

CITY OF MASSILLON GENERAL NOTES

- CONTRACTOR SHALL CHECK DETAIL DRAWINGS FOR MINIMUM GRADE AND BACKFILL REQUIREMENTS.
- ALL CATCH BASINS AND MANHOLES TO BE ADJUSTED TO GRADE WHERE NECESSARY.
- ALL CONCRETE TO BE 1 : 2 : 4 - 6 BAG MIX, 28 DAY - 3000 PSI COMPRESSIVE STRENGTH; MAX. SLUMP TO BE 4".
- ALL MATERIALS USED WILL BE NEW - NO SALVAGED MATERIAL WILL BE ACCEPTED.
- IF SUBGRADE IS UNSUITABLE, CONTRACTOR WILL EXCAVATE AND REPLACE SUCH MATERIAL WITH CRUSHER RUN GRAVEL, AT THE DISCRETION OF THE INSPECTOR OR CITY ENGINEER. THIS FILL TO BE PLACED IN 6" LAYERS OR LESS. SAID FILL TO BE COMPACTED TO 95% LABORATORY DRY WEIGHT BEFORE ADDITIONAL LAYERS ARE ADDED. THIS COMPACTION TO BE DONE BEFORE FORMS ARE PLACED.
- ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE (O.D.O.T. 707.33 OR REINFORCED CONCRETE PIPE (O.D.O.T. 708.02 AND SHALL BE TYPE "C" CONDUIT IN ACCORDANCE WITH O.D.O.T. 603 WITH CLASS "C" BEDDING AND SUITABLE BACKFILL.
- DOWNSPOUT HEADERS SHALL BE 6" PVC (SDR 21 PIPE (UNLESS OTHERWISE NOTED ON THE PLANS AND SHALL BE DIRECTLY CONNECTED TO THE STORM SEWER WITH APPROVED TEE OR SADDLE CONNECTIONS. HEADERS SHALL EXTEND 15' INTO THE LOTS OR BEYOND FURTHEST UTILITY, WHICHEVER IS GREATER.
- MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED IN CONFORMANCE WITH MASSILLON CITY STANDARDS.
- CONTRACTOR SHALL CONTACT THE CITY OF MASSILLON ENGINEERING DEPARTMENT (GREG MCCUE AT 330/830-1722 AT LEAST 2 DAYS PRIOR TO THE INITIATION OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.
- STREET LIGHTING IS REQUIRED. DEVELOPER SHALL COORDINATE WITH ELECTRIC UTILITY COMPANY FOR POLE LOCATION AND TYPE. THE DEVELOPER SHALL INSTALL, AT HIS COST, STREET SIGNS REPRESENTING THE NAMES OF ALL STREETS AT ALL INTERSECTIONS. DEVELOPER ALSO RESPONSIBLE FOR STOP SIGNS AND DIRECTIONAL SIGNS AS NECESSARY. A-1 SIGNS SHALL CONFORM WITH CITY OF MASSILLON REGULATIONS.
- 15A. BEFORE ACCEPTANCE OF THE ROAD PAVEMENT SUBGRADES BY THE CITY OF MASSILLON ENGINEER, SUBGRADES SHALL BE TESTED IN ACCORDANCE WITH O.D.O.T. ITEM 203.13. IN LIEU OF SUBGRADE TESTING PER ITEM 203.13, PROOF ROLLING IN ACCORDANCE WITH O.D.O.T. ITEM 203.14 MAY BE SUBSTITUTED.
- WHEREVER UNSTABLE SOIL, SUBGRADE CONDITIONS ARE ENCOUNTERED THAT ARE UNSUITABLE PER O.D.O.T. 203 SPECIFICATIONS AND/OR DETERMINED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT, ADDITIONAL EXCAVATION AND SUBSEQUENT BACKFILLING SHALL BE DONE BY THE CONTRACTOR UNTIL SUCH CONDITIONS ARE CORRECTED AND APPROVED BY THE CITY OF MASSILLON ENGINEER. COST SHALL BE INCLUDED IN THE CONTRACT PRICE.
- SUBGRADE TESTING OR PROOF ROLLING MUST BE WITNESSED AND APPROVED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT PRIOR TO THE PLACEMENT OF THE PAVEMENT SUBBASE MATERIAL. CONTRACTOR SHALL CONTACT THE CITY ENGINEERING DEPARTMENT AT 330 830-1722 TO SCHEDULE.
- AS-BUILT DRAWINGS ARE REQUIRED AND SHALL BE SUBMITTED TO THE CITY ENGINEER UPON COMPLETION OF THE PROJECT.
- ALL ROAD SURFACES, EASEMENT OR RIGHT-OF-WAY DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE BEFORE CONSTRUCTION CONDITION OR BETTER WHEN ORDERED BY THE CITY ENGINEER.
- PRICES BID PER FOOT FOR ALL PIPE IN PLACE REGARDLESS OF SOIL OR ROCK CONDITION.
- THE LOCATIONS OF ALL GAS LINE, TELEPHONE LINES, ETC. TO BE DETERMINED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES, VALVE BOXES, ETC. ARE TO BE HELD BY THE CONTRACTOR DURING CONSTRUCTION.
- THE CONSTRUCTION OF THIS PROJECT SHALL BE GOVERNED BY THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION SUPPLEMENTED WHERE APPLICABLE BY THE CITY OF MASSILLON ENGINEER).
- FERTILIZING, SEEDING AND MULCHING FOR RESTORATION OF DISTURBED AREAS BETWEEN THE PAVEMENT EDGE AND THE RIGHT-OF-WAY LINE SHALL CONFORM TO SECTIONS 659.04, 659.12, AND 659.13 AS SPECIFIED IN THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION).
- ALL DISTURBED AND/OR DAMAGED STORM SEWER PIPES, STORM SEWER APPURTENANCES, PAVEMENTS, BERMS AND DITCHES SHALL BE REPAIRED AND/OR REPLACED AS DIRECTED BY THE CITY ENGINEER.
- CALL THE OHIO UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS BEFORE DIGGING (1-800-362-2764).
- TEMPORARY WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL SHALL BE REQUIRED IN ACCORDANCE WITH ITEM 207 OF THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION AS DIRECTED BY THE CITY ENGINEER AND THE STARK S.W.C.D.).
- THE CONTRACTOR IS REQUIRED TO HAVE ALL UTILITY CROSSING CONDUITS (ELECTRIC, TELEPHONE, CABLE TV INSTALLED PRIOR TO THE INSTALLATION OF PAVEMENT).
- ALL POINTS OF CONNECTION OF PROPOSED IMPROVEMENTS TO EXISTING IMPROVEMENTS SHALL BE UNCOVERED AND ELEVATIONS VERIFIED BY FIELD CHECK BEFORE ANY CONSTRUCTION BEGINS.
- WHERE THE PLANS PROVIDE FOR THE PROPOSED SEWER TO BE CONNECTED TO OR CROSS EITHER OVER OR UNDER AN EXISTING UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING UTILITY, BOTH LINE AND GRADE, BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT. THERE WILL BE NO EXTRA PAYMENT FOR THE ABOVE WORK.
- EXCAVATION AND EMBANKMENT SHALL BE IN ACCORDANCE WITH O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION ITEM 203).
- THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR ENCOUNTERS UTILITIES OTHER THAN THOSE LOCATIONS SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE THE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
- PRICES BID SHALL INCLUDE ANY SHEETING OR DEWATERING THAT MAY BE REQUIRED.
- DRIVEWAY PERMITS ARE REQUIRED. CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

WATER LINE NOTES

- WATERLINE SHALL BE CONSTRUCTED OF PRESSURE CLASS 350, AWWA C150 AND C151 DUCTILE IRON PIPE WITH POLYETHYLENE ENCASEMENT.
- THE WATER LINE SHALL BE INSTALLED SO THAT 4" - 0" OF COVER, FROM GRADE TO THE TOP OF THE WATER LINE, IS MAINTAINED AS A MINIMUM.
- WATER LINE MATERIALS AND INSTALLATION PROCEDURES SHALL MEET OR EXCEED ALL APPLICABLE AWWA STANDARDS INCLUDING, BUT NOT LIMITED TO, C600 AND C651.
- THE CONTRACTOR SHALL CAREFULLY LAY OUT THE WATER LINE AND ALL RELATED FACILITIES TO ENSURE THAT THEY ARE LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY AND/OR DESIGNATED UTILITY EASEMENTS AS INDICATED ON THE DRAWINGS.
- MEGALUG RETAINERS REQUIRED AT ALL FITTINGS.
- THE PROPOSED FACILITIES WILL MAINTAIN A MINIMUM PRESSURE OF 35 P.S.I. DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. AQUA OHIO MAY GRANT SPECIAL PERMISSION FOR BUILDINGS SIX STORIES AND HIGHER.
- A TYPE 1 TRENCH SHALL BE USED AND BACKFILLED WITH EXCAVATED MATERIAL PROVIDED THAT SAID MATERIAL CONSISTS OF LOAM, CLAY, SAND, GRAVEL, OR OTHER SUITABLE MATERIAL. BACKFILLING FOR ROAD AND DRIVEWAY CUTS SHALL BE, AS A MINIMUM, ODOT 304 AGGREGATE (PROPERLY COMPACTED), AS SPECIFIED BY THE LOCAL JURISDICTION.

SANITARY SEWER NOTES

- SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION.
- ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
- THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS ALONG THE ROUTE OF THE SANITARY SEWER AT LEAST THREE (3) DAYS PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
- 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.
- 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.
- 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.
- MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATERLINE SHALL BE 18 INCHES MINIMUM HORIZONTAL SEPARATION SHALL BE 10 FT.
- SANITARY SEWER SERVICE LATERALS SHALL BE 6-INCH DIAMETER AND BE LAID AT NO LESS THAN 1.0 % GRADE.
- FOR NEW SUBDIVISION CONSTRUCTION, SEWER SERVICE LATERALS SHALL EXTEND 15' 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.
- 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.
- MINIMUM COVER OVER SANITARY SEWER SHALL BE 4 FT.
- ACCEPTABLE SANITARY SEWER PIPE MATERIALS ARE AS FOLLOWS:

MATERIAL DESCRIPTION	PIPE	JOINT	INSTALLATION
PVC SMOOTH EXTERIOR SDR 35	ASTM D-3034	ASTM D-3212	ASTM D-2321

- 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 VIDEOTAPE PRODUCE SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS.
- 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.
- ALL SANITARY SEWERS MUST PASS A LOW PRESSURE AIR TEST, WHICH SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM F-1417 (PLASTIC PIPE OR ASTM C-528 (CLAY PIPE. THE MAXIMUM ALLOWABLE TEST LEAKAGE SHALL BE 100 GAL/INCH OF DIAMETER/MILE/DAY.
- 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.
- CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED, WITH BENCHES AND CHANNELS FORMED AND REPAIRED AS NECESSARY.
- ANY MANHOLE DROP ATTACHMENTS SHALL BE "OUTSIDE" TYPE.
- 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.
- ALL SANITARY SEWER TRENCHES BENEATH PROPOSED OR EXISTING PAVEMENT SHALL BE COMPACTED IN LIFTS, IN A MANNER, AND WITH MATERIAL AS SPECIFIED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AND ALL APPLICABLE O.D.O.T. SPECIFICATIONS.
- ALL SEWER RUN DISTANCE GIVEN ARE FROM CENTERLINE TO CENTERLINE OF MANHOLES. ALL PIPE INVERT ELEVATIONS GIVEN AT MANHOLES ARE AT CENTERLINE OF MANHOLE. SEWER GRADES ARE ESTABLISHED FROM CENTERLINE OF MANHOLE AND CARRIED THROUGH MANHOLE INVERT TO ASSURE FLOW THROUGH MANHOLE.
- COST OF WYES AND STUBS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF SANITARY SEWER.
- COST OF ANY SHEETING OR DEWATERING NECESSARY FOR INSTALLATION OF SANITARY SEWER SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF RESPECTIVE ITEMS. ALSO ANY FOUNDATION SLAG REQUIRED.
- SANITARY PERMITS ARE REQUIRED. CONTACT CITY OF MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

WATER LINE NOTES CONTINUED

- WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY SANITARY SEWER OR SEWER MANHOLE, AND AT LEAST 5 FEET HORIZONTALLY FROM ANY STORM SEWERS OR STRUCTURES. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.
- AN 18 INCH VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN SANITARY SEWERS AND WATER MAINS, MEASURED BETWEEN THE OUTSIDE PIPE WALLS. A 12 INCH VERTICAL CLEARANCE IS REQUIRED BETWEEN WATER MAINS AND STORM SEWERS, MEASURED BETWEEN THE OUTSIDE PIPE WALLS. THE STORM SEWER MAY CROSS EITHER ABOVE OR BELOW THE WATER MAIN.
- ALL PIPE JOINTS WITHIN 36 FT. OF ANY DEAD END SHALL BE RESTRAINED BY USING FIELD LOCK GASKETS IN PUSH-ON JOINTS OR RETAINER GLANDS (MEGALUGS) ON MECHANICAL JOINTS. IN ADDITION, POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL BE PROVIDED PER AQUA OHIO SPECIFICATIONS TO PREVENT MOVEMENT OF THE WATERLINE.
- ALL DUCTILE PIPE, FITTINGS AND VALVES SHALL BE ENCASED IN POLYETHYLENE ENCASEMENT (POLYWRAP) IN A WORKMANLIKE MANNER WITH JOINTS TAPED PER AQUA OHIO SPECIFICATIONS.
- WATER SERVICES SHALL EXTEND 15' INTO THE LOTS OR BEYOND FURTHEST UTILITY, WHICHEVER IS GREATER, WITH THE CURB BOX INSTALLED 4' BEHIND BACK OF CURB. THE AQUA OHIO POINT OF DELIVERY IS THE OUTLET SIDE OF THE CURB STOP.
- WATER MAINS SHALL BE INSTALLED AND PRESSURE TESTED IN ACCORDANCE WITH AWWA C600.
- WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651.

CHERRY SPRINGS No. 2

SANITARY, STORM SEWERS, WATER & PAVING IMPROVEMENT PLANS

CITY OF MASSILLON
COUNTY OF STARK
STATE OF OHIO

MARCH, 2006

STREETS - PRIVATE
STORM SEWER - PRIVATE
SANITARY SEWER - CITY OF MASSILLON
WATER - AQUA OHIO INCORPORATED

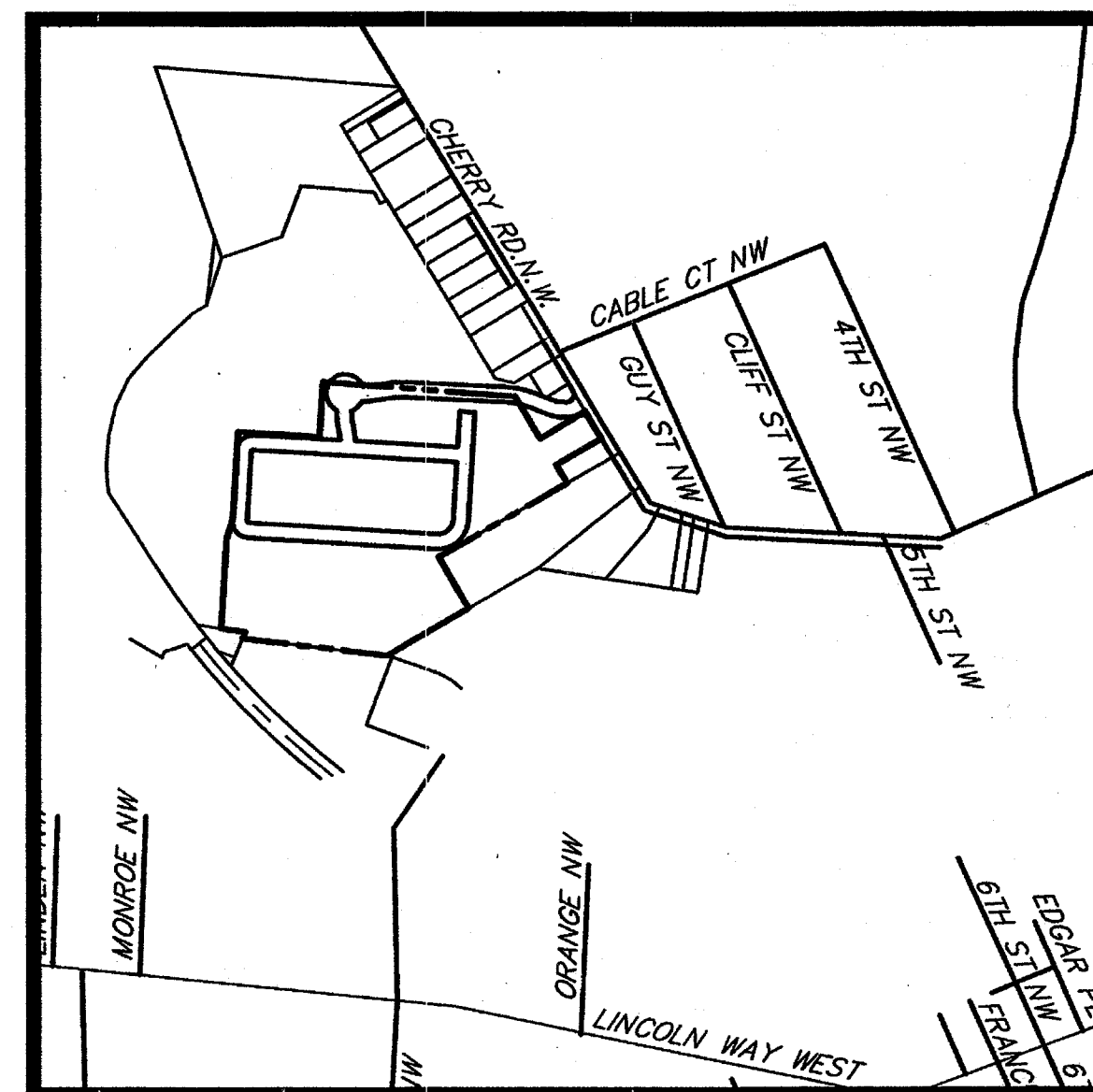
DESIGN ENGINEER:

GBC Design, Inc.

