

CITY OF MASSILLON  
CITY ENGINEER DEPARTMENT  
STARK COUNTY, OHIO  
LINCOLN WAY WEST REHABILITATION

PROJECT DESCRIPTION

CONSTRUCTION OF FULL DEPTH PAVEMENT, STORM SEWER AND  
SANITARY SEWER REPLACEMENT AND A 12x6' BOX CULVERT.

CONVENTIONAL SIGNS

- RIGHT OF WAY . . . EXISTING: ————, PROPOSED: ————  
COUNTY LINE . . . ————  
TOWNSHIP LINE . . . ————  
CORPORATION LINE . . . ————  
FENCE LINE . . . EXISTING: ————, PROPOSED: ————  
GUARDRAIL . . . EXISTING: ————, PROPOSED: ————  
MANHOLES . . . EXISTING: ○, PROPOSED: ●, REHABILITATED: ●  
CATCH BASINS . . . EXISTING: □, PROPOSED: ■, REHABILITATED: ■  
SIGNS . . . . . 1-POST: —, 2-POST: —, 3-POST: —  
EXISTING POLES . . . POWER: ⚡, TELEPHONE ⚡, LIGHT ⚡, SPAN ⚡  
PROPOSED POLES . . . POWER: ⚡, TELEPHONE ⚡, LIGHT ⚡, SPAN ⚡  
EXIST. UTILITIES . . . VALVE: ⚡, HYDRANT: ⚡, METERS: ⚡ / ⚡, GUY: ⚡

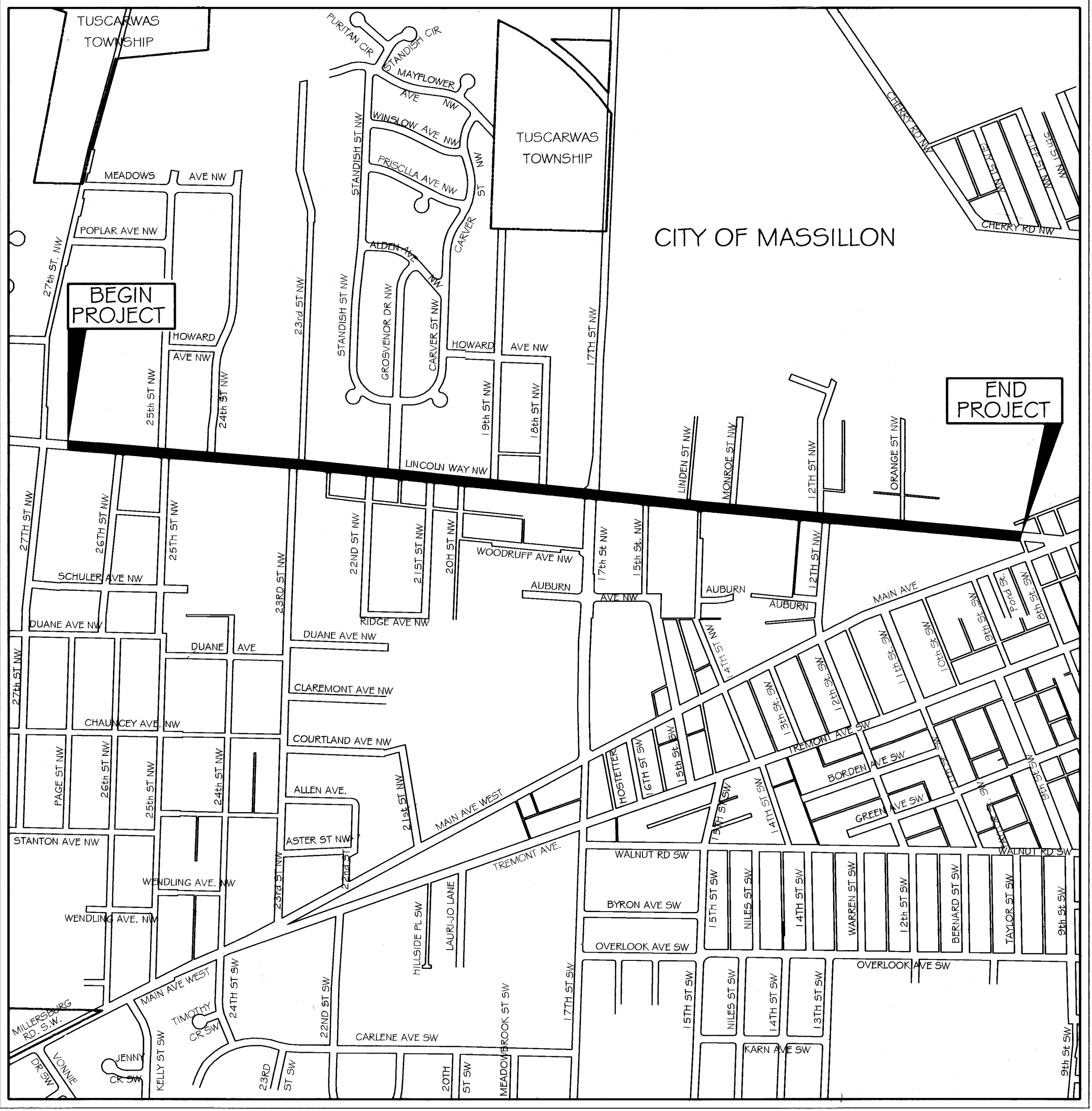
PERMIT TO INSTALL

SANITARY SEWER PERMIT TO INSTALL (P.T.I.) HAS BEEN  
RECEIVED FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY  
THIS \_\_\_\_ DAY OF \_\_\_\_, 20 \_\_\_\_  
PTI No. \_\_\_\_\_

UNDERGROUND UTILITIES  
TWO WORKING DAYS  
BEFORE YOU DIG  
CALL 1-800-362-2764 (TOLL FREE)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY  
TWO WORKING DAYS  
BEFORE YOU DIG  
CALL 1-800-925-0988 (TOLL FREE)  
OIL @ GAS PRODUCERS UNDERGROUND  
PROTECTION SERVICE

PLAN PREPARED BY:  
CITY OF MASSILLON  
Engineering Department

OWNER:  
CITY OF MASSILLON  
151 Lincoln Way East  
Massillon, Ohio 44646



LOCATION MAP

PORTION TO BE IMPROVED ————  
STREETS ————



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APPROVALS

DIRECTOR OF PUBLIC SAFETY AND SERVICE ALAN W. CLIMER DATE  
CITY ENGINEER STEVEN D. HAMIT, P.E. DATE 10-18-04

OFFICIALS

FRANCIS H. CICCINELLI, Jr. . . . . MAYOR  
ALAN W. CLIMER . . . . . DIRECTOR OF PUBLIC SAFETY AND SERVICE  
STEVEN D. HAMIT, P.E. . . . . CITY ENGINEER  
JOE ULRICH . . . . . WASTE WATER TREATMENT PLANT MANAGER  
PERICLES G. STERGIOS . . . . . LAW DIRECTOR/PROSECUTOR  
BILL H. HAMIT . . . . . AUDITOR  
PAUL F. LAMBERT . . . . . TREASURER  
MARYBETH BAILEY . . . . . CLERK OF COUNCIL

COUNCIL

DENNIS HARWIG . . . . . PRESIDENT  
RONALD MANG . . . . . 1st WARD  
CHUCK MAIER . . . . . 2nd WARD  
KATERINE CATAZARO-PERRY . . . . . 3rd WARD  
GLORIA AUTREY . . . . . 4th WARD  
GLENN E. GAMBER . . . . . 5th WARD  
TOM WEBER . . . . . 6th WARD

COUNCIL AT LARGE

MIKE LOUDIANA  
TIM BRYAN  
PAUL MANSON

NW NE  
SW SE

600 300 0 300 600  
HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW CHECKED BY: SDH  
DATE: JULY, 2004 DATE: JULY, 2004

Lincoln Way West Rehabilitation  
Title Sheet  
City of Massillon  
Stark County, Ohio

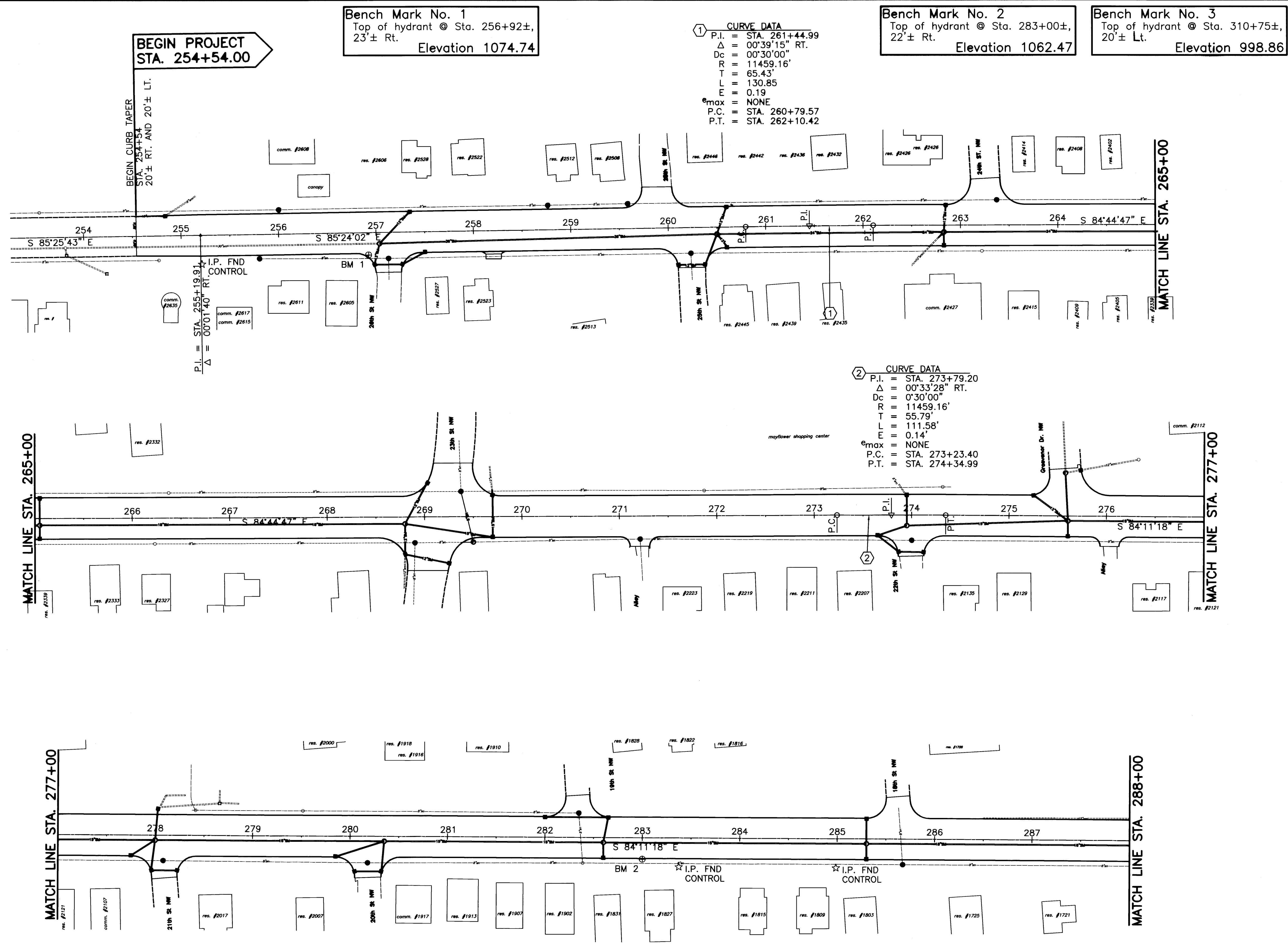
Francis H. Cicchinelli, Jr.  
Mayor

Massillon Means More!

REVISIONS:  
DATE DESCRIPTION

FILE NAME: 02SS0201.DWG  
ACCOUNT NUMBER 02SS02

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DRAWN BY:  
FPW  
DATE:  
June 11, 2003

CHECKED BY:  
SDH  
DATE:  
June 2003

### Lincoln Way West Rehabilitation

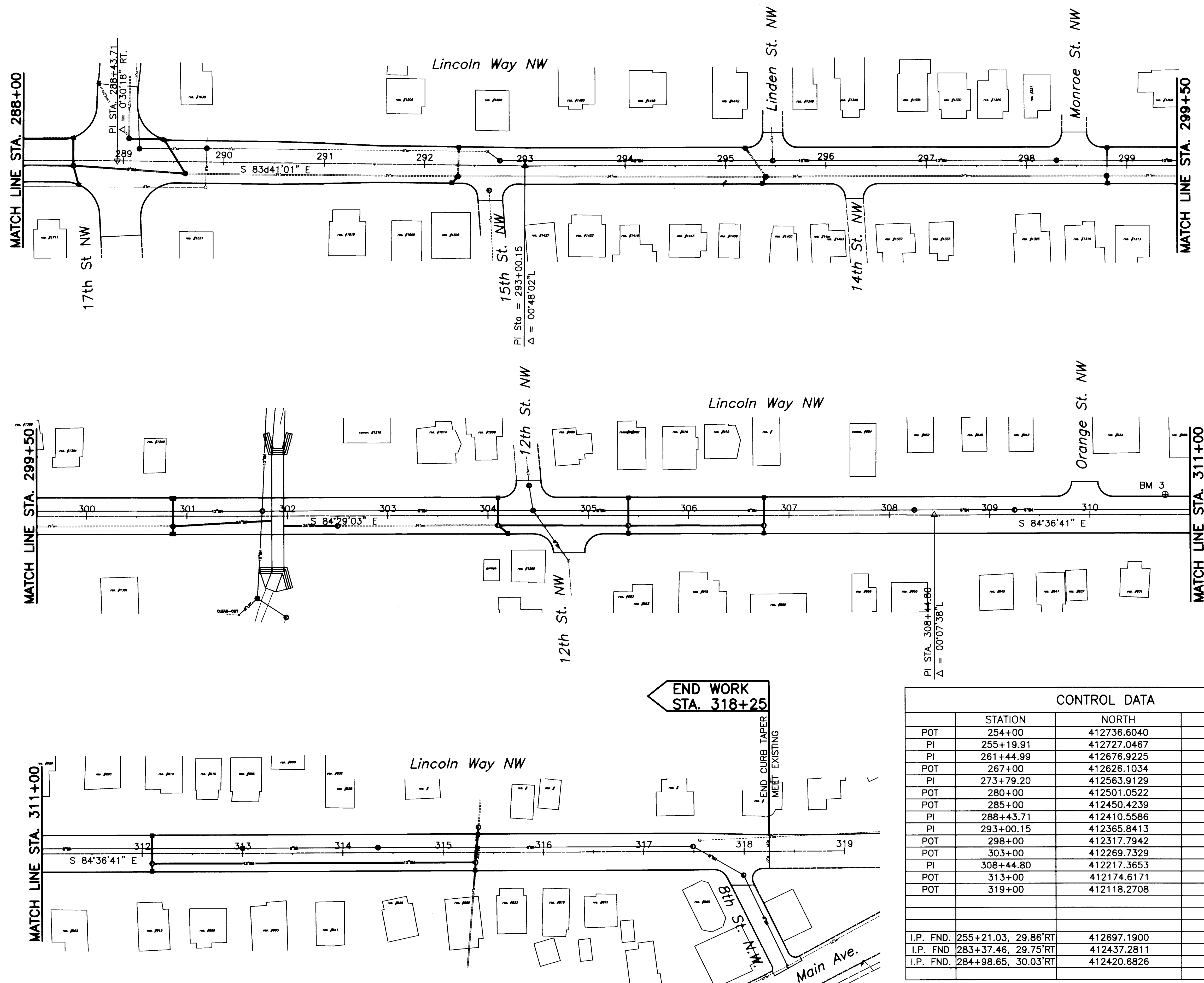
Schematic Plan Sta. 254+00 to Sta. 288+00  
City of Massillon  
Stark County, Ohio

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03ST03

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| CONTROL DATA |                     |             |              |
|--------------|---------------------|-------------|--------------|
|              | STATION             | NORTH       | EAST         |
| POT          | 254+00              | 412736.6040 | 2229651.2736 |
| PI           | 255+19.91           | 412727.0467 | 2229770.8045 |
| PI           | 261+44.99           | 412676.9225 | 2230393.8741 |
| POT          | 267+00              | 412626.1034 | 2230946.5492 |
| PI           | 273+79.20           | 412563.9129 | 2231622.8915 |
| POT          | 280+00              | 412501.0522 | 2232240.5061 |
| POT          | 285+00              | 412450.4239 | 2232737.9362 |
| PI           | 288+43.71           | 412410.5586 | 2233129.6177 |
| PI           | 293+00.15           | 412365.8413 | 2233533.5939 |
| POT          | 298+00              | 412317.7942 | 2234031.1308 |
| POT          | 303+00              | 412269.7329 | 2234528.8155 |
| PI           | 308+44.80           | 412217.3653 | 2235071.0916 |
| POT          | 313+00              | 412174.6171 | 2235524.2811 |
| POT          | 319+00              | 412118.2708 | 2236121.6295 |
|              |                     |             |              |
| I.P. FND.    | 255+21.03, 29.86°RT | 412697.1900 | 2229769.5200 |
| I.P. FND.    | 283+37.46, 29.75°RT | 412437.2811 | 2232573.2144 |
| I.P. FND.    | 284+98.65, 30.03°RT | 412420.6826 | 2232733.5533 |

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FPW

CHECKED BY:  
SDH

DATE:  
June 11, 2003

DATE:  
June 2003

**Lincoln Way West Rehabilitation**  
Schematic Plan Sta. 288+00 to Sta. 319+00  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

REVISIONS:

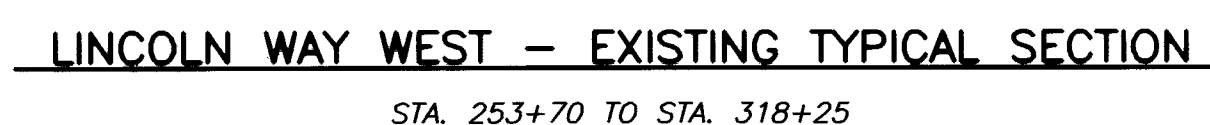
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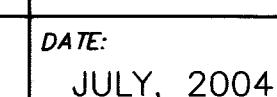
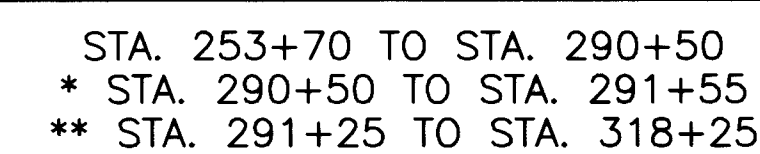
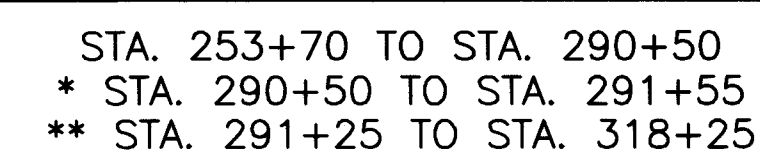
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- ALL ABOVE ITEMS BEING REMOVED SHALL BE INCLUDED UNDER  
ITEM 202 EXCAVATION NOT INCLUDING EMBANKMENT



- ① - ITEM 448-1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- ② - ITEM 448-1 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1
- ③ - ITEM 301-9" BITUMINOUS AGGREGATE BASE
- ④ - ITEM 304-6" AGGREGATE BASE
- ⑤ - ITEM 407-TACK COAT
- ⑥ - ITEM 408-PRIME COAT
- ⑦ - ITEM 609-CAST IN PLACE CONCRETE CURB-6"x18"
- ⑧ - ITEM 254-1 1/2" PAVEMENT PLANNING
- ⑨ - ITEM 608-4" CONCRETE WALK
- ⑩ - ITEM 705-PREFORMED FILLERS
- ⑪ - ITEM 659-SEEDING AND MULCHING
- ⑫ - ITEM 605 - 4" SHALLOW PIPE UNDERDRAINS
- ⑬ - ITEM 204 - SUBGRADE COMPACTION
- ⑭ - ITEM 608-4" CONCRETE WALK TO REPLACE EXISTING AS DIRECTED BY ENGINEER
- ⑮ - ITEM 452 - 9" NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT INCLUDING CURB



Typical Sections  
City of Massillon  
Stark County, Ohio



|                |              |
|----------------|--------------|
| FILE NAME:     | 02SS0201.DWG |
| ACCOUNT NUMBER | 02SS02       |

UTILITIES

LISTED BELOW ARE ALL KNOWN UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

|                                                                                                      |                                                                                     |                                                                                                                |                                                                                                    |                                                                       |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| AMERITECH<br>50 W.BOWERY, 6TH FLOOR<br>AKRON, OH 44308<br>800-384-8057                               | AQUA OHIO<br>WATER<br>P.O. BOX 584<br>MASSILLON, OH 44648<br>(330) 833-4156         | OHIO EDISON<br>STARK DIVISION<br>2600 S. ERIE ST.<br>MASSILLON, OH 44545<br>(330) 833-3141                     | MASSILLON CABLE TV<br>P.O. BOX 814<br>MASSILLON, OH 44648<br>(330) 833-4134                        | GREAT LAKES<br>104 6TH ST. S.W.<br>CANTON, OH 44702<br>(330) 456-2454 |
| CITY OF MASSILLON<br>SANITARY SEWER<br>151 LINCOLN WAY EAST<br>MASSILLON, OH 44646<br>(330) 830-1722 | AT&T COMMUNICATIONS<br>2535 E. 40TH AVE.<br>DENVER, CO 80205-3601<br>(800) 852-3786 | DOMINION EAST OHIO GAS COMPANY<br>4725 SOUTHWAY ST. S.W.<br>CANTON, OH 44706<br>(330) 478-3142<br>NANCY KOVACH | NORTHEAST OHIO NATURAL<br>GAS CORP.<br>9081 S.R. 250<br>STRASBURG, OH 44680-9766<br>(330) 878-5589 |                                                                       |

THE CONTRACTOR SHALL NOTIFY ALL UTILITIES 48 HOURS PRIOR TO WORK.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE SHOWN AT APPROXIMATE LOCATIONS AND WHERE OBTAINED AS REQUIRED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

OUPS - 1-800-362-2764  
OGUPUPS - 1-800-925-0988

DATUM ELEVATION

ALL BENCHMARKS ARE BASED ON REFERENCE BENCHMARKS PROVIDED BY THE CITY OF MASSILLON

STATIONING

ALL STATIONING SHOWN IS REFERENCED TO THE BASELINE AS SHOWN.

NOTIFICATION OF SAFETY FORCES AND BUS GARAGES

THE CONTRACTOR SHALL NOTIFY ALL AGENCY LISTED BELOW AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

|                                          |                                           |                                             |                                              |
|------------------------------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------|
| MASSILLON SAFETY SERVICE<br>330-830-1702 | MASSILLON FIRE DEPARTMENT<br>330-833-1053 | PERRY TOWNSHIP HALL<br>330-833-2141         | NORTH LAWRENCE FIRE DEPT.<br>330-832-6347    |
| TUSCARAWAS TOWNSHIP HALL<br>330-832-4337 | JACKSON FIRE DEPARTMENT<br>330-832-1553   | MASSILLON POLICE DEPARTMENT<br>330-830-1735 | MASSILLON SCHOOL BUS GARAGE<br>330-830-1849  |
| JACKSON TOWNSHIP HALL<br>330-832-7416    | PERRY FIRE DEPARTMENT<br>330-478-5121     | JACKSON POLICE DEPARTMENT<br>330-497-7440   | JACKSON SCHOOL BUS GARAGE<br>330-830-8042    |
| PERRY POLICE DEPARTMENT<br>330-833-3865  | PERRY SCHOOL BUS GARAGE<br>330-477-1300   | STARK COUNTY SHERIFF<br>330-430-3887        | TUSCARAWAS SCHOOL BUS GARAGE<br>330-837-7805 |

SARTA  
330-454-5333

SUBSURFACE CONDITIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKES HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING BID. PROSPECTIVE BIDDERS ARE TO COORDINATE WITH THE OWNER FOR ACCESS TO THE SITE FOR INSPECTIONS AND EXPLORATORY EXCAVATION. THE BIDDER SHALL CONTACT THE OWNER AT LEAST 72 HOURS IN ADVANCE OF THE DESIRED INSPECT OR EXCAVATION. THE BIDDER SHALL CONTACT O.U.P.S. AND OBTAIN LOCATIONS OF OTHER UTILITIES.

QUANTITIES

QUANTITIES ARE INDICATED FOR COMPARISON OF BIDS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY QUANTITIES BEFORE ORDERING MATERIALS. VARIATIONS FROM THE PLAN QUANTITIES SHALL BE APPROVED BY THE ENGINEER OR OWNER BEFORE MATERIALS ORDERS ARE PLACE. MATERIALS REJECTED DUE TO INCOMPATIBILITY BETWEEN ORDERED QUANTITIES AND FIELD CONDITIONS SHALL BE REPLACE AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION SPECIFICATIONS & STANDARDS

ALL CONSTRUCTION TO BE CITY OF MASSILLON SPECIFICATIONS AND STANDARDS, THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND FOLLOW ALL STATE, FEDERAL, AND LOCAL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO THE REQUIREMENTS LISTED.

PRESERVATION OF EXISTING UTILITY SERVICES

ANY EXISTING WATER LINE, SANITARY SEWER, STORM SEWER, GAS LINE OR OTHE UTILITY IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTORS EXPENSE.

MAINTENANCE OF TRAFFIC

THE CONTRACTOR SHALL SUPPLY A MAINTENANCE OF TRAFFIC PLAN TO THE CITY ENGINEER.

MAINTENANCE OF TRAFFIC PLAN MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO ANY CONSTRUCTION COMMENCING.

SAID APPROVED DETOUR SHALL BE FORWARDED TO THE LOCAL NEWSPAPER. PRIOR TO ANY DISRUPTION OF TRAFFIC.

CONTRACTOR AVAILABILITY

THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A 24 HOUR PHONE NUMBER WHERE THE CONTRACTOR AND ALL SUB-CONTRACTORS SHALL BE AVAILABLE FOR EMERGENCIES.

PRESERVATION OF PRIVATE PROPERTY

THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS ANY TYPE OF LAND MONUMENT. HE SHALL HAVE ALL LAND MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. HE SHALL REPLACE DESTROYED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY AN OHIO REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

CONDITIONS OF WORK

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ACT, STATE, COUNTY, AND CITY OF MASSILLON LAWS AND REGULATIONS. ALL WORK, AT ALL TIMES SHALL BE SUBJECT TO OBSERVATION BY THE OWNER AND/OR ENGINEER. ALL WORK SHALL COMPLY WITH THE CONDITIONS OF THE CONTRACT DOCUMENTS AND OHIO EPA, AND STANDARDS OF THE CITY OF MASSILLON ALL ELECTRICAL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, AND APPLICABLE CITY, COUNTY, STATE AND FEDERAL CODES.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES TO THE PROJECT SITE. ADJACENT ROADS SHALL BE MAINTAINED AND KEPT CLEAN OF MUD AND OTHER DEBRIS THAT MAY BE CAUSED BY TRAFFIC EXITING THE WORK SITE. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR ALL NECESSARY TRAFFIC CONTROL. TRAFFIC CONTROL SHALL FOLLOW THE MORE STRINGENT GUIDELINES OF THE CITY OF MISSION OR ODOT.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND MAINTAIN FACILITIES FOR A CONSTRUCTION OFFICE, EMPLOYEE PARKING, AND EMPLOYEE SANITARY FACILITIES. ON STREET PARKING WILL NOT BE PERMITTED. THE CONTRACTOR SHALL PROVIDE FOR THE LAWFUL OFF-SITE DISPOSAL OF DEMOLITION DEBRIS AND CONSTRUCTION WASTE.

EXISTING DATA

EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND BECOME THOROUGHLY FAMILARIZED WITH THE SITE PRIOR TO BID SUBMISSION.

EXISTING STRUCTURES, GRADES, PIPING, ETC. ARE INDICATED IN APPROXIMATE LOCATION ON THE PLAN. INFORMATION SHOWN IS NOT GUARANTED TO BE CORRECT AND COMPLETE. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, WILL NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.

EXISTING UNDERGROUND UTILITIES SHOWN ARE RECORDS PROVIDED BY UTILITY COMPANIES AND ARE APPROXIMATE ONLY. SERVICE LATERALS ARE NOT SHOWN.

IT IS THE RESPONSIBILITY OF CONTRACTOR TO NOTIFY THE CITY, PRIOR TO BID OPENING NON-CONNFORMING OR CONFLICTING INFORMATION.

ACCESSIBILITY TO PRIVATE PROPERTY

ACCESS TO ALL DRIVEWAYS AND PARKING AREAS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES EXCEPT WHILE LAYING THE SANITARY SEWER ACROSS THE DRIVE. THE TRENCH SHALL BE BACKFILLED AT THE END OF EACH WORK DAY TO PROVIDE ACCESS. THE CONTRACTOR MUST NOTIFY EACH PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF CUTTING THIER DRIVEWAY.

PRESERVATION OF EXISTING UTILITY SERVICES

ANY EXISTING WATER LINE, SANITARY SEWER, STORM SEWER, GAS LINE OR OTHER UTILITY IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THAT CONTRACTORS EXPENSE.

EXCAVATED MATERIAL

ALL EXCAVATED MATERIAL AND ALL MATERIAL USED IN CONSTRUCTION OF THE WORK SHALL BE PILED AND STORED IN A MANNER THAT WILL NOT ENDANGER THE LABOR AND THAT WILL LEAVE DRIVEWAYS OR OTHER CONTROLS UNOBSTRUCTED AND ACCESSIBLE WHILE THE WORK IS TO BE COMPLETED. SATISFACTORY PROVISIONS SHALL BE MADE FOR STREET DRAINAGE, AND NATURAL WATERCOURSES SHALL NOT BE OBUCTED. DURING THE PROGRESS OF THE WORK, ALL MATERIAL PILES SHALL BE KEPT TRIMMED UP AND MAINTAINED IN A NEAT MANNER. ALL EXCAVATED WASTE MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE, AS DIRECTED BY THE ENGINEER. THE WASTE SITE IS TO BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE CITY, UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS. ALONG WITH A LETTER FROM THE PROPOSED WASTE SITE OWNER PERMITTING SUCH AND HOLDING THE CITY HARMLESS.

RESTORATION

FOR SANITARY SEWER INSTALLED, TESTED, AND ACCEPTED UP TO MAY 15TH OF ANY CALENDER YEAR, RESTORATION SHALL BE COMPLETE BY JUNE 30th OF THAT YEAR. FOR INSTALLATION OF SANITARY SEWER TESTED AND ACCEPTED FROM MAY 15th TO SEPTEMBER 30th OF ANY CALENDER YEAR, RESTORATION SHALL BE COMPLETE BY NOVEMBER 15th OF THAT CALENDER YEAR. FOR SANITARY SEWER INSTALLED, TESTED, AND ACCEPTED AFTER NOVEMBER 15TH OF ANY CALENDER YEAR. RESTORATION SHALL BE COMPLETE BY MAY 15th OF THE NEXT CALENDER YEAR.

ALL SOIL AREAS DISTURBED BY THE CONTRACTOR SHALL BE TOPSOILED, SEEDED AND MULCHED. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR EACH ITEM OF AFFECTED WORK. TOPSOIL, SEEDING AND MULCHING SHALL NOT BE A SEPERATE PAY ITEM. THIS INCLUDES BACKFILLING, SEEDING AND MULCHING ALONG THE EDGE OF ALL PAVEMENT RESTORATION.

PAVEMENT CROSSINGS WILL RECEIVE TYPE C PAVEMENT REPLACEMENT WITH FULL WIDTH PAVEMANT OVERLAY.

CONTRACTOR TO REPLACE ALL PAVEMENT MARKINGS. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT

CONTRACTOR TO USE HOT APPLIED JOINT CRACK SEALER ON ASPHALT PAVEMENT AT ALL ENDS AND INTERSECTIONS.

ALL TRENCHES IN ROAD RIGHT OF WAY WILL RECEIVE FULL DEPTH PREMIUM GRANULAR BACKFILL.

REMOVAL OF TREES OR STUMPS

ALL TREES AND STUMPS REMOVED DURING CONSTRUCTION SHALL BE UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING THIS SHALL INCLUDE ON TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNLESS OTHERWISE STATED BY CITY REPRESENTATIVE.

REMOVAL AND RELOCATION OF EXISTING UTILITIES

THE CONTRACTOR IS REQUIRED TO COOPERATE WITH EACH RESPECTIVE UTILITY OWNER FOR THE REMOVAL AND RELOCATION OF ANY AND ALL UTILITIES THAT CREATE A CONFLICT WITH CONSTRUCTION OF THE PROJECT.

CONCRETE REMOVAL

ALL EXISTING CONCRETE INCLUDING CURBS, DRIVES, AND BASE ETC. WITHIN WORK LIMITS SHALL BE REMOVED AND PAID FOR UNDER:

ALL WORK SHALL BE PAID FOR UNDER ITEM 203 ROADWAY EXCAVATION

ITEM 623. CONSTRUCTION STAKING

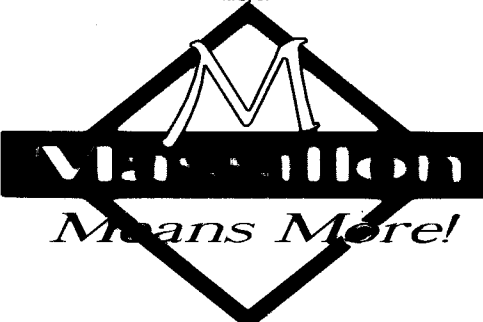
CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT. THIS WORK IS TO BE UNDER ITEM 623 CONSTRUCTION STAKING. A SET OF AS-BUILTS IDS ALSO INCLUDED IN THIS ITEM AND MUST BE RECEIVED AND ACCEPTED PRIOR TO FINAL PAYMENT BEING MADE.

|                        |                        |
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| DRAWN BY:<br>JAH       | CHECKED BY:<br>FPW     |
| DATE:<br>Dec. 03, 2002 | DATE:<br>Dec. 03, 2002 |

Lincoln Way West Rehabilitation

General Notes  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



REVISIONS:

| DATE | DESCRIPTION |
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ACCOUNT NUMBER  
02SS02

MANHOLES, CATCH BASINS, INLETS AND PIPES REMOVED OR ABANDONED

ALL CASTING, PRE-CAST STRUCTURES AND PIPES SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT-OF-WAY FOR SALVAGE BY THE CITY. CONTACT THE CITY OF MASSILLON STREET SUPERINTENDENT – MARK LIGHTFOOT AT 330-833-5746. ANY UNWANTED MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

ITEM 407. TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.08 GALLONS PER SQUARE YARD OF TACK COAT FOR EXTISMATING PURPOSES ONLY.

ITEM 408. BITUMINOUS PRIME COAT

THE RATE OF APPLICATION OF THE 408 PRIME COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.40 GALLONS PER SQUARE YARD OF PRIME COAT FOR ESTIMATING PURPOSES ONLY.

CROSSING OR CONNECTING TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRDE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

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

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

PAYMENT FOR THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

ITEM 604. MASS CI-1

CATCH BASINS SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 604 EXCEPT THAT THE GRATES SHALL BE NEENAH NO. R-4859-C WITH NO DUMP NO WASTE OR EAST JORDON NO. 7350 WITH FISH BACK OR APPROVED EQUALS.

ITEM 609. CAST IN PLACE 6”X18” CONCRETE CURB

GRANULAR BEDDING, BACKFILLING AND CONCRETE CURB PLACEMENT ALONG WITH ALL APPURTENANCES IS TO BE INCLUDED IN ITEM 609. THIS SHALL ALSO INCLUDE THE REPLACEMENT AND REMOVAL OF ALL WALK EXTENSION DISTURB DO TO CURB PLACEMENT

ITEM 659. TOPSOIL, SEEDING AND MULCHING

ITEM 659 SHALL BE APPLIED TO ALL EXPOSED SOIL AREAS DISTURBED DURING CONSTRUCTION. SUCH AS SPECIFIED IN ITEM 659 AND IS NOT LIMITED TO JUST TOPSOIL, SEEDING AND MULCHING. THE CITY SHALL APPROVE SEED MIX PRIOR TO CONSTRUCTION TO BE USED THROUGH OUT CONSTRUCTION LIMITS. PROPOSED MIX SHALL BE SUBMITTED IN WRITING PRIOR TO ANY CONSTRUCTION. ALL ABOVE SAID WORK SHALL BE PAID FOR UNDER

ITEM 659, SEEDING AND MULCHING LUMP SUM BID

RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS

EACH LOT SHALL BE SUPPLIED WITH A SINGLE 10” STORM LATERAL THAT WILL BE INSTALLED FROM THE MAIN TO THE PROPERTY LINE, SAID STORM LATERAL SHALL BE CONNECTED TO FOUNDATION DRAINS, SUMP DRAIN AND WHEN POSSIBLE AS PER ENGINEER’S DIRECTION THE DOWN SPOUT WILL BE CONNECTED.

THE FOLLOWING WORK SHALL BE PAID FOR UNDER ITEM 603 10” STORM LATERAL.

ITEM SPECIAL – PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING CONDUITS SPECIFIED IN THE FIELD. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 203.05. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL – PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATE QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

SPECIAL, 500 FEET PIPE CLEANOUT 500 L.F.

ITEM 651. TOPSOIL STOCKPILED

THE MATERIAL FOR THIS ITEM SHALL BE OBTAINED FROM AREAS WITHIN THE PROPOSED RIGHT-OF-WAY.

PROVISION OF THIS 651 ITEM SHALL NOT BE CONSTRUCTED AS A WAIVER OF THE PROVISIONS OF 201.4 SOD AND INCIDENTAL TOPSOIL REMOVED ELSEWHERE ON THIS PROJECT FOR SALVAGE, FOR USE AS DESCRIBED IN 203.04(e). SHALL BE INCLUDED IN THE CONTRACT PRICE FOR VARIOUS 203 ITEMS.

REVIEW OF SANITARY AND DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY OF MASSILLON AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY OF MASSILLON.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY OF MASSILLON.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR’S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

DOWN SPOUTS

ALL DOWN SPOUTS UNABLE TO BE CONNECTED TO THE STORM LATERAL SHALL BE PUT THROUGH THE CURB AS PER ENGINEER’S DIRECTION.

CURB OPENING SHALL NOT GREATER THAN A 3 1/2” DIAMETER.

THE WORK ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 609.

ITEM SPECIAL – FILL AND PLUG EXISTING CONDUIT

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

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

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER. SO THAT, AFTER SETTLEMENT,

AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF LINEAR FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

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

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER LINEAR FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

SANITARY SEWER SPECIFICATIONS

SANITARY SEWER CONSTRUCTION CONTEMPLATED FOR THIS PROJECT SHALL CONFORM TO THE LATEST CITY OF MASSILLON STANDARD CONSTRUCTION AND MATERIALS SPECIFICATIONS OR AS MODIFIED BY THE CONTRACT DRAWINGS. THE PROJECT CONTRACT DRAWINGS SHALL GOVERN.

SANITARY GRAVITY SEWER PIPE AND FITTINGS SHALL BE PVC SDR 35 CONFORMING TO ASTM D-3034. PVC COMPOUNDS SHALL CONFORM TO ASTM D-1784 PVC PIPE AND FITTINGS SHALL HAVE BELL AND SPIGOT TYPE JOINTS CONFORMING TO ASTM D-3212 AND GASKETS CONFORMING TO ASTM F-477

BACKFILL IN SEWER TRENCHES SHALL BE PLACED IN LAYERS SUFFICIENT TO MEET THE COMPACTION REQUIREMENT OF 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D-698 AND THOROUGHLY COMPACTED WITH MACHINE MOUNDED COMPACTION EQUIPMENT. THE PLACING OF BACKFILL MATERIAL SHALL BE CONTINUED UNTIL THE TRENCH IS ENTIRELY FILLED AND COMPACTED TO THE GRADE CALLED FOR ON THE CONTRACT DRAWINGS. EXCAVATED MATERIAL CONFORMING TO ODOT 203 SHALL BE USED FOR BACKFILLING EXISTING STRUCTURES (AFTER REMOVAL) ONLY. CRUSHED GRAVEL CONFORMING TO GRADATION REQUIREMENTS OF ODOT ITEM 304 AS SHOWN IN ODOT TABLE 703-1 SHALL BE USED FOR BACKFILLING ALL SEWER TRENCHES, AREAS SHOWN ON THE PLANS AND AS DIRECTED BY THE OWNER. FLOODING, JETTING, OR PUDDLING OF BACKFILL MATERIAL WILL NOT BE PERMITTED. COMPACTION TESTING OF THE BACKFILL BY A GEOTECHNICAL ENGINEER MAY BE REQUIRED BY THE OWNER.

SANITARY SEWERS SHALL BE AIR TESTED FOR LEAKAGE AND MANDREL TESTED FOR DEFLECTION. THE MAXIMUM ALLOWABLE PIPE DEFLECTION SHALL BE 5%.

PRIOR TO FINAL PAYMENT FOR AND ACCEPTANCE OF SANITARY SEWER INSTALLATION THE RESULTS OF THE AIR PRESSURE TESTS, TELEVISION TESTS AND MADREL TESTS SHALL BE FORWARDED TO THE ENGINEER OR OWNER.

DEFLECTION TESTING

MAXIMUM ALLOWABLE PIPE DEFLECTION (REDUCTION IN VERTICAL INSIDE DIAMETER) SHALL BE 5%. DEFLECTION TESTS OF PIPE SHALL BE PERFORMED NOT SOONER THAN 30 DAYS AFTER THE BACKFILL HAS BEEN PLACED AN BEFORE FINAL ACCEPTANCE. LOCATIONS WITH EXCESS DEFLECTION SHALL BE EXCAVATED AND REPAIRED BY RE-BEDDING OR REPLACEMENT OF THE PIPE. DEVICES FOR TESTING INCLUDE A DEFLECTOMETER METER, OR PROPERLY SIZED “60, NO-GO” MANDREL OR SEWER BALL. THE DEFLECTION TESTING MUST BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES. FOR THE PURPOSE OF DEFLECTION MEASUREMENTS, THE BASE INSIDE PIPE DIAMETERS WITHOUT DEFLECTION ARE PROVIDED IN TABLE A. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE APPLIED TO THESE BASE INSIDE DIAMETER IN DETERMINING THE MINIMUM PERMISSIBLE DIAMETER. IT MUST BE EMPHASIZED THAT TO INSURE ACCURATE TESTING, THE LINES MUST BE THOROUGHLY CLEANED.

TABLE A  
INSIDE DIAMETERS FOR DEFLECTION MEASUREMENTS  
OF ASTM D 3034 SDR 25 / SDR 21 PVC SEWER PIPE

| SIZE | SDR | AVG. O.D. | t     | 1.06t or t' | AVG. I.D. | TOLERANCE | BASE I.D. | DEFLECTION MANDREL |
|------|-----|-----------|-------|-------------|-----------|-----------|-----------|--------------------|
| 6”   | 35  | 6.275     | 0.241 | 0.255       | 5.764     | 0.102     | 5.662     | 5.38               |
| 8”   | 35  | 8.400     | 0.323 | 0.342       | 7.715     | 0.127     | 7.588     | 7.21               |
| 10”  | 35  | 10.500    | 0.404 | 0.428       | 9.644     | 0.153     | 9.491     | 9.02               |

TELEVISION TESTING

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.

DRAWN BY:  
FPW

CHECKED BY:  
SDH

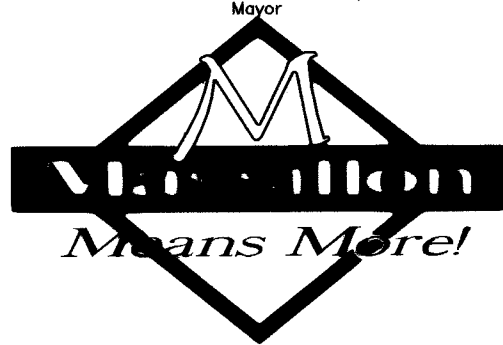
DATE:  
JULY, 2004

DATE:  
JULY, 2004

Lincoln Way West Rehabilitation

General Notes  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



REVISIONS:

| DATE | DESCRIPTION |
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FILE NAME:

02SS0206

ACCOUNT NUMBER

02SS02

6 / 90

AIR TESTING AS PER ASTM F1417

AIR TESTING WILL BE CONDUCTED AS THE PROJECT IS BEING INSTALLED. AT NO TIME WILL MORE THAN 900 FEET OF PIPE BE INSTALLED BEFORE AIR TESTING IS PERFORMED. SEWAGE WILL NOT BE DIVERTED TO ANY SECTION OF PIPE, REGARDLESS OF LENGTH, UNTIL ALL TESTING IS COMPLETED AND ACCEPTED.

AFTER BACKFILLING A MANHOLE TO MANHOLE REACH OF SANITARY SEWER LINE, THE CONTRACTOR SHALL, AT HIS EXPENSE, CONDUCT THE LINE ACCEPTANCE TESTS. THE TESTS SHALL BE PERFORMED ACCORDING TO THE STATED PROCEDURES AND UNDER THE SUPERVISION OF THE OWNER AND/OR ENGINEER.

EQUIPMENT USED SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS AND BE APPROVED BY THE ENGINEER:

- 1. PNEUMATIC PLUGS SHALL HAVE A SEALING LENGTH EQUAL TO OR A GREATER THAN THE DIAMETER OF THE PIPE BEING INSPECTED.
- 2. PNEUMATIC PLUGS SHALL RESIST INTERNAL TEST PRESSURES WITHOUT REQUIRED EXTERNAL BRACING OR BLOCKING.
- 3. ALL AIR USED SHALL PASS THROUGH A SINGLE CONTROL PANEL.
- 4. THREE INDIVIDUAL HOSES SHALL BE USED FOR THE FOLLOWING CONNECTIONS:
  - a. FROM CONTROL PANEL TO PNEUMATIC PLUGS FOR INFLATION
  - b. FROM CONTROL PANEL TO SEALED LINE FOR INTRODUCING THE LOW PRESSURE AIR
  - c. FROM SEALED LINE TO CONTROL PANEL FOR CONTINUALLY MONITORING AIR PRESSURE RISE IN THE SEALED LINE

TEST EQUIPMENT TESTING PROCEDURES SHALL BE AS FOLLOWS:

ALL PNEUMATIC PLUGS SHALL BE SEAL TESTED BEFORE BEING USED IN THE ACTUAL TEST INSTALLATION. ONE LENGTH OF PIPE SHALL BE LAID ON THE GROUND AN SEALED AT BOTH ENDS WITH THE PNEUMATIC PLUGS TO BE CHECKED. THE SEALED PIPE SHALL BE PRESSURED TO 5 PSIG. THE PLUGS MUST HOLD AGAINST THIS PRESSURE WITHOUT HAVING TO BE BRACED.

AFTER A MANHOLE TO MANHOLE REACH OF PIPE HAS BEEN BACKFILLED AND CLEANED, AND THE PNEUMATIC PLUGS ARE CHECKED BY THE ABOVE PROCEDURE, THE PLUGS SHALL BE PLACED IN THE LINE AT EACH MANHOLE. LOW PRESSURE AIR SHALL BE SLOWLY INTRODUCED INTO THIS SEALED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES APPROXIMATELY 4 PSIG.

AT LEAST TWO MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSIG, THE AIR HOSE FROM THE CONTROL PANEL TO THE AIR SUPPLY SHALL BE DISCONNECTED. THE PORTION OF THE LINE BEING TESTED SHALL BE TERMED "ACCEPTABLE" IF THE TIME REQUIRED IN MINUTES FOR THE PRESSURE TO DECREASE FROM 3.5 TO 2.5 PSIG (GREATER THEN THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE) SHALL NOT BE LESS THAN THE TIME SHOWN FOR THE GIVEN DIAMETERS IN THE FOLLOWING TABLE:

| PIPE<br>DIAMETER<br>IN. | MINIMUM<br>TIME<br>MINUTES | LENGTH<br>FOR<br>MINUTES<br>TIME, FT. | TIME FOR<br>LONGER<br>LENGTH,<br>S | SPECIFICATION TIME LENGTH (L) SHOWN, MINUTES |         |         |         |         |         |         |         |
|-------------------------|----------------------------|---------------------------------------|------------------------------------|----------------------------------------------|---------|---------|---------|---------|---------|---------|---------|
|                         |                            |                                       |                                    | 100 FT.                                      | 150 FT. | 200 FT. | 250 FT. | 300 FT. | 350 FT. | 400 FT. | 450 FT. |
| 4                       | 3:46                       | 597                                   | 0.380 L                            | 3:46                                         | 3:46    | 3:46    | 3:46    | 3:46    | 3:46    | 3:46    | 3:46    |
| 6                       | 5:40                       | 398                                   | 0.854 L                            | 5:40                                         | 5:40    | 5:40    | 5:40    | 5:40    | 5:40    | 5:42    | 6:24    |
| 8                       | 7:34                       | 298                                   | 1.520 L                            | 7:34                                         | 7:34    | 7:34    | 7:36    | 7:36    | 8:52    | 10:08   | 11:24   |
| 10                      | 9:26                       | 239                                   | 2.374 L                            | 9:26                                         | 9:26    | 9:26    | 9:53    | 11:52   | 13:51   | 15:49   | 17:48   |
| 12                      | 11:20                      | 198                                   | 3.416 L                            | 11:20                                        | 11:20   | 11:24   | 14:15   | 17:05   | 19:56   | 22:47   | 25:38   |
| 15                      | 14:10                      | 159                                   | 6.342 L                            | 14:10                                        | 14:10   | 17:46   | 22:15   | 26:42   | 31:09   | 35:36   | 40:04   |
| 18                      | 17:0                       | 133                                   | 7.692 L                            | 17:00                                        | 19:13   | 25:38   | 32:09   | 38:27   | 44:52   | 51:16   | 57:41   |
| 21                      | 19:50                      | 114                                   | 10.470 L                           | 19:50                                        | 26:10   | 36:54   | 43:37   | 52:21   | 81:00   | 69:48   | 78:31   |
| 24                      | 22:40                      | 99                                    | 13.674 L                           | 22:47                                        | 34:11   | 45:34   | 56:58   | 68:22   | 79:46   | 91:10   | 102:33  |
| 27                      | 25:30                      | 88                                    | 17.306 L                           | 28:51                                        | 43:16   | 57:41   | 72:07   | 86:32   | 100:57  | 115:22  | 129:48  |
| 30                      | 28:20                      | 80                                    | 21.366 L                           | 35:37                                        | 53:25   | 71:13   | 89:02   | 106:50  | 124:38  | 142:26  | 160:15  |
| 33                      | 31:10                      | 72                                    | 25.852 L                           | 49:05                                        | 64:38   | 86:10   | 107:43  | 129:16  | 150:43  | 172:21  | 193:53  |
| 36                      | 34:00                      | 66                                    | 30.768 L                           | 51:17                                        | 76:55   | 102:34  | 128:12  | 153:50  | 170:29  | 205:07  | 230:46  |

IN AREAS WHERE GROUND WATER IS KNOWN TO EXIST, THE CONTRACTOR SHALL INSTALL A 1/2 INCH DIAMETER CAPPED PIPE NIPPLE APPROXIMATELY 10 INCHES LONG, THROUGH THE MANHOLE WALL ON TOP OF ONE OF THE SANITARY SEWER LINES ENTERING THE MANHOLE. THIS SHALL BE DONE AT THE TIME THE SANITARY SEWER LINE IS INSTALLED. IMMEDIATELY PRIOR TO THE PERFORMANCE OF THE LINE ACCEPTABILITY TEST, THE GROUND WATER SHALL BE DETERMINED BY REMOVING THE PIPE CAP, BLOWING AIR THROUGH THE PIPE NIPPLE IN THE GROUND SO AS TO CLEAR IT, AND THEN CONNECTING A CLEAR PLASTIC TUBE TO THE NIPPLE. THE PLASTIC TUB SHALL BE VERTICAL AND A MEASUREMENT OF THE HEIGHT, IN FEET OF WATER OVER THE INVERT OF THE PIPE, SHALL BE TAKEN AFTER THE WATER HAS STOPPED RISING IN THIS PLASTIC TUBE. AIR TEST PRESSURE IS TO BE INCREASED BY 0.433 PSI FOR EACH FOOT THE GROUND WATER IS ABOVE THE INVERT OF THE SEWER LINE BEING TESTED. THE ALLOWABLE DROP OF ONE POUND AND THE TIMING OF THE TEST REMAIN THE SAME.

IF A LINE ACCEPTABILITY TEST IS BEING CONDUCTED ON MORE THAN ONE MANHOLE REACH OF PIPE, THE ENTIRE SECTION BEING TESTED SHALL MEET THE LINE ACCEPTABILITY REQUIREMENTS AS IF ONLY ON E (1) OF THE MANHOLE REACHES IN THE SECTION WERE BEING TESTED.

INFILTRATION AND EXFILTRATION TESTING OF MANHOLES

INFILTRATION OR EXFILTRATION OF MANHOLES SHALL NOT EXCEED 200 GALLONS PER DAY. ALL CASTINGS HAVING CONTACT WITH SEWAGE OR DRAINING INTO THE SANITARY SEWER SHALL BE TESTED AND SHALL COMPLY WITH THE ABOVE STATED LIMIT. THE FOLLOWING PROCEDURE SHALL BE FOLLOWED:

- A. TESTS MUST BE COMPLETED AND ACCEPTED BEFORE A MANHOLE OR WET WELL IS OPENED FOR EXPOSURE TO THE SEWAGE SYSTEM
- B. ALL LINES ENTERING AND LEAVING THE CASTING SHALL BE PLUGGED WITH PNEUMATIC PLUGS AS DESCRIBED IN NOTE 10 ABOVE
- C. THE CASTING SHALL BE FILLED WITH WATER TO A DEPTH OF 3 FEET ABOVE THE CROWN OF THE HIGHEST PIPE THROUGH THE WALL OF THE CASTING, OR 3 FEET ABOVE THE WATER TABLE, WHICH EVER IS HIGHER. ALLOW THE WATER TO STAND FOR 1 HOUR TO ALLOW FOR ABSORPTION INTO THE CASTING MATERIAL. REFILL TO THE 3 FOOT LEVEL AND ALLOW TO STAND FOR 2 HOURS. IF THE WATER LEVEL DROPS LESS THAN THE AMOUNT SHOWN IN TABLE B, THE MANHOLE SHALL BE DEEMED TO HAVE PASSED THE INFILTRATION/ EXFILTRATION TEST.

| (VALUES IN INCHES) |                            |
|--------------------|----------------------------|
| INSIDE DIAMETER    | ALLOWABLE DROP<br>IN LEVEL |
| 48                 | 1.0                        |
| 60                 | 1.5                        |
| 72                 | 2.0                        |
|                    |                            |

WORKING AREA

NO EXCAVATION WITH SIDE SLOPES STEEPER THAN 2:1 AND/OR DEEPER THAN 2', OPEN CASTINGS AND PIPES SHALL BE LEFT EXPOSED WHEN THE SITE IS UNATTENDED BY THE CONTRACTOR. THE CONTRACTOR SHALL SECURE ALL SUCH EXCAVATIONS, OPEN CASTINGS AND PIPES AGAINST UNAUTHORIZED ENTRY COVERING WITH STEEL PLATES, TEMPORARY BACKFILLING, FENCING AND SECURITY SERVICES SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK.

EROSION CONTROL

THE CONTRACTOR SHALL PREPARE AND SUBMIT A STORM WATER POLLUTION CONTROL PLAN TO THE CITY OF MASSILLON ENGINEER TO BE FORWARDED TO OBTAIN A PERMIT. THE STORM WATER POLLUTION CONTROL PLAN SHALL AN EFFECTIVE PLAN. SAID PLAN MUST COMPLY W/ THE OHIO DEPARTMENT OF NATURAL RESOURCES. THE OHIO EVIROMETAL SOIL AND WATER CONSERVATION DISTRICT AND THE CITY OF MASSILLON BEST MANAGEMENT PRACTICES.

BECAUSE OF THE LINEAR NATURE OF THIS PROJECT. THE PLAN WILL VARY DAILY BASED UPON THE CONTRACTORS MEANS AND METHODS OF CONSTRUCTION. THE CITY AND ALL LOCAL, STATE AND FEDERAL AGENCIES WILL MONITOR THE CONSTRUCTION SITE AND THE CHOSEN METHOD OF SOIL EROSION CONTROL. THE CONTRACTOR WILL BE HELD TO FOLLOWING THE IMPLEMENTATION AS NECESSARY TO PROTECT THE INTEGRITY OF THE STORM SEWERS AND THE WATER'S OF THE STATE OF OHIO.

BELOW IS A NUMBER OF MISC. ITEMS WHICH MAYBE USED BUT NOT LIMITED TO.

ITEM 870 – COMMERCIAL FERTILIZER  
ITEM 870 – REPAIR SEEDING AND MULCHING  
ITEM 870 – WATER

ITEM 877 – TEMPORARY SEEDING AND MULCHING  
ITEM 877 – TEMPORARY FILTER FABRIC FENCE  
ITEM 877 – TEMPORARY INLET PROTECTION

ALL OF THE ABOVE SAID WORK SHALL BE INCLUDED IN ITEM 207SPEC EROSION CONTROL.

CONCRETE REMOVAL

REMOVAL OF EXISTING CONCRETE SHALL BE INCLUDED IN ITEM 202, EXCAVATION, INCLUDING ROADWAY

REMOVAL OF TRAFFIC CONTROL DEVICES AND PRECAST STRUCTURES

ALL TRAFFIC CONTROL DEVICES AND PRE-CAST STRUCTURES WITH CASTINGS SHALL BE REMOVED IN A WAY NOT TO DAMAGE. SAID ITEMS SHALL BE STORED UNTIL THEY CAN BE TRANSPORTED TO THE CITY GARAGE BY THE CONTRACTOR. THE CONTRACTOR MUST COORDINATE SAID DELIVERS WITH MARK LIGHTFOOT AT (330)833-5746.

ALL OF THE ABOVE SAID WORK SHALL BE INCLUDED IN PERTINENT 202 ITEM.

FINAL APPROVAL

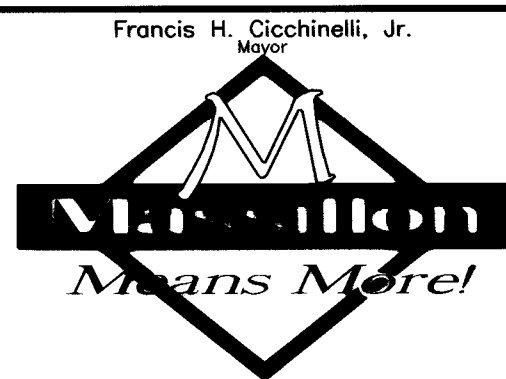
A VIDEO TAPE WILL BE MADE BY THE CONTRACTOR AND SUBMITTED TO THE CITY PRIOR TO THE PROJECT COMMENCING. AFTER THE FINAL INVOICE IS RECEIVED THE SITE WILL BE VIDEO TAPED AGAIN BY THE CONTRACTOR. ANY DISCREPANCIES WILL BE RESOLVED PRIOR TO FINAL PAYMENT. AS BUILT DRAWING SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE CITY IN A CLEAR AND LEGEND ABLE MANNER PRIOR TO FINAL INVOICE.

COST OF THIS WORK SHALL BE INCLUDED IN ITEM 623 CONSTRUCTION STAKING

|                           |                     |
|---------------------------|---------------------|
| DRAWN BY:<br>Jason Haines | CHECKED BY:<br>FPW  |
| DATE:<br>July, 2004       | DATE:<br>July, 2004 |

Lincoln Way West Rehabilitation

General Notes  
City of Massillon  
Stark County, Ohio



| REVISIONS: |             |
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| DATE       | DESCRIPTION |
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| ELECTRONIC FILE NAME:<br>98ST0404.DWG |
| ACCOUNT NUMBER<br>98ST04              |

| SHEET NUMBER |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | ITEM    | GRAND<br>TOTAL | UNIT | DESCRIPTION                                                               |
|--------------|------|---|------|------|------|------|------|------|------|------|-------|-------|----|-------|----|-----|---------|----------------|------|---------------------------------------------------------------------------|
| 4            | 5    | 6 | 7    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17    | 18    | 33 | 60    | 70 | 84A |         |                |      |                                                                           |
|              | LUMP |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     |         |                |      | ROADWAY                                                                   |
|              |      |   |      | 10   | 14   | 14   | 3    |      | 3    |      |       |       |    |       |    |     | 201     | LUMP           | LUMP | CLEARING AND GRUBBING                                                     |
|              |      |   |      | 1420 | 1044 | 1952 | 902  | 1412 | 1521 |      |       |       |    |       |    |     | 202     | 44             | EACH | CATCH BASIN REMOVED                                                       |
|              |      |   |      | 4    | 8    | 6    | 9    | 10   | 5    |      |       |       |    |       |    |     | 202     | 8241           | LF   | PIPE REMOVED                                                              |
|              |      |   |      |      |      |      | 4    | 7    |      |      |       |       |    |       |    |     | 202     | 39             | EACH | MANHOLE REMOVED                                                           |
|              |      |   |      |      |      |      |      | 2    | 6    |      |       |       |    |       |    |     | 202SPEC | 11             | EACH | PRECAST STRUCTURE REMOVED                                                 |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 202SPEC | 8              | EACH | DRAINAGE STRUCTURE REMOVED                                                |
|              |      |   |      |      |      |      | 1036 | 391  |      |      |       |       |    |       |    |     | 202SPEC | 1427           | LF   | TRENCH REHABILITATION                                                     |
|              |      |   |      |      |      |      |      |      | 130  |      |       |       |    |       |    |     | 203SPEC | 130            | LF   | SLOPE AND DITCH REHABILITATION                                            |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    | 14863 |    |     | 203     | 14863          | CY   | EXCAVATION INCLUDING ROADWAY                                              |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    | 293   |    |     | 203     | 293            | CY   | EMBANKMENT NOT INCLUDING EXCAVATION                                       |
| LUMP         |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 204     | LUMP           | LUMP | SUBGRADE COMPACTION AND PROOF ROLLING                                     |
| 15028        |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 608     | 10000          | SF   | 4" CONCRETE WALK                                                          |
|              |      |   |      | 8    | 8    | 4    |      | 4    | 4    |      |       |       |    |       |    |     | 608     | 28             | EACH | CURB RAMP TYPE A                                                          |
|              |      |   |      |      | 8    | 4    | 8    | 4    |      |      |       |       |    |       |    |     | 608     | 20             | EACH | CURB RAMP TYPE B                                                          |
|              |      |   | LUMP |      |      |      |      |      |      |      |       |       |    |       |    |     | 632     | LUMP           | LUMP | TRAFFIC CONTROL DEVICES REMOVED                                           |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | SPEC.   | 500            | LF   | PIPE CLEAN OUT                                                            |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     |         |                |      | EROSION CONTROL                                                           |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 207SPEC | LUMP           | LUMP | EROSION CONTROL                                                           |
|              |      |   |      |      |      |      |      |      | 58   |      |       |       |    |       |    |     | 601     | 58             | CY   | ROCK CHANNEL PROTECTION W/ TYPE B FILTER                                  |
|              |      |   |      |      |      |      |      |      | 70   |      |       |       |    |       |    |     | 601SPEC | 70             | LF   | GABION BASKETS                                                            |
|              |      |   | LUMP |      |      |      |      |      |      |      |       |       |    |       |    |     | 659SPEC | LUMP           | LUMP | SEEDING AND MULCHING                                                      |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     |         |                |      | DRAINAGE                                                                  |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 602     | 1              | EACH | CONCRETE COLLAR                                                           |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 602     | 1              | EACH | BULK HEAD                                                                 |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 602     | 2              | EACH | CONCRETE HEADWALL, AS PER PLAN                                            |
|              |      |   |      | 10   |      | 5    |      |      | 2    |      |       |       |    |       |    |     | 603     | 15             | LF   | 6" TYPE B CONDUIT, 707.33                                                 |
|              |      |   |      | 8    |      |      |      |      |      |      |       |       |    |       |    |     | 603     | 8              | LF   | 10" TYPE B CONDUIT, 707.33                                                |
|              |      |   |      | 327  | 321  | 393  | 68   | 258  | 395  |      |       |       |    |       |    |     | 603     | 1762           | LF   | 12" TYPE B CONDUIT, 707.33                                                |
|              |      |   |      |      | 390  | 730  |      |      |      |      |       |       |    |       |    |     | 603     | 1320           | LF   | 15" TYPE B CONDUIT, 707.33                                                |
|              |      |   |      | 375  |      | 320  | 187  | 130  |      |      |       |       |    |       |    |     | 603     | 1012           | LF   | 18" TYPE B CONDUIT, 707.33                                                |
|              |      |   |      | 455  |      |      |      | 153  | 56   |      |       |       |    |       |    |     | 603     | 664            | LF   | 24" TYPE B CONDUIT, 707.33                                                |
|              |      |   |      | 347  |      |      |      |      |      |      |       |       |    |       |    |     | 603     | 347            | LF   | 36" TYPE B CONDUIT, 707.33                                                |
|              |      |   |      |      |      |      |      |      | 120  |      |       |       |    |       |    |     | 603     | 120            | LF   | 12' X 6' CONCRETE BOX CULVERT TYPE A, 706.05                              |
|              |      |   |      |      |      |      | 2    | 1    |      |      |       |       |    |       |    |     | 603     | 3              | EACH | MASS. MANHOLE REHABILITATION                                              |
|              |      |   |      | 4    | 4    | 4    | 3    | 4    | 4    |      |       |       |    |       |    |     | 603     | 15             | EACH | MANHOLE TYPE 3, W/ MASSILLON MANHOLE CASTING SET                          |
|              |      |   |      | 13   | 12   | 12   | 7    | 6    | 6    |      |       |       |    |       |    |     | 604     | 58             | EACH | CATCH BASIN TYPE MASS CI-1                                                |
|              |      |   |      |      |      |      |      | 2    |      |      |       |       |    |       |    |     | 604     | 2              | EACH | CATCH BASIN TYPE MASS CI-2                                                |
|              |      |   |      |      |      | 1    |      |      |      |      |       |       |    |       |    |     | 604     | 1              | EACH | CATCH BASIN TYPE 2-2-B                                                    |
|              |      |   |      |      |      |      |      |      |      |      |       | 13100 |    |       |    |     | 605     | 13100          | LF   | 4" SHALLOW PIPE UNDERDRAINS                                               |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     |         |                |      | PAVEMENT                                                                  |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    | 225   |    |     | 254     | 700            | SY   | PAVEMENT PLANING                                                          |
|              |      |   |      |      |      |      |      |      |      | 7600 |       |       |    |       |    |     | 301     | 7660           | CY   | ASPHALT CONCRETE BASE                                                     |
|              |      |   |      |      |      |      |      |      |      | 5190 |       |       |    |       |    |     | 304     | 5190           | CY   | AGGREGATE BASE                                                            |
|              |      |   |      |      |      |      |      |      |      | 2254 |       |       |    |       |    |     | 407     | 2254           | GAL  | TACK COAT                                                                 |
|              |      |   |      |      |      |      |      |      |      |      | 12150 |       |    |       |    |     | 408     | 11269          | GAL  | PRIME COAT                                                                |
|              |      |   |      |      |      |      |      |      |      |      | 1270  |       |    |       |    |     | 448     | 1270           | CY   | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22                    |
|              |      |   |      |      |      |      |      |      |      |      | 1270  |       |    |       |    |     | 448     | 1300           | CY   | ASPHALT CONCRETE SUFACE COURSE, TYPE 1, PG 64-22                          |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 452     | 1391           | SY   | 6" PLAIN PORTLAND CEMENT CONCRETE APRON/WALK                              |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 452     | 711            | SY   | 8" PLAIN PORTLAND CEMENT CONCRETE APRON/WALK                              |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 452SPEC | 1000           | SY   | CONCRETE DRIVE                                                            |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 452SPEC | 1000           | SY   | ASPHALT DRIVE                                                             |
|              |      |   |      |      |      |      |      |      |      |      |       | 13100 |    |       |    |     | 609     | 13100          | LF   | CAST IN PLACE CONCRETE CURB - 6"x18"                                      |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 705     | LUMP           | LUMP | PREFORMED FILLERS AND JOINT SEALER                                        |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     |         |                |      | PAVEMENT                                                                  |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     | 452     | 31370          | SY   | 9" NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT INCLUDING CURB ALT. A |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    |       |    |     |         |                |      | SANITARY                                                                  |
|              |      |   |      |      |      |      |      |      | 1    |      |       |       |    |       |    |     | 602     | 3              | EACH | CONCRETE COLLAR                                                           |
|              |      |   |      |      |      |      |      |      |      |      |       |       |    | 1     |    |     | 602     | 1              | EACH | BULK HEAD                                                                 |
|              |      |   |      |      |      |      |      |      | 25   |      |       |       |    |       |    |     | 603     | 1540           | LF   | 6" TYPE B CONDUIT, SANITARY                                               |
|              |      |   |      |      | 74   |      | 60   | 737  | 1134 |      |       |       |    |       |    |     | 603     | 2005           | LF   | 8" TYPE B CONDUIT, SANITARY                                               |
|              |      |   |      |      |      |      | 571  | 340  | 278  |      |       |       |    |       |    |     | 603     | 1189           | LF   | 12" TYPE B CONDUIT, SANITARY                                              |
|              |      |   |      | 7    | 4    | 4    | 1    |      |      |      |       |       |    |       |    |     | 604     | 16             | EACH | MASS. MANHOLE REHABILITATION (SANITARY)                                   |
|              |      |   |      |      | 1    |      | 5    | 5    | 10   |      |       |       |    |       |    |     | 604     | 21             | EACH | MANHOLE TYPE 3, W/ MASSILLON MANHOLE CASTING SET (SANITARY)               |
|              |      |   |      |      |      |      |      |      | 1    |      |       |       |    |       |    |     | 604     | 1              | EACH | SANITARY LATERIAL CLEAN-OUT                                               |
|              |      |   |      |      | 20   |      |      |      |      |      |       |       |    |       |    |     | 603SPEC | 20             | LF   | 8" TYPE B CONDUIT SANITARY REPAIR                                         |

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| JK          | SDH         |
| DATE:       | DATE:       |
| Sept., 2004 | Sept, 2004  |

Lincoln Way West Rehabilitation

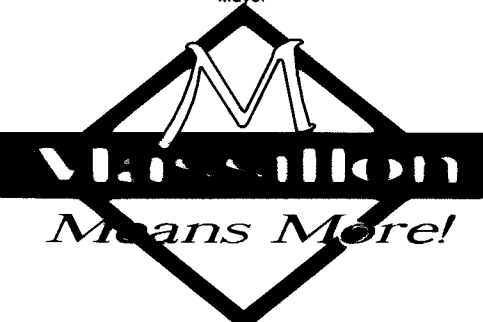
General Summary

City of Massillon

Stark County, Ohio

Francis H. Cicchinelli, Jr.

