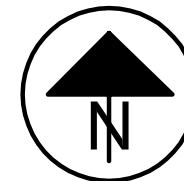


LOCATION MAP
NOT TO SCALE



STATE OF OHIO
CITY OF CANTON
STA-0153-01.70
MAHONING ROAD NE
ROADWAY IMPROVEMENTS
G.P. 1103

APRIL, 2014

PROJECT DESCRIPTION

THE PROJECT WORK INVOLVES THE IMPROVEMENT OF APPROXIMATELY 0.67 MILES OF MAHONING ROAD NE, S.R. 153 BETWEEN THE GRACE AVENUE NE AND HARMONT AVENUE NE INTERSECTIONS. THE IMPROVEMENTS INCLUDE NEW STORM SEWERS, CURBS, SIDEWALKS, PLANTERS, SIGNAGE, AND STREET LIGHTING.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION AND THE CITY OF CANTON, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL, SHALL GOVERN THIS IMPROVEMENT.

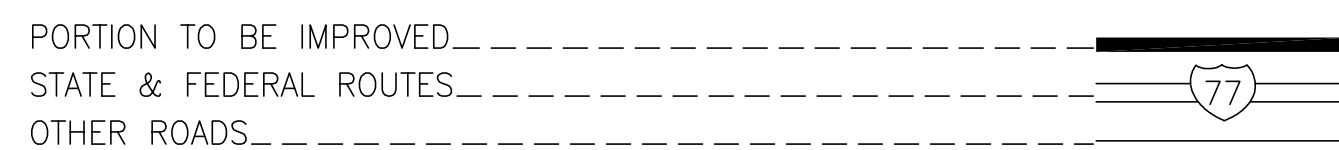
APPROVALS

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

CITY OF CANTON

APPROVED: Daniel J. Moeglin
DANIEL J. MOEGLIN, P.E., S.I.
CANTON CITY ENGINEER

DATE: 4/21/14



DESIGN DESIGNATION

CURRENT ADT (2009)	10411 VPD
DESIGN YEAR ADT (2024)	12703 VPD
DESIGN HOURLY VOLUME	828 VPH
DIRECTIONAL DISTRIBUTION, D	52%/48% (WB/EB)
TRUCKS (24 HOUR B&C)	2%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS

NONE

DESIGN FEATURE

PAVEMENT CROSS SLOPE

APPROVAL DATE

--/--/----

SHEET NUMBERS

4 THRU 8

INDEX OF SHEETS

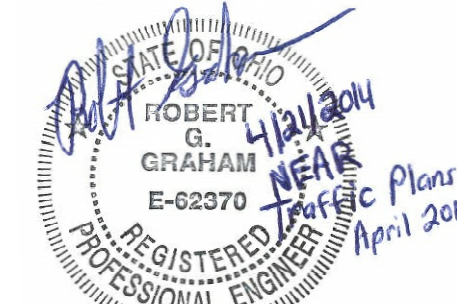
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GENE E. ARTERS, P.E. DATE
SHEETS 1 THRU 82



MICHAEL J. SVASTA, P.E. DATE
SHEETS 97 THRU 108



ROBERT G. GRAHAM, P.E. DATE
SHEETS 83 THRU 96

STANDARD CONSTRUCTION DRAWINGS

OHIO DEPARTMENT OF TRANSPORTATION										CITY OF CANTON				ODOT SUPPLEMENTAL SPECIFICATIONS			
BP-2.1	7/19/2013	DM-1.1	1/18/2013	MH-1.1	1/18/2013	RM-1.1	1/18/2013	TC-83.20	4/20/2012	NO. 1	3/2012	NO. 28	7/23/2012	NO. 45	2/2012	800	7/19/2013
BP-2.2	7/18/2013	DM-1.4	1/18/2013	MH-1.2	1/18/2013	RM-2.1	7/19/2013	TC-85.10	10/16/2009	NO. 4	3/2012	NO. 29	3/2012				
BP-2.5	7/19/2013	DM-4.3	1/18/2013									NO. 30	3/2012	NO. 61	4/2012	832	5/5/2009
BP-3.1	4/20/2012	DM-4.4	7/20/2012					TC-21.20	1/18/2013	NO. 10	12/2011	NO. 33	6/29/2012	NO. 62	4/2012		
BP-4.1	7/19/2013			MT-95.60	7/20/2012	TC-22.20	1/18/2013			NO. 12	12/2011	NO. 34	7/20/2012	NO. 63	3/2014		
BP-5.1	7/19/2013	HL-20.11	1/19/2007	MT-95.61	7/20/2012	TC-41.20	1/19/2001							NO. 64	4/2012		
BP-7.1	10/15/2010	HL-30.11	1/18/2013	MT-97.12	7/20/2012	TC-42.10	1/19/2007			NO. 19	6/10/2013	NO. 40	2/2012	NO. 65	3/2014		
		HL-30.21	10/21/2011	MT-101.60	7/20/2012	TC-42.20	1/21/2011			NO. 21	11/2011	NO. 41	2/2012				
CB-1.1	1/18/2013	HL-30.22	1/18/2013	MT-105.10	7/20/2012	TC-52.10	1/18/2013			NO. 23	3/2012	NO. 42	2/2012				
CB-2.1	1/18/2013	HL-50.11	1/19/2007	MT-110.10	7/20/2012	TC-52.20	1/18/2013			NO. 24	7/24/2012	NO. 43	2/2012				
CB-2.3	1/18/2013					TC-71.10	10/19/2012					NO. 47	2/2012				
		LA-1.2	1/16/2009			TC-81.21	1/18/2013			NO. 27	3/2012	NO. 44	2/2012				

ODOT REFERENCE NUMBERS

MAHONING ROAD:	A831102839
SUPERIOR AVENUE:	A831102847
WINFIELD WAY:	A831102851
ROYAL AVENUE:	A831102855
15TH STREET:	A831102859
GRACE AVENUE:	A831102864
16TH STREET:	A831102868

Ohio Utilities Protection Service



REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

FEDERAL PROJECT NO.

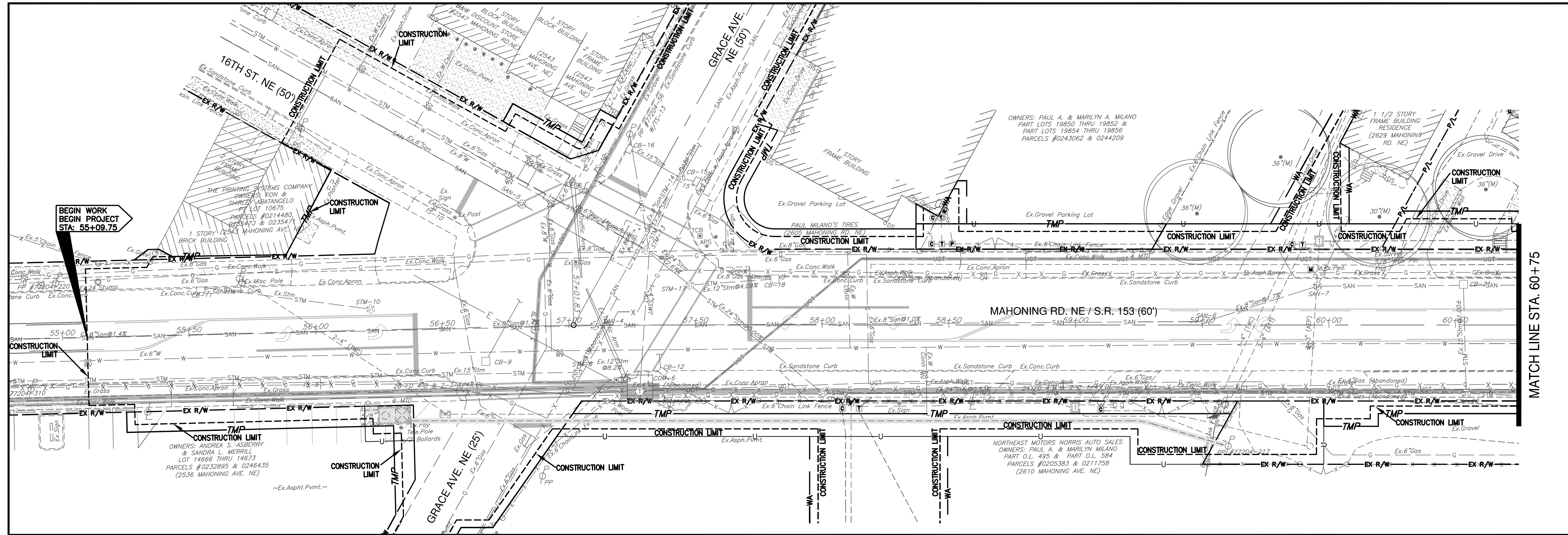
PID NO. 90361

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

MAHONING ROAD NE STA-0153-01.70

1 108

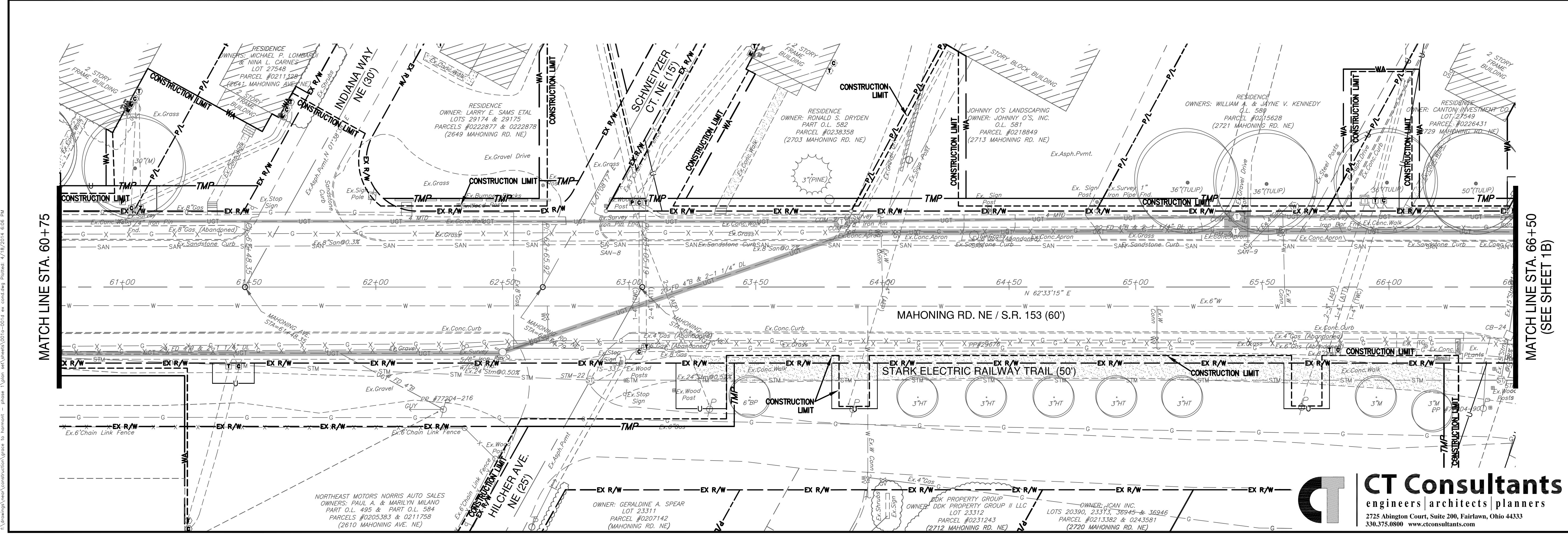


MATCH LINE STA. 60+75

CALCULATED: GEA
 CHECKED: JGC

0 20' 40'
 1" = 20'
 HORIZONTAL SCALE

EXISTING CONDITIONS
 STA. 54+75 TO STA. 66+50



MATCH LINE STA. 60+75

MATCH LINE STA. 66+50
 (SEE SHEET 1B)

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
 STA-0153-01.70

1A
 108

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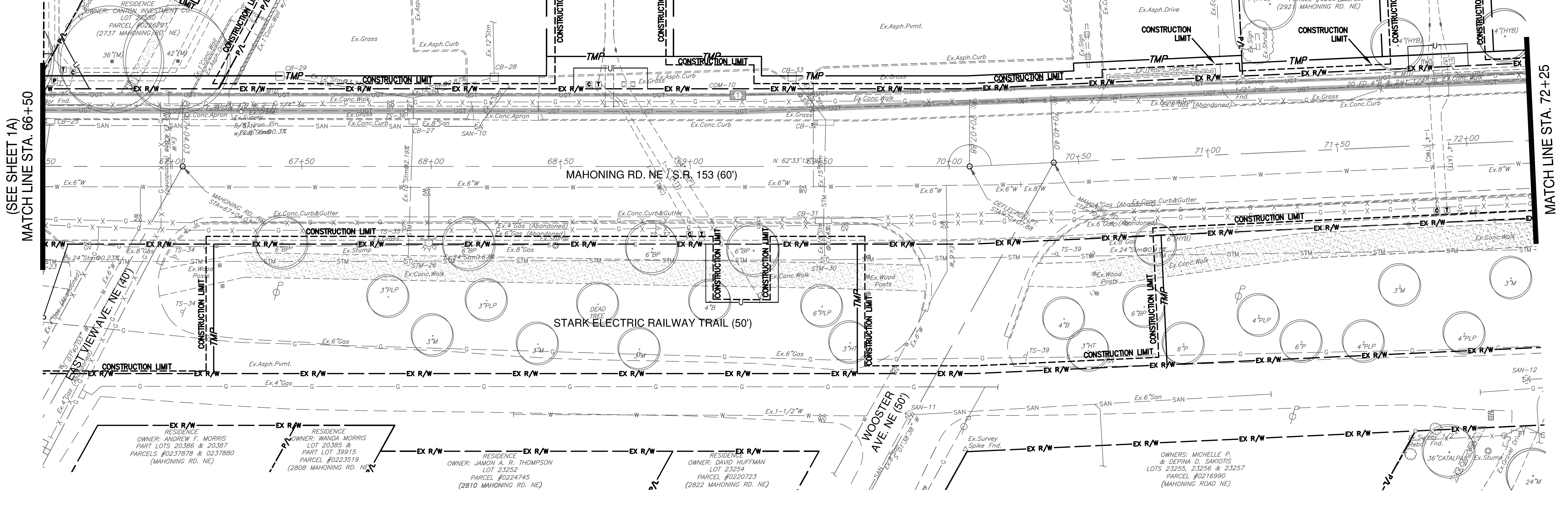
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OWNER: STARK COUNTY COMMUNITY ACTION
 LOTS 27551 THRU 27553 & PART O.L. 576
 PARCEL #0243271, 0246321 & 0285477

OWNER: STARK COUNTY DISTRICT LIBRARY
 PART O.L. 576
 PARCEL #0285433
 MAHONING RD. NE

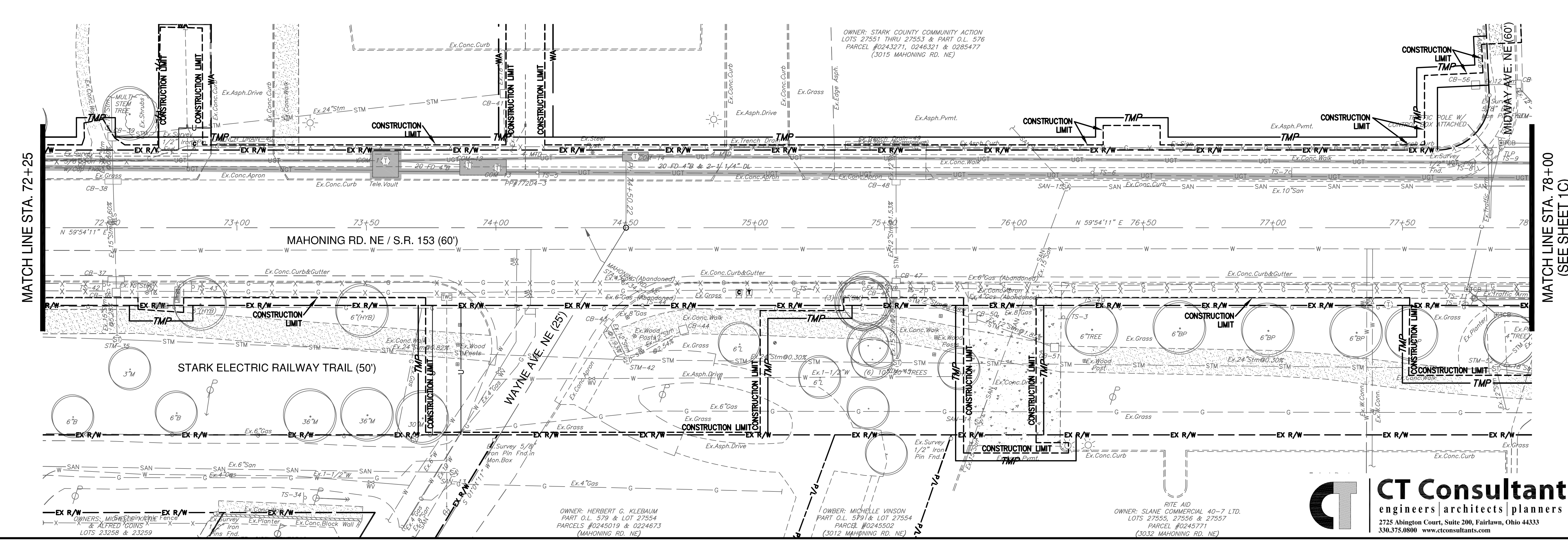
(SEE SHEET 1A)
 MATCH LINE STA. 66+50

MATCH LINE STA. 72+25



MATCH LINE STA. 72+25

MATCH LINE STA. 78+00
 (SEE SHEET 1C)



CALCULATED: GEA
 CHECKED: JGC

0 20' 40'
 1" = 20'
 HORIZONTAL SCALE

EXISTING CONDITIONS
 STA. 66+50 TO STA. 78+00

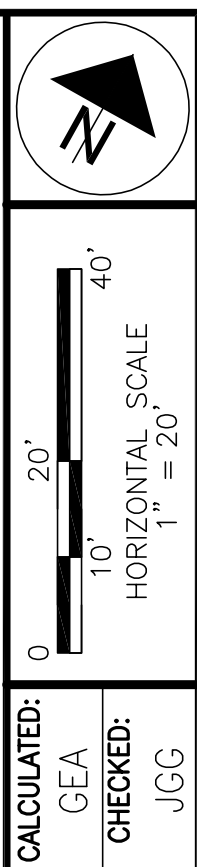
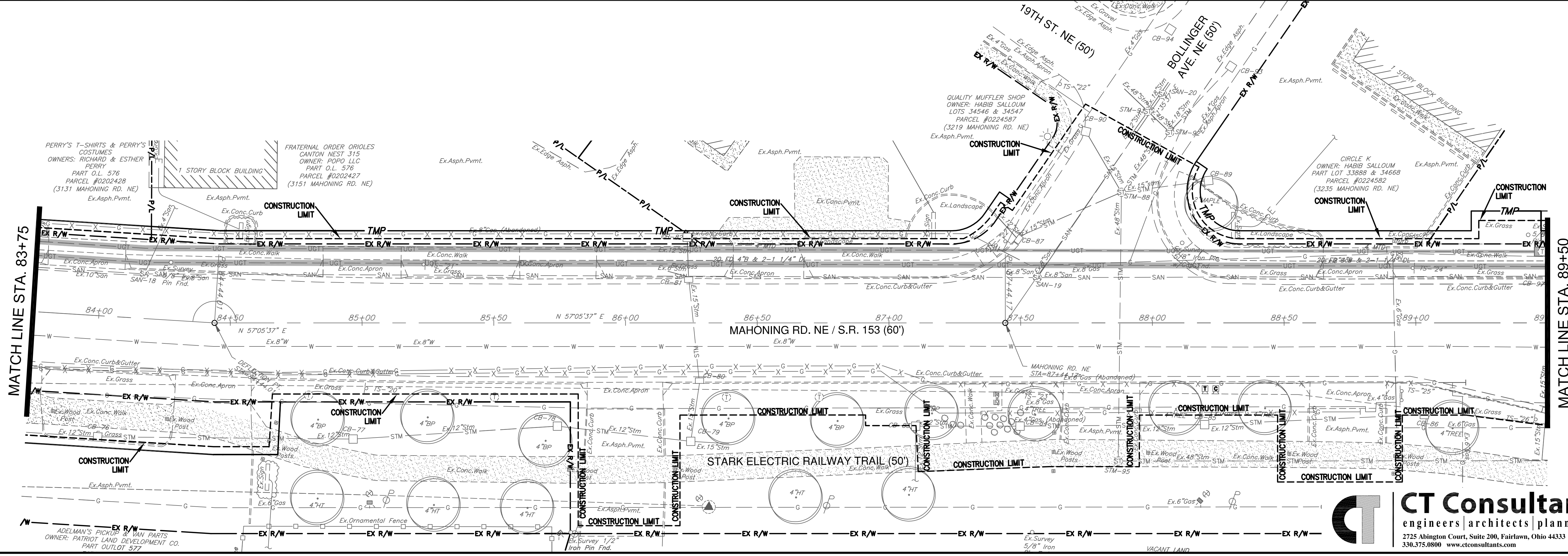
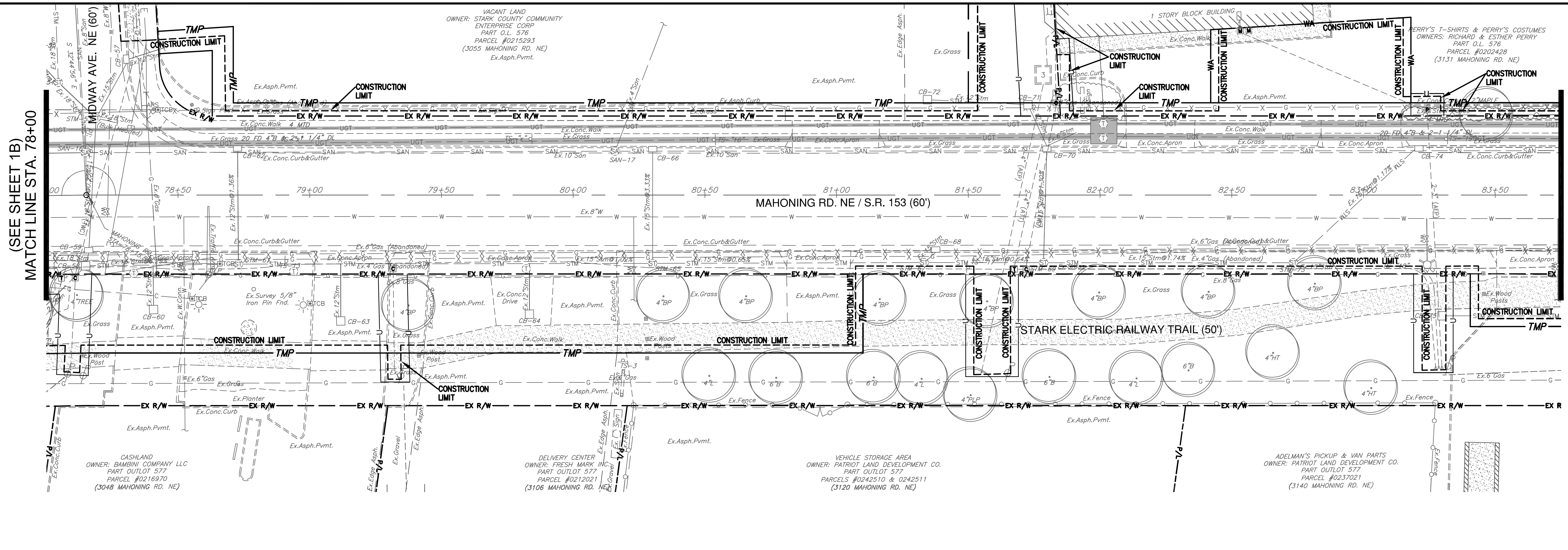
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
 STA-0153-01.70

1B
 108

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EXISTING CONDITIONS
STA. 78+00 TO STA. 89+50

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

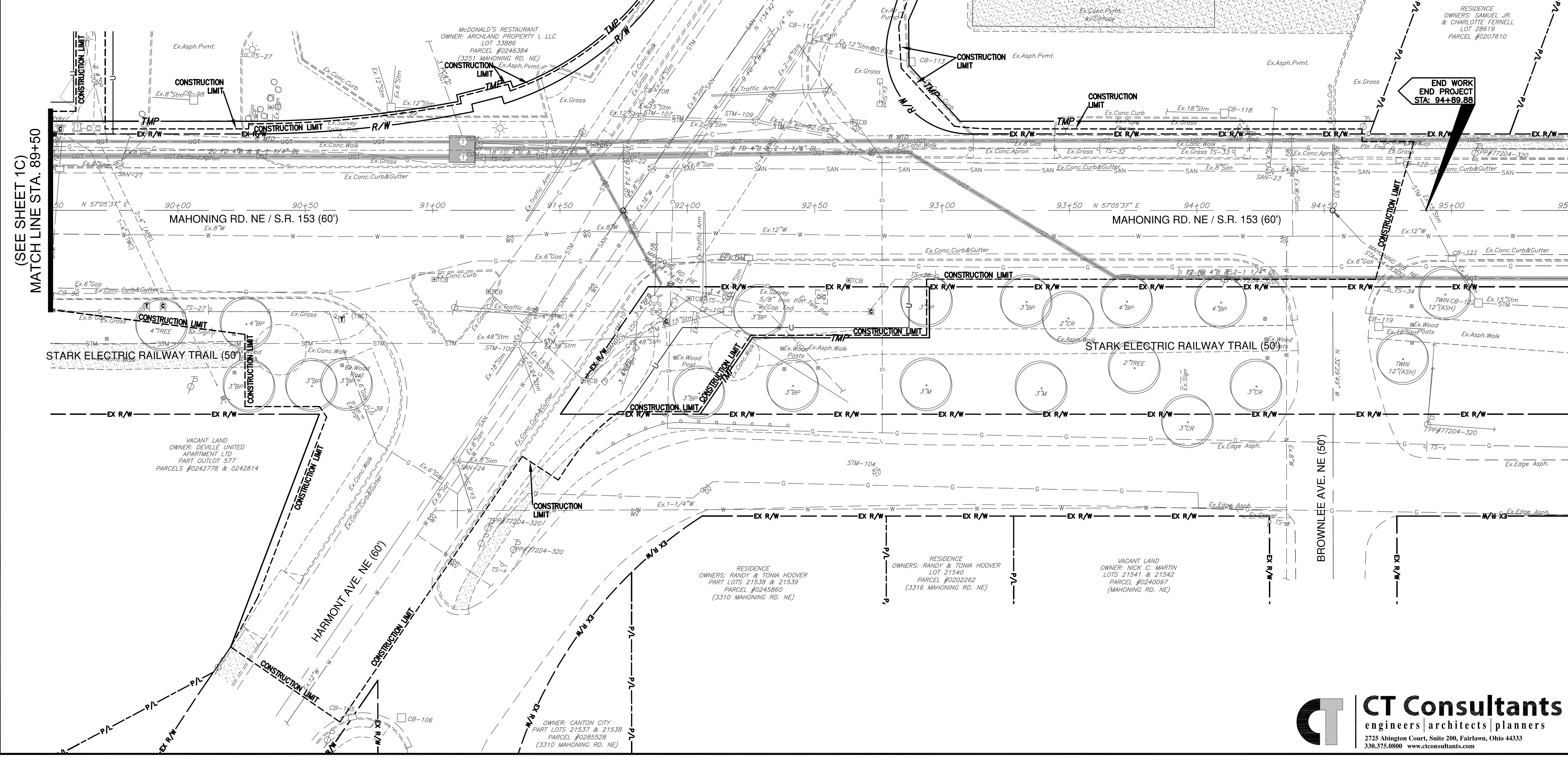
MAHONING ROAD NE
STA-0153-01.70

1C
108


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LEGEND			
-T-----	EX. OVERHEAD TELEPHONE	○●○●○●	EX. POWER POLE
-E-----	EX. OVERHEAD ELECTRIC	○●○●○●	EX. LIGHT POLE
-CTV-----	EX. OVERHEAD CABLE TELEVISION	○●○●○●	EX. DECORATIVE LIGHT POLE
-T/C-----	EX. OVERHEAD TELEPHONE/CABLE	○●○●○●	EX. TRAFFIC SIGNAL POLE
-G-----	EX. GAS LINE	○●○●○●	EX. POWER/TELEPHONE POLE
-X G-----	EX. ABANDONED GAS LINE	○●○●○●	EX. POWER/LIGHT POLE
-SAN-----	EX. SANITARY SEWER	○●○●○●	EX. POWER/LIGHT/TELE POLE
-STM-----	EX. STORM SEWER	○●○●○●	EX. FLAG POLE
-E-----	EX. UNDERGROUND ELECTRIC	○●○●○●	EX. SIGN
-UGT-----	EX. UNDERGROUND TELEPHONE	○●○●○●	EX. POST
-W-----	EX. WATER LINE	○●○●○●	EX. WOODEN SQUARE POST
-W-----	EX. CENTERLINE	○●○●○●	EX. MAILBOX
-R/W-----	EX. RIGHT-OF-WAY LINE	○●○●○●	EX. BUS SHELTER
-P/L-----	EX. PROPERTY LINE	○●○●○●	EX. CLEANOUT
○	EX. SANITARY MANHOLE	○●○●○●	EX. HYDRANT
○	EX. STORM MANHOLE	○●○●○●	EX. WATER MANHOLE
○	EX. CATCH BASIN	○●○●○●	EX. WATER VALVE
○	EX. CLEANOUT	○●○●○●	EX. GAS VALVE
○	EX. HYDRANT	○●○●○●	EX. GAS METER
○	EX. WATER MANHOLE	○●○●○●	EX. TELEPHONE MANHOLE
○	EX. WATER VALVE	○●○●○●	EX. PAY PHONE
○	EX. GAS VALVE	○●○●○●	EX. GUY WIRE
○	EX. GAS METER	○●○●○●	EX. UTILITY PEDESTAL
○	EX. TELEPHONE MANHOLE	○●○●○●	EX. UTILITY POLE
○	EX. PAY PHONE	○●○●○●	
○	EX. GUY WIRE	○●○●○●	
○	EX. UTILITY PEDESTAL	○●○●○●	
○	EX. UTILITY POLE	○●○●○●	
		○●○●○●	EX. TREE
		○●○●○●	
		○●○●○●	TEMP. CONSTRUCTION EASEMENT
		○●○●○●	PR. UTILITY EASEMENT
		○●○●○●	PR. WORK AGREEMENT



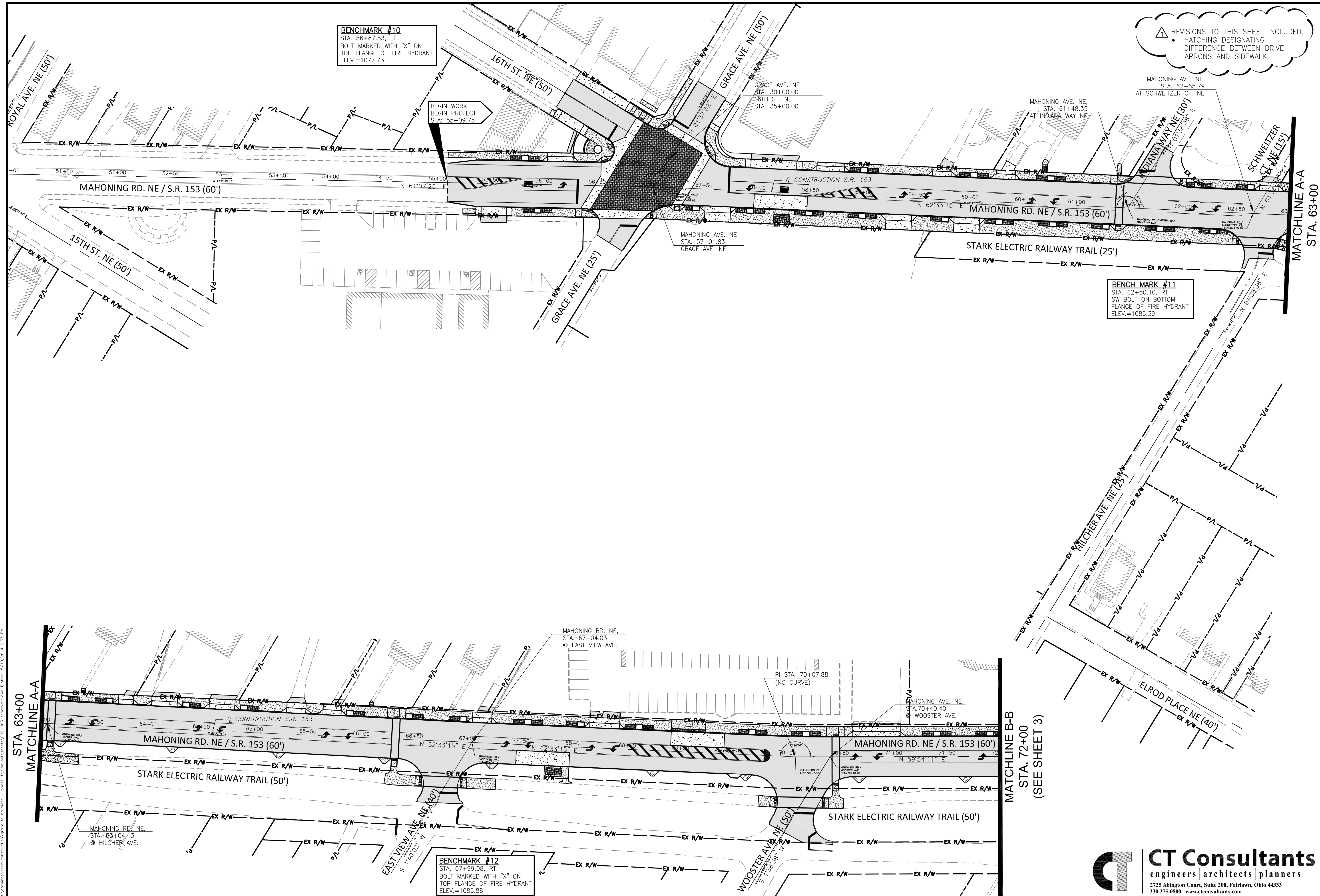
(SEE SHEET 1C)
MATCH LINE STA. 89+50


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 CHECKED: JCG
 HORIZONTAL SCALE 1" = 20'
 40'
 20'
 0'
 10'
 20'
 40'

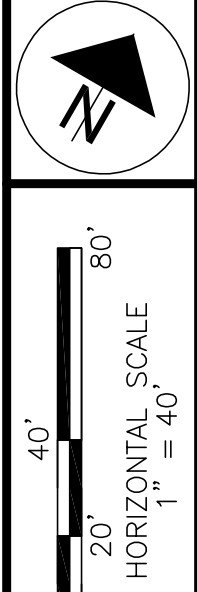
EXISTING CONDITIONS
STA. 89+50 TO STA. 95+50

DATE: 4/21/14
 BY: GEA
 REVISIONS:
 CONSTRUCTION BIDDING SET

MAHONING ROAD NE
STA-0153-01.70



REVISIONS TO THIS SHEET INCLUDED:
 HATCHING DESIGNATING
 DIFFERENCE BETWEEN DRIVE
 APRONS AND SIDEWALK.



CALCULATED: GEA
 CHECKED: JGC

SCHEMATIC PLAN
 STA. 55+09 TO STA. 72+90

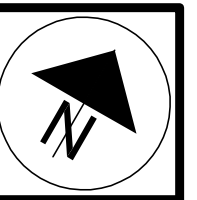
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70

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REVISIONS TO THIS SHEET INCLUDED:
 HATCHING DESIGNATING
 DIFFERENCE BETWEEN DRIVE
 APRONS AND SIDEWALK.



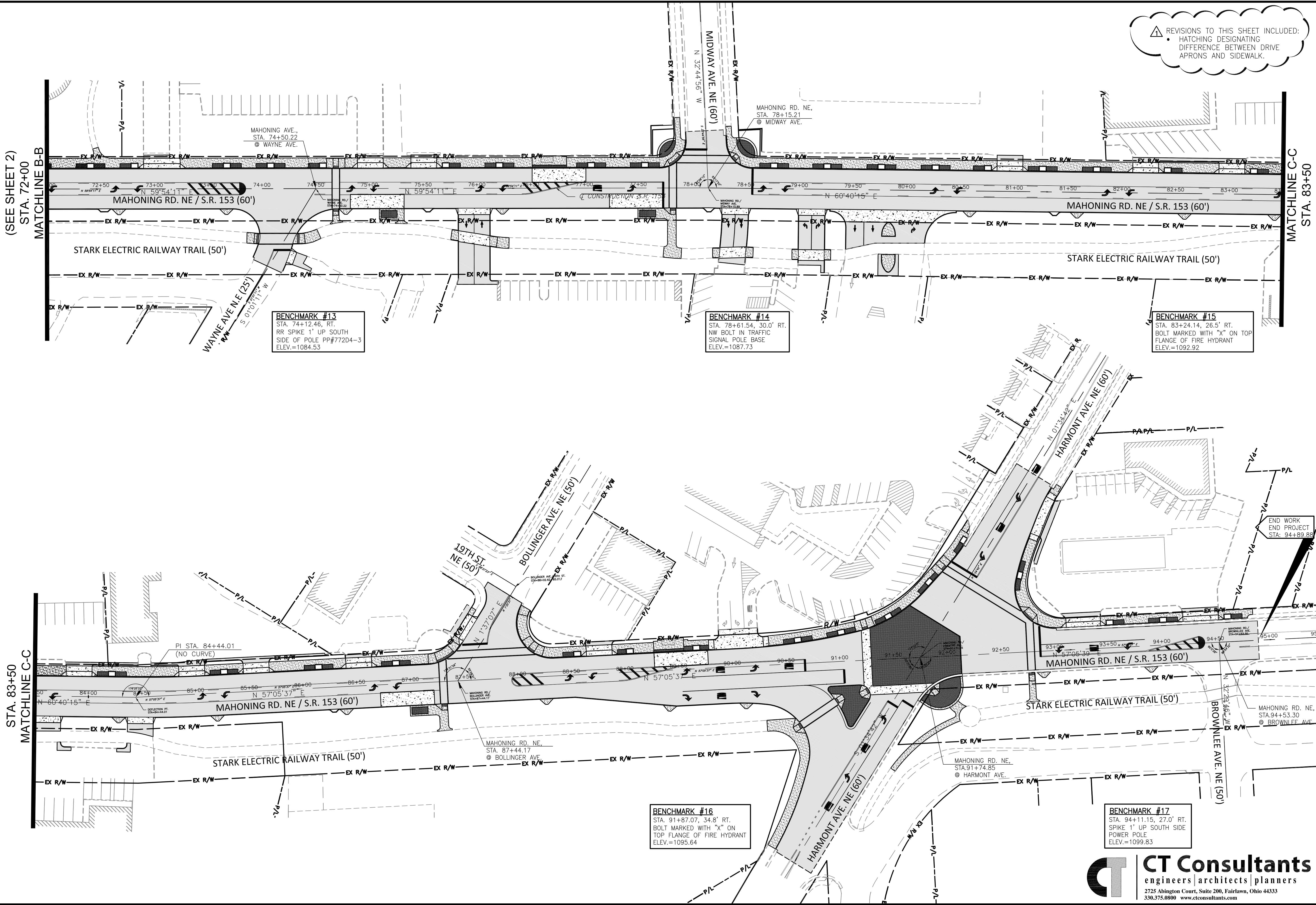
0 40' 80'
 20'
 HORIZONTAL SCALE
 1" = 40'

CALCULATED: GEA
 CHECKED: JGC

SCHEMATIC PLAN
 STA. 55+09 TO STA. 94+90

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
APPENDIX NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70



BENCHMARK #13
 STA. 74+12.46, RT.
 RR SPIKE 1' UP SOUTH
 SIDE OF POLE PP#772D4-3
 ELEV.=1084.53

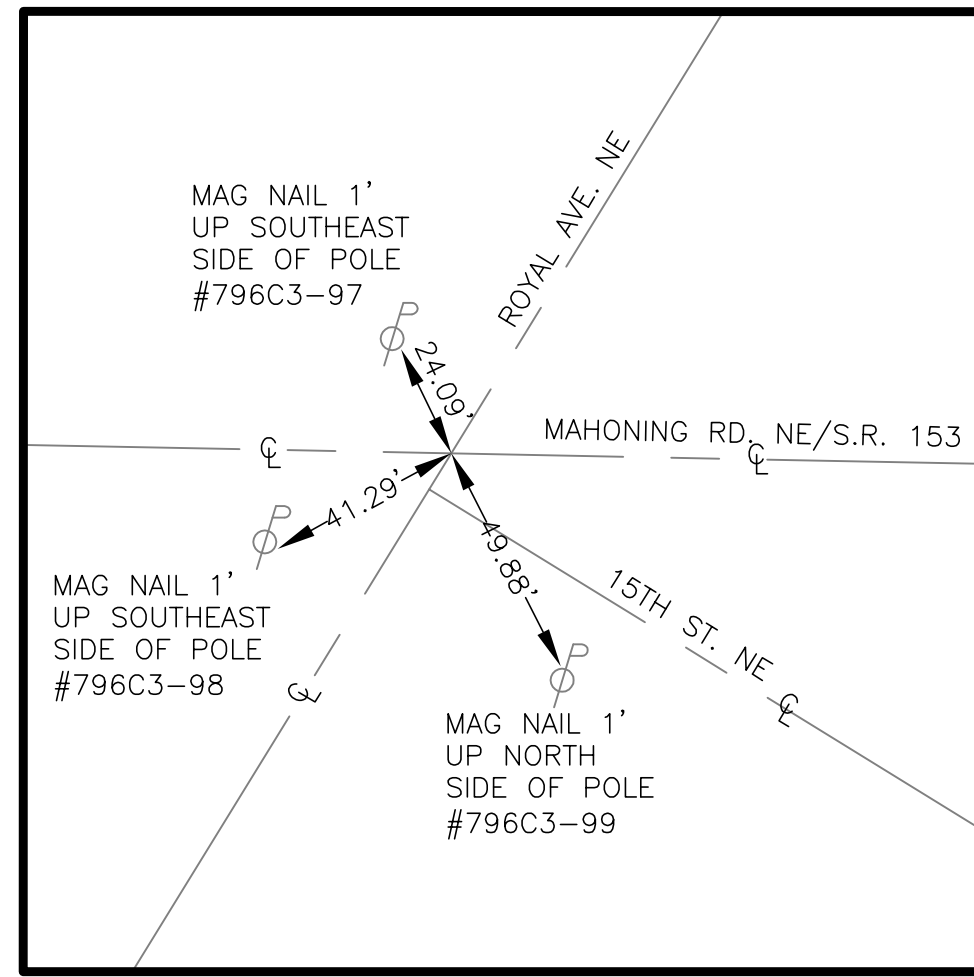
BENCHMARK #14
 STA. 78+61.54, 30.0' RT.
 NW BOLT IN TRAFFIC
 SIGNAL POLE BASE
 ELEV.=1087.73

BENCHMARK #15
 STA. 83+24.14, 26.5' RT.
 BOLT MARKED WITH "X" ON TOP
 FLANGE OF FIRE HYDRANT
 ELEV.=1092.92

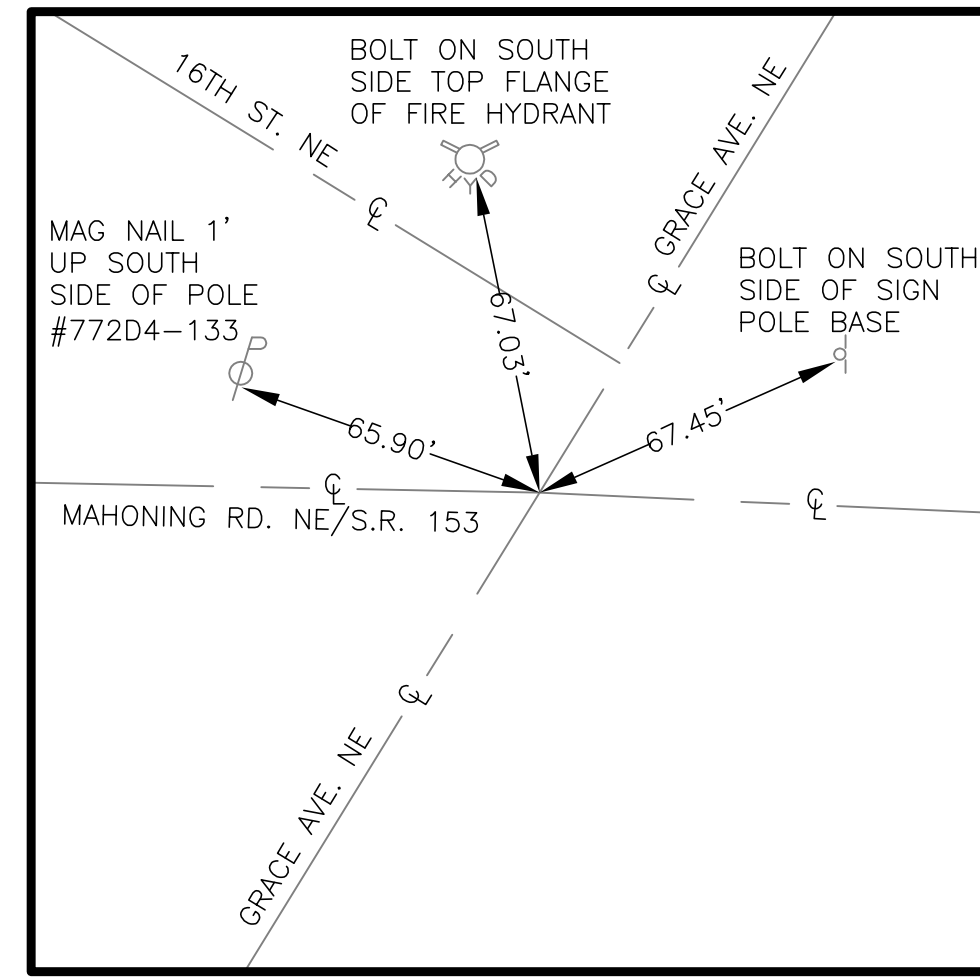
BENCHMARK #16
 STA. 91+87.07, 34.8' RT.
 BOLT MARKED WITH "X" ON
 TOP FLANGE OF FIRE HYDRANT
 ELEV.=1095.64

BENCHMARK #17
 STA. 94+11.15, 27.0' RT.
 SPIKE 1' UP SOUTH SIDE
 POWER POLE
 ELEV.=1099.83

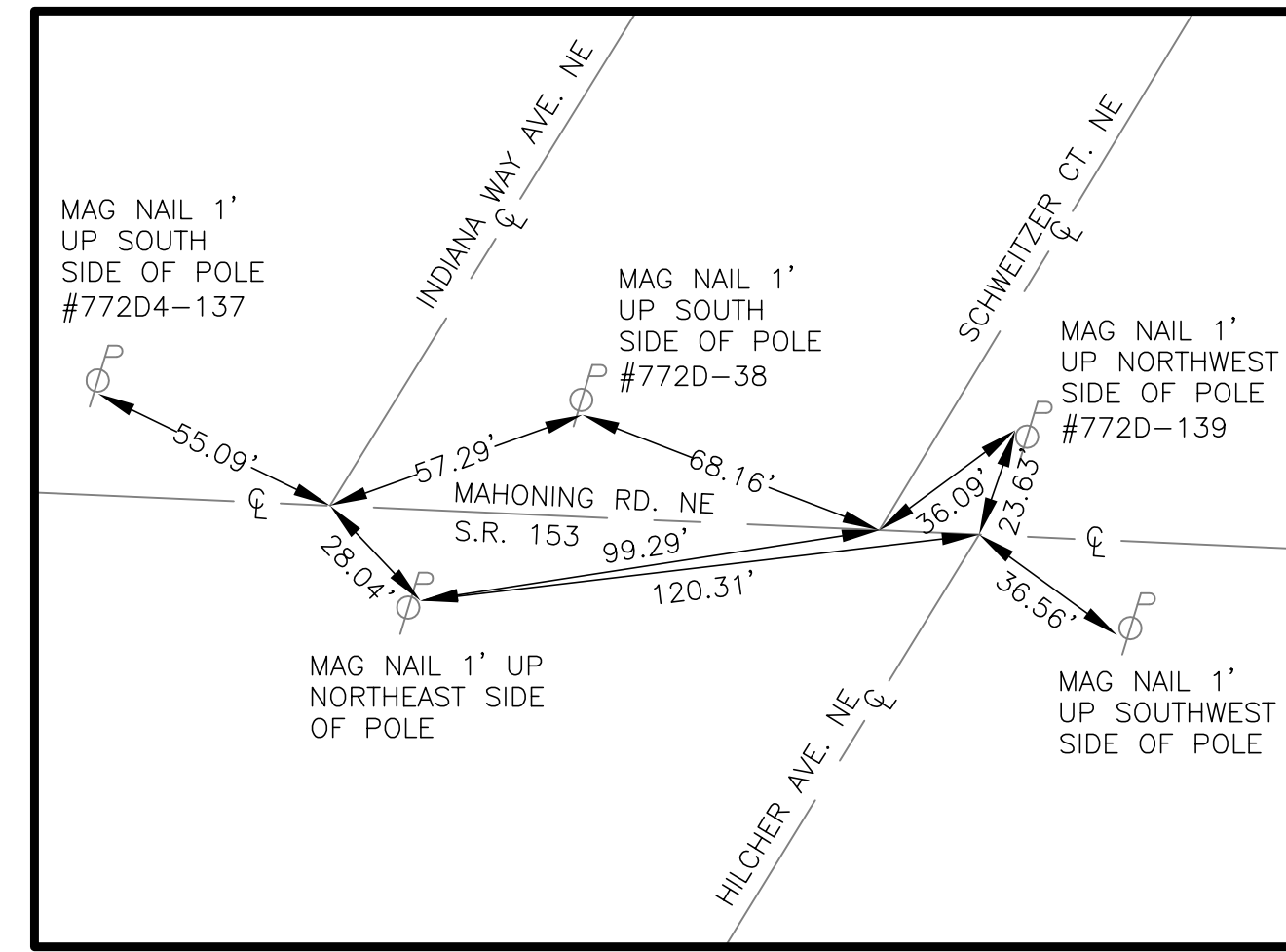
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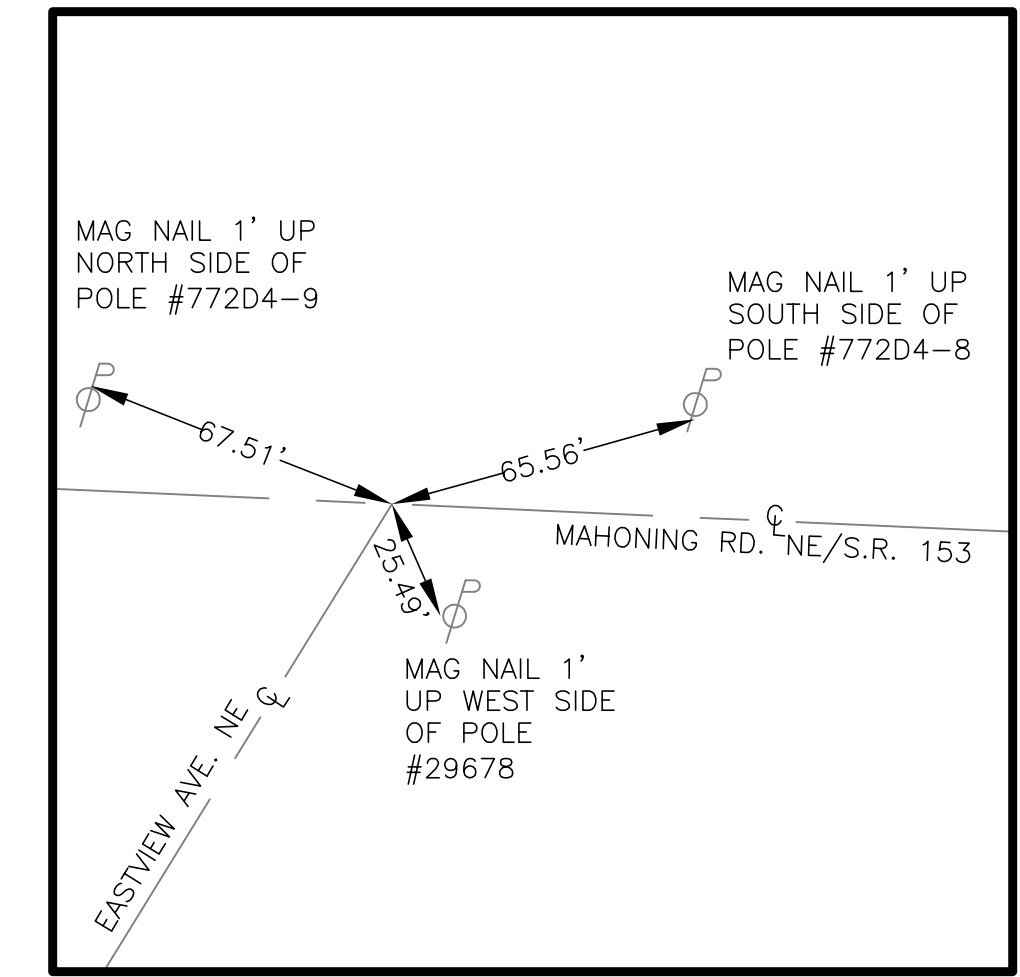
MAHONING RD. NE / S.R. 153
STA.50+63.19



