM SEWER 12-INCH LF
N. TEUTONIA AVE							
	101+70	13' LT	-	101+69	21' LT	8	--
	102+79	21' LT	-	102+67	1' LT	24	--
	102+67	13' RT	-	102+68	21' RT	8	--
	103+78	21' LT	-	103+78	13' LT	8	--
	103+83	14' RT	-	103+86	21' RT	8	--
	104+82	0' LT	-	104+82	13' LT	21	--
	105+37	15' RT	-	105+34	21' RT	8	--
	106+45	21' LT	-	106+37	3' LT	21	--
	106+26	1' RT	-	106+28	23' RT	13	
	108+33	13' RT	-	108+31	21' RT	8	--
	108+44	14' LT	-	108+48	21' RT	8	--
	110+39	21' LT	-	110+38	13' LT	8	--
	110+34	13' RT	-	110+33	21' RT	8	--
	111+35	13' RT	-	111+35	21' RT	8	--
	112+30	21' LT	-	112+30	13' LT	8	--
	112+31	13' RT	-	112+31	21' RT	8	--
	113+71	21' LT	-	113+71	13' LT	9	--
	113+74	13' RT	-	113+74	21' RT	8	--
	114+52	21' LT	-	114+50	13' LT	8	--
	116+92	21' LT	-	116+95	2' LT	19	--
	116+95	4' RT	-	116+96	21' RT	17	--
	117+90	21' LT	-	117+90	13' LT	8	--
	117+95	13' RT	-	117+95	21' RT	8	--
	118+75	21' LT	-	118+81	16' LT	8	--
	118+94	13' RT	-	118+93	21' RT	8	--
	119+20	21' LT	-	119+20	17' LT	6	--
	119+82	21' LT	-	119+80	13' LT	8	--
	120+40	13' RT	-	120+40	21' RT	8	--
	123+27	21' LT	-	123+26	13' LT	8	--
	123+25	13' RT	-	123+26	21' RT	8	--
	126+52	24' LT	-	126+52	1' LT	18	--
	126+50	4' RT	-	126+35	24' RT	19	--
	129+55	21' LT	-	129+51	14' LT	8	--
	129+51	14' RT	-	129+55	21' RT	8	--
	132+34	21' LT	-	132+31	14' LT	8	--
	132+24	3' RT	-	132+27	21' RT	19	--
	133+32	21' LT	-	133+30	13' LT	8	--
	133+16	15' RT	-	133+11	21' RT	8	--
	135+06	22' LT	-	135+11	16' LT	8	--
	135+22	13' RT	-	135+20	21' RT	8	--
	137+26	21' LT	-	137+24	13' LT	8	--
	137+34	15' RT	-	137+39	21' RT	8	--
	139+29	21' LT	-	139+25	14' LT	8	--

REMOVING STORM SEWER PIPES (CONTINUED)

ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.001 REMOVING STORM SEWER 8-INCH LF	204.0245.002 REMOVING STORM SEWER 12-INCH LF
N. TEUTONIA AVE							
	140+13	21' LT	-	140+24	20' RT	43	--
	140+22	22' RT	-	140+06	23' RT	--	17
	141+51	23' RT	-	141+23	1' RT	35	--
	142+57	21' LT	-	142+57	13' LT	8	--
	142+73	16' RT	-	142+78	22' RT	8	--
	143+68	22' LT	-	143+64	15' LT	8	--
	143+38	16' RT	-	143+32	22' RT	8	--
	146+82	20' LT	-	146+76	21' RT	42	--
	147+80	25' LT	-	147+79	18' LT	3	--
	147+78	15' RT	-	147+63	21' RT	39	--
	149+46	22' LT	-	149+40	17' LT	7	--
	149+69	14' RT	-	149+73	21' RT	8	--
	146+81	47' LT	-	146+83	23' LT	--	19

REMOVING STORM SEWER PIPES (CONTINUED)

ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.001 REMOVING STORM SEWER 8-INCH LF	204.0245.002 REMOVING STORM SEWER 12-INCH LF
W NORTH AVE							
	48+81	13' RT	-	48+81	21' RT	8	--
	50+33	13' LT	-	50+33	21' LT	8	--
	50+47	15.8' RT	-	50+53	22' RT	8	--
W MEINECKE AVE							
	49+57	4' LT	-	49+56	12' LT	8	--
	49+58	4' RT	-	49+60	11' RT	8	--
	50+38	13' RT	-	50+45	3' RT	12	--
	50+39	12' LT	-	50+45	2' LT	12	--
	50+95	RT, 4'	-	50+97	12' RT	8	--
W WRIGHT ST							
	50+43	11' LT	-	50+46	3' LT	8	--
	50+46	2' RT	-	50+42	10' RT	10	--
W CLARKE ST							
	49+55	3' LT	-	49+55	11' LT	8	--
	49+55	3' RT	-	49+58	11' RT	8	--
	50+38	11' LT	-	50+43	5' LT	8	--
	49+55	3' RT	-	49+58	11' RT	8	--
	50+38	11' LT	-	50+43	5' LT	8	--
	50+45	4' RT	-	50+42	11' RT	8	--
W CENTER ST							
	49+35	22' RT	-	49+41	16' RT	8	--
	50+41	21' LT	-	50+41	13' LT	8	--
	50+51	21' RT	-	50+48	14' RT	8	--
W HADLEY ST							
	49+51	16' LT	-	49+54	9' LT	8	--
	50+42	22' RT	-	50+48	17' RT	8	--
	50+41	18' LT	-	50+45	28' LT	11	--
	50+43	31' LT	-	50+17	40' LT	--	31
W LOCUST ST							
	96+74	105' RT	-	96+68	62' RT	44	--
	96+68	62' RT	-	96+91	87' RT	35	--
	96+68	62' RT	-	96+75	11' RT	--	51
	96+35	8' LT	-	96+38	30' LT	38	--
W GROELING AVE							
	49+50	2' LT	-	49+56	7' LT	8	--
	49+51	1' RT	-	49+67	8' RT	17	--
TOTALS CATEGORY 0010						**966**	**118**

REMOVING STORM SEWER STRUCTURES

ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
N. TEUTONIA AVE				
	101+69	23' LT	--	1
	102+68	23' RT	--	1
	102+79	23' LT	--	1
	103+78	23' LT	--	1
	103+87	23' RT	--	1
	104+81	23' LT	--	1
	105+33	23' RT	--	1
	106+27	23' RT	--	1
	106+46	23' LT	--	1
	108+31	23' RT	--	1
	108+49	23' LT	--	1
	110+33	23' RT	--	1
	110+40	23' LT	--	1
	111+35	23' RT	--	1
	112+30	23' LT	--	1
	112+31	23' RT	--	1
	113+71	23' LT	--	1
	113+74	23' RT	--	1
	114+52	23' LT	--	1
	116+92	23' LT	--	1
	116+95	23' RT	--	1
	117+90	23' LT	--	1
	117+95	23' RT	--	1
	118+73	23' LT	--	1
	118+93	23' RT	--	1
	119+16	23' LT	--	1
	119+82	23' LT	--	1
	120+40	23' RT	--	1
	123+26	23' RT	--	1
	123+27	23' LT	--	1
	126+52	23' LT	--	1
	126+35	23' RT	--	1
	129+56	23' LT	--	1
	129+56	23' RT	--	1
	132+28	23' RT	--	1
	132+35	23' LT	--	1
	133+10	23' RT	--	1
	133+33	23' LT	--	1
	135+05	23' LT	--	1

REMOVING STORM SEWER STRUCTURES (CONTINUED)

ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
N. TEUTONIA AVE				
	135+20	23' RT	--	1
	137+26	23' LT	--	1
	137+29	23' RT	--	1
	139+30	23' LT	--	1
	140+04	23' RT	--	1
	140+13	23' LT	--	1
	141+53	23' RT	--	1
	142+57	23' LT	--	1
	142+78	23' RT	--	1
	143+32	23' RT	--	1
	143+68	25' LT	--	1
	146+75	23' RT	--	1
	147+62	23' RT	--	1
	147+80	23' LT	--	1
	149+46	23' LT	--	1
	149+74	23' RT	--	1
W NORTH AVE				
	48+81	RT, 25.0'	--	1
	50+33	LT, 23.6'	--	1
	50+55	RT, 24.5'	--	1
W MEINECKE AVE				
	49+56	LT, 14.8'	--	1
	49+60	RT, 14.8'	--	1
	50+38	RT, 15.7'	--	1
	50+38	LT, 14.7'	--	1
	50+97	RT, 14.9'	--	1
W WRIGHT ST				
	50+42	RT, 14.2'	--	1
	50+43	LT, 14.0'	--	1
W CLARKE ST				
	49+56	LT, 14.0'	--	1
	49+58	RT, 13.9'	--	1
	50+37	LT, 14.0'	--	1
	50+41	RT, 14.0'	--	1

REMOVING STORM SEWER STRUCTURES (CONTINUED)

ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
W CENTER ST				
	49+33	RT, 24.0'	--	1
	50+41	LT, 23.7'	--	1
	50+52	RT, 23.9'	--	1
W HADLEY ST				
	49+50	LT, 19.0'	--	1
	50+40	LT, 17.1'	--	1
	50+45	LT, 30.1'	1	--
	50+50	RT, 17.2'	--	1
W GROELING AVE				
	49+55	LT, 9'	--	1
	49+68	RT, 8.8'	--	1
W LOCUST ST				
	96+74	RT, 105'	--	1
	96+91	RT, 87'	--	1
	96+35	RT, 8'	--	1
	96+68	RT, 62'	--	1
	96+38	LT, 30'	--	1
TOTALS CATEGORY 0010			**1**	**82**

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CONSTRUCTION STAKING

STATION	-	STATION	LOCATION	LENGT LF	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	SPV.0090.001 CONSTRUCTION STAKING CONCRETE SIDEWALK LF
101+61	-	149+77	TEUTONIA AVE	4,816	56	4,816	4,816	8,753	5	4,816	8,753
48+73	-	49+71	W. NORTH AVE (WEST)	98	1	98	98	2,220	2	98	2,220
50+27	-	51+51	W. NORTH AVE (EAST)	124	2	124	124	4,218	2	124	4,218
49+10	-	49+74	W. MEINECKE AVE (WEST)	64	2	64	64	2,315	2	64	2,315
50+26	-	51+38	W. MEINECKE AVE (EAST)	112	3	112	112	213	2	112	213
49+51	-	49+74	W. WRIGHT ST (WEST)	23	--	23	23	246	2	23	246
50+26	-	50+53	W. WRIGHT ST (EAST)	27	2	27	27	141	2	27	141
49+29	-	49+74	W. CLARKE ST (WEST)	46	2	46	46	253	2	46	253
50+26	-	50+67	W. CLARKE ST (EAST)	41	2	41	41	54	2	41	54
49+05	-	49+71	W. CENTER ST (WEST)	66	1	66	66	36	2	66	36
50+23	-	51+25	W. CENTER ST (EAST)	102	2	102	102	92	2	102	92
49+32	-	49+74	W. HADLEY AVE (WEST)	41	1	41	41	94	2	41	94
50+27	-	50+74	W. HADLEY AVE (EAST)	47	3	47	47	140	2	47	140
50+26	-	50+63	ALBANY PL	37	--	37	37	103	2	37	103
94+57	-	96+67	W. LOCUST AVE (WEST)	210	3	210	210	100	3	210	100
97+23	-	97+89	W. LOCUST AVE (EAST)	66	--	66	66	93	2	66	93
49+35	-	49+73	W. GROELING AVE (WEST)	38	2	38	38	71	1	38	71
50+26	-	50+67	W. GROELING AVE (EAST)	41	--	41	41	253	2	41	253
TOTALS CATEGORY 0010				**5,999**	**82**	**5,999**	**5,999**	**19,395**	**39**	**5,999**	**19,395**

CONSTRUCTION STAKING

PROJECT ID	DESCRIPTION	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (2080-00-73) LS
2080-00-73	N. TEUTONIA AVE	1
TOTALS CATEGORY 0010		**1**

DUST CONTROL SURFACE TREATMENT

LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
TEUTONIA AVE	45,269
TOTALS CATEGORY 0010	**45,269**

WATER

LOCATION	624.0100 WATER MGAL
PROJECT-BASE AGGREGATE	51
PROJECT- EXCAVATION	83
TOTAL CATEGORY 0010	**134**

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SANITARY SEWER ITEMS

LOCATION	STA	OFFSET	EXIST ELEV	PROP ELEV	611.0420 RECONSTRUCTING MANHOLES EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	COMMENT
TEUTONIA AVE	101+71	0' RT	685.92	685.85	--	1	
TEUTONIA AVE	102+65	2' RT	685.91	685.66	--	1	
TEUTONIA AVE	103+77	0' RT	685.93	686.01	--	1	
TEUTONIA AVE	104+82	13' LT	-	-	1	--	SEAL WITH MORTAR EXISTING RISER PIPE
TEUTONIA AVE	105+48	1' LT	686.18	686.06	--	1	
TEUTONIA AVE	106+37	1' LT	685.63	685.50	--	1	
TEUTONIA AVE	107+36	2' RT	684.82	684.65	--	1	
TEUTONIA AVE	108+37	1' LT	684.25	684.80	--	1	
TEUTONIA AVE	110+37	1.3'	683.14	683.15	--	1	
TEUTONIA AVE	112+32	1' RT	681.93	682.22	--	1	
TEUTONIA AVE	112+86	1' RT	681.76	681.80	--	1	
TEUTONIA AVE	114+48	0' RT	681.08	681.18	--	1	
TEUTONIA AVE	116+96	1' RT	679.97	680.29	--	1	
TEUTONIA AVE	118+96	1' LT	680.01	680.11	--	1	
TEUTONIA AVE	119+78	1' RT	680.04	680.14	--	1	
TEUTONIA AVE	123+24	1' RT	681.76	682.05	--	1	
TEUTONIA AVE	125+59	1' RT	682.92	682.76	--	1	
TEUTONIA AVE	126+52	2' RT	683.02	683.08	--	1	
TEUTONIA AVE	128+15	0' RT	683.89	683.67	--	1	
TEUTONIA AVE	129+42	0' RT	684.46	684.30	--	1	
TEUTONIA AVE	129+59	0' RT	684.50	684.36	--	1	
TEUTONIA AVE	132+23	0' RT	685.98	685.48	--	1	
TEUTONIA AVE	133+25	1' RT	686.73	686.20	--	1	
TEUTONIA AVE	133+85	1' LT	686.98	686.83	--	1	
TEUTONIA AVE	135+25	0' RT	687.77	687.80	--	1	
TEUTONIA AVE	137+22	1' LT	688.84	688.95	--	1	
TEUTONIA AVE	139+19	0' RT	690.71	690.76	--	1	
TEUTONIA AVE	140+24	22' RT	60.73	690.50	--	1	
TEUTONIA AVE	141+20	0' LT	691.17	690.83	--	1	
TEUTONIA AVE	142+56	1' RT	691.62	691.73	--	1	
TEUTONIA AVE	143+56	1' RT	692.07	692.23	--	1	
TEUTONIA AVE	145+20	0' RT	693.07	693.07	--	1	

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SANITARY SEWER ITEMS (CONTINUED)

LOCATION	STA	OFFSET	EXIST ELEV	PROP ELEV	611.0420 RECONSTRUCTING MANHOLES EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	COMMENT
TEUTONIA AVE	146+29	24' LT	694.37	693.87	--	1	
TEUTONIA AVE	146+83	23' LT	639.73	694.11	--	1	
TEUTONIA AVE	146+94	1' LT	694.19	694.19	--	1	
TEUTONIA AVE	147+79	16' LT	694.31	694.69	--	1	
TEUTONIA AVE	149+05	11' RT	695.39	695.39	--	1	
TEUTONIA AVE	149+09	0' RT	695.55	695.55	--	1	
TEUTONIA AVE	149+62	2' LT	695.59	695.65	--	1	
NORTH AVE	49+62	1' LT	685.77	685.45	--	1	
NORTH AVE	50+33	1' RT	686.55	686.25	--	1	
MEINECKE AVE	49+57	1' LT	681.03	680.78	--	1	
MEINECKE AVE	50+46	1' RT	681.61	681.57	--	1	
WRIGHT ST	49+57	0' RT	649.87	679.75	--	1	
WRIGHT ST	49+64	1' RT	649.88	679.74	--	1	
CLARKE ST	49+55	1' RT	682.70	682.63	--	1	
CLARKE ST	50+46	1' RT	682.56	682.64	--	1	
CENTER ST	49+58	1' RT	686.29	685.67	--	1	
CENTER ST	50+40	1' LT	686.69	686.16	--	1	
HADLEY ST	49+59	1' RT	690.03	689.75	--	1	
LOCUST AVE	94+63	4' LT	694.79	694.79	--	1	
LOCUST AVE	95+70	8' LT	694.78	694.78	--	1	
LOCUST AVE	96+54	11' LT	694.37	694.02	--	1	
LOCUST AVE	97+38	15' LT	693.36	693.36	--	1	
GROELING AVE	49+48	0' RT	695.88	695.82	--	1	
GROELING AVE	50+46	0' RT	695.16	695.16	--	1	
TOTALS CATEGORY 0010					**1**	**55**	

EROSION CONTROL AND RESTORATION

STA	TO	STA	LOCATION	625.0100 TOPSOIL SY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	629.0210 FERTILIZER TYPE B CWT	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
101+61	-	113+50	TEUTONIA AVE	127	--	--	.1	2.9	127
113+50	-	136+00	TEUTONIA AVE	387	--	--	.2	8.7	387
136+00	-	149+77	TEUTONIA AVE	433	--	--	.3	9.7	433
48+73	-	49+71	W. NORTH AVE (WEST)	48	--	--	.0	1.1	48
50+27	-	51+51	W. NORTH AVE (EAST)	31	--	--	.0	.7	31
49+10	-	49+74	W. MEINECKE AVE (WEST)	29	--	--	.0	.7	29
50+26	-	51+38	W. MEINECKE AVE (EAST)	52	--	--	.0	1.2	52
49+51	-	49+74	W. WRIGHT ST (WEST)	3	--	--	.0	.1	3
50+26	-	50+53	W. WRIGHT ST (EAST)	2	--	--	.0	--	2
49+29	-	49+74	W. CLARKE ST (WEST)	15	--	--	.0	.3	15
50+26	-	50+67	W. CLARKE ST (EAST)	16	--	--	.0	.4	16
49+05	-	49+71	W. CENTER ST (WEST)	4	--	--	.0	.1	4
50+23	-	51+25	W. CENTER ST (EAST)	51	--	--	.0	1.1	51
49+32	-	49+74	W. HADLEY AVE (WEST)	4	--	--	.0	.1	4
50+27	-	50+74	W. HADLEY AVE (EAST)	16	--	--	.0	.4	16
94+57	-	96+67	W. LOCUST AVE (WEST)	367	--	--	.2	8.2	367
97+23	-	97+89	W. LOCUST AVE (EAST)	103	--	--	.1	2.3	103
49+35	-	49+73	W. GROELING AVE (WEST)	5	--	--	.0	.1	5
50+26	-	50+67	W. GROELING AVE (EAST)	2	--	--	.0	--	2
SUBTOTAL				1,695	--	--	1.1	38.1	1,695
UNDISTRIBUTED				170	2	2	--	4.0	170
TOTALS CATEGORY 0(				**1,865**	**2**	**2**	**1.1**	**42.1**	**1,865**

INLET PROTECTION

STATION	TO	STATION		628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
101+61	-	113+50	TEUTONIA AVE	27	44	11	--
113+50	-	136+00	TEUTONIA AVE	11	17	5	--
136+00	-	149+77	TEUTONIA AVE	16	29	3	--
48+73	-	49+71	W. NORTH AVE (WEST)	1	2	--	--
50+27	-	51+51	W. NORTH AVE (EAST)	2	4	--	--
49+10	-	49+74	W. MEINECKE AVE (WEST)	2	2	2	--
50+26	-	51+38	W. MEINECKE AVE (EAST)	3	4	2	--
50+26	-	50+53	W. WRIGHT ST (EAST)	2	4	--	--
49+29	-	49+74	W. CLARKE ST (WEST)	2	4	--	--
50+26	-	50+67	W. CLARKE ST (EAST)	2	2	2	--
49+05	-	49+71	W. CENTER ST (WEST)	1	3	1	--
50+23	-	51+25	W. CENTER ST (EAST)	2	4	--	--
49+32	-	49+74	W. HADLEY AVE (WEST)	1	2	--	--
50+27	-	50+74	W. HADLEY AVE (EAST)	2	4	--	--
94+57	-	96+67	W. LOCUST AVE (WEST)	3	6	--	--
49+35	-	49+73	W. GROELING AVE (WEST)	2	4	--	--
SUBTOTAL				79	135	26	--
UNDISTRIBUTED				--	--	--	10
TOTALS CATEGORY 0010				**79**	**135**	**26**	**10**

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PAVEMENT MARKING ITEMS

LOCATION	STATION	TO	STATION	646.1020 MARKING EPOXY 4-INCH SOLID WHITE LF	646.1020 MARKING EPOXY 4-INCH SOLID YELLOW LF	646.1020 MARKING EPOXY 4-INCH 10FT LINE 30 FT SKIP YELLOW LF	646.1020 MARKING EPOXY 4-INCH 2 FT LINE 6 FT SKIP WHITE LF	646.1020 MARKING EPOXY 4-INCH 10 FT LINE 30 FT SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SOLID WHITE LF	646.5020 MARKING ARROW EPOXY WHITE EACH	646.5120 MARKING WORD EPOXY WHITE EACH	646.5220 MARKING SYMBOL EPOXY WHITE EACH	646.6120 MARKING STOPLINE 18-INCH EPOXY WHITE LF	SPV.0090.002 MARKING CROSSWALK EPOXY 12-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH	646.7520 MARKING CROSSWALK 24-INCH LADDER EPOXY WHITE LF
N TEUTONIA AVE																	
	101+61.14	-	113+81.27	2915	1266	223	141	--	176	9	2	8	63	332	--	--	44
	113+87.27	-	129+83.94	4881.4	927	479	101	--	--	11	--	11	--	513	--	--	44
	129+83.94	-	142+73	2888	321	490	137	--	225	10	2	9	59	372	--	--	32
	142+73	-	149+76.53	408	905	18	23	--	125	5	1	6	51	314	79	2	--
W NORTH AVE					--	--	--										
	46+98.23	-	49+75	--	510	--	21	--	175	2	1	--	31	102	--	--	--
	50+25	-	51+76.63	102	265	--	21	--	54	2	--	1	31	101	--	--	--
W WRIGHT ST					--	--	--										
	49+62			--	--	--	--	--	--	--	--	--	--	27	--	--	--
	49+68			--	--	--	--	--	--	--	--	--	--	31	--	--	--
	50+38			--	--	--	--	--	--	--	--	--	--	27	--	--	--
	50+44			--	--	--	--	--	--	--	--	--	--	26	--	--	--
W CLARKE ST					--	--	--										
	50+27			--	--	--	--	--	--	--	--	--	--	32	--	--	--
	50+33			--	--	--	--	--	--	--	--	--	--	28	--	--	--
W CENTER ST					--	--	--										
	47+49	-	49+75	78	425	--	41	--	127	3	1	2	30	100	--	--	--
	50+25	-	52+74.78	390	475	--	42		152	4	1	2	30	94	--	--	--
W HADLEY ST					--	--	--										
	49+63			--	--	--	--	--	--	--	--	--	--	38	--	--	--
	49+69			--	--	--	--	--	--	--	--	--	--	41	--	--	--
	50+35			--	--	--	--	--	--	--	--	--	--	37	--	--	--
	50+40			--	--	--	--	--	--	--	--	--	--	34	--	--	--
EB LOCUST ST					--	--	--										
	94+56.99	-	96+81.92	122	197	--	52	52	102	1	1	2	70	221	--	1	--
	97+25	-	97+88.90	--	39	--	--	12	--	--	--	1	--	199	--	1	--
WB LOCUST ST					--	--	--										
	94+59.86	-	96+50	--	194	--	--	48	--	--	--	1	--	--	--	--	--
	97+25	-	99+48.61	--	204	--	21	14	128	2	1	1	53	--	--	--	--
SUBTOTAL				11,784	5,728	1,210	599	127	1,264	49	10	44	418	2,669	79	4	120
TOTALS CATEGORY 0010						**19,448**			**1,264**	**49**	**10**	**44**	**418**	**2,669**	**79**	**4**	**120**

3

REMOVING SIGNS

SIGN #	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
R100	1	0	R101	SCHOOL SPEED LIMIT 20
R101	1	0	R100	2 HOUR PARKING
R102	1	0		2 HOUR PARKING
R103	1	0		2 HOUR PARKING
R200	1	0		BUS STOP
R201	1	0		BUS STOP
R202	1	1	R203	1 HOUR PARKING - RIGHT
R203	1	0	R202	NO PARKING - LEFT - BUS STOP
R204	1	0		NO STOPPING ANY TIME
R205	1	0	R206	1 HOUR PARKING - RIGHT
R206	1	0	R205	NO STOPPING ANY TIME - LEFT
R207	1	0		BUS STOP
R208	1	0		LEFT LANE MUST TURN LEFT
R209	1	0	R210, R211	TO
R210	1	0	R209, R211	INTERSTATE 43
R211	1	0	R209, R210	UP ARROW
R212	1	0	R213	SPEED LIMIT 30
R213	1	0	R212	1 HOUR PARKING - LEFT
R214	1	0		1 HOUR PARKING
R300	1	1	R301	CROSSWALK
R301	1	0	R300	DOWN/LEFT ARROW
R302	1	1		STOP
R303	1	0	R304	W MEINECKE AVE
R304	1	0	R303	N TEUTONIA AVE
R305	1	0	R306	CROSSWALK
R306	1	0	R305	AHEAD
R307	1	1	R308, R323	CROSSWALK
R308	1	0	R307, R323	DOWN/LEFT ARROW
R309	1	0	R310	NO PARKING - LEFT
R310	1	0	R309	2 HOUR PARKING - RIGHT
R311	1	0	R312	SCHOOL SPEED LIMIT 20
R312	1	0	R311	FINES HIGHER
R313	1	0	R314	NO PARKING - LEFT - BUS STOP

REMOVING SIGNS (CONTINUED)

SIGN #	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
R314	1	0	R313	1 HOUR PARKING - RIGHT
R315	1	1	R316, R317	BUS STOP
R316	1	0	R315, R317	CROSSWALK
R317	1	0	R315, R316	DOWN/LEFT ARROW
R318	1	1		STOP
R319	1	1	R320	CROSSWALK
R320	1	0	R319	DOWN/LEFT ARROW
R321	1	1	R322	2 HOUR PARKING - RIGHT
R322	1	0	R321	NO PARKING - LEFT
R323	1	0	R307, R308	BUS STOP
R400	1	1	R401	CROSSWALK
R401	1	0	R400	AHEAD
R402	1	0		BUS STOP
R403	1	0		END SCHOOL ZONE
R404	1	0	R405	BUS STOP
R405	1	0	R404	N TEUTONIA AVE
R406	1	0		W WRIGHT ST
R407	1	0	R408	CROSSWALK
R408	1	0	R407	2 HOUR PARKING - RIGHT
R409	1	0		NO TRUCKS - 3 TONS OR OVER
R500	1	0	R501	SPEED LIMIT 30
R501	1	0	R500	2 HOUR PARKING
R502	1	0	R503	N TEUTONIA AVE
R503	1	0	R502	STOP
R504	1	1		BUS STOP
R505	1	0		SCHOOL SPEED LIMIT 20
R506	1	1		NO PARKING - LEFT
R507	1	0		SCHOOL SPEED LIMIT 20
R508	1	0	R509	2 HOUR PARKING - RIGHT
R509	1	0	R508	NO PARKING - BUS STOP - LEFT
R510	1	1		BUS STOP
R511	1	1		STOP
R512	1	0		W CLARKE ST
R513	1	1		NO PARKING - DEC/FEB
R600	1	0	R602, R603	LEFT LANE MUST TURN LEFT
R601	1	0		W CENTER ST
R602	1	0	R600, R603	BUS STOP
R603	1	0	R600, R602	W CENTER ST
R604	1	0	R605	N TEUTONIA AVE
R605	1	0	R604	BUS STOP
R606	1	0	R607	GREATER NEW BIRTH MINISTRIES - TURN RIGHT

REMOVING SIGNS (CONTINUED)

SIGN #	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
R607	1	0	R606	NO PARKING - LEFT
R608	1	1		NO PARKING - LEFT
R609	1	0	R610	GREATER NEW BIRTH MINISTRIES - TURN LEFT
R610	1	0	R609	NO PARKING
R611	1	0		W CENTER ST
R612	1	1		NO PARKING
R613	1	0	R614	LEFT TURN MUST TURN LEFT
R614	1	0	R613	BUS STOP
R700	1	0	R701	END SCHOOL ZONE
R701	1	0	R700	NO PARKING - RIGHT
R702	1	1		STOP (DOUBLE SIDED)
R703	1	1	R704, R705	BUS STOP
R704	1	0	R703, R705	CROSSWALK
R705	1	0	R703, R704	DOWN/LEFT ARROW
R706	1	0	R707	CROSSWALK
R707	1	0	R706	AHEAD
R708	1	0		FINES HIGHER
R709	1	0		NO PARKING
R710	1	1	R711. R712	BUS STOP
R711	1	0	R710, R712	CROSSWALK
R712	1	0	R710, R711	DOWN/LEFT ARROW
R713	1	1	R714	MEDIAN MARKER
R714	1	0	R713	HAZARD WARNING
R715	1	1		STOP(DOUBLE SIDED)
R716	1	1		NO PARKING - LEFT
R717	1	0	R715	STOP, MIGHT BE DOUBLE SIDED
R718	1	1		NO PARKING - BUS STOP - LEFT
R719	1	0	R702	STOP (DOUBLE SIDED)
R720	1	0	R715	STOP (DOUBLE SIDED)
R800	1	1		NO PARKING - RIGHT
R801	1	0	R802	BUS STOP
R802	1	0	R801	NO PARKING
R803	1	1		STOP
R804	1	0		NO TURN ON RED
R805	1	0		NO TURN ON RED
R806	1	1		NO PARKING
R807	1	1		NO PARKING
R808	1	1		FIRE DEPT VEHICLE PARKING ONLY
R809	1	0		N TEUTONIA AVE
R810	1	1		NO PARKING - RIGHT

3

REMOVING SIGNS (CONTINUED)

SIGN #	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
R811	1	0		BUS STOP
R812	1	0	R813	MEDIAN MARKER
R813	1	0	R812	HAZARD WARNING
R814	1	0		BUS STOP
R815	1	0		W LOCUST ST
R816	1	0	R817	HAZARD WARNING
R817	1	0	R816	MEDIAN MARKER
R818	1	0	R819, R820	TO
R819	1	0	R818, R820	INTERSTATE 43
R820	1	0	R818, R819	UP ARROW
R900	1	0	R901	STOP HERE ON RED, DOWN/LEFT ARROW
R901	1	0	R900	STOP HERE ON RED, DOWN/LEFT ARROW
R902	1	0	R904, R905, R906	ONE WAY - RIGHT
R903	1	1		STOP
R904	1	0	R902, R905, R906	W GROELING AVE
R905	1	0	R902, R904, R906	ONE WAY - LEFT
R906	1	0	R902, R904, R905	N TEUTONIA AVE
R907	1	1		STOP
PROJECT 2080-00-73 TOTAL	132	31		

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TEMPORARY PEDESTRIAN ACCOMODATIONS

PROJECT ID	DESCRIPTION	644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1430.S TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1601.S TEMPORARY CURB RAMP EACH	644.1616.S TEMPORARY PEDESTRIAN SAEFTY FENCE LF
2080-00-73	N. TEUTONIA AVE	2500	2150	200	34	782
TOTALS CATEGORY 0010		**2500**	**2150**	**200**	**34**	**782**

EXCAVATION, HAULING AND DISPOSING OF CONTAMINTAED SOIL

PROJECT ID	DESCRIPTION	SPV.0195.001 EXCAVATION, HAULING, AND DISPOSAL OF METALS AND VOC CONTAMINATED SOIL TON	205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL TON
2080-00-73	N. TEUTONIA AVE	1981	2150
TOTALS CATEGORY 0010		**1981**	**2150**

UTILITY LINE OPENING

PROJECT ID	DESCRIPTION	SPV.0060.06 UTILIY LINE OPENING (ULO) EACH
2080-00-73	N. TEUTONIA AVE	40
TOTALS CATEGORY 0010		**40**

TRAFFIC CONTROL SIGNS FIXED MESSAGE

DESCRIPTION	SIZE IN x IN	NUMBER OF SIGNS REQUIRED	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
WESTBOUND NORTH AVE CLOSED AT TEUTONIA AVE FIND ALTERNATE ROUTE	42 x 72	1	21
EASTBOUND NORTH AVE CLOSED TO TEUTONIA AVE FIND ALTERNATE ROUTE	42 x 72	1	21
SOUTHBOUND TEUTONIA CLOSED AT GROELING FIND ALTERNATE ROUTE	42 x 72	1	21
WESTBOUND LOCUST ST CLOSED AT TEUTONIA AVE FIND ALTERNATE ROUTE	42 x 72	1	21
EASTBOUND LOCUST ST CLOSED AT 16TH ST. FIND ALTERNATE ROUTE	42 x 72	1	21
WESTBOUND CENTER ST CLOSED AT TEUTONIA FIND ALTERNATE ROUTE	42 x 72	1	21
EASTBOUND CENTER ST CLOSED AT TEUTONIA FIND ALTERNATE ROUTE	42 x 72	1	21
TOTAL CATEGORY 0010			**147**

TRAFFIC CONTROL

ROADWAY	643.5000 TRAFFIC CONTROL EACH
N. TEUTONIA AVENUE	1
TOTALS CATEGORY 0010	**1**

TRAFFIC CONTROL ITEMS

STAGE	LOCATION	STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS
1	TEUTONIA AVE	101	204	20,560	91	9,191	--	--	182	18,382	204	20,560	58	5,858
	GARFIELD AVE		--	--	--	--	--	--	--	--	--	--	4	404
	NORTH AVE		18	1,794	10	1,010	27	27	20	2,020	18	1,794	19	1,919
	MEINECKE AVE		--	--	10	1,010	--	--	20	2,020	--	--	12	1,212
	WRIGHT ST		--	--	9	909	--	--	18	1,818	--	--	11	1,111
	CLARKE ST		--	--	9	909	--	--	18	1,818	--	--	11	1,111
	CENTER ST		19	1,963	15	1,515	23	23	30	3,030	19	1,963	22	2,222
	HADLEY ST		--	--	9	909	--	--	18	1,818	--	--	12	1,212
	ALBANY PL		--	--	--	--	--	--	--	--	--	--	2	202
	LOCUST ST		78	7,862	24	2,424	--	--	48	4,848	78	7,862	37	3,737
	GROELING AVE		--	--	5	505	--	--	10	1,010	--	--	9	909
	N 12TH ST		13	1,313	16	1,616	10	10	32	3,232	13	1,313	12	1,212
1B	TEUTONIA AVE	7	213	1,492	92	644	--	--	184	1,288	213	1,492	52	364
	GARFIELD AVE		--	--	--	--	--	--	--	--	--	--	4	28
	NORTH AVE		--	--	21	147	--	--	42	294	--	--	14	98
	MEINECKE AVE		--	--	10	70	--	--	20	140	--	--	12	84
	WRIGHT ST		--	--	9	63	--	--	18	126	--	--	11	77
	CLARKE ST		--	--	9	63	--	--	18	126	--	--	11	77
	CENTER ST		--	--	22	154	--	--	44	308	--	--	18	126
	HADLEY ST		--	--	9	63	--	--	18	126	--	--	12	84
	ALBANY PL		--	--	--	--	--	--	--	--	--	--	3	21
	LOCUST ST		8	56	22	154	--	--	44	308	8	56	29	203
	GROELING AVE		--	--	5	35	--	--	10	70	--	--	9	63
	N 12TH ST		13	91	17	119	10	10	34	238	13	91	12	84

TRAFFIC CONTROL ITEMS (CONTINUED)

STAGE	LOCATION	STAGE DURATION	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0900 TRAFFIC CONTROL SIGNS	
		DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	EACH	DAYS	EACH	DAYS	EACH	DAYS
2	TEUTONIA AVE	130	206	26,780	103	13,390	--	--	206	26,780	206	26,780	53	6,890
	LLOYD ST		--	--	--	--	--	--	--	--	--	--	4	520
	GARFIELD AVE		--	--	--	--	--	--	--	--	--	--	4	520
	NORTH AVE		21	2,673	15	1,950	16	16	30	3,900	21	2,673	19	2,470
	MEINECKE AVE		--	--	9	1,170	--	--	18	2,340	--	--	11	1,430
	WRIGHT ST		--	--	9	1,170	--	--	18	2,340	--	--	11	1,430
	CLARKE ST		--	--	9	1,170	--	--	18	2,340	--	--	11	1,430
	CENTER ST		28	3,575	15	1,950	31	31	30	3,900	28	3,575	19	2,470
	HADLEY ST		--	--	9	1,170	--	--	18	2,340	--	--	12	1,560
	ALBANY PL		--	--	8	1,040	--	--	16	2,080	--	--	7	910
	LOCUST ST		86	11,242	13	1,690	--	--	26	3,380	86	11,242	22	2,860
	GROELING AVE		--	--	10	1,300	--	--	20	2,600	--	--	9	1,170
	N 12TH ST		40	5,236	16	2,080	15	15	32	4,160	40	5,236	15	7,261
2B	TEUTONIA AVE	7	10	70	10	70	--	--	20	140	10	70	6	42
TOTALS CATEGORY 0010				**61,910**		**34,900**	**70**	**70**		**69,800**		**61,910**		**29,308**

CITY UNDERGROUND CONDUIT

LOCATION	CATEGORY 0020											
	ADJUSTING CUC MANHOLE COVER SPV.0060.400		ABANDONING MANHOLES 204.0250	REMOVING CUC MANHOLE SPV.0060.420	4' DIAMETER MANHOLE TYPE CUC SPV.0060.401	INSTALLING CONDUIT INTO EXISTING MANHOLE SPV.0060.425	5' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC INSTALLED OVER CONDUIT SPV.0060.413	5' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC SPV.0060.412	8-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETTALIC CONDUIT DB-60 SPV.0090.408	6-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETTALIC CONDUIT DB-60 SPV.0090.406	4-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETTALIC CONDUIT DB-60 SPV.0090.404	2-DUCT CONDUIT, CEMENT ENCASED, 4-INCH RIGID NONMETTALIC CONDUIT DB-60 SPV.0090.402
	EACH	NEW COVER*	EACH	EACH	EACH	EACH	EACH	EACH	LF	LF	LF	LF
STA 101+61.1, 6.7 LT - MANHOLE 600										396		
MANHOLE 603R - STA 105+57.7, 6.7 LT				1								
MANHOLE 600 - STA 105+57.3, 5.6 LT								1				
MANHOLE 600 TO MANHOLE 601										17		
MANHOLE 601 - STA 105 + 77.9, 5.5 LT							1					
MANHOLE 604A - STA 106 + 32.2, 6.1 LT			1									
MANHOLE 600 - PROPOSED TRAFFIC CC												57
MANHOLE 601 TO MANHOLE 605										441		
MANHOLE 602 - STA 105+89.9, 35.6 LT	1											
MANHOLE 605 - STA 110+21, 5.5 LT					1							
MANHOLE 605 TO MANHOLE 606										443		
MANHOLE 606 - STA 114+67.3, 5.5 LT					1							
MANHOLE 606 TO MANHOLE 607										439		
MANHOLE 607 - STA 119+10.3, 5.5 LT					1							
MANHOLE 608R - STA 119+62.6, 13.6 RT				1								
MANHOLE 609 - STA 119+62.5, 17.3 RT					1							
MANHOLE 607 TO PROPOSED TRAFFIC CC												56
MANHOLE 607 - STA 119+57.6, 5.5'LT									46			
STA 119+57.6, 5.5 LT - MANHOLE 609												19
STA 119+57.6, 5.5 LT - MANHOLE 610										493		
MANHOLE 610 TO MANHOLE 611										537		
MANHOLE 610 - STA 124+52.3, 5.5 LT					1							
MANHOLE 611 - STA 129+93.9, 5.5 LT					1							
MANHOLE 611 - STA 132+30.5, 5.5 LT										234		
MANHOLE 612 - STA 132+65.3, 8.9 LT							1					
MANHOLE 612 - STA 132+30.5, 5.5 LT									33			
STA 132+30.5, 5.5LT - PROPOSED TRAFFIC CC												25
MANHOLE 612 - STA 132+51, 123 RT											132	
MANHOLE 612 TO MANHOLE 614										267		
MANHOLE 613R - STA 132+65.3, 10.3 LT				1								
MANHOLE 614 - STA 135+38.0, 5.5 LT					1							
MANHOLE 614 TO MANHOLE 615										538		
MANHOLE 615 - STA 140+80, 5.5' LT					1							
MANHOLE 615 - MANHOLE 616												41
MANHOLE 616 - STA 140+80, 39.3 RT	1	1										
MANHOLE 615 TO MANHOLE 617										478		
MANHOLE 617 - STA 145+62.1, 5.5' LT					1							
MANHOLE 618 - STA 146+34.9, 34.1' RT	1											
MANHOLE 619 - STA 146+63.6, 84.7' LT	1											
MANHOLE 617 - STA 145+58.4, 8.5' RT									12			
STA 145+58.4, 8.5' RT - MANHOLE 618										80		
STA 145+58.4, 8.5' RT - PROPOSED TRAFFIC CC												62
MANHOLE 617 TO MANHOLE 620										374		
MANHOLE 620 - STA 149+40.3, 5.5' LT					1							
MANHOLE 621R - STA 149+30.4, 31' RT				1								
MANHOLE 622 - STA 149+30.4, 31' RT							1					
MANHOLE 620 - STA 149+76.4, 5.5' LT										34		
MANHOLE 616 - STA 140+80, 39.3 RT						1						
MANHOLE 618 - STA 146+34.9, 34.1' RT						1						
MANHOLE 620 - MANHOLE 622												34
SUBTOTAL	4		1	4	10	2	3	1	91	4771	132	294
TOTAL	4		1	4	10	2	3	1	91	4771	132	294

*FOR INFORMATION ONLY

TEMPORARY PAVEMENT MARKING

STAGE	LOCATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT YELLOW 4-INCH LF	COMMENTS
1	TEUTONIA AVE	--	--	--	288	4,721	--	--	--	
	N. GARFIELD AVE	--	--	--	--	50	--	16	--	
	NORTH AVE	782	32	4	695	1,364	63	43	--	
	CENTER ST	913	59	4	801	1,171	--	20	8	
	LOCUST ST	--	--	--	1,232	1,273	279	69	--	
	12TH ST	--	--	--	223	380	286	12	404	
2	TEUTONIA AVE	--	--	--	--	4,993	--	--	--	
	W. GARFIELD AVE	--	--	--	--	50	--	16	--	
	NORTH AVE	527	--	2	1,530	1,812	--	41	--	
	W. MEINECKE AVE	--	--	--	--	110	--	15	--	
	W. WRIGHT ST.	--	--	--	--	62	--	14	--	
	W. CLARKE ST	--	--	--	--	209	--	13	--	
	CENTER ST	--	--	--	892	1,563	--	20	--	
	W. HADLEY ST	--	--	--	--	78	--	18	--	
	LOCUST ST	--	--	--	464	2,524	209	65	--	
	12TH ST	--	--	--	516	1,189	--	12	--	
2B	TEUTONIA AVE	--	--	--	--	498	--	--	--	
	TOTAL CATEGORY 0010	**2,222**	**91**	**10**		**28,190**	**551**	**346**	**412**	

ADJUSTING WATER VALVES AND MANHOLES

LOCATION	SPV.0060.010 ADJUSTING WATER BOXES EACH	SPV.0060.011 ADJUSTING WATER MANHOLES EACH
TEUTONIA AVE	135	5
W NORTH AVE	10	2
W MEINECKE AVE	4	--
W WRIGHT ST	2	--
W CLARKE ST	3	--
W HADLEY ST	3	--
W ALBANY PL	1	--
W LOCUST ST	4	--
W GROELING AVE	1	--
W NORTH AVE	–	2
W ALBANY PL	–	1
TOTAL CATEGORY 0020	**163**	**10**

3

PIPE CONNECTION TO EXISTING STRUCTURE

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	SPV.0060.012 PIPE CONNECTION TO EXISTING STRUCTURE EACH
N. TEUTONIA AVE				
	MH123	101+71	0'	1
	MH117	102+65	2' RT	1
	MH110	103+77	0'	2
	MH102	105+48	1' LT	1
	MH312	108+37	1' LT	2
	MH318	110+37	1' LT	2
	11319A	111+36	1' RT	1
	MH326	112+31	1' RT	2
	11341A	113+71	0.5' RT	1
	11341C	113+75	0.5' RT	1
	MH402	114+48	0.5' LT	1
	MH408	116+95	1' RT	2
	11409A	117+90	0'	1
	11409B	117+95	0'	1
	MH418	118+96	1' LT	3
	MH448	119+78	0.5' RT	1
	11443B	120+40	13' RT	1
	MH442	123+24	1' RT	2
	E512	126+52	1.5' RT	2
	MH504	129+42	0'	2
	MH606	132+23	0'	2
	MH633	133+25	0.5' RT	2
	MH624	135+25	0'	2
	MH618	137+22	0.5' LT	2
	MH612	139+19	0'	2
	E829	140+24	22' RT	2
	MH817	141+20	0'	1
	MH812	142+56	1' LT	2
	MH806	143+56	1' RT	2
	MH918	146+83	1' LT	1
	MH910	147+79	16' LT	2
	11901_SS_C	149+39	16.5' LT	1
	MH1204	149+62	1.5' LT	1

PIPE CONNECTION TO EXISTING STRUCTURE (CONTINUED)

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	SPV.0060.012 PIPE CONNECTION TO EXISTING STRUCTURE EACH
W NORTH AVE				
	11209A	48+81	13' RT	1
	MH206	50+33	1' RT	2
W MEINECKE AVE				
	E350	49+57	0.5' LT	2
	E338	50+46	1' RT	2
	E332	50+95	1' RT	1
W WRIGHT ST				
	E434	50+48	0.5' LT	2
W CLARKE ST				
	E525	49+55	0.5' RT	2
	E519	50+46	1' RT	2
W CENTER ST				
	MH645	49+58	1' RT	1
	MH641	50+40	1' LT	2
W HADLEY ST				
	MH833	49+59	1' RT	1
	E821	50+45	22' RT	1
W LOCUST ST				
	MH918_SS	96+75	11' RT WB	1
	MH926_SS	96+61	40.5' LT	1
W GROELING AVE				
	E1005	49+48	0'	2
TOTALS CATEGORY 0010				**75**

CONCRETE COLLARS FOR PIPE

ROADWAY	STATION	OFFSET	520.8000 CONCRETE COLLARS FOR PIPE EACH
N. TEUTONIA AVE			
	101+70	13' LT	1
	102+67	1' LT	1
	103+78	13' LT	1
	103+83	14' RT	1
	105+37	15' RT	1
	108+33	13' RT	1
	108+44	14' LT	1
	110+39	21' LT	1
	110+34	13' RT	1
	111+35	13' RT	1
	112+30	13' LT	1
	112+31	13' RT	1
	113+71	13' LT	1
	113+74	13' RT	1
	114+50	13' LT	1
	117+90	13' LT	1
	117+95	13' RT	1
	118+81	16' LT	1
	118+94	13' RT	1
	119+20	17' LT	1
	119+80	13' LT	1
	120+40	13' RT	1
	123+26	13' LT	1

CONCRETE COLLARS FOR PIPE (CONTINUED)

ROADWAY	STATION	OFFSET	520.8000 CONCRETE COLLARS FOR PIPE EACH
N. TEUTONIA AVE			
	123+25	13' RT	1
	129+51	14' LT	1
	129+51	14' RT	1
	133+30	13' LT	1
	133+16	15' RT	1
	135+11	16' LT	1
	135+22	13' RT	1
	137+24	13' LT	1
	137+34	15' RT	1
	139+25	14' LT	1
	142+73	16' RT	1
	143+64	15' LT	1
	143+38	16' RT	1
	149+40	17' LT	1
	149+69	14' RT	1
W NORTH AVE			
	48+81	13' RT	1
	50+33	13' LT	1
	50+47	15.8' RT	1
W CENTER ST			
	49+41	16' RT	1
	50+41	13' LT	1
	50+48	14' RT	1
W HADLEY ST			
	49+54	9' LT	1
	50+42	22' RT	1
TOTALS CATEGORY 0010			**46**

STORM SEWER STRUCTURES																STORM SEWER PIPES														
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	SPV.0060.005 CATCH BASINS TYPE 45A EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	SPV.0060.004 INLETS TYPE 44A EACH	SPV.0060.003 MANHOLE COVERS TYPE 58-A EACH	SPV.0060.001 INLET COVERS TYPE 57 EACH	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	PIPE COMMENTS
N. TEUTONIA AVE	100	---	105+32.37	25.0	RT	686.12	INLETS 4-FT DIAMETER	57	4.69	---	---	1	---	1	---	P101	---	100	PE101A	681.43	681.27	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE101A	---	P101	MH102	681.27	680.95	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	104	---	105+25.15	25.0	LT	685.46	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P105	---	104	E105A	681.21	680.68	2.00	27	32	---	8	32	---	---
N. TEUTONIA AVE	106	---	103+87.07	25.0	RT	685.51	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P107	---	106	PE107A	681.26	681.10	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE107A	---	P107	MH110	681.15	680.91	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	108	---	103+77.75	25.0	LT	685.14	INLETS 4-FT DIAMETER	57	4.61	---	---	1	---	1	---	P109	---	108	PE109A	680.53	680.37	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE109A	---	P109	MH110	680.37	680.17	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	112	---	102+50.15	25.0	LT	684.76	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P113	---	112	MH117	680.51	680.03	2.00	24	29	---	8	29	---	---
N. TEUTONIA AVE	115	---	102+68.46	25.0	RT	685.15	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P116	---	115	PE116A	680.90	680.74	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE116A	---	P116	MH117	680.74	680.57	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	119	---	101+68.97	25.0	LT	685.52	INLETS 4-FT DIAMETER	57	5.08	---	---	1	---	1	---	P120	---	119	PE120A	680.44	680.28	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE120A	---	P120	MH123	680.28	680.08	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	202	---	105+48.88	40.3	RT	686.35	INLETS 4-FT DIAMETER	57	4.80	---	---	1	---	1	---	P203	---	202	PE203A	681.55	681.39	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE203A	---	P203	MH206	681.39	681.04	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	204	---	106+03.24	39.9	RT	685.67	INLETS 4-FT DIAMETER	57	4.36	---	---	1	---	1	---	P205	---	204	PE205A	681.31	681.15	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE205A	---	P205	MH206	681.15	680.93	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	210	---	106+15.67	119.2	LT	684.12	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P211	---	210	PE211A	679.87	679.71	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE211A	---	P211	211_Riser	679.71	679.47	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	300	---	106+46.83	25.0	LT	685.08	INLETS 4-FT DIAMETER	57	4.99	---	---	1	---	1	---	P301	---	300	MH304	680.09	679.68	2.00	21	25	---	8	25	---	---
N. TEUTONIA AVE	302	---	106+28.25	21.0	RT	685.62	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P303	---	302	MH304	681.37	681.02	2.00	17	21	---	8	21	---	---
N. TEUTONIA AVE	308	---	108+30.89	25.0	RT	683.70	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P309	---	308	PE309A	679.45	679.29	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE309A	---	P309	MH312	679.29	679.06	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	310	---	108+49.23	25.0	LT	683.73	INLETS 4-FT DIAMETER	57	4.38	---	---	1	---	1	---	P311	---	310	PE311A	679.35	679.19	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE311A	---	P311	MH312	679.19	678.93	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	314	---	110+32.31	25.0	RT	682.66	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P315	---	314	PE315A	678.41	678.25	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE315A	---	P315	MH318	678.25	678.01	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	316	---	110+39.57	25.0	LT	682.71	INLETS 4-FT DIAMETER	57	4.60	---	---	1	---	1	---	P317	---	316	E317A	678.11	679.95	2.00	18	22	---	8	22	---	---
N. TEUTONIA AVE	320	---	111+35.01	25.0	RT	682.16	INLETS 4-FT DIAMETER	57	4.40	---	---	1	---	1	---	P321	---	320	E321A	677.76	677.60	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	322	---	112+31.23	25.0	RT	681.63	INLETS 4-FT DIAMETER	57	4.86	---	---	1	---	1	---	P323	---	322	PE323A	676.77	676.61	2.00	8	10	---	8	10	---	---

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION.

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

ALL ITEMS CATEGORY 0010

STORM SEWER STRUCTURES																STORM SEWER PIPES												
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	SPV.0060.005 CATCH BASINS TYPE 45A EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	SPV.0060.004 INLETS TYPE 44A EACH	SPV.0060.003 MANHOLE COVERS TYPE 58-A EACH	SPV.0060.001 INLET COVERS TYPE 57 EACH	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	PIPE COMMENTS
N. TEUTONIA AVE	---	---	---	---	---	.	---	---	--	---	---	---	---	---	---	PE323A	---	P323	MH326	676.61	676.44	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	324	---	112+29.88	25.0	LT	681.71	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P325	---	324	PE325A	677.21	677.05	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE325A	---	P325	MH326	677.05	677.83	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	330	---	112+50.05	97.1	RT	681.41	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P331	---	330	E332	677.16	677.00	2.00	8	13	---	8	13	---	---
N. TEUTONIA AVE	E332	---	112+63.09	94.2	RT	682.13	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	334	---	112+53.48	39.9	RT	681.26	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P335	---	334	E338	677.01	676.83	2.00	9	14	---	8	14	---	---
N. TEUTONIA AVE	336	---	112+83.74	40.8	RT	680.97	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P337	---	336	E338	676.72	676.48	2.00	12	17	---	8	17	---	---
N. TEUTONIA AVE	342	---	113+71.32	25.0	LT	680.89	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P343	---	342	PE343A	676.39	676.22	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE343A	---	P343	343_Riser	676.22	675.96	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	344	---	113+74.30	25.0	RT	680.88	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P345	---	344	PE345A	676.63	676.47	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE345A	---	345	345_Riser	676.47	676.22	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	346	---	113+99.31	43.1	LT	680.47	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P347	---	346	E350	676.22	676.02	2.00	10	15	---	8	15	---	---
N. TEUTONIA AVE	348	---	114+27.55	44.7	LT	680.23	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P349	---	348	E350	675.98	675.81	2.00	8	13	---	8	13	---	---
N. TEUTONIA AVE	E350	---	114+14.14	42.6	LT	680.78	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	400	---	114+52.62	25.0	LT	680.62	INLETS 4-FT DIAMETER	57	4.55	---	---	1	---	1	---	P401	---	400	PE401A	676.07	675.91	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE401A	---	P401	MH402	675.91	675.71	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	404	---	116+62.5	25.0	LT	679.56	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P405	---	404	MH408	675.31	674.59	2.00	36	41	---	8	41	---	---
N. TEUTONIA AVE	406	---	116+50.00	25.0	RT	679.66	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P407	---	406	MH408	675.41	674.48	2.00	46	51	---	8	51	---	---
N. TEUTONIA AVE	410	---	117+90.24	25.0	LT	679.66	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P411	---	410	PE411A	675.41	675.25	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE411A	---	P411	411_Riser	675.25	674.99	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	412	---	117+95.19	25.0	RT	679.52	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P413	---	412	PE413A	675.27	675.11	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE413A	---	P413	413_Riser	675.11	674.86	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	414	---	118+73.40	25.0	LT	679.82	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P415	---	414	PE415A	675.57	675.41	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE415A	---	P415	MH418	675.41	675.03	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	416	---	118+92.72	25.0	RT	679.56	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P417	---	416	E417A	675.31	675.15	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE417A	---	P417	MH418	675.15	674.93	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	420	---	119+14.39	25.0	LT	679.74	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P421	---	420	421_Riser	675.49	675.36	2.00	6	8	---	8	8	---	---
N. TEUTONIA AVE	430	---	119+16.55	43.8	RT	679.23	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P431	---	430	E434	674.98	674.81	2.00	9	14	---	8	14	---	---
N. TEUTONIA AVE	432	---	119+46.36	46.7	RT	679.65	INLETS 4-FT DIAMETER	57	4.80	---	---	1	---	1	---	P433	---	432	E434	674.85	674.70	2.00	8	13	---	8	13	---	---
N. TEUTONIA AVE	438	---	123+27.51	25.0	LT	681.44	INLETS 4-FT DIAMETER	57	5.11	---	---	1	---	1	---	P439	---	438	E439A	676.33	676.16	2.10	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE439A	---	439	MH442	676.16	675.93	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	440	---	123+25.93	25.0	RT	681.47	INLETS 4-FT DIAMETER	57	4.81	---	---	1	---	1	---	P441	---	440	E441A	676.66	676.46	2.00	17	22	---	8	22	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE441A	---	441	MH442	676.46	676.31	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	444	---	120+40.08	25.0	RT	679.96	INLETS 4-FT DIAMETER	57	5.24	---	---	1	---	1	---	P445	---	444	E445A	674.72	674.56	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE445A	---	445	445_Riser	674.56	674.32	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV

STORM SEWER STRUCTURES																STORM SEWER PIPES													
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	SPV.0060.005 CATCH BASINS TYPE 45A EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	SPV.0060.004 INLETS TYPE 44A EACH	SPV.0060.003 MANHOLE COVERS TYPE 58-A EACH	SPV.0060.001 INLET COVERS TYPE 57 EACH	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	PIPE COMMENTS
N. TEUTONIA AVE	446	---	119+82.18	25.0	LT	679.63	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P447	---	446	E447A	675.13	674.97	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE447A	---	447	MH448	674.97	674.75	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	500	---	129+55.63	25.0	LT	683.86	INLETS 4-FT DIAMETER	57	4.60	---	---	1	---	1	---	P501	---	500	E501A	679.26	679.10	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE501A	---	501	MH504	679.10	678.82	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	502	---	129+56.14	25.0	RT	683.78	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P503	---	502	E503A	679.53	679.37	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE503A	---	503	MH504	679.37	679.10	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	508	---	126+63.34	25.0	LT	682.58	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P509	---	508	E512	678.08	677.50	2.00	22	27	---	8	27	---	---
N. TEUTONIA AVE	510	---	126+51.58	25.0	RT	682.35	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P511	---	510	E512	678.10	677.77	2.00	16	20	---	8	20	---	---
N. TEUTONIA AVE	E512	---	12651.74	1.6	RT	683.08	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	515	---	125+80.07	39.9	RT	682.11	INLETS 4-FT DIAMETER	57	4.34	---	---	1	---	1	---	P516	---	515	E519	677.77	677.61	2.00	8	13	---	8	13	---	---
N. TEUTONIA AVE	517	---	126+10.38	38.4	RT	\	INLETS 4-FT DIAMETER	57	#######	---	---	1	---	1	---	P518	---	517	E519	677.73	677.54	2.00	12	17	---	8	17	---	---
N. TEUTONIA AVE	E519	---	12593.67	46.0	RT	682.65	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	521	---	12602.53	59.1	LT	682.04	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P522	---	521	E525	677.54	677.28	2.00	13	18	---	8	18	---	---
N. TEUTONIA AVE	523	---	126+29.00	42.7	LT	682.21	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P524	---	523	E525	677.96	677.79	2.00	8	13	---	8	13	---	---
N. TEUTONIA AVE	E525	---	126+13.73	45.2	LT	682.63	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	602	---	132+27.71	25.0	RT	685.62	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P603	---	602	E603A	681.37	680.99	2.00	19	24	---	8	24	---	---
N. TEUTONIA AVE	604	---	132+35.19	25.0	LT	685.17	INLETS 4-FT DIAMETER	57	5.20	---	---	1	---	1	---	P605	---	604	E605A	679.97	679.56	2.00	20	25	---	8	25	---	---
N. TEUTONIA AVE	608	---	139+38.31	44.8	RT	689.66	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P609	---	608	E609A	685.41	685.25	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE609A	---	609	MH612	685.25	684.21	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	610	---	139+30.35	25.0	LT	689.51	INLETS 4-FT DIAMETER	57	4.39	---	---	1	---	1	---	P611	---	610	E611A	685.12	684.96	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE611A	---	611	MH612	684.96	684.71	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	614	---	137+40.52	25.0	RT	688.37	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P615	---	614	E615A	684.12	683.96	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE615A	---	615	MH618	683.96	683.62	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	616	---	137+25.90	25.0	LT	688.44	INLETS 4-FT DIAMETER	57	4.79	---	---	1	---	1	---	P617	---	616	E617A	683.65	683.49	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE617A	---	617	MH618	683.49	683.29	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	620	---	135+19.99	25.0	RT	687.24	INLETS 4-FT DIAMETER	57	4.51	---	---	1	---	1	---	P621	---	620	E621A	682.73	682.57	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE621A	---	621	MH624	682.57	682.36	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	622	---	135+04.84	25.0	LT	686.92	INLETS 4-FT DIAMETER	57	4.27	---	---	1	---	1	---	P623	---	622	E623A	682.65	682.49	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE623A	---	623	MH624	682.49	682.13	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	629	---	133+10.31	25.0	RT	686.17	INLETS 4-FT DIAMETER	57	4.47	---	---	1	---	1	---	P630	---	629	P124	681.70	681.54	2.00	8	10	---	8	10	---	---

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION.

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

ALL ITEMS CATEGORY 0010

STORM SEWER STRUCTURES																STORM SEWER PIPES												
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	SPV.0060.005 CATCH BASINS TYPE 45A EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	SPV.0060.004 INLETS TYPE 44A EACH	SPV.0060.003 MANHOLE COVERS TYPE 58-A EACH	SPV.0060.001 INLET COVERS TYPE 57 EACH	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	PIPE COMMENTS
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PP124	---	630	MH633	681.54	681.26	2.00	14	17	---	8	17	---	---
N. TEUTONIA AVE	631	---	133+32.53	25.0	LT	685.82	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P632	---	631	EB32A	681.32	681.16	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE632A	---	632	MH633	681.16	680.93	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	637	---	132+92.88	46.0	RT	685.72	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P638	---	637	EB38A	681.47	681.31	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE638A	---	638	MH641	681.31	681.13	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	639	---	132+45.94	49.4	RT	685.59	INLETS 4-FT DIAMETER	57	4.73	---	---	1	---	1	---	P640	---	639	EB40A	680.86	680.70	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE640A	---	640	MH641	680.70	680.43	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	643	---	132+61.68	68.5	LT	685.29	INLETS 4-FT DIAMETER	57	4.72	---	---	1	---	1	---	P644	---	643	EB44A	680.57	680.41	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE644A	---	644	MH645	680.41	680.01	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	802	---	143+68.86	26.0	LT	691.52	INLETS 4-FT DIAMETER	57	4.50	---	---	1	---	1	---	P803	---	802	EB03A	687.02	686.86	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE803A	---	803	MH806	686.86	686.56	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	804	---	143+30.07	25.0	RT	691.57	INLETS 4-FT DIAMETER	57	4.53	---	---	1	---	1	---	P805	---	804	EB05A	687.04	686.88	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE805A	---	805	MH806	686.88	686.46	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	808	---	142+79.70	25.0	RT	691.33	INLETS 4-FT DIAMETER	57	4.54	---	---	1	---	1	---	P809	---	808	EB09A	686.79	686.63	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE809A	---	809	MH812	686.63	686.21	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	810	---	142+57.49	25.0	LT	691.08	INLETS 4-FT DIAMETER	57	5.20	---	---	1	---	1	---	P811	---	810	EB11A	685.88	685.54	2.00	17	22	---	8	22	---	---
N. TEUTONIA AVE	815	---	141+00.00	25.0	RT	690.13	INLETS 4-FT DIAMETER	57	5.45	---	---	1	---	1	---	P816	---	815	MH817	684.68	683.86	2.00	26	31	---	8	31	---	---
N. TEUTONIA AVE	819	---	140+25.00	25.0	LT	689.68	INLETS 4-FT DIAMETER	57	5.00	---	---	1	---	1	---	P820	---	819	829	684.68	683.86	2.00	41	45	---	8	45	---	---
N. TEUTONIA AVE	EB21	---	139+86.36	88.4	RT	690.16	---	---	---	---	---	---	---	---	---	PEB22	---	EB21	825	---	685.28	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	823	---	139+75.77	42.9	RT	690.34	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P824	---	823	825	686.09	685.87	2.00	11	15	---	8	15	---	---
N. TEUTONIA AVE	825	---	139+86.52	50.6	RT	691.26	MANHOLES 4-FT DIAMETER	58-A	5.98	---	1	---	1	---	---	P826	---	825	827	685.28	684.65	2.00	31	35	---	12	---	35	---
N. TEUTONIA AVE	827	---	140+08.48	25.0	RT	690.25	INLETS 4-FT DIAMETER	57	5.60	---	---	1	---	1	---	P828	---	827	E829	684.65	685.41	2.00	12	16	---	12	---	16	---
N. TEUTONIA AVE	EB29	---	140+24.24	21.9	RT	690.44	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	831	---	139+95.16	43.3	LT	689.57	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P832	---	831	EB32A	685.32	685.16	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE832A	---	832	MH833	680.41	680.01	---	---	---	---	8	---	---	EXIST PIPE INTERPOL ELEV
N. TEUTONIA AVE	1001	---	149+31.44	40.9	LT	695.15	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P1002	---	1001	E1005	690.90	690.79	2.00	6	11	---	8	11	---	---
N. TEUTONIA AVE	1003	---	149+09.70	32.0	LT	695.01	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P1004	---	1003	E1005	690.76	690.40	2.00	18	23	---	8	23	---	---
N. TEUTONIA AVE	E1005	---	149+24.47	50.2	LT	695.82	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
N. TEUTONIA AVE	1202	---	149+74.25	24.7	RT	694.85	INLETS 4-FT DIAMETER	57	4.25	---	---	1	---	1	---	P1203	---	1202	E1203A	690.60	690.44	2.00	8	10	---	8	10	---	---

[1] DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION.

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B] PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C] PLAN LENGTH SHOWN FOR PAY QUANTITY.

ALL ITEMS CATEGORY 0010

STORM SEWER STRUCTURES																STORM SEWER PIPES												
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	SPV.0060.005 CATCH BASINS TYPE 45A EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	SPV.0060.004 INLETS TYPE 44A EACH	SPV.0060.003 MANHOLE COVERS TYPE 58-A EACH	SPV.0060.001 INLET COVERS TYPE 57 EACH	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	PIPE COMMENTS
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE1203A	---	1203	MH1204	690.44	690.15	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	902_SS	---	149+46.59	25.6	LT	695.10	CATCH BASINS 3-FT DIAMETER	57	4.25	1	---	---	---	1	---	P903_SS	---	902_SS	903_SS Riser	690.85	690.71	2.00	8	10	---	8	10	---	---
N. TEUTONIA AVE	906_SS	---	147+79.81	25.0	LT	694.57	CATCH BASINS 3-FT DIAMETER	57	3.10	1	---	---	---	1	---	P907_SS	---	906_SS	MH910_SS	691.47	691.42	2.00	3	7	---	8	7	---	---
N. TEUTONIA AVE	908_SS	---	147+61.97	25.0	RT	693.78	CATCH BASINS 3-FT DIAMETER	57	4.15	1	---	---	---	1	---	P909	---	908_SS	E909A	689.63	688.85	2.00	39	42	---	8	42	---	---
N. TEUTONIA AVE	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	PE909A	---	909	MH910_SS	690.54	689.92	---	---	---	---	8	---	---	EXIST RPEINTERPOL ELEV
N. TEUTONIA AVE	912_SS	---	146+86.31	25.0	RT	693.51	CATCH BASINS 3-FT DIAMETER	57	3.10	1	---	---	---	1	---	P913_SS	---	912_SS	MH918_SS	690.41	689.59	2.00	41	46	---	8	46	---	---
N. TEUTONIA AVE	914_SS	---	146+43.56	60.4	LT	694.49	CATCH BASINS 3-FT DIAMETER	57	3.11	1	---	---	---	1	---	P915_SS	---	914_SS	916_SS	691.38	690.66	2.00	36	40	---	8	40	---	---
N. TEUTONIA AVE	916_SS	---	146+81.29	46.8	LT	693.86	MANHOLES 4-FT DIAMETER	57	3.20	---	1	---	---	1	---	P917_SS	---	916_SS	MH918_SS	690.66	690.26	2.00	20	25	---	12	---	25	---
N. TEUTONIA AVE	920_SS	---	145+42.98	56.7	LT	692.62	CATCH BASINS 3-FT DIAMETER	57	3.17	1	---	---	---	1	---	P921_SS	---	920_SS	924_SS	689.45	688.72	2.00	37	41	---	8	41	---	---
N. TEUTONIA AVE	922_SS	---	145+51.39	29.8	LT	692.87	CATCH BASINS 3-FT DIAMETER	57	3.18	1	---	---	---	1	---	P923_SS	---	922_SS	924_SS	689.69	689.05	2.00	32	36	---	8	36	---	---
N. TEUTONIA AVE	924_SS	---	145+81.69	44.4	LT	693.17	MANHOLES 4-FT DIAMETER	57	4.45	---	1	---	---	1	---	P925_SS	---	924_SS	MH926_SS	688.72	687.82	2.00	45	50	---	12	---	50	---

STORM SEWER STRUCTURE SUMMARY

SPV.0060.005 CATCH BASINS TYPE 45A EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	SPV.0060.004 INLETS TYPE 44A EACH	SPV.0060.003 MANHOLE COVERS TYPE 58A EACH	SPV.0060.001 INLET COVERS TYPE 57 EACH
7	3	73	1	82

STORM SEWER PIPE SUMMARY

608.6008 STORM SEWER PIPE COMPOSITE 8-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF
1313	126

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION.

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

ALL ITEMS CATEGORY 0010

TEUTONIA AVENUE / NORTH AVENUE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SUMMARY OF CITY FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	PRECAST CONTROL CABINET BASE

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	24	--
PB1	PB2	--	70	--
PB2	PB3	--	--	122
PB3	PB4	--	54	--
PB4	PB5	--	70	--
PB5	PB6	--	50	--
PB6	PB7	--	--	108
PB7	PB8	--	56	--
PB8	PB9	--	--	120
PB9	PB10	--	94	--
PB10	PB11	--	114	--
PB11	PB12	--	--	118
PB12	PB1	--	18	--
PB12	CB1	--	24	--
PB1	SB1	--	7	--
PB1	SB2	19	--	--
PB2	SB3	10	--	--
PB4	SB4	--	12	--
PB4	SB5	6	--	--
PB5	SB6	5	--	--
PB7	SB7	--	9	--
PB8	SB8	6	--	--
PB9	SB9	--	6	--
PB10	SB10	20	--	--
PB10	SB11	3	--	--
	TOTALS	69	608	468

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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3

PULL BOXES

PULL BOX NO.	STATION	LOCATION	SPV.0060.303 PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	106+46.63	54.6' LT	1
PB2	106+57.74	30.2' LT	1
PB3	106+57.74	31.3' RT	1
PB4	106+30.60	31.3' RT	1
PB5	106+02.69	44.4' RT	1
PB6	105+92.99	69.5' RT	1
PB7	105+43.20	48.6' RT	1
PB8	105+31.79	30.5' RT	1
PB9	105+31.79	30.5' LT	1
PB10	105+75.93	39.9' LT	1
PB11	105+98.22	93.1' LT	1
PB12	106+53.10	70.1' LT	1
		TOTAL	12

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
SB1	106+43.64	47.5' LT	--	--	1
SB2	106+40.25	37.8' LT	1	--	--
SB3	106+47.71	28.0' LT	1	--	--
SB4	106+41.32	24.0' RT	--	--	1
SB5	106+24.60	29.6' RT	1	--	--
SB6	106+05.72	41.8' RT	--	1	--
SB7	105+45.92	39.5' RT	--	--	1
SB8	105+37.76	28.0' RT	1	--	--
SB9	105+37.62	28.1' LT	--	--	1
SB10	105+60.73	28.4' LT	1	--	--
SB11	105+79.41	40.9' LT	--	1	--
		TOTAL	5	2	4

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEUTONIA AVENUE / NORTH AVENUE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF
CB1	SB1	--	43
CB1	SB2	55	--
CB1	SB3	--	97
CB1	SB4	--	220
CB1	SB5	214	--
CB1	SB6	--	264
CB1	SB7	--	379
CB1	SB8	--	331
CB1	SB9	--	254
CB1	SB10	204	--
CB1	SB11	--	187
	TOTAL	473	1775

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF
SB1	HEAD 17	40
SB1	HEAD 18	19
SB1	HEAD 20	51
SB2	HEAD 25	15
SB3	HEAD 4	19
SB3	HEAD 6	19
SB3	HEAD 24	15
SB4	HEAD 2	33
SB4	HEAD 3	19
SB4	HEAD 5	47
SB5	HEAD 27	15
SB6	HEAD 14	19
SB6	HEAD 16	19
SB6	HEAD 26	15
SB7	HEAD 12	37
SB7	HEAD 13	19
SB7	HEAD 15	50
SB7	HEAD 21	15
SB8	HEAD 1	19
SB8	HEAD 9	19
SB8	HEAD 28	15
SB9	HEAD 7	37
SB9	HEAD 8	19
SB9	HEAD 10	50
SB10	HEAD 23	15
SB11	HEAD 11	19
SB11	HEAD 19	19
SB11	HEAD 22	15
	TOTAL	693

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	43
SB1	SB2	51
SB2	SB3	105
SB3	SB4	167
SB4	SB5	43
SB5	SB6	87
SB6	SB7	150
SB7	SB8	84
SB8	SB9	113
SB9	SB10	114
SB10	SB11	48
SB11	CB1	187
PB1	CB1	32
PB2	SB3	29
PB3	SB4	75
PB4	SB4	31
PB5	SB6	24
PB6	SB6	65
PB7	SB7	28
PB8	SB8	25
PB9	SB9	25
PB10	SB11	22
PB11	SB11	96
PB12	CB1	32
	TOTAL	1676

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF
CB1	SB9 (HEAD A)	278	278
CB1	SB4 (HEAD B)	240	240
CB1	SB1 (HEAD C)	96	96
CB1	SB7 (HEAD D)	375	375
	TOTAL	989	989

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

ELECTRICAL SERVICE METER BREAKER PEDESTAL
N. TEUTONIA AVE. & W. NORTH AVE.

BASE NO.	656.0200.001 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS
CB1	1
TOTAL	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CAST BASES, POLES, STANDARDS, MONOTUBE, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0350 POLES TYPE 10 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0525 MONOTUBE ARMS 25-FT EACH	657.0530 MONOTUBE ARMS 30-FT EACH
SB1	--	--	--	1	--	--	--	1
SB2	1	--	--	--	--	1	--	--
SB3	1	--	--	--	1	--	--	--
SB4	--	--	--	1	--	--	1	--
SB5	1	--	--	--	--	1	--	--
SB6	--	1	1	--	--	--	--	--
SB7	--	--	--	1	--	--	--	1
SB8	1	--	--	--	1	--	--	--
SB9	--	--	--	1	--	--	--	1
SB10	1	--	--	--	--	1	--	--
SB11	--	1	1	--	--	--	--	--
TOTAL	5	2	2	4	2	3	1	3

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL AND PEDESTRIAN FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.317 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB8	1	--	--
2	SB4	1	--	--
3	SB4	1	--	--
4	SB3	1	--	--
5	SB4	1	--	--
6	SB6	1	--	--
7	SB9	1	--	--
8	SB9	1	--	--
9	SB8	1	--	--
10	SB9	1	--	--
11	SB11	1	--	--
12	SB7	1	--	--
13	SB7	1	--	--
14	SB6	1	--	--
15	SB7	1	--	--
16	SB6	1	--	--
17	SB1	1	--	--
18	SB1	1	--	--
19	SB11	1	--	--
20	SB1	1	--	--
21	SB2	--	1	1
22	SB4	--	1	1
23	SB5	--	1	1
24	SB7	--	1	1
25	SB8	--	1	1
26	SB10	--	1	1
27	SB11	--	1	1
28	SB1	--	1	1
	TOTAL	20	8	8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

SIGNAL MOUNTING HARDWARE
N. TEUTONIA AVENUE & W. NORTH AVENUE

LOCATION	658.5069.001 SIGNAL MOUNTING HARDWARE LS
N. TEUTONIA AVENUE & W. NORTH AVENUE	1
TOTAL	1

TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE
N. TEUTONIA AVE. & W. NORTH AVE.

BASE NO.	STATION	LOCATION	SPV.0105.001 TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE LS
CB1	106+49.47	62.7' LT	1
TOTAL		TOTALS	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL CABINET
N. TEUTONIA AVE. & W. NORTH AVE.

LOCATION	SPV.0105.005 TRAFFIC SIGNAL CABINET LS
N. TEUTONIA AVE. & W. NORTH AVE.	1
TOTAL	1

ETHERNET SWITCH

LOCATION	SPV.0060.213 ETHERNET SWITCH EACH
CB1 (NW352-3)	1
TOTAL	1

EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS
WITH CONFIRMATION BEACONS
N. TEUTONIA AVE. & W. NORTH AVE.

LOCATION	SPV.0105.011 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS WITH CONFIRMATION BEACONS LS
N. TEUTONIA AVE. & W. NORTH AVE.	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEUTONIA AVENUE / WRIGHT STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SUMMARY OF CITY FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	PRECAST CONTROL CABINET BASE

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	21	--
PB1	PB2	--	70	--
PB2	PB3	--	--	114
PB3	PB4	--	108	--
PB4	PB5	--	--	76
PB5	PB6	--	48	--
PB6	PB7	--	--	116
PB7	PB8	--	136	--
PB8	PB9	--	--	74
PB9	PB1	--	24	--
PB9	CB1	--	39	--
PB1	SB1	4	--	--
PB2	SB2	16	--	--
PB3	SB3	--	23	--
PB4	SB4	10	--	--
PB5	SB5	6	--	--
PB6	SB6	4	--	--
PB7	SB7	--	13	--
PB8	SB8	26	--	--
	TOTALS	66	482	380

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TEUTONIA AVENUE / WRIGHT STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PULL BOXES

PULL BOX NO.	STATION	LOCATION	SPV.0060.303 PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	119+12.08	48.9' RT	1
PB2	118+88.90	29.0' RT	1
PB3	118+88.90	29.0' LT	1
PB4	119+31.47	51.0' LT	1
PB5	119+69.28	46.9' LT	1
PB6	119+83.68	29.1' LT	1
PB7	119+83.68	29.0' RT	1
PB8	119+47.82	73.5' RT	1
PB9	119+10.48	69.9' RT	1
		TOTAL	9

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
SB1	119+13.51	44.2' RT	1	--	--
SB2	119+05.13	28.5' RT	1	--	--
SB3	119+12.83	28.1' LT	--	--	1
SB4	119+31.41	41.9' LT	1	--	--
SB5	119+67.68	41.1' LT	--	1	--
SB6	119+79.76	28.0' LT	1	--	--
SB7	119+70.63	28.0' RT	--	--	1
SB8	119+49.32	46.6' RT	--	1	--
		TOTAL	4	2	2

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TEUTONIA AVENUE / WRIGHT STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF
CB1	SB1	39	--
CB1	SB2	--	102
CB1	SB3	--	183
CB1	SB4	240	--
CB1	SB5	290	--
CB1	SB6	--	256
CB1	SB7	--	191
CB1	SB8	121	--
	TOTAL	690	732

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF
SB1	HEAD 9	19
SB1	HEAD 13	15
SB2	HEAD 1	19
SB2	HEAD 20	15
SB3	HEAD 5	43
SB3	HEAD 6	19
SB3	HEAD 14	15
SB4	HEAD 7	19
SB4	HEAD 11	19
SB4	HEAD 15	15
SB5	HEAD 12	19
SB5	HEAD 17	15
SB6	HEAD 4	19
SB6	HEAD 16	15
SB7	HEAD 2	43
SB7	HEAD 3	19
SB7	HEAD 18	15
SB8	HEAD 8	19
SB8	HEAD 10	19
SB8	HEAD 19	15
	TOTAL	396

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PROJECT NO: 2080-00-73	HWY: TEUTONIA AVENUE	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET NO: 244	E

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TEUTONIA AVENUE / WRIGHT STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	39
SB1	SB2	96
SB2	SB3	138
SB3	SB4	128
SB4	SB5	94
SB5	SB6	74
SB6	SB7	115
SB7	SB8	148
SB8	CB1	121
PB1	SB1	23
PB2	SB2	35
PB3	SB3	42
PB4	SB4	29
PB5	SB5	25
PB6	SB6	23
PB7	SB7	32
PB8	SB8	45
PB9	CB1	37
	TOTAL	1244

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF
CB1	SB3 (HEAD A)	213	213
CB1	SB7 (HEAD B)	220	220
	TOTAL	433	433

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TEUTONIA AVENUE / WRIGHT STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ELECTRICAL SERVICE METER BREAKER PEDESTAL
N. TEUTONIA AVE. & W. WRIGHT ST.

BASE NO.	656.0200.002 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS
CB1	1
TOTAL	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CAST BASES, POLES, STANDARDS, MONOTUBE, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0350 POLES TYPE 10 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0525 MONOTUBE ARMS 25-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH
SB1	1	--	--	--	1	--	--
SB2	1	--	--	--	1	--	1
SB3	--	--	--	1	--	1	1
SB4	1	--	--	--	1	--	--
SB5	--	1	1	--	--	--	--
SB6	1	--	--	--	1	--	1
SB7	--	--	--	1	--	1	1
SB8	--	1	1	--	--	--	--
TOTAL	4	2	2	2	4	2	4

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TEUTONIA AVENUE / WRIGHT STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL AND PEDESTRIAN FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.317 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB2	1	--	--
2	SB7	1	--	--
3	SB7	1	--	--
4	SB6	1	--	--
5	SB3	1	--	--
6	SB3	1	--	--
7	SB4	1	--	--
8	SB8	1	--	--
9	SB1	1	--	--
10	SB8	1	--	--
11	SB4	1	--	--
12	SB5	1	--	--
13	SB1	--	1	1
14	SB3	--	1	1
15	SB4	--	1	1
16	SB6	--	1	1
17	SB5	--	1	1
18	SB7	--	1	1
19	SB8	--	1	1
20	SB2	--	1	1
	TOTAL	12	8	8

SIGNAL MOUNTING HARDWARE
N. TEUTONIA AVENUE & W. WRIGHT STREET

LOCATION	658.5069.002 SIGNAL MOUNTING HARDWARE LS
N. TEUTONIA AVENUE & W. WRIGHT STREET	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE
N. TEUTONIA AVE. & W. WRIGHT ST.

BASE NO.	STATION	LOCATION	SPV.0105.002 TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE LS
CB1	119+12.43	56.1' RT	1
TOTAL		TOTALS	1

TRAFFIC SIGNAL CABINET
N. TEUTONIA AVE. & W. WRIGHT ST.

LOCATION	SPV.0105.006 TRAFFIC SIGNAL CABINET LS
N. TEUTONIA AVE. & W. WRIGHT ST.	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS
WITH CONFIRMATION BEACONS
N. TEUTONIA AVE. & W. WRIGHT ST.

LOCATION	SPV.0105.012 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS WITH CONFIRMATION BEACONS LS
N. TEUTONIA AVE. & W. WRIGHT ST.	1
TOTAL	1

ETHERNET SWITCH

LOCATION	SPV.0060.213 ETHERNET SWITCH EACH
CB1 (SE324-1)	1
TOTAL	1

3

VIDEO VEHICLE DETECTION SYSTEM
N. TEUTONIA AVE. & W. WRIGHT ST.

LOCATION	SPV.0105.009 VIDEO VEHICLE DETECTION SYSTEM LS
N. TEUTONIA AVE. & W. WRIGHT ST.	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEUTONIA AVENUE / CENTER STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SUMMARY OF CITY FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	PRECAST CONTROL CABINET BASE

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	PB1		18	--
PB1	PB2	--	74	--
PB2	PB3	--	--	116
PB3	PB4	--	54	--
PB4	PB5	--	--	118
PB5	PB6	--	118	--
PB6	PB7	--	--	116
PB7	PB8	--	56	--
PB8	PB9	--	--	116
PB9	PB1	--	19	--
PB9	CB1	--	33	--
PB1	SB1	--	5	--
PB2	SB2	16	--	--
PB3	SB3	--	6	--
PB4	SB4	11	--	--
PB5	SB5	--	13	--
PB6	SB6	25	--	--
PB7	SB7	15	--	--
PB8	SB8	--	5	--
PB9	SB9	6	--	--
	TOTALS	73	401	466

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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PULL BOXES

PULL BOX NO.	STATION	LOCATION	SPV.0060.303 PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	132+32.70	28.0' LT	1
PB2	132+54.84	54.6' LT	1
PB3	133+17.69	43.5' LT	1
PB4	133+37.14	30.0' LT	1
PB5	133+37.14	29.1' RT	1
PB6	132+94.90	54.9' RT	1
PB7	132+42.62	45.7' RT	1
PB8	132+25.36	29.1' RT	1
PB9	132+14.61	27.9' LT	1
		TOTAL	9

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH
SB1	132+38.01	28.0' LT	--	--	1
SB2	132+53.70	38.3' LT	--	1	--
SB3	133+15.14	37.9' LT	--	--	1
SB4	133+25.31	27.9' LT	1	--	--
SB5	133+25.97	28.0' RT	--	--	1
SB6	133+12.38	28.0' RT	1	--	--
SB7	132+96.93	39.6' LT	1	--	--
SB8	132+44.12	40.7' RT	--	--	1
SB9	132+32.07	28.0' RT	1	--	--
		TOTAL	4	1	4

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF
CB1	SB1	--	39
CB1	SB2	--	103
CB1	SB3	--	167
CB1	SB4	--	217
CB1	SB5	--	293
CB1	SB6	306	--
CB1	SB7	--	246
CB1	SB8	--	162
CB1	SB9	--	119
	TOTAL	306	1346

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF
SB1	HEAD 7	39
SB1	HEAD 8	19
SB1	HEAD 10	49
SB1	HEAD 23	15
SB2	HEAD 11	19
SB2	HEAD 19	19
SB2	HEAD 22	15
SB3	HEAD 17	39
SB3	HEAD 18	19
SB3	HEAD 20	49
SB3	HEAD 25	15
SB4	HEAD 4	19
SB4	HEAD 6	19
SB4	HEAD 24	15
SB5	HEAD 2	38
SB5	HEAD 3	19
SB5	HEAD 5	49
SB6	HEAD 27	15
SB7	HEAD 14	19
SB7	HEAD 16	19
SB7	HEAD 26	15
SB8	HEAD 12	39
SB8	HEAD 13	19
SB8	HEAD 15	50
SB8	HEAD 21	15
SB9	HEAD 1	19
SB9	HEAD 9	19
SB9	HEAD 28	15
	TOTAL	700

TEUTONIA AVENUE / CENTER STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	39
SB1	SB2	99
SB2	SB3	120
SB3	SB4	85
SB4	SB5	124
SB5	SB6	62
SB6	SB7	140
SB7	SB8	118
SB8	SB9	80
SB9	CB1	119
PB1	SB1	24
PB2	SB2	35
PB3	SB3	25
PB4	SB4	30
PB5	SB5	32
PB6	SB7	34
PB7	SB8	24
PB8	SB9	25
PB9	CB1	35
	TOTAL	1250

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF
CB1	SB1 (HEAD A)	92	92
CB1	SB5 (HEAD B)	309	309
CB1	SB3 (HEAD C)	201	201
CB1	SB8 (HEAD D)	196	196
	TOTAL	798	798

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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3

ELECTRICAL SERVICE METER BREAKER PEDESTAL
N. TEUTONIA AVE. & W. CENTER ST.

