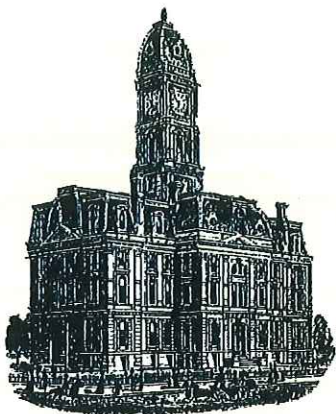


Drain: CLARA KNOTTS **Drain #:** 210
Improvement/Arm: MERIDIAN CORPORATE PLAZA
Operator: J. LIVINGSTON **Date:** 2-20-04
Drain Classification: Urban/Rural **Year Installed:** 1989

GIS Drain Input Checklist

- Pull Source Documents for Scanning
- Digitize & Attribute Tile Drains
- Digitize & Attribute Storm Drains
- Digitize & Attribute SSD
- Digitize & Attribute Open Ditch
- Stamp Plans
- Sum drain lengths & Validate
- Enter Improvements into Posse
- Enter Drain Age into Posse
- Sum drain length for Watershed in Posse
- Check Database entries for errors

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Kenton C. Ward, CFM
Surveyor of Hamilton County
Phone (317) 776-8495
Fax (317) 776-9628

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

Map Correction-Field Verification

Drain Number: 210

Drain Length: 6337

Drain Name: Meridian Corp. Plaza Arm

Change + / - : -17

Date: 08-25-2016

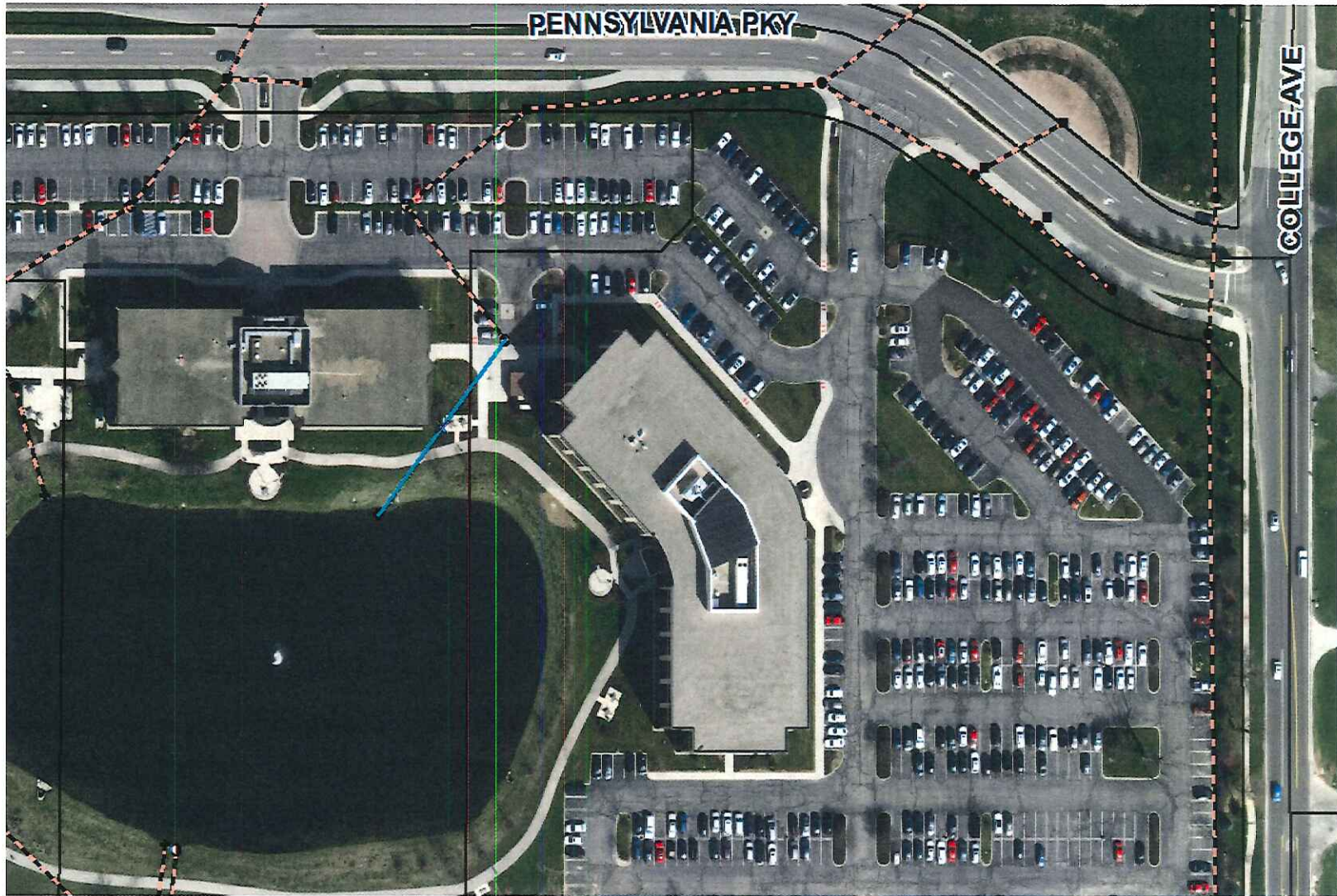
New Length: 6320

Verified By: SLM, LMC

Notes & Sketch: See attached Map

It was discovered through looking at Orthophotography that the HERCP was shortened. It seems the pond was expanded around 2007. In this expansion, the 19" by 30" HERCP was shortened by 17 feet.

Suzanne L. Mills
GIS Specialist



This map was compiled by the Hamilton County Surveyor's Office. Although strict accuracy standards have been employed in the compilation of this map, Hamilton County does not warrant or guarantee the accuracy of the information contained herein and disclaims any and all liability resulting from any error or omission in this map.

CLARA KNOTTS DRAIN Meridian Corp. Plaza Arm

Printing Date: 08/25/2016
Prepared By: Suzanne Mills, GISP
Hamilton County Surveyor's Office
One Hamilton County Square, Ste 18E
Noblesville, IN 46060
317-776-8495



Gasb 34 Footages for Historical Cost
Drain Length Log

Drain-Improvement: CLARA KNOTTS - MERIDIAN CORPORATE PLAZA

Drain Type:	Size:	Length	Length (DB Query)	Length Reconcile	If Applicable	
					Price:	Cost:
RCP	12"	1284'	1491'	+207'	7.25/lf	10,809.75
	24"	696'	586'	-110'	18.00/lf	10,548.00
	15"	969'	986'	+17'	9.50/lf	9,367.50
	18"	578'	578'	0'	10.50/lf	6,069.00
	30"	320'	0'	-320'	—	
	36"	80'	80'	0'	32.25/lf	2,580.00
	48"	1245'	1546'	+301'	66.50/lf	102,886.50
	66"	822'	823'	+1'	129.25/lf	106,372.75
HERCP	53"x83"	150'	150'	0'	217.00/lf	32,550.00
	30"x19"	414'	414'	0'	40.70/lf	16,849.80

Sum: 6558' 6654' +96' \$298,032.66

Final Report: 6558'

Comments:

HAMILTON COUNTY DRAINAGE BOARD
NOBLESVILLE, INDIANA

IN RE: CLARA KNOTTS LEGAL DRAIN)
Hamilton County, Indiana)

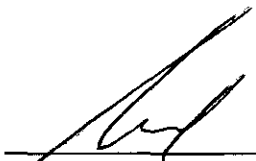
PETITION FOR RELOCATION AND RECONSTRUCTION

MCP PARTNERS, LLC (hereinafter Petitioner”),

hereby petitions the Hamilton County Drainage Board for authority to relocate and improve a section of the CLARA KNOTTS Drain, and in support of said petition advises the Board that:

1. Petitioner owns real estate through which a portion of the CLARA KNOTTS Drain runs.
2. Petitioner plans to develop its real estate with roads, buildings, utilities, storm drains, sanitary sewers and other structures.
3. Petitioner’s proposed development of its real estate will require relocation and reconstruction of a portion of the CLARA KNOTTS Drain, as specifically shown on engineering plans and specifications filed with the Hamilton County Surveyor.
4. The work necessary for the proposed relocation and reconstruction will be undertaken at the sole expense of the Petitioner and such work will result in substantial improvement to the CLARA KNOTTS Drain, without cost to other property owners on the watershed of the CLARA KNOTTS Drain.
5. Proposed relocation and reconstruction will not adversely affect other land owners within the drainage shed.
6. Petitioner requests approval of the proposed relocation and reconstruction under IC 36-9-27-52.5.

WHEREFORE, Petitioner requests that an Order issued from the Hamilton County Drainage Board authorizing relocation and reconstruction of the CLARA KNOTTS Drain, in conformance with applicable law and plans and specifications on file with the Hamilton County Surveyor.


Signed

GREGORY C. GURNIK, MANAGER

Printed

CERTIFICATE OF COMPLETION AND COMPLIANCE

TO: COUNTY SURVEYOR'S OFFICE, HAMILTON COUNTY
ATTN: Mr. Kenton Ward
FROM: Paul I. Cripe, Inc., Engineers
SUBJECT: Meridian Corporate Plaza

I hereby certify that

- 1) I am familiar with the plans and specifications for the above referenced project,
- 2) I have personally observed the completion of the above referenced project, and
- 3) To the best of my knowledge, information and belief, the above referenced project has been performed and completed in conformity with all plans and specifications, except _____

Signature Christopher R. White Date 11/22/89

Type or Printed Name Christopher R. White

Business Address 7172 Graham Road
Indianapolis, IN 46250

Telephone 842-6777

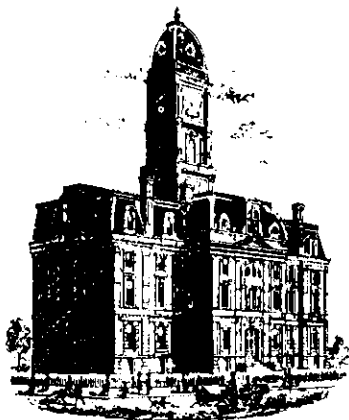
Seal



Indiana Registration Number

20491

ADM:t1
1/13/84



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

January 21, 1998

Re: Clara Knotts Drain: Meridian Corporate Plaza

Attached are as-builts, certificate of completion & compliance, and other information for Meridian Corporate Plaza. 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 April 10, 1989. The changes are as follows:

12"RCP - 1284'FT 15"RCP - 969'FT 18"RCP - 578'FT 24"RCP - 696'FT

30"RCP - 320'FT 36"RCP - 80'FT 48"RCP - 1245'FT

66"RCP - 822'FT 53"x83" - 150'FT 30"x19" - 414FT

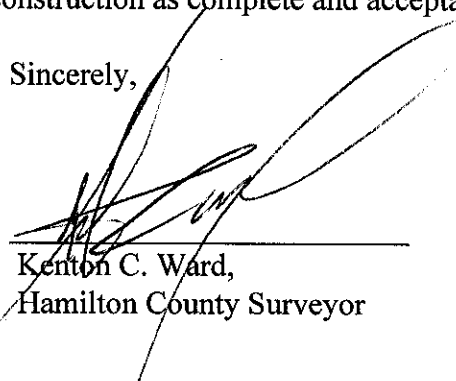
Structures 608,609,610,611,612, and 677 were not constructed.

The length of the drain due to the changes described above is now **6,558' feet**. There was 2200 feet to open ditch vacated. This leaves a net drain length of **4,358' feet**.

Non-enforcements were not issued for this area at the time of construction. As buildings are constructed non-enforcements will be submitted for each site.

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

Sincerely,


Kenton C. Ward,
Hamilton County Surveyor

KCW/slm

Asbuilt Structures

Project: Clara Knotts Drain: Meridian Corporate Plaza

Structure: T.C.: I.E.: Pipe: Length: Original Plans: Difference:

603	834.0	825.09				
602	832.80	823.50	46"	533'	From 530'	
602	832.80	823.50				
601	831.50	823.10	46"	289.8'	From 290'	
601	831.50	823.10				
600	—	822.50	53" x 83" RCP	150'		
603	834.0	825.09				
604	834.0	827.43	48"	475'		
604	834.0	827.43				
EX.	—	828.50	48"	570'		
608	—	822.95				
609	830.0	824.26	42"	435'		
609	830.0	824.26				
610	831.0	825.52	42"	420'		
610	831.0	825.52				
611	831.80	826.85	42"	444'		
611	831.80	826.85				
612	832.25	827.23	42"	126'		

not constructed

6" SSD Streets:

Total:

RCP Pipe Totals:

6" SSD Lots:

Total:

Other Drain:

Total Length of Drain:

Asbuilt Structures

Project: Clara Knotts Drain: Meridian Corporate Plaza

Structure: T.C.: I.E.: Pipe: Length: Original Plans: Difference:

612	832.25	827.23				
EX	3	827.95	42"	240'	✓	} NOT constructed
EX	?	833.25				
677	—	834.0	12"	15'	✓	
611	831.80	827.85				
643	—	829.70	12"	15'	✓	
624	832.50	829.66				
622	832.58	829.33	12"	82'	✓	
623	832.77	829.73				
622	832.58	829.72	12"	64'	✓	
622	832.58	829.72				
619	832.20	828.91	18"	140'	✓	
621	834.40	832.31				
620	832.80	829.60	12"	114'	✓	
620	832.80	829.60				
619	832.20	828.90	15"	117'	✓	
619	832.20	828.90				
618	832.04	827.34	18"	238'	✓	FRM 240'

6" SSD Streets:

Total: _____

RCP Pipe Totals:

6" SSD Lots:

Total: _____

Other Drain:

Total Length of Drain: _____

Asbuilt Structures

Project: Clara Knotts Drain: Meridian Corporate Plaza

Structure: T.C.: I.E.: Pipe: Length: Original Plans: Difference:

618	832.04	827.34				
617	830.21	827.01	30" x 19" RCP	125'	From 128'	
617	830.21	827.01				
616	829.90	826.29	30" x 19" RCP	125'	From 128'	
616	829.90	826.29				
615	—	825.86	30" x 19" RCP	1164'	From 170'	
614	?	824.70				
613	—	823.47	36"	80'		
632	834.10	830.66				
629	831.62	828.33	12"	191'	From 195'	
631	831.63	828.48				
628	831.61	828.20	12"	65'	From 66'	
630	834.90	830.39				
629	831.62	828.0	15"	171'	From 173'	
629	831.62	828.33				
628	831.61	827.79	18"	84'	From 80'	
628	831.61	827.79				
627	830.22	827.03	24"	122'	From 124'	

6" SSD Streets:

Total:

RCP Pipe Totals:

6" SSD Lots:

Total:

Other Drain:

Total Length of Drain:

Asbuilt Structures

Project: Clara Knotts Drain: Meridia Corporate Plaza

Structure: T.C.: I.E.: Pipe: Length: Original Plans: Difference:

627	830.22	827.03				
626	829.84	826.40	24"	135'	✓ FRM 131'	
626	829.84	826.40				
625	—	825.84	24"	101'	✓ FRM 100'	
661	—	830.96				
660	833.37	830.34	12"	25'	✓	
660	833.37	830.34				
656	833.23	829.66	12"	80'	✓	
659	834.15	831.48				
658	834.06	830.64	12"	116'	✓	
658	834.06	830.64				
657	833.20	830.17	12"	92'	✓ FRM 94'	
657	833.20	830.17				
656	833.23	828.58	15"	240'	✓ FRM 238'	
656	833.23	828.58				
655	833.0	827.13	18"	116'	✓	
655	833.0	827.13				
606		826.04	24"	228'	✓	

6" SSD Streets:

Total: _____

RCP Pipe Totals:

6" SSD Lots:

Total: _____

Other Drain:

Total Length of Drain: _____

Asbuilt Structures

Project: Clara Knotts Drain, Meridia Corporate Plaza

Structure: T.C.: I.E.: Pipe: Length: Original Plans: Difference:

654	---	833.34				
653	836.0	831.72	24"	110'	✓	
653	836.0	831.72				
652	836.0	831.49	30"	100'	✓	
652	836.0	831.49				
642		830.75	30"	220'	✓	
673	841.80	838.85				
672	844.06	838.31	12"	26'	✓	
672	844.06	838.20				
671	843.30	838.22	12"	30'	✓	
671	843.30	837.21				
EX	844.70	832.46	15"	73'	✓	
667	838.82	835.11				
666	836.90	833.96	15"	96'	✓	FKL 94'
666	836.90	833.96				
665	838.04	833.23	15"	71'	✓	FRM 70'
665	838.04	833.23				
EX	-	832.71	15"	72'	✓	

6" SSD Streets:

Total: _____

RCP Pipe Totals:

6" SSD Lots:

Total: _____

Other Drain:

Total Length of Drain: _____

Asbuilt Structures — (Additional Drain)

Project: Claw Knots Drain: Meridian Corporate Plaza

Structure: T.C.: I.E.: Pipe: Length: Original Plans: Difference:

682	—	829.74				
681	833.90	829.89	12"	40'	✓	
681	833.90	829.82				
623		829.73	12"	74'	✓	
686	—	834.47				
685	836.5	834.25	12"	40'	✓	
685	836.50	834.25				
684	834.60	832.38	12"	132'	✓	<u>Add</u>
684	834.60	832.28				
683	832.1	830.16	12"	64'	✓	
683	832.1	827.59				
620	—	829.60	15"	45'	✓	
Ex						
674	843.94	839.93	12"	34'	✓	
Ex						
675	844.12	841.17	15"	44'	✓	
655-680	833.60	829.15	15"	40'		

6" SSD Streets:

Total: _____

RCP Pipe Totals:

12"	1299'
15"	969'
18"	578'
24"	696'
30"	320'
36"	80'
42"	1645'
48"	1245'

6" SSD Lots:

Total: _____

66"	822'
53" x 83"	150'
30" x 19"	414'
Other Drain:	

Total Length of Drain:

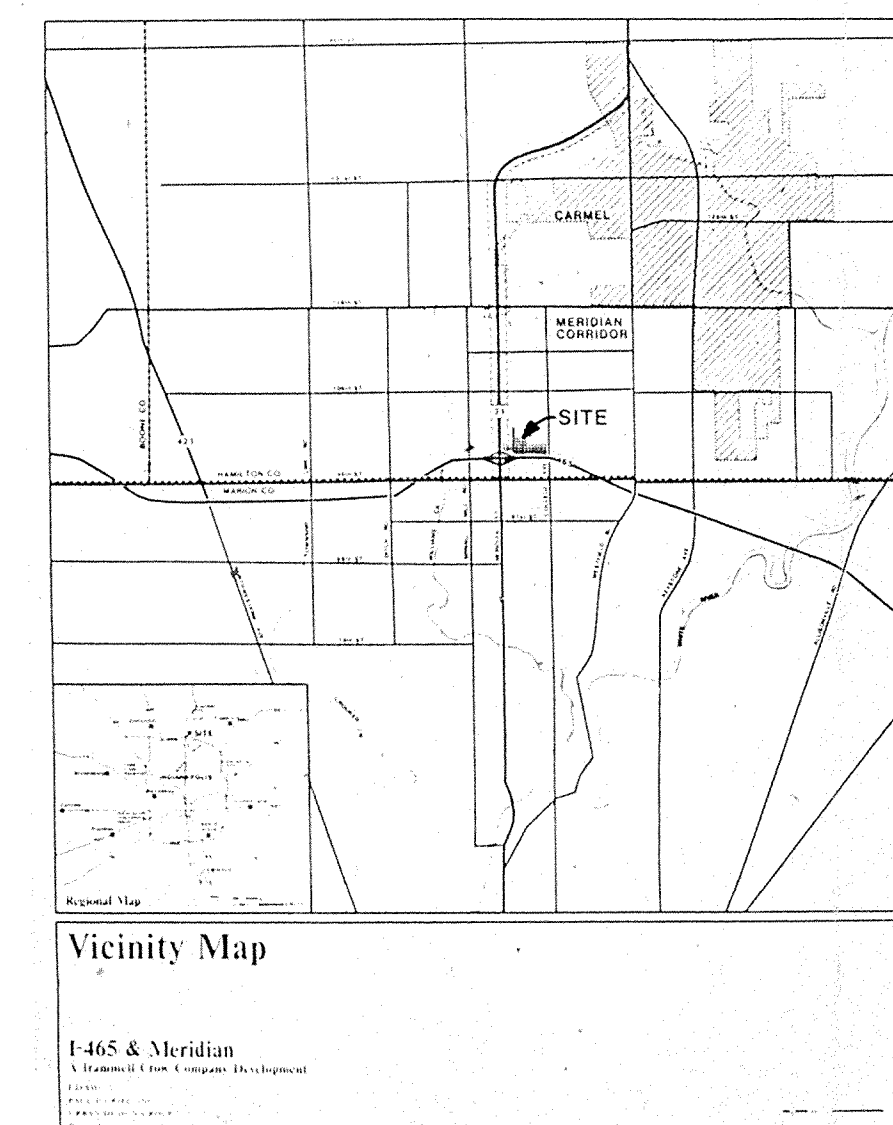
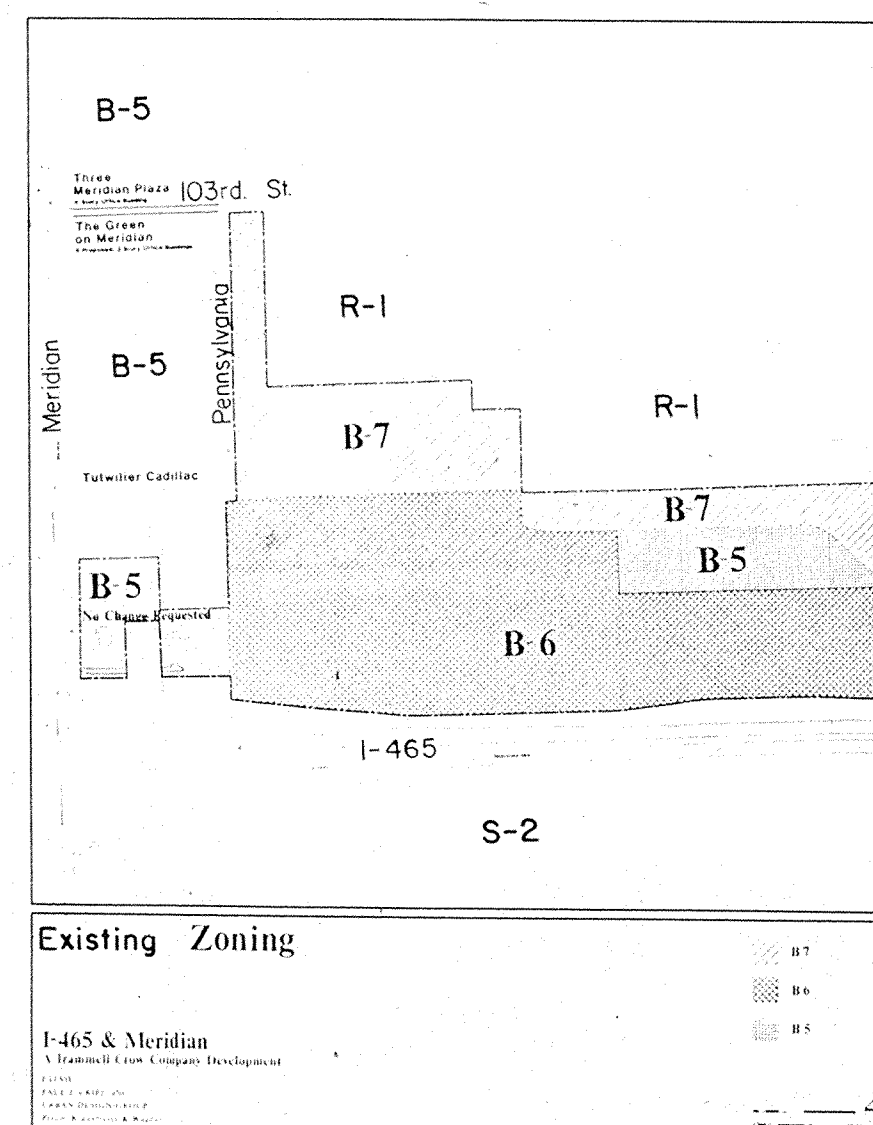
~~8196'~~
~~8238'~~ 6,558'

103rd. Street

CONSTRUCTION PLANS FOR MERIDIAN CORPORATE PLAZA

SITE WORK GENERAL NOTES AND SPECIFICATIONS NOTES AND PERMITS

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING, THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION.
- C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR NOTIFICATION AND COORDINATION OF ALL CONSTRUCTION WITH RESPECTIVE UTILITY COMPANIES.
- D. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THE PROJECT. FAILURE TO DO SO MAY RESULT IN REMOVAL AND REPLACEMENT OF THE DEFECTIVE WORK. IT IS RECOMMENDED THAT THE DEVELOPER HAVE A QUALIFIED INSPECTOR ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
- E. IT IS ESSENTIAL THAT THE WORK TO BE DONE IN CONJUNCTION WITH THIS PROJECT SHALL BE INSTALLED ACCORDING TO THESE SPECIFICATIONS. THE ENGINEER WILL BE REQUIRED TO CERTIFY TO CERTAIN PORTIONS OF THIS PROJECT UPON COMPLETION. THEREFORE, IT IS NECESSARY TO OBTAIN APPROVAL AND ACCEPTANCE BY THE CITY THAT CONSTRUCTION WAS DONE IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS.
- F. SEE BIDDING SUMMARY FOR DESCRIPTION OF PHASE I CONSTRUCTION.



SHT.	DESCRIPTION
1	COVER SHEET
2	SITE PLAN - OVERALL
3	LIGHTING & SIGNAGE PLAN
4	LIGHTING DETAILS
5	GRADING PLAN @ BUILDING # 2
6	GRADING PLAN @ BUILDING # 1
7	GRADING PLAN
8	UTILITY PLAN @ BUILDING # 2
9	UTILITY PLAN @ BUILDING # 1
10	UTILITY PLAN
11-14	STREET PLAN & PROFILE
15-18	STREET DETAILS
19	SIDEWALK PLAN - 103RD ST.
20-22	STORM SEWER PLAN & PROFILE - LEGAL DRAIN
23-27	STORM SEWER PLAN & PROFILE
28-29	SANITARY SEWER PLAN & PROFILE
30-31	STANDARD DETAILS
32	SPECIFICATIONS
33-36	LANDSCAPE & PLANTING PLANS
37	PLAZA - FOUNTAIN PLAN
38	LANDSCAPE DETAILS
39	LANDSCAPE SPECIFICATIONS



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: 2-20-04

Entered by: [Signature]

BENCHMARKS

T.B.M. #5 N.W. COR. BOLT ON FIRE HYDRANT EAST SIDE OF COLLEGE AVE. 200'± NORTH OF 101ST ST. ELEV = 832.66

REVISIONS

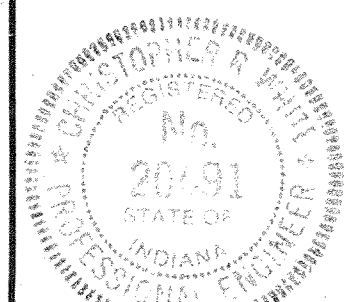
8/9/88	REVISED LIGHTING	SHTS. 3 & 4
8/21/88	MISC. REVISIONS	SHTS. 5, 6, 7, & 24
9/27/88	REVISED GRADES & MISC. REVS.	SHTS. 1, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28 & 29
10/4/88	ADDED TEMPORARY PIPES	SHTS. 9 & 10
10/1/88	REVISED GRADES & MISC. REVS.	SHTS. 5, 6, 7, 8, 9, 10
12/10/88	LOWERED SAN. SEWER FROM STR. #400-402	SHT. 28
3/4/89	WIDENED 103RD ST. & MISC. REVISIONS	SHT. 18
3/24/89	MISC. REVISIONS	SHTS. 1, 6, 9, 25 & 29
3/27/89	MISC. REVISIONS	SHTS. 11-19
3/29/89	MISC. REVISIONS	SHTS. 8, 22, & 27
4/3/89	MISC. REVISIONS	SHTS. 6, 10, 15, 18, 22, 28, 29, 31
4/11/89	ADDED SIDEWALK ON COLLEGE	SHT. 15
4/17/89	REV. STORM SEWER & SLOES	SHT. 1, 6, 9, 26, & 32
6/14/89	REV. STORM & SEWERS	SHT. 1, 5, 6, 15, 23, & 27A (NEW SHT.)
6/18/89	ADDED SLAB OVER PIPELINE	SHT. 18, & 18A (NEW SHT.)

6/27/89 REV. STORM SHT. 1, 5, 15, 23 & 27A
7/6/89 REV. GRADES OVER SAN. @ 840 SHT. 18
12-6-89 REV. PARKING FOR BUILDING 1 SHTS. 1, 2, 3, 4, 9
1-9-90 REV. PARKING LOTS AND LIGHTING SHTS. 1, 2, 3, 4, 9, 35 SHT

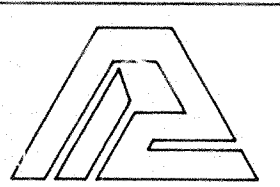
AS BUILT

date 10-18-89

I-465



CERTIFIED BY:	REVISIONS
[Signature]	10/3/89 ADDED SAN. SHTS. #11 & #12 SHT. 1 & 28
1-11-90 DATE	12-6-89 REV. PARKING LOTS SHT
	1-9-90 REV. PARKING, INCLUDE NOTE SHT
	2-19-91 REV. 18'S ADD SLOES, MAKE SLOE TEE
	3/12/91 Added Storm Sewer, Notes Lines, 15' & 20' W.F. SHT



PAUL I. CRIFE, INC.
7172 GRAHAM ROAD
INDIANAPOLIS, INDIANA 46250

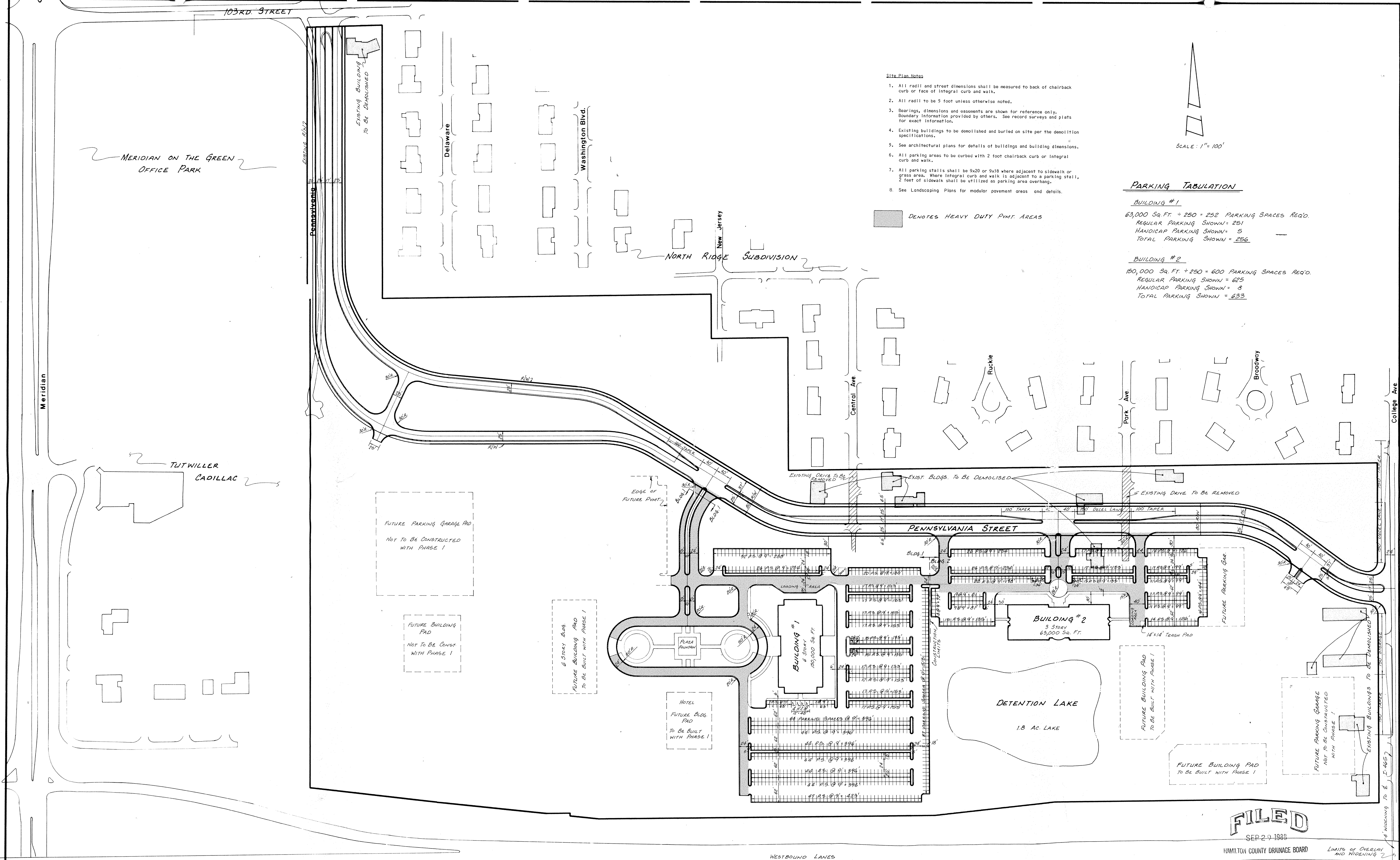
- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

TECH. CHK: C.R.W.
DRAWN BY: BT
SCALE: As Noted
DATE: 7/29/88
DRAFTING CHK: [Signature]

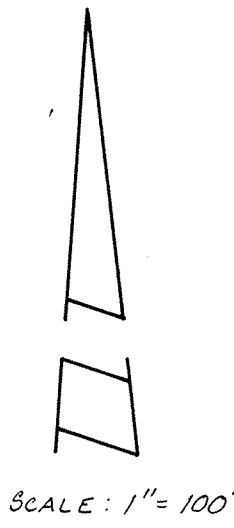
CLIENT: TRAMMELL CROW

DRAWING TITLE: COVER SHEET

DWG. TYPE	FILE NUMBER	SHEET
		1
JOB NUMBER		8 6 3 9 1 2 0 0 0 0
		OF 39



- Site Plan Notes
1. All radii and street dimensions shall be measured to back of chairback curb or face of integral curb and walk.
 2. All radii to be 5 foot unless otherwise noted.
 3. Bearings, dimensions and easements are shown for reference only. Boundary information provided by others. See record surveys and plats for exact information.
 4. Existing buildings to be demolished and buried on site per the demolition specifications.
 5. See architectural plans for details of buildings and building dimensions.
 6. All parking areas to be curbed with 2 foot chairback curb or integral curb and walk.
 7. All parking stalls shall be 9x20 or 9x18 where adjacent to sidewalk or grass area. Where integral curb and walk is adjacent to a parking stall, 2 feet of sidewalk shall be utilized as parking area overhang.
 8. See Landscaping Plans for modular pavement areas and details.