3878 W. Market St. Akron, OH 44333-3386
Phone 330-836-0228 Fax 330-836-5782

DEVELOPER:

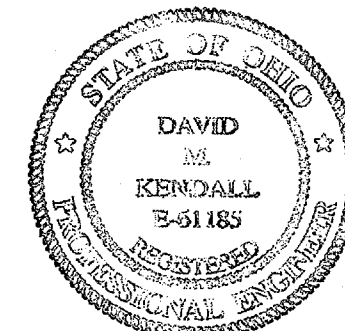
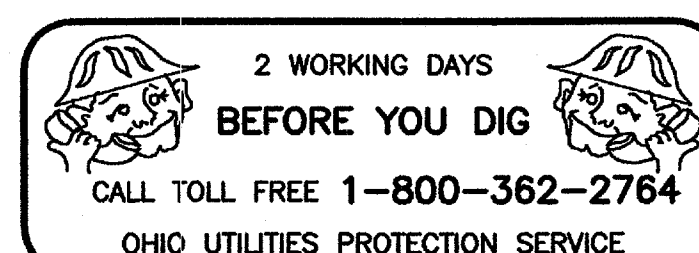
MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44664
PHONE: 330-832-3763
REP.: BENJAMIN GRISEZ



LOCATION MAP



SCALE: 1" = 600'



REVISIONS

- 6/5/2006
- 8/9/2006

SUBMITTED BY: D.M. Kendall
D. MICHAEL KENDALL Reg. Engineer No. 61185

DATE: 8-9-2006

APPROVALS

APPROVED BY: THE MASSILLON CITY ENGINEER this 15th day of AUGUST, 2006

K.E.A. J.C.
MASSILLON CITY ENGINEER

APPROVED BY: AQUA OHIO INC. this ____ day of _____, 20____
SUBJECT TO AGREEMENT WITH AQUA OHIO, INC.

AQUA OHIO INC.

WATER APPROVED BY OHIO EPA LETTER this 26 day of JULY, 2006

SANITARY APPROVED BY OHIO EPA LETTER this ____ day of _____, 20____



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OHIO EPA NEDO

CHERRY SPRINGS No.2 SD-1

380520

06SD04

REVISIONS

6/5/2006
8/9/2006

GBC DESIGN, INC.
3378 West Market St. Akron, OH 44333-3566
Phone 330-536-0225 Fax 330-536-5752

MARION, FRANCIS and THOMAS CO.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44846

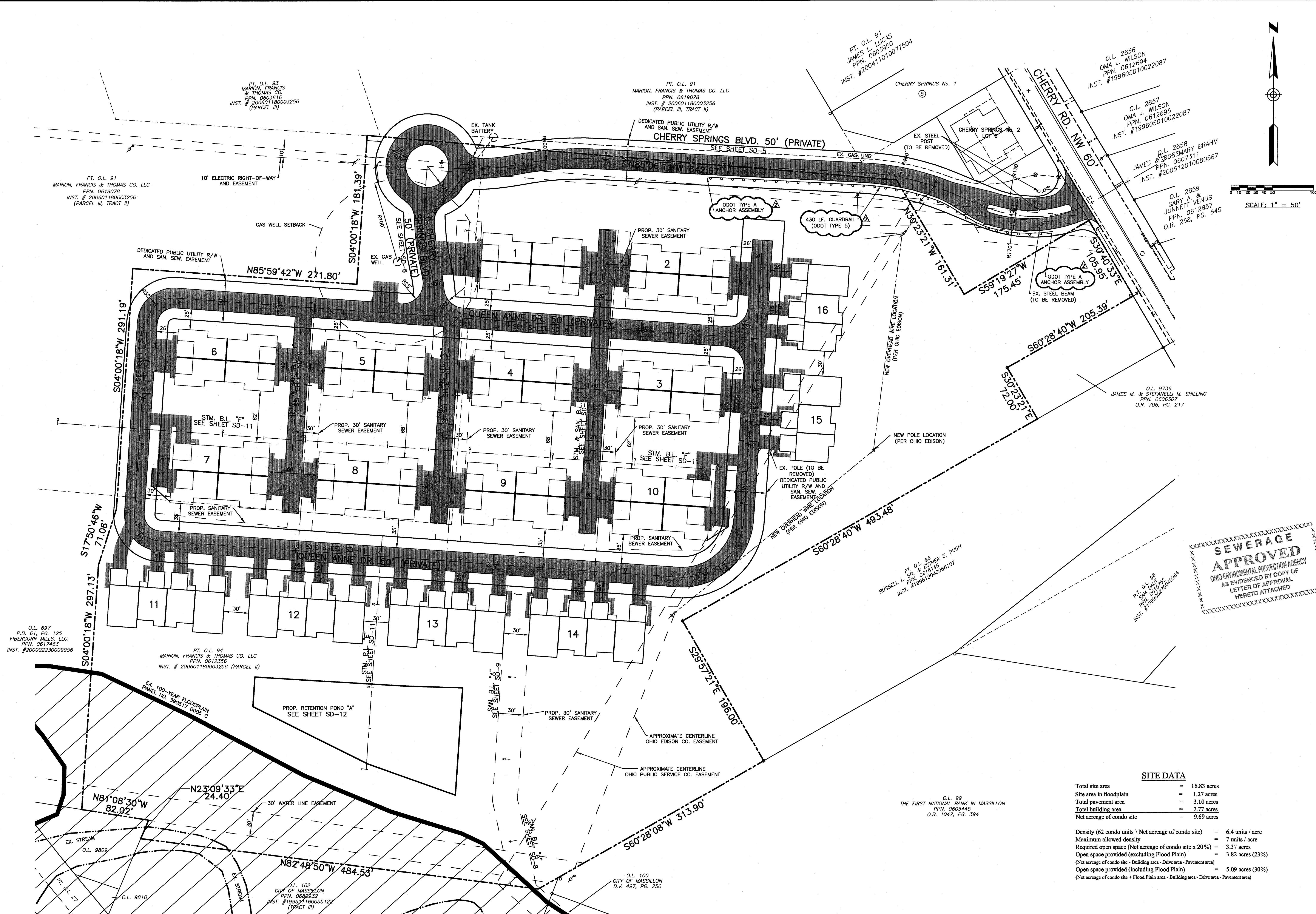
CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
SITE PLAN

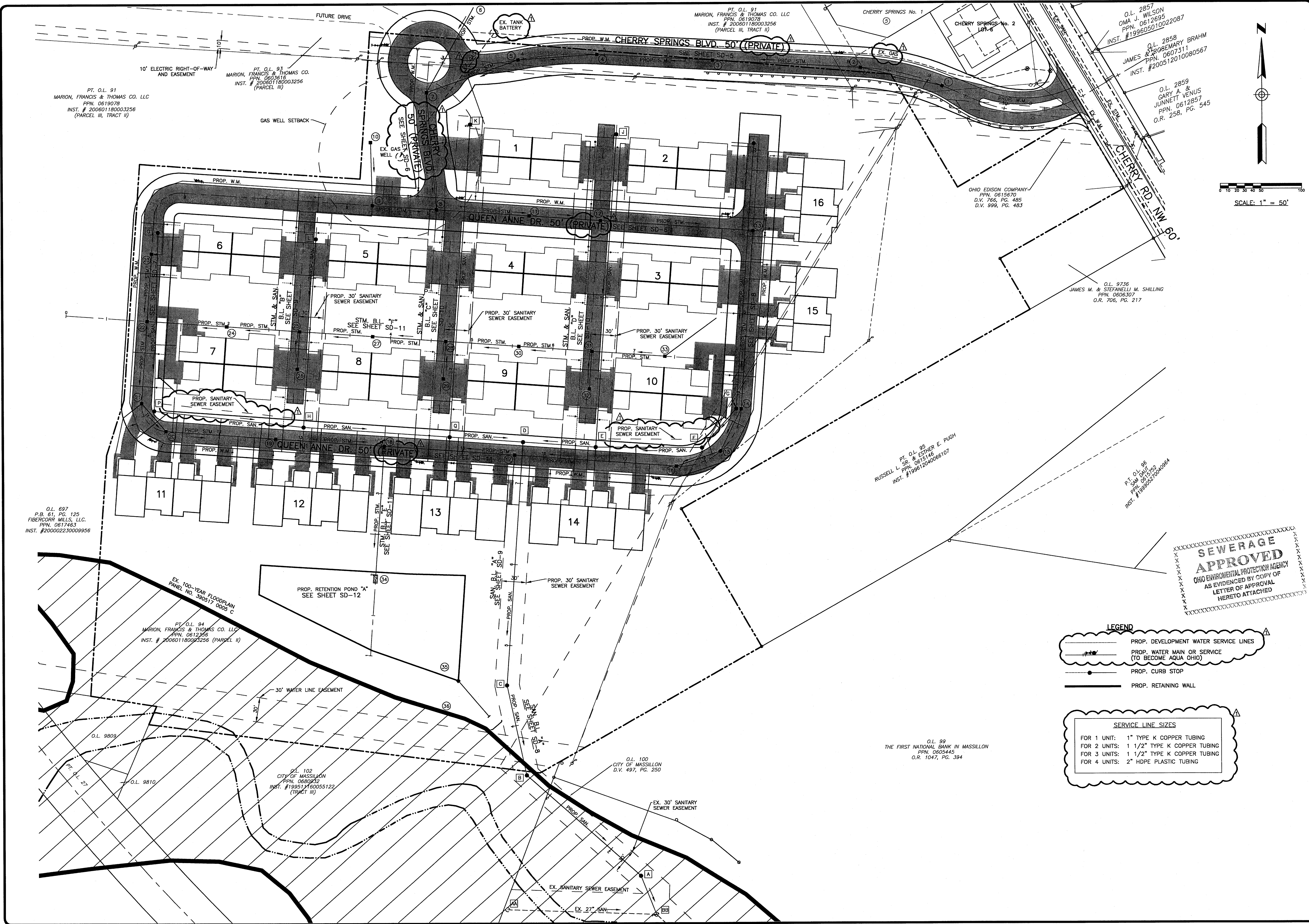
DRAWN BY:
N.L.H.

DATE:
MARCH, 2006

PROJECT NO.
38052D

DRAWING NO.
SD-2





REVISIONS
6/5/2006

MARION, FRANCIS and THOMAS Co.

3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44846

CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO

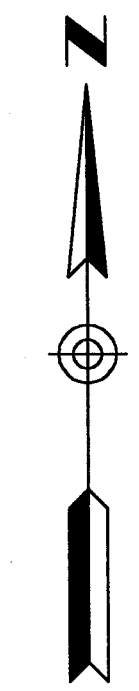
OVERALL UTILITY PLAN

DRAWN BY:
N.L.H.

DATE:
MARCH, 2006

PROJECT NO.
38052D

DRAWING NO.
SD-3

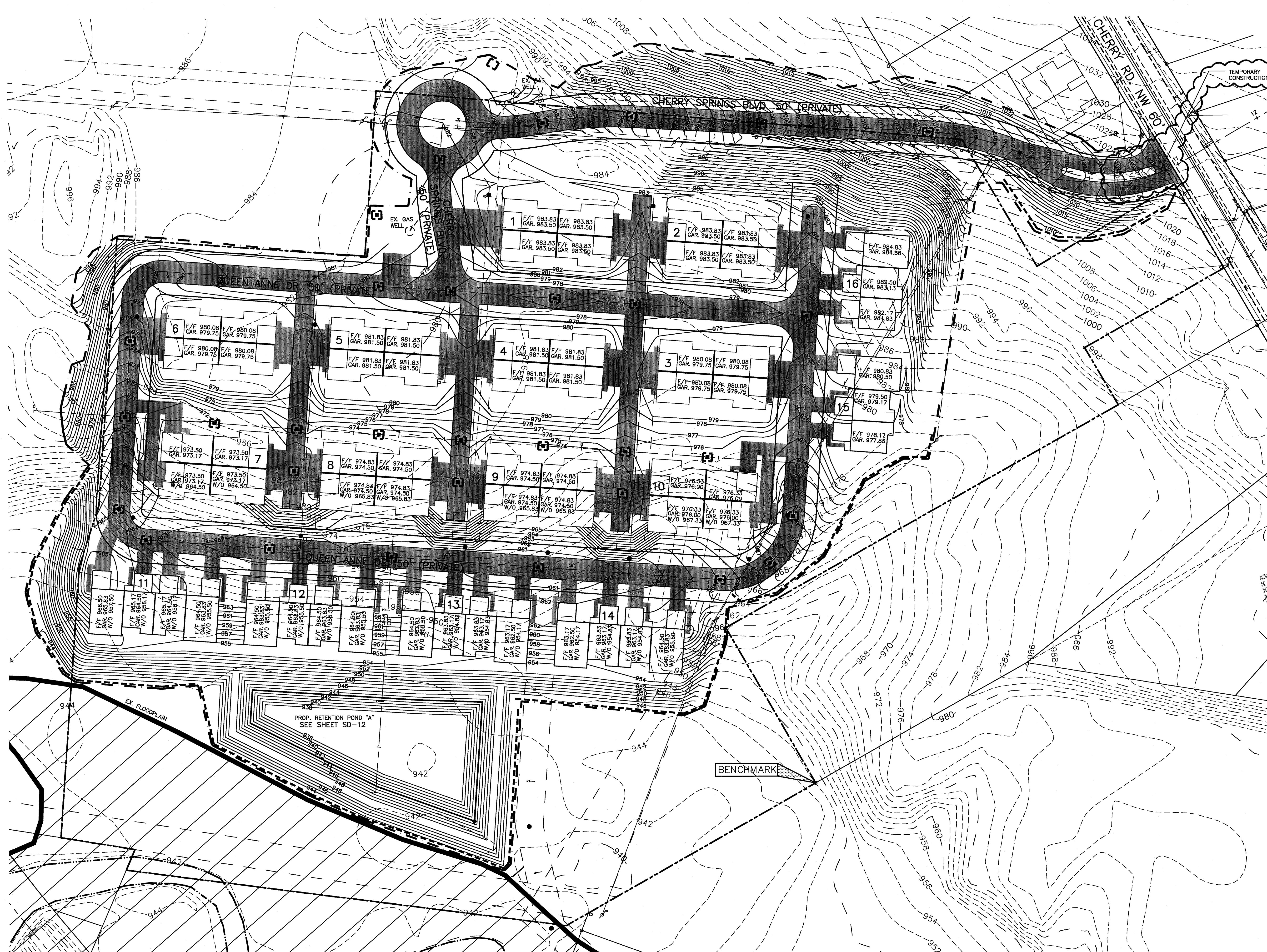


SCALE: 1" = 50'

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

- LEGEND
- PROP. DEVELOPMENT WATER SERVICE LINES
 - PROP. WATER MAIN OR SERVICE (TO BECOME AQUA OHIO)
 - PROP. CURB STOP
 - PROP. RETAINING WALL

- SERVICE LINE SIZES
- FOR 1 UNIT: 1" TYPE K COPPER TUBING
 - FOR 2 UNITS: 1 1/2" TYPE K COPPER TUBING
 - FOR 3 UNITS: 1 1/2" TYPE K COPPER TUBING
 - FOR 4 UNITS: 2" HDPE PLASTIC TUBING



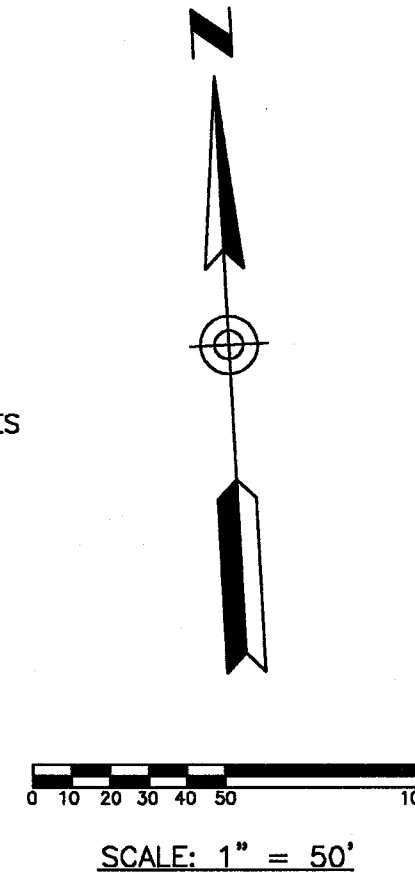
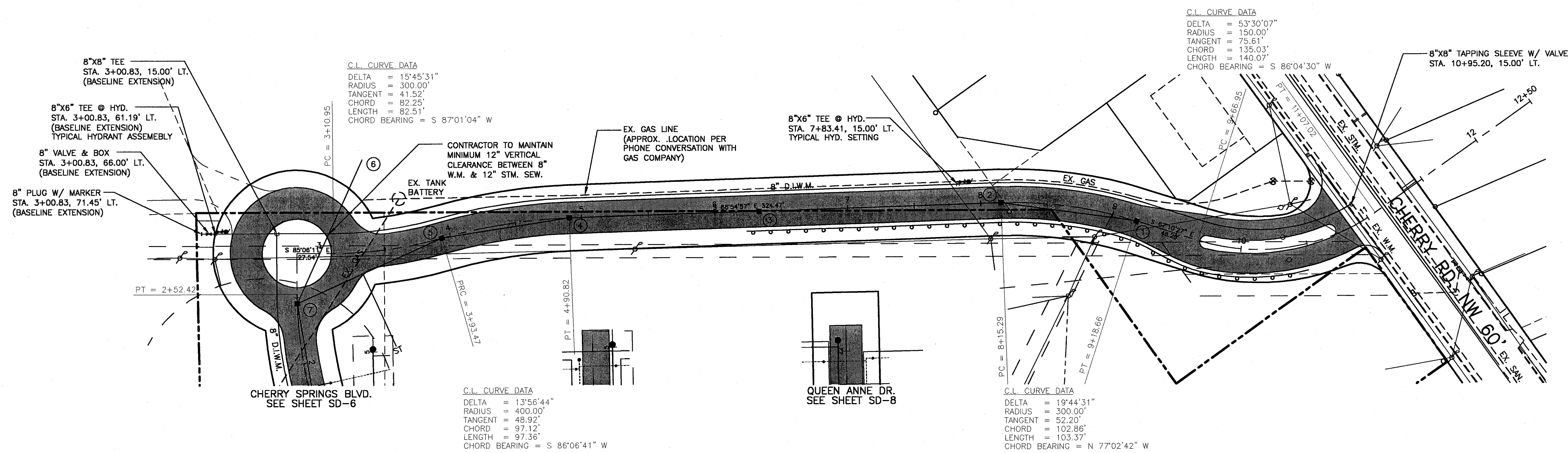
BENCH MARK: STARK COUNTY SECTION CORNER MONUMENT ASSEMBLY FOUND ON NORTH SIDE OF WOOSTER ST. & CARMONT AVE. INTERSECTION.
ELEV. 1027.51

