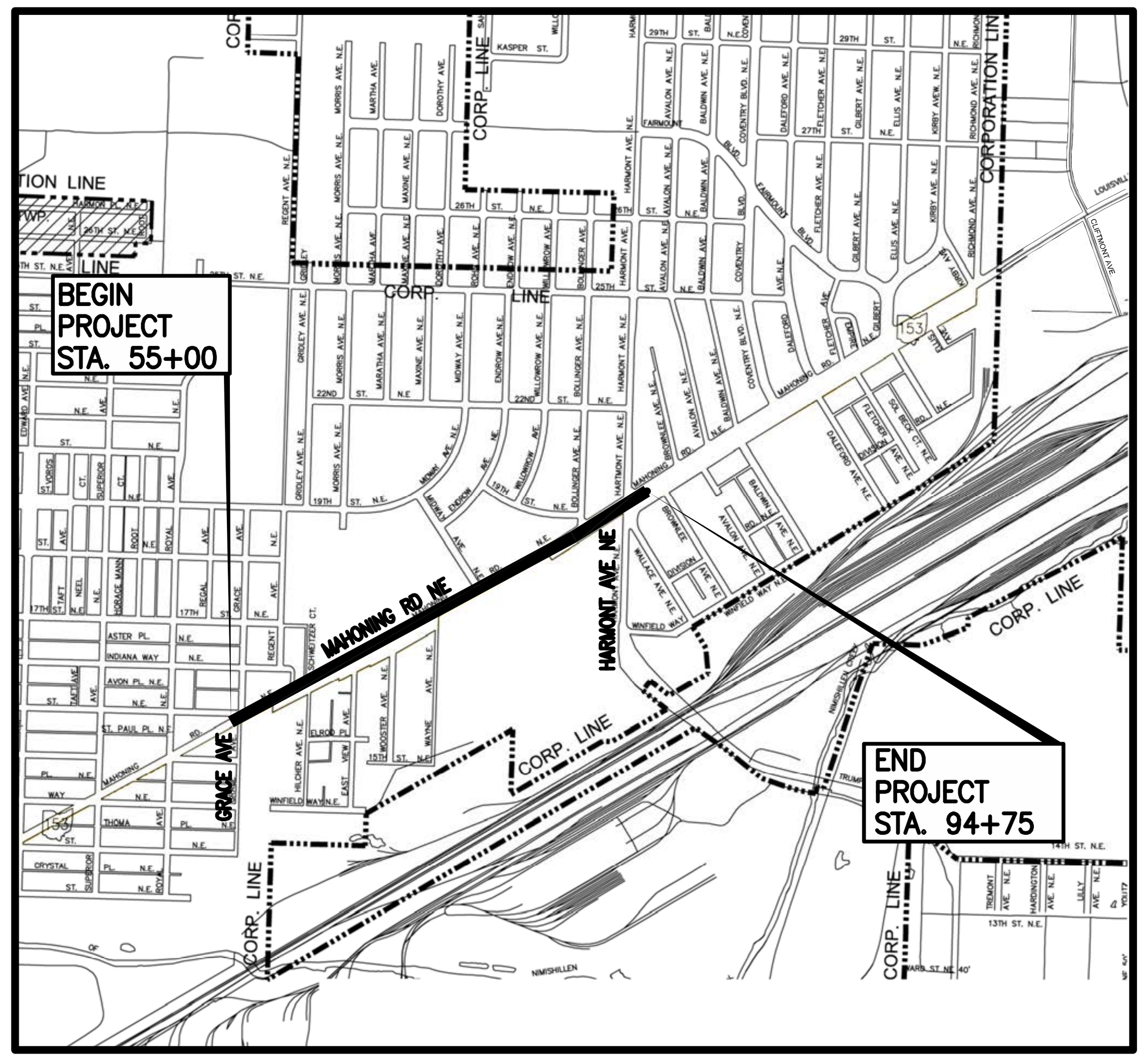

LOCATION MAP
NOT TO SCALE

PORTION TO BE IMPROVED
STATE & FEDERAL ROUTES (77)
OTHER ROADS

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: Dan Moeglin DATE: 4/21/14
DANIEL J. MOEGLIN, P.E., S.I.
CANTON CITY ENGINEER

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	APPROVAL DATE	SHEET NUMBERS
PAVEMENT CROSS SLOPE	--/--/----	4 THRU 8

INDEX OF SHEETS

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				

OUPS REFERENCE NUMBERS

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

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

FEDERAL PROJECT NO.

PID NO. 90361

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

MAHONING ROAD NE
STA-0153-01.70

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

MAHONING ROAD NE
STA-0153-01.70

HORIZONTAL SCALE 1" = 20'

CALCULATED: GEA
CHECKED: JGC

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

1A
108

MAHONING RD. NE / S.R. 153 (60')
STARK ELECTRIC RAILWAY TRAIL (50')
16TH ST. NE (50')
GRACE AVE. NE (50')
GRACE AVE. NE (25')
INDIANA WAY NE (30')
SCHWEITZER CT. NE (15')
HILCHER AVE. NE (25')
MATCH LINE STA. 60+75
MATCH LINE STA. 66+50 (SEE SHEET 1B)
BEGIN WORK
BEGIN PROJECT
STA: 55+09.75
CONSTRUCTION LIMIT
TMP
EX R/W
WA
P/L
OWNERS: PAUL A. & MARILYN A. MILANO
PART LOTS 19850 THRU 19852 &
PART LOTS 19854 THRU 19856
PARCELS #0243062 & 0244209
NORTHEAST MOTORS NORRIS AUTO SALES
OWNERS: PAUL A. & MARILYN MILANO
PART O.L. 495 & PART O.L. 584
PARCELS #0205383 & 0211758
(2610 MAHONING AVE. NE)
OWNERS: ANDREA S. ASBERRY
& SANDRA L. MERRILL
LOT 14666 THRU 14673
PARCELS #0232895 & 0246435
(2536 MAHONING AVE. NE)
THE PRINTING SYSTEMS COMPANY
OWNERS: JOHN & SHIRLEY ABATANGELO
LOT 10675
PARCELS #0214480, #0235470 & 0235471
(2543 MAHONING AVE. NE)
PAUL MILANO'S TIRES
(2605 MAHONING RD. NE)
1 1/2 STORY FRAME BUILDING RESIDENCE
(2629 MAHONING RD. NE)
RESIDENCE
OWNER: LARRY E. SAMS ETAL
LOTS 29174 & 29175
PARCELS #0222877 & 0222878
(2649 MAHONING RD. NE)
RESIDENCE
OWNER: RONALD S. DRYDEN
PART O.L. 582
PARCEL #0238358
(2703 MAHONING RD. NE)
JOHNNY O'S LANDSCAPING
OWNER: JOHNNY O'S, INC.
O.L. 581
PARCEL #0218849
(2713 MAHONING RD. NE)
RESIDENCE
OWNERS: WILLIAM A. & JAYNE V. KENNEDY
O.L. 589
PARCEL #0215628
(2721 MAHONING RD. NE)
RESIDENCE
OWNER: CANTON INVESTMENT CO.
LOT 27549
PARCEL #0226431
(2729 MAHONING RD. NE)
RESIDENCE
OWNERS: MICHAEL P. LOMBARDI
& NINA L. CARNES
LOT 27548
PARCEL #0211328
(2641 MAHONING AVE. NE)
OWNER: GERALDINE A. SPEAR
LOT 23311
PARCEL #0207142
(MAHONING RD. NE)
OWNER: DDK PROPERTY GROUP II LLC
LOT 23312
PARCEL #0231243
(2712 MAHONING RD. NE)
OWNER: ICAN INC.
LOTS 20390, 23313, 36945 & 36946
PARCEL #0213382 & 0243581
(2720 MAHONING RD. NE)

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

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

EASTVIEW AVE. NE (40')

WOOSTER AVE. NE (50')

MATCH LINE STA. 72+25

MATCH LINE STA. 72+25

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

WAYNE AVE. NE (25')

MIDWAY AVE. NE (60')

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

CALCULATED: GEA
CHECKED: JGC

HORIZONTAL SCALE
1" = 20'

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

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

MAHONING ROAD NE
STA-0153-01.70

1B
108

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HORIZONTAL SCALE 1" = 20'

0 10' 20' 40'

CALCULATED: GEA

CHECKED: JGG

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

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1C
108

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
— ——— — EX. CENTERLINE	EX. MAILBOX
—R/W——— EX. RIGHT-OF-WAY LINE	EX. BUS SHELTER
—P/L——— EX. PROPERTY LINE	EX. SURVEY NAIL
EX. SANITARY MANHOLE	EX. MONUMENT BOX
EX. STORM MANHOLE	EX. STUMP
EX. CATCH BASIN	EX. TREE
EX. CLEANOUT	TEMP. CONSTRUCTION EASEMENT
EX. HYDRANT	PR. UTILITY EASEMENT
EX. WATER MANHOLE	PR. WORK AGREEMENT
EX. WATER VALVE	
EX. GAS VALVE	
EX. GAS METER	
EX. TELEPHONE MANHOLE	
EX. PAY PHONE	
EX. GUY WIRE	
EX. UTILITY PEDESTAL	
EX. UTILITY POLE	

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

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

HARMONT AVE. NE (60')

BROWNLEE AVE. NE (50')

CONSTRUCTION LIMIT

TMP

EX R/W

P/L

END WORK END PROJECT STA: 94+59.88

McDONALD'S RESTAURANT
OWNER: ARCHLAND PROPERTY I, LLC
LOT 33886
PARCEL #0246384
(3251 MAHONING RD. NE)

RESIDENCE
OWNERS: SAMUEL JR. & CHARLOTTE FERNELL
LOT 28619
PARCEL #0207610

VACANT LAND
OWNER: DEVILLE UNITED APARTMENT LTD
PART OUTLOT 577
PARCELS #0242778 & 0242814

RESIDENCE
OWNERS: RANDY & TONIA HOOVER
PART LOTS 21538 & 21539
PARCEL #0245860
(3310 MAHONING RD. NE)

RESIDENCE
OWNERS: RANDY & TONIA HOOVER
LOT 21540
PARCEL #0202262
(3316 MAHONING RD. NE)

VACANT LAND
OWNER: NICK C. MARTIN
LOTS 21541 & 21542
PARCEL #0240097
(MAHONING RD. NE)

OWNER: CANTON CITY
PART LOTS 21537 & 21538
PARCEL #0285528
(3310 MAHONING RD. NE)

CALCULATED: GEA
CHECKED: JCG

HORIZONTAL SCALE 1" = 20'

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

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

MAHONING ROAD NE
STA-0153-01.70

1D
108

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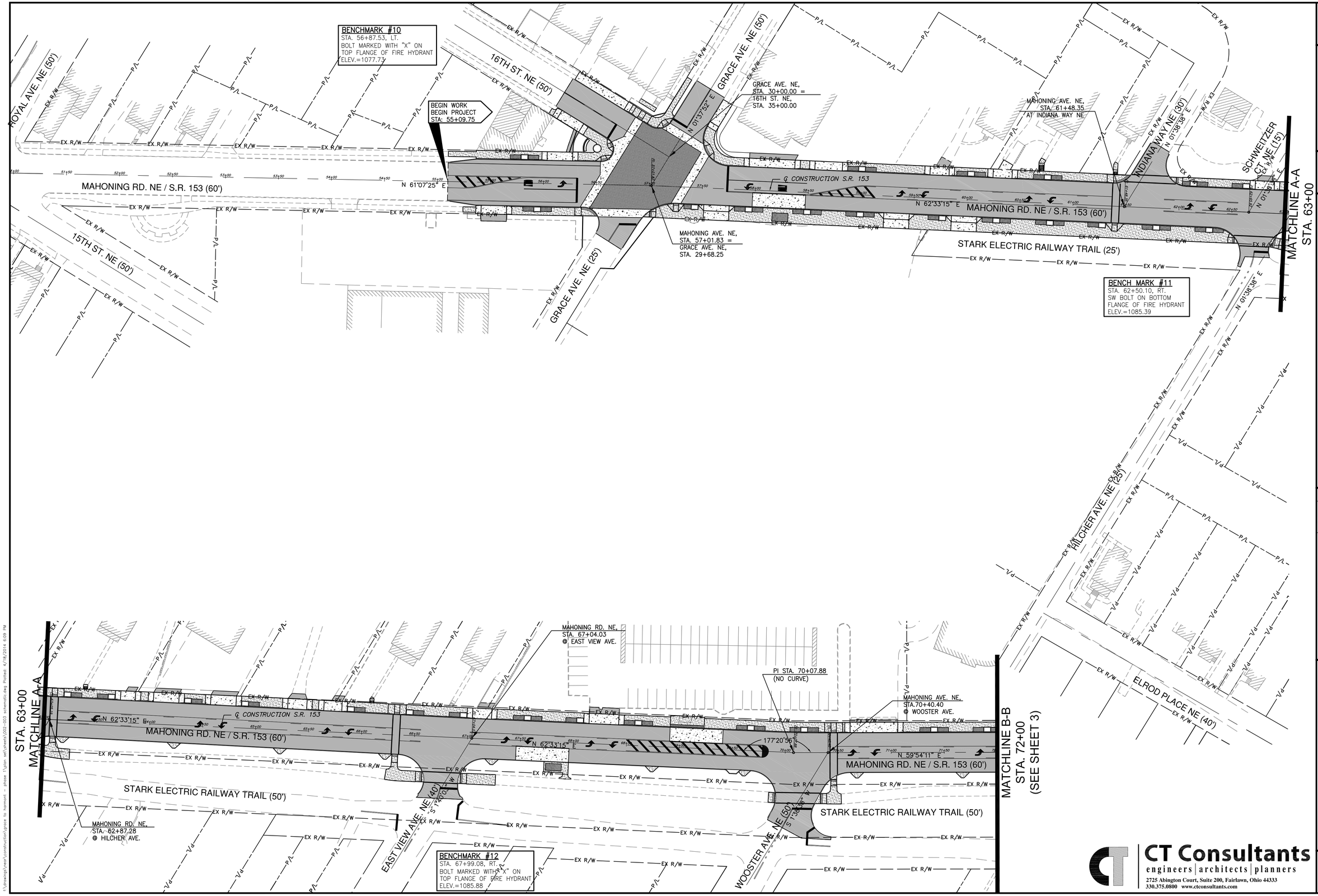

0 40' 20' 80'
HORIZONTAL SCALE 1" = 40'

CALCULATED: GEA
CHECKED: JGC

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

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

MAHONING ROAD NE
STA-0153-01.70

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(SEE SHEET 2)
STA. 72+00
MATCHLINE B-B

STA. 83+50
MATCHLINE C-C

MAHONING RD. NE / S.R. 153 (60')

N 59°54'11" E

N 60°40'15" E

N 57°05'37" E

MIDWAY AVE. NE (60')

N 32°37'37" W

MAHONING AVE.,
STA. 74+50.22
@ WAYNE AVE.

MAHONING RD. NE,
STA. 78+15.21
@ MIDWAY AVE.

℄ CONSTRUCTION S.R. 153

STARK ELECTRIC RAILWAY TRAIL (50')

WAYNE AVE N.E (25')

S 30°14'45" W

HARMONT AVE. NE (60')

N 01°34'42" E

S 01°34'42" W

BOLLINGER AVE. NE (50')

19TH ST. NE (50')

N 1°37'07" E

BROWNLEE AVE. NE (50')

N 32°29'46" W

PI STA. 84+44.01
(NO CURVE)

MAHONING RD. NE,
STA. 87+44.17
@ BOLLINGER AVE.

MAHONING RD. NE,
STA.91+74.85
@ HARMONT AVE.

MAHONING RD. NE,
STA.94+53.30
@ BROWNLEE AVE.

END WORK
END PROJECT
STA: 94+89.88

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

0 40' 20' 80'
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

MAHONING ROAD NE
STA-0153-01.70

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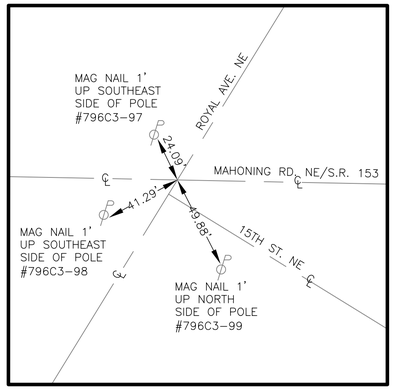
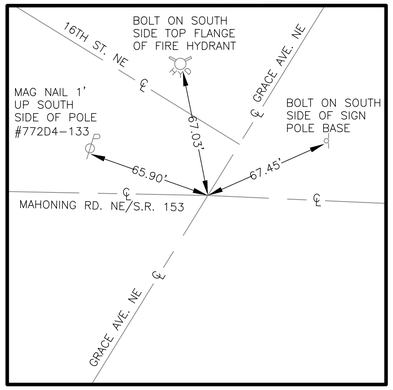
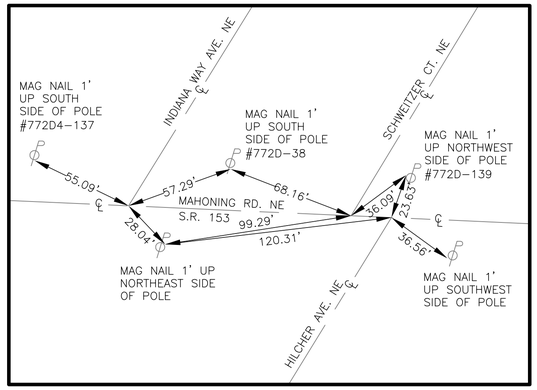


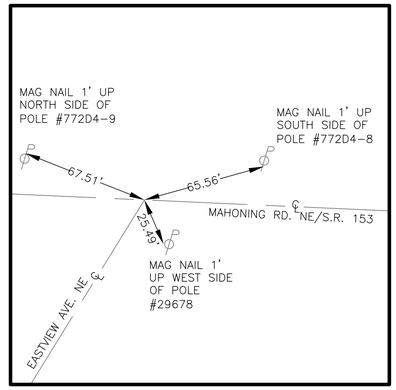
MAHONING RD. NE / S.R. 153
STA.50+63.19



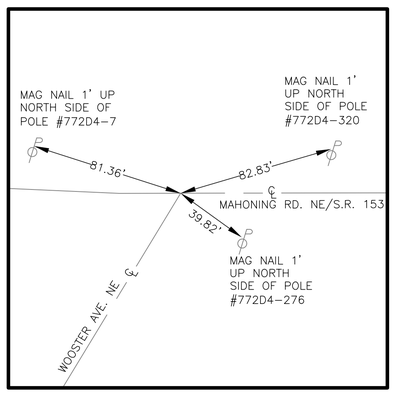
MAHONING RD. NE / S.R. 153
STA.57+01.83



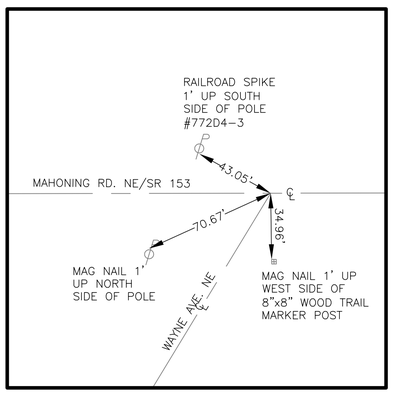
MAHONING RD. NE / S.R. 153
STA.61+48.35 AND STA.62+87.28



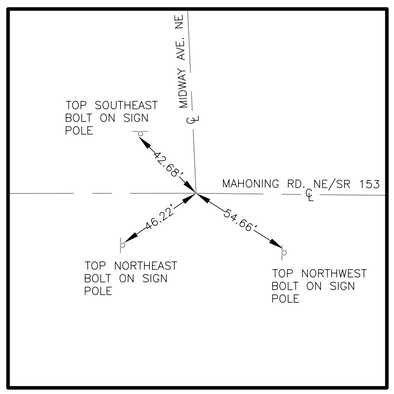
MAHONING RD. NE / S.R. 153
STA.67+04.03



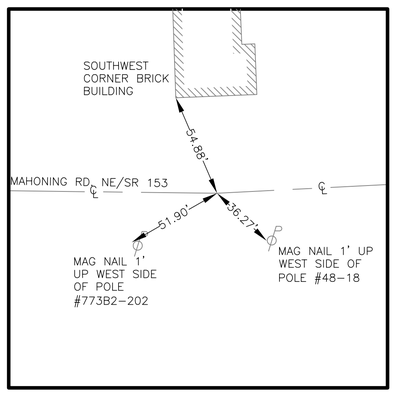
MAHONING RD. NE / S.R. 153
STA.70+40.40



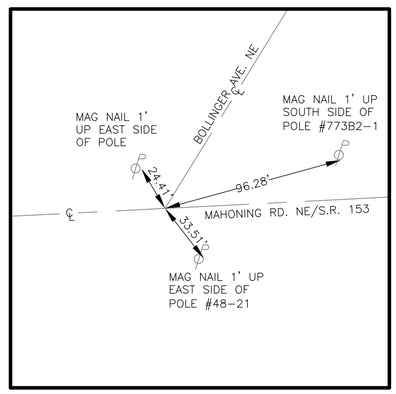
MAHONING RD. NE / S.R. 153
STA.74+50.22



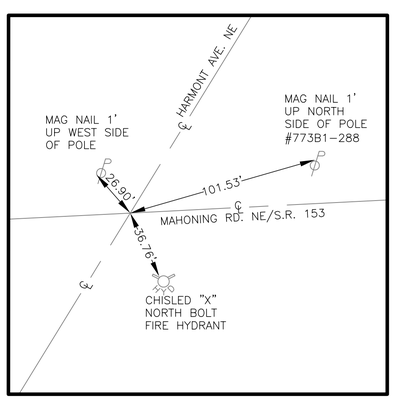
MAHONING RD. NE / S.R. 153
STA.78+15.21



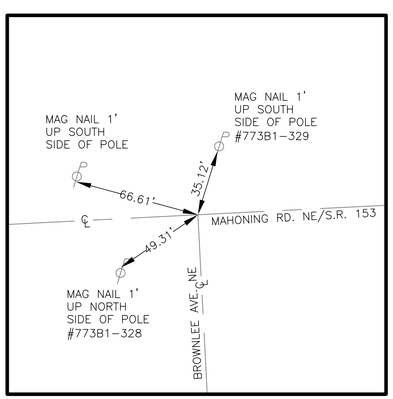
MAHONING RD. NE / S.R. 153
STA.84+44.01



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													

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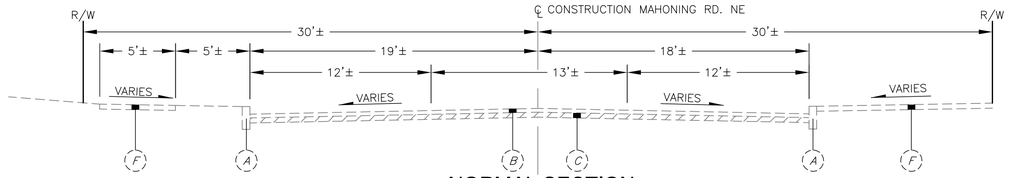
CALCULATED: MAT
CHECKED: JGC

