



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

August 12, 2002

To: Hamilton County Drainage Board

Re: Clara Knotts Drain, College Avenue Arm

Attached are construction plans and profiles for the proposed construction of the College Avenue Arm to the Clara Knotts Drain, along with the petition, drain map, and a drainage-shed map. These plans were prepared by First Group Engineering, Inc. (Project #STP-B878(001)) for the Hamilton County Highway Department for the 106th Street and College Avenue intersection improvements. The proposed arm was petitioned for by the Hamilton County Commissioners on March 25, 2000.

The proposed drain involves constructing a new drain parallel to College Avenue along the west right-of-way. The new drain shall begin at the existing Clara Knotts Drain as reconstructed in 1986. This point is approximately 920 feet west of College Avenue on the north side of I-465. A reinforced concrete pipe (RCP) storm system will begin at this point (Str. 100) and run in an easterly direction to College Avenue, north of I-465 (Str. 103). From this point the RCP storm system will run in a northerly direction on the west side of College Avenue, parallel to College Avenue to the intersection of Arthur Drive and College Avenue (Str. 18). The laterals from this main line that will become part of the Clara Knotts Drain are:

Structure numbers 108 and 109 that blind tap from the main line between structure numbers 107 and 110; structure numbers 11 and 13 that are lateral curb inlet extensions from structure number 12; and structure number 19 that is a lateral curb inlet extension from structure number 18.

Below is a list of the size, type and length of the regulated Drain:

Size	Type	Length or Quantity
42-inch	RCP	3340-feet
36-inch	RCP	871-feet
30-inch	RCP	59-feet
12-inch	RCP	145-feet

A total of 31.2 acres will be removed from the drainage area of the Home Place Drain and added to the drainage area of the Clara Knotts Drain with the construction of the College Avenue Arm to the Clara Knotts Drain.

The Clara Knotts Drain will have 72 parcels added to it's annual assessment at \$10.00 each. These parcels will be removed from the Home Place Drain. They were assessed \$12.00 each to the Home Place Drain

with the exception of parcel 17-13-11-00-00-008.000 that wasn't assessed to either drain. Thirty-eight parcels were assessed to both drains and will be removed from the Home Place Drain and only assessed to Clara Knotts in the future.

There will be 8.32 acres assessed to the Hamilton County Highway Department for highways. This highway acreage includes area from portions of Arthur Drive, Barmore Avenue, Barbie Lane, 102nd Street, 103rd Street, 106th Street from the North R/W and College Avenue from the East R/W. The 8.32 acres will be removed from the Hamilton County Highway Departments Home Place Drain assessment.

Portions of the Home Place Drain which currently cross College Avenue and along the West Side of College Avenue south of 106th Street will be vacated with the construction of the College Avenue Arm to the Clara Knotts Drain. The portion of the Home Place Drain to be vacated is the College Crossing Extension Arm 2 of 6. This drain is located on the west side of College Avenue and will be removed with this proposed College Avenue Arm of the Clara Knotts to structure number 14 which will be set on Arm 6 of the Home Place Drain. This proposed structure number 14 is located on the east side of College Avenue intersection with 105th Street.

The construction of the College Avenue Arm is a continuation of Phase I. Phase I was constructed in 1986. Phase II was approved in 1989 with the exception of section 5 of the report. This new drain is the completion of the main drain of section 5 of the Phase II report with the same drain objectives and principles.

The proposed drain will serve the area west of College Avenue including several tracts now assessed to the Home Place Drain. The following tracts will now be benefited by the Clara Knotts Drain, I recommend that the assessment to these Home Place Drain tracts be removed and added to the Clara Knotts Drain. This change will take affect for the May 2003 billing. However, if any tract is delinquent, I recommend the delinquent bill for the Home Place Drain be collected.

Tract of property owners to be removed from the Home Place Drain and added to the Clara Knotts Drain:

Parcel	Owner	Parcel	Owner
17-13-11-00-00-008.000	Hughes, Kevin & Mary Beth	17-13-11-02-07-005.000	O'Malia Investment Co
17-13-11-02-04-024.000	Odle, Leslie D & Mechong K	17-13-11-02-07-006.000	O'Malia Investment Co
17-13-11-02-04-025.000	Vespa, Frank & Blodwyn	17-13-11-02-07-007.001	Hanna Inc
17-13-11-02-04-027.000	Arnone, Marie L	17-13-11-02-07-007.002	Traynor, Michael P
17-13-11-02-04-028.000	Sheeks, Daniel	17-13-11-02-07-007.003	Hanna, Galil A
17-13-11-02-04-029.000	Hendricks, Douglas W	17-13-11-02-07-007.004	Hanna, Galil A
17-13-11-02-04-030.000	Roysden, Elizabeth A	17-13-11-02-07-007.005	Traynor, Michael P
17-13-11-02-05-002.000	Sauer, Vance A & Helen Marie	17-13-11-02-07-007.006	Hanna, Raouf A & Nadia Y
17-13-11-02-05-003.000	Johnson, Vangel K Trustee	17-13-11-02-07-007.007	Hanna Inc
17-13-11-02-05-004.000	Severs,Angela;Terry,Chris&Theo Everett	17-13-11-02-07-007.008	Hanna, Raouf & Nadia
17-13-11-02-05-005.000	Crawford, Kim	17-13-11-02-07-007.009	Dorosh, Robert M
17-13-11-02-05-006.000	Wasson, James L & Dana L	17-13-11-02-07-007.010	Peine, Linda L
17-13-11-02-05-007.000	Trietsch, Jon Leon & Elizabeth Ann	17-13-11-02-07-007.011	St Mary & St Mark Coptic Church
17-13-11-02-05-008.000	Johnson, Richard D	17-13-11-02-07-007.012	Hanna, Raouf & Nadia
17-13-11-02-05-009.000	Guyton, Richard A	17-13-11-02-07-007.013	Hanna, Raouf & Nadia
17-13-11-02-05-010.000	Kolb, Virginia	17-13-11-02-07-007.014	Hanna Inc
17-13-11-02-05-011.000	Moulton, Richard L & Mary L	17-13-11-02-07-007.015	Dye, Mark A
17-13-11-02-05-012.000	Rhoda, Erwin J & Annabell	17-13-11-02-07-007.016	Verkamp, Ethna
17-13-11-02-05-013.000	Wilson, LarryAllen&Melinda Kay Wilson	17-13-11-02-07-007.017	Hanna Inc
17-13-11-02-05-014.000	Ibsen, Jackie H & Sandra	17-13-11-02-07-007.018	Meador, William T & Cynthia G
17-13-11-02-06-001.000	Gilonske, Robert W & Kathleen M	17-13-11-02-07-007.019	Traynor, Michael P

17-13-11-02-06-002.000 Gangstad, Robert E & Mary V	17-13-11-02-07-007.020 Traynor, Michael P
17-13-11-02-06-003.000 Gnatovich, George N & Lola	17-13-11-02-07-009.000 Hively, Ryan
17-13-11-02-06-004.000 Tharp, Donald J & Marsha J	17-13-11-02-08-005.000 Goode, Svetla L
17-13-11-02-06-005.000 Tharp, Donald J & Marsha J	17-13-11-02-08-006.000 Goode, Svetla L
17-13-11-02-06-006.000 Tharp, Donald J & Marsha J	17-13-11-02-08-007.000 Goode, Svetla L
17-13-11-02-06-007.000 McNamara, Linda R	17-13-11-02-08-008.000 Goode, Svetla L
17-13-11-02-06-008.000 VanBlaricum, Philip Owen & Janice	17-13-11-02-08-009.000 Rizkalla, Raafat & Maher Rizkalla
17-13-11-02-06-009.000 McNevin, Nancy J	17-13-11-02-08-010.000 Rizkalla, Raafat & Maher Rizkalla
17-13-11-02-06-010.000 Isbell, Lloyd F II	17-13-11-02-08-011.000 Graham, Anna M Trustee
17-13-11-02-06-011.000 Taylor, Timothy S & Sharon D	17-13-11-02-08-013.000 Paskoff, Susan M
17-13-11-02-06-012.000 Miller, Terri L	17-13-11-02-08-014.000 Paskoff, Susan M
17-13-11-02-07-001.000 Prater, Kimberly K	17-13-11-02-09-004.004 Stiner, Steve & Karen
17-13-11-02-07-002.000 Rusticus, Jacob & Judith L	17-13-11-02-09-004.005 St Vincent New Hope Inc
17-13-11-02-07-003.000 Heimann, Helen L Trustee	17-13-11-02-09-004.007 Meadows, Stanley P
17-13-11-02-07-004.000 Green, William David & Jeanene	17-13-11-02-09-004.008 Meadows, Stanley P

The cost estimate prepared by First Group Engineering, Inc. for this new drain is \$502,550.00. Listed below is a breakdown of the costs:

	Construction Cost	Inspection Cost	Total Costs
Methodist Hospital	\$195,000.00	\$29,250.00	\$224,250.00
Drainage Board	\$ 40,500.00	\$ 6,075.00	\$ 46,575.00
INDOT Contract	\$201,500.00*	\$30,225.00*	\$231,725.00*
County Highway (20%)	*\$ 40,300.00	*\$ 6,045.00	*\$ 46,345.00
Federal Highway (80%)	*\$161,200.00	*\$24,180.00	*\$185,380.00
Totals	\$437,000.00	\$65,550.00	\$502,550.00

The Hamilton County Highway Department is the agent coordinating the construction of the 106th St & College Avenue intersection improvements and the Clara Knotts Drain, College Avenue Arm. Funds for this project are being received from the Hamilton County Drainage Board (Clara Knotts Drain maintenance fund.), Methodist Hospital, and federal aid. INDOT is the agent for the Federal government and will collect the funds and pay the appropriate entities.

Currently there is \$87,603.96 dollars in the Clara Knotts Drain fund. This drain brings in \$5,600.80 annually in maintenance assessments. Per IC 36-9-27-45.5, it is my opinion that the maintenance fund for the Clara Knotts Drain has a balance in excess of the amount reasonably needed in that fund for maintenance work in the foreseeable future. The cost for the Hamilton County Drainage Board is \$46,345.00 for the upsize of the Clara Knotts Drain for future drainage improvements in the Clara Knotts Drain. This \$46,345.00 will be paid from the Clara Knotts Drain Maintenance Fund.

Methodist Hospital of Indiana, Parcel 16-13-11-04-18-001.000 will be assessed \$224,250 for the portion of the storm sewer system to be constructed across their property.

The Hamilton County Highway Department will be bidding out this contract. Money collected by the Hamilton County Drainage Board will be sent to the County Highway Department. The County Highway Department will be working with INDOT.

Listed below is information on the two drains involved in this project as they were before the change:

Name of the Drain	Acres	Lots	Maintenance Balance	Acre Rate	Lot Rate	Minimum	Roads / acre	Annual Assessment
Home Place Drain # 158	144.54	670	\$1,243.48	\$4.00	\$12.00	\$12.00	\$10.00	\$9,739.50
Clara Knotts Drain #210	286.45	430	\$87,603.96	\$5.00	\$10.00	\$10.00	\$5.00	\$5,600.80

I recommend that the drainage assessment for roads and right-of-ways be changed from \$5.00 per acre to \$10.00 per acre under this proposal.

The proposed construction of this new drain meets the criteria set out in IC 36-9-29-33 for classification as an urban drain. Therefore, this drain is classified as an urban drain.

The Regulated Drain Easement associated with the construction of the Clara Knotts Phase II Regulated Drain along College Avenue will be the greater of the following - fifteen feet per half from the centerline of the drain, per Indiana Drainage code 36-9-27-33, or the width of the road right of way. The portion of the Clara Knotts Phase II Regulated Drain being constructed on the Methodist Hospital of Indiana properties (Parcel #'s 16-13-11-04-18-001.000 and 16-13-11-04-18-001.008) will be constructed within the previously dedicated Clara Knotts Regulated Drainage Easement per the Hamilton County Recorders Office Instrument # 9135273.

I recommend the Board set a hearing for this proposed drain for September 23, 2002.



Kenton C. Ward
Hamilton County Surveyor

KCW/llm

STATE OF INDIANA)
)
COUNTY OF HAMILTON)

ss:

BEFORE THE HAMILTON COUNTY
DRAINAGE BOARD
NOBLESVILLE, INDIANA

IN THE MATTER OF THE
RECONSTRUCTION OF THE
Clara Knotts Drain, College Avenue Arm

FINDINGS AND ORDER FOR RECONSTRUCTION

The matter of the proposed Reconstruction of the *Clara Knotts Drain, College Avenue Arm* came before the Hamilton County Drainage Board for hearing on *September 23, 2002*, on the Reconstruction Report consisting of the report and the Schedule of Damages and Assessments. The Board also received and considered the written objection of an owner of certain lands affected by the proposed Reconstruction, said owner being:

Evidence was heard on the Reconstruction Report and on the aforementioned objections.

