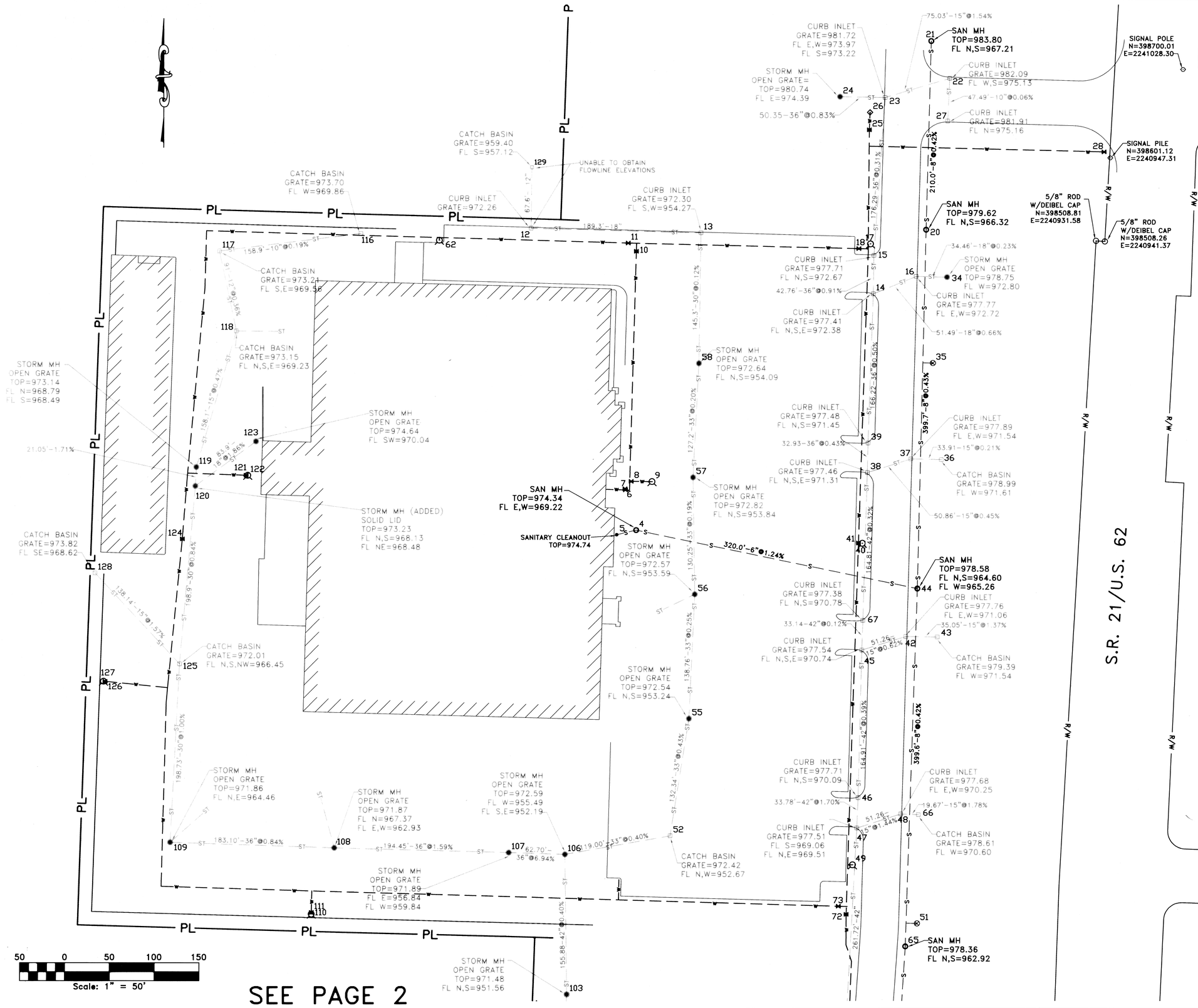


SANITARY STRUCTURES

4	398186.12	2240419.50	974.34	sanitary mh
5	398181.05	2240397.84	974.74	sanitary cleanout
20	398520.80	2240742.22	979.62	sanitary mh
21	398730.77	2240747.77	983.80	sanitary mh
35	398372.40	2240749.96	979.29	sanitary lateral
44	398121.19	2240732.89	978.58	sanitary mh
50	397721.77	2240719.81	978.36	sanitary mh
51	397747.28	2240732.81	978.64	sanitary lateral
65	397721.77	2240719.80	978.36	sanitary mh
76	397494.48	2240629.55	973.59	sanitary lateral
77	397414.88	2240700.27	973.79	sanitary mh
83	397555.56	2240882.61	981.17	sanitary lateral
84	397313.52	2240710.12	973.75	sanitary lateral
85	397115.32	2240694.16	969.38	sanitary lateral
86	397015.19	2240669.52	970.15	sanitary mh
90	396941.81	2240887.11	971.13	sanitary mh

STORM STRUCTURES

12	398522.20	2240302.20	972.26	curb inlet
13	398517.22	2240491.43	972.30	curb inlet
14	398449.35	2240683.51	977.41	curb inlet
15	398492.11	2240684.17	977.71	curb inlet
16	398468.66	2240731.25	977.77	curb inlet
22	398689.26	2240768.55	982.09	curb inlet
23	398667.96	2240696.60	981.72	curb inlet
24	398668.82	2240646.25	980.74	storm mh w/open grate
27	398641.82	2240766.25	981.91	curb inlet
34	398468.01	2240765.70	978.75	storm mh w/open grate
36	398264.80	2240759.54	978.99	cb 2-2 no curb
37	398265.46	2240725.64	977.89	curb inlet
38	398250.35	2240677.19	977.46	curb inlet
39	398283.20	2240677.86	977.48	curb inlet
42	398067.52	2240720.24	977.76	curb inlet
43	398066.92	2240755.29	979.39	cb 2-2 no curb
45	398052.45	2240671.24	977.54	curb inlet
46	397887.59	2240667.19	977.71	curb inlet
47	397853.83	2240665.88	977.51	curb inlet
48	397869.42	2240714.71	977.68	curb inlet
52	397845.35	2240457.78	972.42	cb 2-2 no curb
55	397976.02	2240478.68	972.54	storm mh w/open grate
56	398114.64	2240484.99	972.57	storm mh w/open grate
57	398244.87	2240482.90	972.82	storm mh w/open grate
58	398371.95	2240489.31	972.64	storm mh w/open grate
66	397868.60	2240734.36	978.61	cb 2-2 no curb
67	398085.57	2240672.32	977.38	curb inlet
68	397591.75	2240660.74	974.43	curb inlet
69	397602.88	2240722.38	974.94	curb inlet
70	397578.99	2240721.99	974.96	curb inlet
71	397592.51	2240651.52	973.32	storm mh w/flat top
79	397511.36	2240895.51	981.60	storm mh w/flat top
87	397063.35	2240684.68	968.22	storm mh w/flat top
88	397064.62	2240663.96	969.97	catch basin
89	397067.56	2240622.60	969.72	catch basin
92	396846.91	2240708.39	968.26	curb inlet
93	396975.26	2240563.76	944.90	96" INVERT
96	397119.43	2240618.00	971.39	storm mh w/flat top
97	397121.12	2240581.29	955.80	42" invert
98	397243.01	2240365.22	948.81	invert (other)
101	397090.80	2240351.56	946.38	outlet control structure
102	397324.18	2240325.92	961.32	storm mh w/flat top
103	397668.79	2240342.63	971.48	storm mh w/open grate
104	397354.55	2240634.56	969.82	storm mh w/open grate
105	397824.66	2240340.58	972.59	storm mh w/open grate
107	397826.68	2240277.92	971.89	storm mh w/open grate
108	397832.14	2240083.54	971.87	storm mh w/open grate
109	397838.24	2239900.54	971.86	storm mh w/open grate
112	396934.55	2240704.38	946.42	96" INVERT
113	396912.95	2240721.32	949.46	24" invert
114	396847.00	2240708.35	968.26	curb inlet
116	398516.36	2240112.43	973.70	cb 2-2 no curb
117	398496.51	2239954.82	973.21	cb 2-2 no curb
118	398407.49	2239973.89	973.15	cb 2-2 no curb
119	398255.81	2239929.38	973.14	storm mh w/flat top
120	398234.79	2239928.27	973.23	storm mh w/flat top
123	398284.51	2239995.86	974.64	storm mh w/flat top
125	398036.70	2239910.85	972.01	cb 2-2 no curb
128	398137.62	2239816.52	973.82	cb 2-2 no curb
129	398589.80	2240303.00	959.40	CB NC
130	397041.7	2240314.0	943.60	30" invert

WATER STRUCTURES

6	398230.91	2240407.54	974.41	water valve
7	398232.24	2240407.03	974.38	water valve
8	398240.47	2240413.88	974.25	water valve
9	398240.18	2240437.09	974.59	fire hydrant
10	398496.64	2240419.36	973.92	water valve
11	398505.80	2240410.32	973.78	water valve
17	398504.97	2240680.23	978.78	fire hydrant
18	398499.80	2240667.28	978.76	water valve
25	398631.98	2240678.78	981.92	water valve
28	398607.86	2240940.47	988.13	water valve
29	398601.12	2240947.31	988.88	utility pole
30	398700.01	2241028.30	989.50	utility pole
40	398117.68	2240671.47	979.51	fire hydrant
41	398172.02	2240667.21	979.38	water valve
49	397812.90	2240660.93	979.01	fire hydrant
62	398508.74	2240199.78	974.85	fire hydrant
72	397757.65	2240653.81	978.57	water valve
73	397766.67	2240645.12	978.34	water valve
74	397466.16	2240646.46	973.77	fire hydrant
75	397465.79	2240648.38	973.58	water valve
78	397508.71	2240888.17	981.74	fire hydrant
80	397633.14	2240889.74	983.52	water valve
81	397508.78	2240886.24	980.04	water valve
82	397553.27	2240653.68	974.29	water valve
91	396959.34	2240867.07	967.74	water valve
94	397108.60	2240624.40	970.55	water valve
95	397108.78	2240622.12	970.97	fire hydrant
110	397758.44	2240057.74	974.15	fire hydrant
111	397760.31	2240057.81	974.22	water valve
121	398246.83	2239984.71	974.35	water valve
122	398246.77	2239986.54	974.46	fire hydrant
124	398175.88	2239913.70	973.85	water valve
126	398017.24	2239827.73	974.78	water valve
127	398017.36	2239826.02	974.67	fire hydrant

SCALES
HORZ. 1" = 50'
PROJECT NO.
SHEET NO. 1 OF 2

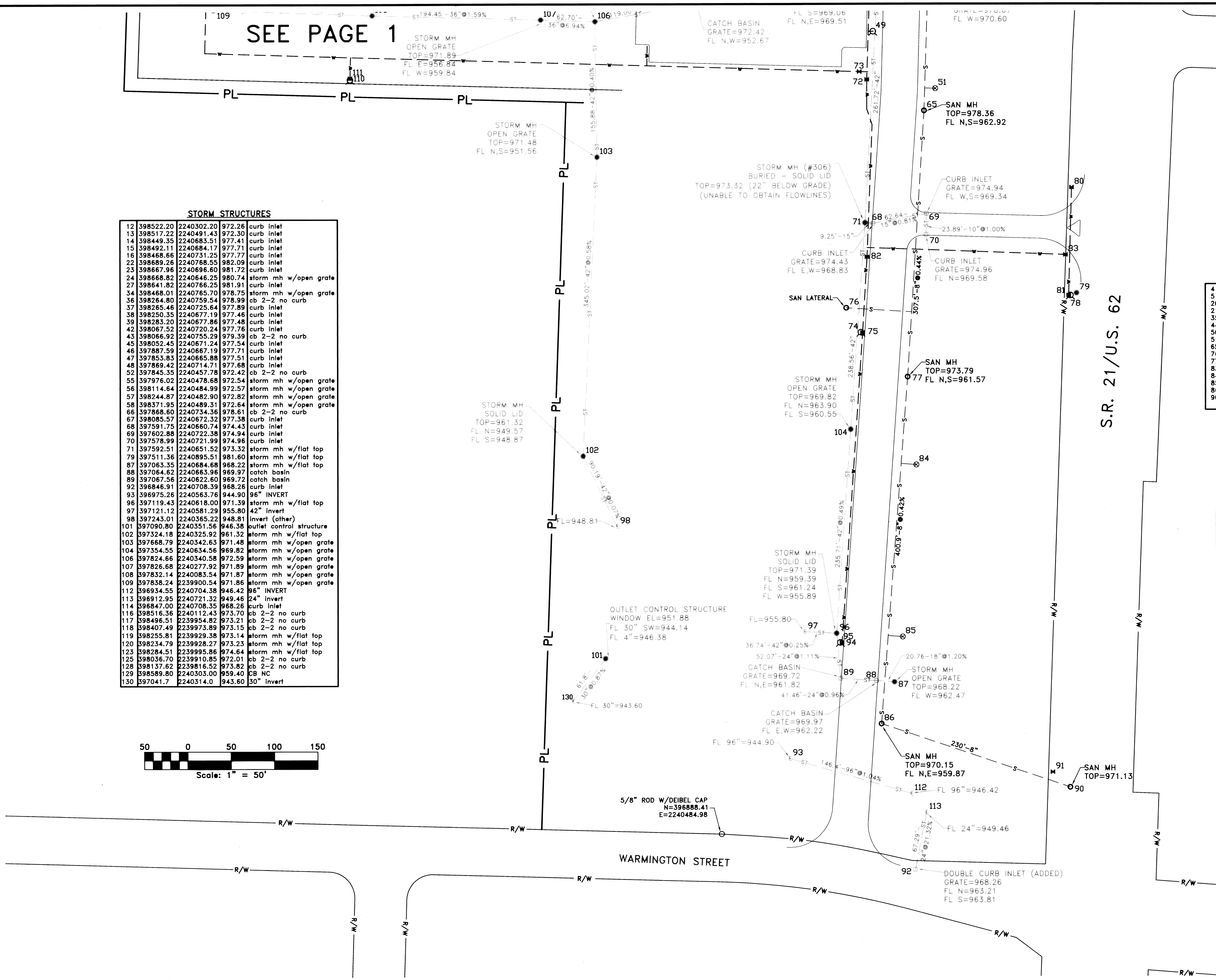
AS-BUILT SURVEY - MENARDS
MASSILLON, OHIO

REV. LTR.	DESCRIPTION	DATE	BY	APP'D

PLOTTED: 7/29/2009
DATE: 7/07/2009
DRAWN BY: SLB
CHECKED BY: SDC
APPVD BY: SDC
MENARDS AS BUILTS 709.DWG

deibel surveying
115 BROAD AVE., N.W.
CANTON, OHIO 44708
OFFICE: (330) 455-2999
FAX: (330) 455-3299
E-mail: deibelsurveying@neo.rr.com
www.deibelsurveying.com
www.deibelsurveying.com

08 50 03



STORM STRUCTURES

12	398522.20	2240302.20	972.26	curb inlet
13	398517.22	2240491.43	972.30	curb inlet
14	398449.35	2240683.51	977.41	curb inlet
15	398492.11	2240684.17	977.71	curb inlet
16	398468.66	2240731.25	977.77	curb inlet
22	398689.26	2240768.55	982.09	curb inlet
23	398667.96	2240696.60	981.72	curb inlet
24	398668.82	2240646.25	980.74	storm mh w/open grate
27	398641.82	2240766.25	981.91	curb inlet
34	398468.01	2240765.70	978.75	storm mh w/open grate
36	398264.80	2240759.54	978.99	cb 2-2 no curb
37	398265.46	2240725.64	977.89	curb inlet
38	398250.35	2240677.19	977.46	curb inlet
39	398283.20	2240677.86	977.48	curb inlet
42	398067.52	2240720.24	977.76	curb inlet
43	398066.92	2240755.29	979.39	cb 2-2 no curb
45	398052.45	2240671.24	977.54	curb inlet
46	397887.59	2240667.19	977.71	curb inlet
47	397853.83	2240665.88	977.51	curb inlet
48	397869.42	2240714.71	977.68	curb inlet
52	397845.35	2240457.78	972.42	cb 2-2 no curb
55	397976.02	2240478.68	972.54	storm mh w/open grate
56	398114.64	2240484.99	972.57	storm mh w/open grate
57	398244.87	2240482.90	972.82	storm mh w/open grate
58	398371.95	2240489.31	972.64	storm mh w/open grate
66	397868.60	2240734.36	978.61	cb 2-2 no curb
67	398085.57	2240672.32	977.38	curb inlet
68	397591.75	2240660.74	974.43	curb inlet
69	397602.88	2240722.38	974.94	curb inlet
70	397578.99	2240721.99	974.96	curb inlet
71	397592.51	2240651.52	973.32	storm mh w/flat top
79	397511.36	2240895.51	981.60	storm mh w/flat top
87	397063.35	2240684.68	968.22	storm mh w/flat top
88	397064.62	2240663.96	969.97	catch basin
89	397067.56	2240622.60	969.72	catch basin
92	396846.91	2240708.39	968.26	curb inlet
93	396975.26	2240563.76	944.90	96" INVERT
96	397119.43	2240618.00	971.39	storm mh w/flat top
97	397121.12	2240581.29	955.80	42" invert
98	397243.01	2240365.22	948.81	invert (other)
101	397090.80	2240351.56	946.38	outlet control structure
102	397324.18	2240325.92	961.32	storm mh w/flat top
103	397668.79	2240342.63	971.48	storm mh w/open grate
104	397354.55	2240634.56	969.82	storm mh w/open grate
106	397824.66	2240340.58	972.59	storm mh w/open grate
107	397826.68	2240277.92	971.89	storm mh w/open grate
108	397832.14	2240083.54	971.87	storm mh w/open grate
109	397838.24	2239900.54	971.86	storm mh w/open grate
112	396934.55	2240704.38	946.42	96" INVERT
113	396912.95	2240721.32	949.46	24" invert
114	396847.00	2240708.35	968.26	curb inlet
116	398516.36	2240112.43	973.70	cb 2-2 no curb
117	398496.51	2239954.82	973.21	cb 2-2 no curb
118	398407.49	2239973.89	973.15	cb 2-2 no curb
119	398255.81	2239929.38	973.14	storm mh w/flat top
120	398234.79	2239928.27	973.23	storm mh w/flat top
123	398284.51	2239995.86	974.64	storm mh w/flat top
125	398036.70	2239910.85	972.01	cb 2-2 no curb
128	398137.62	2239816.52	973.82	cb 2-2 no curb
129	398589.80	2240303.00	959.40	CB NC
130	397041.7	2240314.0	943.60	30" invert

SANITARY STRUCTURES

4	398186.12	2240419.50	974.34	sanitary mh
5	398181.05	2240397.84	974.74	sanitary cleanout
20	398520.80	2240742.22	979.62	sanitary mh
21	398730.77	2240747.77	983.80	sanitary mh
35	398372.40	2240749.96	979.29	sanitary lateral
44	398121.19	2240732.89	978.58	sanitary mh
50	397721.77	2240719.81	978.36	sanitary mh
51	397747.28	2240732.81	978.64	sanitary lateral
65	397721.77	2240719.80	978.36	sanitary mh
76	397494.48	2240629.55	973.59	sanitary lateral
77	397414.88	2240700.27	973.79	sanitary mh
83	397555.56	2240882.61	981.17	sanitary lateral
84	397313.52	2240710.12	973.75	sanitary lateral
85	397115.32	2240694.16	969.38	sanitary lateral
86	397015.19	2240669.52	970.15	sanitary mh
90	396941.81	2240887.11	971.13	sanitary mh

WATER STRUCTURES

6	398230.91	2240407.54	974.41	water valve
7	398232.24	2240407.03	974.38	water valve
8	398240.47	2240413.88	974.25	water valve
9	398240.18	2240437.09	974.59	fire hydrant
10	398496.64	2240419.36	973.92	water valve
11	398505.80	2240410.32	973.79	water valve
17	398504.97	2240680.23	978.78	fire hydrant
18	398499.80	2240667.28	978.76	water valve
25	398631.98	2240678.78	981.92	water valve
28	398607.86	2240940.47	988.13	water valve
29	398601.12	2240947.31	988.88	utility pole
30	398700.01	2241028.30	989.50	utility pole
40	398171.68	2240671.47	979.51	fire hydrant
41	398172.02	2240667.21	979.38	water valve
49	397812.90	2240660.93	979.01	fire hydrant
62	398508.74	2240199.78	974.85	fire hydrant
72	397757.65	2240653.81	978.57	water valve
73	397766.67	2240645.12	978.34	water valve
74	397466.16	2240646.46	973.77	fire hydrant
75	397465.79	2240648.38	973.58	water valve
78	397508.71	2240888.17	981.74	fire hydrant
80	397633.14	2240889.74	983.52	water valve
81	397508.78	2240886.24	980.04	water valve
82	397553.27	2240653.68	974.29	water valve
91	396959.34	2240867.07	967.74	water valve
94	397108.60	2240624.07	970.55	water valve
95	397108.78	2240622.12	970.97	fire hydrant
110	397758.44	2240057.74	974.15	fire hydrant
111	397760.31	2240057.81	974.22	water valve
121	398246.83	2239984.71	974.35	water valve
122	398246.77	2239986.54	974.46	fire hydrant
124	398175.88	2239913.70	973.85	water valve
126	398017.24	2239827.73	974.78	water valve
127	398017.36	2239826.02	974.67	fire hydrant

SCALES: HORZ. 1" = 50'
PROJECT NO.
SHEET NO. 2 OF 2

AS-BUILT SURVEY – MENARDS
MASSILLON, OHIO

PLOTTED: 7/29/2009
DATE: 7/07/2009
DRAWN BY: SLB
CHECKED BY: SDC
APPVD BY: SDC
MENARDS AS BUILTS 709.DWG

REV. LTR.	DESCRIPTION	DATE	BY	APP'D

www.deibelsurveying.com
deibel surveying inc
115 BROAD AVE., N.W.
CANTON, OHIO 44708
OFFICE: (330) 455-2999
FAX: (330) 455-3299
E-mail: deibelsurveying@neo.rr.com
www.deibelsurveying.com

08 SD 03

MENARDS®

CIVIL SITE PACKAGE
45.019 TOTAL ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
OUT LOT #1044

INDEX OF SHEETS

1.	COVER SHEET	C-000
2.	DRAWING NOTES	C-001
3.	STORM WATER POLLUTION PREVENTION PLAN	C-002
4.	STORM WATER POLLUTION PREVENTION PLAN	C-003
5.	STORM WATER POLLUTION PREVENTION PLAN	C-004
6.	STORM WATER POLLUTION PREVENTION PLAN NOTES AND DETAILS	C-005
7.	STORM WATER POLLUTION PREVENTION PLAN NOTES AND DETAILS	C-006
8.	PRE-DEVELOPMENT DRAINAGE MAP	C-007
9.	POST-DEVELOPMENT STORM SEWER SIZING MAP	C-008
10.	STORM WATER POLLUTION PREVENTION PLAN POST-DEVELOPMENT DRAINAGE MAP	C-009
11.	ENLARGED DEMOLITION PLAN	C-101
12.	ENLARGED DEMOLITION PLAN	C-102
13.	ENLARGED DEMOLITION PLAN	C-103
14.	ENLARGED GEOMETRICS PLAN	C-201
15.	ENLARGED GEOMETRICS PLAN	C-202
16.	ELARGED GEOMETRICS PLAN	C-203
17.	ENLARGED GRADING PLAN	C-301
18.	ENLARGED GRADING PLAN	C-302
19.	ENLARGED GRADING PLAN	C-303
20.	ENLARGED UTILITIES PLAN	C-401
21.	ENLARGED UTILITIES PLAN	C-402
22.	ENLARGED UTILITIES PLAN	C-403
23.	SANITARY PLAN AND PROFILE	C-500
24.	SANITARY PLAN AND PROFILE	C-501
25.	SANITARY PLAN AND PROFILE	C-502
26.	CULVET ACCESS ROAD PLAN & PROFILE	C-600
27.	PAVEMENT DETAILS	C-800
28.	UTILITY DETAILS	C-801
29.	DETENTION POND SECTION & DETAILS	C-802

NOTES:

BUILDING AREA: 162,340 SQ. FT.
RETAIL AREA: 103,393 SQ. FT.
RECEIVING AREA: 16,047 SQ. FT.
WAREHOUSE AREA: 26,420 SQ. FT.
UNHEATED BUILDING OVERHANG: 40,608 SQ. FT.

CURRENT ZONING: B-3

PARKING SPACES:

PARKING REQUIRED PER VARIANCE FROM ZBA: 460 SPACES
TOTAL NUMBER OF PARKING SPACES: 480
NUMBER OF REQUIRED ADA ACCESSIBLE SPACES: 10
NUMBER OF PROVIDED ADA ACCESSIBLE SPACES: 10

ACCORDING TO THE DEPARTMENT OF JUSTICE 28 CFR ADA STANDARDS FOR ACCESSIBLE DESIGN, THE ACCESSIBLE SPACES PROVIDED MEET "UNIVERSAL" PARKING DESIGN AS SPECIFIED IN APPENDIX A 4.6.3

THE CONTRACTOR SHALL PROVIDE MENARD INC. WITH ELECTRONIC AS BUILT DRAWINGS ON CD UPON COMPLETION OF WORK.

THE FOLLOWING PERSONS MAY BE CONTACTED FOR ADDITIONAL INFORMATION ON THE UTILITES SHOWN ON THE PLANS:

NATURAL GAS LINES:
DOMINION EAST OHIO (TRANSMISSION)
7015 FREEDOM AVE. N. W.
NORTH CANTON, OH 44720
PH: 330-266-2049
ATTN: HARVEY YERGIN

GREAT LAKES ENERGY PARTNERS
7323 GEORGETOWN ST. N. E.
EAST CANTON, OH 44730
PH: 330-871-2214

COLUMBIA GAS
PH 800-440-6111

TELEPHONE LINES: SBC OHIO

FIRE DEPARTMENT
CITY OF MASSILLON
233 SOUTH ERIE
MASSILLON, OH 44646
PH: 330-833-1053
ATTN: TOM BURGASSER, FIRE CHIEF

SANITARY AND STORM SEWER LINES:
CITY OF MASSILLON ENGINEER
MUNICIPAL GOVERNMENT ANNEX
151 LINCOLN WAY EAST
MASSILLON, OH 44646
PH: 330-830-1722
ATTN: JASON HAINES

CABLE LINES:
MASSILLON CABLE
814 CABLE CT. N. W.
MASSILLON, OH 44647
PH: 330-833-4134

OPERATIONS/STREETS
CITY OF MASSILLON
401 WALNUT RD. S.W.
MASSILLON, OH 44647
PH: 330-833-5746
ATTN: GREG BABCOCK

MISC: OHIO DEPARTMENT OF TRANSPORTATION
PH: 330-786-3100

PERMITS REQUIRED		
DESCRIPTION	DATE SUBMITTED	DATE APPROVED
SITE PLAN (CITY)	04-30-07	01-16-08
NOI - STORM WATER (EPA)	07-24-07	08-28-07
SWP3 - (SCSWCD)	04-30-07	10-25-07
PTI - SANITARY (EPA)	11-12-07	

Approved by the Massillon City Engineer this 16th
Day of JANUARY, 2008.
Keith A. Dylewski, PE

Only approved signed plans by the City Engineer are to be used for Construction

DOMINION EAST OHIO (DISTRIBUTION)
4725 SOUTHWAY ST. S. W.
CANTON, OH 44708
PH: 330-478-3135
ATTN: KATE QUILLIN

NORTHEAST OHIO NATURAL GAS
1425 NORTH WOOSTER AVE.
SRASBURG, OH 44680
PH: 330-878-5589

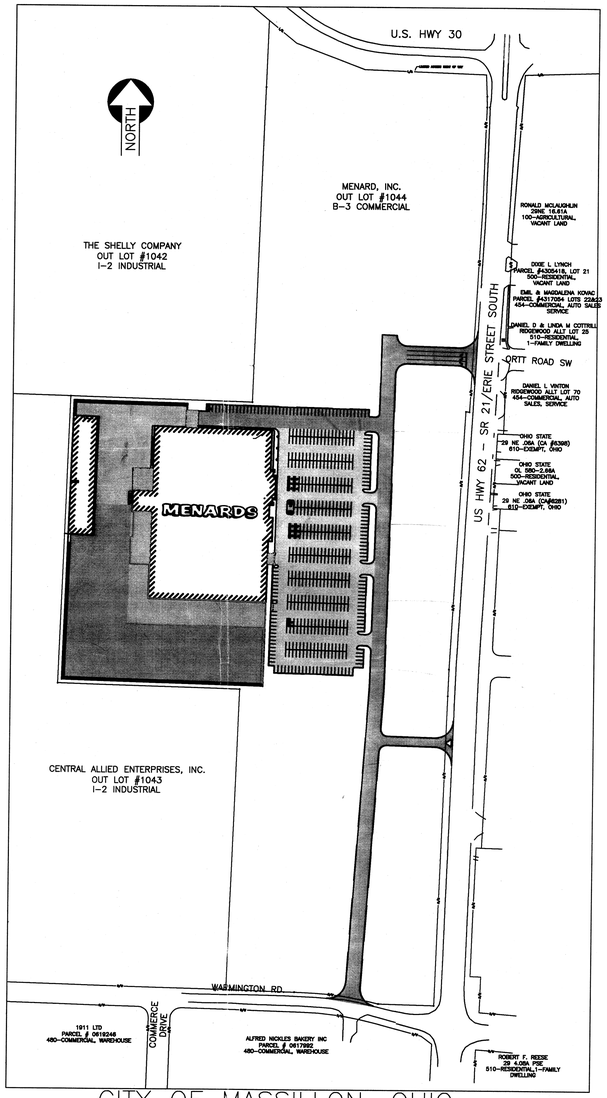
ELECTRICAL DISTRIBUTION LINES: OHIO EDISON
1910 WEST MARKET ST.
BUILDING 1
AKRON, OH 44313
PH: 330-384-3861
Jack Dedman

WATER LINES:
AQUA OHIO
870 THIRD STREET NW
MASSILLON, OH 44647
PH: 330-832-5764 EXT. 205
ATTN: DON SNYDER

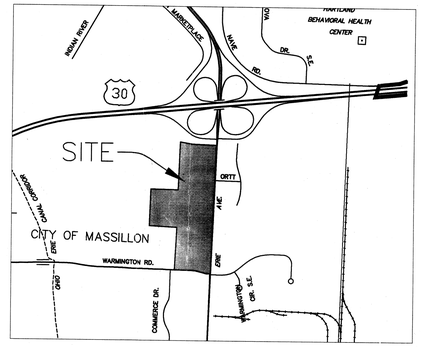
TIME WARNER CABLE
5520 WHIPPLE AVE. N. W.
NORTH CANTON, OH 44720
PH: 330-494-7200
ATTN: STEVE WEAVER

FIRE FLOW DATA
ERIE STREET S. 2ND FIRE HYDRANT
NORTH OF NAVARRE ROAD
STATIC: 88 PSI
RESIDUAL: 44 PSI
PITOT FLOW: 2316 GPM

PTI # 633555



CITY OF MASSILLON, OHIO
SCALE: 1"=200'



LOCATION MAP
NOT TO SCALE
NORTH

LEGEND		
DESCRIPTION	NEW	EXISTING
BUILDING		
CONCRETE PAVEMENT		
HEAVY DUTY ASPHALT		
LIGHT DUTY ASPHALT		
STORM SEWER	ST	ST
SANITARY SEWER	SAN	S
FENCE ROW		X X X
TELEPHONE		T
GAS MAIN	GAS	G
WATER	W W	W
MANHOLE		
CURB INLET		
STORM INLET		
FIRE HYDRANT		
WATER VALVE		
TRANSFORMER		
LIGHT POLE		L
POWER POLE		P
TRAFFIC SIGN		S
SPOT ELEVATION	× 949.25	+ 949.25
SLOPE		
GUARD RAIL		
PROPERTY LINE		PL
RIGHT-OF-WAY		R/W

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JOB TITLE
MENARDS®
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-73708
REGISTERED PROFESSIONAL ENGINEER
1-14-08
SEAL

KEYPLAN

NO.	DATE	SUBJECT
7	01-14-08	ISSUED FOR CONSTRUCTION
6	12-17-07	SITE PLAN APPROVAL
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFITT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	D. WOLF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
COVER SHEET

DRAWING NUMBER
C-000

08.50.03

MENARDS®

CIVIL SITE PACKAGE
45.019 TOTAL ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
OUT LOT #1044

INDEX OF SHEETS

1.	COVER SHEET	C-000
2.	DRAWING NOTES	C-001
3.	STORM WATER POLLUTION PREVENTION PLAN	C-002
4.	STORM WATER POLLUTION PREVENTION PLAN	C-003
5.	STORM WATER POLLUTION PREVENTION PLAN	C-004
6.	STORM WATER POLLUTION PREVENTION PLAN NOTES AND DETAILS	C-005
7.	STORM WATER POLLUTION PREVENTION PLAN NOTES AND DETAILS	C-006
8.	PRE-DEVELOPMENT DRAINAGE MAP	C-007
9.	POST-DEVELOPMENT STORM SEWER SIZING MAP	C-008
10.	STORM WATER POLLUTION PREVENTION PLAN POST-DEVELOPMENT DRAINAGE MAP	C-009
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17.	ENLARGED GRADING PLAN	C-301
18.	ENLARGED GRADING PLAN	C-302
19.	ENLARGED GRADING PLAN	C-303
20.	ENLARGED UTILITIES PLAN	C-401
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22.	ENLARGED UTILITIES PLAN	C-403
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24.	SANITARY PLAN AND PROFILE	C-501
25.	SANITARY PLAN AND PROFILE	C-502
26.	CULVET ACCESS ROAD PLAN & PROFILE	C-600
27.	PAVEMENT DETAILS	C-800
28.	UTILITY DETAILS	C-801
29.	DETENTION POND SECTION & DETAILS	C-802

NOTES:

BUILDING AREA: 162,340 SQ. FT.
RETAIL AREA: 103,393 SQ. FT.
RECEIVING AREA: 16,047 SQ. FT.
WAREHOUSE AREA: 26,420 SQ. FT.
UNHEATED BUILDING OVERHANG: 40,608 SQ. FT.

