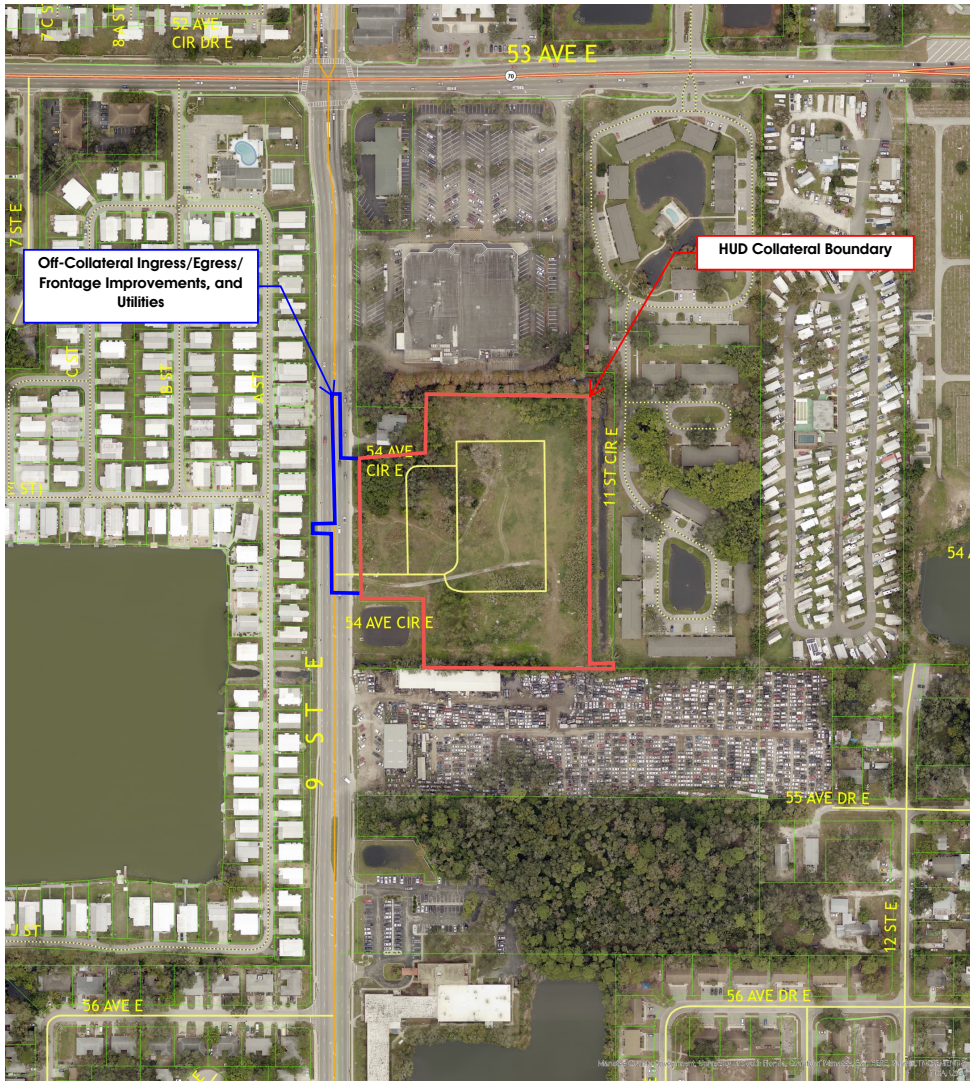
Appendix A

Site Maps and Site Photographs

Tax Map



User Notes:

Generated on Thu Mar 27 2025 14:35:17 GMT-0400 (Eastern Daylight Time)

Appendix A Tax Map	↑ N	Proposed Ninth Street Apartments 5420 10th Lane East Bradenton, Florida *Parcel ID #5742000109*	**DOMINION DUE DILIGENCE GROUP**

PRC | TRM | TXB

Parcel ID: 5742000109
Ownership: CARR LANDING BRADENTON LLC
Owner Type: CORPORATION
Mailing Address: CARR LANDING BRADENTON LLC, 5801 ULMERTON RD STE 200, CLEARWATER FL 33760

Situs Address: 5420 10TH LN E, BRADENTON, FL 34203
Jurisdiction: UNINCORPORATED MANATEE COUNTY
Tax District: 0303; SOUTHERN MANATEE FIRE & RESCUE DISTRICT
Sec/Twp/Rge: 13-35S-17E
Neighborhood: 3321; PRIDE PARK AREA MF E OF 9TH ST E
Short Description: THE W 360 FT OF S 480 FT OF SW1/4 OF NW1/4 OF NE1/4, WITH EASMT FOR PURPOSE OF IN- GRESS & EGRESS BEING THE W 30 FT OF N 180 FT OF SW1/4 OF NW1/4 OF NE1/4, & W 30 FT OF NW1/4 OF

FEMA Value: $0 as of January 1, 2024
Zoning/Flood Info: View this parcel on Manatee County's website
Land Use: 0000; VACANT RESIDENTIAL PLATTED
Land Size: 6.6240 Acres or 288,541 Square Feet

MAP | OBL | EST

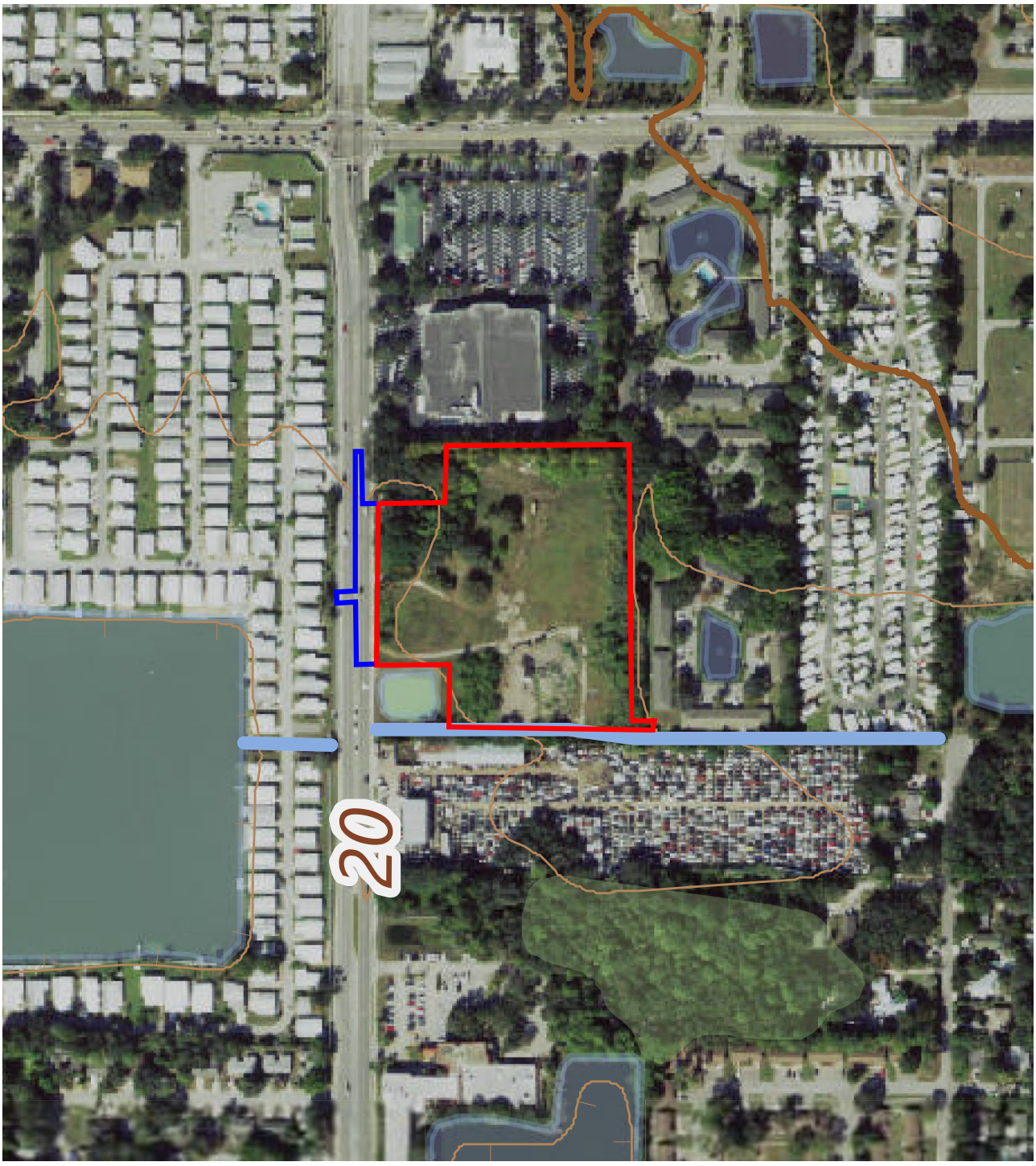
PIC | SKE | BEV | GSV

SLS | EXM | BUS | ADR | INS

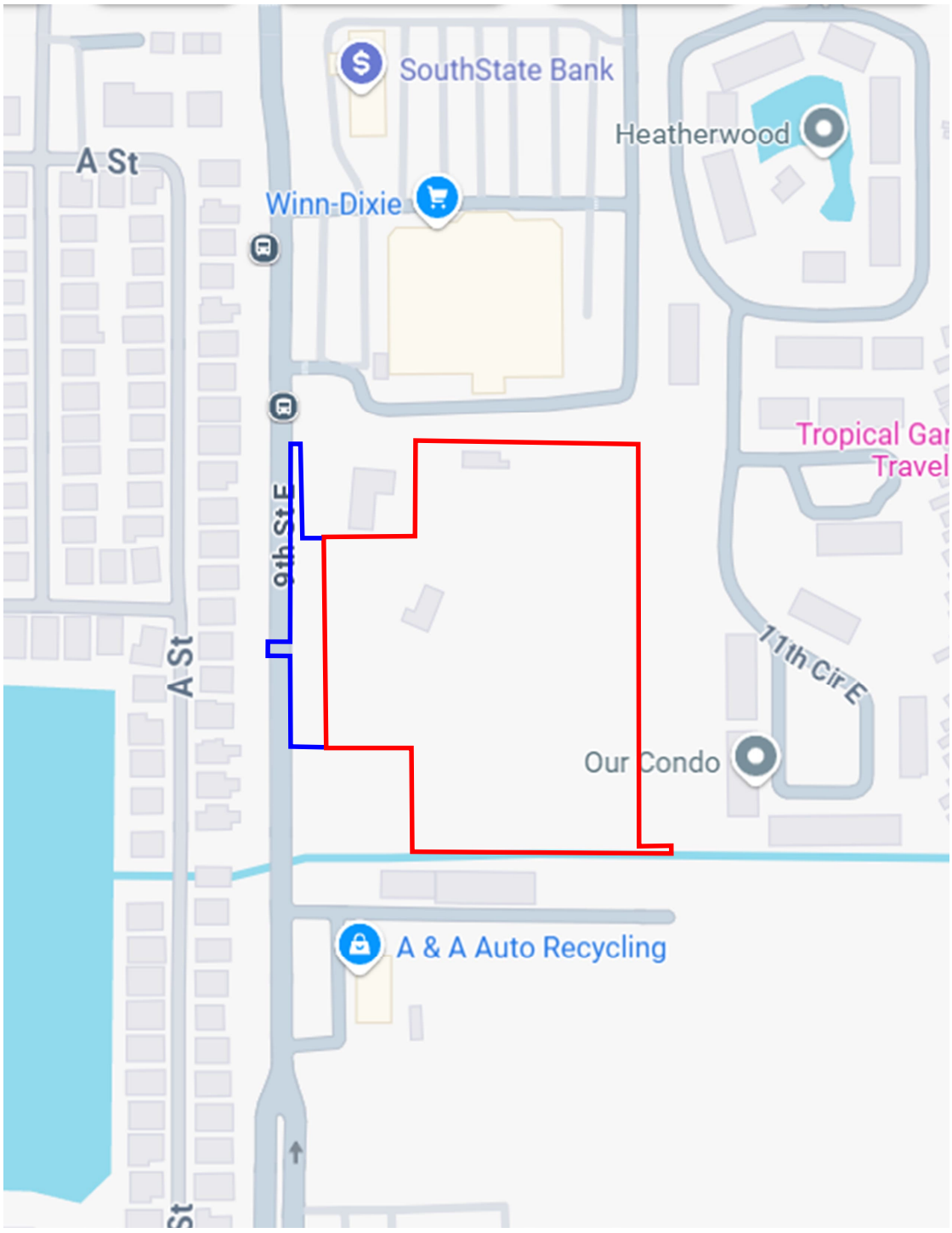
Sale Date	Book / Page Instrument	Instrument Type	Vacant / Improved	Qualification Code	Sale Price	Grantee		
09/12/2022		202241114911		WD	V	01	1,171,000	CARR LANDING BRADENTON LLC

VAL | LND | BLD | FEA | PER

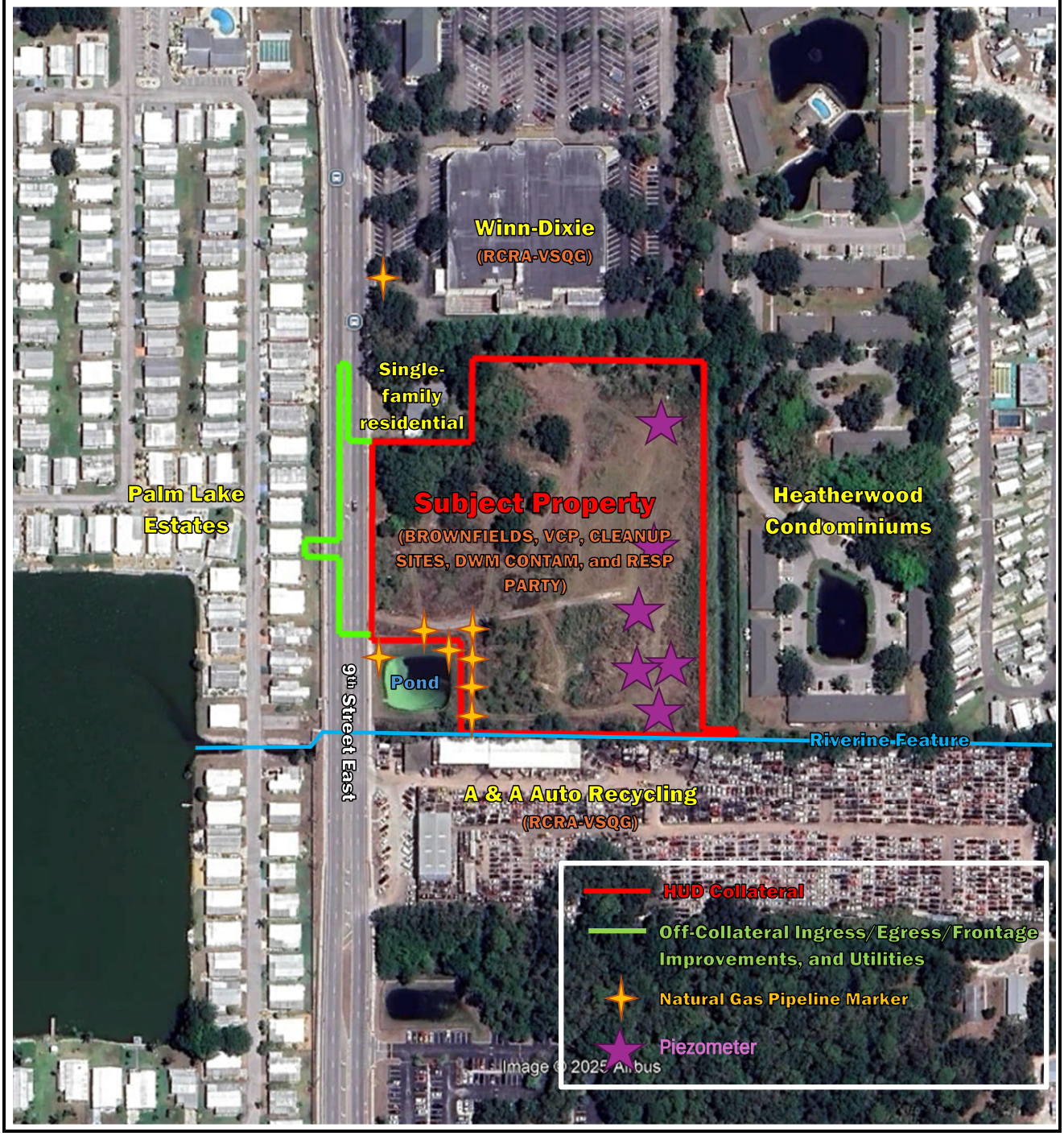
Tax Year	Homestead Exemption	Land Value	Improvements Value	Just/Market Value	Non-School Assessed Value	School Assessed Value	County Taxable Value	School Taxable Value	Municipality Taxable Value	Ind. Spc. Dist Taxable Value	Ad Valorem Taxes	Non-Ad Valorem Taxes			
2024		No		929,016		0	929,016		929,016	929,016	929,016	929,016		929,016	13,542.36	11.33
2023		No		929,016		0	929,016		929,016	929,016	929,016	929,016		929,016	13,855.34	10.54
2022		No		331,200		0	331,200		331,200	331,200	331,200	331,200		331,200	4,980.15	9.88
2021		No		331,200		0	331,200		331,200	331,200	331,200	331,200		331,200	5,156.18	9.25
2020		No		310,003		0	310,003		310,003	310,003	310,003	310,003		310,003	4,865.29	8.76
2019		No		310,003		68,977	378,980		378,980	378,980	378,980	378,980		378,980	6,012.19	241.67
2018		No		400,000		68,233	468,233		468,233	468,233	468,233	468,233		468,233	7,527.08	244.27



Appendix A Site Topographic Map	↑ N	Proposed Ninth Street Apartments 5420 10th Lane East Bradenton, Florida *Topographic Quadrangle:* *Bradenton, Florida 2024*	**DOMINION DUE DILIGENCE GROUP**



Appendix A Site Locator Map	↑ N	Proposed Ninth Street Apartments 5420 10th Lane East Bradenton, Florida	**DOMINION DUE DILIGENCE GROUP**



Appendix A Site Plan	↑ N	Proposed Ninth Street Apartments 5420 10th Lane East Bradenton, Florida	**DOMINION DUE DILIGENCE GROUP**

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

– – LEGEND – –

(M)=Measured
●=Iron Rod Found(IRF)
○=Iron Rod Set(IRS)#6667
●=Iron Pipe Found (IPF)
PRC=Point of Reverse Curve
R = Radial (P)=Plat
PCC=Point of Compound Curve
CMF=Concrete Monument Found
CMS=Concrete Monument Set #6667
PRM=Permenent Reference Monument