The Board, having considered the evidence and objections, and, upon motion duly made, seconded and unanimously carried, did find and determine that the costs, damages and expenses of the proposed Reconstruction will be less than the benefits accruing to the owners of all land benefited by the Reconstruction.

The Board having considered the evidence and objections, upon motion duly made, seconded and unanimously carried, did adopt the Schedule of Assessments as proposed, subject to amendment after inspection of the subject drain as it relates to the lands of any owners which may have been erroneously included or omitted from the Schedule of Assessments.

The Board further finds that it has jurisdiction of these proceedings and that all required notices have been duly given or published as required by law.

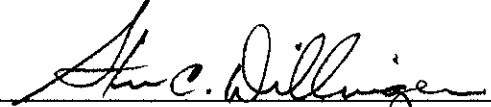
Wherefore, it is ORDERED, that the proposed Reconstruction of the *Clara Knotts Drain, College Avenue Arm* be and is hereby declared established.

Thereafter, the Board made inspection for the purpose of determining whether or not the lands of any owners had been erroneously included or excluded from the Schedule of Assessments. The Board finds on the basis of the reports and findings at this hearing as follows:


HAMILTON COUNTY DRAINAGE BOARD



PRESIDENT

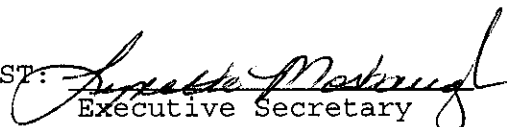


Member

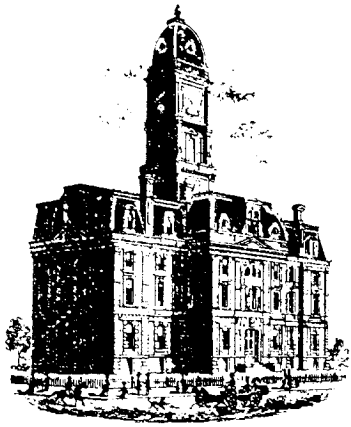


Member

ATTEST:



Executive Secretary



SURVEYOR'S OFFICE

Hamilton County

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

August 28, 2008

Re: Clara Knotts Drain: College Avenue Arm

Attached are as-builts, certificate of completion & compliance, and other information for College Avenue Arm. 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 August 12, 2002. The report was approved by the Board at the hearing held September 23, 2002. (See Drainage Board Minutes Book 6, Pages 449-453) The changes are as follows:

Structure:	Length:	Size:	Height:	Material:	Up Invert:	Dn. Invert:	Grade:
100-101	160	42		RCP	823.89	823.56	0.2
101-102	354	42		RCP	824.77	824.06	0.2
102-103	464	42		RCP	825.57	824.93	0.2
103-104	432	42		RCP	827.13	825.74	0.3
104-105	112	42		RCP	827.54	827.29	0.4
105-106A	152	42		RCP	827.71	828.32	0.1
106A-107	118	42		RCP	828.95	828.48	0.4
107-110	462	42		RCP	829.58	829.12	0.1
110-111	50	42		RCP	829.79	829.74	0.1
111-113	210	42		RCP	830.17	829.96	0.1
113-116	370	42		RCP	830.7	830.33	0.1
116-117	92	49	35	FBCCP	830.95	830.87	0.1
117-120	278	42		RCP	831.4	831.12	0.1
120-122	239	42		RCP	831.8	831.57	0.1
122-123	210	36		RCP	832.62	832.29	0.1
123-10	249	36		RCP	833.03	832.78	0.1
12-15	170	36		RCP	833.65	833.48	0.1
10-12	126	36		RCP	833.32	833.19	0.1
15-18	59	30		RCP	834.23	834.15	0.15
18-19	65	12		RCP	840.56	840.12	
12-13	39	12		RCP	840.24	839.85	
11-12	21	12		RCP	840	839.85	

109-PIPE	10	12		RCP	834.31	830.52	
108-PIPE	10	12		RCP	833.66	830.39	
106C-106A	9	12		RCP			

RCP Pipe Totals:

12	154
30	59
36	755
42	3401

Total: 4369

Other Drain:	
FBCCP (49 X 35)	92

Total: 92

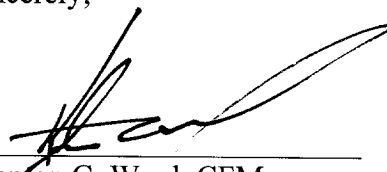
The length of the drain due to the changes described above is now **4,461 feet**.

The easements were outlined in my report to the board as outlined above. No further easements or non-enforcements were deemed necessary.

The project was paid for by County, State, Federal and Methodist Hospital monies. As this project was coordinated by the Hamilton County Highway no sureties were posted.

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

Sincerely,



Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/slm

PROJECT	DESIGNATION
STP-B878(001)	9980920
CONTRACT	
R-26968	

**INDIANA
DEPARTMENT OF
TRANSPORTATION**

ROAD PLANS

**PROJECT NO. STP-B878 (001)R/W
INTERSECTION IMPROVEMENT
COLLEGE AVENUE AT 106TH STREET (001)CONST.**

TRAFFIC DATA	106TH STREET	COLLEGE AVENUE
A.A.D.T.(2000)	9,800 V.P.D.	14,350 V.P.D.
A.A.D.T.(2020)	17,450 V.P.D.	21,350 V.P.D.
D.H.V.(2020) PROJECTED	1745 V.P.H.	2135 V.P.H.
DIRECTIONAL DISTRIBUTION	55% E.B. & 45% W.B.	55% N.B. & 45% S.B.
TRUCKS	1% D.H.V.	1% D.H.V.
	2% A.A.D.T.	2% A.A.D.T.
DESIGN DATA		
DESIGN SPEED	60 km/h	60 km/h
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	MINOR ARTERIAL
RURAL/URBAN	URBAN (BUILT-UP)	URBAN (BUILT-UP)
TERRAIN	LEVEL	LEVEL
ACCESS CONTROL	NONE	NONE

R-26968

END PROJECT STP-B878(001)
STA. 2+199.000 LINE "B"

SECTIONS 1, 2, 11, & 12, T. 17 N., R. 3 E., CLAY TOWNSHIP, HAMILTON COUNTY

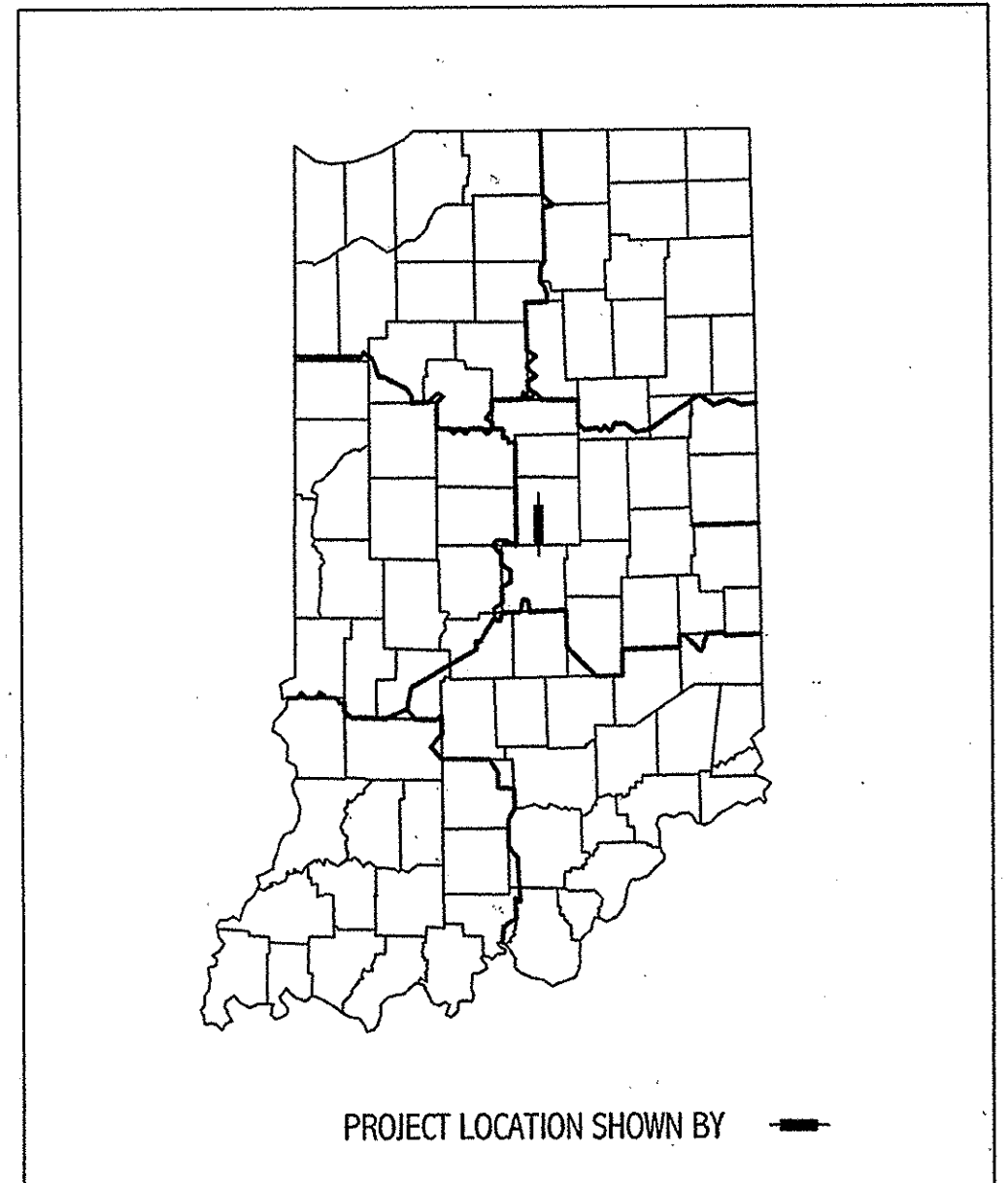
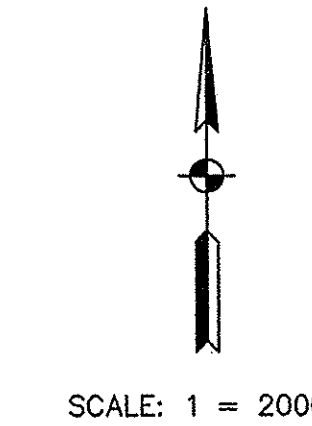
GROSS LENGTH: 0.438 km MAX. GRADE: 2.0%
NET LENGTH: 0.438 km MIN. GRADE: 0.3%

PLAN: LONG: - 1:200 PROFILE: HORIZ: - 1:200 LAT: 39°56'30" N
TRANS: - 1:200 VERT: - 1:50 LONG: 86°08'46.5" W

BEGIN PATH CONSTRUCTION
P.O.T. 50+250.792 LINE "P" =
P.O.T. 5+250.792 LINE "A", 5.97 m LT.

BEGIN CONSTRUCTION
STA. 4+796.5 LINE "A"

END INCIDENTAL SEWER CONSTRUCTION
STA. 1+781.9 LT. LINE "B"



END PATH CONSTRUCTION
P.O.T. 50+811.429 LINE "P" =
P.O.T. 5+811.429 LINE "A", 10.3 m LT.

