

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

September 25, 2014

To: Hamilton County Drainage Board

Re: Little Eagle Creek Drain, Overbrook Farms Section 3 Arm

Attached is a petition filed by Fischer Development Company, along with a non-enforcement request, plans, calculations, quantity summary and assessment roll for the Overbrook Farms Section 3 Arm, Little Eagle Creek Drain to be located in Clay Township. I have reviewed the submittals and petition and have found each to be in proper form.

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

12" RCP	250 ft.	15" RCP	258 ft.
18" RCP	406 ft.	24" RCP	625 ft.
6" SSD	3,473 ft.	Open Ditch	505 ft.

The total length of the drain will be 5,517 feet.

The open ditch listed above is from Str. 618 to the open channel of Bear Creek, from Str. 617 to the open channel of Bear Creek, from Str. 601 to Str. 624, and from Str. 611 to Str. 624.

The retention pond (Lake #1) located in Common Area #9 is to be considered part of the regulated drain. Pond maintenance assumed by the Drainage Board shall include the inlet and outlet as part of the regulated drain. The maintenance of the ponds (Lake #1) such as sediment removal and erosion control along the banks, mowing and aquatic vegetation maintenance and control will be the responsibility of the Homeowners Association. The Board will also retain jurisdiction for ensuring the storage volume for which the pond was designed will be retained, thereby, allowing no fill or easement encroachments.

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

- Rear yard lots 87 to 90 from Str. 605 to Str. 606
- Rear yard lots 91 to 92 from Str. 606 to Str. 607
- Rear yard lots 93 to 95 from Str. 607 to Str. 619
- Common Area #9 from Str. 624 going north 30 feet and south 30 feet

I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I also believe that no damages will result to landowners by the construction of this drain. I recommend a maintenance assessment of \$65.00 per platted lot, \$10.00 per acre for common areas, with a \$65.00 minimum, and \$10.00 per acre for roadways. With this assessment the total annual assessment for this drain will be \$1,668.50.

The petitioner has submitted surety for the proposed drain at this time. The sureties which are in the form of a Performance Bond are as follows:

Agent: Westchester Fire Insurance Company
Date: July 9, 2014
Number: K09018864
For: Storm Sewers & Sub-Surface Drains
Amount: \$189,525.00

I believe this proposed drain meets the requirements for Urban Drain Classification as set out in IC 36-9-27-67 to 69. Therefore, this drain shall be designated as an Urban Drain.

I recommend that upon approval of the above proposed drain that the Board also approve the attached non-enforcement requests. The request will be for the reduction of the regulated drain easement to those easement widths as shown on the secondary plats for Overbrook Farms Section 3 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for November 24, 2014.



Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/pll

STATE OF INDIANA)
)
COUNTY OF HAMILTON)

FILED

JAN 27 2014

OFFICE OF HAMILTON COUNTY SURVEYOR

TO: HAMILTON COUNTY DRAINAGE BOARD
% Hamilton County Surveyor
One Hamilton County Square, Suite 188
Noblesville, IN. 46060-2230

In the matter of Overbrook Farms Section 3 Subdivision, Section
Little Eagle Creek, Bear Creek Arm Drain Petition.

Petitioner is the owner of all lots in the land affected by the proposed new regulated drain. The drainage will affect various lots in Overbrook Farms Section 3, a subdivision in Hamilton County, Indiana. The general route of such drainage shall be in existing easements and along public roads as shown in the plans on file in the Surveyor's Office.

Petitioner believes that the cost, damages and expenses of the proposed improvement will be less than the benefits which will result to the owners of the land likely to be benefited thereby. Petitioner believes the proposed improvements will:

- (a) improve public health
- (b) benefit a public street
- (c) be of public utility

Petitioner agrees to pay the cost of construction of the drainage system and requests periodic maintenance assessments by the Board thereafter.

The Petitioner also agrees to the following:

1. To provide the Drainage Board a Performance Bond or Non-Revocable Letter of Credit for the portion of the drainage system which will be made a regulated drain. The bond will be in the amount of 120% of the Engineer's estimate. The bond will be in effect until construction of 100% of the system is completed and so certified by the Engineer.
2. The Petitioner shall retain an Engineer throughout the construction phase. At completion of the project the Petitioner's Engineer shall certify that the drainage system which is to be maintained as a regulated drain has been constructed as per construction plans.
3. The Petitioner agrees to request in writing to the County Surveyor any changes from the approved plan and must receive written authorization from the County Surveyor prior to implementation of the change. All changes shall be documented and given to the Surveyor to be placed in the Drain file.
4. The Petitioner shall instruct his Engineer to provide a reproducible print on a 24" x 36" Mylar of the final design of the Drainage System. This shall be submitted to the County Surveyor prior to the release of the Performance Bond.
5. The Petitioner shall comply with the Erosion Control Plan as specified on the construction plans. Failure to comply with the Erosion Control Plan shall be determined by the Board as being an obstruction to the drainage system. The County Surveyor shall immediately install or repair the needed measures at Petitioners cost as per IC 36-9-27-46.

The Petitioner further requests that the Drain be classified as an Urban Drain as per IC 36-9-27-69(d).

RECORDED OWNER(S) OF LAND INVOLVED

Richard A. Henderson
Signed

Richard A. Henderson
Printed Name

1/17/14
Date

Signed

Printed Name

Date

Signed

Printed Name

Date

Signed

Printed Name

Date

FINDINGS AND ORDER

CONCERNING THE MAINTENANCE OF THE

Little Eagle Creek Drain, Overbrook Farms Section 3 Arm

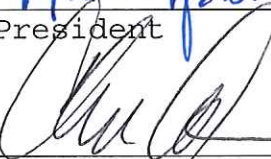
On this 24th day of November, 2014, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the *Little Eagle Creek Drain, Overbrook Farms Section 3 Arm*.

Evidence has been heard. Objections were presented and considered. The Board then adopted the original/amended Schedule of Assessments. The Board now finds that the annual maintenance assessment will be less than the benefits to the landowners and issues this order declaring that this Maintenance Fund be established.

HAMILTON COUNTY DRAINAGE BOARD



President



Member



Member

Attest: 
Executive Secretary

**SUBDIVISION
PERFORMANCE BOND**



Bond No. K09018852

KNOW ALL MEN BY THESE PRESENTS:

HLDB-2014.00033
The undersigned Fischer Development Company, as Principal (hereinafter called "Principal"), and Westchester Fire Insurance Company, as Surety (hereinafter called "Surety"), are held and firmly bound unto the Hamilton County Board of Commissioners, One Hamilton County Square, Noblesville, Indiana 46060 as Obligee (hereinafter called the "Obligee"), in the sum of Twelve Thousand, Eight Hundred and Seventy Dollars and 00/100 (\$12,870.00) lawful money of the United States for which payment, well and truly be made, we bind ourselves, our heirs, executors, successors and assigns jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGEE IS SUCH THAT:


WHEREAS, the Principal has agreed to construct in Overbrook Farms – Section 3, in Carmel, Indiana with the following improvements: Monumentation and Markers.

WHEREAS, the Principal has agreed to complete all Work within one year, unless this time period is extended by mutual agreement with the Principal and the Obligee.

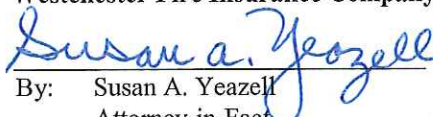
NOW THEREFORE, the condition of this obligation is such, that if the above Principal shall fully and faithfully perform all of the work as required, and in accordance with the Plans and Specifications, and within the timeframe prescribed above, then this obligation shall be void, otherwise this obligation is to remain in full force and effect until the improvements are complete.

IN WITNESS WHEREOF, the signature of said Principal is hereto affixed and the corporate seal and name of the Surety is hereto affixed and attested by its duly authorized Attorney-in Fact, this 9th day of July 2014.

Principal: Fischer Development Company


By: Todd E. Huss
President

Surety: Westchester Fire Insurance Company


By: Susan A. Yeazell
Attorney-in-Fact

Fischer Development Company
3940 Olympic Blvd. – Suite 100
Erlanger, KY 41018
(859) 344-3128

Westchester Fire Insurance Company
525 West Monroe Street, Suite 700
Chicago, IL 60661
(312) 775-7806

FILED

JUL 14 2014

OFFICE OF HAMILTON COUNTY SURVEYOR

- Attachments:
1. Engineer's Construction Cost Estimate
 2. Copy of the Plan (coversheet)
 3. Insurance Company Power of Attorney



TERRA Site Development, Inc
 1301 W. 161st Street
 Westfield, IN 46074
 317-399-1216

CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014
LOCATION: Carmel, Indiana	ITEM: SUMMARY	PROJECT #: 131004-1.003

DESCRIPTION		
MONUMENTATION	\$10,725	1720' 12,870.00
STORM SEWER	\$157,938	189,525.00
PAVEMENT, CURBS	\$187,260	
WATER	\$86,637	
EROSION CONTROL	\$64,272	
SIDEWALKS	\$62,663	
SIGNAGE	\$5,225	
TOTAL	\$574,719	

Note:

This cost opinion was generated from TERRA Overbrook Farms Section 3 Construction Plans Dated 1/17/14, Revised 6/9/14



David K. Sexton

June 26, 2014

TERRA Site Development, Inc.
 Project No. 131004-1.003
 June 26, 2014



CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana	ITEM: STORM	PROJECT #: 131004-1.003		

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
12" RCP PIPE	253	LF	\$14.00	\$3,542.00
15" RCP PIPE	258	LF	\$15.00	\$3,870.00
18" RCP PIPE	406	LF	\$16.50	\$6,699.00
24" RCP PIPE	625	LF	\$28.00	\$17,500.00
30" RCP PIPE	70	LF	\$35.00	\$2,450.00
DOUBLE CURB INLET	2	EA	\$2,600.00	\$5,200.00
INLET/BEEHIVES w/CSTG	2	EA	\$2,000.00	\$4,000.00
MANHOLES w/CSTG	8	EA	\$2,100.00	\$16,800.00
SPECIAL STRUCTURE 624 & 619	2	EA	\$3,100.00	\$6,200.00
HEADWALL W FLAPGATE	1	EA	\$7,200.00	\$7,200.00
OUTLET CONTROL STRUCTURE	1	EA	\$3,100.00	\$3,100.00
15" END SECTION	1	EA	\$1,000.00	\$1,000.00
18" END SECTION	1	EA	\$1,100.00	\$1,100.00
24" END SECTION	2	EA	\$1,700.00	\$3,400.00
30" END SECTION	2	EA	\$2,100.00	\$4,200.00
FILL SAND	435	TN	\$11.00	\$4,785.00
#8 BEDDING	366	TN	\$15.00	\$5,490.00
GRANULAR BACKFILL	133	CYDS	\$10.50	\$1,396.50
6" SSD IN STREET w/STONE	2871	LF	\$9.20	\$26,413.20
6" SSD IN SWALE w/STONE	988	LF	\$12.00	\$11,856.00
SSD CLEANOUTS	3	EA	\$300.00	\$900.00
4" SUBSURFACE LOT HOOKUPS	9	EA	\$90.00	\$810.00
INFILTRATION TRENCH	350	LF	\$37.50	\$13,125.00
TELEVISIONING STORM PIPE	1612	LF	\$2.50	\$4,030.00
TELEVISIONING 6" STREET SSD	2871	LF	\$1.00	\$2,871.00
TOTAL STORM				\$157,937.70

TERRA Site Development, Inc.
 Project No. 131004-1.003
 June 26, 2014

CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana		ITEM: PAVEMENT	PROJECT #: 131004-1.003	
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
ASPHALT:	4400	SYDS	\$24.50	\$107,800.00
ASPHALT: (In 146th Street R/W)	830	SYDS	\$26.70	\$22,161.00
3' STONE SHOULDER	90	SYDS	\$40.00	\$3,600.00
LIME STABILIZATION	5015	SYDS	\$3.25	\$16,298.75
2' CONCRETE ROLL CURB	2850	LF	\$11.00	\$31,350.00
HANDICAP RAMP	8	EA	\$650.00	\$5,200.00
END OF STREET BARRICADE	1	EA	\$550.00	\$550.00
CROSSWALK (PAINTED)	1	EA	\$300.00	\$300.00
TOTAL PAVEMENT & CURBS				\$187,259.75

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana		ITEM: SIDEWALKS	PROJECT #: 131004-1.003	
5' CONC. WALK (FRONT OF LOTS)	2256	LF	\$22.50	\$50,760.00
(IN COMMON AREAS)	529	LF	\$22.50	\$11,902.50
TOTAL SIDEWALKS				\$62,662.50

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana		ITEM: MONUMENTATION	PROJECT #: 131004-1.003	
MONUMENTATION				
MONUMENTS:				
STREET MARKERS	11	EA	\$125.00	\$1,375.00
BOUNDARY MARKERS @ R/W	34	EA	\$275.00	\$9,350.00
TOTAL MONUMENTATION				\$10,725.00

TERRA Site Development, Inc.
 Project No. 131004-1.003
 June 26, 2014



CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana	ITEM: WATER	PROJECT #: 131004-1.003		

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
8" MAIN	1213	LF	\$30.00	\$36,390.00
8" SHUT OFF VALVE	2	EA	\$1,386.00	\$2,772.00
TEES	1	EA	\$625.00	\$625.00
FITTINGS	8	EA	\$340.00	\$2,720.00
REDUCERS	1	EA	\$500.00	\$500.00
1" LATERAL W/CORP STOP< ANGLE VAL	22	EA	\$1,000.00	\$22,000.00
BLOW OFF VALVES	1	EA	\$700.00	\$700.00
STORM CROSSINGS	2	EA	\$460.00	\$920.00
FLUSHING & TESTING	1213	LF	\$0.75	\$909.75
HYDRANTS W/ VALVES	4	EA	\$4,700.00	\$18,800.00
HYDRANT MARKERS	2	EA	\$150.00	\$300.00
TOTAL WATER				\$86,636.75

TERRA Site Development, Inc.
Project No. 131004-1.003
June 26, 2014

CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3	DATE: June 12, 2014
LOCATION: Carmel, Indiana	ITEM: EROSION
	PROJECT #: 131004-1.003

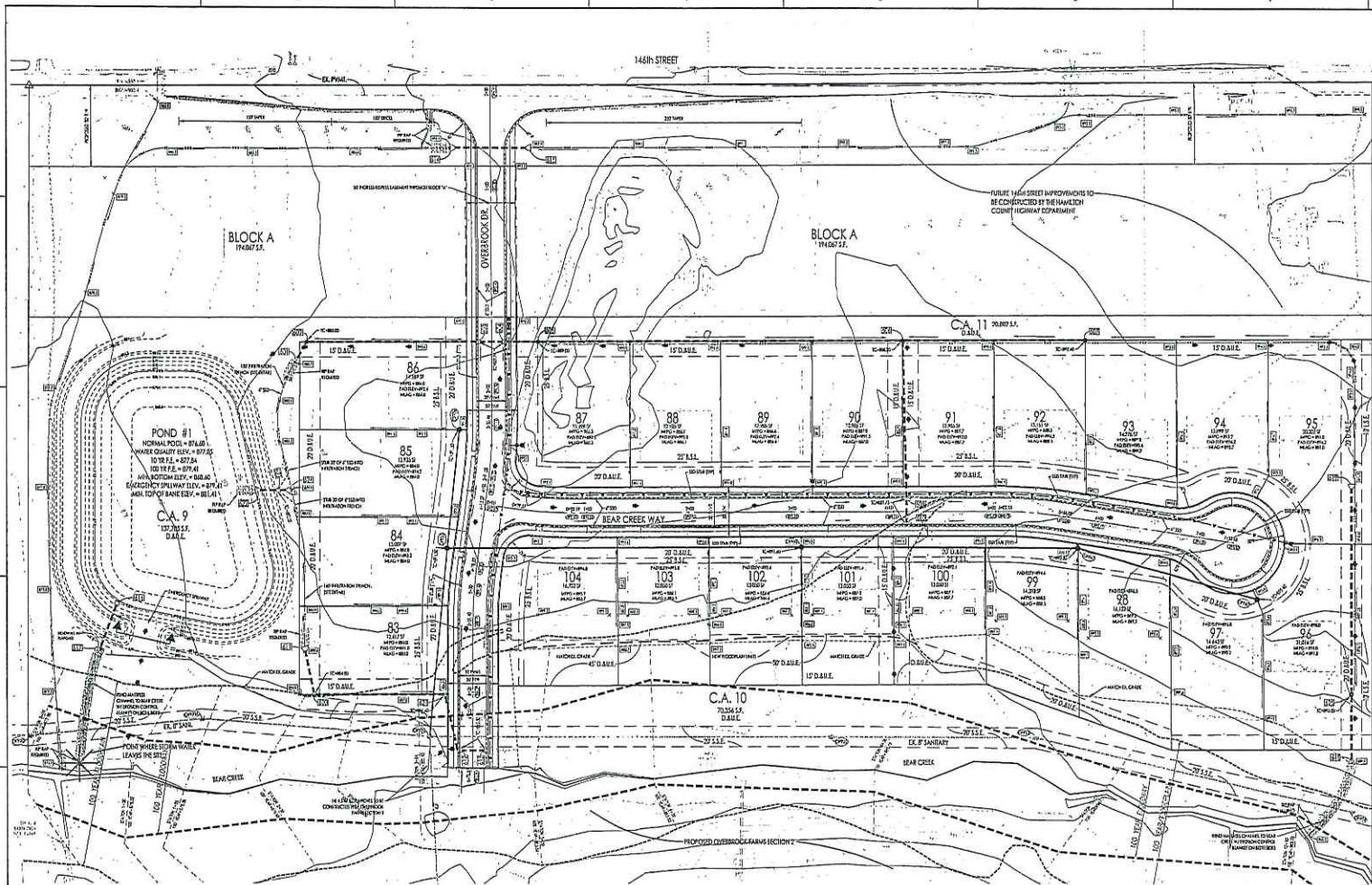
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
SEEDING	59000	SYDS	\$0.50	\$29,500.00
EROSION BLANKETS	10900	SYDS	\$1.50	\$16,350.00
SILT FENCE	2682	LF	\$1.75	\$4,693.50
SCOURSTOP MATS	223	SYDS	\$1.50	\$334.50
TEMPORARY CONSTRUCTION ENTRANCE	333	SYDS	\$22.00	\$7,326.00
RIP RAP	169	SYDS	\$22.00	\$3,718.00
BEEHIVE INLET PROTECTION	4	EA	\$135.00	\$540.00
CURB INLET PROTECTION	6	EA	\$135.00	\$810.00
HC RAMP PROTECTION	8	EA	\$125.00	\$1,000.00
TOTAL EROSION				\$64,272.00

CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3	DATE: June 12, 2014
LOCATION: Carmel, Indiana	ITEM: SIGNAGE
	PROJECT #: 131004-1.003

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
STREET SIGNS	2	EA	\$925.00	\$1,850.00
TRAFFIC CONTROL SIGNS	5	EA	\$675.00	\$3,375.00
TOTAL SIGNAGE				\$5,225.00

TERRA Site Development, Inc.
 Project No. 131004-1.003
 June 26, 2014



NOTES

- SUBJECT PROPERTY DOES NOT LIE WITHIN THAT SPECIAL FLOOD HAZARD ZONE "X" AS DENOTED ON COMMUNITY PANEL NUMBERS 18037/22025 OF THE FEMA FLOOD INSURANCE RATE MAPS EFFECTIVE FEBRUARY 19, 2003.
- THE EXISTING 100YR FLOODWAY AND FLOODPLAIN WERE TAKEN FROM A HYDRAULIC REPORT PREPARED BY VERIE ENGINEERS, INC. DATED MARCH 7, 2005 FOR THE OVERBROOK FARMS SUBDIVISION (FORMALLY KNOWN AS BEAR CREEK SUBDIVISION). THE 100YR FLOOD ELEVATIONS ALONG BEAR CREEK HAVE BEEN ADJUSTED TO BE 0.47' LOWER THAN THE WEIR REPORT TO ACCOMMODATE THE 1988 NAVD83 datum.
- THE 100 YEAR BASE FLOOD FLOOD ELEVATION OF BEAR CREEK WILL NOT FLOOD PORTIONS OF THE PROPERTY VIA THE OUTFALL OR PROPOSED STORM PIPING SYSTEM.
- ALL STREETS, CURBS, WALKS, STORM SEWERS, DRAINAGE IMPROVEMENTS, AND WATERMANS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF CARMEL AND HAMILTON COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- ALL SANITARY SEWERS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CLAY TOWNSHIP REGIONAL WASTE DISTRICT CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- ALL STREET RIGHT OF WAY INTERSECTIONS TO BE ROUNDED OFF WITH A 20' RADIUS UNLESS OTHERWISE NOTED.
- ALL STREET CURB INTERSECTIONS TO BE ROUNDED WITH A RADIUS OF 25' UNLESS OTHERWISE NOTED.
- ALL INTERIOR STREET WIDTHS TO BE 50' UNLESS OTHERWISE NOTED.
- ALL INTERIOR STREET WIDTHS TO BE 30' (BACK OF CURB TO BACK OF CURB) UNLESS OTHERWISE NOTED.
- LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE BASED UPON INFORMATION OBTAINED FROM UTILITY COMPANIES OR REPRESENTATIVES AND FIELD EVIDENCE OF IMPROVEMENTS VISIBLE ON THE GROUND SURFACE. EXACT LOCATIONS OF UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AND RECORD LOCATIONS OF SUCH WITHIN THE WORK AREA PRIOR TO COMMENCING EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL REPORT ANY VARIATIONS FROM THE LOCATIONS SHOWN THAT MAY PRESENT A CONFLICT WITH EXECUTION OF THE WORK TO THE ENGINEER IN ADVANCE OF CONSTRUCTION.
- MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS.
- ALL DIMENSIONS SHOWN ARE MEASURED TO THE BACK OF CURB, UNLESS OTHERWISE SHOWN.
- ALL CURBS SHALL BE TWO (2) FOOT CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED.
- SIDEWALKS SHALL BE ALONG BOTH SIDES OF ALL STREETS AND HAVE ADA APPROVED RAMPS.
- ANY FIELD FILES ENCOUNTERED DURING THE COURSE OF CONSTRUCTION SHALL BE REPERATED IN COMPLIANCE WITH STATE AND LOCAL LAWS AND REGULATIONS.
- ALL HANDICAP RAMPS AND CROSSWALKS SHALL BE ADA COMPLIANT.
- MINIMUM FLOOD PROTECTION GRADE (MPPG) OF ALL STRUCTURES FRONTING A POND OR OPEN DITCH SHALL BE NO LESS THAN 1' ABOVE ANY ADJACENT 100-YEAR LOCAL OR REGIONAL FLOOD ELEVATIONS, WHICHEVER IS GREATER, FOR ALL WINDOWS, DOORS, FIRE ESCAPES, WINDOW WELLS AND ANY OTHER STRUCTURE MEMBER WHERE FLOODWATERS CAN ENTER A BUILDING.
- MINIMUM LOWEST ADJACENT GRADE (MLAG) IS THE ELEVATION OF THE LOWEST GRADE ADJACENT TO THE BUILDING WHERE THE SOIL MEETS THE FOUNDATION AROUND THE OUTSIDE OF THE STRUCTURE (INCLUDING STRUCTURAL MEMBERS SUCH AS BASEMENT WALKWAYS, PATIOS, DECKS, PORCHES, SUPPORT POSTS OR PILES AND RIM OF A WINDOW WELL). IN ADDITION, THE MINIMUM FINISH FLOOR ELEVATION OF ALL STRUCTURES SHALL BE A MINIMUM OF 6" ABOVE THE ESTABLISHED MLAG.

- BENCHMARK**
- North American Vertical Datum of 1988 (NAVD83)
- LEE 4 REEF**
- DNR label set in top of concrete post 15.3 feet east of the corner of the Shebena Road approximately 1500 feet south of 146th Street, just north of a wooden fence and survey marker sign. Plot Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.90 feet above sea level. Elevation = 910.93 feet (NAVD83)

DRAINAGE SUMMARY

PROPOSED PROJECT AREA = 70.89 AC.
 OFFSITE DRAINAGE AREA = 24.27 AC. 14

STORM EVENT	EXISTING RELEASE RATE	ALLOWABLE RELEASE RATE	DEVELOPED SITE RELEASE RATE (INCLUDING DIRECT DISCHARGES)
2-YEAR	9.84 CFS	1.24 CFS	0.21 CFS
10-YEAR	24.62 CFS	1.24 CFS	0.92 CFS
100-YEAR	64.80 CFS	3.74 CFS	3.47 CFS

LEGEND

EX. TELEPHONE LINE	PROPOSED SANITARY SEWER
OVERHEAD ELECTRIC LINE	PROPOSED SANITARY M.H.
EX. TELEPHONE PEDISTAL	D.U.A.S.E. DRAINAGE UTILITY AND SEWER BASEMENT
EX. POWER POLE	PROPOSED STORM SEWER
BM / TBM	PROPOSED STORM MANHOLE
EX. STORM SEWER	PROPOSED CURB INLET AND SURFACE DRAIN
EX. SANITARY SEWER	PROPOSED BEEHIVE
EX. WATERMAIN & HYDRANT	PROPOSED END SECTION W/ RP RAP
EX. GAS MAIN	PROPOSED FLOWLINE
EX. FENCE	MPPG MINIMUM FLOOD PROTECTION GRADE
PROPOSED WATER & HYDRANT	MPPG MINIMUM LOWEST ADJACENT GRADE ELEVATION
	EMERGENCY FLOOD ROUTE

EMERGENCY POND OVERFLOW CROSS SECTION A-A

Indiana
Time is money. Call us today.

DAVID W. SEYED
 REGISTERED
 No. 2002075
 STATE OF INDIANA
 CIVIL ENGINEER

DATE: January 17, 2014

NORTH
 Vertical Datum 1988
 4207
 146th Street
 Hamilton County, IN 46013
 146th Street
 Hamilton County, IN 46013
 P: 317.335.9314
 F: 317.335.9315
 www.terrainc.com

TERRA
 SITE DEVELOPMENT, INC.

DEVELOPER/ENGINEER/CONSULTANT

Overbrook Farms - Section Three
 Site Construction Plans
 Fischer Development Company

DATE	JANUARY 17, 2014
PROJECT NUMBER	131004-1-003
DRAWN BY	CKS
CHECKED BY	CKS
SHEET TITLE	CKS
SITE DEVELOPMENT PLAN	
SHEET #	C101
	of 20

Inspection Preparation

Inspection should be made at least 24 hours prior to construction for access being maintained. A minimum of 12-12-12 crushed limestone for erosion control...

Note: The surface and base shall be laid to a depth of 2-3 inches with a broom, after or some equivalent across the slope or reach to be protected.

Sealing: Sealing is a sealant based on polyurethane use of the same Figure 5-2L with the following sealant application. See Figure 5-2 (3) sheet of details for sealant application. Sealant shall be applied in average thickness of 1/8 inch...

Sealant Note: Sealant is to be applied at 1/8 inch to 3/16 inch per inch to create seal against water penetration. Sealant shall be applied in average thickness of 1/8 inch...

Figure 5-2-Ferrous Seal Materials

Table with 4 columns: Treatment, Sealing Type, Sealant per 100 sq. ft., and Sealant per 100 sq. ft. (Note: Table content is partially obscured and blurry)

- 1. Half Section 30 x 30 x 3/4 2 1 2
2. Full Section 24 x 24 x 3/4 2 1
3. Full Section 12 x 12 2 1
4. Half Section 18 x 18 x 3/4 2 1 2
5. Full Section 24 x 24 x 3/4 2 1
6. Full Section 30 x 30 x 3/4 2 1
7. Full Section 36 x 36 x 3/4 2 1
8. Full Section 42 x 42 x 3/4 2 1
9. Full Section 48 x 48 x 3/4 2 1
10. Full Section 54 x 54 x 3/4 2 1
11. Full Section 60 x 60 x 3/4 2 1 2

EROSION CONTROL SCHEDULE

Table with 3 columns: EROSION CONTROL MEASURE, MAINTENANCE, and INSTALLATION SEQUENCE. Includes measures like SOIL STABILIZATION, SILT FENCE, EROSION CONTROL MATTING, etc.

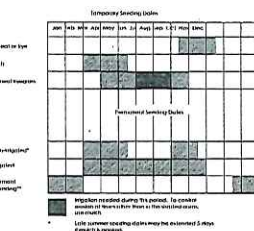
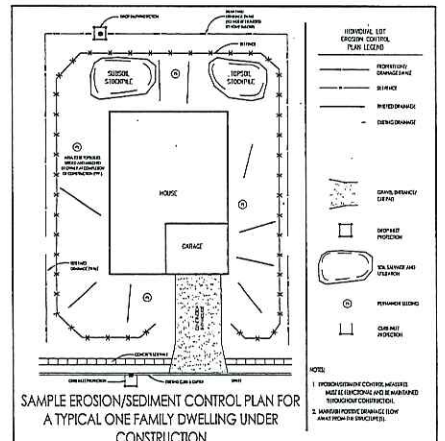
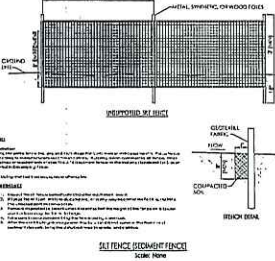


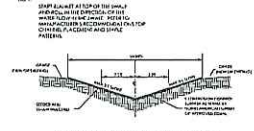
FIGURE 5-3

Table with 4 columns: Erosion Control Measure, Slope, Soil Type, and Material. Lists measures like Erosion Control Matting, Erosion Control Blanket, etc.