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

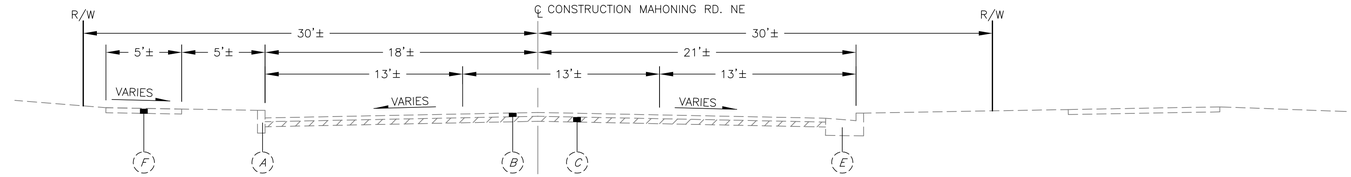
REVISIONS
CONSTRUCTION BIDDING SET — DATE 4/21/14 — BY GEA

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

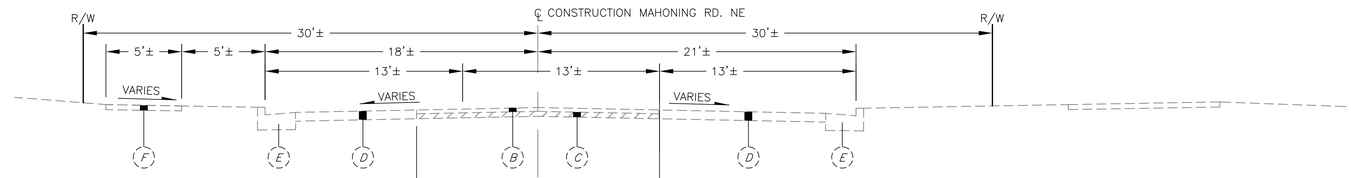
MAHONING ROAD NE
STA-0153-01.70



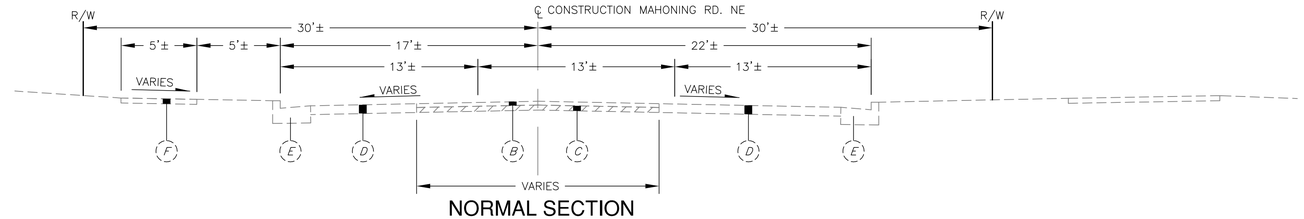
NORMAL SECTION
STA. 55+00 TO STA. 66+75



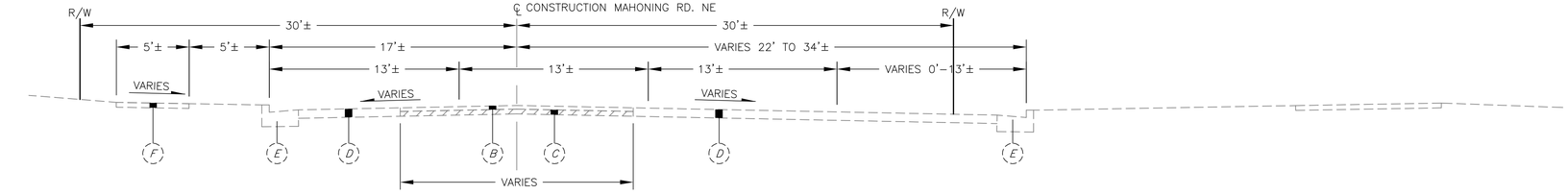
NORMAL SECTION
STA. 66+75 TO STA. 78+25



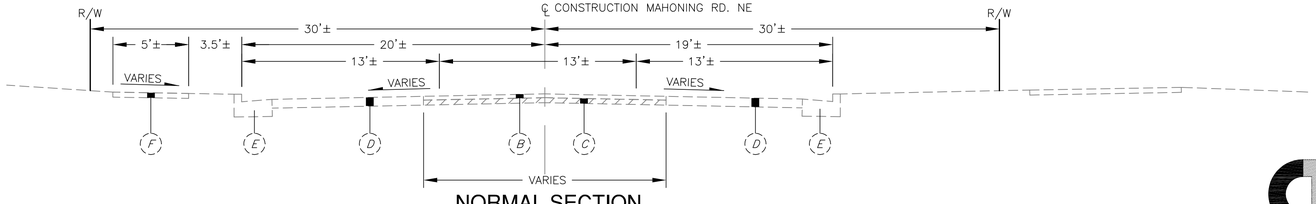
NORMAL SECTION
STA. 78+25 TO STA. 85+00



NORMAL SECTION
STA. 85+00 TO STA. 88+75



NORMAL SECTION
STA. 88+75 TO STA. 91+75



NORMAL SECTION
STA. 91+75 TO STA. 94+50

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

CALCULATED: MAT
CHECKED: JGG

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

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

MAHONING ROAD NE
STA-0153-01.70

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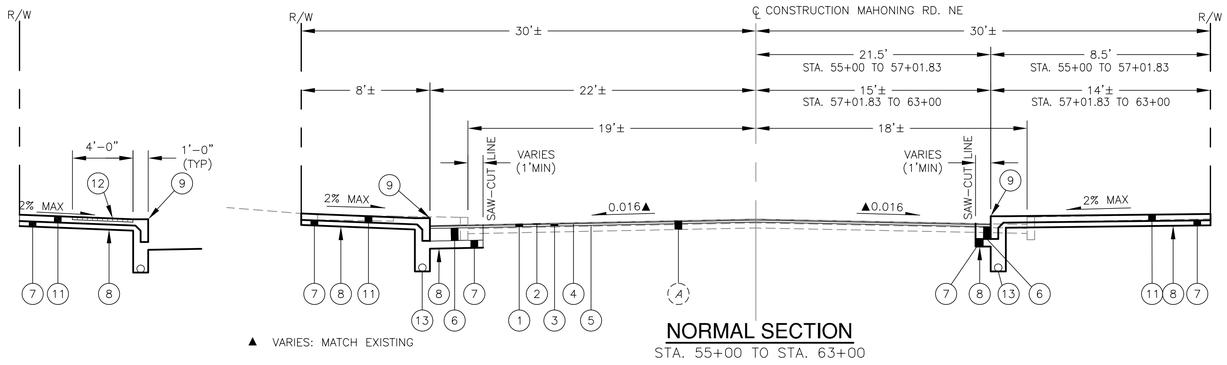
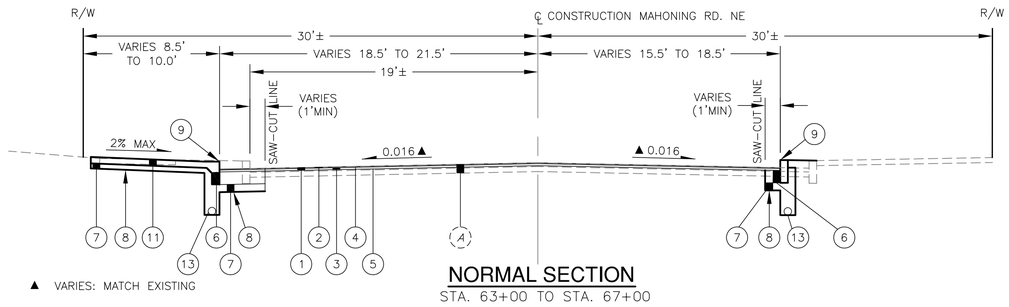
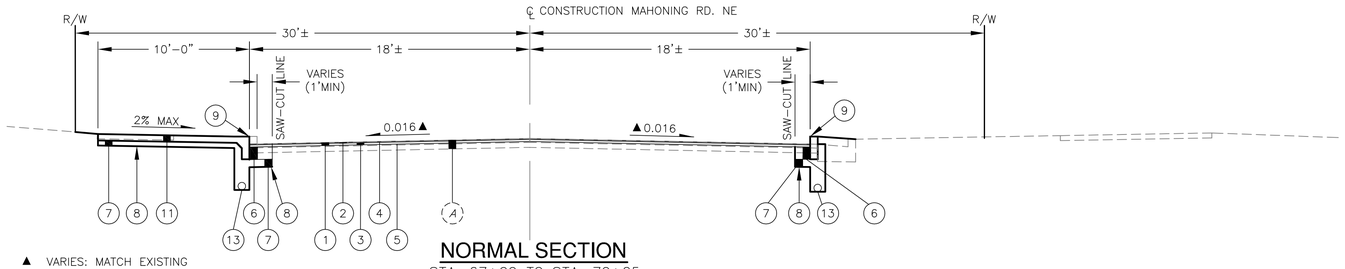
2725 Abington Court, Suite 200, Fairlawn, Ohio 44333
330.375.0800 www.ctconsultants.com



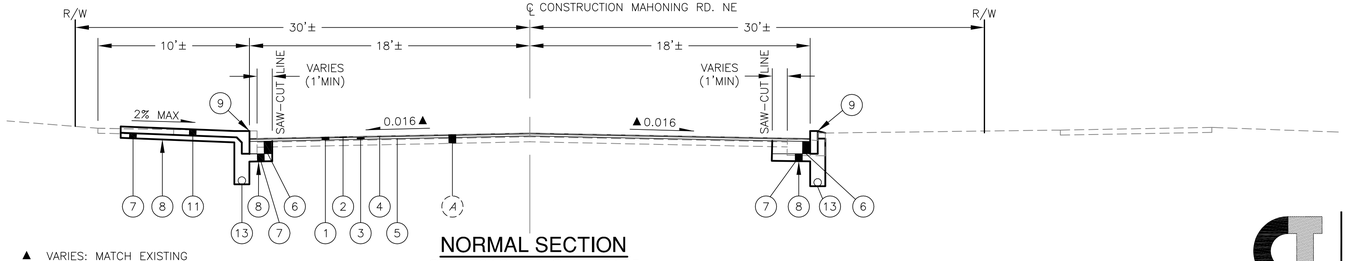
NORMAL SECTION
STA. 55+00 TO STA. 63+00



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

(A) *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: JGG

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

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

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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

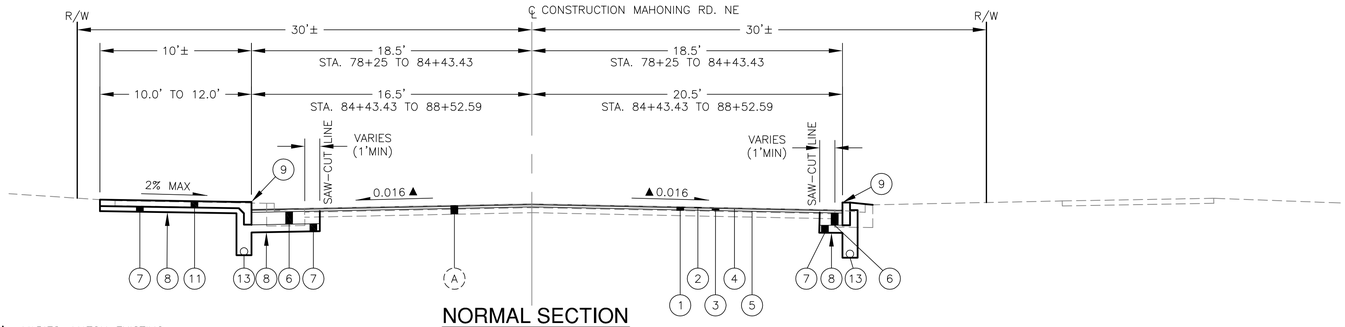
(13) ITEM 605 – 6" SHALLOW PIPE UNDERDRAINS, 707.31, WITH FABRIC WRAP, AS PER PLAN

(14) ITEM 659 – SEEDING AND MULCHING, CLASS 1

(15) ITEM 659 – 6" NON–REINFORCED CONCRETE PAVEMENT, AS PER PLAN

(A) *EXISTING COMPOSITE PAVEMENT (BRICK OR CONCRETE UNDER ASPHALT)*

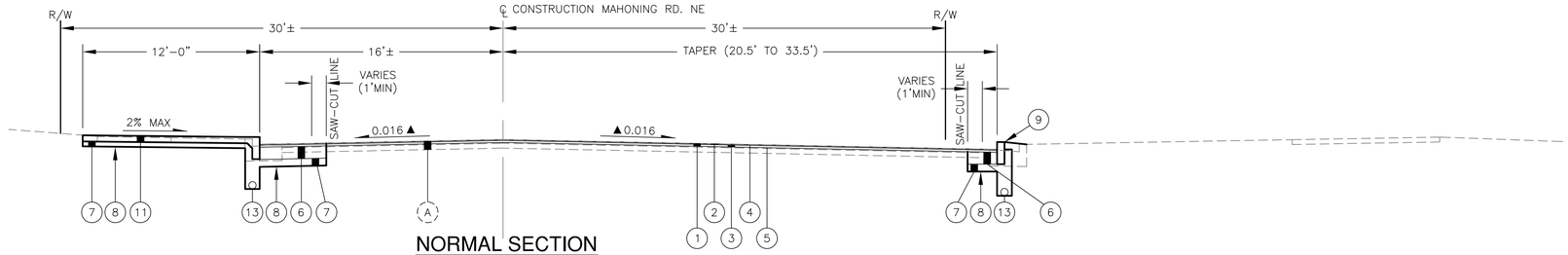
SEE STREETSCAPE PLANS FOR BRICK LOCATIONS, DIMENSIONS AND SPECIFICATIONS SEE CANTON CITY STANDARD DRAWING, TYPICAL STREETSCAPE CORRIDOR, BRICK WALKWAY PAVERS



▲ VARIES: MATCH EXISTING

NORMAL SECTION

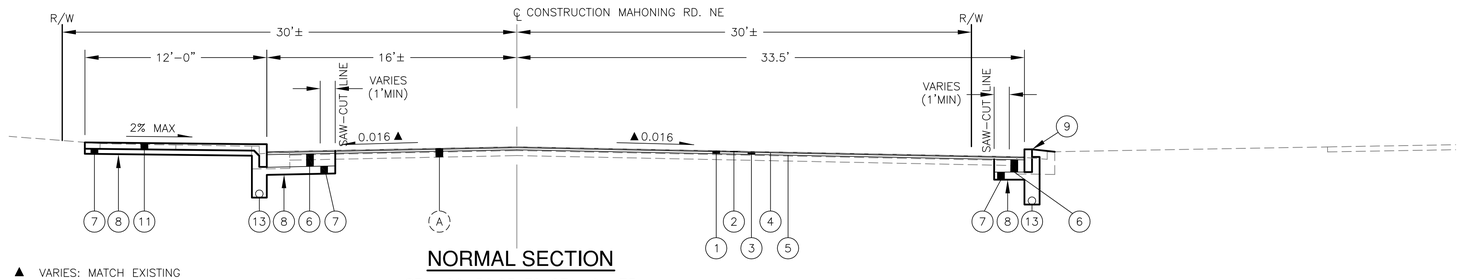
STA. 78+25 TO 88+52.59



▲ VARIES: MATCH EXISTING

NORMAL SECTION

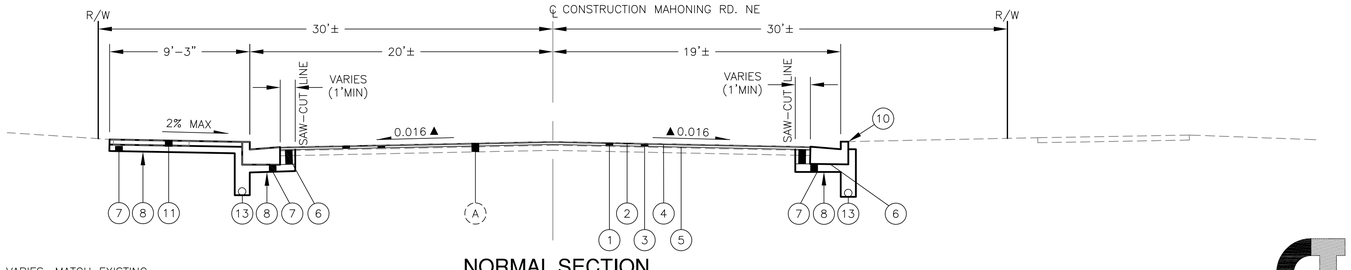
STA. 88+52.59 TO 89+52.63



▲ 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

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

CALCULATED: MAT
CHECKED: JGG

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

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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, SARTA 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 ERECTED 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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MAHONING ROAD NE
STA-0153-01.70

(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 RESETTING 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:

1) SAVE-A-LOT/FAMILY DOLLAR, 2901 MAHONING RD. N.E.
2) 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.

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

MAHONING ROAD NE
STA-0153-01.70

(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 RECEPTABLE, 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 PAVER AREAS 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, PG64-28. 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.

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 RESEEDED 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 (DRISCOPLEX). 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 ON 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 (DRISCOPLEX). 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-GRATE/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

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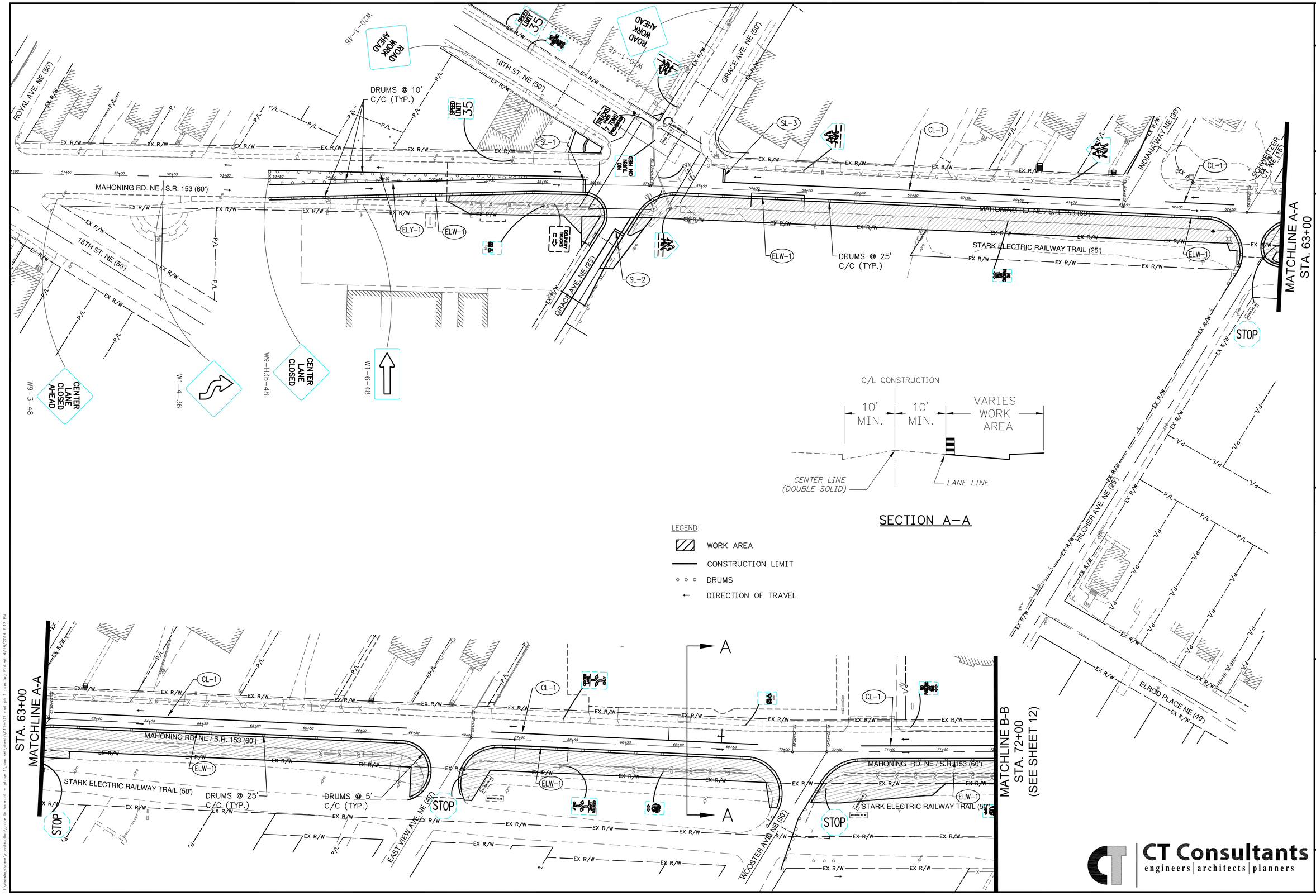
GENERAL NOTES

MAHONING ROAD NE
STA-0153-01.70



CALCULATED: SSA
CHECKED: JGG

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

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

MAINTENANCE OF TRAFFIC PHASE 1

MAHONING ROAD NE STA-0153-01.70

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(SEE SHEET 11)
STA. 72+00
MATCHLINE B-B

MATCHLINE C-C
STA. 83+50

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

MIDWAY AVE. NE (60')

WAYNE AVE. N.E (25')

DRUMS @ 25' C/C (TYP.)

DRUMS @ 5' C/C (TYP.)

DRUMS @ 10' C/C (TYP.)

C/L CONSTRUCTION

10' MIN. | 10' MIN. | VARIES WORK AREA

CENTER LINE (DOUBLE SOLID)

LANE LINE

LEGEND:

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

SECTION A–A

STA. 83+50
MATCHLINE C-C

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

DRUMS @ 25' C/C (TYP.)

19TH ST. NE (50')

BOLLINGER AVE. NE (50')

HARMONT AVE. NE (60')

DRUMS @ 10' C/C (TYP.)