BENCH MARK: TOP OF 5/8" REBAR FOUND AT SOUTHEAST PROPERTY CORNER.
NORTHING = 9716.9330
EASTING = 9743.6474
ELEV. 949.20

- LEGEND**
- PROP. SILT FENCE
 - - - - - LIMIT OF DISTURBANCE
 - ⊞ PROP. SILT FENCE AT INLET
 - - - - - EX. CONTOURS
 - PROP. CONTOURS
 - PROP. RETAINING WALL

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

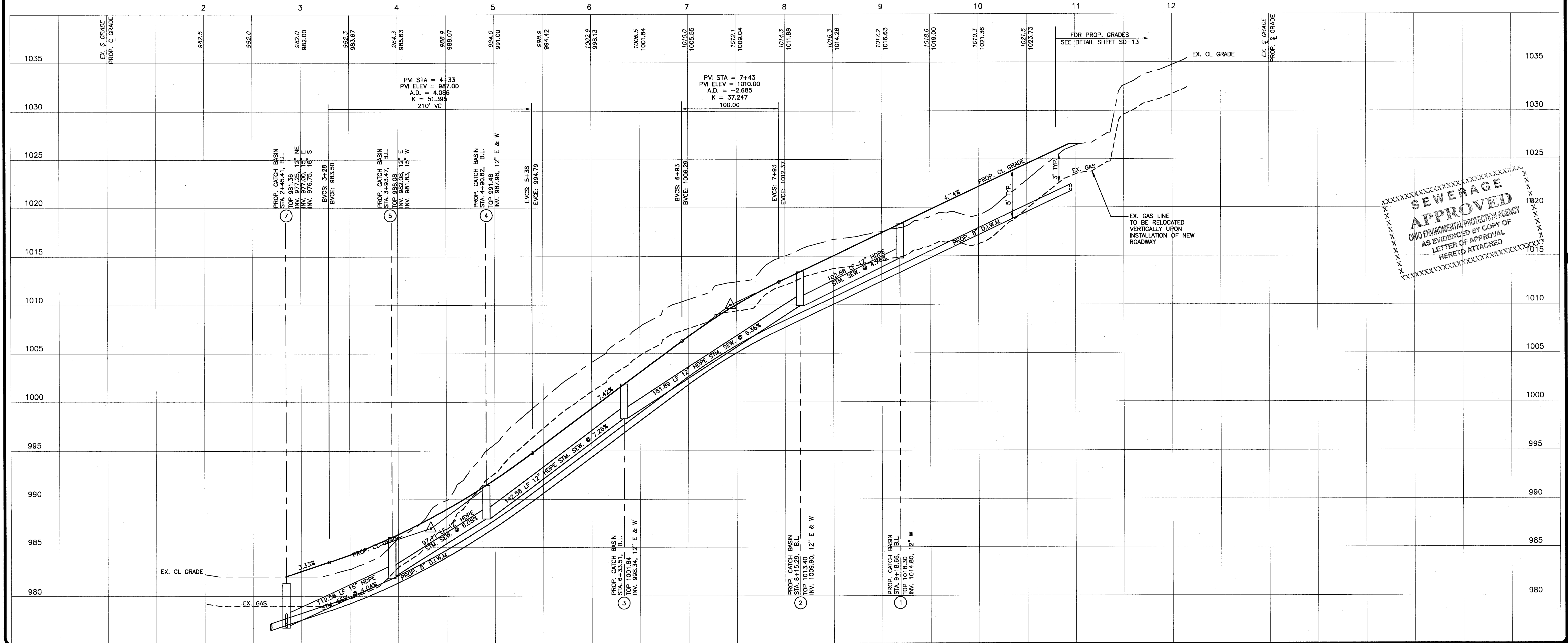
REVISIONS	
6/5/2006	
8/9/2006	
GBC DESIGN, INC. 3878 West Market St. Akron, OH 44333-9986 Phone 330-536-0225 Fax 330-536-3762	
MARION, FRANCIS and THOMAS Co. 3470 WALES ROAD N.W., SUITE A-6213 MASSILLON, OHIO 44646	
CHERRY SPRINGS No. 2 CITY OF MASSILLON STARK COUNTY, OHIO	EARTHWORK AND STORMWATER POLLUTION PREVENTION PLAN
DRAWN BY: N.L.H.	
DATE: MARCH, 2006	
PROJECT NO. 38052D	
DRAWING NO. SD-4	



BENCH MARK: STARK COUNTY SECTION CORNER MONUMENT ASSEMBLY FOUND ON NORTH SIDE OF WOOSTER ST. & CARMONT AVE. INTERSECTION.
 ELEV. 1027.51

BENCH MARK: TOP OF 5/8" REBAR FOUND AT SOUTHEAST PROPERTY CORNER.
 NORTHING = 9716.8330
 EASTING = 9743.6474
 ELEV. 949.20

CHERRY SPRINGS BLVD. 50' (PRIVATE)



REVISIONS
 6/5/2006
 8/9/2006

GBC DESIGN, INC.
 3378 West Market St. Akron, OH 44333-9886
 Phone 330-536-0225 Fax 330-536-5752

MARION, FRANCIS and THOMAS Co.
 3470 WALES ROAD N.W., SUITE A-6213
 MASSILLON, OHIO 44646

CHERRY SPRINGS No. 2
 CITY OF MASSILLON
 STARK COUNTY, OHIO
 CHERRY SPRINGS BLVD.
 STA. 2+00 TO 12+50

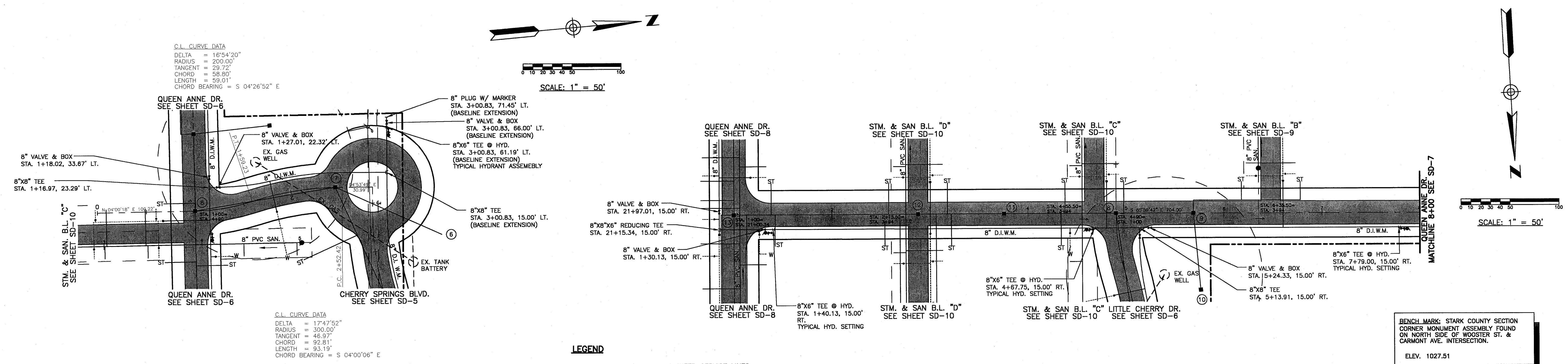
DRAWN BY:
 N.L.H.

DATE:
 MARCH, 2006

PROJECT NO.
 38052D

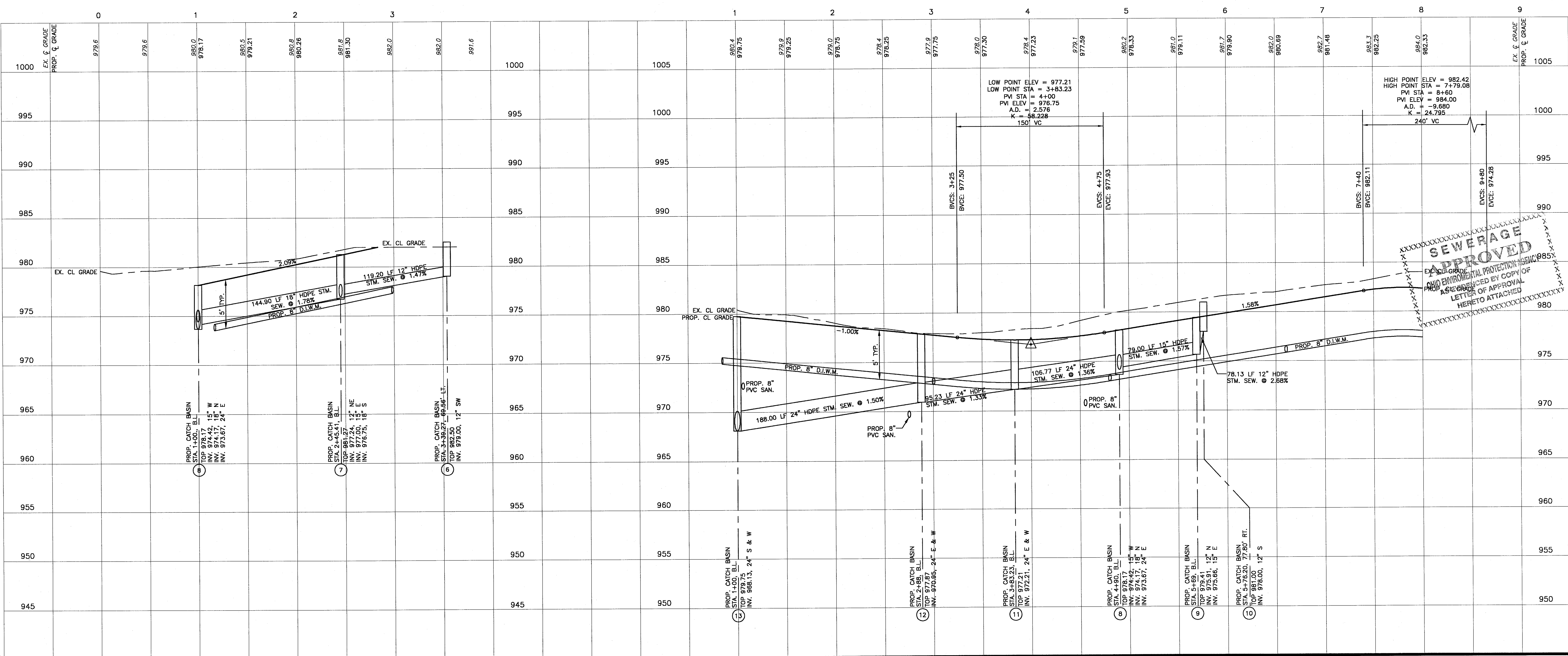
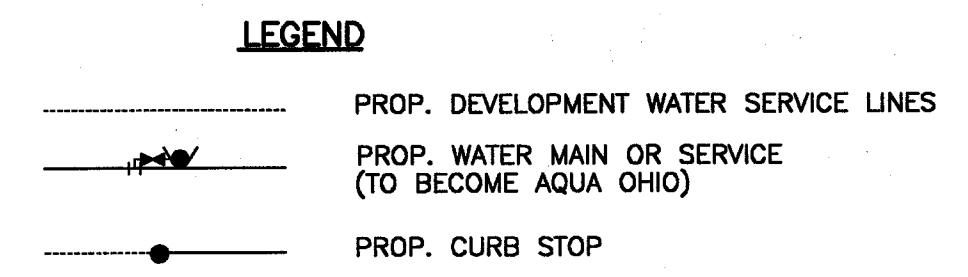
DRAWING NO.
 SD-5

REVISIONS	
6/5/2006	
6/9/2006	



CHERRY SPRINGS BLVD. (PRIVATE)
50' DEDICATED PUBLIC UTILITY R/W
AND SAN. SEW. EASEMENT

QUEEN ANNE DR. (PRIVATE)
50' DEDICATED PUBLIC UTILITY R/W
AND SAN. SEW. EASEMENT



SEWERAGE
APPROVED
BY THE
MASSILLON
ENGINEERING
DIVISION
ON 03/03/06
LETTER OF APPROVAL
HERE TO ATTACHED

GBC DESIGN, INC.
3878 West Market St. Akron, OH 44333-3886
Phone 330-586-0225 Fax 330-586-0762

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44846

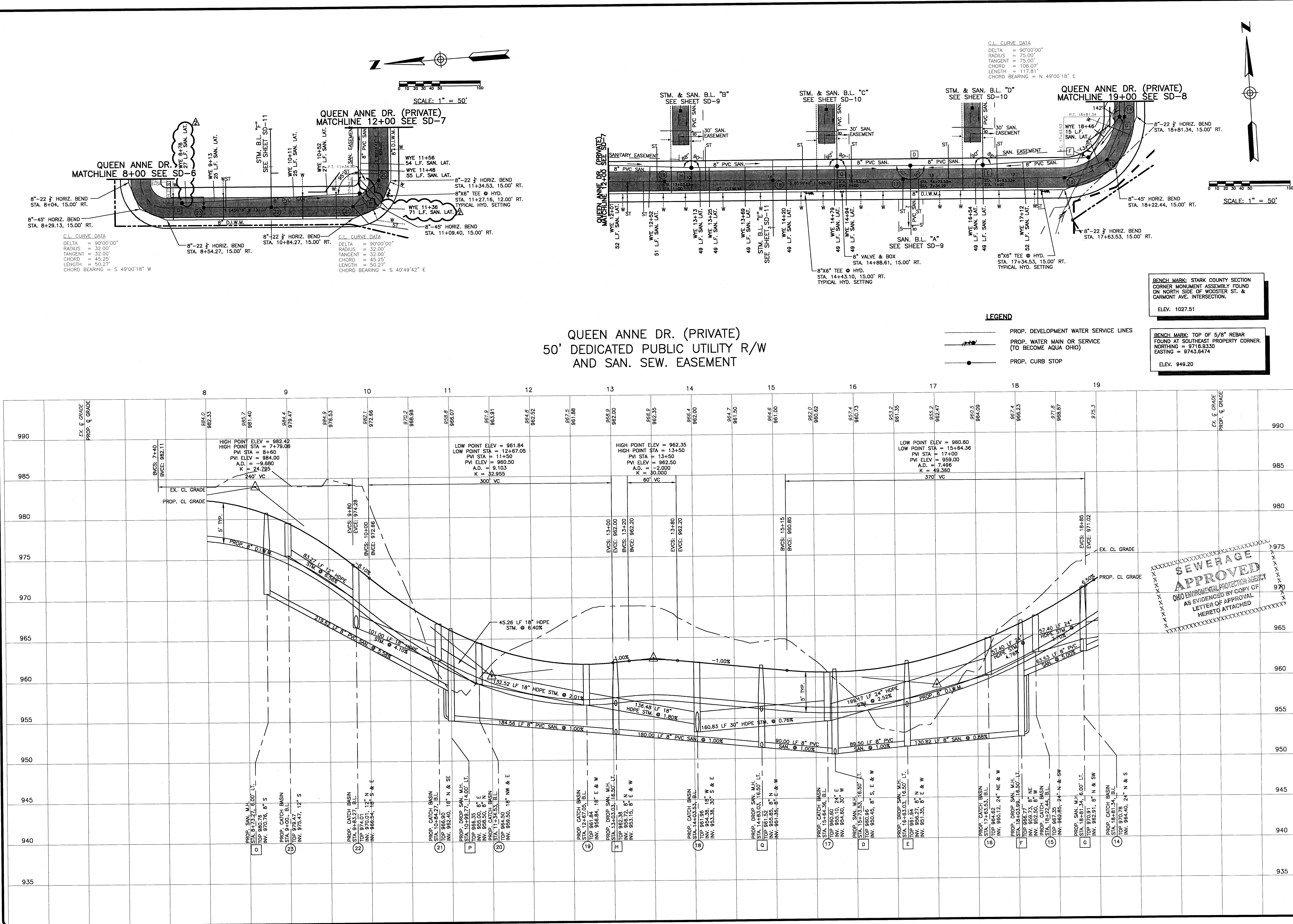
CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
CHERRY SPRINGS BLVD. (STA. 0+00 TO 4+00)
QUEEN ANNE DR. (STA. 1+00 TO 9+00)

DRAWN BY:
N.L.H.