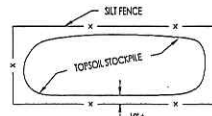
FIGURE 5-4



RIP RAP

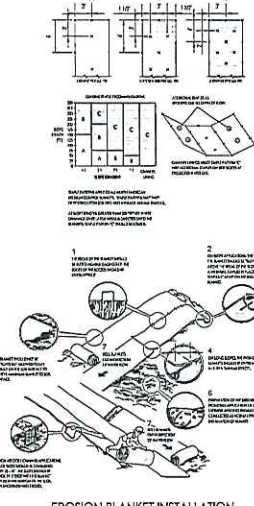


EROSION CONTROL MATTING DETAIL FOR LAKE BANK

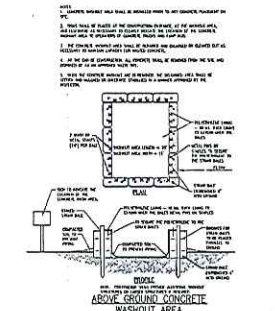


EROSION CONTROL MATTING DETAIL FOR REAR YARD SWALE

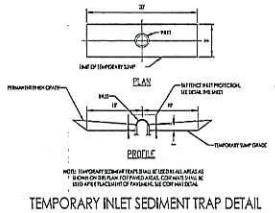
TYPICAL TOPSOIL STOCKPILE



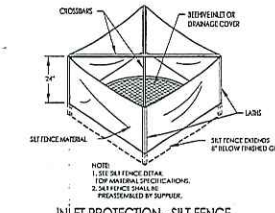
EROSION BLANKET INSTALLATION



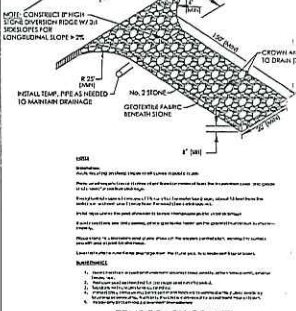
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



TEMPORARY INLET SEDIMENT TRAP DETAIL



INLET PROTECTION - SILT FENCE



CURB INLET SEDIMENT PROTECTION



Overbrook Farms - Section Three Site Construction Plans Fischer Development Company

Table with 2 columns: DATE (JANUARY 17, 2014) and SHEET TITLE (STORM WATER POLLUTION PREVENTION DETAILS). Includes drawing number C103 of 23.

SWPPP FOR CONSTRUCTION SITES

1. 14 DIGIT WATERSHED HYDROLOGIC UNIT CODE: 05120201120020
2. NAME OF ALL RECEIVING WATERS: BEAR CREEK
3. ESTIMATE OF PEAK DISCHARGE FOR POST CONSTRUCTION STORM SEWER, IDENTIFY THE ULTIMATE RECEIVING WATER.
4. LOCATIONS OF FLEAK DISCHARGE FOR POST CONSTRUCTION CONDITIONS (10-YEAR): 1.24C13
5. LOCATIONS OF FLEAK DISCHARGE FOR POST CONSTRUCTION CONDITIONS (10-YEAR): PROPOSED 1" RCP PIPE AT DETENTION POND, LOCATED AT SOUTHWEST CORNER OF SITE (STRUCTURE NO. 4) REFER TO SHEET C101.
6. LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUNDWATER, SUCH AS ABANDONED WELLS OR BOREHOLES: N/A
7. SOILS MAP OF THE PREDOMINANT SOIL TYPES INCLUDING:
 - a. SOIL LEGEND WITH DESCRIPTIONS OF EACH SOIL TYPE DENOTED ON C100 AND INCLUDES SOIL TYPE (R, C, H, I, M, O, S, U, V, X, Z), PARENT MATERIAL TYPE AND COLOR.
 - b. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES - POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES INCLUDE OIL, GREASE, ANTI-FREEZE, GASOLINE AND DIESEL FUEL FROM CONSTRUCTION EQUIPMENT; SOIL EROSION, FERTILIZER AND PESTICIDES FROM LANDSCAPING.
8. TEMPORARY AND PERMANENT STORMWATER QUALITY MEASURES: REFER TO SHEETS C101, C102, C103 AND C104 FOR:
 - a. LOCATION
 - b. DIMENSIONS
 - c. DETAILED SPECIFICATIONS
 - d. CONSTRUCTION DETAILS
 - e. MONITORING AND MAINTENANCE GUIDELINES
9. GENERAL CONSTRUCTION SEQUENCE:

PRECONSTRUCTION ACTIVITIES:

1. CALL THE INDIANA UNDERGROUND PLANT PROTECTION SYSTEMS, INC. ("HOLEY MOLEY") AT 811 TO CHECK THE LOCATION OF ANY EXISTING UTILITIES. THEY SHOULD BE NOTIFIED TWO WORKING DAYS BEFORE CONSTRUCTION BEGINS.
2. A SILT FENCE SHALL BE INSTALLED AT THE EDGES OF THE PROJECT SITE WHERE THERE IS POTENTIAL FOR ANY STORMWATER RUNOFF AND AS DENOTED ON THE STORMWATER POLLUTION PREVENTION PLAN. POTENTIAL AREAS ARE IDENTIFIED BY RED DOTTING TO CONTOUR AROUND THE PERIMETER OF THE SITE.
3. EVALUATE, MARK AND PROTECT IMPORTANT TREES AND ASSOCIATED ROOT ZONES. EVALUATE EXISTING VEGETATION SUITABLE FOR USE AS FILTER STRIPS ALONG THE PERIMETER OF THE SITE.
4. A CONSTRUCTION EMBANKMENT SHALL BE PLACED WHERE THE PLANS SHOW ON THE BEAR CREEK.
5. ESTABLISH CONSTRUCTION STAGING AREA FOR EQUIPMENT AND VEHICLES AS FAR FROM DETENTION PONDS AND SWALES AS POSSIBLE.
6. INSTALL BRUSH DUMPSTER, CONCRETE WASHOUT AREA AND PLACE PORT-A-LET AS INDICATED ON THE PLANS.
7. ESTABLISH ON-SITE LOCATION FOR OWNER/OPERATOR/CONTRACTOR PLACEMENT OF APPROVED PLANS AND RULE 5 NOI AND RULE 5 INSPECTION DOCUMENTATION.

CONSTRUCTION SEQUENCING:

THE PURPOSE OF STAGING CONSTRUCTION DURING THE VARIOUS PHASES OF THE PROJECT IS TO LIMIT THE AMOUNT OF GRASSLAND DISTURBED AT ANY GIVEN TIME AND TO PREVENT SEDIMENT FROM LEAVING THE SITE. FOR THE REASON, THE FOLLOWING SEQUENCING SHOULD BE FOLLOWED AS MUCH AS POSSIBLE AND ANY DEVIATION REQUIRED DURING CONSTRUCTION OF THIS PROJECT SHALL BE DONE THROUGH A "DANDY" DEWATERING BAG OR APPROVED EQUAL. DO NOT PLACE DEWATERING BAG WITHIN 50 FEET OF A SWALE, DITCH OR CREEK.

1. STRIP TOPSOIL FROM POND AREA AND STORE IN TOPSOIL STOCKPILE AREA AS NOTED ON THE PLANS.
2. STRIP TOPSOIL FROM STREETS, PADS, LOBS AND POND AREA AND PLACE IN TOPSOIL STOCKPILE AREA AS NOTED ON THE PLANS.
3. COMPLETE ALL MASS GRADING REQUIRED TO PREPARE ROAD AND BUILDING SUBGRADES AND PADS. APPLY LIME BEFORE ANY STORM SEWER INSTALLATION.
4. INSTALL ALL STORM SEWER SYSTEMS AND OTHER UTILITIES. INSTALL ALL INLET PROTECTION AS EACH INLET IS COMPLETED AS SHOWN ON THE PLANS AND SHOWN ON THE BEAR SHEET.
5. COMPLETE GRADING FOR ALL BUILDING AREAS AND ROAD SUBGRADES AS SHOWN ON THE PLANS.
6. INSTALL TEMPORARY SEEDING IN ALL AREA THAT WORK WILL DISCONTINUE FOR 14 DAYS OR MORE.
7. FINISH GRADE ALL SWALES. APPLY PERMANENT SEED.
8. PREPARE SEED BED AND APPLY PERMANENT SEED IN ALL AREAS AS DENOTED ON THE PLANS.
9. CLEAR, DCAVATE AND MAINTAIN TEMPORARY SILTATION SUMPS UNTIL PROJECT IS COMPLETED.
10. CLEAN AND MAINTAIN ALL INLET PROTECTION, SILT FENCE, EROSION CONTROL, BLANKETS, TEMPORARY SILTATION BASINS AND TEMPORARY SEEDING AREAS UNTIL THE PROJECT IS COMPLETELY BUILT OUT.
11. IF SEEDING AREAS DO NOT PRODUCE A MINIMUM OF 70 PERCENT VEGETATIVE COVER, CONTRACTOR SHALL RESEED TO OBTAIN ADEQUATE VEGETATIVE COVER FOR STABILIZATION OF THE SITE.
12. REMOVE ALL TEMPORARY EROSION CONTROL PRACTICES INCLUDING SILT FENCE WHEN ENTIRE SITE HAS REACHED 70 PERCENT VEGETATIVE COVER.
13. CLEAN OUT ALL POST CONSTRUCTION BMPs WHEN CONSTRUCTION IS COMPLETE.

10. LOCATION OF PROPOSED SOIL STOCKPILES, BORROW, AND/OR DISPOSAL AREAS: SOIL STOCKPILE AREA IS DENOTED WITHIN THE PROJECT SITE. REFER TO SHEET C100 FOR LOCATION.
11. TEMPORARY AND PERMANENT SURFACE STABILIZATION METHODS APPROPRIATE FOR EACH SEASON: REFER TO SHEET C103 FOR DETAILS AND SPECIFICATIONS.
12. EROSION AND SEDIMENT CONTROL SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS: REFER TO SHEET C103 FOR DETAIL.
13. MATERIAL HANDLING, STORAGE, AND SPILL PREVENTION PLAN:

THE INTENTION OF THIS SPILL PREVENTION, CONTROL AND CONSERVATION MEASURES (SPCC) IS TO ESTABLISH THE PROCEDURES AND EQUIPMENT REQUIRED TO PREVENT THE DISCHARGE OF OIL AND HAZARDOUS SUBSTANCES IN QUANTITIES THAT VIOLATE APPLICABLE WATER QUALITY STANDARDS, CAUSE A SHEEN UPON OR DISCOLORATION OF THE SURFACE OF NAVIGABLE WATERS OR ADJOINING SHORELINES, OR CAUSE SLUDGE OR DEPOSITION TO BE DEPOSITED BENEATH THE SURFACE OF THE WATER OR ADJOINING SHORELINES. THE PLAN ALSO ESTABLISHES THE ACTIVITIES REQUIRED TO MITIGATE SUCH DISCHARGES (I.E. COUNTERMEASURES) SHOULD THEY OCCUR.

DEFINITIONS:

- POLLUTANTS: MEANS POLLUTANT OF ANY KIND OR IN ANY FORM, INCLUDING BUT NOT LIMITED TO SEDIMENT, PAINT, CLEANING AGENTS, CONCRETE WASHOUT, PESTICIDES, NUTRIENTS, TRASH, HYDRAULIC FLUIDS, FUEL OIL, PETROLEUM, FUEL OR, SLUDGE, OIL, REFUSE, AND OR MIXED WITH WASTES OTHER THAN DREDGED SOIL.
- DISCHARGE: INCLUDES BUT IS NOT LIMITED TO, ANY SPILLING, LEAKING, PUMPING, POURING, EMITTING, EMPTYING, OR DUMPING.
- NAVIGABLE WATERS: MEANS ALL WATERS OF THE UNITED STATES THAT ARE CONNECTED WITH A NAVIGABLE STREAM, LAKE, OR SEA. (NOTE: THIS DEFINITION IS LEGALLY INTERPRETTED TO MEAN ANY WASTEWATER/EVEN NORMALLY DRY WASH OR SLOPE DRENCH THAT EVENTUALLY DRAINS INTO A NAVIGABLE STREAM.)
- PLAN REVIEW AND APPROVEMENTS: THIS PLAN SHALL BE REVIEWED AND/OR AMENDED, IF NECESSARY, WHENEVER THERE IS A CHANGE IN THE DESIGN OF THE SITE, CONSTRUCTION, OPERATION, OR MAINTENANCE WHICH MATERIALLY AFFECTS THE SITE'S POTENTIAL FOR THE DISCHARGE OF REGULATED MATERIAL.
- PREVENTION OF POTENTIAL SPILLS:
 1. NEAREST NAVIGABLE WATER: BEAR CREEK
 2. POSSIBLE SPILL SOURCES (DURING AND POST CONSTRUCTION): VEHICULAR SOURCES SUCH AS LEAKING FUEL OR OIL, BRAKE FLUID, GREASE, ANTI-FREEZE, CONSTRUCTION TRASH AND DEBRIS, BIOLOGICAL AGENTS FOUND IN TRASH AND DEBRIS, FERTILIZERS, HOUSEHOLD ITEMS INCLUDING BUT NOT LIMITED TO CLEANING AGENTS, CHEMICALS, PAINTS, HERBICIDES AND PESTICIDES.
 3. GROUNDWATER CONTAMINATION: THIS FACILITY MAINTAINS NO ABOVE GROUND OR UNDER GROUND STORAGE TANKS. THEREFORE IT IS FELT THAT THERE IS LITTLE OR NO POSSIBILITY OF POST CONSTRUCTION GROUNDWATER CONTAMINATION.

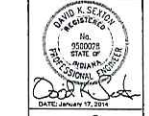
- ALERT PROCEDURES FOR SPILLS:**
1. ANY PERSONNEL OBSERVING A SPILL WILL IMMEDIATELY NOTICATE THE FOLLOWING PROCEDURE:
 - a. CALLING "911" FROM ANY TELEPHONE.
 - b. NOTIFY THE APPROPRIATE EMERGENCY PERSONNEL.

2. THE EMERGENCY COORDINATOR WILL THEN TAKE THE FOLLOWING ACTIONS:
 - a. BARRICADE THE AREA ALLOWING NO VEHICLES TO ENTER OR LEAVE THE SPILL ZONE.
 - b. NOTIFY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF EMERGENCY RESPONSE BY CALLING THE APPROPRIATE TELEPHONE NUMBER:
 - OFFICE: 317-233-7745
 - TOLL FREE: 800-233-7745
 - c. ALSO THE NATIONAL RESPONSE CENTER AT 800-424-6802 AND PROVIDE THE FOLLOWING:
 - INSTRUCTIONS:
 - TIME OF OBSERVATION OF THE SPILL
 - LOCATION OF THE SPILL
 - IDENTITY OF MATERIAL SPILLED
 - PROBABLE SOURCE OF THE SPILL
 - PROBABLE TIME OF THE SPILL
 - VOLUME OF THE SPILL AND DURATION
 - PRESIENT AND ANTICIPATED MOVEMENT OF THE SPILL
 - WEATHER CONDITIONS
 - PERSONNEL AT THE SCENE
 - ACTION INITIATED BY PERSONNEL
 - d. NOTIFY THE CITY OF CARMEL FIRE DEPARTMENT PHONE: 9-1-1
 - e. NOTIFY THE HAMILTON COUNTY SURVEYORS OFFICE 317-776-8495
 - f. NOTIFY CITY OF CARMEL 4641 317-511-2214

14. CONTACT INFORMATION FOR THE TRAINED INDIVIDUAL RESPONSIBLE FOR STORMWATER POLLUTION PREVENTION FOR THE PROJECT SITE:

- a. NAME: RICHARD HENDERSON C/O FISCHER DEVELOPMENT COMPANY
- b. ADDRESS: 4407 E. 25TH STREET, 5400, INDIANAPOLIS, IN 46250
- c. TELEPHONE NUMBER: 317-201-4172
- d. EMAIL ADDRESS: RHD@DESIGN4TECHNOLOGIES.COM

15. CURRENT REVISION DATE ON ALL SHEETS: SEE TITLE BLOCK



NOTARY PUBLIC
10000 N. SHILOH ROAD
SUITE 100
CARMEL, IN 46226
P: 317-223-3800
F: 317-223-3800



Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

SWPPP FOR POST CONSTRUCTION

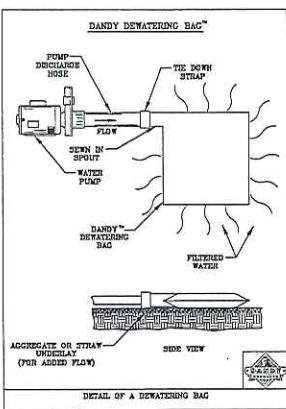
1. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH THE PROPOSED LAND USE: SILT AND EROSION FROM EXPOSED SOILS, LAWNS, AND VEHICULAR SOURCES SUCH AS LEAKING FUEL OR OIL, BRAKE FLUID, BRAKE OIL, GREASE, ANTI-FREEZE, METALS, RUBBER FLOAMS, ROAD GRT, PAINTS AND STAINS, CONSTRUCTION TRASH AND DEBRIS, FERTILIZERS, CLEANING AGENTS, CHEMICALS, PAINT, ANIMAL WASTE, ELEVATED STORM RUNOFF TEMPERATURES, PESTICIDES AND PATROLGOLLS
2. POST-CONSTRUCTION STORMWATER QUALITY MEASURES: WEI POND, INFILTRATION TRENCH AND FILTER STRIP ADJACENT TO BEAR CREEK. REFER TO SHEET C101 FOR LOCATION, C102 FOR DETAIL AND DRAINAGE REPORT FOR SITING CALCULATIONS.
3. SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION:

POST-CONSTRUCTION SEQUENCING:

- THE PURPOSE OF THE POST CONSTRUCTION PHASE IS TO IDENTIFY AND MAINTAIN ALL POST CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) STRUCTURES WITH RELOCATING RUNOFF AND CONTROLLING POLLUTANTS. FOR THIS REASON, THE FOLLOWING SEQUENCING SHOULD BE FOLLOWED AS MUCH AS POSSIBLE.
1. INSTALL WATER QUALITY BMPs AS DESCRIBED HEREIN.
 2. DISTRIBUTE POST CONSTRUCTION BMP OPERATIONS AND MAINTENANCE MANUAL (BMP MANUAL) BMP TO OWNER AND HOME OWNERS ASSOCIATION.
 3. THE O&M MANUAL IDENTIFIES AND LOCATES THE FOLLOWING BMP STRUCTURE FOR THE OWNER:
 - a. WEI POND, INFILTRATION TRENCH AND FILTER STRIP.

BMP OWNERS MUST ROUTINELY INSPECT BMPs TO VERIFY THAT ALL BMP COMPONENTS ARE FUNCTIONING AS DESIGNED AND NOT IN DANGER OF FAILING.

 - c. ALL BMPs NEED MAINTENANCE TO FUNCTION AS WATER QUALITY AND QUANTITY ENHANCEMENTS. MAINTENANCE CAN RANGE FROM DREDGING SEDIMENT OUT OF THE TREATMENT AREA TO MOWING GRASS.
 4. BMP OWNERS IS RESPONSIBLE FOR THE MAINTENANCE OF THE BMP AND ANY COSTS ASSOCIATED WITH MAINTAINING THE BMP.
 5. BMP OWNER SHALL KEEP THE BMP FREE FROM LITTER AND SILT. REFER TO THE INSPECTION AND MAINTENANCE GUIDELINES FOR FURTHER CLARIFICATION.
 6. SEDIMENT THAT COLLECTS IN THE BMP SHALL BE REMOVED WHEN IT ADVERSELY AFFECTS THE AESTHETIC OF THE BMP TO PERFORM AS A WATER QUALITY CONTROL DEVICE.
 4. STORMWATER QUALITY MEASURES TO BE IMPLEMENTED TO PREVENT OR MINIMIZE ADVERSE IMPACTS TO STREAM AND RIPARIAN HABITATS: REFER TO SHEETS C101 AND C102
 5. AN OPERATION AND MAINTENANCE MANUAL FOR ALL POST-CONSTRUCTION STORMWATER QUALITY MEASURES: SEE O&M MANUAL



DRAINAGE EVALUATION LOG SHEET

DATE: _____ TIME: _____

NAME OF THE PERSON WHO HAS CONDUCTED THIS REVIEW: _____

NAME OF THE PROJECT: _____

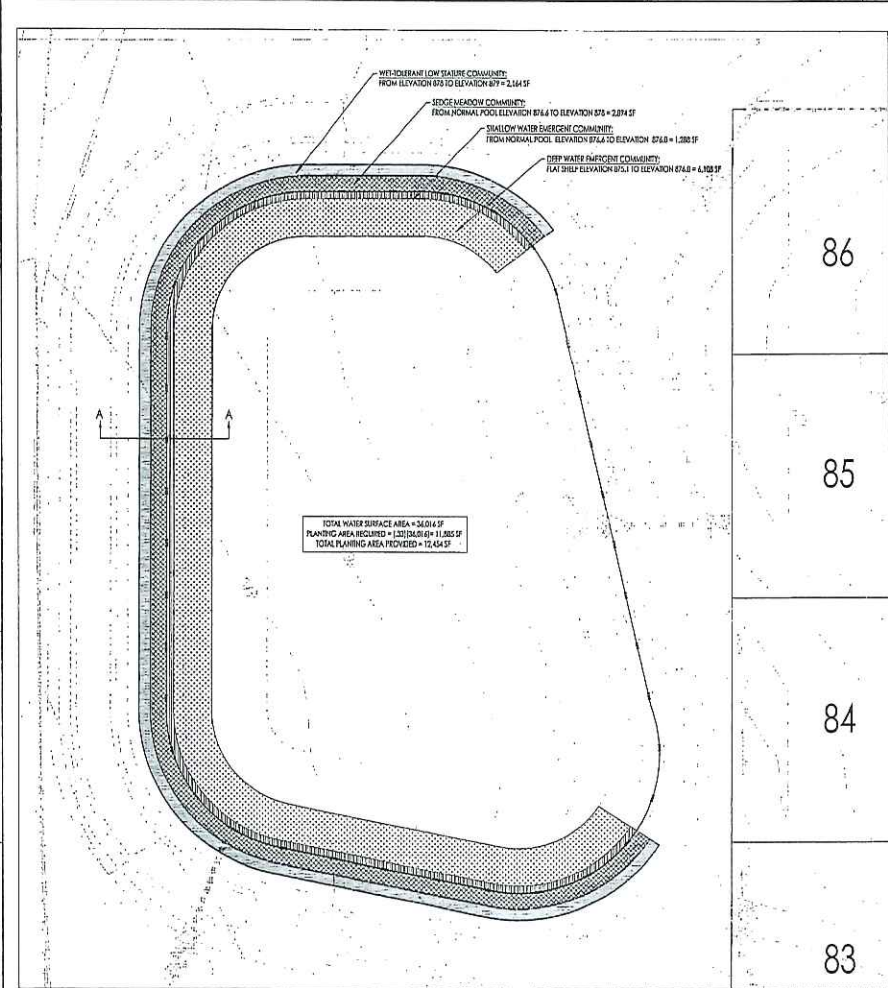
NO.	PROBLEM	CAUSE	REMEDY	DATE	BY
1.	Is the material stored in a secure area?				
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30.	Is the material stored in a secure area?				

NAME OF THE PERSON WHO HAS CONDUCTED THIS REVIEW: _____

DATE: _____ TIME: _____

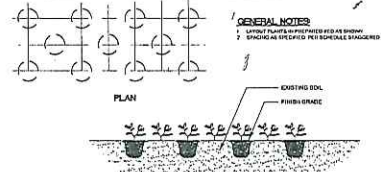


REVISION	DATE	BY	CHKD
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TOTAL WATER SURFACE AREA = 34,014 SF
 PLANTING AREA REQUIRED = 1,331,848 SF @ 11.88 SF/PLANT
 TOTAL PLANTING AREA PROVIDED = 12,454 SF

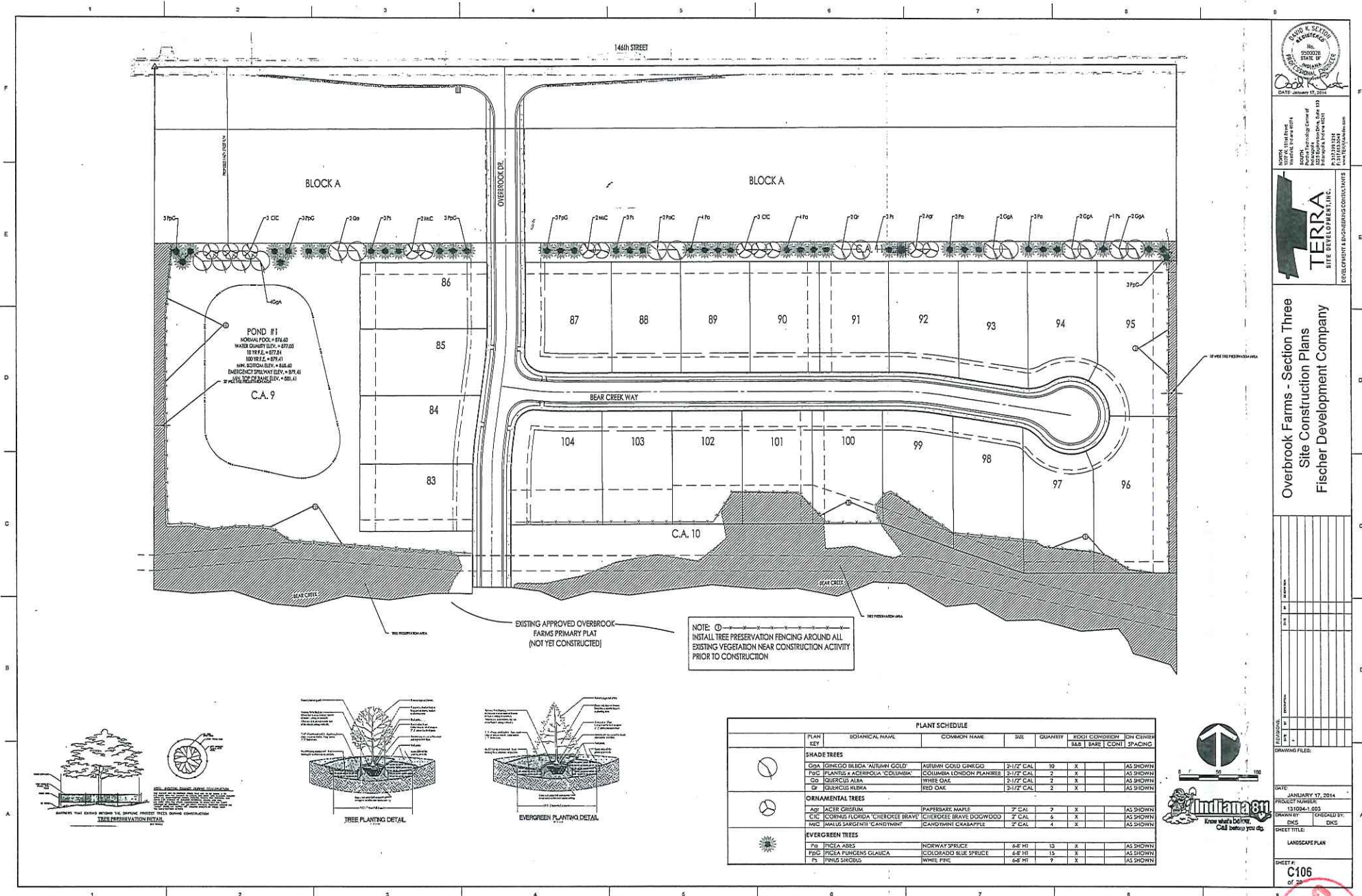
- NAME SHALLS & SPECIFICATIONS PLANTING NOTES**
- 1.1 INFORMATIONAL SUBMITTALS**
 - 1.1.1 Construction of Basin: Basin shall be constructed of concrete or masonry with a minimum of 4 inches of concrete or masonry on all sides and bottom. Basin shall be finished with a smooth, non-slip surface. Basin shall be finished with a smooth, non-slip surface.
 - 1.1.2 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.3 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.4 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.5 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.6 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.7 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.8 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.9 Basin shall be finished with a smooth, non-slip surface.
 - 1.1.10 Basin shall be finished with a smooth, non-slip surface.
 - 1.2 QUALITY ASSURANCE**
 - 1.2.1 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.2 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.3 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.4 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.5 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.6 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.7 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.8 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.9 Basin shall be finished with a smooth, non-slip surface.
 - 1.2.10 Basin shall be finished with a smooth, non-slip surface.
 - 1.3 MATERIALS**
 - 1.3.1 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.2 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.3 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.4 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.5 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.6 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.7 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.8 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.9 Basin shall be finished with a smooth, non-slip surface.
 - 1.3.10 Basin shall be finished with a smooth, non-slip surface.
 - 1.4 FINISHES**
 - 1.4.1 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.2 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.3 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.4 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.5 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.6 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.7 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.8 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.9 Basin shall be finished with a smooth, non-slip surface.
 - 1.4.10 Basin shall be finished with a smooth, non-slip surface.
 - 1.5 PLANTING**
 - 1.5.1 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.2 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.3 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.4 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.5 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.6 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.7 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.8 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.9 Basin shall be finished with a smooth, non-slip surface.
 - 1.5.10 Basin shall be finished with a smooth, non-slip surface.
 - 1.6 MAINTENANCE**
 - 1.6.1 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.2 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.3 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.4 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.5 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.6 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.7 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.8 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.9 Basin shall be finished with a smooth, non-slip surface.
 - 1.6.10 Basin shall be finished with a smooth, non-slip surface.