END CONSTRUCTION
STA. 5+220.500 LINE "A"

BEGIN PROJECT STP-B878(001)
STA. 1+761.000 LINE "B"

AS-BUILT AS BUILTS

Board of Commissioners

Steven A. Holt
Steven A. Holt, President

Steven C. Dillinger
Steven C. Dillinger

Christine Altman
Christine Altman

Robin M. Mills ATTEST
Robin M. Mills, Auditor

County Highway Engineer

James W. Neal
James W. Neal

BEGIN INCIDENTAL SEWER CONSTRUCTION
STA. 10+002.5 LINE "S"

P.O.T. 0+796.000 LINE "B"
P.O.T. 10+280.000 LINE "S"

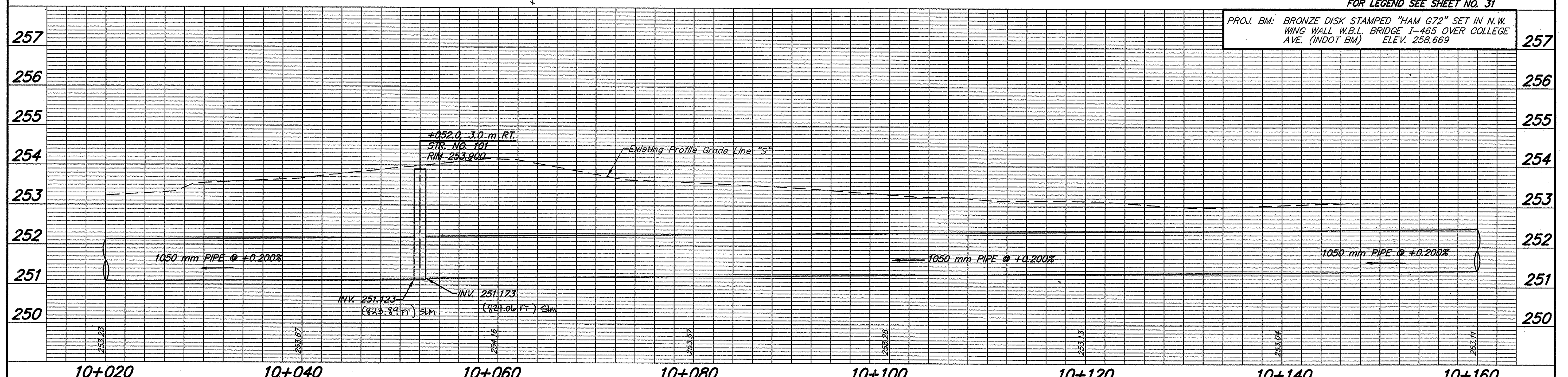
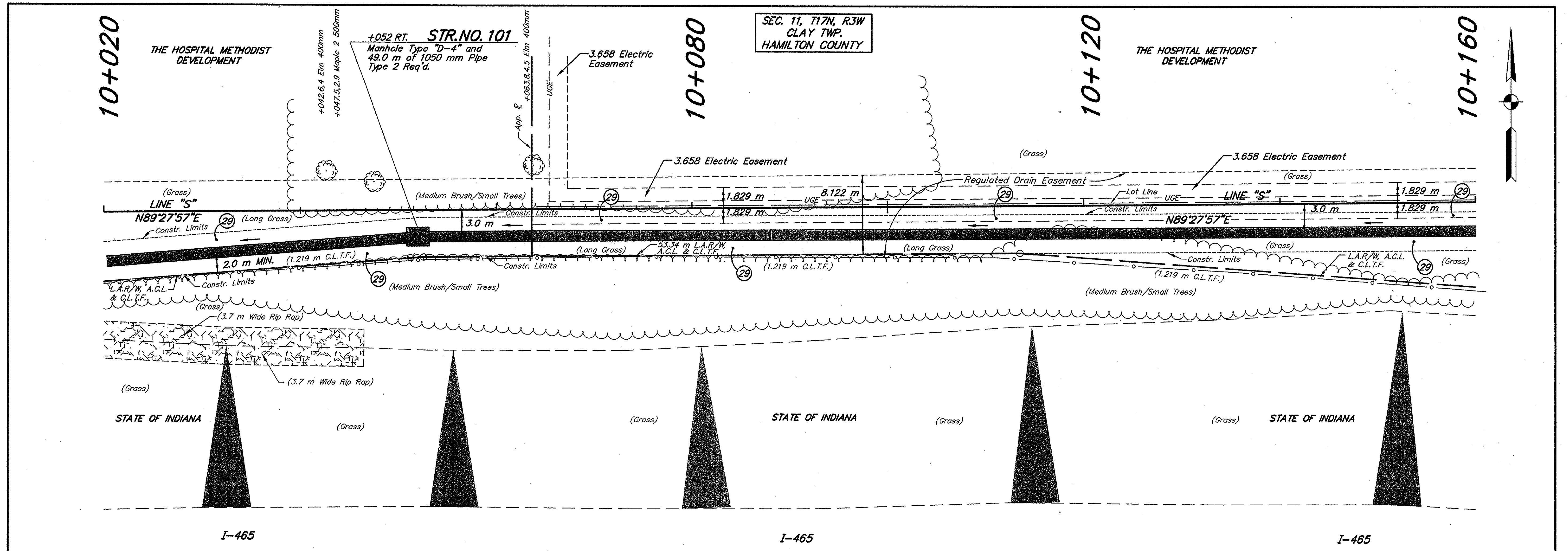
THESE PLANS PREPARED BY:
FIRST GROUP ENGINEERING INC.
CONSULTING ENGINEERS
5714 W. 74TH STREET, INDIANAPOLIS, INDIANA
PH. (317) 290-9549

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 1999
TO BE USED WITH THESE PLANS

PLANS PREPARED BY:	FIRST GROUP ENGR., INC. (317) 290-9549
CERTIFIED BY:	<i>Christopher P. Hammond</i> 6/12/03
APPROVED FOR LETTING:	<i>John E. Jordan</i> 7/21/03
	DATE

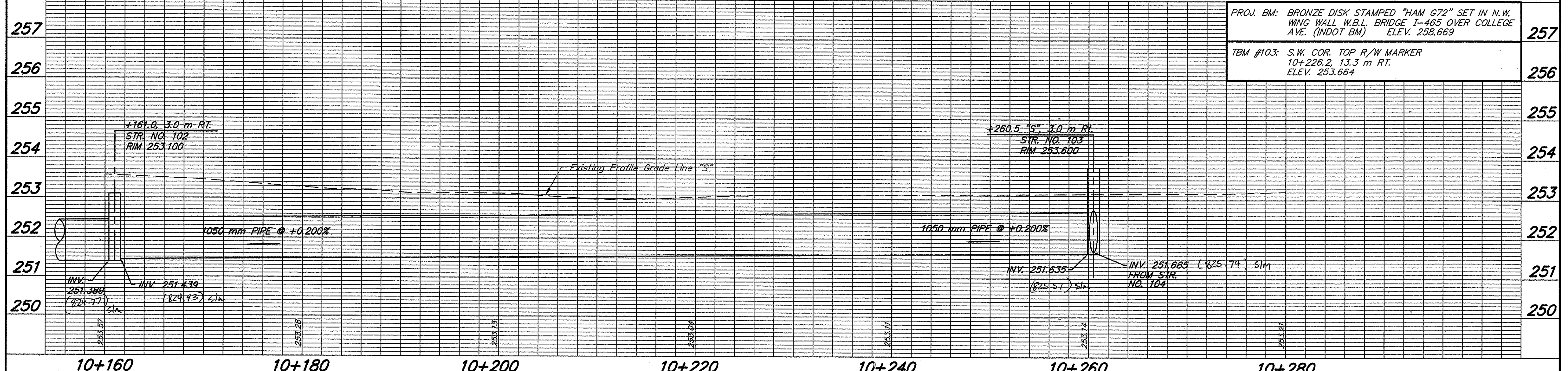
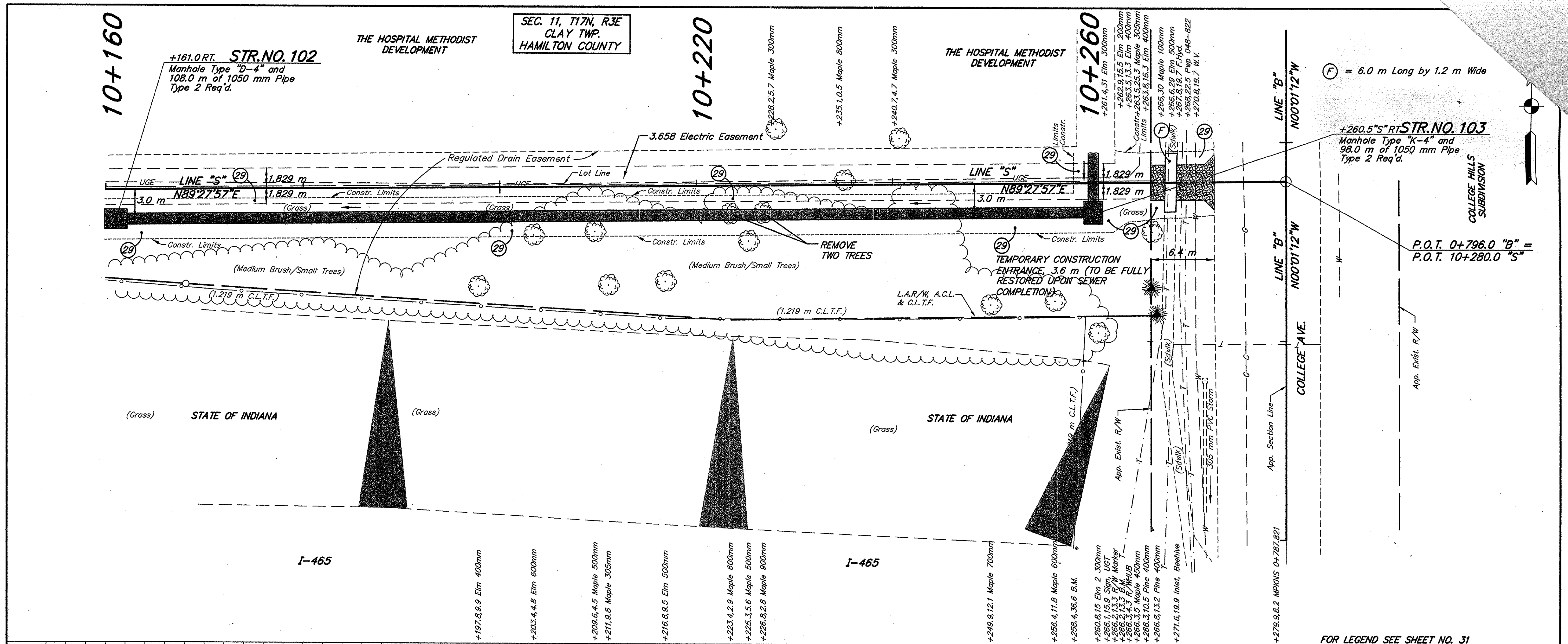


DESIGNATION	9980920
SHEETS	1 of 142
CONTRACT	R-26968
PROJECT	STP-B878(001)



FOR LEGEND SEE SHEET NO. 31
 PROJ. BM: BRONZE DISK STAMPED "HAM G72" SET IN N.W. WING WALL W.B.L. BRIDGE I-465 OVER COLLEGE AVE. (INDOT BM) ELEV. 258.669