BROWNLEE AVE NE (50')

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

CALCULATED: SSA
CHECKED: JGG

REVISIONS

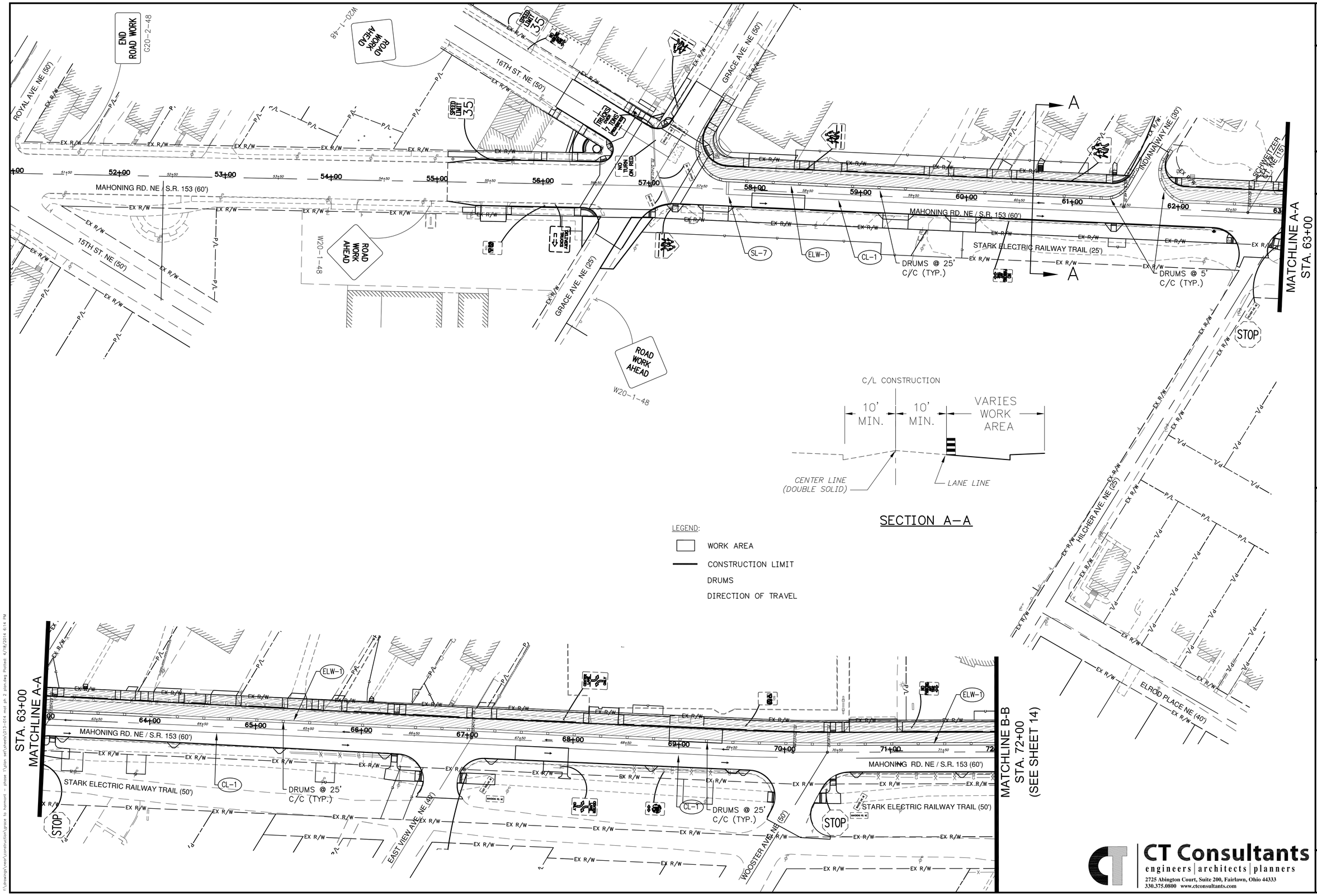
BY	DATE
GEA	4/21/14

CONSTRUCTION BIDDING SET

MAINTENANCE OF TRAFFIC
PHASE 1

MAHONING ROAD NE
STA-0153-01.70

12
108



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

CALCULATED: SSA
CHECKED: JGC

MAINTENANCE OF TRAFFIC PHASE 2

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

MAHONING ROAD NE STA-0153-01.70

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(SEE SHEET 13)
STA. 72+00
MATCHLINE B-B

MATCHLINE C-C
STA. 83+50

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

MIDWAY AVE. NE (60')

WAYNE AVE. N.E (25')

DRUMS @ 25' C/C (TYP.)

DRUMS @ 5' C/C (TYP.)

ELW-1

CL-1

SL-8

SL-9

SPEED LIMIT 35

SPEED LIMIT 25

HIGH WATER

STOP

NO OUTLET

A

A

C/L CONSTRUCTION

10' MIN.

10' MIN.

VARIES WORK AREA

CENTER LINE (DOUBLE SOLID)

LANE LINE

LEGEND:

WORK AREA

CONSTRUCTION LIMIT

DRUMS

DIRECTION OF TRAVEL

SECTION A–A

STA. 83+50
MATCHLINE C-C

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

19TH ST. NE (50')

BOLLINGER AVE. NE (50')

HARMONT AVE. NE (60')

BROWNLEE AVE. NE (50')

DRUMS @ 25' C/C (TYP.)

DRUMS @ 5' C/C (TYP.)

DRUMS @ 10' C/C (TYP.)

ELW-1

CL-1

LL-2

SL-10

RIGHT TURN ONLY

WEST 153

EAST 153

SPEED LIMIT 35

STOP

DO NOT ENTER

END ROAD WORK G20-2-48

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

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MAINTENANCE OF TRAFFIC
PHASE 2

MAHONING ROAD NE
STA-0153-01.70

14
108

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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 ABUTTING 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, ERECTED, 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, ERECT, 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 ACOMPLISHED 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.

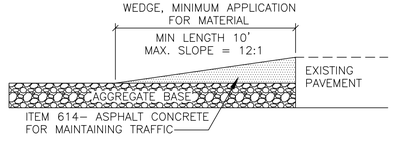
(Q) TEMPORARY DRAINAGE

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 FEED 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 ABUTTING 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 AL 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	4/21/14	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

(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 ONTO 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:

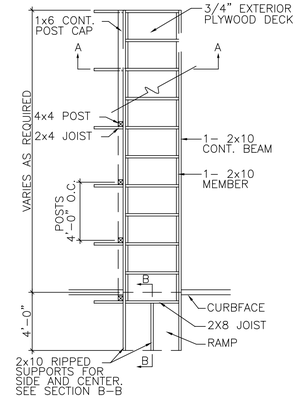
AT PROPOSED STORM LINE, OTHER UTILITY LATERALS, AND CROSSWALKS LOCATED IN THE ROADWAY AND NOT COVERED BY PHASE I AND II, CONTRACTOR TO PROVIDE TRAFFIC CONTROL SCENARIOS IN ACCORDANCE WITH OMUTCD AND AS SHOWN ON SHEET 13 THRU 22

(Z) MAINTENANCE OF PEDESTRIAN TRAFFIC

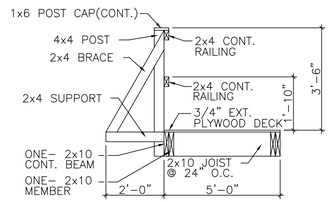
THE CONTRACTOR SHALL TAKE ADEQUATE PROVISIONS (I.E. TEMPORARY WALKWAYS, DETOURS, ETC.) FOR THE SAFETY OF PEDESTRIANS WITHIN THE WORK ZONE.

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).

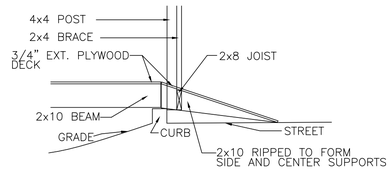
THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO THE FRONT DOORS OF ALL STORES, OFFICES, RTA BUS STOPS, ETC., AS WELL AS ACCESS TO ALL RESIDENCES, DURING HIS/HER CONSTRUCTION, WITH TEMPORARY CONCRETE OR ASPHALT PAVEMENTS OR PEDESTRIAN BRIDGES. THE PEDESTRIAN BRIDGES ARE DETAILED ON THIS SHEET. EXISTING 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 BUILDING ENTRANCES AT ALL TIMES. TEMPORARY 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.



FRAMING PLAN
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

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

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MAINTENANCE OF TRAFFIC
GENERAL NOTES

MAHONING ROAD NE
STA-0153-01.70

16
108

ITEM	SHEET NUMBER																			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	9	11	12	27	28	29	30	31	32	33	35	37	38		44										
																								DEMOLITION	
																				201		1	LS	CLEARING AND GRUBBING	
																				201		2	EA	TREE REMOVED, 18" SIZE	
																				201		2	EA	STUMP REMOVED, 48" SIZE	
																				201		1	EA	STUMP REMOVED, 60" SIZE	
																				651		480	CY	TOPSOIL STOCKPILED	
																				202		23	FT	PIPE REMOVED (24" AND UNDER), WATER	
																				202		251	FT	PIPE REMOVED (24" AND UNDER), STORM	
																				202		4,726	FT	PIPE REMOVED (24" AND UNDER), GAS	
																				202		23	FT	PIPE REMOVED (OVER 24"), STORM	
																				202		500	FT	PIPE CLEANOUT	
																				202		3	EA	MANHOLE REMOVED	
																				202		11	EA	CATCH BASIN OR INLET REMOVED	
																				255		13,495	FT	FULL DEPTH PAVEMENT SAWING	
																				202		5,641	SY	PAVEMENT REMOVED	
																				202		41,270	SF	WALK REMOVED	
																				202		3,488	SY	BASE REMOVED	
																				202		29	FT	STEPS REMOVED	
																				202		4,276	FT	CURB REMOVED, CONCRETE	
																				202		97	FT	CURB REMOVED, ASPHALT	
																				202		4,441	FT	CURB AND GUTTER REMOVED	
																				202		6	EA	PARKING BLOCK REMOVED	
																				202		6	EA	PARKING BLOCK RESET	
																				202		95	FT	FENCE REMOVED	
																				202		2	EA	GATE REMOVED	
																				202		5	EA	BENCH REMOVED FOR REUSE OR STORAGE	
																				202		2	EA	TRASH RECEPTACLE REMOVED FOR REUSE OR STORAGE	
																				202		2	EA	BOLLARD, STEEL REMOVED	
																				202		26	EA	BOLLARD, WOOD REMOVED, AS PER PLAN	
																				202		46	EA	SIGN REMOVED FOR REUSE OR STORAGE	
																				202		1	EA	POLE REMOVED	
																				254		29,570	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
																				254		1,634	SY	PATCHING PLANED SURFACE	
																				625		20	EA	PULL BOX REMOVED	
																				625		3	EA	PULL BOX CLEANED	
																				630		10	EA	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
																				630		7	EA	SPECIAL-REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, BUSINESS SIGN	
																				630		32	EA	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
																				630		2	EA	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
																				630		4	EA	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
																				630		38	EA	REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE	
																				630		2	EA	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
																				630		10	EA	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
																				630		20	EA	REMOVAL OF OVERLAY SIGN	
																				632		3	EA	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	
																								EARTHWORK	
																				203		3,002	CY	EXCAVATION	
																				203		2,004	CY	EMBANKMENT	
																				204		10	HR	PROOF ROLLING	
																				204		6,912	SY	SUBGRADE COMPACTION	
																				204		230	CY	EXCAVATION OF SUBGRADE	
																				209		69	STA	LINEAR GRADING	
																								EROSION PROTECTION	
																				SPCL		2,223	FT	SILT FENCE	
																				SPCL		73	EA	STORM DRAIN INLET PROTECTION	
																				SPCL		3	EA	CONCRETE WASHOUT PIT	
																				659		2	AC	SEEDING AND MULCHING, CLASS 6, TEMPORARY EROSION CONTROL	
																				SPCL		1	LS	EROSION CONTROL	
																				616		500	MGAL	WATER	
																				616		2	TON	CALCIUM CHLORIDE	
																				659		114	SY	SEEDING AND MULCHING	
																				832		1,000	EA	EROSION CONTROL	

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GENERAL SUMMARY

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

MAHONING ROAD NE
STA-0153-01.70

ITEM	SHEET NUMBER																			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	9	11	12	27	28	29	30	31	32	33	35	37	38		44									SANITARY	
																				611		500	FT	8" CONDUIT, TYPE B, 707.45	
																				611		2	EA	MANHOLE NO. 3, WITH 48" BASE	
																				611		3	EA	MANHOLE RECONSTRUCTED TO GRADE	
																				611		27	EA	MANHOLE ADJUSTED TO GRADE	
																				SPCL		1	EA	CONNECT TO EXISTING MANHOLE	
																				SPCL		1,000	LB	MISCELLANEOUS METAL	
																								STORM	
																				611		10,921	FT	6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33	
																				611		50	FT	6" CONDUIT, TYPE B, 707.45, FOR DRAINAGE CONNECTION	
																				611		82	FT	8" CONDUIT, TYPE B, 707.45, SDR 26	
																				611		91	FT	12" CONDUIT, TYPE B, CLASS III, 706.01	
																				611		28	FT	15" CONDUIT, TYPE B, CLASS III, 706.01	
																				611		363	FT	18" CONDUIT, TYPE B, CLASS III, 706.01	
																				611		810	FT	36" CONDUIT, TYPE B, CLASS III, 706.02	
																				611		300	FT	48" CONDUIT, TYPE B, CLASS III, 706.02	
																				611		1,206	FT	54" CONDUIT, TYPE B, CLASS III, 706.02	
																				611		1	EA	MANHOLE NO. 3, WITH 72" BASE	
																				611		5	EA	MANHOLE NO. 3, WITH 96" BASE, AS PER PLAN	
																				611		3	EA	MANHOLE NO. 3, WITH 60" BASE, DOGHOUSE	
																				611		12	EA	MANHOLE NO. 3, WITH 96" BASE, DOGHOUSE, AS PER PLAN	
																				611		1	EA	CATCH BASIN, NO. 3, DOGHOUSE	
																				611		2	EA	CATCH BASIN, NO. 3	
																				611		5	EA	CATCH BASIN, NO. 3A	
																				611		1	EA	MANHOLE RECONSTRUCTED TO GRADE	
																				611		4	EA	INLET RECONSTRUCTED TO GRADE	
																				611		3	EA	CATCH BASIN RECONSTRUCTED TO GRADE	
																				611		17	EA	MANHOLE ADJUSTED TO GRADE	
																				611		24	EA	INLET ADJUSTED TO GRADE	
																				611		6	EA	CATCH BASIN ADJUSTED TO GRADE	
																				611		1	EA	INLET FRAME AND GRATE	
																				SPCL		10,000	LB	MISCELLANEOUS METAL	
																				SPCL		2	EA	BULKHEAD EXISTING MANHOLE	
																				SPCL		58	EA	CORE DRILL EXISTING CATCH BASIN	
																				SPCL		9	EA	CONNECT TO EXISTING MANHOLE	
																								WATER	
																				638		53	FT	6" WATER MAIN, DUCTILE IRON PIPE, ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS	
																				638		3	EA	FIRE HYDRANT EXTENDED AND ADJUSTED TO GRADE	
																				638		2	EA	FIRE HYDRANT ADJUSTED TO GRADE	
																				638		32	EA	VALVE BOX ADJUSTED TO GRADE	
																				638		17	EA	SERVICE BOX ADJUSTED TO GRADE	
																								ROADWAY	
																				251		50	SY	PARTIAL DEPTH PAVEMENT REPAIR	
																				301		115	CY	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAY)	
																				304		894	CY	AGGREGATE BASE (4" UNDER PAVEMENT)	
																				304		482	CY	AGGREGATE BASE (4" UNDER WALK)	
																				304		89	CY	AGGREGATE BASE (6" UNDER CURB)	
																				304		96	CY	AGGREGATE BASE (6" UNDER BUS STOP)	
																				305		323	SY	9" CONCRETE BASE	
																				407		5,053	GAL	TACK COAT (0.15 GAL/SY)	
																				407		1,348	GAL	TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)	
																				424		702	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	
																				448		43	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAY)	
																				448		1,404	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
																				448		284	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (LEVELING COURSE)	
																				452		736	SY	3" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (UNDER WALK PAVERS)	
																				452		192	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (RESIDENTIAL DRIVE APRON)	
																				452		1,091	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (UNDER ROADWAY PAVERS)	
																				452		1,517	SY	7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (COMMERCIAL DRIVE APRON)	
																				452		578	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (BUS PAD)	

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	9	11	12	27	28	29	30	31	32	33	35	37	38		44									ROADWAY (continued)	
																				452		323	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (CROSSWALK)	
																				608		350	SF	4" CONCRETE WALK	
																				608		30,418	SF	5" CONCRETE WALK	
																				608		12	FT	CONCRETE STEPS, TYPE A	
																				608		8	FT	CONCRETE STEPS, TYPE B	
																				608		742	SF	DETECTABLE WARNING	
																				608		5,534	SF	CURB RAMP	
																				609		9,334	FT	CURB, TYPE 6	
																				609		400	FT	CURB, AS PER PLAN	
																				609		85	FT	COMBINATION CURB AND GUTTER, TYPE 2	
																				609		79	FT	ASPHALT CONCRETE CURB, TYPE 1	
																				608		5,352	SF	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	
																				608		5,352	SF	SPECIAL - MISC.: BRICK BOX FORM	
																				SPCL		65	EA	SPECIAL - CONCRETE BOXOUT	
																				452		9,819	SF	NON-REINFORCED CONCRETE PAVEMENT, MISC.: ROADWAY BRICK PAVERS	
																				642		2	MILE	CENTER LINE	
																				644		1,516	FT	CHANNELIZING LINE, 8"	
																				644		442	FT	STOP LINE	
																				644		1,986	FT	CROSSWALK LINE	
																				644		503	FT	TRANSVERSE/DIAGONAL LINE	
																				644		73	EA	LANE ARROW	
																				644		11	EA	WORD ON PAVEMENT, 72"	
																				644		136	FT	DOTTED LINE, 4"	
																								SIGNAGE	
																				630		588	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, 730.016, SQUARE, AS PER PLAN	
																				630		231	FT	STREET NAME SIGN SUPPORT, NO. 3 POST, 730.016, SQUARE, AS PER PLAN	
																				630		21	EA	SIGN, DOUBLE FACED, STREET NAME	
																				630		9	EA	SIGN, STOP, AS PER PLAN	
																				630		80	EA	SIGN, MISC., AS PER PLAN	
																				630		10	EA	SIGN HANGER ASSEMBLY, MAST ARM	
																				630		18	EA	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
																				630		104	SF	SIGN, FLAT SHEET	
																								SIGNAL	
																				625		250	FT	CONDUIT, 2", 725.04	
																				625		68	FT	CONDUIT, 3", 725.04	
																				625		647	FT	CONDUIT, JACKED OR DRILLED, 3"	
																				625		293	FT	TRENCH	
																				625		11	EA	PULL BOX, 725.08, 13"X24", AS PER PLAN	
																				625		3	EA	PULL BOX, 725.08, 24"X36"	
																				625		12	EA	GROUND ROD	
																				632		19	EA	VEHICULAR SIGNAL HEAD (LED), BLACK, 3 SECTION, 12" LENS, 1-WAY, POLYCARBONATE AS PER PLAN	
																				632		7	EA	VEHICULAR SIGNAL HEAD (LED), BLACK, 5, SECTION, 12" LENS, 1-WAY, POLYCARBONATE AS PER PLAN	
																				632		21	EA	PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN) TYPE D2, AS PER PLAN	
																				632		26	EA	COVERING OF VEHICULAR SIGNAL HEAD	
																				632		21	EA	COVERING OF PEDESTRIAN SIGNAL HEAD	
																				632		21	EA	PEDESTRIAN PUSHBUTTON, AS PER PLAN	
																				632		4,286	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
																				632		2,587	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
																				632		10	EA	SIGNAL SUPPORT FOUNDATION , AS PER PLAN	
																				632		1	EA	PEDESTAL FOUNDATION	
																				632		150	FT	POWER CABLE, 3 CONDUCTOR, NO 10 AWG, AS PER PLAN	
																				632		300	FT	SERVICE CABLE, 3 CONDUCTOR, NO 4 AWG	
																				632		3	EA	POWER SERVICE, AS PER PLAN	
																				632		12	EA	SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT (BY TYPE)	
																				632		1	EA	PEDESTAL, MISC.: NOSTALGIA PEDESTAL, 8'	
																				632		1	LS	SIGNALIZATION, MISC.: PAINT	
																				632		3	EA	SIGNALIZATION, MISC.: PTZ CAMERA	
																				633		3	EA	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN	
																				633		3	EA	CABINET RISER	
																				633		3	EA	CABINET FOUNDATION	
																				633		3	EA	CONTROLLER WORK PAD	

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MAHONING ROAD NE
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	9	11	12	27	28	29	30	31	32	33	35	37	38		44									SIGNAL (continued)	
																				633		3	EA	PREEMPTION	
																				633		12	EA	PREEMPTION RECEIVING UNITS	
																				633		1,200	FT	PREEMPTION DETECTOR CABLE	
																				633		3	EA	PREEMPTION PHASE SELECTOR	
																				633		12	EA	PREEMPT CONFIRMATION LIGHT	
																				633		1	EA	REMOTE MONITORING STATION, AS PER PLAN	
																				633		1	LS	TRAINING	
																				633		3	EA	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	
																				816		12	EA	VIDEO DETECTION SYSTEM	
																								LIGHTING	
																				625		8,080	FT	CONDUIT, PVC SCHEDULE 40, 2"	
																				625		116	FT	CONDUIT, PVC SCHEDULE 40, 3"	
																				625		12,671	FT	#8 AWG 600 VOLT DISTRIBUTION CABLE	
																				625		22,197	FT	#6 AWG 600 VOLT DISTRIBUTION CABLE	
																				625		702	FT	#2 AWG 600 VOLT DISTRIBUTION CABLE	
																				625		9	EA	PULL BOX, POLYMER CONCRETE, 13"W x 24"L X 18"D	
																				625		7,176	FT	TRENCH AND BACKFILL IN SIDEWALK OR LAWN AREAS	
																				625		1,020	FT	TRENCH AND BACKFILL IN STREETS	
																				625		65	EA	LIGHT POLE TYPE A, DOUBLE LUMINAIRE WITH UNDERGROUND SERVICE, MATERIAL ONLY	
																				625		65	EA	LIGHT POLE FOUNDATION, 30" x 72" DEEP	
																				625		65	EA	LIGHT POLE INSTALLATION, FIXTURE TYPE A	
																				625		12	EA	LIGHT POLE TYPE B, CONNECTION ONLY	
																				625		3	EA	STUB-UP, SECONDARY RISER POLE, 2" PVC-80	
																				625		4	EA	POWER PEDESTAL	
																				625		7,790	FT	PLASTIC CAUTION TAPE	
																								MAINTENANCE OF TRAFFIC	
																				614		1	LS	MAINTAINING TRAFFIC	
																				614		1	LS	DETOUR SIGNING	
																				614		200	EA	REPLACEMENT DRUM	
																				614		10	EA	WORK ZONE SPEED LIMIT SIGN	
																				614		10	EA	MAINTAINING TRAFFIC , MISC.: BUSINESS SIGN	
																				614		320	HR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
																				614		12	EA	WORK ZONE MARKING SIGN	
																				614		2	MILE	WORK ZONE CENTER LINE, CLASS I	
																				614		2	MILE	WORK ZONE CENTER LINE, CLASS II	
																				614		1	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
																				614		540	FT	WORK ZONE CHANNELIZING LINE, CLASS I	
																				614		160	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
																				614		3	MILE	WORK ZONE EDGE LINE, CLASS I	
																				614		202	FT	WORK ZONE STOP LINE, CLASS I	
																				614		35	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
																				614		5	EA	WORK ZONE ARROW, CLASS I	
																				614		110	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
																				614		2	EA	RESUME LEGAL SPEED SIGN	
																				616		20	MGAL	WATER	
																				616		2	TON	CALCIUM CHLORIDE	
																				622		300	FT	PORTABLE CONCRETE BARRIER, 32"	
																								STREETSCAPE	
																				652		480	CY	PLACING STOCKPILED TOPSOIL	
																				653		100	CY	TOPSOIL FURNISHED AND PLACED	
																				654		1	TON	COMMERCIAL FERTILIZER	
																				659		2	EA	SOIL ANALYSIS TEST	
																				659		1	TON	COMMERCIAL FERTILIZER	
																				659		2	TON	LIME	
																				659		4,500	SY	SEEDING AND MULCHING, CLASS 1	
																				659		900	SY	REPAIR SEEDING AND MULCHING	
																				659		900	SY	INTER-SEEDING	
																				659		1,000	MGAL	WATER	
																				659		1,000	MSF	MOWING	

CALCULATED: MAT
CHECKED: JGG

REVISIONS

	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

GENERAL SUMMARY

MAHONING ROAD NE
STA-0153-01.70

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ITEM	SHEET NUMBER																			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	9	11	12	27	28	29	30	31	32	33	35	37	38		44									STREETSCAPE (continued)	
																				661		20	EA	DECIDUOUS TREE, 2" CALIPER, IVORY SILK LILAC	
																				661		20	EA	DECIDUOUS TREE, 2" CALIPER, SUN VALLEY MAPLE	
																				661		20	EA	DECIDUOUS TREE, 2" CALIPER, SCHUBERT CHERRY	
																				661		20	EA	DECIDUOUS TREE, 2" CALIPER, ARISTOCRAT PEAR	
																				661		20	EA	DECIDUOUS TREE, 2" CALIPER, CLEVELAND SELECT PEAR	
																				662		20,000	GAL	LANDSCAPE WATERING	
																				SPCL		65	EA	SPECIAL - TREE GRATE	
																								MISCELLANEOUS	
																				SPCL		12	EA	BOLLARD, WOOD	
																				SPCL		12	EA	BOLLARD, WOOD, HINGED	
																				619		24	MNTH	FIELD OFFICE, TYPE C	
																				623		1	LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																				624		1	LS	MOBILIZATION	
																				SPCL			LS	MISCELLANEOUS INSPECTION AND TESTING	
																				SPCL		5	EA	MINOR BRT STOP WITH BUS SHELTER	
																				SPCL		3	EA	MAJOR BRT STOP WITH BUS SHELTER	

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

GENERAL SUMMARY

MAHONING ROAD NE
STA-0153-01.70

SHEET NO.