1 C105 PLUG PLANTING DETAIL

2 C105 POND CROSS SECTION A-A

SCALE: 1/2" = 1'-0"



DAVID K. SEITZ
 SURVEYOR
 No. 8500226
 STATE OF INDIANA
 PROFESSIONAL SURVEYOR
 DATE: January 17, 2014

1000 N. 11th Street
 Noblesville, IN 46060
 Phone: 317-546-1111
 Fax: 317-546-1112
 www.dksurvey.com

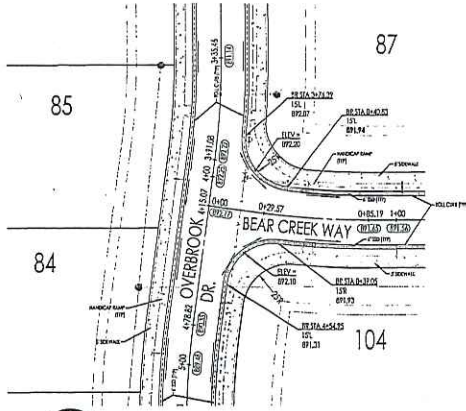
TERRA
 SITE DEVELOPMENT, INC.
 1000 N. 11th Street
 Noblesville, IN 46060
 Phone: 317-546-1111
 Fax: 317-546-1112
 www.terra-sd.com

Overbrook Farms - Section Three
 Site Construction Plans
 Fischer Development Company

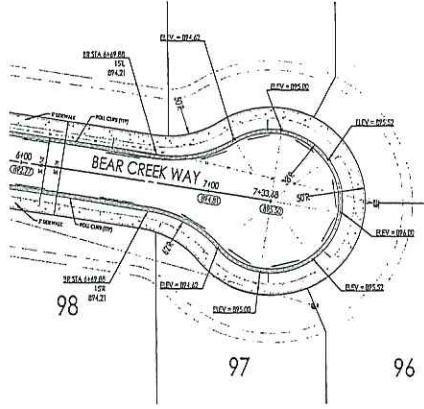
DATE	JANUARY 17, 2014
PROJECT NUMBER	13104-1-005
DRAWN BY	DMS
CHECKED BY	DMS
SHEET TITLE	LANDSCAPE PLAN
SHEET #	C106
OF	20



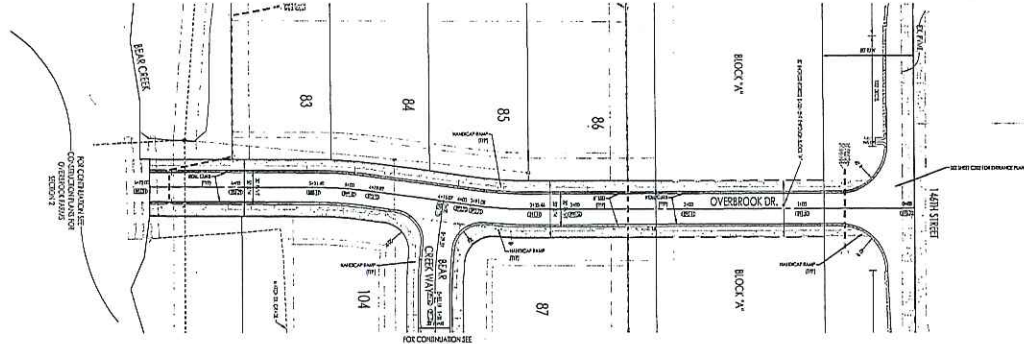
FILE COPY



OVERBROOK DRIVE & BEAR CREEK WAY
SCALE: 1"=50'

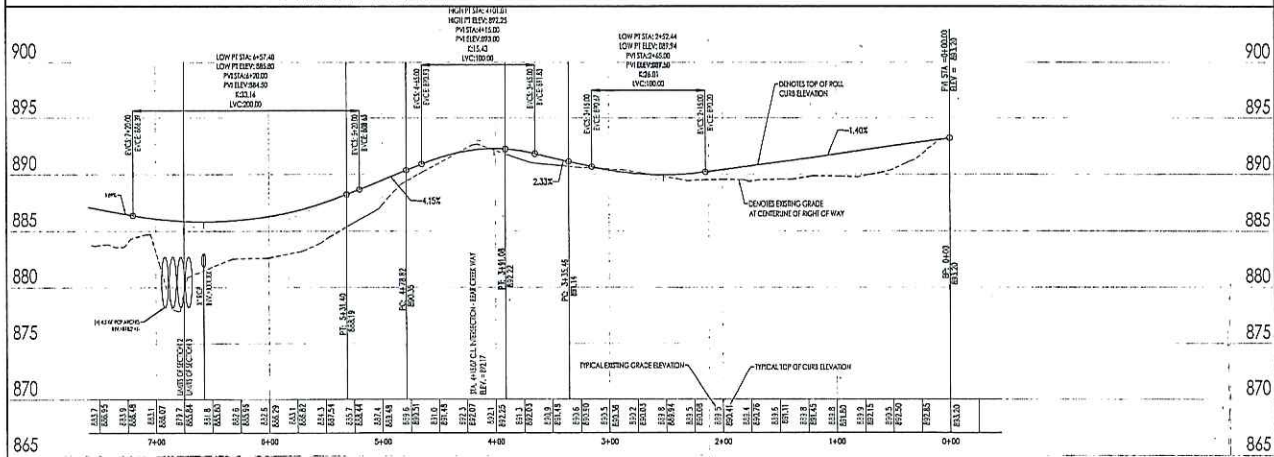


BEAR CREEK WAY
SCALE: 1"=50'



OVERBROOK DRIVE
SCALE: 1"=50'

STREET PLAN

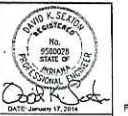


SCALE: 1"=50'

INTERSECTION DETAILS

STREET PROFILE

1. ALL STREETS TO BE 20 FEET WIDE FROM 3' OF CURB UNLESS OTHERWISE NOTED.
2. ALL DRIVEWAYS TO BE 8 FEET WIDE UNLESS OTHERWISE NOTED.
3. ALL CURB RAMP AT INTERSECTIONS MUST BE TO FACE OF CURB UNLESS OTHERWISE NOTED.
4. ALL STREET RIGHT OF WAY PROJECTIONS TO BE 12 FEET UNLESS OTHERWISE NOTED.
5. TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE REGULATIONS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND TO OBTAIN ALL NECESSARY CONSTRUCTION PERMITS FROM THE LOCAL GOVERNMENT.
8. ALL STREETS TO BE CONSTRUCTED TO ACCORDANCE WITH THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION.



DATE: 01/17/2014
 NORTH: 11/10/2014
 PROJECT: Overbrook Drive
 DRAWN BY: DKS
 CHECKED BY: DKS
 INDIANA ENGINEERING & SURVEYING, INC.
 1100 N. WASHINGTON ST., SUITE 100
 NORTHERN CROSSING, INDIANA 46060
 P: 317.433.1141
 F: 317.433.1142
 WWW.IEASURV.COM

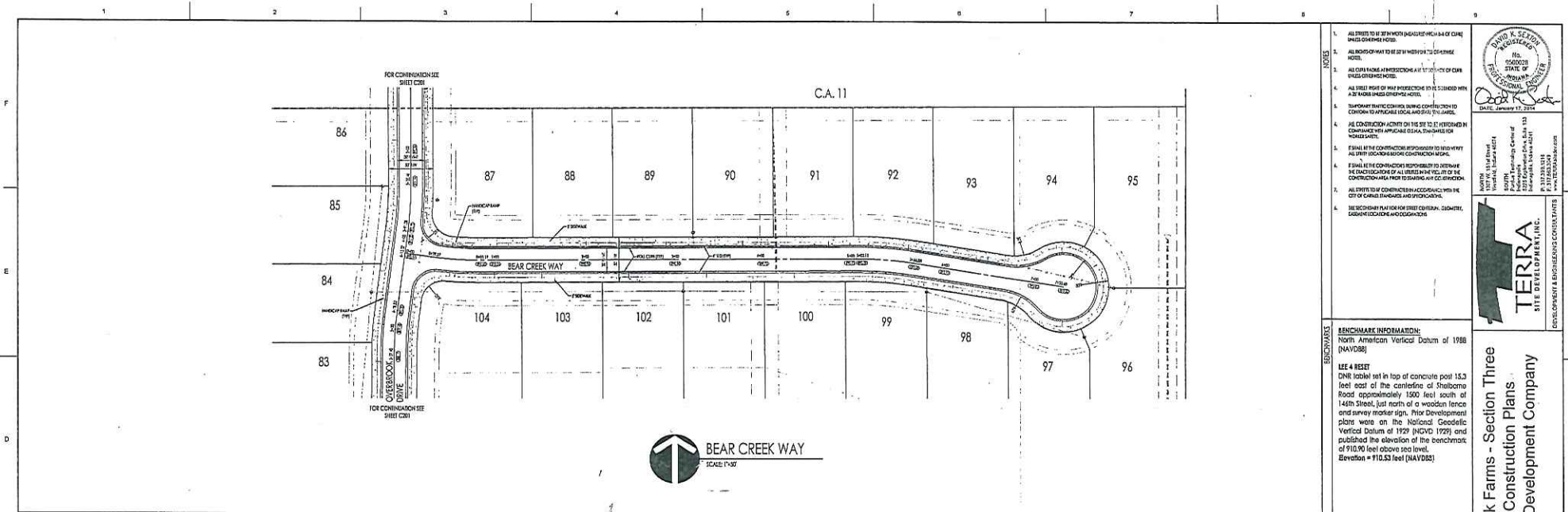


Overbrook Farms - Section Three
Site Construction Plans
 Fischer Development Company

DATE:	JANUARY 17, 2014
PROJECT NUMBER:	131104-003
DRAWN BY:	DKS
CHECKED BY:	DKS
SHEET TITLE:	STREET PLAN & PROFILE AND INTERSECTION DETAILS
SHEET #:	C201
OF 22	



LEGEND
 SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'



STREET PLAN

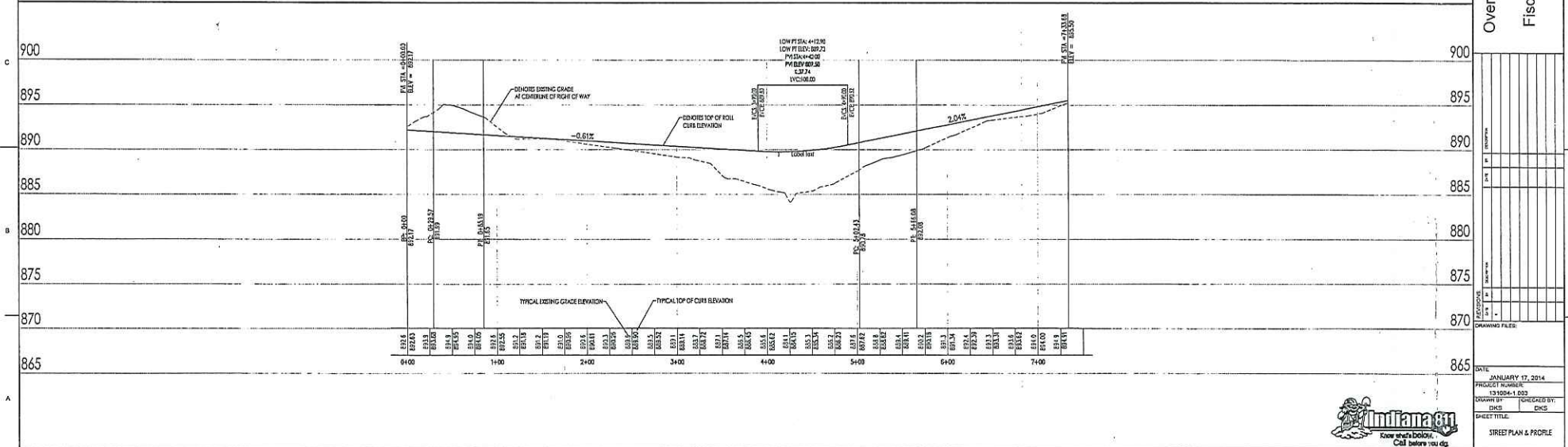
SCALE: 1"=50'

- NOTES**
1. ALL UTILITIES TO BE SHOWN AND LOCATED FROM 8" x 4" CIRCULAR OPENING NOTES.
 2. ALL WORK SHALL BE TO BE SHOWN FROM 7.5' OFFSET NOTES.
 3. ALL CONSTRUCTION SHALL BE AT 10' OFFSET OF CURB UNLESS OTHERWISE NOTED.
 4. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.
 5. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.
 6. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.
 7. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.
 8. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.
 9. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.
 10. ALL EXISTING UTILITIES SHALL BE SHOWN WITH A 2' BURN RADIUS OFFSET FROM THE EXISTING CENTERLINE.

BENCHMARK INFORMATION:
 North American Vertical Datum of 1988 (NAVD83)
 SEE 4 RESET
 DNR marker set in top of concrete post 15.3 feet east of the centerline of Overbrook Road approximately 1500 feet south of 148th Street, just north of a wooden fence and survey marker sign. Prior Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark at 712.50 feet above sea level. Elevation = 712.53 feet (NAVD83)

TERRA
 SITE DEVELOPMENT, INC.
 DEVELOPMENT & ENGINEERING CONSULTANTS

David K. Seaton
 REGISTERED PROFESSIONAL ENGINEER
 No. 5540028
 STATE OF INDIANA
 DATE: January 17, 2014



STREET PROFILE

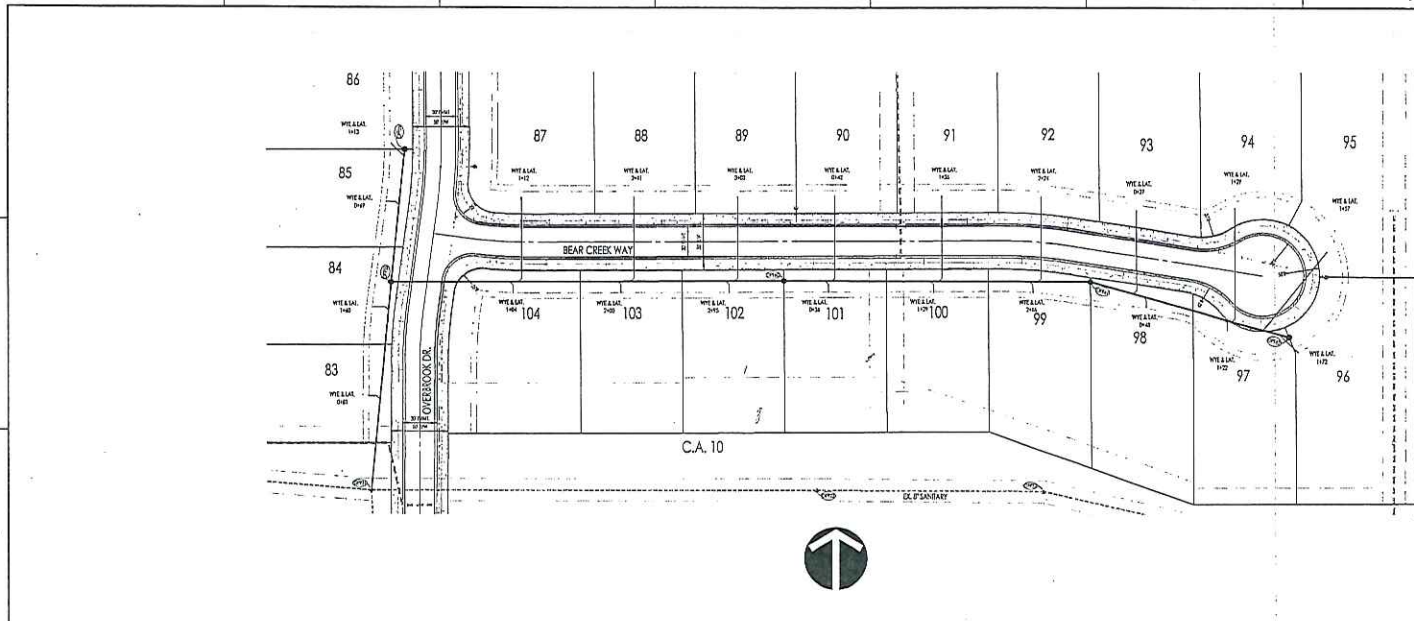
Indiana 811
 Call before you dig

LEGEND
 Existing Grade
 Proposed Center

SCALE
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

DATE	DESCRIPTION
JANUARY 17, 2014 <td>PROJECT NUMBER 131004-1-003 </td>	PROJECT NUMBER 131004-1-003
DRAWN BY: CHS <td>CHECKED BY: CHS </td>	CHECKED BY: CHS
SHEET TITLE: STREET PLAN & PROFILE	
SHEET NO. C202 OF 20	





SANITARY SEWER PLAN

Indiana 811
Know what's Below. Call before you dig.

NOTES

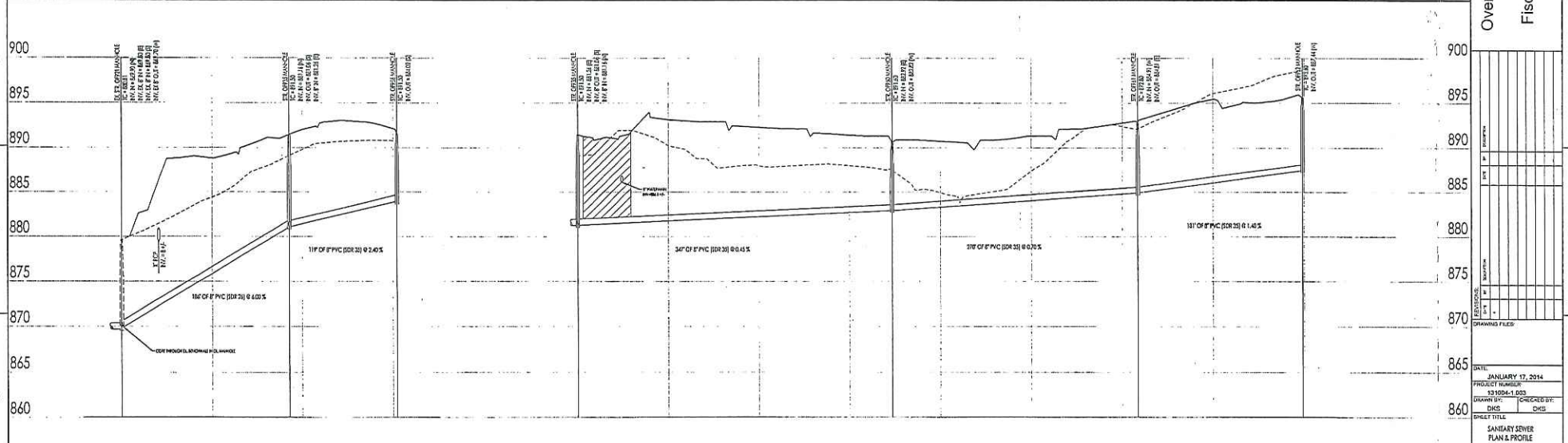
1. BEFORE ANY CONSTRUCTION, CONTACT THE LOCAL UTILITY AGENCIES TO OBTAIN UP-TO-DATE UTILITY LOCATIONS.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF INDIANAPOLIS SANITARY SEWER ORDINANCES.
3. SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND DEPT. OF TRANSPORTATION RECORD DRAWINGS FOR ACCURACY.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF INDIANAPOLIS.
5. ALL SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF INDIANAPOLIS SANITARY SEWER ORDINANCES AND SPECIFICATIONS.
6. ALL SANITARY SEWER, STORM SEWER AND WATERMAIN SHALL BE CONSTRUCTED WITH 15' COVER AND SHALL BE AT LEAST 18" BELOW THE FINISHED GRADE SURFACE.
7. LATERALS ARE STATIONED FROM NEAREST DOWNSTREAM MANHOLE.
8. WYES AND LATERALS TO BE 12" DIA. 8' PIPE.

BENCHMARK INFORMATION:
North American Vertical Datum of 1988 (NAVD83)
LEE 4 BERT
DNR marker set in top of concrete post 15.3 feet east of the centerline of Shalburne Road approximately 1500 feet south of 146th Street, just north of a wooden fence and survey marker sign. Prior Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 919.90 feet above sea level.
Elevation = 910.53 feet (NAVD83)

TERRA
SITE DEVELOPMENT, INC.
ENGINEERING & DESIGN SERVICES

SCALE: 1"=50'

Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company



SANITARY SEWER PROFILE

LEGEND

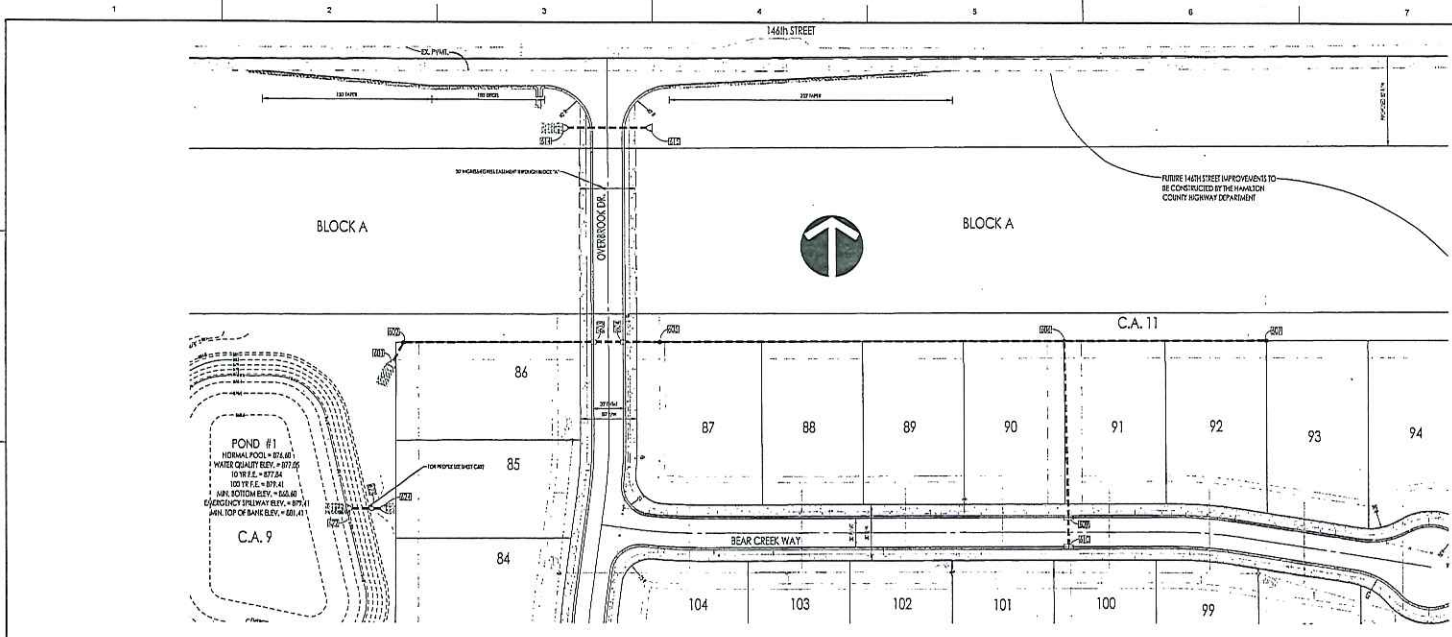
- 18" OF PVC (SDR 35)
- 36" OF PVC (SDR 35)
- 24" OF PVC (SDR 35)

SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=4'

SHEET #
C401
of 20

DATE	JANUARY 17, 2014
PROJECT NUMBER	131004-1-003
DRAWN BY	DKS
CHECKED BY	DKS
SHEET TITLE SANITARY SEWER PLAN & PROFILE	





STORM SEWER PLAN

Indiana 811
 Know what's Below. Call before you dig.

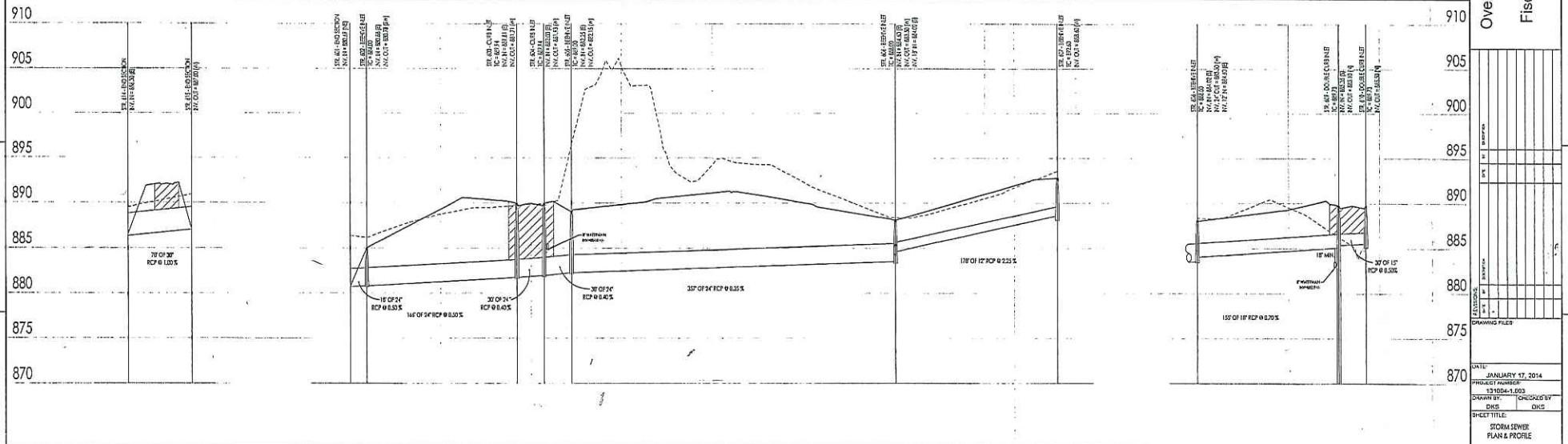
STATE OF INDIANA
 PROFESSIONAL ENGINEER
 No. 5520018
 DATE: January 17, 2014

NOTES

1. IMPORTANT: PERMIT CONTROL DURING CONSTRUCTION TO COMPLY TO APPLICABLE LOCAL AND STATE STATUTES.
2. ALL CONSTRUCTION ACTIVITY ON THE SITE IS TO BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL LOCAL, STATE AND FEDERAL WORKS PERMITS.
3. PERMITS FOR CONSTRUCTION NECESSARY TO THE WORK SHALL BE OBTAINED PRIOR TO CONSTRUCTION BEGINS.
4. CONTRACTOR SHALL MAINTAIN DRAINAGE TO EXISTING DRAINAGE SYSTEMS AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES AND SPECIFICATIONS.
5. ALL SANITARY SEWER, STORM SEWER AND WATERMAIN SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY ENGINEER'S REQUIREMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY ENGINEER'S REQUIREMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY ENGINEER'S REQUIREMENTS.
6. LATERALS ARE DETACHED FROM NEAREST DOWNSTREAM MAINHOLE.
7. WYES AND LATERALS TO BE 4" DIAMETER PIPE.

BENCHMARK INFORMATION:
 North American Vertical Datum of 1988 (NAVD83)
 ILS 4 BENCH
 DNR total set in top of concrete post 15.3 feet east of the centerline at Shelburne Road approximately 1500 feet south of 146th Street, just north of a wooden fence and survey marker sign. Ridge Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.70 feet above sea level.
 Elevation = 910.53 feet (NAVD83)

TERRA
 SITE DEVELOPMENT, INC.
 DEVELOPMENT & ENGINEERING CONSULTANTS



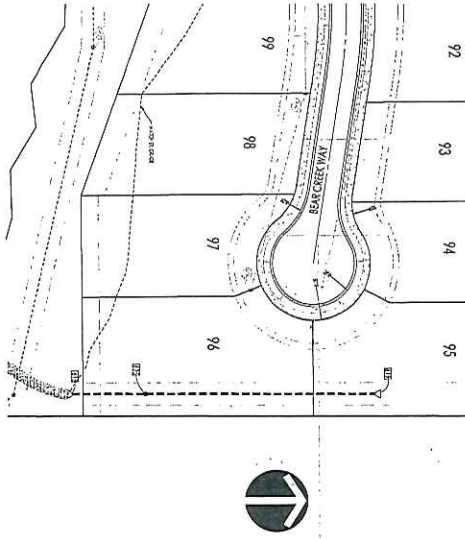
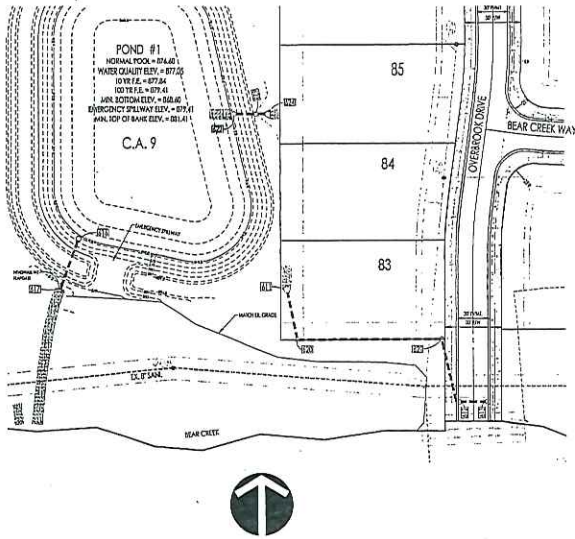
STORM SEWER PROFILE

LEGEND

SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

DATE: JANUARY 17, 2014
 PROJECT NUMBER: 137804-1-003
 DRAWN BY: DKS
 CHECKED BY: DKS
 SHEET TITLE: STORM SEWER PLAN & PROFILE
 SHEET NO.: C601
 OF 20

Overbrook Farms - Section Three
 Site Construction Plans
 Fischer Development Company



Indiana
Know what's Below. Call before you dig.

