





SURVEYOR'S OFFICE

# Hamilton County

*Kenton C. Ward, Surveyor*

*Suite 146*

*776-8495*

*One Hamilton County Square*

*Noblesville, Indiana 46060-2230*

May 17, 1995

TO: Hamilton County Drainage Board

RE: Anna Kendall Drainage Area

Attached is a petition, plans for reconstruction, drain map and drainage shed map for the Anna Kendall Drainage Area. At this time the Anna Kendall Drain is number thirteen (13) on the 1995 Classification List for Reconstruction.

The Anna Kendall Drain was constructed in 1881 through petition to the Hamilton County Circuit Court. This drain is 21,800 feet of open ditch constructed at a cost of \$2,124.04. The drain was repaired in 1891, 1898, 1908, 1912, 1916, 1918, 1923, 1934, 1936, 1938 and 1940. At sometime between 1908 and 1912, a tile was installed between STA 0 to STA 16+15. The records fall silent as to when this was done. However, the 1908 record shows the above named section as open ditch, whereas in 1912 record of the open ditch cleaning begins at STA 16+15. This tile is believed to be a twelve (12") inch tile. In 1970 the tile outlet was improved by the removal of the old headwall and the installation of a drop structure and clean out of 900 feet of the open ditch. Other than the tiling of the open ditch from STA ) to STA 16+15, the drain has remained unchanged from it's 1881 description.

The proposed reconstruction of a portion of the open has been petitioned by Ralph Wilfong. In order to provide an adequate outlet for the proposed Quail Ridge and Pine Ridge Subdivisions. This reconstruction will be done between State Road #32 and Westfield Blvd. The work involved includes ditch bank clearing, dredging of the open ditch, installation of silt basins, placing tile outlet pipes onto tile drains entering the open ditch, removal of the culvert under the abandoned Central Indiana Rail Road and seeding.

Also included is the replacement of the current bridge at Oak Ridge Road. The replacement of the structure is an issue which is unresolved at this time. Cost of the replacement structure under IC 36-9-27-71, falls to the owner of the road. This portion of the road has now been annexed to the Town of Westfield. However, under IC 8-16-3-1 and 1.5. The cost of the structure may be assessed to Hamilton County. On September 12, 1994, the Hamilton County Commissioners moved that Structures under twenty (20') feet in length shall not be replaced by the Hamilton County Highway Department. If within a Town or City. (see Hamilton County Ordinance 9-12-94A, memo from Les Locke, Hamilton County Highway Engineer, dated February 16, 1995. Due to this impasse between the Town of Westfield and Hamilton County, I proposed that both be assessed the full cost of the structure, until a solution is reached by both parties. I estimate this cost to be \$85,635.00.

The cost of the proposed reconstruction, minus the cost of the structure under Oak Ridge Road, will be paid for by the petitioner, Mr. Wilfong. I believe that no damages will occur to the owners of land along the drain. Therefore, damages for the project should be set at \$0.00 for all tracts for the reconstruction.

The Anna Kendall Drain is the outlet subsequent to four (4) other regulated drains. The E. M. Osborne, Goodrich Brothers, Westfield Park and J. M. Thompson Drains utilize the Kendall as an outlet. I recommend that the J. M. Thompson, E. M. Osborne, Goodrich Brothers and Anna Kendall drains be combined under IC 36-9-27-41 for purposes of maintenance and an overall maintenance program be implemented to be known as the Anna Kendall Drainage Area. The landowners within the drainage shed for the Westfield Park Drain would be assessed for both the Westfield Park Drain and the proposed Anna Kendall Drainage Area.

The J. M. Thompson Drain was reconstructed and placed on maintenance at a hearing on December 12, 1989 (see report dated November 20, 1989) This drain consists of <sup>9961</sup> feet of storm sewer and open ditch. The ~~presently~~ <sup>presently</sup> is assessed at a rate of \$5.00 per acre, with a \$25.00 minimum, which brings in an annual assessment of \$11,675.78. The current fund balance is \$25,031.26.

The E. M. Osborn Drain was placed on maintenance at hearing on July 25, 1994 (see report dated May 19, 1994). This drain consists of 12,884 feet of tile drain. The drain presently is assessed at a rate of \$5.00 per acre, with a \$25.00 minimum, which brings in \$3411.54 annually. At this time the fund balance is \$0.00.

The Goodrich Brothers Drain was constructed in 1905 through the Hamilton County Commissioners. This tile drain consisted of a main and two (2) Arms and was 3485 feet in length. This drain was reconstructed by the Town of Westfield in 1979 as part of the Park Street improvements. The drain was reconstructed again in 1988 by Hardees Food Systems, Inc. The drain now consists of 2029 feet of tile drain and storm sewer. This drain is not currently on a maintenance program.

The Westfield Park Drain was constructed in 1986 and added to in five (5) phases, all by petition to the Drainage Board. (see reports dated July 8, 1988, July 25, 1988, August 7, 1989, November 15, 1990 and December 17, 1993) This drainage system serves the commercial developments of Westfield Park and Sun Industrial Park. At this time the drain is assessed at a rate of \$5.00 per acre and \$50.00 minimum. This assessment would remain in effect under this proposal. The annual assessment totals \$2,407.08. Currently the fund balance is \$7302.16.

The total footage for the drain area is as follows:

|                   | <u>Tile</u>   | <u>Open</u>   | <u>Total</u>  |
|-------------------|---------------|---------------|---------------|
| Anna Kendall      | 1615          | 20,185        | 21,800        |
| Goodrich Brothers | 2029          | 0             | 2,029         |
| J. M. Thompson    | 6701          | 3,260         | 9,961         |
| E. M. Osborn      | 12,884        | 0             | 12,884        |
| TOTAL             | <u>23,229</u> | <u>23,445</u> | <u>46,674</u> |

As stated above, I recommend that the Board place this drain on maintenance at this time. The nature of the work required is as follows:

- A. Clearing of trees and brush on the existing open ditch;
- B. Creation and re-excavation of silt basins;
- C. Re-excavation of open ditch to original grade line;
- D. Surface water structure as might be required;
- E. Bank erosion protection and/or seeding as might be required;
- F. Repair of private tile outlet ends as might be required;
- G. Repair of regulated drain tile outlets;
- H. Repair of broken tile on regulated drains;
- I. Removal of debris and/or blockages from regulated tile and open ditch;
- J. Installation of breather pipes as might be required;
- K. Cleaning and/or repair of existing catch basin and tile as might be required;
- L. Any other repairs deemed to be applicable and necessary by the Surveyor to restore the drain to it's original intended use and condition.

