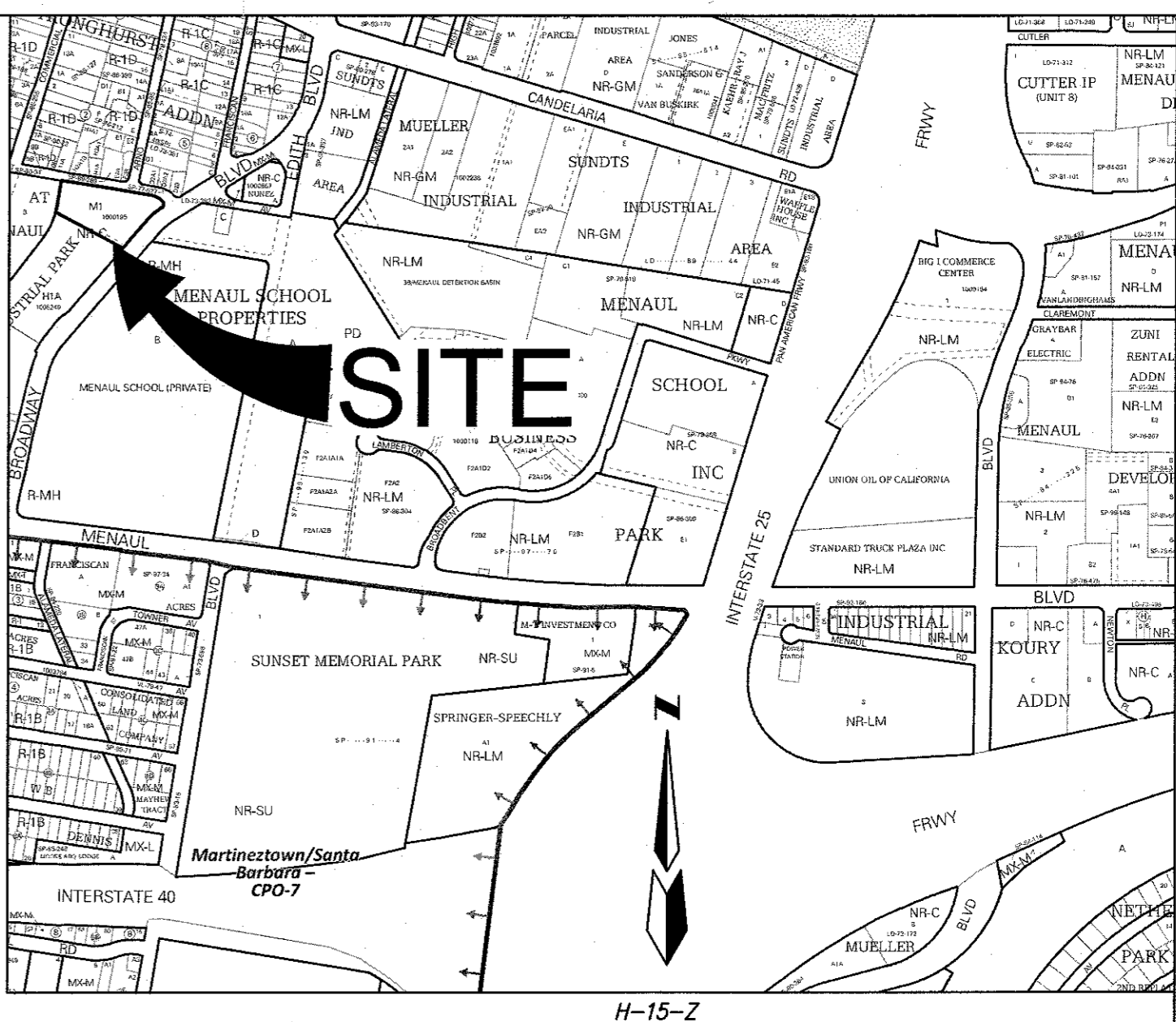




REVISIONS

DRAWN BY
REVIEWED BY
DATE 9/20/18
PROJECT NO. 18-0057.001
DRAWING NAME
DRAINAGE PLAN

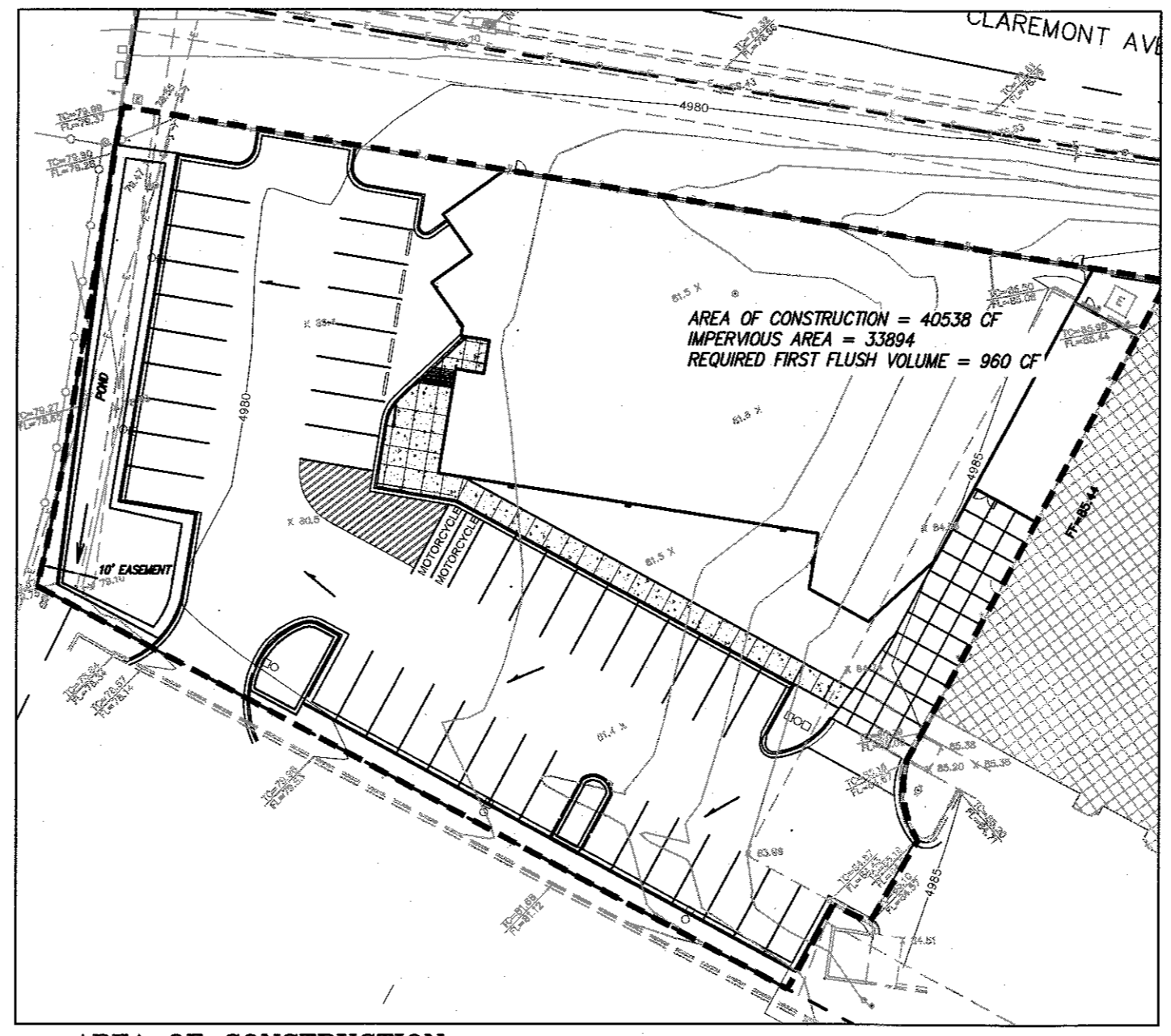


NARRATIVE DESCRIPTION

THE SITE IS LOCATED WITHIN THE GATEWAY INDUSTRIAL PARK FOR WHICH A CONCEPTUAL MASTER DRAINAGE PLAN WAS PREPARED BY MARK GOODWIN AND ASSOCIATES (YEAR 2000). TO THE NORTH OF THE SITE IS CLAREMONT AVENUE AND BROADWAY. TO THE SOUTH IS AN ADJACENT PROPERTY ALSO WITHIN THE GATEWAY