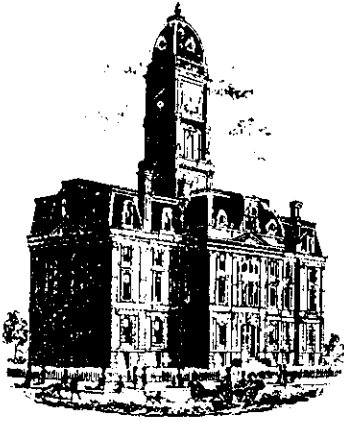


**Drain:** THOR RUN DRAIN - 309  
**Improvement:** CANAL PLACE - SECTION 4  
**Operator:** JDH  
**Date:** 10-16-03  
**YR. OF CONST.** 2003

### GIS Drain Input Checklist

- Digitize & Attribute Tile Drains N/A
- Digitize & Attribute Storm Drains JRA 10-17
- Digitize & Attribute SSD JRA 10-20
- Digitize & Attribute Open Ditch JRA 10-17
- Sum drain lengths & Validate JRA 10-17
- Enter Improvements into Posse JRA 10-17
- Enter Drain Age into Posse JWJ
- Sum drain length for Watershed in Posse JWJ
- Stamp Plans JRA 10-17
- Pull Source Documents for Scanning JRA 10-17





SURVEYOR'S OFFICE

# Hamilton County

*Kenton C. Ward, Surveyor*

*Phone (317) 776-8495*

*Fax (317) 776-9628*

*Suite 146*

*One Hamilton County Square*

*Noblesville, Indiana 46060-2230*

To: Hamilton County Drainage Board

September 18, 2001

Re: Thor Run Drain, Canal Place Section 4 Arm

Attached is a petition, non-enforcement request, plans, calculations, quantity summary and assessment roll for the Thor Run Drain, Canal Place Section 4 Arm. I have reviewed the submittals and petition and have found each to be in proper form.

I have made a personal inspection of the land described in the petition. Upon doing so, I believe that the drain is practicable; will improve the public health; benefit a public highway and be of public utility; and that the costs, damages, and expenses of the proposed drain will probably be less than the benefits accruing to the owners of land likely to be benefited. The drain will consist of the following:

6" SSD	7,902 ft	24" RCP	24 ft
12" RCP	1,899 ft	Open Ditch	3,048 ft
15" RCP	1,122 ft		

The total length of the drain will be 13,995 feet.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs and those main lines between lots or in rear yards. Only the main SSD lines, which are located within the easement (right of way), are to be maintained as regulated drain. Laterals for individual lots will not be considered part of the regulated drain.

Thor Run will be extended across lots 196 - 193, Block C and Block E to Geist Reservoir with Canal Place Section 4. The remaining portion of Thor Run across lots 196 - 207 in Canal Place Section 4 was regulated with Brooks Landing Section 1 and Brooks Manor (See Thor Run, Brooks Landing Arm report dated May 20, 1998 and Thor Run, Brooks Manor Arm report dated July 16, 2001).

The portion of storm pipe between structures 720 - 724, 724A and 725 - 732 will be regulated under Canal Place Drain, Section 4 Arm.

The other portions of the open ditch regulated with Canal Place Section 4 are as follows: Open Ditch across Lot 144A from structure 723 to Thor Run between Lots 195 - 196; 199 - 200; 204 - 205 and 221 - 222. Open Ditch from structure 737 to Thor Run Lot 153.

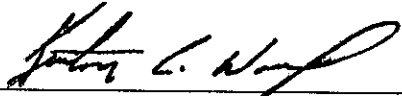
I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I also believe that no damages will result to landowners by the construction of this drain. I recommend a maintenance assessment of \$50.00 per lot, \$5.00 per acre for roadways, with a \$50.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$3,564.50.

I believe this proposed drain 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 that upon approval of the above-proposed drain that the Board also approve the attached non-enforcement request. This request is for the reduction of the regulated drain easement to those easement widths as shown on the secondary plat for Canal Place, Section 4 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for October 22, 2001.

KCW/llm

  
Kenton C. Ward *KCW*  
Hamilton County Surveyor

**Canal Place - Section 4**

Bonds: SB12945     \$204,600.00  
          SB12994     45,000.00

= \$249,600.00

**Total bond amount split 2 ways:**

Canal Place - Section 4 Arm	5,272'
Thor Run - Section 4 Arm	<u>15,512'</u>
Total Footage	20,784'

**Section 2 Arm:**

$5272 / 20784 = 25\%$

**Section 3 Arm:**

$15512 / 20784 = 75\%$

$25 + 75 = 100$

**Cost Per Improvement:**

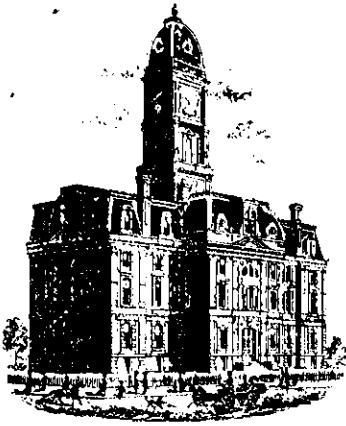
**Canal Place - Section 4 Arm:**

$\$249,600.00 * 25\% = \$62,400.00$

**Thor Run - Section 4 Arm:**

$\$249,600.00 * 75\% = \$187,200.00$

$\$62,400.00 + \$187,200.00 = \$249,600.00$



SURVEYOR'S OFFICE

# Hamilton County

*Kenton C. Ward, Surveyor*  
 Phone (317) 776-8495  
 Fax (317) 776-9628

Suite 188  
 One Hamilton County Square  
 Noblesville, Indiana 46060-2230

**To: Hamilton County Drainage Board**

**October 15, 2003**

**Re: Thor Run: Canal Place Sec. 4 Arm**

Attached are as-builts, certificate of completion & compliance, and other information for Canal Place Sec. 4. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated September 18, 2001. The report was approved by the Board at the hearing held October 22, 2001. (See Drainage Board Minutes Book 6, Pages 180-182)

The changes to the drain are as follows:

Structure:	T.C.:	I.E.:	Pipe:	Length:	Grade:	Original(ft):	Difference(ft):
711	841.27	837.34					
710	841.39	837.04	15	27.9	1.08	25	2.9
710	841.39	836.99					
709	841.39	836.29	15	42.4	1.65	43.86	-1.46
709	841.39	836.29					
708	814.32	814.32	15	175.2	12.54	177.31	2.11
707	837.71	833.53					
706	837.7	833.19	12	28.2	1.21	25	3.2
706	837.7	833.15					
705A	835.58	828.93	15	75	5.63	77.66	-2.66
705A	835.58	820.08					
705		807.74	15	63.3	19.49	60	3.3
704	829.76	824.21					
703	829.78	823.96	12	28	0.89	25	3
703	829.78	823.96					
702	825.44	821.34	12	109	2.37	109.74	-0.74
702	825.44	821.11					
701	812	807.65	12	81.7	16.47	79.19	2.51
701	812	805.45					
700		804.6	15	109.6	0.78	100	9.6
719	828.04	823.54					
718	827.96	823.36	12	24.1	0.75	21	3.1
718	827.96	823.26					

717	828.45	822.35	15	95.3	0.95	95.15	0.15
717	828.45	822.45					
713	823.04	815.11	15	84.4	6.2	81.86	2.54
715	826.69	822.65					
714	826.64	822.52	12	28	0.46	25	3
714	826.64	822.44					
713	823.04	817.22	15	28.7	25.54	28.12	0.58
713	823.04	815.11					
712		791	15	239.4	10.07	238.88	0.52
753	800.97	795.05					
752	800.59	794.7	15	28	1.25	25	3
752	800.59	793.63					
754	801.52	793.49	15	15.6	0.71	20	-4.4
750	823.42	817.25					
742	829.55	816.25	12	397.8	0.21	399.82	-2.02
747	827.18	823.05					
746	827.18	822.7	12	28.1	1.25	31	-2.9
746	827.18	822.68					
745	827.6	820.22	12	24.8	9.92	21.82	2.98
745	827.6	820.2					
744	829.71	819.19	12	139.8	0.72	138.97	0.83
744	829.35	819.11					
743	829.35	818.6	12	39.1	1.3	36.58	2.52
743	829.35	818.45					
742	829.55	816.32	12	145.2	1.47	141.03	4.17
742	829.55	816.25					
741	830.09	815.94	12	15.6	1.99	17.58	-1.98
741	830.09	815.86					
740	830.22	815.14	12	28	2.57	25.29	2.71
740	830.22	815.1					
739	830.69	812.73	12	191.3	1.24	186.5	4.8
739	830.69	812.67					
738	800.07	794.77	12	145.6	12.29	152.53	-6.93
738	800.07	794.62					
737		794.3	15	79.7	0.4	106.96	-27.26
760	834	830.74					
759	833.95	829.51	12	77.4	1.59	74.74	2.66
759	833.95	829.48					
758		820.9	12	191.6	4.48	220	28.4
757	825.71	818.91					
756	824.96	818.81	12	31.5	0.32	28.97	2.53
756	824.96	818.81					
755	808.33	797.81	12	208.5	10.07	210	1.5
755	808.33	797.68					
754	801.52	793.62	12	201.7	2.01	202.6	-0.9
754	801.52	793.49					
751		792.62	15	56.2	1.55	41.89	14.31
749	825.68	821.53					

748	825.87	821.02	12	43.6	1.17	43.23	0.37
748	825.87	821.02					
745	827.6	820.22	12	104.4	0.77	103.28	1.12

**6" SSD Streets:**

Geist Ridge Dr	5432
Baybridge Way	260
Harbour Bay Ct & Stub	860
Giselle Way	1078
Faucet Ln & Stub St	1360

**Total:** 8990

**RCP Pipe Totals:**

12	2313
15	1120

<b>Other Drain:</b>	
open	3089

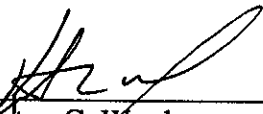
The length of the drain due to the changes described above is now **15,512 feet**.

The non-enforcement was approved by the Board at its meeting on October 22, 2001 and recorded under instrument #200200027367.

The bonds or letter of credits from Fifth Third Bank, number SB12945 & SB12994; dated July 13, 2001 and August 27, 2001; in the amount of \$204,600.00 and \$45,000; was released August 25, 2003 and September 8, 2003.

I recommend the Board approve the drain's construction as complete and acceptable.

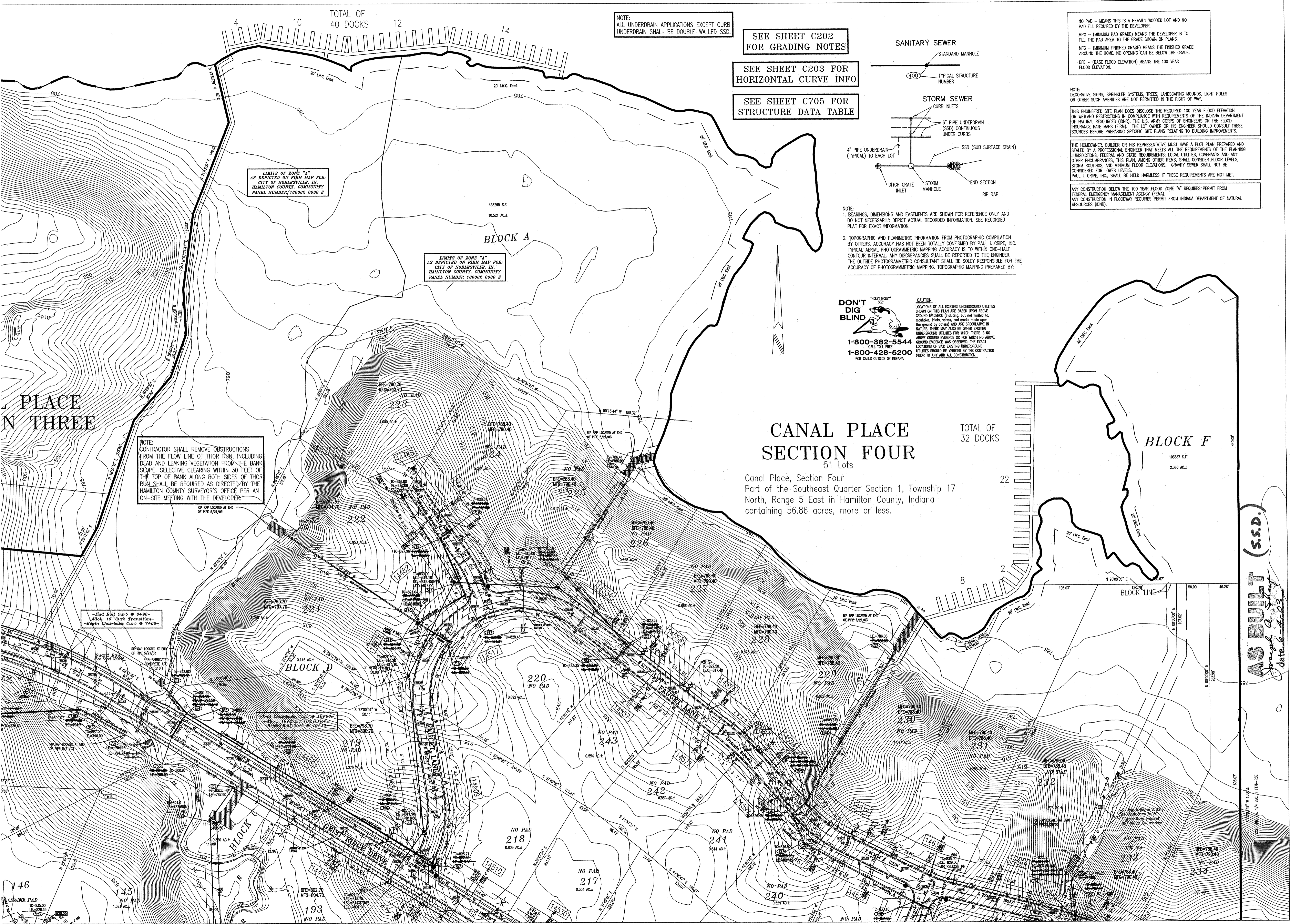
Sincerely,

  
 \_\_\_\_\_  
 Kenton C. Ward,  
 Hamilton County Surveyor

KCW/slm





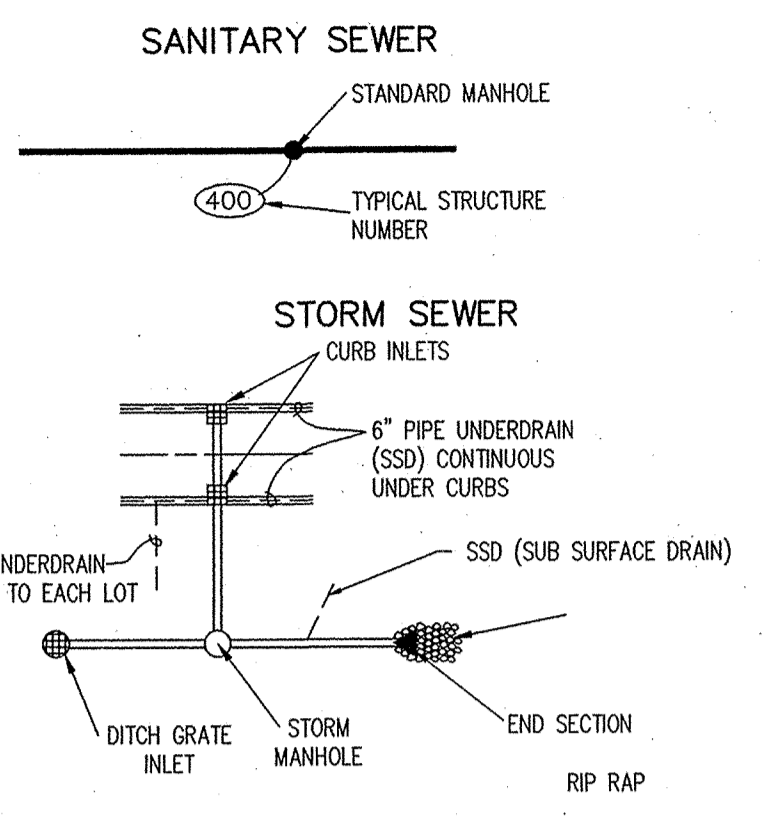


NOTE:  
ALL UNDERDRAIN APPLICATIONS EXCEPT CURB UNDERDRAIN SHALL BE DOUBLE-WALLED SSD.

SEE SHEET C202 FOR GRADING NOTES

SEE SHEET C203 FOR HORIZONTAL CURVE INFO

SEE SHEET C705 FOR STRUCTURE DATA TABLE



NOTE:  
1. BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY AND DO NOT NECESSARILY DEPICT ACTUAL RECORDED INFORMATION. SEE RECORDED PLAT FOR EXACT INFORMATION.  
2. TOPOGRAPHIC AND PLANIMETRIC INFORMATION FROM PHOTOGRAPHIC COMPILATION BY OTHERS. ACCURACY HAS NOT BEEN TOTALLY CONFIRMED BY PAUL I. CRIFE, INC. TYPICAL AERIAL PHOTOGRAMMETRIC MAPPING ACCURACY IS TO WITHIN ONE-HALF CONTOUR INTERVAL. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE OUTSIDE PHOTOGRAMMETRIC CONSULTANT SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF PHOTOGRAMMETRIC MAPPING. TOPOGRAPHIC MAPPING PREPARED BY:

**DON'T DIG BLIND**  
THEY MIGHT BE THERE!  
1-800-382-5544  
1-800-428-5200  
FOR CALLS OUTSIDE OF INDIANA

**CAUTION**  
LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON GROUND SURVEY (including, but not limited to, markholes, pits, wires, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SUCH EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

NO PAD - MEANS THIS IS A HEAVILY WOODED LOT AND NO PAD FILL REQUIRED BY THE DEVELOPER.  
MPG - (MINIMUM PAD GRADE) MEANS THE DEVELOPER IS TO FILL THE PAD AREA TO THE GRADE SHOWN ON PLANS.  
MFG - (MINIMUM FINISHED GRADE) MEANS THE FINISHED GRADE AROUND THE HOME. NO OPENING CAN BE BELOW THE GRADE.  
BFE - (BASE FLOOD ELEVATION) MEANS THE 100 YEAR FLOOD ELEVATION.

NOTE:  
DECORATIVE SIGNS, SPRINKLER SYSTEMS, TREES, LANDSCAPING MOUNDS, LIGHT POLES OR OTHER SUCH AMENITIES ARE NOT PERMITTED IN THE RIGHT OF WAY.  
THIS ENGINEERED SITE PLAN DOES DISCLOSE THE REQUIRED 100 YEAR FLOOD ELEVATION OR WETLAND RESTRICTIONS IN COMPLIANCE WITH REQUIREMENTS OF THE INDIANA DEPARTMENT OF NATURAL RESOURCES (DNR), THE U.S. ARMY CORPS OF ENGINEERS OR THE FLOOD INSURANCE RATE MAPS (FIRM). THE LOT OWNER OR HIS ENGINEER SHOULD CONSULT THESE SOURCES BEFORE PREPARING SPECIFIC SITE PLANS RELATING TO BUILDING IMPROVEMENTS.