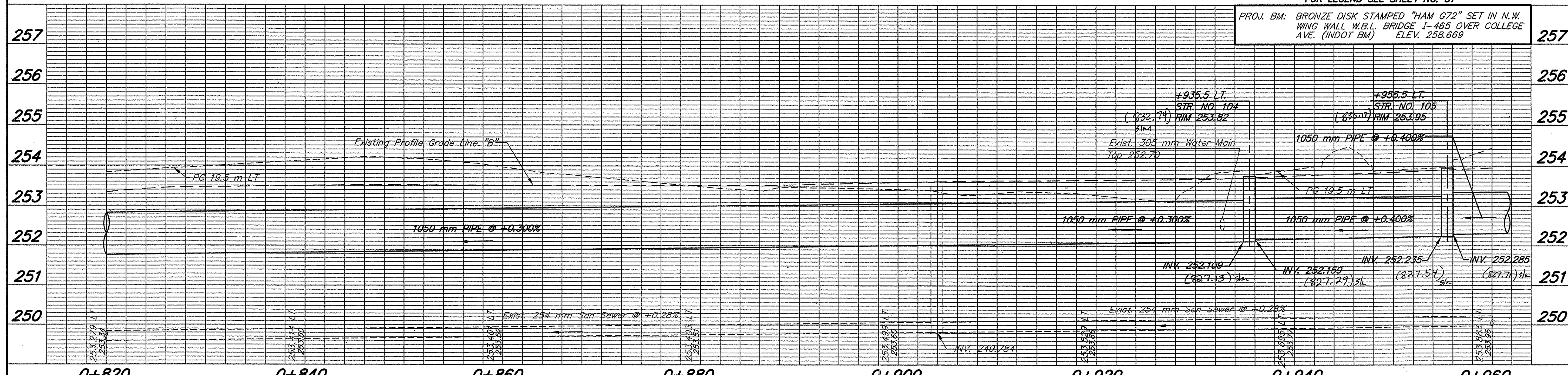
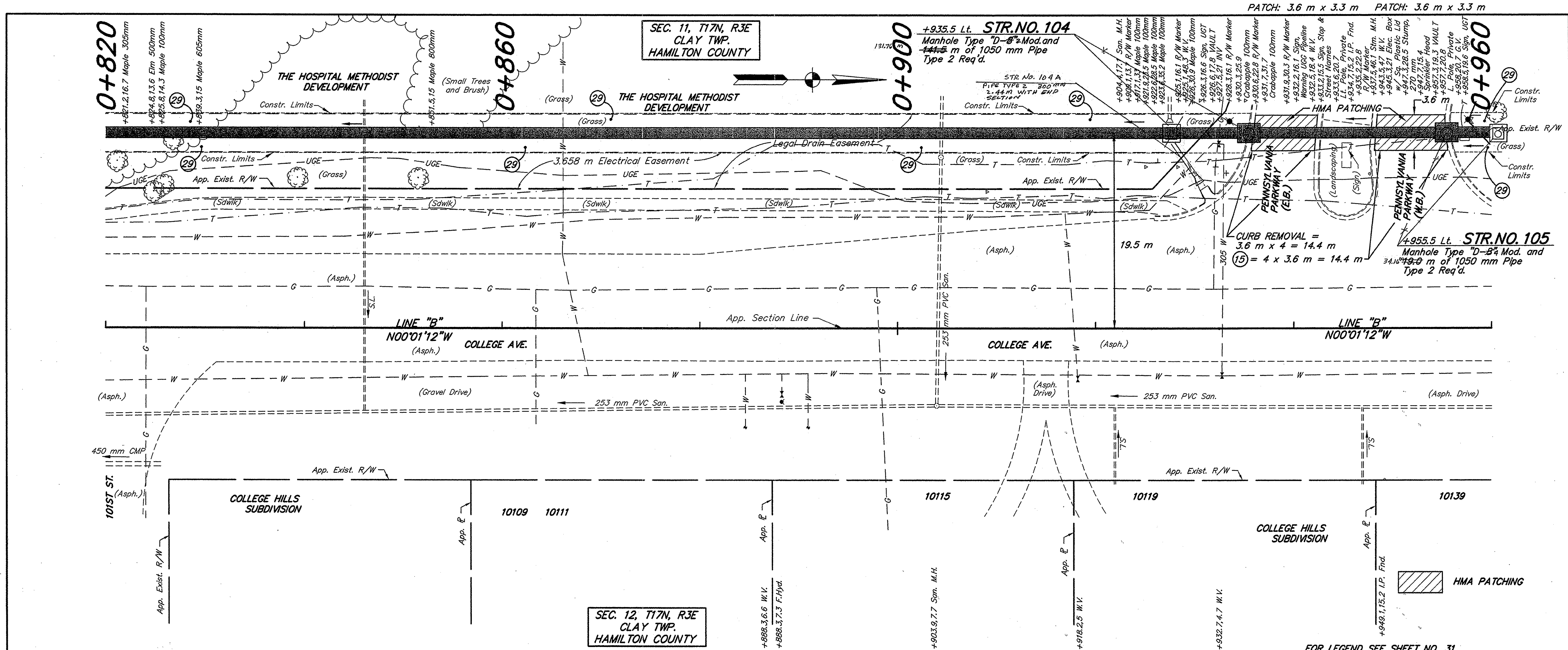
10+020	10+040	10+060	10+080	10+100	10+120	10+140	10+160
				RECOMMENDED FOR APPROVAL: <i>Christopher L. Hammond</i> 6/12/03 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE: 1:200 VERTICAL SCALE: 1:50
				DESIGNED: C.L.H. DRAWN: M.D.T. CHECKED: L.C.S. CHECKED: C.L.H.	106TH ST. AND COLLEGE AVE. LINE "S"		BRIDGE FILE: 9980920 SHEETS: 32 of 142 PROJECT: STP-B878(001)



FOR LEGEND SEE SHEET NO. 31

PROJ. BM: BRONZE DISK STAMPED "HAM 672" SET IN N.W. WING WALL W.B.L. BRIDGE I-465 OVER COLLEGE AVE. (INDOT BM) ELEV. 258.669	257
TBM #103: S.W. COR. TOP R/W MARKER 10+226.2, 13.3 m RT. ELEV. 253.664	256

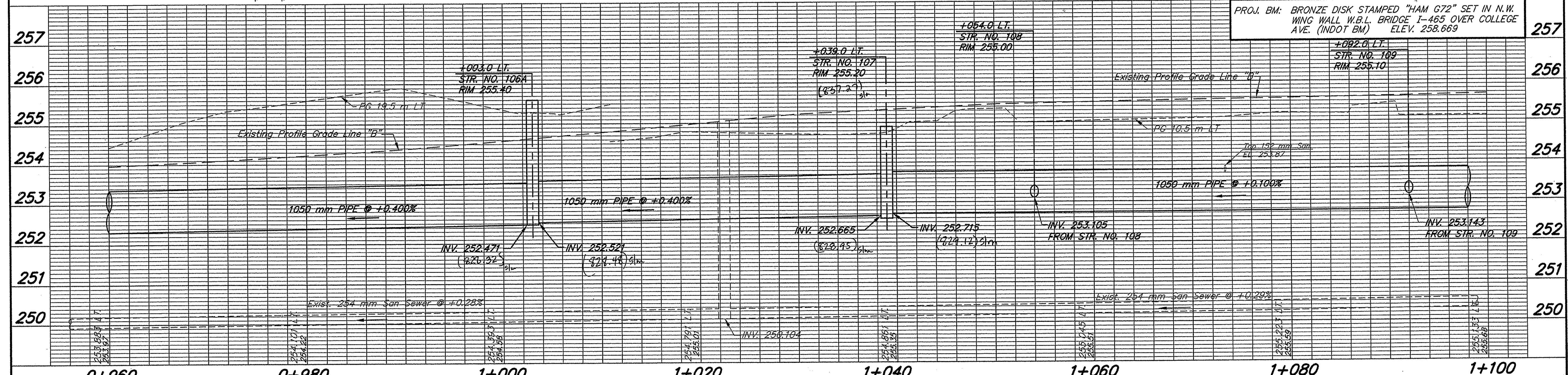
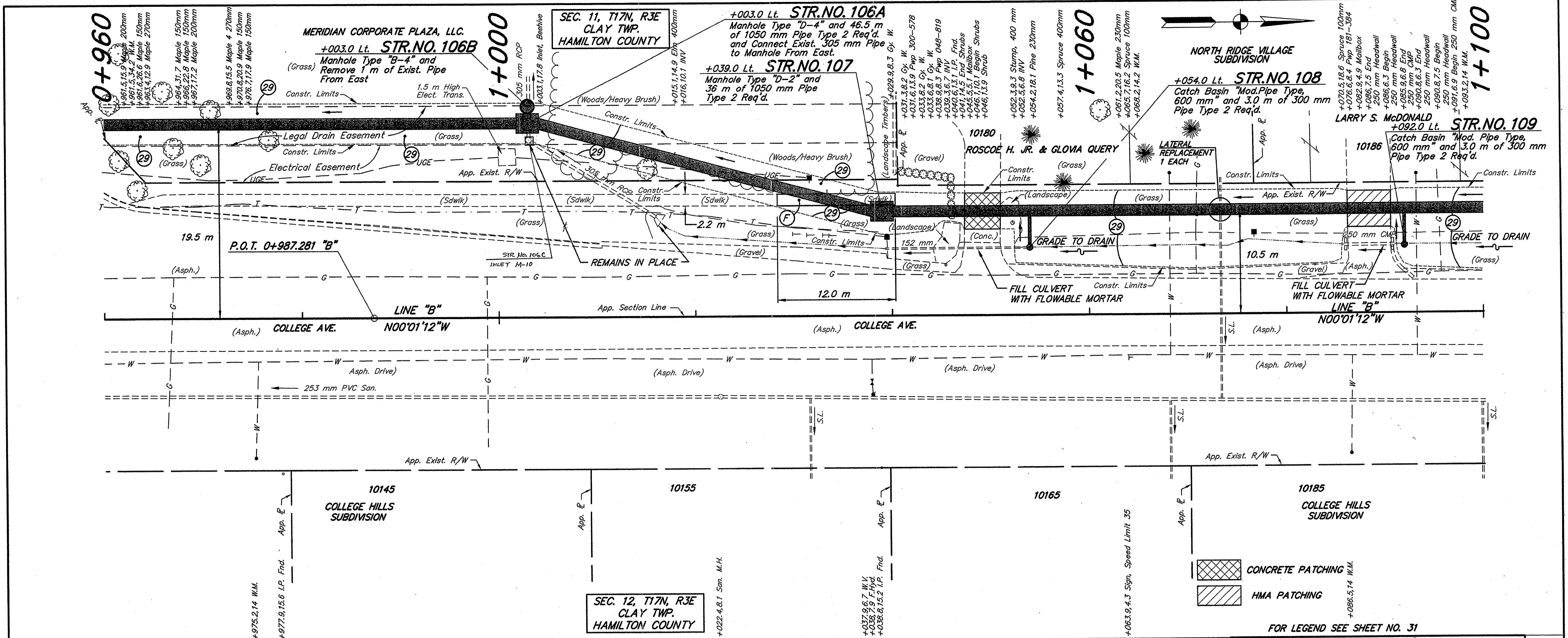
					INDIANA DEPARTMENT OF TRANSPORTATION COLLEGE AVENUE LINE "S"				
RECOMMENDED FOR APPROVAL: <i>Christopher L. Hammond</i> DESIGN ENGINEER DATE: _____					HORIZONTAL SCALE: 1:200 VERTICAL SCALE: 1:50 SURVEY BOOK: _____ SHEETS: 33 of 142 CONTRACT: R-26968 PROJECT: STP-B878(001)				
DESIGNED: C.L.H.		DRAWN: M.D.T.		CHECKED: L.C.S.		CHECKED: C.L.H.			



		RECOMMENDED FOR APPROVAL <i>Christopher L. Hamilton</i> DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION COLLEGE AVENUE LINE "B"	HORIZONTAL SCALE 1:200 BRIDGE FILE VERTICAL SCALE 1:50 DESIGNATION 9980920 SURVEY BOOK SHEETS 35 of 142 CONTRACT PROJECT R-26968 STP-B878(001)
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PATCH: 3.6 m x 3.6 m