INDUSTRIAL PARK THAT APPEARS TO BE MOSTLY ROOFED AND PAVED AREA. TO THE WEST OF THE SITE IS A LARGE CITY DETENTION POND.

THE SITE, WEST OF THE BUILDING TO BE EXPANDED, IS CURRENTLY UNDEVELOPED LAND WHICH SLOPES TO THE WEST TOWARDS THE DETENTION POND TO AN EXISTING ASPHALT CURB AND GUTTER WHICH CURRENTLY DIVERTS EXISTING ROOFTOP FLOW, UNDEVELOPED FLOW, AND A SMALL PORTION OF EXISTING PAVEMENT FLOW TO A LOW SPOT AT THE SOUTH END AND INTO A PRIVATE DRAINAGE EASEMENT ON THE ADJACENT PROPERTY TO THE SOUTH.

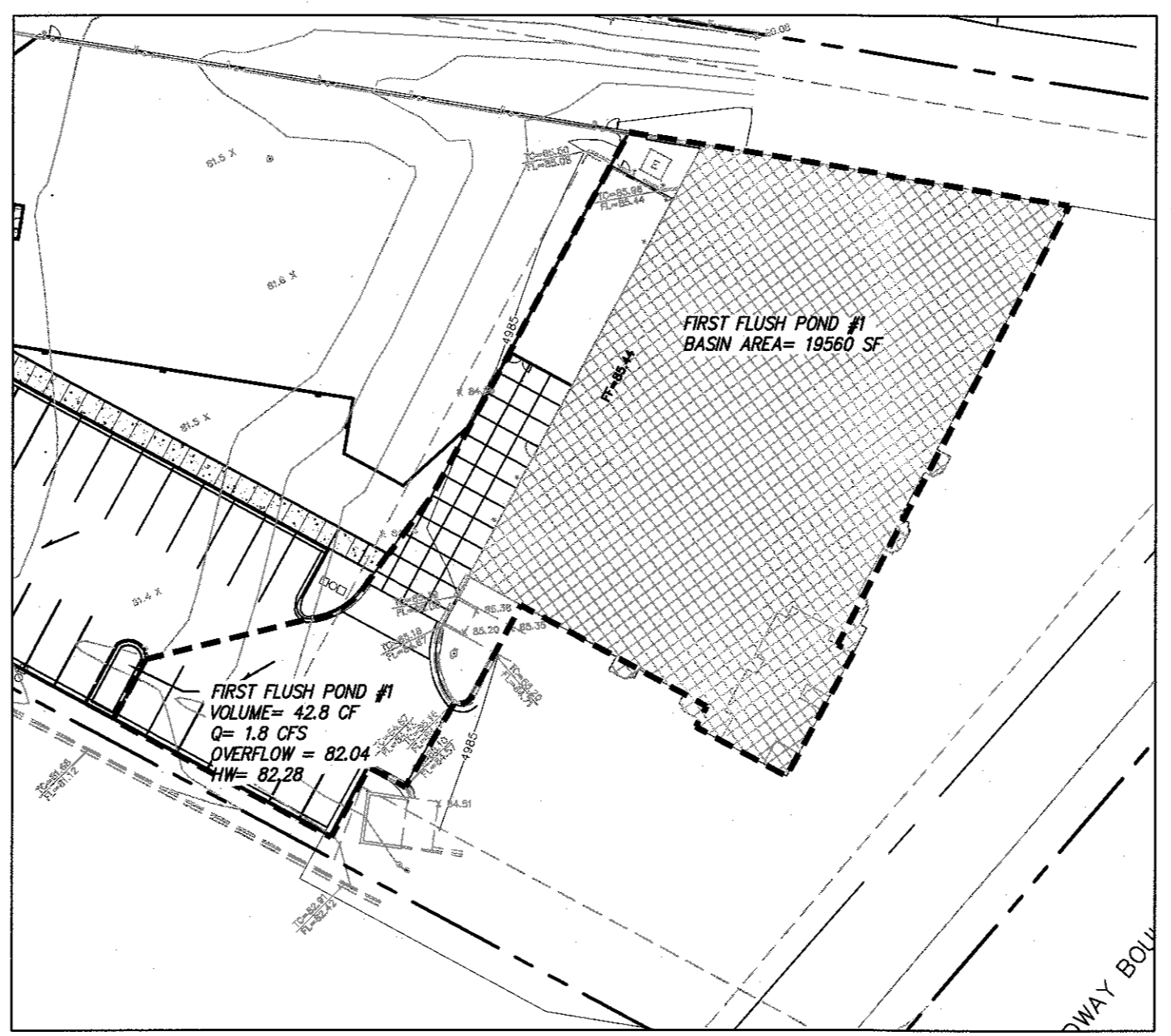
PROPOSED GRADING WILL MAINTAIN THE ORIGINAL FLOW DIRECTIONS AND WILL BE CLOSE TO EXISTING GRADES. THE GRADING WILL DIVERT FLOW TO A SERIES OF THREE FIRST FLUSH PONDS, THE LAST BEING THE WESTERN MOST, AND LARGEST FIRST FLUSH POND. A NEW CUT OFF WALL WILL BE CONSTRUCTED AT THE WEST SIDE OF THE POND, WITH TOP OF CURB ELEVATIONS CONSTRUCTED TO THE ORIGINAL ELEVATIONS OF THE ASPHALT CURB AND GUTTER TO BE REMOVED.