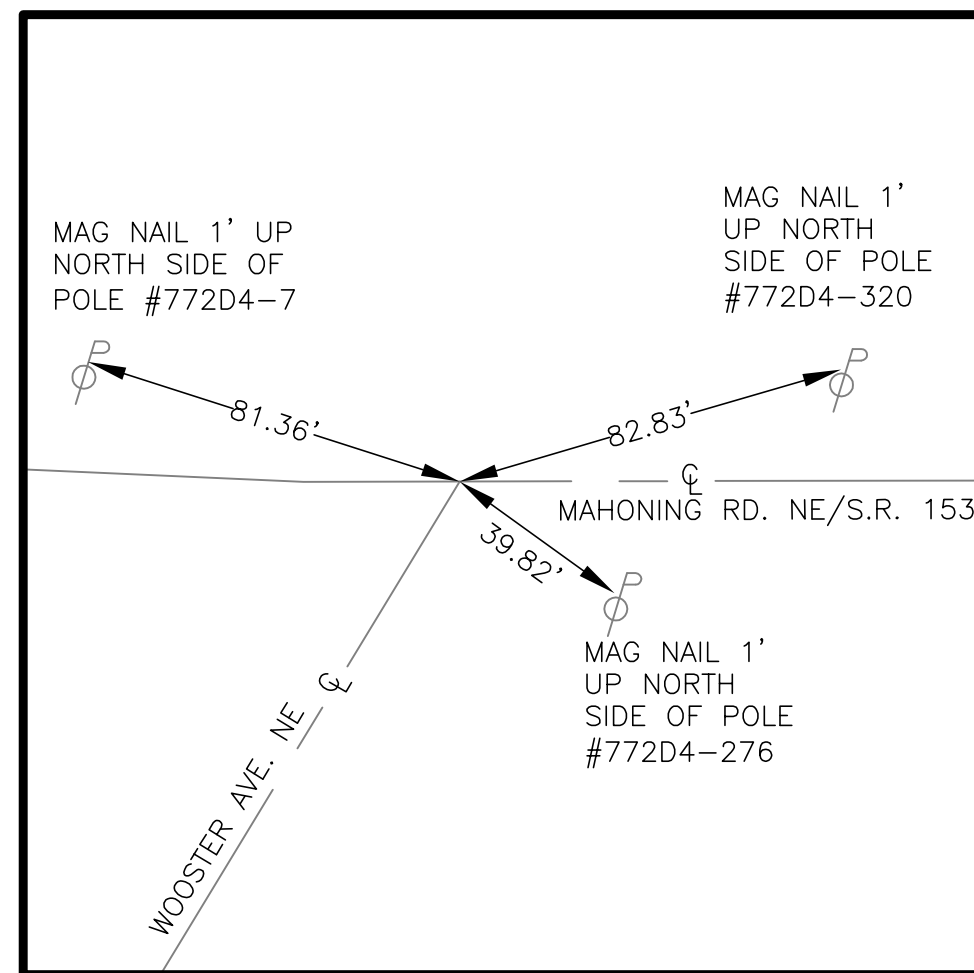
MAHONING RD. NE / S.R. 153
STA.57+01.83



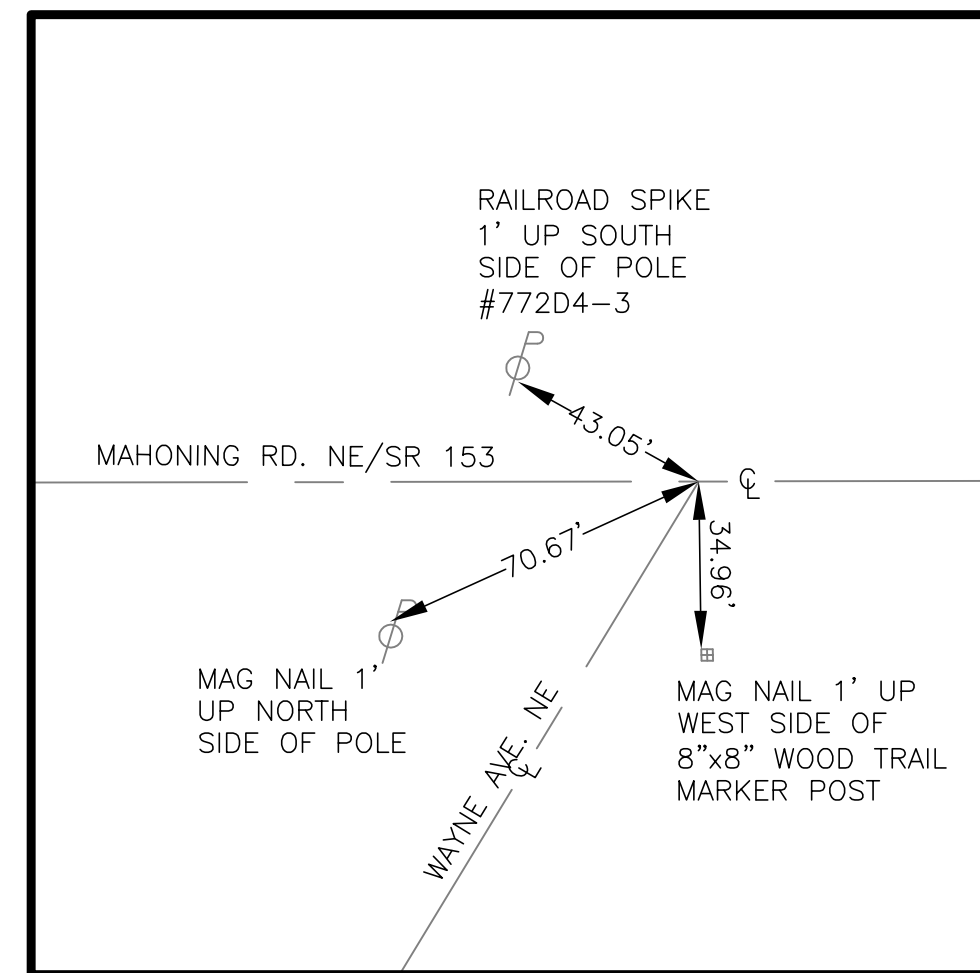
MAHONING RD. NE / S.R. 153
STA.61+48.35 AND STA.62+87.28



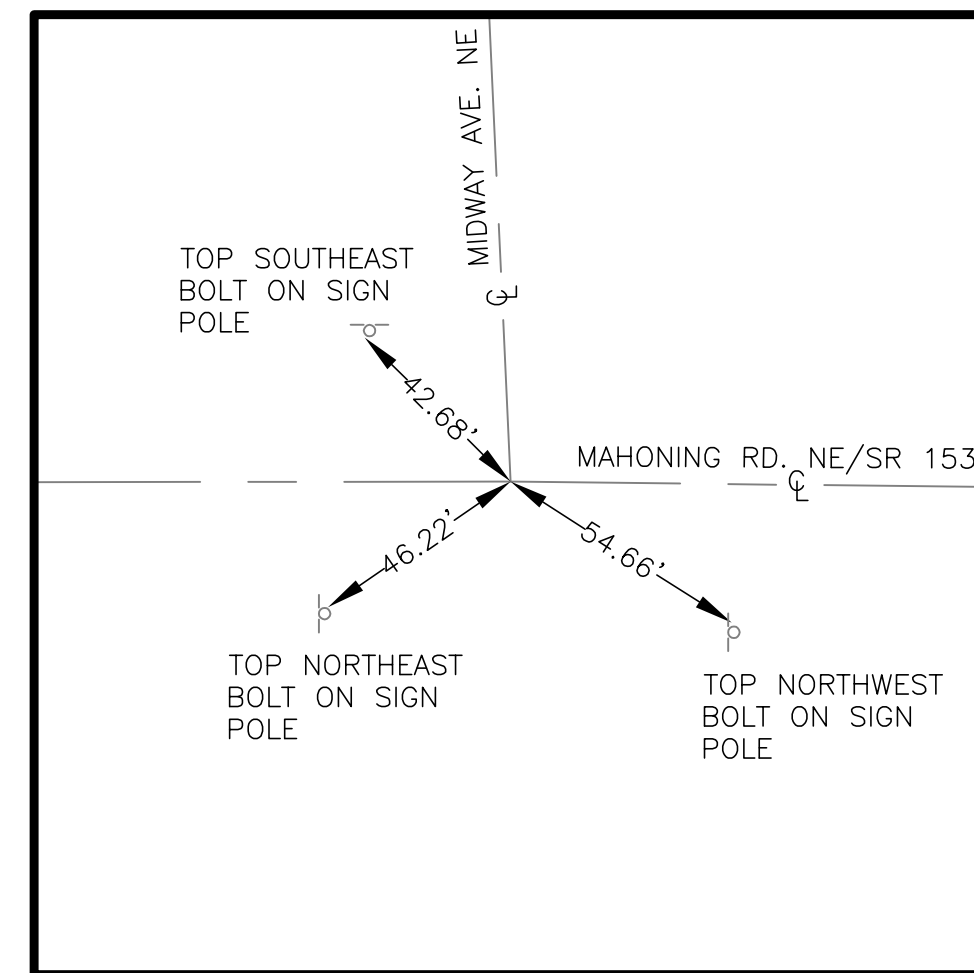
MAHONING RD. NE / S.R. 153
STA.67+04.03



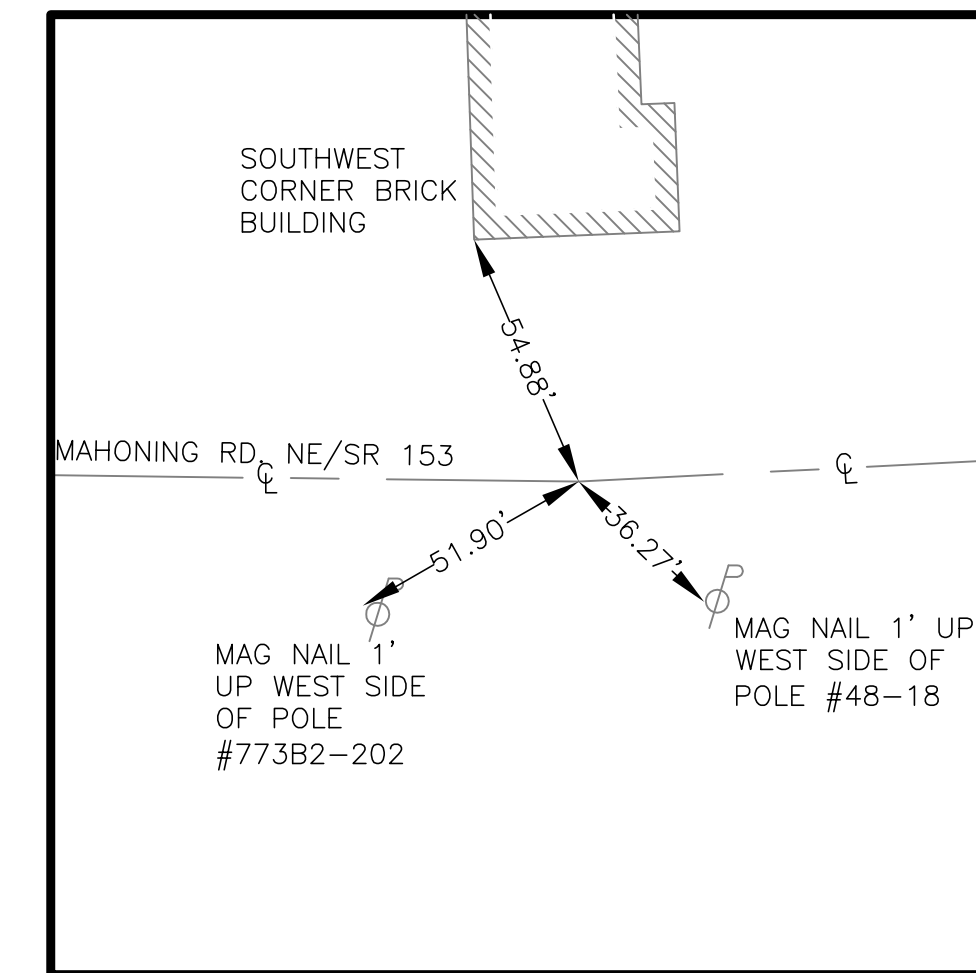
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STA.70+40.40



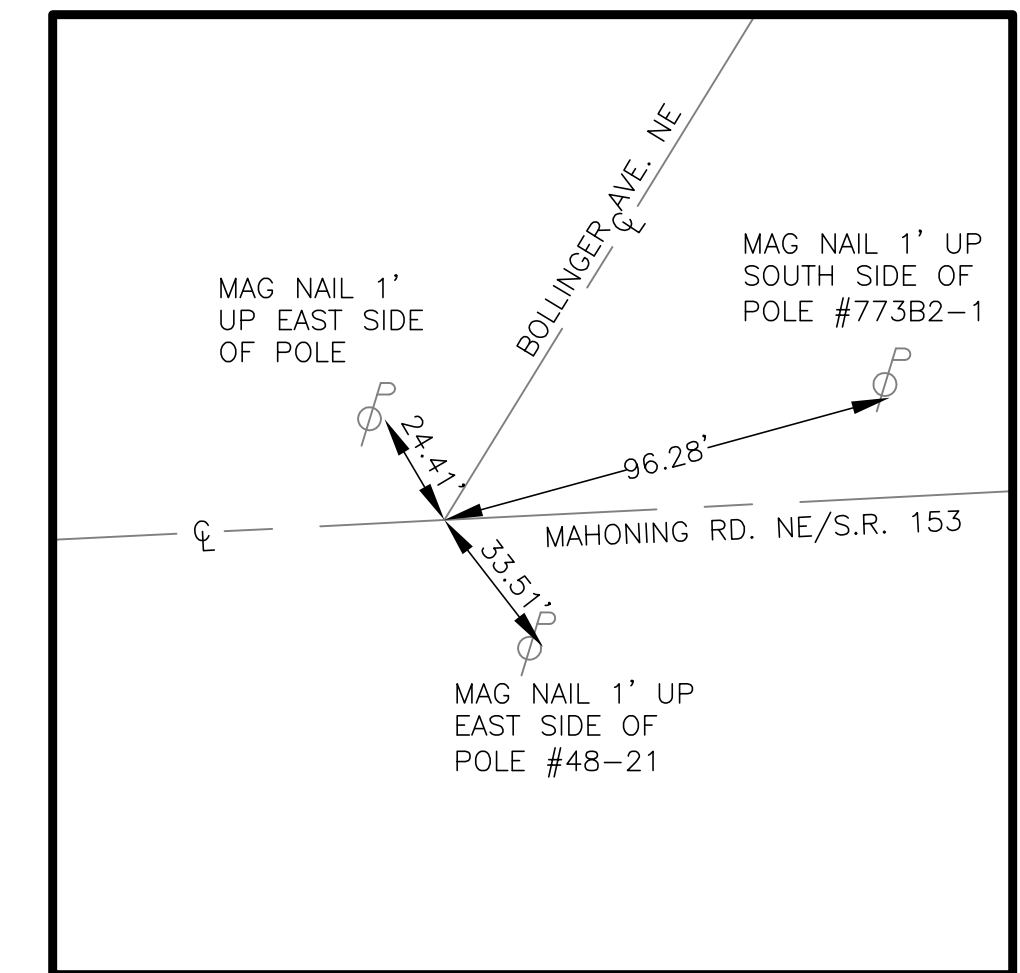
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STA.74+50.22



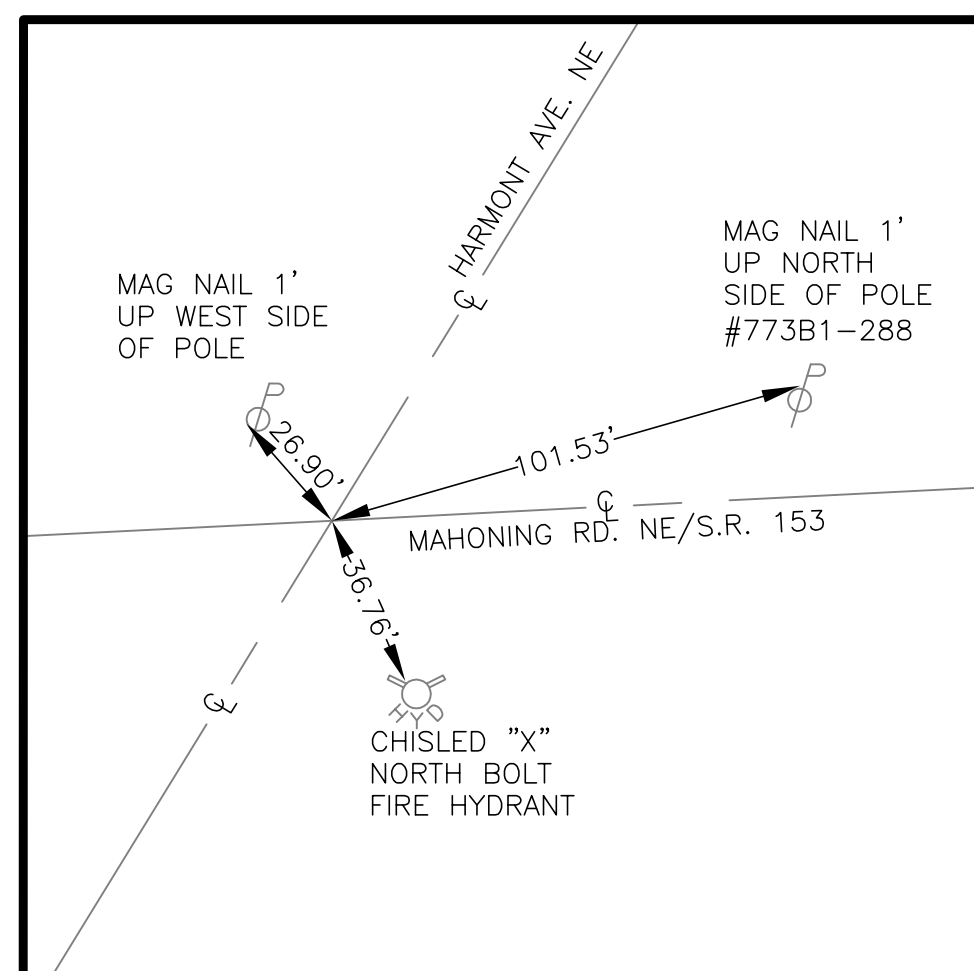
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STA.78+15.21



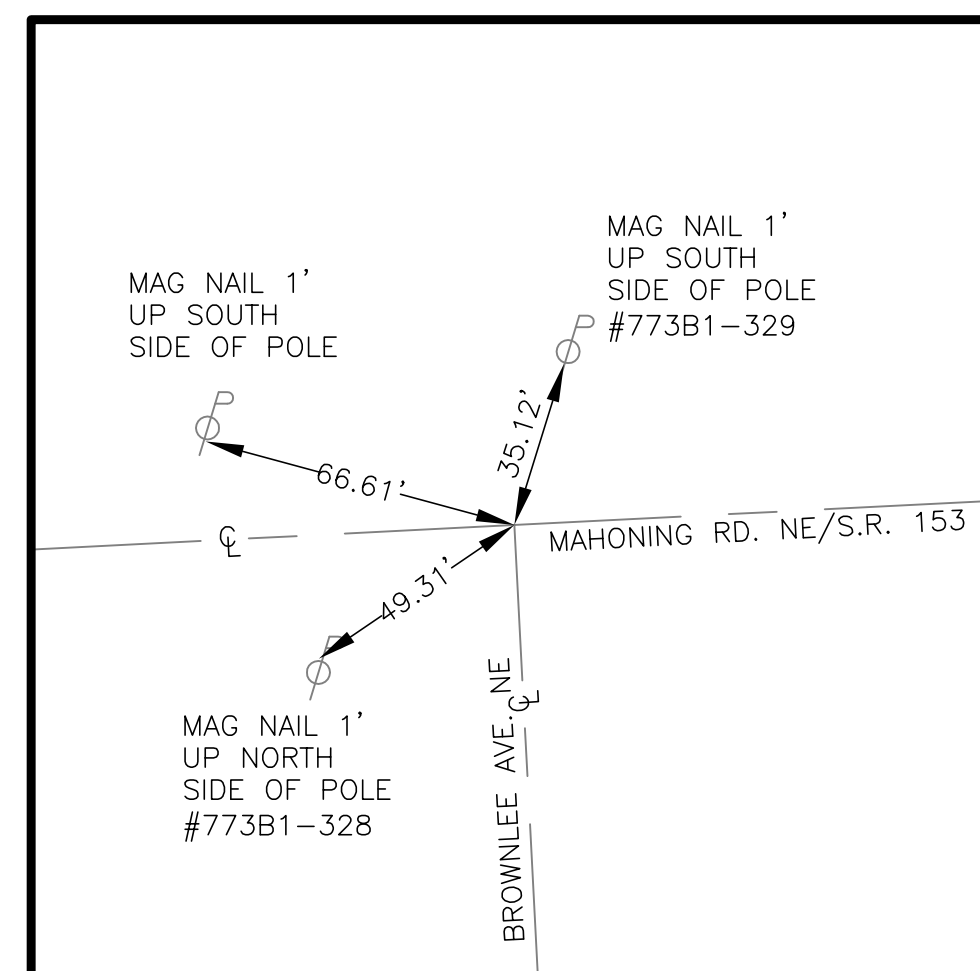
MAHONING RD. NE / S.R. 153
STA.84+44.01



MAHONING RD. NE / S.R. 153
STA.87+44.17

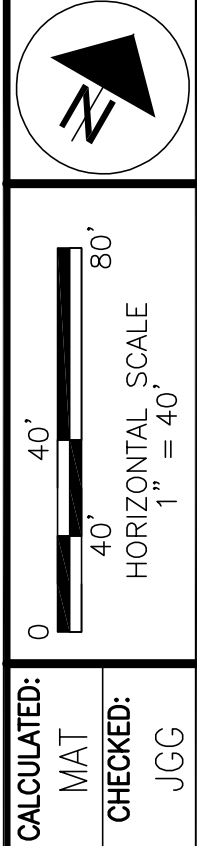


MAHONING RD. NE / S.R. 153
STA.91+74.85



MAHONING RD. NE / S.R. 153
STA.94+53.30

PROPOSED ALIGNMENT DATA															
PI STATION	NORTHING	EASTING	Δ	Dc	R	L	T	CH	E	PC STATION	NORTHING	EASTING	PT STATION	NORTHING	EASTING
MAHONING RD. NE S.R. 153															
57+01.83	419,937.70	2,289,798.14													
70+40.40	420,555.98	2,290,985.33													
78+15.21	420,944.52	2,291,655.68													
84+44.01	421,252.52	2,292,203.88													
91+74.85	421,649.56	2,292,817.46													
94+53.30	421,800.84	2,293,051.24													



REFERENCE TIES
STA. 55+09 TO STA. 94+90

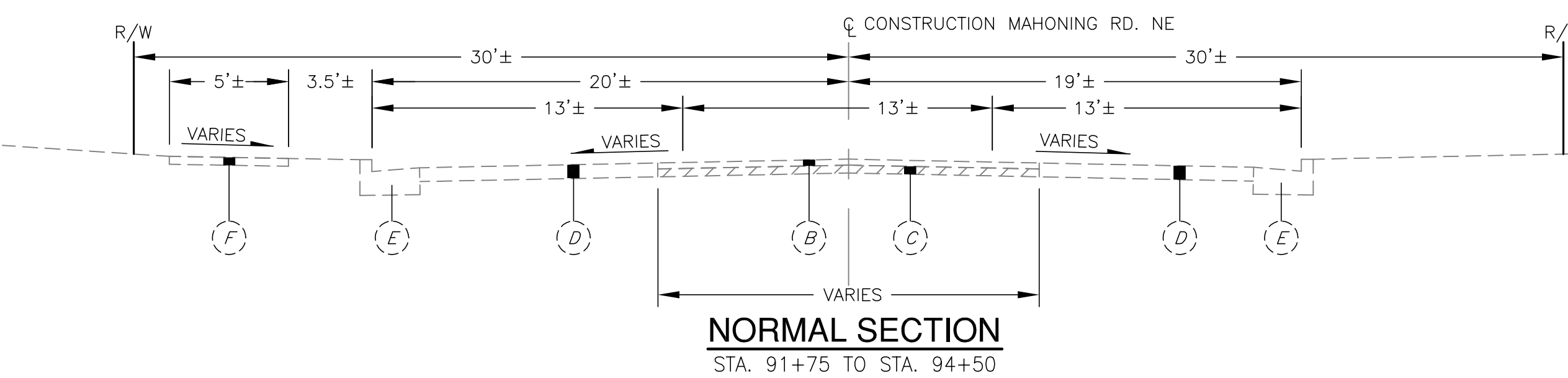
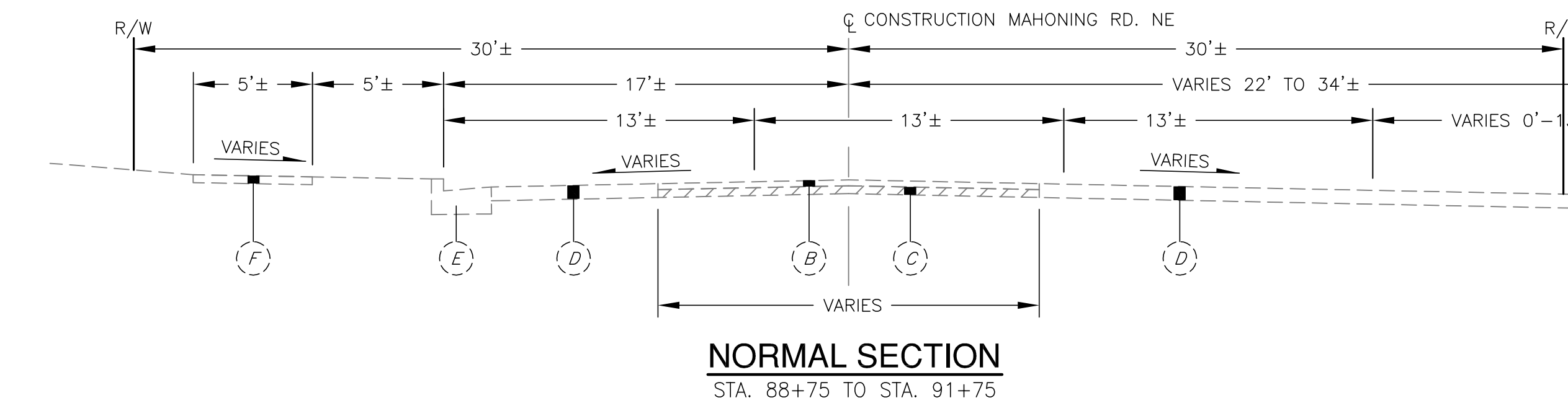
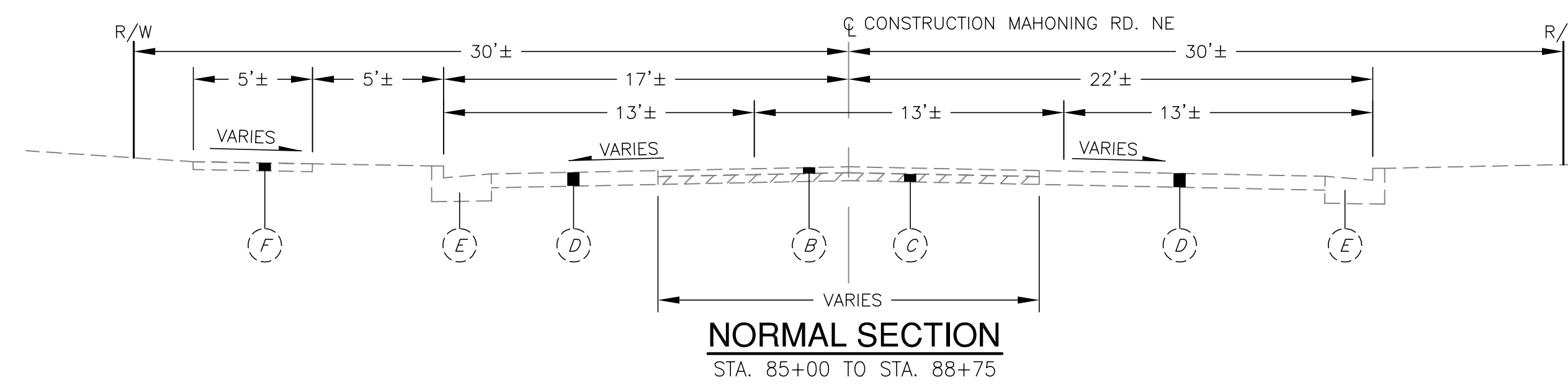
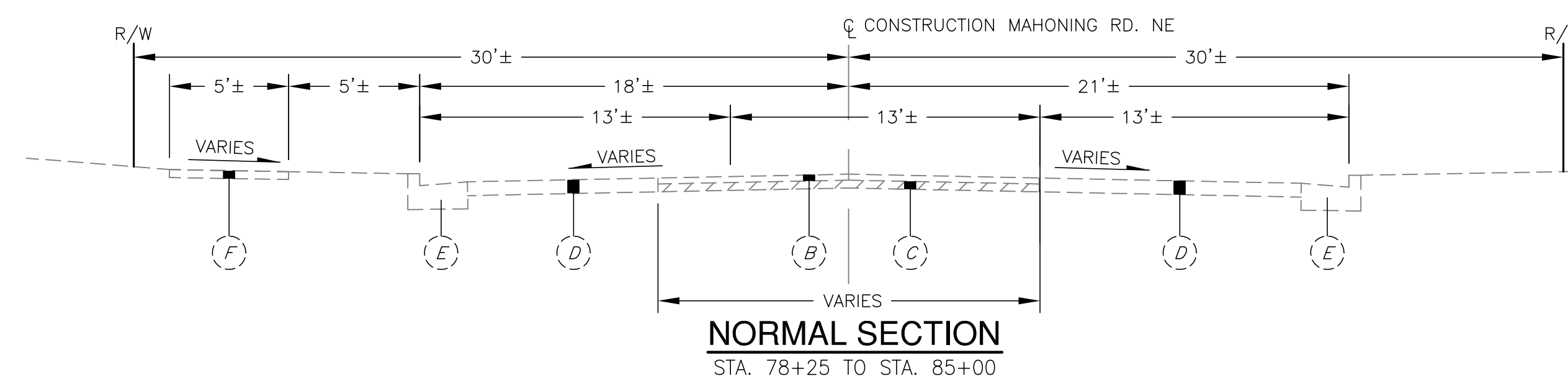
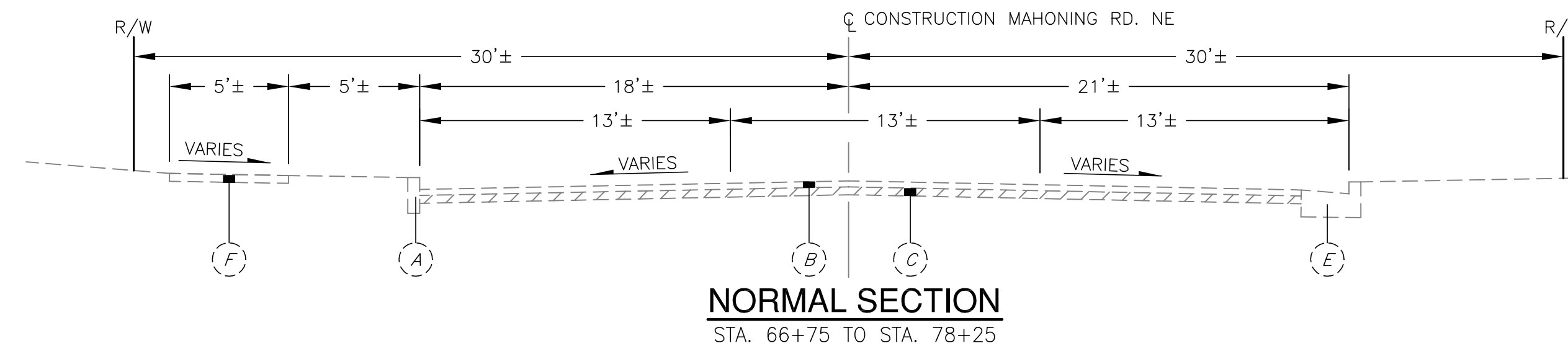
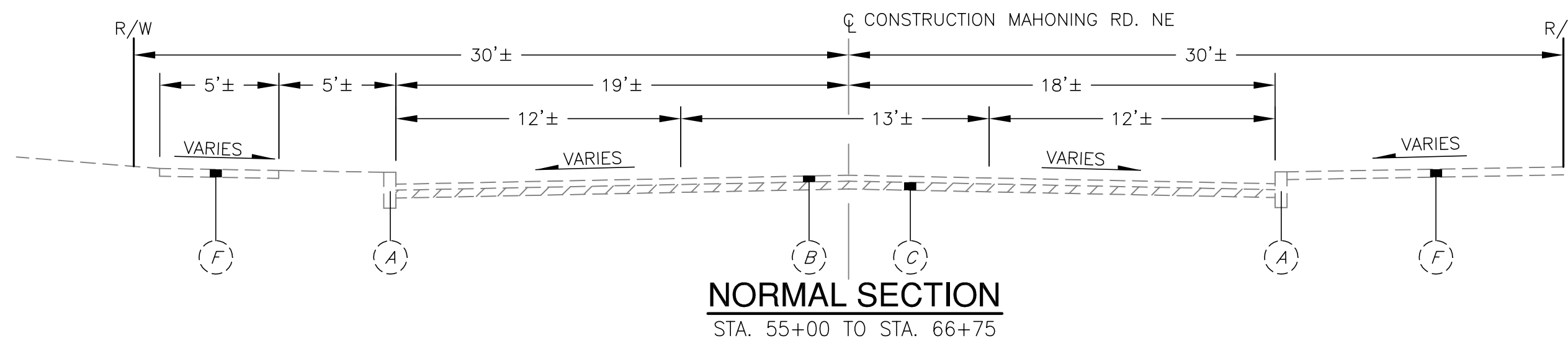
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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EXISTING LEGEND

- (A) EXISTING CURB
- (B) EXISTING 1.5" TO 7.5" ASPHALT
- (C) EXISTING 4" BRICK BASE (W/RANDOM AREAS OF 5" CONCRETE)
- (D) EXISTING 8" TO 13" ASPHALT
- (E) EXISTING CONCRETE CURB AND GUTTER
- (F) EXISTING CONCRETE SIDEWALK



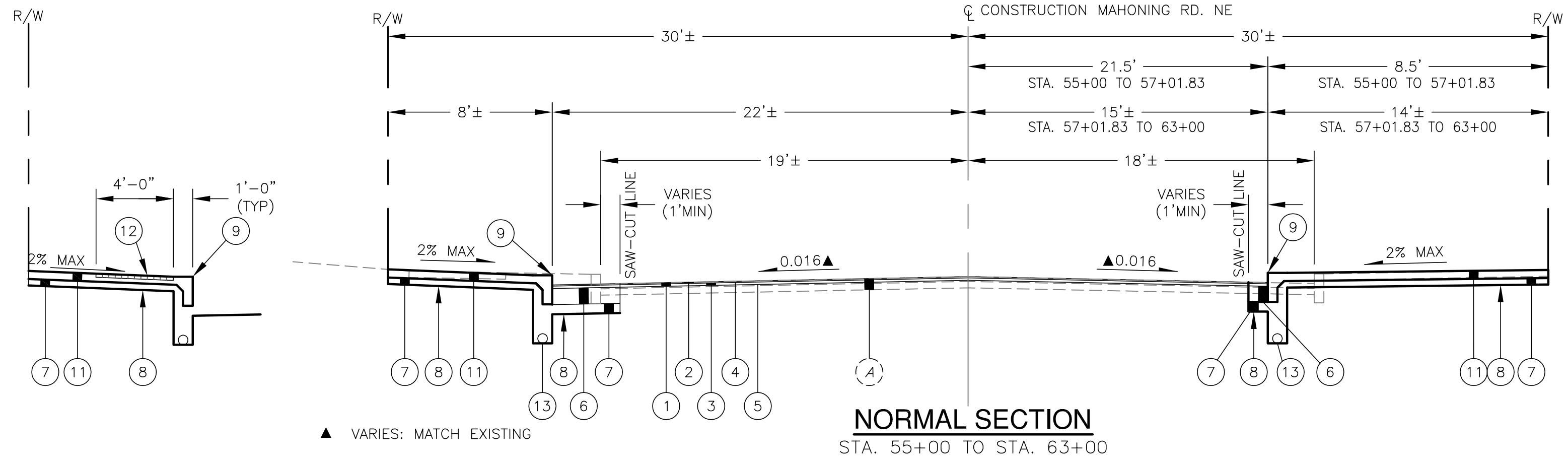
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TYPICAL SECTIONS
STA. 55+09 TO STA. 94+90

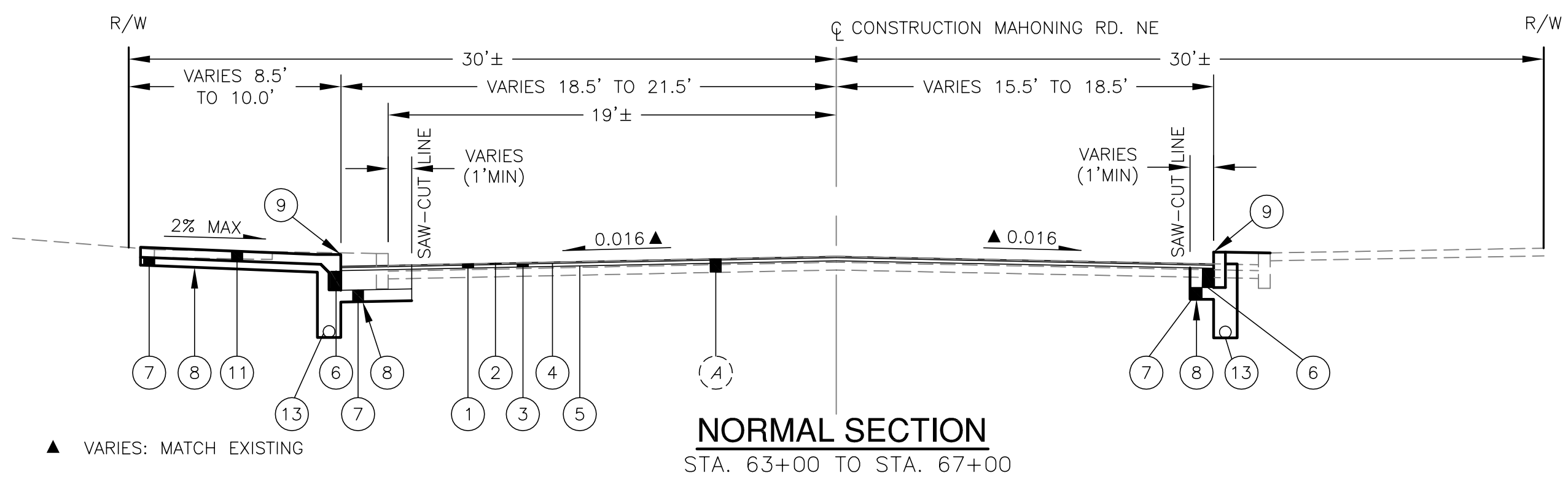
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

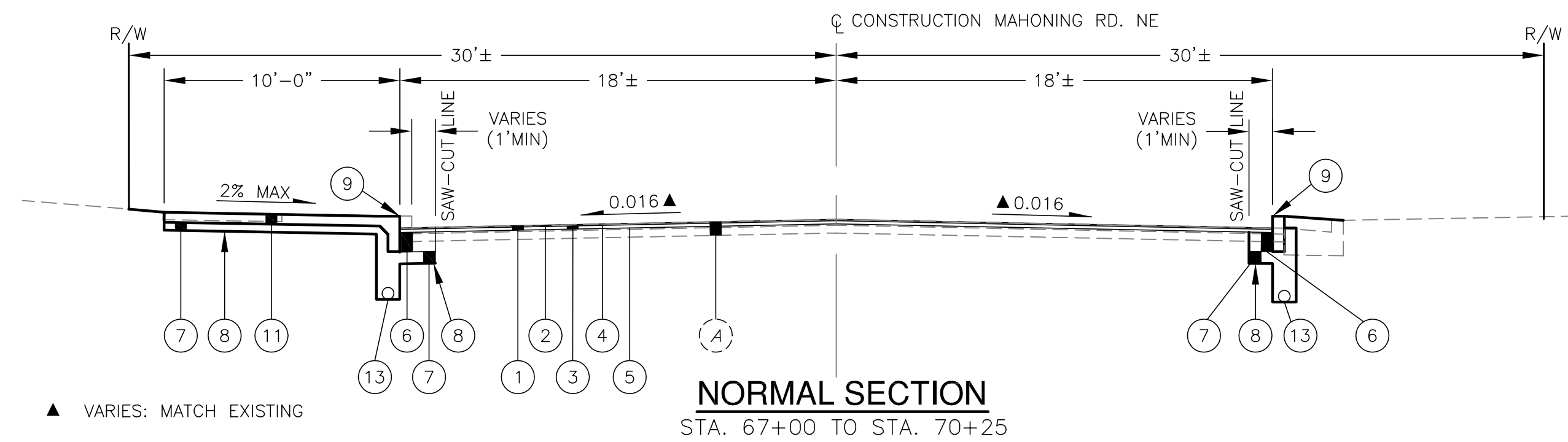
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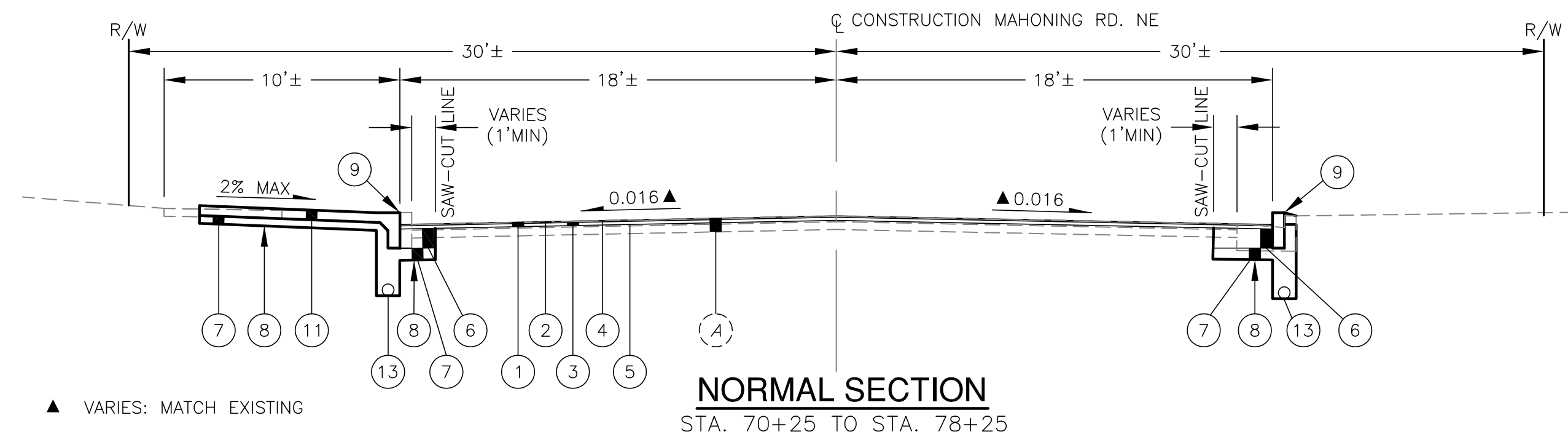
NORMAL SECTION
STA. 55+00 TO STA. 63+00



NORMAL SECTION
STA. 63+00 TO STA. 67+00



NORMAL SECTION
STA. 67+00 TO STA. 70+25



NORMAL SECTION
STA. 70+25 TO STA. 78+25

PROPOSED LEGEND

- ① ITEM 254 - PAVEMENT PLANING, AS PER PLAN
- ② ITEM 424 - 3/4" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A
- ③ ITEM 448 - 1 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
- ④ ITEM 407 - TACK COAT, 702.13
- ⑤ ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
- ⑥ ITEM 305 - 10" CONCRETE BASE
- ⑦ ITEM 304 - AGGREGATE BASE, AS PER PLAN
- ⑧ ITEM 204 - SUBGRADE COMPACTION
- ⑨ ITEM SPECIAL - CANTON TYPE 1 STANDARD CONCRETE CURB
- ⑩ ITEM SPECIAL - CANTON TYPE 2 STANDARD CONCRETE CURB AND GUTTER
- ⑪ ITEM 608 - 5" CONCRETE WALK, AS PER PLAN (DEPTH VARIES AT BRICK PANELS)
- ⑫ ITEM SPECIAL - BRICK WALKWAY PANELS
- ⑬ ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS, 707.31, WITH FABRIC WRAP, AS PER PLAN
- ⑭ ITEM 659 - SEEDING AND MULCHING, CLASS 1
- ⑮ ITEM 659 - 6" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- ④ EXISTING COMPOSITE PAVEMENT (BRICK OR CONCRETE UNDER ASPHALT)

SEE STREETScape PLANS FOR BRICK LOCATIONS, DIMENSIONS AND SPECIFICATIONS SEE CANTON CITY STANDARD DRAWING, TYPICAL STREETScape CORRIDOR, BRICK WALKWAY PAVERS

CALCULATED:
MAT
CHECKED: JCG

TYPICAL SECTIONS
STA. 55+09 TO STA. 78+25

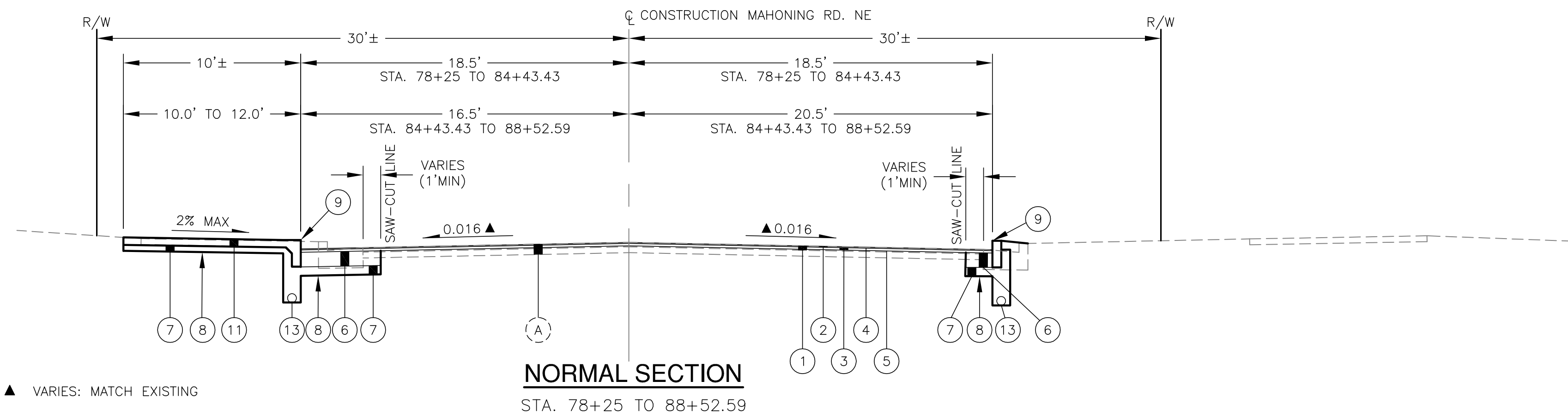
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GCA

MAHONING ROAD NE
STA-0153-01.70

PROPOSED LEGEND

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- ⑮ ITEM 659 - 6" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- ⑰ EXISTING COMPOSITE PAVEMENT (BRICK OR CONCRETE UNDER ASPHALT)

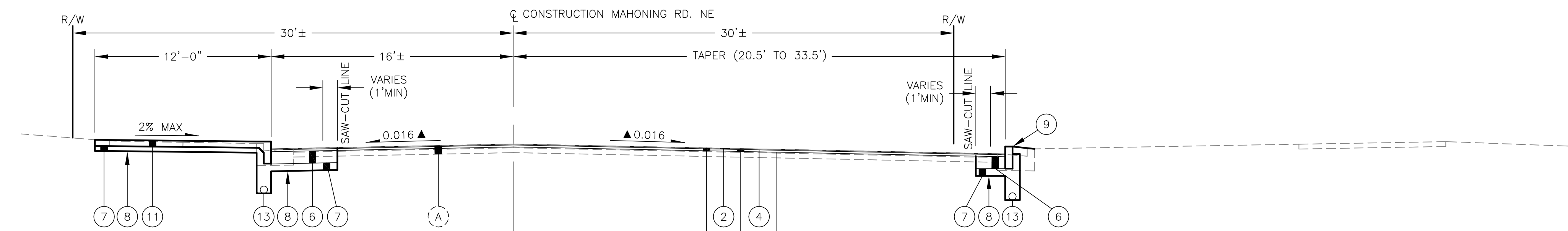
SEE STREETScape PLANS FOR BRICK LOCATIONS, DIMENSIONS AND SPECIFICATIONS SEE CANTON CITY STANDARD DRAWING, TYPICAL STREETScape CORRIDOR, BRICK WALKWAY PAVERS



NORMAL SECTION

STA. 78+25 TO 84+43.43

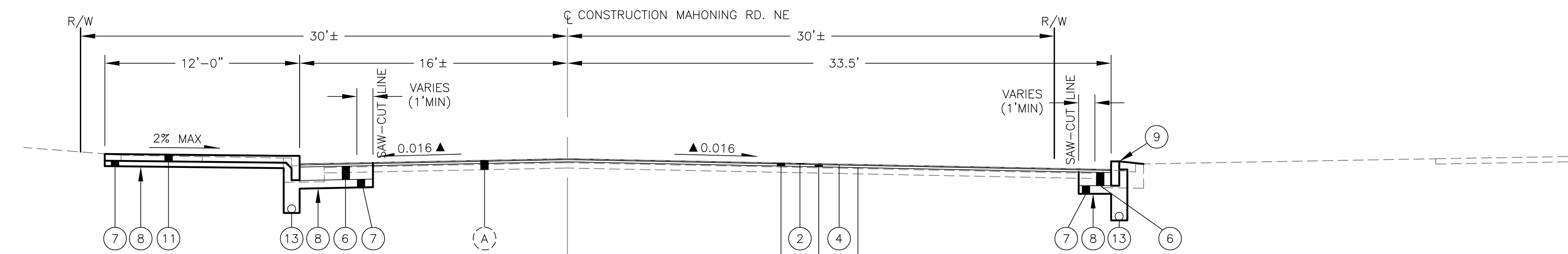
▲ VARIES: MATCH EXISTING



NORMAL SECTION

STA. 88+52.59 TO 89+52.63

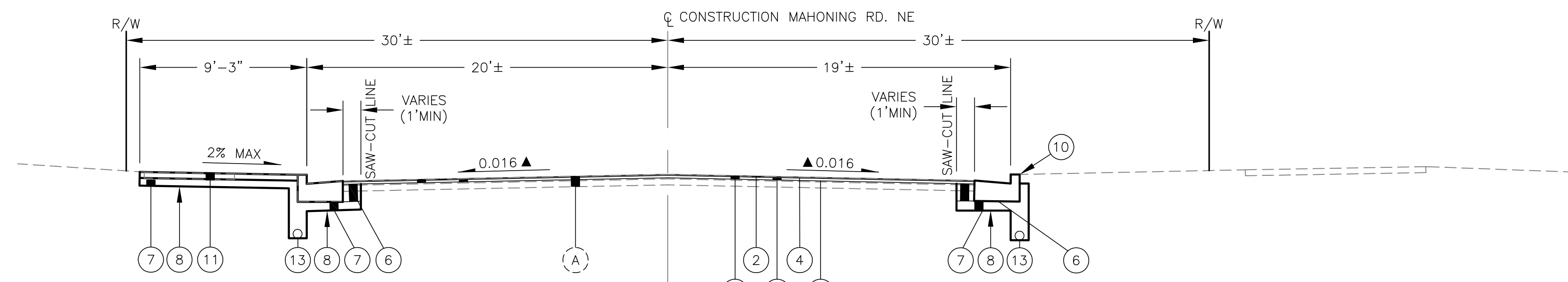
▲ VARIES: MATCH EXISTING



NORMAL SECTION

STA. 89+52.63 TO STA. 91+75

▲ VARIES: MATCH EXISTING



NORMAL SECTION

STA. 91+75 TO 94+58

STA. 91+75 TO 92+89.86

▲ VARIES: MATCH EXISTING

CALCULATED:
MAT
CHECKED: JCG

TYPICAL SECTIONS
STA. 78+25 TO STA. 94+90

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

I PRECONSTRUCTION INCIDENTALS

(A) PROJECT SPECIFICATIONS/REQUIREMENTS:

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS OF THE CITY OF CANTON AND THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED. IN THE CASE OF A CONFLICT, THE CITY OF CANTON REQUIREMENTS SHALL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

(B) ADMINISTRATIVE REQUIREMENTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.

