

# FIREBIRD DRIVE AT UNION CENTRE BOULEVARD CONSTRUCTION PLANS WEST CHESTER TOWNSHIP & CITY OF FAIRFIELD BUTLER COUNTY SEC. 10 & 16, TOWN 3, RANGE 2

**PROJECT DESCRIPTION**

Construction of FIREBIRD DRIVE from Sta. 10+32.36 to Sta. 18+41.47.

**2005 SPECIFICATIONS**

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement. (See General Notes)

Wherever the word "State" occurs, it is to mean Butler County wherever the word "Engineer" occurs, it is to mean Butler County Engineer, limited to the particular duties entrusted in them.

**NOTE:**

The Contractor shall contact the Butler County Engineer's Office 48 hours prior to the start of any construction.  
BCEO Utilities: 785-4145

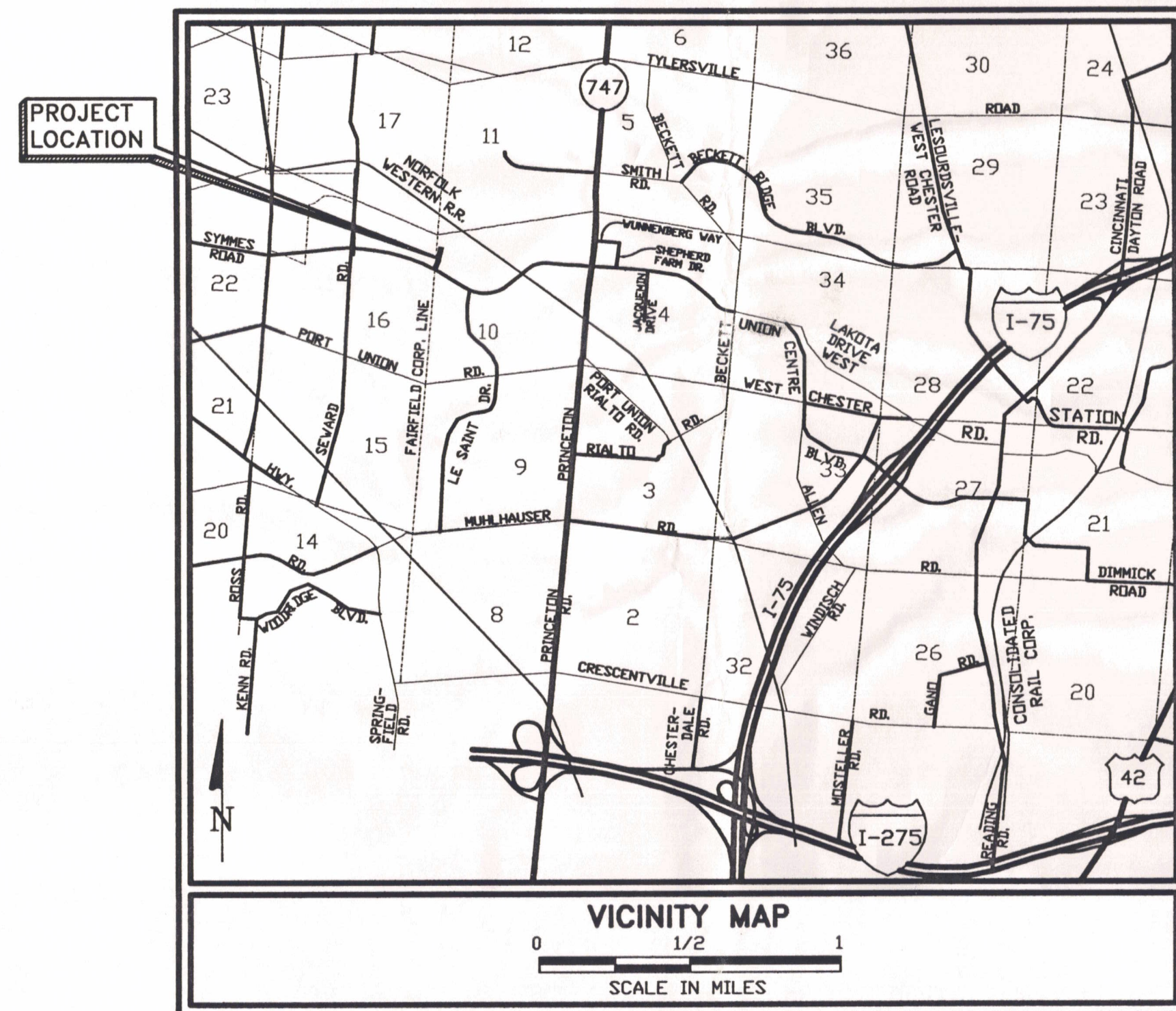
Approved \_\_\_\_\_  
Date \_\_\_\_\_ Butler County Engineer

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Butler County Commissioner, President

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Butler County Commissioner, Vice President

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Butler County Commissioner, Member

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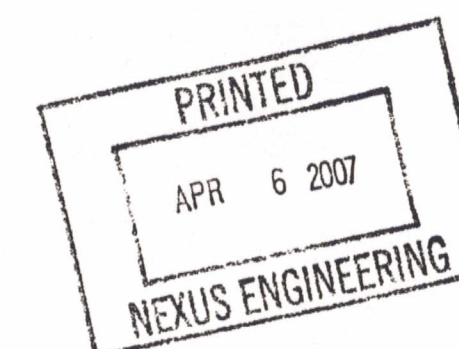
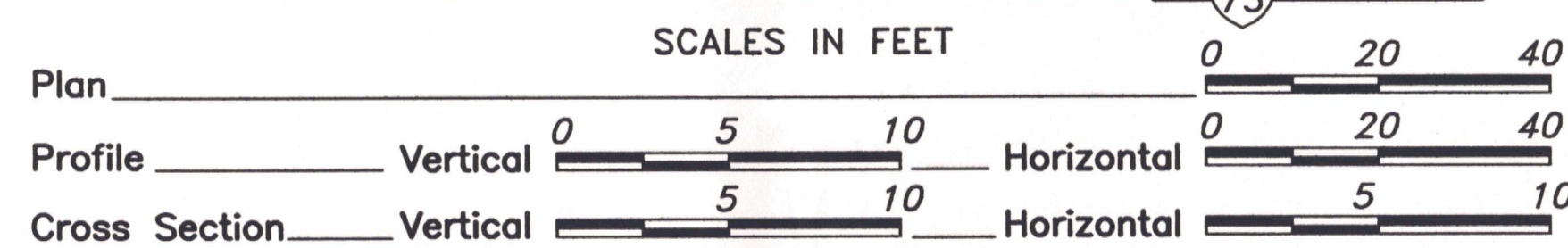


PORTION TO BE IMPROVED \_\_\_\_\_

U.S. ROUTES \_\_\_\_\_

STATE ROUTES \_\_\_\_\_

INTERSTATE HIGHWAYS \_\_\_\_\_



**BENCHMARK #1**  
Rim of Existing Manhole  
Elevation 607.11  
Sta. 11+70.78, 33.74' Lt.  
(Along Firebird Drive)

**BENCHMARK #2**  
Rim of Existing Manhole  
Elevation 605.03  
Sta. 16+26.37, 48.17' Lt.  
(Along Firebird Drive)

STANDARD CONSTRUCTION DRAWING					
				BUTLER COUNTY STD.	
BP-3.1	7-16-04			MT-97.10	4-19-02
BP-5.1	7-28-00	RM-1.1	1-20-06	MT-97.11	4-19-02
BP-7.1	7-28-00	RM-3.1M	4-18-03		
				TC-71.10	1-21-05
MH-1.2	7-19-02	CB-1.1	7-15-05		
MH-1.3	7-19-02	CB-1.2	7-15-05		
		CB-2.1	7-15-05		
DM-2.1	7-20-01				

**UNDERGROUND UTILITIES**

2 WORKING DAYS  
BEFORE YOU DIG

Call...800-362-2764 (Toll Free)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS MUST BE CALLED DIRECTLY

\* NOTE: If English Drawing Is Not Available The Metric Drawings To Be Soft Converted.

PLANS PREPARED BY:

NEXUS ENGINEERING  
CIVIL ENGINEERS AND LAND SURVEYORS  
8000 BECKETT CENTER DRIVE, SUITE 203  
FAIRFIELD, OHIO 45140  
PHONE: (513) 860-8130

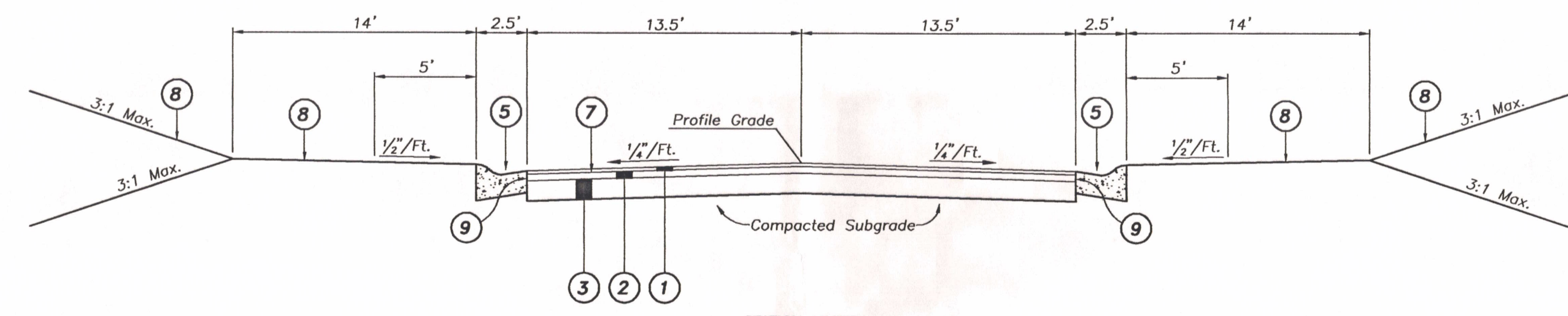
TITLE SHEET  
WEST CHESTER, OHIO

DESIGNED	C.F.G.
DRAWN	C.F.G.
CHECKED	M.A.N.
DATE	DEC. 2006

C 1/11

PAVEMENT LEGEND	
REF. ITEM	DESCRIPTION
① 448	1 1/2" Asphalt Concrete Surface Course, Type 1, PG64-22
② 448	2" Asphalt Concrete Intermediate Course, Type 2, PG64-22
③ 301	8" Bituminous Aggregate Base
④	Not Used
⑤ 609	Butler County Curb Type C-1
⑥	Not Used
⑦ 407	Tack Coat, applied at the rate of 0.10 gal. per Sq. Yd.
⑧ 659	Seeding and Mulching
⑨ 407	Tack coat shall be applied to front face of curb prior to the installation of 301 bituminous aggregate base. Also to be applied to curb joint after the installation of 403 leveling course.