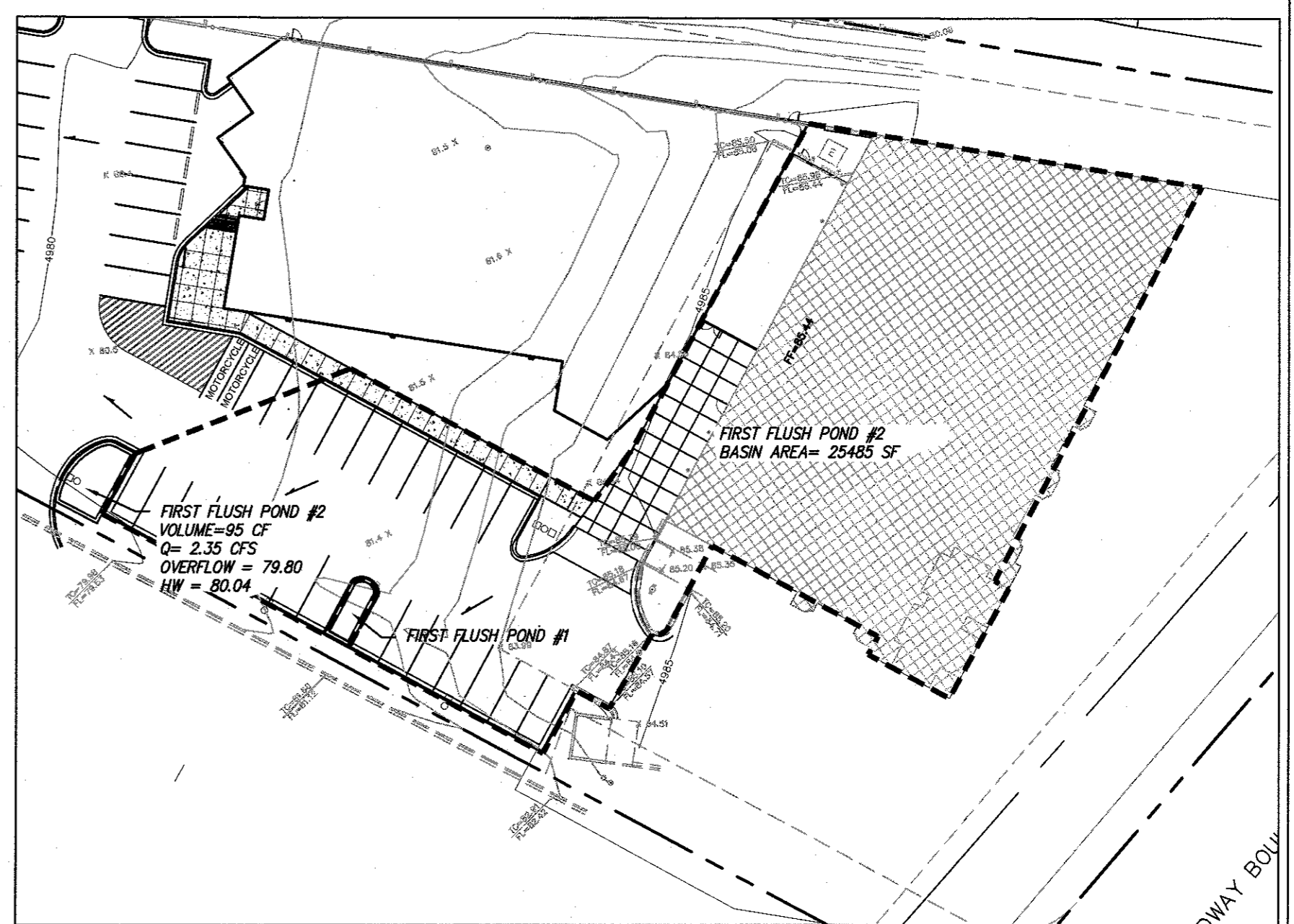
Area of Construction:	SF	AC	SQ MI
	40538	0.9306	0.001454
Impervious	Proposed (SF)		
	33894	Landscape	6644

