

Appendix 6-2

Large Diameter Rehabilitation

Terre Haute Sanitary District - Large Diameter Sewer Rehabilitation 2005
Bid Date: November 22, 2005

Bidder:						Pressure Concrete Inc.			Affholder, Inc.		Coastal Gunite			Superior Gunite			Abhe & Svoboda, Inc.	
1	Bid Form Signed						X		X		X		X		X		X	
2	Bid Bond						X		X		X		X		X		X	
3	Indiana Form 96 W / Non-Collusion Affidavit						X		X		X		X		X		X	
4	Proof of Insurance						X		X		X		X		X			
5	Surety Intent to Provide Required Bonds						X		X		X		X		X			
6	Acknowledgement of Addendum #1						X		X		X		X		X		X	
7	Acknowledgement of Addendum #2						X		X		X		X		X		X	
8							X		X		X		X		X		X	
						Engineer's Estimate		Pressure Concrete		Affholder, Inc.		Costal Gunite		Superior Gunite		Abhe & Svoboda, Inc.		
Item	Description	Unit	Quantity	Unit Cost	Amount	Unit Cost	Amount	Bid Doc	Unit Cost	Amount	Unit Cost	Amount	Bid Doc	Unit Cost	Amount	Bid Doc	Unit Cost	Amount
I. Chestnut Street																		
1	Sewer with diameter of 96", Shotcrete Method #1	LF	1,062	\$330.00	\$350,460.00	\$234.00	\$248,508.00		\$270.00	\$286,740.00	\$271.00	\$287,802.00		\$202.00	\$214,524.00		\$327.00	\$347,274.00
2	Sewer with diameter of 88", Shotcrete Method #1	LF	1,186	\$300.00	\$355,800.00	\$217.00	\$257,362.00		\$260.00	\$308,360.00	\$243.00	\$288,198.00		\$261.00	\$309,546.00		\$299.00	\$354,614.00
3	Sewer with diameter of 84", Shotcrete Method #1	LF	1,213	\$290.00	\$351,770.00	\$265.00	\$321,445.00		\$270.00	\$327,510.00	\$290.00	\$351,770.00		\$248.00	\$300,824.00		\$286.00	\$346,918.00
4	Sewer with diameter of 72", Shotcrete Method #1	LF	16	\$245.00	\$3,920.00	\$226.00	\$3,616.00		\$1,395.00	\$22,320.00	\$280.00	\$4,480.00		\$290.00	\$4,640.00		\$245.00	\$3,920.00
5	Sewer with diameter of 60", Shotcrete Method #1	LF	384	\$205.00	\$78,720.00	\$203.00	\$77,952.00		\$230.00	\$88,320.00	\$160.00	\$61,440.00		\$220.00	\$84,480.00		\$204.00	\$78,336.00
6	Sewer with diameter of 60", Shotcrete Method #2	LF	20	\$500.00	\$10,000.00	\$251.00	\$5,020.00		\$1,075.00	\$21,500.00	\$200.00	\$4,000.00		\$331.00	\$6,620.00		\$314.00	\$6,280.00
7	Manhole Repair, Type "M1"	EACH	7	\$600.00	\$4,200.00	\$1,800.00	\$12,600.00		\$1,500.00	\$10,500.00	\$1,000.00	\$7,000.00		\$825.00	\$5,775.00		\$1,800.00	\$12,600.00
8	Manhole Repair, Type "M2"	EACH	4	\$300.00	\$1,200.00	\$1,800.00	\$7,200.00		\$895.00	\$3,580.00	\$800.00	\$3,200.00		\$345.00	\$1,380.00		\$2,000.00	\$8,000.00
9	Maintenance of Traffic	LS	1	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00		\$5,000.00	\$5,000.00	\$30,000.00	\$30,000.00		\$22,600.00	\$22,600.00		\$20,000.00	\$20,000.00
10	Mobilization/Demobilization	LS	1	\$58,550.00	\$58,550.00	\$12,500.00	\$12,500.00		\$50,000.00	\$50,000.00	\$10,000.00	\$10,000.00		\$205,000.00	\$205,000.00		\$100,000.00	\$100,000.00
	SUBTOTAL				\$1,229,620.00		\$961,203.00			\$1,123,830.00		\$1,047,890.00			\$1,155,389.00			\$1,277,942.00
II. Hulman Street																		
1	Sewer with diameter of 114", Shotcrete Method #1	LF	1,902	\$390.00	\$741,780.00	\$299.00	\$568,698.00		\$345.00	\$656,190.00	\$304.00	\$578,208.00		\$269.00	\$511,638.00		\$388.00	\$737,976.00
2	Sewer with diameter of 96", Shotcrete Method #1	LF	2,277	\$330.00	\$751,410.00	\$310.00	\$705,870.00		\$280.00	\$637,560.00	\$354.00	\$806,058.00		\$389.00	\$885,753.00		\$327.00	\$744,579.00
3	Sewer with diameter of 94", Shotcrete Method #1	LF	186	\$330.00	\$61,380.00	\$326.00	\$60,636.00		\$335.00	\$62,310.00	\$294.00	\$54,684.00	\$55,727.00	\$315.00	\$58,590.00		\$320.00	\$59,520.00
4	Sewer with diameter of 92", Shotcrete Method #1	LF	2,301	\$310.00	\$713,310.00	\$244.00	\$561,444.00		\$255.00	\$586,755.00	\$310.00	\$713,310.00		\$303.00	\$697,203.00		\$313.00	\$720,213.00
5	Sewer with diameter of 90", Shotcrete Method #1	LF	791	\$305.00	\$241,255.00	\$424.00	\$335,384.00		\$275.00	\$217,525.00	\$320.00	\$253,120.00		\$412.00	\$325,892.00		\$306.00	\$242,046.00
6	Sewer with diameter of 86", Shotcrete Method #1	LF	351	\$295.00	\$103,545.00	\$406.00	\$142,506.00		\$305.00	\$107,055.00	\$306.00	\$107,406.00		\$302.00	\$106,002.00		\$293.00	\$102,843.00
7	Sewer with diameter of 84", Shotcrete Method #1	LF	368	\$290.00	\$106,720.00	\$418.00	\$153,824.00		\$275.00	\$101,200.00	\$355.00	\$130,640.00		\$305.00	\$112,240.00		\$286.00	\$105,248.00
8	Sewer with diameter of 84", Shotcrete Method #2	LF	36	\$600.00	\$21,600.00	\$462.00	\$16,632.00		\$695.00	\$25,020.00	\$367.00	\$13,212.00	\$13,230.00	\$363.00	\$13,068.00		\$440.00	\$15,840.00
9	Manhole Repair, Type "M1"	EACH	1	\$600.00	\$600.00	\$1,800.00	\$1,800.00		\$1,500.00	\$1,500.00	\$1,000.00	\$1,000.00		\$825.00	\$825.00		\$1,800.00	\$1,800.00
10	Manhole Repair, Type "M2"	EACH	17	\$300.00	\$5,100.00	\$1,800.00	\$30,600.00		\$895.00	\$15,215.00	\$800.00	\$13,600.00		\$345.00	\$5,865.00		\$2,000.00	\$34,000.00
11	Manhole Repair, Type "M4"	EACH	1	\$1,250.00	\$1,250.00	\$2,200.00	\$2,200.00		\$1,200.00	\$1,200.00	\$2,000.00	\$2,000.00		\$2,500.00	\$2,500.00		\$2,500.00	\$2,500.00
12	Maintenance of Traffic	LS	1	\$20,000.00	\$20,000.00	\$15,000.00	\$15,000.00		\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00		\$34,000.00	\$34,000.00		\$20,000.00	\$20,000.00
13	Mobilization/Demobilization	LS	1	\$138,400.00	\$138,400.00	\$12,500.00	\$12,500.00		\$50,000.00	\$50,000.00	\$10,000.00	\$10,000.00		\$275,000.00	\$275,000.00		\$100,000.00	\$100,000.00
	SUBTOTAL				\$2,906,350.00		\$2,607,094.00			\$2,466,530.00		\$2,688,238.00	\$2,688,744.00		\$3,028,576.00			\$2,886,565.00
III. Walnut Street																		
1	Sewer with diameter of 96", Shotcrete Method #1	LF	6,703	\$330.00	\$2,211,990.00	\$224.00	\$1,501,472.00		\$275.00	\$1,843,325.00	\$304.00	\$2,037,712.00	\$2,038,673.00	\$271.00	\$1,816,513.00		\$327.00	\$2,191,881.00
2	Sewer with diameter of 92", Shotcrete Method #1	LF	333	\$310.00	\$103,230.00	\$227.00	\$75,591.00	\$75,595.00	\$305.00	\$101,565.00	\$278.00	\$92,674.00		\$260.00	\$86,580.00		\$313.00	\$104,229.00
3	Manhole Repair, Type "M1"	EACH	5	\$600.00	\$3,000.00	\$1,800.00	\$9,000.00		\$1,500.00	\$7,500.00	\$1,000.00	\$5,000.00		\$825.00	\$4,125.00		\$1,800.00	\$9,000.00
4	Manhole Repair, Type "M2"	EACH	7	\$300.00	\$2,100.00	\$1,800.00	\$12,600.00		\$895.00	\$6,265.00	\$800.00	\$5,600.00		\$345.00	\$2,415.00		\$2,000.00	\$14,000.00
5	Manhole Repair, Type "M3"	EACH	1	\$1,000.00	\$1,000.00	\$2,200.00	\$2,200.00		\$1,400.00	\$1,400.00	\$2,000.00	\$2,000.00		\$1,600.00	\$1,600.00		\$2,000.00	\$2,000.00
6	Manhole Repair, Type "M5"	EACH	1	\$750.00	\$750.00	\$2,600.00	\$2,600.00		\$1,200.00	\$1,200.00	\$1,000.00	\$1,000.00		\$850.00	\$850.00		\$3,000.00	\$3,000.00
7	Manhole Repair, Type "M6"	EACH	1	\$1,200.00	\$1,200.00	\$3,000.00	\$3,000.00		\$1,200.00	\$1,200.00	\$1,500.00	\$1,500.00		\$1,200.00	\$1,200.00		\$3,500.00	\$3,500.00
8	Maintenance of Traffic	LS	1	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00		\$5,000.00	\$5,000.00	\$20,000.00	\$20,000.00		\$44,000.00	\$44,000.00		\$20,000.00	\$20,000.00
9	Mobilization/Demobilization	LS	1	\$116,670.00	\$116,670.00	\$12,500.00	\$12,500.00		\$50,000.00	\$50,000.00	\$10,000.00	\$10,000.00		\$250,000.00	\$250,000.00		\$100,000.00	\$100,000.00
	SUBTOTAL				\$2,454,940.00		\$1,633,963.00			\$2,017,455.00		\$2,175,386.00	\$2,176,347.00		\$2,207,283.00			\$2,447,610.00
IV. Spruce Street																		
1	Sewer with diameter of 108", Shotcrete Method #3	LF	1,296	\$370.00	\$479,520.00	\$486.00	\$629,856.00	\$624,996.00	\$390.00	\$505,440.00	\$600.00	\$777,600.00		\$506.00	\$655,776.00	\$655,000.00	\$565.00	\$732,240.00
2	Sewer with diameter of 72", Shotcrete Method #3	LF	542	\$245.00	\$132,790.00	\$321.00	\$173,982.00		\$305.00	\$165,310.00	\$366.00	\$198,372.00		\$394.00	\$213,548.00	\$213,000.00	\$377.00	\$204,334.00
3	Manhole Repair, Type "M1"	EACH	1	\$600.00	\$600.00	\$1,800.00	\$1,800.00		\$1,500.00	\$1,500.00	\$1,000.00	\$1,000.00		\$344.00	\$344.00		\$1,800.00	\$1,800.00
4	Manhole Repair, Type "M2"	EACH	3	\$300.00	\$900.00	\$1,800.00	\$5,400.00		\$895.00	\$2,685.00	\$800.00	\$2,400.00		\$1,600.00	\$4,800.00		\$2,000.00	\$6,000.00
5	Manhole Repair, Type "M5"	EACH	1	\$750.00	\$750.00	\$2,600.00	\$2,600.00		\$1,200.00	\$1,200.00	\$1,000.00	\$1,000.00		\$825.00	\$825.00		\$3,000.00	\$3,000.00
6	Maintenance of Traffic	LS	1	\$2,500.00	\$2,500.00													