PARKING TABULATION

BUILDING #1
63,000 Sq. Ft. ÷ 250 = 252 PARKING SPACES REQ'D.
REGULAR PARKING SHOWN = 251
HANDICAP PARKING SHOWN = 5
TOTAL PARKING SHOWN = 256

BUILDING #2
150,000 Sq. Ft. ÷ 250 = 600 PARKING SPACES REQ'D.
REGULAR PARKING SHOWN = 625
HANDICAP PARKING SHOWN = 8
TOTAL PARKING SHOWN = 633

■ DENOTES HEAVY DUTY PWT. AREAS

FILED
SEP 29 1988

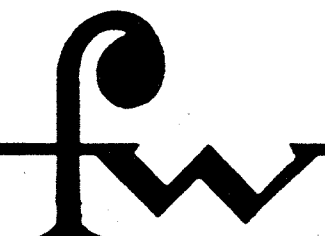
HAMILTON COUNTY DRAINAGE BOARD
SECRETARY

CERTIFIED BY		REVISIONS		PAUL I. CRIFE, INC. • CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING		TECH. CHK.		DRAWN BY		SCALE		DATE		CLIENT		DWG. TYPE		FILE NUMBER		SHEET	
DATE				7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777		DFTNG. CHK.		B.T.		1" = 100'		7/29/88		TRAMMELL CROW		JOB NUMBER		20000		2	
				317-842-6777										SITE PLAN ~ OVERALL						OF 35	

consulting engineers

FENNIG AND WEIR

2803 EAST 96TH STREET, INDIANAPOLIS, INDIANA 46220

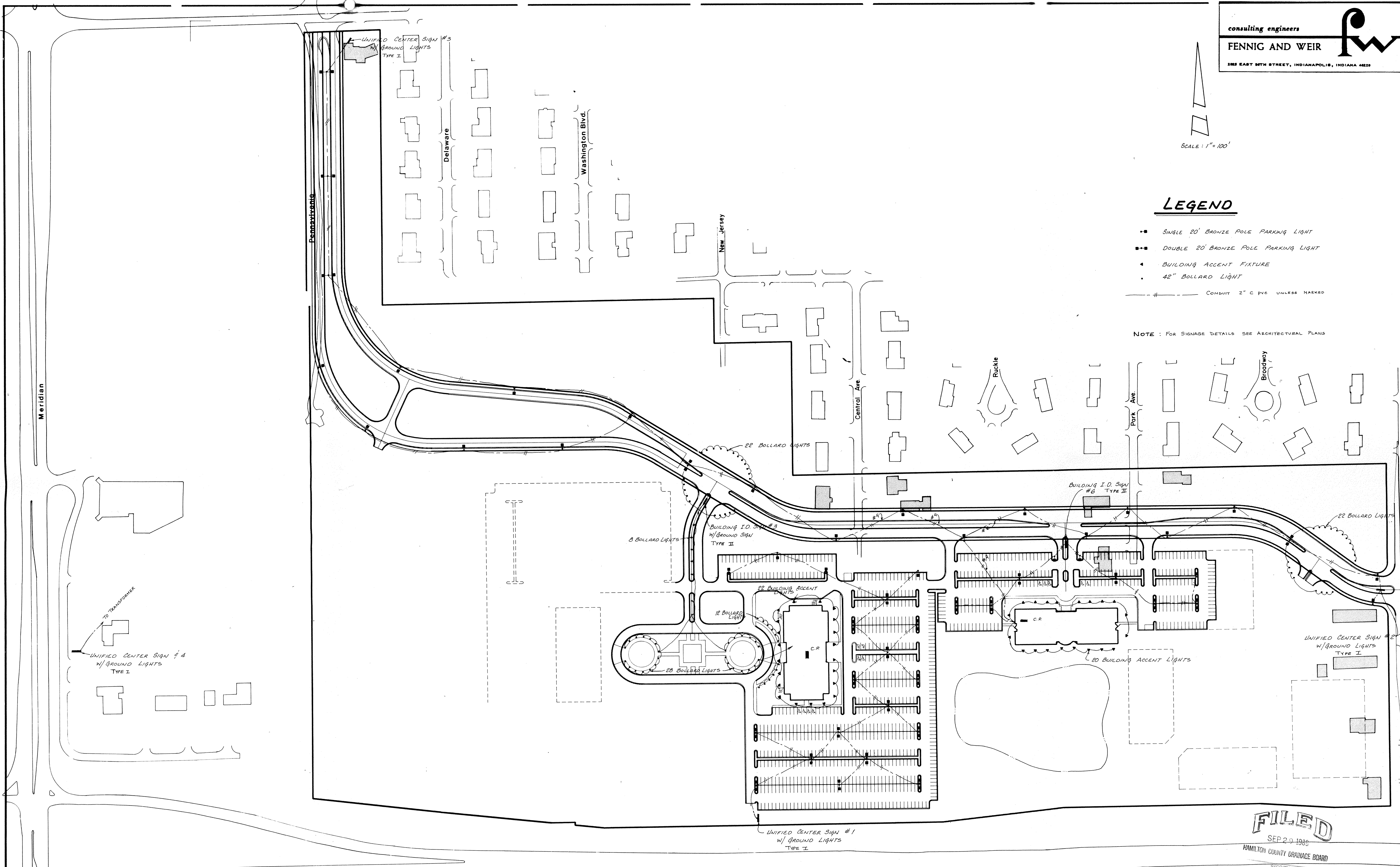


SCALE: 1" = 100'

LEGEND

- SINGLE 20' BRONZE POLE PARKING LIGHT
- DOUBLE 20' BRONZE POLE PARKING LIGHT
- BUILDING ACCENT FIXTURE
- 42" BOLLARD LIGHT
- CONDUIT 2" C PVC UNLESS MARKED

NOTE: FOR SIGNAGE DETAILS SEE ARCHITECTURAL PLANS



FILED
SEP 29 1988

HAMILTON COUNTY DRAINAGE BOARD
SECRETARY

CERTIFIED BY

REVISIONS

DATE

8/9/88 REMOVE NOTE OF SIZE OF WIRE



PAUL I. CRIFE, INC.

7172 GRAHAM ROAD
INDIANAPOLIS, INDIANA 46250
(317) 842-6777

• CIVIL ENGINEERING
• LAND SURVEYING
• ARCHITECTURE
• LAND PLANNING

Interstate 465

TECH. CHK.

DRAWN BY

SCALE

DATE

CLIENT

TRAMMELL CROW

DFTNG. CHK.

DRAWING TITLE

LIGHTING & SIGNAGE PLAN

DWG. TYPE

FILE NUMBER

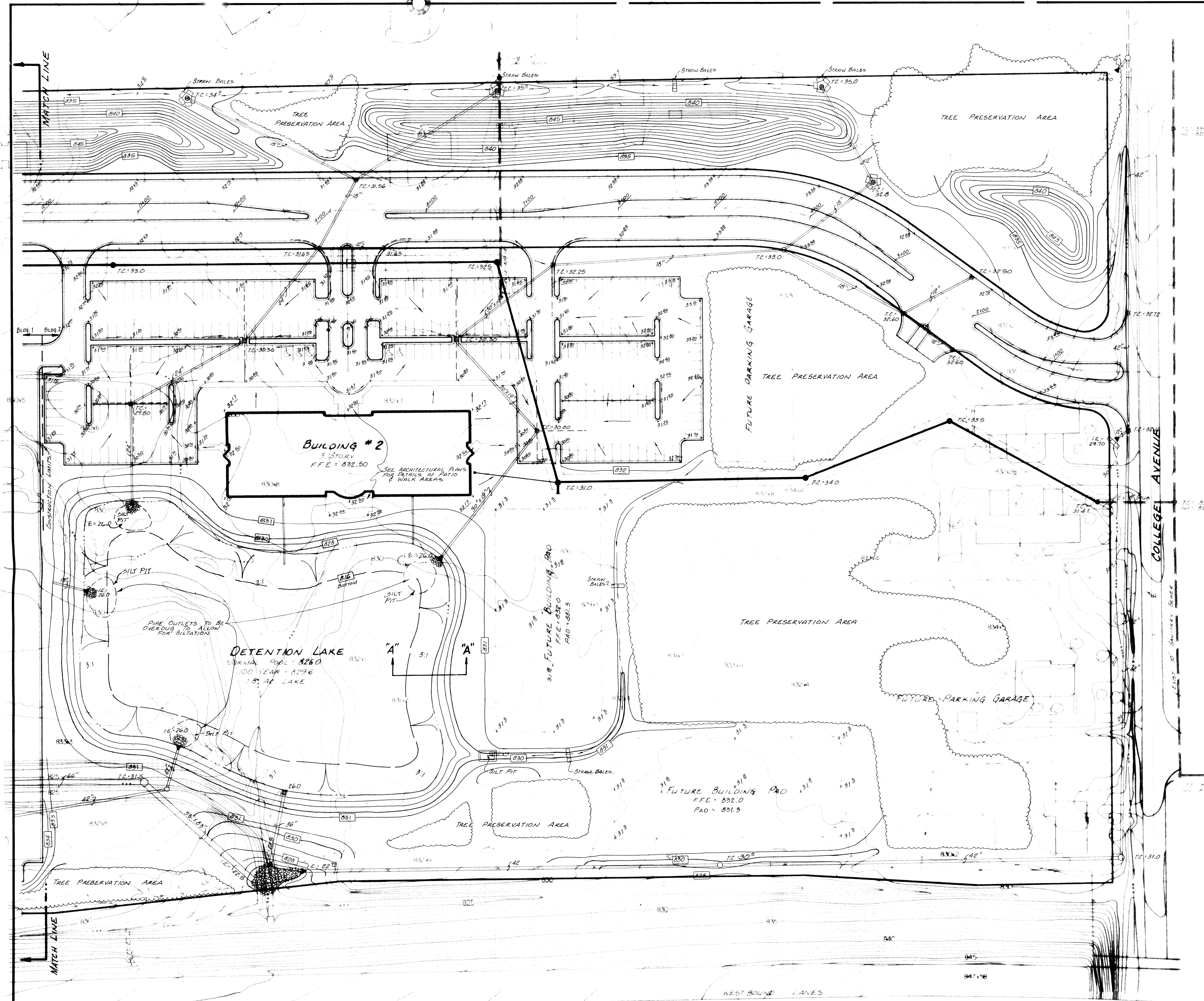
SHEET

86391

20000

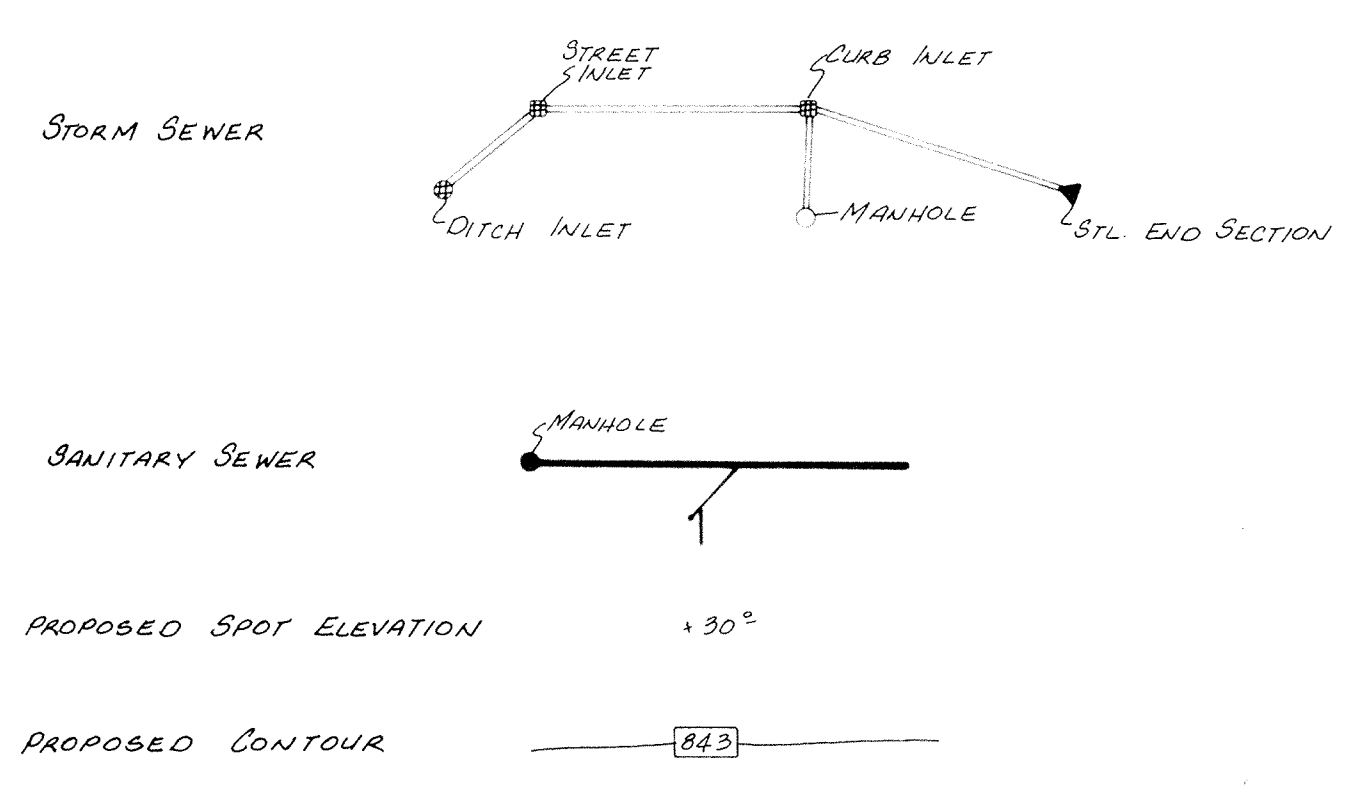
3

OF 39



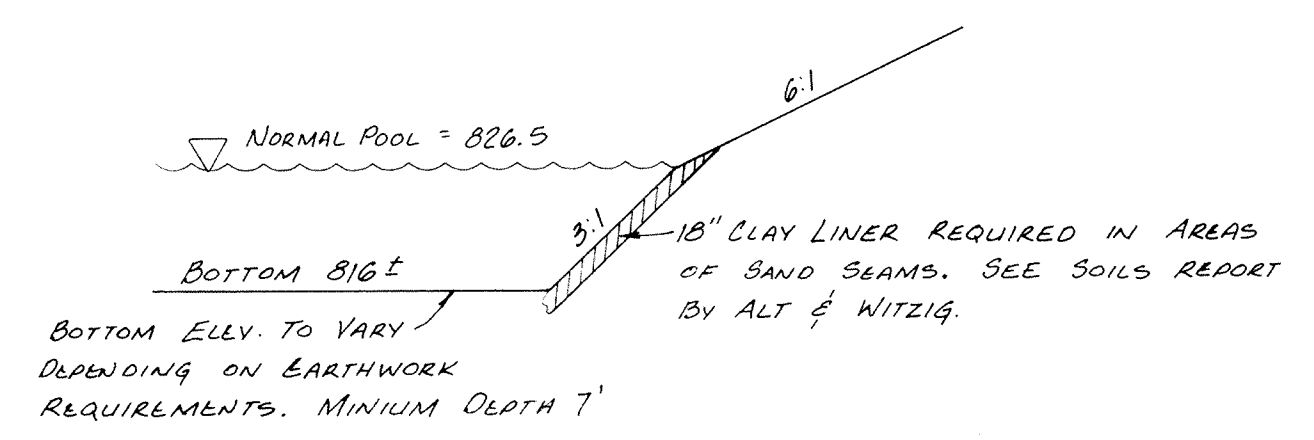
SCALE: 1"=50'

LEGEND



Grading Notes

- Elevations noted at centerline of street are top of curb elevations at that respective station.
- Elevations in parking areas are edge of pavement elevations. For top of curb elevations add 0.5 feet.
- Lake bottom elevations may vary with earthwork requirements. A minimum depth of 8 feet shall be maintained.
- Topographic and planimetric information from photographic compilation by others. (Accuracy to National Mapping Standards of plus or minus 1/2 contour interval.)
- Building pad areas designated for fill for future buildings shall be constructed of suitable fill material and compacted per specifications.
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- Lake slopes may require 18 inches of clay liner in areas of sand seams. See Soils Report for recommendations.



SECTION "A-A"

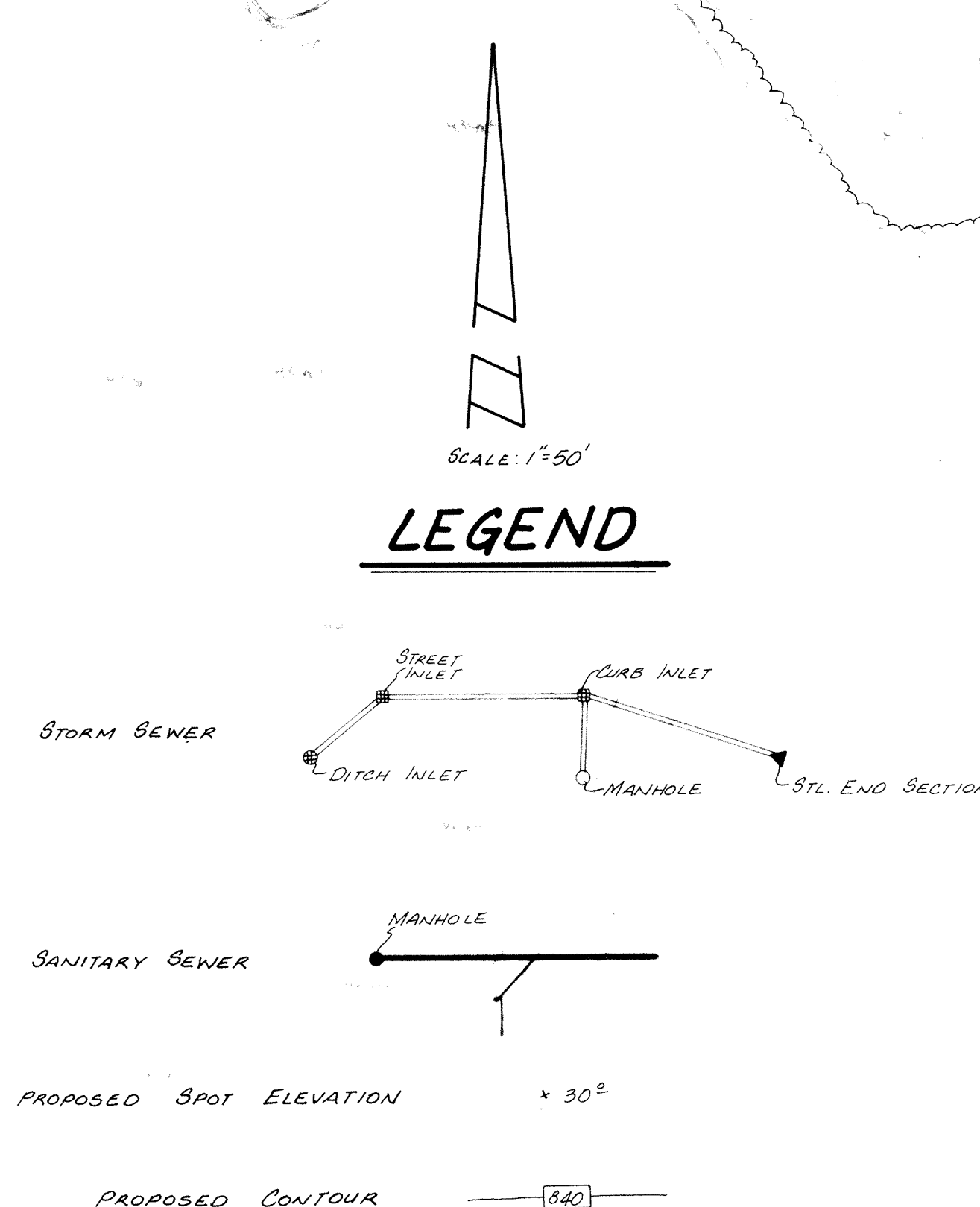
NO SCALE

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SEP 29 1988
HAMILTON COUNTY DRAINAGE BOARD
SECRETARY

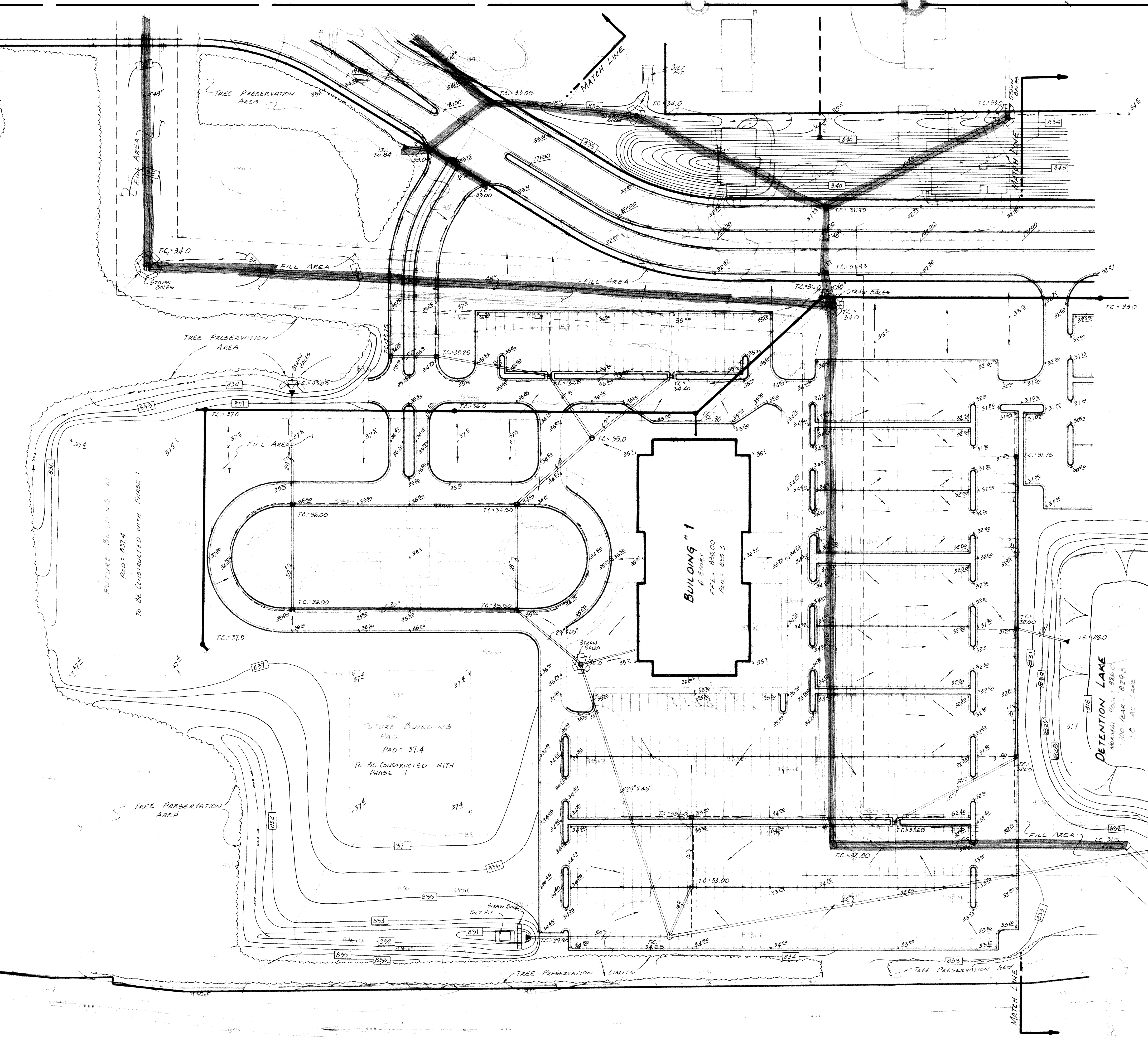
I-465

CERTIFIED BY		REVISIONS			PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777	• CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING	TECH. CHK.	DRAWN BY B.T.	SCALE 1"=50'	DATE 7/29/88	CLIENT TRAMMELL CROW	DWG. TYPE	FILE NUMBER	SHEET		
							DFTNG. CHK.	DRAWING TITLE		GRADING PLAN @ BUILDING #2		JOB NUMBER				5
DATE		2-21-88 INCREASED DETENTION AREA 9/27/88 REVISED GRADES											86391-20000		OF 39	

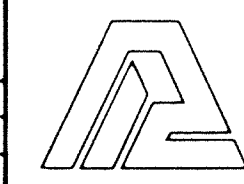
McQuay-Norris Division, Inc.



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	DATE					DFTNG. CHK.	DRAWING TITLE						
	8-2-88 CHANGED TREE AREA, GRADES & DETENTION AREA									B.T.	1"=50'	7/29/88	TRAMMELL CROW
	9/27/88 REVISED GRADE									GRADING PLAN @ BUILDING #1	JOB NUMBER 8 6 3 9 1 - 2 0 0 0 0		

103rd. Street

CONSTRUCTION PLANS FOR MERIDIAN CORPORATE PLAZA

SITE WORK GENERAL NOTES AND SPECIFICATIONS

NOTICES AND PERMITS

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING, THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.

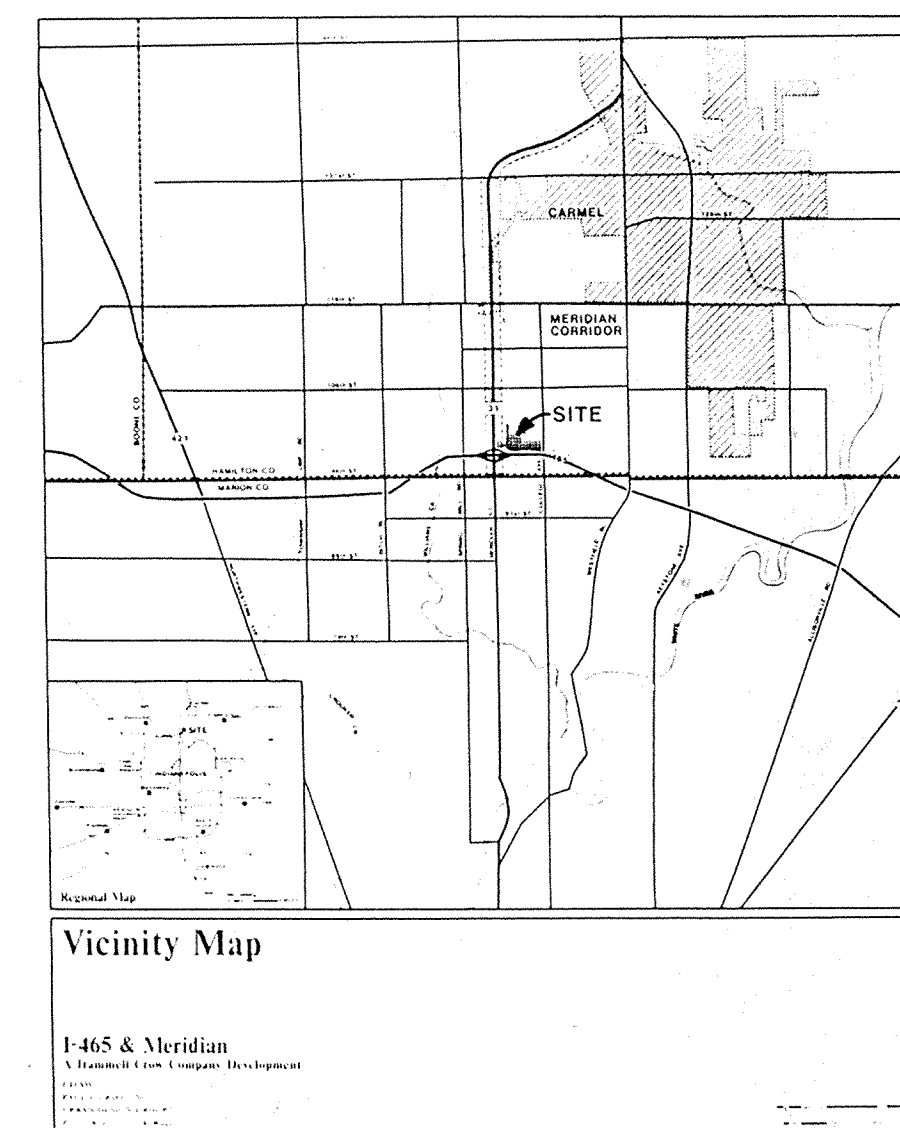
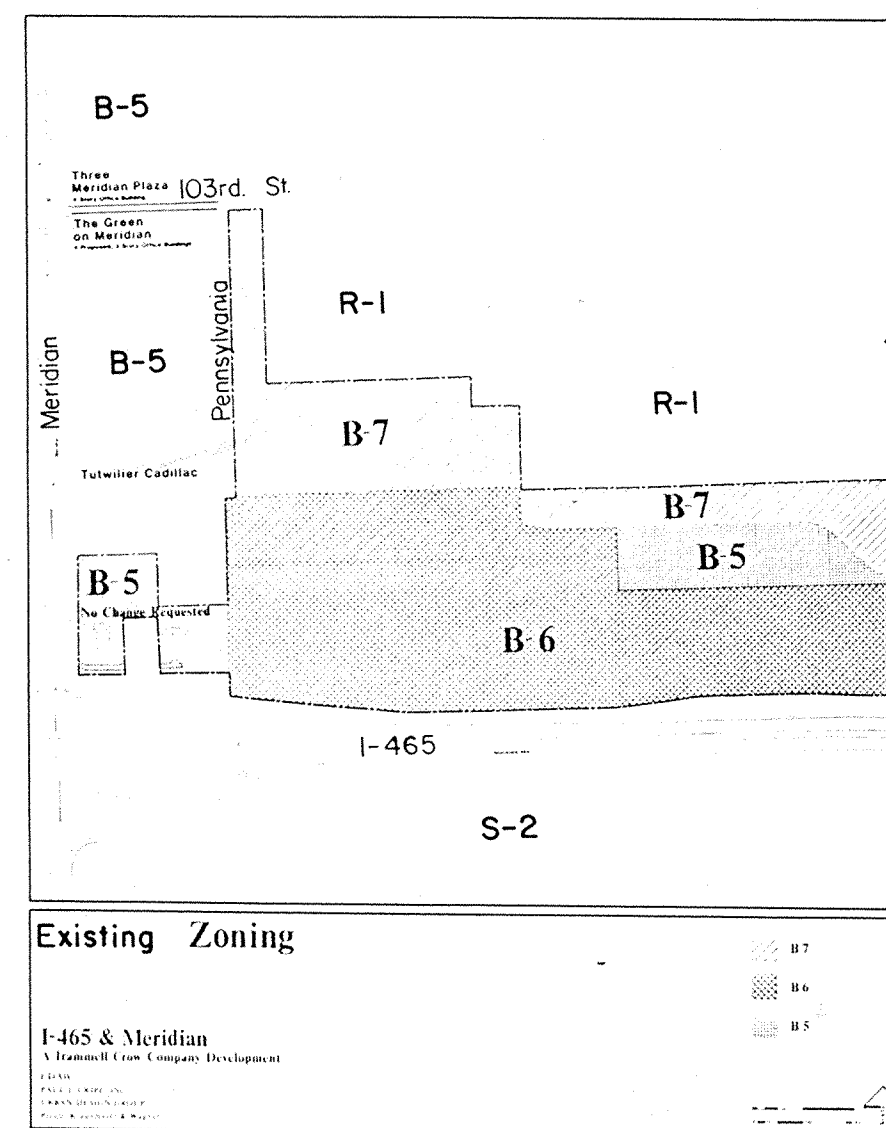
B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION.

C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR NOTIFICATION AND COORDINATION OF ALL CONSTRUCTION WITH RESPECTIVE UTILITY COMPANIES.

D. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THE PROJECT; FAILURE TO DO SO MAY RESULT IN REMOVAL AND REPLACEMENT OF THE DEFECTIVE WORK. IT IS RECOMMENDED THAT THE DEVELOPER HAVE A QUALIFIED INSPECTOR ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.

E. IT IS ESSENTIAL THAT THE WORK TO BE DONE IN CONJUNCTION WITH THIS PROJECT SHALL BE INSTALLED ACCORDING TO THESE SPECIFICATIONS. THE ENGINEER WILL BE REQUIRED TO CERTIFY TO CERTAIN PORTIONS OF THIS PROJECT UPON COMPLETION. THEREFORE, IT IS NECESSARY TO OBTAIN APPROVAL AND ACCEPTANCE BY THE CITY THAT CONSTRUCTION WAS DONE IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS.

F. SEE BIDDING SUMMARY FOR DESCRIPTION OF PHASE I CONSTRUCTION.



SCALE: 1"=100'

INDEX

SHT.	DESCRIPTION
1	COVER SHEET
2	SITE PLAN - OVERALL
3	LIGHTING & SIGNAGE PLAN
4	LIGHTING DETAILS
5	GRADING PLAN @ BUILDING # 2
6	GRADING PLAN @ BUILDING # 1
7	GRADING PLAN
8	UTILITY PLAN @ BUILDING # 2
9	UTILITY PLAN @ BUILDING # 1
10	UTILITY PLAN
11-14	STREET PLAN & PROFILE
15-18	STREET DETAILS
19	SIDEWALK PLAN - 103RD ST.
20-22	STORM SEWER PLAN & PROFILE - LEGAL DRAIN
23-27	STORM SEWER PLAN & PROFILE
28-29	SANITARY SEWER PLAN & PROFILE
30-31	STANDARD DETAILS
32	SPECIFICATIONS
33-36	LANDSCAPE & PLANTING PLANS
37	PLAZA - FOUNTAIN PLAN
38	LANDSCAPE DETAILS
39	LANDSCAPE SPECIFICATIONS

BENCHMARKS

T.B.M. #5 N.W. COR. BOLT ON FIRE HYDRANT
EAST SIDE OF COLLEGE AVE. 200'±
NORTH OF 101ST ST. ELEV. = 832.66

REVISIONS

8/9/88	REVISED LIGHTING	SHTS. 3 & 4
8/21/88	MOD. REVISIONS	SHTS. 5, 6, 7, & 24
9/27/88	REVISED GRADES & MISC. REVS.	SHTS. 1, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, & 29

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SEP 29 1988

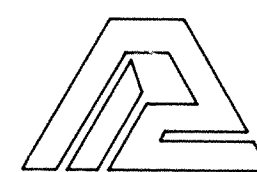
HAMILTON COUNTY DRAINAGE BOARD

SECRETARY

CERTIFIED BY:

9/27/88 ADDED STRUCTURE INFORMATION

REVISIONS



PAUL I. CRIFE, INC.