FIRST FLUSH NOTES

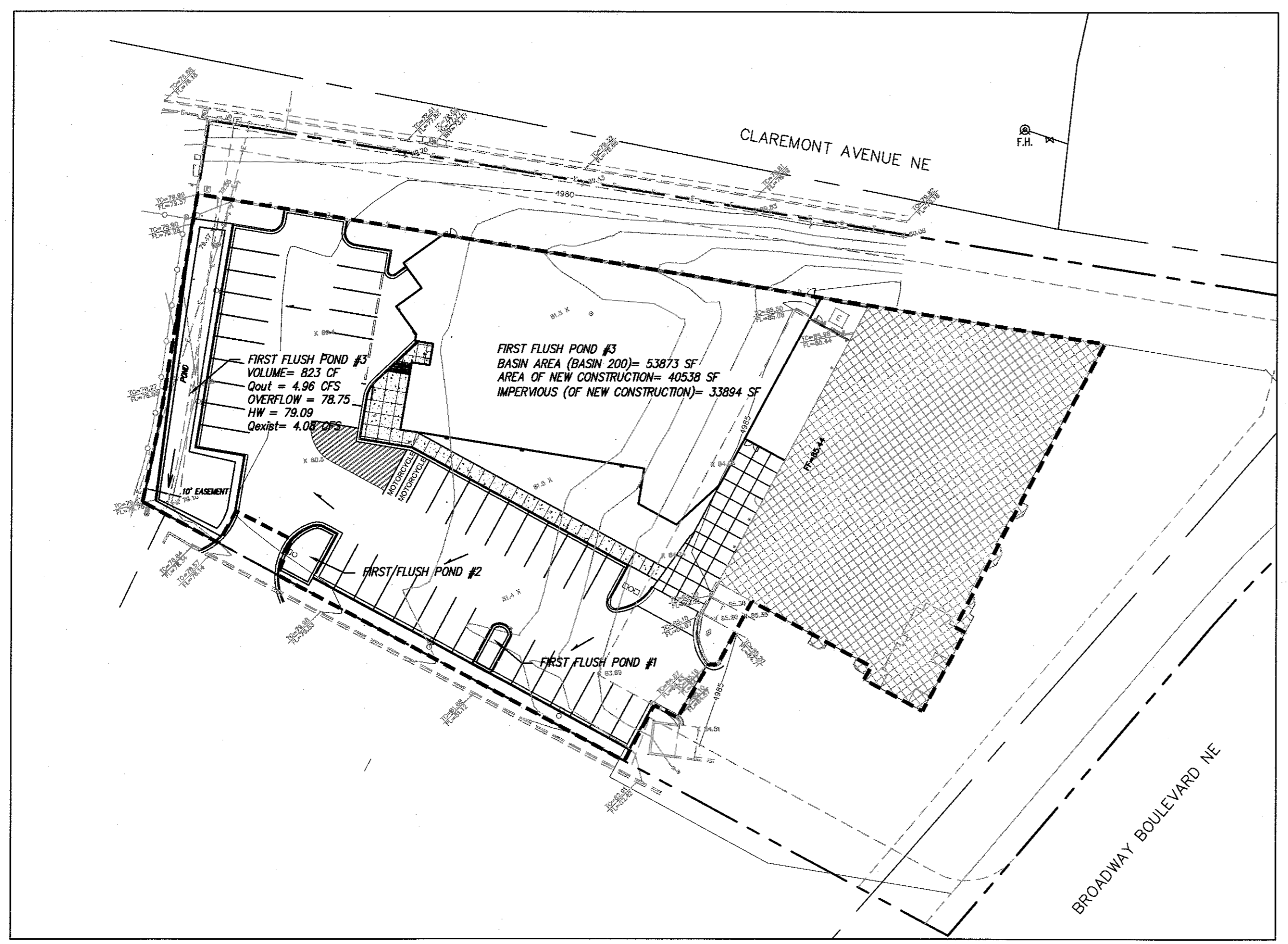
THE NEW CONSTRUCTION IS SUCH THAT FIRST FLUSH FROM EXISTING IMPERVIOUS AREA IS AVAILABLE FROM HIGHER ELEVATIONS. THOUGH NOT REQUIRED TO CAPTURE, IT IS COLLECTED AND CREDITED TOWARDS THE FIRST FLUSH CAPTURE REQUIREMENT. FIRST FLUSH IS CAPTURED THROUGH A SERIES OF FIRST FLUSH PONDS: #1, #2, AND #3. AS THE