DAVID K. BEAMAN
No. 550023
STATE OF INDIANA
Professional Engineer
DATE: January 17, 2014

TERRA
SITE DEVELOPMENT
DEVELOPMENT & ENGINEERING CONSULTANTS

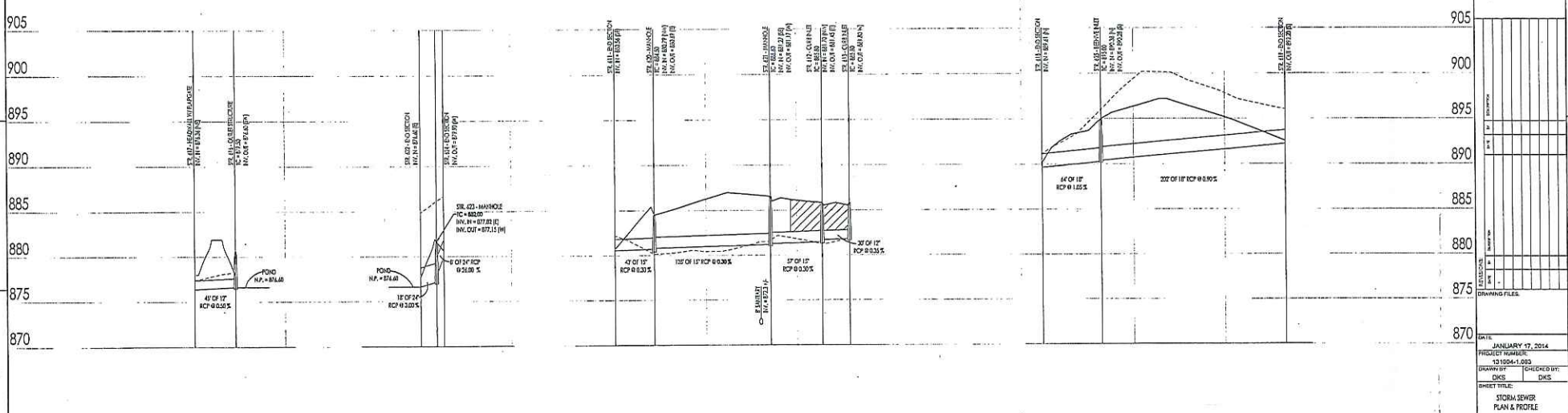
NOTES:

1. IMPORTANT: BEFORE CONSTRUCTION BEGINS, CONTACT THE LOCAL AND STATE DEPARTMENT OF PUBLIC SAFETY TO OBTAIN NECESSARY PERMITS AND TO BE INFORMED OF ANY CHANGES TO THE LOCAL AND STATE DEPARTMENT OF PUBLIC SAFETY'S POLICIES.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE INTERNATIONAL CODES AND STANDARDS FOR CONSTRUCTION.
3. FINAL REVIEW CONSTRUCTION REPORT TO BE SUBMITTED TO THE LOCAL AND STATE DEPARTMENT OF PUBLIC SAFETY FOR REVIEW.
4. CONTRACTOR SHALL MAKE CHANGE TO GROUND LEVEL.
5. ALL SEWER TO BE CONSTRUCTION IN ACCORDANCE WITH THE CURRENT REGIONAL WASTEWATER TREATMENT PLANT SPECIFICATIONS AND STANDARDS.
6. ALL SANITARY SEWER, STORM SEWER AND WATER MAINS SHALL BE INSTALLED TO THE DEPTH AND SPACING AS REQUIRED BY THE LOCAL AND STATE DEPARTMENT OF PUBLIC SAFETY.
7. LATERALS ARE SPACED FROM MANHOLE TO MANHOLE AS SHOWN.
8. WYES AND LATERALS TO BE 4" DIAMETER PIPE.

BENCHMARK INFORMATION:
North American Vertical Datum of 1988 (NAVD88)
LEE # RESET
DNR tablet set in top of concrete post 15.3 feet east of the centerline of Shelburne Road approximately 1500 feet south of 14th Street, just north of a wooden fence and survey marker sign. Price Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 710.92 feet above sea level. Elevation = 710.53 feet (NAVD88)

STORM SEWER PLAN

SCALE: 1"=50'



STORM SEWER PROFILE

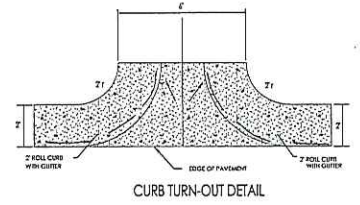
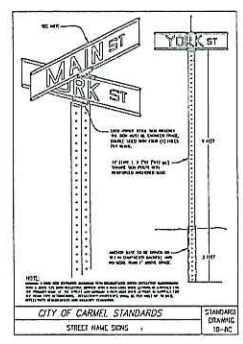
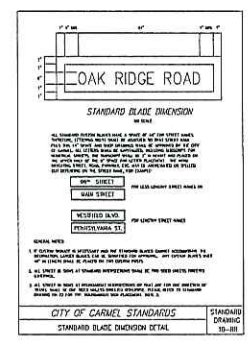
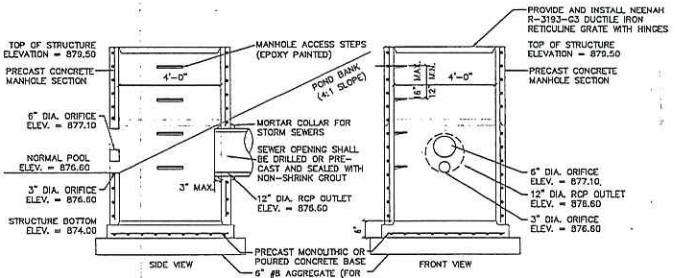
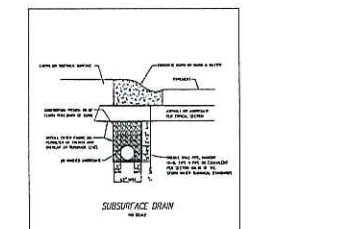
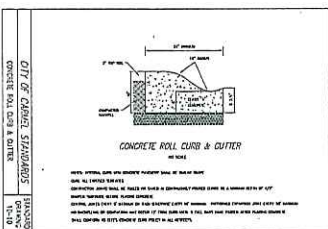
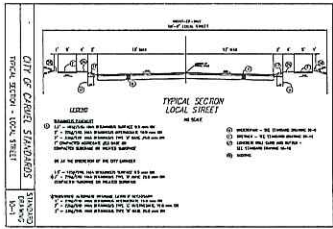
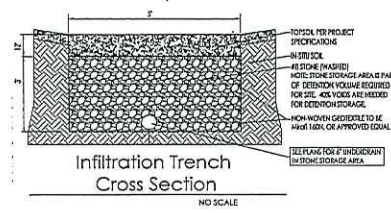
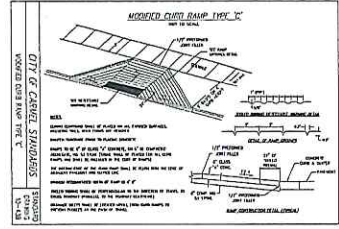
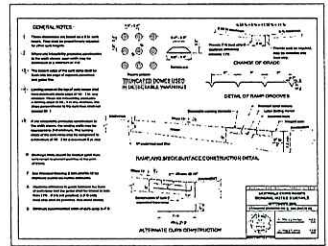
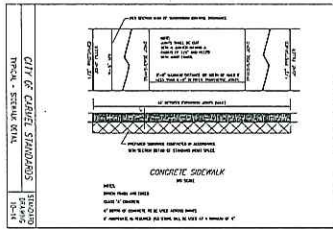
LEGEND

SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

SHADING FILE

DATE: JANUARY 17, 2014
PROJECT NUMBER: 131024-1-003
DRAWN BY: DKS
CHECKED BY: DKS
SHEET TITLE: STORM SEWER PLAN & PROFILE
SHEET #: C602 of 26





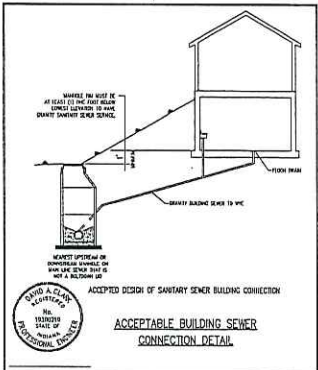
DAVID K. SEATON
No. 55002
STATE OF INDIANA
Professional Engineer
10000 N. Meridian Ave., Ste. 100
Noblesville, IN 46060
P: 317.444.5244
F: 317.444.5244
www.davidkseaton.com



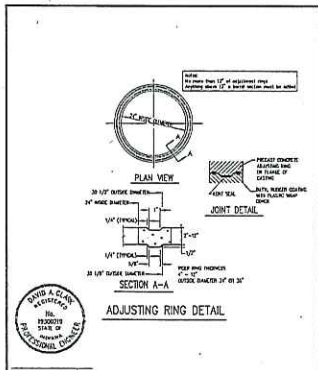
Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

NO.	REVISION	DATE
1	ISSUED FOR PERMIT	01/17/14
2	REVISED PER COMMENTS	01/17/14
3	REVISED PER COMMENTS	01/17/14
4	REVISED PER COMMENTS	01/17/14
5	REVISED PER COMMENTS	01/17/14
6	REVISED PER COMMENTS	01/17/14
7	REVISED PER COMMENTS	01/17/14
8	REVISED PER COMMENTS	01/17/14
9	REVISED PER COMMENTS	01/17/14
10	REVISED PER COMMENTS	01/17/14

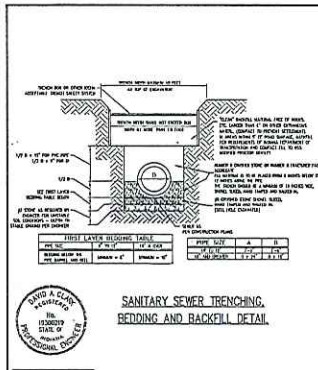
DATE: JANUARY 17, 2014
PROJECT NUMBER: 131004-1-003
DRAWN BY: DKS
CHECKED BY: DKS
SHEET TITLE: CONSTRUCTION DETAILS & SPECIFICATIONS
SHEET #: C801
of 20



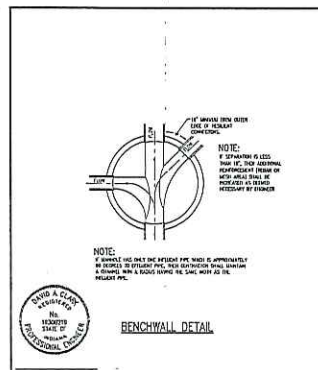
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
ACCEPTABLE CONNECTION DETAIL



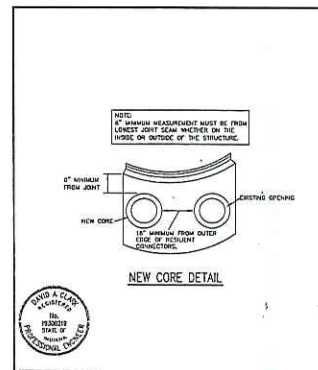
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
ADJUSTING RING DETAIL



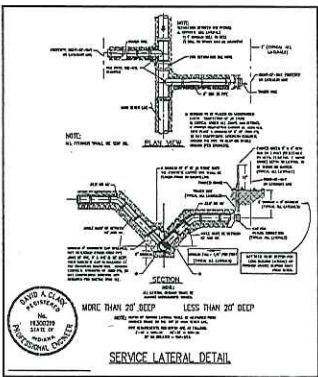
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
SANITARY SEWER BENCHING AND BACKFILL DETAIL



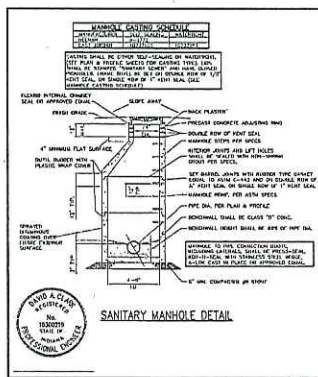
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
BENCHWALL DETAIL



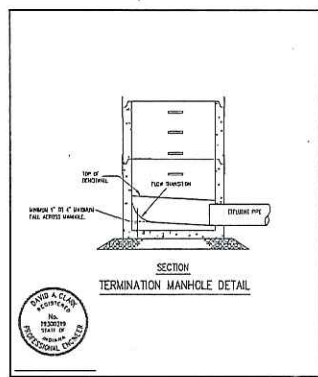
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
NEW CORE DETAIL



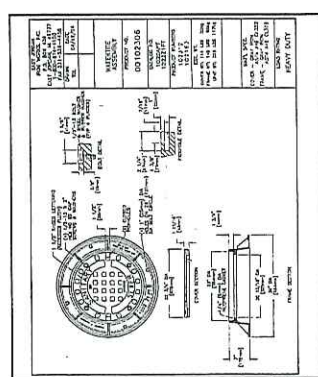
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
SERVICE LATERAL DETAIL
NORMAL AND DEEP CONNECTION



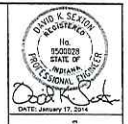
CLAY TOWNSHIP REGIONAL WASTE DISTRICT
SANITARY MANHOLE DETAIL



CLAY TOWNSHIP REGIONAL WASTE DISTRICT
TERMINATION MANHOLE DETAIL



CLAY TOWNSHIP REGIONAL WASTE DISTRICT
WATERTIGHT CASTING DETAIL



DAVID A. CLAIN
No. 16003
STATE OF INDIANA
PROFESSIONAL ENGINEER
DATE: January 11, 2014



Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

DATE: JANUARY 17, 2014
PROJECT NUMBER: 12-1004-1-003
DRAWN BY: DKS
CHECKED BY: DKS
SHEET TITLE: CONSTRUCTION DETAILS & SPECIFICATIONS
SHEET: C802 OF 20



**TYPICAL SANITARY SEWER SPECIFICATIONS
TO BE USED FOR PRIVATE SEWER DEVELOPMENT
WITHIN
CLAY TOWNSHIP REGIONAL WASTE DISTRICT**

REVISED 2/12/2017

- Standard specifications of Clay Township Regional Waste District (the District) and Department of Transportation (INDOT) shall apply for all work and materials. Sanitary sewer pipe shall be installed in accordance with Section 715 of the current INDOT standard specifications handbook.
- Sanitary sewer gravity pipe, unless pressure rated pipe required per IAC or directional drilled pipe, shall be Polyvinyl Chloride (PVC) in accordance with ASTM D3034-89 with a minimum wall thickness designation of SDR 35 and installed per ASTM D2321-89 specification. PVC pipe used shall be grooved bell, spigot end, and gasketed. The pipe shall be made of PVC plastic having a cell classification of 12454B.
- PVC sanitary sewer gravity fittings shall also conform to the requirements of the ASTM D3034-89 specification. All fittings shall be molded in one piece with standard pipe bells, gasketed elastomeric joints, and spigot ends. Single piece molded PVC with standard pipe bells, gaskets, and spigot ends for back-to-back tee wyes are acceptable. Wall thickness of all fittings shall have a minimum designation of SDR 26. Gaskets for elastomeric joints shall be molded with a minimum cross-sectional area of 0.20 square inches and conform to ASTM F477 specification.
- All sanitary manholes shall be present upstream manholes in accordance with ASTM C478 and Section 720 of the current INDOT standard specifications handbook. Drawings shall conform to C443. Double row of Kent Seal or equivalent shall also be applied to all joints and between riser rings and castings. Manhole step spacing shall be no more than 16-inches. Manholes shall be air-tight for leakage in accordance with ASTM C1344-02, Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.
 - Installation and operation of vacuum equipment and indexing devices must be in accordance with manufacturer's recommendations and performance specifications which have been provided by the manufacturer and accepted by the District Engineer. The vacuum equipment must be capable of testing the entire manhole, including the casting and riser rings.
 - With the vacuum tester set in place:
 - Connect the vacuum pump to the outlet port with the valve open.
 - Draw a vacuum of ten (10) inches of Hg. (5 ps) and close the valve.
 - Accepted standards for leakage will be established from the elapsed time for a negative pressure change from ten (10) inches to nine (9) inches of mercury. The maximum allowable leakage rate for a four (4) foot diameter manhole must be in accordance with the following:

Minimum Elapsed Time for:

Manhole Depth	Pressure Change of 1 inch Hg
10 feet or less	60 seconds
>10 feet but <15 feet	75 seconds
>15 feet but <25 feet	90 seconds

For manholes five (5) feet in diameter, add an additional fifteen (15) seconds and for manholes six (6) feet in diameter, add an additional thirty (30) seconds to the time requirements for four (4) feet diameter manholes. For all manholes deeper than twenty-five (25) feet, the Engineer will determine the applicable minimum elapsed time.

- If the manhole fails the test, necessary repairs must be made. The vacuum test and repairs must be repeated until the manhole passes the test.
 - If manhole joint sealants are pulled out during the vacuum test, the manhole must be disassembled and the joint sealants replaced.
 - Manholes will be subject to visual inspection with all visual leaks being repaired.
- Daryl rubber coating with plastic wrap shall be applied around each manhole joint from 3-inches above to 3-inches below each joint. The appropriate primer shall be applied prior to applying the rubber coating. Inside joints to be filled with precast plug material. Entire exterior surface of manhole sewer manhole shall be grooved with a continuous coating and all exterior gap exposure of riser rings shall be back plastered or grouted with masonry grout.
 - The manhole chimneys, including all riser rings shall be sealed using flex rib internal chimney seal manufactured by Citrus, NPC, or a District approved equal. The flex rib internal chimney seal shall extend from a minimum of 3-inches below the top of the cone section to 3-inches over the manhole casting frame or per manufacturer's installation procedures if directed otherwise. Internal Chimney Seal shall be installed after manhole vacuum testing and prior to final acceptance. Water test may be done, per manufacturer or District recommendation, to provide assurance that internal chimney seal is water tight.
 - The casting elevations are set by plan, however, the castings are to be adjusted in the field by the District's representative should a discrepancy occur between plan grade and existing grade. New manhole (ring) and cover shall be installed to establish grade. Maximum height of adjoining rings shall be 12-inch on existing structure adjustment and 10-inch maximum on new construction.

- Backfill around all installed or proposed manhole structures, sidewalks, bike paths and/or all paved areas shall be made with granular material (¾-inch or larger No. 8 stone, up to 18-inches below cross-section thickness) with a depth of 7-in. (2" minimum depth). If more stringent backfill requirements are set out per city, town, county, or District specifications those standards shall be followed. Trench opening within 5-feet of the back of the curb of paved roadways, shall be backfilled with granular material No. 8 stone in accordance with Section 211 of the current INDOT standard specifications handbook.
- The Contractor shall be responsible for verifying that all state highways, city, and county permits have been obtained by the developer prior to start of construction.
- Initial submittals shall be presented to the inspecting engineer prior to final submittal to the District for review, otherwise Contractor shall be required to furnish the developer's Engineer with a set of prints showing actual sewer locations and inverts including lateral location, depth, and length. Such submittal prints must be received by the Engineer before the final contract payment can be authorized. Submittals shall be submitted per the District's current standard which can be found at www.ctwd.org.
- The sanitary sewer laterals and stubs terminations shall be indicated on the surface with a detectable metal post set immediately above the said terminations point if final connection is not immediately made.
- All sanitary sewer lines upon completion will be required to pass a low pressure air test. Said test shall be conducted according to ASTM F1417-92, and shall be witnessed by a District engineer or the District's representative. The testing shall be in accordance with Table 1 as follows with 0.5 psi being added for each foot of water above the sewer line being tested. Sewer lines shall be subject to visual leak inspection at downstream manholes with all visual leaks being repaired and subject to following repairs by the District's representative.
 - Prior to final deflection test (mandated test) all manholes shall be cleaned and free of any debris. 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 considered non-flexible pipes: concrete pipe, ductile iron pipe, and cast iron pipe). The deflection test shall be performed with a nine-point mandrel. Paving rings shall be available at time of test otherwise no testing will be allowed. All mandrel testing shall be witnessed by a District engineer or the District's representative.
 - The ends of all laterals are to be plugged water tight with a gasketed cap capable of withstanding a low pressure air test without leakage. Laterals shall be subject to visual leak inspection at downstream manholes with all visual leaks being repaired.
 - Building for flexible pipe and rigid pipe shall be No. 8 crushed stone from 6-inches below to 12-inches above the pipe. Manholes shall be placed on no less than 6-inches of No. 8 crushed stone bedding.
- Water line, utility, and legal drain crossings and separations shall be in accordance with the more stringent of the two: IAC 3-6-9 or the District's standard drawings.
- The trench shall be opened sufficiently ahead of pipe laying to reveal obstructions, and shall be properly protected and/or barricaded when left unattended.
- No water shall be permitted to flow into the sanitary sewer system during construction. Contractor shall utilize a pump to keep the water level below the pipe. Pumpy discharge shall be directed to a storm outlet in accordance with state and federal laws and regulations (327 IAC 3-6-20) Any pipe entering existing sewers shall be plugged with new type mechanical, braced plug until such time as all leaks on the sewers and all punch list items are complete.
- All sewer laterals installed shall be bedded the same as the main line sewer.
- Forty-eight (48) hours notice shall be given to the District prior to the start of sewer construction. Also, 48 hours notice shall be given prior to doing any paving on the sewer.
- Manhole castings will be stamped SANITARY SEWER (Nemach Casting R-1772 or East Jordan 102221CS) and be self-sealing type. The casting flange shall be 3/4 inches and the clear opening shall be min. 26- 13/16 inches. Water-tight castings shall be bolt-down East Jordan 102221PT and also stamped SANITARY SEWER.
- The minimum slope of the sewer shall be:

Size of Pipe	Minimum Constructed Slope
8-inch	0.40%
10-inch	0.28%
12-inch	0.26%
15-inch	0.15%
18-inch	0.12%
- The Contractor shall provide measurements of the slope of the sewer for each manhole section as construction progresses. Such measurements shall be certified by a Registered Land Surveyor or Engineer and be available on-site for observation by the District's Inspector. No more than three manhole sections can be constructed in advance of such measurements.
- In the event the Contractor does not meet the minimum slopes, the sewer section and any other affected sewer sections shall be reconstructed to meet such minimum slopes.
- Laterals are to be installed with a minimum 14 gauge tracer wire from the wye to the terminus. Upon lateral completion the contractor for the building or home will extend the wire from this terminus to the building cleanout adjacent to the building.

CLAY TOWNSHIP REGIONAL WASTE DISTRICT
SUNSHINE OF LANSING, INDIANAPOLIS, INDIANA

1. All trenches, backfills, etc. shall conform to the District's standard specifications with 96 days to complete a sewer or water line 300 feet or less. All trenching shall be done in accordance with the current INDOT Standard Specifications for the State of Indiana (12-20-07). City and County Sealing may be required for the sewer pipe trench work unless otherwise specified.

2. All foundation, slope, drainage or other storm water plans shall be represented in District's sanitary sewer plan submitted through out in Ordinance 12.18.07. All drawings shall be submitted with a permit to dig.

3. The sanitary sewer line from the building to the street line may only be a 4" or 6" diameter flexible pipe, unless otherwise stated in the plan. The contractor must obtain a permit for the sewer line.

4. The owner of property shall verify the District's plan by reviewing the subdivision plan that the District has made in preparation to determine whether or not the District's standard specifications are satisfied. Lateral lines shall be installed in accordance with the District's standard specifications. If the contractor has any questions or concerns, they should be addressed to the District's representative. If the contractor has any questions or concerns, they should be addressed to the District's representative. If the contractor has any questions or concerns, they should be addressed to the District's representative.

5. Property owners are hereby advised that the County Board of Health requires the operation and maintenance of private sanitary sewage disposal facilities. The County Board of Health requires the operation and maintenance of private sanitary sewage disposal facilities. The County Board of Health requires the operation and maintenance of private sanitary sewage disposal facilities.

6. Approved Pipe Materials:
PVC FIBERGLASS SAND/CLAY PIPE, 12" DIA. (SDR 35) (ASTM D3034-89)
PVC FIBERGLASS SAND/CLAY PIPE, 15" DIA. (SDR 35) (ASTM D3034-89)
PVC FIBERGLASS SAND/CLAY PIPE, 18" DIA. (SDR 35) (ASTM D3034-89)
PVC FIBERGLASS SAND/CLAY PIPE, 24" DIA. (SDR 35) (ASTM D3034-89)
PVC FIBERGLASS SAND/CLAY PIPE, 30" DIA. (SDR 35) (ASTM D3034-89)

7. Testing:
Inspector's approval must be received before final acceptance.
Trenches shall be backfilled with No. 8 crushed stone from 6 inches below to 12 inches above the pipe.
Trenches shall be backfilled with No. 8 crushed stone from 6 inches below to 12 inches above the pipe.
Trenches shall be backfilled with No. 8 crushed stone from 6 inches below to 12 inches above the pipe.
Trenches shall be backfilled with No. 8 crushed stone from 6 inches below to 12 inches above the pipe.

TABLE I
MINIMUM SPECIFIED TIME REQUIRED FOR A 1.0 psi
DROP FOR SIZE AND LENGTH OF PIPE INDICATED
(Testing pressure after stabilization no less than 4.0 psi and no more than 8.0 psi)

Pipe Diameter In.	Minimum Time, mins	Length for Minimum Time, ft	Time for Longer Lengths, S	Specification Time for Length (L) Show, mins													
				100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft	500 ft	550 ft	600 ft			
4	3:46	597	0:300 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:49	398	0:854 L	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49	5:49
8	7:14	298	1:531 L	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14	7:14
10	9:26	239	2:374 L	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26	9:26
12	11:20	199	3:418 L	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20	11:20
15	14:10	159	5:292 L	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10	14:10
18	17:00	133	7:492 L	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00
21	19:50	114	10:470 L	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50	19:50
24	22:40	99	13:874 L	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40	22:40
27	25:30	88	17:356 L	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30	25:30
30	28:20	80	21:366 L	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20	28:20
33	31:10	72	25:852 L	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10	31:10
36	34:00	65	30:768 L	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00	34:00

DATE: January 17, 2014

TERRA
SITE DEVELOPMENT, INC.

Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

DATE: JANUARY 17, 2014
PROJECT NUMBER: 13-004-1-003
DRAWN BY: GLENDA BETH DICK
CHECKED BY: DKG

SHEET TITLE:
CONSTRUCTION DETAILS & SPECIFICATIONS

DRAWING NO.: C902
OF 20

FILE COPY

Power of Attorney

WESTCHESTER FIRE INSURANCE COMPANY

Know all men by these presents: That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the Commonwealth of Pennsylvania pursuant to the following Resolution, adopted by the Board of Directors of the said Company on December 11, 2006, to wit:

*RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into the ordinary course of business (such a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such persons written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company; under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested.

Does hereby nominate, constitute and appoint Dan E. Ries, SUSAN A. YEAZELL, all of the City of CINCINNATI, Ohio, each individually if there be more than one named, its true and lawful attorney-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof in penalties not exceeding Two million dollars & zero cents (\$2,000,000.00) and the execution of such writings in pursuance of these presents shall be as binding upon said Company, as fully and amply as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office.

IN WITNESS WHEREOF, the said Stephen M. Haney, Vice-President, has hereunto subscribed his name and affixed the Corporate seal of the said WESTCHESTER FIRE INSURANCE COMPANY this 14 day of June 2013.

WESTCHESTER FIRE INSURANCE COMPANY



Stephen M. Haney
Stephen M. Haney, Vice President

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF PHILADELPHIA ss.

On this 14 day of June, AD. 2013 before me, a Notary Public of the Commonwealth of Pennsylvania in and for the County of Philadelphia came Stephen M. Haney, Vice-President of the WESTCHESTER FIRE INSURANCE COMPANY to me personally known to be the individual and officer who executed the preceding instrument, and he acknowledged that he executed the same, and that the seal affixed to the preceding instrument is the corporate seal of said Company; that the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation; and that Resolution, adopted by the Board of Directors of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Philadelphia the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
KAREN E. BRANDT, Notary Public
City of Philadelphia, Phila. County
My Commission Expires September 2d, 2014

Karen E. Brandt
Notary Public

I, the undersigned Assistant Secretary of the WESTCHESTER FIRE INSURANCE COMPANY, do hereby certify that the original POWER OF ATTORNEY, of which the foregoing is a substantially true and correct copy, is in full force and effect.

In witness whereof, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of the Corporation, this 9th day of July, 2014



William L. Kelly
William L. Kelly, Assistant Secretary

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER June 14, 2015.



SUBDIVISION PERFORMANCE BOND

Bond No. K09018864

KNOW ALL MEN BY THESE PRESENTS:

HCDB-2014-00034

The undersigned Fischer Development Company, as Principal (hereinafter called "Principal"), and Westchester Fire Insurance Company, as Surety (hereinafter called "Surety"), are held and firmly bound unto the Hamilton County Board of Commissioners, One Hamilton County Square, Noblesville, Indiana 46060 as Obligee (hereinafter called the "Obligee"), in the sum of One Hundred and Eighty-Nine Thousand, Five Hundred and Twenty-Five Dollars and 00/100 (\$189,525.00) lawful money of the United States for which payment, well and truly be made, we bind ourselves, our heirs, executors, successors and assigns jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGEE IS SUCH THAT:

WHEREAS, the Principal has agreed to construct in Overbrook Farms – Section 3, in Carmel, Indiana with the following improvements: Storm Sewers.

WHEREAS, the Principal has agreed to complete all Work within one year, unless this time period is extended by mutual agreement with the Principal and the Obligee.

NOW THEREFORE, the condition of this obligation is such, that if the above Principal shall fully and faithfully perform all of the work as required, and in accordance with the Plans and Specifications, and within the timeframe prescribed above, then this obligation shall be void, otherwise this obligation is to remain in full force and effect until the improvements are complete.

IN WITNESS WHEREOF, the signature of said Principal is hereto affixed and the corporate seal and name of the Surety is hereto affixed and attested by its duly authorized Attorney-in Fact, this 9th day of July 2014.