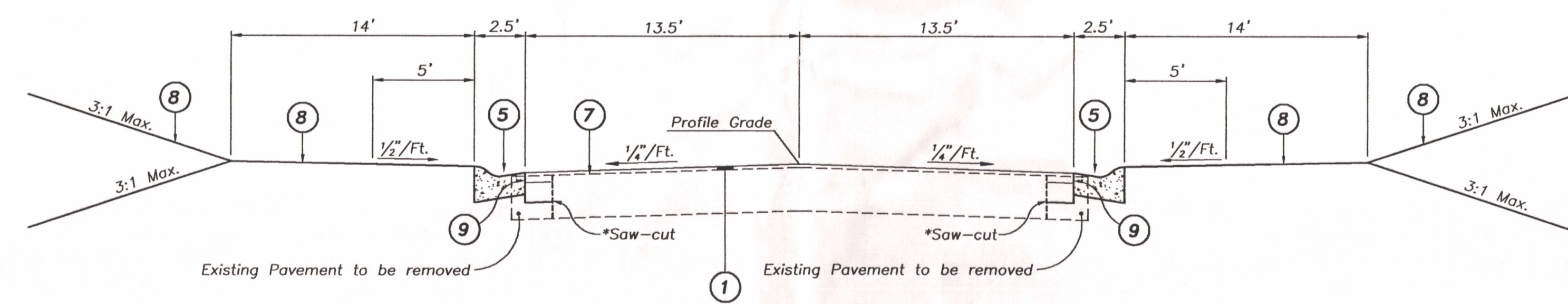
### FIREBIRD DRIVE



STATION LIMITS  
 Sta. 17+89.85 to Sta. 18+41.47 (See Culsac Detail)  
 Sta. 15+27.18 to Sta. 17+89.85 (Full Depth)

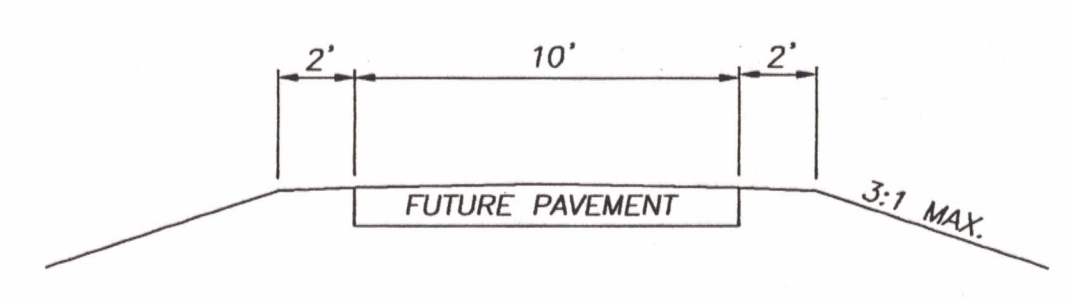
\*Note: Existing Pavement to be saw-cut 1.0 feet from pavement edge minimum or 1.0 feet inside proposed curb, whichever is greater.  
 All saw-cuts are to be made with a diamond edged saw blade.

### FIREBIRD DRIVE



STATION LIMITS  
 Sta. 10+32.36 to Sta. 15+27.18 (Widening and Resurfacing)  
 Sta. 10+32.36 to Sta. 10+82.71 (See Intersection Detail)

### FUTURE BIKE PATH



NO.	DATE	REVISIONS
10		
9		
8		
7		
6		
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4		
3		
2		
1	4/20/07	Added Bike Path Typical per BCEO comments

PLANS PREPARED BY:

**NEXUS ENGINEERING**  
 CIVIL ENGINEERS AND LAND SURVEYORS  
 8800 BECKET CENTER DRIVE, SUITE 203  
 WEST CHESTER, OHIO 45381  
 PHONE: (513) 860-9130

FIREBIRD DRIVE  
 TYPICAL SECTIONS  
 WEST CHESTER, OHIO

DESIGNED	C.F.G.
DRAWN	C.F.G.
CHECKED	M.A.N.
DATE	DEC. 2006

**ROADWAY NOTES**

**CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

**LOW STRENGTH MORTAR BACK FILL**

WHENEVER WATER LINES, UTILITY CROSSINGS, SEWER LINES, (STORM OR SANITARY), CULVERT PIPES, BOX CULVERTS AND/OR BRIDGE REPLACEMENT OR REPAIRS INCLUDING ABUTMENTS CROSS COUNTY ROADWAYS AND/OR TOWNSHIP ROADWAYS THE BACK FILL REQUIRED WILL BE LOW STRENGTH MORTAR BACK FILL UNLESS OTHERWISE NOTED ON THE PLANS. THE LIMITS OF THE LOW STRENGTH BACK FILL SHALL BE FROM BERM TO BERM AND FROM FLOW LINE TO THE SUBGRADE. WHENEVER A CUT IN PAVEMENT IS MADE FOR REMOVAL ITEMS THE BACK FILL REQUIRED WILL BE LOW STRENGTH MORTAR. THIS ITEM WILL BE BID UNDER THE PERTINENT ITEM 202. BACK FILL SHALL BE BROUGHT UP TO THE SUBGRADE AND WITHIN THE LIMITS OF THE ROADWAY AND BERMS. ALL CUTS IN DRIVEWAYS SHALL BE BACK FILLED WITH LOW STRENGTH MORTAR. LIMITS OF BACK FILL SHALL BE THE WIDTH OF THE DRIVEWAY PLUS TWO FEET ON EACH SIDE. ANY CUT IN COUNTY ROADWAYS AND/OR TOWNSHIP ROADWAYS, INCLUDING BERMS FOR ANY REASON WHERE THE PAVEMENT (OR BERM MATERIAL) HAS TO BE REMOVED THE BACK FILL WILL BE LOW STRENGTH MORTAR.

**FARM DRAINS**

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE DRAINED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATIONS SHALL BE ONE FOOT ABOVE THE FLOW LINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING. THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN.

**UTILITIES**

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

TYPE	NAMES & ADDRESS
SANITARY & WATER LINES	BUTLER COUNTY DEPT. OF ENVIRONMENTAL SERVICES 130 HIGH STREET HAMILTON, OH. 45011 PHONE (513) 887-3072
TELEPHONE	CINCINNATI BELL TELEPHONE 201 E. FOURTH STREET CINCINNATI, OHIO 45201 PHONE (513) 565-7043
ELECTRIC	CINERGY P.O. BOX 960 CINCINNATI, OHIO 45201 PHONE (513) 287-3795
GAS	CINERGY P.O. BOX 960 CINCINNATI, OHIO 45201 PHONE (513) 287-2588

**CROSSING & CONNECTIONS TO EXISTING PIPES & UTILITIES**

WHERE THE PLANS PROVIDE FOR 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 GRADE 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 WOULD 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 PLAN, 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 ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

**SUBGRADE REPAIR**

SUBGRADE REPAIR ITEM IS TO INCLUDE 18" DEPTH OF #2 STONE AND 6" DEPTH OF ITEM 304.

SUBGRADE REPAIR: 75 C.Y.

**GENERAL NOTES**

ADDITIONAL STEPS ARE TO BE ADDED TO STRUCTURES DEEPER THAN 4 FEET.

**SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS**

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIALS SPECIFICATIONS, DATED JANUARY 1, 2005, AND THE NOTED STANDARD CONSTRUCTION DRAWINGS SHALL GOVERN THIS IMPROVEMENT.

WHEREVER THE WORD "STATE" OCCURS, IT IS TO MEAN BUTLER COUNTY. WHEREVER THE WORD "DEPARTMENT" OCCURS, IT IS TO MEAN THE BOARD OF COUNTY COMMISSIONERS OF BUTLER COUNTY, OHIO, AND WHEREVER THE WORD "DIRECTOR" OCCURS, IT IS TO MEAN COUNTY ENGINEER, AND/OR HIS DESIGNATED REPRESENTATIVE, LIMITED TO THE PARTICULAR DUTIES ENTRUSTED TO HIM.

**ESTIMATED QUANTITIES**

THE ESTIMATED QUANTITIES UPON WHICH THIS PROPOSAL IS BASED ARE APPROXIMATE ONLY. THEY SHALL BE USED IN DETERMINING THE LOWEST AND BEST BIDDER. DURING THE TERM OF THE CONTRACT, AND AT THE OPTION OF THE ENGINEER, THEY MAY BE INCREASED, DECREASED, OR NON-PERFORMED AS CONDITIONS DICTATE AND/OR WHEN THE NEED FOR ANY ITEM CANNOT BE DETERMINED UNTIL THE COMPLETION OF OTHER CONTRACTUAL ITEMS AND/OR THE PROPER INSPECTIONS HAVE BEEN MADE. THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY CLAIM OR LOSS OF PROFITS OR OTHER DAMAGES SHOULD THE ACTUAL QUANTITIES OF ANY OR ALL ITEMS BE GREATER THAN OR LESS THAN THE STATED ESTIMATED QUANTITIES.

**TACK COAT**

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

**SEEDING**

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS AS SHOWN ON THE CROSS SECTIONS.

**CONSTRUCTION LAYOUT STAKES**

THE CONTRACTOR IS TO PROVIDE ALL LABOR AND MATERIALS REQUIRED TO ADEQUATELY INSURE THE PROPER ELEVATIONS AND LOCATIONS OF ALL ITEMS INCLUDED IN THE WORK. THIS IS TO BE PAID FOR UNDER ITEM 623, LUMP SUM, CONSTRUCTION LAYOUT STAKES. PRIOR TO CONSTRUCTION, BENCH MARKS SHALL BE REESTABLISHED OUTSIDE OF THE CONSTRUCTION LIMITS. THIS WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL SURVEYOR, REGISTERED IN THE STATE OF OHIO.

