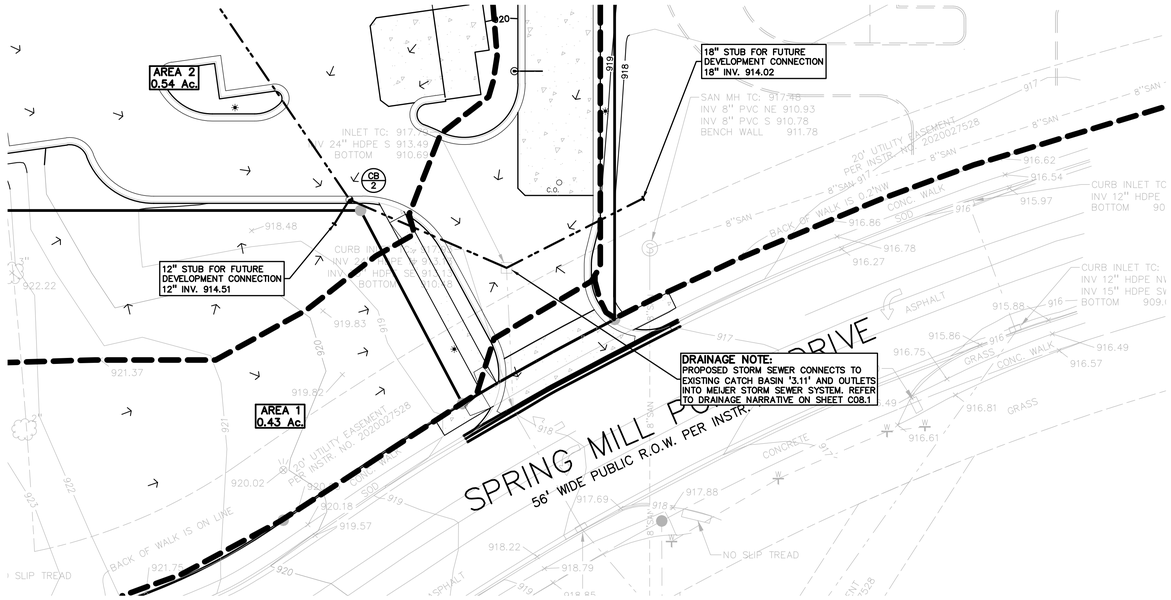
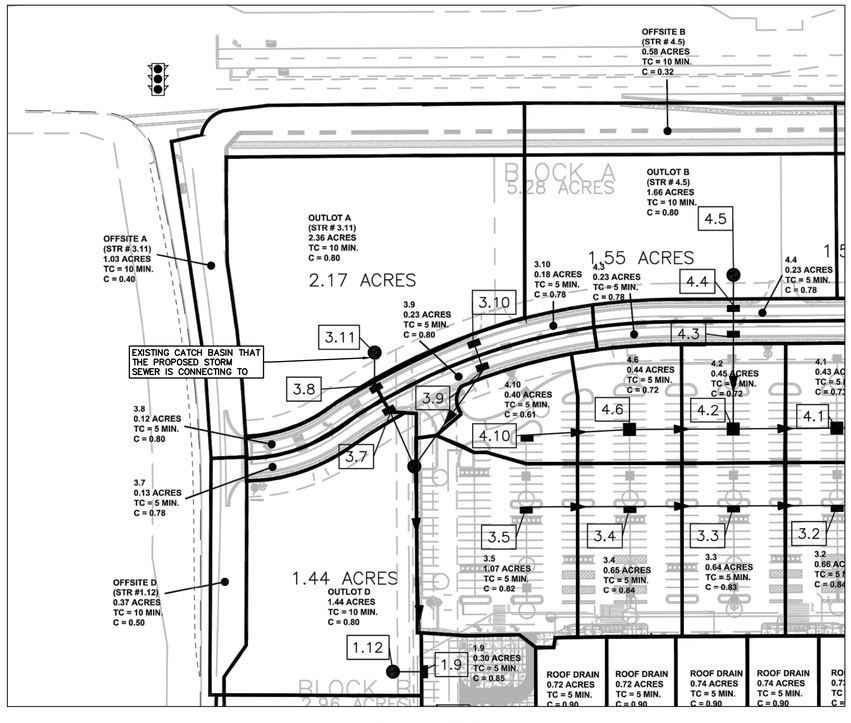