THE HOMEOWNER, BUILDER OR HIS REPRESENTATIVE MUST HAVE A PLOT PLAN PREPARED AND SEALED BY A PROFESSIONAL ENGINEER THAT MEETS ALL THE REQUIREMENTS OF THE PLANNING JURISDICTIONS, FEDERAL AND STATE REQUIREMENTS, LOCAL UTILITIES, COVENANTS AND ANY OTHER ENCUMBRANCES, THIS PLAN, AMONG OTHER ITEMS, SHALL CONSIDER FLOOR LEVELS, STORM ROUTINGS, AND MINIMUM FLOOR ELEVATIONS. GRAVITY SEWER SHALL NOT BE CONSIDERED FOR LOWER LEVELS.  
PAUL I. CRIFE, INC., SHALL BE HELD HARMLESS IF THESE REQUIREMENTS ARE NOT MET.

ANY CONSTRUCTION BELOW THE 100 YEAR FLOOD ZONE "A" REQUIRES PERMIT FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).  
ANY CONSTRUCTION IN FLOODWAY REQUIRES PERMIT FROM INDIANA DEPARTMENT OF NATURAL RESOURCES (DNR).

PLACE N THREE

**CANAL PLACE SECTION FOUR**  
51 Lots

Canal Place, Section Four  
Part of the Southeast Quarter Section 1, Township 17 North, Range 5 East in Hamilton County, Indiana containing 56.86 acres, more or less.

TOTAL OF 32 DOCKS

**BLOCK F**  
10387 S.F.  
2.380 AC.±

NOTE:  
CONTRACTOR SHALL REMOVE OBSTRUCTIONS FROM THE FLOW LINE OF THOR RUN, INCLUDING DEAD AND LEANING VEGETATION FROM THE BANK SLOPE. SELECTIVE CLEARING WITHIN 30 FEET OF THE TOP OF BANK ALONG BOTH SIDES OF THOR RUN SHALL BE REQUIRED AS DIRECTED BY THE HAMILTON COUNTY SURVEYOR'S OFFICE PER AN ON-SITE MEETING WITH THE DEVELOPER.

-Pad Roll Curb @ 6'-00"  
-Allow 10' Curb Transition  
-Begin Quarterback Curb @ 7'-00"

**ASBULT (S.S.D.)**  
Joseph A. Shay  
date 6-1-03

**ARCHITECTS**  
ENGINEERS  
ENVIRONMENTAL CONSULTANTS  
TRANSPORTATION ENGINEERS  
LAND SURVEYORS

7172 GRAHAM ROAD  
INDIANAPOLIS, IN 46260  
(317) 841-4798  
E-Mail: picrife@picrife.com

**CRIFE**

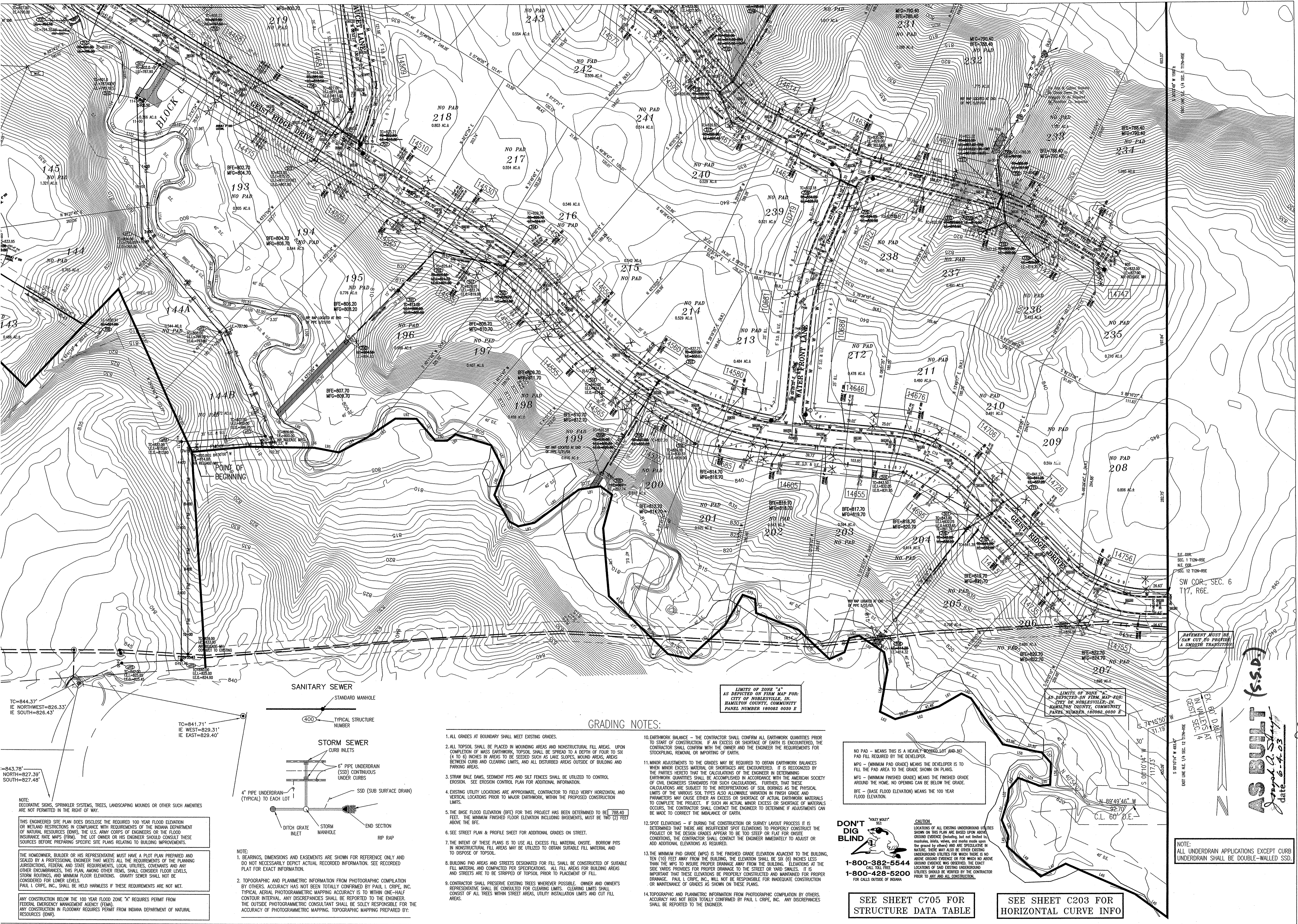
**SITE DEVELOPMENT PLAN**  
**CANAL PLACE, SECTION IV**  
**MARINA LIMITED PARTNERSHIP**  
11691 FALL CREEK RD.  
INDIANAPOLIS, IN 46256  
PHONE: (317) 945-0770

CERTIFIED BY:  
*Joseph A. Shay*

JOSEPH A. SHAY  
REGISTERED  
No. 15179  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

Drawn By:  
Checked By:  
Quality Assurance:

Scale: 1" = 40'  
Sheet: **C201**  
Date: 12-05-01  
Project Number: 990384-20200



TC=844.37'  
IE NORTHWEST=826.33'  
IE SOUTH=826.43'

TC=841.71'  
IE WEST=829.31'  
IE EAST=829.40'

TC=843.78'  
NORTH=827.39'  
SOUTH=827.48'

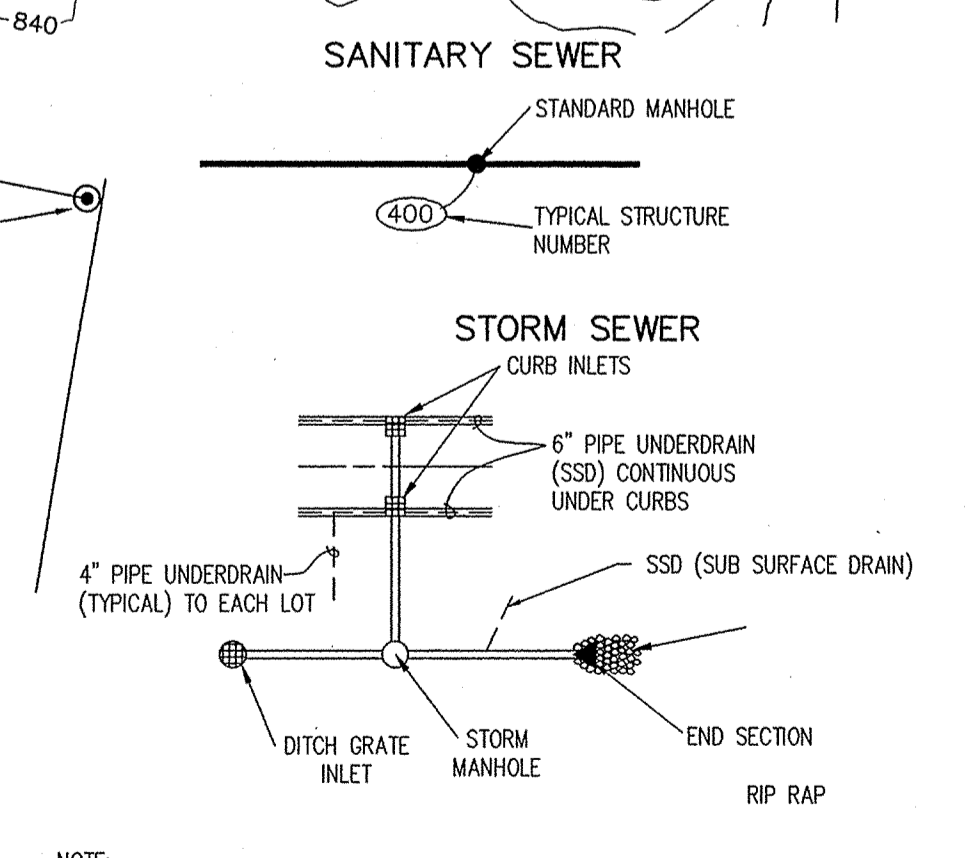
NOTE:  
DECORATIVE SIGNS, SPRINKLER SYSTEMS, TREES, LANDSCAPING MOUNDS OR OTHER SUCH AMENITIES ARE NOT PERMITTED IN THE RIGHT OF WAY.

THIS ENGINEERED SITE PLAN DOES DISCLOSE THE REQUIRED 100 YEAR FLOOD ELEVATION OR WETLAND RESTRICTIONS IN COMPLIANCE WITH REQUIREMENTS OF THE INDIANA DEPARTMENT OF NATURAL RESOURCES (DNR), THE U.S. ARMY CORPS OF ENGINEERS OR THE FLOOD INSURANCE RATE MAPS (FIRM). THE LOT OWNER OR HIS ENGINEER SHOULD CONSULT THESE SOURCES BEFORE PREPARING SPECIFIC SITE PLANS RELATING TO BUILDING IMPROVEMENTS.

THE HOMEOWNER, BUILDER OR HIS REPRESENTATIVE MUST HAVE A PLOT PLAN PREPARED AND SEALED BY A PROFESSIONAL ENGINEER THAT MEETS ALL THE REQUIREMENTS OF THE PLANNING JURISDICTIONS FEDERAL AND STATE REQUIREMENTS, LOCAL UTILITIES, COVENANTS AND ANY OTHER ENCUMBRANCES. THIS PLAN, AMONG OTHER ITEMS, SHALL CONSIDER FLOOR LEVELS, STORM ROUTINGS, AND MINIMUM FLOOR ELEVATIONS. GRAVITY SEWER SHALL NOT BE CONSIDERED FOR LOWER LEVELS.

PAUL I. CRPE, INC., SHALL BE HELD HARMLESS IF THESE REQUIREMENTS ARE NOT MET.

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ANY CONSTRUCTION IN FLOODWAY REQUIRES PERMIT FROM INDIANA DEPARTMENT OF NATURAL RESOURCES (DNR).



- GRADING NOTES:**
1. ALL GRADES AT BOUNDARY SHALL MEET EXISTING GRADES.
  2. ALL TOPSOIL SHALL BE PLACED IN MOUNDING AREAS AND NONSTRUCTURAL FILL AREAS. UPON COMPLETION OF MASS EARTHWORK, TOPSOIL SHALL BE SPREAD TO A DEPTH OF FOUR TO SIX (4 TO 6) INCHES IN AREAS TO BE SEEDING SUCH AS LAKE SLOPES, MOUND AREAS, AREAS BETWEEN CURB AND CLEARING LIMITS, AND ALL DISTURBED AREAS OUTSIDE OF BUILDING AND PARKING AREAS.
  3. STRAW BALE DAMS, SEDIMENT PITS AND SILT FENCES SHALL BE UTILIZED TO CONTROL EROSION. SEE EROSION CONTROL PLAN FOR ADDITIONAL INFORMATION.
  4. EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO MAJOR EARTHWORK, WITHIN THE PROPOSED CONSTRUCTION LIMITS.
  5. THE BASE FLOOD ELEVATION (BFE) FOR THIS PROJECT HAS BEEN DETERMINED TO BE 788.40 FEET. THE MINIMUM FINISHED FLOOR ELEVATION INCLUDING BASEMENTS, MUST BE TWO (2) FEET ABOVE THE BFE.
  6. SEE STREET PLAN & PROFILE SHEET FOR ADDITIONAL GRADES ON STREET.
  7. THE INTENT OF THESE PLANS IS TO USE ALL EXCESS FILL MATERIAL ONSITE. BORROW PITS IN NONSTRUCTURAL FILL AREAS MAY BE UTILIZED TO OBTAIN SUITABLE FILL MATERIAL AND TO DISPOSE OF TOPSOIL.
  8. BUILDING PAD AREAS AND STREETS DESIGNATED FOR FILL SHALL BE CONSTRUCTED OF SUITABLE FILL MATERIAL AND COMPACTED PER SPECIFICATIONS. ALL FILL AREAS FOR BUILDING AREAS AND STREETS ARE TO BE STRIPPED OF TOPSOIL PRIOR TO PLACEMENT OF FILL.
  9. CONTRACTOR SHALL PRESERVE EXISTING TREES WHEREVER POSSIBLE. OWNER AND OWNER'S REPRESENTATIVE SHALL BE CONSULTED FOR CLEARING LIMITS. CLEARING LIMITS SHALL CONSIST OF ALL TREES WITHIN STREET AREAS, UTILITY INSTALLATION LIMITS AND CUT FILL AREAS.
  10. EARTHWORK BALANCE - THE CONTRACTOR SHALL CONFIRM ALL EARTHWORK QUANTITIES PRIOR TO START OF CONSTRUCTION. IF AN EXCESS OR SHORTAGE OF EARTH IS ENCOUNTERED, THE CONTRACTOR SHALL CONFIRM WITH THE OWNER AND THE ENGINEER THE REQUIREMENTS FOR STOCKPILING, REMOVAL OR MOVING OF EARTH.
  11. MINOR ADJUSTMENTS TO THE GRADES MAY BE REQUIRED TO OBTAIN EARTHWORK BALANCES WHEN MINOR EXCESS MATERIAL OR SHORTAGES ARE ENCOUNTERED. IT IS RECOGNIZED BY THE PARTIES HERETO THAT THE CALCULATIONS OF THE ENGINEER IN DETERMINING EARTHWORK QUANTITIES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARDS FOR SUCH CALCULATIONS. FURTHER, THAT THESE CALCULATIONS ARE SUBJECT TO THE INTERPRETATIONS OF SOIL BORINGS AS THE PHYSICAL LIMITS OF THE VARIOUS SOIL TYPES ALSO ALLOWABLE VARIATION IN FINISH GRADE AND PARAMETERS MAY CAUSE OTHER AN EXCESS OR SHORTAGE OF ACTUAL EARTHWORK MATERIALS TO COMPLETE THE PROJECT. IF SUCH AN ACTUAL MINOR EXCESS OR SHORTAGE OF MATERIALS OCCURS, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO DETERMINE IF ADJUSTMENTS CAN BE MADE TO CORRECT THE IMBALANCE OF EARTH.
  12. SPOT ELEVATIONS - IF DURING THE CONSTRUCTION OR SURVEY LAYOUT PROCESS IT IS DETERMINED THAT THERE ARE INSUFFICIENT SPOT ELEVATIONS TO PROPERLY CONSTRUCT THE PROJECT OR THE DESIGN GRADES APPEAR TO BE TOO STEEP OR FLAT FOR ONSITE CONDITIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY TO ADJUST OR ADD ADDITIONAL ELEVATIONS AS REQUIRED.
  13. THE MINIMUM PAD GRADE (MPG) IS THE FINISHED GRADE ELEVATION ADJACENT TO THE BUILDING, TEN (10) FEET AWAY FROM THE BUILDING. THE ELEVATION SHALL BE SIX (6) INCHES LESS THAN THE MPG TO INSURE PROPER DRAINAGE AWAY FROM THE BUILDING. ELEVATIONS AT THE SIDE YARDS PROVIDES FOR PROPER DRAINAGE TO THE STREET OR YARD SWALES. IT IS IMPORTANT THAT THESE ELEVATIONS BE PROPERLY CONSTRUCTED AND MAINTAINED FOR PROPER DRAINAGE. PAUL I. CRPE, INC., WILL NOT BE RESPONSIBLE FOR INADEQUATE CONSTRUCTION OR MAINTENANCE OF GRASSES AS SHOWN ON THESE PLANS.
  14. TOPOGRAPHIC AND PLANNETRIC INFORMATION FROM PHOTOGRAMMATIC COMPILED BY OTHERS. ACCURACY HAS NOT BEEN TOTALLY CONFIRMED BY PAUL I. CRPE, INC. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.

NO PAD - MEANS THIS IS A HEAVILY WOODED LOT AND NO PAD FILL REQUIRED BY THE DEVELOPER.

MPG - (MINIMUM PAD GRADE) MEANS THE DEVELOPER IS TO FILL THE PAD AREA TO THE GRADE SHOWN ON PLANS.

MFG - (MINIMUM FINISHED GRADE) MEANS THE FINISHED GRADE AROUND THE HOME. NO OPENING CAN BE BELOW THE GRADE.

BFE - (BASE FLOOD ELEVATION) MEANS THE 100 YEAR FLOOD ELEVATION.