(D)=Deed
TBM=Temporary Bench Mark
POB=Point Of Beginning
R/W=Right Of Way
POC=Point Of Commencement
PC=Point Of Curve
=Water Flow
N&D=Nail and Disc
=Proposed Elevation
0.00'=Existing Elevation

BC=Back of Curb
FL=Flow Line
EP=Edge of Pavement

= Jacaranda Tree
= Not to scale

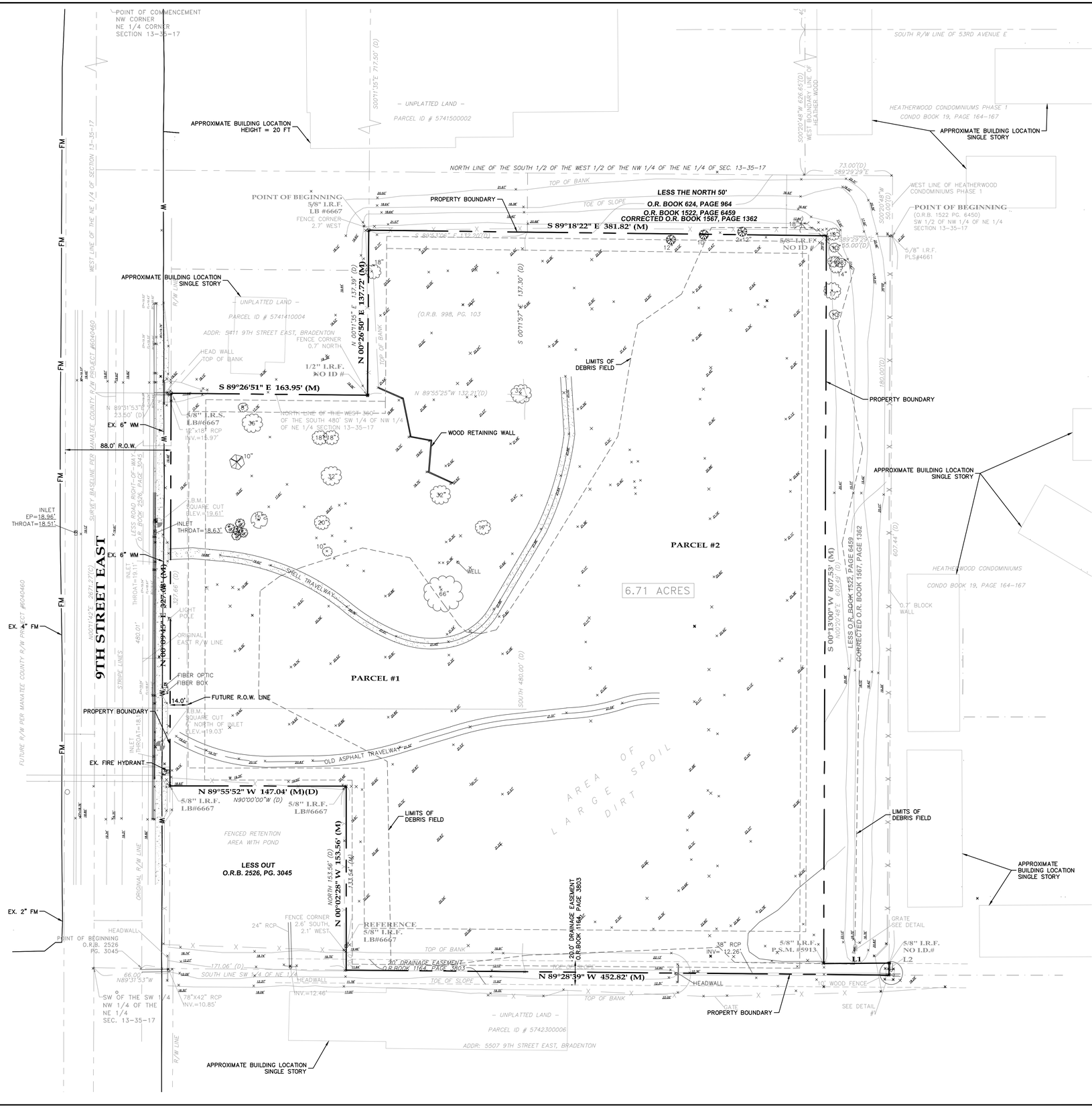
= Unknown Tree
= Chinaberry Tree
= Fig Tree
= Australia Pine
= Oak Tree
= Bottle Brush Tree
= Pine Tree

LEGAL DESCRIPTION:

THE W 360 FEET OF S 480 FEET OF SW 1/4 OF NW 1\4 OF NE 1/4, SECTION 13, TOWNSHIP 35 S, RANGE 17 E, MANATEE COUNTY, FLORIDA, TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS TO ONECO ROAD BEING THE W 30 FEET OF N 180 FEET OF SW 1/4 OF NW 1\4 OF NE 1/4, AND W 30 FEET OF NW 1/4 OF NW 1/4 OF NE 1/4, ALL IN SECTION 13, TOWNSHIP 35 S, RANGE 17 E, DESCRIBED IN OFFICIAL RECORDS BOOK 126, PAGE 527, PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, LESS W 40 FEET FOR ROAD RIGHT OF WAY; ALSO:

COMMENCE AT NW CORNER OF NE 1/4 OF SECTION 13; THENCE S 89° 50' 47" E 227.90 FEET; THENCE S 00° 11' 35" E. 717.50 FOR A POINT OF BEGINNING, THENCE S 89° 53' 06" E 132.20 FEET; THENCE S 00° 11' 57" E 137.30 FEET; THENCE N 89° 55' 25" W 132.31 FEET; THEN N 00° 11' 35" W 137.39 FEET TO POINT OF BEGINNING (OFFICIAL RECORDS BOOK 998, PAGE 103); ALSO LESS THE PROPERTY DESCRIBED IN OFFICIAL RECORDS BOOK 2526, PAGE 3045 FOR ROAD RIGHT OF WAY DESCRIBED AS FOLLOWS: A PARCEL OF LAND LYING IN THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SECTION 13, TOWNSHIP 35 , RANGE 17, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE SW CORNER OF THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SAID SECTION 13 AND RUN S 89° 31' 53" E ALONG THE S LINE OF THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SAID SECTION 13, A DISTANCE OF 40.00 FEET TO A POINT ON THE EXISTING RIGHT OF WAY LINE OF 9TH STREET E, SAID POINT BEING THE POINT OF BEGINNING; THENCE CONTINUE S 89° 31' 53" E ALONG SAID S LINE, A DISTANCE OF 171.06 FEET; THEN RUN N 00° 00' 00" E, A DISTANCE OF 153.56 FEET; THENCE N 90° 00' 00" W. A DISTANCE OF 147.04 FEET; THENCE RUN N 00° 11' 42" E ALONG A LINE THAT IS 23.50 FEET E. OF AND PARALLEL TO SAID EXISTING E RIGHT OF WAY LINE, A DISTANCE OF 327.66 FEET TO A POINT ON THE N LINE OF THE W 360 FEET OF THE S 480 FEET OF THE SW 1/4 OF THE NE 1/4 OF SAID SECTION 13; THENCE RUNNING N 89° 31' 53" W ALONG SAID N LINE, A DISTANCE OF 23.50 FEET TO A POINT ON SAID EXISTING RIGHT OF WAY LINE; THENCE RUNNING S 00° 11' 42" W ALONG SAID E RIGHT OF WAY LINE, A DISTANCE OF 480.01 FEET TO THE POINT OF BEGINNING.

THE S 1/2 OF W 1/2 OF NW 1/4 OF NE 1/4 OF SECTION 13, TOWNSHIP 35 SOUTH, RANGE 17 EAST, MANATEE COUNTY, FLORIDA, LESS THE W 360 FEET, ALSO LESS THE PROPERTY DESCRIBED IN OFFICIAL RECORDS BOOK 1522, PAGE 6459 CORRECTED BY OFFICIAL RECORDS BOOK 1567, PAGE 1362) PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS: COMMENCE AT THE NE CORNER OF THE E 1/2 OF THE NW 1/4 OF NW 1/4 OF THE NE 1/4 OF SECTION 13, A DISTANCE OF 73.00 FEET TO THE INTERSECTION OF THE WESTERLY BOUNDARY OF HEATHERWOOD CONDOMINIUM, PHASE I, THENCE S 00° 20' 48" W ALONG SAID BOUNDARY, A DISTANCE OF 40.88 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF 53RD AVENUE E; THENCE CONTINUE S 00° 20' 48" W ALONG SAID W BOUNDARY OF SAID HEATHERWOOD CONDOMINIUM, A DISTANCE OF 626.65 FEET; THENCE S 89° 29' 29" E A DISTANCE OF 73.00 FEET TO THE W BOUNDARY OF HEATHERWOOD CONDOMINIUM, PHASE 2, THENCE ALONG SAID W BOUNDARY S 00° 20' 48" W, A DISTANCE OF 50 FEET TO THE POB, THENCE ALONG SAID W BOUNDARY OF HEATHERWOOD CONDOMINIUM, PHASE 2, A DISTANCE OF 607.44 FEET TO A POINT 50.00 FEET N OF THE S BOUNDARY OF THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SAID SECTION 13, THENCE RUN N 89° 32' 22" W ALONG A LINE 10.00 FEET N OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SW 1/4 OF THE NW 1/4 OF THEN E 1/4 OF SECTION 13, A DISTANCE OF 55.00 FEET,THENCE N 00° 20' 48" E, A DISTANCE OF 607.49 FEET TO A POINT 50.00 FEET S OF THE SOUTH BOUNDARY OF THE NW 1/4 OF THE NW 1/4 OF THE NE 1/4, OF SAID SECTION 13, THENCE ALONG A LINE 50.00 FEET S OF AND PARALLEL TO THE SAID SOUTH BOUNDARY, S 89° 29' 29" E, A DISTANCE OF 55.00 FEET TO THE E POINT OF BEGINNING, AND THE N 50,00 FEET OF THE S 1/2 OF THE W 1/2 OF THE NW 1/4 OF THE NE 1/4 OF SECTION 13, LESS THE W 360 FEET.



PROJECT DATUM: NAVD88

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PREFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

Plotted By: Windham, Jackson Sheet Set: ECG BRADENTON CONSTRUCTION PLAN SET — 045958008 Layout: C-200 EXISTING CONDITIONS April 14, 2025 08:01:56am K:\SAR_Civil\045958008 - ECG Bradenton Multifamily\CAD\PlanSheets\Construction Plan Sheets\A-3 EXISTING CONDITIONS.dwg

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

KHA PROJECT 045958008
DATE FEBRUARY 2025
DESIGNED BY ——
DRAWN BY ——
CHECKED BY ——

EXISTING CONDITIONS

9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP FLORIDA
MANATEE COUNTY

SHEET NUMBER
C-200

DESCRIPTION:

THE W 360 FEET OF S 480 FEET OF SW 1/4 OF NW 1/4 OF NE 1/4, SECTION 13, TOWNSHIP 35 S, RANGE 17 E, MANATEE COUNTY, FLORIDA, TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS TO ONECO ROAD BEING THE W 30 FEET OF N 180 FEET OF SW 1/4 OF NW 1/4 OF NE 1/4, AND W 30 FEET OF NW 1/4 OF NW 1/4 OF NE 1/4, ALL IN SECTION 13, TOWNSHIP 35 S, RANGE 17 E, DESCRIBED IN OFFICIAL RECORDS BOOK 126, PAGE 527, PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, LESS W 40 FEET FOR ROAD RIGHT OF WAY; ALSO: COMMENCE AT NW CORNER OF NE 1/4 OF SECTION 13; THEN S89°50'47" E 227.90 FEET; THENCE S00°11'35" E 717.50 FOR A POINT OF BEGINNING, THENCE S 89°53'06 E 132.20 FEET; THENCE S00°11'57"E 137.30 FEET; THENCE N89°55'25"W 132.32 FEET; THENCE N 00° 11' 35" W 137.39 FEET TO POINT OF BEGINNING (OFFICIAL RECORDS BOOK 998, PAGE 103); ALSO LESS THE PROPERTY DESCRIBED IN OFFICIAL RECORDS BOOK 2526, PAGE 3045 FOR ROAD RIGHT OF WAY DESCRIBED AS FOLLOWS: A PARCEL OF LAND LYING IN THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SECTION 13, TOWNSHIP 35, RANGE 17, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE SW CORNER OF THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SAID SECTION 13 AND RUN S89°31'53" E ALONG THE S LINE OF THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SAID SECTION 13, A DISTANCE OF 40.00 FEET TO A POINT ON THE EXISTING RIGHT OF WAY LINE OF 9TH STREET E, SAID POINT BEING THE POINT OF BEGINNING; THENCE CONTINUE S 89°31'53" E ALONG SAID S LINE, A DISTANCE OF 171.06 FEET; THENCE RUN N00°00'00"E, A DISTANCE OF 153.56 FEET; THENCE N90°00'00" W, A DISTANCE OF 147.04 FEET; THENCE RUN N00°11'42" E ALONG A LINE THAT IS 23.50 FEET E OF AND PARALLEL TO SAID EXISTING E RIGHT OF WAY LINE, A DISTANCE OF 327.66 FEET TO A POINT ON THE N LINE OF THE W 360 FEET OF THE S 480 FEET OF THE SW 1/4 OF THE NW 1/4 OF THE NE 1/4 OF SAID SECTION 13; THENCE RUNNING N89°31'53" W ALONG SAID N LINE, A DISTANCE OF 23.50 FEET TO A POINT ON SAID EXISTING RIGHT OF WAY LINE; THENCE RUNNING S 00°11'42" W ALONG SAID E RIGHT OF WAY LINE, A DISTANCE OF 480.01 FEET TO THE POINT OF BEGINNING.

THE S 1/2 OF W 1/2 OF NW 1/4 OF NE 1/4 OF SECTION 13, TOWNSHIP 35 S, RANGE 17 E, MANATEE COUNTY, FLORIDA, LESS THE W 360 FEET, ALSO LESS THE PROPERTY DESCRIBED IN OFFICIAL RECORDS BOOK 1522, PAGE 6459 (CORRECTED BY OFFICIAL RECORDS BOOK 1567, PAGE 1362), PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTHEAST CORNER OF THE EAST ½ OF THE NORTHWEST ¼ OF THE NORTHWEST ¼ OF THE NORTHEAST ¼ OF SECTION 13, A DISTANCE OF 73.00 FEET TO THE INTERSECTION OF THE WESTERLY BOUNDARY OF HEATHERWOOD CONDOMINIUMS, PHASE 1; THENCE S00°20'48" WEST ALONG SAID BOUNDARY, A DISTANCE OF 40.88 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF 53RD AVENUE EAST, THENCE CONTINUE S00°20'48"W ALONG SAID WES BOUNDARY OF SAID HEATHER CONDOMINIUMS A DISTANCE 626.65 FEET; THENCE S89°29'29"EAST, A DISTANCE OF 73.00 FEET TO THE WEST BOUNDARY OF HEATHERWOOD CONDOMINIUMS, PHASE 2, AS RECORDED IN PLAT BOOK 19, PAGE 164 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA; THENCE ALONG SAID WEST BOUNDARY OF HEATHERWOOD CONDOMINIUMS, PHASE 2; THENCE ALONG SAID WEST BOUNDARY S00°20'48" W, A DISTANCE OF 50.00 FEET TO THE POINT OF BEGINNING; THENCE ALONG SAID WEST BOUNDARY OF HEATHERWOOD CONDOMINIUMS, PHASE 2, A DISTANCE OF 607.44 FEET TO A POINT 10.00 FEET NORTH OF THE SOUTH BOUNDARY OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF THE NORTHEAST ¼ OF SAID SECTION 13; THENCE RUN N89°32'22"W ALONG A LINE 10 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SOUTHWEST ¼ OF THE NORTHWEST ¼ OF THE NORTHEAST ¼ OF SECTION 13, A DISTANCE OF 55.00 FEET; THENCE N00°20'48"E, A DISTANCE 607.49 FEET TO A POINT 50.00 FEET SOUTH OF THE SOUTH LINE OF THE NORTHEAST ¼ OF THE NORTHEAST ¼ OF SAID BOUNDARY OF SECTION 13; THENCE ALONG A LINE 50.00 SOUTH OF AND PARALLEL TO THE SAID SOUTH BOUNDARY, S89°29'29"E, A DISTANCE OF 55.00 FEET TO THE POINT OF BEGINNING.