PATCH: 3.6 m x 4.4 m



0+960	0+980	1+000	1+020	1+040	1+060	1+080	1+100

P.O.T. 0+987.281

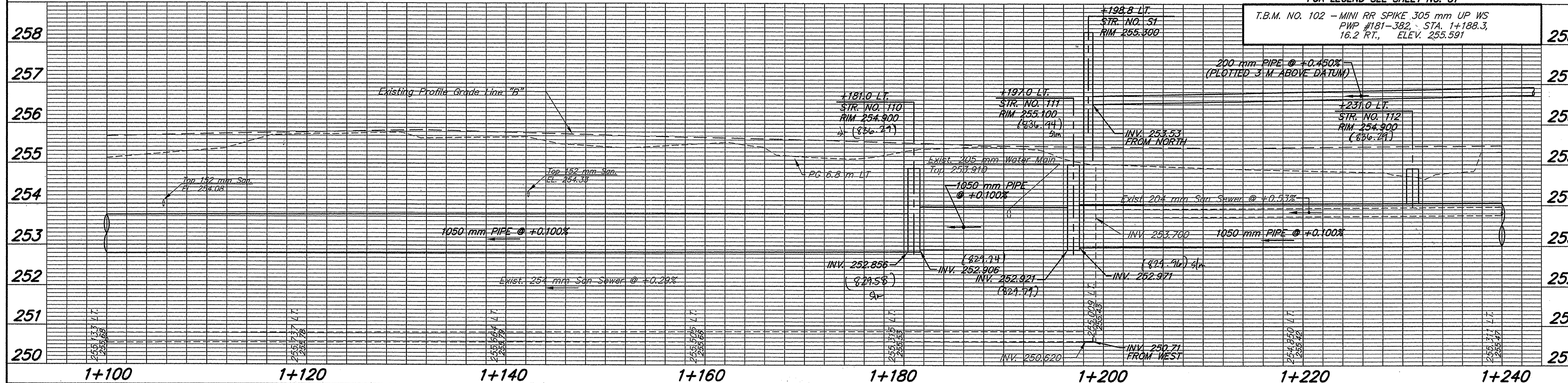
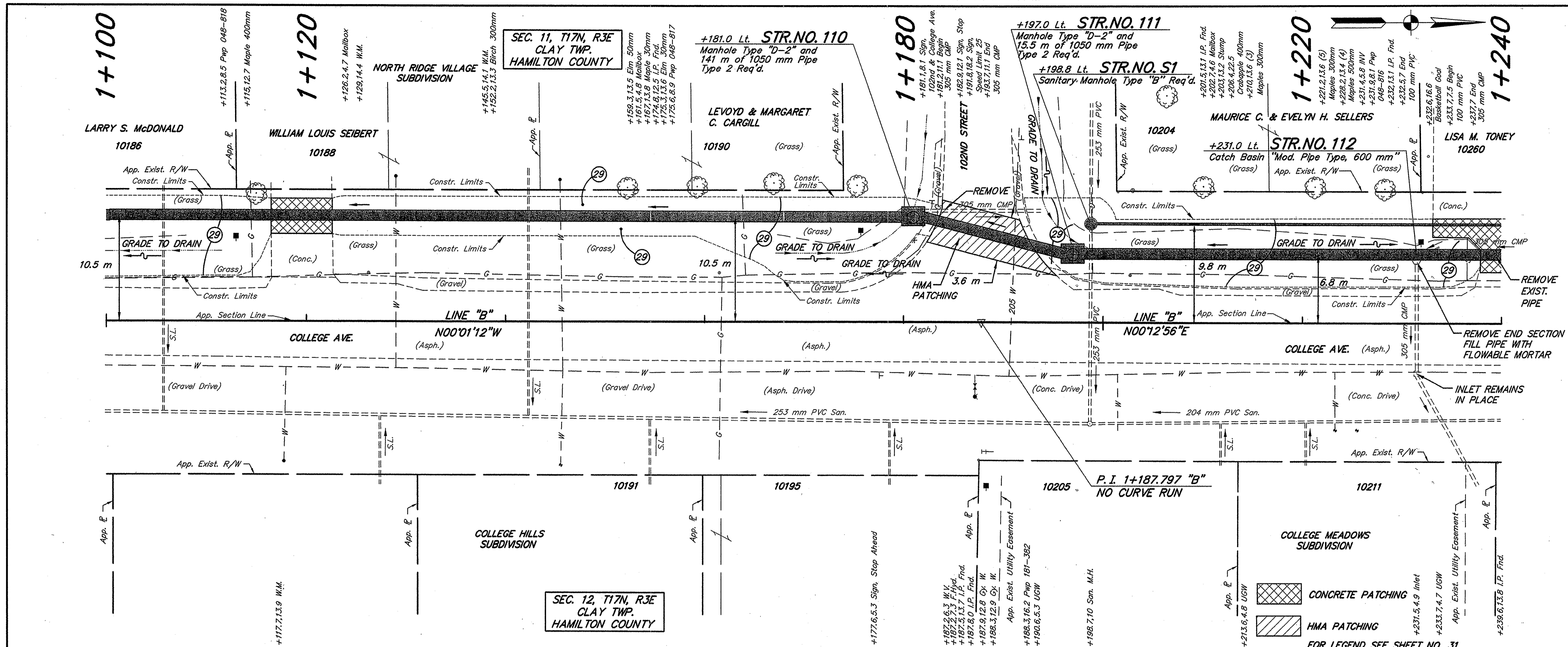
RECOMMENDED FOR APPROVAL *Chris Forner L. Hamilton* 4/16/13
DESIGN ENGINEER DATE

DESIGNED: C.L.H. DRAWN: M.D.T.
CHECKED: L.G.S. CHECKED: C.L.H.

INDIANA DEPARTMENT OF TRANSPORTATION

COLLEGE AVENUE LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
1:50	9980920
SURVEY BOOK	SHEETS
	36 of 142
CONTRACT	PROJECT
R-26968	STP-B878(001)



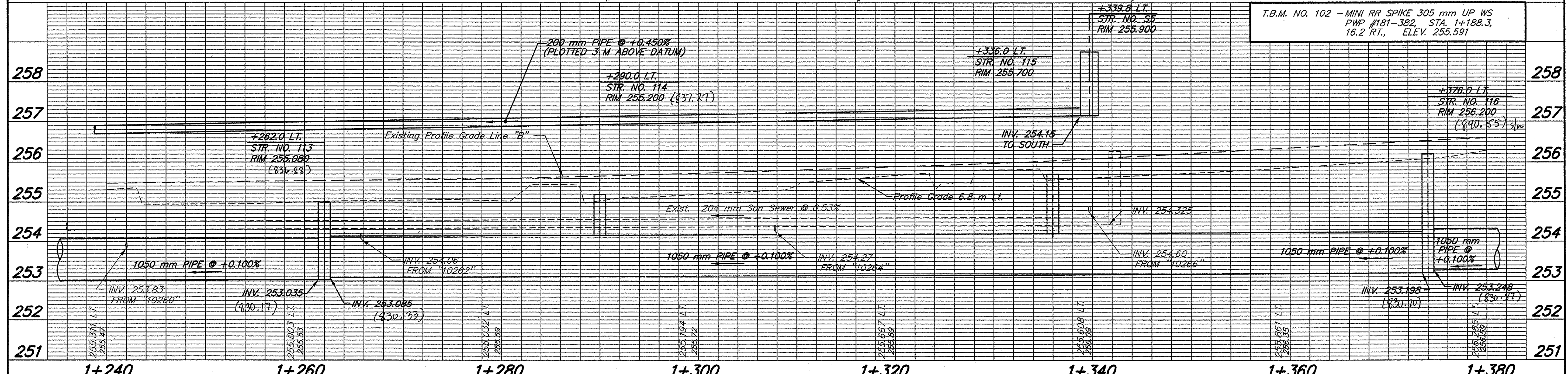
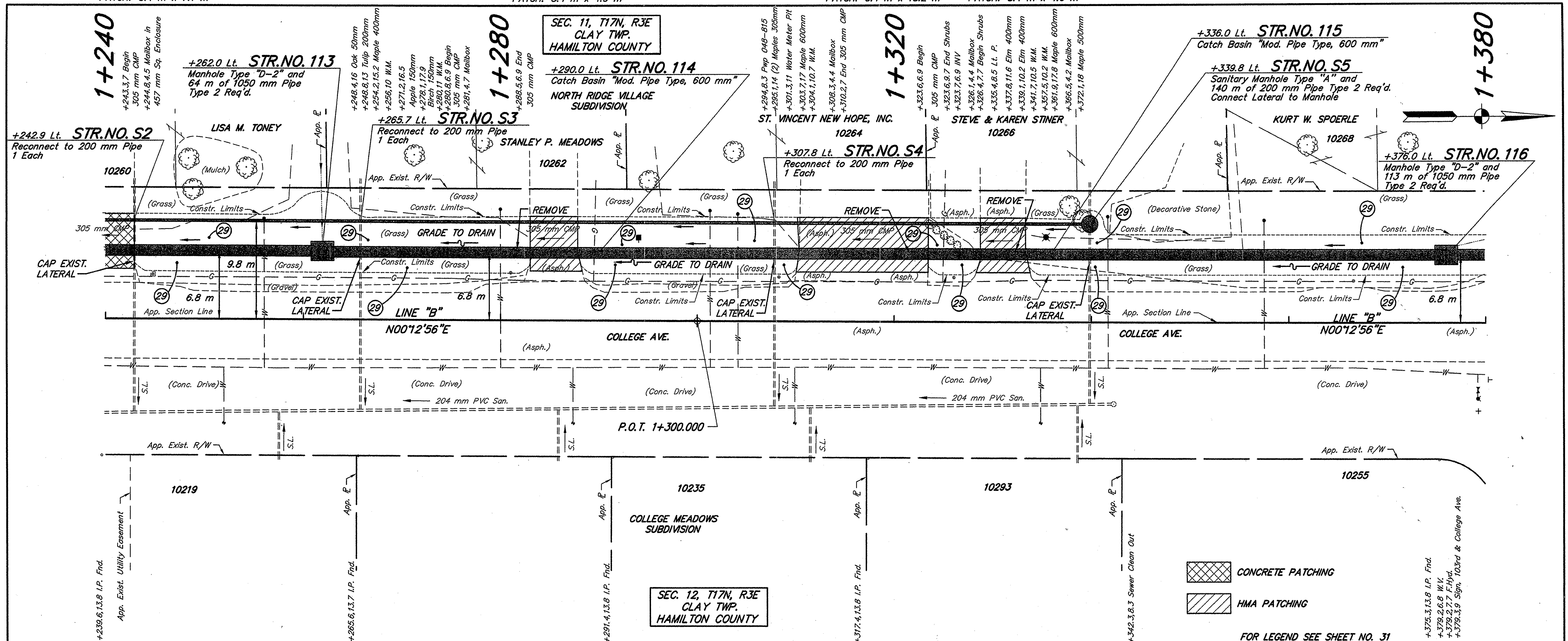
	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION COLLEGE AVENUE LINE "B"	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: C.L.H.	DRAWN: M.D.T.			VERTICAL SCALE	DESIGNATION
	CHECKED: L.C.S.	CHECKED: C.L.H.			SURVEY BOOK	SHEETS
					CONTRACT	PROJECT
					1:200	9880920
					1:50	37 of 142
					R-26968	STP-B878(001)

PATCH: 5.4 m x 7.1 m

PATCH: 5.4 m x 4.9 m

PATCH: 5.4 m x 13.2 m

PATCH: 5.4 m x 4.6 m

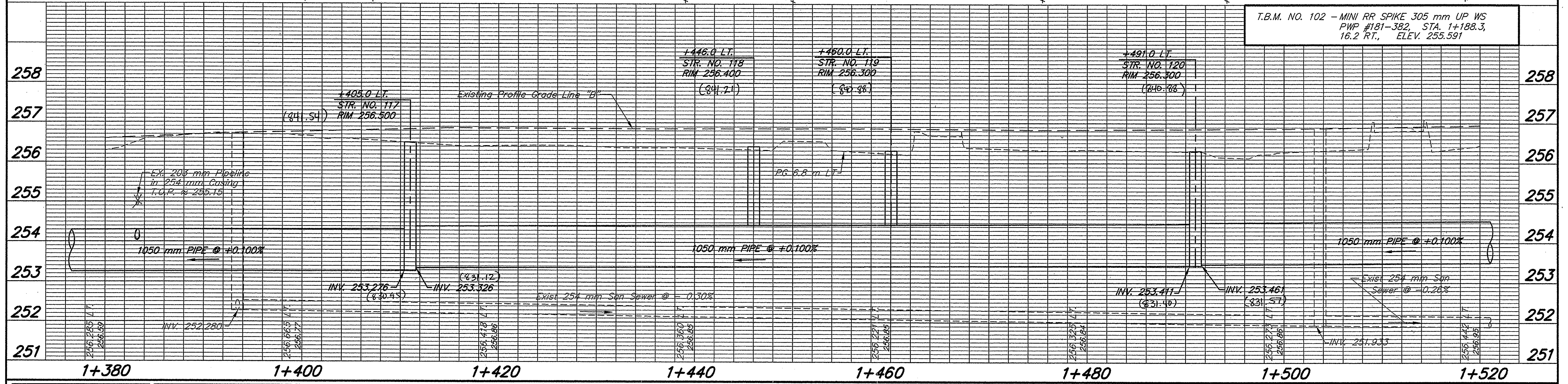
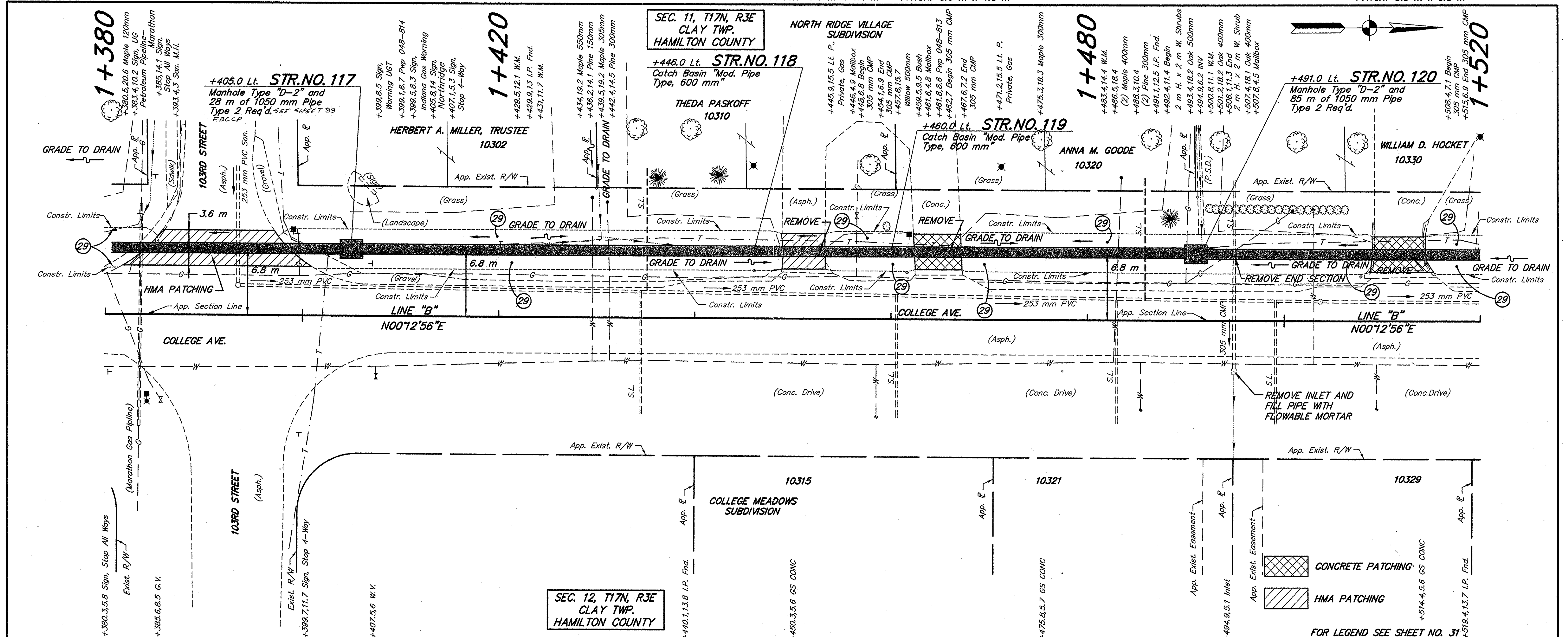