**DON'T DIG BLIND**

1-800-382-5544  
CALL TOLL FREE  
1-800-428-5200  
FOR CALLS OUTSIDE OF INDIANA

**CAUTION**

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SEE SHEET C705 FOR STRUCTURE DATA TABLE

SEE SHEET C203 FOR HORIZONTAL CURVE INFO

NOTE:  
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**CRPE**

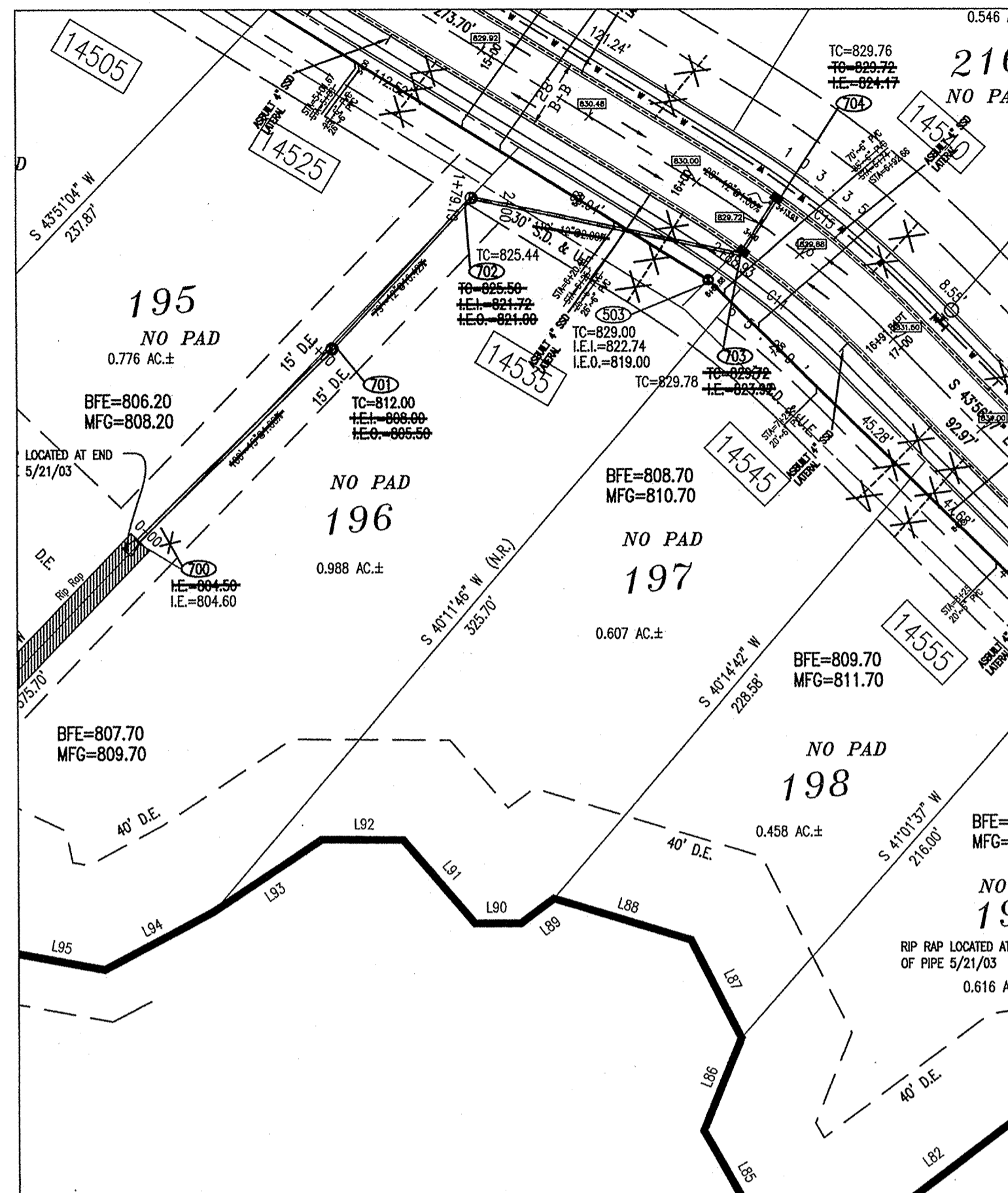
ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL CONSULTANTS  
TRANSPORTATION ENGINEERS  
LAND PLANNERS  
LAND SURVEYORS

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INDIANAPOLIS, INDIANA 46250  
842-6777 FAX (317) 841-4798  
E-Mail at [picrpe@icrpe.com](mailto:picrpe@icrpe.com)

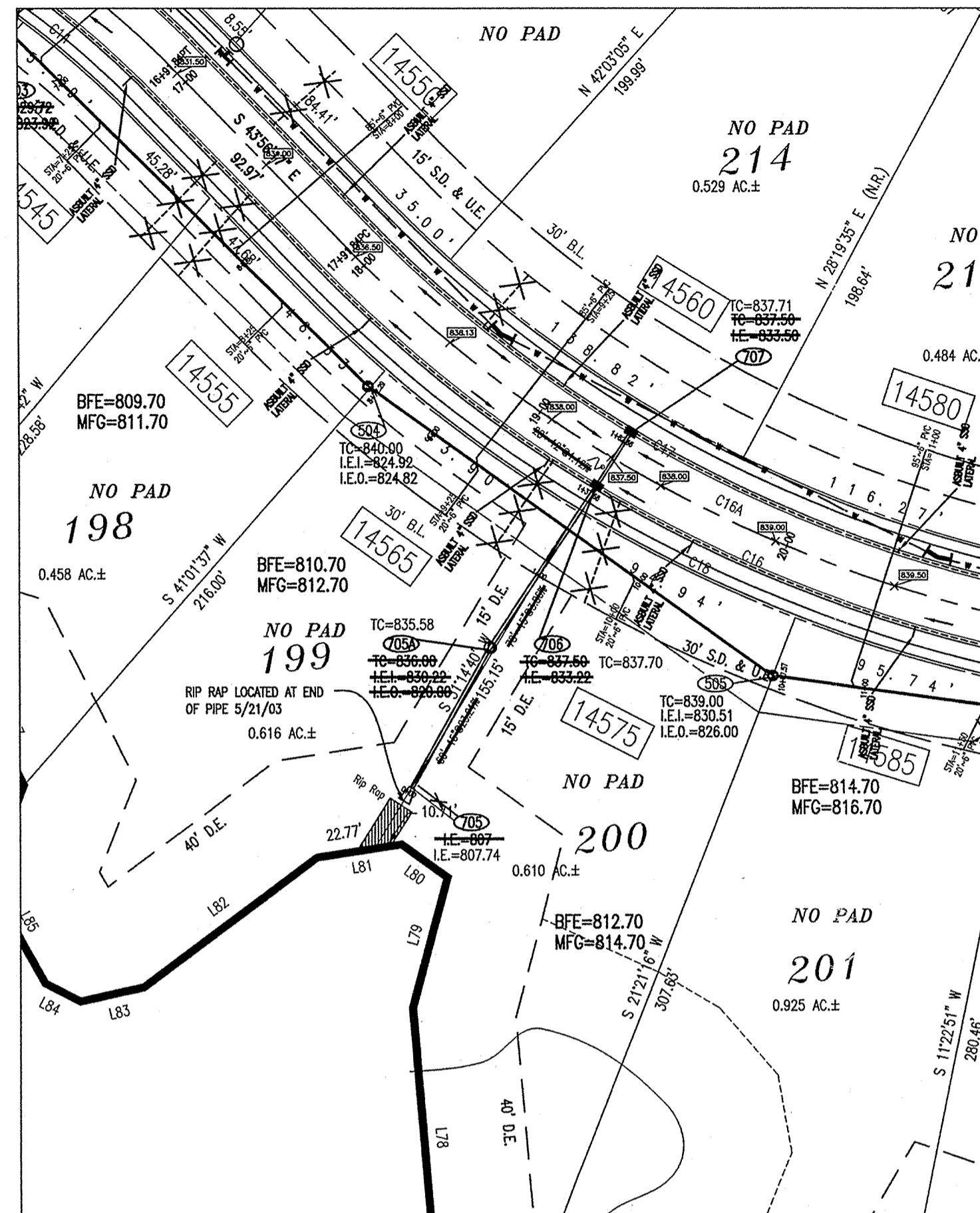
**SITE DEVELOPMENT PLAN**  
**CANAL PLACE, SECTION IV**  
**MARINA LIMITED PARTNERSHIP**  
11691 FALL CREEK RD.  
INDIANAPOLIS, IN 46256  
PHONE: (317) 846-0070

CERTIFIED BY:  
*Joseph A. Sharp*  
REGISTERED PROFESSIONAL ENGINEER  
No. 15179  
STATE OF INDIANA

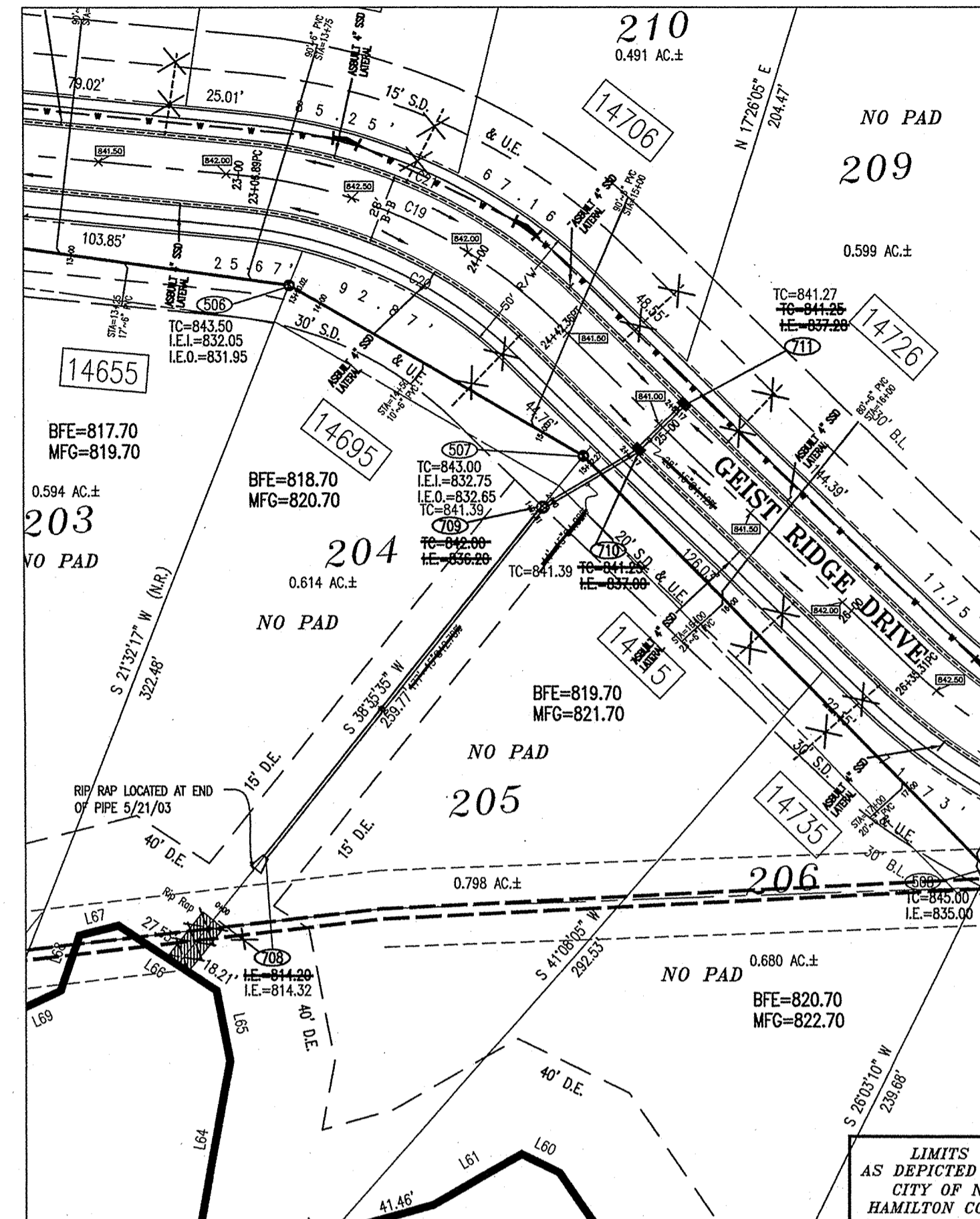
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Date: 12-05-01  
Project Number: 990384-2020