7172 GRAHAM ROAD
INDIANAPOLIS, INDIANA 46250

This copy printed on 9/27/88 at the Hamilton County Surveyor's Office, one-half mile N.E. of Noblesville, IN 46060

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

TECH. CHK:

DRAFTING. CHK:

DRAWN BY:

SCALE:

As Noted

DATE:

7/29/88

CLIENT:

TRAMMELL CROW

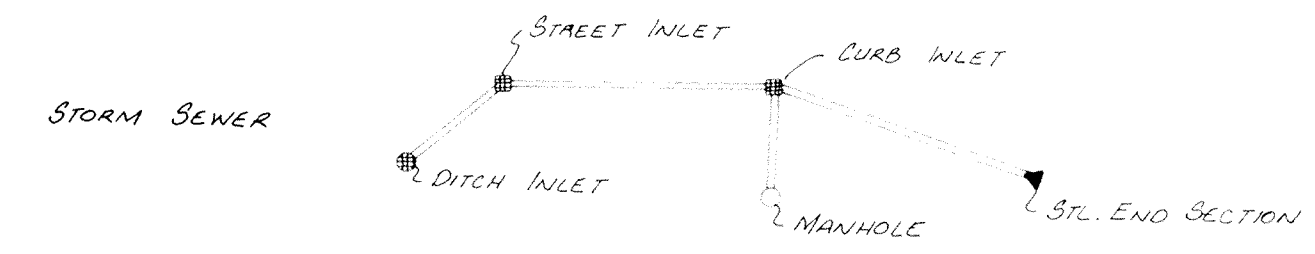
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COVER SHEET

DWG. TYPE	FILE NUMBER	SHEET:
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JOB NUMBER		of 39

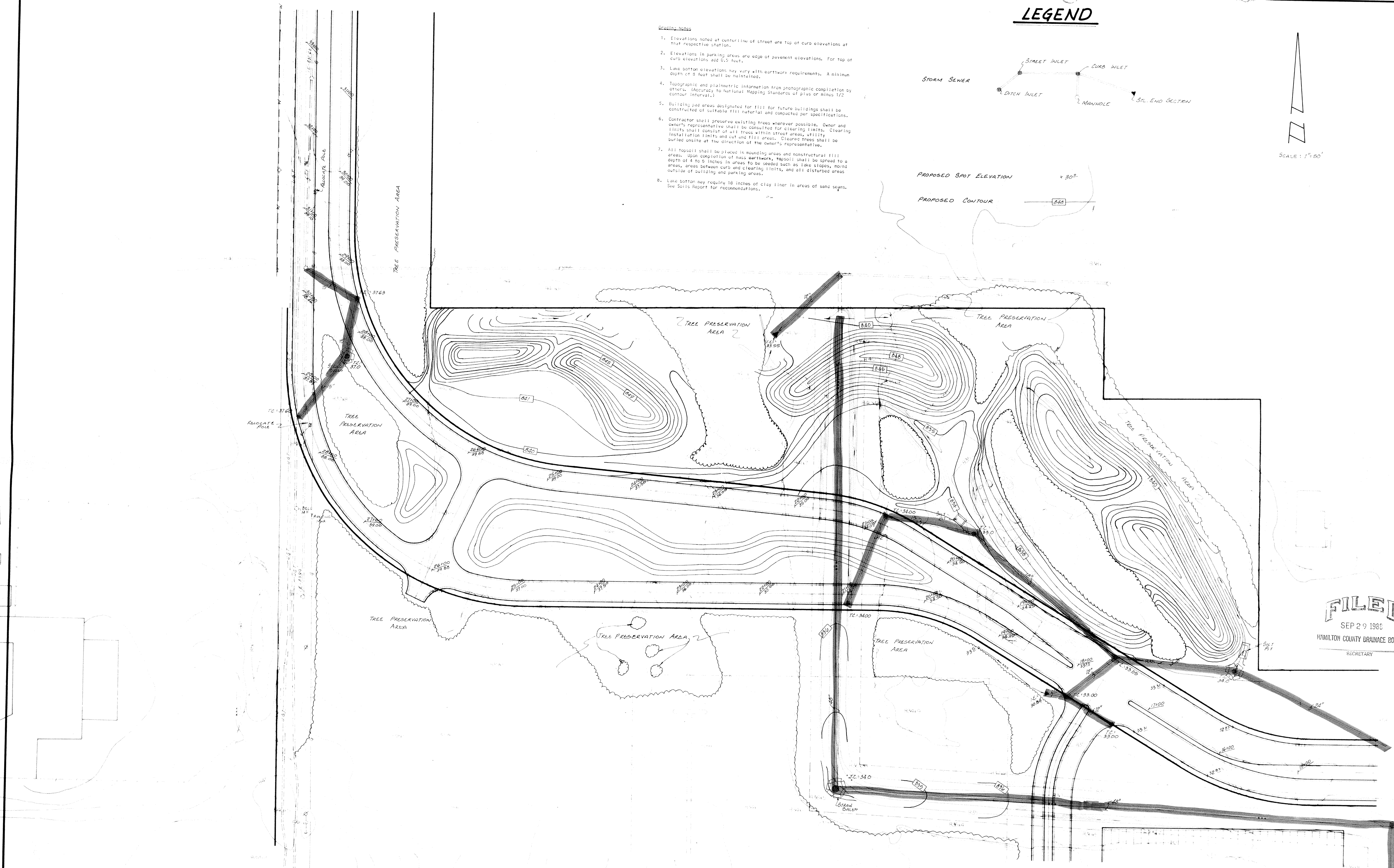
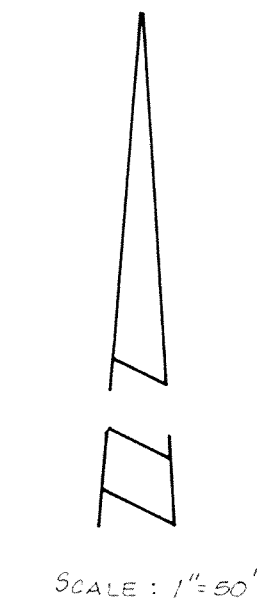
LEGEND

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PROPOSED SPOT ELEVATION x 30"

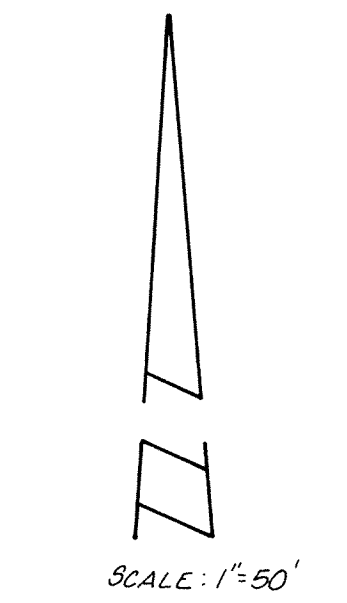
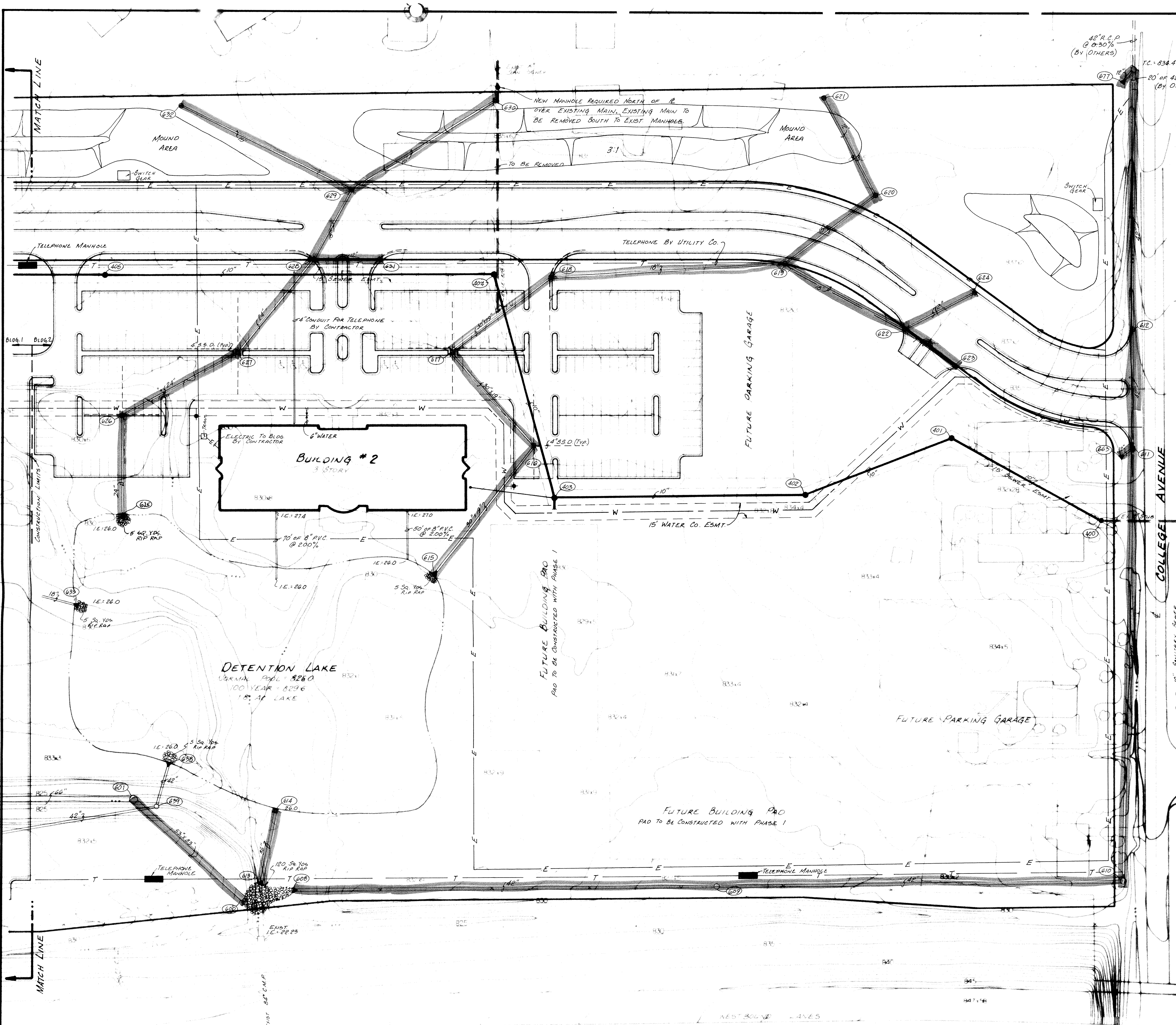
PROPOSED CONTOUR



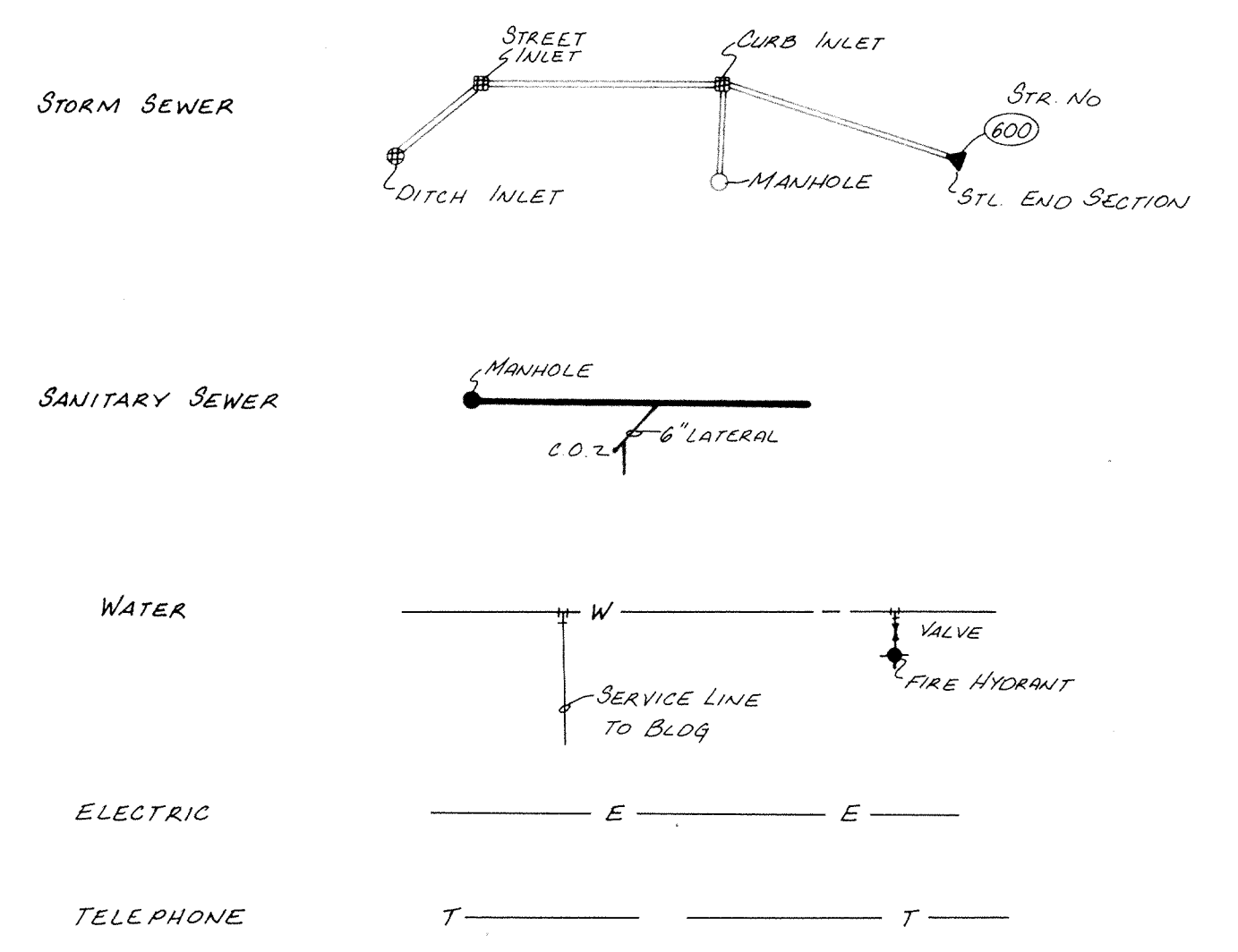
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DATE		S-21-88 CHANGED GRADES & TREE AREAS 9/27/88 REVISED GRADES					DWG. CHK.	DRAWING TITLE								
							GRADING PLAN									

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LEGEND



Utility Plan Notes

1. Water mains are shown for reference only. Main water line to be installed by Indianapolis Water Company. Building connections to be made by building plumber.
2. Underdrain shall be required along entire length of street along outside curb line as shown on the street plan and profiles. Underdrains shall be required 50 feet out of each inlet in the parking areas as shown.
3. Conduit to be 4" P.V.C. (Schedule 40) 3 feet deep with ends capped and granular backfilled.
4. Contractor shall verify all existing pipe inverts and utility locations prior to start of construction and notify the engineer of any discrepancies with the plan information.
5. See architectural plans for location of utilities into the buildings.
6. See sewer plan and profile sheets for additional information.

Sewer Flow Calculations

Building 1 = 65,000 sq. ft.; Building 2 = 150,000 sq. ft.
Total Sq. Ft. = 215,000 sq. ft.
Sewer flow for office building = 15 gal./day per employee
Number of employees based on one employee per 200 sq. ft.
Sewer Flow = 215,000 sq. ft. : 200 x 15 = 15,375 G.P.D.
Present Day Waste conditional permit = 78,627 G.P.D.

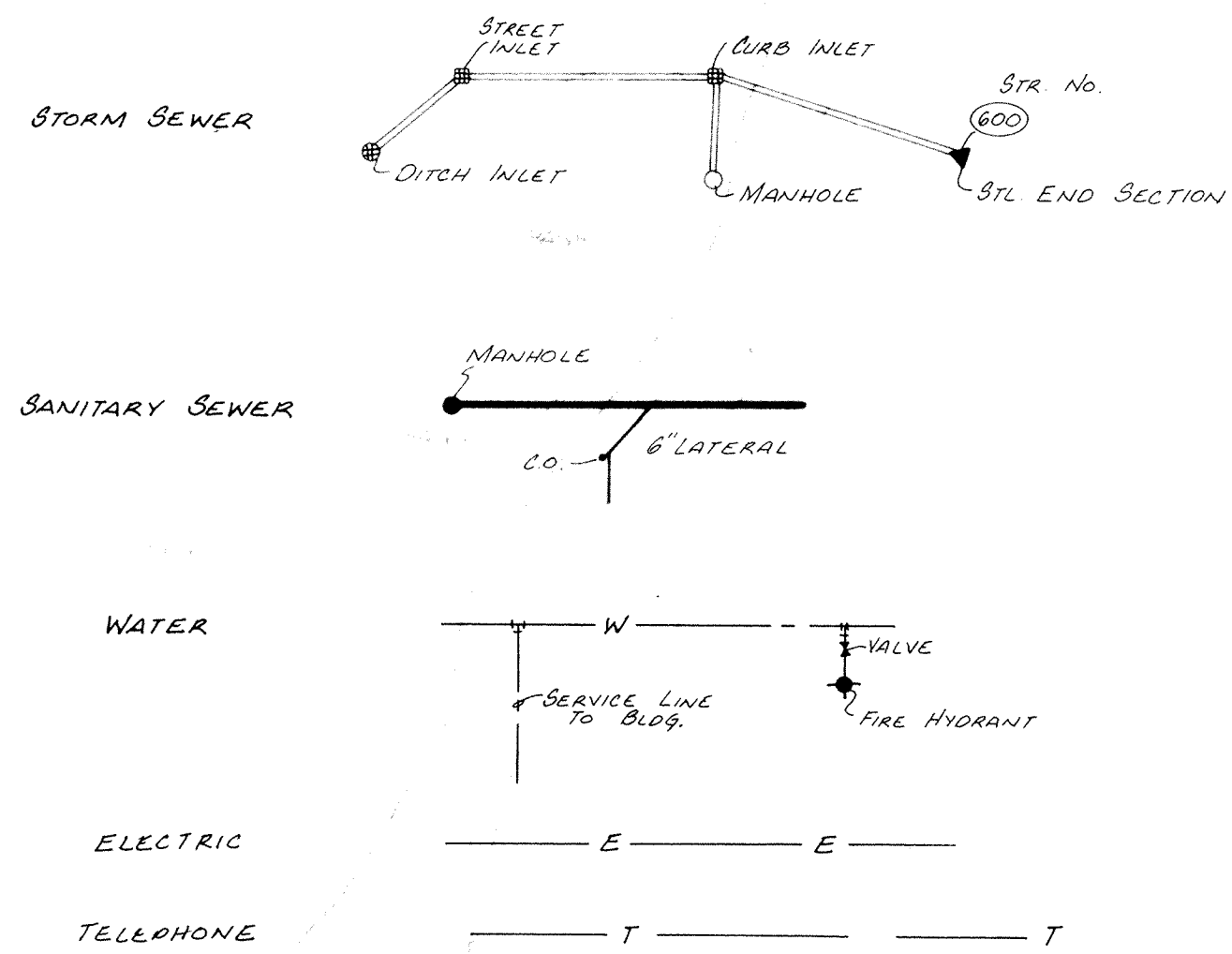
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HAMILTON COUNTY DRAINAGE BOARD
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I-465

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SCALE: 1"=50'

LEGEND



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Present Clay Waste conditional permit = 78,627 G.P.D.

FUTURE BUILDING PAD
TO BE CONSTRUCTED WITH PHASE I

FUTURE BUILDING PAD
TO BE CONSTRUCTED WITH PHASE I

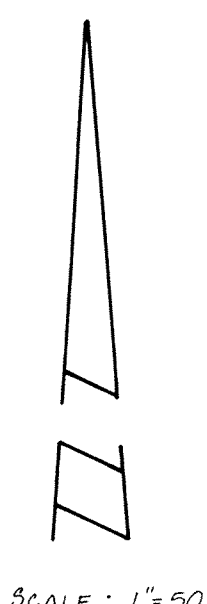
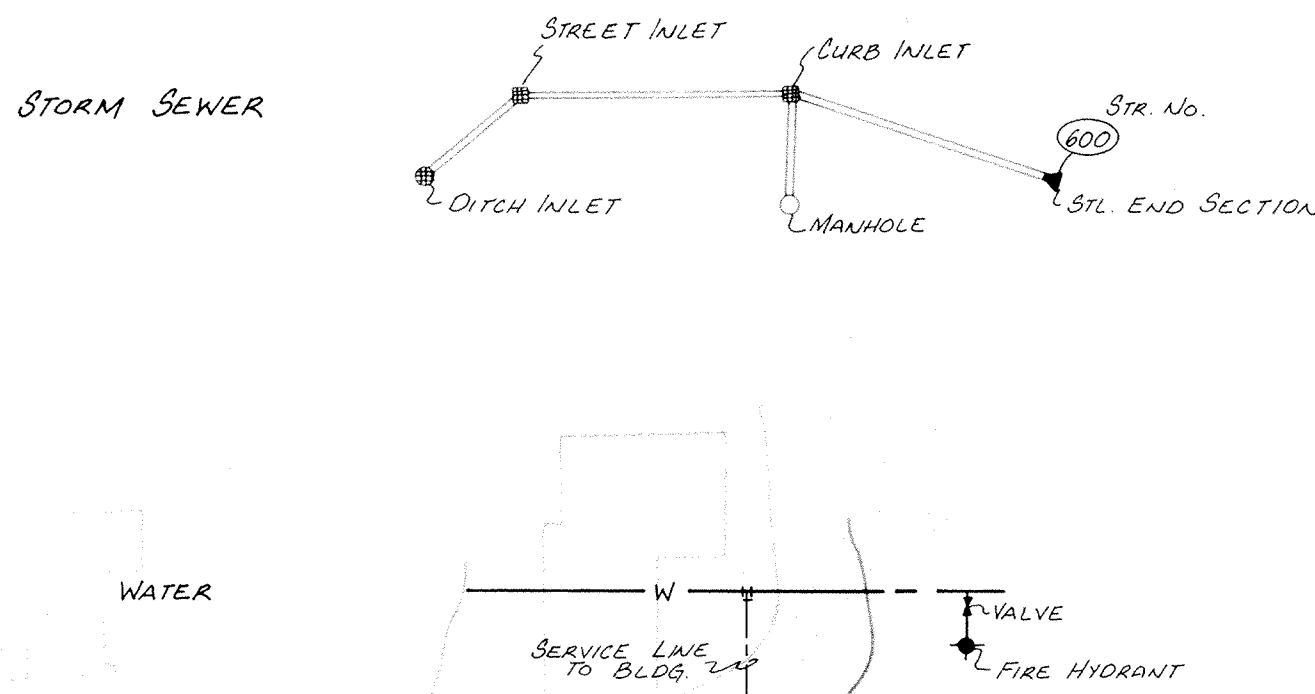
DETENTION LAKE
Normal Pool: 826.0
100 Year: 829.5
10 Year: 827.5
10 AC LAKE

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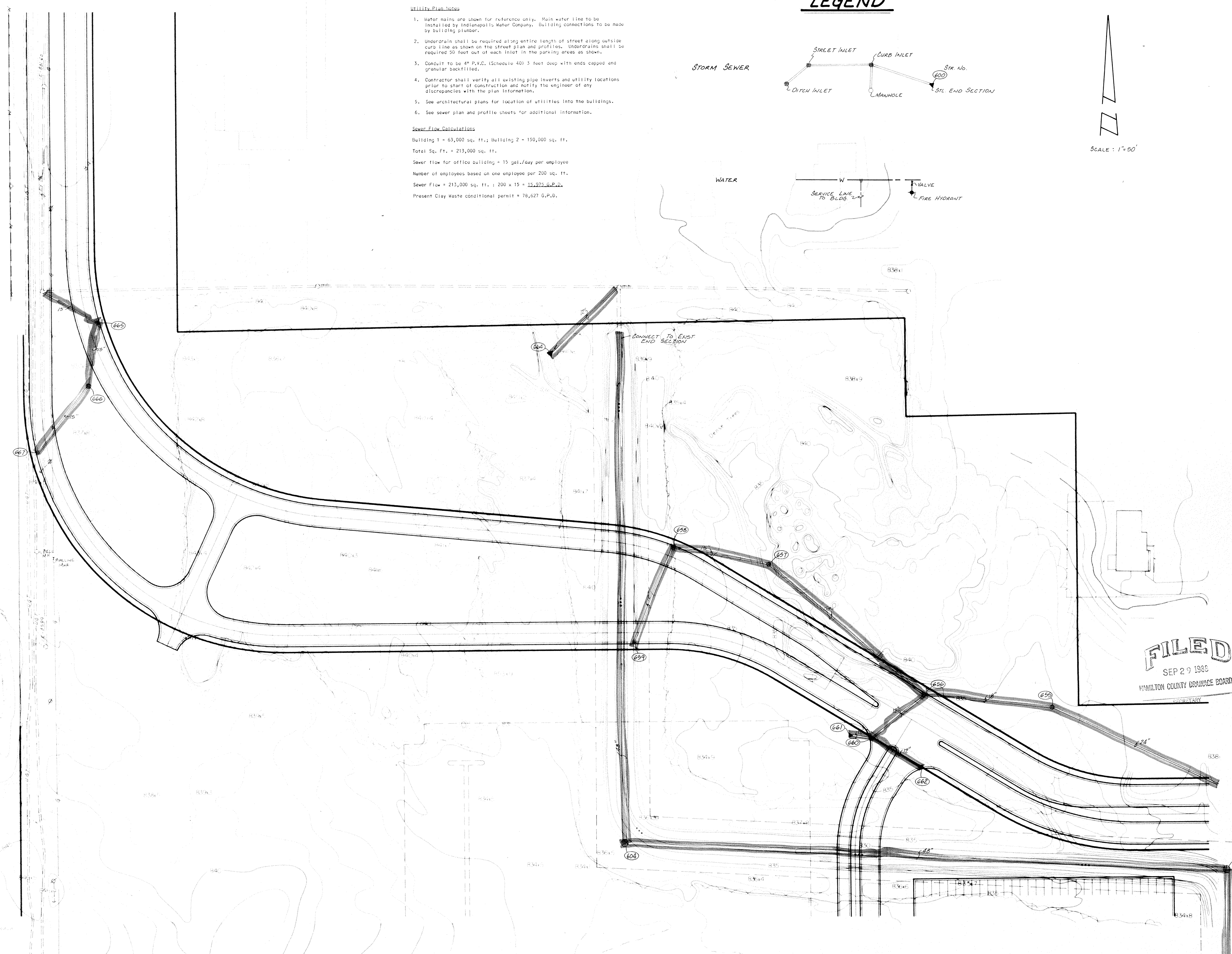
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					DRAWING TITLE					JOB NUMBER		
					UTILITY PLAN @ BUILDING #1					8 6 3 9 1 - 2 0 0 0 0		
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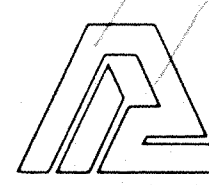
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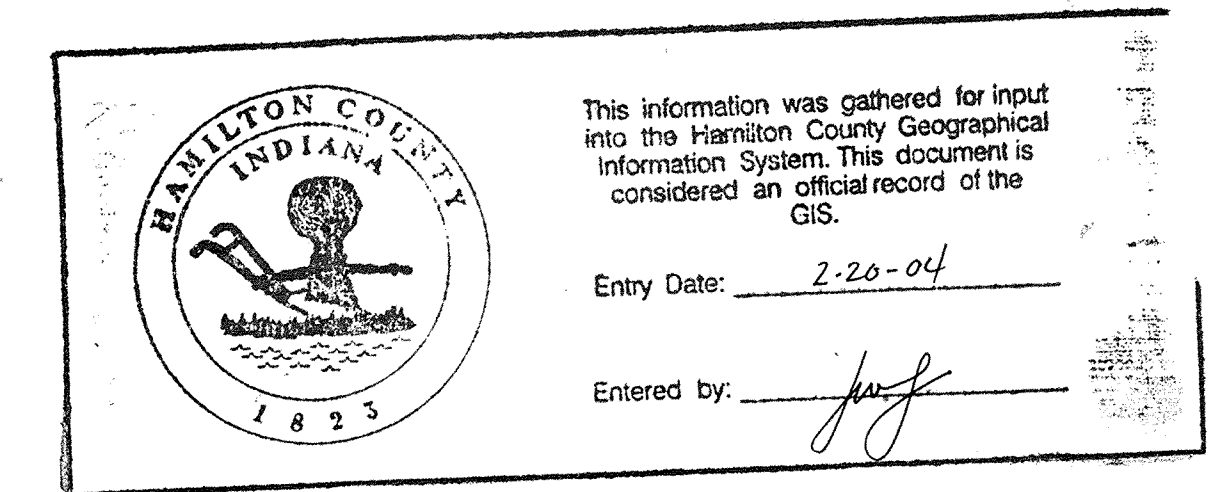
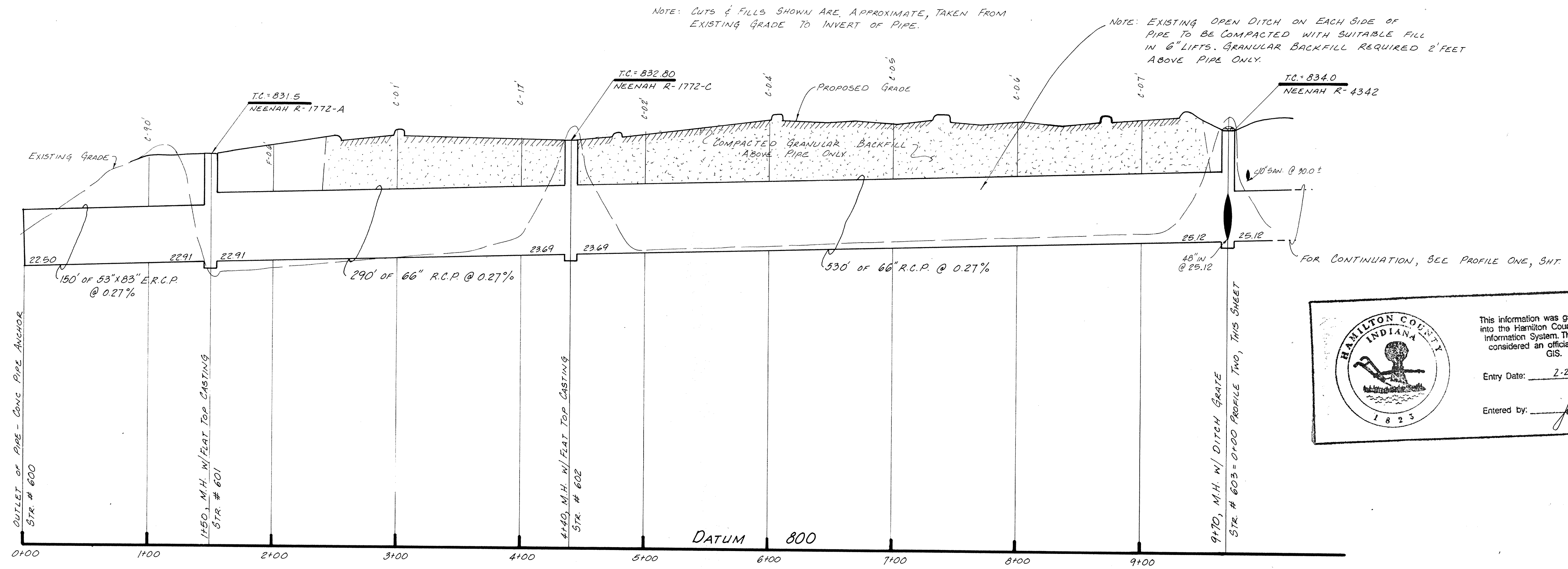
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DATE				B.T.	7/29/88	TRAMMELL CROW			10		
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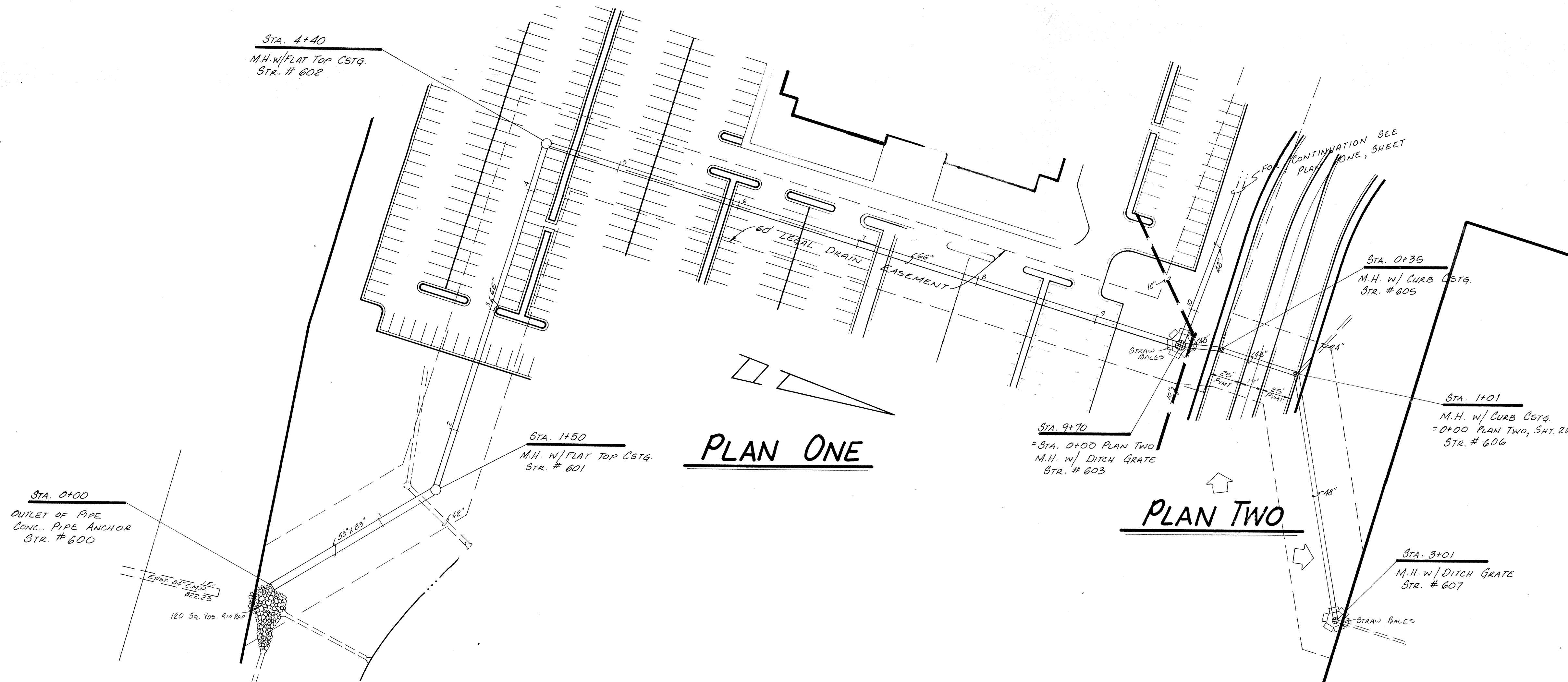
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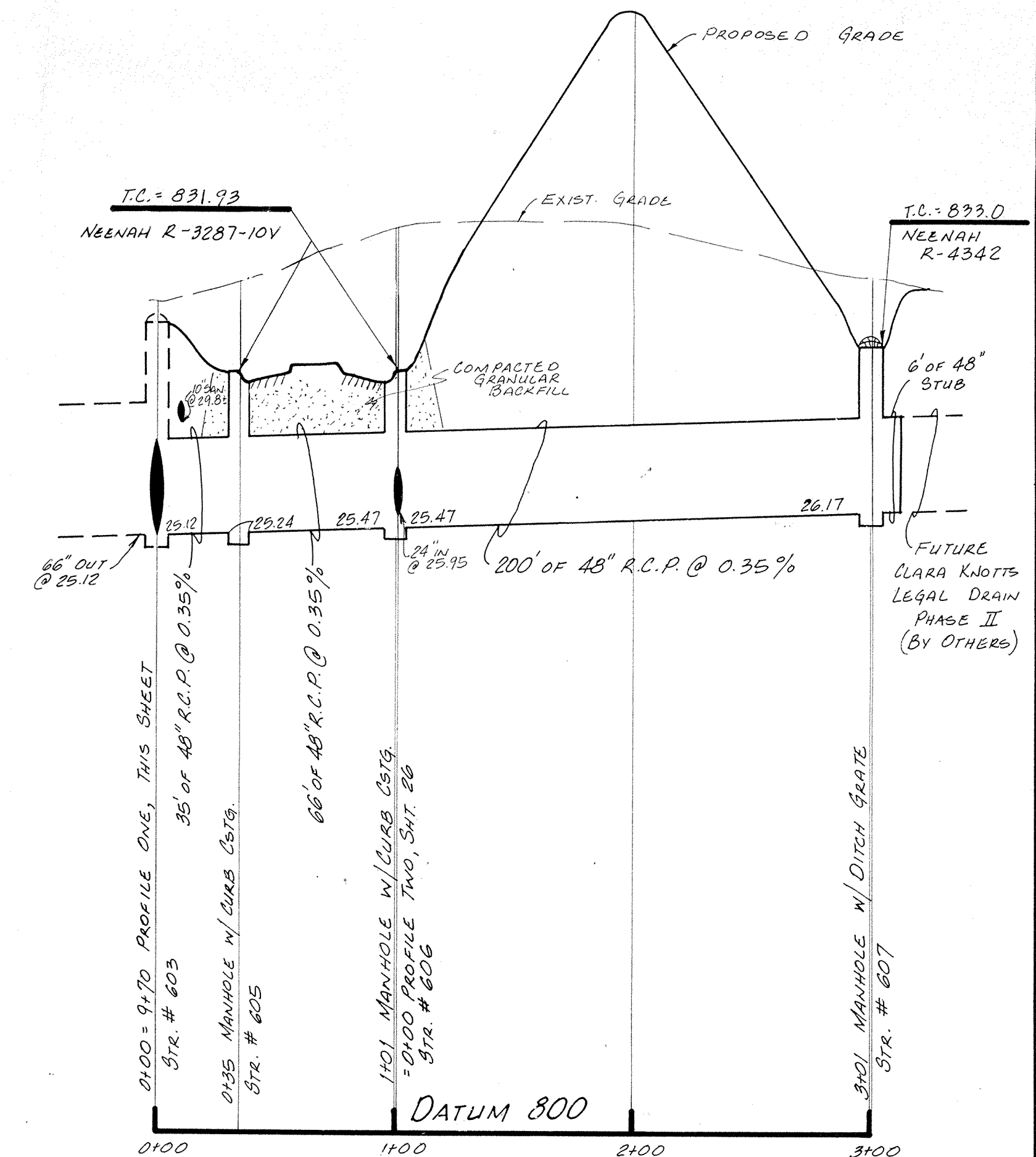
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PROFILE ONE



PLAN ONE

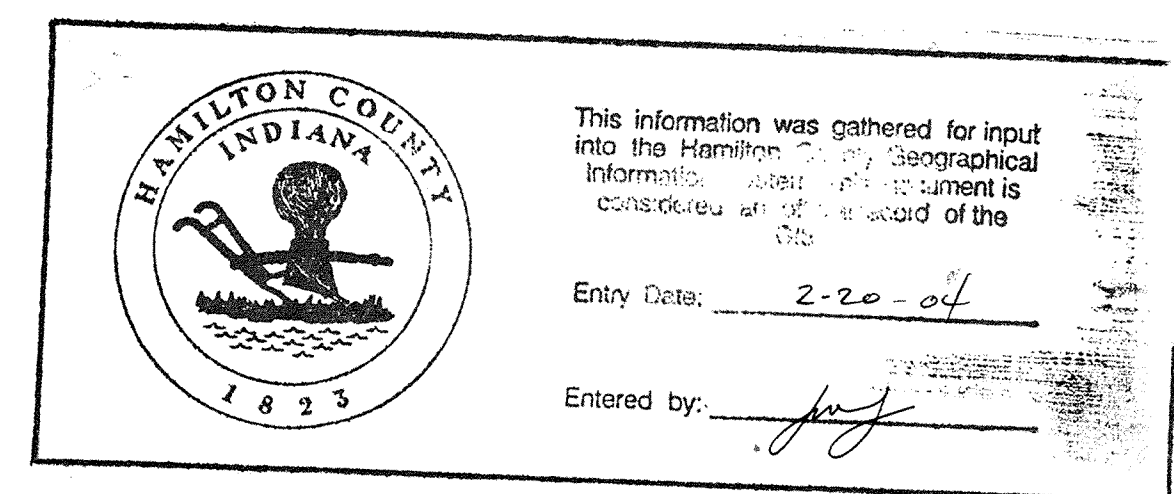
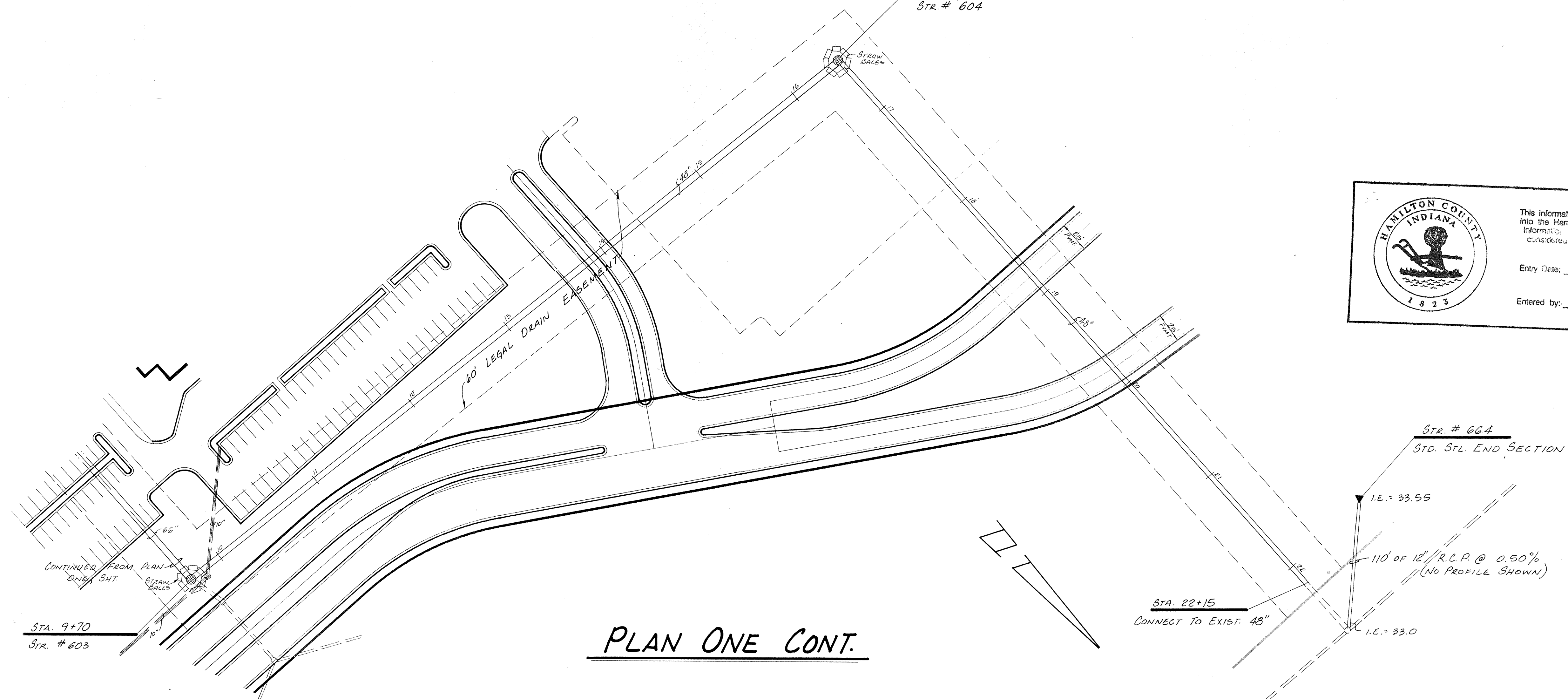
PLAN TWO