		RECOMMENDED FOR APPROVAL <i>Christopher L. Hammond</i> 6/16/07 DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION COLLEGE AVENUE LINE "B"		HORIZONTAL SCALE 1:200 BRIDGE FILE	
DESIGNED: C.L.H. CHECKED: L.G.S.		DRAWN: M.D.T. CHECKED: C.L.H.				VERTICAL SCALE 1:50 DESIGNATION 9980920	
MPKN UP 305 mm SS PWP #048-815 LINE "B" MPKN @ NW 357 mm MAPLE P.O.T. 1+300.000		CONTRACT R-26968				SURVEY BOOK SHEETS 38 of 142 PROJECT STP-B878(001)	

PATCH: 3.6 m x 14.7 m

PATCH: 3.6 m x 4.4 m PATCH: 3.6 m x 4.8 m

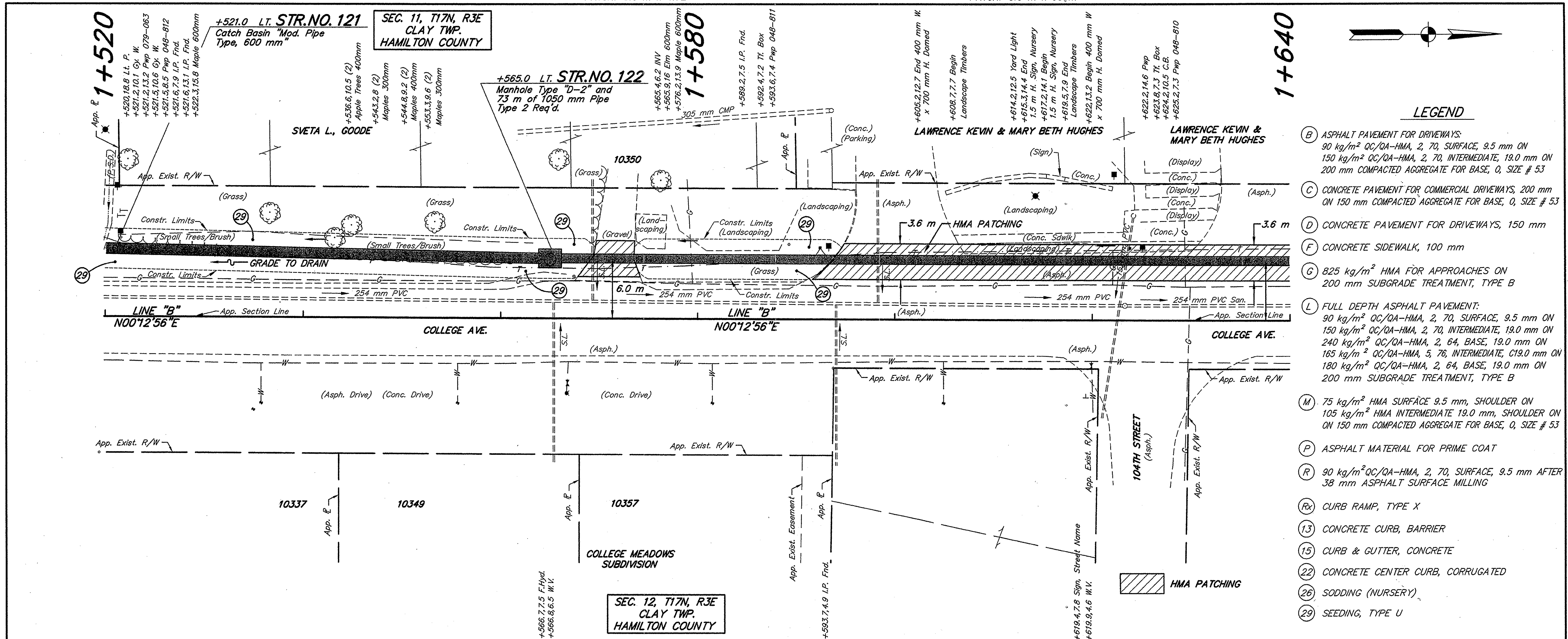
PATCH: 3.6 m x 5.5 m



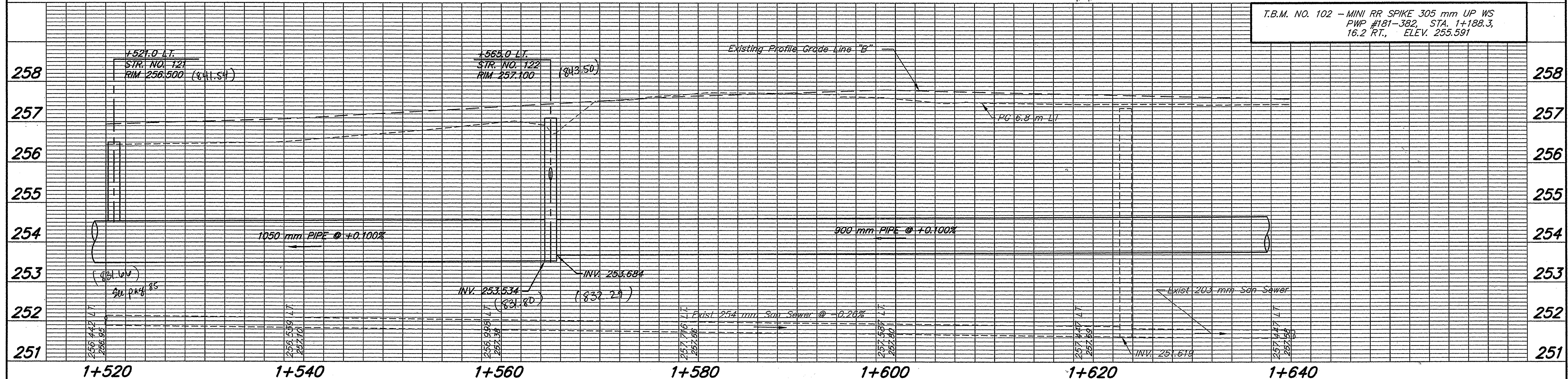
		RECOMMENDED FOR APPROVAL: <i>Christopher J. Hummel</i> 6/16/09 DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE: BRIDGE FILE 1:200	
DESIGNED: C.L.H. DRAWN: M.D.T.		CHECKED: L.C.S. CHECKED: C.L.H.		COLLEGE AVENUE LINE "B"		VERTICAL SCALE: DESIGNATION 1:50 9980920	
						SURVEY BOOK: SHEETS R-26968 39 of 142	
						CONTRACT PROJECT R-26968 STP-B878(001)	

PATCH: 3.6 m x 4.72

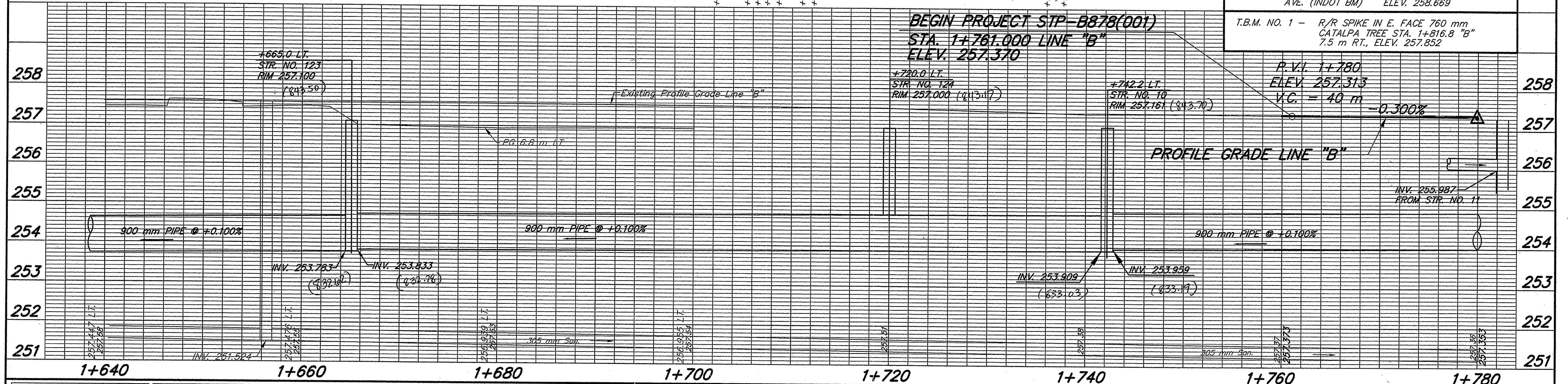
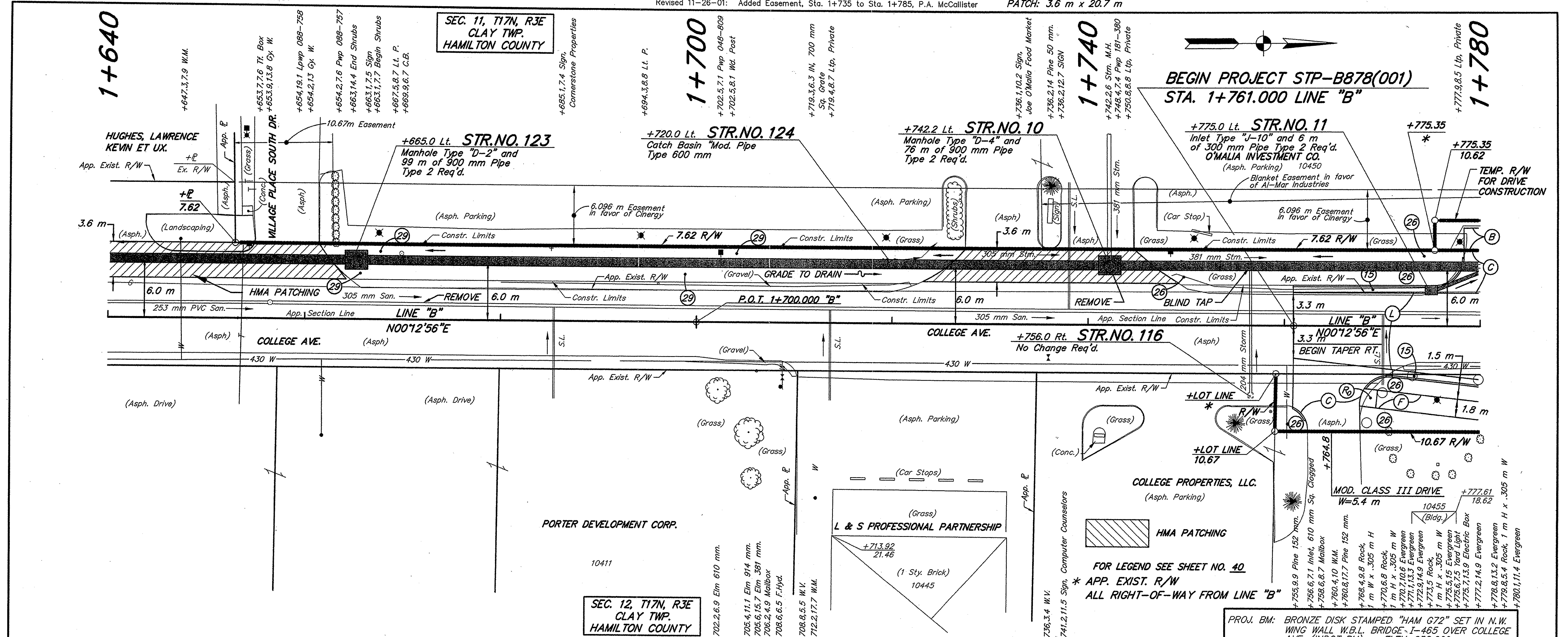
PATCH: 3.6 m x 69. m