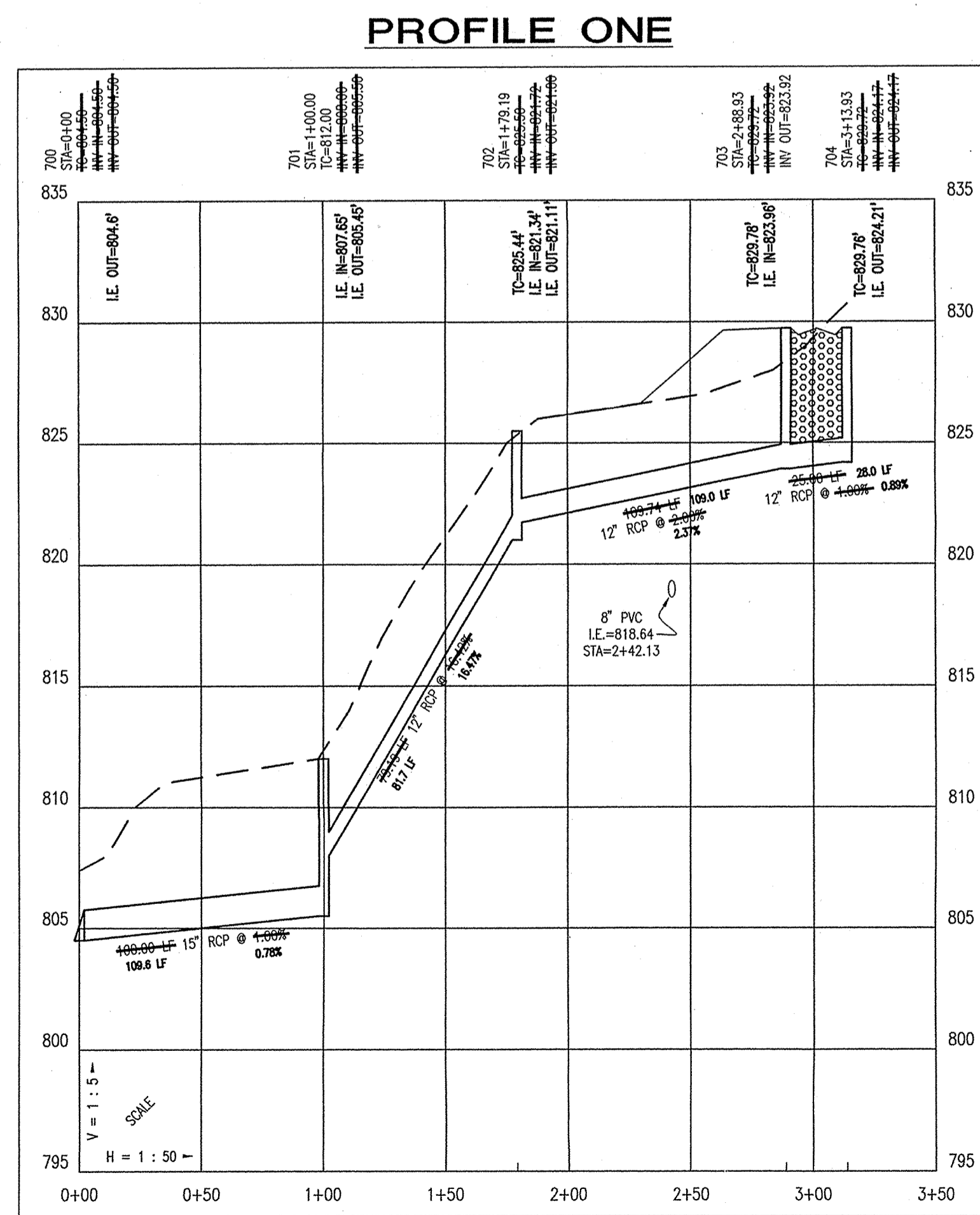
PLAN ONE



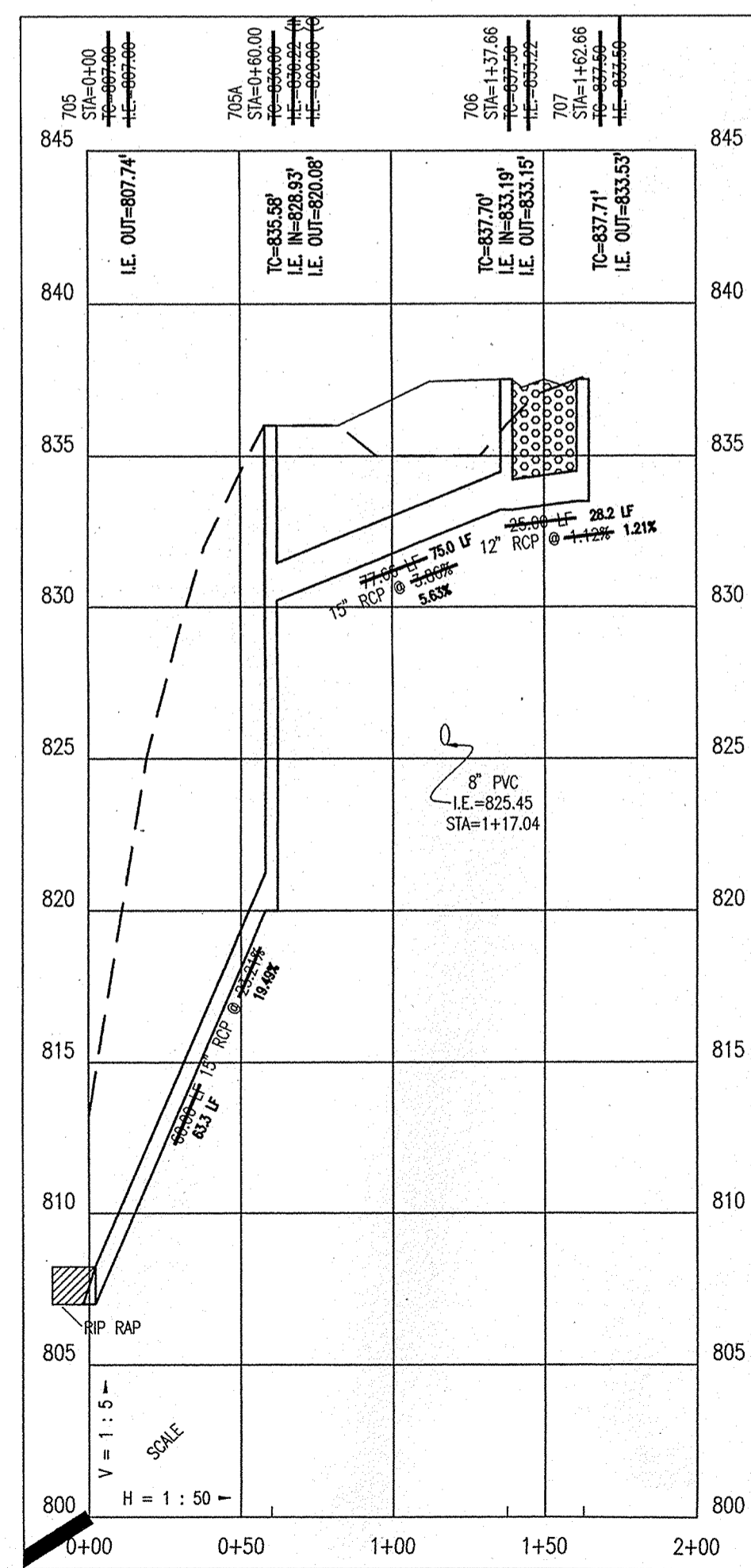
PLAN TWO



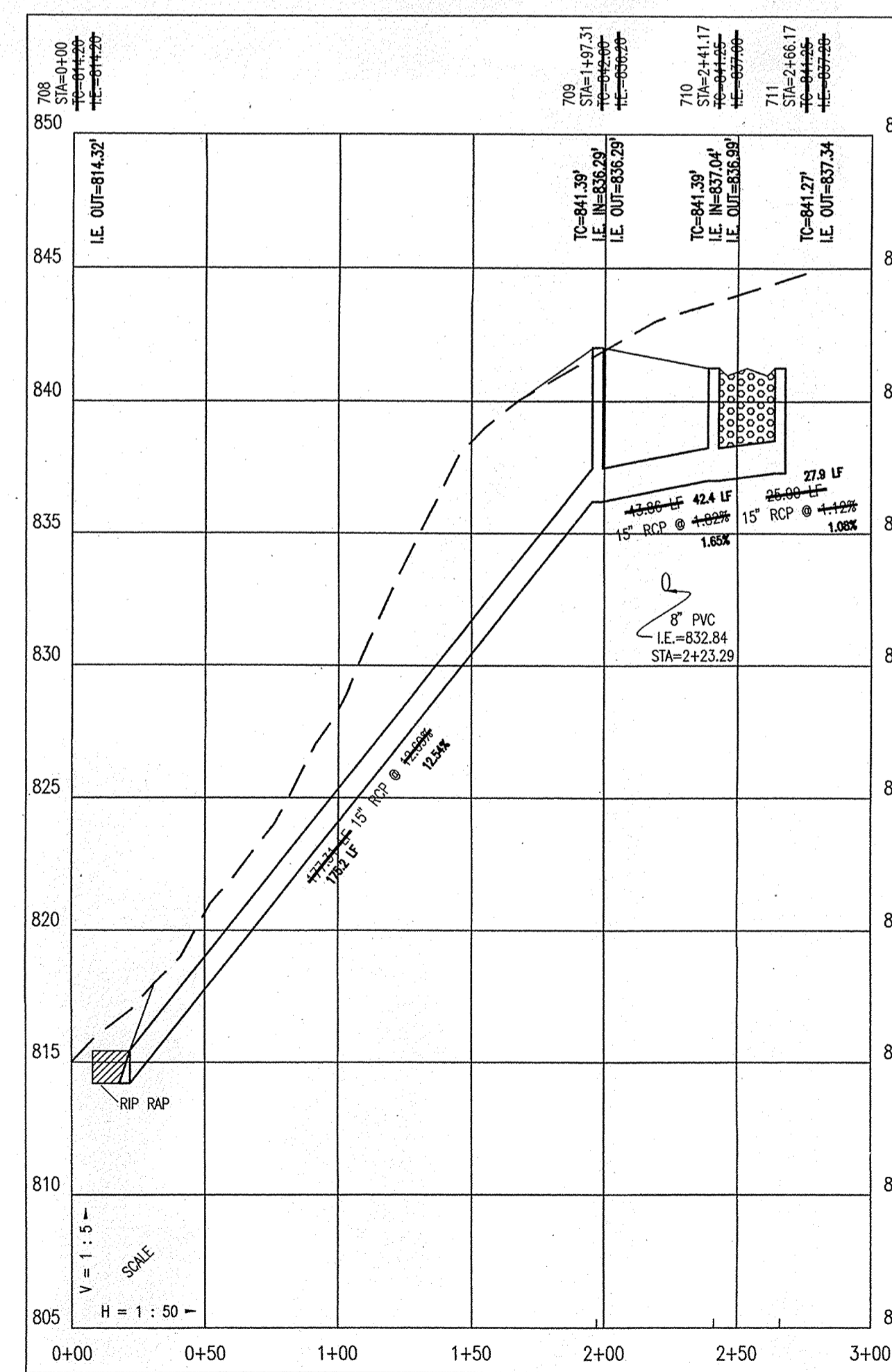
PLAN THREE



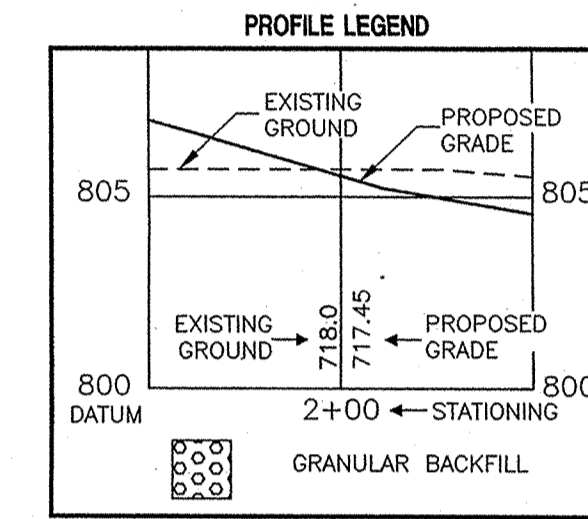
PROFILE ONE




PROFILE TWO



PROFILE THREE




 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: 10-20-03  
 Entered by: JDH

- STORM SEWER PLAN AND PROFILE NOTES:**
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
  - IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
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  - STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE FLOW INTO THE STRUCTURE.
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  - FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS.
  - SEE SECTION 02220 FOR STORM SEWERAGE SPECIFICATIONS A) IN THE PROJECT MANUAL OR B) ON SHEET C90?
  - PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.
  - THE CONNECTION OF THE PROPOSED STORM SEWER TO AN EXISTING BRICK STRUCTURE MUST BE DONE ACCORDING TO THE FOLLOWING CONDITIONS:  
 A.) REHABILITATE AND COAT THE INTERIOR OF THE MANHOLE WITH NON-SHRINK GROUT.  
 B.) AT THE POINT OF CONNECTION OF THE PROPOSED PIPE, PLACE A THREE FOOT (3') DIAMETER BY A MINIMUM SIX INCH (6") THICK, 4000 PSI CONCRETE COLLAR WITH 4x4x10 GAUGE WIRE MESH OVER THE EXTERIOR OF THE MANHOLE.  
 C.) ONCE THE CORE HAS BEEN MADE, INSTALL A RUBBER BOOT.

**AS BUILT**  
 Joseph A. Shay  
 date 6-4-03

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 "HOLEY MOLEY" SEZ!  
 CALL TOLL FREE  
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 1-800-428-5200  
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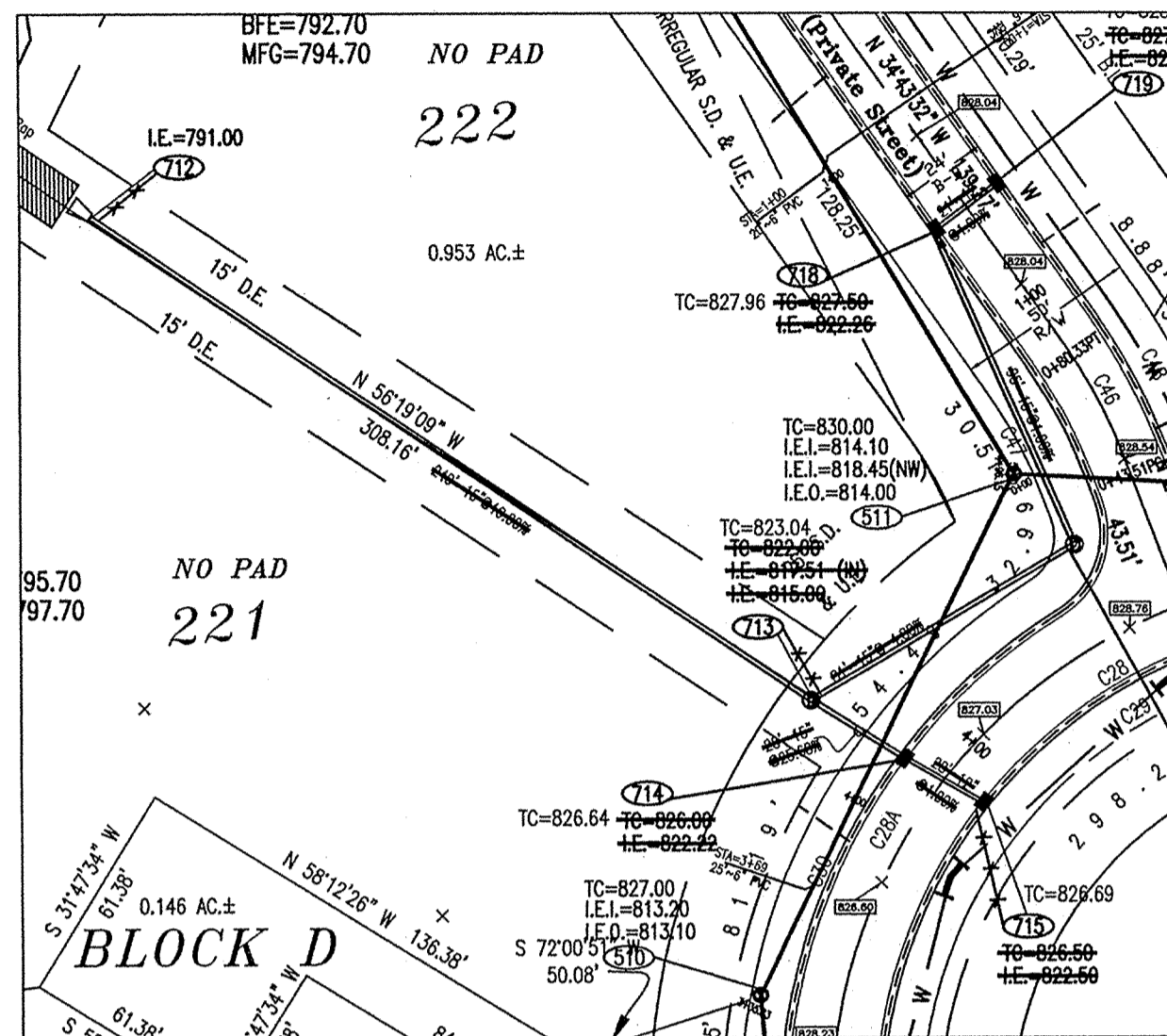
ARCHITECTS  
 LANDSCAPE ARCHITECTS  
 ENVIRONMENTAL CONSULTANTS  
 TRANSPORTATION ENGINEERS  
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7172 GRAHAM ROAD  
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 E-Mail: info@crpe.com

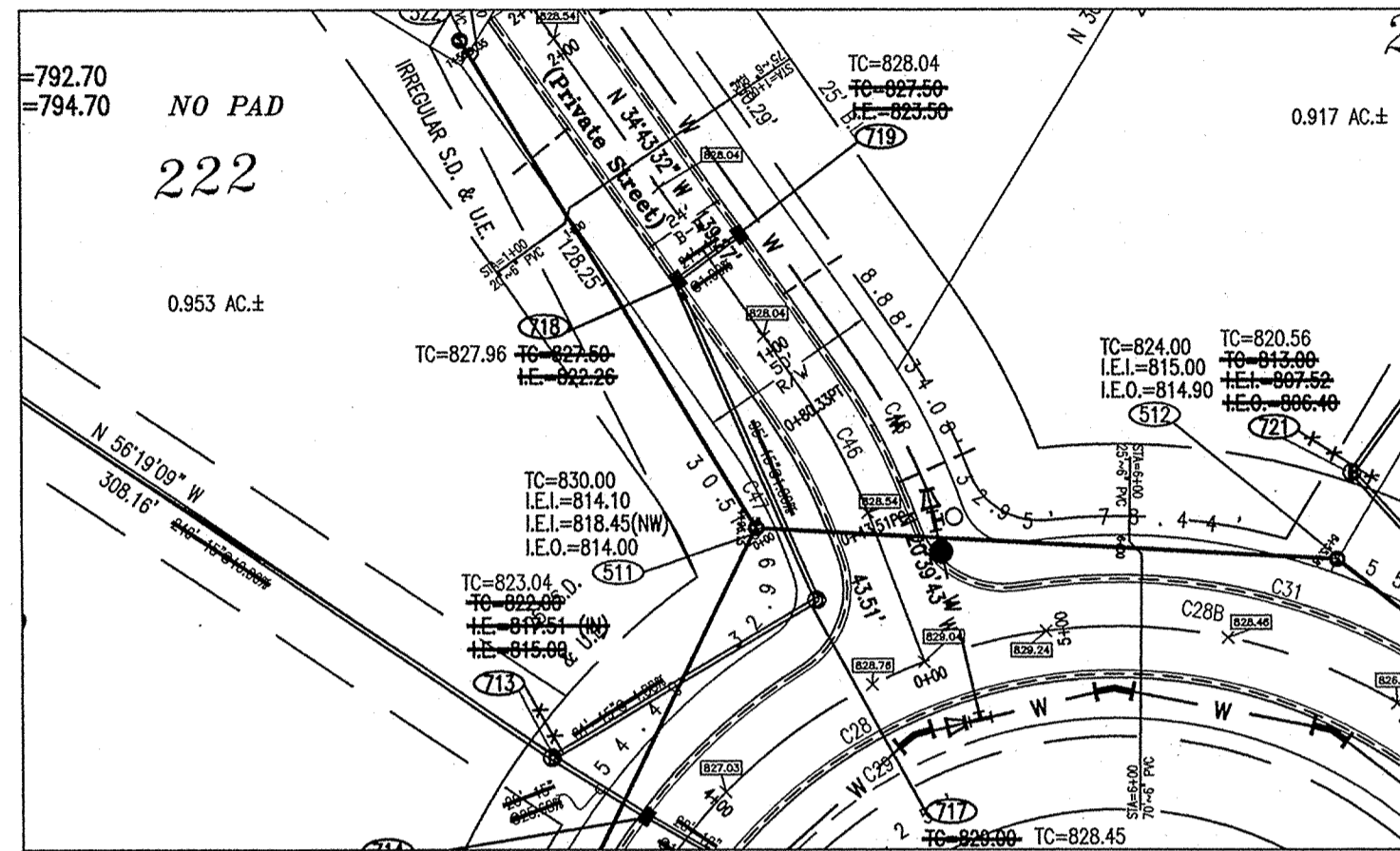
**CRPE**  
 STORM PLAN AND PROFILE IV  
 CANAL PLACE, SECTION IV  
 MARINA LIMITED PARTNERSHIP  
 11691 FALL CREEK RD.  
 INDIANAPOLIS, INDIANA 46250

CERTIFIED BY:  
 JOSEPH A. SHAY  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 15179  
 STATE OF INDIANA  
 6

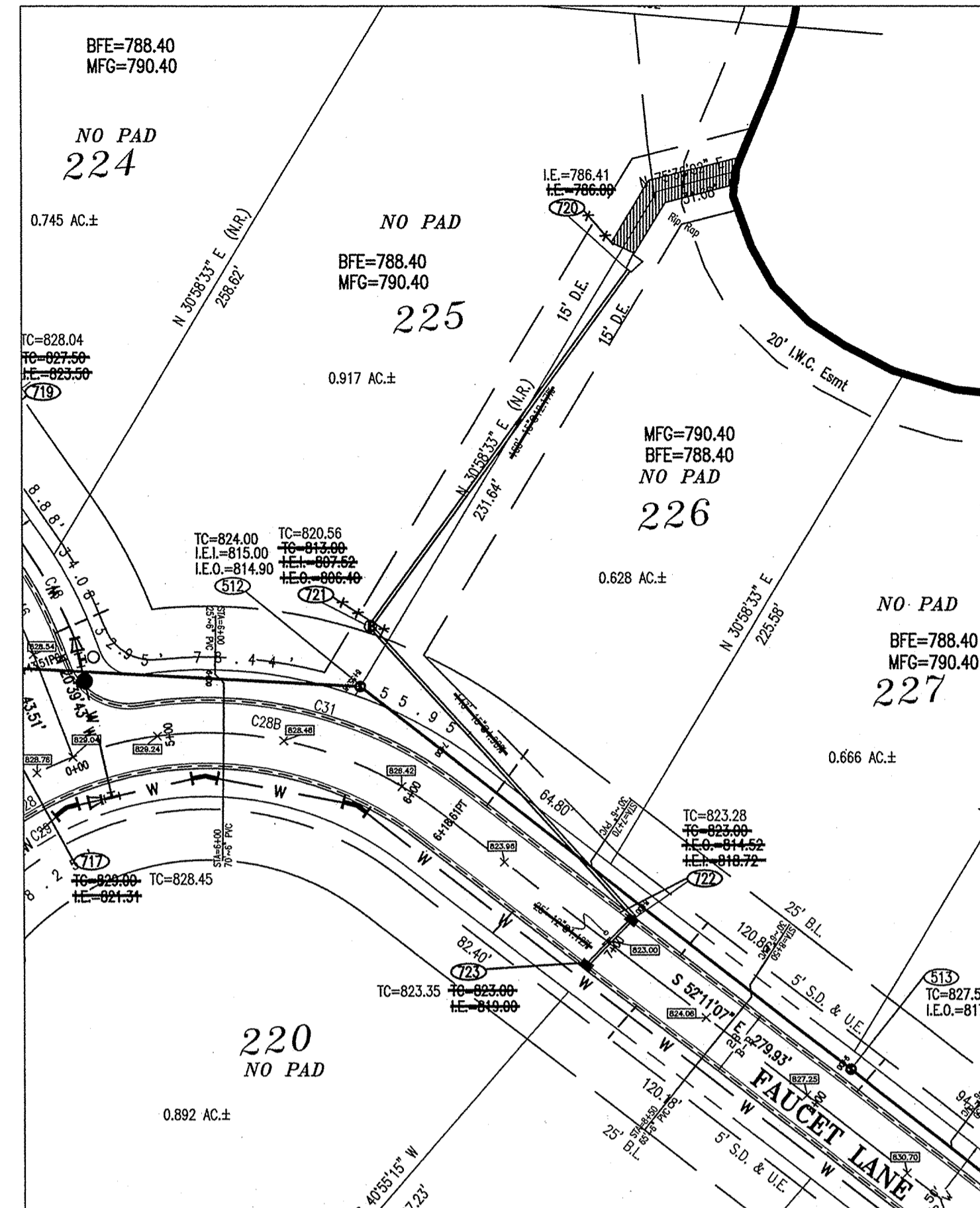
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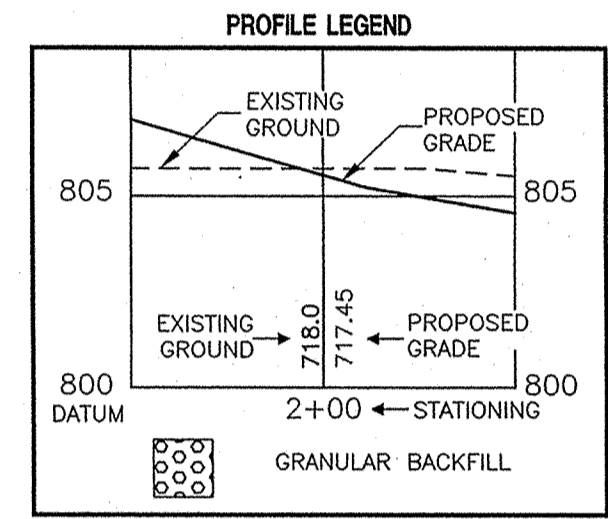
PLAN FOUR