CURRENT ZONING: B-3

PARKING SPACES:

PARKING REQUIRED PER VARIANCE FROM ZBA: 460 SPACES
TOTAL NUMBER OF PARKING SPACES: 480
NUMBER OF REQUIRED ADA ACCESSIBLE SPACES: 10
NUMBER OF PROVIDED ADA ACCESSIBLE SPACES: 10

ACCORDING TO THE DEPARTMENT OF JUSTICE 28 CFR ADA STANDARDS FOR ACCESSIBLE DESIGN, THE ACCESSIBLE SPACES PROVIDED MEET "UNIVERSAL" PARKING DESIGN AS SPECIFIED IN APPENDIX A 4.6.3

THE CONTRACTOR SHALL PROVIDE MENARD INC. WITH ELECTRONIC AS BUILT DRAWINGS ON CD UPON COMPLETION OF WORK.

THE FOLLOWING PERSONS MAY BE CONTACTED FOR ADDITIONAL INFORMATION ON THE UTILITES SHOWN ON THE PLANS:

NATURAL GAS LINES:
DOMINION EAST OHIO (TRANSMISSION)
7015 FREEDOM AVE. N. W.
NORTH CANTON, OH 44720
PH: 330-266-2049
ATTN: HARVEY YERGIN

GREAT LAKES ENERGY PARTNERS
7323 GEORGETOWN ST. N. E.
EAST CANTON, OH 44730
PH: 330-871-2214

COLUMBIA GAS
PH 800-440-6111

TELEPHONE LINES: SBC OHIO

FIRE DEPARTMENT
CITY OF MASSILLON
233 SOUTH ERIE
MASSILLON, OH 44646
PH: 330-833-1053
ATTN: TOM BURGASSER, FIRE CHIEF

SANITARY AND STORM SEWER LINES:
CITY OF MASSILLON ENGINEER
MUNICIPAL GOVERNMENT ANNEX
151 LINCOLN WAY EAST
MASSILLON, OH 44646
PH: 330-830-1722
ATTN: JASON HAINES

CABLE LINES:
MASSILLON CABLE
814 CABLE CT. N. W.
MASSILLON, OH 44647
PH: 330-833-4134

OPERATIONS/STREETS
CITY OF MASSILLON
401 WALNUT RD. S.W.
MASSILLON, OH 44647
PH: 330-833-5746
ATTN: GREG BABCOCK

MISC: OHIO DEPARTMENT OF TRANSPORTATION
PH: 330-786-3100

DOMINION EAST OHIO (DISTRIBUTION)
4725 SOUTHWAY ST. S. W.
CANTON, OH 44708
PH: 330-478-3135
ATTN: KATE QUILLIN

NORTHEAST OHIO NATURAL GAS
1425 NORTH WOOSTER AVE.
SRASBURG, OH 44680
PH: 330-878-5589

ELECTRICAL DISTRIBUTION LINES: OHIO EDISON
1910 WEST MARKET ST.
BUILDING 1
AKRON, OH 44313
PH: 330-384-3861

WATER LINES:
AQUA OHIO
P.O. BOX 584
MASSILLON, OH 44648-0584
PH: 330-832-5764
ATTN: DON SNYDER

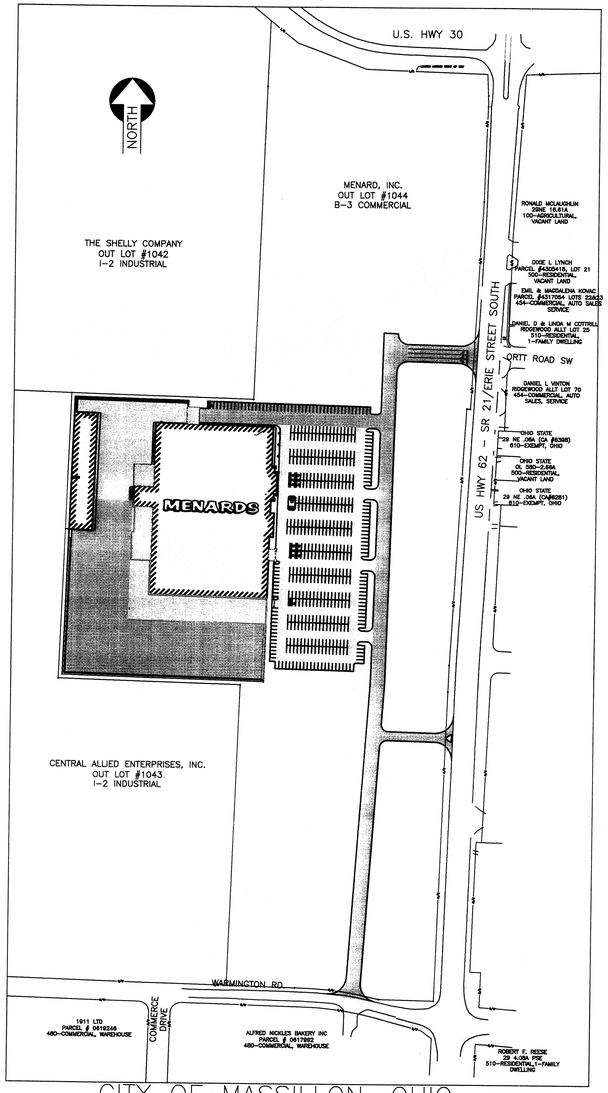
TIME WARNER CABLE
5520 WHIPPLE AVE. N. W.
NORTH CANTON, OH 44720
PH: 330-494-7200
ATTN: STEVE WEAVER

PERMITS REQUIRED		
DESCRIPTION	DATE SUBMITTED	DATE APPROVED
SITE PLAN (CITY)	04-30-07	
NOI - STORM WATER (EPA)	07-24-07	08-28-07
SWP3 - (SCSWCD)	04-30-07	
PTI - SANITARY (EPA)		
PTI - WATER (CITY)		
DEMOLITION (CITY)		

Approved by the Massillon City Engineer this _____
Day of _____, 20_____.

_____
Keith A. Dylewski, PE

Only approved signed plans by the City Engineer are to be used for Construction



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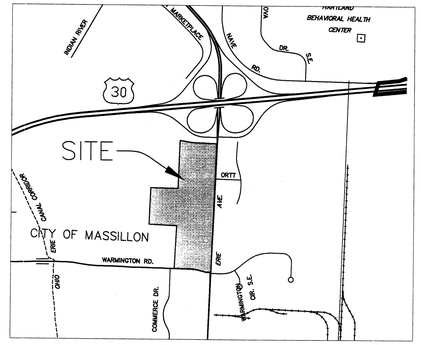

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SANITARY SEWER	SAN	S
FENCE ROW		X X X
TELEPHONE		T
GAS MAIN	GAS	G
WATER	W W	W
MANHOLE		
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WATER VALVE		
TRANSFORMER		
LIGHT POLE		$\not\Box_L$
POWER POLE		$\circ_P$
TRAFFIC SIGN		$\mathbb{H}_S$
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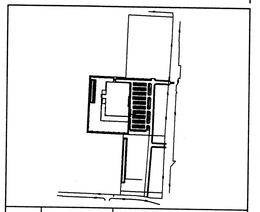
STATE OF OHIO
DUANE D. WOLF
E-74786
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

KEYPLAN



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CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
COVER SHEET

DRAWING NUMBER
C-000

RECEIVED
NOV 1 8 2007
08 SD 03

GENERAL NOTES:

01. ALL WORK AND MATERIALS SHALL CONFORM TO THE CONSTRUCTION STANDARDS OF CITY OF MASSILLON AND TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2005 AND THE LATEST ASSOCIATED SUPPLEMENTS AND REVISIONS, AND IN COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL STANDARDS AND REGULATIONS, UNLESS NOTED OTHERWISE.

02. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY A SURVEY PERFORMED BY DEIBEL SURVEYING INC. DATED JANUARY 20, 2006 IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT SSOE DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

03. THE CONTRACTOR AT ALL TIMES SHALL FOLLOW ALL STATE AND LOCAL SAFETY REQUIREMENTS DURING CONSTRUCTION OF THIS PROJECT. SPECIAL CARE SHALL BE TAKEN DURING ALL TRENCHING OPERATIONS. SHEETING AND BRACING, CRIBBING, ETC., MUST BE INSTALLED AS REQUIRED TO PROVIDE MAXIMUM SAFETY TO THE CONTRACTOR'S WORKERS IN FULL COMPLIANCE WITH OSHA REGULATIONS.

04. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, TYPE & MATERIAL, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE OR LOCATE ALL UTILITIES OR STRUCTURES WITHIN THE ALIGNMENT OF PROPOSED NEW CONSTRUCTION AT LEAST 1 WEEK PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES. A CITY OF MASSILLON REPRESENTATIVE SHALL BE ON-SITE WHEN EXPOSING CITY UTILITIES.

05. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND DURING HIS INVESTIGATION OF THE EXISTING UTILITIES AND TOPOGRAPHY AND/OR DURING HIS CONSTRUCTION PHASE.

06. ALL REMOVALS NECESSARY TO ACCOMPLISH THE NEW WORK ARE TO BE CONSIDERED PART OF THE CONTRACT AND INCLUDED IN IT'S BIDDING, WHETHER SPECIFIED, SHOWN ON THE DRAWINGS OR NOT. A CAREFUL INSPECTION OF THE PREMISES PRIOR TO BIDDING SHALL BE MADE BY EACH BIDDER.

07. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AS IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN PREPARED FOR THE PROJECT.

08. ALL DISTURBED AREAS NOT DESIGNATED TO RECEIVE A FINISHED SURFACE SHALL BE SEEDED AND MULCHED ON A MINIMUM OF 4" TOPSOIL. SEED, MULCH AND FERTILIZE ALL DISTURBED TOPSOIL AREAS AS INDICATED ON THE LANDSCAPE DRAWINGS. CONTRACTOR SHALL WATER, FERTILIZE AND RESEED AREAS AS NECESSARY UNTIL OF A MINIMUM OF 70% GROWTH DENSITY IS ACHIEVED.

09. CONTRACTOR SHALL KEEP EXISTING STREETS, ROADS AND DRIVES CLEAR OF DIRT, DEBRIS AND EQUIPMENT. STREET AND FOOT TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. CONTRACTOR SHALL USE TRAFFIC CONTROL DEVICES AS NECESSARY PER ODOT SPECIFICATIONS.

10. ANY DAMAGE TO THE CURB OR OTHER STRUCTURES WITHIN THE COUNTY RIGHT OF WAY DURING THE DEMOLITION AND CONSTRUCTION PHASE OF THE PROJECT SHALL BE REPAIRED PER THE CITY OF MASSILLON OR ODOT CONSTRUCTION STANDARDS.

11. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AS NECESSARY FOR NEW CONSTRUCTION.

12. BASED ON THE GROUNDWATER CONDITIONS REPORTED IN THE SUBSURFACE EXPLORATION AND FOUNDATION RECOMMENDATIONS REPORT PREPARED BY (NO REPORT PROVIDED TO DATE 04-11-06), THE CONTROL OF THE GROUNDWATER MAY BE REQUIRED TO ACHIEVE THE NECESSARY STRIPPING AND SUBSEQUENT CONSTRUCTION, BACKFILLING, AND COMPACTION REQUIREMENTS SPECIFIED FOR THE PROJECT. THE ACTUAL METHOD(S) OF DEWATERING SHOULD BE DETERMINED BY THE CONTRACTOR. REGARDLESS OF THE METHOD(S) USED, THE CONTRACTOR SHOULD ANTICIPATE DRAWING DOWN THE WATER TABLE SUFFICIENTLY BELOW THE BOTTOM OF ANY EXCAVATION OR COMPACTION SURFACE TO PRECLUDE "PUMPING" AND/OR COMPACTION-RELATED PROBLEMS WITH THE FOUNDATION SOILS.

13. ALL EXCESS EXCAVATION SHALL BE REMOVED FROM THE PROJECT SITE AS DIRECTED BY OWNER'S REPRESENTATIVE. COORDINATE PRIOR TO CONSTRUCTION.

14. TOPSOIL SHALL BE STRIPPED TO IT'S ENTIRE DEPTH, AS ENCOUNTERED, FROM ALL AREAS TO RECEIVE NEW CONSTRUCTION. EXCESS TOPSOIL MAY BE SHALL BE HAULED OFF SITE.

15. SOLID, SANITARY AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY, OR POUR OUT ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND OTHER SUCH TOXIC OR HAZARDOUS WASTES. WASH OUT OF CONCRETE TRUCKS SHALL OCCUR IN A DIKED, DESIGNATED AREA WHERE THE WASTEWATER CAN BE COLLECTED AND DISPOSED OF PROPERLY WHEN IT HARDENS. STORAGE TANKS SHALL BE LOCATED IN DIKED AREAS AWAY FROM ANY DRAINAGE CHANNELS. THE DIKED AREA SHALL CONTAIN A VOLUME 110% OF THE LARGEST TANK.

REMOVAL NOTES:

01. ALL REMOVALS NECESSARY TO ACCOMPLISH THE NEW WORK ARE TO BE CONSIDERED PART OF THE CONTRACT AND INCLUDED IN IT'S BIDDING, WHETHER SPECIFIED, SHOWN ON THE DRAWINGS OR NOT. A CAREFUL INSPECTION OF THE PREMISES PRIOR TO BIDDING SHALL BE MADE BY EACH BIDDER.

02. PROTECT EXISTING BUILDINGS, TREES, UTILITIES AND STRUCTURES TO REMAIN AS NECESSARY. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONSTRUCTION RESULTING FROM OR CAUSED BY NEW CONSTRUCTION.

03. REMOVE ALL TOPSOIL FROM AREAS TO RECEIVE NEW CONSTRUCTION.

04. REMOVE ALL EXCESS EXCAVATION, WASTE MATERIALS, ETC. FROM SITE IN ACCORDANCE WITH LOCAL AUTHORITIES.

05. CONTRACTOR SHALL COORDINATE ALL TREE REMOVALS WITH OWNER AND CITY OF MASSILLON PRIOR TO INITIATING WORK. MARK ALL TREES TO BE REMOVED AS REQUIRED FOR NEW CONSTRUCTION, A MINIMUM OF ONE WEEK PRIOR TO ANY DEMOLITION ACTIVITIES. TREE STUMPS NOT TO BE BURIED ON SITE.

06. ADJUST THE VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITY STRUCTURES TO REMAIN AS NECESSARY TO PREVENT CONFLICT WITH PROPOSED NEW CONSTRUCTION AND MAKE FLUSH WITH PROPOSED GRADES WHERE APPLICABLE. COORDINATE ALL RELOCATIONS WITH UTILITY OWNER AND NOTIFY CONSTRUCTION MANAGER.

SITE LAYOUT NOTES:

01. SEE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS.

02. ALL DIMENSIONS ARE TO FACE OF BUILDING FOUNDATION, EDGE OF PAVEMENT, OR FACE OF CURB WHERE APPLICABLE.

03. LAYOUT FOR NEW CONSTRUCTION IS RELATIVE TO CONTROL POINT COORDINATES ESTABLISHED BY TOPOGRAPHIC SURVEY PREPARED BY DEIBEL SURVEYING INC. DATED JANUARY 20, 2006.

GRADING NOTES:

01. ARCHITECTURAL FINISHED FLOOR ELEVATION +100.00 EQUALS SITE ELEVATION 975.00.

02. UNLESS NOTED OTHERWISE, GRADE AT EXTERIOR DOOR STOOP IS 974.98.

03. UNLESS NOTED OTHERWISE, GRADE AT EXTERIOR EDGE OF BUILDINGS WILL BE 974.50.

04. UNLESS NOTED OTHERWISE, THE TOP OF EXISTING MANHOLE, CATCH BASIN OR OTHER UTILITY STRUCTURES AFFECTED BY NEW CONSTRUCTION SHALL BE ADJUSTED, AS NECESSARY, TO BE FLUSH WITH PROPOSED GRADE AND/OR PROVIDE POSITIVE DRAINAGE.

05. UNLESS NOTED OTHERWISE ON PLANS, CONTRACTOR SHALL CUT OR FILL, AS NECESSARY, TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND PROPOSED GRADES. ALL CUT AND/OR FILL SLOPES SHALL BE A MAXIMUM OF 4 HORIZONTAL TO 1 VERTICAL (4H:1V). FINISHED GRADING SHALL BE DONE TO PREVENT PONDING WITHIN THE PROJECT AREA AND ADJOINING AREAS, AND MAINTAIN POSITIVE DRAINAGE TO THE NEAREST DRAINAGE FEATURE.

06. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE TO THE NEAREST DRAINAGE FEATURE AT ALL TIMES, NO PONDING WILL BE PERMITTED.

07. IN PAVEMENT AREAS POSITIVE DRAINAGE MAY BE ACCOMPLISHED BY ADDING COMPACTED ODOT 304 TO THE CATCH BASIN RIM ELEVATION, THEN RE-EXCAVATING FOR ASPHALT INSTALLATION. CONTRACTOR SHALL KEEP THE BASE MATERIAL AT OPTIMUM MOISTURE LEVEL AND THE SPECIFIED COMPACTION.

08. EXISTING GRADES SHOWN ARE BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY DEIBEL SURVEYING INC. DATED JANUARY 20, 2006. SHOULD CONFLICTS BETWEEN GRADES ENCOUNTERED DURING CONSTRUCTION AND GRADES REPORTED ON THE PLANS BECOME EVIDENT, CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF ANY CONSTRUCTION SCHEDULE IMPACT SO THAT SSOE MAY EVALUATE THE PROPOSED DESIGN AND REVISE GRADING AS NECESSARY.

09. GRADES AT ACCESS DRIVES TO MATCH EXISTING ELEVATIONS.

SWP3 EROSION AND SEDIMENT CONTROL NOTES

01. THE CONTRACTOR SHALL APPLY FOR AND OBTAIN A PERMIT FROM THE OHIO EPA AS A CO-PERMITTEE UNDER THE PROJECT CONSTRUCTION STORM WATER PERMIT AT LEAST 21 DAYS PRIOR TO INITIATING GROUND-DISTURBING ACTIVITIES.

02. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, INSTALLING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES (AKA BEST MANAGEMENT PRACTICE MEASURES OR BMP'S) IN ACCORDANCE WITH CONTRACT DOCUMENTS.

03. ALL EROSION AND SEDIMENT CONTROL (BMP) MEASURES WILL BE INSTALLED TO THE SATISFACTION OF THE CITY OF MASSILLON. CITY OF MASSILLON MAY REQUIRE WORK TO BE STOPPED AND THE STORM DRAINAGE OUTLET TO BE PLUGGED, IF CONDITIONS BECOME UNSATISFACTORY. THE CONTRACTOR IS TO NOTIFY CITY OF MASSILLON THREE DAYS PRIOR TO STARTING CONSTRUCTION FOR THE PURPOSE OF MONITORING EROSION AND BMP MEASURES.

04. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING DOWNSTREAM AREAS FROM SEDIMENT OF CONSTRUCTION ACTIVITIES WITHIN THE EARTH DISTURBING LIMITS UNTIL PERMANENT STABILIZATION IS ESTABLISHED.

05. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SITE GRADING SUCH THAT ALL SURFACE WATER WITHIN EARTH DISTURBING LIMITS AND DEWATERING, IF REQUIRED, IS DIVERTED THROUGH EROSION AND SEDIMENT CONTROL MEASURES.

SWP3 EROSION AND SEDIMENT CONTROL NOTES (CONT.)

06. THE CONTRACTOR IS TO DESIGNATE A SITE DUMP/WASH AREA PRIOR TO STARTING CONSTRUCTION FOR SUCH PURPOSES AS WASHING OUT CONCRETE TRUCKS AND DUMPING NON-HAZARDOUS WASTE MATERIALS, SUBJECT TO THE SUPERVISION OF CITY OF MASSILLON AND CITY OF MASSILLON CODE. DUMPING OR DISCHARGE OF ANY WASTE MATERIALS TO ANY CITY OF MASSILLON SEWERS IS PROHIBITED. HAZARDOUS WASTES ARE TO BE REMOVED OFF SITE AND PROPERLY DISPOSED OF CONSISTENT WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

07. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SOIL EROSION AND SEDIMENT CONTROL PRACTICES SATISFYING THE CONDITION OF NPDES GENERAL PERMIT NO. OHC000002 AND MEETING THE STANDARDS AND SPECIFICATIONS IN THE CURRENT EDITION OF WATER MANAGEMENT AND SEDIMENT CONTROL IN URBANIZING AREAS (USDA- SCS) OR THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2005) ITEM 207 TEMPORARY SEDIMENT AND EROSION CONTROL, WHICHEVER IS MORE STRINGENT, UNLESS OTHERWISE NOTED.

08. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING AN AGGREGATE CONSTRUCTION ROAD TO MINIMIZE THE TRACKING OF SEDIMENTS ONTO EXISTING PAVEMENT BY CONSTRUCTION VEHICLES.

09. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SILT FILTER FABRIC FENCES FOR PERIMETER CONTROL OF EXISTING DRAINAGE FACILITIES, EARTH DISTURBING ACTIVITIES, STOCKPILES (TEMPORARY AND EXCESS) AND PROPOSED DRAINAGE FACILITIES PER STATE OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWING DM-4.4 CONSTRUCTION EROSION CONTROL (07-19-02).

10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DUMPED ROCK CHECK DAMS PER STATE OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWING DM-4.4 CONSTRUCTION EROSION CONTROL (07-19-02) IN NEW DITCHES AND SWALES IMMEDIATELY DOWNSTREAM OF STORM SEWER OUTLETS AND AT MAXIMUM 200 FOOT INTERVALS. DUMPED ROCK SHALL MEET ODOT SPECIFICATION 703.19 FOR DUMPED ROCK FILL AND CHANNEL PROTECTION, TYPE C.

11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING INLET PROTECTION FILTER FABRIC FENCE AROUND STORM SEWER INLETS PER STATE OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWING DM-4.4 TEMPORARY EROSION CONTROL (07-19-02).

12. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CULVERT INLET PROTECTION CONSISTING OF WIRE MESH COVERED WITH OHIO DEPARTMENT OF TRANSPORTATION ITEM 601 TYPE D DUMPED ROCK FILL TO 6" ABOVE THE CROWN OF THE CULVERT.

13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DITCH PROTECTION MEASURES PER STATE OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWING DM-5.1 STREAM AND RIVER CROSSING (07-19-02)

14. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR SEDIMENT ACCUMULATION EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5"/24HR OR GREATER RAIN EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE CONTROL MEASURE RESTORED TO ORIGINAL CONDITION, WITHIN 3 TO 10 DAYS, AS REQUIRED. ALL INSPECTIONS WILL BE DOCUMENTED AND KEPT ON FILE AT THE PROJECT SITE. THIS LOG SHOULD INDICATE THE DATE OF INSPECTION, NAME OF THE INSPECTOR, WEATHER CONDITIONS, OBSERVATIONS, ACTIONS TAKEN TO CORRECT ANY PROBLEMS AND THE DATE ACTION WAS TAKEN. CONTRACTOR INSPECTIONS SHALL CONTINUE DURING PERIODS OF SUSPENDED CONSTRUCTION ACTIVITIES AND THROUGH WINTER MONTHS.

15. ALL AREAS DISTURBED BY CONSTRUCTION NOT DESIGNATED AS A PAVED SURFACE, OR NOT STABILIZED OTHERWISE SHALL BE SEEDED AND MULCHED ON A MINIMUM OF 4" TOPSOIL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

16. THE CONTRACTOR WILL INITIATE TEMPORARY STABILIZATION WITHIN 7 DAYS OF LAST DISTURBANCE ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES WILL BE CEASED OR SUSPENDED FOR 21 DAYS OR MORE. ALL DISTURBED AREAS MUST BE ADEQUATELY STABILIZED PRIOR TO THE ONSET OF WINTER.

17. SEEDING SHOULD ONLY BE APPLIED BETWEEN MARCH 1 TO MAY 31 AND FROM AUGUST 1 TO SEPTEMBER 30. ALL SEEDED AREAS SHALL BE WATERED, FERTILIZED AND RESEEDED AS NECESSARY TO INSURE A MINIMUM 70% GROWTH DENSITY. SEE SEEDING PLAN AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

18. ALTERNATIVE METHODS OF SURFACE STABILIZATION, AS APPROVED BY CITY OF MASSILLON, SHALL BE USED DURING PERIODS NOT FEASIBLE FOR SEEDING AND MULCHING.

19. ALL CONTRACTORS AND SUBCONTRACTORS DOING WORK ON THIS SITE SHALL RECEIVE AND BE FAMILIAR WITH THE PROJECT STORM WATER POLLUTION PREVENTION PLAN AND THESE NOTES. THE CONSTRUCTION MANAGER SHALL MAINTAIN A COPY OF SIGNED RECEIPTS FROM ALL CONTRACTORS AND SUBCONTRACTORS FOR RECEIPT AND REVIEW OF THE STORM WATER POLLUTION PREVENTION PLAN, AND THESE NOTES.

20. CONSTRUCTION SEQUENCE:
A. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AND SILT FILTER FABRIC FENCE FOR PERIMETER CONTROL.
B. ROUGH GRADE AND STOCKPILE EARTHEN MATERIAL.
C. PROVIDE TEMPORARY STABILIZATION AND SEDIMENT CONTROL FOR TOPSOIL STOCKPILES AND AREAS TO BE EXPOSED OVER 21-DAYS WITHIN 7 DAYS.
D. CONSTRUCT PROPOSED STRUCTURE AND PAVEMENTS.
E. PERFORM FINAL SITE GRADING.
F. INSTALL PERMANENT STABILIZATION, INCLUDING SEEDING WITHIN 7 DAYS OF FINAL GRADING

21. CONTRACTOR IS TO NOTIFY CITY OF MASSILLON THREE DAYS PRIOR TO STARTING CONSTRUCTION FOR PURPOSE OF MONITORING EROSION AND BMP MEASURES.

UTILITY NOTES:

STORM DRAINAGE NOTES

01. FOR PROTECTION OF UNDERGROUND UTILITIES, CALL THE OHIO UTILITIES PROTECTION SERVICE AT 1-800-362-2764 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATING, NON-MEMBERS MUST BE CALLED DIRECTLY.

02. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CONSTRUCTION STANDARDS OF CITY OF MASSILLON AND SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) DATED JANUARY 1, 2005. IN ADDITION, ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL AND STATE STANDARDS AND REGULATIONS.

03. SOIL EROSION AND SEDIMENTATION BEST MANAGEMENT PRACTICE (BMP) MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL BE MAINTAINED AT ALL TIMES UNTIL CONSTRUCTION HAS BEEN COMPLETED, INCLUDING ALL GRASS BEING WELL ESTABLISHED AND/OR PERMANENT EROSION AND SEDIMENTATION BMP MEASURES ARE IN PLACE. ALL BMP MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY OF MASSILLON. CITY OF MASSILLON MAY REQUIRE WORK TO BE STOPPED AND THE STORM DRAINAGE OUTLET TO BE PLUGGED, IF CONDITIONS BECOME UNSATISFACTORY. TMC 941

04. CONTRACTOR IS TO DESIGNATE A SITE DUMP/WASH AREA PRIOR TO STARTING CONSTRUCTION FOR SUCH PURPOSE AS WASHING OUT CONCRETE TRUCKS AND DUMPING NON-HAZARDOUS WASTE MATERIALS, SUBJECT TO THE SUPERVISION OF CITY OF MASSILLON AND THE CITY OF MASSILLON CODE. DUMPING OR DISCHARGE OF ANY WASTE MATERIALS TO ANY CITY OF MASSILLON SEWERS IS PROHIBITED. HAZARDOUS WASTES ARE TO BE REMOVED OFF SITE AND PROPERLY DISPOSED OF CONSISTENT WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

05. CONTRACTOR SHALL IDENTIFY AND SPOT DIG POTENTIAL CONFLICTING UTILITIES WITHIN PROPOSED NEW UTILITY ALIGNMENTS PRIOR TO INITIATING CONSTRUCTION/INSTALLATION.

06. EXISTING DRAIN TILES BENEATH PAVEMENT EDGES SHALL BE EXTENDED AS NECESSARY TO RECONNECT OUTFALL TO NEW STORM DRAINAGE WHERE AFFECTED BY NEW WORK.

07. STORM CONNECTIONS TO THE DOWNSPOUTS ARE TO BE DONE BY THE SITE CONTRACTOR.

08. STORM SEWER PIPING:

ACCEPTABLE STORM SEWER PIPING FOR THIS PROJECT IS AS FOLLOWS:

6"-15": PVC, ASTM D3034, SDR35 WITH PREMIUM JOINTS CONFORMING TO ASTM D3212. GASKETS SHALL BE WATER TIGHT AND MEET THE REQUIREMENTS OF ASTM F477.