LEGEND

(M)=Measured
●=Iron Rod Found(IRF)
○=Iron Rod Set(IRS)#6667
●=Iron Pipe Found (IPF)
PRC=Point of Reverse Curve
R = Radial
(F)=Plat
PCC=Point of Compound Curve
CMF=Concrete Monument Found
CMS=Concrete Monument Set #6667
PRM=Permenent Reference Monument

(D)=Deed
TBM=Temporary Bench Mark
POB=Point Of Beginning
R/W=Right Of Way
POC=Point Of Commencement
PC=Point Of Curve
=Water Flow
N&D=Nail and Disc
○ =Proposed Elevation
0.00'=Existing Elevation

BC=Back of Curb
FL=Flow Line
EP=Edge of Pavement
= Jacaranda Tree
= Not to Scale

= Unknown Tree
= Chinaberry Tree
= Fig Tree
= Australia Pine
= Oak Tree
= Bottle Brush Tree
= Pine Tree

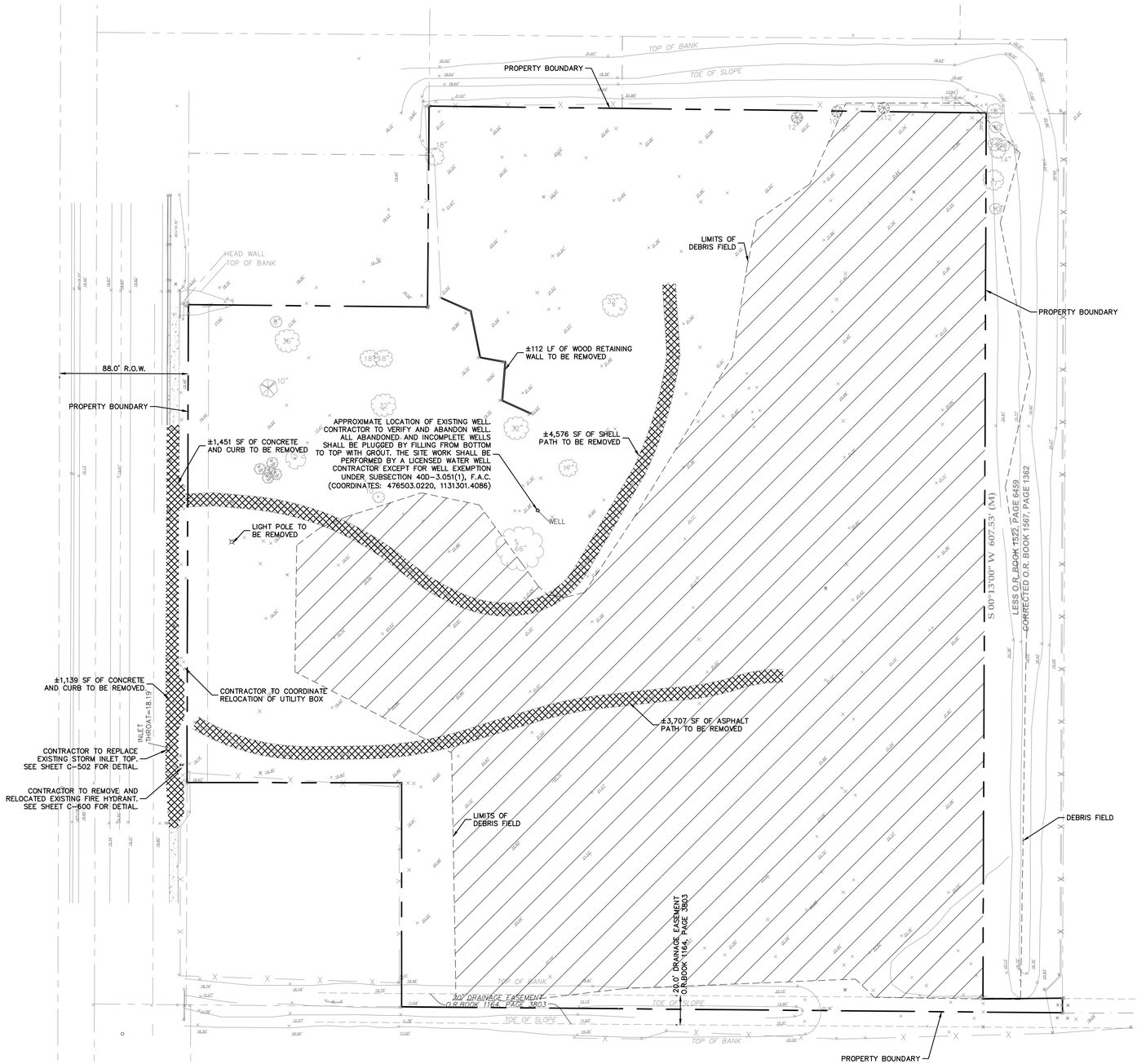
NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

LEGEND:

EXISTING ASPHALT, CONCRETE, CURB, AND SHELL PATH TO BE REMOVED

LIMITS OF BURIED DEBRIS/ CONTAMINATION. CONTRACTOR TO COORDINATE WITH ENVIRONMENTAL ENGINEER PRIOR TO THE COMMENCEMENT OF ANY SOIL REMOVAL OR CONSTRUCTION WITHIN THIS AREA.



DEMOLITION NOTES

1. THE INTENT OF THE DEMOLITION PLAN IS TO DEPICT ALL EXISTING FEATURES THAT ENCUMBER THE PROPOSED CONSTRUCTION AREA AND ARE SCHEDULED FOR REMOVAL. SOME INCIDENTAL ITEMS MAY HAVE BEEN INADVERTENTLY OMITTED FROM THE PLAN. THE CONTRACTOR IS ENCOURAGED TO THOROUGHLY INSPECT THE SITE AS WELL AS REVIEW THE PLANS AND SPECIFICATION PRIOR TO SUBMITTING PRICING. CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR INCIDENTAL ITEMS NOT SHOWN ON THIS DEMOLITION PLAN.
2. THE DEMOLITION PLAN IS BASED ON AVAILABLE UTILITY INFORMATION AND MAY OR MAY NOT BE ALL INCLUSIVE FOR THIS SITE. ANY UTILITIES ENCOUNTERED DURING DEMOLITION THAT ARE NOT DEPICTED/ADDRESSED ON THIS DRAWING SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER IMMEDIATELY.
3. CONTRACTOR IS REQUIRED TO OBTAIN ALL DEMOLITION PERMITS.
4. ALL FEATURES IDENTIFIED ON THIS PLAN WHICH ARE LISTED TO BE DEMOLISHED ARE TO BE REMOVED FROM THE SITE. AFTER DEMOLITION IS COMPLETE THE SITE SHALL BE DELIVERED IN A CONDITION SUITABLE FOR DEVELOPMENT.
5. CONTRACTOR SHALL LIMIT ALL DEMOLITION ACTIVITIES TO THOSE AREAS DELINEATED ON THE CONSTRUCTION DRAWINGS UNLESS OTHERWISE DIRECTED BY THE DEVELOPER OR AS REQUIRED FOR CONSTRUCTION OF IMPROVEMENTS.
6. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING AIRBORNE DUST AND POLLUTANTS BY USING WATER SPRINKLING OR OTHER SUITABLE MEANS OF CONTROL.
7. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC. HAUL ROUTE TO BE CLOSELY MONITORED FOR DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ROADWAYS AND WALKWAYS TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
8. INGRESS AND EGRESS, AS WELL AS SUFFICIENT PARKING SHALL BE MAINTAINED FOR ALL REMAINING BUSINESSES, TWENTY-FOUR HOURS A DAY, SEVEN DAYS A WEEK, THROUGHOUT ALL PHASES OF CONSTRUCTION.
9. CONTRACTOR TO COORDINATE WITH ALL UTILITY OWNERS PRIOR TO DEMOLITION TO ENSURE SERVICES TO THE EXISTING BUILDING(S) HAVE BEEN DISCONNECTED.
10. CONTRACTOR TO DISCONNECT WATER SERVICE TO BUILDING AT CUSTOMER SIDE OF BACKFLOW DEVICE AND INSTALL HOSE BIB FOR CONSTRUCTION WATER.
11. DEWATERING SHOULD BE ANTICIPATED AND INCLUDED IN CONTRACTORS BID.
12. ALL ASPHALT TO BE REMOVED SHALL BE SAW-CUT ADJACENT TO REMAINING IMPROVEMENTS.
13. SEE LANDSCAPE PLAN FOR TREE REMOVAL/RELOCATING AND TREE PROTECTION.
14. SEE LEGEND FOR ADDITIONAL INFORMATION.

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

PROJECT DATUM: NAVD88

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PREFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

LICENSED PROFESSIONAL
PATRICK M. HEALY, P.E.
FLORIDA LICENSE NUMBER 82351
DATE:

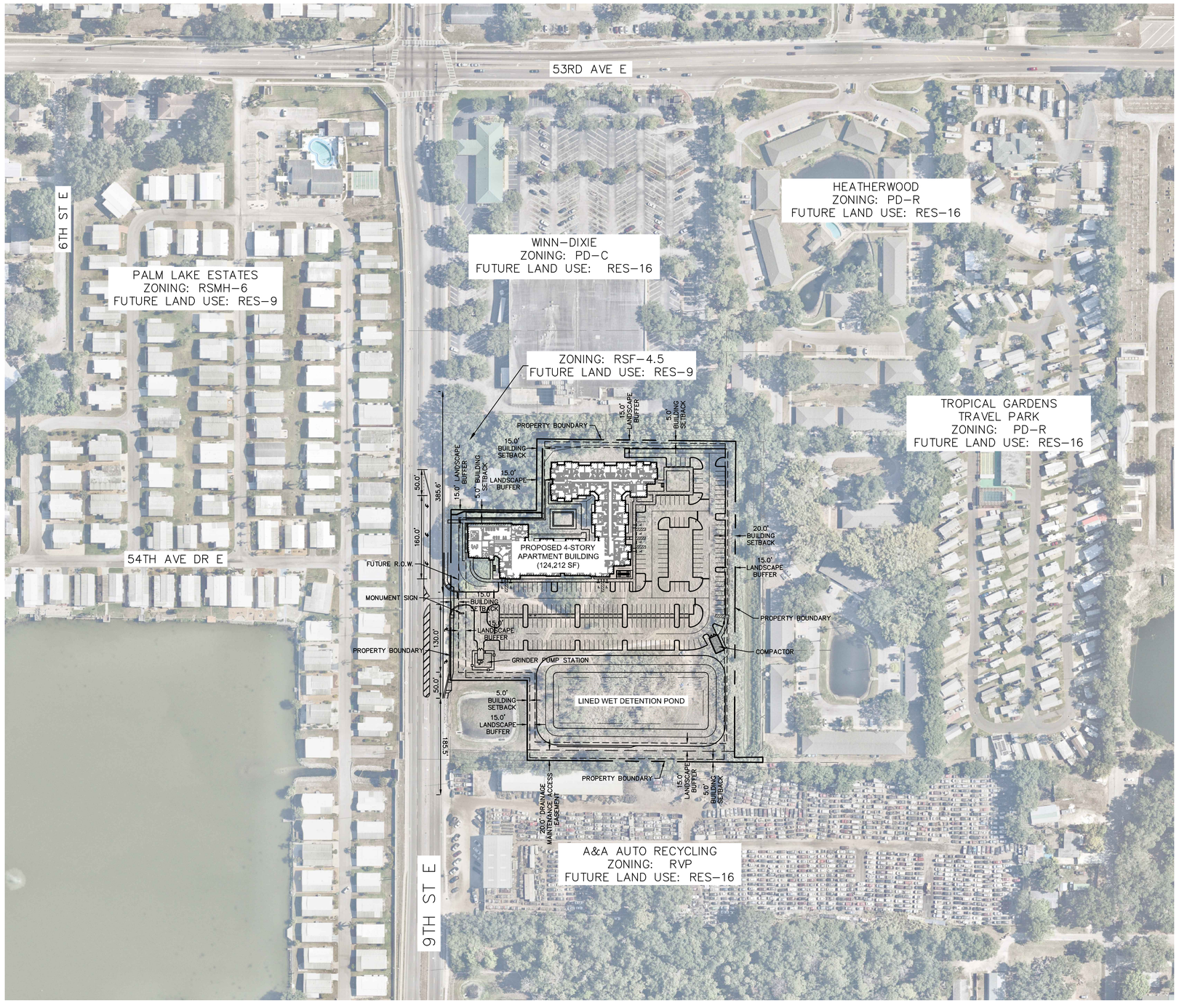
KHA PROJECT 045958008
DATE FEBRUARY 2025

DESIGNED BY
DRAWN BY
CHECKED BY

DEMOLITION PLAN

9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY FLORIDA

SHEET NUMBER
C-201



NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

PROJECT DATUM: NAVD88

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PREFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

Kimley»Horn

1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

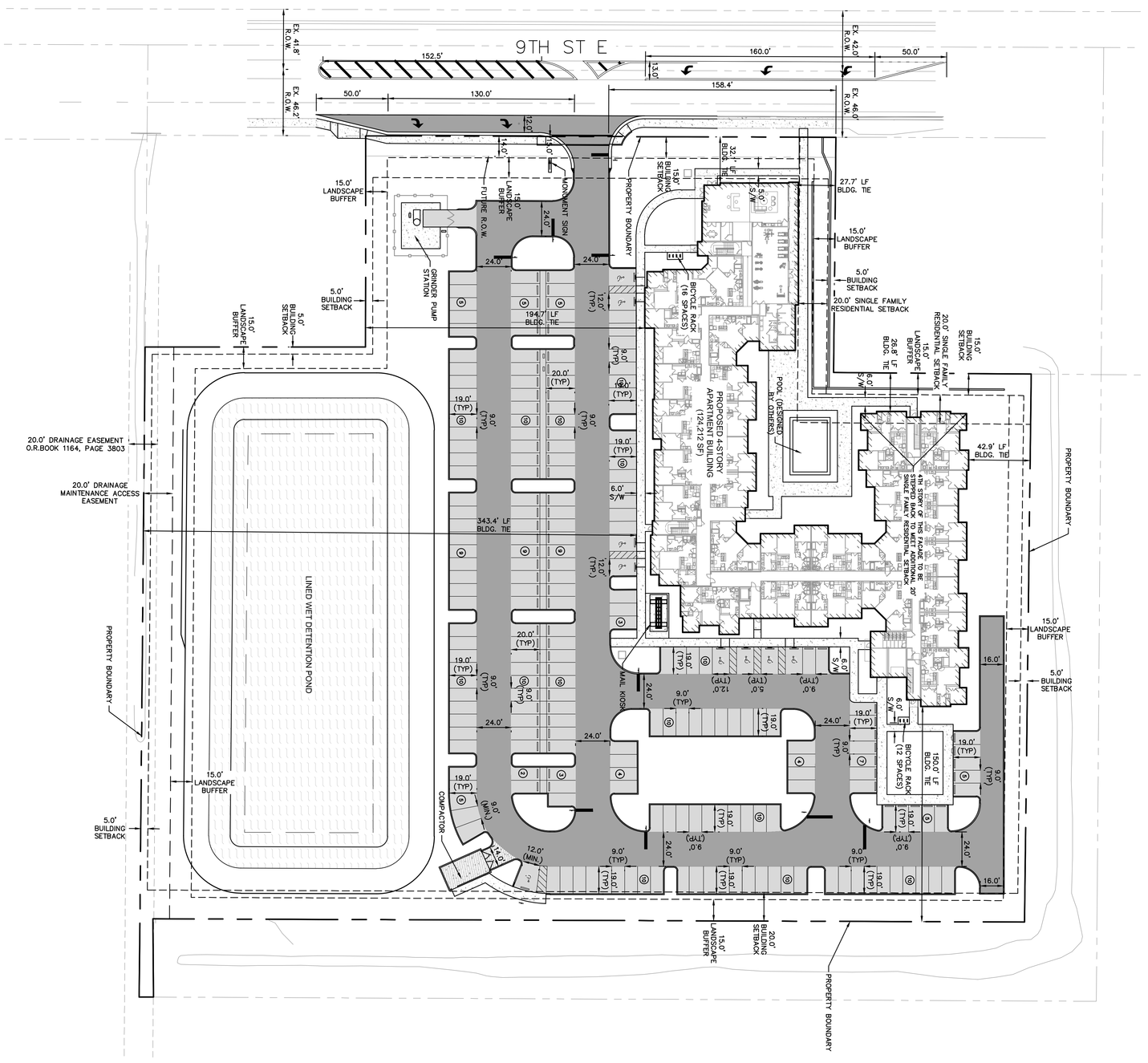
LICENSED PROFESSIONAL
PATRICK M. HEALY, P.E.
FLORIDA LICENSE NUMBER 82351
DATE:

KHA PROJECT 045958008
DATE FEBRUARY 2025
DESIGNED BY
DRAWN BY
CHECKED BY

AERIAL SITE PLAN

9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY FLORIDA

SHEET NUMBER
C-300



LAND USE TABLE		
AREA	ACRES	PERCENTAGE
BUILDING	0.94	14.0
IMPERVIOUS	2.32	34.6
POND	1.03	15.4
OPEN SPACE*	2.42	36.0
TOTAL	6.71	100

*OPEN SPACE REQUIREMENTS FROM LDC 401.4 (TABLE 4.6) REQUIRED OPEN SPACE = 20.0% (1.34 AC)

LEGEND
STANDARD DUTY ASPHALT
HEAVY DUTY ASPHALT
CONCRETE PAVEMENT
WATER SURFACE

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

CALL 2 WORKING DAYS BEFORE YOU DIG
ITS THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED BY ALL CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. ANY FIELD ADJUSTMENTS FURNISHED TO AND IN THE SITE CONSTRUCTION AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT

PROJECT DATUM: NAVD88

SHEET NUMBER C-301

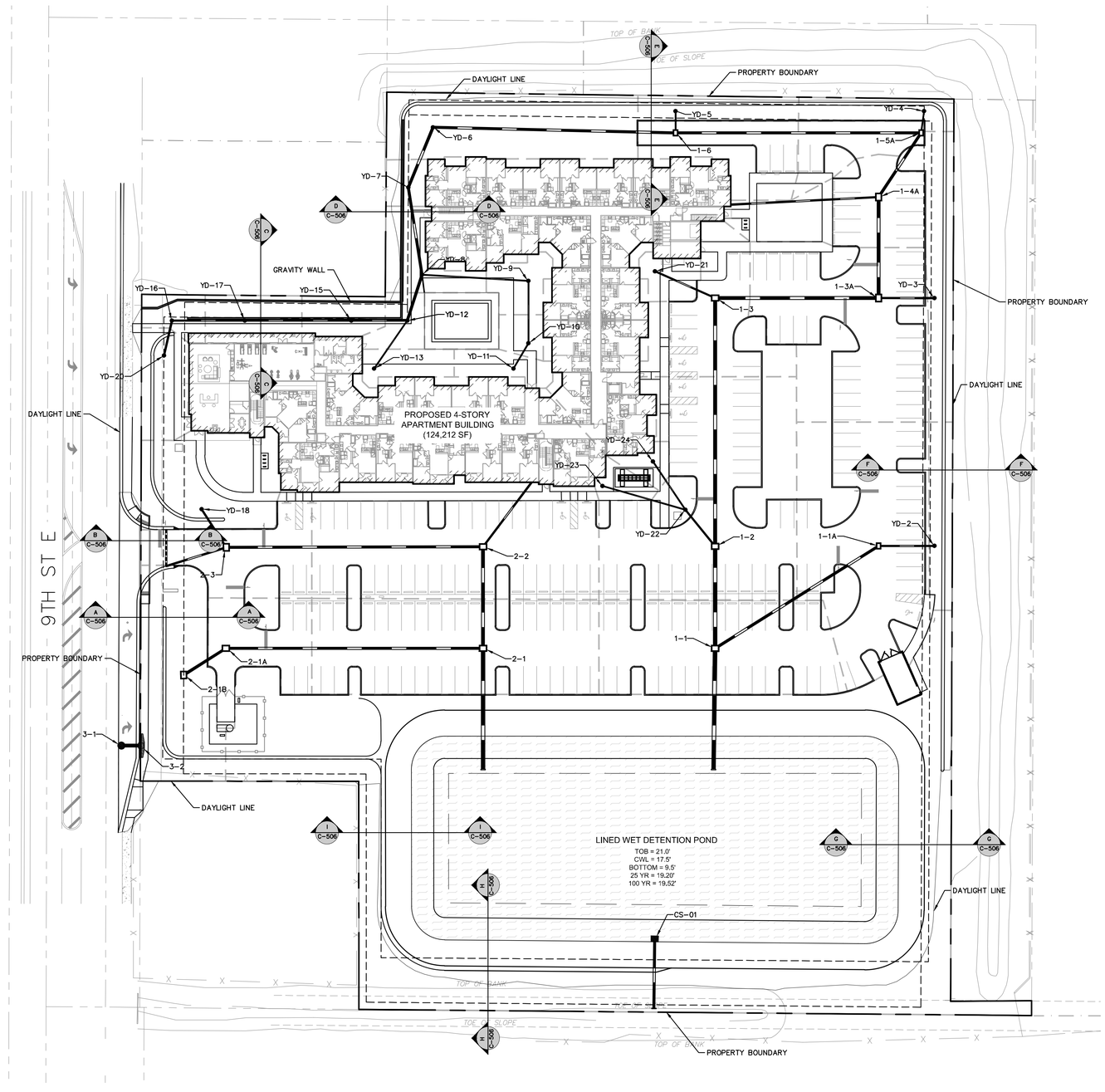
9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY FLORIDA