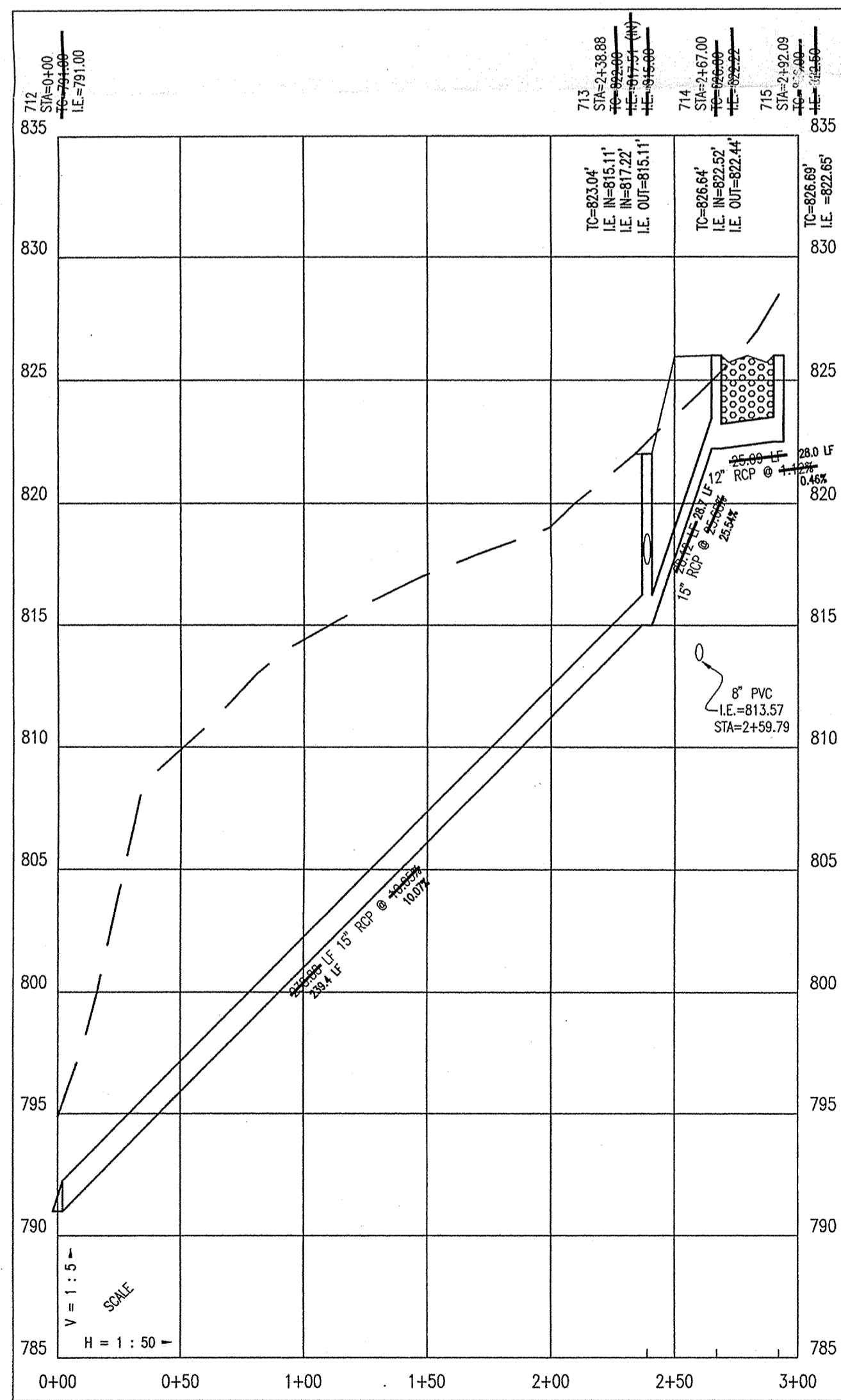
PLAN FIVE



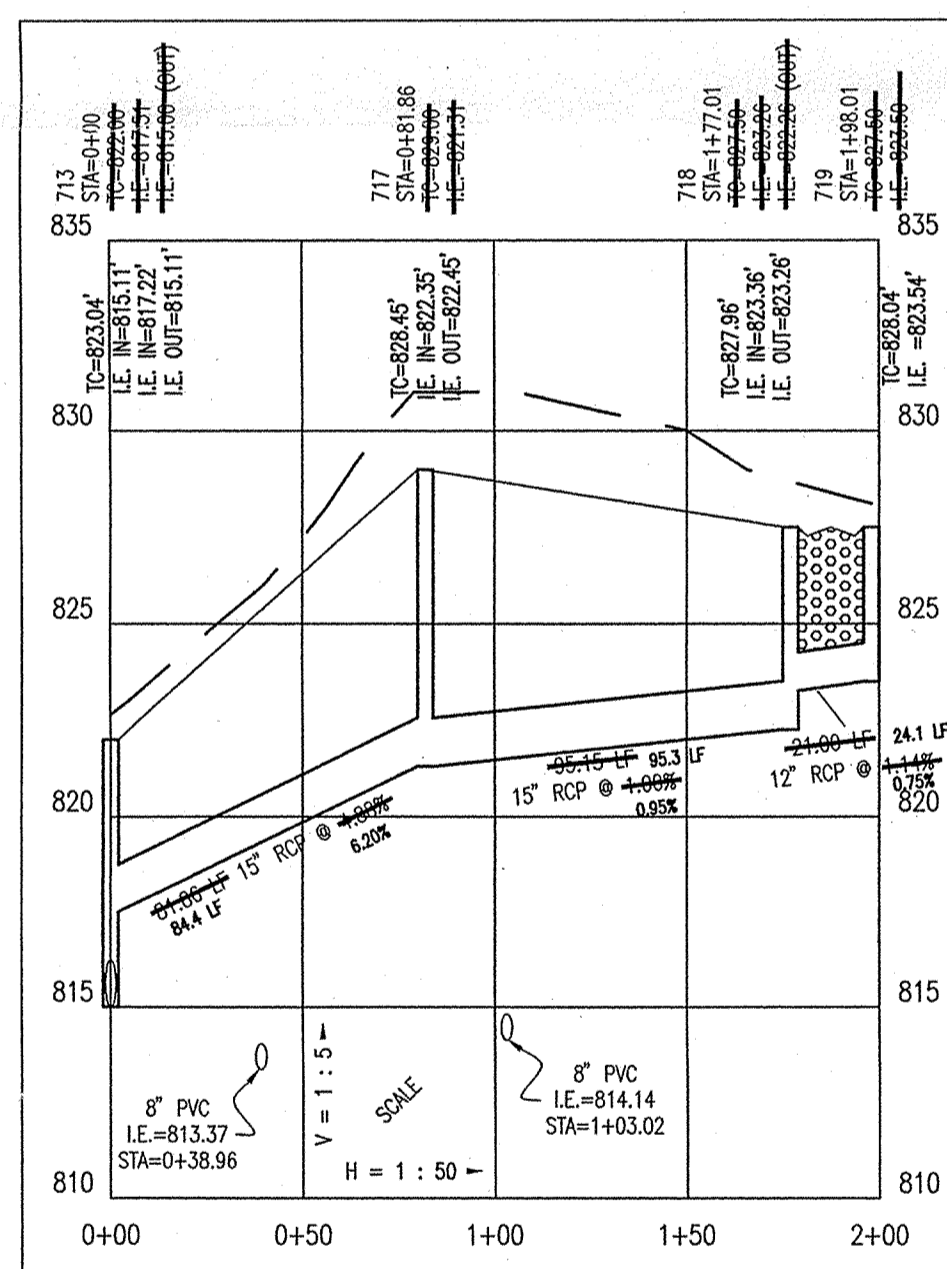
PLAN SIX



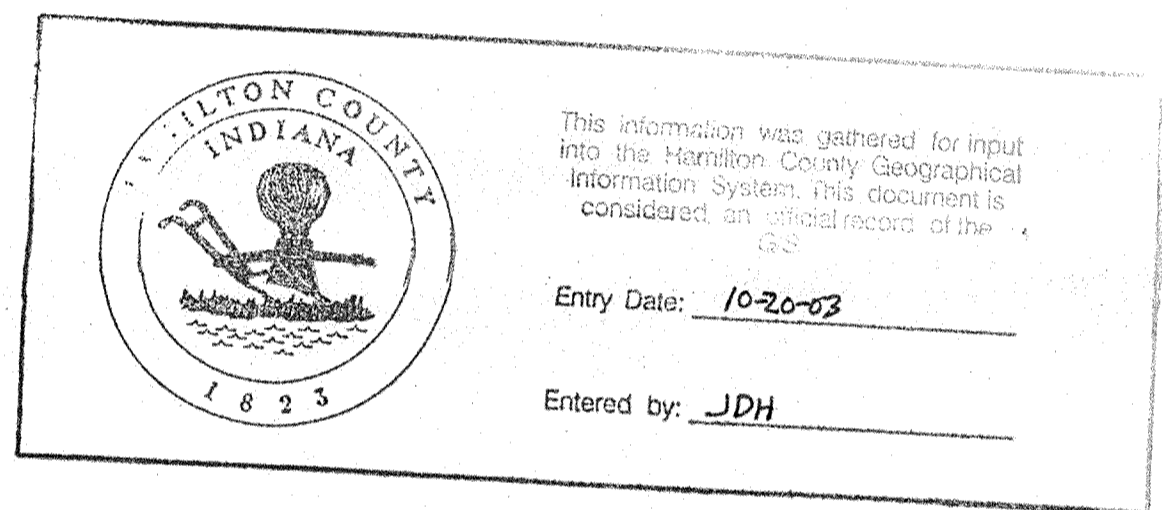
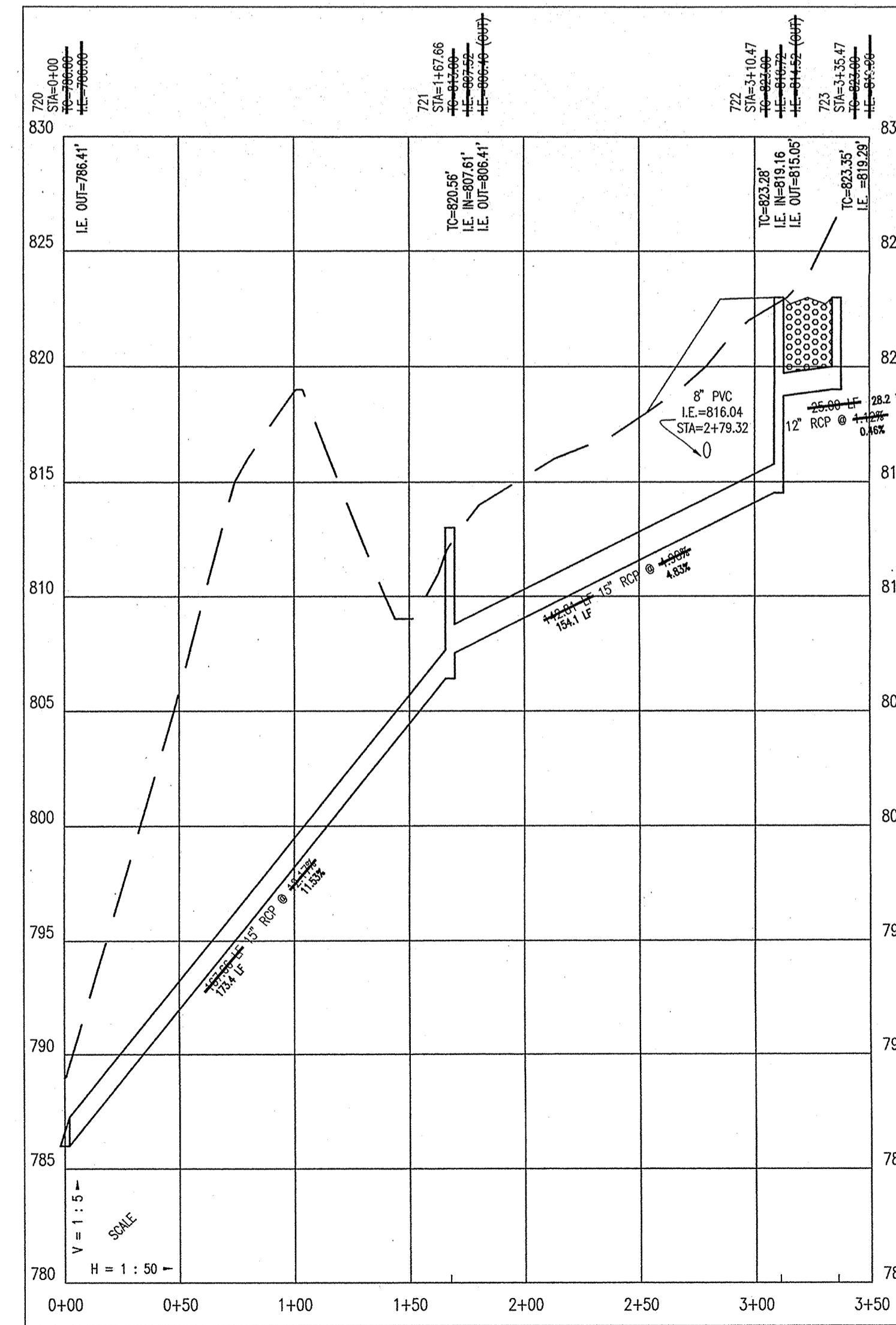
PROFILE FOUR



PROFILE FIVE



PROFILE SIX



STORM SEWER PLAN AND PROFILE NOTES:

- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS: FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
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**AS BUILT**  
Joseph A. Sharp  
date 6-4-03



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1-800-428-5200  
FOR CALLS OUTSIDE OF INDIANA

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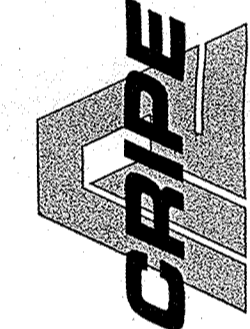
STORM PLAN AND PROFILE  
CANAL PLACE, SECTION IV  
MARINA LIMITED PARTNERSHIP  
11691 FALL CREEK RD.  
INDIANAPOLIS, IN 46256

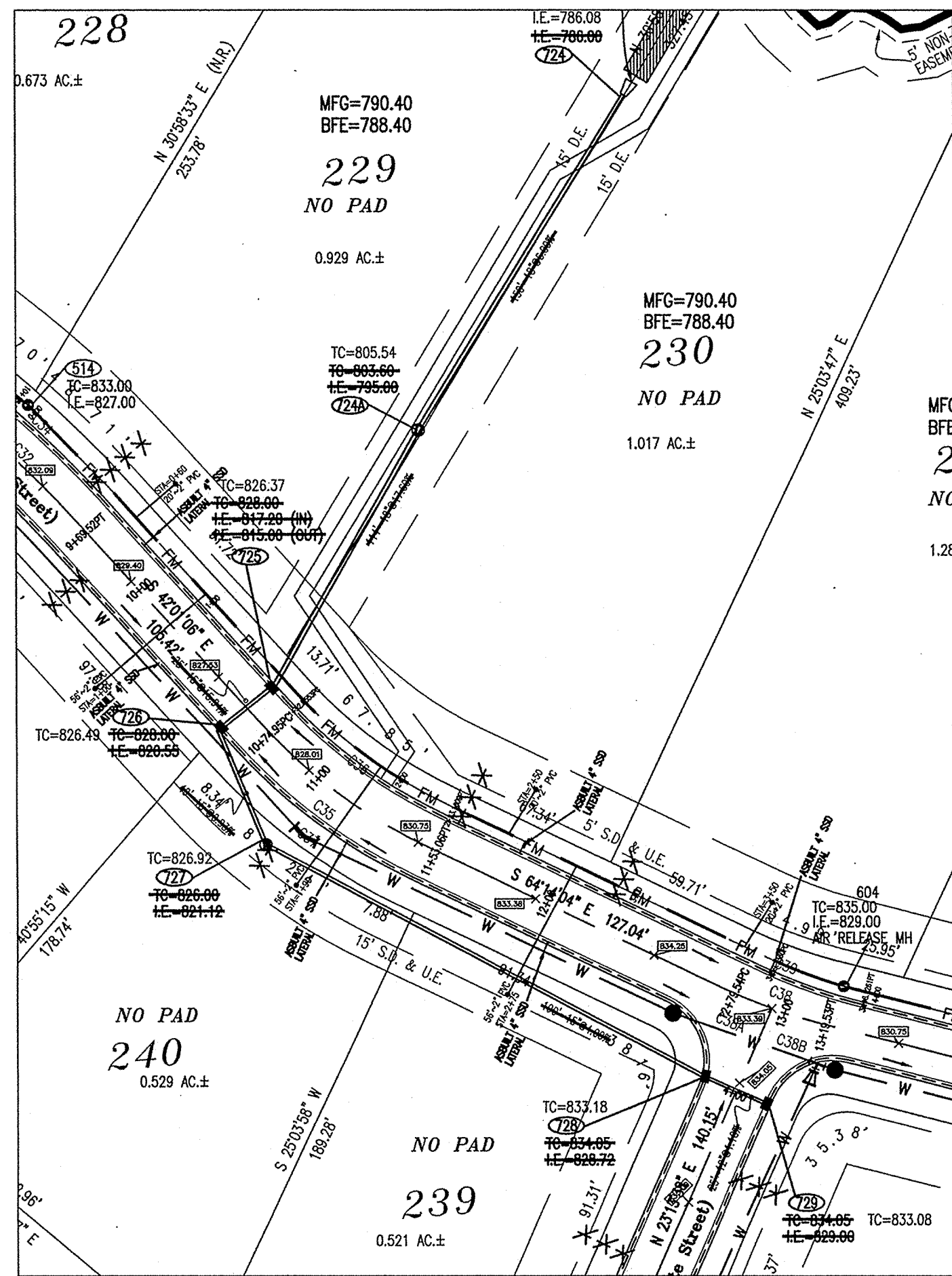
CERTIFIED BY:  
JOSEPH A. SHARP  
REGISTERED  
No. 15179  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

Drawn By:  
Checked By:  
Daily Assurance:  
Scale: 0 1" = 50'  
Sheet: **C702**  
Date: 12-05-01  
Project Number: 990384-20200

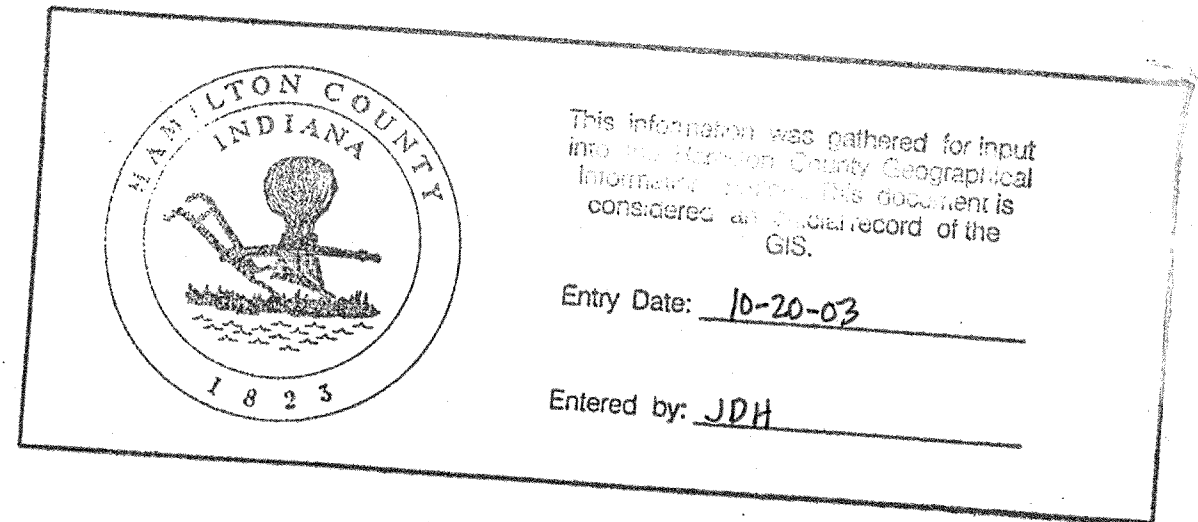
ARCHITECTS  
ENGINEERS  
LANDSCAPE ARCHITECTS  
PLANNERS  
TRANSPORTATION ENGINEERS  
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7172 GRAHAM ROAD  
INDIANAPOLIS, INDIANA 46250  
842-6777 FAX (317) 841-4798  
E-Mail at pierpie@pierpie.com