18"-24": HDPE, CORRUGATED POLYETHYLENE PIPE SHALL COMPLY WITH AASHTO M294, TYPE S, AND SHALL HAVE AN INTEGRALLY FORMED SMOOTH INTERIOR. JOINTS SHALL BE MADE WITH WATERTIGHT FITTINGS. PROVIDE ADVANCED DRAINAGE SYSTEMS N-12 SANITARY SEWER PIPE & FITTINGS, HANCOR SURE-LOK 10.8, QUALITY CULVERT Q-SEAL.

27"-42": REINFORCED CONCRETE PIPE, ASTM C76 CL. IV, JOINTS SHALL BE RUBBER GASKET TYPE, ASTM C443.

09. PROVIDE A WATERTIGHT CONNECTION AT ALL NEW STRUCTURES BY USING A BOOT CONNECTION. IF EXISTING STRUCTURES CANNOT BE CORE DRILLED A WATERSTOP AND NON-SHRINKING GROUT MAY BE USED.

10. INSTALL ALL STORM SEWER PIPING IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS AND SPECIFICATIONS.

WATER UTILITY NOTES:

01. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT OHIO WATER CONSUMERS COMPANY REQUIREMENTS, AND CONSTRUCTION STANDARDS WHERE APPLICABLE.

02. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL BENDS/FITTINGS AS REQUIRED. TAPPING SLEEVES AND VALVES AND 3/4 INCH CHLORINATION TAPS SHALL BE FURNISHED AND INSTALLED BY OHIO WATER CONSUMERS COMPANY AT THE CUSTOMER'S EXPENSE. ALL EXCAVATION AND BACKFILL SHALL BE PERFORMED BY THE CONTRACTOR.

03. CONTRACTOR SHALL COORDINATE ALL WORK AND WATER MAIN INSTALLATION WITH OHIO WATER CONSUMERS COMPANY.

04. WATER MAINS SHALL BE INSTALLED, TESTED AND DISINFECTED UNDER THE DIRECT SUPERVISION OF THE OHIO WATER CONSUMERS COMPANY. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH OHIO WATER CONSUMERS COMPANY STANDARDS AND SPECIFICATIONS. THE OHIO WATER CONSUMERS COMPANY SHALL BE NOTIFIED AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY IN ORDER TO ARRANGE FOR INSPECTION OF THE PROJECT.

05. AFTER THE SMALL SERVICE CONNECTION IS PURCHASED BY THE OWNER, THE OHIO WATER CONSUMERS COMPANY WILL CONNECT FROM THE CORPORATION STOP TO THE PLUMBER'S LINE WITH 5 FEET OF COPPER AND INSTALL A CURB STOP AND CURB BOX. ALL EXCAVATIONS SHALL BE MADE BY THE CONTRACTOR.

06. ALL PUBLIC AND PRIVATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR, IN WRITING, AT LEAST SEVEN (7) DAYS IN ADVANCE OF BEGINNING ANY CONSTRUCTION OPERATIONS.

07. THE SPECIFICATIONS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AMERICAN WATER WORKS ASSOCIATION (AWWA) AND THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) HEREIN PREFERRED TO, UNLESS OTHERWISE NOTED, SHALL BE THE LATEST SPECIFICATIONS OF THE RESPECTIVE ORGANIZATIONS.

08. PIPE SHALL BE ANSI-A21.51 (AWWA C151), DUCTILE CAST IRON, MINIMUM CLASS 52 MEETING THE REQUIREMENTS OF AWWA C151, TABLE 51.4. BRONZE WEDGES SHALL BE USED AT ALL PUSH-ON JOINTS (TWO PER JOINT ON PIPE 12-INCH AND SMALLER AND FOUR PER JOINT ON PIPE LARGER THAN 12-INCH).

UTILITY NOTES: (CONTINUED)

09. FITTINGS SHALL BE DUCTILE CAST IRON CONFORMING TO ANSI-A21.10 (AWWA C110) WITH A MINIMUM CLASS OF 250 OR ANSI-A21.53 (AWWA C153) AND HAVE MECHANICAL JOINT ENDS AS SPECIFIED IN ANSI-A21.11 (AWWA C111).

10. ALL PIPE, VALVES AND FITTINGS FOR FIRE SERVICES SHALL ALSO BE UL/FM APPROVED.

11. ALL PIPE AND FITTINGS SHALL HAVE A CEMENT MORTAR LINING, CONFORMING TO ANSI-A21.4 (AWWA C104) AND A PETROLEUM-ASPHALTIC OUTSIDE COATING. SPECIAL LININGS MAY BE REQUIRED AT THE REQUEST OF THE OHIO WATER CONSUMERS COMPANY FOR SPECIAL CONDITIONS.

12. VALVE MANHOLE FRAMES AND COVERS SHALL BE 22 INCHES, NEENAH R-1765 OR APPROVED EQUAL, ASTM A-48, WITH INTERCHANGEABLE PIECES AND MACHINED HORIZONTAL BEARING SURFACES.

13. VALVE BOXES SHALL BE THREE (3) PIECE ADJUSTABLE SCREW TYPE, WITH A 5-¼ INCH SHAFT, WITH CAST IRON FULL FLANGE RING AND LID. VALVE BOXES IN PAVEMENT SHALL BE TYLER PIPE 6860 SERIES, OR EQUAL, WITH CAST IRON BODY. VALVE BOXES OUTSIDE PAVEMENT SHALL BE AMETEK ROADWAY 5-245, OR EQUAL, WITH POLYIRON BODY.

14. GATE VALVES 12" AND SMALLER SHALL BE LIMITED TO VALVES MADE BY AMERICAN, KENNEDY, MUELLER, U.S. PIPE OR CLOW VALVE COMPANIES MEETING AWWA SPECIFICATION C500 AND/OR C509 AS PURCHASED BY THE OHIO AMERICAN WATER COMPANY.

15. HYDRANTS SHALL BE LIMITED TO MUELLER CENTURION A-423 OR KENNEDY GUARDIAN K-81A MEETING AWWA SPECIFICATION C502 AS PURCHASED BY THE OHIO WATER CONSUMERS COMPANY. PUMPER NOZZLE SHALL BE 5 INCHES INTERNAL DIAMETER WITH STORZ CONNECTOR FROM HARRINGTON, INC. STORZ CONNECTOR SHALL BE AN INTEGRAL PART OF THE HYDRANT ASSEMBLY.

16. CONTRACTOR TO PROVIDE ALL JOINT RESTRAINTS AND THRUST BLOCKS IN ACCORDANCE WITH THE CURRENT EDITION OF NFPA 13, AND THE CURRENT CONSTRUCTION STANDARDS OF THE OHIO WATER CONSUMERS COMPANY.

17. INSTALLATION AND PRESSURE TESTING SHALL BE AS PER AWWA C-600. DISINFECTION SHALL MEET OR EXCEED AWWA C-651. NO DEVIATIONS FROM THE ABOVE SPECIFICATIONS WILL BE PERMITTED.

18. THE OHIO ENVIRONMENTAL PROTECTION AGENCY REQUIRES A CONFORMANCE TO THE 2003 EDITION OF "RECOMMENDED STANDARDS FOR WATER WORKS". THIS STANDARD SHALL BE EQUALED OR EXCEEDED FOR WATER LINES. SPECIAL ATTENTION SHALL BE GIVEN TO THE FOLLOWING SECTIONS OF PART 8:

MATERIALS CONFORM TO AWWA STANDARDS
FIRE PROTECTION
MINIMUM 5' GROUND COVER
PRESSURE TESTING AWWA C-600 OR N.F.P.A. 24*
DISINFECTION AWWA C-651*
10' HORIZONTAL SEPARATION WATER MAIN/SEWER
18" VERTICAL SEPARATION WATER MAIN/SEWER
NO ENTRY AND/OR CONTACT WITH SEWER MANHOLE.

19. ANY DEVIATION FROM THE ABOVE WILL NOT BE PERMITTED UNLESS SPECIFICALLY INCLUDED IN THE GENERAL NOTES OR OTHERWISE SHOWN ON THESE PLANS. IN CASES WHERE ONE OR MORE OF THE ABOVE-MENTIONED OHIO EPA STANDARDS FALL SHORT OF THE OHIO AMERICAN WATER COMPANY STANDARDS, THE LATTER SHALL GOVERN.

*NOTE: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THIS TEST PROPERLY AND THE RESPONSIBILITY FOR ADEQUATE SUPERVISION AND APPROVAL RESTS WITH THE APPROPRIATE GOVERNMENTAL AGENCY.

STEEL PIPE ENCASEMENT

20. WHERE REQUIRED, WATER SUPPLY LINE SHALL BE INSTALLED WITHIN STEEL ENCASEMENT PIPE MEETING ASTM A139. THE ENCASEMENT PIPE SHALL BE WELDED STEEL PIPE, OR APPROVED EQUAL, AND SHALL BE ASPHALT COATED ON THE OUTSIDE. THE ENCASEMENT PIPE SHALL HAVE A MINIMUM TENSILE STRENGTH OF 60,000 PSI AND A MINIMUM YIELD STRENGTH OF 35,000 PSI.

21. MINIMUM WALL THICKNESS SHALL BE PER ODOT ITEM 748.06. THE MINIMUM DIAMETER OF ENCASEMENT PIPE SHALL BE THE OUTSIDE DIAMETER OF THE BELL PLUS FOUR (4) INCHES, OR AS DIRECTED BY THE ENGINEER.

22. THE ENCASEMENT PIPE SHALL BE INSTALLED BY BORING AND JACKING AND IN SUCH A MANNER AS TO ALLOW THE PIPE TO BE LAID AT THE PROPER GRADE. THIS OPERATION SHALL BE CONTINUOUS AND CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT OR ENDANGER THE OPERATION OF TRAFFIC, NOR DAMAGE, DESTROY OR ENDANGER THE INTEGRITY OF THE ROADWAY.

SANITARY SEWER NOTES:

01. SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION.

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

03. THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS ALONG THE ROUTE OF THE SANITARY SEWER AT LEAST THREE (3) DAYS PRIOR TO START OF CONSTRUCTION.

04. THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.

UTILITY NOTES: (CONTINUED)

05. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING EXISTING SANITARY FLOW DURING THE CONSTRUCTION AND TESTING OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR'S METHODS FOR MAINTAINING FLOW MUST BE APPROVED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AT THE PRE-CONSTRUCTION MEETING.

06. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISHED GRADE SHALL BE COMPLETED WITHIN THE RIGHT-OF-WAY AND EASEMENTS PRIOR TO SANITARY SEWER CONSTRUCTION.

07. BULKHEADS SHALL BE ERECTED IN EXISTING MANHOLES WHERE TAPS FOR NEW MAINLINE SEWERS ARE MADE AND SHALL REMAIN IN PLACE UNTIL THE NEW SEWERS ARE COMPLETE, TESTED AND APPROVED. IN CASES WHERE A BULKHEAD WOULD INTERRUPT THE FLOW FROM EXISTING SERVICE CONNECTIONS, THE BULKHEAD SHALL BE PLACED IN THE FIRST NEW MANHOLE UPSTREAM OF THE EXISTING MANHOLE.

08. MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATERLINE SHALL BE 18 INCHES. MINIMUM HORIZONTAL SEPARATION SHALL BE 10 FT.

09. SANITARY SEWER SERVICE LATERALS SHALL BE 6-INCH DIAMETER AND BE LAID AT NO LESS THAN 1.0% GRADE.

10. FOR NEW SUBDIVISION CONSTRUCTION, SEWER SERVICE LATERALS SHALL EXTEND 12" INTO THE LOTS OR BEYOND FURTHEST UTILITY, WHICHEVER IS GREATER, WHEN THE MAIN SEWER IS IN A STREET RIGHT-OF-WAY, AND SHALL TERMINATE AT THE EASEMENT LINE WHEN THE MAIN SEWER IS IN AN EASEMENT. FOR OTHER SEWER EXTENSIONS, SEWER SERVICE LATERALS SHALL TERMINATE AT THE RIGHT-OF-WAY LINE OR THE EASEMENT LINE, WHICHEVER IS APPLICABLE

11. SERVICE STACKS SHALL BE DUCTILE IRON PIPE REGARDLESS OF MAIN SEWER MATERIAL. A CAST IRON TEE SHALL BE INSTALLED IN THE MAIN SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED.

12. MINIMUM COVER OVER SANITARY SEWER SHALL BE 4 FT.

13. SANITARY SEWER PIPE MATERIALS SHALL BE ASTM D-3034, SDR-35, WITH CELL CLASSIFICATION 12454-B OR APPROVED EQUAL. JOINTS SHALL CONFORM TO ASTM D-3212 AND THE INSTALLATION SHALL CONFORM TO ASTM D-2321.

14. ALL SANITARY SEWERS, 8-INCH DIAMETER AND LARGER, MUST PASS AN INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPING PROCEDURE SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS.

15. A DEFLECTION TEST SHALL BE REQUIRED FOR ALL FLEXIBLE PIPE OF 8-INCH DIAMETER AND LARGER. THE TEST SHALL BE CONDUCTED AT LEAST 30 DAYS AFTER COMPLETION OF BACKFILL AND SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE (5%) PERCENT. TESTING SHALL BE IN ACCORDANCE WITH ASTM D-3034.

16. ALL SANITARY SEWERS MUST PASS A LOW PRESSURE AIR TEST, WHICH SHALL BE CONDUCTED IN ACCORDANCE WITH ASTMF-1417 (PLASTIC PIPE) OR ASTM C-828 (CLAY PIPE). THE MAXIMUM ALLOWABLE TEST LEAKAGE SHALL BE 100 GAL/INCH OF DIAMETER/MILE/DAY.

17. MANHOLE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ASTM C-478 AND C-443. ALL MANHOLES SHALL BE AIR/VACUUM TESTED IN ACCORDANCE WITH AND MEET ALL THE REQUIREMENTS OF ASTM C-1244.

18. CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED, WITH BENCHES AND CHANNELS FORMED AND REPAIRED AS NECESSARY.

19. ANY MANHOLE DROP ATTACHMENTS SHALL BE "OUTSIDE" TYPE.

20. MANHOLE TOP OF CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS MAY NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES, PROPOSED AND EXISTING, SHALL BE IN CONFORMANCE IN ALL RESPECTS WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS.

21. PRE-CONSTRUCTION MEETING IS REQUIRED, CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT AT 330-830-1722 ANDN STARK SOIL AND WATER DISTRICT AT 330-830-7700.

22. SANITARY SEWER PERMIT IS REQUIRED FOR THIS SITE, CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

CONCRETE / DRIVEWAY PERMIT IS REQUIRED FOR THIS SITE, CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

RIGHT OF WAY PERMITS ARE REQUIRED FOR ANY WORK IN STREET RIGHT OF WAY, CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE

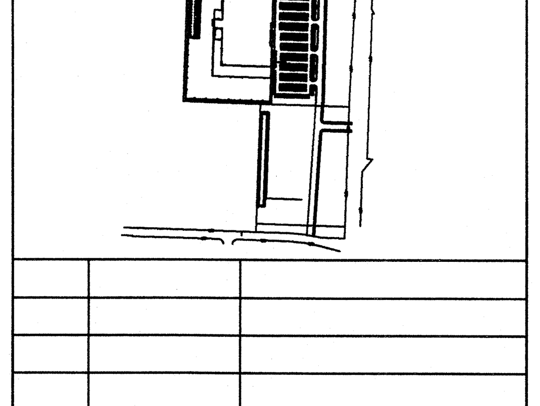
MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71798
REGISTERED PROFESSIONAL ENGINEER
10/16/07

SEAL

KEYPLAN



NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

DRAWING NOTES

DRAWING NUMBER

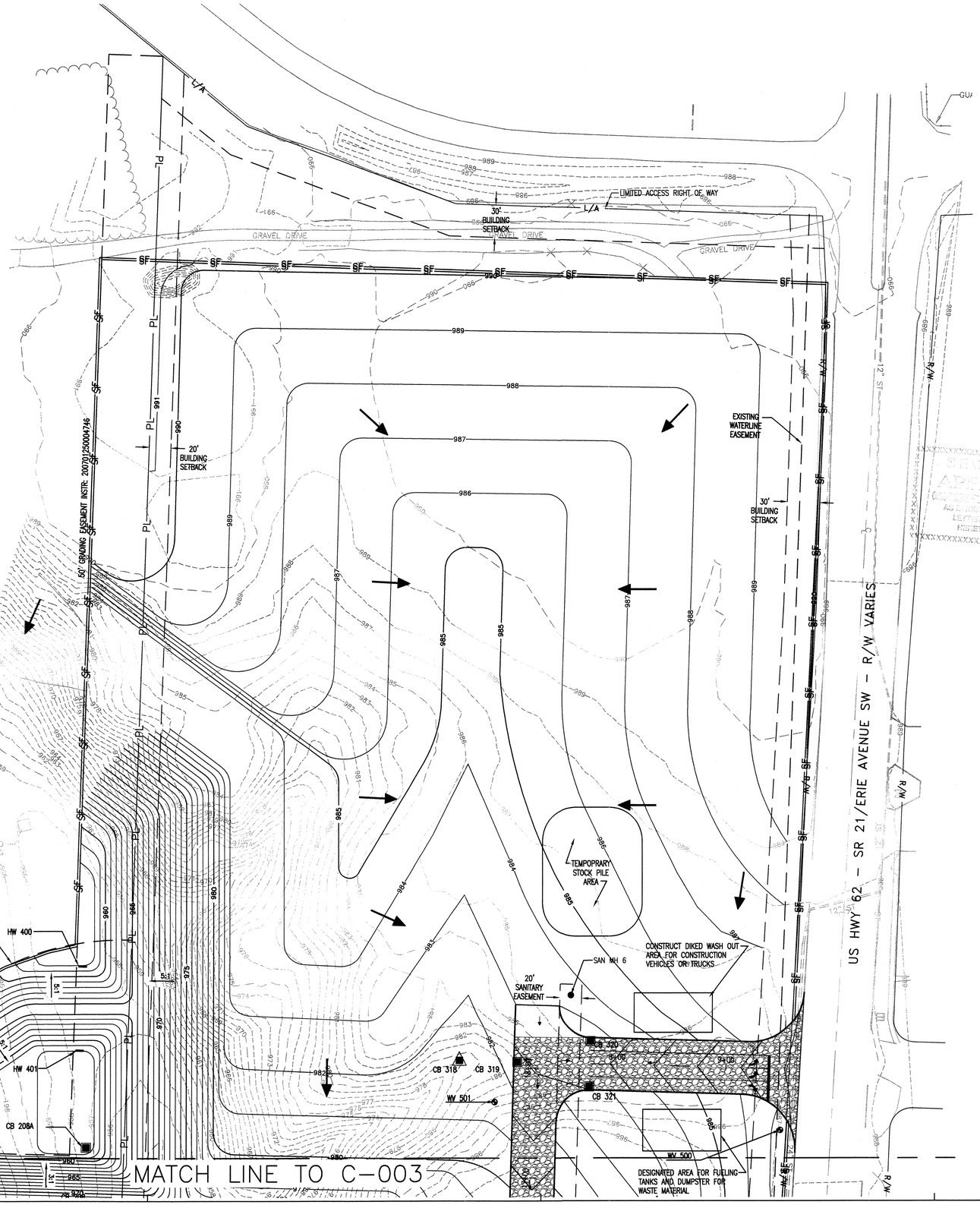
C-001

08 SD 03

LEGEND

- CONSTRUCTION ENTRANCE
- CATCH BASIN SEDIMENT TRAP, TYPE 1 OR TYPE 2
- CURB INLET PROTECTION DEVICE
- SF — SILT FENCE
- DIV — TEMPORARY DIVERSION
- POSITIVE DRAINAGE DIRECTION

NOTE:
CONSTRUCTION LIMITS ARE DEFINED AS 1'-0" BEYOND THE SILT FENCE AS IDETIFIED ON THE PLANS



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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71758
REGISTERED PROFESSIONAL ENGINEER
10/16/07

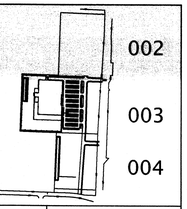
SEAL

NORTH

0 25 50 100 150

GRAPHIC SCALE: 1"=50'

KEYPLAN



NO.	DATE	SUBJECT
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4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

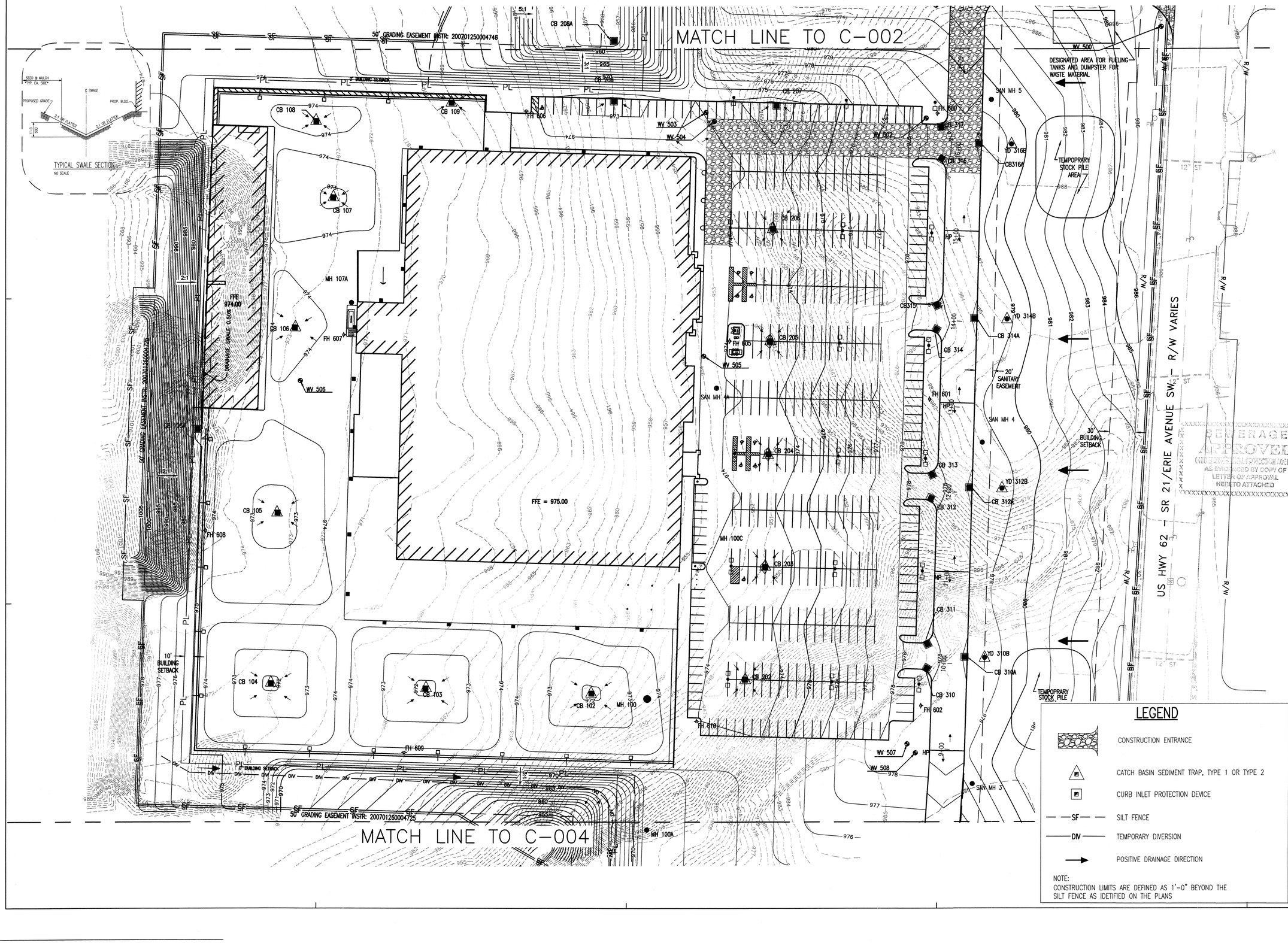
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
STORM WATER POLLUTION PREVENTION PLAN

DRAWING NUMBER
C-002

08 SD 03



COVERAGE APPROVED
OHIO EPA - NPDES PERMITTING SECTION
AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

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JOB TITLE

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LOT #1044

STATE OF OHIO
DUANE D. WOLF
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN

002
003
004

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
STORM WATER POLLUTION PREVENTION PLAN

DRAWING NUMBER
C-003

MATCH LINE TO C-003

LEGEND

- CONSTRUCTION ENTRANCE
- CATCH BASIN SEDIMENT TRAP, TYPE 1 OR TYPE 2
- CURB INLET PROTECTION DEVICE
- SF — SILT FENCE
- DIV — TEMPORARY DIVERSION
- POSITIVE DRAINAGE DIRECTION

NOTE:
CONSTRUCTION LIMITS ARE DEFINED AS 1'-0" BEYOND THE SILT FENCE AS IDETIFIED ON THE PLANS

NOTE:
AFTER DETENTION POND IS STABILIZED, REMOVE SEDIMENT BASIN AND AND INSTALL WATER QUALITY STRUCTURE.

50' GRADING EASEMENT INSTR: 200701260004725

GRADING EASEMENT INSTR: 200701260004725

STREAM ℄

MH 100A

MH 100F

MH 306A

MH 306

CB 307

CB 308

CB 309

CB 304

CB 303

YD 305

SAN. MH 3

SAN. MH 2

SAN. MH 1

TH 603

TH 604

HW 402

HW 404

HW 405

MW 302

WV 509

WV 510

TEMPOPRARY STOCK PILE AREA

TEMPOPRARY STOCK PILE AREA

20' SANITARY EASEMENT

"SEE DETAILS ON SHEET 802"

3:1 SIDE SLOPE TYPICAL

WATER QUALITY CONTROL STRUCTURE (WQCS) SEDIMENT BASIN NO. 1 RISER PIPE N597089.86 E2240352.17

EMERGENCY SPILLWAY ELEV=955.00'

OUTLET CHANNEL PROTECTION, (W/ FILTER) 18'X18'X2.5' REFER TO SHT. C-801 FOR DETAIL

INLET CHANNEL PROTECTION 18'X18'X2.5', TYP REFER TO SHT. C-801 FOR DETAILS

HEADWALL FL 96"=948.72

HEADWALL FL 96"=948.54

EX. FL 96" RCP

20' BUILDING SETBACK

30' BUILDING SETBACK

30' BUILDING SETBACK

2.5:1

3:1

2.0%

US HWY 62 - SR 21/ERIE AVENUE SW - R/W VARIES

WARMINGTON ROAD SW - R/W VARIES

COMMERCE DRIVE SW

R/W

℄

12" ST

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JOB TITLE

MENARDS®

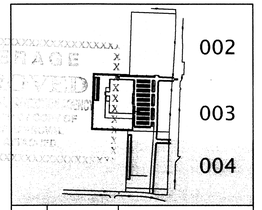
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71768
REGISTERED PROFESSIONAL ENGINEER
10/14/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



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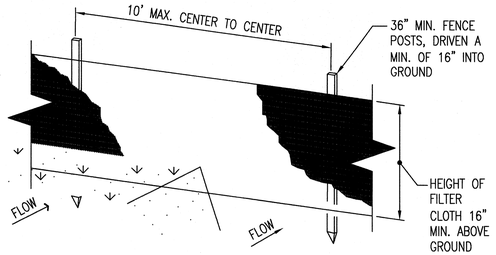
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

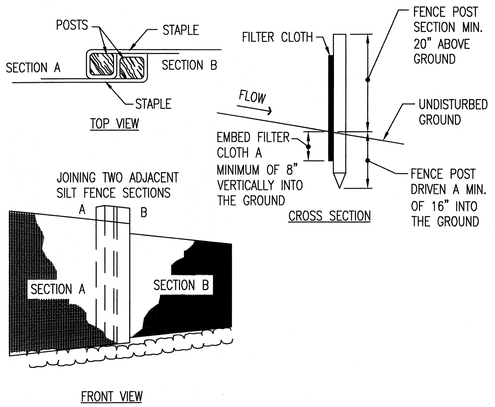
DRAWING TITLE
STORM WATER POLLUTION PREVENTION PLAN

DRAWING NUMBER
C-004

08 SD 03



PERSPECTIVE VIEW



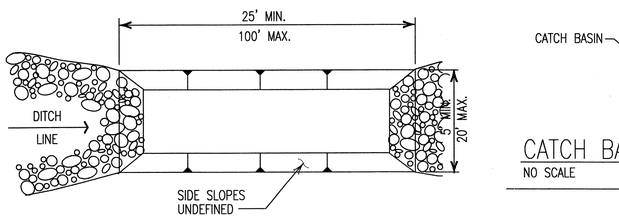
FRONT VIEW

SILT FENCE

NO SCALE

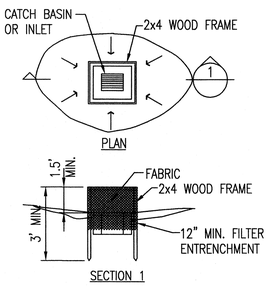
NOTES

1. **DOUBLE ALL SILT FENCING**
2. WHEN TWO SECTIONS OF FILTER CLOTH ARE JOINED TOGETHER, THEY SHALL BE OVER–LAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
3. FILTER CLOTH TO BE FASTENED SECURELY TO EVERY 24" AT TOP AND MID SECTION.
4. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN IT REACHES 50% OF THE HEIGHT OF THE FABRIC.
5. WOOD POSTS: 2"x2" HARDWOOD WITH MIN. CROSS SECTIONAL AREA OF 3 SQ. IN.
6. STEEL POSTS: EITHER T OR U TYPE NOT WEIGHING LESS THAN 1.0 LB/LIN. FT.
7. FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA OR APPRVED EQUAL CONFORMING TO CLASS F FABRIC (USDA, SCS).



SEDIMENT BASIN

NO SCALE



INLET SEDIMENT TRAP, TYPE 1

NO SCALE

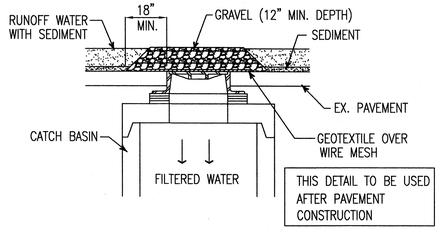
THIS DETAIL TO BE USED PRIOR TO PAVEMENT CONSTRUCTION

NOTES

1. SPACE STAKES EVENLY AROUND PERIMETER OF INLET 36" MAX. APART.
2. SILT FENCE TO BE FASTENED SECURLEY EVERY 6" ALONG POST. JOINTS MUST OVERLAP TO THE NEXT STAKE.
3. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN IT REACHES 50% OF THE HEIGHT OF THE FABRIC.
4. SILT FENCE: TREVIRA SPUNBOND 1112 OR EQUAL.

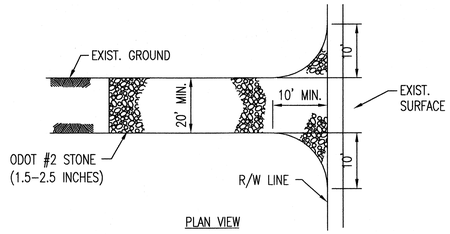
NOTES

1. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
2. GEOTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20–40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH.
3. TWO–INCH AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
4. IF THE STONE OR GEOTEXTILE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE AND/OR GEOTEXTILE MUST BE PULLED AWAY FROM THE INLET AND CLEANED OR REPLACED.
5. THIS FILTERING DEVICE HAS NO OVERFLOW MECHANISM, THEREFORE, PONDING IS LIKELY ESPECIALLY IF SEDIMENT IS NOT REMOVED REGULARLY. THIS TYPE OF DEVICE MUST NEVER BE USED WHERE OVERFLOW MAY ENDANGER AN EXPOSED FILL SLOPE. CONSIDERATION SHOULD ALSO BE GIVEN TO THE POSSIBLE EFFECTS OF PONDING ON TRAFFIC MOVEMENT, NEARBY STRUCTURES, WORKING AREAS, ADJACENT PROPERTY, ETC.