LARGEST, WESTERN MOST FIRST FLUSH POND IS LOCATED AT THE NATURAL LOW POINT AND AT THE DISCHARGE OF THE SITE, AND THERE IS ADEQUATE AREA FOR FULL CAPTURE WITH A .43' DEEP POND; THE FIRST FLUSH REQUIREMENT IS FULLY CAPTURED.



FIRST FLUSH POND #1 BASIN



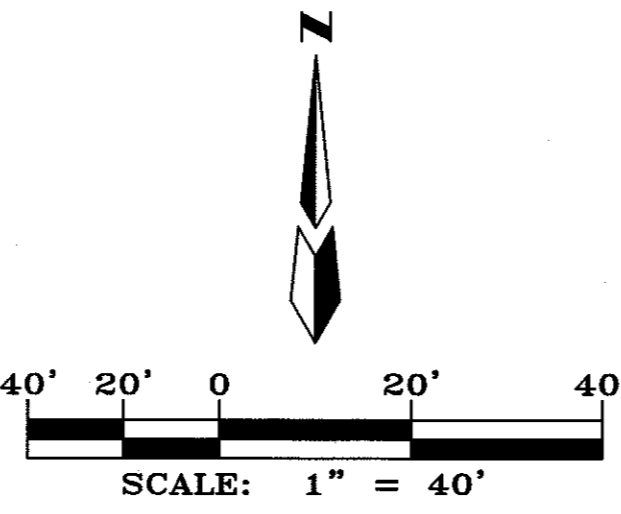
FIRST FLUSH POND #2 BASIN



SITE BASIN (BASIN 200, FIRST FLUSH POND #3 BASIN)