PROFILE TWO

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STA. 16+45
M.H. W/ DITCH GRATE
STR. # 604

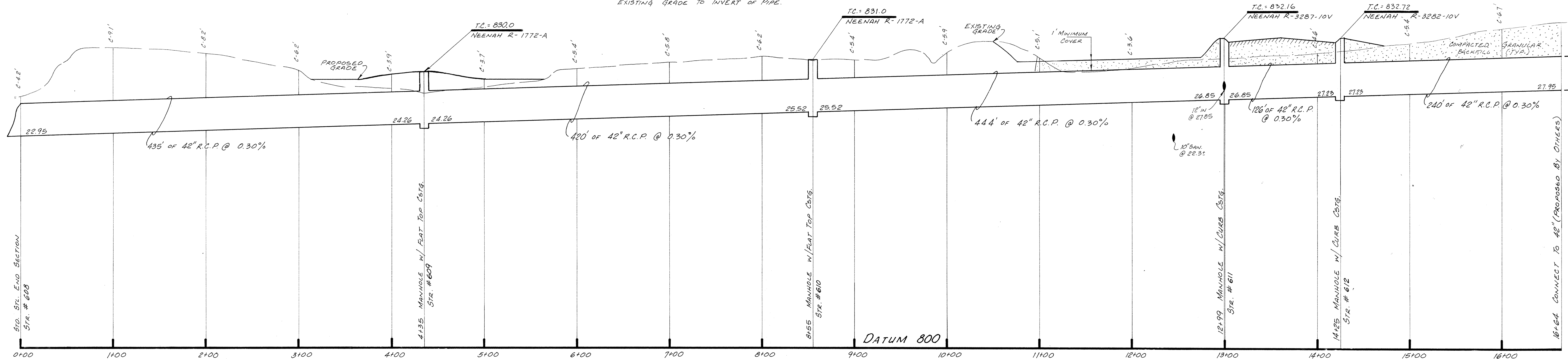


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HAMILTON COUNTY DRAINAGE BOARD
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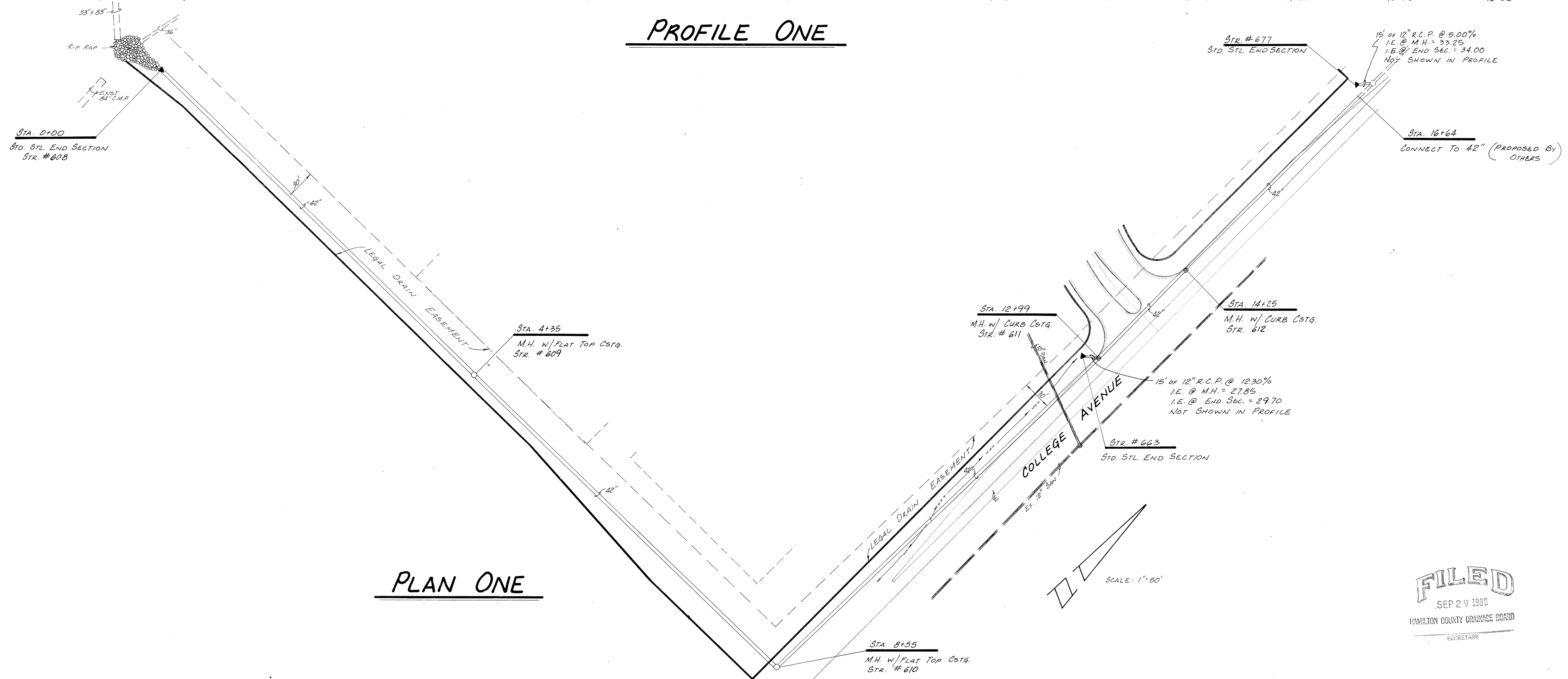
CERTIFIED BY	REVISIONS	 PAUL I. CRIFE, INC. • CIVIL ENGINEERING 7172 GRAHAM ROAD • LAND SURVEYING INDIANAPOLIS INDIANA 46250 • ARCHITECTURE (317) 842-5677 • LAND PLANNING	TECH. CHK.	DRAWN BY	SCALE	DATE	CLIENT	DWG. TYPE	FILE NUMBER	SHEET									
	9/27/88 MISC REVISIONS				B.T.	1"=50' HORZ. 1"=5' VERT.	7/29/88	TRAMMELL CROW			21								
DATE				DFTNG. CHK.	DRAWING TITLE		CLARA KNOTS LEGAL DRAIN		JOB NUMBER										
				STORM SEWER PLAN & PROFILE ~				8	6	3	9	1	-	2	0	0	0	0	OF 39

Noblesville, In 46060

NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM
EXISTING GRADE TO INVERT OF PIPE.



PROFILE ONE

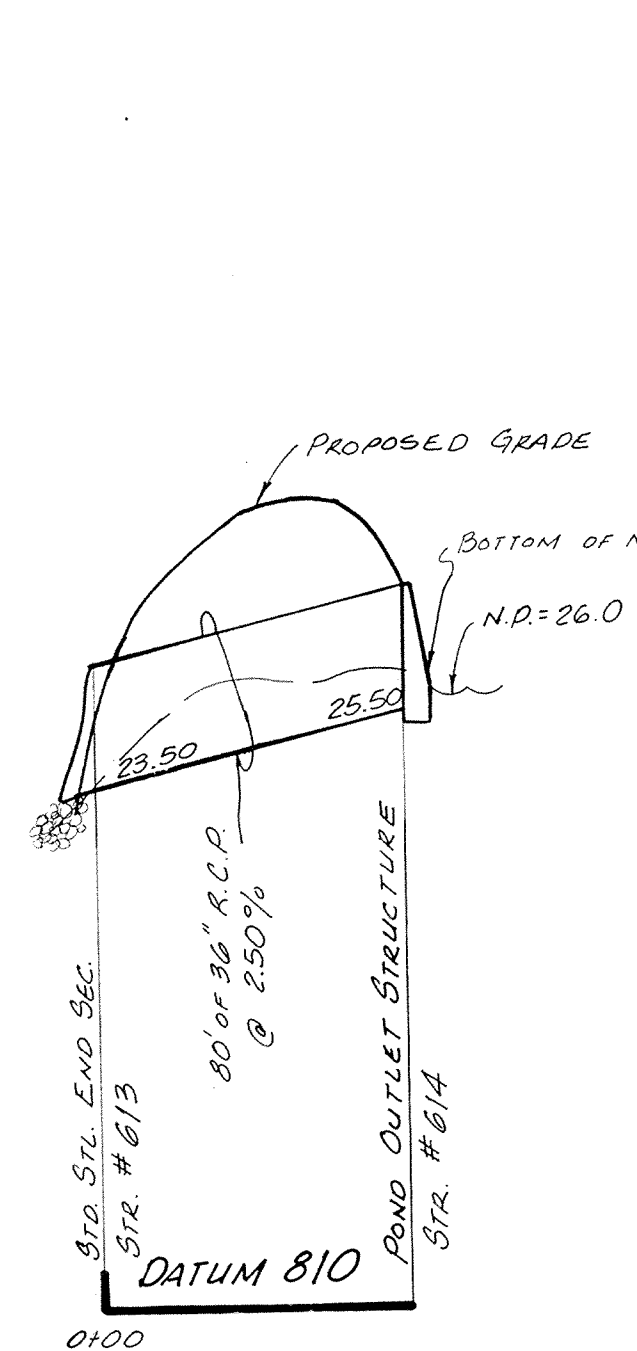


PLAN ONE

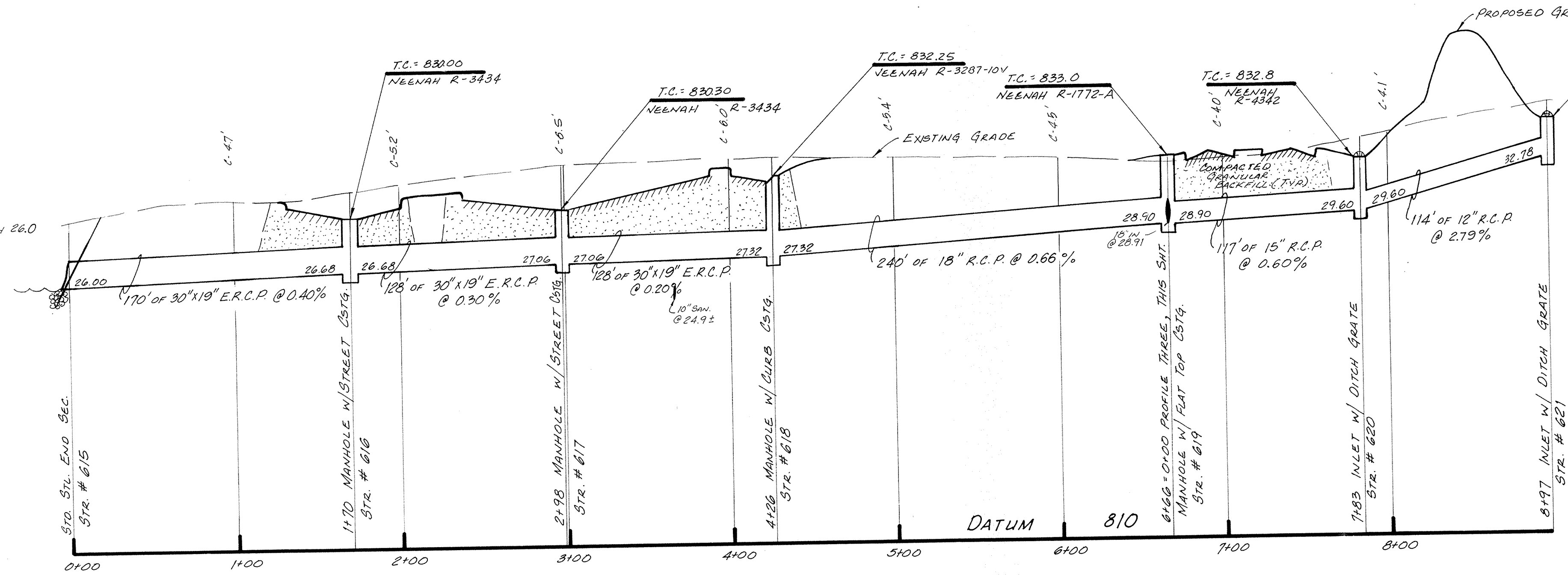
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CERTIFIED BY DATE	REVISIONS 9/27/88 Misc. REVISIONS	PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 317 842-6777	TECH. CHK. DFTNG. CHK.	DRAWN BY B.T.	SCALE 1"=50' HORIZ. 1"=5' VERT.	DATE 7/29/88	CLIENT TRAMMELL CROW	DWG. TYPE FILE NUMBER JOB NUMBER 86391-20000	SHEET 22 OF 39
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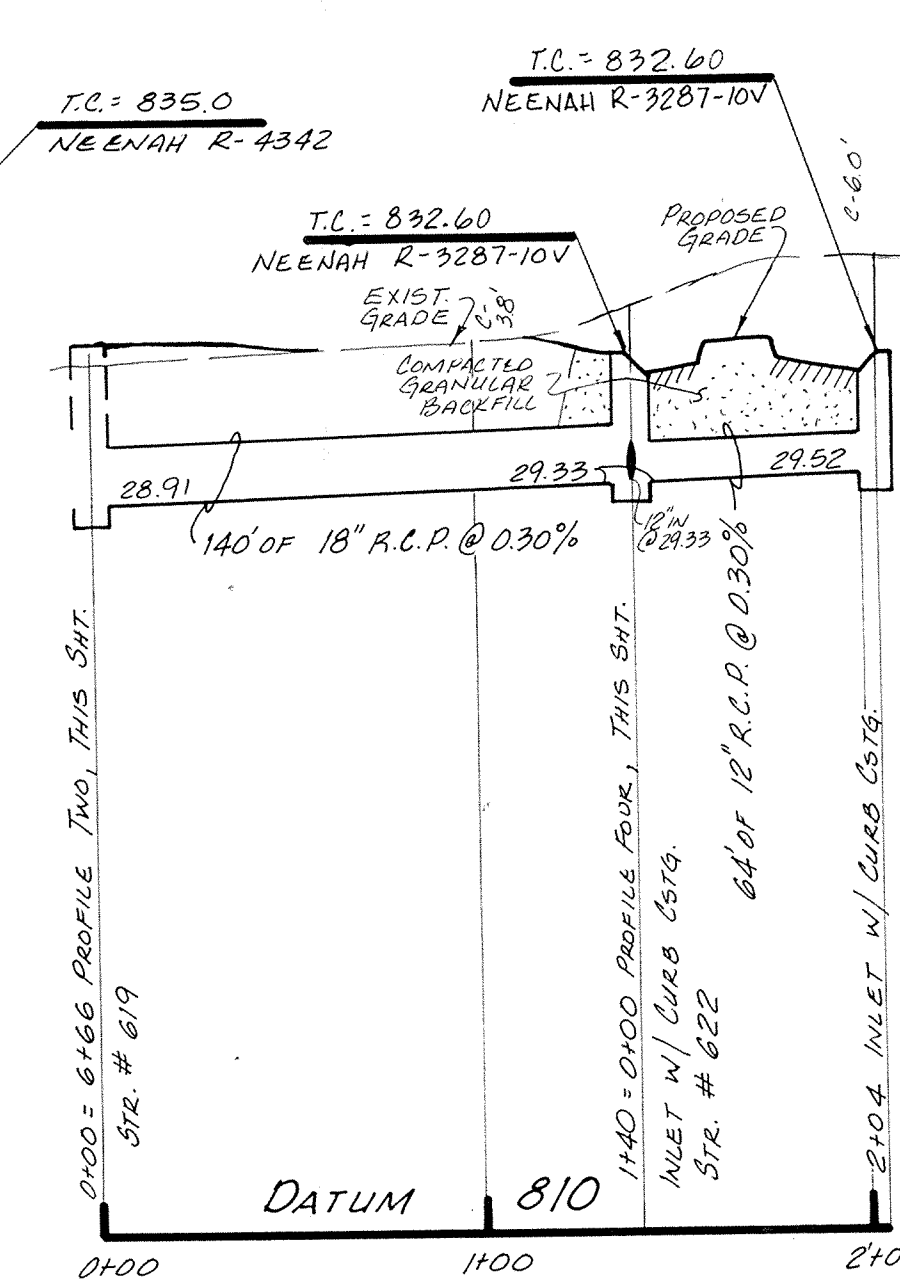
NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE.



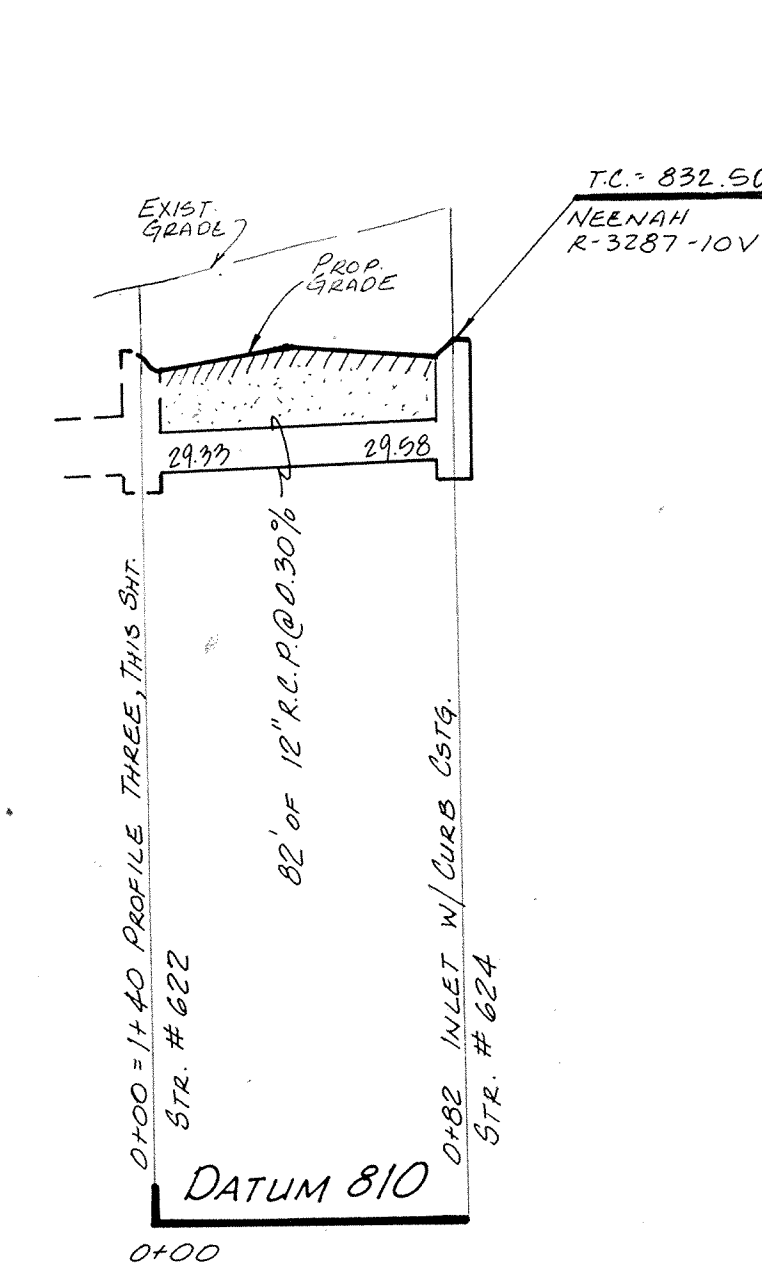
PROFILE ONE



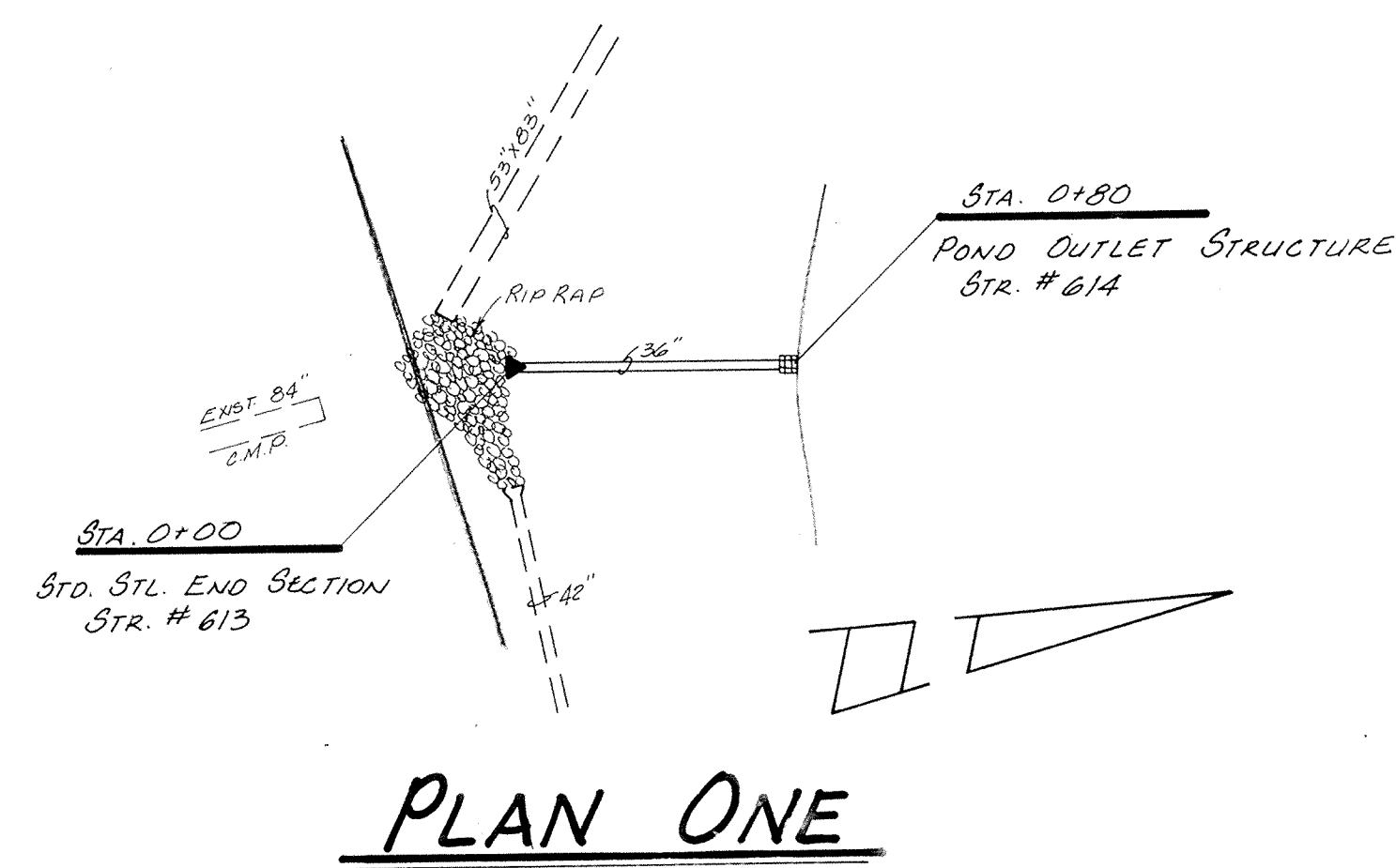
PROFILE TWO



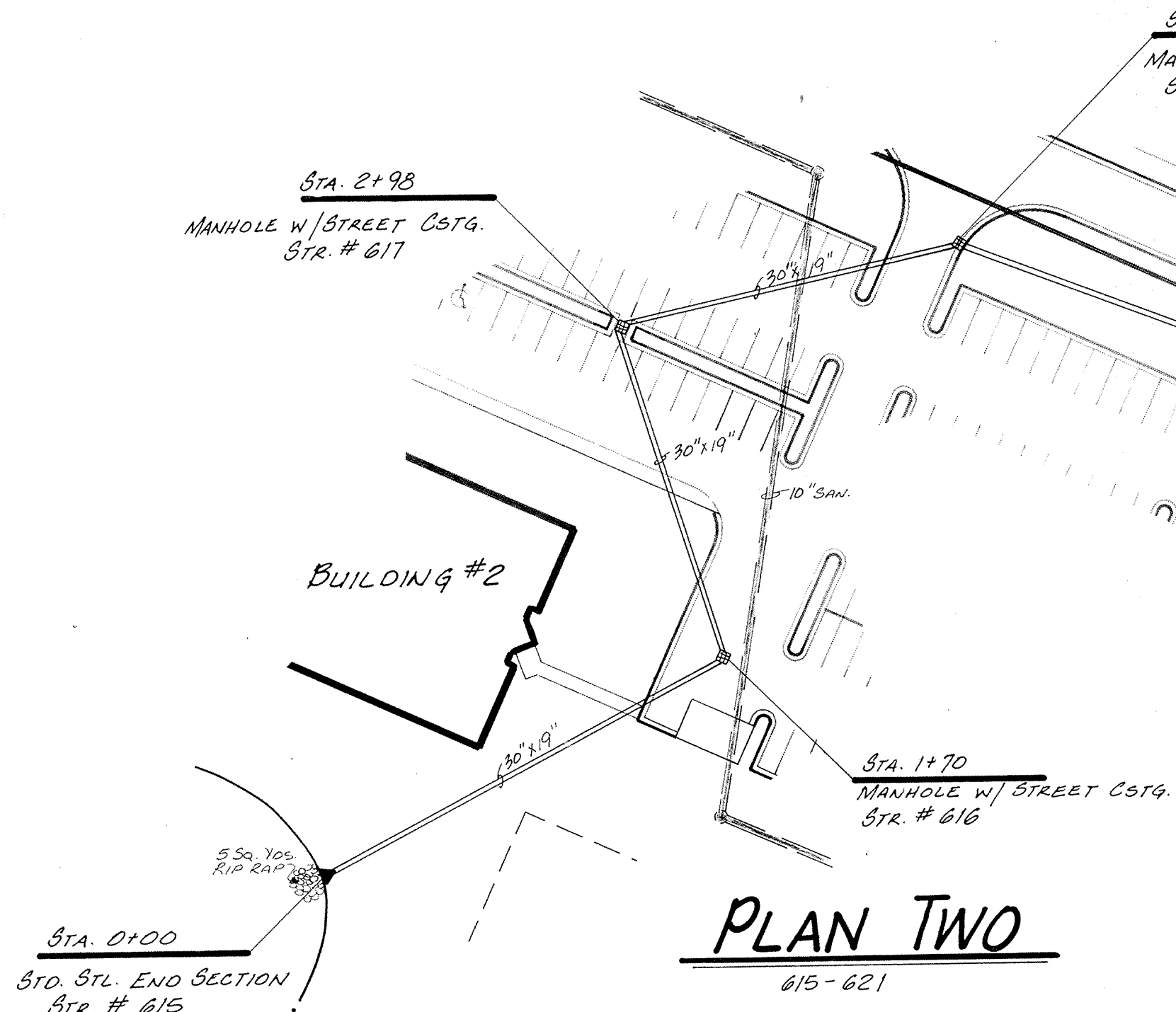
PROFILE THREE



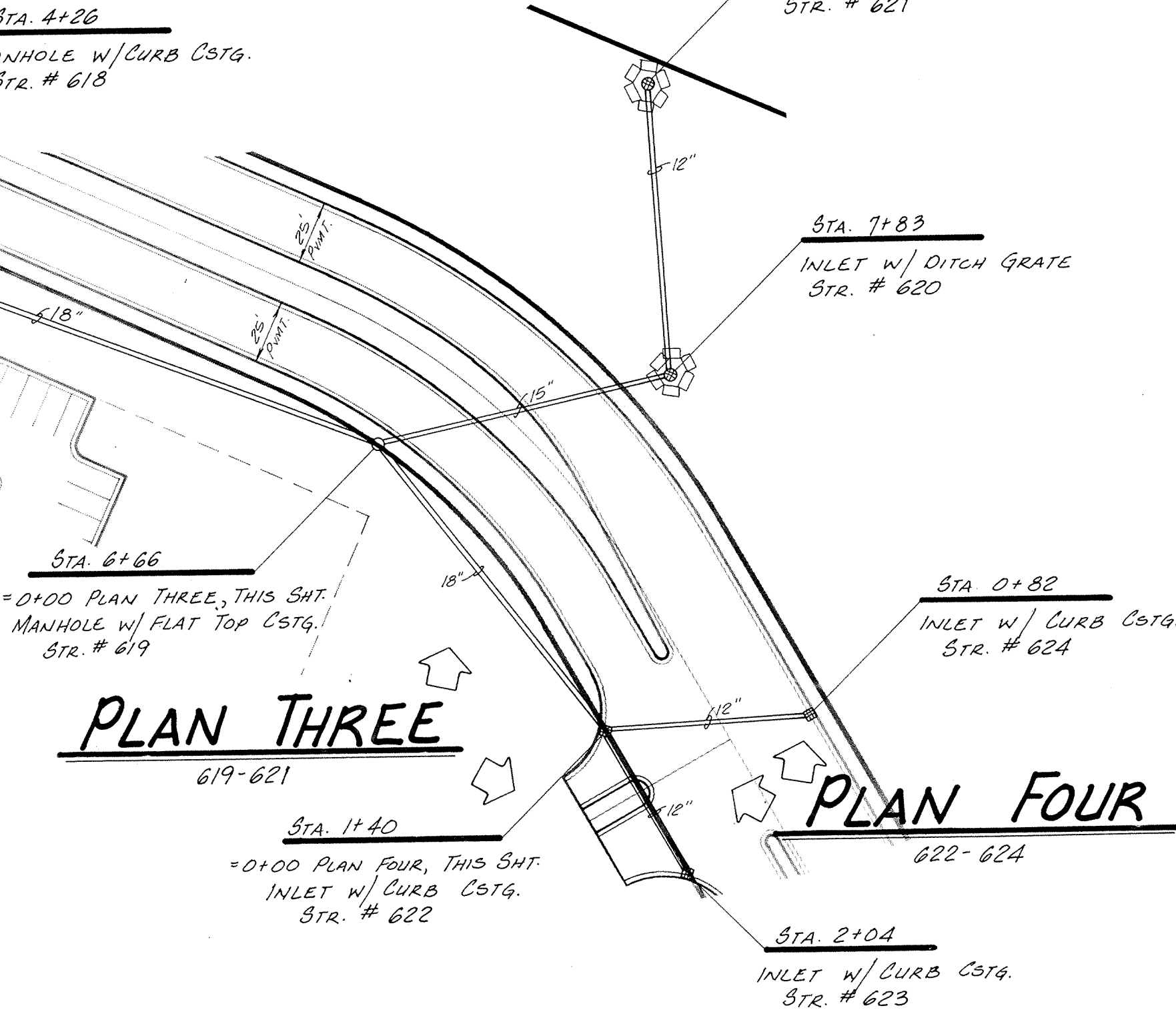
PROFILE FOUR



PLAN ONE

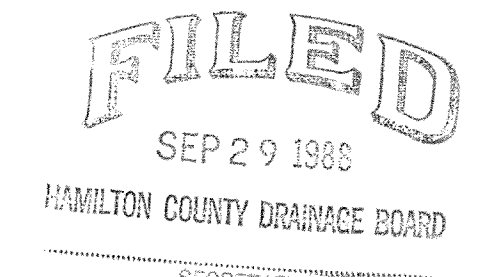
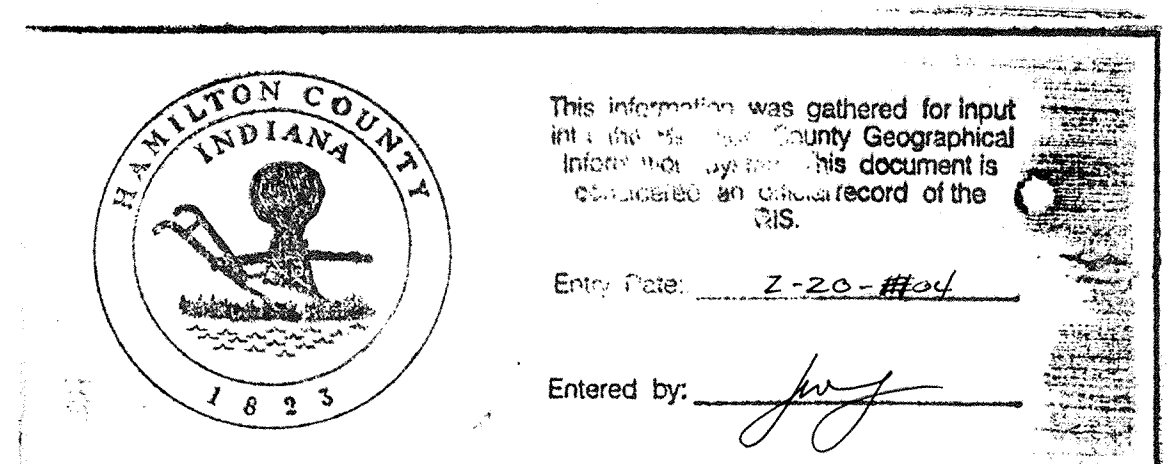


PLAN TWO



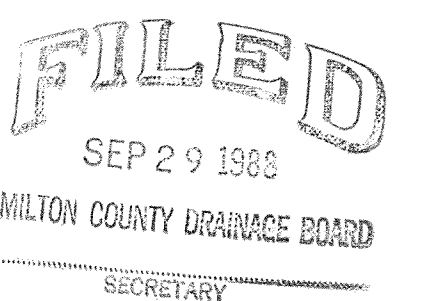
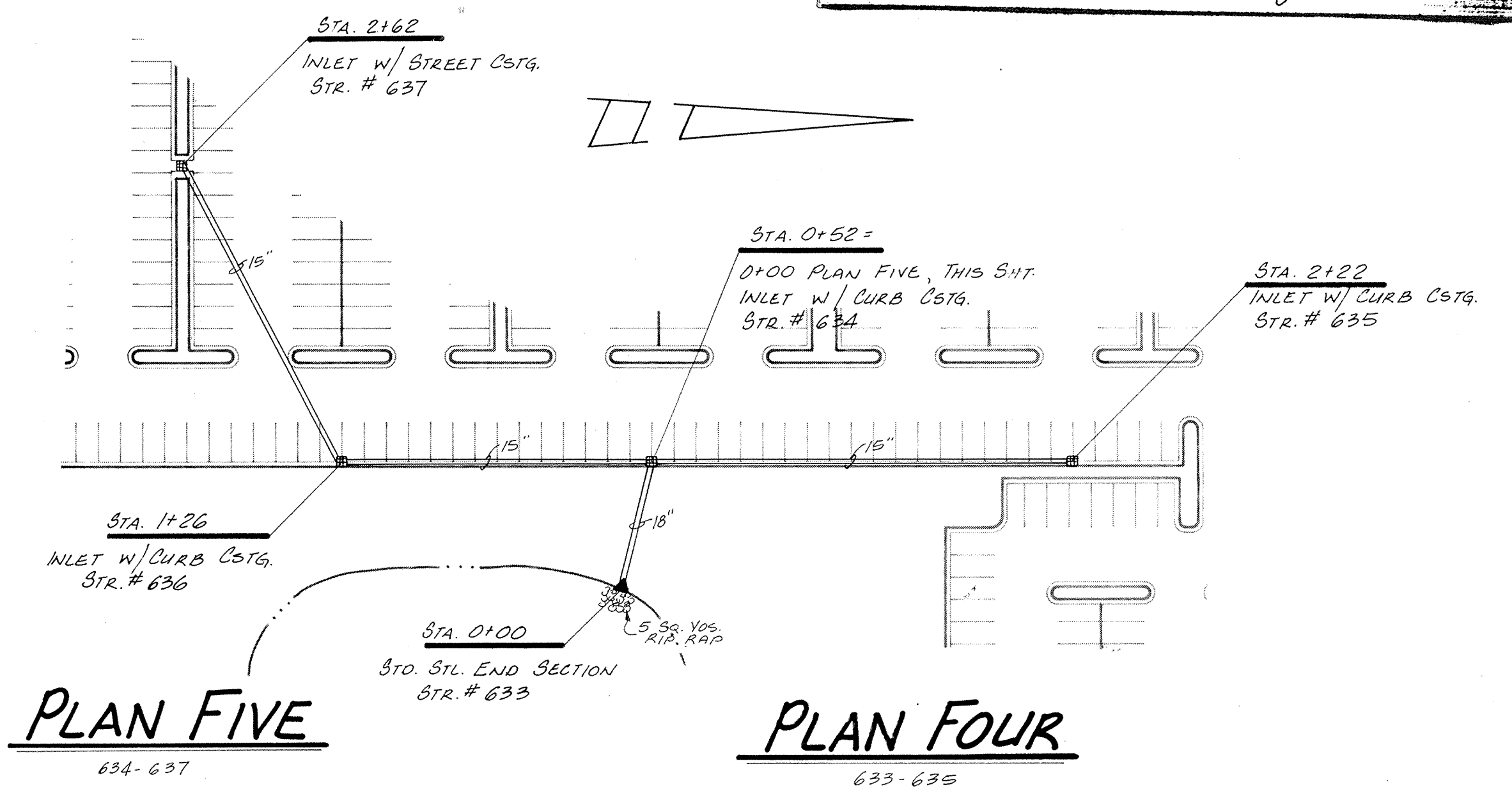
PLAN THREE