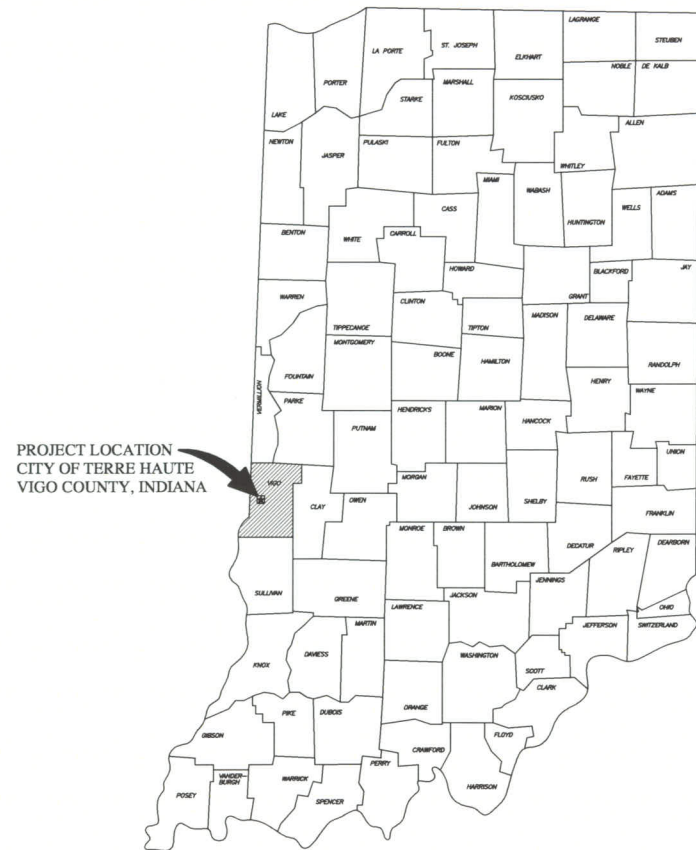
Date: 11/28/05

Certified By: *Eric M. Smith*



Terre Haute Sanitary District Large Diameter Sewer Rehabilitation 2005

September 2005



Area Location Map: State of Indiana



CITY OF TERRE HAUTE

Kevin D. Burke Mayor

BOARD OF COMMISSIONERS

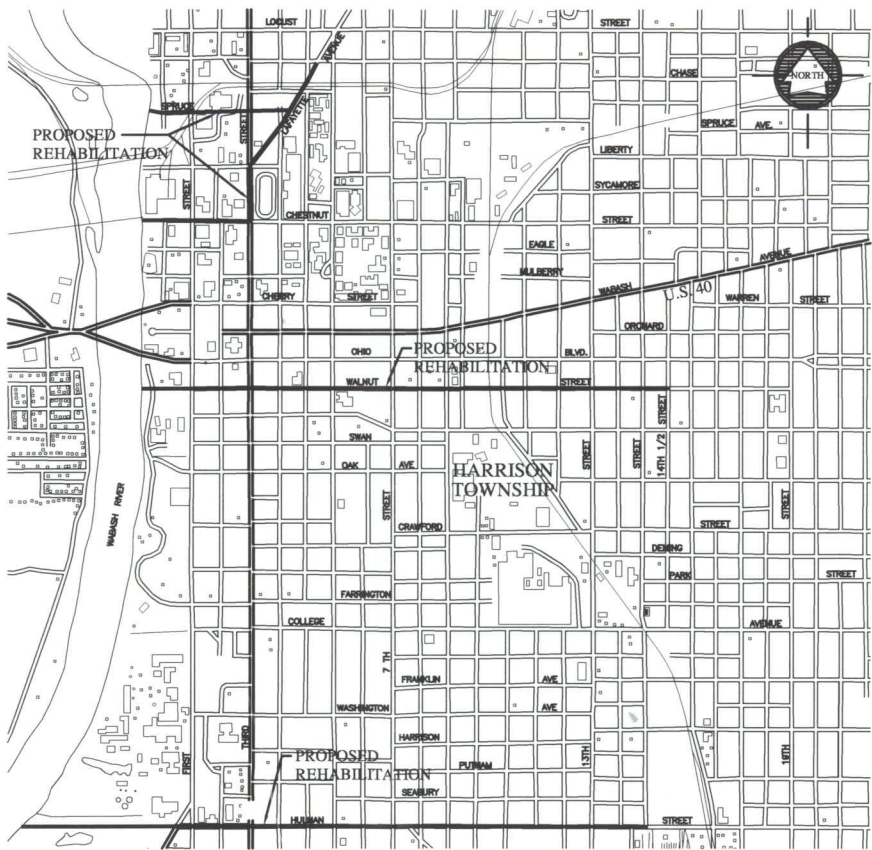
L.E. Frazier President
Pat Goodwin, P.E. Member
Steve Witt Member

Sanitary District Attorney

Lou Britton

Wastewater Utility Certified Operator

Bill Goodrich



Site Location Map: City of Terre Haute, Indiana

Architect, Civil:

Address:
Phone:

HANNUM, WAGLE & CLINE
e n g i n e e r i n g

3050 POPLAR STREET, SUITE B, TERRE HAUTE, IN 47803
(812) 234-2551 FAX (812) 234-9067



ERIC M. SMITH, P.E.