DRAINAGE REPORT

THE GATEWAY INDUSTRIAL PARK CONCEPTUAL MASTER DRAINAGE PLAN ALLOWED FOR UNRESTRICTED DISCHARGE INTO THE ADJACENT CITY DETENTION POND. THE DEVELOPED DISCHARGE INDICATED BY THE 2009 GRADING PLAN FOR THE SITE (JOHN ARTHUR BLESSEN, STAMP DATE APRIL 4, 2009) WAS 5.1 CFS. THE EXISTING DISCHARGE INCLUDING THE EXISTING ROOF TOP AND SMALL PORTION OF EXISTING PAVEMENT IS EVALUATED AT 4.08 CFS USING AHYMO-S4. WITH PROVISION OF FIRST FLUSH CAPTURE, RAINFALL WAS REDUCED BY THE SPREAD OF THE FIRST FLUSH CAPTURE OVER THE SITE BASIN AREA (BASIN 200). THIS YIELDED SITE DISCHARGE FROM THE PROPOSED DEVELOPMENT TO BE ESTIMATED AT 4.96 CFS. THE CALCULATIONS ARE AS FOLLOWS:



Pond #1 Wier	First Flush Basin Pond #1	19560 (SF)	Basin 101	53873 (SF)	Flow by Proportion	1.80 (C Wier Depth (FT))	Width	0.24
							Weir Coeff	3
							Weir Discharge	1.83 (CFS)
Pond #2 Wier	First Flush Basin Pond #2	25485 (SF)	Basin 101	53873 (SF)	Flow by Proportion	2.35 (C Wier Depth (FT))	Width	0.24
							Weir Coeff	4
							Weir Discharge	2.45 (CFS)
Pond #3 Wier	First Flush Basin Pond #3	960 (SF)	Basin 101	53873 (SF)	Flow	4.96 (C Wier Depth (FT))	Width	0.34
							Weir Coeff	5
							Weir Discharge	5.15 (CFS)

AHYMO INPUT FILE (18022 IN A.TXT)
START 0.0 HOURS PC=0 PL=-1
LOCATION ALBUQUERQUE
*S ABC -18022
*S ONSITE PROPERTY RUNOFF FOR EXIST TO PROP COMPARISON
*S By Cory Pierce
RAINFALL TYPE=1 0.0 1.84 2.38 2.77 DT=0.01
*Existing Conditions Basin 100
SEDIMENT BULK CODE=1 BULK FACTOR = 1.18
COMPUTE NM HYD ID=2 HYD=100 AREA=0.00193 SQ MI
A B C D 36 36 0 28
TP=0.13333 MASSRAIN=-1
ID=2 CODE=1
PRINT HYD
*Proposed Conditions Basin 200
SEDIMENT BULK CODE=1 BULK FACTOR = 1.06
RAINFALL TYPE=1 0.0 1.63 2.17 2.56 DT=0.01
COMPUTE NM HYD ID=3 HYD=200 AREA=0.00193 SQ MI
A B C D 0 6 88
TP=0.13333 MASSRAIN=-1
ID=3 CODE=1
PRINT HYD
FINISH

(s16.66H
AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =09/20/2018
INPUT FILE = F:\1-Projects\2018\18022 - ABC Building Expansion\Drainage\18022_IN_A.txt USER NO.= M-Goodwin\MSiteA90075759

COMMAND	HYDROGRAPH IDENTIFICATION	FROM NO.	TO NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE	NOTATION
START	ALBUQUERQUE									1	
COMPUTE NM HYD		100.00	-	2	0.00193	4.08	0.138	1.34010	1.530	3.300	RAIN6= 2.390 PK BF = 1.18 PER IMP= 28.00
COMPUTE NM HYD		200.00	-	3	0.00193	4.96	0.194	1.88694	1.530	4.013	RAIN6= 2.170 PER IMP= 88.00

*BASIN 100 IS BASIN 200 IN EXISTING CONDITIONS