**MAINTENANCE OF TRAFFIC**

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN TRAFFIC. OCCASIONALLY MODIFICATIONS IN TRAFFIC CONTROLS OR WORKING CONDITIONS MAY BE REQUIRED IN ORDER TO EXPEDITE SAFE TRAFFIC MOVEMENT AND TO PROMOTE WORKER SAFETY. IT IS ESSENTIAL THAT THE ENGINEER HAVE THE AUTHORITY TO CONTROL THE PROGRESS OF WORK ON THE PROJECT IN ITS RELATION TO OBTAINING SAFE CONDITIONS, INCLUDING THE AUTHORITY TO MODIFY CONDITIONS OR HALT WORK UNTIL APPLICABLE OR REMEDIAL SAFETY MEASURES ARE TAKEN, THE CONTRACTOR IS TO SUPPLY ALL TRAFFIC CONTROL AS THE ENGINEER DEEMS NECESSARY.

TRAFFIC MAY BE DETOURED DURING CONSTRUCTION SUBJECT TO THE FOLLOWING:

1. CLOSINGS ARE SUBJECT TO APPROVAL BY THE COUNTY ENGINEER. THREE WORKING DAYS ADVANCED NOTICE MUST BE PROVIDED.
2. LIGHTS, SIGNS, BARRELS, AND ALL BARRICADES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. DETOURS WILL BE PROVIDED BY COUNTY FORCES.
4. LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR MUST COORDINATE THE WORK SO AS NOT TO INTERRUPT INGRESS AND EGRESS FROM AFFECTED PROPERTIES.

NOTE: ALL TRAFFIC CONTROL DEVICES USED ON STREET AND HIGHWAY CONSTRUCTION OR MAINTENANCE WORK SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE MANUAL OF TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE OPERATIONS. (REVISION 21) AND THE OHIO DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL MANUAL.

**MAINTENANCE OF SEWER FLOWS**

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES SEWER FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE AND THROUGH EXISTING FACILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PLACED IN USE.

PAYMENT FOR ADDITIONAL COSTS INVOLVED IN MAINTAINING THESE FLOWS BY PUMPING OR ANY OTHER MEANS APPROVED BY THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE RESPECTIVE ITEMS OF 603 CONDUIT.

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

ALL EXISTING SEWERS 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 CONTRACTORS OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT ITEMS OF THE CONTRACT.

**FIELD DRAINS OR SUMP LINES**

ANY SMALL FIELD DRAINS OR SUMP LINES THAT NEED TO BE EXTENDED OR RECONNECTED IN THE PROCESS OF COMPLETING THE PROJECT WILL BE CONSIDERED TO BE PART OF THE FOLLOWING ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER.

- 603 4" CONDUIT TYPE F 100 LIN. FT.
- 603 6" CONDUIT TYPE F 100 LIN. FT.

CONNECTIONS TO EXISTING PIPE WHERE THE PLANS PROVIDE FOR THE PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

**MISCELLANEOUS NOTES:**

ALL PAVEMENT SAWCUTS TO BE MADE WITH A DIAMOND EDGED SAW BLADE.

AREAS THAT INDICATE PAVEMENT PLANING IS REQUIRED TO BE 1 INCH MINIMUM. TACK COAT SHALL BE APPLIED PRIOR TO RESURFACING.

EXISTING TYPE 2 CURB TO BE REMOVED PRIOR TO INSTALLATION OF NEW CURB.

**ITEM 204 - PROOF ROLLING**

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. PROOF ROLLING TO BE PERFORMED UNDER THE DIRECTION OF THE BUTLER COUNTY ENGINEER'S OFFICE.

ITEM 204 - PROOF ROLLING = 5 HOURS

**CONNECTIONS TO EXISTING STRUCTURES:**

- A. WHENEVER NEW PIPES ARE CONNECTED TO EXISTING STRUCTURES, PIPE OPENINGS SHALL BE CORE DRILLED TO ACCOMMODATE NEW PIPE.
- B. GROUT HOLES OR DAMAGE IN WALL OPENING WITH MASTER BUILDERS MASTERFLOW 713, SONOGROUT, OR EQUAL, NON-SHRINK GROUT MIXED TO A DAMP PACKING OR RAMMING CONSISTENCY. TEMPORARY BACKING OR FORMING MAY BE REQUIRED FOR RAMMING THE GROUT MATERIAL IN PLACE AROUND THE PIPE (AND AROUND THE ADAPTER IN THE CASE OF PLASTIC PIPE). PLACE GROUT UNTIL FLUSH WITH OUTSIDE FACE OF WALL.
- D. PRIOR TO PLACING GROUT, COAT THE ENTIRE PERIMETER CONTACT SURFACE OF THE PIPE HOLE WITH SIKA CHEMICAL COMPANY SIKADUR HI-MOD, SONOBOND, OR EQUAL, MOISTURE INSENSITIVE EPOXY BONDING COMPOUND. (BONDING COMPOUND ELIMINATES MOISTURE LOSS FROM FRESH GROUT. NO PRESOAK IS REQUIRED). THE EPOXY-BONDING COMPOUND MUST BE TACKY AT THE TIME GROUT IS PLACED AGAINST IT. BRUSHING OVER THE ORIGINAL COATING CAN RESTORE TACKINESS.
- E. GROUT RING INSTALLATION, MIXING AND PLACING GROUT AND MIXING AND PLACING EPOXY BONDING COMPOUND SHALL ALL BE ACCOMPLISHED IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S INSTRUCTIONS.

PLANS PREPARED BY:

**NEXUS ENGINEERING**

CIVIL ENGINEERS AND LAND SURVEYORS  
6888 WEST CHESTER, OHIO 45399  
PHONE (513) 860-9130



**GENERAL NOTES  
WEST CHESTER, OHIO**

DESIGNED	C.F.G.
DRAWN	C.F.G.
CHECKED	M.A.N.
DATE	DEC. 2006

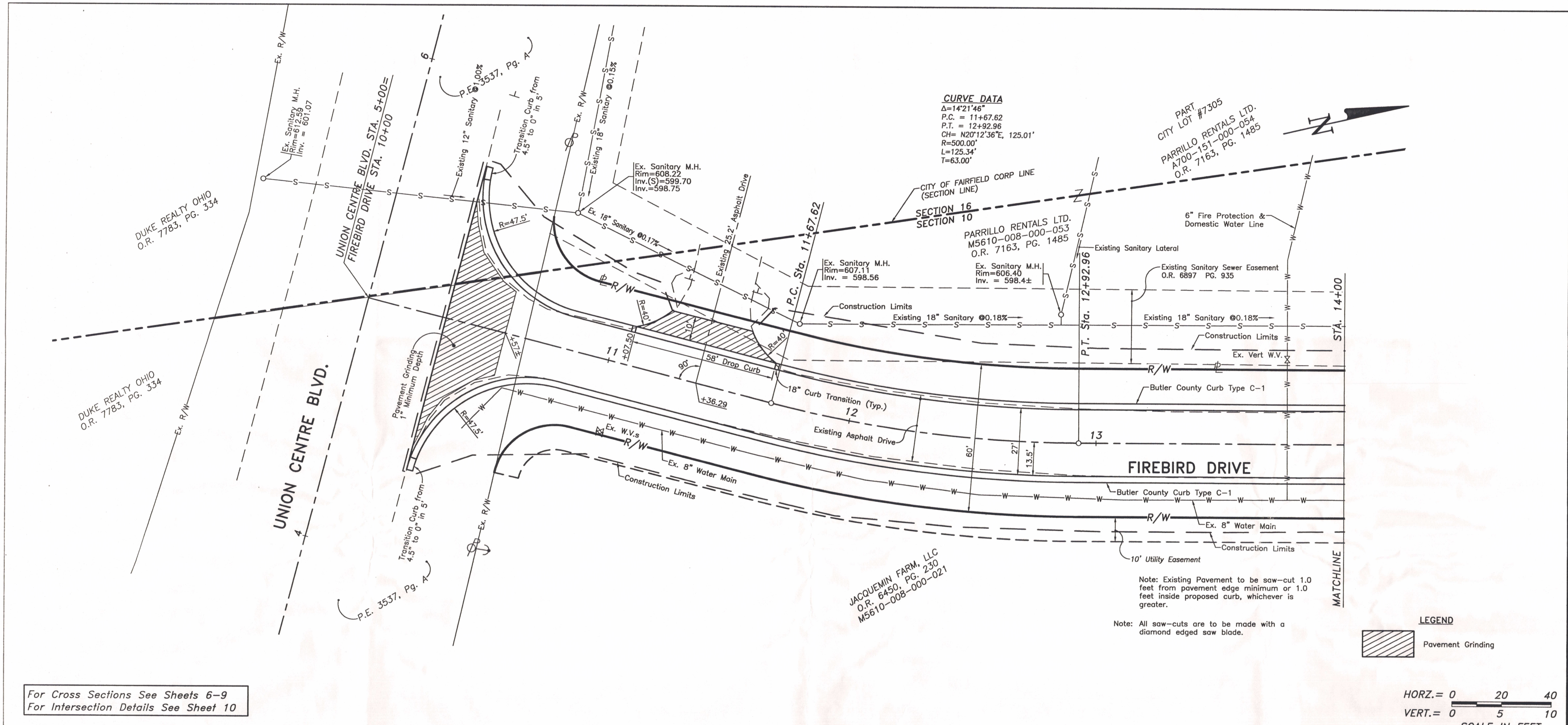
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**NOTICE**