The frequency with which maintenance work should be performed is annually as required by the condition of the drain.

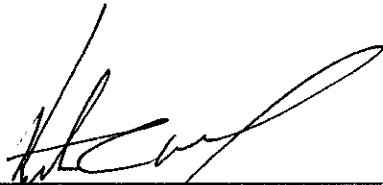
I estimate the amount of the annual cost for periodic maintenance of this drain will be \$35,350.00 and attached hereto is the name and address of each owner, the legal description as shown by the tax duplicate or record of transfers by the county, wherein the land is situated, which lands, in my opinion, will be affected by the proposed improvement and the public roads or highways owned by the county or by the State of Indiana by name or number and the Right-of-Ways of railroads by section, township, and range.

The drainage shed consist of 2,668.76 acres with 577 lots under one (1) acre. Upon considering each parcel individually, I believe that each parcel will have equal benefits as provided by the drain. Therefore, I recommend the Board assess the benefitted parcels at a rate of \$5.00 per acre with a \$25.00 minimum. This will provide an annual collection of \$35,348.00.

The collections for the E. M. Osborn and J. M. Thompson Drains will be discontinued. The fund balances for these drains will be used for payment of work done on these drains until drawn down to \$0.00. Afterwards, the cost of work done the these drains will come from the Anna Kendall Drainage Area fund.

I believe the drains within the proposed drainage area meets the requirements for Urban Drain classification as set out in IC 36-9-27-67 to 69. Therefore, this drain shall be designated as an Urban Drain.

I recommend the Board set a hearing for this proposal for July 1995.

  
\_\_\_\_\_  
Kenton C. Ward  
Hamilton County Surveyor  
KCW/no

To: Hamilton County Drainage Board

**Re: Anna Kendall Reconstruction**

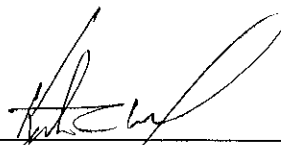
Attached are as-builts, certificate of completion & compliance, and other information for the **Anna Kendall Reconstruction**. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

During construction of the drain there were not any significant changes made to the plans submitted with my report dated May 17, 1995. Therefore, the length of the drain remains at **21,800** feet.

All expenses for the reconstruction of the Anna Kendall were met by Ralph Wilfong.

I recommend the Board approve the drains construction as complete and acceptable.