BASE NO.	656.0200.003 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS
CB1	1
TOTAL	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

CAST BASES, POLES, STANDARDS, MONOTUBE, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0350 POLES TYPE 10 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0530 MONOTUBE ARMS 30-FT EACH
SB1	--	--	--	1	--	--	1
SB2	--	1	1	--	--	--	--
SB3	--	--	--	1	--	--	1
SB4	1	--	--	--	1	--	--
SB5	--	--	--	1	--	--	1
SB6	1	--	--	--	--	1	--
SB7	1	--	--	--	1	--	--
SB8	--	--	--	1	--	--	1
SB9	1	--	--	--	1	--	--
TOTAL	4	1	1	4	3	1	4

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEUTONIA AVENUE / CENTER STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL AND PEDESTRIAN FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.317 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB9	1	--	--
2	SB5	1	--	--
3	SB5	1	--	--
4	SB4	1	--	--
5	SB5	1	--	--
6	SB4	1	--	--
7	SB1	1	--	--
8	SB1	1	--	--
9	SB9	1	--	--
10	SB1	1	--	--
11	SB2	1	--	--
12	SB8	1	--	--
13	SB8	1	--	--
14	SB7	1	--	--
15	SB8	1	--	--
16	SB7	1	--	--
17	SB3	1	--	--
18	SB3	1	--	--
19	SB2	1	--	--
20	SB3	1	--	--
21	SB8	--	1	1
22	SB2	--	1	1
23	SB1	--	1	1
24	SB4	--	1	1
25	SB3	--	1	1
26	SB7	--	1	1
27	SB6	--	1	1
28	SB9	--	1	1
	TOTAL	20	8	8

SIGNAL MOUNTING HARDWARE
N. TEUTONIA AVENUE & W. CENTER STREET

LOCATION	658.5069.003 SIGNAL MOUNTING HARDWARE LS
N. TEUTONIA AVENUE & W. CENTER STREET	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE
N. TEUTONIA AVE. & W. CENTER ST.

BASE NO.	STATION	LOCATION	SPV.0105.003 TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE LS
CB1	132+25.96	28.0' LT	1
TOTAL		TOTALS	1

TRAFFIC SIGNAL CABINET
N. TEUTONIA AVE. & W. CENTER ST.

LOCATION	SPV.0105.007 TRAFFIC SIGNAL CABINET LS
N. TEUTONIA AVE. & W. CENTER ST.	1
TOTAL	1

EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS
WITH CONFIRMATION BEACONS
N. TEUTONIA AVE. & W. CENTER ST.

LOCATION	SPV.0105.013 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS WITH CONFIRMATION BEACONS LS
N. TEUTONIA AVE. & W. CENTER ST.	1
TOTAL	1

ETHERNET SWITCH

LOCATION	SPV.0060.213 ETHERNET SWITCH EACH
CB1 (NE324-2)	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEUTONIA AVENUE / LOCUST STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SUMMARY OF CITY FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	PRECAST CONTROL CABINET BASE

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	18	--
PB1	PB2	--	82	--
PB2	PB3	--	--	140
PB3	PB4	--	98	--
PB4	PB5	--	--	34
PB4	PB6	--	--	182
PB6	PB7	--	--	82
PB7	PB8	--	48	--
PB8	PB9	--	100	--
PB9	PB10	--	84	--
PB10	PB11	--	--	28
PB9	PB12	--	--	114
PB12	PB13	--	140	--
PB13	PB14	--	34	--
PB14	PB15	--	100	--
PB15	PB16	--	--	118
PB16	PB17	--	--	80
PB17	PB1	--	14	--
PB17	CB1	--	18	--
PB1	SB1	10	--	--
PB2	SB2	13	--	--
PB5	SB3	--	8	--
PB5	SB4	12	--	--
PB6	SB5	--	8	--
PB7	SB6	6	--	--
PB8	SB7	8	--	--
PB10	SB8	12	--	--
PB11	SB9	2	--	--
PB13	SB10	--	2	--
PB14	SB11	22	--	--
PB16	SB12	--	25	--
	TOTALS	85	779	778

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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PULL BOXES

PULL BOX NO.	STATION	LOCATION	SPV.0060.303 PULL BOXES 17-INCH X 30-INCH X 24-INCH EACH
PB1	145+54.83	48.9' RT	1
PB2	145+24.77	28.1' RT	1
PB3	145+24.77	42.2' LT	1
PB4	145+55.85	80.3' LT	1
PB5	145+65.73	47.6' LT	1
PB6	146+44.63	57.3' LT	1
PB7	146+85.02	46.8' LT	1
PB8	146+97.24	29.0' LT	1
PB9	147+47.44	28.8' LT	1
PB10	147+89.12	28.7' LT	1
PB11	147+89.12	0.0' LT	1
PB12	147+47.44	28.8' RT	1
PB13	146+76.98	29.0' RT	1
PB14	146+65.80	40.2' RT	1
PB15	146+49.35	86.7' RT	1
PB16	145+91.28	71.7' RT	1
PB17	145+51.68	61.4' RT	1
		TOTAL	17

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101* CONCRETE BASES TYPE 1 EACH	654.0102* CONCRETE BASES TYPE 2 EACH	654.0110* CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH
SB1	145+55.30	38.2' RT	1	--	--	--
SB2	145+37.80	28.0' RT	1	--	--	--
SB3	145+54.64	34.3' LT	--	--	1	--
SB4	145+75.65	41.4' LT	1	--	--	--
SB5	146+42.50	49.0' LT	--	--	1	--
SB6	146+82.53	41.7' LT	1	--	--	--
SB7	146+89.55	27.9' LT	1	--	--	--
SB8	147+80.57	27.5' LT	--	1	--	--
SB9	147+80.57	0.0' LT	1	--	--	--
SB10	146+81.29	33.6' RT	--	--	--	1
SB11	146+61.43	37.8' RT	1	--	--	--
SB12	145+97.49	47.4' RT	--	--	1	--
		TOTAL	7	1	3	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF
CB1	SB1	44	--	--
CB1	SB2	--	103	--
CB1	SB3	309	--	--
CB1	SB4	--	303	--
CB1	SB5	--	358	--
CB1	SB6	--	413	--
CB1	SB7	455	--	--
CB1	SB8	494	--	--
CB1	SB9	538	--	--
CB1	SB10	--	--	273
CB1	SB11	--	238	--
CB1	SB12	--	115	--
	TOTAL	1840	1530	273

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEUTONIA AVENUE / LOCUST STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF
SB1	HEAD 20	15	--
SB2	HEAD 1	19	--
SB2	HEAD 8	19	--
SB2	HEAD 27	15	--
SB3	HEAD 9	45	--
SB3	HEAD 21	15	--
SB4	HEAD 10	19	--
SB4	HEAD 18	19	--
SB4	HEAD 22	15	--
SB5	HEAD 16	34	--
SB5	HEAD 17	46	--
SB5	HEAD 19	19	--
SB6	HEAD 4	--	22
SB6	HEAD 24	15	--
SB7	HEAD 23	15	--
SB8	HEAD 7	19	--
SB9	HEAD 6	19	--
SB10	HEAD 2	45	--
SB10	HEAD 3	19	--
SB10	HEAD 5	--	56
SB10	HEAD 26	15	--
SB11	HEAD 13	19	--
SB11	HEAD 15	19	--
SB11	HEAD 25	15	--
SB12	HEAD 11	36	--
SB12	HEAD 12	48	--
SB12	HEAD 14	19	--
	TOTAL	583	78

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	44
SB1	SB2	104
SB2	SB3	256
SB3	SB4	52
SB4	SB5	202
SB5	SB6	95
SB6	SB7	77
SB7	SB8	165
SB8	SB9	85
SB9	SB10	302
SB10	SB11	69
SB11	SB12	196
SB12	CB1	115
PB1	CB1	30
PB2	SB2	32
PB3	SB2	118
PB4	SB3	86
PB5	SB3	36
PB6	SB5	27
PB7	SB6	24
PB8	SB7	26
PB9	SB8	85
PB10	SB8	27
PB11	SB9	27
PB12	SB10	111
PB13	SB10	25
PB14	SB11	24
PB15	SB11	90
PB16	SB12	44
PB17	CB1	30
	TOTAL	2604

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TEUTONIA AVENUE / LOCUST STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CB1	SB3 (HEAD A)	319
CB1	SB10 (HEAD B)	298
CB1	SB5 (HEAD C)	368
CB1	SB12 (HEAD D)	159
	TOTAL	1144

ELECTRICAL SERVICE METER BREAKER PEDESTAL
N. TEUTONIA AVE. & W. LOCUST ST.

BASE NO.	656.0200.004 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS
CB1	1
TOTAL	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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TEUTONIA AVENUE / LOCUST STREET

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

CAST BASES, POLES, STANDARDS, MONOTUBE, PUSH BUTTONS, AND LUMINAIRES

SIGNAL BASE NO.	657.0100* PEDESTAL BASES EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0345 POLES TYPE 9 EACH	657.0350* POLES TYPE 10 EACH	657.0360 POLES TYPE 13 EACH	657.0420* TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430* TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH
SB1	1	--	--	--	--	--	--	1
SB2	1	--	--	--	--	1	--	--
SB3	--	--	1	--	--	--	--	--
SB4	1	--	--	--	--	1	--	--
SB5	--	--	--	1	--	--	--	--
SB6	1	--	--	--	--	--	1	--
SB7	1	--	--	--	--	--	--	1
SB8	--	1	--	--	--	--	--	--
SB9	1	--	--	--	--	1	--	--
SB10	--	--	--	--	1	--	--	--
SB11	1	--	--	--	--	1	--	--
SB12	--	--	--	1	--	--	--	--
TOTAL	7	1	1	2	1	4	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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CAST BASES, POLES, STANDARDS, MONOTUBE, PUSH BUTTONS, AND LUMINAIRES (CONTINUED)

SIGNAL BASE NO.	657.0525* MONOTUBE ARMS 25-FT EACH	657.0530* MONOTUBE ARMS 30-FT EACH	657.0540 MONOTUBE ARMS 40-FT EACH	658.0500* PEDESTRIAN PUSH BUTTONS EACH
SB1	--	--	--	--
SB2	--	--	--	--
SB3	1	--	--	--
SB4	--	--	--	1
SB5	1	--	--	--
SB6	--	--	--	1
SB7	--	--	--	--
SB8	--	--	--	--
SB9	--	--	--	--
SB10	--	--	1	--
SB11	--	--	--	--
SB12	--	1	--	--
TOTAL	2	1	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL AND PEDESTRIAN FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0412* PEDESTRIAN SIGNAL FACE 12-INCH EACH	SPV.0060.317* PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH
1	SB2	1	--	--	--
2	SB10	1	--	--	--
3	SB10	1	--	--	--
4	SB6	--	1	--	--
5	SB10	--	1	--	--
6	SB9	1	--	--	--
7	SB8	1	--	--	--
8	SB2	1	--	--	--
9	SB3	1	--	--	--
10	SB4	1	--	--	--
11	SB12	1	--	--	--
12	SB12	1	--	--	--
13	SB11	1	--	--	--
14	SB12	1	--	--	--
15	SB11	1	--	--	--
16	SB5	1	--	--	--
17	SB5	1	--	--	--
18	SB4	1	--	--	--
19	SB5	1	--	--	--
20	SB1	--	--	1	1
21	SB3	--	--	1	1
22	SB4	--	--	1	1
23	SB7	--	--	1	1
24	SB6	--	--	1	1
25	SB11	--	--	1	1
26	SB10	--	--	1	1
27	SB2	--	--	1	1
	TOTAL	17	2	8	8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

SIGNAL MOUNTING HARDWARE
N. TEUTONIA AVENUE & W. LOCUST STREET

LOCATION	658.5069.004 SIGNAL MOUNTING HARDWARE LS
N. TEUTONIA AVENUE & W. LOCUST STREET	1
TOTAL	1

TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE
N. TEUTONIA AVE. & W. LOCUST ST.

BASE NO.	STATION	LOCATION	SPV.0105.004 TRANSPORT AND INSTALL CITY FURNISHED TRAFFIC SIGNAL CONTROL CABINET BASE LS
CB1	145+52.81	55.0' RT	1
TOTAL		TOTALS	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL CABINET
N. TEUTONIA AVE. & W. LOCUST ST.

LOCATION	SPV.0105.008 TRAFFIC SIGNAL CABINET LS
N. TEUTONIA AVE. & W. LOCUST ST.	1
TOTAL	1

VIDEO VEHICLE DETECTION SYSTEM
N. TEUTONIA AVE. & W. LOCUST ST.

LOCATION	SPV.0105.010 VIDEO VEHICLE DETECTION SYSTEM LS
N. TEUTONIA AVE. & W. LOCUST ST.	1
TOTAL	1

3

EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS
WITH CONFIRMATION BEACONS
N. TEUTONIA AVE. & W. LOCUST ST.

LOCATION	SPV.0105.014 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS WITH CONFIRMATION BEACONS LS
N. TEUTONIA AVE. & W. LOCUST ST.	1
TOTAL	1

ETHERNET SWITCH

LOCATION	SPV.0060.213 ETHERNET SWITCH EACH
CB1 (SE311-3)	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

2

ESTIMATE OF QUANTITIES; STREET LIGHTING

PROJECT ID. 2080-00-73

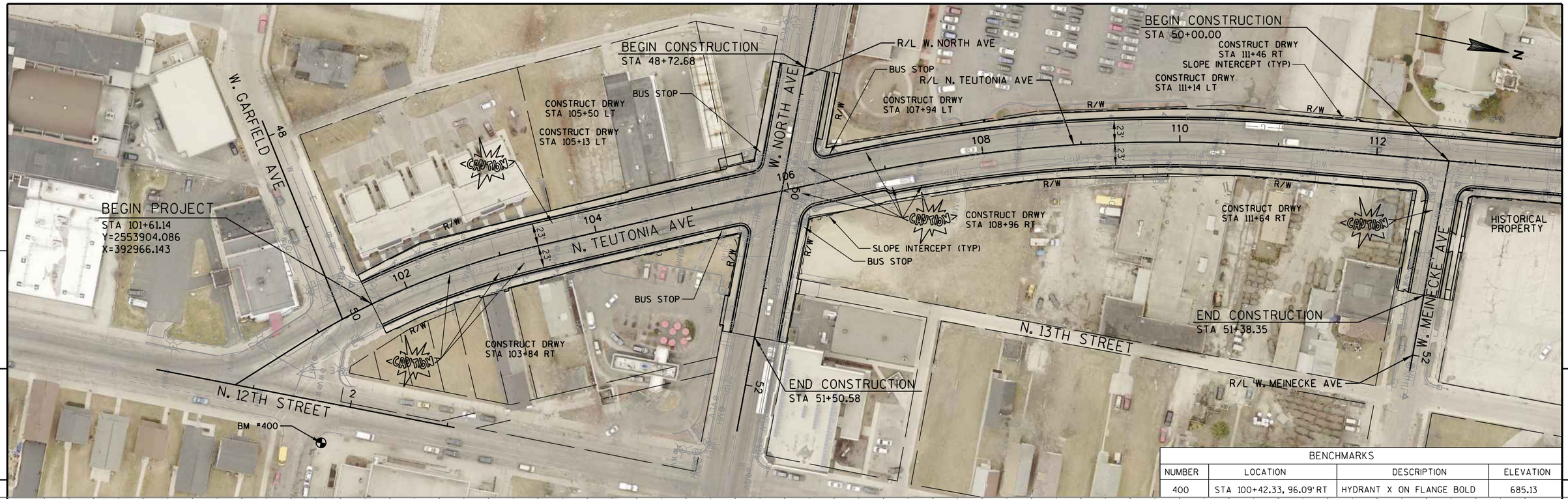
MILWAUKEE COUNTY

	Std.Bid Item No.	Description	Unit	Quantity
-	650.8500	Construction Staking Electrical Installations	LS	1
-	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	195
-	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	11,033
-	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,058
-	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	1,500
-	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	1,085
-	652.0610	Conduit Special 2.5-Inch	LF	100
-	654.0105	Concrete Bases Type 5	EACH	46
-	655.0305	Cable Type UF 2#12 AWG Grounded	LF	2,335
-	657.0255	Transformer Bases Breakway 11 1/2-inch Bolt Circle	EACH	47
-	SPV.0060.302	Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH	52
-	SPV.0060.319	Poles Type-11	EACH	5
-	SPV.0060.320	Poles Type-12	EACH	42
-	SPV.0060.375	Luminaire Utility LED 2		
		Type II Light Distribution (2LED2)	EACH	6
		Type III Light Distribution (2LED3)	EACH	1
-	SPV.0060.376	Luminaire Utility LED 3		
		Type III Light Distribution (3LED3)	EACH	54
-	SPV.0060.838	Luminaire Arms Single Member 6-Ft. - City Furnished	EACH	57
-	SPV.0060.839	Luminaire Arms Single Member 8-Ft. - City Furnished	EACH	7
-	SPV.0090.305	Cable Type 3#8/1#8 LTP	LF	5,606
-	SPV.0090.306	Cable Type 3#6/1#8 LTP	LF	1,355
-	SPV.0090.307	Cable Type 3#4/1#8 LTP	LF	357
-	SPV.0090.308	Cable Type 3#2/1#8 LTP	LF	3,297

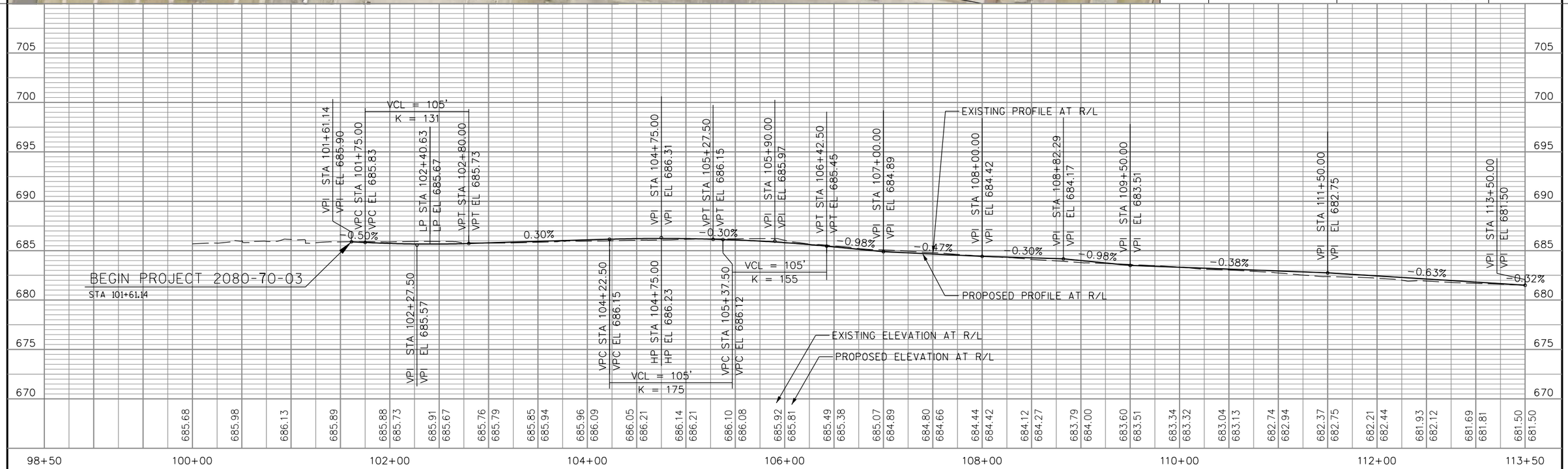
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Item No.	Std. Bid Item No.	Description	Unit	Quantity
71103	SPV.0060.212	Fiber Optic Patch Panel	Each	3
71104	SPV.0060.213	Ethernet Switch	Each	3
71105	SPV.0060.214	Fiber Optic Patch Cords	Each	3
71112	SPV.0090.201	Install Fiber Optic Cable Outdoor Plant 72-CT Contractor Supplied	LF	5,920

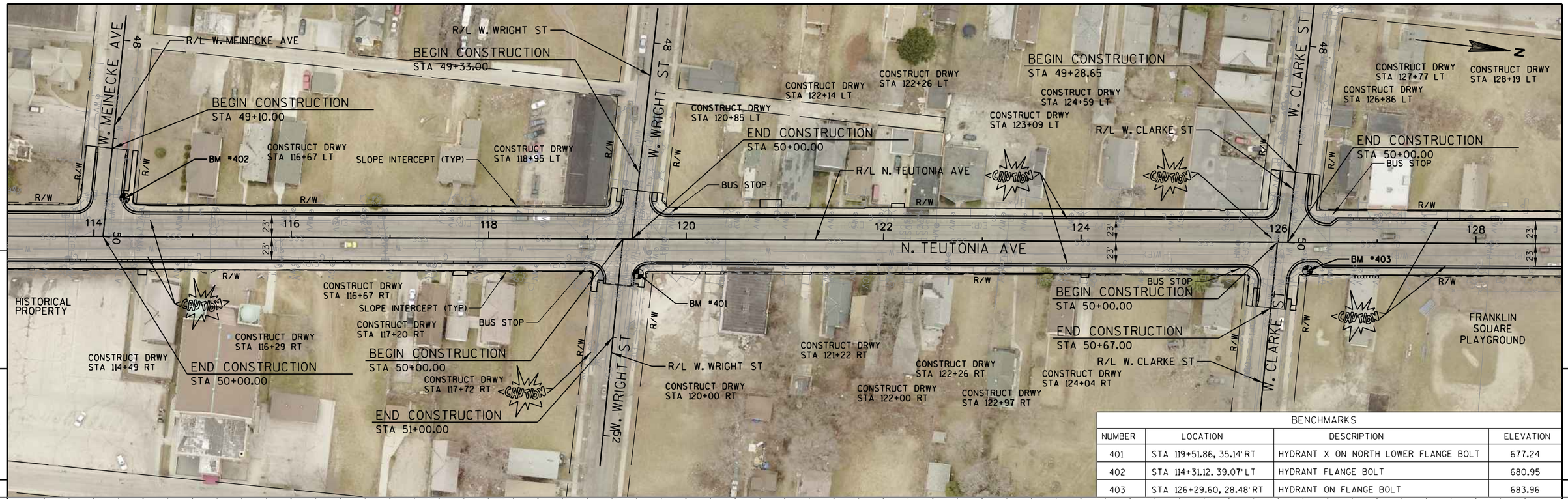
SHEET 1 OF 1



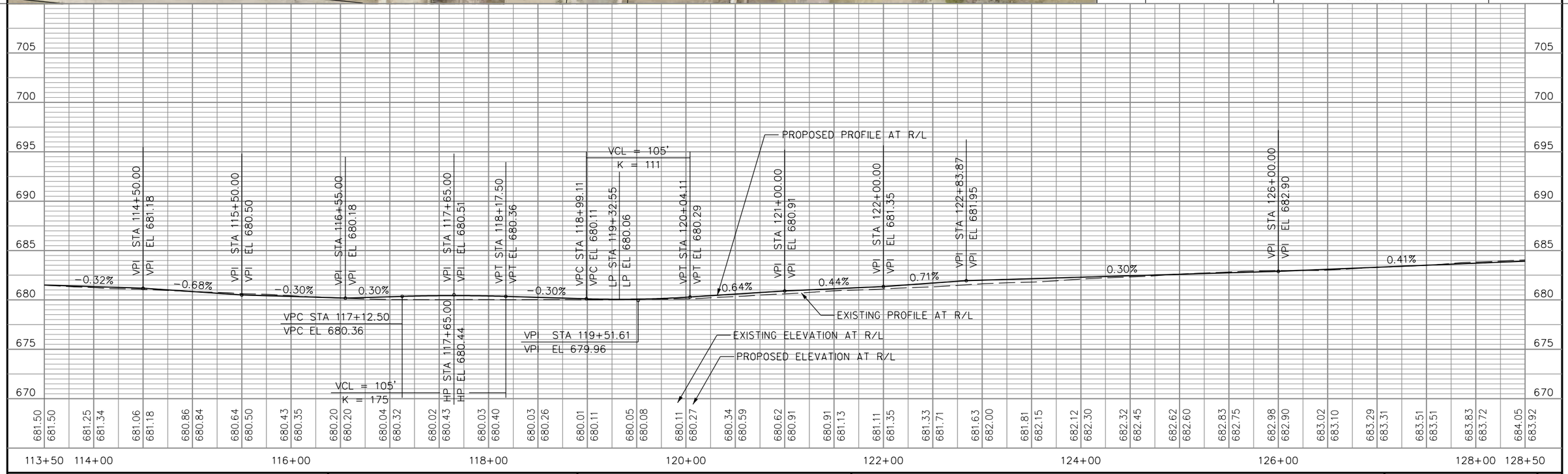
BENCHMARKS			
NUMBER	LOCATION	DESCRIPTION	ELEVATION
400	STA 100+42.33, 96.09' RT	HYDRANT X ON FLANGE BOLD	685.13



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: N. TEUTONIA AVE	SHEET 269 E



BENCHMARKS			
NUMBER	LOCATION	DESCRIPTION	ELEVATION
401	STA 119+51.86, 35.14' RT	HYDRANT X ON NORTH LOWER FLANGE BOLT	677.24
402	STA 114+31.12, 39.07' LT	HYDRANT FLANGE BOLT	680.95
403	STA 126+29.60, 28.48' RT	HYDRANT ON FLANGE BOLT	683.96

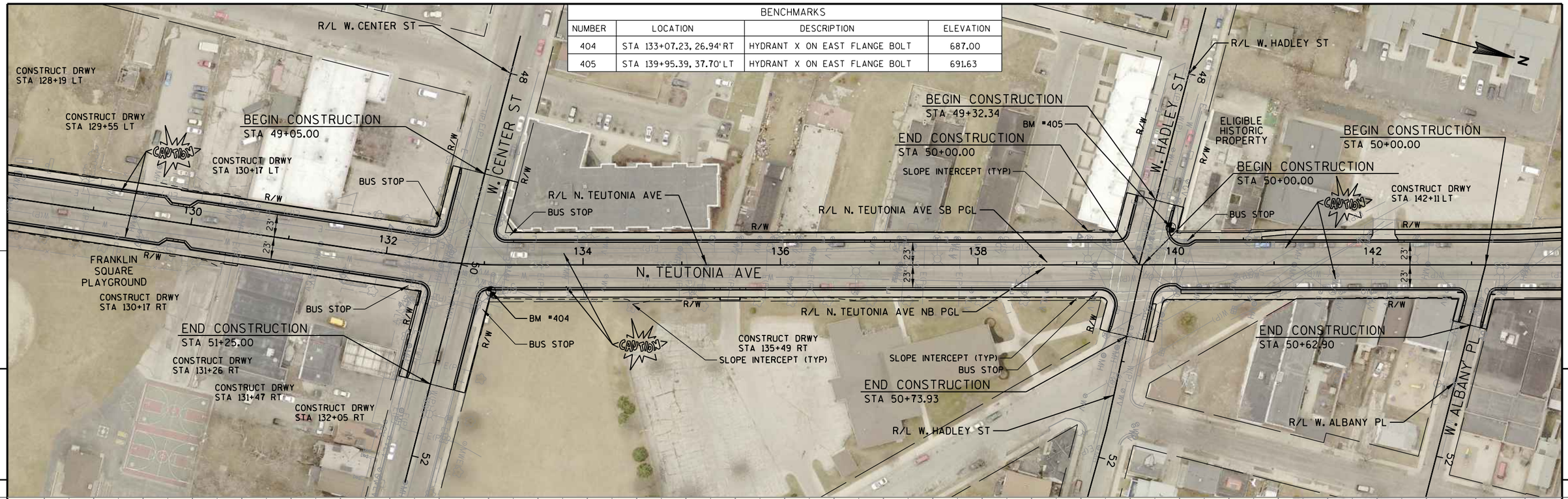


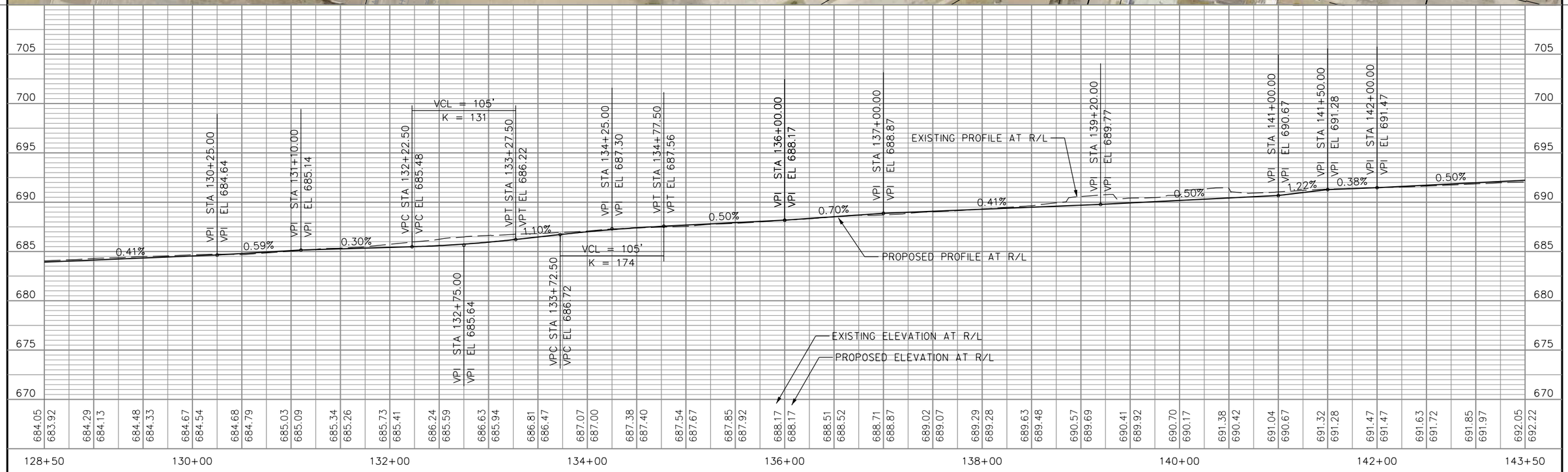
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: N. TEUTONIA AVE	SHEET 270	E

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WISDOT/CADDS SHEET 40

BENCHMARKS			
NUMBER	LOCATION	DESCRIPTION	ELEVATION
404	STA 133+07.23, 26.94' RT	HYDRANT X ON EAST FLANGE BOLT	687.00
405	STA 139+95.39, 37.70' LT	HYDRANT X ON EAST FLANGE BOLT	691.63

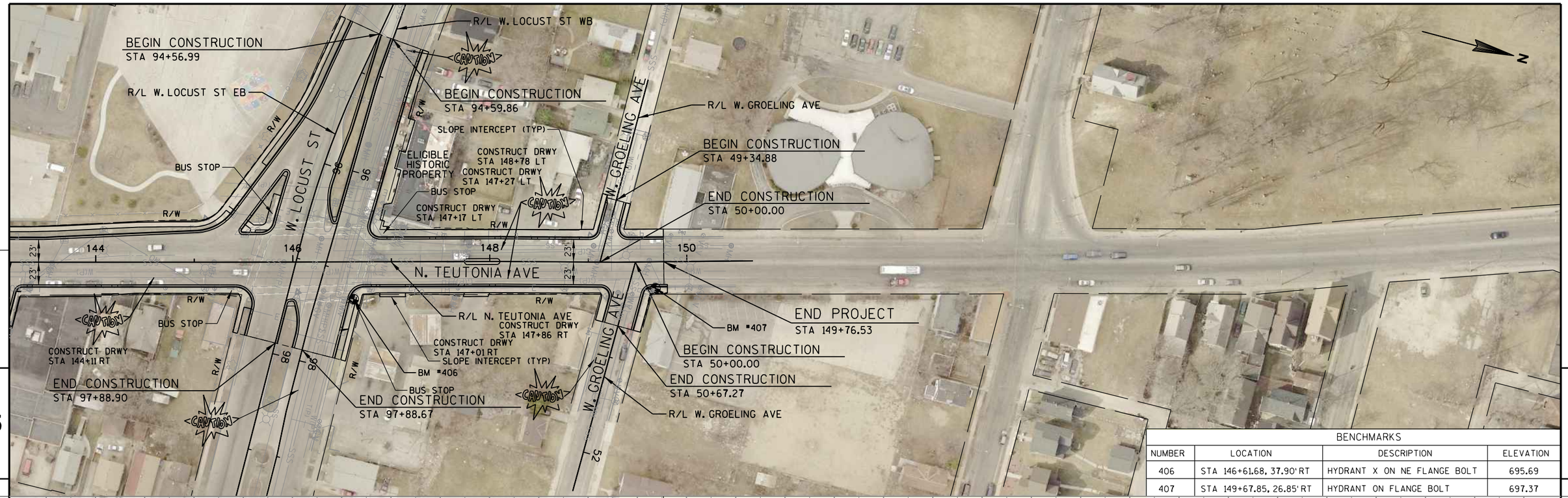




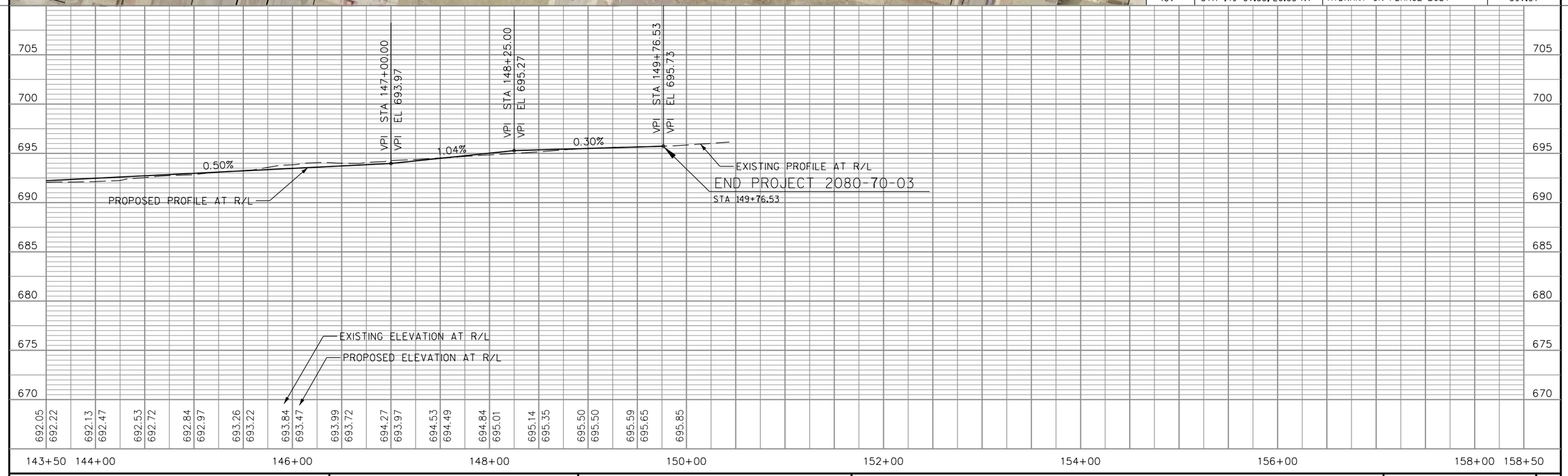
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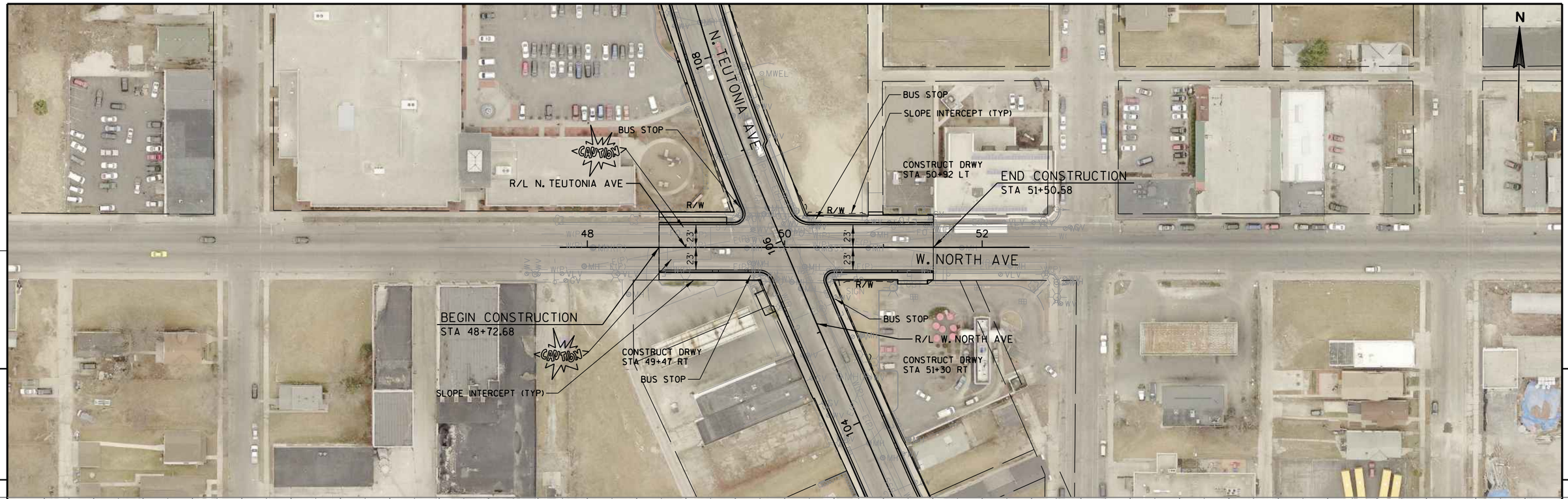
WISDOT/CADDS SHEET 40

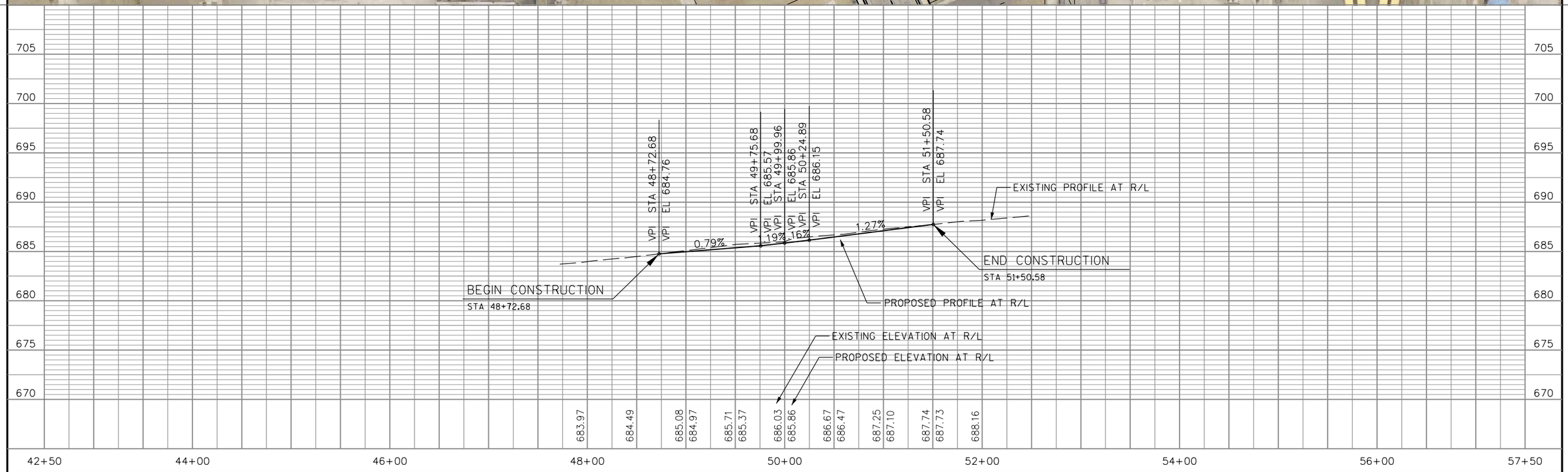


BENCHMARKS			
NUMBER	LOCATION	DESCRIPTION	ELEVATION
406	STA 146+61.68, 37.90' RT	HYDRANT X ON NE FLANGE BOLT	695.69
407	STA 149+67.85, 26.85' RT	HYDRANT ON FLANGE BOLT	697.37



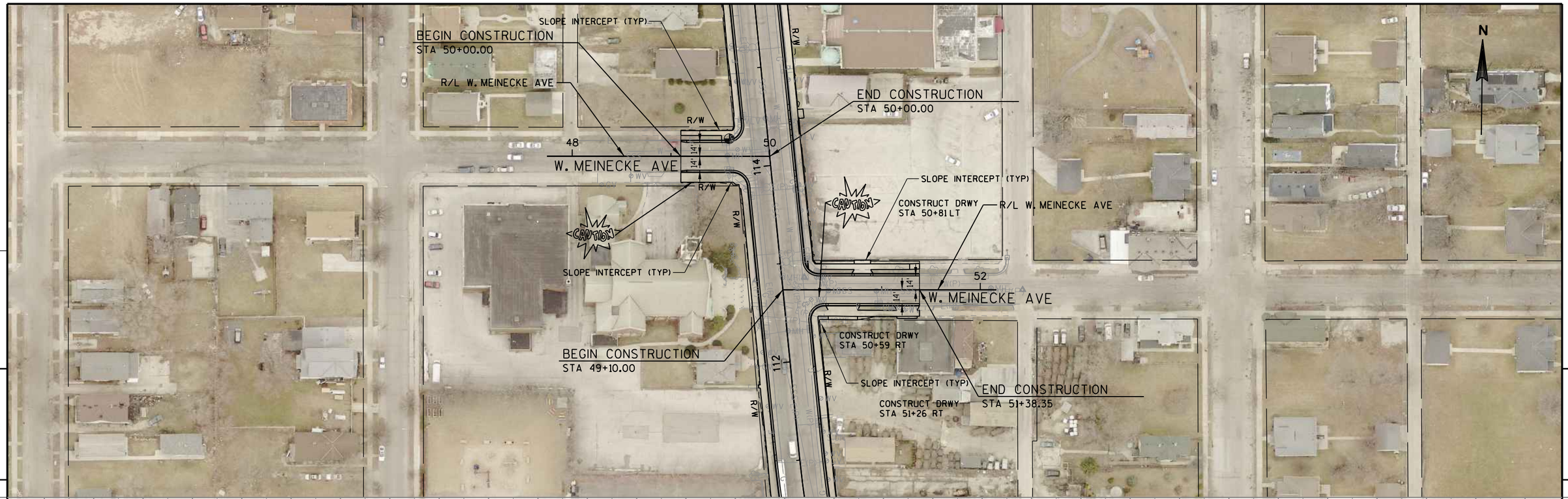
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: N. TEUTONIA AVE	SHEET 272	E

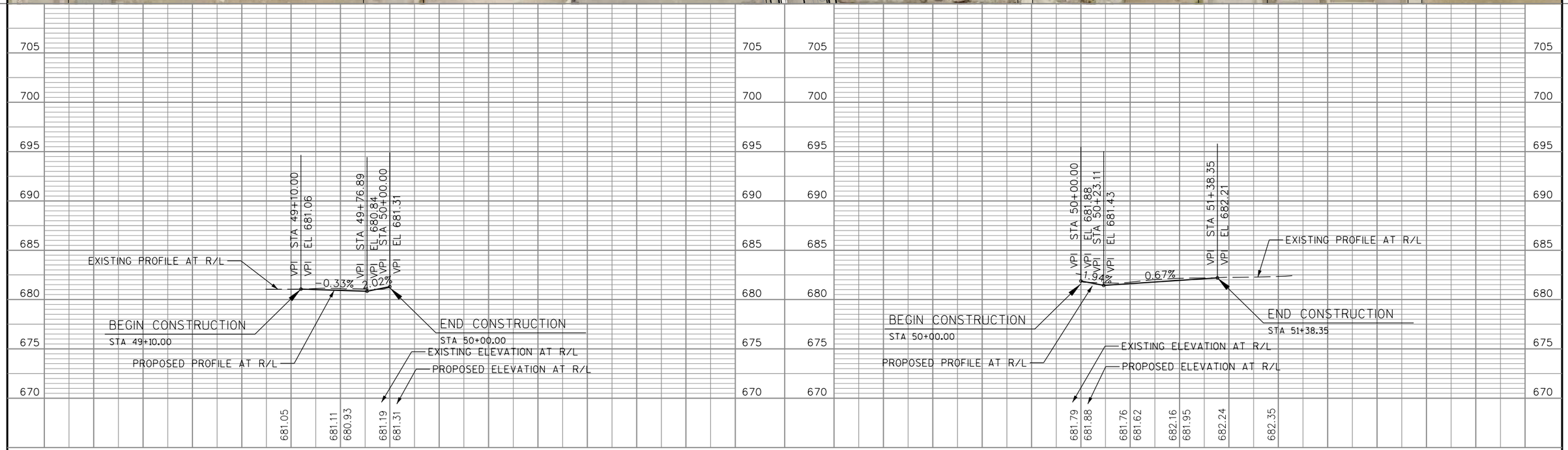




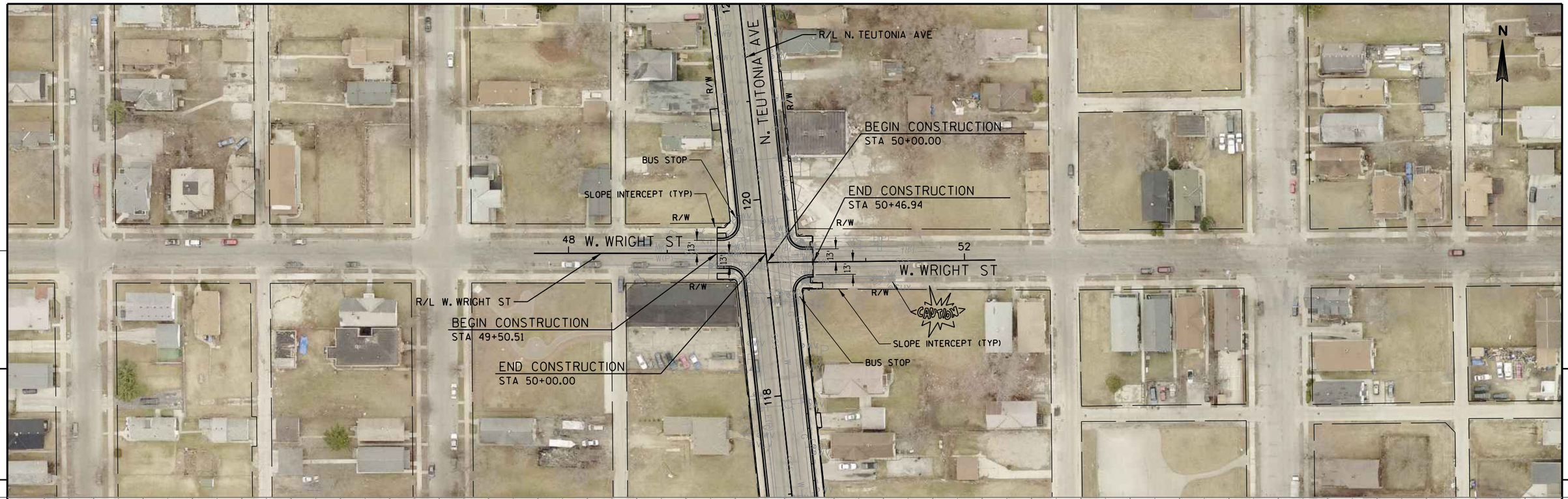
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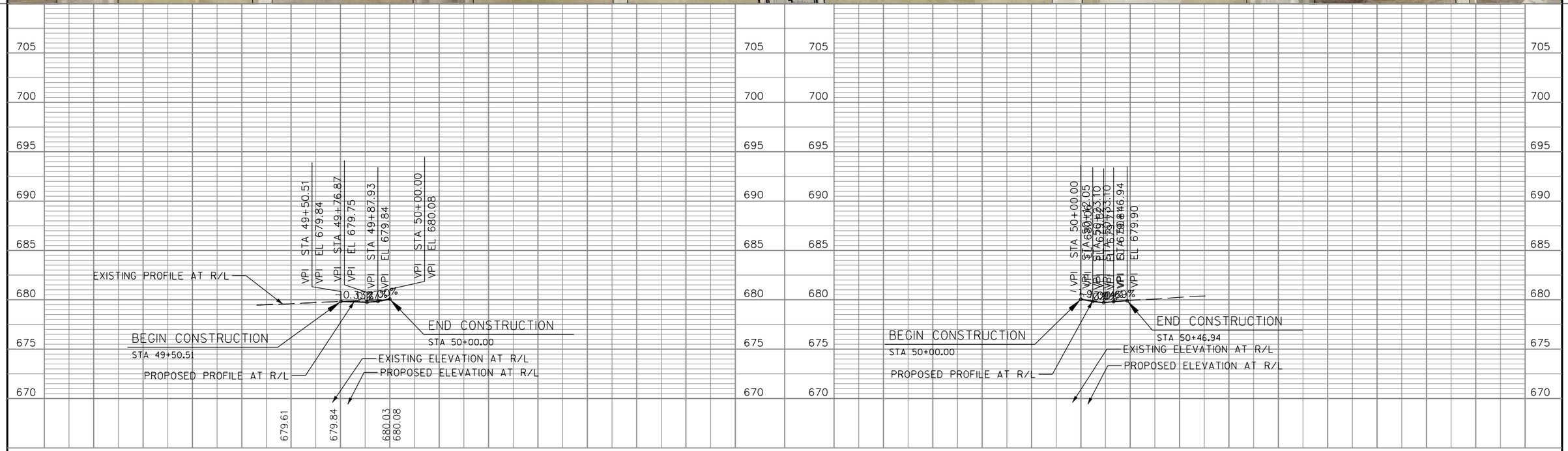
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. MEINECKE AVE	SHEET 274	E

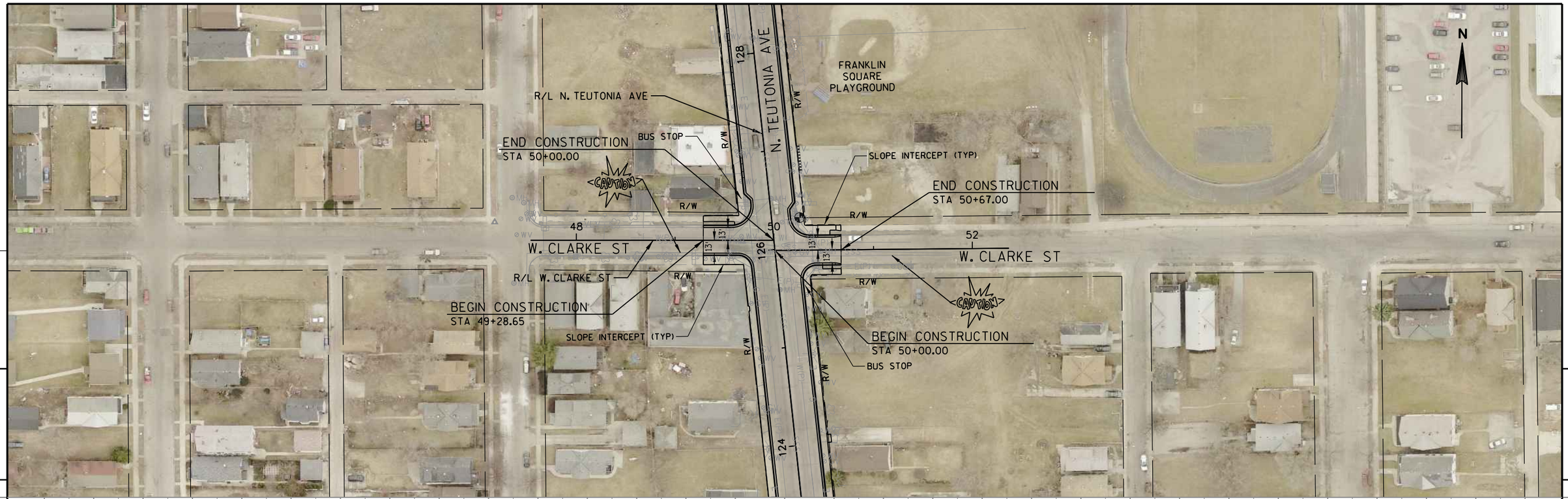


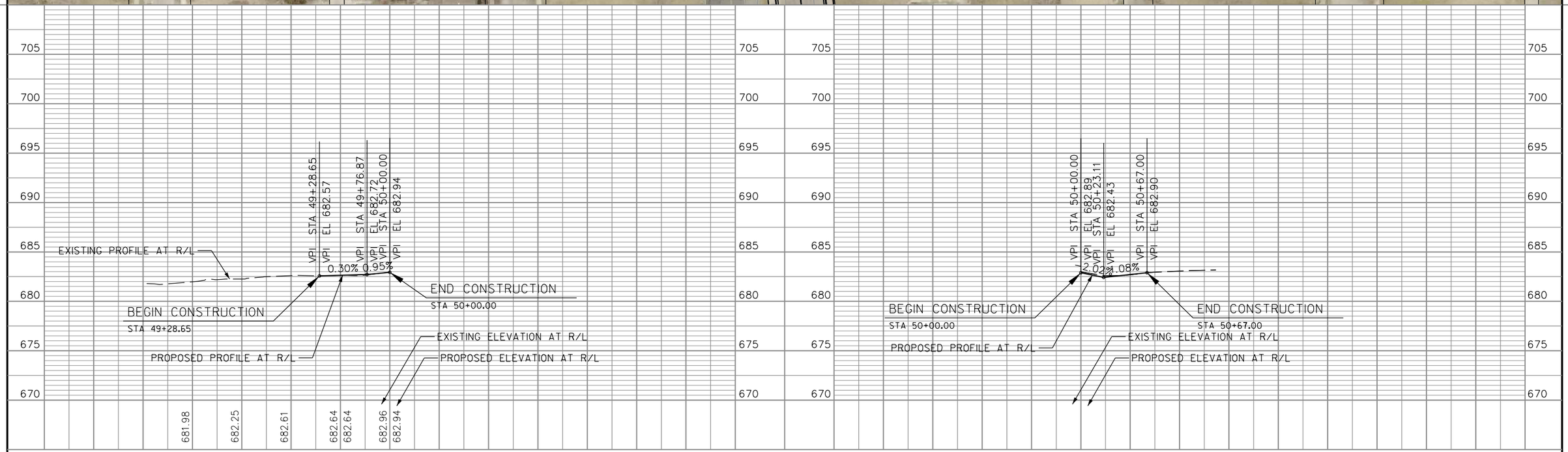


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. WRIGHT ST	SHEET 275	E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\050113_pp.dgn PLOT DATE : 12/17/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

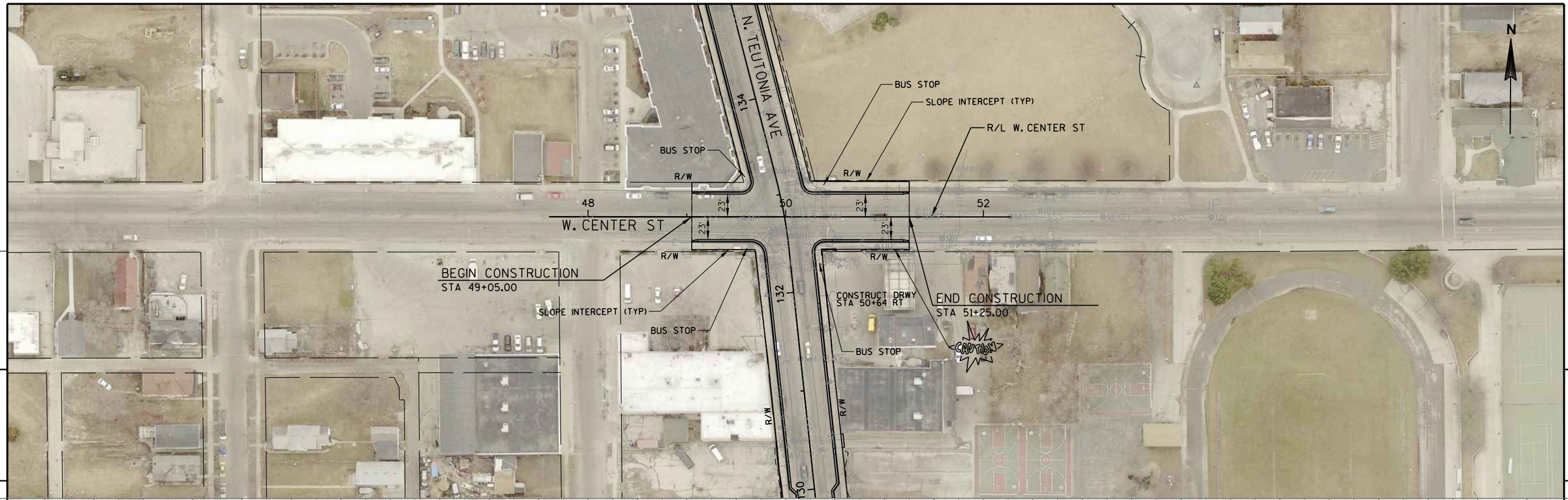


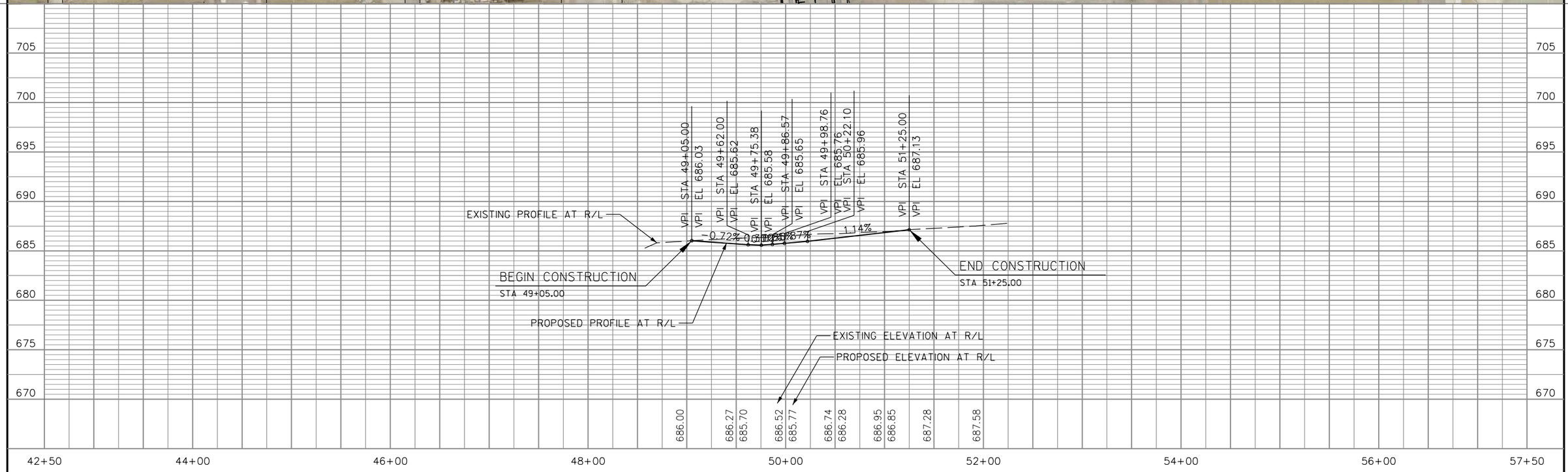


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. CLARKE ST	SHEET 276	E

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WISDOT/CADDS SHEET 40

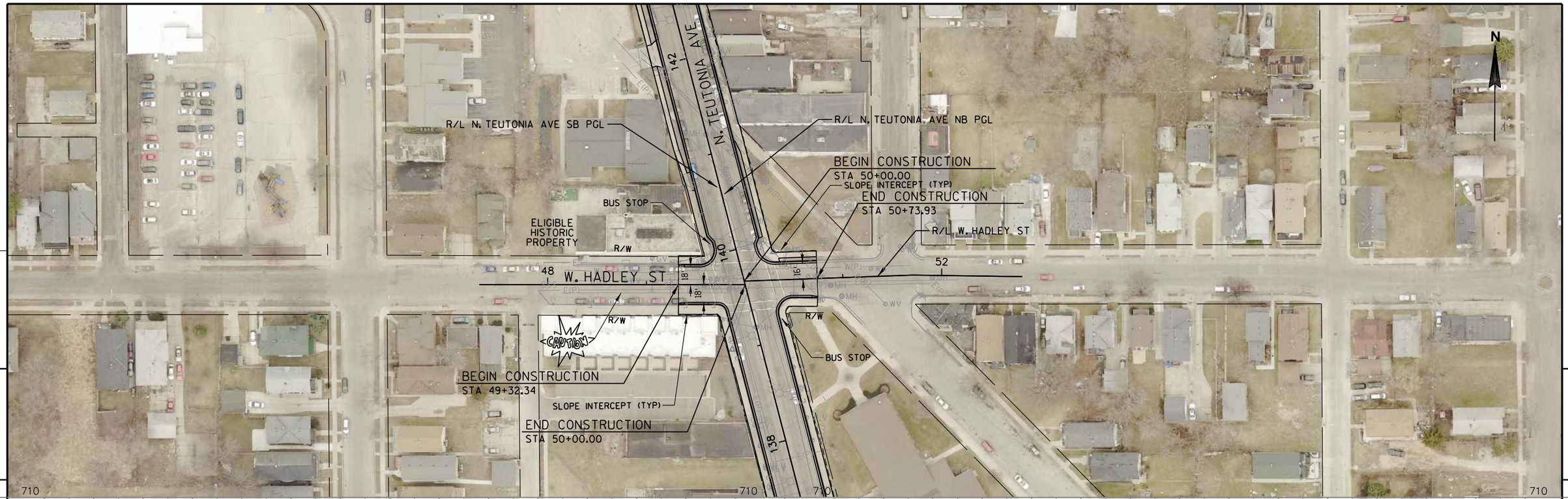


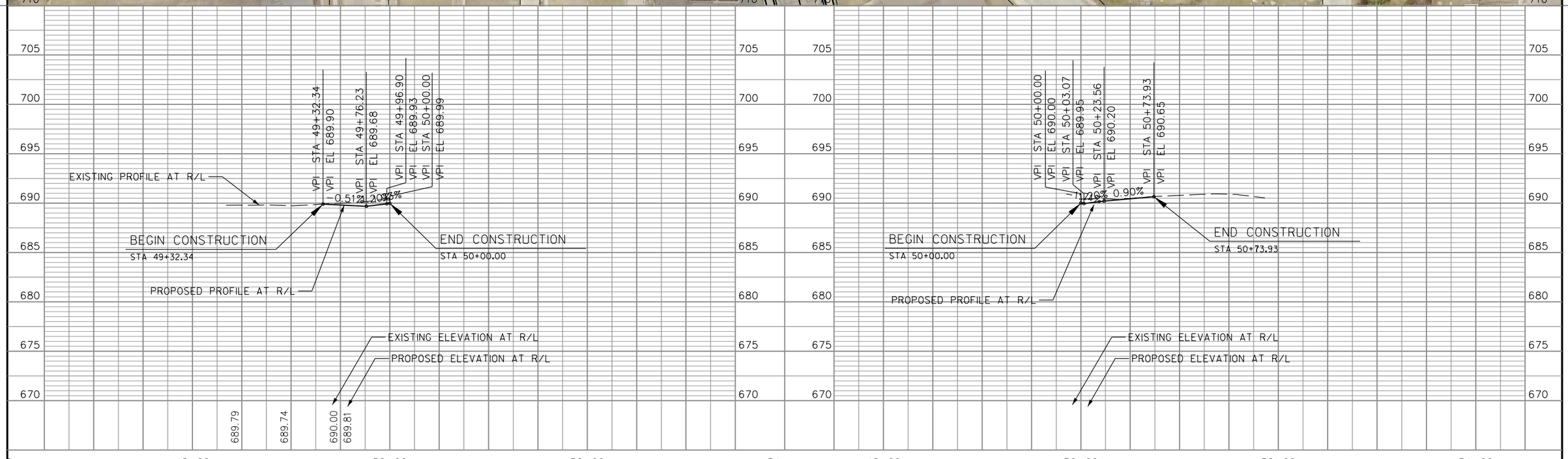


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. CENTER ST	SHEET 277	E

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WISDOT/CADDS SHEET 40

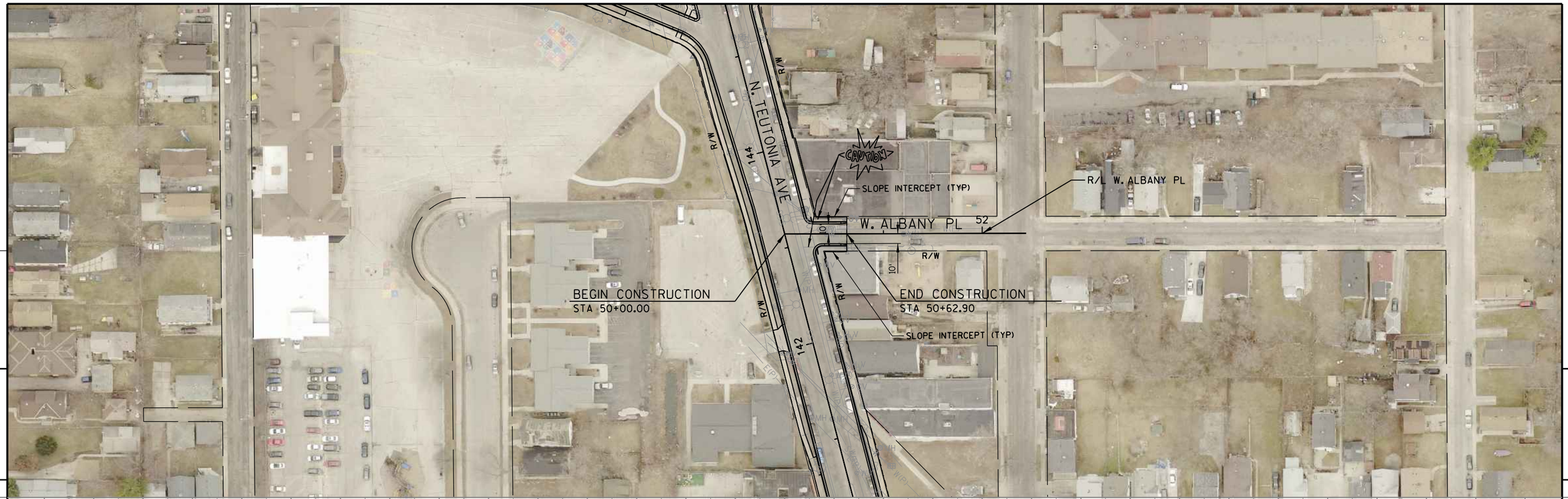


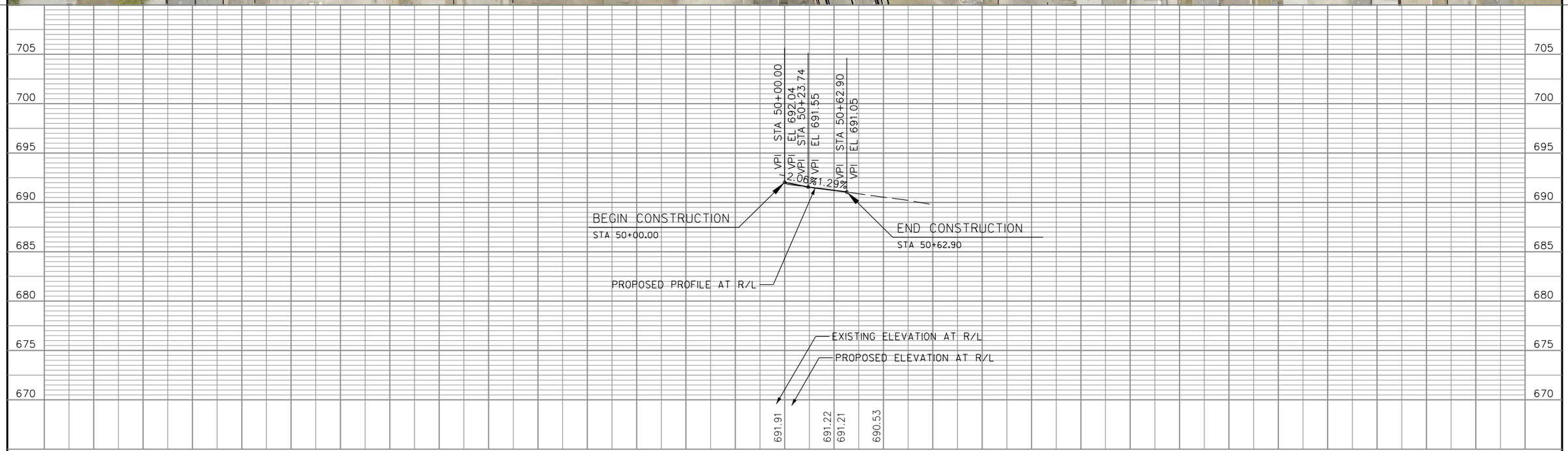


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. HADLEY ST	SHEET 278	E

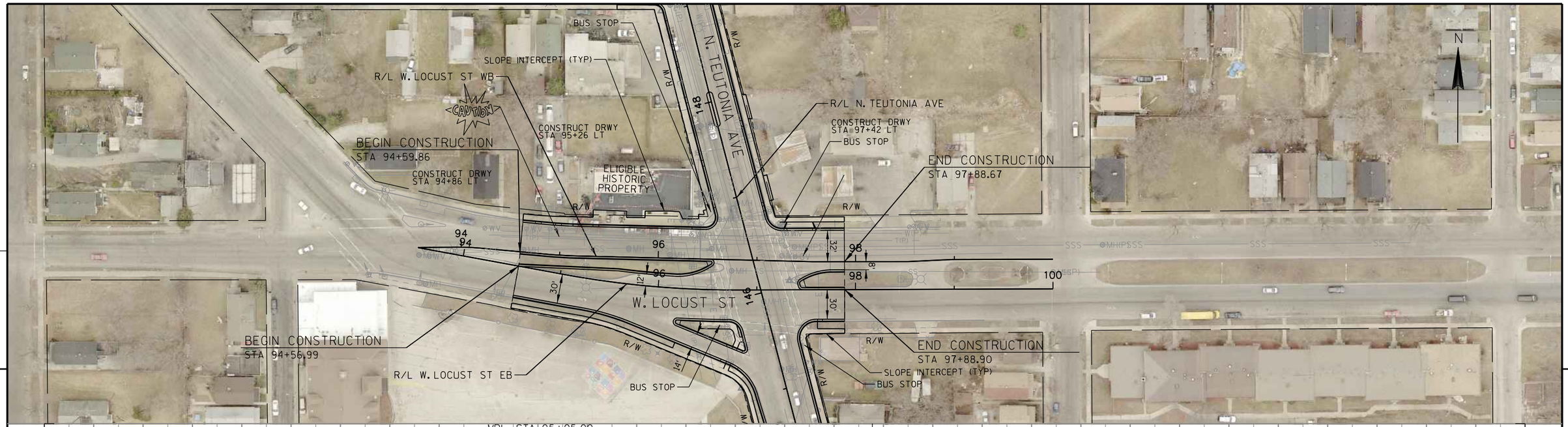
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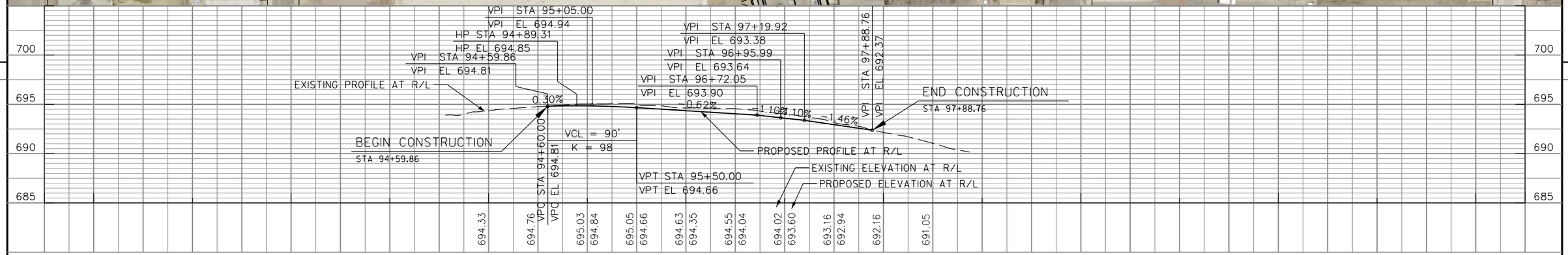
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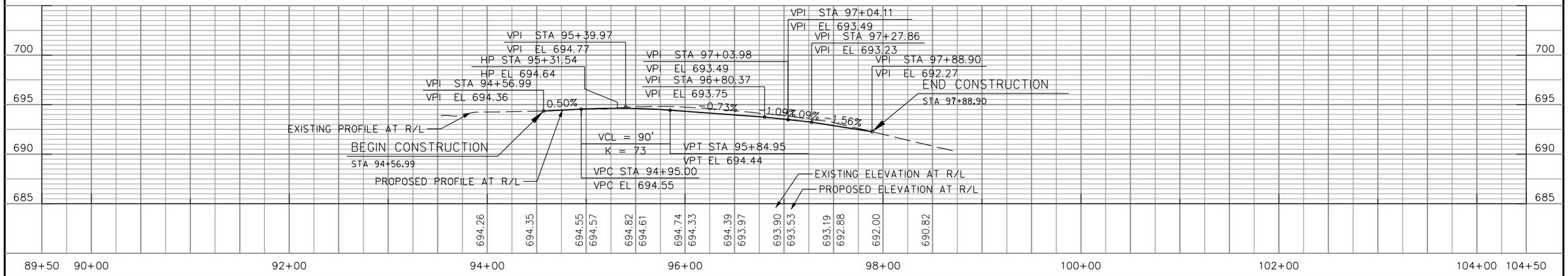




PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. ALBANY PL	SHEET 279	E

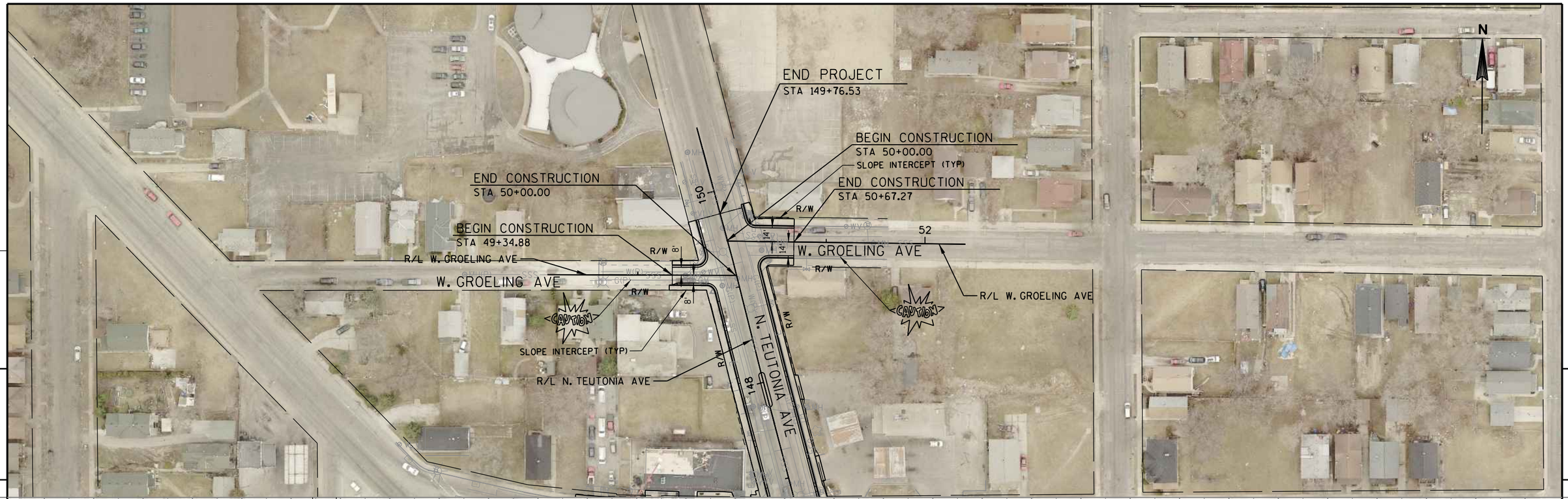


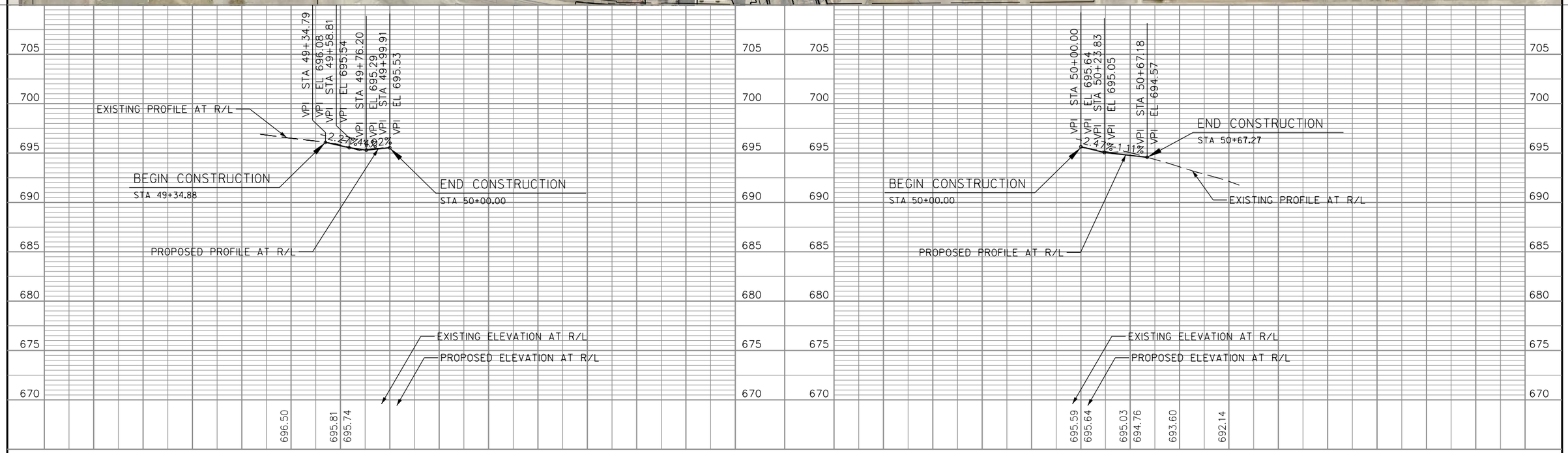




PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. LOCUST ST EB & WB	SHEET 280	E

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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. GROELING AVE	SHEET 281	E

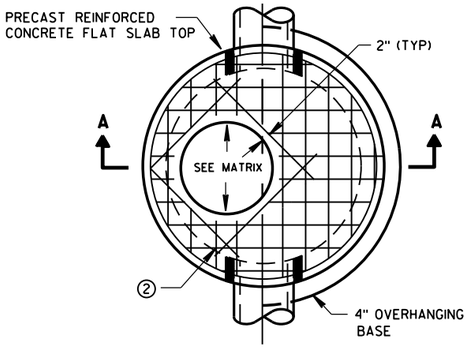
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WISDOT/CADDS SHEET 40

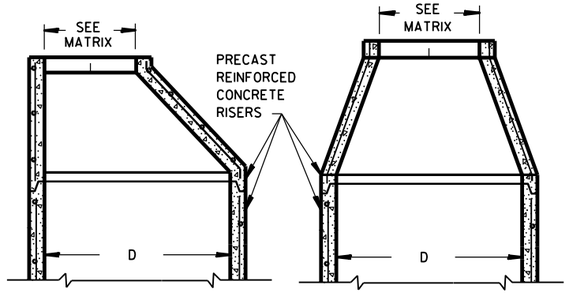
Standard Detail Drawing List

08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-17	URBAN NON-DOWELED CONCRETE PAVEMENT
13C18-06A	CONCRETE PAVEMENT JOINTING
13C18-06C	CONCRETE PAVEMENT JOINT TYPES
13C18-06D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C29-06A	BICYCLE LANE MARKING
15C29-06B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

6

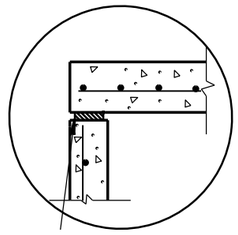


PLAN VIEW CIRCULAR OPENING

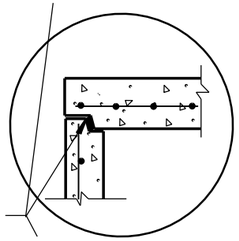


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

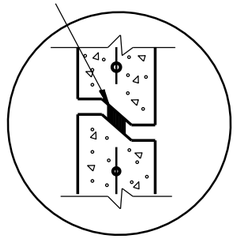


TOP WITH PLAIN END JOINT



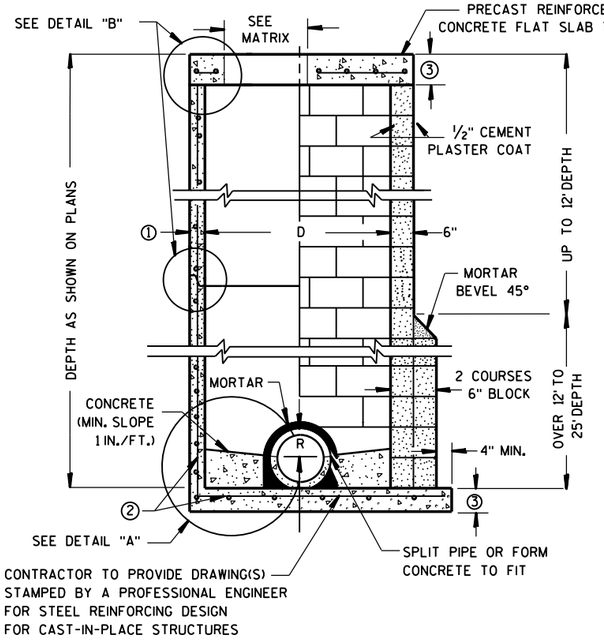
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



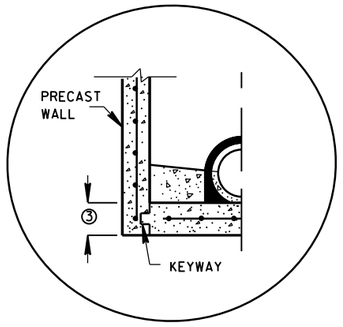
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

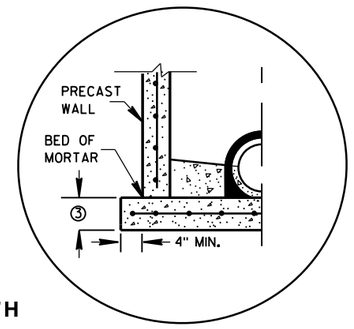


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

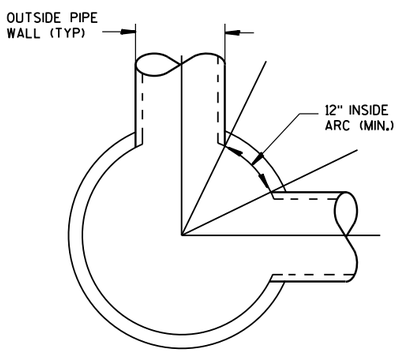


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

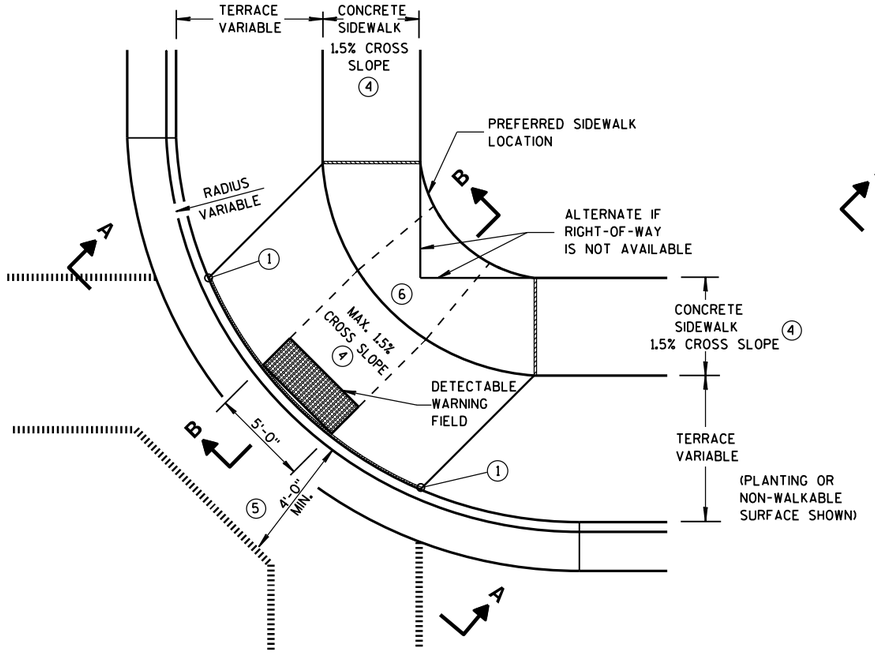
APPROVED

Sept., 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

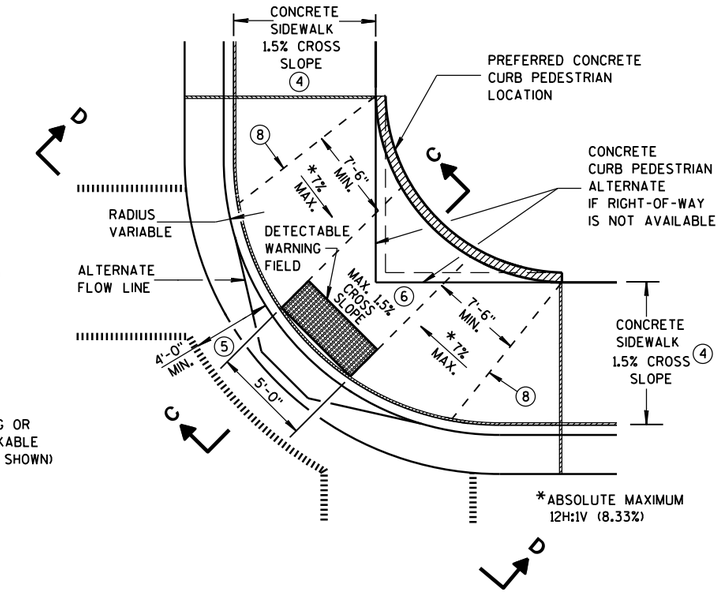
6
S.D.D. 8 B 9-2



PLAN VIEW

TYPE 1 RAMP

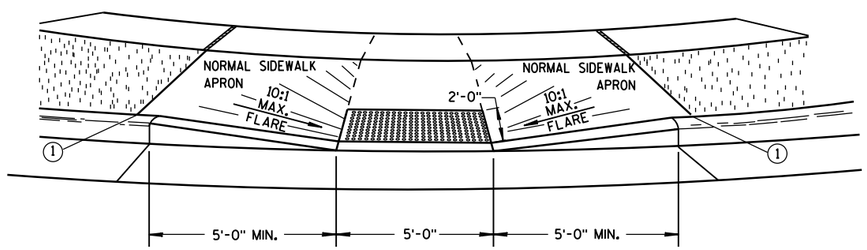
(CENTER OF CORNER RADIUS)