Principal: **Fischer Development Company**

Surety: **Westchester Fire Insurance Company**

By: Todd E. Huss
President

By: Susan A. Yeazell
Attorney-in-Fact

Fischer Development Company
3940 Olympic Blvd.-Suite 100
Erlanger, KY 41018
(859) 344-3128

Westchester Fire Insurance Company
525 West Monroe Street, Suite 700
Chicago, IL 60661
(312) 775-7806

- Attachments:
1. Engineer's Construction Cost Estimate
 2. Copy of the Plan (coversheet)
 3. Insurance Company Power of Attorney

FILED

JUL 14 2014



TERRA Site Development, Inc
 1301 W. 161st Street
 Westfield, IN 46074
 317-399-1216

CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014
LOCATION: Carmel, Indiana	ITEM: SUMMARY	PROJECT #: 131004-1.003

DESCRIPTION		
MONUMENTATION	\$10,725	1120' 12,870.00
STORM SEWER	\$157,938	189,525.00
PAVEMENT, CURBS	\$187,260	
WATER	\$86,637	
EROSION CONTROL	\$64,272	
SIDEWALKS	\$62,663	
SIGNAGE	\$5,225	
TOTAL	\$574,719	

Note:

This cost opinion was generated from TERRA Overbrook Farms Section 3 Construction Plans Dated 1/17/14, Revised 6/9/14



David K. Sexton

June 26, 2014

TERRA Site Development, Inc.
 Project No. 131004-1.003
 June 26, 2014



CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana		ITEM: PAVEMENT	PROJECT #: 131004-1.003	
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
ASPHALT:	4400	SYDS	\$24.50	\$107,800.00
ASPHALT: (In 146th Street R/W)	830	SYDS	\$26.70	\$22,161.00
3' STONE SHOULDER	90	SYDS	\$40.00	\$3,600.00
LIME STABILIZATION	5015	SYDS	\$3.25	\$16,298.75
2' CONCRETE ROLL CURB	2850	LF	\$11.00	\$31,350.00
HANDICAP RAMP	8	EA	\$650.00	\$5,200.00
END OF STREET BARRICADE	1	EA	\$550.00	\$550.00
CROSSWALK (PAINTED)	1	EA	\$300.00	\$300.00
TOTAL PAVEMENT & CURBS				\$187,259.75

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana		ITEM: SIDEWALKS	PROJECT #: 131004-1.003	
5' CONC. WALK (FRONT OF LOTS)	2256	LF	\$22.50	\$50,760.00
(IN COMMON AREAS)	529	LF	\$22.50	\$11,902.50
TOTAL SIDEWALKS				\$62,662.50

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana		ITEM: MONUMENTATION	PROJECT #: 131004-1.003	
MONUMENTATION				
MONUMENTS:				
STREET MARKERS	11	EA	\$125.00	\$1,375.00
BOUNDARY MARKERS @ R/W	34	EA	\$275.00	\$9,350.00
TOTAL MONUMENTATION				\$10,725.00

TERRA Site Development, Inc.
 Project No. 131004-1.003
 June 26, 2014



CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana	ITEM: WATER	PROJECT #: 131004-1.003		

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
8" MAIN	1213	LF	\$30.00	\$36,390.00
8" SHUT OFF VALVE	2	EA	\$1,386.00	\$2,772.00
TEES	1	EA	\$625.00	\$625.00
FITTINGS	8	EA	\$340.00	\$2,720.00
REDUCERS	1	EA	\$500.00	\$500.00
1" LATERAL W/CORP STOP< ANGLE VAL	22	EA	\$1,000.00	\$22,000.00
BLOW OFF VALVES	1	EA	\$700.00	\$700.00
STORM CROSSINGS	2	EA	\$460.00	\$920.00
FLUSHING & TESTING	1213	LF	\$0.75	\$909.75
HYDRANTS W/ VALVES	4	EA	\$4,700.00	\$18,800.00
HYDRANT MARKERS	2	EA	\$150.00	\$300.00
TOTAL WATER				\$86,636.75



CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana	ITEM: EROSION	PROJECT #: 131004-1.003		

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
SEEDING	59000	SYDS	\$0.50	\$29,500.00
EROSION BLANKETS	10900	SYDS	\$1.50	\$16,350.00
SILT FENCE	2682	LF	\$1.75	\$4,693.50
SCOURSTOP MATS	223	SYDS	\$1.50	\$334.50
TEMPORARY CONSTRUCTION ENTRANCE	333	SYDS	\$22.00	\$7,326.00
RIP RAP	169	SYDS	\$22.00	\$3,718.00
BEEHIVE INLET PROTECTION	4	EA	\$135.00	\$540.00
CURB INLET PROTECTION	6	EA	\$135.00	\$810.00
HC RAMP PROTECTION	8	EA	\$125.00	\$1,000.00
TOTAL EROSION				\$64,272.00

CONSTRUCTION COST ESTIMATE

PROJECT: Overbrook Section 3		DATE: June 12, 2014		
LOCATION: Carmel, Indiana	ITEM: SIGNAGE	PROJECT #: 131004-1.003		

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
STREET SIGNS	2	EA	\$925.00	\$1,850.00
TRAFFIC CONTROL SIGNS	5	EA	\$675.00	\$3,375.00
TOTAL SIGNAGE				\$5,225.00

Site Construction Plans Overbrook Farms - Section 3

Part of the NE 1/4 Sec 19, T18N, R3E, Clay Township, Hamilton County, Carmel, Indiana

DATE OF SUBMISSION: January 17, 2014
DOCKET NO.: 13100022 PP AMEND

DEVELOPER:

Fischer Development Co.,
6602 E. 75th Street 5400
Indianapolis, IN 46250

Contact: Richard Henderson
317-501-9172
Email: rhenderson@fischerhomes.com

SITE DATA:

EXISTING ZONING: S-1/Residential - ROSO III

UTILITIES:

Water:
Carmel Water
740 3rd Avenue SW, Ste 110
Carmel, IN 46032
317-571-2443

Sanitary Sewer:
Clay Township Regional Waste
10701 North College Avenue
Indianapolis, IN 46280
317-844-9200

Telephone:
SBC
3535 N. College Avenue
Indianapolis, IN 46226
317-252-9143

Cable:
Bright House Networks
3330 Roosevelt Avenue
Indianapolis, IN 46218
317-972-9700

Gas:
Vecken Energy Delivery
P.O. Box 1700
Noblesville, IN 46060
317-776-5534

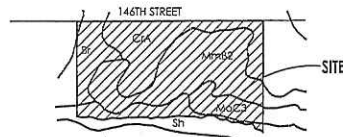
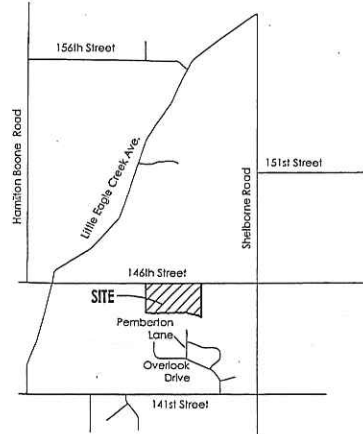
Electric:
Duke Energy
16475 Scullipoint Drive
Westfield, IN 46074
317-894-6711

Firstmile:
730 Liberty Drive
Westfield, IN 46074
317-569-2806

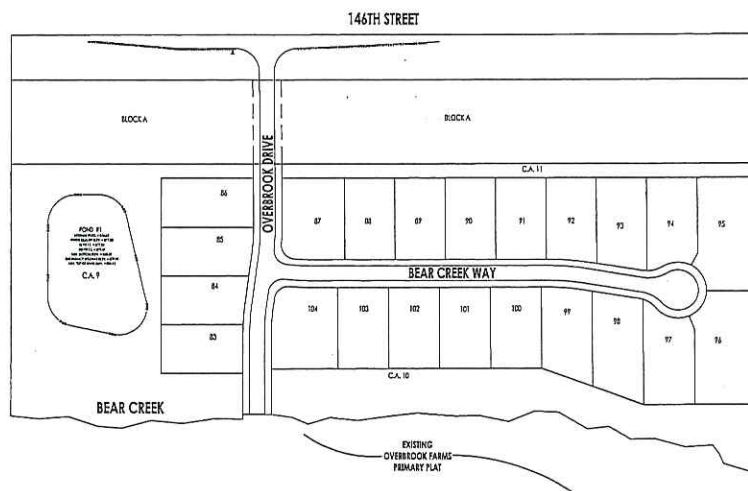
INDEX	
SHEET NO.	SHEET NAME
C100	COVER SHEET
C101	SITE DEVELOPMENT PLAN
C102	STORM WATER POLLUTION PREVENTION PLAN
C103	STORM WATER POLLUTION PREVENTION DETAILS
C104	STORM WATER POLLUTION PREVENTION NOTES
C105	POND PLANNING PLAN
C106	LANDSCAPE PLAN
C201-C202	STREET PLAN & PROFILES AND INTERSECTION DETAILS
CA301	ENTRANCE AND MAINTENANCE OF TRAFFIC PLAN
CA201	SANITARY SEWER PLAN & PROFILES
CA81-CA109	STORM SEWER PLAN & PROFILES
C701-C702	WATER DISTRIBUTION PLAN & DETAILS
CA81-803	GENERAL DETAILS
CA91-902	SPECIFICATIONS

THIS IS THE INSTRUMENT OF SERVICE FOR THE PROJECT DESCRIBED HEREIN. IT IS THE RESPONSIBILITY OF THE CLIENT TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE ENGINEER'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES RENDERED HEREIN. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT. THE ENGINEER'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES RENDERED HEREIN. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT.

LAND DESCRIPTION



SOIL LEGEND	
SOIL	DESCRIPTION
Br	Breakton silt clay loam - Deep very poorly drained soil with slow permeability. Runoff is very slow or slow.
CA	Croaky silt loam - 0 to 7 percent slopes
Mm1B2	Miami silt loam, 2 to 4 percent slopes, eroded
MoC2	Miami clay loam, 6 to 12 percent slopes, severely eroded
Sh	Shoals silt loam



Certified by: David K. Sexton, P.E.
Email Address: dsxenton@TERRAalldev.com

Date: January 17, 2014

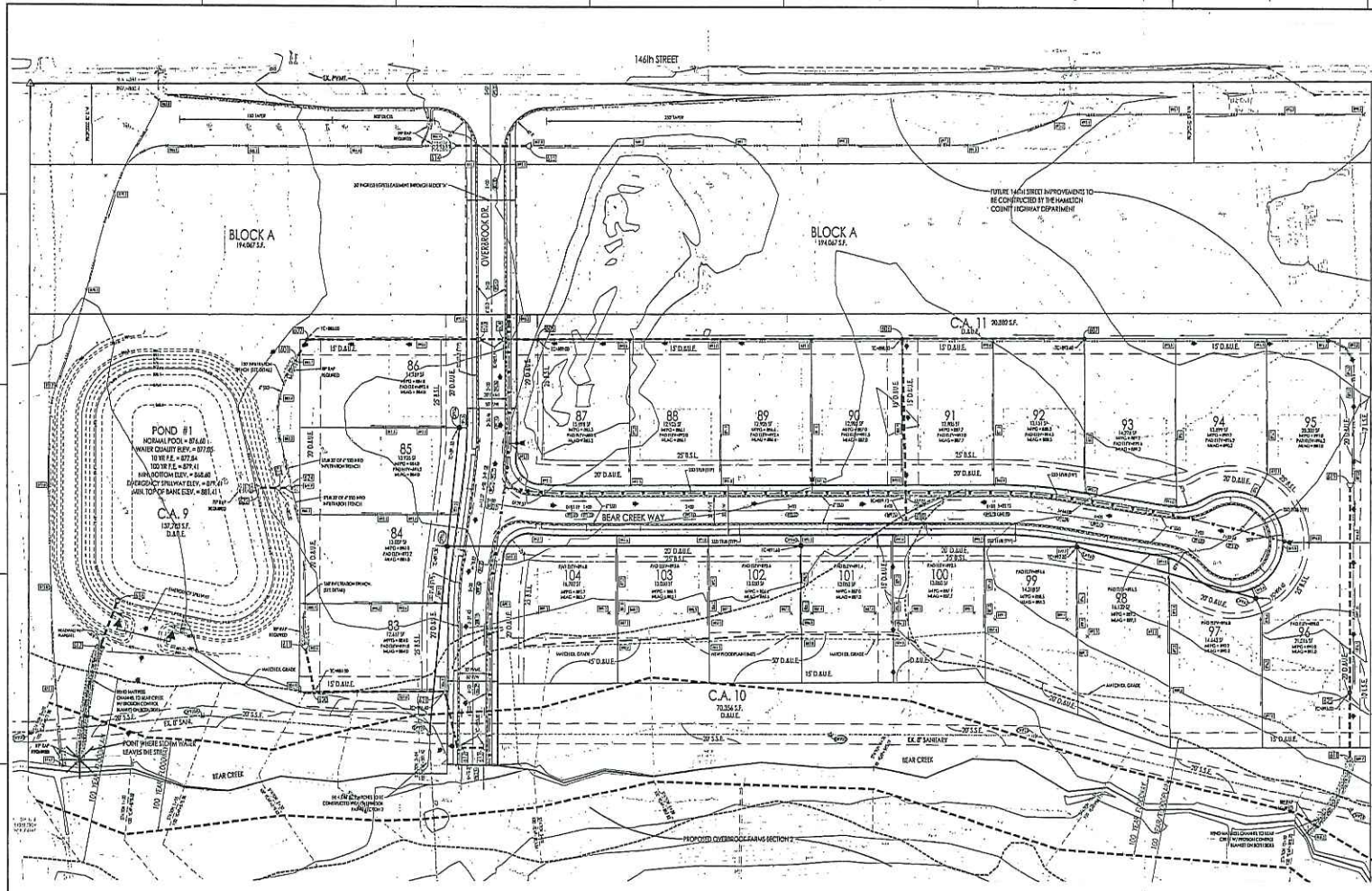
APPROVAL PENDING
NOT FOR CONSTRUCTION



Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

DATE	BY	DESCRIPTION
JANUARY 17, 2014	DHS	COVER SHEET





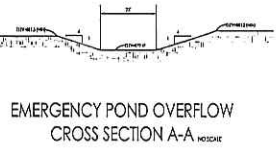
NOTES

- SUBJECT PROPERTY DOES NOT LIE WITHIN THAT SPECIAL FLOOD HAZARD ZONE "X" AS DENOTED ON COMMUNITY PANEL NUMBER 1802C/2005 OF THE FEMA FLOOD INSURANCE RATE MAPS EFFECTIVE FEBRUARY 17, 2003.
- THE EXISTING 180TH FLOODWAY AND FLOODPLAIN WERE TAKEN FROM A HYDRAULIC REPORT PREPARED BY WEIR ENGINEERS, INC. DATED MARCH 9, 2003 FOR THE OVERBROOK FARMS SUBDIVISION (FORMALLY KNOWN AS BEAR CREEK SUBDIVISION). THE 100-YR FLOOD ELEVATIONS ALONG BEAR CREEK HAVE BEEN ADJUSTED TO BE 0.47' LOWER THAN THE WEIR REPORT TO ACCOMMODATE THE 1988 NAVD DATUM.
- THE 100 YEAR BASE FLOOD ELEVATION OF BEAR CREEK WILL NOT FLOOD PORTIONS OF THE PROPERTY VIA THE OUTLET OR PROPOSED STORM PIPING SYSTEM.
- ALL STREETS, CURBS, WALKS, STORM SEWERS, DRAINAGE IMPROVEMENTS, AND WATERWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF CARMEL AND HAMILTON COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- ALL SANITARY SEWERS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CLAY TOWNSHIP REGIONAL WASTE DISTRICT CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- ALL STREET RIGHT OF WAY INTERSECTIONS TO BE ROUNDED OFF WITH A 25' RADIUS UNLESS OTHERWISE NOTED.
- ALL STREET CURB INTERSECTIONS TO BE ROUNDED WITH A RADIUS OF 25' UNLESS OTHERWISE NOTED.
- ALL SIDEWALKS TO BE 5' WIDE UNLESS OTHERWISE NOTED.
- ALL INTERIOR RIGHT OF WAY WIDTHS TO BE 50' UNLESS OTHERWISE NOTED.
- ALL INTERIOR STREET WIDTHS TO BE 30' (BACK OF CURB TO BACK OF CURB) UNLESS OTHERWISE NOTED.
- LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE BASED UPON INFORMATION OBTAINED FROM UTILITY COMPANIES OR THEIR REPRESENTATIVES AND FIELD EVIDENCE OF IMPROVEMENTS VISIBLE ON THE GROUND SURFACE. EXACT LOCATIONS OF UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AND REQUEST FIELD LOCATIONS OF SUCH WITHIN THE WORK AREA PRIOR TO COMMENCING EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL REPORT ANY VARIATIONS FROM THE LOCATIONS SHOWN THAT MAY PRESENT A CONFLICT WITH EXECUTION OF THE WORK TO THE ENGINEER IN ADVANCE OF CONSTRUCTION.
- MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS.
- ALL DIMENSIONS SHOWN ARE MEASURED TO THE BACK OF CURB, UNLESS OTHERWISE SHOWN.
- ALL CURBS SHALL BE TWO (2) FOOT CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED.
- SEWERALS SHALL BE ALONG BOTH SIDES OF ALL STREETS AND HAVE ADA APPROVED RAMPS.
- ANY FIELD FILLS ENCOUNTERED DURING THE COURSE OF CONSTRUCTION SHALL BE PERPETRATED IN COMPLIANCE WITH STATE AND LOCAL LAWS AND REGULATIONS.
- ALL HANDICAP RAMPS AND CROSSWALKS SHALL BE ADA COMPLIANT.
- MINIMUM FLOOD PROTECTION GRADE (MPPG) OF ALL STRUCTURES FRONTING A POND OR DRAIN DITCH SHALL BE NO LESS THAN 1' ABOVE ANY ADJACENT 100-YEAR LOCAL OR REGIONAL FLOOD ELEVATIONS WHICHEVER IS GREATER. FOR ALL WINDOWS, DOORS, PIPE ENTRANCES, WINDOW WELLS AND ANY OTHER STRUCTURE MEMBERS WHERE FLOODWATERS CAN ENTER A BUILDING.
- MINIMUM LOWEST ADJACENT GRADE (MLAG) IS THE ELEVATION OF THE LOWEST GRADE ADJACENT TO THE BUILDING WHERE THE SOIL MEETS THE FOUNDATION AROUND THE OUTSIDE OF THE STRUCTURE (INCLUDING STRUCTURAL MEMBERS SUCH AS BASEMENT WALKOUTS, PATIOS, DECKS, PORCHES, SUPPORT POSTS OR PILES AND SOA OF A WINDOW WELL). IN ADDITION, THE MINIMUM FINISH FLOOR ELEVATION OF ALL STRUCTURES SHALL BE A MINIMUM OF 4" ABOVE THE ESTABLISHED MLAG.



TERRA
SITE DEVELOPMENT, INC.
DEVELOPMENT & ENGINEERING CONSULTANTS

146th Street
Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company



DRAINAGE SUMMARY

PROPOSED PROJECT AREA = 50.87 AC.
OVERBROOK STREAM AVERAGE = 25.37 AC. (+)

STORM EVENT	EXISTING RELEASE RATE	ALLOWABLE RELEASE RATE	DEVELOPED SITE RELEASE RATE (INCLUDING DIRECT DISCHARGE)
2-YEAR	9.94 CFS	0.31 CFS	
10-YEAR	24.62 CFS	1.24 CFS	0.75 CFS
100-YEAR	64.93 CFS	3.74 CFS	3.47 CFS

LEGEND

- EX. TELEPHONE LINE
- EX. OVERHEAD ELECTRIC LINE
- EX. TELEPHONE PEDESTAL
- EX. POWER POLE
- SM / SSM
- EX. STORM SEWER
- EX. SANITARY SEWER
- EX. WATERMAIN & HYDRANT
- EX. GAS MAIN
- EX. FENCE
- EX. PROPOSED WATER & HYDRANT
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY M.H.
- DRAINAGE UTILITY AND SEWER EASEMENT
- PROPOSED STORM SEWER
- PROPOSED STORM MANHOLE
- PROPOSED CURB INLET AND SUBSURFACE DRAIN
- PROPOSED BEEHIVE
- PROPOSED END SECTION W/ RIP RAP
- PROPOSED FLOWLINE
- MPPG MINIMUM FLOOD PROTECTION GRADE
- MPPG MINIMUM LOWEST ADJACENT GRADE ELEVATION
- EMERGENCY FLOOD ROUTE

BENCHMARK

North American Vertical Datum of 1988 (NAVD88)

LEE 4 RESET
DNR label set in top of concrete post 15.3 feet east of the centerline of Shebena Road approximately 1500 feet south of 146th Street, just north of a wooden fence and survey marker sign. Prior Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.00 feet above sea level.
Elevation = 910.53 feet (NAVD88)

DATE: JANUARY 17, 2014
PROJECT NUMBER: 131004-1-003
DRAWN BY: DMS
CHECKED BY: DMS
SHEET TITLE: SITE DEVELOPMENT PLAN
SHEET # C101
OF 20

Soil Loss Prevention
 Apply the erosion control plan to the level indicated by the grading sheets. Place 20 pounds of 1/2" x 1/2" gravel (or equivalent) per 1000 sq. ft. immediately after each area of erosion control is installed. Apply the 100 lb. gravel to the top of the erosion control mat. The gravel will be used to stabilize the mat and to provide a surface for the grass to grow.

Notes: The erodible soil shall be stored in a depth of 12 inches with a slope of 1:1 on the exposed side. The slope on each side shall be 1:1.

Sealing: Seal all cracks and holes in the erosion control mat with a sealant. Seal all cracks and holes in the erosion control mat with a sealant. Seal all cracks and holes in the erosion control mat with a sealant.

Access: Maintain a clear path for access to all structures and utilities. Maintain a clear path for access to all structures and utilities. Maintain a clear path for access to all structures and utilities.

Figure 5-2 Permanent Erosion Measures

Location	Structure	Structure	Structure
1. Top Facade	35' x 8' x 3.6' x 2' x 1'		
2. Top Facade	75' x 8' x 3.6' x 1'		
3. Erosion Control	12' x 4' x 3.6' x 2' x 1'		
4. Top Facade	35' x 8' x 3.6' x 2' x 1'		
5. Top Facade	10' x 4' x 3.6' x 2' x 1'		
6. Top Facade	10' x 4' x 3.6' x 2' x 1'		
7. Top Facade	10' x 4' x 3.6' x 2' x 1'		
8. Top Facade	10' x 4' x 3.6' x 2' x 1'		
9. Top Facade	10' x 4' x 3.6' x 2' x 1'		
10. Top Facade	10' x 4' x 3.6' x 2' x 1'		

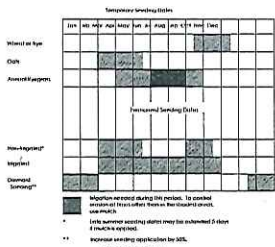
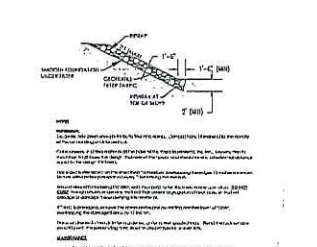
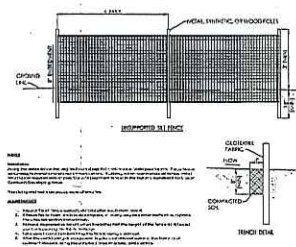


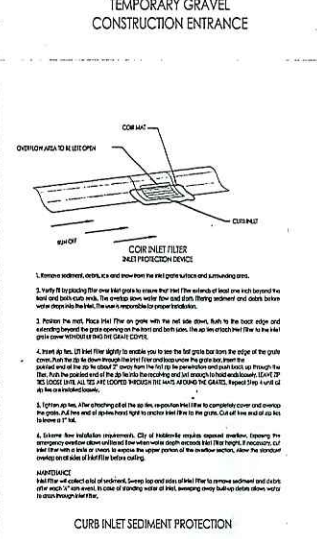
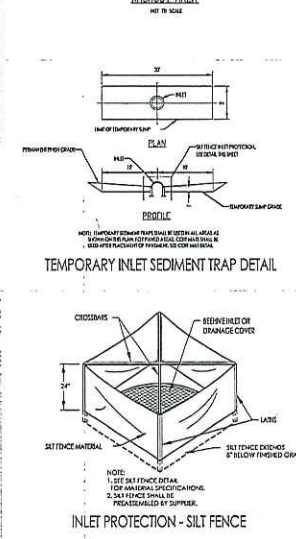
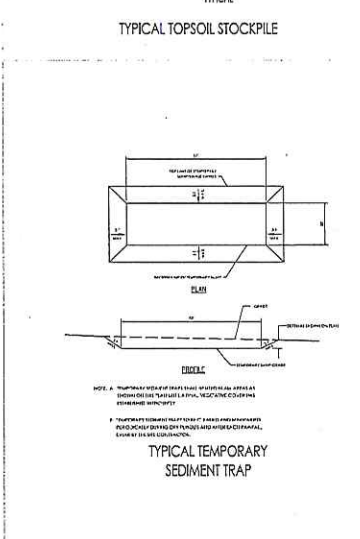
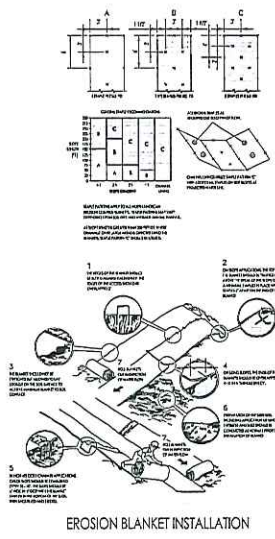
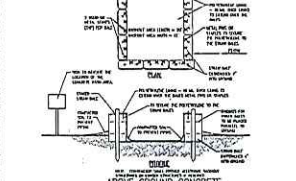
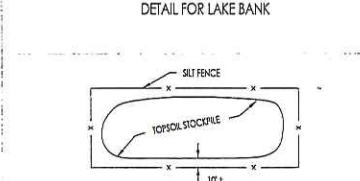
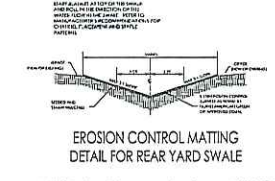
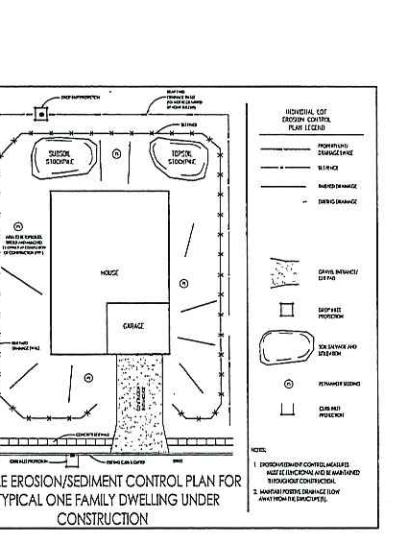
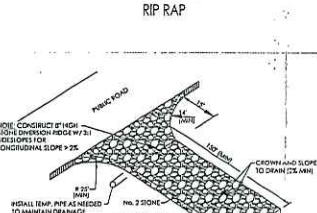
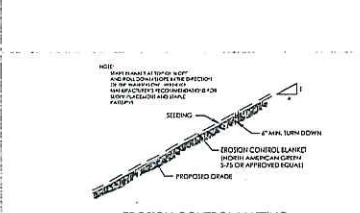
FIGURE 5-4

Category	Material	Quantity	Notes
Erosion Control	1. Erosion Control Mat	1000 sq. ft.	1000 sq. ft.
	2. Erosion Control Mat	1000 sq. ft.	1000 sq. ft.
Silt Fence	3. Silt Fence	1000 sq. ft.	1000 sq. ft.
	4. Silt Fence	1000 sq. ft.	1000 sq. ft.
Topsoil Stockpile	5. Topsoil Stockpile	1000 sq. ft.	1000 sq. ft.
	6. Topsoil Stockpile	1000 sq. ft.	1000 sq. ft.
Temporary Inlet Sediment Trap	7. Temporary Inlet Sediment Trap	1000 sq. ft.	1000 sq. ft.
	8. Temporary Inlet Sediment Trap	1000 sq. ft.	1000 sq. ft.
Inlet Protection - Silt Fence	9. Inlet Protection - Silt Fence	1000 sq. ft.	1000 sq. ft.
	10. Inlet Protection - Silt Fence	1000 sq. ft.	1000 sq. ft.
Curb Inlet Sediment Protection	11. Curb Inlet Sediment Protection	1000 sq. ft.	1000 sq. ft.
	12. Curb Inlet Sediment Protection	1000 sq. ft.	1000 sq. ft.



EROSION CONTROL SCHEDULE

EROSION CONTROL MEASURE	MAINTENANCE	INSTALLATION SEQUENCE
1. Silt Fence	Check for holes and gaps. Repair as needed.	1. Clear area of debris and rocks. 2. Lay out fabric. 3. Secure with stakes.
2. Erosion Control Mat	Check for holes and gaps. Repair as needed.	1. Clear area of debris and rocks. 2. Lay out mat. 3. Secure with stakes.
3. Topsoil Stockpile	Check for holes and gaps. Repair as needed.	1. Clear area of debris and rocks. 2. Lay out fabric. 3. Secure with stakes.
4. Temporary Inlet Sediment Trap	Check for holes and gaps. Repair as needed.	1. Clear area of debris and rocks. 2. Lay out fabric. 3. Secure with stakes.
5. Inlet Protection - Silt Fence	Check for holes and gaps. Repair as needed.	1. Clear area of debris and rocks. 2. Lay out fabric. 3. Secure with stakes.
6. Curb Inlet Sediment Protection	Check for holes and gaps. Repair as needed.	1. Clear area of debris and rocks. 2. Lay out fabric. 3. Secure with stakes.