PLAN FOUR

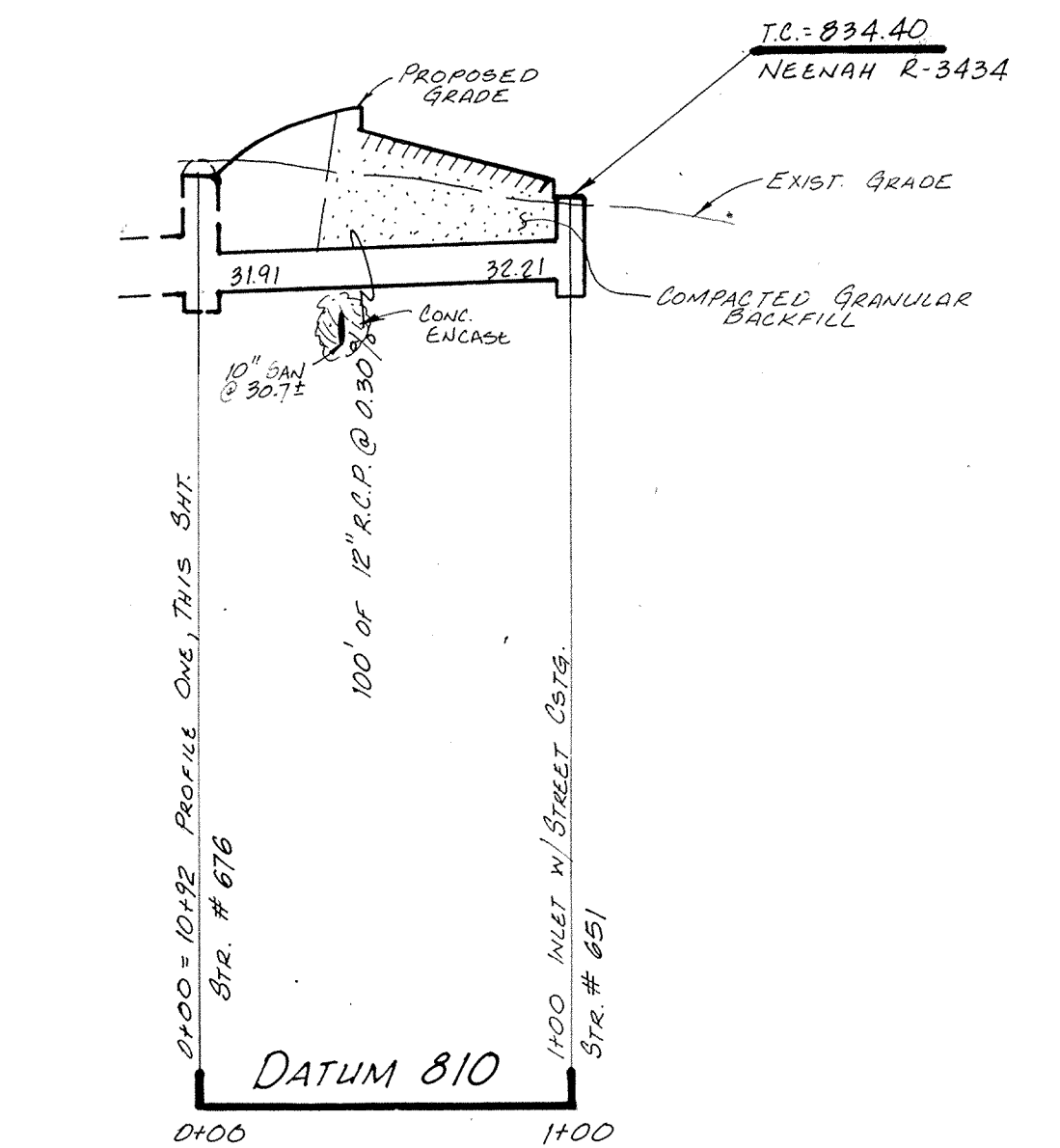
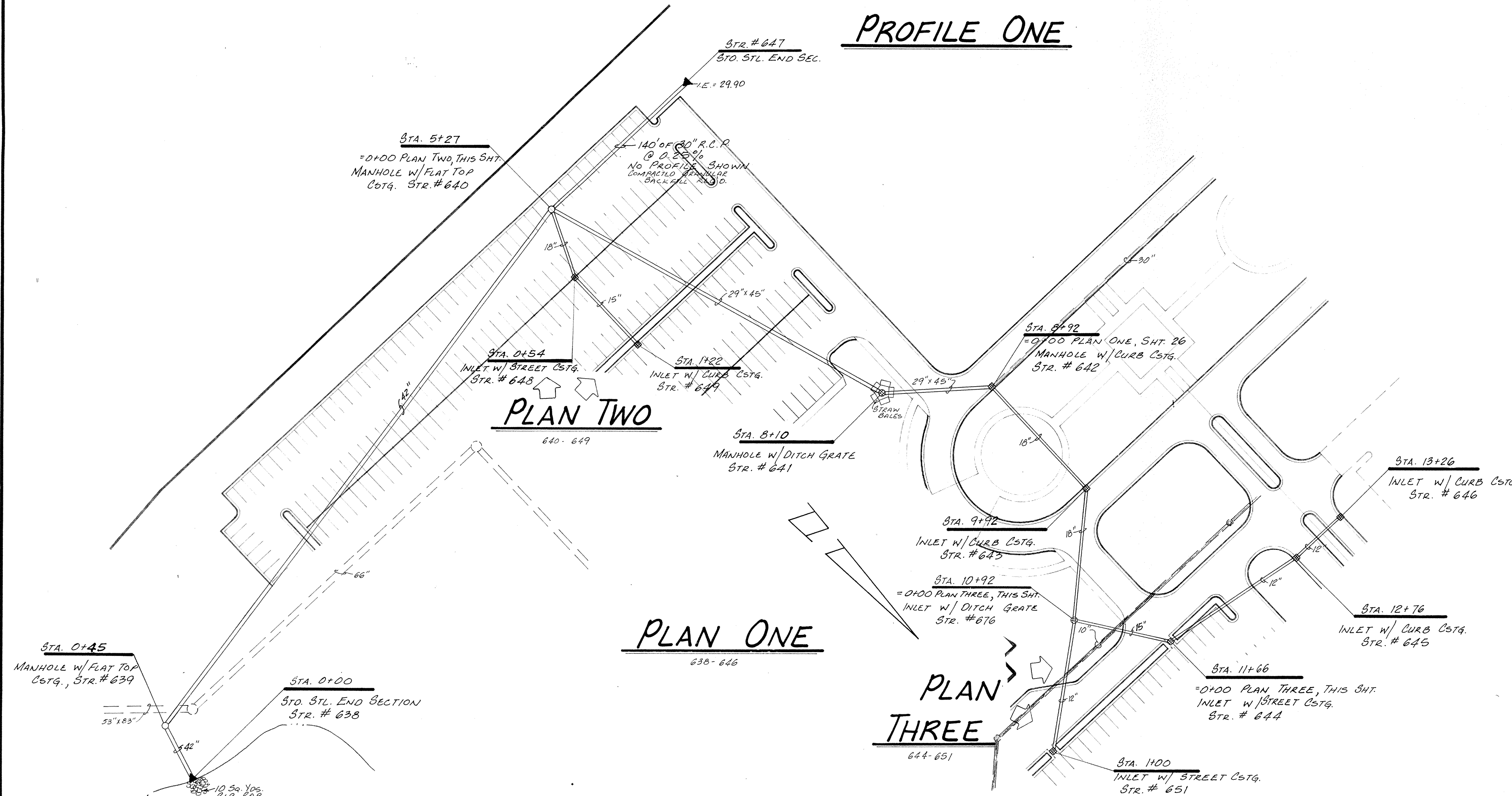
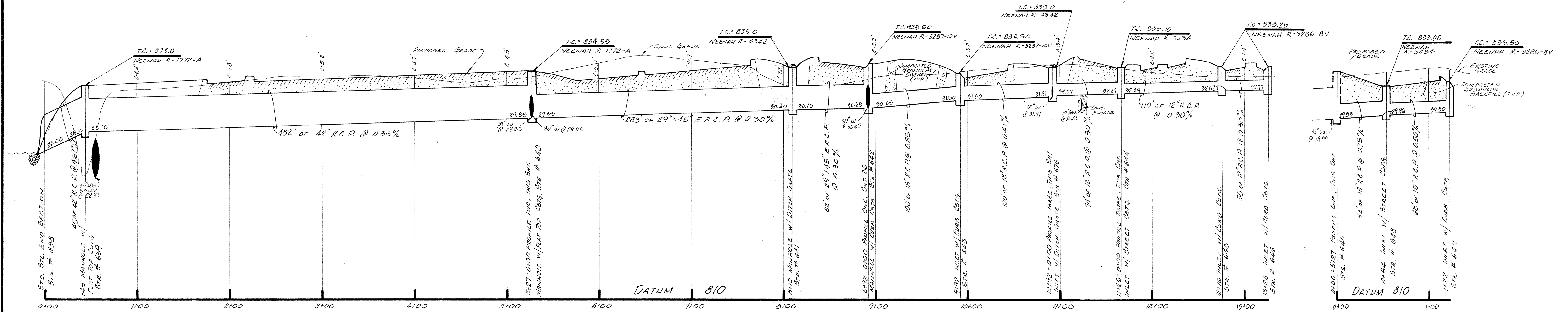


CERTIFIED BY 4/27/88 MISC. REVISIONS	REVISIONS 4/27/88 MISC. REVISIONS	PAUL I. CRIPE, INC. • CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777	TECH. CHK. DFTNG. CHK.	DRAWN BY B.T.	SCALE 1"=5' VERT.	DATE 7/29/88	CLIENT TRAMMELL CROW	DWG. TYPE FILE NUMBER JOB NUMBER 86391-20000	SHEET 23 OF 39
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PROFILE FIVE

EASTERN ENGINEERING 2-86 DPS-3G10 502624

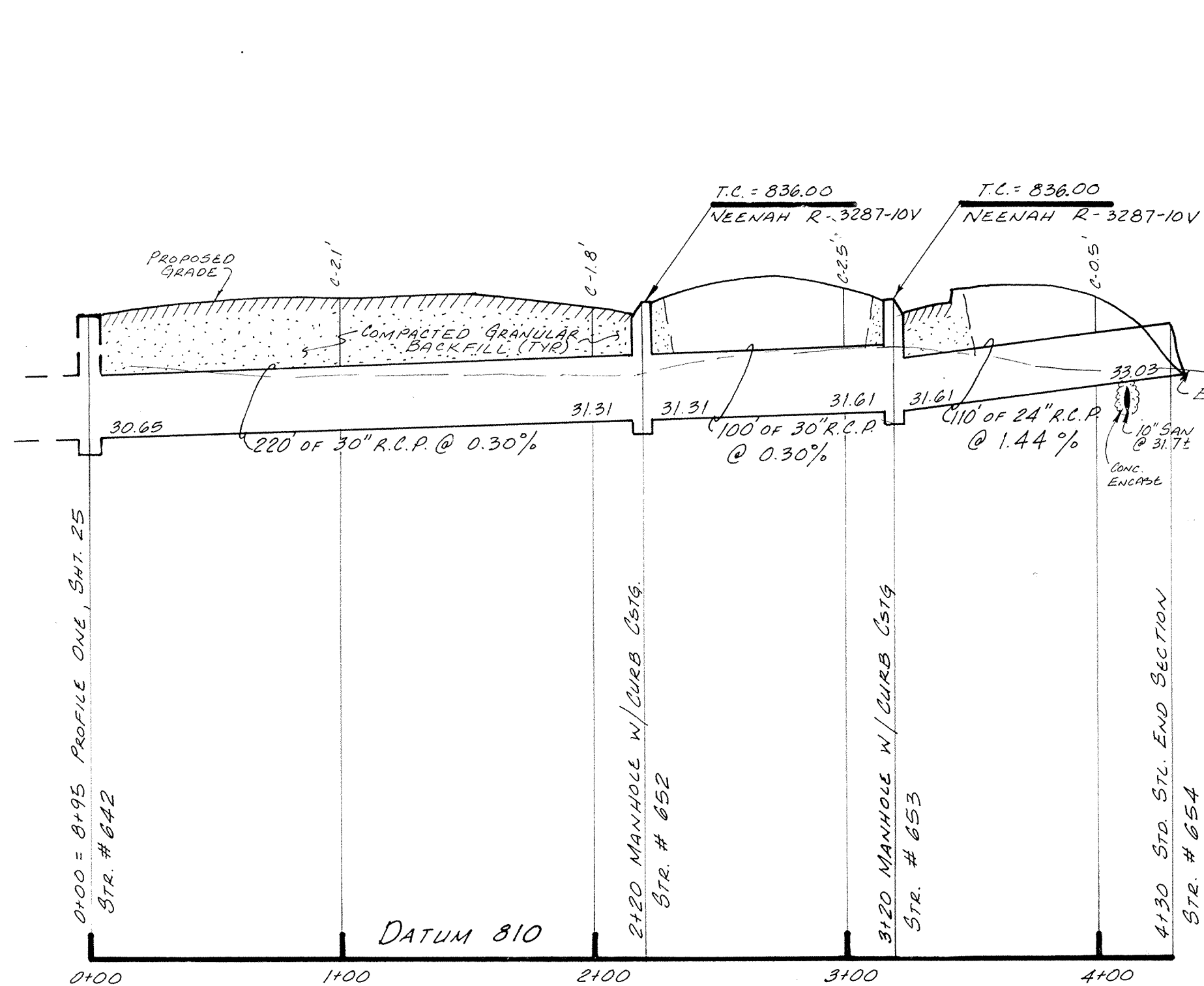
NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE.



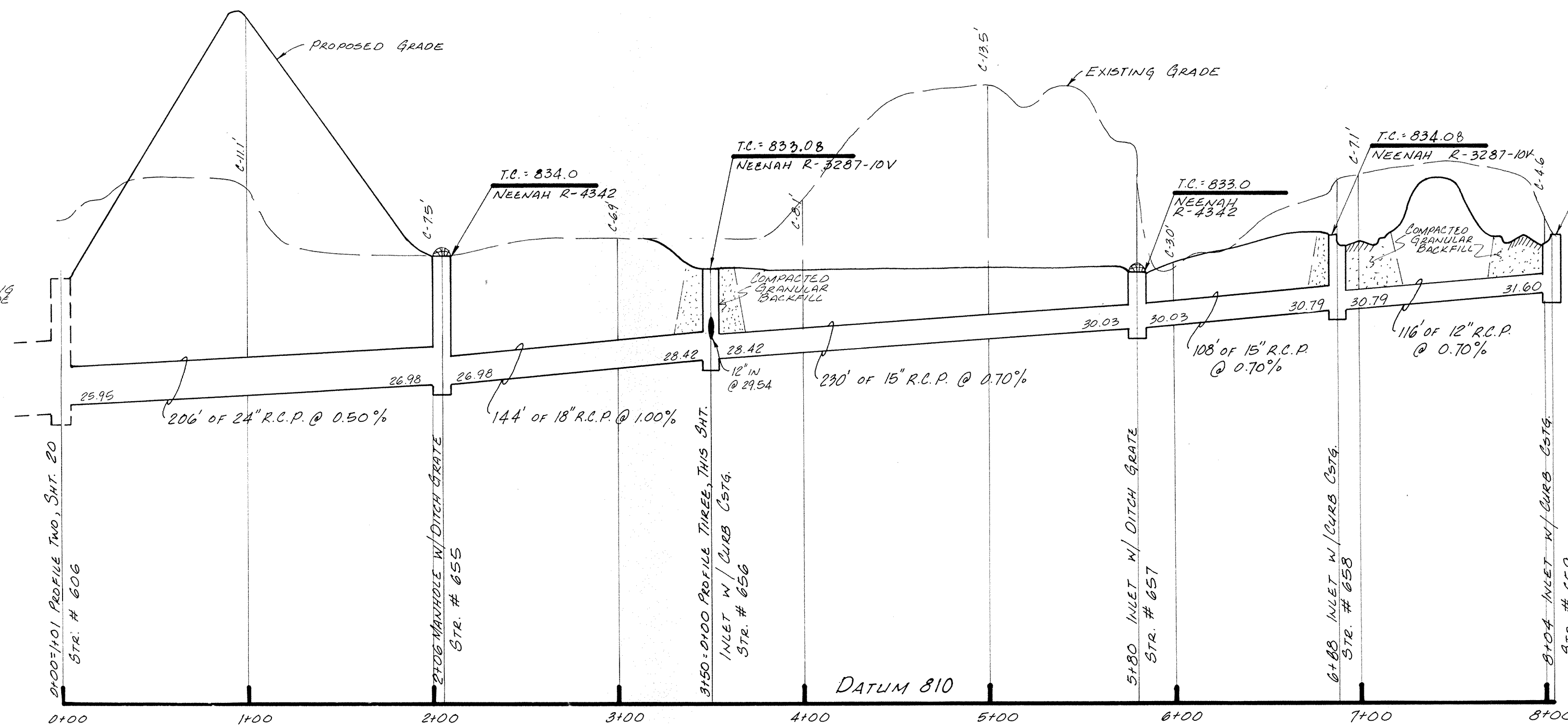
CERTIFIED BY	REVISIONS		PAUL I. CRIFE, INC. • CIVIL ENGINEERING 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 317-842-6777	TECH. CHK.	DRAWN BY	SCALE	DATE	CLIENT	DWG. TYPE	FILE NUMBER	SHEET
DATE	9/27/88 MISC. REVISIONS			OFTNG. CHK.	B.T.	1"=50' HORIZ. 1"=5' VERT.	7/29/88	TRAMMELL CROW	JOB NUMBER	25	OF 39
								STORM SEWER PLAN & PROFILE	8 6 3 9 1 - 2 0 0 0 0		

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SEP 29 1988
HAMILTON COUNTY DRAINAGE BOARD
SECRETARY

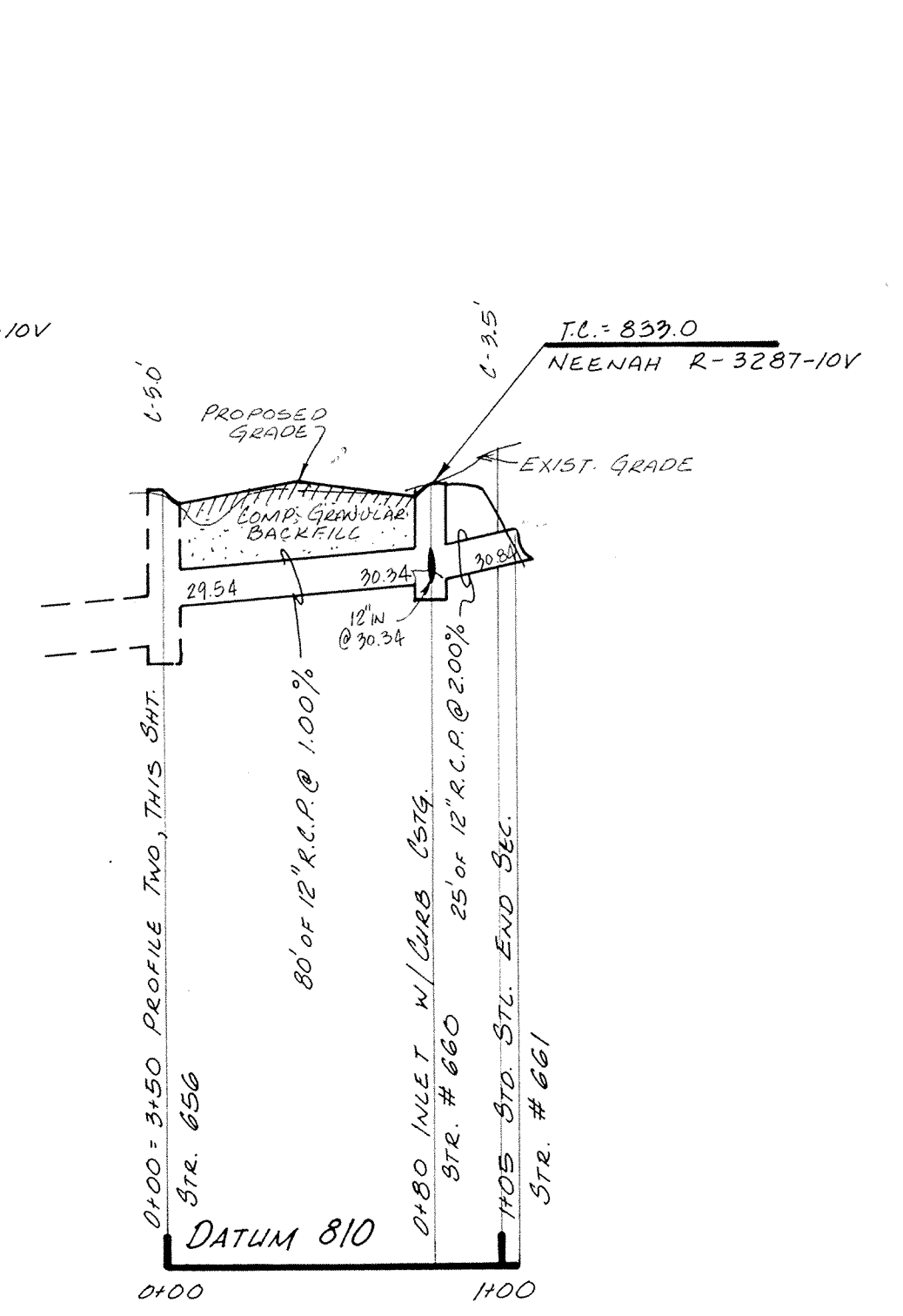
NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE.



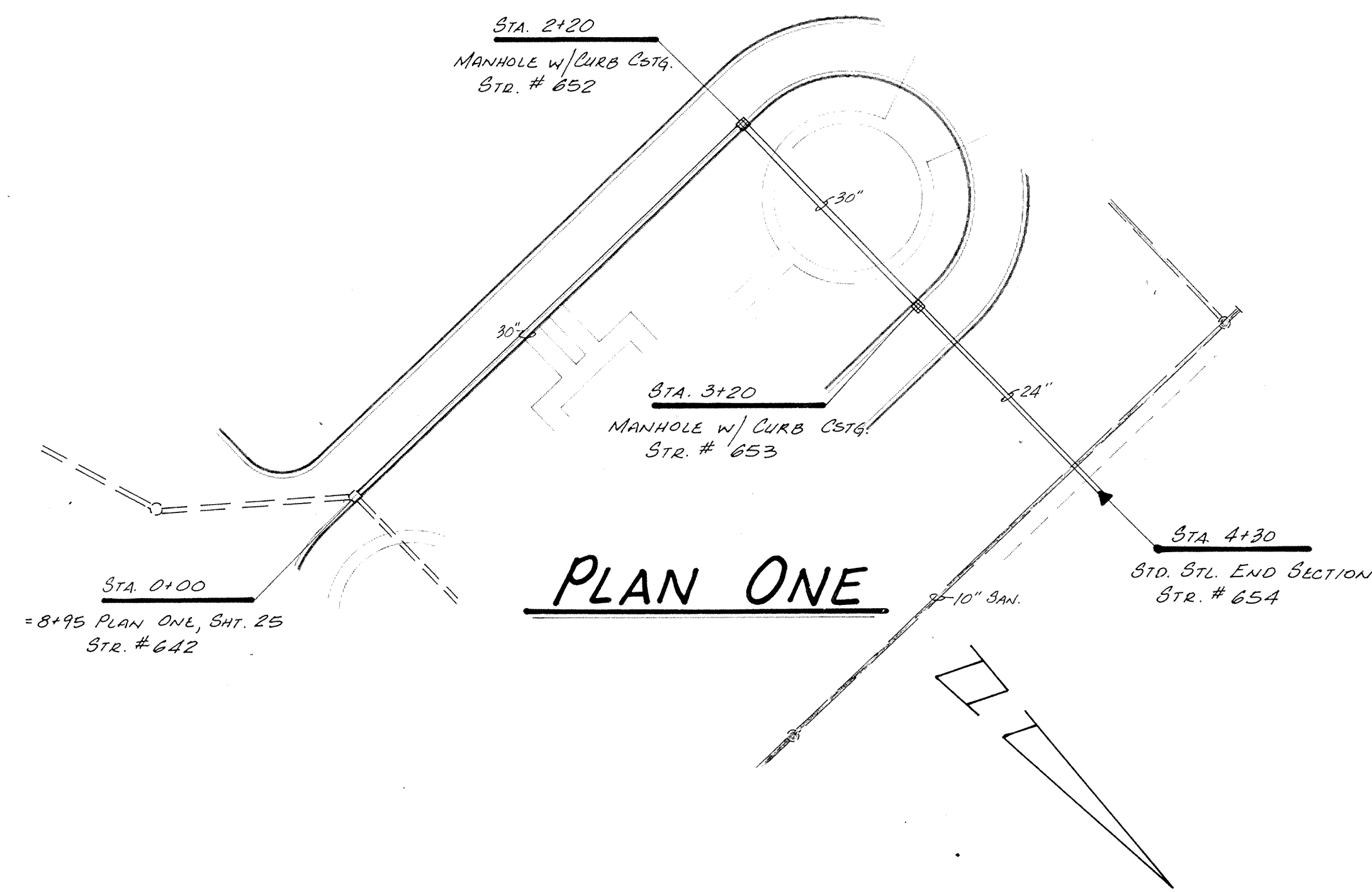
PROFILE ONE



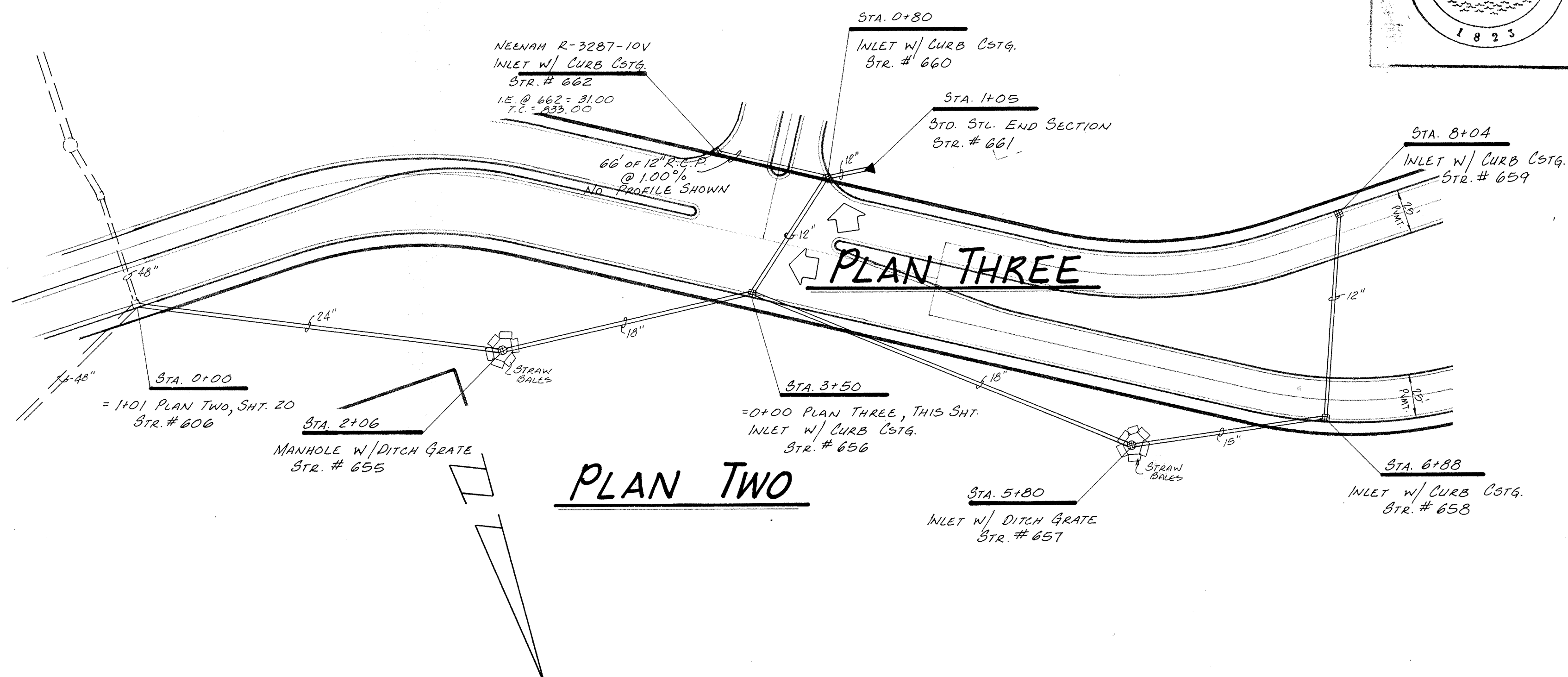
PROFILE TWO



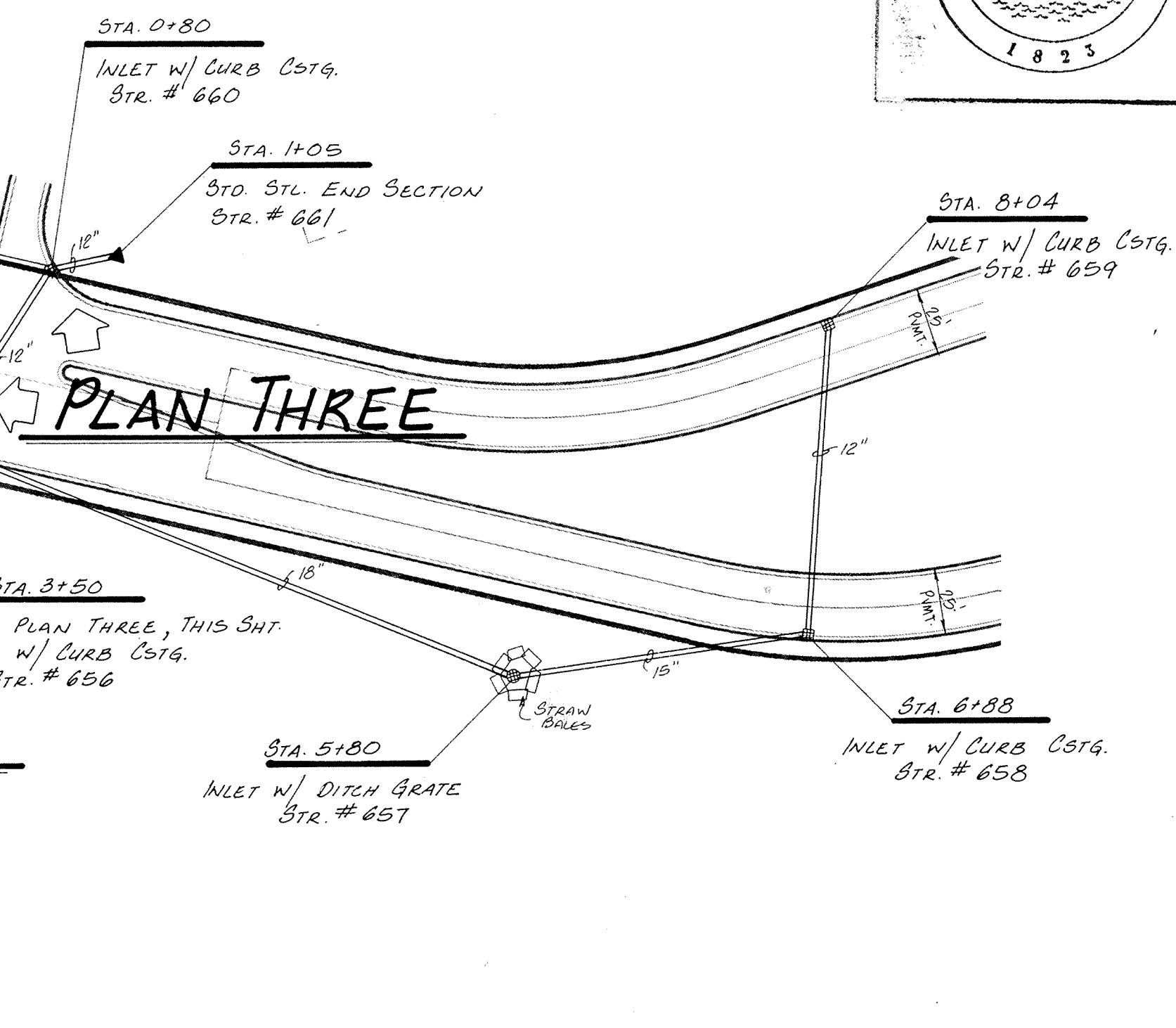
PROFILE THREE



PLAN ONE



PLAN TWO



PLAN THREE

HAMILTON COUNTY
INDIANA
1823

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: 2-20-04

Entered by: [Signature]

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SEP 29 1988
HAMILTON COUNTY DRAINAGE BOARD
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	DATE	9/27/88 MISC. REVISIONS								JOB NUMBER	8 6 3 9 1 - 2 0 0 0 0	
STORM SEWER PLAN & PROFILE												

T.C. = 43.30

NEENAH R-3287-10V

T.C. = 41.0

NEENAH R-4342

12" W @ 38.25'

37.32

38.00

38.32

38.50

66' of 15" R.C.P. @ 100'

24' of 12" R.C.P. @ 100'

26' of 12" R.C.P. @ 100'