OVERALL SITE PLAN

KHA PROJECT	045958008
DATE	FEBRUARY 2025
DESIGNED BY	
DRAWN BY	
CHECKED BY	

LICENSED PROFESSIONAL
PATRICK M. HEALY, P.E.
FLORIDA LICENSE NUMBER 82351
DATE:

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106



NOTES:

1. ELEVATIONS ARE BASED ON NAVD 88. CONVERSION TO NGVD '29 = + 0.96 FT.
2. ALL FACE OF CURB RADII ARE 3', UNLESS OTHERWISE NOTED.
3. SPOT GRADES ARE AT EDGE OF PAVEMENT ADJACENT TO CURB UNLESS OTHERWISE NOTED.
4. STORM PIPING MATERIAL AND INSTALLATION SHALL BE PER STATE AND FDOT SPECIFICATION FOR THE APPLICATION SPECIFIED.
   A. PAVED: RCP OR HP
   B. UNPAVED: HDPE, HP, OR RCP
5. ALL CURB RAMPS (CR) SHALL BE CONSTRUCTED WITH TACTILE SURFACES. SEE DETAILS PER F.D.O.T. INDEX NO. 522-002.
6. ALL FDOT STRUCTURES SHALL BE PER THE APPLICABLE FDOT INDEX. STRUCTURE BOTTOMS SIZES SHALL BE ADJUSTED TO APPROPRIATE SIZE BASED ON PIPE SIZE / ORIENTATION PER FDOT INDEX 425-010. STORM MANHOLE RISERS PER FDOT INDEX 425-001
7. ALL STORM CONTROL STRUCTURE INFORMATION. SEE SHEET C-504, AND C-506.
8. STORM POND IS TO BE CONSTRUCTED TO PLAN SPECIFICATIONS AND ANY DEVIATIONS WILL REQUIRE A PERMIT MODIFICATION FROM SWFWMD.

PROJECT DATUM: NAVD88

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PREFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

LICENSED PROFESSIONAL
PATRICK M. HEALY, P.E.
FLORIDA LICENSE NUMBER 82351
DATE:

KHA PROJECT 045958008
DATE FEBRUARY 2025
DESIGNED BY
DRAWN BY
CHECKED BY

MASTER DRAINAGE PLAN

9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY FLORIDA

SHEET NUMBER
C-500

1-1A
TYPE "C" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 4+39.09, 0.00'
GRATE/RIM: 20.50
INV : 16.29 (E)
INV : 16.78 (SW)

1-2
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 3+29.10, 0.00'
GRATE/RIM: 20.50
INV : 13.14 (N)
INV : 15.32 (NW)
INV : 11.92 (S)

1-3
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 1+67.15, 0.00'
GRATE/RIM: 21.13
INV : 13.97 (E)
INV : 14.64 (NW)
INV : 13.47 (S)

1-3A
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 2+77.14, 0.00'
GRATE/RIM: 20.50
INV : 14.99 (E)
INV : 13.99 (N)
INV : 14.19 (W)

1-4A
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 0+68, 0.00'
GRATE/RIM: 20.50
INV : 14.62 (NE)
INV : 15.12 (W)
INV : 14.12 (S)

1-5A
TYPE "C" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 1+90.66, 0.00'
GRATE/RIM: 20.50
INV : 15.56 (N)
INV : 14.73 (W)
INV : 14.73 (SW)

1-6
TYPE "C" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 0+25.35, 0.00'
GRATE/RIM: 20.50
INV : 15.89 (N)
INV : 15.06 (W)
INV : 15.06 (E)

2-1
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 1+72.86, 0.00'
GRATE/RIM: 20.50
INV : 11.74 (W)
INV : 12.44 (NE)
INV : 11.44 (S)

2-3
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001,
425-010, 425-052
STA: 1+54.17, 0.00'
GRATE/RIM: 20.98
INV : 17.11 (W)
INV : 17.18 (NW)
INV : 12.09 (E)

YD-18
YARD DRAIN
STA: -0+16.53, 25.75' LT
GRATE/RIM: 20.50
INV : 17.33 (SE)

YD-2
YARD DRAIN
GRATE/RIM: 20.50
INV : 16.48 (W)

YD-3
YARD DRAIN
GRATE/RIM: 20.63
INV : 16.48 (W)

YD-4
YARD DRAIN
GRATE/RIM: 20.16
INV : 17.29 (S)

YD-5
YARD DRAIN
GRATE/RIM: 20.16
INV : 16.15 (S)

YD-6
YARD DRAIN
GRATE/RIM: 22.25
INV : 15.39 (S)
INV : 15.39 (E)

YD-7
YARD DRAIN
GRATE/RIM: 22.41
INV : 15.47 (S)
INV : 15.47 (N)

YD-8
YARD DRAIN
GRATE/RIM: 21.51
INV : 15.59 (S)
INV : 17.72 (E)
INV : 16.59 (S)
INV : 15.59 (N)

YD-9
YARD DRAIN
GRATE/RIM: 21.40
INV : 17.86 (S)
INV : 17.86 (W)

YD-10
YARD DRAIN
GRATE/RIM: 21.32
INV : 17.95 (SW)
INV : 17.95 (N)

YD-11
YARD DRAIN
GRATE/RIM: 21.32
INV : 17.99 (NE)

YD-12
YARD DRAIN
GRATE/RIM: 21.33
INV : 15.82 (W)
INV : 16.49 (SW)
INV : 15.66 (N)

YD-13
YARD DRAIN
GRATE/RIM: 21.07
INV : 19.14 (NE)

YD-15
YARD DRAIN
GRATE/RIM: 21.14
INV : 15.89 (W)
INV : 15.89 (E)

YD-16
YARD DRAIN
GRATE/RIM: 21.00
INV : 16.14 (S)
INV : 16.14 (E)

YD-17
YARD DRAIN
GRATE/RIM: 21.13
INV : 16.04 (W)
INV : 16.04 (E)

YD-20
YARD DRAIN
GRATE/RIM: 20.50
INV : 16.17 (N)

YD-21
YARD DRAIN
GRATE/RIM: 22.00
INV : 17.10 (SE)

YD-22
YARD DRAIN
GRATE/RIM: 21.61
INV : 18.84 (NW)
INV : 17.62 (W)
INV : 15.38 (SE)

YD-23
YARD DRAIN
GRATE/RIM: 22.00
INV : 17.74 (E)

YD-24
YARD DRAIN
GRATE/RIM: 21.87
INV : 18.92 (SE)

LEGEND

- CONCRETE PAVEMENT
- WATER SURFACE
- INLET & PIPE STORM SEWER
- MAJOR BASIN LINES
- MINOR BASIN LINES
- SURFACE WATER FLOW
- CWL — CONTROL WATER LEVEL
- TOB — TOP OF BANK
- 10.39 — PROPOSED PAVEMENT ELEVATION
- x 10.8 — EXISTING GROUND ELEVATION
- 10.4 — PROPOSED GROUND ELEVATION
- CWL — CONTROL WATER LEVEL
- EG — EXISTING GRADE
- ME — MATCH EXISTING ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- CS — CONTROL STRUCTURE
- T.O.W. — TOP OF WALL

CURB LEGEND

- D — TYPE "D" CURB
- F — TYPE "F" CURB
- VC — TYPE "VC" CURB
- CR — CURB RAMP (FDOT DETAIL 522-002)
- T — 5' TRANSITION BETWEEN TWO TYPES OF CURBS

NOTES:

1. ELEVATIONS ARE BASED ON NAVD 88. CONVERSION TO NGVD '29 = + 0.96 FT.
2. ALL FACE OF CURB RADII ARE 3', UNLESS OTHERWISE NOTED.
3. SPOT GRADES ARE AT EDGE OF PAVEMENT ADJACENT TO CURB UNLESS OTHERWISE NOTED.
4. STORM PIPING MATERIAL AND INSTALLATION SHALL BE PER STATE AND FDOT SPECIFICATION FOR THE APPLICATION SPECIFIED.
   A. PAVED: RCP OR HP
   B. UNPAVED: HDPE, HP, OR RCP
5. ALL CURB RAMPS (CR) SHALL BE CONSTRUCTED WITH TACTILE SURFACES. SEE DETAILS PER F.D.O.T. INDEX NO. 522-002.
6. ALL FDOT STRUCTURES SHALL BE PER THE APPLICABLE FDOT INDEX. STRUCTURE BOTTOMS SIZES SHALL BE ADJUSTED TO APPROPRIATE SIZE BASED ON PIPE SIZE / ORIENTATION PER FDOT INDEX 425-010. STORM MANHOLE RISERS PER FDOT INDEX 425-001
7. ALL STORM CONTROL STRUCTURE INFORMATION. SEE SHEET C-504, AND C-506.
8. STORM POND IS TO BE CONSTRUCTED TO PLAN SPECIFICATIONS AND ANY DEVIATIONS WILL REQUIRE A PERMIT MODIFICATION FROM

PROJECT DATUM: NAVD88

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PREFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

DAYLIGHT LINE
PROPERTY BOUNDARY
15.0' LANDSCAPE BUFFER
5.0' BUILDING SETBACK
2.0' BERM
20.0' SINGLE FAMILY RESIDENTIAL SETBACK
CENTER LINE SWALE
SIX FOOT DECORATIVE WALL
GRAVITY WALL (PER FDOT INDEX 400-011)
APPROXIMATE LOCATION FOR POOL EQUIPMENT CONNECTION (ALL DISCHARGE TO BE DECHLORINATED BEFORE ENTERING THE STORMWATER MANAGEMENT SYSTEM)
POOL
POOL DECK DRAINAGE DESIGNED BY OTHERS (REFER TO ARCHITECTURAL PLANS FOR DETAILS)
SIX FOOT DECORATIVE WALL (WALL DESIGN TO ALLOW FOR SURFACE DRAINAGE TO PASS THROUGH OR UNDERNEATH WALL)
LEASING/CLUB HOUSE FFE = 21.5'
PROPOSED 4-STORY APARTMENT BUILDING (124,212 SF) FFE = 23.0'
STORM BUILDING CONNECTION (REFER TO PLUMBING PLAN FOR CONTINUATION) INV. 18.50
STORM BUILDING CONNECTION (REFER TO PLUMBING PLAN FOR CONTINUATION) INV. 15.61
MAIL KIOSK
FUTURE R.O.W.
88.0' R.O.W.
9TH ST E
SEE SHEET C-507 FOR TURN LANE DETAIL
MATCH LINE SEE SHEET C-502

163 LF OF 18" STORM @ 0.20%
44 LF OF 18" STORM @ 0.20%
15 LF OF 8" PVC @ 1.75%
165 LF OF 18" STORM @ 0.20%
15 LF OF 8" PVC @ 11.64%
52 LF OF 18" STORM @ 0.20%
100 LF OF 12" STORM @ 0.48%
58 LF OF 18" STORM @ 0.20%
49 LF OF 12" STORM @ 0.20%
38 LF OF 12" STORM @ 0.20%
72 LF OF 12" STORM @ 0.20%
32 LF OF 18" STORM @ 0.20%
72 LF OF 8" PVC @ 0.20%
20 LF OF 8" PVC @ 0.20%
42 LF OF 8" PVC @ 0.20%
39 LF OF 8" PVC @ 6.74%
44 LF OF 10" PVC @ 5.55%
110 LF OF 24" STORM @ 0.20%
38 LF OF 12" STORM @ 3.96%
167 LF OF 24" STORM @ 0.20%
39 LF OF 8" STORM @ 0.20%
54 LF OF 12" STORM @ 11.16%
58 LF OF 8" STORM @ 0.20%
31 LF OF 12" STORM @ 0.50%
173 LF OF 18" STORM @ 0.20%
32 LF OF 10" STORM @ 0.20%
68 LF OF 24" STORM @ 0.20%
38 LF OF 12" STORM @ 0.50%
69 LF OF 30" STORM @ 0.20%
130 LF OF 18" STORM @ 3.08%
24 LF OF 12" STORM @ 0.15%
25 LF OF 12" TRENCH DRAIN PER FDOT DETAIL 406-001 @ 1.00%
42 LF OF 12" STORM @ 2.23%

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

LICENSED PROFESSIONAL
PATRICK M. HEALY, P.E.
FLORIDA LICENSE NUMBER 82351
DATE:

KHA PROJECT 045958008
DATE FEBRUARY 2025
DESIGNED BY
DRAWN BY
CHECKED BY

PAVING GRADING AND DRAINAGE PLAN

9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY FLORIDA

SHEET NUMBER
C-501

LEGEND

- CONCRETE PAVEMENT
- WATER SURFACE
- INLET & PIPE STORM SEWER
- MAJOR BASIN LINES
- MINOR BASIN LINES
- SURFACE WATER FLOW
- CWL — CONTROL WATER LEVEL
- TOB — TOP OF BANK
- 10.39 — PROPOSED PAVEMENT ELEVATION
- x 10.8 — EXISTING GROUND ELEVATION
- 10.4 — PROPOSED GROUND ELEVATION
- CWL — CONTROL WATER LEVEL
- EG — EXISTING GRADE
- ME — MATCH EXISTING ELEVATION
- HP — HIGH POINT
- LP — LOW POINT
- CS — CONTROL STRUCTURE
- T.O.W. — TOP OF WALL

CURB LEGEND

- (D) TYPE "D" CURB
- (F) TYPE "F" CURB
- (VC) TYPE "VC" CURB
- (CR) CURB RAMP (FDOT DETAIL 522-002)
- (T) 5' TRANSITION BETWEEN TWO TYPES OF CURBS

NOTES:

1. ELEVATIONS ARE BASED ON NAVD 88. CONVERSION TO NGVD '29 = +0.96 FT.
2. ALL FACE OF CURB RADII ARE 3', UNLESS OTHERWISE NOTED.
3. SPOT GRADES ARE AT EDGE OF PAVEMENT ADJACENT TO CURB UNLESS OTHERWISE NOTED.
4. STORM PIPING MATERIAL AND INSTALLATION SHALL BE PER STATE AND FDOT SPECIFICATION FOR THE APPLICATION SPECIFIED.
   A. PAVED: RCP OR HP
   B. UNPAVED: HDPE, HP, OR RCP
5. ALL CURB RAMPS (CR) SHALL BE CONSTRUCTED WITH TACTILE SURFACES. SEE DETAILS PER F.D.O.T. INDEX NO. 522-002.
6. ALL FDOT STRUCTURES SHALL BE PER THE APPLICABLE FDOT INDEX. STRUCTURE BOTTOMS SIZES SHALL BE ADJUSTED TO APPROPRIATE SIZE BASED ON PIPE SIZE / ORIENTATION PER FDOT INDEX 425-010. STORM MANHOLE RISERS PER FDOT INDEX 425-001
7. ALL STORM CONTROL STRUCTURE INFORMATION. SEE SHEET C-504, AND C-506.
8. STORM POND IS TO BE CONSTRUCTED TO PLAN SPECIFICATIONS AND ANY DEVIATIONS WILL REQUIRE A PERMIT MODIFICATION FROM SWFWMD.