PLAN VIEW

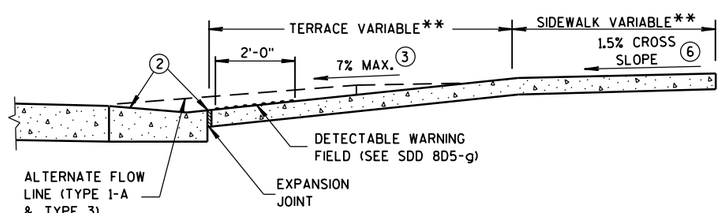
TYPE 1-A RAMP

(NO TERRACE)

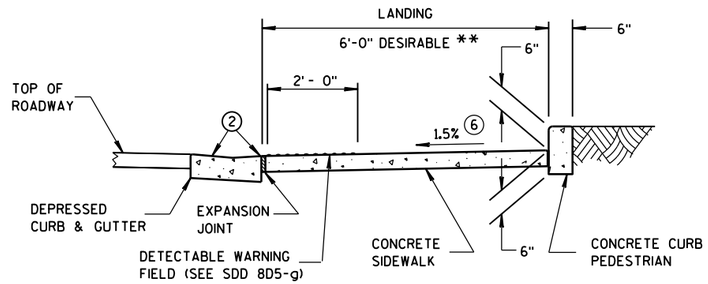


VIEW A-A

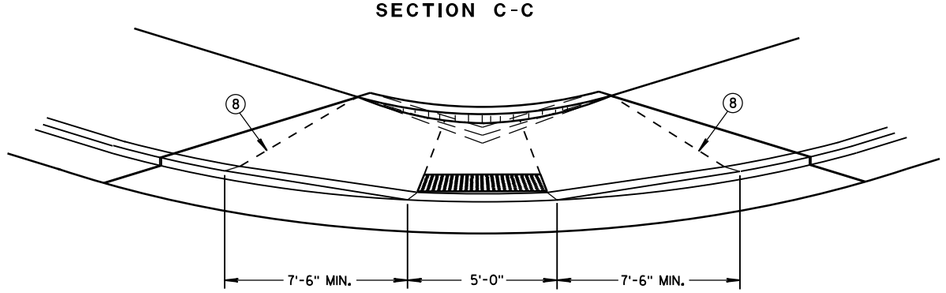
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

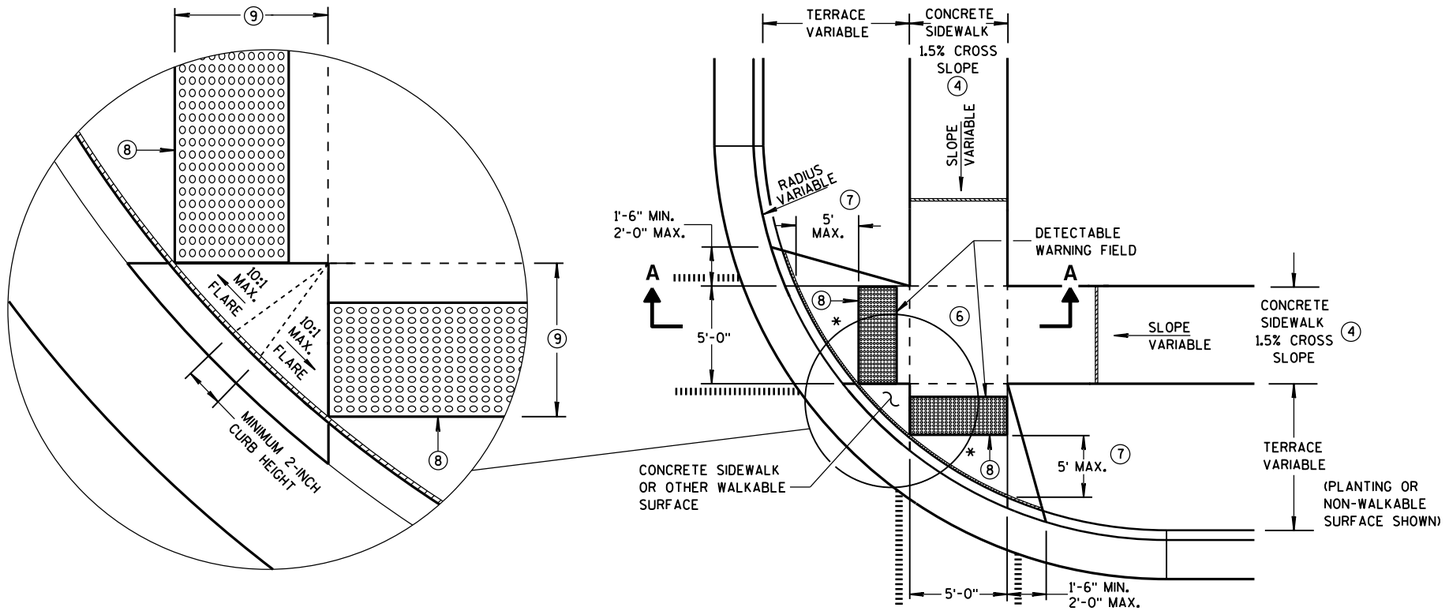
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

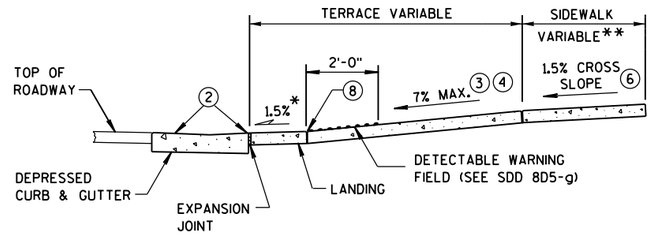
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S.D.D. 8 D 5-19a



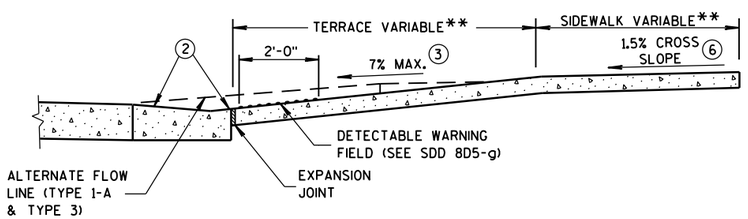
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

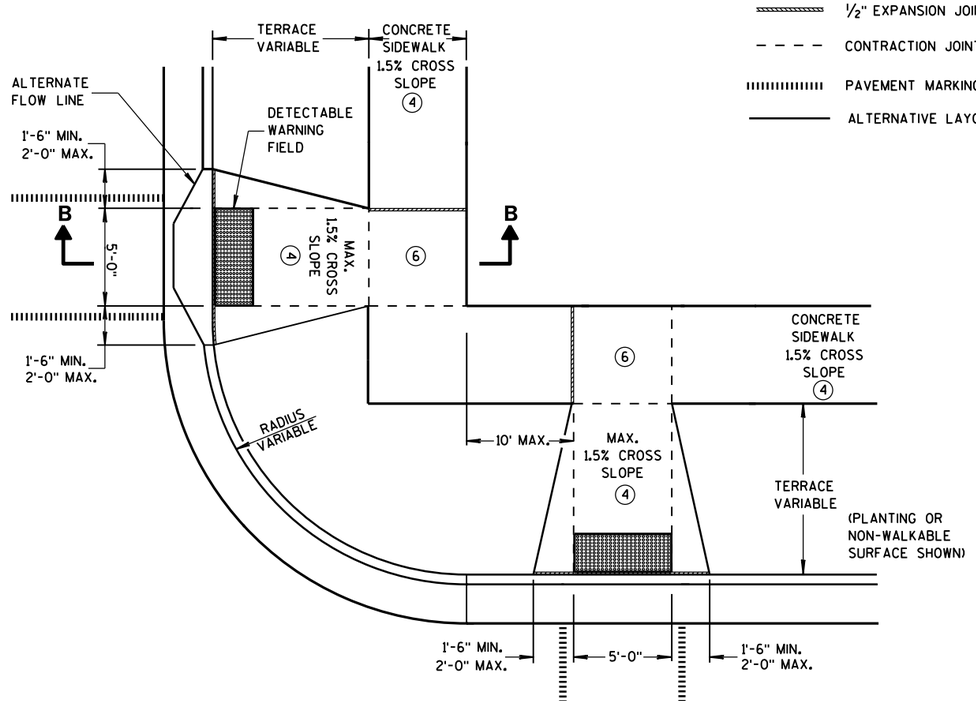
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



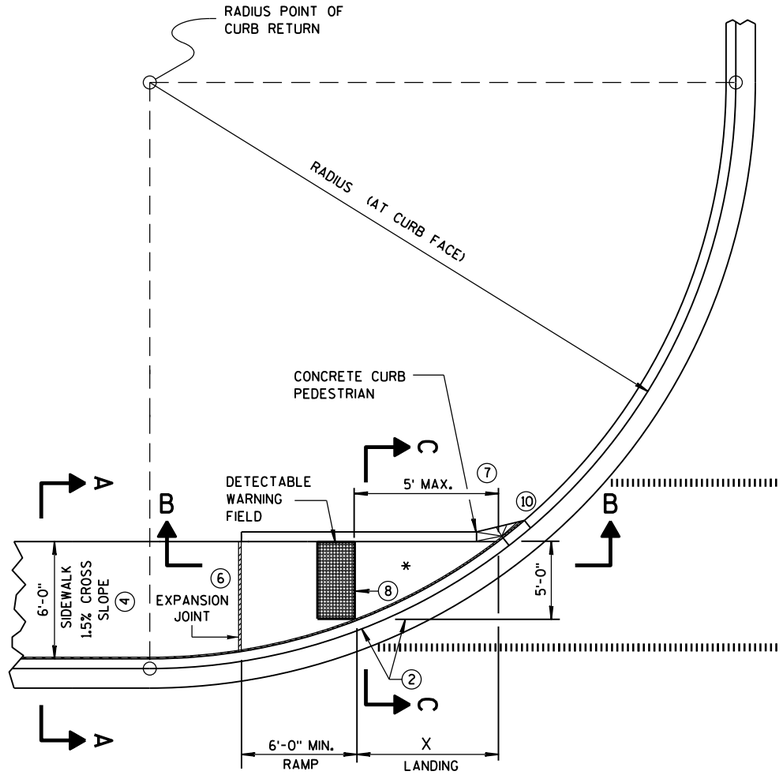
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

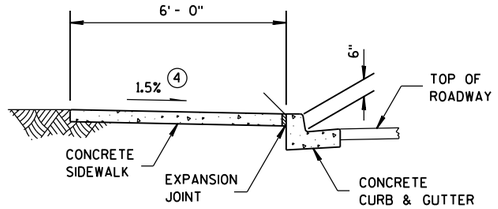
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

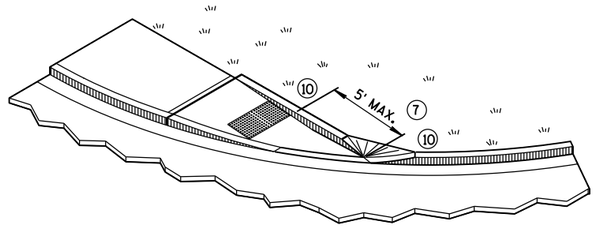
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

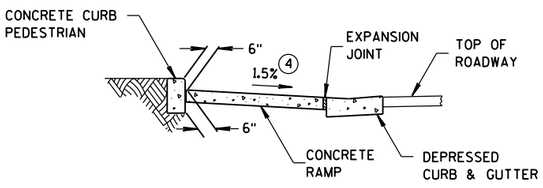
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

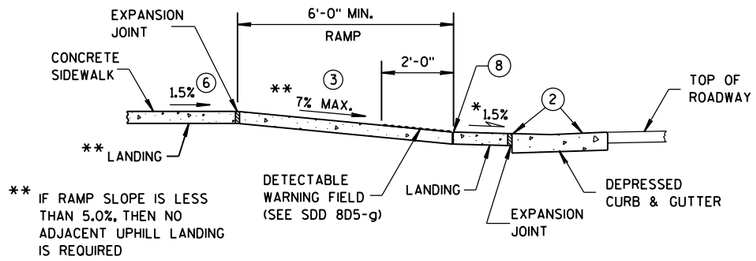


ISOMETRIC VIEW FOR TYPE 4A



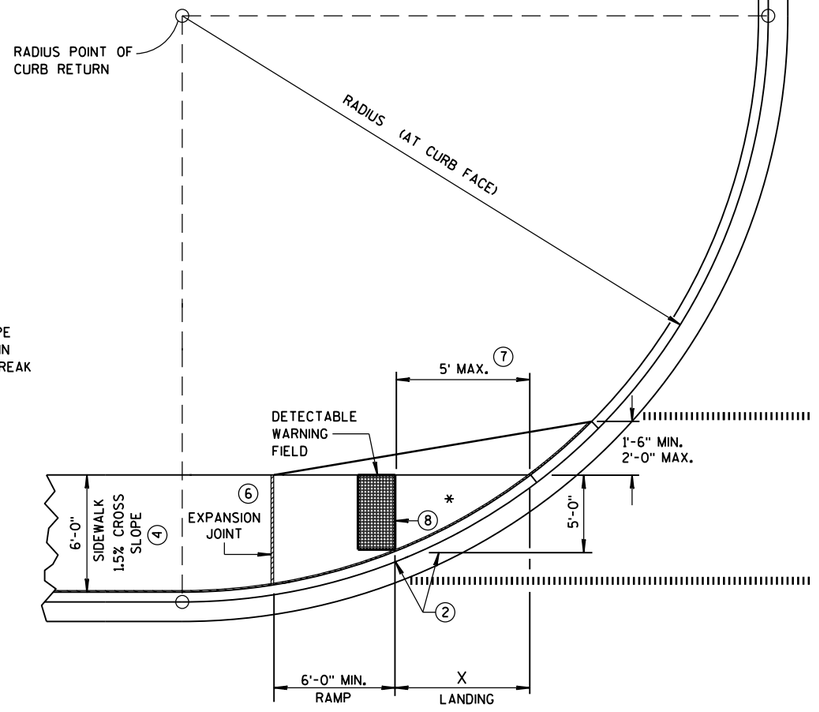
SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

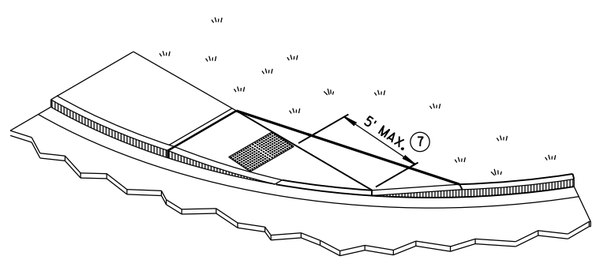


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

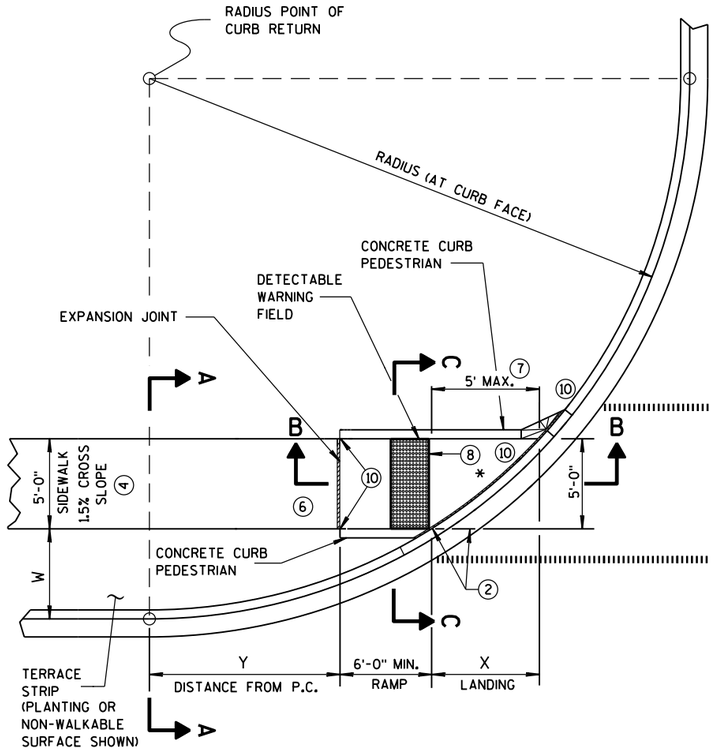
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

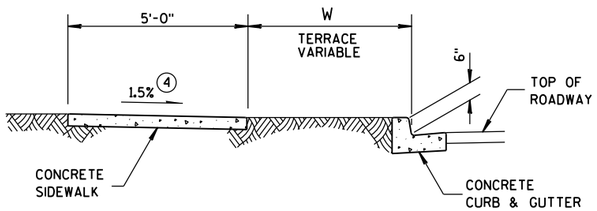
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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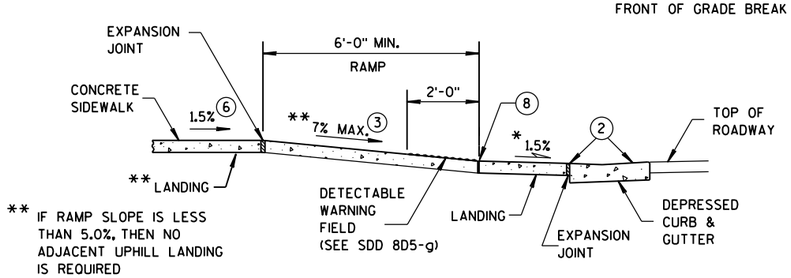
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



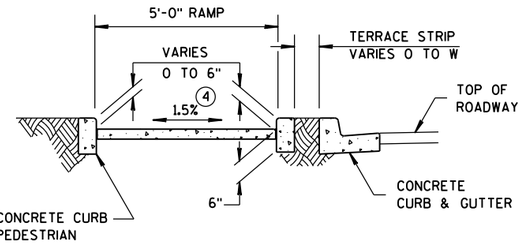
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	23'-2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C-C FOR TYPE 4B

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

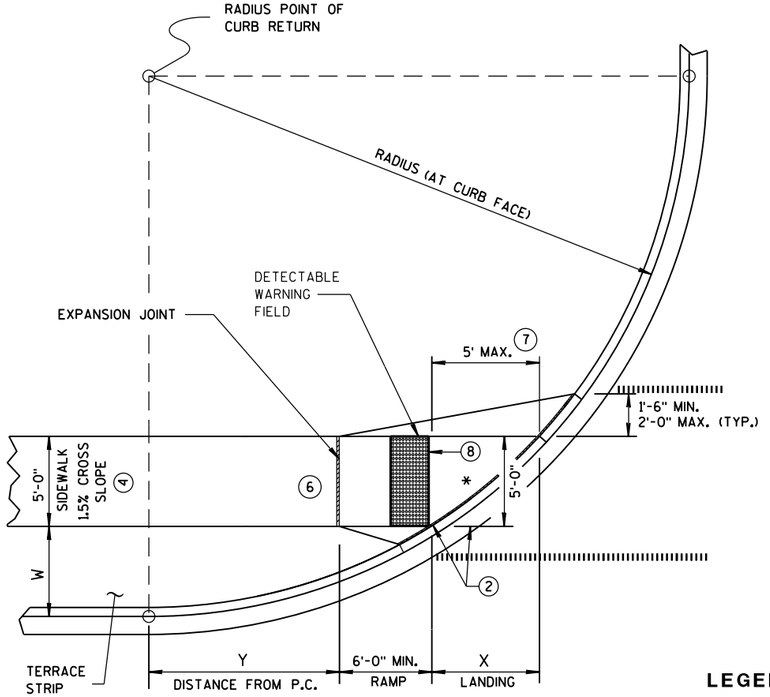
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

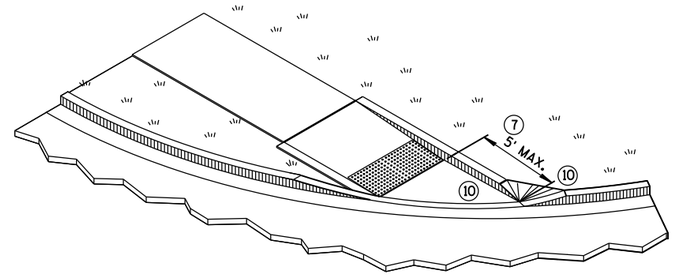
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

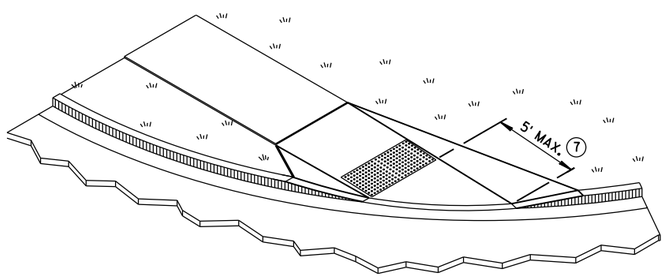
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

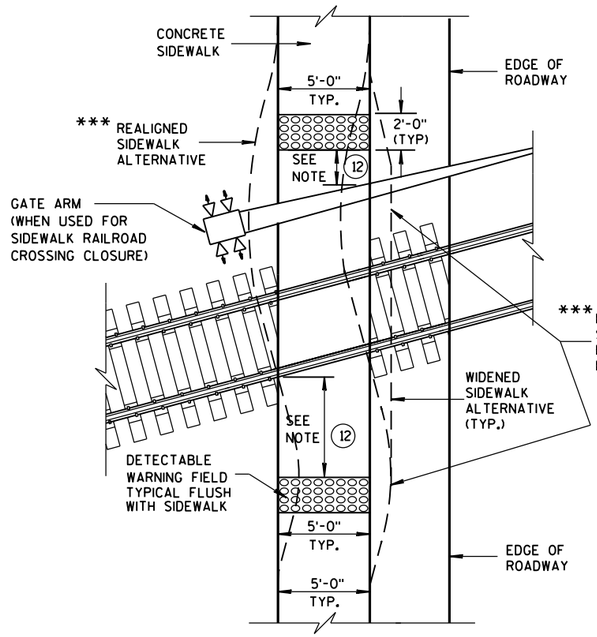
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

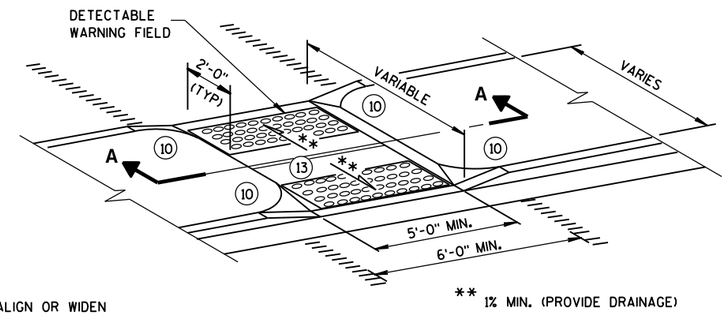
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S.D.D. 8 D 5-19d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

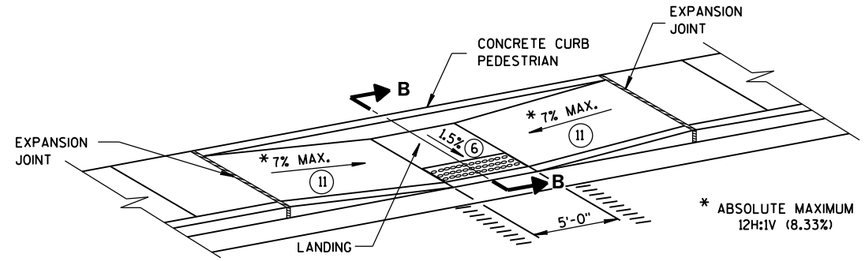
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

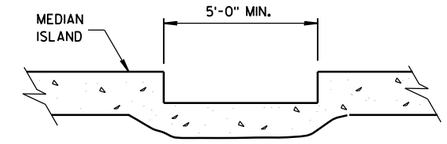
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

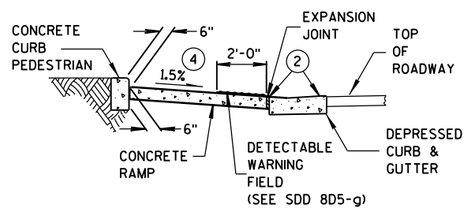
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

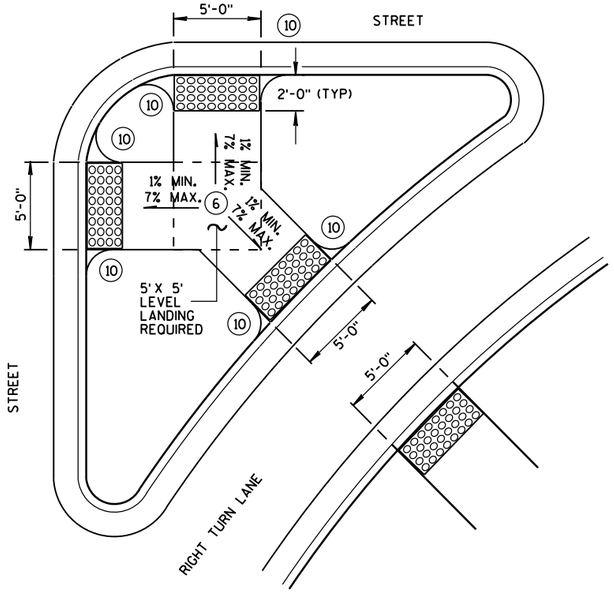


SECTION A-A

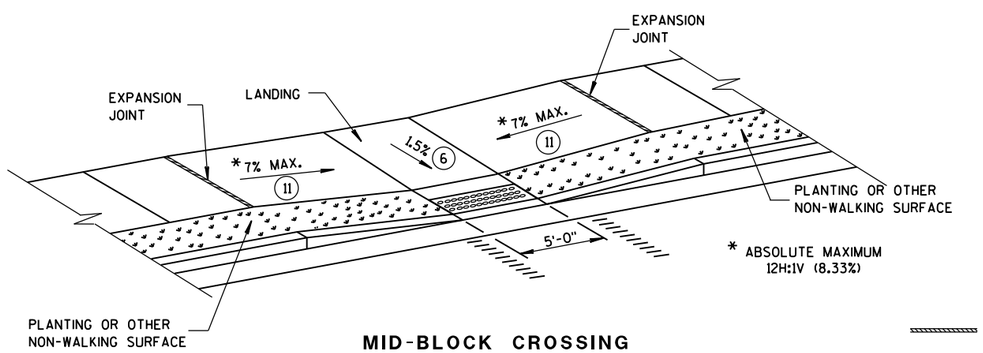


SECTION B-B

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

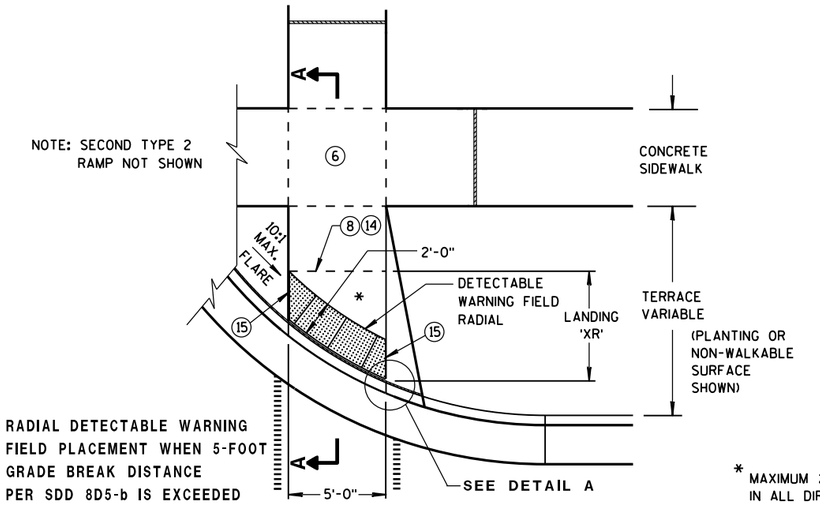
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

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DEPARTMENT OF TRANSPOR

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S.D.D. 8 D 5-19e
S.D.D. 8 D 5-19e

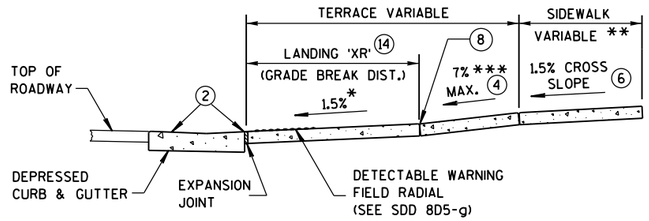


TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

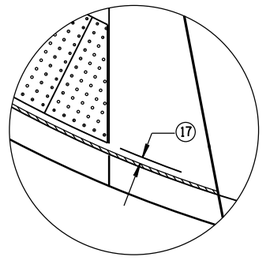
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

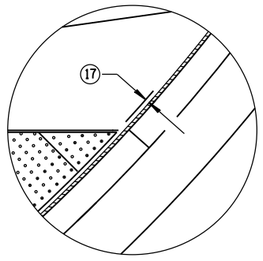
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

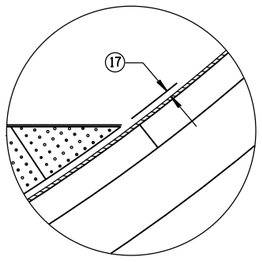
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



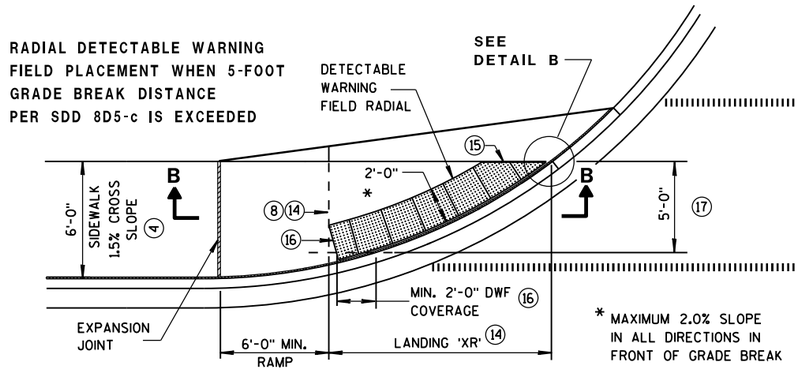
DETAIL A



DETAIL C

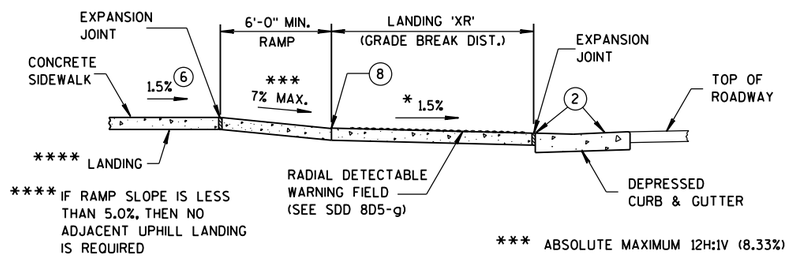


DETAIL B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

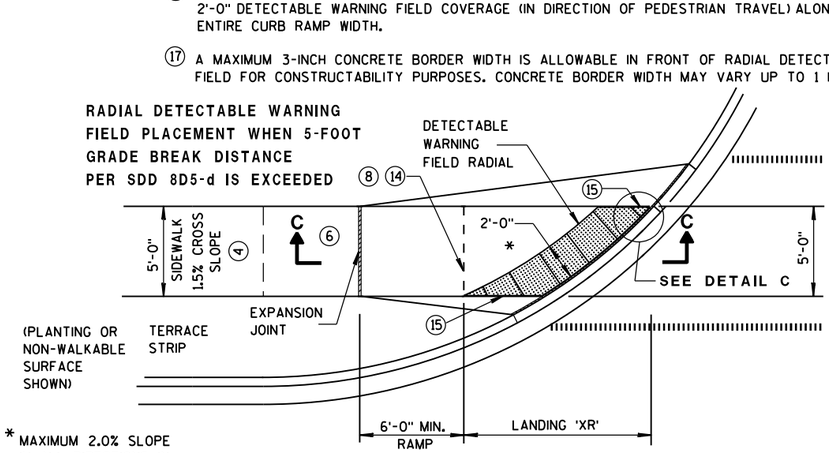
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

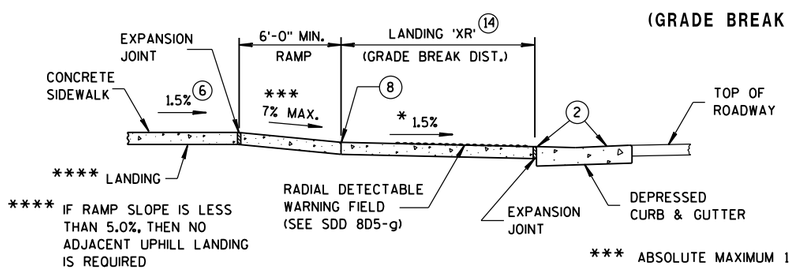
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

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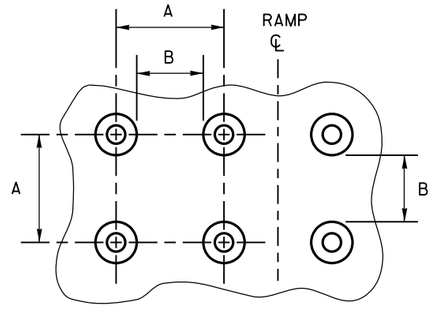
S.D.D. 8 D 5-19f

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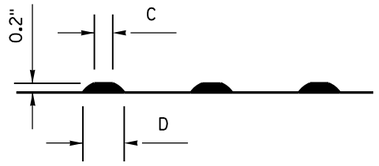
S.D.D. 8 D 5-19f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

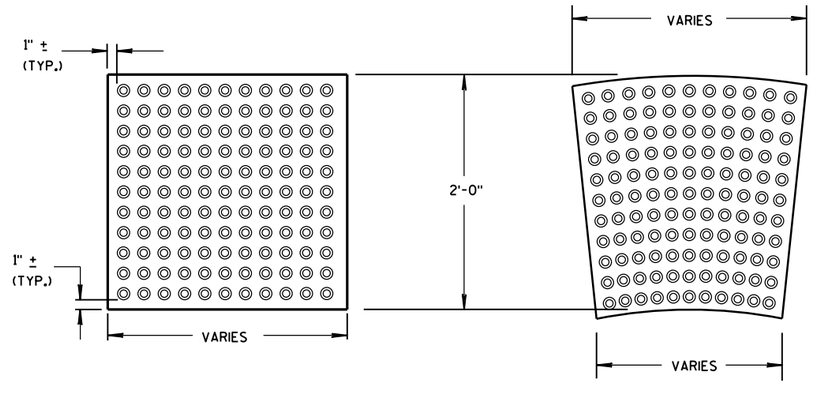
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGES IN COMBINATION WITH SQUARE PANELS ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

⑮ FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

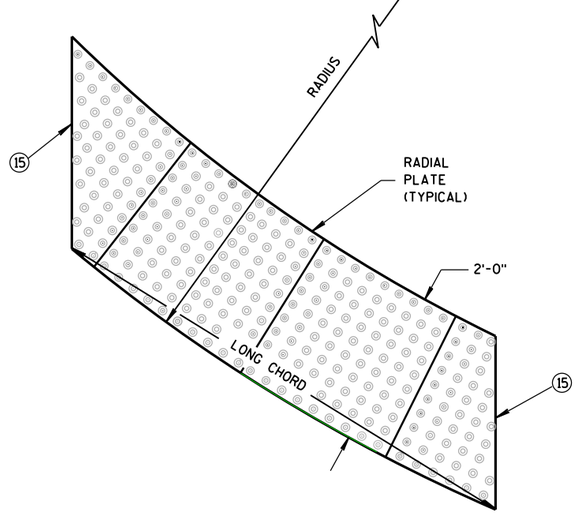


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

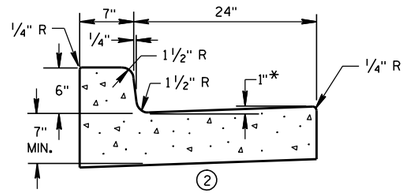
APPROVED
June, 2017 — DATE
FHWA
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
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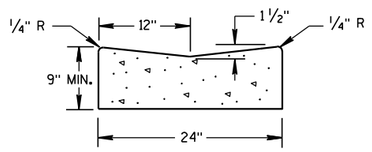
S.D.D. 8 D 5-19g

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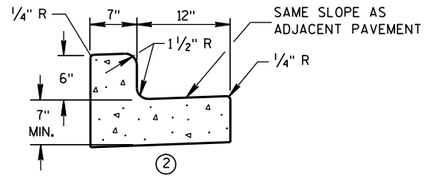
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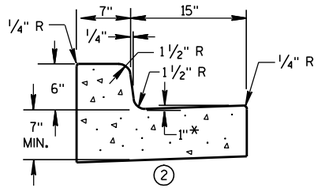
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

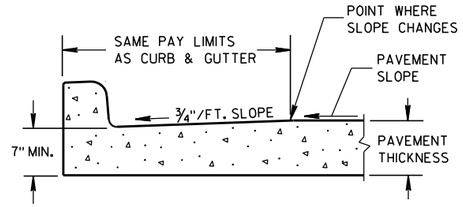


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

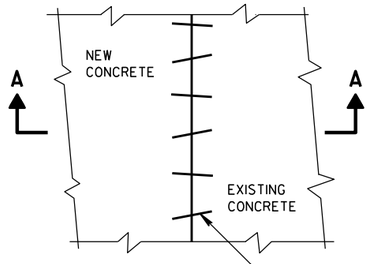
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

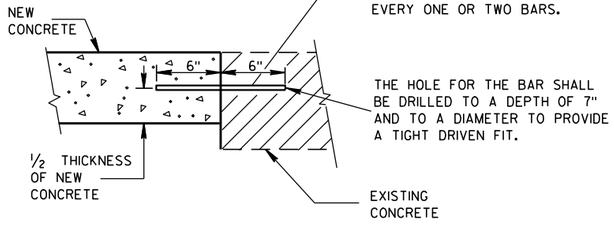
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

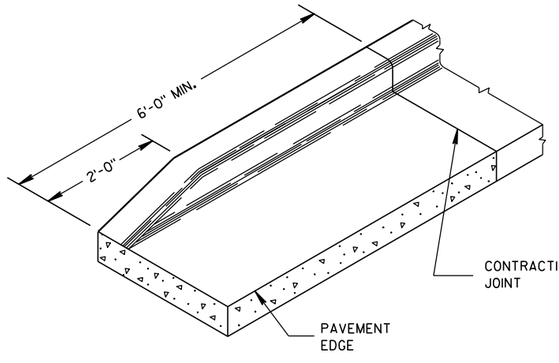
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



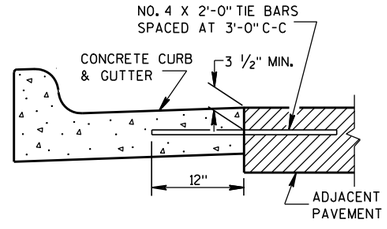
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

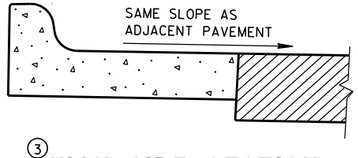
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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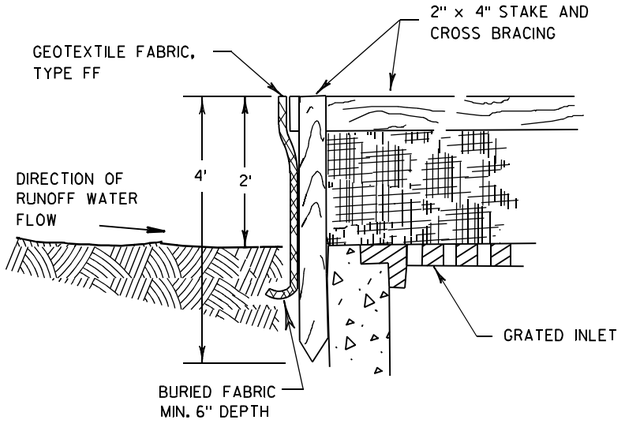
FHWA

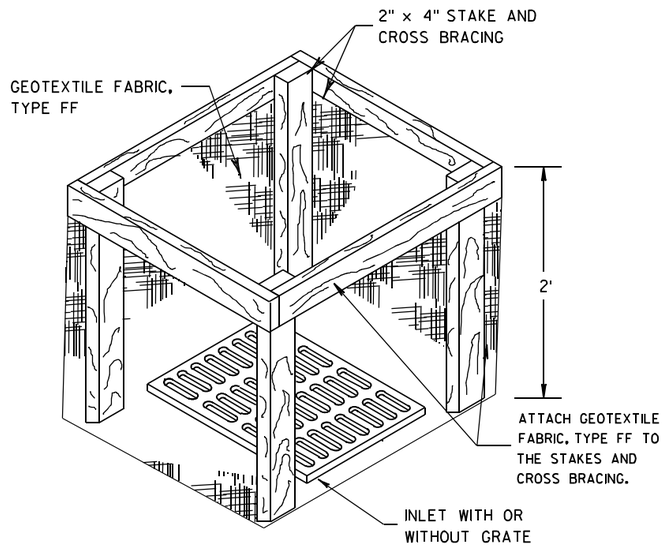
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S.D.D. 8 D 16-10

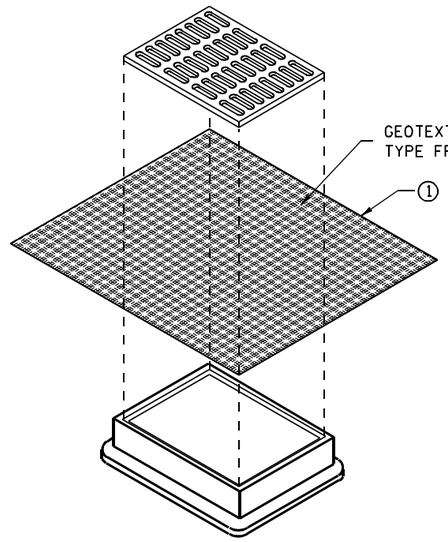
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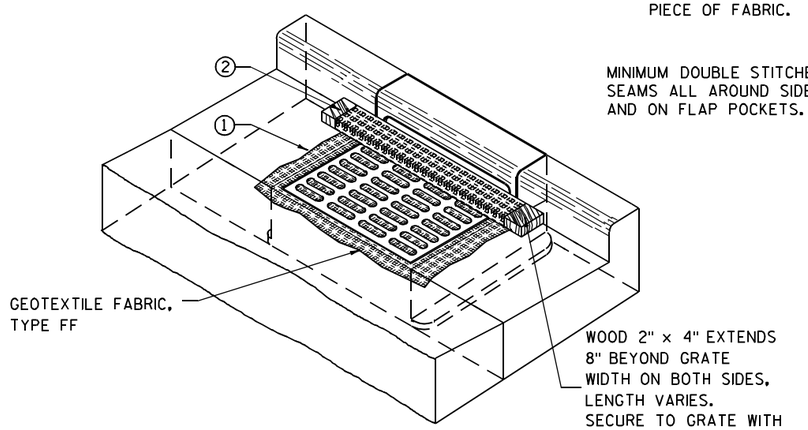


INLET PROTECTION, TYPE A

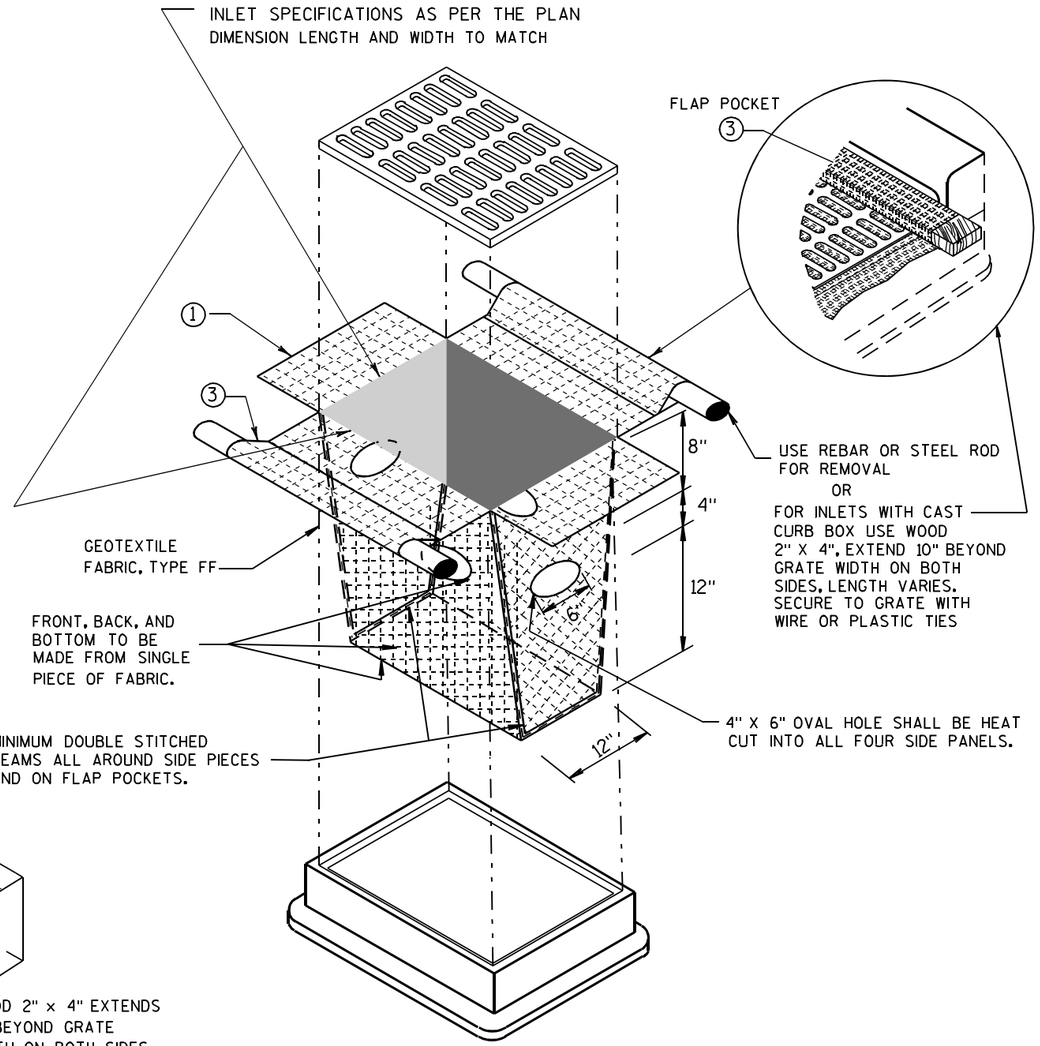


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

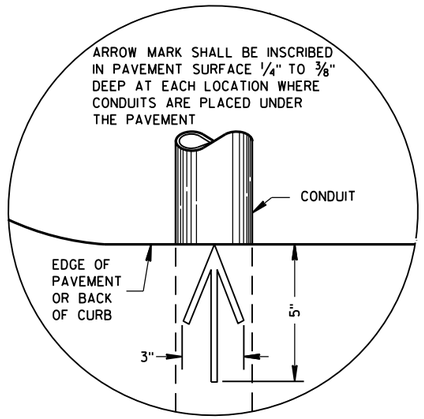
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

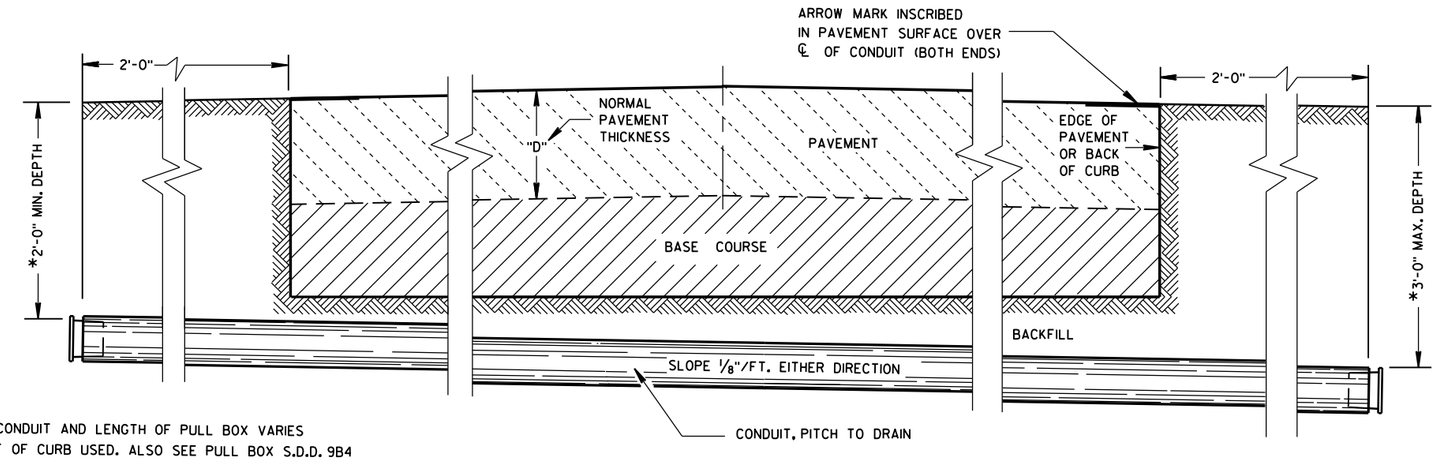
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 10-2



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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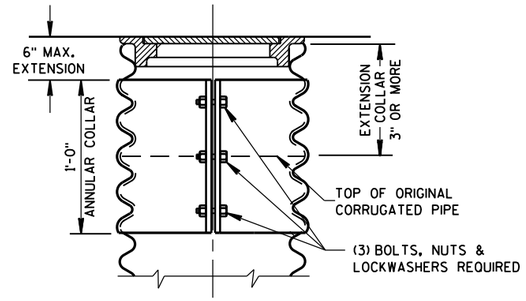
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

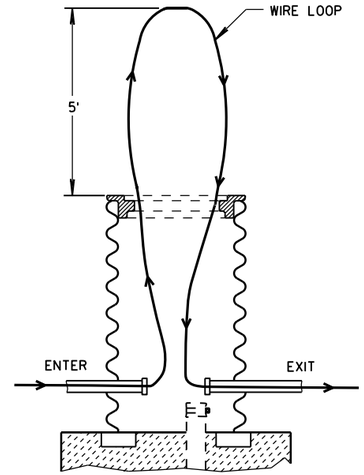
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

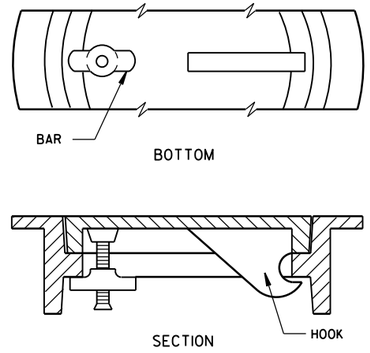
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

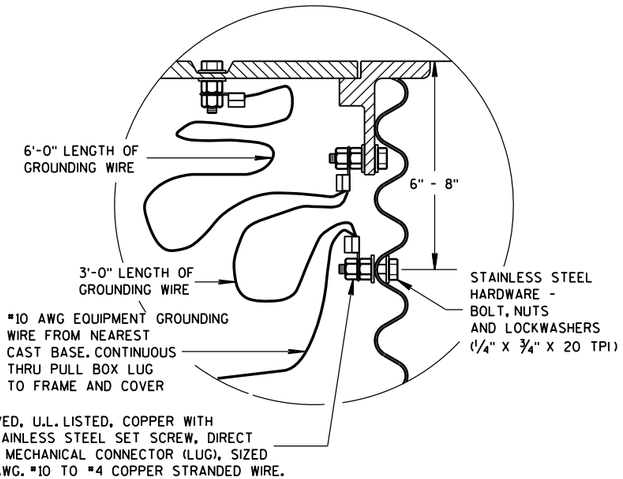


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

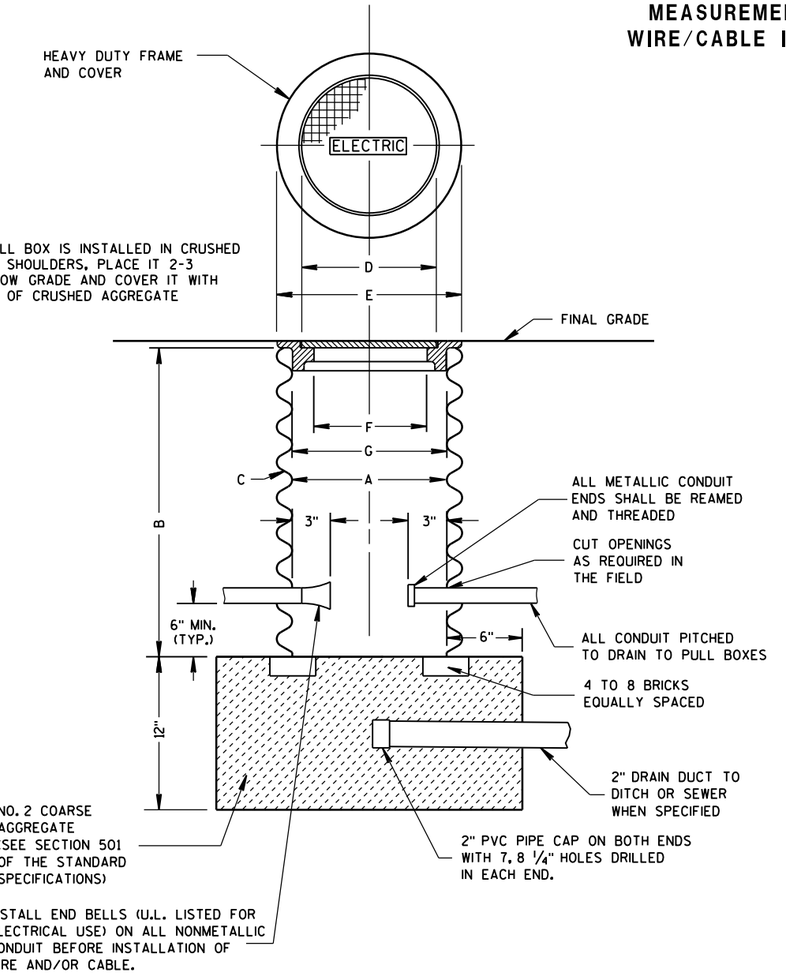


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

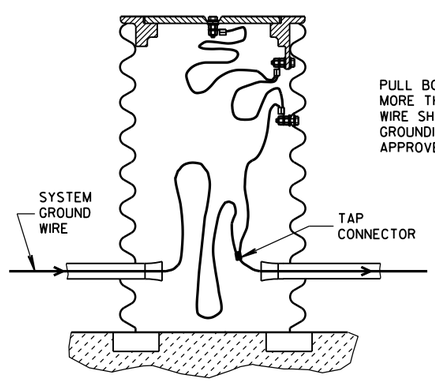
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

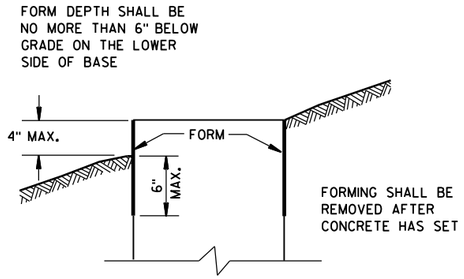
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

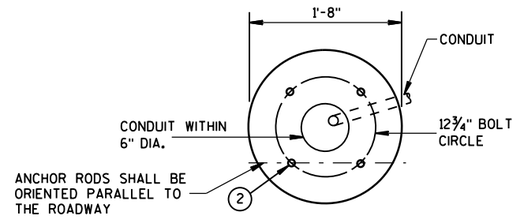
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

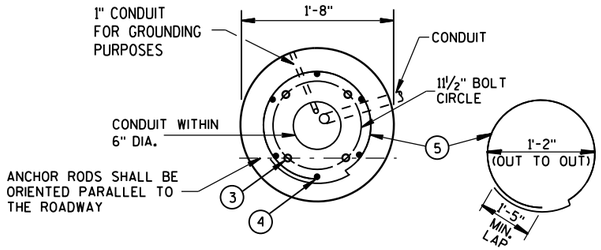
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

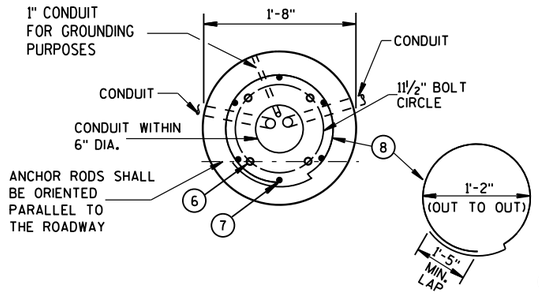
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

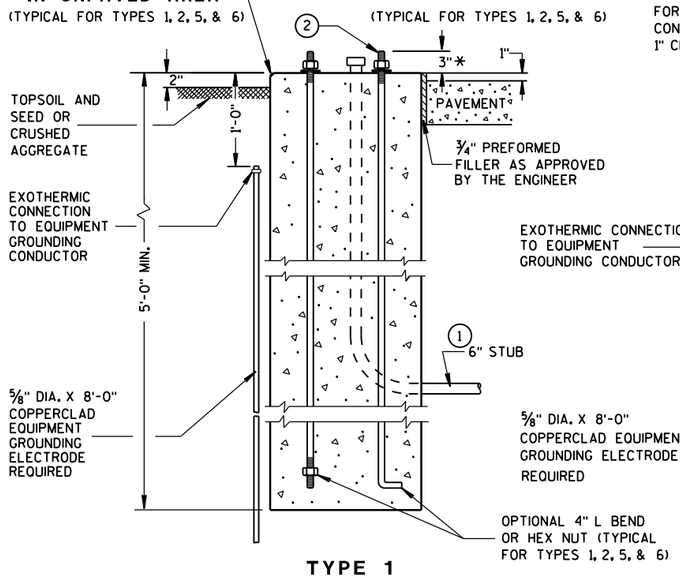




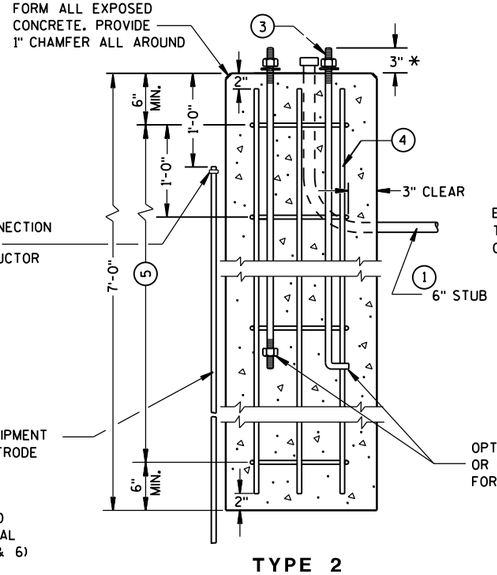


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

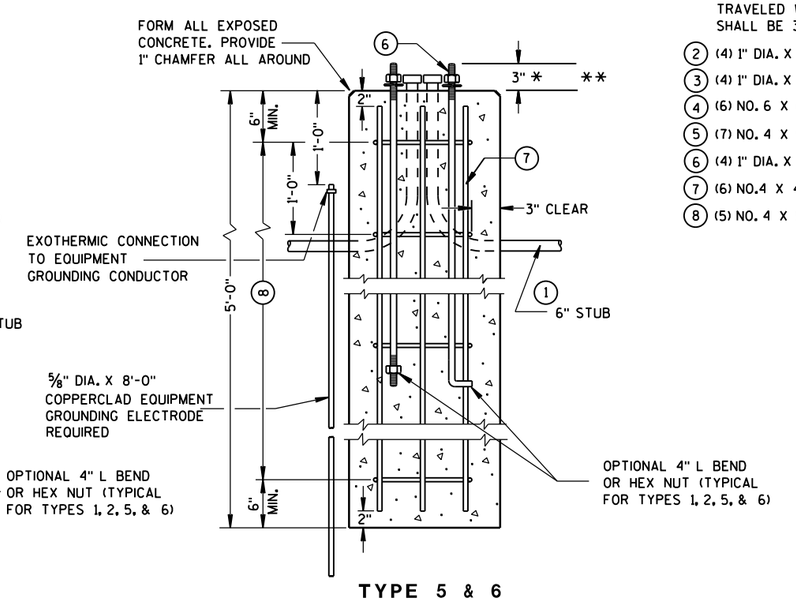
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 295
FHWA

6

S.D.D. 9 C 2-7

6

S.D.D. 9 C 2-7

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

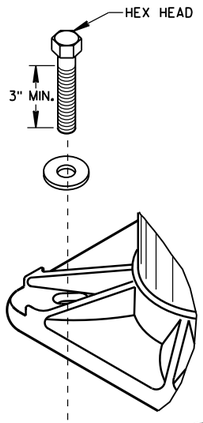
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

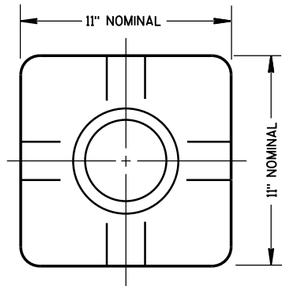
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

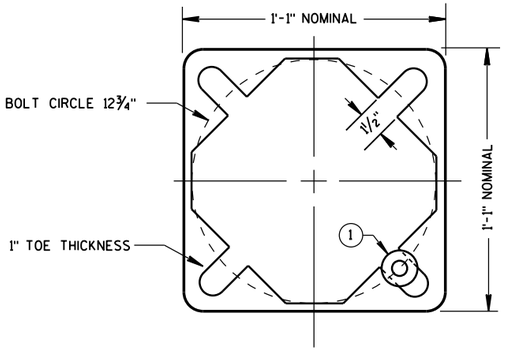
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

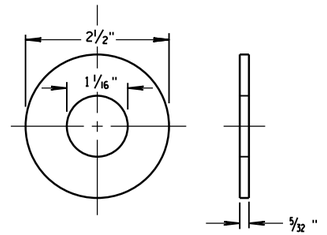




TOP VIEW
(PEDESTAL BASE)

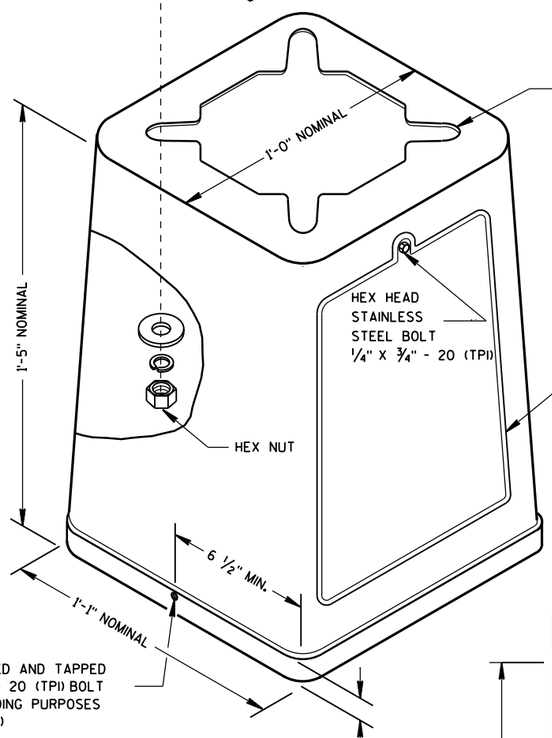


BOTTOM VIEW
(PEDESTAL BASE)

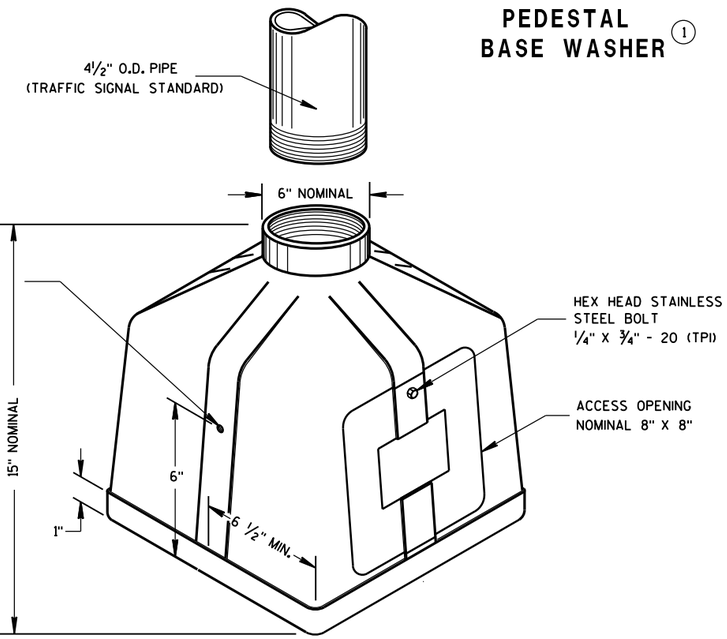


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

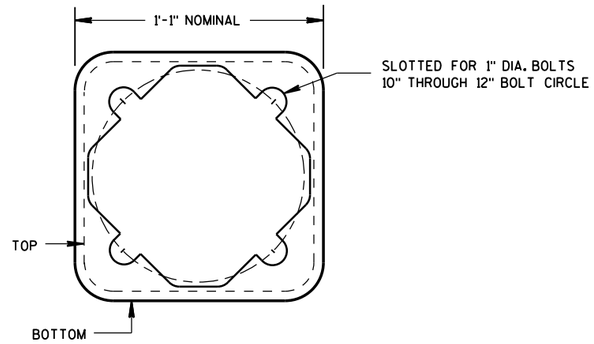


ISOMETRIC VIEW

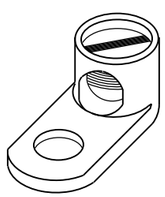


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

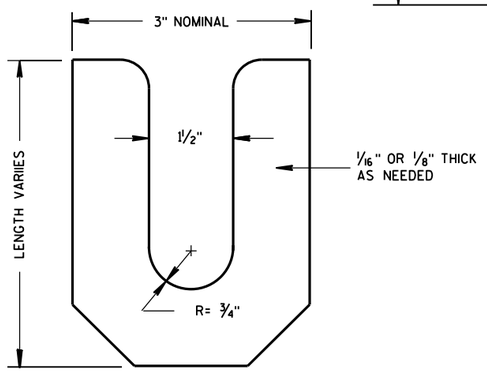


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 3-4

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

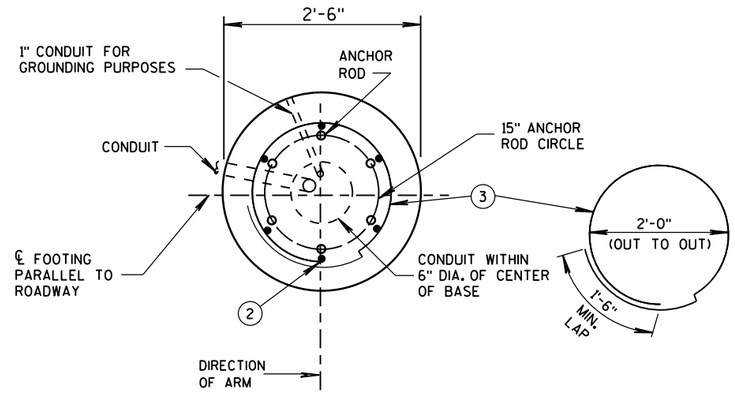
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

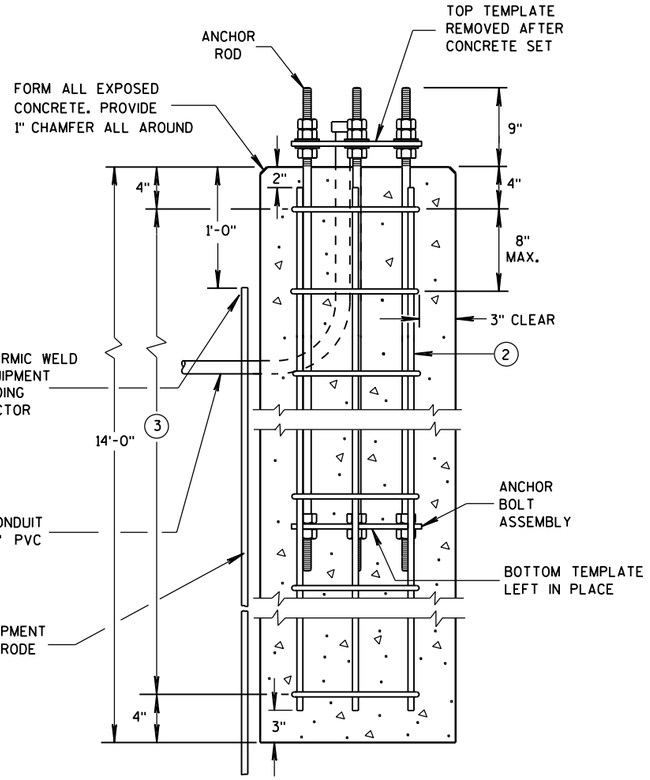
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

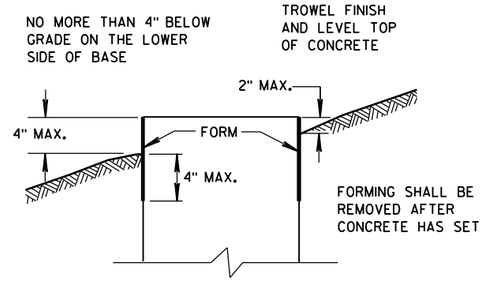




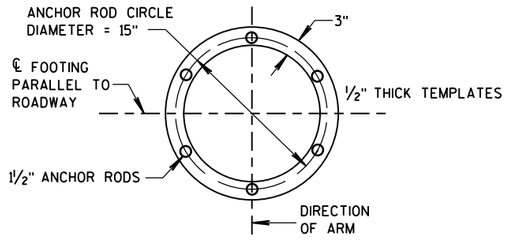
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

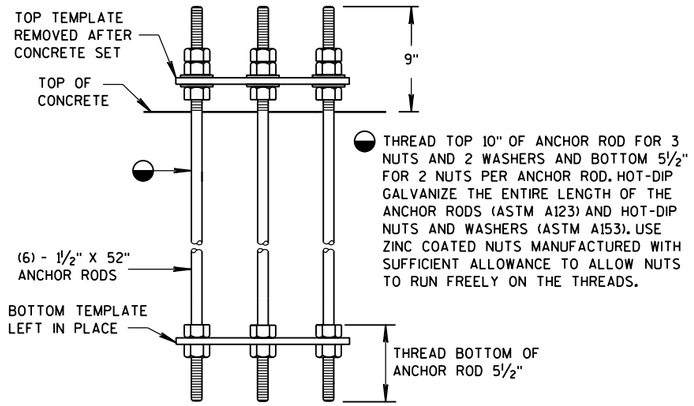
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

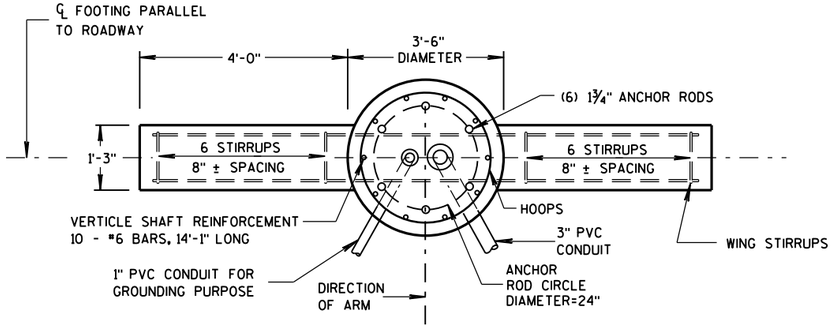
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

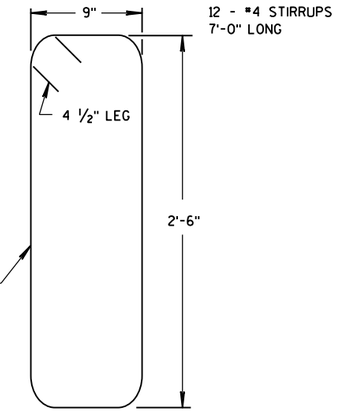
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

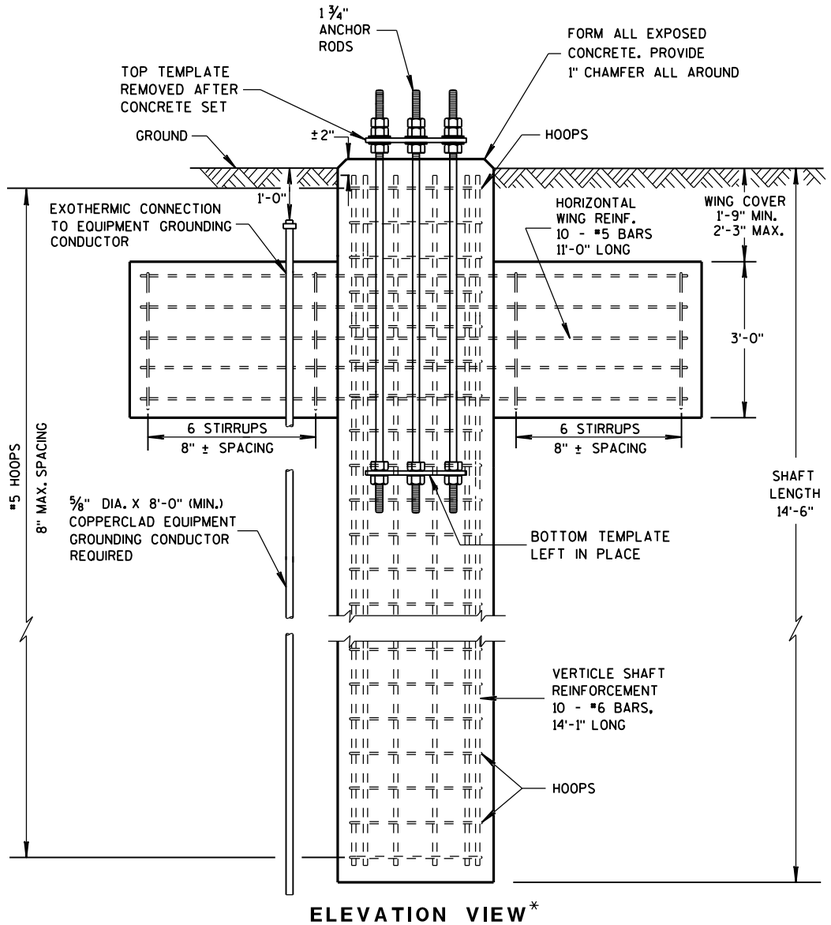
S.D.D. 9 C 11-10



PLAN VIEW

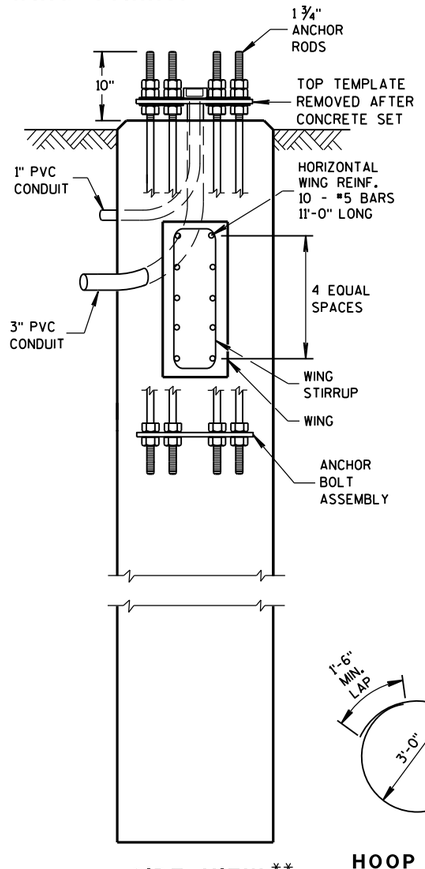


WING STIRRUP



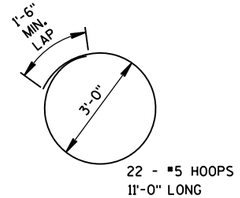
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

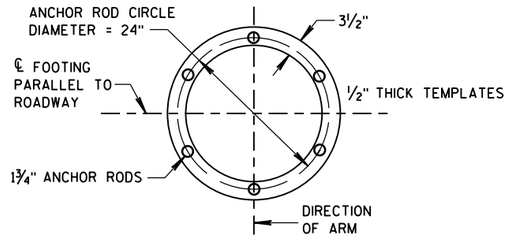
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

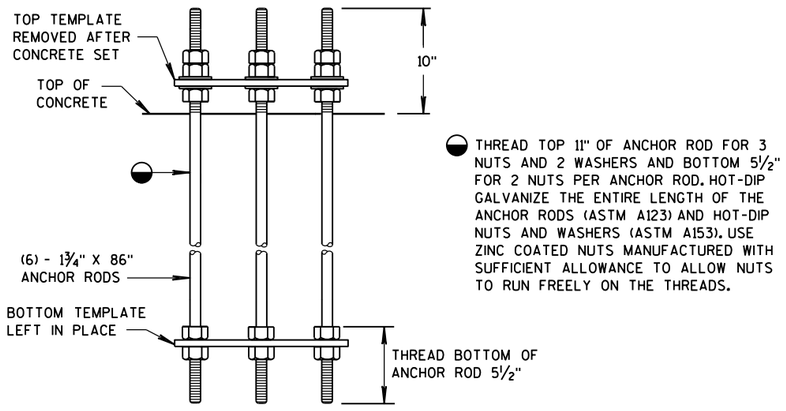
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 C 12-9a

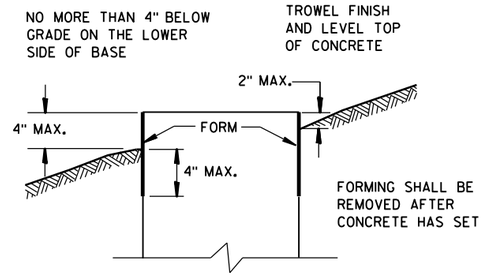


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

6

S.D.D. 9 C 12-9b

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

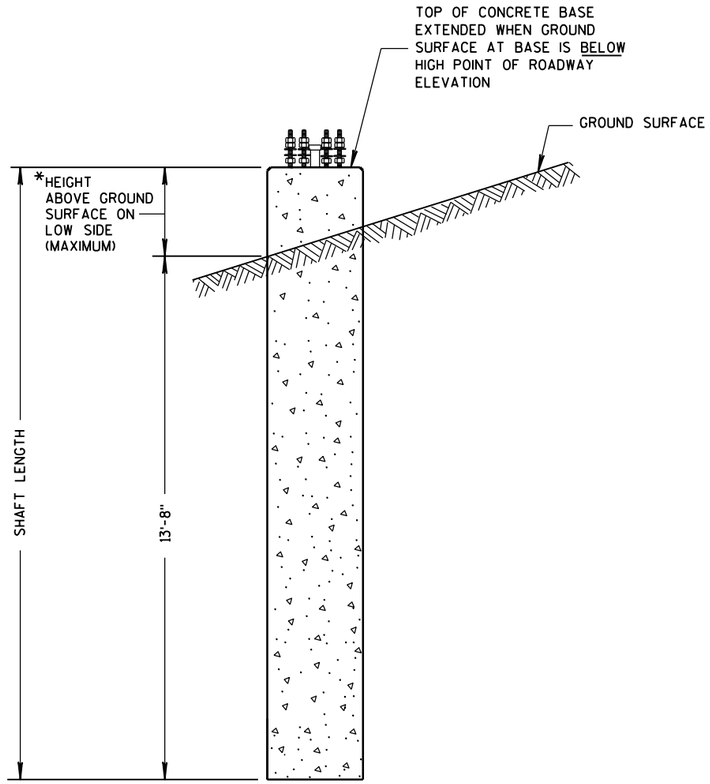
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 12-9b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

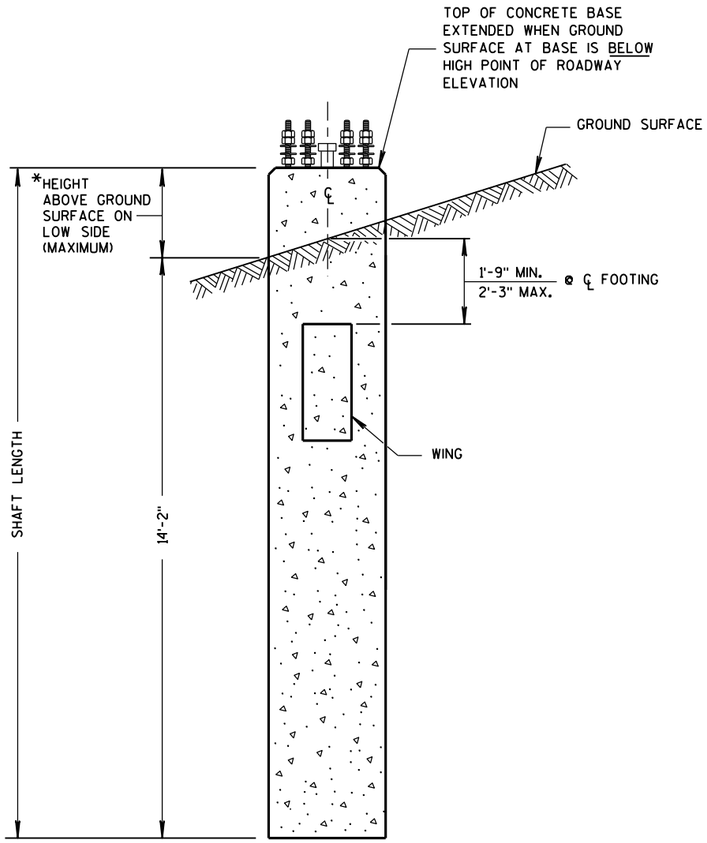
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

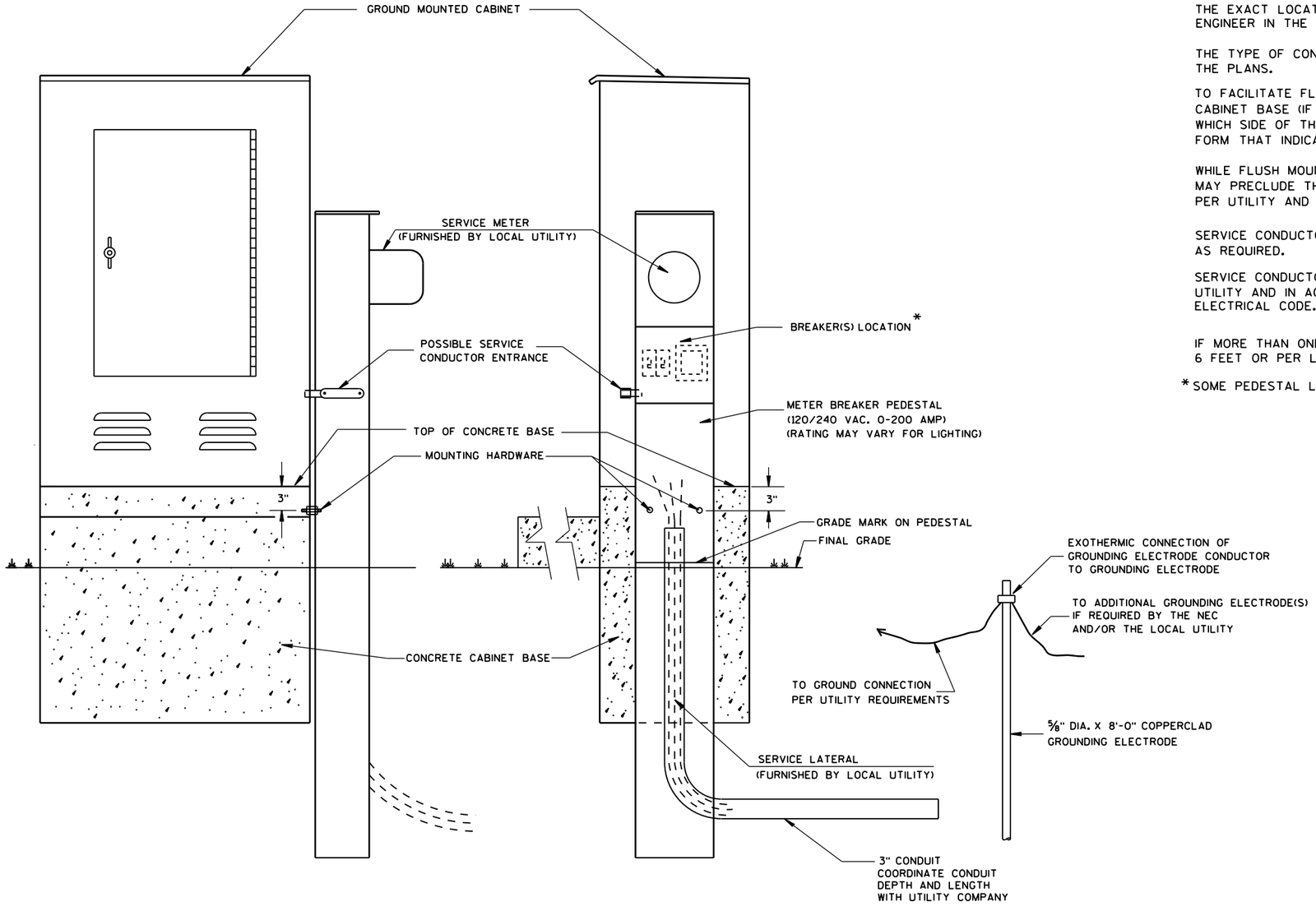
APPROVED
11-26-2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 300
FHWA

6

S.D.D. 9 C 13-2

6

S.D.D. 9 C 13-2



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

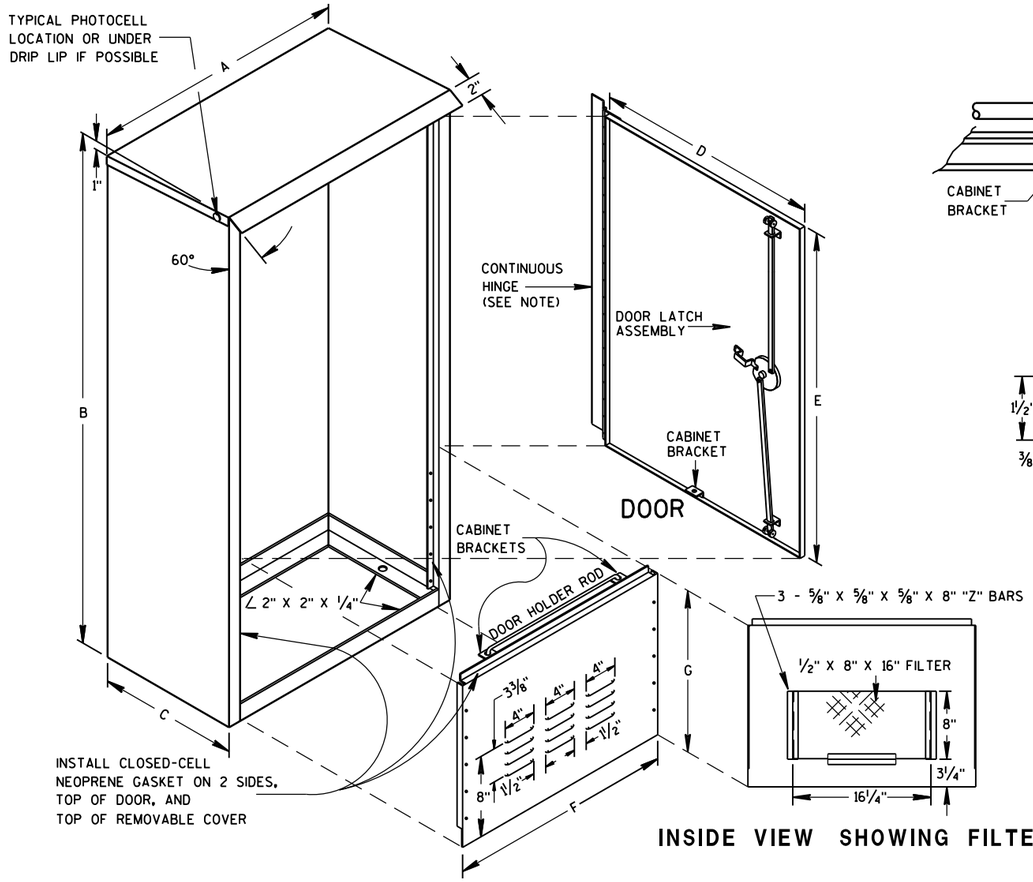
* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

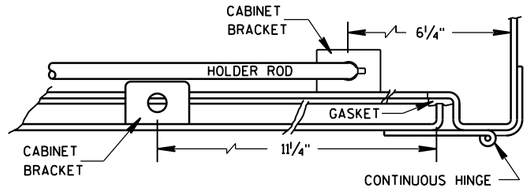
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 D 1-5

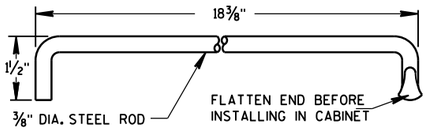


REMOVABLE COVER

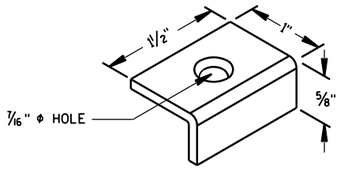
INSIDE VIEW SHOWING FILTER



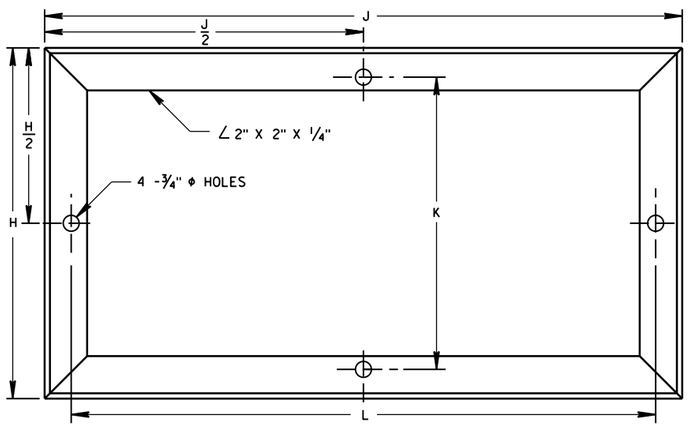
HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

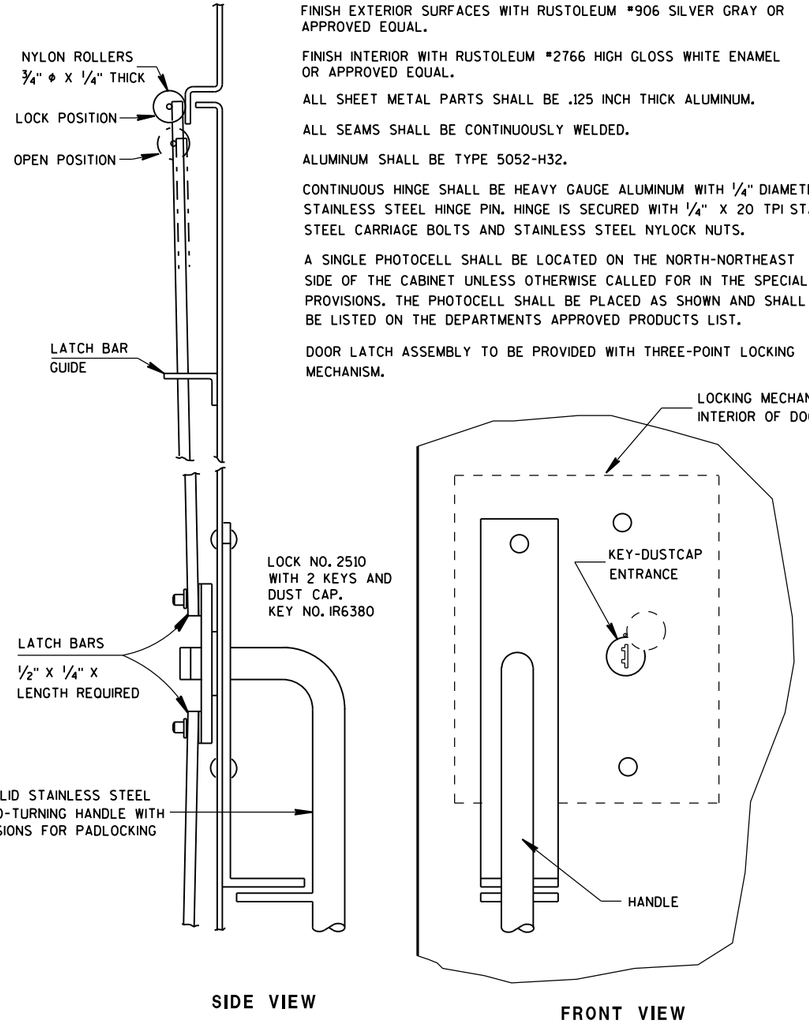
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

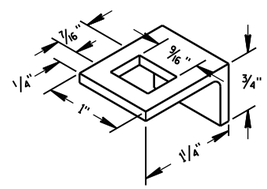
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 302
FHWA

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S.D.D. 9 D 2-3

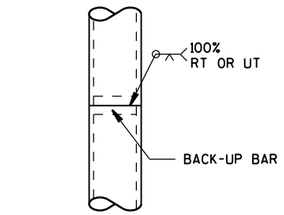
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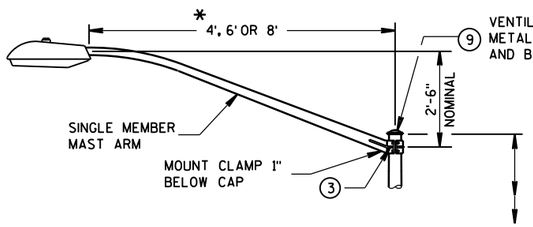
S.D.D. 9 D 2-3

FOR MANUFACTURERS USE ONLY

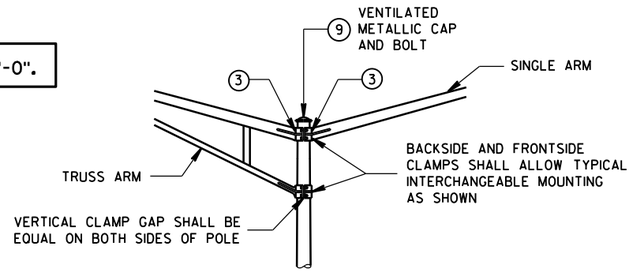
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

*RISE FOR 4' ARM SHALL BE 2'-0".