Sincerely,

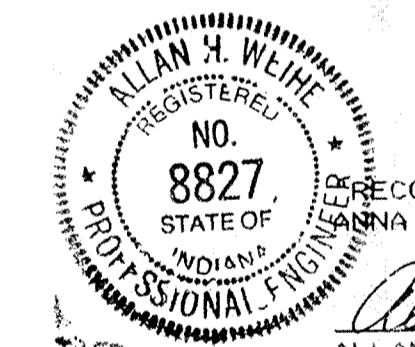
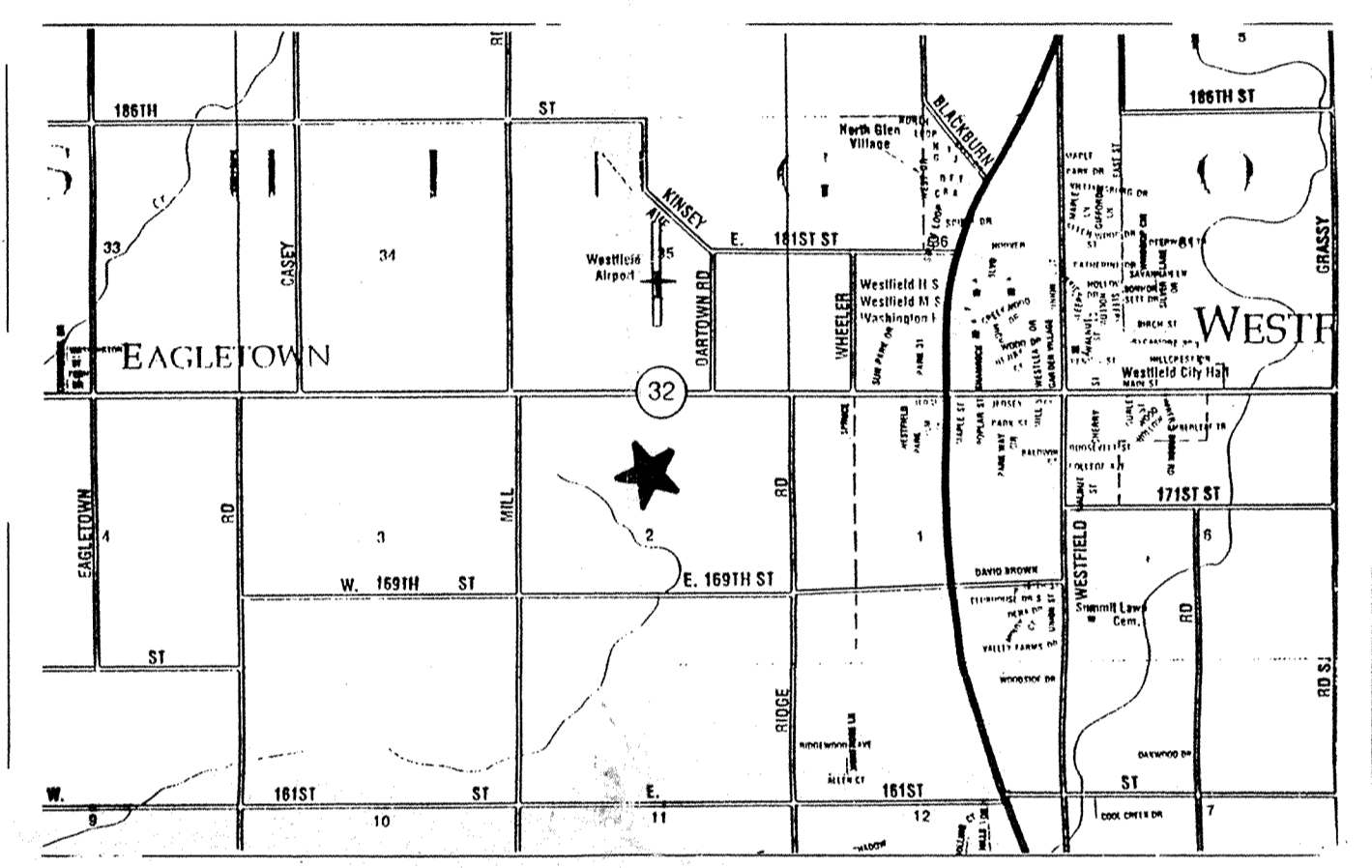
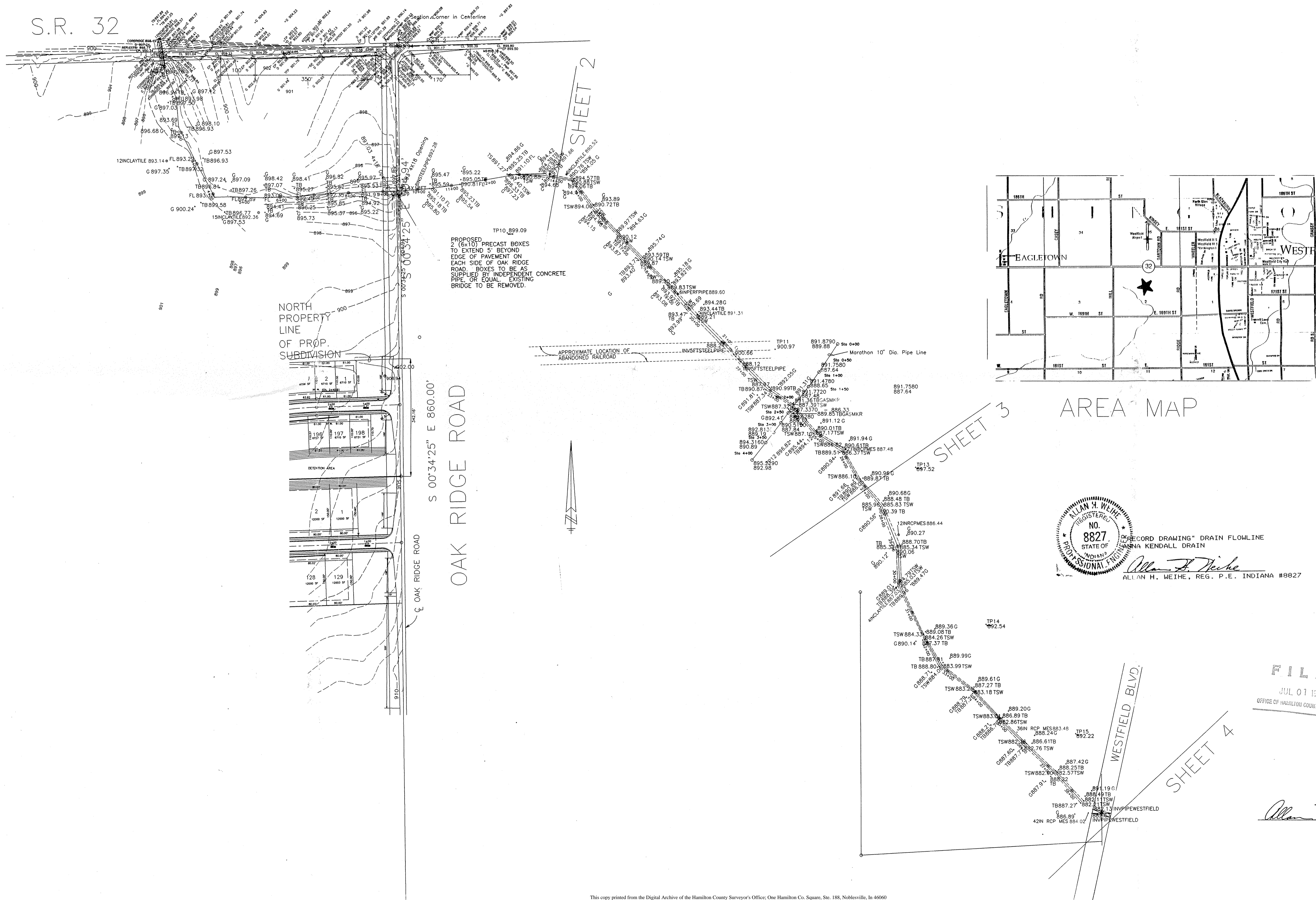


---

Kenton C. Ward,  
Hamilton County Surveyor

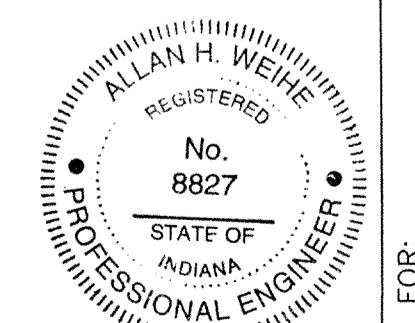
KCW/slm

# RECONSTRUCTION OF ANNA KENDALL DRAIN



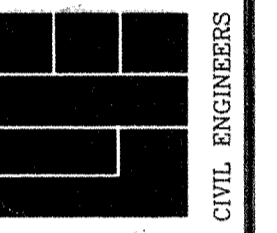
RECORD DRAWING\* DRAIN FLOWLINE  
 ANNA KENDALL DRAIN  
 Allan H. Weihe  
 ALLAN H. WEIHE, REG. P.E. INDIANA #8827

FILED  
 JUL 01 1995  
 OFFICE OF HAMILTON COUNTY SURVEYOR



Allan H. Weihe

**WEIHE ENGINEERS, INC.**  
 ALLAN H. WEIHE, P.E., L.S.  
 PRESIDENT  
 10005 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46280  
 (317) 846-6611