1-1
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001, 425-010, 425-052
STA: 6+06.28, 0.00'
GRATE/RIM: 20.50
INV : 11.79 (N)
INV : 12.79 (NE)
INV : 11.79 (S)

2-1
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001, 425-010, 425-052
STA: 7+62.52, 0.00'
GRATE/RIM: 20.50
INV : 11.30 (N)
INV : 15.39 (W)
INV : 10.80 (S)

2-1A
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001, 425-010, 425-052
STA: 2+22.16, 0.09' RT
GRATE/RIM: 21.08
INV : 15.73 (SW)
INV : 15.73 (E)

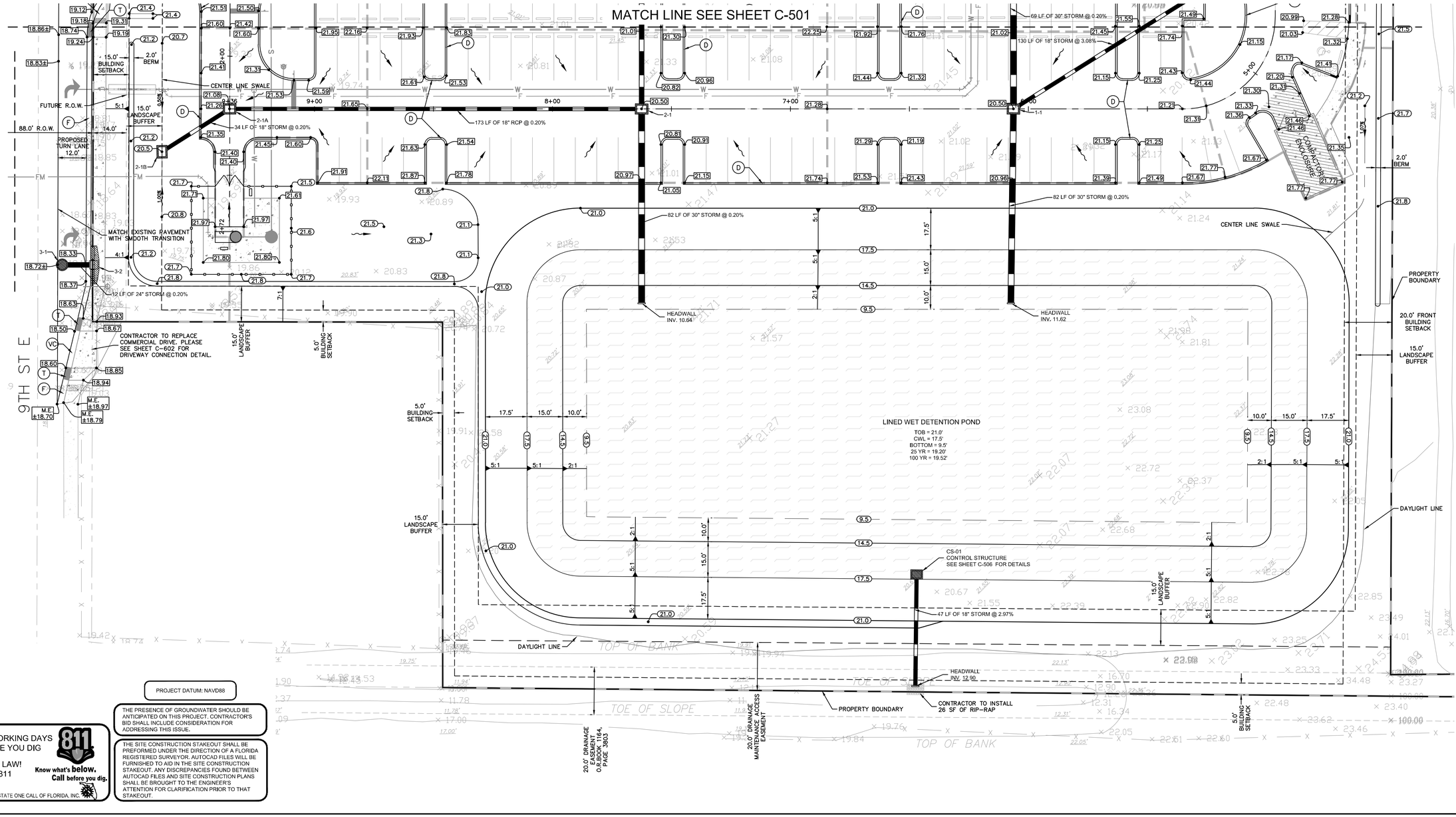
2-1B
TYPE "D" DITCH BOTTOM INLET
FDOT INDEX NO. 425-001, 425-010, 425-052
STA: 2+40.23, 28.42' RT
GRATE/RIM: 20.50
INV : 15.80 (NE)

3-1
CONTRACTOR TO REPLACE EXISTING INLET TOP WITH STANDARD 4' DIAMETER JUNCTION BOX. CONNECT PROPOSED 24" STORM PIPE TO EXSTING STRUCTURE VIA CORE DRILL.
STA: 3+80.89, 33.36' LT
GRATE/RIM: 18.66
INV : 14.28 (E)

3-2
TYPE "6" CURB INLET
FDOT INDEX NO. 425-001, 425-010, 425-021
STA: 3+80.87, 45.31' LT
GRATE/RIM: 18.68
INV : 14.30 (W)

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40



PROJECT DATUM: NAVD88

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

THE SITE CONSTRUCTION STAKEOUT SHALL BE PREFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1800 2ND STREET, SUITE 900, SARASOTA, FL 34236
PHONE: 941-379-7600
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

LICENSED PROFESSIONAL
PATRICK M. HEALY, P.E.
FLORIDA LICENSE NUMBER 82351
DATE:

KHA PROJECT 045958008
DATE FEBRUARY 2025
DESIGNED BY
DRAWN BY
CHECKED BY

PAVING GRADING AND DRAINAGE PLAN

9TH STREET APARTMENTS
MULTI-FAMILY RENTAL DEVELOPMENT
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY FLORIDA

SHEET NUMBER
C-502

PHOTO #1

View of subject property

PHOTO #2

View of subject property

PHOTO #3

View of subject property

PHOTO #4

View of subject property

PHOTO #5

View of typical on-site dumped debris

PHOTO #6

View of typical on-site dumped debris

PHOTO #7

View of typical on-site dumped debris

PHOTO #8

View of typical on-site dumped debris

PHOTO #9

View of typical on-site dumped debris

PHOTO #10

View of typical on-site dumped debris

PHOTO #11

View of natural gas pipeline marker observed on southwestern portion of subject property

PHOTO #12

View of natural gas pipeline marker observed on southern portion of subject property

PHOTO #13

View of natural gas pipeline marker observed on southwestern portion of subject property

PHOTO #14

View of typical piezometer observed at the subject property

PHOTO #15

View of riverine feature observed on southern boundary of subject property

PHOTO #16

View of northern adjacent single-family residential

PHOTO #17

View of northern adjacent Winn-Dixie

PHOTO #18

View of natural gas pipeline marker observed at northern adjacent Winn-Dixie

PHOTO #19

View of eastern adjacent Heatherwood Condominiums

PHOTO #20

View of riverine feature observed along the southern boundary of subject property

PHOTO #21

View of southern adjacent A & A Auto Recycling

PHOTO #22

View of southwestern adjacent pond

PHOTO #23

View of western adjacent Palm Lake Estates

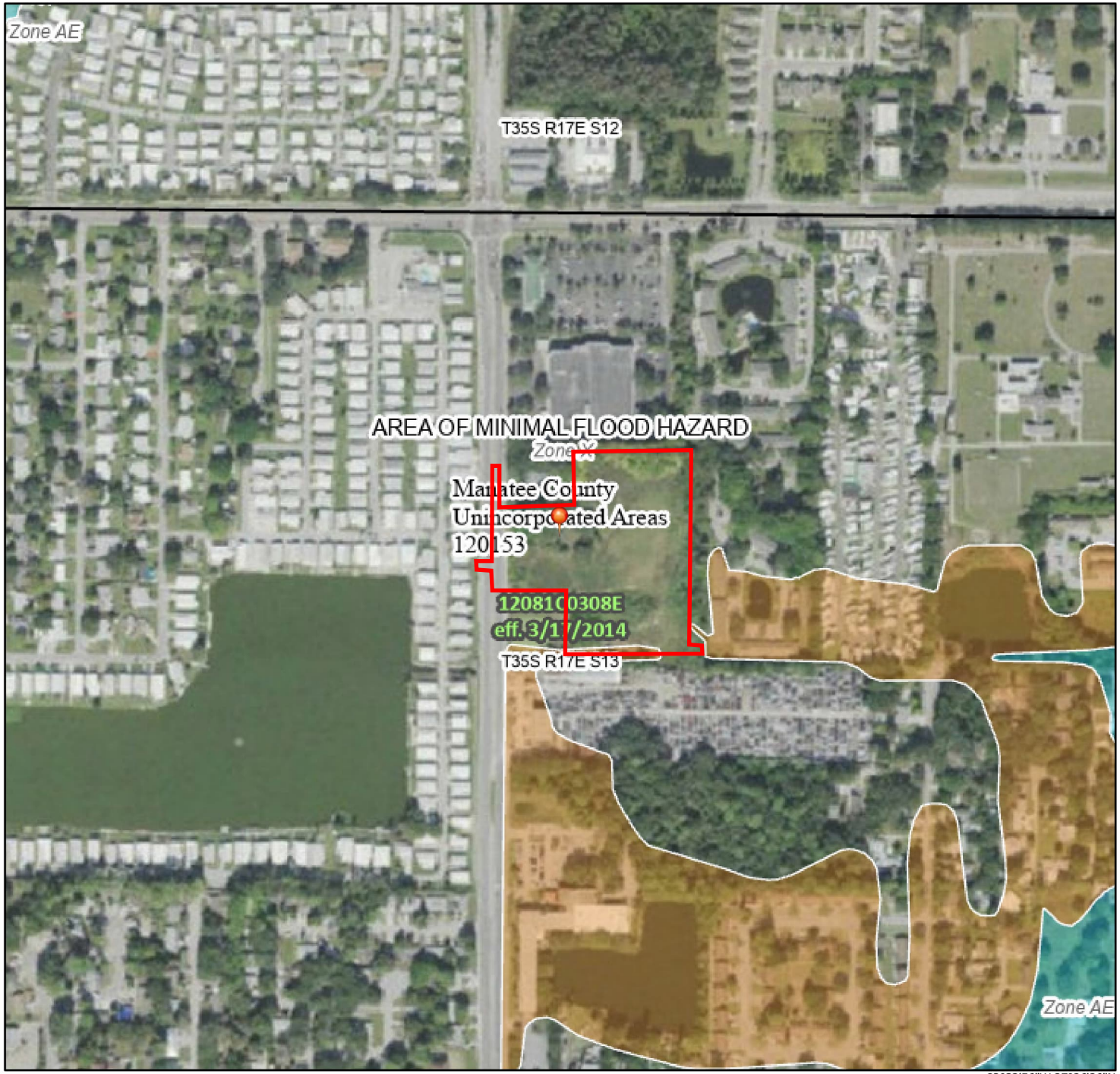
Appendix B

Floodplain Documentation

National Flood Hazard Layer FIRMette

FEMA

82°33'34"W 27°26'58"N



82°32'56"W 27°26'26"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/27/2025 at 7:40 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Flood Map

User Notes:

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Florida State Plane west zone (FIPSZONE 0902). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit its website at http://www.ngs.noaa.gov/.

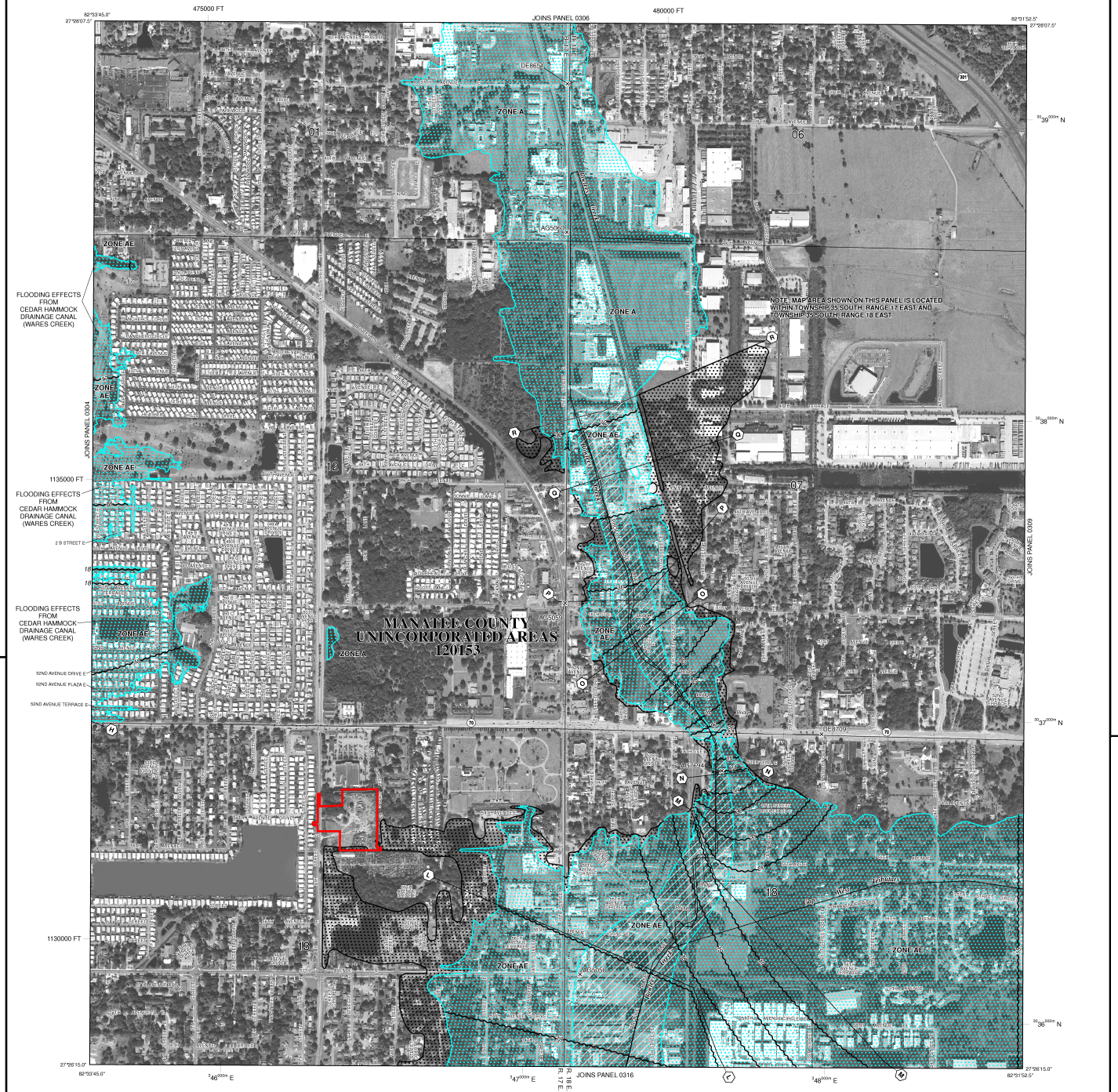
Base map orthophotography was obtained from Southwest Florida Water Management District (SWFWMD) from one-foot resolution digital orthoimagery flown in 2008 and 2009. Vector base map data was provided by Manatee County and SWFWMD. Vector information was compiled in 2003 – 2009 by Manatee County GIS department.

This map may reflect more detailed or up to date stream channel configurations than those shown on the previous FIRM. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations and improved topographic data. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable, in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the **FEMA Map Service Center** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information eXchange.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A: Cross section line
- 23 — 23: Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 17
- 6000000 FT — 5000-foot grid ticks: Florida State Plane coordinate system, west zone (FIPSZONE 0902), Transverse Mercator
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
March 17, 2014
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0308E

FIRM

FLOOD INSURANCE RATE MAP

MANATEE COUNTY, FLORIDA

AND INCORPORATED AREAS

PANEL 308 OF 575

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MANATEE COUNTY	120153	0308	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
12081C0308E

EFFECTIVE DATE
MARCH 17, 2014

Federal Emergency Management Agency

FEMA (//www.fema.gov/)

Navigation

Search

MSC Home (/portal/)

MSC Search by Address (/portal/search)

MSC Search All Products (/portal/advanceSearch)

MSC Products and Tools (/portal/resources/productsandtools)

Hazus (/portal/resources/hazus)

LOMC Batch Files (/portal/resources/lomc)

Product Availability (/portal/productAvailability)

MSC Frequently Asked Questions (FAQs) (/portal/resources/faq)

MSC Email Subscriptions (/portal/subscriptionHome)

Contact MSC Help (/portal/resources/contact)

FEMA Flood Map Service Center: Search All Products

Choose one of the three search options below and optionally enter a posting date range.

Jurisdiction

State

-- Select --

Jurisdiction Name

Jurisdiction Name or FEMA ID

MANATEE COUNTY UNINCORPORATED AREAS

(Ex. Fairfax County-wide or 51059C)

Product ID

Product ID

(Ex. Panel Number, LOMC Case Number)

Filter By Posting Date Range *(Optional)*

Search | Clear All Fields

Search Results for MANATEE COUNTY UNINCORPORATED AREAS

Click subscribe to receive email notifications when products are updated.

Click to download a listing of all products.

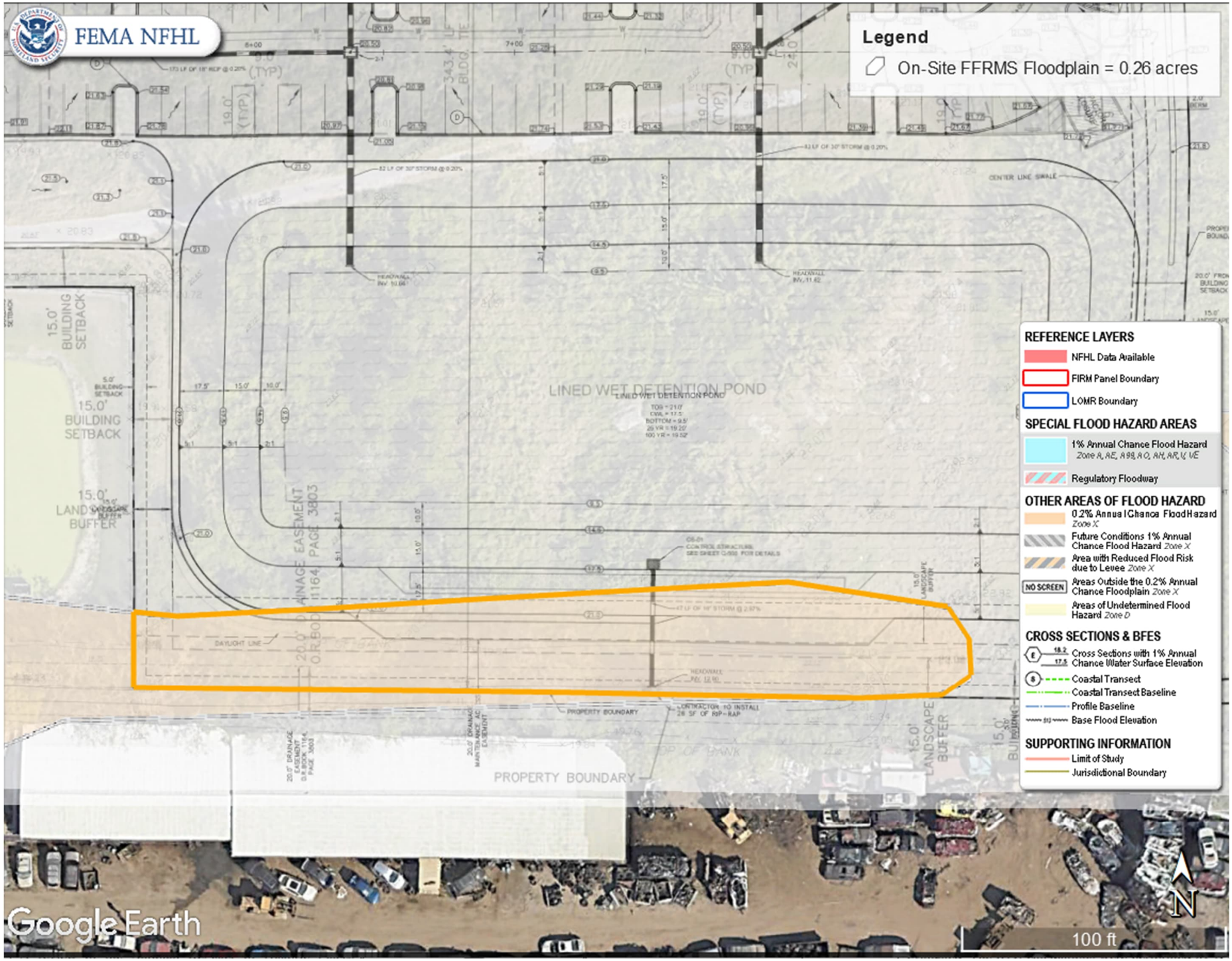
If you are a person with a disability, are blind, or have low vision, and need assistance, please contact a map specialist (https://msc.fema.gov/portal/resources/contact).