NO. 19800369

DATE

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL THOROUGHLY DOCUMENT THE CONDITION OF ALL EXISTING ROADS, SIGNS, DRIVEWAYS, CULVERTS, STRUCTURES AND GROUNDS IN GENERAL BY USE OF NEW 1/2" HIGH ENERGY, EXTENDED STILL FRAME CAPABLE, COLOR VHS FORMAT VIDEO CASSETTES, RECORDED TAPES SHALL BE COMPATIBLE FOR A PLAYBACK WITH ANY STANDARD PLAYER-RECORDER. ALL PRE-CONSTRUCTION VIDEO TAPES SHALL BE LOGGED AND PRESENTED TO THE ENGINEER BEFORE THE ACTUAL CONSTRUCTION HAS STARTED.

2. ALL COSTS REQUIRED TO CONSTRUCT THE WORK AS GENERALLY INTENDED AND SPECIFIED HEREIN SHALL BE CONSIDERED AND COMPENSATED FOR BY THE CONTRACTOR AND BE INCLUDED IN HIS BID. NO ADDITIONAL PAYMENT WILL BE CONSIDERED FOR CONTRACTOR'S FAILURE TO MAKE SUCH CONSIDERATION.

3. UNLESS OTHERWISE INDICATED ALL MATERIALS SHALL BE IN STRICT COMPLIANCE WITH INDOT STANDARDS AND SPECIFICATIONS, LATEST EDITION.

4. CONTRACTOR SHALL COMPLY TO ALL REQUIREMENTS OF PERMITS AND AGENCY REQUIREMENTS, HEREIN MADE PART OF THE CONTRACT DOCUMENTS BY REFERENCE. CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, PERMITS, APPROVALS, TESTS AND OTHER ASSOCIATED COSTS REQUIRED TO CONSTRUCT WORK IN COMPLIANCE TO APPLICABLE CODES AND AGENCY REQUIREMENTS.

5. NOT ALL GAS, POWER, OR TELEPHONE LINES, WHETHER ABOVE OR BELOW GROUND, HAVE BEEN SHOWN ON THE DRAWINGS. ANY UNDERGROUND INFORMATION SHOWN ON THE DRAWINGS HAS BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONTRACTORS BENEFIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UTILITIES IN HIS WORK AREA WHETHER SHOWN OR NOT, AND MUST REALIZE THAT THE ACTUAL LOCATION OF THE UTILITIES MAY BE DIFFERENT FROM THAT SHOWN ON THE DRAWINGS. ALL EXISTING UTILITIES ENCOUNTERED IN THE WORK, WHETHER IN PUBLIC RIGHTS-OF-WAY OR ON PRIVATE PROPERTY, SHALL BE THE PROPERTY OF THE RESPECTIVE UTILITY COMPANY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMISSION TO EXCAVATE ANY UTILITIES WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION TO SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE UTILITY. IF MINOR CONFLICTS ARISE, THE CONTRACTOR MAY SHIFT THE PROPOSED LOCATION OF AN INSTALLATION TO A MORE ACCEPTABLE LOCATION. THE CONTRACTOR, WORKING WITH OR AROUND UTILITIES, THE APPLICABLE UTILITY COMPANY SHALL BE NOTIFIED BY THE CONTRACTOR.

6. SAFETY PROVISIONS FOR THE WORK SHALL BE IN FULL COMPLIANCE WITH ALL APPLICABLE RULES AND REGULATIONS OF THE INDIANA OSHA AND ANY OTHER LOCAL STATE OR FEDERAL AGENCY HAVING JURISDICTION. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN ADEQUATE SAFETY MEASURES TO PROTECT THE GENERAL PUBLIC. THE CONTRACTOR'S WORK FORCES AND THE WORK. TRAFFIC CONTROL SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE INDIANA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND THE INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, STANDARD DETAILS AND GENERAL INSTRUCTIONS TO FIELD EMPLOYEES. THE REQUIREMENT SHALL BE CONTINUOUSLY MAINTAINED THROUGHOUT THE PROJECT. IT IS THE OPTION OF THE OWNER AND OR ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS AND TRAFFIC CONTROL DURING CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH ALL AGENCY REQUIREMENTS FOR TRAFFIC CONTROL AND SAFETY PRECAUTIONS. THERE WILL BE, NO SEPARATE OR ADDITIONAL PAYMENT FOR THIS WORK.

7. ANY WORK DONE WITHOUT LINES AND GRADES BEING GIVEN, OR BEYOND THE LINES AND GRADES SHOWN ON THE DRAWINGS OR OTHERWISE GIVEN, EXTRA WORK DONE WITHOUT AUTHORITY OR ANY OTHER WORK WHICH FAILS TO COMPLY WITH THE CONTRACT DOCUMENTS WILL BE CONSIDERED UNAUTHORIZED AND AT THE EXPENSE OF THE CONTRACTOR, AND WILL NOT BE PAID FOR BY THE OWNER.

8. CONTRACTOR CAN ONLY WORK WITHIN EASEMENT LIMITS AND RIGHT-OF-WAY SHOWN UNLESS ARRANGEMENTS ARE MADE BY CONTRACTOR WITH OTHER PROPERTY OWNERS IN THE AREA FOR STORAGE, STAGING, ETC.

9. WHEN PIPE LINES, SUCH AS DRAIN TILES, ETC., ARE DAMAGED AND REPAIRED OR REPLACED, THE REPAIR OR REPLACEMENT MATERIAL SHALL BE SIMILAR OR BETTER THAN THE EXISTING PIPE WHENEVER POSSIBLE.

10. THE CONTRACTOR IS REQUIRED TO INSTALL MANHOLES, CLEANOUTS, AND VALVE BOXES AS SHOWN ON THE DRAWINGS. PERMISSION FROM THE OWNER, ENGINEER, OR OWNER'S REPRESENTATIVE IS REQUIRED FOR ANY ADDITIONS OR MODIFICATIONS TO THE PLANNED LOCATION. THE CONTRACTOR MUST CERTIFY MANHOLE ELEVATIONS, ETC. FOR ANY ADDITIONS OR MODIFICATIONS TO THE WORK AS PLANNED.

11. THE MANHOLE CASTINGS MAY BE ADJUSTED IN THE FIELD SHOULD A DISCREPANCY OCCUR BETWEEN PLAN GRADE AND EXISTING GRADE.

12. MANHOLE INVERT SHALL BE SHAPED FOR FLOW CHANNEL WITH CONCRETE SMOOTHLY FINISHED BY A U-SHAPED SECTION CONFORMING TO THE INSIDE DIAMETER OF THE CONNECTING SEWERS. CHANGES IN THE SIZE AND GRADE SHALL BE MADE WITH SMOOTH TRUE CURVES FOR ALL CONNECTING SEWERS AT EACH MANHOLE.

13. THE CONTRACTOR SHALL REMOVE BY PUMPING OR OTHER SUITABLE METHODS ANY WATER WHICH MAY ACCUMULATE IN TRENCHES OR PIPES. NO WATER SHALL BE PERMITTED TO FLOW INTO THE PROPOSED SANITARY SEWER SYSTEM DURING CONSTRUCTION. THE CONTRACTOR SHALL UPLIFT A PUMP TO KEEP THE WATER LEVEL IN THE TRENCHES AND PIPES FROM EXCEEDING THE WATER LEVEL IN THE STORM OUTLET IN ACCORDANCE WITH THE EROSION CONTROL PLAN. ANY PIPE ENTERING EXISTING SEWERS SHALL BE PLUGGED TO ELIMINATE WATER FLOW UNTIL SUCH TIME AS ALL TESTS ON THE SEWERS HAVE BEEN COMPLETED AND THE SEWERS HAVE BEEN APPROVED OR WRITTEN AUTHORIZATION IS GIVEN BY THE ENGINEER.

14. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS AND CHECK ALL DIMENSIONS NECESSARY FOR THE PROPER INSTALLATION OF THE WORK SHOWN ON THE DRAWINGS AND/OR NOTES WITHIN THE SPECIFICATIONS, AND DURING THE PROSECUTION OF THE WORK, HE SHALL MAKE ALL NECESSARY MEASUREMENTS TO PREVENT MISFITTING IN SAID WORK. LOCATIONS, SIZES AND ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND COMPENSATE ACCORDINGLY IN HIS BID. ADJUST LOCATIONS AS REQUIRED TO MISS EXISTING UTILITIES, SUBJECT TO COORDINATION AND APPROVAL OF AUTHORIZED OWNER REPRESENTATIVE.

15. PROVIDE EROSION CONTROL TO SATISFACTION OF THE SOIL CONSERVATION SERVICE.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DUE TO THE WORK IN RESIDENTIAL AREAS, ALL AT NO ADDITIONAL COST TO THE OWNER.

17. WHERE PROPERTY MARKERS, SECTION CORNERS, SURVEY MARKS OR BENCH MARKS, SUCH AS STONES, PIPES, OR OTHER SUCH MONUMENTS ARE ENCOUNTERED AND CONFLICT WITH THE WORK, THE ENGINEER SHALL BE NOTIFIED BEFORE THEY ARE DISTURBED, THE MARKERS SHALL BE PROTECTED AFTER THE OWNER, ENGINEER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR REFERENCED THEIR LOCATIONS.

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN SHALL BE INSTALLED TO MEET THE DESIGN CRITERIA, STANDARDS, AND SPECIFICATIONS OUTLINED IN THE "INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS" FROM THE IDNR, DIVISION OF CONSERVATION.

2. PROVISION OF THIS PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF MEETING ALL REQUIREMENTS SET IN THE "INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS" AND PER ALL GOVERNING AGENCIES.

3. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.

4. RETURN SILTATION CONTROL AREAS TO THE ORIGINAL GROUND CONDITIONS AT PROJECT COMPLETION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING ANY CONSTRUCTION DEBRIS OF SEDIMENT FROM EXISTING ROADS AS REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION. ALL ROADWAYS SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO SUBSTANTIAL COMPLETION OF CONSTRUCTION.

6. NO RUNOFF ORIGINATING FROM THE PROJECT AREA OR DIRECTED ONTO IT FROM UPSTREAM AREAS SHALL LEAVE THE BOUNDARIES OF THE PROJECT AREA UNLESS IT PASSES THROUGH A CONTROL MEASURE OR CONTROL FACILITY.

7. THE SITE SHALL BE CONSIDERED TO BE PERMANENTLY STABILIZED WHEN:
 - PERMANENT CONTROL MEASURES HAVE BEEN COMPLETED AND ARE OPERATIONAL
 - TEMPORARY CONTROL MEASURES HAVE BEEN REMOVED
 - UNIFORM EROSION RESISTANT PERENNIAL VEGETATION IS ESTABLISHED TO THE POINT WHERE THE SURFACE SOIL IS CAPABLE OF RESISTING EROSION DURING RUNOFF EVENTS. THE STANDARD FOR THIS VEGETATIVE COVER WILL BE A UNIFORM COVERAGE OR DENSITY OF 70% ACROSS THE DISTURBED AREA.

	- TEMPORARY BENCH MARK		- PROPERTY LINE
	- MONUMENT FOUND		- APPROXIMATE RIGHT-OF-WAY
	- NEW FIRE HYDRANT		- EXISTING EASEMENT
	- EXISTING FIRE HYDRANT		- PROPOSED TEMPORARY EASEMENT
	- NEW GATE/TAPPING VALVE		- EXISTING FENCE
	- SOIL BORING LOCATION		- PROPOSED FENCE
	- EXISTING VALVE		- TREE LINE
	- MAILBOX		- EXISTING CONTOUR LINE
	- GUY WIRE		- PROPOSED CONTOUR LINE
	- LIGHT POLE		- DITCH FLOWLINE
	- CLEAN OUT		- EXISTING ELECTRIC SERVICE
	- EXISTING MANHOLE		- PROPOSED ELECTRIC SERVICE
	- PROPOSED MANHOLE		- EXISTING CABLE SERVICE
	- WATER METER		- PROPOSED CABLE SERVICE
	- GAS METER		- EXISTING GAS LINE
	- MISC. OBJECT		- PROPOSED GAS LINE
	- P.K. NAIL		- EXISTING STORM SEWER
	- POWER POLE		- PROPOSED STORM SEWER
	- UTILITY POLE		- EXISTING SANITARY SEWER
	- TREE OR SHRUB		- PROPOSED SANITARY SEWER
			- EXISTING FORCEMAIN SEWER
	- EXISTING SPOT ELEVATION		- PROPOSED FORCEMAIN SEWER
	- PROPOSED CURB AND GUTTER ELEVATIONS		- EXISTING TELEPHONE LINE
	- VALVE/GATE IDENTIFICATION		- PROPOSED TELEPHONE LINE
			- EXISTING WATER LINE
			- PROPOSED WATER LINE
			- EXISTING CULVERT

**"DON'T
DIG
BLIND"**



CALL TWO WORKING DAYS BEFORE YOU DIG
WITHIN INDIANA 1-800-382-5544
FROM OUTSIDE INDIANA 1-800-428-5200

GAS:
INDIANA GAS
P.O. BOX 1647
TERRE HAUTE, IN 47808
CONTACT: BUD SHUTE
(812) 231-6436

TELEPHONE:
GTE
711 POPLAR STREET
TERRE HAUTE, IN 47807
CONTACT:
(812) 462-9369

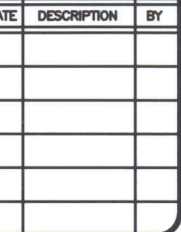
SEWER:
CITY ENGINEER
17 HARDING AVENUE
TERRE HAUTE, IN 47807
CONTACT: TROY SWAN
(812) 232-4028

WATER: INDIANA—AMERICAN WATER CO.
51 LOCUST STREET
TERRE HAUTE, IN 47807
CONTACT: RICK CARROLL
(812) 232-1400

ELECTRIC:
CINERGY PSI
301 HOME AVENUE
TERRE HAUTE, IN 47803
CONTACT: JOHN MORRISON
(812) 231-6785

CABLE TV:
TIME WARNER
1605 WABASH AVENUE
TERRE HAUTE, IN 47807
CONTACT: AL WINN/FRANK CHESHER
(812) 232-5013

General Notes and Index	Sheet G1
Sheet Location Master Map	Sheet G2
<u>Plan Sheets</u>	
Chestnut Street & Lafayette Avenue Plan Sheet	Sheet P1
Hulman Street Plan Sheet	Sheet P2
Walnut Street Plan Sheet	Sheet P3
Spruce Street Plan Sheet	Sheet P4
<u>Details</u>	
Miscellaneous Details	Sheet DT1