DATE:
MARCH, 2006

PROJECT NO.
38052D

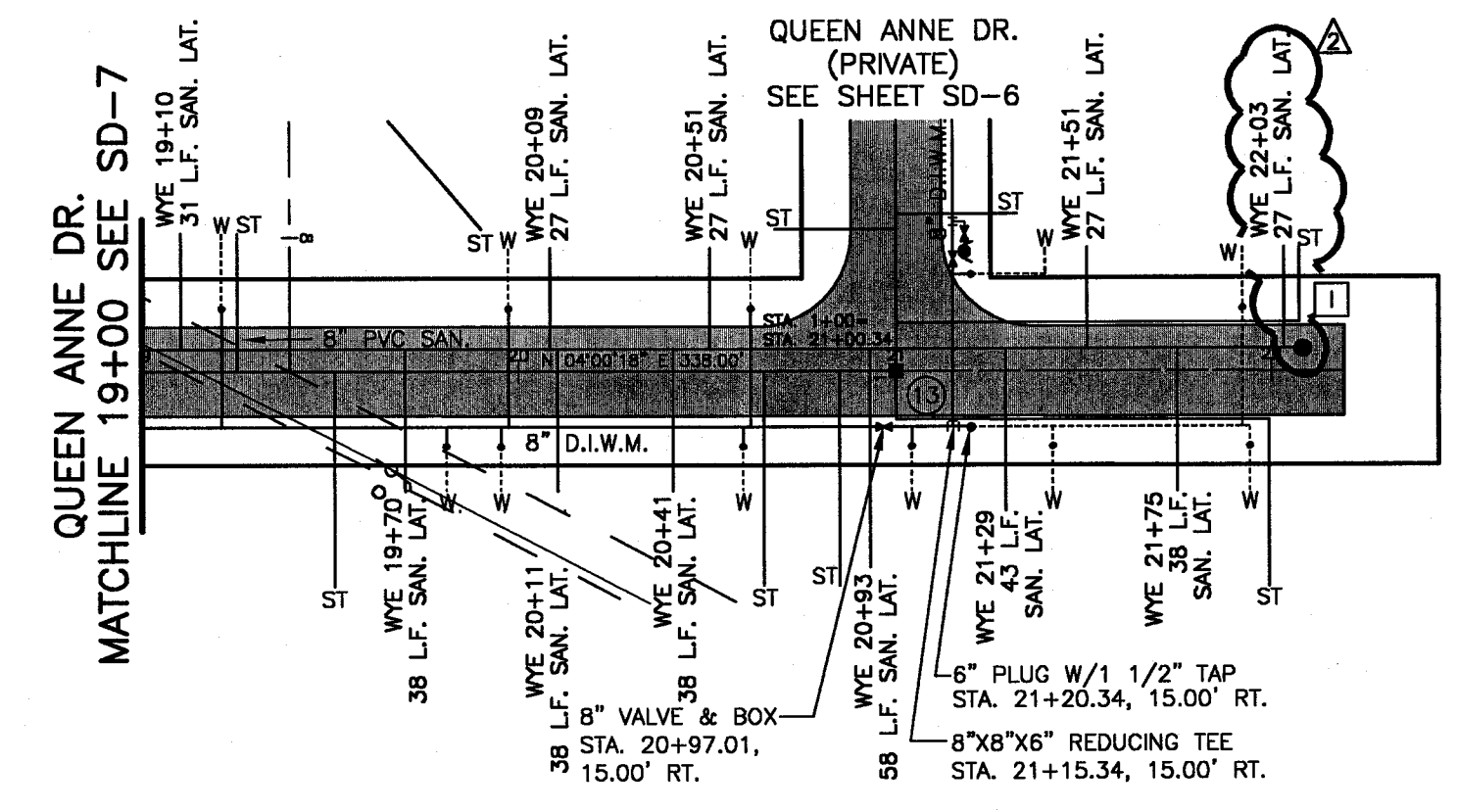
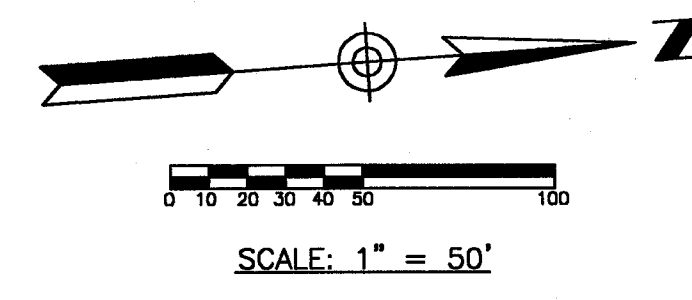
DRAWING NO.
SD-6



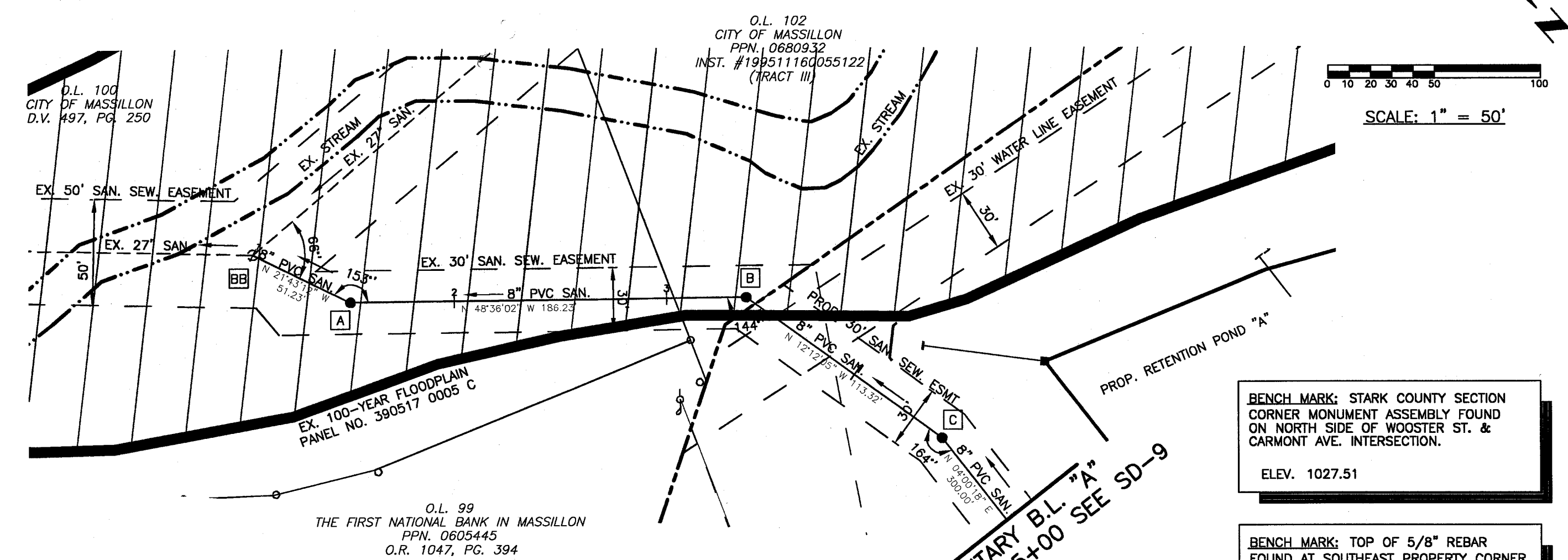
REVISIONS	
△	6/5/2006
△	8/9/2006

LEGEND

- PROP. DEVELOPMENT WATER SERVICE LINES
- PROP. WATER MAIN OR SERVICE (TO BECOME AQUA OHIO)
- PROP. CURB STOP



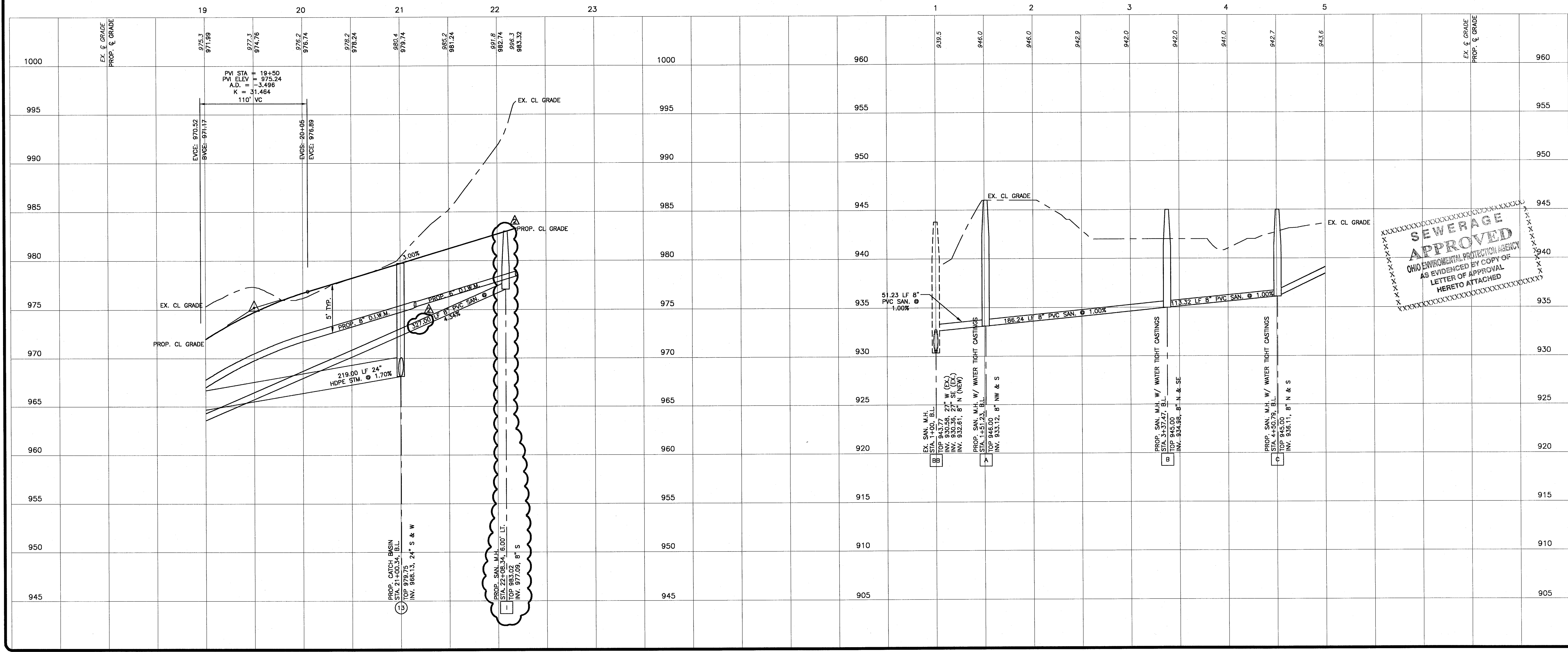
QUEEN ANNE DR. 50' (PRIVATE)
50' DEDICATED PUBLIC UTILITY R/W
AND SAN. SEW. EASEMENT



SANITARY BASELINE "A" MATCHLINE 5+00 SEE SD-9

BENCH MARK: STARK COUNTY SECTION CORNER MONUMENT ASSEMBLY FOUND ON NORTH SIDE OF WOOSTER ST. & CARMONT AVE. INTERSECTION.
ELEV. 1027.51

BENCH MARK: TOP OF 5/8" REBAR FOUND AT SOUTHEAST PROPERTY CORNER.
NORTHING = 9716.9330
EASTING = 9743.6474
ELEV. 949.20



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

GBC DESIGN, INC.
3378 West Market St. Akron, OH 44333-9986
Phone 330-536-0226 Fax 330-536-3782

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44646

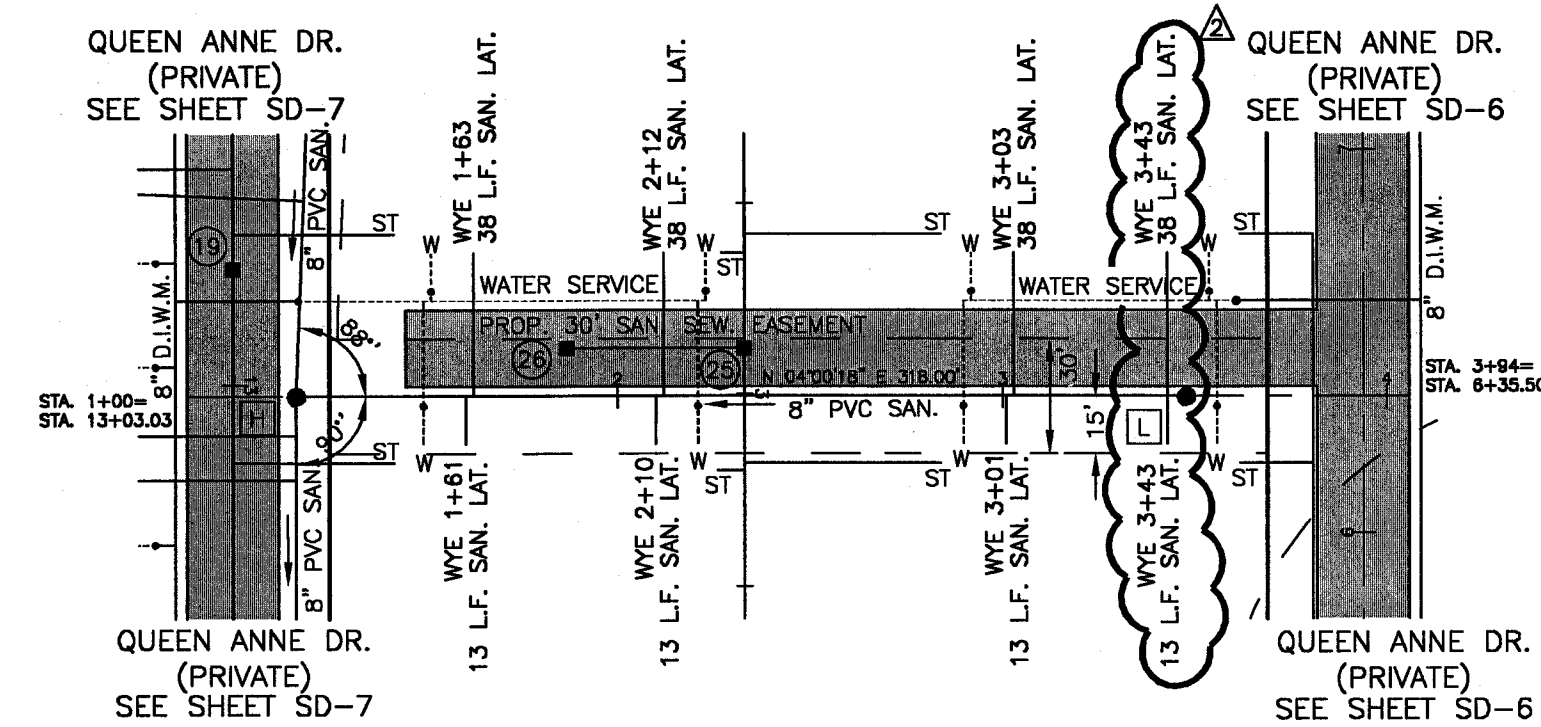
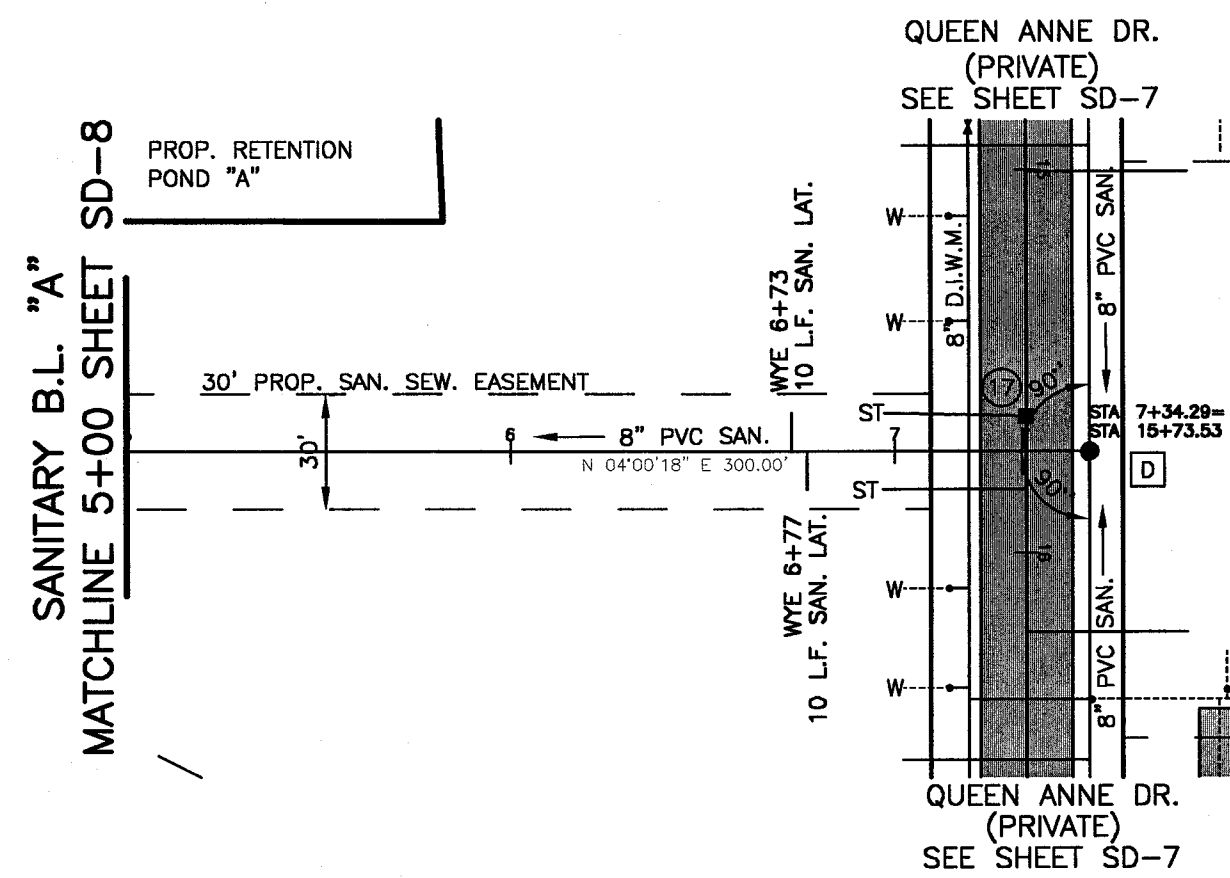
CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
QUEEN ANNE DR. (STA. 19+00 TO 23+00)
SANITARY B.L. "A" (STA. 1+00 TO 5+00)

DRAWN BY:
N.L.H.

