

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*

December 7, 2005

To: Hamilton County Drainage Board

Re: Margaret O'Brien Drain

Attached is a petition and plans for the proposed relocation of the Margaret O'Brien Drain. The relocation is being proposed by Sand Key Properties, LLC. The proposal is to reconstruct the open drain in place on parcel 14-14-12-00-00-005.000 as part of the Stoepelwerth & Associates Office Building project as shown on Sheet C201 of plans prepared by Stoepelwerth & Associates, Job Number 51000 last revision date May 25, 2005.

This line will consist of the following:

103 feet of open drain  
11 feet of twin 36" RCP

The total length of new drain shall be 114 feet. The 114 feet of original drain between Sta. 42+60 and Sta. 41+46 shall be replaced in the same location. This proposal will not add additional length to the drains total length.

The cost of the relocation is to be paid by Sand Key Properties, LLC. Because the project is to be paid by the petitioner and is within the boundaries of the petitioners property the project falls under the requirements as set out in IC 36-9-27-52.5. Therefore, a public hearing with 30 day notice is not required for the petition.

The petitioner has provided the Performance Bond as follows:

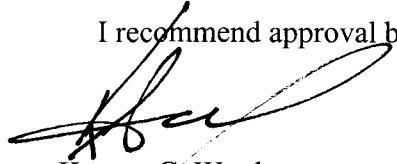
Name of Bonding Co./Bank: Huntington National Bank

Bond/LC Number: OSB.00321

Bond/LC Date: April 21, 2005

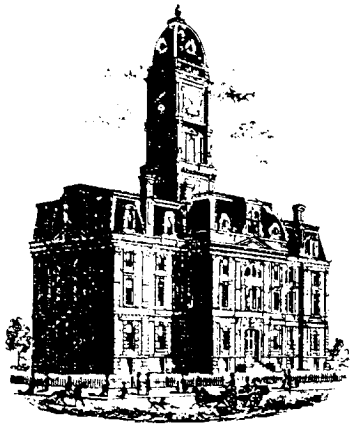
Bond/LC Amount: \$14,013.60

I recommend approval by the Board at this time.

A handwritten signature in black ink, appearing to read "Kenton C. Ward", written over a horizontal line.

Kenton C. Ward  
Hamilton County Surveyor

KCW/pll



*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*

**To: Hamilton County Drainage Board**

**December 14, 2007**

**Re: Margaret O'brien Drain: Sand Key Properties Reconstruction**

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

During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated December 7, 2005. The report was approved by the Board at the hearing held December 22, 2005. (See Drainage Board Minutes Book 8, Page 568)  
The changes are as follows:

The amount of open ditch enclosed with dual 36" RCP was lengthened from 11 feet to 12 feet. Nonetheless, the drain itself was reconstructed in place. Thus, the total length of drain reconstructed remains at 114 feet. Therefore, the length of the drain due to the changes described above remains at **0 feet**.

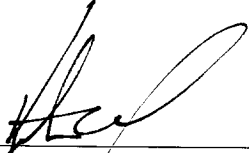
The non-enforcement was approved by the Board at its meeting on June 12, 2006 and recorded under instrument #200600033163.

The following sureties were guaranteed by Huntington National Bank and released by the Board on its November 27, 2006 meeting.

**Bond-LC No:** OSB.003321  
**Insured For:** Storm Sewers  
**Amount:** \$14,013.60  
**Issue Date:** April 21, 2005

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

Sincerely,



---

Kenton C. Ward, CFM  
Hamilton County Surveyor

KCW/slm

BENCHMARK  
HAM G-48: A STANDARD BRASS PLUG, SET IN THE NORTHWEST CONCRETE WING WALL OF AN OVERPASS AT 106TH STREET AND INTERSTATE 69. SAID BRASS PLUG 4.9 FEET EAST OF WESTERLY MOST END OF THE CONCRETE WING WALL.  
ELEVATION: 834.02

# RECORD DRAWING

TBM. NO. 1

A RAILROAD SPIKE, UP 1 FEET ± ON THE NORTHEAST SIDE OF A 46 INCH MAPLE TREE. SAID TREE LOCATED 153 FEET ± SOUTH OF THE CENTERLINE OF 106TH STREET AND 7 FEET WEST OF THE CENTERLINE OF A DRIVEWAY NEAR THE WEST PROPERTY LINE.  
ELEVATION: 801.64'