Engineering
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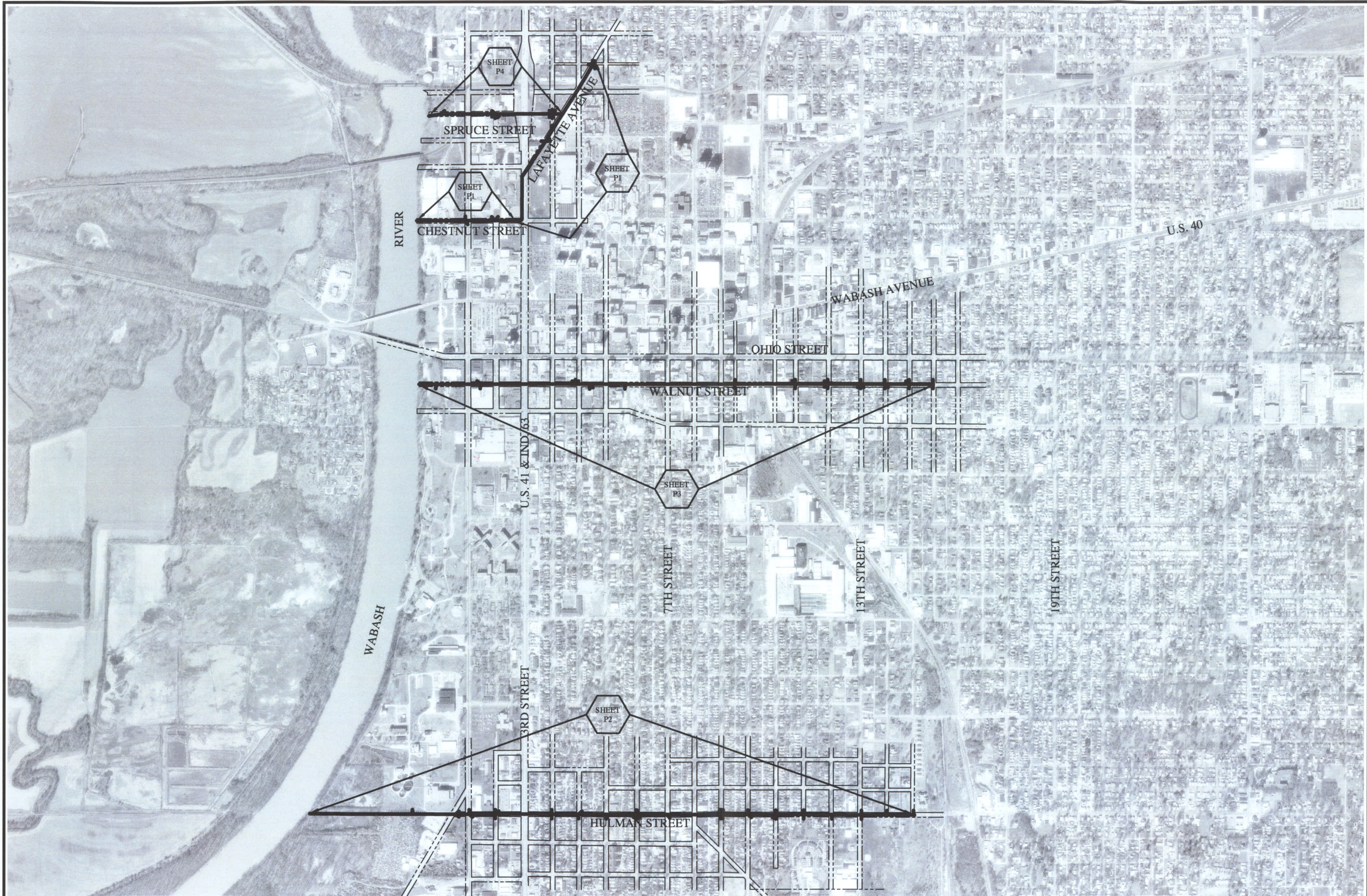
Large Diameter Sewer Rehabilitation 2005

General Notes and Index Sheet



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DATE SEPTEMBER 19, 2005	
SCALE	
AS SHOWN	
SHEET	

G1



SHEET LOCATION MASTER MAP
SCALE: 1" = 600'

— LARGE DIAMETER PIPE
REHABILITATION AREA

REVISIONS

DATE	DESCRIPTION	BY

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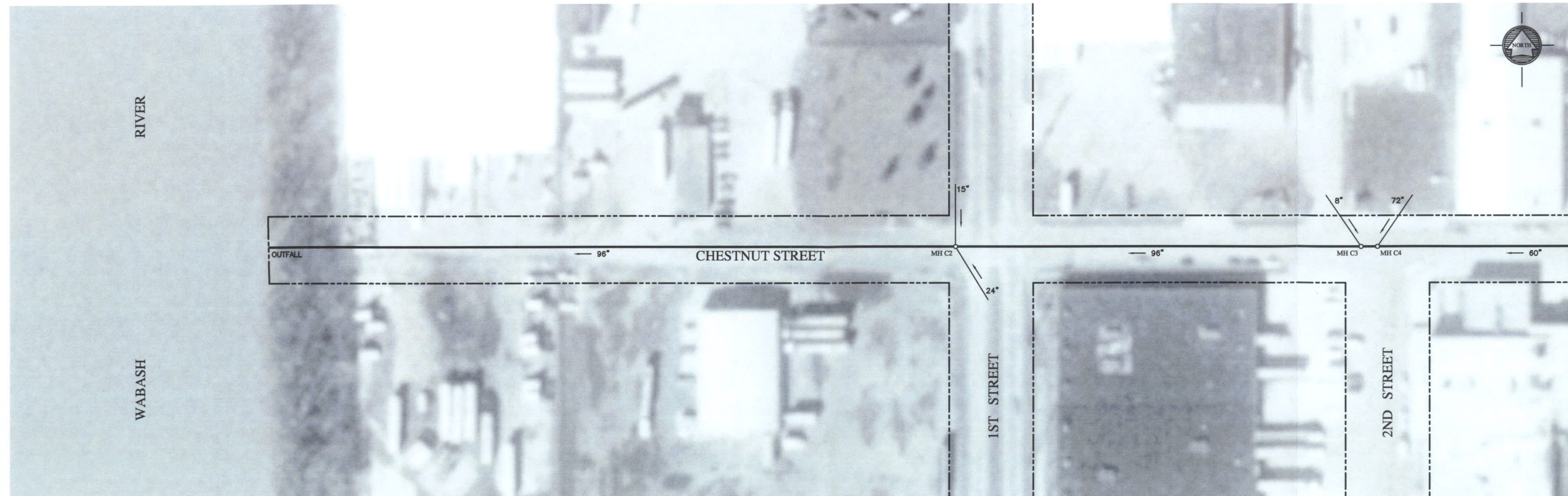
Terre Haute Sanitary District
Large Diameter Sewer Rehabilitation 2005

Sheet Location Master Map



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DATE SEPTEMBER 27, 2005	JOB NUMBER 2003-121
SCALE AS SHOWN	SHEET

G2



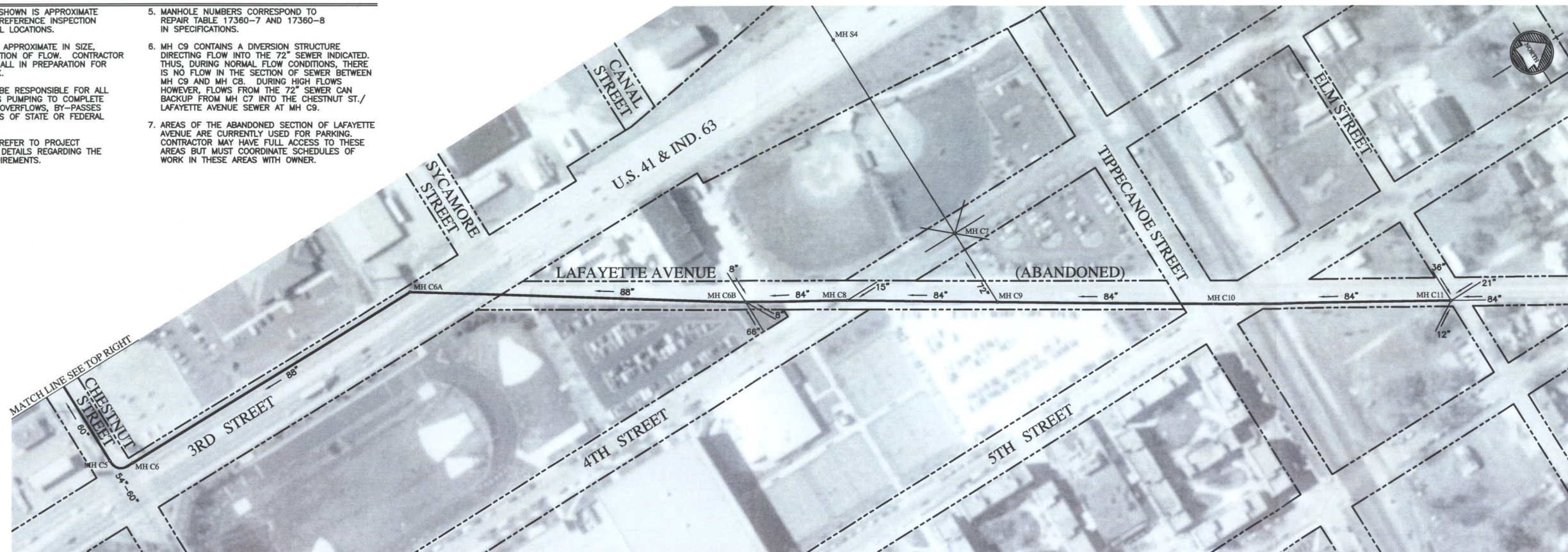
CHESTNUT STREET PLAN VIEW

SCALE: 1" = 50'