Mayor



REVISIONS:

| DATE | DESCRIPTION |
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FILE NAME:

03ST0308.DWG

ACCOUNT NUMBER

03ST03

| SHEET NUMBER |      |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ITEM     | GRAND TOTAL | UNIT | DESCRIPTION                                             |
|--------------|------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|-------------|------|---------------------------------------------------------|
| 5            | 86   | 90  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |          |             |      | TRAFFIC CONTROL                                         |
|              |      | 8   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 630      | 8           | EACH | SIGN D-14SPEC.                                          |
|              |      | 16  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 630      | 16          | EACH | SIGN R-73A-95SPEC.                                      |
|              |      | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 630      | 4           | EACH | SIGN R-26A-30SPEC.                                      |
|              |      | 16  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632      | 16          | EACH | PEDESTRIAN PUSHBUTTON                                   |
|              |      | 16  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632      | 16          | EACH | PEDESTRIAN SIGNALS                                      |
|              |      | 13  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632      | 13          | EACH | VEHICULAR SIGNAL TYPE A                                 |
|              |      | 4   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632      | 4           | EACH | VEHICULAR SIGNAL TYPE B                                 |
|              |      | 7   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632      | 7           | EACH | SIGNAL SUPPORT TC-81.20, DESIGN, 3                      |
|              |      | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632      | 1           | EACH | SIGNAL SUPPORT TC-81.20, DESIGN 11                      |
|              |      | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 632SPEC. | 2           | EACH | VIDEO DETECTION SYSTEM COMPLETE                         |
|              |      | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 633      | 2           | EACH | 8 PHASE CONTROLLER W/ CABINET, FOUNDATION, AND WORK PAD |
|              | 0.58 |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 642      | 0.58        | MILE | 2-DIRECTION, NO-PASSING MARKING YELLOW 4"               |
|              | 0.86 |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 642      | 0.86        | MILE | 1-DIRECTION, NO-PASSING MARKING YELLOW 4"               |
|              | 0.97 |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 642      | 0.97        | MILE | WHITE LANE LINE 4"                                      |
|              | 284  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 644      | 284         | LF   | 24" STOP LINE                                           |
|              | 452  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 644      | 452         | LF   | WIDE SOLID CHANNELIZING LINE 8"                         |
|              | 494  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 644      | 494         | LF   | SOLID WHITE CROSS WALK 6' APART 8"                      |
|              | 32   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 644      | 32          | EACH | ARROWS                                                  |
|              | 4    |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 644      | 4           | EACH | WORDS                                                   |
|              |      | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 725      | 2           | EACH | 18"x18" TRAFFIC PULLBOX, 725.07                         |
|              |      | 2   |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 725      | 2           | EACH | 24"x24" TRAFFIC PULLBOX, 725.07                         |
|              |      | 557 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 725      | 557         | LF   | 4" CONDUIT                                              |
| LUMP         |      |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 614SPEC  | LUMP        | LUMP | MAINTENANCE OF TRAFFIC                                  |
|              |      |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 614      | LUMP        | LUMP | MAINTAINING TRAFFIC                                     |
|              |      |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 619      | LUMP        | LUMP | FEILD OFFICE, TYPE C                                    |
|              |      |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 623      | LUMP        | LUMP | CONSTRUCTION STAKING                                    |
|              |      |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 624      | LUMP        | LUMP | MOBILIZATION                                            |

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| DRAWN BY:<br>JK      | CHECKED BY:<br>SDH   |
| DATE:<br>Sept., 2004 | DATE:<br>Sept., 2004 |

Lincoln Way West Rehabilitation  
General Summary  
City of Massillon  
Stark County, Ohio



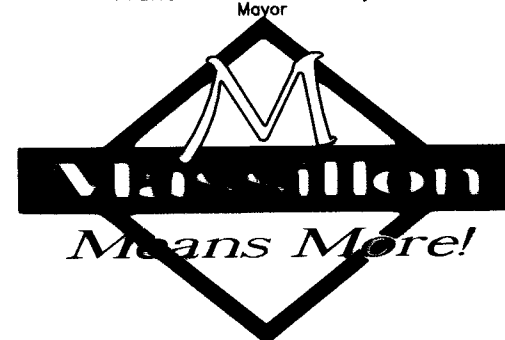
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| ACCOUNT NUMBER | 03ST03       |

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| <b>DRAWN BY:</b><br>FPW      | <b>CHECKED BY:</b><br>SDH     |
| <b>DATE:</b><br>May 27, 2003 | <b>DATE:</b><br>June 11, 2003 |

Estimated Quantities  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

[illegible]

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| FILE NAME:     | 03ST0310.DWG |
| ACCOUNT NUMBER | 03ST03       |









| SHT No.                           | REF. No. | SIDE  | STATION   |           | 202                 | 202          | 202             | 202             | 601                               | 603                          | 603               | 603                          | 603                | 603                           | 603                | 603                | 603                | 603                | 603                | 202          | 603                      | 604                       | 604                  | 604                       | 604                       | 604                       | 604                       | 604                       | 604                   | 608                       | 608                       | SPEC.                  | SPEC.          |    |
|-----------------------------------|----------|-------|-----------|-----------|---------------------|--------------|-----------------|-----------------|-----------------------------------|------------------------------|-------------------|------------------------------|--------------------|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------|--------------------------|---------------------------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-----------------------|---------------------------|---------------------------|------------------------|----------------|----|
|                                   |          |       | FROM      | TO        | CATCH BASIN REMOVED | PIPE REMOVED | MANHOLE REMOVED | STRUCT. REMOVED | ROCK CHANNEL PROTECTION W/ FILTER | 6" TYPE B CONDUIT (SANITARY) | 6" TYPE B CONDUIT | 8" TYPE B CONDUIT (SANITARY) | 10" TYPE B CONDUIT | 12" TYPE B CONDUIT (SANITARY) | 12" TYPE B CONDUIT | 15" TYPE B CONDUIT | 18" TYPE B CONDUIT | 24" TYPE B CONDUIT | 36" TYPE B CONDUIT | CONC. COLLAR | 12'x6' CONC. BOX CULVERT | MANHOLE REHAB. (DRAINAGE) | CLEAN OUT (SANITARY) | MANHOLE TYPE 3 (SANITARY) | MANHOLE TYPE 3 (DRAINAGE) | CATCH BASIN TYPE MASSC1-1 | CATCH BASIN TYPE MASSC1-2 | MANHOLE REHAB. (SANITARY) | HEAD-WALL AS PER PLAN | CURB RAMPS TYPE A (SPEC.) | CURB RAMPS TYPE B (SPEC.) | SLOPE AND DITCH REHAB. | GABION BASKETS |    |
|                                   |          |       |           |           | EACH                | EACH         | EACH            | EACH            | C.Y.                              | L.F.                         | L.F.              | L.F.                         | L.F.               | L.F.                          | L.F.               | L.F.               | L.F.               | L.F.               | L.F.               | EACH         | L.F.                     | EACH                      | EACH                 | EACH                      | EACH                      | EACH                      | EACH                      | EACH                      | EACH                  | EACH                      | EACH                      | L.F.                   | L.F.           |    |
| 31                                | R-92     | RT    | 307+18    | 307+18    | 1                   | 8            |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | CB-53    | LT    |           | 306+75    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           | 1                         |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | CB-54    | RT    |           | 306+75    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | DP-71    | RT/LT | 306+75    | 306+75    |                     |              |                 |                 |                                   |                              |                   |                              |                    | 28                            |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | DP-72    | RT    | 306+75    | 306+75    |                     |              |                 |                 |                                   |                              |                   |                              |                    | 8                             |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | DM-20    | RT    |           | 306+75    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | SP-18    | LT    | 308+25    | 309+25    |                     |              |                 |                 |                                   |                              |                   | 100                          |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | SP-19    | LT    | 309+25    | 313+00    |                     |              |                 |                 |                                   |                              | 400               |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | SM-15    | LT    |           | 308+25    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      | 1                         |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 31                                | SM-16    | LT    |           | 309+25    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      | 1                         |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | R-93     | LT    | 309+48    | 312+93    |                     | 346          | 1               |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | R-94     | LT    | 309+48    | 314+46    |                     | 498          | 1               |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | CB-55    | LT    |           | 312+10    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           | 1                         |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | CB-56    | RT    |           | 312+10    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | DP-73    | RT/LT | 312+10    | 312+10    |                     |              |                 |                 |                                   |                              |                   |                              |                    | 28                            |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | DP-74    | RT    | 312+10    | 312+10    |                     |              |                 |                 |                                   |                              |                   |                              |                    | 8                             |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | DP-75    | RT    | 312+10    | 315+32.43 |                     |              |                 |                 |                                   |                              |                   |                              |                    | 323                           |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | DM-21    | RT    |           | 312+10    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | SM-17    | LT    |           | 313+00    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | SP-20    | LT    | 313+00    | 314+35    |                     |              |                 |                 |                                   |                              | 160               |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 32                                | CR-45    | LT    |           | 309+79    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       | 1                         |                           |                        |                |    |
| 32                                | CR-46    | LT    |           | 310+11    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       | 1                         |                           |                        |                |    |
| 33                                | R-95     | LT    | 314+46    | 317+55    |                     | 309          |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | R-96     | RT/LT | 315+31    | 315+36    | 2                   | 55           |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | CB-57    | RT    |           | 315+31.78 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           | 1                         |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | CB-58    | LT    |           | 315+34.71 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | DP-76    | RT    | 315+31.50 | 315+31.78 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    | 13                 |                    | 1            |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | DP-77    | RT    | 315+31.78 | 315+32.43 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    | 8                  |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | DP-78    | RT/LT | 315+32.43 | 315+34.71 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    | 28                 |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | DP-79    | LT    | 315+34.71 | 315+35.27 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    | 7                  |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | DM-22    | LT    |           | 315+32.43 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | DM-23    | LT    |           | 315+35.27 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           | 1                         |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SP-21    | LT    | 314+35    | 317+50    |                     |              |                 |                 |                                   |                              | 315               |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SP-22    | RT/LT | 317+50    | 318+00    |                     |              |                 |                 |                                   |                              | 58                |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SP-23    | RT    | 318+00    | 318+42.79 |                     |              |                 |                 |                                   |                              | 101               |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SM-18    | LT    |           | 314+35    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SM-19    | LT    |           | 317+50    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SM-20    | RT    |           | 318+00    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           | 1                         |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | SM-21    | RT    |           | 318+42.79 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 33                                | CR-47    | RT    |           | 317+82.30 |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           | 1                         |                        |                |    |
| 33                                | CR-48    | RT    |           | 318+08    |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           | 1                         |                        |                |    |
| 76                                | SDR      | RT/LT | 1+50      | 4+00      |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        | 130            |    |
| 76                                | DS-1     | CL    | 2+20      | 3+40      |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              | 120                      |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 76                                | RC-1     | RT    | 1+80      | 2+20      |                     |              |                 |                 | 32                                |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 76                                | RC-2     | LT    | 3+40      | 3+80      |                     |              |                 |                 | 26                                |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 76                                | HW-1     | RT/LT |           | 2+20      |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 76                                | HW-2     | RT/LT |           | 3+40      |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 76                                | G-1      | RT/LT | 1+80      | 2+15      |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                | 70 |
| 83                                | R-97     | RT.   |           | 2+77      |                     |              |                 | 1               |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | R-98     | RT    | 2+00      | 2+77      |                     |              |                 | 2               |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | R-99     | RT    |           | 3+56      |                     |              |                 | 1               |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | R-100    | LT    | 3+56      | 4+28      |                     |              |                 | 2               |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | R-101    | RT    | 2+00      | 4+77.37   |                     | 313          | 3               |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SP-10    | CL    | 2+00      | 2+38.83   |                     |              |                 |                 |                                   |                              |                   |                              |                    | 39                            |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SP-11    | CL    | 2+38.83   | 3+26      |                     |              |                 |                 |                                   |                              |                   |                              |                    | 87                            |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SP-12    | LT    | 1+88±     | 2+38.83   |                     |              |                 |                 |                                   | 25                           |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SP-13    | CL    | 3+26      | 4+77.37   |                     |              |                 |                 |                                   |                              |                   |                              |                    | 152                           |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SM-9     | CL    |           | 2+00      |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SM-10    | CL    |           | 2+38.83   |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | SM-11    | CL    |           | 4+77.37   |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| 83                                | CO-1     | LT    |           | 1+88±     |                     |              |                 |                 |                                   |                              |                   |                              |                    |                               |                    |                    |                    |                    |                    |              |                          |                           |                      |                           |                           |                           |                           |                           |                       |                           |                           |                        |                |    |
| TOTALS CARRIED TO GENERAL SUMMARY |          |       |           |           | 3                   | 1521         | 5               | 6               | 58                                | 25                           | 0                 | 1134                         | 0                  | 278                           | 395                | 0                  | 0                  | 56                 | 0                  | 1            | 120                      | 0                         | 1                    | 10                        | 4                         | 6                         | 0                         | 0                         | 2                     | 4                         | 0                         | 130                    | 70             |    |

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| DRAWN BY:    | CHECKED BY:   |
| FPW          | SDH           |
| DATE:        | DATE:         |
| May 27, 2003 | June 11, 2003 |

Lincoln Way West Rehabilitation

Summary  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

REVISIONS:

| DATE | DESCRIPTION |
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FILE NAME:

03ST0315.DWG

ACCOUNT NUMBER

03ST03

15 / 90

| ITEM 301 BITUMINOUS AGGREGATE BASE                                                      |               | (Continue Item 304 Aggregate Base)                                                     |              | (Continue Item 407 Tack Coat)                                                          |             |
|-----------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------|-------------|
| (Lincoln Way West Sta. 254+54 to Sta. 255+19.91)<br>(65.91) [(40+42) 1/2] (9/12) (1/27) | 75.06 CU YD   | (26th St NW)<br>(684) (6/12) (1/27)                                                    | 12.67 CU YD  | (22nd St NW)<br>(745) (1/9) (0.08)                                                     | 6.62 GAL    |
| (Lincoln Way West Sta. 255+19.91 to Sta. 290+50)<br>(3530.09) (21+21) (9/12) (1/27)     | 4118.44 CU YD | (25th St. NW)<br>(822+722) (6/12) (1/27)                                               | 28.59 CU YD  | (Alley)<br>(247) (1/9) (0.08)                                                          | 2.20 GAL    |
| (Lincoln Way West Sta. 290+50 to Sta. 291+55)<br>(105) [(42+36) 1/2] (9/12) (1/27)      | 113.75 CU YD  | (24th St. NW)<br>(1077) (6/12) (1/27)                                                  | 19.95 CU YD  | (Grosvenor Dr. NW)<br>(1157) (1/9) (0.08)                                              | 10.28 GAL   |
| (Lincoln Way West Sta. 291+55 to Sta. 317+50)<br>(2595) (18+18) (9/12) (1/27)           | 2595 CU YD    | (23rd St. NW)<br>(1832+1786) (6/12) (1/27)                                             | 67.00 CU YD  | (Alley)<br>(247) (1/9) (0.08)                                                          | 2.20 GAL    |
| (Lincoln Way West Sta. 317+50 to Sta. 318+25)<br>(75) [(36+33) 1/2] (9/12) (1/27)       | 71.87 CU YD   | (Alley)<br>(255) (6/12) (1/27)                                                         | 4.73 CU YD   | (21st St. NW)<br>(789) (1/9) (0.08)                                                    | 7.02 GAL    |
| (26th St NW)<br>(684) (9/12) (1/27)                                                     | 19.00 CU YD   | (22nd St NW)<br>(745) (6/12) (1/27)                                                    | 13.80 CU YD  | (20th St NW)<br>(768) (1/9) (0.08)                                                     | 6.83 GAL    |
| (25th St. NW)<br>(822+722) (9/12) (1/27)                                                | 42.89 CU YD   | (Alley)<br>(247) (6/12) (1/27)                                                         | 4.58 CU YD   | (19th St. NW)<br>(742) (1/9) (0.08)                                                    | 6.60 GAL    |
| (24th St. NW)<br>(1077) (9/12) (1/27)                                                   | 29.92 CU YD   | (Grosvenor Dr. NW)<br>(1159) (6/12) (1/27)                                             | 21.47 CU YD  | (18th St. NW)<br>(745) (1/9) (0.08)                                                    | 6.63 GAL    |
| (23rd St. NW)<br>(1832+1786) (9/12) (1/27)                                              | 100.50 CU YD  | (Alley)<br>(247) (6/12) (1/27)                                                         | 4.58 CU YD   | (17th St. NW)<br>(2772+2753) (1/9) (0.08)                                              | 49.11 GAL   |
| (Alley)<br>(255) (9/12) (1/27)                                                          | 7.09 CU YD    | (21st St. NW)<br>(789) (6/12) (1/27)                                                   | 14.61 CU YD  | (15th St. NW)<br>(534) (1/9) (0.08)                                                    | 4.75 GAL    |
| (22nd St NW)<br>(745) (9/12) (1/27)                                                     | 20.70 CU YD   | (20th St NW)<br>(768) (6/12) (1/27)                                                    | 14.22 CU YD  | (Linden St NW)<br>(415) (1/9) (0.08)                                                   | 3.69 GAL    |
| (Alley)<br>(247) (9/12) (1/27)                                                          | 6.87 CU YD    | (19th St. NW)<br>(742) (6/12) (1/27)                                                   | 13.74 CU YD  | (14th St. NW)<br>(382) (1/9) (0.08)                                                    | 3.40 GAL    |
| (Grosvenor Dr. NW)<br>(1157) (9/12) (1/27)                                              | 32.14 CU YD   | (18th St. NW)<br>(745) (6/12) (1/27)                                                   | 13.80 CU YD  | (Monroe St. NW)<br>(485) (1/9) (0.08)                                                  | 4.31 GAL    |
| (Alley)<br>(247) (9/12) (1/27)                                                          | 6.87 CU YD    | (17th St. NW)<br>(2772+2753) (6/12) (1/27)                                             | 102.32 CU YD | (12th St. NW)<br>(539+770) (1/9) (0.08)                                                | 11.64 GAL   |
| (21st St. NW)<br>(789) (9/12) (1/27)                                                    | 21.92 CU YD   | (15th St. NW)<br>(534) (6/12) (1/27)                                                   | 9.89 CU YD   | (Orange St. NW)<br>(504) (1/9) (0.08)                                                  | 4.48 GAL    |
| (20th St NW)<br>(768) (9/12) (1/27)                                                     | 21.33 CU YD   | (Linden St NW)<br>(415) (6/12) (1/27)                                                  | 7.69 CU YD   | (8th St. NW)<br>(467) (1/9) (0.08)                                                     | 4.16 GAL    |
| (19th St. NW)<br>(742) (9/12) (1/27)                                                    | 20.61 CU YD   | (14th St. NW)<br>(382) (6/12) (1/27)                                                   | 7.08 CU YD   | TOTAL ITEM 407 = 2253.72 Gal.<br>USED: 2254 Gal.                                       |             |
| (18th St. NW)<br>(745) (9/12) (1/27)                                                    | 20.70 CU YD   | (Monroe St. NW)<br>(485) (6/12) (1/27)                                                 | 8.99 CU YD   |                                                                                        |             |
| (17th St. NW)<br>(2772+2753) (9/12) (1/27)                                              | 153.48 CU YD  | (12th St. NW)<br>(539+770) (6/12) (1/27)                                               | 24.24 CU YD  | ITEM 408 PRIME COAT                                                                    |             |
| (15th St. NW)<br>(534) (9/12) (1/27)                                                    | 14.84 CU YD   | (Orange St. NW)<br>(504) (6/12) (1/27)                                                 | 9.34 CU YD   |                                                                                        |             |
| (Linden St NW)<br>(415) (9/12) (1/27)                                                   | 11.53 CU YD   | (8th St. NW)<br>(467) (6/12) (1/27)                                                    | 8.65 CU YD   | (Lincoln Way West Sta. 254+54 to Sta. 255+19.91)<br>(65.91) [(40+42) 1/2] (1/9) (0.40) | 120.10 GAL  |
| (14th St. NW)<br>(382) (9/12) (1/27)                                                    | 10.61 CU YD   | TOTAL ITEM 304 = 5179.33 CU YD<br>USED: 5190 CU YD                                     |              | (Lincoln Way West Sta. 255+19.91 to Sta. 275+62.44)<br>(3530.09) (21+21) (1/9) (0.40)  | 6589.50 GAL |
| (Monroe St. NW)<br>(485) (9/12) (1/27)                                                  | 13.47 CU YD   |                                                                                        |              | (Lincoln Way West Sta. 290+50 to Sta. 291+55)<br>(105) [(42+36) 1/2] (1/9) (0.40)      | 182.00 GAL  |
| (12th St. NW)<br>(539+770) (9/12) (1/27)                                                | 36.36 CU YD   | ITEM 407 TACK COAT                                                                     |              | (Lincoln Way West Sta. 291+55 to Sta. 317+50)<br>(2595) (18+18) (1/9) (0.40)           | 4152.00 GAL |
| (Orange St. NW)<br>(504) (9/12) (1/27)                                                  | 14.00 CU YD   |                                                                                        |              | (Lincoln Way West Sta. 317+50 to Sta. 318+25)<br>(75) [(36+33) 1/2] (1/9) (0.40)       | 115.00 GAL  |
| (8th St. NW)<br>(467) (9/12) (1/27)                                                     | 12.97 CU YD   | (Lincoln Way West Sta. 254+54 to Sta. 255+19.91)<br>(65.91) [(40+42) 1/2] (1/9) (0.08) | 24.02 GAL    | (26th St NW)<br>(684) (1/9) (0.40)                                                     | 30.40 GAL   |
| TOTAL ITEM 301 = 7591.92 CU YD<br>USED: 7600 CU YD                                      |               | (Lincoln Way West Sta. 255+19.91 to Sta. 290+50)<br>(3530.09) (21+21) (1/9) (0.08)     | 1317.90 GAL  | (25th St. NW)<br>(822+722) (1/9) (0.40)                                                | 68.65 GAL   |
|                                                                                         |               | (Lincoln Way West Sta. 290+50 to Sta. 291+55)<br>(105) [(42+36) 1/2] (1/9) (0.08)      | 36.40 GAL    | (24th St. NW)<br>(1077) (1/9) (0.40)                                                   | 47.90 GAL   |
| ITEM 304 AGGREGATE BASE                                                                 |               | (Lincoln Way West Sta. 291+55 to Sta. 317+50)<br>(2595) (18+18) (1/9) (0.08)           | 830.40 GAL   | (23rd St. NW)<br>(1832+1786) (1/9) (0.40)                                              | 160.80 GAL  |
|                                                                                         |               | (Lincoln Way West Sta. 317+50 to Sta. 318+25)<br>(75) [(36+33) 1/2] (1/9) (0.08)       | 23.00 GAL    | (Alley)<br>(255) (1/9) (0.40)                                                          | 11.35 GAL   |
| (Lincoln Way West Sta. 254+54 to Sta. 255+19.91)<br>(65.91) [(41+43) 1/2] (6/12) (1/27) | 51.26 CU YD   | (26th St NW)<br>(684) (1/9) (0.08)                                                     | 6.08 GAL     | (22nd St NW)<br>(745) (1/9) (0.40)                                                     | 33.10 GAL   |
| (Lincoln Way West Sta. 255+19.91 to Sta. 290+50)<br>(3530.09) (21.5+21.5) (6/12) (1/27) | 2811.00 CU YD | (25th St. NW)<br>(822+722) (1/9) (0.08)                                                | 13.73 GAL    | (Alley)<br>(247) (1/9) (0.40)                                                          | 11.00 GAL   |
| (Lincoln Way West Sta. 290+50 to Sta. 291+55)<br>(105) [(43+37) 1/2] (6/12) (1/27)      | 77.77 CU YD   | (24th St. NW)<br>(1077) (1/9) (0.08)                                                   | 9.58 GAL     | (Grosvenor Dr. NW)<br>(1157) (1/9) (0.40)                                              | 51.42 GAL   |
| (Lincoln Way West Sta. 291+55 to Sta. 317+50)<br>(2595) (18.5+18.5) (6/12) (1/27)       | 1778.05 CU YD | (23rd St. NW)<br>(1832+1786) (1/9) (0.08)                                              | 32.16 GAL    | (Alley)<br>(247) (1/9) (0.40)                                                          | 11.00 GAL   |
| (Lincoln Way West Sta. 317+50 to Sta. 318+25)<br>(75) [(37+34) 1/2] (6/12) (1/27)       | 449.38 CU YD  | (Alley)<br>(255) (1/9) (0.08)                                                          | 22.27 GAL    | (21st St. NW)<br>(789) (1/9) (0.40)                                                    | 335.10 GAL  |

DRAWN BY:  
JAH

CHECKED BY:  
FPW

DATE:  
Dec. 03, 2003

DATE:  
Dec. 03, 2003

Lincoln Way West Rehabilitation  
Roadway Calculations  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



REVISIONS:

| DATE | DESCRIPTION |
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FILE NAME:

03SY03016.DWG

ACCOUNT NUMBER

03ST03

16 / 90

|                                                                                           |              |  |                                                                                           |              |  |                                                             |            |  |
|-------------------------------------------------------------------------------------------|--------------|--|-------------------------------------------------------------------------------------------|--------------|--|-------------------------------------------------------------|------------|--|
| (Continue Item 408 Prime Coat from Sheet No. 16)                                          |              |  | (Continue Item 448 Asphalt Concrete Intermediate Course, Type 1)                          |              |  | (Continue Item 448 Asphalt Concrete Surface Course, Type 1) |            |  |
| (20th St NW)<br>(768) (1/9) (0.40)                                                        | 34.15 GAL    |  | (Linden St NW)<br>(415) (1.5/12) (1/27)                                                   | 1.93 CU YD   |  | (8th St. NW)<br>(467) (1.5/12) (1/27)                       | 2.17 CU YD |  |
| (19th St. NW)<br>(742) (1/9) (0.40)                                                       | 33.00 GAL    |  | (14th St. NW)<br>(382) (1.5/12) (1/27)                                                    | 1.77 CU YD   |  | TOTAL ITEM 448 = 1265.33 CU YD                              |            |  |
| (18th St. NW)<br>(745) (1/9) (0.40)                                                       | 33.15 GAL    |  | (Monroe St. NW)<br>(485) (1.5/12) (1/27)                                                  | 2.25 CU YD   |  | USED: 1270 CU YD                                            |            |  |
| (17th St. NW)<br>(2772+2753) (1/9) (0.40)                                                 | 245.55 GAL   |  | (12th St. NW)<br>(539+770) (1.5/12) (1/27)                                                | 6.06 CU YD   |  | <u>ITEM 609 CONCRETE CURB, TYPE 6</u>                       |            |  |
| (15th St. NW)<br>(534) (1/9) (0.40)                                                       | 23.75 GAL    |  | (Orange St. NW)<br>(504) (1.5/12) (1/27)                                                  | 2.36 CU YD   |  | <u>LEFT</u>                                                 |            |  |
| (Linden St NW)<br>(415) (1/9) (0.40)                                                      | 18.45 GAL    |  | (8th St. NW)<br>(467) (1.5/12) (1/27)                                                     | 2.17 CU YD   |  | (Lincoln Way West Sta. 254+54 to Sta. 259+53.78)            | 500 LF     |  |
| (14th St. NW)<br>(382) (1/9) (0.40)                                                       | 17.00 GAL    |  | TOTAL ITEM 448 = 1265.33 CU YD                                                            |              |  | (25th St NW 63.31 CALC.)                                    | 64 LF      |  |
| (Monroe St. NW)<br>(485) (1/9) (0.40)                                                     | 21.55 GAL    |  | USED: 1270 CU YD                                                                          |              |  | (Lincoln Way West Sta. 260+24.19 to Sta. 262+85.75)         | 500 LF     |  |
| (12th St. NW)<br>(539+770) (1/9) (0.40)                                                   | 58.20 GAL    |  | <u>ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1</u>                                   |              |  | (24th St NW 82.72 CALC.)                                    | 83 LF      |  |
| (Orange St. NW)<br>(504) (1/9) (0.40)                                                     | 22.40 GAL    |  | (Lincoln Way West Sta. 254+54 to Sta. 255+19.91)<br>(65.91) [(40+42) 1/2] (1.5/12) (1/27) | 12.51 CU YD  |  | (Lincoln Way West Sta. 263+65.58 to Sta. 268+77.65)         | 513 LF     |  |
| (8th St. NW)<br>(467) (1/9) (0.40)                                                        | 20.80 GAL    |  | (Lincoln Way West Sta. 255+19.91 to Sta. 290+50)<br>(3530.09) (21+21) (1.5/12) (1/27)     | 686.41 CU YD |  | (23rd St NW 102.59 CALC.)                                   | 103 LF     |  |
| TOTAL ITEM 408 = 12147.14 Gal.                                                            |              |  | (Lincoln Way West Sta. 290+50 to Sta. 291+55)<br>(105) [(42+36) 1/2] (1.5/12) (1/27)      | 18.96 CU YD  |  | (Lincoln Way West Sta. 269+79.28 to Sta. 275+21.89)         | 543 LF     |  |
| USED: 12150 Gal.                                                                          |              |  | (Lincoln Way West Sta. 291+55 to Sta. 317+50)<br>(2595) (18+18) (1.5/12) (1/27)           | 432.50 CU YD |  | Grosvenor Dr. NW 87.77 CALC.)                               | 88 LF      |  |
| <u>ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1</u>                              |              |  | (Lincoln Way West Sta. 317+50 to Sta. 318+25)<br>(75) [(36+33) 1/2] (1.5/12) (1/27)       | 11.98 CU YD  |  | (Lincoln Way West Sta. 276+03.29 to Sta. 282+01.67)         | 599 LF     |  |
| (Lincoln Way West Sta. 254+54 to Sta. 255+19.91)<br>(65.91) [(40+42) 1/2] (1.5/12) (1/27) | 12.51 CU YD  |  | (26th St NW)<br>(684) (1.5/12) (1/27)                                                     | 3.17 CU YD   |  | 19th St NW 67.21 CALC.)                                     | 68 LF      |  |
| (Lincoln Way West Sta. 255+19.91 to Sta. 290+50)<br>(3530.09) (21+21) (1.5/12) (1/27)     | 686.41 CU YD |  | (25th St. NW)<br>(822+722) (1.5/12) (1/27)                                                | 7.15 CU YD   |  | (Lincoln Way West Sta. 282+65.86 to Sta. 285+30.47)         | 265 LF     |  |
| (Lincoln Way West Sta. 290+50 to Sta. 291+55)<br>(105) [(42+36) 1/2] (1.5/12) (1/27)      | 18.96 CU YD  |  | (24th St. NW)<br>(1077) (1.5/12) (1/27)                                                   | 4.99 CU YD   |  | (18th St NW 67.67 CALC.)                                    | 68 LF      |  |
| (Lincoln Way West Sta. 291+55 to Sta. 317+50)<br>(2595) (18+18) (1.5/12) (1/27)           | 432.50 CU YD |  | (23rd St. NW)<br>(1832+1786) (1.5/12) (1/27)                                              | 16.75 CU YD  |  | (Lincoln Way West Sta. 285+94.40 to Sta. 288+38.66)         | 245 LF     |  |
| (Lincoln Way West Sta. 317+50 to Sta. 318+25)<br>(75) [(36+33) 1/2] (1.5/12) (1/27)       | 11.98 CU YD  |  | (Alley)<br>(255) (1.5/12) (1/27)                                                          | 1.19 CU YD   |  | 17th St. NW 148.22 CALC.)                                   | 149 LF     |  |
| (26th St NW)<br>(684) (1.5/12) (1/27)                                                     | 3.17 CU YD   |  | (22nd St NW)<br>(745) (1.5/12) (1/27)                                                     | 3.45 CU YD   |  | (Lincoln Way West Sta. 289+48.08 to Sta. 295+22.12)         | 575 LF     |  |
| (25th St. NW)<br>(822+722) (1.5/12) (1/27)                                                | 7.15 CU YD   |  | (Alley)<br>(247) (1.5/12) (1/27)                                                          | 1.15 CU YD   |  | Linden St NW 47.13 CALC.)                                   | 48 LF      |  |
| (24th St. NW)<br>(1077) (1.5/12) (1/27)                                                   | 4.99 CU YD   |  | (Grosvenor Dr. NW)<br>(1157) (1.5/12) (1/27)                                              | 5.36 CU YD   |  | (Lincoln Way West Sta. 295+71.76 to Sta. 298+20.38)         | 249 LF     |  |
| (23rd St. NW)<br>(1832+1786) (1.5/12) (1/27)                                              | 16.75 CU YD  |  | (Alley)<br>(247) (1.5/12) (1/27)                                                          | 1.15 CU YD   |  | Monroe St NW 46.98 CALC.)                                   | 47 LF      |  |
| (Alley)<br>(255) (1.5/12) (1/27)                                                          | 1.19 CU YD   |  | (21st St. NW)<br>(789) (1.5/12) (1/27)                                                    | 3.65 CU YD   |  | (Lincoln Way West Sta. 298+74.75 to Sta. 304+13.63)         | 539 LF     |  |
| (22nd St NW)<br>(745) (1.5/12) (1/27)                                                     | 3.45 CU YD   |  | (20th St NW)<br>(768) (1.5/12) (1/27)                                                     | 3.56 CU YD   |  | (12th St NW 51.14 CALC.)                                    | 52 LF      |  |
| (Alley)<br>(247) (1.5/12) (1/27)                                                          | 1.15 CU YD   |  | (19th St. NW)<br>(742) (1.5/12) (1/27)                                                    | 3.44 CU YD   |  | (Lincoln Way West Sta. 304+67.88 to Sta. 309+67.28)         | 500 LF     |  |
| (Grosvenor Dr. NW)<br>(1157) (1.5/12) (1/27)                                              | 5.36 CU YD   |  | (18th St. NW)<br>(745) (1.5/12) (1/27)                                                    | 3.45 CU YD   |  | Orange St NW 47.12 CALC.)                                   | 48 LF      |  |
| (Alley)<br>(247) (1.5/12) (1/27)                                                          | 1.15 CU YD   |  | (17th St. NW)<br>(2772+2753) (1.5/12) (1/27)                                              | 25.58 CU YD  |  | (Lincoln Way West Sta. 310+22.84 to Sta. 318+25)            | 802 LF     |  |
| (21st St. NW)<br>(789) (1.5/12) (1/27)                                                    | 3.65 CU YD   |  | (15th St. NW)<br>(534) (1.5/12) (1/27)                                                    | 2.48 CU YD   |  | Right                                                       |            |  |
| (20th St NW)<br>(768) (1.5/12) (1/27)                                                     | 3.56 CU YD   |  | (Linden St NW)<br>(415) (1.5/12) (1/27)                                                   | 1.93 CU YD   |  | (Lincoln Way West Sta. 254+54 to Sta. 256+70.29)            | 217 LF     |  |
| (19th St. NW)<br>(742) (1.5/12) (1/27)                                                    | 3.44 CU YD   |  | (14th St. NW)<br>(382) (1.5/12) (1/27)                                                    | 1.77 CU YD   |  | (26th St NW 62.83 CALC.)                                    | 63 LF      |  |
| (18th St. NW)<br>(745) (1.5/12) (1/27)                                                    | 3.45 CU YD   |  | (Monroe St. NW)<br>(485) (1.5/12) (1/27)                                                  | 2.25 CU YD   |  | (Lincoln Way West Sta. 257+45.40 to Sta. 259+89.95)         | 245 LF     |  |
| (17th St. NW)<br>(2772+2753) (1.5/12) (1/27)                                              | 25.58 CU YD  |  | (12th St. NW)<br>(539+770) (1.5/12) (1/27)                                                | 6.06 CU YD   |  | (25th St NW 65.65 CALC.)                                    | 66 LF      |  |
| (15th St. NW)<br>(534) (1.5/12) (1/27)                                                    | 2.48 CU YD   |  | (Orange St. NW)<br>(504) (1.5/12) (1/27)                                                  | 2.36 CU YD   |  | (Lincoln Way West Sta. 260+57.49 to Sta. 268+52.80)         | 796 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | (23rd St NW 102.47 CALC.)                                   | 103 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 269+55.41 to Sta. 273+66.51)         | 412 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | 22nd St NW 65.05 CALC.)                                     | 66 LF      |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 274+32.51 to Sta. 275+83.87)         | 152 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | Alley 31.42 CALC.)                                          | 32 LF      |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 276+22.68 to Sta. 277+76.60)         | 154 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | 21st St NW 68.30 CALC.)                                     | 69 LF      |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 278+42.27 to Sta. 279+85.07)         | 143 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | (20th St NW 65.27 CALC.)                                    | 66 LF      |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 280+51.66 to Sta. 288+41.72)         | 791 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | 17th St. NW 147.87 CALC.)                                   | 148 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 289+52.41 to Sta. 292+38.72)         | 287 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | 15th St NW 51.15 CALC.)                                     | 52 LF      |  |
|                                                                                           |              |  |                                                                                           |              |  | (Lincoln Way West Sta. 292+92.95 to Sta. 296+04.65)         | 312 LF     |  |
|                                                                                           |              |  |                                                                                           |              |  | 14th St NW 81.22 CALC.)                                     | 82 LF      |  |

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Dec. 03, 2002

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Dec. 03, 2002

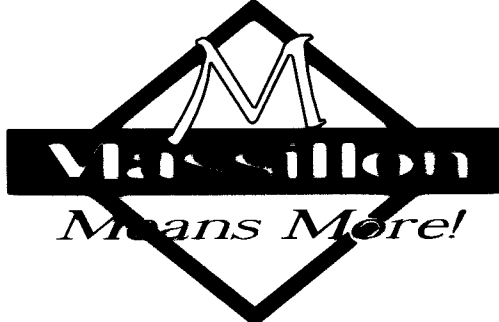
Lincoln Way West Rehabilitation

Roadway Calculations

City of Massillon

Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



REVISIONS:

| DATE | DESCRIPTION |
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ELECTRONIC FILE NAME:

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ACCOUNT NUMBER

02SS02

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|-------------------------------------------------------------|---------|-----------|
| (Continue Item 609 Concrete Curb, Type 6 from Sheet No. 17) |         |           |
| (Lincoln Way West Sta. 296+52.32 to Sta. 304+45.75)         | 794 LF  |           |
| 12th St NW 60.11 CALC.)                                     | 61 LF   |           |
| (Lincoln Way West Sta. 305+14.26 to Sta. 317+69.56)         | 1256 LF |           |
| (8th St NW 47.55 CALC.)                                     | 48 LF   |           |
| (Lincoln Way West Sta. 318+17.74 to Sta. 318+25)            | 8 LF    |           |
| TOTAL ITEM 609 =                                            |         | 13,071 LF |
| USED:                                                       |         | 13,100 LF |

ITEM 605 4" SHALLOW PIPE UNDERDRAINS

|                                                     |        |  |
|-----------------------------------------------------|--------|--|
| LEFT                                                |        |  |
| (Lincoln Way West Sta. 254+54 to Sta. 259+53.78)    | 500 LF |  |
| (25th St NW 63.31 CALC.)                            | 64 LF  |  |
| (Lincoln Way West Sta. 260+24.19 to Sta. 262+85.75) | 500 LF |  |
| (24th St NW 82.72 CALC.)                            | 83 LF  |  |
| (Lincoln Way West Sta. 263+65.58 to Sta. 268+77.65) | 513 LF |  |
| (23rd St NW 102.59 CALC.)                           | 103 LF |  |
| (Lincoln Way West Sta. 269+79.28 to Sta. 275+21.89) | 543 LF |  |
| Grosvenor Dr. NW 87.77 CALC.)                       | 88 LF  |  |
| (Lincoln Way West Sta. 276+03.29 to Sta. 282+01.67) | 599 LF |  |
| 19th St NW 67.21 CALC.)                             | 68 LF  |  |
| (Lincoln Way West Sta. 282+65.86 to Sta. 285+30.47) | 265 LF |  |
| (18th St NW 67.67 CALC.)                            | 68 LF  |  |
| (Lincoln Way West Sta. 285+94.40 to Sta. 288+38.66) | 245 LF |  |
| 17th St. NW 148.22 CALC.)                           | 149 LF |  |
| (Lincoln Way West Sta. 289+48.08 to Sta. 295+22.12) | 575 LF |  |
| Linden St NW 47.13 CALC.)                           | 48 LF  |  |
| (Lincoln Way West Sta. 295+71.76 to Sta. 298+20.38) | 249 LF |  |
| Monroe St NW 46.98 CALC.)                           | 47 LF  |  |
| (Lincoln Way West Sta. 298+74.75 to Sta. 304+13.63) | 539 LF |  |
| (12th St NW 51.14 CALC.)                            | 52 LF  |  |
| (Lincoln Way West Sta. 304+67.88 to Sta. 309+67.28) | 500 LF |  |
| Orange St NW 47.12 CALC.)                           | 48 LF  |  |
| (Lincoln Way West Sta. 310+22.84 to Sta. 318+25)    | 802 LF |  |
| Right                                               |        |  |
| (Lincoln Way West Sta. 254+54 to Sta. 256+70.29)    | 217 LF |  |
| (26th St NW 62.83 CALC.)                            | 63 LF  |  |
| (Lincoln Way West Sta. 257+45.40 to Sta. 259+89.95) | 245 LF |  |
| (25th St NW 65.65 CALC.)                            | 66 LF  |  |
| (Lincoln Way West Sta. 260+57.49 to Sta. 268+52.80) | 796 LF |  |
| (23rd St NW 102.47 CALC.)                           | 103 LF |  |
| (Lincoln Way West Sta. 269+55.41 to Sta. 273+66.51) | 412 LF |  |
| 22nd St NW 65.05 CALC.)                             | 66 LF  |  |
| (Lincoln Way West Sta. 274+32.51 to Sta. 275+83.87) | 152 LF |  |
| Alley 31.42 CALC.)                                  | 32 LF  |  |
| (Lincoln Way West Sta. 276+22.68 to Sta. 277+76.60) | 154 LF |  |
| 21st St NW 68.30 CALC.)                             | 69 LF  |  |
| (Lincoln Way West Sta. 278+42.27 to Sta. 279+85.07) | 143 LF |  |
| (20th St NW 65.27 CALC.)                            | 66 LF  |  |
| (Lincoln Way West Sta. 280+51.66 to Sta. 288+41.72) | 791 LF |  |
| 17th St. NW 147.87 CALC.)                           | 148 LF |  |

|                                                     |         |           |
|-----------------------------------------------------|---------|-----------|
| (Continue Item 605 4" Shall Pipe Underdrains)       |         |           |
| (Lincoln Way West Sta. 289+52.41 to Sta. 292+38.72) | 287 LF  |           |
| 15th St NW 51.15 CALC.)                             | 52 LF   |           |
| (Lincoln Way West Sta. 292+92.95 to Sta. 296+04.65) | 312 LF  |           |
| 14th St NW 81.22 CALC.)                             | 82 LF   |           |
| (Lincoln Way West Sta. 296+52.32 to Sta. 304+45.75) | 794 LF  |           |
| 12th St NW 60.11 CALC.)                             | 61 LF   |           |
| (Lincoln Way West Sta. 305+14.26 to Sta. 317+69.56) | 1256 LF |           |
| (8th St NW 47.55 CALC.)                             | 48 LF   |           |
| (Lincoln Way West Sta. 318+17.74 to Sta. 318+25)    | 8 LF    |           |
| TOTAL ITEM 605 =                                    |         | 13,071 LF |
| USED:                                               |         | 13,100 LF |

ITEM 452 9" NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT INCLUDING CURB

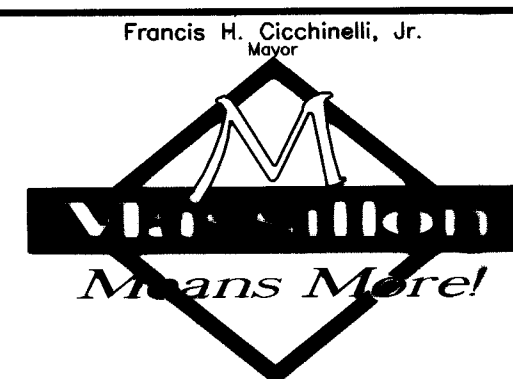
|                                                  |                |  |
|--------------------------------------------------|----------------|--|
| (Lincoln Way West Sta. 254+54 to Sta. 255+19.91) | 307.58 SQ YD   |  |
| (65.91) [(41+43) 1/2] (1/9)                      |                |  |
| (Lincoln Way West Sta. 255+19.91 to Sta. 290+50) | 16865.99 SQ YD |  |
| (3530.09) (21.5+21.5) (1/9)                      |                |  |
| (Lincoln Way West Sta. 290+50 to Sta. 291+55)    | 466.67 SQ YD   |  |
| (105) [(43+37) 1/2] (1/9)                        |                |  |
| (Lincoln Way West Sta. 291+55 to Sta. 317+50)    | 10956.67 SQ YD |  |
| (2595) (18.5+18.5) (1/9)                         |                |  |
| (Lincoln Way West Sta. 317+50 to Sta. 318+25)    | 295.83 SQ YD   |  |
| (75) [(37+34) 1/2] (1/9)                         |                |  |
| (26th St NW)                                     | 76 CU YD       |  |
| (684) (1/9)                                      |                |  |
| (25th St. NW)                                    | 171.56 CU YD   |  |
| (822+722) (1/9)                                  |                |  |
| (24th St. NW)                                    | 119.67 CU YD   |  |
| (1077) (1/9)                                     |                |  |
| (23rd St. NW)                                    | 402 SQ YD      |  |
| (1832+1786) (1/9)                                |                |  |
| (Alley)                                          | 28.33 CU YD    |  |
| (255) (1/9)                                      |                |  |
| (22nd St NW)                                     | 83.11 CU YD    |  |
| (745) (1/9)                                      |                |  |
| (Alley)                                          | 27.44 CU YD    |  |
| (247) (1/9)                                      |                |  |
| (Grosvenor Dr. NW)                               | 128.78 CU YD   |  |
| (1159) (1/9)                                     |                |  |
| (Alley)                                          | 27.44 CU YD    |  |
| (247) (1/9)                                      |                |  |
| (21st St. NW)                                    | 87.67 CU YD    |  |
| (789) (1/9)                                      |                |  |
| (20th St NW)                                     | 85.33 CU YD    |  |
| (768) (1/9)                                      |                |  |
| (19th St. NW)                                    | 82.44 CU YD    |  |
| (742) (1/9)                                      |                |  |
| (18th St. NW)                                    | 82.78 CU YD    |  |
| (745) (1/9)                                      |                |  |
| (17th St. NW)                                    | 613.89 CU YD   |  |
| (2772+2753) (1/9)                                |                |  |
| (15th St. NW)                                    | 59.33 CU YD    |  |
| (534) (1/9)                                      |                |  |
| (Linden St NW)                                   | 46.11 CU YD    |  |
| (415) (1/9)                                      |                |  |
| (14th St. NW)                                    | 42.44 CU YD    |  |
| (382) (1/9)                                      |                |  |
| (Monroe St. NW)                                  | 53.89 CU YD    |  |
| (485) (1/9)                                      |                |  |
| (12th St. NW)                                    | 145.44 CU YD   |  |
| (539+770) (1/9)                                  |                |  |
| (Orange St. NW)                                  | 56 CU YD       |  |
| (504) (1/9)                                      |                |  |

|                                                                               |             |                |
|-------------------------------------------------------------------------------|-------------|----------------|
| (Continue Item 452 9" Non-Reinforced Portland Cement Concrete Including Curb) |             |                |
| (8th St. NW)                                                                  | 51.89 CU YD |                |
| (467) (1/9)                                                                   |             |                |
| TOTAL ITEM 452 =                                                              |             | 31364.29 CU YD |
| USED:                                                                         |             | 31370 CU YD    |

|             |             |
|-------------|-------------|
| DRAWN BY:   | CHECKED BY: |
| JAH         | FPW         |
| DATE:       | DATE:       |
| Sept., 2004 | Sept., 2004 |

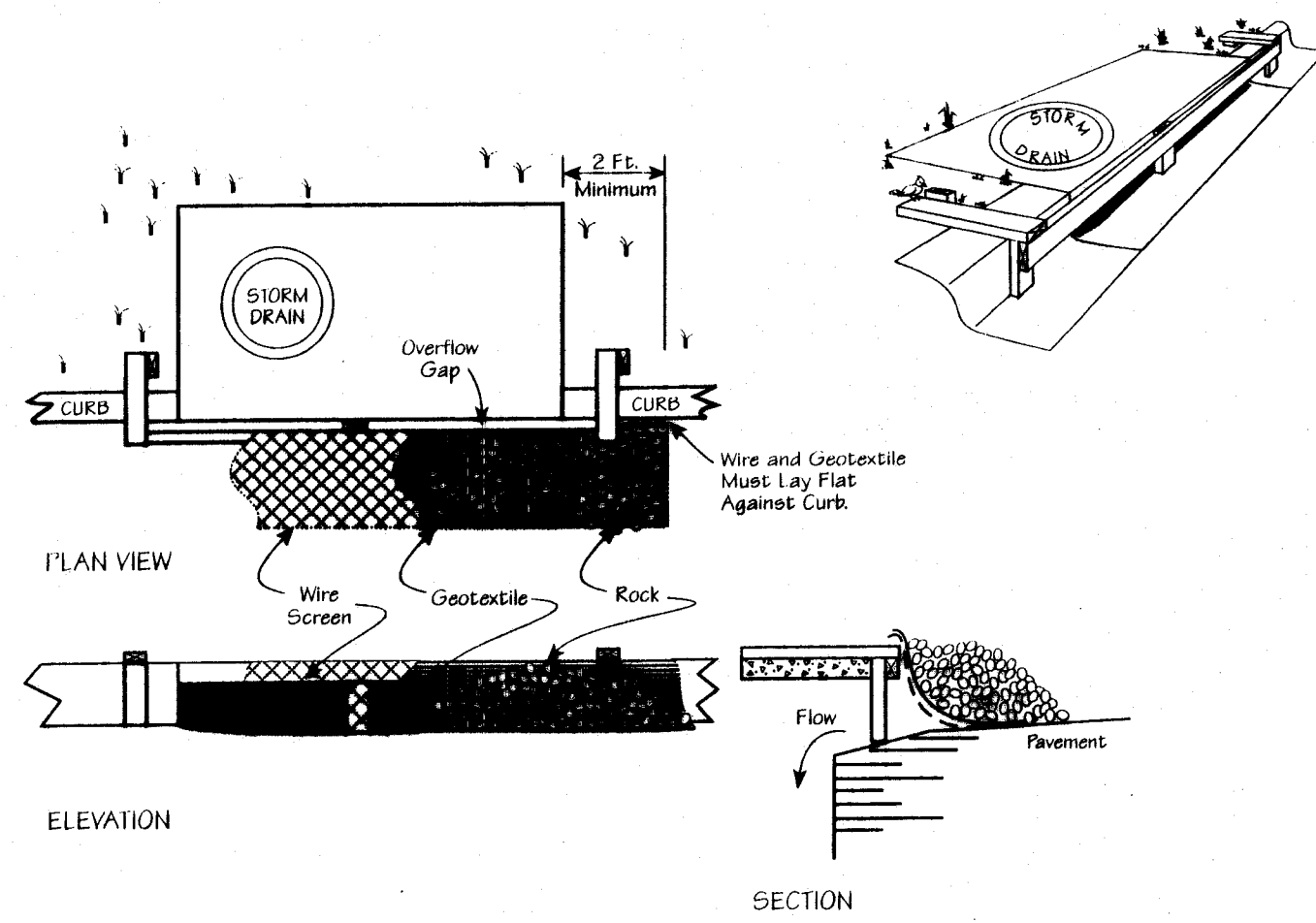
Lincoln Way West Rehabilitation

Roadway Calculations  
City of Massillon  
Stark County, Ohio



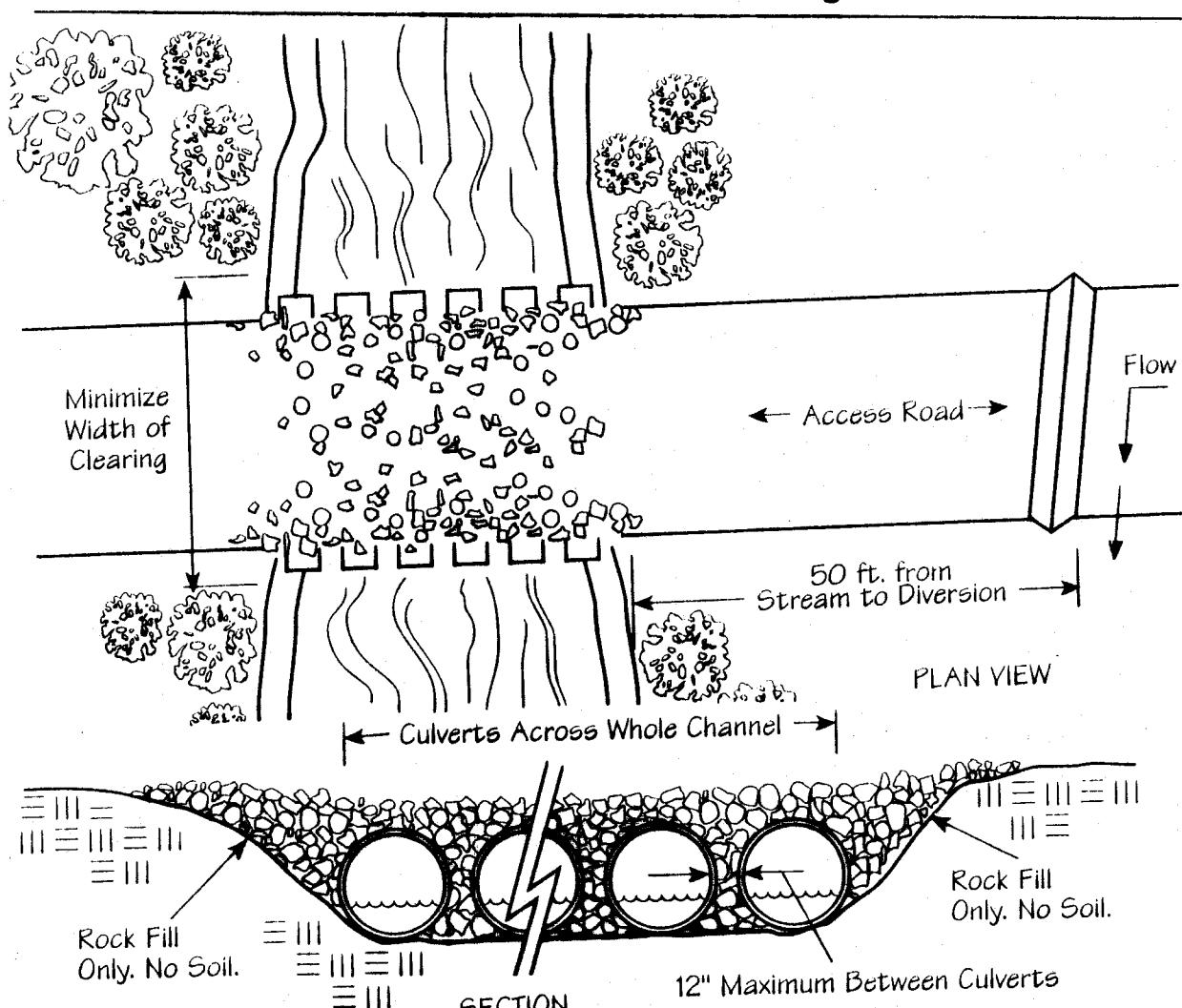
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## Curb Inlet Protection



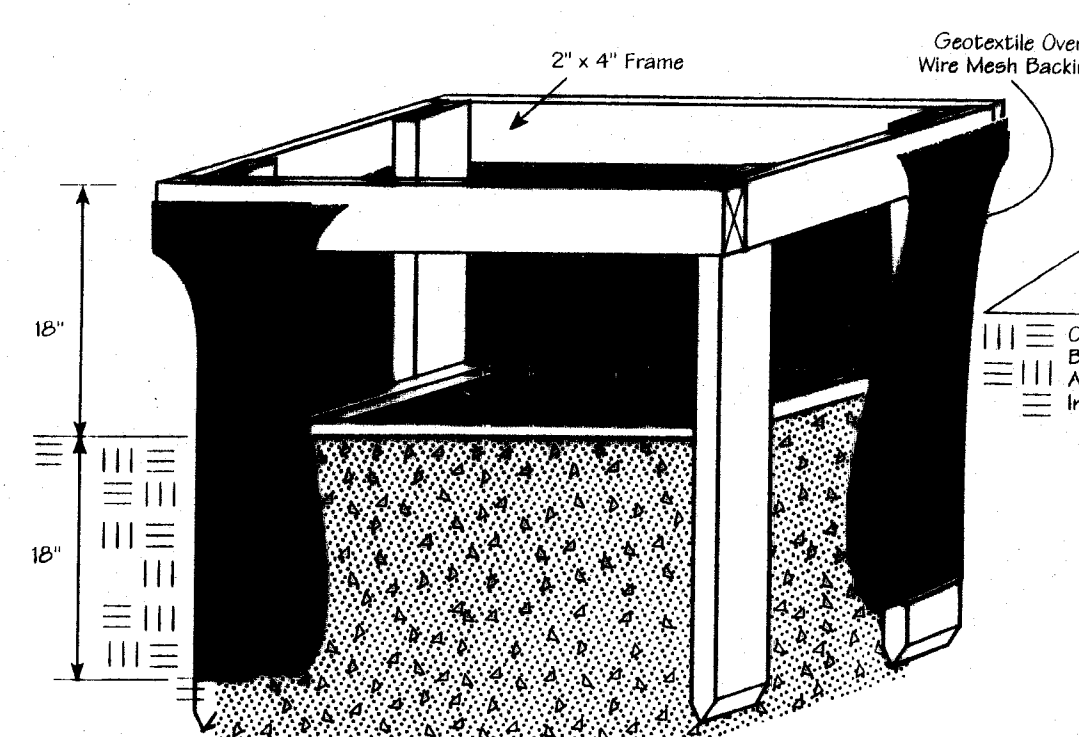
1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
2. The wooden frame is to be constructed of 2-by-4-in. construction-grade lumber. The end spacers shall be a minimum of 1 ft. beyond both ends of the throat opening. The anchors shall be nailed to 2-by-4-in. stakes driven on the opposite side of the curb.
3. The wire mesh shall be of sufficient strength to support fabric and stone. It shall be a continuous piece with a minimum width of 30 in. and 4 ft. longer than the throat length of the inlet, 2 ft. on each side.
4. Geotextile cloth shall have an equivalent opening size (EOS) of 20-40 sieve and be resistant to sunlight. It shall be at least the same size as the wire mesh.
5. The wire mesh and geotextile cloth shall be formed to the concrete gutter and against the face of the curb on both sides of the inlet and securely fastened to the 2-by-4-in. frame.
6. Two-inch stone shall be placed over the wire mesh and geotextile in such a manner as to prevent water from entering the inlet under or around the geotextile cloth.

## Culvert Stream Crossing



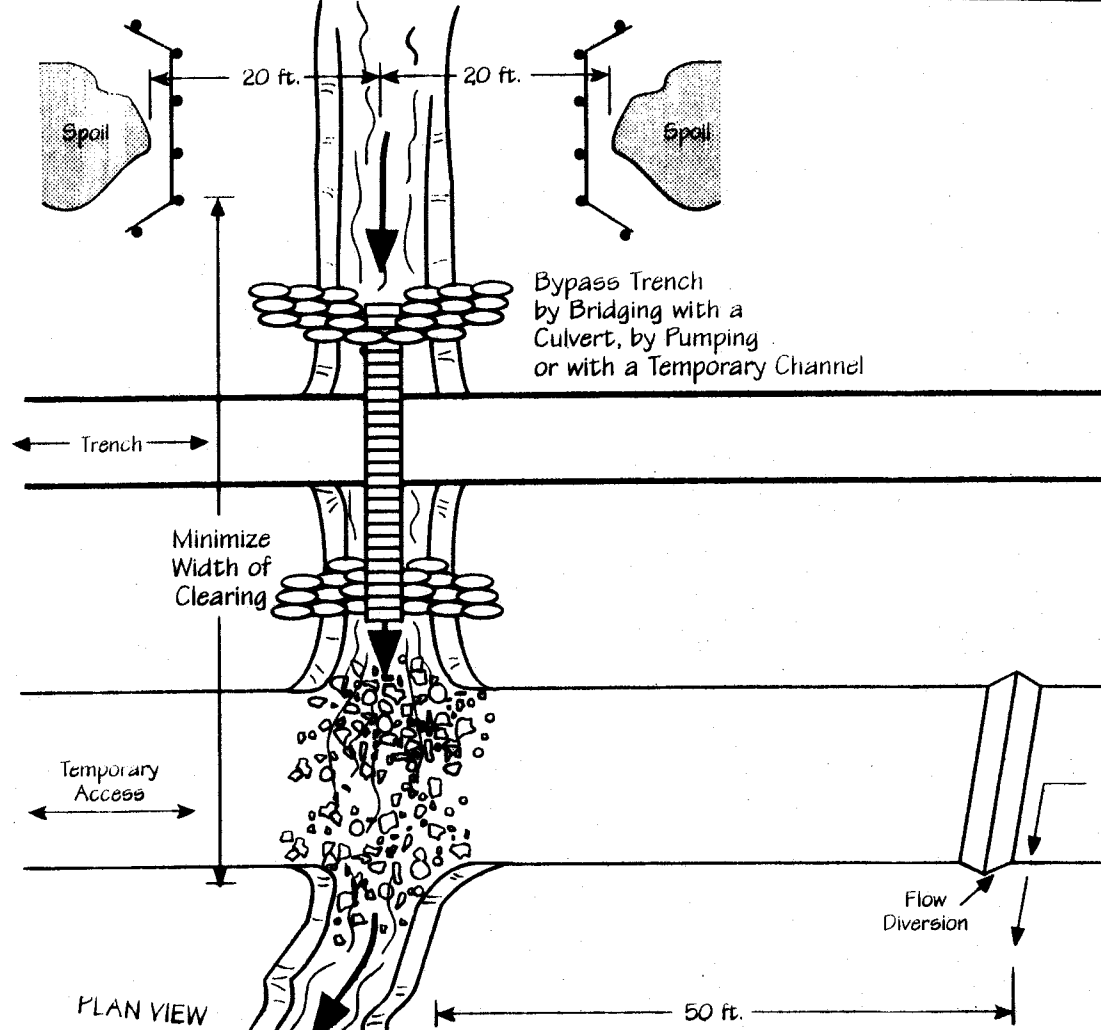
1. Stream Disturbance--Disturbance to the stream shall be kept to a minimum. Streambank vegetation shall be preserved to the maximum extent practical and the stream crossing shall be as narrow as practical.
2. Clearing shall be done by cutting NOT grubbing. The roots and stumps shall be left in place to help stabilize the banks and accelerate revegetation.
3. To minimize interference with fish spawning and migration, crossing construction should be avoided where practical from March 15 through June 15.
4. Water shall not be allowed to flow along the road directly to the stream. Diversions and swales shall direct runoff away from the access road to a sediment-control practice.
5. Placement--Culverts shall be placed on the existing streambed to avoid a drop or waterfall at the downstream end of the pipe, which would be a barrier to fish migration. Crossings shall be made in shallow areas rather than deep pools where possible.
6. Culvert Size--Culvert diameter shall be at least three times the depth of normal stream flow at the point of the stream crossing. If the crossing must be placed in deep, slow-moving pools, the culvert diameter may be reduced to twice the depth of normal stream flow. The minimum size culvert that may be used is 18 in.
7. Number of Culverts--There shall be sufficient number of culverts to completely cross the stream channel from streambank to streambank with no more than a 12-in. space between each one.
8. Fill and Surface Material--All material placed in the stream channel, around the culverts and on the surface of the crossing shall be stone, rock or aggregate. ODOT No. 1 shall be the minimum acceptable size. To prevent washouts, larger stone and rock may be used and they may be placed in gabion mattresses. NO SOIL SHALL BE USED IN THE CONSTRUCTION OF A STREAM CROSSING OR PLACED IN THE STREAM CHANNEL.
9. Removal--Aggregate stone and rock used for this structure does not need to be removed. Care should be taken so that any aggregate left does not create an impoundment or impede fish passage. All pipes, culverts, gabions or structures must be removed.
10. Stabilization--Streambanks shall be stabilized. Plantings shall include woody vegetation where practical.

## Inlet Protection in Swales, Ditch Lines or Yard Inlets



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 in.
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 in. 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. It shall extend from the top of the frame to 18 in. 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 in. higher than the top of the frame.

## Small Stream Utility Crossing

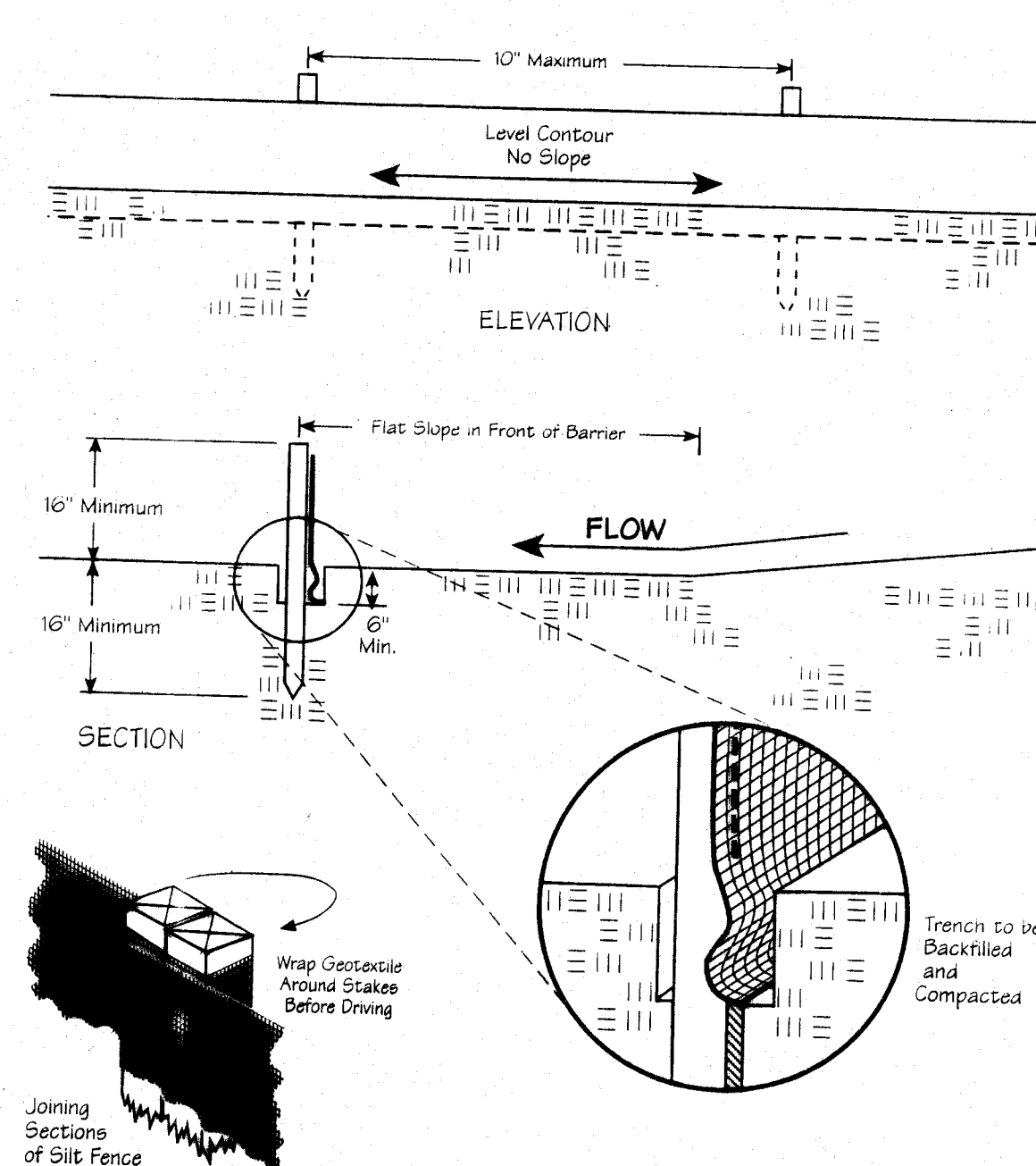


1. When site conditions allow, one of the following shall be used to divert stream flow or otherwise keep the flow away from construction activity.
  - Drill or bore the utility lines under the stream channel.
  - Construct a cofferdam or barricade of sheet piling, sandbags or a turbidity curtain to keep the stream from continually flowing through the disturbed areas. Turbidity curtains shall be a pre-assembled system and used only parallel to flow.
  - Stage construction by confining first one-half of the channel until work there is completed and stabilized, then move to the other side to complete the crossing.
  - Route the stream flow around the work area by bridging the trench with a rigid culvert, pumping, or constructing a temporary channel. Temporary channels shall be stabilized by rock or a geotextile completely lining the channel bottom and side slopes.
2. Crossing Width--The width of clearing shall be minimized through the riparian area. The limits of disturbance shall be as narrow as possible including not only construction operations within the channel itself but also clearing done through the vegetation growing on the streambanks.
3. Clearing shall be done by cutting NOT grubbing. The roots and stumps shall be left in place to help stabilize the banks and accelerate revegetation.
4. Material excavated from the trench shall be placed at least 20 ft. from the streambanks.
5. To the extent other constraints allow, stream shall be crossed during periods of low flow.
6. Duration of Construction--The time between initial disturbance of the stream and final stabilization shall be kept to a minimum. Construction shall not begin on the crossing until the utility line is in place to within 10 ft. of the streambank.
7. Fill Placed Within the Channel--The only fill permitted in the channel should be clean aggregate, stone or rock. No soil or other fine erodible material shall be placed in the channel. This restriction includes all fill for the channel. The restriction includes all fill for temporary crossings, diversions, and trench backfill when placed in flowing water. If the stream flow is diverted away from construction activity the material originally excavated from the trench may be used to backfill the trench.
8. Streambank Restorations--Streambanks shall be restored to their original line and grade and stabilized with riprap or vegetative bank stabilization.
9. Runoff Control Along the Right-of-Way--To prevent sediment-laden runoff from flowing to the stream, runoff shall be diverted with water bar or swales to a sediment trapping practice a minimum of 50 ft. from the stream.
10. Dewatering or pumping water containing sediment shall not be discharge directly to a stream. The flow shall be routed through a settling pond, dewatering pump or a flat, well-vegetated area adequate for removing sediment before the pumped water reaches the stream.
11. Dewatering operations shall not cause significant reductions in stream temperatures. If groundwater is to be discharged in high volumes during summer months, it shall first be routed through a settling pond or overlaid through a flat well-vegetated area.
12. Permits--In addition to these specifications, stream crossings shall conform to the rules and regulations of the U.S. Army Corps of Engineers for in-stream modifications (404 permits) and Ohio Environmental Protection Agency's State Water Quality Certification (401 permits).

## Mulching

1. Mulch and/or other appropriate vegetative practices shall be applied to disturbed areas within 7 days of grading if the area is to remain dormant (undisturbed) for more than 45 days or on areas and portions of the site which can be brought to final grade.
2. Mulch shall consist of one of the following:
  - Straw--Straw shall be unrotted small grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The straw 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 place two 45-lb. bales of straw in each section.
  - Hydroseeders--Wood cellulose fiber should be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
  - Other--Other acceptable mulches include mulch matings applied according to manufacturer's recommendations or wood chips applied at 10-20 tons/ac.
3. Mulch Anchoring--Mulch shall be anchored immediately to minimize loss by wind or runoff. The following are acceptable methods for anchoring mulch.
  - Mechanical--Use a disk, crimper, or similar type tool set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but be left generally longer than 6 in.
  - Mulch Nettings--Use according to the manufacturer's recommendations, following all placement and anchoring suggestions. Use in areas of water concentration and steep slopes to hold mulch in place.
  - Asphalt Emulsion--For straw mulch, apply at the rate of 160 gal./ac. (0.1 gal./sq.) into the mulch as it is being applied or as recommended by the manufacturer.
  - Synthetic Binders--For straw mulch, 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 Fiber--Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

## Silt Fence



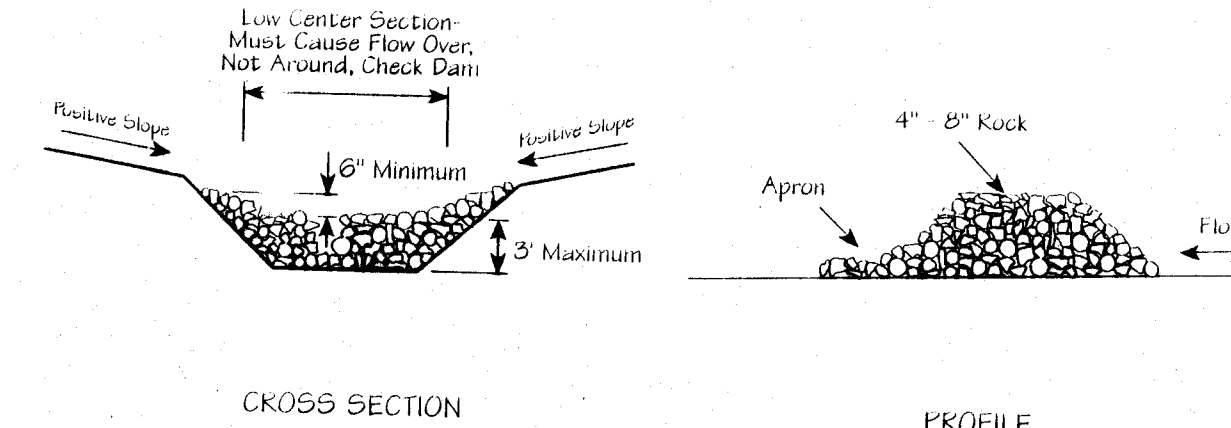
1. Silt fence shall be constructed before upslope land disturbance begins.
2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions which may carry small concentrated flows to the silt fence 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 minimum of 18 in. above the original ground surface.
7. The silt fence shall be placed in a trench cut a minimum 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.

| Fabric Properties                       |                           |
|-----------------------------------------|---------------------------|
| Minimum Tensile Strength                | 120 lbs.                  |
| Maximum Elongation at 80 lbs.           | 50%                       |
| Minimum Puncture Strength               | 50 lbs.                   |
| Minimum Tear Strength                   | 40 lbs.                   |
| Minimum Burst Strength                  | 200 psi                   |
| Apparent Opening Size                   | ≤ 0.84mm                  |
| Minimum Permeability                    | ≥ 1X10 <sup>-5</sup> sec. |
| Ultraviolet Exposure Strength Retention | ≥ 75%                     |

8. The silt fence shall be placed with the stakes on the downslope 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 section of silt fence shall be 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 shall be ODOT Type C Geotextile Fabric or as described by the chart below:

## Check Dam



1. The check dam shall be constructed of 4-8-in.-diameter stone, placed so that it completely covers the width of the channel.
2. The top of the check dam shall be constructed so that the center is approximately 6 in. lower than the outer edges, so water will flow across the center and not around the ends.
3. The maximum height of the check dam at the center of the weir shall not exceed 3 ft.
4. Spacing between dams shall be as shown in the plans or by the following table:

| Dam Height (ft.) | Channel Slope |         |          |          |
|------------------|---------------|---------|----------|----------|
|                  | < 5%          | 5 - 10% | 10 - 15% | 15 - 20% |
| 1                | 65 ft.        | 30 ft.  | 20 ft.   | 15 ft.   |
| 2                | 130 ft.       | 65 ft.  | 40 ft.   | 30 ft.   |
| 3                | 200 ft.       | 100 ft. | 65 ft.   | 50 ft.   |

## NOTE

THE DETAILS SHOWN ON THIS SHEET ARE STORM WATER BEST MANAGEMENT PRACTICES FROM (RAINWATER AND LAND DEVELOPMENT) OHIO'S STANDARDS FOR STORM WATER MANAGEMENT AND LAND DEVELOPMENT AND URBAN STREAM PROTECTION. THE CONTRACTOR SHALL USE THE ADJACENT OR PROVIDE A DETAIL PROPOSAL WHEN CREATING, IMPLEMENTING THE SWP3 PLAN AS REQUIRED BY THE CITY AND THE STARK SOIL & WATER CONSERVATION DISTRICT.