### EARTHWORK:

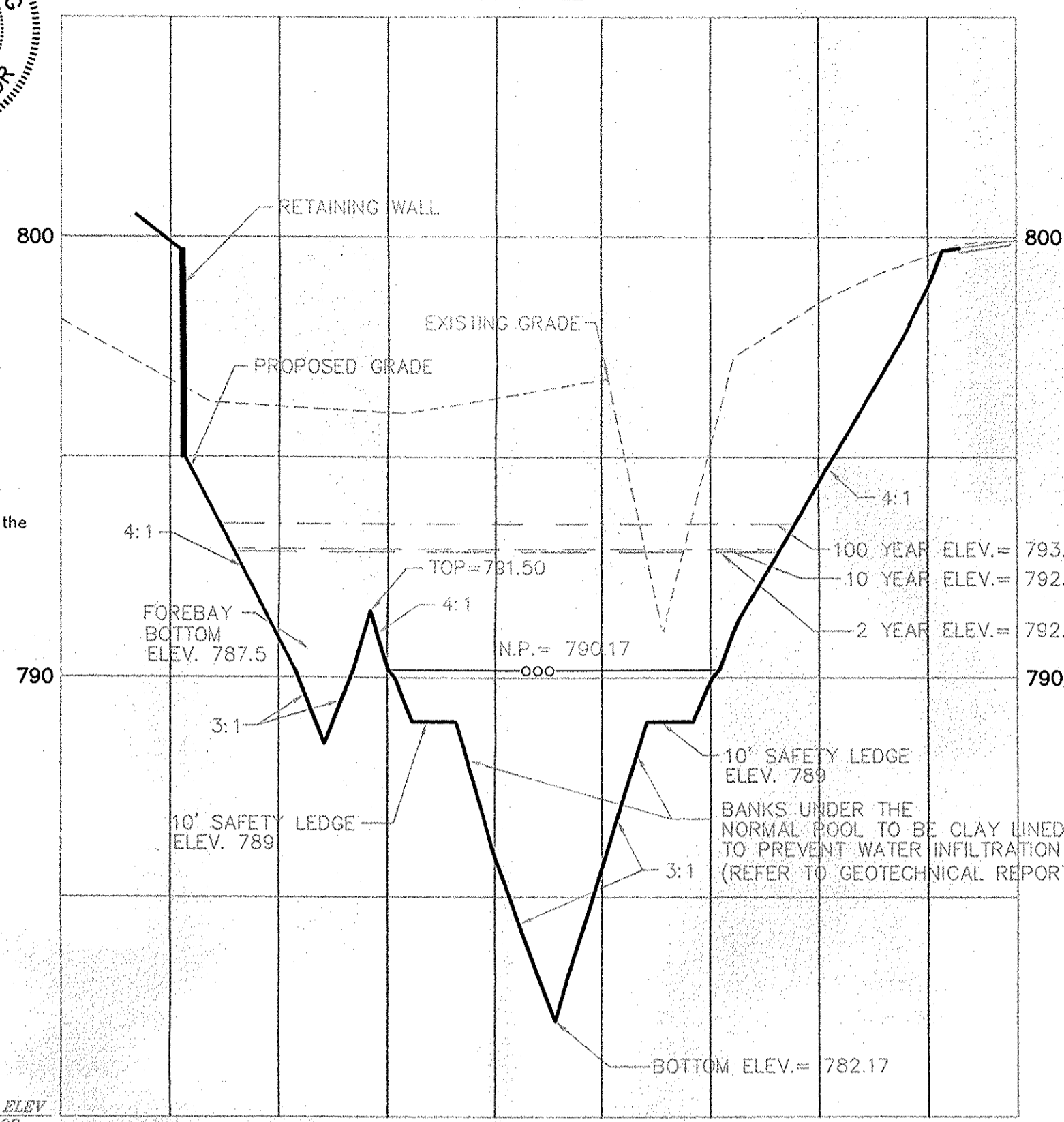
- EXCAVATION
  - Excavated material that is suitable may be used for fills. All unsuitable material and all surplus excavated material not required shall be removed from the site.
  - Provide and place any additional fill material from offsite as may be necessary to produce the grades required on plans. Fill obtained from offsite shall be of quality as specified for fills herein and the source approved by the Developer. It will be the responsibility of the Contractor for any costs for fill needed.
- REMOVAL OF TREES
  - Contractor to refer to landscape plan for existing tree removal. Stoeppelwerth & Associates shall be contacted to schedule an on-site meeting before any tree or demolition is started.
- PROTECTION OF TREES
  - The Contractor shall, at the direction of the Developer, endeavor to save and protect trees of value and worth which do not impair construction of improvements as designed.  
B. In the event cut or fill exceeds 0.5 foot over the root area, the Developer shall be consulted with respect to protective measure to be taken, if any, to preserve such trees.
- REMOVAL OF TOPSOIL
  - All topsoil shall be removed from all areas beneath future pavements or building. Topsoil removal shall be to a minimum depth of 6 inches or to the depth indicated in the geotechnical report provided by the Developer to be excavated or filled. Topsoil should be stored at a location where it will not interfere with construction operations. The topsoil shall be free of debris and stones.
- UTILITIES
  - Rules and regulation governing the respective utility shall be observed in executing all work under this section.  
B. It shall be the responsibility of the Contractor to determine the location of existing underground utilities 2 working days prior to commencing work. For utility locations to be marked call Toll Free 1-800-382-5544 within Indiana or 1-800-428-5200 outside Indiana.
- SITE GRADING
  - Do all cutting, filling, compacting of fills and rough grading required to bring entire project area to subgrade as shown on the drawing.  
B. The tolerance for paved areas shall not exceed 0.10 feet above established subgrade. All other areas shall not exceed 0.10 feet plus or minus the established grade. Provide roundings at top and bottom of banks and other breaks in grade.  
C. The Engineer shall be notified when the Contractor has reached the tolerance as stated above, so that field measurements and spot elevations can be verified by the Engineer. The Contractor shall not remove his equipment from the site until the Engineer has verified that the job meets the above tolerance.

NOTE:  
EXISTING WELL AND SEPTIC TO BE ABANDONED IN ACCORDANCE WITH ALL REQUIRED LAWS.