EX. MANHOLE

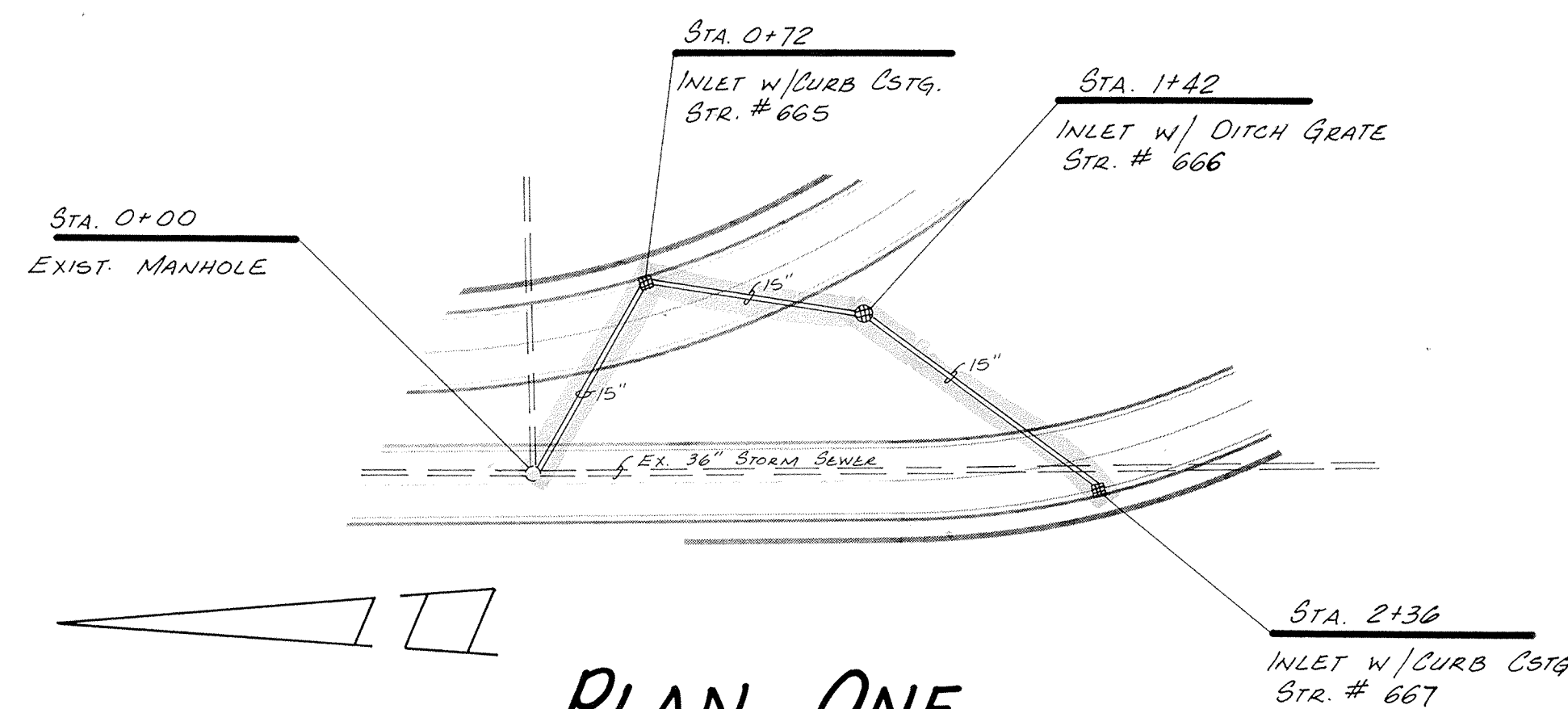
DATUM 810

0'-68" INLET W/ CURB C&TG. SLOPE # 471

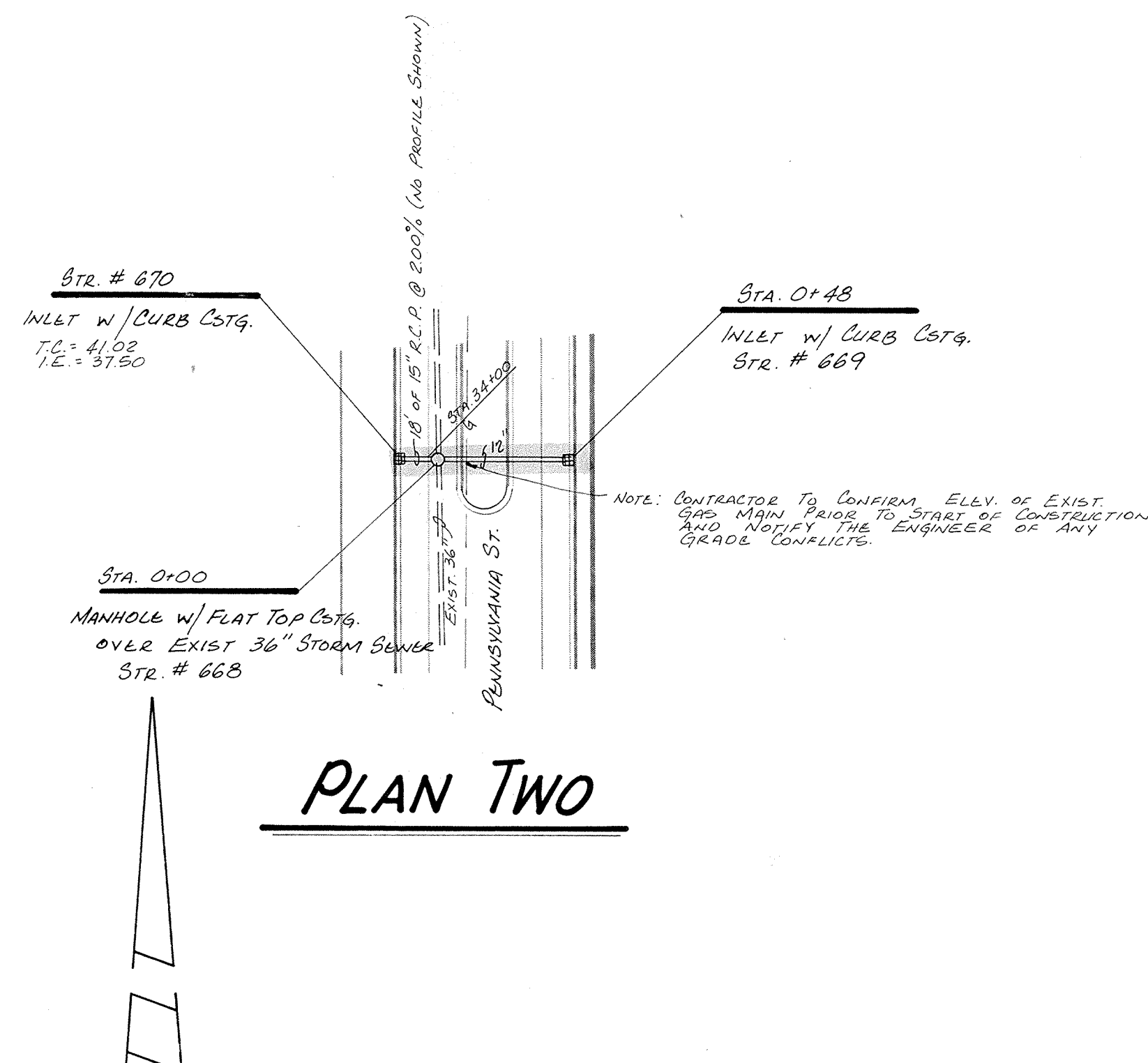
0'-92" INLET W/ CURB C&TG. SLOPE # 472

1'-13" INLET W/ DITCH GRADE SLOPE # 473

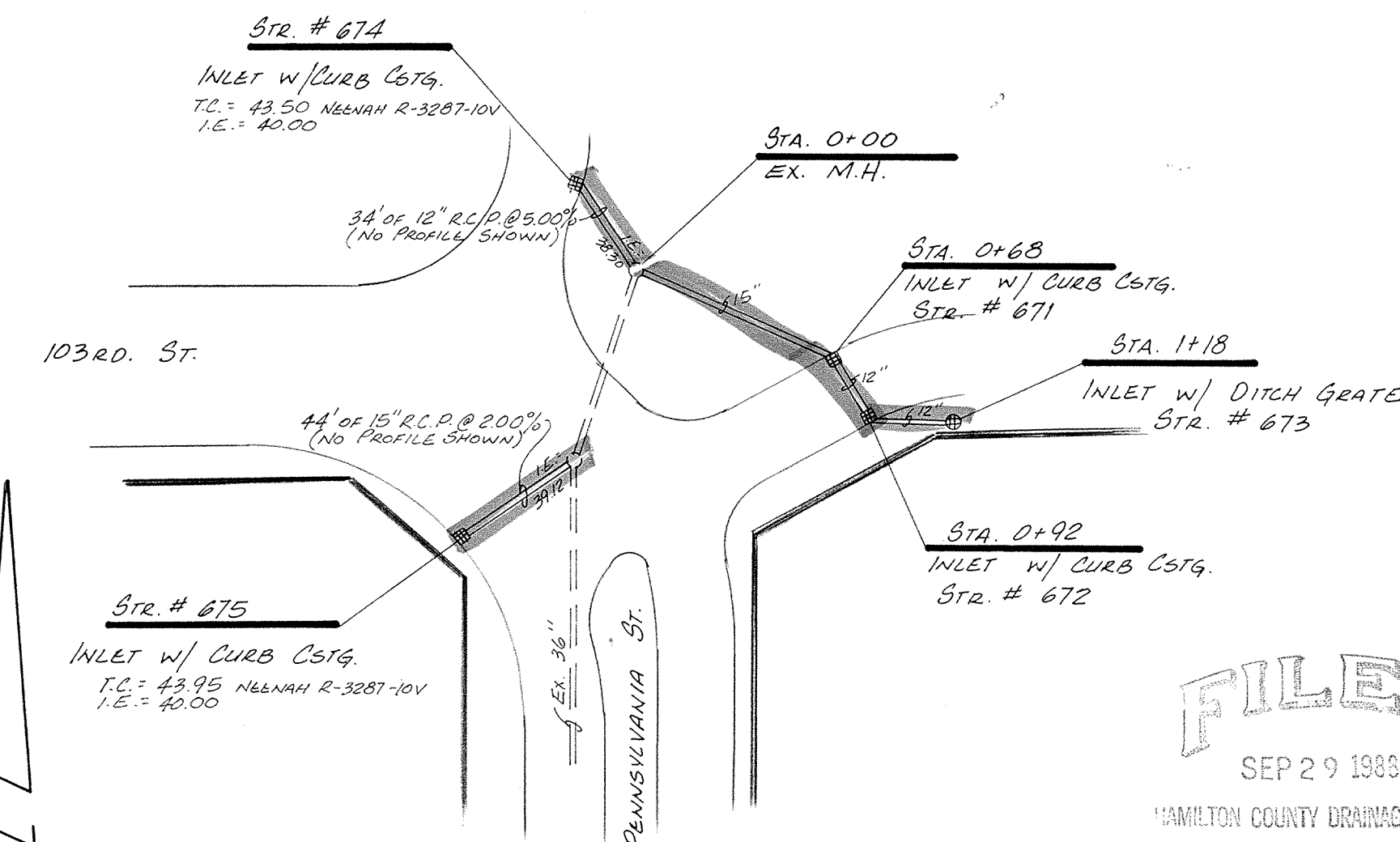
PROFILE THREE



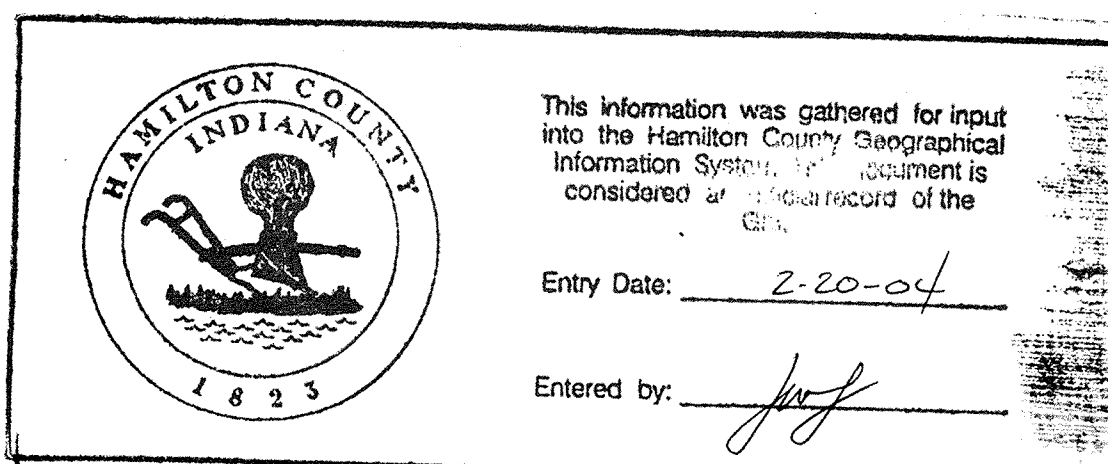
PLAN ONE



PLAN TWO

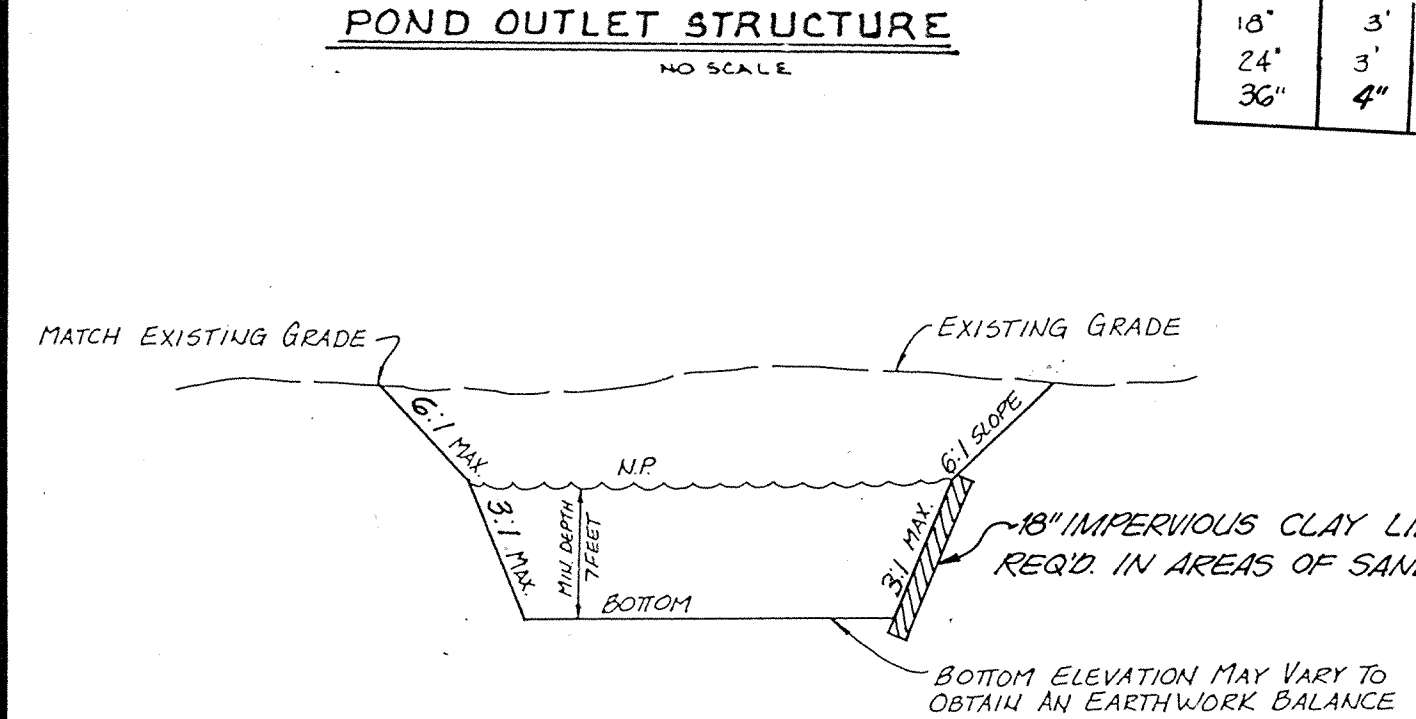
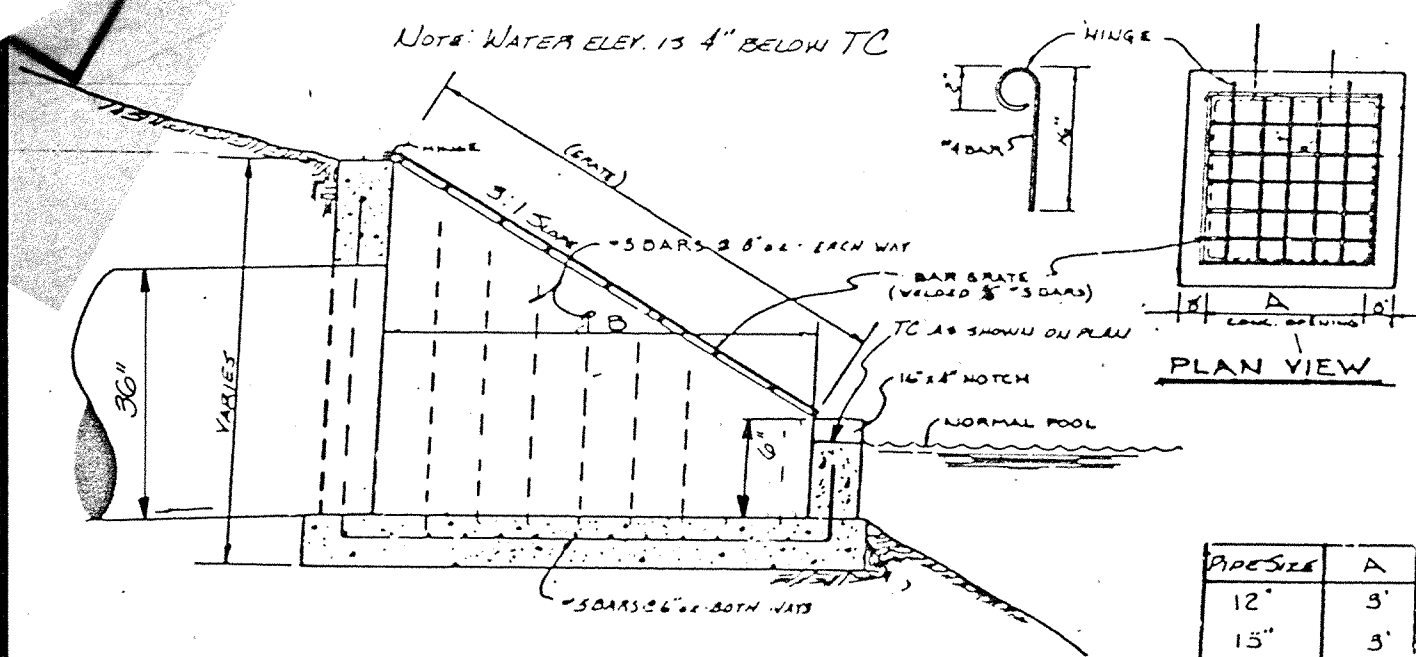


PLAN THREE

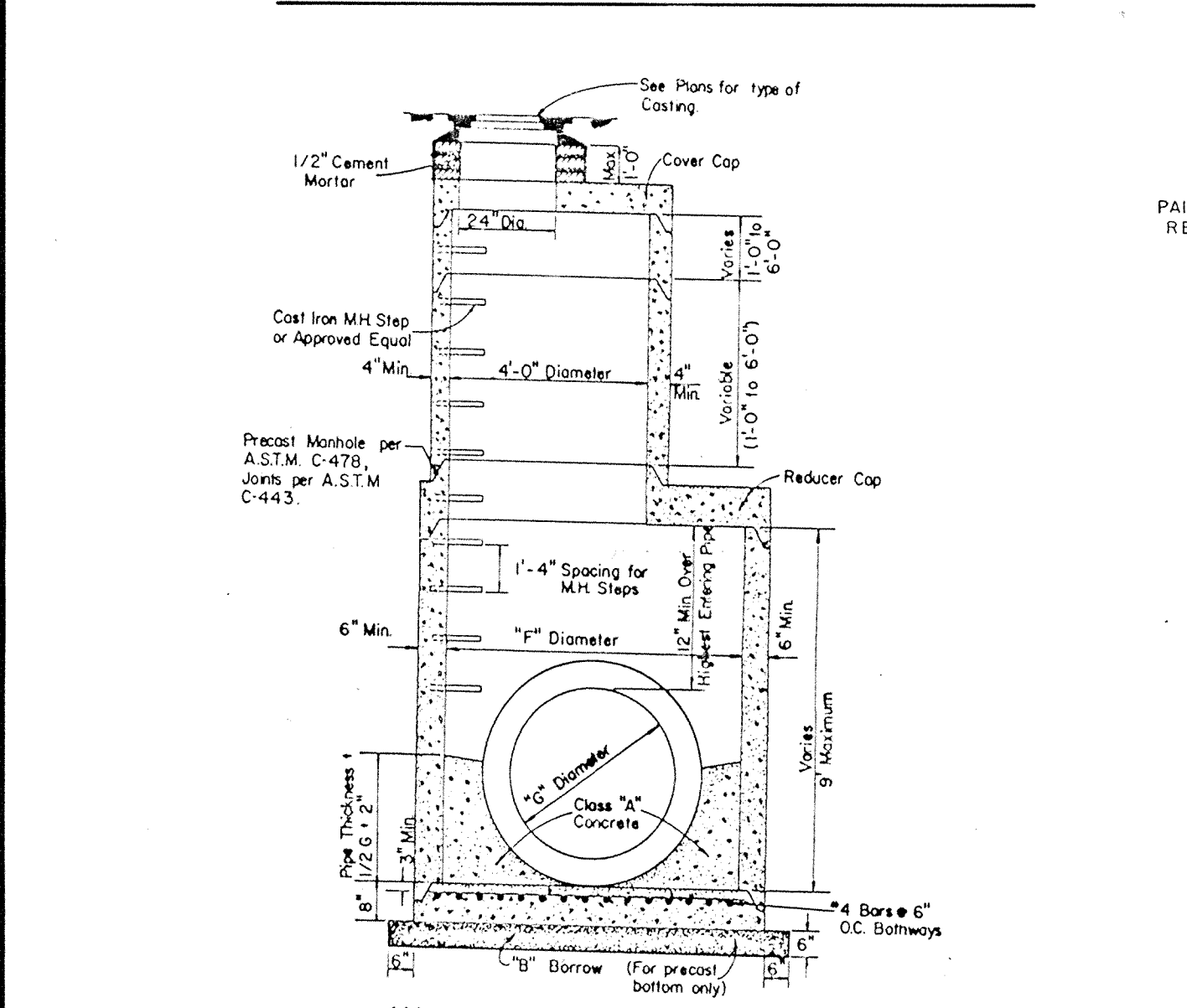


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CERTIFIED BY	REVISIONS			PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 TEL: 317-842-6779	• CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING	TECH. CHK.	DRAWN BY B.T.	SCALE 1"=50' HORIZ. 1"=5' VERT.	DATE 7/29/88	CLIENT TRAMMELL CROW	DWG. TYPE	FILE NUMBER	SHEET
	9/27/88 MISC. REVISIONS						DFTNG. CHK.	DRAWING TITLE STORM SEWER PLAN & PROFILE	JOB NUMBER 86391-20000	27			
DATE										OF 39			

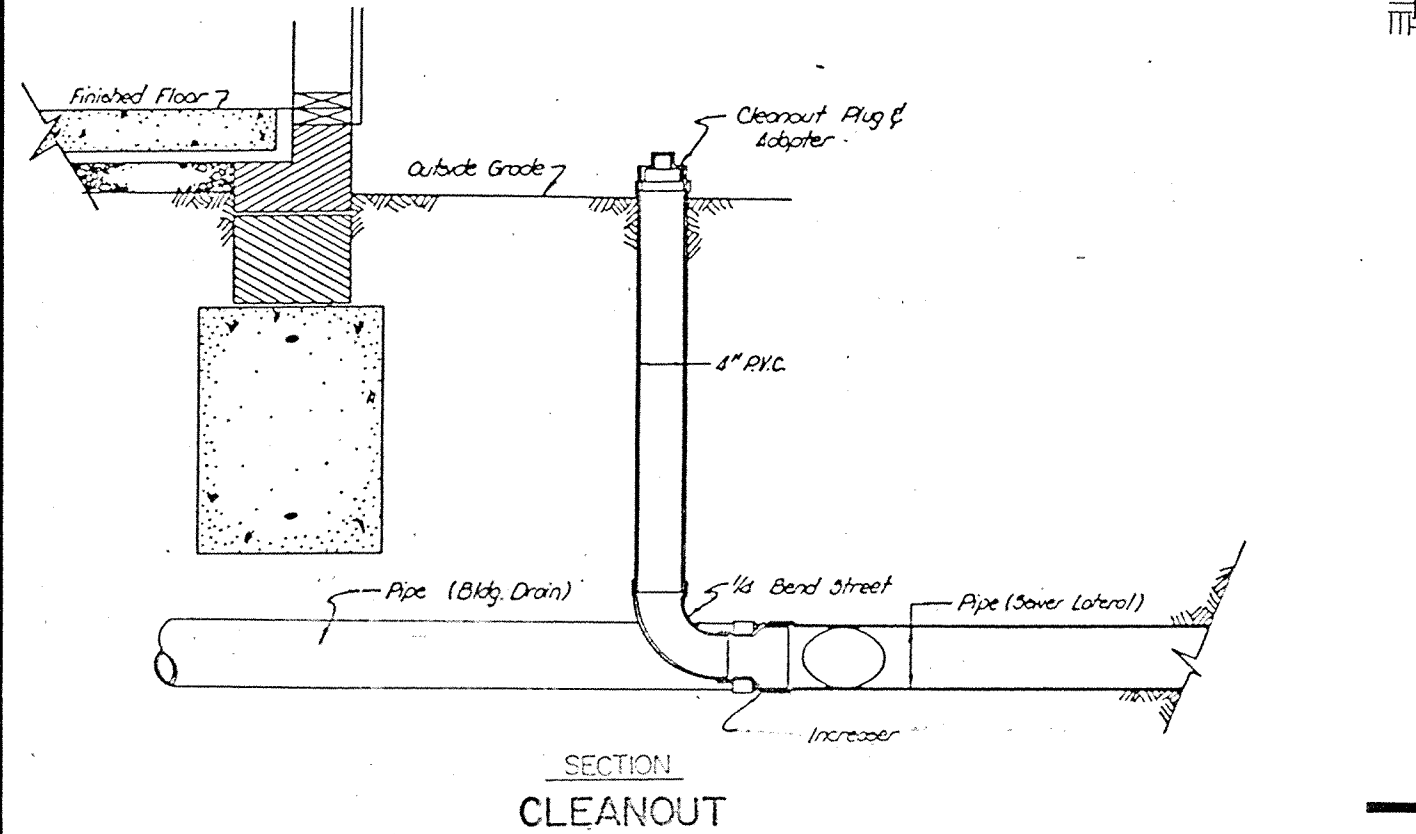


TYPICAL DETENTION LAKE SECTION
NO SCALE



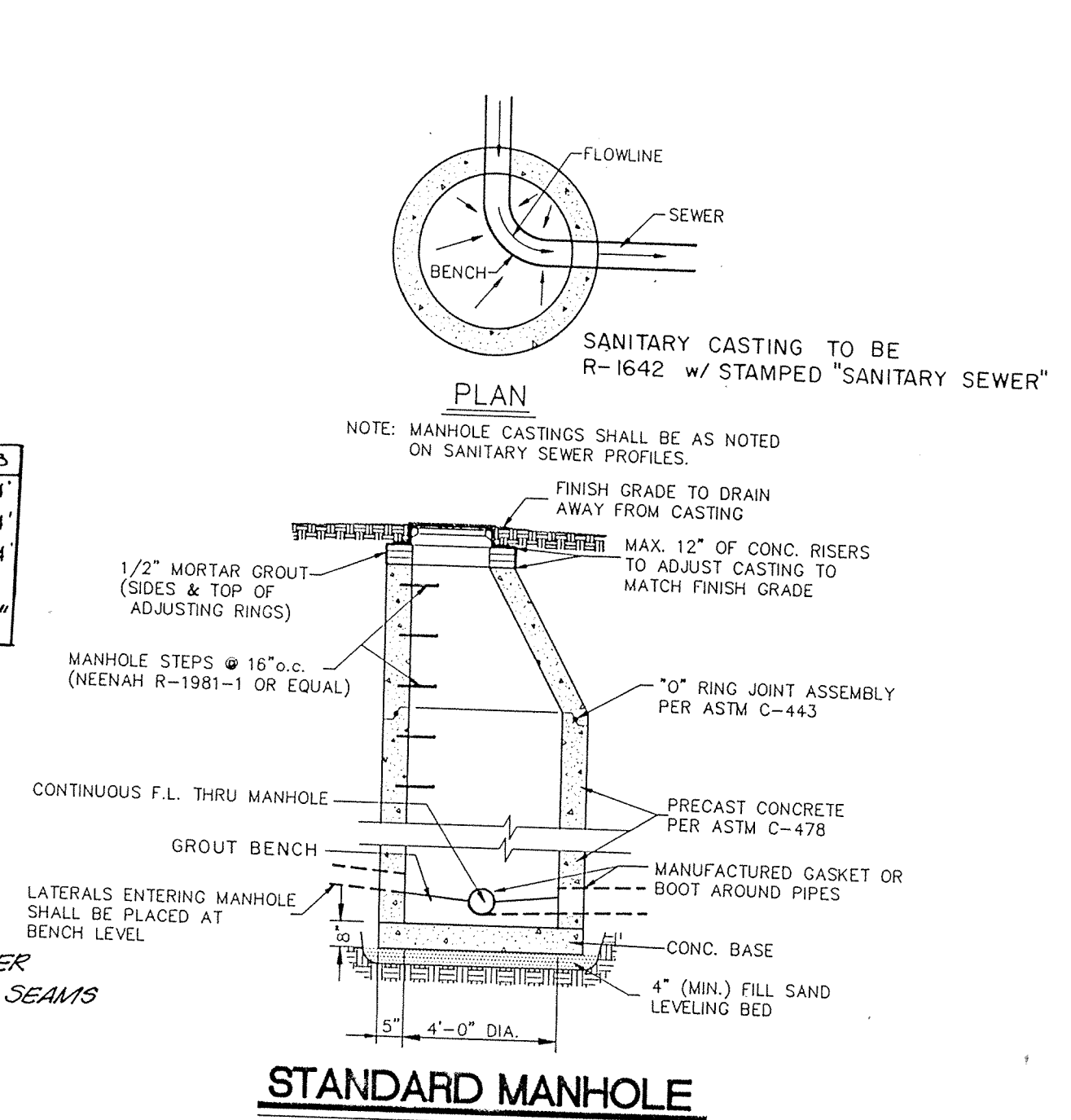
TYPE	"G"	"F"	Max Pipe Size	Min. Depth
J	24" to 36"	30"	30"	30"
K	24" to 36"	30"	33"	33"
L	36" to 48"	36"	36"	36"
M	48" to 54"	48"	48"	48"
N	54" to 72"	60"	60"	60"