THE CONTRACTOR SHALL PROVIDE A FIELD OFFICE IN ACCORDANCE WITH ODOT ITEM 619, TYPE "C".

THE CONTRACTOR SHALL DESIGNATE AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS AND SUBMITTALS PERTINENT TO THE PROJECT.

(C) PRECONSTRUCTION MEETING:

A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, THE CITY OF CANTON ENGINEERING DEPARTMENT AND THE CITY OF CANTON WATER DEPARTMENT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE CITY ENGINEER WILL CONTACT ALL PARTIES TO ARRANGE A MEETING DATE.

PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT A PROPOSED PROJECT CONSTRUCTION SCHEDULE TO THE CITY OF CANTON FOR APPROVAL. THE CONTRACTOR SHALL INFORM THE CITY OF CANTON, SARITA AND ODOT DISTRICT 4 EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

A SEPARATE PRE-CONSTRUCTION MEETING IS REQUIRED ON-SITE BETWEEN THE CONTRACTOR AND STARK SOIL & WATER CONSERVATION DISTRICT (SWCD). THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THIS MEETING. NO LAND-DISTURBANCE ACTIVITIES MAY START UNTIL THIS MEETING HAS OCCURRED AND APPROVAL HAS BEEN GRANTED BY STARK SWCD.

(D) PROJECT SAFETY:

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT ALL TIMES AND IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL.

THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) REGULATIONS.

APPROPRIATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERRECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA.

THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

(E) UNDERGROUND UTILITIES:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

(F) UTILITY NOTIFICATION:

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY), AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION.

THE PRIMARY UTILITIES WITHIN THE PROJECT LIMITS AREA:

SANITARY AND STORM SEWER
CITY OF CANTON, CITY ENGINEER'S OFFICE
2436-30TH STREET N.E.
CANTON, OHIO 44705
PHONE: 330-489-3381
ATTN: DAN MOEGLIN, P.E., S.I.

WATER
CITY OF CANTON, WATER DEPARTMENT
2664 HARRISBURG ROAD N.E.
CANTON, OHIO 44708
PHONE: 330-489-3310
ATTN: LEWI MILLER

NATURAL GAS
DOMINION EAST OHIO GAS
320 SPRINGSIDE DRIVE
AKRON, OHIO 44333
PHONE: 330-664-2409
ATTN: MARY LONG
EMERGENCY PHONE: 800-521-4400

ELECTRIC
AMERICAN ELECTRIC POWER
301 CLEVELAND AVENUE S.W.
CANTON, OHIO 44701
PHONE: 330-438-7739
ATTN: DWIGHT PARRISH
EMERGENCY PHONE: 800-672-2017

TELEPHONE
AT&T
50 WEST BOWERY STREET, 6TH FLOOR
AKRON, OHIO 44308
PHONE: 330-384-3561
ATTN: CINDY ZUCHEGNO
EMERGENCY PHONE: 800-572-4545, OPTION #4

CABLE TELEVISION
CABLE TIME WARNER CABLE
5520 WHIPPLE AVENUE NW
NORTH CANTON, OHIO 44720
PHONE: 330-494-9200
ATTN: JUSTIN FREUDEMAN
EXT. 330-555-3192

TRAFFIC INTERCONNECT
CITY OF CANTON, CITY ENGINEER'S OFFICE
2436-30TH STREET N.E.
CANTON, OHIO 44705
PHONE: 330-489-3381
ATTN: NICK LOUKAS, P.E.

(G) EXPLORATORY BORINGS:

EXPLORATORY SOIL BORING INFORMATION IS AVAILABLE FOR THIS PROJECT AND IS INCLUDED WITH THE BID SET BY REFERENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL INFORMATION AVAILABLE. IF THE CONTRACTOR REQUESTS TO DRILL ADDITIONAL BORINGS AND/OR EXCAVATE WITHIN THE CITY'S RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 3 WORKING DAYS PRIOR TO THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATION, TRAFFIC CONTROL, PREMIUM BACKFILL, AND COMPACTION AND RESTORATION, AS NECESSARY.

(H) CONTINGENCY QUANTITIES:

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE CITY ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR AND THE CITY ENGINEER.

(I) SPECIAL NOTES FOR PARCELS 4 AND 5 ("PAUL MILANO'S TIRES" AND "NORTHEAST MOTORS NORRIS AUTO SALES")

- THE CONTRACTOR MUST COORDINATE ALL WORK AFFECTING PARCELS 4 AND 5 WITH THE PROPERTY OWNER, MR. PAUL MILANO (330-454-9694). THESE PARCELS INCLUDE "PAUL MILANO'S TIRES" AT 2605 MAHONING ROAD NE AND "NORTHEAST MOTORS NORRIS AUTO SALES" AT 2610 MAHONING ROAD NE.

- THE PROPERTY OWNER WILL REMOVE THE BARB WIRE FROM THE EXISTING FENCE FOR THE DURATION OF THE PROJECT. THE PROPERTY OWNER WILL ALSO REMOVE PORTIONS OF EXISTING FENCE AND CREATE BOXED-OUT AREAS FOR ACCESS TO THE PROPOSED UTILITY PEDESTALS FROM THE PUBLIC RIGHT-OF-WAY. THIS WORK WILL BE COORDINATED WITH THE CONTRACTOR.
- THE CONTRACTOR SHALL INSTALL UTILITY CONDUITS, PAVEMENT RESTORATION AND NEW SIDEWALK IN A MANNER THAT DOES NOT DISTURB THE EXISTING CHAIN LINK FENCE ALONG THE NORTH, WEST AND EAST SIDE OF PARCEL 5 OR THE EXISTING CHAIN LINK FENCE ALONG THE SOUTH AND EAST SIDE OF PARCEL 4.
- THE CONTRACTOR SHALL PERFORM THE WORK IN THE UTILITY EASEMENTS (4-U AND 5-U) SO AS TO MINIMIZE THE DURATION OF OCCUPATION OF THE EASEMENT AND PERMIT THE PROPERTY OWNER TO OCCUPY THE EASEMENT AREA (AUTO SALES) WHEN WORK IS NOT BEING PERFORMED. UPON COMPLETION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL ENSURE THE GROUND IS GRADED UNIFORMLY WITH CRUSHED STONE PLACED ON DISTURBED AREAS UNTIL THE INSTALLATION OF PERMANENT SURFACE PAVEMENT.

(J) SPECIAL NOTES FOR STARK ELECTRIC RAILWAY TRAIL (SERT)

- SHORT DURATION CLOSURES/RESTRICTIONS OF THE TRAIL MAY BE NECESSARY TO PERFORM UTILITY CROSSINGS. IN SUCH INSTANCES, THE CONTRACTOR WILL USE APPROPRIATE MAINTENANCE OF TRAFFIC TECHNIQUES TO ENSURE THE SAFETY OF TRAIL USERS. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN A TEMPORARY PATH AROUND ANY SECTIONS OF THE TRAIL TO BE CLOSED FOR THE DURATION OF THE PROJECT, INSTALL APPROPRIATE CLOSURE AND DETOUR SIGNS IN AREAS THAT WILL BE VISIBLE TO USERS OF THE TRAIL, PRIOR TO CLOSURE, PROVIDE ADVANCE NOTICE WITHIN 48 HOURS PRIOR TO CLOSURE AND POST DETOUR SIGNS AT LOCATIONS ALONG THE TRAIL THAT MEET ALL LOCAL SPECIFICATIONS.
- EXISTING TRAIL SIGNAGE OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL OR REPLACEMENT SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER.
- NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT AND/OR MATERIALS SHALL OCCUR BEYOND THE PROJECT CONSTRUCTION AREA WITHIN THE SERT TRAIL.
- THE CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION FENCING ALONG THE PROPOSED CONSTRUCTION LIMITS ADJACENT TO THE SERT TRAIL PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT, THE PROJECT SPONSOR AND THE CITY ENGINEER.

(K) SPECIAL NOTE FOR PARCEL 40 ("MCDONALD'S")

- AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE LANE OF MCDONALD'S ACCESS DRIVE ON MAHONING ROAD NE IN A FULLY ACCESSIBLE MANNER, AND THE HARMONT AVENUE NE ACCESS DRIVE MUST REMAIN FULLY ACCESSIBLE. PRIOR TO ANY MCDONALD'S MAHONING ROAD NE ACCESS DRIVE LANE CLOSURES, THE CONTRACTOR MUST CONTACT MCDONALD'S TO COORDINATE WHICH DIRECTION OF TRAFFIC SHALL BE MAINTAINED (I.E. INGRESS OR EGRESS).
- BOTH THE CONTRACTOR AND THE CITY ENGINEER MUST GIVE BOTH WRITTEN AND ORAL NOTICES TO THE PROPERTY OWNER AND TENANT AT LEAST 10 DAYS BEFORE BEGINNING ANY CONSTRUCTION OF THE ROADWAY IMPROVEMENT PROJECT OR ANY FACILITY INCIDENTAL THERETO WHICH MAY AFFECT THE MCDONALD'S PROPERTY. NOTICE SHALL BE SENT IN WRITING TO:
MCDONALD'S CORPORATION
ONE MCDONALD'S PLAZA
OAK BROOK, IL 60523
ATTN: DIRECTOR, US LEGAL DEPARTMENT 091
L/C: 034-1865

AND ORALLY TO MR. TODD SORG, MCDONALD'S USA, LLC VIA TELEPHONE AT (260) 271-3093.

II CONSTRUCTION INCIDENTALS

(A) PLAN DISCREPANCIES:

THESE CONSTRUCTION PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD LAYOUT AND ARE BEING PROVIDED SOLELY AS A CONVENIENCE TO THE USER. ANY DISCREPANCIES DISCOVERED IN THE PLAN INFORMATION, OR BETWEEN THE PLAN AND ELECTRONIC DATA, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CITY ENGINEER SO THE APPROPRIATE ADJUSTMENTS MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE SAME. THE DESIGN ENGINEER MAKES NO REPRESENTATION REGARDING FITNESS FOR ANY PARTICULAR PURPOSE, OR SUITABILITY FOR USE WITH ANY SOFTWARE OR HARDWARE. DUE TO THE EASILY ALTERABLE NATURE OF ELECTRONIC DOCUMENTS, THROUGH EITHER UNINTENTIONAL OR INTENTIONAL MEANS, THE DESIGN ENGINEER DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION AND THEREFORE, ACCEPTS NO LIABILITY FOR THE COMPLETENESS, CORRECTNESS OR READABILITY OF THE ELECTRONIC DATA. HARD COPIES (I.E., PRINTS, PAPER COPIES, ETC.) SHALL PREVAIL IN ANY DISPUTE OVER ACCURACY OR SUFFICIENCY OF ELECTRONIC DOCUMENTS.

FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

(B) VERIFICATION OF UNDERGROUND UTILITIES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY OF CANTON, REPRESENTATIVES OF THE CITY OF CANTON AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY OF CANTON. ALL EXISTING SEWERS INSPECTED SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF CANTON.

IF IT IS DETERMINED THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE CITY ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE CITY ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

(C) PROTECTION OF UTILITIES:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS APPROVED BY THE OWNERS OF THE UTILITY AND THE CITY ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES; ANY POTENTIAL DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY.

THE CONTRACTOR SHOULD EXPECT AT A MINIMUM ONE SANITARY SEWER LATERAL, ONE ROOF DRAIN, ONE WATER SERVICE, AND ONE GAS SERVICE FOR EACH LOT. ANY OF THE ABOVE UTILITIES DAMAGED DUE TO THE CONTRACTOR'S WORK SHALL BE RESTORED TO THE UTILITY OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

THE CONTRACTOR SHALL BYPASS AND MAINTAIN THE FLOW IN EXISTING LIVE SANITARY OR STORM SEWERS DURING CONSTRUCTION AND THE METHOD EMPLOYED SHALL BE APPROVED BY THE RESPONSIBLE AGENCY. THIS COST SHALL BE INCLUDED IN THE PRICES BID FOR OTHER ITEMS OF WORK.

(D) MAINTENANCE OF UTILITY SERVICES:

THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES AT ALL TIMES WITHOUT INTERRUPTION, UNLESS APPROVED BY THE CITY ENGINEER.

WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS (4 HOURS MAXIMUM) DURING CONNECTION BETWEEN EXISTING WATER LINES AND RELOCATED/NEW WATER MAINS WHICH CANNOT BE COMPLETED OTHERWISE. NO SHUT DOWN SHALL OCCUR WITHOUT WRITTEN PERMISSION OF THE CITY OF CANTON WATER DEPARTMENT. PROPERTY OWNERS AFFECTED BY APPROVED INTERRUPTED SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR.

IN THE EVENT THAT CONSTRUCTION DISRUPTS THE FLOW OF A SANITARY SEWER, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE DISRUPTED SEWER BY EITHER TEMPORARILY FLUMING WITH MATERIALS ACCEPTABLE TO THE ENGINEER OR BYPASSING WITH PUMPS. COST OF MAINTAINING AND REPAIR OF SANITARY SEWERS DISTURBED BY CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

THE CONTRACTOR SHALL CLEAN ALL STORM SEWERS, MANHOLES AND CATCH BASINS BEFORE ACCEPTANCE BY THE CITY OF CANTON.

(E) ITEM 202 - PAVEMENT REMOVED

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING BRICK PAVEMENT ENCOUNTERED WITHIN PROPOSED FULL DEPTH PAVEMENT REPLACEMENT AREAS AT LOCATIONS SHOWN ON THE TYPICAL SECTIONS AND ROADWAY PLAN SHEETS. PAVEMENT REMOVAL SHALL INCLUDE ALL EXISTING LAYERS FROM ASPHALT SURFACE TO BOTTOM OF BRICK.

(F) ITEM 604 - CATCH BASIN ADJUSTED TO GRADE

DUE TO THE EXTENSION OF NEW CURB AND SIDEWALK AT THE INTERSECTIONS, EXISTING CATCH BASINS ALONG THE EDGE OF ROADWAY WILL BE UNUSABLE. THE CONTRACTOR SHALL REMOVE THE EXISTING CASTING AND GRATE, ADJUST THE HEIGHT OF THE SUPPORTING WALLS, AND INSTALL AN ACCEPTABLE ADJUSTING DEVICE APPROVED BY THE CITY OF CANTON TO THE NEW SIDEWALK GRADE. AN ACCEPTABLE SOLID CAST IRON ACCESS COVER/HATCH AS APPROVED BY THE CITY OF CANTON SHALL BE FITTED ON THE TOP OF THE NEW CASTING AND SHALL BE FLUSH WITH THE TOP OF PROPOSED SIDEWALK ELEVATION. ALL EXISTING SEWER LATERALS WITHIN THE EXISTING DRAINAGE STRUCTURE SHALL NOT BE DISTURBED DURING THE ADJUSTMENT TO GRADE. ALL COST ASSOCIATED WITH REMOVING THE EXISTING CASTING AND GRATE, ADJUSTMENT OF EXISTING DRAINAGE STRUCTURE AND NEW SOLID COVERS SHALL BE INCLUDED UNDER THIS ITEM.

(G) CONSTRUCTION NOISE:

CONSTRUCTION NOISE ASSOCIATED WITH ANY IMPROVEMENT PROJECT SHALL BE LIMITED TO LEVELS COMMENSURABLE WITH ADJOINING LAND AND THEIR ASSOCIATED USAGE AS DETERMINED BY THE CITY ENGINEER. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. UNLESS AUTHORIZED BY THE CITY.

(H) OPEN TRENCH CONSTRUCTION:

THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE LOCAL AND STATE SAFETY REGULATIONS, INCLUDING CODE OF FEDERAL REGULATIONS, PART 1926 (SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION), SUBPART P (EXCAVATIONS), FOR ALL APPLICABLE REQUIREMENTS AND RESPONSIBILITIES.

THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION AND TRENCHING PRACTICES.

PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

THE CONTRACTOR SHALL COORDINATE ALL WORK TO BE PERFORMED WITH EACH RESPECTIVE UTILITY COMPANY, INCLUDING WORK BEING PERFORMED DIRECTLY BY THE UTILITY COMPANIES, FOR MAIN OR SERVICE CONNECTIONS, DISCONNECTIONS, RELOCATIONS, DEMOLITION AND INSPECTIONS. THE CONTRACTOR SHALL SECURE AND PAY FOR ANY PERMITS, FEES AND UTILITY COMPANY CHARGES.

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GENERAL NOTES

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

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(I) TRENCH CLOSING AND TEMPORARY TOPPING:

THE CONTRACTOR SHALL PROTECT, SUPPORT AND SHORE UP ANY EXISTING UTILITY ENCOUNTERED DURING CONSTRUCTION AND COORDINATE ALL WORK TO BE PERFORMED WITH EACH RESPECTIVE UTILITY COMPANY, INCLUDING WORK BEING PERFORMED DIRECTLY BY THE UTILITY COMPANIES, FOR MAIN OR SERVICE CONNECTIONS, DISCONNECTIONS, RELOCATIONS, DEMOLITION AND INSPECTIONS. THE CONTRACTOR SHALL SECURE AND PAY FOR ANY PERMITS, FEES AND UTILITY COMPANY CHARGES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NECESSARY LEVELS OF PROTECTION AND SAFEGUARDING OF ALL OPEN TRENCHES, WHEN WORK IS EITHER ACTIVE, COMPLETED AT THE END OF THE DAY OR SUSPENDED FOR ANY OTHER REASON. THIS INCLUDES TRENCH PROTECTION SUCH AS TRENCH BOXES, WOOD SHEETING AND BRACING, OR ANY OTHER METHOD DETERMINED BY THE CONTRACTOR TO MAINTAIN A SAFE WORKING ENVIRONMENT. ALL EXCAVATIONS SHALL COMPLY WITH APPLICABLE LAWS AND REGULATIONS.

ALL TRENCHES SHALL BE TOPPED WITH 4" OF ODOT ITEM 304 WITHIN ROADWAY PAVEMENTS WHEN THE ROADWAY WILL BE OPENED TO VEHICULAR TRAFFIC PRIOR TO PAVEMENT REPLACEMENT. THE TRENCH TOPPING MATERIAL SHALL BE COMPACTED AND FLUSH WITH THE EXISTING ADJOINING PAVEMENT.

(J) WORK COORDINATION WITH OTHERS

THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THE WORK FORCES OF UTILITY COMPANIES RELOCATING THEIR FACILITIES SO AS TO COMPLETE ALL SCHEDULED CONSTRUCTION ACTIVITIES WITHOUT UNDUE DELAY OR INTERFERENCE IN ACCORDANCE WITH ODOT ITEM 105.07. THE CONTRACTOR SHALL ARRANGE WITH OTHER WORK FORCES A MUTUALLY ACCEPTABLE WORK SCHEDULE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. THE CONTRACTOR SHALL PRESENT ANY UNRESOLVED SCHEDULE CONFLICTS WITH THE OTHER WORK FORCES IN WRITING TO THE CITY ENGINEER WITHIN TWO WORKING DAYS OF THE CONFLICT DISCOVERY. THE CITY ENGINEER WILL ATTEMPT CONFLICT RESOLUTION WITH THE OTHER WORK FORCES WITHIN TWO WORKING DAYS FOLLOWING RECEIPT OF THE CONTRACTOR'S NOTIFICATION. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS WITHIN THE PROJECT.

(H) COORDINATION AND SCHEDULING OF WORK BETWEEN UTILITY RELOCATION PLANS AND ROADWAY PLANS

ALL PHASES AND SCHEDULING OF WORK SHALL BE CLOSELY COORDINATED WITH THE CITY OF CANTON, ALL UTILITY COMPANIES, AND ANY PROPERTY OWNERS DIRECTLY AFFECTED (WHERE REQUIRED).

THESE DRAWINGS INDICATE THE APPROXIMATE DESIRED POSITION OF PROPOSED DUCT BANKS, PULLBOXES, RISER POLES, ETC. IF FIELD CONDITIONS ARE ENCOUNTERED WHICH MAKE THE ARRANGEMENTS INDICATED IMPOSSIBLE OR IMPRACTICAL, THE CONTRACTOR MUST SUBMIT A REQUEST FOR DEVIATION IN WRITING TO THE CITY ENGINEER WITH COPIES PROVIDED TO THE AFFECTED UTILITY COMPANY, INCLUDING ANY DRAWINGS, MARKUPS, SKETCHES, ETC. TO CLARIFY THE REQUEST. THE CONTRACTOR MAY NOT PROCEED WITH THE DEVIATION UNTIL THE REQUEST HAS BEEN ACCEPTED AND APPROVED IN WRITING BY THE CITY ENGINEER AND UTILITY COMPANY (IF REQUIRED).

UNLESS OTHERWISE DIRECTED, MAINTAIN CLEARANCES BETWEEN NEW DUCT BANKS TO EXISTING OR PROPOSED UNDERGROUND WATER MAINS, STORM SEWERS, SANITARY SEWERS, POWER LINES, AND OTHER UTILITIES AS FOLLOWS:

- Maintain clearances of 18" (Preferred) / 12" (Minimum) vertical and 36" horizontal between proposed duct banks, pullboxes, riser poles, etc. and new and/or existing water lines.
- Maintain clearances of 18" (Preferred) / 12" (Minimum) vertical and 18" horizontal between proposed duct banks, pullboxes, riser poles, etc. and new and/or existing storm sewers and sanitary sewers.
- Maintain minimum clearances of 12" vertical and 12" horizontal between proposed duct banks, pullboxes, riser poles, etc. and any other existing or proposed underground utilities not listed above.

(I) TESTING OF UTILITIES

ALL NEWLY CONSTRUCTED WATERLINES AND SANITARY SEWERS (INCLUDING LATERALS) MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE STANDARDS (AWWA, ETC.) PER THE OHIO ENVIRONMENTAL PROTECTION AGENCY, AND PER THE REQUIREMENTS OF THE CITY OF CANTON WATER AND ENGINEERING DEPARTMENTS.

SANITARY SEWERS SHALL BE TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF CANTON'S SUPPLEMENTAL SPECIFICATIONS:

02-00 TESTING FOR EXCESSIVE DEFLECTION FOR NON-PRESSURE THERMOPLASTIC SEWER PIPE

03-00 TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESSURE, THERMOPLASTIC SEWER PIPE (AS DIRECTED)

04-01 STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE TEST

SANITARY AND STORM SEWERS CONSTRUCTED WITH THIS PROJECT SHALL BE TELEVISED BY THE CONTRACTOR ONLY WHEN A PAY ITEM IS PROVIDED IN ACCORDANCE WITH CITY OF CANTON'S SUPPLEMENTAL SPECIFICATION:

05-01 SEWER TELEVISION INSPECTION AND DOCUMENTATION PROCEDURE

(J) PRESERVATION AND RESTORATION OF DISTURBED FEATURES:

EXISTING DRIVES, BERMS, LAWNS, PAVEMENTS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL OR REPLACEMENT SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER.

PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, OR DELIVERY OF EQUIPMENT, MATERIALS OR SUPPLIES TO THE WORK SITE, THE CONTRACTOR SHALL PROVIDE A PRECONSTRUCTION DIGITAL COLOR AUDIO-VIDEO RECORDING OF THE ENTIRE PROJECT TO ESTABLISH THE EXISTING SURFACE CONDITIONS. THE VIDEO RECORDING SHALL BE OF PROFESSIONAL QUALITY THAT CLEARLY LOGS AN ACCURATE VISUAL DESCRIPTION OF THE EXISTING CONDITIONS AND THE AUDIO PORTION OF THE RECORDING SHALL PRODUCE THE COMMENTARY OF THE CAMERA OPERATOR WITH PROPER VOLUME, CLARITY AND BE FREE FROM DISTORTION. THE DIGITAL VIDEO AND ANY INSPECTION RECORDS SHALL BE TRANSFERRED TO A DVD WHEN COMPLETE. THE CONTRACTOR SHALL SUBMIT THE FINAL DVD TO THE CITY OF CANTON PRIOR TO CONSTRUCTION. COMMENTARY SHALL INCLUDE THE FOLLOWING ITEMS: 1) DATE AND TIME; 2) STREET NAME, LOCATION AND INTERSECTING STREETS AS THEY ARE CROSSED WITH OCCASIONAL ADDRESSES ALONG THE STREET; 3) COMMENTS ON THE CONDITIONS OF THE PAVEMENT, HOUSES, BUSINESSES AND/OR DRIVEWAYS AT THE TIME OF THE VIDEO; 4) ALL AREAS INVESTIGATED VISUALLY SHALL INCLUDE NOTATIONS MADE OF ITEMS NOT READILY VISIBLE BY VIDEO; AND 5) ANY OTHER PERTINENT ITEMS.

ALL COSTS ASSOCIATED WITH THE WORK, INCLUDING PROVIDING ALL MATERIALS, LABOR, EQUIPMENT, TESTING, AND ALL OTHER INCIDENTAL, MISCELLANEOUS AND RELATED ITEMS, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID.

RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY, COUNTY, STATE AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF THESE ITEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATIONS. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL FROM THE GOVERNING AGENCY AND ACQUISITION OF NECESSARY PERMITS.

"ADJUST TO GRADE" WORK FOR A MANHOLE OR CATCH BASIN INCLUDES BUILDING THE STRUCTURE UP TO GRADE OR REMOVING AND REBUILDING A PORTION OF THE STRUCTURE ALL WITHIN ONE FOOT CHANGE IN ELEVATION INCLUDING REMOVAL AND RESETTling OF THE CASTING. "RECONSTRUCT TO GRADE" WORK INCLUDES REMOVING AND REBUILDING A PORTION OF THE STRUCTURE GREATER THAN ONE FOOT IN HEIGHT, REPLACING MANHOLE STEPS, BOTTOM CHANNEL, LOOSE BRICKS, ETC. "ADJUST TO GRADE" OR "RECONSTRUCT TO GRADE" WORK INCLUDES THE REMOVAL AND REPLACEMENT OF ANY CONCRETE BLOCKOUT PAVEMENT AND REPLACEMENT OF DAMAGED PAVEMENT DOWELS OR OTHER LOAD TRANSFER DEVICES.

(K) MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY THE CITY OF CANTON FORCES.

THE CONTRACTOR SHALL INSTALL A TEMPORARY WEDGE OF ASPHALT CONCRETE AROUND ANY CASTING EXPOSED TO VEHICULAR TRAFFIC HAVING AN ELEVATION DIFFERENTIAL GREATER THAN 1-1/4 INCH OR WHICH COULD CONSTITUTE A DRIVING HAZARD.

ALL EXISTING AND PROPOSED MANHOLE COVERS, VALVE BOXES, ETC., LOCATED WITHIN PEDESTRIAN RIGHT-OF-WAYS SHALL BE FLUSH MOUNTED WITH THE WALKING SURFACE.

PAVEMENT TO BE REMOVED SHALL BE SAWCUT AND REMOVED FULL DEPTH AT LIMITS OR EXISTING JOINTS AS SHOWN IN THE PLANS. ADDITIONAL SAWCUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE PAVEMENT TO REMAIN. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL SAWCUTS, REMOVE THE DAMAGED AREAS AND REPAIR AS NECESSARY WITH NO ADDITIONAL COMPENSATION.

(L) CONSTRUCTION LAYOUT:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT STAKING INCLUDING HORIZONTAL AND VERTICAL CONTROL IN ACCORDANCE WITH ODOT 623. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC LAYOUT STAKING. ANY DISCREPANCIES DISCOVERED IN THE PLAN INFORMATION, OR BETWEEN THE PLAN AND ELECTRONIC DATA, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER SO THE APPROPRIATE ADJUSTMENTS MAY BE MADE PRIOR TO THE START OF OR THE CONTINUATION OF CONSTRUCTION. THE ENGINEER MAKES NO REPRESENTATION REGARDING FITNESS FOR ANY PARTICULAR PURPOSE, OR SUITABILITY FOR USE WITH ANY SOFTWARE OR HARDWARE. DUE TO THE EASILY ALTERABLE NATURE OF ELECTRONIC DOCUMENTS, THROUGH EITHER UNINTENTIONAL OR INTENTIONAL MEANS, THE ENGINEER DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION AND THEREFORE, ACCEPTS NO LIABILITY FOR THE COMPLETENESS, CORRECTNESS OR READABILITY OF THE ELECTRONIC DATA. HARD COPIES (I.E., PRINTS, PAPER COPIES, ETC.) SHALL PREVAIL IN ANY DISPUTE OVER ACCURACY OR SUFFICIENCY OF ELECTRONIC DOCUMENTS.

AT THE CITY ENGINEER'S REQUEST, THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

(M) EXISTING MONUMENTATION:

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS AND/OR ANY TYPE OF LAND SURVEY MONUMENT. THE CONTRACTOR SHALL HAVE ALL MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. THE CONTRACTOR SHALL REPLACE AND/OR RESET ANY DISTURBED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A LICENSED SURVEYOR TO THE CITY OF CANTON THAT THE MONUMENTS HAVE BEEN RESTORED.

THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER IF BURIED MONUMENTATIONS IS FOUND DURING PAVING OPERATIONS.

(N) DEWATERING OPERATIONS:

WHEN DEEMED NECESSARY, THE CONTRACTOR MAY INSTALL DEWATERING EQUIPMENT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

THE PROPOSED LOCATION OF WELL POINTS, HEADER PIPE, ELECTRICAL DISTRIBUTION, GENERATORS AND DISCHARGE PIPES, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS FOR THE INSTALLATION AND SUBSEQUENT REMOVAL OF DEWATERING EQUIPMENT AS WELL AS PROPER WATER DISCHARGE PROCEDURES AS MAY BE REQUIRED PER STATE AND LOCAL GOVERNING AGENCIES.

INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING GROUNDING AND PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE ALL COMBUSTIBLE ENGINE DRIVEN GENERATORS WITH "HOSPITAL GRADE" MUFFLERS. MUFFLERS SHALL BE RATED, AT A MAXIMUM OF 67 dB AT 23 FEET AWAY RUNNING FULL LOAD.

(O) INSPECTION:

FOLLOWING THE PRE-CONSTRUCTION MEETING AND ESTABLISHMENT OF AN APPROVED SCHEDULE, THE CONTRACTOR SHALL GIVE A MINIMUM 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CANTON OR THEIR DESIGNATED REPRESENTATIVE. NO WORK SHALL BE PERFORMED WITHOUT AN AUTHORIZED INSPECTOR PRESENT, UNLESS OTHERWISE APPROVED.

(P) WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES AS REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. THE CONTRACTOR SHALL STAY WITHIN THE DESIGNATED PROPERTIES, EASEMENTS AND/OR RIGHT-OF-WAYS PROVIDED FOR THE PROJECT AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. THE CONTRACTOR MUST SUBMIT A WRITTEN REQUEST TO THE CITY ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

III EARTHWORK / SITE WORK

(A) EASEMENTS AND RIGHT-OF-WAY:

THE CONTRACTOR SHALL STAY WITHIN THE DESIGNATED PROPERTIES, EASEMENTS, AND/OR RIGHT-OF-WAY PROVIDED FOR THE PROJECT AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY UNLESS OTHERWISE APPROVED. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE CITY ENGINEER/PROPERTY OWNER.

IT IS THE INTENT OF THE SLOPES AND SPOT GRADES NOTED ON THE PLANS TO PROVIDE POSITIVE DRAINAGE TO STORM WATER COLLECTION POINTS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE DESIGN ENGINEER FOR RESOLUTION.

(B) SUITABILITY OF SITE:

ALL EXCAVATION IS CONSIDERED UNCLASSIFIED AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS AND MATERIALS OF CONSTRUCTION TO COMPLETE CONSTRUCTION AS DESIGNED. THE CITY OF CANTON NOR THE DESIGN ENGINEER SHALL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR SHALL PERFORM ANY INVESTIGATIONS OR TESTING NECESSARY TO ADEQUATELY DETERMINE OR ESTIMATE TO HIS SATISFACTION ANY SITE CONDITION WHICH COULD AFFECT HIS BID OR THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE, BUT NOT BE LIMITED TO, UNSUITABLE/UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC.

THE INTENT OF THIS PROJECT IS TO UTILIZE ALL USEABLE MATERIALS EFFICIENTLY. ACTUAL FIELD CONDITIONS MAY REQUIRE DECISIONS ON MATERIAL HANDLING AND USAGE. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING AND MAINTAINING SITE CONDITIONS.

EXCESS MATERIAL GENERATED FROM TRENCH EXCAVATION OPERATIONS SHALL BE INCORPORATED IN THE UNIT PRICE BID FOR EXCAVATION INCLUDING EMBANKMENT CONSTRUCTION.

AREAS OF EXPOSED PAVEMENT SUBGRADE SHALL BE MAINTAINED IN SUCH CONDITION THAT IT WILL BE WELL DRAINED AT ALL TIMES TO PREVENT PONDING OF WATER.

THE CONTRACTOR SHALL STRIP TOPSOIL FROM AREAS TO BE GRADED AND STOCKPILE IT PRIOR TO SITE GRADING OPERATIONS.

(C) REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES OR ROADWAY WITH COMPACTED FILL OR STABILIZED IN PLACE UTILIZING CONVENTIONAL MEASURES SUCH AS DISCING, AERATION AND RECOMPACTION. ON-SITE MATERIAL MAY BE USED AS ENGINEERED FILL MATERIALS PROVIDED THEY ARE FREE OF ORGANIC MATTER, DEBRIS, EXCESSIVE MOISTURE, AND ROCK OR STONE FRAGMENTS 3" AND LARGER. OTHER MEANS OF STABILIZATION SHALL BE AT THE DISCRETION OF THE OWNER AND THE ENGINEER.

(D) ITEM 690 - SPECIAL - WORK INVOLVING SOLID WASTE

ENVIRONMENTAL STUDIES HAVE SHOWN THAT THERE IS THE POTENTIAL FOR ENCOUNTERING PETROLEUM CONTAMINATED MATERIAL AT THE FOLLOWING LOCATIONS:

- SAVE-A-Lot/FAMILY DOLLAR, 2901 MAHONING RD. N.E.
- QUALITY MUFFLER, 3219 MAHONING RD. N.E.

IN THE EVENT PETROLEUM CONTAMINATED SOILS ARE ENCOUNTERED, THE CONTRACTOR SHALL MANAGE THIS MATERIAL ACCORDING TO THE FOLLOWING NOTES.

ALL MATERIAL EXCAVATED BY THE CONTRACTOR AT THIS LOCATION MAY BE STOCKPILED IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE CITY ENGINEER. THE CITY ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL: 1) IN A LINED AND COVERED ROLL-OFF BOX; OR 2) ON AN IMPERMEABLE MEMBRANE THAT IS SURROUNDED BY BALES OF STRAW TO PREVENT THE SUSPECTED SOILS FROM COMING IN CONTACT WITH THE ORIGINAL SOILS. THE CITY ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED CONTAMINATED MATERIAL INTO TRUCKS.

THE MATERIAL SHALL BE PROPERLY TESTED, TRANSPORTED AND DISPOSED OF IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OHIO EPA) SOLID WASTE FACILITY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS TO TRANSPORT THE MATERIALS TO A LICENSED AND PERMITTED SOLID WASTE DISPOSAL FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING ANY ADDITIONAL SAMPLING AND ANALYSIS OF THIS MATERIAL AS MAY BE REQUIRED.

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROPERLY HANDLE, STORE

(IF NECESSARY), TEST FOR DISPOSAL AND DISPOSE OF REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS, APPROVALS OR FEES WITHIN THE LIMITS IDENTIFIED ABOVE.

IF ANY EXCAVATIONS WITHIN THE VICINITY OF THE FOLLOWING LOCATION REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, THE CONTRACTOR SHALL DEWATER, CONTAINERIZE AND SUBSEQUENTLY DISPOSE OF THE WATER BY A METHOD APPROVED BY THE CITY ENGINEER:

3) PERRY'S T-SHIRTS, 3147 MAHONING RD. NE

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND/OR AUTHORIZATIONS REQUIRED TO STORE, TRANSPORT AND/OR DISPOSE OF THE WATER IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

IV ROADWAY / DRIVE APPROACHES / WALK / CURB

(A) PAVEMENT STANDARDS:

PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE CITY OF CANTON STANDARD DRAWINGS AND SPECIFICATIONS AND ODOT SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.

(B) ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF ASPHALT OR CONCRETE. WORK SHALL NOT PROCEED UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL USE HIGH EARLY STRENGTH CONCRETE (QC-FS) FOR THE CONSTRUCTION OF ALL ACTIVE DRIVE APPROACHES AND APRONS.

(C) RESTRICTED WORK SCHEDULE:

NO CONCRETE FINISH WORK OR PERMANENT ASPHALT SHALL BE PLACED FROM NOVEMBER 15TH TO APRIL 15TH UNLESS WRITTEN APPROVAL IS GRANTED BY THE CITY ENGINEER.

(D) DROP CURB AT DRIVEWAYS

THE CONTRACTOR SHALL PROVIDE HAND FORMED DROP CURBS FOR ALL PROPOSED DRIVEWAYS AT THE TIME THE CONCRETE CURB IS POURED.

(E) ITEM 424 - FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A

ITEM 703.05, DO NOT USE FINE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) ON ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

(F) ITEM 608 - 5" CONCRETE WALK

THE QUANTITY SHOWN ON GENERAL SUMMARY FOR ITEM 608 - 5" CONCRETE WALK, AS PER PLAN ASSUMES A UNIFORM DEPTH OF CONCRETE IN ALL CONCRETE WALK AREAS AND DOES NOT ACCOUNT FOR VARIABLE DEPTH AREAS ADJACENT TO WALKWAY PAVER PANEL AND RIGHT OF WAY, AS REQUIRED BY CITY OF CANTON STANDARD DRAWING NO. 40.

(G) ITEM SPECIAL - MISC.: TREE GRATE

TREE GRATES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWING NO. 43. PAYMENT FOR ITEM SPECIAL - MISC.: TREE GRATE SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH TREE GRATE INDICATED ON THE PLANS AND SHALL INCLUDE TREE GRATE, FRAME, CONCRETE COLLAR AND EXCAVATION AND CLEARING OF THE TREE PIT.

(H) ITEM SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS

BRICK WALKWAY PAVERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWING NO. 40. PAYMENT FOR ITEM SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF BRICK WALKWAY PAVER AREAS INDICATED ON THE PLANS AND SHALL INCLUDE BRICK WALKWAY PAVERS AND 1-INCH SAND SETTING BED ON WATER SEAL.

CALCULATED: GEA CHECKED: JCG

GENERAL NOTES

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(I) ITEM SPECIAL - MISC.: TYPICAL MAJOR BRT STOP WITH BUS SHELTER
ITEM SPECIAL - MISC.: TYPICAL MINOR BRT STOP WITHOUT BUS SHELTER

EACH MAJOR BRT BUS STOP SHALL INCLUDE A BUS SHELTER, BENCH, TRASH RECEPTACLE, BIKE RACK, STATION ID SIGN, AND HANGER BRACKET. THE COST FOR ALL CONCRETE PAVEMENT, CURBS, SIDEWALKS, BRICKS AND LIGHTING SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEMS IN THE ROADWAY PLANS. PAYMENT FOR THE MAJOR BRT STOP ITEMS SHALL BE INCLUDED WITH ITEM SPECIAL - MISC.: TYPICAL MAJOR BRT STOP WITH SHELTER.

EACH MINOR BRT BUS STOP SHALL INCLUDE A STREET POLE WITH FINIAL AND DECORATIVE BASE, CURVED BENCH, TRASH RECEPTACLE, STATION ID SIGN AND HANGER BRACKET. THE COST FOR ALL CONCRETE PAVEMENT, CURBS, SIDEWALKS, BRICKS AND LIGHTING SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEMS IN THE ROADWAY PLANS. PAYMENT FOR THE MINOR BRT STOP ITEMS SHALL BE INCLUDED WITH ITEM SPECIAL - MISC.: TYPICAL MINOR BRT STOP WITHOUT BUS SHELTER.

(J) ITEM SPECIAL - MISC.: BRICK BOX FORM

BRICK BOX FORMS SHALL BE CONSTRUCTED TO FACILITATE CONSTRUCTION OF THE BRICK WALKWAY PAVERS. PAYMENT FOR ITEM SPECIAL - MISC.: BRICK BOX FORMS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF BRICK WALKWAY PAVEMENT INDICATED ON THE PLANS.

(K) CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING:

WHERE NEW CONCRETE IS PLACED ADJACENT TO AND TIED TO EXISTING CONCRETE, THE CONTRACTION JOINT SPACING REQUIRED IN STANDARD CONSTRUCTION DRAWING BP-2.2 WILL BE WAIVED. CONSTRUCT CONTRACTION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL CONTRACTION JOINTS IN THE EXISTING CONCRETE PAVEMENT. INSTALL EXPANSION JOINTS IN THE NEW CONCRETE PAVEMENT TO FORM A CONTINUOUS LINE WITH ALL EXPANSION JOINTS IN THE EXISTING CONCRETE PAVEMENT.

(L) PART WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

(M) ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR:

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE CITY OF CANTON. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 448 - ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG84-28. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE CITY OF CANTON SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE CITY OF CANTON, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

(N) ITEM 252 - FULL DEPTH PAVEMENT SAWING

THE CONTRACTOR SHALL FULL DEPTH SAW CUT EXISTING BRICK PAVEMENT ENCOUNTERED ALONG PROPOSED FULL DEPTH PAVEMENT REPLACEMENT AREAS AT LOCATIONS SHOWN ON THE TYPICAL SECTIONS AND ROADWAY PLAN SHEETS. FULL DEPTH SAW CUTS SHALL INCLUDE ALL EXISTING LAYERS FROM ASPHALT SURFACE TO BOTTOM OF BRICK OR CONCRETE PAVEMENT.

(O) ITEM 304 - AGGREGATE BASE

GRANULATED SLAG SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

V SANITARY SEWERS / STORM SEWERS

(A) STANDARDS:

ALL SANITARY/STORM SEWER CONDUITS AND APPURTENANCES SHALL BE CONSTRUCTED PER CITY OF CANTON STANDARD DRAWINGS AND SPECIFICATIONS AND ODOT SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.

(B) SANITARY

SANITARY GRAVITY MAIN SEWERS AND SERVICE CONNECTIONS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 IN ACCORDANCE WITH ASTM D-3034 WITH GASKET MATERIAL CONFORMING TO ASTM F-477 AND JOINTS TO ASTM D-3212.

SANITARY LATERAL CONNECTIONS:

(1) ALL CONNECTIONS TO NEW OR EXISTING MAIN SEWER SHALL BE INSTALLED WITH A MANUFACTURED WYE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

(2) THE MINIMUM SLOPE SHALL BE 1/8" PER FT. (1%) AND THE MAXIMUM SHALL BE 1/4" PER FT. (2%) UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

(C) MAINTAIN SEWAGE SERVICE:

MAINTAIN SANITARY SERVICE AT ALL TIMES DURING CONSTRUCTION, UNLESS APPROVED BY THE CITY ENGINEER. WHEN RECONNECTING LATERAL SERVICES, THE CONTRACTOR SHALL, IN ADVANCE OF INTERRUPTING SERVICE, NOTIFY THE CITY INSPECTOR, HOMEOWNER AND THE CITY ENGINEER. PATCH PIPE, AS NEEDED FOR INSTALLATION OF THE NEW SANITARY SEWER WHERE IT CROSSES UNDERNEATH EXISTING LATERALS, SHALL BE INSTALLED IN A MANNER TO LIMIT THE TIME OF INTERRUPTION.

(D) DOWNSPOUT OUTLET AND GROUNDWATER DRAIN LINES:

CONTINGENCY QUANTITIES FOR EITHER TWO (2) DOWNSPOUT OUTLETS OR ONE (1) DOWNSPOUT OUTLET AND ONE (1) GROUNDWATER DRAIN LINE SHALL BE PROVIDED FOR EACH LOT AS DIRECTED BY THE CITY ENGINEER. LOCATIONS OF PROPOSED DOWNSPOUT OUTLETS AND GROUNDWATER DRAIN LINE CONNECTIONS SHALL BE AS DIRECTED BY THE CITY ENGINEER.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

(E) ITEM SPECIAL - MISCELLANEOUS METAL:

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE CITY OF CANTON. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE CITY OF CANTON.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE CITY OF CANTON, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

(F) ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE CITY ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED.

(G) ITEM 611 - (BY SIZE) CONDUIT, TYPE B, AS PER PLAN CONDUIT UNDER THIS PAY ITEM SHALL BE CONCRETE AS PER CMS 706 OR HDPE AS PER CMS 707.33.

VI LANDSCAPING:

(A) INSTALLATION

ALL PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES AND MEET CURRENT AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.

THE CONTRACTOR SHALL MAINTAIN ALL PLANTING INCLUDING, BUT NOT LIMITED TO, WATERING, SPRAYING, MULCHING AND FERTILIZING UNTIL THE WORK IS ACCEPTED BY THE CITY.

SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED. ANY PLANT SUBSTITUTION MUST BE APPROVED BY THE CITY.

ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE CITY BEFORE, DURING AND AFTER INSTALLATION. THE CITY RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL, FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED. THE CONTRACTOR SHALL PROTECT ALL TREES, SHRUBS AND LANDSCAPING DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR REMOVAL. ANY TREE OR SHRUB (INCLUDING ROOTS) DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY THE CONTRACTOR WITH LIKE SPECIES AND SIZE WITH NO ADDITIONAL COMPENSATION.

AFTER THE TREE GRATES HAVE BEEN INSTALLED AT THE LOCATIONS INDICATED IN THE CONSTRUCTION PLANS, THE CONTRACTOR SHALL CONTACT AND MEET WITH THE CITY OF CANTON TO FINALIZE LOCATIONS FOR SPECIFIC TREE TYPES.

FINELY SHREDDED HARDWOOD BARK MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS.

ALL DISTURBED AREAS SHALL RECEIVE SEED OR SOD (SEE PLANS FOR LOCATIONS). DO NOT INSTALL SEED OR SOD UNTIL ACCEPTANCE OF FINISH GRADE AND/OR THE IRRIGATION SYSTEM IS OPERATING PROPERLY. LAWN AREAS SHALL BE RESEEDDED OR NEW SOD INSTALLED IF SATISFACTORY ESTABLISHMENT OF LAWN DOES NOT OCCUR.

(B) WARRANTY

THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF ACCEPTANCE BY THE CITY ENGINEER. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO ACCEPTANCE SHALL BE REMOVED AND REPLACED WITH THE SAME SPECIES, QUANTITY AND SIZE AND MEET ALL PLANT LIST SPECIFICATIONS BEFORE OR AT THE END OF THE GUARANTEE PERIOD AT NO ADDITIONAL COST.

VIII WATER MAIN / SERVICES:

(A) WATER MAINS/SERVICES: ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE CITY OF CANTON WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.

(B) ALL WATER MAIN PIPE MATERIALS, FITTINGS, BENDS, VALVES, VALVE BOXES, MEGALUGS, GASKETS AND HYDRANTS WILL BE SUPPLIED BY THE CITY OF CANTON. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING MATERIALS TO THE PROJECT SITE. BACKFILL, BEDDING, THRUST BLOCKING, ETC. AND ASSOCIATED LABOR IS THE RESPONSIBILITY OF THE CONTRACTOR.

(C) WATER MAINS SHALL BE CLASS 53 (12-INCH AND UNDER) OR CLASS 54 (OVER 12-INCH) DUCTILE IRON, MEETING AWWA C151 WITH PUSH JOINTS. THE MINIMUM COVER OVER WATER MAINS SHALL BE 4 FEET-6 INCH FROM GROUND SURFACE TO THE BARREL OF THE PIPE. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS AND APPURTENANCES SHALL BE SHOP COATED WITH EITHER A COAL TAR OR ASPHALT BASE BITUMINOUS MATERIAL. IF THE COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR THE DAMAGES. THE CONTRACTOR SHALL HAVE SUFFICIENT COATING MATERIALS AVAILABLE AT THE JOB SITE PRIOR TO LAYING THE PIPE. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH DOUBLE CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C104, OR THE LATEST REVISION. FITTINGS SHALL BE RATED FOR 250 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C110. PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT IF REQUIRED, AT ONE-HALF THE DEGREE RECOMMENDED BY THE MANUFACTURER.

(D) VALVES SHALL MEET THE APPLICABLE AWWA C905 STANDARDS AND THE FOLLOWING: ALL VALVES SHALL BE NON-RISING STEM, IRON BODY, RESILIENT WEDGE DISC. THE DESIGN OF THE THRUST COLLAR SHALL BE SUCH THAT THE THRUST COLLAR IS SEALED FROM LINE PRESSURE BY MEANS OF AN "O" RING SEAL. ALL VALVES SHALL BE FURNISHED WITH A TWO (2) INCH SQUARE OPENING NUT, OPEN RIGHT. ALL VALVES SHALL BE FURNISHED WITH MECHANICAL JOINT END CONNECTIONS. THE STEM SHALL BE PROTECTED FROM EXTERNAL GRIT BY A WEATHER SHIELD AND AN UPPER "O" RING. STEM

SHALL BE LUBRICATED. GATE COATING SHALL HAVE A MINIMUM THICKNESS OF 10 MILS. VALVE SHALL BE TESTED AT THE RATED WORKING PRESSURE OF 250 PSI WITH NO LEAKAGE. SHELL TEST OF 500 PSI SHALL BE APPLIED TO BODY WITH VALVE IN THE OPEN POSITION WITH NO LEAKAGE THROUGH THE METAL, STEM SEALS OR JOINTS. VALVE MUST HAVE TRADITIONAL STUFFING BOX. ALL BOLTING MATERIAL IN THE THRUST COLLAR AND BONNET SHALL BE #316 SS BOLTS. ALL VALVES WITH ACCESSORIES PACK (FLANGES, RUBBERS, NUTS, BOLTS).

(E) DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C651.

(F) ALL WATER LINE PRESSURE TESTING SHALL CONFORM TO AWWA C600.

(G) WATER MAINS SHALL BE INSTALLED AND BACKFILLED PER ODOT ITEM 638.

(H) WATER LINES LOCATED WITHIN THE LIMITS OF OR WITHIN A 1/2 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, SIDEWALKS AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER WATER MAINS SHALL BE INSTALLED AS TYPE C CONDUITS. BEDDING SHALL BE AS SPECIFIED, EXCEPT THAT SLAG WILL NOT BE PERMITTED.

(I) ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC. SHALL BE SECURED EQUAL. POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL ALSO BE PROVIDED AT/FOR EACH BENDS, FITTING, TEE, DEAD END, ETC. THIS BLOCKING SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH BEND, FITTING, ETC. AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOADING. TIE RODS ARE TO BE 3/4 INCH DIAMETER. TWO TIE RODS ARE REQUIRED FOR AN 8 INCH PIPE, AND FOUR TIE RODS ARE REQUIRED FOR 12 INCH PIPE.

(J) IN ADDITION TO THE RESTRAINT OF ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC., THE CONTRACTOR SHALL ALSO SECURE/RESTRAIN ALL JOINTS FOR AT LEAST THREE (3) PIPE JOINTS (50 FEET MIN.) BEYOND EACH DEAD END, BEND, FITTING, VALVE, TEE, ETC. UTILIZING MEGALUGS, FIELD LOK GASKETS OR APPROVED EQUALS.

(K) THE CONTRACTOR SHALL PROVIDE 18-INCH VERTICAL CLEARANCE BETWEEN PROPOSED WATERLINES AND ANY SANITARY SEWERS. WHEN 18-INCH CLEARANCE BETWEEN A WATERLINE AND A SANITARY SEWER CANNOT BE OBTAINED, THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE 12-INCH MINIMUM CLEARANCE BETWEEN WATERLINES AND STORM SEWERS; TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND SANITARY SEWERS; AND FOUR (4) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND STORM SEWERS.

(L) THE FIRE HYDRANT SETTING SHALL INCLUDE THE HYDRANT, ANCHOR TEE, VALVE, VALVE BOX, 6-INCH PIPING AND ALL FITTINGS NEEDED FOR PROPER INSTALLATION TO FINAL GRADE. FIRE HYDRANTS SHALL BE MUELLER A423 MEETING THE CITY OF CANTON WATER DEPARTMENT STANDARDS AND REQUIREMENTS. ALL COSTS FOR THE 6-INCH PIPING ASSOCIATED WITH THE INSTALLATION OF FIRE HYDRANTS SHALL BE INCLUDED WITH THE FIRE HYDRANT PAY ITEM. ALL HYDRANTS SHALL BE INSTALLED WITH THE PUMPER NOZZLE FACING THE STREET. ALL FIRE HYDRANT THREADS SHALL BE LUBRICATED WITH A FOOD GRADE LUBRICANT AND OPERATED UPON INSTALLATION.

