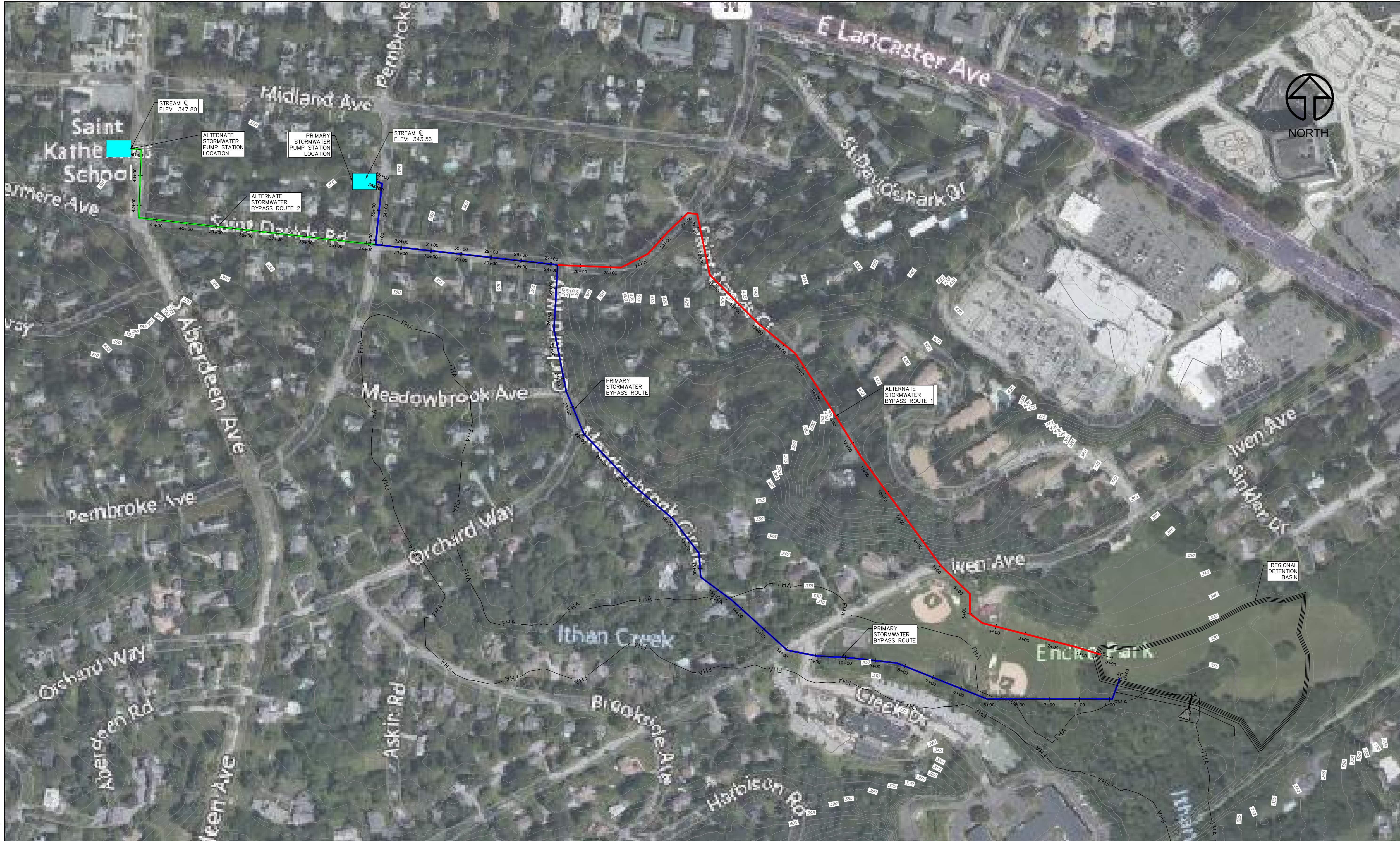




Carroll Engineering Corporation

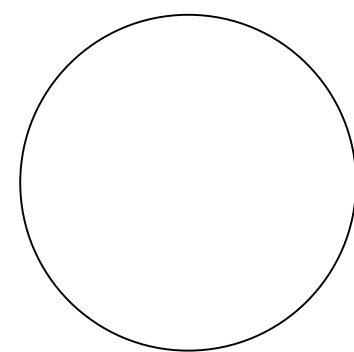
CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19406 Hillsborough, NJ 08044
Phone: 610-572-7093 Phone: 908-874-7500
Fax: 610-489-5100 Fax: 908-874-5762