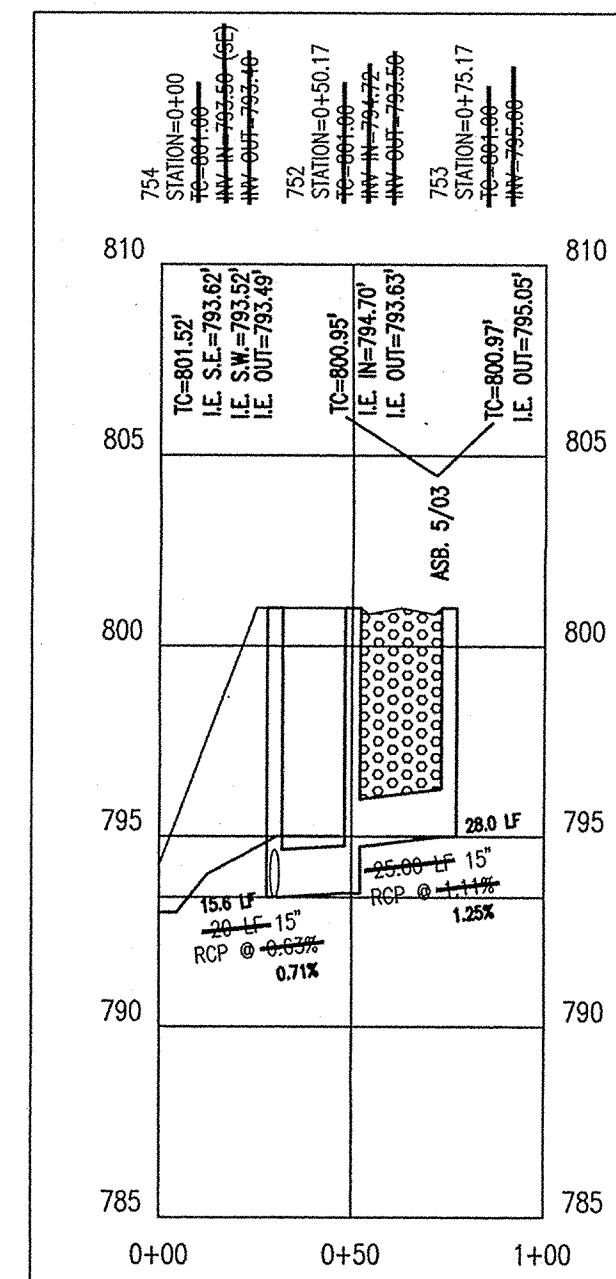




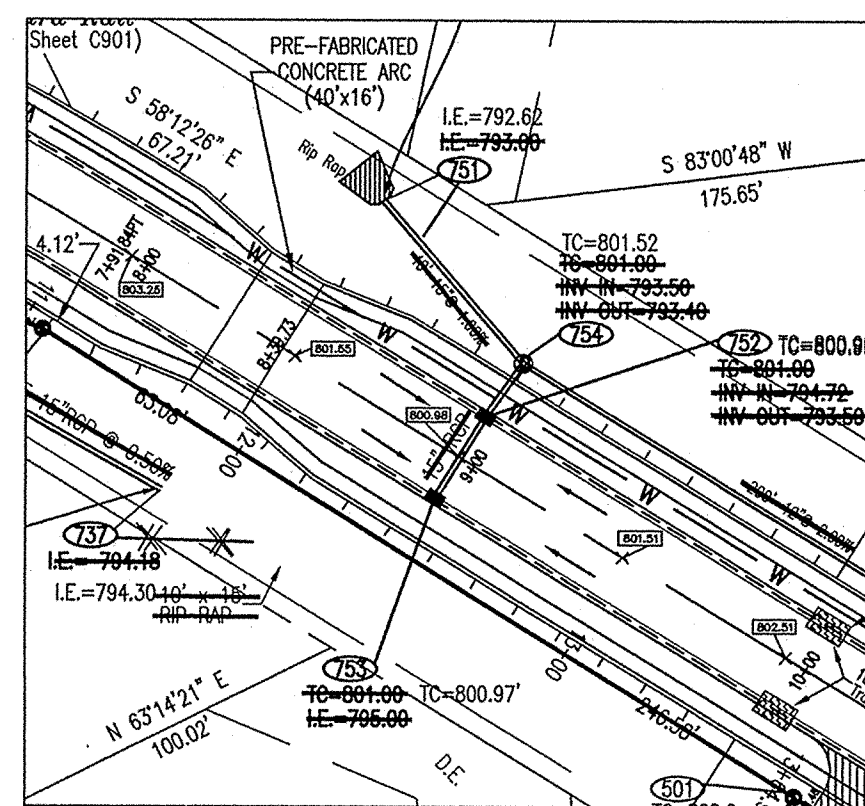
PLAN SEVEN



PROFILE SEVEN-A

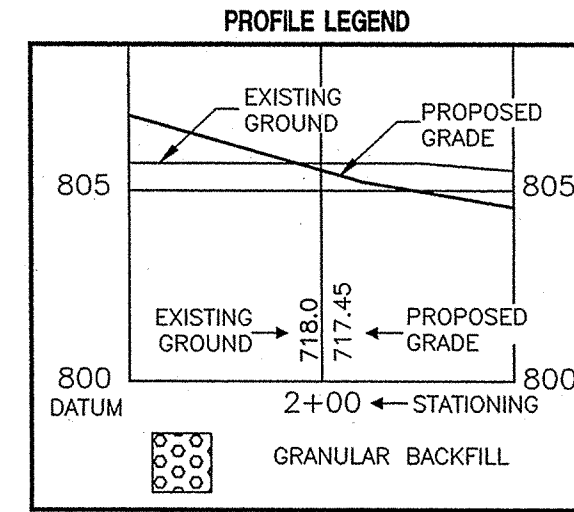


PLAN SEVEN-A

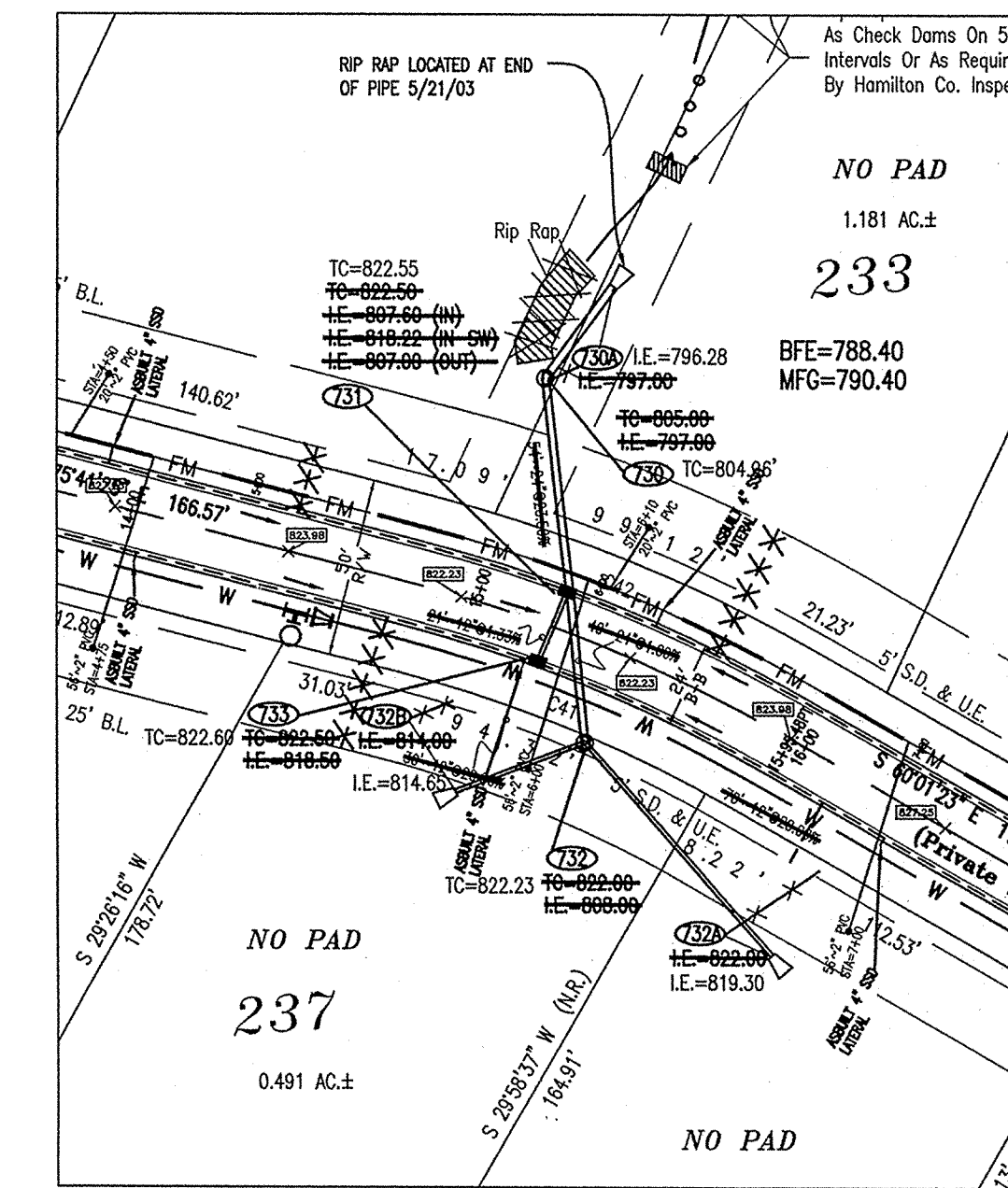
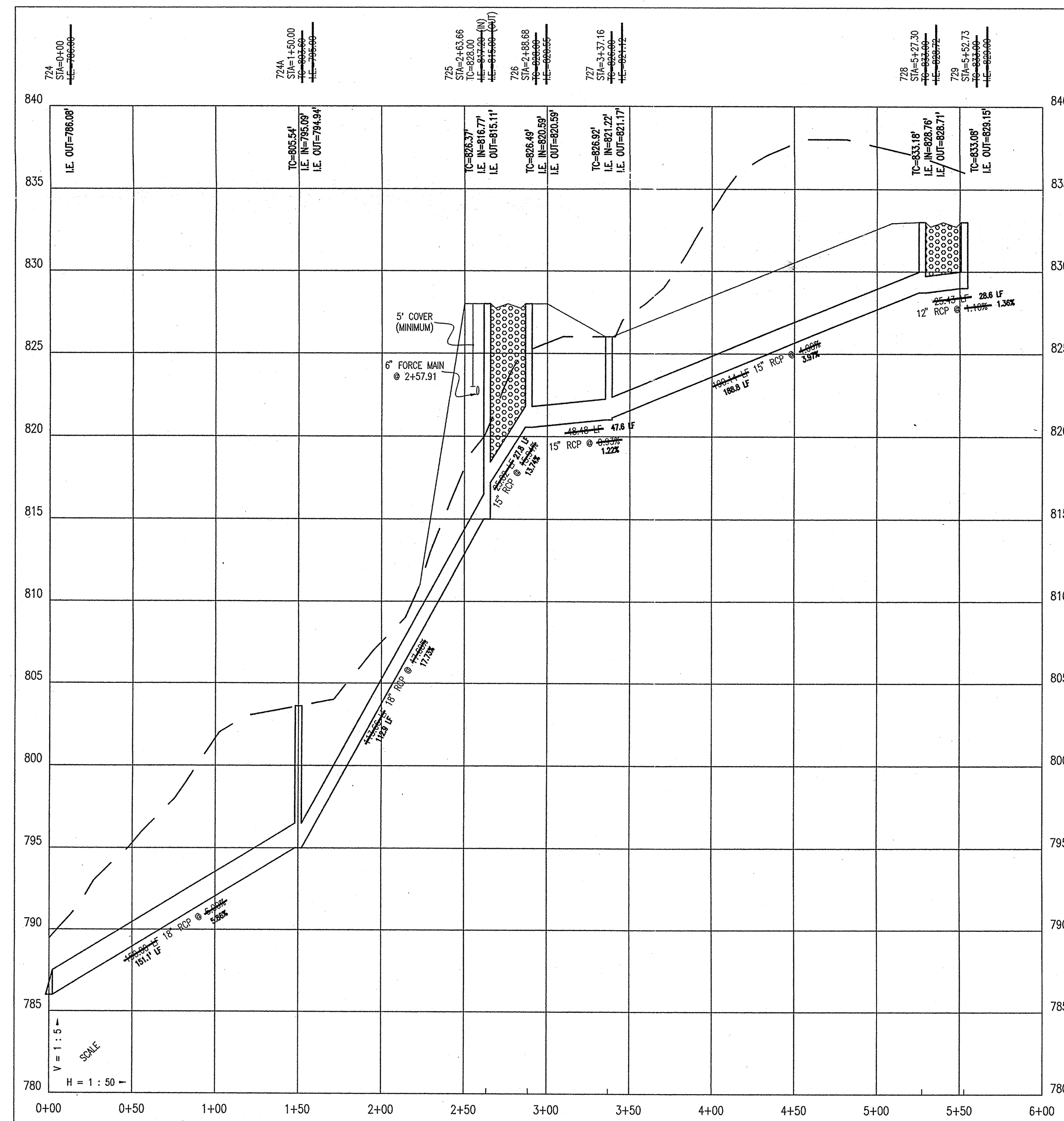


STORM SEWER PLAN AND PROFILE NOTES:

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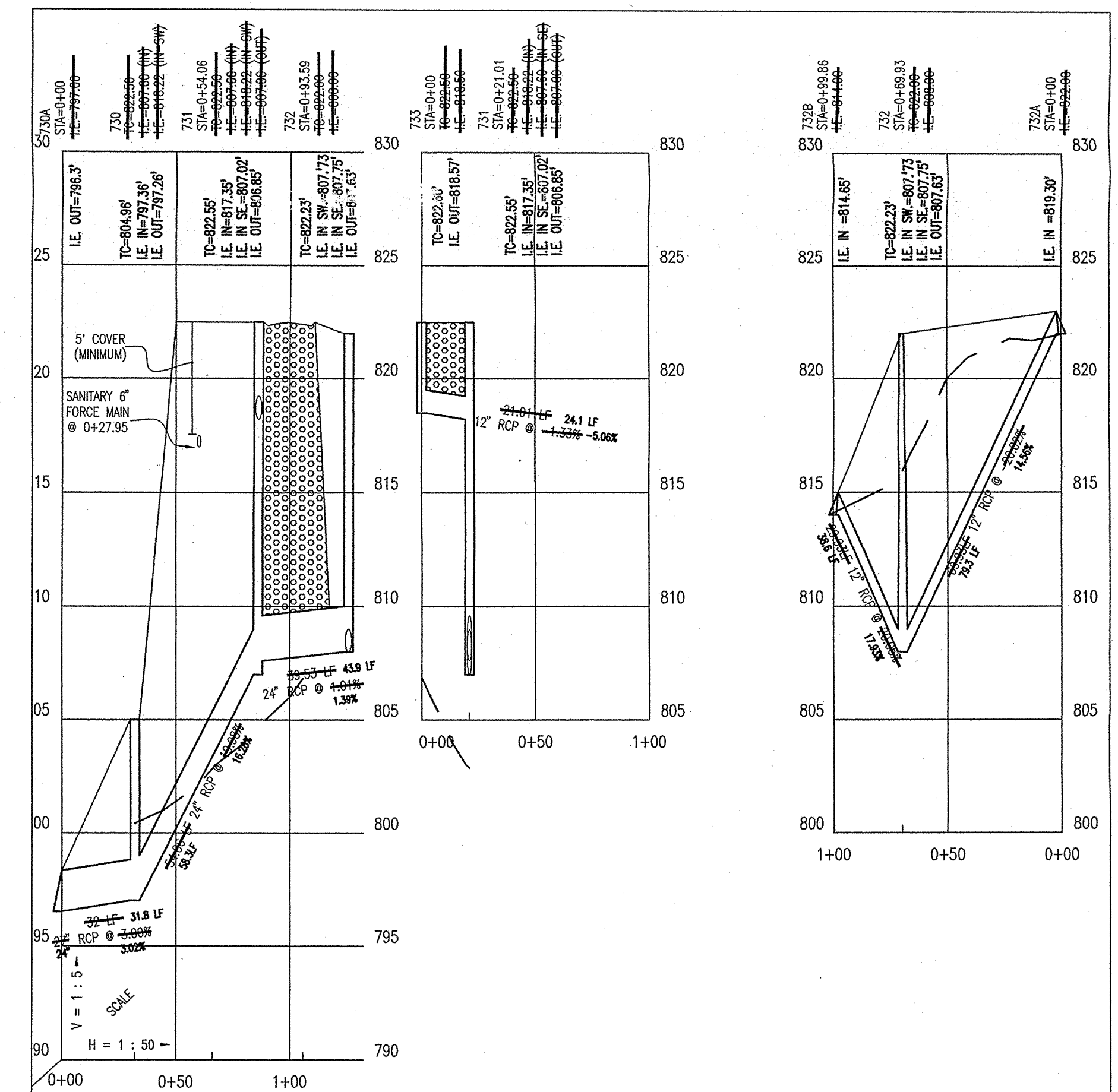


PROFILE SEVEN



PLAN EIGHT

PROFILE EIGHT



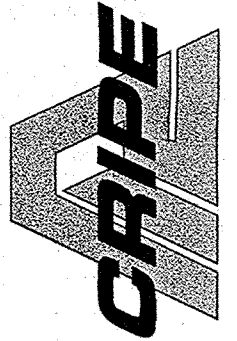
**DON'T DIG BLIND**  
 "HOLEY MOLEY" SEZ.  
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**AS BUILT**  
 Joseph A. Sharp  
 date 6-4-03

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ARCHITECTS  
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 ENGINEERS  
 LAND PLANNERS  
 LAND SURVEYORS

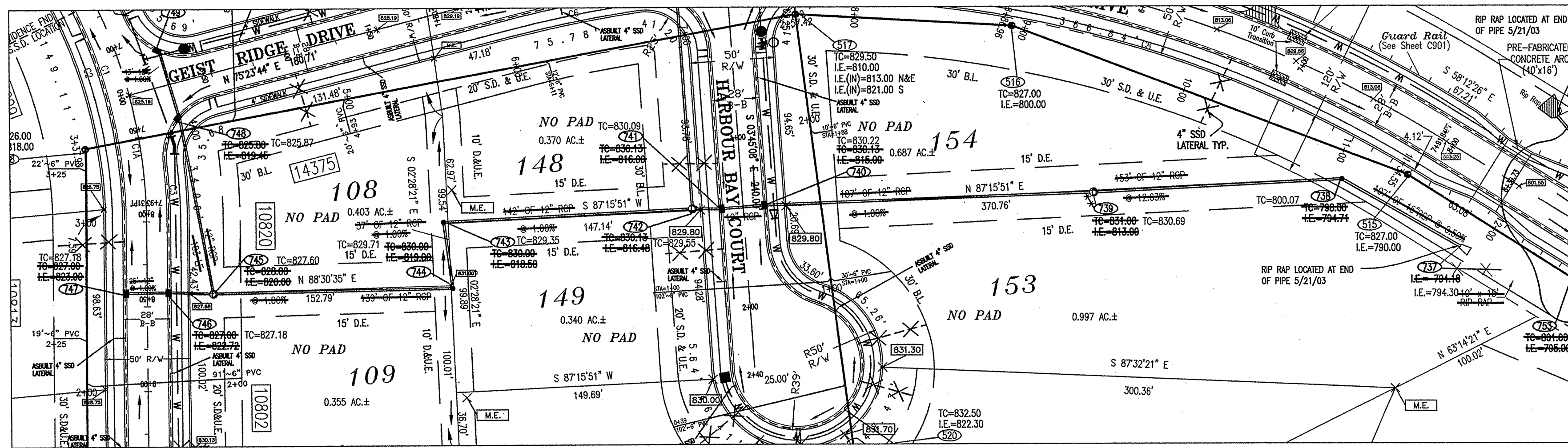
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 842-6777 FAX (317) 841-4798  
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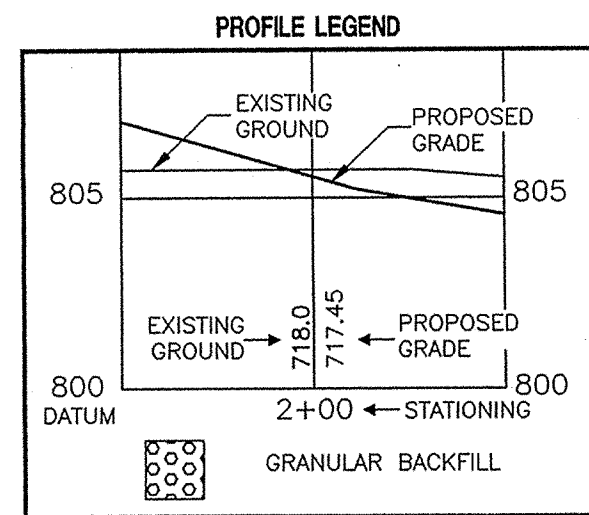
STORM PLAN AND PROFILE  
 CANAL PLACE, SECTION IV  
 MARINA LIMITED PARTNERSHIP  
 11691 FALL CREEK RD.  
 INDIANAPOLIS, IN 46256