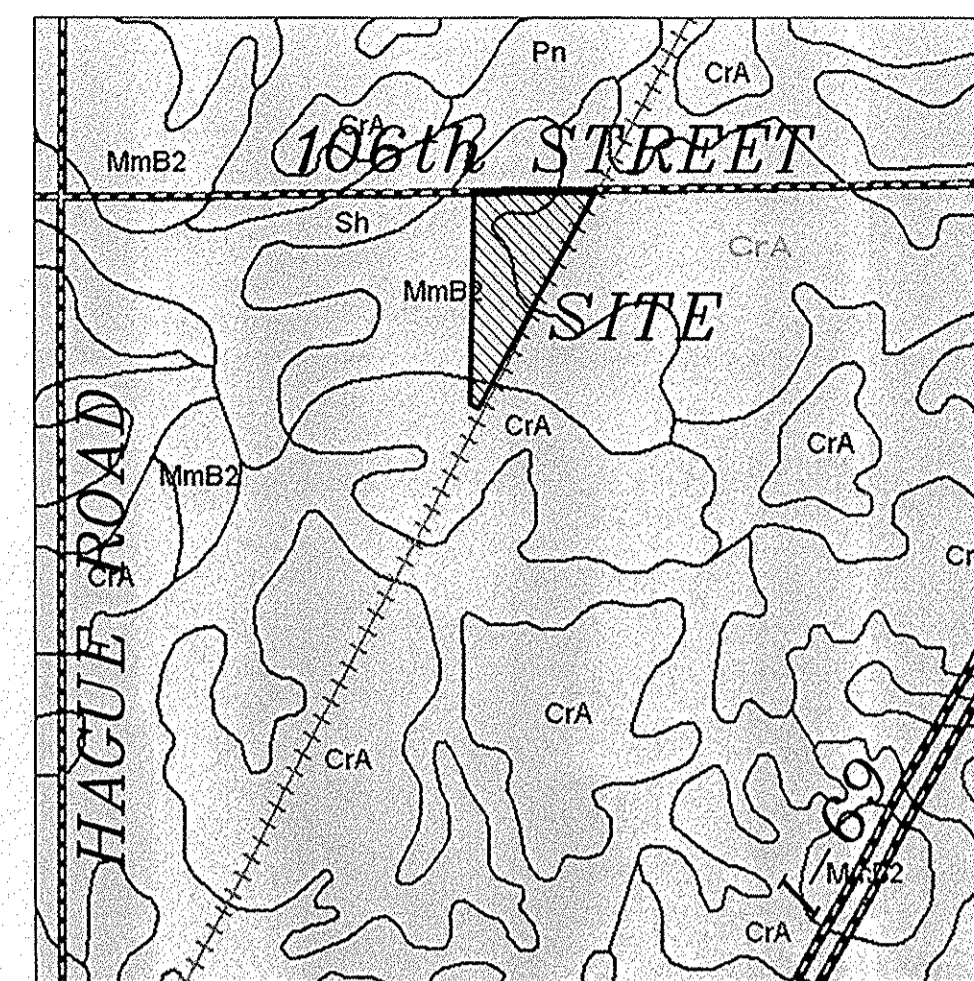
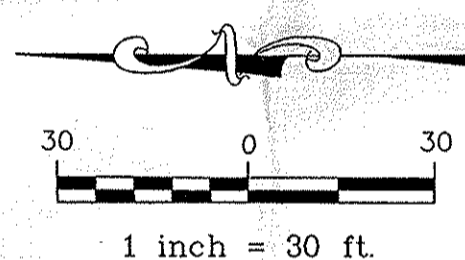


*Jeffrey W. Darling*  
JEFFREY W. DARLING  
Registered Land Surveyor  
No. 900017  
DATE 11/16/06