CHESTNUT STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK

NOTES

1. PIPELINE CORRIDOR SHOWN IS APPROXIMATE. CONTRACTOR SHALL REFERENCE INSPECTION REPORTS FOR ACTUAL LOCATIONS.
2. SEWERS SHOWN ARE APPROXIMATE IN SIZE, LOCATION AND DIRECTION OF FLOW. CONTRACTOR SHALL FIELD VERIFY ALL IN PREPARATION FOR REHABILITATION WORK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BY-PASS PUMPING TO COMPLETE WORK WITHOUT ANY OVERFLOWS, BY-PASSES OR OTHER VIOLATIONS OF STATE OR FEDERAL REQUIREMENTS.
4. CONTRACTOR SHALL REFER TO PROJECT SPECIFICATIONS FOR DETAILS REGARDING THE REHABILITATION REQUIREMENTS.
5. MANHOLE NUMBERS CORRESPOND TO REPAIR TABLE 17360-7 AND 17360-8 IN SPECIFICATIONS.
6. MH C9 CONTAINS A DIVERSION STRUCTURE DIRECTING FLOW INTO THE 72" SEWER INDICATED. THUS, DURING NORMAL FLOW CONDITIONS, THERE IS NO FLOW IN THE SECTION OF SEWER BETWEEN MH C9 AND MH C8. DURING HIGH FLOWS HOWEVER, FLOWS FROM THE 72" SEWER CAN BACKUP FROM MH C7 INTO THE CHESTNUT ST./LAFAYETTE AVENUE SEWER AT MH C9.
7. AREAS OF THE ABANDONED SECTION OF LAFAYETTE AVENUE ARE CURRENTLY USED FOR PARKING. CONTRACTOR MAY HAVE FULL ACCESS TO THESE AREAS BUT MUST COORDINATE SCHEDULES OF WORK IN THESE AREAS WITH OWNER.



LAFAYETTE AVENUE PLAN VIEW

SCALE: 1" = 100'

LAFAYETTE AVENUE
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK

REVISIONS		
DATE	DESCRIPTION	BY

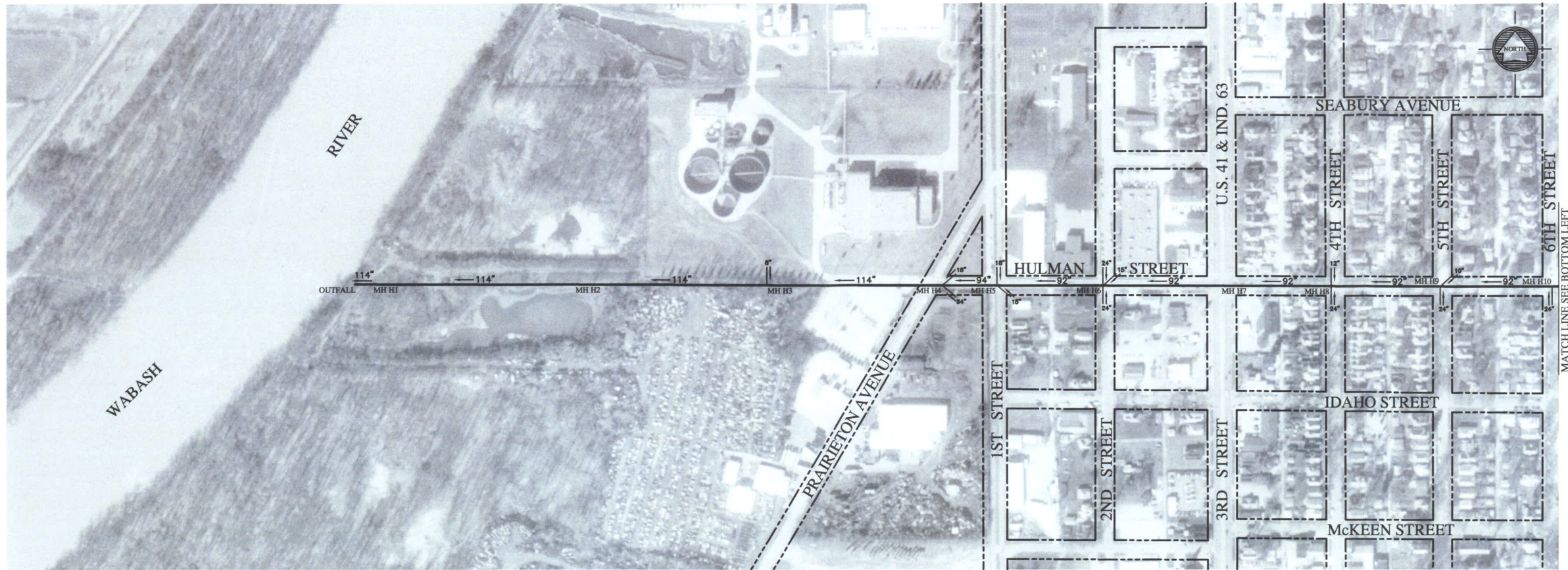
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Terre Haute Sanitary District
Large Diameter Sewer Rehabilitation 2005
Chestnut Street & Lafayette Avenue Plan Sheet



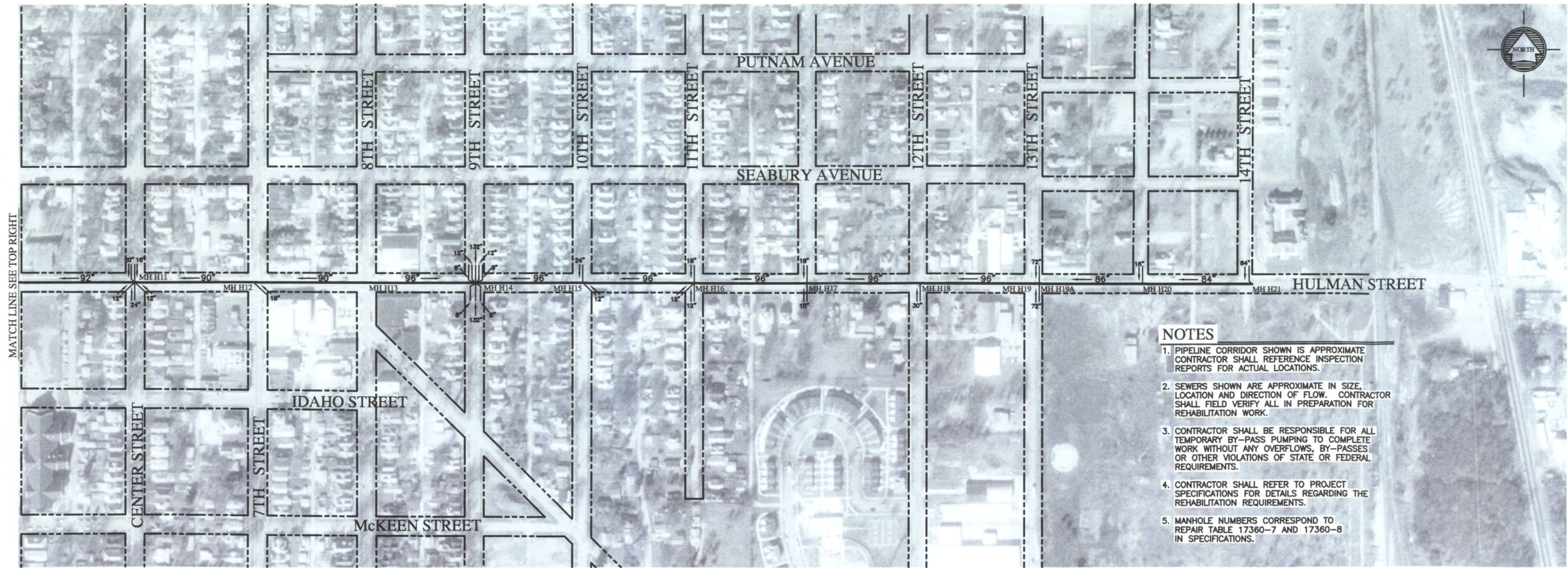
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P1