Massillon Standard  
Storm Water Pollution Control Details  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

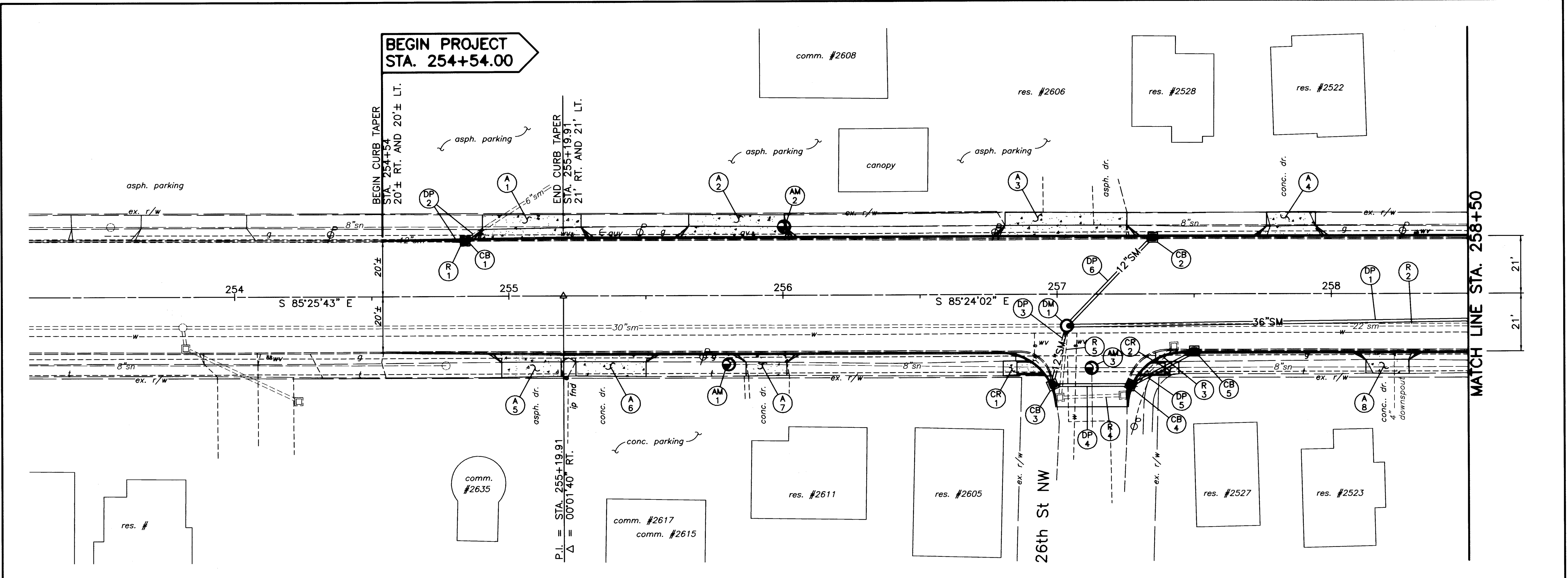


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FILE NAME:

ACCOUNT NUMBER



| PROP.<br>GRADE | 1071.38 |  |  |  |  |  |  |  |  |  | 1071.63 |  |  |  |  |  |  |  |  |  | 1071.88 |  |  |  |  |  |  |  |  |  | 1072.13 |  |  |  |  |  |  |  |  |  | 1072.38 |  |  |  |  |  |  |  |  |  | 1072.62 |  |  |  |  |  |  |  |  |  | 1072.87 |  |  |  |  |  |  |  |  |  | 1073.12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  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DM-1  
STA. 257+03.55, 11.45' RT  
MANHOLE TYPE 3  
RIM = 1072.17  
ex. 30" inv. = 1061.37(W)  
36" inv. = 1061.50(E)  
12" inv. = 1068.02(N)  
12" inv. = 1065.02(S)

DP-1  
347'-36" TYPE B  
CONDUIT @ 0.5%

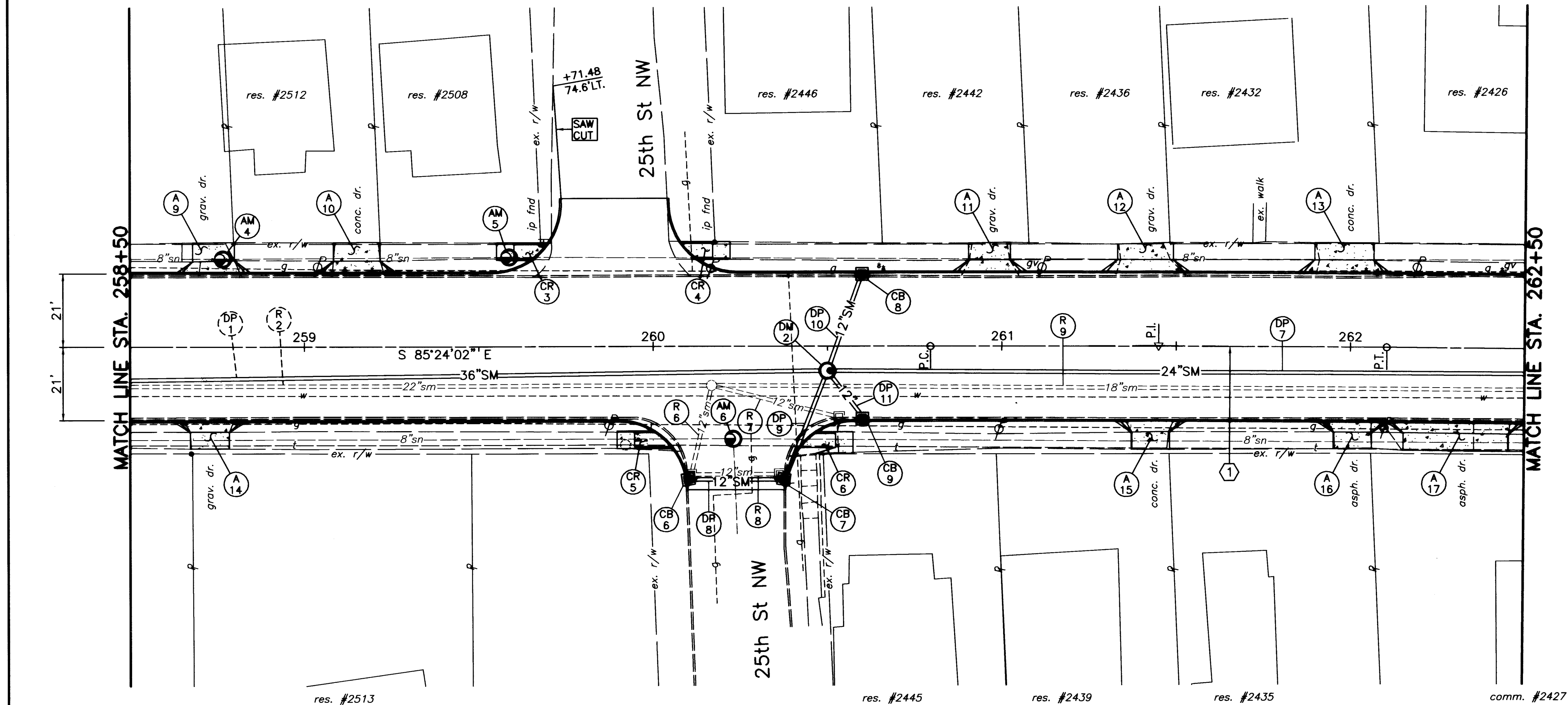
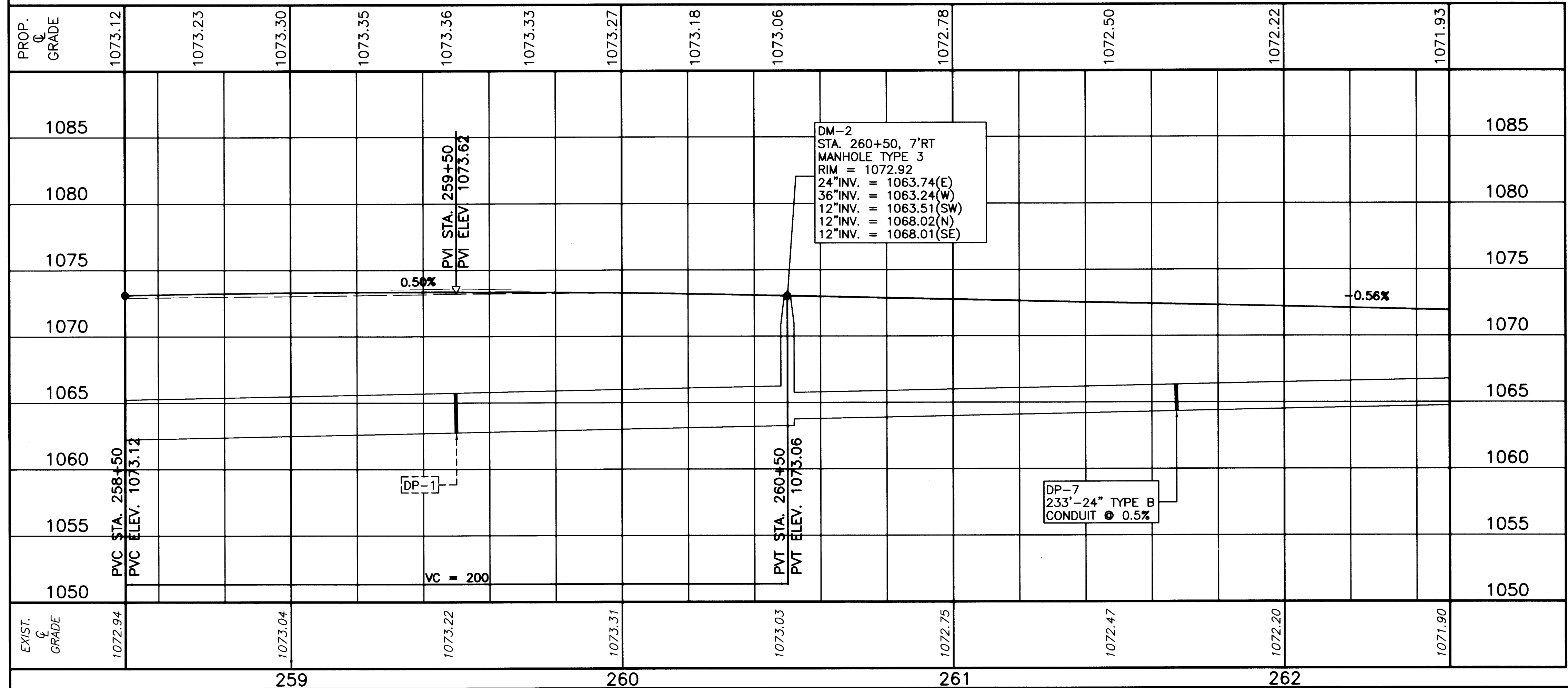
**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 254+00 to Sta. 258+50  
City of Massillon  
Stark County, Ohio



REVISIONS:

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FILE NAME: .DWG  
ACCOUNT NUMBER: 03STXX



**CURVE DATA**

|           |   |                |
|-----------|---|----------------|
| P.I.      | = | STA. 261+44.99 |
| $\Delta$  | = | 00°39'15" RT.  |
| Dc        | = | 00°30'00"      |
| R         | = | 11459.16'      |
| T         | = | 65.43'         |
| L         | = | 130.85'        |
| E         | = | 0.19           |
| $e_{max}$ | = | NONE           |
| P.C.      | = | STA. 260+79.57 |
| P.T.      | = | STA. 262+10.42 |

HORIZONTAL SCALE IN FEET

DRAWN BY: FPW

CHECKED BY: SDH

DATE: July 2004

DATE: July 2004

**Lincoln Way West Rehabilitation**

Plan and Profile Sta. 258+50 to Sta. 262+50

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

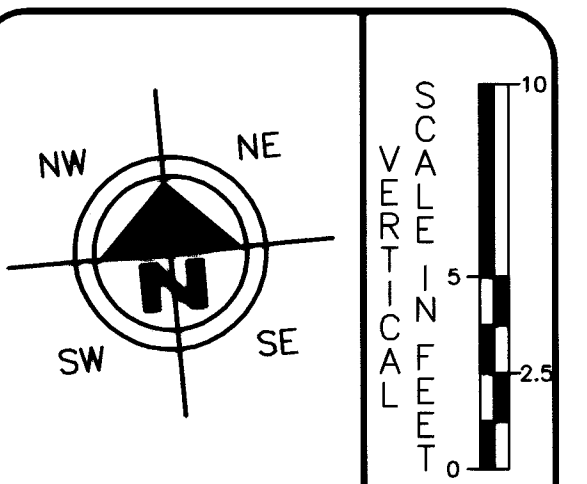
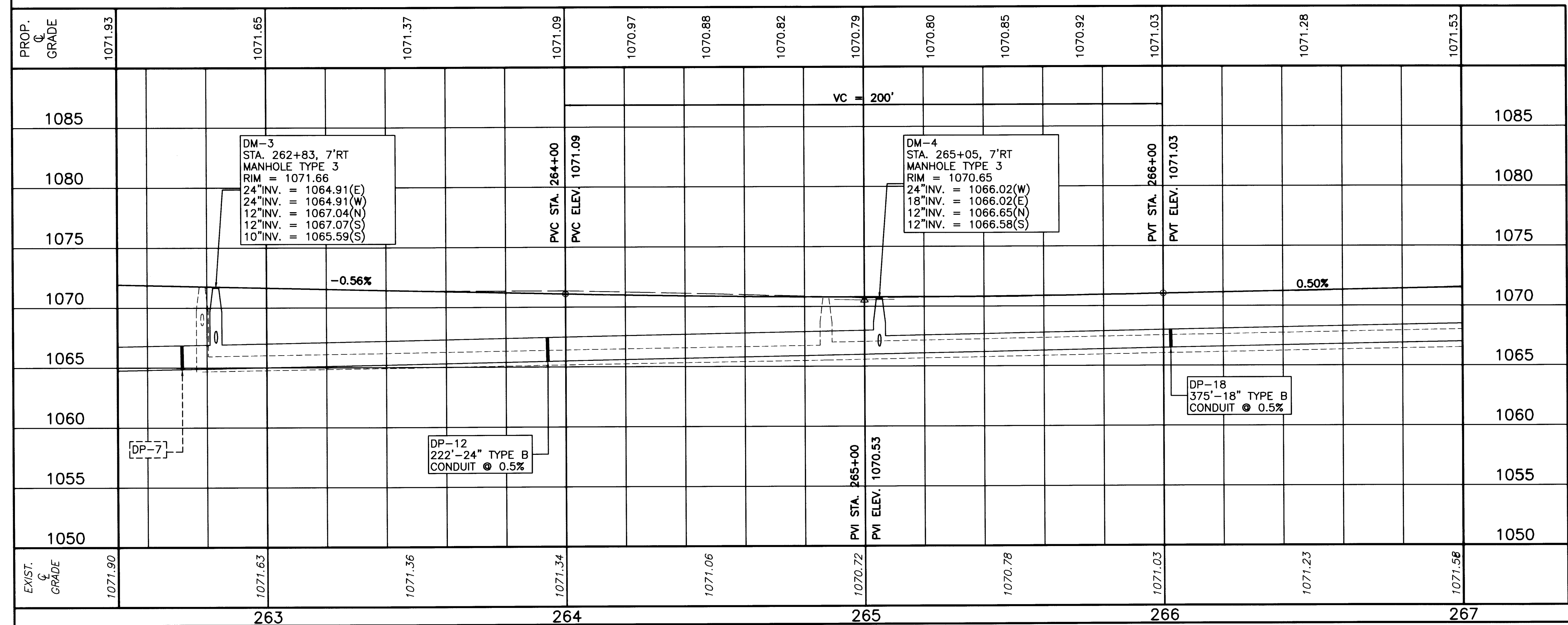
REVISIONS:

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FILE NAME: 02ST0221.DWG

ACCOUNT NUMBER: 02ST02

21 / 90



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| DRAWN BY: FPW    |  | CHECKED BY: SDH  |  |
| DATE: July, 2004 |  | DATE: July, 2004 |  |

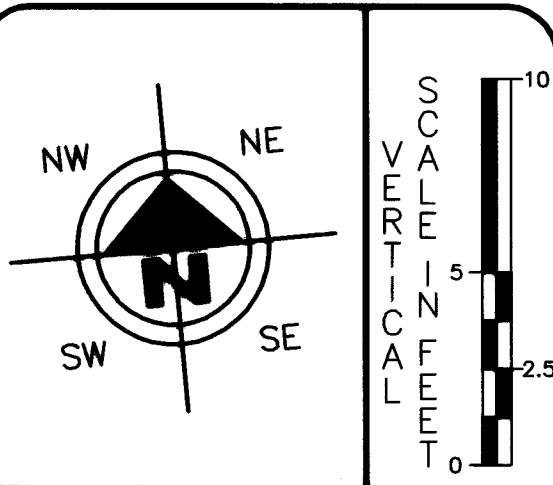
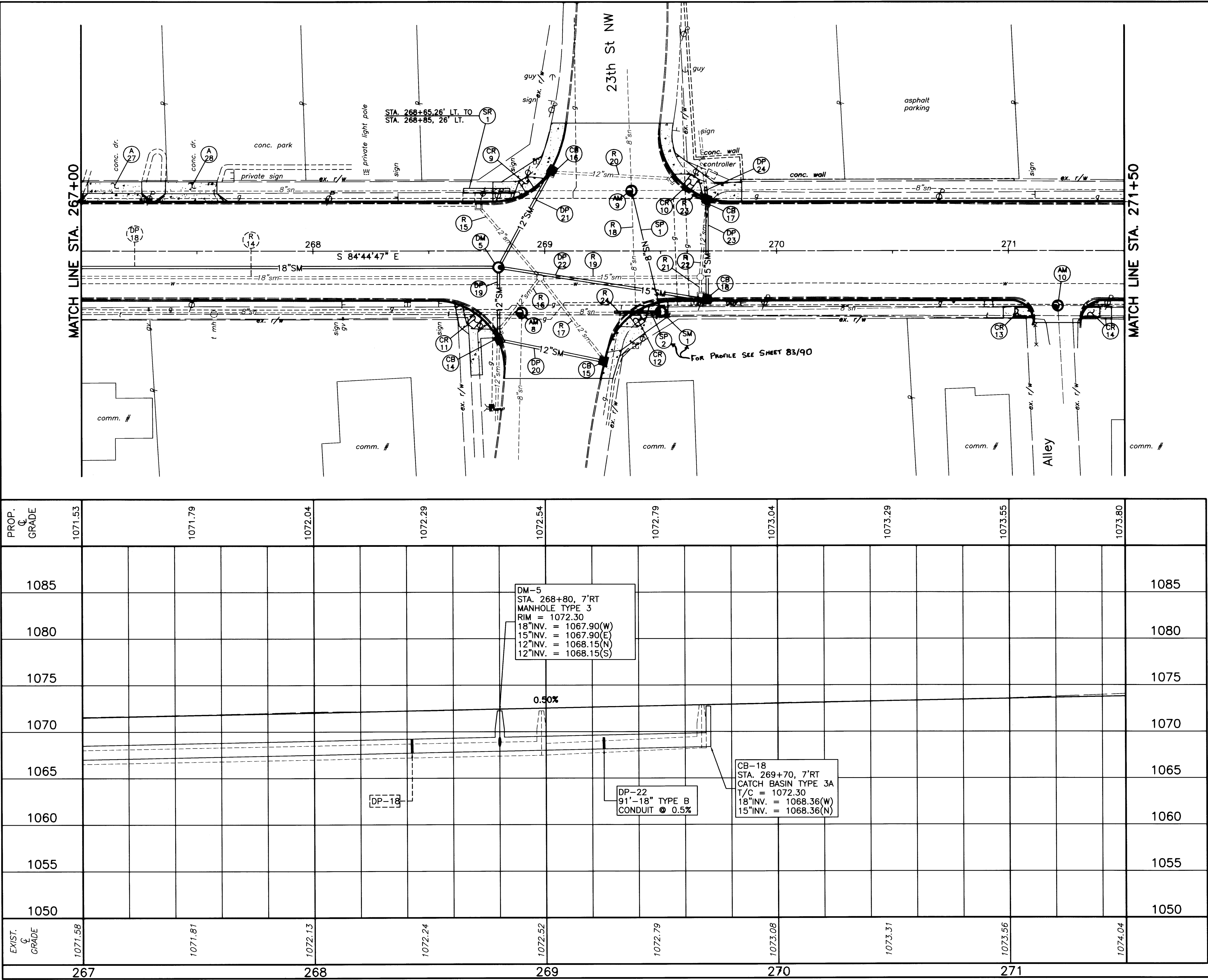
# Lincoln Way West Rehabilitation

Plan and Profile Sta. 262+50 to Sta. 267+00  
City of Massillon  
Stark County, Ohio



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FILE NAME: 02SS0222.DWG  
ACCOUNT NUMBER: 02SS02



HORIZONTAL SCALE IN FEET

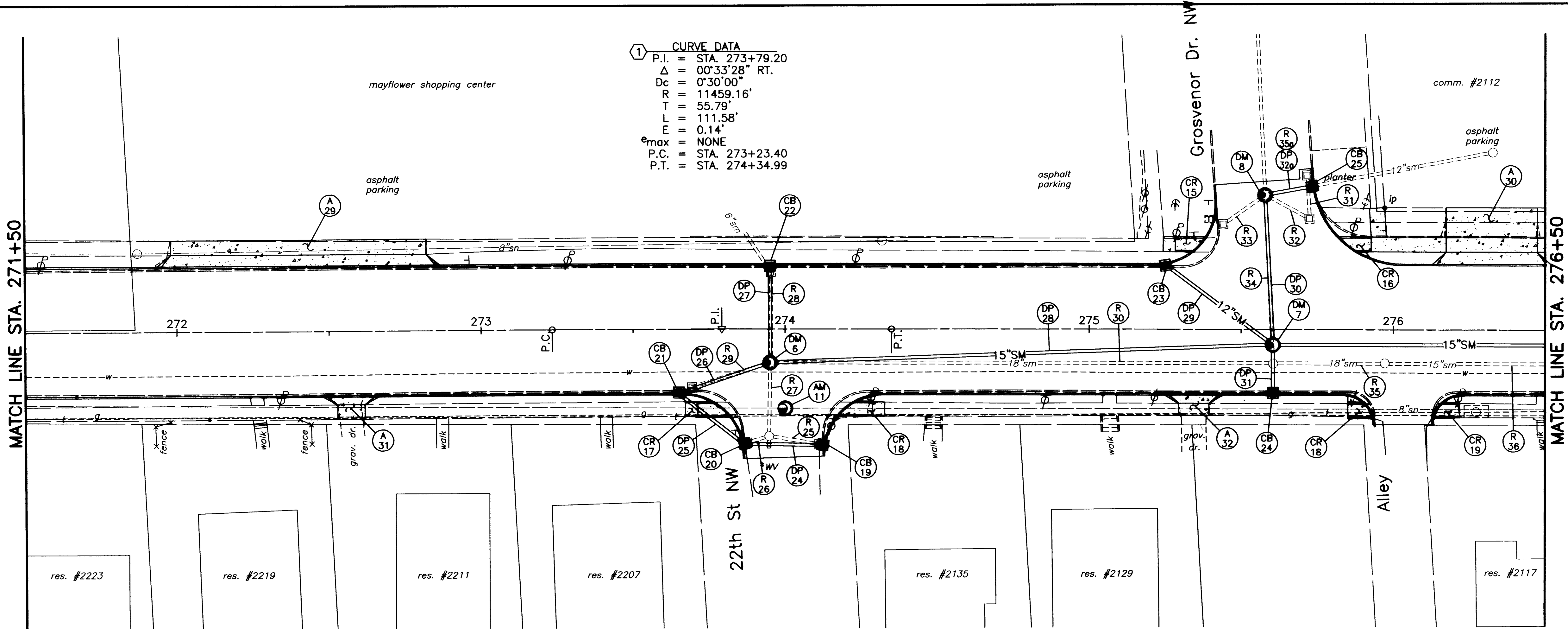
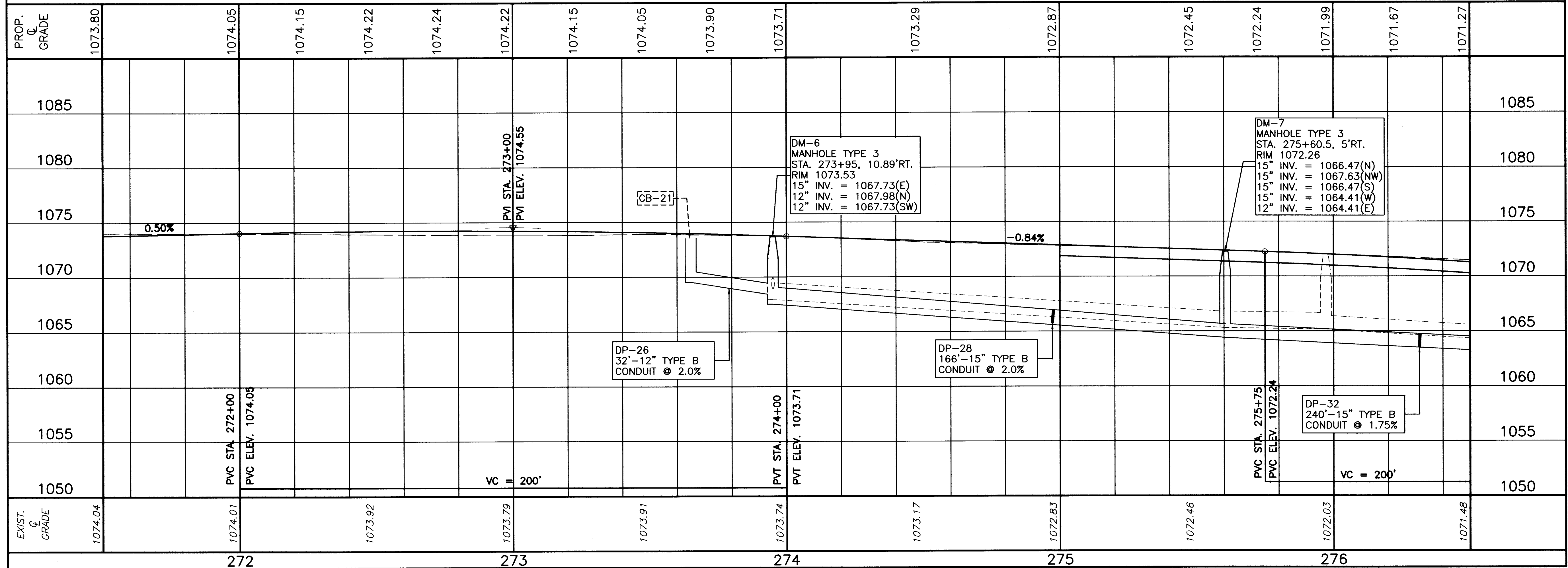
DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: Dec. 3, 2002  
DATE: Dec. 4, 2002

**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 267+00 to Sta. 271+50  
City of Massillon  
Stark County, Ohio

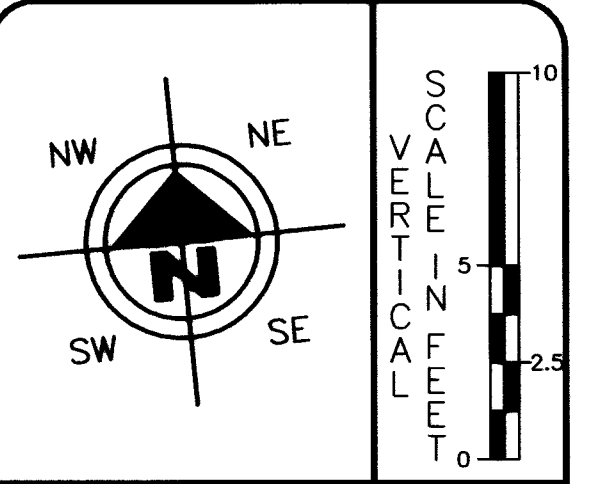


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FILE NAME: 02SS0202.DWG  
ACCOUNT NUMBER: 02SS02



**CURVE DATA**  
P.I. = STA. 273+79.20  
 $\Delta$  = 00°33'28" RT.  
Dc = 0°30'00"  
R = 11459.16'  
T = 55.79'  
L = 111.58'  
E = 0.14'  
e<sub>max</sub> = NONE  
P.C. = STA. 273+23.40  
P.T. = STA. 274+34.99



HORIZONTAL SCALE IN FEET  
20 10 0 10 20

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: July, 2004  
DATE: July, 2004

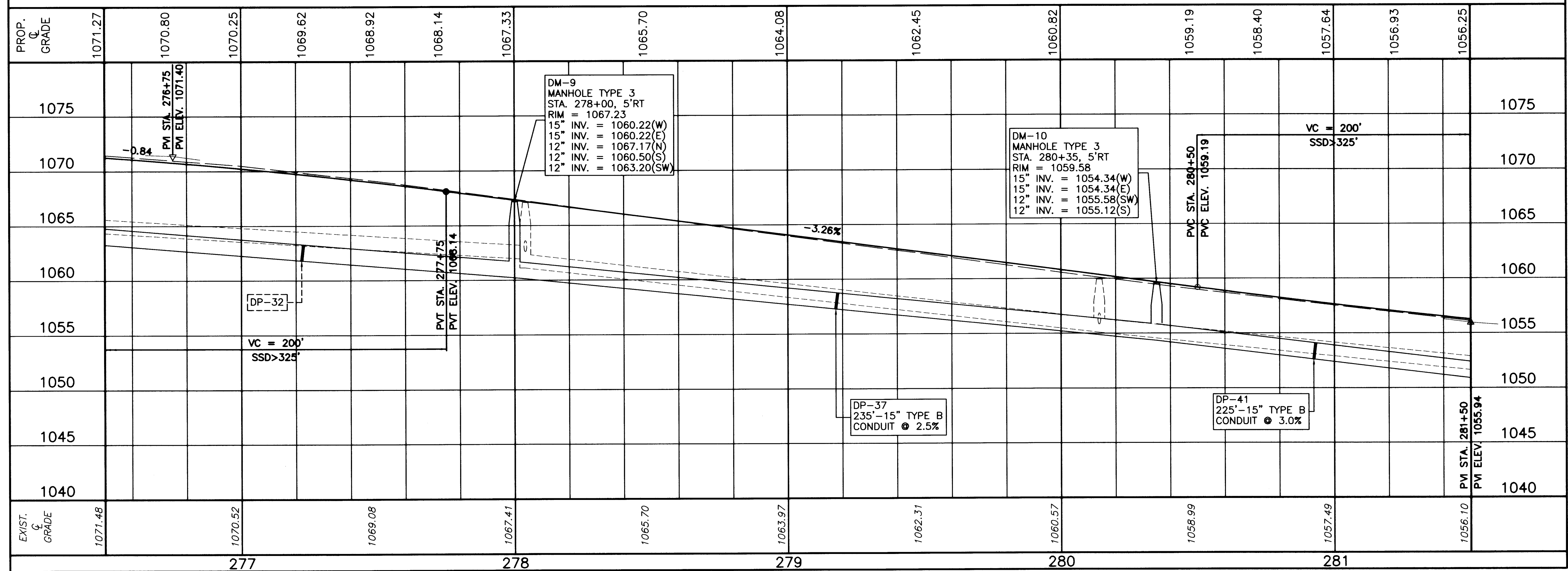
**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 271+50 to Sta. 276+50  
City of Massillon  
Stark County, Ohio

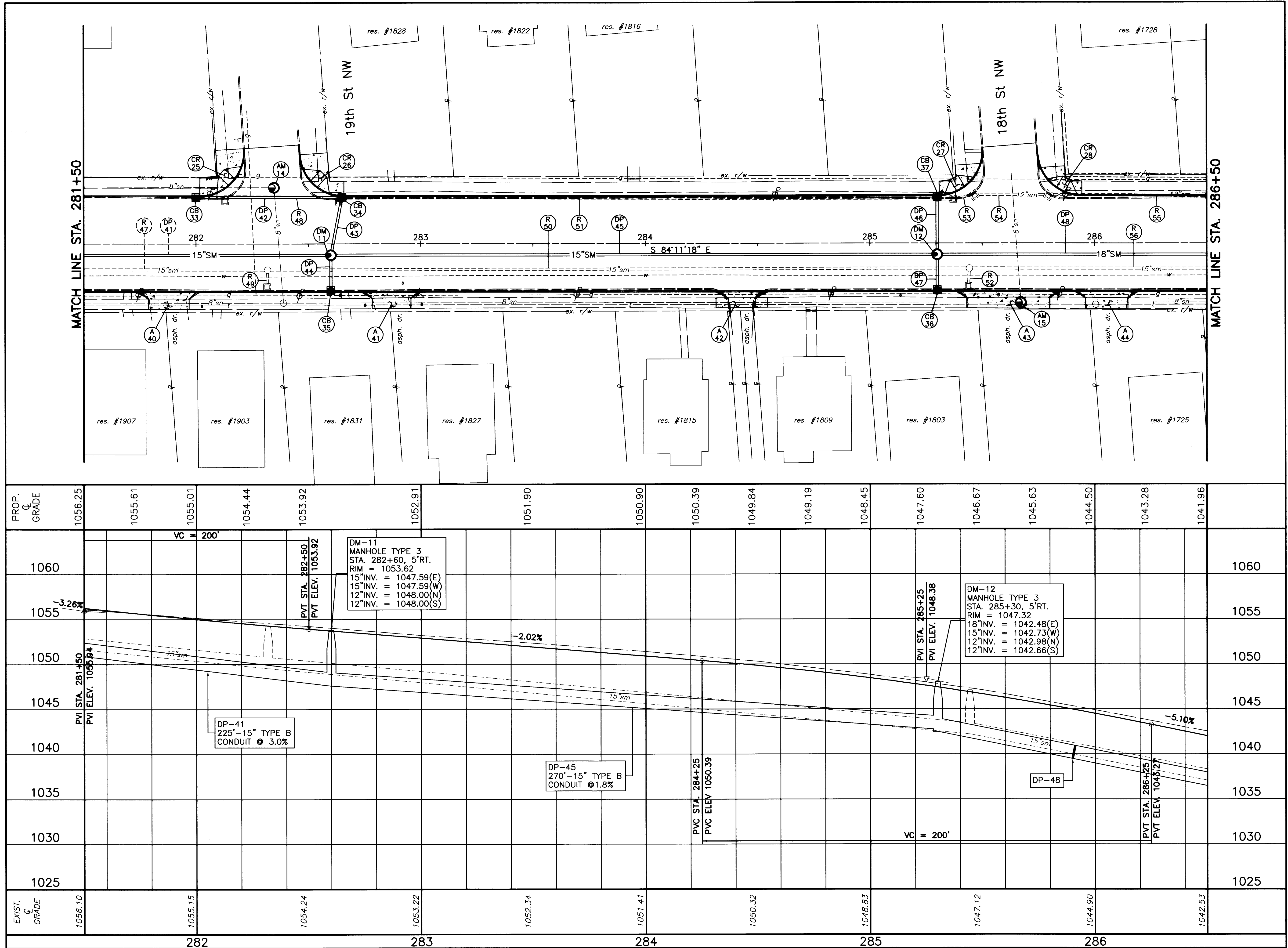


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FILE NAME:  
02SS0224.DWG

ACCOUNT NUMBER  
02SS02





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HORIZONTAL

SCALE IN FEET

DRAWN BY:

FPW

CHECKED BY:

SDH

DATE:

July, 2004

DATE:

July, 2004

Lincoln Way West Rehabilitation

Plan and Profile Sta. 281+50 to Sta. 286+50

City of Massillon

Stark County, Ohio

Francis H. Cicchinelli, Jr.

Mayor

Massillon

Means More!

REVISIONS:

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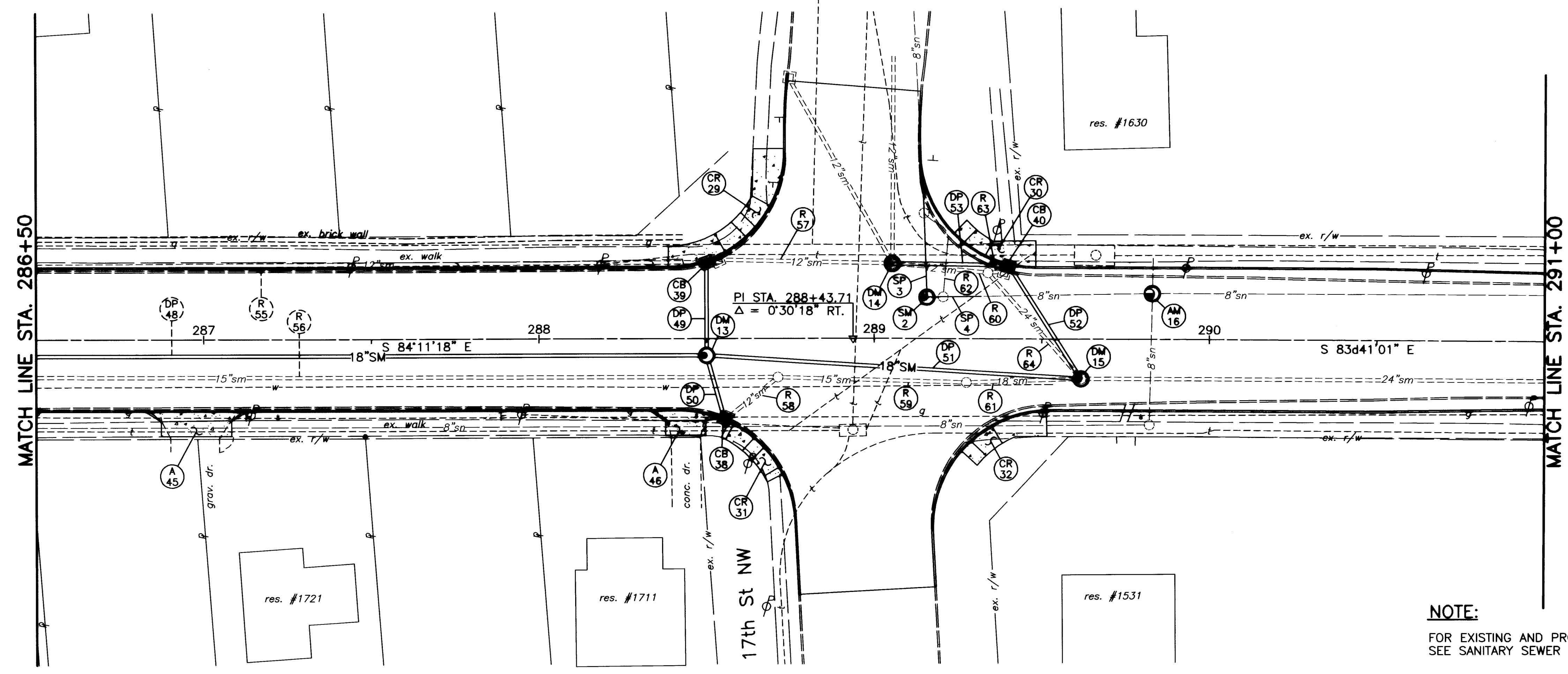
02SS0226.DWG

ACCOUNT NUMBER

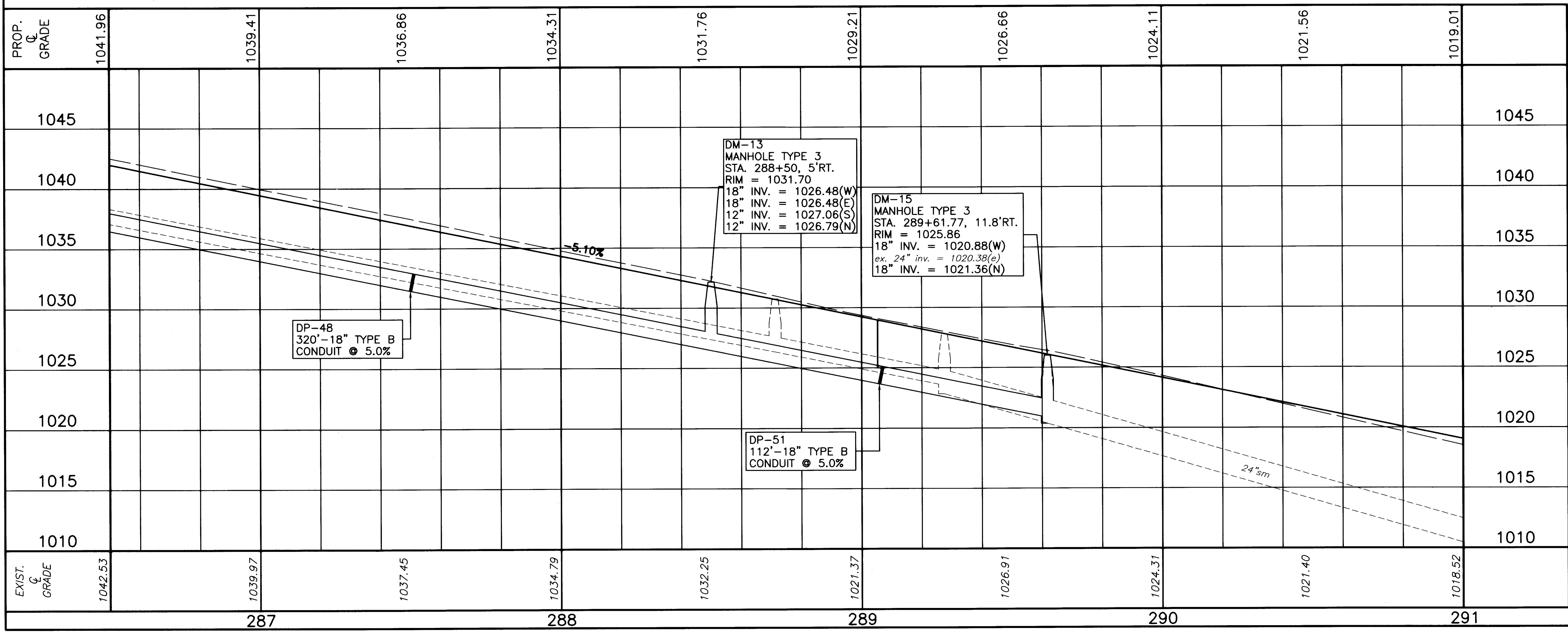
02SS02

26

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**NOTE:**  
FOR EXISTING AND PROPOSED SANITARY SEWER SYSTEM  
SEE SANITARY SEWER DETAILS SHT. 84.



VERTICAL SCALE  
1" = 5'

HORIZONTAL SCALE IN FEET  
1" = 20'

DRAWN BY: FPW

DATE: July, 2004

CHECKED BY: SDH

DATE: July, 2004

### Lincoln Way West Rehabilitation

Plan and Profile Sta. 286+50 to Sta. 291+00

City of Massillon  
Stark County, Ohio

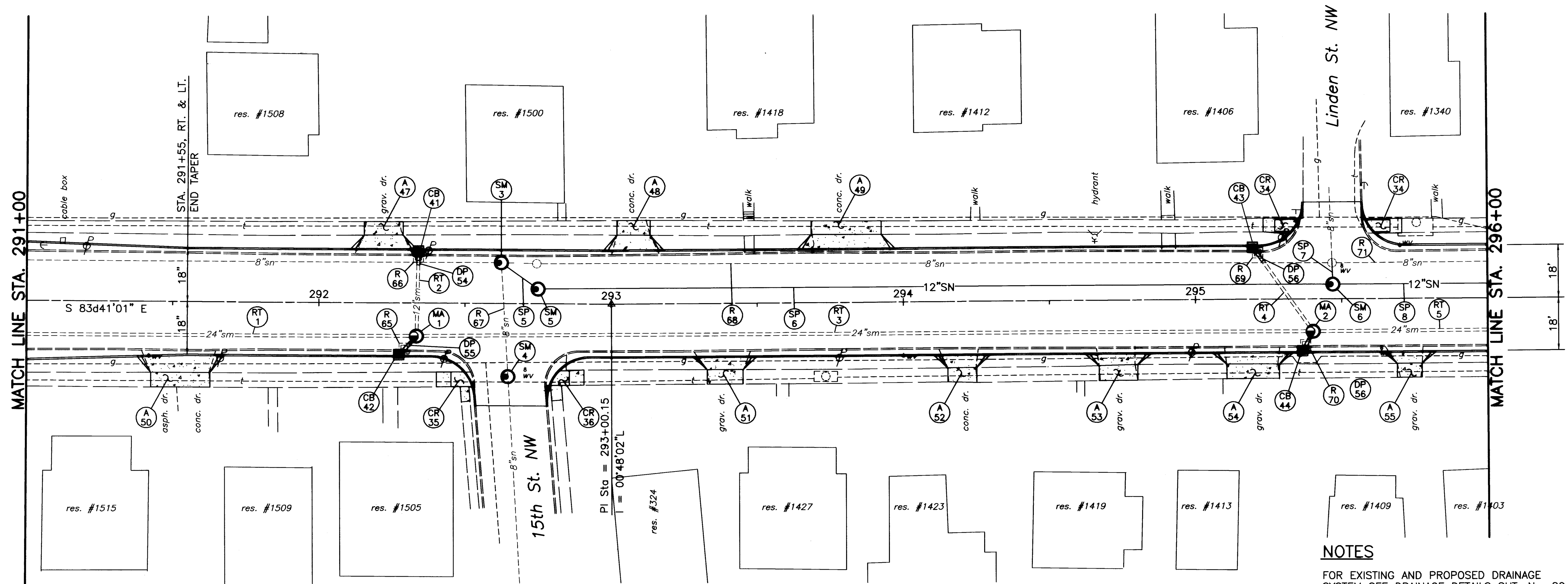
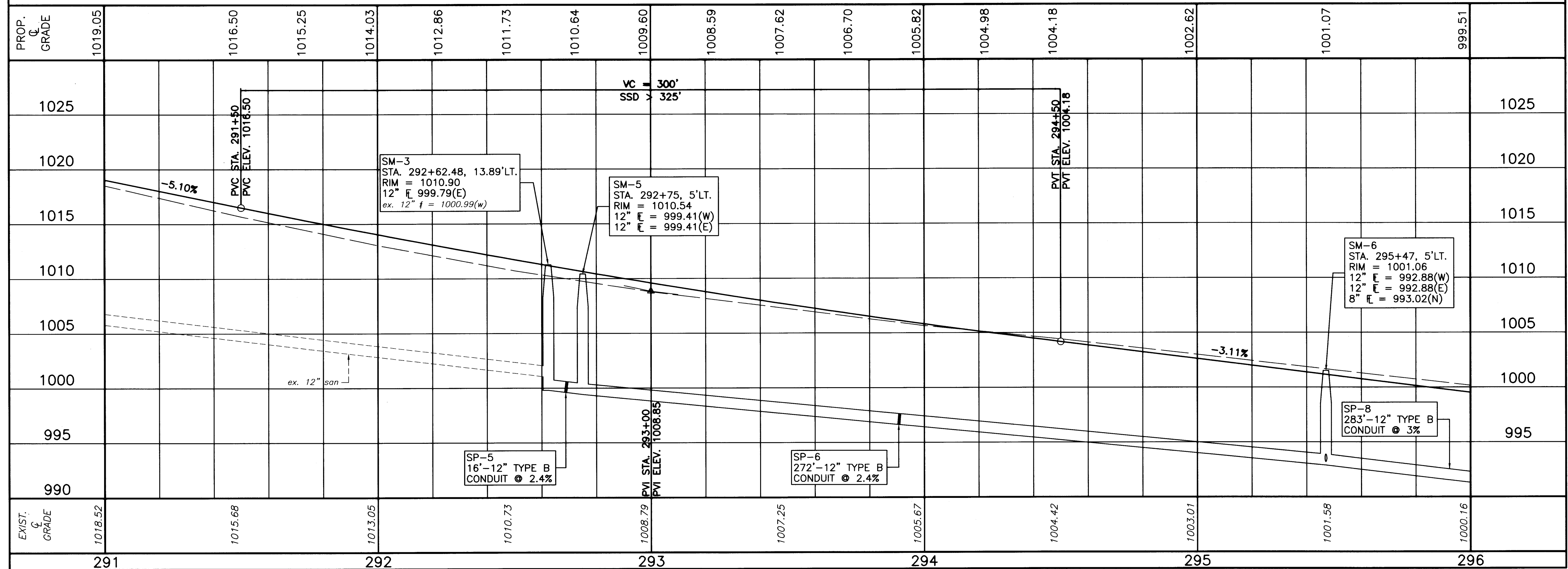
Francis H. Cicchinelli, Jr.

| REVISIONS: |             |
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FILE NAME: 02SS0202.DWG

ACCOUNT NUMBER: 02SS02

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**NOTES**  
FOR EXISTING AND PROPOSED DRAINAGE SYSTEM SEE DRAINAGE DETAILS SHT. No. 82

NW NE  
SW SE

VERTICAL SCALE

0 5 10 20 25

HORIZONTAL SCALE IN FEET

20 10 0 10 20

DRAWN BY: FPW

CHECKED BY: SDH

DATE: July, 2004

DATE: July, 2004

## Lincoln Way West Rehabilitation

Plan and Profile Sta. 291+00 to Sta. 296+00

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

| REVISIONS: |             |
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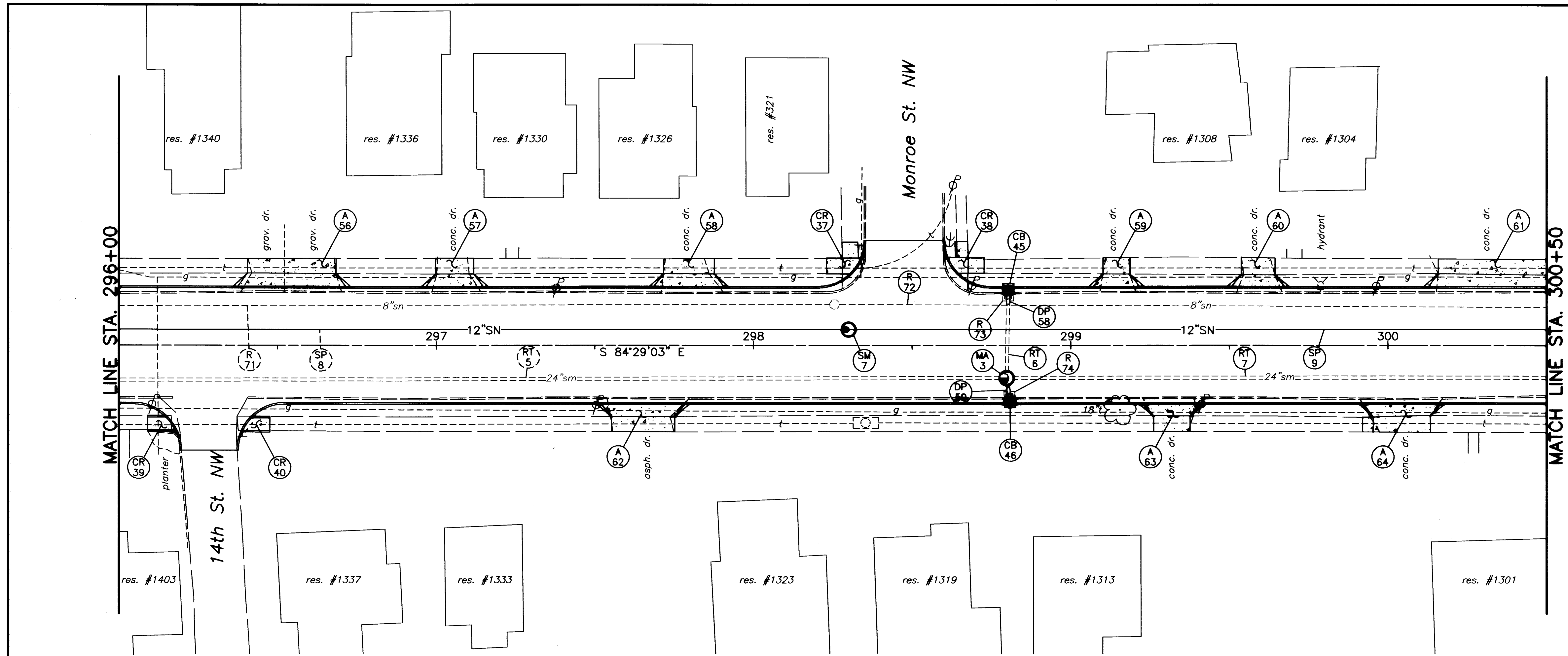
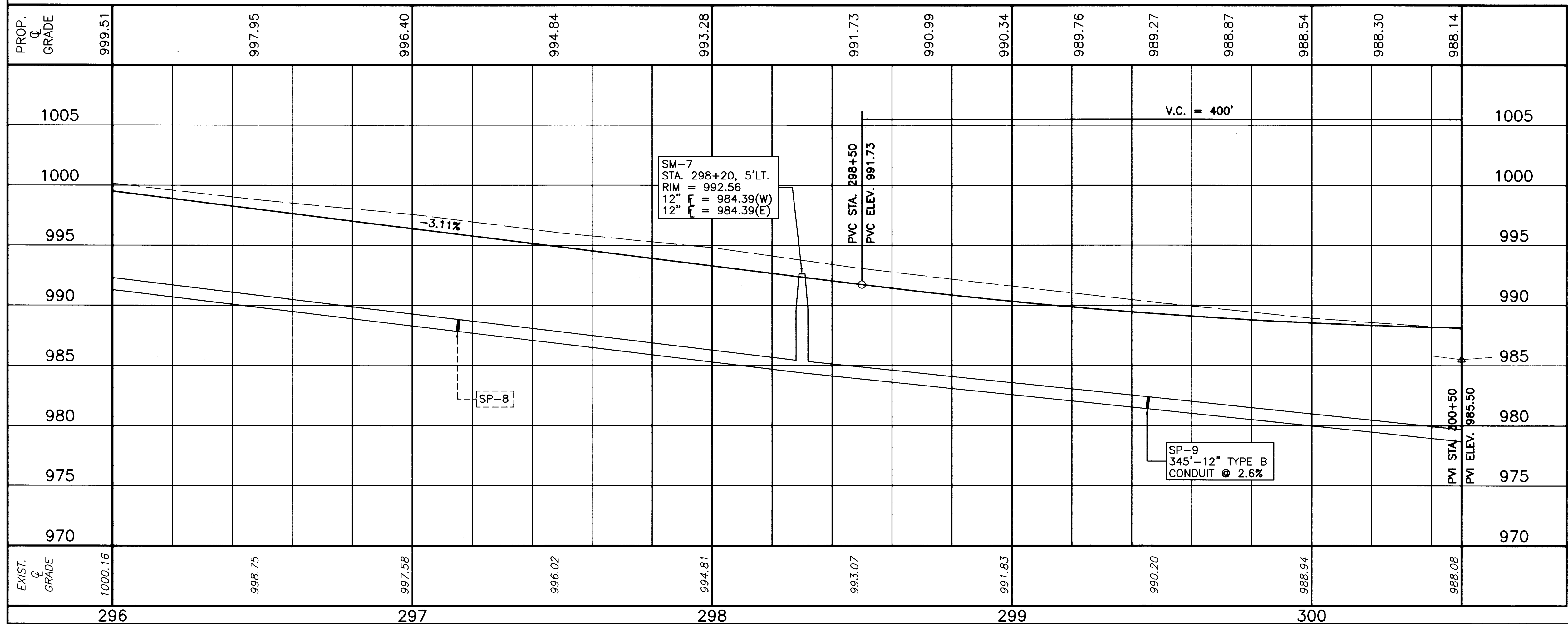
02SS0228.DWG

ACCOUNT NUMBER

02SS02

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HORIZONTAL SCALE IN FEET

DRAWN BY: FPW

CHECKED BY: SDH

DATE: July, 2004

DATE: July, 2004

**Lincoln Way West Rehabilitation**

Plan and Profile Sta. 296+00 to Sta. 300+50

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

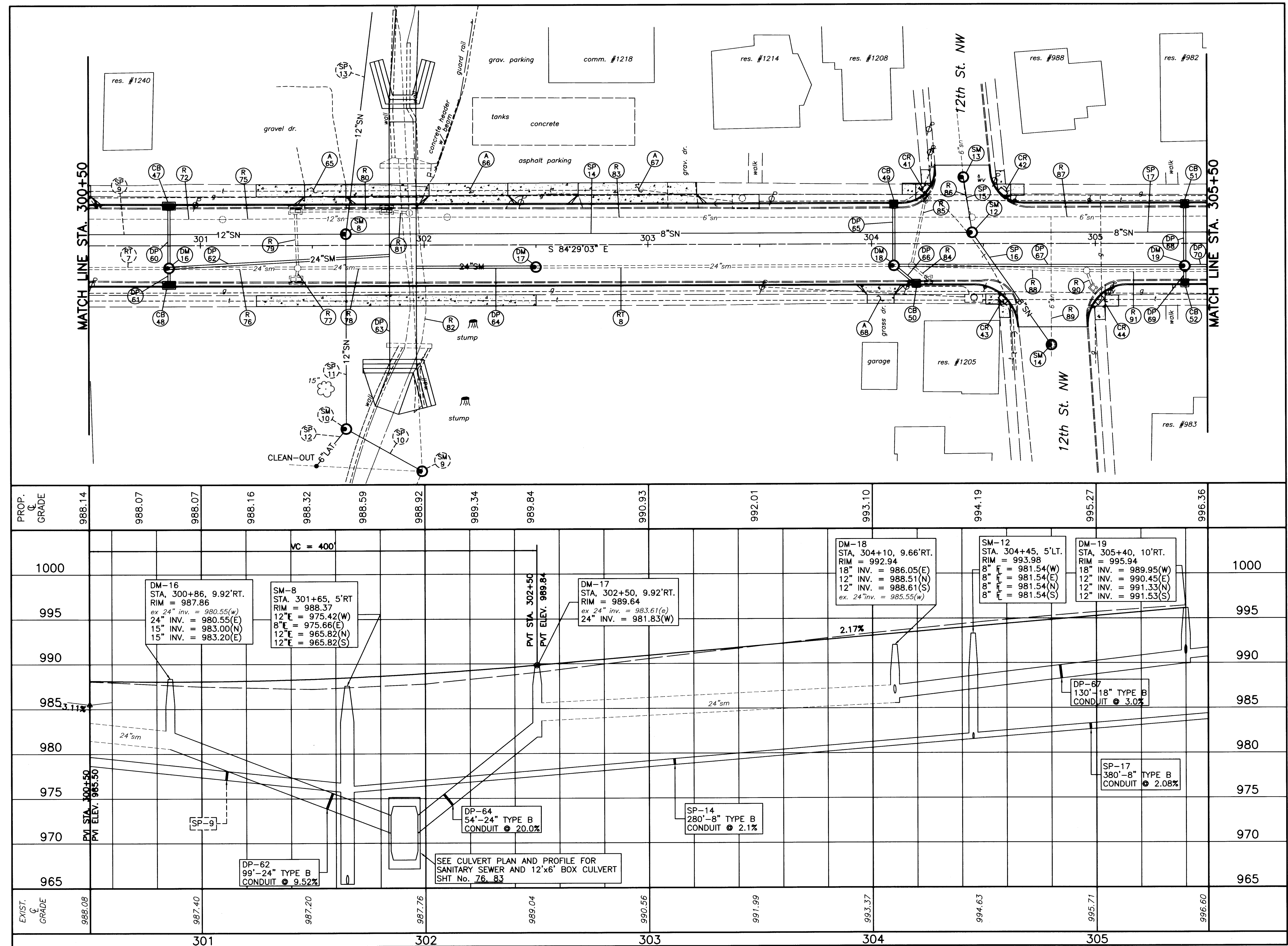
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FILE NAME: 02SS0229.DWG

ACCOUNT NUMBER: 02SS02

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**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 300+50 to Sta. 305+50

City of Massillon  
Stark County, Ohio

**Francis H. Cicchinelli, Jr.**

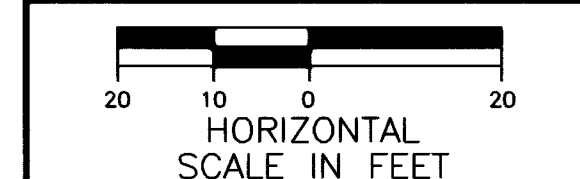
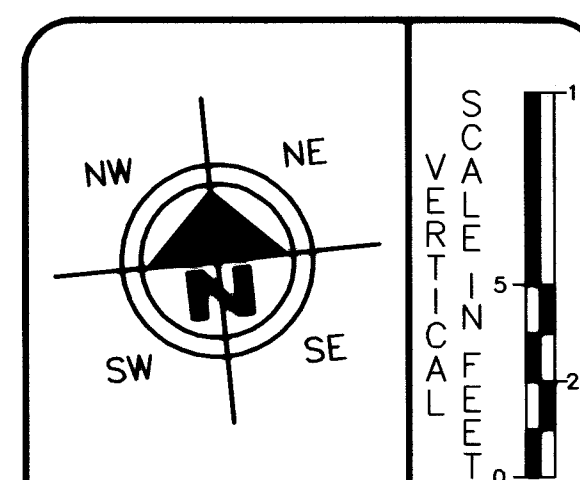
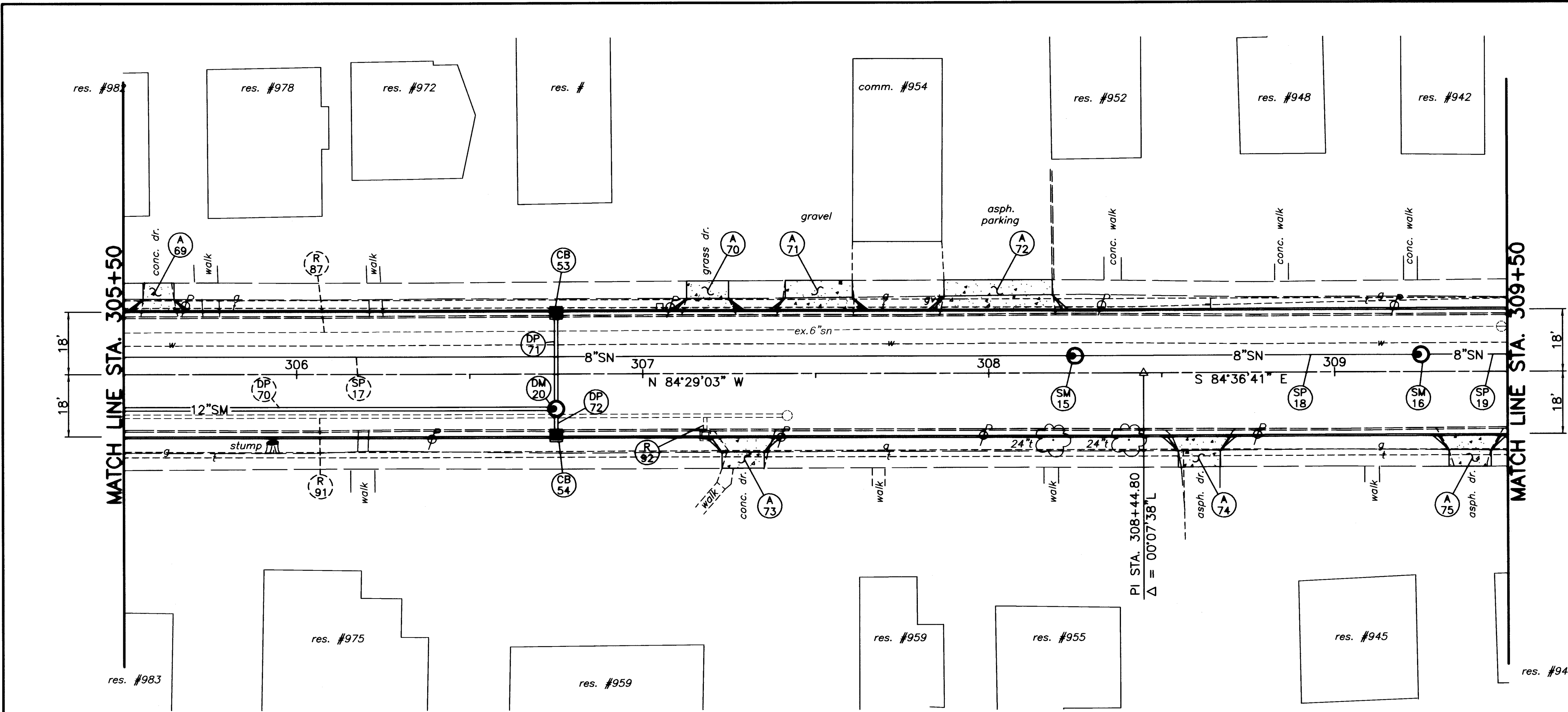
**Massillon**  
Means More!

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FILE NAME: 02SS0230.DWG

ACCOUNT NUMBER: 02SS02

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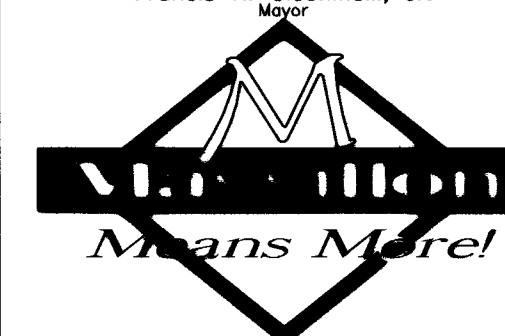


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| <b>DRAWN BY:</b><br>FPW    | <b>CHECKED BY:</b><br>SDH  |
| <b>DATE:</b><br>July, 2004 | <b>DATE:</b><br>Aug., 2004 |

*Lincoln Way West Rehabilitation*  
Plan and Profile Sta. 305+50 to Sta. 309+50

**West Rehabilitation**  
Sta. 305+50 to Sta. 309+50  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.



REVISIONS:

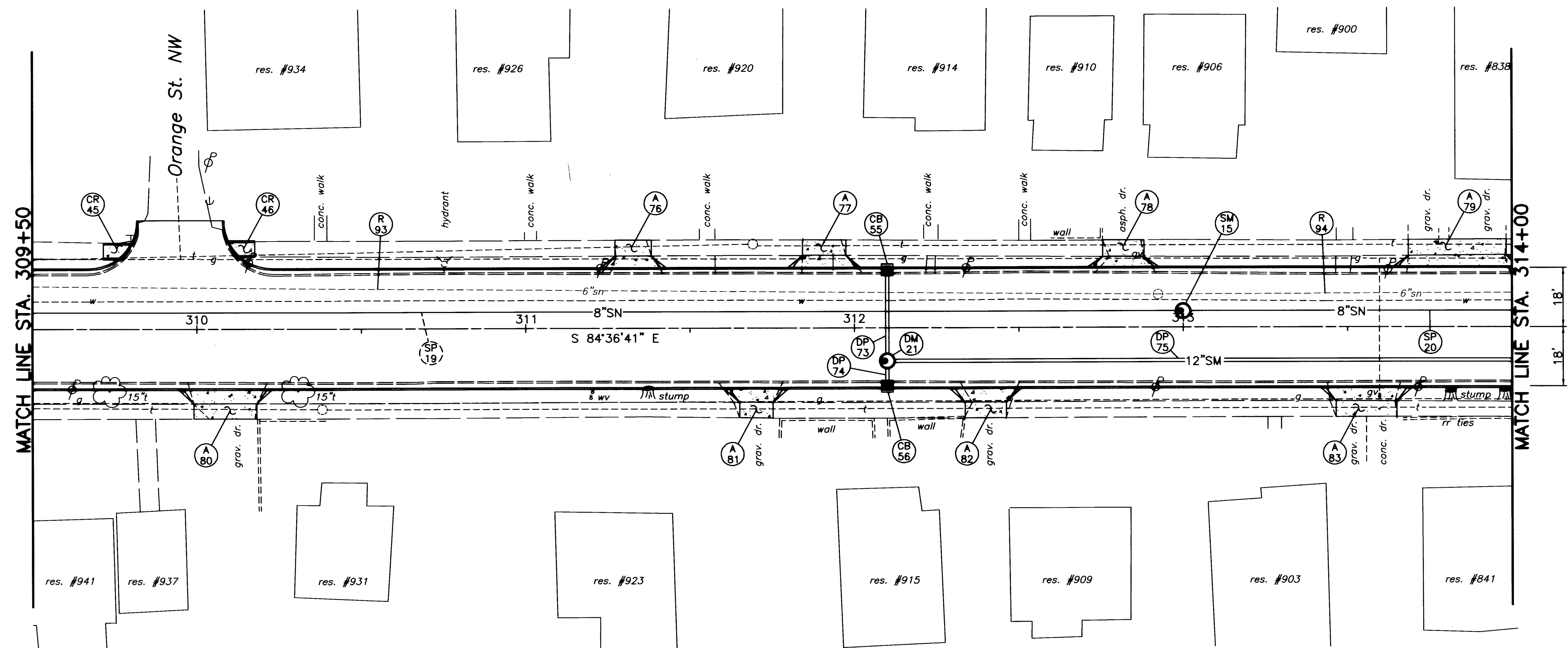
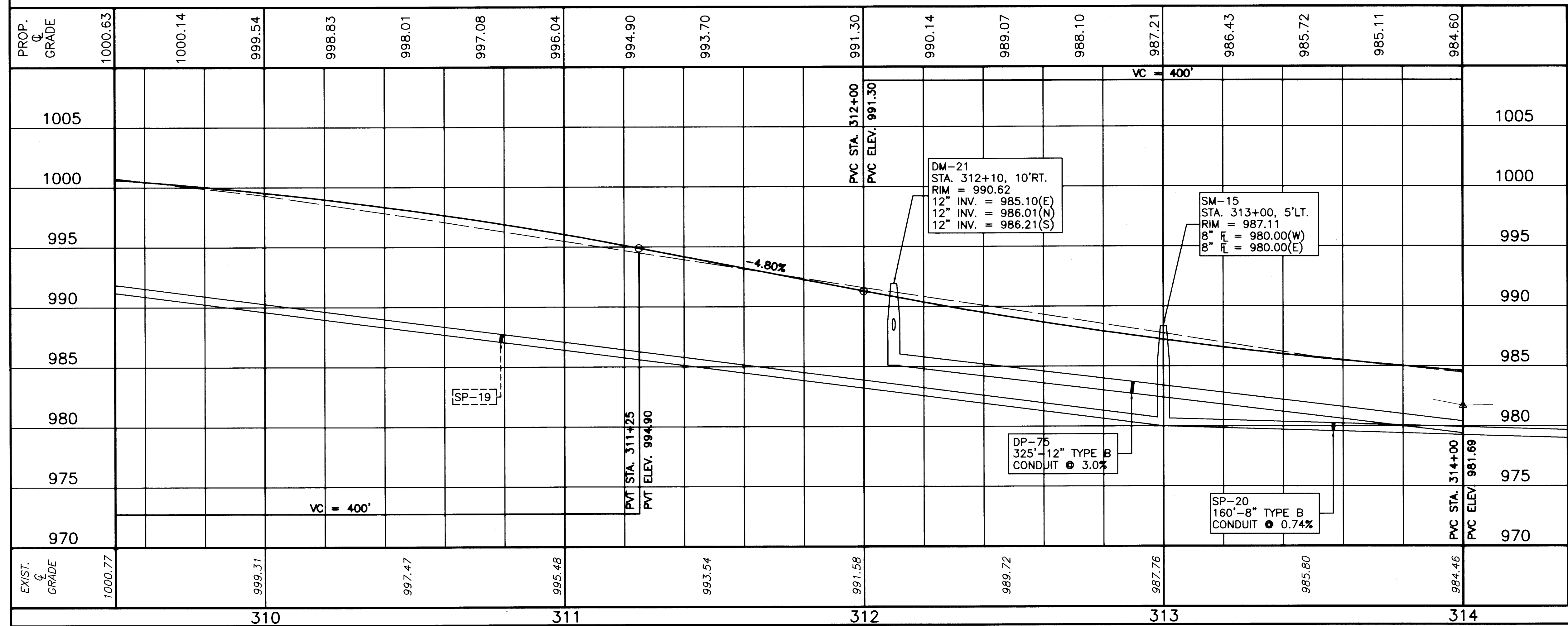
[illegible]

**FILE NAME:**

02SS0231.DWG

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| ACCOUNT NUMBER |
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02SS02



NW NE  
SW SE

VERTICAL SCALE

0 2.5 5 10

HORIZONTAL SCALE IN FEET

20 10 0 10 20

DATE: Aug., 2004

DATE: Aug., 2004

**Lincoln Way West Rehabilitation**

Plan and Profile Sta. 309+50 to Sta. 314+00

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

MASSILLON  
Means More!