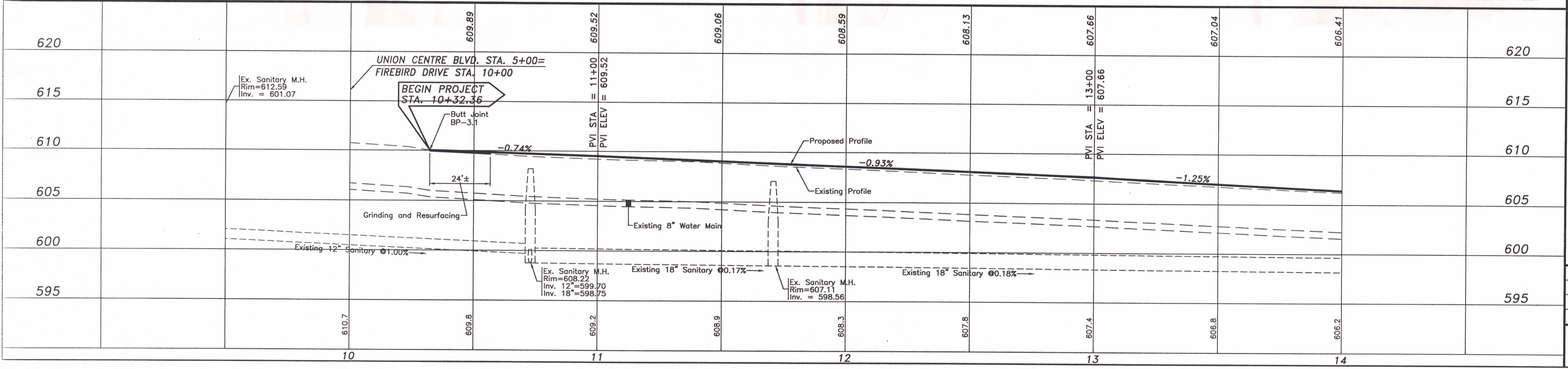
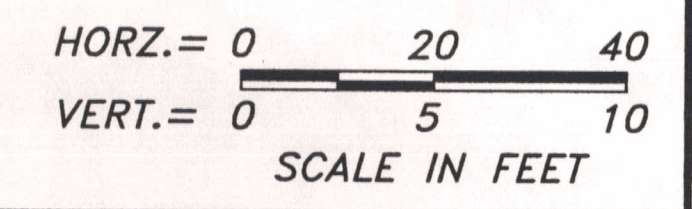
IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ANY DISCREPANCIES ON THESE PLANS BEFORE PROCEEDING WITH CONSTRUCTION.

10	9	8	7	6	5	4	3	2	1

Revised notes per BCEO comments  
DATE 4/20/07  
REVISIONS



For Cross Sections See Sheets 6-9  
 For Intersection Details See Sheet 10



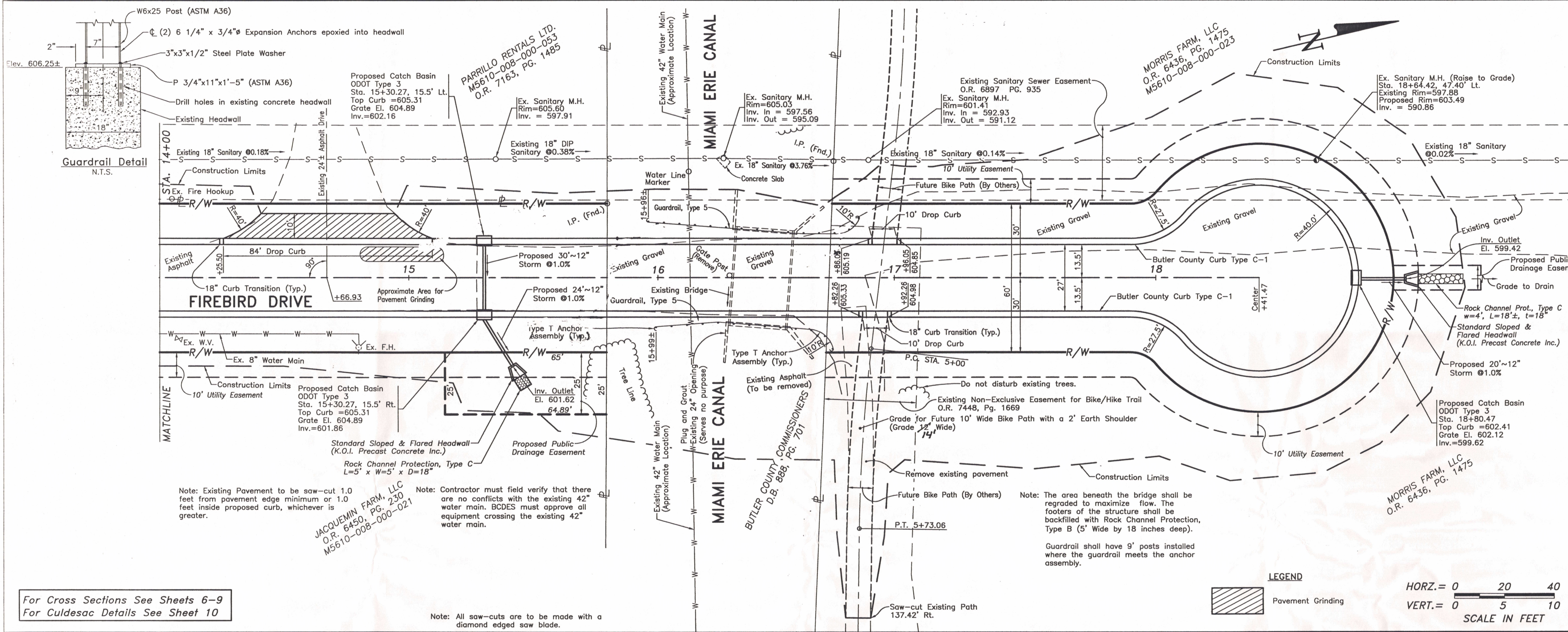
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PLANS PREPARED BY:  
**NEXUS ENGINEERING**  
 8000 BECKETT CENTER DRIVE, SUITE 203  
 WEST CHESTER, OHIO 45389  
 PHONE: (615) 948-9169

**FIREBIRD DRIVE  
 PLAN AND PROFILE  
 WEST CHESTER, OHIO**

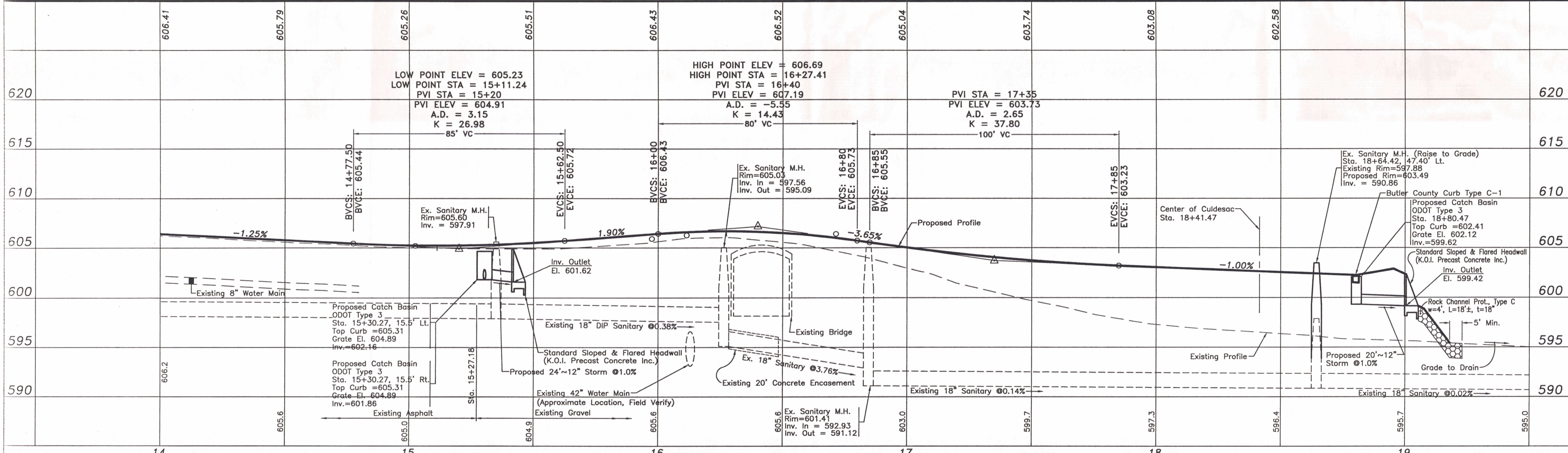
DESIGNED C.F.G.  
 DRAWN C.F.G.  
 CHECKED M.A.N.  
 DATE DEC. 2006

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For Cross Sections See Sheets 6-9  
For Culdesac Details See Sheet 10

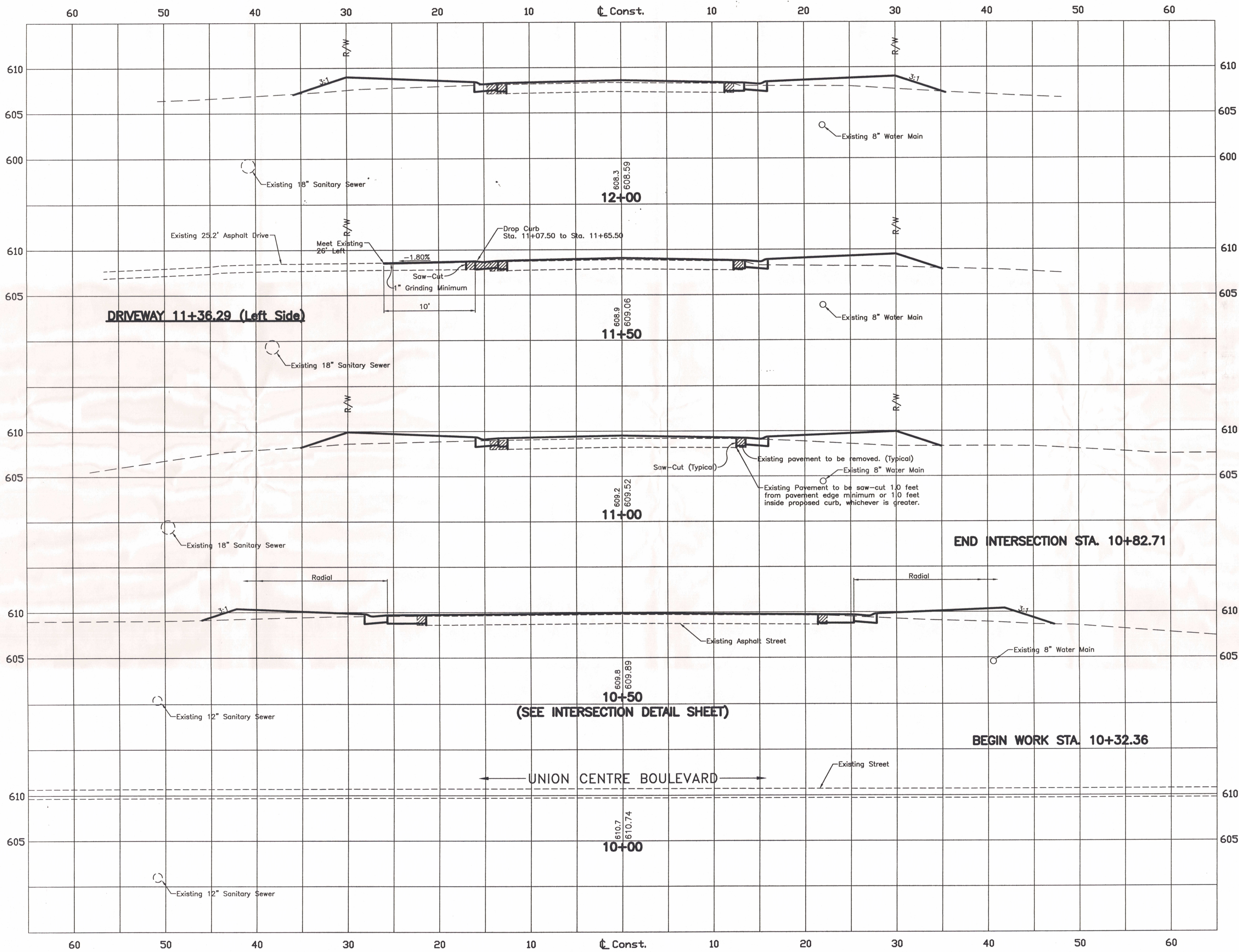
Note: All saw-cuts are to be made with a diamond edged saw blade.