ALTERNATE STORM MANHOLE
NO SCALE

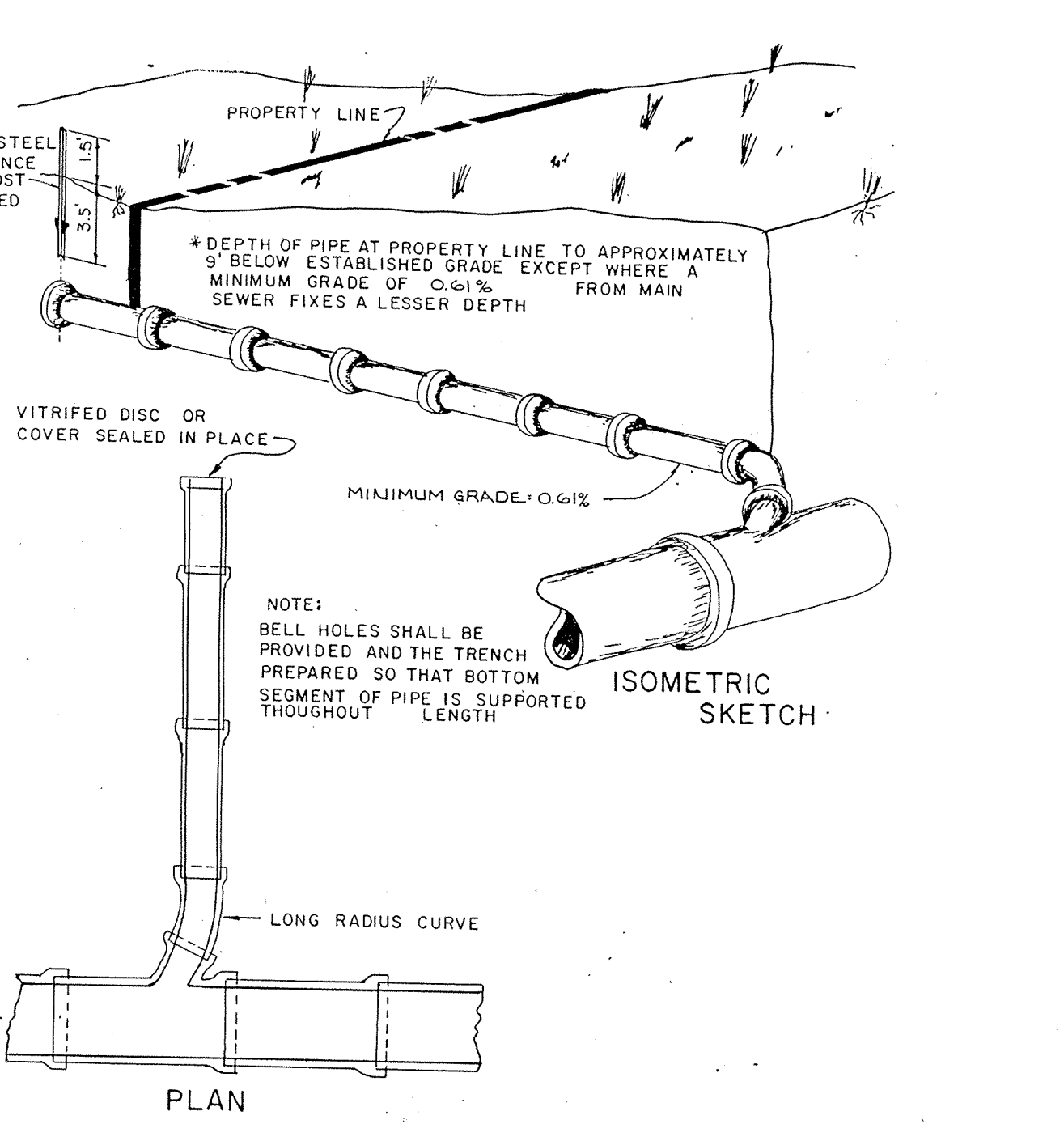


SANITARY SEWER PIPE BEDDING
(FOR FLEXIBLE PIPE, INCLUDING LATERALS)
NO SCALE

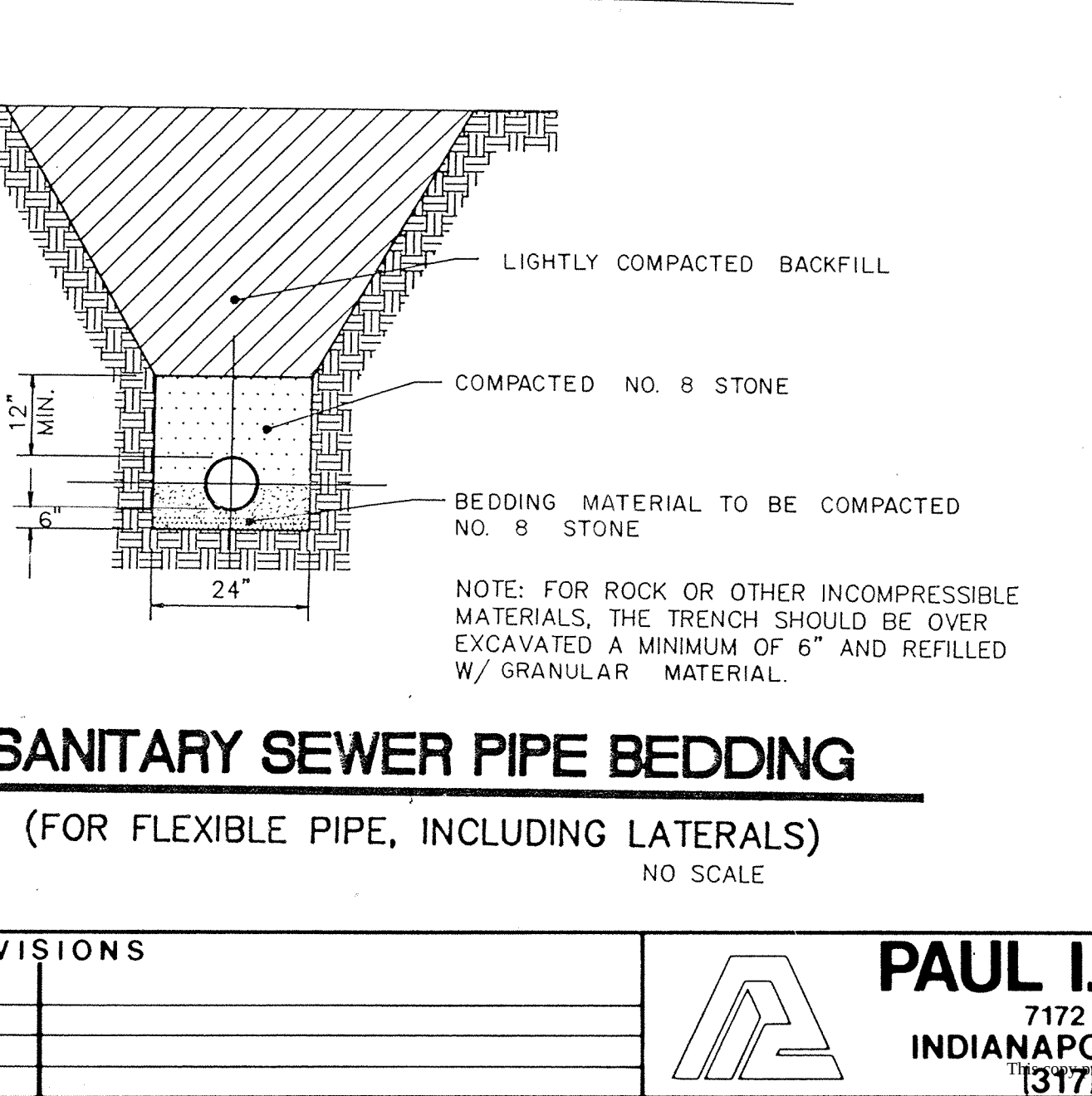
CERTIFIED BY	REVISIONS
DATE	



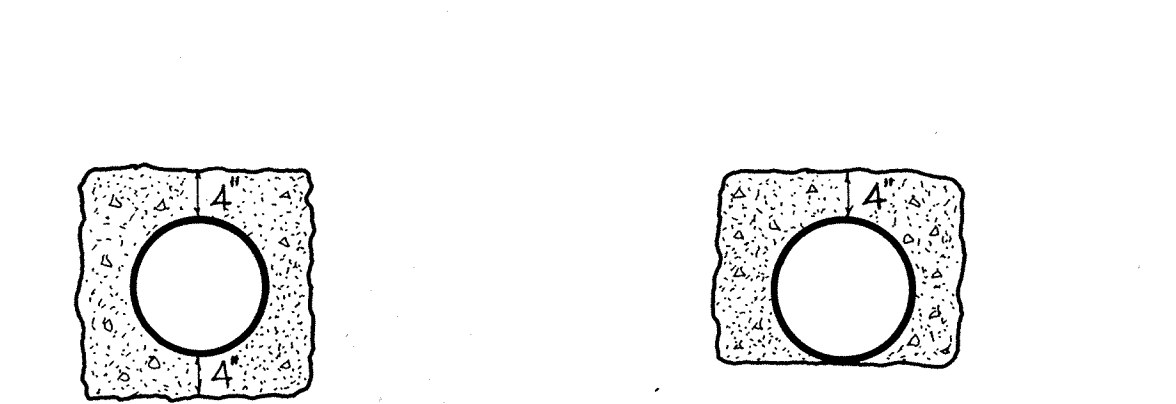
STANDARD MANHOLE
FOR SANITARY SEWERS AS ILLUSTRATED
NO SCALE



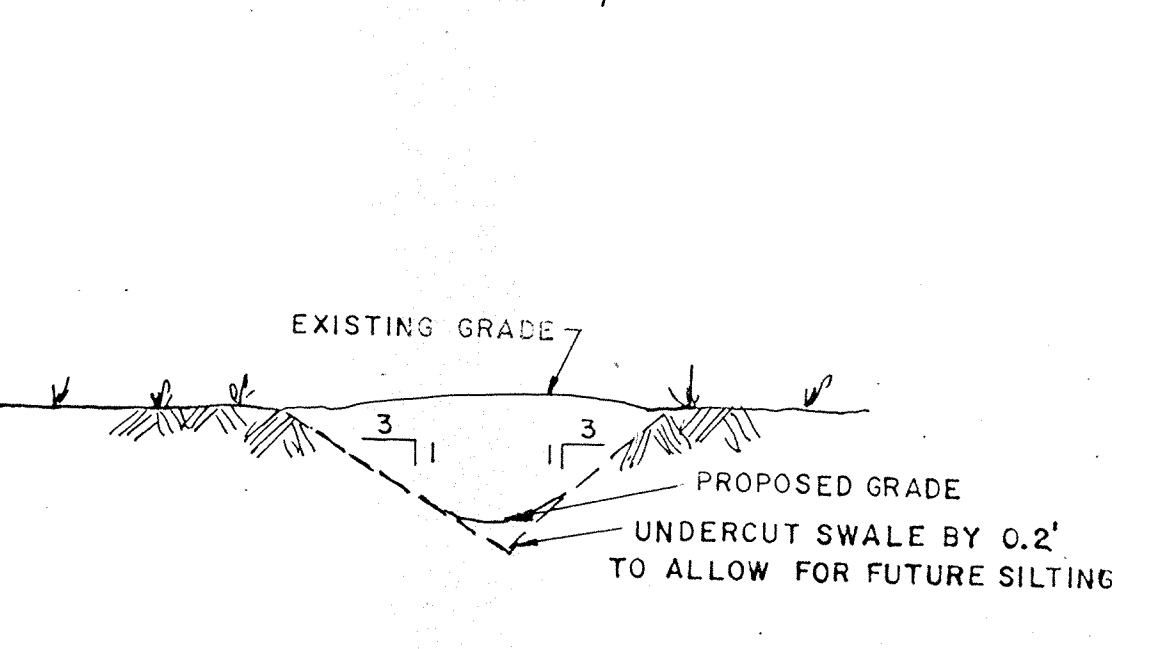
BLDG. CONNECTION to MAIN SEWER



PIPE UNDERDRAIN
TYPICAL INSTALLATIONS
NO SCALE

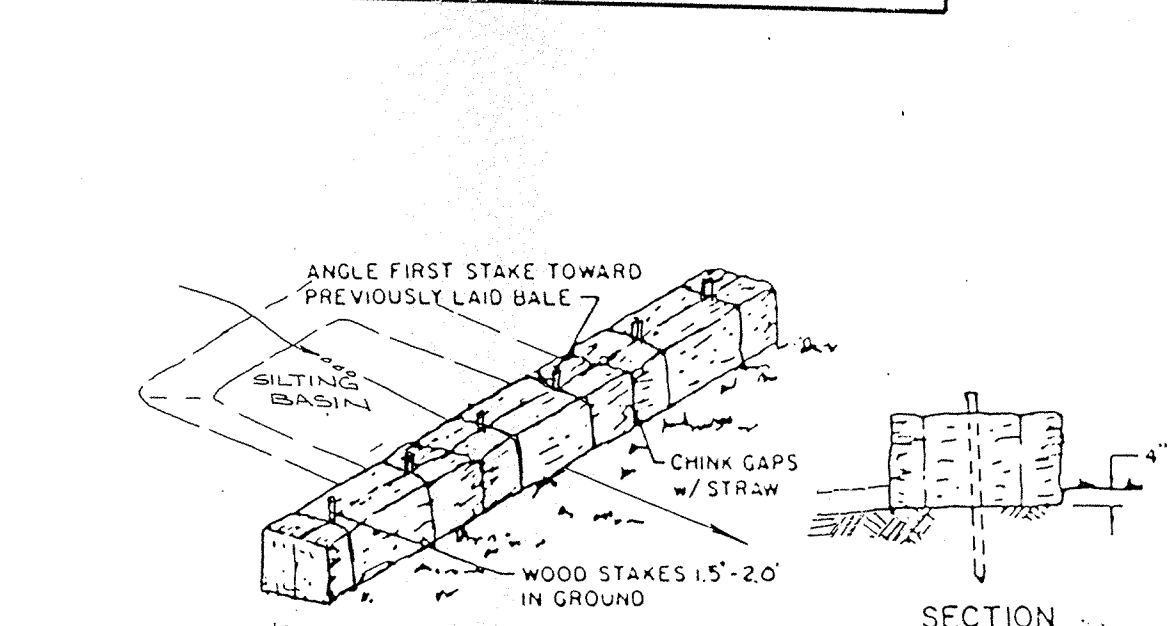


Concrete Encasement
(for sanitary sewers)
no scale

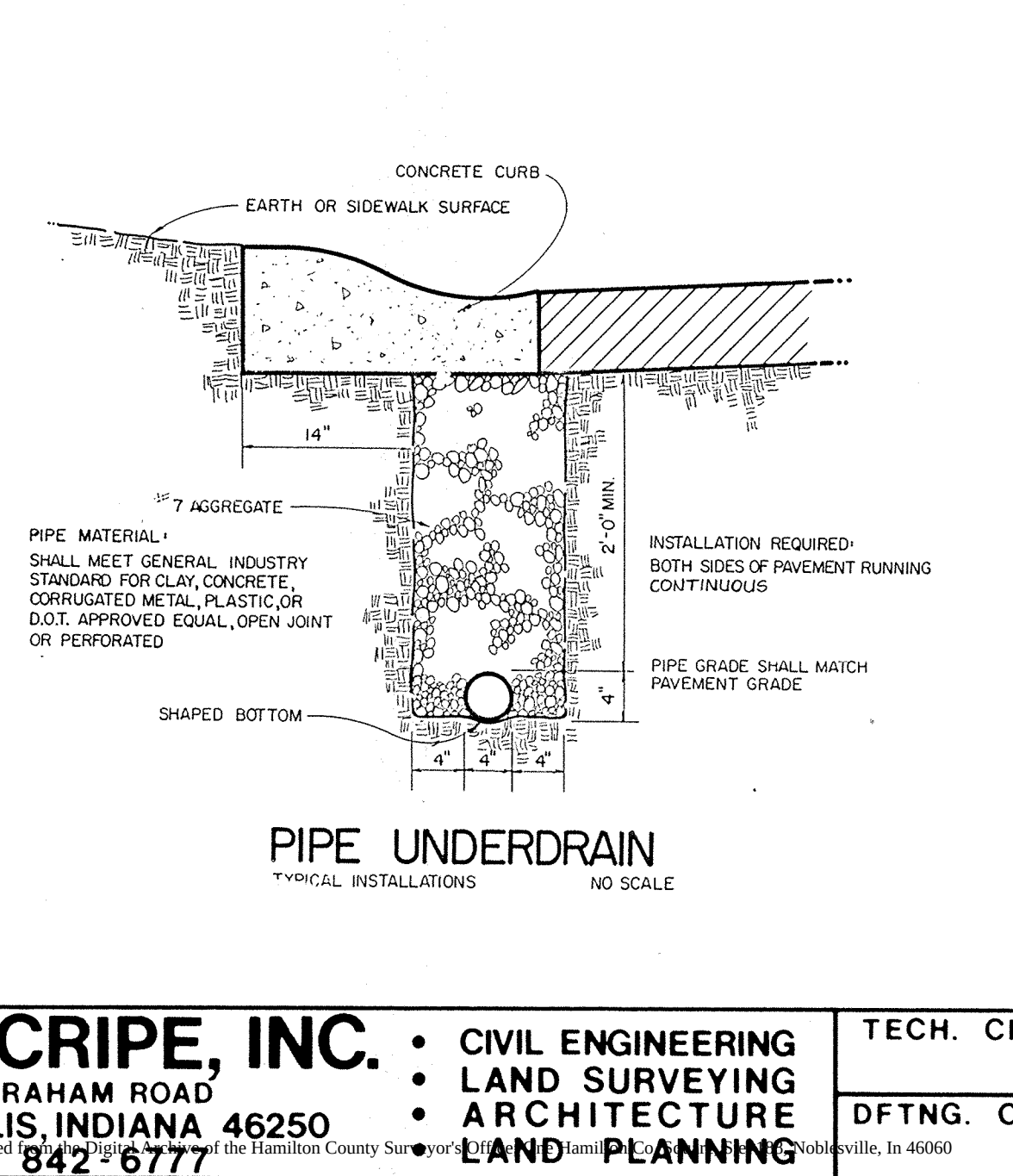


TYPICAL SWALE DETAIL
SCALE NONE

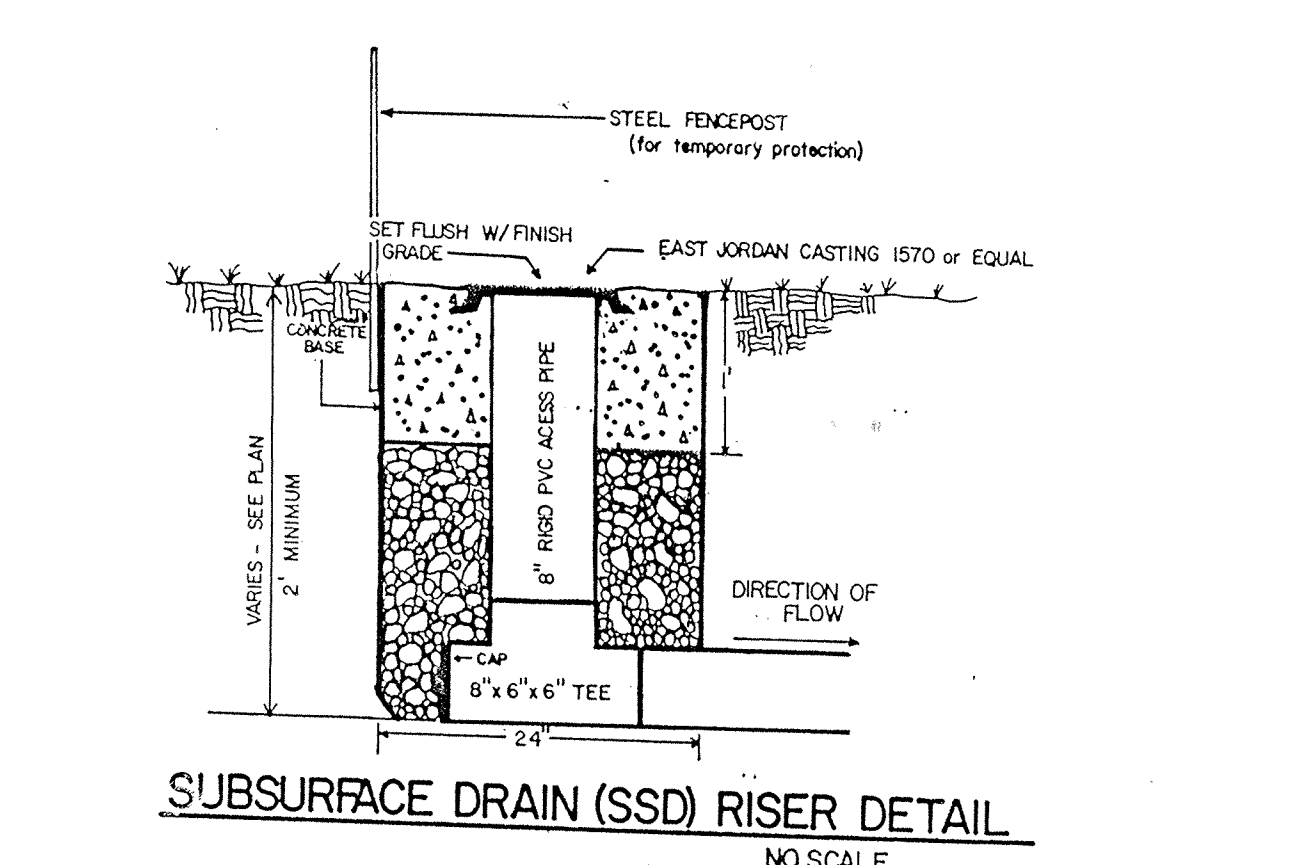
CASTING NOTE:	
SEWER CASTINGS SPECIFIED IN THESE PLANS ARE NEENAH FOUNDRY CO. CASTINGS. EQUAL CASTING TYPES BY EAST JORDAN IRON WORKS INC. MAY BE SUBSTITUTED. LISTED BELOW ARE ACCEPTABLE E.J.I.W. SUBSTITUTIONS.	
NEENAH	E.J.I.W.
R-1772-A	1022-I
R-3501-TL	7495 LH
R-3501-TR	7495 RH
R-4342	6489
R-3501-N	7490 M-I
R-3287-10V	7505-TI



STRAW BALE DAM DETAIL



PARKING INLET DETAIL
NO SCALE



NO SCALE

R-1772 Series Manhole Frames, Solid Lids

Heavy Duty

Specify:

1. Catalog number.
2. Ground, machined, or non-ratching bearing surfaces.

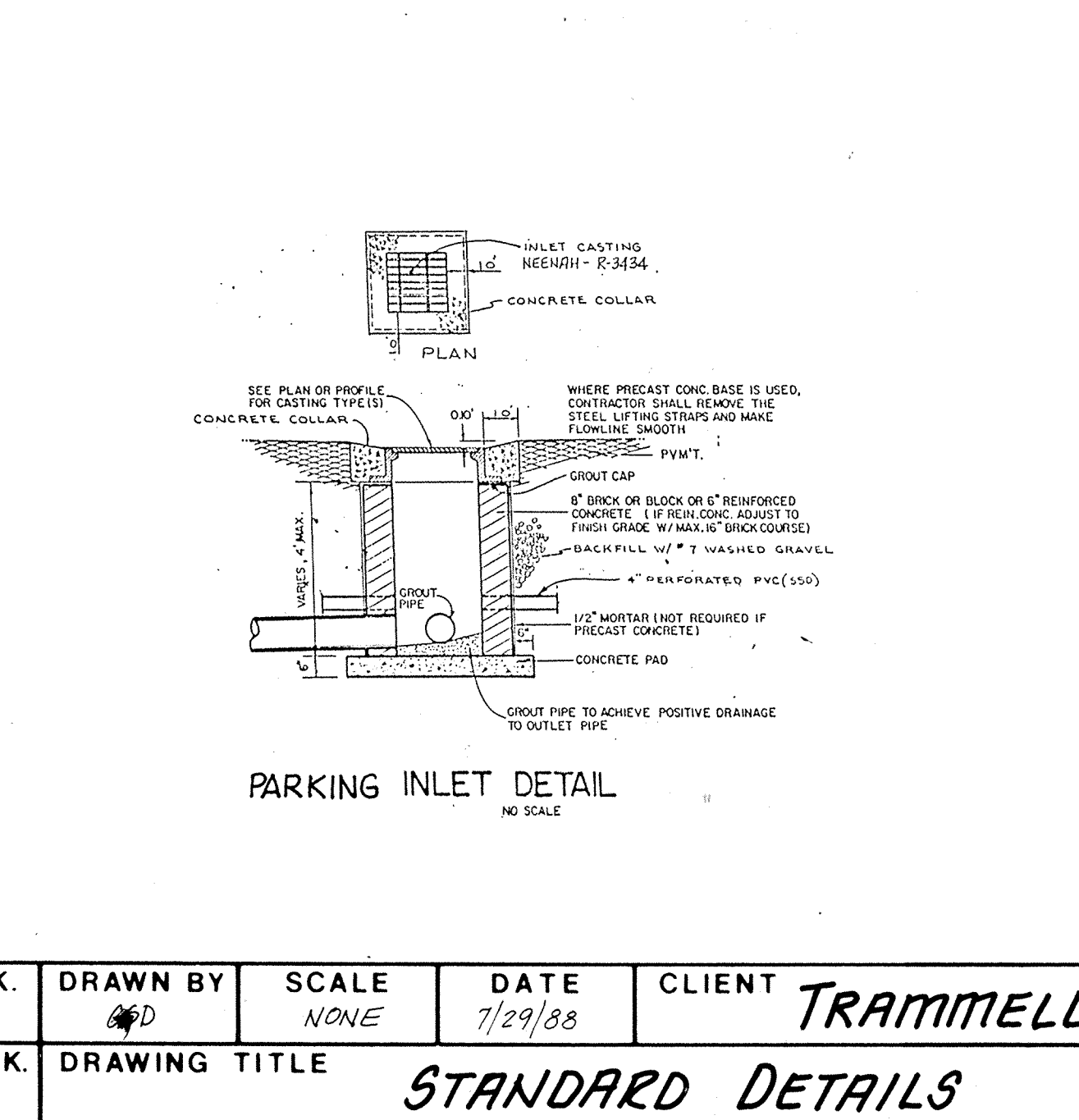
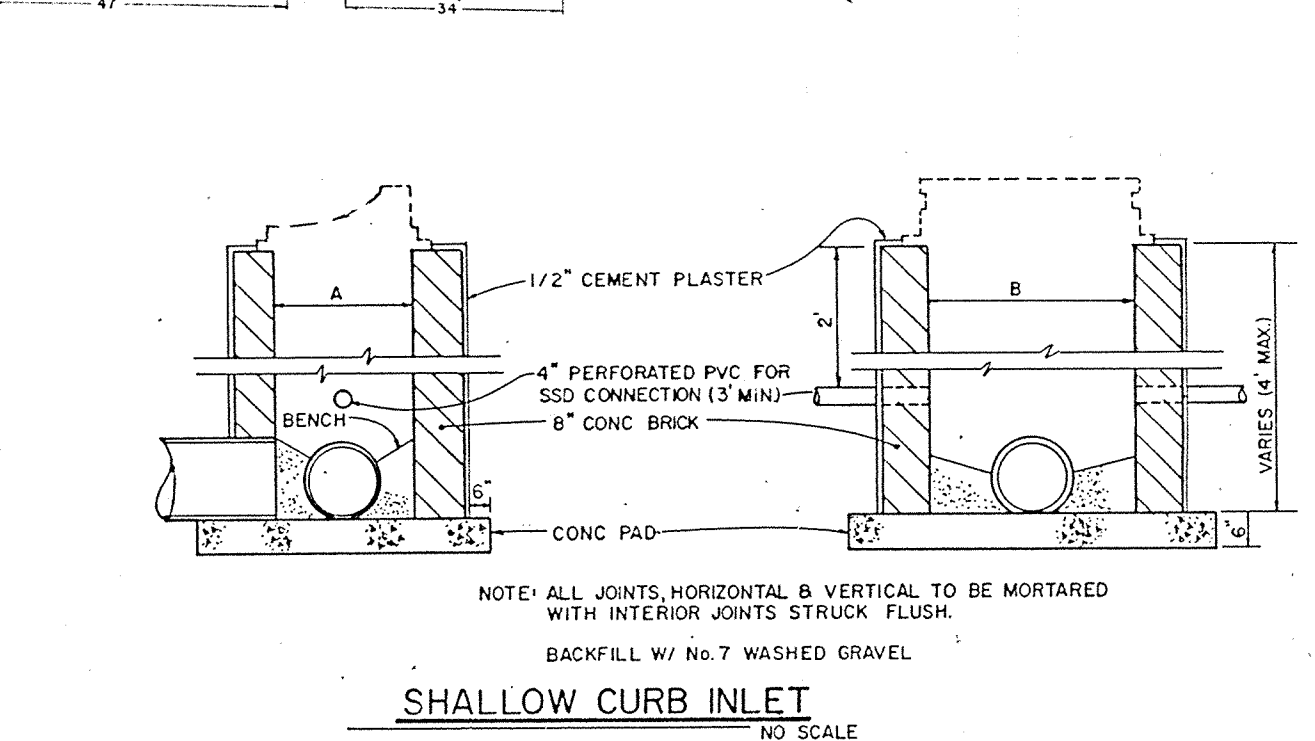
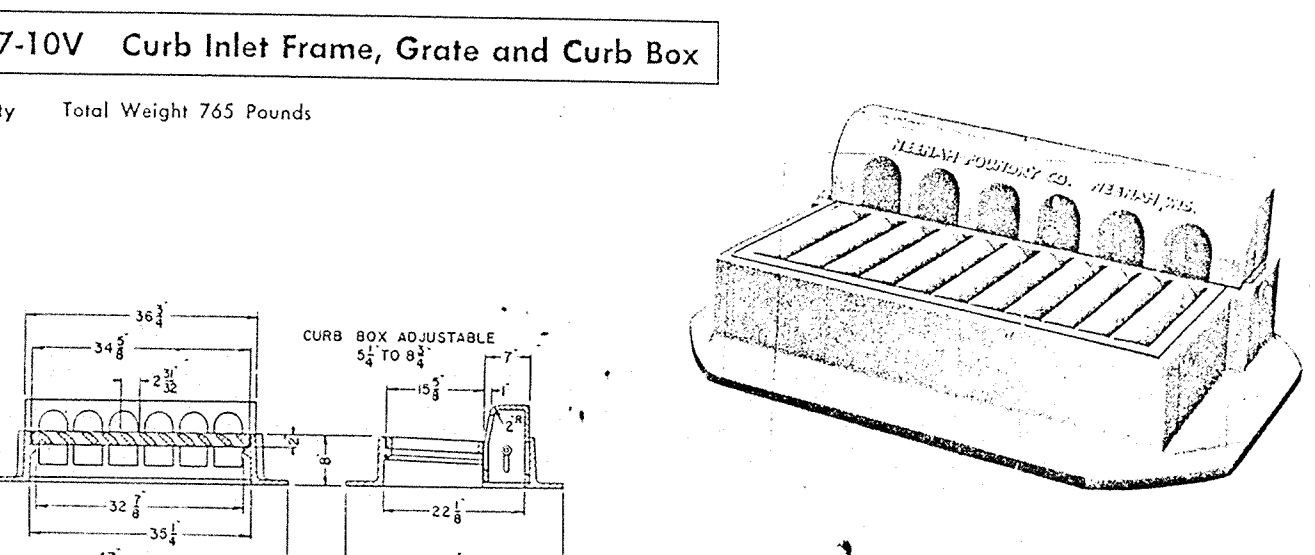
Catalog No.

Standard Design Size C	Machined Horizontal Vertical Bearing Above	D	Wt. Lbs.
R 1772-A	R-1772-AWH	25"	220
R 1772-B	R-1772-BWH	25"	100
R 1772-C	R-1772-CWH	25"	100

Machined Horizontal
Vertical Bearing Surface

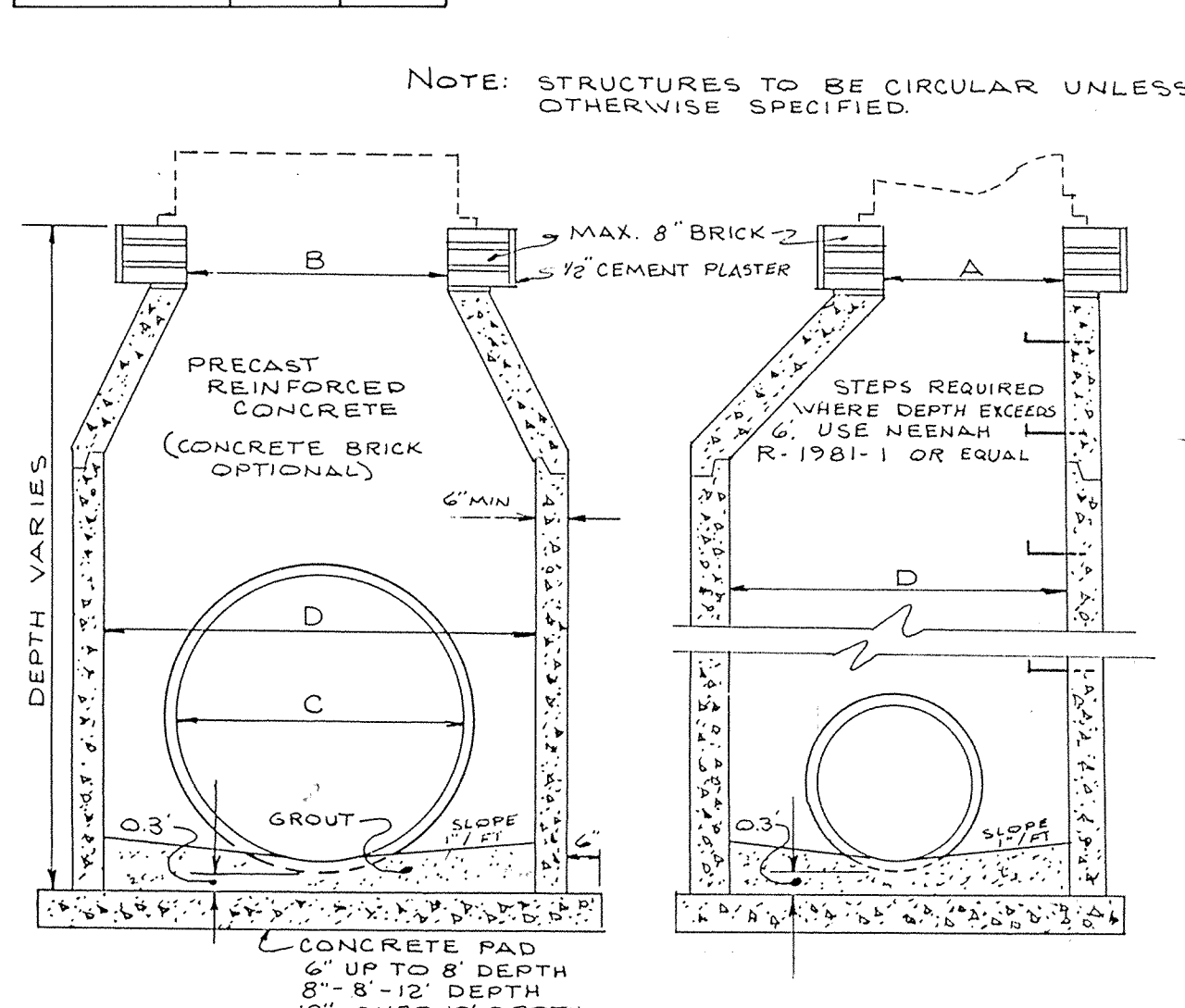
NO SCALE

R-3287-10V Curb Inlet Frame, Grate and Curb Box
Heavy Duty Total Weight 755 Pounds



DITCH GRADE CASTING SETTING DETAIL
NO SCALE

CASTING	A	B	C	D
R-1772-A	25" DIAMETER	21" 4'-0"	24" 4'-0"	27" 4'-0"
R-4342	24" DIAMETER	30" 4'-4"	36" 5'-0"	42" 5'-4"
R-3287-10V	22" 35"	42" 5'-4"	48" 6'-0"	54" 6'-6"
R-3434	24" 24"			
3286-8V	22" 22"			



STORM MANHOLE & DEEP INLET
N.T.S.

DIMENSIONS OF GALVANIZED STEEL END SECTIONS FOR ROUND PIPE									
PIPE SIZE IN INCHES		DIMENSIONS OF END SECTIONS				PIPE SIZE IN INCHES		PIPE SIZE IN INCHES	
PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES	PIPE SIZE IN INCHES
12	16	20	24	28	32	36	40	44	48
18	24	30	36	42	48	54	60	66	72
24	30	36	42	48	54	60	66	72	78
30	36	42	48	54	60	66	72	78	84
36	42	48	54	60	66	72	78	84	90
42	48	54	60	66	72	78	84	90	96
48	54	60	66	72	78	84	90	96	102
54	60	66	72	78	84	90	96	102	108
60	66	72	78	84	90	96	102	108	114
66	72	78	84	90	96	102	108	114	120
72	78	84	90	96	102	108	114	120	126
78	84	90	96	102	108	114	120	126	132
84	90	96	102	108	114	120	126	132	138

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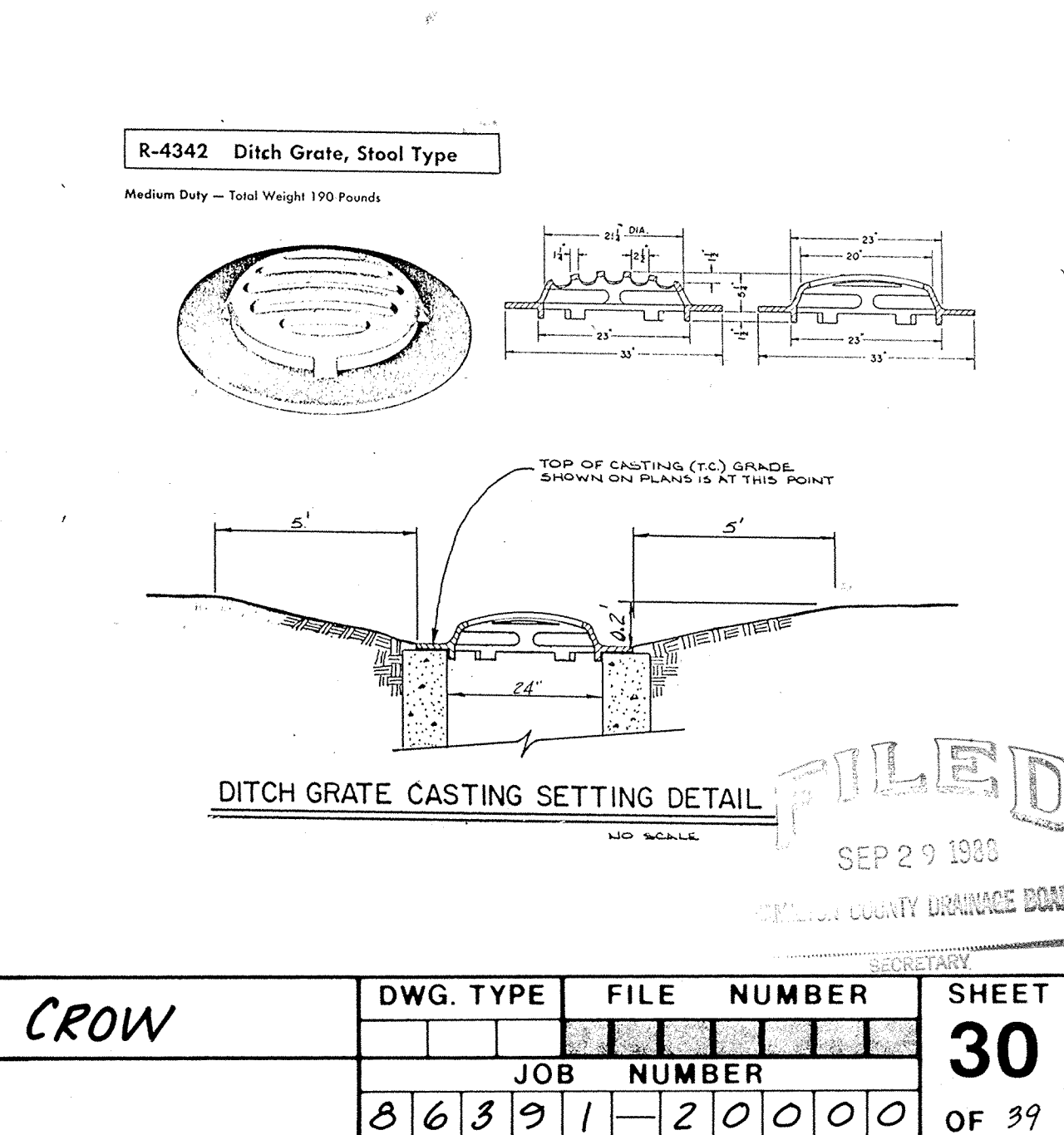
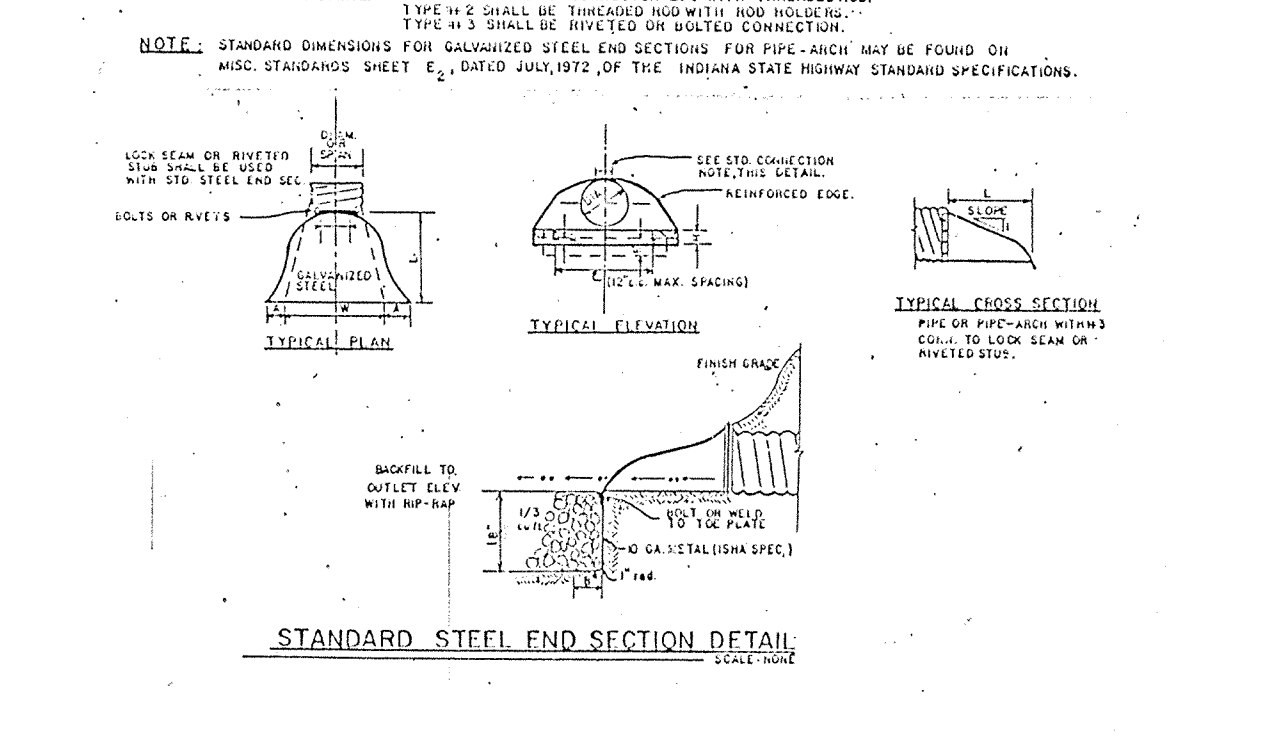
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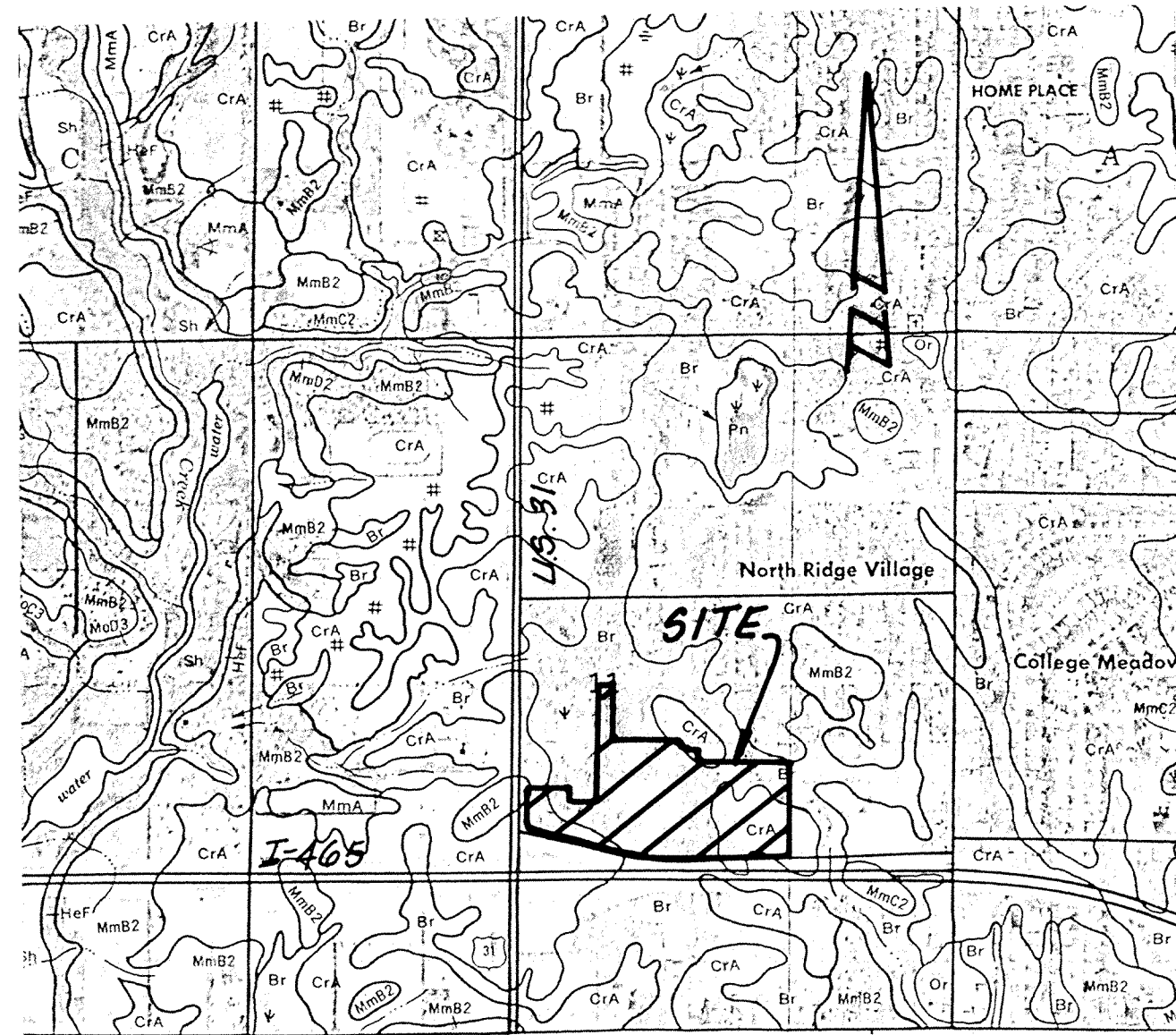
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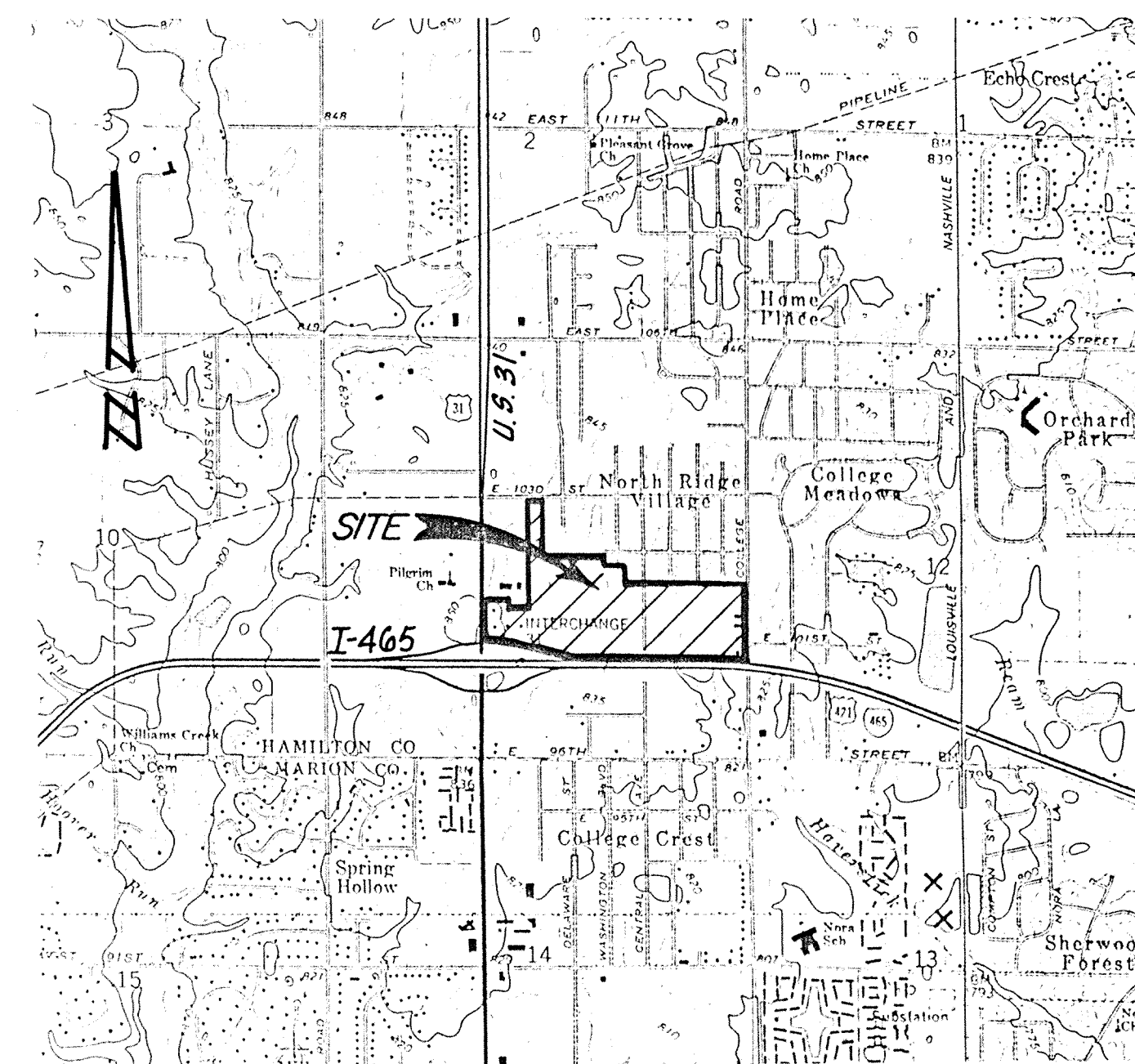