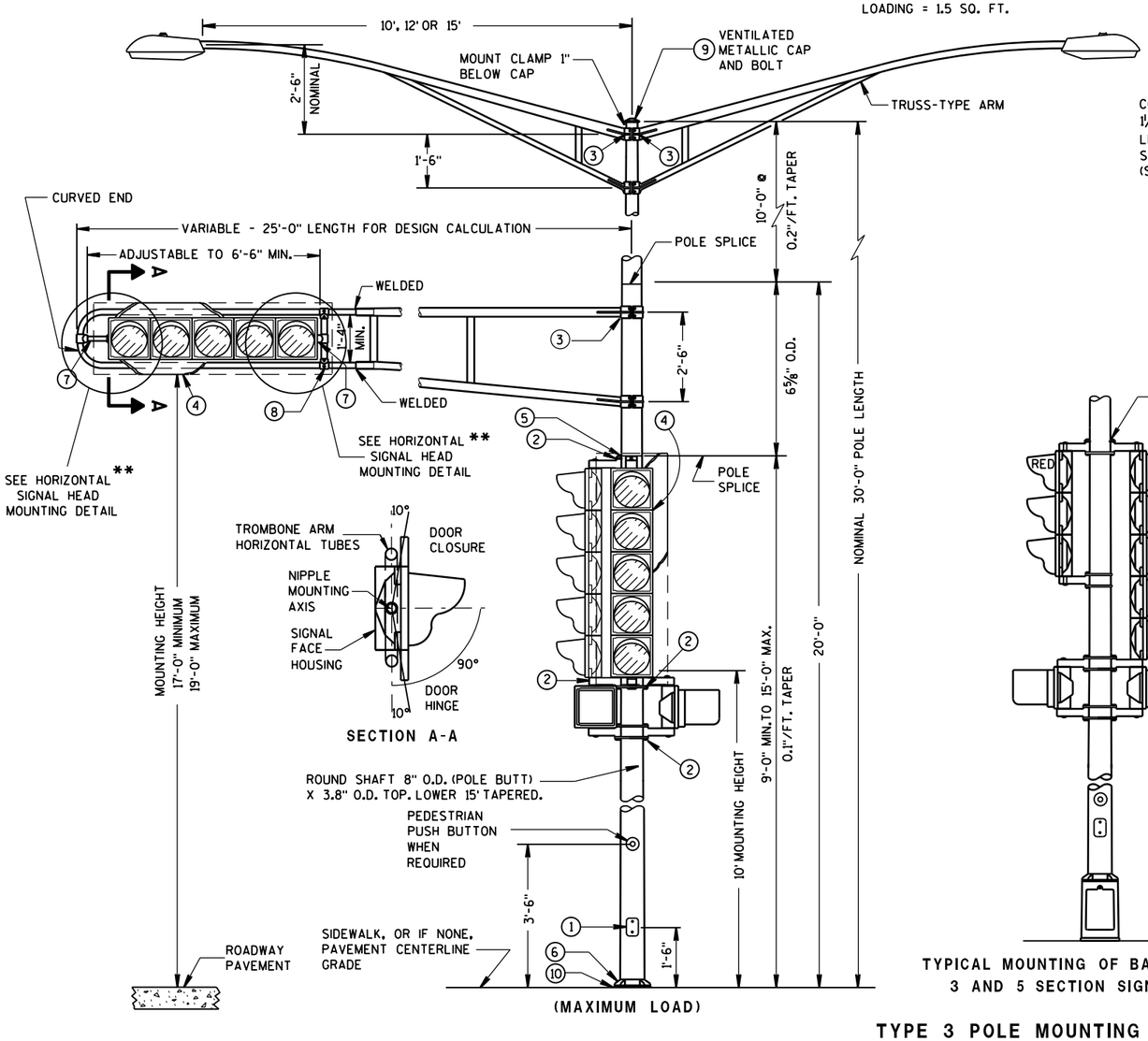
POLE SPLICE DETAIL

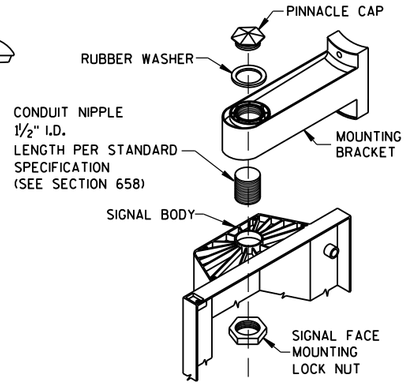


INTERCHANGEABLE MOUNTING DETAIL

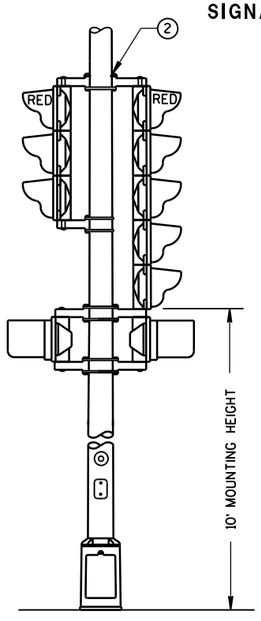
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

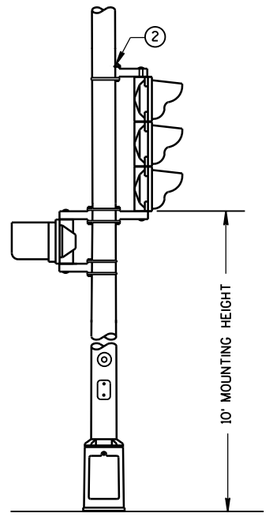




SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

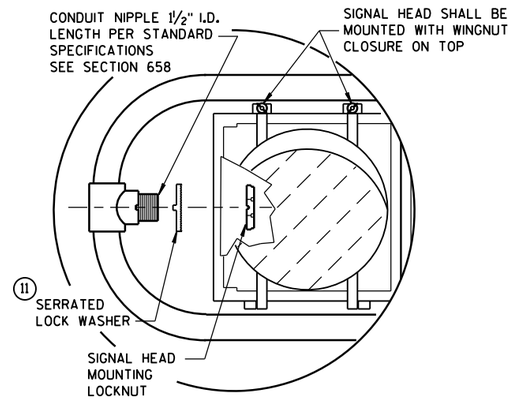
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

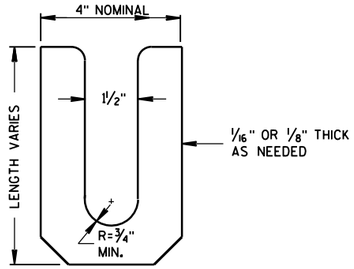
TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR
TRAFFIC SIGNALS AND
LIGHTING UNITS, TYPE 3
(HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

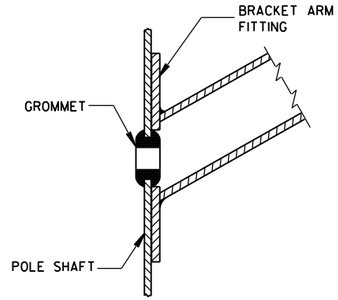
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S.D.D. 9 E 1-14b

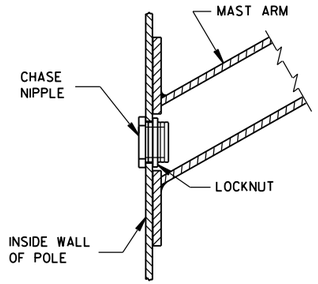


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

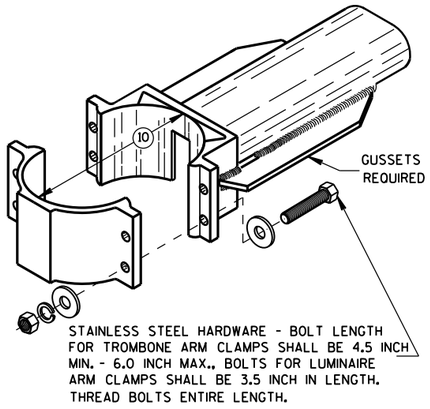
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

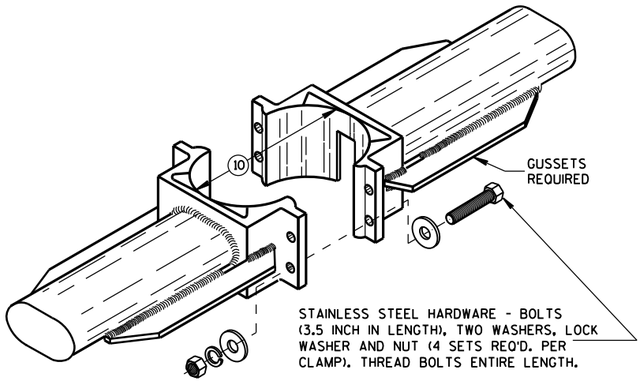
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

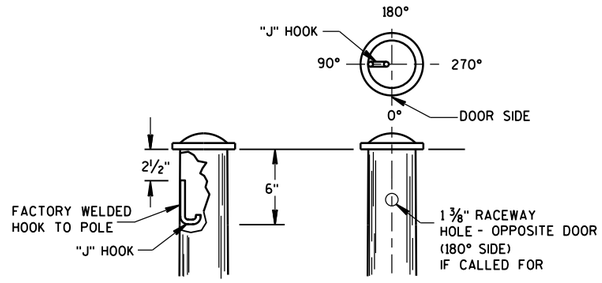
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



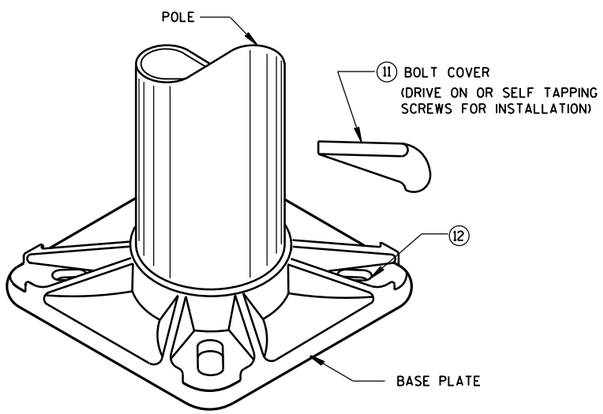
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



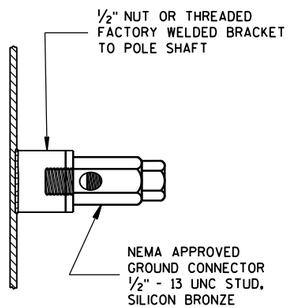
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

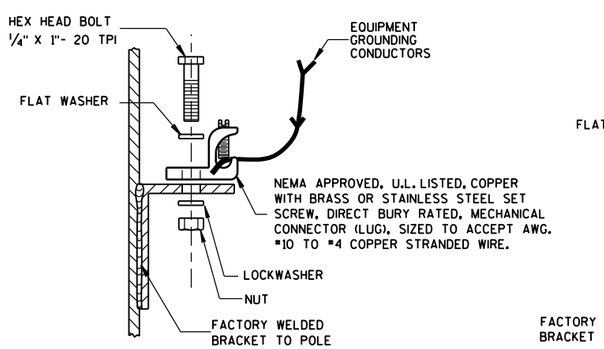


TYPICAL "J" HOOK LOCATION



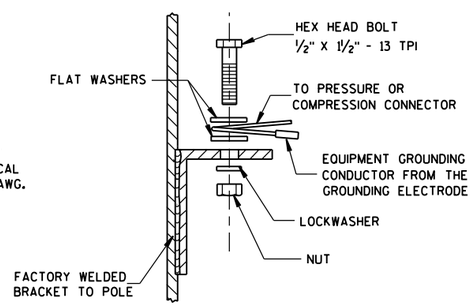
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

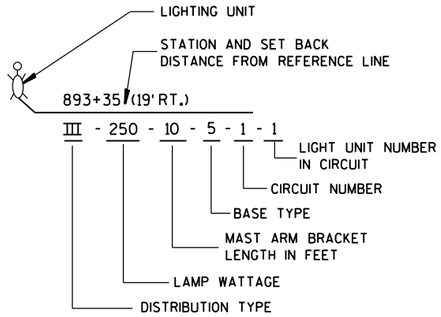
APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

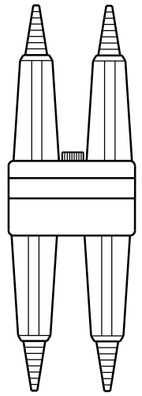
FHWA

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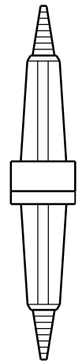
S.D.D. 9 E 1-14g



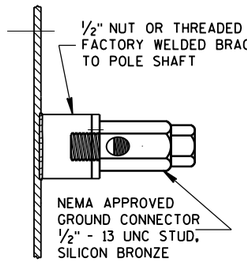
LIGHTING UNIT CODE
(TYPICAL)

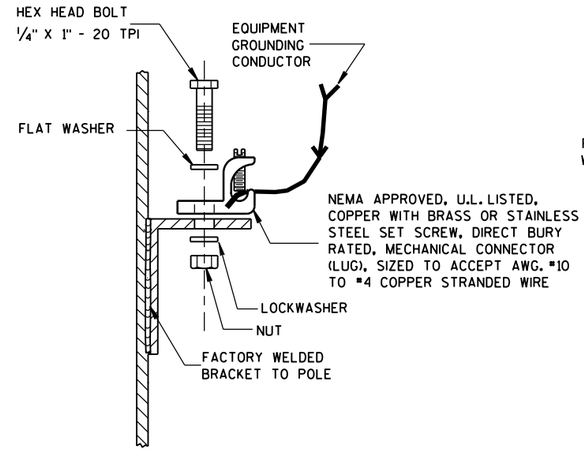


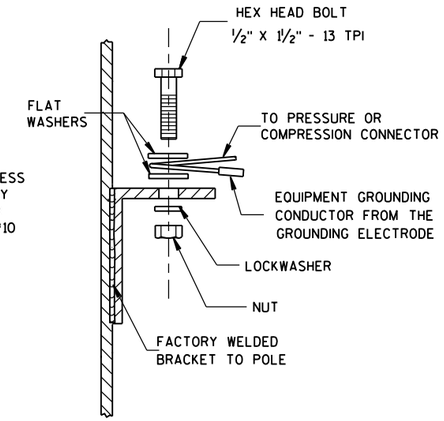
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



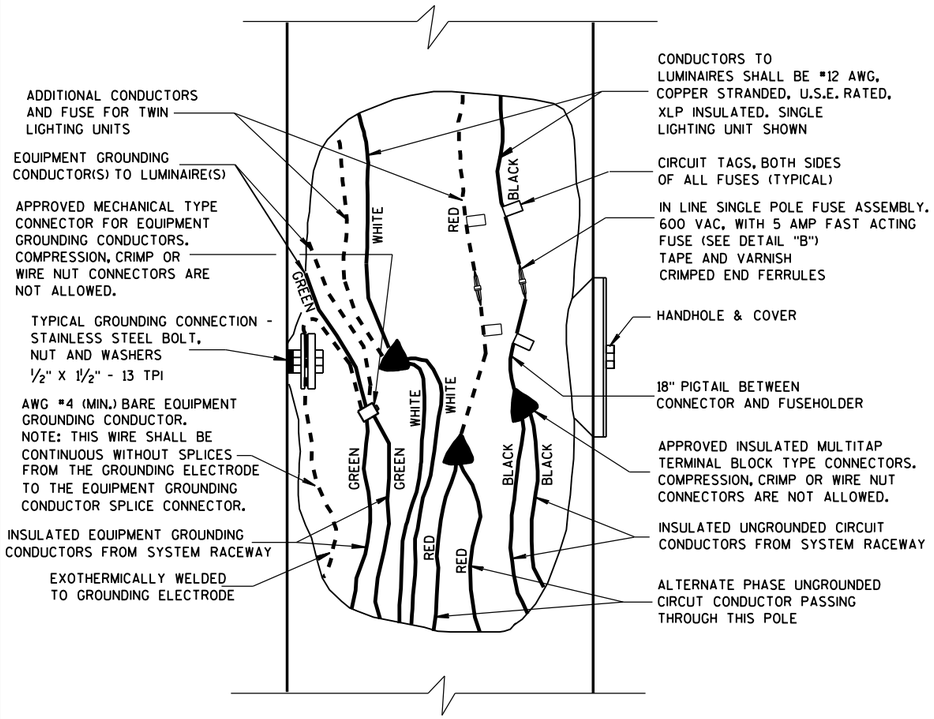
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



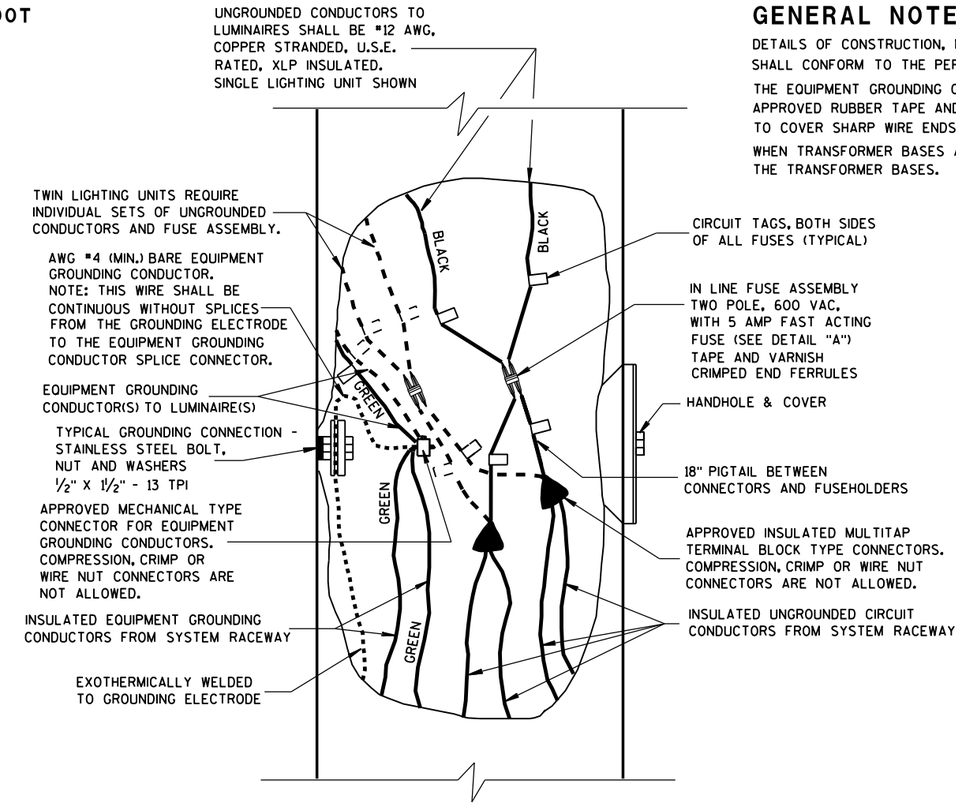




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

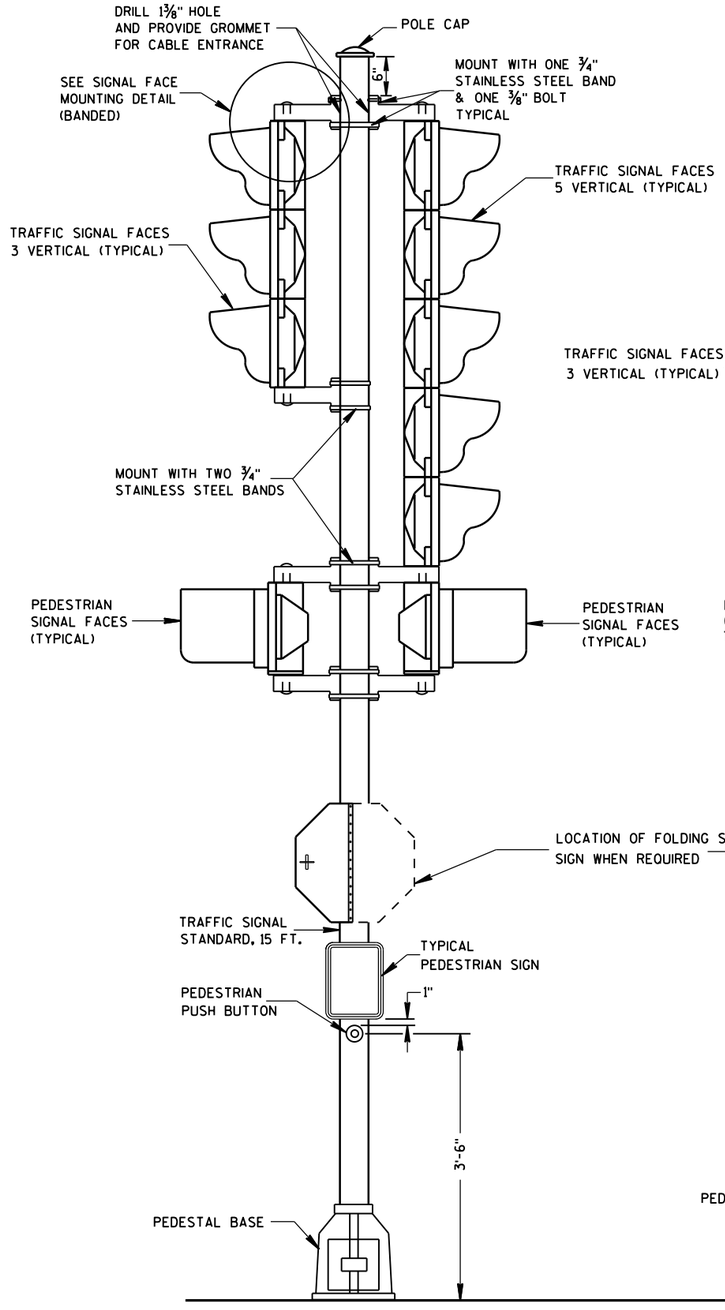
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

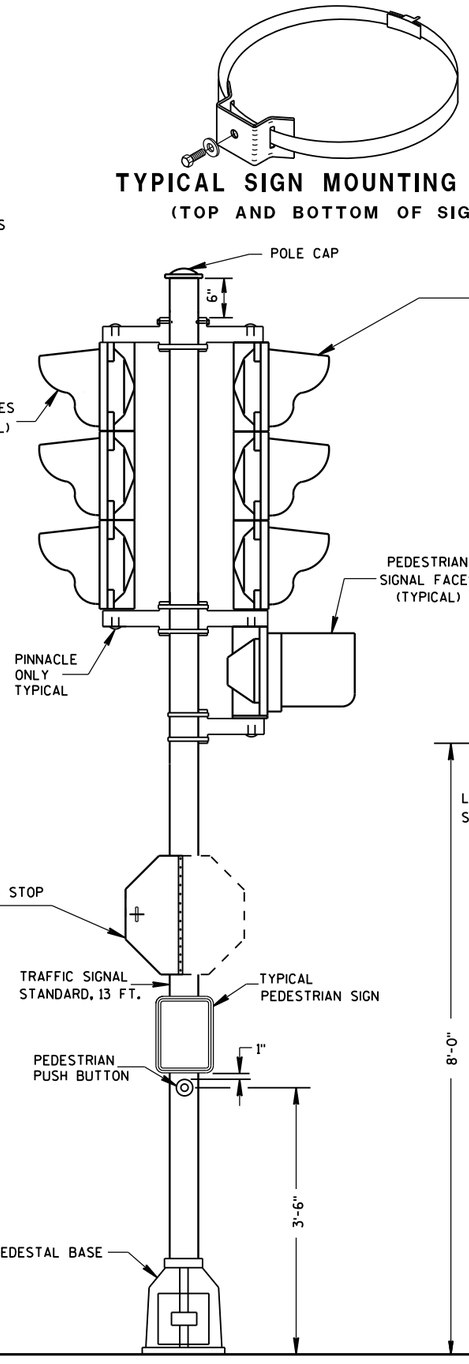
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 3-5

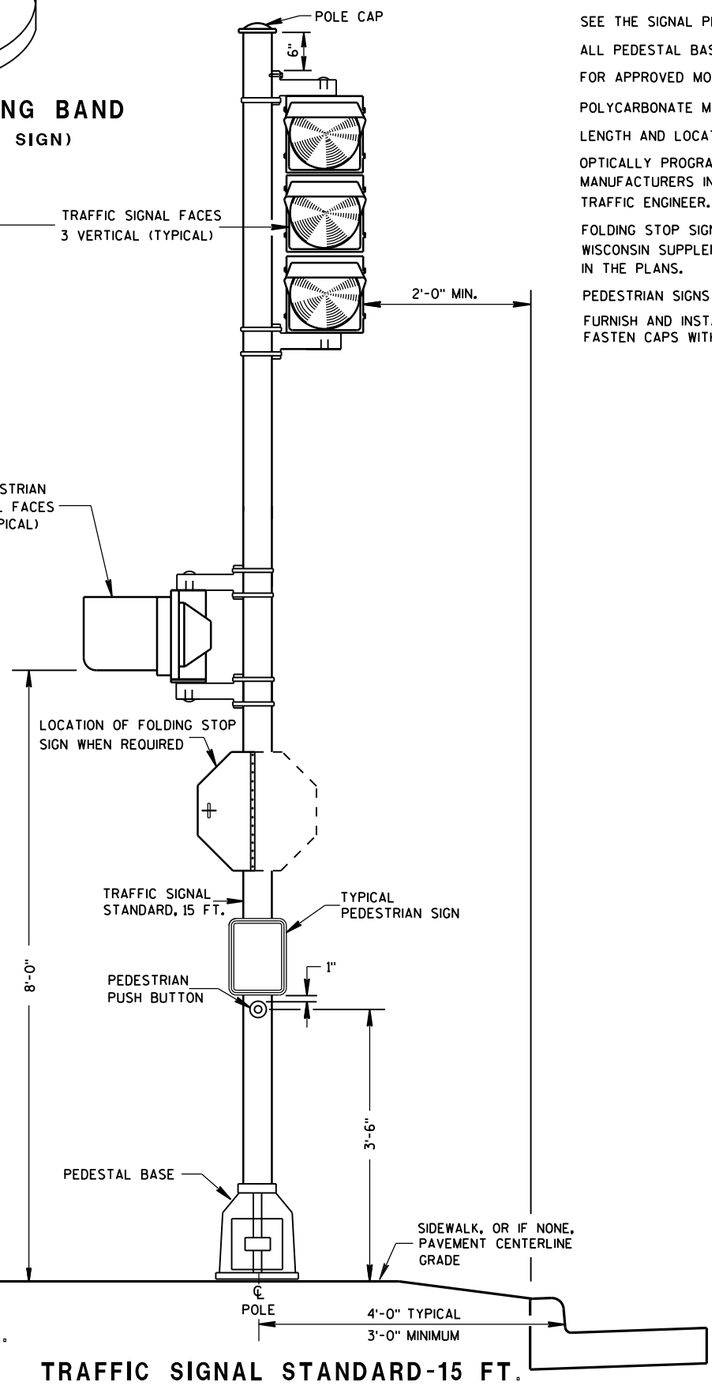


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

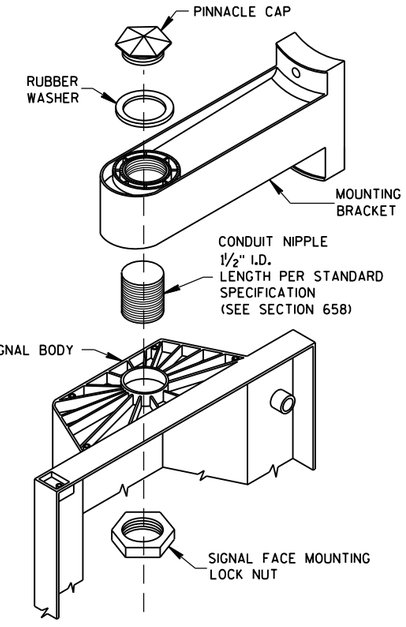
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

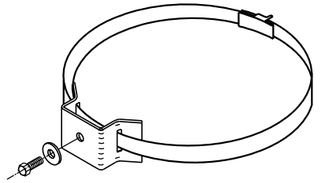
APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

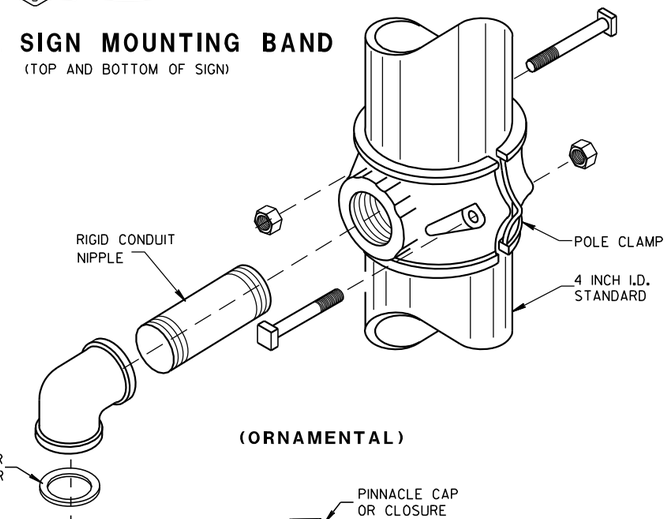
FHWA

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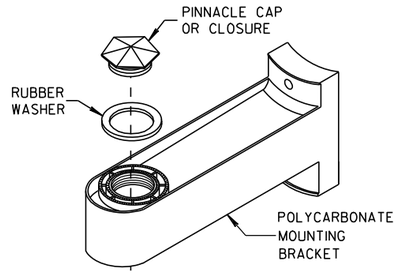
S.D.D. 9 E 6-5



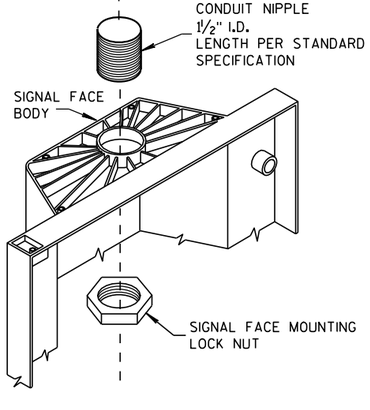
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



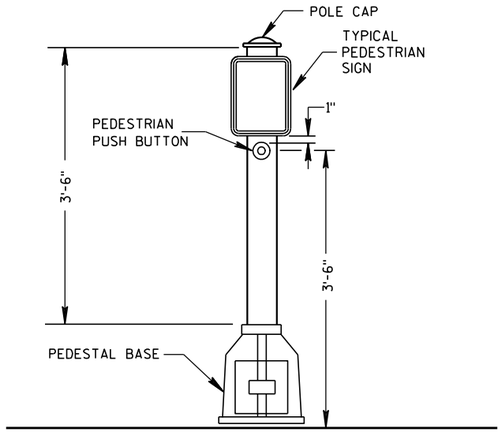
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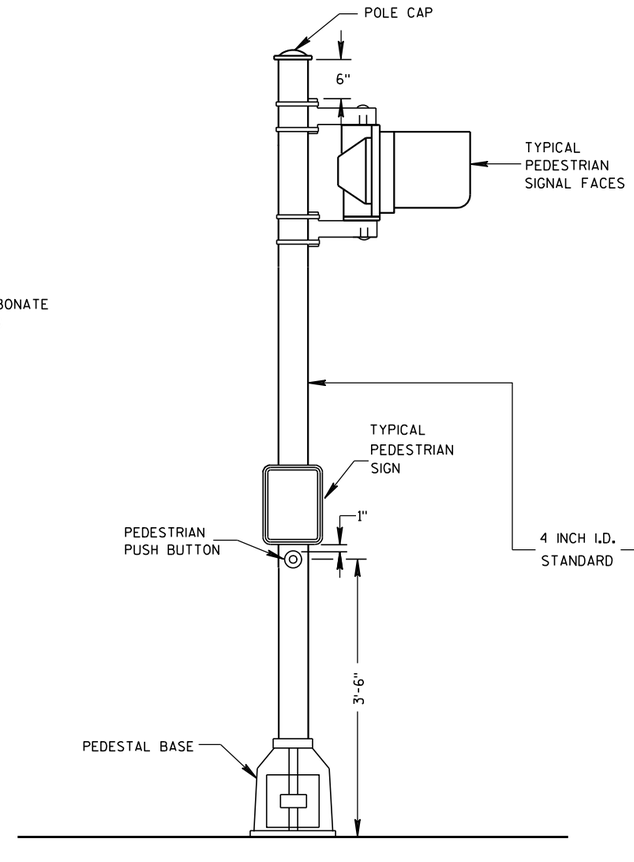
(BANDED)



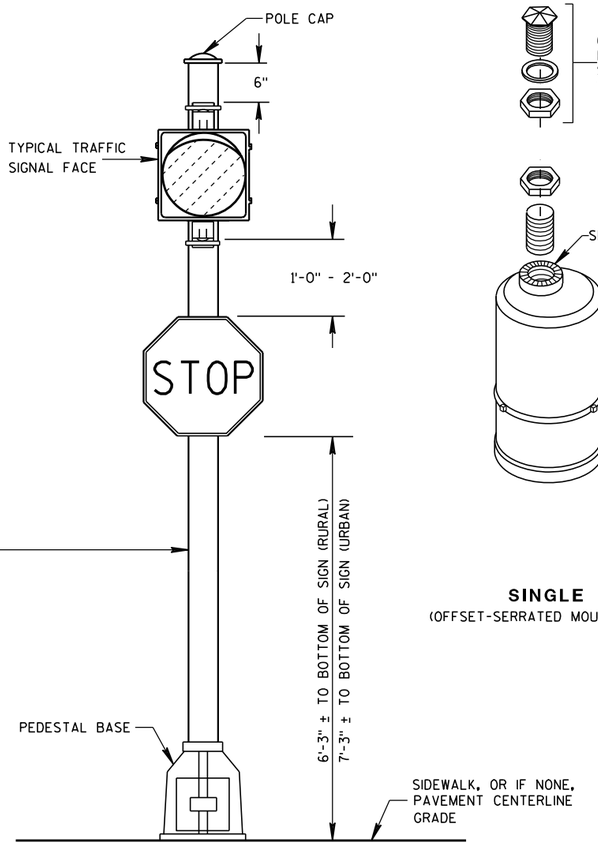
SIGNAL FACE MOUNTING DETAILS



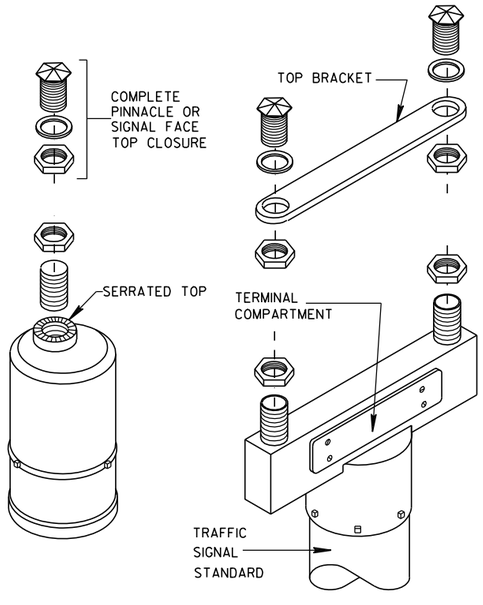
PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI 307

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S.D.D. 9 E 7-5

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S.D.D. 9 E 7-5

30'-0" MAX.

8'-0" *

15'-0" MAX.

SEE ARM CONNECTION DETAIL

SIGN 18" X 108"

**

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

25'-6" MAXIMUM MOUNTING HEIGHT

17'-6" MINIMUM MOUNTING HEIGHT

ROADWAY PAVEMENT

R4-7
24" x 30"

19'-0"

10'-0"

FOLDING STOP SIGN
30" x 30"

POLE: (.14"/FT. TAPER)
1 PIECE (NO WELDED POLE SECTIONS)
POLE BUTT DIA. = 11.50"

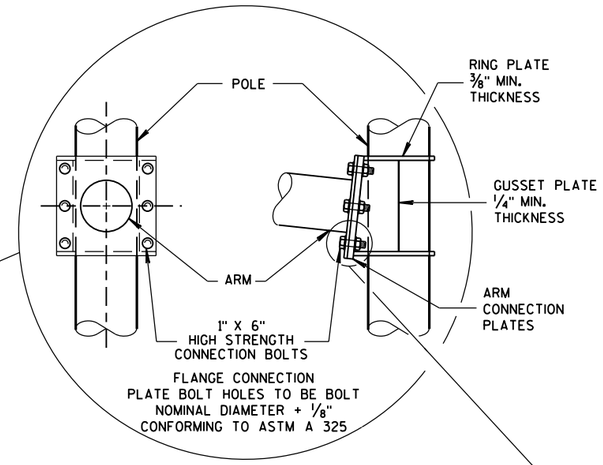
PEDESTRIAN PUSH BUTTON

TYPICAL PEDESTRIAN SIGN

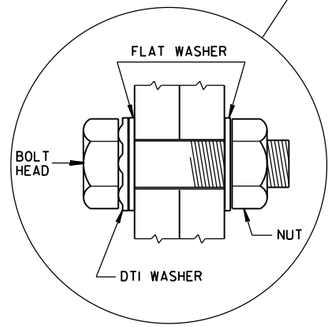
ANCHOR RODS:
FY=55 KSI
ASTM F1554 GR 55
ROD CIRCLE = 15"
ANCHOR ROD DIAM. 1½"
GALVANIZED. (6 ANCHOR RODS)

3'-6"

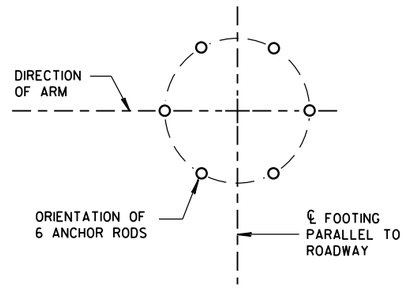
MAXIMUM BASE PLATE THICKNESS = 2½"



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

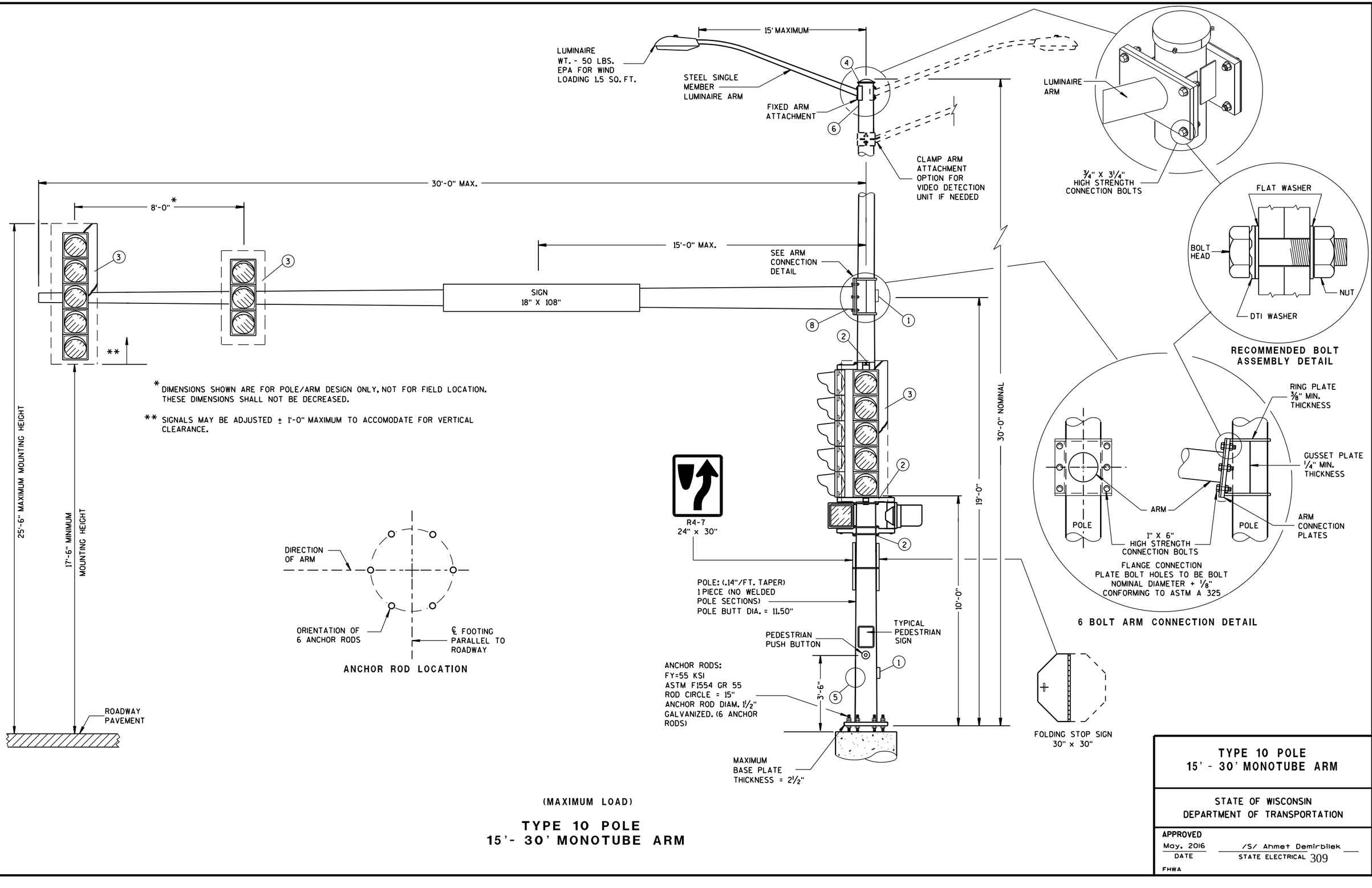
(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
May, 2016	/S/ Ahmet Demirbilek
DATE	STATE ELECTRICAL
FHWA	

6

S.D.D. 9 E 8-8a



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

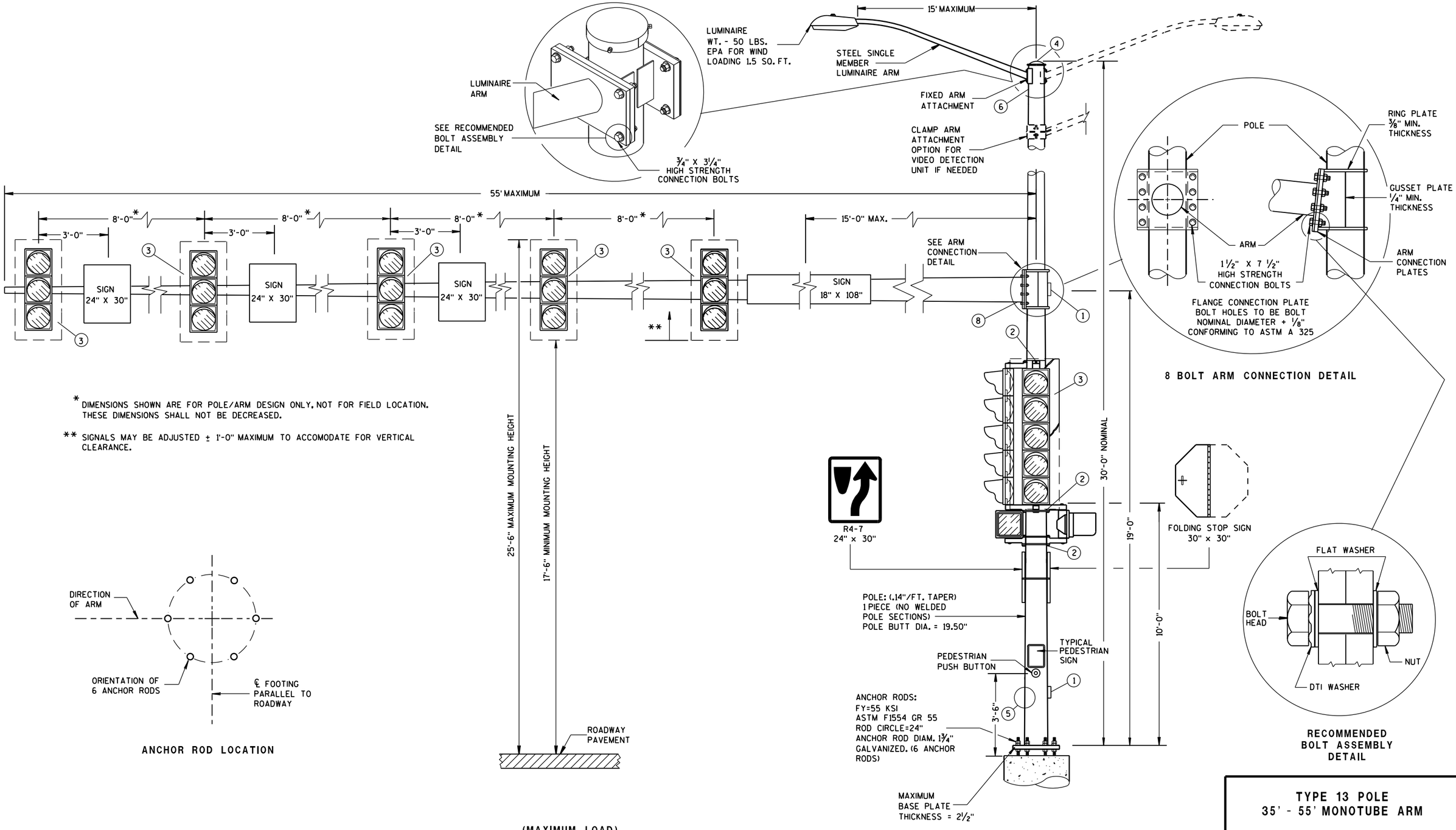
TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 8-8b



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 8-8d

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

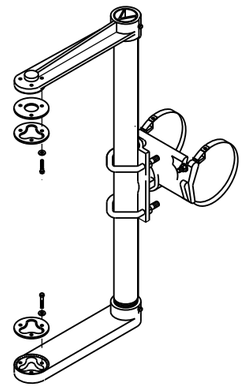
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

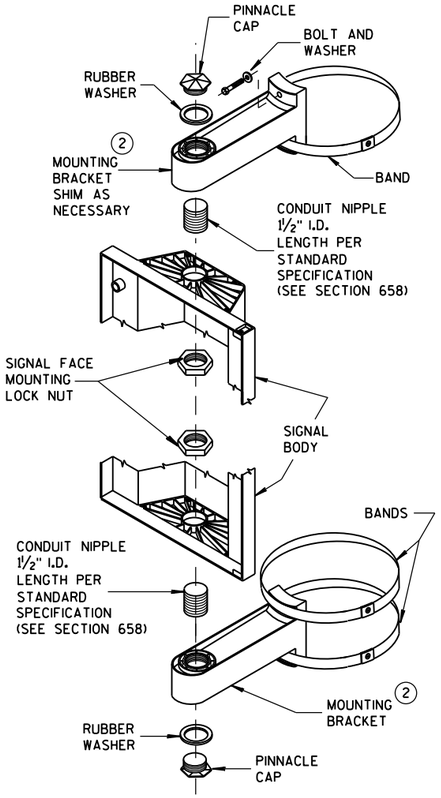
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

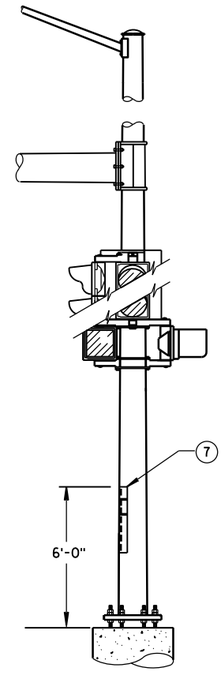


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

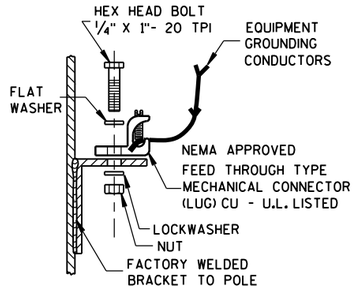
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

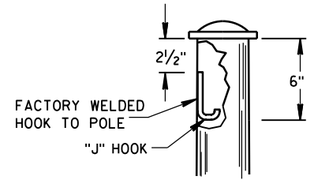


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

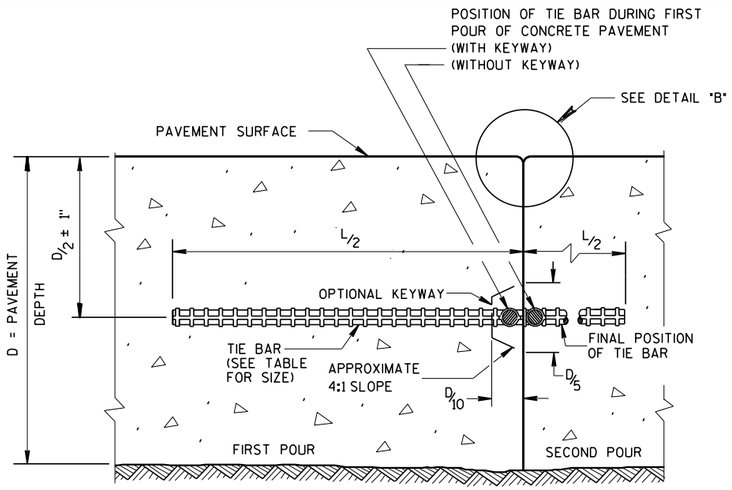
APPROVED
May 2016
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

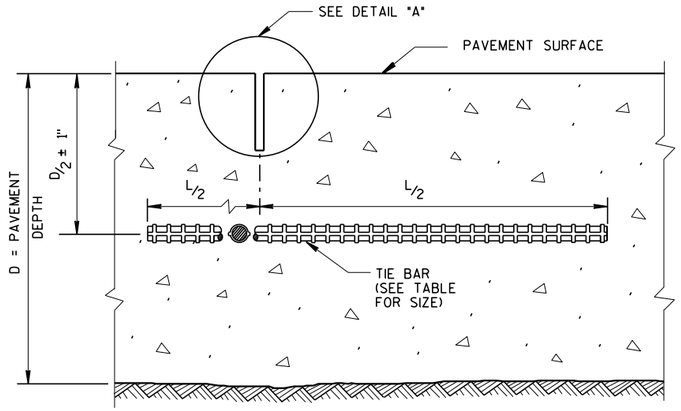
FHWA

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S.D.D. 9 E 8-8e



CONSTRUCTION JOINT



SAWED JOINT

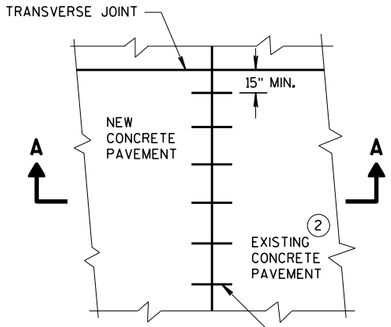
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

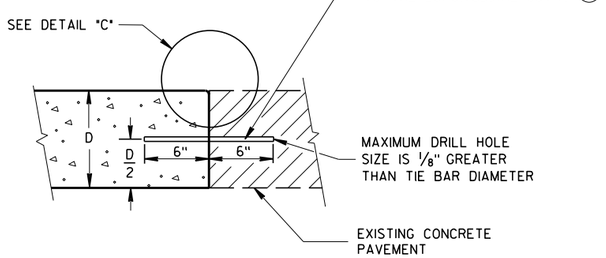
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

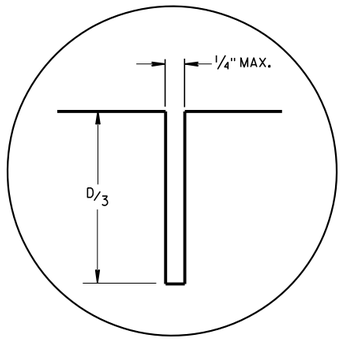


PLAN VIEW

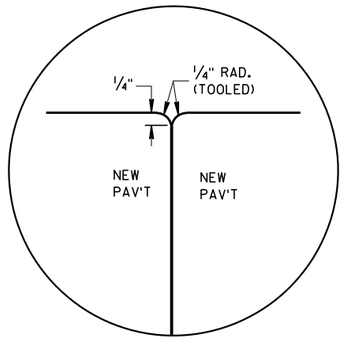


SECTION A-A

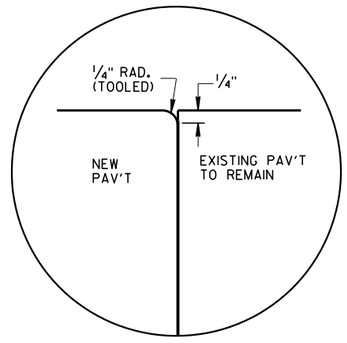
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



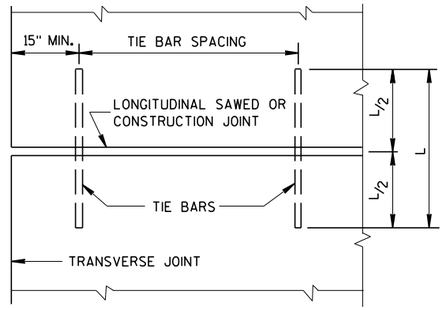
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



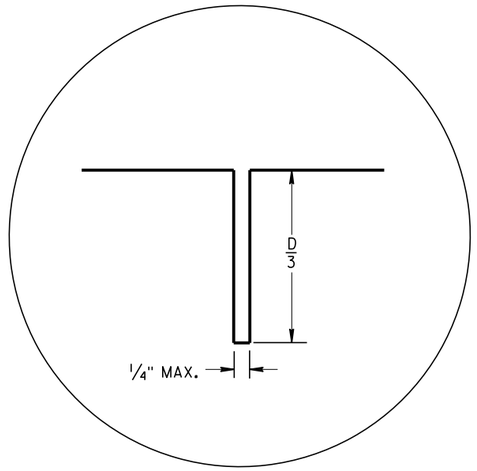
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

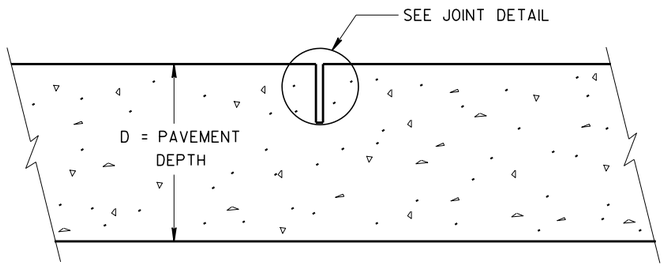
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19



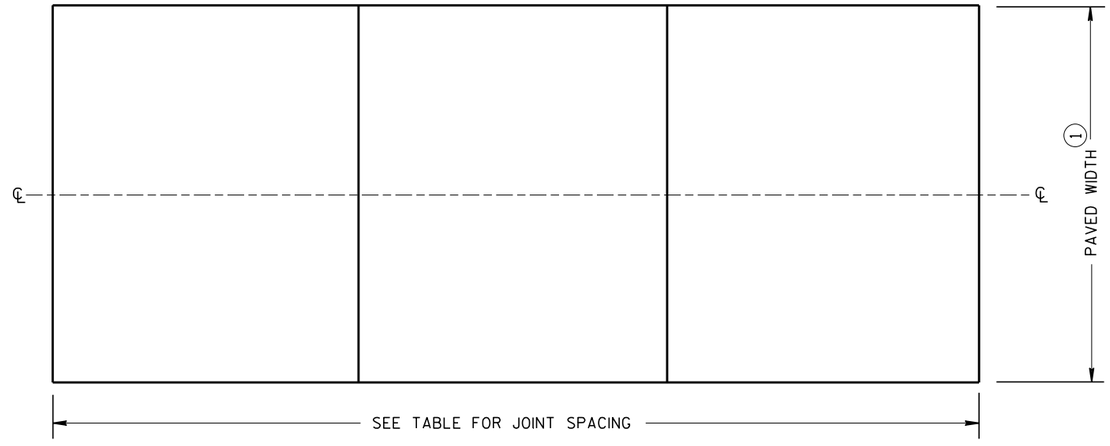
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION JOINTS

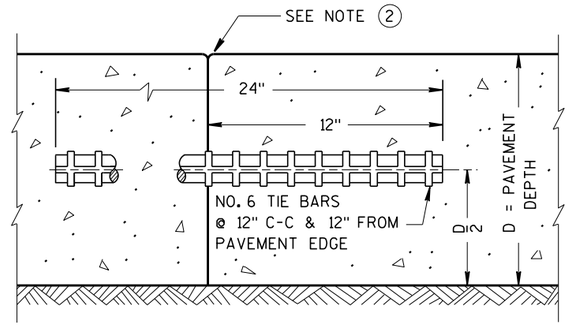
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

URBAN
NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

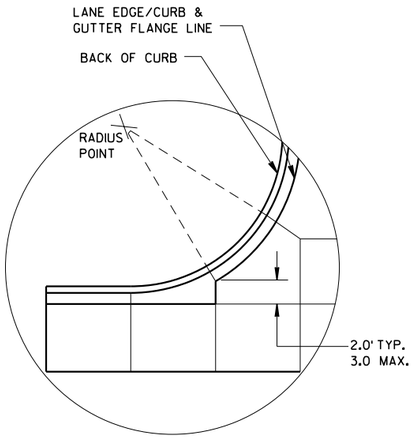
APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPI

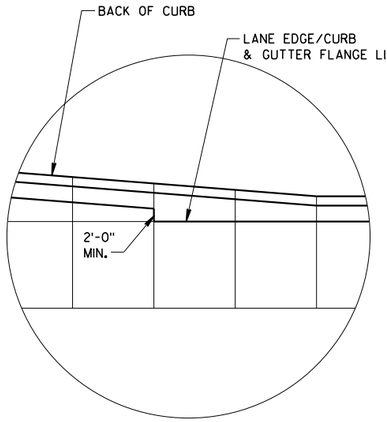
FHWA

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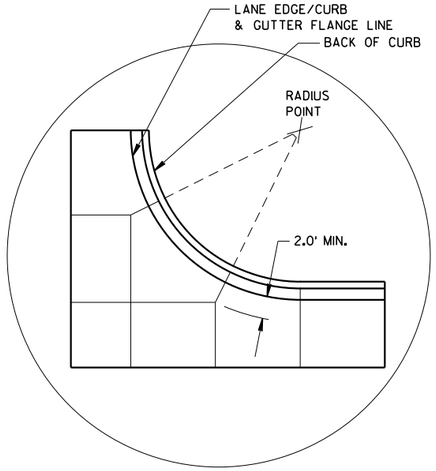
S.D.D. 13 C 4-17



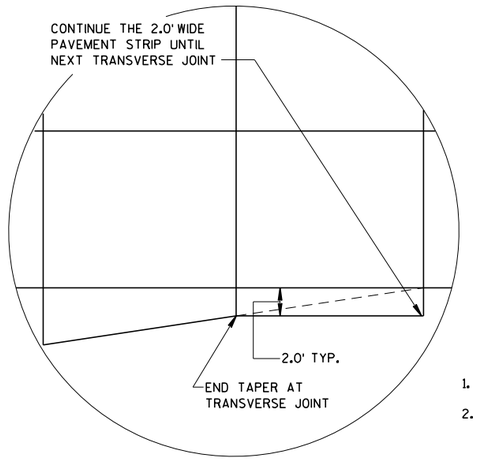
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

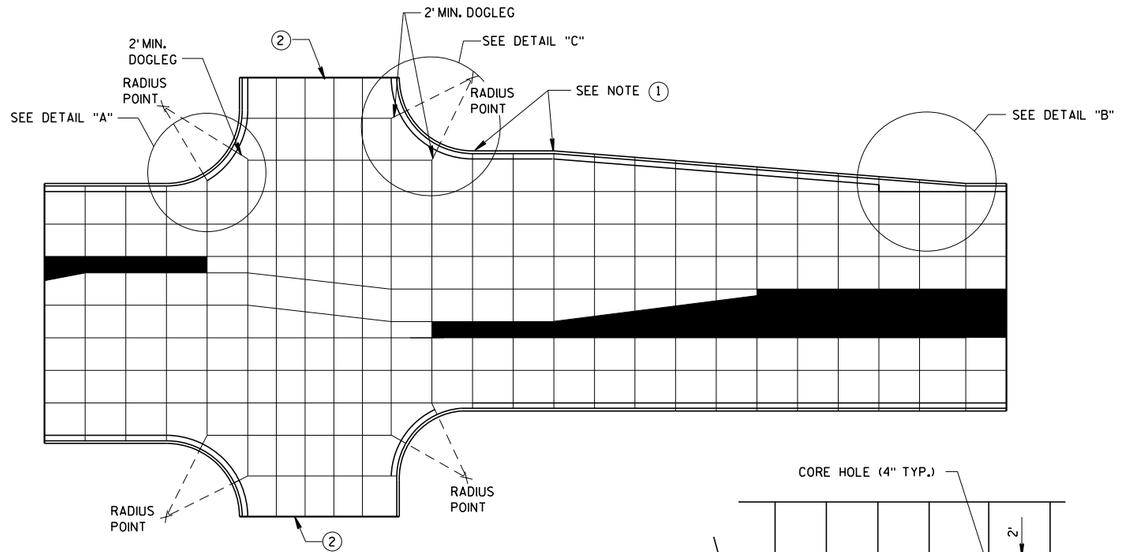
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

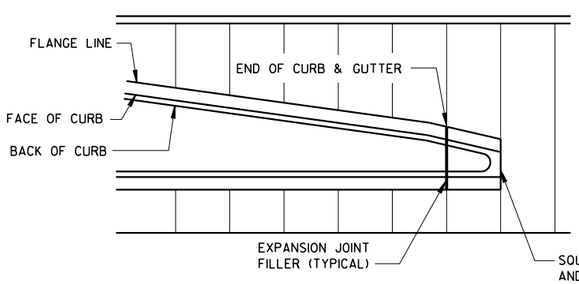


STANDARD INTERSECTION

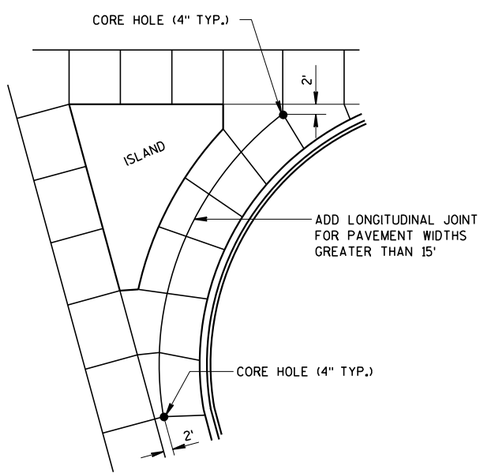
PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'

SKEWED INTERSECTION



APPROACH TO MEDIAN

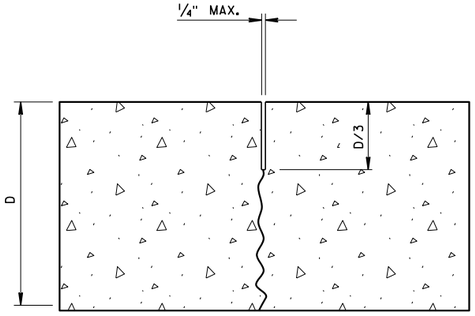


LARGE RIGHT TURN

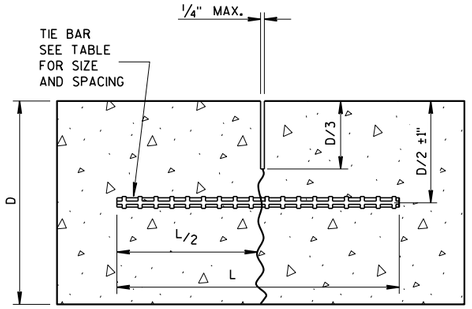
CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 13 C 18-6a



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

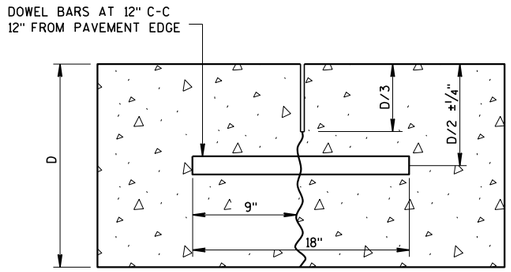
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

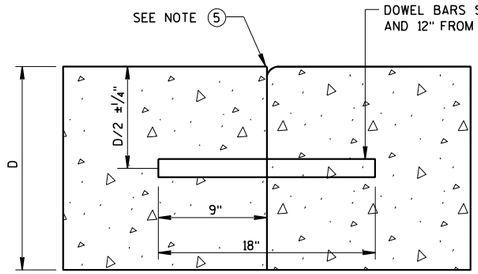
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



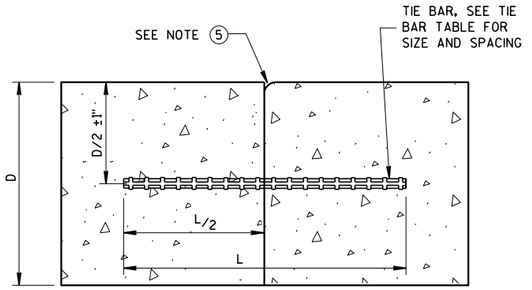
DOWELED-TRANSVERSE

CONTRACTION JOINTS

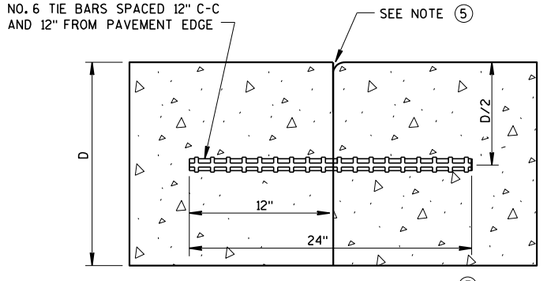
SEE NOTE (2)



DOWELED TRANSVERSE (3)

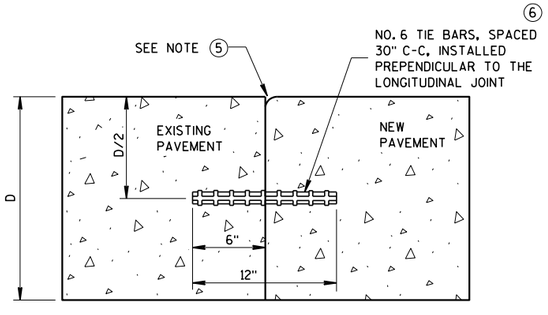


TIED LONGITUDINAL



TIED TRANSVERSE (3)

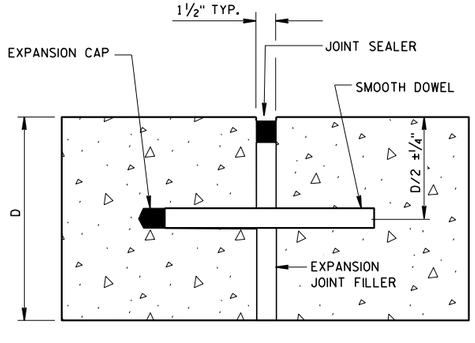
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

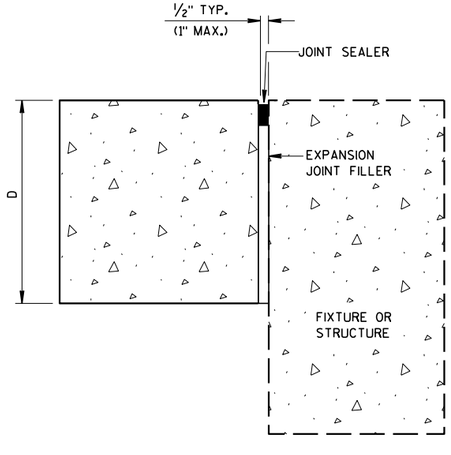
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

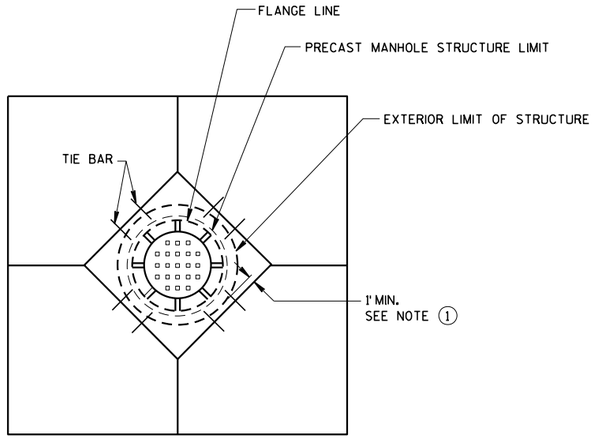
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

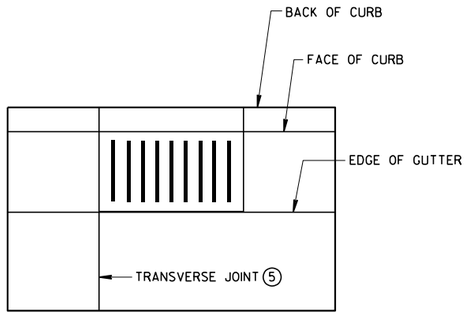
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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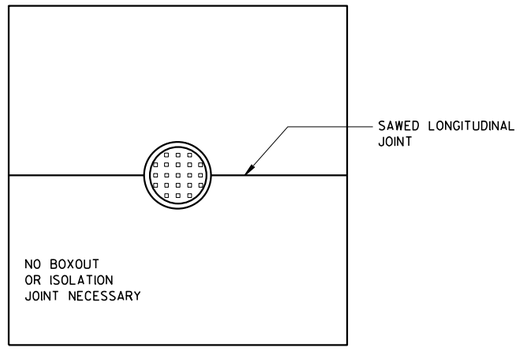
S.D.D. 13 C 18-6c



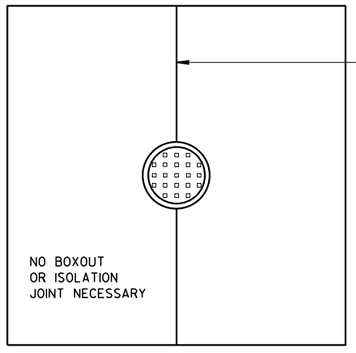
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



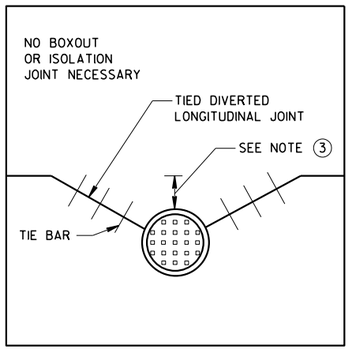
INLET WITH TRANSVERSE JOINT



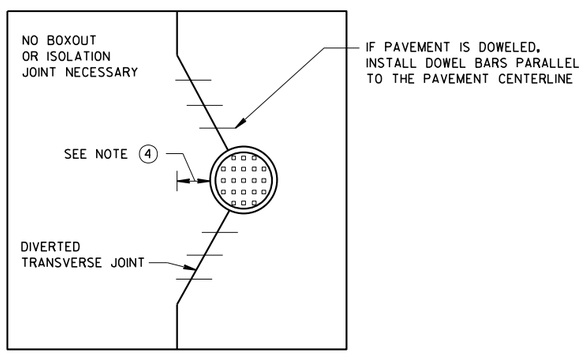
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

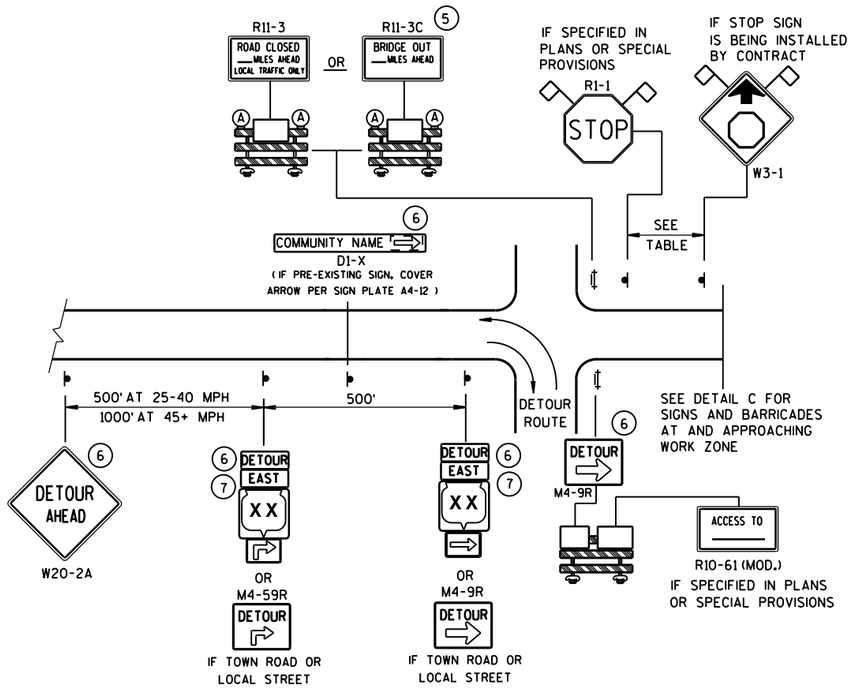
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter K[illegible] P.E. — PAVEMENT SUPT
FHWA

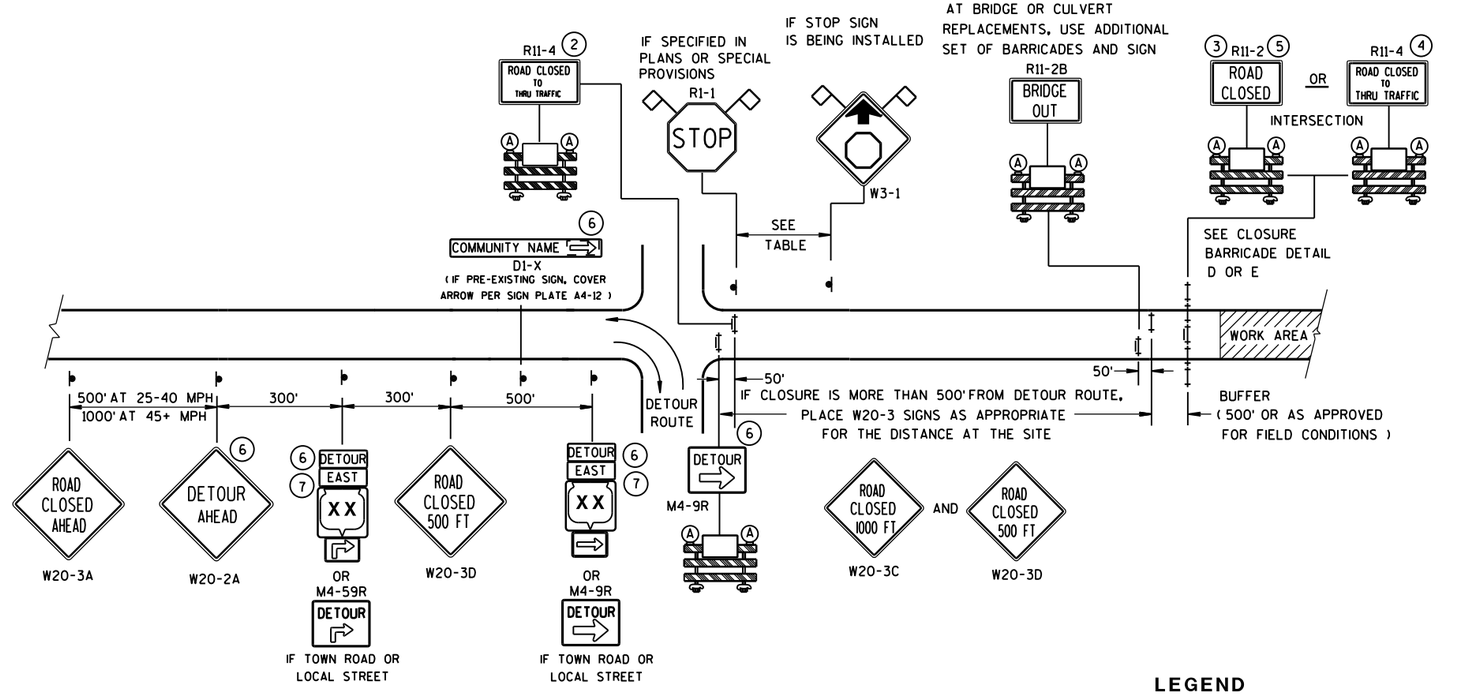
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S.D.D. 13 C 18-6d



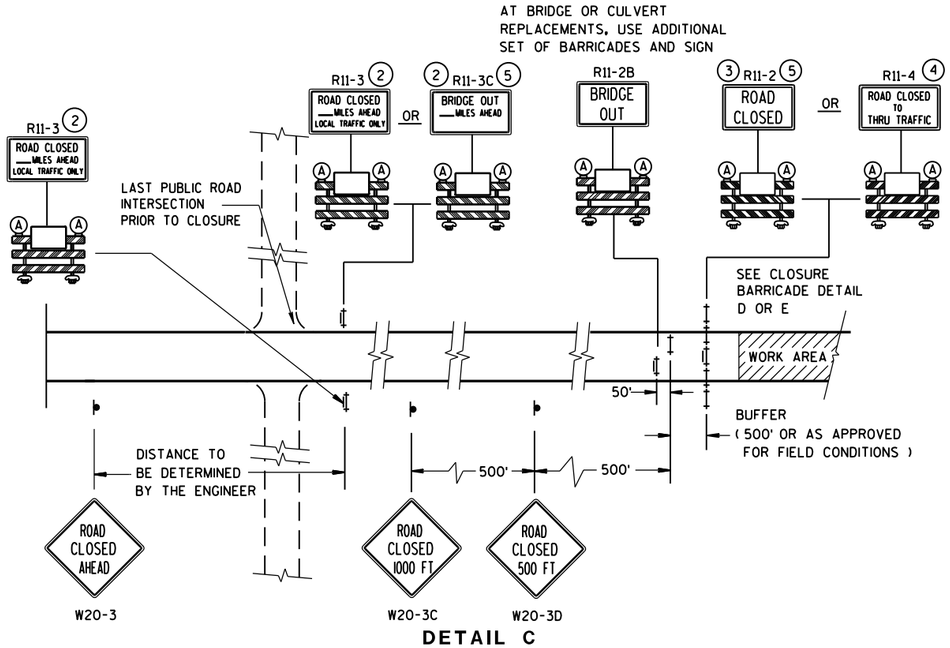
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