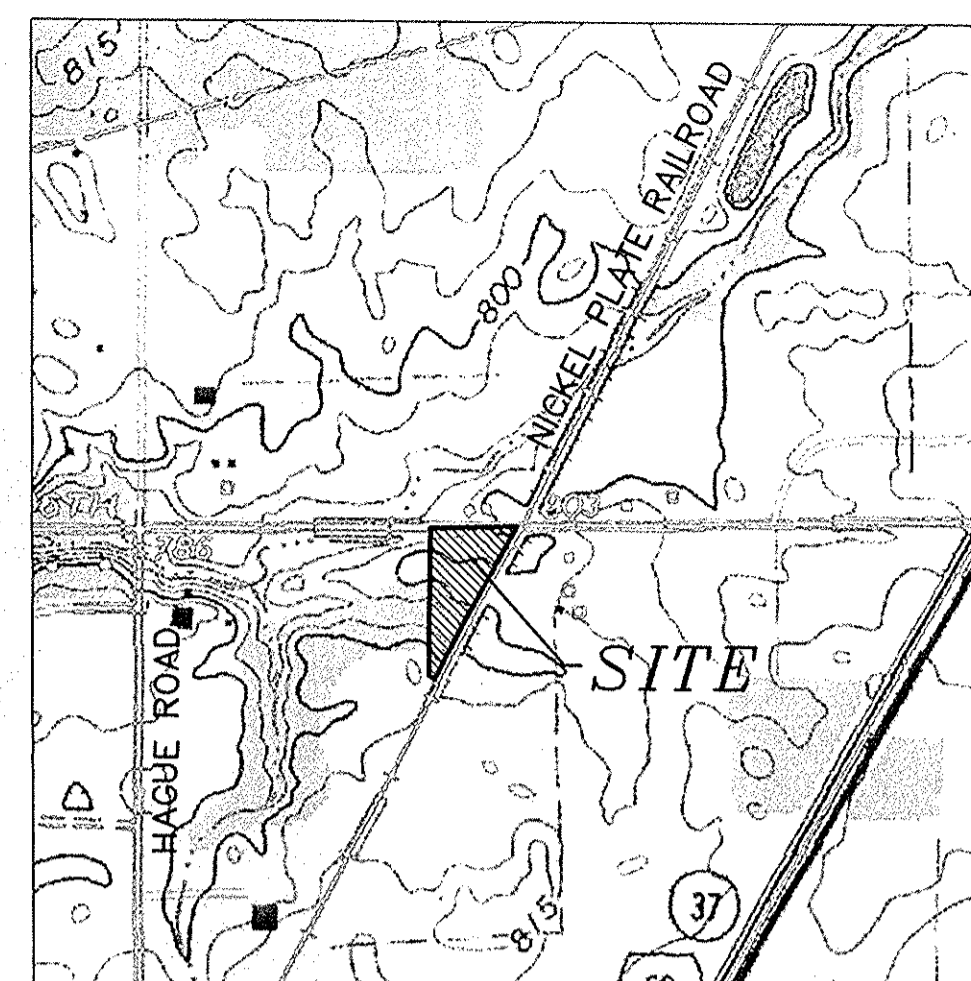
NOT TO SCALE



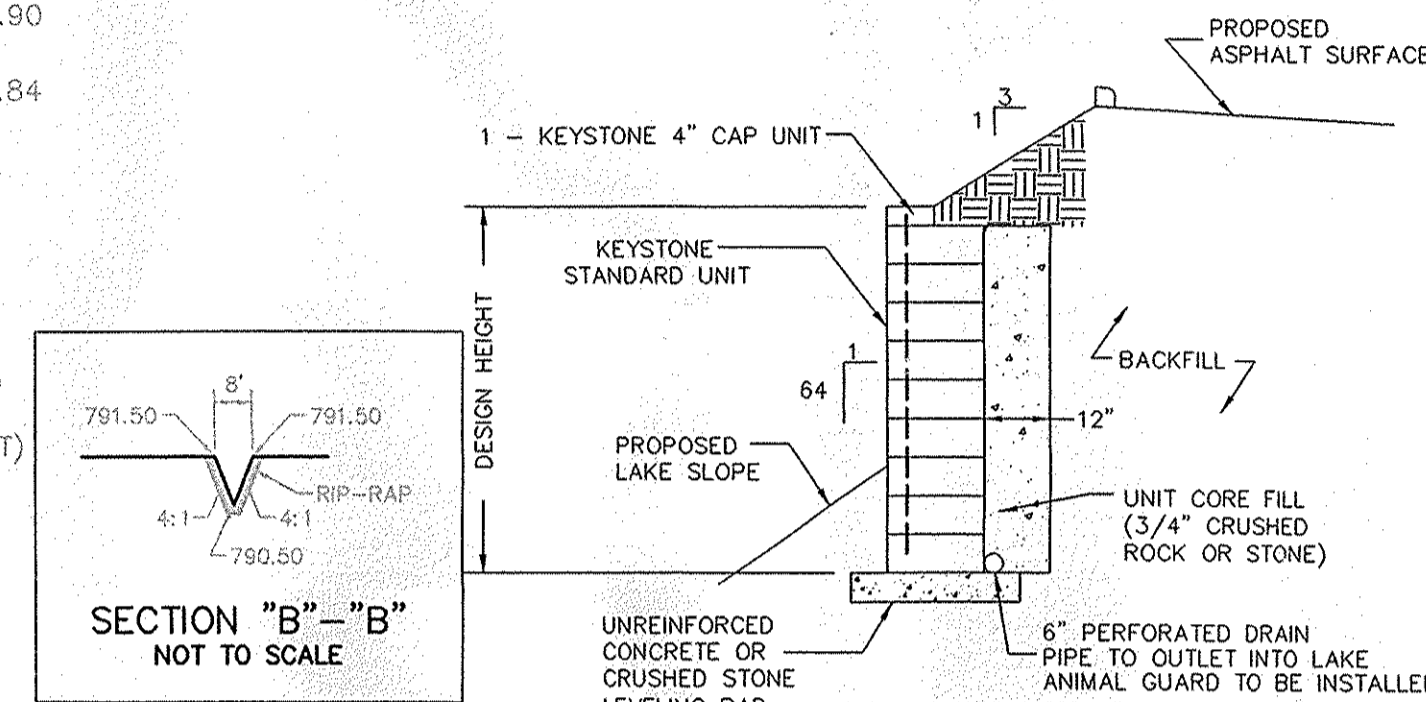
LAKE CROSS SECTION  
SECTION "A"-A"