OVERBROOK FARMS - SECTION THREE
Site Construction Plans
Fischer Development Company

NO. 9500000
STATE OF INDIANA
PLAT

DATE: JANUARY 17, 2014

PROJECT NUMBER: 13-0001-003
DRAWN BY: DMS
CHECKED BY: DMS

DATE: JANUARY 17, 2014
PROJECT NUMBER: 13-0001-003
DRAWN BY: DMS
CHECKED BY: DMS

ATOM WATER POLLUTION PREVENTION DETAILS

SHEET # C103 of 20

SWPPP FOR CONSTRUCTION SITES

1. 14 DIER WATERSHED HYDROLOGIC UNIT CODE: 0512020112000
2. NAME OF ALL RECEIVING WATERS: BEAR CREEK
IF THE DISCHARGE IS TO A MUNICIPAL SEWER, IDENTIFY THE ULTIMATE RECEIVING WATER.
3. ESTIMATE OF PEAK DISCHARGE FOR POST CONSTRUCTION CONDITIONS (10-YEAR): 1.24 CFS
4. LOCATIONS OF SPECIFIC POINTS WHERE STORMWATER DISCHARGE WILL LEAVE THE SITE: PROPOSED 12" RCP TIE AT EXTENSION POND, LOCATED AT SOUTHWEST CORNER OF SITE (STRUCTURE NO. 417) REFER TO SHEET C101.
5. LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUNDWATER, SUCH AS UNAPPROVED WELLS OR DRINKING WATER CISTERNS.
6. SOILS MAP OF THE PREDOMINANT SOIL TYPES INCLUDING:
 - a. SOIL LEGEND WITH DESCRIPTIONS OF EACH SOIL TYPE DENOTED ON C100 AND INCLUDES SOIL TYPES IN: C20A
7. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES - POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES INCLUDE: OIL, GREASE, ANTIFREEZE, GASOLINE AND DIESEL FUEL FROM CONSTRUCTION EQUIPMENT; SOIL EROSION; FERTILIZER AND PESTICIDES FROM LANDSCAPING.
8. TEMPORARY AND PERMANENT STORMWATER QUALITY MEASURES: REFER TO SHEETS C101, C102, C103 AND C104 FOR:
 - A. LOCATION
 - B. DIMENSIONS
 - C. DETAILED SPECIFICATIONS
 - D. CONSTRUCTION DETAILS
 - E. MONITORING AND MAINTENANCE GUIDELINES
9. GENERAL CONSTRUCTION SEQUENCE:

PRECONSTRUCTION ACTIVITIES:

1. CALL THE INDIANA UNDERGROUND PLANT PROTECTION SYSTEMS, INC. ("HOLEY MOLEY") AT 811 TO CHECK THE LOCATION OF ANY EXISTING UTILITIES, THEY SHOULD BE NOTIFIED TWO WORKING DAYS BEFORE CONSTRUCTION BEGINS.
2. A SILFENCE SHALL BE INSTALLED AT THE EDGES OF THE PROJECT SITE WHERE THERE IS POTENTIAL FOR ANY STORMWATER RUNOFF AND AS DENOTED ON THE STORMWATER POLLUTION PREVENTION PLAN. POTENTIAL AREAS ARE IDENTIFIED BASED ON EXISTING TOPOGRAPHY AROUND THE PERIMETER OF THE SITE.
3. EVALUATE, MARK AND PROTECT IMPORTANT TREES AND ASSOCIATED ROOT ZONES. EVALUATE EXISTING VEGETATION SUITABLE FOR USE AS BERRY STRIP ALONG THE PERIMETER OF THE SITE.
4. A CONSTRUCTION ENTRANCE SHALL BE PLACED FOR THE PLAN LOCATION.
5. ESTABLISH CONSTRUCTION STAGING AREA FOR EQUIPMENT AND VEHICLES AS FAR FROM DETENTION PONDS AND SWALES AS POSSIBLE.
6. INSTALL TRASH DUMPSTER, CONCRETE WASHOUT AREA AND PLACE PORT-TO-LET AS INDICATED ON THE PLANS.
7. ESTABLISH ON-SITE LOCATION FOR OWNER/OPERATOR/CONTRACTOR PLACEMENT OF APPROVED PLANS AND RULE 5 NOI AND RULE 5 INSPECTION DOCUMENTATION.

CONSTRUCTION SEQUENCING:

THE PURPOSE OF STAGING CONSTRUCTION DURING THE VARIOUS PHASES OF THE PROJECT IS TO LIMIT THE AMOUNT OF GROUND DISTURBED AT ANY GIVEN TIME AND TO PREVENT SEDIMENT FROM LEAVING THE SITE. FOR THIS REASON, THE FOLLOWING SEQUENCING SHOULD BE FOLLOWED AS MUCH AS POSSIBLE AND ANY DEVIATIONS REQUIRED DURING CONSTRUCTION OF THIS PROJECT SHALL BE DONE THROUGH A "DAILY" DOCUMENTING BAG OR APPROVED EQUAL, DO NOT PLACE DOWNSIDE BAG WITHIN 50 FEET OF A SWALE, DITCH OR CREEK.

1. STRIP TOPSOIL FROM POND AREA AND STORE IN TOPSOIL STOCKPILE AREA AS NOTED ON THE PLANS.
2. STRIP TOPSOIL FROM STREET, PADS, LOSI AND POND AREA AND PLACE IN TOPSOIL STOCKPILE AREA AS NOTED ON THE PLANS.
3. COMPLETE ALL MASS GRADING REQUIRED TO PREPARE ROAD AND BUILDING SUBGRADES AND PADS. APPLY LIME BEFORE ANY STORM SEWER INSTALLATION.
4. INSTALL ALL STORM SEWER SYSTEMS AND OTHER UTILITY. INSTALL ALL INLET PROTECTION AS EACH INLET IS COMPLETED AS SHOWN ON THE PLANS AND SHOWN ON THE DETAIL SHEET.
5. COMPLETE GRADING FOR ALL BUILDING AREAS AND ROAD SUBGRADES AS SHOWN ON THE PLANS.
6. INSTALL TEMPORARY SEEDING IN ALL AREA THAT WOULD BE DISCONTINUED FOR 14 DAYS OR MORE.
7. FINISH GRADE: ALL SWALES, APPLY PERMANENT SEED.
8. PREPARE SEED BED AND APPLY PERMANENT SEED IN ALL AREAS AS DENOTED ON THE PLANS.
9. CLEAN, DISCARD AND MAINTAIN TEMPORARY SEEDING EQUIPMENT.
10. CLEAN AND MAINTAIN ALL INLET PROTECTION, SILFENCE, EROSION CONTROL BLANKETS, TEMPORARY SILTATION BASINS AND TEMPORARY SEEDING AREAS UNTIL THE PROJECT IS COMPLETELY BUILT OUT.
11. IF SEEDING AREAS DO NOT PRODUCE A MINIMUM OF 70 PERCENT VEGETATIVE COVER, CONTRACTOR SHALL RE-SEED TO OBTAIN ADEQUATE VEGETATIVE COVER FOR STABILIZATION OF THE SITE.
12. REMOVE ALL TEMPORARY EROSION CONTROL PRACTICES INCLUDING SILTFENCE WHEN ENTIRE SITE HAS REACHED 70 PERCENT VEGETATIVE COVER.
13. CLEAR OUT ALL POST CONSTRUCTION BMP'S WHEN CONSTRUCTION IS COMPLETE.

10. LOCATION OF PROPOSED SOIL STOCKPILES, BORROW, AND/OR DISPOSAL AREAS: SOIL STOCKPILE AREA IS DENOTED WITHIN THE PROJECT SITE, REFER TO SHEET C102 FOR LOCATION.
11. TEMPORARY AND PERMANENT SURFACE STABILIZATION METHODS APPROPRIATE FOR EACH SEASON: REFER TO SHEET C103 FOR DETAILS AND SPECIFICATIONS.
12. EROSION AND SEDIMENT CONTROL SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS: REFER TO SHEET C103 FOR DETAIL.
13. MATERIAL HANDLING, STORAGE, AND SPILL PREVENTION PLAN:

THE INTENTION OF THIS SPILL PREVENTION, CONTROL AND COUNTERMEASURES (SPCC) IS TO ESTABLISH THE PROCEDURES AND EQUIPMENT REQUIRED TO PREVENT THE DISCHARGE OF OIL AND HAZARDOUS SUBSTANCES IN QUANTITIES THAT VIOLATE APPLICABLE WATER QUALITY STANDARDS, CAUSE A SHEEN UPON OR DISCOLORATION OF THE SURFACE OF NAVIGABLE WATERS OR ADJACENT SHORELINES, OR CAUSE SLUDGE OR EMULSION TO BE DEPOSITED BENEATH THE SURFACE OF THE WATER OR ADJACENT SHORELINES. THE PLAN ALSO ESTABLISHES THE ACTIVITIES REQUIRED TO MITIGATE SUCH DISCHARGES I.E., COUNTERMEASURES SHOULD THEY OCCUR.

DEFINITIONS:
POLLUTANTS: MEANS POLLUTANT OF ANY KIND OR IN ANY FORM, INCLUDING BUT NOT LIMITED TO: SEDIMENT, PAINT, CLEANING AGENTS, CONCRETE WASHOUT, PESTICIDES, HERBICIDES, BRUSH, HYDRAULIC FLUIDS, FUEL, OIL, PETROLEUM, FUEL, OIL, SLUDGE, OR REFUSE, AND OIL MIXED WITH WASTES OTHER THAN DREDGED SOIL.

DISCHARGES:
 INCLUDES BUT IS NOT LIMITED TO, ANY SPILLING, LEAKING, PUMPING, POURING, EMITTING, EMPYING, OR DUMPING.

NAVIGABLE WATERS:
 MEANS ALL WATERS OF THE UNITED STATES THAT ARE CONNECTED WITH A NAVIGABLE STREAM, LAKE, OR SEA. (NOTE: THIS DEFINITION IS USUALLY INTERPRETED TO MEAN ANY WATERBODIES NORMALLY USED FOR WASH OR STORM SEWER THAT EVENTUALLY DRAIN INTO A NAVIGABLE STREAM.)

PLAN REVIEW AND AMENDMENTS:
 THIS PLAN SHALL BE REVIEWED AND/OR AMENDED, IF NECESSARY, WHENEVER THERE IS A CHANGE IN THE DESIGN OF THE SITE, CONSTRUCTION, OPERATION, OR MAINTENANCE WHICH MATERIALLY AFFECTS THE SITE POTENTIAL FOR THE DISCHARGE OF REGULATED MATERIAL.

PROTECTION OF POTENTIAL SPILLS:
 1. NEAREST NAVIGABLE WATER: BEAR CREEK
 2. POSSIBLE SPILL SOURCES (DURING AND POST CONSTRUCTION): VEHICULAR SOURCES SUCH AS LEAKING FUEL OR OIL, BRAKE FLUID, GREASE, ANTIFREEZE, CONSTRUCTION OIL AND DIESEL, BIOLOGICAL AGENTS FOUND IN TRASH AND DEBRIS, FERTILIZERS, HOUSEHOLD HOLDINGS INCLUDING BUT NOT LIMITED TO CLEANING AGENTS, CHEMICALS, PAINT, HERBICIDES AND PESTICIDES.
 3. GROUNDWATER CONTAMINATION: THIS FACILITY MAINTAINS NO ABOVE GROUND OR UNDER GROUND STORAGE TANKS. THEREFORE, IT IS FELT THAT THERE IS LITTLE OR NO POSSIBILITY OF POST CONSTRUCTION GROUNDWATER CONTAMINATION.

ALERT PROCEDURES FOR SPILLS:
 1. ANY PERSONNEL OBSERVING A SPILL WILL IMMEDIATELY INVESTIGATE THE FOLLOWING PROCEDURE:
 A.) DRAWING UP FROM ANY TELEPHONE.
 B.) NOTIFY THE APPROPRIATE EMERGENCY PERSONNEL.

2. THE EMERGENCY COORDINATOR WILL THEN TAKE THE FOLLOWING ACTIONS:
 A.) EVACUATE THE AREA ALLOWING NO VEHICLES TO ENTER OR LEAVE THE SPILL ZONE.
 B.) NOTIFY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF EMERGENCY RESPONSE BY CALLING THE APPROPRIATE TELEPHONE NUMBER:
 OFFICE: 317-233-7745
 TOLL FREE: 800-233-7745
 ALSO THE NATIONAL RESPONSE CENTER AT 800-424-6802 AND PROVIDE THE FOLLOWING INFORMATION:
 - TIME OF OBSERVATION OF THE SPILL
 - LOCATION OF THE SPILL
 - IDENTITY OF MATERIAL SPILLED
 - PROBABLE SOURCE OF THE SPILL
 - PROBABLE TIME OF THE SPILL
 - VOLUME OF THE SPILL AND DURATION
 - PRESENT AND ANTICIPATED MOVEMENT OF THE SPILL
 - WEATHER CONDITIONS
 - PERSONNEL AT THE SCENE
 - ACTION INITIATED BY PERSONNEL
 C.) NOTIFY THE CITY OF CARMEL FIRE DEPARTMENT PHONE: 9-1-1
 D.) NOTIFY THE MARION COUNTY SURVEYORS OFFICE 317-776-8495
 E.) NOTIFY CITY OF CARMEL EMS (317) 571-2214

14. CONTACT INFORMATION FOR THE NAMED INDIVIDUAL RESPONSIBLE FOR STORMWATER POLLUTION PREVENTION FOR THE PROJECT SITE:
 D. NAME: RICHARD HENDERSON C/O FISHER DEVELOPMENT COMPANY
 E. ADDRESS: 4605 E. 20TH STREET, SUITE INDIANAPOLIS, IN 46203
 F. TELEPHONE NUMBER: 317-501-9172
 G. E-MAIL ADDRESS: RHENDERSON@FISHERHOMES.COM
15. CURRENT REVISION DATE ON ALL SHEETS: SEE TITLE BLOCK.

SWPPP FOR POST CONSTRUCTION

1. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH THE PROPOSED LAND USE: SOIL AND SEDIMENT FROM DISCHARGE OF FUEL, GREASE, ANTIFREEZE, METALS, RUBBER FRAGMENTS, ROAD DRIFT, PAINT AND SANDS, CONSTRUCTION TRASH AND DEBRIS, FERTILIZERS, CLEANING AGENTS, CHEMICALS, PAINT, ANIMAL WASTE, ELEVATED STORM RUNOFF (TEMPERATURES, PESTICIDES AND PATHOGENS).
2. POST-CONSTRUCTION STORMWATER QUALITY MEASURES: WET POND, INFILTRATION TRENCH AND FILTER STRIP ADJACENT TO BEAR CREEK. REFER TO SHEET C101 FOR LOCATION, C102 FOR DETAILS AND DRAINAGE REPORT FOR SIZING CALCULATIONS.
3. SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION:
POST CONSTRUCTION SEQUENCING:

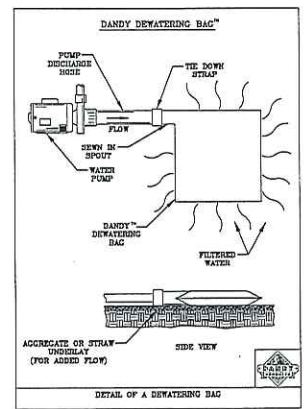
THE PURPOSE OF THE POST CONSTRUCTION PHASE IS TO IDENTIFY AND MAINTAIN ALL POST CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP'S) STRUCTURES THUS REDUCING RUNOFF AND CONTROLLING POLLUTANTS. FOR THIS REASON, THE FOLLOWING SEQUENCING SHOULD BE FOLLOWED AS MUCH AS POSSIBLE.

1. INSTALL WATER QUALITY BMP'S AS DESCRIBED HEREIN.
2. DISTRIBUTE POST CONSTRUCTION BMP OPERATIONS AND MAINTENANCE MANUAL (OS&M MANUAL) BMP TO OWNER AND HOME OWNERS ASSOCIATION.
3. THE OS&M MANUAL IDENTIFIES AND LOCATES THE FOLLOWING BMP STRUCTURE FOR THE OWNER:
 A. WET POND, INFILTRATION TRENCH AND FILTER STRIP.
 B. BMP OWNERS MUST ROUTINELY INSPECT BMP'S TO VERIFY THAT ALL BMP COMPONENTS ARE FUNCTIONING AS DESIGNED AND NOT IN DANGER OF FAILING.
 C. ALL BMP'S MUST MAINTAIN TO FUNCTION AS WATER QUALITY AND QUALITY ENHANCEMENTS. MAINTENANCE CAN RANGE FROM DREDGING SEDIMENT OUT OF THE TREATMENT AREA TO MOWING GRASS.
 D. BMP OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE BMP AND ANY COSTS ASSOCIATED WITH MAINTAINING THE BMP.
 E. BMP OWNER SHALL KEEP THE BMP FREE FROM LITTER AND SILT. REFER TO THE INSPECTION AND MAINTENANCE GUIDELINES FOR FURTHER CLARIFICATION.
 F. SEDIMENT THAT COLLECTS IN THE BMP SHALL BE REMOVED WHEN IT ADVERSELY AFFECTS THE ABILITY OF THE BMP TO PERFORM AS A WATER QUALITY CONTROL DEVICE.
4. STORMWATER QUALITY MEASURES TO BE IMPLEMENTED TO PREVENT OR MINIMIZE ADVERSE IMPACTS TO STREAM AND TERRESTRIAL HABITATS: REFER TO SHEETS C101 AND C102
5. AN OPERATION AND MAINTENANCE MANUAL FOR ALL POST-CONSTRUCTION STORMWATER QUALITY MEASURES: SEE OS&M MANUAL.

TRAINING EVALUATION SHEET

EVALUATION OF TRAINING FOR CONSTRUCTION PROJECTS	
A. Initial Assessment (first person a written evaluation of the project site)	
B. Assessment of Site (one time per year)	
Project Name:	
Name of Project Manager:	
Date of Inspection:	
Who Conducted Training:	Yes <input type="checkbox"/> No <input type="checkbox"/> Other (specify name):
NO. PROBLEMS OR DEFICIENCIES:	YES NO
1. Is the site location protected from the elements?	
2. Are stormwater management structures properly maintained?	
3. Is sediment properly stored and protected from wind?	
4. Are stormwater management structures properly maintained?	
5. Are stormwater management structures properly maintained?	
6. Are stormwater management structures properly maintained?	
7. Are stormwater management structures properly maintained?	
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24. Are stormwater management structures properly maintained?	
25. Are stormwater management structures properly maintained?	
26. Are stormwater management structures properly maintained?	
27. Are stormwater management structures properly maintained?	
28. Are stormwater management structures properly maintained?	
29. Are stormwater management structures properly maintained?	
30. Are stormwater management structures properly maintained?	

ALL PROBLEMS OR DEFICIENCIES NEED TO BE ADDRESSED WITH A CORRECTIVE ACTION. Notify the project by number and provide additional employee as needed.
 Developer/Owner Representative Initials: _____ Date: _____
 Consultant Representative Initials: _____ Date: _____
 Project Manager: _____ Date: _____



KEVIN L. CLINTON
 No. 5002038
 STATE OF INDIANA
 MECHANICAL
 License No. 11321

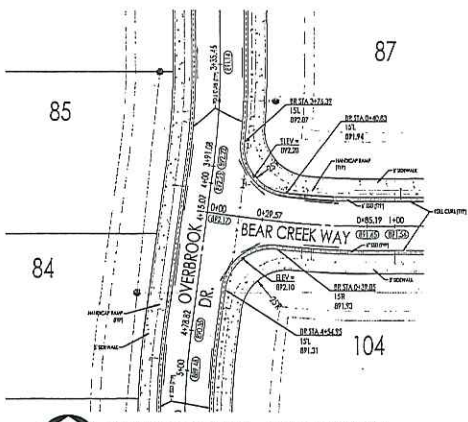


Overbrook Farms - Section Three
 Site Construction Plans
 Fischer Development Company

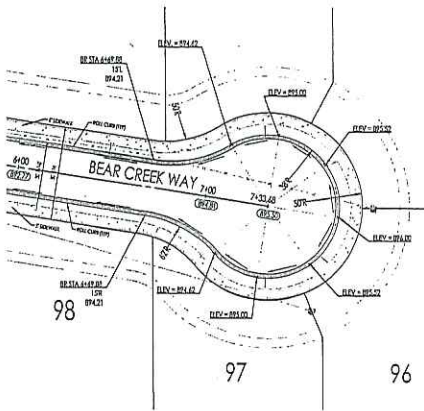
NO.	REVISION	DATE
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DATE: JANUARY 17, 2014
 PROJECT NUMBER: 101004-1003
 DRAWN BY: DKS
 CHECKED BY: DKS
 SHEET TITLE: STORM WATER POLLUTION PREVENTION TRENCH
 SHEET # C104
 OF 30

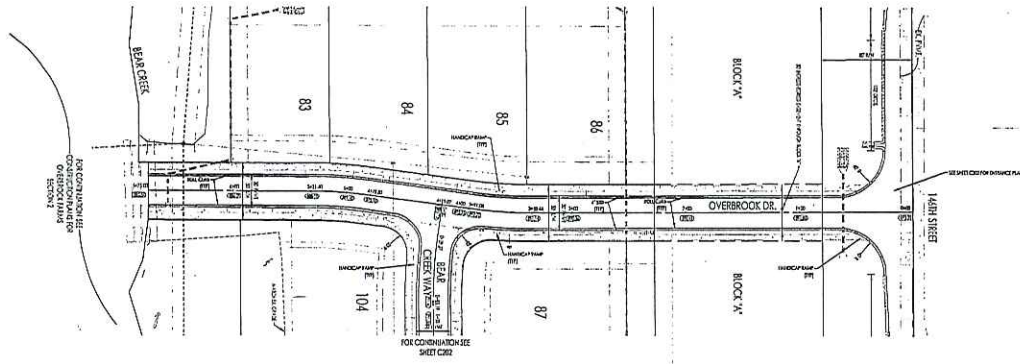




OVERBROOK DRIVE & BEAR CREEK WAY
SCALE: 1"=30'



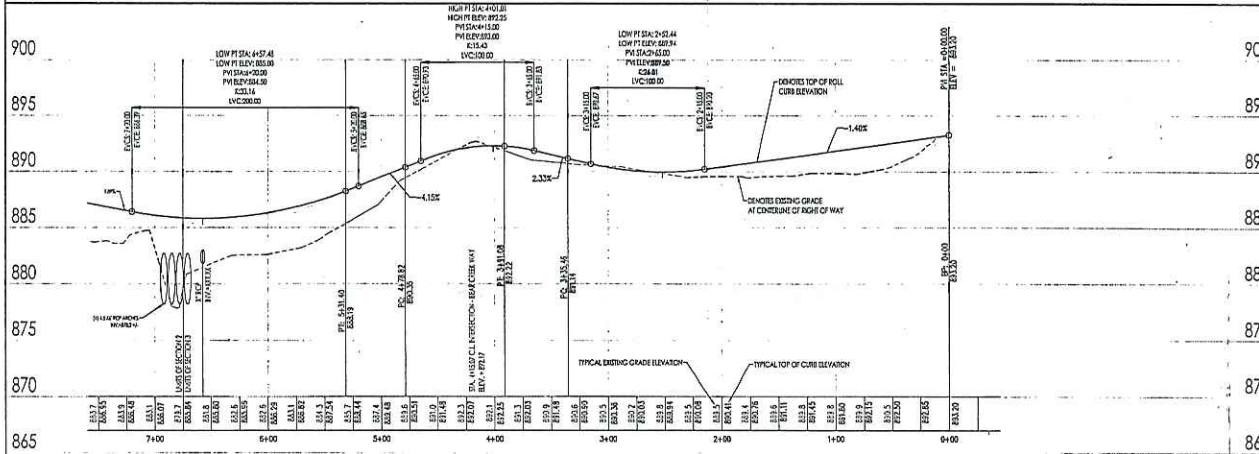
BEAR CREEK WAY
SCALE: 1"=30'



OVERBROOK DRIVE
SCALE: 1"=30'

STREET PLAN

SCALE: 1"=30'



INTERSECTION DETAILS

STREET PROFILE

1. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
4. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
5. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
6. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
7. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
8. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.



North: 114.48° True
TERRA SITE DEVELOPMENT, INC.
11000 N. State Road 133
Noblesville, Indiana 46061
P: 317.233.1300
www.terra-dev.com



BENCHMARK INFORMATION:
North American Vertical Datum of 1988 (NAVD83)

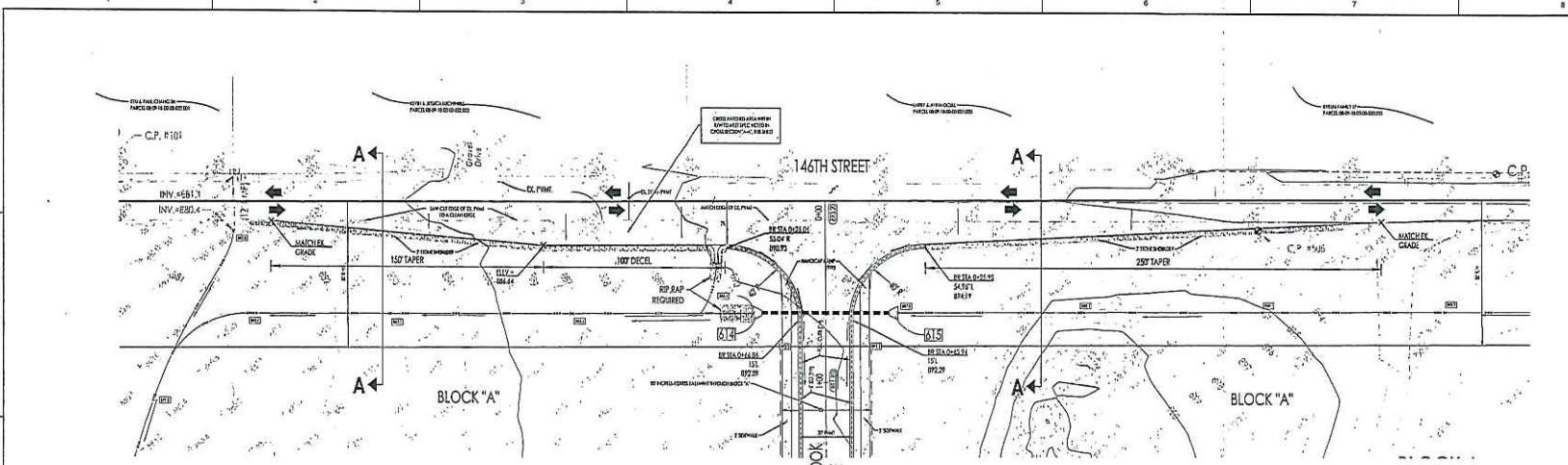
SEE 4 RESET
DNR tablet set in top of concrete post 15.3 feet east of the cantefine of Shelbore Road approximately 1500 feet south of 14th Street, just north of a wooden fence and survey marker sign. Prior Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.90 feet above sea level. Elevation = 910.53 feet (NAVD83)

Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

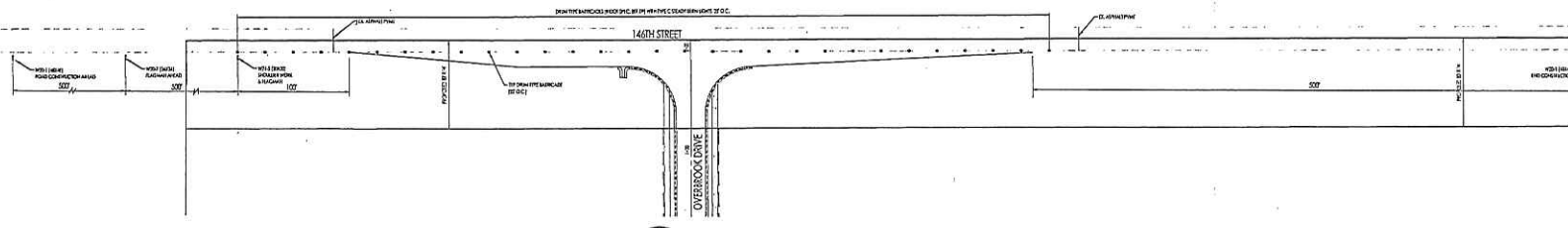
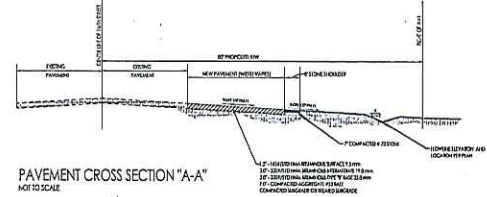
DATE	JANUARY 17, 2014
PROJECT NUMBER	13104-4-003
DRAWN BY	DKS
CHECKED BY	DKS
SHEET TITLE	STREET PLAN & PROFILE AND INTERSECTION DETAILS
SHEET #	C201
OF 20	



LEGEND
SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'



ENTRANCE PLAN - OVERBROOK DRIVE
SCALE: 1"=20'



MAINTENANCE OF TRAFFIC PLAN
SCALE: 1"=30'

REFERENCES TO STANDARDS:
 THE DRAWING IS PREPARED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SEVENTH EDITION, AS AMENDED BY THE LATEST REVISIONS, PUBLISHED BY THE INDIANA DEPARTMENT OF TRANSPORTATION.
 THE DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SEVENTH EDITION, AS AMENDED BY THE LATEST REVISIONS, PUBLISHED BY THE INDIANA DEPARTMENT OF TRANSPORTATION.
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 THE DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SEVENTH EDITION, AS AMENDED BY THE LATEST REVISIONS, PUBLISHED BY THE INDIANA DEPARTMENT OF TRANSPORTATION.

Know what's below. Call before you dig.