DATE:
MARCH, 2006

PROJECT NO.
38052D

DRAWING NO.
SD-8

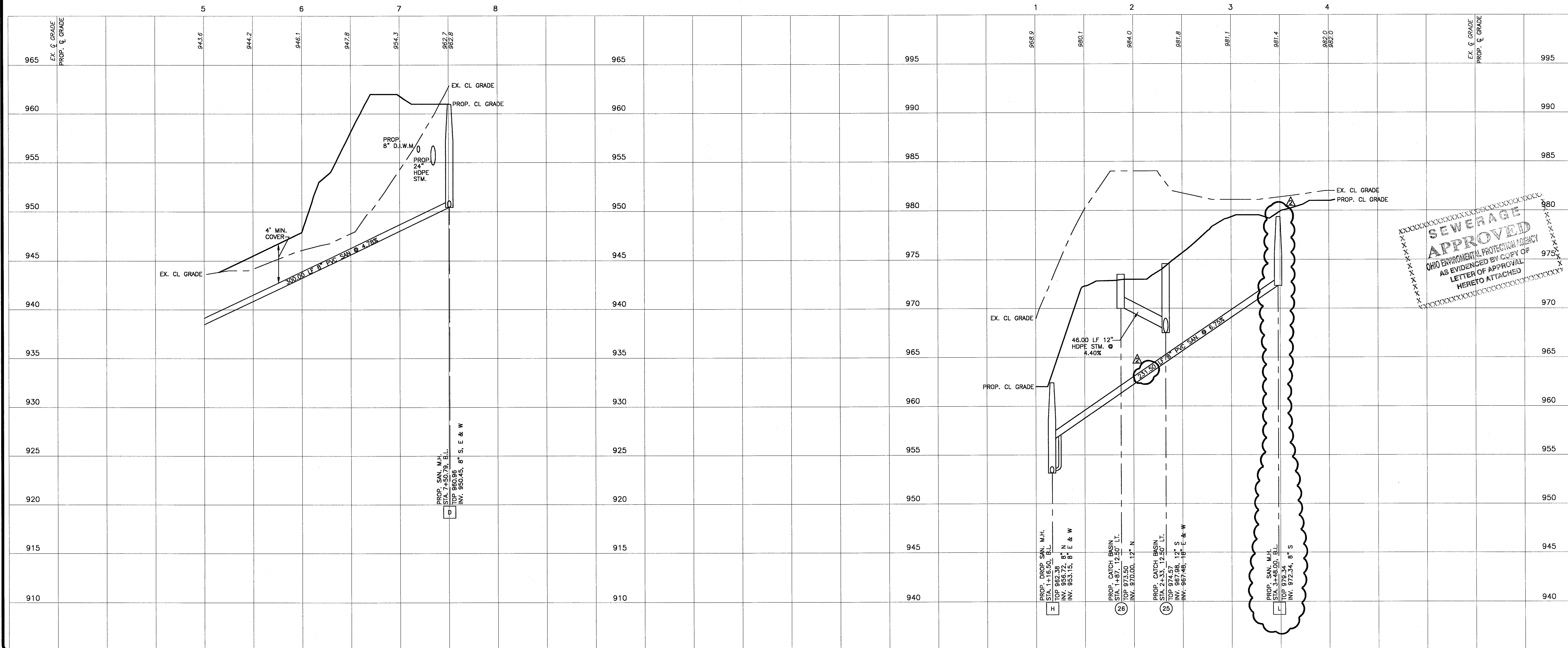


BENCH MARK: STARK COUNTY SECTION
CORNER MONUMENT ASSEMBLY FOUND
ON NORTH SIDE OF WOOSTER ST. &
CARMONT AVE. INTERSECTION.
ELEV. 1027.51

BENCH MARK: TOP OF 5/8" REBAR
FOUND AT SOUTHEAST PROPERTY CORNER.
NORTHING = 9716.9330
EASTING = 9743.6474
ELEV. 949.20

SANITARY BASELINE "A"

STORM & SANITARY BASELINE "B"



REVISIONS

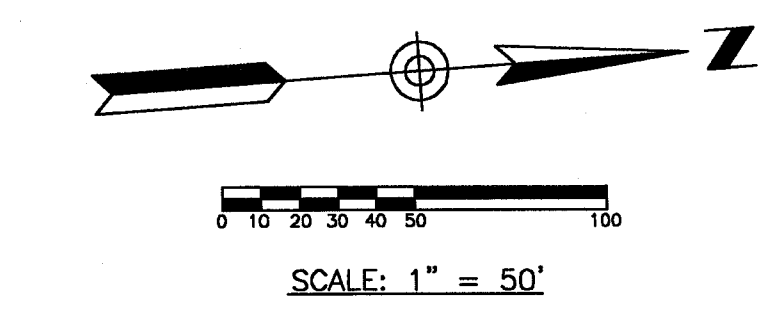
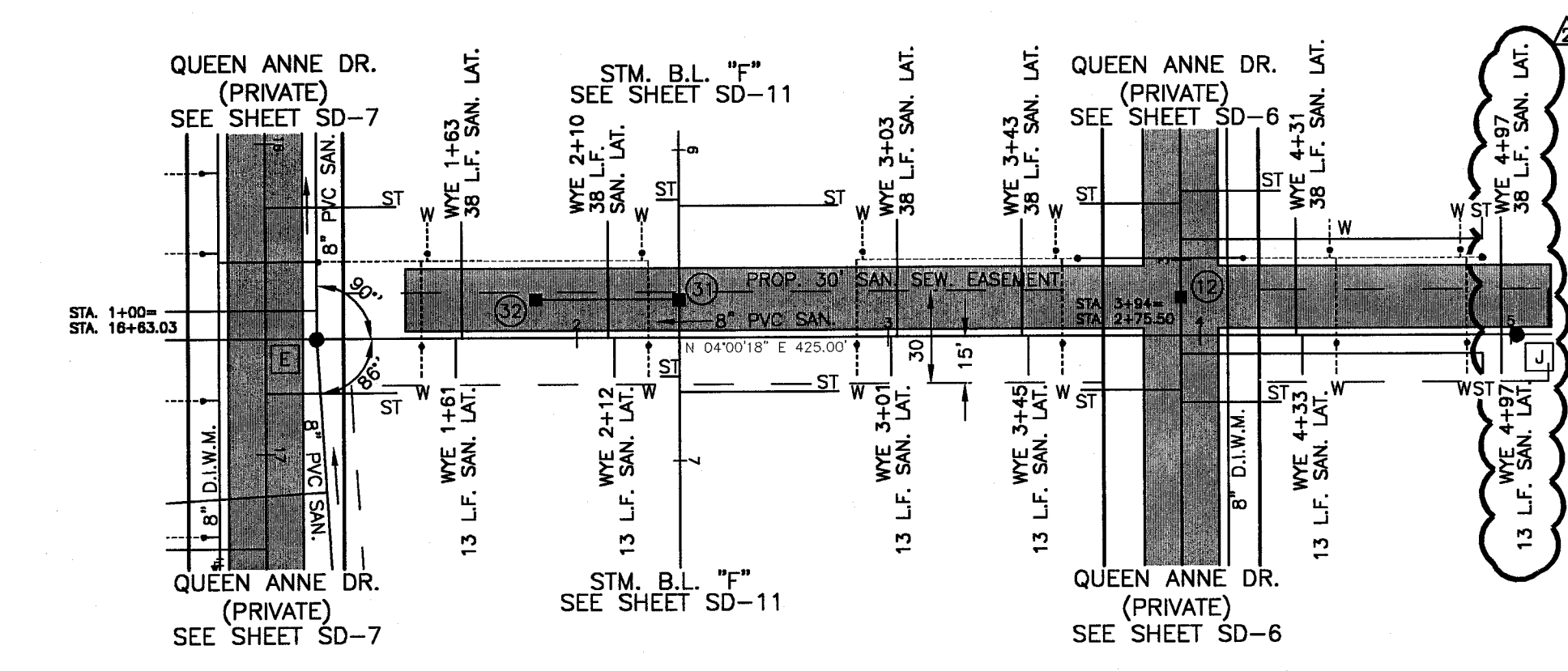
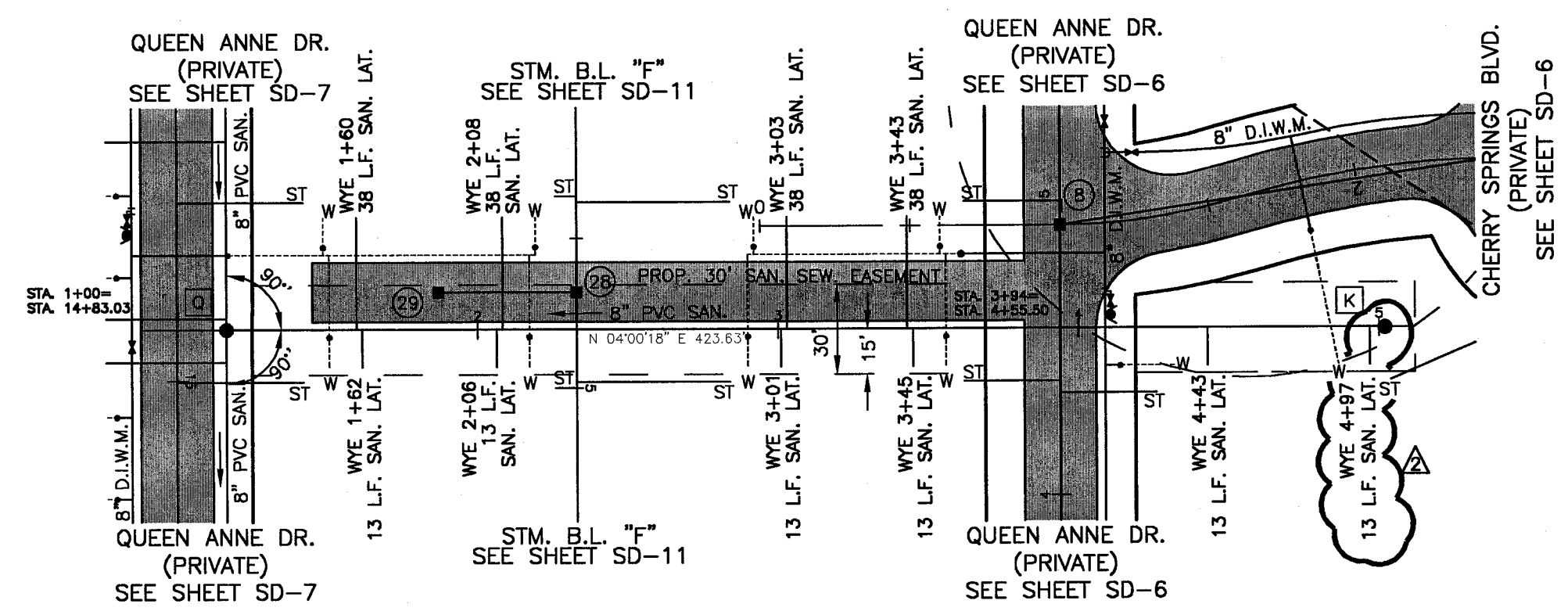
6/5/2006
8/9/2006

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3876 West Market St. Akron, OH 44332-3886
Phone 330-536-0228 Fax 330-536-5762

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W. SUITE A-6213
MASSILLON, OHIO 44646

CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
SANITARY B.L. "A" (STA. 5+00 TO 8+00)
STORM & SANITARY B.L. "B" (STA. 1+00 TO 4+00)

DRAWN BY:
N.L.H.
DATE:
MARCH, 2006
PROJECT NO.
380520
DRAWING NO.
SD-9

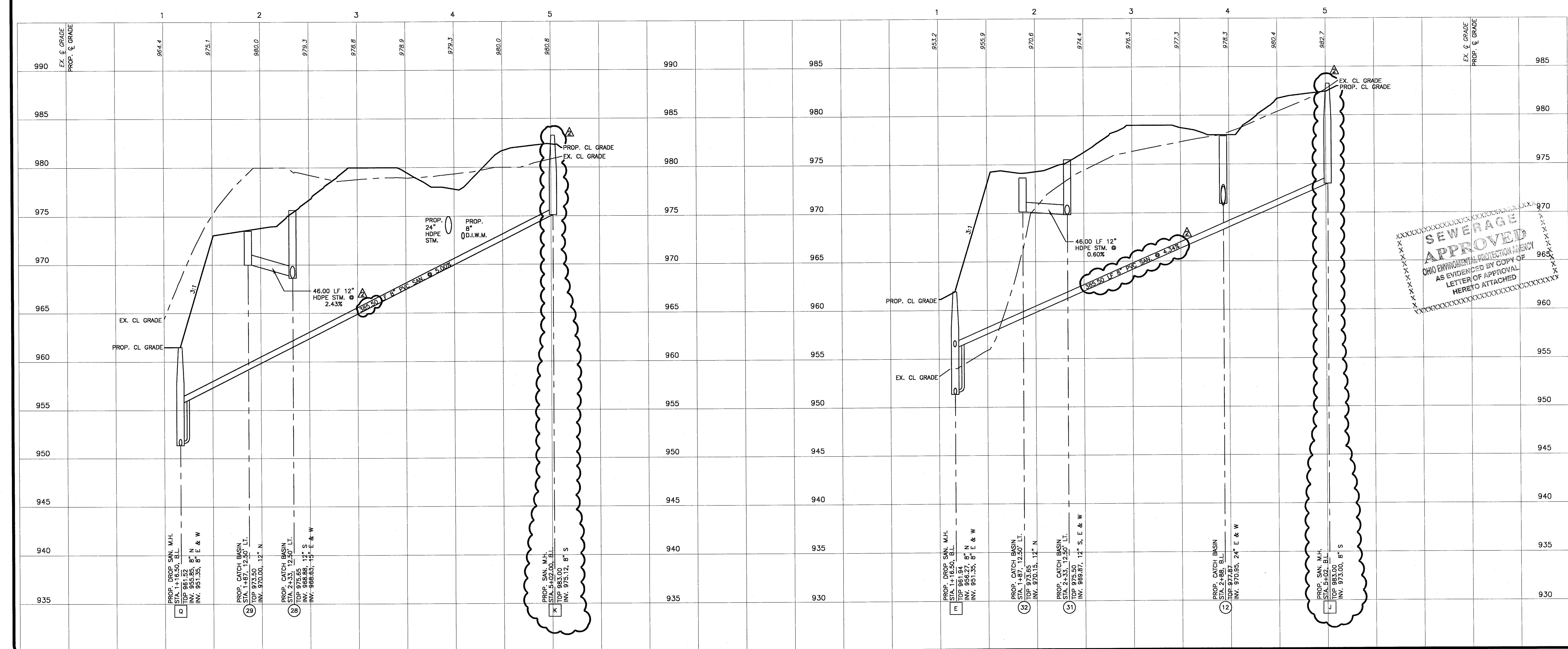


BENCH MARK: STARK COUNTY SECTION CORNER MONUMENT ASSEMBLY FOUND ON NORTH SIDE OF WOOSTER ST. & CARMONT AVE. INTERSECTION.
ELEV. 1027.51

BENCH MARK: TOP OF 6/8" REBAR FOUND AT SOUTHEAST PROPERTY CORNER.
NORTHING = 9716.9330
EASTING = 9743.6474
ELEV. 949.20

STORM & SANITARY BASELINE "C"

STORM & SANITARY BASELINE "D"



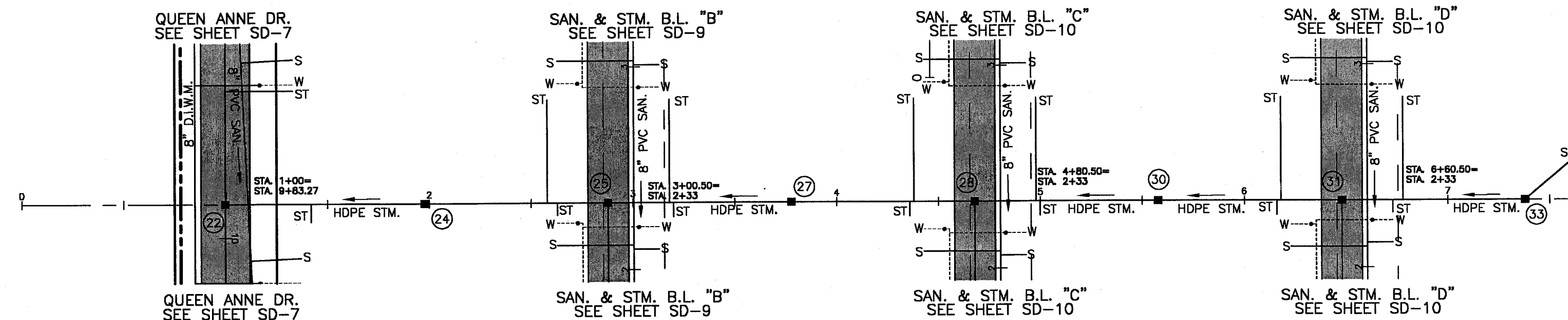
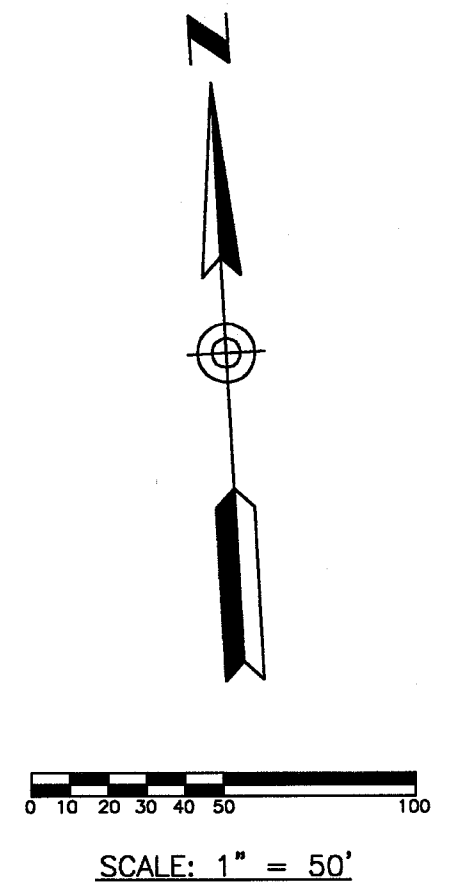
REVISIONS
6/5/2006
8/9/2006

GBC DESIGN, INC.
3878 West Market St. Akron, OH 44303-9886
Phone 330-556-0225 Fax 330-556-0782

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44646

CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
STORM & SANITARY B.L. "C" (STA. 1+00 TO 5+00)
STORM & SANITARY B.L. "D" (STA. 1+00 TO 5+00)

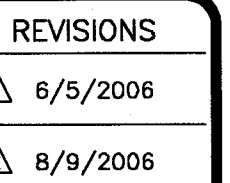
DRAWN BY:
N.L.H.
DATE:
MARCH, 2006
PROJECT NO.
38052D
DRAWING NO.
SD-10



BENCH MARK: TOP OF 5/8" REBAR
FOUND AT SOUTHEAST PROPERTY CORNER.
NORTHING = 9716.9330
EASTING = 9743.6474

ELEV. 949.20

STORM BASELINE "F"



GBC DESIGN, INC.
3378 West Market St. Akron, OH 44398-3886
Phone 330-836-0228 Fax 330-836-5782