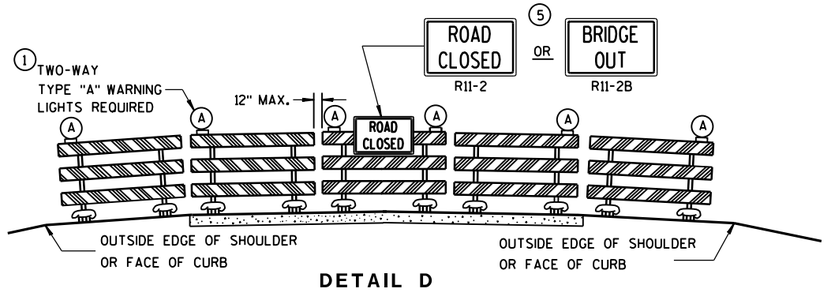
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 C 2-6a

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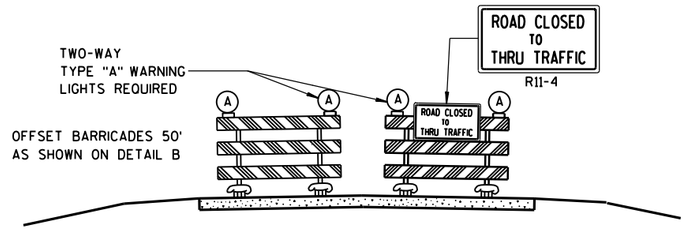
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

FHWA

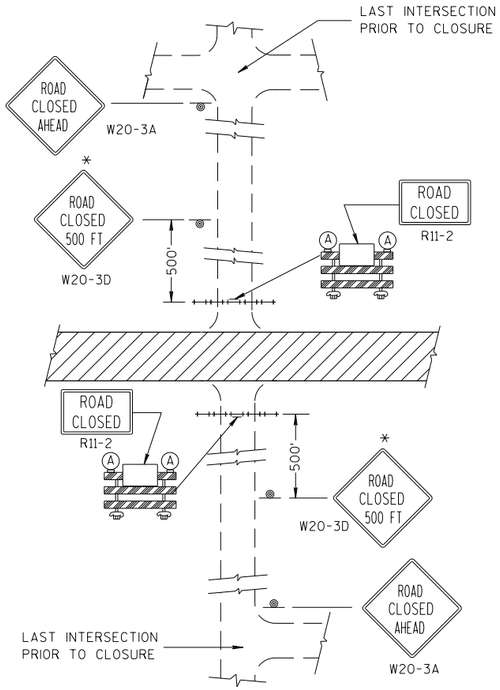
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S.D.D. 15 C 2-6b

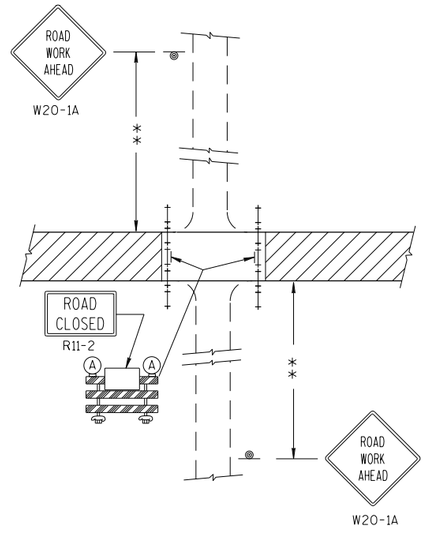
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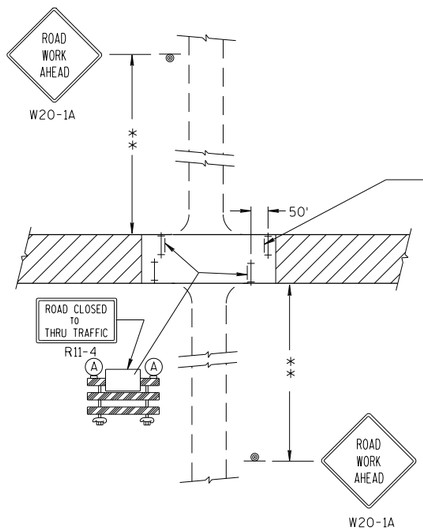
DETAIL 1

(NO ACCESS TO PROJECT)



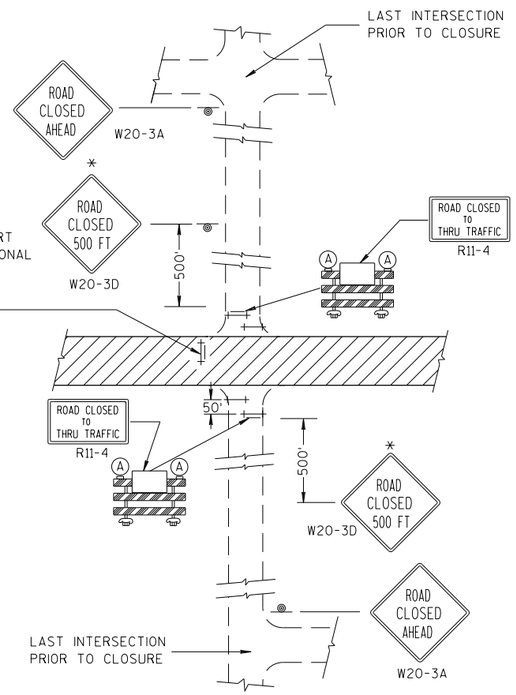
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGI

FHWA

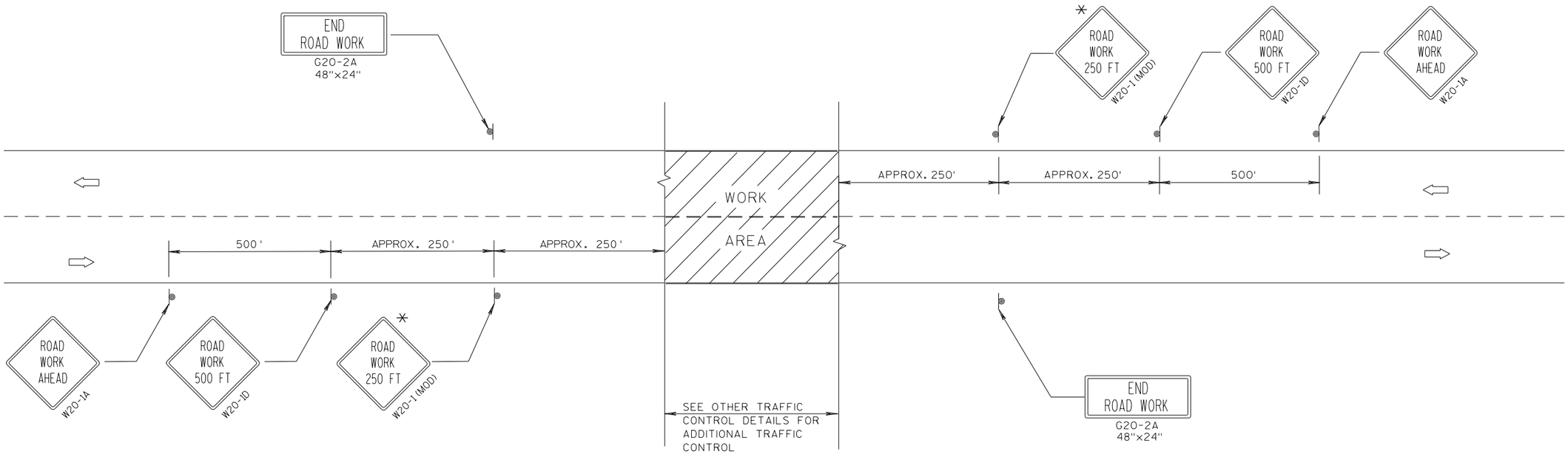
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S.D.D. 15 C 3-5

6

S.D.D. 15 C 3-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

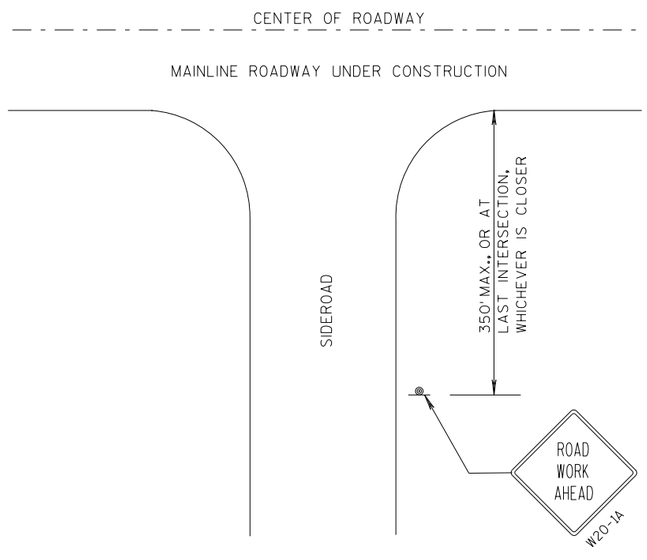
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

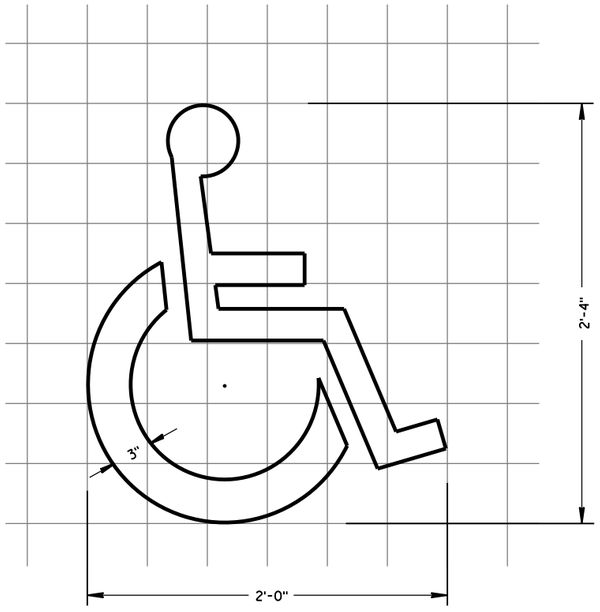
FHWA

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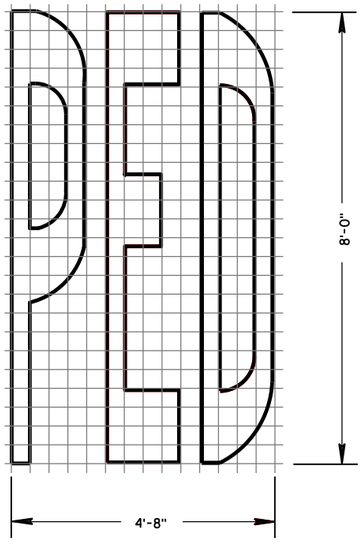
S.D.D. 15 C 5-5

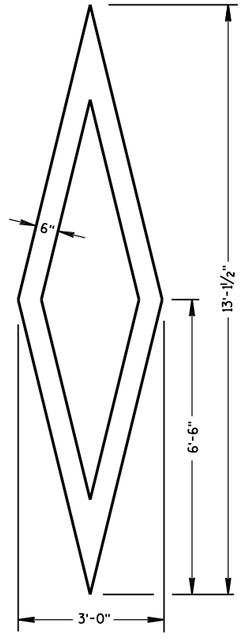
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-14a

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

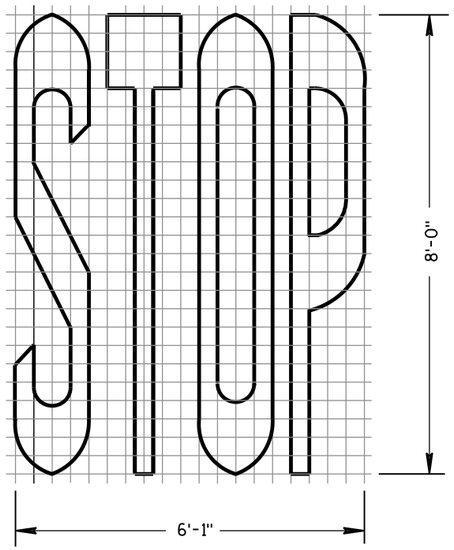
June 2017 — DATE

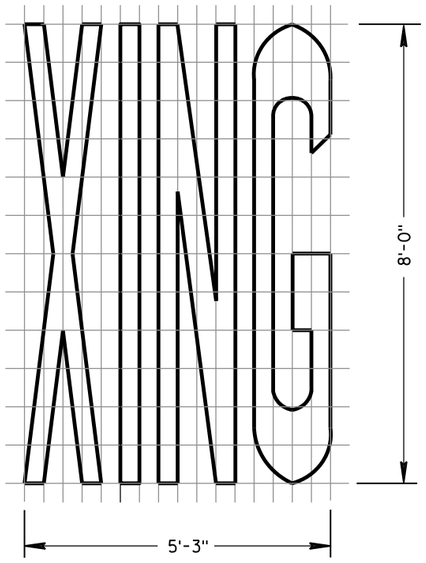
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

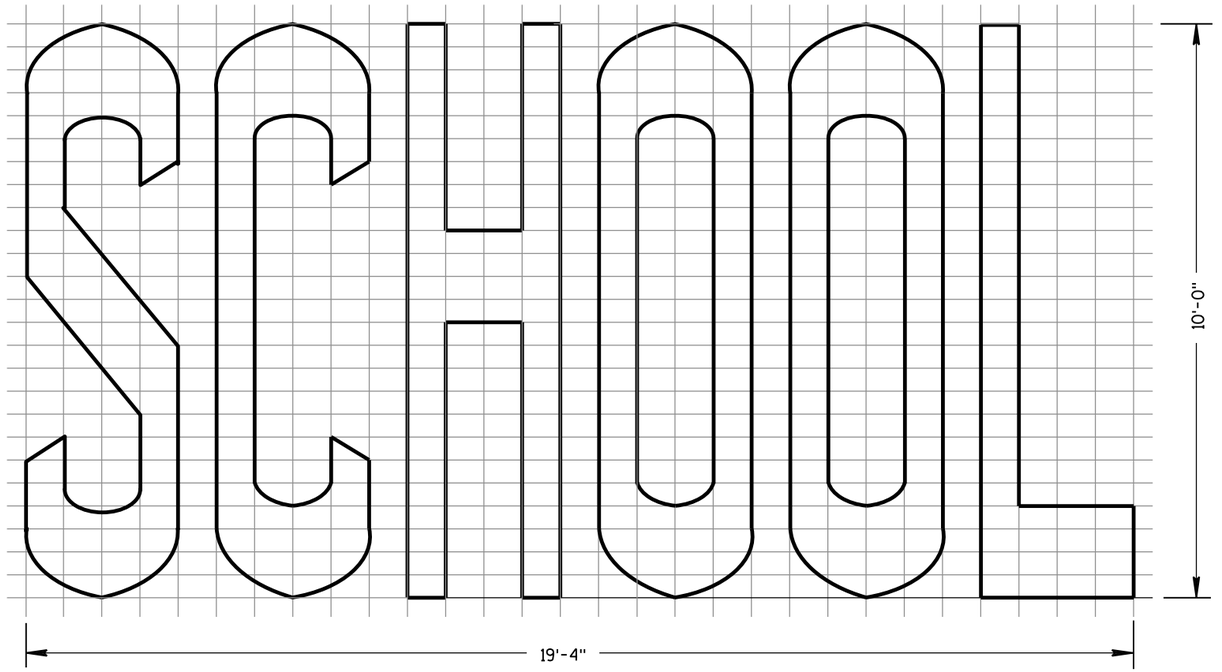
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GENERAL NOTES

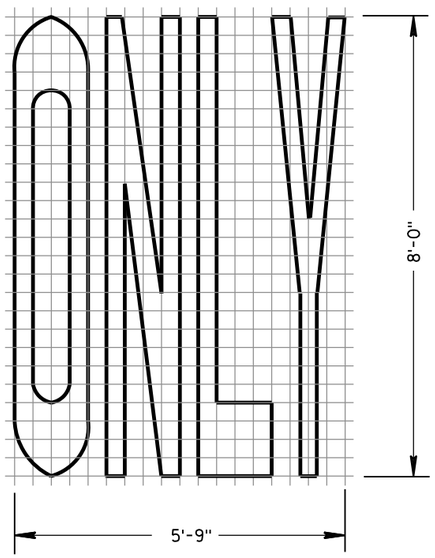
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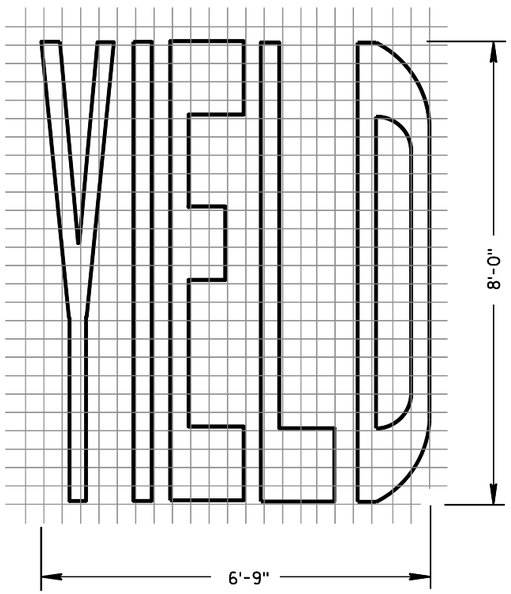


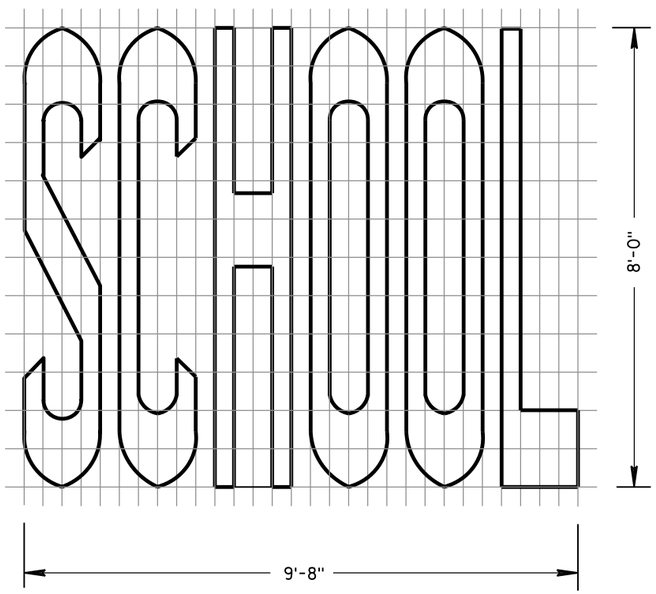




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

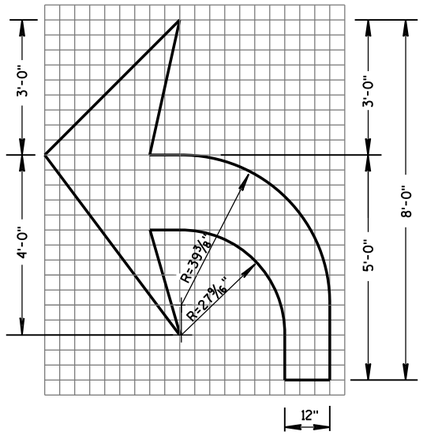
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
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FHWA

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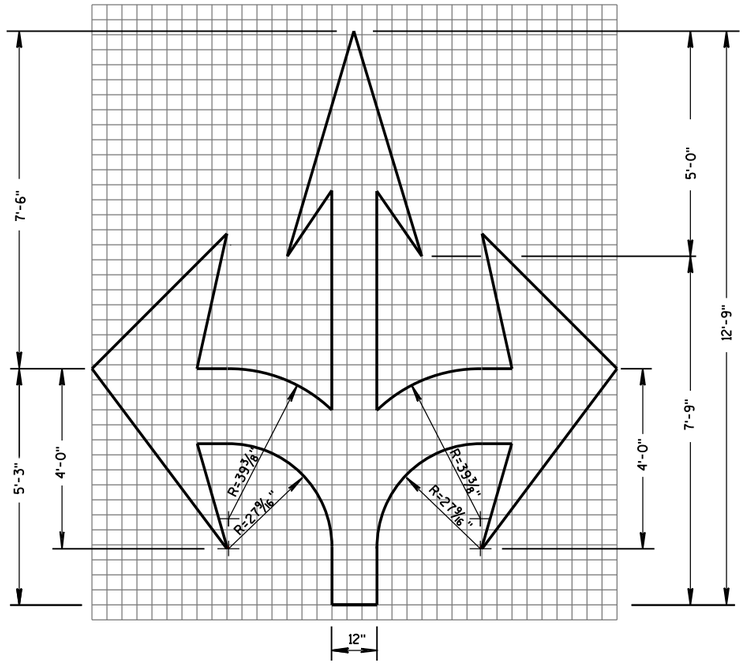
S.D.D. 15 C 7-14b

GENERAL NOTES

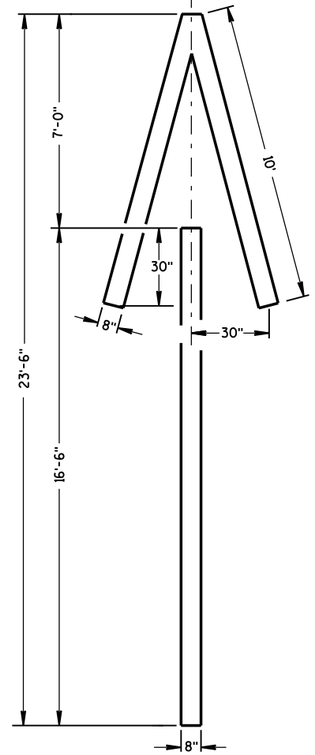
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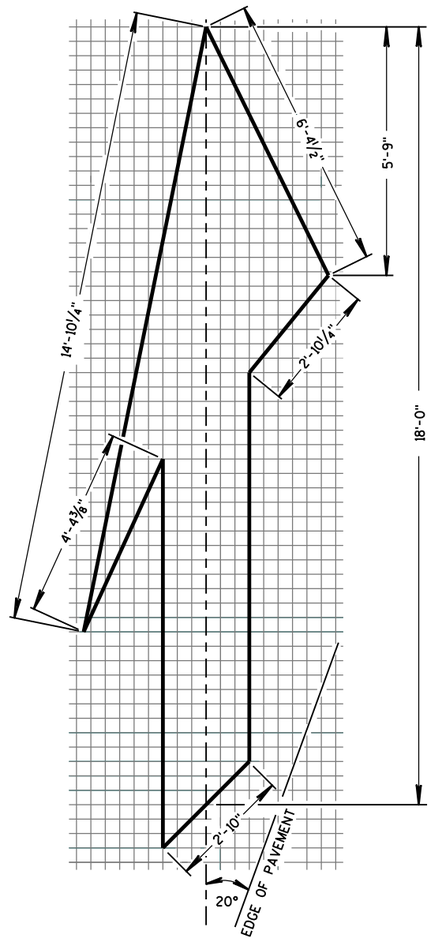
TYPE 2



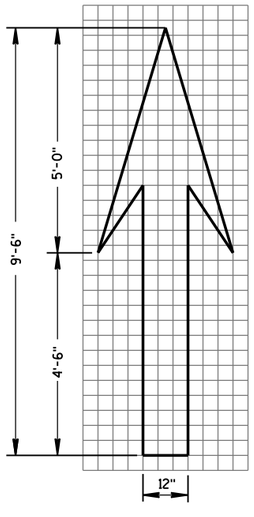
TYPE 6



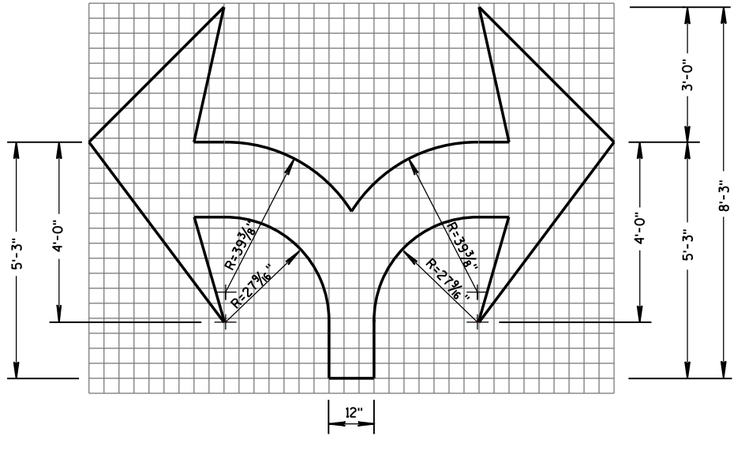
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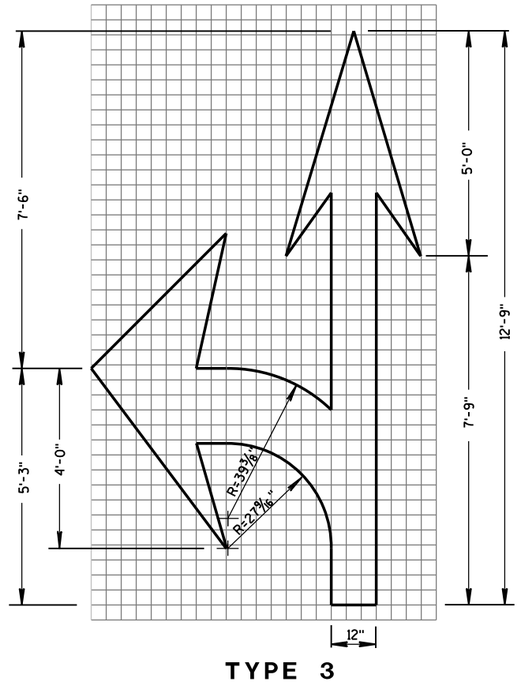
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

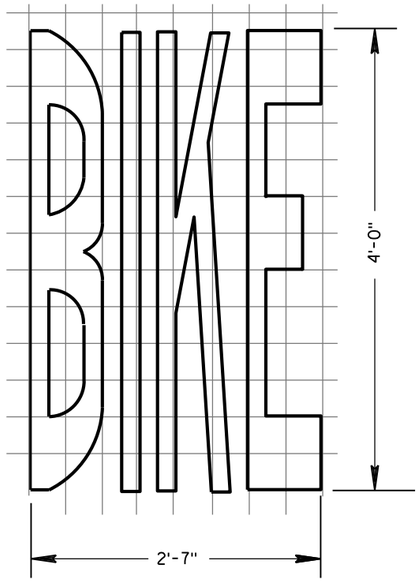
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

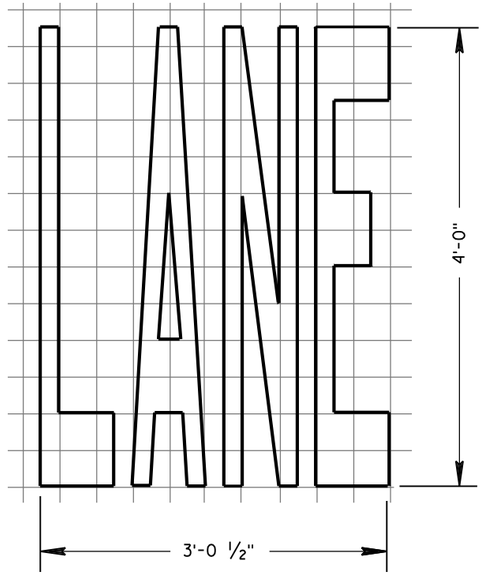
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S.D.D. 15 C 7-14c

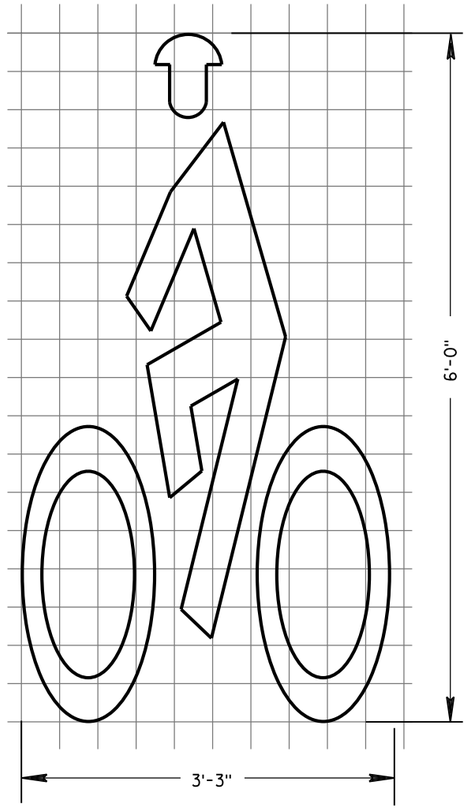
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S.D.D. 15 C 7-14c

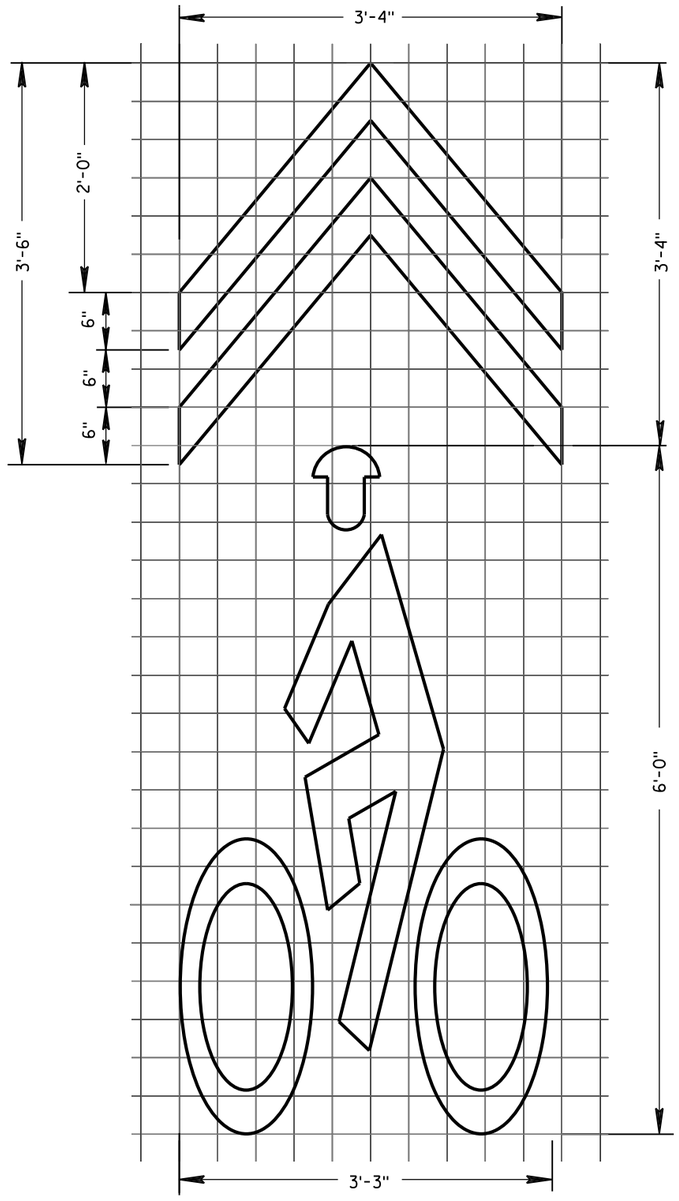




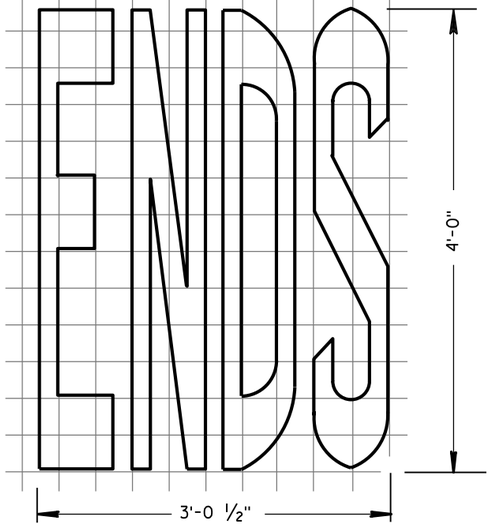
BIKE LANE WORDS



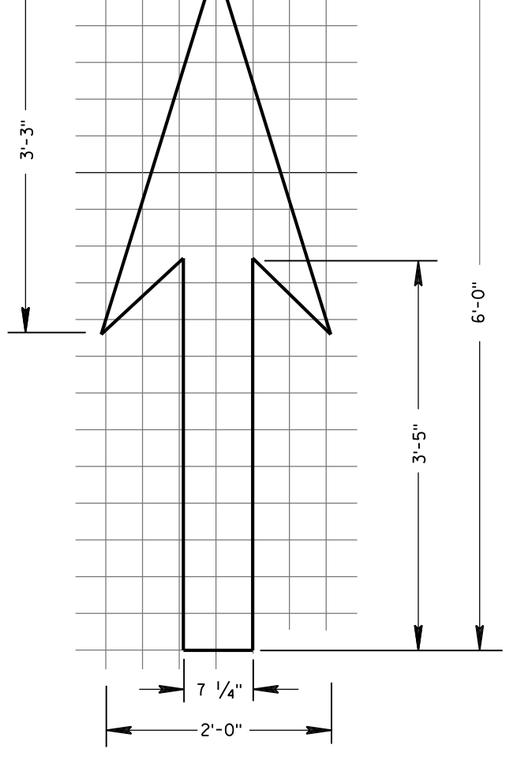
BIKE LANE SYMBOL



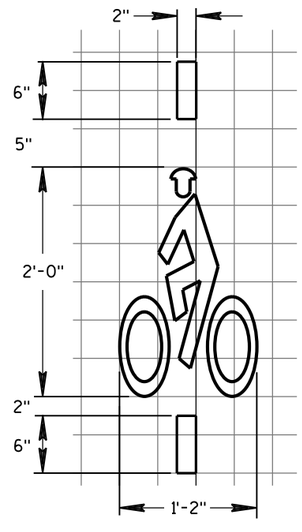
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

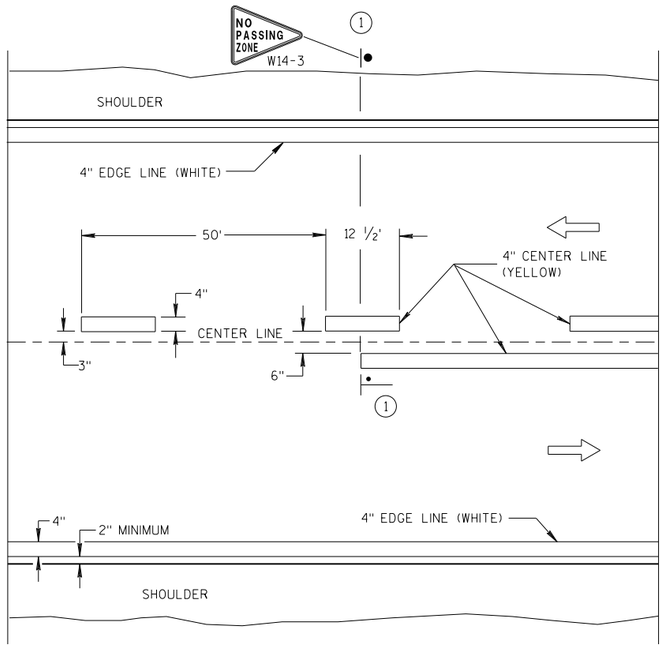
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

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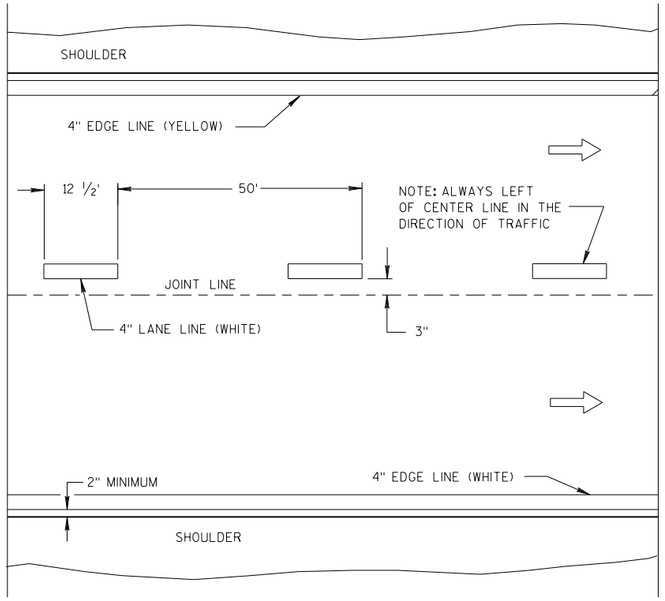
S.D.D. 15 C 7-14e

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S.D.D. 15 C 7-14e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

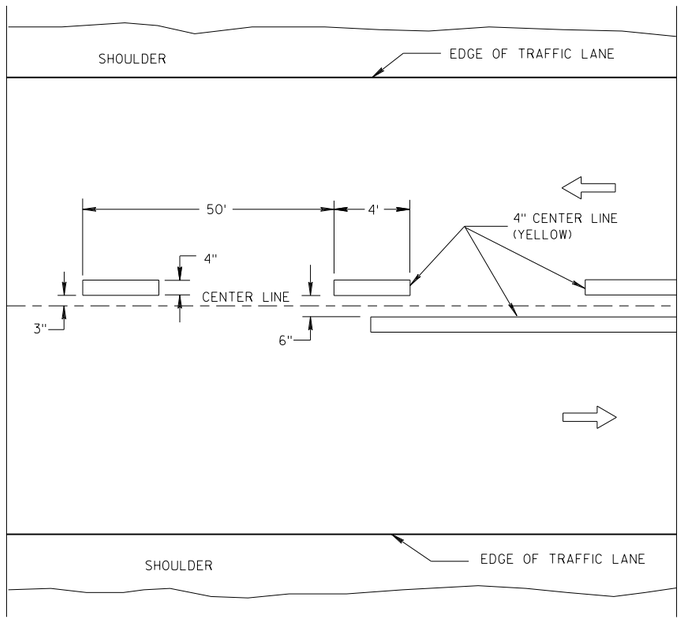
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

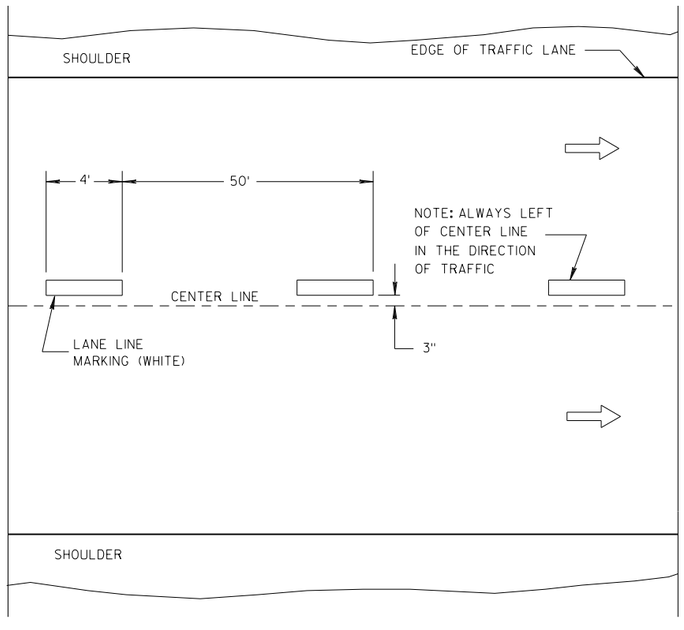
(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LEGEND

"T" MARKING

POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

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S.D.D. 15 C 8-19a

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S.D.D. 15 C 8-19a

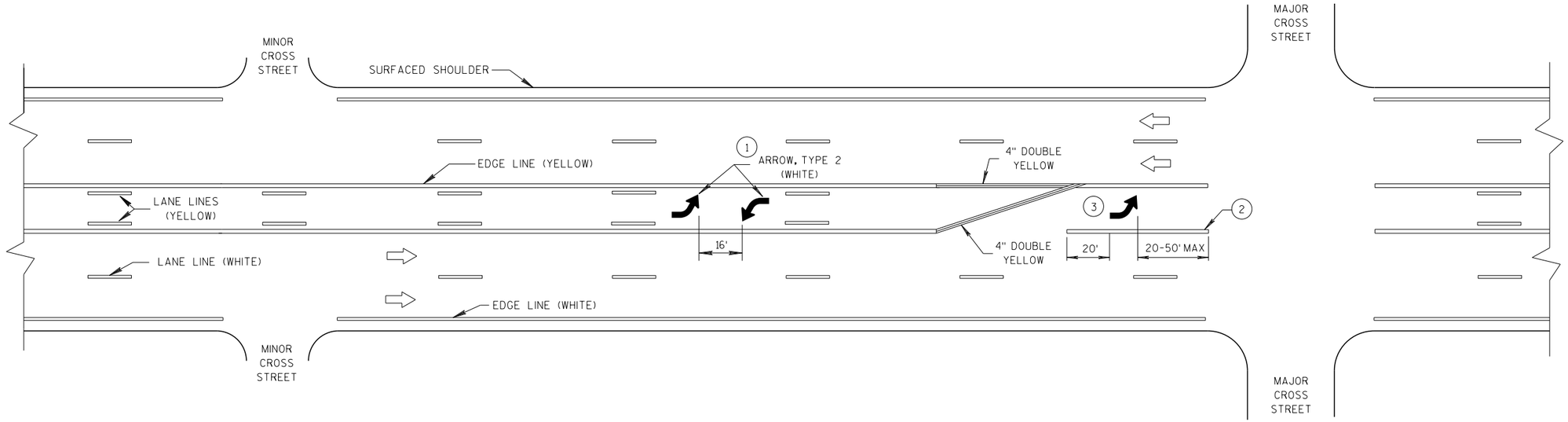
GENERAL NOTES

(1) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(2) 8" WHITE

(3) TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



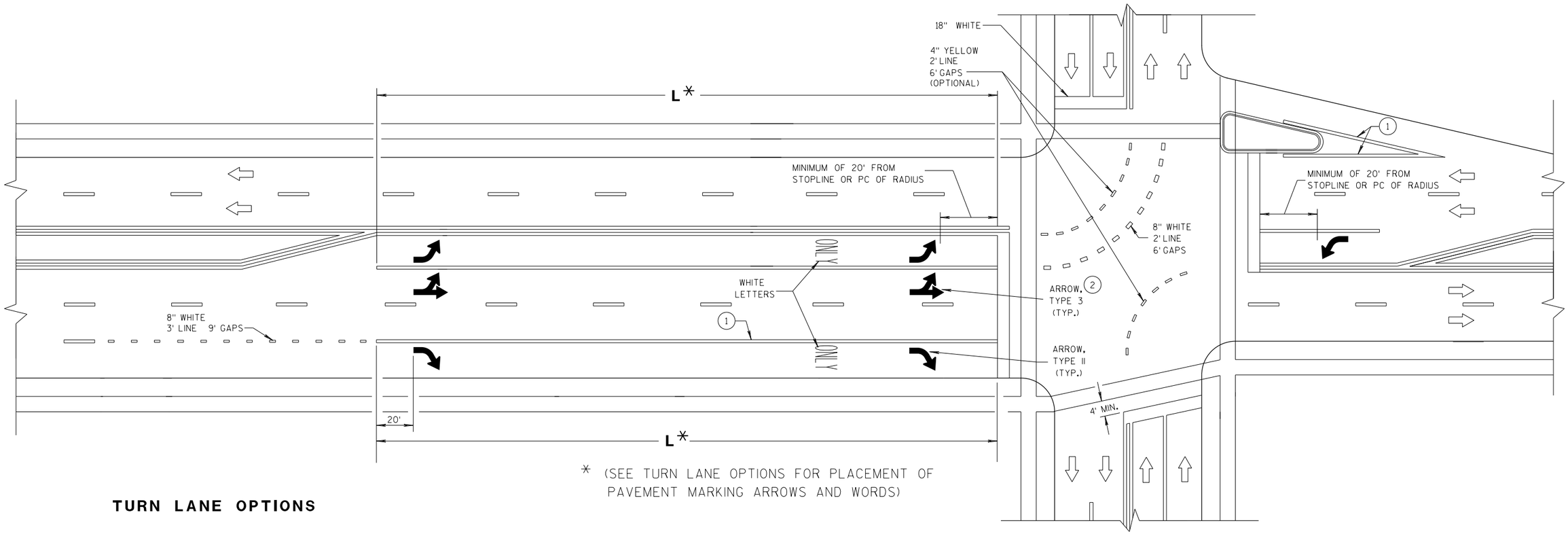
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

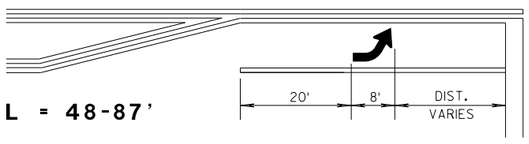
S.D.D. 15 C 8-19b



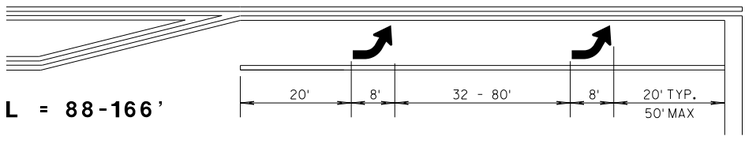
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

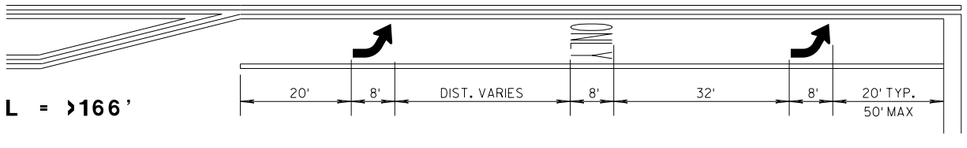
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

(1) 8" WHITE

(2) QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

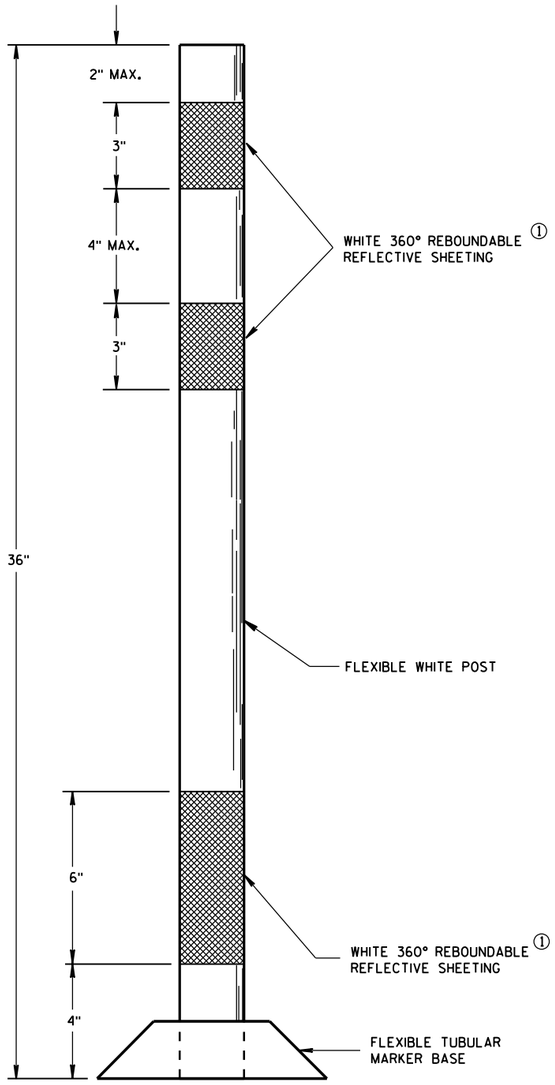
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

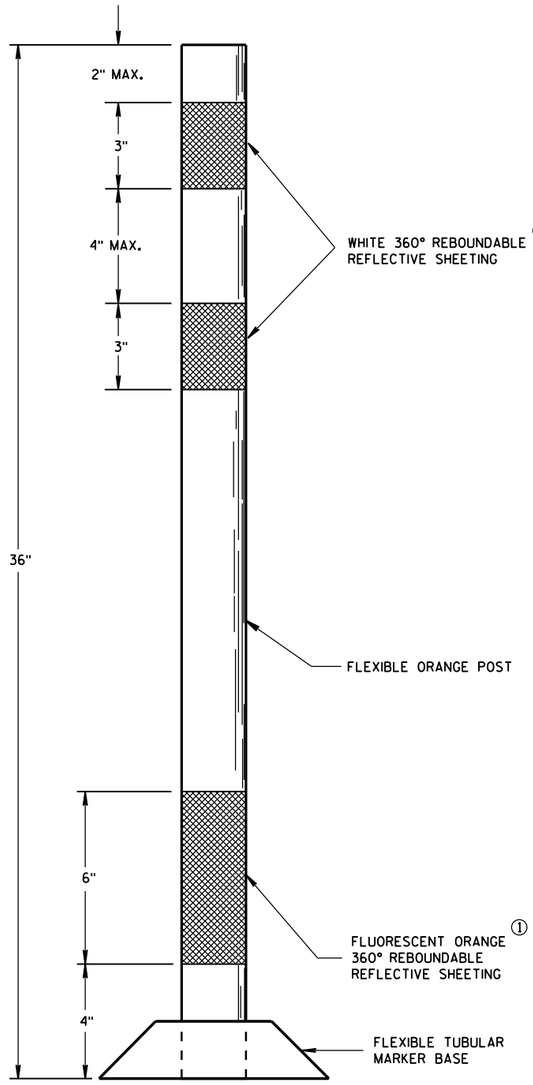
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

6

S.D.D. 15 C 8-19c



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

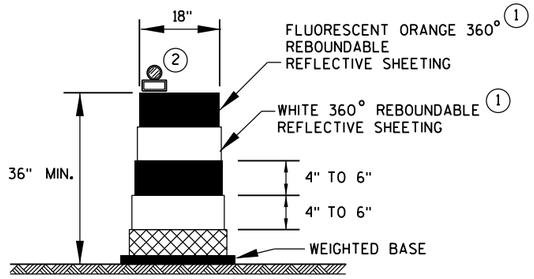
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

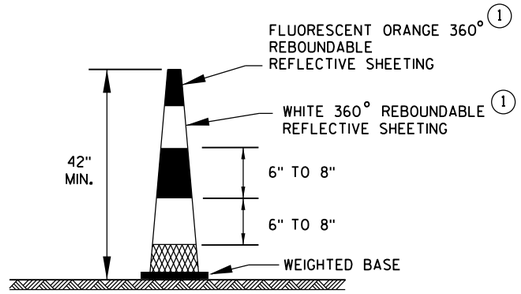
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June 2017 — DATE
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S.D.D. 15 C 11-7a



DRUM

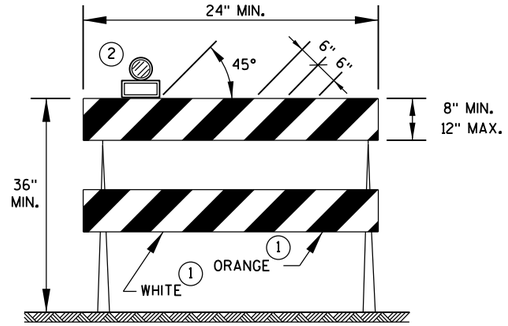


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

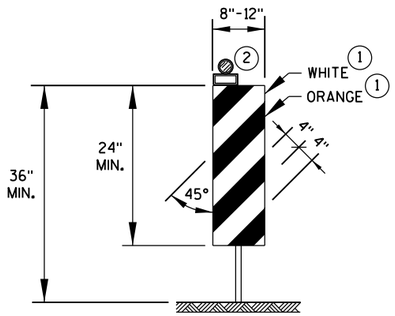
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



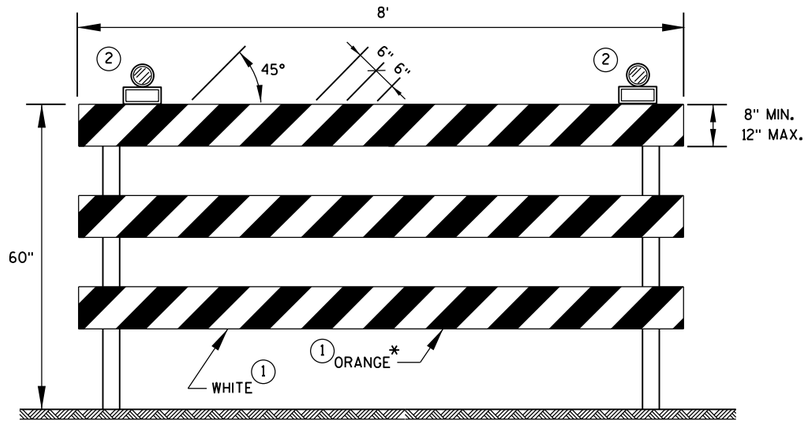
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

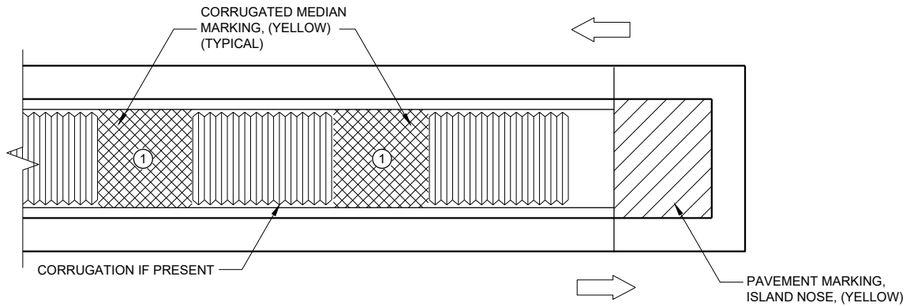
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

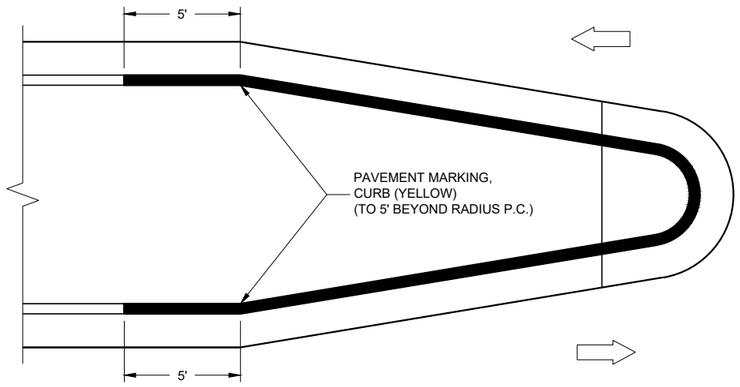
CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENG
FHWA	

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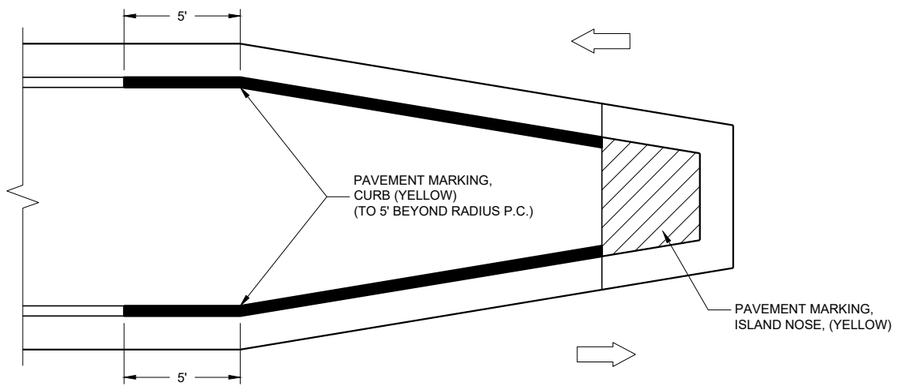
S.D.D. 15 C 11-7b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE

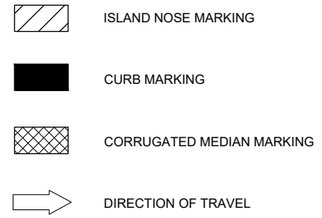


MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

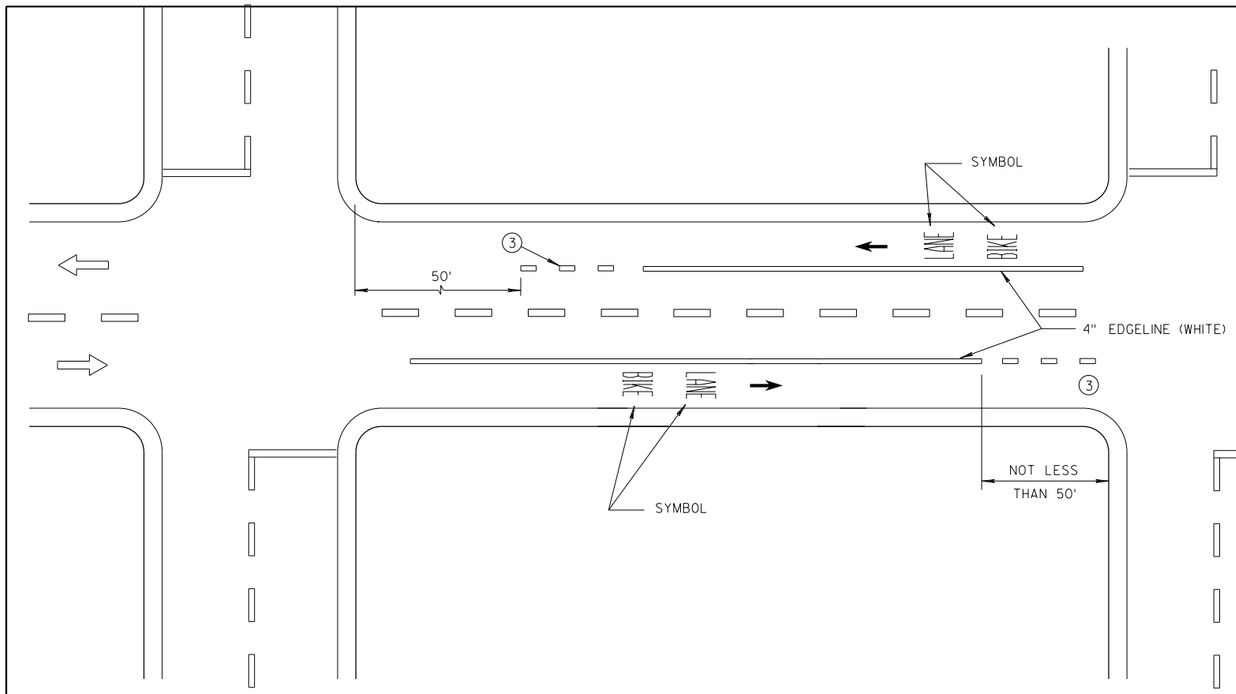
APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER
FHWA

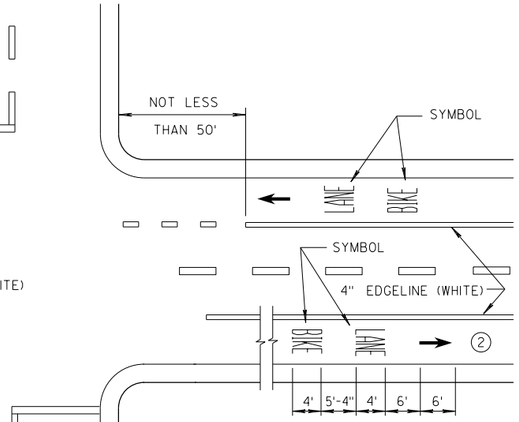
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SDD 15C27 - 03b

SDD15C27 - 03b



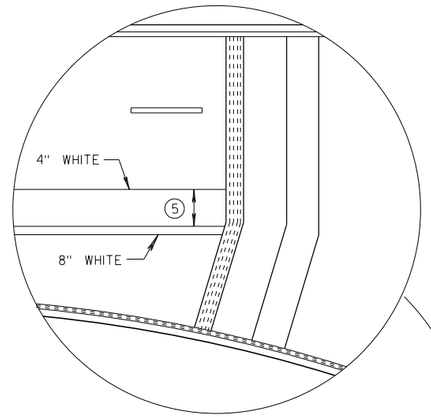


DESIGNATED BICYCLE LANE
NO PARKING

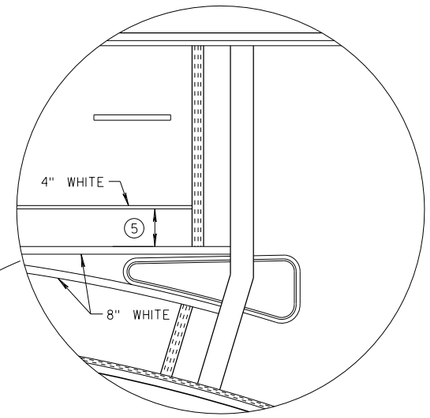
GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

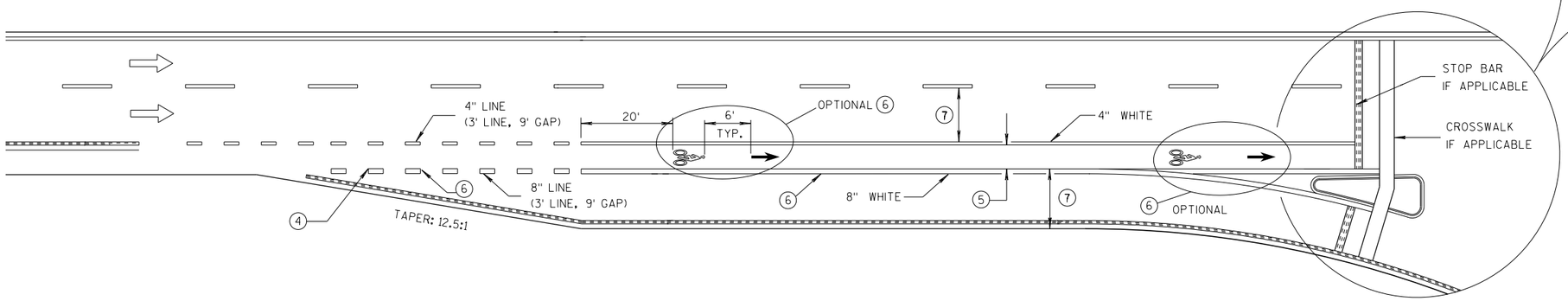
DIRECTION OF TRAVEL



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018 DATE
/S/ Matthew R. Rauch STATE SIGNING AND MAR 331 ...EER
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S.D.D. 15 C 29-6a

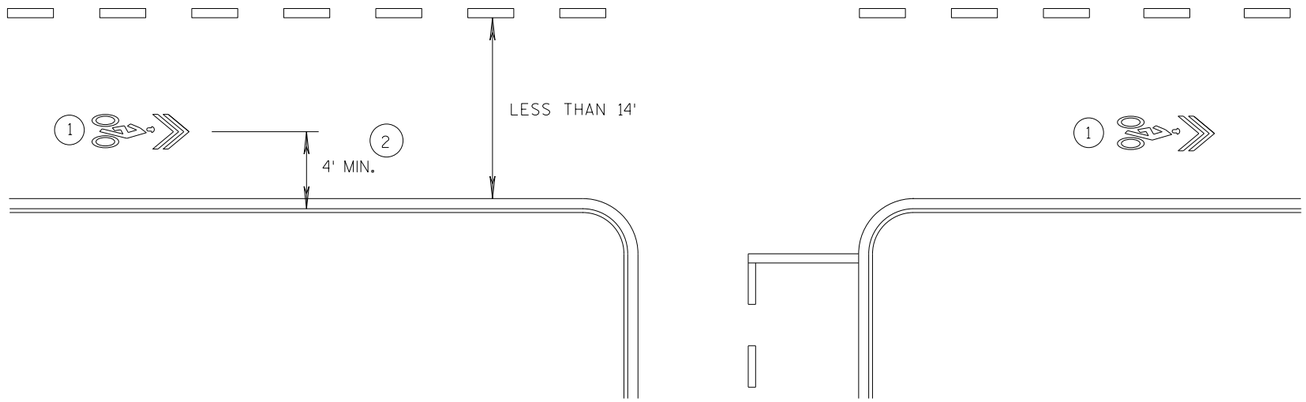
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S.D.D. 15 C 29-6a

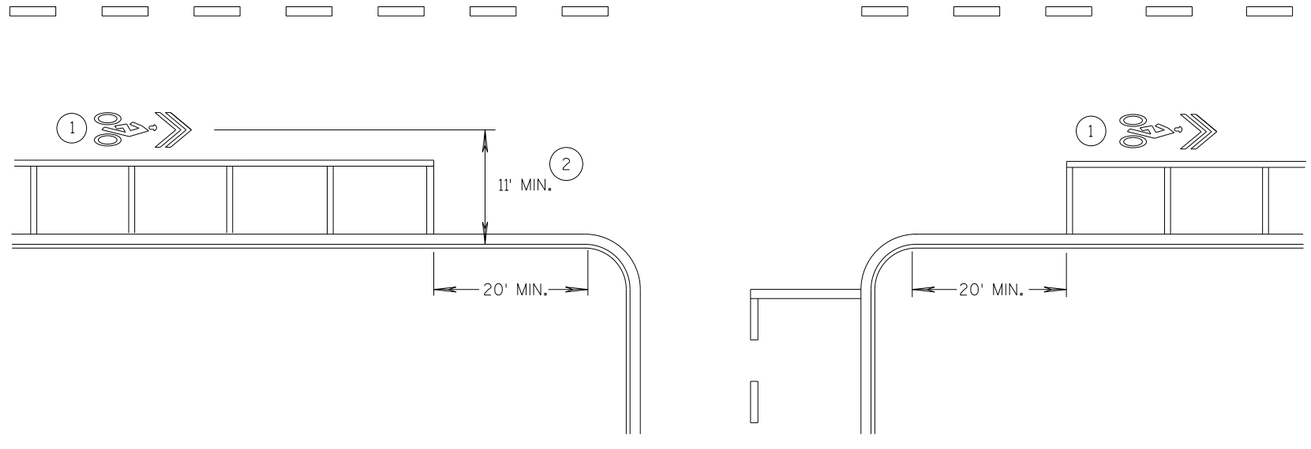
GENERAL NOTES

(1) MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.

(2) OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKI ER

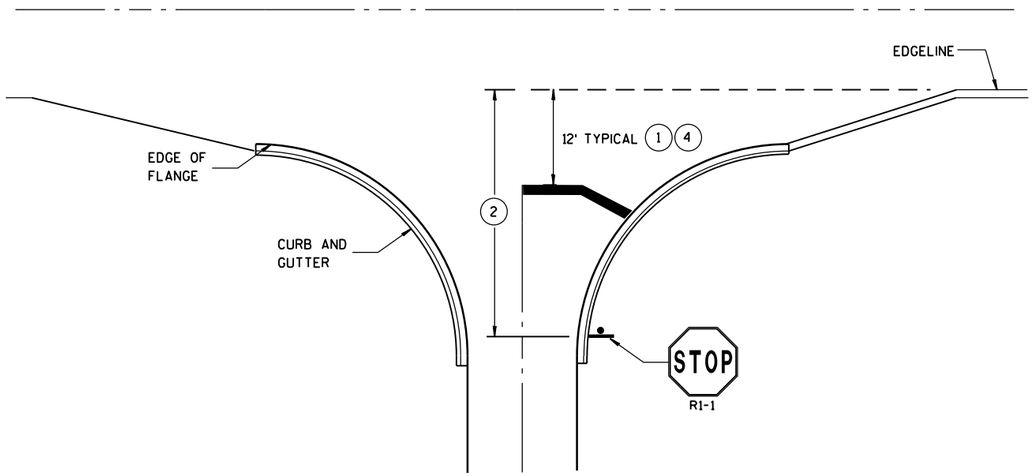
FHWA

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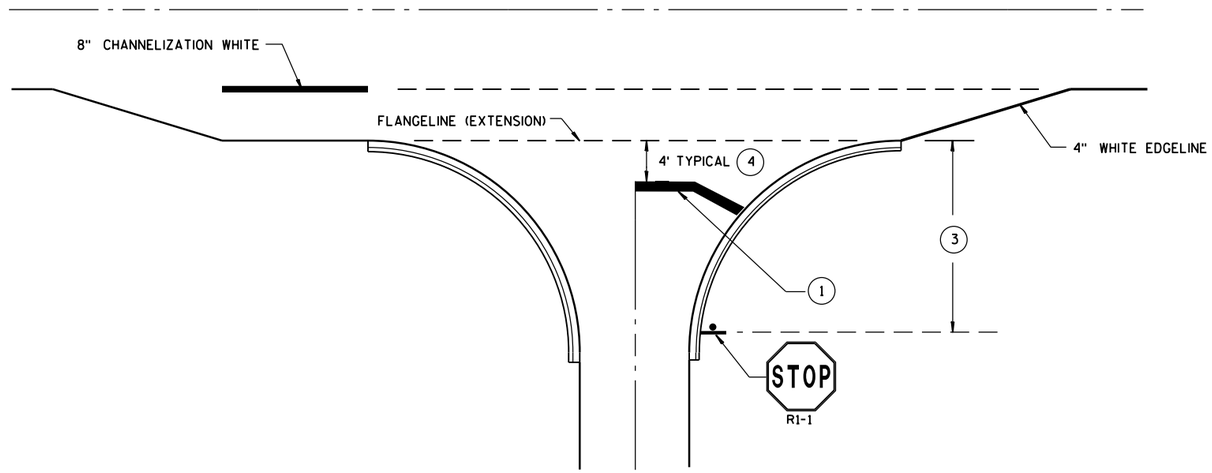
S.D.D. 15 C 29-6b

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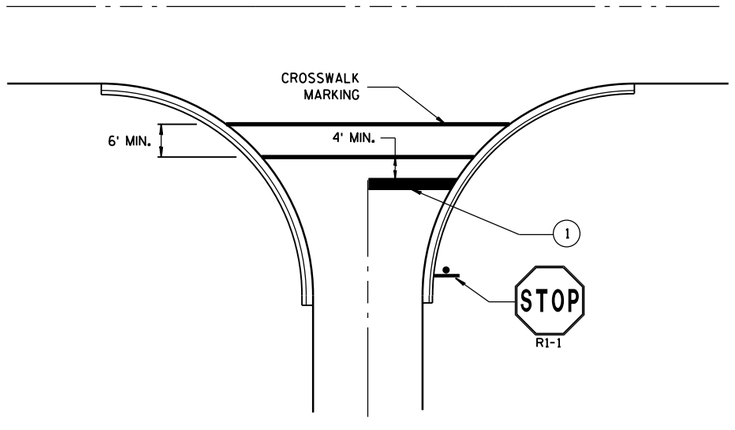
S.D.D. 15 C 29-6b



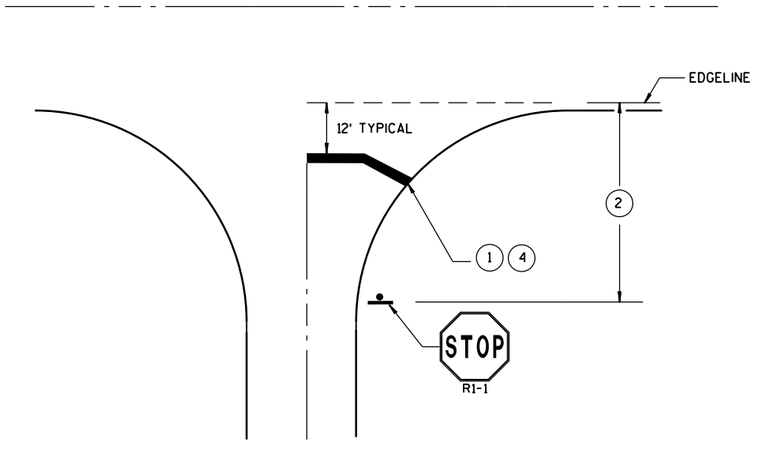
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

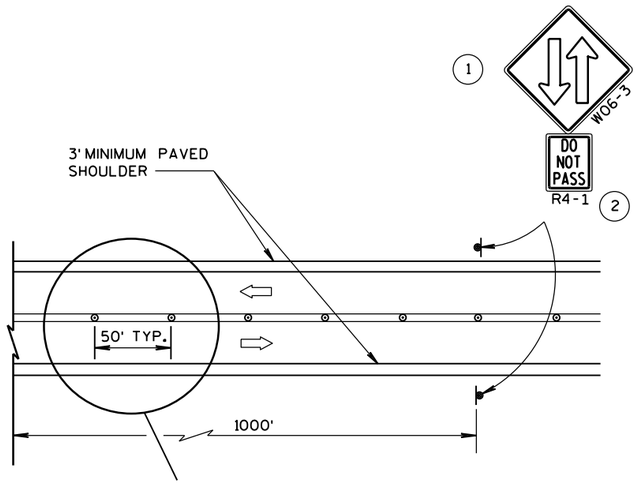
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR 333 ...NEER

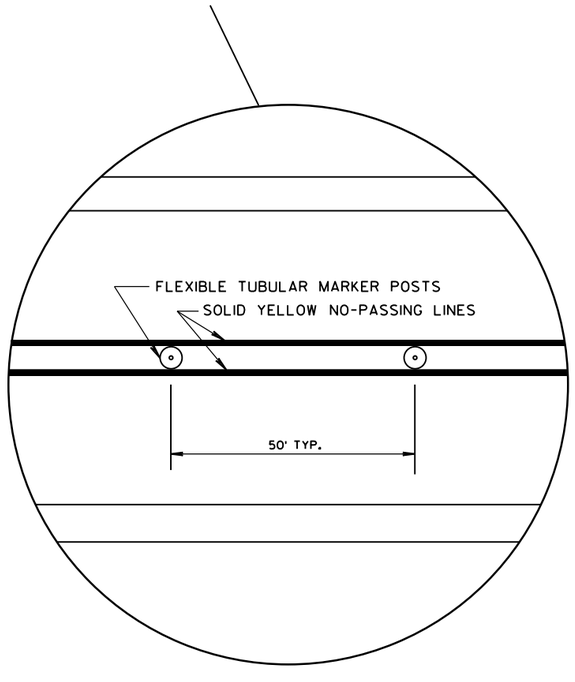
FHWA

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S.D.D. 15 C 33-3



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

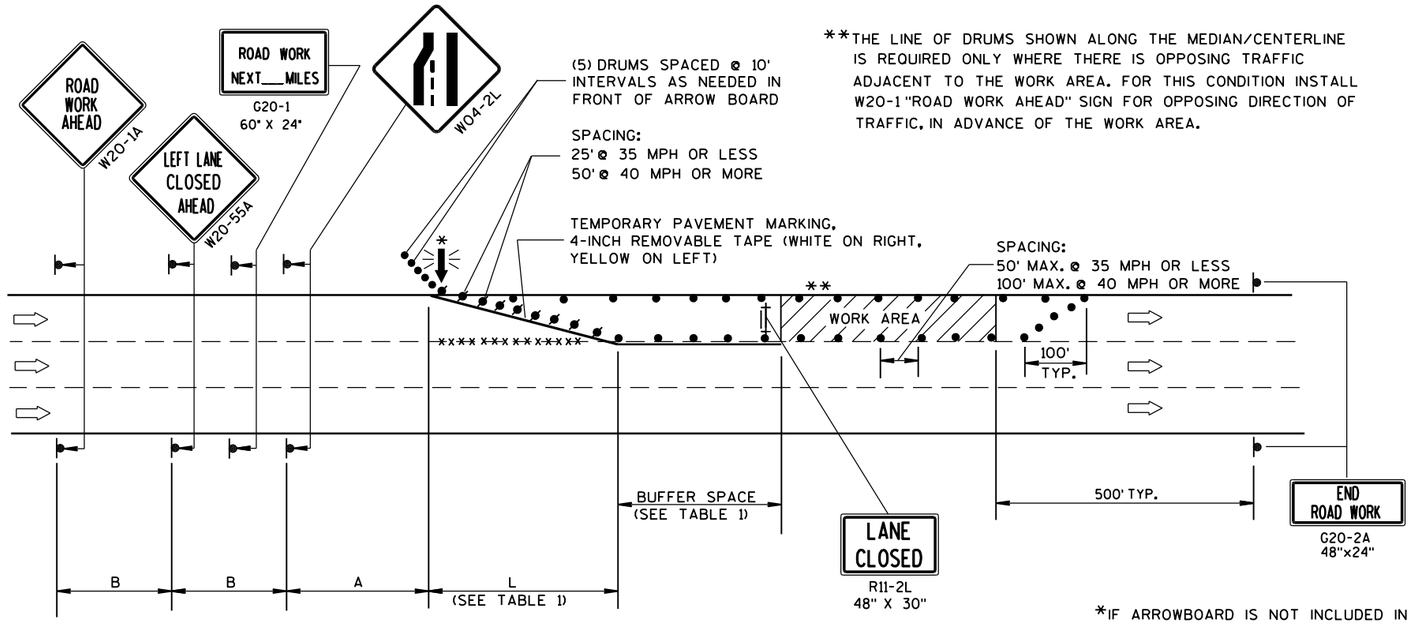
TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

6

S.D.D. 15 D 6-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

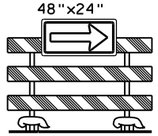


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

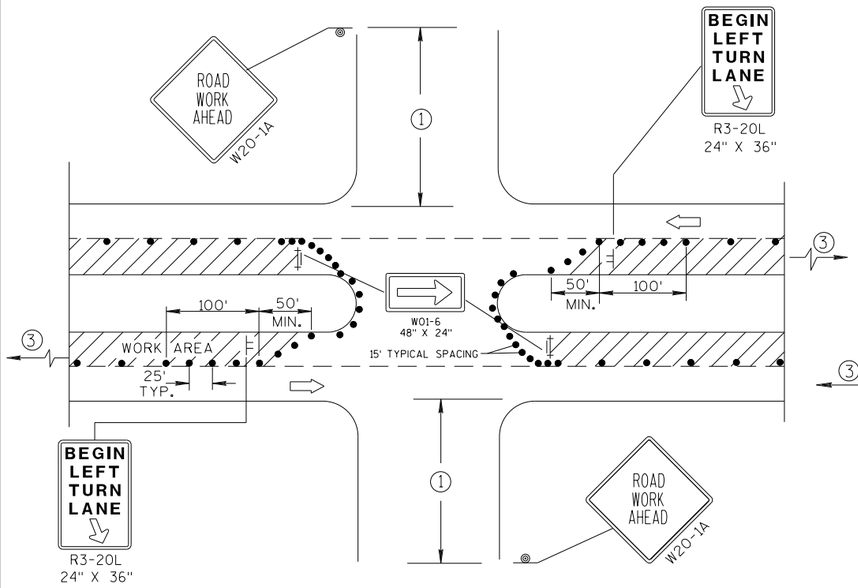
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

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S.D.D. 15 D 20-4

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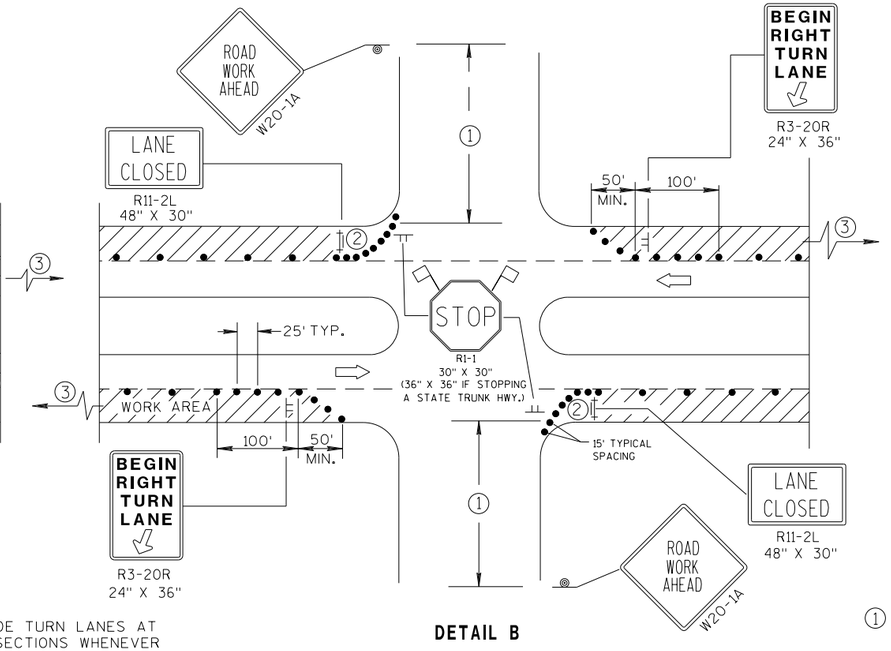
S.D.D. 15 D 20-4



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

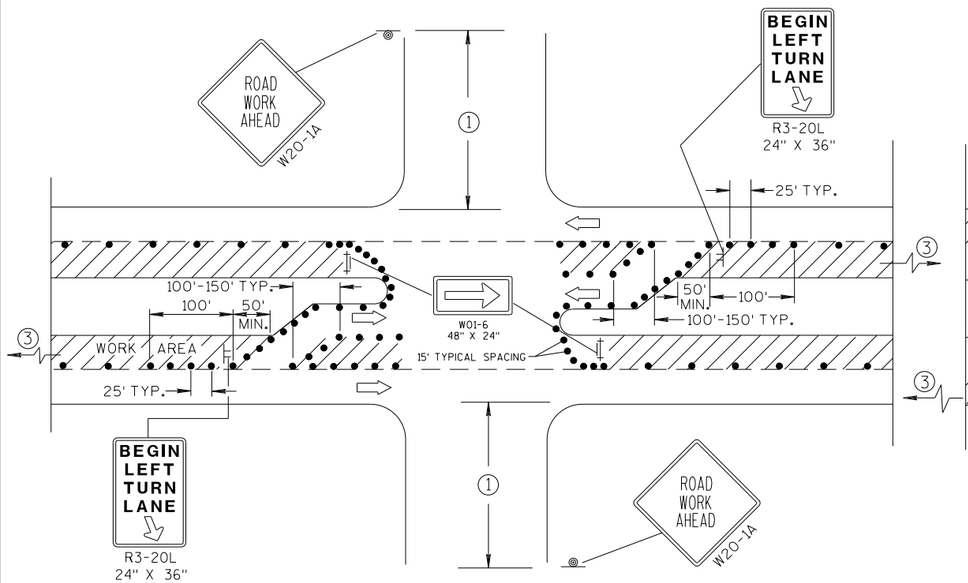
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

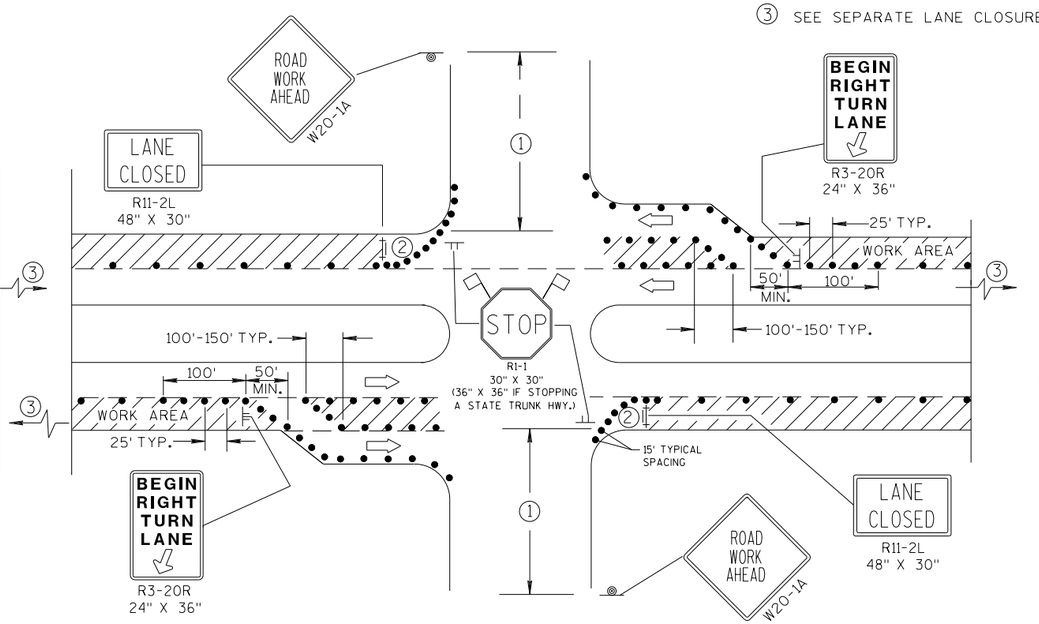
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

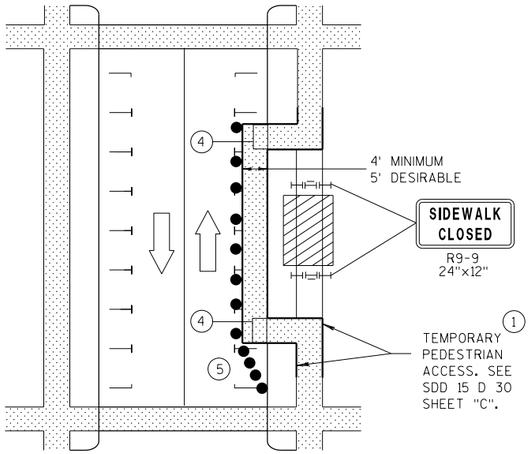
/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

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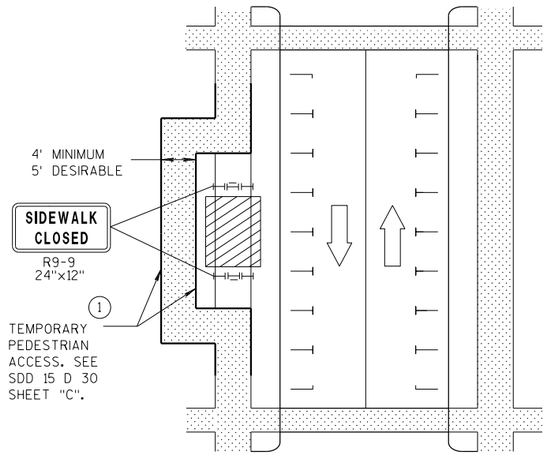
S.D.D. 15 D 21-6