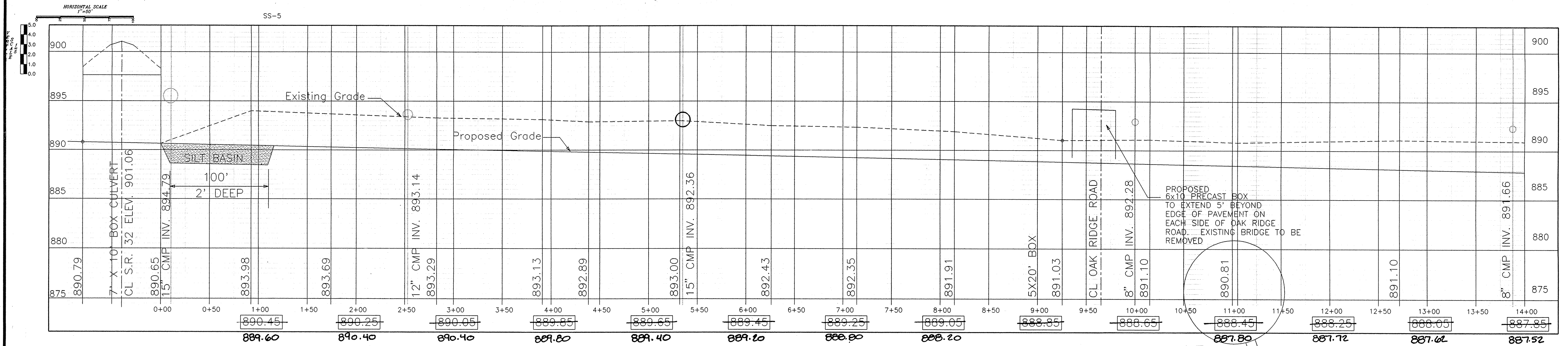
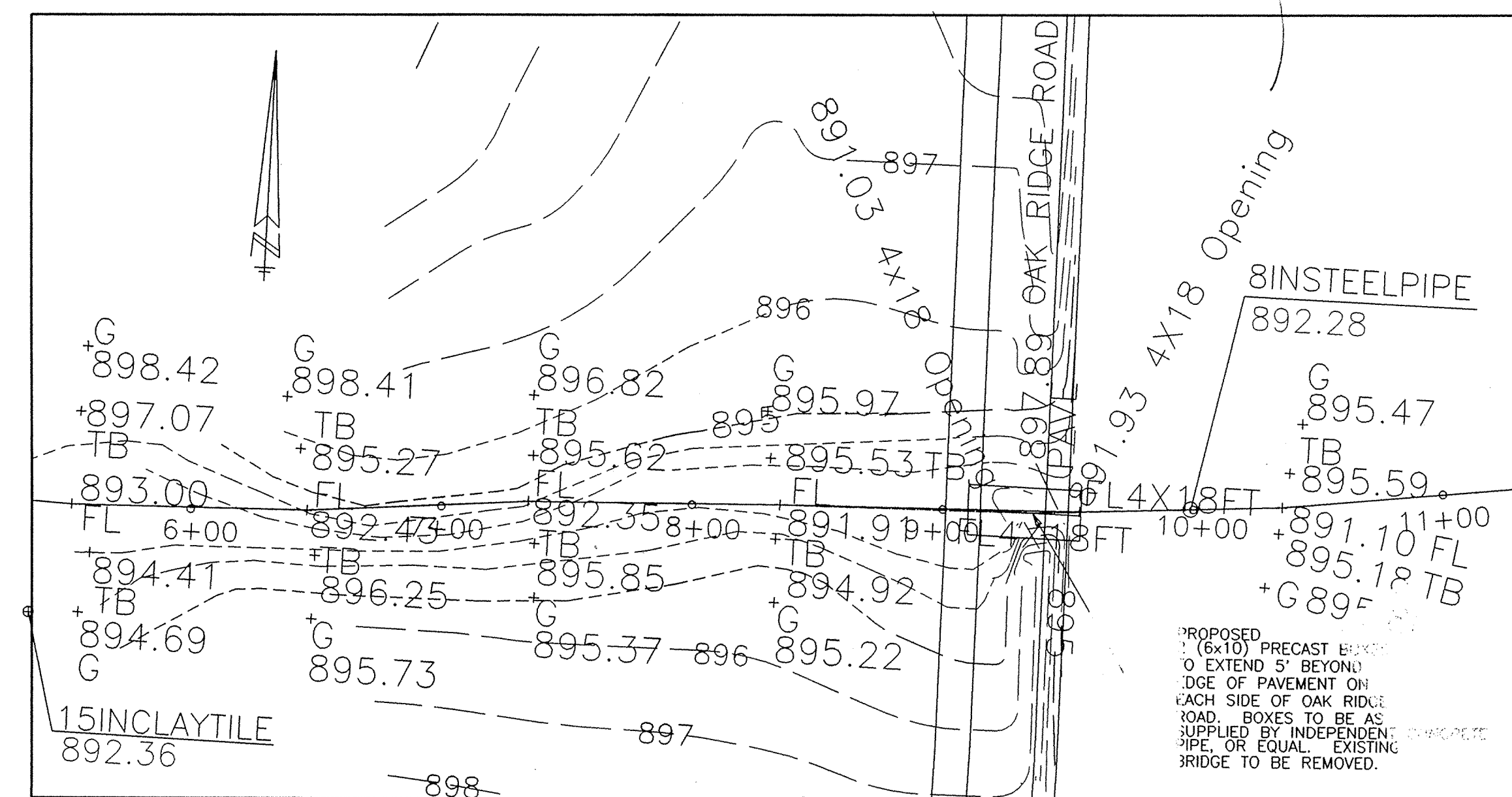
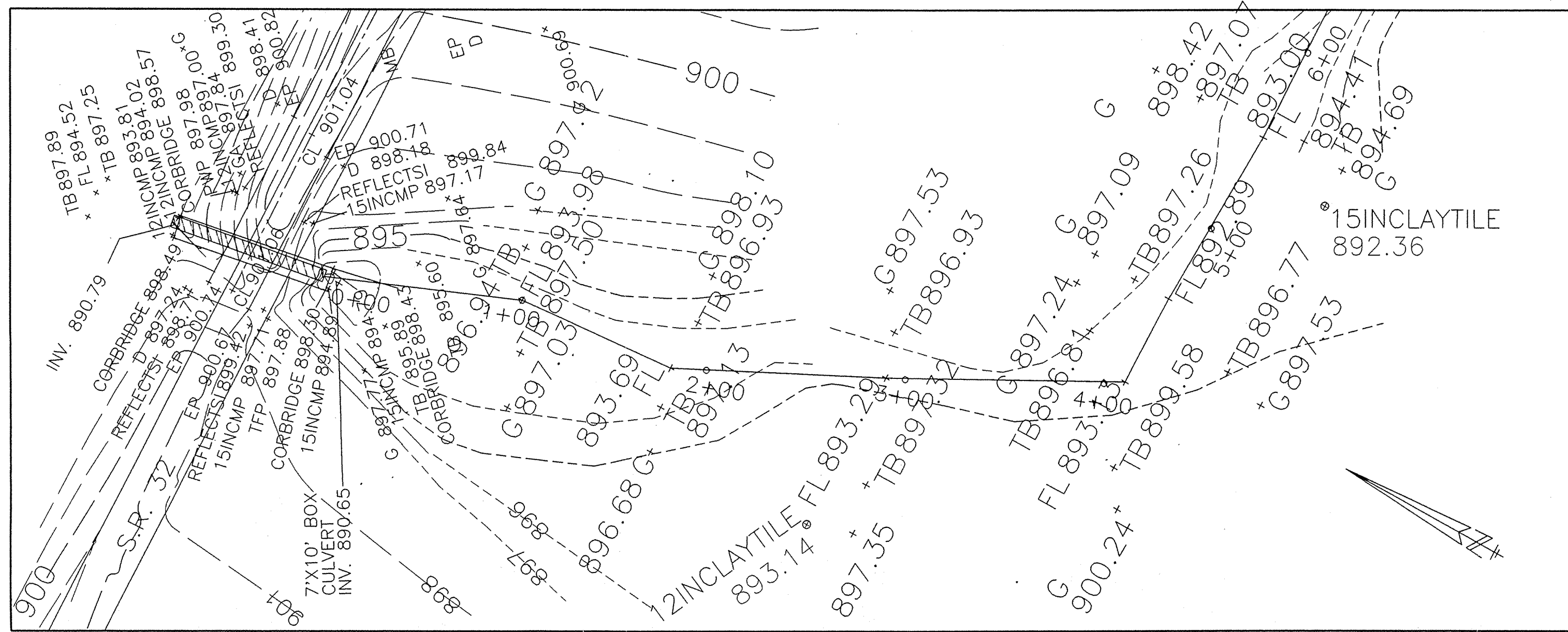