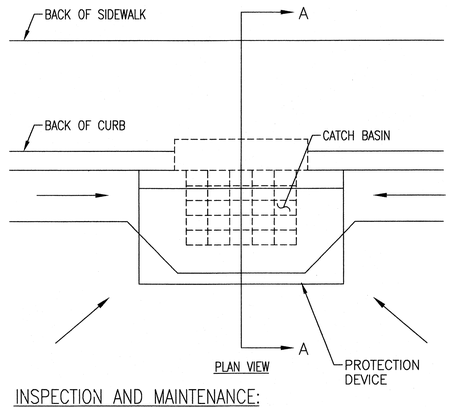
CATCH BASIN SEDIMENT TRAP, TYPE 2

NO SCALE



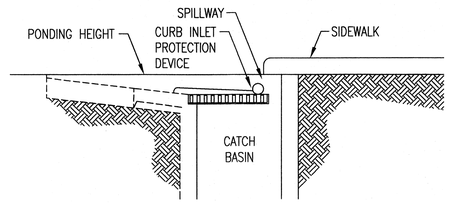
STABILIZED CONSTRUCTION ENTRANCE/EXIT

NO SCALE



INSPECTION AND MAINTENANCE:

INSPECT THE DEVICES AFTER EACH RAIN AND PROMPTLY REPLACE AS NEEDED. SEDIMENT SHALL BE REMOVED AFTER EACH SIGNIFICANT STORM (1/2" IN 24 HOURS) TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. SEDIMENT SHALL BE IMMEDIATELY REMOVED FROM THE TRAVELLED WAY OF ROADS. THE REMOVED SEDIMENT SHALL BE PLACED WHERE IT CANNOT ENTER A STORM DRAIN, STREAM, OR BE TRANSPORTED OFF SITE.



SECTION A–A

NOTES:

1. PLACE INLET PROTECTION DEVICES ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUN–OFF.
2. CURB INLET PROTECTION DEVICES SHALL BE PRE–MANUFACTURED DEVICES.
   CURB INLET WITH GRATE : DANDY BAG–BEAVER DAM, E.L.S. PRODUCTS–ULTRA CURBGUARD OR APPROVED EQUAL.
   CURB INLET WITHOUT GRATE: DANDY BAG–TRUE DAM, FILTREXX–FILTERSOXX, NATIONAL INLET PRO–TECTION–INLET GUARD OR APPROVED EQUAL.
   ROADSIDE GRATE INLET: ULTRATECH–ULTRA GRATE GUARD, STREAM SAVER, KRI–STAR–FLOWGUARD PLUS OR APPROVED EQUAL.

CURB INLET PROTECTION DEVICE

NO SCALE

SEDIMENT AND EROSION CONTROL NOTES

THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING DOWNSTREAM AREAS FROM SEDIMENT OF CONSTRUCTION ACTIVITIES WITHIN THE EARTH DISTURBING LIMITS UNTIL PERMANENT STABILIZATION IS ESTABLISHED.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING REQUIRED AND APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES WITHIN 7 DAYS OF FIRST GRUBBING IN ACCORDANCE WITH CONTRACT DOCUMENTS.

REQUIRED AND APPROPRIATE SEDIMENT AND EROSION CONTROL INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

TEMPORARY SEEDING AND MULCHING WITHIN SEVEN DAYS AFTER FINAL OR INTERIM EARTHWORK GRADING THAT WILL REMAIN DORMANT FOR MORE THAN 21 DAYS.

PERMANENT SEEDING AND MULCHING TO ALL AREAS NOT DESIGNATED AS A PAVED SURFACE.

MATTING ON ALL SLOPES GREATER THAN 4:1, THE BOTTOM AND FIRST VERTICAL FOOT OF DEFINED DRAINAGE CHANNELS.

1. AGGREGATE CONSTRUCTION ENTRANCE AT ALL POINTS OF CONSTRUCTION TRAFFIC EGRESS FROM THE SITE ONTO PAVEMENT.
2. ROCK CHANNEL PROTECTION AT ALL STORM SEWER OUTLETS, CULVERT INLETS AND OUTLETS AND AS INDICATED.
3. INLET PROTECTION AT ALL STORMWATER INLET STRUCTURES WITHIN OR RECEIVING RUNOFF FROM LIMITS OF CONSTRUCTION.
4. SEDIMENT BARRIER FENCE AROUND THE PERIMETER OF EARTH DISTURBING LIMITS AS REQUIRED, AROUND THE PERIMETER OF STOCKPILES AND LAYDOWN AREAS AND OTHER OCCURENCES OF SHEET FLOW.
5. TEMPORARY DIVERSION AT OCCURENCES OF SHEET FLOW THAT CANNOT BE ADEQUATELY PROTECTED BY A SEDIMENT BARRIER.
6. FILTER BARRIERS ALONG OCCURENCES OF CHANNELIZED FLOW.
7. ROCK CHECK DAMS IMMEDIATELY DOWNSTREAM OF STORM SEWER AND CULVERT OUTLETS AND ALONG OCCURENCES OF CHANNELIZED FLOW THAT CANNOT BE ADEQUATELY PROTECTED BY A FILTER BARRIER.
8. SEDIMENT TRAP OR BASIN AT ALL DRAINAGE AREAS THAT CAN NOT BE ADEQUATELY PROTECTED WITH SEDIMENT AND FILTER BARRIERS.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SITE GRADING SUCH THAT ALL SURFACE WATER WITHIN EARTH DISTURBING LIMITS AND DEWATERING, IF REQUIRED, IS DIVERTED THROUGH EROSION AND SEDIMENT CONTROL MEASURES.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SOIL EROSION AND SEDIMENT CONTROL PRACTICES SATISFYING THE CONDITIONS OF NPDES GENERAL PERMIT NO. OHC000002, THE OHIO DEPARTMENT OF NATURAL RESOURCES STANDARDS AND SPECIFICATIONS IN THE CURRENT EDITION OF RAINWATER AND LAND DEVELOPMENT, THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2002) ITEM 207 TEMPORARY SEDIMENT AND EROSION CONTROL AND THE STORM WATER POLLUTION PREVENTION PLAN, WHICHEVER IS MORE STRINGENT, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5"/24 HOUR OR GREATER RAIN EVENT. MAINTENANCE AND REMEDIATION SHALL BE ADMINISTERED AS REQUIRED. THE INSPECTION, MAINTENANCE AND REMEDIATION SHALL BE DOCUMENTED AND KEPT ON FILE AT THE PROJECT SITE AND A COPY FAXED TO MENARD INC. EACH WEEK. CONTRACTOR INSPECTIONS WILL CONTINUE DURING PERIODS OF SUSPENDED CONSTRUCTION ACTIVITIES AND THROUGH WINTER MONTHS.

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK ON THIS SITE SHALL RECEIVE AND BE FAMILIAR WITH EROSION AND SEDIMENT CONTROL REQUIREMENTS INCLUDING THIS PLAN AND THE STORM WATER POLLUTION PREVENTION PLAN. THE GENERAL CONTRACTOR SHALL MAINTAIN A COPY OF SIGNED RECEIPTS FROM ALL CONTRACTORS AND SUBCONTRACTORS INDICATING COMPLIANCE WITH EROSION AND SEDIMENT CONTROL DOCUMENTS.

THIS PLAN REFLECTS AN INTERPRETATION OF EROSION AND SEDIMENT CONTROL MEASURES APPROPRIATE FOR VARIOUS STAGES OF CONSTRUCTION PROGRESS. IT IS NOT INTENDED TO BE INCLUSIVE OF ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED THROUGHOUT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING EXISTING AND PROPOSED SITE DRAINAGE SO AS TO IMPLEMENT THE MOST EFFICIENT AND APPROPRIATE METHOD OF EROSION AND SEDIMENT CONTROL THROUGHOUT THE DURATION OF CONSTRUCTION.

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JOB TITLE

MENARDS®

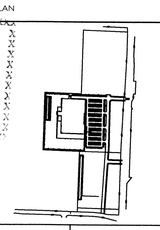
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71798
REGISTERED PROFESSIONAL ENGINEER
10/4/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



SEWERAGE APPROVED
CONDITIONAL NOTIFICATION ONLY
AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

NO.	DATE	SUBJECT
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PROJECT MANAGER	M. DUFFEY

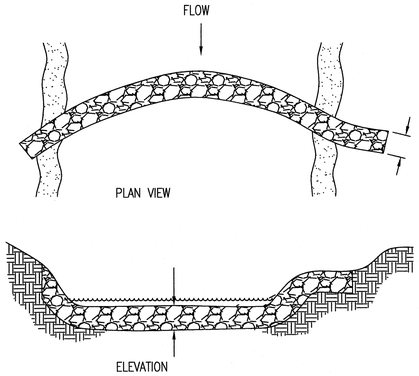
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06–2037–10

DRAWING TITLE
STORM WATER POLLUTION PREVENTION PLAN NOTES & DETAILS

DRAWING NUMBER
C-005

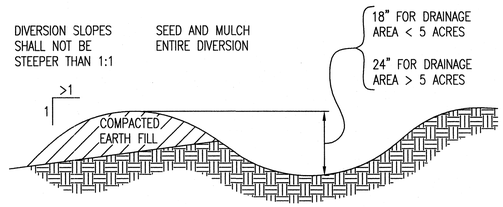
08 50 03



1. TYPE C ROCK SHALL BE USED.
2. THE ENDS SHALL EXTEND FROM THE TOP OF THE CHANNEL INTO THE BANKS 10 FT. OR A DISTANCE EQUAL TO ABOUT ONE–HALF THE CHANNEL WIDTH, WHICHEVER IS LESS.
3. THE TRENCH SHALL BE 1–2 FT. WIDE AND SHALL BE DUG TO ARC OR FORM A VEE POINTING UPSTREAM WITH THE MIDSECTION OF THE ROCK CHECK FARTHER UPSTREAM THAN WHERE IT MEETS THE CHANNEL BANKS.
4. THE ROCK CHECKS SHALL BE FLUSH WITH THE CHANNEL SO THAT THE FINISHED ROCK SURFACE IS ON THE SAME GRADE AS THE CHANNEL BOTTOM AND NOT CREATING A DAM OR PONDING WATER.

INSPECTION AND MAINTENANCE:
INSPECT THE ROCK CHECK AFTER EACH RAIN AND PROMPTLY REPLACE AS NEEDED.

ROCK CHECK DAM
NO SCALE



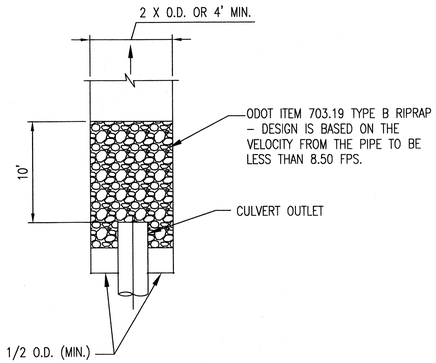
1. DIVERSION SHALL BE COMPACTED BY TRAVERSING WITH TRACKED EARTH–MOVING EQUIPMENT.
2. DIVERSIONS SHALL NOT BE BREACHED OR LOWERED TO ALLOW CONSTRUCTION TRAFFIC TO CROSS; INSTEAD THE TOP WIDTH MAY BE MADE WIDER AND SIDE SLOPES MADE FLATTER THEN SPECIFIED ABOVE.
3. DIVERSIONS SHALL BE STABILIZED WITH VEGETATION AND CHECK DAMS OR THE FOLLOWING.

TEMPORARY DIVERSION STABILIZATION TREATMENT			
DIVERSION SLOPE	< 2 AC.	2–5 AC.	5–10 AC.
0–3%	SEED AND STRAW	SEED AND STRAW	SEED AND STRAW
3–5%	SEED AND STRAW	SEED AND STRAW	MATTING
5–8%	SEED AND STRAW	MATTING	MATTING
8–20%	SEED AND STRAW	MATTING	ENGINEERED

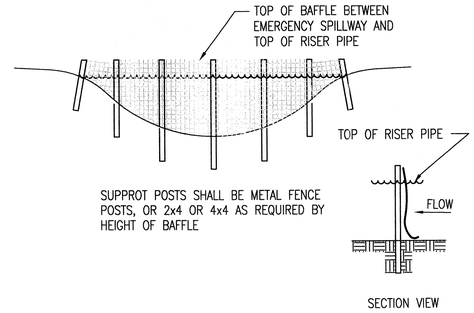
NOTE: DIVERSIONS WITH STEEPER SLOPES OF GREATER DRAINAGE AREAS ARE BEYOND THE SCOPE OF STANDARD AND MUST BE DESIGNED FOR STABILITY.
SEED, STRAW AND MATTING USED SHALL MEET THE SPECIFICATIONS FOR TEMPORARY SEEDING, MULCHING AND MATTING.

INSPECTION AND MAINTENANCE:
INSPECT THE DIVERSION AFTER EACH RAIN AND PROMPTLY REPLACE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE DIVERSION AND RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS FILLED ONE–HALF OF THE DIVERSIONS ORIGINAL DEPTH.

TEMPORARY DIVERSION
NO SCALE



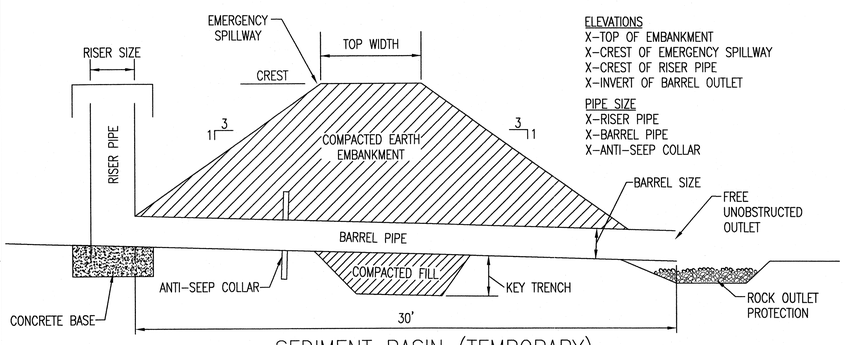
RIPRAP APRON AT CULVERT OUTLET (STRAIGHT CHANNEL OR SLOPE) (TYP.)



BAFFLE
NO SCALE

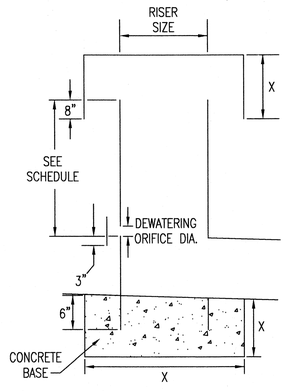
NOTES
1. BAFFLE SHALL BE CONSTRUCTED OF JUTE MATTING, ROCK, PLASTIC SAFETY FENCE, OR OTHER MATERIAL THAT WILL DAPEN TURBULENT CURRENTS WITHIN THE POND.
2. BAFFLE HEIGH SHALL BE GREATER THAN THE PRINCIPLE SPILLWAY AND LESS THAN THE EMERGENCY SPILLWAY.
   BAFFLES THAT BECOME SUBMERGED MAY CAUSE FLOW JUST ACROSS THE TOP
3. LAYER OF THE POND.

INSPECTION AND MAINTENANCE:
BAFFLES SHALL BE INSPECTED DAILY FOR GAPS, TEARS AND BULGING AND AFTER EACH SIGNIFICANT STORM (1/2" IN 24 HOURS) AND REPAIR AS REQUIRED. ALL REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1"–0" FROM THE BOTTOM OF THE POND.



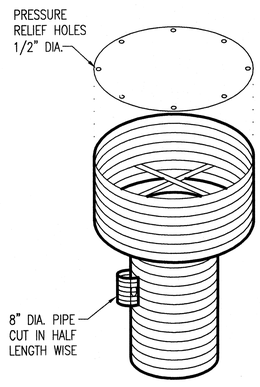
SEDIMENT BASIN (TEMPORARY)
NO SCALE

SPECIFICATIONS:
1. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. SITE PREPARATION –– THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT MATERIAL.
3. CUT–OFF TRENCH –– THE CUTOFF TRENCH SHALL BE EXCAVATED ALONG THE CENTERLINE OF THE EMBANKMENT. THE MINIMUM DEPTH SHALL BE 2 FT. UNLESS SPECIFIED DEEPER ON THE PLANS OR AS A RESULT OF SITE CONDITIONS. THE MINIMUM BOTTOM WIDTH SHALL BE 4 FT., BUT WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT. THE TRENCH SHALL BE KEPT FREE OF STANDING WATER DURING BACKFILL OPERATIONS.
4. EMBANKMENT –– THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMTER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXIMATELY 6–IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH TH EQUIPMENT USED.
5. PIPE SPILLWAY –– THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI–SEEP COLLARS AND BARREL, AND ALL PIPE JOINTS SHALL BE WATERTIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND–OPERATED TAMPING EQUIPMENT.
6. RISER PIPE BASE –– THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.
7. TRASH RACKS –– BOTH THE TOP OF THE RISER AND THE DEWATERING ORIFICE SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.



SECTION OF RISER PIPE
NO SCALE

8. EMERGENCY SPILLWAY –– THE EMERGENCY SPILLWAY SHALL BE CUT IN UNDISTURBED GROUND. ACCURATE CONSTRUCTION OF THE SPILLWAY ELEVATION AND WIDTH IS CRITICAL AND SHALL BE WITHIN A TOLERANCE OF 0.2 FT.
9. SEED AND MULCH –– THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.
10. SEDIMENT CLEANOUT –– SEDIMENT SHALL BE REMOVED AND THE SEDIMENT BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS FILLED ONE–HALF THE POND'S ORIGINAL DEPTH OR AS INDICATED ON THE PLANS. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.
11. FINAL REMOVAL –– SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.



ISOMETRIC OF RISER PIPE
NO SCALE

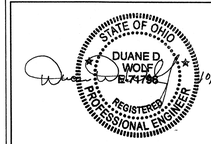
SEDIMENT BASIN DIMENSIONS

BASIN NO.	TOP WIDTH (FT)	RISER SIZE (IN)	BARREL SIZE (IN)	ORIFICE DIA. (IN)	DRAINAGE TIME (DAYS)	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	ORIFICE DIA. (IN) & ELEVATION	SPILLWAY ELEV. (FT)
1	10	18	21	1–3/4"	2.05	80	90	4.5'	1 EA – 1–3/4" @ 950.20	955.00

SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE
MENARDS®
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

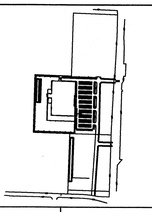


SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



NO.	DATE	SUBJECT
5	10–16–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09–04–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07–30–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04–30–07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04–11–06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER
SSOE PROJECT NUMBER 06–2037–10

DRAWING TITLE
STORM WATER POLLUTION PREVENTION PLAN NOTES & DETAILS

DRAWING NUMBER
C-006

08 SD 03

EXISTING DRAINAGE AREA LIMITS
68.02± ACRES

25± ACRES OF DRAINAGE
THE SHELLY COMPANY

NOTE:
CONTOUR INFORMATION
BASED FROM USGS
MAPPING

WARMINGTON ROAD SW

US HWY 62 – SR 21/ERIE AVENUE SW

SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-74798
REGISTERED PROFESSIONAL ENGINEER
10/14/07

SEAL

NORTH

0 50 100 200 300

GRAPHIC SCALE: 1" = 100'

KEYPLAN

NO.	DATE	REVISION OR ISSUE
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
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1	04-11-06	OWNER REVIEW

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

PRE DEVELOPMENT
DRAINAGE MAP

DRAWING NUMBER

C-007

08 SD 03

SSOE INC.

Engineers/Architects

STORM SEWER COMPUTATION SHEET

1of2

Manning's 'n' 1 for hydraulic slope: 0.011
Manning's 'n' 2 for hydraulic slope: 0.013
Diameter for change in n, if desired: 21.0
min. acceptable cover (ft): 2.00
Pipe thickness for cover calc. (in): 0.25

10 YEAR STORM - JUST FULL
25 YEAR HYDRAULIC CHECK

LOCATION: Massillon, OH
Calc'd by: D. Wolf
PROJECT: Menard

JOB NO. 06-2037-00
STREET:

Date: October 8, 2007

Struc. No.	Ran	A	Σ A	C	CA	Σ CA	Flow t	Time	I	Q	I	Q	Dia	L	PipeS.	Hyd.S.	V	CAP.	IE	IE	Hyd.	H.G.	TE UP	CVR	TE LOW	CVR
		acre					min.	min.	10	YEAR	25	YEAR	in.	ft.	%	%	fps	cfs	upper	lower	delta	ft	ft	CHK	ft	CHK
109-108	1	0.22	0.22	0.76	0.17	0.17		10.0	5.10	0.85	6.20	1.04	10	159	0.250	0.16	2.37	1.29	956.02	955.62	0.28	956.51	974.50	OK	973.20	OK
108-107		0.37	0.59	0.77	0.28	0.45	1.1	11.1	4.91	2.22	6.11	2.76	12	91	0.400	0.43	3.39	2.68	955.62	955.26	0.39	956.26	973.20	OK	972.76	OK
107-106		0.44	1.03	0.90	0.40	0.85	0.4	11.6	4.82	4.09	6.04	5.12	15	159	0.300	0.45	3.41	4.18	955.26	954.78	0.72	1.25	972.70	OK	973.00	OK
MH107A-106		2.6	2.6	0.90	2.34	2.34		10.0	5.10	11.93	6.20	14.51	18	72	1.000	1.37	7.02	12.41	950.50	954.78	0.98	1.50	974.85	OK	973.00	OK
105A-105		1.37	1.37	0.43	0.59	0.59		20.0	4.28	2.81	5.46	3.22	15	136	0.150	0.18	2.41	2.96	954.54	954.34	0.24	956.45	973.16	OK	972.40	OK
106-105		0.47	4.1	0.90	0.42	3.01	0.8	12.3	4.70	16.95	5.90	21.29	30	218	0.200	0.27	3.74	18.34	954.78	954.34	0.69	956.21	973.00	OK	972.40	OK
105-104		1.05	5.52	0.86	0.90	5.10	1.0	13.3	4.52	23.06	5.72	29.19	30	109	0.320	0.51	4.73	23.19	954.34	953.71	1.01	956.21	972.40	OK	971.70	OK
104-103		1.15	7.87	0.82	0.94	6.08	0.7	14.0	4.40	26.58	5.60	33.83	36	180	0.170	0.26	3.89	27.49	953.71	953.40	0.46	3.00	971.80	OK	971.70	OK
MH104A-103		2.11	2.11	0.90	1.90	1.90		10.0	5.10	9.68	6.20	11.77	21	149	0.400	0.55	4.18	10.02	954.00	953.40	0.82	1.75	974.23	OK	971.70	OK
103-102		0.76	10.54	0.86	0.65	8.60	0.8	14.8	4.27	36.74	5.47	47.06	36	194	0.310	0.50	5.25	37.12	953.40	952.80	0.97	955.80	971.70	OK	972.84	OK
102-MH100		0.76	11.30	0.86	0.65	9.25	0.6	15.4	4.07	49.06	6.07	56.16	36	65	0.460	0.71	6.40	45.22	952.80	952.50	0.46	3.00	971.70	OK	975.00	OK
208A-208	2	25	25	12" METER = 5 CFS MAX. (160Y)				20.0	4.26	5.00	5.46	0.00	12	190	0.250	0.00	2.68	2.19	954.72	954.55	0.00	956.80	972.20	OK	972.90	OK
209-207		0.35	0.35	0.78	0.27	0.27	1.2	21.2	4.15	6.13	5.35	1.46	18	190	0.250	0.01	3.51	6.20	954.55	954.33	0.03					
207-206		3.55	3.9	0.83	2.95	3.22	1.2	22.4	3.54	11.39	4.17	13.43	30	146	0.180	0.11	3.54	17.40	954.55	954.29	0.16	956.56	972.90	OK	973.30	OK
206-205		0.88	4.78	0.87	0.77	3.99	0.7	23.1	3.48	13.87	4.12	16.42	33	132	0.180	0.10	3.78	22.43	954.29	954.05	0.13	956.80	973.30	OK	973.30	OK
205-204		0.86	5.64	0.87	0.75	4.73	0.6	23.8	3.43	16.24	4.05	19.18	33	132	0.180	0.13	3.78	22.43	954.05	953.80	0.17	956.35	973.30	OK	973.00	OK
204-203		0.86	6.5	0.87	0.75	5.48	0.6	24.2	3.39	18.57	4.00	21.90	33	132	0.240	0.17	4.36	25.90	953.80	953.28	0.23	956.03	973.00	OK	973.00	OK
203-202		0.88	7.38	0.87	0.77	6.25	0.5	24.7	3.36	20.98	3.95	24.70	33	134	0.300	0.22	4.88	28.96	953.28	952.87	0.29	955.62	973.00	OK	973.00	OK
202-MH100		0.92	8.3	0.77	0.71	6.96	0.5	25.2	3.33	23.16	3.90	27.28	33	117	0.320	0.27	5.04	29.91	952.87	952.50	0.31	2.75	973.00	OK	973.70	OK
MH100-POND		19.6	19.6	0.82		16.21		16.7	4.73	76.66	5.93	98.11	42	582	0.600	0.91	8.10	77.90	952.50	949.00	5.32	5.32	973.30	OK	973.70	OK
321-320	3	0.14	0.14	0.90	0.13	0.13		10.0	5.10	0.64	6.20	0.78	10	48	0.25	0.09	2.37	1.29	975.14	975.02	0.04	975.85	982.00	OK	982.95	OK
320-319		0.87	1.01	0.82	0.71	0.84	0.3	10.3	5.05	4.24	6.26	5.24	15	74	1.000	0.47	6.22	7.63	975.02	974.28	0.35	1.25	982.95	OK	982.15	OK
318-319		9.32	9.32	0.80	7.46	7.46		10.0	5.10	38.03	6.20	46.23	36	50	0.450	0.48	6.33	44.73	974.50	974.28	0.24	3.00	980.50	OK	981.75	OK
319-317		0.02	10.47	0.90	0.02	8.31		10.7	4.99	41.52	6.19	51.50	36	176	0.400	0.60	5.97	42.17	973.26	972.55	1.05	975.55	981.75	OK	977.40	OK
317-316		0.12	10.59	0.85	0.10	8.42	0.5	11.2	4.91	41.29	6.11	51.39	36	42	0.400	0.59	5.97	42.17	972.55	972.38	0.25	3.00	977.60	OK	977.50	OK
YD 316B -CB 316A		1.31	1.31	0.80	1.05	1.05		10.0	5.10	5.34	6.20	6.50	18	35	0.23	0.27	3.37	5.95	972.59	972.51	0.10	974.01	979.00	OK	977.85	OK
CB 316A - CB 316		0.14	1.45	0.90	0.13	1.17	0.2	10.2	5.08	5.97	6.28	7.58	18	52	0.25	0.35	3.51	6.20	972.51	972.38	0.18	1.50	977.85	OK	977.50	OK
316-315		0.09	12.13	0.71	0.06	9.65		11.2	4.91	47.36	6.11	58.95	36	167	0.56	0.78	7.05	49.89	972.38	971.45	1.31	974.45	977.50	OK	977.60	OK
315-314		0.08	12.21	0.72	0.06	9.71	0.4	11.6	4.84	46.96	6.04	58.61	36	33	0.57	0.77	7.12	50.34	971.45	971.26	0.26	3.00	977.60	OK	977.30	OK
YD 314B -CB 314A		0.88	0.88	0.70	0.62	0.62		10.0	5.10	3.14	6.20	3.82	15	35	0.20	0.25	2.78	3.41	971.48	971.39	0.09	972.64	978.67	OK	977.85	OK
CB 314A - CB 314		0.09	0.97	0.90	0.08	0.70	0.2	10.2	5.06	3.53	6.26	4.37	15	51	0.25	0.33	3.11	3.82	971.39	971.26	0.17	1.25	977.85	OK	977.30	OK

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07-10-08 StormSewerCalculationsRevised.xls

SSOE INC.