433 Lancaster Avenue, Suite 200
Malvern, PA 19355

Phone: 610-489-5100 Fax: 908-874-5762

www.carrollengineering.com



**STORM SEWER BYPASS
CONCEPTUAL PLAN**

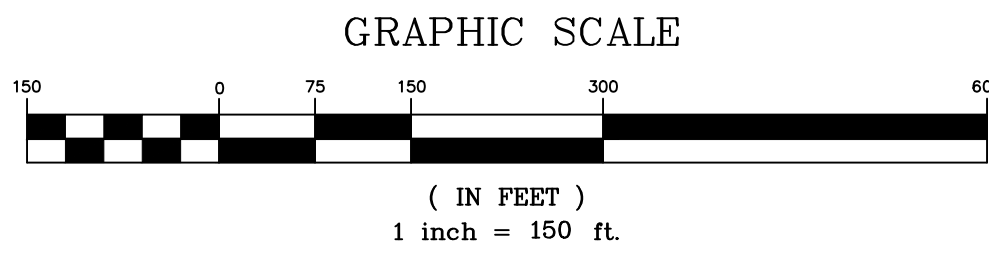
**SOUTH WAYNE DRAINAGE IMPROVEMENTS
FEASIBILITY STUDY**

SITUATED IN
RADNOR TOWNSHIP, DELAWARE COUNTY
PREPARED FOR
RADNOR TOWNSHIP
301 IVEN AVE
WAYNE, PA 19087

NO.	DATE	DESCRIPTION	INITIALS

STORMWATER BYPASS SUMMARY TABLE		
	PIPE DIA. (IN)	TOTAL LENGTH
PRIMARY BYPASS	84	3601 LF
ALTERNATE BYPASS 1 (SAINT DAVIDS)	84	3506 LF
ALTERNATE BYPASS 2 (SAINT KATHERINE'S PS LOCATION)	84	4422 LF

PROPOSED SWM FACILITY STORAGE				
STAGE	ELEVATION	CONTOUR AREA (SF)	INCREMENTAL STORAGE (CF)	TOTAL STORAGE (CF)
0	325.00	165,848	-	-
1	326.00	169,699	167,774	167,774
3	328.00	177,501	347,200	514,974
5	330.00	185,434	362,935	877,909
7	332.00	193,497	378,931	1,256,840



DATE 4-13-2022
CADD FILE 2119900004
JOB NO 21-1990

DSG BY CAP
DWN BY MEW
CKD BY WNM
SCALE 1"=150'