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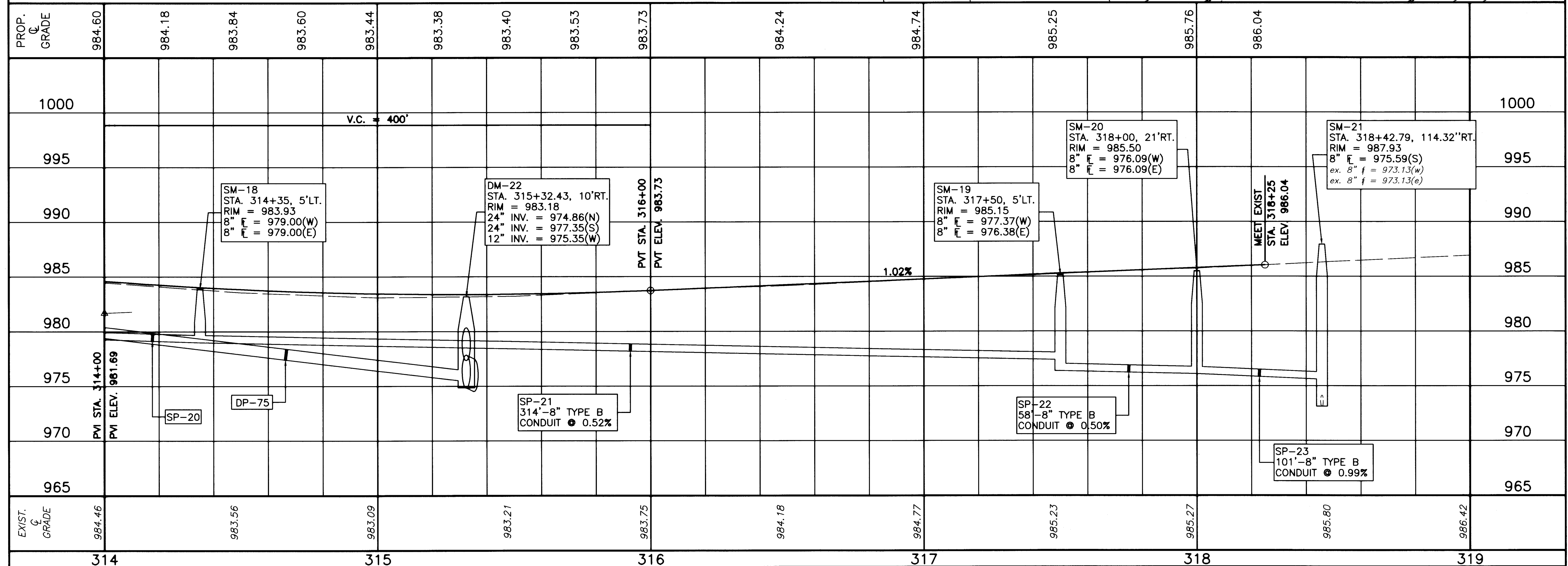
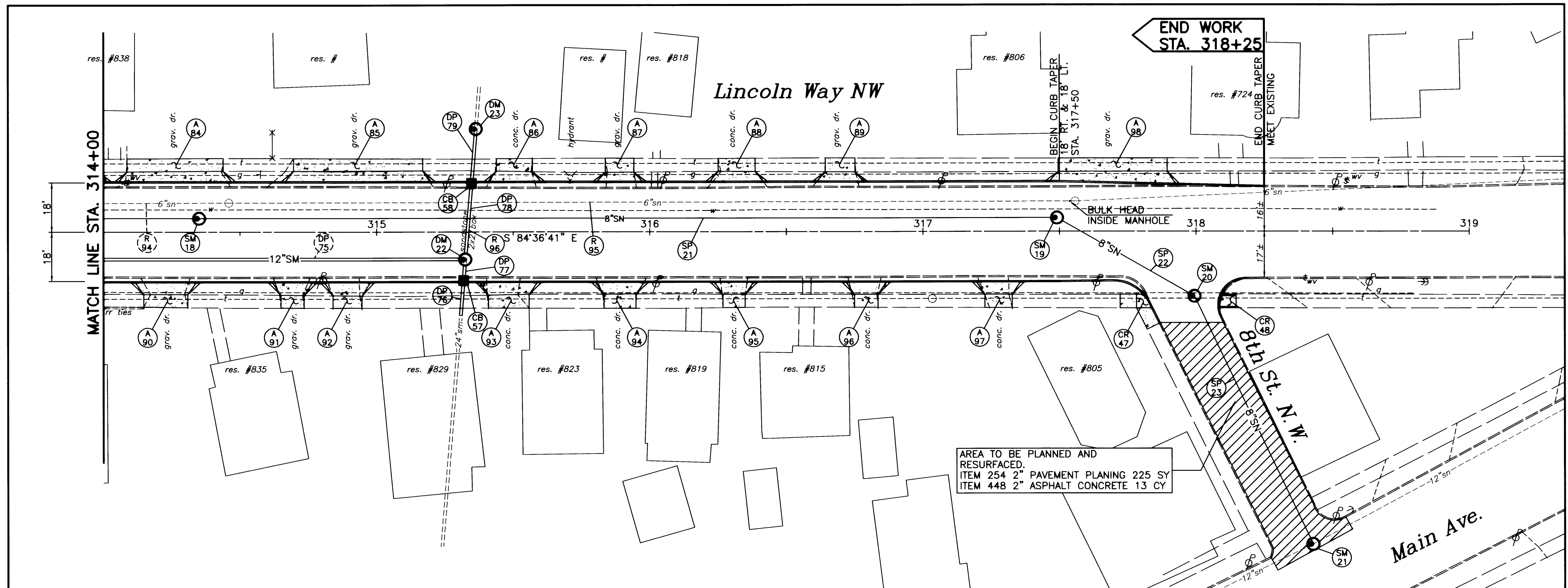
02SS0232.DWG

ACCOUNT NUMBER

02SS02

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**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 314+00 to Sta. 319+00  
City of Massillon  
Stark County, Ohio

**Francis H. Cicchinelli, Jr.**  
**Massillon**  
Means More!

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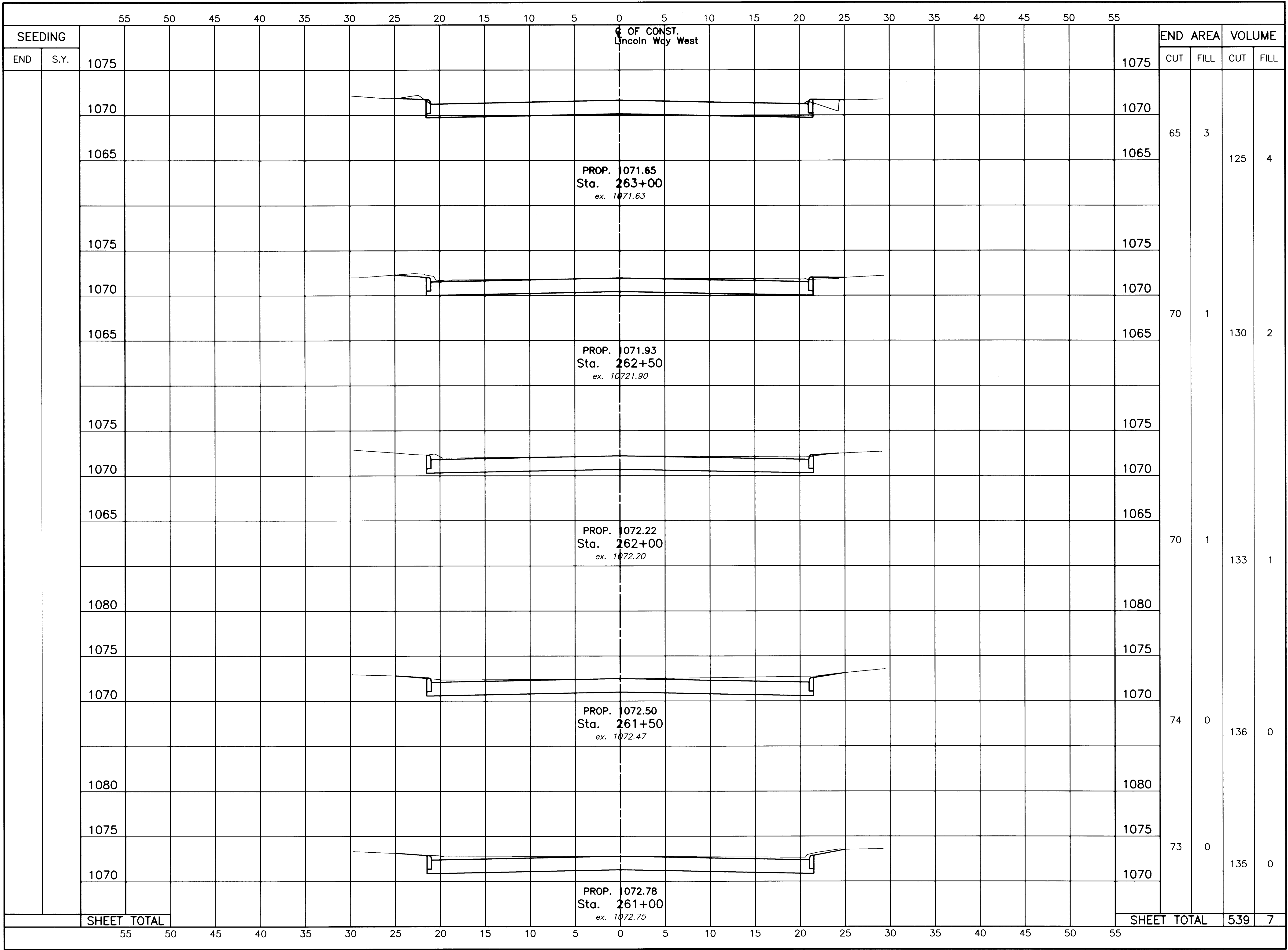
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ACCOUNT NUMBER: 02SS02

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DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation

Lincoln Way West Cross Section (Sta. 261+00 to Sta. 263+00)

City of Mason, Ohio  
Stark County, Ohio

REVISIONS:

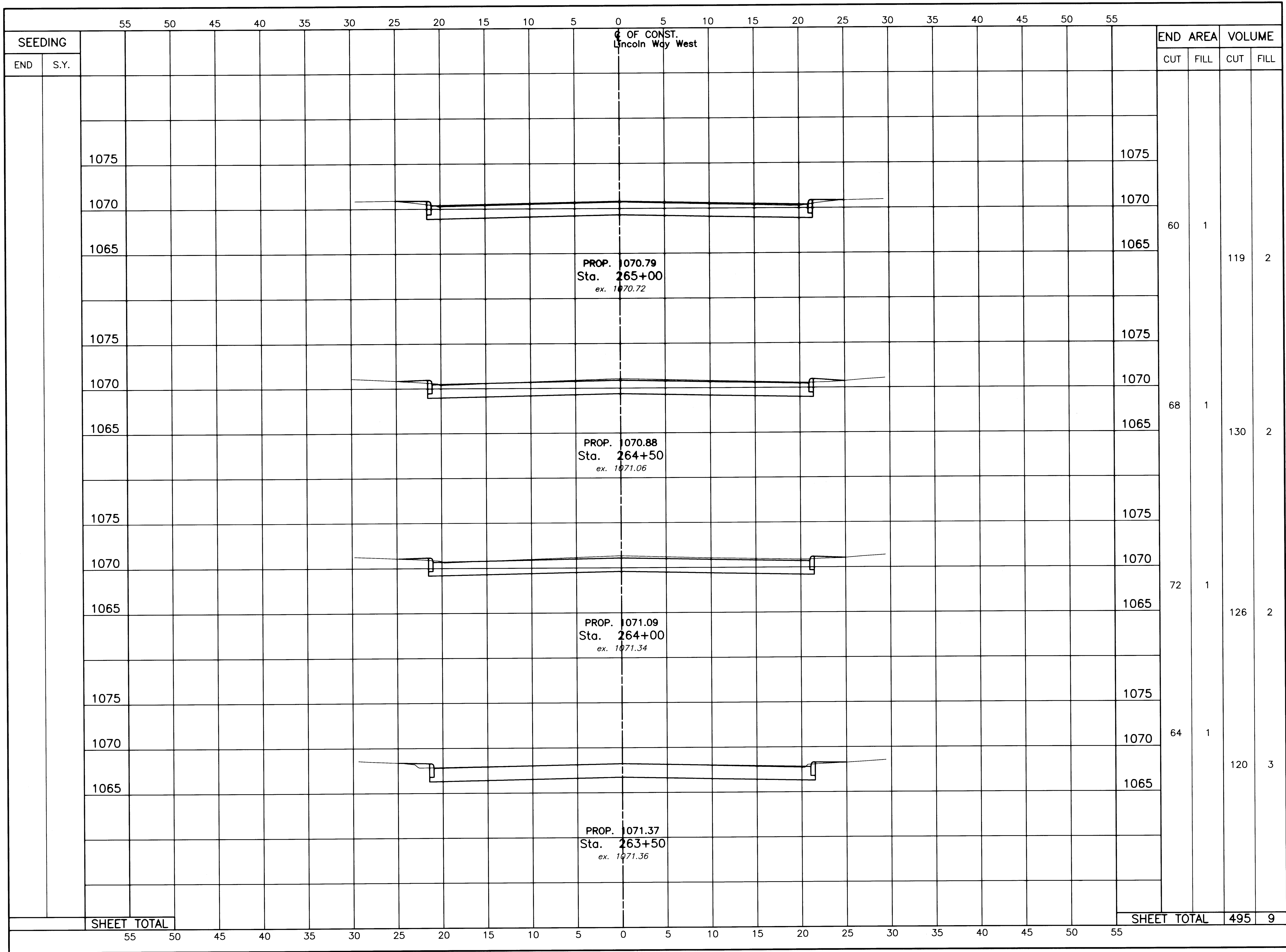
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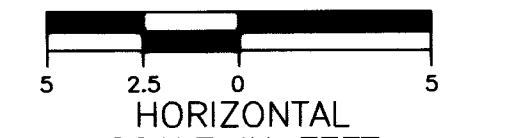
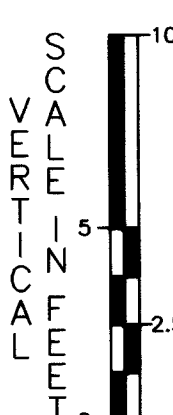
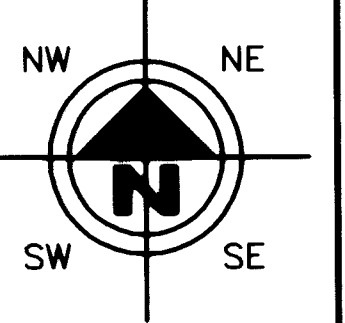
ELECTRONIC FILE NAME:  
03ST0334.DWG

ACCOUNT NUMBER  
03ST03

37

90





HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW

CHECKED BY: SDH

DATE: May 27, 2003

DATE: June 11, 2003

**Lincoln Way West Rehabilitation**

Lincoln Way West Cross Section (Sta. 263+50 to Sta. 265+00)

City of Massillon  
Stark County, Ohio



Francis H. Cicchinelli, Jr.  
MAYOR

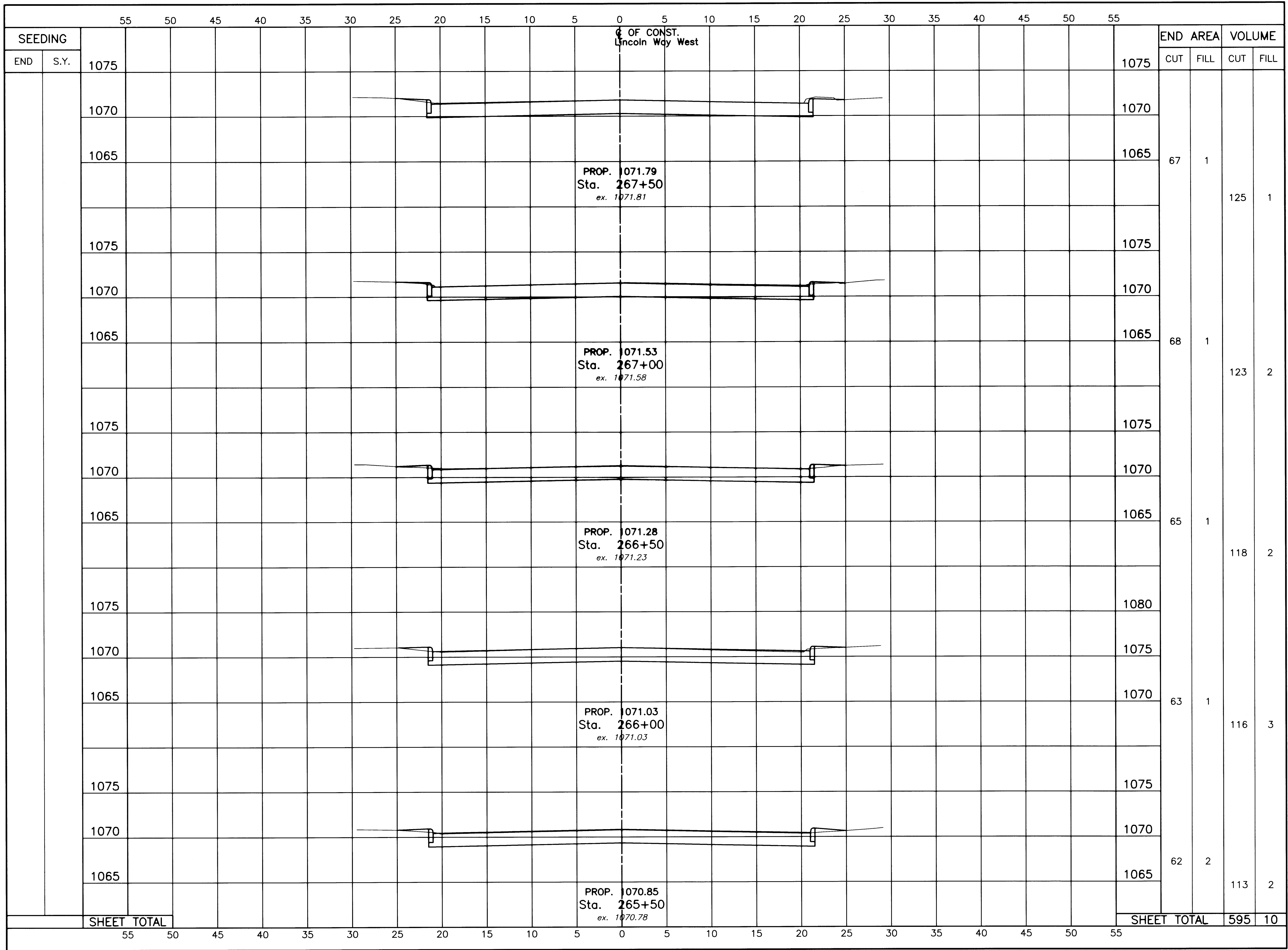
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ELECTRONIC FILE NAME:  
03ST0338.DWG

ACCOUNT NUMBER  
03ST03

38 / 90



HORIZONTAL SCALE IN FEET

DRAWN BY: FPW

CHECKED BY: SDH

DATE: May 27, 2003

DATE: June 11, 2003

**Lincoln Way West Rehabilitation**

Lincoln Way West Cross Section (Sta. 265+50 to Sta. 267+50)

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

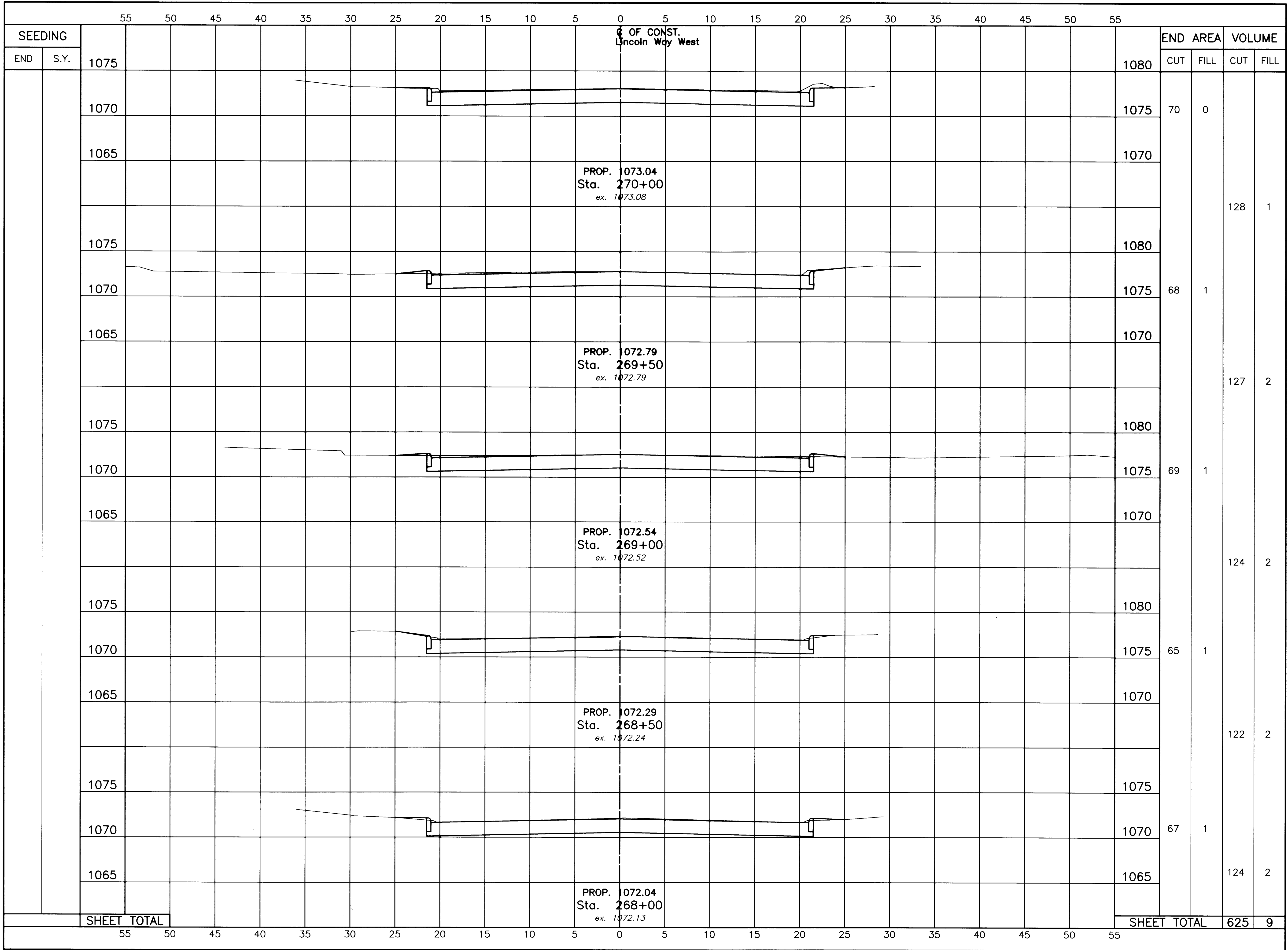
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ELECTRONIC FILE NAME:  
03ST0339.DWG

ACCOUNT NUMBER  
03ST03

39 / 90



NWNE  
SWSE

SCALE  
IN FEET  
0 2.5 5 10

HORIZONTAL  
SCALE IN FEET  
5 2.5 0 2.5 5

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: May 27, 2003  
DATE: June 11, 2003

Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 268+00 to Sta. 270+00)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Professional Engineer  
No. 10400

  
Massillon  
Means More!

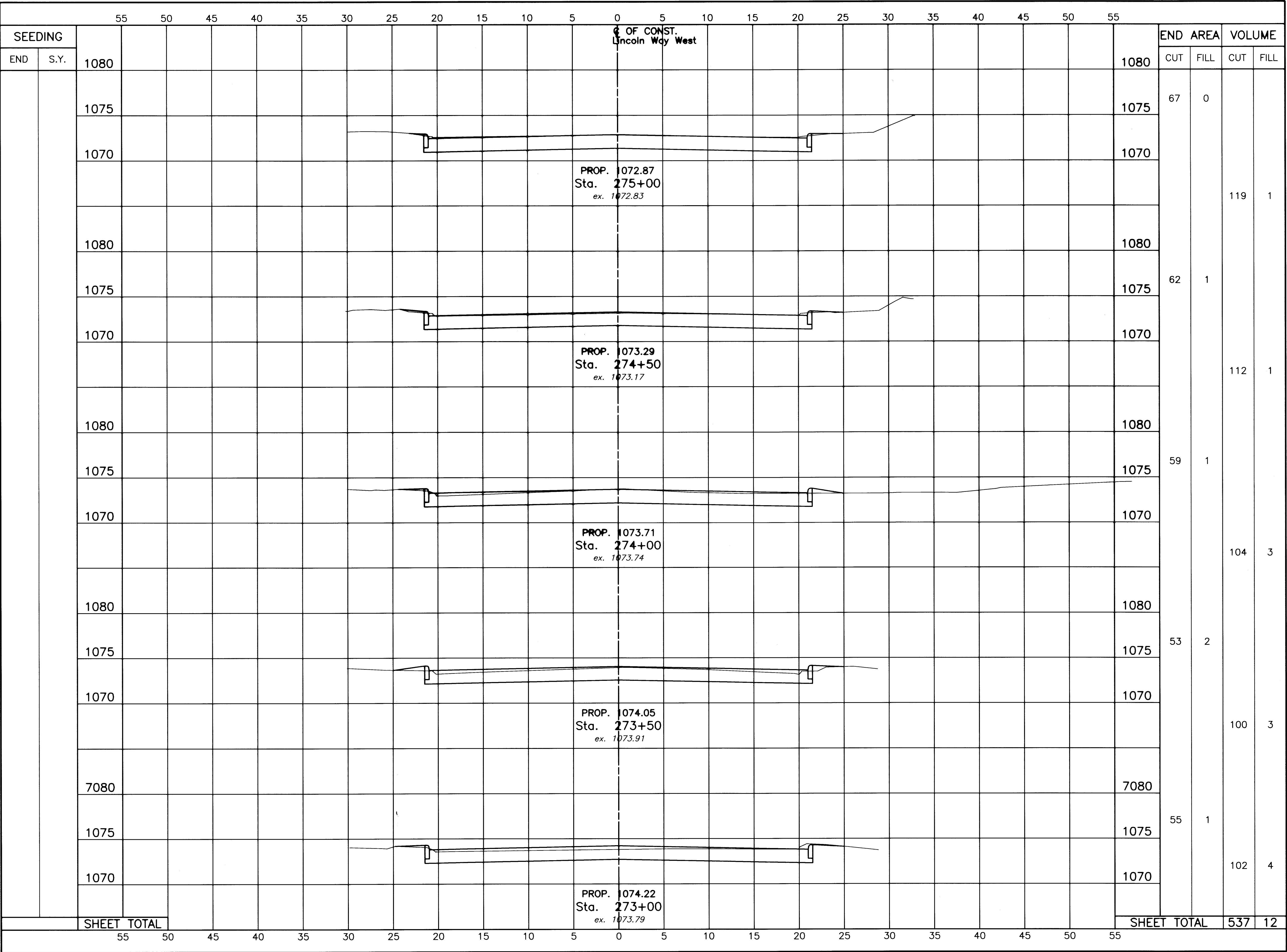
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DATE DESCRIPTION

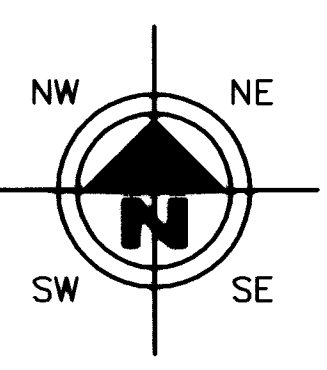
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ACCOUNT NUMBER  
03ST03

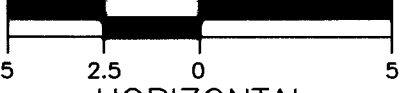
40 / 90







SCALE  
IN FEET  
0 2.5 5 10



HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 273+00 to Sta. 275+00)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



REVISIONS:

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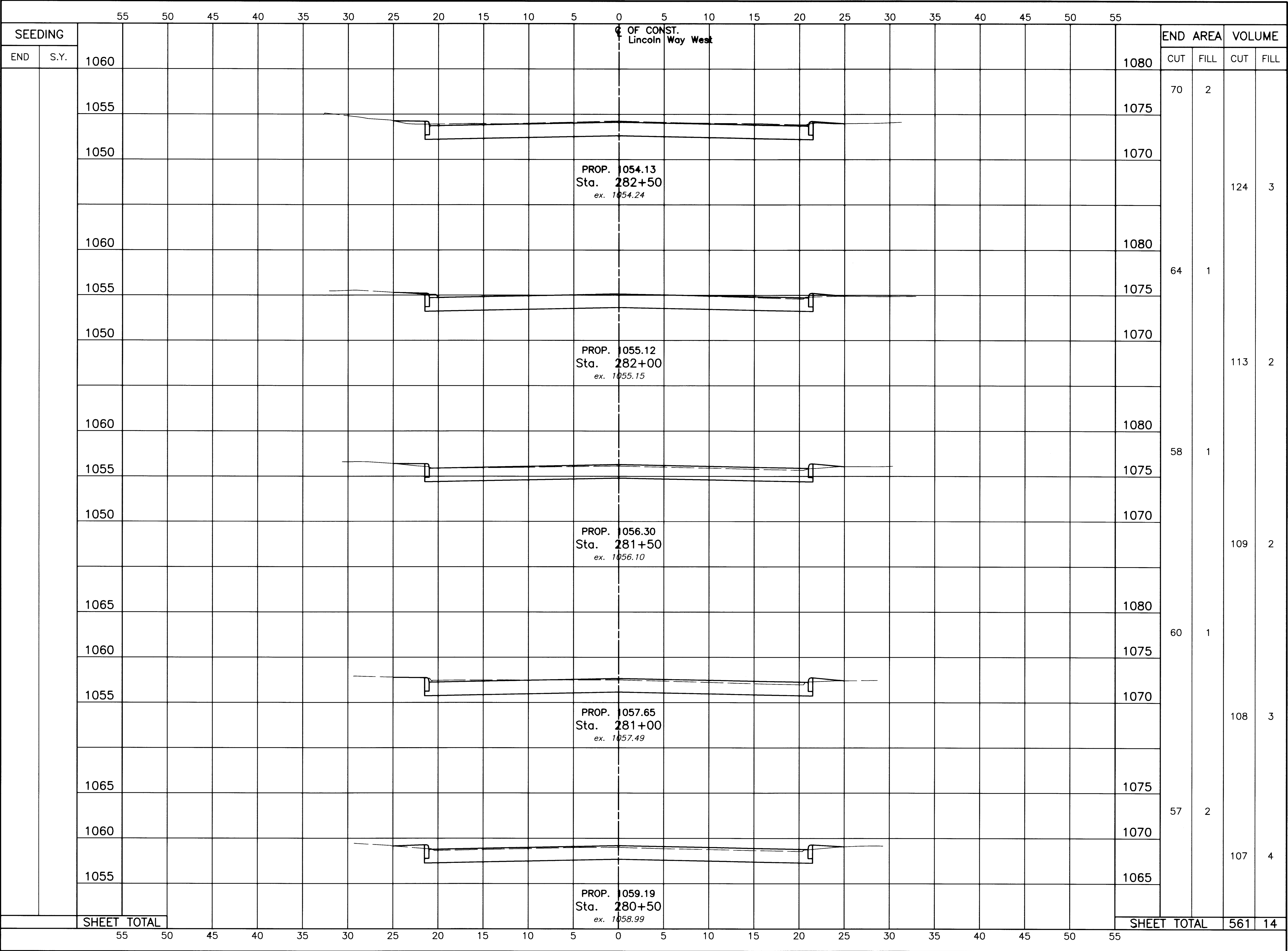
ELECTRONIC FILE NAME:  
03ST0342.DWG

ACCOUNT NUMBER  
03ST03

42 / 90







VERTICAL SCALE IN FEET

0 2.5 5 10

HORIZONTAL SCALE IN FEET

0 2.5 5

DRAWN BY: FPW

CHECKED BY: SDH

DATE: May 27, 2003

DATE: June 11, 2003

**Lincoln Way West Rehabilitation**

Lincoln Way West Cross Section (Sta. 280+50 to Sta. 282+50)

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

REVISIONS:

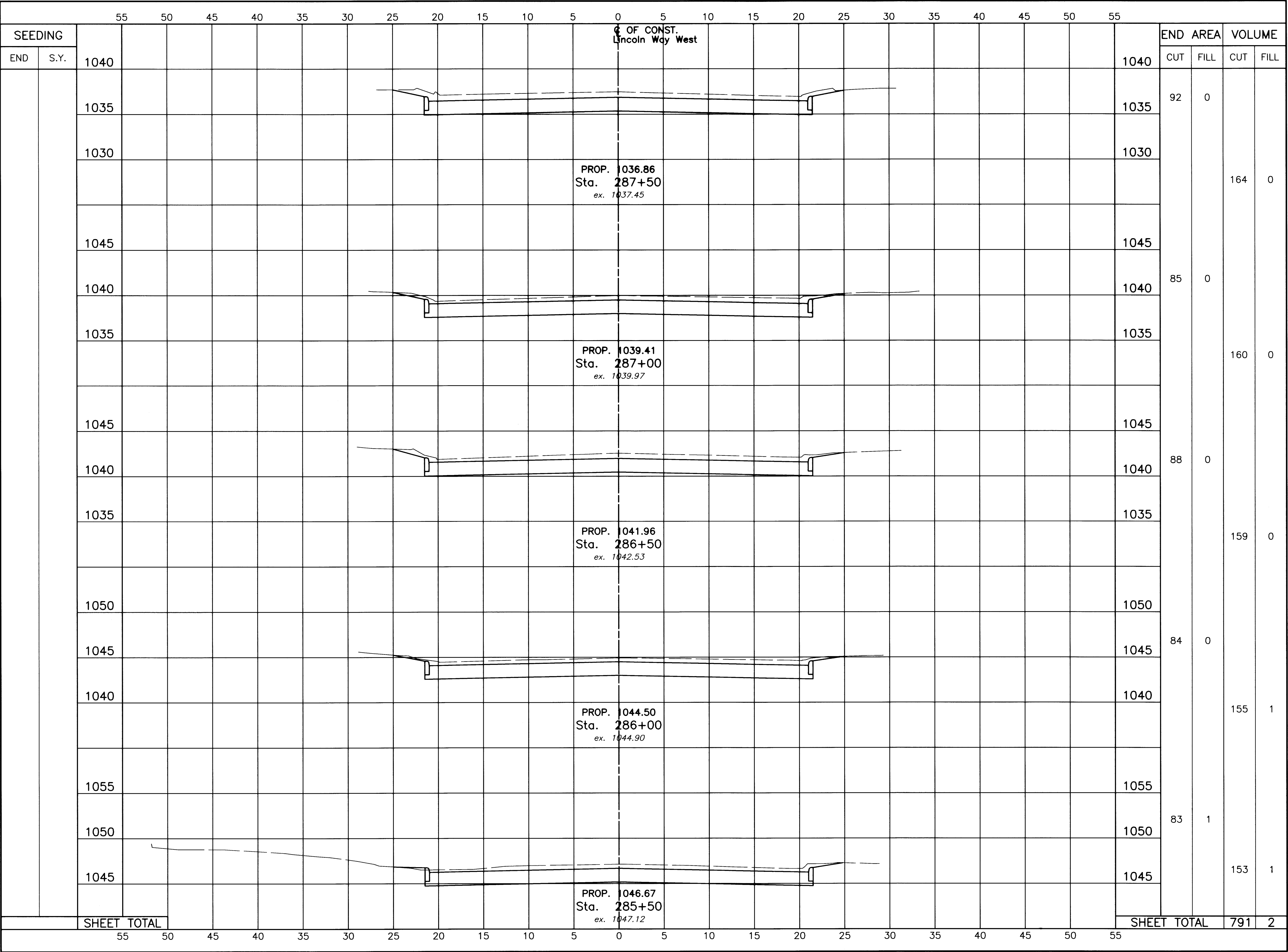
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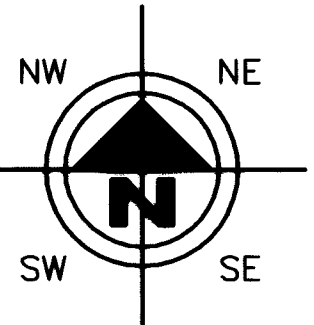
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ACCOUNT NUMBER  
03ST03

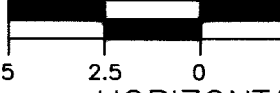
45 / 90







SCALE  
VERTICAL  
IN FEET  
0 2.5 5 10



HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 285+50 to Sta. 287+50)  
City of Massillon  
Stark County, Ohio



Francis H. Cicchinelli, Jr.  
Mayor

REVISIONS:  
DATE DESCRIPTION

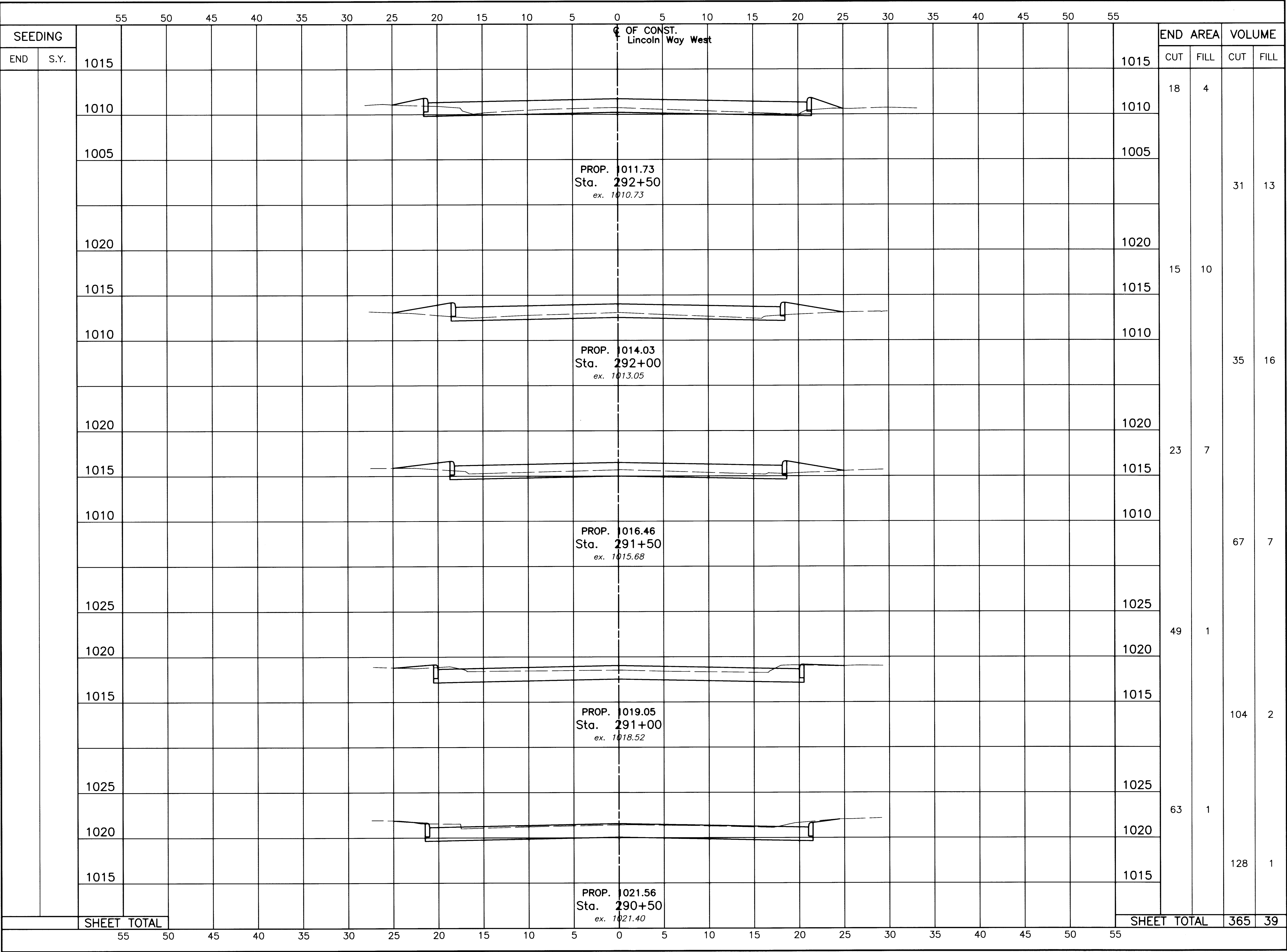
ELECTRONIC FILE NAME:  
03ST0347.DWG

ACCOUNT NUMBER  
03ST03

47

90





NWNE  
SWSE

N

SCALE  
IN FEET  
0 2.5 5 10

5 2.5 0 2.5 5

HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Way West Cross Section (Sta. 290+50 to Sta. 292+50)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



Massillon  
Means More!

REVISIONS:

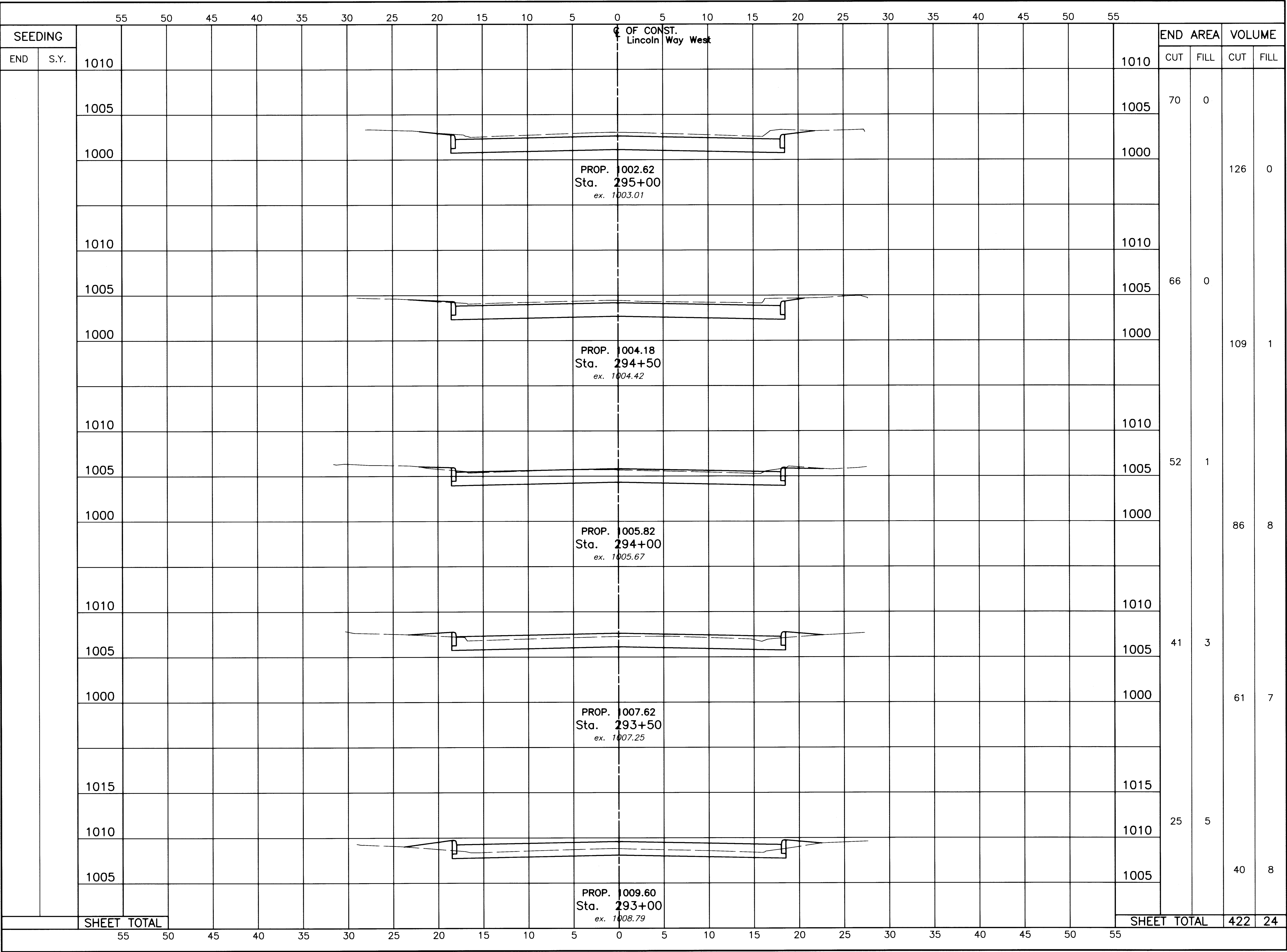
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ELECTRONIC FILE NAME:  
03ST0349.DWG

ACCOUNT NUMBER  
03ST03

49

90



NWNE  
SWSE

N

SCALE  
IN FEET  
0 5 10  
0 2.5 5

5 2.5 0 5

HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 293+00 to Sta. 295+00)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Licor



Massillon  
Means More!

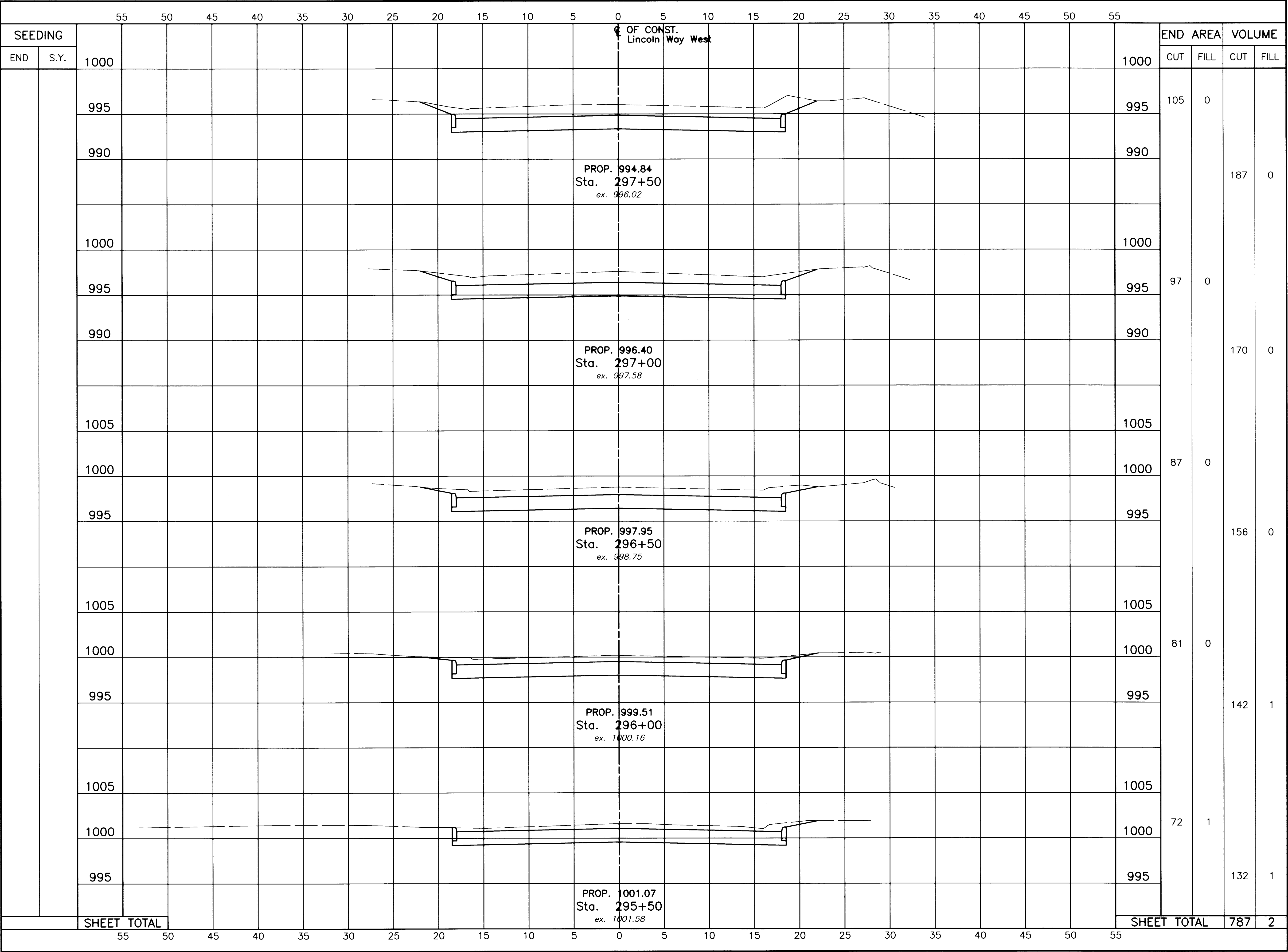
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FILE NAME:  
03ST0350.DWG

ACCOUNT NUMBER  
03ST03

50 / 90



NWNE  
SWSE

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SCALE  
VERTICAL  
IN FEET  
0 2.5 5 10

5 2.5 0 2.5 5

HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 295+50 to Sta. 297+50)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



Massillon  
Means More!

REVISIONS:

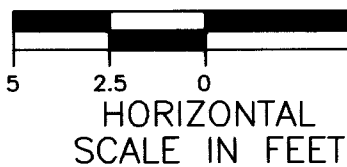
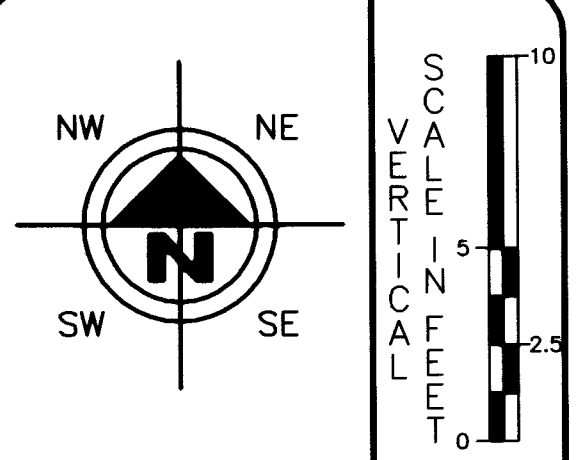
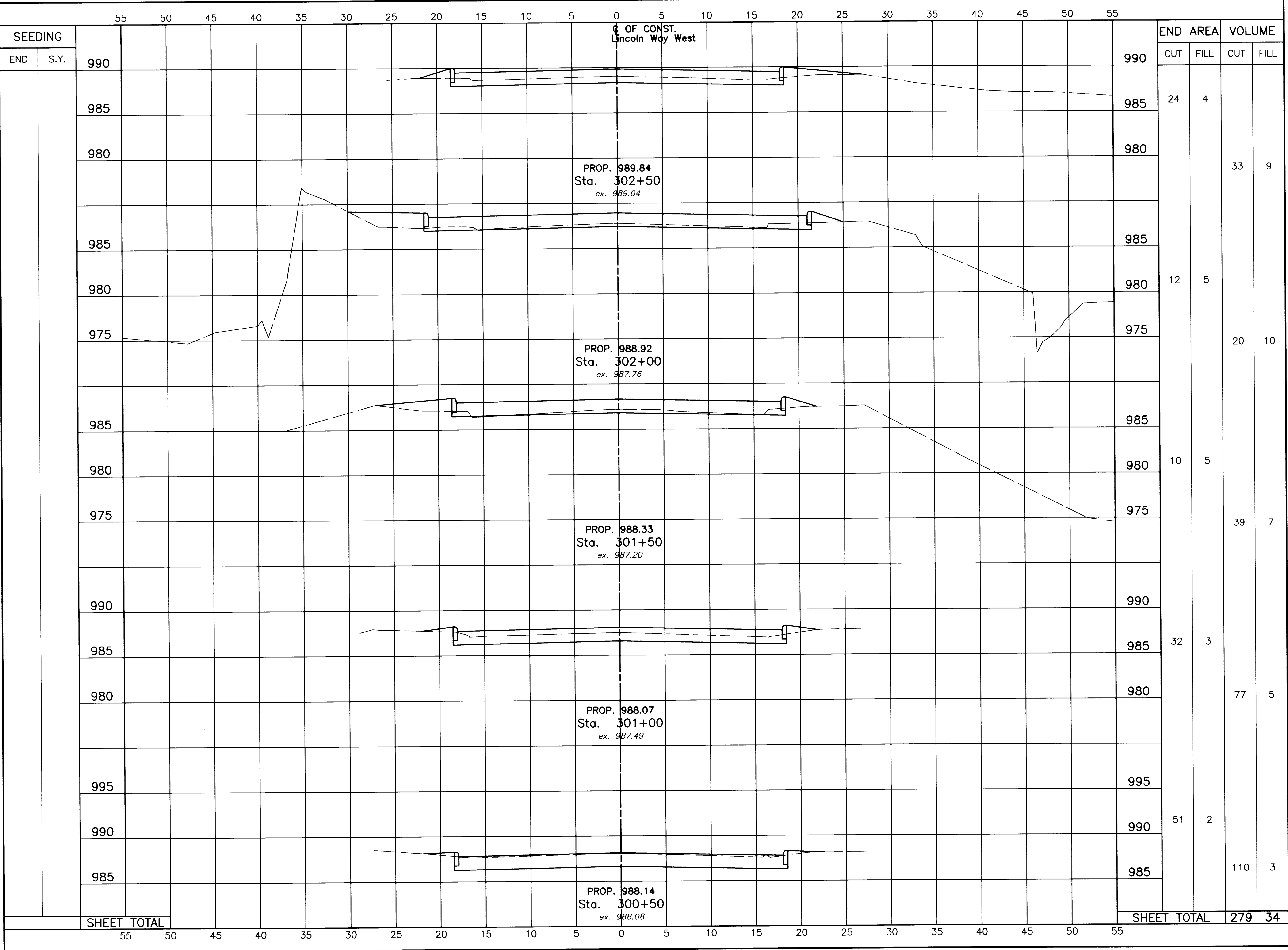
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FILE NAME:  
03ST0351.DWG

ACCOUNT NUMBER  
03ST03

51 / 90





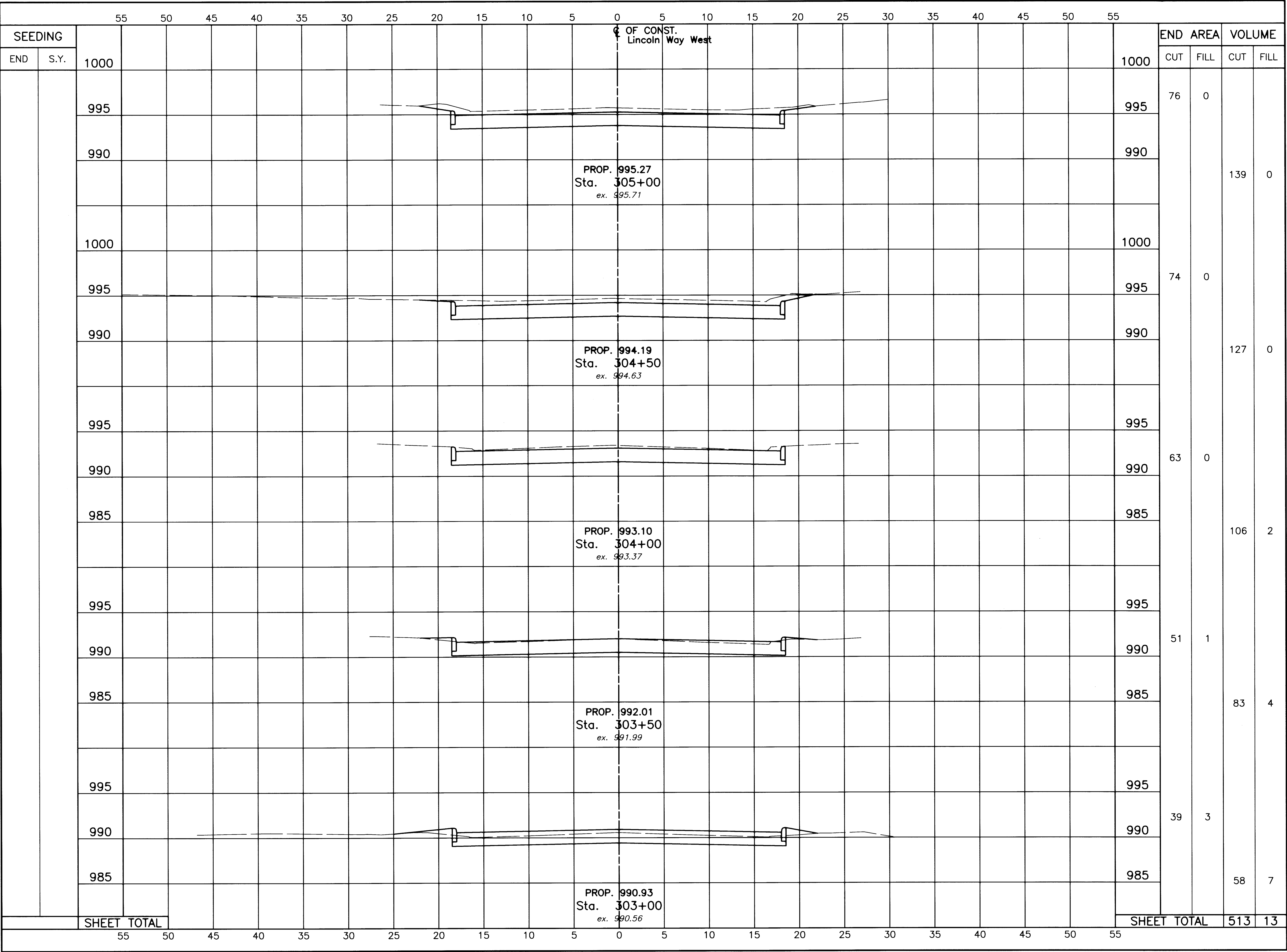
DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: May 27, 2003  
DATE: June 11, 2003

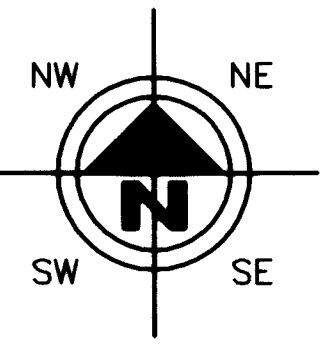
Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 300+50 to Sta. 302+50)  
City of Massillon  
Stark County, Ohio



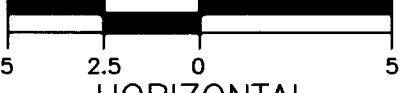
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03ST0353.DWG  
ACCOUNT NUMBER  
03ST03





SCALE  
IN FEET  
0 2.5 5 10



HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

**Lincoln Way West Rehabilitation**  
Lincoln Way West Cross Section (Sta. 303+00 to Sta. 305+00)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Lic. No. 10000



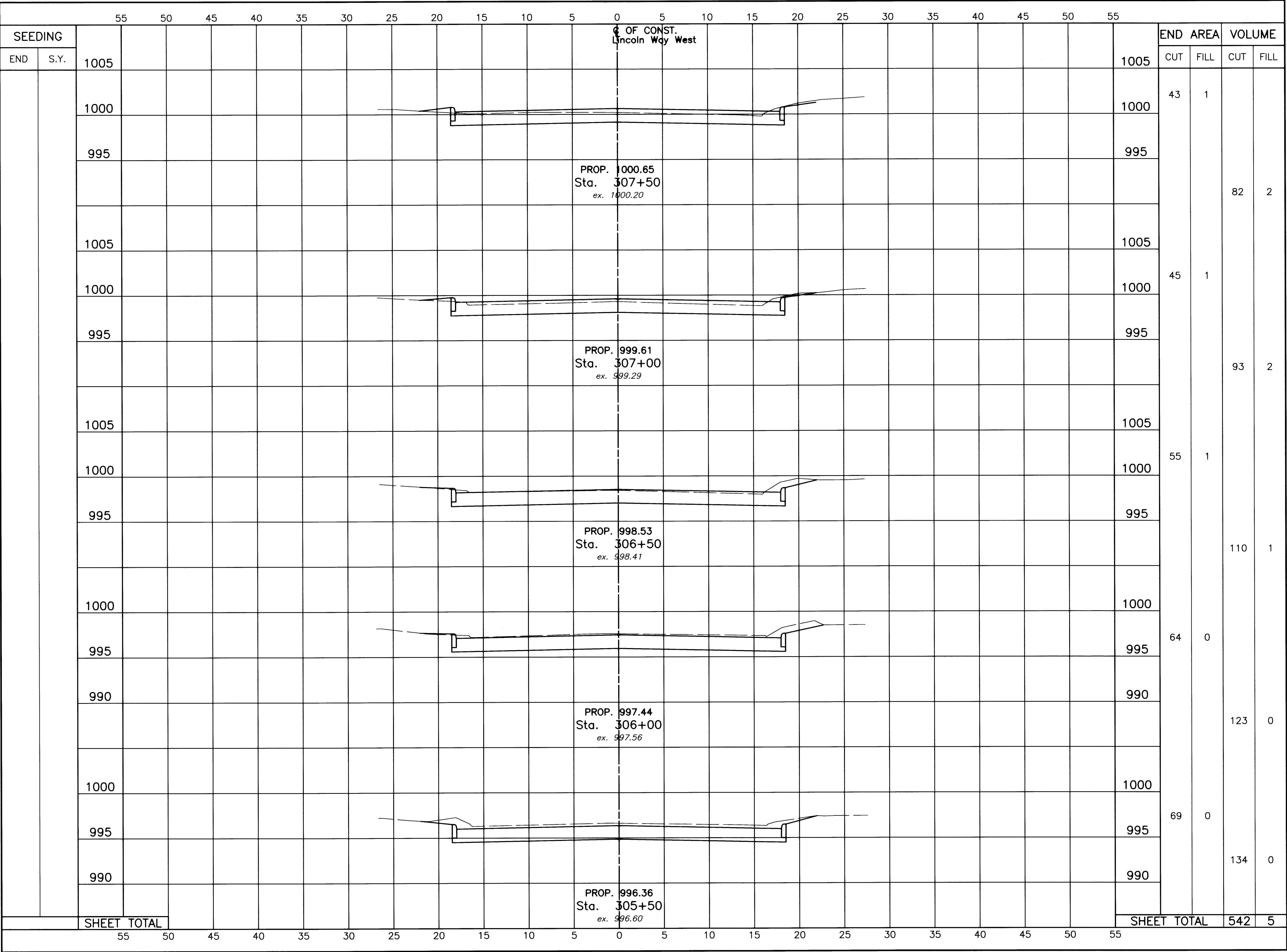
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ELECTRONIC FILE NAME:  
03ST0354.DWG

ACCOUNT NUMBER  
03ST03

54 / 90



NWNE  
SWSE

VERTICAL  
SCALE  
IN FEET  
0 2.5 5 10

5 2.5 0 2.5 5

HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Lincoln Way West Cross Section (Sta. 305+50 to Sta. 307+50)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Vice President



REVISIONS:

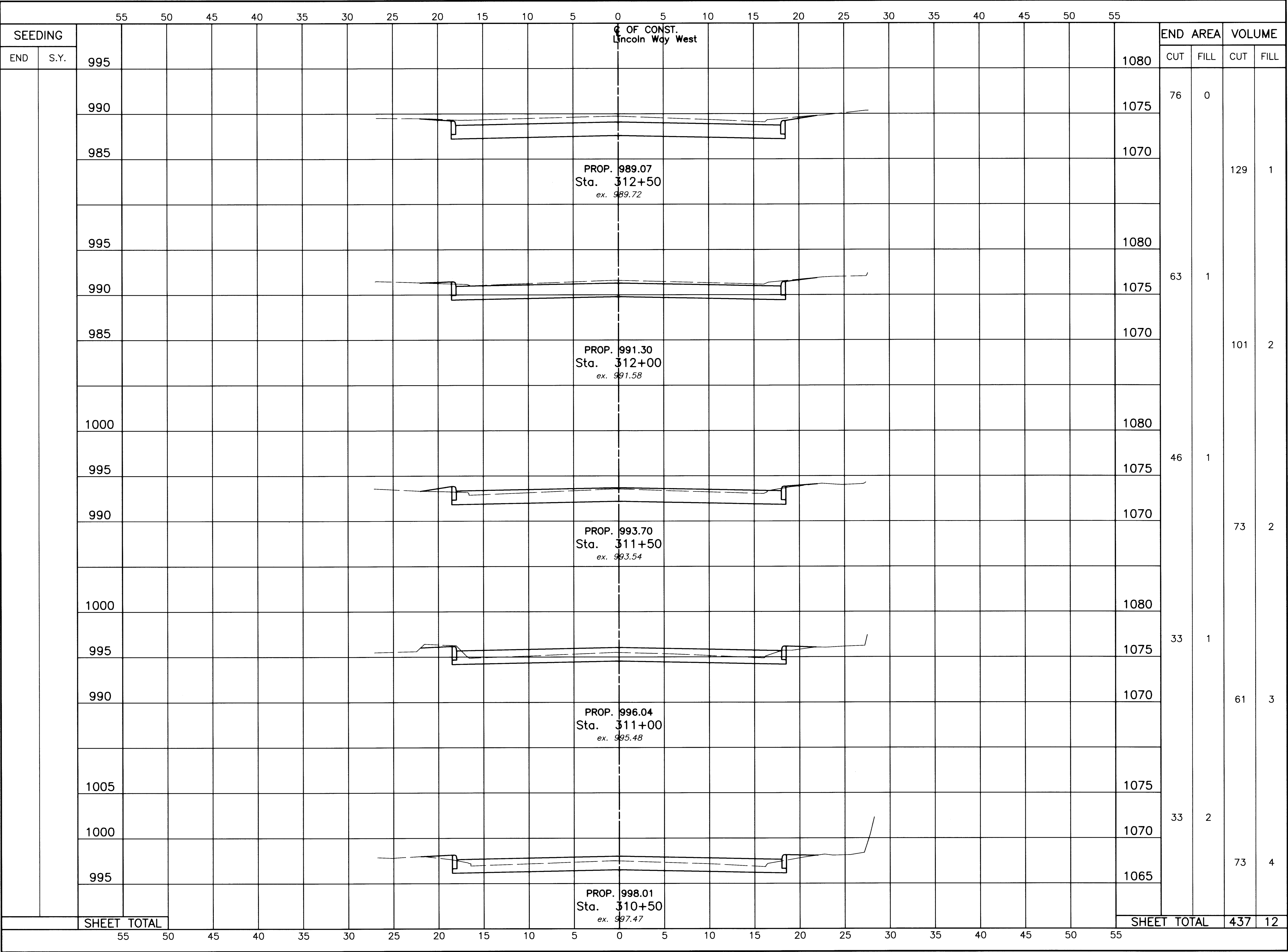
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FILE NAME:  
03ST0355.DWG

ACCOUNT NUMBER  
03ST03

55 / 90





NW

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SCALE

IN FEET

0 2.5 5 10

5 2.5 0 2.5 5

HORIZONTAL SCALE IN FEET

DRAWN BY:

FPW

CHECKED BY:

SDH

DATE:

May 27, 2003

DATE:

June 11, 2003

Lincoln Way West Rehabilitation

Lincoln Way West Cross Section (Sta. 310+50 to Sta. 312+50)

City of Massillon

Stark County, Ohio

Francis H. Cicchinelli, Jr.

Massillon

Means More!

REVISIONS:

DATE

DESCRIPTION

FILE NAME:

03ST0357.DWG

ACCOUNT NUMBER

03ST03

57

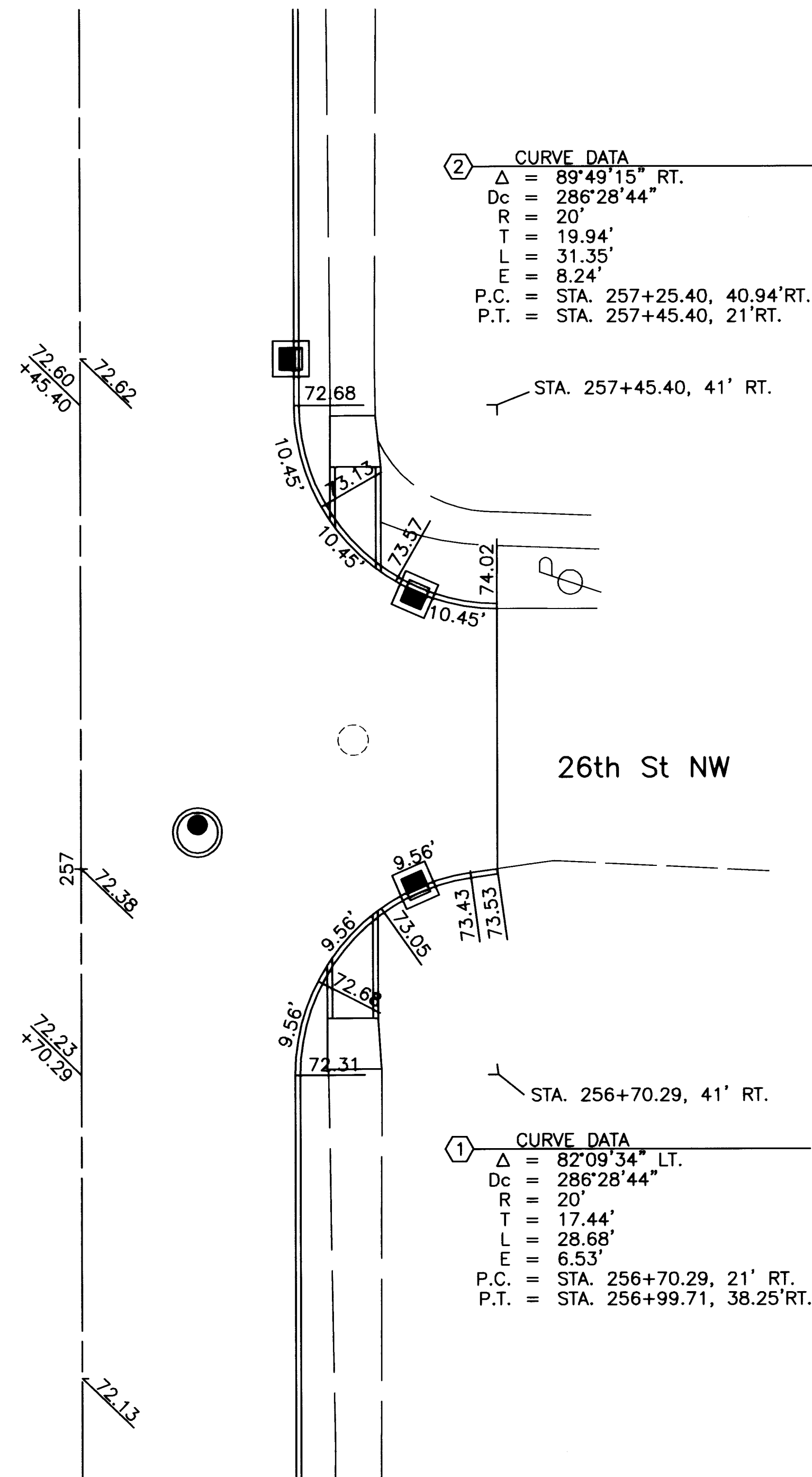
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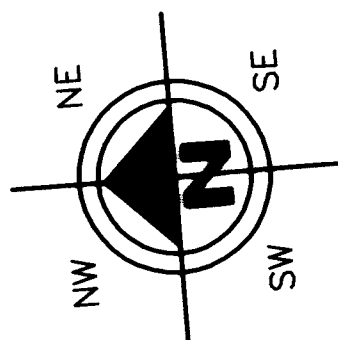
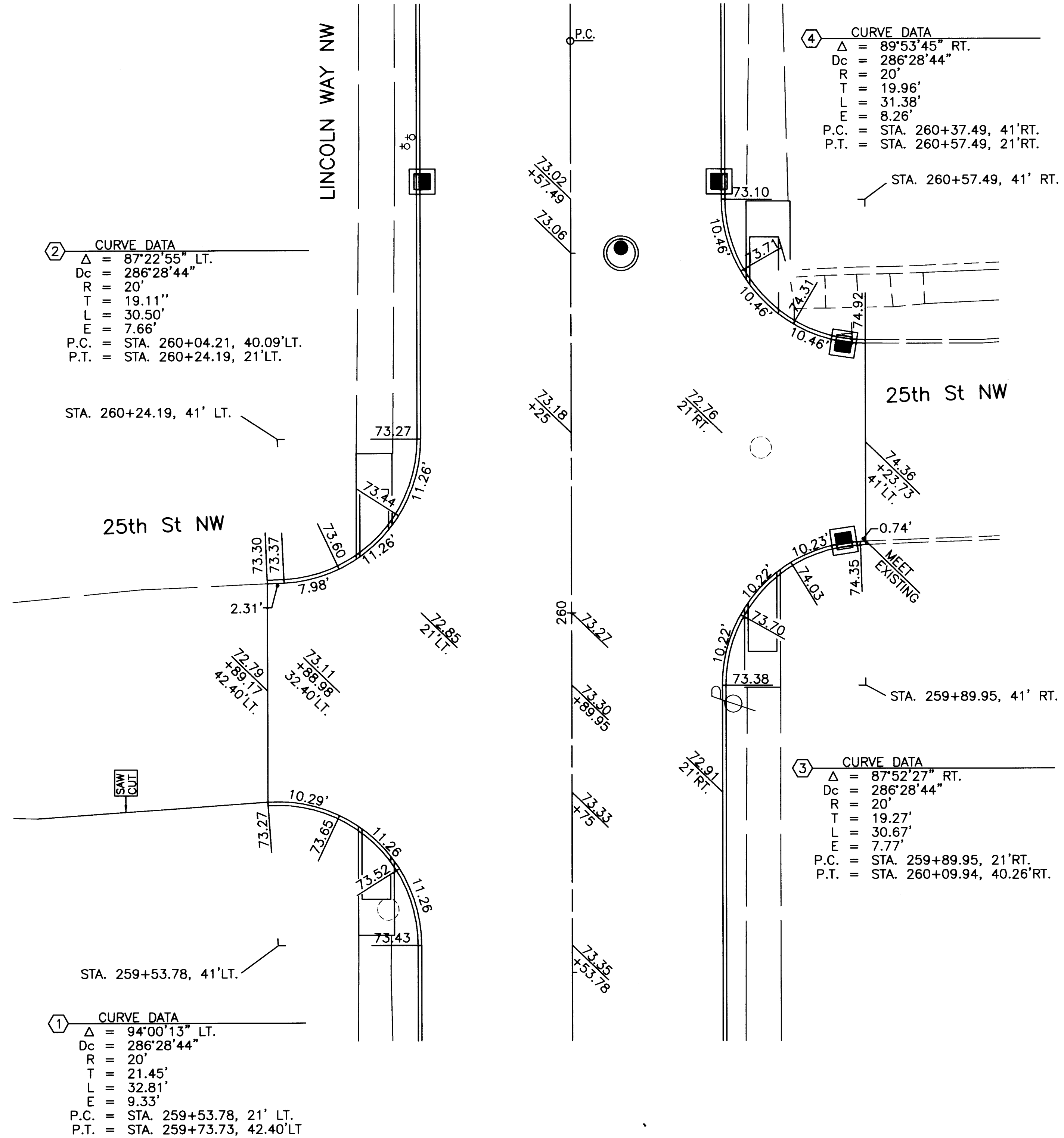
LINCOLN WAY NW



NOTE:

- ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
- ADD 1000' TO ALL ELEVATIONS.
- CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.