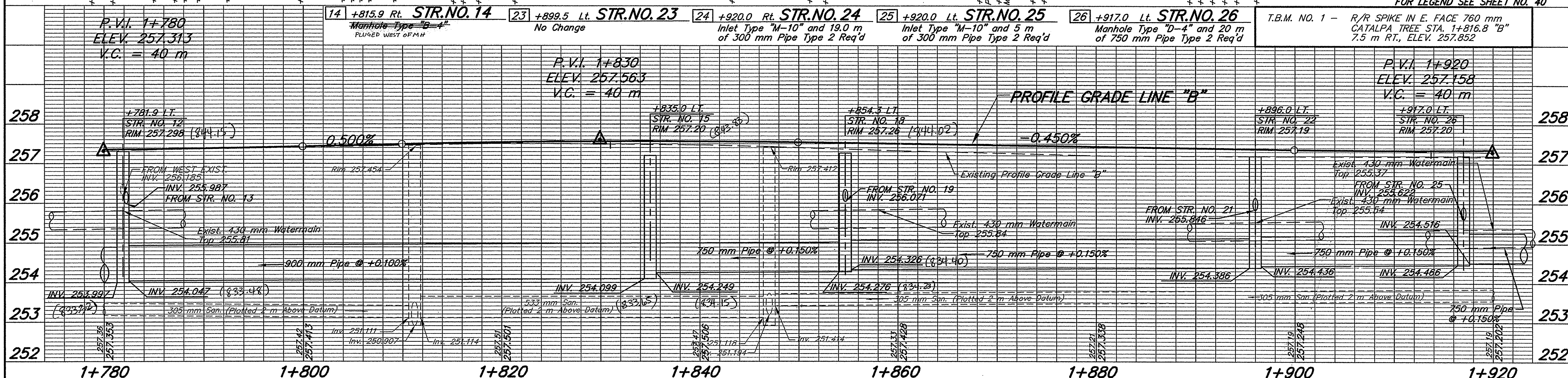
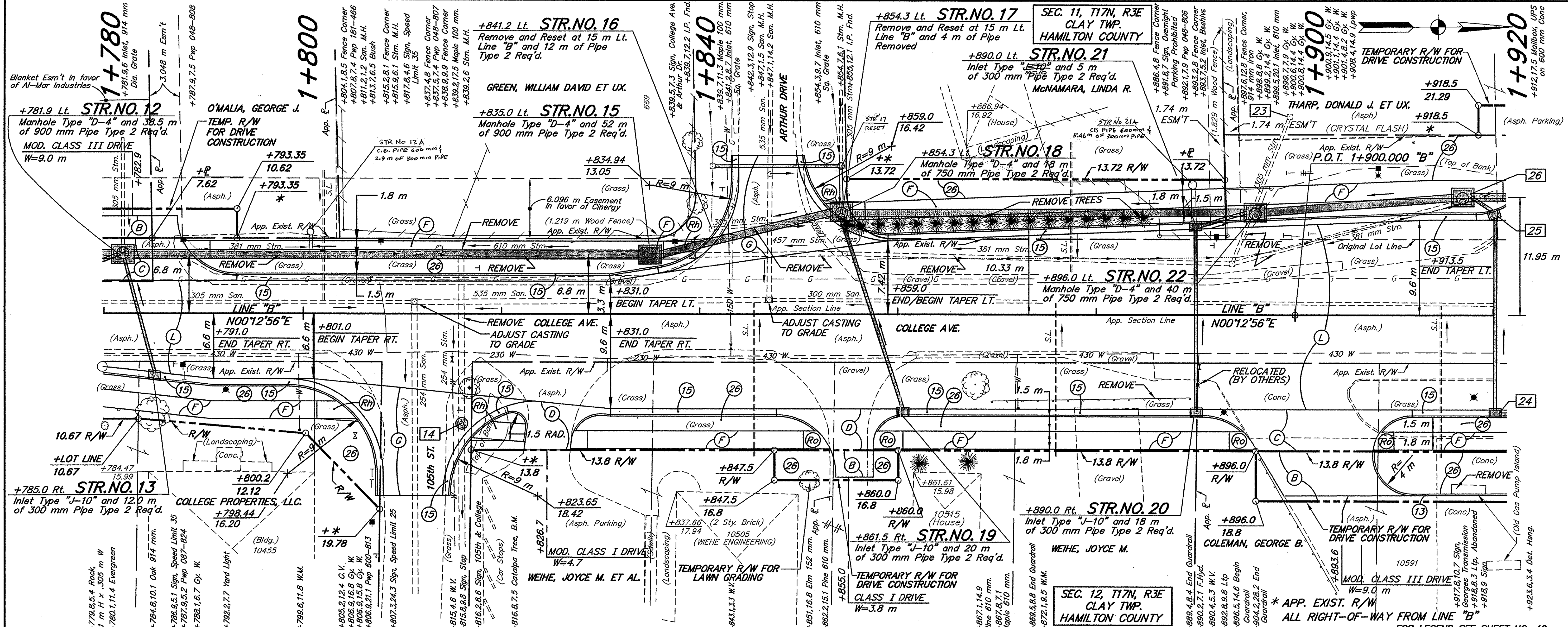
- LEGEND**
- (B) ASPHALT PAVEMENT FOR DRIVEWAYS:
90 kg/m² QC/QA-HMA, 2, 70, SURFACE, 9.5 mm ON
150 kg/m² QC/QA-HMA, 2, 70, INTERMEDIATE, 19.0 mm ON
200 mm COMPACTED AGGREGATE FOR BASE, 0, SIZE # 53
 - (C) CONCRETE PAVEMENT FOR COMMERCIAL DRIVEWAYS, 200 mm
ON 150 mm COMPACTED AGGREGATE FOR BASE, 0, SIZE # 53
 - (D) CONCRETE PAVEMENT FOR DRIVEWAYS, 150 mm
 - (E) CONCRETE SIDEWALK, 100 mm
 - (G) 825 kg/m² HMA FOR APPROACHES ON
200 mm SUBGRADE TREATMENT, TYPE B
 - (L) FULL DEPTH ASPHALT PAVEMENT:
90 kg/m² QC/QA-HMA, 2, 70, SURFACE, 9.5 mm ON
150 kg/m² QC/QA-HMA, 2, 70, INTERMEDIATE, 19.0 mm ON
240 kg/m² QC/QA-HMA, 2, 64, BASE, 19.0 mm ON
165 kg/m² QC/QA-HMA, 5, 76, INTERMEDIATE, C19.0 mm ON
180 kg/m² QC/QA-HMA, 2, 64, BASE, 19.0 mm ON
200 mm SUBGRADE TREATMENT, TYPE B
 - (M) 75 kg/m² HMA SURFACE 9.5 mm, SHOULDER ON
105 kg/m² HMA INTERMEDIATE 19.0 mm, SHOULDER ON
ON 150 mm COMPACTED AGGREGATE FOR BASE, 0, SIZE # 53
 - (P) ASPHALT MATERIAL FOR PRIME COAT
 - (R) 90 kg/m² QC/QA-HMA, 2, 70, SURFACE, 9.5 mm AFTER
38 mm ASPHALT SURFACE MILLING
 - (Rx) CURB RAMP, TYPE X
 - (13) CONCRETE CURB, BARRIER
 - (15) CURB & GUTTER, CONCRETE
 - (22) CONCRETE CENTER CURB, CORRUGATED
 - (26) SODDING (NURSERY)
 - (29) SEEDING, TYPE U



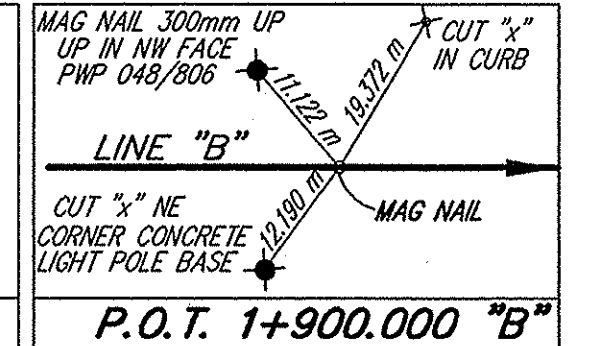
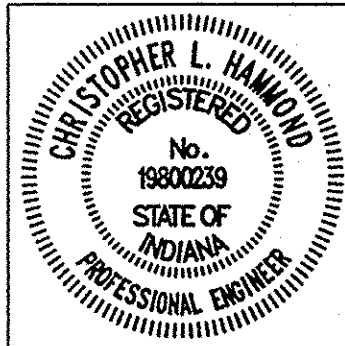
		RECOMMENDED FOR APPROVAL <i>Christopher L. Hammond</i> DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1:200 BRIDGE FILE
DESIGNED: C.L.H. CHECKED: L.C.S.		DRAWN: M.D.T. CHECKED: C.L.H.		COLLEGE AVENUE LINE "B"	
				VERTICAL SCALE 1:50 DESIGNATION 9980920	SURVEY BOOK SHEETS 40 of 142
				CONTRACT R-26968	PROJECT STP-B878(001)



	RECOMMENDED FOR APPROVAL	DATE	INDIANA DEPARTMENT OF TRANSPORTATION COLLEGE AVENUE LINE "B"	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: C.L.H.	DRAWN: M.D.T.		CHECKED: L.C.S. 17+20	CHECKED: C.L.H.
CUT "X" IN SE CORNER LIGHT POLE FOUNDATION MAG NAIL 61 m UP IN W. FACE PWP 300/289 P.O.T. 1+700.000			CONTRACT R-26968 PROJECT STP-B878(001)		



<p>RECOMMENDED FOR APPROVAL</p> <p>DESIGN ENGINEER: _____ DATE: _____</p>		<p>HORIZONTAL SCALE: 1:200 BRIDGE FILE</p> <p>VERTICAL SCALE: 1:50 DESIGNATION: 9980920</p>	
<p>DESIGNED: C.L.H. DRAWN: M.D.T.</p> <p>CHECKED: L.C.S. CHECKED: C.L.H.</p>		<p>SURVEY BOOK: _____ SHEETS: 42 of 142</p> <p>CONTRACT: R-26968 PROJECT: STP-8878(001)</p>	