|                |                |            |
|----------------|----------------|------------|
| DATE           | BY             | JOB NO.    |
| 4-5-95 S.A.S.  | 4-5-95 S.A.S.  | 92-002     |
| 5-18-95 S.A.S. | 5-18-95 S.A.S. | DRAWN BY   |
|                |                | CHECKED BY |
|                |                | DATE       |
|                |                | 2-20-95    |

PREPARED FOR:  
**Hamilton County Drainage Board**  
 RECONSTRUCTION OF ANNA KENDALL DRAIN  
 Limits - State Road 32 to Westfield Park Road

SHEET NO. 1





NOTE: SILT BASIN TO BE 2' DEEPER THAN PROPOSED FLOWLINE, 100' IN LENGTH, AND WIDTH OF DITCH AT BOTTOM

This information was gathered for input into the Hamilton County Geographical Information System. This document is considered an official record of the GIS.

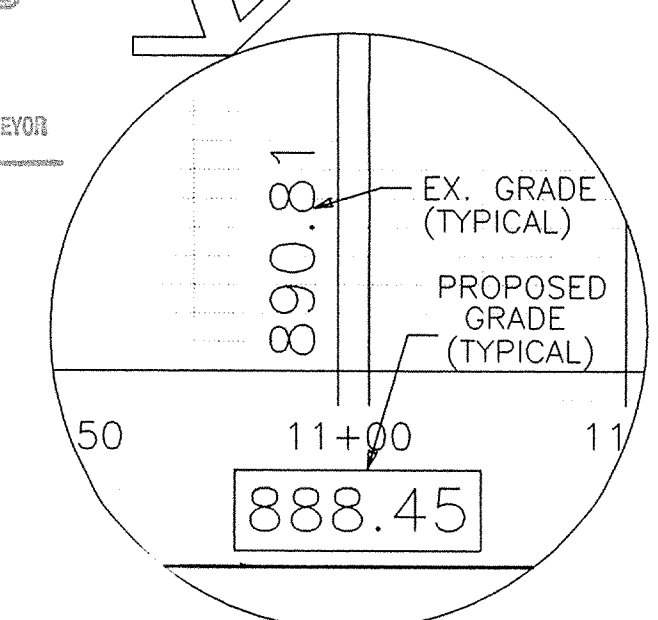
Entry Date: 9-23-03

Entered by: JML

"RECORD DRAWING" DRAIN FLOWLINE  
ANNA KENDALL DRAIN

Allan H. Weihe  
ALLAN H. WEIHE, REG. P.E. INDIANA #8827

FILED  
JUL 01 1995  
OFFICE OF HAMILTON COUNTY SURVEYOR



Allan H. Weihe

**WEIHE ENGINEERS, INC.**  
10505 NORTH COLLEGE AVENUE  
INDIANAPOLIS, INDIANA 46290  
(317) 946-6611

LAND PLANNERS  
CIVIL ENGINEERS  
LAND SURVEYORS

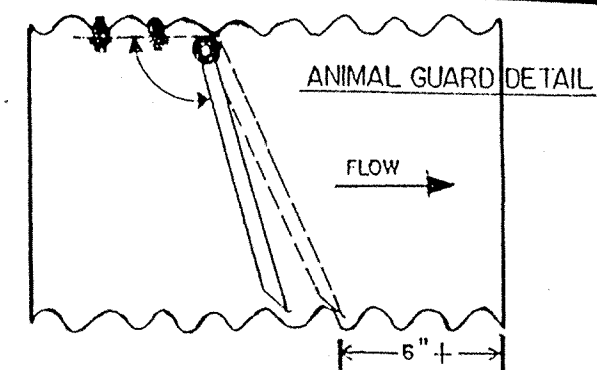
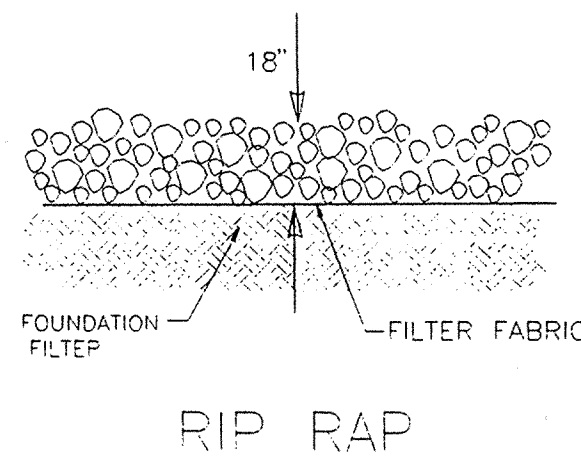
DATE: 4-5-95  
BY: S.A.S.  
CHECKED BY: S.A.S.  
DATE: 9-16-95

REVISIONS: REV. NO. DATE BY S.A.S. REVISIONS  
1 4-5-95 S.A.S. REVISED PER H.M. CO. SURVEYOR

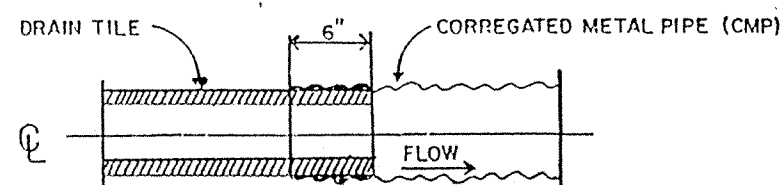
PROJECT: RECONSTRUCTION OF ANNA KENDALL DRAIN  
Limits - State Road 32 to Westfield Park Road

SHEET NO. 2





SECTION ON C SHOWING DETAIL OF JOINT FOR DRAIN TILE AND CMP PIPE.