(M) ALL DUCTILE IRON PIPE, FITTINGS AND APPURTENANCES BURIED UNDERGROUND SHALL BE ENCASED WITH 8 MIL. POLYETHYLENE FILM CONFORMING TO AWWA C105.

(N) THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN IN SERVICE, ANY EXISTING WATER MAINS EXPOSED DURING CONSTRUCTION.

(O) ANY WATER SERVICE LINE THAT IS BROKEN, CUT OR OTHERWISE DAMAGED, SHALL BE REPLACED FROM THE CORPORATION STOP TO THE CURB STOP WITH A SINGLE PIECE OF PLASTIC LINE (DRISCOPLIX). NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED.

(P) SERVICE BRANCHES SHALL BE INSTALLED PER ODOT ITEM 638.16 WITH THE FOLLOWING EXCEPTION: WHEN A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING OR SHORTENING ON THE PROPERTY SIDE OF THE SERVICE STOP, IT SHALL BE REPLACED WITH NEW MATERIALS FROM THE CORPORATION STOP TO THE SERVICE STOP.

(Q) IN A STREET IMPROVEMENT, NO EXISTING WATER CURB BOX WILL BE LEFT IN THE PAVEMENT, CURB AND GUTTER OR SIDEWALK. THE CURB BOX SHALL BE MOVED TO A SUITABLE LOCATION DETERMINED BY THE CANTON WATER DEPARTMENT. WHEN THE CURB BOX IS MOVED, ALL NEW MATERIAL SHALL BE USED FROM THE CORPORATION STOP TO THE CURB STOP WHICH IS A SINGLE PIECE OF PLASTIC SERVICE LINE (DRISCOPLIX). NO SPLICING OF THE SERVICE LINE IS PERMITTED. A NEW TAP (CORPORATION STOP) AND CURB STOP AND BOX MAY ALSO BE REQUIRED AS DETERMINED BY THE CANTON WATER DEPARTMENT.

(R) WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM WORK, THE PROPERTIES TO BE EFFECTED SHALL BE GIVEN A MINIMUM 24 HOUR NOTICE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

(S) THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING MAIN. THE CONTRACTOR MAY NOT OPERATE ANY VALVES; VALVES MAY ONLY BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL. VALVES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

(T) ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF SURROUNDING PAVEMENT OR FINISHED SURFACE TREATMENTS WHEN THE PROJECT IS COMPLETED.

(U) PER CITY ORDINANCE "105.03 U.S. STEEL USAGE REQUIRED; EXCEPTIONS", ALL STEEL NECESSARY IN THE CONSTRUCTION OF ANY WORK SHALL BE STEEL THAT IS PRODUCED IN THE UNITED STATES UNLESS A SPECIFIC PRODUCT WHICH IS REQUIRED IS NOT PRODUCED BY MANUFACTURERS IN THE UNITED STATES IN WHICH EVENT THIS PROHIBITION DOES NOT APPLY.

IX POST CONSTRUCTION INCIDENTALS

(A) AS-BUILT DRAWINGS AND NOTES:

AS-BUILT REPRODUCIBLE MYLARS SHALL BE PROVIDED TO THE CITY OF CANTON BY THE DESIGN ENGINEER AT THE COMPLETION OF THE PROJECT. AS-BUILT INFORMATION CONSISTS OF POST-CONSTRUCTION FIELD SURVEY DATA OF THE LOCATION, FLOW LINE ELEVATIONS, AND TOP-OF-GRADE/RIM ELEVATIONS FOR ALL STORM AND SANITARY STRUCTURES CONSTRUCTED AND/OR IMPACTED BY THE PROJECT.

THE CONTRACTOR SHALL DOCUMENT IN WRITING ANY AND ALL INFORMATION PERTAINING TO ANY CONSTRUCTION THAT DEVIATES FROM THESE PLANS AND SHALL MAKE SUCH DOCUMENTATION AVAILABLE TO THE CITY ENGINEER.

(B) PROPOSED MONUMENTATION:

THE CONTRACTOR'S SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.

(C) RELEASE OF RETAINER/BONDS:

PRIOR TO THE RELEASE OF RETAINER/CONSTRUCTION BOND, THE CONTRACTOR SHALL HAVE COMPLETED THE CITY ENGINEER'S PROJECT PUNCH LIST AND SUBMIT FINAL WAIVER OF LIEN, IN ACCORDANCE WITH CITY SS 01--00.

UNDERGROUND CONDUIT ACRONYMS

PVC = POLYVINYL CHLORIDE
VCP = VITRIFIED CLAY PIPE
RCP = REINFORCED CONCRETE PIPE
HDPE = HIGH-DENSITY POLYETHYLENE
CMP = CORRUGATED METAL PIPE
D.I. = DUCTILE IRON
C.I. = CAST IRON
RIM = RIM ELEVATION
INV = INVERT ELEVATION

CALCULATED:
GEA
CHECKED:
JCG

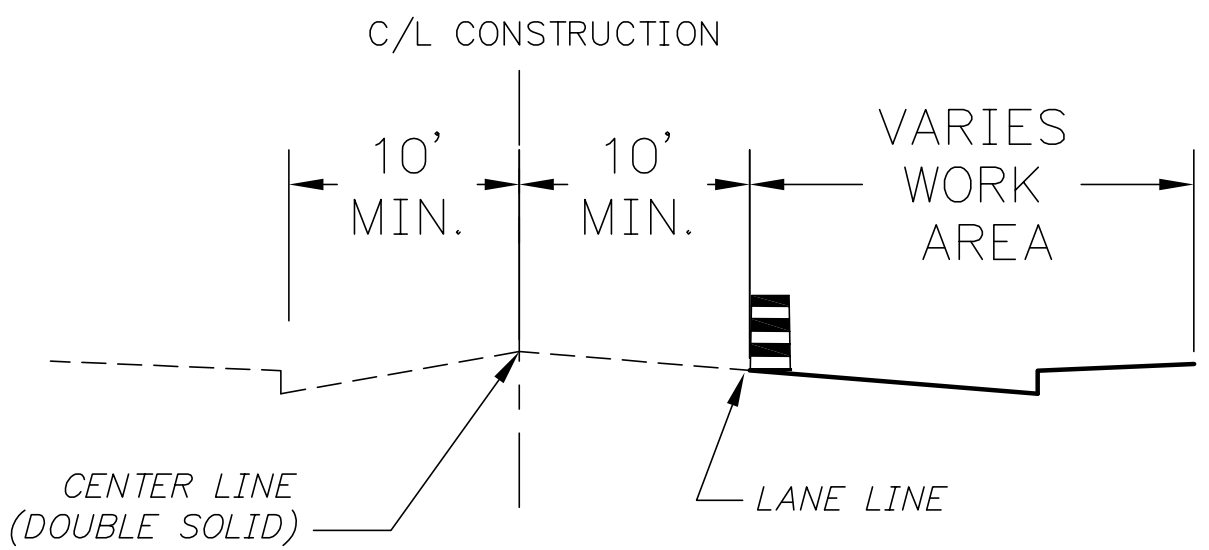
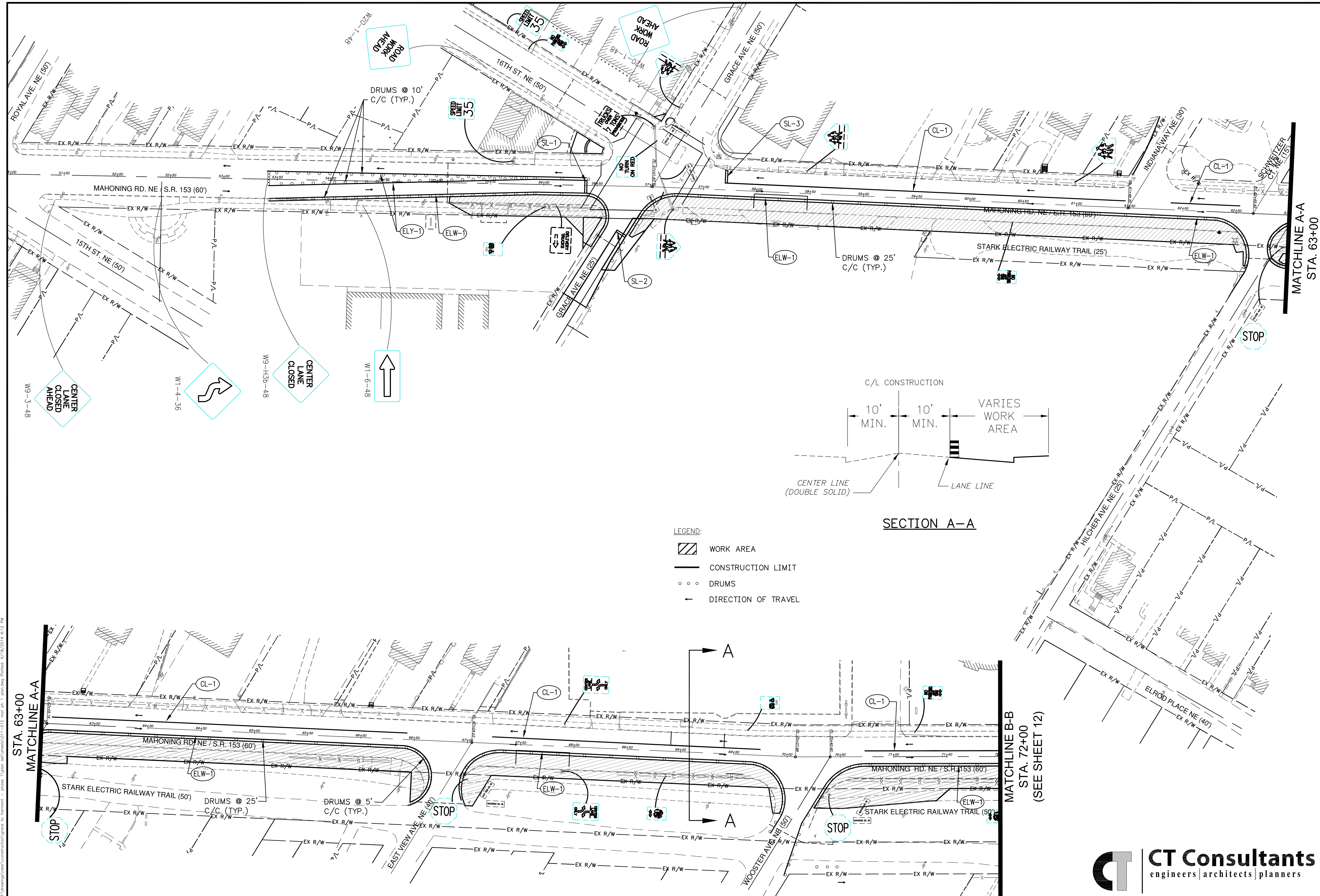
GENERAL NOTES

REVISIONS
CONSTRUCTION BIDDING-SET
ADDITIONAL NO. 1

DATE
4/21/14 GEA
5/7/14 GEA

MAHONING ROAD NE
STA-0153-01.70

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- LEGEND:
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

SECTION A-A

CALCULATED: SSA
 CHECKED: JGC

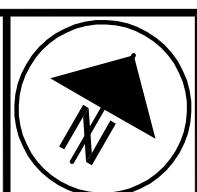
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 HORIZONTAL SCALE
 1" = 40'

MAINTENANCE OF TRAFFIC
 PHASE 1

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

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1" = 40'

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MAINTENANCE OF TRAFFIC
PHASE 1

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GGA

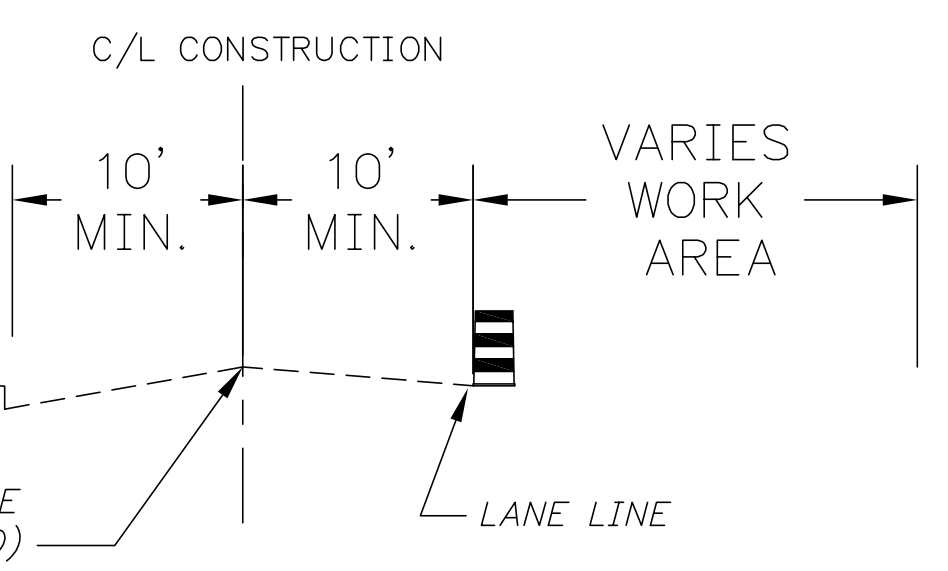
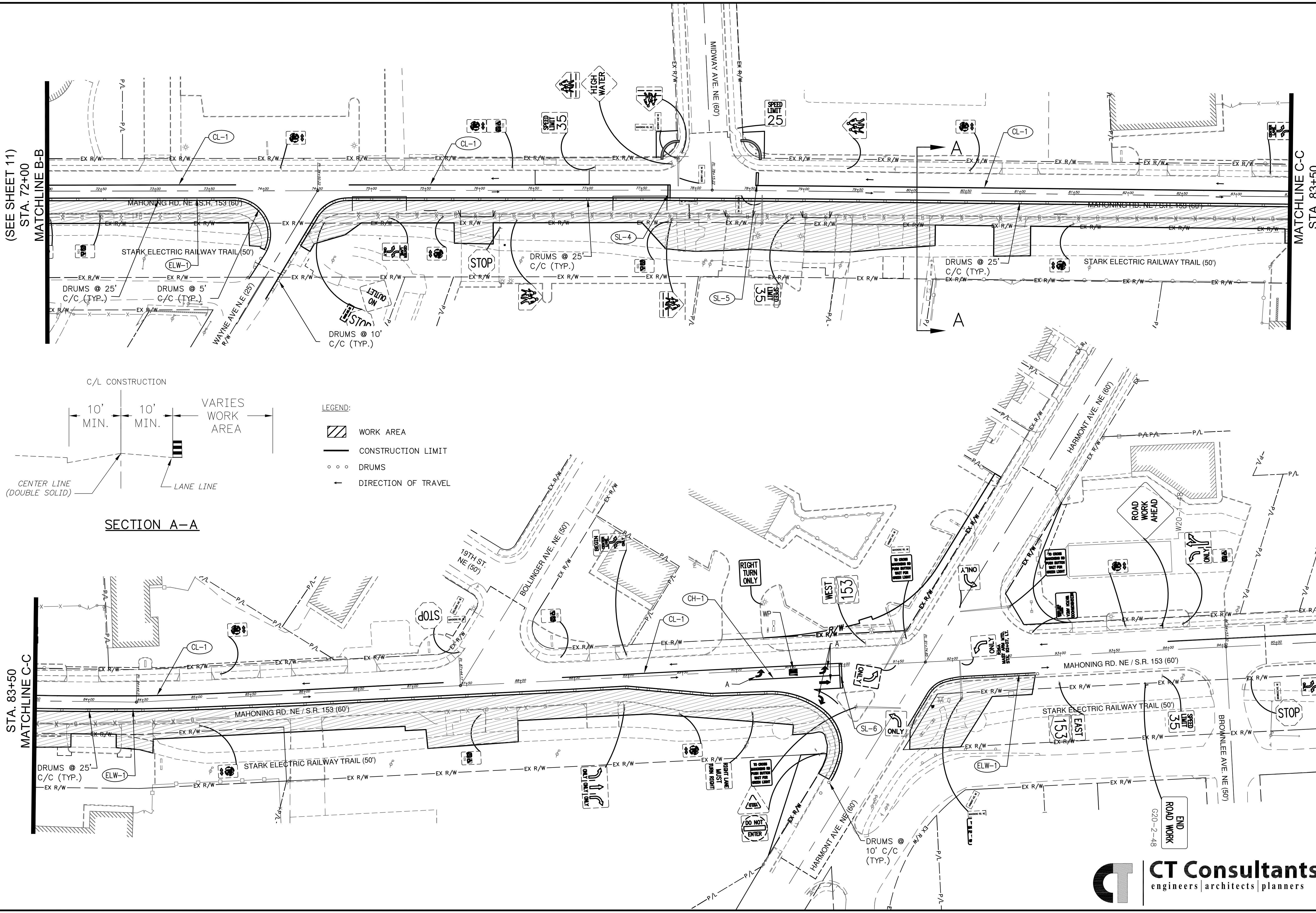
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STA. 72+00

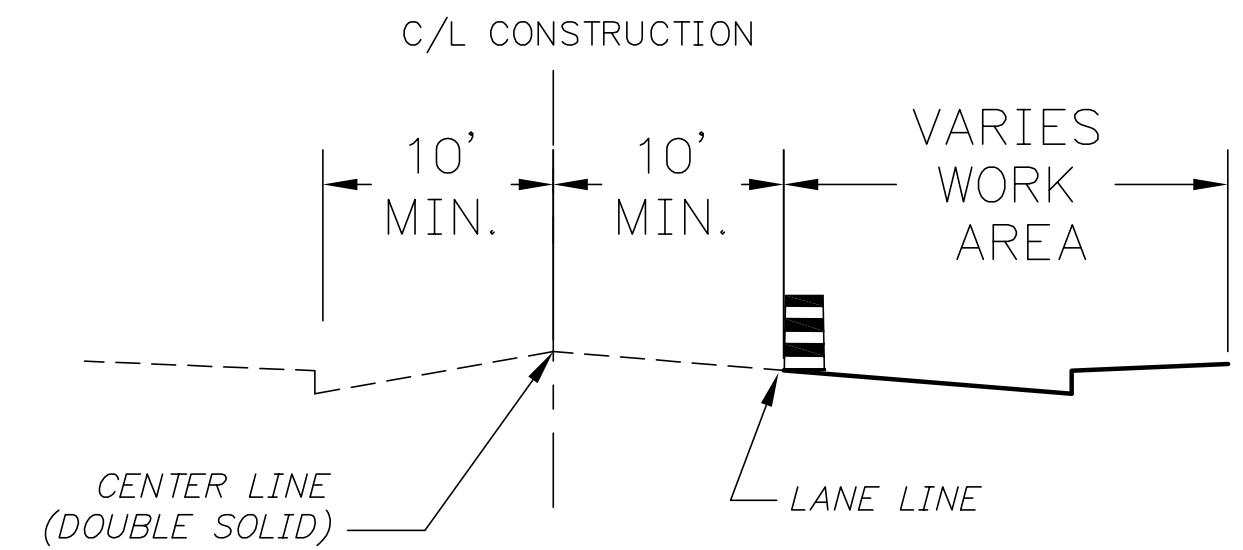
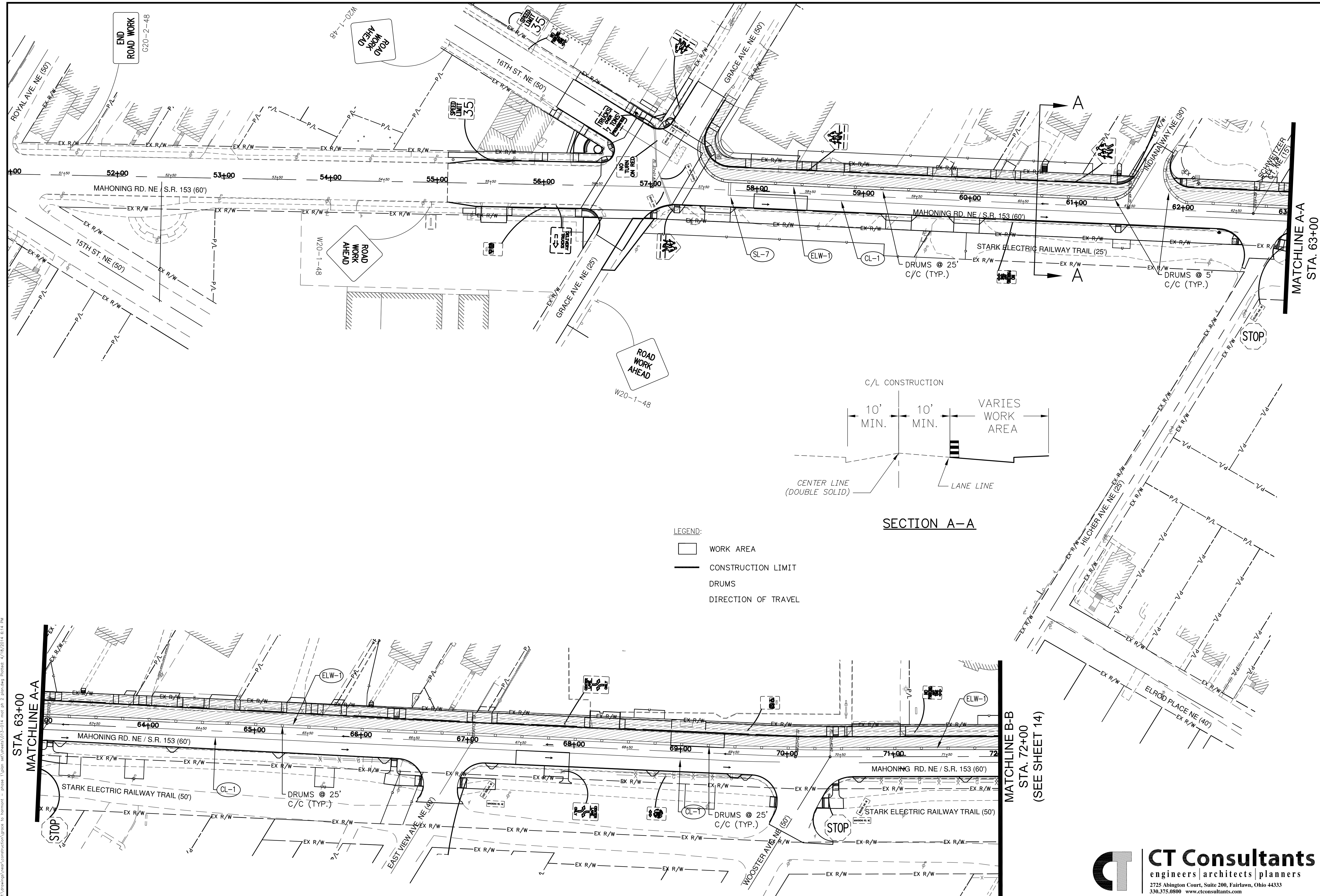
MATCHLINE B-B

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STA. 83+50



SECTION A-A

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- LEGEND:
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

STA. 63+00
MATCHLINE A-A

MATCHLINE B-B
STA. 72+00
(SEE SHEET 14)

CALCULATED: SSA
CHECKED: JGC

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20'
HORIZONTAL SCALE
1" = 40'

MAINTENANCE OF TRAFFIC
PHASE 2

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
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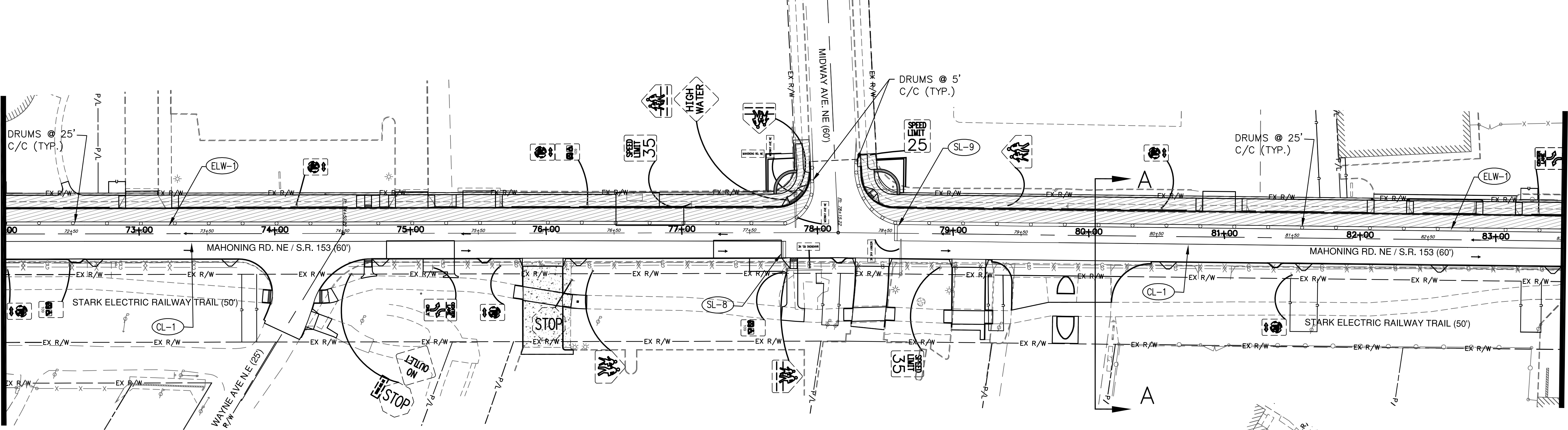
CT Consultants
engineers | architects | planners
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330.375.0800 www.ctconsultants.com

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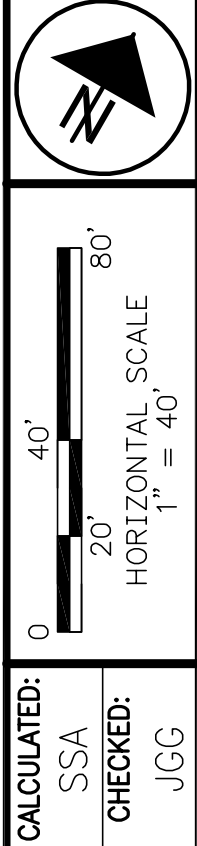
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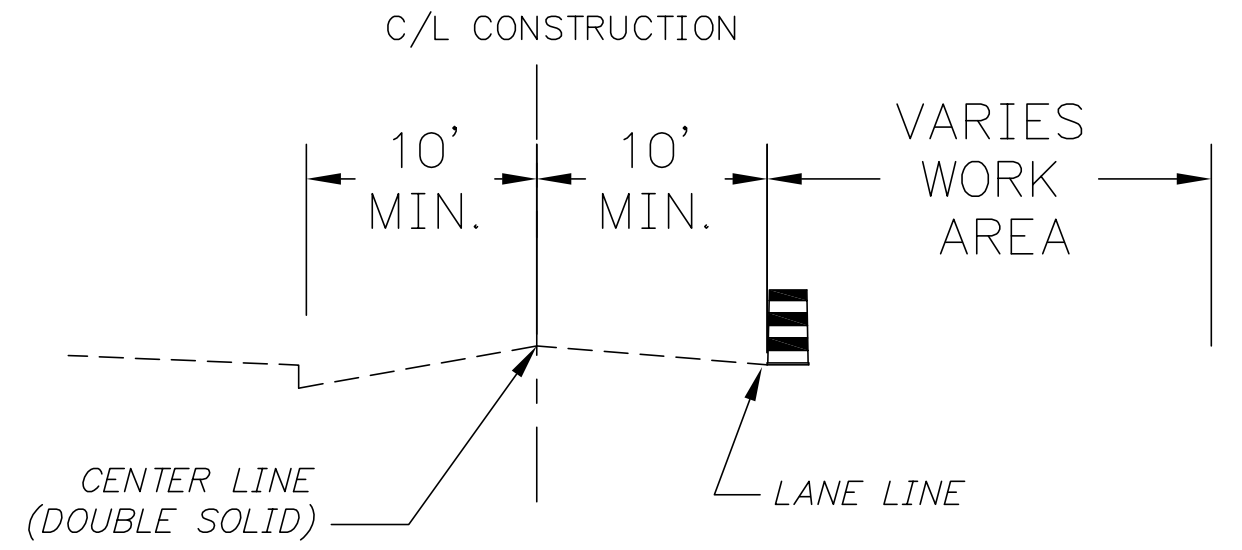


MAINTENANCE OF TRAFFIC
PHASE 2

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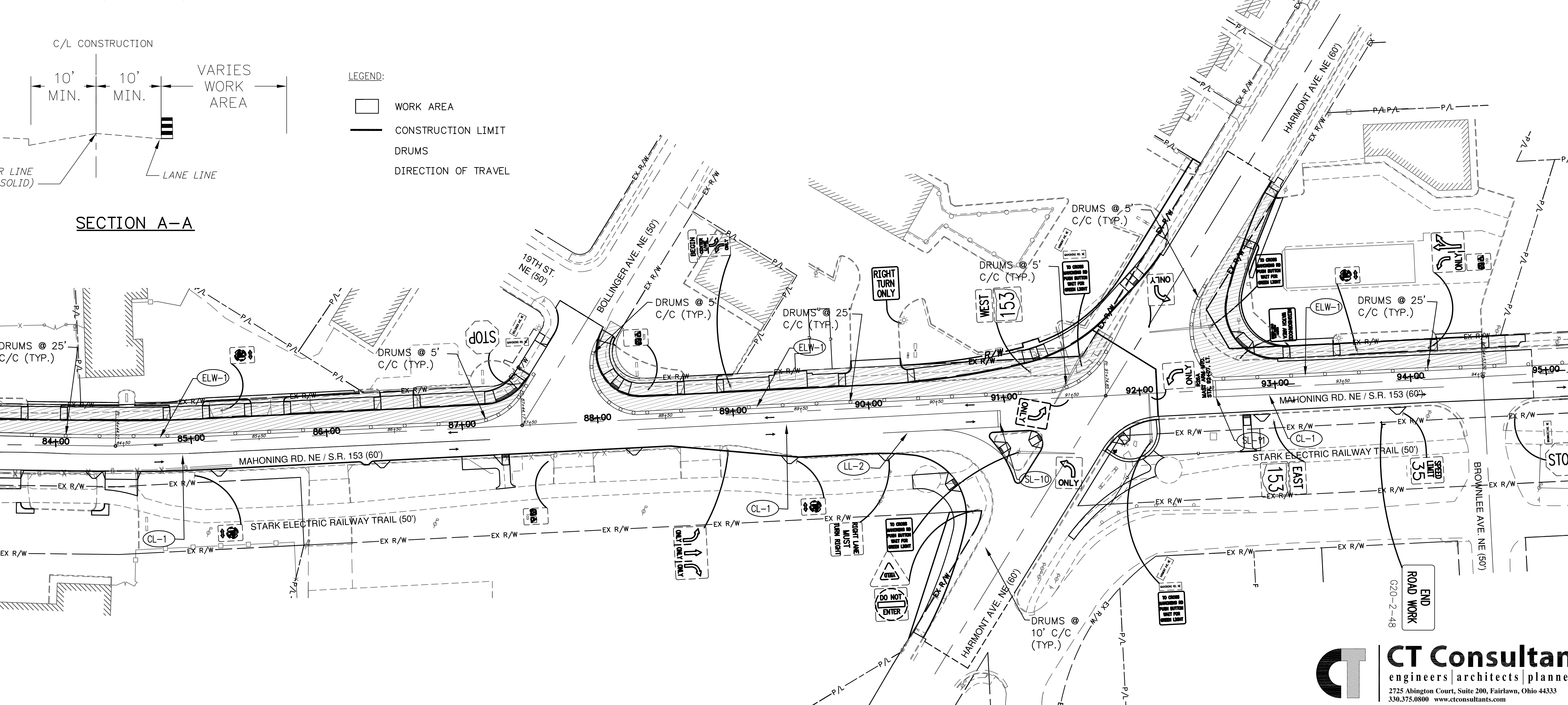


- LEGEND:
- WORK AREA
 - CONSTRUCTION LIMIT
 - DRUMS
 - DIRECTION OF TRAVEL

SECTION A-A

STA. 83+50

MATCHLINE C-C



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MAINTENANCE OF TRAFFIC:

(A) **MAINTAINING TRAFFIC:**

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT IN ACCORDANCE WITH ODOT ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH BARRICADES, DRUMS, OR BARRIERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY VEHICLES.

ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED IN WRITING BY THE CITY TRAFFIC ENGINEER AND ANY OTHER PUBLIC AGENCY HAVING JURISDICTION. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ANY SUCH CLOSINGS FOR PUBLICATION AND EMERGENCY AGENCY NOTIFICATION.

A MINIMUM OF ONE TEN (10) FOOT LANE OF TRAFFIC IN EACH DIRECTION ALONG MAHONING ROAD SHALL BE MAINTAINED AT ALL TIMES, BY EITHER THE USE OF THE EXISTING PAVEMENT OR NEW PAVEMENT.

TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC, THE LENGTH AND DURATION OF LANE CLOSURES, LANE RESTRICTIONS AND TIME RESTRICTIONS SHALL BE KEPT TO A MINIMUM OR AT THE DIRECTION OF THE CITY ENGINEER. LANE CLOSURES OR RESTRICTIONS WHERE NO WORK IS ANTICIPATED WITHIN A REASONABLE AMOUNT OF TIME SHALL NOT BE PERMITTED.

LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

CONSTRUCTION IN A GIVEN PHASE MUST BE COMPLETED PRIOR TO BEGINNING THE NEXT PHASE, UNLESS APPROVED BY THE CITY ENGINEER. BRICK STREETScape, TREE GRATES AND LANDSCAPING ITEMS DO NOT NEED TO BE COMPLETED PRIOR TO MOVING TO THE NEXT PHASE.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL LANES BY PLASTIC SAFETY DRUMS OR CONES, TEMPORARY TRAFFIC SIGNS AND WORK ZONE PAVEMENT MARKINGS. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.

LONGITUDINAL VERTICAL FACES ABUTTING ACTIVE DRIVE APRONS SHALL BE TEMPORARILY RAMPED TO PROVIDE LOCAL ACCESS. TRANSVERSE VERTICAL FACES SHALL BE TEMPORARILY RAMPED A MINIMUM LENGTH OF 10- FEET IN EACH DIRECTION WITH W8-1 "BUMP" WARNING SIGNS PLACED IN ADVANCE OF EACH RAMPED AREA.

PRIOR TO OPENING TO TRAFFIC, EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED WITH DRUMS OR PORTABLE CONCRETE BARRIER.

ONLY DURING OFF-PEAK PERIODS (i.e. ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ANY TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

(B) **PLACEMENT OF ASPHALT CONCRETE:**

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

(C) **RESIDENTIAL AND BUSINESS AREAS:**

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ADJUTING PROPERTIES DURING CONSTRUCTION. IN THE EVENT A DRIVE ACCESS NEEDS TO BE CLOSED, THE CONTRACTOR SHALL GIVE NOTICE OF CLOSURE AND DURATION TO THE PROPERTY OWNER 48 HOURS IN

ADVANCE. THE CONTRACTOR SHALL ARRANGE FOR ALTERNATE PARKING AND REASONABLE ACCESS FOR THOSE PROPERTY OWNERS AFFECTED BY DRIVE CLOSURES.

ITEM 614 - WORK ZONE PAVEMENT MARKINGS

ALL WORK ZONE PAVEMENT MARKINGS APPLIED TO THE EXISTING PAVEMENT OR THE COMPLETED INTERMEDIATE SURFACE COURSE SHALL BE 642 PAINT, CLASS 1, TYPE 2. NO WORK ZONE PAVEMENT MARKINGS SHALL BE APPLIED TO THE SURFACE COURSE. ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH CMS 614.11F1. WORK ZONE LINES SHALL BE A MINIMUM OF (4) INCHES IN WIDTH AND STOP LINES TWELVE (12) INCHES IN WIDTH.

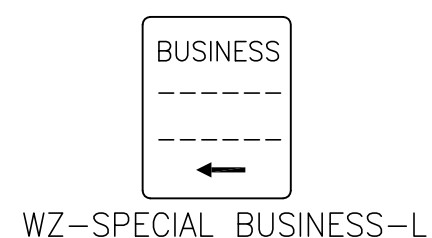
WORK ZONE PAVEMENT MARKINGS SHALL BE APPLIED ONLY TO EXISTING PAVEMENT OR THE COMPLETED INTERMEDIATE SURFACE COURSE. NO WORK ZONE PAVEMENT MARKINGS SHALL BE APPLIED TO THE FINAL SURFACE COURSE. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

(D) **ITEM 614 - BUSINESS ENTRANCE SIGN**

THE BUSINESS ENTRANCE (M4-H15) SIGN SHOULD BE PROVIDED AT EACH TEMPORARILY RELOCATED COMMERCIAL DRIVEWAY FOR WHICH THE RELOCATION IS NOT OBVIOUS TO THE MOTORIST. THE CITY ENGINEER SHALL DETERMINE WHETHER OR NOT THE DRIVEWAY RELOCATION IS OR IS NOT OBVIOUS AND WHETHER OR NOT A SIGN SHOULD BE PROVIDED. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED.

THE SIGN SHALL BE 3 FEET WIDE BY 4 FEET TALL WITH 6" WHITE LETTERING ON A GREEN REFLECTIVE BACKGROUND WITH THE STANDARD M4-H15 LEGEND WITH THE WORD "BUSINESS" ON THE TOP LINE, EXCEPT UNDER UNUSUAL CIRCUMSTANCES WHERE IT MAY NOT BE INTUITIVE THAT A DRIVEWAY SERVES A SPECIFIC BUSINESS. IN SUCH UNUSUAL CASES, THE ACTUAL BUSINESS NAME MAY BE SUBSTITUTED FOR THE WORD "BUSINESS".

THE SIGN SHALL BE CLEARLY VISIBLE, IDENTIFY THE LOCATION OF THE DRIVEWAY AND BE POSITIONED AT 90 DEGREES TO THE DIRECTION OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.



WZ-SPECIAL BUSINESS-L

A WZ-SPECIAL BUSINESS-R SIGN IS SIMILAR TO THE SIGN SHOWN ABOVE EXCEPT THE ARROW POINTS TO THE RIGHT. AN INSTALLATION WILL INCLUDE BOTH A WZ SPECIAL BUSINESS SIGN ON A POST SUPPORT AS PER ODOT STANDARD DRAWING MT 105.11.

PAYMENT WILL BE MADE FOR EACH INSTALLATION WHICH INCLUDES INSTALLATION, MAINTENANCE, REPLACEMENT OF THE INSTALLATION SHOULD IT BECOME DAMAGED, AND SUBSEQUENT REMOVAL.

(E) **TRAFFIC CONTROL INSPECTOR**

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

(F) **EXISTING STREET NAME AND TRAFFIC CONTROL SIGNS:**

WHERE WORK REQUIRES THE MOVEMENT OF EXISTING SIGNS (STOP SIGNS, SPEED LIMIT SIGNS, NO PARKING SIGNS, ETC.), THE CONTRACTOR IS REQUIRED TO MAINTAIN THE FUNCTION OF ALL TRAFFIC CONTROL SIGNS. ALL SIGNS REMOVED BY THE CONTRACTOR SHALL BE STORED ON SITE AND REINSTALLED BY THE CONTRACTOR.

(G) **NEW STREET NAME AND TRAFFIC CONTROL SIGNS:**

ALL STREET NAME AND TRAFFIC CONTROL SIGNS SHALL COME COMPLETE AND BE MADE IN ACCORDANCE WITH THE CITY OF CANTON SIGN AND PAINT DEPARTMENT SPECIFICATIONS. GENERALLY, ALL SIGNS SHALL HAVE HI-INTENSITY SHEETING AND BE MADE WITH .080 50/52 ALUMINUM. STREET NAME SIGNS SHALL BE MADE WITH WHITE UPPER AND LOWER CASE LETTERING ON GREEN BACKGROUND USING 9" BLANKS, BE DOUBLED SIDED W/RADIUS CORNERS AND HAVE 6" NAME AND 3" SUFFIXES. ALL SIGN RELATED HARDWARE IS TO BE INCLUDED, SUCH AS 6" HEAVY DUTY U-CHANNEL CAPS AND STREET NAME CROSSES.

(H) **EXISTING TRAFFIC SIGNALS:**

WHERE WORK REQUIRES INTERFERENCE WITH EXISTING SIGNALIZATION IN THE INTERSECTIONS, ALL WORK SHALL BE COORDINATED THROUGH THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ALTER ANY SIGNALIZATION WITHOUT THE CITY ENGINEER'S AUTHORIZATION.

(I) **TRAFFIC CONTROL PLAN:**

THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH CITY SUPPLEMENTAL SPECIFICATION 01-00. DETOURS, IF NECESSARY, SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PLAN IMPLEMENTATION.

(J) **DETOUR NOTIFICATION**

THE CONTRACTOR SHALL ADVISE THE CITY OF CANTON (330-489-3031) A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTES SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERRECTED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

(K) **SIDE STREET CLOSURE**

SIDE STREET CONSTRUCTION SHALL BE PERFORMED DURING THE APPROPRIATE PHASE USING PART WIDTH CONSTRUCTION. ONE LANE OF TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION ON THE SIDE STREETS UNLESS OTHERWISE SHOWN ON THE PLANS OR WRITTEN PERMISSION IS OBTAINED FROM THE CITY.

INTERSECTING STREETS MAY BE CLOSED ONLY WITH WRITTEN APPROVAL FROM THE CITY ENGINEER. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH SECTION 108.07 FOR EACH CALENDAR DAY THAT THE INTERSECTING STREET REMAIN CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. ALL CLOSED STREETS SHALL BE BARRICADED AT THE WORK LIMITS WITH GATES AND BARRICADES PER PLAN INSERTS AND SIGNED WITH A "ROAD CLOSED" (R11-2) SIGN MOUNTED ON THE BARRICADES. IN ADDITION, A "ROAD CLOSED AHEAD" (W20-3) SIGN SHALL BE INSTALLED AT THE FIRST INTERSECTION BEYOND THE WORK, AND/OR WHERE SHOWN ON THE PLANS. THE CONTRACTOR SHALL FURNISH, ERRECT, MAINTAIN AND REMOVE ALL SIGNS AND BARRICADES REQUIRED FOR THIS PURPOSE.

(L) **OVERNIGHT TRENCH CLOSING**

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN THREE INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE CITY ENGINEER.

(M) **ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

- FOR LANE CLOSURES: DURING INITIAL SET UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.
- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING PHASE CHANGES.
- DURING MODIFICATION, CLOSING OR MAINTAINING A SIGNALIZED INTERSECTION DURING REMOVAL OR INSTALLATION.

LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEOS ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

CITY OF CANTON
ATTN: CHIEF DEAN MCKIMM
221 THIRD STREET SW
CANTON, OHIO
PHONE: (330) 489-3111

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF CONTRACTOR WISHES TO UTILIZE LEOS FOR FLAGGING AND TRAFFIC CONTROL, OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE, PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

(N) **FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ALONG MAHONING ROAD OR TO ANY RESIDENCE/BUSINESS. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AN OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

(O) **MANHOLES AND VALVES**

ALL CASINGS ENCOUNTERED SHALL BE SET TO GRADE AND PAID FOR UNDER VARIOUS ITEMS DESCRIBED ELSEWHERE IN THE ROADWAY GENERAL NOTES AND SPECIFICATIONS. ANY CASTINGS EXPOSED TO TRAFFIC HAVING AN ELEVATION DIFFERENTIAL GREATER THAN 1 1/4" SHALL HAVE A TEMPORARY WEDGE OF ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

(P) **UTILITY WORK**

EXCAVATIONS MADE FOR CONDUIT OR UTILITIES IN OPEN TRENCHES SHALL BE ADEQUATELY MAINTAINED AND PROTECTED AT ALL TIMES. THE USE OF METAL PLATES OVER OPEN TRENCHES IS ONLY PERMITTED IMMEDIATELY AFTER THE EXCAVATION IN ORDER TO MAINTAIN THE ROADWAY LANES TO TRAFFIC. UPON COMPLETING THE SUBSURFACE CONNECTIONS, THE OPENING SHALL BE RETURNED TO THE ROADWAY SURFACE LEVEL WITH APPROVED MATERIAL.

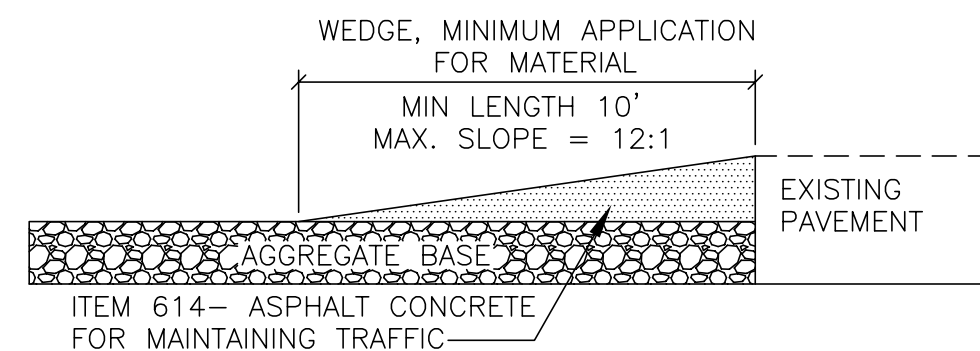
(Q) **TEMPORARY DRAINAGE**

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ADEQUATE DRAINAGE OF THE TRAVELED ROADWAYS DURING ALL PHASES OF CONSTRUCTION USING EXISTING DRAINAGE FACILITIES, TEMPORARY DRAINAGE FACILITIES, AND PERMANENT DRAINAGE FACILITIES.

(R) **TEMPORARY RAMPING OF VERTICAL SURFACES AT DRIVEWAYS**

IN ORDER TO PROVIDE FOR LOCAL ACCESS, LONGITUDINAL VERTICAL FACES ABUTTING DRIVES SHALL BE TEMPORARILY RAMPED AS DETAILED BELOW. TRANSVERSE VERTICAL FACES SHALL BE TEMPORARILY RAMPED A MINIMUM OF TEN FEET IN LENGTH AND TRAFFIC SHALL BE WARNED WITH W8-1 "BUMP" SIGNS IN ADVANCE OF THE RAMPED AREAS. THE GRADE BREAK SHALL NOT EXCEED A MAXIMUM OF 8 PERCENT AT EITHER END OF THE WEDGE.

ALL TEMPORARY RAMPING SHALL BE INSTALLED, AT THE DIRECTION OF THE ENGINEER, USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.



WEDGE DETAIL FOR DRIVEWAY LOCATIONS

(S) **ACCESS TO ADJUTING COMMERCIAL PROPERTIES**

ALL DRIVE ACCESS LOCATIONS ALONG MAHONING ROAD SHALL BE MAINTAINED BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE ENGINEER. THE COMMERCIAL PROPERTIES ALONG MAHONING ROAD ARE DEPENDENT UPON CUSTOMER ACCESS DURING NORMAL BUSINESS HOURS. THEREFORE, ANY WORK ON A COMMERCIAL DRIVE THAT REQUIRES INTERFERENCE WITH ACCESS TO PROPERTY SHALL BE PERFORMED AFTER CLOSING TIME FOR THE AFFECTED PROPERTY, UNLESS PROVIDED OTHERWISE IN THIS NOTE. THE CONTRACTOR SHALL SCHEDULE THE DRIVEWAY CONSTRUCTION SUCH THAT ACCESS IS MAINTAINED BY MEANS OF THE EXISTING DRIVE, A TEMPORARY DRIVE OF MATERIAL APPROVED BY THE ENGINEER, OR THE PROPOSED DRIVE.

FOR COMMERCIAL PROPERTIES WITH TWO DRIVEWAYS WHERE INGRESS AND EGRESS IS AVAILABLE FOR BOTH OF THE DRIVEWAYS, THE CONTRACTOR SHALL PROVIDE ACCESS AT ALL TIMES TO ONE OF THE DRIVEWAYS WHILE THE OTHER DRIVEWAY IS RECONSTRUCTED. FOR COMMERCIAL PROPERTIES WITH ONE DRIVEWAY, THE CONTRACTOR SHALL PROVIDE ACCESS AT ALL TIMES BY USING PART WIDTH CONSTRUCTION. FOR COMMERCIAL PROPERTIES WITH TWO DRIVEWAYS WHERE ONE OF THE DRIVES IS USED EXCLUSIVELY AS AN ENTRANCE AND THE OTHER IS USED EXCLUSIVELY AS AN EXIT, THE CONTRACTOR SHALL PROVIDE ACCESS AT ALL TIMES FOR BOTH OF THE DRIVEWAYS BY USING PART WIDTH CONSTRUCTION.

THE CONTRACTOR, UPON DIRECTION OF THE ENGINEER, SHALL USE CLASS QC MS OR QC FS CONCRETE IN ACCORDANCE WITH CMS ITEM 499 TO EXPEDITE DRIVEWAY WORK AT SELECTED LOCATIONS. PAYMENT FOR CLASS MS OR FS CONCRETE WILL BE AS A SURCHARGE TO THE UNIT PRICE PER CUBIC YARD OF CONCRETE.

(T) **TRENCH FOR WIDENING**

THE OPENING TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIALS SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

CALCULATED:
GEA
CHECKED:
JGC

MAINTENANCE OF TRAFFIC
GENERAL NOTES

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/27/14	GEA

MAHONING ROAD NE
STA-0153-01.70

15
108

(U) MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

BEFORE ANY WORK IS STARTED REPRESENTATIVES OF THE CITY OF CANTON AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE SIGNAL INSTALLATIONS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING SIGNAL SHALL BE MADE BY THE CITY. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL ITEMS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE CITY AND THE CONTRACTOR.

AFTER THE REPORT HAS BEEN SIGNED BY ALL PARTIES, THE SIGNAL INSTALLATION SHALL BE TURNED OVER TO THE CONTRACTOR, WHO SHALL THEN BE REQUIRED TO MAINTAIN THE TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITION: EXISTING SIGNAL INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ON TO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS INCLUDING DAMAGE DUE TO UTILITY RELOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION AT AN INTERSECTION FROM THE TIME THE INSTALLATION IS FIRST DISTURBED, WHETHER FROM UTILITY WORK OR FROM THE CONTRACTOR.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE THE CITY AND THE PROJECT ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. THE CONTRACTOR SHALL HAVE THE MALFUNCTION CORRECTED AND/OR REPAIRED TO THE SATISFACTION OF THE ENGINEER WITHIN EIGHT HOURS OF THE NOTIFICATION OR LIQUIDATED DAMAGES OF \$500 PER HOUR SHALL BE ASSESSED TO THE CONTRACTOR.

ALL LAMP OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGES.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT HOURS AFTER THE CONTRACTOR IS NOTIFIED OF THE OUTAGE.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED EIGHT-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FORE THE WORST SINGLE OUTAGE.

WHERE THE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY DAMAGES FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGES AS PER 107.15.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE PROJECT ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE CITY OF CANTON FOR POLICE SERVICES AND MAINTENANCE SERVICES BY THE CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15. IN ADDITION TO THESE BILLINGS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES OF \$500/HOUR FOR EACH HOUR BEYOND THE ALLOWED EIGHT HOUR PERIOD THAT THE SIGNAL IS INOPERATIVE.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICES ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A MUTUALLY ACCEPTABLE AGREEMENT WITH THE CITY OF CANTON TO PROVIDE THE MAINTENANCE.

THE CONTRACTOR SHALL INFORM THE PROJECT ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION, SHALL BE COVERED AS DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

- TIME OF NOTIFICATION OF MALFUNCTION.
- TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION.
- ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED.
- A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE.
- TIME OF COMPLETION OF REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED FOUR HOURS AND SHALL NOT INCLUDE THE HOURS OF 6:00 AM TO 8:00 AM AND 4:00 PM TO 6:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF DUTY POLICE HIRED BY THE CONTRACTOR:

- MAHONING ROAD NE AT GRACE AVENUE NE
- MAHONING ROAD NE AT HARMONT AVENUE NE

(V) NIGHT WORK

THE CONTRACTOR'S NEED TO WORK BETWEEN SUNSET TO SUNRISE SHALL HAVE PRIOR APPROVAL FROM THE CITY. THE WRITTEN REQUEST SHOULD HAVE A 5 DAY ADVANCE NOTICE. THE REQUEST TO WORK BETWEEN THESE HOURS SHALL INCLUDE THE TYPE OF WORK TO BE DONE, EQUIPMENT TO BE USED, THE DURATION AND THE LOCATION. A TEMPORARY LIGHTING PLAN MAY BE REQUIRED (SEE THE "FLOODLIGHTING" NOTE SHEET 13).