LINCOLN WAY NW



HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: June 13, 2003  
DATE: June, 2003

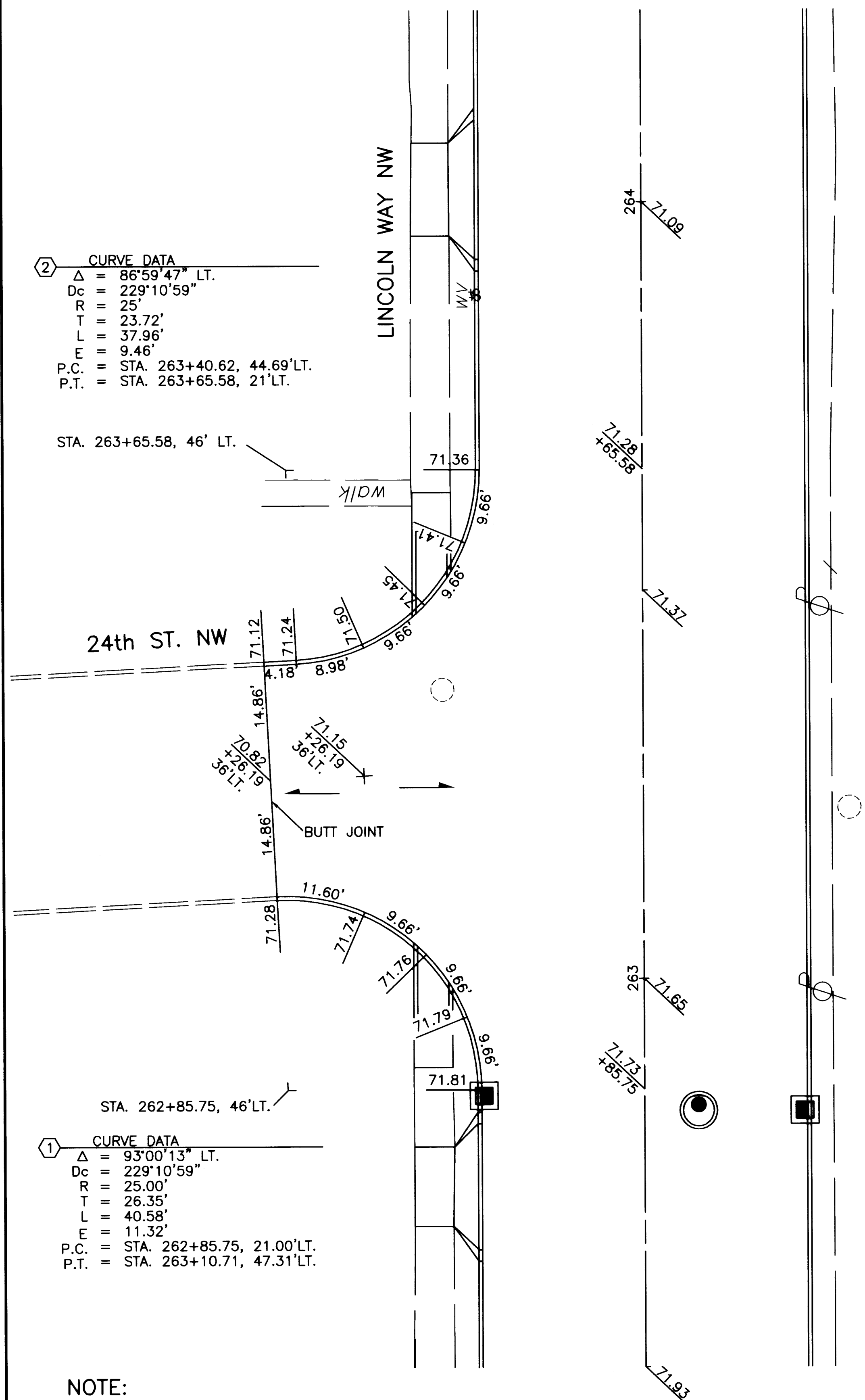
**Lincoln Way West Rehabilitation**  
26th St. NW and 25th St NW with Lincoln Way NW Intersection Details  
City of Massillon  
Stark County, Ohio



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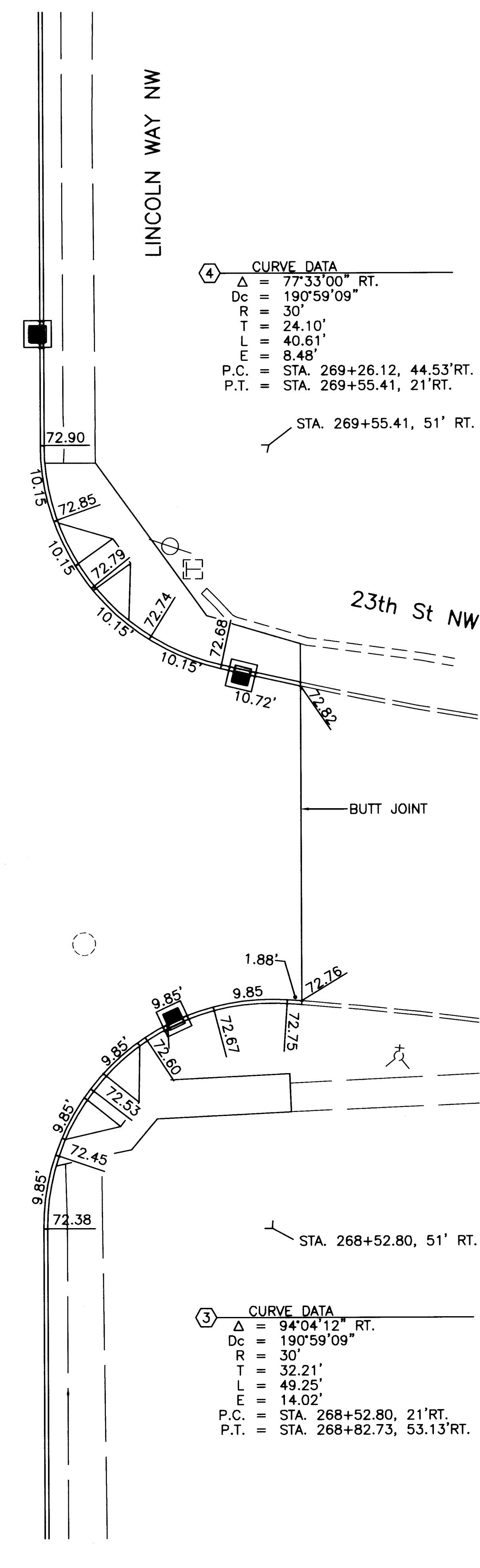
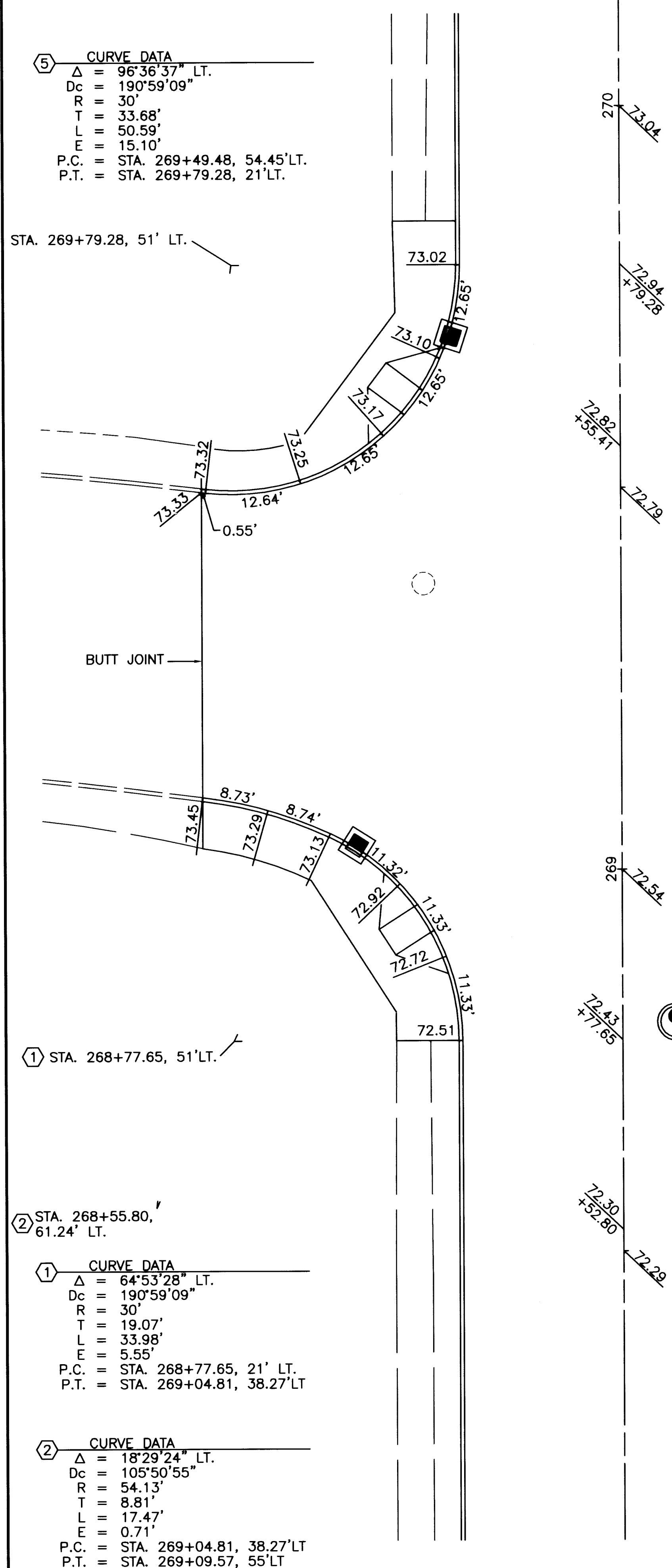
FILE NAME:  
03ST0361.DWG

ACCOUNT NUMBER  
03ST03



NOTE:

1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 1000' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.



HORIZONTAL SCALE IN FEET

10 5 0 5 10

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| DRAWN BY:<br>FPW       | CHECKED BY:<br>SDH  |
| DATE:<br>June 13, 2003 | DATE:<br>June, 2003 |

## Lincoln Way West Rehabilitation

26th St. NW and 25th St NW with Lincoln Way NW Intersection Details

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

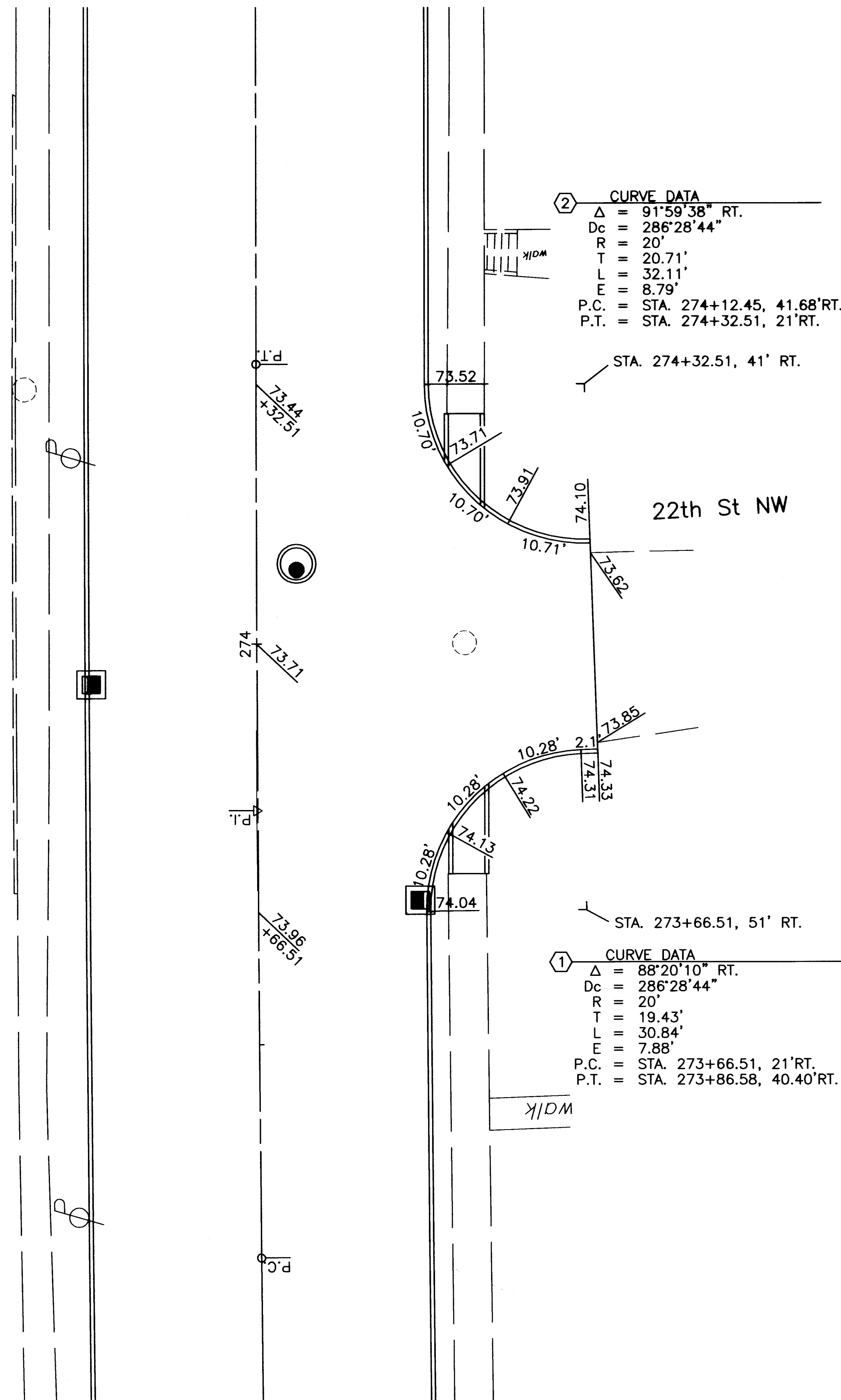
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FILE NAME:  
03ST0362.DWG

ACCOUNT NUMBER  
03ST03

62 / 90

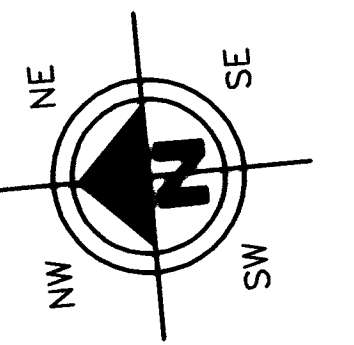
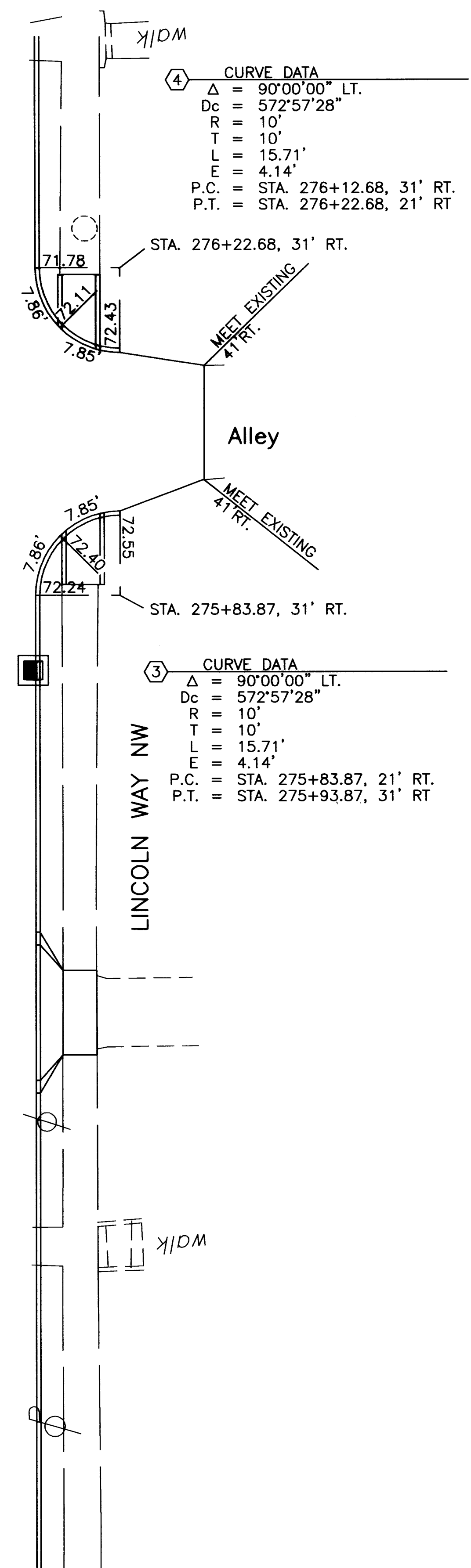
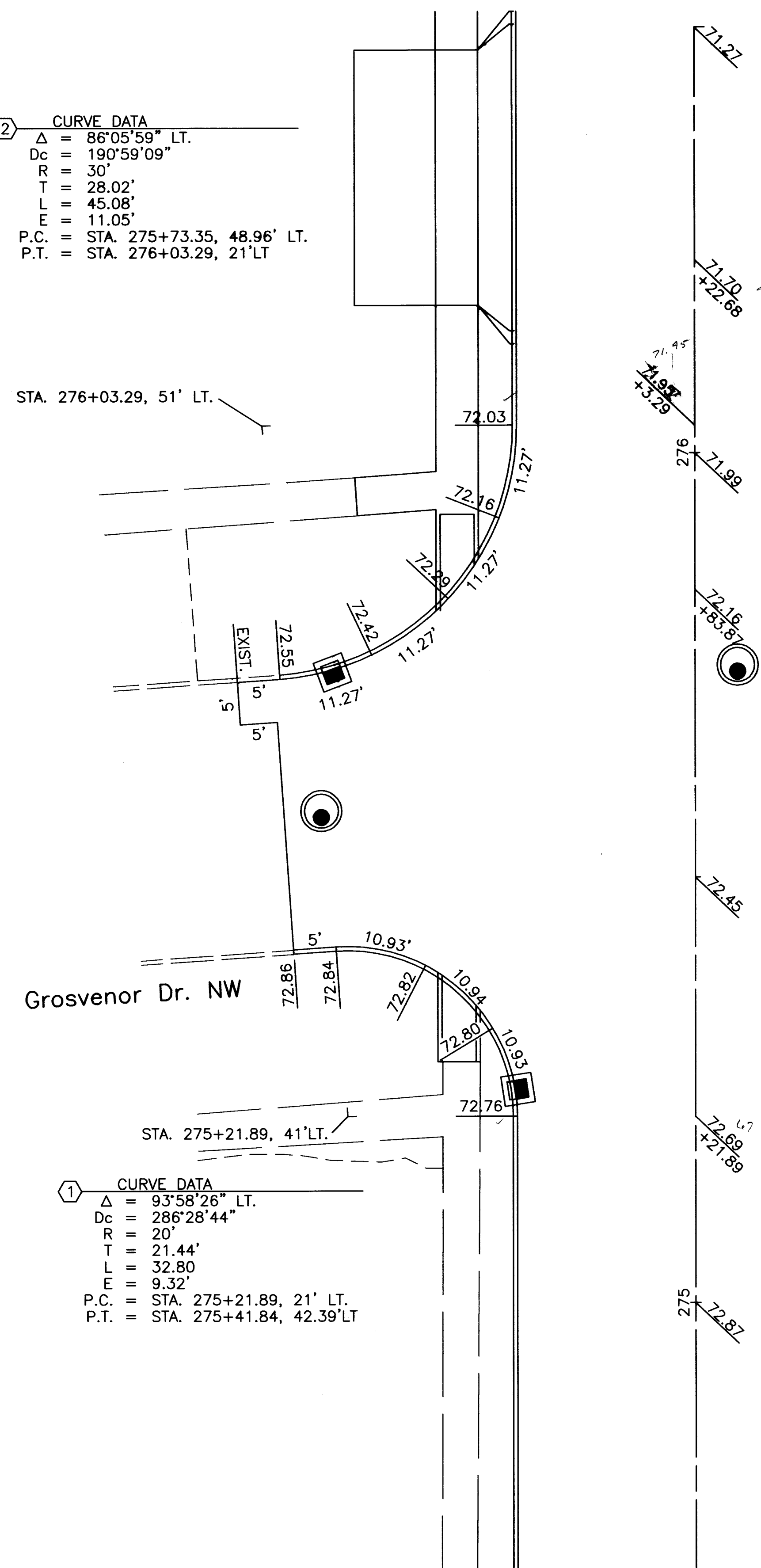
LINCOLN WAY NW



NOTE:

1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 1000' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.

**CURVE DATA**  
②  
 $\Delta = 86^{\circ}05'59''$  LT.  
 $D_c = 190^{\circ}59'09''$   
 $R = 30'$   
 $T = 28.02'$   
 $L = 45.08'$   
 $E = 11.05'$   
P.C. = STA. 275+73.35, 48.96' LT.  
P.T. = STA. 276+03.29, 21' LT.



HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: June 13, 2003  
DATE: June, 2003

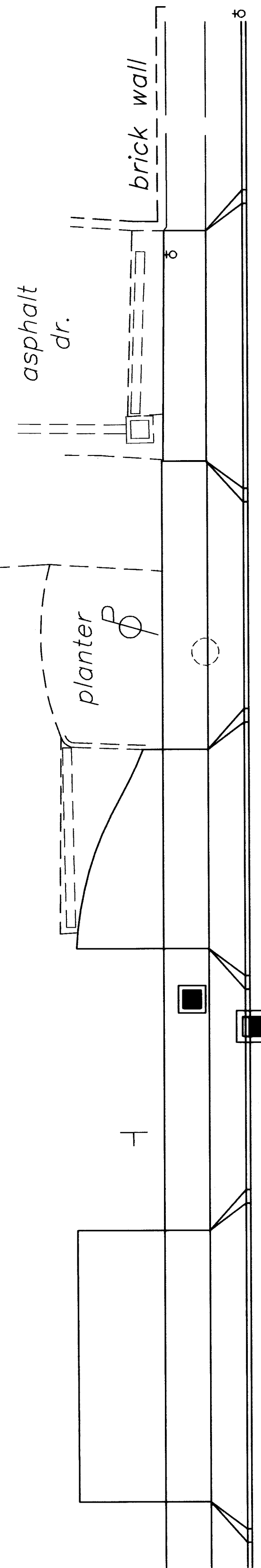
Lincoln Way West Rehabilitation  
22th St. NW and Grosvenor Dr. NW / Alley with Lincoln Way NW Intersection Details  
City of Massillon  
Stark County, Ohio



| REVISIONS: |             |
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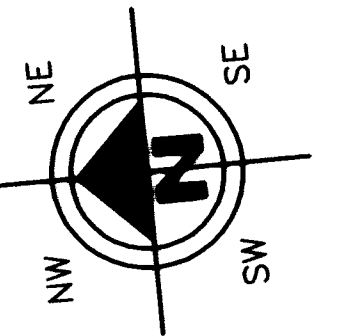
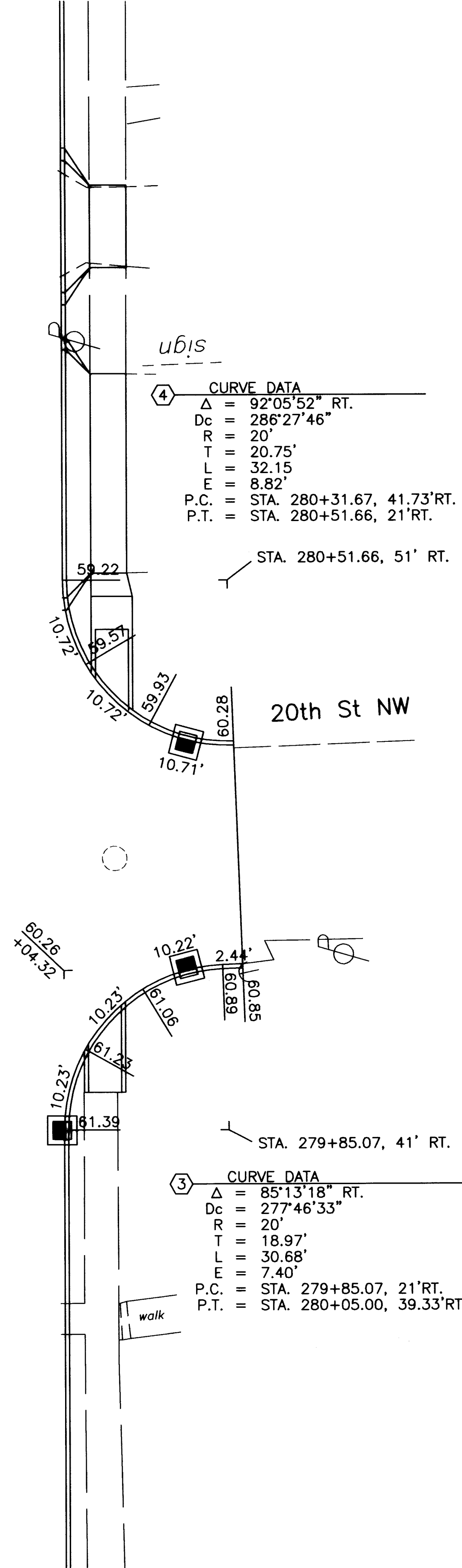
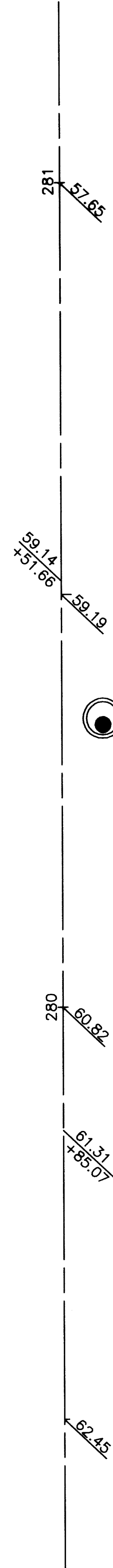
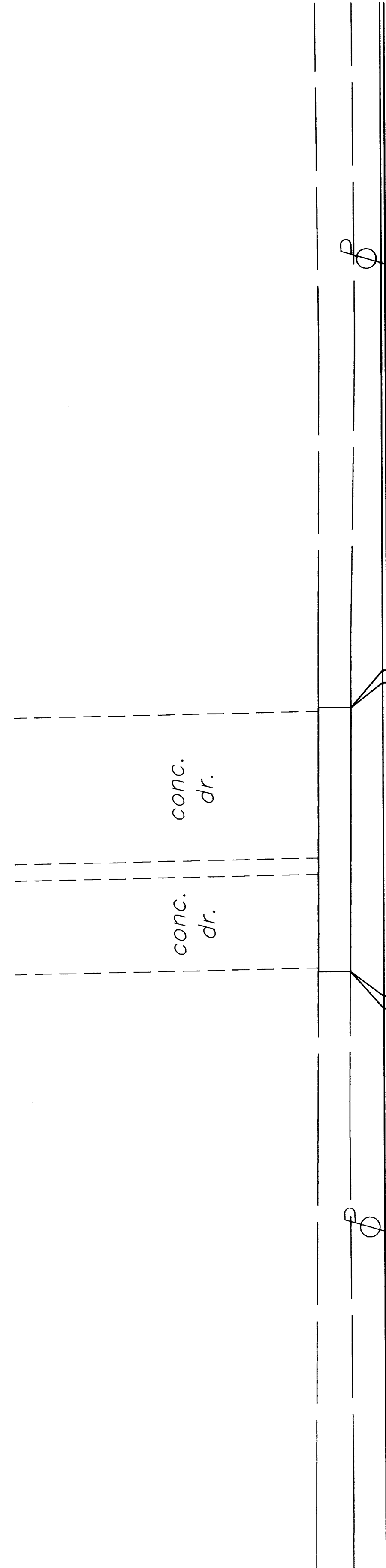
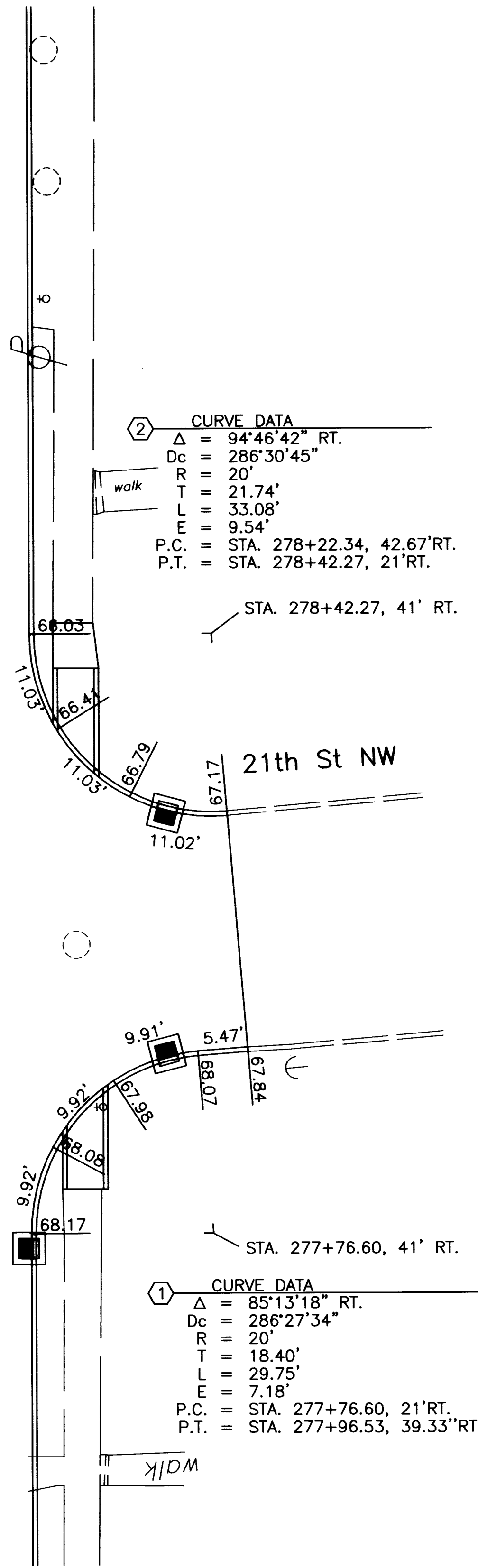
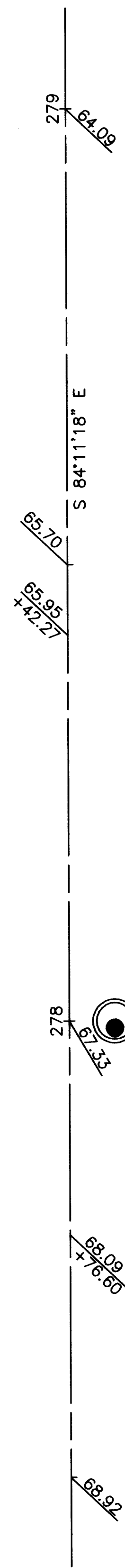
FILE NAME:  
03ST0363.DWG  
ACCOUNT NUMBER  
03ST03

asphalt  
parking



NOTE:

1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 1000' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.



HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: June 13, 2003  
DATE: June, 2003

Lincoln Way West Rehabilitation  
22th St. NW and Grosvenor Dr. NW / Alley with Lincoln Way NW Intersection Details  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



| REVISIONS: |             |
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FILE NAME: 03ST0364.DWG  
ACCOUNT NUMBER 03ST03

② CURVE DATA  
 $\Delta = 86^{\circ}05'14''$  LT.  
 $D_c = 286^{\circ}28'44''$   
 $R = 20'$   
 $T = 18.68'$   
 $L = 30.05'$   
 $E = 7.37'$   
P.C. = STA. 282+45.91, 39.64'LT.  
P.T. = STA. 282+65.86, 21'LT.

STA. 282+65.86, 41' LT.  
19th St NW

① CURVE DATA  
 $\Delta = 93^{\circ}54'46''$  LT.  
 $D_c = 286^{\circ}28'44''$   
 $R = 20'$   
 $T = 21.42'$   
 $L = 32.78'$   
 $E = 9.30'$   
P.C. = STA. 282+01.67, 21'LT.  
P.T. = STA. 282+21.62, 42.36'LT.

NOTE:

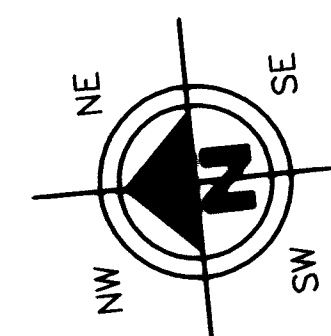
1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 1000' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.

③ CURVE DATA  
 $\Delta = 85^{\circ}44'12''$  LT.  
 $D_c = 286^{\circ}28'44''$   
 $R = 20'$   
 $T = 18.57'$   
 $L = 29.93'$   
 $E = 7.29'$   
P.C. = STA. 285+74.49, 39.51'LT.  
P.T. = STA. 285+94.40, 21'LT.

STA. 285+94.40, 41' LT.  
18th St NW

④ CURVE DATA  
 $\Delta = 94^{\circ}15'48''$  LT.  
 $D_c = 286^{\circ}28'44''$   
 $R = 20'$   
 $T = 21.55'$   
 $L = 32.90'$   
 $E = 9.40'$   
P.C. = STA. 285+30.47, 21'LT.  
P.T. = STA. 285+50.41, 42.49'LT.

STA. 285+30.47, 41'LT.



HORIZONTAL  
SCALE IN FEET

|                        |                     |
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| DRAWN BY:<br>FPW       | CHECKED BY:<br>SDH  |
| DATE:<br>June 13, 2003 | DATE:<br>June, 2003 |

**Lincoln Way West Rehabilitation**  
19th St. NW and 18th St. NW / Lincoln Way NW Intersection Details  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

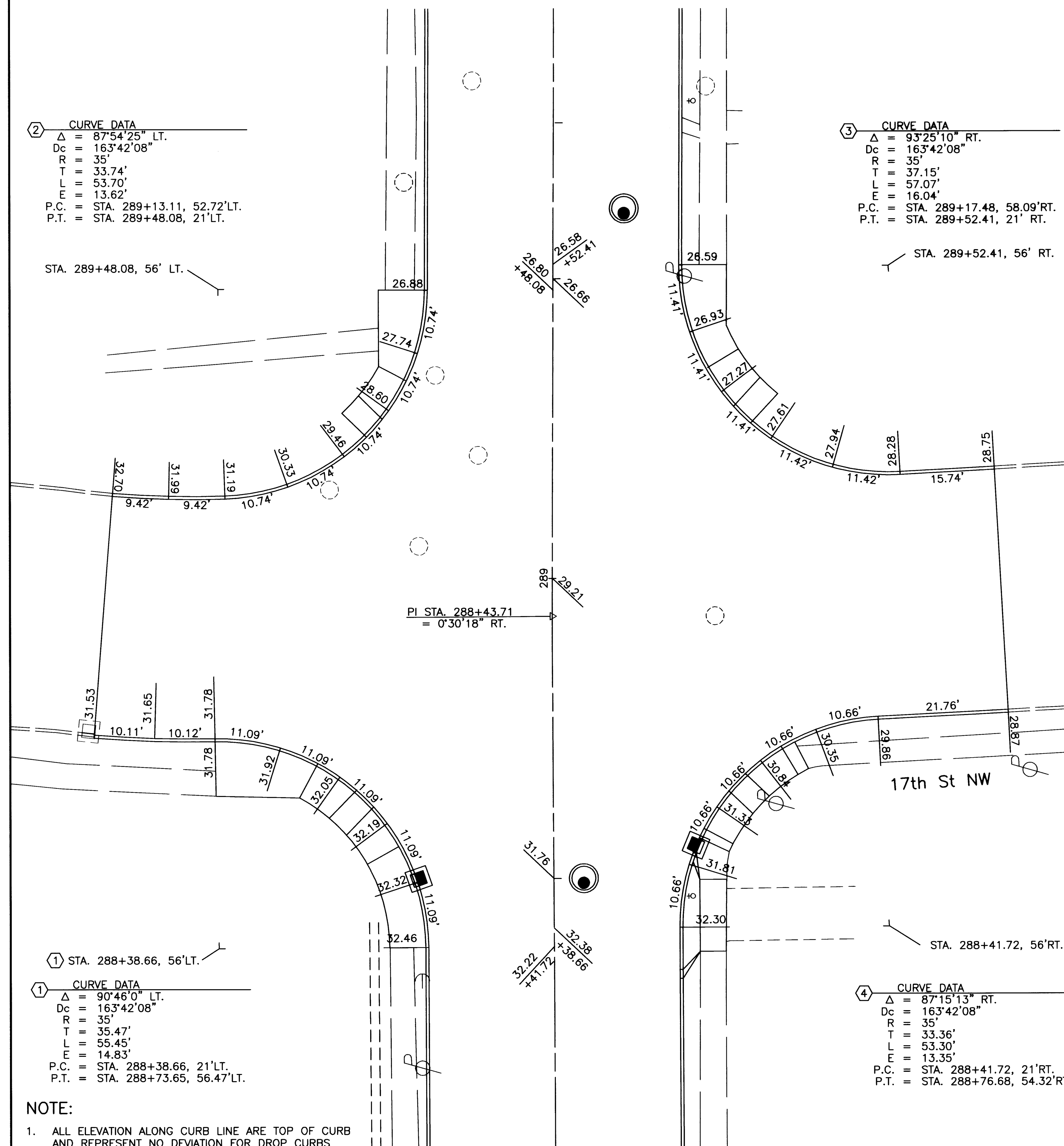


REVISIONS:

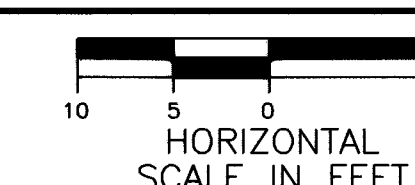
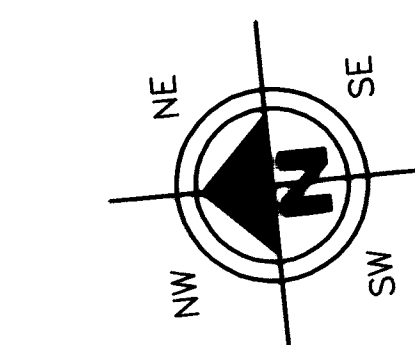
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FILE NAME:  
03ST0365.DWG

ACCOUNT NUMBER  
03ST03



- NOTE:**
1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
  2. ADD 1000' TO ALL ELEVATIONS.
  3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.



|                        |                     |
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| DRAWN BY:<br>FPW       | CHECKED BY:<br>SDH  |
| DATE:<br>June 13, 2003 | DATE:<br>June, 2003 |

**Lincoln Way West Rehabilitation**  
 17th St. NW and 15th St. NW / Lincoln Way NW Intersection Details  
 City of Massillon  
 Stark County, Ohio



| REVISIONS: |             |
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FILE NAME:  
03ST0366.DWG

ACCOUNT NUMBER  
03ST03

② CURVE DATA  
Δ = 89°03'22" LT.  
Dc = 381'58'19"  
R = 15'  
T = 14.76'  
L = 23.32'  
E = 6.04'  
P.C. = STA. 295+56.76, 32.75'LT.  
P.T. = STA. 295+71.76, 21'LT.

② STA. 295+71.76, 33' LT.

Linden St. NW

① STA. 295+22.12, 33'LT.

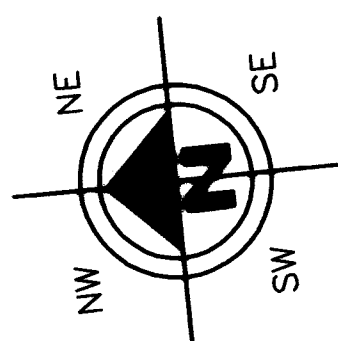
① CURVE DATA  
Δ = 89°26'52" LT.  
Dc = 381'58'19"  
R = 15'  
T = 14.86'  
L = 23.42'  
E = 6.11'  
P.C. = STA. 295+22.12, 21'LT.  
P.T. = STA. 295+37.12, 32.86'LT.

NOTE:

1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 1000' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.

NOTE:

1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 900' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.



HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: June 13, 2003  
DATE: June, 2003

Lincoln Way West Rehabilitation  
Linden St. NW and 14th St. NW / Lincoln Way NW Intersection Details  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



REVISIONS:

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FILE NAME: 03ST0367.DWG

ACCOUNT NUMBER  
03ST03

② CURVE DATA  
 $\Delta = 89^{\circ}44'19''$  LT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 14.93'$   
 $L = 23.49'$   
 $E = 6.17'$   
P.C. = STA. 298+59.75, 32.93'LT.  
P.T. = STA. 298+74.75, 18'LT.

STA. 298+74.75, 33' LT.

Monroe St. NW

① CURVE DATA  
 $\Delta = 89^{\circ}44'22''$  LT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 14.93'$   
 $L = 23.49'$   
 $E = 6.17'$   
P.C. = STA. 298+20.38, 33'LT.  
P.T. = STA. 298+35.38, 32.93'LT.

STA. 298+20.38, 33'LT.

# NOTE:

1. ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
2. ADD 900' TO ALL ELEVATIONS.
3. CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.

② CURVE DATA  
 $\Delta = 84^{\circ}47'01''$  LT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 13.69'$   
 $L = 25.20'$   
 $E = 5.31'$   
P.C. = STA. 304+52.94, 31.64'LT.  
P.T. = STA. 304+67.88, 18'LT.

STA. 304+67.88, 33' LT.

12th St. NW

① CURVE DATA  
 $\Delta = 94^{\circ}46'51''$  LT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 16.31'$   
 $L = 24.81'$   
 $E = 7.16'$   
P.C. = STA. 304+13.63, 33.95'LT.  
P.T. = STA. 304+28.60, 18'LT.

STA. 304+13.63, 33'LT.

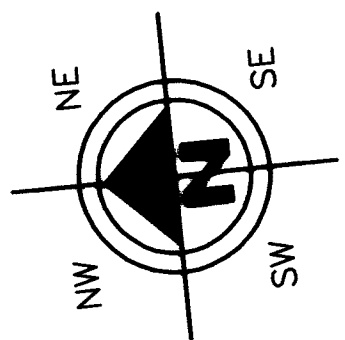
② CURVE DATA  
 $\Delta = 93^{\circ}50'27''$  RT.  
 $D_c = 318'18'36''$   
 $R = 18'$   
 $T = 19.25'$   
 $L = 29.48'$   
 $E = 8.35'$   
P.C. = STA. 304+96.30, 37.21'RT.  
P.T. = STA. 305+14.26, 18'RT.

STA. 305+14.26, 36' RT.

12th St. NW

① CURVE DATA  
 $\Delta = 84^{\circ}30'44''$  RT.  
 $D_c = 286'28'44''$   
 $R = 20'$   
 $T = 18.17'$   
 $L = 29.50'$   
 $E = 7.02'$   
P.C. = STA. 304+45.75, 18'RT.  
P.T. = STA. 304+65.66, 36.09'RT

STA. 304+45.75, 38'RT.



HORIZONTAL SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: June 13, 2003  
DATE: June, 2003

Lincoln Way West Rehabilitation  
Monroe St. NW and 12th St. NW / Lincoln Way NW Intersection Details  
City of Massillon  
Stark County, Ohio



## REVISIONS:

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FILE NAME:  
03ST0368.DWG

ACCOUNT NUMBER  
03ST03

② CURVE DATA  
 $\Delta = 90^{\circ}00'00''$  LT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 15'$   
 $L = 23.56'$   
 $E = 6.21'$   
P.C. = STA. 310+07.84, 33'LT.  
P.T. = STA. 310+22.84, 18'LT.

STA. 310+22.84, 33'LT.

Orange St. NW

① STA. 309+67.28, 33'LT.  
 ① CURVE DATA  
 $\Delta = 90^{\circ}00'00''$  LT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 15'$   
 $L = 23.56'$   
 $E = 6.21'$   
P.C. = STA. 309+67.28, 18'LT.  
P.T. = STA. 309+82.28, 33'LT.

# NOTE:

- ALL ELEVATION ALONG CURB LINE ARE TOP OF CURB AND REPRESENT NO DEVIATION FOR DROP CURBS
- ADD 1000' TO ALL ELEVATIONS GREATER THAN 70 ADD 900 TO ALL ELEVATIONS LESS THAN 70
- CURB RAMPS AS PER CITY OF MASSILLON STANDARDS.

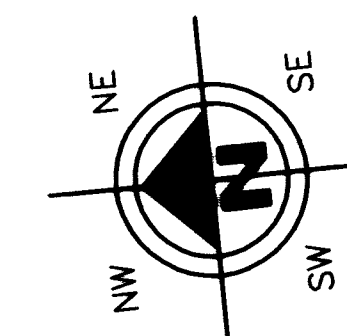
① CURVE DATA  
 $\Delta = 115^{\circ}27'59''$  RT.  
 $D_c = 572'57'28''$   
 $R = 10'$   
 $T = 15.84'$   
 $L = 20.15'$   
 $E = 8.73'$   
P.C. = STA. 318+08.95, 31.38'RT.  
P.T. = STA. 318+17.76, 16.94'RT.

STA. 318+17.91, 32.69'RT.

8th St. N.W.

STA. 317+69.80, 17.69'RT.

① CURVE DATA  
 $\Delta = 64^{\circ}17'03''$  RT.  
 $D_c = 381'58'19''$   
 $R = 15'$   
 $T = 9.43'$   
 $L = 16.83'$   
 $E = 2.72'$   
P.C. = STA. 317+69.56, 21'RT.  
P.T. = STA. 317+83.21, 25.97'RT



HORIZONTAL SCALE IN FEET  
 10 5 0 5 10

|                        |                     |
|------------------------|---------------------|
| DRAWN BY:<br>FPW       | CHECKED BY:<br>SDH  |
| DATE:<br>June 13, 2003 | DATE:<br>June, 2003 |

Lincoln Way West Rehabilitation  
 Orange St. NW and 8th St. NW / Lincoln Way NW Intersection Details  
 City of Massillon  
 Stark County, Ohio

Francis H. Cicchinelli, Jr.  
 Mayor

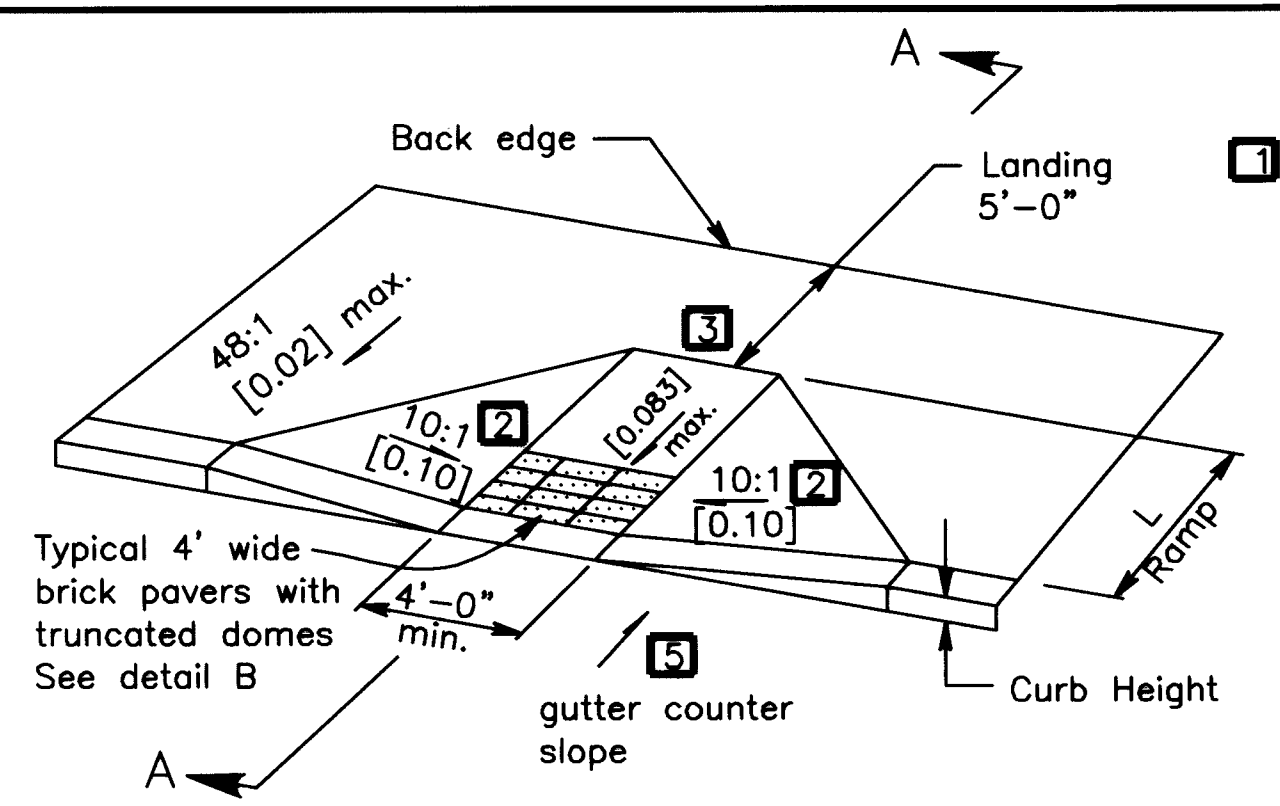


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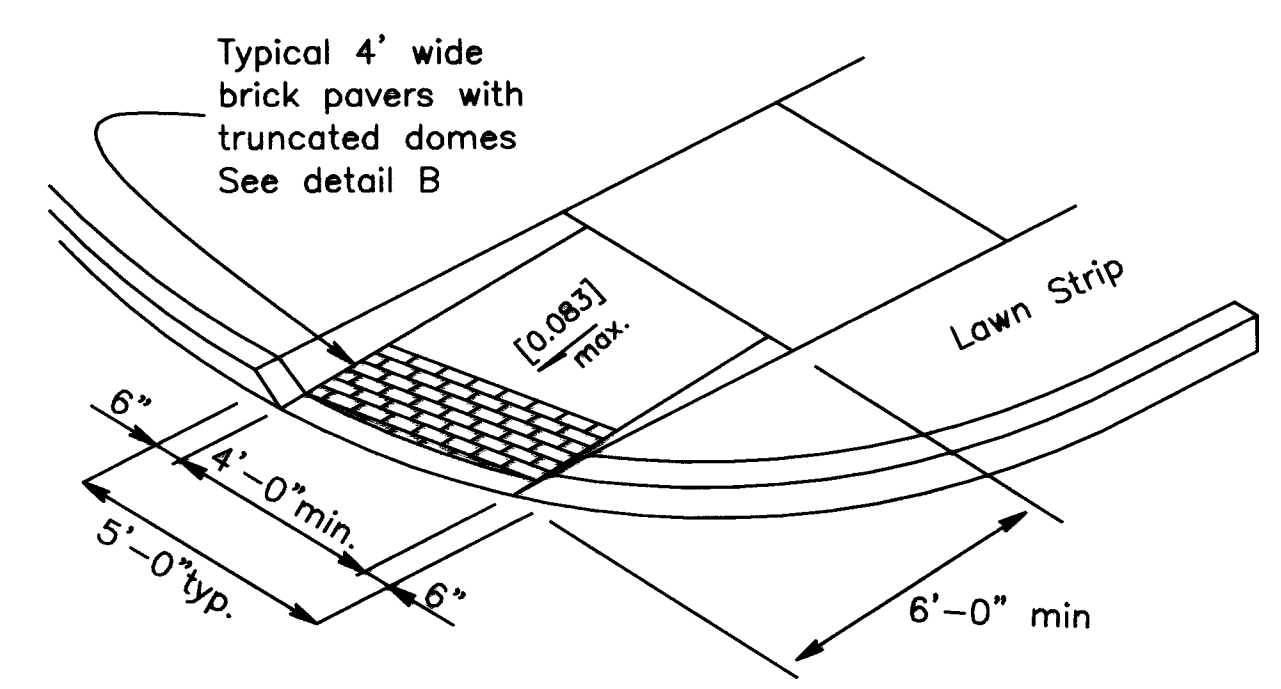
FILE NAME:  
03ST0369.DWG

ACCOUNT NUMBER  
03ST03

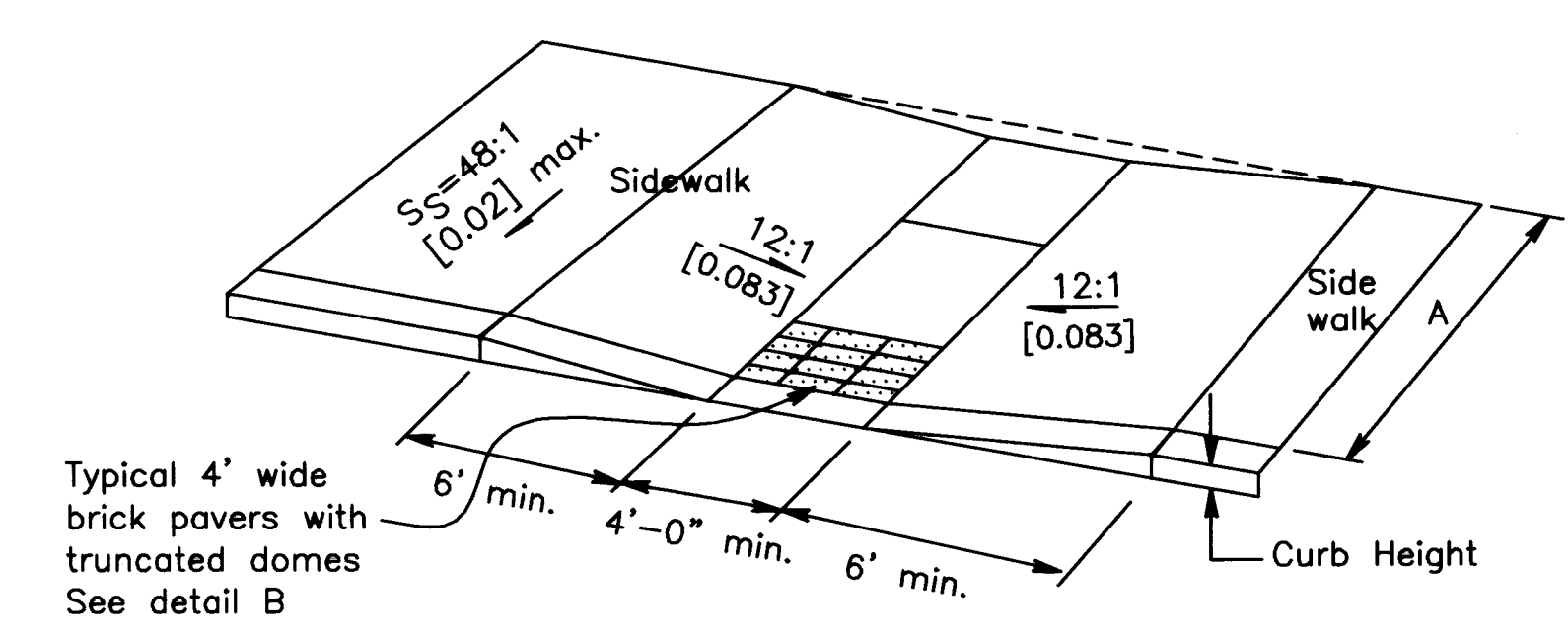




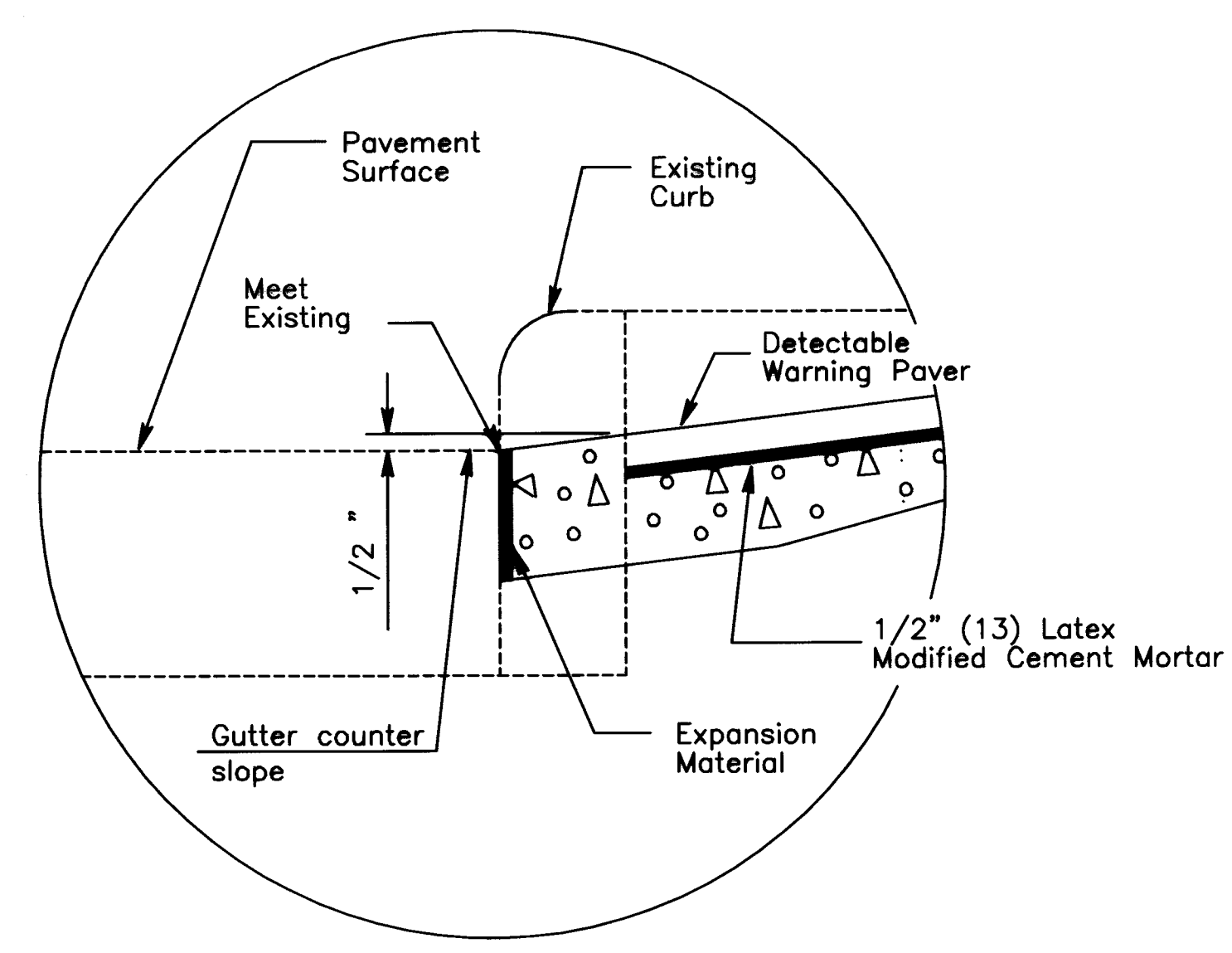
CURB RAMP TYPE A



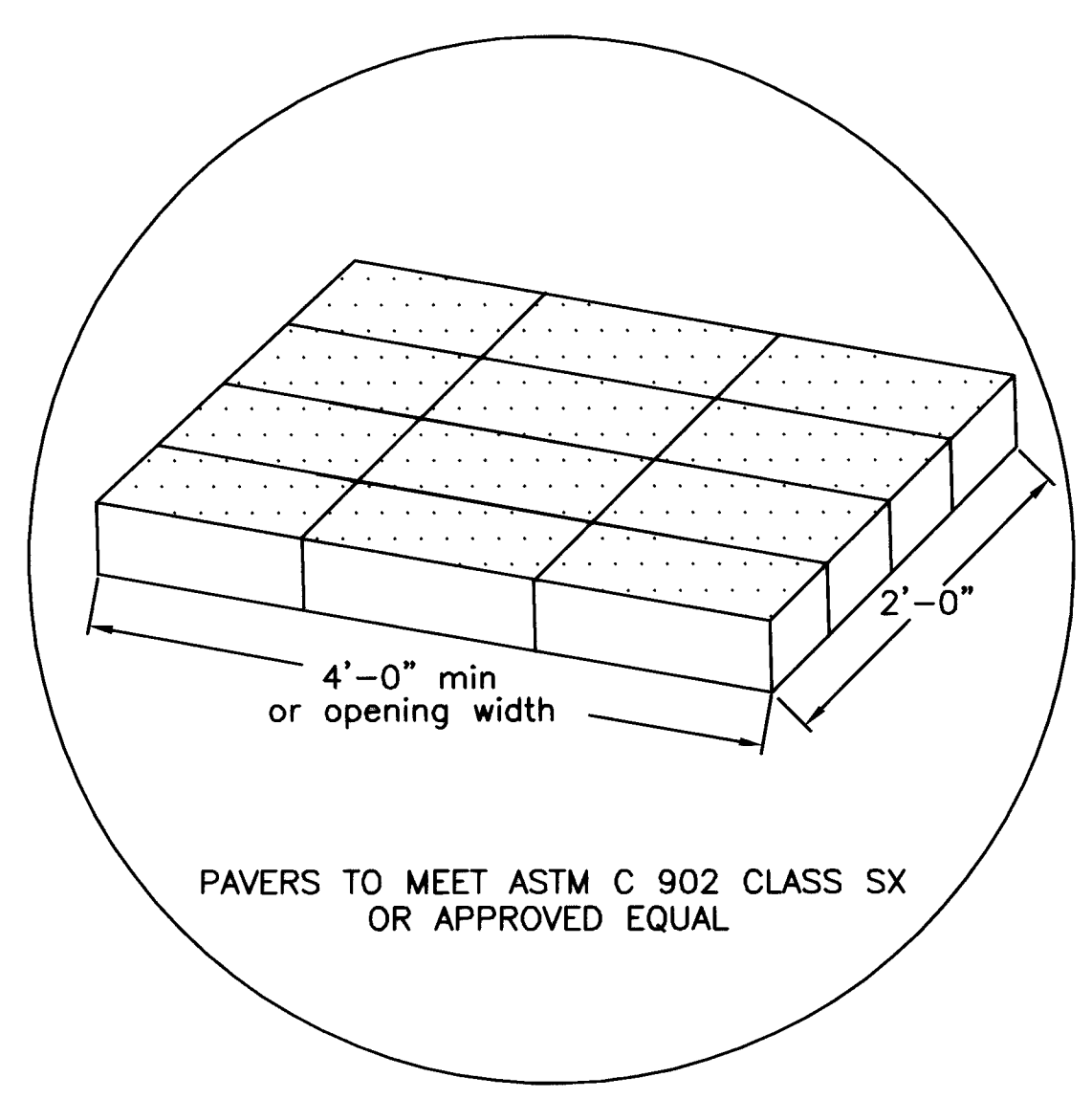
CURB RAMP TYPE B



CURB RAMP TYPE C



DETAIL A



DETAIL B

- LEGEND**
- 1 The engineer may permit no less than 3'-0" in existing sidewalks if the landing is unconstrained along the back edge.
  - 2 Where landing width has been reduced to 3'-0" the flared sides shall have a maximum slope of 12:1 [0.083].
  - 3 The max. slope of the ramp toward the curb is 12:1 [0.083] as related to the horizontal, but the, relative to the existing or proposed walk slope.  
The Engineer may allow the following in Historical Areas  
A) 10:1 [0.10] for a max. rise of 6"  
B) 8:1 [0.125] for a max. rise of 3"  
C) 6:1 [0.167] over a max. run of 2'-0" for historic areas where a flatter slope is not feasible.
  - 4 The minimum length of a Type A or B ramp is 6' from the back of a 6" curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
  - 5 Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" from the curb.

NOTES

**SURFACE TEXTURE:** Texture of concrete surfaces shall be obtained by coarse brooming transverse to the ramp slopes and shall be rougher than the adjacent walk

**TRUNCATED DOMES:** Install detectable warnings (truncated domes) for a distance of 24" from the back of curb for the entire width of the ramp opening.

Pavers will meet ASTM C 902 Class SX, Type 1, or C 936, or C 1272 Type R.

ACCEPTABLE MANUFACTURERS AND PRODUCTS ARE AS FOLLOWS:

- 1.) Whitacre-Greer Fireproofing Company  
1400 South Mahoning Ave.  
Alliance, OH 44601  
1-800-WG PAVER  
ADA Paver, 4"x8"x2-1/4" Clear Red, Rustic, #30
- 2.) Hanover Architectural Products  
240 Bender Road  
Hanover, PA 17331  
(717) 637-0500  
Detectable Warning Paver, 12"x12"x2" or 24"x24"x2", Red or Quarry Red
- 3.) Endicott Clay Products  
P.O. Box 17  
Fairbury, NE 68352  
(402) 729-5804  
Handicap Detectable Warning Paver, 4"x8"x2-1/4", Red Blend

Pavers will be laid on top of a 4" unreinforced concrete base. Setting bed and joints to be mortared in accordance with manufacturer's instruction, or with a maximum 1/2" thick bed of latex modified cement mortar. Mortar joints to a width not greater than 5/32" and not less than 1/16". Pavers shall not be directly touching each other unless they have spacing bars.

Mortared joints are to be flush with top surface and struck so as to give a smooth surface. Pavers shall be laid such that joints are level with adjoining joints so as to provide a smooth transition from brick to brick and brick to concrete surface.

The surface of any two adjacent units should not differ by more than 1/8" in height. Bricks shall be placed in a running bond pattern. Face of all brick shall be clean of cement and protected so as to avoid chipping during construction.

**EXPANSION JOINTS:** shall be provided in the curb ramp as extensions of walk joints and consistent with item 608.03 requirements for a new concrete walk. A 1/2" Item 705.03 expansion joint filler shall be provided around the edge of ramps built in existing concrete walk. Lines shown on this drawing indicate the ramp edge and slope changes and are not necessarily joint lines.