DRAIN OUTLET DETAIL #2

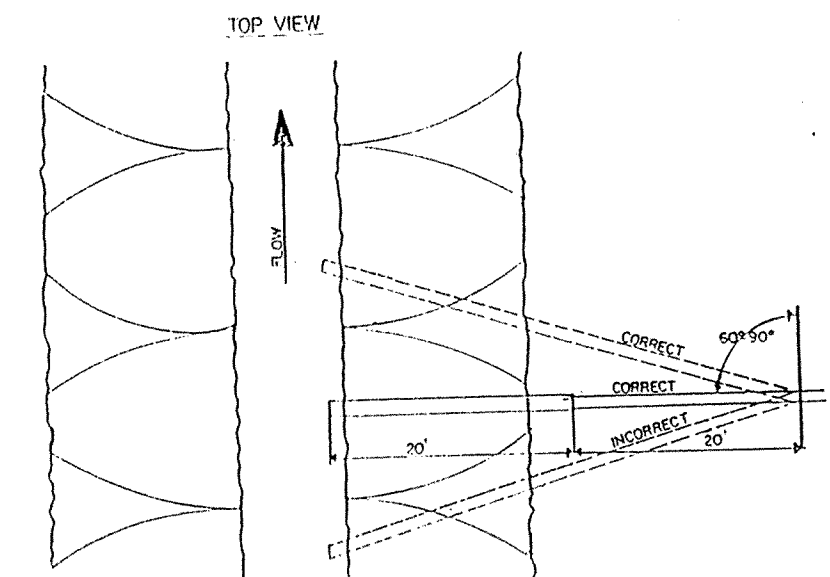
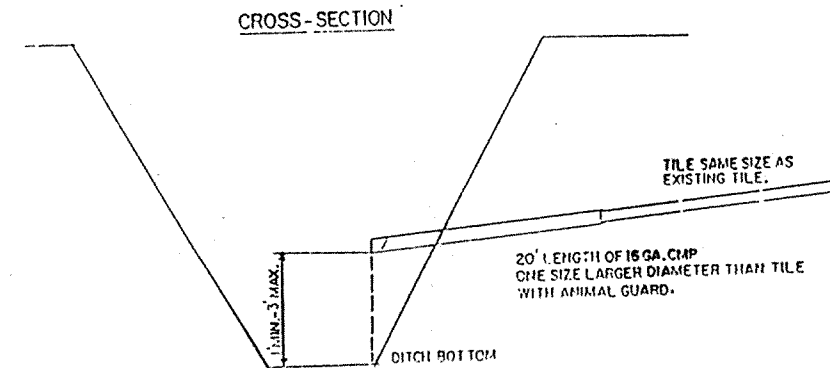
**OUTLET STANDARD**  
 When outletting into an open or tile drain, the contractor or individual installing the outlet will adhere to the following procedures.

**OPEN DRAINS**

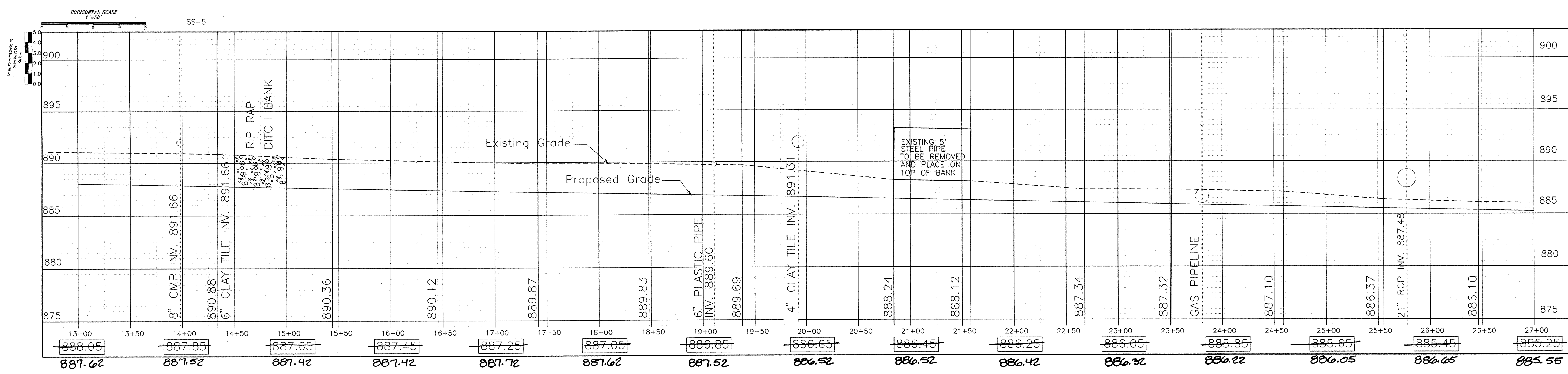
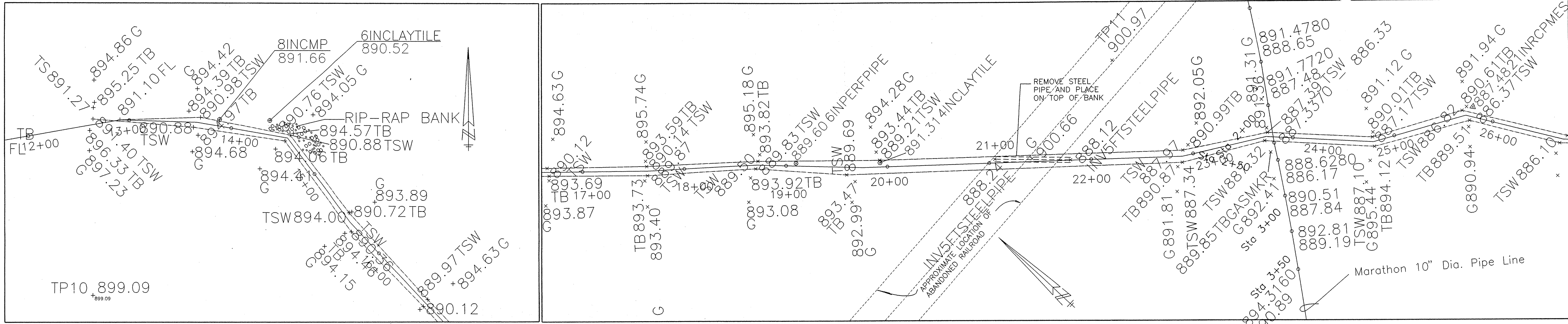
1. Tile outlet into open drain will have a twenty (20') foot section of corrugated metal pipe (CMP). CMP to be one size larger than tile.
2. Animal guard to be installed on tile outlet. Animal guard to be a flap type. (See standards.)
3. Invert of outlet pipe to be installed between a minimum of one (1) foot and a maximum of three (3) feet above flowline of drain.
4. Overlap corrugated metal pipe on tile a minimum of six (6") inches.
5. Seal connection between corrugated metal pipe (CMP) and tile with concrete.
6. All disturbed areas are to be seeded and mulched per seeding specifications.
7. Outlet into regulated drain requires permission from County Surveyor. Contact Surveyors Office for permit application and fee schedule.
8. Notify Hamilton County Surveyors Office at (317) 776-9626 prior to installation and backfilling.