Engineers/Architects

STORM SEWER COMPUTATION SHEET

2of2

Manning's 'n' 1 for hydraulic slope: 0.011
Manning's 'n' 2 for hydraulic slope: 0.013
Diameter for change in n, if desired: 21.0
min. acceptable cover (ft): 2.00
Pipe thickness for cover calc. (in): 0.25

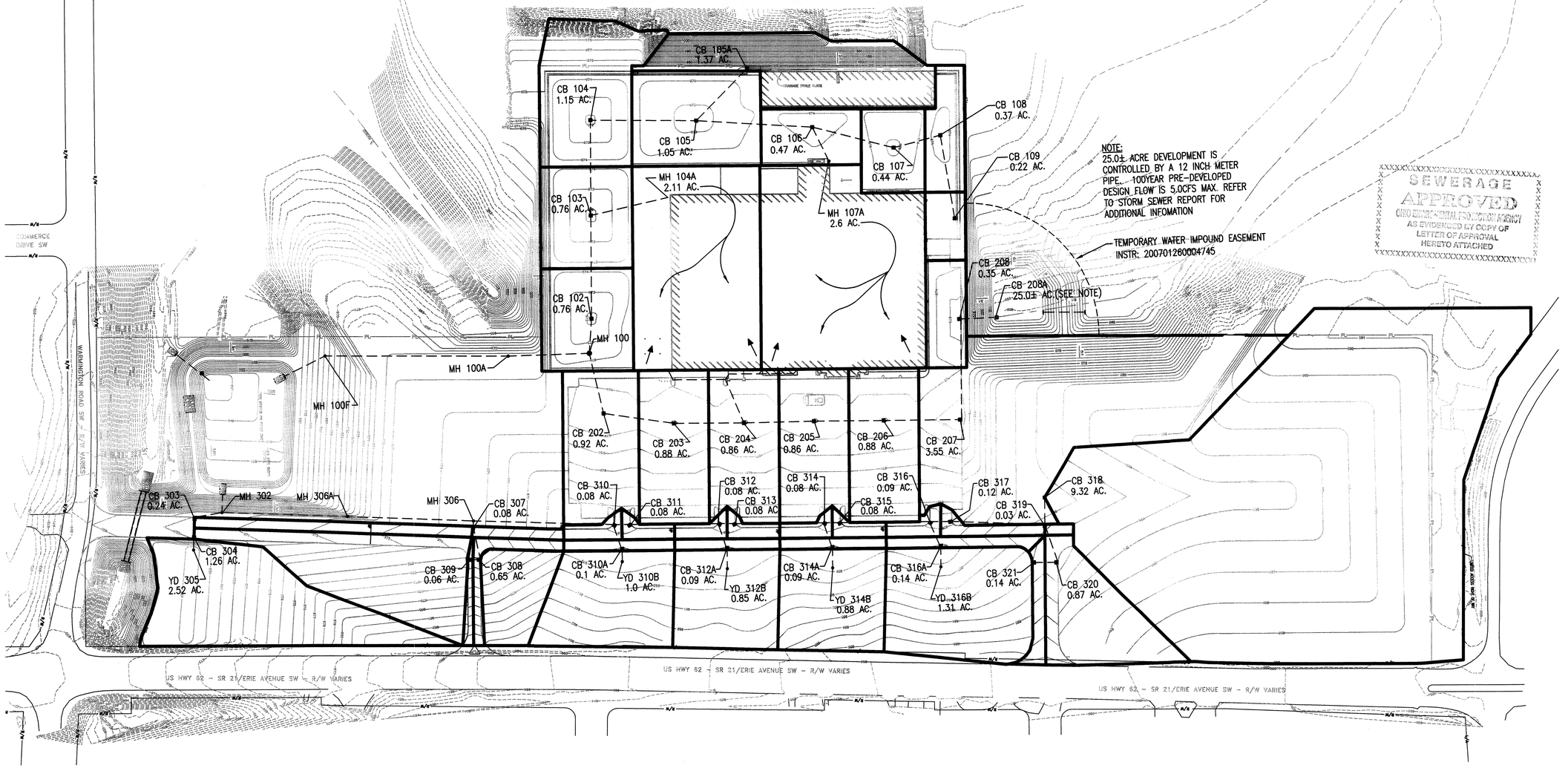
10 YEAR STORM - JUST FULL
25 YEAR HYDRAULIC CHECK

LOCATION: Massillon, OH
Calc'd by: D. Wolf
PROJECT: Menard

JOB NO. 06-2037-00
STREET:

Date: October 8, 2007

Struc. No.	Ran	A	Σ A	C	CA	Σ CA	Flow t	Time	I	Q	I	Q	Dia	L	PipeS.	Hyd.S.	V	CAP.	IE	IE	Hyd.	H.G.	TE UP	CVR	TE LOW	CVR
		acre					min.	min.	10	YEAR	25	YEAR	in.	ft.	%	%	fps	cfs	upper	lower	delta	ft	ft	CHK	ft	CHK
314-313		0.08	13.26	0.72	0.06	10.47		11.6	4.84	50.61	6.04	63.17	42	165	0.26	0.39	5.33	51.28	971.26	970.83	0.65	974.33	977.50	OK	977.50	OK
313-312		0.08	13.34	0.74	0.06	10.52	0.8	12.1	4.75	49.97	5.95	62.60	42	33	0.27	0.39	5.43	52.26	970.83	970.74	0.13	3.50	977.50	OK	977.50	OK
YD 312B -CB 312A		0.85	0.85	0.80	0.68	0.68		10.0	5.10	3.47	6.20	4.22	15	35	0.23	0.31	2.98	3.66	970.97	970.89	0.11	972.14	978.75	OK	977.85	OK
YD 312A -CB 312		0.09	0.94	0.90	0.08	0.76	0.2	10.2	5.08	3.87	6.28	4.78	15	51	0.30	0.39	3.43	4.18	970.89	970.74	0.20	1.25	977.85	OK	977.50	OK
CB312-CB311		0.08	14.28	0.72	0.06	11.34		13.5	4.48	50.86	5.68	64.48	42	165	0.26	0.41	5.53	53.22	970.74	970.28	0.68	973.78	977.50	OK	977.50	OK
CB311-CB310		0.08	14.36	0.72	0.06	11.40	0.5	14.0	4.41	50.32	5.61	64.00	42	33	0.28	0.40	5.53	53.22	970.28	970.19	0.13	3.50	977.50	OK	977.00	OK
YD 310B-CB 310A		1	1	0.80	0.80	0.80		10.0	5.10	4.08	6.20	4.96	15	51	0.30	0.42	3.41	4.18	970.44	970.28	0.22	971.53	978.30	OK	977.85	OK
CB 310A-CB 310		0.1	1.1	0.90	0.09	0.89	0.2	10.2	5.06	4.51	6.26	5.58	15	21	0.45	0.53	4.17	5.12	970.28	970.19	0.11	1.25	977.85	OK	977.50	OK
CB 310-MH 306		0.08	15.54	0.70	0.06	12.35		14.1	4.38	54.06	5.58	68.88	42	263	0.30	0.47	5.73	56.09	969.35	968.56	1.23	3.50	977.50	OK	974.10	OK
CB 309-CB 308		0.06	0.06	0.71	0.04	0.04		10.0	5.10	0.22	6.20	0.26	10	24	1.00	0.01	4.75	2.59	969.46	969.22	0.00	970.05	975.10	OK	975.10	OK
CB 308-CB 307		0.65	0.71	0.82	0.53	0.58	0.1	10.1	5.10	2.94	6.20	3.57	15	63	1.00	0.22	6.22	7.63	969.22	968.59	0.14	969.84	975.10	OK	974.52	OK
CB 307-MH 306		0.08	0.79	0.90	0.07	0.65	0.3	10.3	5.06	3.28	6.26	4.06	15	11	0.31	0.28	3.46	4.25	968.59	968.56	0.03	1.25	974.52	OK	974.10	OK
MH 306-MH 306A		0.01	16.3	0.60	0.00	12.99		14.7	4.27	55.52	5.47	71.12	42	237	0.36	0.50	6.27	60.34	965.06	964.21	1.18	3.50	974.10	OK	970.60	OK
MH 306A-MH 302		0.01	16.3	0.60	0.00	0.00	0.6	15.7	4.84	0.00	6.04	0.00	42	237	0.36	0.00	6.27	60.34	969.71	969.85	0.00	965.82	970.00	OK	969.90	OK
YD 305-CB 304		2.52	2.52	0.80	2.02	2.02		10.0	5.10	10.28	6.20	12.50	18	21	0.70	1.01	5.68	10.38	962.32	962.17	0.21	964.19	966.75	OK	970.10	OK
CB 304-CB 303		1.26	3.78	0.82	1.03	3.05	0.1	11.0	4.92	15.01	6.12	18.67	24	40	0.50	0.68	5.09	15.99	962.17	961.97	0.27	963.97	970.10	OK	970.10	OK
CB 303-MH 302		0.24	4.02	0.90	0.23	3.27	0.1	12.0	4.75	15.55	5.98	19.47	24	52	0.50	0.74	5.09	15.99	961.97	961.71	0.39	2.00	970.10	OK	969.90	OK
MH 302-POND		20.34	20.33	0.80		16.27		15.6	4.55	78.90	6.05	98.43	42	30	0.66	0.96	8.49	81.71	958.21	958.00	0.29	3.50	969.90	OK		



NOTE:
25.0± ACRE DEVELOPMENT IS CONTROLLED BY A 12 INCH METER PIPE. 100YEAR PRE-DEVELOPED DESIGN FLOW IS 5.0CFS MAX. REFER TO STORM SEWER REPORT FOR ADDITIONAL INFOMATION

TEMPORARY WATER IMPOUND EASEMENT
INSTR: 200701260004745

SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE

MENARDS

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71796
REGISTERED PROFESSIONAL ENGINEER
10/16/07

SEAL

NORTH

0 50 100 200 300
GRAPHIC SCALE: 1" = 100'

KEYPLAN

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
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2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

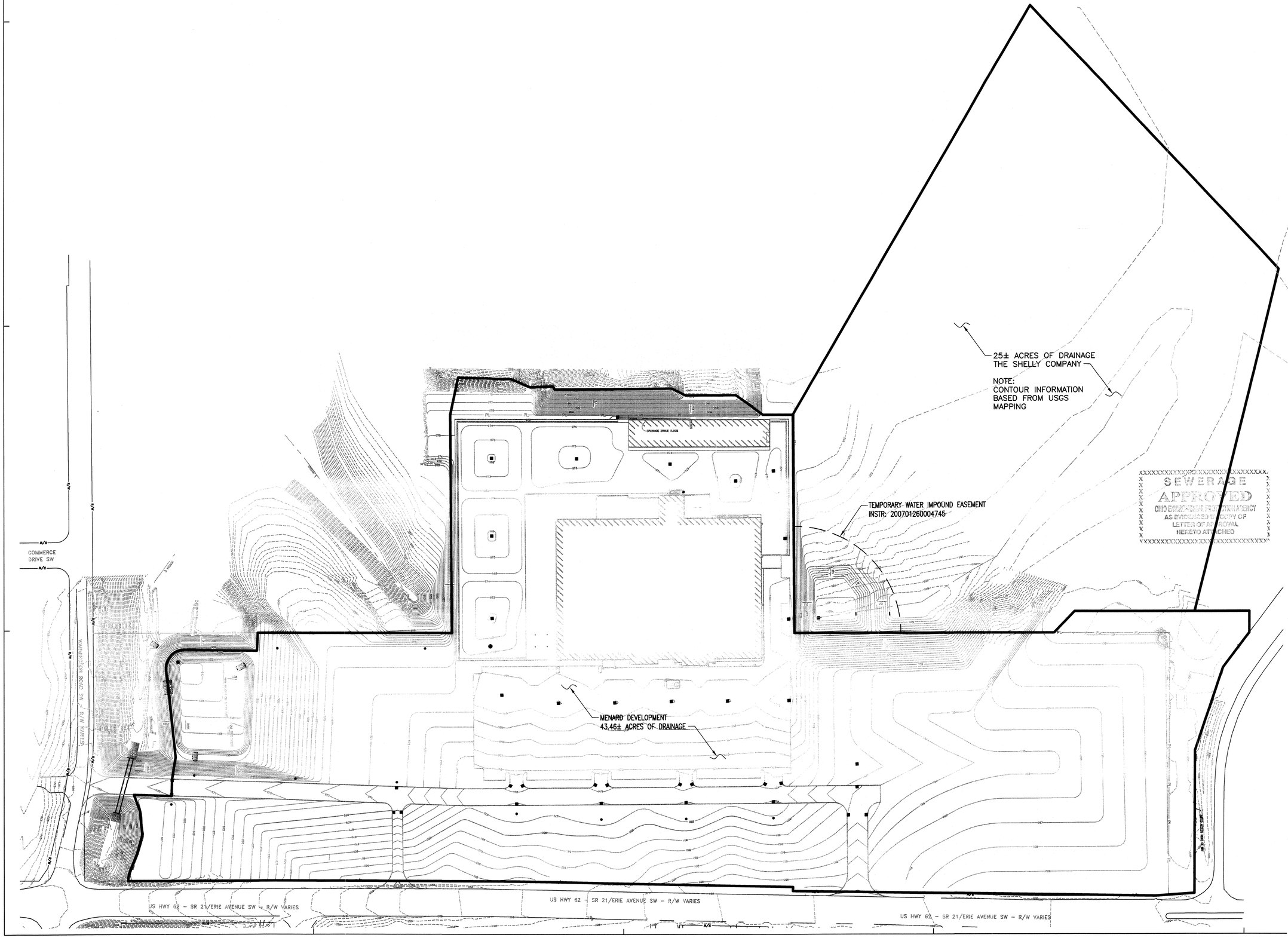
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
POST-DEVELOPMENT
STORM SEWER SIZING MAP

DRAWING NUMBER
C-008

08 SD 03



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JOB TITLE

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CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-47986
REGISTERED PROFESSIONAL ENGINEER
10/14/07

SEAL

NORTH

0 50 100 200 300

GRAPHIC SCALE: 1" = 100'

KEYPLAN

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REVISION OR ISSUE

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CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06–2037–10

DRAWING TITLE
STORM WATER POLLUTION PREVENTION POST-DEVELOPMENT DRAINAGE MAP

DRAWING NUMBER
C-009

08 SD 03

EXISTING LEGEND

ST STORM SEWER	STORM MH
16"W WATER	BENCHMARK SET
S SANITARY	WELL
G GAS	CATCH BASIN
PL PROPERTY BOUNDARY	ELECTRIC UTILITY
XX FENCING	ELECTRIC UTILITY
OETC OVERHEAD WIRING	

DEMOLITION NOTES

1. REMOVE FENCING
2. REMOVE EXISTING STRUCTURE AND/OR BUILDING INCLUDING FOUNDATION
3. REMOVE GRAVEL DRIVE
4. CLEAR & GRUB SITE
5. REMOVE CONCRETE APPROACH

THE SHELLY COMPANY
RECORDER'S IMAGE #2000019917

OLD FOUNDATIONS

TROUGH

OLD FOUNDATIONS AND BROKEN CONCRETE THROUGHOUT THIS AREA

2" FLOWLINE

GAS WELL SURROUNDED WITH FENCING

BOLLARDS

GRAVEL DRIVE

END OF PIPE LOCATION UNKNOWN

8" FL EL=983.76

CATCH BASIN GRATE=990.34

GUARD RAIL

STORM MH TOP=990.79 FL 12" N,S=985.44

STORM MH TOP=989.38 FL 12" N,SE=983.73

CATCH BASIN GRATE=988.46 FL 12" N,S=983.56

CATCH BASIN GRATE=987.77 FL 18" NE=980.97 OT

CATCH BASIN GRATE=987.83 FL 18" W=981.43 FL 12" N=982.73 FL 12" S=981.93

STORM MH TOP=988.46 FL 18" NE=980.76 FL 24" S=980.76

CATCH BASIN GRATE=987.42 FL 12" N,SE=982.67

CATCH BASIN GRATE=987.86 FL 12" NW=985.96

MATCH LINE TO C-102

SSOE, INC.
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JOB TITLE

MENARDS®

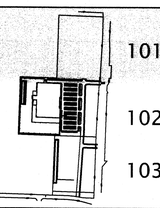
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-74766
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

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REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED DEMOLITION PLAN

DRAWING NUMBER

C-101

08 SD 03

MATCH LINE TO C-101

PL S 88°25'44" E 510.00'

BENCHMARK SET
BOLT AT "O" OF OPEN
ON FIRE HYDRANT
EL=988.42

N 86°47'03" W
9.84

CATCH BASIN
GRATE=986.47
FL 12" E,W=980.62

WELL

CATCH BASIN
GRATE=986.54
FL 12" W=981.64
FL 12" N=982.54

STORM MH
TOP=987.30
FL 24" N,S=978.55
FL 12" E=980.30

STORM MH
TOP=986.08
FL 24" N=977.63
FL 30" S=977.43
FL 12" E=978.08

CATCH BASIN
GRATE=985.09
FL 12" E,W=978.39

CATCH BASIN
GRATE=985.05
FL 15" W=980.85

TOPSOIL PILES
FROM GRAVEL PIT

BENCHMARK SET
BOLT AT "O" OF OPEN
ON FIRE HYDRANT
EL=986.30

SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

CATCH BASIN
GRATE=983.42
FL 18" N,S=APPROX. 978.82
(PIPE FULL OF DIRT)

CATCH BASIN
GRATE=982.85
FL 12" W=978.55

STORM MH
TOP=983.73
FL 30" N,S=976.63
FL 12" E=977.43

CATCH BASIN
GRATE=981.95
FL 15" W=976.60
FL 12"E=976.60

CATCH BASIN
GRATE=981.87
FL 12" W=977.37

STORM MH
TOP=982.96
FL 30" N,S=975.96
FL 15" E=976.36

PL N 88°25'44" W 510.00' PL

MATCH LINE TO C-103

DEMOLITION NOTES

REFER TO DRAWING C-101 FOR DEMOLITION NOTES

EXISTING LEGEND

ST STORM SEWER | S SANITARY | PROPERTY BOUNDARY | OETC OVERHEAD WIRING | BENCHMARK SET | CATCH BASIN

16"W WATER | G GAS | FENCING | STORM MH | WELL | ELECTRIC UTILITY | ELECTRIC UTILITY

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JOB TITLE

MENARDS®

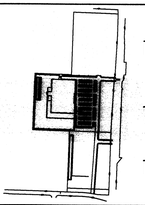
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-73288
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



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REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED DEMOLITION PLAN

DRAWING NUMBER

C-102

08 SD 03

EXISTING LEGEND

ST STORM SEWER	STORM MH
16"W WATER	BENCHMARK SET
S SANITARY	WELL
G GAS	CATCH BASIN
PL PROPERTY BOUNDARY	ELECTRIC UTILITY
FENCING	ELECTRIC UTILITY
OETC OVERHEAD WIRING	

DEMOLITION NOTES

1. REMOVE FENCING
2. REMOVE EXISTING STRUCTURE AND/OR BUILDING INCLUDING FOUNDATION
3. REMOVE GRAVEL DRIVE
4. CLEAR & GRUB SITE
5. REMOVE CONCRETE APPROACH

MATCH LINE TO C-102

STREAM ℄

EXISTING RIP RAP

CATCH BASIN GRATE=981.87 FL 12" W=977.37

STORM MH TOP=982.96 FL 30" N,S=975.96 FL 15" E=976.36

STORM MH TOP=981.63 FL 30" N,S=973.28

BENCHMARK SET BOLT AT "O" FOR OPEN NT FIRE HYDRANT EL=988.04

CATCH BASIN GRATE=976.17 FL 18" W=970.62 FL 15" E=970.62

CATCH BASIN GRATE=976.09 FL 12" W=971.49

CATCH BASIN GRATE=975.92 FL 15" N,S=971.57

STORM MH TOP=976.96 FL 30" N,S=969.91 FL 18" E=970.36

STORM MH TOP=975.73 FL 15" N,S=970.13

BENCHMARK SET BOLT AT "O" FOR OPEN ON FIRE HYDRANT EL=970.57

STORM MH TOP=971.62 FL 30" N,SE=964.75

SANITARY MH TOP=971.14 FL 10" N,S=958.94

CATCH BASIN GRATE=970.46 FL 12" SE=965.76

STORM MH TOP=971.02 FL 8" E,W=948.62 FL 36" N,S=959.94 FL 12" SW=961.97

CATCH BASIN GRATE=970.44 FL 12" SW=966.14

STORM MH TOP=970.89 FL 18" S=962.04 12" E=964.54 12" NE=965.39 18" NE=963.14

HEADWALL FL 96"=948.72

HEADWALL FL 36"=950.86

STORM MH TOP=957.51

TRAFFIC POLES

CATCH BASIN GRATE=970.10 FL 12" NW=966.30

CATCH BASIN GRATE=970.21 FL 12" NE=965.31

SANITARY MH TOP=971.51 FL 24" E,W=959.11 FL 8" S=959.76

STORM MH TOP=972.04 FL 36" N,S=964.44

HEADWALL FL 96"=948.54

SANITARY MH TOP=971.45 FL 24" E,W=958.87 FL 10" N=959.97

CATCH BASIN GRATE=968.27 FL 18" N=964.92 FL 12" S,W=965.52

CATCH BASIN (6'X3') GRATE=967.46 FL 18" N,S=963.06

CATCH BASIN GRATE=968.63 FL 12" E=967.13

SANITARY MH TOP=976.26 FL 24" E,W=958.05

S 66°25'21" W 207.85'

D=12°59'11" A=22.66' R=979.93' C=22.62' CB=N 81°58'15" W T=11.39'

SEWERAGE APPROVED OHIO ENVIRONMENTAL PROTECTION AGENCY AS EVIDENCED BY LETTER OF APPROVAL HERETO ATTACHED

SSOE, INC.
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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO DUANE D. WOLF E-71796 REGISTERED PROFESSIONAL ENGINEER 10/4/07

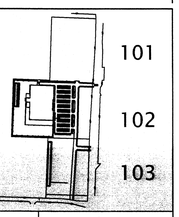
SEAL

NORTH

0 25 50 100 150

GRAPHIC SCALE: 1"=50'

KEYPLAN



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1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED DEMOLITION PLAN

DRAWING NUMBER

C-103

08 SD 03

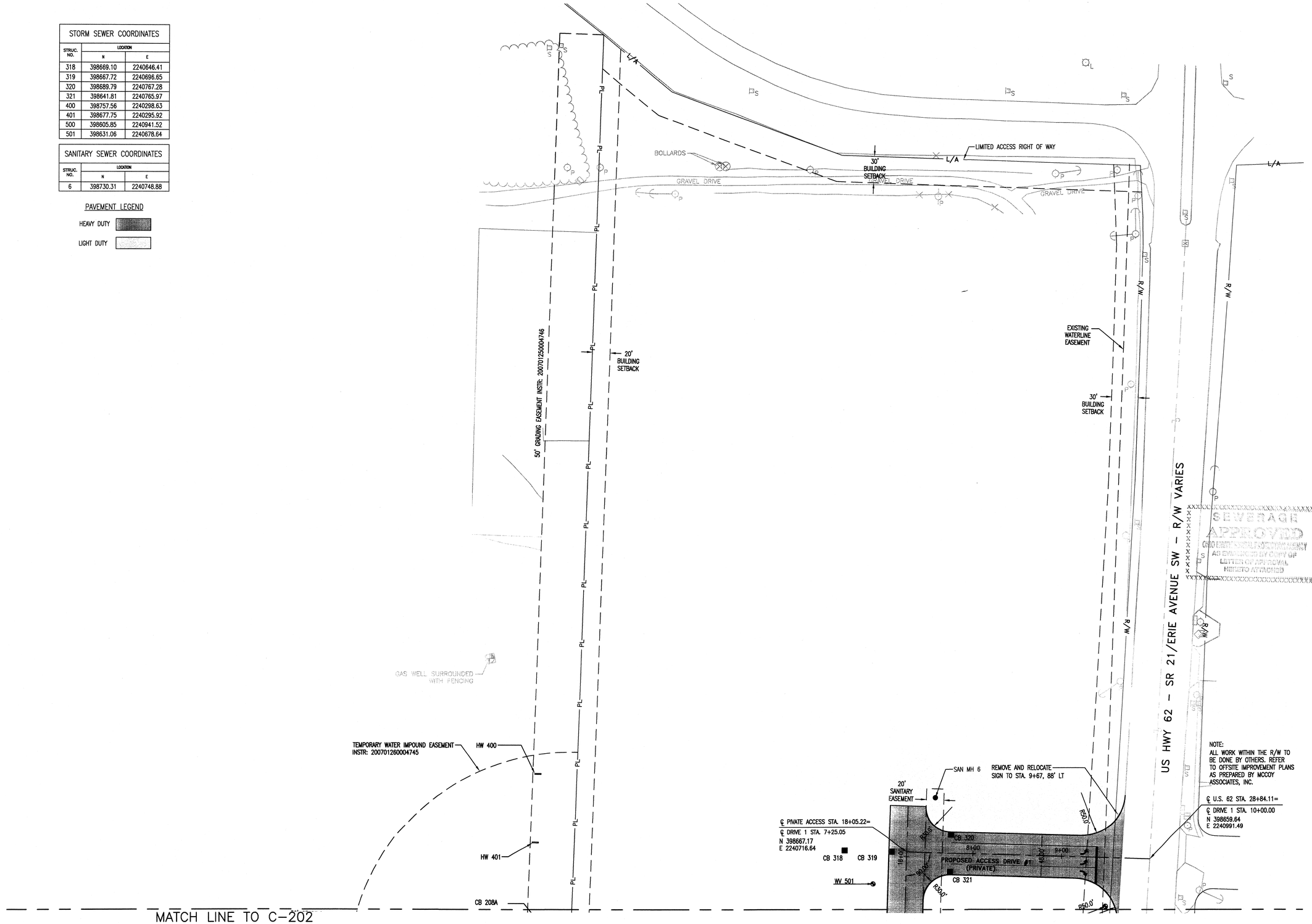
STORM SEWER COORDINATES		
STRUC. NO.	LOCATION N	LOCATION E
318	398669.10	2240646.41
319	398667.72	2240696.65
320	398689.79	2240767.28
321	398641.81	2240765.97
400	398757.56	2240298.63
401	398677.75	2240295.92
500	398605.85	2240941.52
501	398631.06	2240678.64

SANITARY SEWER COORDINATES		
STRUC. NO.	LOCATION N	LOCATION E
6	398730.31	2240748.88

PAVEMENT LEGEND

HEAVY DUTY

LIGHT DUTY



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JOB TITLE

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LOT #1044

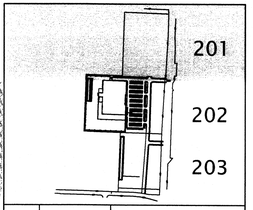
STATE OF OHIO
DUANE D. WOLF
E-74756
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150

GRAPHIC SCALE: 1"=50'

KEYPLAN



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REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED GEOMETRICS PLAN

DRAWING NUMBER

C-201

08 50 03

MATCH LINE TO/ C-201

50' GRADING EASEMENT INSTR: 200701250004746

50' GRADING EASEMENT INSTR: 200701250004725

MATCH LINE TO C-203

MENARDS

BUILDING AREA = 162,340 SQ. FT.

NOTE:
REFER TO ARCHITECTURE DRAWINGS FOR BUILDING DIMENSIONS

NOTE:
PARKING REQUIRED PER VARIANCE FROM ZBA ON AUGUST 10, 2006.
TOTAL SPECES PER VARIANCE REQUIRED: 460 SPACES
NUMBER OF PARKING SPACES PROVIDED: 480 SPACES

℄ PIVATE ACCESS STA. 7+29.35=
℄ DRIVE 2 STA. 0+00
N 397592.01

REMOVE AND RELOCATE SIGN TO STA. 2+14, 60' LT

US HWY 62 - SR 21/ERIE AVENUE SW - R/W VARIES

SEWERAGE APPROVED CHIEF, DIVISION OF SEWERAGE AND DRAINAGE AS SHOWN ON LETTER OF APPROVAL HERETO ATTACHED

GRAPHIC SCALE: 1"=50'

0 25 50 100 150

NORTH

KEYPLAN

201

202

203

STORM SEWER COORDINATES

STRUC. NO.	LOCATION N	LOCATION E
109	398517.46	2240112.75
108	398496.11	2239954.66
107	398407.57	2239974.47
107A	398284.53	2239995.89
106	398255.12	2239930.13
105A	398136.72	2239816.06
105	398037.76	2239910.05
104	397838.89	2239902.13
103	397833.16	2240082.44
102	397827.34	2240276.04
100	397821.04	2240340.96
100A	397668.43	2240340.97
202	397843.77	2240455.49
203	397975.18	2240479.09
204	398107.13	2240482.71
205	398239.13	2240484.33
206	398371.08	2240487.95
207	398517.03	2240491.94
208	398522.23	2240302.01
310	397854.29	2240666.32
310A	397869.68	2240714.80
310B	397869.12	2240735.29
311	397887.70	2240667.23
312	398052.22	2240671.74
312A	398067.61	2240720.22
312B	398066.76	2240755.34
313	398085.63	2240672.65
314	398250.14	2240677.16
314A	398265.53	2240725.64
314B	398264.68	2240761.02
315	398283.55	2240678.08
316	398450.07	2240682.64
316A	398469.70	2240731.24
316B	398468.84	2240766.62
317	398491.96	2240683.79
208A	398590.93	2240301.85
502	398499.27	2240667.02
503	398506.33	2240409.62
504	398496.06	2240419.34
505	398222.09	2240406.83
506	398193.32	2239936.44
507	397768.55	2240645.00
508	397758.28	2240654.72

SANITARY SEWER COORDINATES

STRUC. NO.	LOCATION N	LOCATION E
3	397720.95	2240721.23
4	398120.80	2240732.18
4A	398184.83	2240421.82

PAVEMENT LEGEND

HEAVY DUTY

LIGHT DUTY

NO.	DATE	SUBJECT
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REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED GEOMETRICS PLAN

DRAWING NUMBER

C-202

08 SD 03

SSOE, INC.
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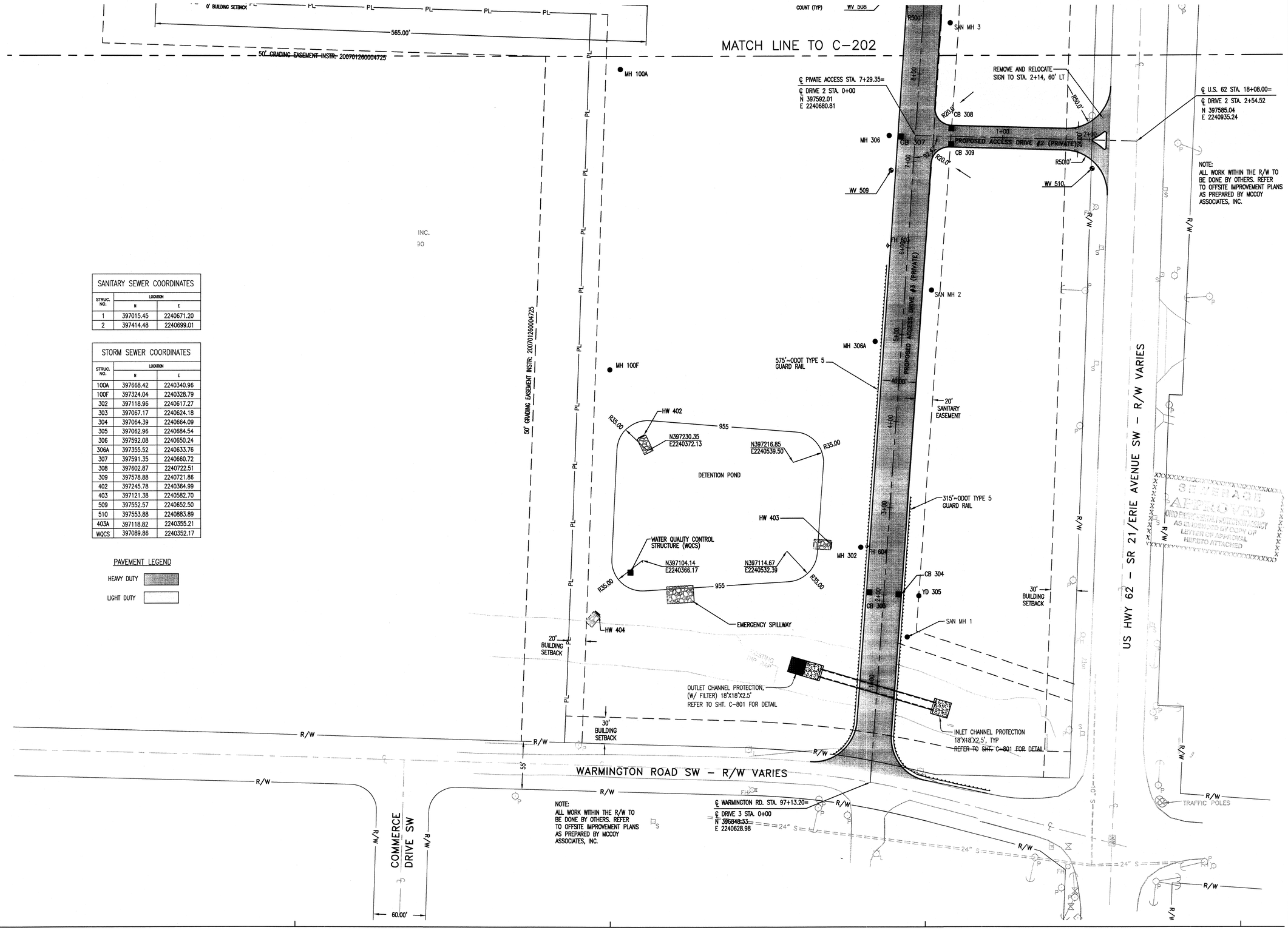
JOB TITLE