(W) TRAFFIC LIMITATIONS

THE TRAFFIC LIMITATION DATES FOR THE YEAR OF CONSTRUCTION WILL BE FURNISHED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

(X) CONSTRUCTION SEQUENCE - GENERAL

THE CONTRACTOR SHALL DIVIDE THE ENTIRE PROJECT LENGTH INTO CONVENIENT CONSTRUCTION SECTIONS.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN A GIVEN CONSTRUCTION SECTION BEFORE BEGINNING ANY WORK IN A SUBSEQUENT SECTION, UNLESS OTHERWISE APPROVED BY THE ENGINEER. NORMAL VEHICULAR TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BEYOND THE WORK LIMITS OF THE SECTION CURRENTLY UNDER CONSTRUCTION.

NO CHANGE IN TRAFFIC PATTERN SHALL TAKE PLACE DURING PEAK HOURS, 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM, MONDAY THROUGH FRIDAY.

LOCATION OF ADVANCE WARNING SIGNS SHALL BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE.

DRUMS SHALL BE PLACED 25' C/C APART ON THE MAIN LINE AND 10' C/C APART ON TAPER LENGTHS, AND 5' C/C AT RADII UNLESS OTHERWISE SPECIFIED. WHEN THE USE OF DRUMS IN LIEU OF TEMPORARY PAVEMENT MARKINGS IS APPROVED BY THE DIVISION OF TRAFFIC ENGINEERING, DRUMS SHALL BE PLACED 10' C/C APART IN ALL LOCATIONS EXCLUDING RADII.

(Y) PHASE SEQUENCE:

PHASE I:
CONSTRUCTION AREA: SOUTH SIDE OF MAHONING ROAD BETWEEN GRACE AVENUE AND HARMONT AVENUE (STA 56+00 TO 95+00)

WORK DESCRIPTION: CONSTRUCTION OF NEW SIDEWALK, DRIVEWAYS, PEDESTRIAN RAMPS, LIGHT POLES, AND MISCELLANEOUS UTILITIES RELOCATION.

MAINTENANCE OF TRAFFIC: TWO WAY TRAFFIC TO MAINTAINED AT ALL TIMES AS SHOWN ON PHASE ONE PLAN. MIN. 10' LANE TO BE USED IN EACH DIRECTION.

PHASE II:
CONSTRUCTION AREA: NORTH SIDE OF MAHONING ROAD BETWEEN GRACE AVENUE AND HARMONT AVENUE (STA 56+00 TO 95+00)

WORK DESCRIPTION: CONSTRUCTION OF NEW SIDEWALK, DRIVEWAYS, PEDESTRIAN RAMPS, LIGHT POLES, AND MISCELLANEOUS UTILITIES RELOCATION.

MAINTENANCE OF TRAFFIC: TWO WAY TRAFFIC TO MAINTAINED AT ALL TIMES AS SHOWN ON PHASE ONE PLAN. MIN. 10' LANE TO BE USED IN EACH DIRECTION.

STORM WORK AND CROSSWALKS:

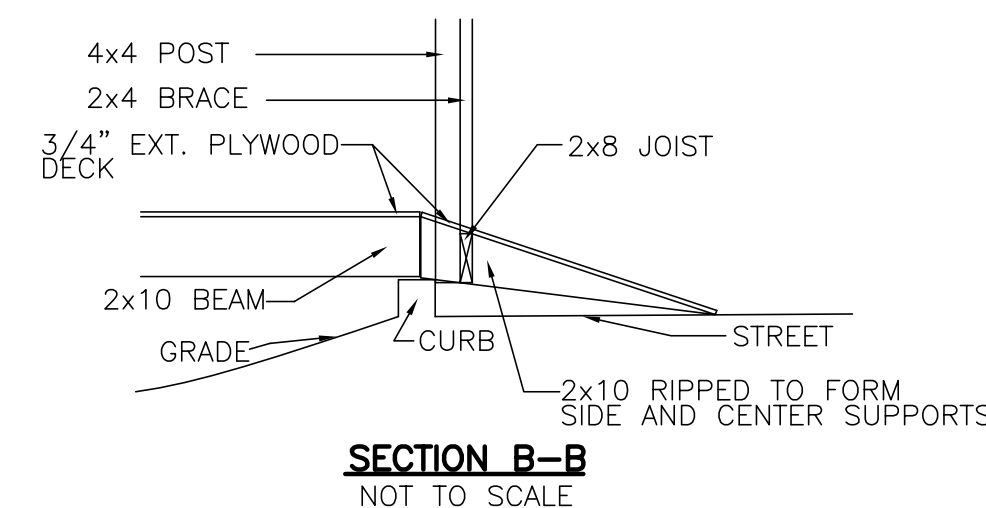
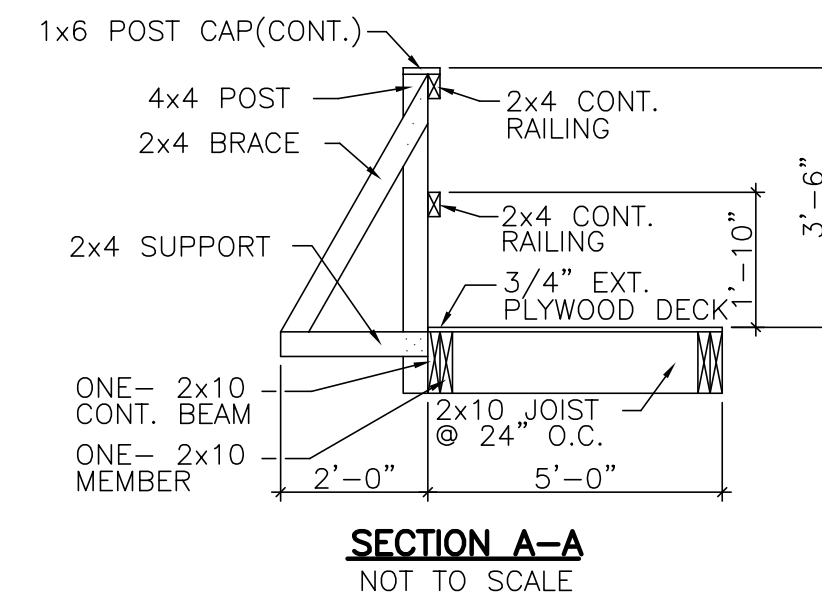
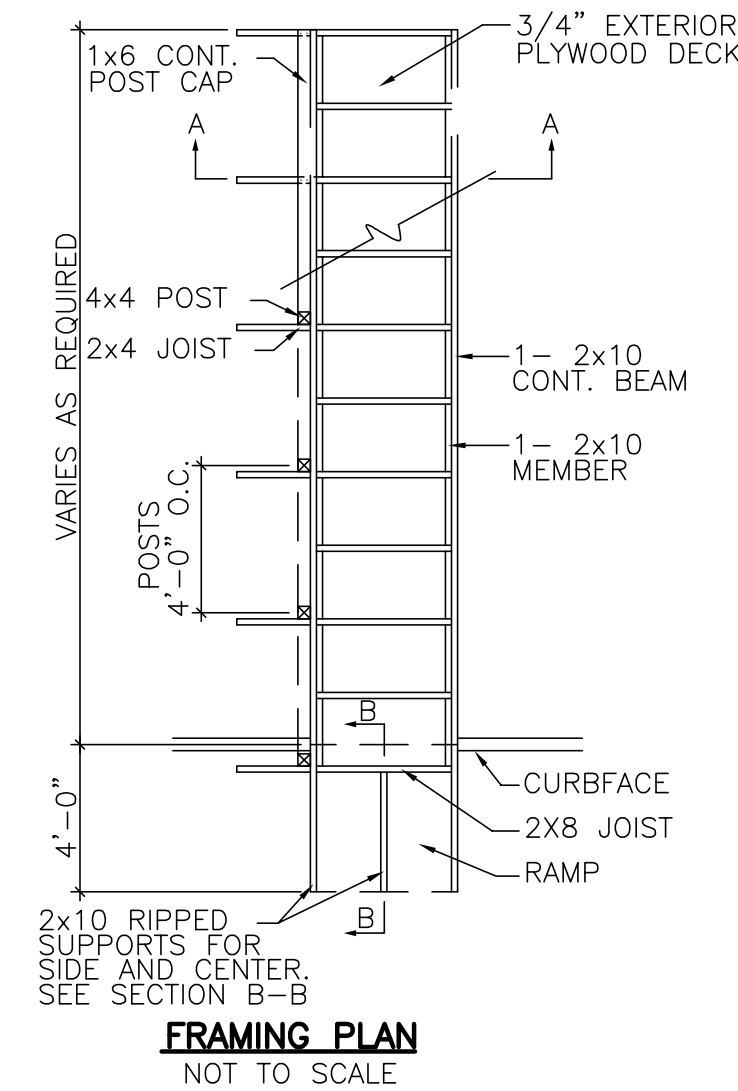
AT PROPOSED STORM LINE, OTHER UTILITY LATERALS, AND CROSSWALKS LOCATED IN THE ROADWAY AND NOT COVERED BY PHASE I AND II, CONTRACTOR TO PROVIDE TRAFFIC CONTROL SCENARIOS IN ACCORDANCE WITH Omutcd AND AS SHOWN ON SHEET 13 THRU 22

(Z) MAINTENANCE OF PEDESTRIAN TRAFFIC

THE CONTRACTOR SHALL TAKE ADEQUATE PROVISIONS (I.E. TEMPORARY WALKWAYS, DETOURS, ETC.) FOR THE SAFETY OF PEDESTRIANS WITHIN THE WORK ZONE.

AT EXISTING SIDEWALK OR CROSSWALK LOCATIONS WHERE PEDESTRIAN TRAFFIC CAN NOT BE MAINTAINED, PROVIDE PEDESTRIAN TRAFFIC CONTROL IN ACCORDANCE WITH THE Omutcd, CURRENT EDITION, LATEST REVISION, FIGURES 6H-28 (SIDEWALK DETOUR OR DIVERSION, TA-28) AND 6H-29 (CROSSWALK CLOSURES AND PEDESTRIAN DETOURS, TA-29).

THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO THE FRONT DOORS OF ALL STORES, OFFICES, RTA BUS STOPS, ETC., AS WELL AS ACCESS TO ALL RESIDENCES, DURING HIS/HER CONSTRUCTION, WITH TEMPORARY CONCRETE OR ASPHALT PAVEMENTS OR PEDESTRIAN BRIDGES. THE PEDESTRIAN BRIDGES ARE DETAILED ON THIS SHEET. EXISTING CONCRETE OR ASPHALT PAVEMENTS (PRIOR TO DEMOLITION) MAY BE USED FOR THE PURPOSES OF REROUTING PEDESTRIAN TRAFFIC. THESE PROVISIONS SHALL BE ADHERED TO TO MAINTAIN ACCESS TO ALL BUILDING ENTRANCES SHALL BE PROVIDED IMMEDIATELY UPON REMOVAL OF EXISTING PAVEMENT. IF A PORTION OF THE PEDESTRIAN WAY IS REROUTED DUE TO CONSTRUCTION, THE PATH OF TRAVEL SHALL BE CLEARLY DEFINED. THE CONTRACTOR SHALL SUBMIT A PEDESTRIAN ACCESS PLAN (INDICATING PEDESTRIAN ACCESS, LIMITATION, REROUTING AND NOTIFICATION) TO THE ENGINEER FOR REVIEW AND APPROVAL. "SIDEWALK CLOSED" SIGNS ON THE MAINTENANCE OF TRAFFIC PLANS REFER TO THE EXISTING SIDEWALKS AND DO NOT AUTHORIZE THE CONTRACTOR TO ELIMINATE PEDESTRIAN ACCESS TO ANY BUSINESSES OR RESIDENCES.



- NOTES:
1. THE CONTRACTOR SHALL ESTABLISH A 5' WIDE PEDESTRIAN ZONE, INDICATED BY BARRICADES AND LIGHTS ALONG THE PORTION OF THE SITE UNDER CONSTRUCTION TO PROVIDE ACCESS TO TEMPORARY WOOD WALKWAYS.
 2. RAMP AT BUILDING ENTRANCE MUST BE ADJUSTED TO ACCOMMODATE VARYING ENTRANCE CONDITIONS.

PEDESTRIAN TEMPORARY WALKWAYS (OR EQUAL)
NOT TO SCALE

CALCULATED: GEA
CHECKED: JGC

MAINTENANCE OF TRAFFIC
GENERAL NOTES

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION						201	201	201	202	202	202	202	202	
								TREE REMOVED, 18" SIZE	STUMP REMOVED, 48" SIZE	STUMP REMOVED, 60" SIZE	PIPE REMOVED (24" AND UNDER), WATER	PIPE REMOVED (24" AND UNDER), STORM	PIPE REMOVED (24" AND UNDER), GAS	PIPE REMOVED (OVER 24"), STORM	POLE REMOVED	
		FROM			TO			EA	EA	EA	FT	FT	FT	FT	EA	
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE									
54	R-15	57+57.90	34.8	LT												
54		55+14.45	21.7	LT					1							
55		67+72.14	30.2	RT					1							
55		68+48.00	30.5	RT					1							
54		57+19.30		LT	60+75.00	LT							365			
55		60+75.00		LT	61+44.65	LT							70			
55		61+98.79		LT	66+50.00	LT							451			
55		66+50.00		LT	66+55.08	LT							5			
55		71+05.24		LT	71+55.40	LT							50			
55		77+64.81		LT	77+93.21	LT							28			
56		78+33.00		LT	78+64.48	LT							32			
54		55+09.74		RT	56+46.78	RT							275			
54		56+85.68		RT	57+05.18	RT							51			
54		58+13.79		RT	58+23.79	RT							10			
54		64+18.49		RT	64+28.49	RT							10			
54		65+33.07		RT	66+28.25	RT							188			
55		67+18.57		RT	67+28.56	RT							10			
55		67+82.58		RT	67+92.58	RT							10			
55		68+48.00		RT	69+66.80	RT							251			
55		70+57.05		RT	73+72.02	RT							630			
55		74+54.40		RT	78+00.00	RT							691			
56		78+00.00		RT	85+28.72	RT							1461			
56		87+04.17		RT	88+35.69	RT							138			
57		90+52.60	68.9	RT			1									
57		90+66.43	68.5	RT			1									
54	WR-1	56+87.53		LT	56+90.09	LT				3						
54	WR-2	62+50.09		RT	62+67.99	RT				20						
54	PR-1	55+54.94	18.7	LT	56+21.83	8.3	LT						68			
54	PR-2	56+66.80	13.5	RT	57+01.82	46.0	LT						69			
54	PR-3	57+03.45	18.7	RT	57+30.22	29.7	LT						55			
54	PR-13	57+30.22	29.7	LT	57+47.67	15.8	LT							23		
54	PR-4	57+47.67	15.8	LT	57+81.29	18.2	LT						33			
54	PR-5	57+30.22	29.7	LT	57+36.40	19.3	RT						50			
54	PR-6	60+53.12	16.1	LT	60+54.20	27.0	RT						43			
55	PR-15	66+52.07	11.8	LT	66+50.85	3.9	LT						8			
55	PR-14	67+92.79	11.5	LT	67+92.50	3.5	LT						8			
55	PR-7	69+52.30	18.0	LT	69+52.18	11.8	LT						6			
55	PR-8	72+52.16	18.9	LT	72+52.38	11.3	LT						8			
55	PR-9	75+54.49	18.6	LT	75+54.50	11.3	LT						7			
55	PR-17	76+11.91	44.9	RT	76+15.71	46.3	RT						4			
56	PR-10	78+17.74	7.7	LT	78+17.31	0.3	RT						8			
56	PR-16	78+72.69	6.9	LT	78+72.72	1.9	LT						5			
56	PR-11	80+30.18	6.9	LT	80+30.18	1.9	LT						5			
56	PR-12	81+79.47	6.9	LT	81+79.33	1.9	LT						5			
56	LR-1	78+57.88	41.6	RT	78+97.55	41.7	RT								2	
57	LR-2	91+26.43	32.3	LT											1	
57	LR-3	92+84.77	106.5	LT											1	
TOTAL CARRIED TO GENERAL SUMMARY							2	2	1	23	382	4726	23	4		

SHEET NO.	REFERENCE NO.	LOCATION						202	202	202	202	202	202	202	202	202	
								MAN-HOLE REMOVED	CATCH BASIN OR INLET REMOVED	STEPS REMOVED	PARKING BLOCK REMOVED	FENCE REMOVED	GATE REMOVED	BENCH REMOVED FOR REUSE OF STORAGE	TRASH RECEPTACLE REMOVED FOR REUSE OR STORAGE	BOLLARD, STEEL REMOVED	BOLLARD, WOOD REMOVED, AS PER PLAN
		FROM			TO			EA	EA	FT	EA	FT	EA	EA	EA	EA	
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE										
54	DR-1	55+54.93	18.7	LT													
54	DR-2	56+21.83	8.3	LT													
54	DR-3	56+66.80	13.5	RT													
54	DR-4	57+30.22	29.7	LT													
54	DR-5	57+36.40	19.3	RT													
54	DR-6	57+47.67	15.8	LT													
54	DR-7	57+81.29	18.2	LT													
54	DR-14	60+53.12	13.1	LT													
55	DR-8	69+52.30	18.0	LT													
55	DR-9	72+52.16	18.9	LT													
55	DR-10	74+44.24	37.5	RT													
55	DR-11	75+54.49	18.6	LT													
55	DR-51	76+15.71	46.3	RT													
57	DR-12	91+81.16	45.4	LT													
57	DR-13	92+61.05	28.7	LT													
54	R-6	56+99.39	68.2	LT											3		
54	R-19	60+67.68	36.1	LT											7		
54	R-20	61+35.41	33.6	LT											5		
54	R-23	62+12.15	33.4	LT											5		
54	R-29	63+36.32	31.1	LT											3		
54	R-31	66+07.42	30.5	LT											3		
54	R-1	55+68.40	29.4	RT	56+24.45	29.9	RT								6		
54	R-17	58+38.44	29.2	LT	58+55.78	29.3	LT								33		
54	R-18	58+80.53	29.2	LT	59+34.73	38.0	LT								59		
54	R-111	58+55.78	29.3	LT	58+80.53	29.2	RT								1		
54	R-32	66+14.53	23.3	RT													
54	R-33	66+20.30	29.1	RT	66+27.36	26.6	RT								2	1	
55	R-45	72+65.25	25.0	RT											1		
55	R-46	72+67.34	31.0	RT	72+77.88	28.9	RT								2		
56	R-79	87+40.69	26.1	RT											1		
54	R-5	56+56.03	43.6	LT												1	
54	R-93	57+09.33	68.6	LT												1	
54	R-27	62+66.03	40.2	LT												1	
54	R-3	57+13.99	29.6	RT												1	
54	R-24	62+32.65	32.4	LT												1	
54	R-26	62+90.83	32.1	LT												1	
54	R-28	62+96.95	29.6	RT	62+98.64	36.8	RT									2	
54	R-34	66+41.56	32.3	RT	66+39.99	47.6	RT									3	
55	R-37	67+17.10	30.8	RT	67+19.43	46.3	RT									3	
55	R-55	76+27.27	51.4	RT												1	
56	R-76	85+78.59	55.8	RT												1	
56	R-77	86+18.69	55.4	RT												1	
56	R-78	87+62.76	41.6	RT	87+62.42	56.3	RT									3	
56	R-81	87+98.36	49.3	RT												1	
56	R-82	88+51.95	49.7	RT												1	
56	R-83	88+92.44	43.3	RT	88+91.52	57.3	RT									3	
57	R-87	90+64.50	60.8	RT												1	
57	R-97	91+95.13	57.8	RT												1	
TOTAL CARRIED TO GENERAL SUMMARY							3	12	26	6	92	1	5	2	3	24	

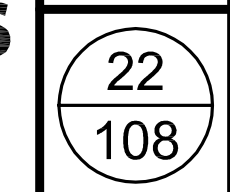
REVISIONS
CONSTRUCTION BIDDING SET
APPENDIX NO. 1

DATE	BY
4/21/14	GEA
5/7/14	GEA

CALCULATED BY: GEA
CHECKED BY: JCG

MAHONING ROAD NE
STA-0153-01.70

DEMOLITION
SUB-SUMMARY



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SHEET NO.	LOCATION						255	202	202
							FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED
	FROM			TO			FT	SY	SF
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
CONCRETE DRIVE APRON AREAS:									
54	55+40.80	18.6	RT	55+70.08	18.5	RT			263
54	55+90.51	18.3	LT	56+25.56	18.2	LT			346
54	56+14.84	70.6	LT	56+43.03	53.9	LT			271
54	56+28.11	97.9	LT	56+86.50	73.6	LT			558
54	57+35.35	18.5	RT	57+83.39	18.3	RT			539
54	57+49.83	53.6	LT	57+74.53	79.4	LT			322
54	57+59.72	42.4	LT	57+76.54	35.5	LT			121
54	57+60.95	28.9	LT	58+19.05	28.9	LT			487
54	58+53.06	18.6	LT	58+80.31	18.9	LT			270
54	58+75.86	17.9	RT	59+15.64	18.4	RT			463
54	59+33.53	18.0	RT	59+69.92	18.1	RT			449
54	59+65.76	23.9	LT	59+83.35	23.9	LT			72
54	60+21.58	18.3	LT	60+42.95	18.5	LT			236
54	63+80.44	18.4	LT	64+31.26	18.6	LT			491
54	64+49.95	18.5	LT	64+86.50	18.9	LT			324
54	65+25.96	18.4	LT	65+52.37	18.2	LT			254
54	65+62.94	18.2	LT	65+82.99	18.1	LT			154
55	67+02.21	18.5	LT	67+23.21	18.1	LT			188
55	68+13.68	18.4	LT	68+43.23	18.2	LT			280
55	70+55.61	18.8	LT	71+11.45	19.1	LT			508
55	72+84.73	18.4	LT	73+19.47	18.5	LT			299
55	74+24.53	68.0	RT	74+46.68	49.6	RT			258
55	74+83.53	18.0	LT	75+18.78	18.6	LT			304
55	75+28.32	19.2	LT	75+68.90	19.2	LT			359
55	75+79.45	21.6	RT	73+21.23	21.7	RT			2357
56	78+26.89	22.0	RT	78+58.38	21.8	RT			272
56	78+26.97	54.2	RT	78+52.02	53.5	RT			295
56	78+99.34	21.9	RT	89+32.55	21.8	RT			273
56	79+00.81	55.2	RT	79+29.25	55.5	RT			328
56	79+42.37	21.2	RT	80+19.69	21.2	RT			1141
56	80+77.77	21.0	RT	81+08.47	21.8	RT			640
56	80+80.52	18.5	LT	81+18.75	18.6	LT			357
56	82+06.90	18.7	LT	82+38.60	18.6	LT			281
56	82+82.17	18.0	LT	83+17.86	18.2	LT			324
56	83+48.16	21.5	RT	83+82.90	21.5	RT			335
56	83+76.72	18.1	LT	84+11.42	18.3	LT			325
56	84+28.02	21.2	RT	84+61.39	20.9	RT			418
56	84+82.46	18.1	LT	85+17.61	17.0	LT			367
56	85+56.90	17.3	LT	85+92.52	17.3	LT			369
56	85+82.57	22.5	RT	86+18.19	22.5	RT			308
56	86+37.36	17.5	LT	86+71.31	17.3	LT			359
56	87+40.86	39.2	LT	87+68.45	62.2	LT			346
56	87+63.31	22.4	RT	87+98.60	22.3	RT			296
56	88+56.79	23.0	RT	88+91.67	22.9	RT			309
56	88+62.06	17.5	LT	88+92.46	17.4	LT			307
57	89+71.03	16.7	LT	90+43.96	17.3	LT			95
57	90+24.77	167.0	RT	90+49.35	143.5	RT			32
57	92+77.18	111.6	LT	93+06.93	141.6	LT			37
57	93+09.19	21.0	LT	93+46.65	21.0	LT			33
57	94+17.88	20.7	LT	94+57.04	20.7	LT			35
TOTAL THIS SHEET									
									18055

SHEET NO.	LOCATION						255	202	202
							FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED
	FROM			TO			FT	SY	SF
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
WALK AREAS:									
54	55+09.80	23.6	LT	55+91.14	23.7	LT			411
54	56+24.17	23.5	LT	56+53.03	19.1	LT			404
54	55+24.52	23.5	RT	55+42.37	23.5	RT			86
54	55+66.75	23.9	RT	56+55.61	22.6	RT			408
54	56+01.13	66.5	LT	56+13.63	66.7	LT			40
54	56+79.66	71.8	LT	57+35.15	101.3	LT			489
54	57+00.71	36.8	RT	57+52.68	29.8	RT			297
54	57+49.83	53.6	LT	57+71.36	23.0	LT			258
54	58+19.19	24.0	LT	58+54.62	24.0	LT			174
54	58+80.42	23.9	LT	59+65.76	23.9	LT			426
54	59+83.35	23.9	LT	60+24.94	23.6	LT			214
54	60+39.94	23.7	LT	61+53.97	28.7	LT			572
54	61+85.75	28.5	LT	62+75.13	24.7	LT			345
54	62+84.60	38.7	RT	63+36.52	27.5	RT			482
54	62+88.44	24.1	LT	63+87.60	28.5	LT			414
54	64+32.23	23.7	LT	64+52.41	23.6	LT			98
54	64+80.03	28.5	LT	65+26.25	23.9	LT			196
54	65+50.08	28.2	LT	65+69.75	28.5	LT			72
54	65+80.55	23.7	LT	66+50.00	23.6	LT			330
54	66+11.53	18.2	RT	66+29.55	18.2	RT			249
54	66+24.56	32.6	RT	66+50.00	36.0	RT			259
55	66+50.00	36.0	RT	66+60.25	37.3	RT			103
55	66+50.00	23.6	LT	67+03.46	23.5	LT			279
56	66+95.29	39.8	RT	67+28.00	33.3	RT			327
55	67+22.59	23.6	LT	68+15.92	23.2	LT			444
55	68+41.23	23.2	LT	70+59.94	24.0	LT			1068
55	69+75.07	37.8	RT	69+89.54	38.0	RT			157
55	70+28.20	47.2	RT	70+52.97	48.5	RT			210
55	71+07.10	23.9	LT	72+87.31	23.6	LT			974
55	72+61.70	21.0	RT	72+79.40	21.0	RT			195
55	73+16.77	23.6	LT	74+86.37	23.3	LT			834
55	73+86.09	40.7	RT	73+98.06	41.6	RT			121
55	74+41.42	40.4	RT	74+51.02	37.7	RT			92
55	75+16.64	23.2	LT	75+30.68	23.2	LT			81
55	75+65.98	23.2	LT	77+88.88	65.7	LT			1238
55	75+76.97	38.1	RT	75+82.54	39.2	RT			66
55	76+18.08	45.7	RT	76+29.97	45.9	RT			117
55	77+74.07	54.5	RT	77+90.40	57.0	RT			593
56	78+19.93	55.6	RT	78+26.59	55.8	RT			60
56	78+31.11	55.7	LT	80+83.18	23.3	LT			1350
56	78+51.89	54.4	RT	78+57.85	54.6	RT			65
56	78+93.81	55.9	RT	79+00.16	56.2	RT			66
56	81+16.18	23.3	LT	82+09.83	23.4	LT			466
56	82+35.87	23.4	LT	82+83.93	23.5	LT			233
56	83+14.20	23.5	LT	83+79.36	23.6	LT			321
56	84+08.73	23.8	LT	84+85.27	24.2	LT			368
56	85+14.82	24.0	LT	85+59.73	23.8	LT			218
56	85+89.00	23.5	LT	86+40.97	23.7	LT			274
56	86+67.72	23.8	LT	87+44.79	36.4	LT			488
56	87+28.70	22.9	RT	87+42.89	23.0	RT			218
56	88+14.97	56.1	LT	88+64.38	28.6	LT			414
56	88+88.88	29.0	LT	89+50.00	30.1	LT			378
TOTAL THIS COLUMN									
									18042

SHEET NO.	LOCATION						255	202	202
							FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED
	FROM			TO			FT	SY	SF
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
57	89+50.00	30.1	LT	89+87.78	31.1	LT			232
57	90+26.45	28.5	LT	92+26.97	118.7	LT			1310
57	90+29.45	51.2	RT	90+49.35	143.5	RT			1209
57	91+42.28	101.4	RT	92+09.69	52.2	RT			564
57	91+93.39	37.3	RT	91+96.13	35.0	RT			7
57	92+80.08	111.4	LT	93+12.22	24.5	LT			714
57	93+04.78	147.3	LT	93+13.76	151.6	LT			51
57	93+44.12	24.4	LT	94+20.23	24.4	LT			383
57	94+53.92	24.5	LT	94+85.82	24.2	LT			155
TOTAL THIS COLUMN									
									4625
TOTAL FROM LEFT COLUMN									
									18042
TOTAL FROM FAR LEFT COLUMN									
									18055
TOTAL FROM SHEET 23									
						13289	6841		
TOTAL CARRIED TO GENERAL SUMMARY									
						13289	6841	40722	

DEMOLITION SUB-SUMMARY

REVISIONS
CONSTRUCTION BIDDING SET
ADDENDUM NO. 1

DATE	BY
4/21/14	GEA
5/7/14	GEA

MAHONING ROAD NE
STA-0153-01.70

24
108

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SHEET NO.	REFERENCE NO.	LOCATION						202 CURB REMOVED, CONCRETE	202 CURB REMOVED, ASPHALT	202 CURB AND GUTTER REMOVED	254 PAVEMENT PLANING, ASPHALT CONCRETE	625 PULL BOX REMOVED							
		FROM			TO														
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE						FT	FT	FT	SY	EA		
54	CR-2	55+11.75	18.2	LT	56+12.16	72.1	LT	228											
54	CR-1	55+11.75	18.1	RT	56+58.82	28.7	RT	152											
54	CR-3	56+27.68	98.3	LT	57+39.414	98.9	LT	150											
54	CR-4	57+12.00	25.0	RT	62+52.81	18.3	RT	542											
54	CR-5	57+47.03	48.4	LT	61+53.97	28.7	LT	430											
54	CR-8	61+85.47	48.0	LT	66+50.00	18.1	LT	489											
54	CR-9	62+88.84	24.1	LT	62+94.25	18.2	LT	9											
54	CR-7	63+00.01	18.1	RT	66+50.00	25.6	RT	351											
54	CR-6	65+79.87	28.4	LT	65+82.97	34.4	LT	6											
55	CR-12	66+50.00	23.6	RT	66+57.74	53.5	RT	34											
55	CR-13	66+50.00	18.1	LT	77+94.49	52.4	LT	1165											
55	CR-15	66+95.84	38.0	RT	69+89.61	55.4	RT			326									
55	CR-14	68+13.50	32.4	LT	68+13.58	28.2	LT	4											
55	CR-16	70+20.18	66.7	RT	73+97.53	52.8	RT			424									
55	CR-10	74+19.05	76.4	RT	74+24.53	68.0	RT	10											
55	CR-20	74+24.53	68.0	RT	78+00.00	21.3	RT			397									
55	CR-11	74+88.97	28.2	LT	74+88.97	28.5	LT	1											
55	CR-19	75+66.27	31.1	LT	75+72.66	30.9	LT			6									
55	CR-21	76+17.82	84.4	RT	76+19.82	86.4	RT	3											
55	C R-22	76+47.45	30.3	LT	76+87.45	30.3	LT			40									
55	CR-23	77+62.50	30.8	LT	77+82.31	58.5	LT			40									
56	CR-26	78+00.00	21.3	RT	89+50.00	34.1	RT			1153									
56	CR-24	78+26.59	55.8	RT	78+29.62	26.3	RT	29											
56	CR-28	78+30.94	49.1	LT	87+47.53	30.8	LT			937									
56	CR-25	78+42.66	54.2	LT	78+64.22	34.1	LT			30									
56	CR-27	78+51.89	54.4	RT	78+55.65	26.3	RT	27											
56	CR-18	78+99.97	68.7	RT	79+01.88	26.3	RT	42											
56	CR-29	79+27.77	77.6	RT	79+29.91	26.3	RT	51											
56	CR-30	79+43.61	55.7	RT	79+45.28	26.4	RT	29											
56	CR-31	80+16.52	31.2	RT	80+16.96	49.1	RT	18											
56	CR-32	83+14.21	28.4	LT	83+14.21	30.0	LT	2											
56	CR-34	83+79.21	28.5	LT	83+79.21	30.0	LT	2											
56	CR-33	83+81.28	43.3	RT	83+84.46	47.3	RT	7											
56	CR-36	84+26.96	48.2	RT	84+30.51	42.4	RT	7											
56	CR-39	85+82.84	81.0	RT	85+85.41	32.7	RT	38											
56	CR-41	86+14.08	81.0	RT	86+14.41	32.7	RT	38											
56	CR-37	86+25.06	29.2	LT	86+25.06	30.0	LT	1											
56	CR-38	86+40.71	30.0	LT	86+40.90	29.4	LT	1											
56	CR-40	87+47.53	30.8	LT	87+50.45	34.6	LT	4											
56	CR-43	87+65.30	44.2	RT	87+66.01	32.7	RT	11											
56	CR-44	87+95.12	44.5	RT	87+95.14	32.6	RT	12											
56	CR-45	88+05.40	61.2	LT	89+50.00	16.7	LT			181									
56	CR-46	88+15.00	15.1	LT	88+15.74	55.5	LT	1											
56	CR-47	88+59.43	45.0	RT	88+59.54	32.6	RT	12											
56	CR-48	88+64.91	28.6	LT	88+64.91	29.6	LT	1											
56	CR-49	88+88.48	45.5	RT	88+88.60	32.4	RT	13											
56	CR-35	88+88.91	29.0	LT	89+00.89	30.0	LT	12											
57	CR-55	89+50.00	34.1	RT	90+31.77	171.3	RT			275									
57	CR-50	89+50.00	16.7	LT	92+20.74	102.0	LT			313									
57	CR-51	89+71.03	16.7	LT	89+88.74	34.5	LT	18											
57	CR-52	90+24.89	34.5	LT	90+43.46	17.4	LT	21											
57	CR-58	90+82.79	37.0	LT	91+41.36	48.9	LT			73									
57	CR-56	90+91.90	31.4	RT	91+25.97	30.4	RT	101											
TOTAL THIS SHEET								4072	116	4079									

SHEET NO.	REFERENCE NO.	LOCATION						202 CURB REMOVED, CONCRETE	202 CURB REMOVED, ASPHALT	202 CURB AND GUTTER REMOVED	254 PAVEMENT PLANING, ASPHALT CONCRETE	625 PULL BOX REMOVED							
		FROM			TO														
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE						FT	FT	FT	SY	EA		
57	CR-42	91+52.04	55.4	LT	91+77.73	75.7	LT			38									
57	CR-60	91+72.09	40.8	RT	92+13.25	19.2	RT			49									
57	CR-61	92+77.42	19.1	RT	92+82.42	19.1	RT			5									
57	CR-63	92+84.69	109.6	LT	92+85.31	84.0	LT	28											
57	CR-62	93+04.46	151.9	LT	93+02.75	20.5	LT			189									
57	CR-70	93+06.93	141.6	LT	93+10.38	138.8	LT	5											
57	CR-64	93+09.81	32.1	LT	93+12.22	29.6	LT	3											
57	CR-59	93+44.03	29.4	LT	93+44.03	32.0	LT	3											
57	CR-54	94+20.55	30.9	LT	94+20.83	29.4	LT	2											
57	CR-53	94+53.83	30.9	LT	94+53.91	29.2	LT	2											
54	R-9	57+03.92	55.2	LT												1			
54	R-11	57+18.69	21.7	RT												1			
54	R-13	57+51.69	35.2	LT	57+54.39	31.2	LT									2			
55	R-14	77+74.92	23.8	RT	77+86.33	33.6	RT									2			
55	R-60	77+88.10	32.8	LT												1			
56	R-64	78+40.81	32.7	LT	78+42.44	32.4	LT									2			
56	R-67	78+55.39	39.3	RT												1			
56	R-66	78+65.90	26.1	RT												1			
56	R-68	79+00.18	41.2	RT												1			
57	R-91	91+00.60	27.1	RT												1			
57	R-10	91+21.95	31.8	RT												1			
57	R-96	91+59.20	66.7	RT												1			
57	R-95	91+63.16	25.7	LT												1			
57	R-66	92+00.68	34.6	RT												1			
57	R-101	92+05.04	91.0	LT												1			
57	R-102	92+63.36	27.5	RT												1			
57	R-12	92+64.89	35	LT												1			
54	ML-1	55+09.75	0.0	C/L	66+50.00	0.0	C/L									5697			
54	ML-2	55+41.65	36.5	RT	55+65.65	36.5	RT									5			
54	ML-3	56+20.63	28.6	LT	56+29.94	51.7	LT									6			
54	ML-4	59+74.51	39.3	LT	59+83.65	34.6	LT									2			
54	ML-5	65+73.29	34.5	LT	65+83.13	34.4	LT									2			
55	ML-6	66+50.00	0.0	C/L	78+00.00	0.0	C/L									5488			
55	ML-7	67+10.85	34.0	LT	67+24.75	34.0	LT									3			
55	ML-8	68+14.136	34.4	LT	68+41.79	34.4	LT									6			
55	ML-9	74+35.64	70.2	RT	74+45.06	77.2	RT									4			
55	ML-10	75+81.19	89.4	RT	76+19.81	89.4	RT									8			
56	ML-11	78+00.00	0.0	C/L	89+50.00	0.0	C/L									5018			
56	ML-12	78+25.66	69.0	RT	78+49.85	71.2	RT									7			
56	ML-13	78+99.79	70.7	RT	79+22.82	77.6	RT									7			
56	ML-14	79+73.96	79.6	RT	79+92.96	79.6	RT									17			
56	ML-15	82+10.13	33.0	LT	83+15.25	33.0	RT									23			
56	ML-16	83+71.52	50.2	RT	84+39.68	51.1	RT									10			
56	ML-17	83+79.08	32.0	LT	84+47.84	31.9	LT									15			
56	ML-18	84+60.33	31.2	LT	86+25.16	30.9	LT									34			
56	ML-19	87+32.88	47.0	LT	87+58.10	69.4	LT									9			
57	ML-20	89+50.00	0.0	C/L	94+89.88	0.0	C/L									4187			
57	ML-21	92+85.60	81.8	LT	93+12.80	139.0	LT												

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Table with columns: SHEET NO., REFERENCE NO., LOCATION, and various construction details (611, SPCL, EA). Includes rows for manholes (MH-A to MH-Z), catch basins (CB-A to CB-Z), and storm drains (DJ-A to DJ-Z).

Table with columns: SHEET NO., REFERENCE NO., LOCATION, and various construction details (611, SPCL, EA). Includes rows for storm drains (SP-A to SP-Z) and a summary row for 'TOTAL CARRIED TO GENERAL SUMMARY'.

CALCULATED:
GEA
CHECKED:
JCG

STORM
SUB-SUMMARY

REVISIONS
CONSTRUCTION BIDDING SET
ADDENDUM NO. 1

DATE BY
4/27/14 GEA
5/7/14 GEA

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION						611		611		611		611		611		611		611					
		FROM			TO			6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33		6" CONDUIT, TYPE B, 707.45, FOR DRAINAGE CONNECTION		8" CONDUIT, TYPE B, 707.45, SDR 26		12" CONDUIT, TYPE B, AS PER PLAN		15" CONDUIT, TYPE B, AS PER PLAN		18" CONDUIT, TYPE B, AS PER PLAN		36" CONDUIT, TYPE B, AS PER PLAN		48" CONDUIT, TYPE B, AS PER PLAN		54" CONDUIT, TYPE B, AS PER PLAN	
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT
46	UD-1	55+27.05	8.3	LT	56+50.97	31.4	RT	96	40																
46	UD-2	55+27.05	8.3	LT	56+10.49	71.3	LT	196	16																
46	UD-3	56+27.51	100.1	LT	57+22.90	70.0	LT	115	2																
46	UD-7	57+03.45	18.7	RT	57+29.31	17.0	RT	23	3																
46	UD-4	57+22.90	70.0	LT	57+38.79	99.9	LT	33	1																
46	UD-8	57+36.31	15.5	RT	57+99.86	17.0	RT	63	2																
46	UD-6	57+50.68	52.3	LT	57+73.45	21.5	LT	42	1																
46	UD-5	57+51.23	56.3	LT	57+66.66	82.6	LT	30	1																
46	UD-9	57+73.45	21.5	LT	60+45.97	23.0	LT	272	1																
46	UD-10	58+00.03	26.8	RT	60+75.00	17.0	RT	265	12																
46	UD-11	60+52.97	21.5	LT	60+75.00	23.0	LT	21	2																
47	UD-11	60+75.00	23.0	LT	61+69.50	61.7	LT	115																	
47	UD-12	61+89.60	50.5	LT	64+44.38	20.4	LT	276	2																
47	UD-14	64+44.38	20.4	LT	66+46.51	20.4	LT	202	1																
47	UD-10	60+75.00	17.0	RT	62+56.58	31.7	RT	188																	
47	UD-13	62+86.78	35.5	RT	66+47.32	19.1	RT	370	2																
48	UD-15	66+47.32	19.1	RT	66+59.24	45.8	RT	29	1																
48	UD-16	66+53.10	18.5	LT	67+86.46	20.0	LT	133	2																
48	UD-17	66+93.36	46.3	RT	69+51.49	22.0	RT	271	2																
48	UD-57	67+93.04	18.4	LT	69+38.94	20.0	LT	144	2																
48	UD-19	69+51.49	22.0	RT	69+91.15	50.0	RT	56	2																
48	UD-18	69+52.30	18.5	LT	70+13.41	20.2	LT	54	3																
48	UD-20	70+25.15	58.9	RT	72+25.00	19.5	RT	221																	
49	UD-20	72+25.00	19.5	RT	72+53.35	20.0	RT	25																	
49	UD-22	72+52.17	18.5	LT	73+26.50	20.0	LT	69	3																
49	UD-21	72+53.35	21.0	RT	73+92.54	29.2	RT	139																	
49	UD-23	73+38.13	18.5	LT	74+37.17	20.0	LT	94	3																
49	UD-58	74+30.48	48.4	RT	74+40.85	30.8	RT	20	1																
49	UD-24	74+40.85	30.8	RT	75+48.69	19.5	RT	110	1																
49	UD-25	74+48.79	18.5	LT	75+42.86	20.0	LT	89	3																
49	UD-26	75+54.49	18.5	LT	76+07.55	18.5	LT	42	2																
49	UD-28	75+54.54	21.6	RT	78+00.00	19.5	RT	243	2																
49	UD-27	76+07.55	18.5	LT	77+93.03	51.4	LT	206	1																
50	UD-28	78+00.00	19.5	RT	78+09.51	19.5	RT	9																	
50	UD-30	78+16.13	22.0	RT	80+25.17	19.5	LT	206	2																
50	UD-29	78+32.81	42.1	LT	78+72.61	18.7	LT	51	2																
50	UD-31	78+72.61	18.7	LT	80+22.41	20.0	LT	149	1																
50	UD-32	80+30.17	25.9	RT	81+26.66	19.5	RT	90	8																
50	UD-33	80+30.19	18.5	LT	81+72.04	20.0	LT	141	2																
50	UD-34	81+37.61	19.6	RT	82+72.03	19.5	RT	132	2																
50	UD-35	81+79.81	18.6	LT	83+13.26	20.0	LT	133	2																
50	UD-36	82+73.37	25.7	RT	83+75.00	19.5	RT	90	11																
50	UD-37	83+21.03	18.7	LT	83+74.95	20.0	LT	53	2																
51	UD-36	83+75.00	19.5	RT	84+43.51	19.5	RT	68																	
51	UD-37	83+75.00	20.0	LT	84+39.26	20.0	LT	64																	
51	UD-39	84+50.50	19.6	LT	86+23.96	17.5	LT	173	1																
51	UD-38	84+52.34	20.0	RT	86+28.09	23.0	RT	174																	
51	UD-40	86+23.96	17.5	LT	86+95.00	18.0	LT	70	1																
51	UD-41	86+28.09	23.0	RT	87+89.40	21.5	RT	160																	
51	UD-42	87+05.00	18.0	LT	87+48.39	32.4	LT	46	1																
51	UD-43	87+48.39	32.4	LT	87+70.21	67.0	LT	40	2																
TOTAL THIS COLUMN								6101	151																

SHEET NO.	REFERENCE NO.	LOCATION						611		611		611		611		611		611		611		611			
		FROM			TO			6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33		6" CONDUIT, TYPE B, 707.45, FOR DRAINAGE CONNECTION		8" CONDUIT, TYPE B, 707.45, SDR 26		12" CONDUIT, TYPE B, AS PER PLAN		15" CONDUIT, TYPE B, AS PER PLAN		18" CONDUIT, TYPE B, AS PER PLAN		36" CONDUIT, TYPE B, AS PER PLAN		48" CONDUIT, TYPE B, AS PER PLAN		54" CONDUIT, TYPE B, AS PER PLAN	
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT
51	UD-44	87+72.85	83.9	LT	87+74.75	72.7	LT	11																	
51	UD-45	87+99.40	21.5	RT	89+49.33	34.3	RT	150	1																
51	UD-46	88+34.00	18.0	LT	89+53.61	17.3	LT	119	1																
52	UD-48	89+53.61	17.3	LT	90+97.83	24.9	LT	144	2																
52	UD-51	91+67.11	50.1	LT	91+80.23	59.2	LT	15	2																
52	UD-52	91+80.23	59.2	LT	92+24.46	109.8	LT	67	1																
52	UD-53	92+66.19	63.1	LT	93+05.05	150.1	LT	95	2																
52	UD-54	92+66.19	63.1	LT	92+72.72	38.6	LT	25	1																
52	UD-55	92+79.44	30.7	LT	93+02.75	20.5	LT	25	2																
52	UD-56	93+02.75	20.5	LT	94+73.42	22.0	LT	170	1																
52	UD-47	89+49.33	34.3	RT	90+32.68	168.0	RT	237	1																
52	UD-49	90+88.90	26.7	RT	91+20.80	43.3	RT	61																	
52	UD-50	90+90.50	23.5	RT	91+33.36	52.1	RT	52	14																
46		55+23.84	13.8	LT	55+27.05	8.3	LT																		
46		55+25.62	2.0	LT	55+27.05	8.3	LT											6						6	
46		55+27.05	8.3	LT	57+02.43	8.3	LT																	184	
46		57+02.43	8.3	LT	57+47.67	15.8	LT																	46	
46		57+30.22	29.7	LT	57+47.67	15.8	LT																	23	
46		57+47.67	15.8	LT	57+73.45	21.5	LT																	27	
46		57+47.67	15.8	LT	57+36.31	15.5	RT																		
46		57+73.45	21.5	LT	59+47.60	8.5	LT																	175	
46		59+47.60	8.5	LT	60+53.32	8.0	LT																	106	
46		60+52.97	21.5	LT	60+53.32																				

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SHEET NO.	REFERENCE NO.	LOCATION						304 AGGREGATE BASE (6" UNDER CURB)	609 CURB, TYPE 6	609 CURB, AS PER PLAN	609 COMBINATION CURB AND GUTTER, TYPE 2	609 ASPHALT CONCRETE CURB, TYPE 1	608 CONCRETE STEPS, TYPE A	608 CONCRETE STEPS, TYPE B
		FROM			TO									
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE							
67	VC	55+11.75	18.2	LT	55+36.18	21.5	LT	0.23	25					
67	VC	55+11.75	18.1	RT	55+36.18	21.5	RT	0.23	25					
67	IC	55+36.18	21.5	LT	56+12.12	72.0	LT	1.90	205					
67	IC	55+36.18	21.5	RT	56+51.72	29.5	RT	1.10	119					
67	VC	55+36.65	29.5	RT	55+41.65	34.5	RT	0.09	10					
67	VC	55+65.65	29.5	RT	55+70.65	34.5	RT	0.09	10					
67	VC	56+27.06	30.0	LT	56+37.69	30.0	LT	0.52	56					
67	IC	56+27.60	98.3	LT	57+21.14	66.4	LT	1.04	112					
67		56+46.12		LT	56+54.06		LT	0.46		25				
67	VC	56+51.72	29.5	RT	56+51.26	44.3	RT	0.14	15					
67	VC	56+75.56	59.1	RT	56+94.52	29.3	RT	0.32	35					
67	IC	56+94.52	29.3	RT	62+57.46	30.0	RT	5.30	572					
67	VC	57+21.14	66.4	LT	57+39.41	98.9	LT	0.34	37					
67	IC	57+65.84	84.2	LT	61+53.11	29.5	LT	4.30	464					
67	VC	61+53.11	29.5	LT	61+70.81	60.9	LT	0.33	36					
67	VC	61+88.29	51.2	LT	61+89.77	29.5	LT	0.21	23					
67	IC	61+89.77	29.5	LT	66+50.00	18.9	LT	4.28	462					
67		62+02.21		LT	68+08.86		LT	6.94		375				
67	VC	62+57.46	30.0	RT	62+58.21	49.2	RT	0.19	20					
67	VC	62+86.69	40.0	RT	66+50.00	22.5	RT	3.53	381					
67	IC	66+50.00	18.9	LT	77+94.85	44.7	LT	10.73	1159					
68	VC	66+50.00	22.5	RT	66+55.76	55.0	RT	0.34	37					
68	VC	66+95.00	55.0	RT	69+86.68	62.3	RT	3.37	364					
68	VC	68+13.96	34.4	LT	68+14.08	28.0	LT	0.06	7					
68	VC	68+41.63	34.8	LT	68+41.63	28.2	LT	0.06	7					
68	VC	70+25.99	67.6	RT	73+91.97	63.8	RT	4.10	443					
68	VC	74+19.15	76.5	RT	78+00.00	18.5	RT	3.84	415					
68	VC	75+82.91	24.5	RT	75+82.91	84.1	RT	0.56	60					
68	VC	76+11.84	24.5	RT	76+19.79	86.4	RT	0.64	69					
68	AC	77+62.00	31.3	LT	77+73.13	58.7	LT	0.34		37				
68	VC	77+94.85	44.7	LT	77+94.49	52.4	LT	0.07	8					
69	VC	79+23.82	24.5	RT	79+23.82	79+23.82	78	0.49	53					
69	VC	79+28.96	18.5	RT	79+43.96	55.6	RT	0.43	46					
69	IC	78+30.94	49.1	LT	87+64.84	56.6	LT	9.00	972					
69	AC	78+43.12	54.7	LT	78+64.70	34.5	LT	0.39		42				
69	VC	78+99.82	24.5	RT	78+99.82	68.7	RT	0.41	44					
69	VC	79+76.96	43.2	RT	79+89.96	43.2	RT	0.42	45					
69	VC	79+76.96	59.7	RT	79+89.96	59.7	RT	0.48	52					
69	VC	80+16.96	49.0	RT	90+31.77	18.5	RT	11.11	1200					
69	VC	80+45.96	18.5	RT	89+50.00	33.5	RT	8.43	910					
69	VC	82+33.97	28.0	LT	82+90.21	28.0	LT	0.55	59					
69	VC	83+14.21	30.0	LT	83+14.21	28.0	LT	0.02	2					
69	VC	83+74.21	28.0	LT	83+79.21	30.0	LT	0.02	2					
69	VC	83+74.52	42.4	RT	83+84.55	47.2	RT	0.12	13					
69	VC	84+03.21	28.0	LT	84+47.60	30.0	LT	0.41	44					
69	VC	84+26.99	48.1	RT	84+36.68	42.6	RT	0.12	13					
69	VC	84+60.09	29.7	LT	84+85.42	26.3	LT	0.25	27					
69	VC	85+09.42	26.0	LT	85+45.42	26.0	LT	0.38	41					
69	VC	85+69.42	26.0	LT	86+25.06	30.0	LT	0.55	59					
69	VC	86+41.00	26.5	LT	86+40.71	30.0	LT	0.04	4					
69	VC	86+65.18	29.7	LT	86+65.00	26.5	LT	0.04	4					
69	VC	87+64.84	56.6	LT	87+74.02	83.6	LT	0.28	30					
69	IC	88+06.41	67.6	LT	89+50.00	16.5	LT	1.73	187					
69	VC	88+14.36	62.4	LT	88+15.71	55.4	LT	0.13	14					
TOTAL THIS COLUMN								91	8997	400		79		