CERTIFIED BY:  
 JOSEPH A. SHARP  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 15179  
 STATE OF INDIANA

Drawn By:  
 Checked By:  
 Quality Assurance:  
 Scale: 1" = 50'  
 Sheet: **C703**  
 Date: 12-06-01  
 Project Number: 990384-20200

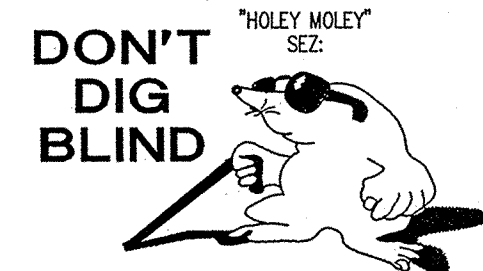


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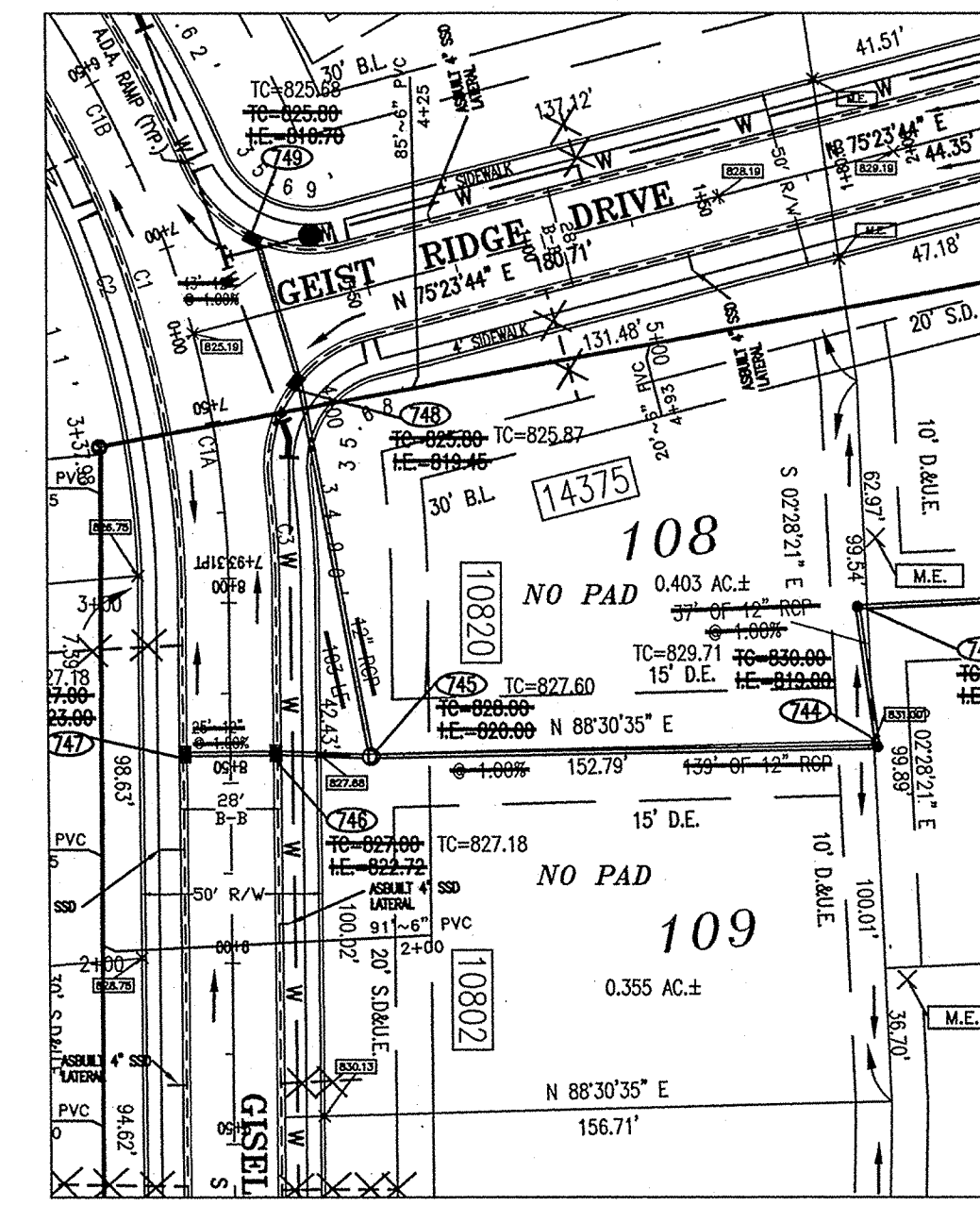
SEE SHEET C701 FOR STORM SEWER PLAN AND PROFILE NOTES.

PROFILE NINE

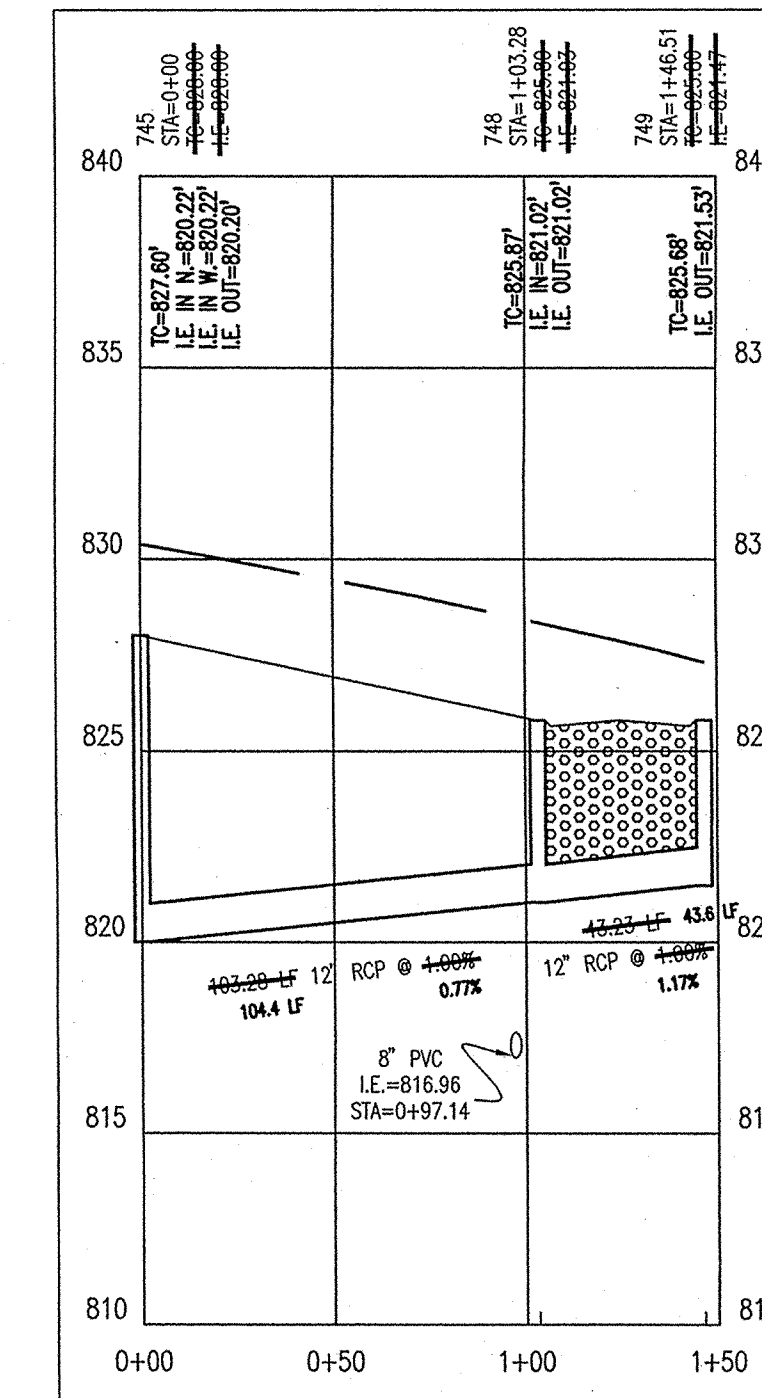


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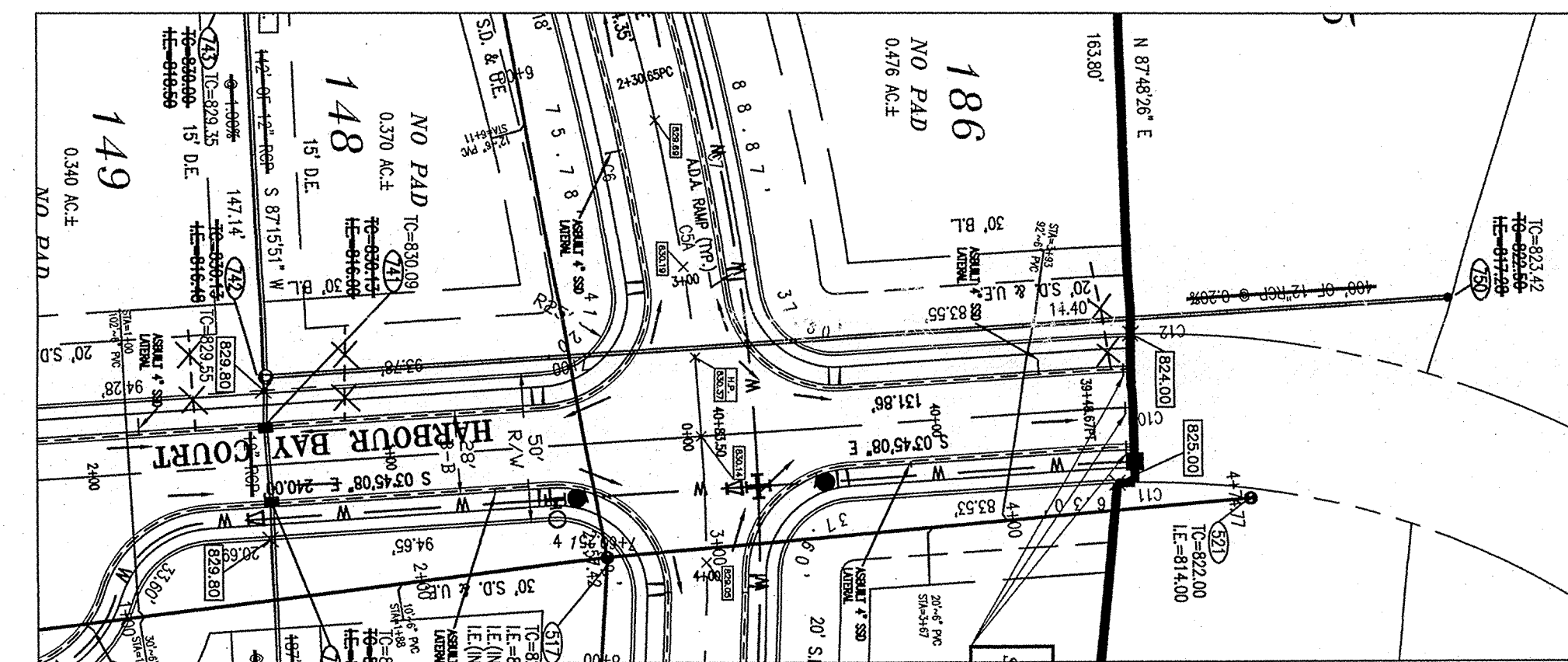
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PLAN TEN

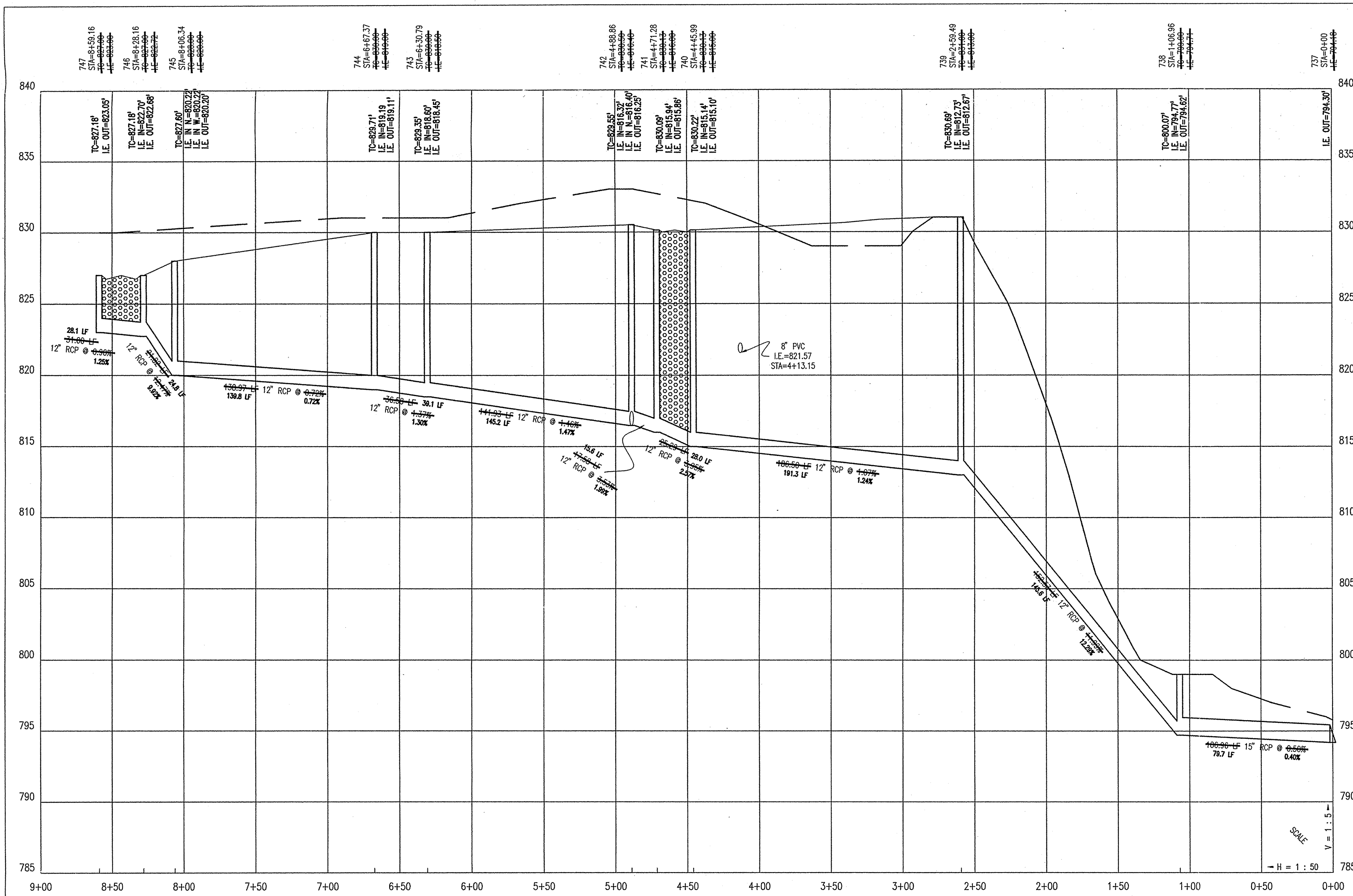


PROFILE TEN



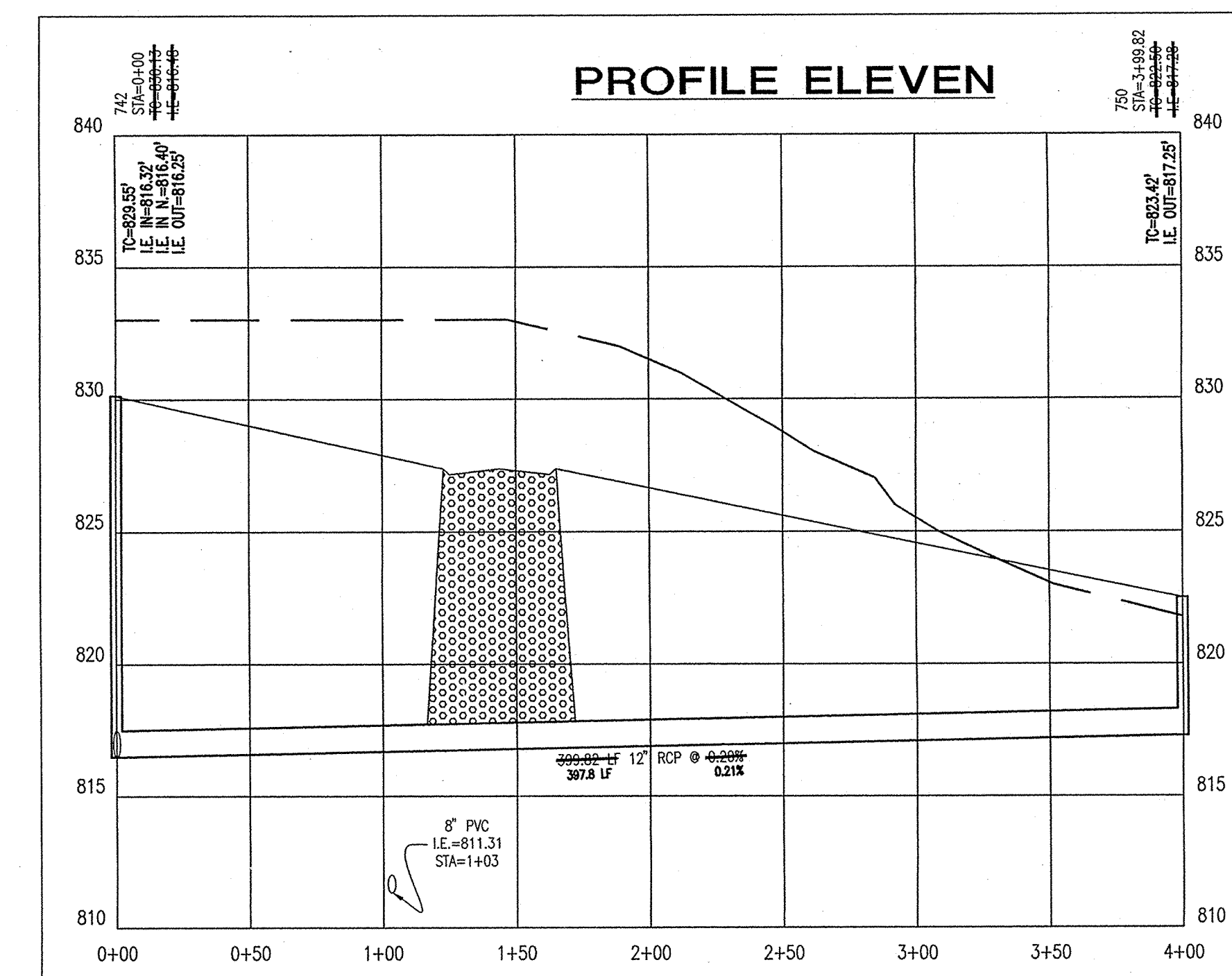
PLAN ELEVEN

AS BUILT  
Joseph A. Sharp  
date 6-4-03



This is a true and correct copy of the original plan as shown to the undersigned, in accordance with the provisions of the Act.