SOILS MAP



LOCATION MAP

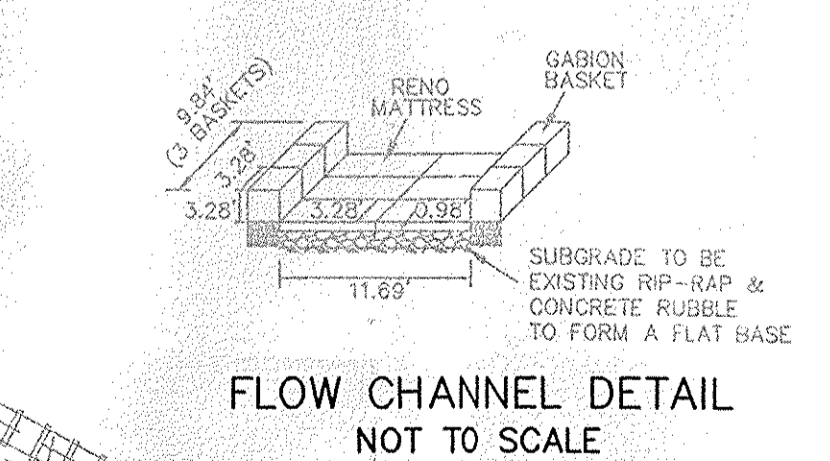


KEYSTONE RETAINING WALL  
STANDARD UNIT - NEAR VERTICAL SETBACK  
NO SCALE

### STORM CHART

STR. NO.	STRUCTURE TYPE	T.C. / RIM	INVERT	DIR.
700	CONC. END SECTION	790.17	790.17	N
701	CONC. END SECTION	794.45	794.45	W
702	CONC. END SECTION W/ DEBRIS & ANIMAL GUARD	791.50	791.50	S
703	STORM INLET W/ M.H. & CATCH BASIN	791.50	791.50	N, S.W
704	STORM INLET W/ M.H. & CATCH BASIN	796.30, 793.82, 791.11	796.30, 793.82, 791.11	N, NN, NE, S
705	CURB INLET W/ M.H. & CATCH BASIN	799.90	791.61	NE, SW
706	CURB INLET W/ M.H. & CATCH BASIN	799.50	792.01	SW, NW
707	CURB INLET W/ M.H. & CATCH BASIN	799.09	792.49	NW, SE
708	CURB INLET W/ M.H. & CATCH BASIN	796.26	792.76	SE
709	CURB INLET W/ M.H. & CATCH BASIN	798.30	796.30	E
710	CURB INLET W/ M.H. & CATCH BASIN	800.26	794.65	N, SE
711	CURB INLET W/ M.H. & CATCH BASIN	798.82	795.32	S

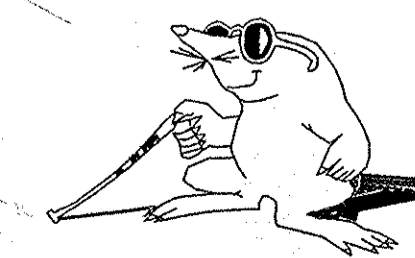
NOTE:  
ALL STORM WATER CASTINGS SHALL BE STAMPED "WMP NO WASTE- DRAINS TO FRESH WATER"



FLOW CHANNEL DETAIL  
NOT TO SCALE

- ### LEGEND
- 816.00 EXISTING SPOT ELEVATION
  - EXISTING CONTOUR
  - EXISTING SANITARY SEWER
  - EXISTING STORM SEWER
  - CURB INLET, PAVT. GRATE, MANHOLE, YARD INLET
  - EXISTING TELEPHONE
  - EXISTING WATER
  - EXISTING GAS
  - EXISTING ELECTRIC
  - EXISTING POWER POLE
  - EXISTING LIGHT POLE
  - EXISTING ELECTRIC TRANSFORMER
  - EXISTING ELECTRIC PEDESTAL
  - EXISTING ELECTRIC METER
  - EXISTING TELEPHONE PEDESTAL
  - EXISTING TELEPHONE MANHOLE
  - EXISTING GAS VALVE
  - EXISTING WATER METER
  - EXISTING WATER VALVE
  - EXISTING FIRE HYDRANT
  - EXISTING MAILBOX
  - EXISTING GUY WIRE
  - EXISTING ELECTRIC / TELEPHONE
  - T.C. TOP OF CASTING
  - GUT. GUTTER
  - INV. INVERT
  - M.E. MATCH EXISTING GRADE
  - L.P. PROPOSED LOW POINT
  - H.P. PROPOSED HIGH POINT
  - 848.33 PROPOSED TOP OF CURB ELEVATION
  - 848.00 PROPOSED PAVEMENT ELEVATION
  - 875--- PROPOSED CONTOUR
  - PROPOSED RIDGE LINE
  - PROPOSED STORM SEWER
  - C.O. PROPOSED CLEANOUT
  - PROPOSED FLOW PATTERN
  - PROPOSED ROOF DRAIN
  - 87C--- EXISTING UNDERGROUND TELEPHONE CABLE
  - 87V--- EXISTING UNDERGROUND CABLE TV
  - 87B--- EXISTING MAILBOX
  - 87S--- AS BUILT GRADES

"HOLEY MOLEY" SAYS:



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

CAUTION  
LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE. (Including, but not limited to, manholes, inlets, valves, & 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.