MENARDS

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO DUANE D. WOLFF E-71796 REGISTERED PROFESSIONAL ENGINEER 10/16/07

SEAL



SANITARY SEWER COORDINATES		
STRUC. NO.	LOCATION N	LOCATION E
1	397015.45	2240671.20
2	397414.48	2240699.01

STORM SEWER COORDINATES		
STRUC. NO.	LOCATION N	LOCATION E
100A	397668.42	2240340.96
100F	397324.04	2240328.79
302	397118.96	2240617.27
303	397067.17	2240624.18
304	397064.39	2240664.09
305	397062.96	2240684.54
306	397592.08	2240650.24
306A	397355.52	2240633.76
307	397591.35	2240660.72
308	397602.87	2240722.51
309	397578.88	2240721.86
402	397245.78	2240364.99
403	397121.38	2240582.70
509	397552.57	2240652.50
510	397553.88	2240883.89
403A	397118.82	2240355.21
WQCS	397089.86	2240352.17

PAVEMENT LEGEND

HEAVY DUTY

LIGHT DUTY

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

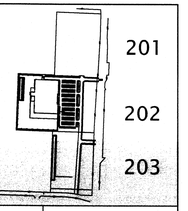
STATE OF OHIO
DUANE D. MOUSE
E-47798
REGISTERED PROFESSIONAL ENGINEER
10/4/07
SEAL

NORTH

0 25 50 100 150

GRAPHIC SCALE: 1"=50'

KEYPLAN



NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

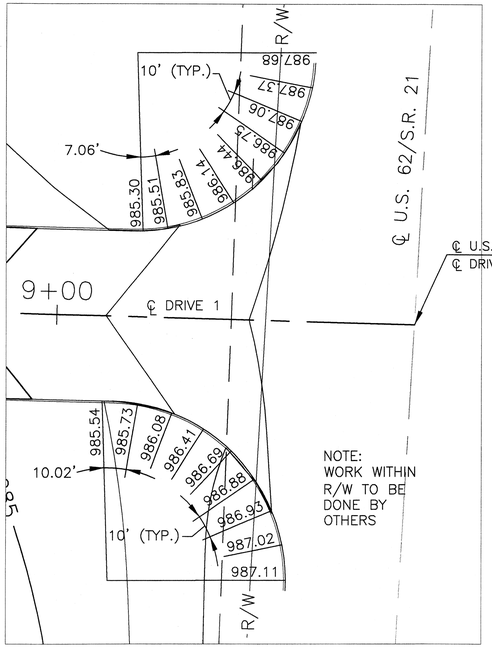
DRAWING TITLE

ENLARGED GEOMETRICS PLAN

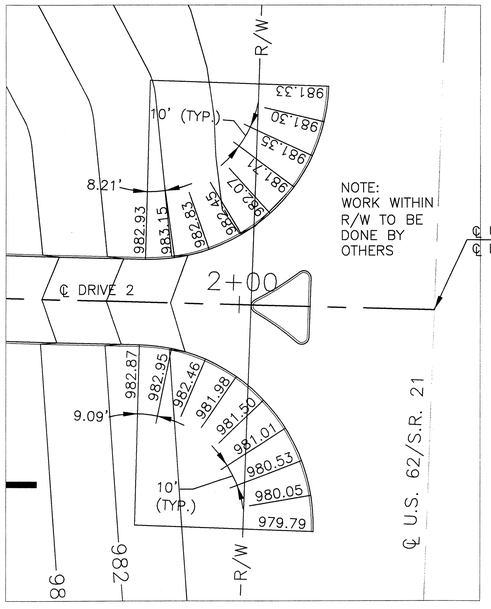
DRAWING NUMBER

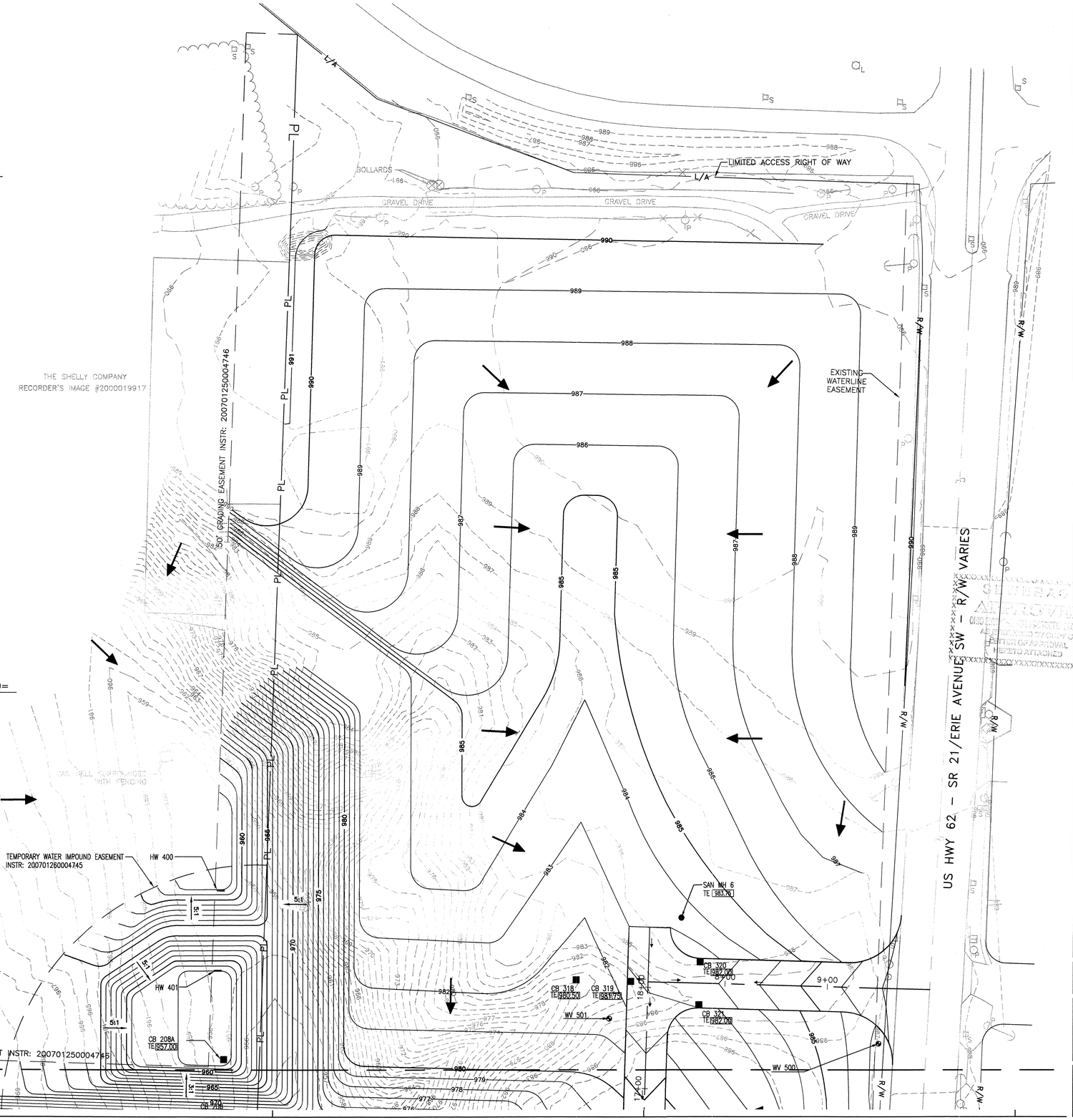
C-203

08 50 03



NOTE: ALL ELEVATIONS SHOWN ARE EDGE OF PAVEMENT AT FACE OF CURB. ALSO ALL GRADES SHOWN ARE PROPOSED AND SHOULD BE ADJUSTED ACCORDINGLY TO MEET OFFSITE DESIGN DONE BY OTHERS.





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JOB TITLE

MENARDS®

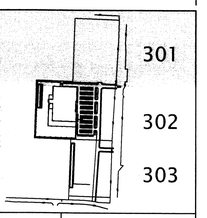
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-47196
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



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2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

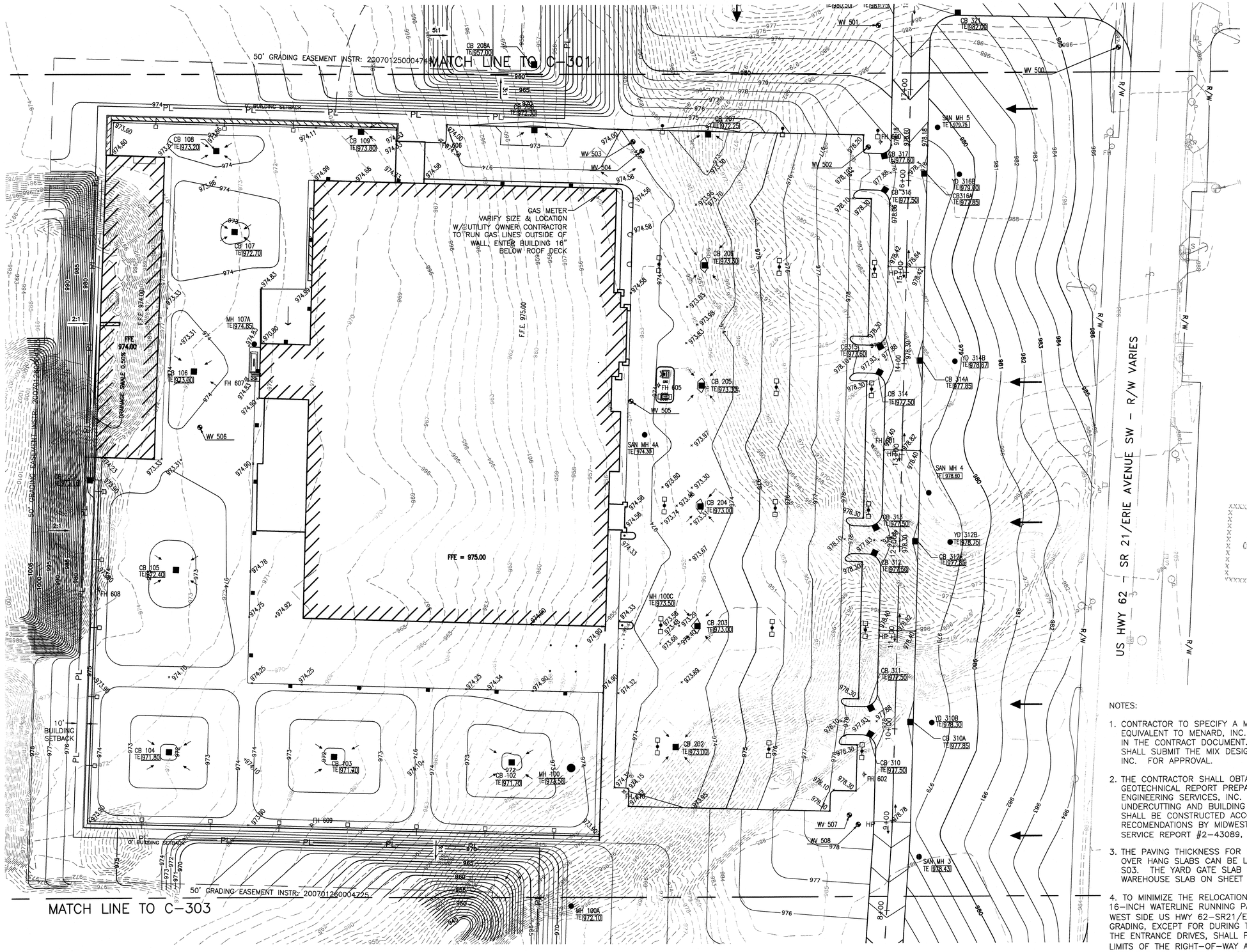
DRAWING TITLE

ENLARGED GRADING PLAN

DRAWING NUMBER

C-301

08 SD 03



NOTES:

1. CONTRACTOR TO SPECIFY A MIX DESIGN EQUIVALENT TO MENARD, INC. DESIGN SPECIFIED IN THE CONTRACT DOCUMENT. THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN TO MENARDS, INC. FOR APPROVAL.
2. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT PREPARED BY MIDWEST ENGINEERING SERVICES, INC. ALL EARTHWORK, UNDERCUTTING AND BUILDING PAD PREPARATIONS SHALL BE CONSTRUCTED ACCORDING TO THE RECOMENDATIONS BY MIDWEST ENGINEERING SERVICE REPORT #2-43089, DATED 1/28/05.
3. THE PAVING THICKNESS FOR BUILDING PAD AND OVER HANG SLABS CAN BE LOCATED ON SHEET S03. THE YARD GATE SLAB ON SHEET G1. THE WAREHOUSE SLAB ON SHEET W1.
4. TO MINIMIZE THE RELOCATION OF THE EXISTING 16-INCH WATERLINE RUNNING PARALLEL ALONG THE WEST SIDE US HWY 62-SR21/ERIE SOUTH, NO GRADING, EXCEPT FOR DURING THE INSTALLATION OF THE ENTRANCE DRIVES, SHALL PERMITED WITHIN THE LIMITS OF THE RIGHT-OF-WAY AND/OR WATERLINE EASEMENT AREA. REFER TO SHEET C303 FOR PROFILE AND GRADING LIMITS FOR THE ENTRANCE DRIVES.

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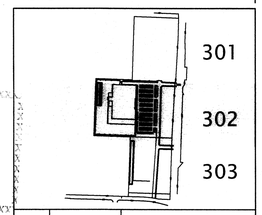
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71196
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



SEE PAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS ENDORSED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

NO.	DATE	SUBJECT
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DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED GRADING PLAN

DRAWING NUMBER

C-302

08 SD 03

MATCH LINE TO C-302

50' GRADING EASEMENT INSTR: 200701260004725

CENTRAL ALLIED ENTERPRISES, INC.
OFFICIAL RECORD 18 PAGE 790

60' GRADING EASEMENT INSTR: 200701260004725

STREAM 2

STREAM 3

STREAM 5

9.14'

9.59'

10' (TYP.)

10' (TYP.)

969

970.48
970.11
969.63
969.14
968.66
968.79
968.67
968.63
968.66
968.43
968.20
968.13
968.01
967.92
967.81

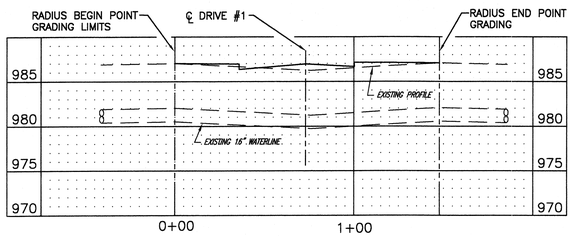
R/W

NOTE:
ALL WORK WITHIN R/W
TO BE DONE BY OTHERS

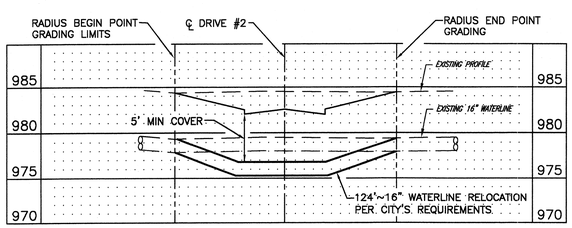
℄ WARMINGTON RD.

℄ WARMINGTON RD. STA. 97+13.20=
℄ DRIVE 3 STA. 0+00

NOTE: ALL ELEVATIONS SHOWN ARE EDGE OF PAVEMENT AT FACE OF CURB. ALSO ALL GRADES SHOWN ARE PROPOSED AND SHOULD BE ADJUSTED ACCORDINGLY TO MEET OFFSITE DESIGN DONE BY OTHERS.



WATERLINE CROSS SECTION ALONG DRIVE #1
(LOOKING EAST)



WATERLINE CROSS SECTION ALONG DRIVE #2
(LOOKING EAST)

MH 100A TE 972.10
MH 100F TE 955.50
MH 306 TE 974.10
MH 306A TE 970.00
CB 307 TE 974.52
CB 308 TE 975.10
CB 309 TE 975.10
SAN MH 3 TE 978.43
SAN MH 2 TE 973.75
SAN MH 1 TE 967.60
CB 304 TE 970.10
YD 305 TE 966.00
CB 303 TE 970.10
MH 302 TE 966.80
HH 604
HH 607
HPI
HW 402
HW 404
HW 400
WY 509
WY 510
2.5:1
3:1
2.0%
"SEE DETAILS ON SHEET 802"
3:1 SIDE SLOPE TYPICAL
: TE 953.66
: TE 953.67
: TE 954.87
WATER QUALITY CONTROL STRUCTURE (WQCS) : TE 954.35
: TE 954.39
EMERGENCY SPILLWAY ELEV=955.00
OUTLET CHANNEL PROTECTION (W/ FILTER) 18'X18'X2.5'
REFER TO SHT. C-801 FOR DETAIL
INLET CHANNEL PROTECTION 18'X18'X2.5', TYP.
REFER TO SHT. C-801 FOR DETAIL
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00

US HWY 62 - SR 21/ERIE AVENUE SW - R/W VARIES

WARMINGTON ROAD SW - R/W VARIES

COMMERCE DRIVE SW

SANITARY MH
TOP=976.26
FL 24" E,W=958.05

SANITARY MH
TOP=971.45
FL 24" E,W=958.87
FL 10" N=959.97

SEWERAGE APPROVED
AS APPROVED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

DRAFT

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ARCHITECTS • ENGINEERS
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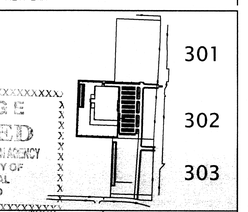
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-47106
REGISTERED PROFESSIONAL ENGINEER
10/14/08
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



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REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

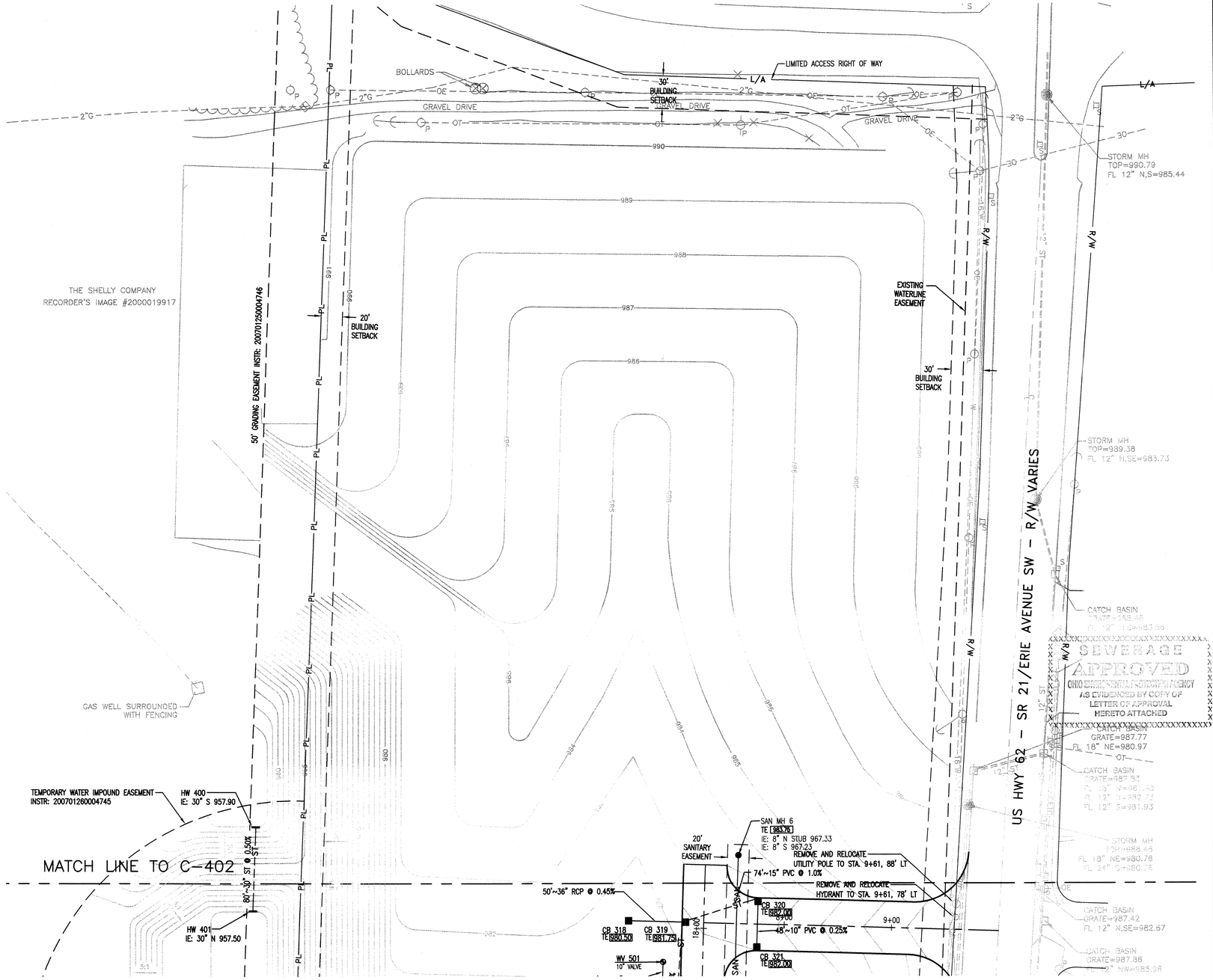
DRAWING TITLE

ENLARGED GRADING PLAN

DRAWING NUMBER

C-303

08 SD 03



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ARCHITECTS • ENGINEERS
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JOB TITLE

MENARDS®

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45.019 ACRES LOCATED IN
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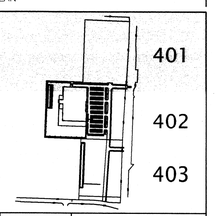
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-47196
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



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CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED UTILITY PLAN

DRAWING NUMBER

C-401

08 SD 03

MATCH LINE TO C-401

MATCH LINE TO C-403

50' GRADING EASEMENT INSTR: 200701250004746

50' GRADING EASEMENT INSTR: 200701260004725

MENARDS

FFE = 975.00

CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF WATER SERVICE RISERS, SANITARY SEWER SERVICE AND ALL OTHER UTILITIES W/ MENARD, INC. PROJECT MANAGER PRIOR TO INSTALLATION TO BUILDING.

MENARDS
FFE = 975.00

WAREHOUSE
FFE 974.00

SPRINKLER/ RISER ROOM

RECEIVING AREA

SPECIAL ORDER

SHIPPING AREA

YARD GATE/ CANOPY

GARDEN CENTER

UTILITY ISLAND

DRAINAGE SWALE 0.50%

54' OVERHANG
59' SLAB

72' SLAB OVERHANG

10' BUILDING SETBACK

0' BUILDING SETBACK

30' BUILDING SETBACK

SANITARY EASEMENT

20' SANITARY EASEMENT

US HWY 62 / SR 21/ERIE AVENUE SW. R/W VARIES

REMOVE AND RELOCATE UTILITY POLE TO STA. 9+61, 88' LT

REMOVE AND RELOCATE HYDRANT TO STA. 9+61, 78' LT

BENCHMARK SET
BOLT AT "O" OF OPEN
ON FIRE HYDRANT
EL=988.42

GAS METER
VARIFY SIZE & LOCATION W/ UTILITY OWNER CONTRACTOR TO RUN GAS LINES OUTSIDE OF WALL, ENTER BUILDING 16" BELOW ROOF DECK

(7) 10" ROOF DOWN SPOUT
IE: 15" @ BLDG. ~956.07
SEE MENARDS ARCH DWGS FOR STORM TIE-IN ELEV.

(1) 10" DOCK DRAIN
IE: 18" @ BLDG. ~955.50
SEE MENARDS ARCH DWGS FOR STORM TIE-IN ELEV.

(2) 4" ROOF DOWN SPOUT
SEE MENARDS ARCH DWGS FOR STORM TIE-IN ELEV.

(1) 15" ROOF DOWN SPOUT
IE: 21" @ BLDG. ~954.89
SEE MENARDS ARCH DWGS FOR STORM TIE-IN ELEV.

(2) 10" ROOF DOWN SPOUT
SEE MENARDS ARCH DWGS
IE: 12" @ BLDG.~ 972.00
FOR STORM TIE-IN ELEV.

(4) 4" FLOOR DRAINS
SEE MENARDS ARCH DWGS FOR STORM TIE-IN ELEV.

CATCH BASIN
GRATE=987.42
FL 12" N,SE=982.67

CATCH BASIN
GRATE=987.86
FL 12" NW=985.96

CATCH BASIN
GRATE=986.47
FL 12" E,W=980.62

CATCH BASIN
GRATE=986.54
FL 12" W=981.64
FL 12" N=982.54

WELL

STORM SEWER SCHEDULE						
STRUC. NO.	TOP EL.	INLET		OUTLET		
		SIZE/DIR.	INVERT EL.	SIZE/DIR.	INVERT EL.
100	973.58	36"W 33"NE	952.50 952.50	42"S	952.50
100A	972.10	42"N	951.59	42"S	951.59
100B	974.20	24"N	950.19	24"SW	950.19
100C	973.50	24"N	951.89	24"S	951.89
100D	973.67	24"NW	955.22	24"S	955.22
102	971.70	36"W	952.80	36"E	952.80
103	971.70	36"W 21"NW	953.40 953.40	36"E	953.40
104	971.80	30"N 12"NW	953.71 969.79	36"E	953.71
105	972.40	30"N 15"NW	954.34 954.34	30"S	954.34
105A	973.16			15"SE	954.54
106	973.00	15"N 18"NE	954.78 954.78	30"S	954.78
107A	974.85			18"SW	955.50
107	972.70	12"N 15"E	955.26 955.26	15"S	955.26
108	973.20	10"E	955.62	12"S	955.62
109	974.00			10"W	956.02
202	973.00	33"N	952.87	33"SW	952.87
203	973.00	33"N	953.28	33"S	953.28
204	973.00	33"N 10"SW	953.60 953.60	33"S	953.60
205	973.30	33"N	953.83	33"S	953.83
206	973.30	30"N 18"W	954.07 954.33	33"S 30"S	954.07 954.33
207	972.25	30"N	954.33		
208	972.30	12"N	954.55	18"E	954.55
208A	957.00			12"S	954.72
310	977.50	42"N 15"NE	970.19 970.19	42"S	969.35
310A	977.85	15"E	970.28	15"SW	970.28
310B	978.30			15"W	970.44
311	977.50	42"N	970.28	42"S	970.28
312	977.50	15"NE 42"N	970.74 970.74	42"S	970.74
312A	977.85	15"E	970.89	15"SW	970.89
312B	978.75			15"W	970.97
313	977.50	42"N	970.83	42"S	970.83
314	977.50	36"N 15"NE	971.26 971.26	42"S	971.26
314A	977.85	15"E	971.39	15"SW	971.39
314B	978.67			15"W	971.46
315	977.60	36"N	971.45	36"S	971.45
316	977.50	36"N 18"NE	972.38 972.38	36"S	972.38
316A	977.85	18"E	972.51	18"SW	972.51
316B	979.00			18"W	972.59
317	977.60	36"N	972.55	36"S	972.55
318	980.50			36"E	974.50
319	981.75	15"NE 36"W	974.28 974.28	36"S	973.26
320	982.00	10"S	975.02	15"SW	975.02
321	982.00			10"N	975.14
400				24"SE	957.00

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LOT #1044

SEAL

STATE OF OHIO
BUANE D. VACLE
E-71798
REGISTERED PROFESSIONAL ENGINEER
9/11/07

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN

401
402
403

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
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REVISION OR ISSUE

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CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE

ENLARGED UTILITY PLAN

DRAWING NUMBER

C-402

08 SD 03

STORM SEWER SCHEDULE					
STRUC. NO.	TOP EL.	INLET		OUTLET	
		SIZE\DIR.	INVERT EL.	SIZE\DIR.	INVERT EL.
100F	955.50	42"N	949.52	42"SE	949.52
302	969.90	42"N 24"SE	959.85 961.71	42"W	956.35
303	970.10	24"E	961.97	24"NW	961.97
304	970.10	18"E	962.17	24"W	962.17
305	966.00			18"W	962.32
306	974.10	42"N 15"E	968.56 968.56	42"S	965.06
306A	970.00	42"N	964.21	42"S	960.71
307	974.52	15"NE	968.56	15"W	968.56
308	975.10	10"S	969.22	15"SW	969.22
309	975.10			10"N	969.46
402		42"NW	949.00		
403		42" E	956.12		
WQCS	953.92			30" SW	944.17

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE

MENARDS®

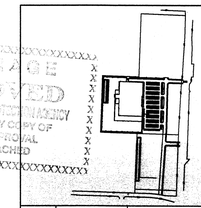
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLFE
E-71796
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 25 50 100 150
GRAPHIC SCALE: 1"=50'