**RELIEF JOINTS:** must be provide at all points of continuous slope changes in Curb Type A and Type C.

**PAYMENT:** Item 608, CURB RAMP, EACH, shall include the cost of furnishing and installing all materials (including truncated domes,) grading, forming and finishing of the curb and walk of the curb ramp and removal of any existing material to perform such work

|                        |                        |
|------------------------|------------------------|
| DRAWN BY:<br>JAH       | CHECKED BY:<br>FPW     |
| DATE:<br>Dec. 03, 2002 | DATE:<br>Dec. 03, 2002 |

Lincoln Way West Rehabilitation  
Details  
City of Massillon  
Stark County, Ohio

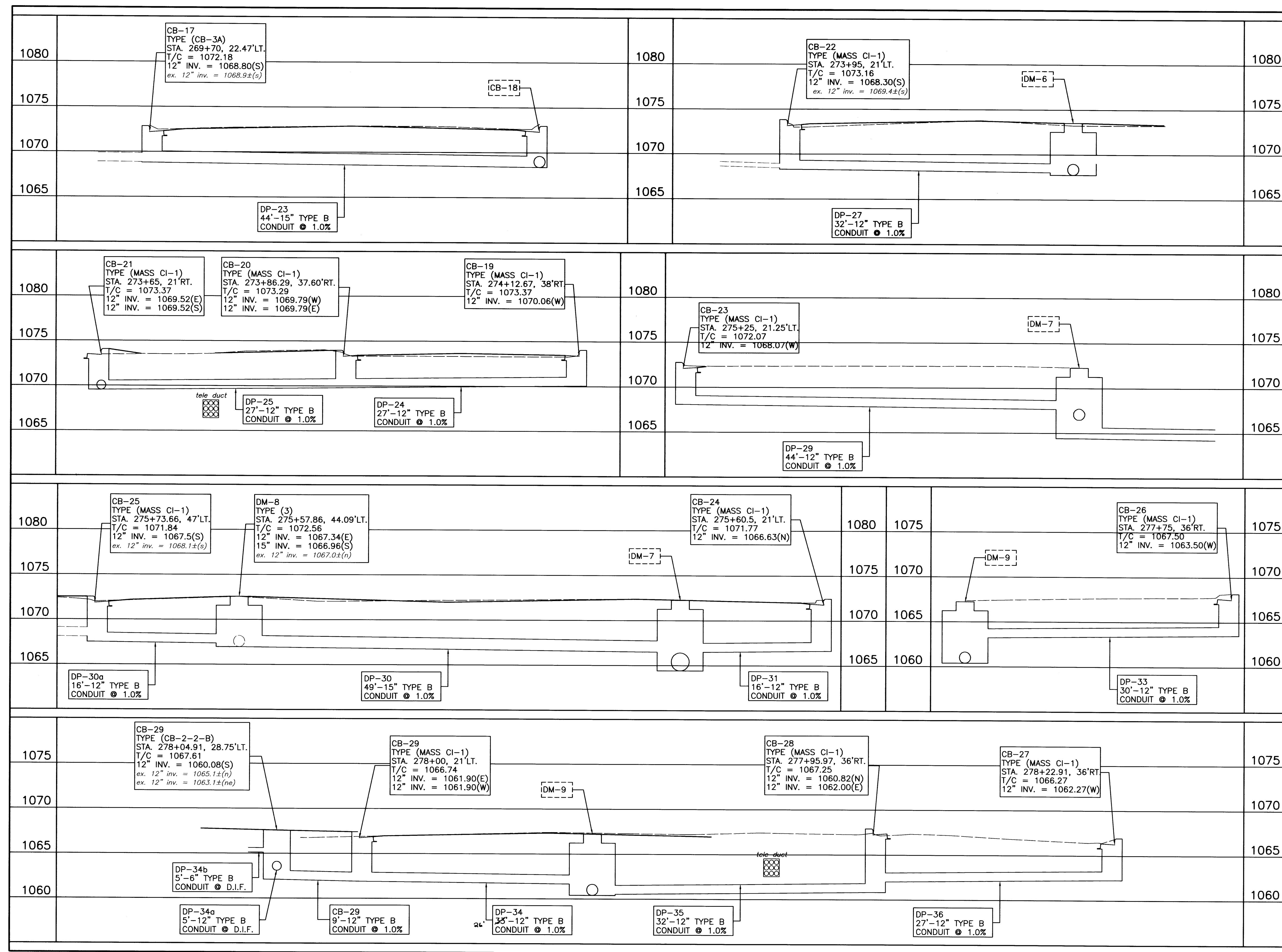


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FILE NAME:  
03ST0371.DWG

ACCOUNT NUMBER  
03ST03





**Lincoln Way West Rehabilitation**  
 Lincoln Way West Drainage Details  
 City of Massillon  
 Stark County, Ohio

SCALE  
 VERTICAL  
 0 2.5 5 10  
 FEET

HORIZONTAL  
 0 2.5 5  
 FEET

DRAWN BY: FWP  
 CHECKED BY: SDH  
 DATE: May 27, 2003  
 DATE: June 11, 2003

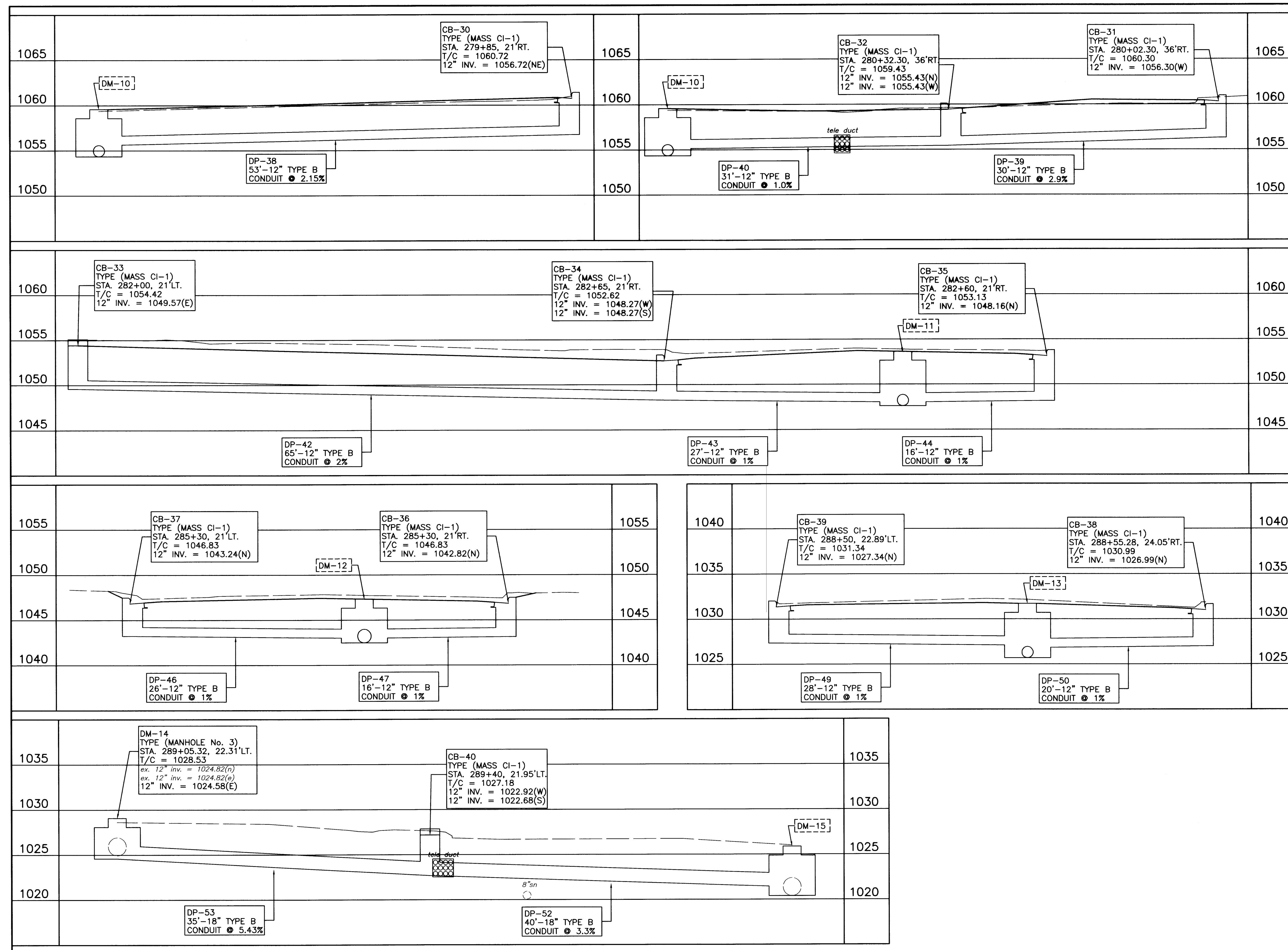
**Francis H. Cicchinelli, Jr.**  
**Massillon**  
*Means More!*

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ELECTRONIC FILE NAME:  
03ST0373.DWG

ACCOUNT NUMBER  
03ST03

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**Lincoln Way West Rehabilitation**  
 Lincoln Way West Drainage Details  
 City of Massillon  
 Stark County, Ohio

SCALE  
 VERTICAL  
 1" = 10'  
 1" = 2.5'

HORIZONTAL  
 SCALE IN FEET  
 5 2.5 0 5

DRAWN BY: FPW  
 CHECKED BY: SDH

DATE: May 27, 2003  
 DATE: June 11, 2003

REVISIONS:

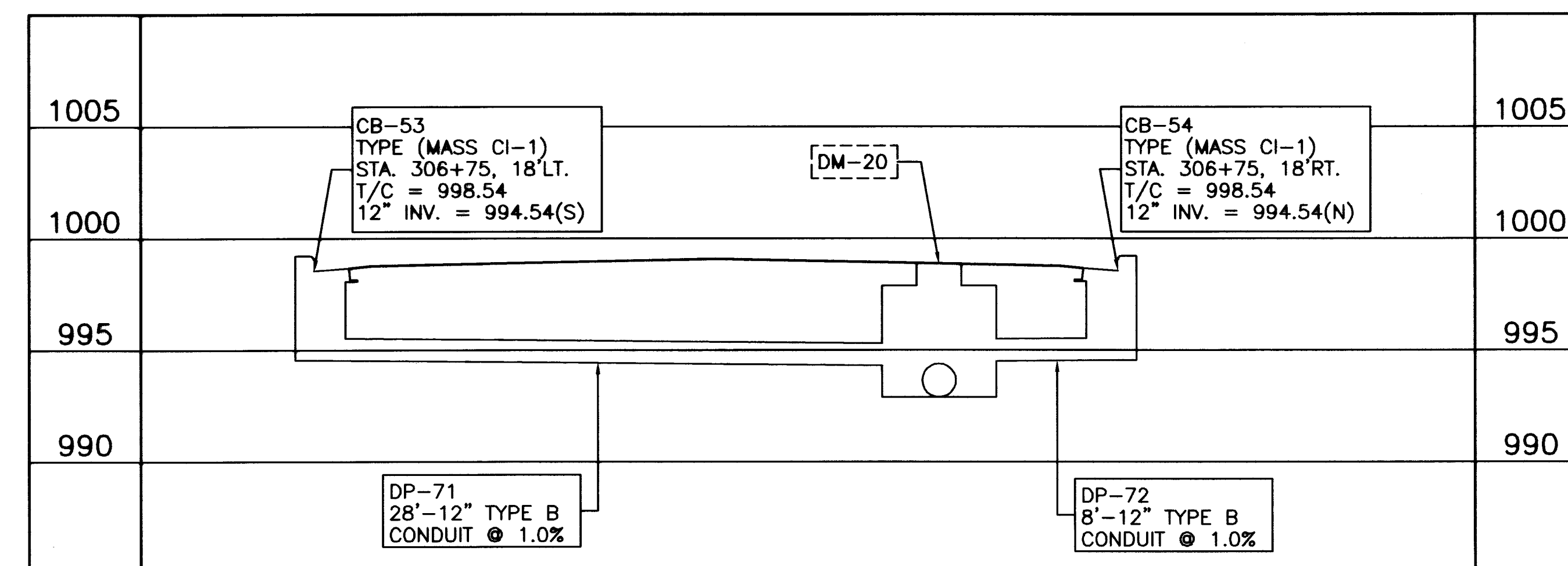
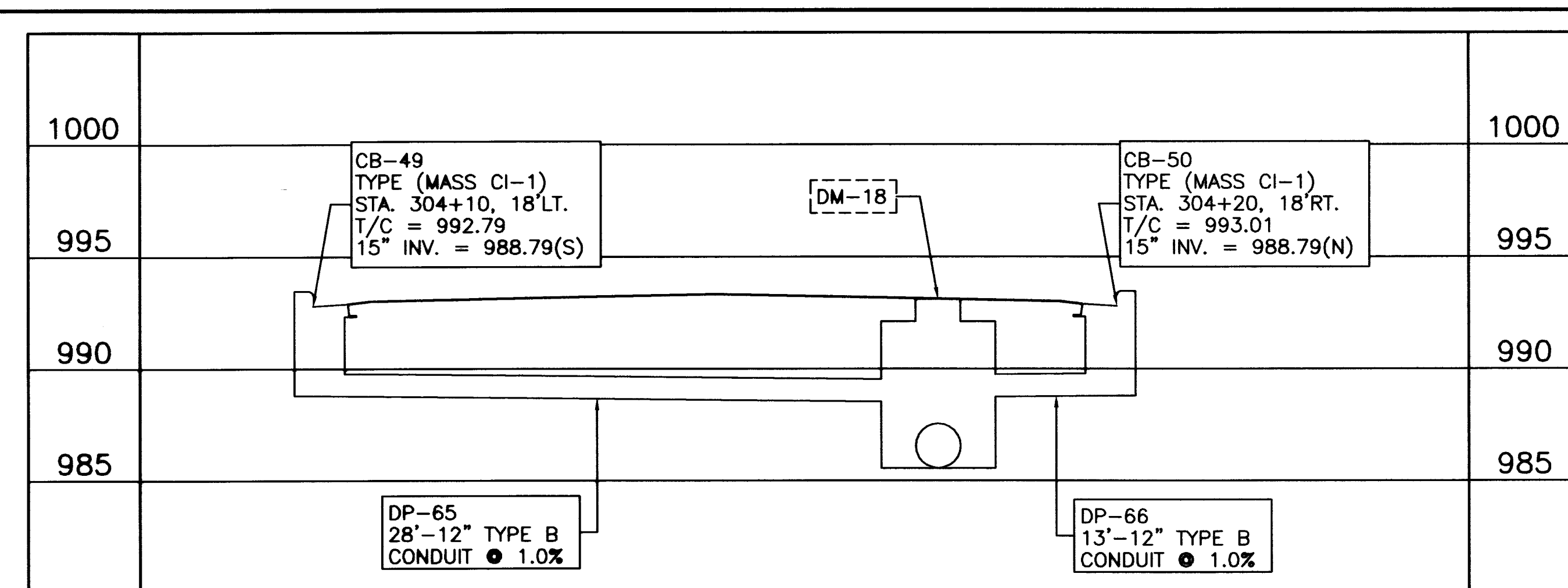
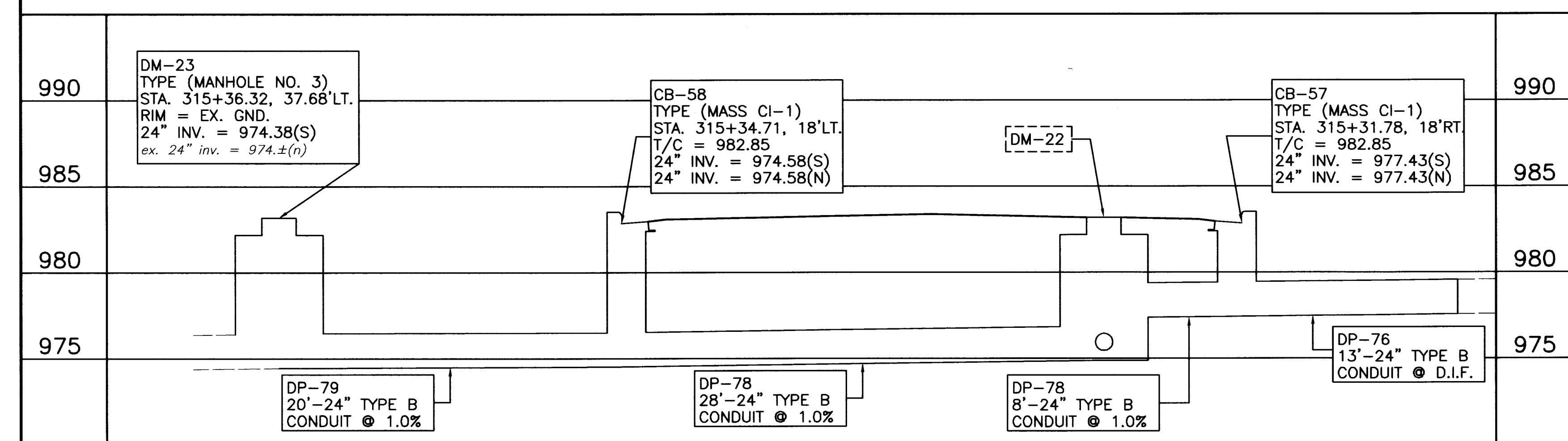
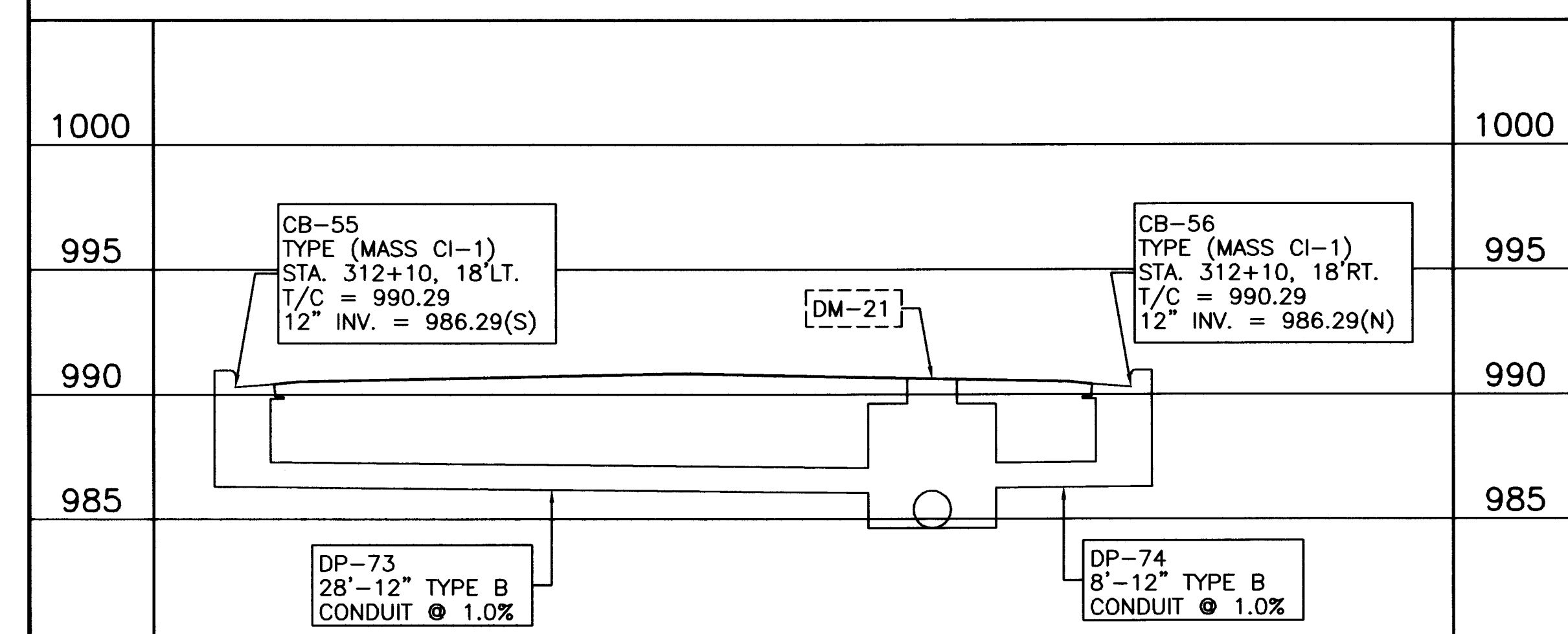
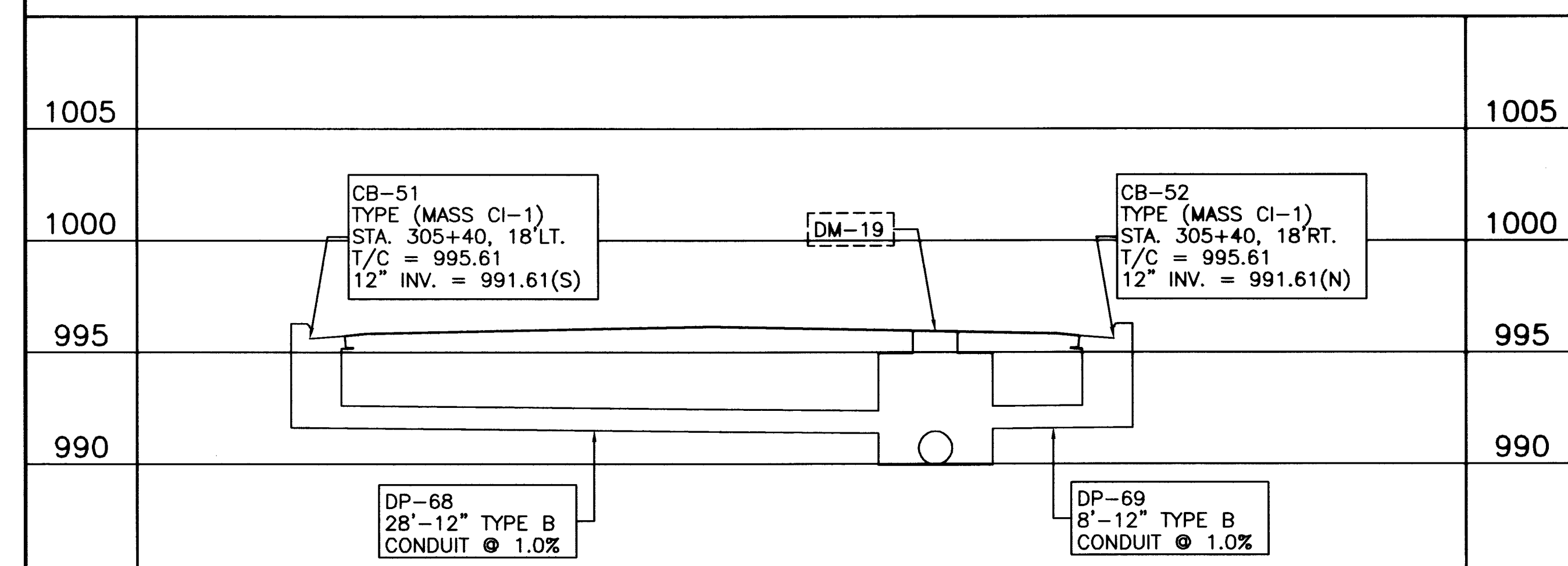
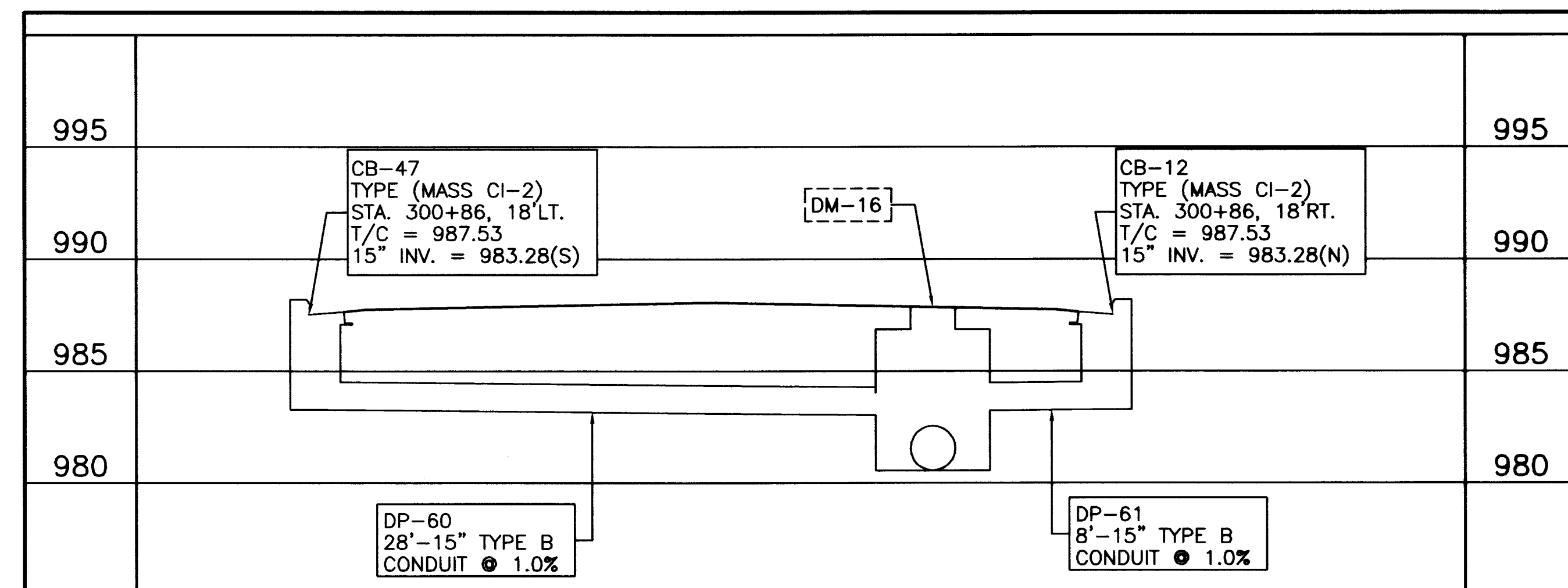
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FILE NAME: 03ST0374.DWG

ACCOUNT NUMBER: 03ST03

Francis H. Cicchinelli, Jr.  
  
**Massillon**  
*Means More!*

74
90



VERTICAL SCALE  
0 2.5 5 10

HORIZONTAL SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

### Lincoln Way West Rehabilitation

Lincoln Way West Drainage Details  
City of Massillon  
Stark County, Ohio

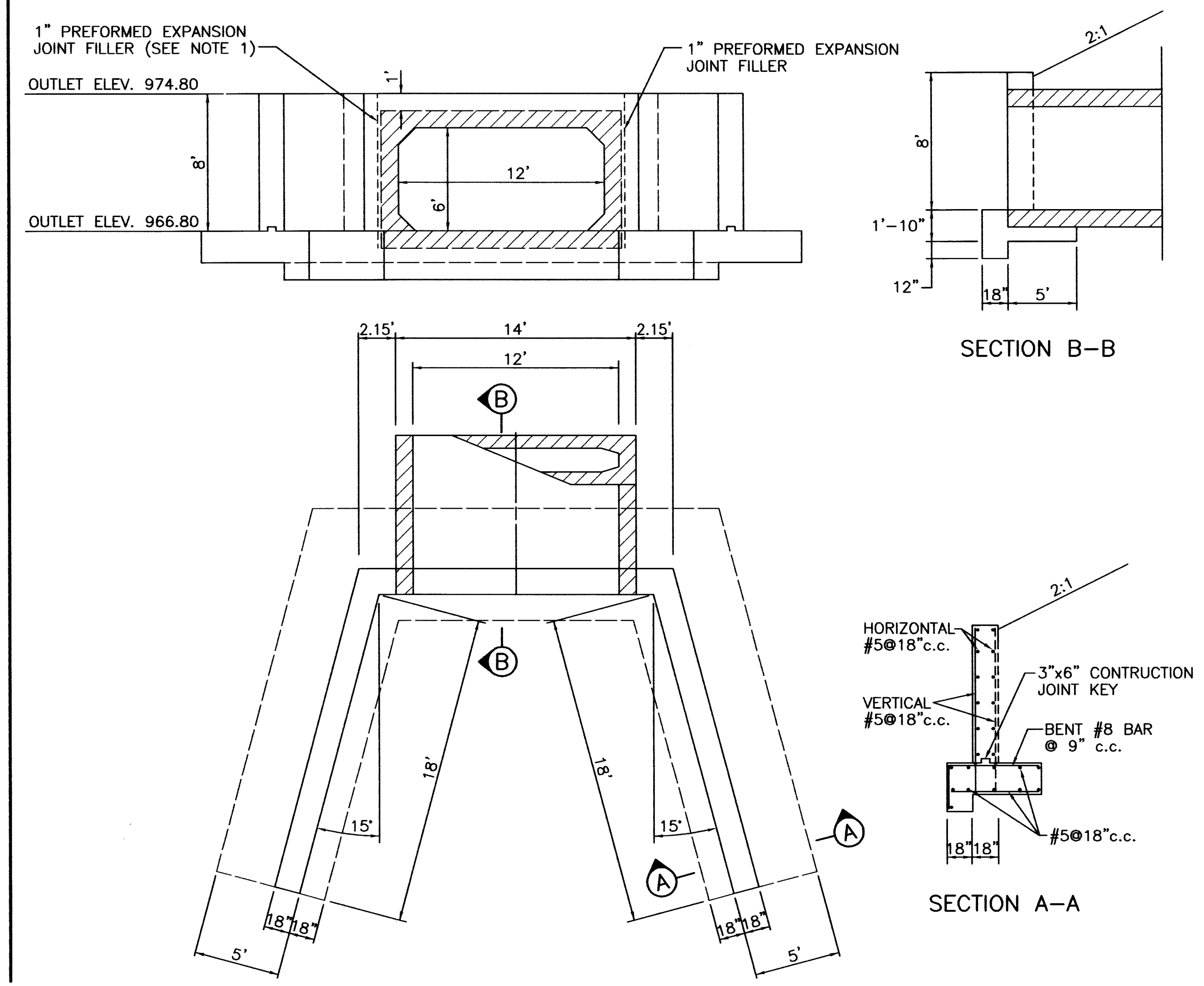
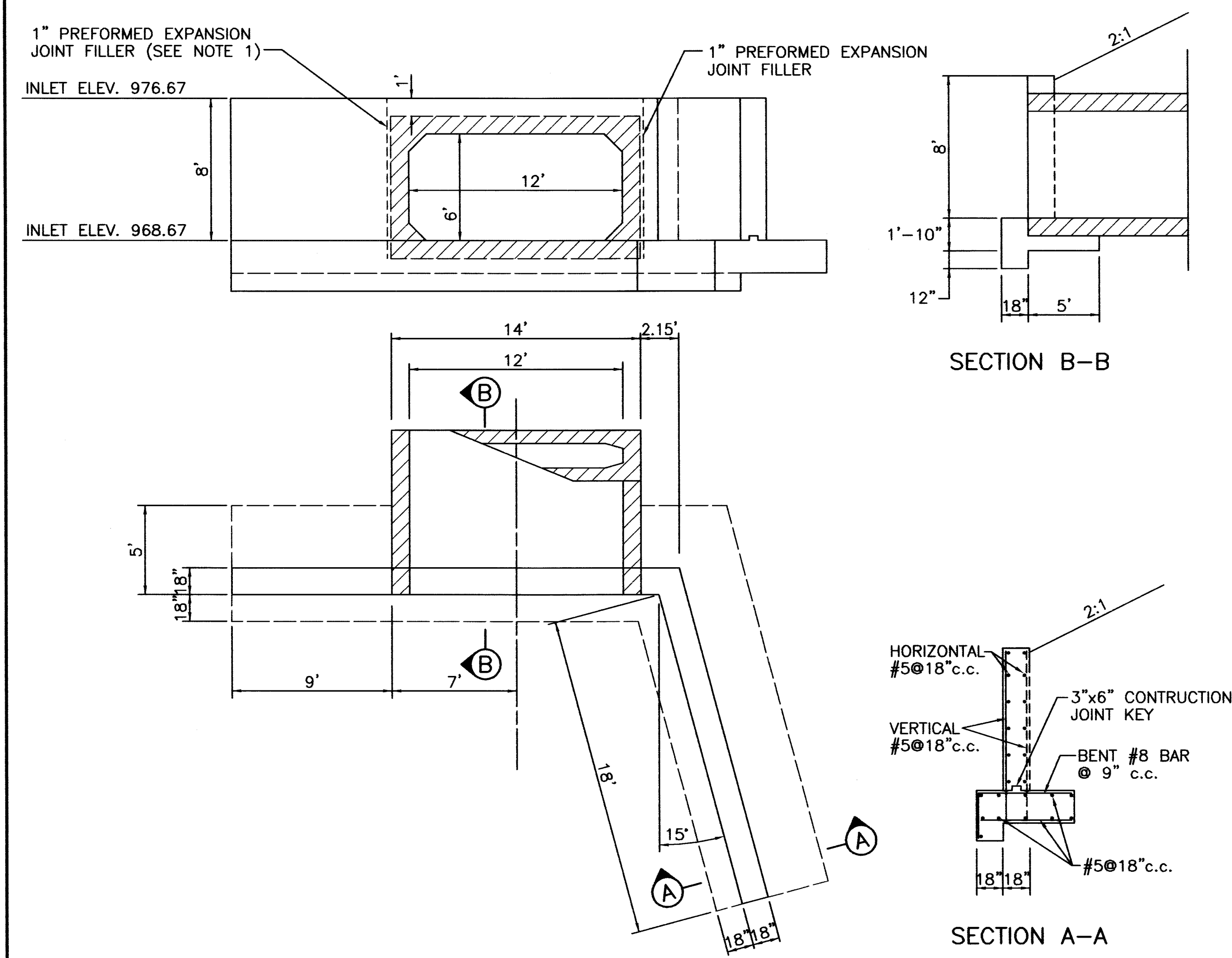
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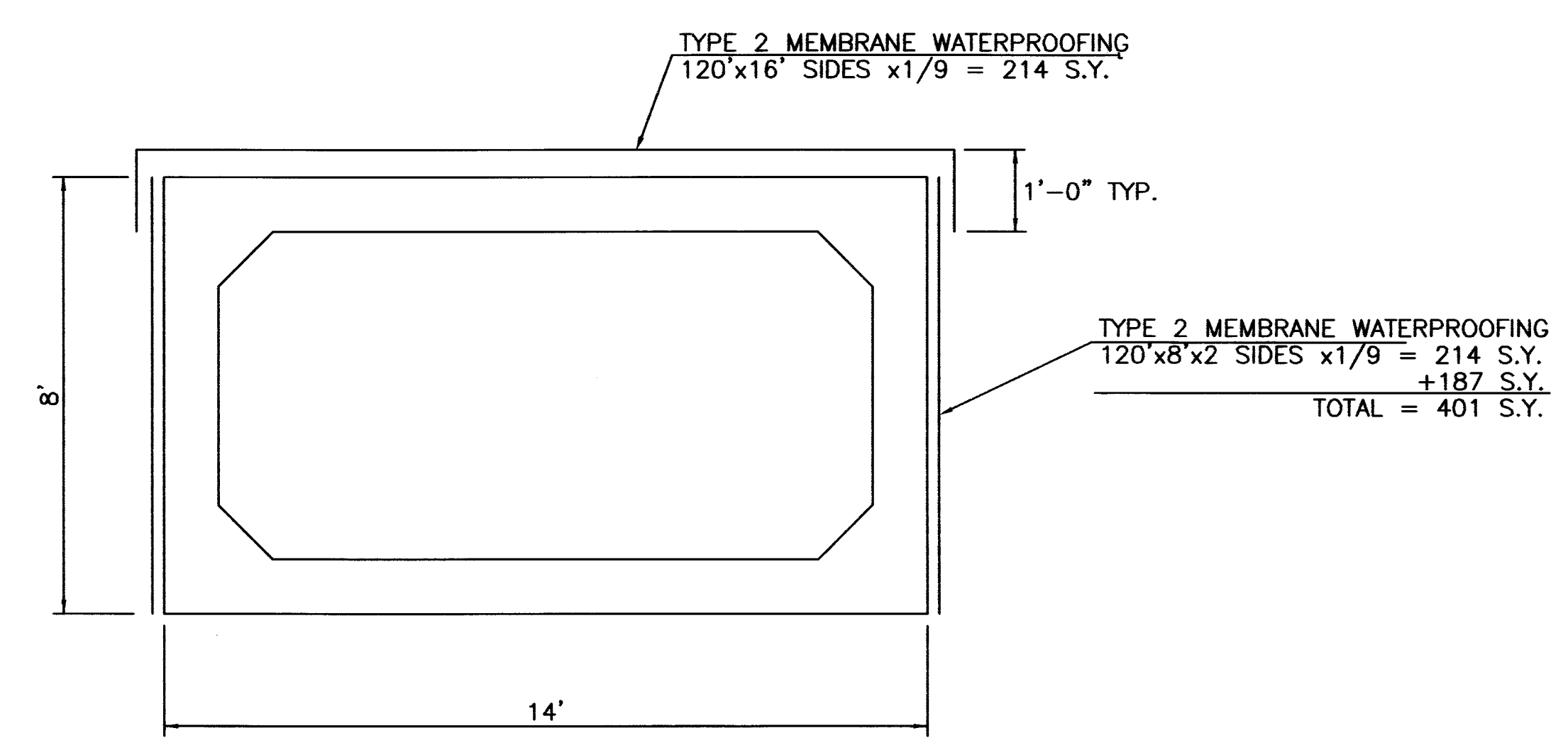
ACCOUNT NUMBER  
03ST03

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- NOTE**
1. 1" PREFORMED EXPANSION JOINT FILLER SHALL BE EXTENDED FROM TOP OF FOOTER TO TOP OF WALL.
  2. ALL CONCRETE SURFACES SHALL BE SEALED WITH (EPOXY-URETHANE)
  3. HEADWALL BASED ON O.D.O.T. STANDARD CONSTRUCTION DRAWING HW-3(6-1-65) ALL REBAR SHALL BE EPOXY COATED, FOR ANY ADDITIONAL INFORMATION SEE SAID DRAWING HW-3.



**PRECAST CONCRETE BOX CULVERT:**  
 THE WALL, BASE, AND TOP SLAB THICKNESSES SHOWN ON PLANS WERE OBTAINED FROM THE MANUFACTURER AT THE TIME THE PLANS WERE PREPARED. IF THE WALL, BASE, AND/OR SLAB THICKNESSES OF THE PROPOSED CULVERT ARE DIFFERENT FROM WHAT IS SHOWN ON THE PLANS, A MARKED COPY OF THE PROJECT PLANS, INCLUDING ALL PLAN NOTES AND DETAILS SHOWING ALL ITEMS AFFECTED BY DIFFERENT CULVERT DIMENSION SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWING. ALL WORK REQUIRED TO ACCOMMODATE ANY REVISED DIMENSIONS SHALL BE AT NO EXTRA COST TO THE CITY.

**ITEM 512 TYPE 2 MEMBRANE WATERPROOFING**  
 TYPE 2 WATERPROOFING SHALL BE APPLIED TO THE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND 1' DOWN EACH VERTICAL SIDE FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. IT SHALL ALSO BE APPLIED VERTICALLY DOWN THE ENTIRE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHAA BE IN CONTACT WITH THE BACKFILL AND SHALL BE EXTENDED 1' ONTO THE WINGWALLS. APPLICATION AND MATERIALS SHALL PER AS PER ITEM 512 MEMBRANE WATERPROOFING. PAYMENT SHALL BE INCLUDED IN ITEM 603 12x6 PRECAST BOX CULVERT.

**ITEM 603 12'x6' CONCRETE BOX CULVERT, 706.05**  
 JOINT WRAP AS SPECIFIED IN 603.08 AND CONCRETE SEALING AS SPECIFIED IN 603.08 ARE NOT REQUIRED UNDER THE LIMITS OF THE TYPE 2 MEMBRANE WATERPROOFING. THE EXTERIOR JOINT GAP ON THE TOP AND SIDES BETWEEN THE PRECAST CULVERT SECTIONS SHALL BE FILLED WITH PORTLAND CEMENT MORTAR PRIOR TO INSTALLING THE TYPE 2 MEMBRANE WATERPROOFING.

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| NONE SCALE       |                  |
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| DATE: Aug., 2004 | DATE: Aug., 2004 |

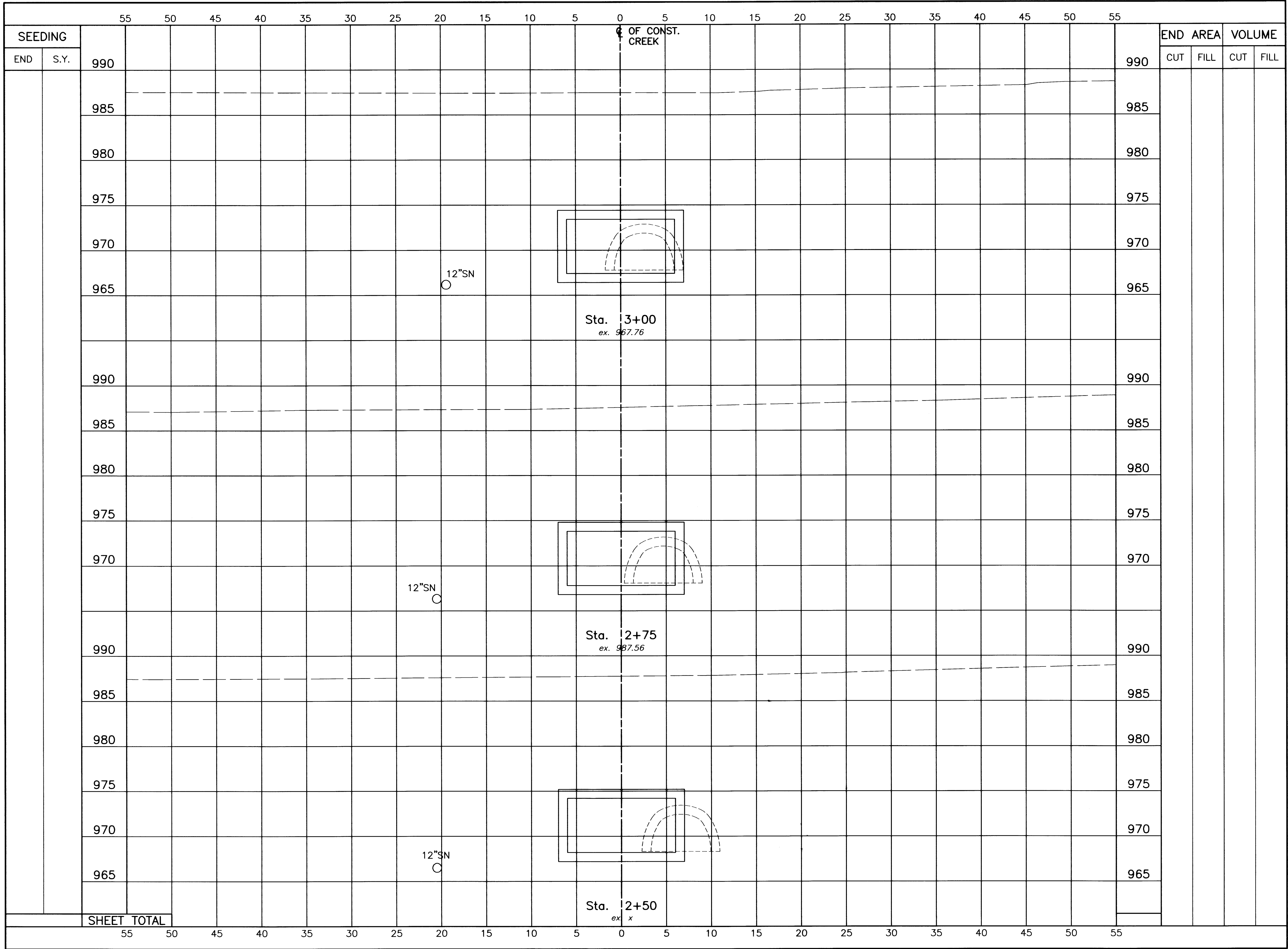
**Lincoln Way West Rehabilitation**  
 Headwalls and Box Culvert Detail  
 City of Massillon  
 Stark County, Ohio



| REVISIONS: |             |
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FILE NAME: 03ST0377.DWG  
 ACCOUNT NUMBER: 03ST03





DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
Aug., 2004

DATE:  
Aug., 2004.

**Lincoln Way West Rehabilitation**  
Ditch Cross Section (Sta. 2+00 to Sta. 3+00)  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

REVISIONS:

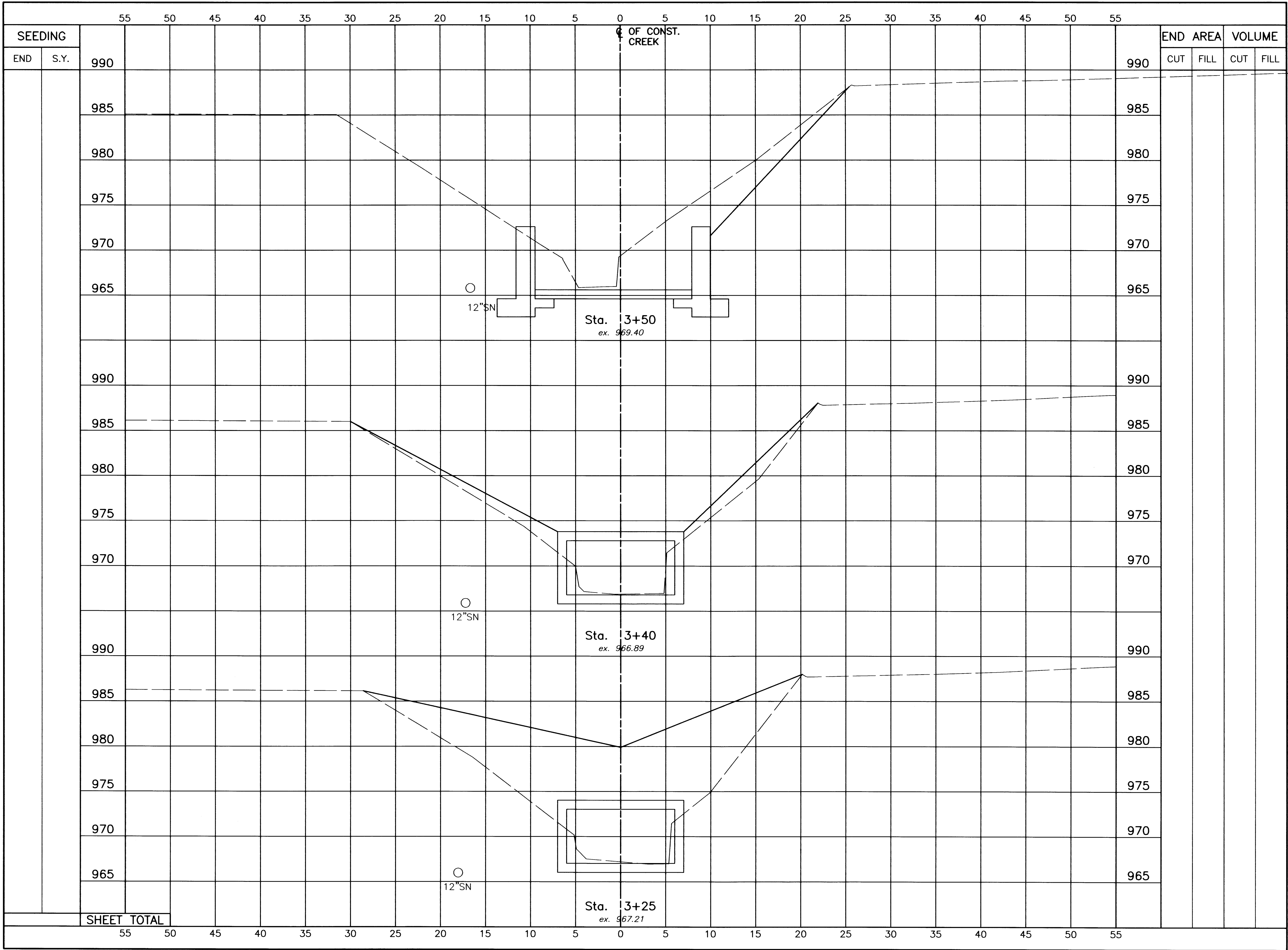
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ELECTRONIC FILE NAME:  
03ST0379.DWG

ACCOUNT NUMBER  
03ST03

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90



NW

NE

SW

SE

SCALE IN FEET

0 2.5 5 10

5 2.5 0 2.5 5

HORIZONTAL SCALE IN FEET

DRAWN BY:

FPW

CHECKED BY:

SDH

DATE:

Aug, 2004

DATE:

Aug., 2004

Lincoln Way West Rehabilitation

Ditch Cross Section (Sta. 3+25 to Sta. 3+50)

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

Mayor

Massillon

Means More!

REVISIONS:

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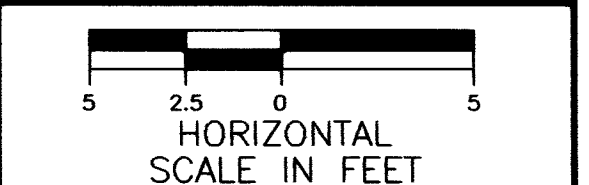
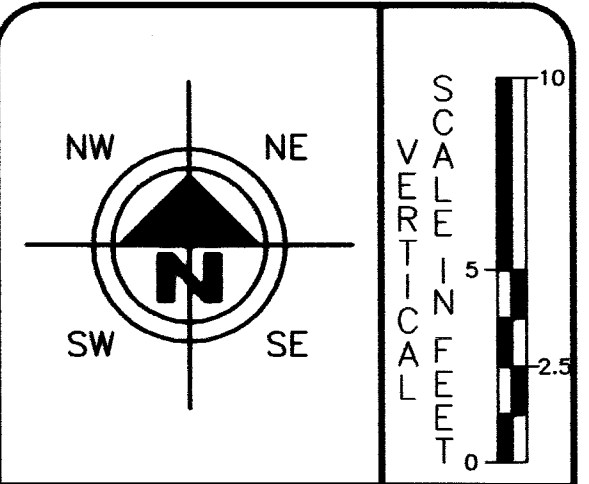
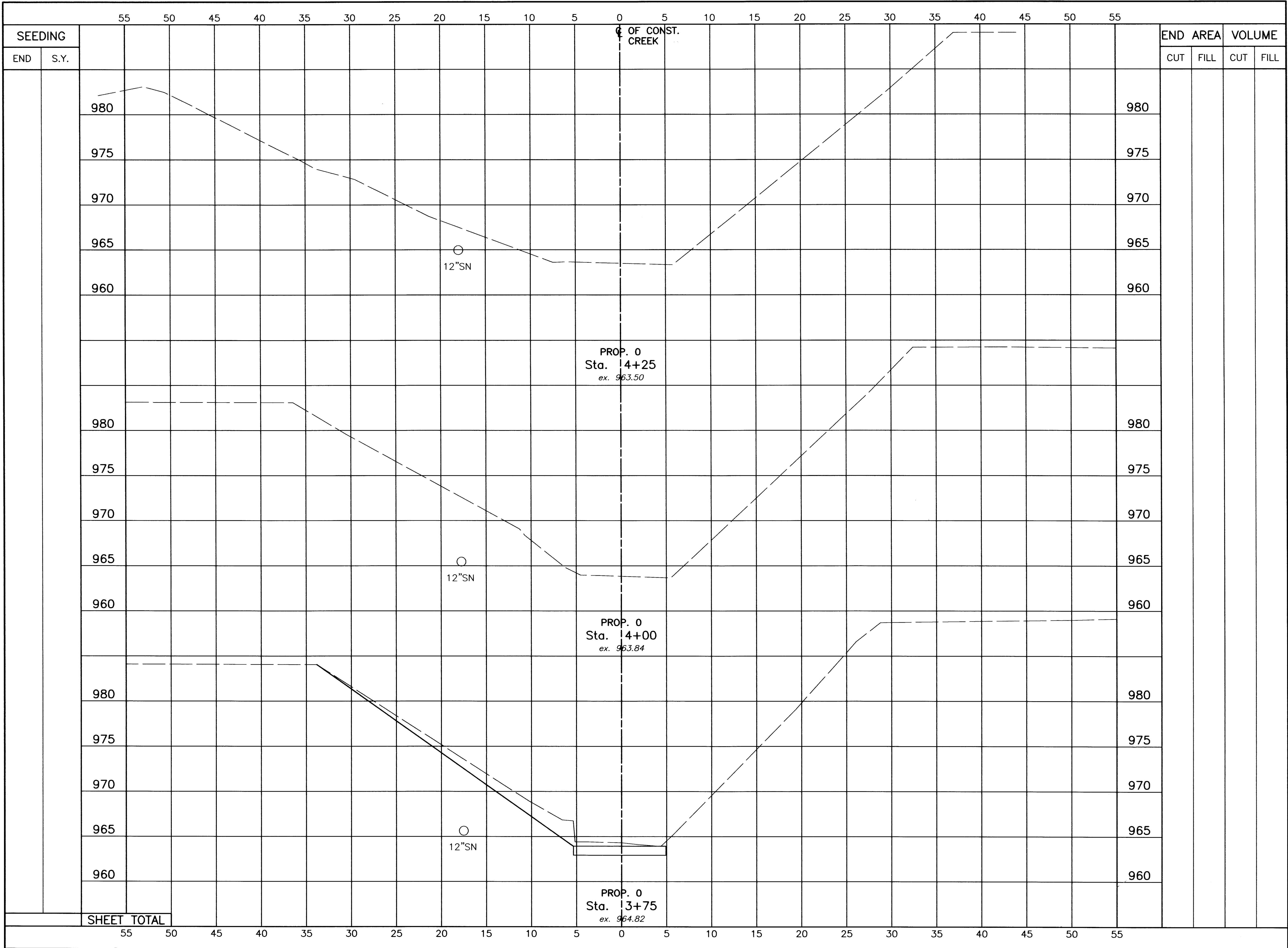
ELECTRONIC FILE NAME:

03ST0380.DWG

ACCOUNT NUMBER

03ST03

80 / 90



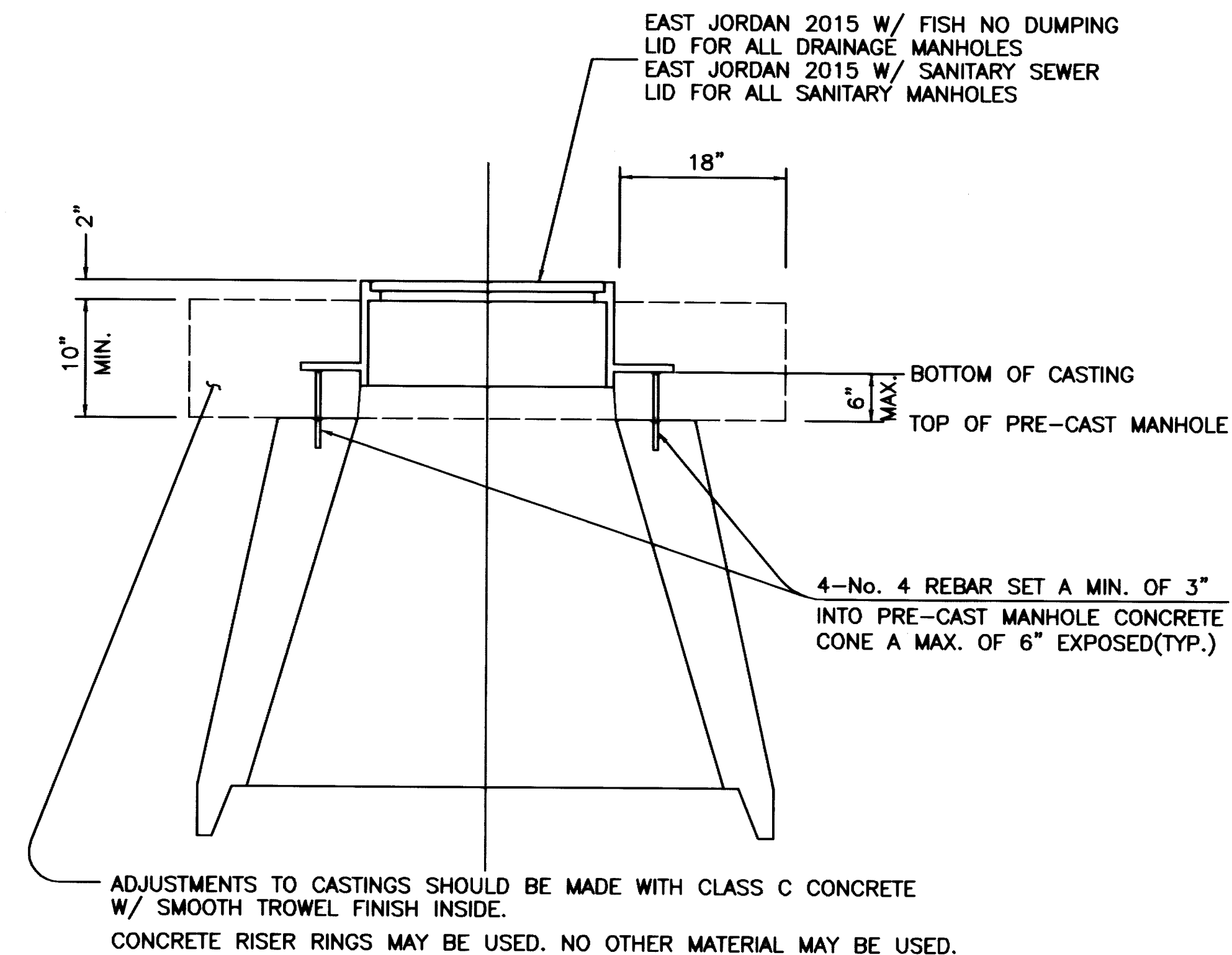
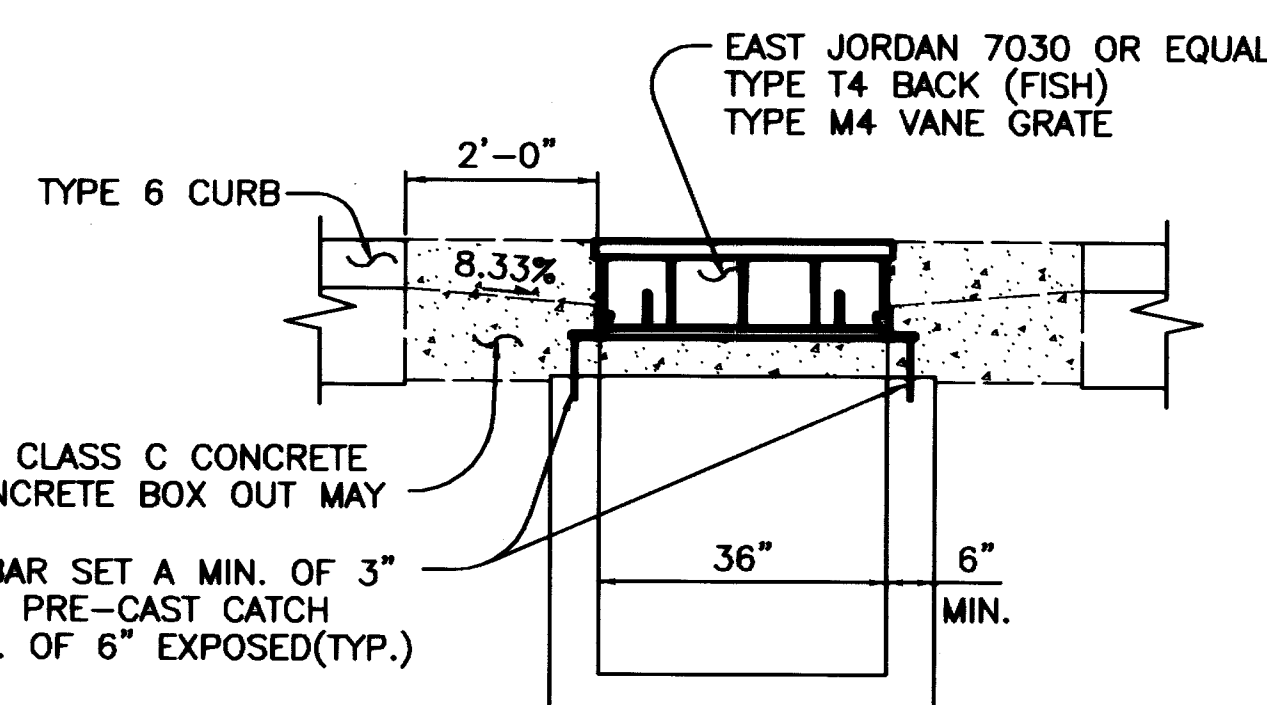
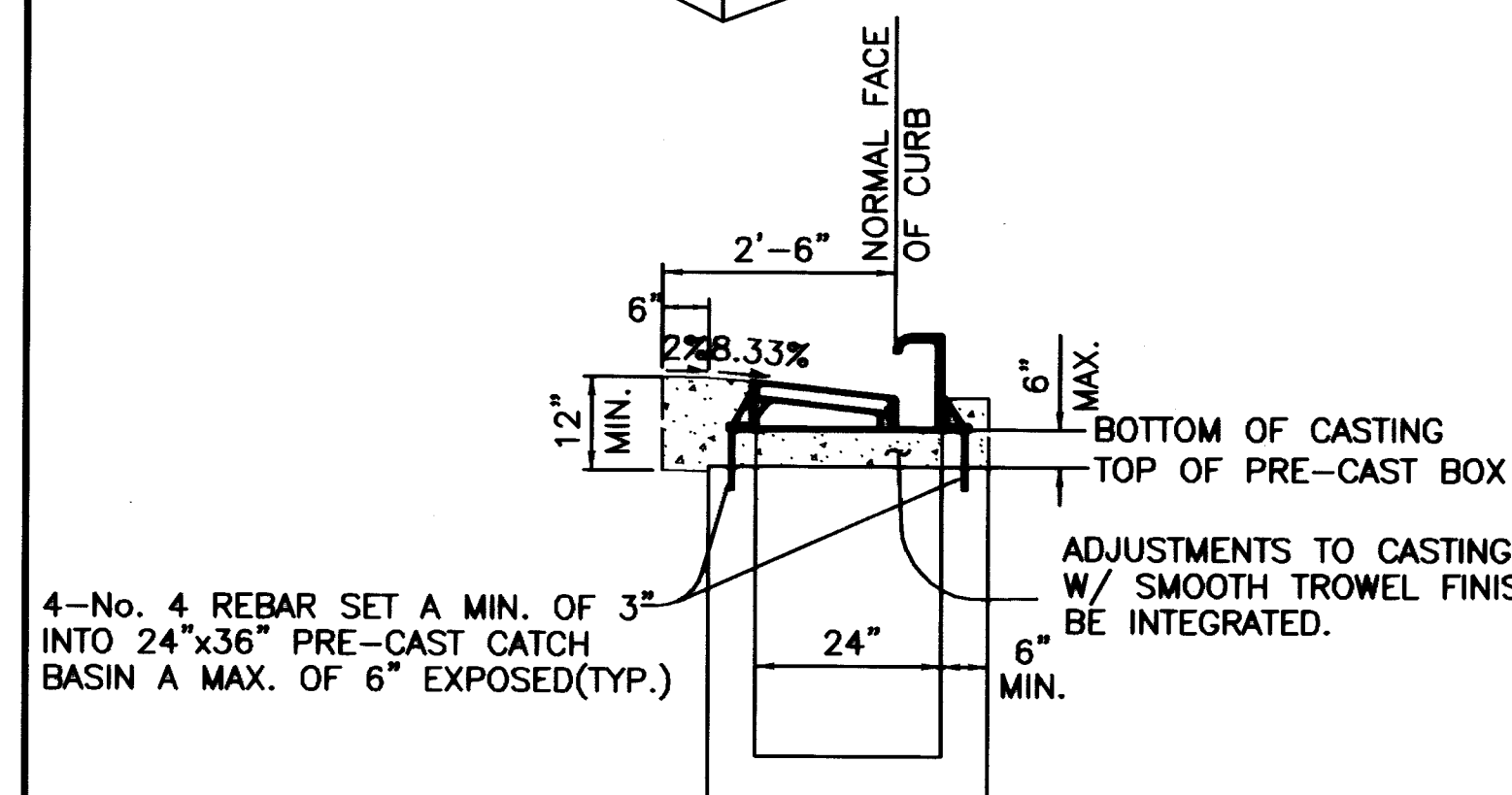
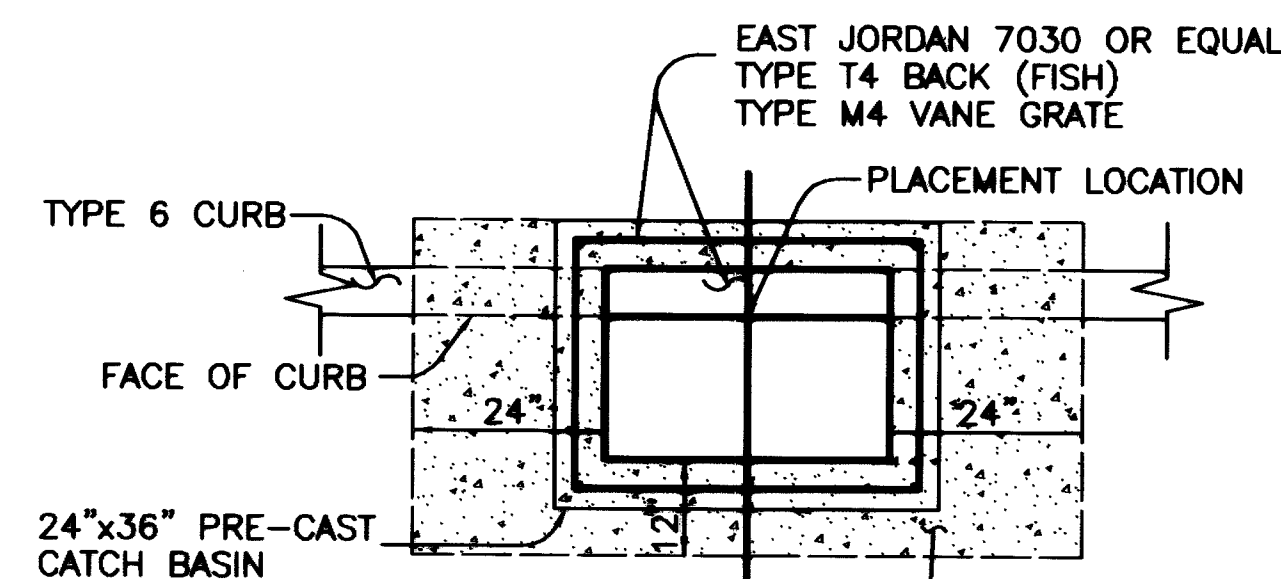
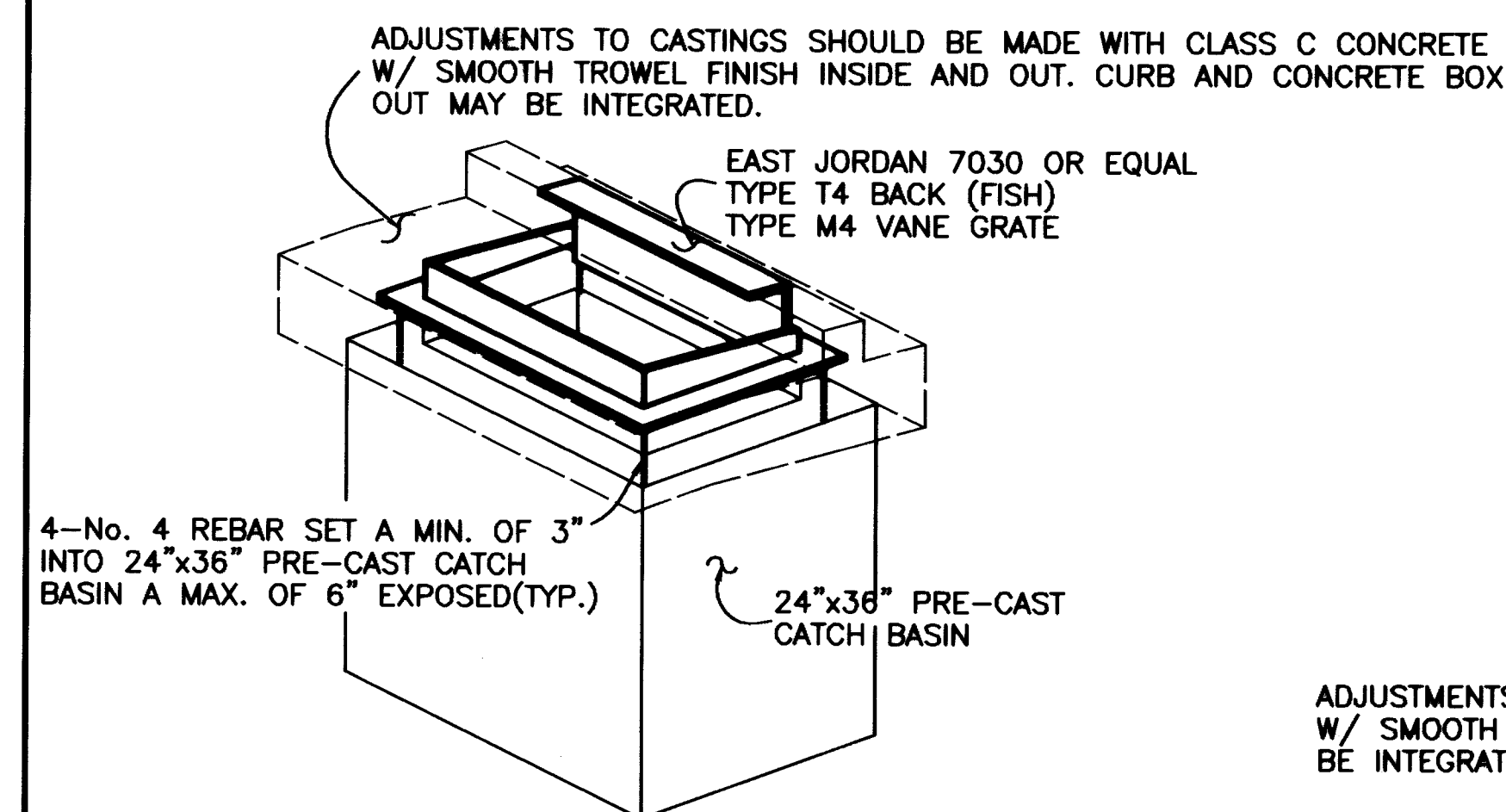
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| FPW        | SDH         |
| DATE:      | DATE:       |
| Aug., 2004 | Aug., 2004  |

**Lincoln Way West Rehabilitation**  
Lincoln Way West Cross Section (Sta. xx+xx to Sta. 255+50)  
City of Massillon  
Stark County, Ohio



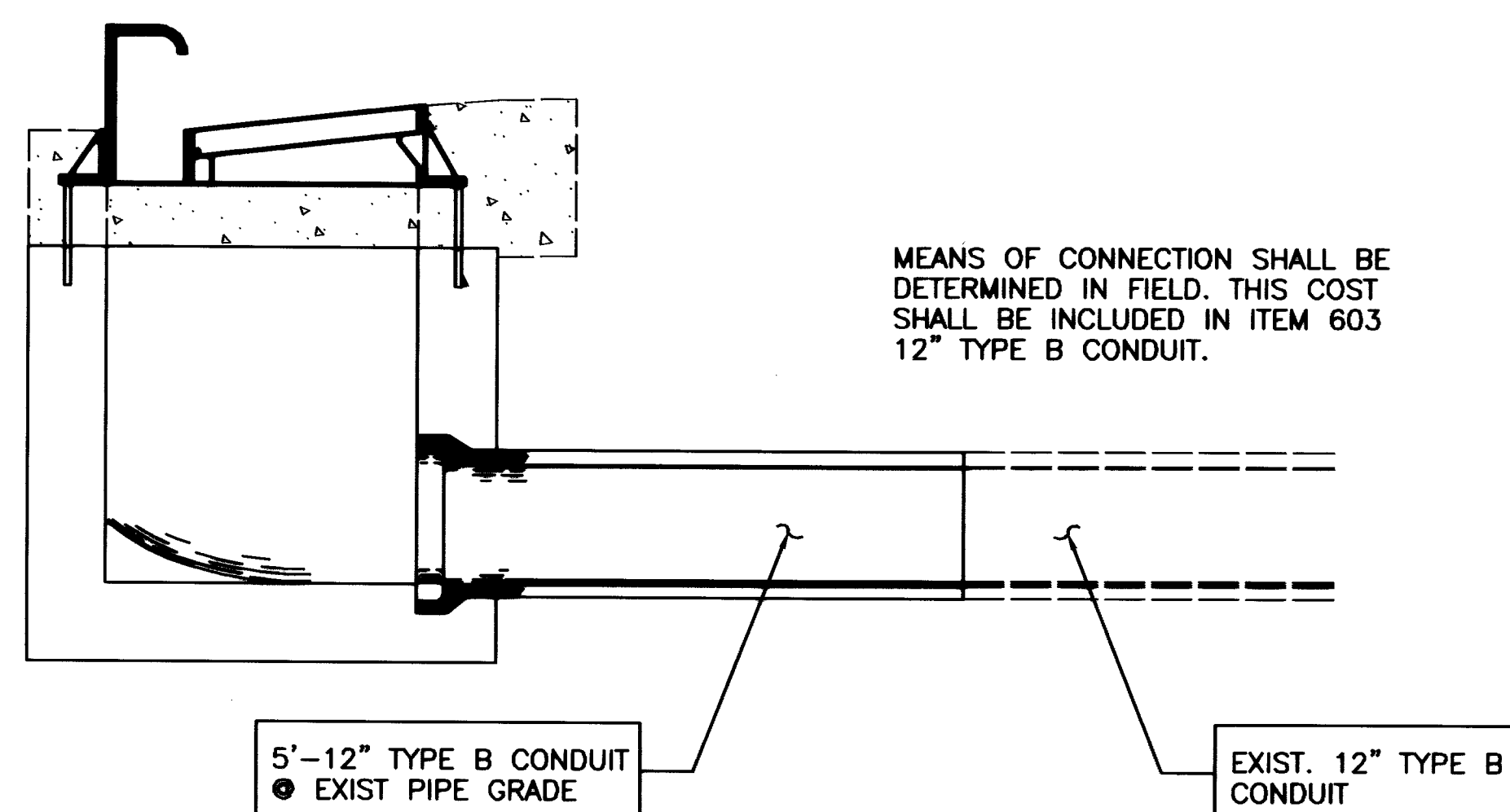
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03ST0381.DWG  
ACCOUNT NUMBER  
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### Massillon Manhole Casting Set

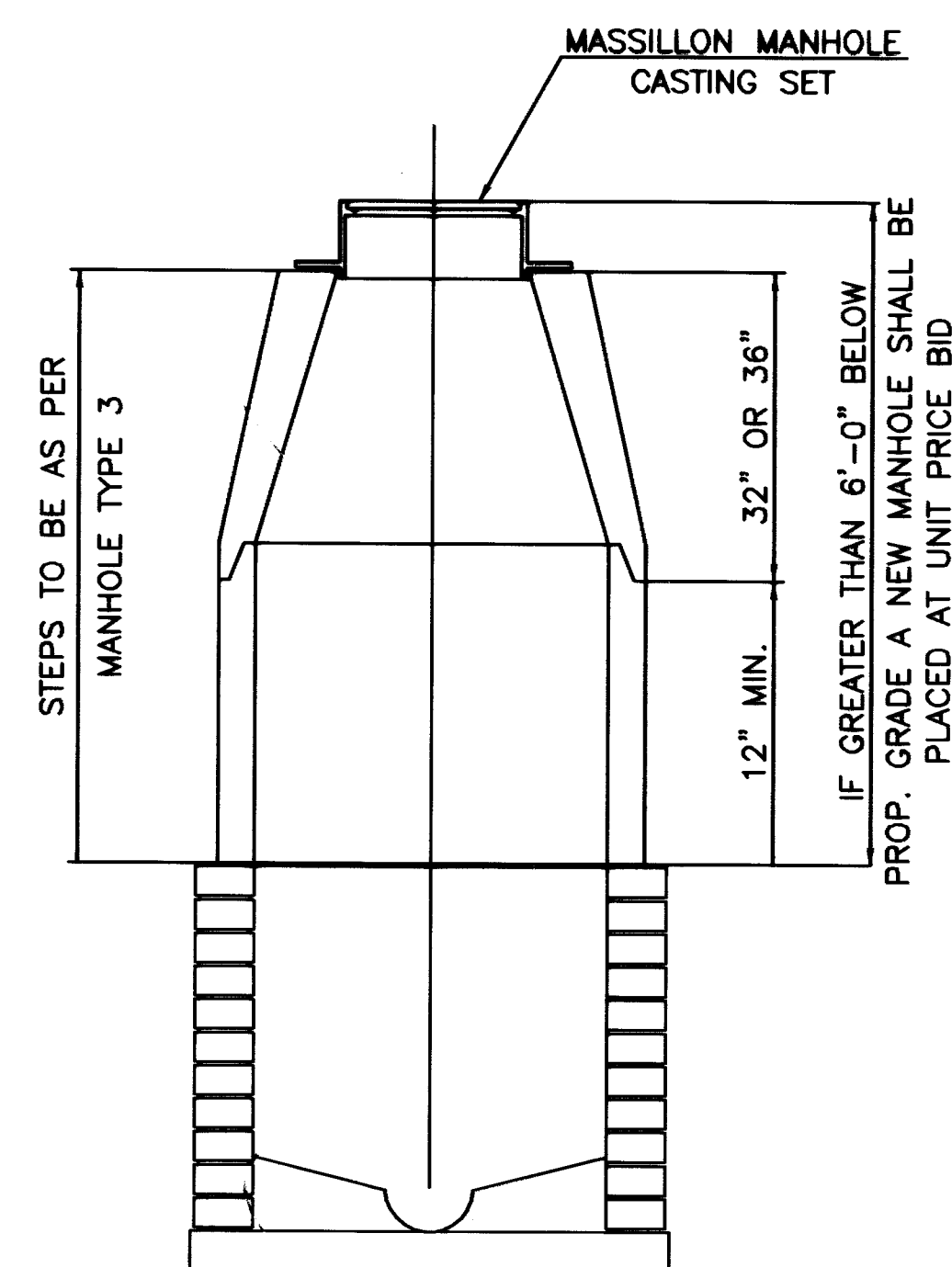
### Massillon Curb Inlet (MASS CI-1)



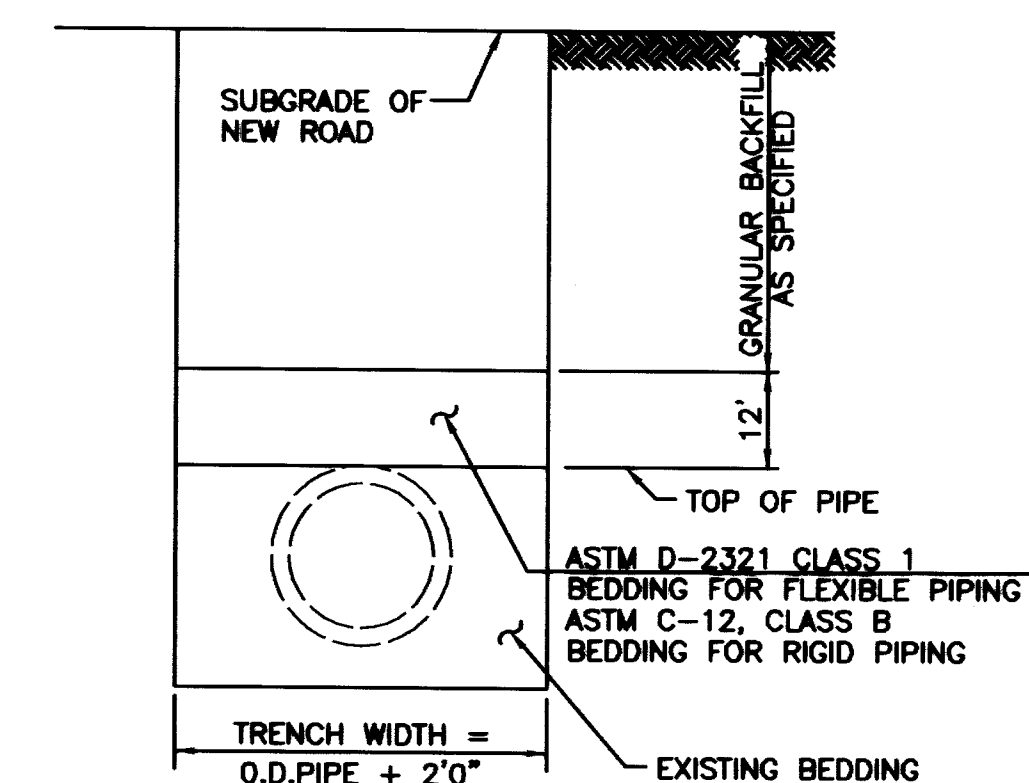
| REF.  | TYPE      | LOCATION          | T/C     | INVERTS |
|-------|-----------|-------------------|---------|---------|
| CB-41 | MASS CI-1 | 292+34.04, 18'LT. | 1011.92 | D.I.F.  |
| CB-42 | MASS CI-1 | 292+27.38, 18'RT. | 1012.23 | D.I.F.  |
| CB-43 | MASS CI-1 | 295+19.66, 18'LT. | 1001.49 | D.I.F.  |
| CB-44 | MASS CI-1 | 295+36.54, 18'RT. | 1000.97 | D.I.F.  |
| CB-45 | MASS CI-1 | 298+80.30, 18'LT. | 990.31  | D.I.F.  |
| CB-46 | MASS CI-1 | 298+80.87, 18'RT. | 990.30  | D.I.F.  |

D.I.F. - THE CONTRACTOR SHALL DETERMINED ALL INVERTS BASED ON EXISTING INFORMATION IN FIELD. BOTTOM OF CATCH BASIN SHALL BE EQUALED TO THE LOWEST PIPE.

### (MASS CI-1) INFORMATION NOT IN PROFILES OR DETAILS



### Massillon Manhole Rehabilitation



### Trench Rehabilitation

NOTES  
ALL PIPE JOINTS MUST BE FIXED AS DIRECTED IN FIELD

Lincoln Way West Rehabilitation

Details

City of Massillon

Stark County, Ohio

SCALE

VERTICAL

1" = 2.5'

HORIZONTAL

1" = 2'

DRAWN BY: FPW

DATE: May 27, 2003

CHECKED BY: SDH

DATE: June 11, 2003

Francis H. Cicchinetti, Jr.

Massillon

Means More!