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44646

CHERRY SPRINGS NO. 2
CITY OF MASSILLON
STARK COUNTY, OHIO

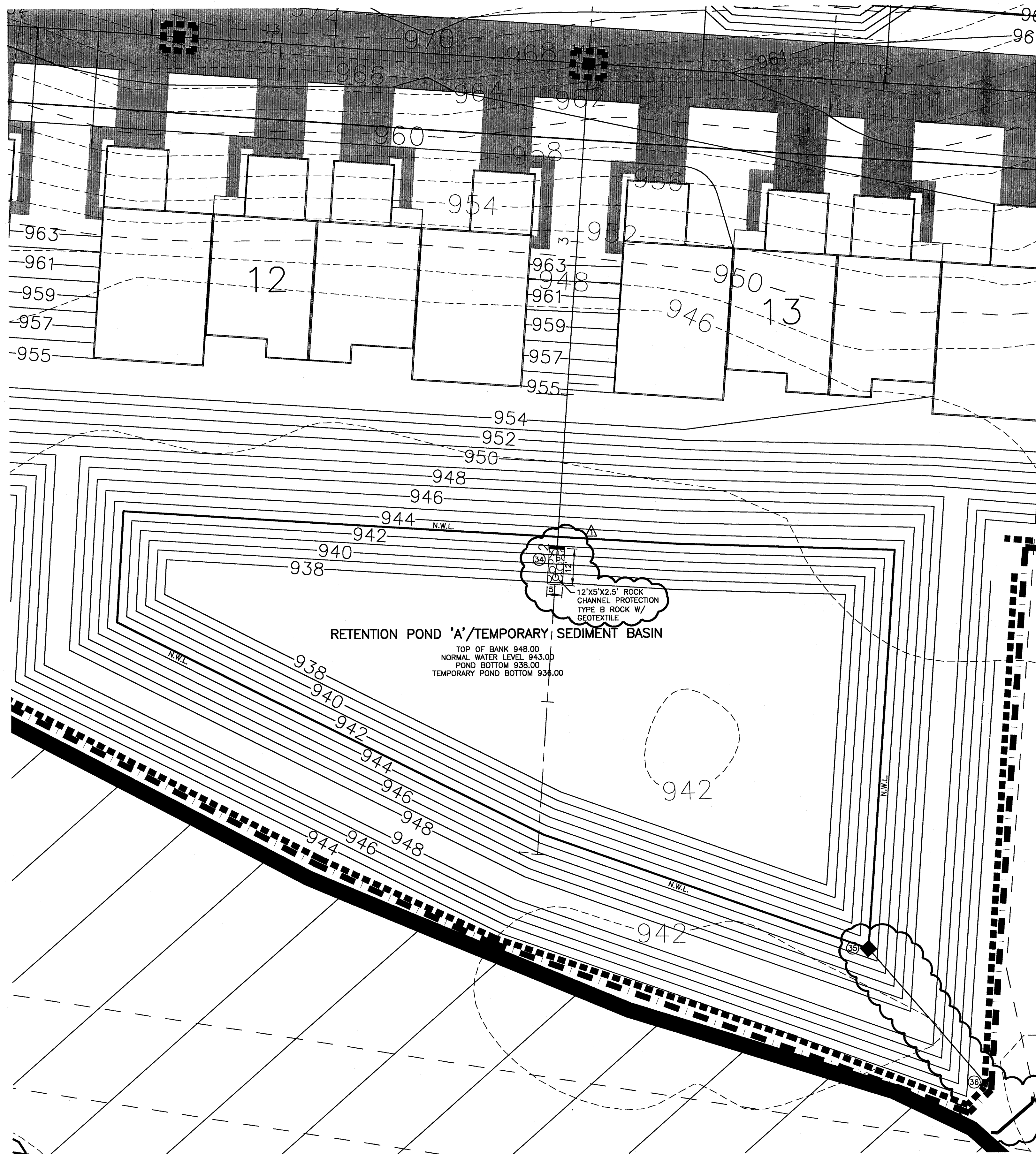
STORM B.L. "E"	(STA. 1+00 TO 4+00)
STORM B.L. "F"	(STA. 1+00 TO 8+00)

DRAWN BY:
N.L.H

DATE:
MARCH, 2006

PROJECT NO.
38052D

DRAWING NO.
SD-11



RETENTION POND 'A'/TEMPORARY SEDIMENT BASIN

TOP OF BANK 948.00
NORMAL WATER LEVEL 943.00
POND BOTTOM 936.00
TEMPORARY POND BOTTOM 936.00

STORM SEWER STRUCTURES

- 35 OUTLET STRUCTURE (ODOT 2-3 CB)
TOP 946.50
INV. 943.00, 3" N (ORIFICE)
INV. 943.00, 24" N (ORIFICE)
INV. 943.00, 24" N
- 36 ODOT HW-2.1 W/ LEVEL SPREADER
INV. 942.42, 24" N

FROM	TO	LENGTH	SIZE	SLOPE	TYPE
35	36	57.84 L.F.	24"	1.00%	HDPE



EROSION CONTROL

EROSION CONTROL NOTES:

- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL MEET RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION 1996.
- ALL EROSION CONTROL ITEMS SHALL BE INSTALLED BEFORE ANY CLEARING OR CONSTRUCTION BEGINS.
- SILT FENCES ARE TO BE CONSTRUCTED ON THE OUTSIDE OF ALL FILL AREAS AND AROUND TOPSOIL STOCKPILES WITHIN 7 DAYS OF DISTURBANCE.
- SILT FENCES ARE TO BE CONSTRUCTED IN FRONT OF OR AROUND ALL STORM SEWER INLETS, HEADWALLS AND PIPE OUTLETS BEFORE PAVING. STRAW BALES OR INLET PROTECTION SHALL BE PLACED AROUND ALL INLETS AFTER PAVING UNTIL UPLAND AREAS ARE STABILIZED.
- ALL AREAS AT FINAL GRADE OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR 21 DAYS OR LONGER SHALL BE STABILIZED WITHIN 7 DAYS OF LAST ACTIVITY. THESE AREAS MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING AND MULCHING APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.
- PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH ODOT ITEM 659.
- THE HOME BUILDER IS RESPONSIBLE FOR EROSION CONTROL ON EACH LOT.
- DITCH OR SWALES WITH GRADES GREATER THAN 1.5% AND SLOPES WITH GRADES GREATER THAN OR EQUAL TO 6% SHALL HAVE EROSION CONTROL BLANKETS INSTALLED.
- OTHER EROSION CONTROL MEASURES MAY BE NECESSARY DUE TO SITE OR ENVIRONMENTAL CONDITIONS.
- ALL EROSION CONTROL MEASURES MUST REMAIN FUNCTIONAL UNTIL UPLAND AREAS ARE STABILIZED.
- AREAS LIKELY TO REMAIN DORMANT OVER WINTER MUST BE STABILIZED BEFORE THE ONSET OF WINTER WEATHER.
- DISTURBED AREAS ARE NOT CONSIDERED STABLE UNTIL THE VEGETATIVE GROWTH DENSITY IS AT LEAST 70%.
- DISTURBED AREA WITHIN 50 FEET OF A STREAM MUST BE STABILIZED WITHIN 2 DAYS OF LAST DISTURBANCE.
- AREAS AT FINAL GRADE MUST BE STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE.
- REGULAR INSPECTION AND MAINTENANCE MUST BE PROVIDED FOR ALL EROSION CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.50 INCHES IN A 24 HOUR PERIOD. INSPECTION RECORDS MUST CONTAIN NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE AND CORRECTIVE ACTION TAKEN.
- OFF-SITE VEHICLE TRACKING OF SEDIMENT SHALL BE MINIMIZED. A 24" X 50' GRAVEL DRIVE APPROACHES SHALL BE INSTALLED AND MAINTAINED AS A TEMPORARY CONSTRUCTION ENTRANCE.
- NO SOLID, LIQUID OR TOXIC WASTE SHALL BE DISCHARGED IN THE STORM SEWER RUNOFF. WASTE SHALL BE DISPOSED BY THE CONTRACTOR, OFF SITE, IN AN APPROVED WASTE DISPOSAL AREA.
- THE SEDIMENT BASINS SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE IF NECESSARY.
- SEDIMENT BASINS SHALL BE SEEDED IMMEDIATELY UPON COMPLETION PER O.D.O.T. 659.
- THE STORM WATER POND SHALL BE CONSTRUCTED AND ALL TEMPORARY SEDIMENT CONTROL MODIFICATIONS SHALL BE OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
- THE POND SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.
- DURING SITE CONSTRUCTION, SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-HALF THE POND'S ORIGINAL DEPTH OR AS INDICATED ON THE PLANS.
- FINAL REMOVAL - TEMPORARY STRUCTURES OR MODIFICATIONS USED FOR SEDIMENT CONTROL DURING CONSTRUCTION SHALL BE REMOVED ONLY AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED.
- SEDIMENT SHALL BE REMOVED AS NEEDED TO ACHIEVE THE DESIGN DEPTH AND DIMENSIONS OF THE PERMANENT POND.
- A PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE EARTH-MOVING BEGINS. CONTACT THE STARK SOIL AND WATER CONSERVATION DISTRICT AT (330)-830-7700.
- UPON REMOVAL OF TEMP. SEDIMENT TRAP STRUCTURES, SEDIMENT MUST BE REMOVED FROM THE PERMANENT POOL OF WATER WHEN IT HAS FILLED ONE-HALF POOL OF WATER'S ORIGINAL DEPTH.
- WINTERIZATION - ANY DISTURBED AREA THAT IS NOT GOING TO BE WORKED FOR 21 DAYS OR MORE MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.

SCALE: 1" = 20'

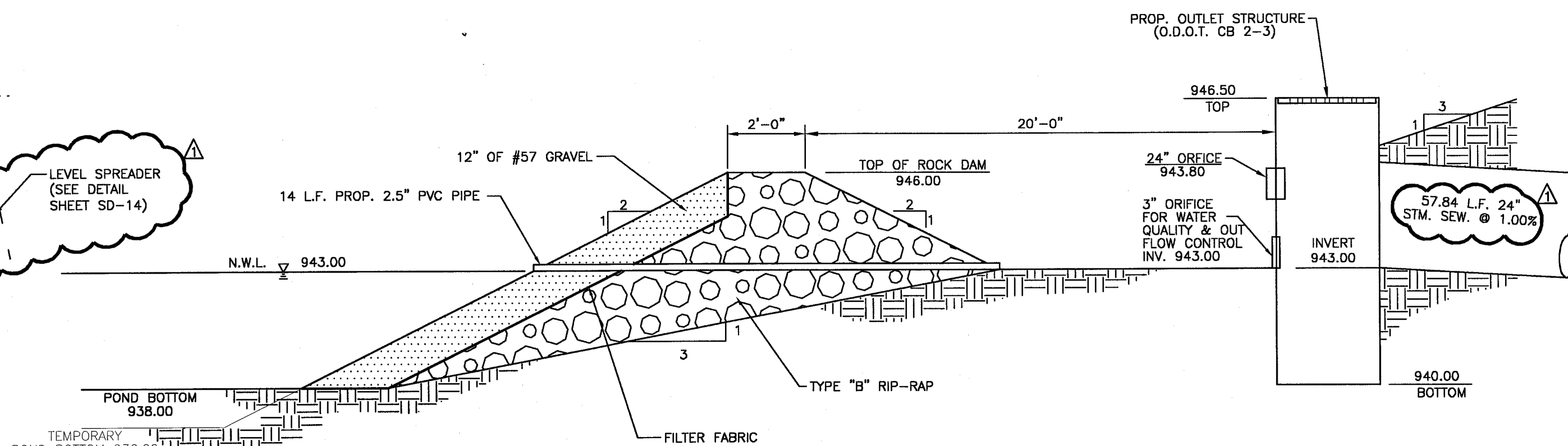
BENCH MARK: STARK COUNTY SECTION CORNER MONUMENT ASSEMBLY FOUND ON NORTH SIDE OF WOOSTER ST. & CARMONT AVE. INTERSECTION.
ELEV. 1027.51

BENCH MARK: TOP OF 5/8" REBAR FOUND AT SOUTHEAST PROPERTY CORNER.
NORTHING = 9716.9330
EASTING = 9743.6474
ELEV. 949.20

LEGEND

- SILT FENCE SEE SHEET 15
- - - - - TEMPORARY DIVERSION CHANNEL SEE SHEET 15
- - - - - LIMIT OF DISTURBANCE
- - - - - EXISTING CONTOURS
- 00000 EARTHWORK CONTOURS

CONTRACTOR SHALL BE RESPONSIBLE FOR COMPACTING ALL AREAS OF FILL WITHIN LIMITS OF POND GRADING. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH O.D.O.T. ITEM 203.



TEMPORARY ROCK DAM & OUTLET STRUCTURE SECTION A-A

NO SCALE

NOTE: WATER QUALITY ORIFICE PROVIDED FOR POST-DEVELOPED WATER QUALITY FOR RETENTION POND.

REVISIONS

8/9/2006

GBC DESIGN, INC.
3878 West Market St. Akron, OH 44332-3886
Phone 330-586-0225 Fax 330-586-0762

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44646

CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
RETENTION POND "A"

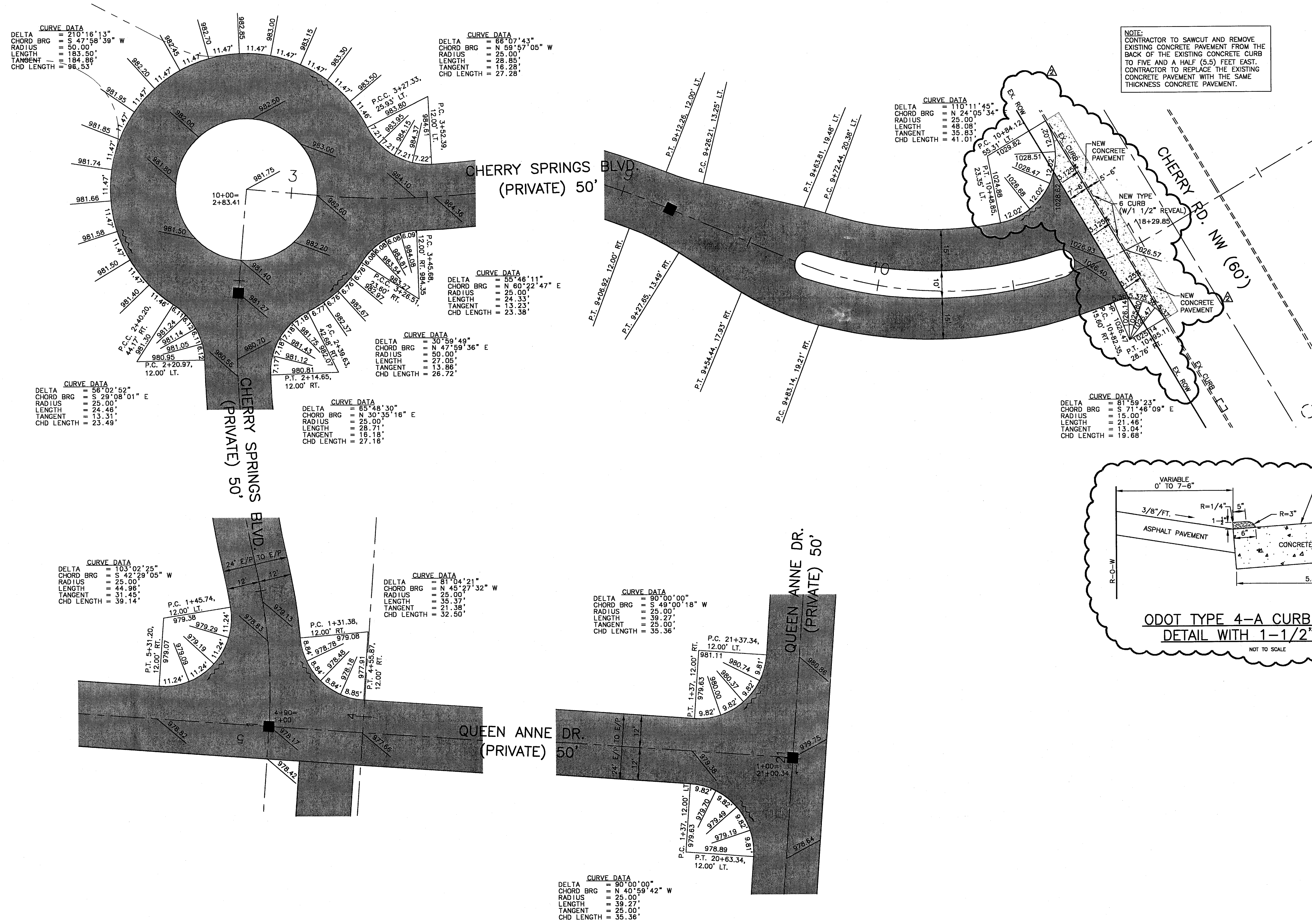
DRAWN BY:
N.L.H.

DATE:
MARCH, 2006

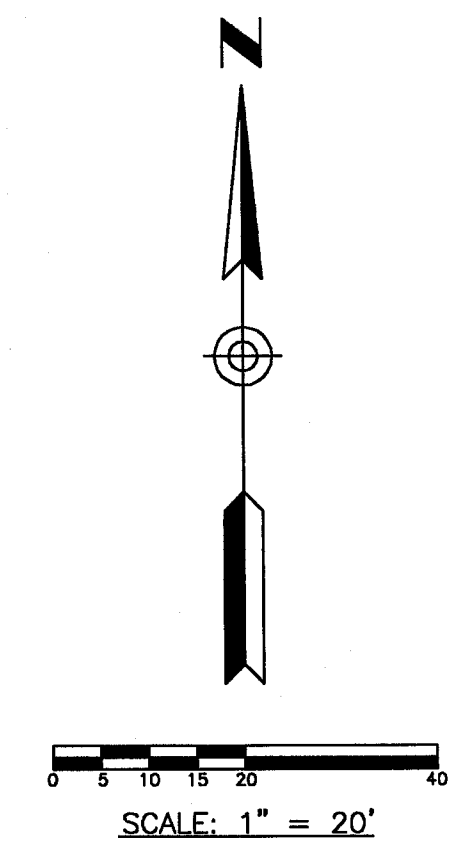
PROJECT NO.
38052D

DRAWING NO.