HULMAN STREET PLAN VIEW
SCALE: 1" = 200'

HULMAN STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK



HULMAN STREET PLAN VIEW
SCALE: 1" = 200'

HULMAN STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK

NOTES

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Large Diameter Sewer Rehabilitation 2005

Hulman Street Plan Sheet



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DATE SEPTEMBER 20, 2005	
SCALE AS SHOWN	



- NOTES**
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WALNUT STREET PLAN VIEW
SCALE: 1" = 200'

WALNUT STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK



WALNUT STREET PLAN VIEW
SCALE: 1" = 200'

WALNUT STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK

REVISIONS		
DATE	DESCRIPTION	BY

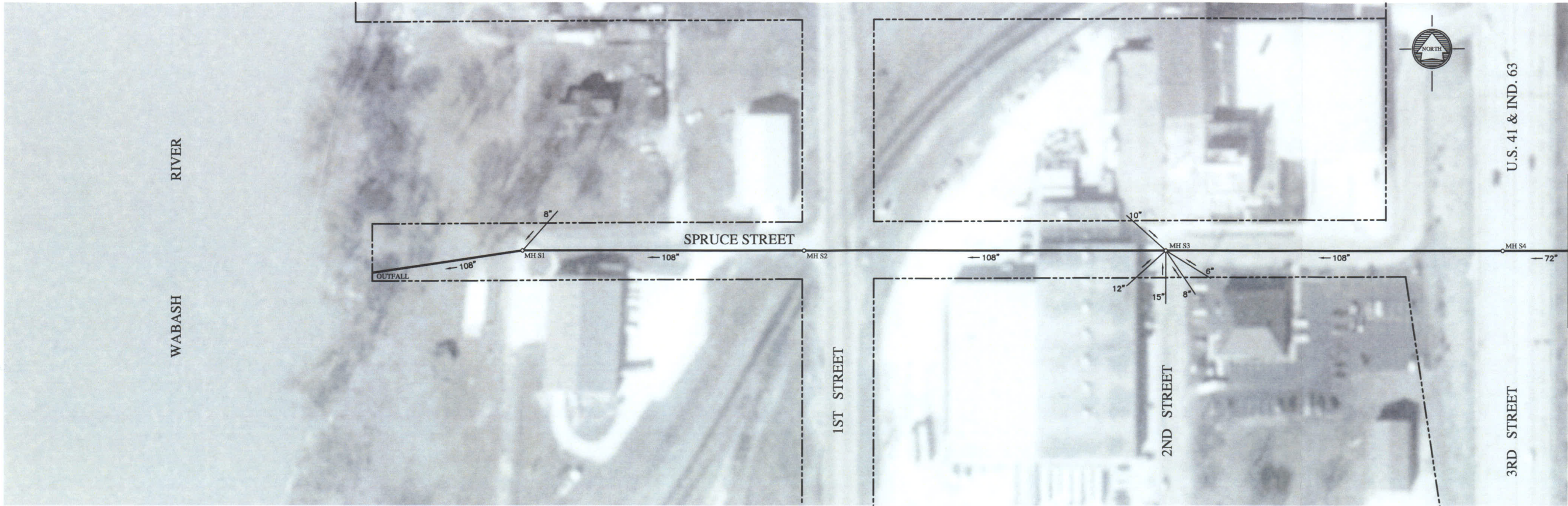
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Terre Haute Sanitary District
Large Diameter Sewer Rehabilitation 2005
Walnut Street Plan Sheet



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P3

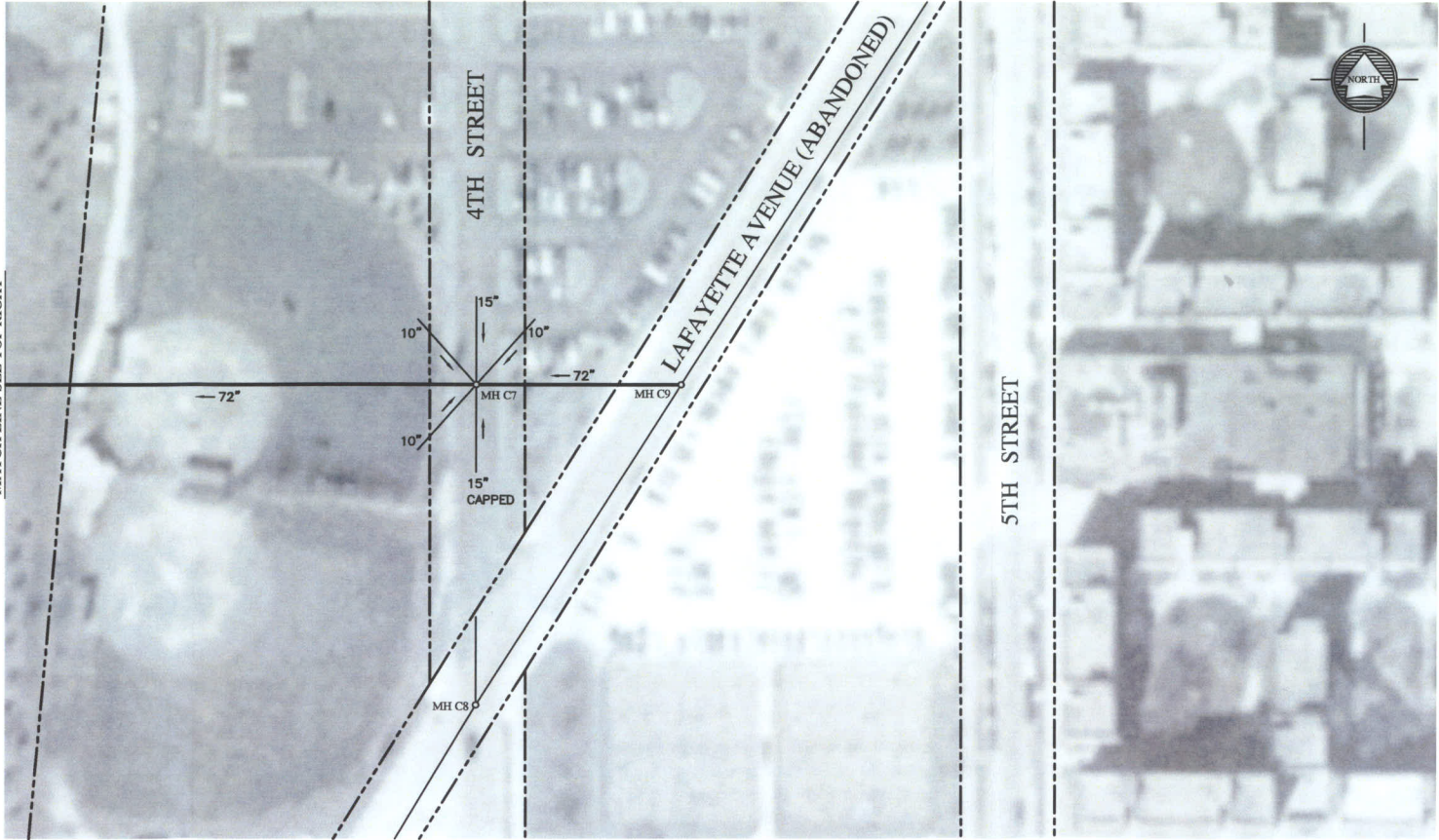


SPRUCE STREET PLAN VIEW
SCALE: 1" = 60'

SPRUCE STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK

NOTES

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7. THE SPRUCE STREET SEWER IS LOCATED ADJACENT TO THE CITY OF TERRE HAUTE'S WELLHEAD PROTECTION AREA. THIS SEWER FROM MH C9 TO THE OUTFALL SHALL BE REHABILITATED UTILIZING METHOD #3 SHOTCRETE/PERMA-CAST WHICH CONSISTS OF "PERMA-CAST" MATERIAL IN THE "LOWER" 1/3 OF THE PIPE SECTION AS SHOWN IN DETAIL 6 ON SHEET D11 AND DESCRIBED IN SECTION 02726 OF THE TECHNICAL SPECIFICATIONS.