REFERENCE NO.

STATION FROM STA.	STATION FROM OFFSET	STATION FROM SIDE	STATION TO STA.	STATION TO OFFSET	STATION TO SIDE			
TOTAL THIS SHEET								
						LS	CLEARING AND GRUBBING	201
						EA	TREE REMOVED, 18" SIZE	201
						EA	STUMP REMOVED, 48" SIZE	201
						EA	STUMP REMOVED, 60" SIZE	201
						CY	TOPSOIL STOCKPILED	651
						FT	PIPE REMOVED (24" AND UNDER), WATER	202
						FT	PIPE REMOVED (24" AND UNDER), STORM	202
						FT	PIPE REMOVED (24" AND UNDER), GAS	202
						FT	PIPE REMOVED (OVER 24"), STORM	202
						FT	PIPE CLEANOUT	202
						EA	MANHOLE REMOVED	202
						EA	CATCH BASIN OR INLET REMOVED	202
						FT	FULL DEPTH PAVEMENT SAWING	255
						SY	PAVEMENT REMOVED	202
						SF	WALK REMOVED	202
						SY	BASE REMOVED	202
						FT	STEPS REMOVED	202
						FT	CURB REMOVED, CONCRETE	202
						FT	CURB REMOVED, ASPHALT	202
						FT	CURB AND GUTTER REMOVED	202
						EA	PARKING BLOCK REMOVED	202
						EA	PARKING BLOCK RESET	202
						FT	FENCE REMOVED	202
						EA	GATE REMOVED	202
						EA	BENCH REMOVED FOR REUSE OR STORAGE	202
						EA	TRASH RECEPTACLE REMOVED FOR REUSE OR STORAGE	202
						EA	BOLLARD, STEEL REMOVED	202
						EA	BOLLARD, WOOD REMOVED, AS PER PLAN	202
						EA	SIGN REMOVED FOR REUSE OR STORAGE	202
						EA	POLE REMOVED	202

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MAHONING ROAD NE
STA-0153-01.70

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

DEMOLITION
SUB-SUMMARY

CALCULATED: GEA
CHECKED: JGG

SHEET NO.	REFERENCE NO.	STATION						201	201	201	201	651	202	202	202	202	202	202	202	255	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	
								CLEARING AND GRUBBING	TREE REMOVED, 18" SIZE	STUMP REMOVED, 48" SIZE	STUMP REMOVED, 60" SIZE	TOPSOIL STOCKPILED	PIPE REMOVED (24" AND UNDER), WATER	PIPE REMOVED (24" AND UNDER), STORM	PIPE REMOVED (24" AND UNDER), GAS	PIPE REMOVED (OVER 24"), STORM	PIPE CLEANOUT	MANHOLE REMOVED	CATCH BASIN OR INLET REMOVED	FULL DEPTH PAVEMENT SAWING	PAVEMENT REMOVED	WALK REMOVED	BASE REMOVED	STEPS REMOVED	CURB REMOVED, CONCRETE	CURB REMOVED, ASPHALT	CURB AND GUTTER REMOVED	PARKING BLOCK REMOVED	PARKING BLOCK RESET	FENCE REMOVED	GATE REMOVED	BENCH REMOVED FOR REUSE OR STORAGE	TRASH RECEPTACLE REMOVED FOR REUSE OR STORAGE	BOLLARD, STEEL REMOVED	BOLLARD, WOOD REMOVED, AS PER PLAN	SIGN REMOVED FOR REUSE OR STORAGE	POLE REMOVED	
		FROM			TO			LS	EA	EA	EA	CY	FT	FT	FT	FT	FT	EA	EA	FT	SY	SF	SY	FT	FT	FT	FT	EA	EA	FT	EA	EA	EA	EA	EA	EA		
		STA.	OFFSET	SIDE	STA.	OFFSET	SIDE																																	
TOTAL THIS SHEET																																								
TOTAL FROM SHEET __																																								
TOTAL CARRIED TO GENERAL SUMMARY																																								

CALCULATED: GEA
CHECKED: JGG

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

DEMOLITION SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.	REFERENCE NO.	STATION						254 PAVEMENT PLANING, ASPHALT CONCRETE	254 PATCHING PLANED SURFACE	625 PULL BOX REMOVED	625 PULL BOX CLEANED	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 SPECIAL-REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, BUSINESS SIGN	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	630 REMOVAL OF OVERLAY SIGN	632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN																	
		FROM			TO			SY	SY	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA																	
		STA.	OFFSET	SIDE	STA.	OFFSET	SIDE																															
TOTAL THIS SHEET																																						

CALCULATED: GEA
CHECKED: JGG

DEMOLITION SUB-SUMMARY

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

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SHEET NO.	REFERENCE NO.	STATION						254	254	625	625	630	630	630	630	630	630	630	630	630	632
								PAVEMENT PLANING, ASPHALT CONCRETE	PATCHING PLANED SURFACE	PULL BOX REMOVED	PULL BOX CLEANED	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	SPECIAL-REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, BUSINESS SIGN	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	REMOVAL OF OVERLAY SIGN	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN
		FROM			TO			SY	SY	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
		STA.	OFFSET	SIDE	STA.	OFFSET	SIDE														
TOTAL THIS SHEET																					
TOTAL FROM SHEET __																					
TOTAL CARRIED TO GENERAL SUMMARY																					

CALCULATED: GEA
CHECKED: JGG

DEMOLITION SUB-SUMMARY

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.

STATION FROM			STATION TO			STATION			
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE				
TOTAL THIS SHEET									

FT	6" SHALLOW PIPE UNDERDRAINS WITH FABRIC WRAP, 707.33	611
FT	6" CONDUIT, TYPE B, 707.45, FOR DRAINAGE CONNECTION	611
FT	8" CONDUIT, TYPE B, 707.45, SDR 26	611
FT	12" CONDUIT, TYPE B, CLASS III, 706.01	611
FT	15" CONDUIT, TYPE B, CLASS III, 706.01	611
FT	18" CONDUIT, TYPE B, CLASS III, 706.01	611
FT	36" CONDUIT, TYPE B, CLASS III, 706.02	611
FT	48" CONDUIT, TYPE B, CLASS III, 706.02	611
FT	54" CONDUIT, TYPE B, CLASS III, 706.02	611
EA	MANHOLE NO. 3, WITH 72" BASE	611
EA	MANHOLE NO. 3, WITH 96" BASE, AS PER PLAN	611
EA	MANHOLE NO. 3, WITH 60" BASE, DOGHOUSE	611
EA	MANHOLE NO. 3, WITH 96" BASE, DOGHOUSE, AS PER PLAN	611
EA	CATCH BASIN, NO. 3, DOGHOUSE	611
EA	CATCH BASIN, NO. 3	611
EA	CATCH BASIN, NO. 3A	611
EA	MANHOLE RECONSTRUCTED TO GRADE	611
EA	INLET RECONSTRUCTED TO GRADE	611
EA	CATCH BASIN RECONSTRUCTED TO GRADE	611
EA	MANHOLE ADJUSTED TO GRADE	611
EA	INLET ADJUSTED TO GRADE	611
EA	CATCH BASIN ADJUSTED TO GRADE	611
EA	INLET FRAME AND GRATE	611
LB	MISCELLANEOUS METAL	SPCL
EA	BULKHEAD EXISTING MANHOLE	SPCL
EA	CORE DRILL EXISTING CATCH BASIN	SPCL
EA	CONNECT TO EXISTING MANHOLE	SPCL

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MAHONING ROAD NE
STA-0153-01.70

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

STORM
SUB-SUMMARY

CALCULATED: GEA
CHECKED: JGG

SHEET NO.	REFERENCE NO.	STATION						611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	SPCL	SPCL	SPCL	SPCL				
								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, CLASS III, 706.01	15" CONDUIT, TYPE B, CLASS III, 706.01	18" CONDUIT, TYPE B, CLASS III, 706.01	36" CONDUIT, TYPE B, CLASS III, 706.02	48" CONDUIT, TYPE B, CLASS III, 706.02	54" CONDUIT, TYPE B, CLASS III, 706.02	MANHOLE NO. 3, WITH 72" BASE	MANHOLE NO. 3, WITH 96" BASE, AS PER PLAN	MANHOLE NO. 3, WITH 60" BASE, DOGHOUSE	MANHOLE NO. 3, WITH 96" BASE, DOGHOUSE, AS PER PLAN	CATCH BASIN, NO. 3, DOGHOUSE	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	MANHOLE RECONSTRUCTED TO GRADE	INLET RECONSTRUCTED TO GRADE	CATCH BASIN RECONSTRUCTED TO GRADE	MANHOLE ADJUSTED TO GRADE	INLET ADJUSTED TO GRADE	CATCH BASIN ADJUSTED TO GRADE	INLET FRAME AND GRATE	MISCELLANEOUS METAL	BULKHEAD EXISTING MANHOLE	CORE DRILL EXISTING CATCH BASIN	CONNECT TO EXISTING MANHOLE				
		FROM			TO			FT	FT	FT	FT	FT	FT	FT	FT	FT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LB	EA	EA	EA				
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE																															
TOTAL THIS SHEET																																						
TOTAL FROM SHEET __																																						
TOTAL CARRIED TO GENERAL SUMMARY																																						

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STORM SUB-SUMMARY

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

MAHONING ROAD NE
STA-0153-01.70

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						
FROM		TO												
STATION	SIDE	STATION	SIDE	CY	FT	FT	FT	FT						
MAHONING ROAD N.E. S.R. 153														
55+11.75	LT	55+36.18	LT	0.23	25									
55+36.18	LT	56+53.86	LT	1.90	205									
56+27.06	LT	56+37.69	LT	0.52	56									
56+46.12	LT	56+54.06	LT	0.46		25								
56+27.60	LT	57+20.26	LT	1.04	112									
57+20.26	LT	57+39.41	LT	0.34	37									
57+65.84	LT	61+53.11	LT	4.30	464									
61+53.11	LT	61+70.81	LT	0.33	36									
61+88.29	LT	61+89.77	LT	0.21	23									
61+89.77	LT	77+94.85	LT	15.02	1622									
77+94.85	LT	77+94.49	LT	0.07	8									
61+89.77	LT	67+21.76	LT	3.70	400									
77+61.78	LT	77+73.13	LT					38						
78+43.12	LT	78+64.81	LT					43						
78+30.94	LT	87+64.84	LT	9.00	972									
87+64.84	LT	87+74.02	LT	0.28	30									
82+33.97	LT	82+90.21	LT		69									
83+14.21	LT	83+19.21	LT	0.06	7									
83+74.21	LT	83+79.21	LT	0.06	7									
84+03.21	LT	84+47.60	LT	0.45	49									
84+60.09	LT	84+85.42	LT	0.30	32									
85+09.42	LT	85+45.42	LT	0.47	51									
85+69.42	LT	86+25.56	LT	0.59	64									
86+36.00	LT	86+40.71	LT	0.08	9									
86+65.18	LT	86+70.00	LT	0.08	9									
88+11.69	LT	88+15.71	LT	0.13	14									
88+59.88	LT	88+64.88	LT	0.08	9									
88+88.88	LT	89+01.47	LT	0.19	20									
89+78.84	LT	89+88.84	LT	0.16	17									
90+24.73	LT	90+34.53	LT	0.16	17									
TOTAL THIS COLUMN				40.23	4364	25		81						

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						
FROM		TO												
STATION	SIDE	STATION	SIDE	CY	FT	FT	FT	FT						
MAHONING ROAD N.E. S.R. 153														
88+06.41	LT	92+26.53	LT	4.59	496									
93+04.45	LT	93+12.03	LT	1.57	170									
93+09.15	LT	93+10.38	LT	0.09	10									
92+91.11	LT	92+85.31	LT	0.29	31									
93+07.03	LT	93+12.03	LT	0.08	9									
93+44.03	LT	93+49.03	LT	0.07	8									
94+15.82	LT	94+20.75	LT	0.06	7									
94+53.82	LT	94+58.82	LT	0.06	7									
55+11.75	RT	55+36.18	RT	0.23	25									
55+36.18	RT	56+51.72	RT	1.10	119									
56+51.72	RT	56+51.26	RT	0.14	15									
55+36.65	RT	55+41.65	RT	0.09	10									
55+65.65	RT	55+70.65	RT	0.09	10									
56+75.56	RT	56+94.52	RT	0.32	35									
56+94.52	RT	62+57.46	RT	5.30	572									
62+57.46	RT	62+58.21	RT	0.19	20									
62+86.69	RT	66+55.76	RT	3.87	418									
66+95.00	RT	69+86.68	RT	3.37	364									
70+25.99	RT	73+91.97	RT	4.10	443									
74+19.15	RT	79+43.96	RT	5.49	593									
75+82.91	RT	76+11.91	RT	1.19	129									
78+28.63	RT	78+52.63	RT	0.62	67									
78+99.82	RT	79+23.82	RT	0.90	97									
79+76.96	RT	79+89.96	RT	0.90	97									
80+16.96	RT	90+31.77	RT	11.11	1200									
83+74.52	RT	83+84.55	RT	0.12	13									
84+26.99	RT	84+36.68	RT	0.12	13									
90+90.50	RT	91+25.05	RT	1.15	124									
91+72.1	RT	92+13.25	RT	2.22			48							
TOTAL THIS COLUMN				49.46	5102		48							
TOTAL FROM LEFT COLUMN				40.23	4364	25		81						
TOTAL CARRIED TO GENERAL SUMMARY				139.16	9466	25	48	81						

CALCULATED: GEA
CHECKED: JGG

REVISIONS

	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

CURB SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

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STATION				304	608	608	608	608	608	608	608	608	SPCL	452
				AGGREGATE BASE (4" UNDER WALK)	4" CONCRETE WALK	5" CONCRETE WALK	CONCRETE STEPS, TYPE A	CONCRETE STEPS, TYPE B	DETECTABLE WARNING	CURB RAMP	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	SPECIAL - MISC.: BRICK BOX FORM	SPECIAL - CONCRETE BOXOUT	NON-REINFORCED CONCRETE PAVEMENT, MISC.: ROADWAY BRICK PAVERS
FROM		TO		CY	SF	SF	FT	FT	SF	SF	SF	SF	EA	SF
STATION	SIDE	STATION	SIDE											
MAHONING ROAD NE S.R. 153														
57+62.23	LT	57+66.46	LT		8	10	83				1	83		
57+49.30	LT	57+74.60	LT		38	6	208				3	208		
58+46.47	LT	58+72.47	LT		26	6	144				2	144		
59+06.47	LT	59+60.47	LT		54	5	292				4	292		
59+88.40	LT	60+20.47	LT		32	6	177				2	177		
60+49.38	LT	61+53.82	LT		107	6	656				8	656		
61+87.81	LT	62+65.90	LT		78	5	428				5	428		
63+00.00	LT	63+83.46	LT		83	6	489				6	489		
64+17.46	LT	64+51.46	LT		34	7	226				3	226		
64+85.45	LT	65+26.03	LT		41	6	261				3	261		
65+50.17	LT	65+60.48	LT		10	6	61				1	61		
65+88.42	LT	66+97.53	LT		109	7	789				10	789		
67+27.54	LT	68+10.61	LT		83	8	629				8	629		
68+44.61	LT	70+47.45	LT		202	8	1566				19	1566		
71+11.40	LT	72+85.17	LT		174	7	1288				16	1288		
73+18.91	LT	74+83.97	LT		165	7	1200				15	1200		
75+17.84	LT	75+46.45	LT		29	6	185				2	185		
75+80.45	LT	77+94.22	LT		252	7	1744				22	1744		
78+30.90	LT	80+76.90	LT		273	7	1990				25	1990		
81+10.90	LT	82+00.20	LT		89	7	601				7	601		
82+34.20	LT	82+82.01	LT		48	7	326				4	326		
83+16.01	LT	83+71.21	LT		55	7	397				5	397		
84+05.21	LT	84+88.45	LT		83	7	553				7	553		
85+22.45	LT	85+54.81	LT		32	7	227				3	227		
85+88.81	LT	86+36.45	LT		48	7	340				4	340		
86+70.45	LT	87+51.34	LT		87	8	667				8	667		
88+03.46	LT	88+67.88	LT		108	8	839				10	839		
89+01.88	LT	89+83.74	LT		82	7	570				7	570		
90+29.87	LT	91+75.67	LT		160	7	1194				15	1194		
92+47.49	LT	93+07.21	LT		107	8	802				10	802		
93+49.03	LT	94+15.37	LT		66	6	420				5	420		
94+59.01	LT	94+66.01	LT		7	4	30				0	30		
58+49.5	LT	58+61.5	LT		12	4				48			48	48
58+65.5	LT	58+69.5	LT		4	4				16			16	16
59+13.5	LT	59+45.5	LT		42	4				168			168	168
59+93.5	LT	60+13.5	LT		20	4				80			80	80
60+61.5	LT	60+85.5	LT		24	4				96			96	96
61+01.5	LT	61+21.5	LT		20	4				80			80	80
62+04.9	LT	62+24.9	LT		20	4				80			80	80
62+44.9	LT	62+64.9	LT		20	4				80			80	80
63+00.9	LT	63+12.8	LT		12	4				48			48	48
66+07.4	LT	66+27.3	LT		20	4				80			80	80
66+51.1	LT	66+83.0	LT		32	4				128			128	128
67+30.5	LT	64+50.5	LT		20	4				80			80	80
68+54.5	LT	68+90.5	LT		36	4				144			144	144
69+10.5	LT	69+42.5	LT		32	4				128			128	128
69+66.5	LT	69+94.5	LT		28	4				112			112	112
70+15.5	LT	70+39.5	LT		24	4				96			96	96
71+23.5	LT	71+47.5	LT		24	4				96			96	96
71+59.5	LT	71+83.5	LT		24	4				96			96	96
72+03.5	LT	72+27.5	LT		24	4				96			96	96
72+47.5	LT	72+71.5	LT		20	4				80			80	80
TOTAL THIS COLUMN					3228	296	19382			1831	239	19382	1831	1831

STATION				304	608	608	608	608	608	608	608	608	SPCL	452
				AGGREGATE BASE (4" UNDER WALK)	4" CONCRETE WALK	5" CONCRETE WALK	CONCRETE STEPS, TYPE A	CONCRETE STEPS, TYPE B	DETECTABLE WARNING	CURB RAMP	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	SPECIAL - MISC.: BRICK BOX FORM	SPECIAL - CONCRETE BOXOUT	NON-REINFORCED CONCRETE PAVEMENT, MISC.: ROADWAY BRICK PAVERS
FROM		TO		CY	SF	SF	FT	FT	SF	SF	SF	SF	EA	SF
STATION	SIDE	STATION	SIDE											
73+31.5	LT	73+71.5	LT		40	4								
73+91.5	LT	74+19.5	LT		28	4								
74+43.5	LT	74+67.5	LT		24	4								
75+23.5	LT	75+43.5	LT		20	4								
75+95.5	LT	76+23.5	LT		28	4								
76+43.5	LT	76+71.5	LT		28	4								
76+83.5	LT	77+11.5	LT		28	4								
78+76.2	LT	79+04.2	LT		28	4								
79+20.2	LT	79+48.2	LT		28	4								
79+68.2	LT	79+96.2	LT		28	4				112			112	112
80+16.2	LT	80+44.2	LT		28	4				112			112	112
80+64.2	LT	80+76.2	LT		28	4				112			112	112
81+16.2	LT	81+40.2	LT		24	4				96			96	96
81+60.2	LT	81+96.2	LT		36	4				144			144	144
82+36.2	LT	82+40.2	LT		4	4				16			16	16
82+52.2	LT	82+80.2	LT		28	4				112			112	112
83+16.2	LT	83+32.2	LT		16	4				64			64	64
83+52.2	LT	83+68.2	LT		16	4				64			64	64
84+08.2	LT	84+24.2	LT		16	4				64			64	64
84+45.5	LT	84+85.5	LT		40	4				160			160	160
85+33.5	LT	85+53.5	LT		20	4				80			80	80
85+93.5	LT	86+13.5	LT		20	4				80			80	80
86+25.5	LT	86+33.5	LT		8	4				32			32	32
86+77.5	LT	84+09.5	LT		32	4				128			128	128
88+40.9	LT	88+64.9	LT		24	4				96			96	96
89+04.9	LT	89+28.9	LT		24	4				96			96	96
89+48.9	LT	89+76.9	LT		28	4				112			112	112
90+32.9	LT	90+36.9	LT		4	4				16			16	16
90+48.9	LT	90+76.9	LT		28	4				112			112	112
91+08.9	LT	91+36.9	LT		28	4				112			112	112
92+90.0	LT	93+06.0	LT		16	4				64			64	64
93+50.0	LT	93+70.0	LT		20	4				80			80	80
93+90.0	LT	94+10.0	LT		20	4				80			80	80
97+62.23	LT	94+66.01	LT					10	280				-280	-280
TOTAL THIS COLUMN					788	132		10	280	2144			1864	1864
TOTAL FROM LEFT COLUMN					3228	296	19382			1831	239	19382	1831	1831
TOTAL CARRIED TO GENERAL SUMMARY					4016	428	19382	10	280	3975	239	19382	3695	3695