CERTIFIED: 1/30/05

CONSULTING ENGINEERS - LAND SURVEYORS  
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942

INDIANA

FISHERS

GRADING PLAN

STOEPPELWERTH & ASSOCIATES  
NEW OFFICE BUILDING

INDIANA

FISHERS

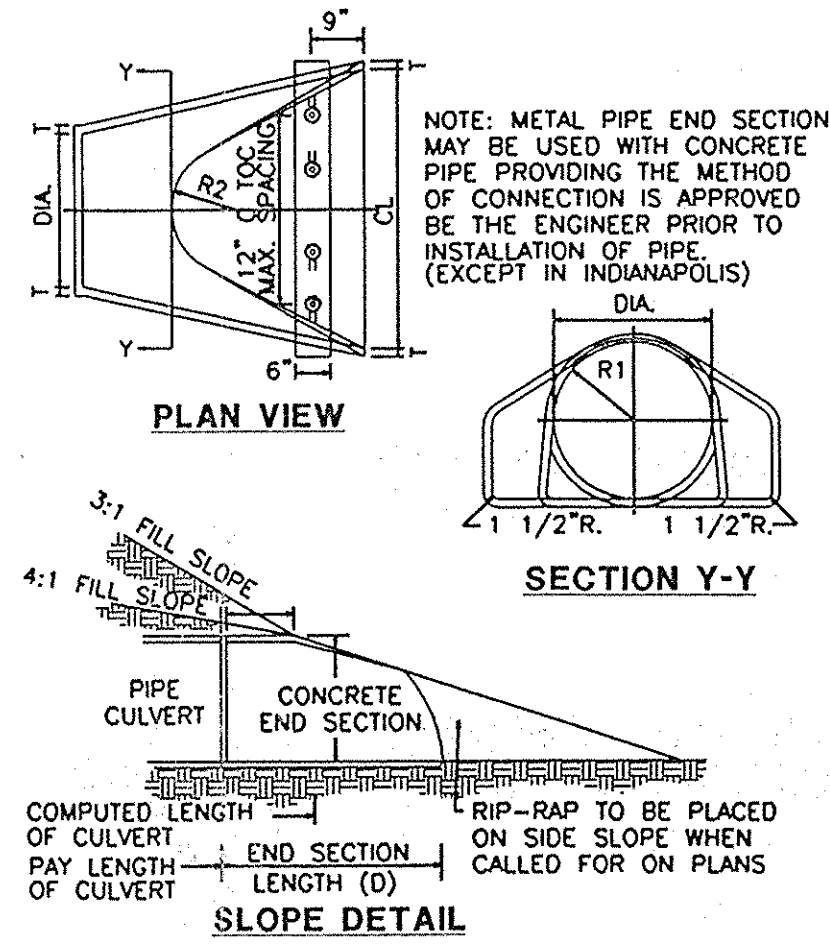
SHEET NO.  
C201

JOB NO. 51000

Project Benchmark: ISHC HAM G-48  
 An ISHC bronze disk set in the NW  
 wingwall of the 106th Street bridge  
 over I-69 in Hamilton County.  
 Elevation = 834.02 (NGVD 29)  
 TBM: A chiseled square in the S.W.  
 corner concrete light pole base on  
 East side Crosspoint Blvd. -2000±  
 South of 106th Street.  
 Elevation = 807.43

Currently or Formerly  
 FUTURE REALTY, L.P.  
 INST. #92-3613-97

LEGEND	
SYMBOL	DESCRIPTION
[Pattern]	PROPOSED CONCRETE
[Pattern]	PROPOSED PROPERTY LINE
[Pattern]	EXISTING PROPERTY LINE
[Pattern]	PROPOSED BUILDING LINE
[Pattern]	PROPOSED CONTOUR
[Pattern]	PROPOSED PAVEMENT
[Pattern]	EXISTING PAVEMENT
[Symbol]	PROPOSED STORM DRAIN
[Symbol]	EXISTING STORM DRAIN
[Symbol]	DRAINAGE DIVIDE
[Symbol]	PROPOSED DRAINAGE INLET
[Symbol]	EXISTING DRAINAGE INLET
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	PROPOSED FLOW ARROW
[Symbol]	PROPOSED MANHOLE
[Symbol]	EXISTING MANHOLE
[Symbol]	PROPOSED SITE LIGHT POLE



NOTE: METAL PIPE END SECTIONS  
 MAY BE USED WITH CONCRETE  
 PIPE PROVIDING THE METHOD  
 OF CONNECTION IS APPROVED  
 BY THE ENGINEER PRIOR TO  
 INSTALLATION OF PIPE.  
 (EXCEPT IN INDIANAPOLIS)

CONCRETE IN THESE END SECTIONS SHALL BE THE SAME GRADE AND STRENGTH AS SPECIFIED FOR REINFORCED  
 CONCRETE PIPE, A.S.T.M. DESIGNATION C-76 CLASS II ( AS SET OUT IN INDOT STANDARD SPECIFICATIONS)

REINFORCEMENT IN THE "C" PORTION SHALL BE THE SAME AS SPECIFIED FOR REINFORCED  
 A.S.T.M. DESIGNATION C-76 CLASS II FOR THE SIZE OF CONNECTING PIPE.

REINFORCEMENT IN THE "B" PORTION SHALL HAVE A CROSS SECTIONAL AREA EQUAL TO THAT OF ONE LAYER  
 OF STEEL IN THE "C" PORTION.

THE END OF THE PIPE CULVERT SHALL BE PLACED IN THE CONCRETE END SECTION SO THAT THE FLOW LINES  
 ARE FLUSH. THE JOINT SHALL BE COMPLETELY FILLED WITH MORTAR.