SD-12



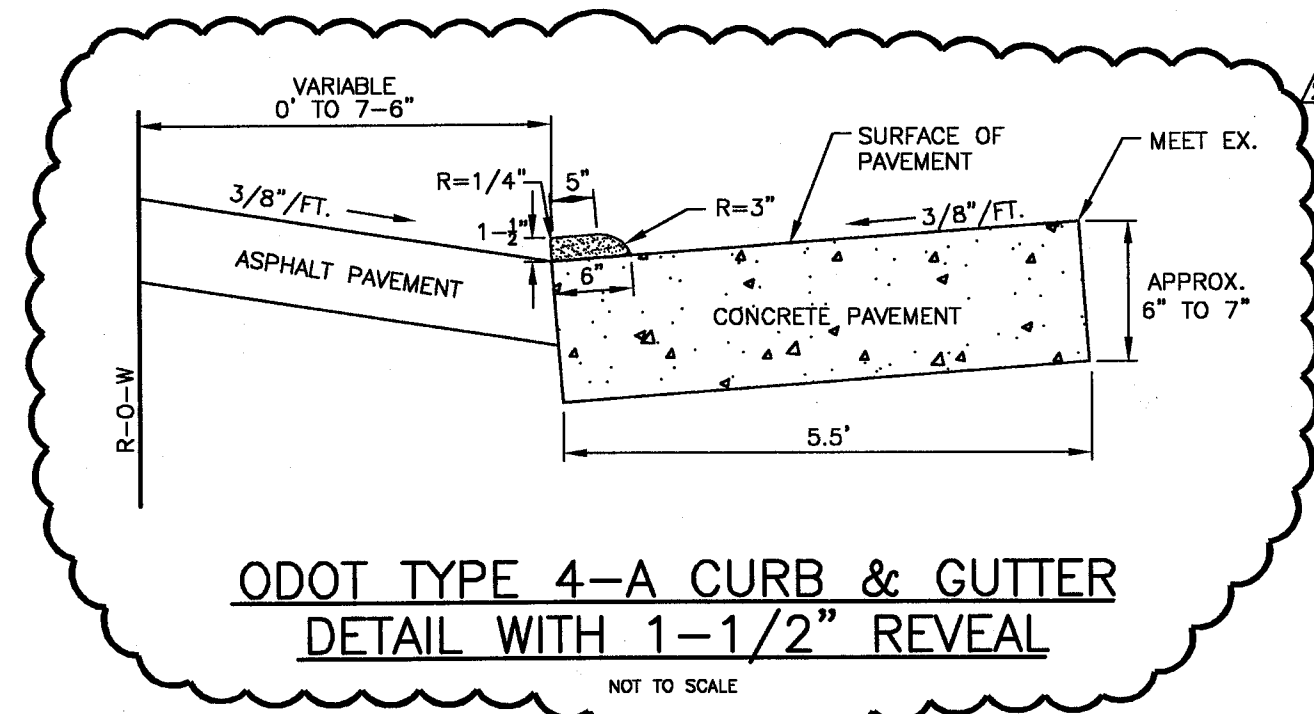
NOTE:
CONTRACTOR TO SAWCUT AND REMOVE
EXISTING CONCRETE PAVEMENT FROM THE
BACK OF THE EXISTING CONCRETE CURB
TO FIVE AND A HALF (5.5) FEET EAST.
CONTRACTOR TO REPLACE THE EXISTING
CONCRETE PAVEMENT WITH THE SAME
THICKNESS CONCRETE PAVEMENT.



NOTE:
ALL ELEVATIONS ARE TOP
OF PAVEMENT UNLESS
OTHERWISE NOTED.
T/C = TOP OF CURB
E/P = EDGE OF PAVEMENT

BENCH MARK: STARK COUNTY SECTION
CORNER MONUMENT ASSEMBLY FOUND
ON NORTH SIDE OF WOOSTER ST. &
CARMONT AVE. INTERSECTION.
ELEV. 1027.51

BENCH MARK: TOP OF 5/8" REBAR
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NORTHING = 9716.9330
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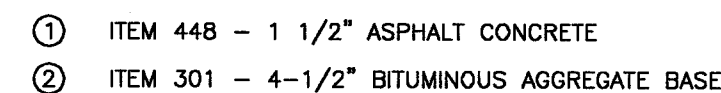
REVISIONS
6/5/2006
8/9/2006

GBC DESIGN, INC.

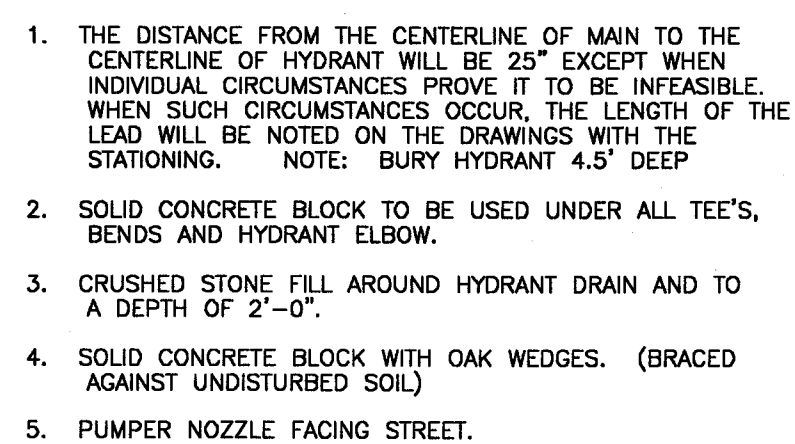
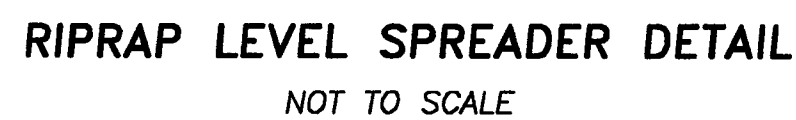
MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44846

CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
INTERSECTION DETAILS &
TYPICAL SECTION

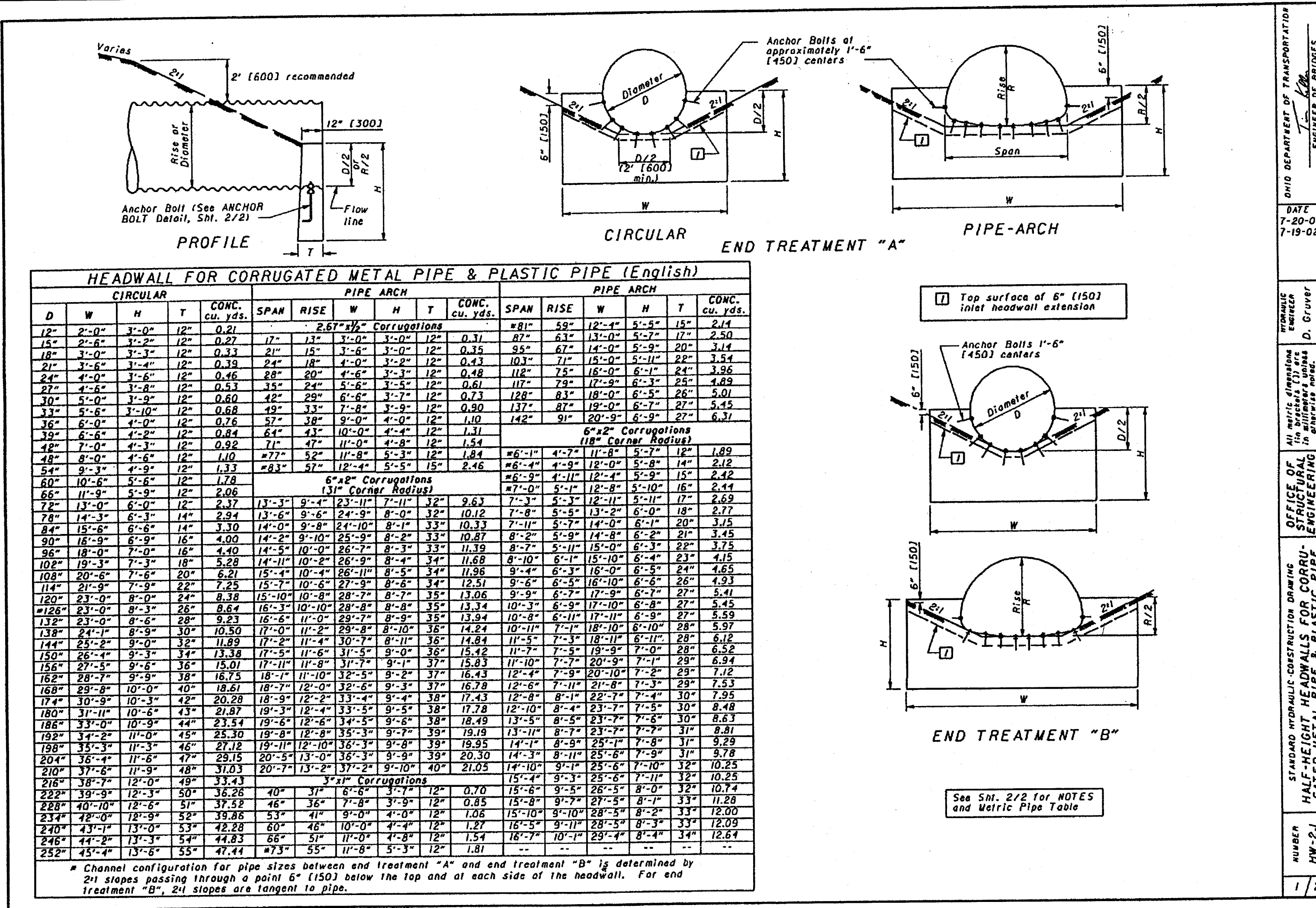
DRAWN BY:
N.L.H.
DATE:
MARCH, 2006
PROJECT NO.
38052D
DRAWING NO.
SD-13

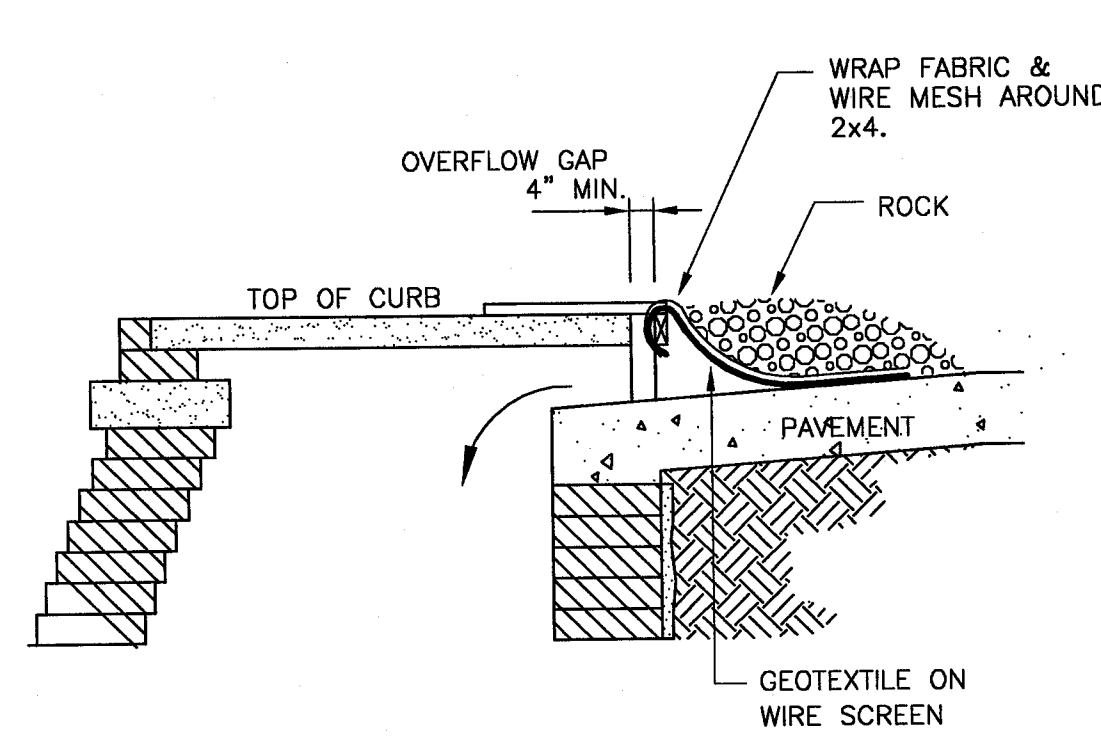


1. CONSTRUCT LEVEL ROCK WEIR ON A LEVEL CONTOUR TO ENSURE UNIFORM SPREADING OF STORM RUNOFF. CONVERTING CONCENTRATED FLOW TO SHEET FLOW.
2. ROCK SHALL BE O.D.T. TYPE "C" WHERE 50% OF THE MATERIAL BY WEIGHT IS GREATER THAN 12 IN. AND 85% IS 6-18 IN.
3. LEVEL SPREADERS MUST BE CONSTRUCTED ON ERODED SOIL, NOT ON FILL.
4. STORM RUNOFF DRAINING OFF LEVEL SPREADER MUST OUTLET TO EROSION-RESISTANT AREAS WITH ESTABLISHED EXISTING VEGETATION.
5. ROCK IN LEVEL SPREADERS SHALL BE COMPACTED WITH AT LEAST TWO PASSES OF HEAVY MACHINERY TO PREVENT FURTHER SETTLING.



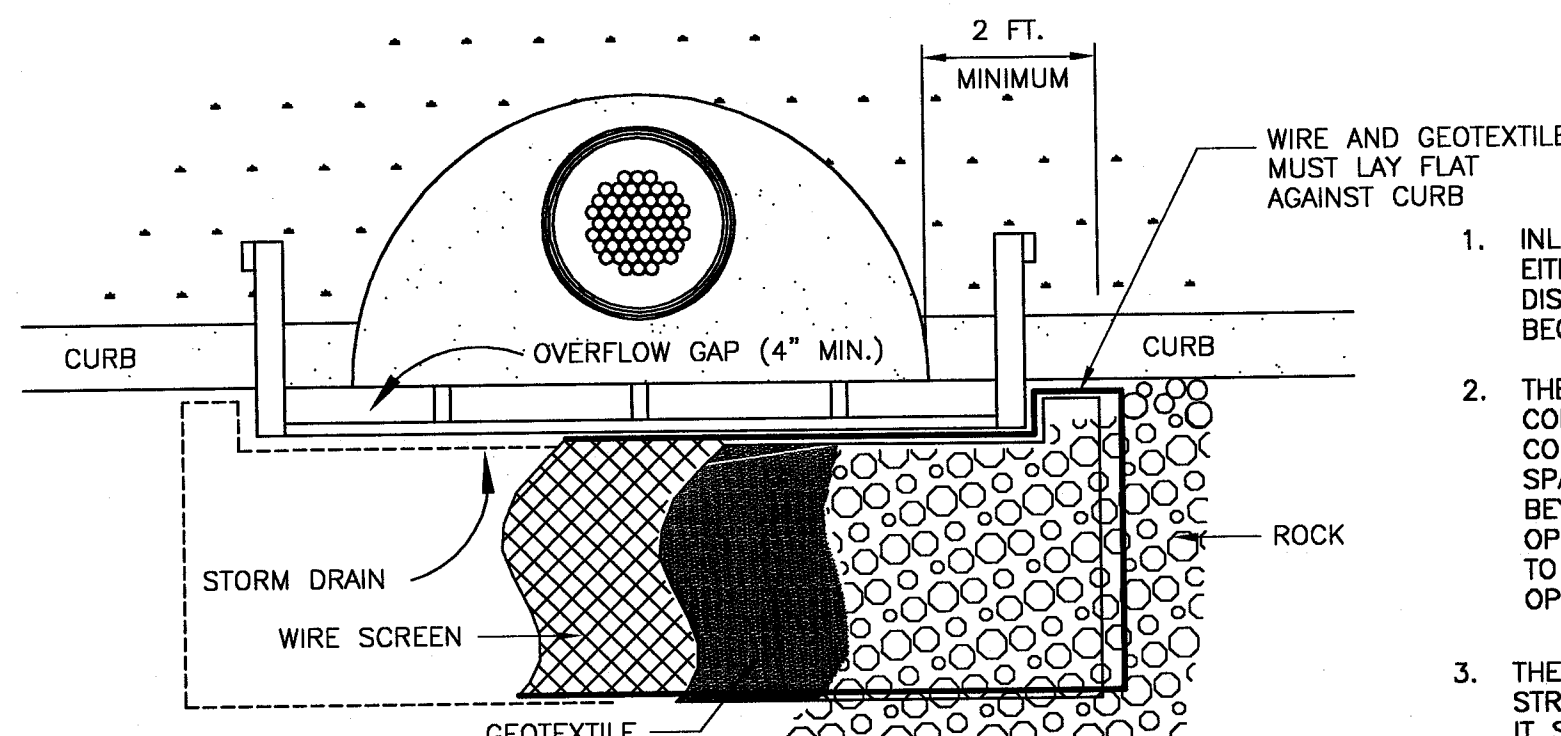
BLOW OFF ASSEMBLIES
TYPE REQUIRED: KUPFERLE FOUND TF500 OR APPROVED EQUAL. INSTALL IN VALVE BOX. INSTALL 2" CURB STOP WITH CURB BOX AHEAD OF EACH BLOW OFF.





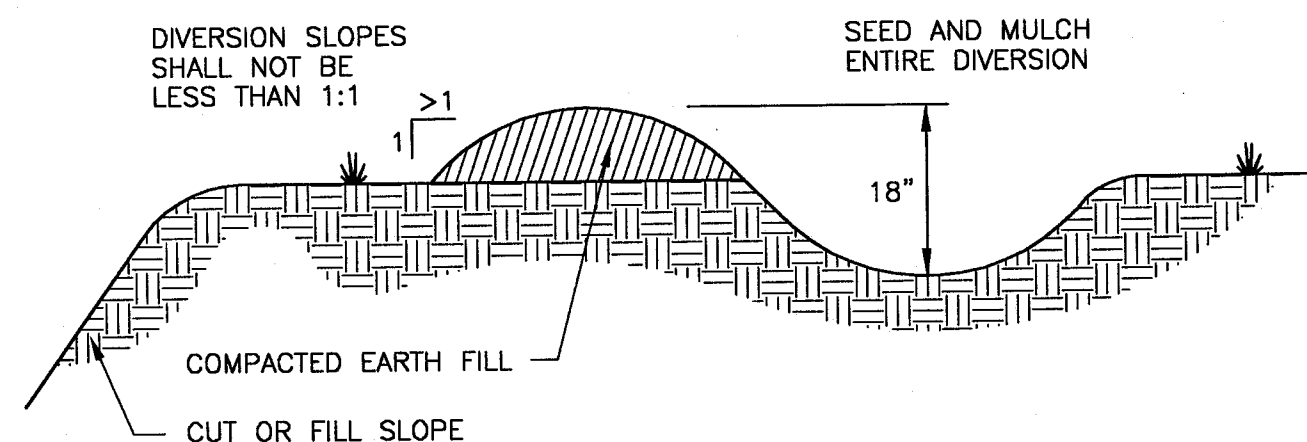
CURB INLET PROTECTION SECTION

NO SCALE



CURB INLET PROTECTION PLAN VIEW

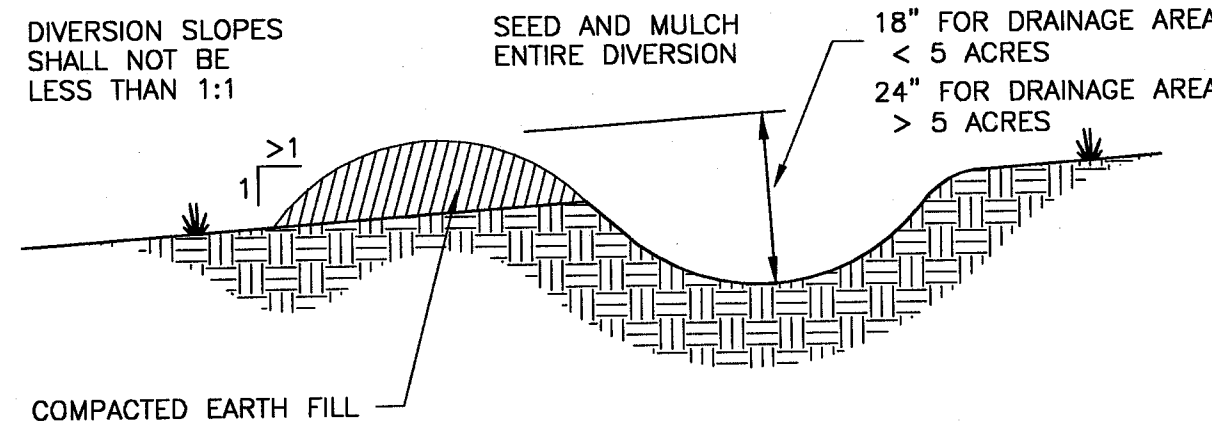
NO SCALE



TEMPORARY DIVERSION ABOVE STEEP SLOPES

DIVERSIONS FOR THE TEMPORARY PROTECTION OF CUT OR FILL SLOPES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING CRITERIA FOR DRAINAGE AREA OF 5 ACRES OR LESS. LARGER AREAS REQUIRE A DIVERSION DESIGN.