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CHECKED: JGG

REVISIONS

	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

WALK
SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

STATION				304	608	608	608	608	608	608	608	608	SPCL	452
				AGGREGATE BASE (4" UNDER WALK)	4" CONCRETE WALK	5" CONCRETE WALK	CONCRETE STEPS, TYPE A	CONCRETE STEPS, TYPE B	DETECTABLE WARNING	CURB RAMP	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	SPECIAL - MISC.: BRICK BOX FORM	SPECIAL - CONCRETE BOXOUT	NON-REINFORCED CONCRETE PAVEMENT, MISC.: ROADWAY BRICK PAVERS
FROM		TO		CY	SF	SF	FT	FT	SF	SF	SF	SF	EA	SF
STATION	SIDE	STATION	SIDE											
MAHONING ROAD NE S.R. 153														
56+94.74	RT	57+47.58	RT		56.26	9	529.35				6.54	529.35		
57+79.58	RT	59+15.58	RT		13.60	114	1546				19.09	1546		
59+51.58	RT	59+79.58	RT		28.00	10	273				3.37	273		
60+15.58	RT	62+59.88	RT		254.18	12	3011.03				37.17	3011.03		
62+87.56	RT	63+25.53	RT		37.97	13	486.96				6.01	486.96		
66+27.12	RT	66+44.42	RT		17.30	8	139.38				1.72	139.38		
66+47.97	RT	66+57.32	RT		9.35	9	87.14				1.08	87.14		
66+98.89	RT	67+07.56	RT		8.67	9	78.13				0.96	78.13		
69+83.83	RT	69+91.57	RT		7.74	10	81.08				1.00	81.08		
70+28.45	RT	71+39.72	RT		111.27	14	1529.62				18.88	1529.62		
73+90.64	RT	73+98.77	RT		8.13	10	82.20				1.01	82.20		
74+34.99	RT	74+85.45	RT		50.46	12	591.61				7.30	591.61		
77+38.69	RT	78+00.15	RT		61.46	9	543.34				6.71	543.34		
86+77.91	RT	87+37.37	RT		59.46	6	329.86				4.07	329.86		
90+48.86	RT	90+87.19	RT		87.47	7	646.44				7.98	646.44		
90+87.26	RT	91+26.04	RT		112.18	2	211.71				2.61	211.71		
91+44.30	RT	92+13.39	RT		105.71	9	916.07				11.31	916.07		
92+56.92	RT	92+72.42	RT		15.50	19	291.64				3.60	291.64		
57+31.6	RT	57+47.6	RT		16	4				64.00			64	64
57+79.6	RT	58+03.6	RT		56	4				224.00			224	224
58+23.6	RT	58+51.6	RT		28	4				112.00			112	112
58+71.6	RT	59+03.6	RT		32	4				128.00			128	128
59+51.6	RT	59+79.6	RT		28	4				112.00			112	112
60+27.6	RT	60+55.6	RT		28	4				112.00			112	112
60+75.6	RT	61+03.6	RT		28	4				112.00			112	112
61+49.1	RT	61+55.6	RT		7	4				26.00			26	26
61+71.6	RT	61+99.6	RT		28	4				112.00			112	112
62+19.6	RT	62+35.6	RT		16	4				64.00			64	64
71+03.53	RT	71+29.53	RT		50	5				232.55			233	233
77+72.15	RT	77+76.15	RT		4	10				40.57			41	41
77+86.15	RT	77+98.15	RT		12	12				138.57			139	139
87+11.37	RT	87+35.37	RT		24	10				233.12			233	233
90+89.25	RT	91+23.99	RT		34.74	16				557.09			557	557
91+75.25	RT	92+11.39	RT		36.14	16				595.23			595	595
56+94.74	RT	92+72.42	RT					9	252				-252	-252
TOTAL THIS COLUMN					1472	390	11375	9	252	2863	140	11375	2611	2611

STATION				304	608	608	608	608	608	608	608	608	SPCL	452
				AGGREGATE BASE (4" UNDER WALK)	4" CONCRETE WALK	5" CONCRETE WALK	CONCRETE STEPS, TYPE A	CONCRETE STEPS, TYPE B	DETECTABLE WARNING	CURB RAMP	SPECIAL - MISC.: 2-1/4" BRICK WALKWAY PAVERS	SPECIAL - MISC.: BRICK BOX FORM	SPECIAL - CONCRETE BOXOUT	NON-REINFORCED CONCRETE PAVEMENT, MISC.: ROADWAY BRICK PAVERS
FROM		TO		CY	SF	SF	FT	FT	SF	SF	SF	SF	EA	SF
STATION	SIDE	STATION	SIDE											
TOTAL THIS COLUMN														
TOTAL FROM LEFT COLUMN					1472	390	11375	9	252	2863	140	11375	2611	2611
TOTAL FROM SHEET __														
TOTAL CARRIED TO GENERAL SUMMARY					1472	390	11375	9	252	2863	140	11375	2611	2611

CALCULATED: GEA
CHECKED: JGC

REVISIONS

DATE	BY
4/21/14	GEA
CONSTRUCTION BIDDING SET	

WALK SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

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LOCATION				203 EXCAVATION	203 EMBANKMENT	204 PROOF ROLLING	204 SUBGRADE COMPACTION	204 EXCAVATION OF SUBGRADE	209 LINEAR GRADING					
FROM		TO												
STATION	SIDE	STATION	SIDE	CY	CY	HR	SY	CY	STA					
MAHONING ROAD N.E. S.R. 153														
55+11.75	LT	55+36.18	LT											
55+36.18	LT	56+53.86	LT											
56+27.06	LT	56+37.69	LT											
56+46.12	LT	56+54.06	LT											
56+27.60	LT	57+20.26	LT											
57+20.26	LT	57+39.41	LT											
57+65.84	LT	61+53.11	LT											
61+53.11	LT	61+70.81	LT											
61+88.29	LT	61+89.77	LT											
61+89.77	LT	77+94.85	LT											
77+94.85	LT	77+94.49	LT											
61+89.77	LT	67+21.76	LT											
77+61.78	LT	77+73.13	LT											
78+43.12	LT	78+64.81	LT											
78+30.94	LT	87+64.84	LT											
87+64.84	LT	87+74.02	LT											
82+33.97	LT	82+90.21	LT											
83+14.21	LT	83+19.21	LT											
83+74.21	LT	83+79.21	LT											
84+03.21	LT	84+47.60	LT											
84+60.09	LT	84+85.42	LT											
85+09.42	LT	85+45.42	LT											
85+69.42	LT	86+25.56	LT											
86+36.00	LT	86+40.71	LT											
86+65.18	LT	86+70.00	LT											
88+11.69	LT	88+15.71	LT											
88+59.88	LT	88+64.88	LT											
88+88.88	LT	89+01.47	LT											
89+78.84	LT	89+88.84	LT											
90+24.73	LT	90+34.53	LT											
TOTAL THIS COLUMN														

LOCATION				203 EXCAVATION	203 EMBANKMENT	204 PROOF ROLLING	204 SUBGRADE COMPACTION	204 EXCAVATION OF SUBGRADE	209 LINEAR GRADING					
FROM		TO												
STATION	SIDE	STATION	SIDE	CY	CY	HR	SY	CY	STA					
MAHONING ROAD N.E. S.R. 153														
88+06.41	LT	92+26.53	LT											
93+04.45	LT	93+12.03	LT											
93+09.15	LT	93+10.38	LT											
92+91.11	LT	92+85.31	LT											
93+07.03	LT	93+12.03	LT											
93+44.03	LT	93+49.03	LT											
94+15.82	LT	94+20.75	LT											
94+53.82	LT	94+58.82	LT											
55+11.75	RT	55+36.18	RT											
55+36.18	RT	56+51.72	RT											
56+51.72	RT	56+51.26	RT											
55+36.65	RT	55+41.65	RT											
55+65.65	RT	55+70.65	RT											
56+75.56	RT	56+94.52	RT											
56+94.52	RT	62+57.46	RT											
62+57.46	RT	62+58.21	RT											
62+86.69	RT	66+55.76	RT											
66+95.00	RT	69+86.68	RT											
70+25.99	RT	73+91.97	RT											
74+19.15	RT	79+43.96	RT											
75+82.91	RT	76+11.91	RT											
78+28.63	RT	78+52.63	RT											
78+99.82	RT	79+23.82	RT											
79+76.96	RT	79+89.96	RT											
80+16.96	RT	90+31.77	RT											
83+74.52	RT	83+84.55	RT											
84+26.99	RT	84+36.68	RT											
90+90.50	RT	91+25.05	RT											
91+72.1	RT	92+13.25	RT											
TOTAL THIS COLUMN														
TOTAL FROM LEFT COLUMN														
TOTAL CARRIED TO GENERAL SUMMARY														

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REVISIONS

BY	DATE	
GEA	4/21/14	CONSTRUCTION BIDDING SET

EARTHWORK SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

SHEET NO.	REFERENCE NO.	STATION						611	611	611	611	SPCL	SPCL																									
								8" CONDUIT, TYPE B, 707.45	MANHOLE NO. 3, WITH 48" BASE	MANHOLE RECONSTRUCTED TO GRADE	MANHOLE ADJUSTED TO GRADE	CONNECT TO EXISTING MANHOLE	MISCELLANEOUS METAL																									
		FROM			TO			FT	EA	EA	EA	EA	LB																									
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE																															
TOTAL CARRIED TO GENERAL SUMMARY																																						

CALCULATED: GEA
CHECKED: JGG

SANITARY SUB-SUMMARY

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.	STATION						638	638	638	638	638
								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
		FROM			TO			FT	EA	EA	EA	EA
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE					
TOTAL CARRIED TO GENERAL SUMMARY												

CALCULATED: GEA
CHECKED: JGG

WATER SUB-SUMMARY

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

MAHONING ROAD NE
STA-0153-01.70

33
108

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SHEET NO.	PHASE	LOCATION		614 WORK ZONE SPEED LIMIT SIGN	614 MAINTAINING TRAFFIC , MISC.: BUSINESS SIGN	614 WORK ZONE MARKING SIGN	614 WORK ZONE CENTER LINE, CLASS I	614 WORK ZONE CENTER LINE, CLASS II	614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS I	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I	614 WORK ZONE STOP LINE, CLASS I	614 WORK ZONE ARROW, CLASS I	614 RESUME LEGAL SPEED SIGN
		FROM	TO	EA	EA	EA	MILE	MILE	MILE	FT	FT	MILE	FT	EA	EA
		STATION	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 WORK ZONE SPEED LIMIT SIGN	614 MAINTAINING TRAFFIC , MISC.: BUSINESS SIGN	614 WORK ZONE MARKING SIGN	614 WORK ZONE CENTER LINE, CLASS I	614 WORK ZONE CENTER LINE, CLASS II	614 WORK ZONE CENTER LINE, CLASS III, 642 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS I	614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I	614 WORK ZONE STOP LINE, CLASS I	614 WORK ZONE ARROW, CLASS I	614 RESUME LEGAL SPEED SIGN
		FROM	TO	EA	EA	EA	MILE	MILE	MILE	FT	FT	MILE	FT	EA	EA
		STATION	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															

CALCULATED: GEA
CHECKED: JGC

REVISIONS

	BY	DATE
CONSTRUCTION BIDDING SET	GEA	4/21/14

MAINTENANCE OF TRAFFIC SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

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LOCATION				652	653	661	661	661	661	661	662	SPCL	SPCL	SPCL
				PLACING STOCKPILED TOPSOIL	TOPSOIL FURNISHED AND PLACED	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	BOLLARD, WOOD	BOLLARD, WOOD, HINGED
FROM		TO		CY	CY	EA	EA	EA	EA	EA	GAL	EA	EA	EA
STATION	SIDE	STATION	SIDE											
MAHONING ROAD N.E. S.R. 153														
55+11.75	LT	55+36.18	LT											
55+36.18	LT	56+53.86	LT											
56+27.06	LT	56+37.69	LT								25			
56+46.12	LT	56+54.06	LT											
56+27.60	LT	57+20.26	LT											
57+20.26	LT	57+39.41	LT											
57+65.84	LT	61+53.11	LT											
61+53.11	LT	61+70.81	LT											
61+88.29	LT	61+89.77	LT											
61+89.77	LT	77+94.85	LT											
77+94.85	LT	77+94.49	LT											
61+89.77	LT	67+21.76	LT											
77+61.78	LT	77+73.13	LT											
78+43.12	LT	78+64.81	LT											
78+30.94	LT	87+64.84	LT											
87+64.84	LT	87+74.02	LT											
82+33.97	LT	82+90.21	LT											
83+14.21	LT	83+19.21	LT											
83+74.21	LT	83+79.21	LT											
84+03.21	LT	84+47.60	LT											
84+60.09	LT	84+85.42	LT											
85+09.42	LT	85+45.42	LT											
85+69.42	LT	86+25.56	LT											
86+36.00	LT	86+40.71	LT											
86+65.18	LT	86+70.00	LT											
88+11.69	LT	88+15.71	LT											
88+59.88	LT	88+64.88	LT											
88+88.88	LT	89+01.47	LT											
89+78.84	LT	89+88.84	LT											
90+24.73	LT	90+34.53	LT											
TOTAL THIS COLUMN											25			

LOCATION				652	653	661	661	661	661	661	662	SPCL	SPCL	SPCL
				PLACING STOCKPILED TOPSOIL	TOPSOIL FURNISHED AND PLACED	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	BOLLARD, WOOD	BOLLARD, WOOD, HINGED
FROM		TO		CY	CY	EA	EA	EA	EA	EA	GAL	EA	EA	EA
STATION	SIDE	STATION	SIDE											
MAHONING ROAD N.E. S.R. 153														
88+06.41	LT	92+26.53	LT											
93+04.45	LT	93+12.03	LT											
93+09.15	LT	93+10.38	LT											
92+91.11	LT	92+85.31	LT											
93+07.03	LT	93+12.03	LT											
93+44.03	LT	93+49.03	LT											
94+15.82	LT	94+20.75	LT											
94+53.82	LT	94+58.82	LT											
55+11.75	RT	55+36.18	RT											
55+36.18	RT	56+51.72	RT											
56+51.72	RT	56+51.26	RT											
55+36.65	RT	55+41.65	RT											
55+65.65	RT	55+70.65	RT											
56+75.56	RT	56+94.52	RT											
56+94.52	RT	62+57.46	RT											
62+57.46	RT	62+58.21	RT											
62+86.69	RT	66+55.76	RT											
66+95.00	RT	69+86.68	RT											
70+25.99	RT	73+91.97	RT											
74+19.15	RT	79+43.96	RT											
75+82.91	RT	76+11.91	RT											
78+28.63	RT	78+52.63	RT											
78+99.82	RT	79+23.82	RT											
79+76.96	RT	79+89.96	RT											
80+16.96	RT	90+31.77	RT											
83+74.52	RT	83+84.55	RT											
84+26.99	RT	84+36.68	RT											
90+90.50	RT	91+25.05	RT											
91+72.1	RT	92+13.25	RT											
TOTAL THIS COLUMN														
TOTAL FROM LEFT COLUMN														
TOTAL CARRIED TO GENERAL SUMMARY														

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CALCULATED: GEA
CHECKED: JGG

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

STREETSCAPE
SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

SHEET NO.	REFERENCE NO.	LOCATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST, 730.016, SQUARE, AS PER PLAN	630 STREET NAME SIGN SUPPORT, NO. 3 POST, 730.016, SQUARE, AS PER PLAN	630 SIGN, DOUBLE FACED, STREET NAME	630 SIGN, STOP, AS PER PLAN	630 SIGN, MISC., AS PER PLAN	630 SIGN HANGER ASSEMBLY, MAST ARM	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 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 GROUND MOUNTED SUPPORT, NO. 3 POST, 730.016, SQUARE, AS PER PLAN	630 STREET NAME SIGN SUPPORT, NO. 3 POST, 730.016, SQUARE, AS PER PLAN	630 SIGN, DOUBLE FACED, STREET NAME	630 SIGN, STOP, AS PER PLAN	630 SIGN, MISC., AS PER PLAN	630 SIGN HANGER ASSEMBLY, MAST ARM	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 SIGN, FLAT SHEET
						FT	FT	EA	EA	EA	EA	EA	SF
	47	77+72.9	RT	SPECIAL (EXIST)	12" X 18"					1.5			
	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"		1			10			
	67	88+07.0	LT	R3-HJ9	6" X 24"					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		

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CALCULATED: GEA
CHECKED: JGG

REVISIONS

BY	DATE
GEA	4/21/14

CONSTRUCTION BIDDING SET

SIGNAGE SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

SHEET NO.	REFERENCE NO.	LOCATION		SIDE	TYPE	642	644	644	644	644	644	644	644	
						CENTER LINE	CHANNELIZING LINE, 8"	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	LANE ARROW	WORD ON PAVEMENT, 72"	DOTTED LINE, 4"	
		FROM	TO			MILE	FT	FT	FT	FT	EA	EA	FT	
		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.	REFERENCE NO.	LOCATION		SIDE	TYPE	642	644	644	644	644	644	644	644	
						CENTER LINE	CHANNELIZING LINE, 8"	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	LANE ARROW	WORD ON PAVEMENT, 72"	DOTTED LINE, 4"	
		FROM	TO			MILE	FT	FT	FT	FT	EA	EA	FT	
		STATION	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														

CALCULATED: GEA
CHECKED: JGG

REVISIONS

	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

PAVEMENT MARKING SUB-SUMMARY

MAHONING ROAD NE
STA-0153-01.70

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SHEET NO.

REFERENCE NO.

STATION FROM			STATION TO					
STATION	OFFSET	SIDE	STATION	OFFSET	SIDE		STATION	
						SY	PARTIAL DEPTH PAVEMENT REPAIR	251
						CY	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAY)	301
						CY	AGGREGATE BASE (4" UNDER PAVEMENT)	304
						CY	AGGREGATE BASE (6" UNDER BUS STOP)	304
						SY	9" CONCRETE BASE	305
						GAL	TACK COAT (0.15 GAL/SY)	407
						GAL	TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)	407
						CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	424
						CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAY)	448
						CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	448
						SY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (LEVELING COURSE)	448
						SY	3" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (UNDER WALK PAVERS)	452
						SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (RESIDENTIAL DRIVE APRON)	452
						SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (UNDER ROADWAY PAVERS)	452
						SY	7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (COMMERCIAL DRIVE APRON)	452
						SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (BUS PAD)	452
						SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (CROSSWALK)	452

TOTAL CARRIED TO GENERAL SUMMARY

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MAHONING ROAD NE
STA-0153-01.70

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

ROADWAY
SUB-SUMMARY

CALCULATED: GEA
CHECKED: JGG

SHEET NO.	REFERENCE NO.	STATION						251	301	304	304	305	407	407	424	448	448	448	452	452	452	452	452	452
								PARTIAL DEPTH PAVEMENT REPAIR	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAY)	AGGREGATE BASE (4" UNDER PAVEMENT)	AGGREGATE BASE (6" UNDER BUS STOP)	9" CONCRETE BASE	TACK COAT (0.15 GAL/SY)	TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAY)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (LEVELING COURSE)	3" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (UNDER WALK PAVERS)	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (RESIDENTIAL DRIVE APRON)	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (UNDER ROADWAY PAVERS)	7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (COMMERCIAL DRIVE APRON)	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (BUS PAD)	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (CROSSWALK)
		FROM			TO			SY	CY	CY	CY	SY	GAL	GAL	CY	CY	CY	SY	SY	SY	SY	SY	SY	SY
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE																	
TOTAL THIS SHEET																								

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ROADWAY SUB-SUMMARY

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

MAHONING ROAD NE
STA-0153-01.70

SHEET NO.	REFERENCE NO.	STATION						251 PARTIAL DEPTH PAVEMENT REPAIR	301 ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAY)	304 AGGREGATE BASE (4" UNDER PAVEMENT)	304 AGGREGATE BASE (6" UNDER BUS STOP)	305 9" CONCRETE BASE	407 TACK COAT (0.15 GAL/SY)	407 TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL/SY)	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAY)	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (LEVELING COURSE)	452 3" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (UNDER WALK PAVERS)	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (RESIDENTIAL DRIVE APRON)	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (UNDER ROADWAY PAVERS)	452 7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (COMMERCIAL DRIVE APRON)	452 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 (BUS PAD)	452 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC FS (CROSSWALK)
		FROM			TO			SY	CY	CY	CY	SY	GAL	GAL	CY	CY	CY	SY	SY	SY	SY	SY	SY	SY
		STATION	OFFSET	SIDE	STATION	OFFSET	SIDE																	
TOTAL THIS SHEET																								
TOTAL FROM SHEET __																								
TOTAL FROM SHEET __																								
TOTAL CARRIED TO GENERAL SUMMARY																								

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ROADWAY SUB-SUMMARY

REVISIONS	DATE	BY
CONSTRUCTION BIDDING SET	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

SITE AND PROJECT INFORMATION

PROJECT NAME AND LOCATION:

PROJECT NAME:
MAHONING ROAD NE ROADWAY IMPROVEMENTS
(STA-0153-01.70)

LOCATION:
MAHONING ROAD NE (S.R. 153) BETWEEN THE GRACE AVENUE NE AND HARMONT AVENUE NE INTERSECTIONS LOCATED IN THE CITY OF CANTON, COUNTY OF STARK, STATE OF OHIO.

OWNER INFORMATION:

CITY OF CANTON
2436 30TH STREET N.E.
CANTON, OHIO 44705
CONTACT: DANIEL J. MOEGLIN, P.E., S.I.
PHONE: 330-489-3370
FAX: 330-489-3337

GENERAL CONTRACTOR INFORMATION:

_____
BUSINESS NAME

_____
STREET ADDRESS

_____ _____ _____
CITY STATE ZIP CODE

CONTACT INFORMATION FOR THE PERSON RESPONSIBLE FOR AUTHORIZING AND AMENDING THE SWPPP:

_____ _____
CONTACT NAME PHONE NUMBER

PROJECT DESCRIPTION:

THE PROJECT WORK INVOLVES THE SITE IMPROVEMENT OF APPROXIMATELY 0.67 MILES OF MAHONING ROAD NE (S.R. 153) BETWEEN THE GRACE AVENUE NE AND HARMONT AVENUE NE INTERSECTIONS. THE PROJECT CONSISTS OF INSTALLING NEW ADA COMPLIANT HANDICAP RAMPS, WIDENED SIDEWALKS, DECORATIVE BRICK PAVERS, STREET TREES, BUS STOPS, BENCHES, SIGNAGE AND STREET LIGHTING. IN ADDITION TO THE STREETSCAPE PORTION OF THE PROJECT, A SECONDARY STORM SEWER SYSTEM IS BEING INSTALLED TO HELP MINIMIZE FLOODING. REPLACEMENT OF EXISTING CATCH BASINS WILL OCCUR WHERE THE ROAD WIDTH IS INCREASED. ALL EXISTING PAVEMENT WILL BE MILLED AND RESURFACED.