SHEET NO.	REFERENCE NO.	LOCATION						304 AGGREGATE BASE (6" UNDER CURB)	609 CURB, TYPE 6	609 CURB, AS PER PLAN	609 COMBINATION CURB AND GUTTER, TYPE 2	609 ASPHALT CONCRETE CURB, TYPE 1	608 CONCRETE STEPS, TYPE A	608 CONCRETE STEPS, TYPE B
		FROM			TO									
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE							
69	VC	88+64.88	26.5	LT	88+64.88	30.0	LT	0.04	4					
69	VC	88+88.88	26.0	LT	89+00.87	30.0	LT	0.14	15					
69	VC	78+00.00	18.5	RT	79+28.96	18.5	RT	1.21	131					
69	VC	78+28.63	24.5	RT	78+25.85	67.0	RT	0.40	43					
69	VC	78+52.57	24.5	RT	78+49.75	69.2	RT	0.42	45	400	79			
70	VC	89+50.00	33.5	RT	90+31.77	171.3	RT	2.24	242					
70	IC	89+50.00	16.5	LT	92+26.53	102.0	LT	2.77	299					
70	VC	89+78.84	26.5	LT	89+88.84	35.1	LT	0.16	17					
70	VC	90+24.73	35.3	LT	90+34.53	26.6	LT	0.16	17					
70	VC	90+90.50	22.5	RT	91+25.05	38.2	RT	1.15	124					
70	VC	91+72.10	40.8	RT	92+13.25	19.2	RT	2.22		48				
70	VC	92+90.65	106.9	LT	92+85.31	83.9	LT	0.29	31					
70	IC	93+04.45	151.9	LT	93+02.75	20.5	LT	1.49	161					
70	VC	93+09.15	143.6	LT	93+10.38	138.8	LT	0.09	10					
70	VC	93+09.81	32.1	LT	93+12.03	29.5	LT	0.04	4					
70	VC	93+44.03	32.0	LT	93+44.03	29.5	LT	0.03	3					
70	VC	94+20.55	30.9	LT	94+20.75	29.5	LT	0.02	2					
70	VC	94+53.82	30.9	LT	94+53.82	29.5	LT	0.02	2					
67	ST-1	60+66.18	30.0	LT	60+71.18	30.0	LT						7	
67	ST-2	61+36.61	30.0	LT	61+40.61	30.0	LT						5	
67	ST-3	63+35.89	30.6	LT	63+39.89	30.6	LT						4	
67	ST-4	66+06.28	29.2	LT	66+10.28	29.2	LT						4	
TOTAL THIS COLUMN								13	1150	400	48	79	12	8
TOTAL FROM LEFT COLUMN								91	8997	400		79		
TOTAL CARRIED TO GENERAL SUMMARY								104	10147	800	48	158	12	8

CALCULATED: GEA
CHECKED: JGC

MAHONING ROAD NE
STA-0153-01.70

REVISIONS
CONSTRUCTION BIDDING SET
APPENDIX NO. 1
DATE BY
4/21/14 GEA
5/7/14 GEA

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION				304	608	608
						AGGREGATE BASE (4" UNDER WALK)	DETECTABLE WARNING	CURB RAMP
		FROM		TO		CY	SF	SF
		STATION	SIDE	STATION	SIDE			
67	CR-1	56+30.14	RT		RT	1.58	32	128
67	CR-41	56+48.88	LT	56+63.26	LT	0.59	12	48
67	CR-40	56+59.45	LT	56+64.63	LT	0.49	8	40
67	CR-39	56+86.31	LT	57+00.95	LT	1.64	10	133
67	CR-2	56+94.52	RT	57+07.17	RT	0.67	10	54
67	CR-38	57+04.97	LT	57+18.84	LT	0.78	12	63
67	CR-3	57+17.61	RT	57+33.35	RT	0.70	10	57
67	CR-37	57+49.48	LT	57+59.98	LT	1.07	21	87
67	CR-36	61+31.11	LT	61+53.11	LT	1.53	32	124
67	CR-4	61+31.69	RT	61+48.52	RT	0.74	10	60
67	CR-35	61+90.02	LT	62+02.21	LT	0.65	10	53
67	CR-5	62+47.33	RT	62+57.46	RT	0.62	10	50
67	CR-6	62+86.22	RT	62+95.07	RT	0.91	18	74
67	CR-34	63+00.77	LT	63+17.77	LT	1.56	10	126
67	CR-7	63+05.92	RT	63+11.92	RT	0.37	10	30
67	CR-33	66+23.98	LT	66+40.98	LT	1.85	10	150
67	CR-8	66+29.07	RT	66+35.07	RT	0.49	10	40
68	CR-9	66+52.47	RT	66+60.63	RT	0.85	18	69
68	CR-10	66+92.31	RT	67+00.81	RT	0.86	18	70
68	CR-11	69+85.82	RT	69+92.68	RT	0.78	18	63
68	CR-12	70+27.63	RT	70+38.99	RT	0.99	18	80
68	CR-32	70+37.23	LT	70+54.23	LT	1.85	10	150
68	CR-13	70+42.73	RT	70+48.73	RT	0.51	10	41
68	CR-14	73+92.48	RT	73+97.12	RT	0.56	18	45
68	CR-15	74+28.54	RT	74+40.42	RT	1.06	18	86
68	CR-31	74+60.30	LT	74+77.30	LT	1.85	10	150
68	CR-16	74+65.80	RT	74+71.80	RT	0.38	10	31
68	CR-42	75+75.62	RT	75+82.91	RT	0.74		60
68	CR-43	76+11.91	RT	76+18.05	RT	0.77		62
68	CR-30	77+73.78	LT	77+92.45	LT	1.23	27	100
68	CR-17	77+73.85	RT	77+85.35	RT	0.59	10	48
69	CR-44	78+19.93	RT	78+26.91	RT	0.69		56
69	CR-29	78+34.18	LT	78+45.25	LT	0.69	10	56
69	CR-45	78+51.11	RT	78+57.83	RT	0.78		63
69	CR-46	78+93.81	RT	78+99.82	RT	0.67		54
69	CR-47	79+23.82	RT	79+29.89	RT	0.67		54
69	CR-28	87+17.73	LT	87+47.31	LT	3.37	36	273
69	CR-18	87+22.13	RT	87+33.63	RT	0.59	10	48
69	CR-48	88+03.62	LT	88+14.47	LT	0.79		64
69	CR-27	88+05.87	LT	88+26.48	LT	2.21	14	179
70	CR-19	90+53.39	RT	90+64.87	RT	1.09	10	88
70	CR-20	90+90.58	RT	91+03.06	RT	1.09	10	88
70	CR-26	91+14.70	LT	91+31.01	LT	1.91	10	155
70	CR-21	91+16.53	RT	91+25.62	RT	1.11	10	90
70	CR-22	91+78.08	RT	91+90.93	RT	1.09	10	88
70	CR-25	91+89.09	LT	92+01.11	LT	1.85	10	150
70	CR-24	92+69.99	LT	92+86.02	LT	1.54	24	125
70	CR-23	92+74.92	RT	92+80.92	RT	0.49	10	40
TOTAL CARRIED TO GENERAL SUMMARY						50	584	4043

SHEET NO.	REFERENCE NO.	LOCATION				304	452	608	608
						AGGREGATE BASE (4" UNDER WALK)	3" NON-REINFORCED CONCRETE PAVEMENT, CLASS CCI (UNDER WALK PAVERS)	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	SPECIAL - MISC.: BRICK BOX FORM
		FROM		TO		CY	SY	SF	SF
		STATION	SIDE	STATION	SIDE				
67		55+68.15	LT	55+95.15	LT	0.99	9	80	80
67		55+81.04	RT	56+08.04	RT	0.99	9	80	80
67		56+37.69	LT	56+49.18	LT	1.14	10	92	92
67		57+33.35	RT	57+40.00	RT	0.33	3	27	27
67		57+81.00	RT	58+08.00	RT	0.99	9	80	80
67		58+36.15	RT	58+63.15	RT	0.99	9	80	80
67		58+86.15	RT	59+13.15	RT	0.99	9	80	80
67		58+16.79	RT	58+31.79	RT	1.48	13	120	120
67		58+86.15	LT	59+13.15	LT	0.99	9	80	80
67		59+63.84	RT	59+73.84	RT	0.49	4	40	40
67		59+89.14	LT	60+16.14	LT	0.99	9	80	80
67		60+14.84	RT	60+41.84	RT	0.99	9	80	80
67		60+61.51	LT	60+88.51	LT	0.99	9	80	80
67		60+65.38	RT	60+92.38	RT	0.99	9	80	80
67		61+14.69	RT	61+24.69	RT	0.49	4	40	40
67		61+65.87	RT	61+92.87	RT	0.99	9	80	80
67		62+02.21	LT	62+26.21	LT	0.84	8	68	68
67		62+15.87	RT	62+42.87	RT	0.94	8	76	76
67		62+48.92	LT	62+58.57	LT	0.49	4	40	40
67		63+24.74	LT	63+34.74	LT	0.49	4	40	40
67		63+49.31	LT	63+59.31	LT	0.49	4	40	40
67		64+38.43	LT	64+48.43	LT	0.49	4	40	40
67		64+92.43	LT	65+02.43	LT	0.49	4	40	40
67		65+92.34	LT	66+02.34	LT	0.49	4	40	40
67/68		66+47.94	LT	66+57.94	LT	0.49	4	40	40
68		66+81.70	LT	66+91.70	LT	0.49	4	40	40
68		67+42.29	LT	67+69.29	LT	0.99	9	80	80
68		67+74.58	RT	67+89.58	RT	1.21	11	98	98
68		67+91.86	LT	68+01.86	LT	0.49	4	40	40
68		68+46.86	LT	68+73.86	LT	0.99	9	80	80
68		68+90.54	LT	69+22.54	LT	0.79	7	64	64
68		69+53.02	LT	69+80.02	LT	0.99	9	80	80
68		70+03.38	LT	70+31.45	LT	0.99	9	80	80
68		71+27.04	LT	71+54.04	LT	0.99	9	80	80
68		71+77.07	LT	72+04.07	LT	0.99	9	80	80
68		72+27.07	LT	72+54.07	LT	0.99	9	80	80
68		72+68.04	LT	72+78.04	LT	0.49	4	40	40
68		73+53.98	LT	73+80.98	LT	0.99	9	80	80
68		73+94.65	LT	74+21.65	LT	0.99	9	80	80
68		74+21.65	LT	74+43.30	LT	0.49	4	40	40
68		75+10.77	RT	75+25.77	RT	1.21	11	98	98
68		75+74.66	LT	75+84.66	LT	0.49	4	40	40
68		76+07.52	LT	76+34.52	LT	0.99	9	80	80
68		76+51.45	LT	76+83.45	LT	0.79	7	64	64
68		76+92.87	LT	77+19.87	LT	0.99	9	80	80
68		77+42.87	LT	77+69.87	LT	0.99	9	80	80
68		77+51.35	RT	77+66.35	RT	1.21	11	98	98
68		77+69.87	LT	77+84.86	LT	1.84	17	149	149
69		78+41.20	LT	78+58.32	LT	2.44	22	198	198
69		78+62.82	LT	78+89.82	LT	0.99	9	80	80
69		79+12.27	LT	79+39.27	LT	0.99	9	80	80
69		79+62.66	LT	79+89.66	LT	0.99	9	80	80
69		80+13.07	LT	80+40.07	LT	0.99	9	80	80
69		80+61.71	LT	80+71.71	LT	0.49	4	40	40
TOTAL THIS COLUMN						48	435	3912	3912

SHEET NO.	REFERENCE NO.	LOCATION				304	452	608	608
						AGGREGATE BASE (4" UNDER WALK)	3" NON-REINFORCED CONCRETE PAVEMENT, CLASS CCI (UNDER WALK PAVERS)	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	SPECIAL - MISC.: BRICK BOX FORM
		FROM		TO		CY	SY	SF	SF
		STATION	SIDE	STATION	SIDE				
69		81+12.71	LT	81+39.71	LT	0.99	9	80	80
69		81+63.03	LT	81+90.03	LT	0.99	9	80	80
69		82+45.97	LT	82+55.97	LT	0.49	4	40	40
69		83+26.21	LT	83+36.21	LT	0.49	4	40	40
69		84+08.21	LT	84+35.21	LT	0.99	9	80	80
69		85+14.37	LT	85+40.37	LT	0.94	8	76	76
69		86+01.92	LT	86+28.92	LT	0.98	9	79	79
69		86+73.95	LT	87+00.95	LT	0.99	9	80	80
69		87+00.13	RT	87+15.13	RT	1.21	11	98	98
69		88+42.88	LT	88+52.88	LT	0.49	4	40	40
69		88+93.88	LT	89+01.88	LT	0.40	4	32	32
69/70		89+27.67	LT	89+55.67	LT	0.69	6	56	56
70		89+55.67	LT	89+78.84	LT	0.80	7	65	65
70		90+48.34	LT	90+75.22	LT	0.99	9	80	80
70		90+88.17	LT	92+25.05	LT	8.41	76	681	681
70		90+88.93	LT	91+15.58	LT	0.99	9	80	80
70		91+34.32	LT	91+57.65	LT	0.96	9	78	78
70		91+73.79	LT	92+11.07	LT	7.36	66	596	596
70		91+75.60	LT	91+95.45	LT	0.84	8	68	68
70		92+10.88	LT	92+20.21	LT	0.49	4	40	40
70		92+73.56	LT	92+70.75	LT	1.02	9	83	83
70		93+56.03	LT	93+66.03	LT	0.49	4	40	40
70		93+88.82	LT	94+15.82	LT	0.99	9	80	80
70		94+65.82	LT	94+75.82	LT	0.49	4	40	40
TOTAL THIS COLUMN						33	301	2712	2712
TOTAL FROM LEFT COLUMN						48	435	3912	3912
TOTAL CARRIED TO GENERAL SUMMARY						82	736	6624	6624

**MAHONING ROAD NE
STA-0153-01.70**

**WALK
SUB-SUMMARY**

REVISIONS
CONSTRUCTION BIDDING SET
APPENDIX NO. 1

DATE BY
4/21/14 GEA
5/7/14 GEA

CALCULATED: GEA
CHECKED: JGC

SHEET NO.	REFERENCE NO.	LOCATION						SPCL	SPCL	SPCL	SPCL	SPCL																
		FROM			TO			BOLLARD, WOOD	BOLLARD, WOOD, HINGED	MINOR BRT STOP WITH BUS SHELTER	MAJOR BRT STOP WITH BUS SHELTER	DECORATIVE CONCRETE SEAT WALL																
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	EA	EA	EA	EA	EA																
67	MNR-1	58+24.29	20.5	RT						1																		
67	BW-2	62+99.65	36.3	RT			1																					
67	BH-1	63+00.87	29.4	RT				1																				
67	BW-1	63+02.08	22.5	RT			1																					
68	BH-2	66+47.47	38.3	RT																								
68	BW-3	66+47.47	31.3	RT			1																					
68	BW-4	66+47.47	45.3	RT			1																					
68	BW-5	67+05.81	31.3	RT			1																					
68	BH-3	67+05.81	38.3	RT				1																				
68	BW-6	67+05.81	45.3	RT			1																					
68	MNR-2	67+82.08	20.5	RT					1																			
68	MJR-1	69+04.29	24.0	LT						1																		
68	MNR-3	75+18.27	20.5	RT					1																			
68	BW-10	76+23.37	57.6	RT			1																					
68	BH-5	76+23.92	50.6	RT				1																				
68	BW-9	76+24.46	43.7	RT			1																					
68	MJR-2	76+65.20	24.0	LT						1																		
68	MNR-4	77+58.85	20.5	RT					1																			
68	SW-1	77+67.87	28.5	LT	77+84.76	46.2	LT				1																	
69	SW-2	78+41.08	46.9	LT	78+60.32	28.5	LT				1																	
69	MNR-5	87+07.63	22.5	RT					1																			
69	MJR-3	89+41.42	23.5	LT						1																		
TOTAL CARRIED TO GENERAL SUMMARY							8	4	5	3	2																	

CALCULATED:
GEA
CHECKED:
JGG

MISCELLANEOUS
SUB-SUMMARY

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	LOCATION						611	611	611	611	SPCL																											
		FROM			TO			8" CONDUIT, TYPE B, 707.45	MANHOLE NO. 3, WITH 48" BASE	MANHOLE RECONSTRUCTED TO GRADE	MANHOLE ADJUSTED TO GRADE	CONNECT TO EXISTING MANHOLE																											
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	FT	EA	EA	EA	EA																											
46	SJ-5	56+82.58	48.3	LT					1																														
46	SJ-4	57+10.17	0.2	RT					1																														
46	SJ-6	59+51.34	1.4	LT							1																												
46	SJ-7	59+95.51	15.4	LT							1																												
47	SJ-8	62+90.32	16.8	LT							1																												
47	SJ-9	65+44.27	16.1	LT							1																												
48	SJ-10	68+18.33	15.4	LT							1																												
49	SJ-15	76+20.27	15.8	LT							1																												
50	SJ-16	78+14.99	16.1	LT							1																												
50	SJ-17	80+15.88	16.7	LT							1																												
51	SJ-18	84+16.29	16.9	LT							1																												
51	SJ-19	87+56.31	17.2	LT							1																												
52	SJ-21	89+77.30	17.8	LT							1																												
52	SJ-24	91+09.49	98.4	RT							1																												
52	SJ-22	91+86.10	16.6	LT							1																												
52	SJ-23	94+28.67	15.3	LT							1																												
NOTE: THERE ARE NO SPECIFIC ITEMS OR LOCATIONS FOR THESE SANITARY ITEMS. THE QUANTITIES LISTED ARE FOR THE SPECIAL USE WHERE THE PROPOSED STORM SEWER SYSTEM CROSSES THE EXISTING SANITARY SEWER. THESE QUANTITIES ARE TO BE USED ONLY IF DIRECTED AND APPROVED BY THE CITY ENGINEER.							500	2			1																												
TOTAL CARRIED TO GENERAL SUMMARY							500	2	3	13	1																												

CALCULATED:
GEA
CHECKED:
JGG

SANITARY SUB-SUMMARY

REVISIONS
CONSTRUCTION BIDDING SET
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5/7/14 GEA

MAHONING ROAD NE
STA-0153-01.70



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 phase: 1\plan set\sheet\01-40 sub-summary.dwg

SHEET NO.	REFERENCE NO.	LOCATION						638	638	638	638	638																							
		FROM			TO			6" WATER MAIN, DUCTILE IRON PIPE, ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS	FIRE HYDRANT EXTENDED AND ADJUSTED TO GRADE	FIRE HYDRANT ADJUSTED TO GRADE	VALVE BOX ADJUSTED TO GRADE	SERVICE BOX ADJUSTED TO GRADE																							
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE	FT	EA	EA	EA	EA																							
54/46	WR1/H1	56+87.53	65.7	LT	56+85.49	68.8	LT		1																										
54/47	WR2/H2	62+50.09	25.6	RT	62+34.78	19.5	RT		1																										
57/52	WR3/H3	91+87.07	34.8	RT	91+79.73	41.6	RT		1																										
46	W-1	56+85.49	68.8	LT	56+90.09	64.2	LT	8																											
47	W-2	62+34.78	19.5	RT	62+67.99	19.5	RT	33																											
52	W-3	91+79.73	41.6	RT	91+87.09	34.2	RT	10																											
54	WJ-2	56+45.92	88.2	LT																															
54	WR-1	56+89.21	62.7	LT																															
54	WJ-3	56+77.70	58.7	LT																															
54	WJ-4	56+93.09	48.2	LT																															
54	WJ-6	56+96.15	10.0	RT																															
54	WJ-5	57+65.78	78.1	LT																															
54	WJ-7	58+10.21	19.9	LT																															
54	WJ-8	58+41.09	19.7	RT																															
54	WJ-9	59+92.77	7.3	RT																															
54	WJ-10	62+67.80	11.7	RT																															
54	WJ-12	63+99.48	21.3	LT																															
54	WJ-13	65+08.36	20.9	RT																															
54	WJ-14	65+58.23	21.5	LT																															
55	WJ-15	66+98.88	19.3	LT																															
55	WJ-16	67+99.08	10.0	RT																															
55	WJ-19	69+43.52	7.9	RT																															
55	WJ-18	69+47.49	26.6	LT																															
55	WJ-20	69+99.03	22.5	RT																															
55	WJ-23	74+00.98	55.2	RT																															
55	WJ-21	74+08.01	13.2	RT																															
55	WJ-22	74+13.39	25.6	RT																															
55	WJ-24	74+37.03	58.3	RT																															
56	WJ-34	78+23.33	6.2	RT																															
56	WJ-25	78+52.32	27.6	RT																															
56	WJ-26	80+23.07	28.6	RT																															
56	WJ-27	83+24.05	16.6	RT																															
56	WJ-34	83+73.78	27.1	RT																															
57	WJ-28	90+99.05	120.2	RT																															
57	WJ-29	91+30.34	10.2	RT																															
57	WJ-30	91+60.62	8.3	RT																															
57	WJ-31	91+62.35	29.9	RT																															
57	WJ-32	91+87.87	14.3	RT																															
57	WJ-33	94+35.19	11.3	RT																															
57	WJ-32	94+37.26	22.7	LT																															
55	WJ-1	67+99.08	29.4	RT																															
56	WJ-1	83+24.14	26.5	RT																															
TOTAL CARRIED TO GENERAL SUMMARY								51	3	2	22	12																							

CALCULATED:	GEA
CHECKED:	JGG

**WATER
SUB-SUMMARY**

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70



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SHEET NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614	614										
				WORK ZONE SPEED LIMIT SIGN	MAINTAINING TRAFFIC, MISC.: BUSINESS SIGN	WORK ZONE MARKING SIGN	WORK ZONE CENTER LINE, CLASS I	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE EDGE LINE, CLASS I	WORK ZONE STOP LINE, CLASS I	WORK ZONE ARROW, CLASS I	RESUME LEGAL SPEED SIGN									
				EA	EA	EA	MILE	MILE	MILE	FT	FT	MILE	FT	EA	EA									
FROM	TO	STATION																						
MAHONING ROAD N.E. S.R. 153																								
		55+11.75	55+36.18																					
		55+36.18	56+53.86																					
		56+27.06	56+37.69																					
		56+46.12	56+54.06																					
		56+27.60	57+20.26																					
		57+20.26	57+39.41																					
		57+65.84	61+53.11																					
		61+53.11	61+70.81																					
		61+88.29	61+89.77																					
		61+89.77	77+94.85																					
		77+94.85	77+94.49																					
		61+89.77	67+21.76																					
		77+61.78	77+73.13																					
		78+43.12	78+64.81																					
		78+30.94	87+64.84																					
		87+64.84	87+74.02																					
		82+33.97	82+90.21																					
		83+14.21	83+19.21																					
		83+74.21	83+79.21																					
		84+03.21	84+47.60																					
		84+60.09	84+85.42																					
		85+09.42	85+45.42																					
		85+69.42	86+25.56																					
		86+36.00	86+40.71																					
		86+65.18	86+70.00																					
		88+11.69	88+15.71																					
		88+59.88	88+64.88																					
		88+88.88	89+01.47																					
		89+78.84	89+88.84																					
		90+24.73	90+34.53																					
		TOTAL THIS COLUMN																						

SHEET NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614	614										
				WORK ZONE SPEED LIMIT SIGN	MAINTAINING TRAFFIC, MISC.: BUSINESS SIGN	WORK ZONE MARKING SIGN	WORK ZONE CENTER LINE, CLASS I	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE EDGE LINE, CLASS I	WORK ZONE STOP LINE, CLASS I	WORK ZONE ARROW, CLASS I	RESUME LEGAL SPEED SIGN									
				EA	EA	EA	MILE	MILE	MILE	FT	FT	MILE	FT	EA	EA									
FROM	TO	STATION																						
MAHONING ROAD N.E. S.R. 153																								
		55+11.75	55+36.18																					
		55+36.18	56+53.86																					
		56+27.06	56+37.69																					
		56+46.12	56+54.06																					
		56+27.60	57+20.26																					
		57+20.26	57+39.41																					
		57+65.84	61+53.11																					
		61+53.11	61+70.81																					
		61+88.29	61+89.77																					
		61+89.77	77+94.85																					
		77+94.85	77+94.49																					
		61+89.77	67+21.76																					
		77+61.78	77+73.13																					
		78+43.12	78+64.81																					
		78+30.94	87+64.84																					
		87+64.84	87+74.02																					
		82+33.97	82+90.21																					
		83+14.21	83+19.21																					
		83+74.21	83+79.21																					
		84+03.21	84+47.60																					
		84+60.09	84+85.42																					
		85+09.42	85+45.42																					
		85+69.42	86+25.56																					
		86+36.00	86+40.71																					
		86+65.18	86+70.00																					
		88+11.69	88+15.71																					
		88+59.88	88+64.88																					
		88+88.88	89+01.47																					
		89+78.84	89+88.84																					
		90+24.73	90+34.53																					
		TOTAL THIS COLUMN																						
		TOTAL FROM LEFT COLUMN																						
		TOTAL CARRIED TO GENERAL SUMMARY																						

MAINTENANCE OF TRAFFIC SUB-SUMMARY

CALCULATED: GEA
CHECKED: JGC

DATE: 4/21/14

REVISIONS: CONSTRUCTION BIDDING SET

MAHONING ROAD NE STA-0153-01.70



SHEET NO.	REFERENCE NO.	LOCATION					661		661		661		662		SPCL	
							DECIDUOUS TREE, 2" CALIPER, IVORY SILK LILAC	DECIDUOUS TREE, 2" CALIPER, SUN VALLEY MAPLE	DECIDUOUS TREE, 2" CALIPER, SCHUBERT CHERRY	DECIDUOUS TREE, 2" CALIPER, ARISTOCRAT PEAR	DECIDUOUS TREE, 2" CALIPER, CLEVELAND SELECT PEAR	LANDSCAPE WATERING	SPECIAL - TREE GRATE			
		FROM STATION	OFFSET	SIDE	TO STATION	OFFSET	SIDE	EA	EA	EA	EA	EA	GAL	EA		
67					55+94.54	24.5	RT	1				200	1			
67		55+81.65	24.50	LT				1				200	1			
67		56+31.94	34.30	LT					1			200				
67		56+34.57	42.50	LT					1			200				
67					57+43.50	18.5	RT			1		200	1			
67					57+94.50	18.5	RT	1				200	1			
67					58+49.67	18.5	RT		1			200	1			
67					58+99.65	18.5	RT			1		200	1			
67		58+99.65	24.50	LT						1		200	1			
67					59+77.34	18.5	RT				1	200	1			
67		60+02.64	24.50	LT				1				200	1			
67					60+28.34	18.5	RT		1			200	1			
67					60+78.88	18.5	RT			1		200	1			
67		60+75.01	24.50	LT						1		200	1			
67					61+28.19	18.5	RT				1	200	1			
67					61+79.37	18.5	RT	1				200	1			
67		62+12.71	24.50	LT					1			200	1			
67					62+29.37	18.5	RT			1		200	1			
67		62+62.30	24.60	LT						1		200	1			
67		63+21.23	24.30	LT							1	200	1			
67					63+43.20	18.8	RT	1				200				
67		63+62.80	24.00	LT					1			200	1			
67					63+98.51	19.2	RT			1		200				
67		64+34.91	23.50	LT						1		200	1			
67					64+48.50	19.6	RT				1	200	1			
67		64+88.91	23.10	LT				1				200	1			
67					64+98.50	20.0	RT		1			200				
67					65+48.50	20.4	RT			1		200				
67		65+88.82	22.30	LT						1		200	1			
67					65+98.50	20.7	RT				1	200	1			
67		66+44.43	21.90	LT				1				200	1			
68		66+95.21	21.50	LT					1			200	1			
68		67+55.77	21.50	LT						1		200	1			
68		68+05.36	21.50	LT							1	200	1			
68					68+50.36	21.5	RT				1	200				
68		68+60.36	21.50	LT				1				200	1			
68					69+37.05	21.5	RT		1			200				
68		69+66.52	21.50	LT						1		200	1			
68		70+17.95	21.60	LT						1		200	1			
68					70+92.54	21.5	RT				1	200				
68		71+40.54	21.50	LT				1				200	1			
68					71+42.61	21.5	RT			1		200				
68		71+90.57	21.50	LT						1		200	1			
68					71+92.29	21.5	RT			1		200				
68		72+40.57	21.50	LT							1	200	1			
68					72+42.30	21.5	RT		1			200				
68		72+81.54	21.50	LT						1		200	1			
68					73+17.20	21.5	RT				1	200				
68		73+67.48	21.50	LT						1		200	1			
68		74+08.15	21.50	LT							1	200	1			
68		74+56.80	21.50	LT						1		200	1			
68		75+71.16	21.50	LT							1	200	1			
68		76+21.02	21.50	LT						1		200	1			
68					76+48.77	21.5	RT			1		200				
68		77+06.37	21.50	LT							1	200	1			
TOTAL THIS SHEET								11	11	11	11	11	11000	39		

SHEET NO.	REFERENCE NO.	LOCATION					661		661		661		661		662		SPCL	
							DECIDUOUS TREE, 2" CALIPER, IVORY SILK LILAC	DECIDUOUS TREE, 2" CALIPER, SUN VALLEY MAPLE	DECIDUOUS TREE, 2" CALIPER, SCHUBERT CHERRY	DECIDUOUS TREE, 2" CALIPER, ARISTOCRAT PEAR	DECIDUOUS TREE, 2" CALIPER, CLEVELAND SELECT PEAR	LANDSCAPE WATERING	SPECIAL - TREE GRATE					
		FROM STATION	OFFSET	SIDE	TO STATION	OFFSET	SIDE	EA	EA	EA	EA	EA	GAL	EA				
68					77+13.16	21.5	RT	1				200						
68		77+56.37	21.50	LT					1			200	1					
69		78+76.32	21.50	LT						1		200	1					
69					78+88.16	21.5	RT			1		200						
69		79+25.77	21.50	LT							1	200	1					
69		79+76.16	21.50	LT				1				200	1					
69		80+26.57	21.50	LT					1			200	1					
69		80+75.21	21.50	LT						1		200	1					
69					80+83.61	21.5	RT				1	200						
69		81+26.21	21.50	LT							1	200	1					
69					81+33.61	21.5	RT	1				200						
69		81+76.53	21.50	LT					1			200	1					
69					81+83.61	21.5	RT				1	200						
69					82+28.75	21.5	RT				1	200						
69		82+42.47	21.50	LT							1	200	1					
69					83+08.86	21.5	RT	1				200						
69		83+22.71	21.50	LT					1			200	1					
69					83+91.22	21.5	RT			1		200						
69		84+21.71	21.50	LT							1	200	1					
69					84+69.31	22.8	RT				1	200						
69		85+27.37	19.5	LT				1				200	1					
69					85+69.26	23.5	RT		1			200						
69		86+15.42	19.5	LT						1		200	1					
69		86+87.45	19.5	LT							1	200	1					
69					87+38.13	23.5	RT				1	200						
69					87+83.13	23.5	RT	1				200						
69		88+56.38	19.5	LT					1			200	1					
69					88+67.62	25.5	RT			1		200						
69		89+05.38	19.5	LT						1		200	1					
70					89+66.62	36.5	RT				1	200						
70		89+67.34	19.5	LT				1				200	1					
70		90+61.98	22.0	LT					1			200	1					
70		91+02.60	27.2	LT						1		200	1					
70		91+47.17	39.8	LT							1	200	1					
70		91+86.61	69.8	LT							1	200	1					
70		92+20.61	107.0	LT				1				200	1					
70					92+63.43	22.1	RT			1		200						
70		92+71.33	71.6	LT						1		200	1					
70					93+14.18	22.1	RT				1	200						
70		93+52.53	23.5	LT							1	200	1					
70					93+57.08	22.1	RT	1				200						
70		94+02.32	23.5	LT						1		200	1					
70					94+14.18	22.0	RT			1		200						
70		94+62.32	23.5	LT							1	200	1					
TOTAL THIS COLUMN								9	9	9	9	8	8800	26				
TOTAL FROM LEFT COLUMN								11	11	11	11	11	11000	39				
TOTAL CARRIED TO GENERAL SUMMARY								20	29	29	29	27	28600	91				

MAHONING ROAD NE
STA-0153-01.70

REVISIONS
CONSTRUCTION BIDDING SET
ADDENDUM NO. 1

CALCULATED: JCG
GEO: JCG
CHECKED: JCG

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SHEET NO.	REFERENCE NO.	LOCATION	SIDE	CODE	SIZE (INCHES)	630	630	630	630	630	630	630	630
						GROUND MOUNTED SUPPORT, NO. 3 POST, 730,016, SQUARE, AS PER PLAN	STREET NAME SIGN SUPPORT, NO. 3 POST, 730,016, SQUARE, AS PER PLAN	SIGN, DOUBLE FACED, STREET NAME	SIGN, STOP, AS PER PLAN	SIGN, MISC., AS PER PLAN	SIGN HANGER ASSEMBLY, MAST ARM	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET
						FT	FT	EA	EA	EA	EA	EA	SF
1		57+02.8	LT	SPECIAL (EXIST)	24" X 12"			1		2			
2		57+04.3	LT	R23	30" X 30"			1		6.25			
3		57+09.6	LT	D3-1	VAR X 8"			1		1.3	1		
4		57+12.5	RT	D3-1	VAR X 8"			1		1.3	1		
5		57+15.7	RT	S1-1	30" X 30"					6.25			
5		57+15.7	RT	W16-7P	24" X 12"		1			2			
6		57+71.0	LT	S1-1	30" X 30"				1	6.25			
6		57+71.0	LT	W16-7P	24" X 12"				1	2			
7		58+13.6	RT	R7-1-12	12" X 18"				1	1.5			
8		58+63.5	LT	R7-1-12	12" X 18"				1	1.5			
9		58+75.6	RT	R3-H9J	6" X 24"					1			
9		58+75.6	RT	R3-9B	24" X 36"	1				6			
10		59+21.5	LT	R3-H9K	6" X 24"					1			
10		59+21.5	LT	R3-9B	24" X 36"	1				6			
11		60+17.5	LT	S1-1	30" X 30"					6.25			
11		60+17.5	LT	W16-7P	24" X 12"		1			2			
12		60+17.6	RT	R7-1-12	12" X 18"				1	1.5			
13		60+51.5	LT	R7-1-12	12" X 18"				1	1.5			
14		61+39.5	LT	D3-1	VAR X 8"				1	1.3	1		
15		61+53.2	LT	R1-1-30	30" X 30"	1				6.25			
16		62+09.6	RT	R7-1-12	12" X 18"				1	1.5			
17		62+90.9	RT	R1-1-30	30" X 30"	1				6.25			
18		63+06.5	RT	R1-1-30	30" X 30"	1				6.25			
19		63+09.6	RT	D3-1	VAR X 8"				1	1.3	1		
19		63+09.6	RT	R3-9B	24" X 36"				1	6			
20		63+30.8	LT	R7-1-12	12" X 18"				1	1.5			
21		64+15.1	RT	R7-1-12	12" X 18"				1	1.5			
22		66+01.4	LT	R7-1-12	12" X 18"				1	1.5			
23		66+22.9	RT	R7-1-12	12" X 18"				1	1.5			
24		67+05.1	RT	R1-1-30	30" X 30"	1				6.25			
25		67+29.2	RT	D3-1	VAR X 8"				1	1.3	1		
26		68+06.5	LT	R3-9B	24" X 36"	1				6			
27		68+44.1	RT	R3-9B	24" X 36"				1	6			
28		69+00.5	LT	R7-1-12	12" X 18"				1	1.5			
29		70+04.5	LT	SPECIAL (EXIST)	12" X 18"				1	1.5			
30		70+30.7	RT	R1-1-30	30" X 30"	1				6.25			
31		70+69.8	RT	D3-1	VAR X 8"				1	1.3	1		
31		70+69.8	RT	R3-9B	24" X 36"				1	6			
32		71+70.6	RT	R7-1-12	12" X 18"				1	1.5			
33		71+93.5	LT	R7-1-12	12" X 18"				1	1.5			
34		72+72.0	RT	SPECIAL (EXIST)	12" X 18"				1	1.5			
35		73+72.8	RT	R7-1-12	12" X 18"				1	1.5			
36		74+34.1	RT	R1-1-30	30" X 30"	1				6.25			
37		74+57.5	RT	D3-1	VAR X 8"					1.3	1		
37		74+57.5	RT	W14-2	30" X 30"		1			6.25			
38		74+81.5	LT	R7-1-12	12" X 18"				1	1.5			
39		75+15.0	RT	R3-9B	24" X 36"	1				6			
40		75+73.4	RT	R7-1-12	12" X 18"				1	1.5			
41		75+85.4	LT	R3-9B	24" X 36"				1	6			
42		76+08.3	RT	R1-1-30	30" X 30"	1				6.25			
43		76+39.5	LT	SPECIAL (EXIST)	12" X 18"	1				1.5			
44		76+77.4	LT	R7-1-12	12" X 18"				1	1.5			
45		76+81.3	RT	S1-1	30" X 30"				1	6.25			
45		76+81.3	RT	W16-9P	24" X 12"				1	2			
46		77+19.5	LT	R2-1	24" X 30"	1				5			
47		77+72.9	RT	S1-1	30" X 30"	1				6.25			
TOTAL THIS COLUMN						14	3	4	30	190	7		

SHEET NO.	REFERENCE NO.	LOCATION	SIDE	CODE	SIZE (INCHES)	630	630	630	630	630	630	630	630
						GROUND MOUNTED SUPPORT, NO. 3 POST, 730,016, SQUARE, AS PER PLAN	STREET NAME SIGN SUPPORT, NO. 3 POST, 730,016, SQUARE, AS PER PLAN	SIGN, DOUBLE FACED, STREET NAME	SIGN, STOP, AS PER PLAN	SIGN, MISC., AS PER PLAN	SIGN HANGER ASSEMBLY, MAST ARM	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET
						FT	FT	EA	EA	EA	EA	EA	SF
47		77+72.9	RT	SPECIAL (EXIST)	12" X 18"								
48		77+76.1	LT	S1-1	30" X 30"	1				6.25			
49		77+90.4	LT	S1-1	30" X 30"	1				6.25			
50		78+37.8	LT	R2-1	24" X 30"	1				5			
51		78+96.4	RT	R2-1	24" X 30"	1				5			
52		79+34.4	RT	R7-1-12	12" X 18"					1	1.5		
53		79+58.2	LT	S1-1	30" X 30"					1	6.25		
53		79+58.2	LT	W16-9P	24" X 12"					1	2		
54		80+26.4	RT	R3-9B	24" X 36"					1	6		
55		81+50.2	LT	R7-1-12	12" X 18"					1	1.5		
56		82+11.3	RT	R7-1-12	12" X 18"					1	1.5		
57		83+42.2	LT	R3-9B	24" X 36"					1	6		
58		84+34.2	LT	R7-1-12	12" X 18"					1	1.5		
59		84+87.0	RT	R7-1-12	12" X 18"					1	1.5		
60		85+77.3	RT	R3-9B	24" X 36"					1	6		
61		86+19.4	LT	R7-1-12	12" X 18"					1	1.5		
62		87+46.6	LT	R1-1-30	30" X 30"	1				6.25			
63		87+54.5	RT	D3-1	VAR X 8"					1	1.3	1	
63		87+54.5	RT	R7-1-12	12" X 18"					1	1.5		
64		88+34.9	LT	D3-1	VAR X 8"					1	1.3	1	
64		88+34.9	LT	SPECIAL (EXIST)	12" X 18"					1	1.5		
65		88+50.3	RT	SPECIAL (EXIST)	12" X 18"					1	1.5		
66		88+80.1	RT	R3-8B	48" X 30"						10		
67		88+07.0	LT	R3-HJ9	6" X 24"		1				1		
67		88+07.0	LT	R3-9B	24" X 36"		1				6		
68		89+38.9	LT	R7-1-12	12" X 18"					1	1.5		
69		89+41.2	RT	R7-1-12	12" X 18"					1	1.5		
70		90+11.4	RT	R3-7R	30" X 30"	1				6.25			
71		90+76.8	RT	R1-2	36" X 36"						9		
71		90+76.8	RT	R5-1	30" X 30"		2				6.25		
72		91+19.8	LT	M3-4	24" X 12"						2		
72		91+19.8	LT	M1-5	24" X 24"	1					4		
73		93+80.0	LT	R7-1-12	12" X 18"					1	1.5		
74		94+10.0	LT	R3-8	30" X 30"	1					6.25		
74		94+10.0	LT	SPECIAL (EXIST)	12" X 18"						1.5		
TOTAL THIS COLUMN													
TOTAL FROM LEFT COLUMN													
TOTAL THIS COLUMN						8	4		19	129	2		

CALCULATED:
GEA
CHECKED: JCG

**SIGNAGE
SUB-SUMMARY**

DATE BY
4/21/14 GEA

REVISIONS
CONSTRUCTION BIDDING SET

**MAHONING ROAD NE
STA-0153-01.70**

36
108

SHEET NO.	REFERENCE NO.	LOCATION				644	644	644	644	644	644
						LANE ARROW	WORD ON PAVEMENT, 72"	DOTTED LINE, 4"	STOP LINE	CHANNELIZING LINE, 8"	CROSSWALK LINE
		FROM		TO		EA	EA	FT	FT	FT	FT
STATION	SIDE	STATION	SIDE	EA	EA	FT	FT	FT	FT		
75	CH	55+09.75	LT	56+53.36	LT					144	
75	CH	55+09.75	RT	56+31.70	RT					173	
75	W	55+81.70	C/L			1					
75	A	56+13.70	C/L			1					
75	S	56+31.70	RT	56+31.70	LT				23		
75	S	56+59.95	LT	56+67.81	LT				16		
75	S	56+72.00	RT	56+88.43	RT				16		
75	S	57+18.86	LT	57+33.26	LT				16		
75	CH	57+73.45	LT	58+48.45	LT					75	
75	S	57+73.45	RT	57+73.45	LT				24		
75	A	57+97.45	LT			1					
75	W	58+29.45	LT				1				
75	A	59+33.44	LT	59+63.44	LT	2					
75	A	60+53.44	LT	60+83.44	LT	2					
75	CW	61+36.61	LT	61+95.93	LT/RT					158	
75	S	61+54.19	LT	61+72.23	LT				15		
75	A	62+05.52	LT	62+35.55	LT	2					
75	CW	62+52.66	RT	62+89.43	RT					65	
75	D	62+59.71	RT	62+69.38	RT			22			
75	S	62+72.38	RT	62+85.79	RT				13		
75	S	62+98.57	RT	62+98.91	RT				1		
75	CW	63+05.43	RT	63+17.70	RT					74	
75	A	63+22.55	LT	63+52.58	LT	2					
75	A	64+42.55	LT	64+72.58	LT	2					
75	A	65+62.54	LT	65+92.57	LT	2					
75	CW	66+28.63	RT	66+35.90	LT					74	
76	D	66+51.85	RT	66+71.31	RT			40			
76	S	66+75.95	RT	66+92.45	RT				17		
76	S	66+93.33	RT	66+98.46	RT				20		
76	A	67+31.86	C/L	67+61.86	C/L	2					
76	A	68+11.86	C/L	68+41.86	C/L	2					
76	D	69+83.74	RT	69+95.99	RT			28			
76	CW	69+92.00	RT	70+32.53	RT					78	
76	S	70+08.00	RT	70+24.85	RT				19		
76	S	70+20.14	RT	70+27.64	RT			22			
76	CW	70+42.23	RT	70+49.23	LT					82	
76	A	70+59.23	C/L	70+89.23	C/L	2					
76	A	71+79.23	C/L	72+09.23	C/L	2					
76	A	72+59.23	C/L	72+89.23	C/L	2					
76	CW	73+97.11	RT	74+32.04	RT					65	
76	S	73+97.76	RT	74+10.55	RT				16		
76	CW	74+65.30	LT/RT	74+72.30	LT/RT					144 74	
76	A	74+78.91	C/L	75+08.91	C/L	2					
76	A	75+90.16	RT	76+04.66	RT	2					
76	CH	75+97.41	RT	75+97.41	RT					55	
76	A	75+98.91	C/L	76+28.91	C/L	2				76	
76	CH	76+97.26	RT	77+73.35	RT						
76	W	77+08.15	C/L				1				
76	A	77+40.15	C/L			1					
76	S	77+73.35	RT	77+73.35	RT				24		
76/77	CW	77+78.85	LT/RT	78+41.46	LT/RT					178	
TOTAL THIS COLUMN						31	3	90	242	667	848

SHEET NO.	REFERENCE NO.	LOCATION				644	644	644	644	644	644
						LANE ARROW	WORD ON PAVEMENT, 72"	DOTTED LINE, 4"	STOP LINE	CHANNELIZING LINE, 8"	CROSSWALK LINE
		FROM		TO		EA	EA	FT	FT	FT	FT
STATION	SIDE	STATION	SIDE	EA	EA	FT	FT	FT	FT		
77	CW	77+91.53	LT	78+35.05	LT					44	
77	S	77+94.05	LT	78+13.76	LT				20		
77	A	78+34.57	RT	78+46.57	RT	2					
77	CH	78+39.07	RT	78+40.63	RT					30	
77	S	78+56.32	RT	78+56.32	LT				24		
77	A	78+61.63	C/L	78+91.63	C/L	2					
77	A	79+05.82	RT	79+17.82	RT	2					
77	CH	79+11.82	RT	79+60.46	RT					54	
77	A	79+52.21	RT	79+68.71	RT	2					
77	A	80+06.58	RT			1					
77	A	80+21.63	C/L	80+51.63	C/L	2					
77	A	81+85.63	C/L	82+11.63	C/L	2					
77	A	83+41.63	C/L	83+71.63	C/L	2					
77	A	85+01.63	C/L	85+31.63	C/L	2					
77	A	86+61.63	C/L	86+91.63	C/L	2					
77	CW	87+27.13	LT/RT	88+17.65	LT					225	
77	S	87+49.95	LT	97+73.61	LT				24		
77	A	88+43.88	RT	88+73.88	RT	2					
78	CH	89+52.59	RT	91+03.55	RT					302	
78	A	89+52.59	RT			2					
78	W	89+84.59	RT				2				
78	A	90+16.59	RT			2					
78	W	90+48.59	RT				1				
78	D	90+50.70	RT	90+75.85	RT			46			
78	CW	90+59.73	RT	90+96.60	RT					78	
78	CH	90+65.57	RT	90+91.33	RT					31	
78	S	90+67.55	RT	90+97.55	LT				11		
78	W	90+80.64	RT						1		
78	CH	90+85.12	RT	91+52.46	RT					124	
78	CH	90+94.97	RT	91+26.69	RT					58	
78	A	90+99.01	RT			1					
78	W	91+18.09	RT						1		
78	A	91+39.47	RT			1					
78	S	91+43.13	RT	91+52.46	RT				11		
78	S	91+56.73	RT	91+66.93	RT				12		
78	CW	91+99.73	LT	92+74.42	LT					171	
78	S	92+08.83	LT	92+31.58	LT				28		
78	CH	92+22.24	LT	93+00.50	LT					137	
78	A	92+39.81	LT			1					
78	W	92+57.93	LT				1				
78	CW	92+74.42	LT	92+82.12	RT					88	
78	A	92+76.05	LT			1					
78	CH	92+86.92	LT	93+84.32	LT					97	
78	S	92+86.92	LT	92+86.92	RT				29		
78	W	92+94.16	LT				1				
78	A	93+08.92	LT			1					
78	W	93+40.92	LT						1		
78	A	93+72.92	LT			1					
TOTAL THIS COLUMN						31	8	46	159	833	606
TOTAL FROM LEFT COLUMN						31	3	90	242	667	848
TOTAL CARRIED TO GENERAL SUMMARY						62	11	136	401	1500	1454

SHEET NO.	REFERENCE NO.	LOCATION				642	644
						CENTER LINE	TRANSVERSE/DIAGONAL LINE
		FROM		TO		MILE	FT
STATION	SIDE	STATION	SIDE	MILE	FT		
75	CB	55+09.75	LT	55+16.66	LT	0.01	
75	T	55+16.66	LT	55+68.87	LT		54
75	CS	55+16.66	LT	56+31.70	LT	0.02	
75	CB	55+09.75	RT	55+26.11	RT	0.01	
75	CS	55+26.11	RT	55+78.66	RT	0.01	
75	CS	56+18.31	LT/RT	56+72.00	LT/RT	0.02	
75	CS	57+33.26	LT	57+53.31	LT	0.01	
75	CS	57+73.45	RT	59+13.34	LT/RT	0.04	
75	T	58+60.15	RT	59+13.34	RT		53
75	CB	59+13.44	LT/RT	61+36+61	LT/RT	0.08	
75	CB	61+72.23	LT	61+80.73	LT	0.01	
75	CB	61+85.53	LT/RT	62+55.53	LT/RT	0.02	
75	CS	62+48.34	RT	62+59.71	RT	0.01	
75	CS	62+69.38	RT	62+72.38	RT	0.01	
75	CS	62+98.57	RT	63+23.54	RT	0.01	
75	CB	63+11.75	LT/RT	66+28.81	LT/RT	0.12	
75	CB	66+35.72	LT/RT	66+55.81	LT/RT	0.02	
76	CS	66+44.95	RT	66+51.85	RT	0.01	
76	CW	66+59.15	RT	66+94.12	RT	0.02	
76	CS	66+71.31	RT	66+75.95	RT	0.01	
76	CS	66+93.33	RT	67+43.24	RT	0.01	
76	CB	67+01.86	LT/RT	68+49.70	LT/RT	0.06	
76	CS	68+49.70	LT/RT	69+78.42	LT/RT	0.04	
76	T	68+49.70	LT	69+84.25	C/L		195
76	CS	69+59.36	RT	69+83.74	RT	0.01	
76	CS	69+95.99	RT	70+08.00	RT	0.01	
76	CS	70+20.14	RT	70+42.50	RT	0.01	
76	CB	70+49.23	LT/RT	73+40.22	LT/RT	0.11	
76	CS	73+30.76	LT	73+79.23	LT	0.01	
76	T	73+30.76	LT	73+85.06	C/L		70
76	CS	73+40.22	RT	73+79.23	RT	0.01	
76	CS	74+10.55	RT	74+26.34	RT	0.01	
76	CB	74+48.91	LT/RT	74+65.30	LT/RT	0.02	
76	CB	74+72.30	LT/RT	76+42.15	LT/RT	0.06	
76	CS	76+41.82	LT/RT	77+73.55	LT/RT	0.03	
76	T	76+42.15	LT	76+85.44	LT		40
77	CS	78+13.76	LT	78+13.61	LT	0.01	
77	CB	78+56.32	LT/RT	87+27.13	LT/RT	0.16	
77	CS	87+73.61	LT, C/L	88+23.88	LT/RT	0.03	
77	T	87+95.45	LT	88+23.88	RT		39
77	CB	88+23.88	LT/RT	88+93.88	LT/RT	0.05	
77	T	88+93.88	LT	89+39.41	LT		5
77/78	CS	88+93.88	LT/RT	90+67.55	LT	0.04	
78	CS	90+45.40	RT	90+54.43	RT	0.02	
78	CS	90+75.84	RT	91+43.13	RT	0.02	
78	CS	92+21.24	LT	93+09.84	LT	0.03	
78	CS	92+86.92	RT	94+34.32	LT/RT	0.04	
78	T	93+94.40	RT	94+40.15	LT		33
78	CB	94+71.90	LT/RT	94+89.66	LT/RT	0.02	
TOTAL CARRIED TO GENERAL SUMMARY						1.25	489

PAVEMENT MARKING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	LOCATION						304 AGGREGATE BASE (4" UNDER PAVEMENT, DRIVE AND CROSSWALK)	304 AGGREGATE BASE (6" UNDER BUS STOP AND PAVERS)	452 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 (BUS PAD)	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (UNDER ROADWAY PAVERS)	452 NON-REINFORCED CONCRETE PAVEMENT, MISC. ROADWAY BRICK PAVERS	452 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (CROSSWALK)												
		FROM			TO																				
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE							CY	CY	SY	SY	SF	SY						
														CY	CY	SY	SY	SF	SY						
67	PVT-1	56+35.14	21.5	RT	56+92.50	60.1	LT	16.33				98													
67	PVT-13	56+43.84	22.5	RT	57+47.42	33.3	LT			554	4991														
67	PVT-2	56+43.84	22.5	RT	57+03.12	22.4	RT	7.33				44													
67	PVT-3	57+16.98	59.4	LT	57+21.18	15.8	RT	14.17				85													
67	PVT-4	57+97.58	2.5	RT	58+47.58	2.5	RT		12.00	72															
68	PVT-5	67+46.08	5.5	RT	67+96.08	5.5	RT		12.00	72															
68	PVT-6	68+90.54	5.5	LT	69+40.54	5.5	LT		12.00	72															
68	PVT-7	74+82.27	5.5	RT	75+32.27	5.5	RT		12.00	72															
68	PVT-8	76+51.45	5.5	LT	77+01.45	5.5	LT		12.00	72															
68	PVT-9	77+23.35	5.5	RT	77+73.35	5.5	RT		12.00	72															
69	PVT-10	86+71.63	7.5	RT	87+21.63	7.5	RT		12.00	72															
69/70	PVT-11	89+27.68	3.5	LT	89+77.68	3.5	LT		12.00	72															
69	PVT-12	91+21.45	27.6	LT	91+86.66	24.5	RT	16.00				96													
70	PVT-14	91+29.45	24.5	RT	92+12.46	17.5	LT		89.50		537	4828													
TOTAL CARRIED TO GENERAL SUMMARY								54	186	576	1091	9819	323												