DESIGNED	C.F.G.																																	
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CHECKED	M.A.N.																																	
DATE	DEC. 2006																																	
PLANS PREPARED BY: <b>NEXUS ENGINEERING</b> <small>CIVIL ENGINEERS AND LAND SURVEYORS          8880 WEST CHESTER ROAD, SUITE 203          CHESTER, OHIO 43917          PHONE: (615) 880-1130          FAX: (615) 880-1139</small>																																		
REVISIONS <table border="1"> <tr> <td>NO.</td> <td>DATE</td> <td>DESCRIPTION</td> </tr> <tr> <td>1</td> <td></td> <td>Modified Street Profile</td> </tr> <tr> <td>2</td> <td>9/12/06</td> <td></td> </tr> <tr> <td>3</td> <td>10/20/06</td> <td>BECCO COMMENTS</td> </tr> <tr> <td>4</td> <td>12/12/06</td> <td>BECCO COMMENTS DATED 12/06/06</td> </tr> <tr> <td>5</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> </tr> </table>		NO.	DATE	DESCRIPTION	1		Modified Street Profile	2	9/12/06		3	10/20/06	BECCO COMMENTS	4	12/12/06	BECCO COMMENTS DATED 12/06/06	5			6			7			8			9			10		
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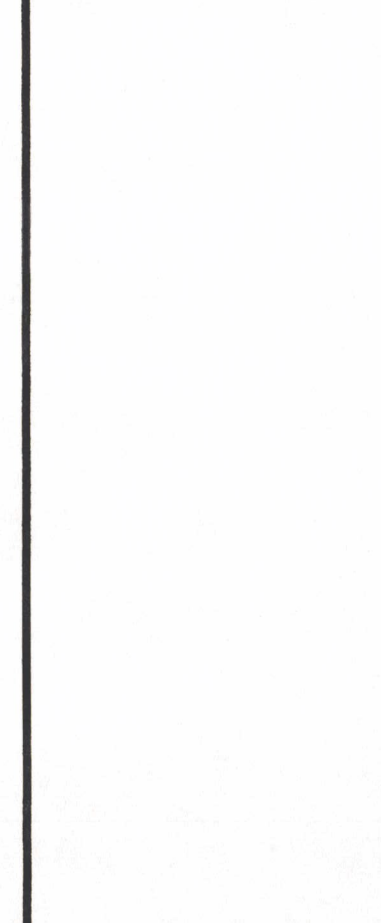
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



REVISIONS	
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PLANS PREPARED BY:  
**NEXUS ENGINEERING**  
 CIVIL ENGINEERS AND LAND SURVEYORS  
 8800 WEST CHESTER DRIVE, SUITE 200  
 WEST CHESTER, OHIO 43081  
 PHONE: (615) 880-9130



**FIREBIRD DRIVE  
 CROSS SECTIONS**

DESIGNED	C.F.G.
DRAWN	C.F.G.
CHECKED	M.A.N.
DATE	DEC. 2006

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

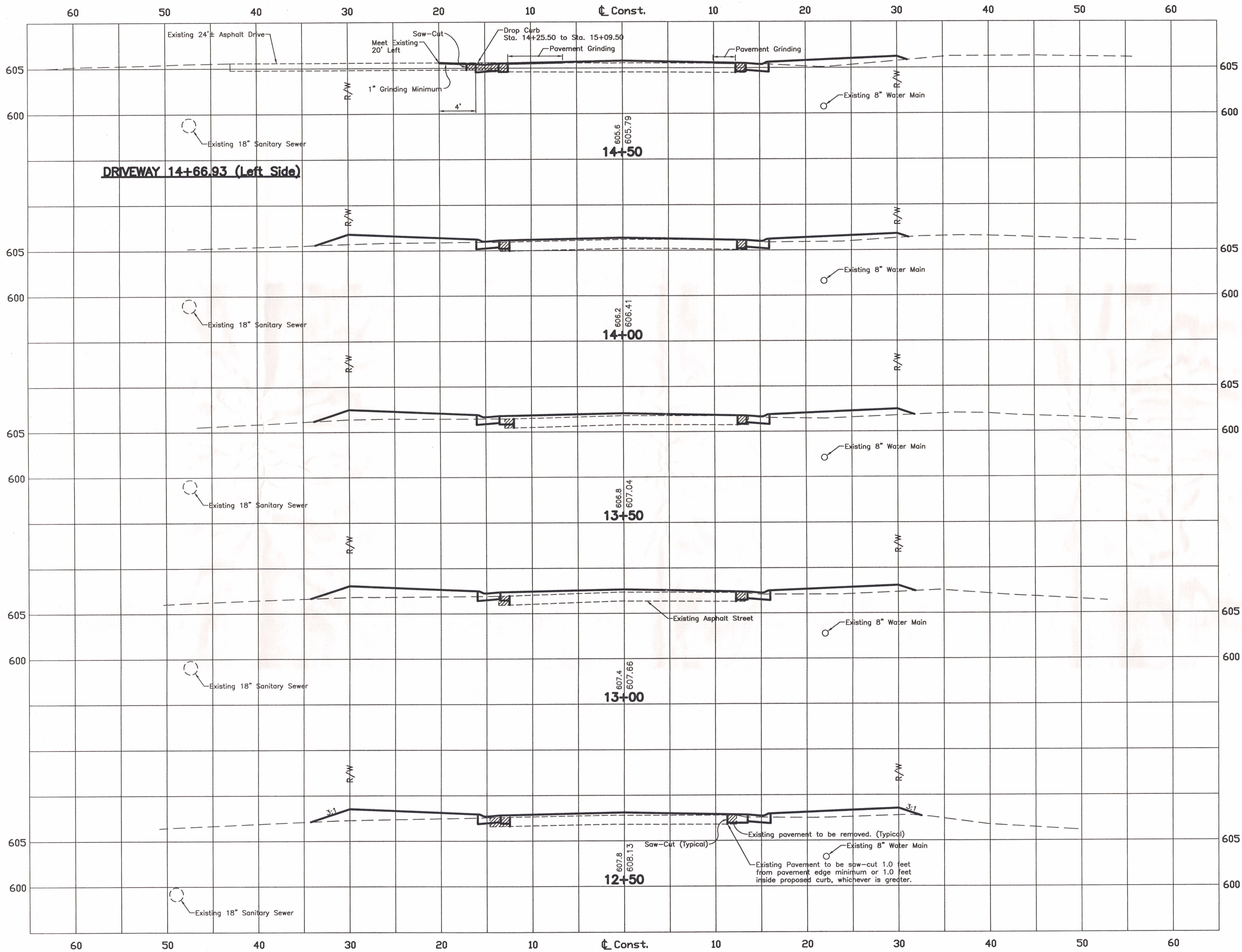
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PLANS PREPARED BY:  
**NEXUS ENGINEERING**  
 CIVIL ENGINEERS AND LAND SURVEYORS  
 8000 WEST CLAYTON DRIVE, SUITE 203  
 DENVER, COLORADO 80231  
 PHONE: (313) 880-9130



**FIREBIRD DRIVE  
 CROSS SECTIONS**

DESIGNED C.F.G.  
 DRAWN C.F.G.  
 CHECKED M.A.N.  
 DATE DEC. 2006



SEEDING  
END WIDTH  
SO. YDS.