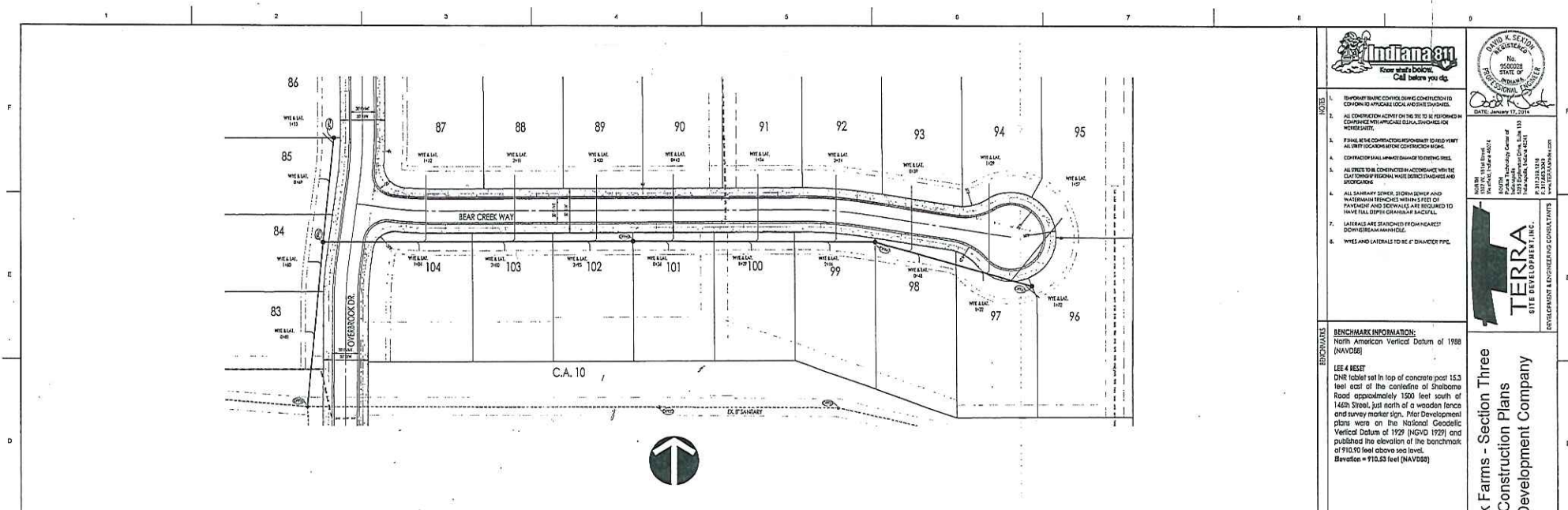
DAVID K. SHELTON
GOVERNOR
STATE OF INDIANA
DATE: January 17, 2014

1. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 2. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 3. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 4. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 5. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 6. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 7. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.
 8. ALL UTILITIES TO BE EXPOSED WITHIN 10' OF CURB OR EDGE OF PAVEMENT.

TERRA
SITE DEVELOPMENT, INC.
DEVELOPMENT ENGINEERING CONSULTANTS

OVERBROOK FARMS - SECTION THREE
 Site Construction Plans
 Fischer Development Company

DATE:	JANUARY 17, 2014
PROJECT NUMBER:	131004-1-003
DRAWN BY:	DKS
CHECKED BY:	DKS
SHEET TITLE:	ENTRANCE DETAIL AND MAINTENANCE OF TRAFFIC PLAN
SHEET #:	C301
OF 20	



Indiana 311
Know what's below. Call before you dig.

STATE OF INDIANA
No. 200005
Professional Engineer
JAMES L. GORDON
DATE: January 17, 2014

- NOTES**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE LOCAL AND STATE AGENCIES.
 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) CODES AND STANDARDS.
 3. FINALITY OF THE CONSTRUCTION RESPONSIBILITY TO THE CONTRACTOR SHALL BE DETERMINED BY THE CONTRACTOR'S INSURANCE COVERAGE.
 4. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING UTILITIES AND STRUCTURES.
 5. ALL STREETS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) CODES AND STANDARDS.
 6. ALL SANITARY SEWER, STORM SEWER AND WATER MAINS SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) CODES AND STANDARDS.
 7. LATERALS ARE STAKED FROM NEAREST DOWNSTREAM MANHOLE.
 8. WYES AND LATERALS TO BE 6" DIAMETER PPE.

BENCHMARK INFORMATION:
North American Vertical Datum of 1988 (NAVD88)

LEE 4 RESET
ONE (1) 4" x 8" x 16" concrete post 15.3 feet east of the centerline of Shelburne Road approximately 1500 feet south of 143rd Street, just north of a wooden fence and survey marker sign. Prior development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.90 feet above sea level. Elevation = 910.53 feet (NAVD88)

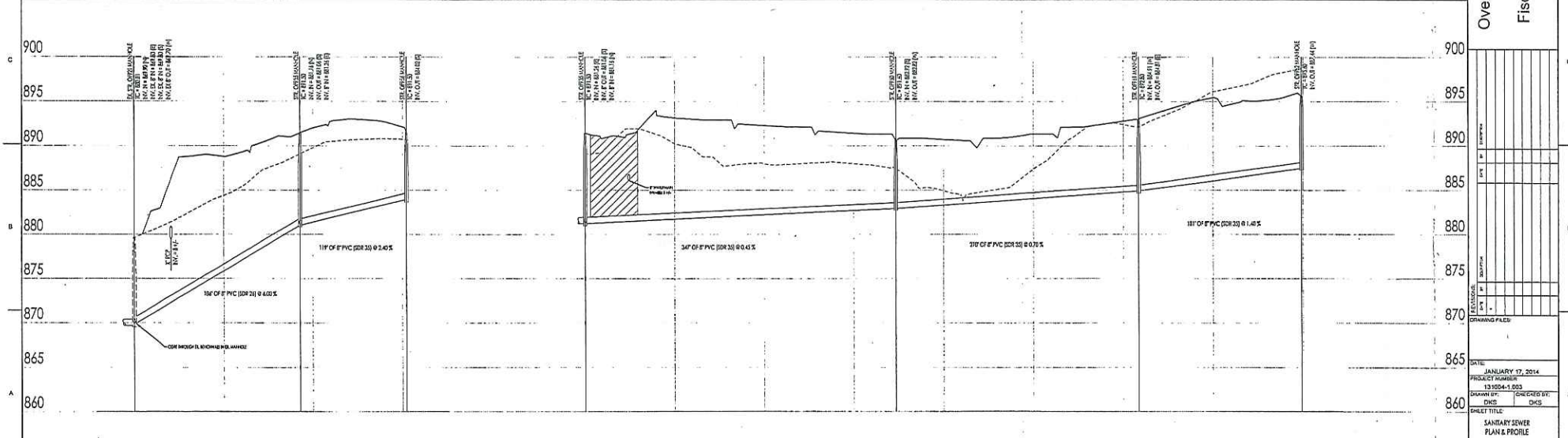


TERRA
SITE DEVELOPMENT, INC.
ENGINEERS & ARCHITECTS

Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

SANITARY SEWER PLAN

SCALE: 1"=50'



SANITARY SEWER PROFILE

LEGEND

SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

SHEET TITLE: SANITARY SEWER PLAN & PROFILE

DATE: JANUARY 17, 2014

PROJECT NUMBER: 13-1004-1-003

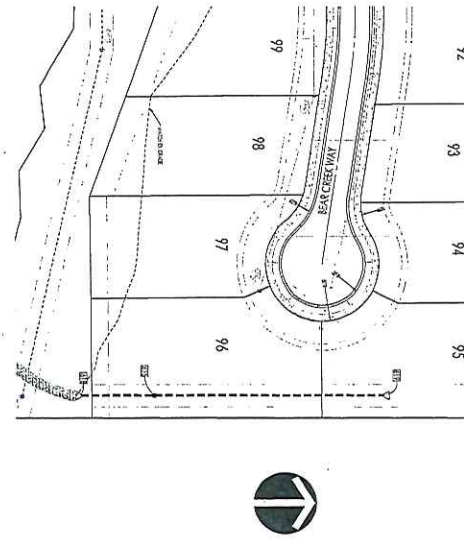
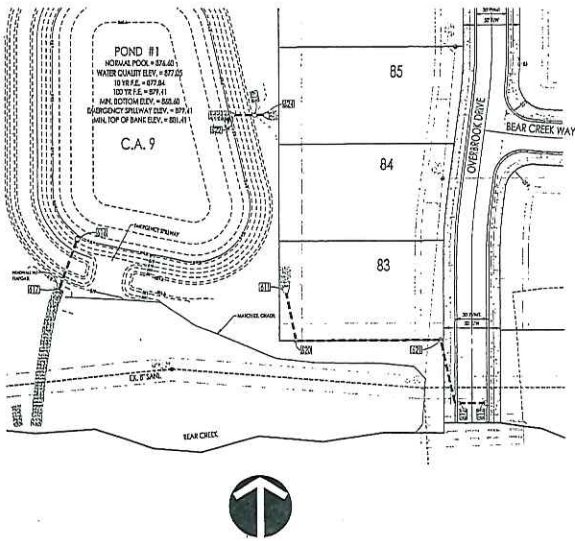
DRAWN BY: J. FISCHER

CHECKED BY: DKS

SHEET TITLE: SANITARY SEWER PLAN & PROFILE

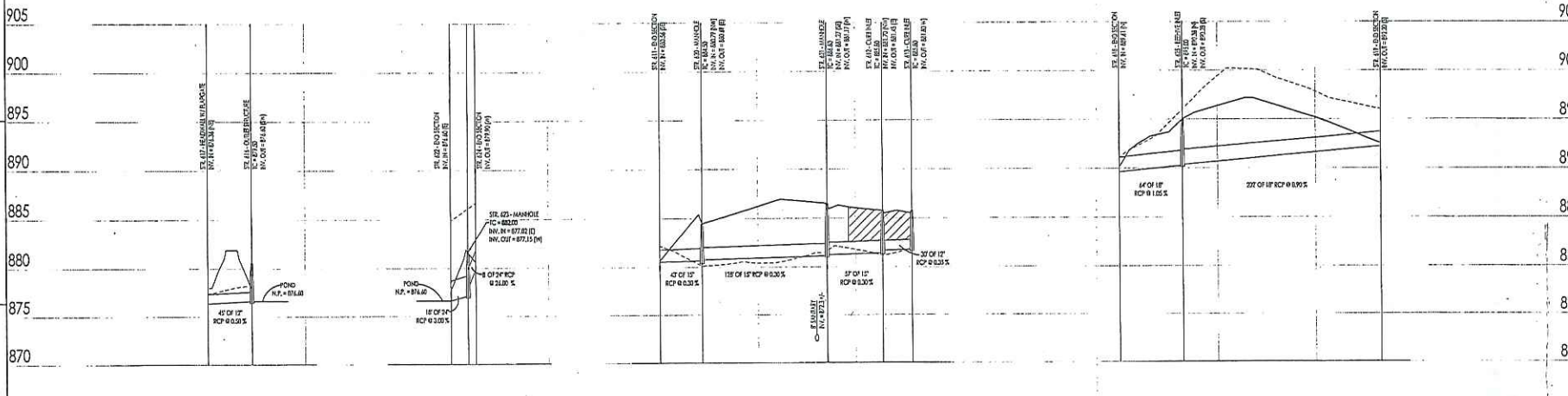
SHEET NO.: C401 OF 20





STORM SEWER PLAN

SCALE: 1"=50'



STORM SEWER PROFILE

LEGEND
 SCALE HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

IMPORTANT NOTICE CONCERNING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE ORDINANCE.

- ALL CONSTRUCTION ACTIVITY ON THIS SITE SHALL BE PROHIBITED IN COMPLIANCE WITH APPLICABLE LOCAL ORDINANCES AND STATE ORDINANCES.
- FINAL SITE CONSTRUCTION RESPONSIBILITY IS THE OWNER'S. ALL EXISTING UTILITIES SHALL BE PROTECTED AND MAINTAINED.
- CONTRACTOR SHALL MAINTAIN DRAINAGE TO EXISTING DRAINAGE.
- ALL EXISTING UTILITIES SHALL BE MAINTAINED AND PROTECTED.
- ALL SANITARY SEWER, STORM SEWER AND WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF INDIANAPOLIS CODES AND ORDINANCES.
- LATERALS ARE STATIONED FROM NEAREST DOWNSTREAM MANHOLE.
- PIES AND LATERALS TO BE 12" DIAMETER PIPE.

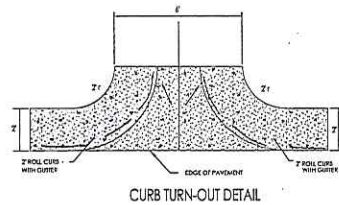
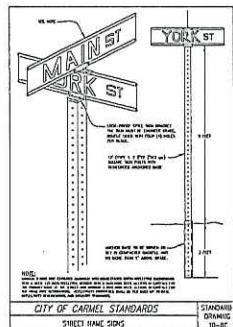
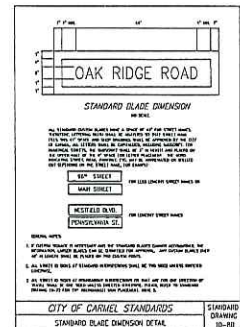
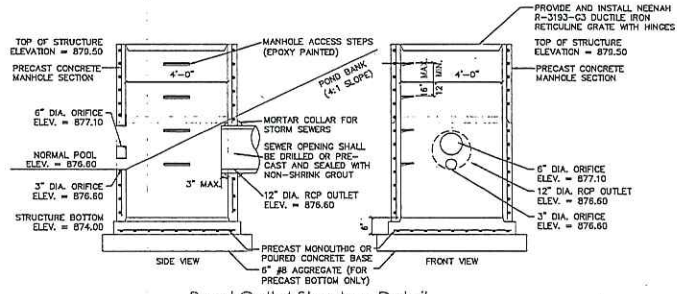
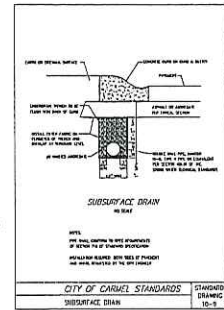
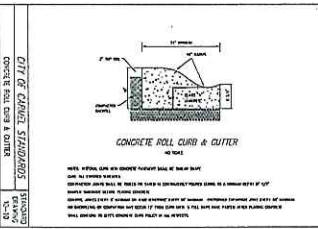
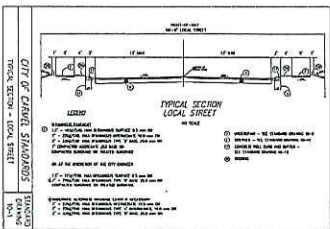
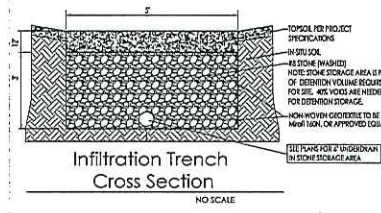
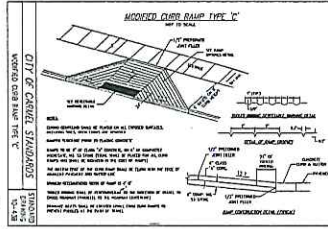
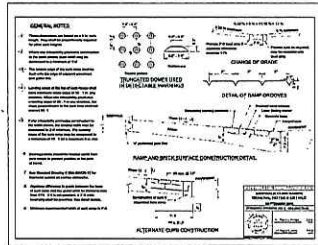
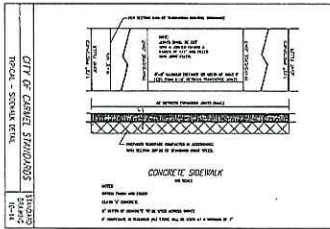
BENCHMARK INFORMATION:
 North American Vertical Datum of 1988 (NAVD83)
 SEE 4 SHEET
 DIME marker set in top of concrete pad 15.3 feet east of the centerline of Shebame Road approximately 1500 feet south of 14th Street, just north of a wooden fence and survey marker sign. Prior Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.90 feet above sea level. Elevation = 910.53 feet (NAVD83).

TERRA SITE DEVELOPMENT, INC.
 DEVELOPMENT & ENGINEERING CONSULTANTS

Overbrook Farms - Section Three
 Site Construction Plans
 Fischer Development Company

DATE	JANUARY 17, 2014
PROJECT NUMBER	13-10064-1-003
DRAWN BY	DHS
CHECKED BY	DHS
SHEET TITLE	STORM SEWER PLAN & PROFILE
SHEET #	C602 OF 20





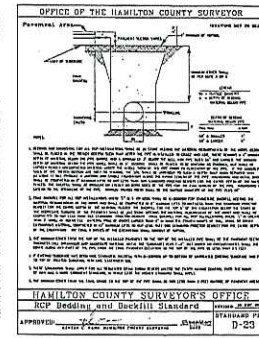
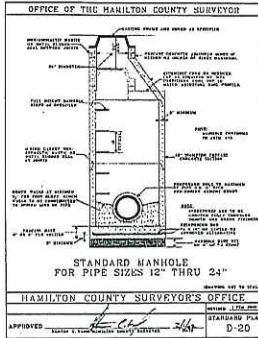
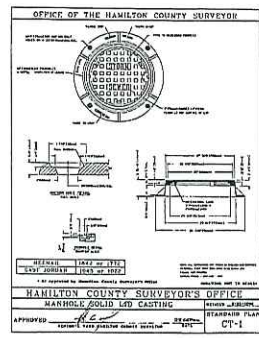
DAVID K. SEYMOUR
REGISTERED PROFESSIONAL ENGINEER
No. 5520028
STATE OF INDIANA
EXPIRES 12/31/2018
DATE: January 17, 2014

NORTH
NORTH
EAST
EAST
SOUTH
SOUTH
WEST
WEST

TERRA
SITE & DEVELOPMENT, INC.
DEVELOPMENT & ENGINEERING CONSULTANTS

Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company

DATE:	JANUARY 17, 2014
PROJECT NUMBER:	131004-1.003
DRAWN BY:	DWG
CHECKED BY:	ENC
SHEET TITLE:	CONSTRUCTION DETAILS & SPECIFICATIONS
SHEET #:	C801
	of 20



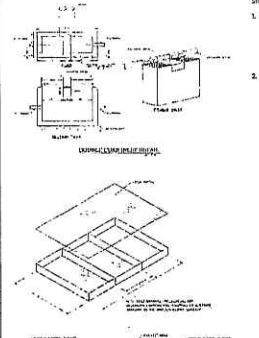
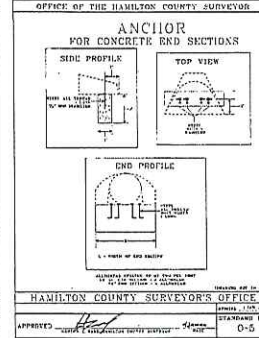
OFFICE OF THE HAMILTON COUNTY SURVEYOR

STORM STRUCTURE SIZING TABLE

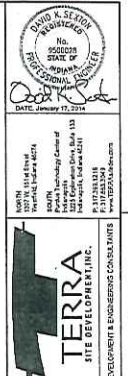
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10,000	10,000	10,000	10,000	10,000	10,000
20,000	20,000	20,000	20,000	20,000	20,000
30,000	30,000	30,000	30,000	30,000	30,000
40,000	40,000	40,000	40,000	40,000	40,000
50,000	50,000	50,000	50,000	50,000	50,000

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: [Signature] DATE: [Date] STANDARD PLAN D-18

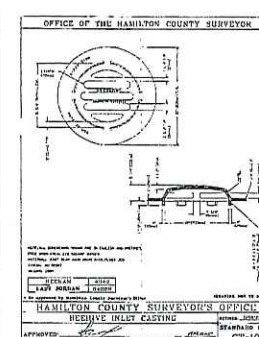
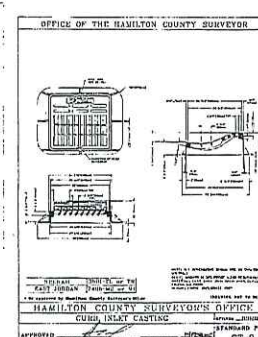
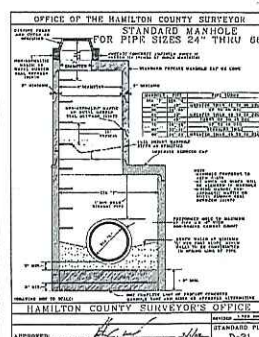
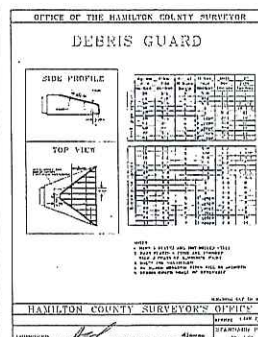
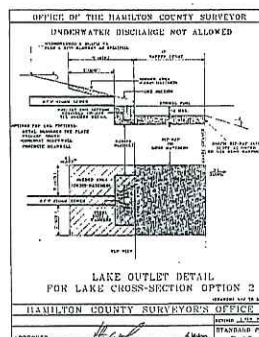
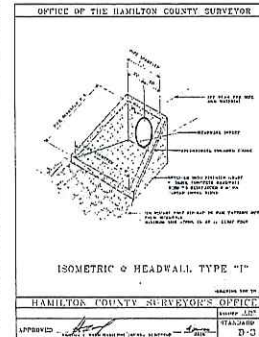
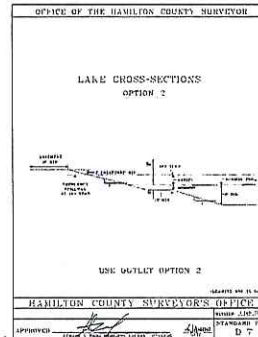
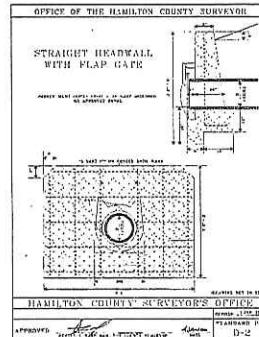
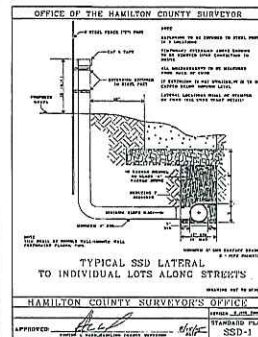
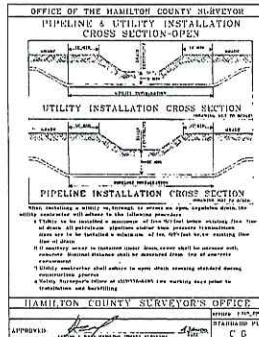


- STORM CATCH SYSTEMS**
- SCOPE OF WORK
 - DETAILS
 - INSTALLATION
 - APPLICATION
 - CONSTRUCTION
 - MAINTENANCE
 - REVISIONS



TERRA
SITE DEVELOPING, INC.

Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company



NO.	REVISION	DATE

DATE: JANUARY 17, 2014
PROJECT NUMBER: 131064-003
DRAWN BY: DMS
CHECKED BY: DMS
SHEET TITLE: CONSTRUCTION DETAILS & SPECIFICATIONS
SHEET # C803 of 20

**TYPICAL SANITARY SEWER SPECIFICATIONS
TO BE USED FOR PRIVATE SEWER DEVELOPMENT
WITHIN
CLAY TOWNSHIP REGIONAL WASTE DISTRICT**

REVISED 3/1/2007

1. Standard specifications of Clay Township Regional Waste District (the District) and Department of Transportation (INDOT) shall apply for all work and materials. Sanitary sewer pipe shall be installed in accordance with Section 715 of the current INDOT standard specifications handbook.
2. Sanitary sewer gravity pipe, unless pressure rated pipe required per IAC or directional drilled pipe, shall be Polyvinyl Chloride (PVC) in accordance with ASTM D3034-89 with a minimum wall thickness designation of SDR 35 and installed per ASTM D2321-89 specifications. PVC pipe used shall be grooved bell, gasketed, and gasketed. The pipe shall be made of PVC plastic having a cell classification of 13454E.
3. PVC sanitary sewer gravity fittings shall also conform to the requirements of the ASTM D3034-89 specification. All fittings shall be molded in one piece with standard pipe bells, gasketed elastomeric joints, and spigot ends. Single piece molded PVC with standard pipe bells, gaskets, and spigot ends for back-to-back tee wyes are acceptable. Wall thickness of all fittings shall have a minimum designation of SDR 26. Gaskets for elastomeric joints shall be molded with a minimum cross-sectional area of 0.20 square inches and conform to ASTM F477 specification.
4. All sanitary manholes shall be precast concrete manholes in accordance with ASTM C478 and Section 720 of the current INDOT standard specifications handbook. O-rings shall conform to C443. Double row of Kerol Seal or equivalent shall also be applied to all joints and between riser rings and castings. Manhole step spacing shall be no more than 6-feet. Manholes shall be air tested for leakage in accordance with ASTM C1244-02, Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.
 - A. Installation and operation of vacuum equipment and indicating devices must be in accordance with manufacturers' recommendations and performance specifications which have been provided by the manufacturer and accepted by the District Engineer. The vacuum equipment must be capable of testing the entire manhole, including the casing and riser rings.
 - B. With the vacuum tester set in place:
 1. Connect the vacuum pump to the spigot port with the valve open.
 2. Draw a vacuum of ten (10) inches of Hg. (2 psi) and close the valve.
 - C. Accepted standards for leakage rate will be established from the elapsed time for a negative pressure change from ten (10) inches to nine (9) inches of mercury. The maximum allowable leakage rate for a four (4) foot diameter manhole must be in accordance with the following:

Manhole Depth	Pressure Change of 1 inch Hg.
10 feet or less	60 seconds
>10 feet but <15 feet	75 seconds
>15 feet but <25 feet	90 seconds

 For manholes five (5) feet in diameter, add an additional fifteen (15) seconds and for manholes six (6) feet in diameter, add an additional thirty (30) seconds to the time requirements for four (4) foot diameter manholes. For all manholes deeper than twenty-five (25) feet, the Engineer will determine applicable maximum elapsed time.
- D. If the manhole fails the test, necessary repairs must be made. The vacuum test and repairs must be repeated until the manhole passes the test.
- E. If manhole joint sealants are pulled out during the vacuum test, the manhole must be disassembled and the joint sealants replaced.
- F. Manholes will be subject to visual inspection with all visual leaks being repaired.

Minimum Elapsed Time for:

Manhole Depth	Pressure Change of 1 inch Hg.
10 feet or less	60 seconds
>10 feet but <15 feet	75 seconds
>15 feet but <25 feet	90 seconds

- A. For manholes five (5) feet in diameter, add an additional fifteen (15) seconds and for manholes six (6) feet in diameter, add an additional thirty (30) seconds to the time requirements for four (4) foot diameter manholes. For all manholes deeper than twenty-five (25) feet, the Engineer will determine applicable maximum elapsed time.
5. Duroy rubber casing with plastic wrap shall be applied around each manhole joint from 3-inches above to 3-inches below each joint. The proprietary primer shall be applied prior to applying the rubber casing. Inside joints to be filled with precast plug material. Entire exterior surface of sanitary sewer manholes shall be sprayed with a bituminous coating and all exterior gap exposure of riser rings shall be back plastered or grouted with nonshrink grout.
 6. The manhole chimneys, including all riser rings shall be sealed using flex rib internal chimney seal manufactured by Cretex, NTC, or a District approved equal. The flex rib internal chimney seal shall extend from a minimum of 3-inches below the top of the cone section to 3-inches over the manhole casing, four or per manufacturer's installation procedures if directed otherwise. Internal Chimney Seal shall be installed after manhole vacuum testing and prior to final acceptance. Water test may be done, per manufacturer or District's recommendation, to provide assurance that internal chimney seal is water tight.
 7. The casing elevations are set by plan, however, the castings are to be adjusted in the field by the District's representative should a discrepancy occur between plan guide and existing grade. New manhole risings and cover shall be installed to establish grade. Maximum height of adjusting rings shall be 12-inch on existing structure and 6-inch maximum on new construction.

8. Backfill around all installed or proposed manhole structure, sidewalks, bike paths and/or all paved areas shall be made with granular material (h-burner) No. 8, stone, up to 18-inches below cross-section thickness (which shall include "No. 5" stone depth). If more stringent backfill requirements are set out per town, county, or District specifications those standards shall be followed. Trench opening within 5-feet of the back of the curb of paved roadways, shall be backfilled with granular material or No. 8 stone in accordance with Section 211 of the current INDOT standard specifications handbook.
9. The Contractor shall be responsible for verifying that all state highways, city, and county permits have been obtained by the developer prior to start of construction.
10. Initial as-builts shall be presented to the inspecting engineer prior to final submittal to the District for review, otherwise Contractor shall be required to furnish the developer's Engineer with a set of plans showing actual cover locations and covers including lateral location, depth, and length. Such as-built plans must be received by the Engineer before the final contract payment can be authorized. As-builts shall be submitted per the District's current standard which can be found at www.ctwd.org.
11. The sanitary sewer laterals and main termination shall be indicated on the surface with a detectable metal post set immediately above the said termination point if full connection is not immediately made.
12. All sanitary sewer lines upon completion will be required to pass a low pressure air test. Soil tests shall be considered according to ASTM F1417-92, and shall be witnessed by a District employee or the District's representative. The testing shall be in accordance with Table 1 as follows with 0.5 psi being added for each foot of water above the sewer line being tested. Sewer lines shall be subject to visual leak inspection at downstream manholes with all visual leaks being repaired and subject to following requests by the District.
13. Prior to final deflection test (mandrel test) all manholes shall be cleaned and free of any debris. Deflection tests shall be performed on all "flexible" pipe after the final backfill has been in place at least 28 days. No pipe shall exceed a vertical deflection of 9% deflection test results. (*The following are considered non-flexible pipes: concrete pipe, ductile iron pipe, and cast iron pipe). The deflection test shall be performed with a 200-pound mandrel. Frying rings shall be available at time of test otherwise no testing will be allowed. All mandrel testing shall be witnessed by a District employee or the District's representative.
14. The ends of all laterals are to be plugged water tight with a gasketed cap capable of withstanding a low pressure air test without leakage. Laterals shall be subject to visual leak inspection at downstream manholes with all visual leaks being repaired.
15. Bedding for flexible pipe and rigid pipe shall be No. 8 crushed stone 6-inches below to 12-inches above the pipe. Manholes shall be placed on no less than 6-inches of No. 8 crushed stone bedding.
16. Water line, utility, and legal drain crossings and separations shall be in accordance with the more stringent of the two: 327 IAC 3-6-9 or the District's standard drawings.
17. The trench shall be opened sufficiently ahead of pipe laying to reveal obstructions, and shall be properly protected and/or barricaded when left unattended.
18. No water shall be permitted to flow into the sanitary sewer system during construction. Contractor shall utilize a pump to keep the water level below the pipe. Pump discharge shall be directed to a storm outlet in accordance with state and federal laws and regulations (327 IAC 3-6-20). Any pipe entering existing sewers shall be plugged with screw type mechanical, braced plug until such time as all tests on the sewers and all plug fit items are complete.
19. All sewer laterals installed shall be banded the same as the main line sewer.
20. Forty-eight (48) hours notice shall be given to the District prior to the start of sewer construction. Also, 48 hours notice shall be given prior to doing any testing on the sewer.
21. Manhole castings shall be stamped SANITARY SEWER (Noseak Casting R-1772 or Ent Jordan 102221CS) and be self-sealing type. The casing flange shall be 34 inches and the clear opening shall be 26 inches. 26" x 19" Inlets. Water tight castings shall be below-Down Jordan 102221PT and also stamped SANITARY SEWER.
22. The minimum slope of the sewer shall be:

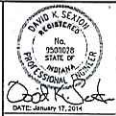
Size of Pipe	Minimum Computed Slope
8-inch	0.40%
10-inch	0.28%
12-inch	0.22%
15-inch	0.19%
18-inch	0.12%
23. The Contractor shall provide measurements of the slope of the sewer for each manhole section as construction progresses. Such measurements shall be certified by a Registered Land Surveyor or Engineer and be available on-site for observation by the District's Inspector. No more than three manhole sections can be completed in advance of such measurements.
24. In the event the Contractor does not meet the minimum slope, the sewer section and/or other affected sewer sections shall be reconstructed to meet such minimum slopes.
25. Laterals are to be installed with a minimum 14 gauge tracer wire from the pipe to the terminus. Upon final completion the contractor for the building or home will extend the wire from this terminus to the building adjacent to the building.