SHEET NO.	REFERENCE NO.	LOCATION						304 AGGREGATE BASE (4" UNDER PAVEMENT, DRIVE AND CROSSWALK)	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAY)	301 ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAY)	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (RESIDENTIAL DRIVE APRON)	452 7" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC FS (COMMERCIAL DRIVE APRON)	407 TACK COAT (0.15 GAL/SY)	407 TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)													
		FROM			TO																						
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE								CY	CY	CY	SY	SY	GAL	GAL						
															CY	CY	CY	SY	SY	GAL	GAL						
67	DR-1	55+36.65	22.0	RT	55+70.65	22.5	RT	5.25	0.72	1.20		30	2.59	0.69													
67	DR-2	55+98.06	22.5	LT	56+32.06	22.5	LT	2.67				24															
67	DR-39	56+11.51	71.0	LT	56+40.82	54.0	LT	3.78				34															
67	DR-38	56+27.86	98.7	LT	56+79.23	69.0	LT	6.22				56															
67	DR-3	57+47.00	16.5	RT	57+81.00	16.5	RT	40.33				363															
67	DR-40	57+52.48	58.2	LT	57+66.28	84.0	LT	3.44				31															
67	DR-4	57+88.24	22.5	LT	58+41.24	22.5	LT	49.62	1.02	1.71		422	3.67	0.98													
67	DR-5	58+50.15	22.5	LT	58+86.15	22.5	LT	25.56				230															
67	DR-6	59+17.00	16.5	RT	59+51.00	16.5	RT	40.33				363															
67	DR-7	59+58.90	22.5	LT	59+86.90	22.5	LT	1.02	0.38	0.64	19		1.37	0.36													
67	DR-8	59+80.84	16.5	RT	60+14.84	16.5	RT	4.44				40															
67	DR-9	60+18.38	22.5	LT	60+46.38	22.5	LT				27																
67	DR-10	62+65.92	22.5	LT	62+93.92	22.5	LT	0.86	0.32	0.54	19		1.15	0.31													
67	DR-11	63+66.28	22.0	LT	63+90.28	21.8	LT	0.45	0.17	0.28	16		0.61	0.16													
67	DR-12	63+97.40	21.8	LT	64+31.40	21.5	LT	4.07	0.44	0.74		26	1.58	0.42													
67	DR-13	64+51.40	21.4	LT	64+85.40	21.1	LT	4.18	0.44	0.74		27	1.58	0.42													
67	DR-14	65+24.17	20.8	LT	65+52.17	20.6	LT	0.94	0.35	0.59	21		1.26	0.34													
67	DR-15	65+58.31	20.6	LT	65+85.31	20.4	LT	0.62	0.23	0.39	20		0.83	0.22													
68	DR-41	66+98.69	19.5	LT	67+26.76	19.5	LT	0.93	0.35	0.58	21		1.26	0.34													
68	DR-16	68+08.86	19.5	LT	68+46.86	19.5	LT	5.50	0.73	1.21		32	2.63	0.70													
68	DR-17	70+56.23	19.5	LT	71+11.23	19.5	LT	7.05	0.56	0.93		50	2.02	0.54													
68	DR-18	72+85.04	19.5	LT	73+29.04	19.5	LT	5.07	0.32	0.53		38	1.15	0.31													
68	DR-42	74+22.26	70.7	RT	74+27.72	56.6	RT	1.79	0.67	1.12	9		2.41	0.64													
68	DR-19	74+83.91	19.5	LT	75+17.91	19.5	LT	3.73	0.23	0.39		28	0.83	0.22													
68	DR-20	75+33.66	19.5	LT	75+67.66	19.5	LT	3.90	0.30	0.49		28	1.08	0.29													
68	DR-21	75+80.41	19.0	RT	76+14.41	19.0	RT	22.28	7.48	12.47		21	26.93	7.18													
69	DR-22	78+26.13	19.0	RT	78+55.13	19.0	RT	12.54	3.95	6.59		18	14.22	3.79													
69	DR-23	78+97.32	19.0	RT	79+26.32	19.0	RT	12.99	4.12	6.87		18	14.83	3.96													
69	DR-24	79+28.96	18.5	RT	80+45.96	18.5	RT	45.95	12.48	20.80		114	44.93	11.98													
69	DR-25	80+78.71	19.5	LT	81+12.71	19.5	LT	4.61	0.56	0.94		28	2.02	0.54													
69	DR-26	82+04.97	19.5	LT	82+38.97	19.5	LT	5.48	0.89	1.48		28	3.20	0.85													
69	DR-27	82+85.21	19.5	LT	83+19.21	19.5	LT	5.49	0.89	1.49		28	3.20	0.85													
69	DR-28	83+48.52	19.0	RT	83+76.52	19.0	RT	4.93	1.14	1.90		17	4.10	1.09													
69	DR-29	83+74.21	19.5	LT	84+08.21	19.5	LT	5.21	0.79	1.31		28	2.84	0.76													
69	DR-30	84+34.68	19.0	RT	84+61.46	20.0	RT	5.38	1.31	2.18		17	4.72	1.26													
69	DR-31	84+80.33	17.9	LT	85+14.33	17.5	LT	5.54	0.91	1.52		28	3.28	0.87													
69	DR-32	85+40.33	17.5	LT	85+74.33	17.5	LT	6.58	1.30	2.17		28	4.68	1.25													
69	DR-33	86+36.00	17.5	LT	86+70.00	17.5	LT	4.01	0.34	0.56		28	1.22	0.33													
69	DR-43	87+47.31	32.9	LT	87+65.56	58.5	LT	5.30	0.78	1.30		29	2.81	0.75													
69	DR-34	88+59.88	17.5	LT	88+93.88	17.5	LT	4.18	0.40	0.67		28	1.44	0.38													
70	DR-35	89+78.84	17.5	LT	90+34.92	18.1	LT	10.44				94															
70	DR-44	92+81.76	105.4	LT	93+02.86	147.7	LT	8.59	1.43	2.38		43	5.15	1.37													
70	DR-36	93+07.03	21.5	LT	93+49.03	21.5	LT	5.59	0.72	1.20		33	2.59	0.69													
70	DR-37	94+15.82	21.5	LT	94+58.82	21.5	LT	5.19	0.53	0.88		34	1.91	0.51													
TOTAL CARRIED TO GENERAL SUMMARY								402	47	79	152	2484	170	45													

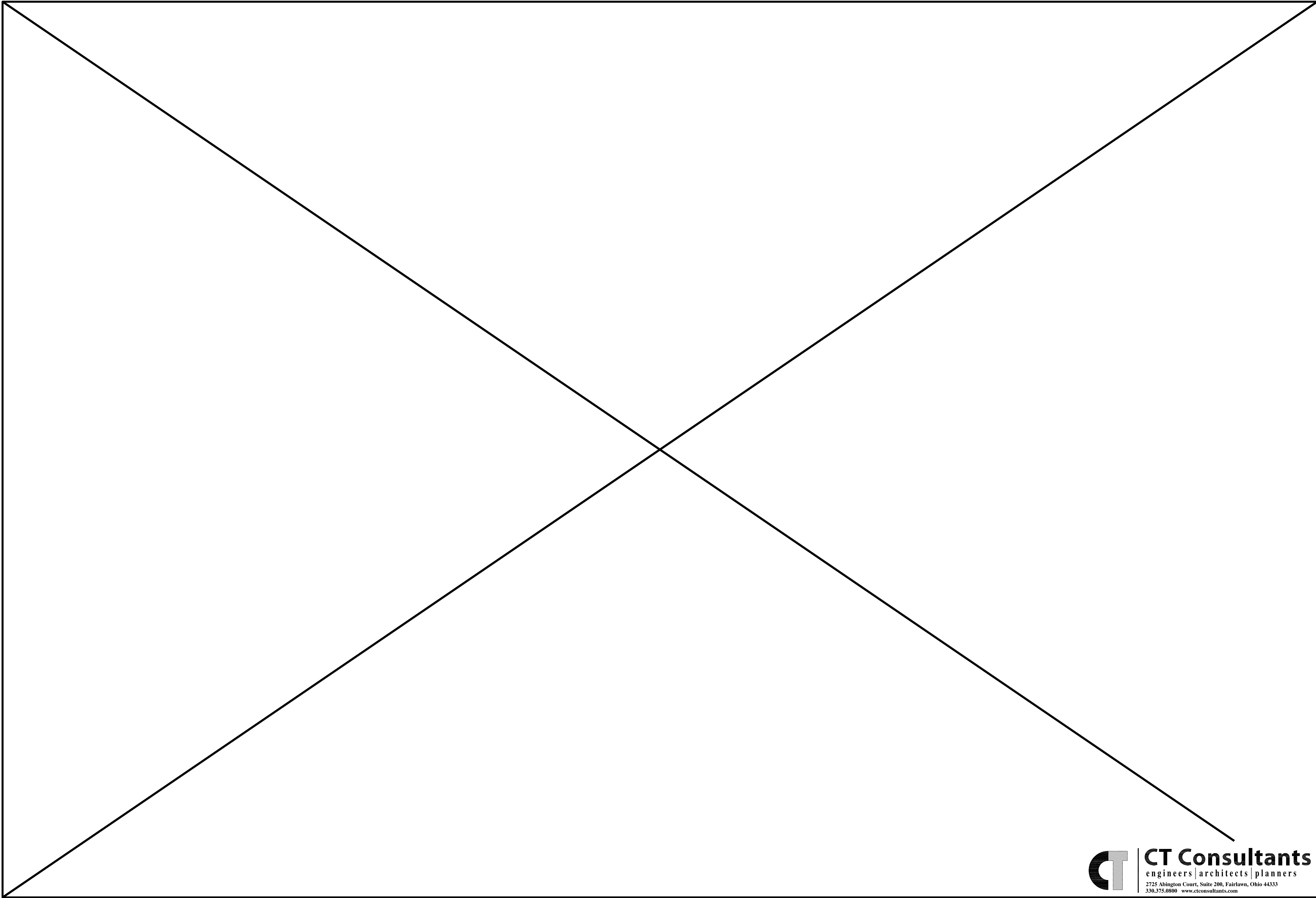
REVISIONS		DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA	
ADDENDUM NO. 1	5/7/14	GEA	

ROADWAY SUB-SUMMARY

CALCULATED: GEA
CHECKED: JCG

MAHONING ROAD NE
STA-0153-01.70

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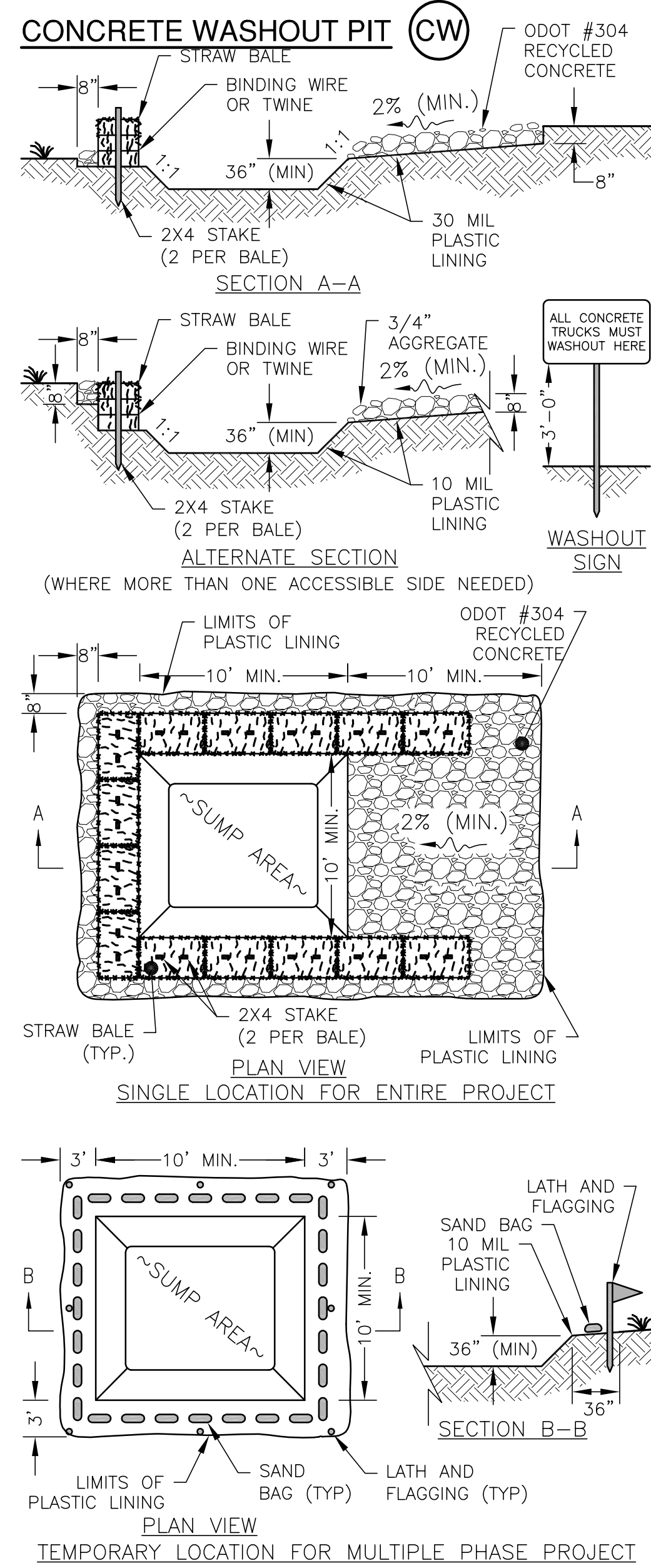


MAHONING ROAD NE
STA-0153-01.70

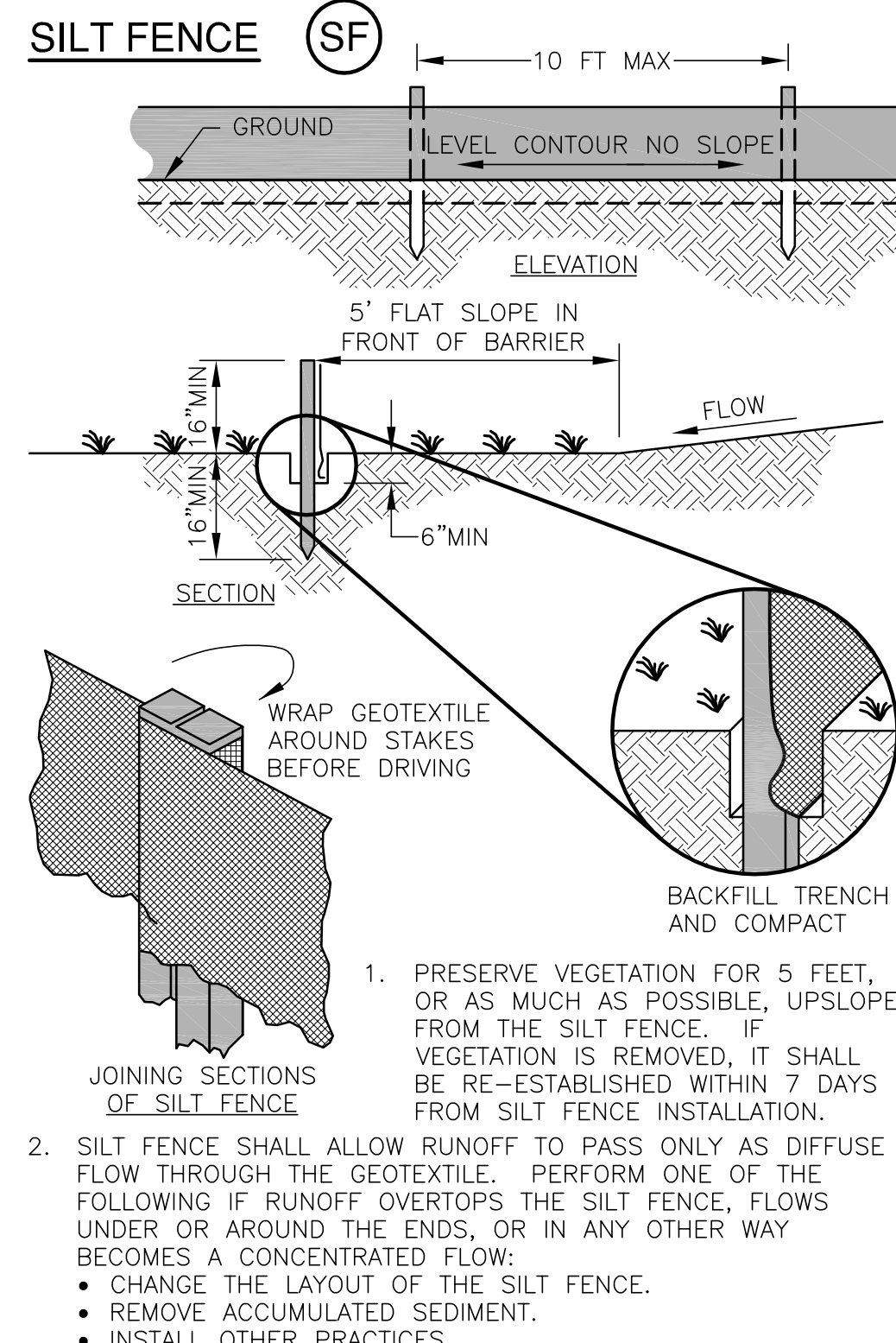
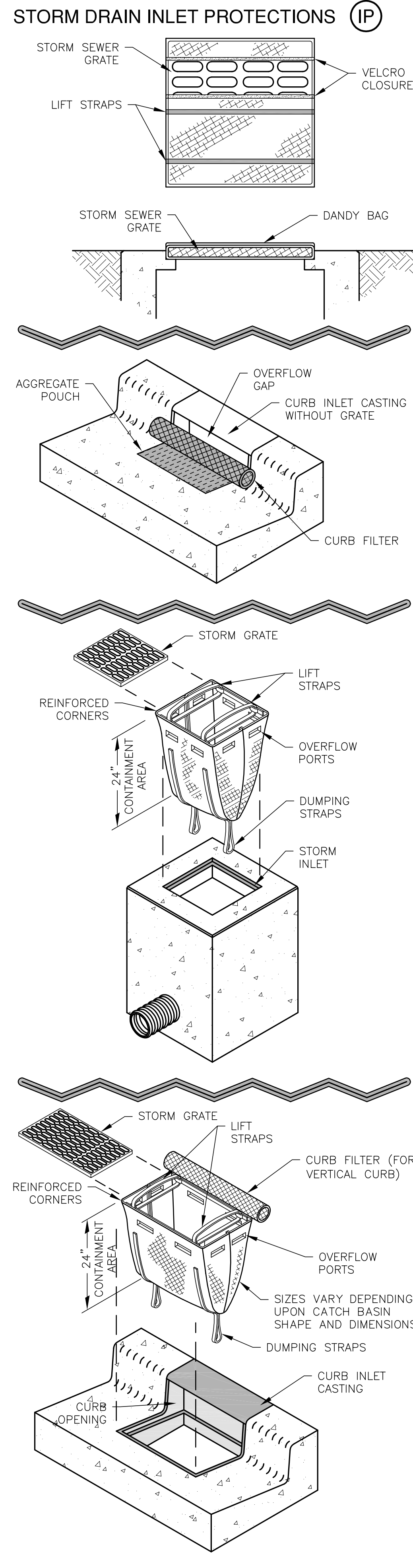
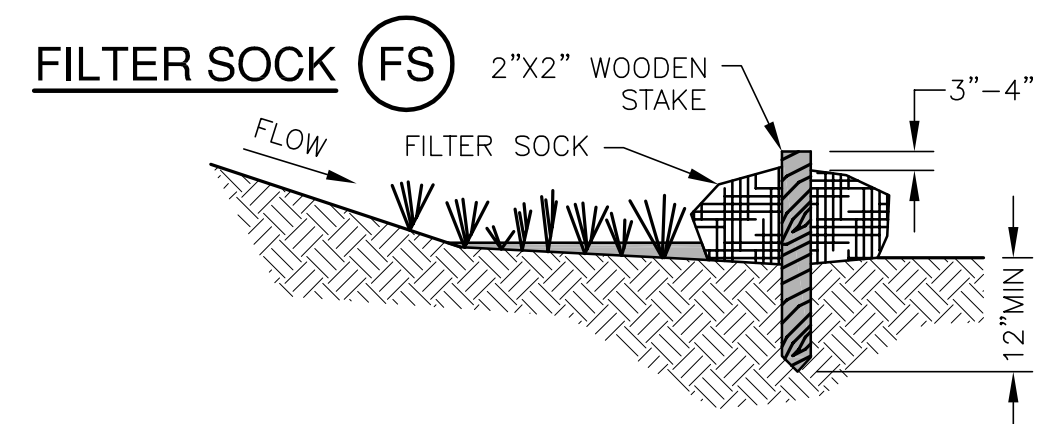
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
APPENDIX NO. 1	5/7/14	GEA

ROADWAY
SUB-SUMMARY

CALCULATED:	GEA
CHECKED:	JGG



- NOTES:**
1. WASH WATER SHALL NOT FLOW TO SURFACE WATERS.
 2. WASHOUT PIT SHALL BE LOCATED 100' MINIMUM FROM INLETS, STREAMS, WETLANDS AND ANY OTHER SURFACE WATERS.
 3. WASHOUT PIT SHALL HAVE SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".
 4. WASHOUT PIT SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED.
 5. SAW CUT CONCRETE, RESIDUE FROM SAW CUT, AND GRINDINGS SHALL BE DISPOSED OF IN THE WASHOUT PIT.
 6. A GENERAL LOCATION FOR THE CONCRETE WASHOUT PIT IS SHOWN IN THE SWPPP, BUT MAY BE MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.



FABRIC PROPERTIES	VALUES	TEST METHOD
Grab Tensile Strength	90 lb. min	ASTM D 1682
Mullen Burst Strength	190 psi min	ASTM D 3786
Slurry Flow Rate	0.3 gal./min ² /ft max	
Equivalent Opening Size	40-80	US Std. sieve CW-02215
Ultraviolet Radiation Stability	90% min	ASTM-G-26

- MULCHING (MU)**
1. APPLY MULCH OR OTHER APPROPRIATE VEGETATIVE PRACTICES TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT FOR MORE THAN 45 DAYS OR ON AREAS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
 2. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - STRAW IS TO BE UNROTTED SMALL-GRAIN STRAW APPLIED AT A RATE OF 2 TONS/AC. OR 90 LB/1,000 S.F. (2 TO 3 BALES). MULCH IS TO BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED.
 - WOOD-CELLULOSE FIBER APPLIED AT A RATE OF 2,000 LB/AC. OR 46 LB/1,000 S.F.
 - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/AC.
 3. ANCHOR MULCH IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. ACCEPTABLE ANCHORING METHODS ARE AS FOLLOWS:
 - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6 INCHES.
 - USE NETTINGS PER THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
 - APPLY WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC. WOOD CELLULOSE FIBER IS TO BE MIXED WITH WATER AND THE MIXTURE IS TO CONTAIN A MAXIMUM OF 50 LB/100 GAL. OF WOOD CELLULOSE FIBER.

- PERMANENT SEEDING (PS)**
- SPECIFICATIONS FOR PERMANENT SEEDING SITE PREPARATION:**
1. A SUBSOILER, PLOW OR OTHER IMPLEMENT TO BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. SUBSOILING TO BE DONE WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT TO BE DONE ON SLIP-PRONE AREAS.
 2. GRADE THE SITE AS NEEDED TO PERMIT USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
 3. APPLY RESOIL WHERE NEEDED TO ESTABLISH VEGETATION.

- SEEDBED PREPARATION:**
1. APPLY AGRICULTURAL GROUND LIMESTONE TO ACIDIC SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY AT RATE OF 100 LB/1,000 S.F. OR 2 TONS/AC.
 2. APPLY FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY AT A RATE OF 12 LB/1,000 S.F. OR 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS.
 3. LIME AND FERTILIZER TO BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3".
- SEEDING DATES AND SOIL CONDITIONS:**
1. SEED MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. THESE ARE IDEAL SEEDING DATES, BUT SEEDING MAY BE MADE ANY TIME THROUGHOUT THE GROWING SEASON WITH THE USE OF ADDITIONAL MULCH AND IRRIGATION. TILLAGE SEED BED PREPARATION TO BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEE THE FOLLOWING SECTION ON DORMANT SEEDING FOR WINTER SEEDING.

- DORMANT SEEDINGS:**
1. DO NOT PLANT SEEDINGS FROM OCTOBER 1 TO NOVEMBER 20. SEEDS ARE LIKELY TO GERMINATE DURING THIS PERIOD, BUT PROBABLY WILL NOT SURVIVE THE WINTER.
 2. THE FOLLOWING METHODS MAY BE USED:
 - FROM OCTOBER 1 TO NOVEMBER 20, PREPARE THE SEED BED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20 AND BEFORE MARCH 15, INCREASE THE SEEDING RATES BY 50% AND BROADCAST THE SEED MIXTURE.
 - FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEED BED, LIME AND FERTILIZER, APPLY THE SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
 - APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO-SEEDED (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON FIRM, MOIST SEED BED.
 - WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEED BED IS TO BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG.

- MULCHING:**
1. APPLY MULCH MATERIAL IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES ON FLAT AREAS WITH FAVORABLE SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE STABILIZATION. DORMANT SEEDING IS TO BE MULCHED.
 2. SEE MULCHING FOR MATERIALS AND ANCHORING METHODS.
- IRRIGATION:**
1. PERMANENT SEEDING TO INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS AS NEEDED FOR ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.
 2. EXCESSIVE IRRIGATION RATES TO BE AVOIDED AND IRRIGATION MONITORED TO PREVENT EROSION AND DAMAGE FROM RUNOFF.

- SPECIFICATIONS FOR MAINTENANCE OF PERMANENT SEEDING:**
1. PERMANENT SEEDING TO NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. SEEDED AREAS TO BE INSPECTED FOR FAILURE AND VEGETATION REESTABLISHED AS NEEDED. DEPENDING ON SITE CONDITIONS, IT MAY BE NECESSARY TO IRRIGATE, FERTILIZE, OVERSEED, OR REESTABLISH PLANTINGS IN ORDER TO PROVIDE PERMANENT VEGETATION FOR ADEQUATE EROSION CONTROL.
 2. ESTABLISH MAINTENANCE FERTILIZATION RATES BY SOIL TEST RECOMMENDATIONS OR BY USING THE FOLLOWING RATES:

SEED MIX	SEEDING RATE		NOTES:
	LB./AC.	LB./1,000 S.F.	
GENERAL USE			
Creeping Red Fescue	20-40	1/2 TO 1	
Domestic Ryegrass	10-20	1/4 TO 1/2	
Kentucky Bluegrass	10-20	1/4 TO 1/2	
Tall Fescue	40	1	
Dwarf Fescue	40	1	
STEEP BANKS OR CUT SLOPES			
Tall Fescue	40	1	
Crown Vetch	10	1/4	Do not seed later than August
Tall Fescue	20	1/2	
Flat Pea	20	1/2	Do not seed later than August
Tall Fescue	20	1/2	
ROAD DITCHES AND SWALES			
Tall Fescue	40	1	
Dwarf Fescue	90	2-1/4	Do not seed later than August
Kentucky Bluegrass	5		
LAWN			
Kentucky Bluegrass	60	1-1/2	
Perennial Ryegrass	60	1-1/2	
Kentucky Bluegrass	60	1-1/2	For shaded areas
Creeping Red Fescue	60	1-1/2	
Note: Other approved seed species may be substituted.			

PERMANENT SEEDING (continued)

MAINTENANCE FOR PERMANENT SEEDINGS FERTILIZATION AND MOWING				
MIXTURE	FORMULA	LB./AC.	TIME	MOWING
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	10-10-10	500		≥3"
Tall Fescue	10-10-10	500	Fall, yearly or as needed	≥4"
Dwarf Fescue	10-10-10	500		≥2"
Crown Vetch Fescue	0-20-20	400	Spring, yearly following establishment,	Do not mow
Flat Pea Fescue	0-20-20	400	then every 4-7 years	

Note: Following soil test recommendations is preferred to the fertilizer rates above.

- TEMPORARY SEEDING (TS)**
1. TEMPORARY SEED TO BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 21 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEED AS SOON AS POSSIBLE AFTER GRADING OR BE SEED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
 2. THE SEED BED IS TO BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
 3. SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH ADEQUATE STANDS OF VEGETATION. PERFORM SOIL TESTS ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
 4. APPLY SEED UNIFORMLY WITH CYCLONE SEEDER, CULTIPACKER SEEDER OR HYDROSEEDER. COVER BROADCAST SEED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPING INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, MIX THE SEED AND FERTILIZER ON SITE AND IMMEDIATELY USE.
- MULCHING TEMPORARY SEEDING**
1. APPLY MULCH MATERIAL IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES ON FLAT AREAS WITH FAVORABLE SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE STABILIZATION. DORMANT SEEDING IS TO BE MULCHED.
 2. SEE MULCHING FOR MATERIALS AND ANCHORING METHODS.

TEMPORARY SEEDING SPECIES SELECTION

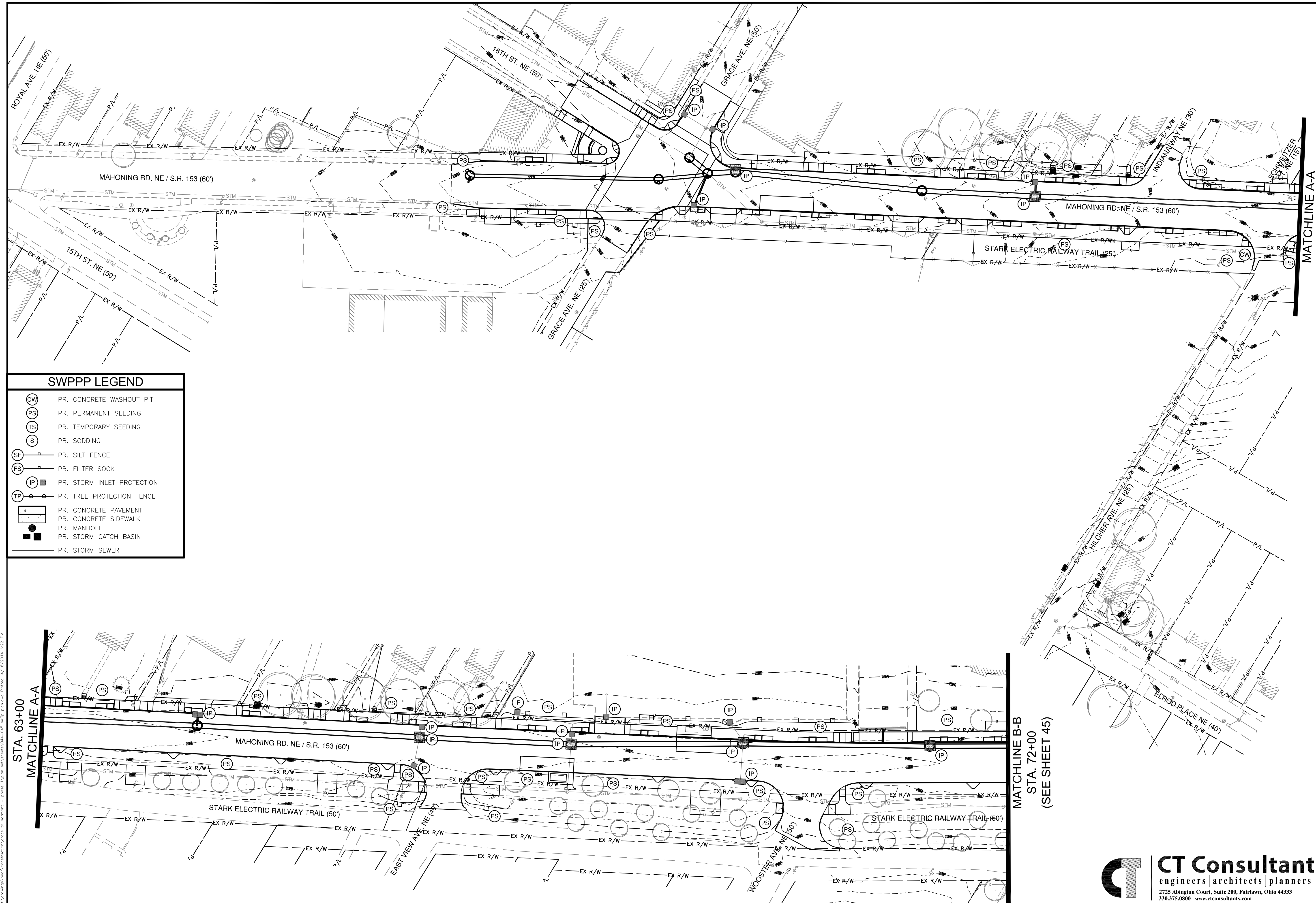
SEEDING DATES	SPECIES	LB/1,000 S.F.	PER AC.
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
August 16 to November 1	Perennial Ryegrass	2	40 lb.
	Tall Fescue	1	40 lb.
	Rye	3	2 bushel
November 1 to Spring Seeding	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Wheat	3	2 bushel
November 1 to Spring Seeding	Tall Fescue	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Perennial Ryegrass	2	40 lb.
November 1 to Spring Seeding	Tall Fescue	1	40 lb.
	Use mulch only, sodding practices or dormant seeding.		

STORM WATER POLLUTION PREVENTION PLAN - DETAILS

REVISIONS

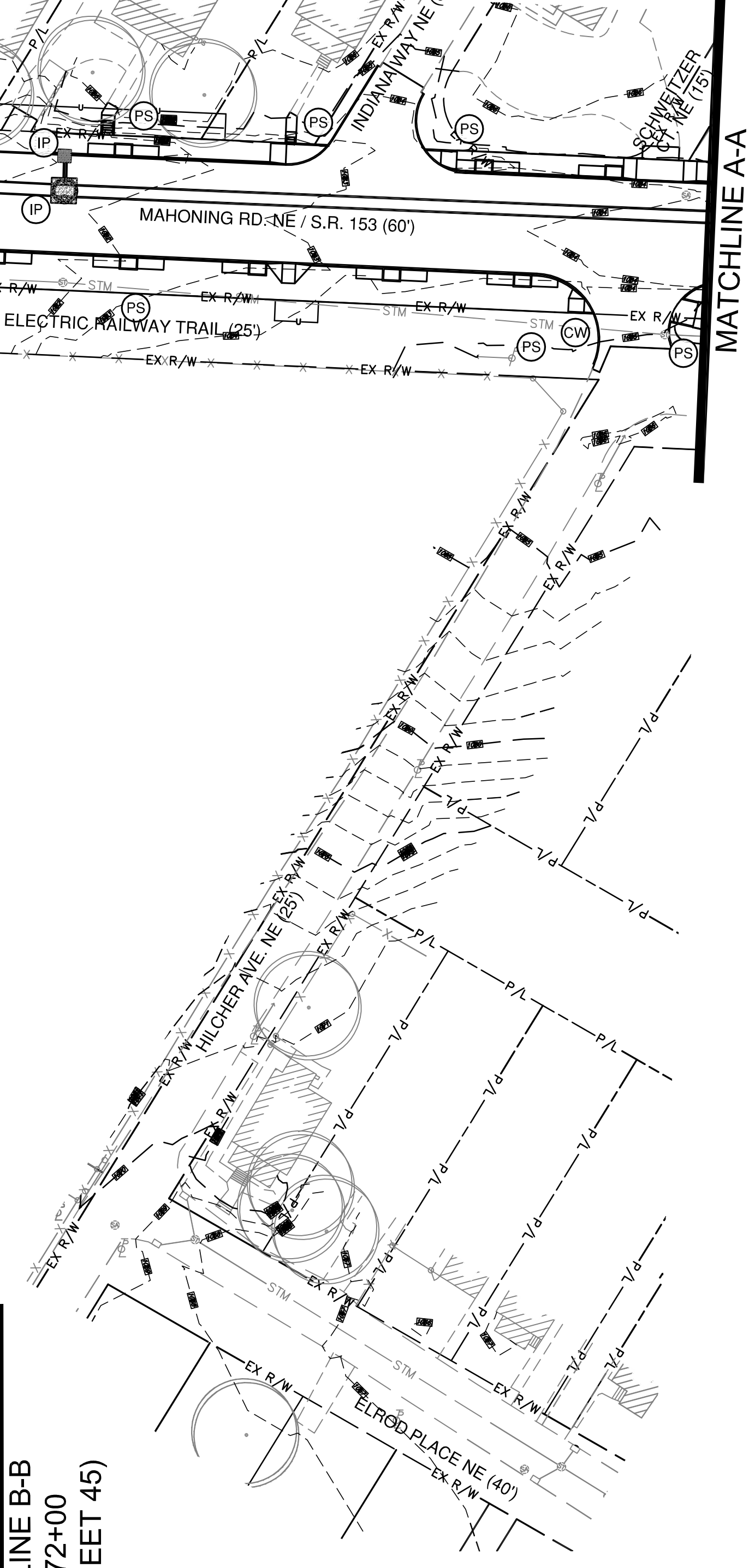
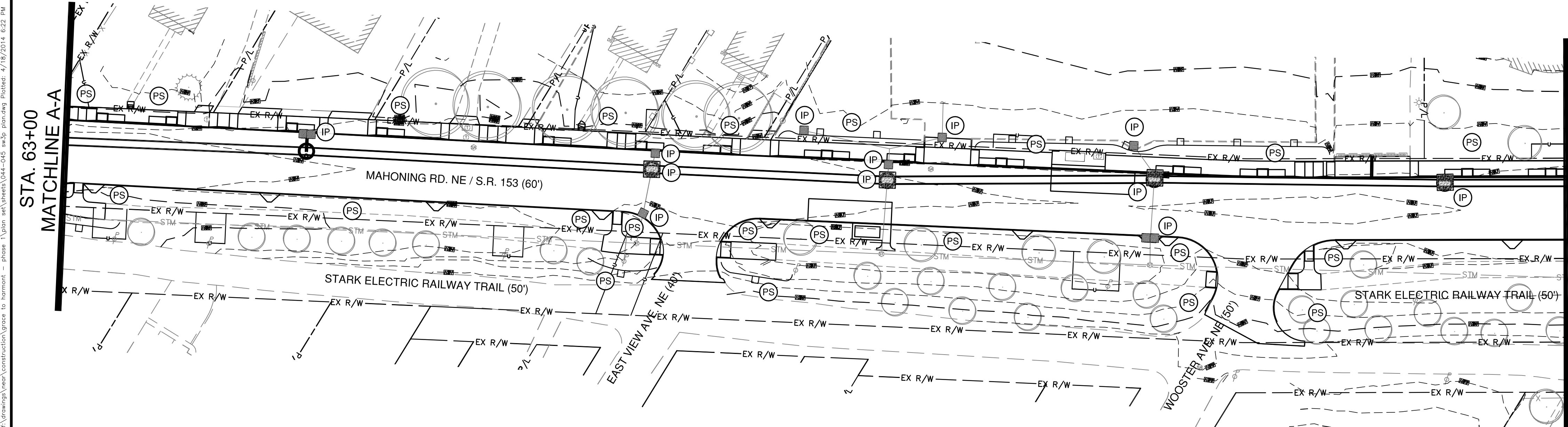
NO.	DATE	BY	DESCRIPTION
	4/21/14	GEA	CONSTRUCTION BIDDING SET

MAHONING ROAD NE
 STA-0153-01.70



SWPPP LEGEND

	PR. CONCRETE WASHOUT PIT
	PR. PERMANENT SEEDING
	PR. TEMPORARY SEEDING
	PR. SODDING
	PR. SILT FENCE
	PR. FILTER SOCK
	PR. STORM INLET PROTECTION
	PR. TREE PROTECTION FENCE
	PR. CONCRETE PAVEMENT
	PR. CONCRETE SIDEWALK
	PR. MANHOLE
	PR. STORM CATCH BASIN
	PR. STORM SEWER



0 20 40 80'
 HORIZONTAL SCALE
 1" = 40'
 CALCULATED: GEA
 CHECKED: JGC

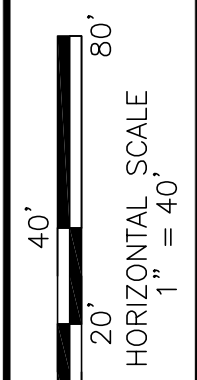
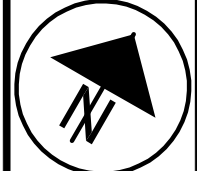
**STORM WATER POLLUTION
 PREVENTION PLAN**

REVISIONS
 CONSTRUCTION BIDDING SET
 DATE BY
 4/21/14 GEA

**MAHONING ROAD NE
 STA-0153-01.70**

CT Consultants
 engineers | architects | planners
 2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
 330.375.0800 www.ctconsultants.com

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CALCULATED: GEA
CHECKED: JGC

STORM WATER POLLUTION PREVENTION PLAN

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

(SEE SHEET 44)
STA. 72+00

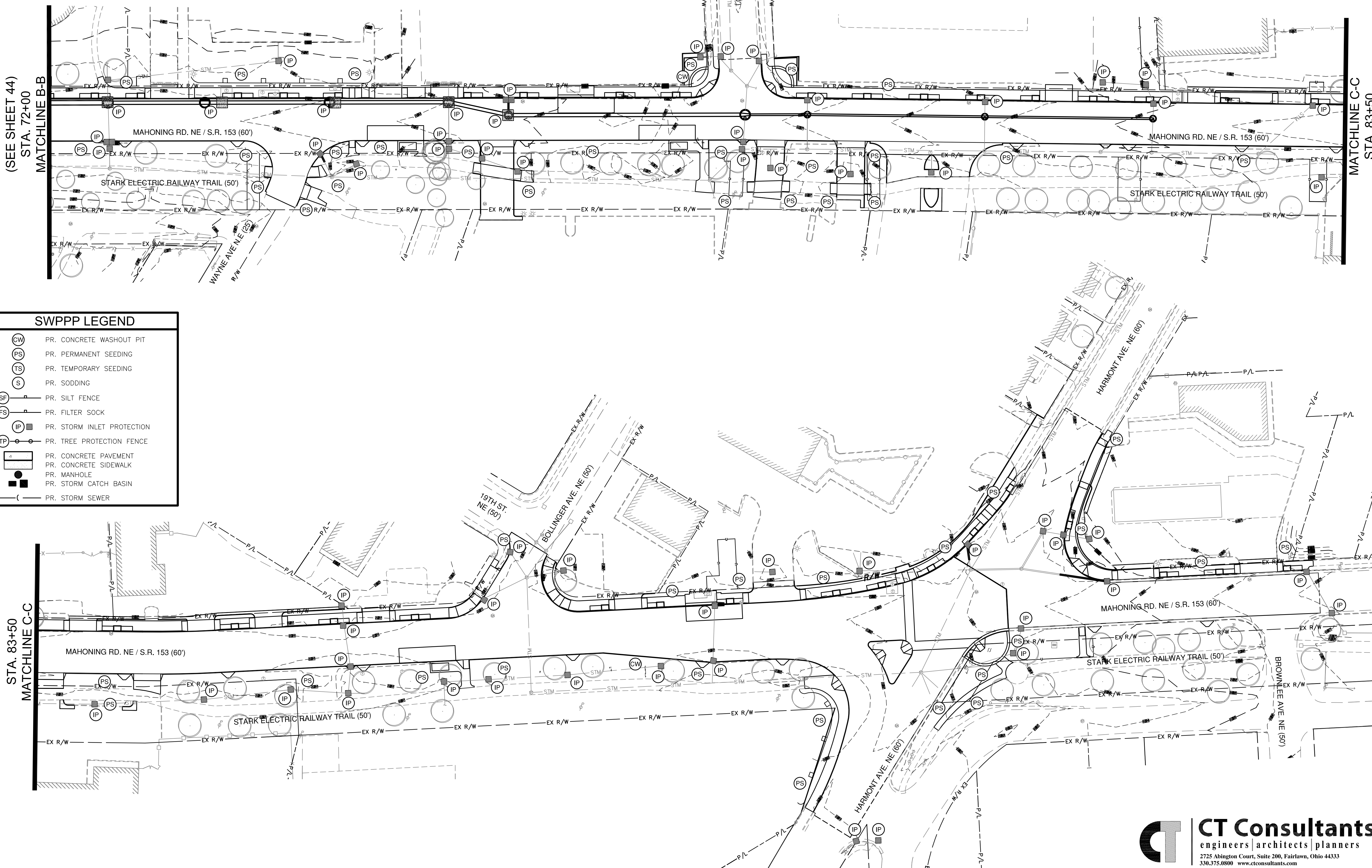
MATCHLINE B-B

MATCHLINE C-C
STA. 83+50

SWPPP LEGEND

	PR. CONCRETE WASHOUT PIT
	PR. PERMANENT SEEDING
	PR. TEMPORARY SEEDING
	PR. SODDING
	PR. SILT FENCE
	PR. FILTER SOCK
	PR. STORM INLET PROTECTION
	PR. TREE PROTECTION FENCE
	PR. CONCRETE PAVEMENT
	PR. CONCRETE SIDEWALK
	PR. MANHOLE
	PR. STORM CATCH BASIN
	PR. STORM SEWER

STA. 83+50
MATCHLINE C-C

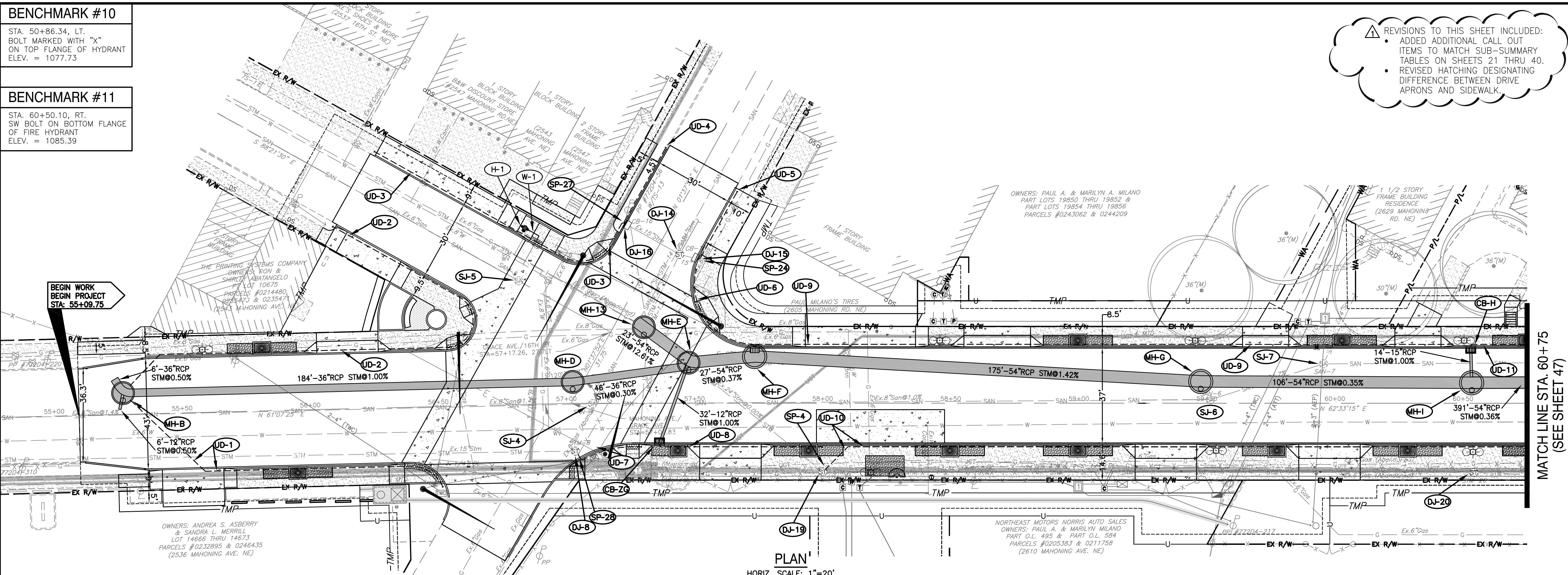
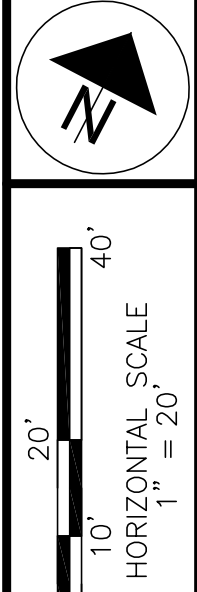


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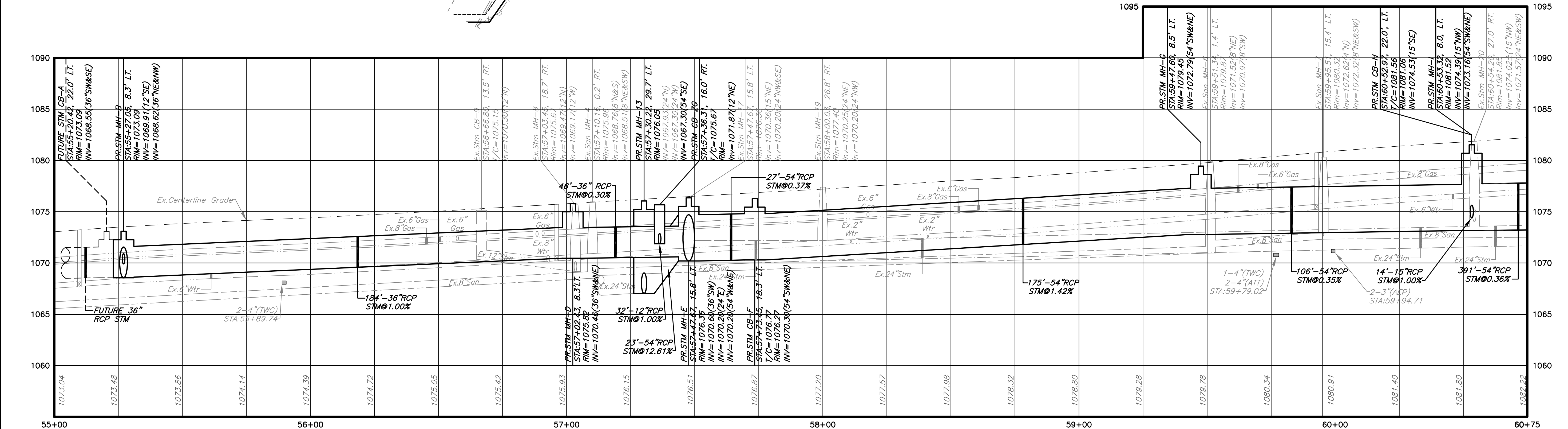
BENCHMARK #10
 STA. 50+86.34, LT.
 BOLT MARKED WITH "X"
 ON TOP FLANGE OF HYDRANT
 ELEV. = 1077.73

BENCHMARK #11
 STA. 60+50.10, RT.
 SW BOLT ON BOTTOM FLANGE
 OF FIRE HYDRANT
 ELEV. = 1085.39

REVISIONS TO THIS SHEET INCLUDED:
 • ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
 • REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.