IN 3:1 OR 4:1 FILL SLOPE, CHANGE TO THE SLOPE OF THE END SECTION IN A SMOOTH, PLEASING  
 TRANSITION APPROXIMATELY 10'-0" IN LENGTH.

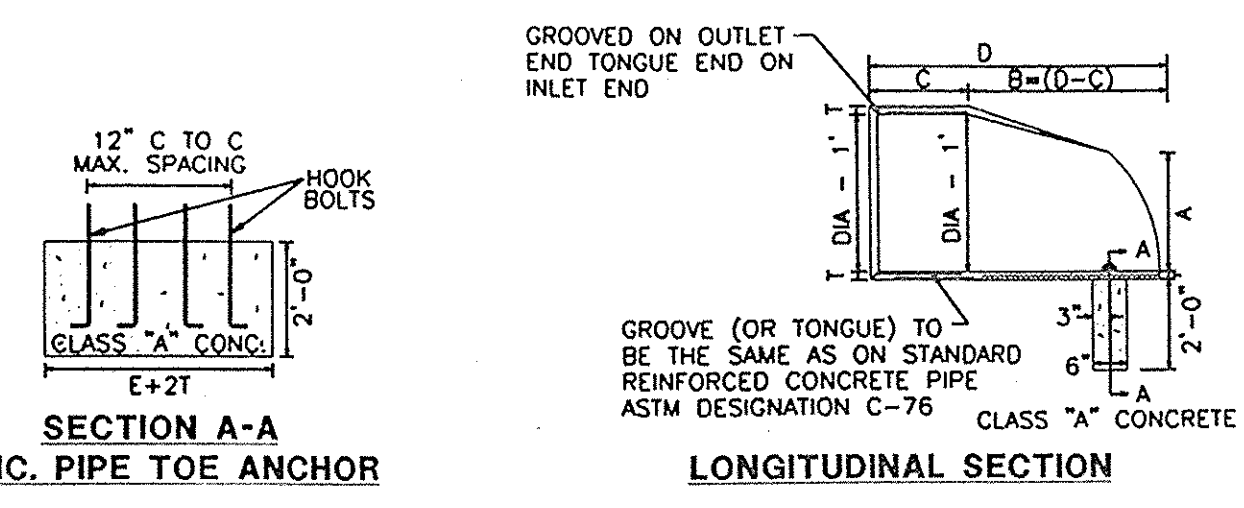
VARIATIONS IN DIMENSIONS - THE THICKNESS OF THE CONCRETE, THE POSITION OF STEEL, AND THE  
 INTERNAL DIAMETER OF THE PIPE SHALL CONFORM WITH THE VARIATIONS IN DIMENSIONS AS PROVIDED IN THE  
 SPECIFICATIONS FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, A.S.T.M. DESIGNATION C-

WHERE VITRIFIED CLAY CULVERT OR CAST IRON CULVERT PIPE IS USED, A "PIPE END SECTION" COMPARABLE  
 TO THAT AS SHOWN FOR METAL OR CONCRETE SHALL BE FURNISHED AND SHALL BE AS APPROVED BY THE ENGINEER.  
 EXCEPT IN AREAS OF ACID OR MINE WATER THEN THE USE OF METAL END SECTION IS PROHIBITED.

END SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "PIPE END SECTION" COMPLETE