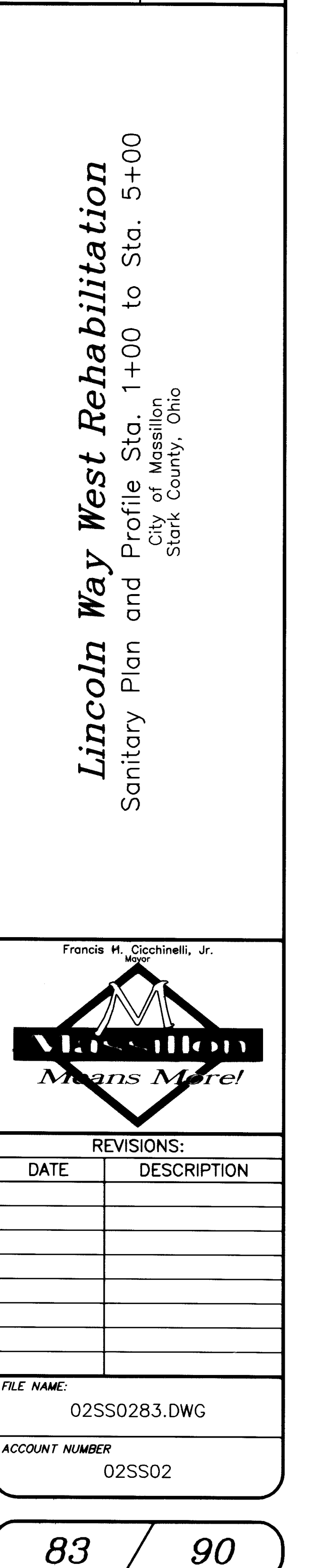
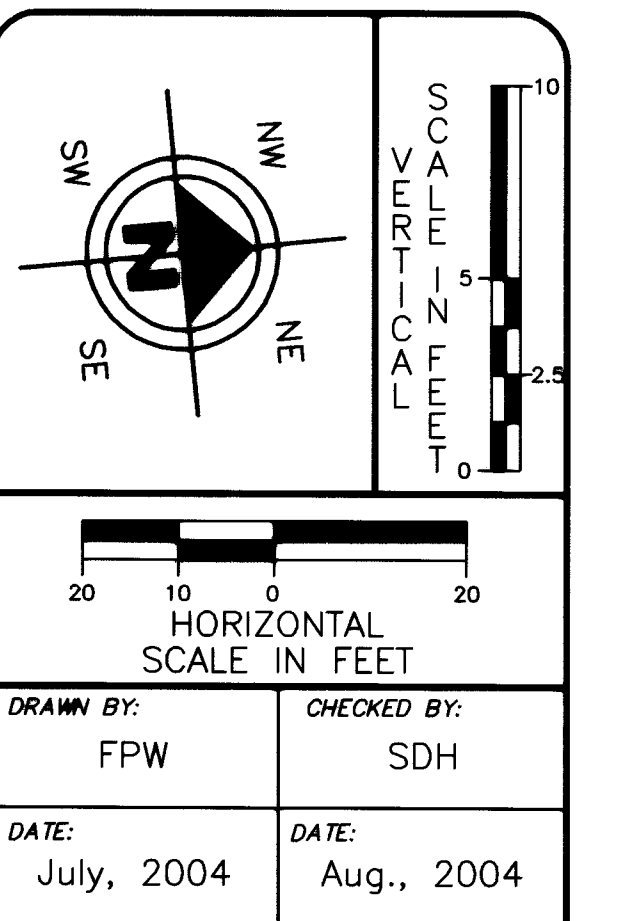
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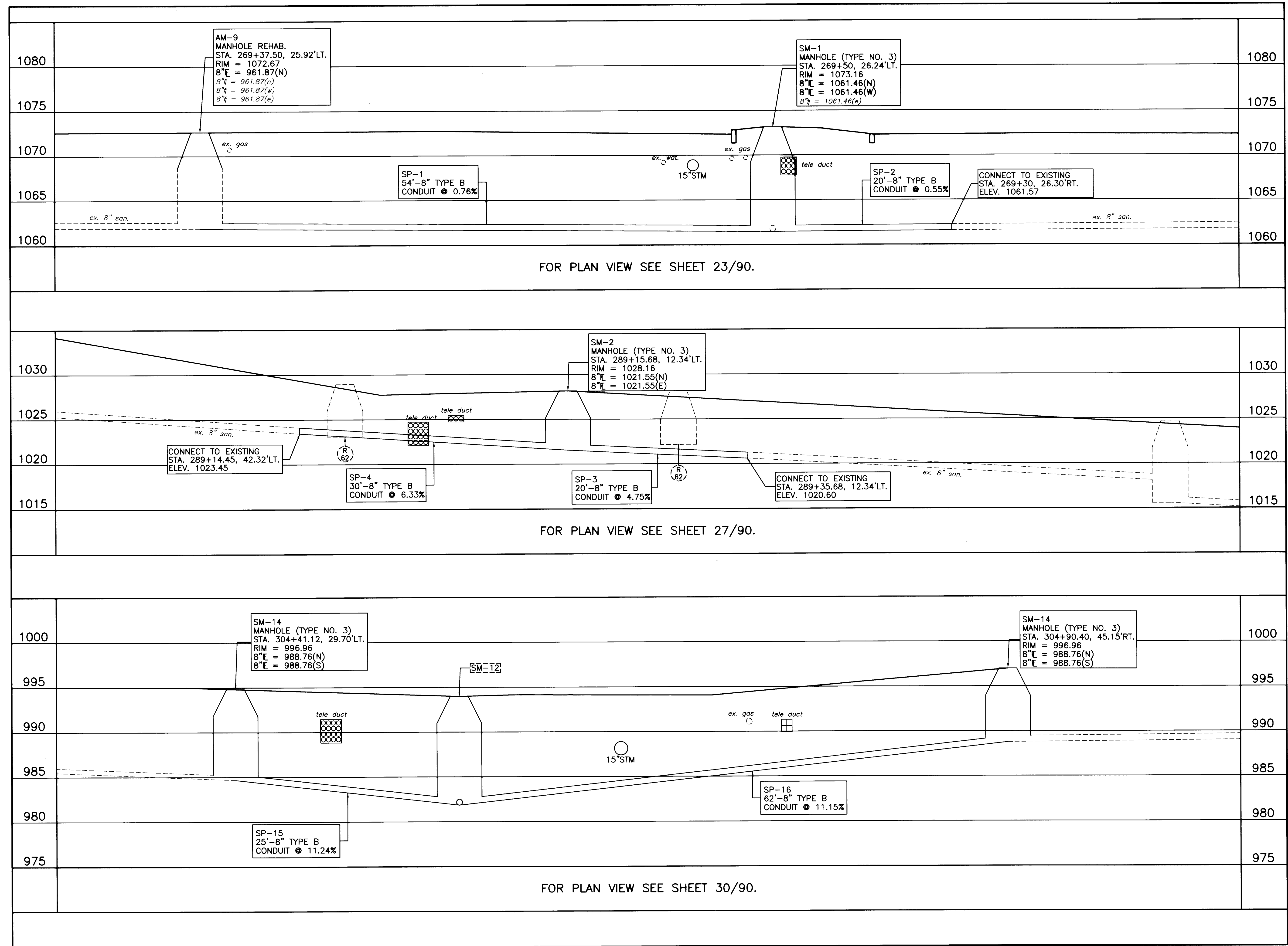
ELECTRONIC FILE NAME:

03ST0382.DWG

ACCOUNT NUMBER

03ST03





SCALE  
VERTICAL  
FOOT  
0 2.5 5 10

5 2.5 0 2.5 5  
 HORIZONTAL  
SCALE IN FEET

|                       |                        |
|-----------------------|------------------------|
| DRAWN BY:<br>FPW      | CHECKED BY:<br>SDH     |
| DATE:<br>May 27, 2003 | DATE:<br>June 11, 2003 |

### Lincoln Way West Rehabilitation

Lincoln Way West Drainage Details  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

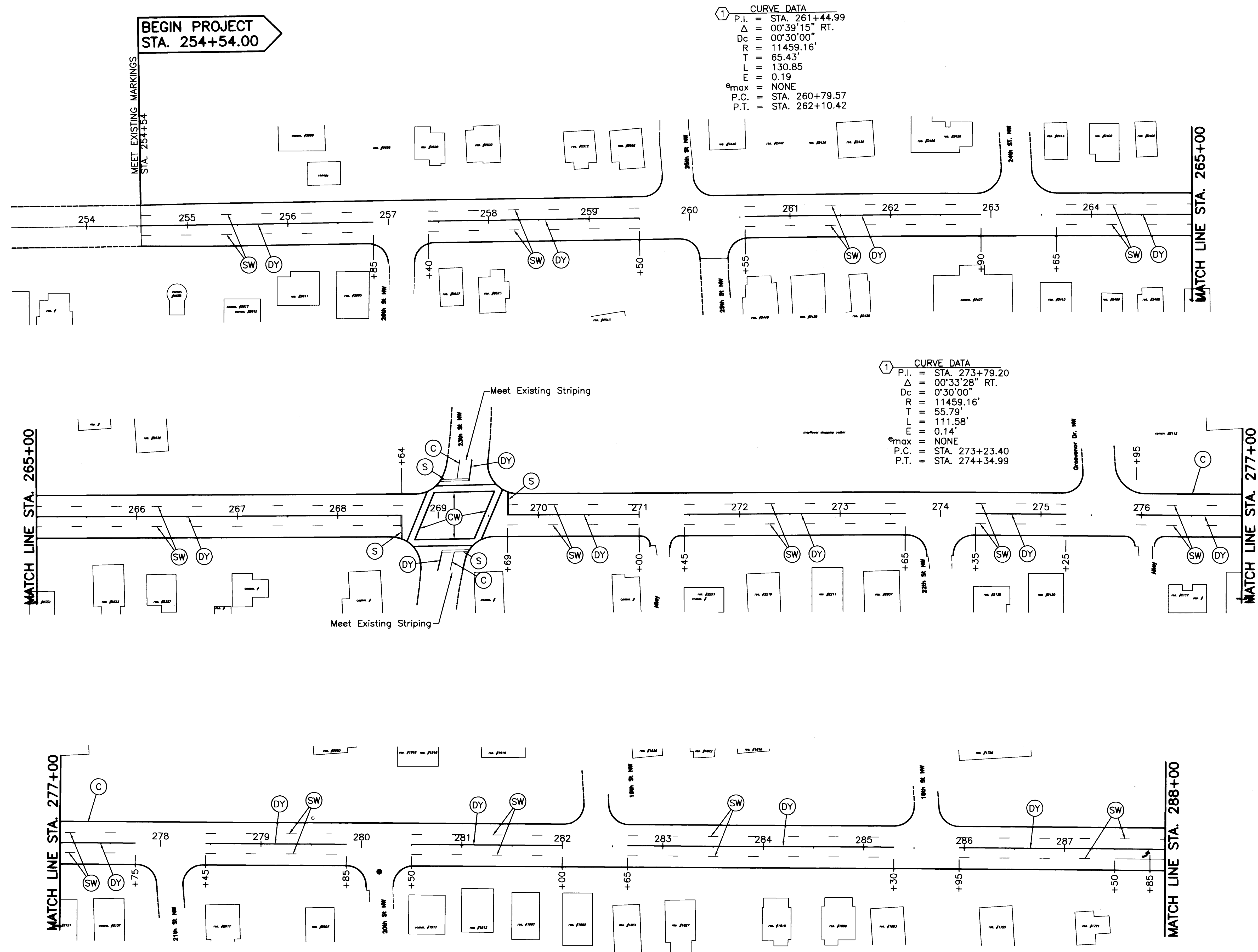
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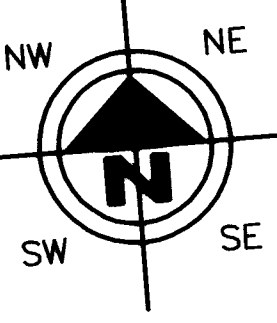
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ACCOUNT NUMBER  
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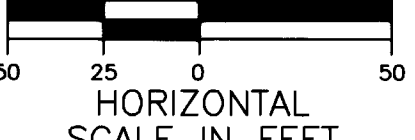
84a
90







NW NE  
SW SE



50 25 0 25 50  
HORIZONTAL SCALE IN FEET

|                        |                    |
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| DRAWN BY:<br>FPW       | CHECKED BY:<br>SDH |
| DATE:<br>June 11, 2003 | DATE:<br>June 2003 |

**Lincoln Way West Rehabilitation**  
 Striping Plan Sta. 254+00 to Sta. 288+00  
 City of Massillon  
 Stark County, Ohio

Francis H. Cicchinelli, Jr.  
 Mayor



**Massillon**  
Means More!

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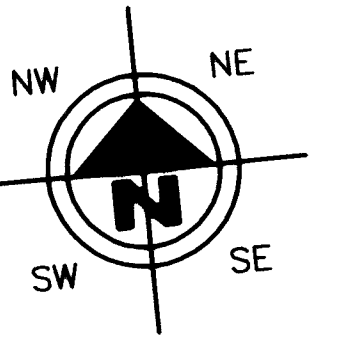
ACCOUNT NUMBER: 03ST03

85 / 90



# **LEGEND**

- (S) - 12" STOP LINE (WHITE) - 280 L.F.
- (C) - WIDE SOLID WHITE CHANNELIZING LINE (8") - 452 L.F.
- (CW) - SOLID WHITE CROSS WALK 6' APART (8") - 494 L.F.
- (DY) - TWO-DIRECTION, NO-PASSING MARKING (YELLOW)(4") - 0.58 Mi.
- (SY) - ONE-DIRECTION, NO-PASSING MARKING (YELLOW)(4") - 0.86 Mi.
- (SW) - DASHED WHITE LANE LINE(4") - 0.97 Mi.
- ↑ → - THERMOPLASTIC ARROWS - 32 Each
- W - THERMOPLASTIC WORD - 4 Each



|                        |                    |
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| DRAWN BY:<br>FPW       | CHECKED BY:<br>SDH |
| DATE:<br>June 11, 2003 | DATE:<br>June 2003 |

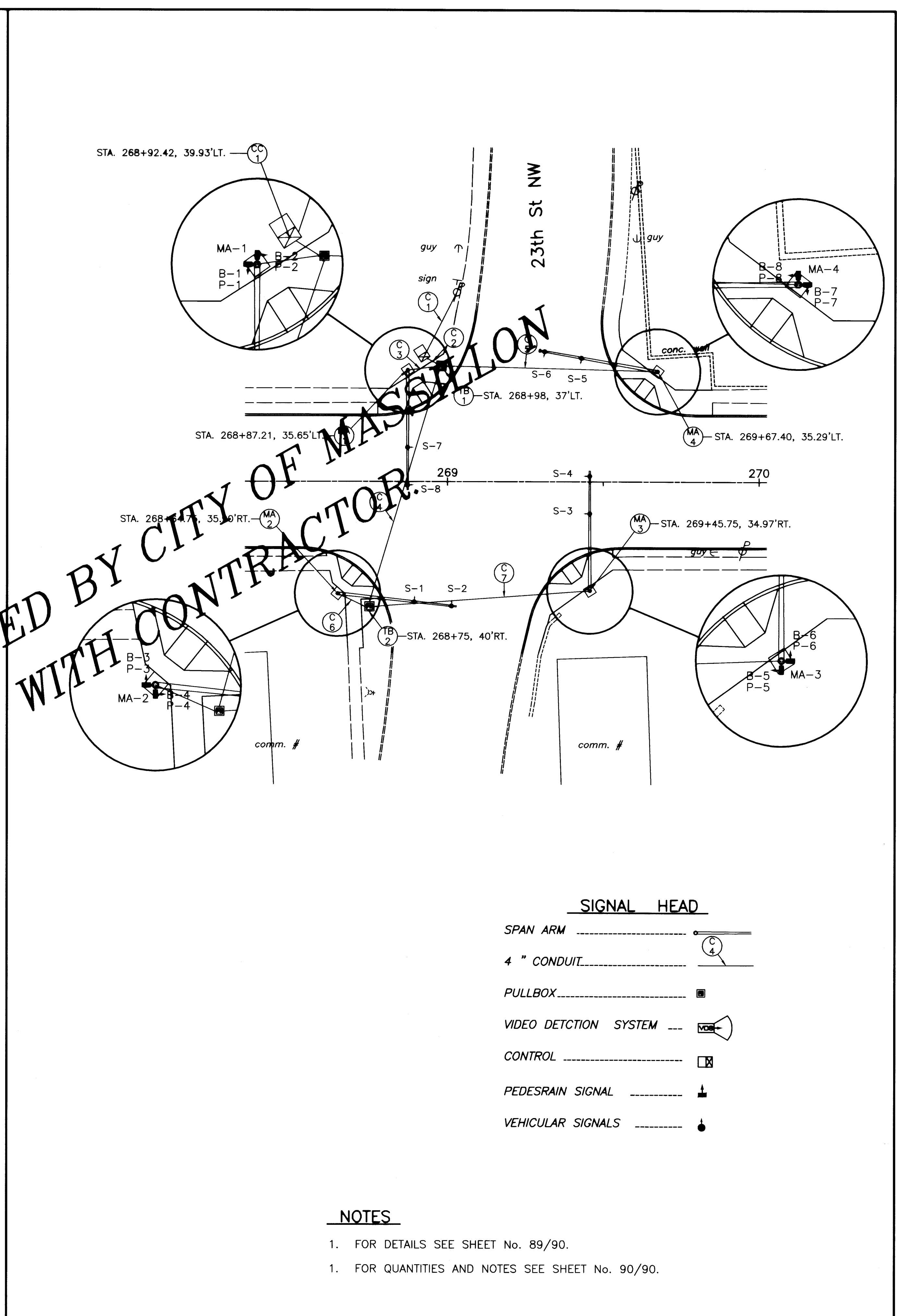
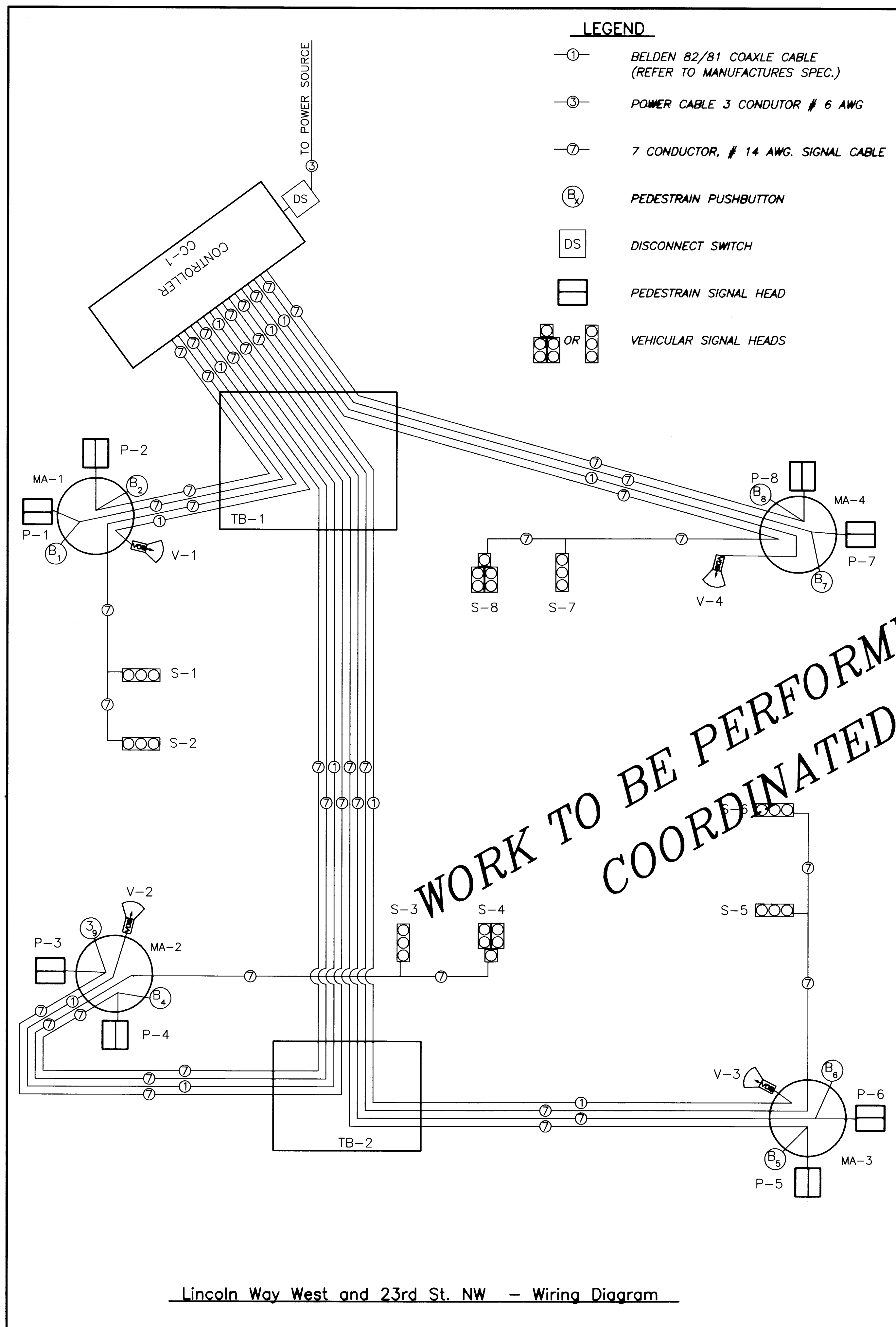
## **Lincoln Way West Rehabilitation** Striping Plan Sta. 288+00 to Sta. 319+00 City of Massillon Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor



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03ST0386.DWG  
ACCOUNT NUMBER  
03ST03



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HORIZONTAL SCALE IN FEET

DRAWN BY: FPW CHECKED BY: SDH

DATE: Aug., 2004 DATE: Aug., 2004

**Lincoln Way West Rehabilitation**  
23rd St. NW and Lincoln Way West Traffic Signal Plan  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

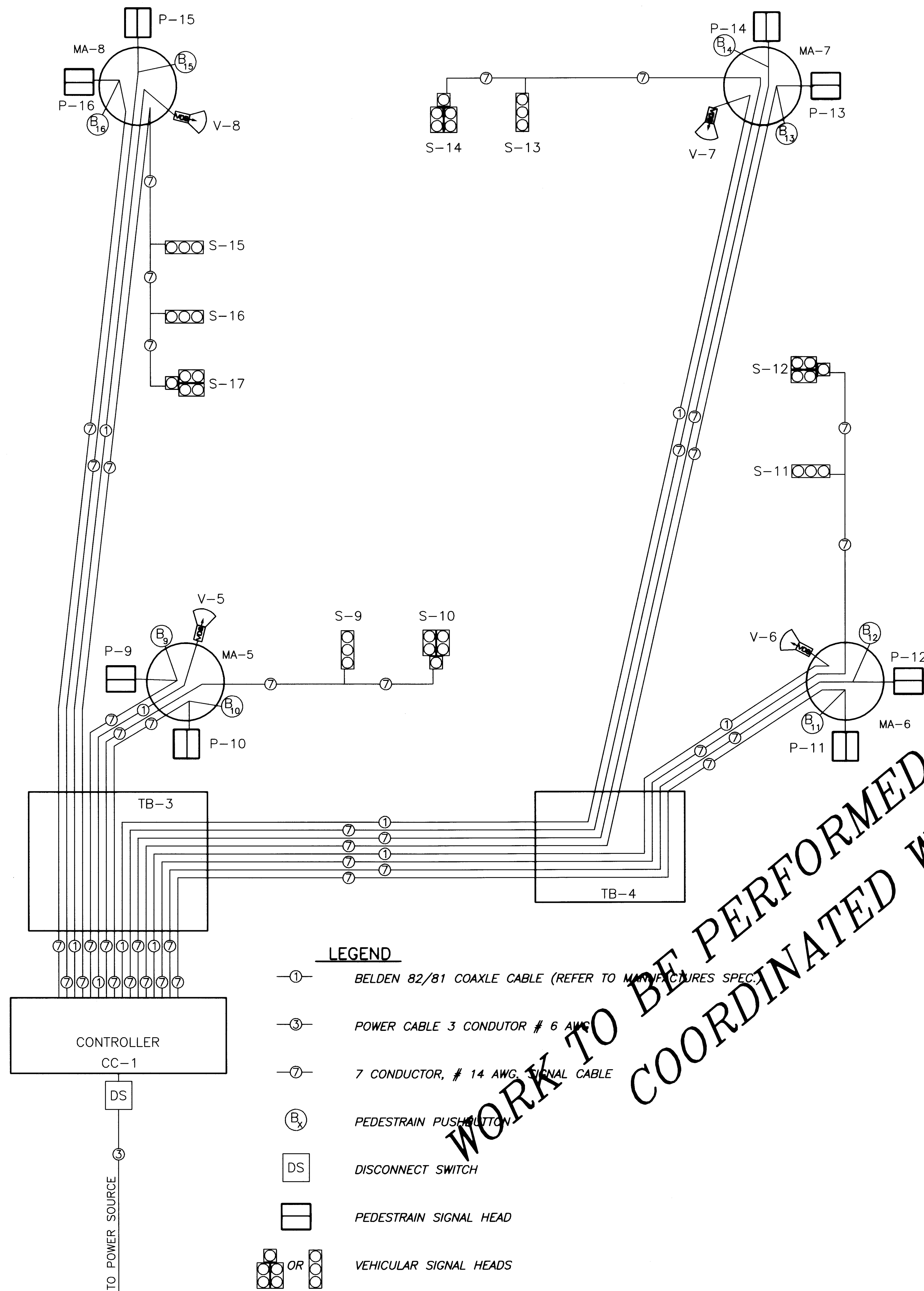
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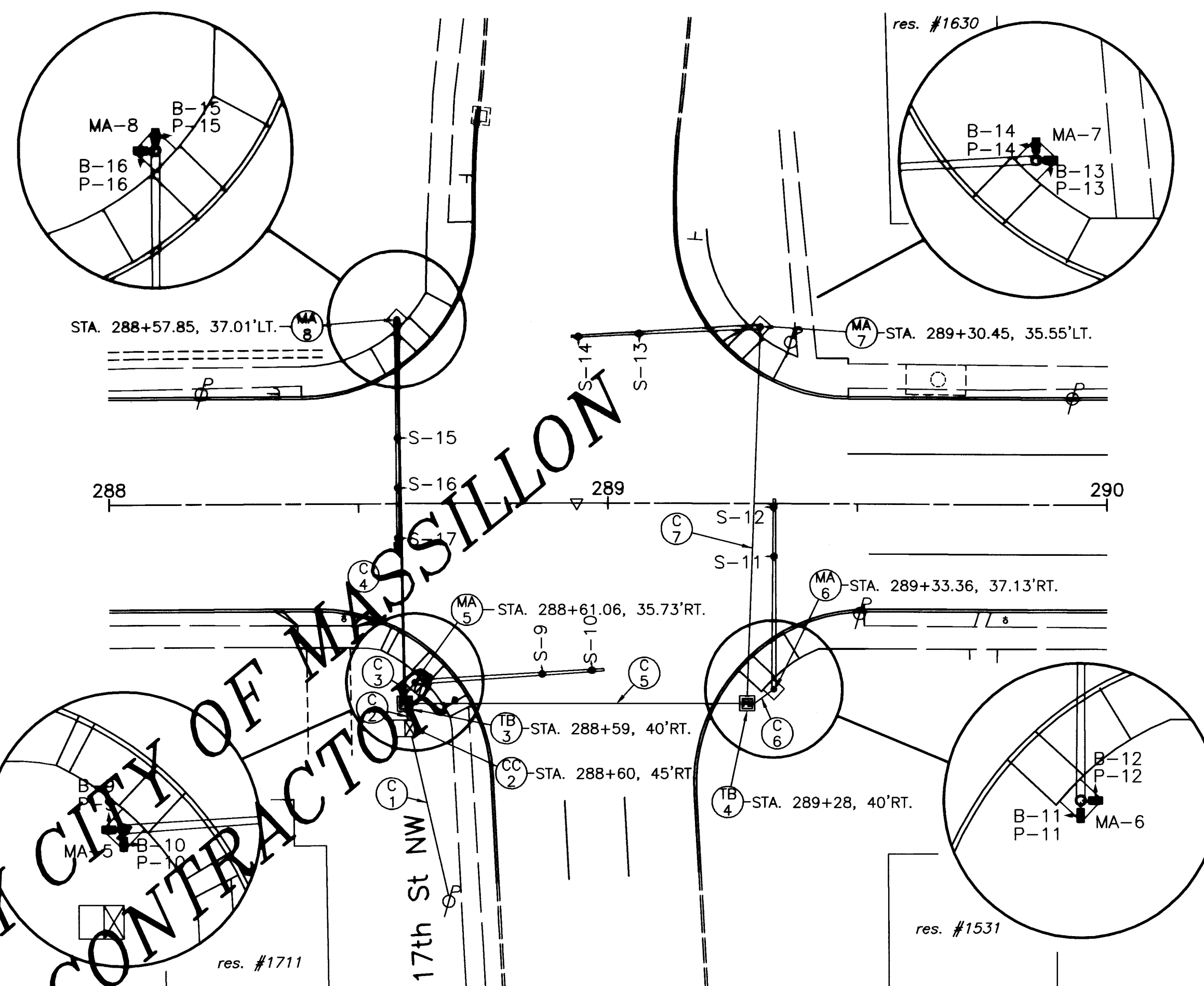
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ACCOUNT NUMBER: 03ST03

87 / 90



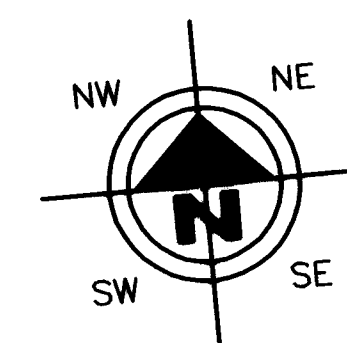
Lincoln Way West and 17th St. NW - Wiring Diagram



- LEGEND**
- SPAN ARM -----
  - 4" CONDUIT -----
  - PULLBOX -----
  - VIDEO DETECTION SYSTEM -----
  - CONTROL -----
  - PEDESTRAIN SIGNAL -----
  - VEHICULAR SIGNALS -----

**NOTES**

1. FOR DETAILS SEE SHEET No. 89/90.
1. FOR QUANTITIES AND NOTES SEE SHEET No. 90/90.

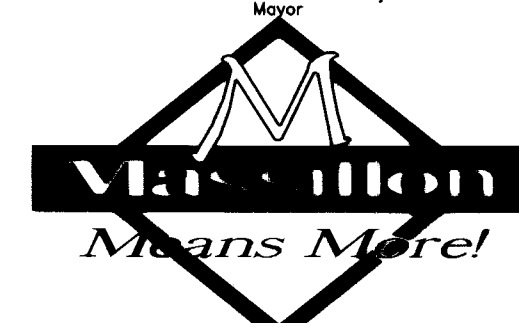


HORIZONTAL  
SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH  
DATE: Aug., 2004  
DATE: Aug., 2004

Lincoln Way West Rehabilitation  
17th St. NW and Lincoln Way West Traffic Signal Plan  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

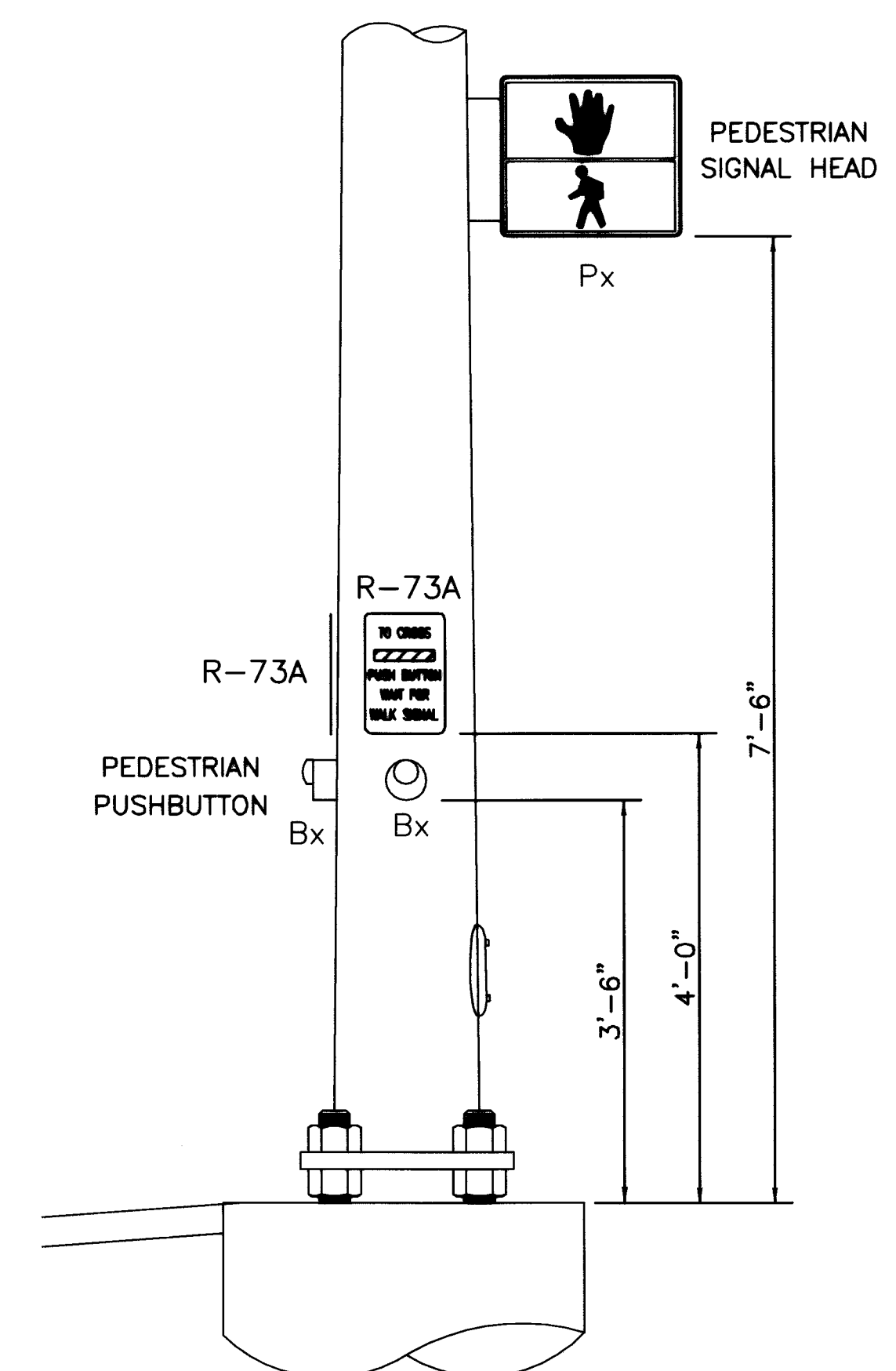
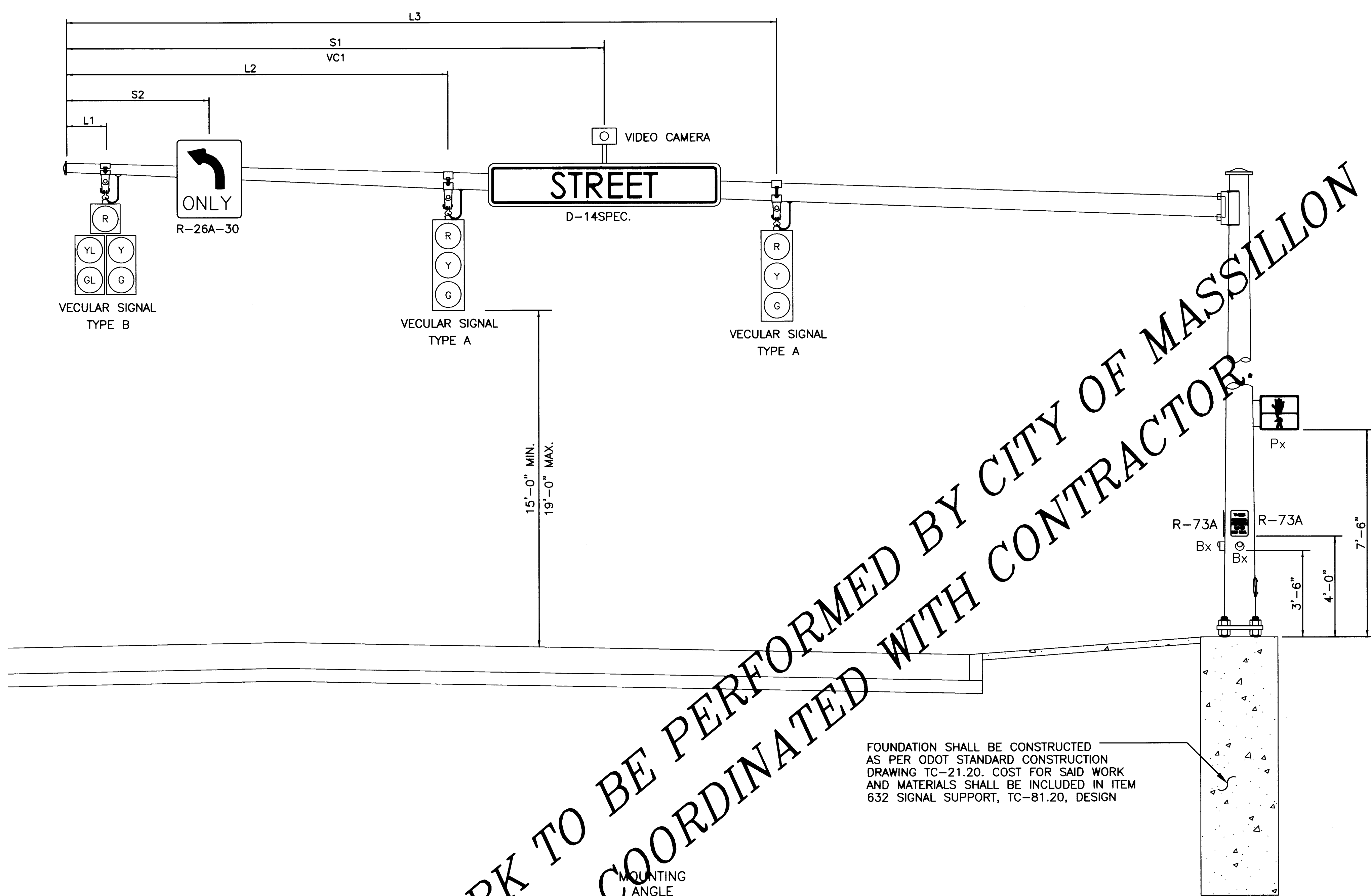


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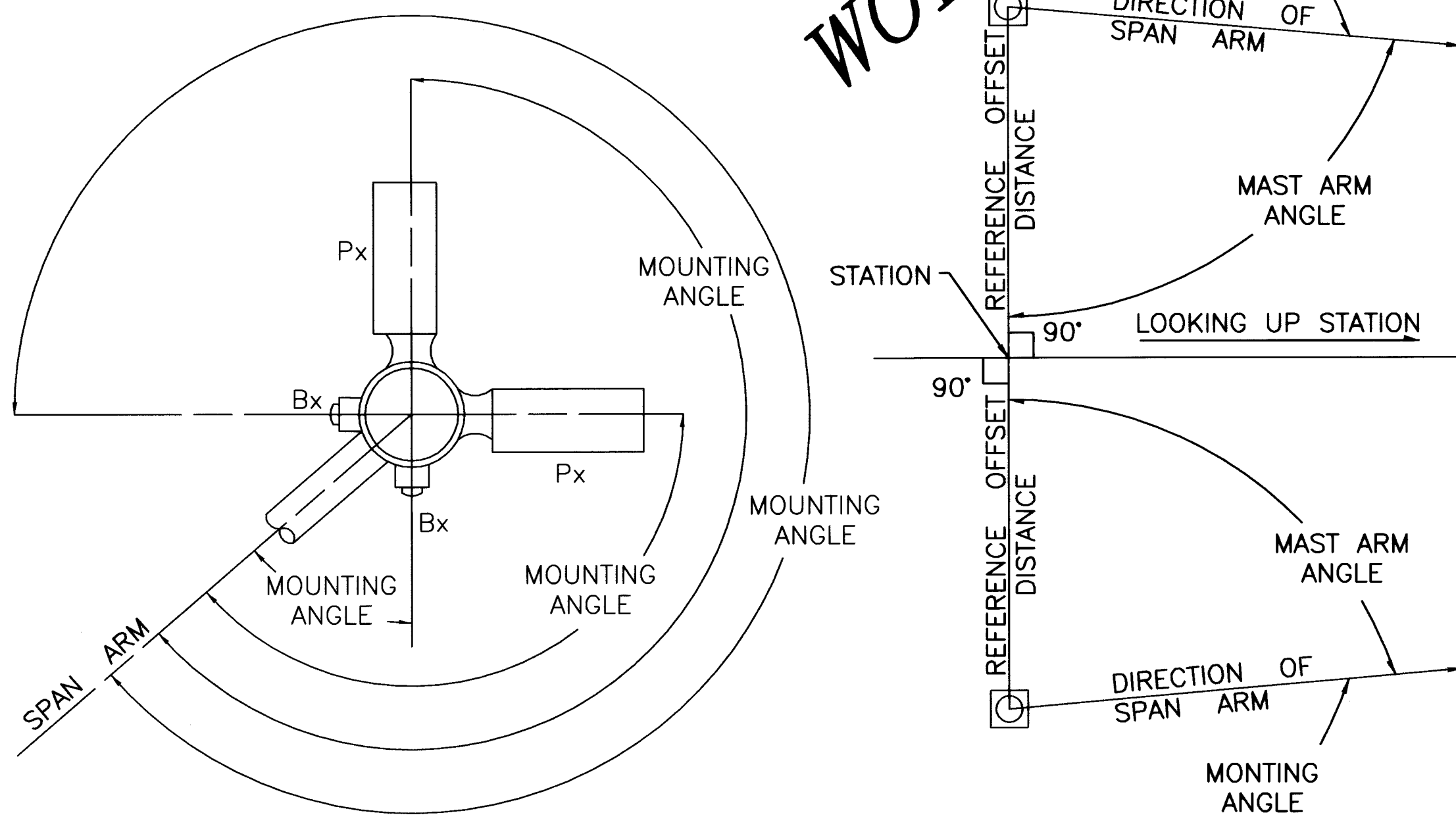
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03ST0388.DWG

ACCOUNT NUMBER  
03ST03



FOUNDATION SHALL BE CONSTRUCTED AS PER ODOT STANDARD CONSTRUCTION DRAWING TC-21.20. COST FOR SAID WORK AND MATERIALS SHALL BE INCLUDED IN ITEM 632 SIGNAL SUPPORT, TC-81.20, DESIGN

WORK TO BE PERFORMED BY CITY OF MASSILLON  
COORDINATED WITH CONTRACTOR.



| SIGNAL SUPPORT TC-81.20 (O.D.O.T. STANDARD CONSTRUCTION DRAWING) |               |                  |           |          |                 |                |                |       |       |              |      |                |      |      |      |              |
|------------------------------------------------------------------|---------------|------------------|-----------|----------|-----------------|----------------|----------------|-------|-------|--------------|------|----------------|------|------|------|--------------|
| SHEET                                                            | POLE REF. No. | ℄ OF CONST.      | STATION   | OFFSET   | POLE DESIGN No. | MAST ARM ANGLE | SIGNAL SPACING |       |       | SIGN SPACING |      | MOUNTING ANGLE |      |      |      | CAMERA MOUNT |
|                                                                  |               |                  |           |          |                 |                | L1             | L2    | L3    | S1           | S2   | Px             | Px   | Bx   | Bx   |              |
| 87                                                               | MA-1          | Lincoln Way West | 268+87.21 | 35.65'LT | 3               | 0°             |                | 1.5'  | 13.5' | 7.5'         |      | 180°           | 270° | 90°  | 0°   | 7.5'         |
| 87                                                               | MA-2          | Lincoln Way West | 268+64.75 | 35.90'RT | 3               | 96°09'43"      |                | 1.5'  | 13.5' | 7.5'         |      | 84°            | 174° | 246° | 354° | 7.5'         |
| 87                                                               | MA-3          | Lincoln Way West | 269+45.75 | 34.97'RT | 3               | 0°             |                | 1.5'  | 13.5' | 7.5'         |      | 90°            | 180° | 270° | 0°   | 7.5'         |
| 87                                                               | MA-4          | Lincoln Way West | 269+67.40 | 35.29'LT | 3               | 260°00'00"     |                | 1.5'  | 13.5' | 7.5'         |      | 179°           | 269° | 89°  | 359° | 7.5'         |
| 88                                                               | MA-5          | Lincoln Way West | 288+61.06 | 35.73'RT | 3               | 86°29'21"      | 1.5'           | 11.5' |       | 16.5'        | 4.5' | 93°            | 184° | 4°   | 273° | 16.5'        |
| 88                                                               | MA-6          | Lincoln Way West | 289+33.36 | 37.13'RT | 3               | 0°             | 1.5'           | 11.5' |       | 16.5'        | 4.5' | 89°            | 180° | 0°   | 270° | 16.5'        |
| 88                                                               | MA-7          | Lincoln Way West | 289+30.45 | 35.55'LT | 3               | 273°15'05"     | 1.5'           | 11.5' |       | 16.5'        | 4.5' | 180°           | 270° | 90°  | 0°   | 16.5'        |
| 88                                                               | MA-8          | Lincoln Way West | 288+57.85 | 37.01'LT | 11              | 0°             | 1.5'           | 11.5' | 21.5' | 16.5'        | 4.5' | 183°           | 273° | 93°  | 3°   | 16.5'        |
|                                                                  |               |                  |           |          |                 |                |                |       |       |              |      |                |      |      |      |              |

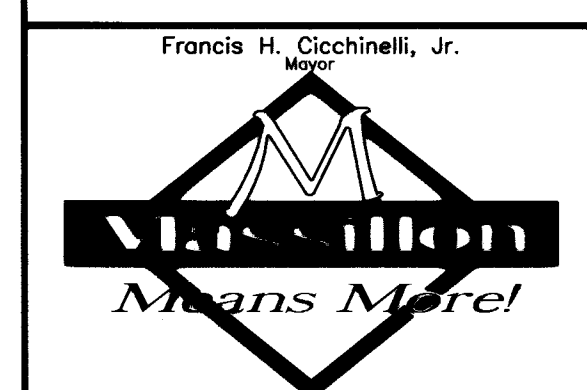
NOTE:  
1. ALL MOUNTING BRACKETS, HARDWARE, WIRING AND ASSEMBLY I.E. SHALL BE INCLUDED IN THE PERTINENT ITEM UNIT PRICE BID.  
2. FOUNDATIONS WITH ALL APPURTENANCES SHALL BE AS PER ODOT STANDARD CONSTRUCTION DRAWING TC-21.20. PAYMENT FOR SAID WORK SHALL BE INCLUDED IN ITEM 632 SIGNAL SUPPORT.

NOT TO SCALE  
HORIZONTAL SCALE IN FEET

DRAWN BY: FPW  
CHECKED BY: SDH

DATE: Aug., 2004  
DATE: Aug., 2004

Lincoln Way West Rehabilitation  
Traffic Signal Details  
City of Massillon  
Stark County, Ohio



| REVISIONS: |             |
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ACCOUNT NUMBER  
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630 SIGNING, MISC: STREET NAME SIGN, MAST ARM MOUNTED

STREET NAME SIGNS SHALL BE SINGLE SIDED ON AN ALUMINUM SIGN BLANK, 3M SERIES 3990 VIP DIAMOND GRADE (OR APPROVED EQUAL) REFLECTIVE WHITE SHEETING WITH 3M ELECTROCUTE FILM, SERIES 1170 (OR APPROVED EQUAL) SHALL BE USED, (EC FILM COLOR: 1175-FHWA BLUE) A WHITE BORDER SHALL BE USED, WHERE LARGE QUANTITIES OF A SINGLE SIGN ARE TO BE MANUFACTURED, THE SIGN FABRICATOR MAY USE A SILK SCREENING PROCESS USING 3M 8831 BLUE INK IN LIEU OF EC FILM, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

BACK GROUND = BLUE  
OUTLINE = WHITE  
LETTERS = WHITE

STREET NAME LEGENDS, PREFIXES, AND SUFFIXES SHALL BE PRINTED IN UPPER/LOWER CASE SERIES "C" LETTERING, GOTHIC FONT STYLE. LEGENDS, PREFIXES, AND SUFFIXES SHALL BE CENTERED HORIZONTALLY AND VERTICALLY. THE STREET NAME SIGNS SHALL HAVE A STANDARD FONT HEIGHT OF 12" WITH A SIGN HEIGHT OF 20". THE NUMBER OF LETTERS IN THE STREET NAME, INCLUDING PREFIXES AND SUFFIXES, SHALL DETERMINE THE SIGN LENGTH. THE NAMEPLATE SHALL HAVE A MINIMUM LENGTH OF 72" WITH A MAXIMUM LENGTH OF 108"

IF LETTERING WILL NOT FIT ON MAXIMUM BLADE LENGTH, SERIES "B" LETTERING AND/OR SMALLER LETTERING SHALL BE USED, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

TWO CANTILEVERED BRACKETS AND DOUBLE TEE STIFFENERS (SIGN-FIX, ACCESSORIES SQUARED, OR APPROVED EQUAL) SHALL BE USED FOR EACH STREET NAME SIGN. STANDARD SQUARE BRACKETS SHALL BE USED FOR ALL UNSIGNALIZED INSTALLATIONS, AND ROUND BRACKETS SHALL BE USED FOR ALL SIGNALIZED INSTALLATIONS.

THE STREET NAME SIGN INSTALLATION FOR A SIGNALIZED INTERSECTION SHALL BE A 15-FOOT VERTICAL CLEARANCE BETWEEN ADJACENT TOP OF CURB OR PAVEMENT LEVEL AND BOTTOM OF LOWEST SIGN. THERE SHALL BE TWO PAIRS OF SIGNS PER EACH INTERSECTION.

PAYMENT FOR THE STREET NAME SIGNS SHALL BE PER EACH AND SHALL INCLUDE BRACKETS, STIFFENERS, AND ALL INCIDENTAL HARDWARE NEEDED TO MOUNT THE SIGN ON A SUPPORT.

THE SIGN FABRICATOR MUST SUBMIT THE PRELIMINARY LAYOUT OF THE STREET NAME SIGNS TO THE CITY OF MASSILLON, (PHONE 330-832-1176) BEFORE MANUFACTURING THE SIGNS.

632. REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH CMS ITEM 632.25 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE STORED ON THE PROJECT FOR SALVAGE BY:

CITY OF MASSILLON, OHIO  
ATTENTION: JOHN HAUSER  
PHONE : 330-832-1176

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE LOCAL AGENCY ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

VEHICULAR SIGNAL HEAD, 3 SECTION, 5 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN

CMS ITEM 732.01 IS MODIFIED FOR THIS PROJECT AS FOLLOWS:

- SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS
- GLASS LENSES SHALL BE USED
- PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM
- PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING

632 PEDESTRIAN PUSH BUTTON, AS PER PLAN

IN ORDER TO CONFORM TO THE AMERICAN WITH DISABILITIES ACT (ADA) THE REQUIREMENTS OF CMS ITEMS 632.08 AND 732.06 ARE MODIFIED AS FOLLOWS:

- THE MAXIMUM FORCE REQUIRED TO OPERATE THE PUSH BUTTON SHALL BE 5 POUNDS PER FOOT
- THE PUSH BUTTON SHALL BE RAISED OR FLUSH AND SHALL BE A MINIMUM OF 2 INCHES AT ITS SMALLEST DIMENSION

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 180 DAYS FOLLOWING COMPLETION OF ODOT'S CMS 632.27 TESTS. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT MATERIAL, AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, INTERCONNECTION ITEMS AND MASTER CONTROL EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

632 POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL BE AS PER CMS ITEMS 632 AND SCD TC-83.10 WITH THE FOLLOWING EXCEPTIONS:

- THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN 5 FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND
- THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES
- ALL POWER SERVICES SHALL BE METERED. THE METER SHALL HAVE A LEVEL OPERATED BYPASS

DISCONNECT SWITCH ENCLOSURES FURNISHED IN ACCORDANCE WITH CMS ITEM 632 POWER SERVICE, AS PER PLAN, SHALL INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660, WITH LOCK BODY OF BRASS OR BRASS AND KEYING SHALL BE TO THE STATE AND OR CITY MASTER.

THE CONTRACTOR SHALL CONTACT THE METER SECTION OF THE POWER COMPANY FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120 VOLTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY OF ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY MAINTAINING AGENCY.

632 PEDESTRIAN SIGNAL HEADS, TYPE D2

PEDESTRIAN SIGNAL HEADS SHALL BE LED SYMBOLIC UNITS, FULLY FILLED HAND/MAN DISPLAY, MODEL #2225 WHICH IS MADE PRECISION SOLAR CONTROLS, OR SIMILAR. HEADS SHALL BE DARK BRONZE AND SHALL BE MOUNTED ON DARK BRONZE, TWO-HANDED TYPE BRACKETS WHICH ARE BOLTED OR Banded (2 BANDS PER BRACKET) TO THE STRAIN POLE OR CENTER MOUNTED WITH A SLIP FITTER TO THE TOP OF THE PEDESTAL POLE. THE HOUSING SHALL BE FIELD DRILLED AND REINFORCED (MANUFACTURER TO SUPPLY REINFORCEMENT) SO IT FITS TO THE HINGED BRACKET.

WHEN TWO PEDESTRIAN HEADS ARE ATTACHED TO A SINGLE POLE, THE BOTTOM OF THE MAINLINE HEAD SHALL BE MOUNTED AS SHOWN ON SHT. 89/90 OF THE PLAN SET AND THE SECOND SIDE STREET HEAD MOUNTED ONE-HALF ITS HOUSING HEIGHT ABOVE THE FIRST. THE BRACKETS SHALL BE HINGED TO ALLOW THE PEDESTRIAN HEADS TO SWING AWAY FROM EACH OTHER.

THE DISPLAY, CONTAINED IN A SINGLE FACE, SHALL BE CHANGEABLE BETWEEN THAT OF A HAND AND A WALKING MAN. EACH DISPLAY SHALL BE COMPLETELY FILLED TO FORM A SOLID IMAGE. THE DISPLAYS SHALL GENERALLY CONFORM TO THE REQUIREMENTS OF THE ITE SPECIFICATION "VEHICLE TRAFFIC CONTROL SIGNAL HEADS-PART 2, LIGHT EMITTING DIODE (LED) VEHICLE SIGNAL MODULES" IN TERMS OF CONSTRUCTION, ENVIRONMENTAL REQUIREMENTS, ELECTRICAL OPERATING REQUIREMENTS, AND QUALITY ASSURANCE.

CHROMATICITY REQUIREMENTS SHALL BE AS FOLLOWS:

HAND DISPLAY: 605 NM  
WALKING MAN DISPLAY: XY .33

LOAD SWITCH COMPATIBILITY  
AT LEAST TWO OF THE FURNISHED PEDESTRIAN HEADS SHALL BE TESTED FOR COMPATIBILITY WITH THE LOAD SWITCHES FURNISHED WITH THE CONTROLLER CABINET. EACH SIGNAL MODULE SHALL BE CONNECTED TO AN AC VOLTAGE SUPPLY BETWEEN THE VALUES OF 80 VAC AND 135 VAC, AND THE LINE CURRENT SHALL BE MEASURED UNDER CONDITIONS WHERE THE LED SIGNAL MODULE HAS THE MINIMUM POWER CONSUMPTION. WITHIN EACH HALF LINE CYCLE, THE LOAD CURRENT SHALL AFTER REACHING 150mA REMAIN CONTINUOUSLY ABOVE 100mA FOR A TIME SPAN LONG ENOUGH TO ENSURE THAT THE RMS LOAD CURRENT DURING THIS TIME SPAN IS AT LEAST 50% OF THE TOTAL RMS LOAD CURRENT.

WARRANTY  
ALL WARRANTIES SHALL BE ASSIGNED TO THE CITY OF MASSILLON. ALL WARRANTY INFORMATION SHALL BE TURNED OVER TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THE PROJECT.

LED SIGNAL MODULES SHALL BE REPLACED OR REPAIRED IF AN LED SIGNAL MODULE FAILS TO FUNCTION AS INTENDED DUE TO WORKMANSHIP OF MATERIAL DEFECTS WITHIN THE FIRST 60 MONTHS FROM THE DATE OF ACCEPTANCE.

LED SIGNAL MODULES WHICH EXHIBIT A LOSS IN LUMINOUS INTENSITIES NOTICEABLE TO THE CITY ENGINEER, WHEN OPERATED WITHIN THE RANGE OF VOLTAGES SPECIFIED BY ITE, WITHIN THE FIRST 36 MONTHS FROM THE DATE OF ACCEPTANCE SHALL BE REPLACED OR REPAIRED AT NO EXPENSE TO THE CITY.

| SHT No.                           | REF. No. | SIDE    | STATION            |           | 632                     | 632                | 632                               | 632                     | 632                     | 725                             | 725                             | 633                                       | 632SPEC                | 725        | 630        | 630           | 630            | 632                                |
|-----------------------------------|----------|---------|--------------------|-----------|-------------------------|--------------------|-----------------------------------|-------------------------|-------------------------|---------------------------------|---------------------------------|-------------------------------------------|------------------------|------------|------------|---------------|----------------|------------------------------------|
|                                   |          |         | FROM               | TO        | PEDS- TRAIN PUSH-BUTTON | PEDS- TRAIN SIGNAL | SIGNAL SUPPORT TC-81.20 DESIGN, 3 | VEHICULAR SIGNAL TYPE A | VEHICULAR SIGNAL TYPE B | 18"x18" TRAFFIC PULLBOX, 725.07 | 24"x24" TRAFFIC PULLBOX, 725.07 | CONTROLLER W/ CABINET FOUNDATION WORK PAD | VIDEO DETECTION SYSTEM | 4" CONDUIT | D-14 SPEC. | R-73A-9 SPEC. | R-26A-30 SPEC. | SIGNAL SUPPORT TC-81.20 DESIGN, 11 |
| 87                                | MA-1     | LT.     | 268+87.21          |           | 2                       | 2                  | 1                                 | 2                       |                         |                                 |                                 |                                           |                        |            | 1          | 2             |                |                                    |
| 87                                | MA-2     | RT.     | 268+64.75          |           | 2                       | 2                  | 1                                 | 2                       |                         |                                 |                                 |                                           |                        |            | 1          | 2             |                |                                    |
| 87                                | MA-3     | RT.     | 269+45.75          |           | 2                       | 2                  | 1                                 | 2                       |                         |                                 |                                 |                                           |                        |            | 1          | 2             |                |                                    |
| 87                                | MA-4     | LT.     | 269+67.40          |           | 2                       | 2                  | 1                                 | 2                       |                         |                                 |                                 |                                           |                        |            | 1          | 2             |                |                                    |
| 87                                | TB-1     | LT.     | 268+98             |           |                         |                    |                                   |                         |                         |                                 | 1                               |                                           |                        |            |            |               |                |                                    |
| 87                                | TB-2     | RT.     | 268+75             |           |                         |                    |                                   |                         |                         | 1                               |                                 |                                           |                        |            |            |               |                |                                    |
| 87                                | C-1      | LT.     | POWER              | 266+92.42 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 25         |            |               |                |                                    |
| 87                                | C-2      | LT.     | 266+92.42          | 268+98    |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 8          |            |               |                |                                    |
| 87                                | C-3      | LT.     | 268+98             | 268+87.21 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 11         |            |               |                |                                    |
| 87                                | C-4      | RT./LT. | 268+98             | 268+75    |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 83         |            |               |                |                                    |
| 87                                | C-5      | LT.     | 268+98             | 269+67.40 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 70         |            |               |                |                                    |
| 87                                | C-6      | RT.     | 268+75             | 268+64.75 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 12         |            |               |                |                                    |
| 87                                | C-7      | RT.     | 268+75             | 269+45.75 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 73         |            |               |                |                                    |
| 87                                | CC-1     | LT.     | 268+92.42          |           |                         |                    |                                   |                         |                         |                                 |                                 | 1                                         |                        |            |            |               |                |                                    |
|                                   | V?       | RT./LT. | INTERSECTION 23RD. |           |                         |                    |                                   |                         |                         |                                 |                                 |                                           | 1                      |            |            |               |                |                                    |
| 88                                | MA-5     | LT.     | 288+61.06          |           | 2                       | 2                  | 1                                 | 1                       | 1                       |                                 |                                 |                                           |                        |            | 1          | 2             | 1              |                                    |
| 88                                | MA-6     | RT.     | 289+33.36          |           | 2                       | 2                  | 1                                 | 1                       | 1                       |                                 |                                 |                                           |                        |            | 1          | 2             | 1              |                                    |
| 88                                | MA-7     | RT.     | 289+30.45          |           | 2                       | 2                  | 1                                 | 1                       | 1                       |                                 |                                 |                                           |                        |            | 1          | 2             | 1              |                                    |
| 88                                | MA-8     | LT.     | 288+57.85          |           | 2                       | 2                  |                                   | 2                       | 1                       |                                 |                                 |                                           |                        |            | 1          | 2             | 1              | 1                                  |
| 88                                | TB-3     | LT.     | 288+59             |           |                         |                    |                                   |                         |                         |                                 | 1                               |                                           |                        |            |            |               |                |                                    |
| 88                                | TB-4     | RT.     | 289+28             |           |                         |                    |                                   |                         |                         | 1                               |                                 |                                           |                        |            |            |               |                |                                    |
| 88                                | C-1      | LT.     | POWER              | 288+60    |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 36         |            |               |                |                                    |
| 88                                | C-2      | LT.     | 288+60             | 288+59    |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 5          |            |               |                |                                    |
| 88                                | C-3      | LT.     | 288+59             | 288+61.06 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 5          |            |               |                |                                    |
| 88                                | C-4      | RT./LT. | 288+59             | 288+57.85 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 78         |            |               |                |                                    |
| 88                                | C-5      | LT.     | 288+59             | 289+28    |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 69         |            |               |                |                                    |
| 88                                | C-6      | RT.     | 289+28             | 289+33.36 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 6          |            |               |                |                                    |
| 88                                | C-7      | RT.     | 289+28             | 289+30.45 |                         |                    |                                   |                         |                         |                                 |                                 |                                           |                        | 76         |            |               |                |                                    |
| 88                                | CC-2     | RT.     | 288+60             |           |                         |                    |                                   |                         |                         |                                 |                                 | 1                                         |                        |            |            |               |                |                                    |
| 88                                | V?       | RT./LT. | INTERSECTION 17th  |           |                         |                    |                                   |                         |                         |                                 |                                 |                                           | 1                      |            |            |               |                |                                    |
| TOTALS CARRIED TO GENERAL SUMMARY |          |         |                    |           | 16                      | 16                 | 7                                 | 13                      | 4                       | 2                               | 2                               | 2                                         | 2                      | 557        | 8          | 16            | 4              | 1                                  |

DRAWN BY:  
FPW

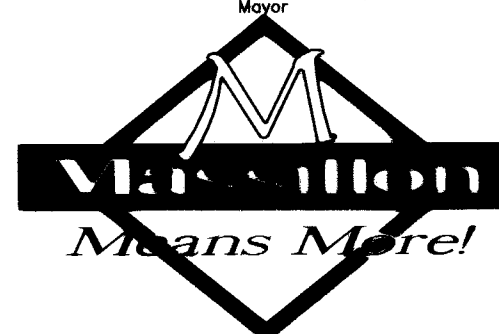
CHECKED BY:  
SDH

DATE:  
May 27, 2003

DATE:  
June 11, 2003

Lincoln Way West Rehabilitation  
Traffic Control Notes and Quantities  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.



REVISIONS:

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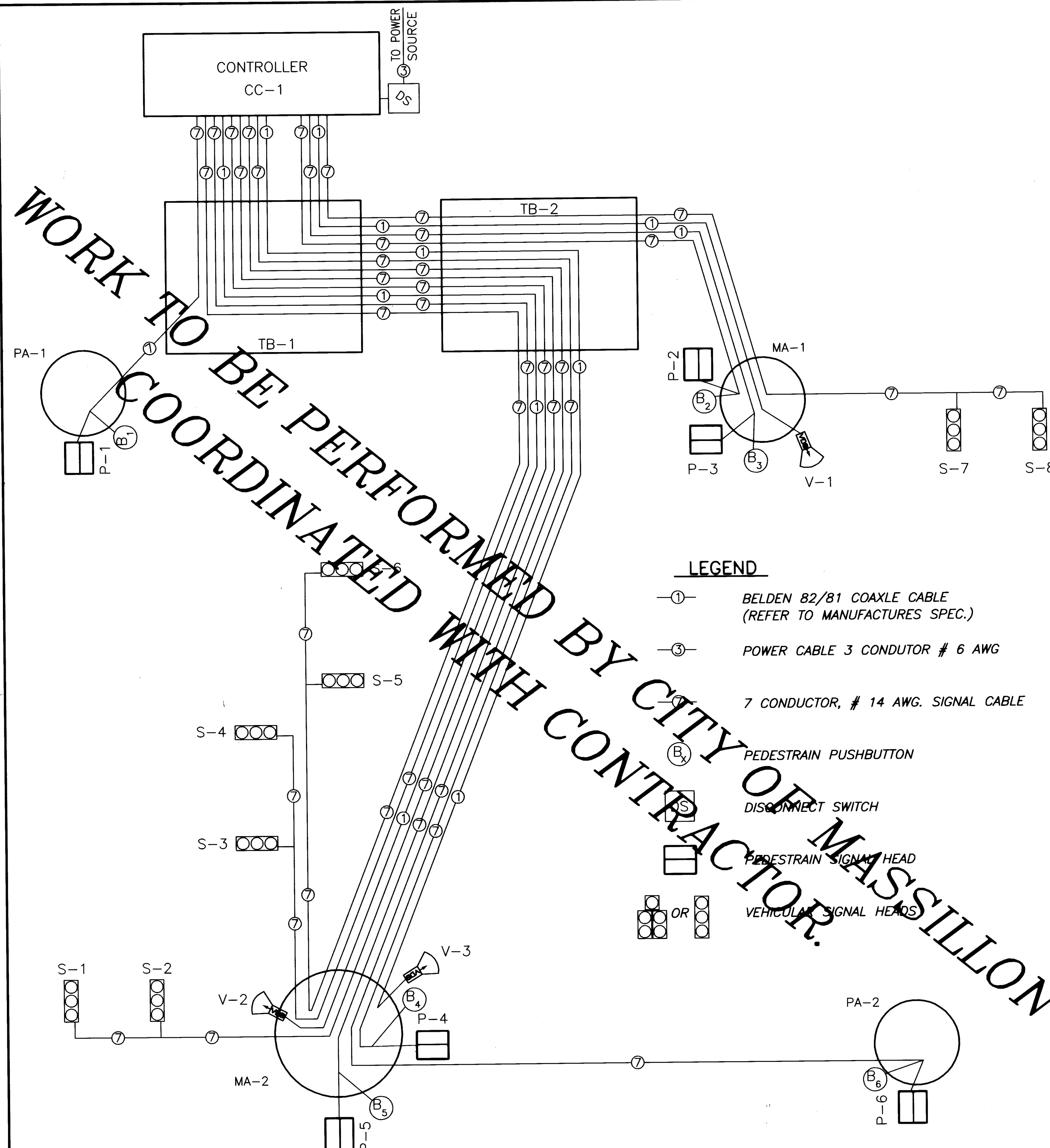
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ACCOUNT NUMBER

03ST03

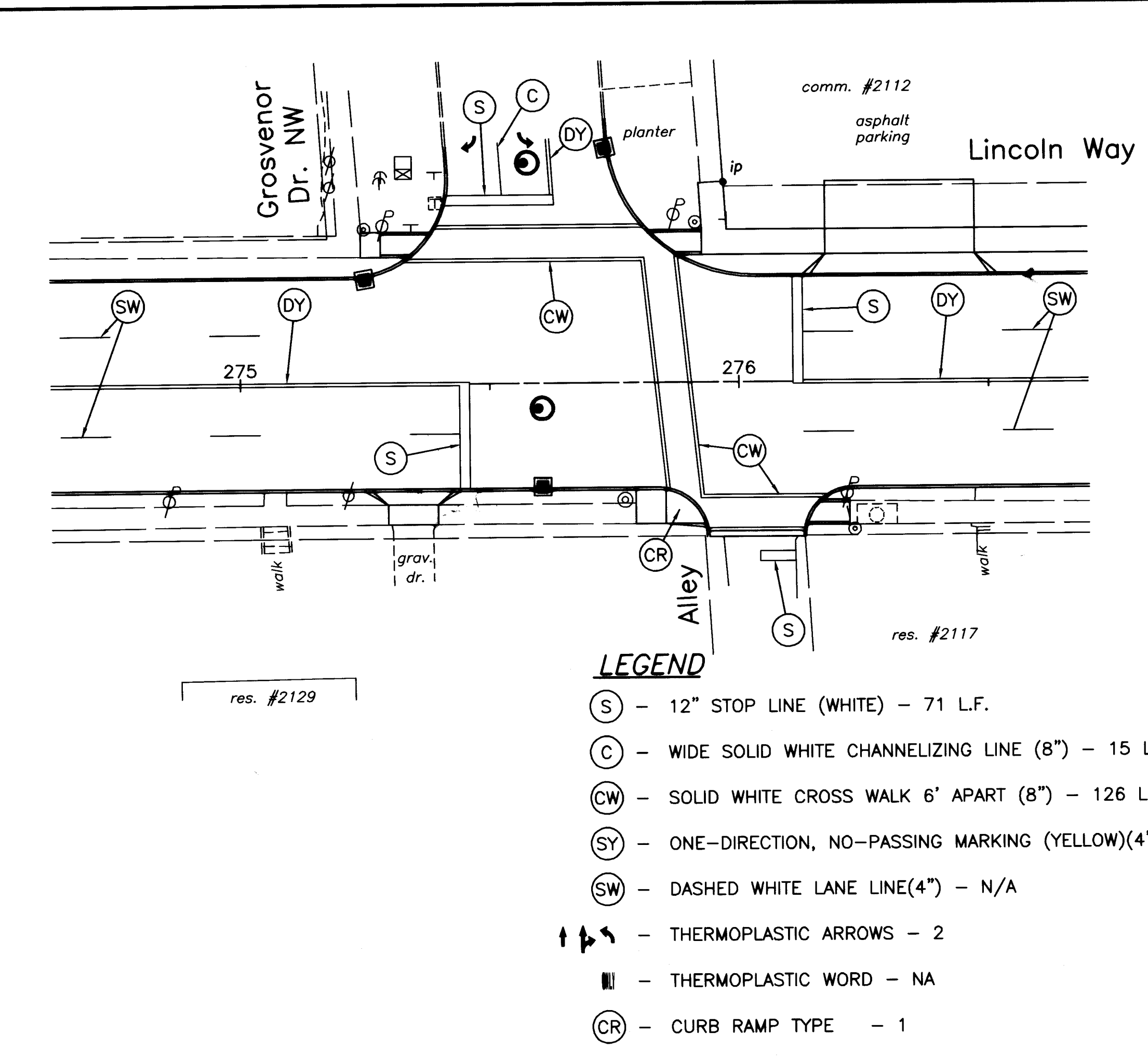
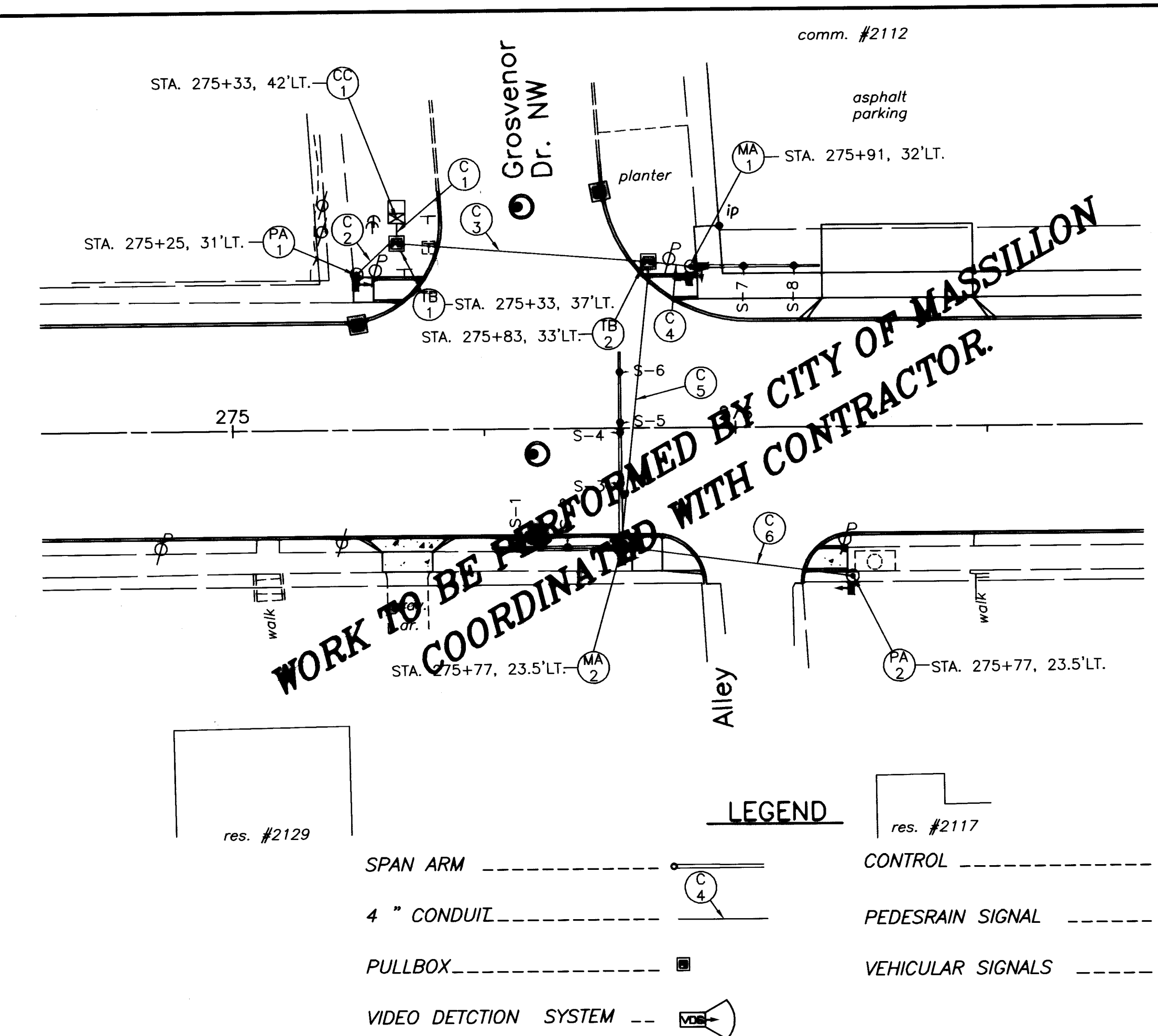
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Lincoln Way West and Grosvenor Dr. NW - Wiring Diagram

| ITEM     | TOTAL | UNIT | DESCRIPTION                                                                                                     |
|----------|-------|------|-----------------------------------------------------------------------------------------------------------------|
| 630      | 8     | EACH | SIGN D-14SPEC.                                                                                                  |
| 630      | 8     | EACH | SIGN R-73A-95SPEC.                                                                                              |
| 632      | 8     | EACH | PEDESTRAIN PUSHBUTTON                                                                                           |
| 632      | 8     | EACH | PEDESTRAIN SIGNALS                                                                                              |
| 632      | 8     | EACH | VEHICULAR SIGNAL TYPE A                                                                                         |
| 632      | 2     | EACH | PEDESTRAIN SIGNAL SUPPORT                                                                                       |
| 632      | 1     | EACH | SIGNAL SUPPORT TC-81.20, DESIGN, 1                                                                              |
| 632      | 1     | EACH | (COMBINATION)SIGNAL SUPPORT, TYPE TC-12.30 DESIGN 5 POLE WITH MAST ARMS TC-81.20 DESIGN 4 AND TC-81.20 DESIGN 1 |
| 632SPEC. | 1     | EACH | VIDEO DETECTION SYSTEM COMPLETE                                                                                 |
| 633      | 1     | EACH | 8 PHASE CONTROLLER W/ CABINET, FOUNDATION, AND WORK PAD                                                         |
| 725      | 2     | EACH | 24"x24" TRAFFIC PULLBOX, 725.07                                                                                 |
| 725      | 180   | LF   | 4" CONDUIT                                                                                                      |



NW NE  
SW SE

SCALE  
0 5 10  
FEET

20 10 0 10 20  
HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

DATE:  
July, 2004

CHECKED BY:  
SDH

DATE:  
July, 2004

**Lincoln Way West Rehabilitation**  
Grosvenor Dr. Signal Intersection  
City of Massillon  
Stark County, Ohio

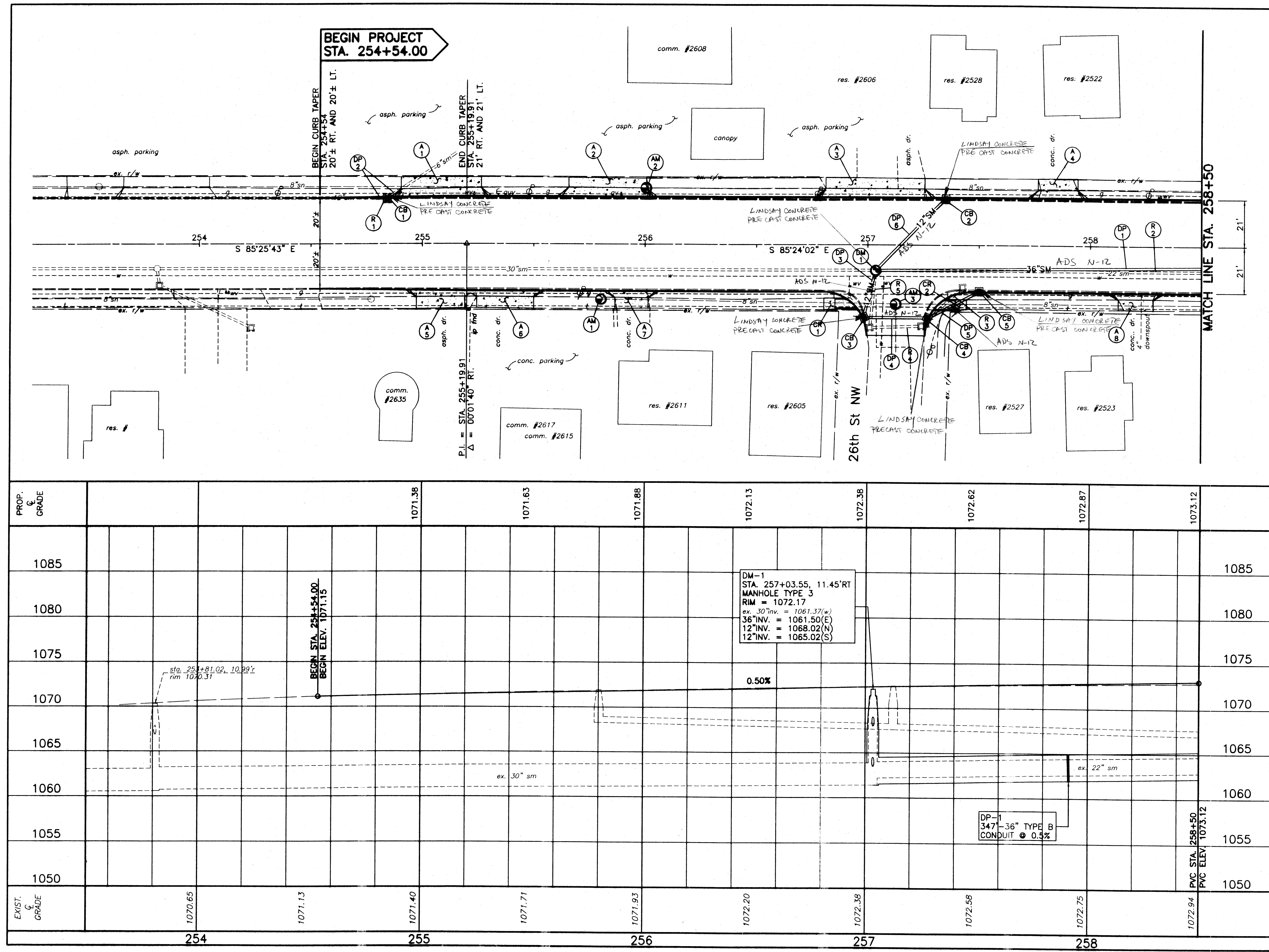
Francis H. Cicchinelli, Jr.  
**MASSILLON**  
Means More!

| REVISIONS: |             |
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ACCOUNT NUMBER

**ALTERNATE "B"**



**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 254+00 to Sta. 258+50  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
Mayor

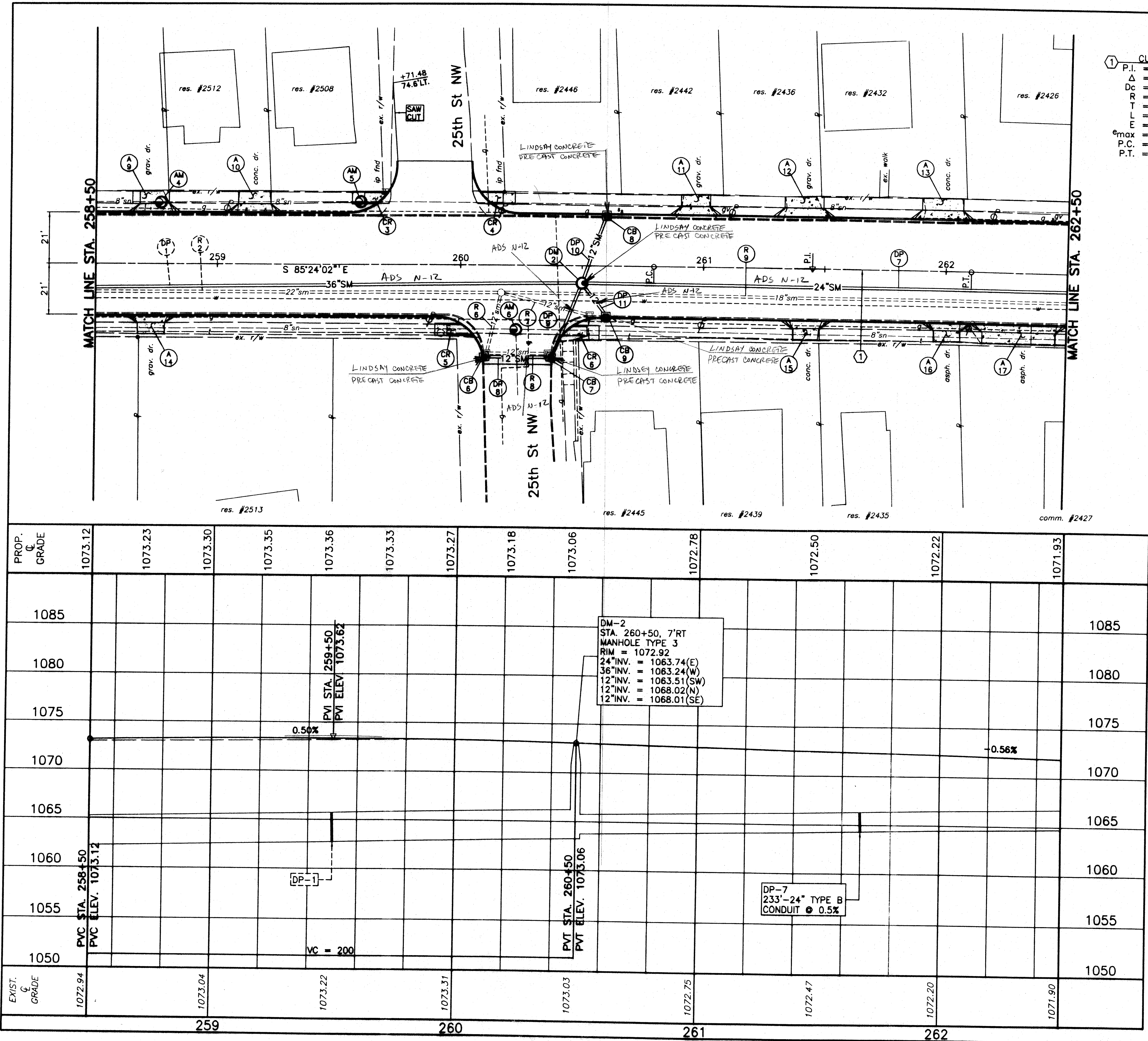
**Massillon**  
Means More!