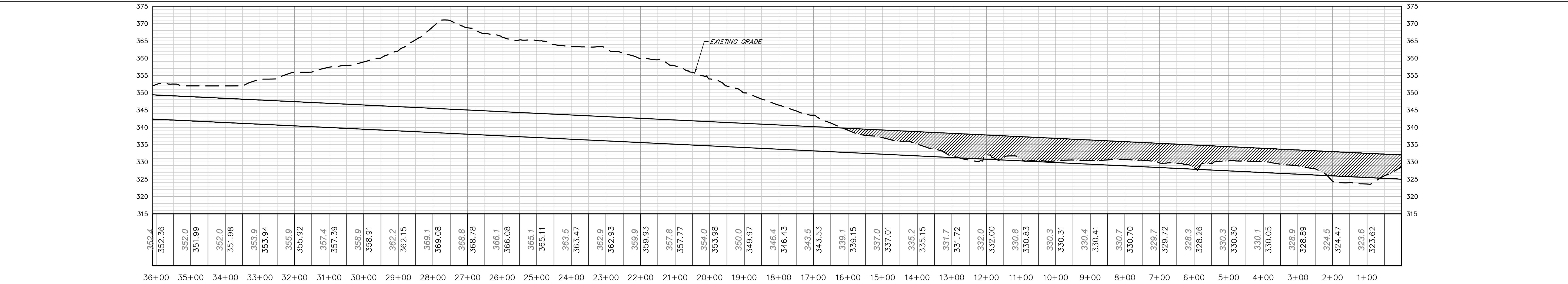
DRAWER NUMBER -

SHEET 1 OF 3 SHEETS

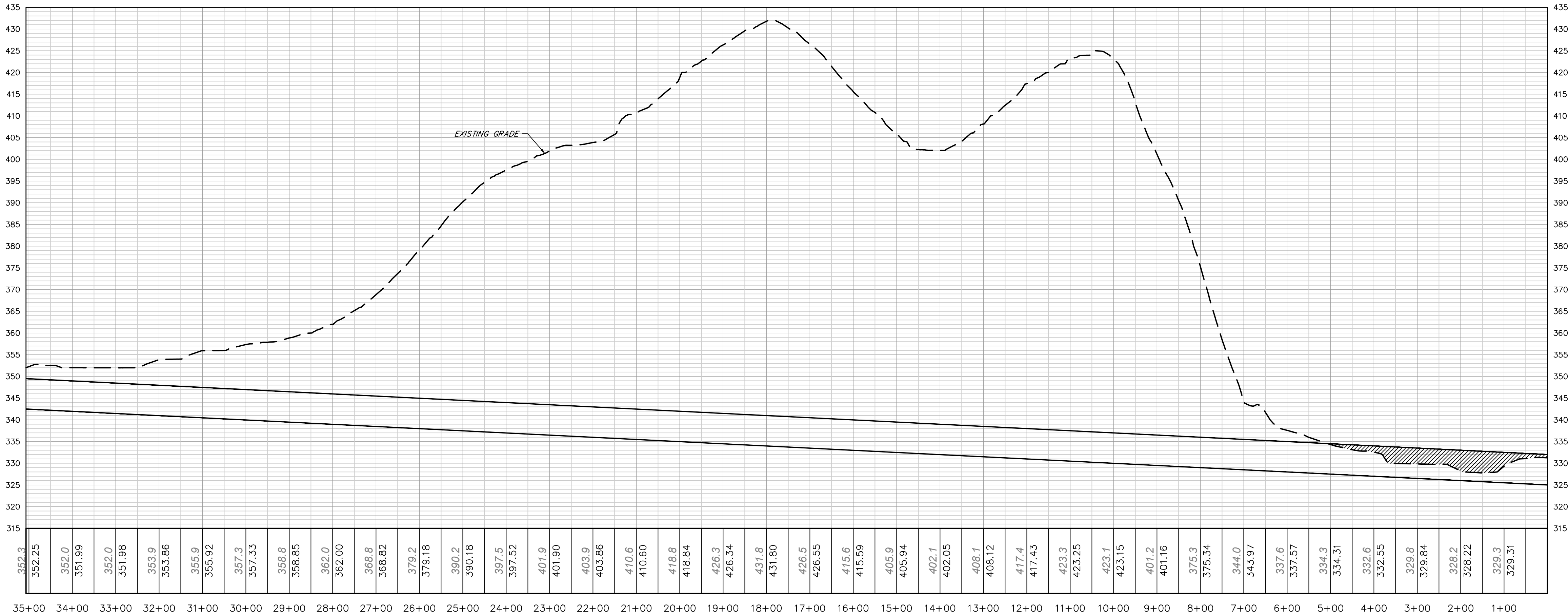
DRAWING NUMBER
C-101

C:\Users\jordan\OneDrive\Visual\Temp\Map\Auto\Auto_2736\211990000000.dwg Apr 21, 2022 10:02am splensson Dref