Entry Date: 10-20-03 Entered by: JPH



ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL CONSULTANTS  
TRANSPORTATION ENGINEERS  
LAND SURVEYORS

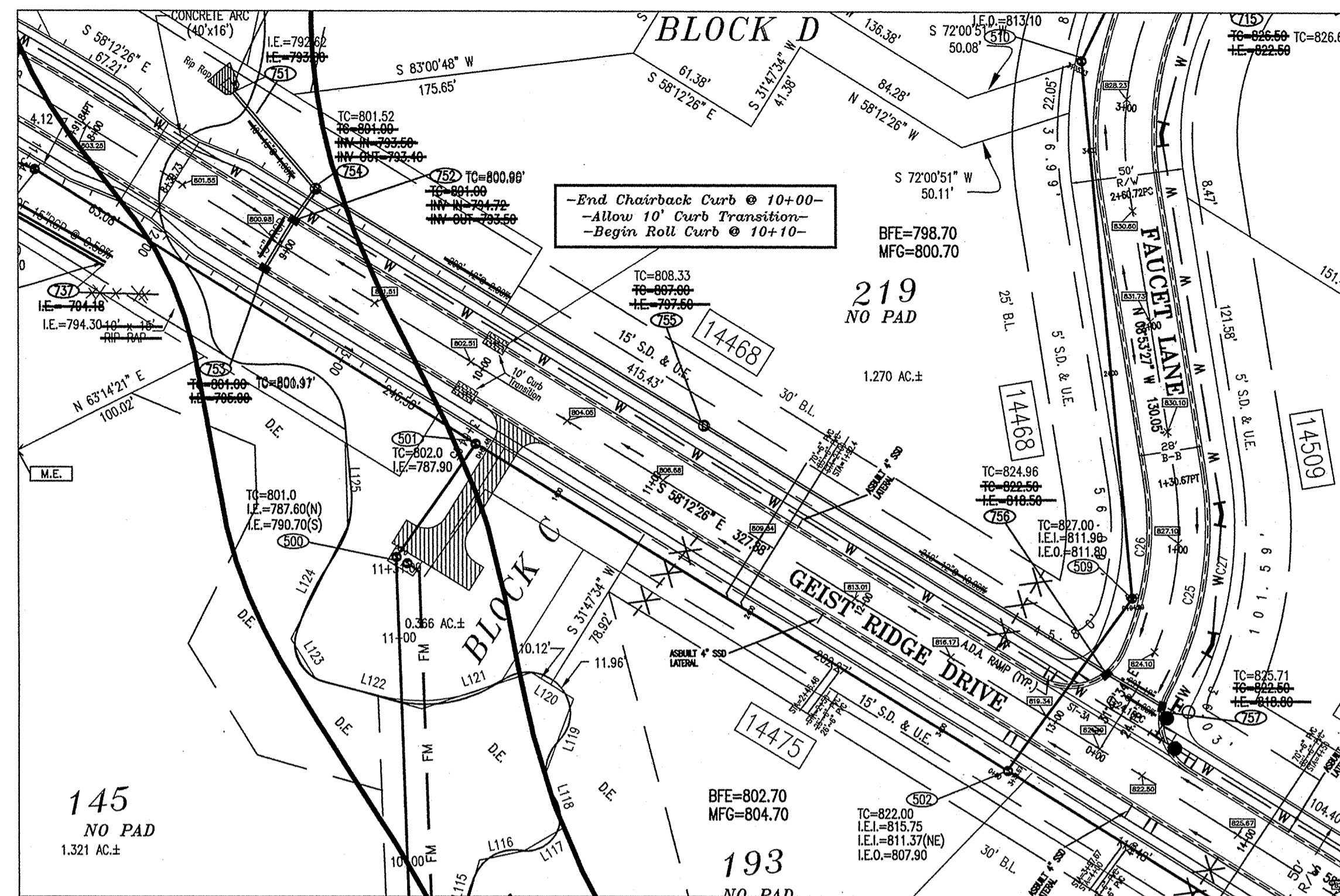
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**CRPE**

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INDIANAPOLIS, IN 46256  
PHONE: (317) 466-1700 FAX: (317) 466-1706

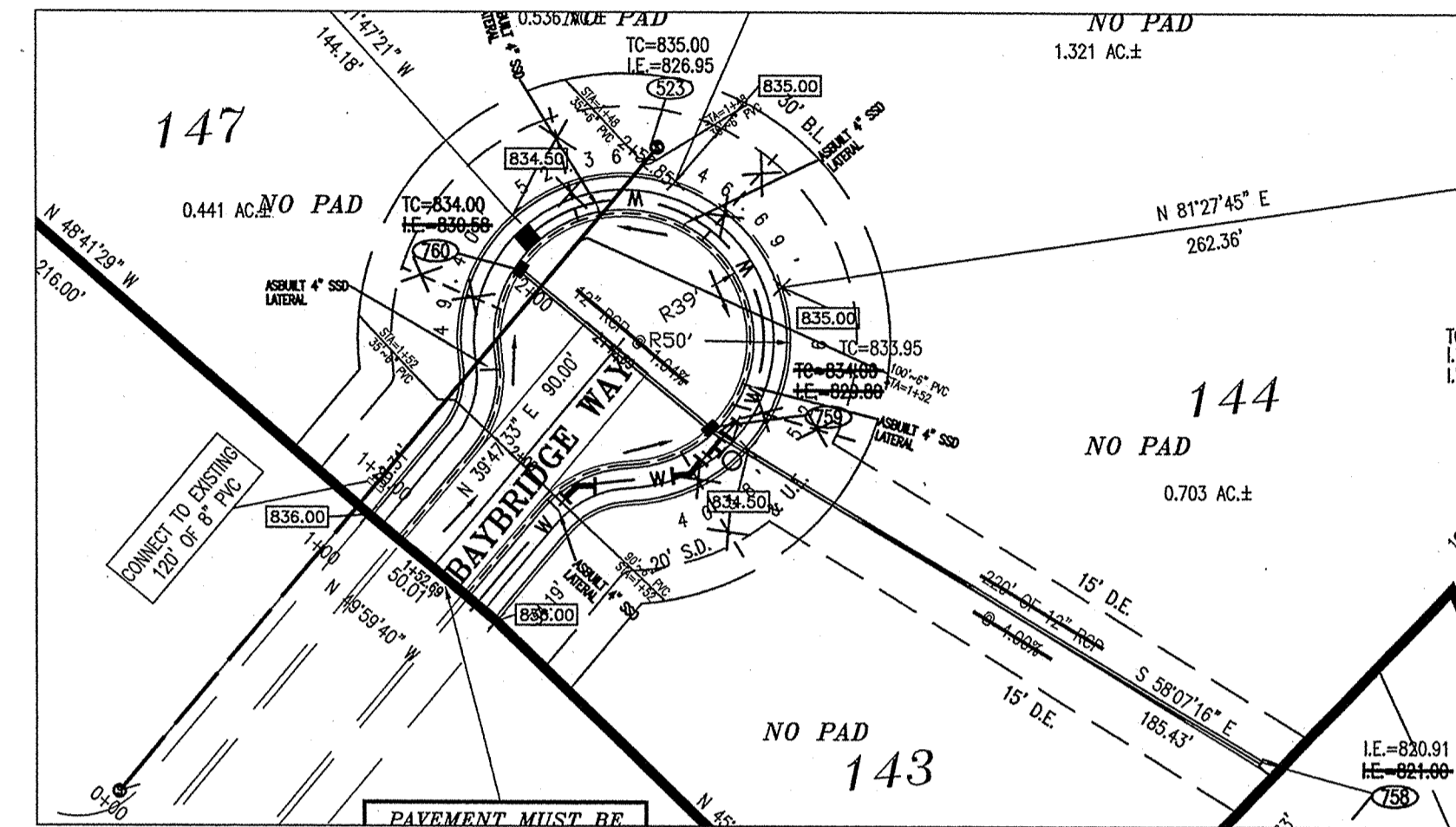
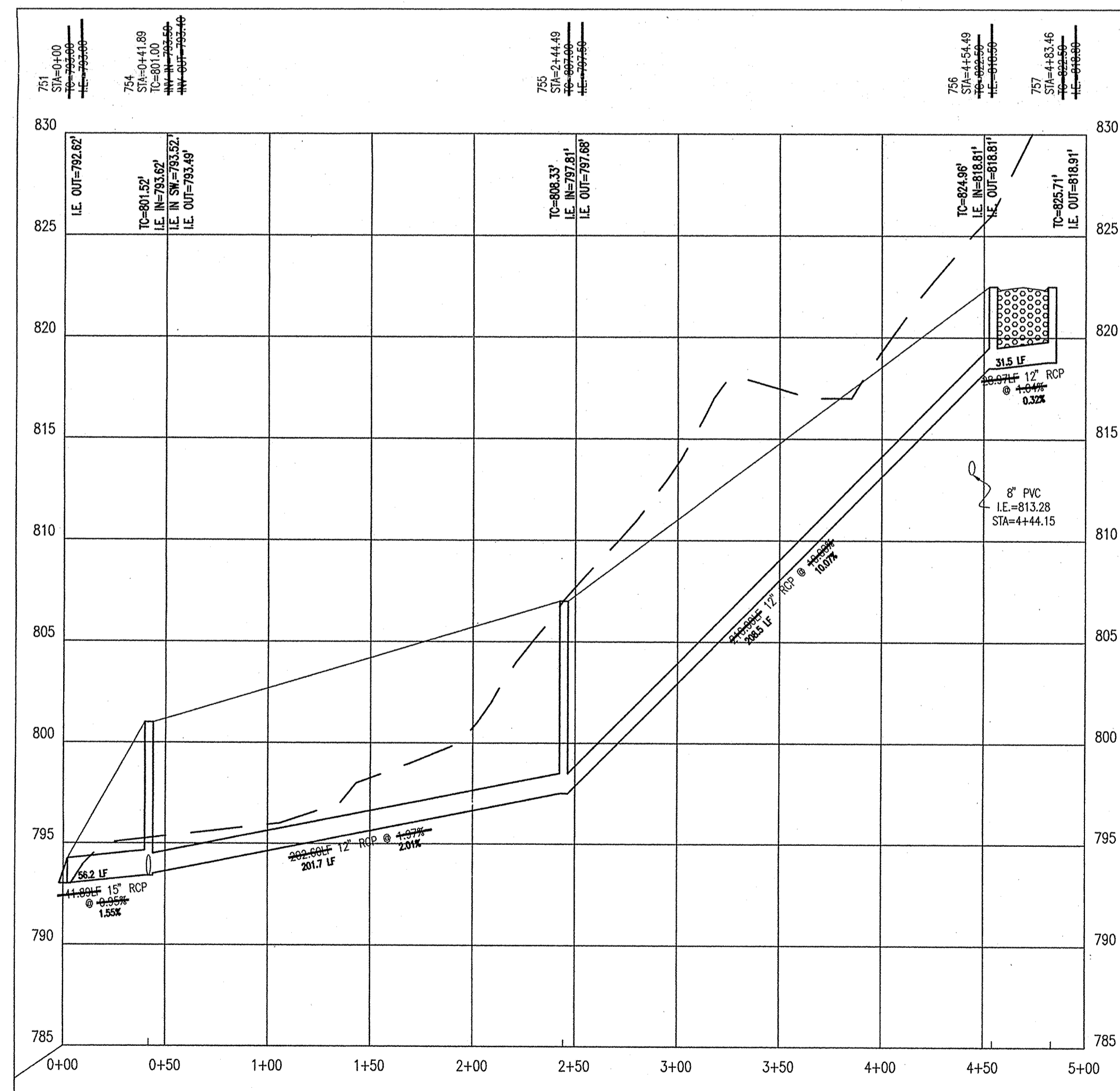
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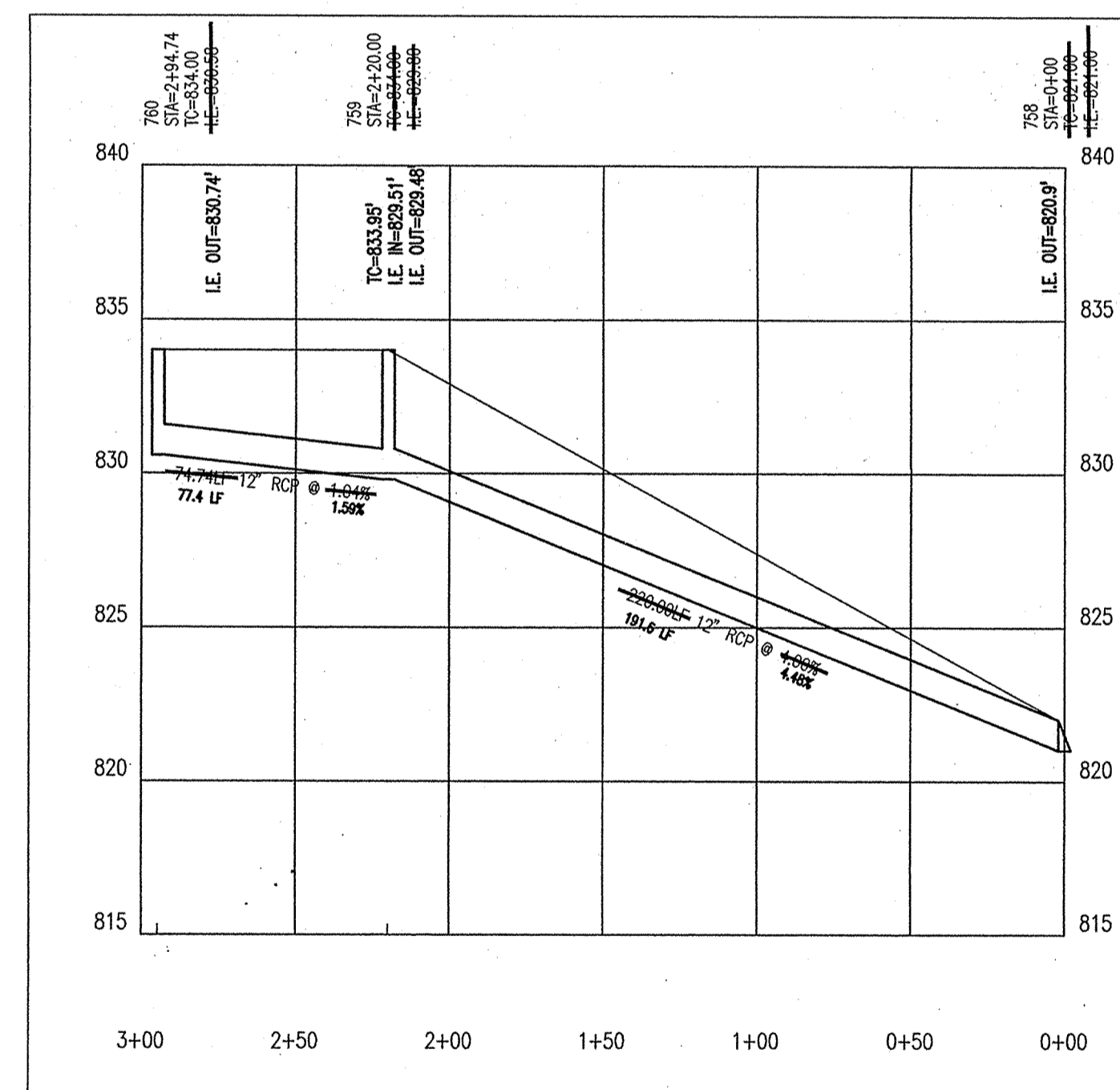
PLAN TWELVE

PROFILE TWELVE



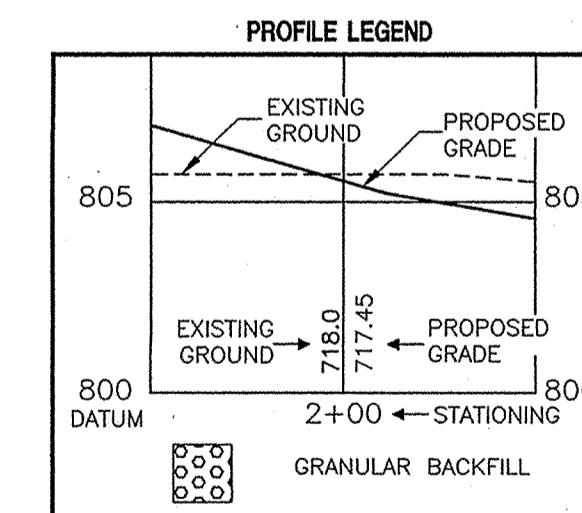
PLAN THIRTEEN

PROFILE THIRTEEN



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2. IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
3. ALL STRUCTURES SHALL HAVE CASTINGS, JOINTS, LIFT RINGS, STEPS AND PIPE CONNECTIONS WELL GROUTED, TROWELED SMOOTH AND BRUSH FINISHED.
4. ALL STRUCTURES (IE: MANHOLES, INLETS) SHALL HAVE Poured FLOW LINES AND BENCH WALLS. THE FLOW LINES AND BENCHWALLS SHALL BE TROWELED SMOOTH AND BRUSH FINISHED.
5. FIELD ADJUSTMENTS OF TOP OF CASTING (T.O.C.) OF STRUCTURES MAY BE REQUIRED TO MEET FIELD CONDITIONS. ADJUSTMENTS EXCEEDING FIVE TENTHS (0.5) OF A FOOT MUST BE APPROVED BY THE ENGINEER TO DETERMINE THE INTEGRITY OF THE STRUCTURE. AT NO COST TO THE OWNER.
6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE FLOW INTO THE STRUCTURE.
7. STORM PIPE INVERTS AT OUTLET STRUCTURES (IE: END SECTIONS), AND PIPE LENGTHS MAY REQUIRE FIELD ADJUSTMENTS TO MEET ACTUAL FIELD CONDITIONS.
8. FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS.
9. SEE SECTION 02720 FOR STORM SEWERAGE SPECIFICATIONS A) IN THE PROJECT MANUAL OR B) ON SHEET C90?
10. PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.
11. THE CONNECTION OF THE PROPOSED STORM SEWER TO AN EXISTING BRICK STRUCTURE MUST BE DONE ACCORDING TO THE FOLLOWING CONDITIONS:
  - A) REHABILITATE AND COAT THE ENTIRE INTERIOR OF THE MANHOLE WITH NON-SHRINK GROUT.
  - B) AT THE POINT OF CONNECTION OF THE PROPOSED PIPE, PLACE A THREE FOOT (3') DIAMETER BY A MINIMUM SIX INCH (6") THICK, 4,000 PSI CONCRETE COLLAR WITH 4x4x10 GAUGE WIRE MESH OVER THE EXTERIOR OF THE MANHOLE.
  - C) ONCE THE CORE HAS BEEN MADE, INSTALL A RUBBER BOOT.



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: 10-20-03

Entered by: JDH

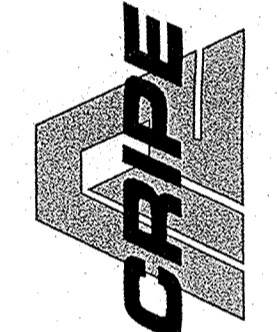


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**CAUTION**  
LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

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**STORM PLAN AND PROFILE**  
**CANAL PLACE, SECTION IV**  
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CERTIFIED BY: Joseph A. Sharp

JOSEPH A. SHARP  
REGISTERED  
No. 15179  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

Drawn By: \_\_\_\_\_  
Checked By: \_\_\_\_\_  
Quality Assurance: \_\_\_\_\_  
Scale: 0' = 1" = 50'  
Sheet: **C704a**  
Date: 12-05-01  
Project Number: 990384-20200