PRIOR LAND USE:

EXISTING 3-LANE ASPHALT PAVED ROAD WITH SIDEWALKS ON BOTH SIDES OF THE ROAD SERVING EXISTING RETAIL BUSINESSES AND RESIDENTIAL HOUSES. UNDERGROUND UTILITIES CONSIST OF SANITARY SEWERS, STORM SEWERS, WATER LINES, GAS LINES AND TELEPHONE FIBEROPTIC.

TYPE OF CONSTRUCTION (CHECK ALL THAT APPLY):

_ MAINTENANCE	_ RETAIL CENTER	_ COMMERCIAL
_ REDEVELOPMENT	_ MANUFACTURING	_ INDUSTRIAL
_ NEW DEVELOPMENT	_ HEALTH FACILITY	_ SUBDIVISION
X OTHER: STREETSCAPE/ROADWAY PROJECT		_ OUTLOT

SITE AREA SUMMARY:

TOTAL PROJECT SITE AREA: 6.9 AC.
AREA TO BE DISTURBED: 4.2 AC.

PRE-DEVELOPMENT IMPERVIOUS AREA: _____ S.F.
POST-DEVELOPMENT IMPERVIOUS AREA: _____ S.F.
PERCENT INCREASE OF IMPERVIOUS AREA: _____ %

PRE-DEVELOPMENT RUN-OFF COEFFICIENT: 98
POST-DEVELOPMENT RUN-OFF COEFFICIENT: 98

QUALITY OF STORM WATER DISCHARGE FROM THE SITE:
UNKNOWN

QUALITY OF ANY DISCHARGE FROM THE SITE:
NOT APPLICABLE

ESTIMATED CONSTRUCTION START DATE: 5/2014
ESTIMATED CONSTRUCTION COMPLETION DATE: 12/2014

SITE SOIL TYPES AND DESCRIPTIONS:

NAME	DESCRIPTION	% OF SITE
_____	_____	_____%
_____	_____	_____%

NAME OF RECEIVING STREAM OR SURFACE WATER:

MIDDLE BRANCH NIMISHILLEN CREEK

EROSION AND SEDIMENT CONTROL MEASURES USED ON THE SITE:

SILT FENCE, FILTER SOCK, STORM DRAIN INLET PROTECTION, CONCRETE WASHOUT PIT, TEMPORARY SEEDING, PERMANENT SEEDING AND MULCHING.

EROSION AND SEDIMENT CONTROL MEASURES TO REMAIN AFTER CONSTRUCTION AND BECOME THE POST CONSTRUCTION CONTROL MEASURES:

PERMANENT SEEDING

SOIL PROTECTION CHART

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D
PERMANENT SEEDING			●	●	●	*	*	*	●	●		
TEMPORARY SEEDING			●	●	●	*	*	*	●	●		
SODDING			*	*	*	*	*	*	*			
MULCHING	●	●	●	●	●	●	●	●	●	●	●	●

(*) – IRRIGATION NEEDED

GENERAL NOTES

1. THE CITY OF CANTON WILL SUBMIT A NOTICE OF INTENT TO THE OHIO EPA FOR COVERAGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION STORM WATER PERMIT BECAUSE THE PROJECT WILL CAUSE MORE THAN 1 ACRE OF EARTH DISTURBANCE. THE CONTRACTOR WILL BE REQUIRED TO DEVELOP A STORM WATER POLLUTION PREVENTION PLAN FOR THE PROJECT AND COMPLY WITH ALL NPDES TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION.

2. THE CONTRACTOR SHALL READ AND FOLLOW THE PRACTICES AND REQUIREMENTS OF EROSION AND SEDIMENT CONTROL IN THE MOST CURRENT STANDARDS AND SPECIFICATIONS FOR:
   - LOCAL EROSION AND SEDIMENT CONTROL REGULATIONS
   - ODNR RAINWATER AND LAND DEVELOPMENT MANUAL
   - OHIO EPA GENERAL PERMIT FOR CONSTRUCTION SITE STORM WATER

2. THE CONTRACTOR MUST SUBMIT A CO-PERMITTEE APPLICATION TO THE OHIO EPA PRIOR TO BEGINNING WORK AND SHALL BE RESPONSIBLE FOR ALL TERMS AND CONDITIONS OF THE OHIO NPDES GENERAL PERMIT UNTIL A NOTICE OF TERMINATION (NOT) IS SUBMITTED.

3. PRIOR TO COMMENCING WORK, SUBCONTRACTORS INVOLVED IN SWPPP IMPLEMENTATION OR ACTIVITIES THAT IMPACT STORM WATER SHALL COMPLETE THE "SUBCONTRACTOR CERTIFICATION /AGREEMENT FOR SWPPP" ACKNOWLEDGING THEY UNDERSTOOD THE CONDITIONS AND THEIR RESPONSIBILITIES.

4. THE CONTRACTOR SHALL USE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT MOVEMENT INTO STORM SEWERS. SPECIAL PRECAUTIONS IN CONSTRUCTION EQUIPMENT USE SHALL BE MADE TO PREVENT SITUATIONS THAT PROMOTE EROSION. CLEANUP SHALL BE DONE IN A MANNER THAT DOES NOT DISTURB EROSION CONTROL MEASURES.

5. SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 21 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST ACTIVITY.

6. THE CONTRACTOR MAY NEED ADDITIONAL DEWATERING OR EROSION AND SEDIMENTATION PREVENTION MEASURES TO CONTEND WITH GROUNDWATER. GROUNDWATER, STORM WATER AND SEDIMENT BEARING DRAINAGE SHALL BE FILTERED TO ALLOW REMOVAL OF SILT, SEDIMENT, DEBRIS AND OTHER POLLUTANTS PRIOR TO DISCHARGE FROM THE SITE (I.E. SETTLING IN PLACE OR DEWATERING INTO A SUMP PIT OR FILTER BAG). SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL. WATER WITH A VISIBLE SHEEN MUST BE REMOVED BY A VACUUM TRUCK. THERE SHALL BE NO TURBID OR MURKY DISCHARGES TO SURFACE WATERS RESULTING FROM DEWATERING ACTIVITIES. GROUNDWATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS DOES NOT REQUIRE TREATMENT PRIOR TO DISCHARGE, BUT CARE MUST BE TAKEN TO ENSURE IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES OR ERODE THE DISCHARGE AREA.

7. IF UNFORESEEN ENVIRONMENTAL CONDITIONS ARE ENCOUNTERED, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE NECESSARY. IF THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT COULD DISCHARGE POLLUTANTS TO SURFACE WATERS, THE REVISION TO THE SWPPP MUST BE COMPLETED AS SOON AS PRACTICAL AND PRIOR TO THE NEXT STORM EVENT. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY ALSO BE REQUESTED BY THE CITY OF CANTON, SOIL AND WATER CONSERVATION DISTRICT, OR OHIO EPA AT ANYTIME. SUCH REQUEST SHALL BE IMPLEMENTED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

8. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO CLEARING, GRUBBING, GRADING OR OTHER CONSTRUCTION ACTIVITY AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND DISTURBED AREAS ARE STABILIZED. APPROPRIATE CONTROLS SHALL BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS CHANGING DRAINAGE PATTERNS AS CONSTRUCTION PROGRESSES.

9. A QUALIFIED INSPECTION PERSON SHALL COMPLETE AND SIGN A CHECKLIST FOLLOWING EACH INSPECTION. AT A MINIMUM, THE INSPECTION REPORT MUST INCLUDE THE FOLLOWING:
   - INSPECTION DATE.
   - INSPECTION PERSON'S NAME, TITLE AND QUALIFICATION.
   - WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION, ESTIMATE OF THE BEGINNING OF EACH PRIOR STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT AND WHETHER ANY DISCHARGES OCCURRED.
   - WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION.
   - LOCATION OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.
   - LOCATION OF BMP'S THAT NEED TO BE MAINTAINED.
   - LOCATION OF BMP'S THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A LOCATION.
   - LOCATION WHERE ADDITIONAL BMP'S WERE NEEDED, BUT DID NOT EXIST AT THE TIME OF INSPECTION.
   - CORRECTIVE ACTION REQUIRED INCLUDING CHANGES TO THE SWPPP AND IMPLEMENTATION DATES.

12. THE CONTRACTOR SHALL HAVE COPIES OF THE FOLLOWING ON-SITE:
   - SIGNED NOI APPLICATION
   - OHIO EPA NATIONAL POLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT
   - SUBCONTRACTOR CERTIFICATION / AGREEMENT FOR SWPPP
   - DELEGATION OF AUTHORITY FOR SWPPP
   - THESE SWPPP AND ANY SWPPP AMENDMENT LOGS
   - GRADING AND STABILIZATION ACTIVITY LOG
   - INSPECTION LOGS

13. THE CONTRACTOR SHALL REMOVE ALL MUD, SOIL OR DEBRIS DEPOSITED ON ROADS, DRIVE LANES, ETC. AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY.

SPILL PREVENTION AND MATERIAL MANAGEMENT PRACTICES

1. STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN AN ORDERLY MANNER IN APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

2. PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL UNLESS NOT RESEALABLE.

3. SUBSTANCES NOT TO BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

4. WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER. FOLLOW LOCAL, STATE AND MANUFACTURERS' RECOMMENDED METHODS FOR DISPOSAL SHALL IF SURPLUS PRODUCT IS TO BE DISPOSED OF.

5. THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON-SITE.

6. SAFETY DATA SHEETS (SDS) MUST BE RETAINED ON-SITE.

7. SPILL CONTROL PRACTICES:
   - MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP MUST BE POSTED AND SITE PERSONNEL MADE AWARE OF THE PROCEDURES, LOCATION OF THE INFORMATION AND LOCATION OF CLEANUP SUPPLIES.
   - SPILL CLEANUP MATERIAL OR EQUIPMENT SHALL BE KEPT IN A MATERIAL STORAGE AREA ON-SITE (I.E. DUST PANS, BROOMS, MOPS, RAGS, GLOVES, GOGGLES, SAWDUST, KITTY LITTER, SAND, AND PLASTIC OR METAL TRASH CONTAINERS).
   - SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING.
   - TOXIC OR HAZARDOUS MATERIAL SPILLS MUST BE REPORTED TO THE APPROPRIATE FEDERAL GOVERNMENT AGENCY, OHIO EPA (800-282-9378), LOCAL FIRE DEPARTMENT (911) AND LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) REGARDLESS OF SIZE AND WITHIN 30 MINUTES OF A SPILL.
   - SPILL PREVENTION PLANS SHALL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT A SPILL TYPE FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT AND THE CLEAN-UP MEASURES SHALL BE INCLUDED.

PRODUCT SPECIFIC PRACTICES

SOLID, SANITARY AND TOXIC WASTE SHALL BE DISPOSED IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO A SEWER SOLVENTS, PAINT, STAINS, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUNDS, ANTIFREEZE, OR OTHER TOXIC OR HAZARDOUS WASTE.

PETROLEUM PRODUCTS: ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS AND CLEARLY LABELED

FERTILIZERS: APPLY FERTILIZER ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. CONTENTS OF PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS: CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER, BUT SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS: CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE. WASH OUT OF CONCRETE TRUCKS SHALL OCCUR IN A DESIGNATED AREA WHERE THE WASHING CAN COLLECT AND BE DISPOSED OF PROPERLY WHEN HARDENED.

WASTE MATERIALS: COLLECT WASTE MATERIALS INCLUDING TRASH AND CONSTRUCTION DEBRIS IN A SECURELY LIDDED DUMPSTER AND DISPOSE IN AN OHIO EPA APPROVED LANDFILL. MATERIALS WHICH CONTAIN ASBESTOS TO COMPLY WITH THE OHIO EPA AIR POLLUTION REGULATIONS. THE DUMPSTER IS TO BE HAULED OFF-SITE AND EMPTIED AS NECESSARY.

HAZARDOUS WASTE: DISPOSE OF HAZARDOUS WASTE MATERIALS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS OR AS SPECIFIED BY THE MANUFACTURER.

SANITARY WASTE: CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE AND IT SHALL BE SERVICED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.

OFF-SITE VEHICLE TRACKING: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE SHALL BE SWEPT DAILY, OR MORE OFTEN IF NECESSARY, TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPAULIN.

FUEL STORAGE TANKS: FUEL STORAGE TANKS SHALL BE LOCATED IN DIKED AREAS AND AWAY FROM DRAINAGE CHANNELS. THE DIKED AREAS SHOULD HOLD A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. THE DIKED ARES ARE NOT NECESSARY IF THE CONTRACTOR USES SELF-CONTAINED SPILL PROOF TANKS. A GENERAL LOCATION FOR THE FUEL STORAGE TANKS IS SHOWN IN THE SWPPP, BUT MAY BE MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.

POLLUTION PREVENTION PLAN INVENTORY

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE ANTICIPATED TO BE PRESENT ON-SITE DURING CONSTRUCTION:

X CONCRETE	X FERTILIZERS	X PAINTS (ENAMEL AND LATEX)
X ASPHALT	X DETERGENTS	X PETROLEUM BASED PRODUCTS
X TAR	_ CMU BLOCK	X CLEANING SOLVENTS

STABILIZATION PRACTICES

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL DEVICES IN AREAS TO REMAIN DISTURBED FOR 14 DAYS OR UNTIL PERMANENT STABILIZATION IS COMPLETE. PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE AND MATURE ENOUGH TO SURVIVE WINTER WEATHER CONDITIONS.

2. ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED UNLESS THE SEWER IS INACTIVE DUE TO PRIOR WORK. DO NOT REMOVE INLET PROTECTION FROM EXISTING STORM INLET BASINS TO BE REMOVED OR ABANDONED UNTIL AFTER THE DOWNSTREAM STORM STRUCTURE IS PLUGGED FROM STORM FLOW.

3. PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.

4. TEMPORARY STABILIZATION: DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR MORE THAN 21 DAYS, BUT LESS THAN 1 YEAR, SHALL FOLLOW THIS CHART:

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
Disturbed areas within 50 feet of surface water, not at final grade, and to remain idle more than 21 days.	Within 2 days of the most recent disturbance.
Disturbed areas not within 50 feet of surface water, to be dormant more than 21 days, but less than 1 year.	Within 7 days of the most recent disturbance.
Disturbed areas that will remain idle over the winter.	Prior to the onset of winter weather.
For areas to be paved, disturbed areas that will remain dormant for the time constraints mentioned in the above criteria.	Temporarily stabilize with geotextile and/or stone subbase until pavement is installed.

5. PERMANENT STABILIZATION: DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL FOLLOW THIS CHART:

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
Areas to be dormant for 1 year or more.	Within 7 days of the most recent disturbance.
Areas within 50 feet of surface water and at final grade.	Within 2 days of reaching final grade.
All other areas at final grade.	Within 7 days of reaching final grade.

MAINTENANCE / INSPECTION PROCEDURES

1. REGULAR INSPECTION AND MAINTENANCE SHALL BE PROVIDED FOR EROSION AND SEDIMENT CONTROL PRACTICES. INSPECTIONS SHALL BE PERFORMED UNTIL THE NOTICE OF TERMINATION (NOT) IS FILED WITH THE OHIO EPA. INSPECTIONS TO BE MADE A MINIMUM OF 1 TIME PER WEEK AND WITHIN 24 HOURS AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24 HOUR PERIOD. THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS (I.E. SITE COVERED WITH SNOW OR THE GROUND IS FROZEN). A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET:
   - THE PROJECT IS LOCATED IN AN AREA WHERE FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E., MORE THAN 1 MONTH).
   - LAND DISTURBANCE ACTIVITIES HAVE BEEN SUSPENDED.
   - THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWPPP.

   ONCE A DEFINABLE AREA HAS BEEN FULLY STABILIZED, IT MAY BE MARKED ON THE SWPPP AND NO FURTHER INSPECTION REQUIREMENTS ARE REQUIRED FOR THAT AREA OF THE SITE.

2. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.

3. DUST CONTROL: THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY (I.E. CALCIUM CHLORIDE, WATER OR MOTORIZED DUST-FREE STREET SWEEPING DEVICE) TO MAINTAIN ROADWAYS USED FOR SITE ACCESS AT THE END OF EACH WORK DAY OR AS REQUIRED AND ADHERE TO ALL GOVERNING AUTHORITY ORDINANCES.

4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. ANY REPAIR NEEDED SHALL TO BE INITIATED WITHIN 24 HOURS OF THE REPORT.

5. AFTER SUBMITTAL OF THE NOT, THE PERMITTEE SHALL MAINTAIN FOR 3 YEARS A RECORD SUMMARIZING THE RESULTS OF INSPECTIONS, NAMES AND QUALIFICATIONS OF INSPECTION PERSONNEL, THE INSPECTION DATES, MAJOR OBSERVATIONS RELATED TO THE IMPLEMENTATION OF THE SWPPP, A CERTIFICATION WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND PERMIT, AND IDENTIFICATION OF ANY INCIDENTS OF NON-COMPLIANCE.
   - WHEN PRACTICE REQUIRES REPAIR OR MAINTENANCE: IF INSPECTION REVEALS A CONTROL PRACTICE NEEDS REPAIR OR MAINTENANCE, EXCEPT FOR SEDIMENT SETTLING PONDS, REPAIR OR MAINTENANCE SHALL OCCUR WITHIN 3 DAYS OF INSPECTION. SEDIMENT SETTLING PONDS REPAIR OR MAINTENANCE SHALL OCCUR WITHIN 10 DAYS OF INSPECTION.
   - WHEN PRACTICE FAILS TO PROVIDE INTENDED FUNCTION: IF INSPECTION REVEALS A CONTROL PRACTICE FAILS TO PERFORM ITS FUNCTION AND A MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWPPP SHALL BE AMENDED, THE NEW CONTROL PRACTICE INSTALLED WITHIN 10 DAYS OF INSPECTION, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
   - WHEN PRACTICE SHOWN IN THE SWPPP IS NOT INSTALLED: IF INSPECTION REVEALS A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, IT SHALL BE IMPLEMENTED WITHIN 10 DAYS OF INSPECTION. IF INSPECTION REVEALS A PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT EXPLAINING WHY AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.

8. SEEDING SHALL BE INSPECTED FOR BARE SPOTS AND WASHOUTS.

9. THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE THE "DELIGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" FORM.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES FOR SWPPP:

1. A PRE-CONSTRUCTION MEETING TO BE HELD TO DISCUSS THE OHIO EPA NPDES PERMIT REQUIREMENTS.
2. CONTRACTOR TO SUBMIT A CONSTRUCTION SCHEDULE FOR PROPOSED CONSTRUCTION ACTIVITIES.
3. INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF ALL CONTROLS TO BEGIN AND CONTINUE FOR THE DURATION OF THE PROJECT.
4. CONTRACTOR TO ESTABLISH THE STAGING AREA AND ALL NON-SEDIMENT POLLUTION CONTROLS.
5. CONTRACTOR TO INSTALL SILT FENCE AND INLET PROTECTION PRIOR TO ANY EARTH DISTURBANCE ACTIVITY.
6. INSTALL ALL OTHER TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS OF FIRST SOIL DISTURBANCE. CONTROLS TO BE INSPECTED AND MAINTAINED FOR THE PROJECT DURATION OR UNTIL UPSLOPE AREAS ARE PERMENENTLY STABILIZED.
7. SITE DEMOLITION AND CONSTRUCTION TO BEGIN.
8. INSTALL DEWATERING MEASURES AS NECESSARY.
9. EARTHWORK GRADING OPERATIONS TO BEGIN AND SHALL BE PERFORMED TO LIMIT BOTH THE AREA AND DURATION OF BARE SOIL EXPOSURE. ANY AREAS LEFT UNDISTURBED FOR MORE THAN 21 DAYS SHALL REQUIRE TEMPORARY SEEDING AND MULCHING WITHIN 7 DAYS OF LAST DISTURBANCE. ENHANCED SWALE AREAS MAY BE ROUGH GRADED.
10. BEGIN STORM SEWER AND INLET CONSTRUCTION. INSTALL INLET PROTECTION AS STORM INLETS ARE CONSTRUCTED.
11. CONSTRUCT REMAINING UTILITIES INCLUDING SANITARY, WATER AND ELECTRIC.
12. BEGIN PAVING OPERATIONS.
13. CONTRACTOR TO INSPECT AND CLEAN EXISTING AND PROPOSED STORM DRAINAGE SYSTEMS.
14. PERMANENTLY SEED DISTURBED AREAS WITHIN 7 DAYS OF FINAL GRADING.
15. INSTALL LANDSCAPING.
16. CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING AND SITE POSTING UNTIL FINAL STABILIZATION IS ACHIEVED.
17. REMOVE AND DISPOSE OF TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS FROM STORM SEWER AND INLETS AFTER THE SITE IS STABILIZED AND 70% COVERAGE OBTAINED.
18. AT COMPLETION OF ALL WORK, CONTRACTOR IS TO:
   - DISPOSE OF ALL DEBRIS AND WASTE MATERIAL FROM THE SITE THAT RESULTED FROM CONSTRUCTION ACTIVITIES.
   - CLEAN ALL ROADS AND LAWNS OF DEBRIS AND DIRT.
   - OPEN GUTTERS TO OBTAIN FREE DRAINAGE.

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CALCULATED: GEA
CHECKED: JGC

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

STORM WATER POLLUTION PREVENTION PLAN - NOTES

MAHONING ROAD NE
STA-0153-01.70

DELEGATION OF AUTHORITY FOR STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

PROJECT NAME: _____

PROJECT NO: _____

PROJECT ADDRESS: _____

_____

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Ohio EPA NPDES Construction General Permit, at the above noted construction site. The designee is authorized to sign reports, storm water pollution prevention plans and all other documents required by the permit.