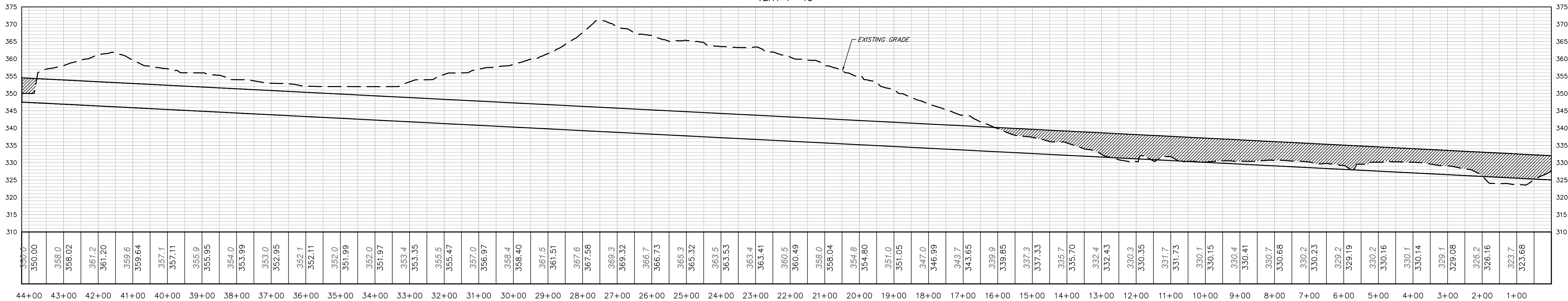
COPYRIGHT © - 2022 CARROLL ENGINEERING CORPORATION - ALL RIGHTS RESERVED



ITHAN CREEK BYPASS PROFILE
SCALE: HORIZ 1"=150'
VERT 1"=15'



ITHAN CREEK BYPASS ALTERNATE 1 PROFILE
SCALE: HORIZ 1"=150'
VERT 1"=15'



ITHAN CREEK BYPASS ALTERNATE 2 PROFILE
SCALE: HORIZ 1"=150'
VERT 1"=15'



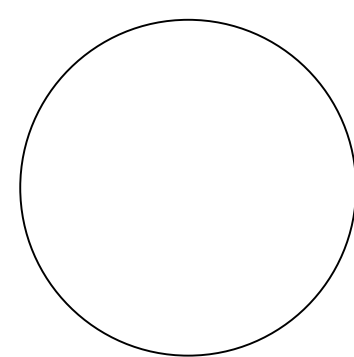
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Cir., 3rd Fl. 105 Radar Boulevard, Suite 206
King of Prussia, PA 19406 Hillsborough, NJ 08044
Phone: 610-572-7093 Phone: 908-874-7500
Phone: 610-489-5100 Fax: 908-874-5762

433 Lancaster Avenue, Suite 200
Malvern, PA 19355

www.carrollengineering.com



STORM SEWER BYPASS
GRAVITY PIPE PROFILES
SOUTH WAYNE DRAINAGE IMPROVEMENTS
FEASIBILITY STUDY
SITUATED IN
RADNOR TOWNSHIP, DELAWARE COUNTY
PREPARED FOR
RADNOR TOWNSHIP
301 IVEN AVE
WAYNE, PA 19087

NO.	DATE	DESCRIPTION	INITIALS

DATE 4-13-2022
CADD FILE 2119900004
JOB NO 21-1990

DSG BY CAP
DWN BY MEW
CKD BY WNM
SCALE 1"=150'