KEYPLAN



NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

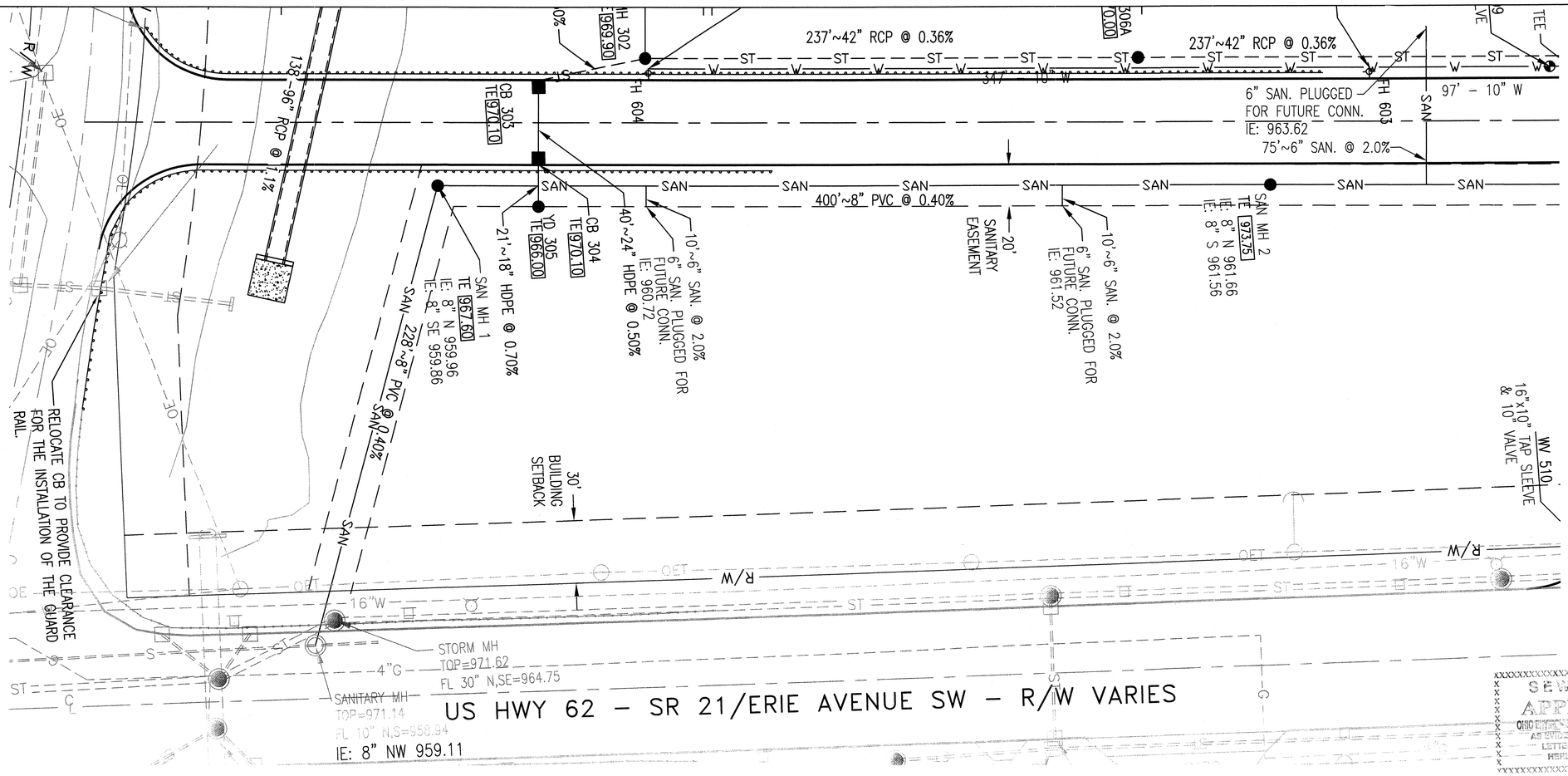
DRAWING TITLE

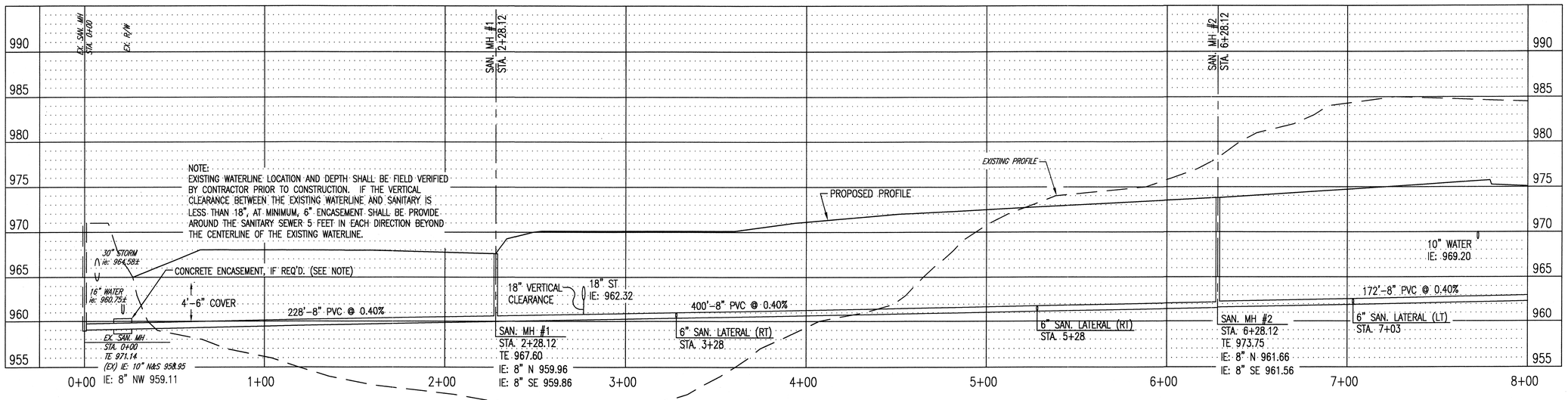
ENLARGED UTILITY PLAN

DRAWING NUMBER

C-403

08 50 03





SANITARY PROFILE

SCALE: 1"=30' HORIZONTAL
SCALE: 1"=5' VERTICAL

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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
67496
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 10 20 40 60
GRAPHIC SCALE: 1"=20'

KEYPLAN

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

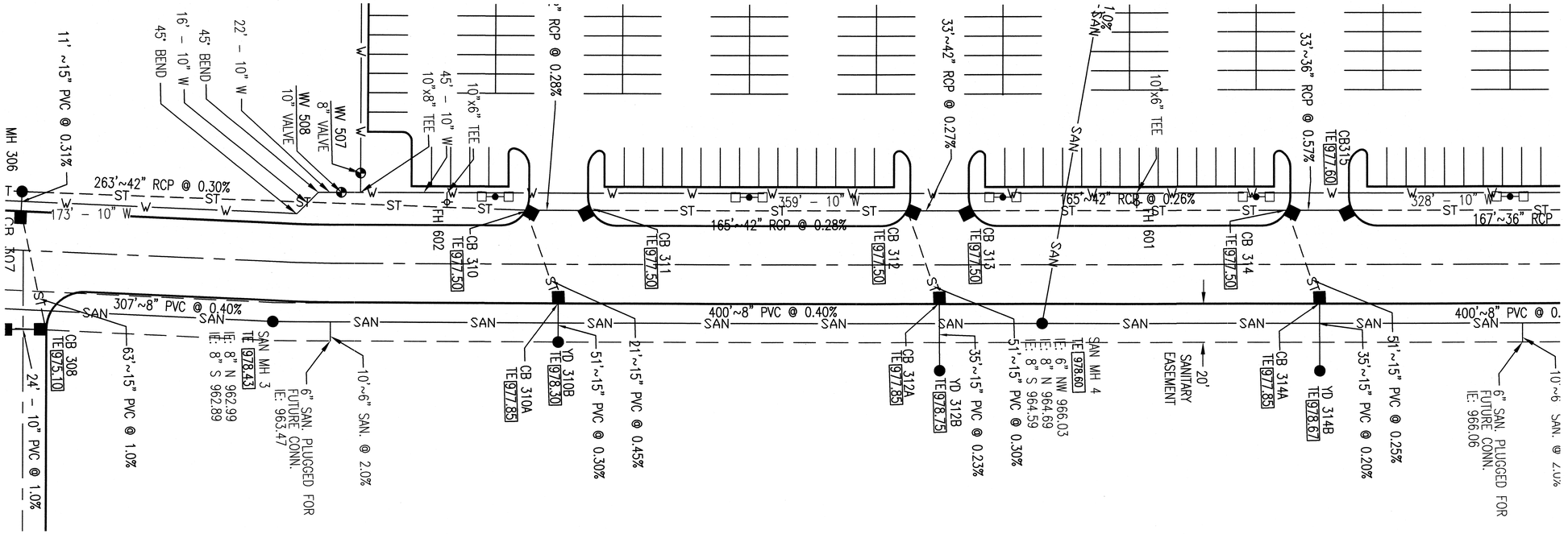
DRAWING TITLE

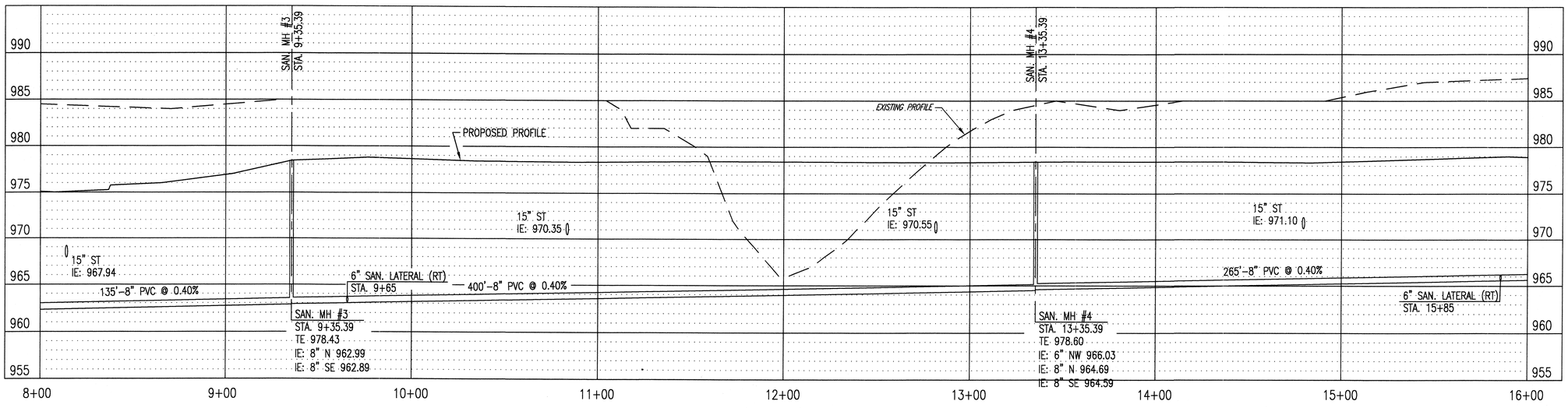
SANITARY PLAN & PROFILE

DRAWING NUMBER

C-500

08 SD 03





SANITARY PROFILE

SCALE: 1"=30' HORIZONTAL
SCALE: 1"=5' VERTICAL

SSOE, INC.
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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71756
REGISTERED PROFESSIONAL ENGINEER
10/14/07
SEAL

NORTH

0 10 20 40 60
GRAPHIC SCALE: 1"=20'

KEYPLAN

SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

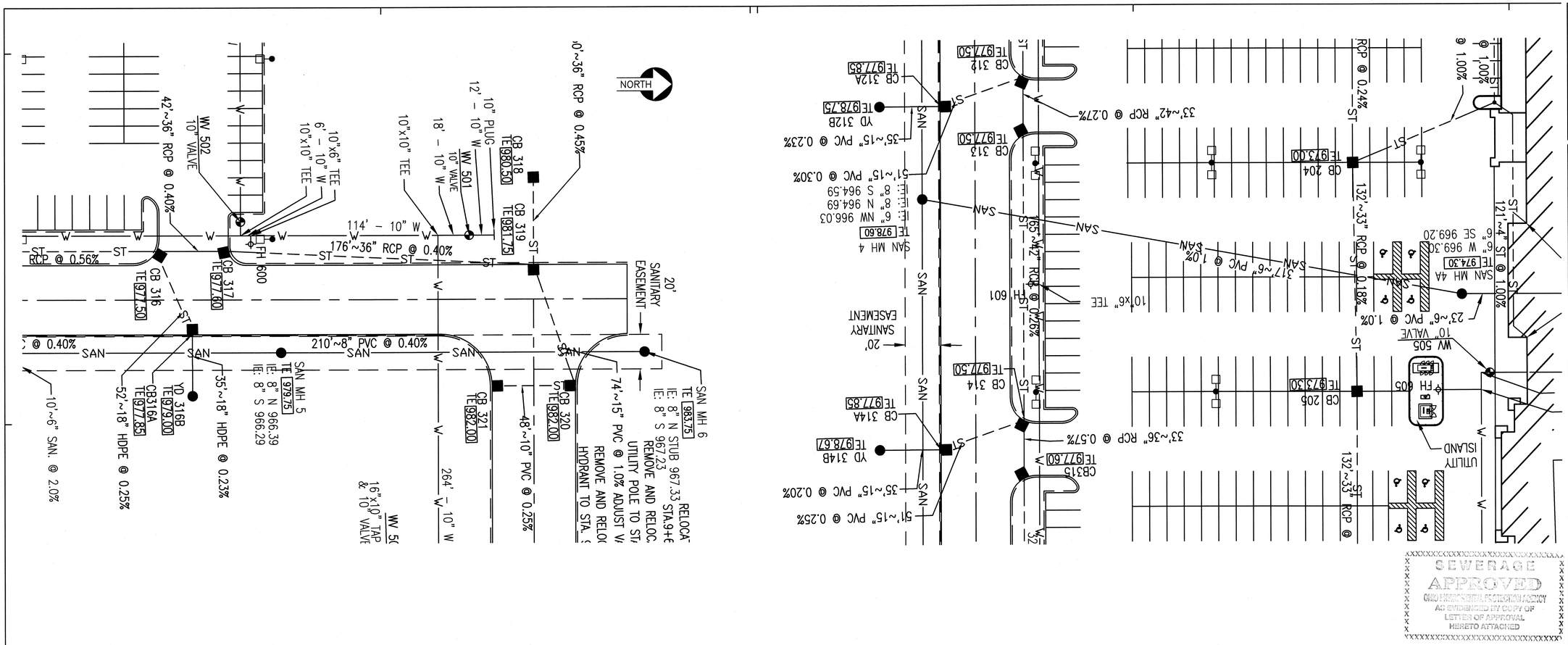
CLIENT PROJECT NUMBER

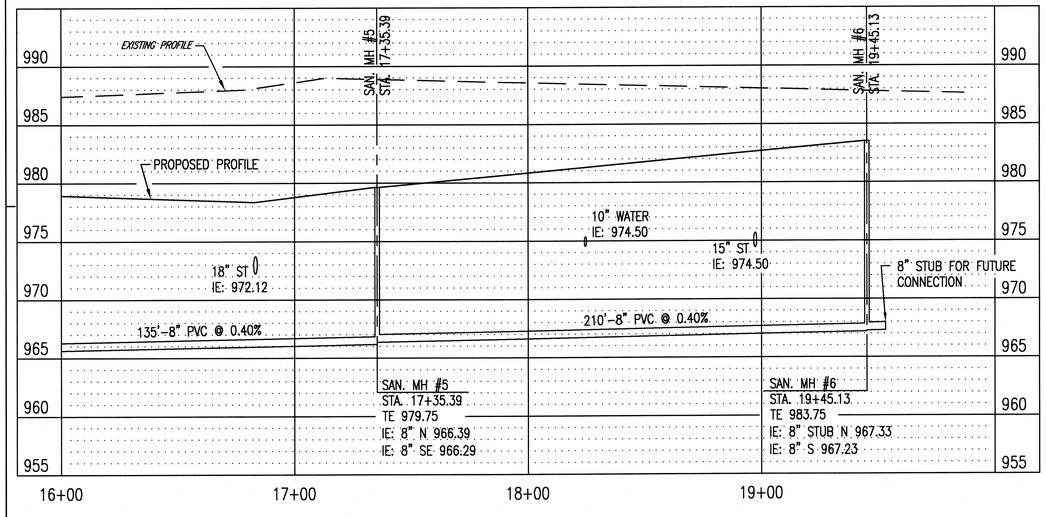
SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
SANITARY
PLAN & PROFILE

DRAWING NUMBER
C-501

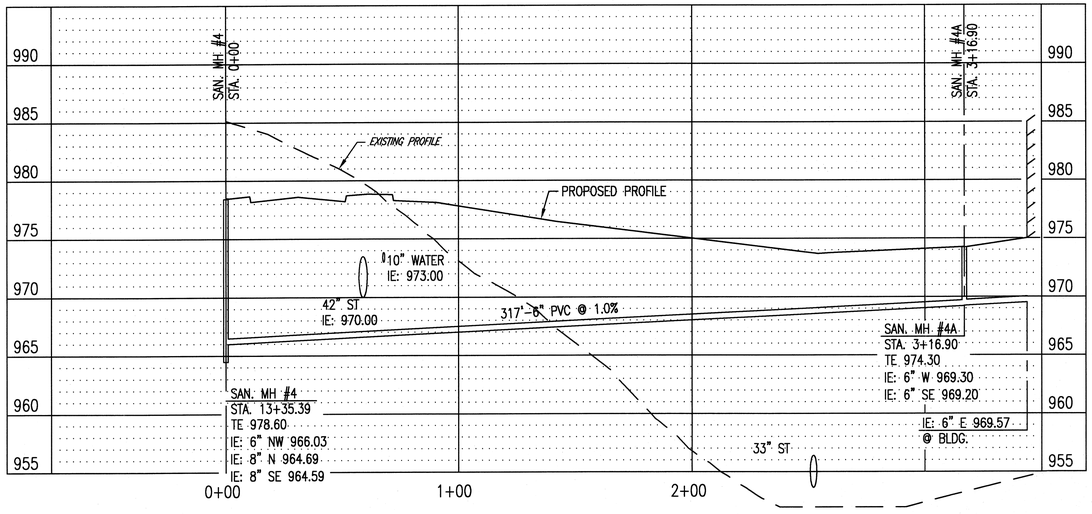
08 50 08





SANITARY PROFILE

SCALE: 1"=30' HORIZONTAL
SCALE: 1"=5' VERTICAL



SANITARY PROFILE

SCALE: 1"=30' HORIZONTAL
SCALE: 1"=5' VERTICAL

SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

SSOE, INC.
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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-17706
REGISTERED PROFESSIONAL ENGINEER
2-7-07
SEAL

NORTH

0 10 20 40 60
GRAPHIC SCALE: 1"=20'

KEYPLAN

NO.	DATE	SUBJECT
6	12-17-07	SITE PLAN APPROVAL
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

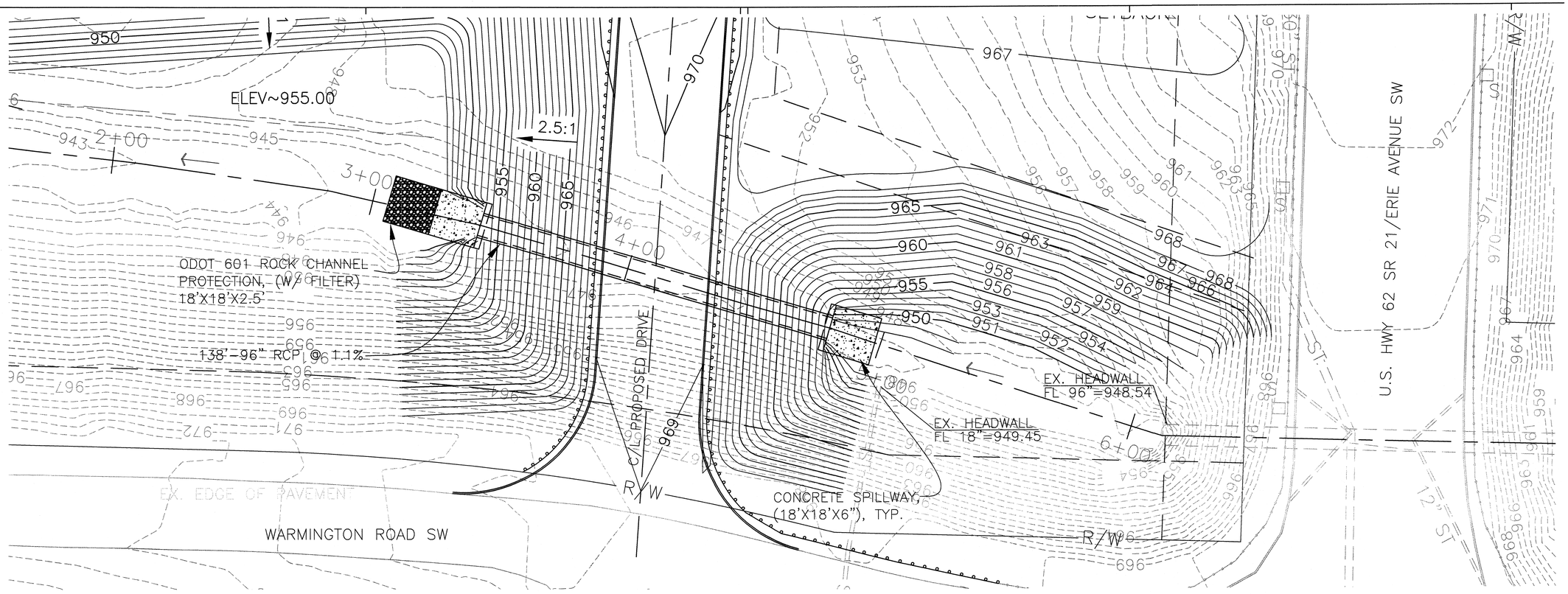
DRAWING TITLE

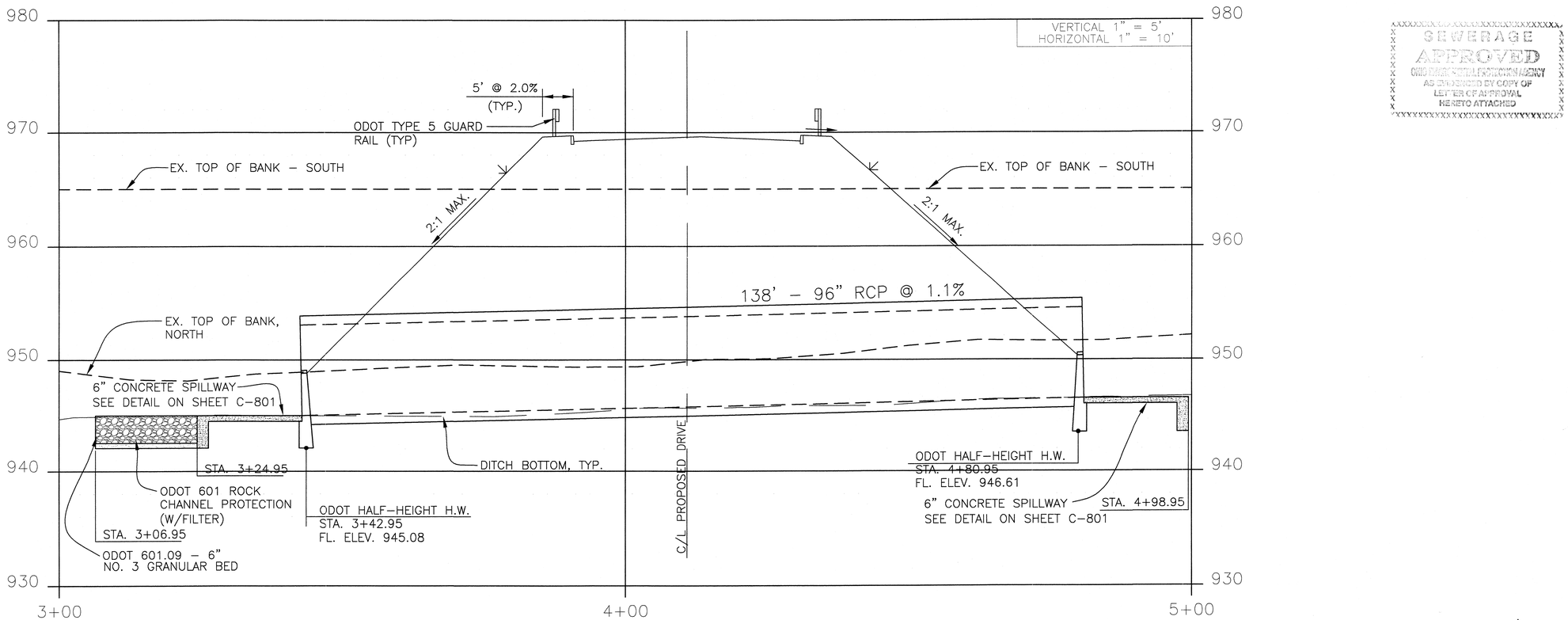
SANITARY
PLAN & PROFILE

DRAWING NUMBER

C-502

08 SD 03





SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS REVIEWED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

SSOE, INC.
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JOB TITLE

MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71788
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

NORTH

0 10 20 40 60
GRAPHIC SCALE: 1" = 20'

KEYPLAN

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

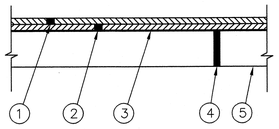
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
CULVERT ACCESS ROAD
PLAN & PROFILE

DRAWING NUMBER
C-600

08 SD 03



① ITEM 448 1.25" AC SURFACE, TYPE 1, PG 64–22

② ITEM 448 2" AC INTERMEDIATE, TYPE 2, PG 64–22

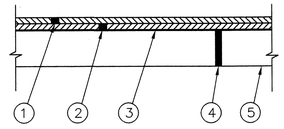
③ ITEM 408 BITUMINOUS PRIME COAT (0.35 GAL./SQ. YD)

④ ITEM 304 8" AGGREGATE BASE (2 EQUAL LAYERS)

⑤ ITEM 204 SUBGRADE COMPACTION

800A LIGHT DUTY ASPHALT PAVEMENT SECTION

C200 SERIES NO SCALE — SEE MES REPORT #2–43089 DATED 01–28–05



① ITEM 448 2" AC SURFACE, TYPE 1, PG 64–22

② ITEM 448 2 ½" AC INTERMEDIATE, TYPE 2, PG 64–22

③ ITEM 408 BITUMINOUS PRIME COAT (0.35 GAL./SQ. YD)

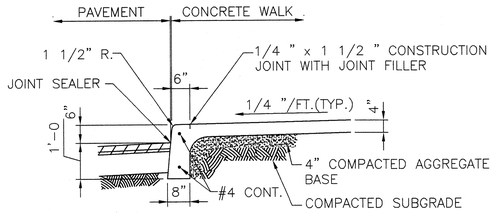
④ ITEM 304 10" AGGREGATE BASE (2 EQUAL LAYERS)

⑤ ITEM 204 SUBGRADE COMPACTION

800B HEAVY DUTY ASPHALT PAVEMENT SECTION

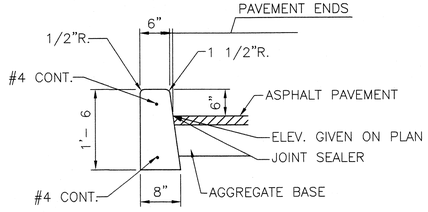
C200 SERIES NO SCALE — SEE MES REPORT #2–43089 DATED 01–28–05

NOTE: CONTRACTOR TO SPECIFY A MIX DESIGN EQUIVALENT TO MENARD DESIGN SPECIFIED IN THE CONTRACT DOCUMENT. THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN TO MRNARD FOR APPROVAL.



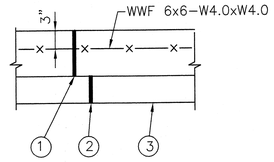
800E INTEGRAL CURB & SIDEWALK SECTION

C200 SERIES NO SCALE



800F CONCRETE CURB–TYPE A

C200 SERIES NO SCALE



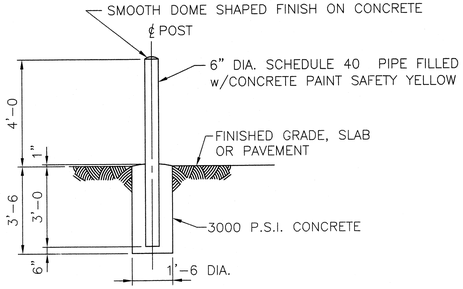
① 8" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

② 8" COMPACTED AGGREGATE BASE

③ SUBGRADE COMPACTION

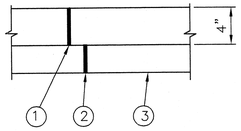
800C CONCRETE PAVEMENT SECTION

C200 SERIES NO SCALE — SEE MES REPORT #2–43089 DATED 01–28–05



800G GUIDE POST

C200 SERIES NO SCALE



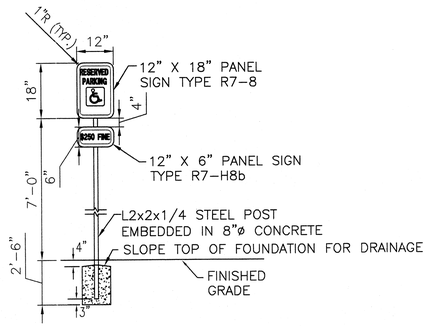
① 4" PORTLAND CEMENT CONCRETE SIDEWALK

② 4" COMPACTED AGGREGATE BASE

③ SUBGRADE COMPACTION

800D CONCRETE SIDEWALK SECTION

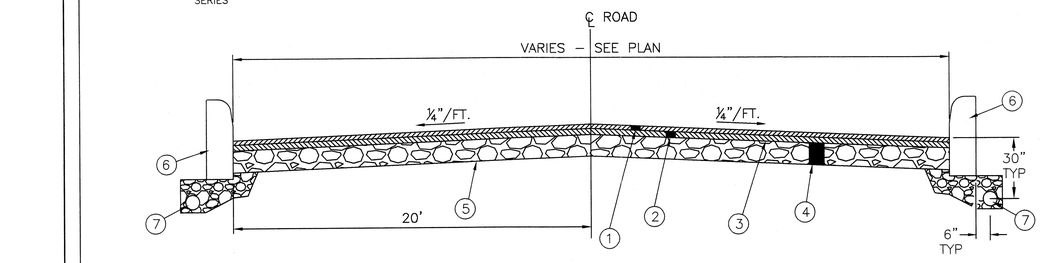
C200 SERIES NO SCALE



NOTE:
ACCORDING TO THE DEPARTMENT OF JUSTICE 28 CFR ADA STANDARDS FOR ACCESSIBLE DESIGN, THE SPACES PROVIDED MEET "UNIVERSAL" PARKING DESIGN AS SPECIFIED IN APPENDIX A 4.6.3

800H HANDICAP PARKING SIGNAGE

C200 SERIES NOT TO SCALE



① ITEM 448 2" AC SURFACE, TYPE 1, PG 64–22

② ITEM 448 3" AC INTERMEDIATE, TYPE 2, PG 64–22

③ ITEM 408 BITUMINOUS PRIME COAT (0.35 GAL./SQ. YD)

④ ITEM 304 12" AGGREGATE BASE (2 EQUAL LAYERS)

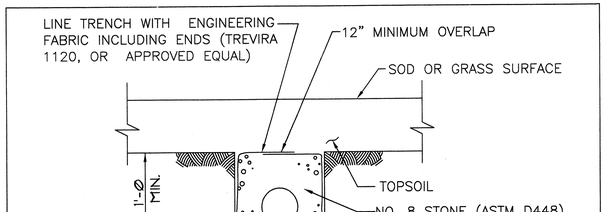
⑤ ITEM 204 SUBGRADE COMPACTION

⑥ ITEM 609 CONCRETE CURB TYPE A

⑦ ITEM 605 6–INCH SHALLOW PIPE UNDERDRAIN WITH SOCK (ITEM 707.31)

800J TYPICAL CROSS SECTION FOR PRIVATE ROAD

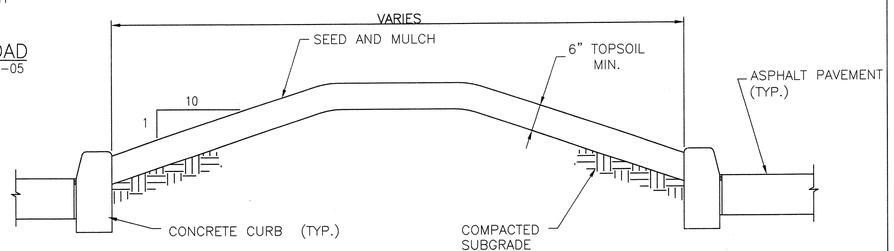
C200 SERIES NO SCALE — SEE MES REPORT #2–43089 DATED 01–28–05



NOTE: TOP OF PVC PIPE AT CONNECTION TO STRUCTURES SHALL BE 6" MINIMUM BELOW TOP OF PRECAST SECTION AND SHALL BE FITTED WITH A WATERSTOP (FERNCO, OR APPROVED EQUAL) AND MORTARED IN PLACE WITH NON–SHRINK GROUT, OR CONNECTED BY USE OF A WATERPROOF BOOT (KOR–N–SEAL, LINK–SEAL, OR APPROVED EQUAL)

801K UNDERDRAIN

C400 SERIES NO SCALE

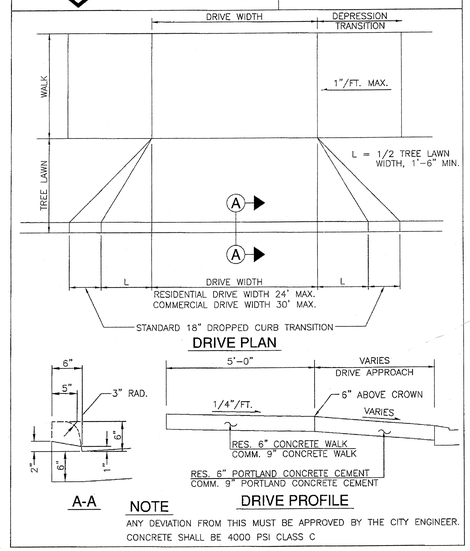


800I LANDSCAPE ISLAND DETAIL

C200 SERIES NO SCALE

Francis H. Cochinelli, Jr.
Massillon Means More!
CITY OF MASSILLON ENGINEERING
151 LINCOLN WAY EAST
MASSILLON, OHIO (330)830–1722
FAX: (330)830–1788