NAME OF PERSON AND/OR POSITION: _____

COMPANY: _____ **PHONE NO:** _____

ADDRESS: _____ **FAX NO:** _____

_____

By signing this authorization, I confirm that I meet the requirements and that all required attachments will be prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information to be submitted will be, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

COMPANY: _____ **PHONE NO:** _____

ADDRESS: _____ **FAX NO:** _____

_____

NAME: _____ **TITLE (*):** _____
(PRINT NAME)

_____ **DATE:** _____
(SIGNATURE)

(*) – For a Corporation, must be a responsible corporate officer such as President, Secretary, Treasurer or Vice-President in charge of a principal business function or anyone who performs similar decision-making functions for the corporation. For a partnership or sole proprietorship, must be a General Partner or the Proprietor.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AMENDMENT LOG

PROJECT NAME: _____

PROJECT ADDRESS: _____

SWPPP CONTACT PERSON: _____

AMENDMENT NO.	DESCRIPTION OF AMENDMENT	DATE OF AMENDMENT	DESCRIPTION OF STABILIZATION MEASURE AND LOCATION (ATTACH SKETCH IF NECESSARY)

GRADING AND STABILIZATION ACTIVITY LOG

PROJECT NAME: _____

PROJECT ADDRESS: _____

SWPPP CONTACT PERSON: _____

DATE GRADING ACTIVITY INITIATED	DESCRIPTION OF GRADING ACTIVITY	DATE GRADING ACTIVITY CEASED	DATE STABILIZATION MEASURE INITIATED AND TYPE		DESCRIPTION OF STABILIZATION MEASURE AND LOCATION (ATTACH SKETCH IF NECESSARY)
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	
				☐ Temporary ☐ Permanent	

SUBCONTACTOR CERTIFICATION / AGREEMENT FOR STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

PROJECT NAME: _____

PROJECT NO: _____

PROJECT ADDRESS: _____

_____

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the on-site office trailer. Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMP's and other practices described in the SWPPP. This certification is hereby signed in reference to the above named project.

COMPANY: _____ **PHONE NO:** _____

ADDRESS: _____ **FAX NO:** _____

_____

NAME: _____ **TITLE (*):** _____
(PRINT NAME)

_____ **DATE:** _____
(SIGNATURE)

DESCRIPTION OF CONSTRUCTION SERVICE(S) TO BE PROVIDED: _____

_____

_____

_____

_____

(*) – For a Corporation, must be a responsible corporate officer such as President, Secretary, Treasurer or Vice-President in charge of a principal business function or anyone who performs similar decision-making functions for the corporation. For a partnership or sole proprietorship, must be a General Partner or the Proprietor.

FINAL CERTIFICATION AND NOTIFICATION FOR STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

PROJECT NAME: _____

PROJECT NO: _____

PROJECT ADDRESS: _____

_____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

COMPANY: _____ **PHONE NO:** _____

ADDRESS: _____ **FAX NO:** _____

_____

NAME: _____ **TITLE (*):** _____
(PRINT NAME)

_____ **DATE:** _____
(SIGNATURE)

(*) – For a Corporation, must be a responsible corporate officer such as President, Secretary, Treasurer or Vice-President in charge of a principal business function or anyone who performs similar decision-making functions for the corporation. For a partnership or sole proprietorship, must be a General Partner or the Proprietor.

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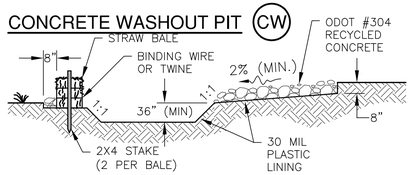
	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

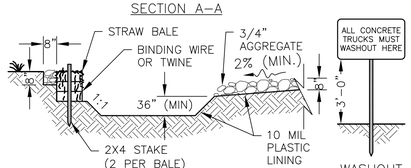
STORM WATER POLLUTION PREVENTION PLAN - NOTES

MAHONING ROAD NE
STA-0153-01.70

CONCRETE WASHOUT PIT (CW)

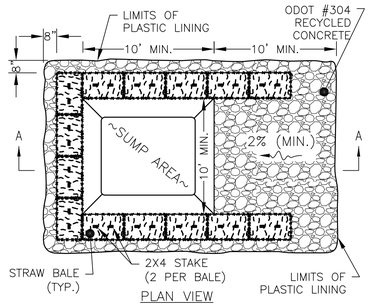


SECTION A–A



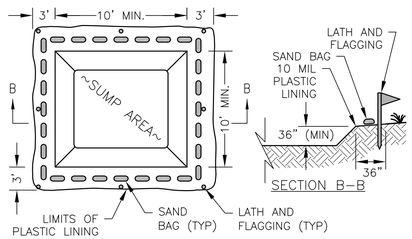
ALTERNATE SECTION

(WHERE MORE THAN ONE ACCESSIBLE SIDE NEEDED)



PLAN VIEW

SINGLE LOCATION FOR ENTIRE PROJECT



SECTION B–B

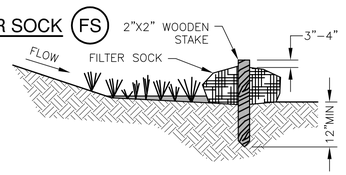
PLAN VIEW

TEMPORARY LOCATION FOR MULTIPLE PHASE PROJECT

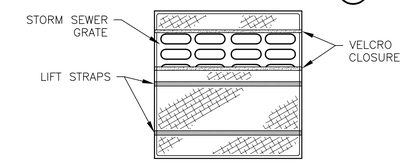
NOTES:

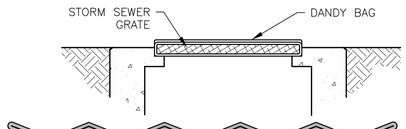
1. WASH WATER SHALL NOT FLOW TO SURFACE WATERS.
2. WASHOUT PIT SHALL BE LOCATED 100' MINIMUM FROM INLETS, STREAMS, WETLANDS AND ANY OTHER SURFACE WATERS.
3. WASHOUT PIT SHALL HAVE SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".
4. WASHOUT PIT SHALL NOT BE FILLED BEYOND 95% 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 ANDD METHODS.

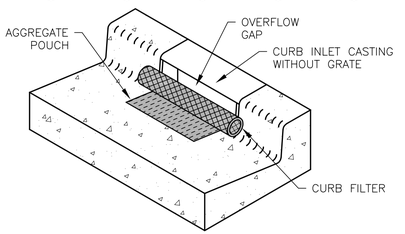
FILTER SOCK (FS)

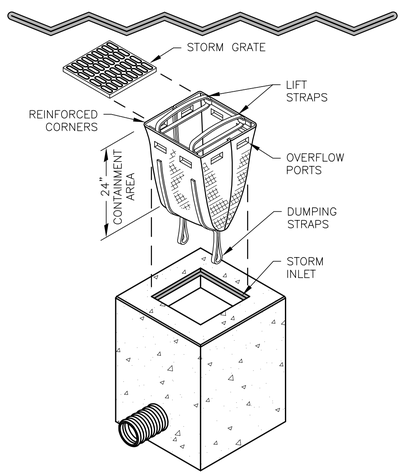


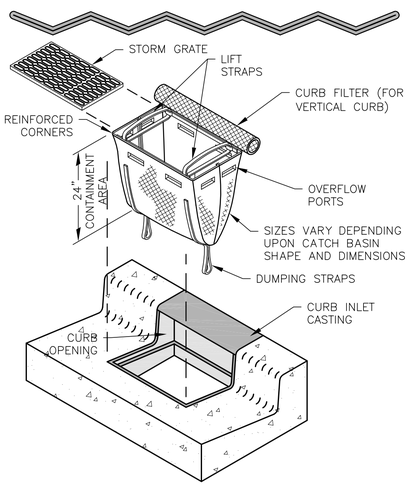
STORM DRAIN INLET PROTECTIONS (IP)



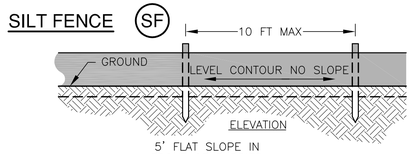


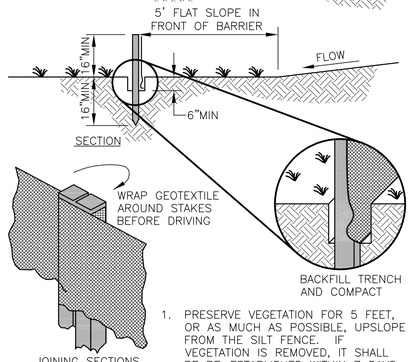






SILT FENCE (SF)





1. PRESERVE VEGETATION FOR 5 FEET, OR AS MUCH AS POSSIBLE, UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE–ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
2. SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. PERFORM ONE OF THE FOLLOWING IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW:
   - CHANGE THE LAYOUT OF THE SILT FENCE.
   - REMOVE ACCUMULATED SEDIMENT.
   - INSTALL OTHER PRACTICES.

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 LB./AC.	SEEDING RATE LB./1,000 S.F.	NOTES:
GENERAL USE			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20–40 10–20 10–20	1/2 TO 1 1/4 TO 1/2 1/4 TO 1/2	
Tall Fescue	40	1	
Dwarf Fescue	40	1	
STEEP BANKS OR CUT SLOPES			
Tall Fescue	40	1	
Crown Vetch Tall Fescue	10 20	1/4 1/2	Do not seed later than August
Flat Pea Tall Fescue	20 20	1/2 1/2	Do not seed later than August
ROAD DITCHES AND SWALES			
Tall Fescue	40	1	
Dwarf Fescue Kentucky Bluegrass	90 5	2–1/4	Do not seed later than August
LAWN			
Kentucky Bluegrass Perennial Ryegrass	60 60	1–1/2 1–1/2	
Kentucky Bluegrass Creeping Red Fescue	60 60	1–1/2 1–1/2	For shaded areas
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, then every 4–7 years	Do not mow
Flat Pea Fescue	0–20–20	400		
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 SEEDED AS SOON AS POSSIBLE AFTER GRADING OR BE SEEDED 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 BROADCASTED 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 Tall Fescue Perennial Ryegrass	3 1 1	4 bushel 40 lb. 40 lb.
	Perennial Ryegrass Tall Fescue	2 1	40 lb. 40 lb.
August 16 to November 1	Rye Tall Fescue Perennial Ryegrass	3 1 1	2 bushel 40 lb. 40 lb.
	Wheat Tall Fescue Perennial Ryegrass	3 1 1	2 bushel 40 lb. 40 lb.
	Perennial Ryegrass Tall Fescue	2 1	40 lb. 40 lb.
November 1 to Spring Seeding	Use mulch only, sodding practices or dormant seeding.		

CALCULATED: GEA
CHECKED: JGC

REVISIONS

DATE	BY
CONSTRUCTION BIDDING SET	4/21/14 GEA

STORM WATER POLLUTION PREVENTION PLAN - DETAILS

MAHONING ROAD NE
STA-0153-01.70

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SWPPP LEGEND

- (CW) PR. CONCRETE WASHOUT PIT
- (PS) PR. PERMANENT SEEDING
- (TS) PR. TEMPORARY SEEDING
- (S) PR. SODDING
- (SF) PR. SILT FENCE
- (FS) PR. FILTER SOCK
- (IP) PR. STORM INLET PROTECTION
- (TP) PR. TREE PROTECTION FENCE
- PR. CONCRETE PAVEMENT
- PR. CONCRETE SIDEWALK
- PR. MANHOLE
- PR. STORM CATCH BASIN
- PR. STORM SEWER

HORIZONTAL SCALE 1" = 40'

0 20' 40' 80'

CALCULATED: GEA

CHECKED: JGG

STORM WATER POLLUTION PREVENTION PLAN

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

MAHONING ROAD NE STA-0153-01.70

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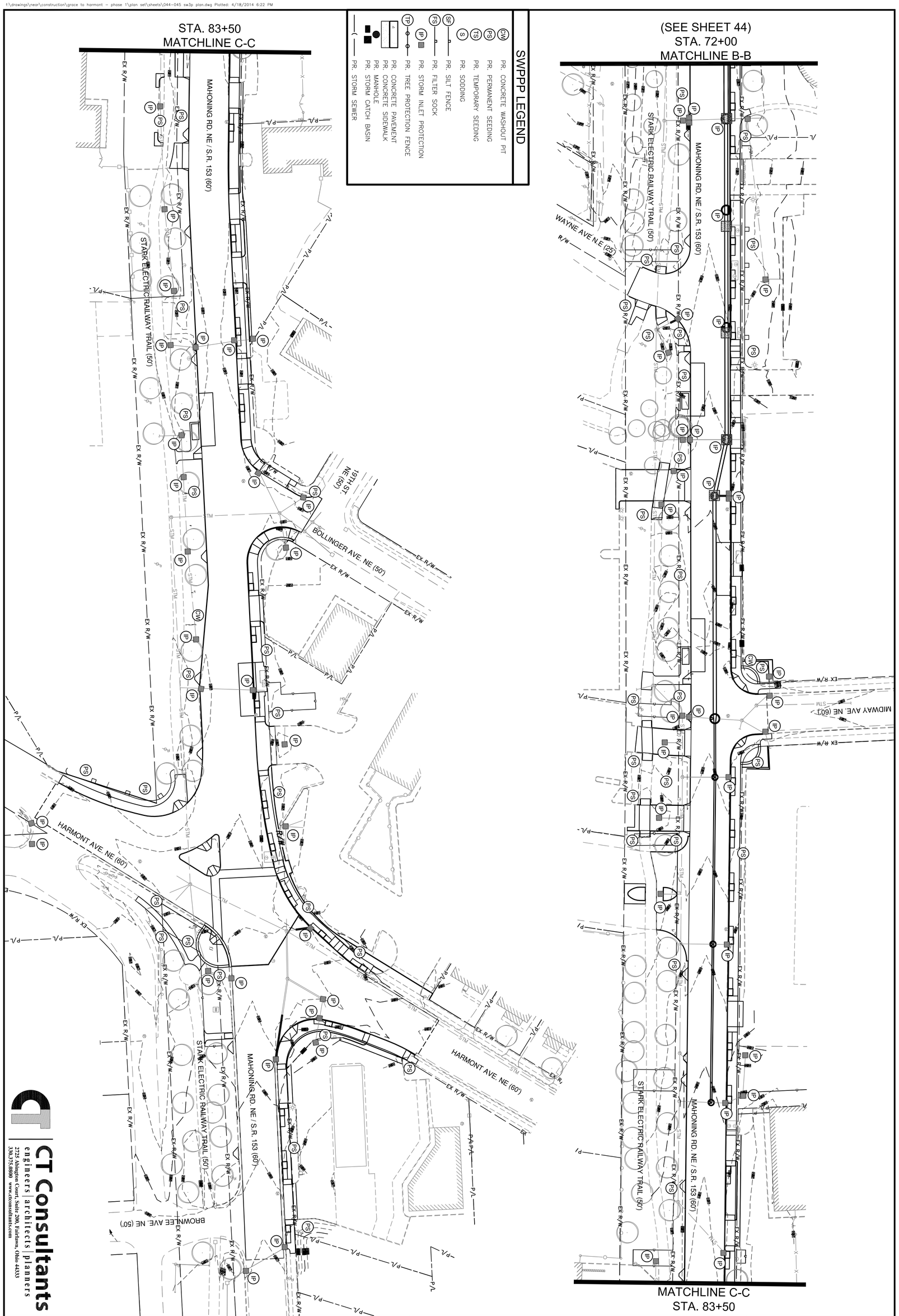

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45
108

MAHONING ROAD NE
STA-0153-01.70

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

STORM WATER POLLUTION
PREVENTION PLAN

CALCULATED: GEA
CHECKED: JGG

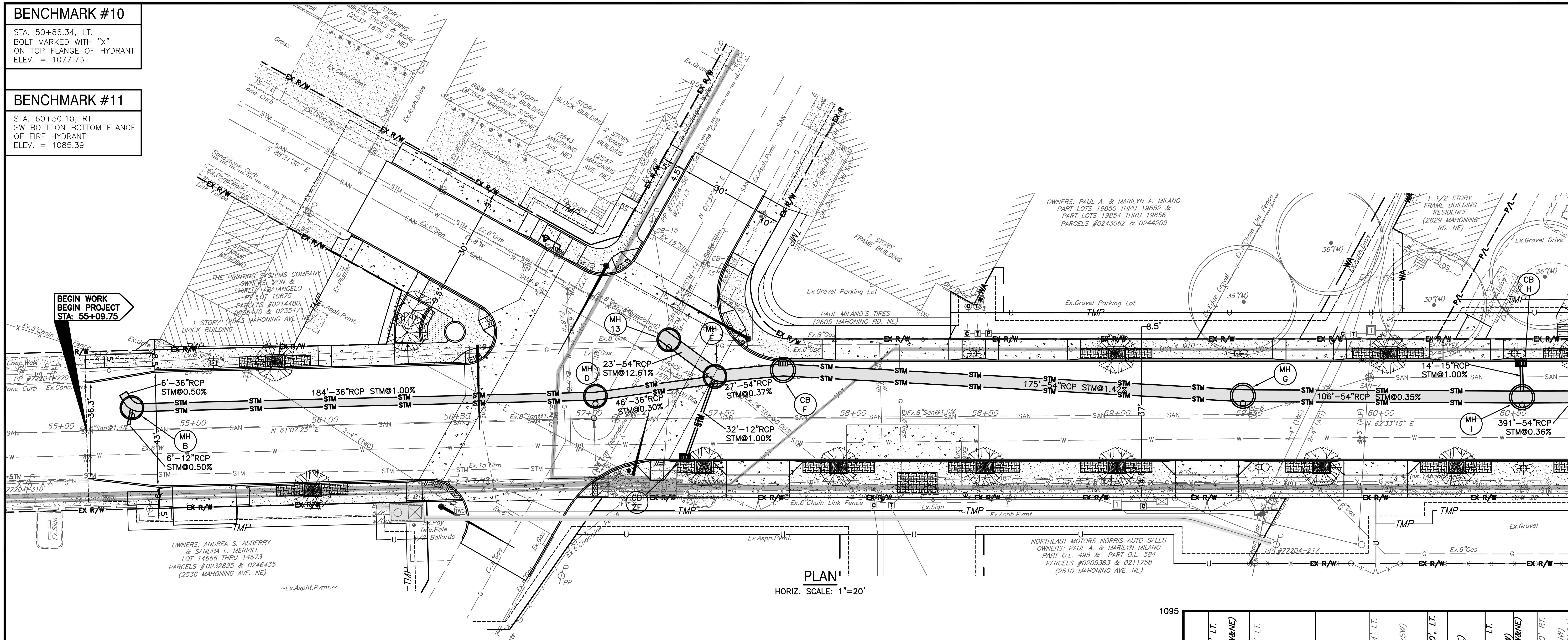
0 40' 20' 80'
HORIZONTAL SCALE
1" = 40'

BENCHMARK #10

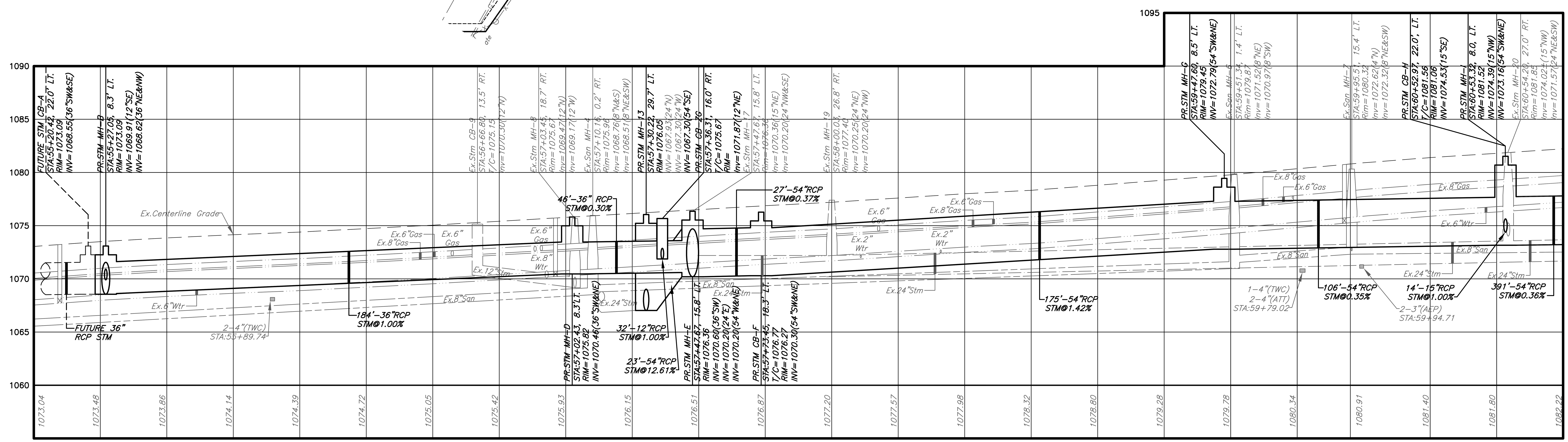
STA. 50+86.34, LT.
BOLT MARKED WITH "X"
ON TOP FLANGE OF HYDRANT
ELEV. = 1077.73

BENCHMARK #11

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



PLAN
HORIZ. SCALE: 1"=20'



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

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

CALCULATED: GEA
CHECKED: JGG

HORIZONTAL SCALE 1" = 20'

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

MAHONING ROAD NE
STA-0153-01.70

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(SEE SHEET 46)
MATCH LINE STA. 60+75

MATCH LINE STA. 66+50
(SEE SHEET 48)

RESIDENCE
OWNER: CURT J. ROAN
LOT 27547
PARCEL #0211329
(2635 MAHONING AVE. NE)

RESIDENCE
OWNERS: MICHAEL P. LOMBARDI
& NINA L. CARNES
LOT 27548
PARCEL #0211328
(2641 MAHONING AVE. NE)

RESIDENCE
OWNER: LARRY E. SAMS ETAL
LOTS 29174 & 29175
PARCELS #0222877 & 0222878
(2649 MAHONING RD. NE)

RESIDENCE
OWNER: RONALD S. DRYDEN
PART O.L. 582
PARCEL #0238358
(2703 MAHONING RD. NE)

JOHNNY O'S LANDSCAPING
OWNER: JOHNNY O'S, INC.
O.L. 581
PARCEL #0218849
(2713 MAHONING RD. NE)

RESIDENCE
OWNERS: WILLIAM A. & JAYNE V. KENNEDY
O.L. 589
PARCEL #0215628
(2721 MAHONING RD. NE)

RESIDENCE
OWNER: CANTON INVESTMENT CO.
LOT 27549
PARCEL #0226431
(2729 MAHONING RD. NE)

NORTHEAST MOTORS NORRIS AUTO SALES
OWNERS: PAUL A. & MARILYN MILANO
PART O.L. 495 & PART O.L. 584
PARCELS #0205383 & 0211758
(2610 MAHONING AVE. NE)

OWNER: GERALDINE A. SPEAR
LOT 23311
PARCEL #0207142
(MAHONING RD. NE)

DDK PROPERTY GROUP
OWNER: DDK PROPERTY GROUP II LLC
LOT 23312
PARCEL #0231243
(2712 MAHONING RD. NE)

OWNER: JCAN INC.
LOTS 20390, 23313, 36945 & 36946
PARCEL #0213382 & 0243581
(2720 MAHONING RD. NE)

OWNER: JAPHET NTIA

OWNER: ANNA GNFS

391'-54"RCP STM@0.36%

11'-12"RCP STM@1.00%

207'-54"RCP STM@0.36%

PLAN
HORIZ. SCALE: 1"=20'

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

Ex.Centerline Grade

Ex.Stm MH-32
STA:62+84.57, 36.7' RT.
Rim=1085.22
Inv=1072.72(24"NE&SW)