PORTION OF MEIJER DRAINAGE MAP

FLOODPLAIN NOTE:
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN OR IN ZONE 'D' (NO SHADING) – AREAS IN WHICH FLOOD HAZARDS ARE UNDETERMINED, BUT POSSIBLE, PER FLOOD INSURANCE RATE MAP NUMBER 18057C0120G DATED NOVEMBER 19, 2014.

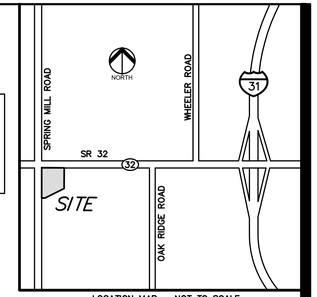
0 10 20 40
SCALE: 1" = 20'

NORTH

TOPOGRAPHIC AND BOUNDARY SURVEY DISCLAIMER:

TOPOGRAPHIC AND BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, EXISTING ELEVATIONS, EXISTING PHYSICAL FEATURES AND STRUCTURES WAS PROVIDED BY WOOLPERT, INC.

PEA GROUP WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE SURVEY OR FOR DESIGN ERRORS/OMISSIONS RESULTING FROM SURVEY INACCURACIES.



LOCATION MAP – NOT TO SCALE

LEGEND

EXISTING		PROPOSED
—OH—ELEC—	ELEC., PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE	
—UG—CATV—	UNDERGROUND CABLE TV, CATV PEDESTAL	
—UG—PHONE—	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE	
—UG—ELEC—	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE	
—GAS—	GAS MAIN, VALVE & GAS LINE MARKER	
	WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE	
	SANITARY SEWER, CLEANOUT & MANHOLE	
	STORM SEWER, CLEANOUT & MANHOLE	
	SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN	
	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF	
	MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE	
	SPOT ELEVATION	
	CONTOUR LINE	
	FENCE	
	GUARD RAIL	
	STREET LIGHT	
	SIGN	
CONC.	CONCRETE	7" CONC TRASH ENCL. PAD / R.O.W. ONLY
ASPH.	ASPHALT	STD DUTY / HEAVY DUTY / DEEP STRENGTH
GRAVEL	GRAVEL SHOULDER	

REFERENCE DRAWINGS

OTHER ALTA/NSPS LAND TITLE SURVEY FOR 4700 DUPONT ROAD. FORT WAYNE, INDIANA, AS PROVIDED BY MILLER LAND SURVEYING, INC. FORT WAYNE, INDIANA, #14052731