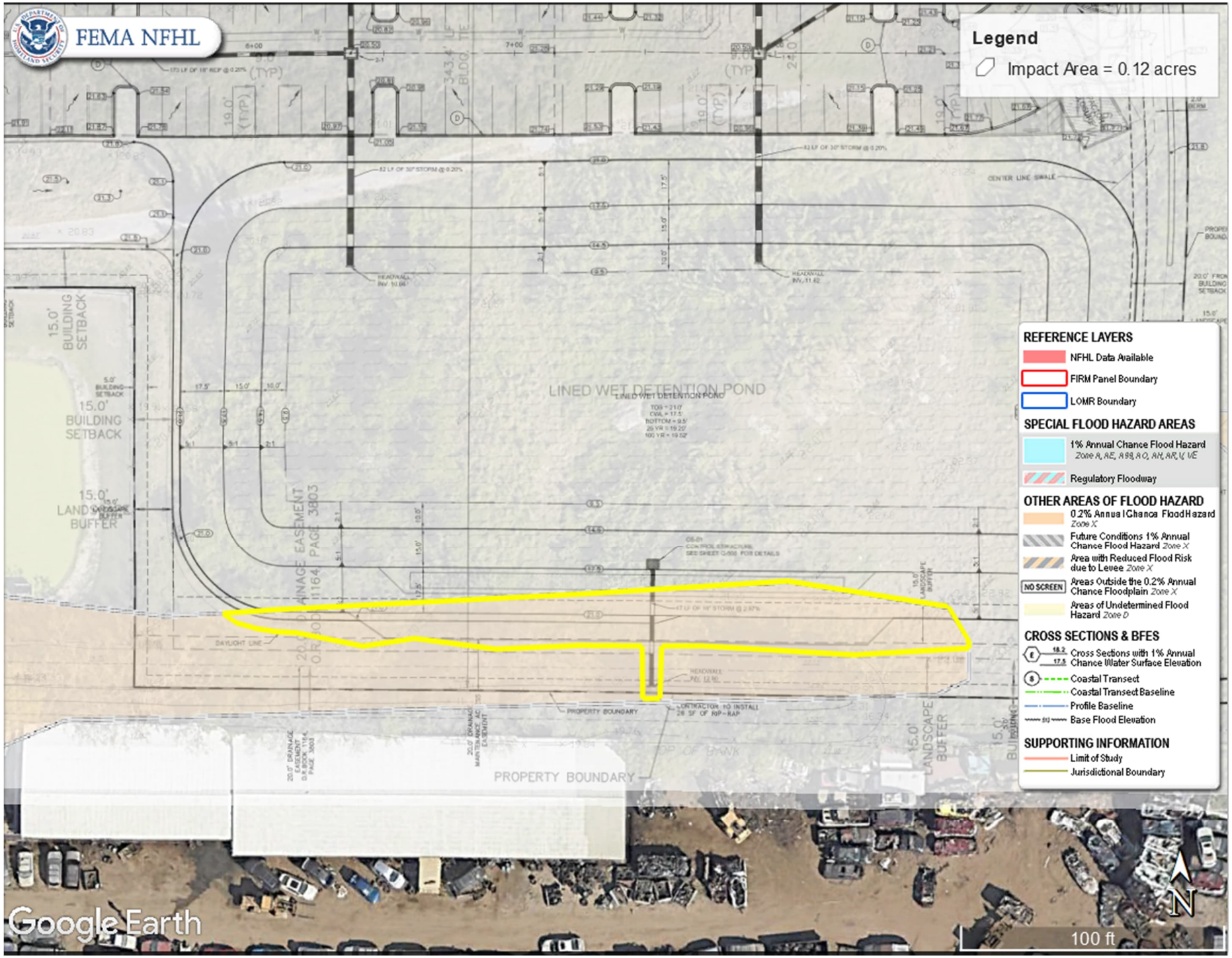
Please Note: Searching All Products by county displays all products for all communities within the county. You can refine your search results by specifying your specific jurisdiction location using the drop-down menus above.

Expand All

Effective Products (517)
Preliminary Products (0)
Pending Product (3)
Historic Products (595)
Flood Risk Products (0)

Share This Page.

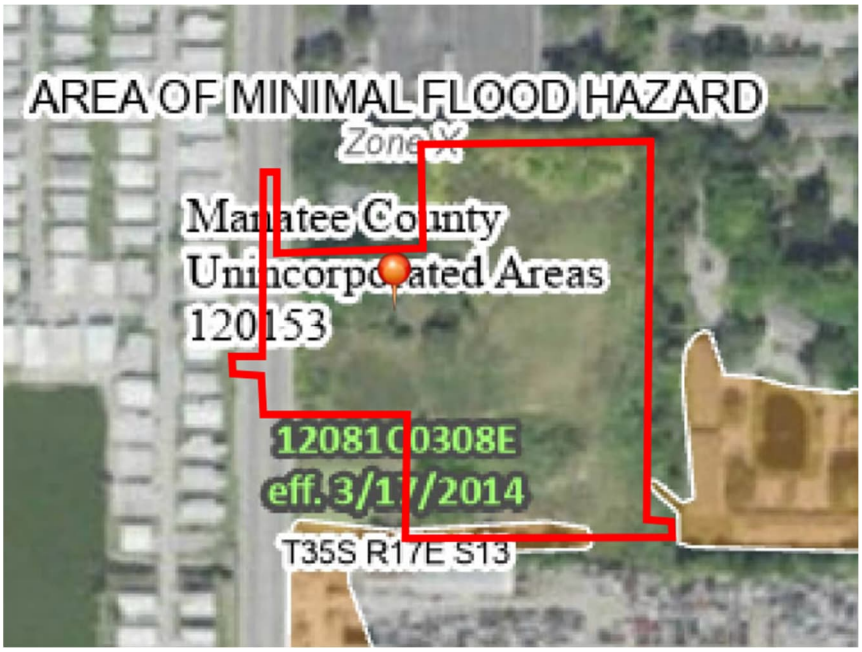

FEMA NFHL
Legend
On-Site FFRMS Floodplain = 0.26 acres
REFERENCE LAYERS
NFHL Data Available
FIRM Panel Boundary
LOMR Boundary
SPECIAL FLOOD HAZARD AREAS
1% Annual Chance Flood Hazard
Zone A, AE, A99, AO, AH, AR, V, VE
Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard
Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee Zone X
NO SCREEN
Areas Outside the 0.2% Annual Chance Floodplain Zone X
Areas of Undetermined Flood Hazard Zone D
CROSS SECTIONS & BFES
Cross Sections with 1% Annual Chance Water Surface Elevation
Coastal Transect
Coastal Transect Baseline
Profile Baseline
Base Flood Elevation
SUPPORTING INFORMATION
Limit of Study
Jurisdictional Boundary
LINED WET DETENTION POND
PROPERTY BOUNDARY
15.0' BUILDING SETBACK
15.0' LANDSCAPE BUFFER
20.0' DRAINAGE EASEMENT O.R. BOOK 1164 PAGE 3803
DAYLIGHT LINE
CONTRACTOR TO INSTALL 28 SF OF RIP-RAP
Google Earth
N
100 ft


FEMA NFHL
Legend
Impact Area = 0.12 acres
REFERENCE LAYERS
NFHL Data Available
FIRM Panel Boundary
LOMR Boundary
SPECIAL FLOOD HAZARD AREAS
1% Annual Chance Flood Hazard
Zone A, AE, A99, AO, AH, AR, V, VE
Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard
Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee Zone X
NO SCREEN
Areas Outside the 0.2% Annual Chance Floodplain Zone X
Areas of Undetermined Flood Hazard Zone D
CROSS SECTIONS & BFES
Cross Sections with 1% Annual Chance Water Surface Elevation
Coastal Transect
Coastal Transect Baseline
Profile Baseline
Base Flood Elevation
SUPPORTING INFORMATION
Limit of Study
Jurisdictional Boundary
LINED WET DETENTION POND
PROPERTY BOUNDARY
15.0' BUILDING SETBACK
15.0' LANDSCAPE BUFFER
DAYLIGHT LINE
CENTER LINE SWALE
Google Earth
N
100 ft

Floodplain Notification

RE: Ninth Street Apartments
5420 10th Lane East
Bradenton, FL 34203

A small southern portion of the Ninth Street Apartments is located within the Federal Flood Risk Management Standard (FFRMS) floodplain (see map below), including a section of 18-inch storm drain and associated discharge. In the unlikely event of a flood event, safety is our top priority.



Please note that in accordance with 24 CFR 55.4, the property owner will clearly communicate additional safety resources for residents.

All residents may register for the Manatee County's instant notification system, Alert Manatee, at https://www.mymanatee.org/services-and-amenities/service-listing/service-details/sign-up-for-alert-manatee. This emergency alert system keeps the community informed and prepared for emergencies, including updates on severe weather, hazardous conditions, and safety alerts that could impact the area.

Please be advised that flood insurance is available for your personal belongings.

Acknowledgement:

_____
Resident Name (printed)

_____
Resident Signature

STORMWATER MANAGEMENT PLAN

FOR

9th Street Apartments Multi-Family Residential Development

Prepared for:

Elmington Capital Group, LLC
1030 16th Ave South
Nashville, TN, 37212

Prepared by:

Kimley-Horn and Associates, Inc.
1800 2nd Street, Suite 900
Sarasota, FL 34236

April 2025

Project No. 045958008

ENGINEER'S CERTIFICATION

9th Street Apartments Multi-Family Residential Development

This is to certify that the enclosed engineering calculations were performed by me or under my direct supervision.

_____

PATRICK M. HEALY, P.E. #82351
Kimley-Horn and Associates, Inc.
1800 2nd Street, Suite 900
Sarasota, Florida 34236
C.A. 35106

DATE: _____

TABLE OF CONTENTS

9th Street Apartments Multi-Family Residential Development

PROJECT NARRATIVE

9th Street Apartments Multi-Family Residential Development

BACKGROUND

This report addresses the stormwater management system associated with the 9TH Street Apartments Multi-Family project, on behalf of the applicant, Elmington Capital Group. The proposed development is 134 multi-family rental units, of which 25% will be designated as affordable housing. The subject property is ± 6.71-acres in area and is generally located approximately a 1,000 LF South of the intersection at 53rd Ave East and 9th Street East. Please refer to the **Aerial Location Map** located in **Appendix A** for a depiction of the project limits on a current aerial.

EXISTING CONDITIONS

The subject parcel was used as industrial site, with rubble, buried construction debris and decaying wood. Please refer to the **Environmental Narrative** that has been provided in this submittal for existing property uses and historical information. The property is currently vacant and is now an unmaintained open space.

Drainage Patterns

The site is generally flat, and the elevations on-site range from 19 to 22 feet per the North American Vertical Datum of 1988 (NAVD88). The property appears to drain to an existing dich that runs along the Northern, Eastern and Southern property boundary. A portion of the site drains to the 9th Street Ave roadway that enters a detention pond that discharges to the same ditch as mentioned above. Please refer to the **Existing Conditions Hydraulic Network** Map in **Appendix C**. This ditch then discharges to the Bowlees Creek that then ultimately discharges to Sarasota Bay.

Soils

According to the National Resources Conservation Center (NRCS) on-site soils are combination of canova, anclote, and okeelanta soils; delray-eaugallie complex; and palmetto sand. These soils have a hydraulic soils group (HSG) rating of A/D. Please refer to the **NRCS Soils Map** in **Appendix A** for a depiction of the on-site soils.

Flood Hazard Determination

Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) numbers 12081C0308E, effective 3/17/2014, the project lies in Flood Hazard Zone X. Floodplain mitigation / compensation is generally only required for improvements in Special Flood Hazard Areas (Zone A, Zone AE) and thus not expected as a requirement of this project. Please refer to the **FEMA Flood Zone Map** provided in **Appendix A** for a depiction of the FEMA Flood Hazard Areas associated with the site.

PROPOSED CONDITION

PROJECT NARRATIVE

9th Street Apartments Multi-Family Residential Development

This project consists of 134 multi-family unit apartment building, parking lot facilities and amenities. Additionally, the construction of stormwater management facilities and infrastructure to provide water quality and water quantity (flood control) assurances. The project will utilize a wet detention pond for stormwater management and the Stormwater runoff from the project will be collected in inlets and piped to the pond for attenuation. The stormwater management system will discharge to the same ditch as shown in the existing condition.

Control Water Elevations

The control water elevations (CWL) of the proposed wet detention pond were set based on the surveyed seasonal high-water elevation (SHWL), and the existing pond data that is adjacent to the site. The **Geotechnical Study Report**, also provided with the application, supports the control water elevation established.

Drainage Patterns

The development has been designed to ensure comprehensive stormwater management by capturing all onsite stormwater and directing it to a lined wet detention pond via stormwater inlets, yard drains, trench drains, and swales. Further hydraulic grade line information can be found in **Appendix E**. Upon entering the wet detention pond and reaching the designated treatment elevation—detailed in the **Water** Quality section—water is discharged through a control structure. Water is then discharged to the existing ditch as mentioned in the existing condition. This structure has been designed to achieve a 50% reduction in rate from the peak existing condition, in adherence to Manatee County standards. For an in-depth analysis, refer to the **Model Results and Comparison** section, as well as the **Water Quantity / Flood Control** section, which provide comprehensive insights into the system's performance and flood control measures.

WATER QUALITY

The water quality standards of the Southwest Florida Water Management District (SWFWMD) for wet detention treatment systems, like those proposed with this project, have specific requirements to ensure the removal of oils, greases, and other pollutants collected in runoff from storm events. This project utilizes the Conservation Wet Detention design criteria of the SWFWMD, which stipulates the total water quality volume be stored below the discharge device / outfall of the pond. This requires a total water quality volume equal to 1” of runoff volume over the contributing basin plus the average of the total rainfall during the wet season (122 days, June through September) with a 14-day residence time.

The Conservation Wet Detention design also requires a gravity flow outfall device or weir sized to discharge ½ inch of runoff volume over the contributing basin within 24 hours with a maximum fluctuation depth in the pond of 10 inches. Please refer to **Appendix B** for Wet Detention treatment and calculations demonstrating the recovery of ½ inch of runoff volume.

FDEP Impaired Waters

The project site discharges to WBIDS 1896 (Bowlees Creek) Florida Department of Environmental Protection (FDEP) and is not listed for impairments. Bowlees Creek was identified as Water Not Attaining Standards (WNAS) for bacteria. Improvement to the bacteria condition for this development is presumptive.

WATER QUANTITY / FLOOD CONTROL

The following regulatory requirements govern the design of attenuation facilities providing water quantity (flood control) for the site:

SWFWMD

- Discharge off-site is limited to the pre-development discharge rate in the 25-year, 24-hour storm event
- No adverse off-site flood stage impacts in up to the 100-year, 24-hour storm event

Manatee County

- Discharge rate off-site is limited to the pre-development discharge rate in the 25-year, 24-hour storm event
- 1’ of freeboard from the peak stage in stormwater management ponds in the required design storm event (25-year, 24-hour storm for this project)
- No adverse off-site flood stage impacts in the 100-year, 24-hour storm event
- Provide a 50% rate reduction in the 25-year, 24-hour storm event

Hydrologic & Hydraulic Modeling

The hydrologic & hydraulic (H&H) models used to simulate surface water runoff were developed in the Interconnected Pond Routing (ICPR) software, Version 4. Because there is no regional watershed model that includes the property, a model was developed using best-available information. The following sections include information on the development of each of the model features. Source information for the model development is provided in **Appendix C**.

Model Boundary Conditions:

The boundary conditions for the model were derived from the Bowlees Creek Model. Using the 100-Year 24-Hour simulation, Node BC_C00630_N was utilized for the tailwater conditions and initial stage data. Please refer to the **ECM Inputs** for the time series data used for this boundary node.

Hydrology

The hydrology in the modeling is represented with manual basin features in ICPR4. Data in these features is populated with the land use and hydrologic soils groups (HSG) to establish the appropriate curve number (CN) using the methodology outlined in *TR-*

55 Urban Hydrology for Small Watersheds. The existing land use mapping was developed from site observation, survey, and the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) database maintained by the SWFWMD. The HSG information was obtained from the NRCS web soil survey.

Times of concentration were calculated based on the TR-55 methodology for each manual basin, with a minimum of 10 minutes utilized for developed basins.

Storage

Volumetric storage for the routing model was calculated in the ICPR4 software using a digital elevation model (DEM) developed from the survey. This data was supplemented in areas outside of the survey limits utilizing light detection and ranging (LiDAR) data from the NOAA. Volumetric exclusions were made in areas represented with channel links. All storage in the routing model is represented using a stage (elevation) and area relationship. Storage filled by the proposed development was removed from the stage-area relationship in the affected node. Volume in areas where permitted improvements were included in the model was also removed from the stage-area relationship.

Hydraulics

The hydraulics in the ICPR4 model are represented as links that are defined as pipes, weirs, channels, or drop structures.

Drop structures are limited to the proposed project and include a pipe and control weir. These represent the outfalls from the stormwater management system.

The survey information was used to create a model of the existing site conditions. This model is referred to as the Existing Conditions Model (ECM) and represents the drainage in the vicinity of the site prior to development. Please refer to **Appendix C** for model inputs and results for the ECM. This model was then updated to incorporate the improvements proposed with this project to create a Proposed Conditions Model (PCM). This included the re-calculation of the on-site hydrology using the TR-55 methodology to include the additional impervious areas. This also required the revising / removing existing node storage areas filled as part of this project. Links were also revised as required to represent changes in grading or proposed features as required. Please refer to **Appendix D** for model inputs and results for the PCM.

Simulations and Results

To demonstrate adherence to regulatory criteria, the H&H models were analyzed for design storm events with the attributes detailed in **Table 1**.

Table 1: Design Storm Events

Reoccurrence Interval (Years)	Duration (Hours)	Cumulative Rainfall (Inches)	Rainfall Distribution
25	24	8.0	SCS Type II FL Modified
100	24	10	SCS Type II FL Modified

Model Results and Comparison

Adherence to the design discharge rate criteria of SWFWMD and Manatee County was assessed by comparing the peak inflow rates adjacent downstream nodes. The results of the peak discharge rate analysis are provided in **Table 2**.