**TILE DRAINS**

1. The outlet into a tile drain will be one (1) of the following methods.
  - a. Tee connection
  - b. Hole in tile connection
  - c. Wye connection
 See standards for tile drains.
2. If the tee or wye connection is used the tee or wye is to be the same inside diameter or one (1) size larger than existing tile. The use of concrete tee's and wye's are preferred under this installation.
3. If the hole in tile connection is used the tile is not to protrude into the tile and obstruct the flow of the drain tile.
4. All tile damaged during excavation will be replaced or repaired with equivalent tile.
5. All joints and connections will be sealed with concrete.
6. All disturbed areas will be seeded and mulched as per seeding specifications.
7. Outlet into regulated drain requires permission from County Surveyor. Contact Surveyors Office for permit application and fee schedule.
8. Notify the Hamilton County Surveyors Office at (317) 776-9626 two working days prior to backfilling.



DRAIN OUTLET DETAIL #1

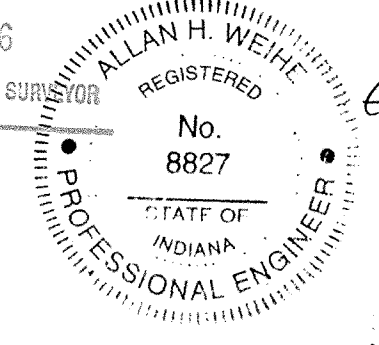


"RECORD DRAWING" DRAIN FLOWLINE  
 ANNA KENDALL DRAIN  
 Allan H. Weihe, REG. P.E. INDIANA #8827



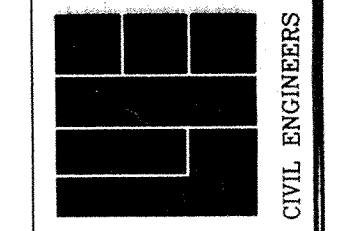
FILED

JUL 01 1996  
 OFFICE OF HAMILTON COUNTY SURVEYOR



Allan H. Weihe

**WEIHE ENGINEERS, INC.**  
 ALLAN H. WEIHE, P.E., L.S.  
 PRESIDENT  
 10005 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46280  
 (317) 646-6611



|            |                                 |             |         |
|------------|---------------------------------|-------------|---------|
| DATE:      | 4-5-95 S.A.S.<br>5-18-95 S.A.S. | JOB NO.:    | 92-902  |
| BY:        | S.A.S.                          | DRAWN BY:   | S.A.S.  |
| REVISIONS: | REVISED PER HAM. CO. SURVEYOR   | CHECKED BY: |         |
|            | REVISED PER HAM. CO. SURVEYOR   | DATE:       | 2-20-95 |

PREPARED FOR:  
**Hamilton County Drainage Board**  
 RECONSTRUCTION OF ANNA KENDALL DRAIN  
 Limits - State Road 32 to Westfield Park Road



SEEDING SPECIFICATIONS

1. Channel side slopes will be seeded twice. The first seeding will occur at the end of each day's construction while the ground is still moist. Fertilizer will be applied. Apply the second seeding just prior to final inspection. Only those areas where the grass has not germinated will be seeded the second time. The seed and fertilizer will be applied with a broadcast type seeder.

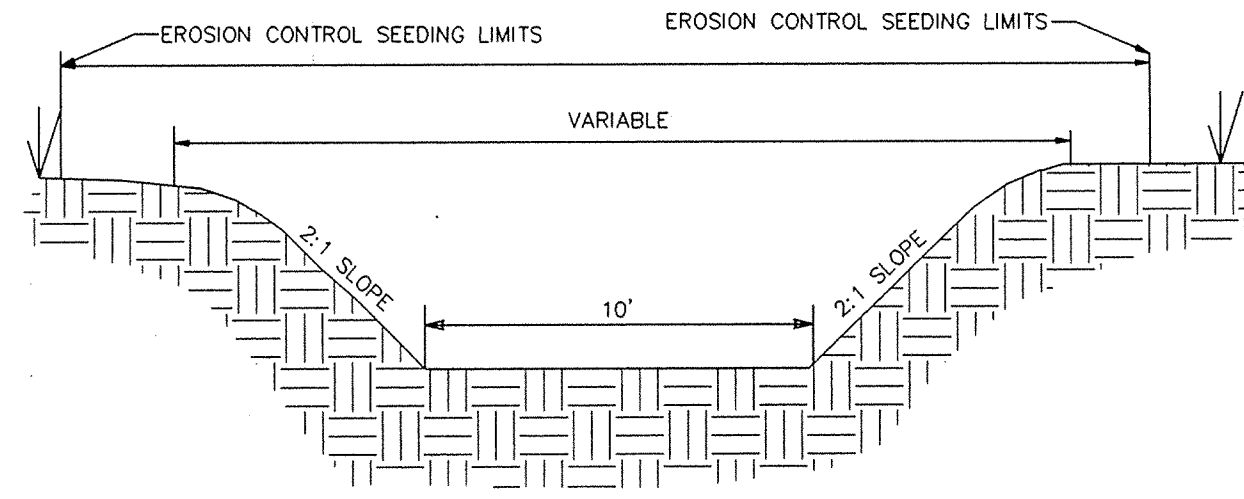
2. Disturbed areas that are not in crop production will be seeded and fertilized upon final grading. Apply fertilizer and work into the soil to a depth of 2 or 3 inches with a harrow or disc. Prepare a firm seed bed with a cultipacker or cultipacker type seeder. Work the seed into the soil 1/4 to 1/2 inch. Straw mulch will be used around erosion control structures and other critical areas as determined by the project inspector.