1. DIVERTED RUNOFF SHALL OUTLET ONTO A STABILIZED UNDISTURBED AREA, SETTLING POND OR INTO A DROP STRUCTURE.
2. DIVERSIONS SHALL BE COMPACTED BY TRAVERSING WITH TRACKED EARTH MOVING EQUIPMENT AND STABILIZED WITH SEED AND MULCH.



TEMPORARY DIVERSION

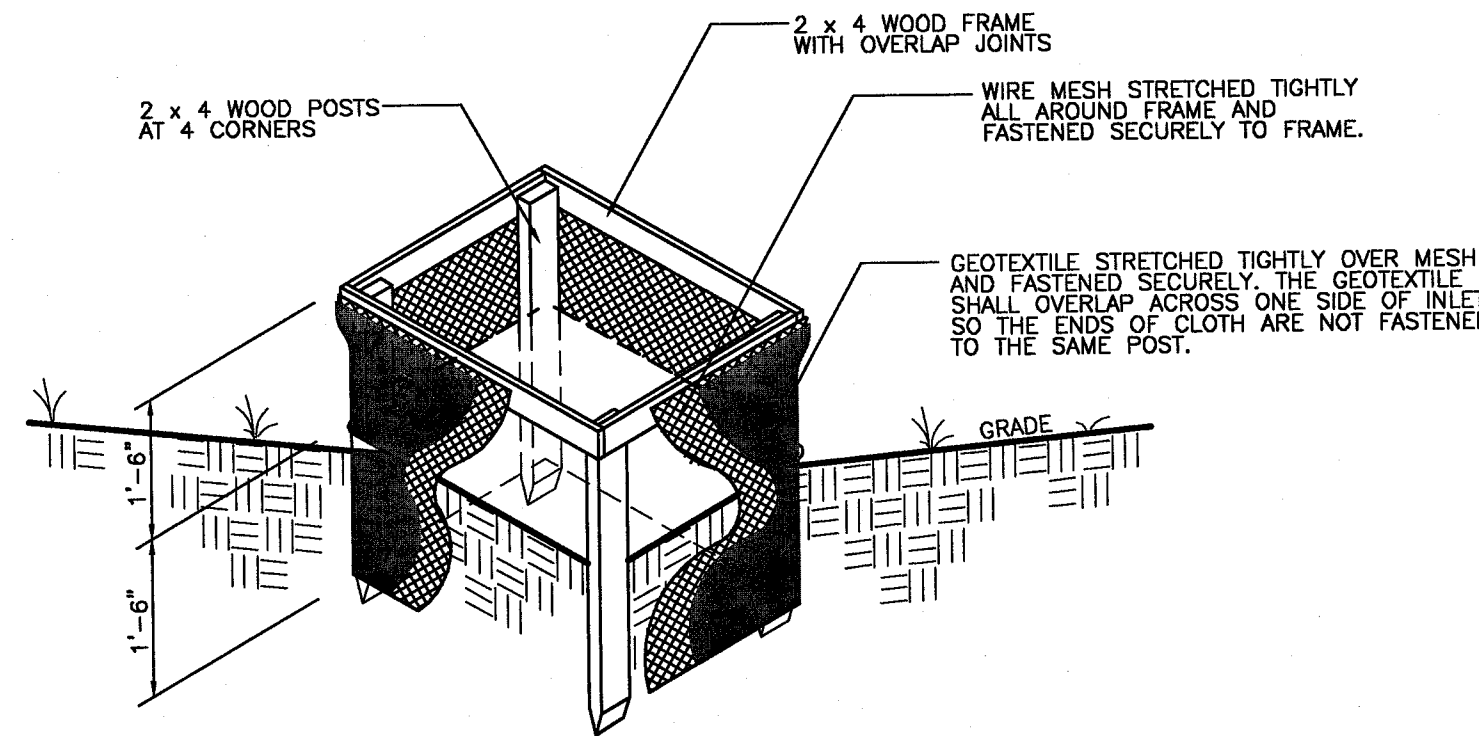
1. DIVERSION SHALL BE COMPACTED BY TRAVERSING WITH TRACKED EARTH-MOVING EQUIPMENT.
2. DIVERSIONS SHALL NOT BE BREACHED OR LOWERED TO ALLOW CONSTRUCTION TRAFFIC TO CROSS; INSTEAD THE TOP WIDTH MAY BE MADE WIDER AND SIDE SLOPES MADE FLATTER THAN SPECIFIED ABOVE.
3. DIVERSIONS SHALL BE STABILIZED WITH VEGETATION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

TEMPORARY DIVERSION STABILIZATION TREATMENT			
DIVERSION SLOPE	< 2 AC.	2 - 5 AC.	5 - 10 AC.
0 - 3%	SEED & STRAW	SEED & STRAW	SEED & STRAW
3 - 5%	SEED & STRAW	SEED & STRAW	MATting
5 - 8%	SEED & STRAW	MATting	MATting
8 - 20%	SEED & STRAW	MATting	ENGINEERED

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

SILT FENCE

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-IN. POSTS SHALL BE DRIVEN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-IN. FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40- SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME. IT SHALL EXTEND FROM TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.



TYPICAL INLET SILT FENCE DETAIL

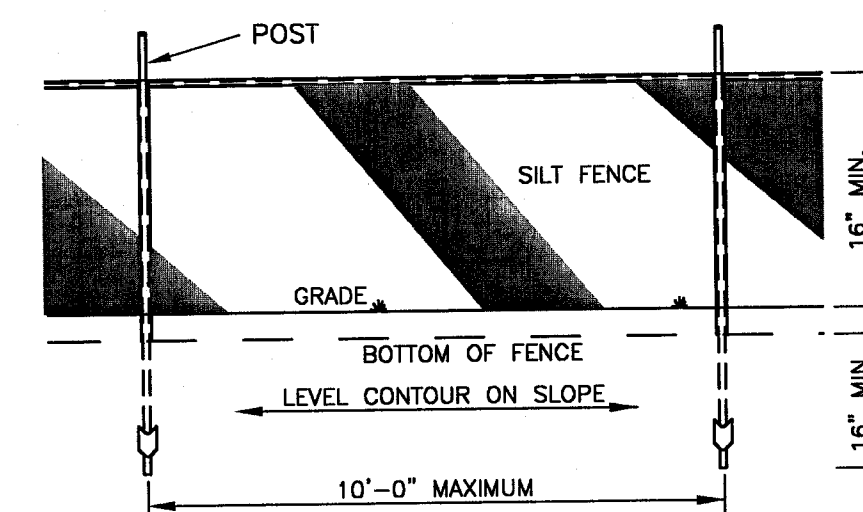
NO SCALE

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MIN. OF 18 IN. ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MIN. OF 6 IN. DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWN SLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
10. MAINTENANCE--SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED; 2) ACCUMULATED SEDIMENT SHALL BE REMOVED; OR 3) OTHER PRACTICES SHALL BE INSTALLED.

CRITERIA FOR SILT FENCE MATERIALS

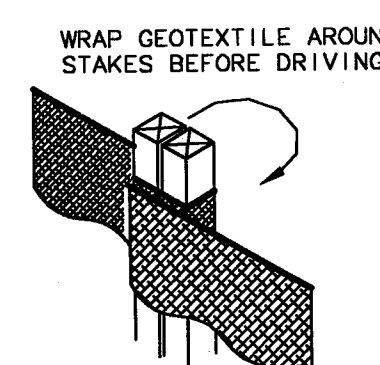
1. FENCE POSTS-- THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
2. SILT FENCE FABRIC (SEE CHART BELOW):

FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MINIMUM	ASTM D 1682
MULLEN BURST STRENGTH	190 PSI MINIMUM	ASTM D 3786
SLURRY FLOW RATE	0.3 GAL./MIN./ft ² MAXIMUM	ASTM D 3786
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	ASTM-G-26



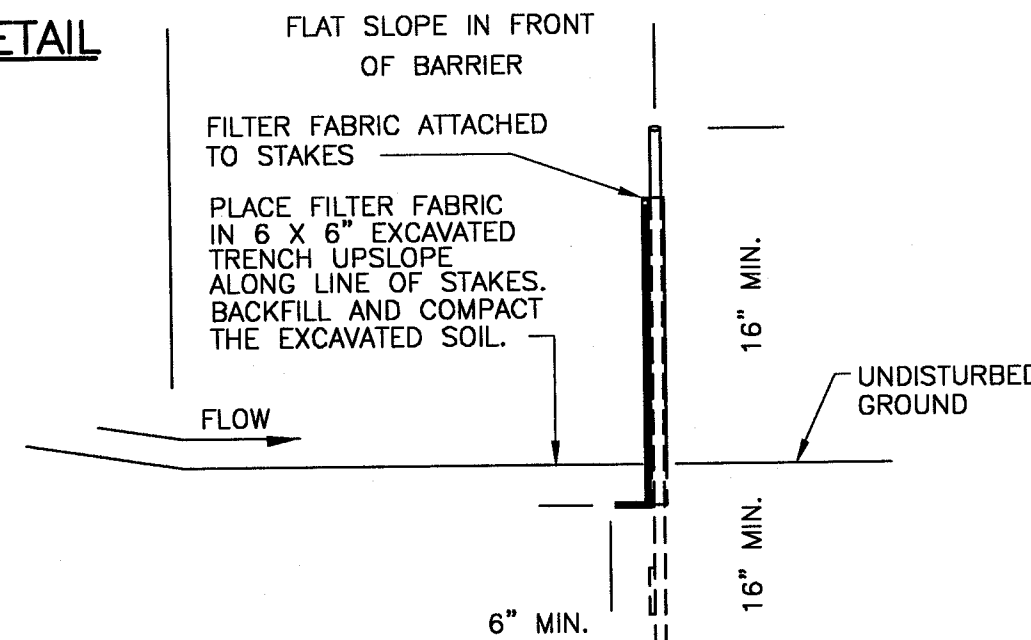
SILT FENCE DETAIL

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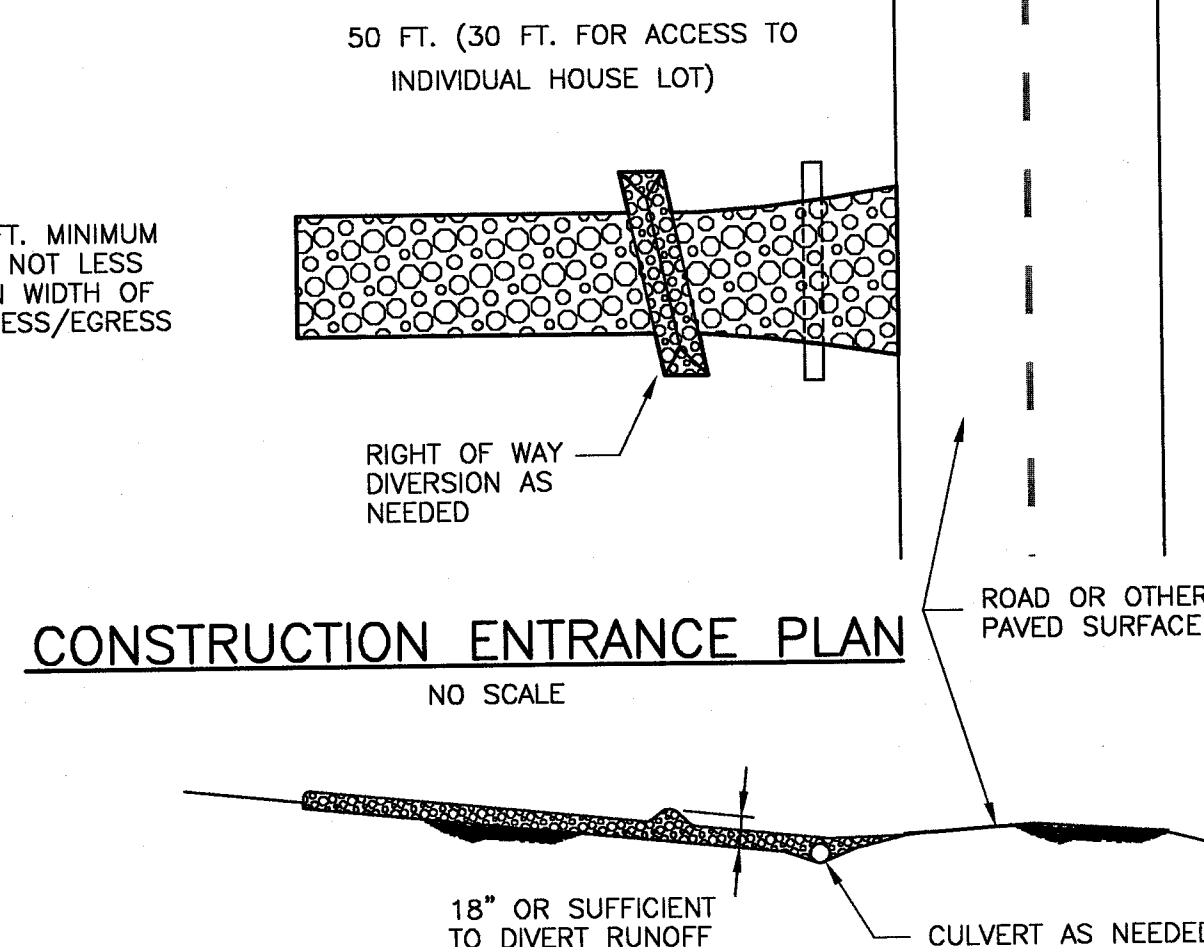
JOINING SECTIONS OF SILT FENCE DETAIL

NO SCALE



SILT FENCE SECTION

NO SCALE



CONSTRUCTION ENTRANCE PLAN

NO SCALE

CONSTRUCTION ENTRANCE PROFILE

NO SCALE

1. STONE SIZE--TWO-INCH STONE SHALL BE USED, OR RECYCLED CONCRETE PAVEMENT.
2. LENGTH--THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 50 FT. (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30 FT. MINIMUM LENGTH APPLIES).
3. THICKNESS--THE STONE LAYER SHALL BE AT LEAST 6-IN. THICK.
4. WIDTH--THE ENTRANCE SHALL BE AT LEAST 10-FT. WIDE, BUT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. BEDDING--A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LB. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LB.
6. CULVERT--A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
7. WATER BAR--A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
8. MAINTENANCE--TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECK BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

TEMPORARY SEEDING

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB/1000 FT. ²	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHEL
	TALL FESCUE	1	40 LB.
	ANNUAL RYEGRASS	1	40 LB.
	PERENNIAL RYEGRASS	1	40 LB.
AUGUST 16 TO NOVEMBER 1	RYE	3	2 BUSHEL
	TALL FESCUE	1	40 LB.
	ANNUAL RYEGRASS	1	40 LB.
	WHEAT	3	2 BUSHEL
NOVEMBER 1 TO SPRING SEEDING	TALL FESCUE	1	40 LB.
	ANNUAL RYEGRASS	1	40 LB.
	PERENNIAL RYEGRASS	1	40 LB.
	TALL FESCUE	1	40 LB.

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION-SITE.
2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 21 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEEDED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEEDED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS. PERMANENT SEEDING SHALL BE APPLIED TO AREAS THAT WILL NOT BE GRADED OR REWORKED FOR 1 YEAR OR MORE.
3. DISTURBED AREAS WITHIN 50 FEET OF A STREAM MUST BE STABILIZED WITHIN 2 DAYS OF LAST DISTURBANCE.
4. AREAS AT FINAL GRADE MUST BE SABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE.
5. THE SEEDBED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
6. SOIL AMENDMENTS--APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISHED ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
7. SEEDING METHOD--SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

MULCHING TEMPORARY SEEDING

1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
2. MATERIALS:

STRAW--IF STRAW IS USED, IT SHALL BE UNROTTED SMALL-GRAIN STRAW, 1/2 TONS/AC. OR 90 LB. / 1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LB. BALES OF STRAW IN EACH SECTION.

HYDROSEEDERS--IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. / AC. OR 46 LB. /1,000 SQ. FT.

OTHER--OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS / AC.

3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.

ANCHORING METHODS:

MECHANICAL--A DISK, CRIMPER OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICAL ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY BE LEFT LONGER THAN 6 IN.

MULCH NETTINGS--NETTINGS SHALL BE USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MADE BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.

ASPHALT EMULSION--ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER OR AT THE RATE OF 160 GAL. / AC.

SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA-TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

WOOD-CELLULOSE FIBRE--WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. /AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

GBC DESIGN, INC.
3878 West Market St. Akron, OH 44333-3386
Phone 330-856-0228 Fax 330-856-0762

MARION, FRANCIS and THOMAS Co.
3470 WALES ROAD N.W., SUITE A-6213
MASSILLON, OHIO 44846

CHERRY SPRINGS No. 2
CITY OF MASSILLON
STARK COUNTY, OHIO
STORM WATER POLLUTION PREVENTION
PLAN DETAILS

DRAWN BY:
N.L.H.

DATE:
MARCH, 2006

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