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

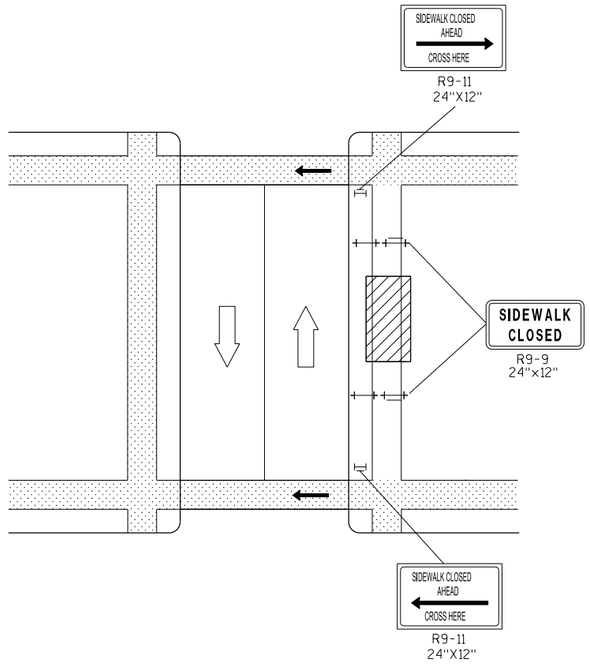


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

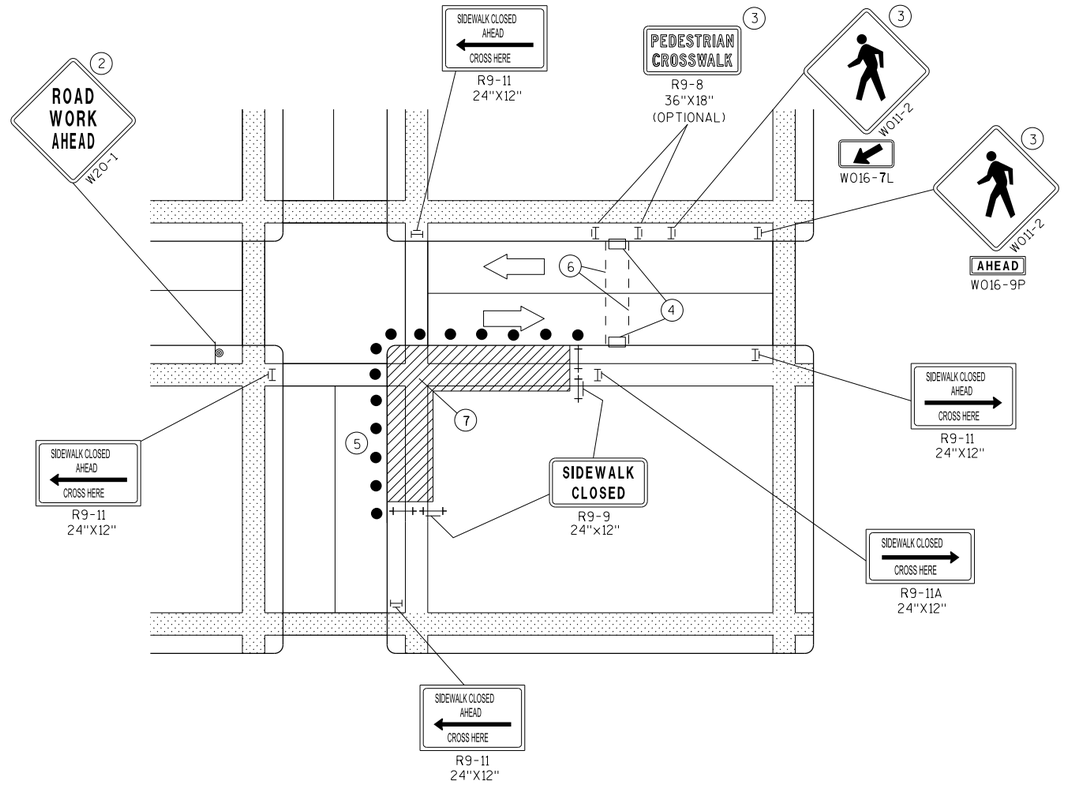
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

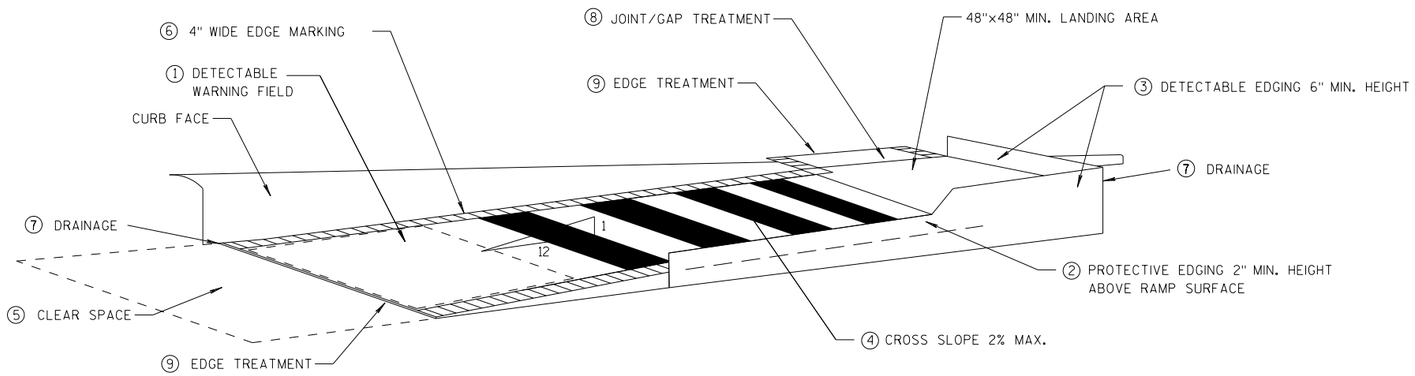
LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

S.D.D. 15 D 30-4a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

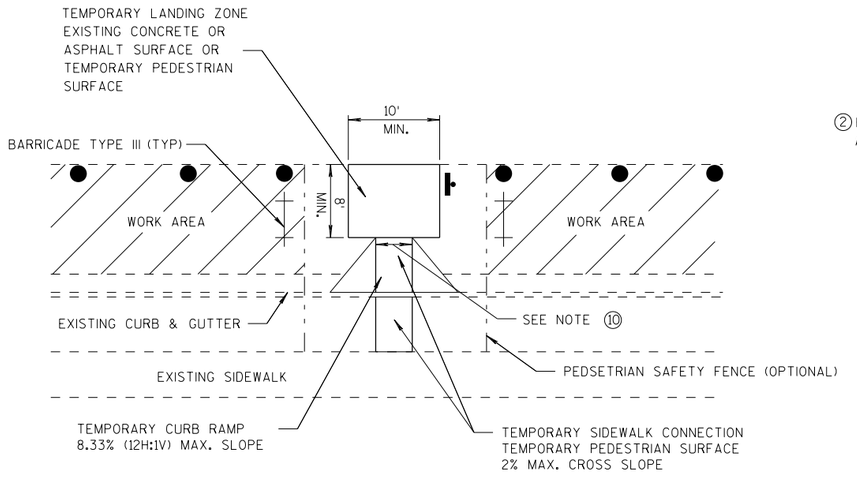
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

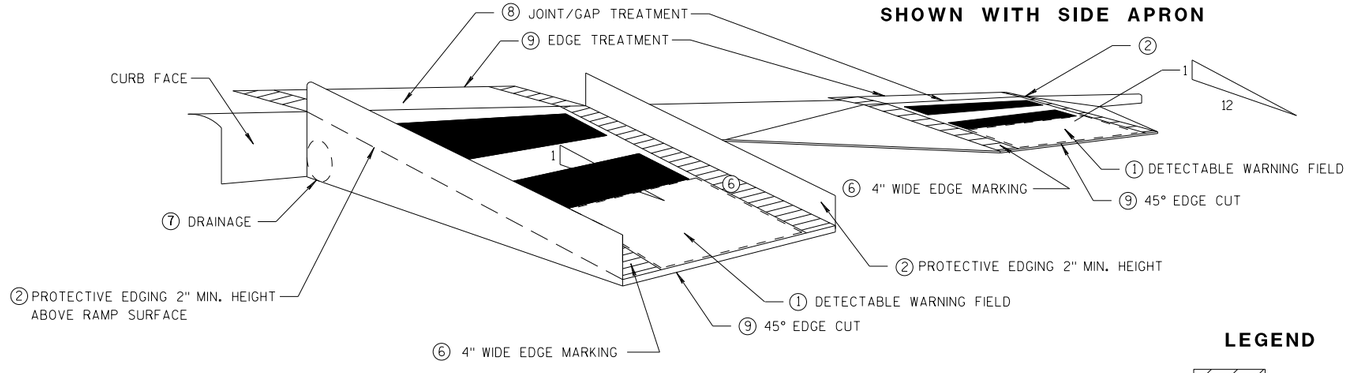
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH SIDE APRON

SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

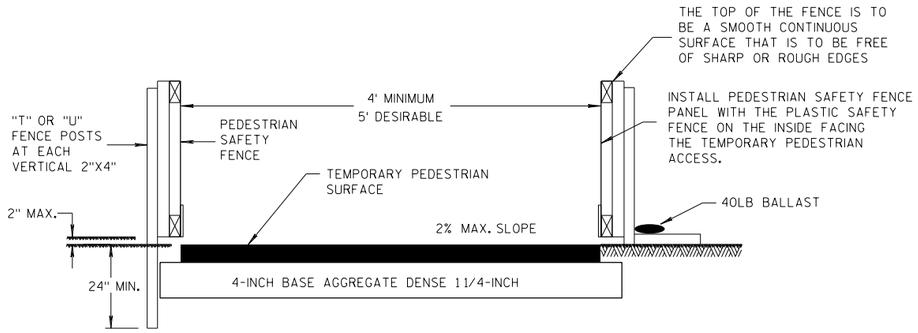
7/2018 DATE

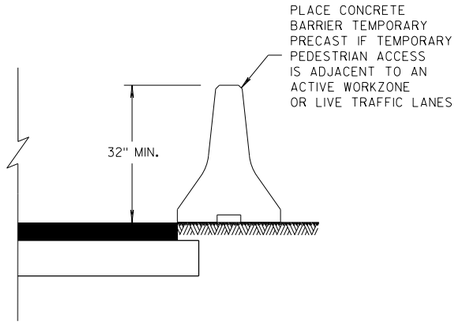
/S/ Andrew Heidtke
WORK ZONE ENG

FHWA

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S.D.D. 15 D 30-4b

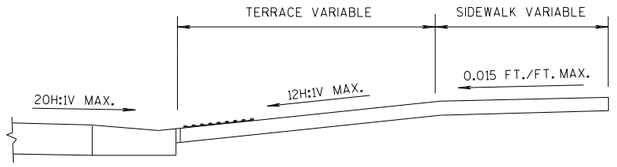




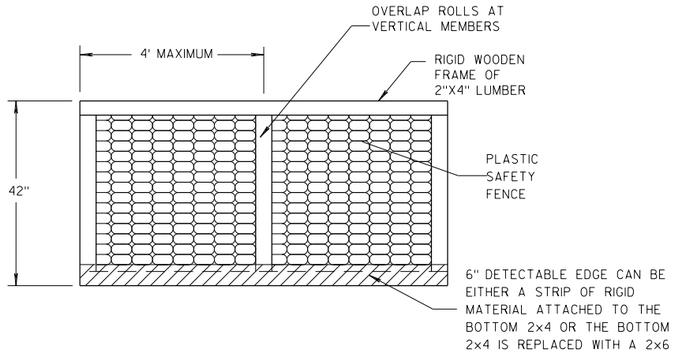
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

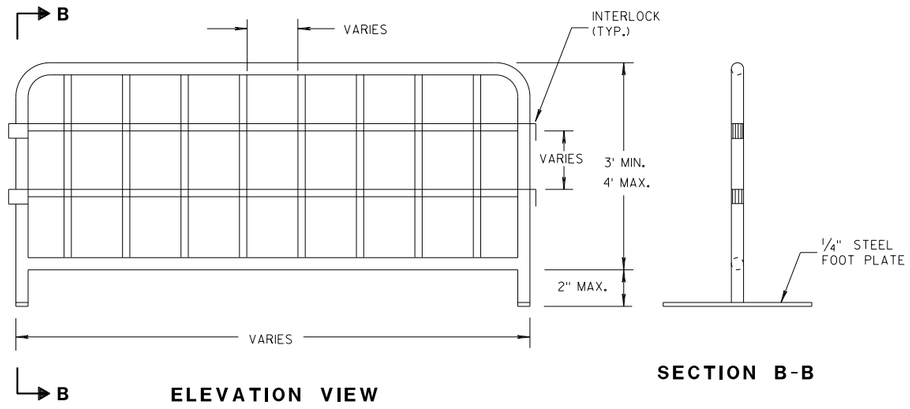
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



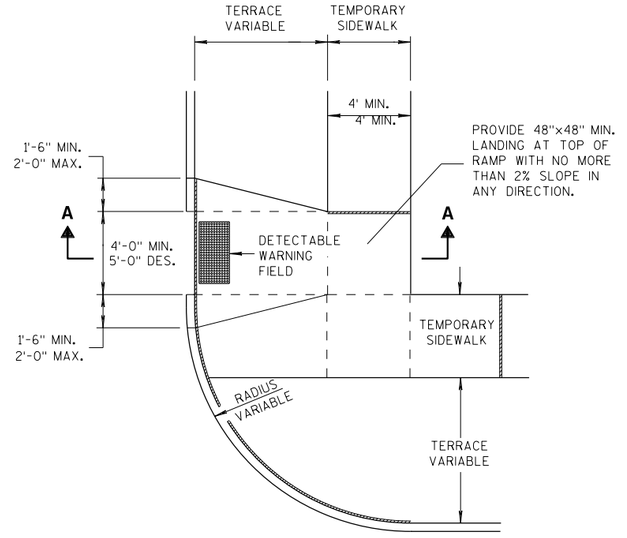
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

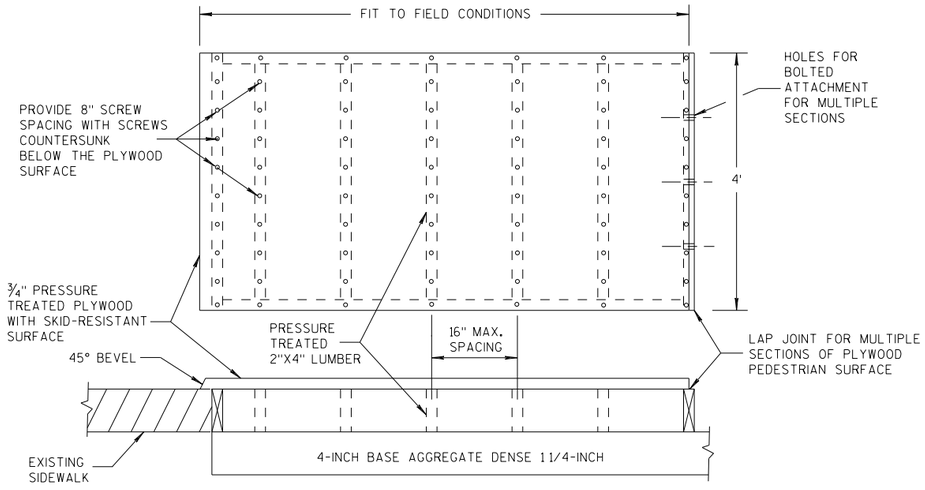
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



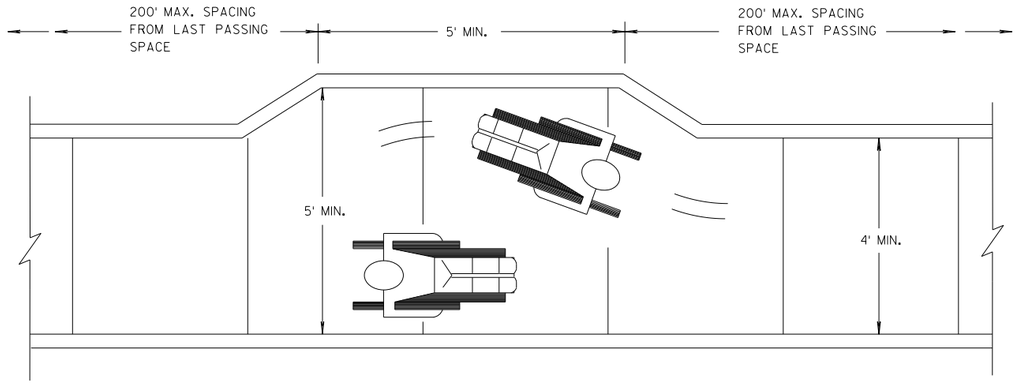
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENG

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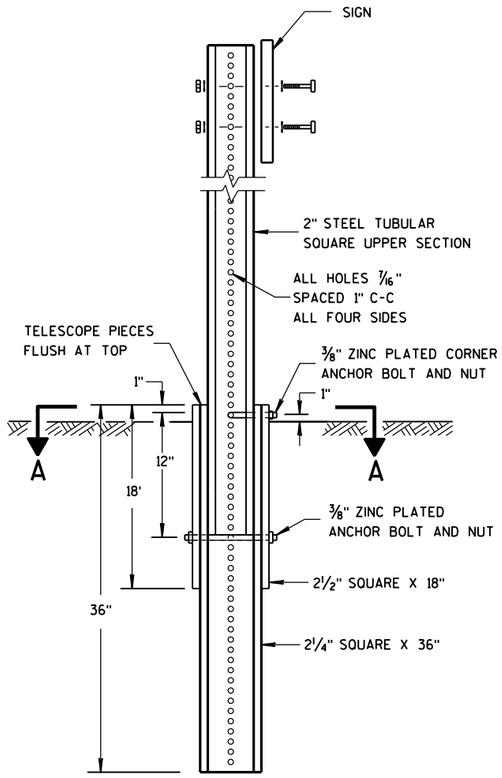
FHWA

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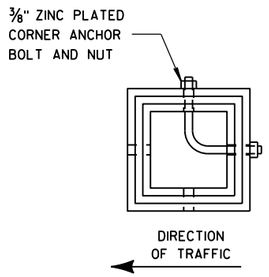
S.D.D. 15 D 30-4c

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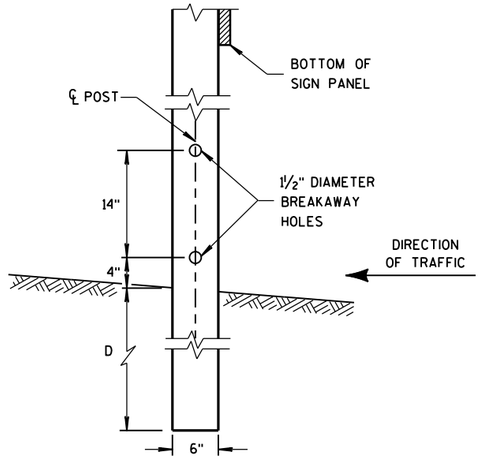
S.D.D. 15 D 30-4c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



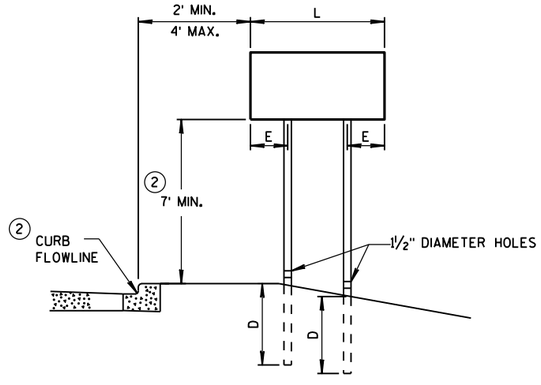
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

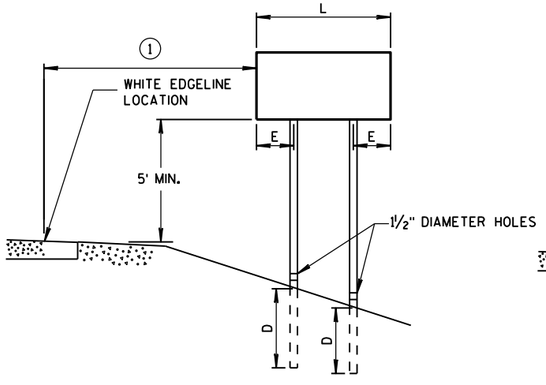
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

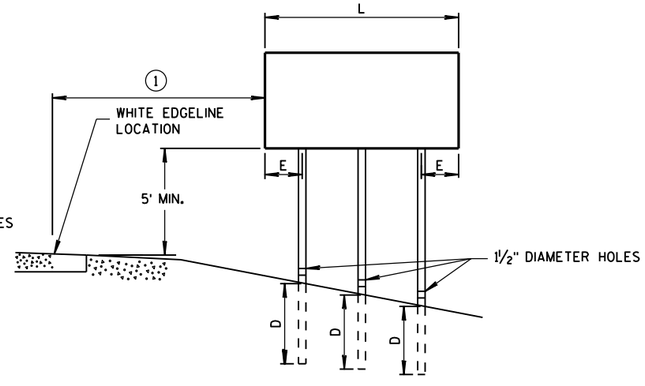
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

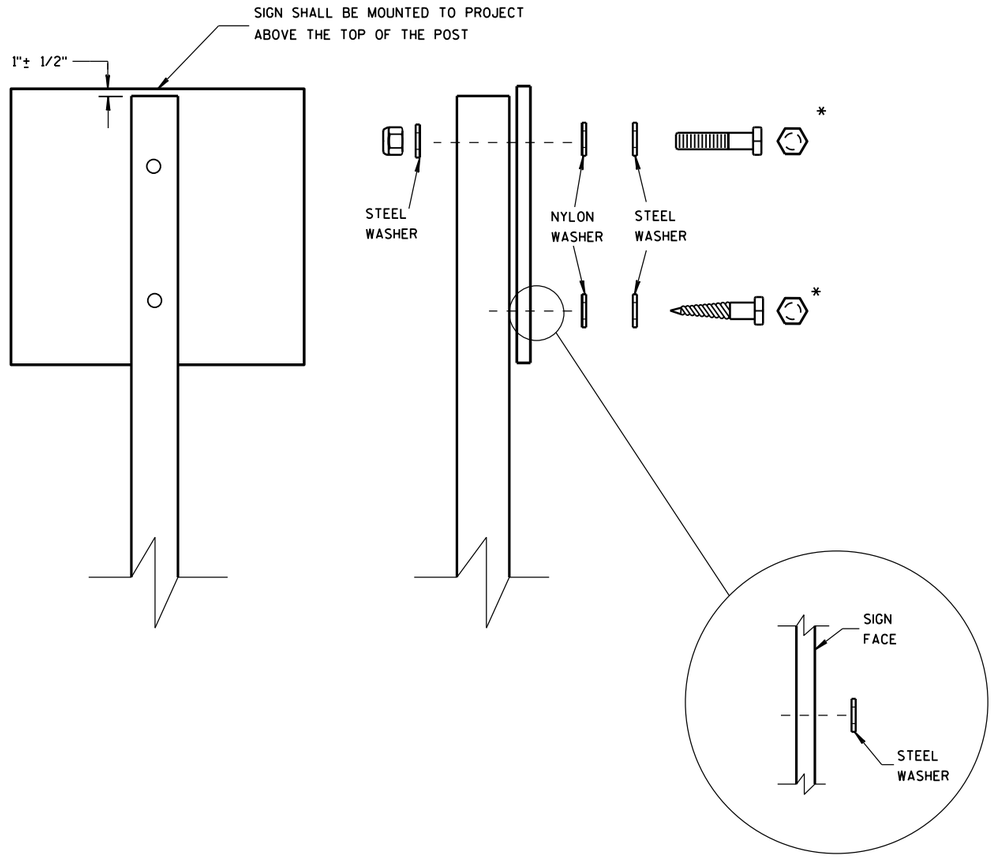
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

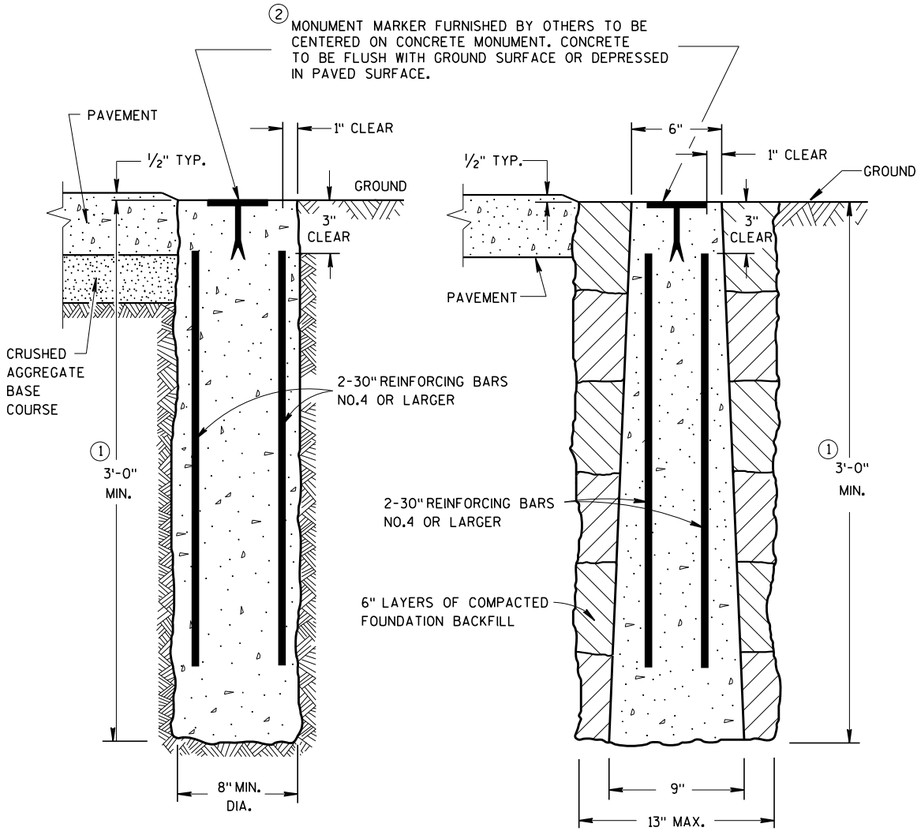
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

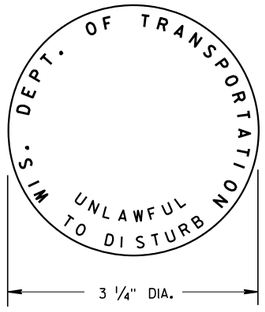


CAST-IN-PLACE

PRECAST

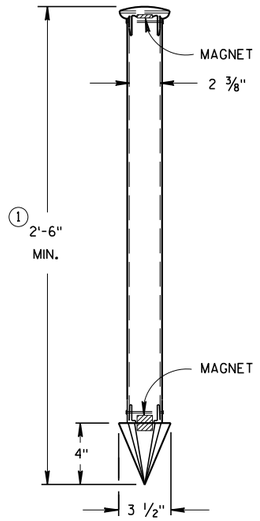
CONCRETE MONUMENTS

TYPE A



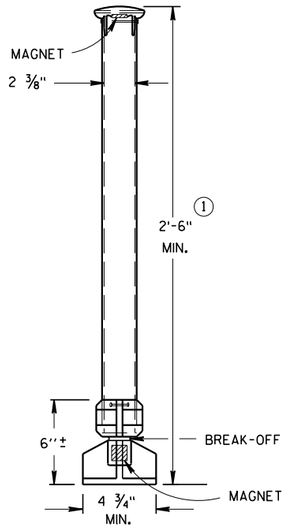
② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C", & "D"



TYPE C

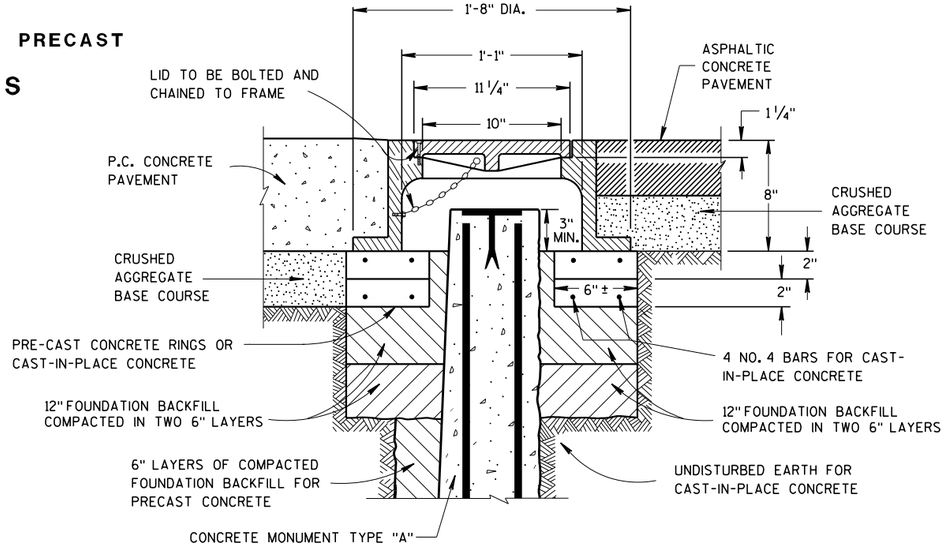
DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

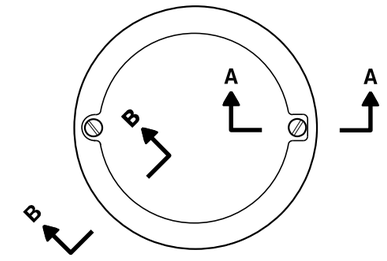
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

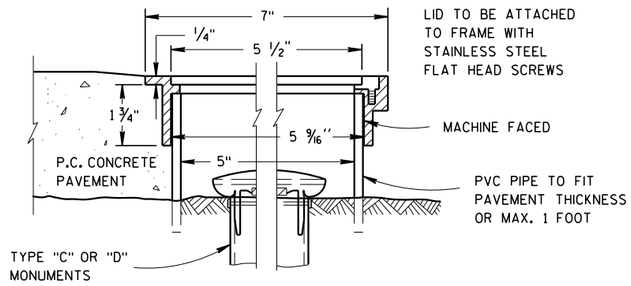
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Raymond A. Kumagai — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

6

S.D.D. 16 A 1-7

TEUTONIA AVENUE

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.2	Cumulative Vol (CY) Expanded EBS Backfill 1.3 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.8 Note 5	Mass Ordinate Note 6
101+61 AH	10161.17	0.00	73.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102+00	10200.00	38.83	84.99	0.00	0.00	0.00	114.22	0.00	0.00	0.00	114.22	0.00	0.00	0.00	114.22
102+50	10250.00	50.00	84.75	0.00	0.00	0.00	150.37	0.00	0.00	0.00	150.37	0.00	0.00	0.00	150.37
103+00	10300.00	50.00	77.20	0.00	0.00	0.00	149.95	0.00	0.00	0.00	300.32	0.00	0.00	0.00	300.32
103+50	10350.00	50.00	70.27	0.00	0.00	0.00	136.55	0.00	0.00	0.00	436.87	0.00	0.00	0.00	436.87
103+81	10381.45	31.45	66.42	0.00	0.00	0.00	79.61	0.00	0.00	0.00	516.48	0.00	0.00	0.00	516.48
104+00	10400.00	18.55	59.27	0.00	0.00	0.00	43.18	0.00	0.00	0.00	559.66	0.00	0.00	0.00	559.66
104+50	10450.00	50.00	60.70	0.00	0.03	0.00	111.08	0.00	0.03	0.00	670.74	0.03	0.00	0.00	670.71
105+00	10500.00	50.00	69.50	0.00	0.00	0.00	120.56	0.00	0.03	0.00	791.30	0.07	0.00	0.00	791.23
105+29	10529.32	29.32	67.18	0.00	0.00	0.00	74.21	0.00	0.00	0.00	865.51	0.07	0.00	0.00	865.44
105+50	10550.00	20.68	74.39	0.00	0.00	0.00	54.22	0.00	0.00	0.00	919.72	0.07	0.00	0.00	919.66
106+00	10600.00	50.00	59.04	0.00	0.00	0.00	123.55	0.00	0.00	0.00	1043.27	0.07	0.00	0.00	1043.20
106+50	10650.00	50.00	54.65	0.00	1.12	0.00	105.27	0.00	1.04	0.00	1148.54	1.31	0.00	0.00	1147.23
107+00	10700.00	50.00	78.72	0.00	0.00	0.00	123.49	0.00	1.04	0.00	1272.03	2.56	0.00	0.00	1269.47
107+50	10750.00	50.00	79.05	0.00	0.00	0.00	146.08	0.00	0.00	0.00	1418.11	2.56	0.00	0.00	1415.56
107+94	10794.14	44.14	80.17	0.00	0.18	0.00	130.15	0.00	0.15	0.00	1548.26	2.73	0.00	0.00	1545.53
108+00	10800.00	5.86	81.21	0.00	0.18	0.00	17.51	0.00	0.04	0.00	1565.77	2.78	0.00	0.00	1562.99
108+46	10845.59	45.59	80.82	0.00	0.00	0.00	136.80	0.00	0.15	0.00	1702.57	2.96	0.00	0.00	1699.61
108+50	10850.00	4.41	80.46	0.00	0.00	0.00	13.17	0.00	0.00	0.00	1715.74	2.96	0.00	0.00	1712.78
108+96	10896.47	46.47	82.19	0.00	0.00	0.00	139.97	0.00	0.00	0.00	1855.71	2.96	0.00	0.00	1852.75
109+00	10900.00	3.53	81.11	0.00	0.00	0.00	10.67	0.00	0.00	0.00	1866.38	2.96	0.00	0.00	1863.42
109+50	10950.00	50.00	77.86	0.00	0.00	0.00	147.19	0.00	0.00	0.00	2013.58	2.96	0.00	0.00	2010.62
110+00	11000.00	50.00	71.68	0.00	0.00	0.00	138.46	0.00	0.00	0.00	2152.04	2.96	0.00	0.00	2149.08
110+19	11018.92	18.92	73.25	0.00	0.00	0.00	50.78	0.00	0.00	0.00	2202.82	2.96	0.00	0.00	2199.86
110+50	11050.00	31.08	68.68	0.00	0.00	0.00	81.69	0.00	0.00	0.00	2284.51	2.96	0.00	0.00	2281.55
111+00	11100.00	50.00	66.32	0.00	0.00	0.00	125.00	0.00	0.00	0.00	2409.51	2.96	0.00	0.00	2406.55
111+50	11150.00	50.00	73.12	0.00	0.00	0.00	129.11	0.00	0.00	0.00	2538.62	2.96	0.00	0.00	2535.66
111+64	11163.75	13.75	76.49	0.00	0.06	0.00	38.10	0.00	0.02	0.00	2576.72	2.98	0.00	0.00	2573.74
112+00	11200.00	36.25	64.25	0.00	0.00	0.00	94.48	0.00	0.04	0.00	2671.19	3.03	0.00	0.00	2668.17
112+50	11250.00	50.00	56.74	0.00	0.18	0.00	112.03	0.00	0.17	0.00	2783.22	3.23	0.00	0.00	2779.99
113+00	11300.00	50.00	72.56	0.00	0.00	0.00	119.72	0.00	0.17	0.00	2902.94	3.43	0.00	0.00	2899.52
113+50	11350.00	50.00	67.91	0.00	0.00	0.00	130.06	0.00	0.00	0.00	3033.01	3.43	0.00	0.00	3029.58
114+00	11400.00	50.00	59.90	0.00	0.00	0.00	118.34	0.00	0.00	0.00	3151.35	3.43	0.00	0.00	3147.92
114+50	11450.00	50.00	76.65	0.00	0.00	0.00	126.44	0.00	0.00	0.00	3277.79	3.43	0.00	0.00	3274.36
115+00	11500.00	50.00	76.17	0.00	0.00	0.00	141.50	0.00	0.00	0.00	3419.29	3.43	0.00	0.00	3415.86
115+50	11550.00	50.00	76.00	0.00	0.04	0.00	140.90	0.00	0.04	0.00	3560.18	3.47	0.00	0.00	3556.71
116+00	11600.00	50.00	71.94	0.00	0.02	0.00	136.98	0.00	0.06	0.00	3697.17	3.54	0.00	0.00	3693.63
116+29	11628.83	28.83	69.64	0.00	0.06	0.00	75.59	0.00	0.04	0.00	3772.75	3.59	0.00	0.00	3769.16
116+50	11650.00	21.17	71.38	0.00	0.10	0.00	55.29	0.00	0.06	0.00	3828.04	3.67	0.00	0.00	3824.37
116+67	11666.54	16.54	62.28	0.00	0.46	0.00	40.94	0.00	0.17	0.00	3868.98	3.87	0.00	0.00	3865.11
117+00	11700.00	33.46	48.48	0.00	1.48	0.00	68.63	0.00	1.20	0.00	3937.61	5.31	0.00	0.00	3932.29
117+20	11719.57	19.57	54.69	0.00	0.00	0.00	37.39	0.00	0.54	0.00	3975.00	5.96	0.00	0.00	3969.04
117+50	11750.00	30.43	45.83	0.00	0.18	0.00	56.64	0.00	0.10	0.00	4031.64	6.08	0.00	0.00	4025.56
117+72	11771.65	21.65	52.30	0.00	0.00	0.00	39.34	0.00	0.07	0.00	4070.99	6.17	0.00	0.00	4064.82
118+00	11800.00	28.35	44.57	0.00	0.22	0.00	50.86	0.00	0.12	0.00	4121.84	6.30	0.00	0.00	4115.54
118+50	11850.00	50.00	48.99	0.00	0.04	0.00	86.63	0.00	0.24	0.00	4208.47	6.59	0.00	0.00	4201.88

TEUTONIA AVENUE (CONTINUED)

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut 1.0	Expanded Fill 1.2	Expanded EBS Backfill 1.3	Reduced EBS In Fill 0.8	
							Note 1	Note 2	Note 3				Note 4	Note 5	Note 6
119+00	11900.00	50.00	61.82	0.00	0.00	0.00	102.60	0.00	0.04	0.00	4311.07	6.64	0.00	0.00	4304.44
119+50	11950.00	50.00	55.95	0.00	0.00	0.00	109.05	0.00	0.00	0.00	4420.12	6.64	0.00	0.00	4413.48
120+00	12000.00	50.00	64.73	0.00	0.14	0.00	111.74	0.00	0.13	0.00	4531.86	6.79	0.00	0.00	4525.07
120+27	12027.22	27.22	66.39	0.00	0.03	0.00	66.09	0.00	0.09	0.00	4597.96	6.90	0.00	0.00	4591.06
120+50	12050.00	22.78	57.49	0.00	0.00	0.00	52.26	0.00	0.01	0.00	4650.21	6.91	0.00	0.00	4643.30
120+85	12085.36	35.36	67.33	0.00	0.00	0.00	81.73	0.00	0.00	0.00	4731.95	6.91	0.00	0.00	4725.04
121+00	12100.00	14.64	56.70	0.00	0.22	0.00	33.63	0.00	0.06	0.00	4765.57	6.98	0.00	0.00	4758.59
121+24	12124.00	24.00	58.82	0.00	0.00	0.00	51.34	0.00	0.10	0.00	4816.92	7.10	0.00	0.00	4809.82
121+50	12150.00	26.00	49.65	0.00	0.23	0.00	52.23	0.00	0.11	0.00	4869.14	7.23	0.00	0.00	4861.91
122+00	12200.00	50.00	52.11	0.00	0.01	0.00	94.22	0.00	0.22	0.00	4963.36	7.50	0.00	0.00	4955.86
122+14	12214.46	14.46	54.99	0.00	0.35	0.00	28.68	0.00	0.10	0.00	4992.04	7.62	0.00	0.00	4984.43
122+25	12225.00	10.54	51.76	0.00	0.00	0.00	20.84	0.00	0.07	0.00	5012.88	7.70	0.00	0.00	5005.18
122+50	12250.00	25.00	48.65	0.00	0.00	0.00	46.49	0.00	0.00	0.00	5059.37	7.70	0.00	0.00	5051.67
123+00	12300.00	50.00	50.80	0.00	0.00	0.00	92.08	0.00	0.00	0.00	5151.45	7.70	0.00	0.00	5143.75
123+09	12309.08	9.08	57.51	0.00	0.03	0.00	18.21	0.00	0.01	0.00	5169.66	7.70	0.00	0.00	5161.96
123+50	12350.00	40.92	45.12	0.00	0.23	0.00	77.77	0.00	0.20	0.00	5247.43	7.94	0.00	0.00	5239.49
124+00	12400.00	50.00	49.15	0.00	0.07	0.00	87.29	0.00	0.28	0.00	5334.72	8.27	0.00	0.00	5326.45
124+08	12407.78	7.78	57.62	0.00	0.00	0.00	15.38	0.00	0.01	0.00	5350.10	8.29	0.00	0.00	5341.82
124+50	12450.00	42.22	56.17	0.00	0.06	0.00	88.97	0.00	0.05	0.00	5439.07	8.34	0.00	0.00	5430.73
124+59	12459.39	9.39	58.09	0.00	0.14	0.00	19.87	0.00	0.03	0.00	5458.94	8.38	0.00	0.00	5450.55
125+00	12500.00	40.61	66.30	0.00	0.06	0.00	93.55	0.00	0.15	0.00	5552.48	8.56	0.00	0.00	5543.92
125+50	12550.00	50.00	70.24	0.00	0.00	0.00	126.43	0.00	0.06	0.00	5678.91	8.63	0.00	0.00	5670.28
126+00	12600.00	50.00	58.53	0.00	0.00	0.00	119.23	0.00	0.00	0.00	5798.14	8.63	0.00	0.00	5789.51
126+50	12650.00	50.00	53.60	0.00	1.06	0.00	103.82	0.00	0.98	0.00	5901.96	9.81	0.00	0.00	5892.16
126+86	12685.78	35.78	76.28	0.00	0.00	0.00	86.06	0.00	0.70	0.00	5988.02	10.65	0.00	0.00	5977.37
127+00	12700.00	14.22	70.93	0.00	0.00	0.00	38.77	0.00	0.00	0.00	6026.79	10.65	0.00	0.00	6016.14
127+50	12750.00	50.00	72.07	0.00	0.00	0.00	132.41	0.00	0.00	0.00	6159.20	10.65	0.00	0.00	6148.54
127+77	12777.08	27.08	77.85	0.00	0.00	0.00	75.18	0.00	0.00	0.00	6234.38	10.65	0.00	0.00	6223.73
128+00	12800.00	22.92	68.22	0.00	0.00	0.00	62.00	0.00	0.00	0.00	6296.38	10.65	0.00	0.00	6285.72
128+19	12819.16	19.16	70.71	0.00	0.00	0.00	49.29	0.00	0.00	0.00	6345.67	10.65	0.00	0.00	6335.02
128+50	12850.00	30.84	73.18	0.00	0.00	0.00	82.18	0.00	0.00	0.00	6427.85	10.65	0.00	0.00	6417.20
129+00	12900.00	50.00	79.13	0.00	0.00	0.00	141.03	0.00	0.00	0.00	6568.88	10.65	0.00	0.00	6558.22
129+50	12950.00	50.00	78.33	0.00	0.00	0.00	145.80	0.00	0.00	0.00	6714.67	10.65	0.00	0.00	6704.02
129+55	12955.24	5.24	76.79	0.00	0.00	0.00	15.05	0.00	0.00	0.00	6729.72	10.65	0.00	0.00	6719.07
130+00	13000.00	44.76	53.28	0.00	1.57	0.00	107.81	0.00	1.30	0.00	6837.54	12.21	0.00	0.00	6825.32
130+17	13017.26	17.26	64.28	0.00	5.32	0.00	37.58	0.00	2.20	0.00	6875.11	14.86	0.00	0.00	6860.26
130+46	13045.71	28.45	68.16	0.00	0.22	0.00	69.78	0.00	2.92	0.00	6944.89	18.36	0.00	0.00	6926.53
130+50	13050.00	4.29	68.23	0.00	0.17	0.00	10.84	0.00	0.03	0.00	6955.72	18.40	0.00	0.00	6937.33
131+00	13100.00	50.00	66.89	0.00	0.00	0.00	125.11	0.00	0.16	0.00	7080.84	18.58	0.00	0.00	7062.25
131+47	13146.51	46.51	73.73	0.00	0.00	0.00	121.12	0.00	0.00	0.00	7201.95	18.58	0.00	0.00	7183.37
131+50	13150.00	3.49	73.92	0.00	0.00	0.00	9.54	0.00	0.00	0.00	7211.49	18.58	0.00	0.00	7192.91
132+00	13200.00	50.00	78.02	0.00	0.00	0.00	140.69	0.00	0.00	0.00	7352.18	18.58	0.00	0.00	7333.59
132+50	13250.00	50.00	76.17	0.00	0.00	0.00	142.77	0.00	0.00	0.00	7494.95	18.58	0.00	0.00	7476.36
133+00	13300.00	50.00	78.44	0.00	0.00	0.00	143.16	0.00	0.00	0.00	7638.10	18.58	0.00	0.00	7619.52
133+50	13350.00	50.00	71.24	0.00	0.35	0.00	138.59	0.00	0.32	0.00	7776.70	18.97	0.00	0.00	7757.72
134+00	13400.00	50.00	64.94	0.00	0.42	0.00	126.09	0.00	0.71	0.00	7902.79	19.83	0.00	0.00	7882.96

TEUTONIA AVENUE (CONTINUED)

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.2	Cumulative Vol (CY) Expanded EBS Backfill 1.3	Cumulative Vol (CY) Reduced EBS In Fill 0.8	Mass Ordinate
							Note 1	Note 2	Note 3				Note 4	Note 5	Note 6
134+50	13450.00	50.00	61.44	0.00	1.00	0.00	117.02	0.00	1.31	0.00	8019.81	21.41	0.00	0.00	7998.40
135+00	13500.00	50.00	67.17	0.00	0.23	0.00	119.08	0.00	1.14	0.00	8138.89	22.77	0.00	0.00	8116.12
135+50	13550.00	50.00	72.49	0.00	0.00	0.00	129.31	0.00	0.21	0.00	8268.21	23.03	0.00	0.00	8245.18
136+00	13600.00	50.00	70.09	0.00	0.00	0.00	132.02	0.00	0.00	0.00	8400.23	23.03	0.00	0.00	8377.20
136+50	13650.00	50.00	74.77	0.00	0.00	0.00	134.13	0.00	0.00	0.00	8534.35	23.03	0.00	0.00	8511.33
137+00	13700.00	50.00	79.89	0.00	0.00	0.00	143.20	0.00	0.00	0.00	8677.56	23.03	0.00	0.00	8654.53
137+50	13750.00	50.00	74.88	0.00	0.00	0.00	143.31	0.00	0.00	0.00	8820.86	23.03	0.00	0.00	8797.84
138+00	13800.00	50.00	75.36	0.00	0.00	0.00	139.11	0.00	0.00	0.00	8959.98	23.03	0.00	0.00	8936.95
138+50	13850.00	50.00	81.02	0.00	0.00	0.00	144.80	0.00	0.00	0.00	9104.77	23.03	0.00	0.00	9081.74
139+00	13900.00	50.00	75.18	0.00	0.00	0.00	144.63	0.00	0.00	0.00	9249.40	23.03	0.00	0.00	9226.37
139+50	13950.00	50.00	69.59	0.00	0.00	0.00	134.05	0.00	0.00	0.00	9383.45	23.03	0.00	0.00	9360.42
140+00	14000.00	50.00	84.38	0.00	0.09	0.00	142.56	0.00	0.08	0.00	9526.01	23.13	0.00	0.00	9502.88
140+50	14050.00	50.00	91.45	0.00	0.00	0.00	162.81	0.00	0.08	0.00	9688.82	23.23	0.00	0.00	9665.59
141+00	14100.00	50.00	86.56	0.00	0.00	0.00	164.82	0.00	0.00	0.00	9853.64	23.23	0.00	0.00	9830.41
141+50	14150.00	50.00	79.28	0.00	0.00	0.00	153.56	0.00	0.00	0.00	10007.20	23.23	0.00	0.00	9983.97
142+00	14200.00	50.00	75.13	0.00	0.00	0.00	142.97	0.00	0.00	0.00	10150.17	23.23	0.00	0.00	10126.94
142+11	14211.19	11.19	73.20	0.00	0.00	0.00	30.74	0.00	0.00	0.00	10180.91	23.23	0.00	0.00	10157.68
142+50	14250.00	38.81	64.77	0.00	0.00	0.00	99.16	0.00	0.00	0.00	10280.07	23.23	0.00	0.00	10256.84
143+00	14300.00	50.00	56.71	0.00	0.00	0.00	112.48	0.00	0.00	0.00	10392.55	23.23	0.00	0.00	10369.32
143+50	14350.00	50.00	63.77	0.00	0.00	0.00	111.56	0.00	0.00	0.00	10504.10	23.23	0.00	0.00	10480.88
144+00	14400.00	50.00	68.40	0.00	0.00	0.00	122.38	0.00	0.00	0.00	10626.48	23.23	0.00	0.00	10603.25
144+11	14410.99	10.99	77.78	0.00	0.00	0.00	29.75	0.00	0.00	0.00	10656.23	23.23	0.00	0.00	10633.01
144+50	14450.00	39.01	78.81	0.00	0.00	0.00	113.12	0.00	0.00	0.00	10769.36	23.23	0.00	0.00	10746.13
145+00	14500.00	50.00	83.60	0.00	0.00	0.00	150.38	0.00	0.00	0.00	10919.74	23.23	0.00	0.00	10896.51
145+50	14550.00	50.00	53.20	0.00	0.00	0.00	126.67	0.00	0.00	0.00	11046.40	23.23	0.00	0.00	11023.17
146+00	14600.00	50.00	70.52	0.00	0.00	0.00	114.56	0.00	0.00	0.00	11160.96	23.23	0.00	0.00	11137.73
146+50	14650.00	50.00	67.05	0.00	0.00	0.00	127.38	0.00	0.00	0.00	11288.34	23.23	0.00	0.00	11265.11
147+00	14700.00	50.00	81.58	0.00	0.00	0.00	137.62	0.00	0.00	0.00	11425.96	23.23	0.00	0.00	11402.73
147+50	14750.00	50.00	60.45	0.00	0.00	0.00	131.51	0.00	0.00	0.00	11557.47	23.23	0.00	0.00	11534.24
148+00	14800.00	50.00	49.22	0.00	0.42	0.00	101.55	0.00	0.39	0.00	11659.01	23.70	0.00	0.00	11635.32
148+50	14850.00	50.00	55.80	0.00	0.00	0.00	97.24	0.00	0.39	0.00	11756.25	24.16	0.00	0.00	11732.09
149+00	14900.00	50.00	69.97	0.00	0.00	0.00	116.45	0.00	0.00	0.00	11872.71	24.16	0.00	0.00	11848.55
149+50	14950.00	50.00	52.82	0.00	0.00	0.00	113.69	0.00	0.00	0.00	11986.40	24.16	0.00	0.00	11962.24
149+76 BK	14976.32	26.32	62.74	0.00	0.00	0.00	56.32	0.00	0.00	0.00	12042.73	24.16	0.00	0.00	12018.56
					Column totals		12156.95	0.00	20.13	0.00					

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\QUANTITY\FINAL PLAN QUANTITIES\EW_DATA_SHEETS.ppt PLOT DATE : 11/1/2018 1:13:57 PM PLOT BY : nstyka PLOT NAME : 090101_EW1 PLOT SCALE : 1:1

NORTH AVENUE

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.2	Cumulative Vol (CY) Expanded EBS Backfill 1.3 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.8 Note 5	Mass Ordinate Note 6
48+73 AH	4872.69	0.00	77.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+00	4900.00	27.31	79.96	0.00	0.00	0.00	79.76	0.00	0.00	0.00	79.76	0.00	0.00	0.00	79.76
49+50	4950.00	50.00	92.60	0.00	0.00	0.00	159.78	0.00	0.00	0.00	239.53	0.00	0.00	0.00	239.53
49+60	4959.89	9.89	98.73	0.00	0.00	0.00	35.04	0.00	0.00	0.00	274.57	0.00	0.00	0.00	274.57
49+75	4974.69	14.80	44.18	0.00	0.03	0.00	39.17	0.00	0.01	0.00	313.74	0.01	0.00	0.00	313.73
49+75 BK	4975.05	0.36	42.82	0.00	0.04	0.00	0.58	0.00	0.00	0.00	314.32	0.01	0.00	0.00	314.31
50+25 AH	5024.93	0.00	25.25	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+50	5049.61	24.68	66.48	0.00	0.42	0.00	41.92	0.00	0.69	0.00	41.92	0.83	0.00	0.00	41.10
50+50	5050.00	0.39	66.50	0.00	0.41	0.00	0.96	0.00	0.01	0.00	42.88	0.84	0.00	0.00	42.05
51+00	5100.00	50.00	70.10	0.00	0.28	0.00	126.48	0.00	0.64	0.00	169.37	1.60	0.00	0.00	167.76
51+50 BK	5150.00	50.00	37.35	0.00	0.00	0.00	99.49	0.00	0.26	0.00	268.86	1.91	0.00	0.00	266.94
		Column totals					583.18	0.00	1.60	0.00					

MEINECKE AVENUE

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS In Fill	
											1.0	1.2	1.3	0.8	
							Note 1	Note 2	Note 3				Note 4	Note 5	Note 6
49+10 AH	4910.02	0.00	57.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+50	4950.00	39.98	61.91	0.00	0.00	0.00	88.30	0.00	0.00	0.00	88.30	0.00	0.00	0.00	88.30
49+57	4956.73	6.73	62.84	0.00	0.00	0.00	15.55	0.00	0.00	0.00	103.85	0.00	0.00	0.00	103.85
49+62	4962.00	5.27	69.26	0.00	0.00	0.00	12.89	0.00	0.00	0.00	116.74	0.00	0.00	0.00	116.74
49+77 BK	4976.85	14.85	34.91	0.00	0.00	0.00	28.65	0.00	0.00	0.00	145.39	0.00	0.00	0.00	145.39
50+23 AH	5023.13	0.00	35.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+36	5036.22	13.09	65.88	0.00	0.00	0.00	24.46	0.00	0.00	0.00	24.46	0.00	0.00	0.00	24.46
50+42	5042.17	5.95	65.21	0.00	0.00	0.00	14.44	0.00	0.00	0.00	38.91	0.00	0.00	0.00	38.91
50+50	5050.00	7.83	79.85	0.00	0.00	0.00	21.03	0.00	0.00	0.00	59.94	0.00	0.00	0.00	59.94
50+59	5058.56	8.56	78.78	0.00	0.00	0.00	25.15	0.00	0.00	0.00	85.09	0.00	0.00	0.00	85.09
50+81	5080.58	22.02	73.87	0.00	0.00	0.00	62.25	0.00	0.00	0.00	147.33	0.00	0.00	0.00	147.33
51+00	5100.00	19.42	57.67	0.00	0.00	0.00	47.31	0.00	0.00	0.00	194.64	0.00	0.00	0.00	194.64
51+38 BK	5138.33	38.33	57.00	0.00	0.00	0.00	81.39	0.00	0.00	0.00	276.03	0.00	0.00	0.00	276.03
					Column totals		421.43	0.00	0.00	0.00					

WRIGHT STREET

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS In Fill	
							Note 1	Note 2	Note 3		1.0	1.2	1.3 Note 4	0.8 Note 5	Note 6
49+51 AH	4951.00	0.00	51.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+63	4963.00	12.00	49.56	0.00	0.00	0.00	22.46	0.00	0.00	0.00	22.46	0.00	0.00	0.00	22.46
49+77 BK	4977.00	14.00	34.00	0.00	0.00	0.00	21.66	0.00	0.00	0.00	44.13	0.00	0.00	0.00	44.13
50+23 AH	5023.00	0.00	32.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+37	5037.00	14.00	51.22	0.00	0.00	0.00	21.78	0.00	0.00	0.00	21.78	0.00	0.00	0.00	21.78
50+43	5043.00	6.00	68.69	0.00	0.00	0.00	13.32	0.00	0.00	0.00	35.10	0.00	0.00	0.00	35.10
50+47 BK	5047.00	4.00	53.50	0.00	0.00	0.00	9.05	0.00	0.00	0.00	44.15	0.00	0.00	0.00	44.15
					Column totals		88.28	0.00	0.00	0.00					

CLARKE STREET

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS In Fill	
							Note 1	Note 2	Note 3		1.0	1.2	1.3 Note 4	0.8 Note 5	Note 6
49+29 AH	4929.00	0.00	50.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+50	4950.00	21.00	51.59	0.00	0.00	0.00	39.57	0.00	0.00	0.00	39.57	0.00	0.00	0.00	39.57
49+60	4960.00	10.00	53.76	0.00	0.00	0.00	19.51	0.00	0.00	0.00	59.07	0.00	0.00	0.00	59.07
49+64	4964.00	4.00	56.80	0.00	0.00	0.00	8.19	0.00	0.00	0.00	67.26	0.00	0.00	0.00	67.26
49+77 BK	4977.00	13.00	29.41	0.00	0.00	0.00	20.75	0.00	0.00	0.00	88.02	0.00	0.00	0.00	88.02
50+23 AH	5023.00	0.00	31.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.02	0.00	0.00	0.00	0.00
50+33	5033.00	10.00	59.46	0.00	0.00	0.00	16.76	0.00	0.00	0.00	104.78	0.00	0.00	0.00	16.76
50+42	5042.00	9.00	55.61	0.00	0.00	0.00	16.24	0.00	0.00	0.00	16.24	0.00	0.00	0.00	16.24
50+50	5050.00	8.00	55.73	0.00	0.00	0.00	16.49	0.00	0.00	0.00	32.73	0.00	0.00	0.00	32.73
50+67 BK	5067.00	17.00	53.97	0.00	0.00	0.00	35.38	0.00	0.00	0.00	140.16	0.00	0.00	0.00	52.14
					Column totals		172.89	0.00	0.00	0.00					

CENTER STREET

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.2	Cumulative Vol (CY) Expanded EBS Backfill 1.30 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
49+05	AH	4905.00	0.00	50.15	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+50		4950.00	45.00	51.59	0.00	0.00	0.00	84.78	0.00	0.05	0.00	84.78	0.06	0.00	0.00	84.72
49+55		4955.00	5.00	53.76	0.00	0.00	0.00	9.75	0.00	0.00	0.00	94.54	0.06	0.00	0.00	94.48
49+65		4965.00	10.00	56.80	0.00	0.00	0.00	20.47	0.00	0.00	0.00	115.01	0.06	0.00	0.00	114.95
49+75	BK	4975.00	10.00	29.41	0.00	0.00	0.00	15.96	0.00	0.00	0.00	130.98	0.06	0.00	0.00	130.92
50+22	AH	5022.00	0.00	51.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+27		5027.00	5.00	108.25	0.00	0.00	0.00	14.82	0.00	0.00	0.00	14.82	0.00	0.00	0.00	14.82
50+39		5039.00	12.00	93.19	0.00	0.00	0.00	44.76	0.00	0.00	0.00	59.59	0.00	0.00	0.00	59.59
50+50		5050.00	11.00	92.48	0.00	0.00	0.00	37.82	0.00	0.00	0.00	97.41	0.00	0.00	0.00	97.41
51+00		5100.00	50.00	78.73	0.00	0.00	0.00	158.53	0.00	0.00	0.00	255.94	0.00	0.00	0.00	255.94
51+25	BK	5125.00	25.00	76.22	0.00	0.00	0.00	71.74	0.00	0.00	0.00	327.67	0.00	0.00	0.00	327.67
							Column totals	386.91	0.00	0.05	0.00					

HADLEY STREET

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS In Fill	
							Note 1	Note 2	Note 3		1.0	1.2	1.3 Note 4	0.8 Note 5	Note 6
49+32 AH	4932.36	0.00	64.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+50	4950.00	17.64	69.15	0.00	0.00	0.00	45.18	0.00	0.00	0.00	45.18	0.00	0.00	0.00	45.18
49+54	4954.37	4.37	72.08	0.00	0.00	0.00	11.43	0.00	0.00	0.00	56.61	0.00	0.00	0.00	56.61
49+72	4972.42	18.05	24.71	0.00	0.00	0.00	32.35	0.00	0.00	0.00	88.96	0.00	0.00	0.00	88.96
49+76 BK	4976.22	3.80	0.08	0.00	0.00	0.00	1.74	0.00	0.00	0.00	90.70	0.00	0.00	0.00	90.70
50+24 AH	5023.57	0.00	34.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+32	5031.97	8.40	74.16	0.00	0.00	0.00	16.93	0.00	0.00	0.00	16.93	0.00	0.00	0.00	16.93
50+49	5048.93	16.96	59.08	0.00	0.00	0.00	41.85	0.00	0.00	0.00	58.78	0.00	0.00	0.00	58.78
50+50	5050.00	1.07	59.33	0.00	0.00	0.00	2.35	0.00	0.00	0.00	61.12	0.00	0.00	0.00	61.12
50+74 BK	5073.91	23.91	58.31	0.00	0.00	0.00	52.09	0.00	0.00	0.00	113.21	0.00	0.00	0.00	113.21
		Column totals					203.92	0.00	0.00	0.00					

ALBANY PLACE

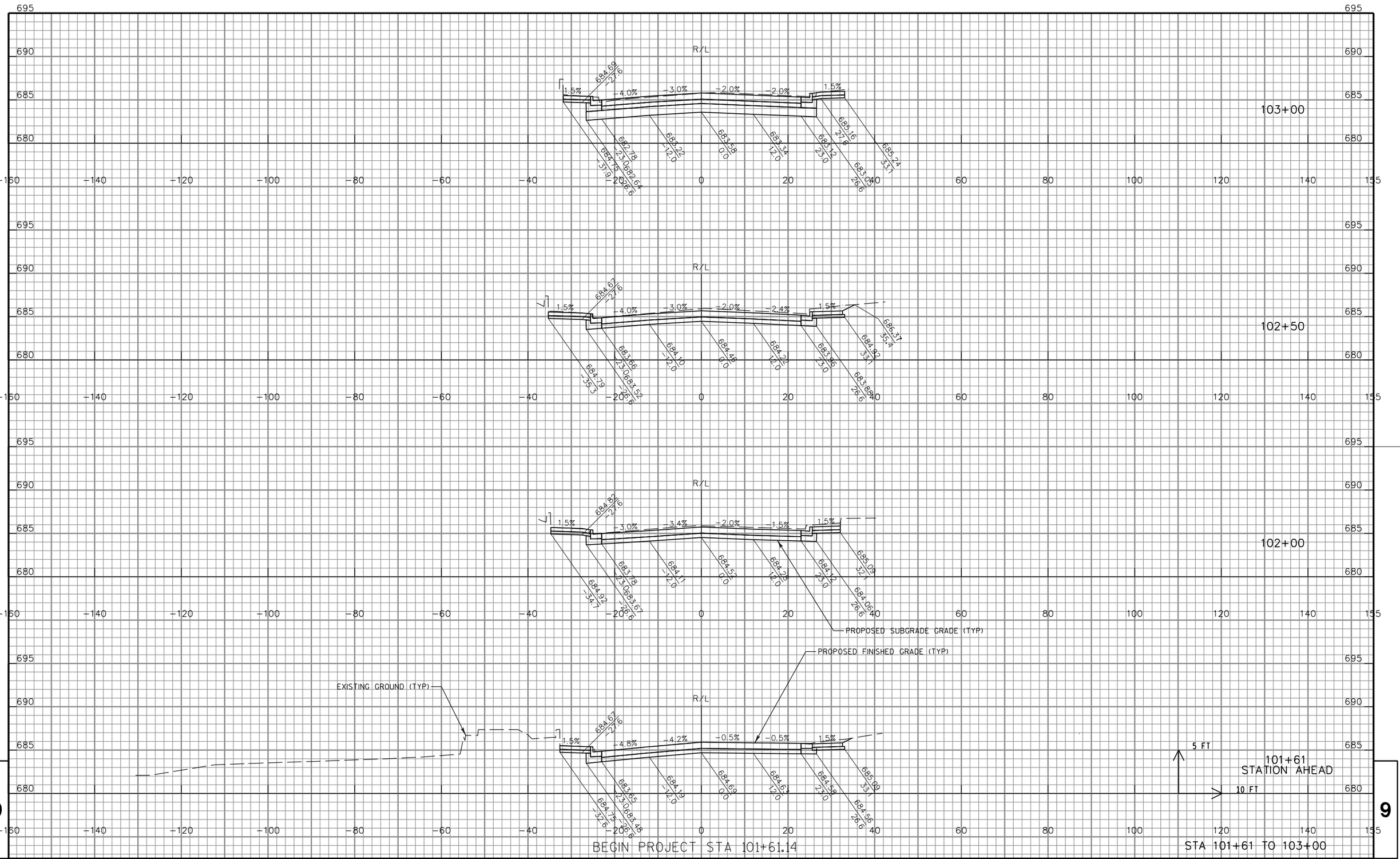
STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut 1.0	Expanded Fill 1.2	Expanded EBS Backfill 1.3	Reduced EBS In Fill 0.8	
							Note 1	Note 2	Note 3				Note 4	Note 5	Note 6
50+24 AH	5024.00	0.00	18.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+28	5028.00	4.00	36.67	0.00	0.00	0.00	5.43	0.00	0.00	0.00	5.43	0.00	0.00	0.00	5.43
50+38	5038.00	10.00	37.16	0.00	0.00	0.00	13.67	0.00	0.00	0.00	19.10	0.00	0.00	0.00	19.10
50+50	5050.00	12.00	38.40	0.00	0.00	0.00	16.79	0.00	0.00	0.00	35.90	0.00	0.00	0.00	35.90
50+63 BK	5063.00	13.00	37.55	0.00	0.00	0.00	18.28	0.00	0.00	0.00	54.18	0.00	0.00	0.00	54.18
Column totals							54.18	0.00	0.00	0.00					

LOCUST STREET

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS In Fill	
											1.0	1.2	1.3	0.8	
							Note 1	Note 2	Note 3				Note 4	Note 5	Note 6
94+60 AH	9460.00	0.00	48.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95+00	9500.00	40.00	289.90	0.00	0.02	0.00	429.48	0.00	0.03	0.00	429.48	0.04	0.00	0.00	429.45
95+50	9550.00	50.00	133.47	0.00	0.00	0.00	392.01	0.00	0.02	0.00	821.49	0.06	0.00	0.00	821.43
96+00	9600.00	50.00	163.06	0.00	0.00	0.00	301.96	0.00	0.00	0.00	1123.45	0.06	0.00	0.00	1123.40
96+04	9604.00	4.00	163.44	0.00	0.00	0.00	24.19	0.00	0.00	0.00	1147.64	0.06	0.00	0.00	1147.58
96+47	9647.00	43.00	186.56	0.00	0.00	0.00	297.11	0.00	0.00	0.00	1444.75	0.06	0.00	0.00	1444.70
96+50	9650.00	3.00	185.97	0.00	0.00	0.00	20.70	0.00	0.00	0.00	1465.45	0.06	0.00	0.00	1465.39
96+73 BK	9673.00	23.00	145.11	0.00	0.00	0.00	123.61	0.00	0.00	0.00	1589.06	0.06	0.00	0.00	1589.00
97+20 AH	9720.00	0.00	59.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1589.06	0.06	0.00	0.00	0.00
97+24	9724.00	4.00	80.68	0.00	0.00	0.00	10.41	0.00	0.00	0.00	1599.47	0.06	0.00	0.00	10.41
97+50	9750.00	26.00	144.33	0.00	0.52	0.00	108.34	0.00	0.25	0.00	1707.81	0.36	0.00	0.00	118.45
97+60	9760.00	10.00	132.04	0.00	0.00	0.00	51.18	0.00	0.10	0.00	1758.99	0.47	0.00	0.00	169.51
97+89 BK	9789.00	29.00	68.45	0.00	0.00	0.00	107.67	0.00	0.00	0.00	1866.66	0.47	0.00	0.00	277.18
						Column totals	1866.66	0.00	0.39	0.00					

GROELING AVENUE

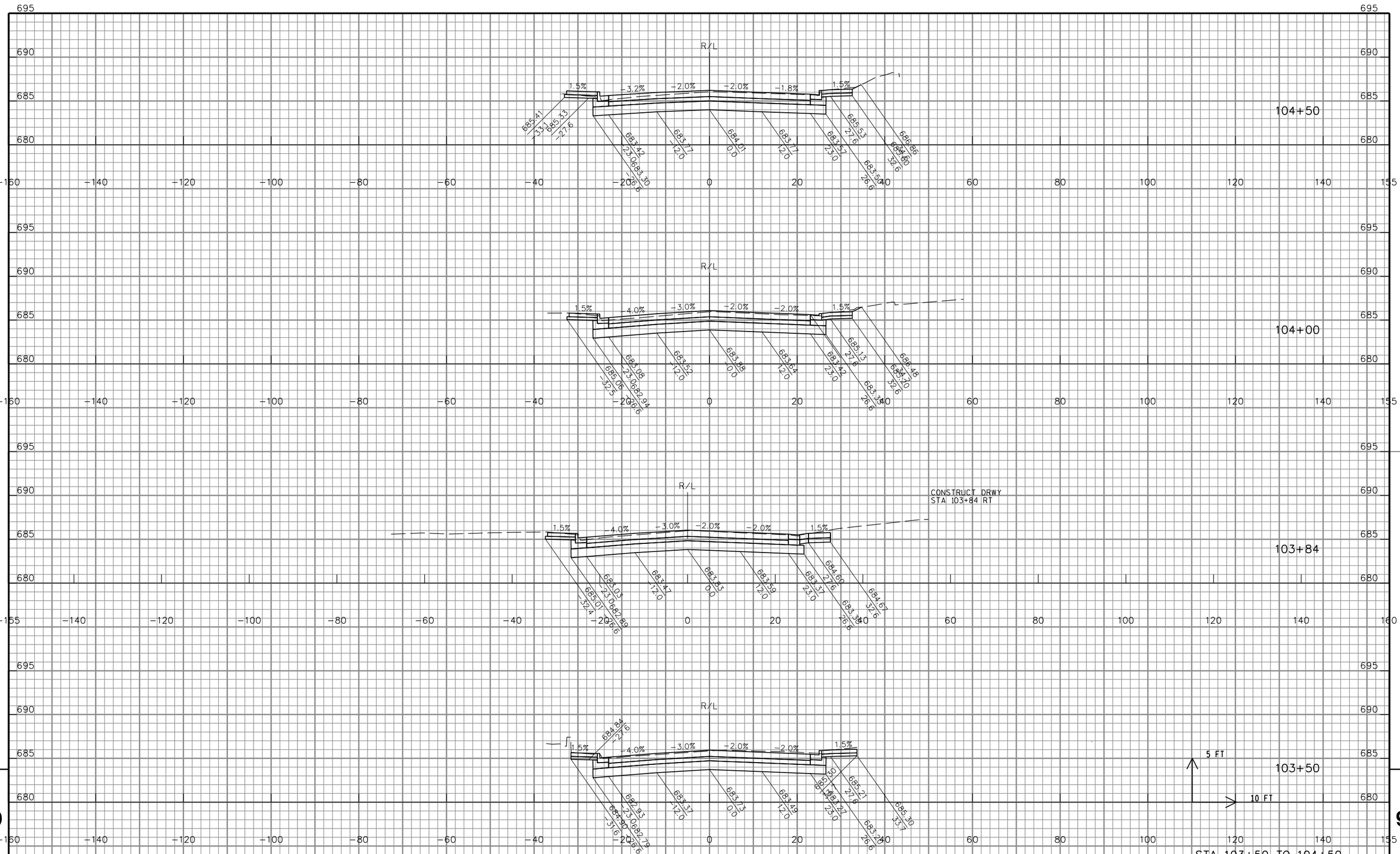
STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.2	Cumulative Vol (CY) Expanded EBS Backfill 1.3 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.8 Note 5	Mass Ordinate Note 6
49+35 AH	4935.00	0.00	37.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49+50	4950.00	15.00	38.71	0.00	0.00	0.00	21.51	0.00	0.00	0.00	21.51	0.00	0.00	0.00	21.51
49+60	4960.00	10.00	47.08	0.00	0.00	0.00	15.89	0.00	0.00	0.00	37.39	0.00	0.00	0.00	37.39
49+70	4970.00	10.00	49.05	0.00	0.00	0.00	17.80	0.00	0.00	0.00	55.19	0.00	0.00	0.00	55.19
49+76 BK	4976.00	6.00	20.78	0.00	0.00	0.00	7.76	0.00	0.00	0.00	62.95	0.00	0.00	0.00	62.95
50+24 AH	5024.00	0.00	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50+28	5028.00	4.00	50.22	0.00	0.00	0.00	5.86	0.00	0.00	0.00	5.86	0.00	0.00	0.00	5.86
50+42	5042.00	14.00	57.86	0.00	0.00	0.00	28.02	0.00	0.00	0.00	33.88	0.00	0.00	0.00	33.88
50+50	5050.00	8.00	55.32	0.00	0.00	0.00	16.77	0.00	0.00	0.00	50.65	0.00	0.00	0.00	50.65
50+67 BK	5067.00	17.00	46.15	0.00	0.00	0.00	31.94	0.00	0.00	0.00	82.59	0.00	0.00	0.00	82.59
					Column totals		145.55	0.00	0.00	0.00					



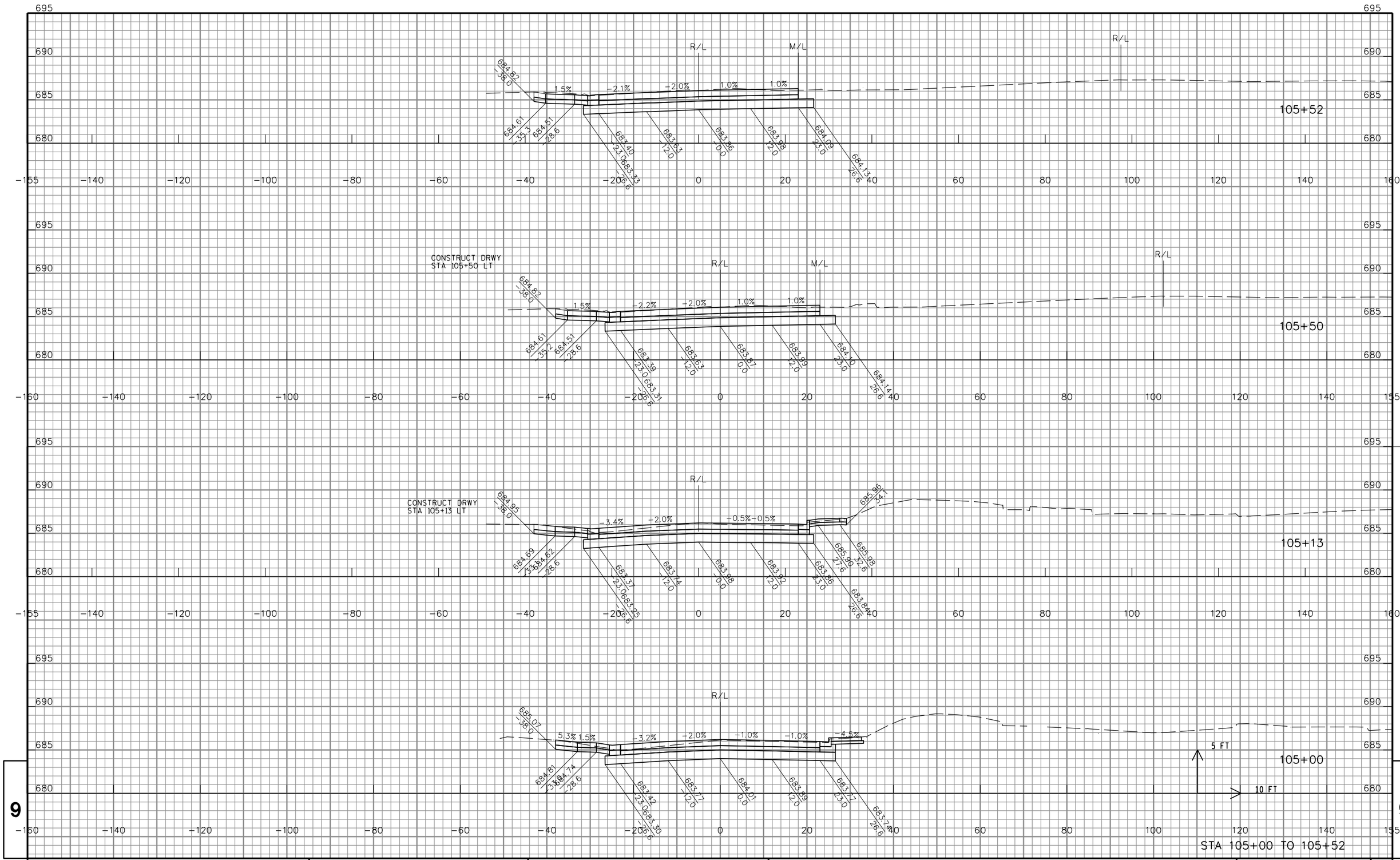
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9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 355 E



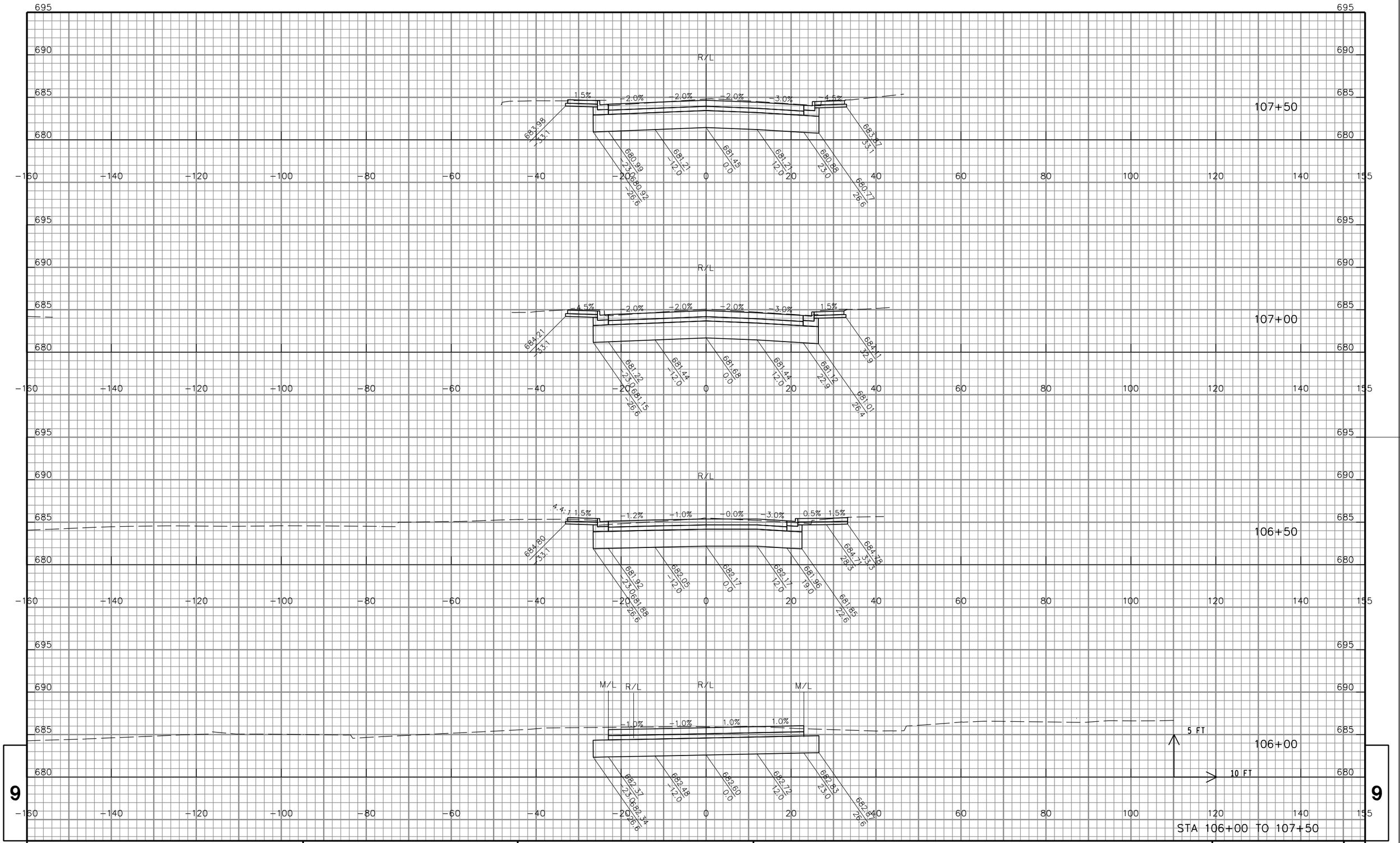
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 356 E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 357 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

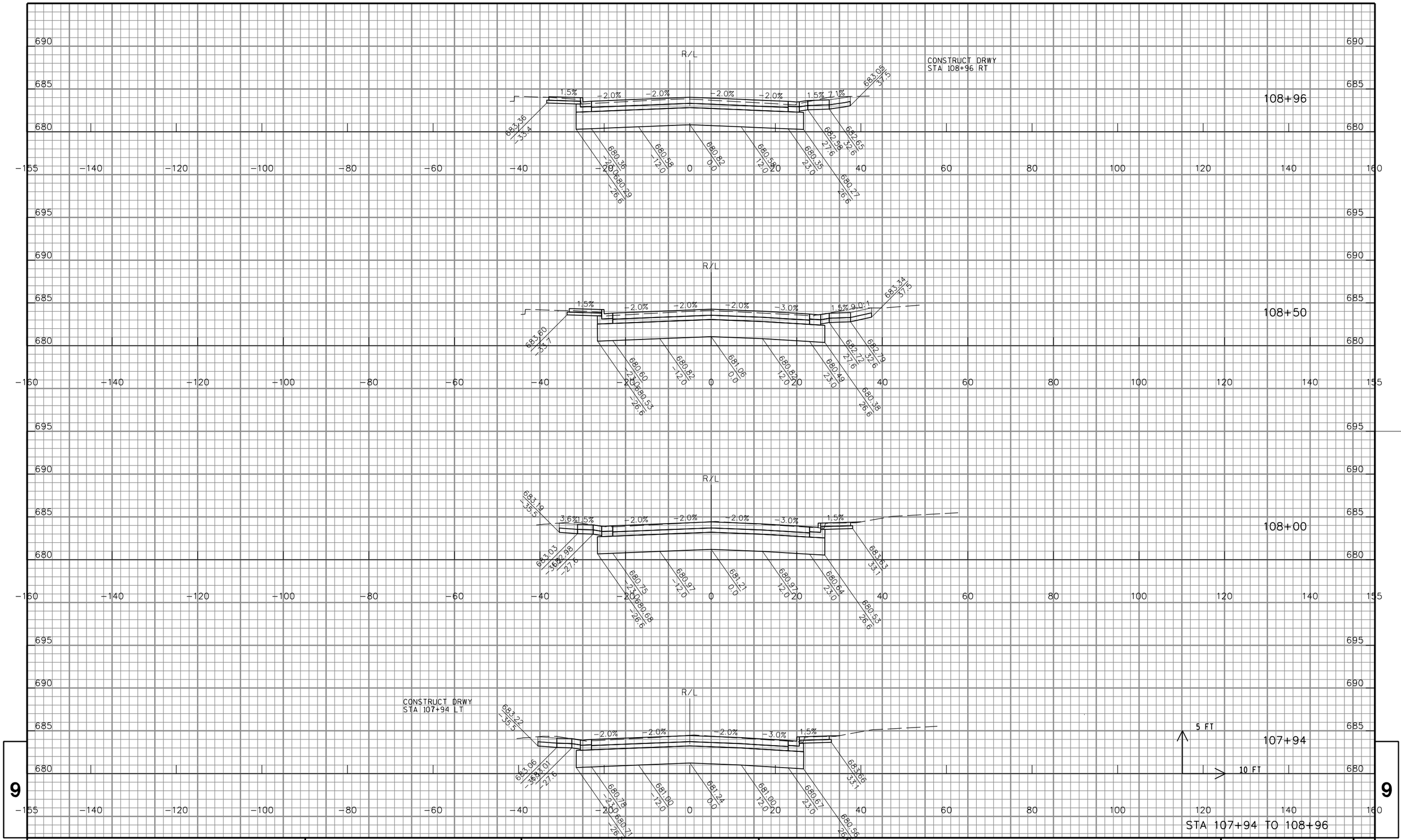
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 358 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

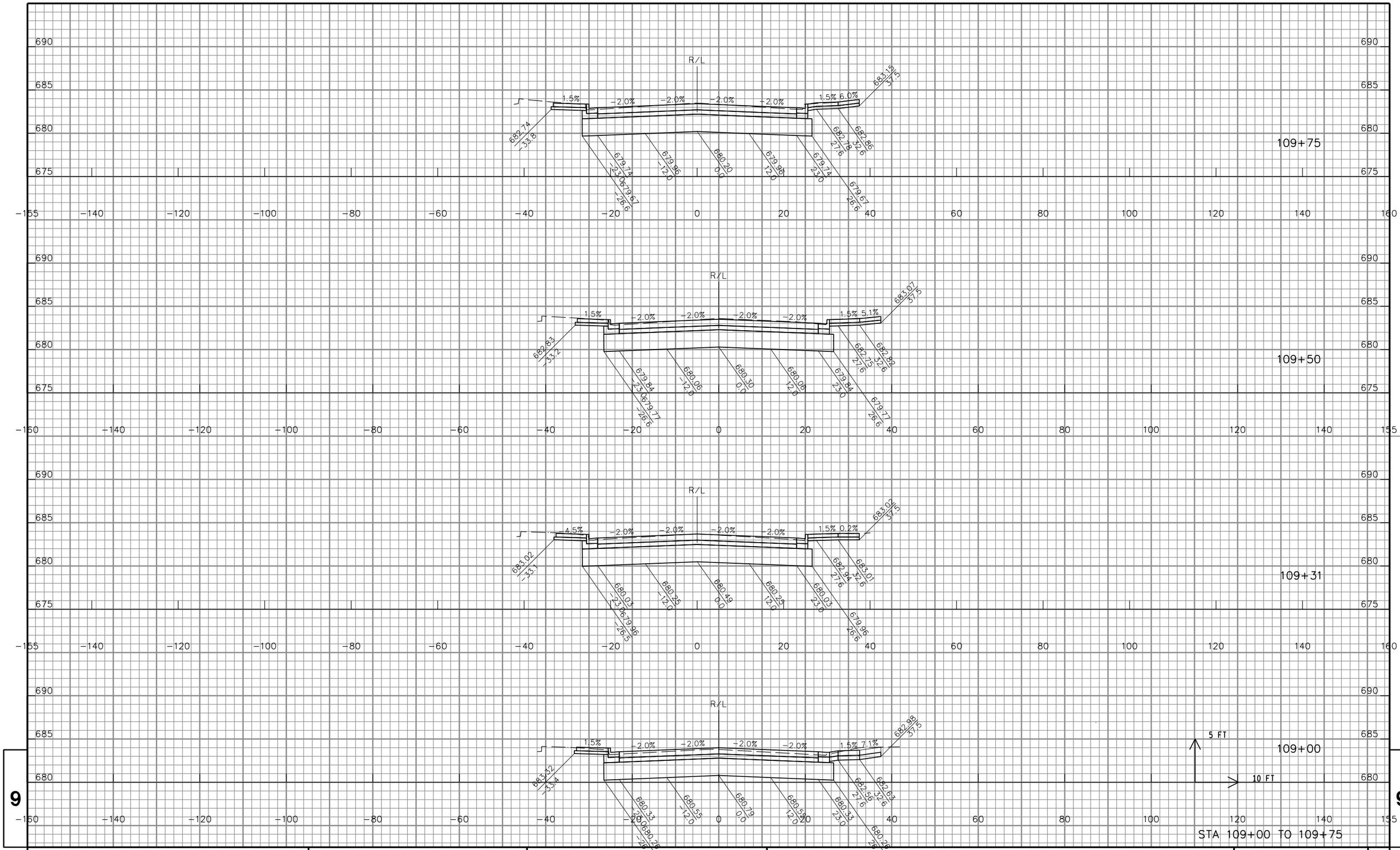
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 359 E