END AREA  
CUT FILL  
VOLUME  
CUT FILL

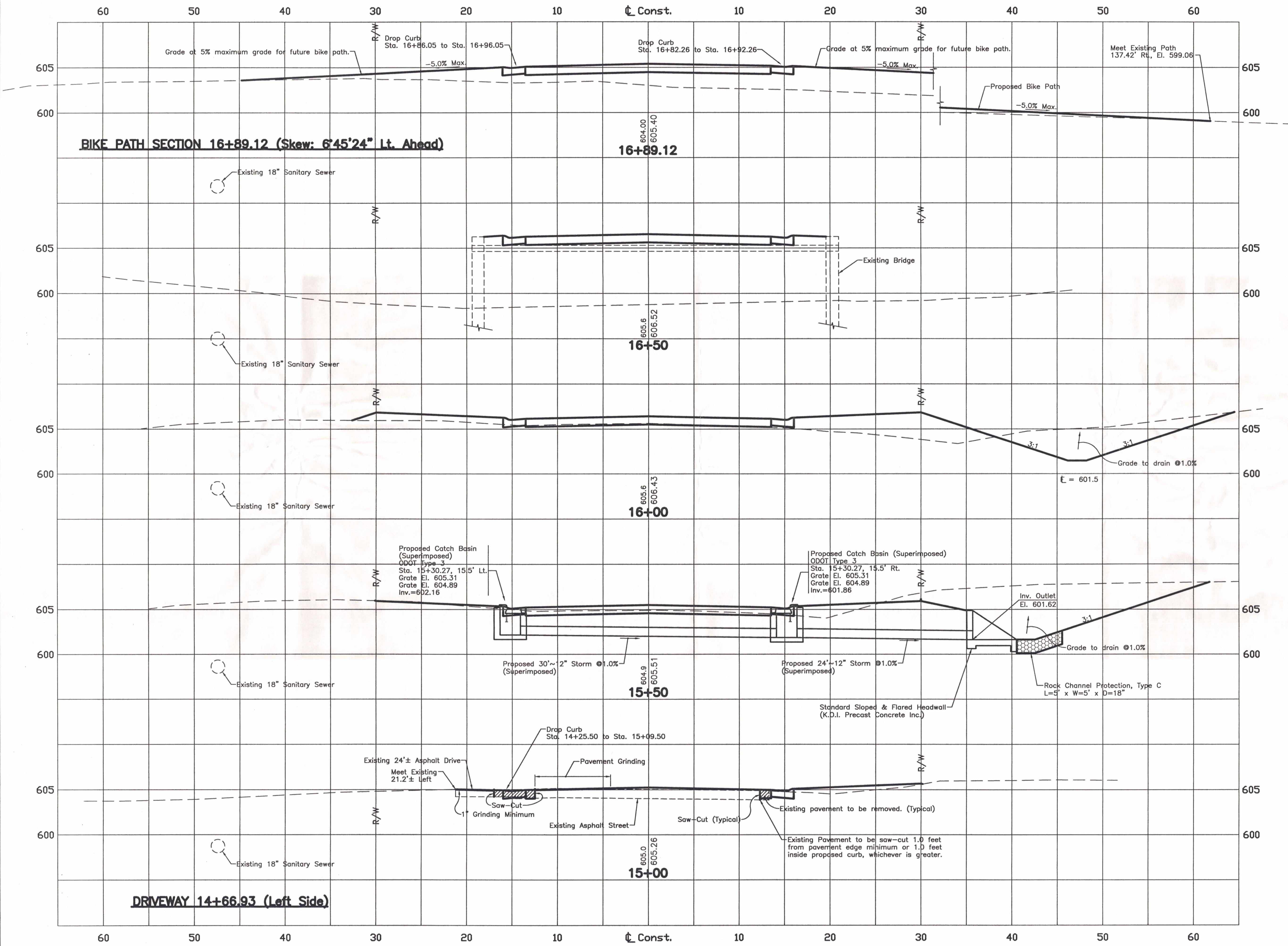
1	12/12/06	BCCO COMMENTS DATED 12/06/06
2	10/20/06	BCCO COMMENTS
3		
4		
5		
6		
7		
8		
9		
10		

PLANS PREPARED BY:  
**NEXUS ENGINEERING**  
CIVIL ENGINEERS AND LAND SURVEYORS  
8000 BUCKLESHAW DRIVE, SUITE 203  
DUBLIN, OHIO 43017  
PHONE: (614) 880-9130



**FIREBIRD DRIVE  
CROSS SECTIONS**

DESIGNED C.F.G.  
DRAWN C.F.G.  
CHECKED M.A.N.  
DATE DEC. 2006



**BIKE PATH SECTION 16+89.12 (Skew: 6'45"24" Lt. Ahead)**

**DRIVEWAY 14+66.93 (Left Side)**




SEEDING  
END WIDTH SQ. YDS.

END AREA VOLUME  
CUT FILL CUT FILL

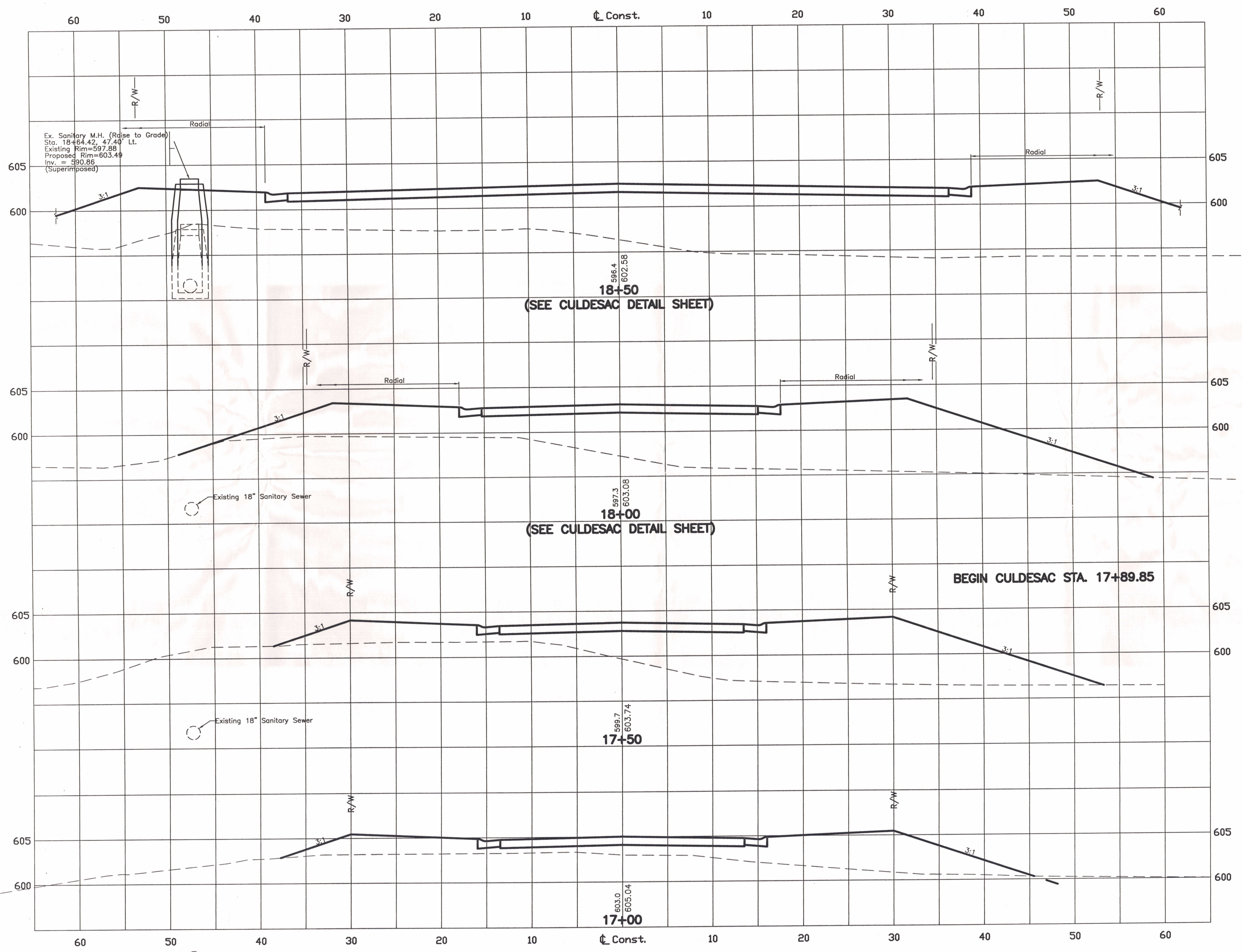
NO.	DATE	REVISIONS
10		
9		
8		
7		
6		
5		
4		
3		
2		
1	9-12-06	Modified Street Profile

PLANS PREPARED BY:  
**NEXUS ENGINEERING**  
CIVIL ENGINEERS AND LAND SURVEYORS  
6000 WEST CHESTER, OHIO 43089  
PHONE: (613) 860-9130