SPRUCE STREET PLAN VIEW
SCALE: 1" = 60'

SPRUCE STREET
LARGE DIAMETER SEWER
REHABILITATION AREA
APPROXIMATE LOCATION
OF WORK

REVISIONS		
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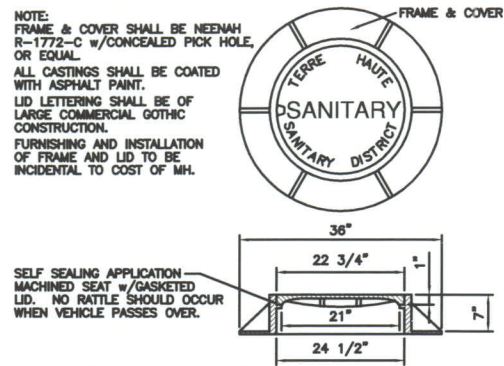
Terre Haute Sanitary District

Large Diameter Sewer Rehabilitation 2005

Spruce Street Plan Sheet

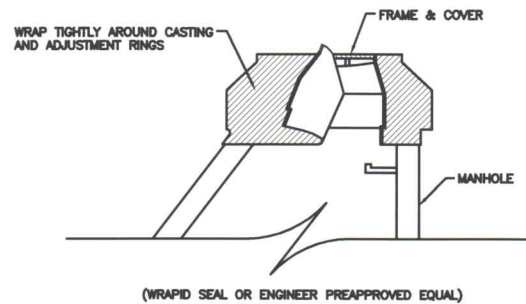


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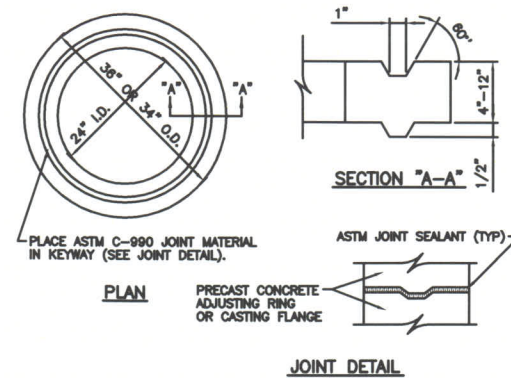


STANDARD FRAME AND COVER DETAIL

① SANITARY SEWER MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE



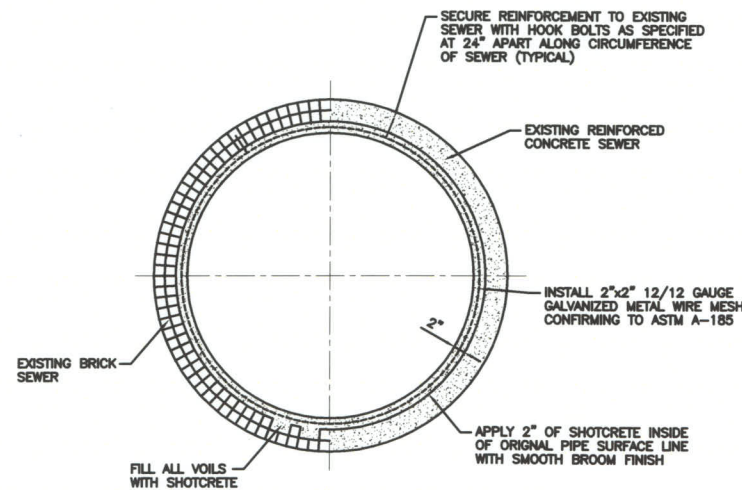
② MANHOLE SEAL DETAIL
NOT TO SCALE



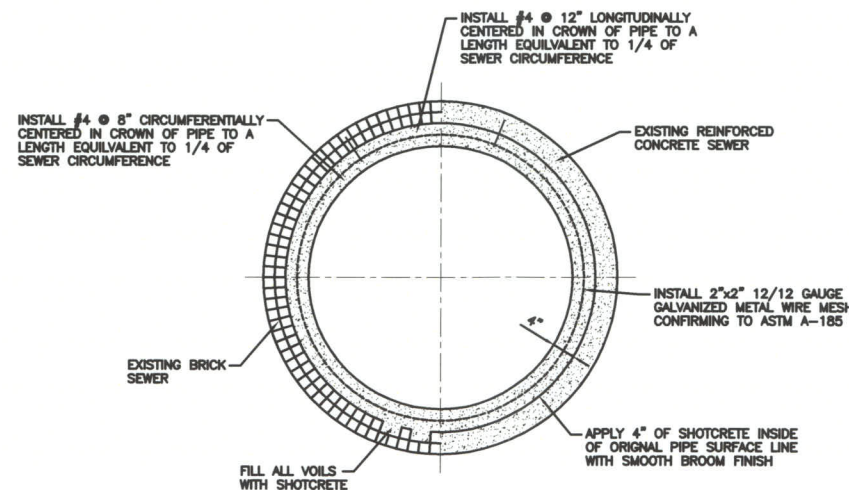
③ MANHOLE RISER DETAIL
NOT TO SCALE

MANHOLE REPAIR METHODS

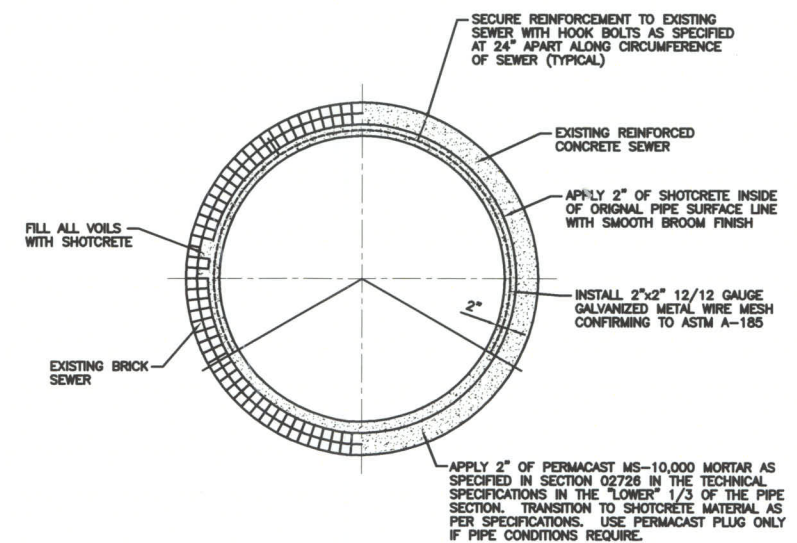
- TYPE 'M1' RESET AND OR ADJUST CASTING TO GRADE. SEAL FRAME AND RISER TO CORBEL.
- TYPE 'M2' SEAL FRAME AND RISER TO CORBEL.
- TYPE 'M3' REPLACE FRAME AND LID. ADJUST CASTING TO GRADE. SEAL FRAME AND RISER TO CORBEL.
- TYPE 'M4' REPLACE FRAME AND LID. ADJUST CASTING TO GRADE. SEAL FRAME AND RISER TO CORBEL. CHEMICALLY SEAL PIPE PENETRATIONS.
- TYPE 'M5' RESET AND OR ADJUST CASTING TO GRADE. SEAL FRAME AND RISER TO CORBEL. PATCH AND WIPE PIPE PENETRATIONS.
- TYPE 'M6' RESET AND OR ADJUST CASTING TO GRADE. SEAL FRAME AND RISER TO CORBEL. PATCH AND WIPE ENTIRE MANHOLE.



④ METHOD 1 SHOTCRETE
NOT TO SCALE



⑤ METHOD 2 SHOTCRETE
NOT TO SCALE



⑥ METHOD 3 SHOTCRETE/PERMA-CAST
NOT TO SCALE

SHOTCRETE REHABILITATION TYPES

- SHOTCRETE METHOD 1 2-INCH SHOTCRETE LAYER WITH STEEL MESH.
- SHOTCRETE METHOD 2 4-INCH THICK SHOTCRETE LAYER WITH STEEL MESH IN ADDITION INSTALL #4 BARS PLACED CIRCUMFERENTIALLY AT 8" CENTERS IN THE CROWN OF THE PIPE AND #4 BARS LONGITUDINALLY EVERY 12" WITH A TOTAL LENGTH OF 1/4 OF THE CIRCUMFERENCE OF THE PIPE.

NOTE:
THIS METHOD TO BE USED ON THE SPRUCE STREET SEWER IN
WELLHEAD PROTECTION AREA ONLY.

REVISIONS

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Large Diameter Sewer Rehabilitation 2005

Miscellaneous Details



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DT1