PLAN
 HORIZ. SCALE: 1"=20'



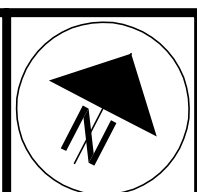
PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

MATCHLINE STA. 60+75
 (SEE SHEET 47)

PLAN & PROFILE
 STA. 55+00 TO STA. 60+75

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
APPENDIX NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70



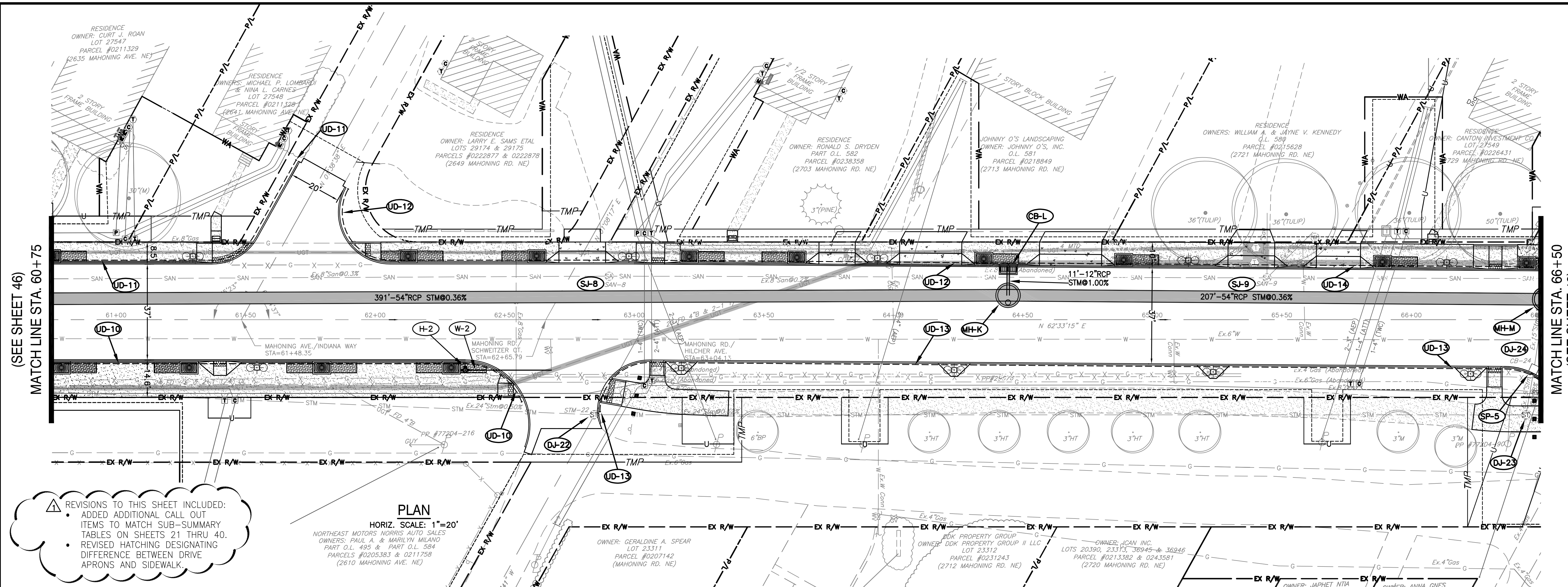
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 HORIZONTAL SCALE

CALCULATED: GEA
 CHECKED: JGC

PLAN & PROFILE
 STA. 60+75 TO STA. 66+50

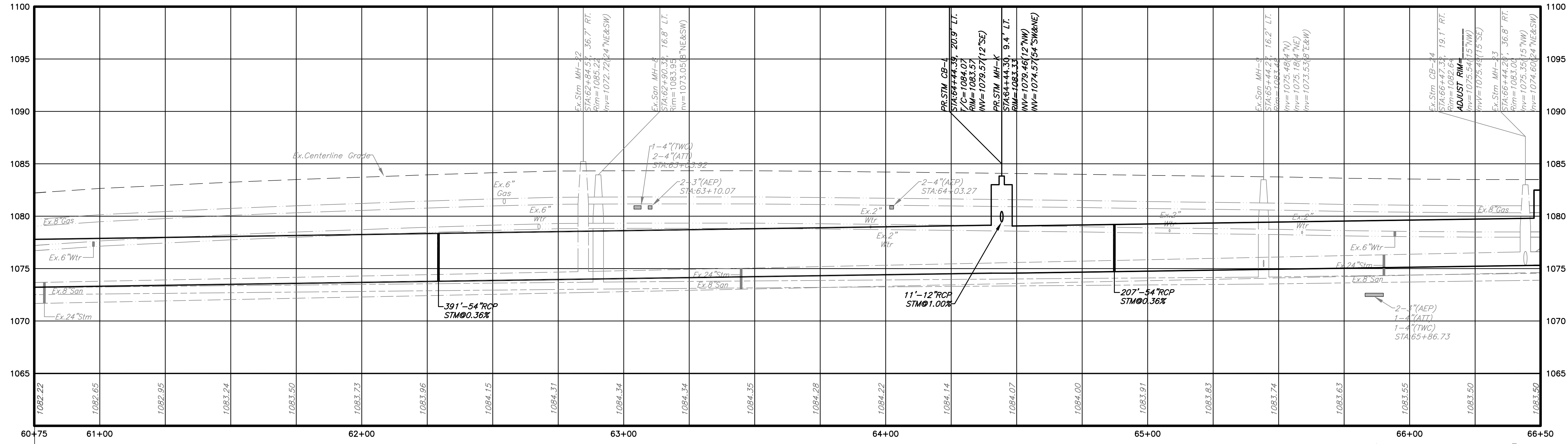
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70



REVISIONS TO THIS SHEET INCLUDED:
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 • REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.

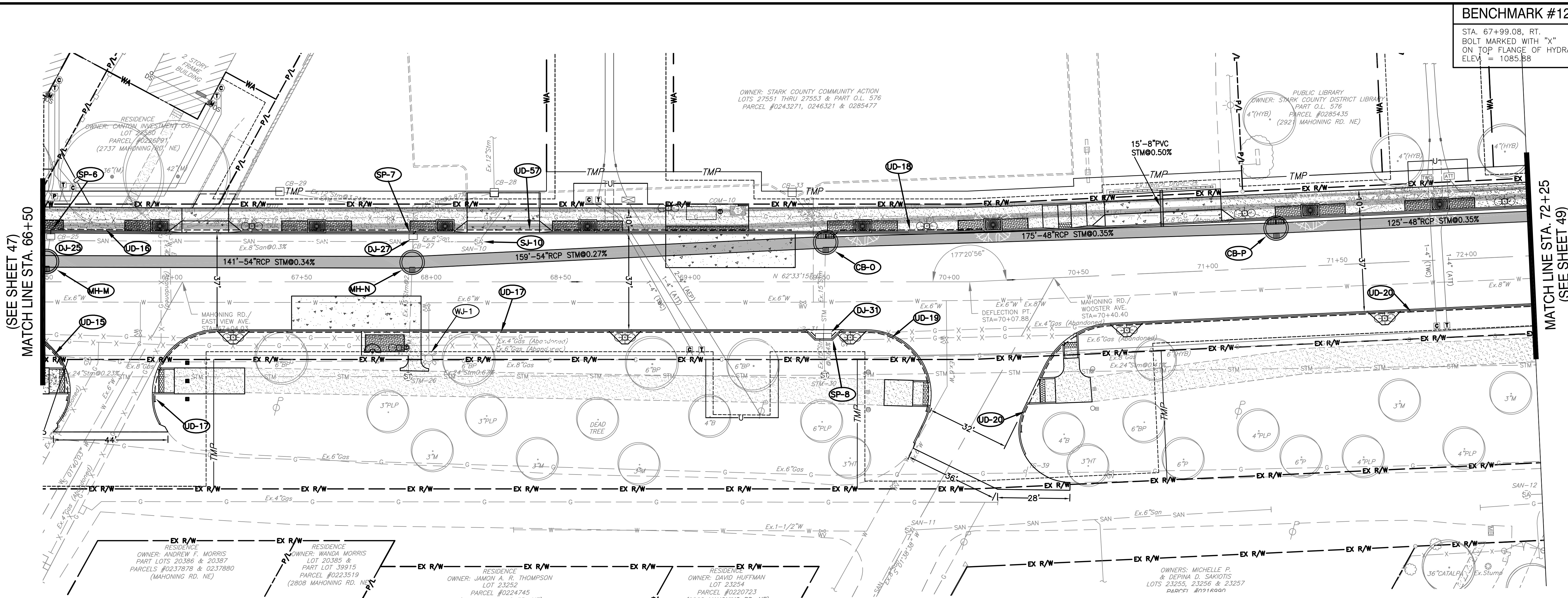
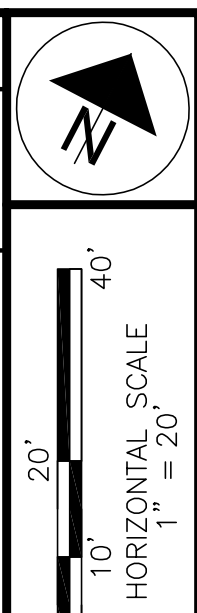
PLAN
 HORIZ. SCALE: 1"=20'



PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

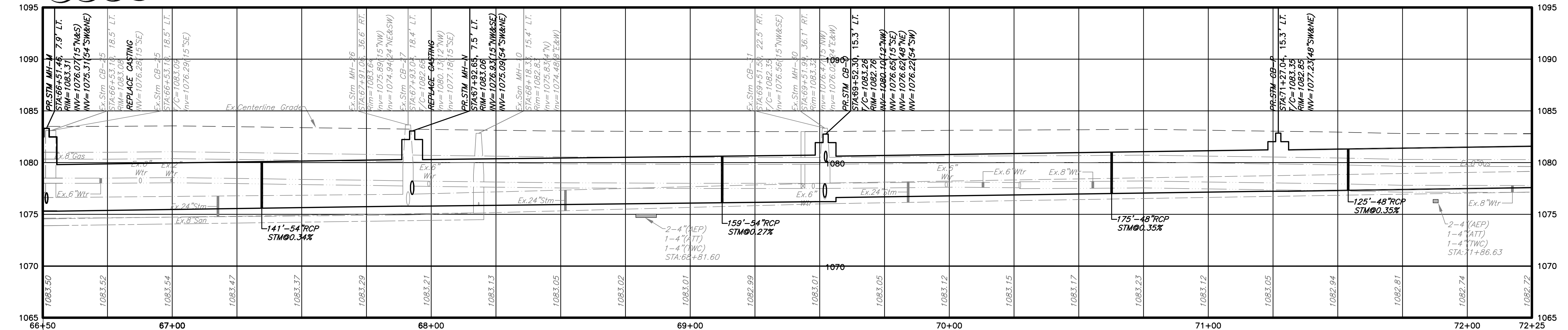
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BENCHMARK #12
 STA. 67+99.08, RT.
 BOLT MARKED WITH "X"
 ON TOP FLANGE OF HYDRANT
 ELEV. = 1085.88



PLAN
 HORIZ. SCALE: 1"=20'

REVISIONS TO THIS SHEET INCLUDED:
 • ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
 • REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.



PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

CALCULATED: GEA
 CHECKED: JCG

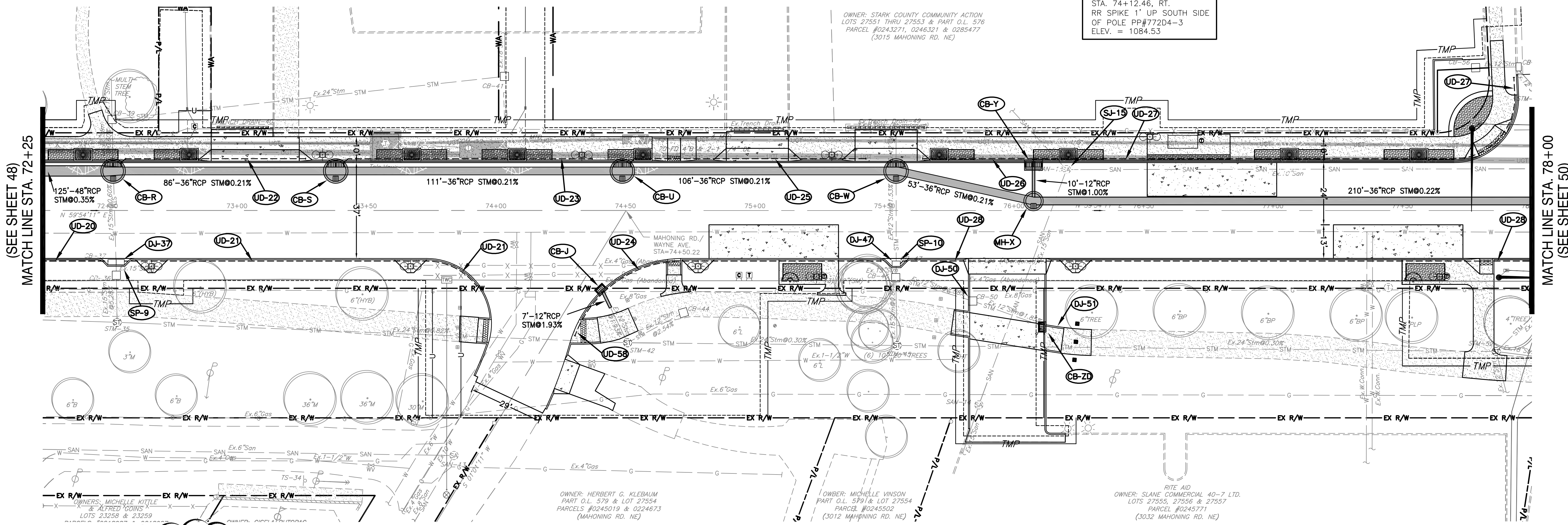
PLAN & PROFILE
 STA. 66+50 TO STA. 72+25

DATE	BY	REVISIONS
4/21/14	GEA	CONSTRUCTION BIDDING SET
5/7/14	GEA	APPENDIX NO. 1

MAHONING ROAD NE
 STA-0153-01.70

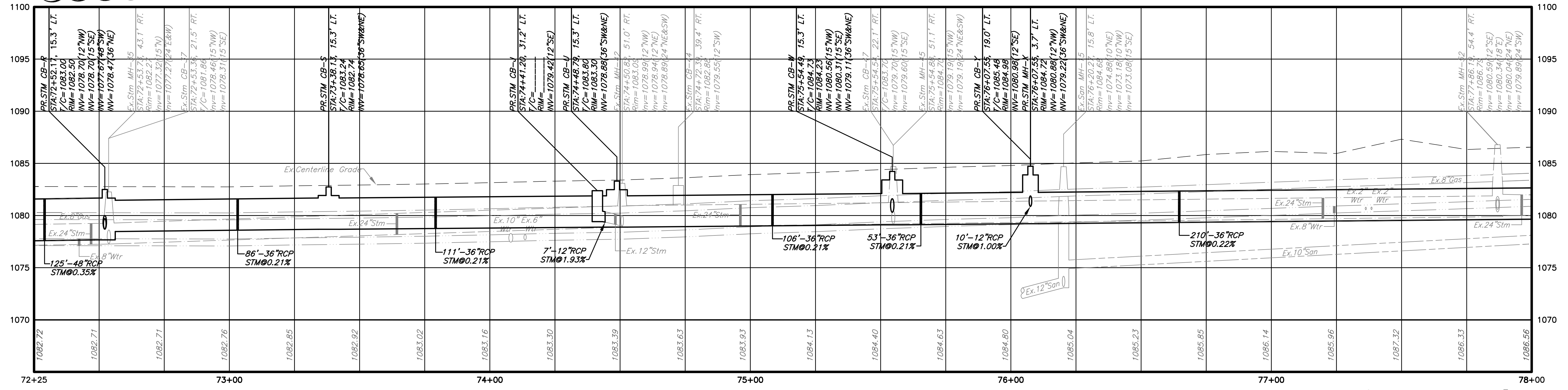
BENCHMARK #13
 STA. 74+12.46, RT.
 RR SPIKE 1' UP SOUTH SIDE
 OF POLE PP#77204-3
 ELEV. = 1084.53

OWNER: STARK COUNTY COMMUNITY ACTION
 LOTS 27551 THRU 27553 & PART O.L. 576
 PARCEL #0243271, 0246321 & 0285477
 (3015 MAHONING RD. NE)

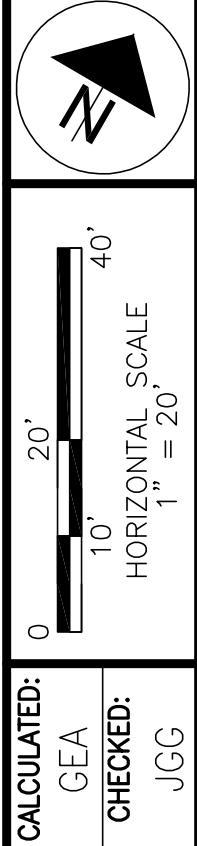


PLAN
 HORIZ. SCALE: 1"=20'

REVISIONS TO THIS SHEET INCLUDED:
 • ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
 • REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.



PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

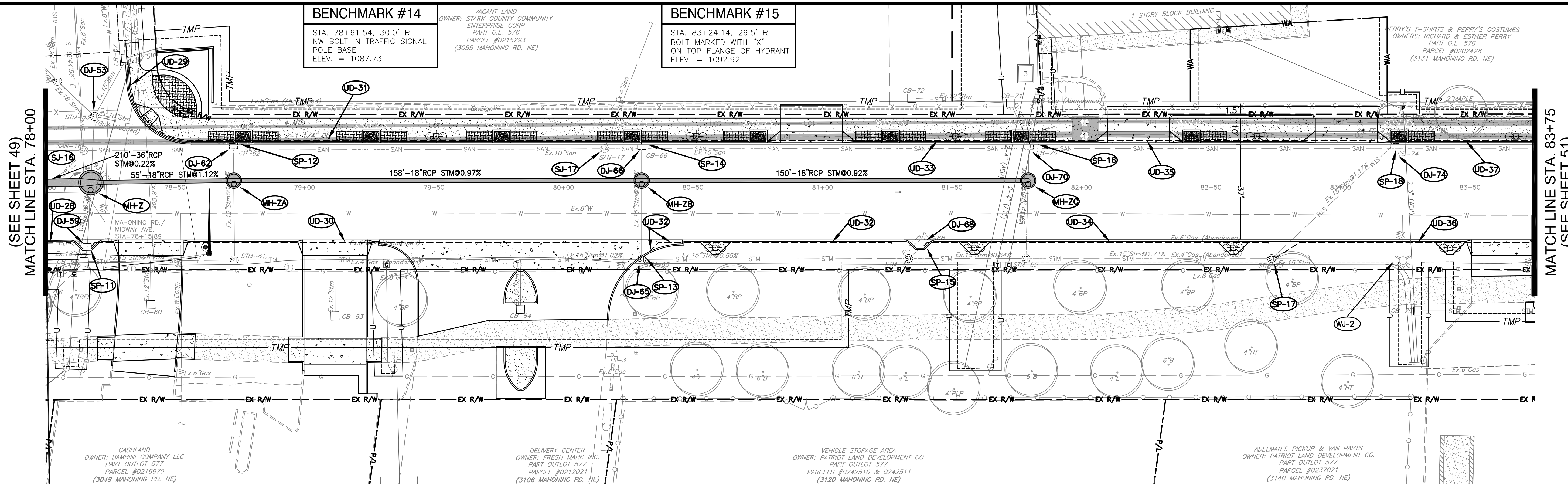


PLAN & PROFILE
 STA. 72+25 TO STA. 78+00

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
APPENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70

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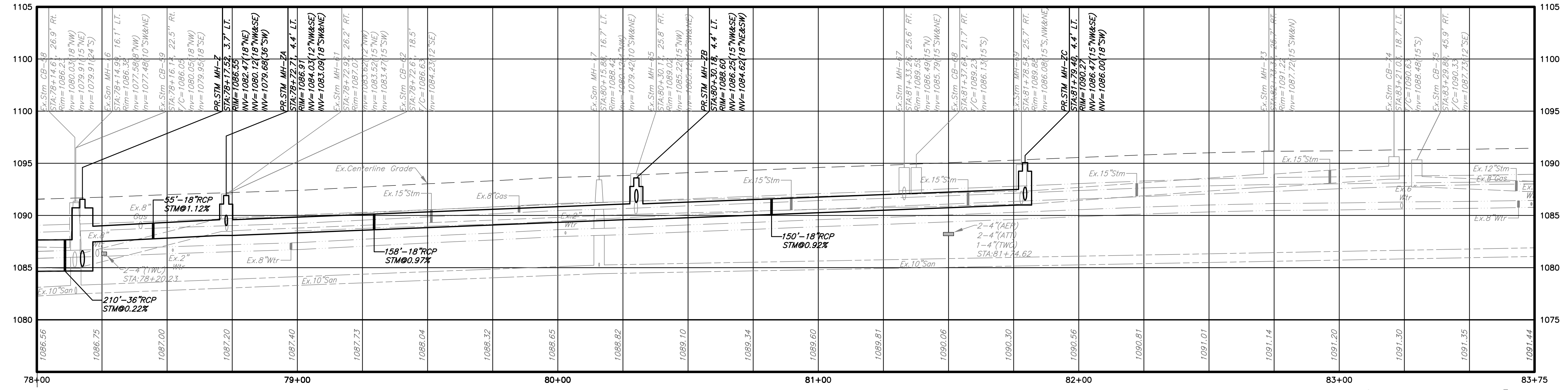
BENCHMARK #14
 STA. 78+61.54, 30.0' RT.
 NW BOLT IN TRAFFIC SIGNAL
 POLE BASE
 ELEV. = 1087.73

BENCHMARK #15
 STA. 83+24.14, 26.5' RT.
 BOLT MARKED WITH "X"
 ON TOP FLANGE OF HYDRANT
 ELEV. = 1092.92

PLAN
 HORIZ. SCALE: 1"=20'

REVISIONS TO THIS SHEET INCLUDED:

- ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
- REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.



PROFILE
 VERT. SCALE: 1"=5'
 HORIZ. SCALE: 1"=20'

CALCULATED: GEA
 CHECKED: JGC

0 20' 40'
 1" = 20'
 HORIZONTAL SCALE

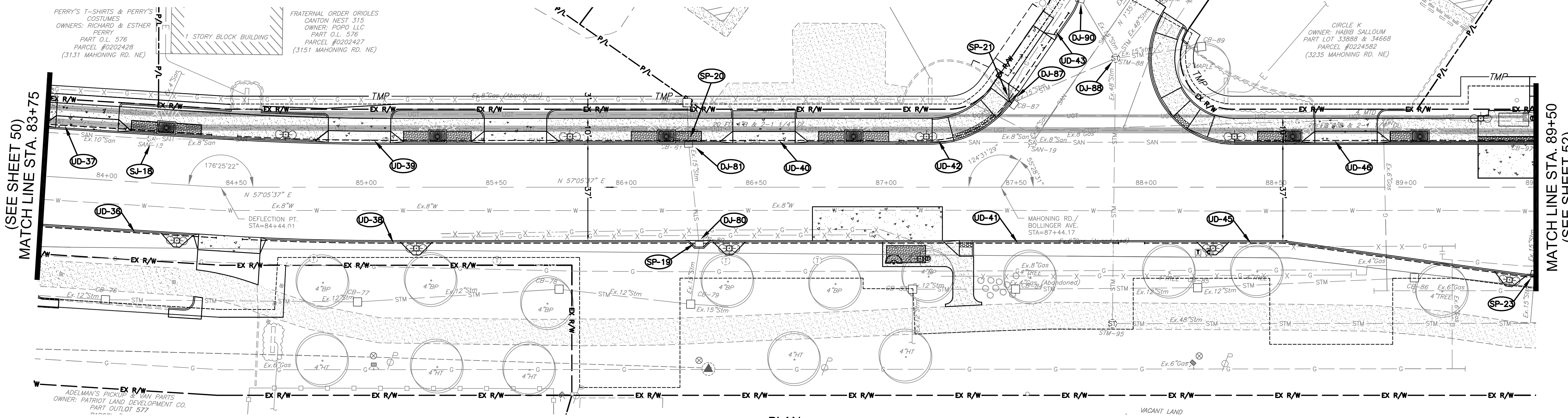
PLAN & PROFILE
STA. 78+00 TO STA. 83+75

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

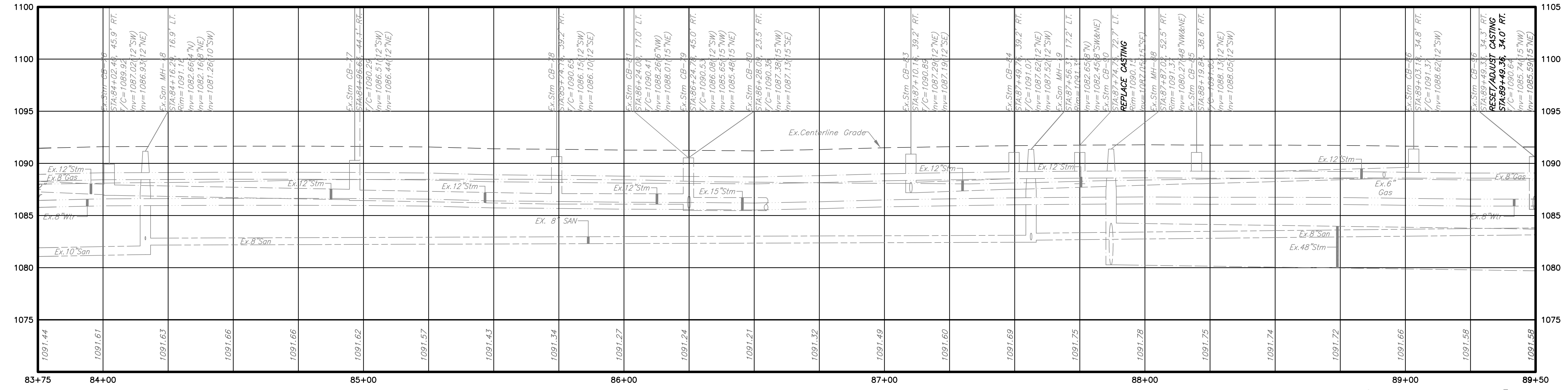
MAHONING ROAD NE
STA-0153-01.70

REVISIONS TO THIS SHEET INCLUDED:

- ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
- REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.



PLAN
HORIZ. SCALE: 1"=20'



PROFILE
VERT. SCALE: 1"=5'
HORIZ. SCALE: 1"=20'

CALCULATED: GEA
CHECKED: JGC

0 20' 40'
HORIZONTAL SCALE
1" = 20'

PLAN & PROFILE
STA. 83+75 TO STA. 89+50

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

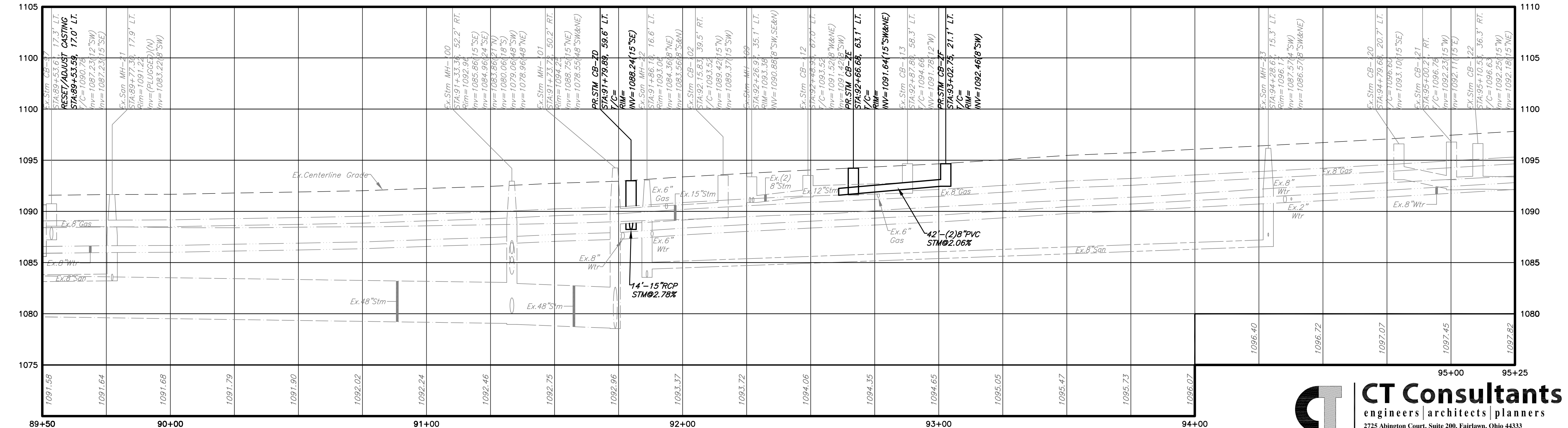
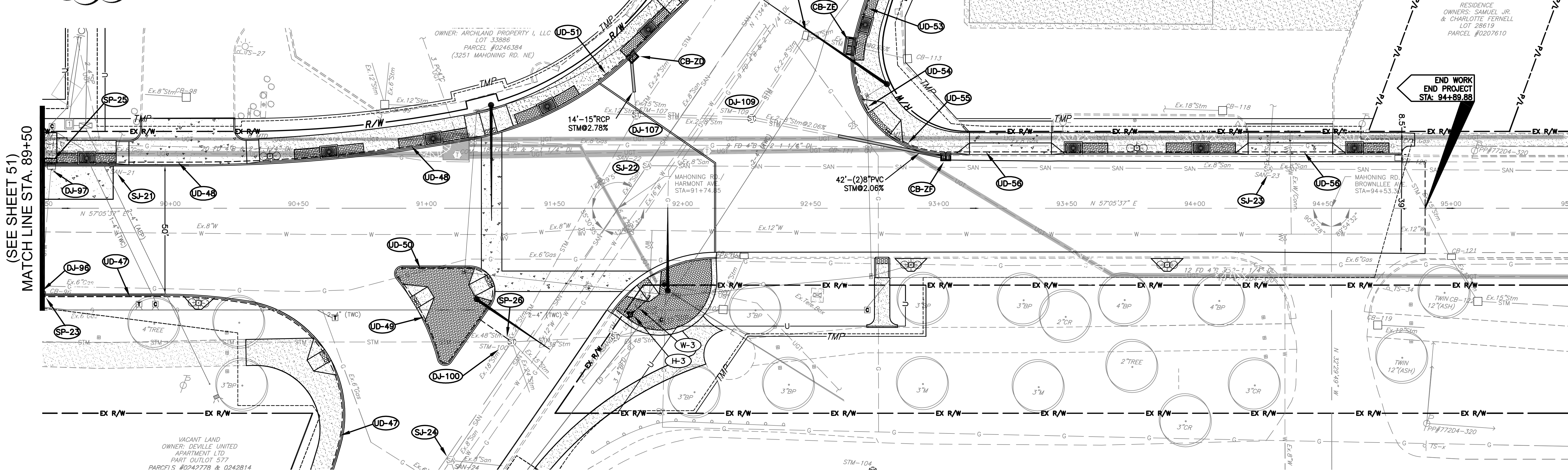
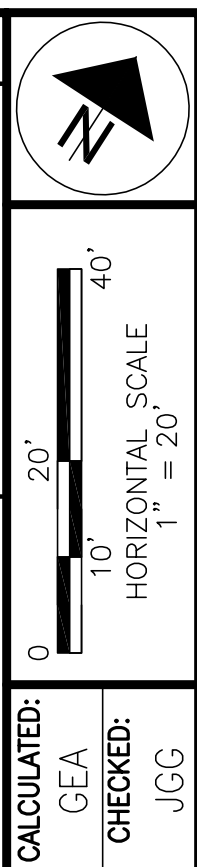
MAHONING ROAD NE
STA-0153-01.70

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REVISIONS TO THIS SHEET INCLUDED:

- ADDED LEGEND.
- ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
- REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.

LEGEND	
	PR. HYDRANT
	PR. WATER LINE
	PR. UNDERDRAIN
	SANITARY STRUCTURE ADJUSTED OR RECONSTRUCTED TO GRADE
	WATER WORK ADJUSTED TO GRADE
	CATCH BASINS, MANHOLES AND INLETS ADJUSTED/RECONSTRUCTED TO GRADE
	PR. MANHOLE
	PR. CATCH BASIN
	PR. MISCELLANEOUS ITEM
	TEMP. CONSTRUCTION EASEMENT
	PR. UTILITY EASEMENT
	PR. WORK AGREEMENT
	PR. CONSTRUCTION LIMIT



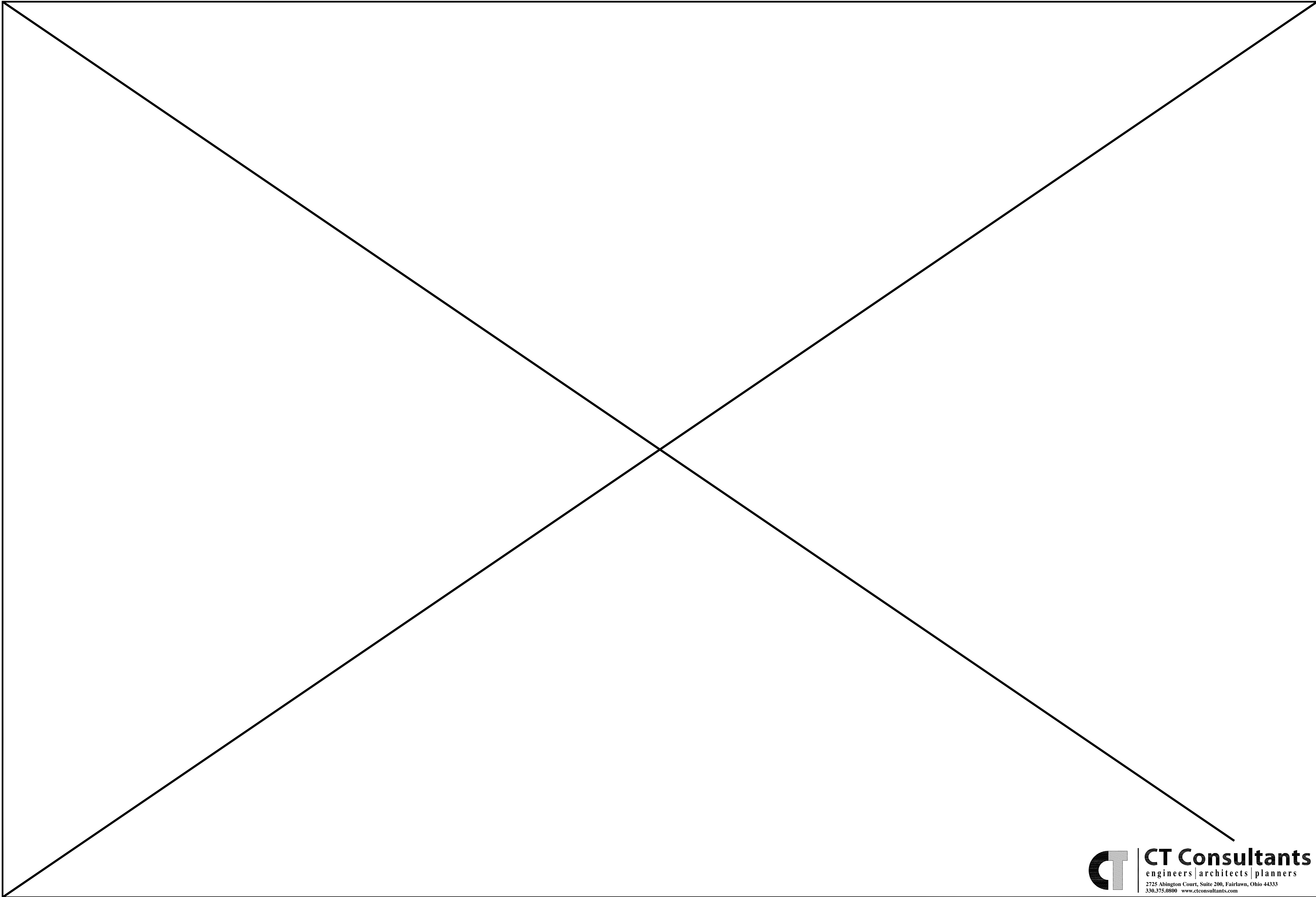
PLAN & PROFILE
STA. 89+50 TO STA. 95+50

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
ADDENDUM NO. 1	5/7/14	GEA

MAHONING ROAD NE
STA-0153-01.70

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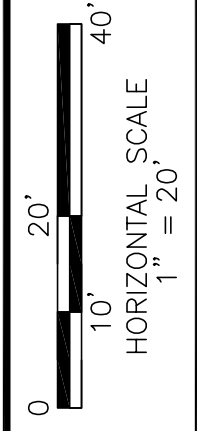


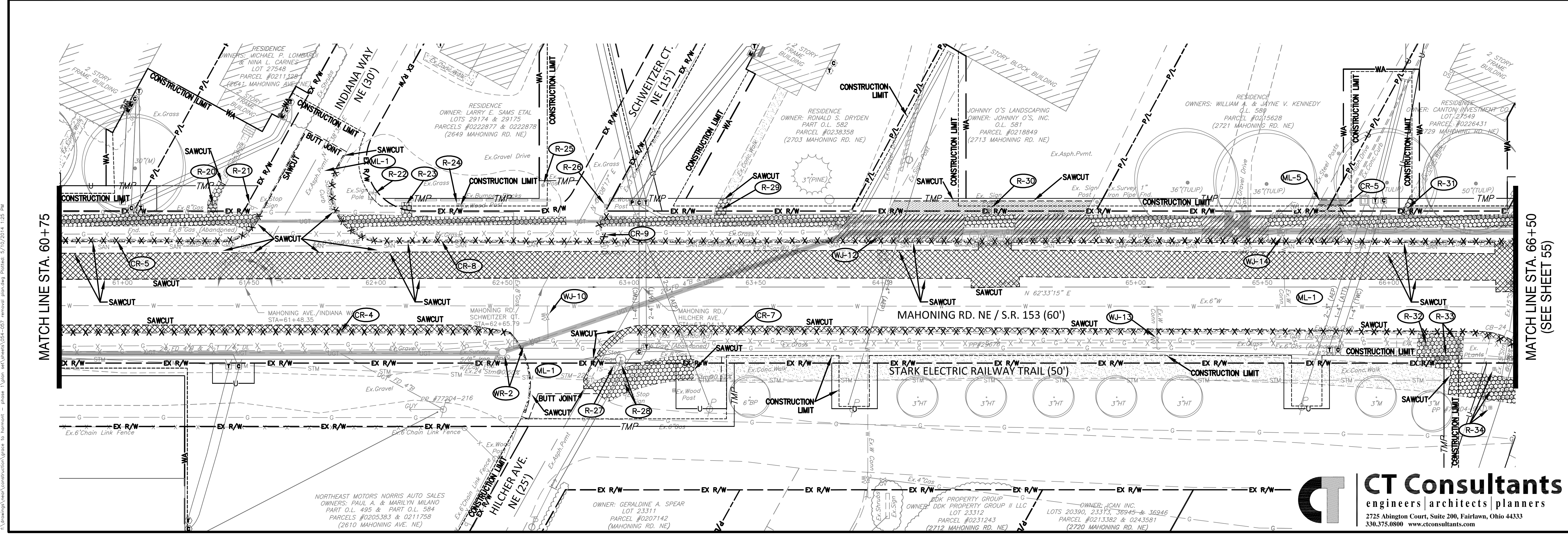
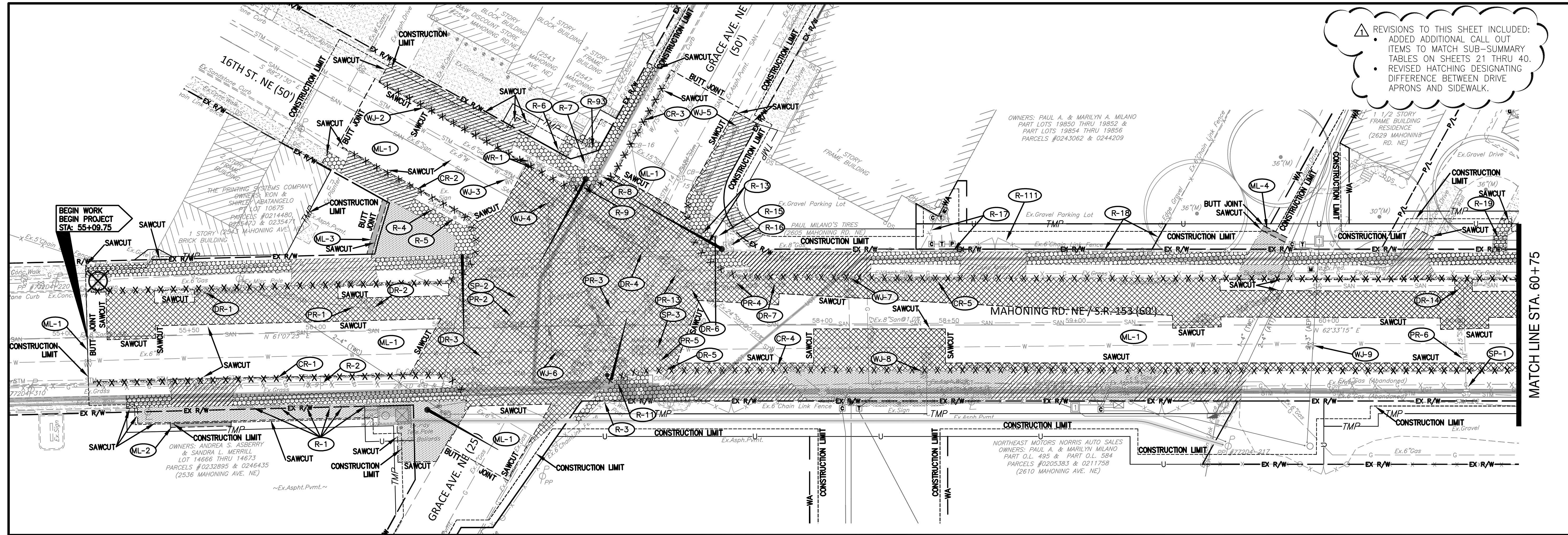
REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

CALCULATED:
GEA
CHECKED:
JCG

PROFILE MISC.





REVISIONS TO THIS SHEET INCLUDED:
 • ADDED ADDITIONAL CALL OUT ITEMS TO MATCH SUB-SUMMARY TABLES ON SHEETS 21 THRU 40.
 • REVISED HATCHING DESIGNATING DIFFERENCE BETWEEN DRIVE APRONS AND SIDEWALK.

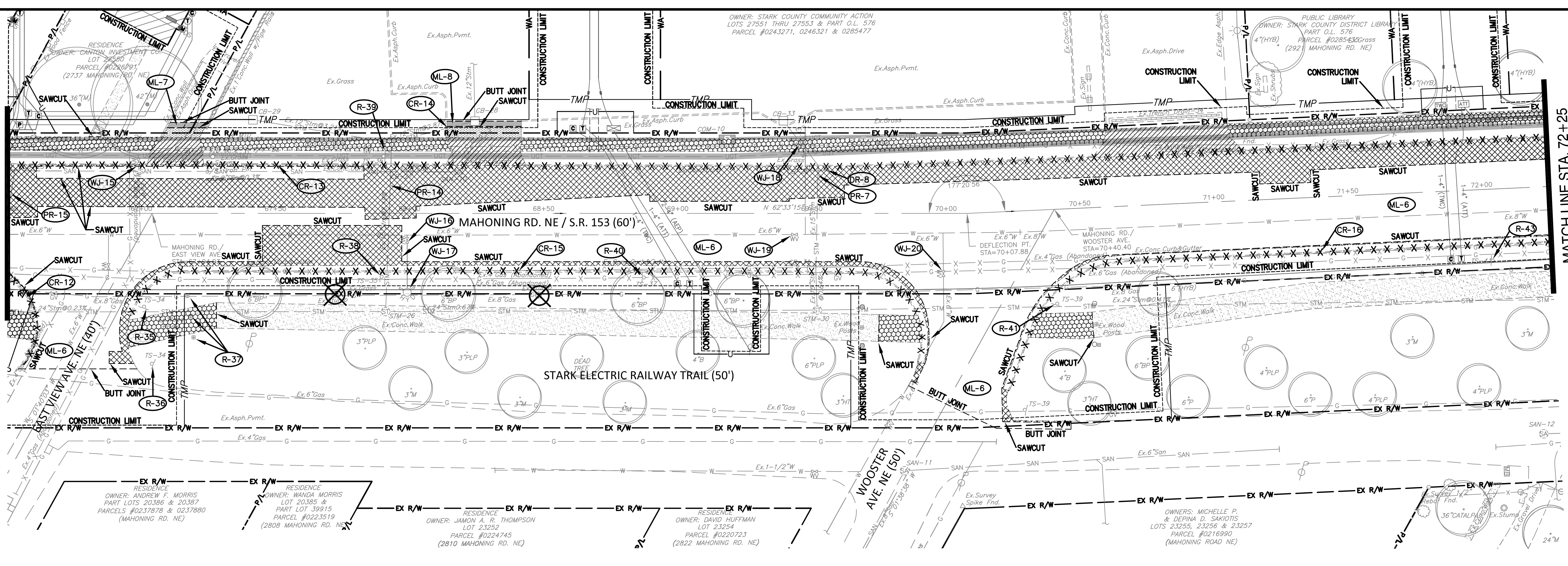
CALCULATED: GEA
 CHECKED: JGC

REMOVAL PLAN
 STA. 54+75 TO STA. 66+50

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA
APPENDIX NO. 1	5/7/14	GEA

MAHONING ROAD NE
 STA-0153-01.70

(SEE SHEET 54)
MATCH LINE STA. 66+50



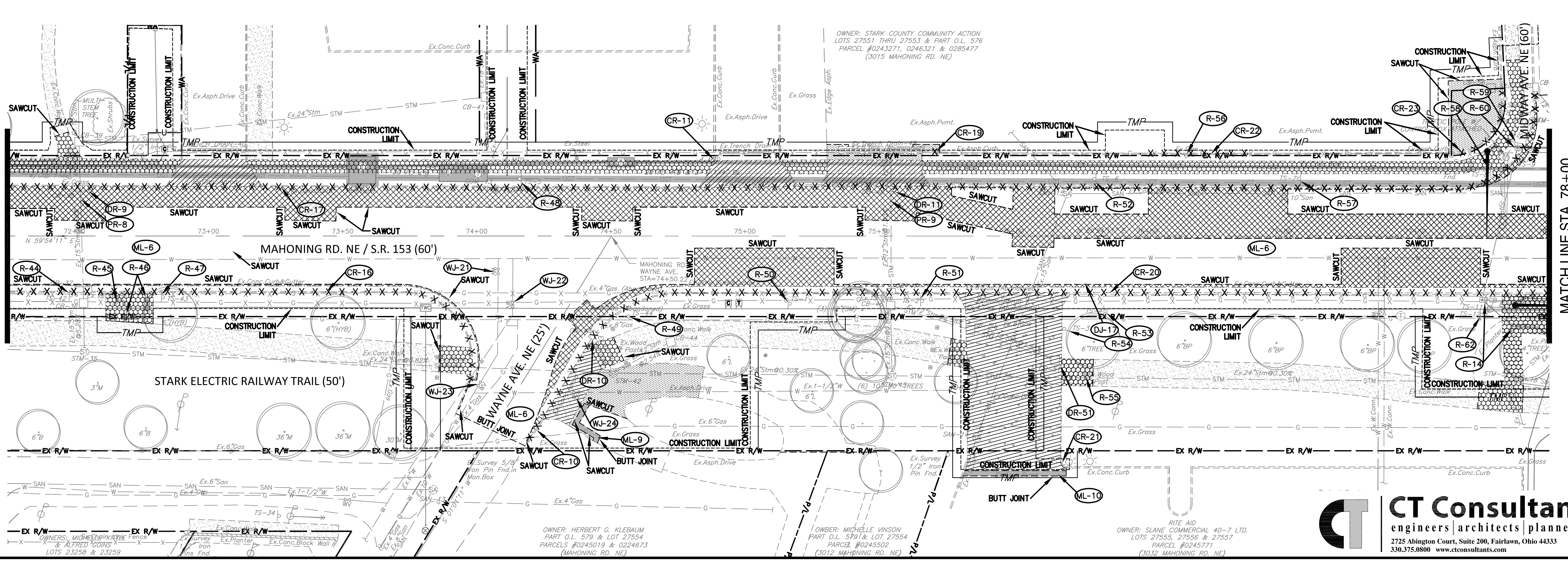
MATCH LINE STA. 72+25

CALCULATED: GEA
 CHECKED: JGC

0 20' 40'
 1" = 20'
 HORIZONTAL SCALE

REMOVAL PLAN
STA. 66+50 TO STA. 78+00

MATCH LINE STA. 72+25



MATCH LINE STA. 78+00
(SEE SHEET 56)

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

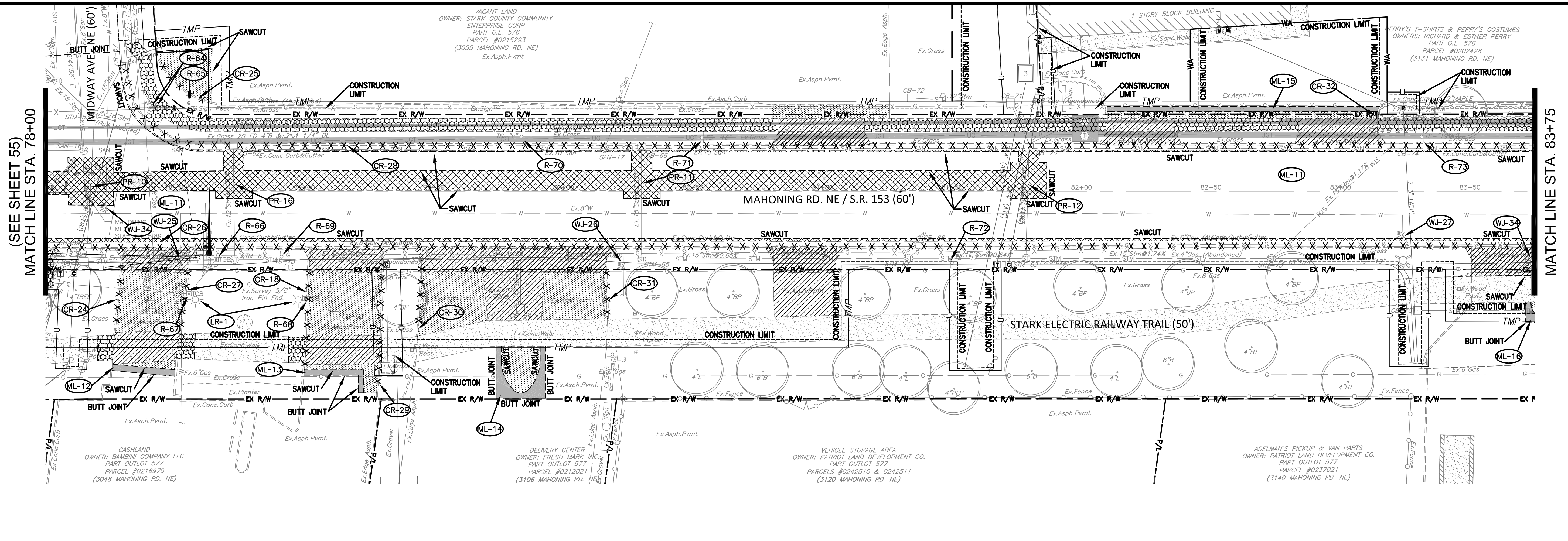
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STA-0153-01.70

CT Consultants
 engineers | architects | planners

2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
 330.375.0800 www.ctconsultants.com

(SEE SHEET 55)
MATCH LINE STA. 78+00

MATCH LINE STA. 83+75



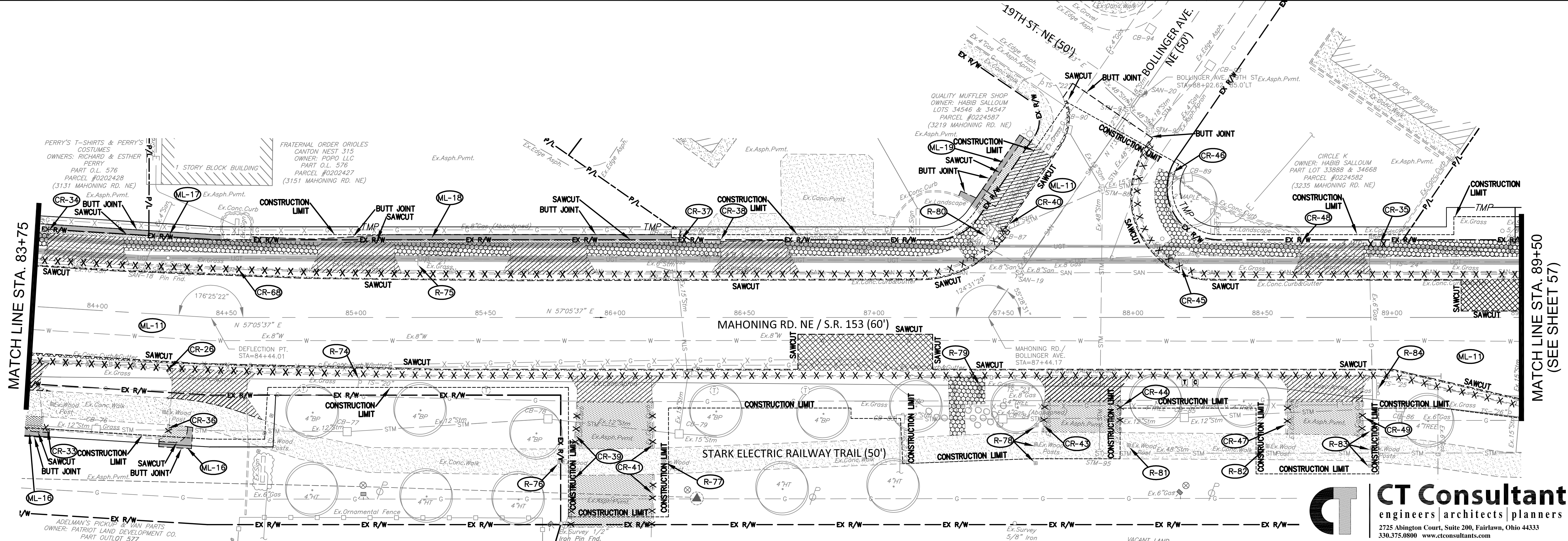
CALCULATED: GEA
CHECKED: JGC

0 20' 40'
1" = 20'
HORIZONTAL SCALE

REMOVAL PLAN
STA. 78+00 TO STA. 89+50

MATCH LINE STA. 83+75

MATCH LINE STA. 89+50
(SEE SHEET 57)



REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

MAHONING ROAD NE
STA-0153-01.70

CT Consultants
engineers | architects | planners
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