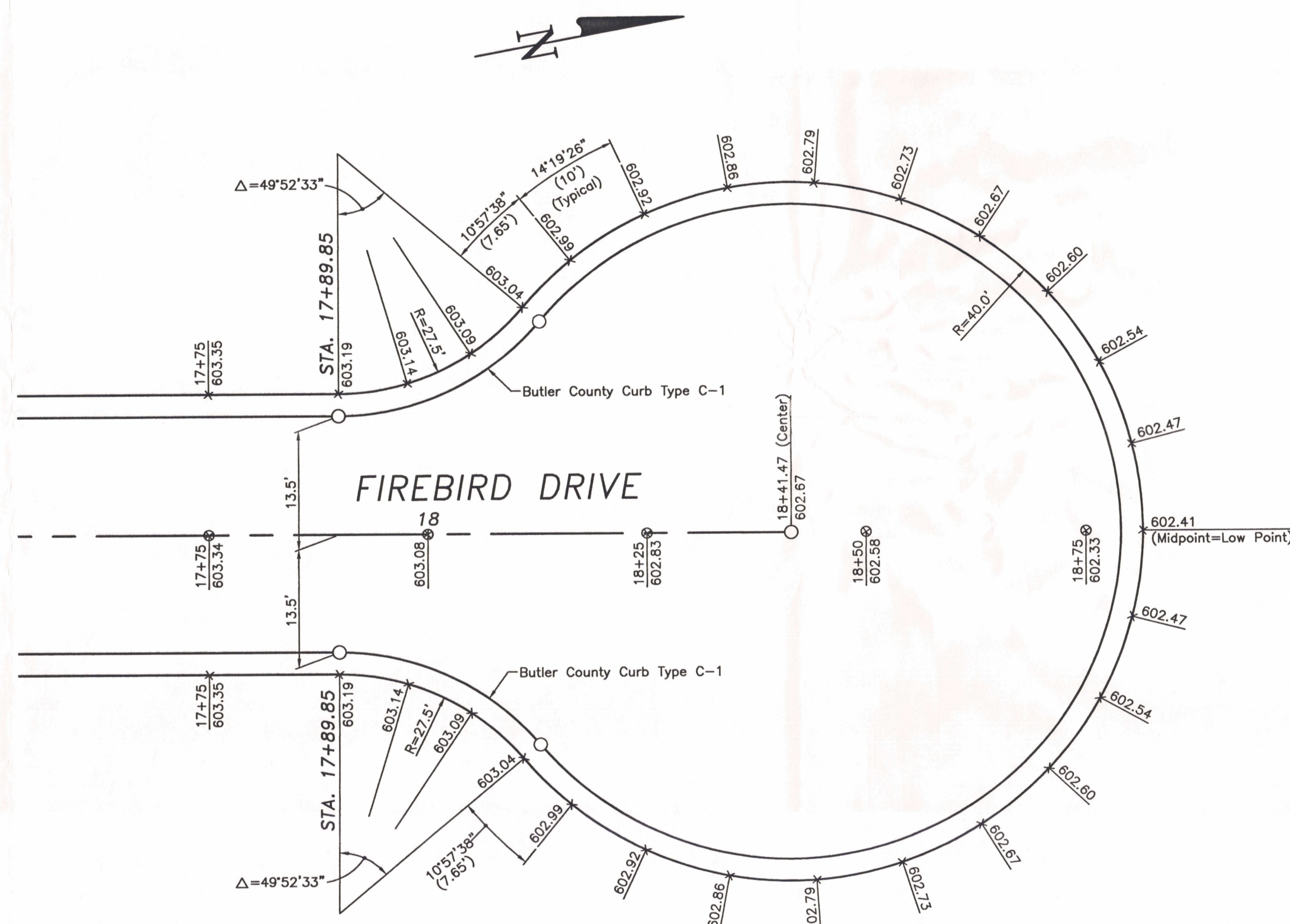
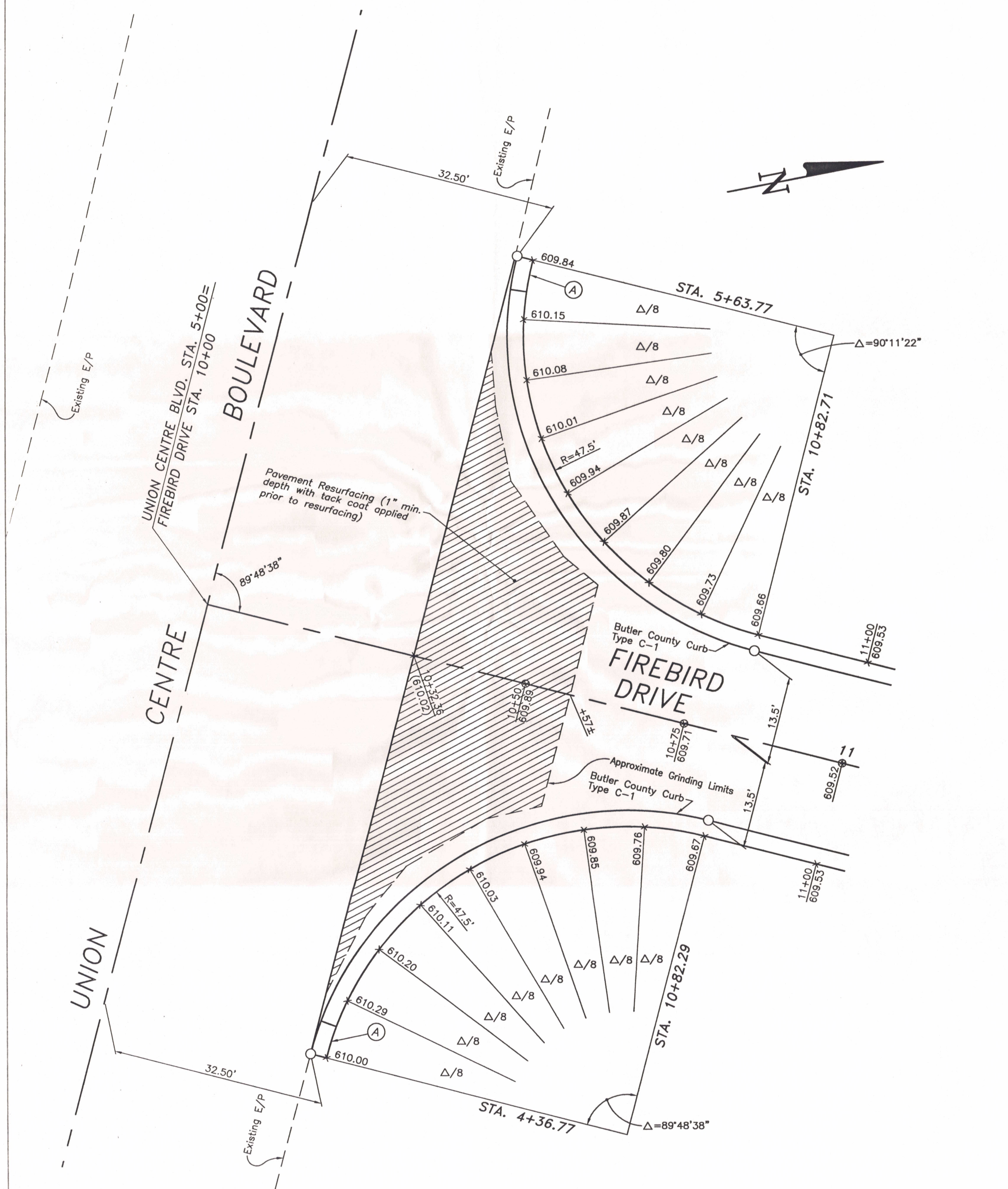