Quantities:

Tall Fescue (low or endophyte free) 35lbs/acre  
 Annual Rye Grass 20lbs/acre  
 12-12-12 fertilizer 1000lbs/acre  
 (substitute the following for the rye grass-  
 March 15 thru May 1: Oats @ 2bu/acre  
 October 1 thru November 15: Wheat @ 2 bu/acre)

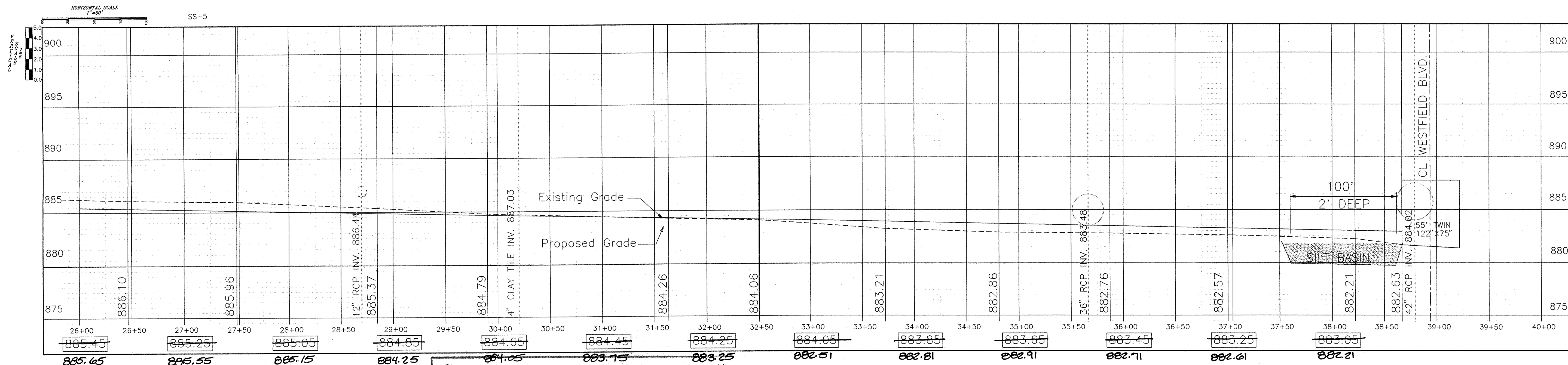
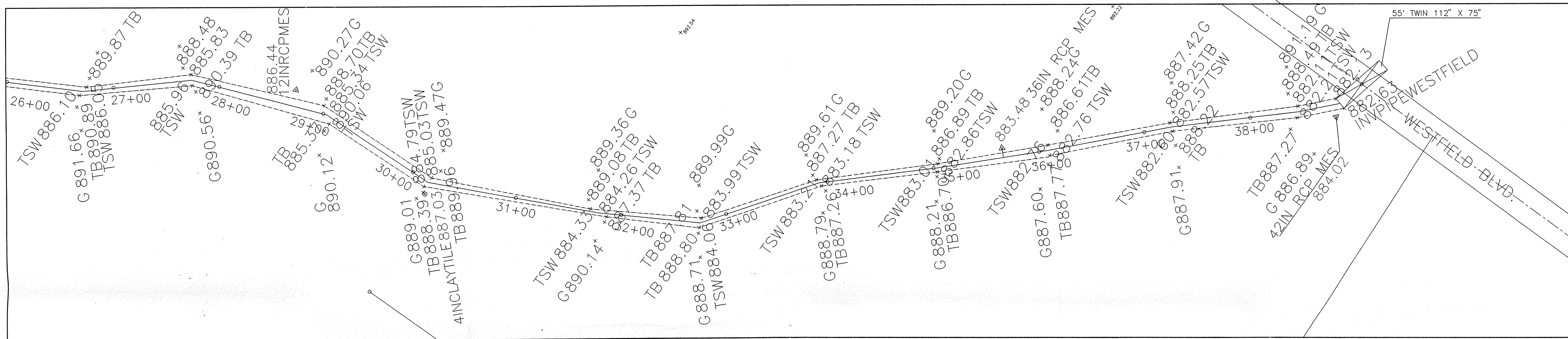
Quantities:

General purpose farm mix 20lbs/acre  
 12-12-12 fertilizer 1000lbs/acre  
 Straw mulch (where required) 3000lbs/acre  
 (General purpose farm mix: 20% Perennial Rye Grass  
 20% Timothy  
 13% Orchard Grass  
 12% Red Star Clover  
 12% Tall Fescue  
 12% Vernal Alfalfa  
 11% Alsike Clover)



DRAINAGE DITCH SECTION

(NO SCALE)



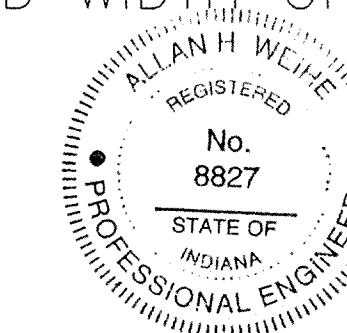
This information was gathered for input into the Hamilton County Geographical Information System. This document is considered a record of the information.

Entry Date: 7-23-03  
 Entered by: JML

"RECORD DRAWING" DRAIN FLOWLINE  
 ANNA KENDALL DRAIN  
 Allan H. Weihe  
 ALLAN H. WEIHE, REG. P.E. INDIANA #8827



FILED NOTE: SILT BASIN TO BE 2' DEEPER THAN PROPOSED FLOWLINE, 100' IN LENGTH, AND WIDTH OF DITCH AT BOTTOM  
 JUL 01 1996  
 OFFICE OF HAMILTON COUNTY SURVEYORS



Allan H. Weihe

|           |         |     |                                       |
|-----------|---------|-----|---------------------------------------|
| REVISIONS | DATE    | BY  | REASON                                |
| 1         | 7-23-03 | JML | ISSUED FOR PERMITS                    |
| 2         | 7-23-03 | JML | REVISED PER HAMILTON COUNTY SURVEYORS |