DRAINAGE NARRATIVE:
THE PROPOSED STORM SEWER SYSTEM CONNECTS TO THE EXISTING CATCH BASIN ('3.11') AND OUTLETS INTO MEIJER STORM SEWER SYSTEM. THIS STORM SEWER SYSTEM IS TREATED BY AQUASWIRL WATER TREATMENT UNITS AND OUTLETETS INTO THE SHARED MEIJER/SPRINGMILL VILLAS DETENTION POND AND ULTIMATELY INTO THE THE JOHN EDWARDS LEGAL DRAIN. ACCORDING TO THE APPROVED DRAINAGE REPORT FOR THE MEIJER DEVELOPMENT FROM WOOLPERT, INC. DATED AUGUST 30, 2019, THIS DETENTION POND WAS SIZED TO HANDLE FLOW FROM THIS OUTLOT ALONG WITH FLOW FROM THE ADJACENT LOT TO THE EAST. IN TOTAL, 2.36 ACRES OF DRAINAGE AT A 'C' VALUE OF 0.80 WAS DESIGNED TO OUTLET TO THIS EXISTING STUB. THIS RESULTED IN A DESIGN FLOW OF 14.52 CFS DURING A 10-YEAR STORM EVENT GOING THROUGH THE EXISTING PIPE, WITH THE EXISTING CATCH BASIN INLET LABELED '3.11' IN THE DRAINAGE REPORT. PER THE CALCULATIONS ON SHEET C08.0, THE TOTAL DRAINAGE FOR THE PANDA EXPRESS DEVELOPMENT AS WELL AS THE ADJACENT PARCEL TO THE SOUTHEAST WAS 1.36 ACRES AT AN AVERAGE 'C' VALUE OF 0.69. A STUB HAS BEEN PROPOSED FOR THE PARCEL TO THE EAST AND IS SIZED FOR 0.94 ACRES OF DRAINAGE AT A 'C' VALUE OF 0.80. THE PROPOSED FLOW GOING TO THE EXISTING PIPE IS 12.34 CFS. THIS IS 2.03 CFS LESS THAN ORIGINALLY DESIGNED PER THE APPROVED MEIJER DRAINAGE REPORT. FOR REFERENCE, A DRAINAGE MAP AND 10-YEAR STORM CALCULATION ARE PROVIDED FROM THE APPROVED MEIJER DRAINAGE REPORT.

PEAK DISCHARGES:
PRE-CONSTRUCTION 10 YEAR PEAK DISCHARGE: 3.22 CFS
POST-CONSTRUCTION 10 YEAR PEAK DISCHARGE: 7.20 CFS
(THESE PEAK DISCHARGES ARE FOR THE PANDA EXPRESS PARCEL ONLY AND DO NOT INCLUDE THE DISCHARGE FROM THE ADJACENT PARCEL WHICH IS REFLECTED IN THE STORMWATER CALCULATIONS ON SHEET C08.0)

10 Year FlexTable: Conduit Table

ID	Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Length (Unified) (ft)	Velocity (ft/s)	Flow (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	System Flow Time (min)
219	CO-3.0	3.0	2.6	908.97	908.92	0.001	36.0	0.013	50.0	3.88	27.44	21.10	130.1	911.82	911.75	8.614
222	CO-3.10	3.10	3.9	911.87	911.73	0.004	12.0	0.013	38.7	1.46	1.14	2.14	53.5	913.27	913.23	4.980
261	CO-3.9	3.9	3.6	911.63	911.26	0.002	15.0	0.013	153.9	2.11	2.59	3.17	81.9	913.23	912.98	5.423
262	CO-3.6	3.6	1.9	911.16	910.90	0.001	36.0	0.013	248.7	3.39	17.27	21.56	80.1	912.98	912.37	10.764
278	CO-2.24	2.24	2.12	912.10	911.85	0.004	12.0	0.013	62.3	2.85	1.09	2.26	48.2	912.62	912.53	4.980
279	CO-3.11	3.11	3.8	913.39	913.33	0.002	24.0	0.013	38.9	4.62	14.52	8.89	163.4	915.15	914.93	9.960

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

XREF: S:\PROJECTS\2020\2020-0251\DWG\TOPOBASE-200251.dwg
XREF: S:\PROJECTS\2020\2020-0251\DWG\CONSTRUCTION\CBASE-200251.dwg
XREF: S:\PROJECTS\2020\2020-0251\DWG\CONSTRUCTION\UTBLK-200251.dwg

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REVISIONS:

ISSUE DATE:

DEVELOPMENT PLAN	02-24-2021
DDP RESUBMITTAL	03-31-2021
DDP RESUBMITTAL	05-26-2021
STATE PERMIT	06-07-2021

DRAWN BY: LGD

PANDA PROJECT #: D8060
CIVIL PROJECT #: 2020-0251

RACHEL LYNN SMITH REGISTERED No. 12000492 STATE OF INDIANA PROFESSIONAL ENGINEER

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PANDA EXPRESS
TRUE WARM & WELCOME
SR 32 & SPRING MILL ROAD (MEIJER #319)
WESTFIELD, IN, 46074

DRAINAGE CALCULATIONS

C08.1

SCALE: 1"=20'

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