**FIREBIRD DRIVE  
CROSS SECTIONS**

DESIGNED C.F.G.  
DRAWN C.F.G.  
CHECKED M.A.N.  
DATE DEC. 2006



0 10 20  
SCALE IN FEET



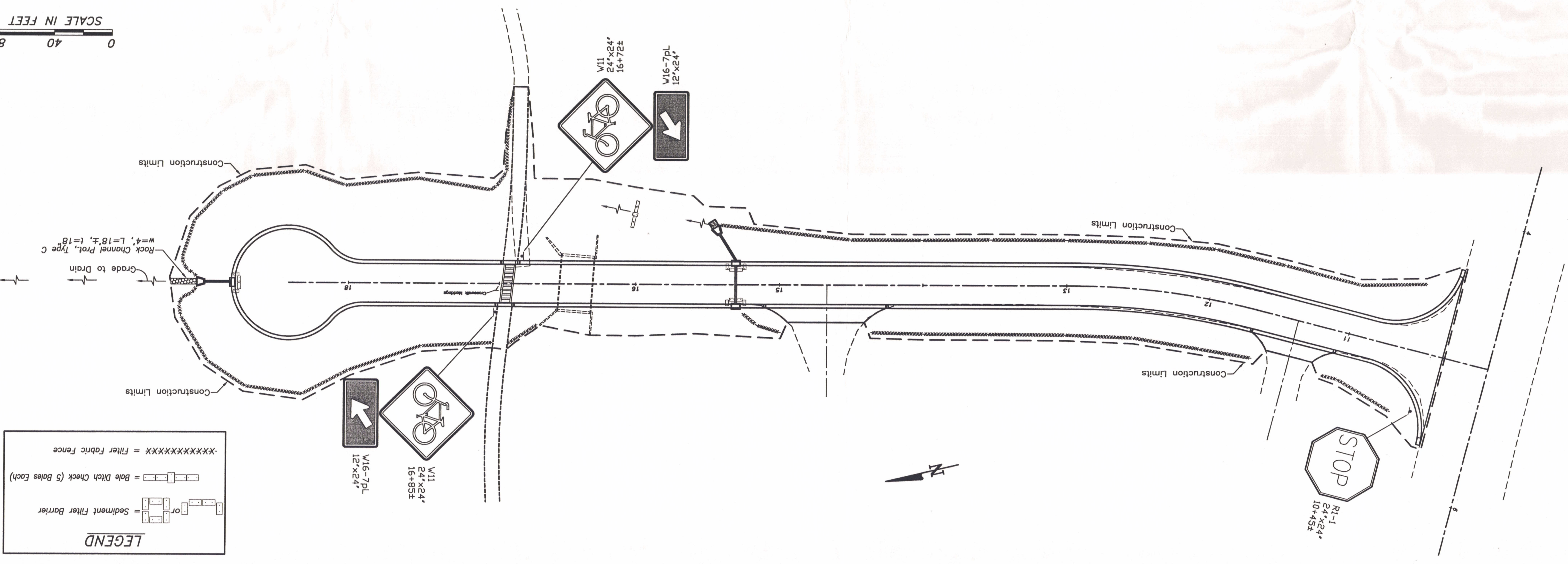
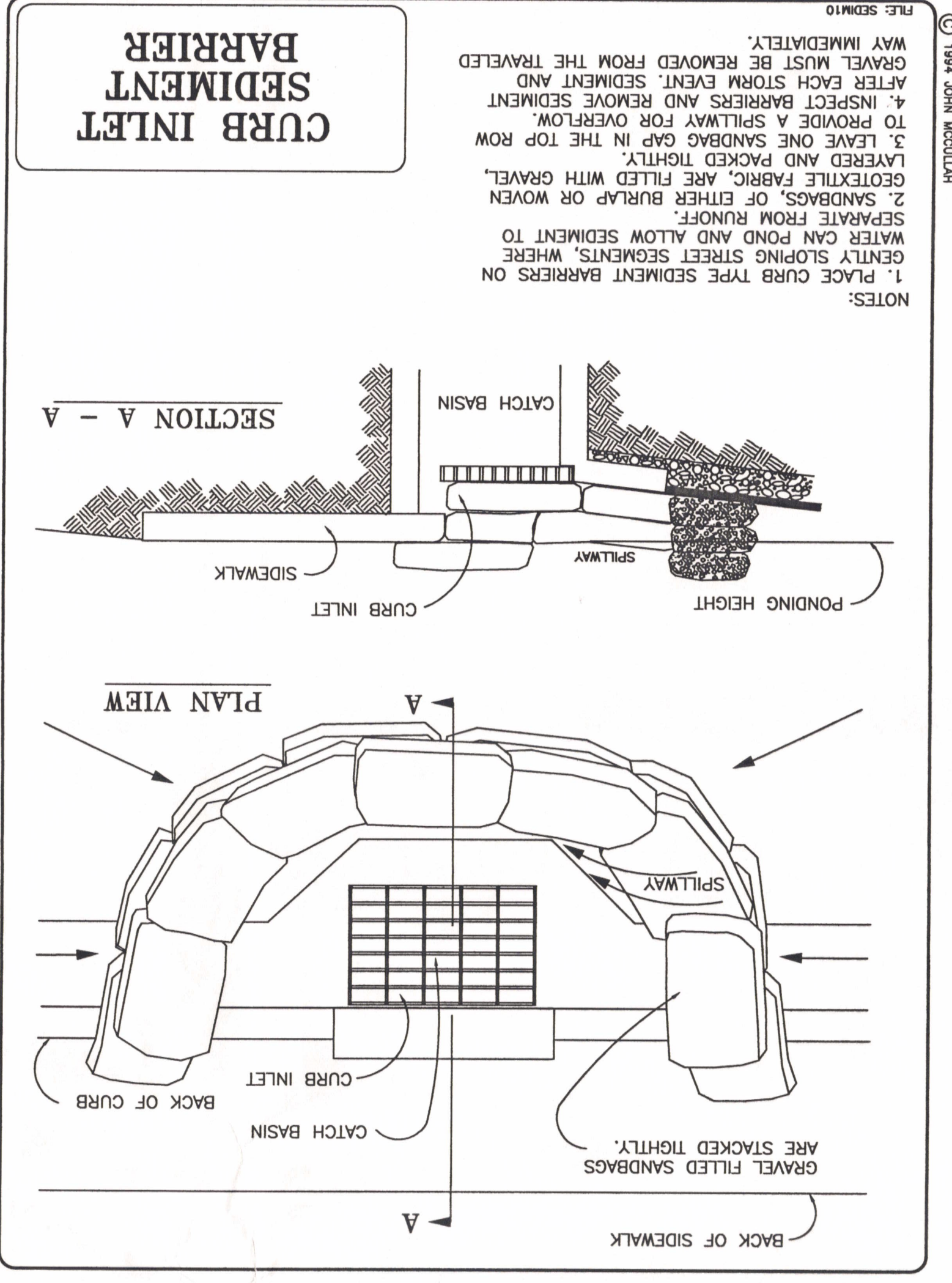
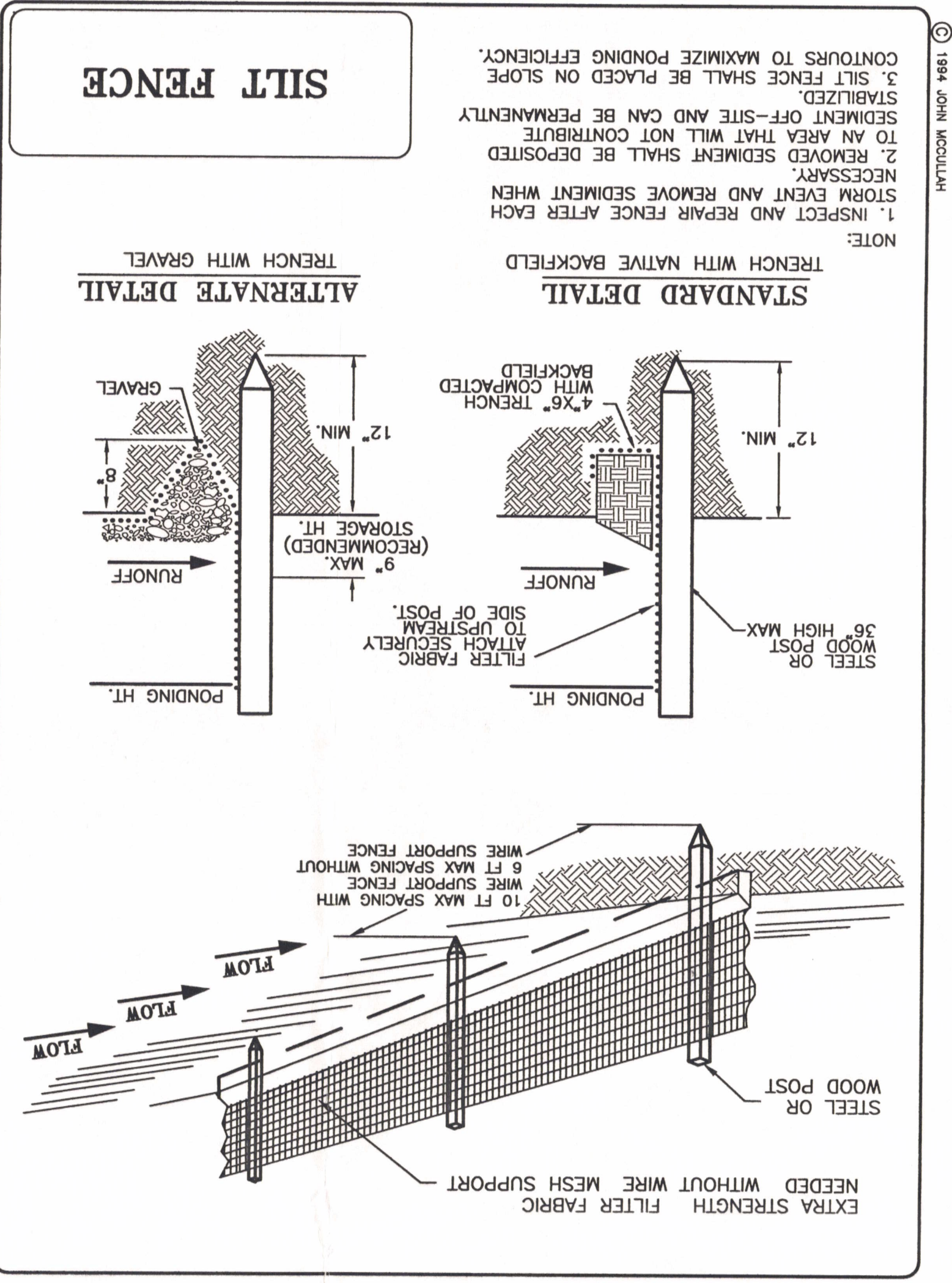
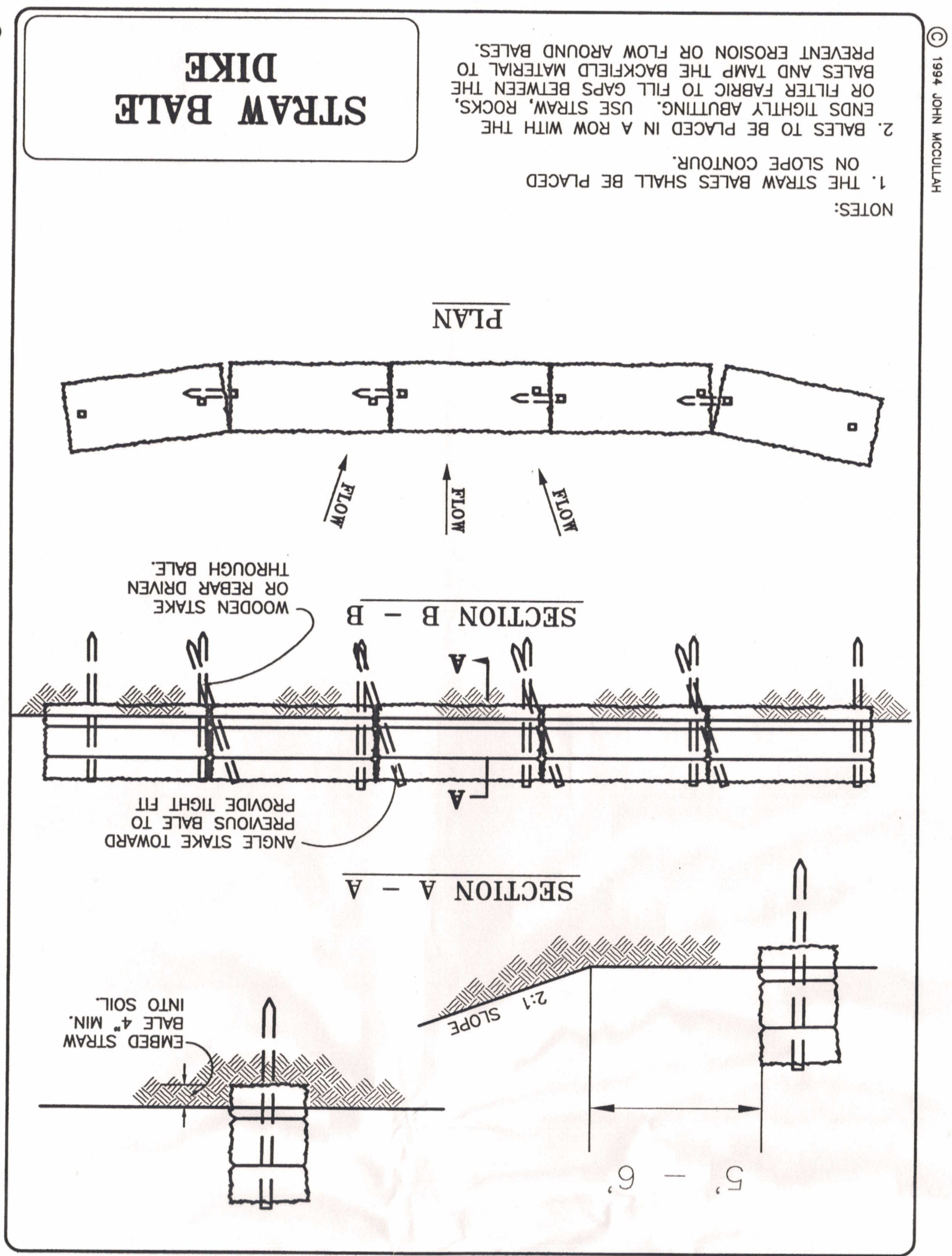
**LEGEND**  
 x605.55 = Elevation on Back of Curb  
 ⊗605.83 = Elevation on Pavement  
 x(610.02) = Existing Elevation  
 (A) = Back of curb to be tapered level to pavement in five (5) feet.

10	
9	
8	
7	
6	
5	
4	
3	
2	
1	9-12-06 Modified Street Profile
	DATE

PLANS PREPARED BY:  
**NEXUS ENGINEERING**  
 2000 BASKETT CENTER DRIVE, SUITE 203  
 WEST CHESTER, OHIO 45386  
 PHONE: (613) 860-9300  
 FAX: (613) 860-9300

**FIREBIRD DRIVE INTERSECTION & CULDESAC DETAIL**  
 WEST CHESTER, OHIO

DESIGNED C.F.G.  
 DRAWN C.F.G.  
 CHECKED M.A.N.  
 DATE DEC. 2006  
 C 10/11



ENGINEER

PLANS PREPARED BY:

**NEXUS ENGINEERING**

CONSULTING ENGINEERS AND LAND SURVEYORS  
 800 WEST CHESTER, OHIO 44080  
 PHONE: (313) 880-9100

DESIGNED  
C.F.G.

DRAWN  
C.F.G.

CHECKED  
M.A.N.

DATE  
DEC. 2006

**EROSION AND TRAFFIC CONTROL**

**FIREBIRD DRIVE**

**WEST CHESTER, OHIO**

NO.	DATE	REVISIONS
10		
9		
8		
7		
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4		
3		
2		
1	9-12-06	Modified Street Profile