DRAWER NUMBER -

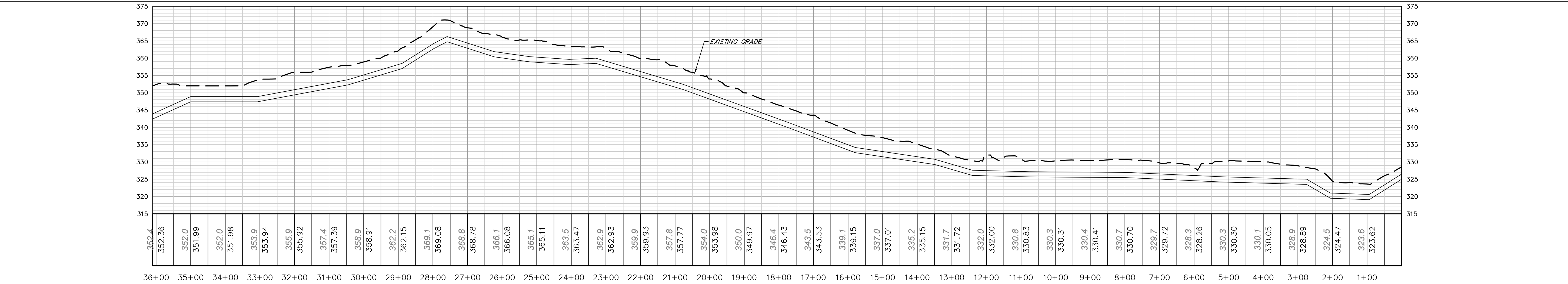
SHEET 2 OF 3 SHEETS

DRAWING NUMBER

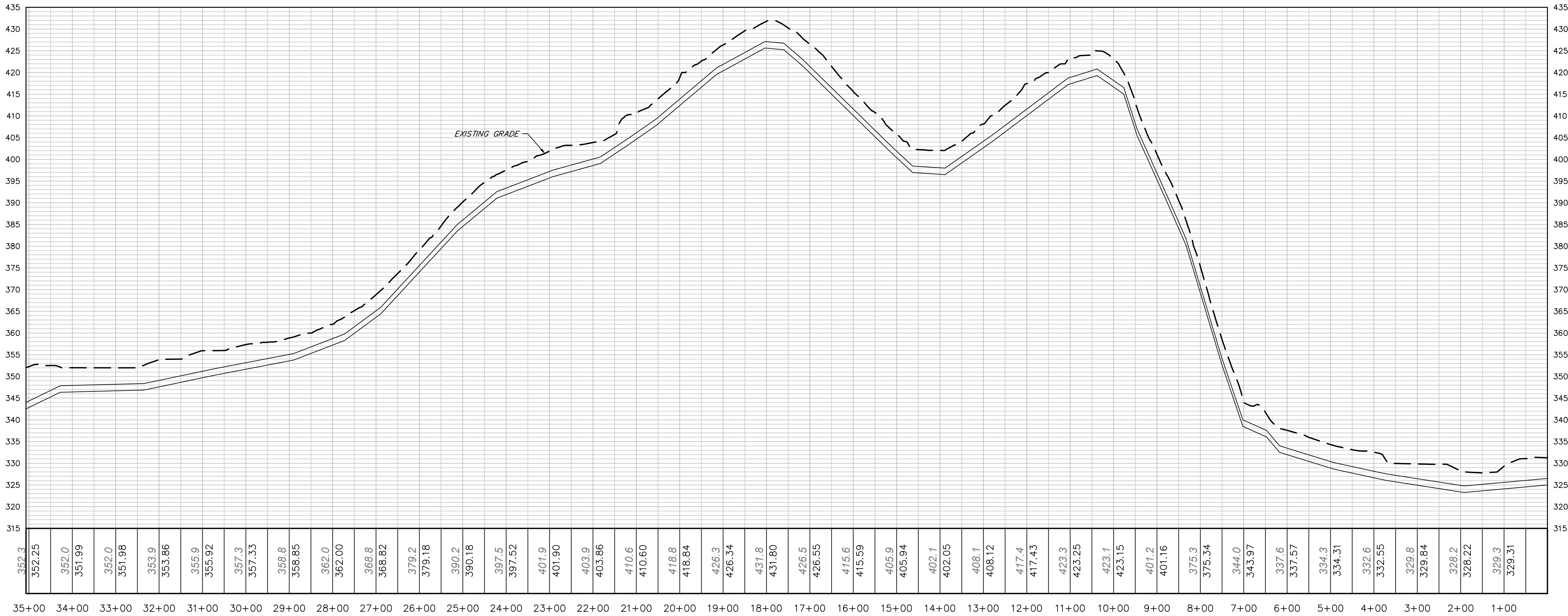
C-102

C:\Users\jordan\OneDrive\Visual\Temp\Map\Map_2736\2119000004.dwg Apr 21, 2022 10:02am speiterson Dref