DRIVEWAY APPROACH DETAIL



ANY DEVIATION FROM THIS MUST BE APPROVED BY THE CITY ENGINEER.
CONCRETE SHALL BE 4000 PSI CLASS C

SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

SSOE, INC.
ARCHITECTS • ENGINEERS
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JOB TITLE

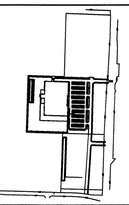
MENARDS®

CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO — DUANE D. WOLF — E-71796 — REGISTERED PROFESSIONAL ENGINEER — 10/14/09

SEAL

KEYPLAN



NO.	DATE	SUBJECT
5	10–16–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09–04–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07–30–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04–30–07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04–11–06	OWNER REVIEW
REVISION OR ISSUE		

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06–2037–10

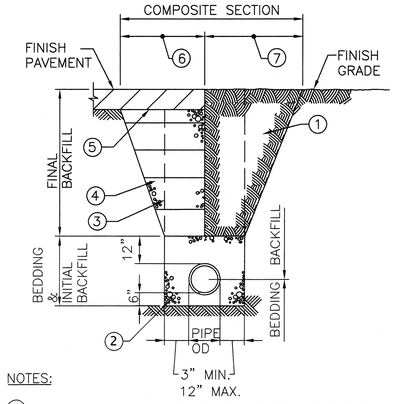
DRAWING TITLE

PAVEMENT DETAILS

DRAWING NUMBER

C–800

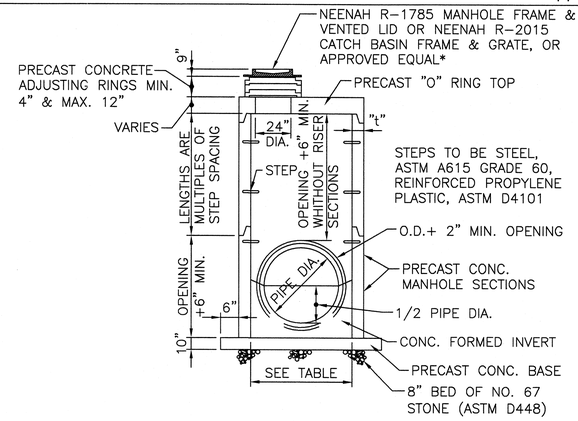
08 SD 03



NOTES:

1. EXCAVATED MATERIALS IF DECLARED SUITABLE FOR COMPACTION BY TESTING LABORATORY AND LAID IN 8" LOOSE LIFTS AND COMPACTED AS SPECIFIED.
2. COMPACTED #67 STONE (ASTM D448) IN 4" LAYERS
3. SIDE OF TRENCH IF ADEQUATELY BRACED TO MEET SAFETY CODES AND REGULATIONS
4. #67 STONE (ASTM D448) IN 4" LAYERS
5. BACKFILL TO EXTEND TO UNDERSIDE OF SLAB OR BOTTOM OF BASE COURSE FOR PAVEMENT
6. BACKFILL FOR PIPING UNDER PROPOSED BUILDINGS OR PAVEMENT
7. BACKFILL FOR PIPING IN OTHER AREAS

801A C400 SERIES — PIPE BEDDING & BACKFILL
NO SCALE

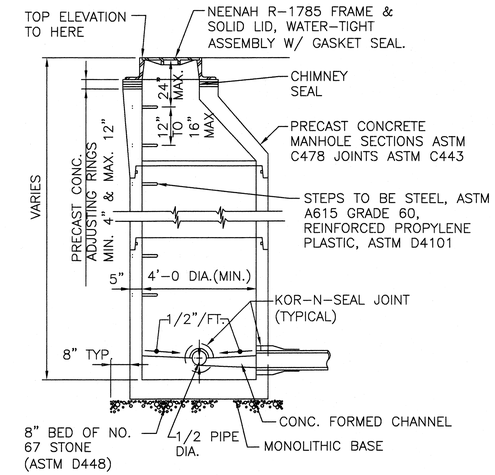


*NOTE:
FOR CURB INLETS, NEENAH R-3274-A CURB INLET, FRAME & CURB BOX

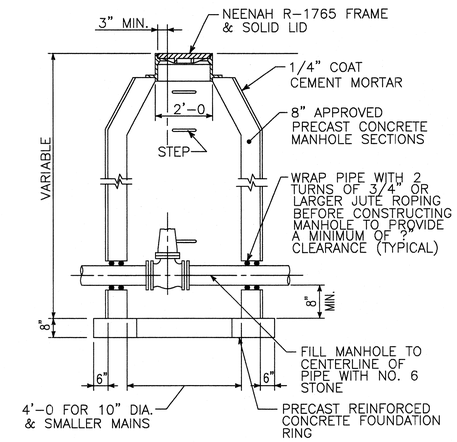
BASE I.D.	MIN. "t"	MAX. PIPE SIZE
48"	5"	30"
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7 1/2"	60"

INSTALLATION OF FINGERDRAINS ARE REQ'D FOR FOR ALL CATCH BASIN AND CURB INLETS, 4 DIRECTIONS, MIN 15' LONG EACH.

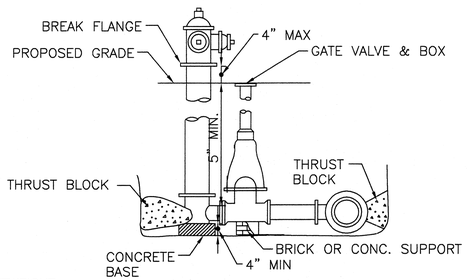
801B C400 SERIES — CATCH BASIN & STORM MANHOLE
NO SCALE



801C C400 SERIES — SANITARY SEWER MANHOLE
NO SCALE

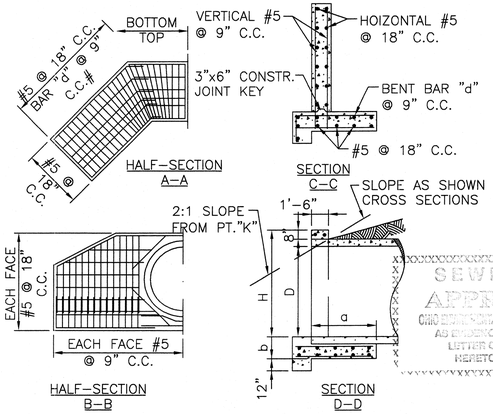


801D C400 SERIES — STANDARD VALVE MANHOLE
NO SCALE

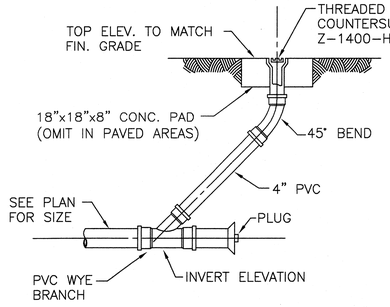


HYDRANT DRAIN OPENING—MAKE SURE SECURELY PLUGGED. ALL THRUST BLOCKS SHALL EXTEND TO UNDISTURBED SOIL. SEE THRUST BLOCK LOCATIONS & TABLES VERIFY MINIMUM DEPTH OF COVER.

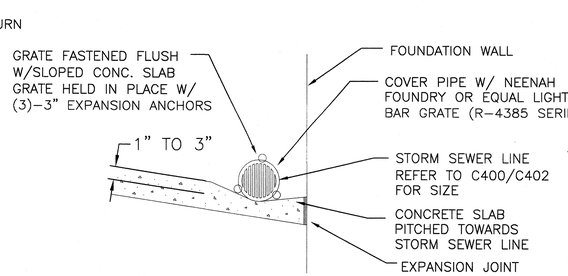
801G C400 SERIES — FIRE HYDRANT ASSEMBLY — ELEVATION
NO SCALE



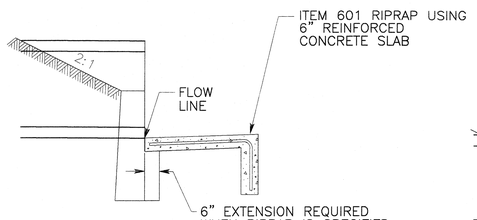
SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED



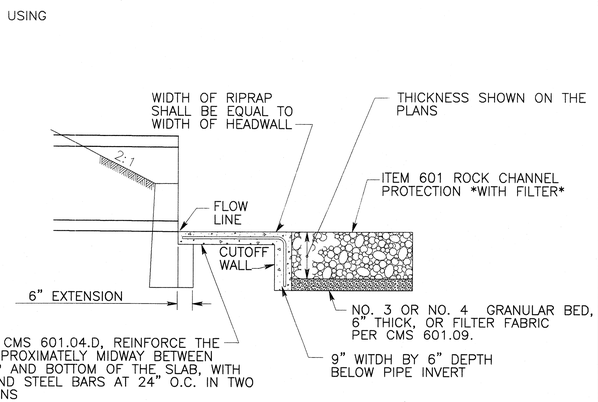
801E C400 SERIES — STORM AND SANITARY CLEANOUT
NO SCALE



801F C400 SERIES — RECESSED LOADING DOCK STORM SEWER LINE
NO SCALE



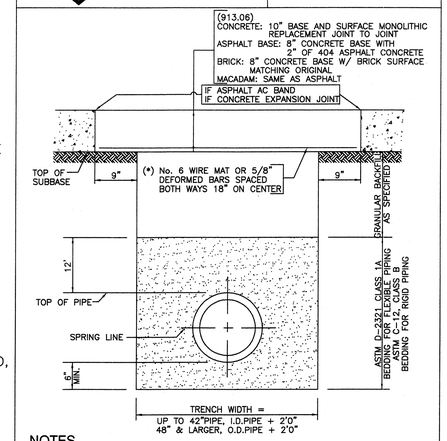
801H C400 — INLET CHANNEL PROTECTION DETAIL
NO SCALE



801I C400 — OUTLET CHANNEL PROTECTION DETAIL
NO SCALE

Frenda R. Gambrell, Jr.
Massillon Magni Merci
CITY OF MASSILLON ENGINEERING
151 LINCOLN WAY EAST
MASSILLON, OHIO (330)830-1722
FAX: (330)830-1786

OPEN CUT DETAIL
CITY RIGHT-OF-WAY



NOTES
(*) MUST BE USED WHEN WIDTH OF TRENCH IS GREATER THAN 3' AT THE SUBBASE LEVEL

CONCRETE BASE SHALL BE OF 1:2:4, 6 BAG MIX, PORTLAND CEMENT CONCRETE USING HIGH EARLY STRENGTH CEMENT AND IT MUST BE CURED AT LEAST 48 HRS.

NOTES
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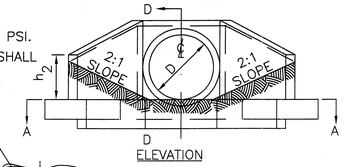
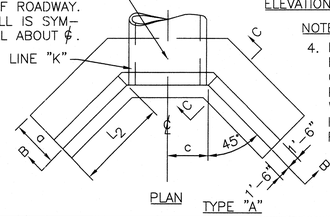
2. REINFORCING STEEL BARS SHALL BE 5/8 INCH ROUND.
3. CHAMFER ALL EXPOSED CORNERS 3/4 OF AN INCH.



℄ OF CULVERT NORMAL TO ℄ OF ROADWAY. HEADWALL IS SYMMETRICAL ABOUT ℄.



TYPE "A"

NOTES
4. FOUNDATION—WHERE THE SOIL BORINGS INDICATE A BEARING CAPACITY OF LESS THAN 2600 POUNDS PER SQUARE FOOT IT WILL BE NECESSARY TO INCREASE THE WIDTH OF THE FOOTING.

PIPE DIA. D	H	a	b	c	BAR d	L_2	h_2	CY CONC. CMP	CY CONC. RCP	STEEL LBS
42"	4'-11	3'-3"	1'-6"	2'-6"	#5	3'-7"	3'-1"	7.0	6.7	598
48"	5'-5"	3'-6"	1'-6"	2'-9"	#5	4'-4"	3'-4"	8.5	8.2	793
54"	5'-11	3'-9"	1'-6"	3'-0"	#5	5'-2"	3'-8"	10.3	10.0	1069
60"	6'-6"	4'-0"	1'-6"	3'-3"	#5	5'-11	3'-11"	12.3	11.8	1149
72"	7'-7"	4'-6"	1'-7"	3'-9"	#7	7'-5"	4'-5"	17.0	16.2	1783
84"	8'-8"	5'-0"	1'-10	4'-3"	#8	9'-0"	5'-0"	23.7	22.8	2595

801J C400 — STANDARD HEADWALL FOR 42" OR LARGER
NO SCALE

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE
MENARDS
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-71796
REGISTERED PROFESSIONAL ENGINEER
10/11/07
SEAL

KEYPLAN

NO.	DATE	SUBJECT
5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
4	09-04-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
3	07-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
2	04-30-07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04-11-06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFITT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

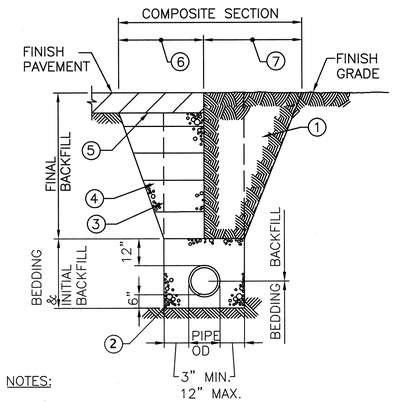
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

DRAWING TITLE
UTILITY DETAILS

DRAWING NUMBER
C-801

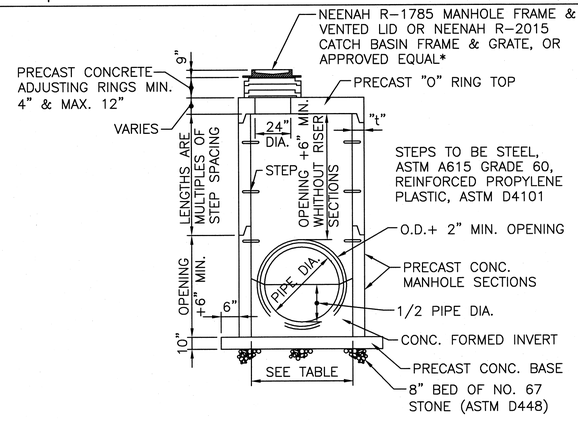
08 SD 03



NOTES:

1. EXCAVATED MATERIALS IF DECLARED SUITABLE FOR COMPACTION BY TESTING LABORATORY AND LAID IN 8" LOOSE LIFTS AND COMPACTED AS SPECIFIED.
2. COMPACTED #67 STONE (ASTM D448) IN 4" LAYERS
3. SIDE OF TRENCH IF ADEQUATELY BRACED TO MEET SAFETY CODES AND REGULATIONS
4. #67 STONE (ASTM D448) IN 4" LAYERS
5. BACKFILL TO EXTEND TO UNDERSIDE OF SLAB OR BOTTOM OF BASE COURSE FOR PAVEMENT
6. BACKFILL FOR PIPING UNDER PROPOSED BUILDINGS OR PAVEMENT
7. BACKFILL FOR PIPING IN OTHER AREAS

801A C400 SERIES — PIPE BEDDING & BACKFILL
NO SCALE

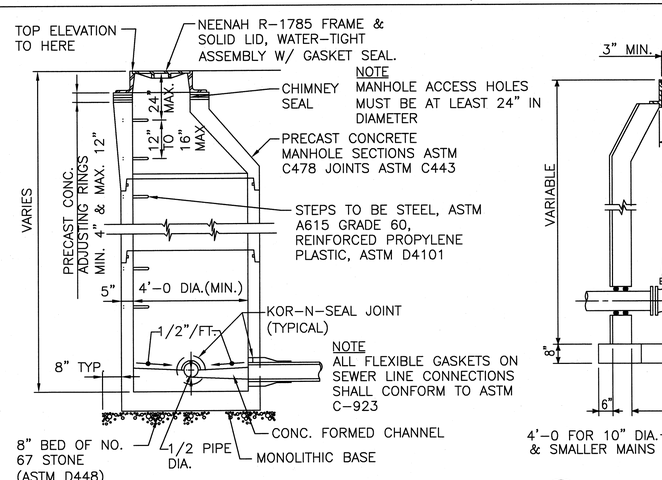


*NOTE:
FOR CURB INLETS, NEENAH R-3274-A CURB INLET, FRAME & CURB BOX

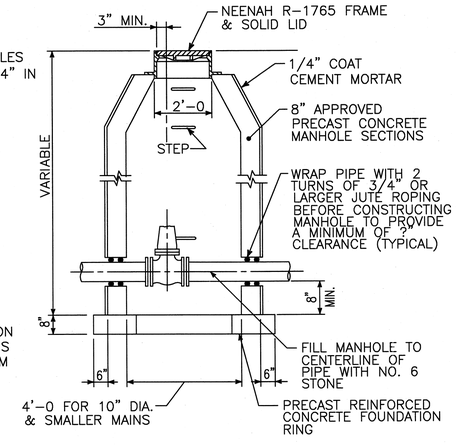
BASE I.D.	MIN. "t"	MAX. PIPE SIZE
48"	5"	30"
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7 1/2"	60"

NOTE:
PROVIDE & INSTALL 4" PERFORATED CORRUGATED POLYETHLENE FINGERDRAINS, A MINIMUM 10' EACH WAY AT ALL CATCH BASINS AND CURB INLETS, 4 DIRECTIONS, WITH END PLUGS AND FILTER FABRIC SOCK. MORTAR FINGERDRAIN INTO STRUCTURE WITH NON-SHRINK GROUT OR CONNECT BY USE OF A WATERPROOF RUBBER BOOT.

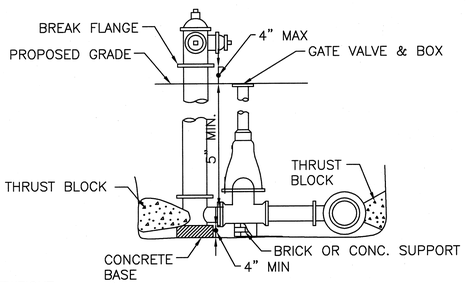
801B C400 SERIES — CATCH BASIN & STORM MANHOLE
NO SCALE



801C C400 SERIES — SANITARY SEWER MANHOLE
NO SCALE



801D C400 SERIES — STANDARD VALVE MANHOLE
NO SCALE



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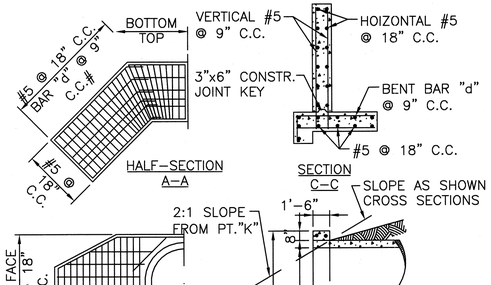

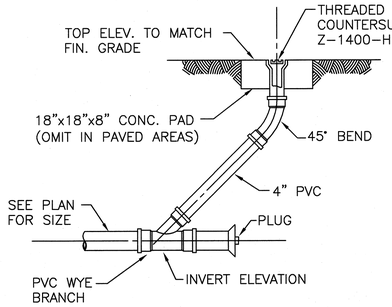

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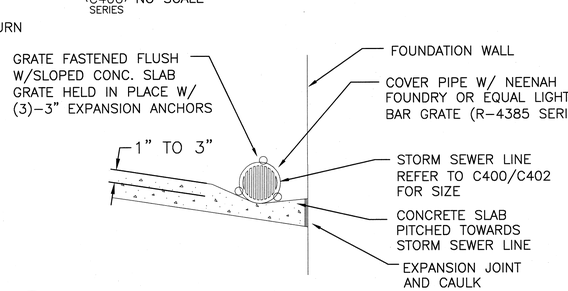

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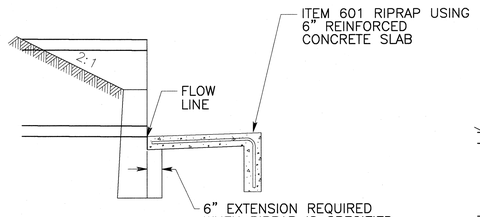

801H C400 — INLET CHANNEL PROTECTION DETAIL
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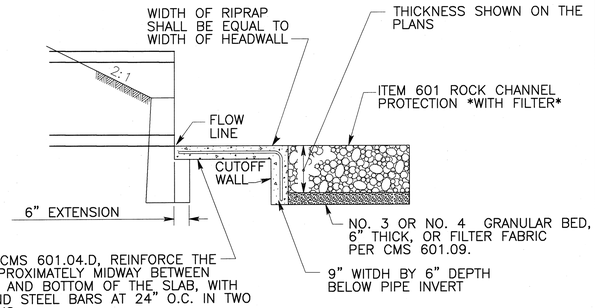
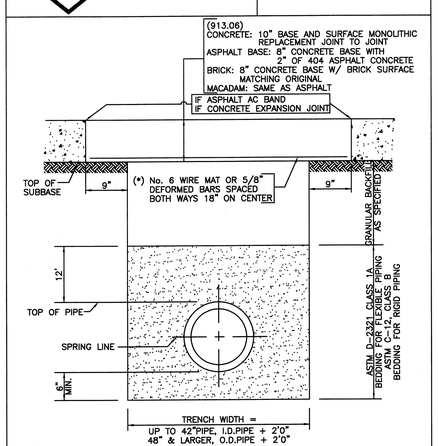


801I C400 — OUTLET CHANNEL PROTECTION DETAIL
NO SCALE

Massillon Means More!
Frande H. Gumbrell, Jr.
CITY OF MASSILLON ENGINEERING
151 LINCOLN WAY EAST
MASSILLON, OHIO (330)830-1722
FAX: (330)830-1786

OPEN CUT DETAIL
CITY RIGHT-OF-WAY



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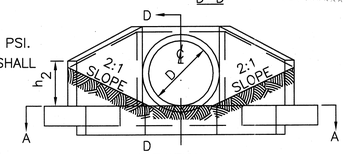

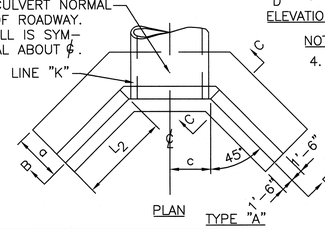

TYPE "A"

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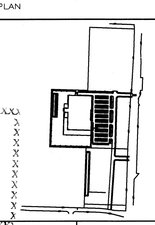
NO SCALE

SSOE, INC.
ARCHITECTS • ENGINEERS
www.ssoe.com

JOB TITLE
MENARDS
CIVIL SITE PACKAGE
45.019 ACRES LOCATED IN
CITY OF MASSILLON, STARK COUNTY, OHIO
LOT #1044

STATE OF OHIO
DUANE D. WOLF
E-74798
REGISTERED PROFESSIONAL ENGINEER
12-17-07
SEAL

KEYPLAN



SEWERAGE APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF LETTER OF APPROVAL
REFETO ATTACHED

NO.	DATE	SUBJECT
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5	10-16-07	SITE PLAN APPROVAL & SSWCD APPROVAL - REISSUED
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1	04-11-06	OWNER REVIEW
REVISION OR ISSUE		

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

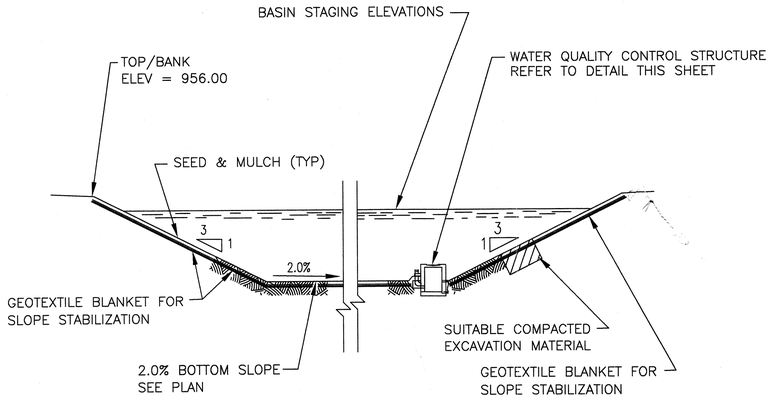
CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06-2037-10

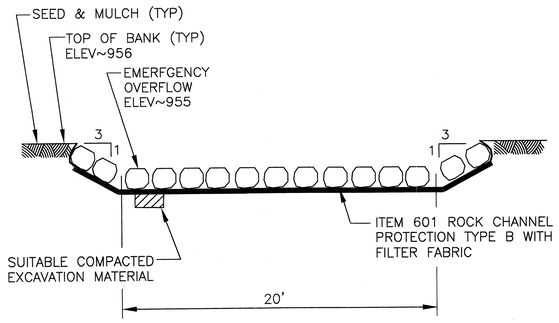
DRAWING TITLE
UTILITY DETAILS

DRAWING NUMBER
C-801

RECEIVED
08 SD 03 JAN 2008
OHIO EPA NEDO



DETENTION POND CROSS SECTION
NO SCALE



EMERGENCY SPILLWAY
NO SCALE

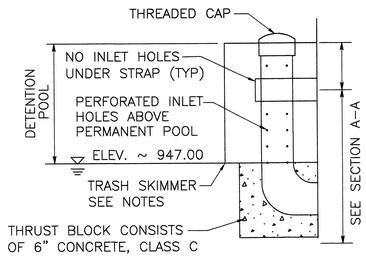
NOTES

ALL AGGREGATE SHOWN SHALL MEET CMS 203.02.H, NATURAL GRANULAR MATERIALS AND SPECIFIED GRADATIONS.

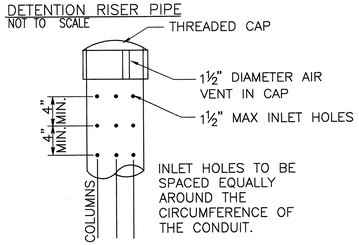
USE SCHEDULE 40 POLYVINYL CHLORIDE CONDUIT. PERFORATIONS SHALL BE 1–1/2" DIAMETER MAX.

USE TRASH SKIMMER SCREENS TO PROTECT THE PERFORATED RISER. IT MUST EXTEND FROM THE TOP OF THE RISER TO 2' BELOW THE PERMANENT POOL LEVEL AND BE OPEN AT THE TOP. THE RADIUS OF THE TRASH SKIMMER SHALL BE 3 TIMES THE DIAMETER OF THE RISER PIPE. TRASH SKIMMER SHALL BE STAINLESS STEEL OR GALVANIZED STEEL PER CMS 711.02. MAXIMUM PERFORATION SIZE SHALL BE 1" DIAMETER. SECURELY FASTEN TRASH SKIMMER TO THE BASIN USING HARDWARE GALVANIZED PER CMS 711.02.

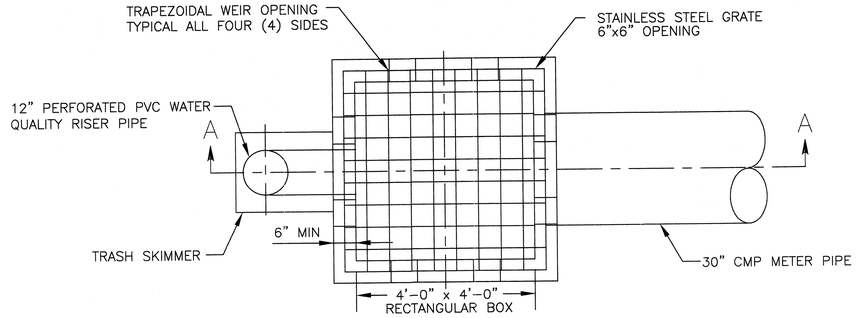
SECURELY FASTEN THE RISER PIPE TO THE BASIN IN THE VERTICAL POSITION USING A STABILIZER AND ANCHOR STRAP THAT CONSISTS OF A UNIVERSAL CLAMP OR A STRAP AND A BLOCK. ALL METAL COMPONENTS SHALL BE GALVANIZED OR STAINLESS STEEL. ALL OTHER MATERIALS SHALL BE ROT RESISTANT.



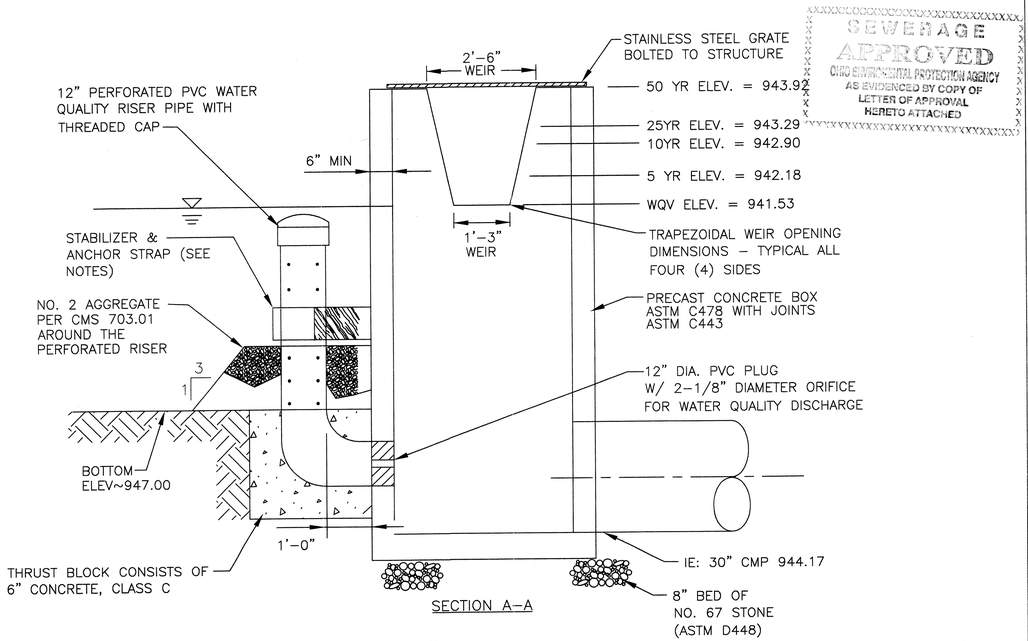
DETENTION RISER PIPE
NOT TO SCALE



PERFORATED RISER
NOT TO SCALE



PLAN VIEW



SECTION A–A

WATER QUALITY CONTROL STRUCTURE
NO SCALE

SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
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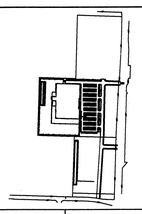
DUANE D. WOLFE
E-71798
REGISTERED PROFESSIONAL ENGINEER
10/16/07
SEAL

KEYPLAN



NO.	DATE	SUBJECT
5	10–16–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
4	09–04–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
3	07–30–07	SITE PLAN APPROVAL & SSWCD APPROVAL – REISSUED
2	04–30–07	SITE PLAN APPROVAL & SSWCD APPROVAL
1	04–11–06	OWNER REVIEW

REVISION OR ISSUE

DRAWN	A. MOFFIT\K. KOZAK
CHECKED	C. HARTMAN
DESIGNED	K. YOUSEF
APPROVED	P. HOLMBLADE
PROJECT MANAGER	M. DUFFEY

CLIENT PROJECT NUMBER

SSOE PROJECT NUMBER 06–2037–10

DRAWING TITLE

DETENTION POND CROSS SECTION & DETAILS

DRAWING NUMBER

C–802

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