Ex.San MH-8
STA:62+90.32, 16.8' LT.
Rim=1083.95
Inv=1073.05(8"NE&SW)

1-4"(TWC)
2-4"(ATT)
STA:63+03.92

2-3"(AEP)
STA:63+10.07

2-4"(AEP)
STA:64+03.27

PR.STM CB-4
STA:64+44.39, 20.9' LT.
T/C=1084.07
RIM=1083.57
INV=1079.57(12"SE)

PR.STM MH-K
STA:64+44.30, 9.4' LT.
RIM=1083.33
INV=1079.46(12"NW)
INV=1074.57(54"SW&NE)

Ex.Stm MH-9
STA:65+44.27, 16.2' LT.
Rim=1083.43
Inv=1075.48(4"N)
Inv=1075.18(4"NE)
Inv=1073.53(8"E&W)

Ex.Stm CB-24
STA:66+47.33, 19.1' RT.
Rim=1082.64
ADJUST RIM=
Inv=1075.54(15"NW)
Inv=1075.43(15"SE)

Ex.Stm MH-33
STA:66+44.20, 36.8' RT.
Rim=1083.00
Inv=1075.35(15"NW)
Inv=1074.60(24"NE&SW)

1082.22 | 1082.65 | 1082.95 | 1083.24 | 1083.50 | 1083.73 | 1083.96 | 1084.15 | 1084.31 | 1084.34 | 1084.34 | 1084.35 | 1084.28 | 1084.22 | 1084.14 | 1084.07 | 1084.00 | 1083.91 | 1083.83 | 1083.74 | 1083.63 | 1083.55 | 1083.50 | 1083.50

60+75 | 61+00 | 62+00 | 63+00 | 64+00 | 65+00 | 66+00 | 66+50

1100 | 1095 | 1090 | 1085 | 1080 | 1075 | 1070 | 1065

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HORIZONTAL SCALE 1" = 20'

CALCULATED: GEA
CHECKED: JGC

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

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

MAHONING ROAD NE
STA-0153-01.70

47
108

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

(SEE SHEET 47)
MATCH LINE STA. 66+50

MATCH LINE STA. 72+25
(SEE SHEET 49)

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

PUBLIC LIBRARY
OWNER: STARK COUNTY DISTRICT LIBRARY
PART O.L. 576
PARCEL #0285433
(2921 MAHONING RD. NE)

RESIDENCE
OWNER: CANTON INVESTMENT CO.
LOT 27580
PARCEL #0243891
(2737 MAHONING RD. NE)

RESIDENCE
OWNER: ANDREW F. MORRIS
PART LOTS 20386 & 20387
PARCELS #0237878 & 0237880
(MAHONING RD. NE)

RESIDENCE
OWNER: WANDA MORRIS
LOT 20385 &
PART LOT 39915
PARCEL #0223519
(2808 MAHONING RD. NE)

RESIDENCE
OWNER: JAMON A. R. THOMPSON
LOT 23252
PARCEL #0224745
(2810 MAHONING RD. NE)

RESIDENCE
OWNER: DAVID HUFFMAN
LOT 23254
PARCEL #0220723

OWNERS: MICHELLE P.
& DERINA D. SAKIOTIS
LOTS 23255, 23256 & 23257
PARCEL #0218800

PLAN
HORIZ. SCALE: 1"=20'

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

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CALCULATED: GEA
CHECKED: JGC

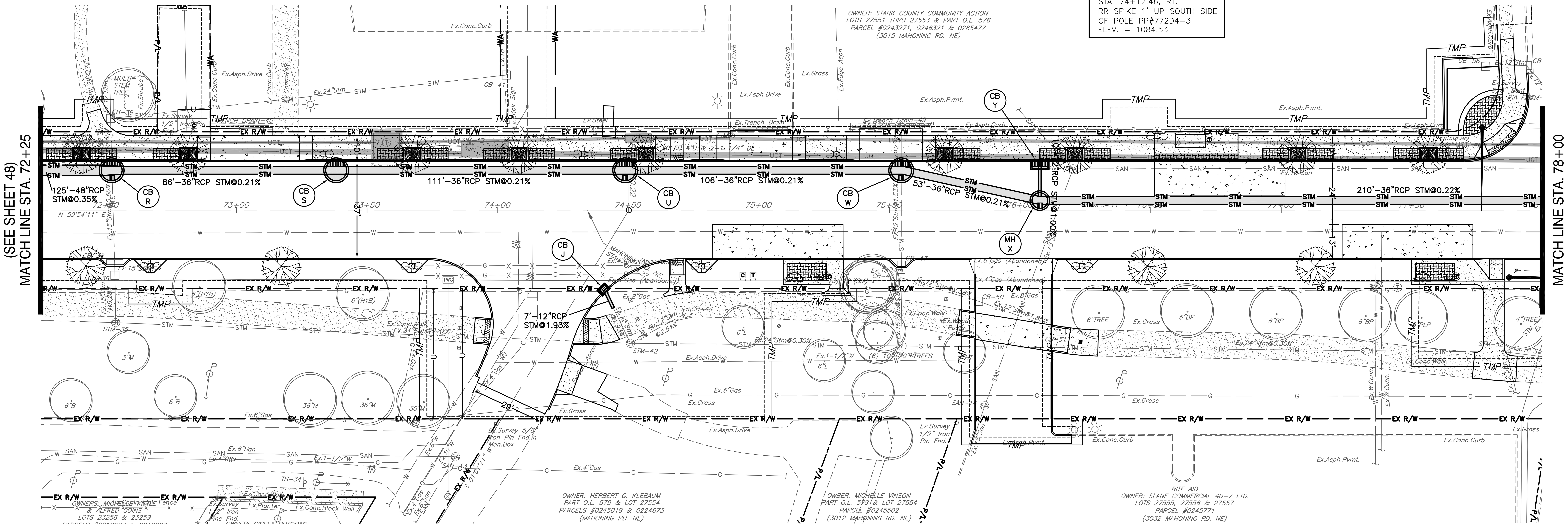
REVISIONS

	DATE	BY
CONSTRUCTION BIDDING SET	4/21/14	GEA

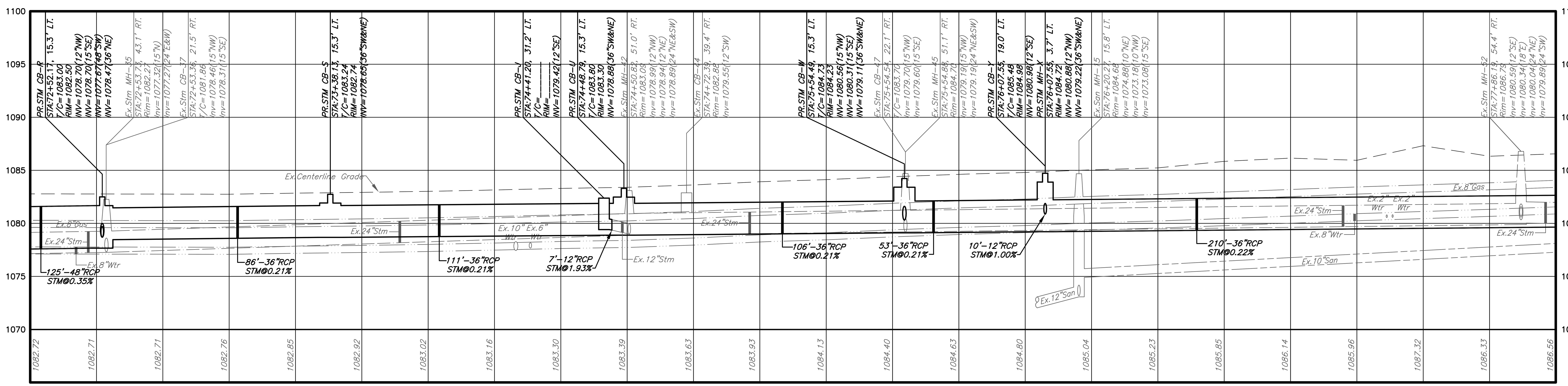
PLAN & PROFILE
STA. 66+50 TO STA. 72+25

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



PLAN
HORIZ. SCALE: 1"=20'



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

CALCULATED: GEA
CHECKED: JGG

HORIZONTAL SCALE 1" = 20'

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

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

MAHONING ROAD NE
STA-0153-01.70

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(SEE SHEET 49)
MATCH LINE STA. 78+00

MATCH LINE STA. 83+75
(SEE SHEET 51)

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

VACANT LAND
OWNER: STARK COUNTY COMMUNITY ENTERPRISE CORP
PART O.L. 576
PARCEL #0215293
(3055 MAHONING RD. NE)

PERRY'S T-SHIRTS & PERRY'S COSTUMES
OWNERS: RICHARD & ESTHER PERRY
PART O.L. 576
PARCEL #0202428
(3131 MAHONING RD. NE)

CASHLAND
OWNER: BAMBINI COMPANY LLC
PART OUTLOT 577
PARCEL #0216970
(3048 MAHONING RD. NE)

DELIVERY CENTER
OWNER: FRESH MARK INC.
PART OUTLOT 577
PARCEL #0212021
(3106 MAHONING RD. NE)

VEHICLE STORAGE AREA
OWNER: PATRIOT LAND DEVELOPMENT CO.
PART OUTLOT 577
PARCELS #0242510 & 0242511
(3120 MAHONING RD. NE)

ADELMAN'S PICKUP & VAN PARTS
OWNER: PATRIOT LAND DEVELOPMENT CO.
PART OUTLOT 577
PARCEL #0237021
(3140 MAHONING RD. NE)

PLAN
HORIZ. SCALE: 1"=20'

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

CALCULATED: GEA
CHECKED: JGG

HORIZONTAL SCALE 1" = 20'

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

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

MAHONING ROAD NE
STA-0153-01.70

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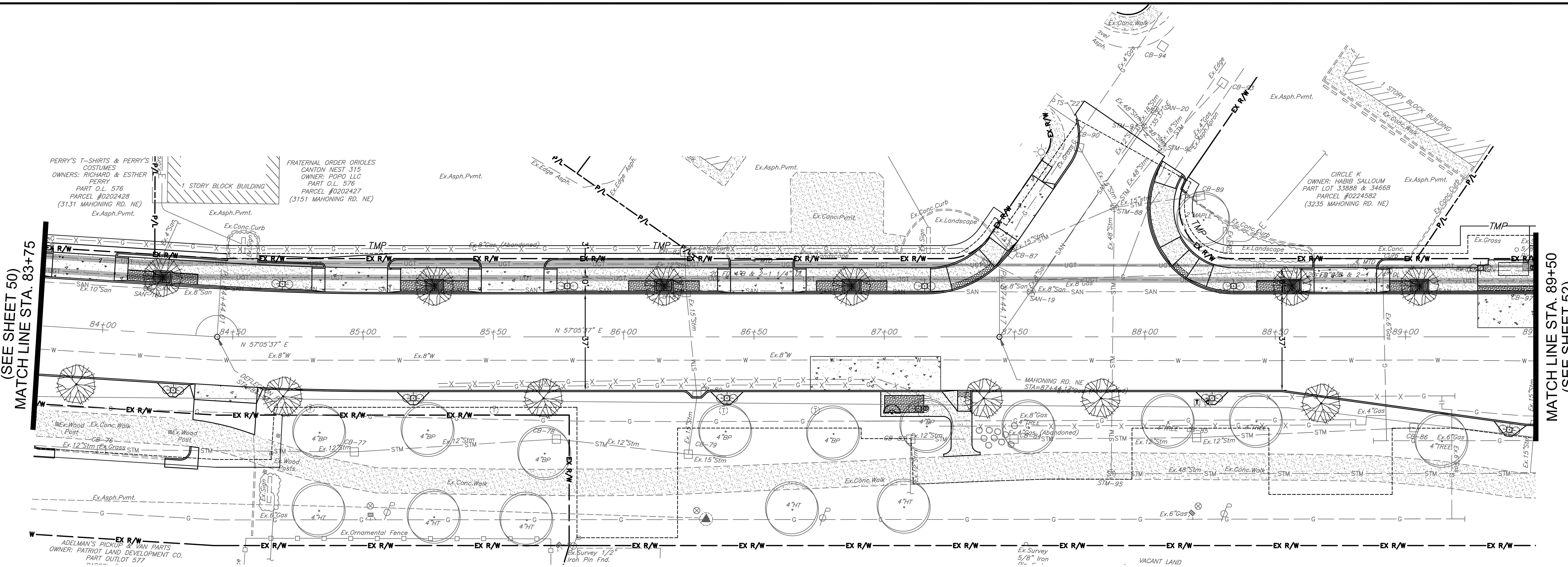
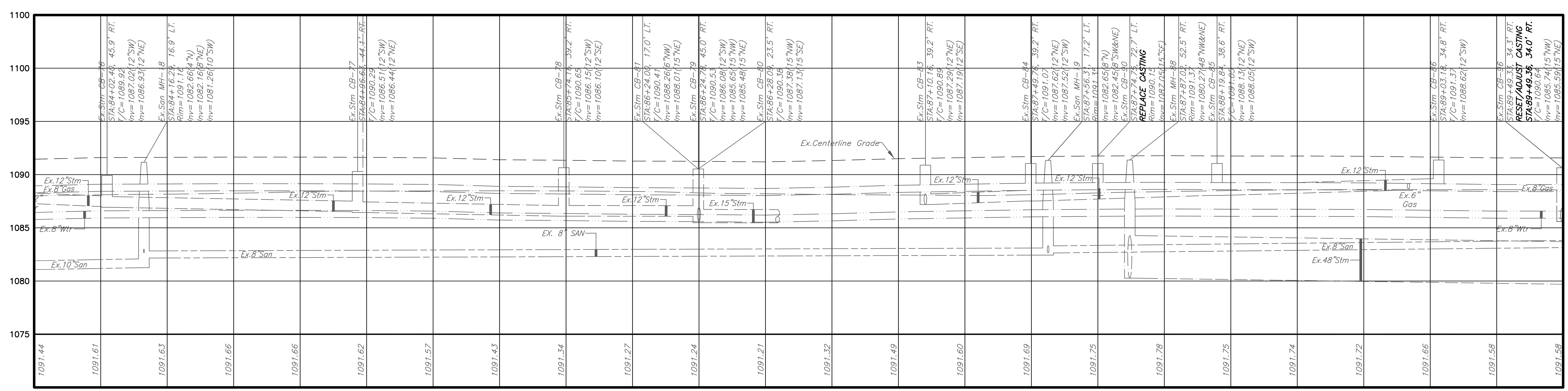


PLAN
HORIZ. SCALE: 1"=20'



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

CALCULATED: GEA
CHECKED: JGG

HORIZONTAL SCALE 1" = 20'

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

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

MAHONING ROAD NE STA-0153-01.70

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(SEE SHEET 51)
MATCH LINE STA. 89+50

OWNER: ARCHLAND PROPERTY I, LLC
LOT 33886
PARCEL #0246384
(3251 MAHONING RD. NE)

RESIDENCE
OWNERS: SAMUEL JR.
& CHARLOTTE FERNELL
LOT 28619
PARCEL #0207610

VACANT LAND
OWNER: DEVILLE UNITED
APARTMENT LTD
PART OUTLOT 577
PARCEL S #0242778 & 0242814

14'-15"RCP
STM@2.78%

42'-(2)8"PVC
STM@2.06%

END WORK
END PROJECT
STA: 94+89.88

CB ZD
CB ZE
CB ZF

Ex.Centerline Grade

PR.STM CB-ZD
STA:91+79.89, 59.6' LT.
T/C=
RIM=
INV=1088.24(15"SE)

PR.STM CB-ZE
STA:92+66.68, 63.1' LT.
T/C=
RIM=
INV=1091.64(15"SW&NE)

PR.STM CB-ZF
STA:93+02.75, 21.1' LT.
T/C=
RIM=
INV=1092.46(8"SW)

RESET/ADJUST CASTING
STA:89+53.59, 17.0' LT.
(T/C=1090.78
INV=1087.23(12"SW)
INV=1087.23(15"SE)

CALCULATED: GEA
CHECKED: JGC

HORIZONTAL SCALE
1" = 20'

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

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

MAHONING ROAD NE
STA-0153-01.70

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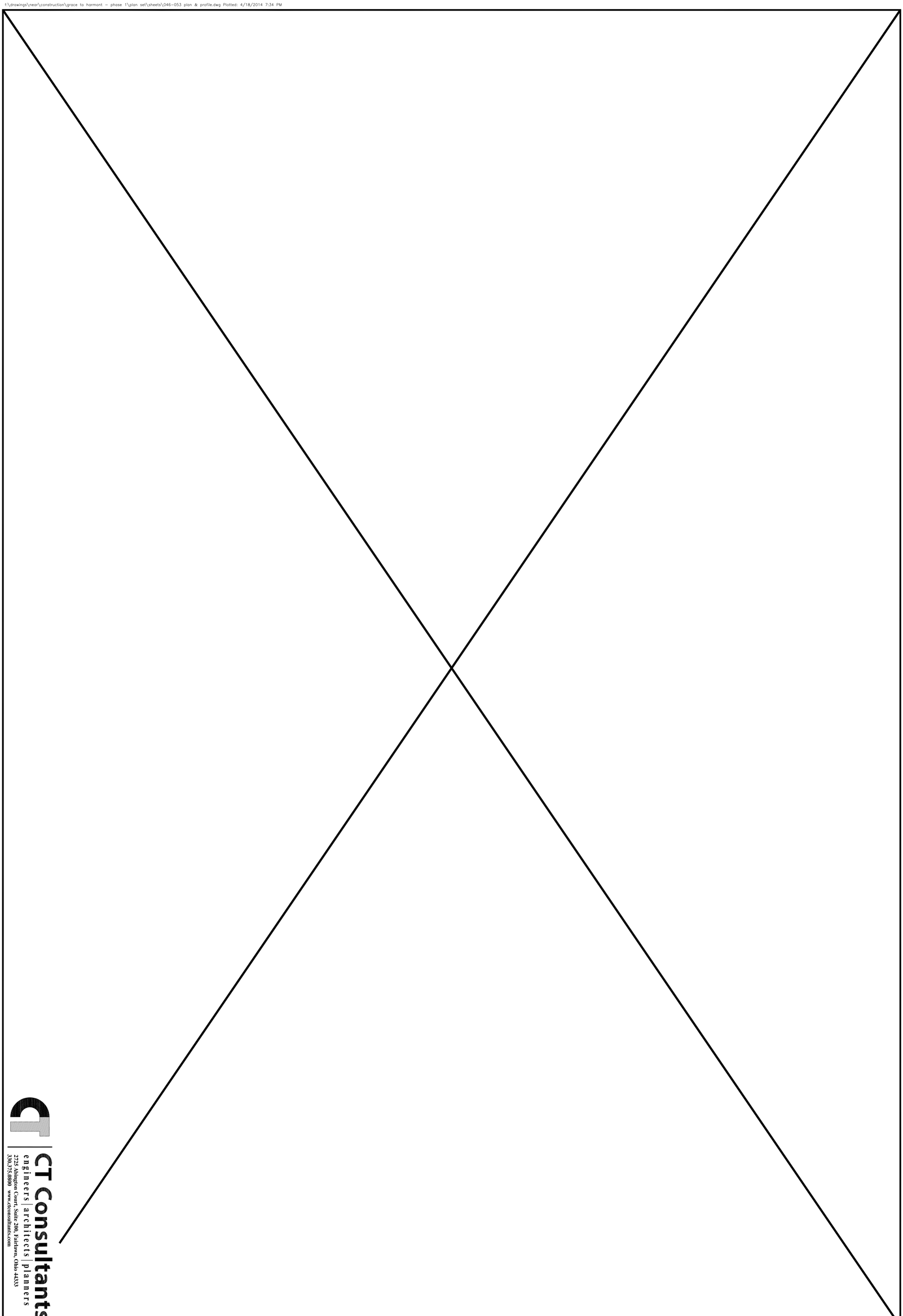

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53
108

MAHONING ROAD NE
STA-0153-01.70

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

PROFILE MISC.

CALCULATED: GEA
CHECKED: JGG

0 10' 20' 40'
HORIZONTAL SCALE
1" = 20'

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54 / 108	MAHONING ROAD NE STA-0153-01.70	REVISIONS CONSTRUCTION BIDDING SET	DATE 4/21/14
			BY GEA
	REMOVAL PLAN STA. 54+75 TO STA. 66+50	CALCULATED: GEA CHECKED: JGG	0 10' 20' 40' HORIZONTAL SCALE 1" = 20'

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N

HORIZONTAL SCALE 1" = 20'
0 10' 20' 40'

CALCULATED: GEA
CHECKED: JGG

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

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

MAHONING ROAD NE
STA-0153-01.70

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

MIDWAY AVE. NE (60')

MAHONING RD. NE / S.R. 153 (60')

STARK ELECTRIC RAILWAY TRAIL (50')

MATCH LINE STA. 83+75

VACANT LAND
OWNER: STARK COUNTY COMMUNITY ENTERPRISE CORP
PART O.L. 576
PARCEL #0215293
(3055 MAHONING RD. NE)

1 STORY BLOCK BUILDING

PERRY'S T-SHIRTS & PERRY'S COSTUMES
OWNERS: RICHARD & ESTHER PERRY
PART O.L. 576
PARCEL #0202428
(3131 MAHONING RD. NE)

CASHLAND
OWNER: BAMBINI COMPANY LLC
PART OUTLOT 577
PARCEL #0216970
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DELIVERY CENTER
OWNER: FRESH MARK INC
PART OUTLOT 577
PARCEL #0212021
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VEHICLE STORAGE AREA
OWNER: PATRIOT LAND DEVELOPMENT CO.
PART OUTLOT 577
PARCELS #0242510 & 0242511
(3120 MAHONING RD. NE)

ADELMAN'S PICKUP & VAN PARTS
OWNER: PATRIOT LAND DEVELOPMENT CO.
PART OUTLOT 577
PARCEL #0237021
(3140 MAHONING RD. NE)

19TH ST. NE (50')

BOLLINGER AVE. NE (50')

QUALITY MUFFLER SHOP
OWNER: HABIB SALLOUM
LOTS 34546 & 34547
PARCEL #0224587
(3219 MAHONING RD. NE)

CIRCLE K
OWNER: HABIB SALLOUM
PART LOT 33888 & 34668
PARCEL #0224582
(3235 MAHONING RD. NE)

FRATERNAL ORDER ORIOLES CANTON NEST 315
OWNER: POPO LLC
PART O.L. 576
PARCEL #0202427
(3151 MAHONING RD. NE)

ADELMAN'S PICKUP & VAN PARTS
OWNER: PATRIOT LAND DEVELOPMENT CO.
PART OUTLOT 577

VACANT LAND

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

HORIZONTAL SCALE 1" = 20'

CALCULATED: GEA
CHECKED: JGC

REVISIONS

DATE	BY
CONSTRUCTION BIDDING SET	4/21/14 GEA

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

MAHONING ROAD NE
STA-0153-01.70

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