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WISDOT/CADDS SHEET 21

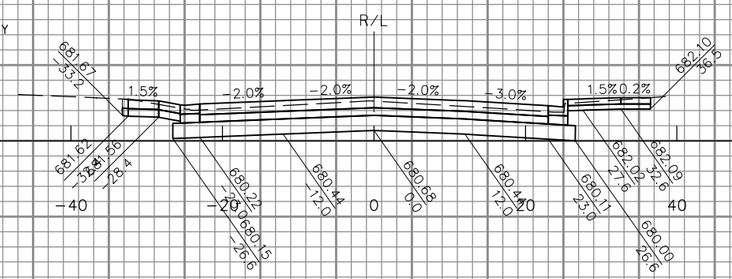


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 360 E

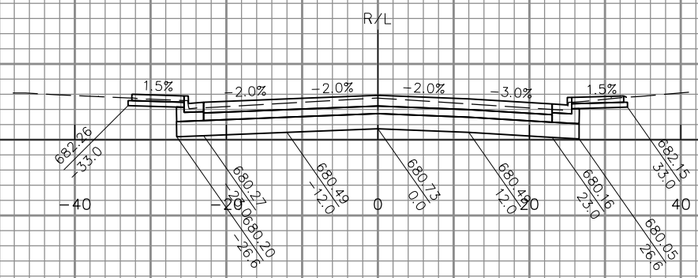
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WISDOT/CADDS SHEET 21

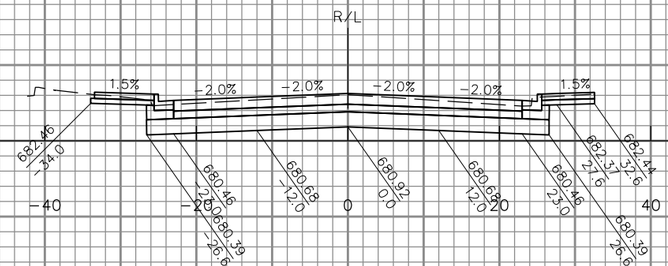
CONSTRUCT DRWY
STA 111+14 LT



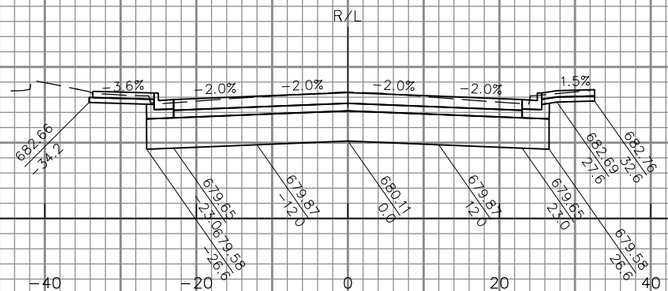
111+14



111+00



110+50



110+00

5 FT
10 FT

STA 110+00 TO 111+14

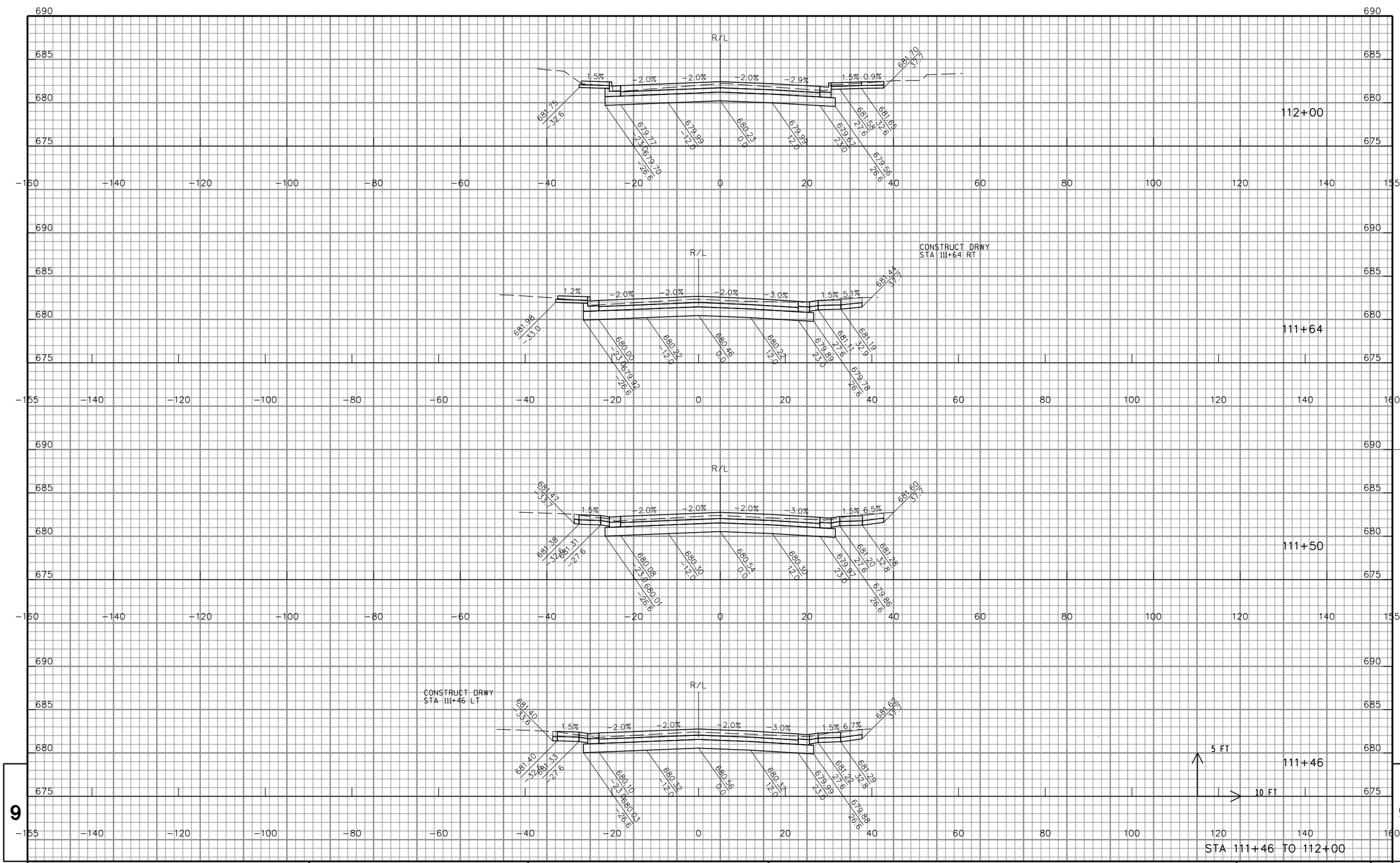
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9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 361 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

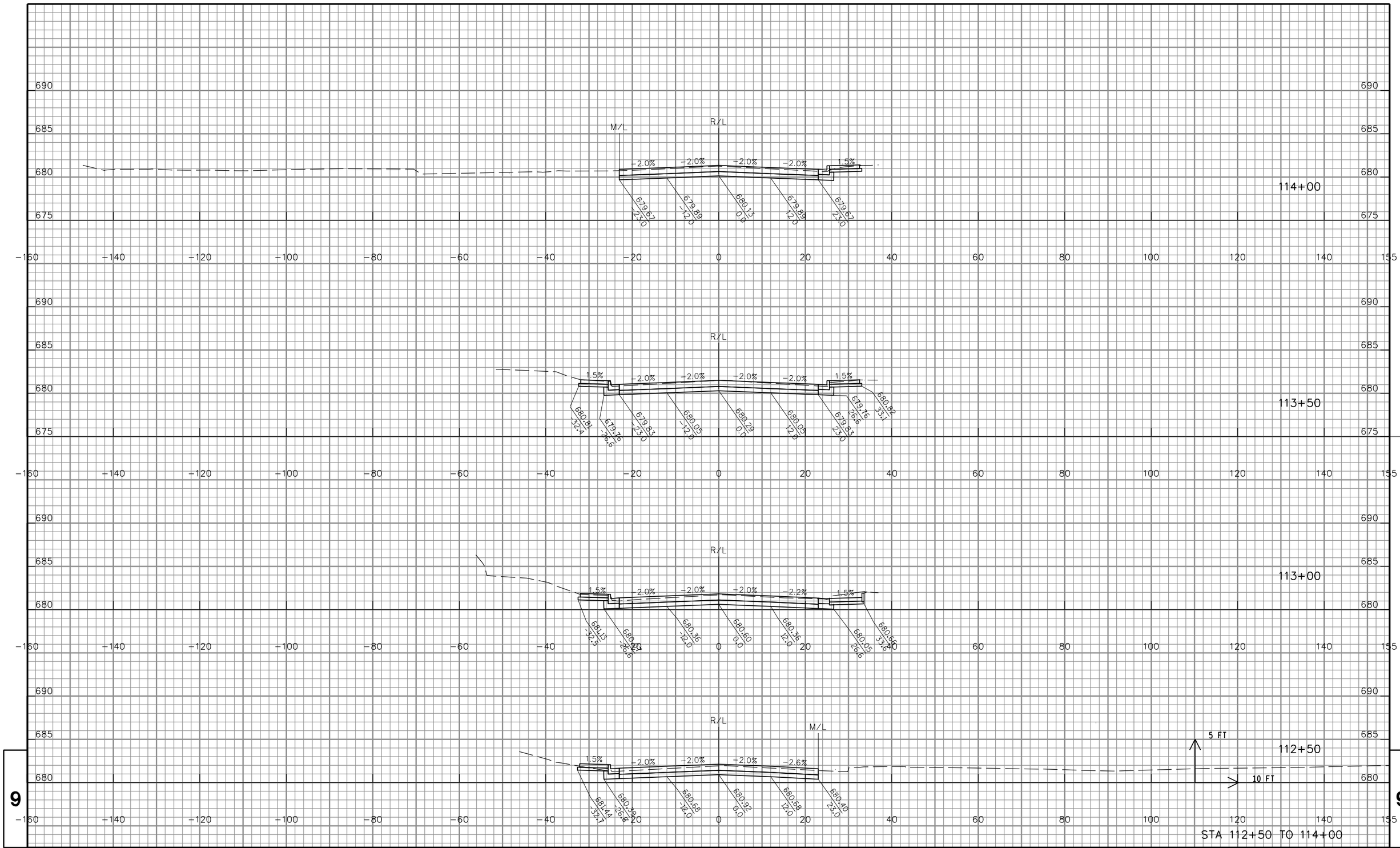
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 362 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

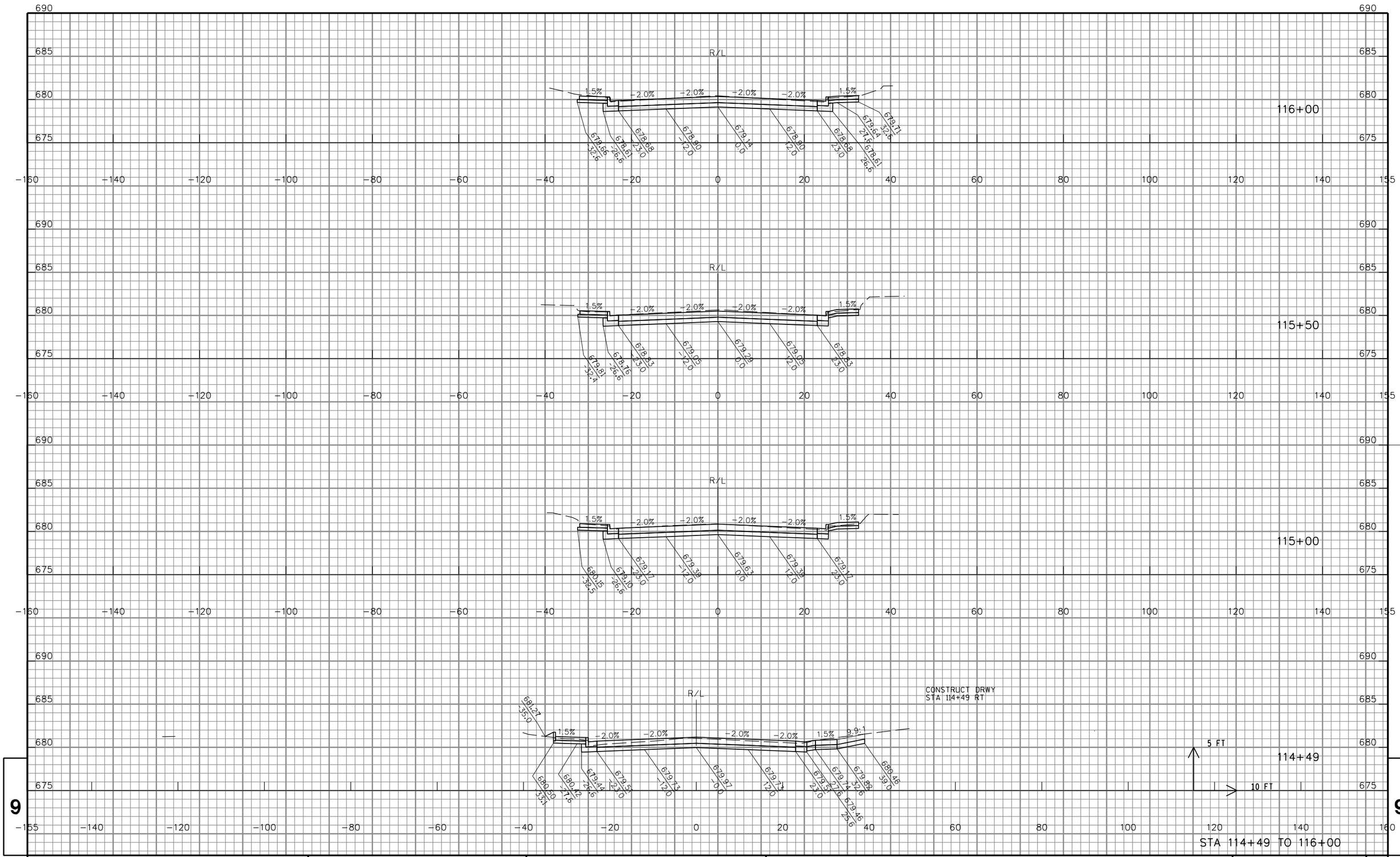


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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 363 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

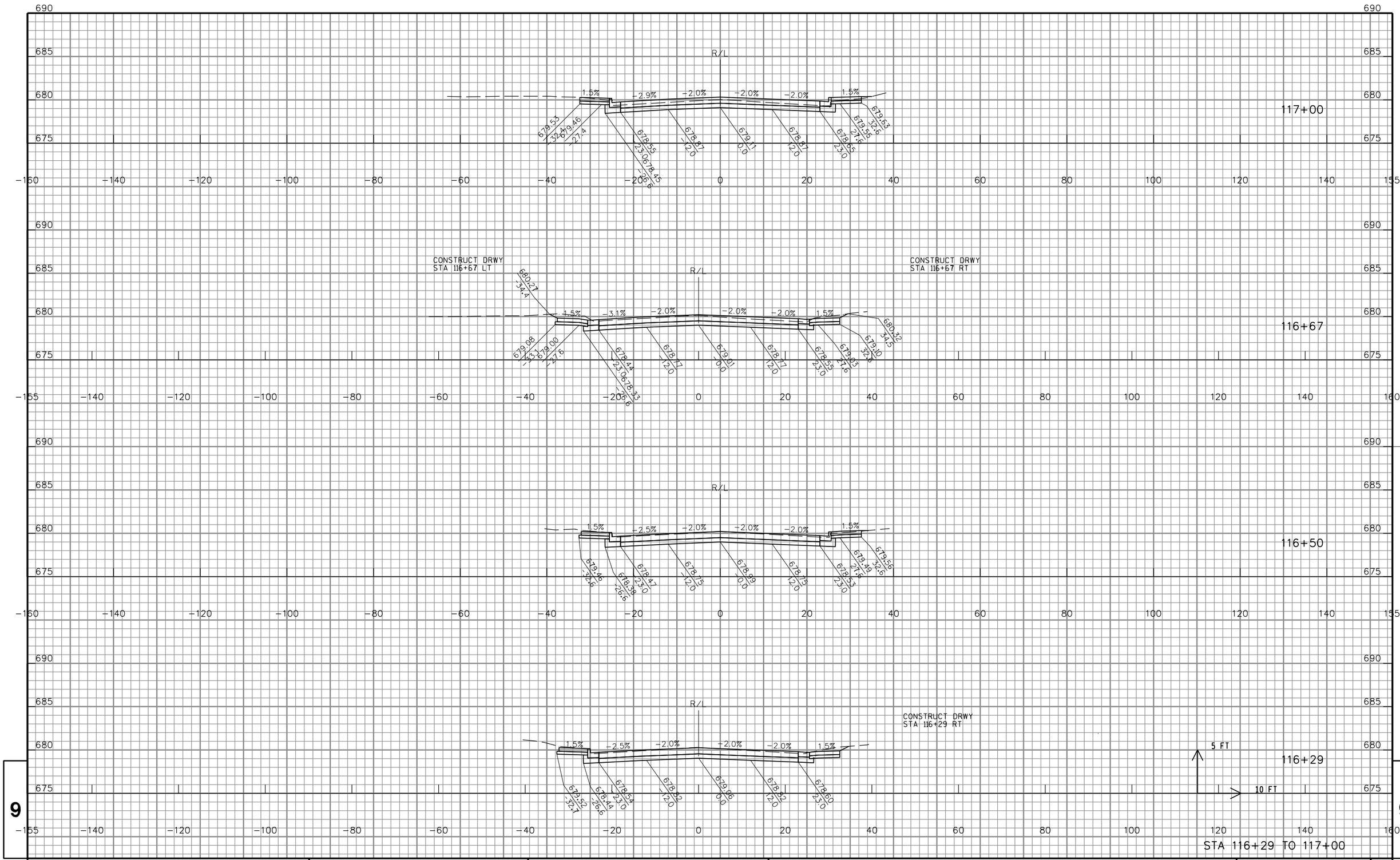


STA 114+49 TO 116+00

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 364 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

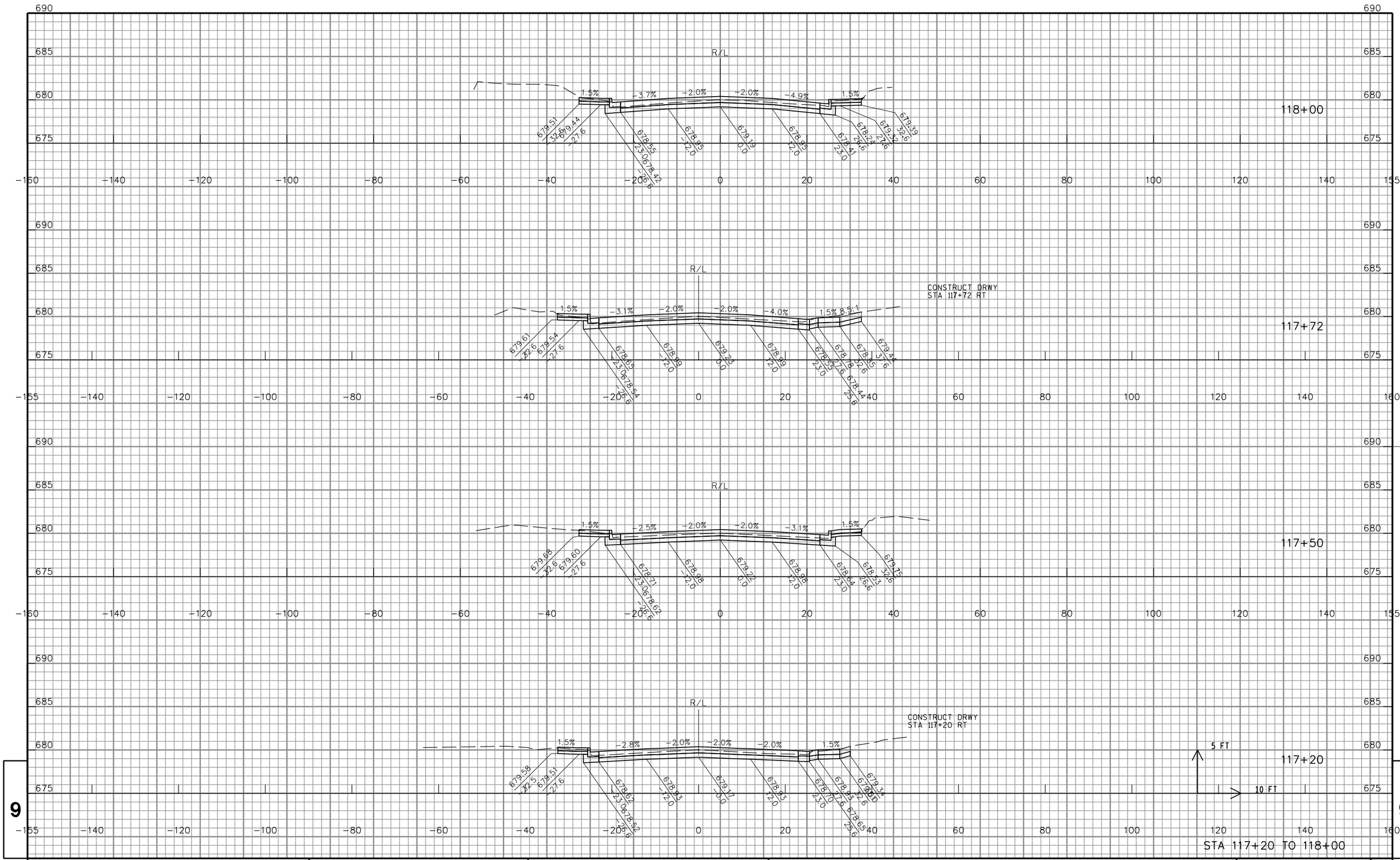


9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 365 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

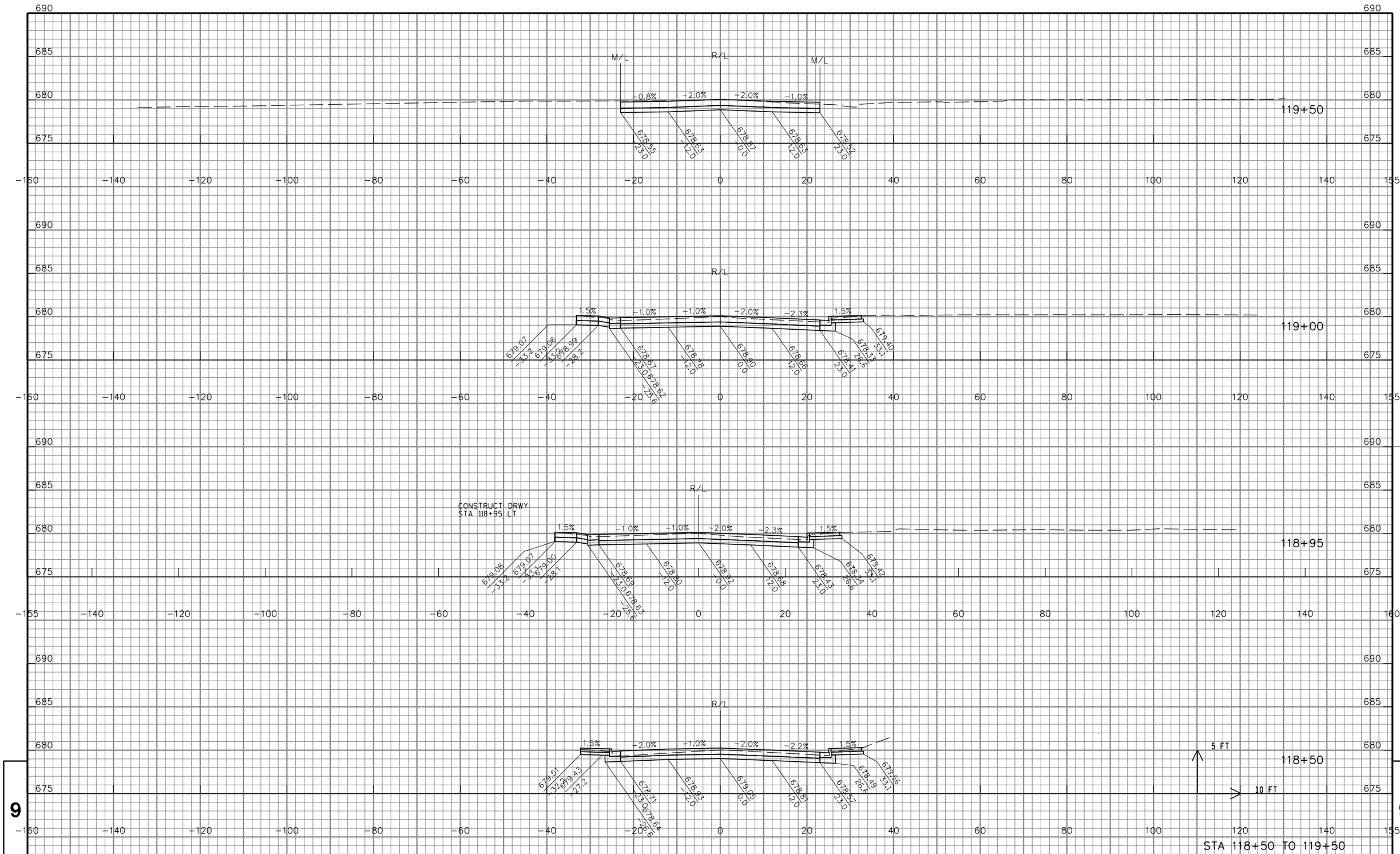
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 366 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

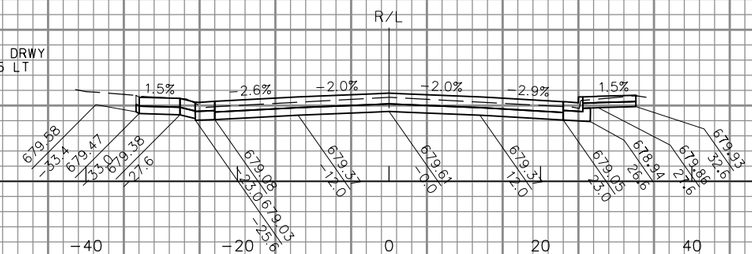


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 367 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

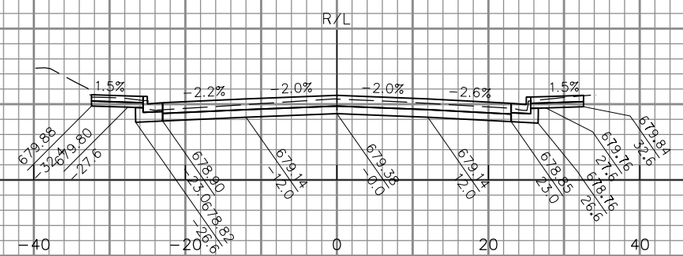
WISDOT/CADDS SHEET 21

CONSTRUCT DRWY
STA 120+85 LT



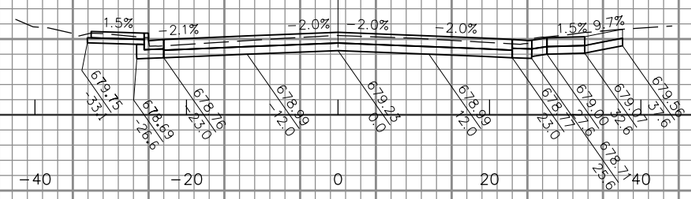
120+85

CONSTRUCT DRWY
STA 120+50 RT



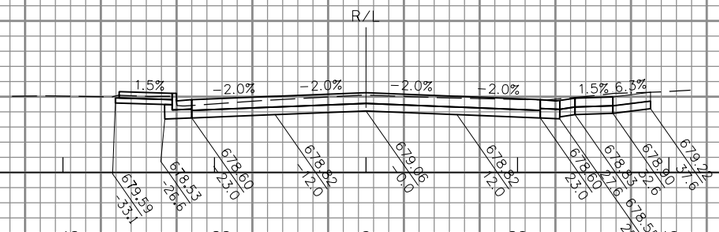
120+50

CONSTRUCT DRWY
STA 120+28 LT



120+28

CONSTRUCT DRWY
STA 120+00 RT



120+00

5 FT

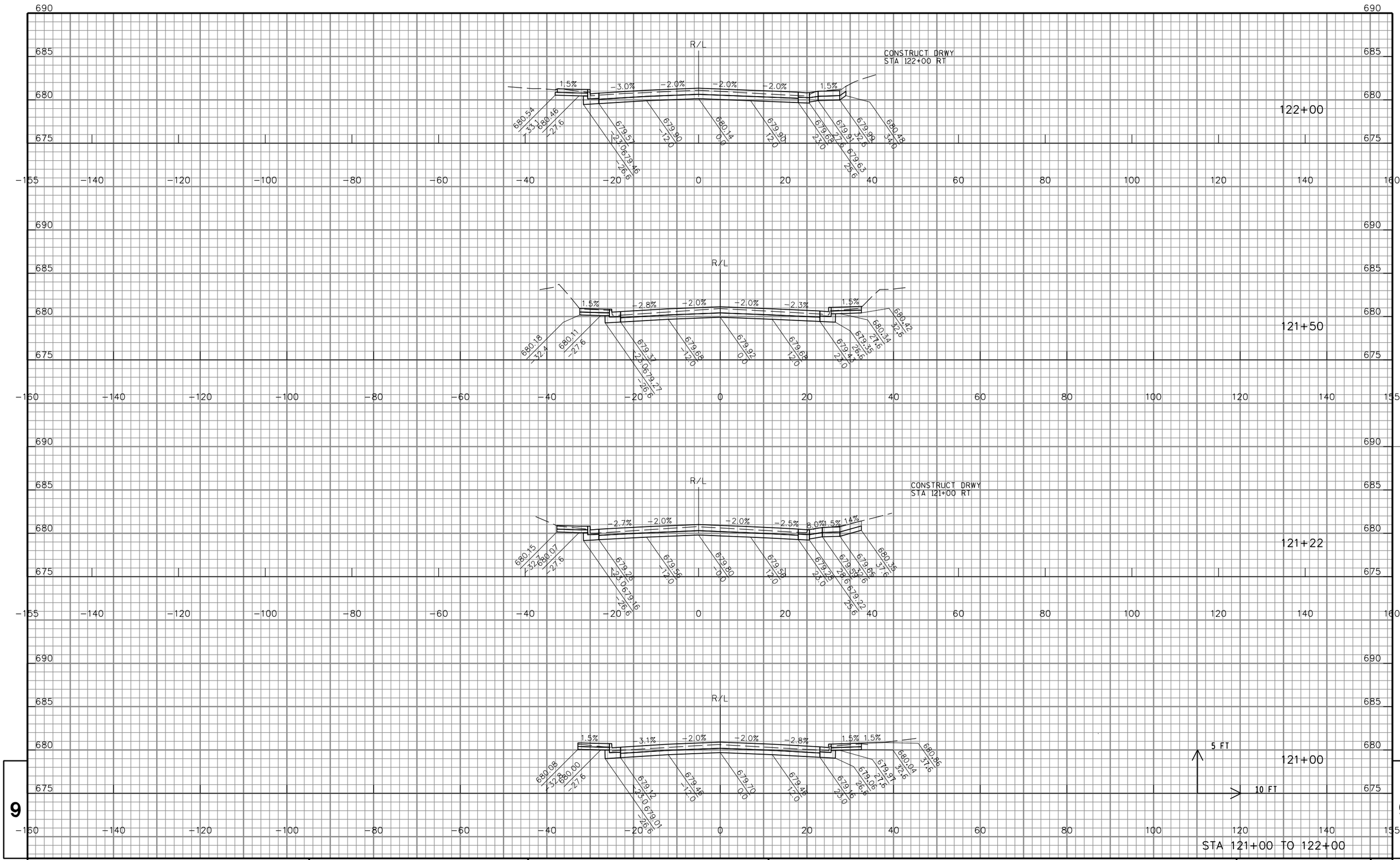
10 FT

STA 120+00 TO 120+85

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 368 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

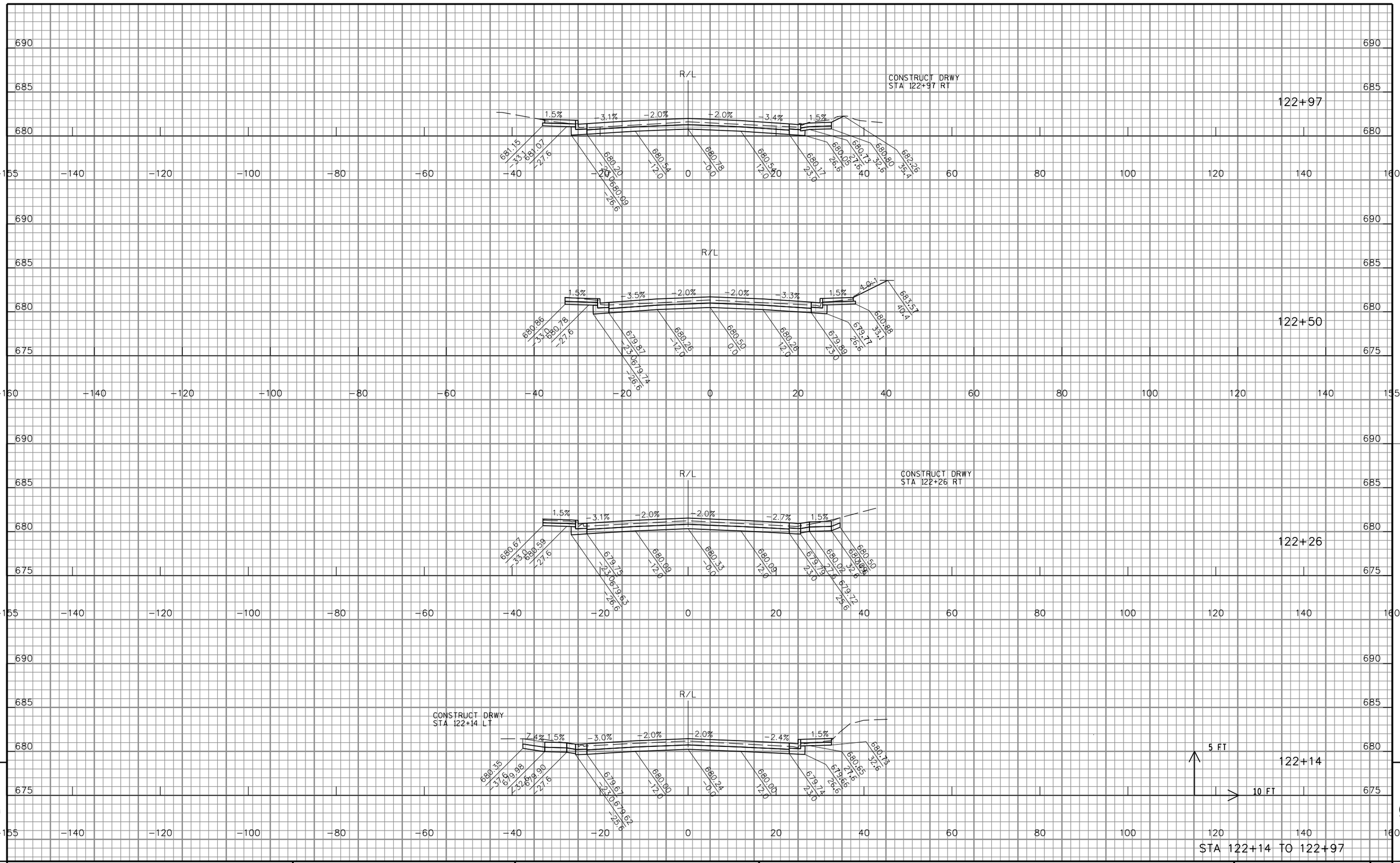
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 369 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

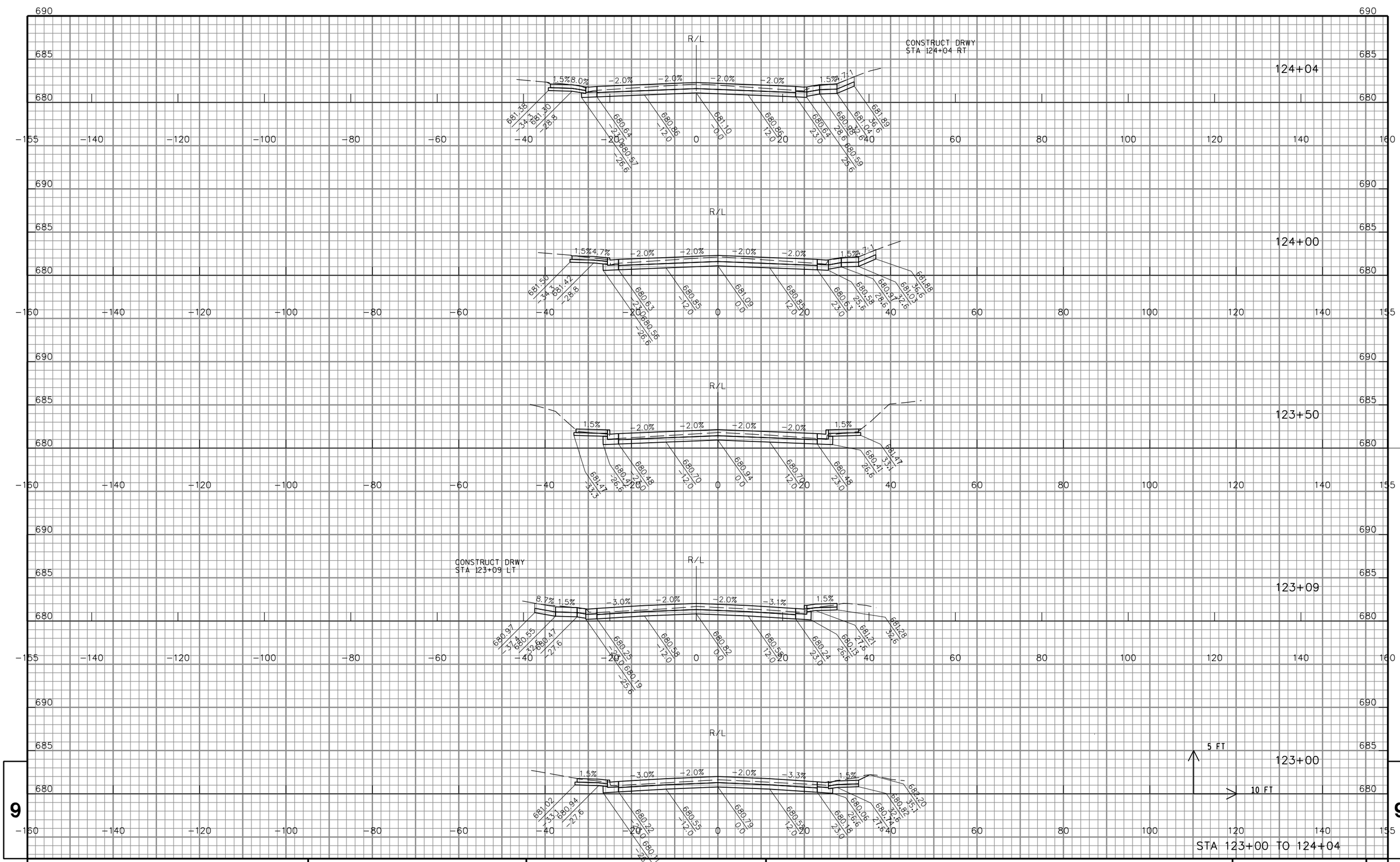
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 370 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

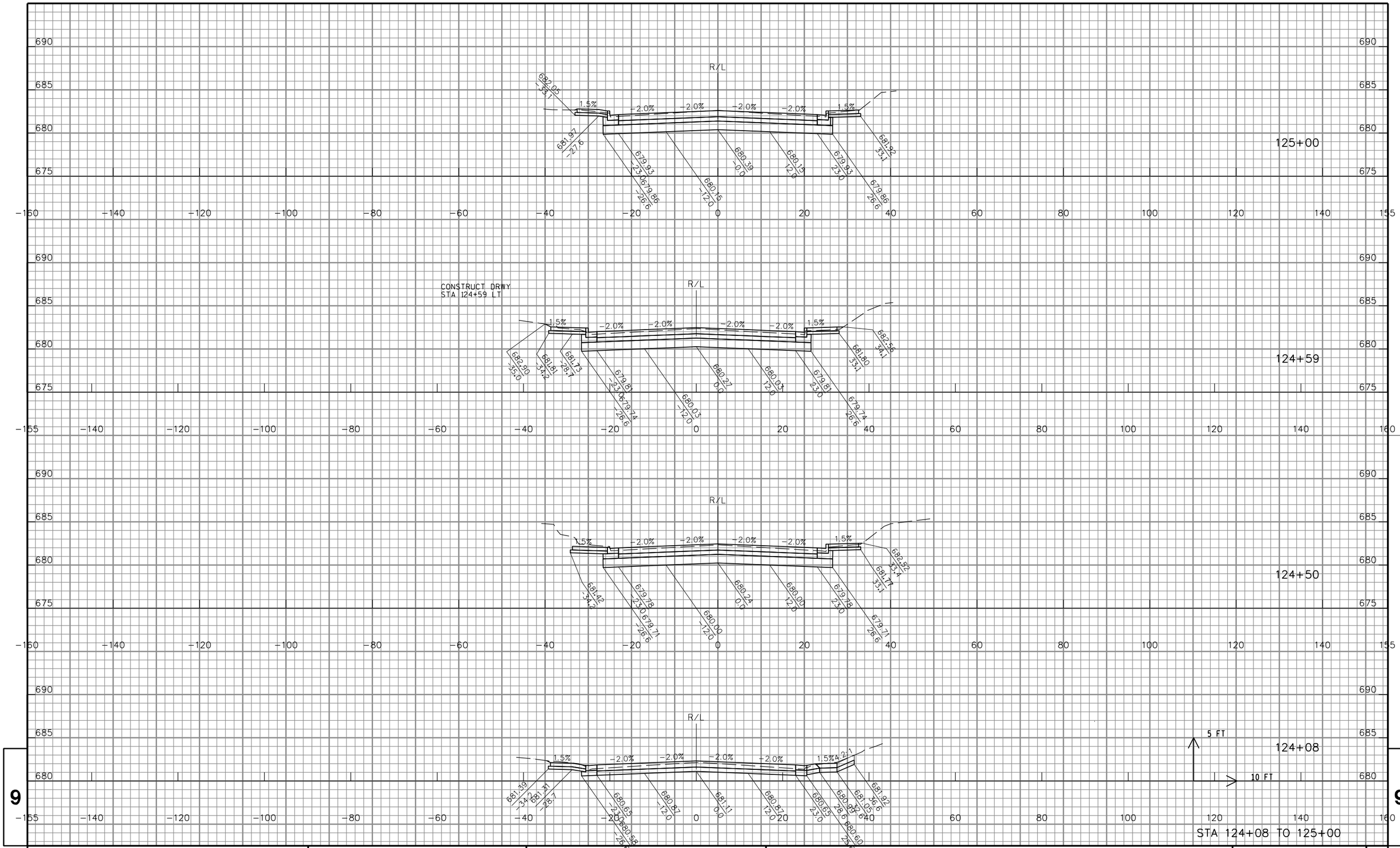
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 371 E

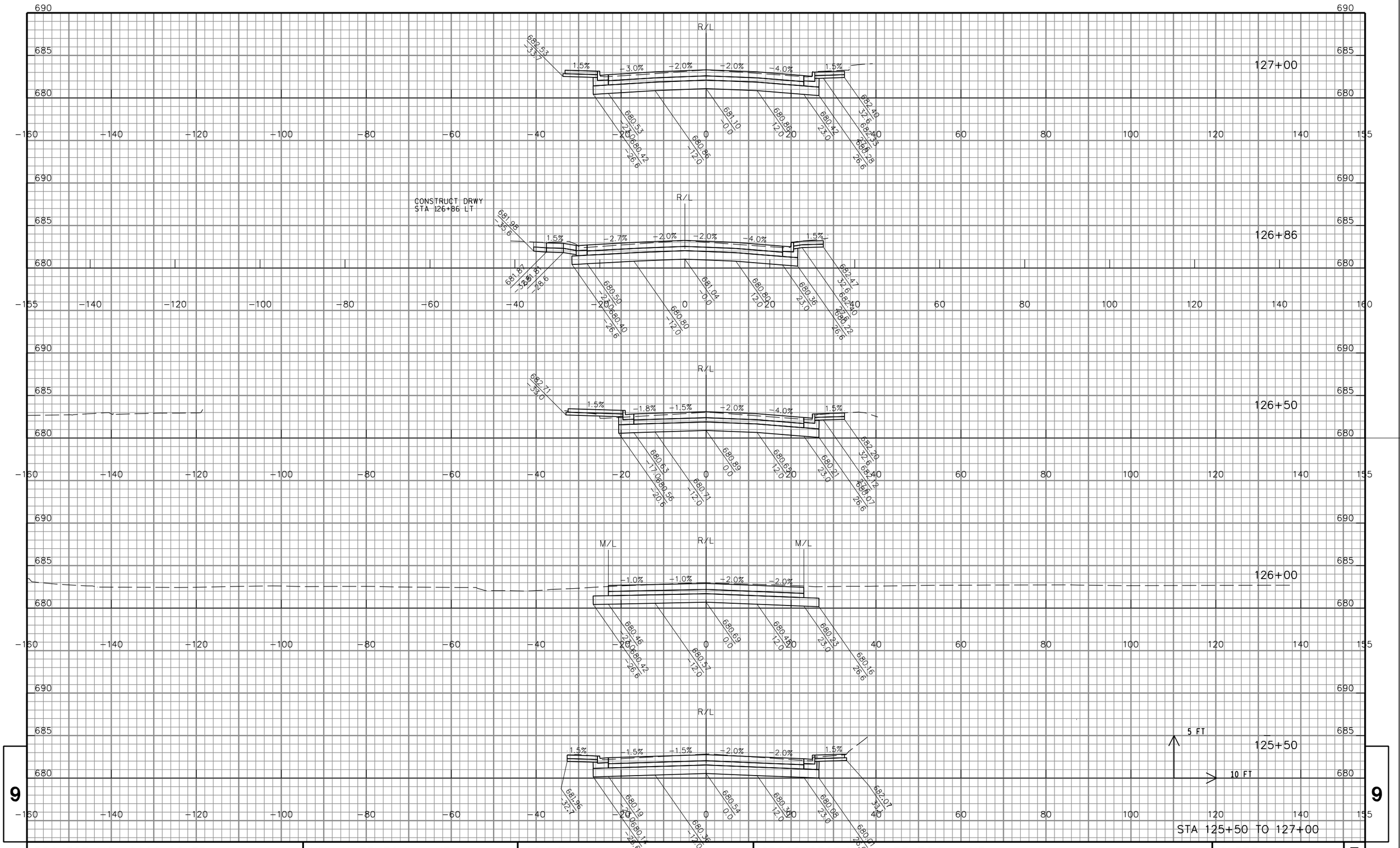
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



STA 124+08 TO 125+00

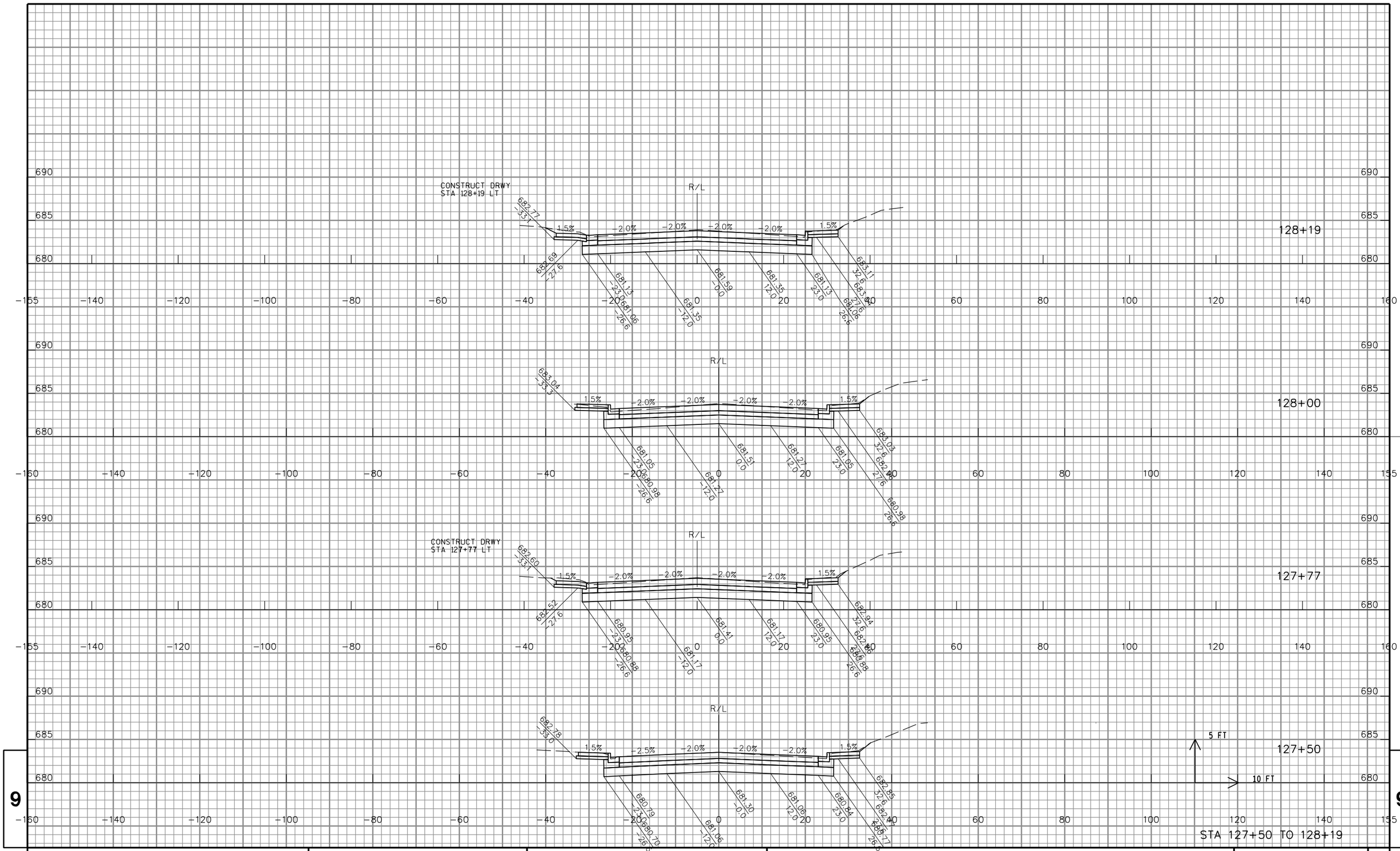
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 372 E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 373 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

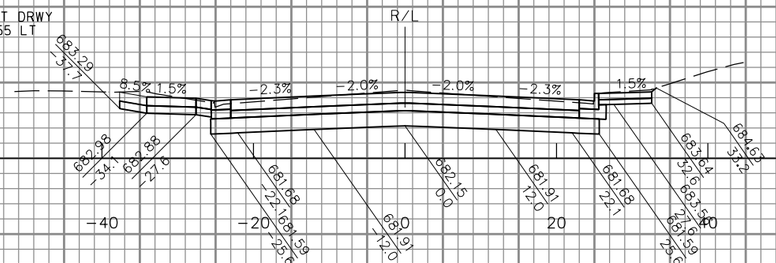


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 374 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

CONSTRUCT DRWY
STA 129+55 LT



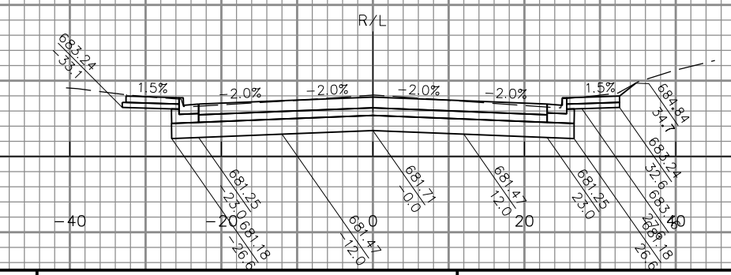
129+55



129+50



129+00



128+50

5 FT
10 FT

STA 128+50 TO 129+55

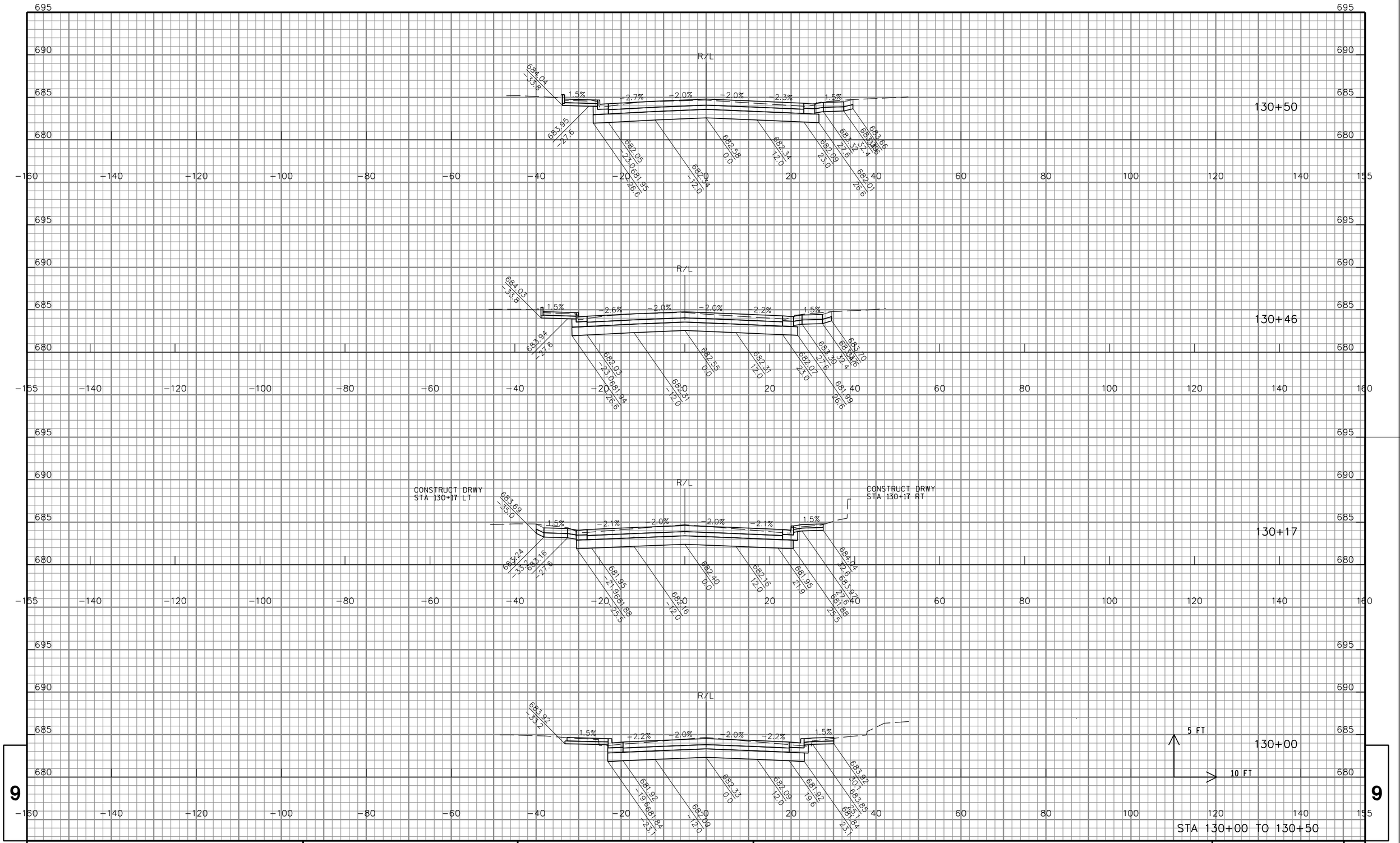
9

9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 375 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



STA 130+00 TO 130+50

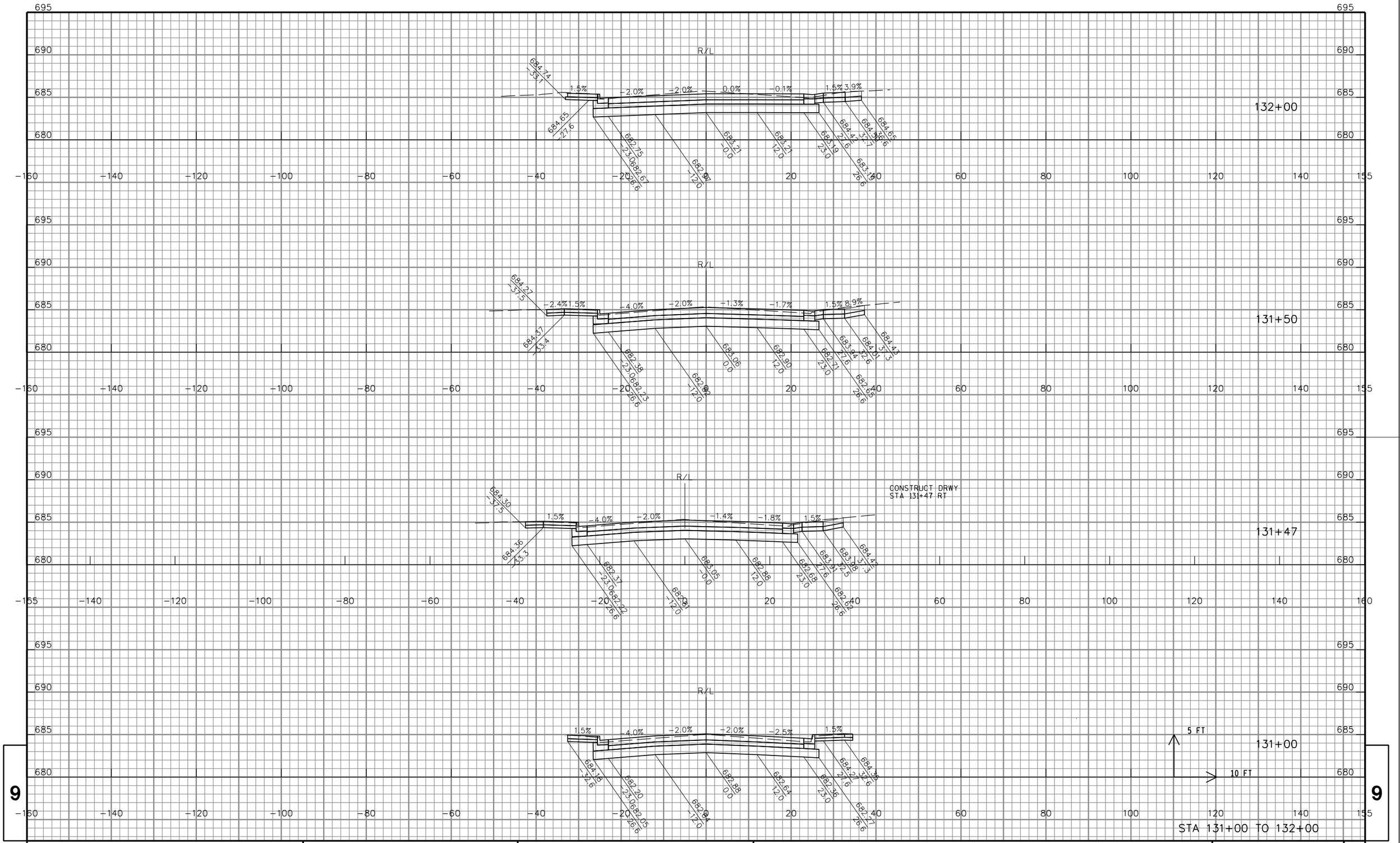
9

9

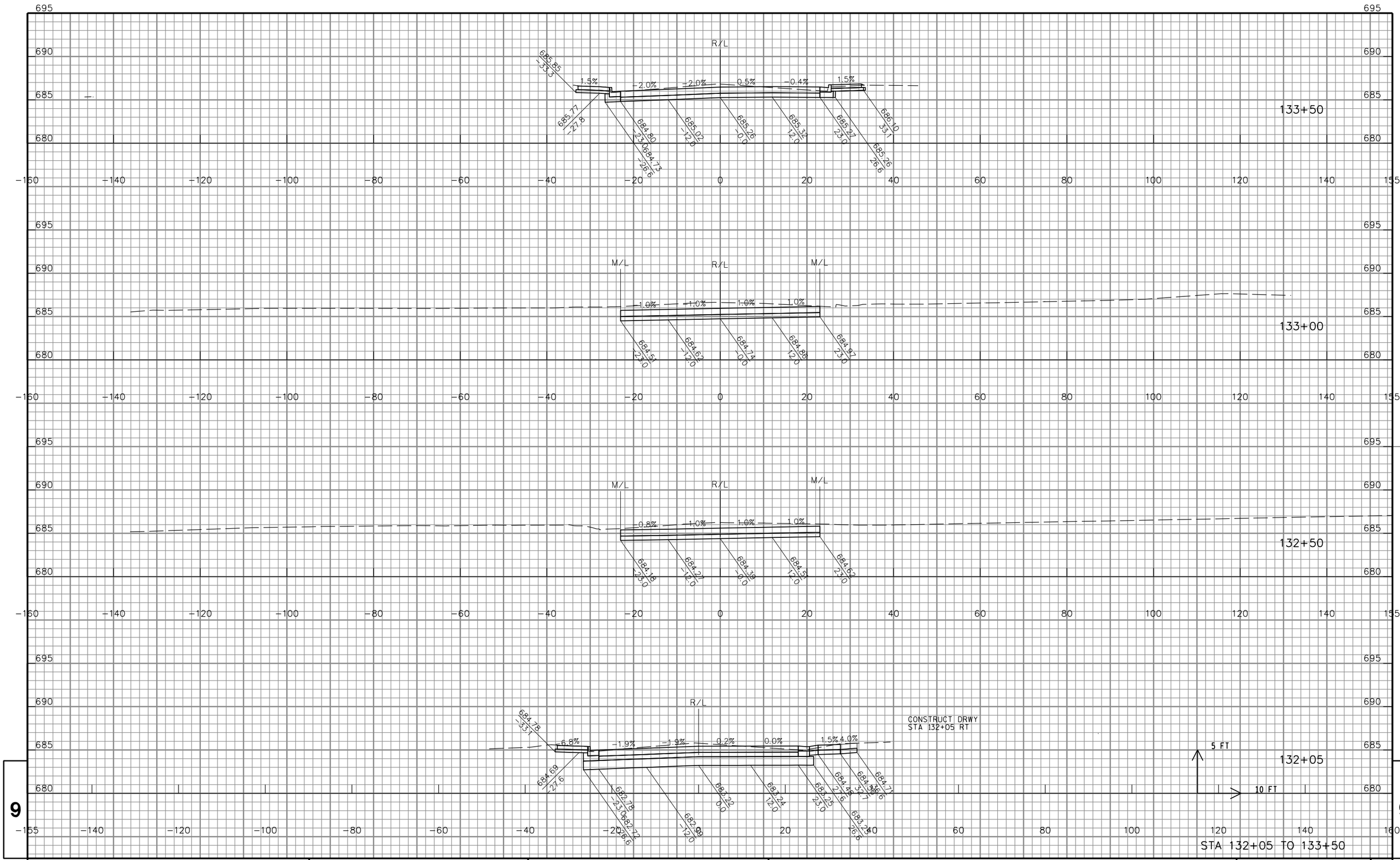
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 376 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



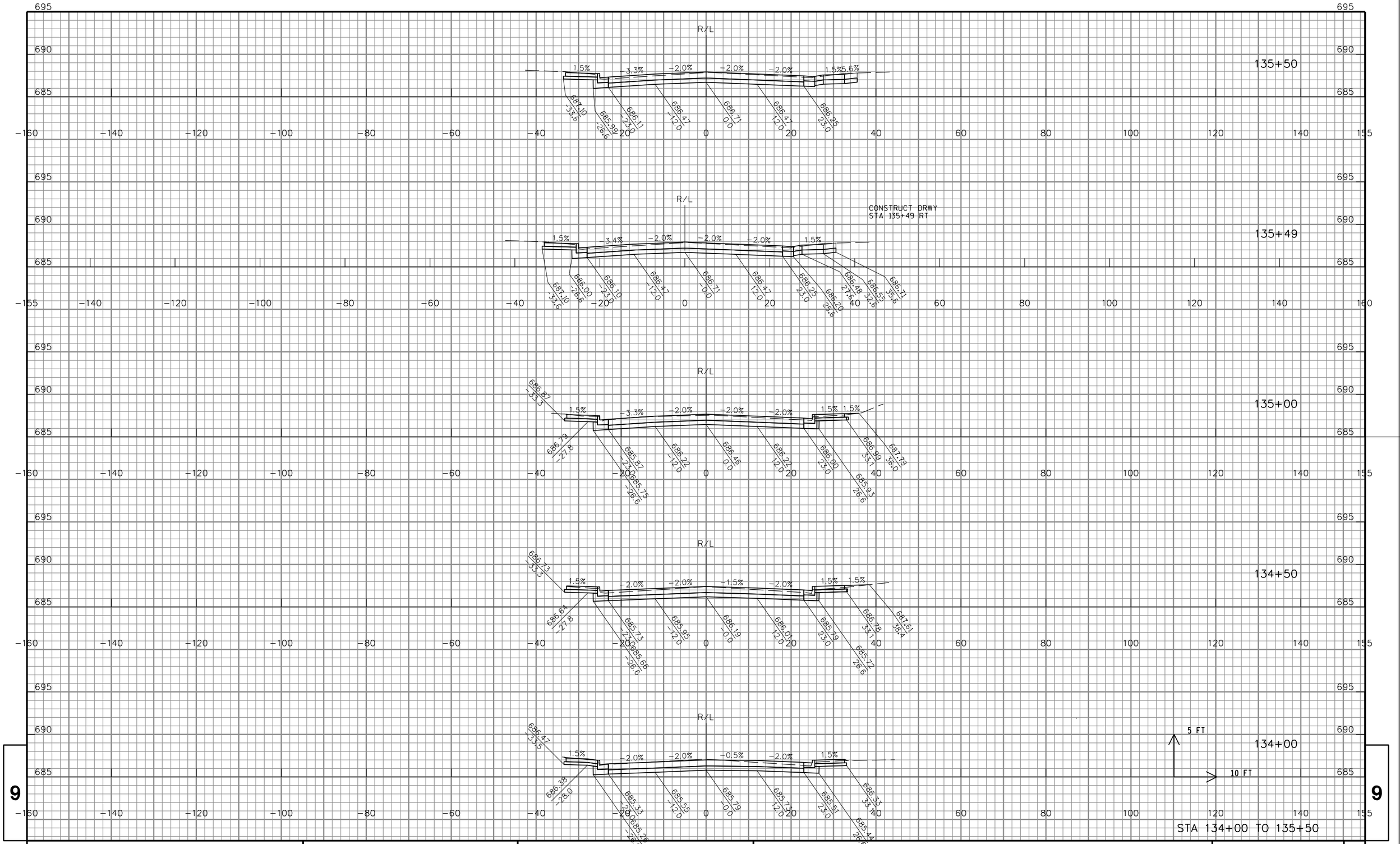
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 377 E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 378 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



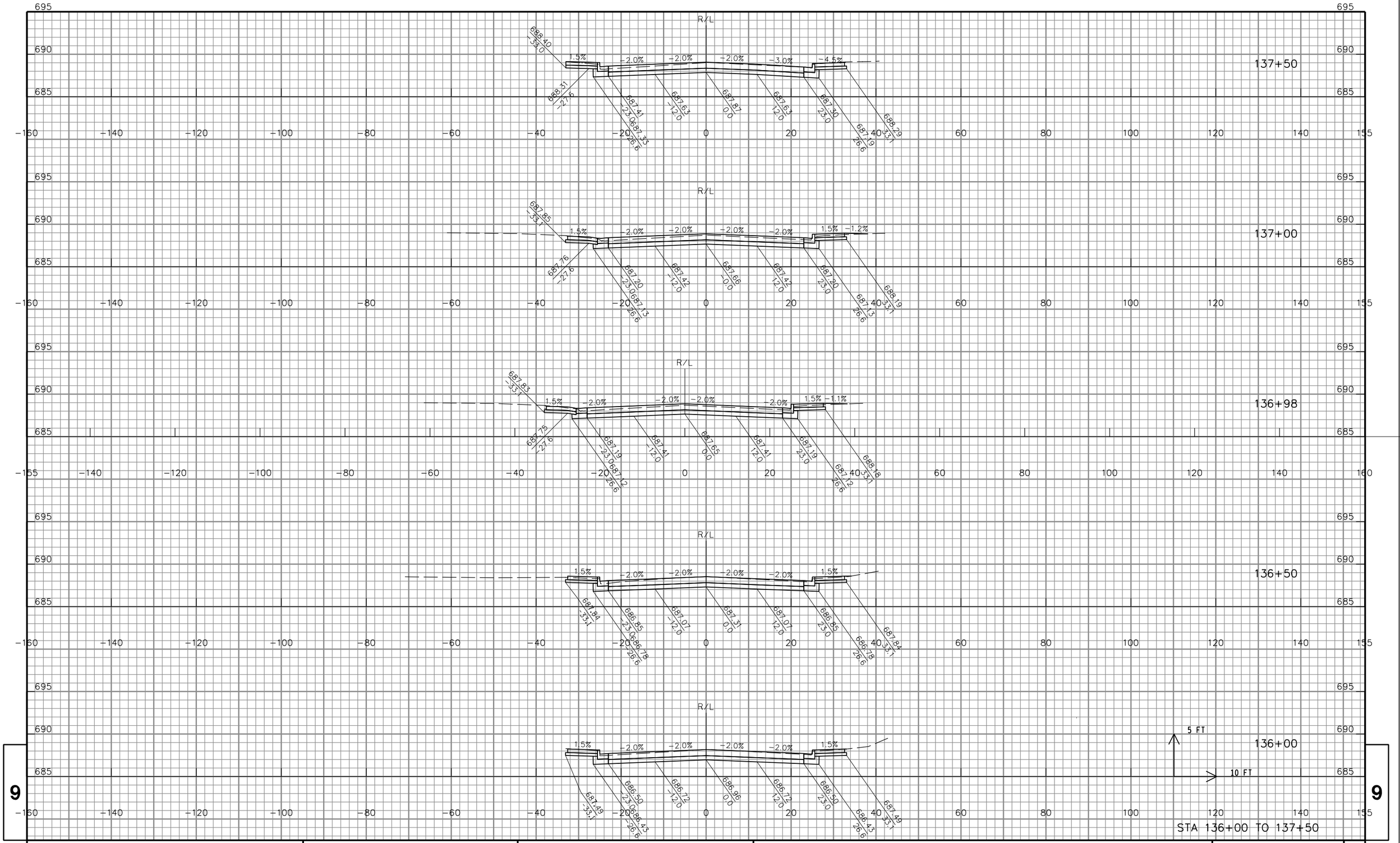
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9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 379 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

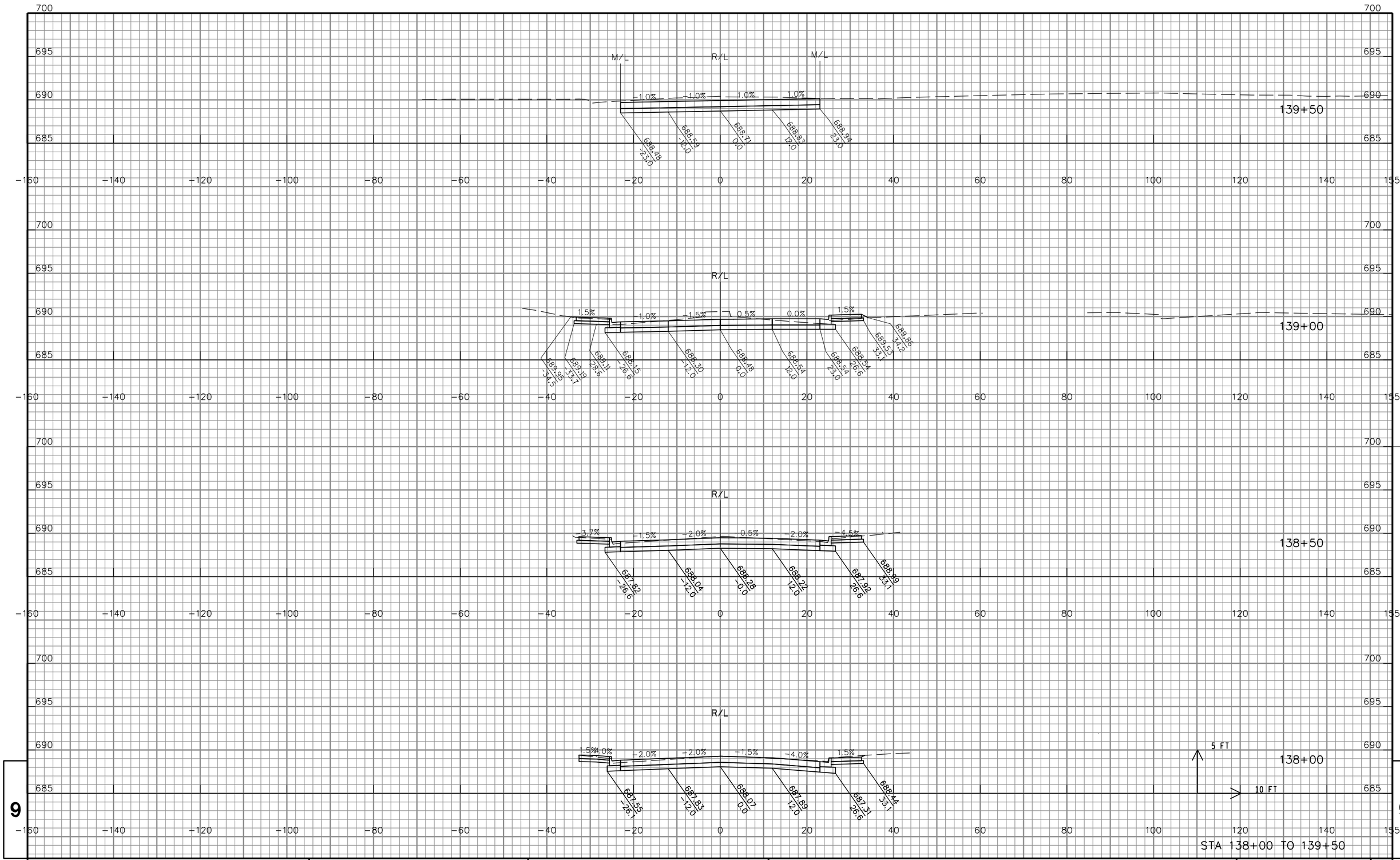
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 380 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

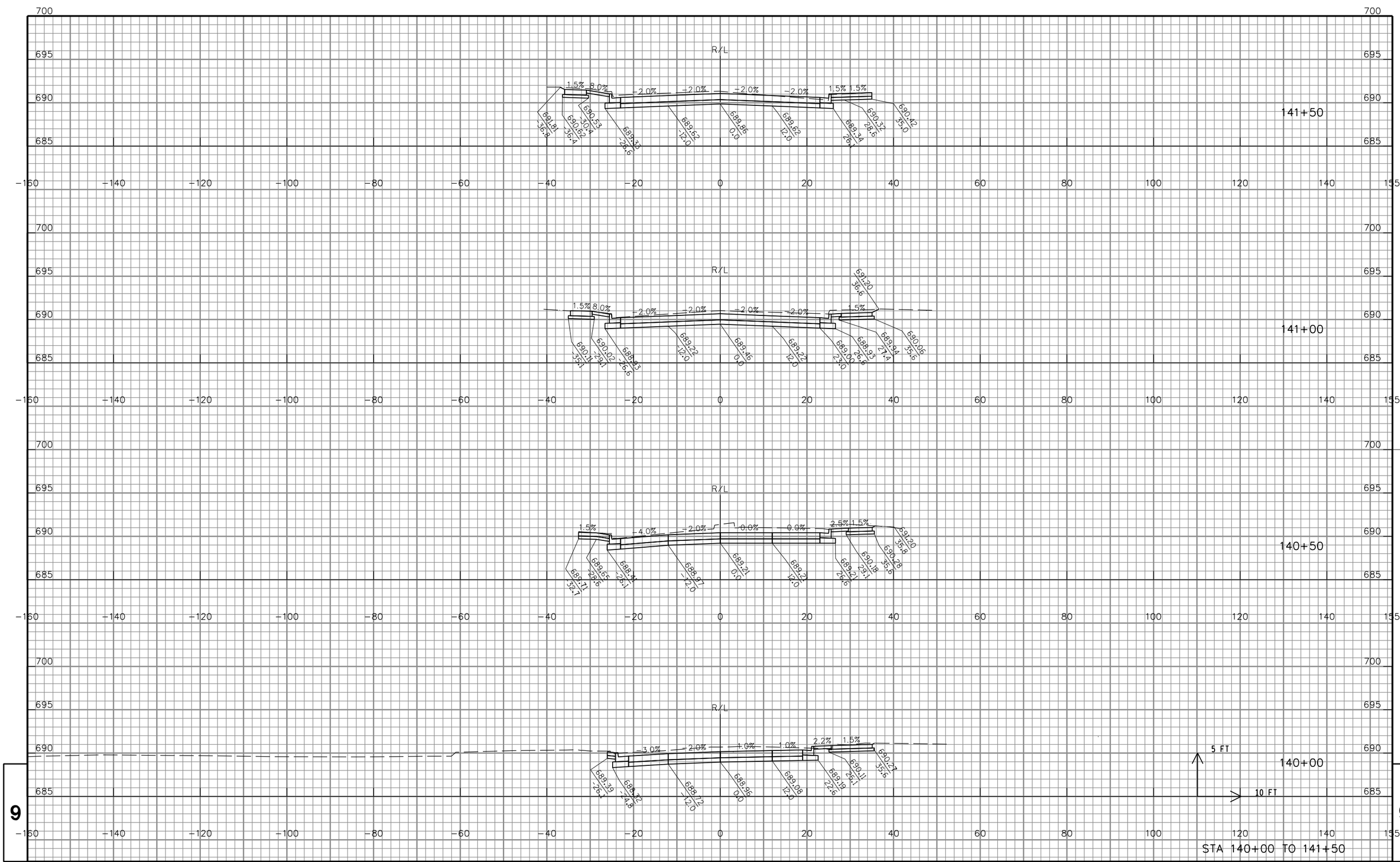
9

STA 138+00 TO 139+50

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 381 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

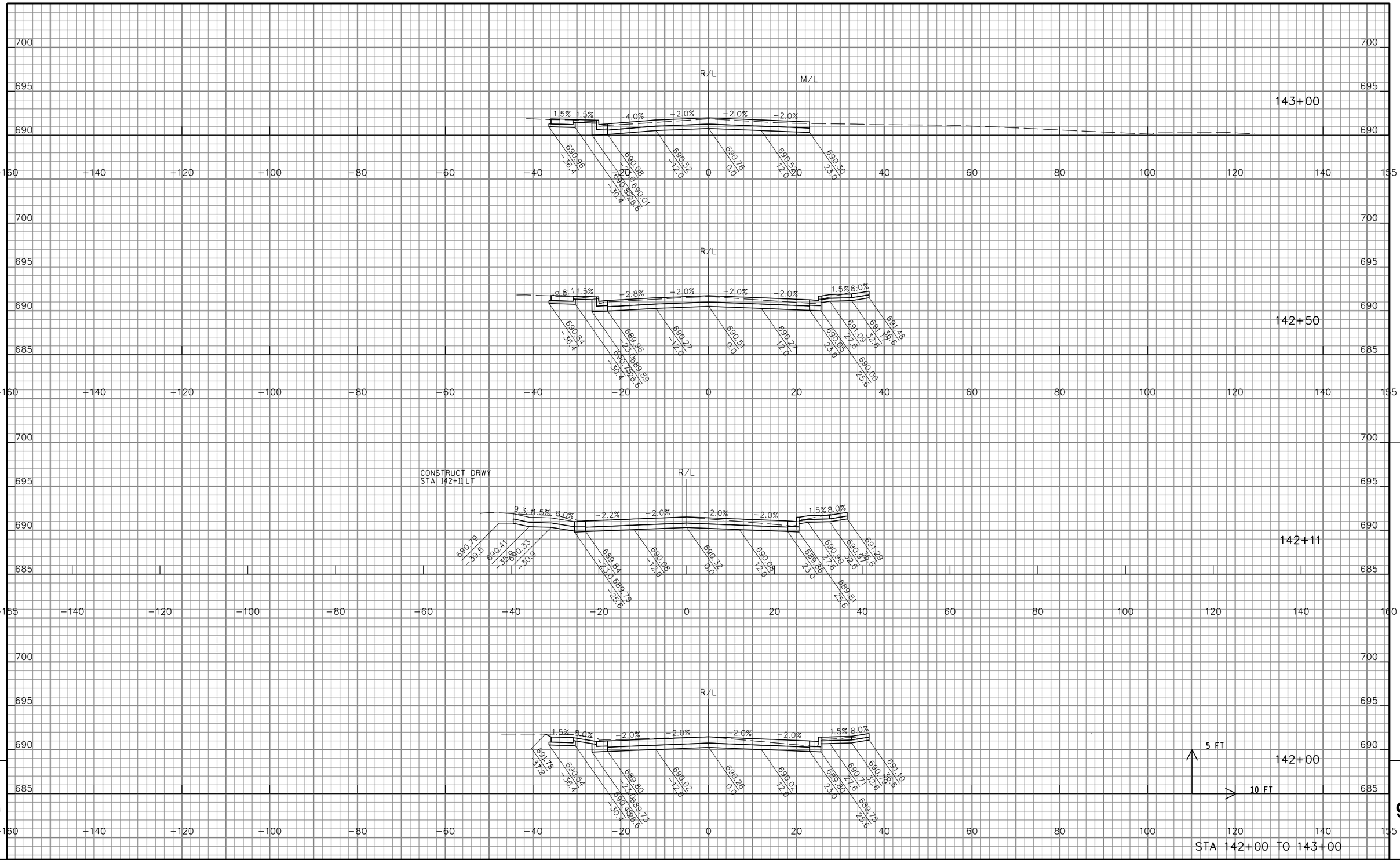
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 382 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

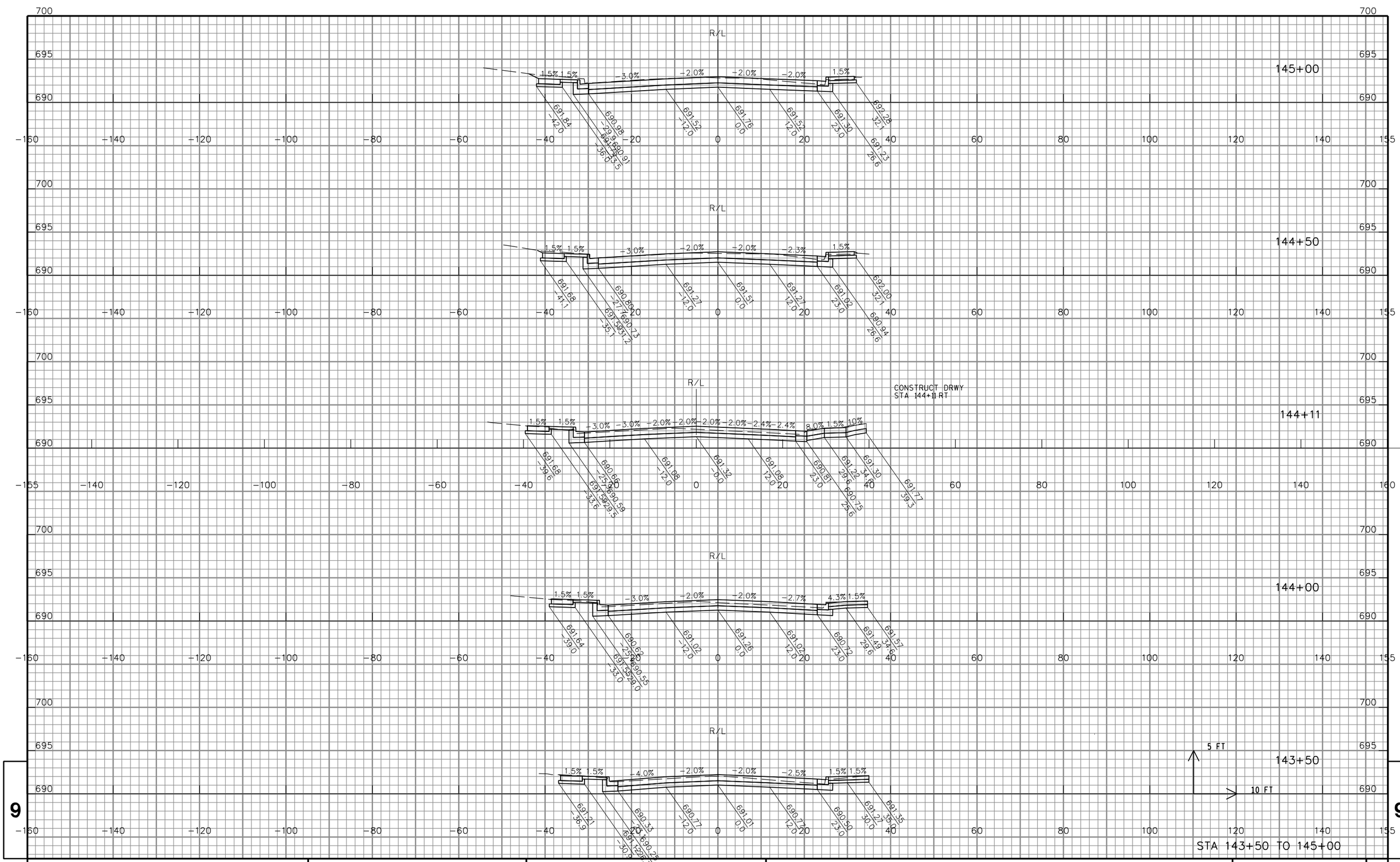
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 383 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