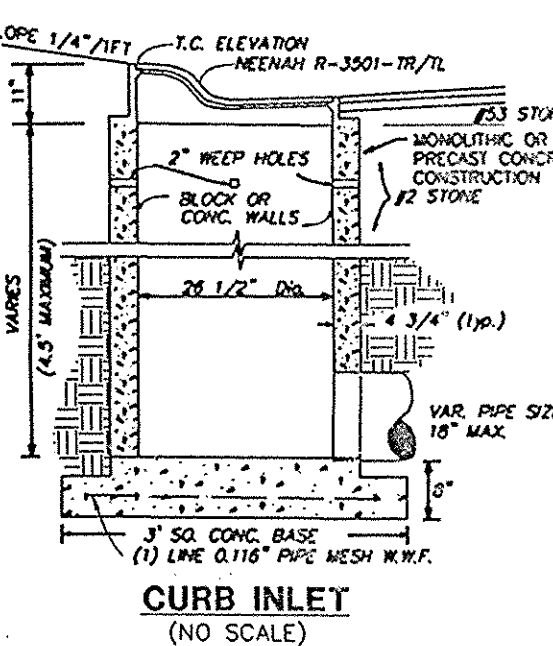
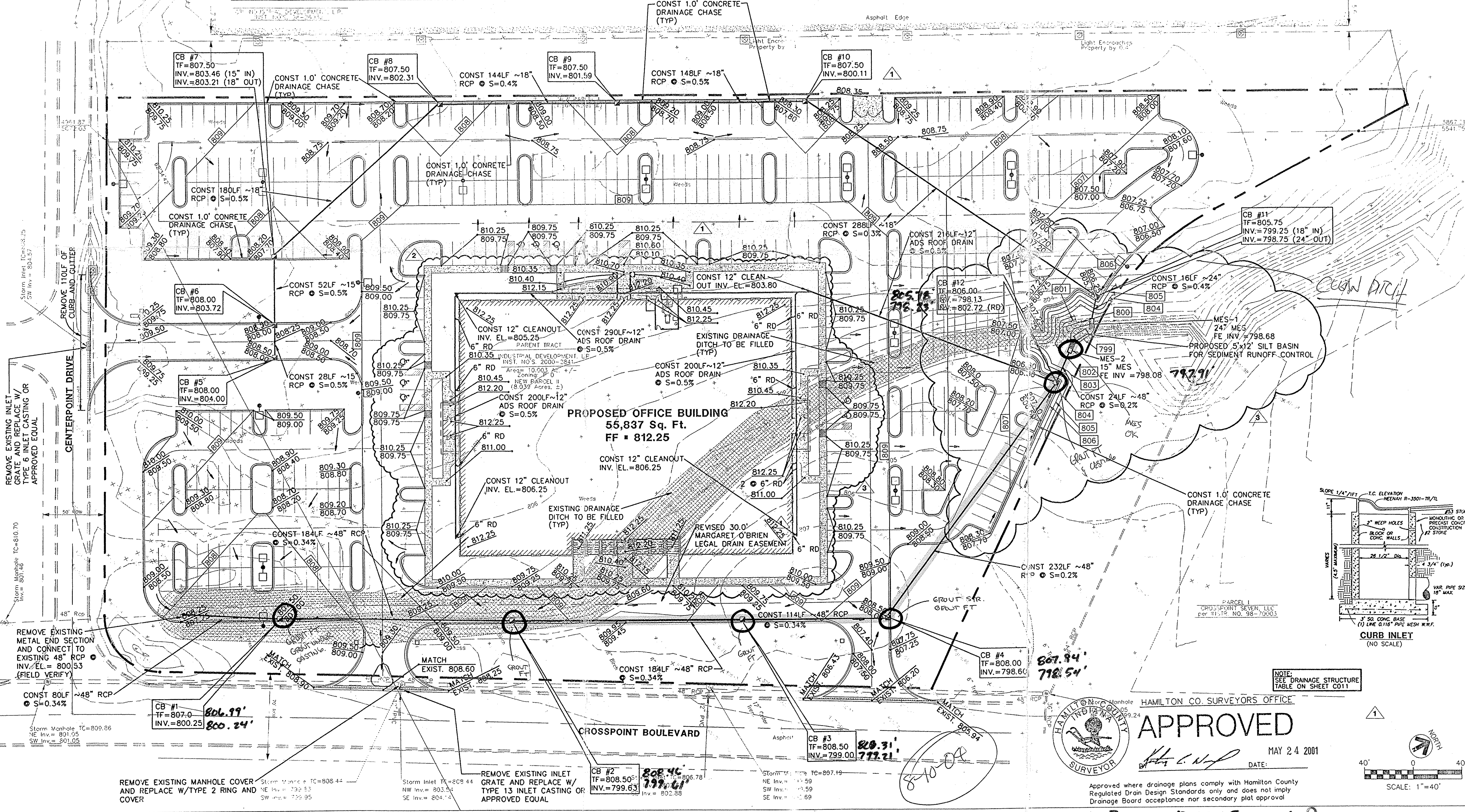
CONCRETE PIPE TOE ANCHORS SHALL BE REQUIRED ON ALL CONCRETE PIPE END SECTIONS. THE COST  
 THEREOF SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR "PIPE END SECTION."

DIA. T (MIN)	A=	C=	D=	E=	K=	R 1	R 2	APPROX. WEIGHT
12"	2"	5"	4'-3"	6'-2"	2'-0"	1.3	10 1/8"	800
15"	2 1/4"	7"	4'-0"	6'-3"	2'-5"	1.5	12 1/2"	1100
18"	2 1/2"	11"	4'-0"	6'-3"	3'-0"	1.8	15 1/2"	1300
21"	3 1/4"	11"	3'-6"	6'-3"	3'-6"	2.1	16 1/8"	1500
24"	3"	1'-0"	2'-8"	6'-3"	4'-0"	2.3	16 3/16"	1800
27"	3 1/4"	1'-1"	2'-5"	6'-3"	4'-6"	2.6	18 3/16"	2100
30"	3 1/2"	1'-2"	1'-10"	6'-3"	5'-0"	2.9	18 1/2"	2400
33"	3 3/4"	1'-3"	3'-6"	6'-3"	5'-6"	3.1	23 3/4"	4100
36"	4"	1'-5"	3'-1"	6'-3"	6'-0"	3.4	24 3/16"	4200



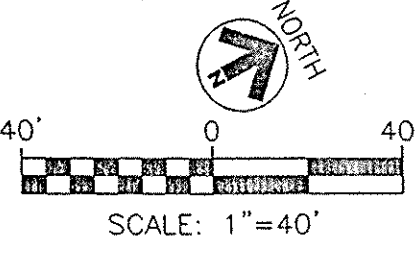
PRECAST CONCRETE END SECTION DETAIL  
 (NO SCALE)

SEE DRAINAGE STRUCTURE  
 TABLE ON SHEET C011



NOTE:  
 SEE DRAINAGE STRUCTURE  
 TABLE ON SHEET C011

HAMILTON CO. SURVEYORS OFFICE  
**APPROVED**  
 DATE: MAY 24 2001  
 SURVEYOR



As-BUILT 12-15-05, J.P.  
 Based on TBM NGVD 29