DITCH GRADE CASTING SETTING DETAIL
NO SCALE

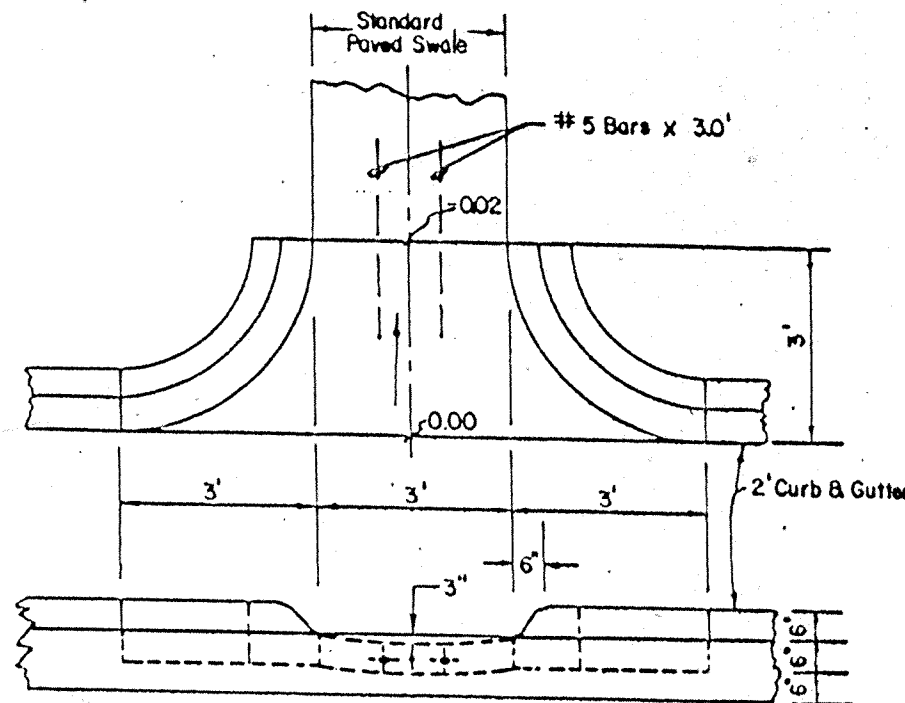
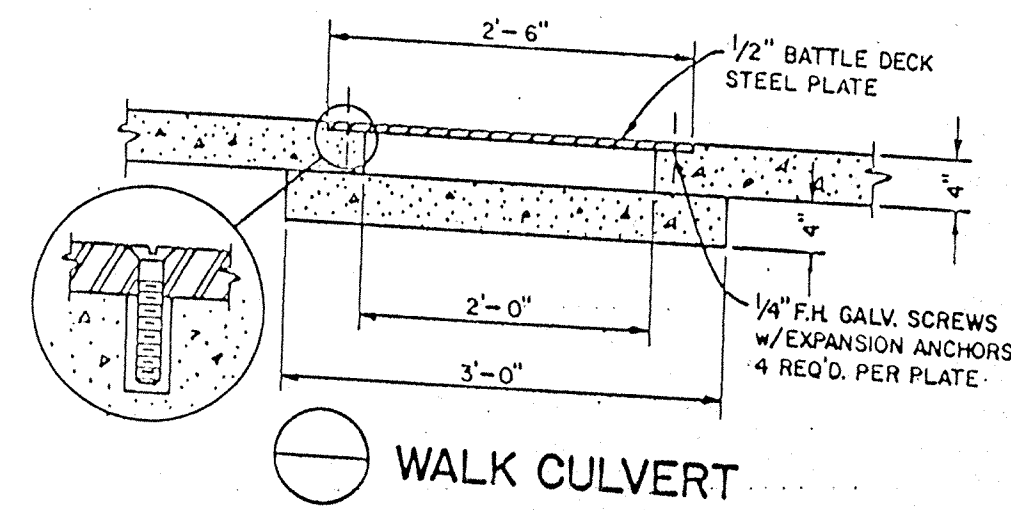


SOILS MAP

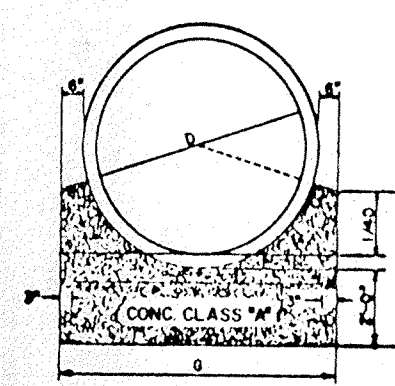
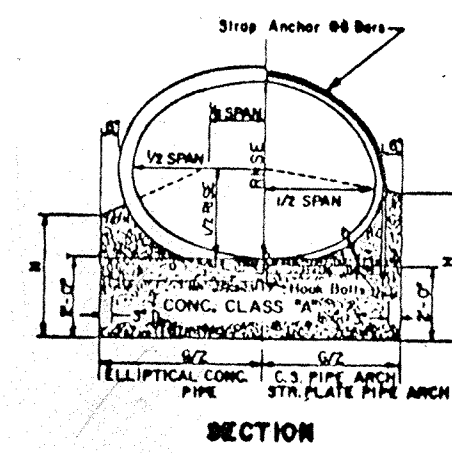
SOIL TYPES ON SITE ARE BROOKSTON & CROSBY



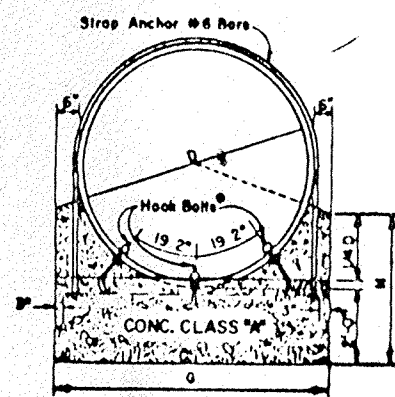
OFF-SITE WATERSHED MAP
NO SCALE



CURB & GUTTER TURNOUT



SECTION

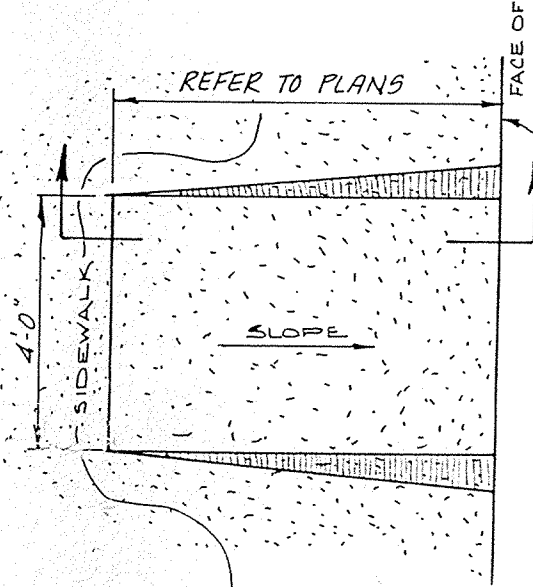


ANCHORS

PIPE CULVERT ANCHORS FOR PIPE GROUP A, C, D, E, F			
D	H	G	COLTOS CON- 2 ANCHORS
42"	3'-3"	4'-3"	2.50
48"	3'-6"	5'-0"	2.85
54"	3'-9"	5'-6"	3.18
60"	3'-12"	6'-0"	3.55
66"	3'-15"	6'-6"	3.92
72"	4'-0"	7'-0"	4.31
78"	4'-3"	8'-0"	4.71
84"	4'-6"	8'-6"	5.12
90"	4'-9"	9'-0"	5.47
96"	4'-12"	9'-6"	5.80
102"	4'-15"	10'-0"	6.26
108"	5'-0"	11'-6"	6.74

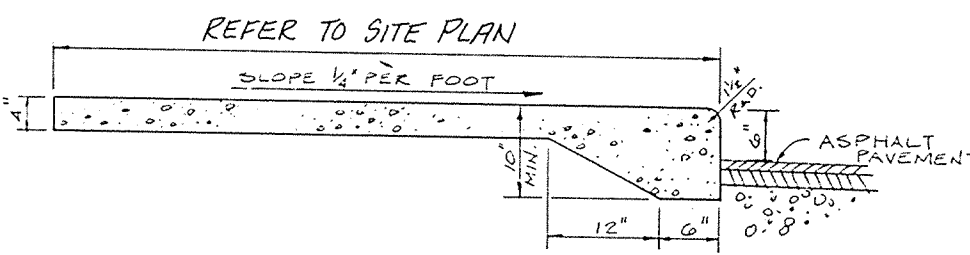
HOOK BOLT AND NUTS

SPECIFICATION FOR HOOK BOLT & NUT:
Hook Bolt Material shall meet the current ASTM A-307. Thread shall be American Standard Coarse Thread Series, Class 2, Fine Thread shall be American Standard Coarse Thread Series, Class 2. The threaded portion shall not extend beyond the nut by more than 1/4".
Nuts shall be carbon steel and shall meet the current ASTM specification A-193. Nut threads shall be American Standard Coarse Thread Series (1/4" maximum over-draw), cleaned after processing to provide a free running fit on the Class 2 Bolt. Nuts shall be 1/4" across flats, 1/4" thick, and be hexagonal in shape.



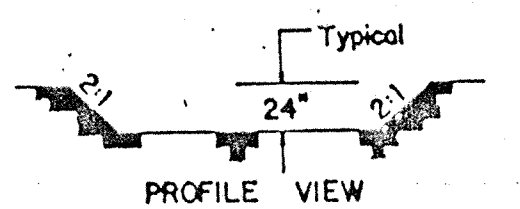
HANDICAP RAMP DETAIL

NO SCALE

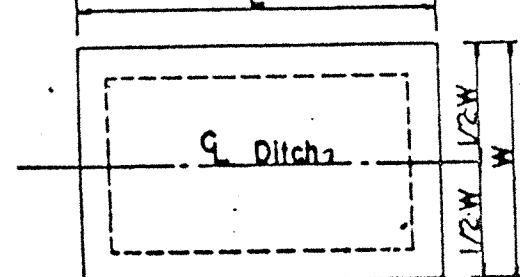


COMBINED WALK & CURB DETAIL

NOT TO SCALE



PROFILE VIEW

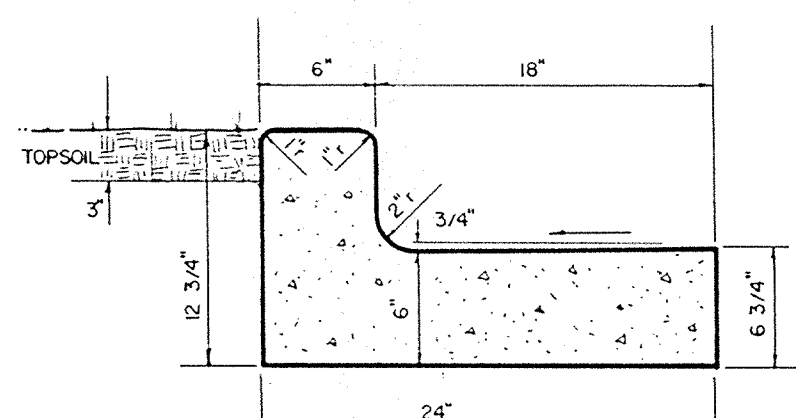


PLAN VIEW

(For Length and Width See Plans)

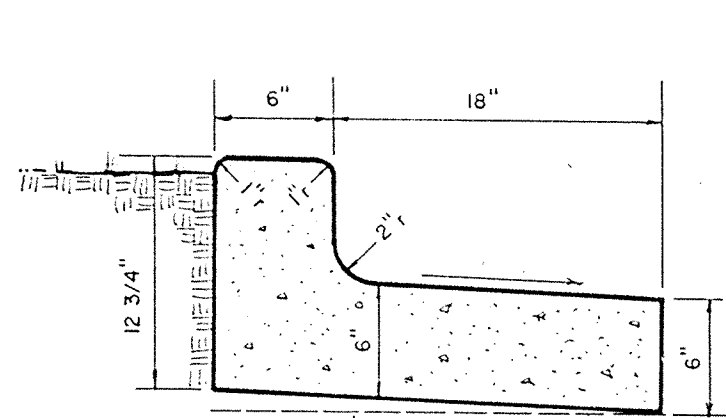
TEMPORARY SILTING PIT

(Periodic Clearing Required)



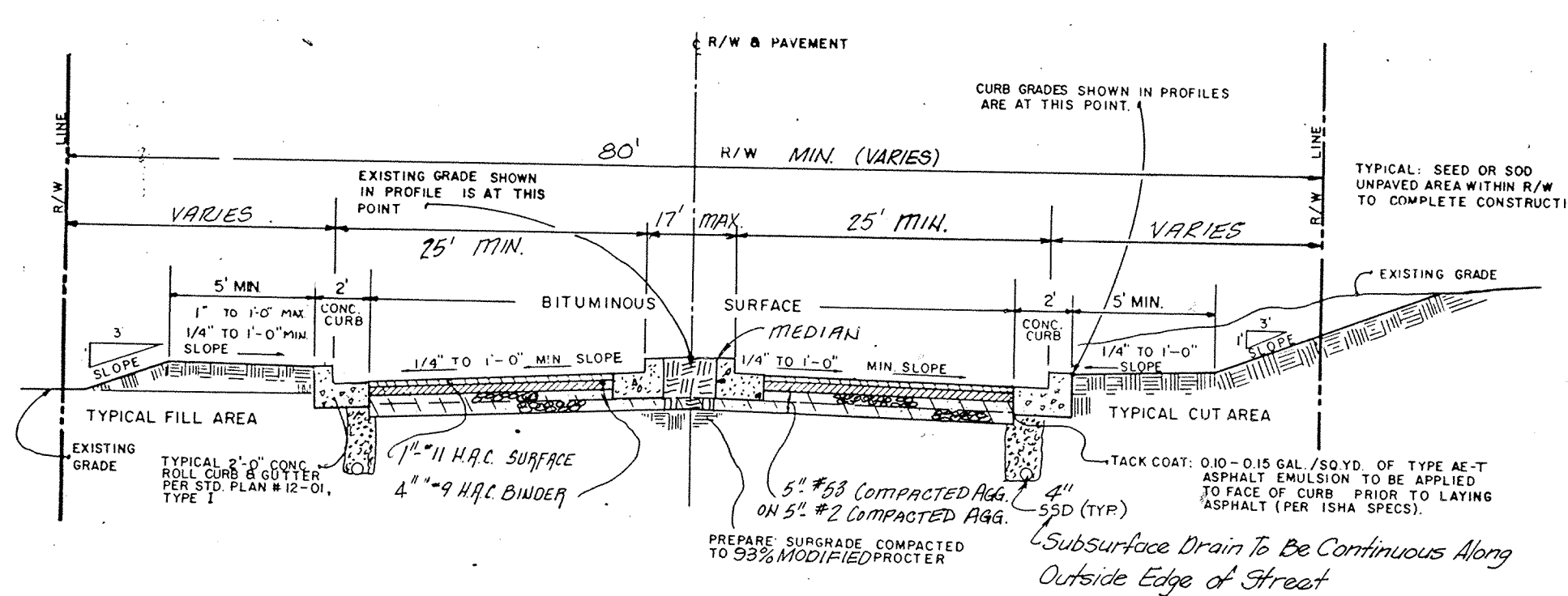
CHAIRBACK CURB

NO SCALE



CHAIRBACK CURB W/ REVERSE SLOPE

NO SCALE



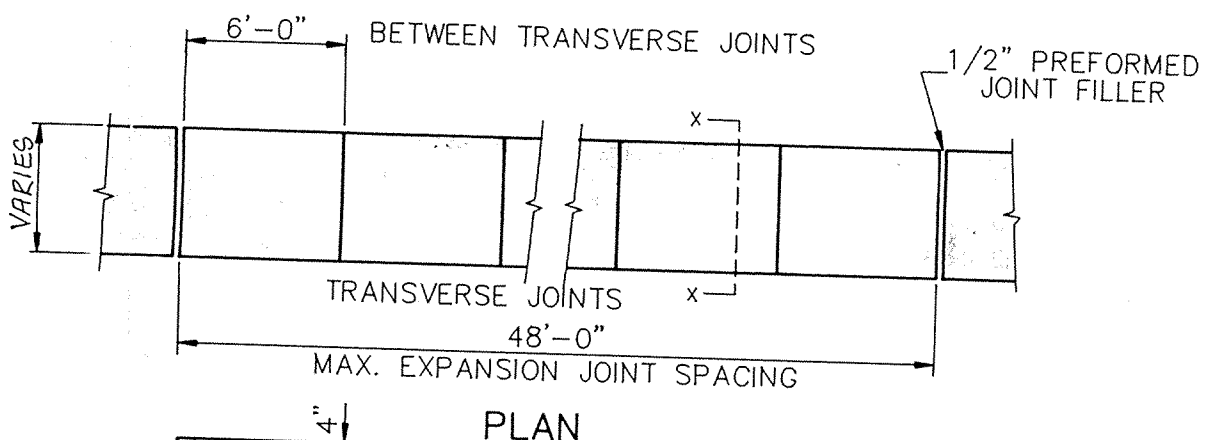
TYPICAL STREET CROSS SECTION

SCALE: NONE

ON-SITE PAVEMENT X-SECTION

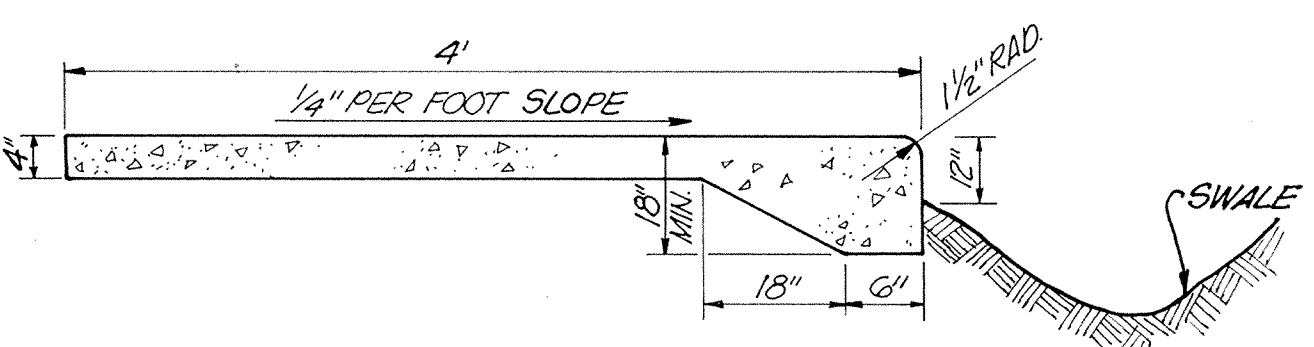
PARKING AREAS

* 8" - #53 COMP STONE BASE REQ'D FOR HEAVY TRAFFIC AREAS. SEE SHEET 2 FOR HEAVY TRAFFIC AREAS.



TYPICAL SIDEWALK DETAIL

NO SCALE



CURB & WALK DETAIL

103RD STREET SIDEWALK

NO SCALE

FILED
SEP 29 1988
HAMILTON COUNTY DRAINAGE BOARD
SECRETARY

1. The Indiana Department of Highways, Standard Specifications 1986, are the basic materials and reference specification. The sections noted below for this project are the minimum requirements of the requirements for these Specifications. Please note that other sections of these Standards Specifications may also be applicable.
2. The American Institute of Architects (AIA Document A201) General Conditions of the Contract for construction shall apply.
3. By executing the Contract, Contractor represents that he has acquired sufficient knowledge with the project to be able to perform the investigation necessary to a full understanding of any difficulties which may be encountered in performing the work.
4. Any soil investigation data furnished to Contractor by Owner shall be for the use of the Contractor only. Contractor will be responsible for any variance in actual conditions with such data or interpretations or conclusions drawn therefrom. Data on subsurface conditions do not constitute a representation or warranty of the continuity of such conditions.
5. Contractor shall check with Engineer prior to start of construction to verify date of plans. Minor changes may be made if all reviewing agencies agree not to require a change. Changes that could be considered negotiated prior to physical construction based on unit prices submitted on the contract documents.
6. The Contractor shall contact all utility companies to locate all mains, conduits, and service lines in the construction affected area. Existing utility structures are shown here in accordance with available information. The location and protection of utility structures and facilities, their depth, and their use (including but not limited to, cooperation with applicable utility), is the express responsibility of the Contractor in the performance of the Contract and in the preparation of the bid.

1. The Contractor shall excavate, demolish, remove and dispose of the debris from the areas shown on the site development plan.
 1. Building walls
 2. Foundations
 3. Pavement (concrete, asphalt and brick)
 4. Concrete slabs
2. All material as a result of the general demolition shall be the property of the Contractor. The Contractor's lump sum bid price for the demolition shall take into account the salvable value of materials and said bid price shall reflect said savings.
3. The Contractor shall be required to demolish and remove designated foundation walls, retaining walls, curbing, concrete slabs, paving, tanks, structures, pipes, manholes as shown on the Contract Documents, and as may be indicated by existing basement floor slabs that are not removed shall be broken up sufficiently to permit drainage through the slab. All existing basement walls, foundations, floor slabs, and etc., shall be removed to an exposed floor slabs or pavements. Demolished concrete may be placed in support at owner's DEWITT LANE.
4. The Contractor shall obtain from the City of Carmel and all other governmental authorities, all necessary permits required, a copy of such permits to be furnished to the Owner prior to commencement of any work required herein. The Contractor shall further furnish to the Owner a copy of the same consistent with the provisions of the Municipal Code of Indianapolis, Indiana.

1. The Indiana State Highway Standard specifications and Hamilton County Street Standards shall apply to workmanship and materials in construction of subgrade, pavement, curbs and walks.

- Prepare the subgrade in accordance with Section 207. No traffic will be permitted on the prepared subgrade prior to paving.
- Bituminous pavement in accordance with Section 403.
- Finishing earth graded shoulders, ditches and slopes in accordance with Section 208.

- A. See detail sheet for type and details.
- B. Concrete shall be ready mixed Portland cement conforming to A.S.T.M. C-150, and water. Aggregates shall conform to A.S.T.M. C-33. Compressive strength of concrete at 28 days shall be 4000 psi. Where required, reinforcement shall be welded steel wire fabric conforming to A.S.T.M. A-185.
- C. Application
 - 1. Place concrete only on a moist, compacted subgrade or base free from loose material. Place no concrete on muddy or frozen subgrade. In accordance with Section 604 and 605.
 - 2. Concrete shall be deposited so as to require as little rehandling as practicable. When concrete is to be placed at an atmospheric temperature of 35 degrees F or less, Paragraph 702.01 of the I.S.N.C. Specifications shall apply.
 - 3. Except as otherwise specified, cure all concrete by one of the methods set forth in Section 501.07 of the I.S.N.C. Specifications.

1. Fill material shall consist of earth obtained from , borrow pits or other sources. Earth shall be free from and other deleterious substances. The layers of compacted fill materials shall be placed in layers not to exceed six inches following compaction. Moisture content of fill material will be such that compaction to be specified is obtainable. It is understood that the compacted areas, floor slabs and buildings shall be constructed to at least 93% of the modified Proctor maximum dry density (ASTM-D957). See soil boring report by ACT C for soil conditions and fill recommendations.
2. Field compaction tests shall be run on each lift, in fill sections, and the required compaction on each lift shall be attained prior to placing the next lift. The compaction tests shall be in accordance with Section 205.
3. Excavate, replace and dispose of site soil materials determined to be unsuitable by Project Engineer. If Project Engineer so directs.
4. Replace unsuitable soil materials with Common Fill Materials specified and backfill, compact and grade the replacement materials as specified herein.
5. Dispose of unsuitable soil materials on site in the area designated by Engineer and as noted.
6. Contractor will be compensated for excavation, replacement and disposal of unsuitable soil materials based on the volume of excavation time the contract unit price of the specified fill.
7. Perform earthwork operations to establish required elevations and dimensions within the following: except that no tolerance will be permitted that would allow a low or lesser size than indicated for footings and foundations or a lesser thickness than indicated for paving, paving base and subgrade and for concrete slabs above ground.
8. Under buildings (including future) and paving areas: Plus or minus inch.
9. Other Areas: Plus or minus 1 inch.

1. Contractor shall install sediment traps and straw bale filters, as shown.
2. Mass grade the site (sides of swales, mounds and ponds to be seeded and mulched immediately upon completion). Temporary seeding shall be recommended for all swales and disturbed areas that cannot be final seeded within a time period that will prevent slope erosion. For temporary seeding the contractor shall utilize or grow seed of either oats, annual ryegrass, wheat or rye depending on time of year. Disturbed areas should be kept to a minimum at all times.
3. Contractor shall control mud accumulation on all streets surrounding project. Contractor shall stona surface of all locations where construction traffic leaves the site. Dust shall be kept to a minimum by utilizing sprinkling, Calcium Chloride, vegetative cover spray on edges and/or other approved methods.
4. Maintain all filters and traps during construction to prevent sediment blockages from accumulated sediment. Additional seeding and straw bales may be required during construction as specified by Engineer or Soil Conservation Service. Rip rap shall be placed in areas of high erosion potential (minimum 1/2 cu. ft.). Payment for additional straw bales shall be of the Contractors expense. Payment for additional rip rap (not shown on plans) and seeding shall be paid for on a unit basis.
5. Contractor shall install all sanitary sewers, storm sewers, subsurface drains, and water mains. Straw bale filters shall be installed at all storm inlets (including street inlets).
6. All proposed street areas shall be paved as soon as possible after subgrade is prepared.
7. All disturbed areas shall be seeded and mulched as specified below. This shall include all building pad fill areas.
8. Contractor shall remove all temporary erosion and sediment controls only when there is sufficient growth of ground cover to prevent further erosion.

1. Standard specifications of the City of Indianapolis, General Ordinance 49, 1972 and Indiana State Highway shall apply for all work and materials. Pipe shall be installed in accordance with Section 715.
2. All storm sewer pipe shall be reinforced concrete pipe conforming to ASTM Designation C-76 Class III, in accordance with Section 906.
3. Backfill around all structures and cuts under paved areas with granular material in accordance with Section 21.1 and 715.
4. See standard detail sheet for construction dimensions of storm structures, Manholes, inlets and catch basins shall be in accordance with Section 720. Precast concrete and steel for manholes and inlets shall be in accordance with ASTM C-478.
5. The Contractor shall provide at least 1' of cover over all storm sewers.
6. Rip rap shall be a minimum of 6" and a maximum of 17" in size and a minimum 18" in depth. Dimensions for rip rap on this plan are for estimating purposes only. Actual best placement of rip rap shall be determined by field conditions and shall be in accordance with Section 616.
7. All drainage pipe and ditch outfalls to receiving streams shall be constructed in accordance with drawings. Subject however, to any modification required by Engineer at the time installation is completed and to any adjustments needed for field conditions not adequately anticipated by the design drawings.
8. Castings shall be as shown on detail sheet for manufacturer, type and number. All castings shall be Nuehoh or East Jordan approved equal.
9. Install gaskets in accordance with manufacturer's recommendations for use of lubricants, cements and other special installation requirements.
10. Place plugs in ends of incomplete piping at end of work day or whenever work stops, and at stubs for future development.
11. Carry depth of trenches for piping to establish indicated flow lines and invert elevations. Where necessary, the Contractor is where applicable to provide solid bearing for entire body of pipe.

1. Standard specifications of the Clay Waste District and Indiana State Highway shall apply for all work and materials. Pipe shall be installed in accordance with Section 715.
2. Sanitary sewer pipe shall be PVC in accordance with ASTM D-3034 (SDR-35) and ASTM 2521. PVC shall have grooved ball and gasket.
3. All sanitary manholes shall be "precast concrete" manholes in accordance with Section 720.
4. The type of new manhole ring and cover shall be as specified on the standard detail sheet of these plans. Asstaltic Coupling shall be applied around each manhole joint from 6" above to 6" below each joint.
5. The casting elevations are set by plan. However, the castings are to be adjusted in the field by the Engineer's representative should a discrepancy occur between plan grade and existing grade. New manhole ring and cover shall be installed to established grade.
6. Backfill around all structures and all cuts under paved areas with granular material. Trenches opening within 5 feet of paved roadways shall be backfilled with granular material in accordance with Section 717. Backfill under sidewalks shall be granular unless the walks are constructed a minimum of 6 month after backfill has been in place.
7. The Contractor shall be responsible for verifying that All State Highways, City and County permits have been obtained by developer prior to start of construction.
8. The Contractor shall be required to furnish the Engineer with a set of plans, marked in red pen, showing actual sewer location with an inventory, to include lateral location, depth and length. Such "red pen" prints must be received by the Engineer before the final contract payment can be authorized. The actual sewer location and status information shall be indicated on the surface with a metal fence post set immediately above said termination point.
9. All sanitary sewer lines upon completion will be required to pass an infiltration and low pressure air test, unless otherwise directed by the Engineer. The test shall be conducted according to MHI Standard Method, and shall be witnessed by an Engineer and Clay Waste District representative. Infiltration tests shall be 150 gals per inch of inside diameter of sewer pipe per mile of sewer in 24 hours. Inclusive of all opportunities within the section being tested such as manholes, house connections, etc.
10. Deflection tests shall be performed on all flexible pipe after the final backfill has been in place at least 30 days. No pipe shall exceed a vertical deflection of 5%. Deflection test results, (the following are required for all pipe: 12" dia. pipe, 18" dia. pipe, concrete pipe, ductile iron pipe, cast iron pipe, asbestos/cement pipe.)
11. All testing shall be observed by a Professional Engineer for certification and the Clay Waste District.
12. The ends of laterals are to be plugged tight with clay or plastic disc or cap capable of withstanding a low pressure air test without leakage.
13. Bedding as Detailed.
14. Water and sewer line crossings and separations shall be in accordance with Ten Statutes Sections as shown on the detail on this sheet.
15. Trench shall be opened sufficiently ahead of pipe laying to reveal obstructions, and shall be properly protected and/or barricaded when left unattended.
16. No water shall be permitted to flow into the sanitary sewer system during under construction. Contractors shall be required to keep the water level below the pipe. Pump discharge shall be directed to a storm outlet.
17. All sewer laterals shall be bedded the same as the main line sewer.
18. Forty-eight (48) hour notice shall be given to Clay Regional Waste District prior to the start of sewer construction. Also, 48 hour notice shall be given prior to any testing done on the sewer.
19. Manhole castings shall be stamped "SANITARY SEWER" (Neosan Casting R 1642 or equal).

1. All water lines from Indianapolis Water Company main to any lot shall be installed of material and workmanship as approved with the Indianapolis Water Company.
2. Conduit shall be required for all electric and telephone lines under paved areas.
3. Granular backfill shall be required for all crossing of paved areas per Indianapolis Department of Transportation specifications.

DATE _____



PAUL I. CRIFE, INC.

7172 GRAHAM ROAD
INDIANAPOLIS, INDIANA 46250

(317) 842-6776

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

Registered principal and licensed Surveyor of the Hamilton County Surveyors Office, One Hamilton Corporate Bldg., 10000 N. Meridian, Indianapolis, IN 46240

WELL CROW

TLE SPECIFICATIONS

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