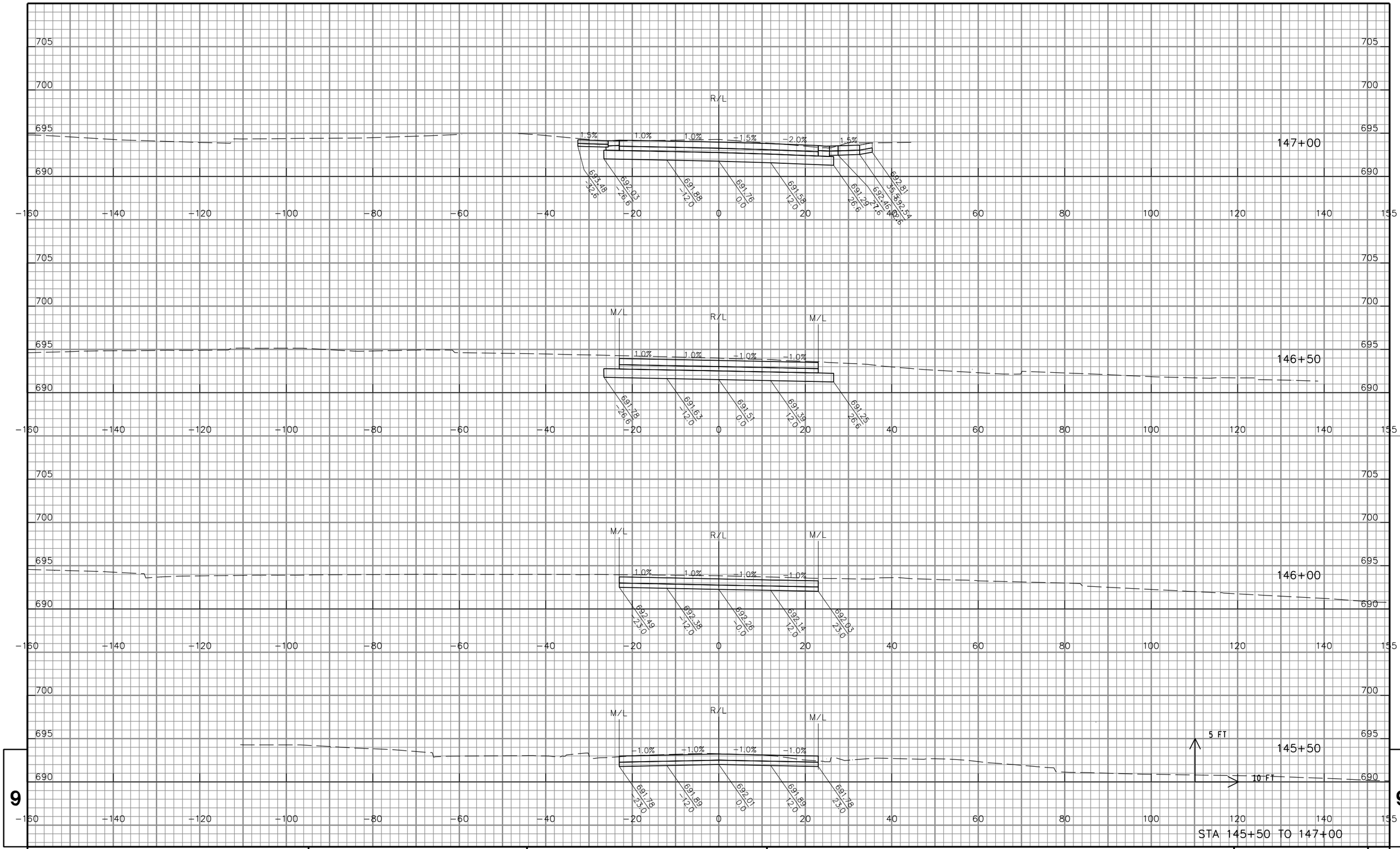
9

9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 384 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

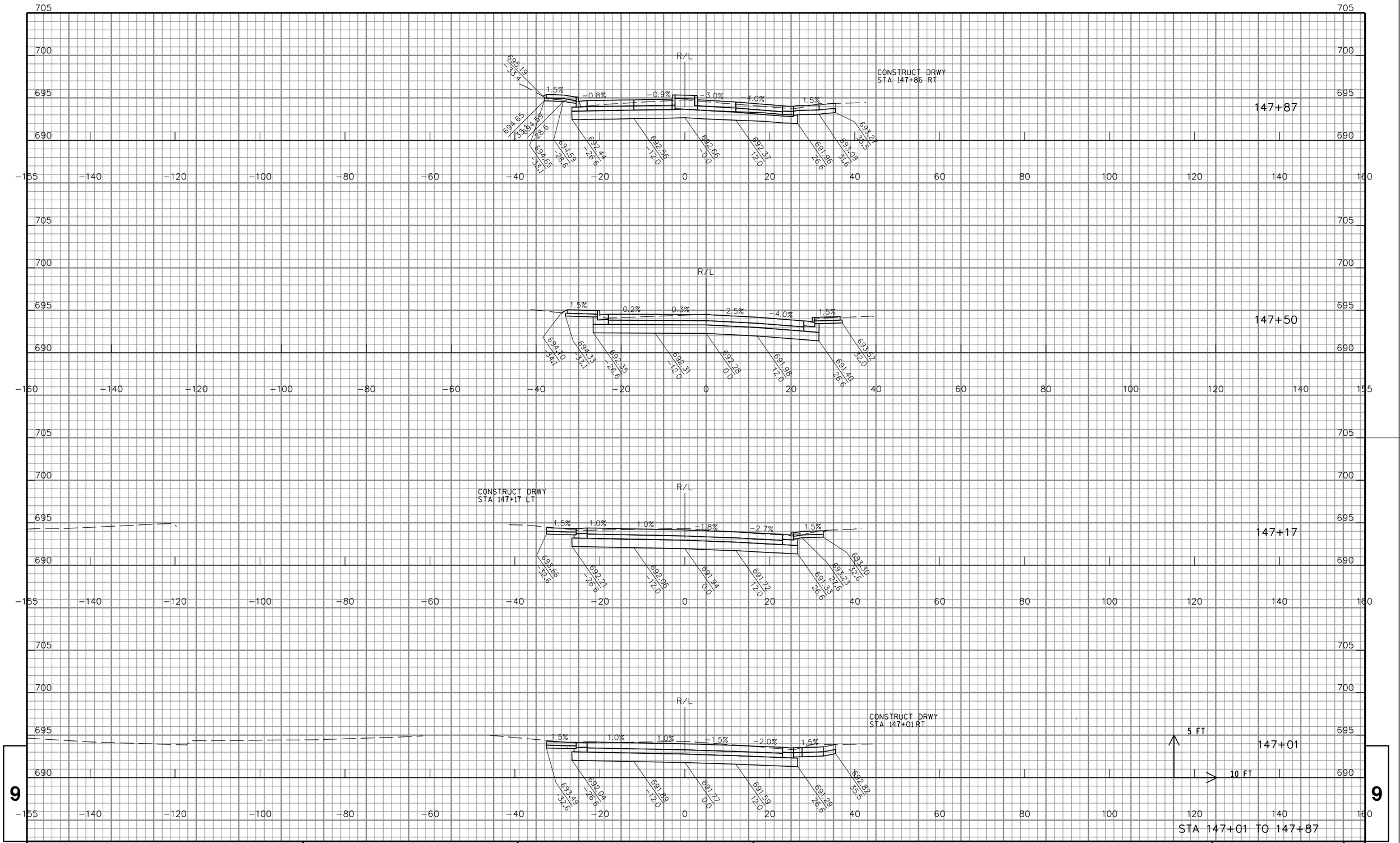
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 385 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

9

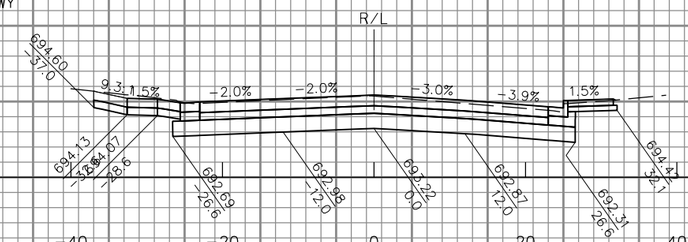
STA 147+01 TO 147+87

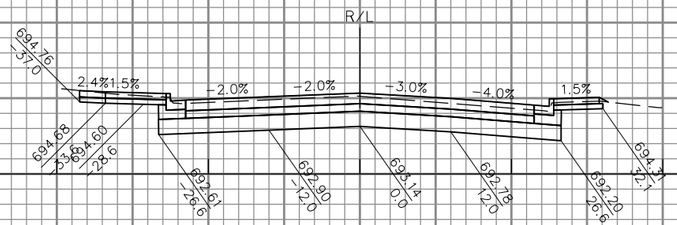
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 386 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

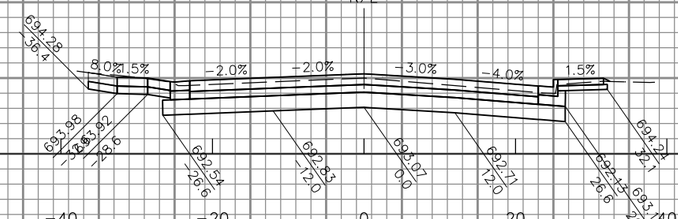
WISDOT/CADDS SHEET 21

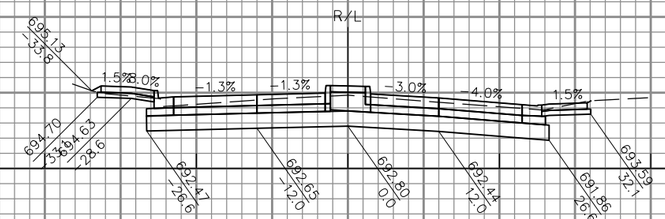
CONSTRUCT DRWY
STA 148+78 LT





CONSTRUCT DRWY
STA 148+27 RT





STA 148+00 TO 148+78

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 387 E

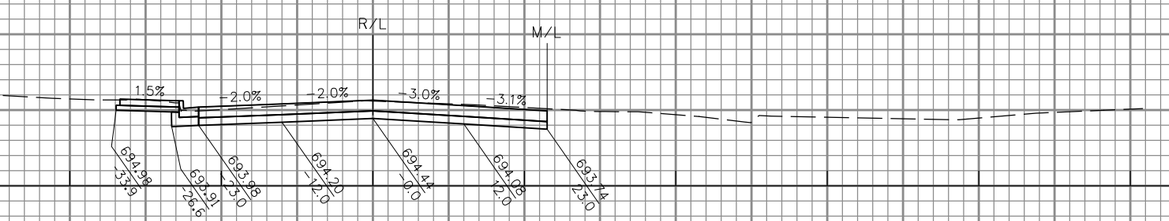
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090201_xs_Teutonia.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

END PROJECT STA 149+76.53

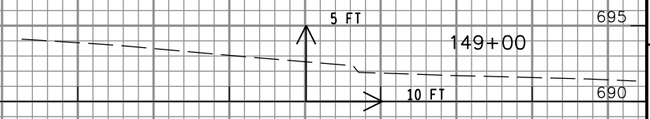


149+76
STATION BACK



149+50





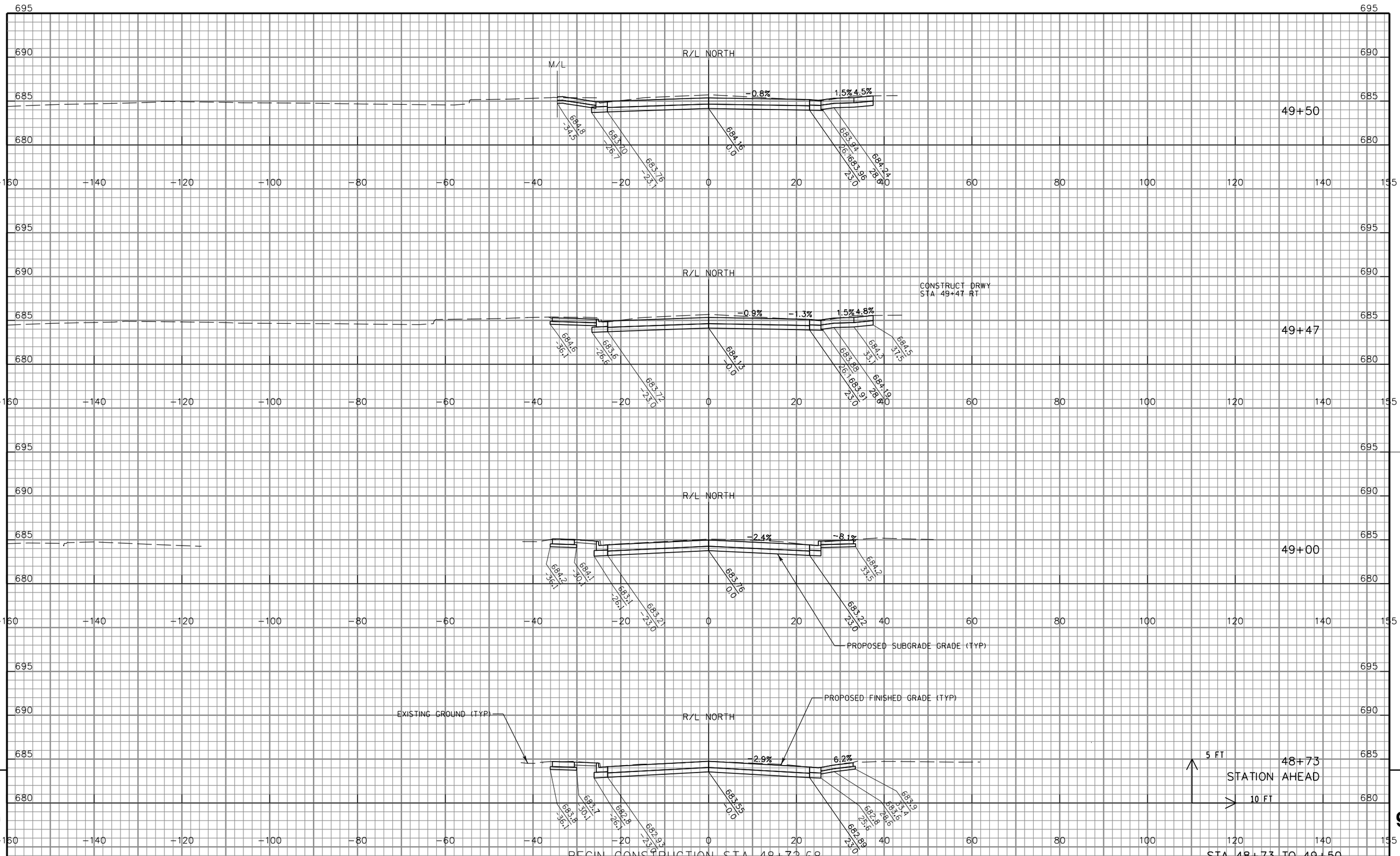
149+00

STA 149+00 TO 149+76

9

9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N. TEUTONIA AVE	SHEET 388 E

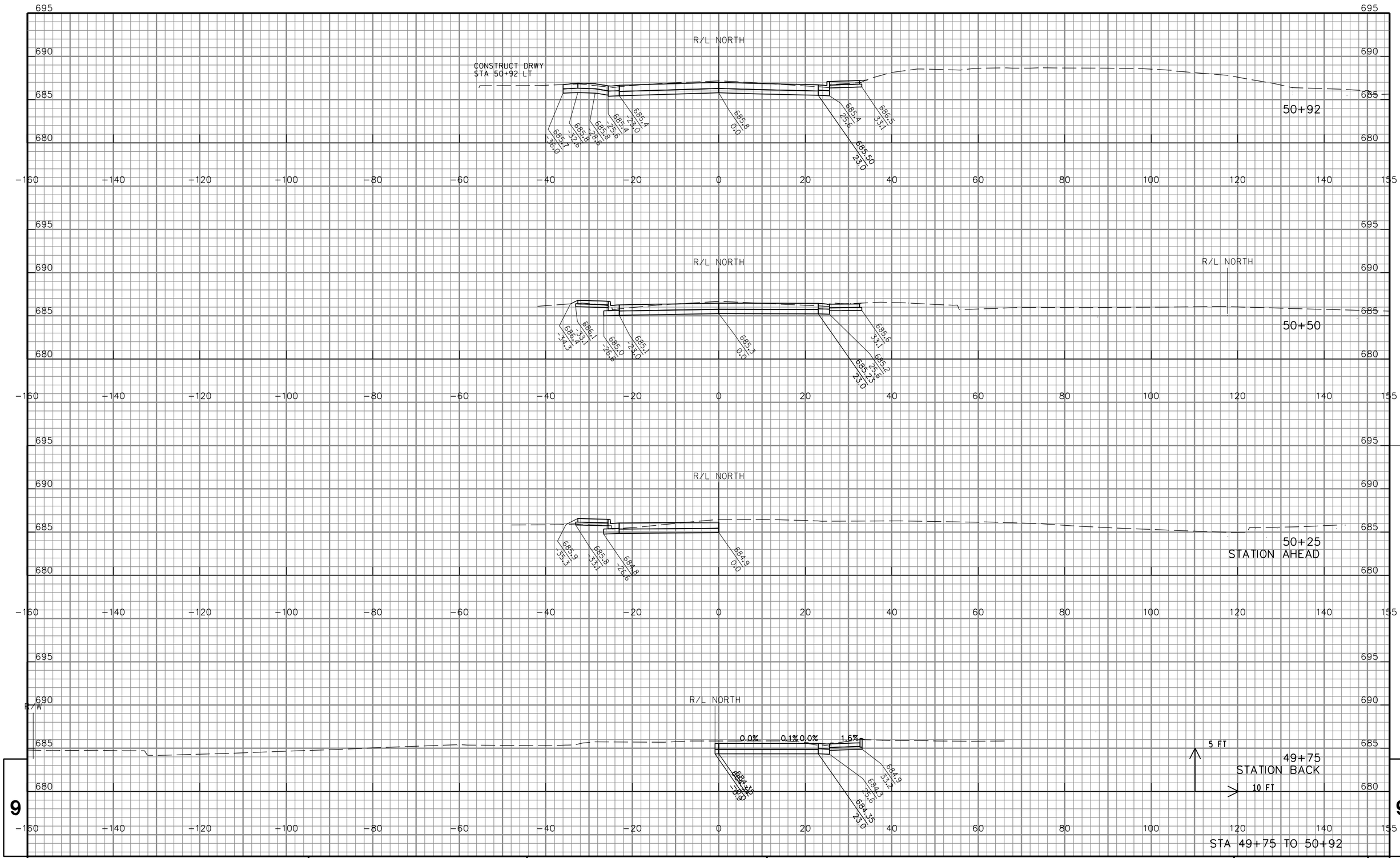


9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NORTH AVE	SHEET 389 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090211_xs_North.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

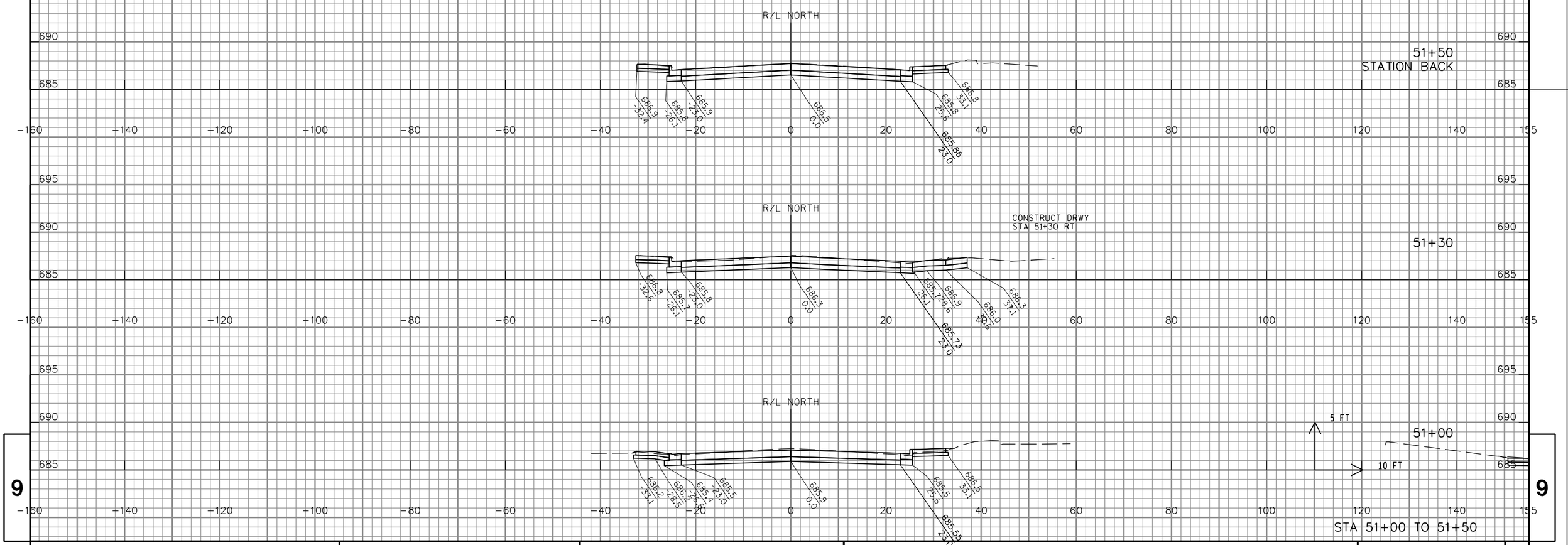


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NORTH AVE	SHEET 390 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090211_xs_North.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

END CONSTRUCTION STA 51+50.58



9

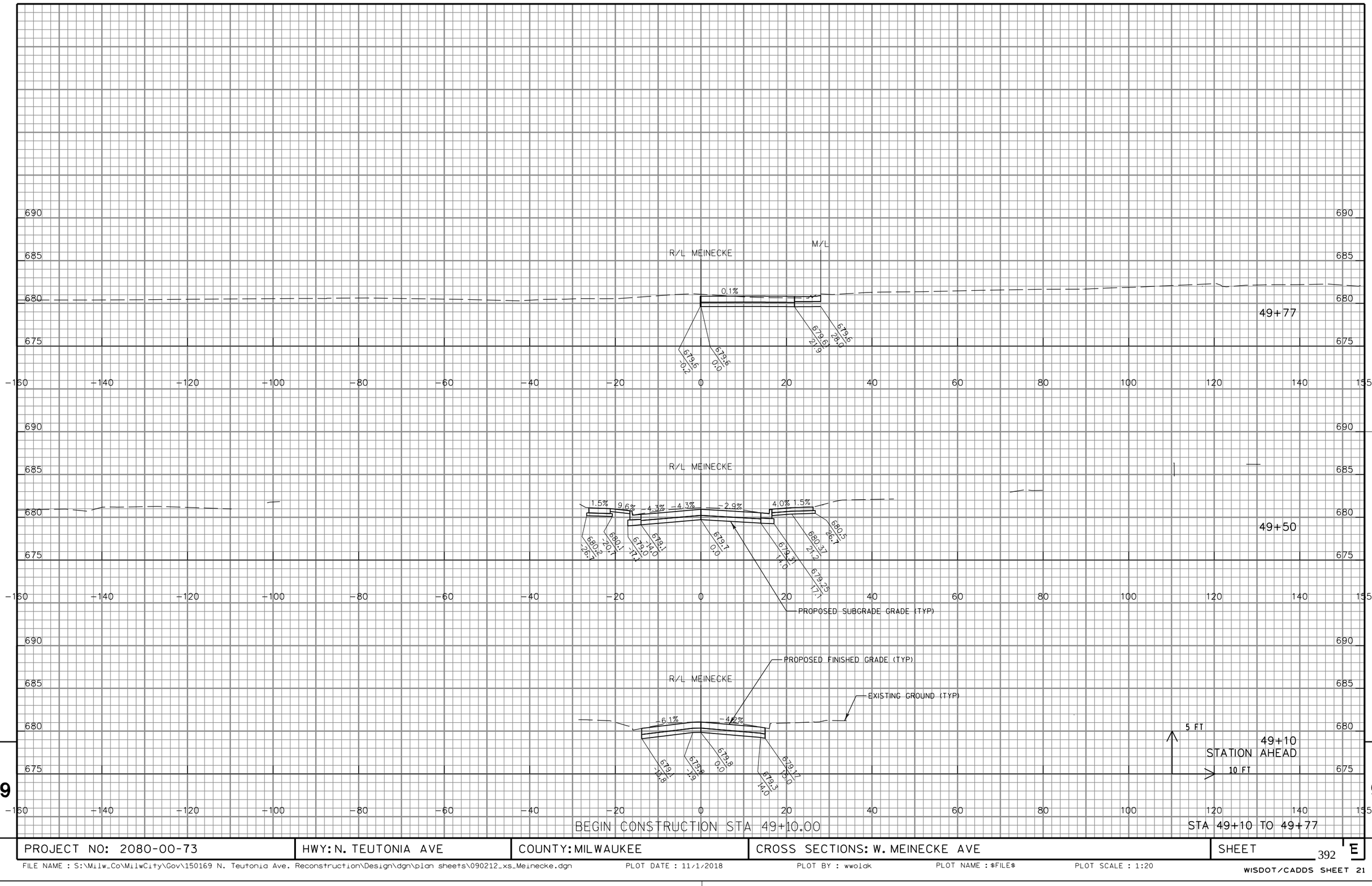
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STA 51+00 TO 51+50

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NORTH AVE	SHEET 391 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090211_xs_North.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. MEINECKE AVE	SHEET 392 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090212_xs_Meinecke.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

CONSTRUCT DRWY
STA 50+81 LT

R/L MEINECKE

50+81

1.6% 1.5% 8.0% -4.0% -2.7% -2.7% 1.5% 1.5%

680.7 -30.0
681.0 -29.0
680.5 -26.2
680.2 -20.1
680.4 -17.1
680.0 -16.6
680.05 -14.0
680.61 0.0
680.2 14.0
680.2 17.1
680.1 20.1
680.0 26.6
678.3 27.0
30.4
681.2

R/L MEINECKE

CONSTRUCT DRWY
STA 50+61 RT

50+59

1.5% -3.6% -3.7% -2.2% -2.0% 8.0% 1.5%

681.0 -29.0
680.9 -26.2
680.7 -20.1
679.95 -14.0
679.9 -17.1
680.45 0.0
680.10 17.1
680.56 20.6
675.7 26.8
676.0 31.7

R/L MEINECKE

50+50

1.5% 1.5% -3.6% -1.9% -1.9% 8.0% 1.5% 8.7%

681.0 -29.0
680.8 -26.2
679.8 -17.1
680.7 -20.1
679.90 -14.0
680.41 0.0
680.09 17.1
680.53 20.6

M/L
R/L MEINECKE

0.9% -0.9%

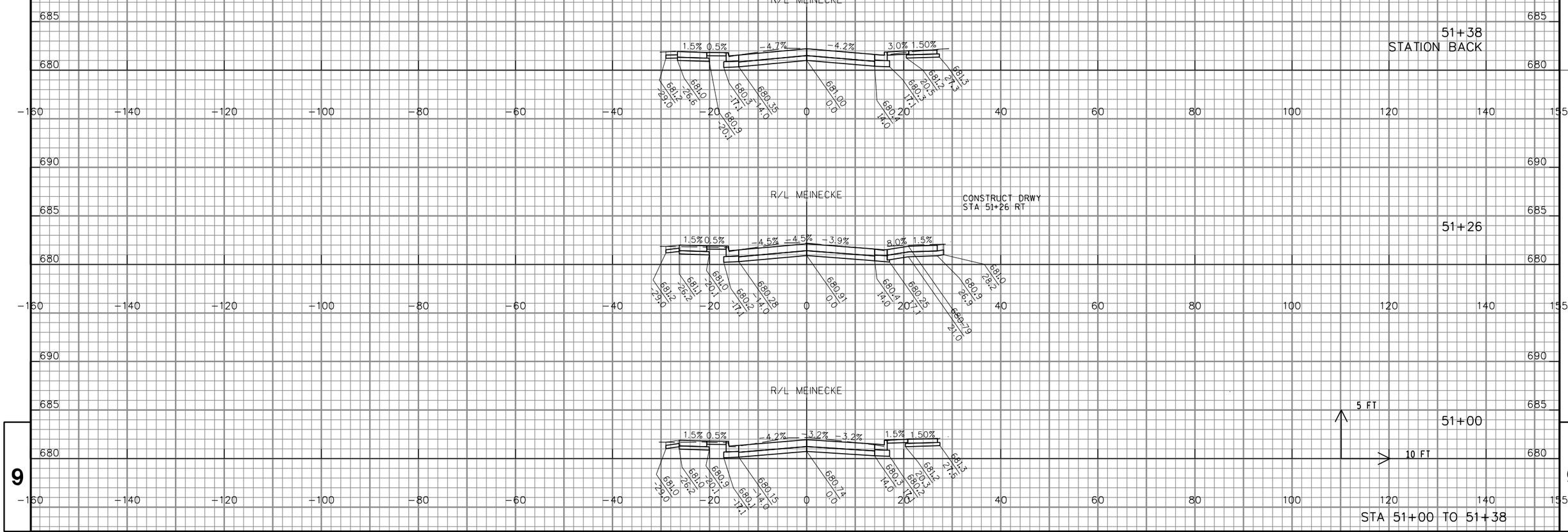
680.1 -28.1
680.03 -20.5
680.23 0.0
680.23 9.4

5 FT
50+23
STATION AHEAD
10 FT

STA 50+23 TO 50+81

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. MEINECKE AVE	SHEET 393 E

END CONSTRUCTION STA 51+38.35

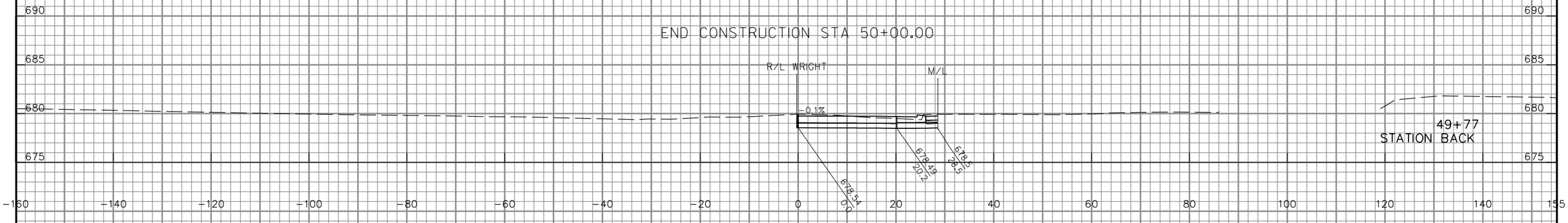


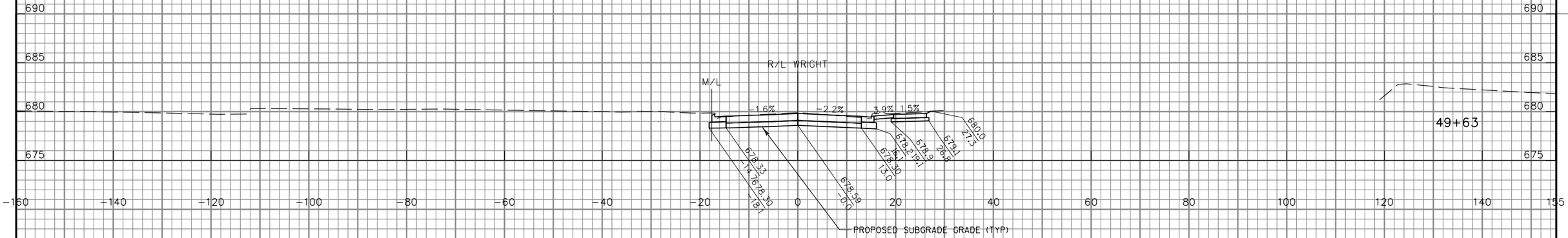
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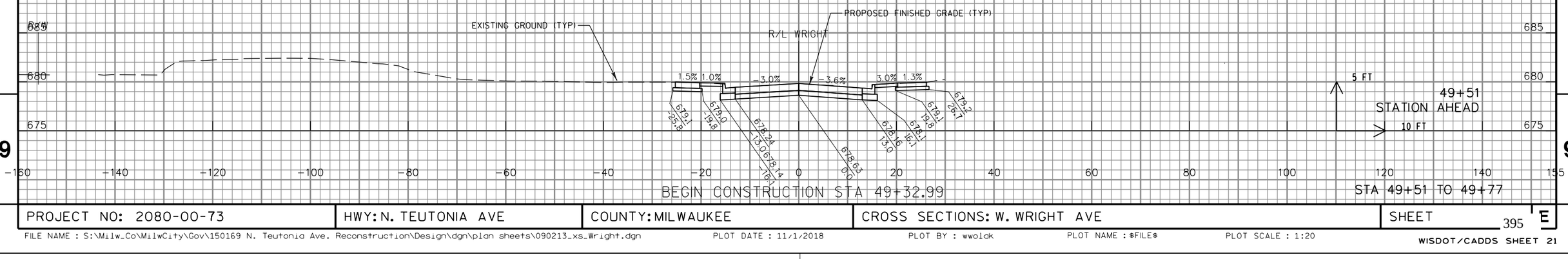
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. MEINECKE AVE	SHEET 394 E

END CONSTRUCTION STA 50+00.00







BEGIN CONSTRUCTION STA 49+32.99

STA 49+51 TO 49+77

9

9

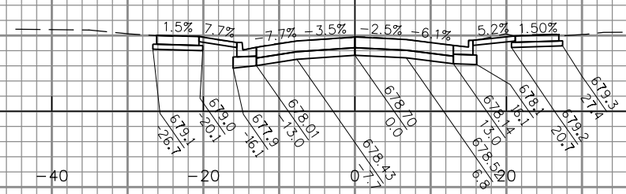
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WRIGHT AVE	SHEET 395 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090213_xs_Wright.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

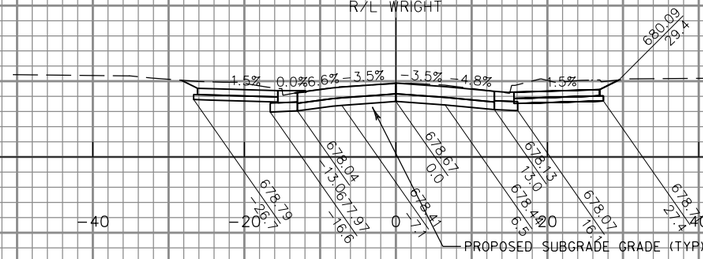
END CONSTRUCTION STA 50+46.94

R/L WRIGHT



50+47
STATION BACK

R/L WRIGHT

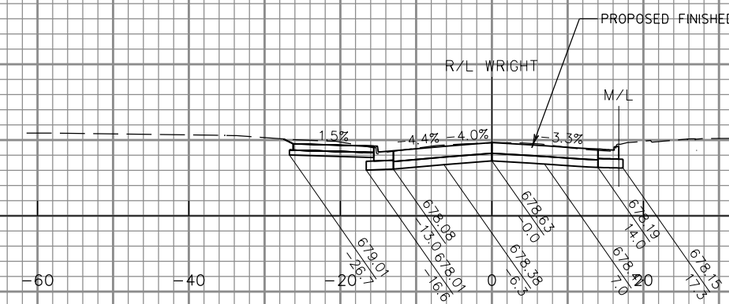


50+43

PROPOSED FINISHED GRADE (TYP)

R/L WRIGHT

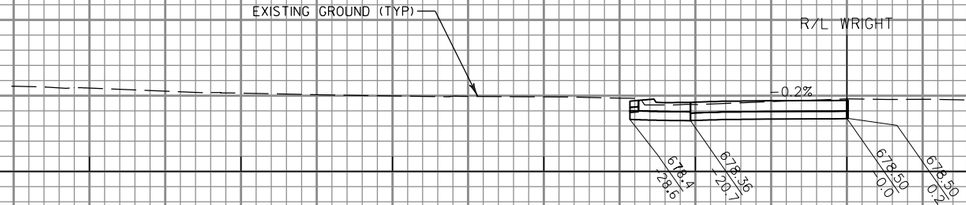
M/L



50+37

EXISTING GROUND (TYP)

R/L WRIGHT



5 FT

50+23
STATION AHEAD

10 FT

BEGIN CONSTRUCTION STA 50+00.00

STA 50+23 TO 50+47

9

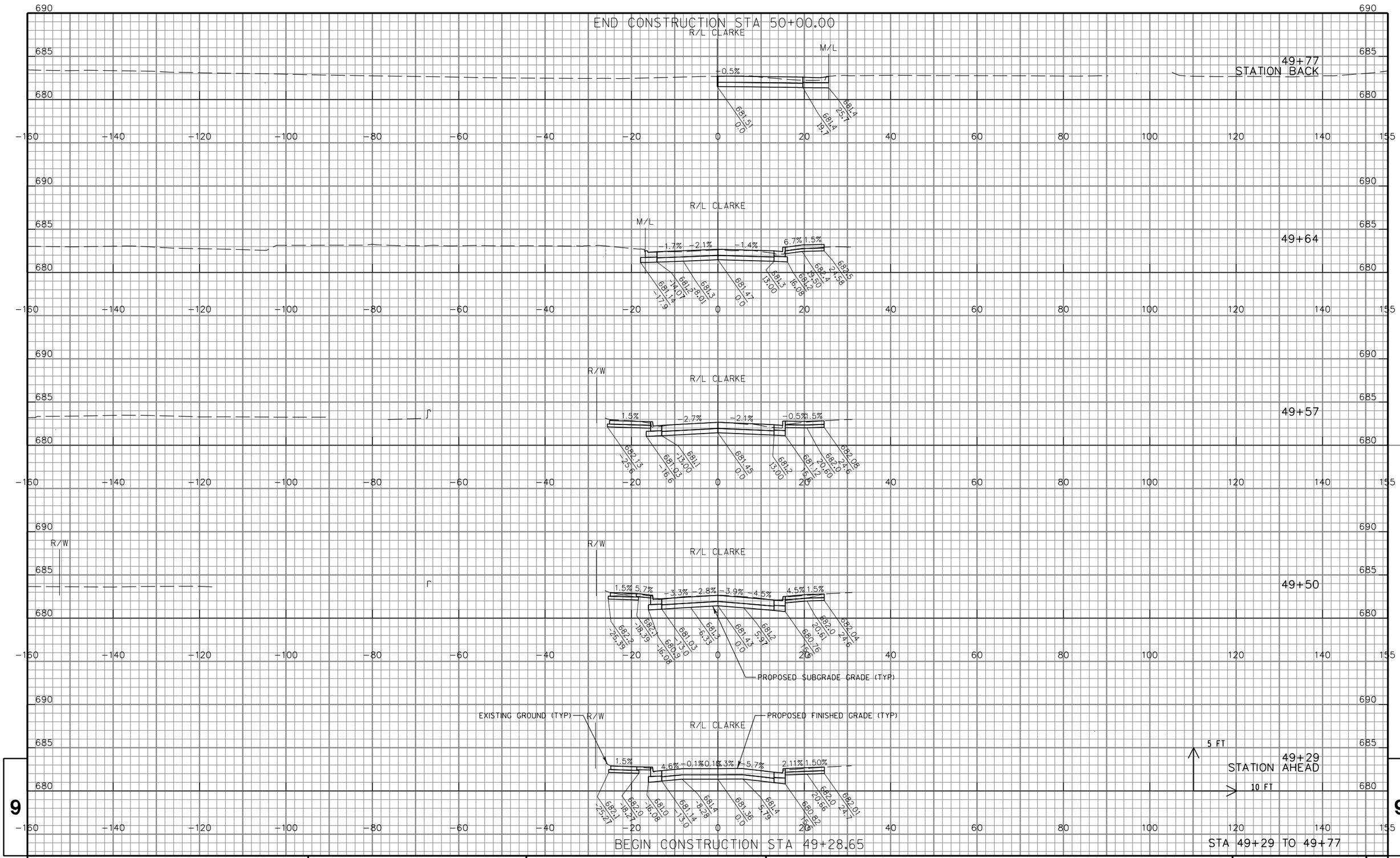
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WRIGHT AVE	SHEET 396 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090213_xs_Wright.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

END CONSTRUCTION STA 50+00.00



BEGIN CONSTRUCTION STA 49+28.65

STA 49+29 TO 49+77

9 9

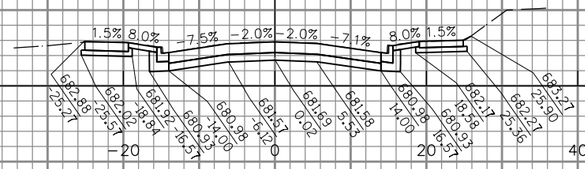
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. CLARKE ST	SHEET 397 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090214_xs_Clarke.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

END CONSTRUCTION STA 51+67.00

R/L CLARKE



50+67
STATION BACK

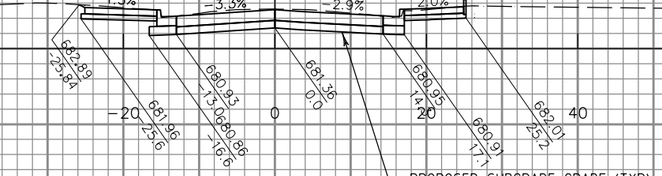
R/L CLARKE



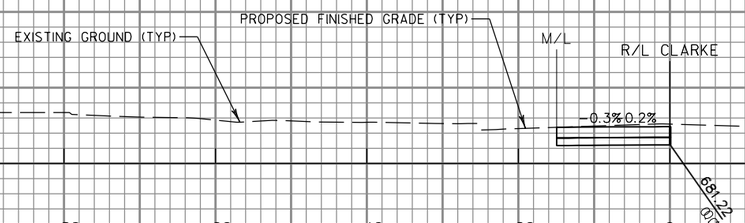
50+50

R/L CLARKE

M/L



50+36



5 FT
10 FT

50+23
STATION AHEAD

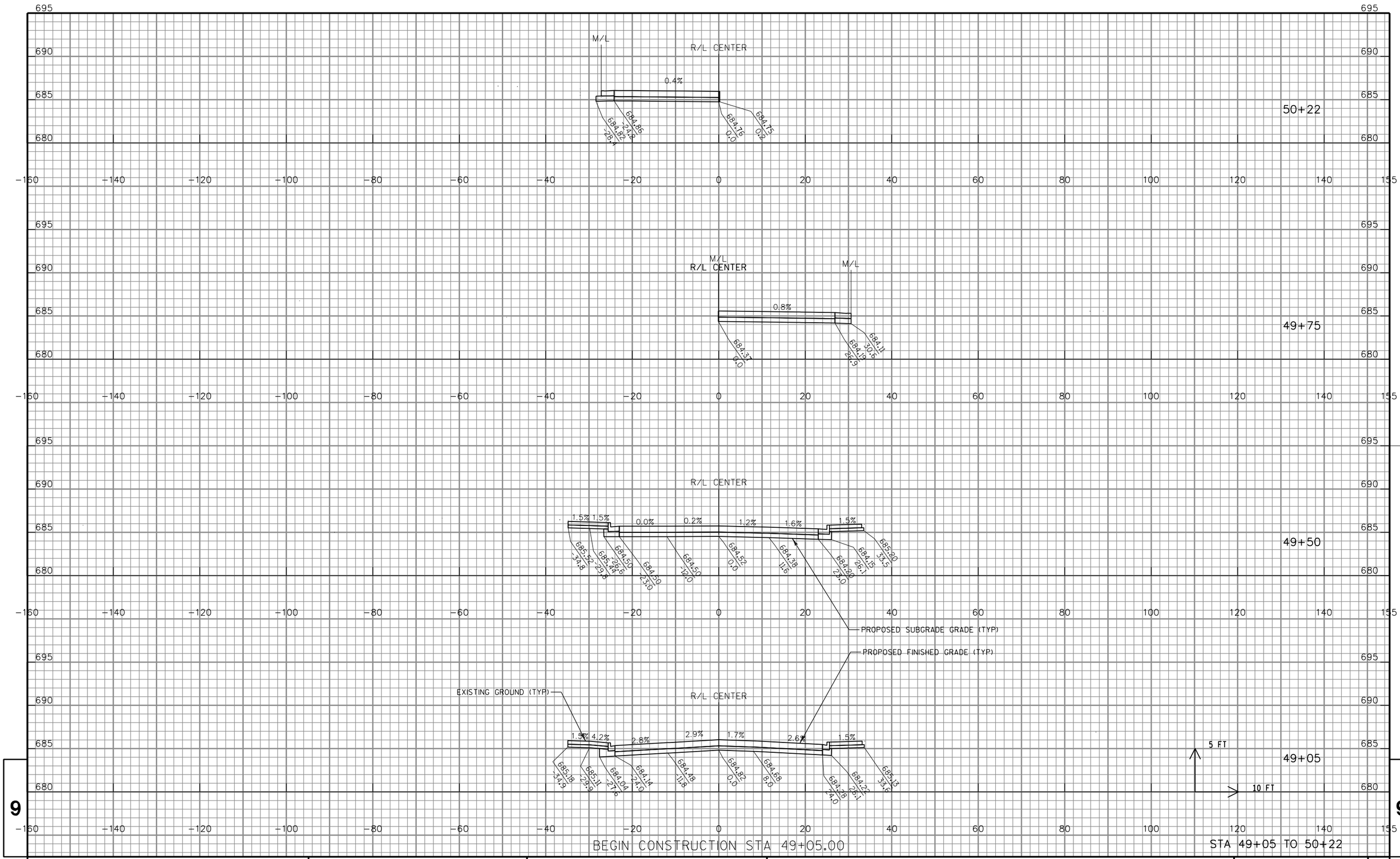
BEGIN CONSTRUCTION STA 50+00.00

STA 50+23 TO 50+67

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. CLARKE ST	SHEET 398 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090214_xs_Clarke.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

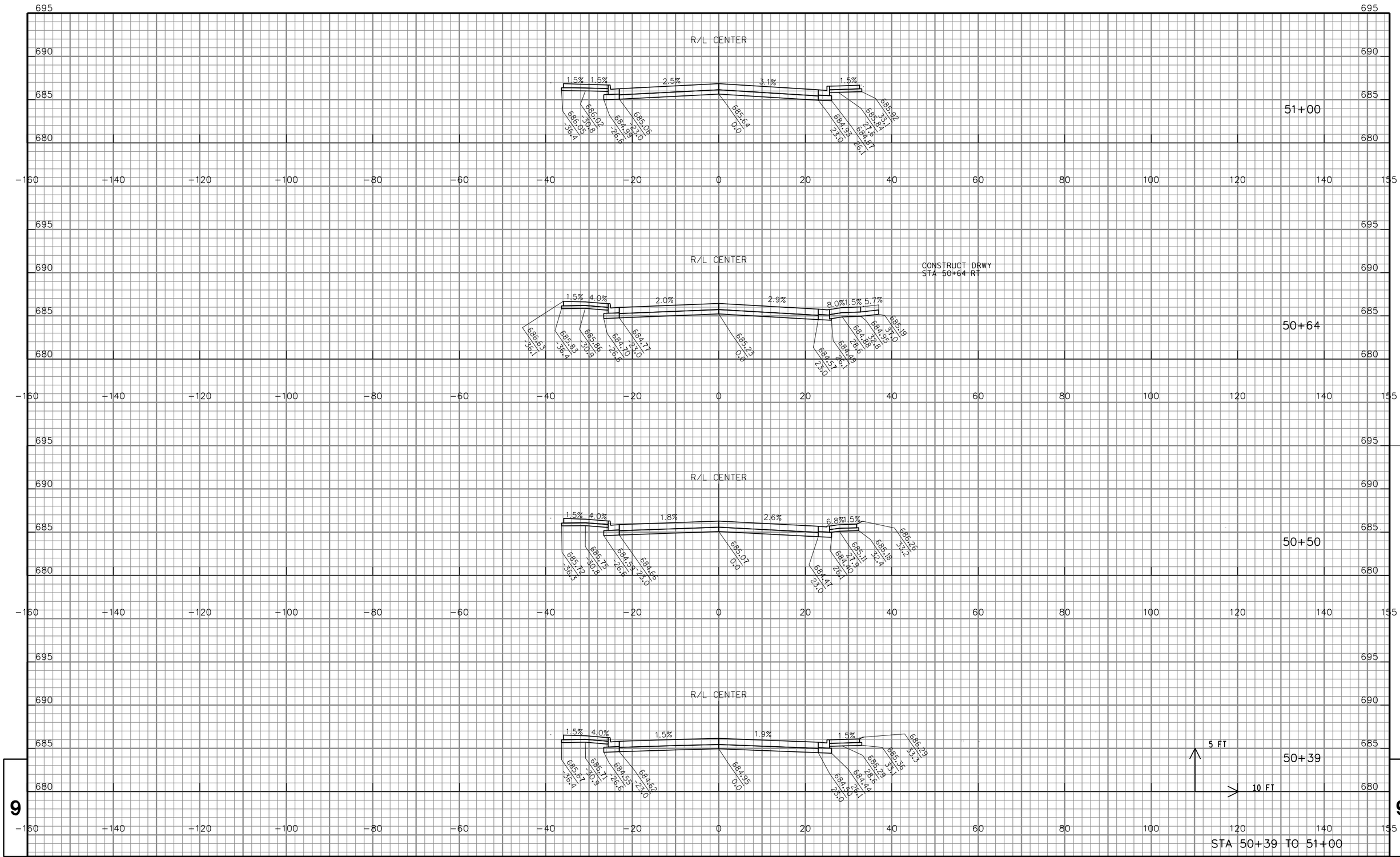
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. CENTER STREET	SHEET 399 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090215_xs_Center.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

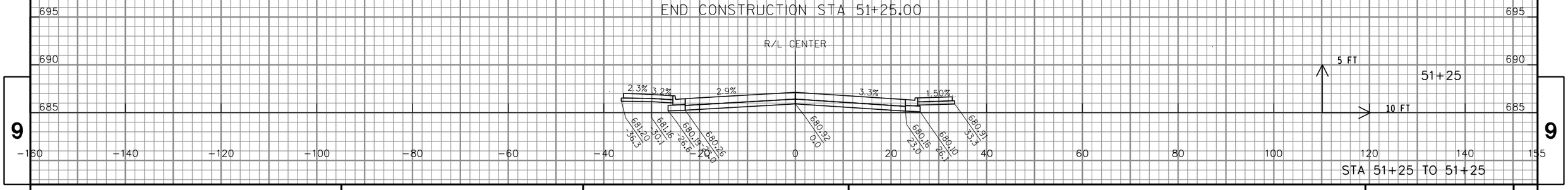


PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. CENTER STREET	SHEET 400 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090215_xs_Center.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

END CONSTRUCTION STA 51+25.00



STA 51+25 TO 51+25

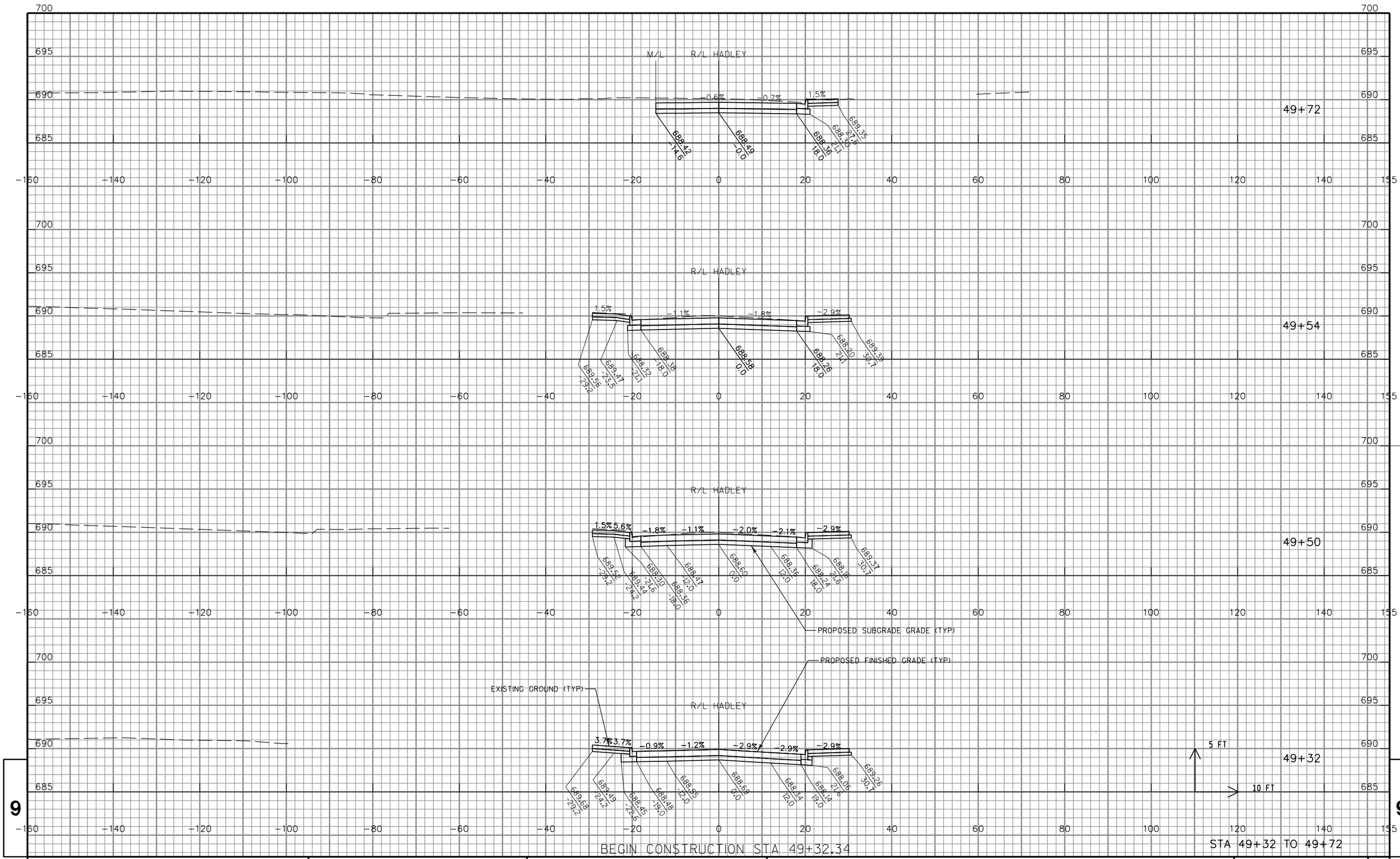
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9

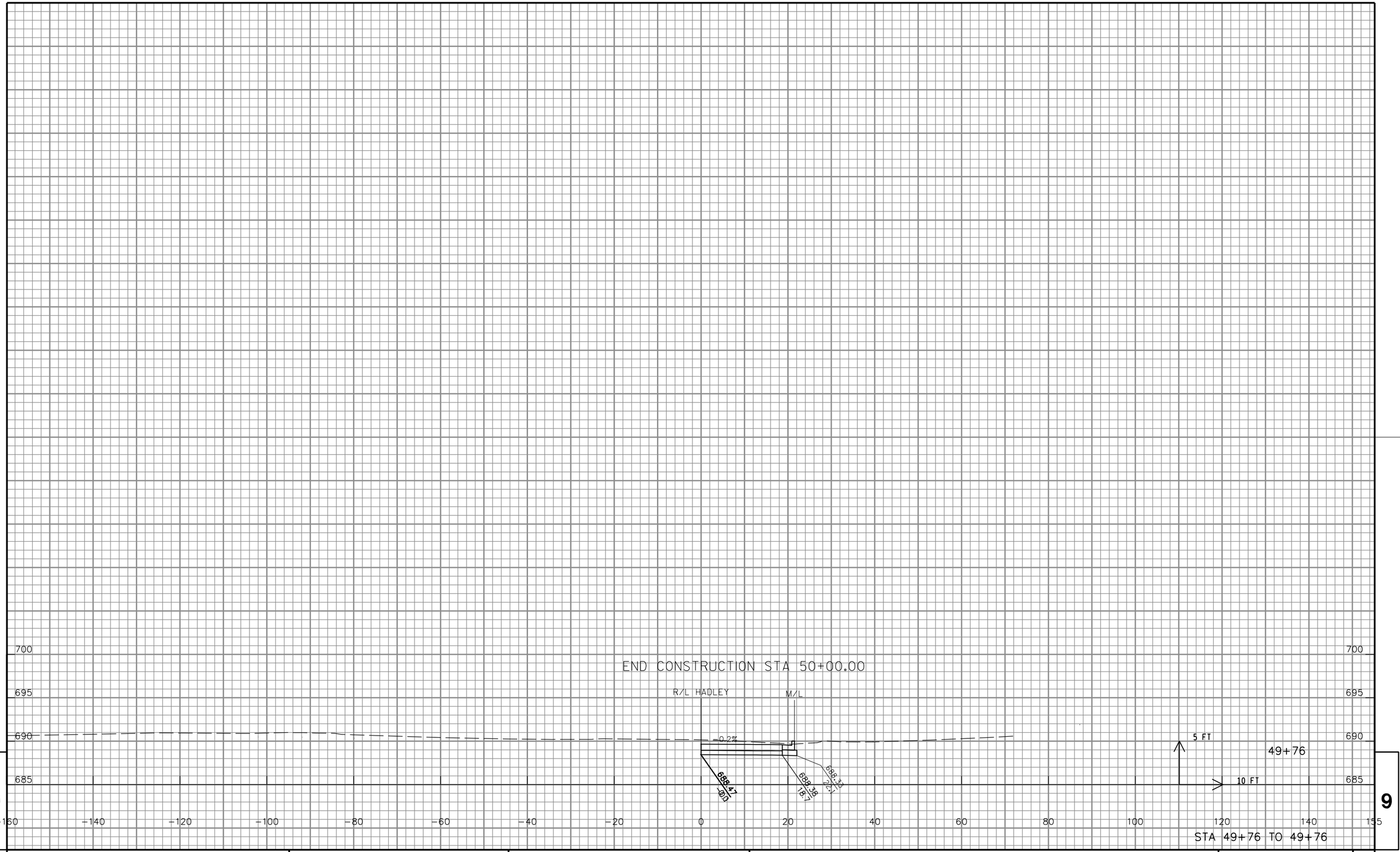
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. CENTER STREET	SHEET 401 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090215_xs_Center.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. HADLEY ST	SHEET 402 E



9

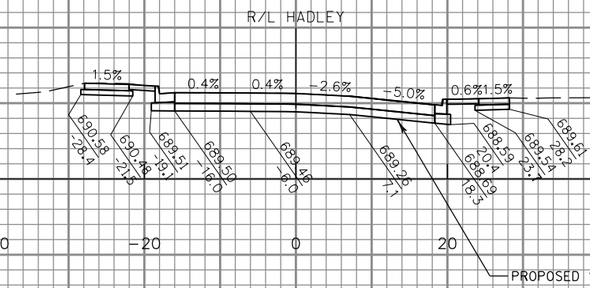
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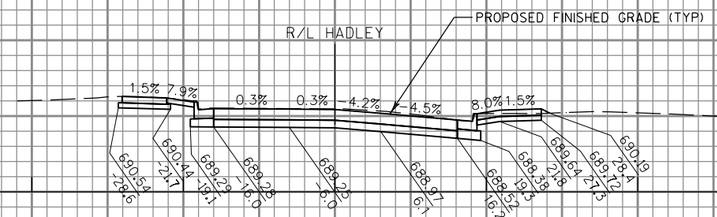
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. HADLEY ST	SHEET 403 E

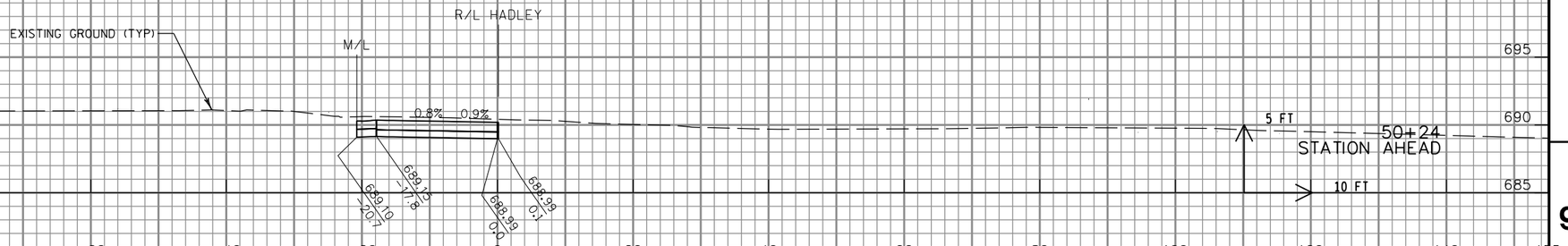
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WISDOT/CADDS SHEET 21

END CONSTRUCTION STA 50+73.93







BEGIN CONSTRUCTION STA 50+00.00

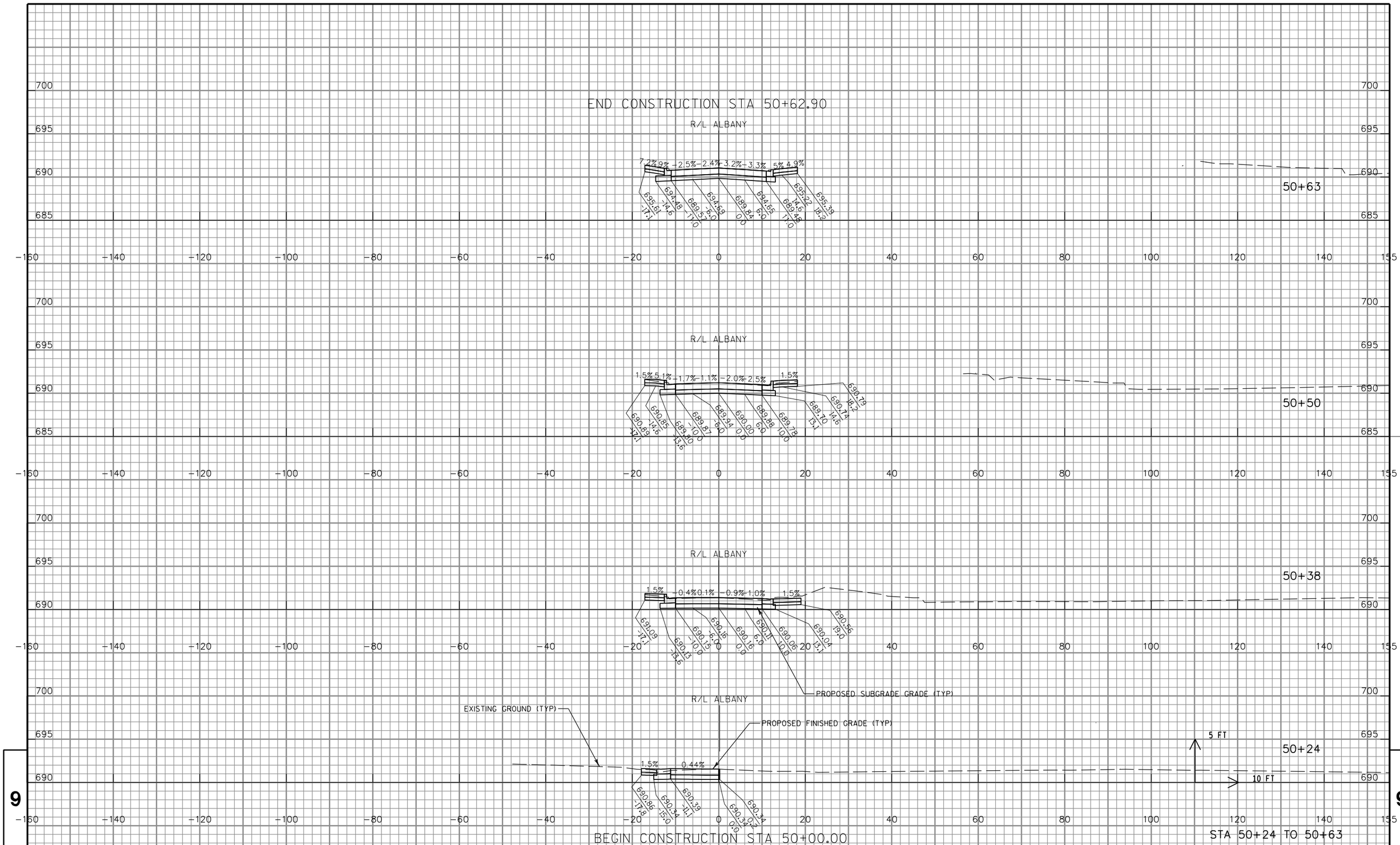
STA 50+23.59 TO 50+73.91

9

9

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: EAST HADLEY ST	SHEET 404 E

END CONSTRUCTION STA 50+62.90

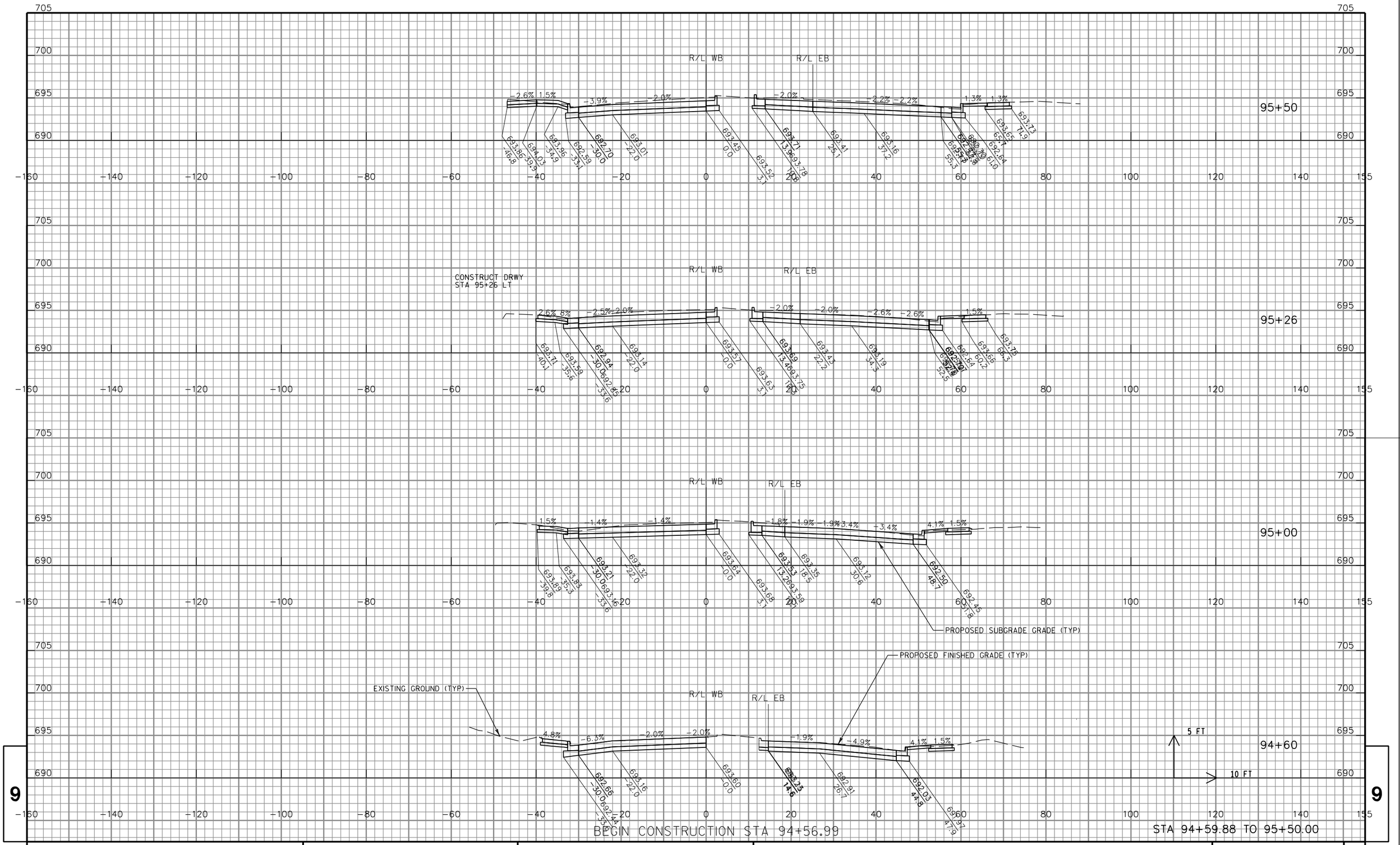


BEGIN CONSTRUCTION STA 50+00.00

STA 50+24 TO 50+63

9 9

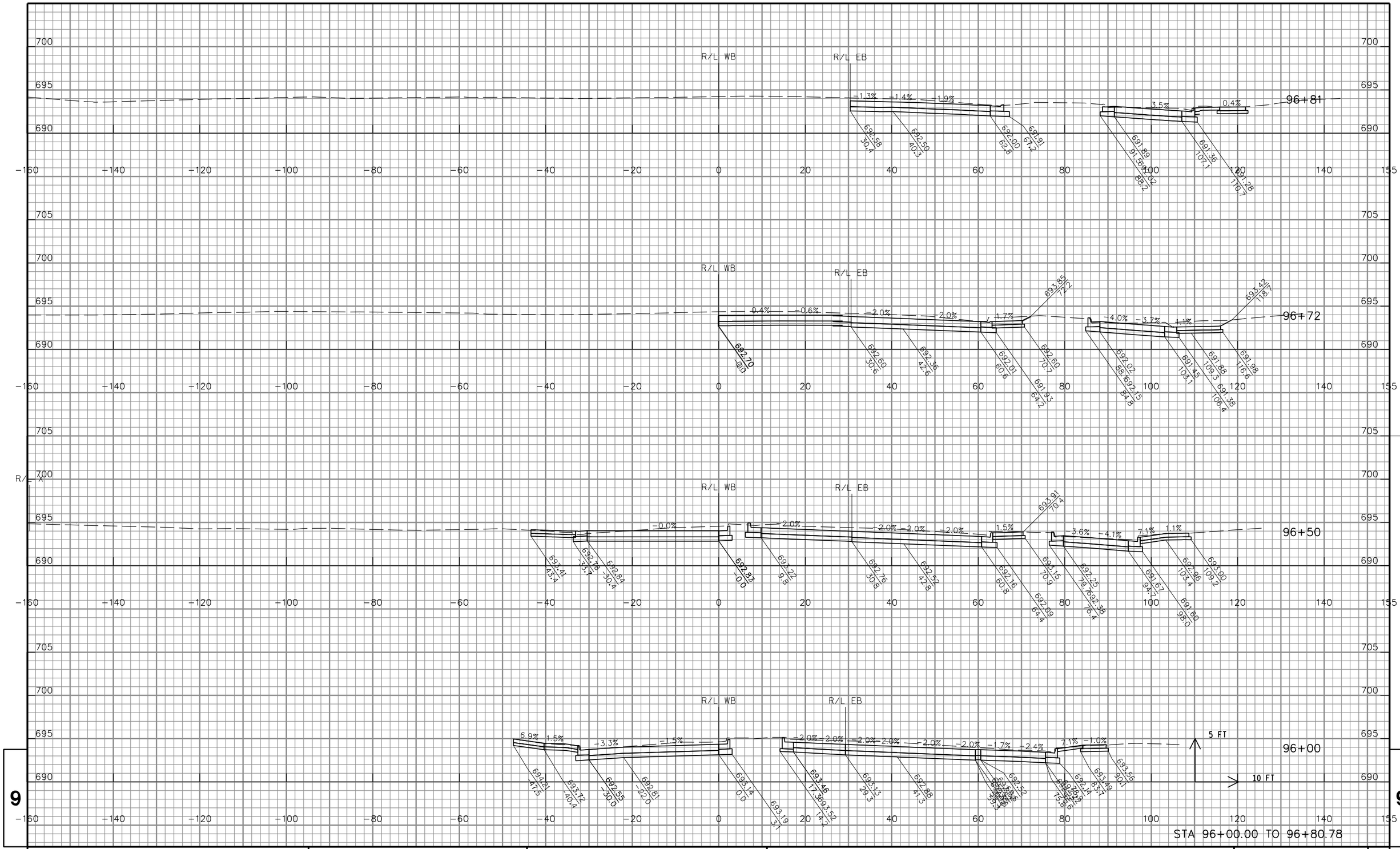
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. ALBANY PL	SHEET 405 E



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. LOCUST ST	SHEET 406 E

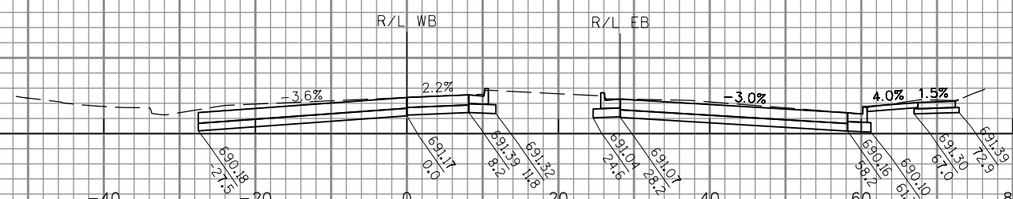
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090218_xs_Locust.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

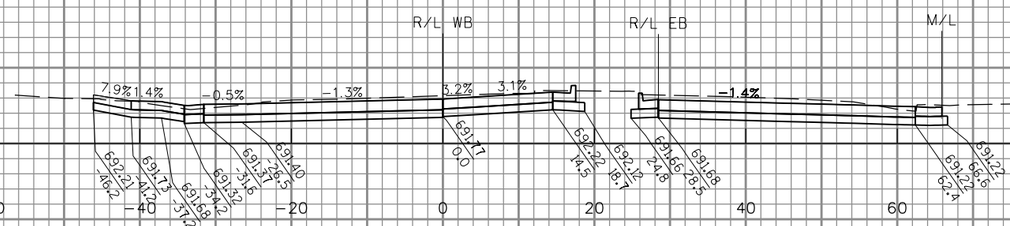
WISDOT/CADDS SHEET 21

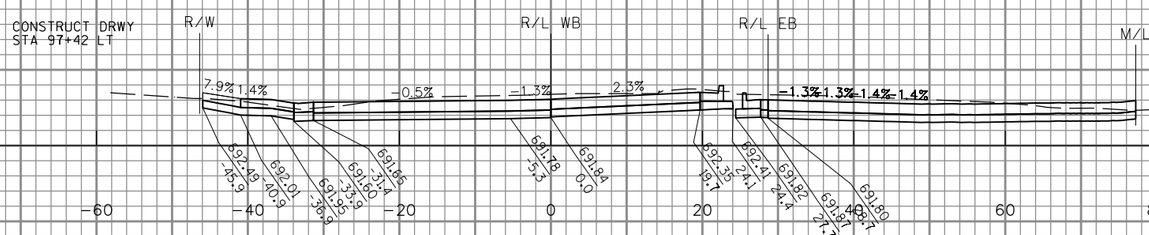


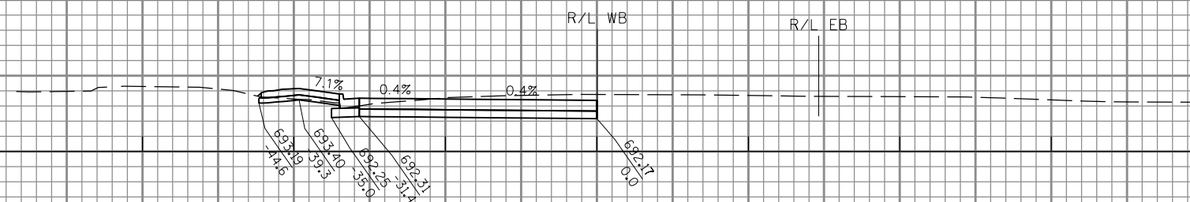
PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. LOCUST ST	SHEET 407 E

END CONSTRUCTION STA 97+88.90







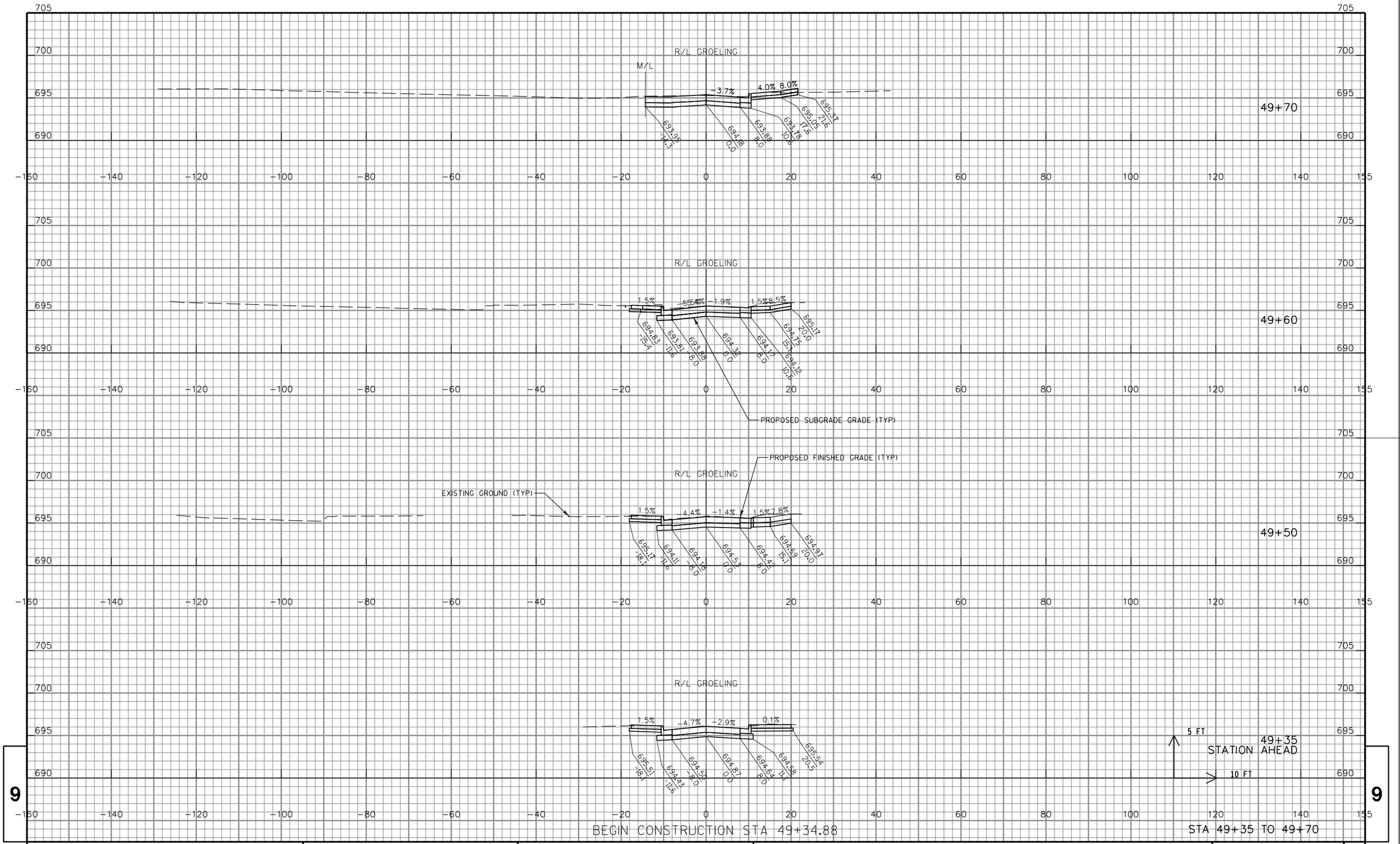


STA 97+19.94 TO 97+88.63

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. LOCUST ST	SHEET 408 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090218_xs_Locust.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

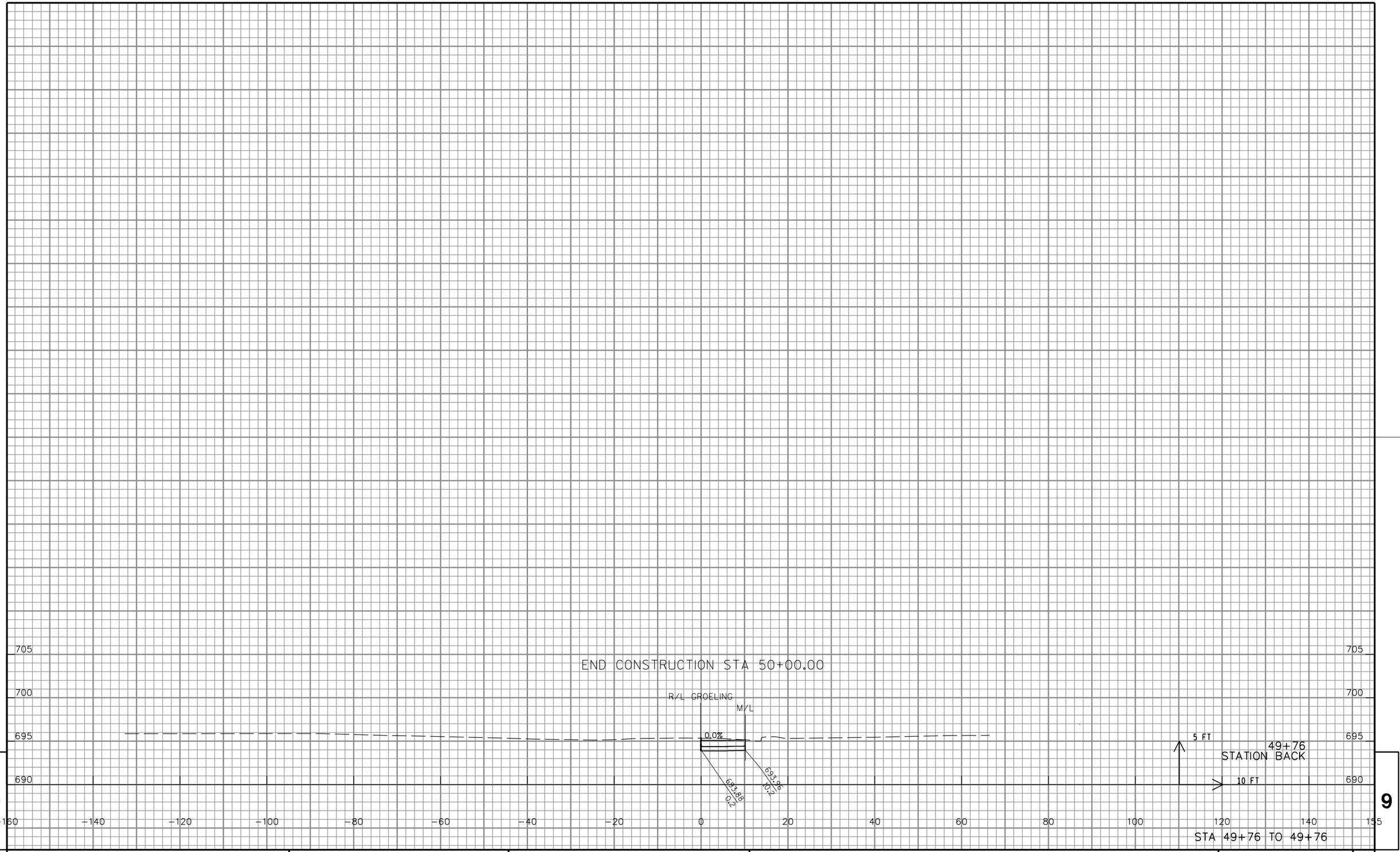
WISDOT/CADDS SHEET 21



PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. GROELING AVE	SHEET 409 E

FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090219_xs_Groeling.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

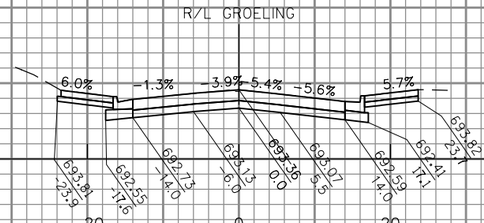
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PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. GROELING AVE	SHEET 410 E

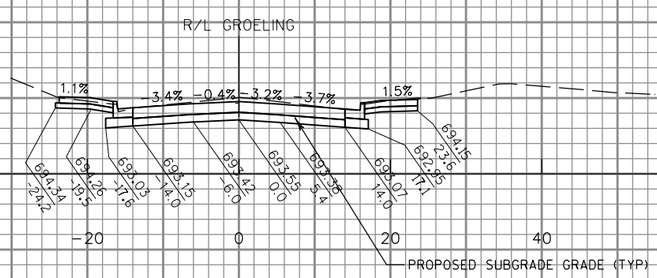
FILE NAME : S:\Milw_Co\MilwCity\Gov\150169 N. Teutonia Ave. Reconstruction\Design\dgn\plan sheets\090219_xs_Groeling.dgn PLOT DATE : 11/1/2018 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

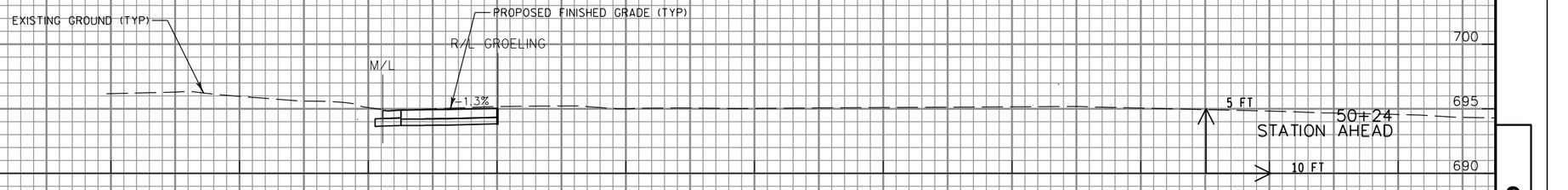
END CONSTRUCTION STA 50+67.27



50+67
STATION BACK



50+50



50+24
STATION AHEAD

BEGIN CONSTRUCTION STA 50+00.00

STA 50+24 TO 50+67

PROJECT NO: 2080-00-73	HWY: N. TEUTONIA AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W. GROELING AVE	SHEET 411 E

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