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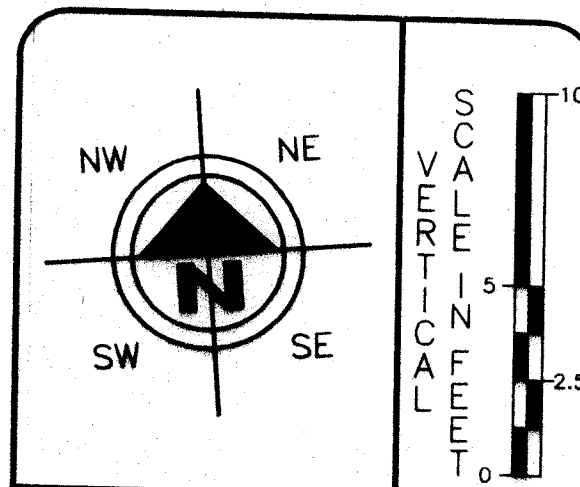
ACCOUNT NUMBER: 03STXX

20 / 90



**① CURVE DATA**

|                  |                  |
|------------------|------------------|
| P.I.             | = STA. 261+44.99 |
| Δ                | = 00°39'15" RT.  |
| Dc               | = 00°30'00"      |
| R                | = 11459.16'      |
| T                | = 65.43'         |
| L                | = 130.85'        |
| E                | = 0.19           |
| E <sub>max</sub> | = NONE           |
| P.C.             | = STA. 260+79.57 |
| P.T.             | = STA. 262+10.42 |

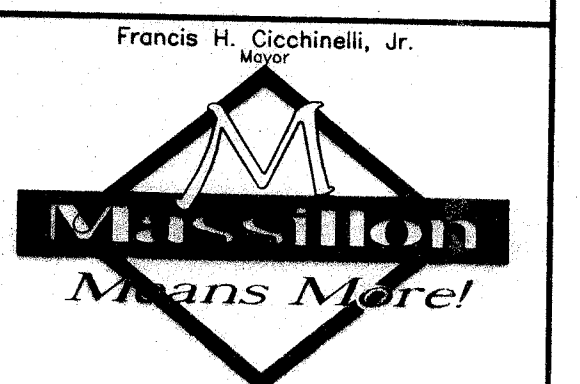


HORIZONTAL SCALE IN FEET

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| DRAWN BY: | CHECKED BY: |
| FPW       | SDH         |
| DATE:     | DATE:       |
| July 2004 | July 2004   |

# Lincoln Way West Rehabilitation

Plan and Profile Sta. 258+50 to Sta. 262+50  
City of Massillon  
Stark County, Ohio

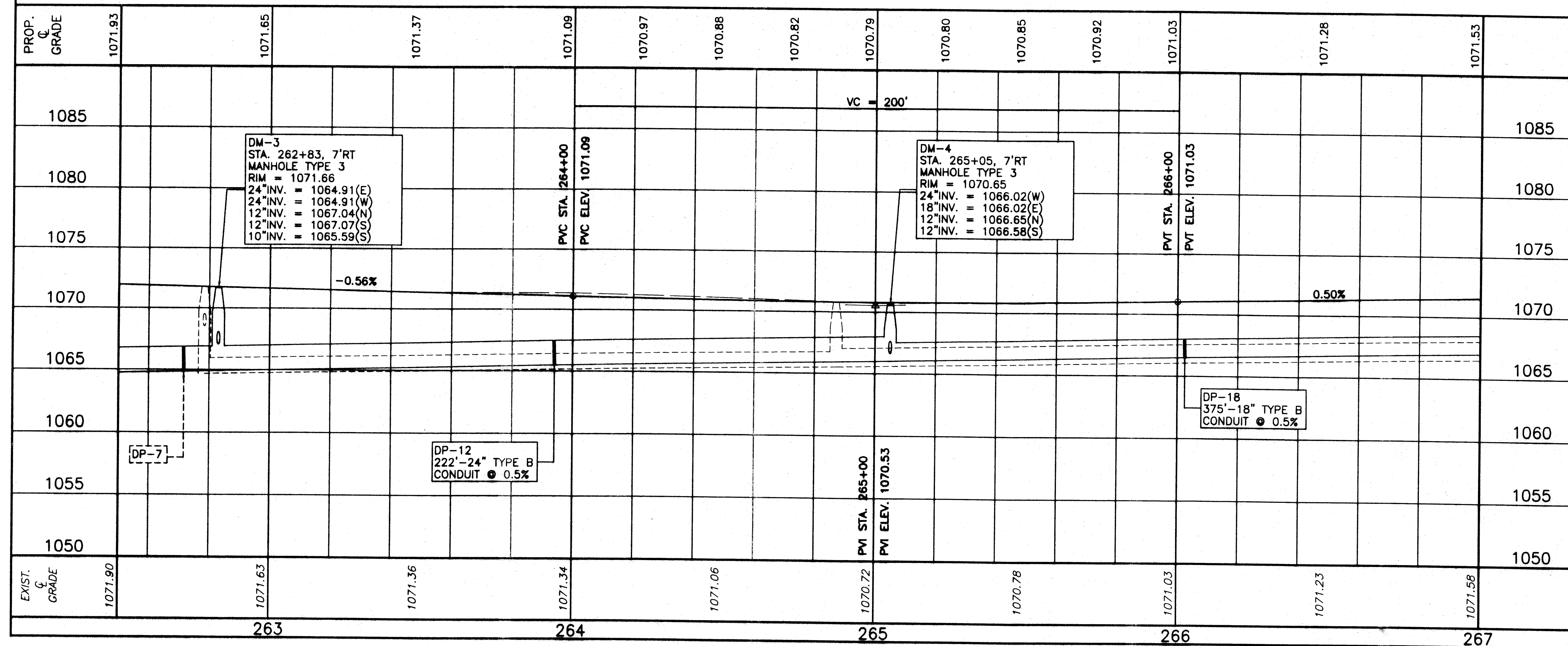
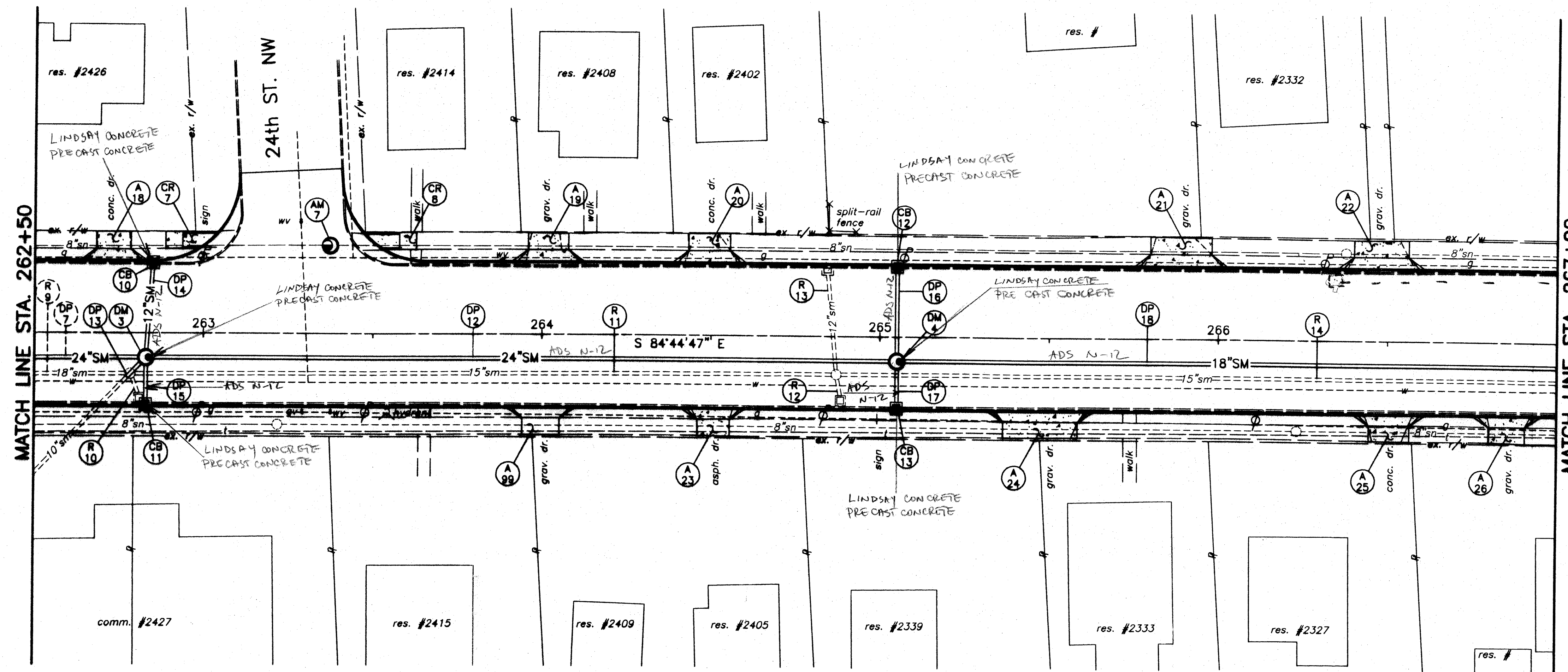


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FILE NAME:  
02ST0221.DWG

ACCOUNT NUMBER  
02ST02



NW NE  
SW SE

SCALE  
VERTICAL  
IN FEET  
0 2.5 5 10

20 10 0 10 20

HORIZONTAL  
SCALE IN FEET

DRAWN BY:  
FPW

CHECKED BY:  
SDH

DATE:  
July, 2004

DATE:  
July, 2004

## Lincoln Way West Rehabilitation

Plan and Profile Sta. 262+50 to Sta. 267+00

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

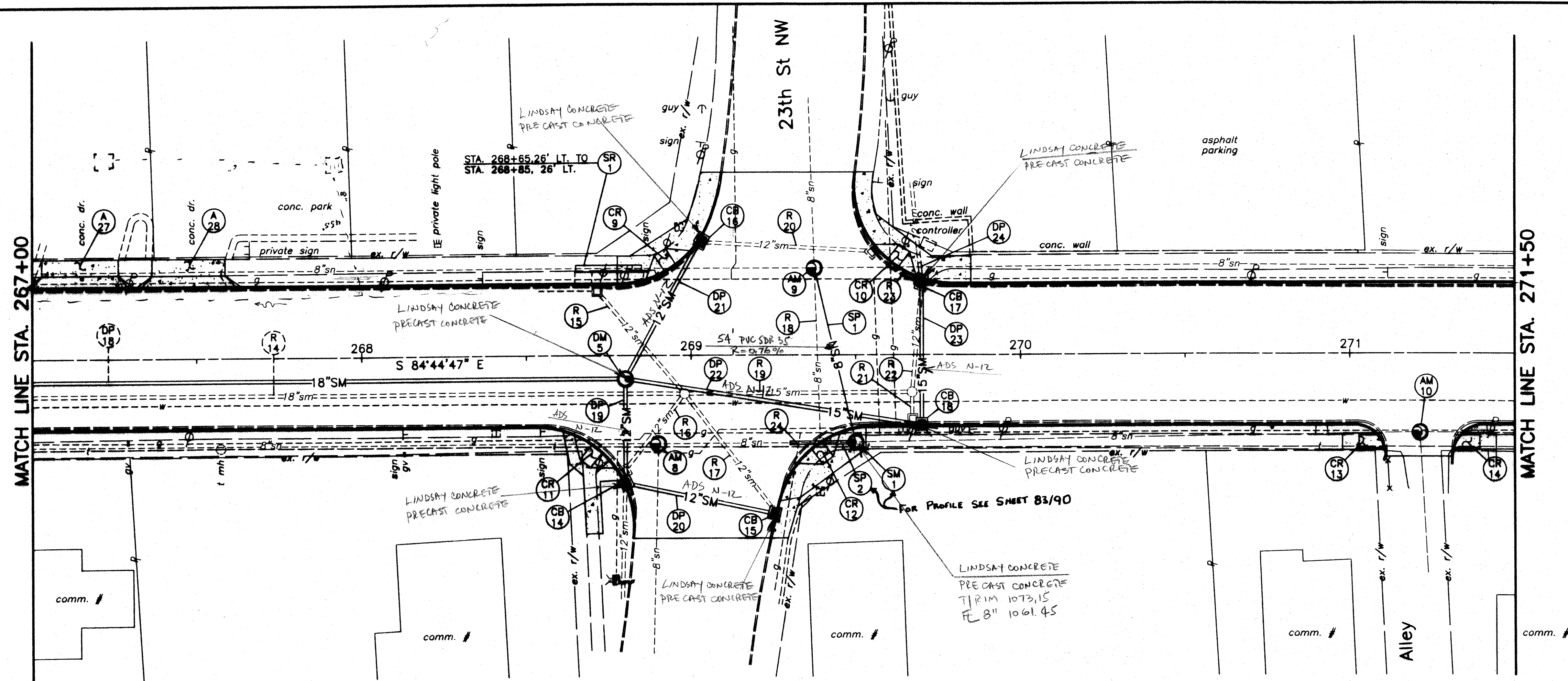
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FILE NAME:  
02SS0222.DWG

ACCOUNT NUMBER  
02SS02

22

90



| PROP. GRADE  | 1071.53 | 1071.79 | 1072.04 | 1072.29 | 1072.54 | 1072.79 | 1073.04 | 1073.29 | 1073.55 | 1073.80 |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1085         |         |         |         |         |         |         |         |         |         | 1085    |
| 1080         |         |         |         |         |         |         |         |         |         | 1080    |
| 1075         |         |         |         |         |         |         |         |         |         | 1075    |
| 1070         |         |         |         |         |         |         |         |         |         | 1070    |
| 1065         |         |         |         |         |         |         |         |         |         | 1065    |
| 1060         |         |         |         |         |         |         |         |         |         | 1060    |
| 1055         |         |         |         |         |         |         |         |         |         | 1055    |
| 1050         |         |         |         |         |         |         |         |         |         | 1050    |
| EXIST. GRADE | 1071.58 | 1071.81 | 1072.13 | 1072.24 | 1072.52 | 1072.79 | 1073.08 | 1073.31 | 1073.56 | 1074.04 |
|              | 267     | 268     | 269     | 270     | 271     |         |         |         |         |         |

DM-5  
STA. 268+80, 7'RT  
MANHOLE TYPE 3  
RIM = 1072.30  
18" INV. = 1067.90(W)  
15" INV. = 1067.90(E)  
12" INV. = 1068.15(N)  
12" INV. = 1068.15(S)

CB-18  
STA. 269+70, 7'RT  
CATCH BASIN TYPE 3A  
T/C = 1072.30  
18" INV. = 1068.36(W)  
15" INV. = 1068.36(N)

DP-22  
91'-18" TYPE B  
CONDUIT @ 0.5%

HORIZONTAL SCALE IN FEET

DRAWN BY:  
FPW

DATE:  
Dec. 3, 2002

CHECKED BY:  
SDH

DATE:  
Dec. 4, 2002

### Lincoln Way West Rehabilitation

Plan and Profile Sta. 267+00 to Sta. 271+50

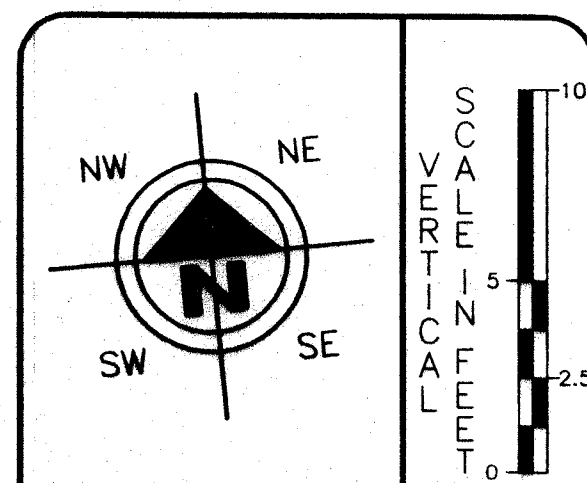
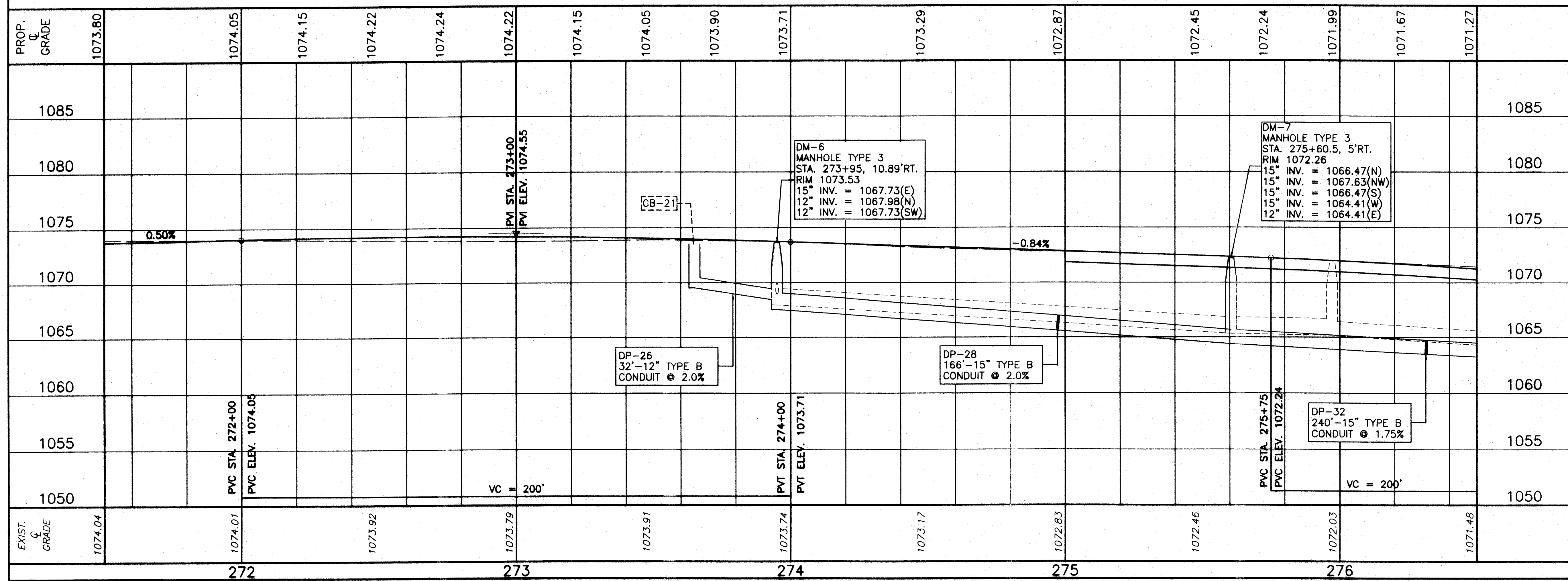
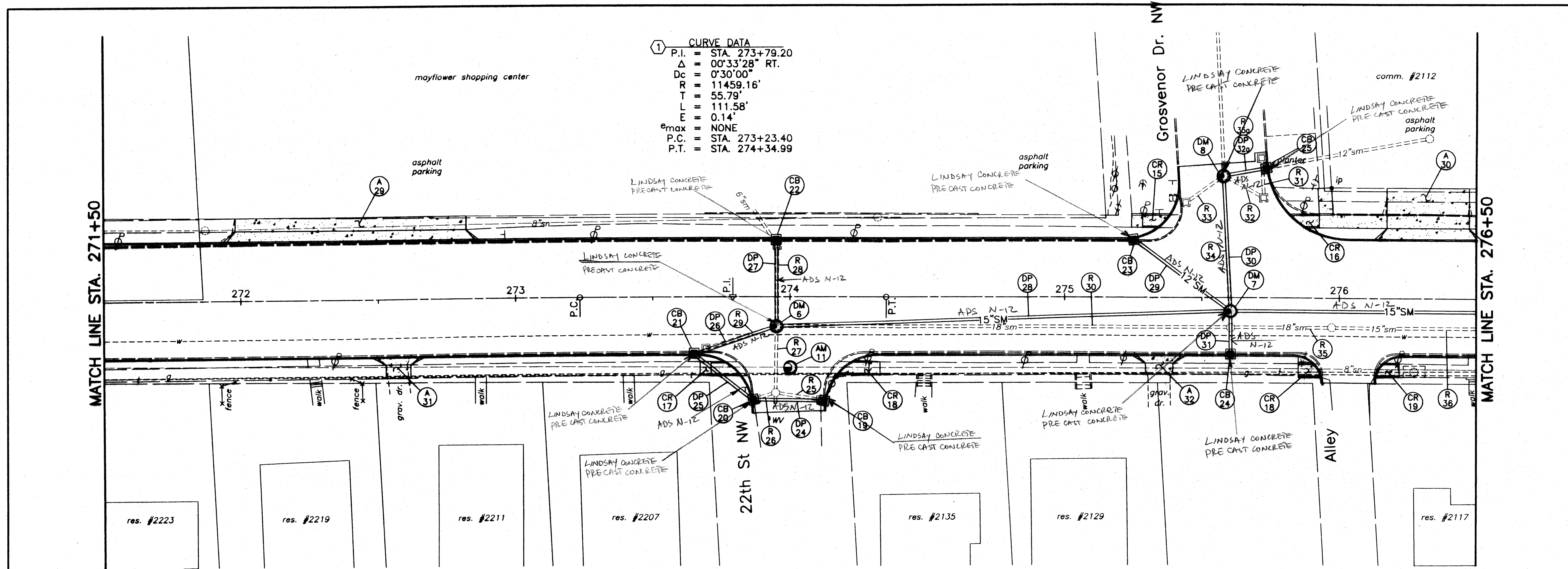
City of Massillon  
Stark County, Ohio

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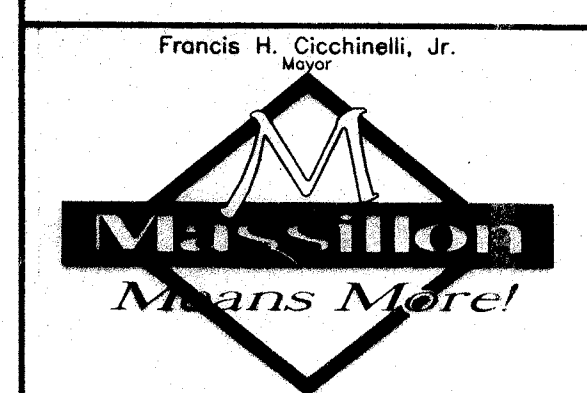
23 / 90



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| HORIZONTAL SCALE IN FEET |                  |
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| DATE: July, 2004         | DATE: July, 2004 |

**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 271+50 to Sta. 276+50

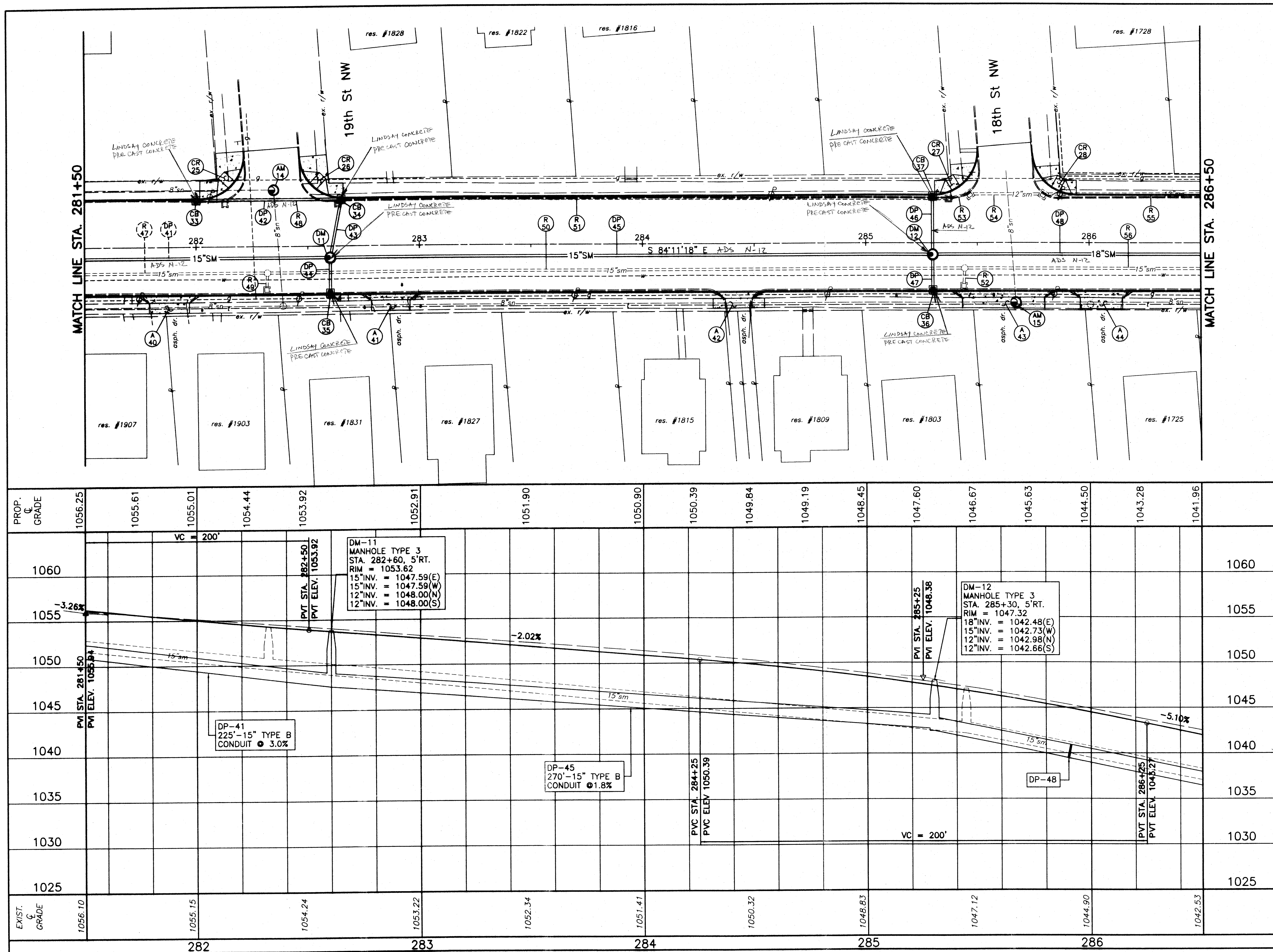
City of Massillon  
Stark County, Ohio



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**Lincoln Way West Rehabilitation**  
Plan and Profile Sta. 281+50 to Sta. 286+50  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.  
**Massillon**  
Means More!

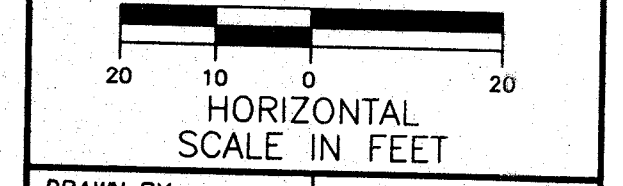
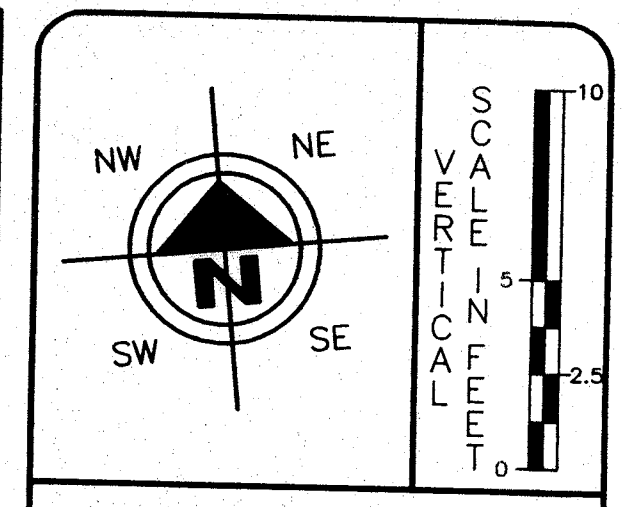
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ACCOUNT NUMBER  
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DRAWN BY: FPW  
 CHECKED BY: SDH  
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 DATE: July, 2004

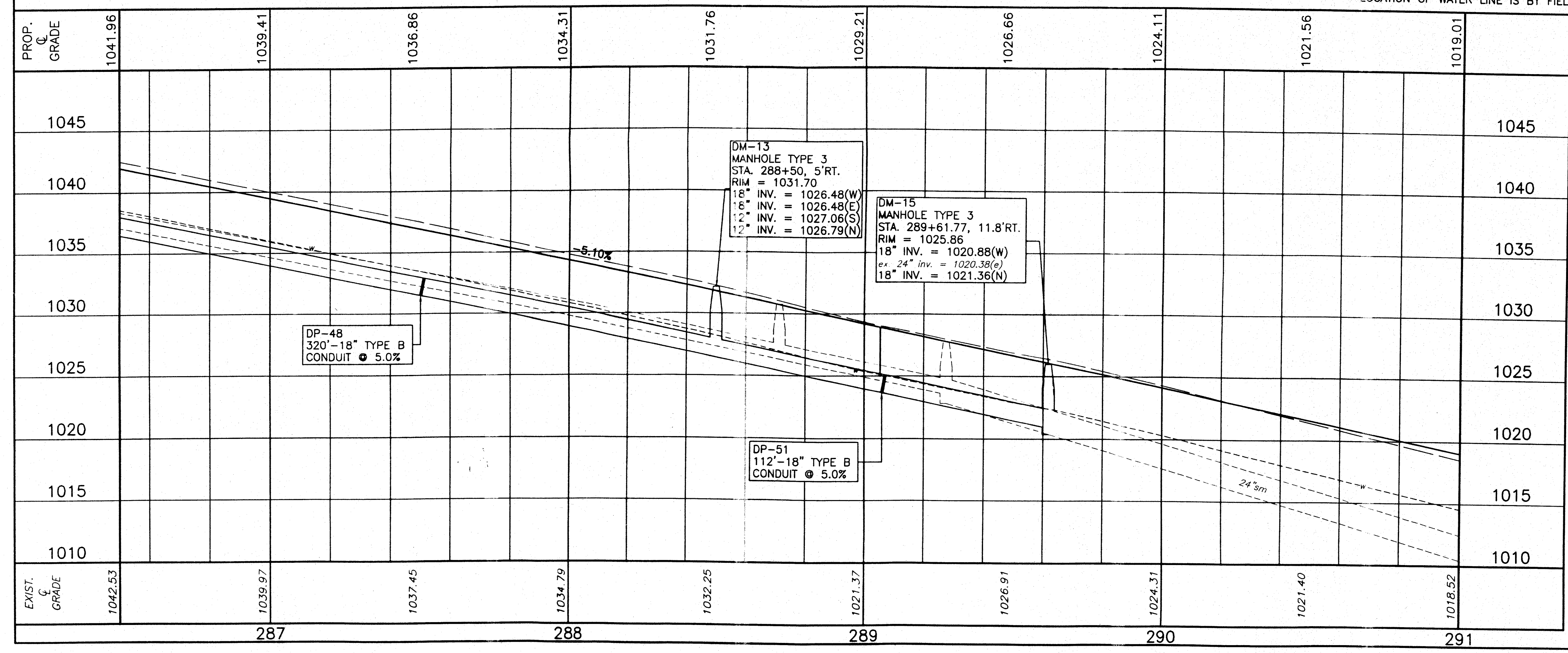
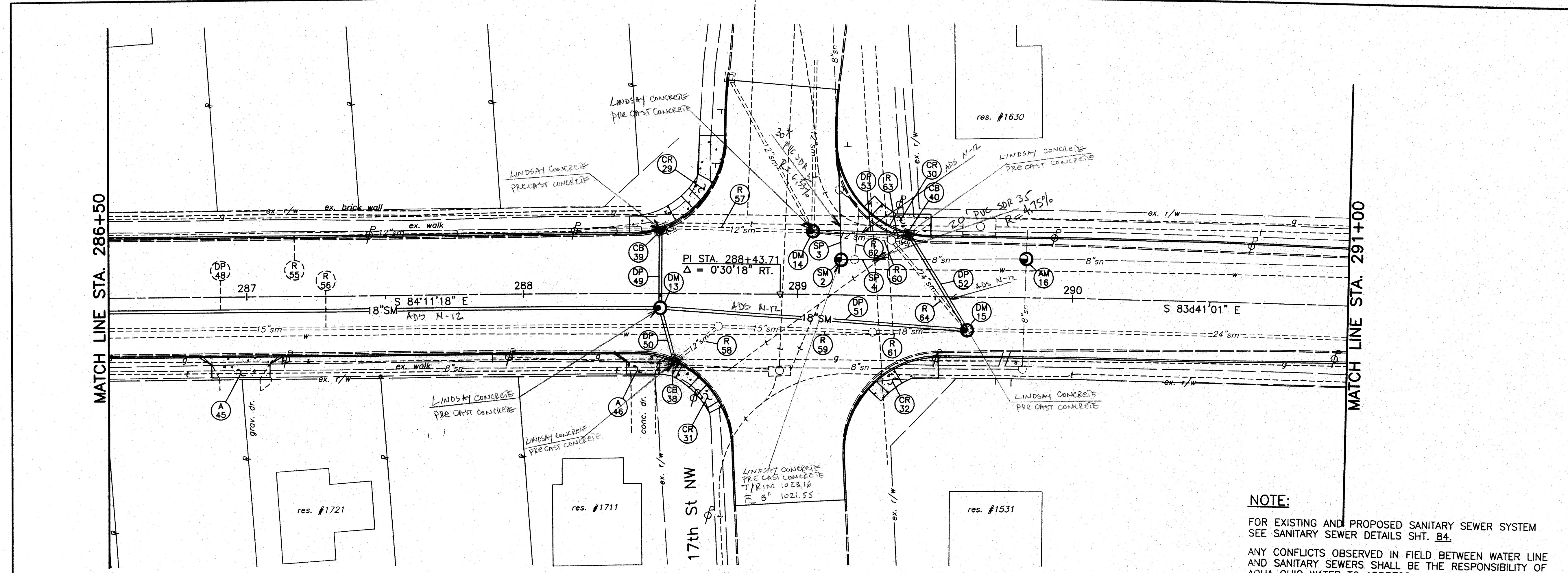
**Lincoln Way West Rehabilitation**  
 Plan and Profile Sta. 286+50 to Sta. 291+00  
 City of Massillon  
 Stark County, Ohio

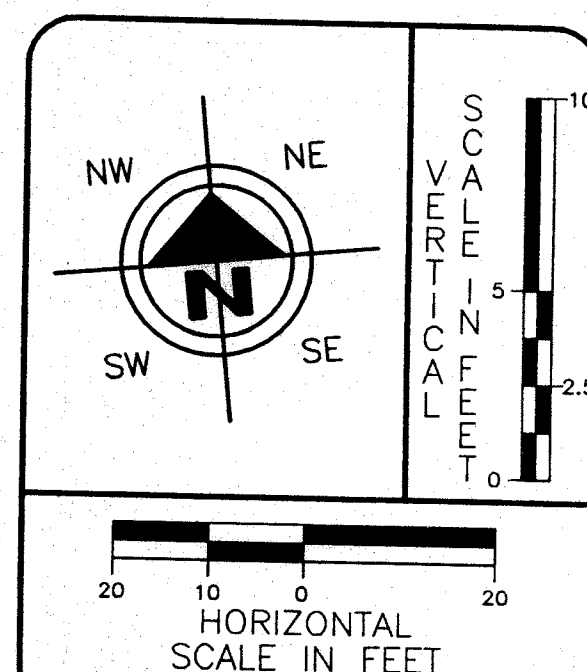


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| <b>DRAWN BY:</b><br>FPW    | <b>CHECKED BY:</b><br>SDH  |
| <b>DATE:</b><br>July, 2004 | <b>DATE:</b><br>July, 2004 |

*Lincoln Way West Rehabilitation*  
Plan and Profile Sta. 291+00 to Sta. 296+00  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

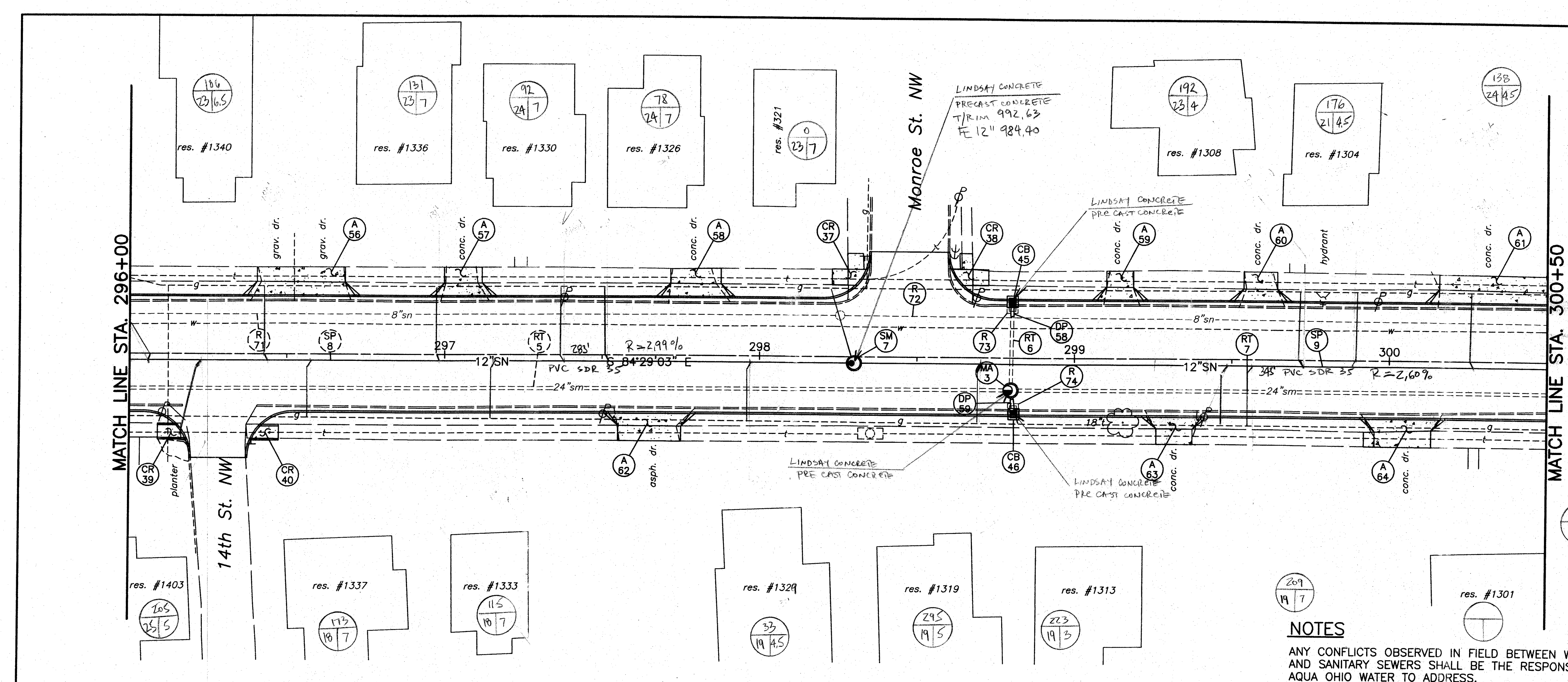
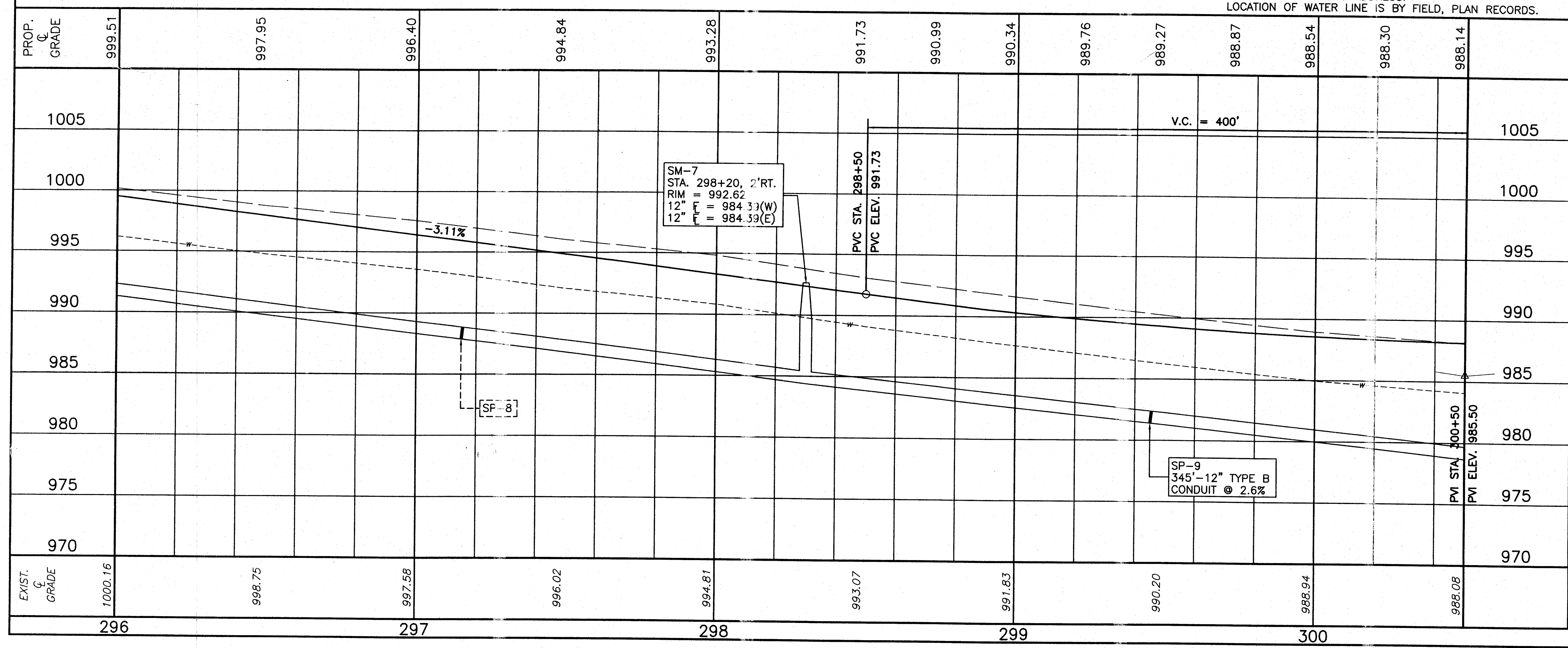


REVISIONS:

[illegible]

FILE NAME: 02SS0228.DWG

ACCOUNT NUMBER 02SS02



**NOTES**  
 ANY CONFLICTS OBSERVED IN FIELD BETWEEN WATER LINE AND SANITARY SEWERS SHALL BE THE RESPONSIBILITY OF AQUA OHIO WATER TO ADDRESS.  
 LOCATION OF WATER LINE IS BY FIELD, PLAN RECORDS.

**Lincoln Way West Rehabilitation**  
 Plan and Profile Sta. 296+00 to Sta. 300+50  
 City of Massillon  
 Stark County, Ohio

SCALE  
 HORIZONTAL  
 1" = 20'  
 VERTICAL  
 1" = 5'

DRAWN BY: FPW

DATE: July, 2004

CHECKED BY: SDH

DATE: July, 2004

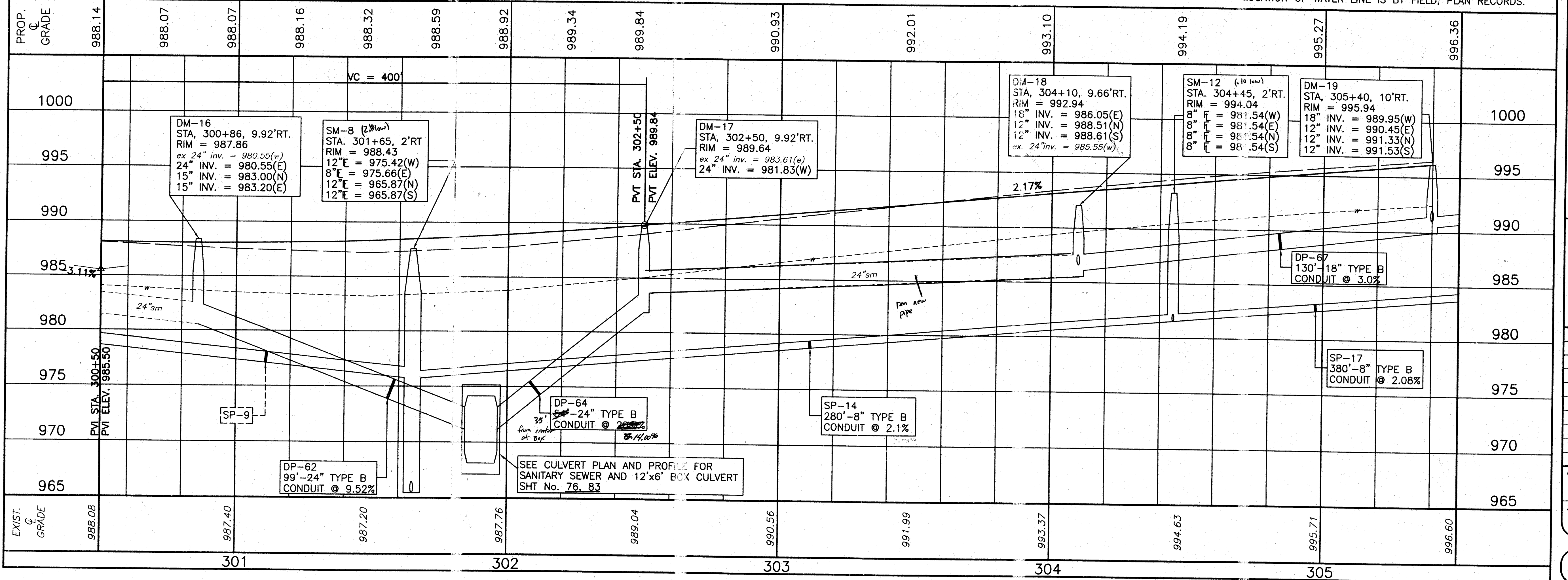
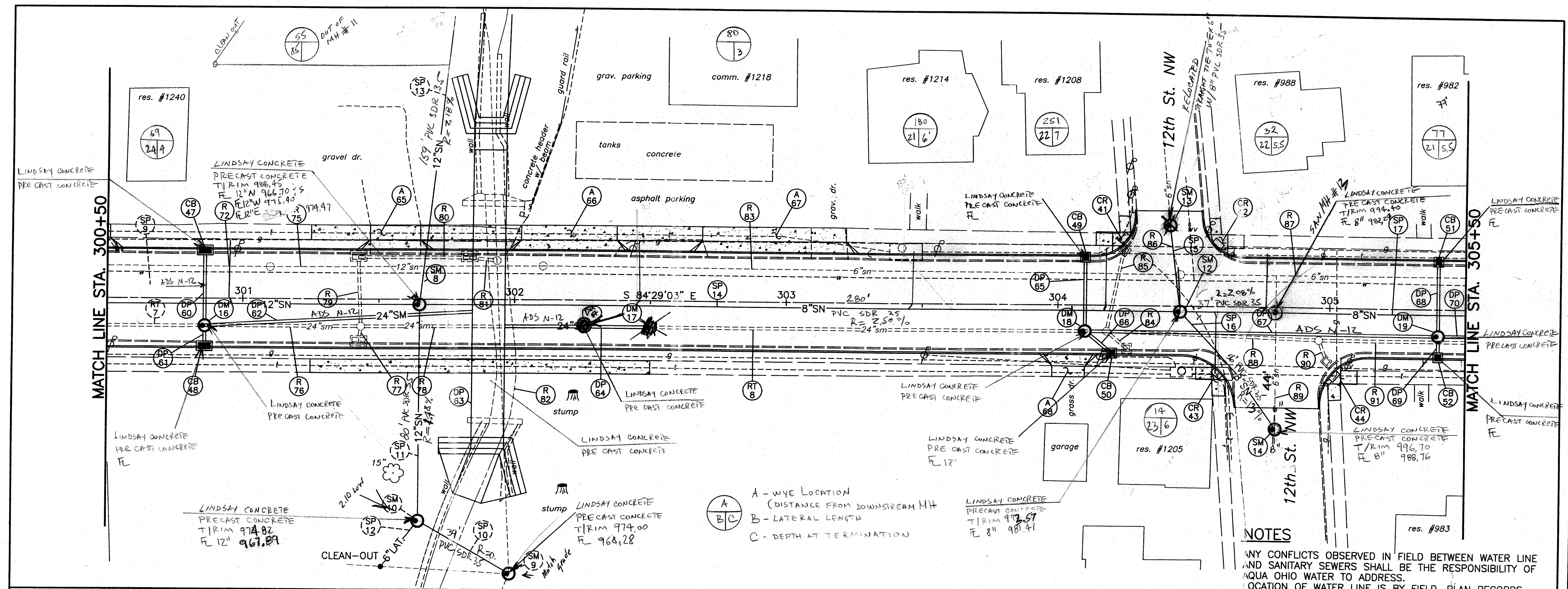
REVISIONS:

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FILE NAME: 02SS0229.DWG

ACCOUNT NUMBER: 02SS02

29
90



HORIZONTAL SCALE IN FEET

DRAWN BY: FPW

DATE: July, 2004

CHECKED BY: SDH

DATE: July, 2004

### Lincoln Way West Rehabilitation

Plan and Profile Sta. 300+50 to Sta. 305+50

City of Massillon  
Stark County, Ohio

REVISIONS:

| DATE | DESCRIPTION |
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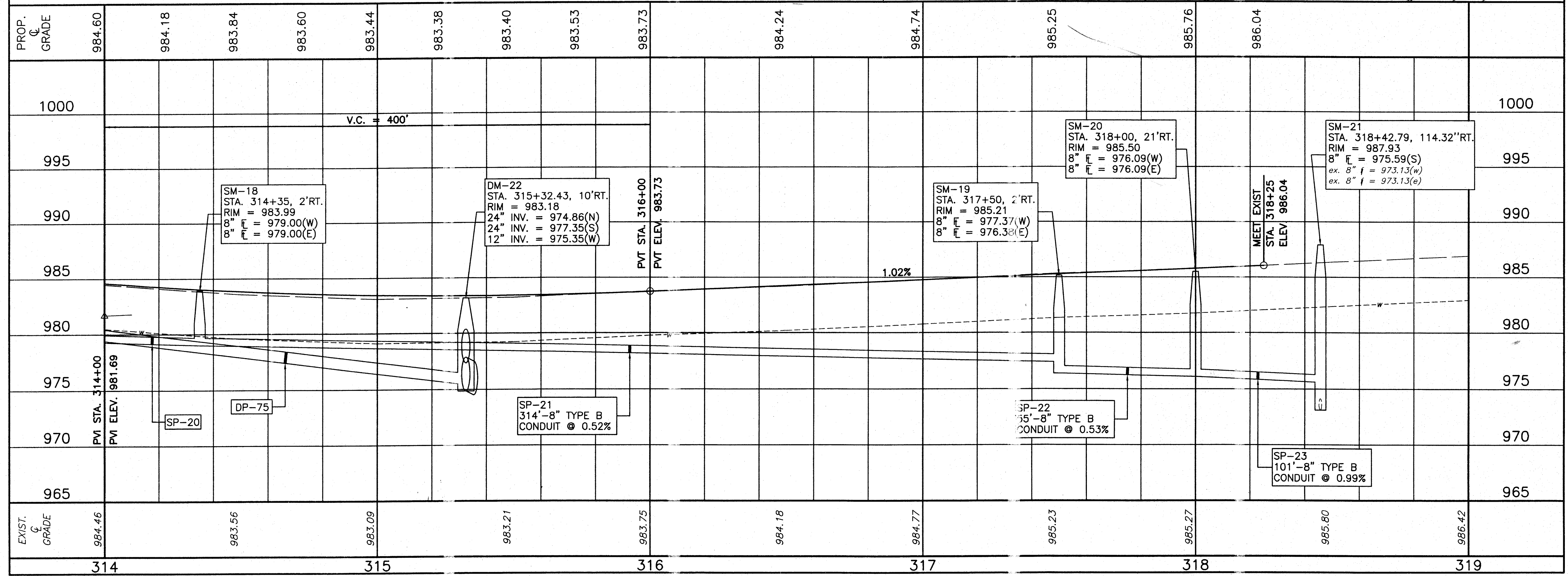
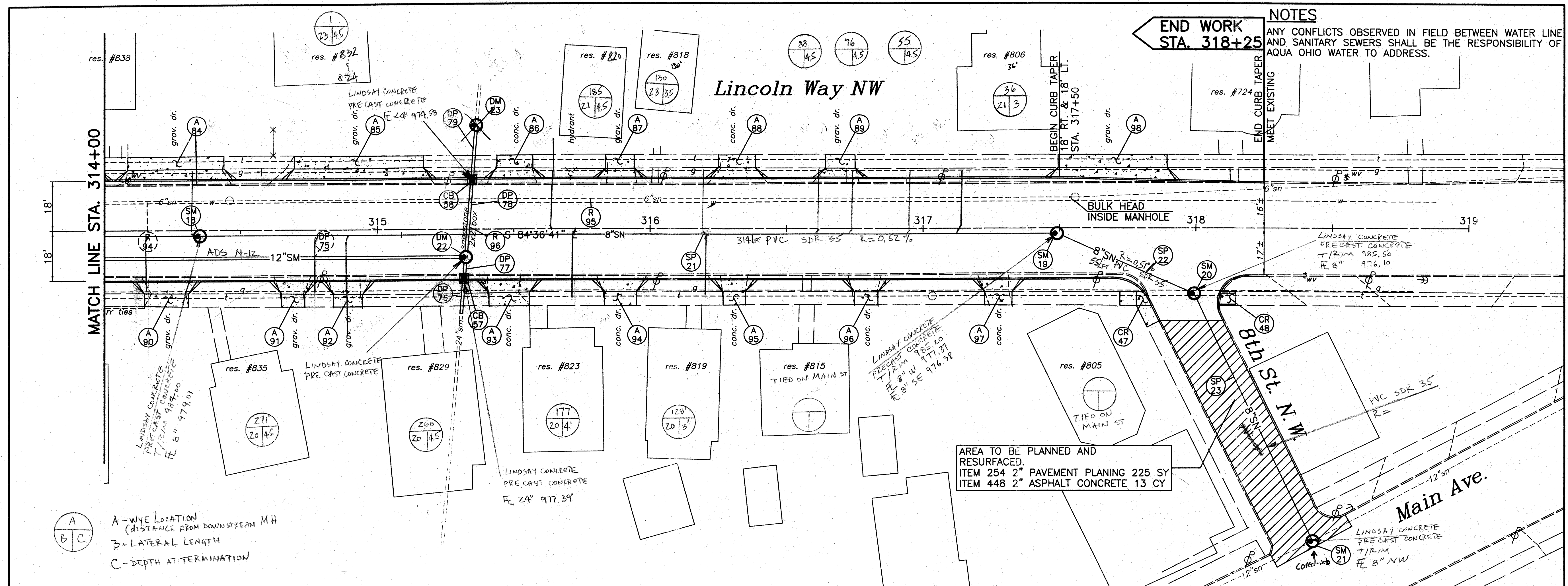
FILE NAME: 02SS0230.DWG

ACCOUNT NUMBER: 02SS02

30 / 90







**NOTES**

ANY CONFLICTS OBSERVED IN FIELD BETWEEN WATER LINE AND SANITARY SEWERS SHALL BE THE RESPONSIBILITY OF AQUA OHIO WATER TO ADDRESS.

**END WORK STA. 318+25**

**DATE:** Aug., 2004

**DRAWN BY:** FPW

**CHECKED BY:** SDH

**DATE:** Aug., 2004

**DATE:** Aug., 2004

**Lincoln Way West Rehabilitation**

Plan and Profile Sta. 314+00 to Sta. 319+00

City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.

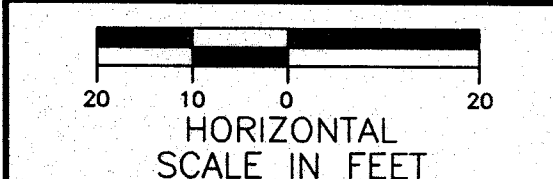
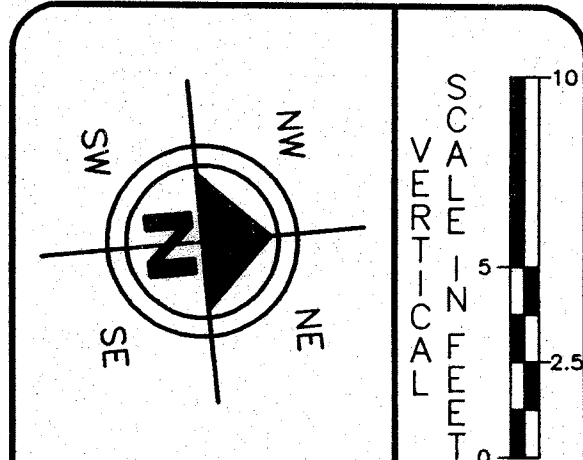
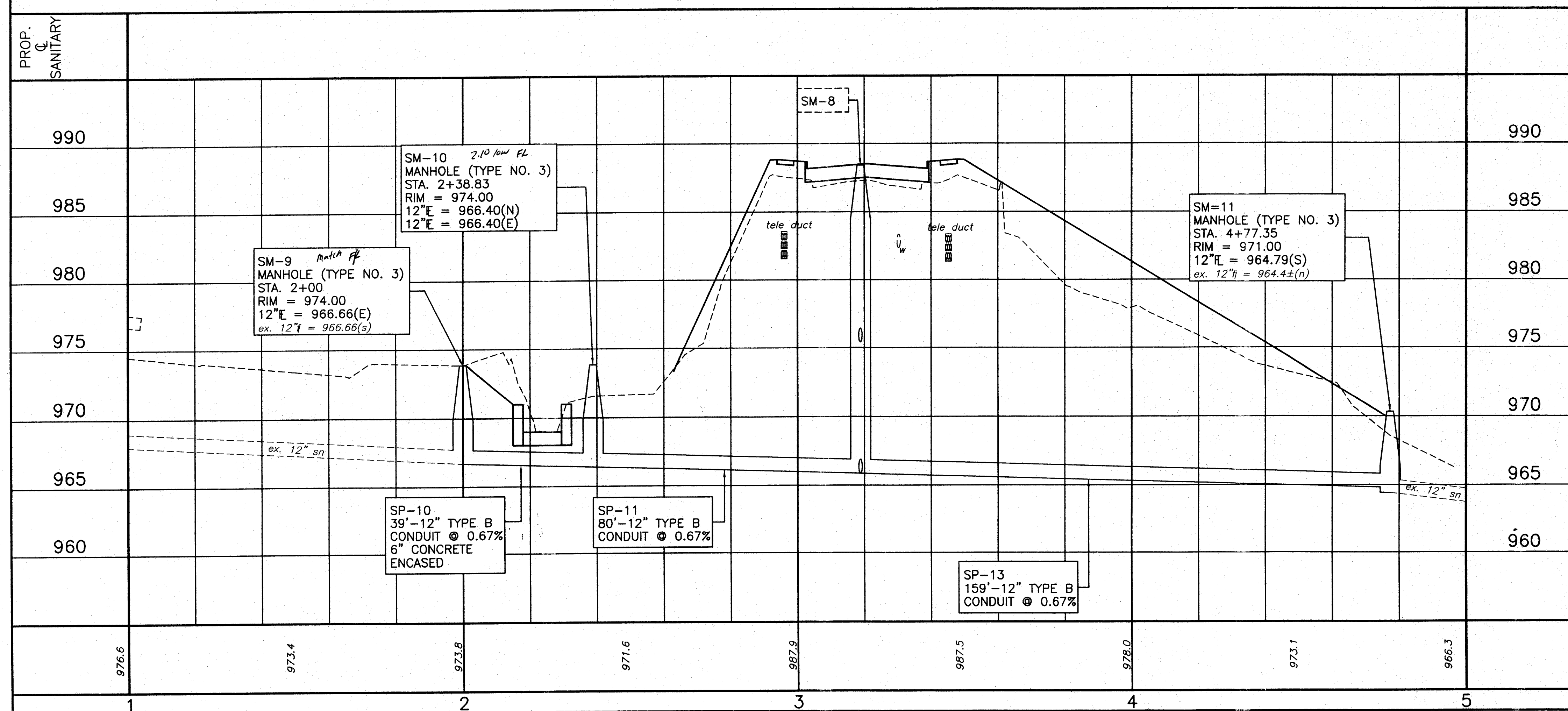
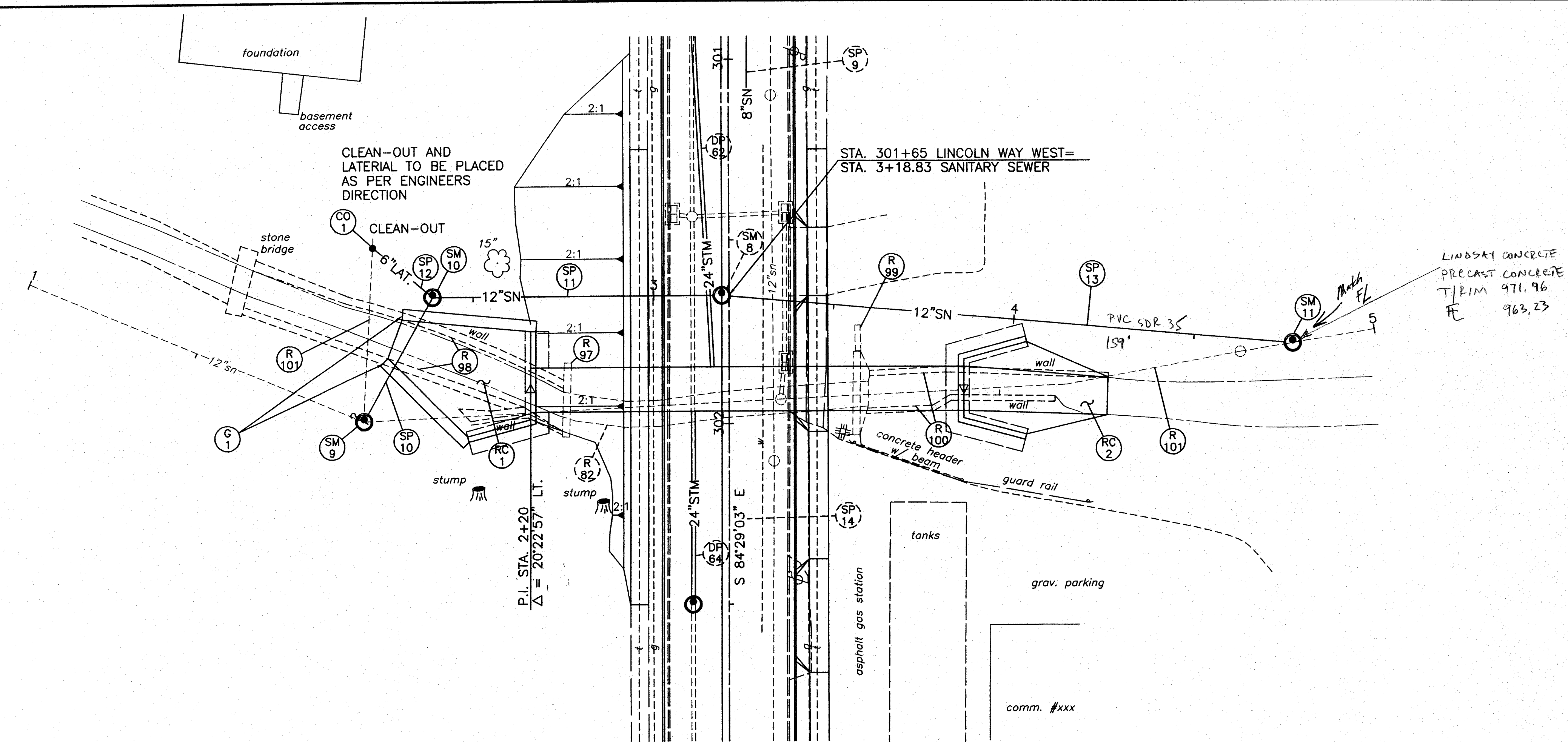
**REVISIONS:**

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**FILE NAME:** 02SS0233.DWG

**ACCOUNT NUMBER:** 02SS02

33 / 90



**DRAWN BY:**  
FPW

CHECKED BY:  
SDH

DATE:  
July, 2004

DATE:  
Aug., 2004

*Lincoln Way West Rehabilitation*  
Sanitary Plan and Profile Sta. 1+00 to Sta. 5+00

Profile Sta. 1  
City of Massillon  
Stark County, Ohio

Francis H. Cicchinelli, Jr.



REVISIONS:

[illegible]

FILE NAME:

02SS0283.DWG

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| ACCOUNT NUMBER |
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02SS02