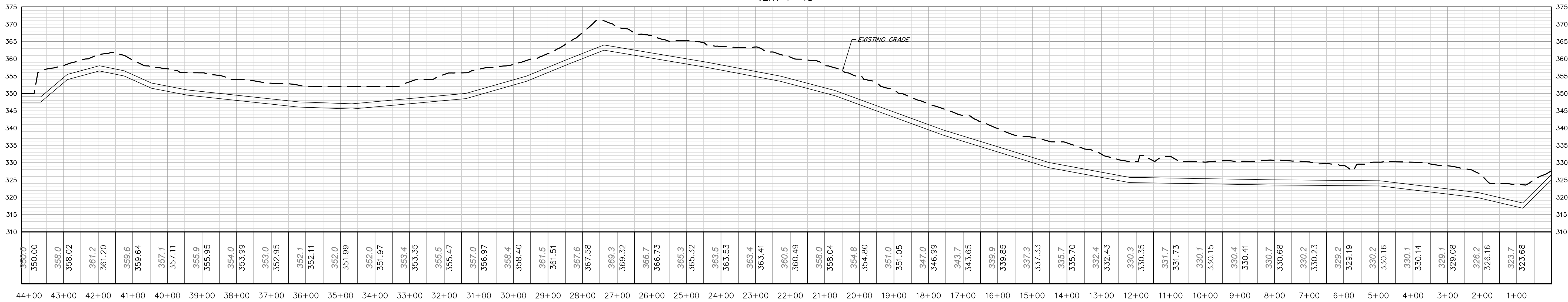
COPYRIGHT © - 2022 CARROLL ENGINEERING CORPORATION - ALL RIGHTS RESERVED



ITHAN CREEK BYPASS PROFILE
SCALE: HORIZ 1"=150'
VERT 1"=15'



ITHAN CREEK BYPASS ALTERNATE 1 PROFILE
SCALE: HORIZ 1"=150'
VERT 1"=15'



ITHAN CREEK BYPASS ALTERNATE 2 PROFILE
SCALE: HORIZ 1"=150'
VERT 1"=15'



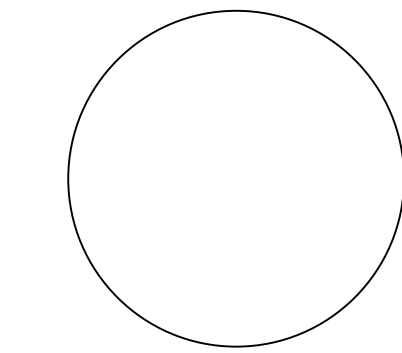
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19406 Hillsborough, NJ 08044
Phone: 610-572-7093 Phone: 908-874-7500
Phone: 610-489-5100 Fax: 908-874-5762

433 Lancaster Avenue, Suite 200
Malvern, PA 19355

www.carrollengineering.com



STORM SEWER BYPASS
PRESSURE PIPE PROFILES
SOUTH WAYNE DRAINAGE IMPROVEMENTS
FEASIBILITY STUDY
SITUATED IN
RADNOR TOWNSHIP, DELAWARE COUNTY
PREPARED FOR
RADNOR TOWNSHIP
301 IVEN AVE
WAYNE, PA 19087

NO.	DATE	DESCRIPTION	INITIALS

DATE 4-13-2022
CADD FILE 2119900004
JOB NO 21-1990

DSG BY CAP
DWN BY MEW
CKD BY WNM
SCALE 1"=150'

DRAWER NUMBER -

SHEET 3 OF 3 SHEETS

DRAWING NUMBER

C-103