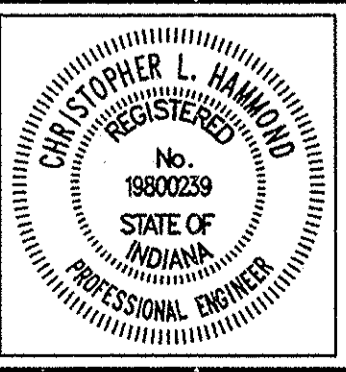


		STRUCTURE NUMBER																					
		101	102	103	104	105	106	107	108	109	110	111	113	116	117	120	122	123	10	11	12	13	15
PIPE TYPE/ SHAPE		2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.
SMOOTH PIPE SIZE		1050	1050	1050	1050	1050	1050	1050	300	300	1050	1050	1050	1050	1050	1050	1050	900	900	300	900	900	
CORRUGATED PIPE SIZE																							
RCP/ RCHEP (S)	CLASS	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	III	II
	D _{0.3} RATING	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	75	50
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)									OK	OK								OK	OK	OK	OK	OK	OK
CORRUGATED PE PIPE, TYPE S (S) *																		OK	OK	OK	OK	OK	OK
RIBBED PE PIPE (S) *																		OK	OK	OK	OK	OK	OK
SMOOTH WALL PE PIPE (S)*/ MAXIMUM DR 26.00																		OK	OK	OK	OK	OK	OK
PROFILE WALL PVC PIPE (S)																		OK	OK	OK	OK	OK	OK
SMOOTH WALL PVC PIPE (S) *																		OK	OK	OK	OK	OK	OK
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)									OK	OK								OK	OK	OK	OK	OK	OK
FULLY BIT. PAVED & LINED (S)	CORR. PROFILE	68X13	75X25	68X13	75X25	68X13	75X25	68X13															
	THICKNESS	3.51 mm	3.51 mm	3.51 mm	3.51 mm	3.51 mm	3.51 mm	3.51 mm															
ZINC COATED (C)	CORR. PROFILE	(LS) or (RIV)	(LS) or (RIV)	(LS) or (RIV)	(LS) or (RIV)	(LS) or (RIV)	(LS) or (RIV)	(LS) or (RIV)															
	THICKNESS																						
ZINC COATED W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
ALUM. COATED TYPE 2 (C)	CORR. PROFILE																						
	THICKNESS																						
ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE																						
	THICKNESS																						
POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE																						
	THICKNESS																						
FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE																						
	THICKNESS																						
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
STR. PLATE ALUMINUM ALLOY PIPE (C)	CORR. PROFILE																						
	THICKNESS																						
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C)	CORR. PROFILE																						
	THICKNESS																						
STR. PLATE STEEL PIPE (C)	CORR. PROFILE																						
	THICKNESS **																						
STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE																						
	THICKNESS **																						

		STRUCTURE NUMBER																	
		16	18	19	20	21	22	24	25	26	30	31	33	34	35A/B	36	37	38A/B	39
PIPE TYPE/ SHAPE		2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.
SMOOTH PIPE SIZE		300	750	300	300	300	750	300	300	750	300	300	750	300	300	750	300	300	450
CORRUGATED PIPE SIZE																			
RCP/ RCHEP (S)	CLASS	III	II	III	III	III	II	III	III	II	III	II	II	III	III	II	III	III	II
	D _{0.3} RATING	75	50	75	75	75	50	75	75	50	75	50	50	75	75	50	75	75	50
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)			OK				OK			OK			OK			OK			OK
CORRUGATED PE PIPE, TYPE S (S) *			OK				OK			OK			OK			OK			OK
RIBBED PE PIPE (S) *			OK				OK			OK			OK			OK			OK
SMOOTH WALL PE PIPE (S)*/ MAXIMUM DR 26.00			OK				OK			OK			OK			OK			OK
PROFILE WALL PVC PIPE (S)			OK				OK			OK			OK			OK			OK
SMOOTH WALL PVC PIPE (S) *			OK				OK			OK			OK			OK			OK
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)			OK				OK			OK			OK			OK			OK
FULLY BIT. PAVED & LINED (S)	CORR. PROFILE		68X13				68X13			68X13			68X13			68X13			68X13
	THICKNESS		3.51 mm				3.51 mm			3.51 mm			3.51 mm			3.51 mm			3.51 mm
ZINC COATED (C)	CORR. PROFILE		(LS) or (RIV)				(LS) or (RIV)			(LS) or (RIV)			(LS) or (RIV)			(LS) or (RIV)			(LS) or (RIV)
	THICKNESS																		
ZINC COATED W/ BPI (C)	CORR. PROFILE																		
	THICKNESS																		
ALUM. COATED TYPE 2 (C)	CORR. PROFILE																		
	THICKNESS																		
ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE																		
	THICKNESS																		
POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE																		
	THICKNESS																		
POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE																		
	THICKNESS																		
FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE																		
	THICKNESS																		
FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE																		
	THICKNESS																		
CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE																		
	THICKNESS																		
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE																		
	THICKNESS																		
STR. PLATE ALUMINUM ALLOY PIPE (C)	CORR. PROFILE																		
	THICKNESS																		
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C)	CORR. PROFILE																		
	THICKNESS																		
STR. PLATE STEEL PIPE (C)	CORR. PROFILE																		
	THICKNESS **																		
STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE																		
	THICKNESS **																		

- LEGEND**
- RCP- REINFORCED CONCRETE PIPE
 - RCHEP- REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE
 - PE- POLYETHYLENE
 - DR- DIMENSION RATIO
 - PVC- POLYVINYL CHLORIDE
 - BIT- BITUMINOUS
 - CORR- CORRUGATION
 - BPI- BITUMINOUS PAVED INVERT
 - ALUM- ALUMINUM
 - STR- STRUCTURAL
 - CFP- CONCRETE FIELD PAVING
 - CIR- CIRCULAR PIPE
 - DEF- DEFORMED PIPE
 - (S)- SMOOTH PIPE MATERIAL
 - (C)- CORRUGATED PIPE MATERIAL
 - OK- ACCEPTABLE FOR USE
 - (LS)- LOCK SEAM PIPE REQUIRED
 - ** REFER TO STANDARD DRAWING 715-PHCL-18 OR 19 FOR NOMINAL DIAMETER APPROPRIATE FOR PAY ITEM DIAMETER
 - *** TABULATED THICKNESS REFERS TO TOP & SIDE PLATES. BOTTOM PLATES SHALL BE OF NEXT GREATER AVAILABLE THICKNESS.
 - RCBC- REINFORCED CONCRETE BOX COLVERT
 - (RIV)- RIVETED PIPE REQUIRED

THIS COPY IS FROM THE DIGITAL ARCHIVE OF THE HAMILTON COUNTY SURVEYOR'S OFFICE, NOBLESVILLE, IN 46060



RECOMMENDED FOR APPROVAL *Christopher J. Hammond* DATE _____
 DESIGNER: CLH DRAWN: CLH
 CHECKED: LCS CHECKED: DFS

INDIANA DEPARTMENT OF TRANSPORTATION
 COLLEGE AVE. AND 106th ST.
 PIPE MATERIAL SHEET

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	9980920
SURVEY BOOK	SHEETS
	89 of 142
CONTRACT	PROJECT
R-26968	STP-B878(001)

		STRUCTURE NUMBER																					
		41	42	45	46	47	48	49	50	51	52	53	54	55	56	57A/B	58	59	60	61	62	63	64
PIPE TYPE/ SHAPE		2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.
SMOOTH PIPE SIZE		300	375	300	375	300	300	300	300	300	300	300	300	300	600	300	300	450	300	300	450	300	375
CORRUGATED PIPE SIZE																							
RCP/ RCHEP (S)	CLASS	III	II	III	II	III	III	II	II	II	II	II	II	III		II	III	II	III	III	II	II	II
	D _{0.3} RATING	75	50	75	50	75	75	60	60	75	50	50	60	75		60	75	50	75	75	50	60	50
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)								OK	OK		OK	OK	OK		OK	OK	OK				OK	OK	OK
CORRUGATED PE PIPE, TYPE S (S) *																							
RIBBED PE PIPE (S) *																							
SMOOTH WALL PE PIPE (S)*/ MAXIMUM DR 26.00																							
PROFILE WALL PVC PIPE (S)																							
SMOOTH WALL PVC PIPE (S) *																							
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)								OK	OK		OK	OK	OK		OK	OK	OK				OK	OK	OK
FULLY BIT. PAVED & LINED (S)	CORR. PROFILE																						
	THICKNESS																						
ZINC COATED (C)	CORR. PROFILE																						
	THICKNESS																						
ZINC COATED W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
ALUM. COATED TYPE 2 (C)	CORR. PROFILE																						
	THICKNESS																						
ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE																						
	THICKNESS																						
POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE																						
	THICKNESS																						
FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE																						
	THICKNESS																						
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE																						
	THICKNESS																						
STR. PLATE ALUMINUM ALLOY PIPE (C)	CORR. PROFILE																						
	THICKNESS																						
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C)	CORR. PROFILE																						
	THICKNESS																						
STR. PLATE STEEL PIPE (C)	CORR. PROFILE																						
	THICKNESS **																						
STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE																						
	THICKNESS **																						

		STRUCTURE NUMBER									
		65	66	69	70	71	72	73	74	81	82
PIPE TYPE/ SHAPE		3/CIR.	2/CIR.	2/CIR.	2/CIR.	2/CIR.	1/CIR.	3/CIR.	3/CIR.	3/CIR.	3/CIR.
SMOOTH PIPE SIZE		300	300	300	300	300	450	300	100	300	300
CORRUGATED PIPE SIZE											
RCP/ RCHEP (S)	CLASS	II	III	II	II	III	II	III	II	III	III
	D _{0.3} RATING	60	75	50	60	75	50	75	50	75	75
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)		OK		OK	OK						
CORRUGATED PE PIPE, TYPE S (S) *				OK							
RIBBED PE PIPE (S) *											
SMOOTH WALL PE PIPE (S)*/ MAXIMUM DR 26.00				OK							
PROFILE WALL PVC PIPE (S)				OK							
SMOOTH WALL PVC PIPE (S) *				OK							
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)		OK		OK	OK						
FULLY BIT. PAVED & LINED (S)	CORR. PROFILE										
	THICKNESS										
ZINC COATED (C)	CORR. PROFILE										
	THICKNESS										
ZINC COATED W/ BPI (C)	CORR. PROFILE						68X13				
	THICKNESS						2.77 mm (LS) OR (RIV)				
ALUM. COATED TYPE 2 (C)	CORR. PROFILE										
	THICKNESS										
ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE						68X13				
	THICKNESS						0.63 mm (LS) OR (RIV)				
POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE										
	THICKNESS										
POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE						68X13				
	THICKNESS						0.63 mm (LS) OR (RIV)				
FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE										
	THICKNESS										
FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE						68X13				
	THICKNESS						1.63 mm (LS) OR (RIV)				
CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE										
	THICKNESS										
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE						68X13				
	THICKNESS						1.52 mm (LS) OR (RIV)				
STR. PLATE ALUMINUM ALLOY PIPE (C)	CORR. PROFILE										
	THICKNESS										
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C)	CORR. PROFILE										
	THICKNESS										
STR. PLATE STEEL PIPE (C)	CORR. PROFILE										
	THICKNESS **										
STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE										
	THICKNESS **										

- LEGEND**
- RCP- REINFORCED CONCRETE PIPE
 - RCHEP- REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE
 - PE- POLYETHYLENE
 - DR- DIMENSION RATIO
 - PVC- POLYVINYL CHLORIDE
 - BIT- BITUMINOUS
 - CORR- CORRUGATION
 - BPI- BITUMINOUS PAVED INVERT
 - ALUM- ALUMINUM
 - STR- STRUCTURAL
 - CFP- CONCRETE FIELD PAVING
 - CIR- CIRCULAR PIPE
 - DEF- DEFORMED PIPE
 - (S)- SMOOTH PIPE MATERIAL
 - (C)- CORRUGATED PIPE MATERIAL
 - OK- ACCEPTABLE FOR USE
 - (LS)- LOCK SEAM PIPE REQUIRED
 - ** REFER TO STANDARD DRAWING 715-PHCL-18 OR 19 FOR NOMINAL DIAMETER APPROPRIATE FOR PAY ITEM DIAMETER
 - *** TABULATED THICKNESS REFERS TO TOP & SIDE PLATES. BOTTOM PLATES SHALL BE OF NEXT GREATER AVAILABLE THICKNESS.
 - RCBC- REINFORCED CONCRETE BOX COLVERT
 - (RIV)- RIVETED PIPE REQUIRED

INDIANA
DEPARTMENT OF TRANSPORTATION
COLLEGE AVE. AND 106th ST.
PIPE MATERIAL SHEET

RECOMMENDED FOR APPROVAL
Christina J. Hammond 6/16/03
DESIGN ENGINEER DATE

DESIGNED: CLH DRAWN: CLH
CHECKED: LCS CHECKED: DFS

INDIANA
DEPARTMENT OF TRANSPORTATION
COLLEGE AVE. AND 106th ST.
PIPE MATERIAL SHEET

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	9980920
SURVEY BOOK	SHEETS
	90 of 142
CONTRACT	PROJECT
R-26968	STP-BB78(001)