**CLAY TOWNSHIP REGIONAL WASTE DISTRICT
STANDARD SPECIFICATIONS FOR
MANHOLE CASTINGS, INSTALLATIONS AND DETAILS**

1. All hollow castings shall be manufactured by the District's approved manufacturer and shall conform to the requirements of the District's standard specifications for manhole castings. The District shall be notified in writing of any change in manufacturer or casting design prior to start of construction.
2. No foundation shall be required for manhole castings unless otherwise specified in the District's standard specifications for manhole castings.
3. The manhole shall be installed in accordance with the District's standard specifications for manhole castings. The manhole shall be installed in accordance with the District's standard specifications for manhole castings.
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TABLE 1
MINIMUM SPECIFIED TIME REQUIRED FOR A 1.0 PSI
DROP FOR SIZE AND LENGTH OF PIPE INDICATED
(testing pressure after stabilization no less than 4.0 psi and no more than 8.0 psi)

Pipe Diameter in.	Minimum Time, min	Length for Minimum Time, ft	Specifications Time for Length (L) Shown, mins							
			100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	3:46	597	0:30	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	308	0:48	5:40	5:40	5:40	5:40	5:40	5:40	5:40
8	7:34	208	1:30	7:34	7:34	7:34	7:34	7:36	8:52	10:08
10	9:26	229	2:24	9:26	9:26	9:26	9:53	11:53	13:51	15:49
12	11:20	199	3:18	11:20	11:20	11:24	14:15	17:05	19:58	22:47
15	14:10	159	5:42	14:10	14:10	17:48	22:15	26:42	31:09	35:36
18	17:00	133	7:02	17:00	19:13	23:38	32:03	38:27	44:52	51:16
21	19:50	114	10:10	19:50	26:10	34:52	43:37	52:21	61:00	69:48
24	22:40	99	13:47	22:47	34:11	45:34	56:58	68:22	79:46	91:10
27	25:30	88	17:05	28:51	42:16	57:41	72:07	86:32	100:57	115:27
30	28:20	80	21:04	35:37	51:28	71:13	89:02	106:50	124:38	142:26
33	31:10	72	25:52	41:05	64:38	86:10	107:43	129:16	150:49	172:21
36	34:00	66	30:58	47:17	76:55	102:34	128:12	153:50	179:29	205:07



**Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company**

DATE:	JANUARY 17, 2014
PROJECT NUMBER:	13104-1-003
DRAWN BY:	CHERRYBROOK
CHECKED BY:	DWG
SHEET TITLE:	CONSTRUCTION DETAILS & SPECIFICATIONS
SHEET #:	C902
OF 20	

Power of Attorney

WESTCHESTER FIRE INSURANCE COMPANY



Know all men by these presents: That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the Commonwealth of Pennsylvania pursuant to the following Resolution, adopted by the Board of Directors of the said Company on December 11, 2006, to wit:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such persons written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested.

Does hereby nominate, constitute and appoint Dan E. Ries, SUSAN A. YEAZELL, all of the City of CINCINNATI, Ohio, each individually if there be more than one named, its true and lawful attorney-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof in penalties not exceeding Two million dollars & zero cents (\$2,000,000.00) and the execution of such writings in pursuance of these presents shall be as binding upon said Company, as fully and amply as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office.

IN WITNESS WHEREOF, the said Stephen M. Haney, Vice-President, has hereunto subscribed his name and affixed the Corporate seal of the said WESTCHESTER FIRE INSURANCE COMPANY this 14 day of June 2013.

WESTCHESTER FIRE INSURANCE COMPANY



Stephen M. Haney
Stephen M. Haney, Vice President

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF PHILADELPHIA ss.

On this 14 day of June, AD. 2013 before me, a Notary Public of the Commonwealth of Pennsylvania in and for the County of Philadelphia came Stephen M. Haney, Vice-President of the WESTCHESTER FIRE INSURANCE COMPANY to me personally known to be the individual and officer who executed the preceding instrument, and he acknowledged that he executed the same, and that the seal affixed to the preceding instrument is the corporate seal of said Company; that the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation, and that Resolution, adopted by the Board of Directors of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have herunto set my hand and affixed my official seal at the City of Philadelphia the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
KAREN E. BRANDT, Notary Public
City of Philadelphia, Phila. County
My Commission Expires September 28, 2014

Karen E. Brandt
Notary Public

I, the undersigned Assistant Secretary of the WESTCHESTER FIRE INSURANCE COMPANY, do hereby certify that the original POWER OF ATTORNEY, of which the foregoing is a substantially true and correct copy, is in full force and effect.

In witness whereof, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of the Corporation, this

9th July, 2014

day of



William L. Kelly
William L. Kelly, Assistant Secretary

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER June 14, 2015.

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF

Little Eagle Creek Drain, Overbrook Farms Section 3 Arm

NOTICE

To Whom It May Concern and: _____

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the **Little Eagle Creek Drain, Overbrook Farms Section 3 Arm** on **November 24, 2014** at **9:30 A.M.** in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana, and which construction and maintenance reports of the Surveyor and the Schedule of Assessments made by the Drainage Board have been filed and are available for public inspection in the office of the Hamilton County Surveyor.

Hamilton County Drainage Board

Attest: Lynette Mosbaugh

ONE TIME ONLY

BEFORE THE HAMILTON COUNTY DRAINAGE BOARD
IN THE MATTER OF THE

Little Eagle Creek Drain, Overbrook Farms Section 3

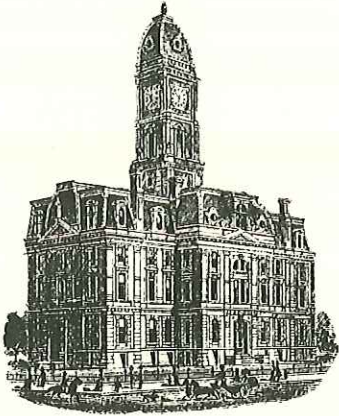
NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment on **November 24, 2014** has issued an order adopting the Schedule of Assessments, filed the same and made public announcement thereof at the hearing and ordered publication. If judicial review of the findings and order of the Board is not requested pursuant to Article Eight of this code within twenty (20) days from the date of this publication, the order shall be conclusive.

Hamilton County Drainage Board

Attest: Lynette Mosbaugh

ONE TIME ONLY



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

July 7, 2015

Re: Little Eagle Creek Drain: Overbrook Farms Sec. 3 Arm

Attached are as-builts, certificate of completion & compliance, and other information for Overbrook Farms Section 3. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

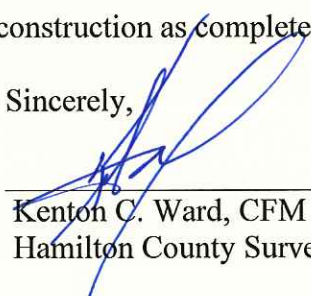
During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated September 25, 2014. The report was approved by the Board at the hearing held November 24, 2014. (See Drainage Board Minutes Book 16, Pages 37-38) The changes are as follows: The 6" SSD was shortened from 3,473 to 3,253 feet. The 12" RCP was lengthened from 250 feet to 254 feet. The 15" RCP was shortened from 258 feet to 253 feet. The 18" RCP was shortened from 406 feet to 405 feet. The open ditch was lengthened from 505 feet to 515 feet. The length of the drain due to the changes described above is now **5305 feet**.

The non-enforcement was approved by the Board at its meeting on November 24, 2014 and recorded under instrument #2014055483. The following sureties were guaranteed by Westchester Fire Insurance Company and will be released by the Board on its July 13, 2015 meeting.

Bond-LC No: K09018864
Amount: \$189,525.00
For: Storm Sewers & SSD
Issue Date: July 9, 2014

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

Sincerely,


Kenton C. Ward, CFM
Hamilton County Surveyor

KCW/slm

CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: Overbrook Farms Sec. 2 & 3

I hereby certify that:

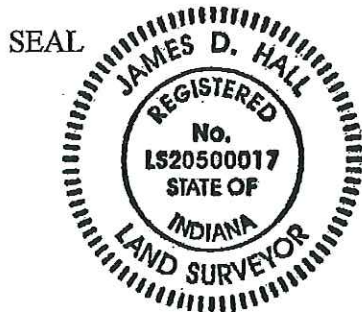
1. I am a Registered Land Surveyor or Engineer in the State of Indiana.
2. I am familiar with the plans and specifications for the above referenced subdivision.
3. I have personally observed and supervised the completion of the drainage facilities for the above referenced subdivision.
4. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been installed and completed in conformity with all plans and specifications.
5. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been correctly represented on the Record Drawings, Digital Record Drawings and the Structure Data Spreadsheet.

Signature:  Date: 6-17-15

Type or Print Name: JAMES D HALL

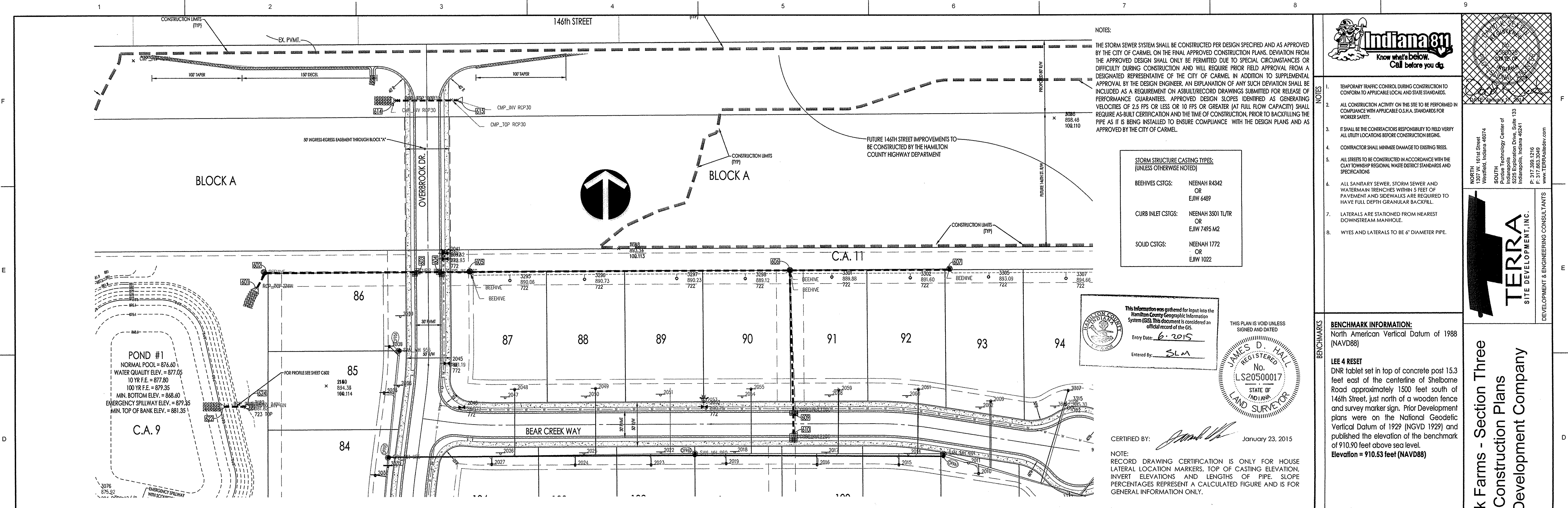
Business Address: 1307 W. 161st STREET
Westfield, IN 46074

Telephone Number: 317-399-1216



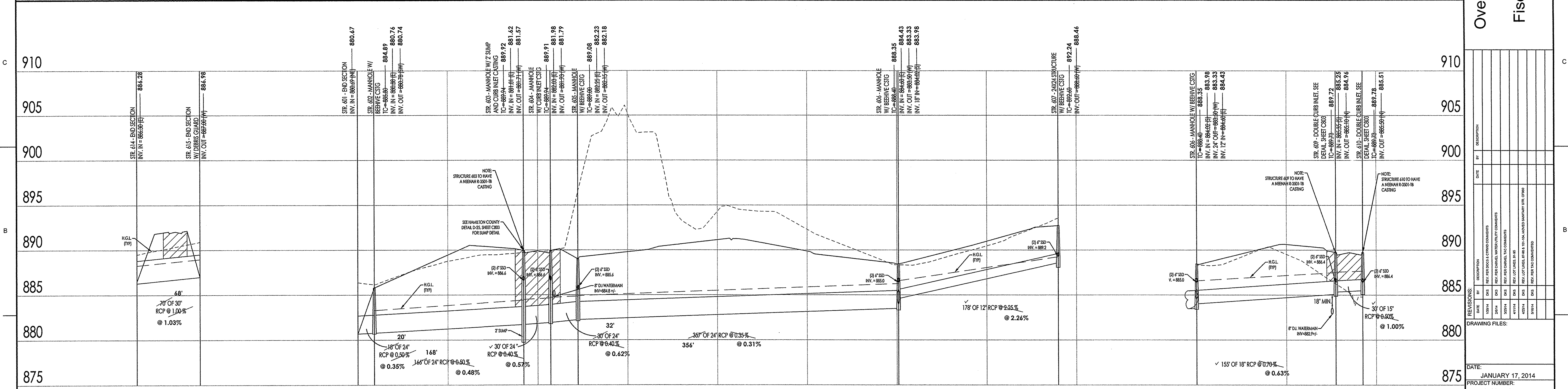
INDIANA REGISTRATION NUMBER

LS 20500017



STORM SEWER PLAN

SCALE: 1"=50'



RECORD DRAWING

Storm Sewers STORM SEWER PROFILE

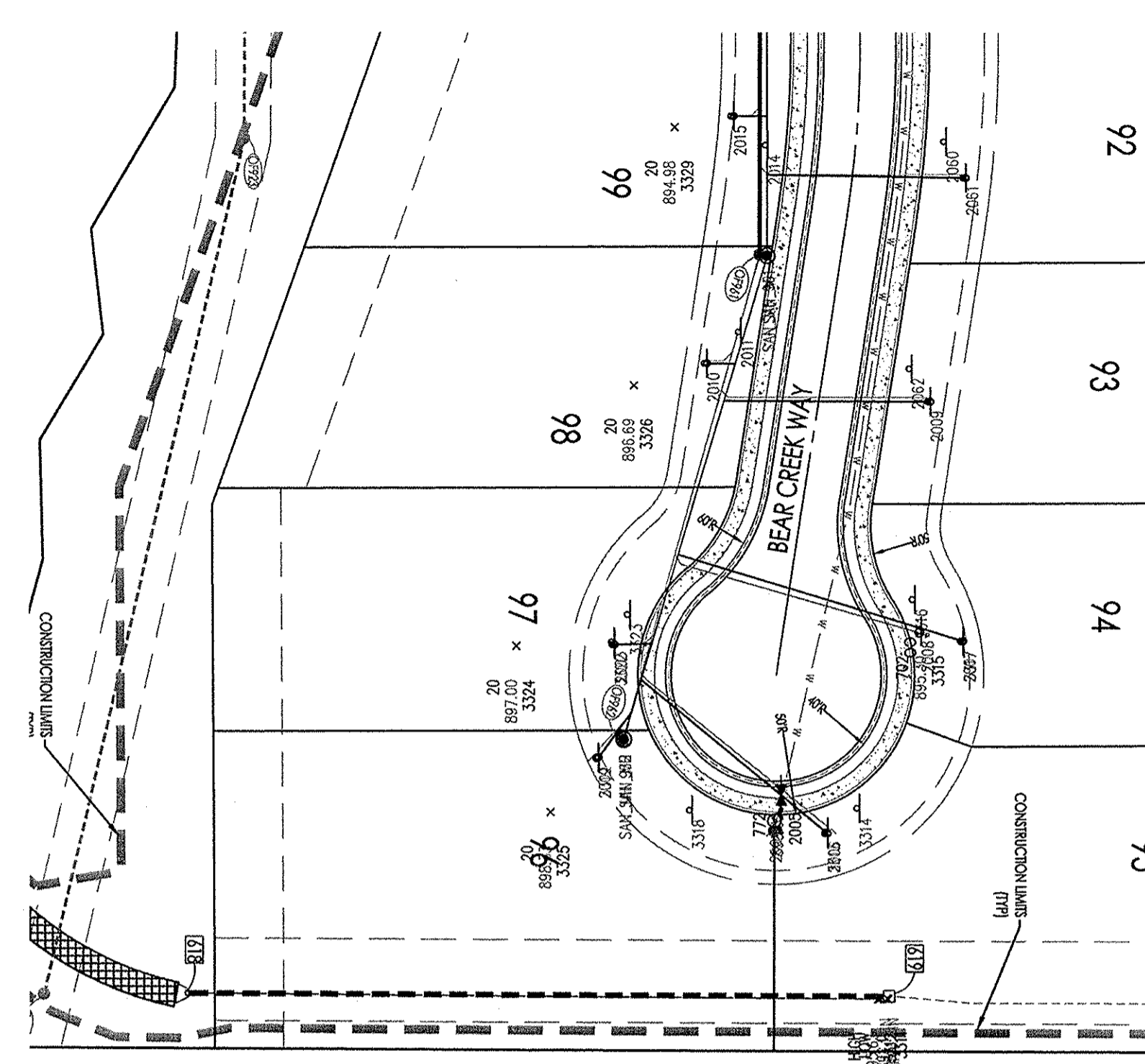
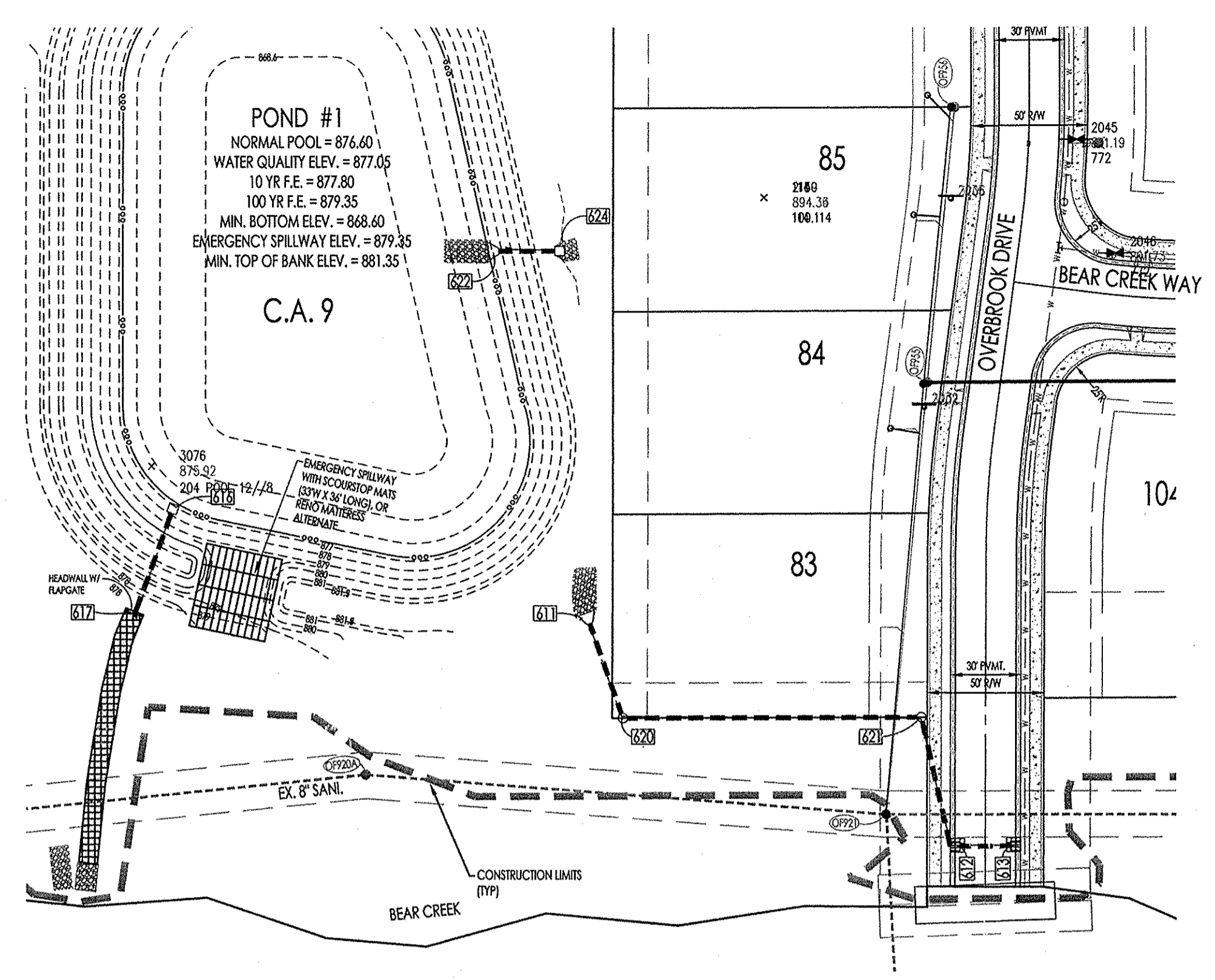


SCALE
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

Indiana 811
Know what's below. Call before you dig.

TERRA
SITE DEVELOPMENT, INC.
DEVELOPMENT & ENGINEERING CONSULTANTS

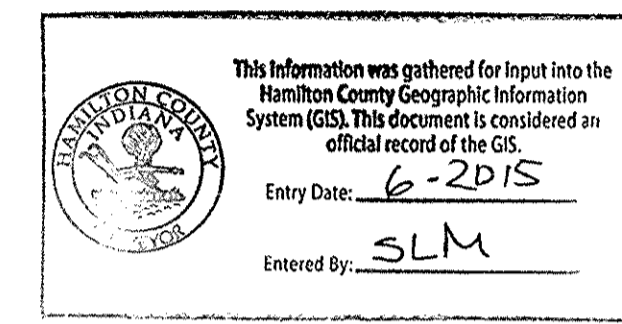
Overbrook Farms - Section Three
Site Construction Plans
Fischer Development Company



NOTES:
 THE STORM SEWER SYSTEM SHALL BE CONSTRUCTED PER DESIGN SPECIFIED AND AS APPROVED BY THE CITY OF CARMEL ON THE FINAL APPROVED CONSTRUCTION PLANS. DEVIATION FROM THE APPROVED DESIGN SHALL ONLY BE PERMITTED DUE TO SPECIAL CIRCUMSTANCES OR DIFFICULTY DURING CONSTRUCTION AND WILL REQUIRE PRIOR FIELD APPROVAL FROM A DESIGNATED REPRESENTATIVE OF THE CITY OF CARMEL IN ADDITION TO SUPPLEMENTAL APPROVAL BY THE DESIGN ENGINEER. AN EXPLANATION OF ANY SUCH DEVIATION SHALL BE INCLUDED AS A REQUIREMENT ON AS-BUILT/RECORD DRAWINGS SUBMITTED FOR RELEASE OF PERFORMANCE GUARANTEES. APPROVED DESIGN SLOPES IDENTIFIED AS GENERATING VELOCITIES OF 2.5 FPS OR LESS OR 10 FPS OR GREATER (AT FULL FLOW CAPACITY) SHALL REQUIRE AS-BUILT CERTIFICATION AND THE TIME OF CONSTRUCTION PRIOR TO BACKFILLING THE PIPE AS IT IS BEING INSTALLED TO ENSURE COMPLIANCE WITH THE DESIGN PLANS AND AS APPROVED BY THE CITY OF CARMEL.

STORM STRUCTURE CASTING TYPES:

BEEHIVES CSTGS:	NEENAH R4342 OR EJIW 6489
CURB INLET CSTGS:	NEENAH 3501 TL/TR OR EJIW 7495 M2
SOLID CSTGS:	NEENAH 1772 OR EJIW 1022



CERTIFIED BY: *James D. Hall* January 23, 2015

NOTE:
 RECORD DRAWING CERTIFICATION IS ONLY FOR HOUSE LATERAL LOCATION MARKERS, TOP OF CASTING ELEVATION, INVERT ELEVATIONS AND LENGTHS OF PIPE. SLOPE PERCENTAGES REPRESENT A CALCULATED FIGURE AND IS FOR GENERAL INFORMATION ONLY.



- NOTES:**
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE STANDARDS.
 - ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL UTILITY LOCATIONS BEFORE CONSTRUCTION BEGINS.
 - CONTRACTOR SHALL MINIMIZE DAMAGE TO EXISTING TREES.
 - ALL STREETS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CLAYTOWNSHIP REGIONAL WASTE DISTRICT STANDARDS AND SPECIFICATIONS.
 - ALL SANITARY SEWER, STORM SEWER AND WATERMAIN TRENCHES WITHIN 5 FEET OF PAVEMENT AND SIDEWALKS ARE REQUIRED TO HAVE FULL DEPTH GRANULAR BACKFILL.
 - LATERALS ARE STATIONED FROM NEAREST DOWNSTREAM MANHOLE.
 - WYES AND LATERALS TO BE 6" DIAMETER PIPE.

BENCHMARK INFORMATION:
 North American Vertical Datum of 1988 (NAVD88)

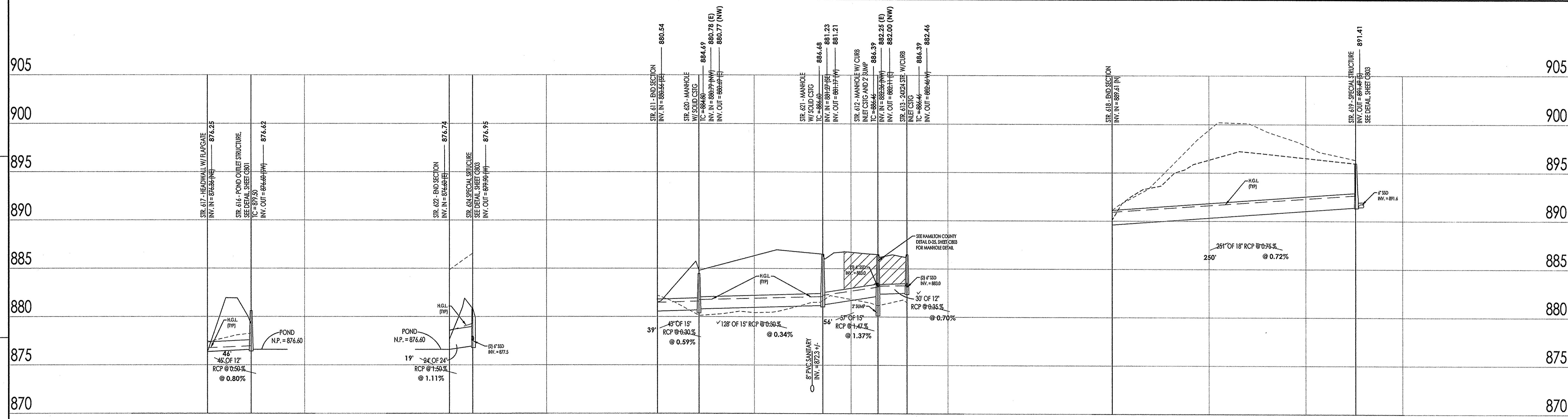
LEE 4 RESET
 DNR tablet set in top of concrete post 15.3 feet east of the centerline of Shelburne Road approximately 1500 feet south of 146th Street, just north of a wooden fence and survey marker sign. Prior Development plans were on the National Geodetic Vertical Datum of 1929 (NGVD 1929) and published the elevation of the benchmark of 910.90 feet above sea level.
Elevation = 910.53 feet (NAVD88)

RECORD DRAWING

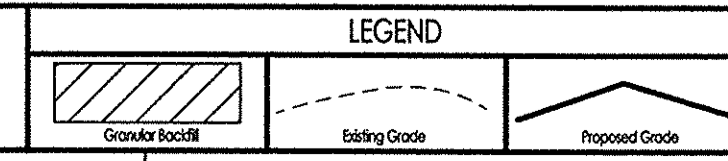
Storm Sewers

STORM SEWER PLAN

SCALE: 1"=50'



STORM SEWER PROFILE



SCALE HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

SHEET #:
C602
 of 23

Overbrook Farms - Section Three
 Site Construction Plans
 Fischer Development Company

DATE	BY	DESCRIPTION
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER CARMEL WATER UTILITY COMMENTS
1/17/2014	DKS	REVISED PER CARMEL TAG COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS
1/17/2014	DKS	REVISED PER DESIGNER COMMENTS

DATE: JANUARY 17, 2014
 PROJECT NUMBER:
 131004-1.003
 DRAWN BY: DKS
 CHECKED BY: DKS
 SHEET TITLE:
 STORM SEWER
 PLAN & PROFILE