Table 2: Peak Discharge Rate (25-year, 24-hour Storm Event)

Node	Peak Flow Rate (cfs)	
	Pre-Development (ECM)	Post-Development Allowable (PCM)
ECG-01	14.43	7.22

Internal Stormwater Hydraulic Grade Line (HGL)

The internal collection system for this project was incorporated into a simplified version of the proposed conditions ICPR4 using the wet detention pond results as time-stage tailwater conditions. The peak stages (hydraulic grade line) of this system relative to the proposed improvements is tabulated in **Appendix E**. This provides assurances that the proposed collecting system is sized adequately to convey the project to the wet detention pond without adverse on-site or off-site flood conditions. Adherence to Manatee County criteria concerning 3" of freeboard to the storm structure inlet is also demonstrated.

Floodplain Encroachment and Compensation

There is no floodplain on the subject property.

MAINTENANCE OBLIGATIONS

The maintenance of the on-site stormwater management system is the responsibility of Elmington Capital Group, LLC.

APPENDIX A
PROPERTY INFORMATION

1. Aerial Location Map
2. NRCS Soil Map
3. FEMA Flood Zone Map

APPENDIX B
WATER QUALITY CALCULATIONS

1. Wet Detention Treatment

WET DETENTION TREATMENT
TREATMENT AREA: ECG-01

Minimum Permanent Pool Volume:

Contributing Areas:

Land Use	Area (ac)	Runoff C
PERVIOUS	2.40	0.20
DCIA	3.31	0.95
WATER	1.03	1.00
	6.75	0.69

Wet Season Runoff Volume, Vw =	1.43	ac-ft	*Vw= (C)(A)(32.1 in /122 days)(14 days)(1 ft/12 in)*
Treatment Volume, Vt=	0.56	ac-ft	*Vt = (A)(1 in)(1 ft/12 in)*
Cascading Treatment Volume, Vc =	0.00	ac-ft	*Vc= (A)(0.5 in)(1 ft/12 in)*
Min. Permanent Pool Volume, V =	**1.99**	**ac-ft**	*V = Vw + Vt + Vc*

Minimum Pond Area:

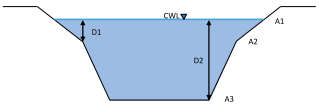
Contributing Basin Area, A =	6.75	acres	*Directly contributing only*
1/2" Runoff Volume, V1/2 =	0.28	ac-ft	*V = (A)(0.5 in)(1 ft/12 in)*
Maximum Fluctuation Depth, Fmax =	10	inches	*Per SWFMWD TP/SW-22*
Minimum Pond Area, Amin =	**0.34**	**acres**	*Amin = V / [(10 in) + (1 ft/12 in)]*

Design Pond Information:

	Area (ac)	Depth (ft)	
CWL	1.03	0.00	
Breakline	0.74	3.00	
Bottom	0.56	8.00	(Max 8')

Design Pond Area, A =	**1.03**	**acres**
Fluctuation Depth, FD =	**3.27**	**inches**
Perm Pool Vol, Vp =	**5.91**	**ac-ft**
Treatment Weir Width =	1.10	feet
24 hour discharge =	**87.38**	**%**

Remaining 0.03 ft of head added to the initial stage



Vp = [D1((A1+A2)/2)]+[(D2-D1)*((A2+A3)/2)]*

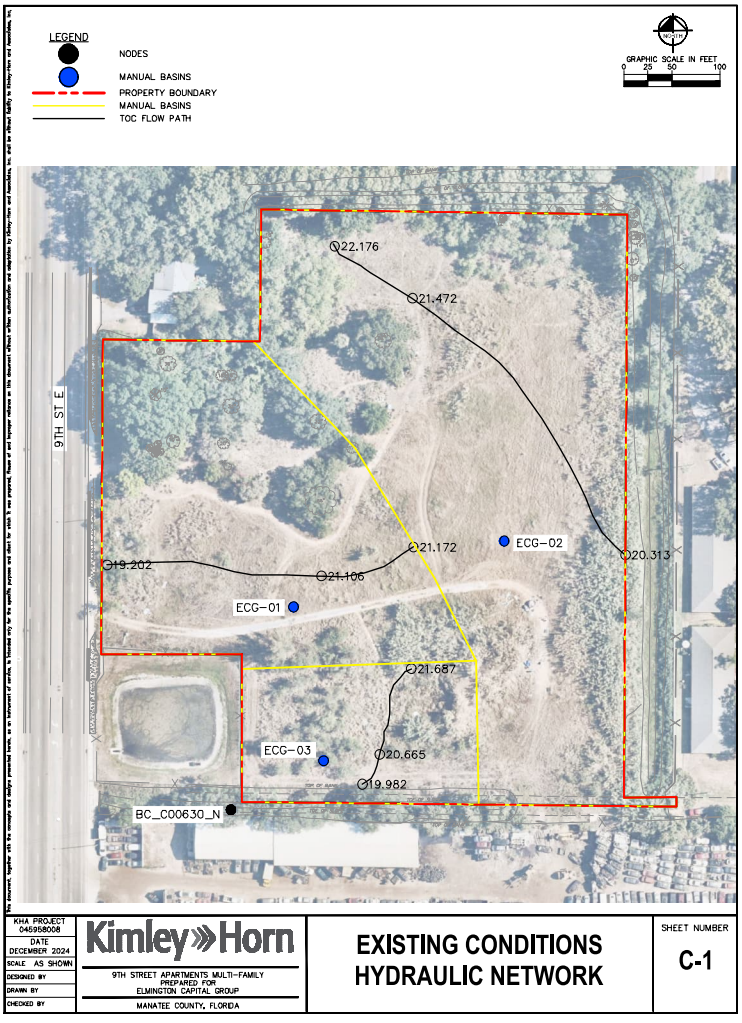
Drawdown Calculations:

Time (hr)	Head (ft)	Remain Vol. (cf)	Flow (cfs)	Increm. Vol. (cf)
0	0.27	12243	0.50	1806
1	0.23	10437	0.39	1422
2	0.20	9015	0.32	1141
3	0.18	7874	0.26	932
4	0.15	6942	0.21	771
5	0.14	6171	0.18	646
6	0.12	5524	0.15	548
7	0.11	4977	0.13	468
8	0.10	4509	0.11	404
9	0.09	4105	0.10	351
10	0.08	3754	0.09	307
11	0.08	3448	0.07	270
12	0.07	3178	0.07	239
13	0.07	2939	0.06	212
14	0.06	2726	0.05	190
15	0.06	2537	0.05	170
16	0.05	2366	0.04	153
17	0.05	2213	0.04	139
18	0.05	2074	0.03	126
19	0.04	1948	0.03	115
20	0.04	1833	0.03	105
21	0.04	1729	0.03	96
22	0.04	1633	0.02	88
23	0.03	1545	0.02	81
24.00	0.03	1464	0.02	75

APPENDIX C
WATER QUANTITY CALCULATIONS – EXISTING CONDITIONS

C-1. Existing Conditions Hydraulic Network

1. Time of Concentration
2. Model Input
3. Model Results



12/12/2024

TIME OF CONCENTRATION
EXISTING CONDITIONS

Kimley»Horn

Basin	Sheet Flow Manning, n	Sheet Flow 2-Year 24-Hour Rain, P2 (in)	Sheet Flow Flow Length, L (ft)	Sheet Flow US Elevation (ft)	Sheet Flow DS Elevation (ft)	Sheet Flow Land Slope, s (ft/ft)	Sheet Flow Tt1 (min)	Shallow Concentrated Flow Paved or Unpaved (P or U)	Shallow Concentrated Flow Flow Length, L (ft)	Shallow Concentrated Flow US Elevation (ft)	Shallow Concentrated Flow DS Elevation (ft)	Shallow Concentrated Flow Water-course Slope, s (ft/ft)	Shallow Concentrated Flow Avg. Velocity, V (ft/s)	Shallow Concentrated Flow Tt2 (min)	Total Tc (min)
ECG-01	0.3	4.25	100	21.17	21.10	0.001	57	U	225.00	21.10	18.90	0.010	1.80	2	59
ECG-02	0.3	4.25	100.00	22.10	21.70	0.004	28	U	411.00	21.7	20.40	0.003	0.91	8	36
ECG-03	0.3	4.25	100	21.68	20.60	0.011	19	U	37.00	20.60	19.90	0.019	2.22	0	19

NOTES:
Basins with a TC of 10 minutes were within development areas or existing areas with short hydraulic paths.
Time of Concentration values determined using TR-55 Methodology

SHEET FLOW = $\frac{.007\,nL^{.8}}{(P2)^{.5}s^{.4}}$

SHALLOW CONCENTRATED FLOW PER FIGURE 3-1, TR-55

2024-12-12 Drainage Calculations - Time of Concentration.xlsx
ECM TC

Simulation: 100YR 24HR

Scenario: ECM
Run Date/Time: 12/12/2024 8:13:52 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 100YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain: Global

Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

Opt:
Rainfall Name: -FLMOD
Rainfall Amount: 10.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR 24HR

Scenario: ECM
Run Date/Time: 12/12/2024 8:14:16 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:	Icpr3	Boundary Stage Set:	100YR 24HR
		Extern Hydrograph Set:	
Unit Hydrograph Folder:	Icpr3	Curve Number Set:	CN
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	Impervious

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FLMOD
		Rainfall Amount:	8.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	113 ft2
		Energy Switch (1D):	Energy

Comment:

Manual Basin: ECG-01

Scenario:	ECM
Node:	BC_C00630_N
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	59.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	2.2537 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
2.2537	Pervious	A/D	

Comment:

Manual Basin: ECG-02

Scenario:	ECM
Node:	BC_C00630_N
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	29.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	4.0154 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2145	Pervious	C/D	
3.8010	Pervious	A/D	

Comment:

Manual Basin: ECG-03

Scenario:	ECM
Node:	BC_C00630_N
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	20.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	0.7805 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5541	Pervious	A/D	
0.2264	Pervious	C/D	

Comment:

Node: BC_C00630_N

Scenario:	ECM
Type:	Time/Stage
Base Flow:	0.00 cfs
Initial Stage:	11.04 ft
Warning Stage:	0.00 ft
Boundary Stage:	

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.04
0	0	0	0.0834	11.04

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.1667	11.04
0	0	0	0.2500	11.04
0	0	0	0.3334	11.05
0	0	0	0.4167	11.05
0	0	0	0.5000	11.06
0	0	0	0.5834	11.07
0	0	0	0.6667	11.09
0	0	0	0.7500	11.11
0	0	0	0.8334	11.14
0	0	0	0.9167	11.17
0	0	0	1.0000	11.21
0	0	0	1.0833	11.26
0	0	0	1.1667	11.32
0	0	0	1.2500	11.38
0	0	0	1.3334	11.45
0	0	0	1.4167	11.53
0	0	0	1.5000	11.61
0	0	0	1.5833	11.69
0	0	0	1.6667	11.78
0	0	0	1.7500	11.83
0	0	0	1.8334	11.83
0	0	0	1.9167	11.84
0	0	0	2.0000	11.84
0	0	0	2.0834	11.84
0	0	0	2.1667	11.84
0	0	0	2.2500	11.85
0	0	0	2.3334	11.85
0	0	0	2.4167	11.85
0	0	0	2.5000	11.86
0	0	0	2.5834	11.86
0	0	0	2.6667	11.86
0	0	0	2.7500	11.87
0	0	0	2.8334	11.87
0	0	0	2.9167	11.88
0	0	0	3.0000	11.88
0	0	0	3.0834	11.89
0	0	0	3.1667	11.89
0	0	0	3.2500	11.89
0	0	0	3.3333	11.90
0	0	0	3.4167	11.91
0	0	0	3.5000	11.91
0	0	0	3.5834	11.92
0	0	0	3.6667	11.92
0	0	0	3.7500	11.93
0	0	0	3.8334	11.93
0	0	0	3.9167	11.94
0	0	0	4.0000	11.95
0	0	0	4.0834	11.95
0	0	0	4.1667	11.96

Year	Month	Day	Hour	Stage [ft]
0	0	0	4.2501	11.97
0	0	0	4.3334	11.97
0	0	0	4.4167	11.98
0	0	0	4.5000	11.99
0	0	0	4.5834	11.99
0	0	0	4.6667	12.00
0	0	0	4.7500	12.01
0	0	0	4.8334	12.02
0	0	0	4.9167	12.03
0	0	0	5.0000	12.03
0	0	0	5.0833	12.04
0	0	0	5.1667	12.05
0	0	0	5.2500	12.06
0	0	0	5.3334	12.07
0	0	0	5.4167	12.08
0	0	0	5.5000	12.09
0	0	0	5.5833	12.09
0	0	0	5.6667	12.10
0	0	0	5.7500	12.11
0	0	0	5.8333	12.12
0	0	0	5.9167	12.13
0	0	0	6.0000	12.14
0	0	0	6.0834	12.15
0	0	0	6.1667	12.16
0	0	0	6.2500	12.17
0	0	0	6.3333	12.18
0	0	0	6.4167	12.20
0	0	0	6.5000	12.21
0	0	0	6.5833	12.22
0	0	0	6.6667	12.23
0	0	0	6.7500	12.24
0	0	0	6.8334	12.25
0	0	0	6.9167	12.27
0	0	0	7.0000	12.28
0	0	0	7.0834	12.29
0	0	0	7.1667	12.30
0	0	0	7.2500	12.32
0	0	0	7.3334	12.33
0	0	0	7.4167	12.34
0	0	0	7.5000	12.36
0	0	0	7.5833	12.37
0	0	0	7.6667	12.38
0	0	0	7.7500	12.40
0	0	0	7.8333	12.41
0	0	0	7.9167	12.43
0	0	0	8.0000	12.44
0	0	0	8.0834	12.46
0	0	0	8.1667	12.47
0	0	0	8.2500	12.49

Year	Month	Day	Hour	Stage [ft]
0	0	0	8.3334	12.50
0	0	0	8.4167	12.52
0	0	0	8.5000	12.54
0	0	0	8.5833	12.55
0	0	0	8.6667	12.57
0	0	0	8.7500	12.59
0	0	0	8.8333	12.61
0	0	0	8.9167	12.63
0	0	0	9.0000	12.64
0	0	0	9.0833	12.66
0	0	0	9.1667	12.68
0	0	0	9.2500	12.71
0	0	0	9.3333	12.73
0	0	0	9.4167	12.75
0	0	0	9.5000	12.77
0	0	0	9.5833	12.79
0	0	0	9.6667	12.81
0	0	0	9.7500	12.84
0	0	0	9.8333	12.86
0	0	0	9.9167	12.89
0	0	0	10.0000	12.91
0	0	0	10.0833	12.93
0	0	0	10.1667	12.97
0	0	0	10.2500	12.99
0	0	0	10.3333	13.02
0	0	0	10.4167	13.05
0	0	0	10.5000	13.08
0	0	0	10.5833	13.11
0	0	0	10.6667	13.14
0	0	0	10.7500	13.17
0	0	0	10.8333	13.21
0	0	0	10.9167	13.25
0	0	0	11.0000	13.28
0	0	0	11.0833	13.32
0	0	0	11.1667	13.36
0	0	0	11.2500	13.41
0	0	0	11.3333	13.45
0	0	0	11.4167	13.50
0	0	0	11.5000	13.55
0	0	0	11.5834	13.60
0	0	0	11.6667	13.67
0	0	0	11.7500	13.76
0	0	0	11.8334	13.88
0	0	0	11.9167	14.03
0	0	0	12.0000	14.24
0	0	0	12.0833	14.54
0	0	0	12.1667	15.06
0	0	0	12.2500	15.90
0	0	0	12.3334	16.80

Year	Month	Day	Hour	Stage [ft]
0	0	0	12.4167	17.37
0	0	0	12.5000	17.66
0	0	0	12.5833	17.82
0	0	0	12.6667	17.93
0	0	0	12.7500	18.02
0	0	0	12.8333	18.08
0	0	0	12.9167	18.12
0	0	0	13.0000	18.15
0	0	0	13.0833	18.16
0	0	0	13.1667	18.17
0	0	0	13.2500	18.17
0	0	0	13.3333	18.18
0	0	0	13.4167	18.18
0	0	0	13.5000	18.18
0	0	0	13.5834	18.18
0	0	0	13.6667	18.18
0	0	0	13.7500	18.17
0	0	0	13.8334	18.17
0	0	0	13.9167	18.16
0	0	0	14.0000	18.16
0	0	0	14.0834	18.15
0	0	0	14.1667	18.13
0	0	0	14.2500	18.12
0	0	0	14.3334	18.10
0	0	0	14.4167	18.09
0	0	0	14.5000	18.07
0	0	0	14.5834	18.06
0	0	0	14.6667	18.04
0	0	0	14.7500	18.03
0	0	0	14.8334	18.01
0	0	0	14.9167	18.00
0	0	0	15.0000	17.99
0	0	0	15.0834	17.97
0	0	0	15.1667	17.96
0	0	0	15.2500	17.94
0	0	0	15.3334	17.92
0	0	0	15.4167	17.91
0	0	0	15.5000	17.89
0	0	0	15.5834	17.87
0	0	0	15.6667	17.85
0	0	0	15.7500	17.83
0	0	0	15.8334	17.81
0	0	0	15.9167	17.80
0	0	0	16.0000	17.78
0	0	0	16.0834	17.76
0	0	0	16.1667	17.74
0	0	0	16.2500	17.71
0	0	0	16.3334	17.69
0	0	0	16.4167	17.67

Year	Month	Day	Hour	Stage [ft]
0	0	0	16.5000	17.65
0	0	0	16.5834	17.63
0	0	0	16.6667	17.60
0	0	0	16.7500	17.58
0	0	0	16.8334	17.56
0	0	0	16.9167	17.54
0	0	0	17.0000	17.52
0	0	0	17.0834	17.50
0	0	0	17.1667	17.47
0	0	0	17.2500	17.45
0	0	0	17.3334	17.43
0	0	0	17.4167	17.41
0	0	0	17.5000	17.38
0	0	0	17.5834	17.36
0	0	0	17.6667	17.34
0	0	0	17.7500	17.32
0	0	0	17.8334	17.30
0	0	0	17.9167	17.27
0	0	0	18.0000	17.25
0	0	0	18.0834	17.23
0	0	0	18.1667	17.21
0	0	0	18.2500	17.19
0	0	0	18.3334	17.16
0	0	0	18.4167	17.14
0	0	0	18.5000	17.12
0	0	0	18.5834	17.10
0	0	0	18.6667	17.08
0	0	0	18.7500	17.06
0	0	0	18.8334	17.04
0	0	0	18.9167	17.02
0	0	0	19.0000	17.01
0	0	0	19.0834	16.99
0	0	0	19.1667	16.97
0	0	0	19.2500	16.95
0	0	0	19.3334	16.93
0	0	0	19.4167	16.91
0	0	0	19.5000	16.89
0	0	0	19.5834	16.88
0	0	0	19.6667	16.86
0	0	0	19.7500	16.84
0	0	0	19.8334	16.83
0	0	0	19.9167	16.81
0	0	0	20.0000	16.80
0	0	0	20.0834	16.78
0	0	0	20.1667	16.76
0	0	0	20.2500	16.75
0	0	0	20.3334	16.73
0	0	0	20.4167	16.72
0	0	0	20.5000	16.70

Year	Month	Day	Hour	Stage [ft]
0	0	0	20.5834	16.69
0	0	0	20.6667	16.67
0	0	0	20.7500	16.65
0	0	0	20.8334	16.64
0	0	0	20.9167	16.62
0	0	0	21.0000	16.61
0	0	0	21.0834	16.59
0	0	0	21.1667	16.57
0	0	0	21.2500	16.56
0	0	0	21.3334	16.54
0	0	0	21.4167	16.53
0	0	0	21.5000	16.51
0	0	0	21.5834	16.50
0	0	0	21.6667	16.48
0	0	0	21.7500	16.47
0	0	0	21.8334	16.45
0	0	0	21.9167	16.44
0	0	0	22.0000	16.42
0	0	0	22.0834	16.41
0	0	0	22.1667	16.39
0	0	0	22.2500	16.38
0	0	0	22.3334	16.36
0	0	0	22.4167	16.35
0	0	0	22.5000	16.33
0	0	0	22.5834	16.32
0	0	0	22.6667	16.31
0	0	0	22.7500	16.29
0	0	0	22.8334	16.28
0	0	0	22.9167	16.26
0	0	0	23.0000	16.25
0	0	0	23.0834	16.24
0	0	0	23.1667	16.22
0	0	0	23.2500	16.21
0	0	0	23.3334	16.19
0	0	0	23.4167	16.18
0	0	0	23.5000	16.17
0	0	0	23.5834	16.15
0	0	0	23.6667	16.14
0	0	0	23.7500	16.13
0	0	0	23.8334	16.11
0	0	0	23.9167	16.10
0	0	0	24.0000	16.09
0	0	0	24.0834	16.07
0	0	0	24.1667	16.06
0	0	0	24.2500	16.04
0	0	0	24.3334	16.03
0	0	0	24.4167	16.02
0	0	0	24.5000	16.00
0	0	0	24.5834	15.98

Year	Month	Day	Hour	Stage [ft]
0	0	0	24.6667	15.97
0	0	0	24.7500	15.95
0	0	0	24.8334	15.94
0	0	0	24.9167	15.92
0	0	0	25.0000	15.90
0	0	0	25.0834	15.88
0	0	0	25.1667	15.87
0	0	0	25.2500	15.85
0	0	0	25.3334	15.83
0	0	0	25.4167	15.81
0	0	0	25.5000	15.79
0	0	0	25.5834	15.78
0	0	0	25.6667	15.76
0	0	0	25.7500	15.74
0	0	0	25.8334	15.72
0	0	0	25.9167	15.70
0	0	0	26.0000	15.68
0	0	0	26.0834	15.66
0	0	0	26.1667	15.64
0	0	0	26.2500	15.62
0	0	0	26.3334	15.60
0	0	0	26.4167	15.58
0	0	0	26.5000	15.56
0	0	0	26.5834	15.54
0	0	0	26.6667	15.52
0	0	0	26.7500	15.51
0	0	0	26.8334	15.49
0	0	0	26.9167	15.47
0	0	0	27.0000	15.45
0	0	0	27.0834	15.43
0	0	0	27.1667	15.41
0	0	0	27.2500	15.39
0	0	0	27.3334	15.37
0	0	0	27.4167	15.35
0	0	0	27.5000	15.33
0	0	0	27.5834	15.31
0	0	0	27.6667	15.29
0	0	0	27.7500	15.27
0	0	0	27.8334	15.25
0	0	0	27.9167	15.23
0	0	0	28.0000	15.21
0	0	0	28.0834	15.19
0	0	0	28.1667	15.17
0	0	0	28.2500	15.15
0	0	0	28.3334	15.13
0	0	0	28.4167	15.11
0	0	0	28.5000	15.09
0	0	0	28.5834	15.08
0	0	0	28.6667	15.06

Year	Month	Day	Hour	Stage [ft]
0	0	0	28.7500	15.04
0	0	0	28.8334	15.02
0	0	0	28.9167	15.00
0	0	0	29.0000	14.98
0	0	0	29.0834	14.96
0	0	0	29.1667	14.94
0	0	0	29.2500	14.92
0	0	0	29.3333	14.91
0	0	0	29.4167	14.89
0	0	0	29.5000	14.87
0	0	0	29.5833	14.85
0	0	0	29.6667	14.83
0	0	0	29.7500	14.81
0	0	0	29.8333	14.80
0	0	0	29.9167	14.78
0	0	0	30.0000	14.76
0	0	0	30.0834	14.74
0	0	0	30.1667	14.72
0	0	0	30.2500	14.71
0	0	0	30.3334	14.69
0	0	0	30.4167	14.67
0	0	0	30.5000	14.66
0	0	0	30.5834	14.64
0	0	0	30.6667	14.62
0	0	0	30.7500	14.60
0	0	0	30.8334	14.59
0	0	0	30.9167	14.57
0	0	0	31.0000	14.55
0	0	0	31.0834	14.54
0	0	0	31.1667	14.52
0	0	0	31.2500	14.51
0	0	0	31.3333	14.49
0	0	0	31.4167	14.47
0	0	0	31.5000	14.46
0	0	0	31.5833	14.44
0	0	0	31.6667	14.43
0	0	0	31.7500	14.41
0	0	0	31.8333	14.40
0	0	0	31.9167	14.38
0	0	0	32.0000	14.37
0	0	0	32.0833	14.35
0	0	0	32.1667	14.34
0	0	0	32.2500	14.32
0	0	0	32.3334	14.31
0	0	0	32.4167	14.29
0	0	0	32.5000	14.28
0	0	0	32.5834	14.26
0	0	0	32.6667	14.25
0	0	0	32.7500	14.24

Year	Month	Day	Hour	Stage [ft]
0	0	0	32.8334	14.22
0	0	0	32.9167	14.21
0	0	0	33.0000	14.19
0	0	0	33.0834	14.18
0	0	0	33.1667	14.17
0	0	0	33.2500	14.15
0	0	0	33.3333	14.14
0	0	0	33.4167	14.13
0	0	0	33.5000	14.11
0	0	0	33.5833	14.10
0	0	0	33.6667	14.09
0	0	0	33.7500	14.08
0	0	0	33.8333	14.06
0	0	0	33.9167	14.05
0	0	0	34.0000	14.04
0	0	0	34.0833	14.03
0	0	0	34.1667	14.01
0	0	0	34.2500	14.00
0	0	0	34.3333	13.99
0	0	0	34.4167	13.98
0	0	0	34.5000	13.97
0	0	0	34.5833	13.95
0	0	0	34.6667	13.94
0	0	0	34.7500	13.93
0	0	0	34.8333	13.92
0	0	0	34.9167	13.91
0	0	0	35.0000	13.90
0	0	0	35.0833	13.88
0	0	0	35.1667	13.87
0	0	0	35.2500	13.86
0	0	0	35.3333	13.85
0	0	0	35.4167	13.84
0	0	0	35.5000	13.83
0	0	0	35.5833	13.82
0	0	0	35.6667	13.81
0	0	0	35.7500	13.80
0	0	0	35.8333	13.79
0	0	0	35.9167	13.78
0	0	0	36.0000	13.76
0	0	0	36.0833	13.75
0	0	0	36.1667	13.74
0	0	0	36.2500	13.73
0	0	0	36.3333	13.72
0	0	0	36.4167	13.71
0	0	0	36.5000	13.70
0	0	0	36.5833	13.69
0	0	0	36.6667	13.68
0	0	0	36.7500	13.67
0	0	0	36.8334	13.66

Year	Month	Day	Hour	Stage [ft]
0	0	0	36.9167	13.65
0	0	0	37.0000	13.64
0	0	0	37.0834	13.64
0	0	0	37.1667	13.63
0	0	0	37.2500	13.62
0	0	0	37.3334	13.61
0	0	0	37.4167	13.60
0	0	0	37.5000	13.59
0	0	0	37.5834	13.58
0	0	0	37.6667	13.57
0	0	0	37.7500	13.56
0	0	0	37.8334	13.55
0	0	0	37.9167	13.54
0	0	0	38.0000	13.54
0	0	0	38.0834	13.53
0	0	0	38.1667	13.52
0	0	0	38.2500	13.51
0	0	0	38.3334	13.50
0	0	0	38.4167	13.49
0	0	0	38.5000	13.48
0	0	0	38.5834	13.48
0	0	0	38.6667	13.47
0	0	0	38.7500	13.46
0	0	0	38.8334	13.45
0	0	0	38.9167	13.44
0	0	0	39.0000	13.43
0	0	0	39.0834	13.43
0	0	0	39.1667	13.42
0	0	0	39.2500	13.41
0	0	0	39.3334	13.40
0	0	0	39.4167	13.39
0	0	0	39.5000	13.39
0	0	0	39.5834	13.38
0	0	0	39.6667	13.37
0	0	0	39.7500	13.36
0	0	0	39.8334	13.36
0	0	0	39.9167	13.35
0	0	0	40.0000	13.34
0	0	0	40.0834	13.33
0	0	0	40.1667	13.33
0	0	0	40.2500	13.32
0	0	0	40.3334	13.31
0	0	0	40.4167	13.30
0	0	0	40.5000	13.30
0	0	0	40.5834	13.29
0	0	0	40.6667	13.28
0	0	0	40.7500	13.28
0	0	0	40.8334	13.27
0	0	0	40.9167	13.26

Year	Month	Day	Hour	Stage [ft]
0	0	0	41.0000	13.25
0	0	0	41.0834	13.25
0	0	0	41.1667	13.24
0	0	0	41.2500	13.23
0	0	0	41.3334	13.23
0	0	0	41.4167	13.22
0	0	0	41.5000	13.21
0	0	0	41.5834	13.21
0	0	0	41.6667	13.20
0	0	0	41.7500	13.19
0	0	0	41.8334	13.19
0	0	0	41.9167	13.18
0	0	0	42.0000	13.17
0	0	0	42.0834	13.17
0	0	0	42.1667	13.16
0	0	0	42.2500	13.16
0	0	0	42.3334	13.15
0	0	0	42.4167	13.14
0	0	0	42.5000	13.14
0	0	0	42.5834	13.13
0	0	0	42.6667	13.12
0	0	0	42.7500	13.12
0	0	0	42.8334	13.11
0	0	0	42.9167	13.11
0	0	0	43.0000	13.10
0	0	0	43.0834	13.09
0	0	0	43.1667	13.09
0	0	0	43.2500	13.08
0	0	0	43.3334	13.08
0	0	0	43.4167	13.07
0	0	0	43.5000	13.06
0	0	0	43.5834	13.06
0	0	0	43.6667	13.05
0	0	0	43.7500	13.05
0	0	0	43.8334	13.04
0	0	0	43.9167	13.04
0	0	0	44.0000	13.03
0	0	0	44.0833	13.02
0	0	0	44.1667	13.02
0	0	0	44.2500	13.01
0	0	0	44.3333	13.01
0	0	0	44.4167	13.00
0	0	0	44.5000	13.00
0	0	0	44.5833	12.99
0	0	0	44.6667	12.99
0	0	0	44.7500	12.98
0	0	0	44.8334	12.97
0	0	0	44.9167	12.97
0	0	0	45.0000	12.96

Year	Month	Day	Hour	Stage [ft]
0	0	0	45.0833	12.96
0	0	0	45.1667	12.95
0	0	0	45.2500	12.95
0	0	0	45.3333	12.94
0	0	0	45.4167	12.94
0	0	0	45.5000	12.93
0	0	0	45.5833	12.93
0	0	0	45.6667	12.92
0	0	0	45.7500	12.92
0	0	0	45.8334	12.91
0	0	0	45.9167	12.91
0	0	0	46.0000	12.90
0	0	0	46.0834	12.90
0	0	0	46.1667	12.89
0	0	0	46.2500	12.89
0	0	0	46.3334	12.88
0	0	0	46.4167	12.88
0	0	0	46.5000	12.87
0	0	0	46.5833	12.87
0	0	0	46.6667	12.86
0	0	0	46.7500	12.86
0	0	0	46.8333	12.85
0	0	0	46.9167	12.85
0	0	0	47.0000	12.84
0	0	0	47.0834	12.84
0	0	0	47.1667	12.83
0	0	0	47.2500	12.83
0	0	0	47.3333	12.82
0	0	0	47.4167	12.82
0	0	0	47.5000	12.81
0	0	0	47.5833	12.81
0	0	0	47.6667	12.80
0	0	0	47.7500	12.80
0	0	0	47.8333	12.80
0	0	0	47.9167	12.79
0	0	0	48.0000	12.79

Comment: Stage information found in from Bowlees Creek Model
Node BC_C00630_N

Manual Basin Runoff Summary [ECM]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ECG-01	100YR 24HR	4.69	12.6500	10.00	7.52	2.2537	80.0	0.00	0.00
ECG-01	25YR 24HR	3.52	12.6667	8.00	5.62	2.2537	80.0	0.00	0.00

Manual Basin Runoff Summary [ECM]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ECG-02	100YR 24HR	12.72	12.2667	10.00	7.52	4.0154	80.0	0.00	0.00
ECG-02	25YR 24HR	9.57	12.2833	8.00	5.62	4.0154	80.0	0.00	0.00

Manual Basin Runoff Summary [ECM]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ECG-03	100YR 24HR	3.00	12.1500	10.00	7.52	0.7805	80.0	0.00	0.00
ECG-03	25YR 24HR	2.26	12.1500	8.00	5.62	0.7805	80.0	0.00	0.00

Node Max Conditions [ECM]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
BC_C00630_N	100YR 24HR	0.00	18.18	0.1799	19.18	0.00	0
BC_C00630_N	25YR 24HR	0.00	18.18	0.1799	14.43	0.00	0

APPENDIX D

WATER QUANTITY CALCULATIONS – PROPOSED CONDITIONS

D-1. Proposed Conditions Hydraulic Network

1. Time of Concentration
2. Model Input
3. Model Results

LEGEND

NODES

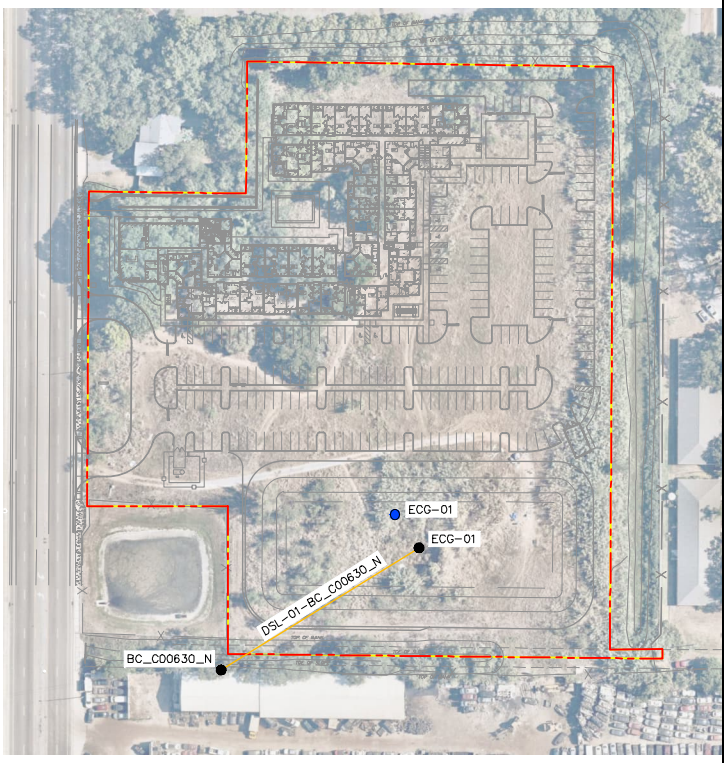
MANUAL BASINS

PROPERTY BOUNDARY

MANUAL BASINS

DROP STRUCTURE

GRAPHIC SCALE IN FEET
0 25 50 100



KHA PROJECT	045958008
DATE	FEBRUARY 2025
SCALE	AS SHOWN
DESIGNED BY	
DRAWN BY	
CHECKED BY	

Kimley»Horn

9TH STREET APARTMENTS MULTI-FAMILY
PREPARED FOR
ELMINGTON CAPITAL GROUP
MANATEE COUNTY, FLORIDA

PROPOSED CONDITIONS HYDRAULIC NETWORK

SHEET NUMBER

D-1

Simulation: 100YR 24HR

Scenario: PCM
Run Date/Time: 4/8/2025 7:59:32 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 100YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global

Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

Opt:
Rainfall Name: -FLMOD
Rainfall Amount: 10.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR 24HR

Scenario: PCM
Run Date/Time: 4/8/2025 7:59:51 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 100YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Rainfall Name: -FLMOD
Rainfall Amount: 8.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Manual Basin: ECG-01

Scenario: PCM
Node: ECG-01
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7454 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2702	Pervious	C/D	
2.1334	Pervious	A/D	
0.2089	Water	C/D	
0.8245	Water	A/D	
3.3084	Impervious	A/D	

Comment:

Node: BC_C00630_N

Scenario: PCM
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 11.04 ft
Warning Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.04
0	0	0	0.0834	11.04
0	0	0	0.1667	11.04
0	0	0	0.2500	11.04
0	0	0	0.3334	11.05
0	0	0	0.4167	11.05
0	0	0	0.5000	11.06
0	0	0	0.5834	11.07
0	0	0	0.6667	11.09
0	0	0	0.7500	11.11
0	0	0	0.8334	11.14
0	0	0	0.9167	11.17
0	0	0	1.0000	11.21
0	0	0	1.0833	11.26
0	0	0	1.1667	11.32
0	0	0	1.2500	11.38
0	0	0	1.3334	11.45
0	0	0	1.4167	11.53
0	0	0	1.5000	11.61
0	0	0	1.5833	11.69
0	0	0	1.6667	11.78
0	0	0	1.7500	11.83
0	0	0	1.8334	11.83
0	0	0	1.9167	11.84
0	0	0	2.0000	11.84
0	0	0	2.0834	11.84
0	0	0	2.1667	11.84
0	0	0	2.2500	11.85
0	0	0	2.3334	11.85
0	0	0	2.4167	11.85
0	0	0	2.5000	11.86
0	0	0	2.5834	11.86
0	0	0	2.6667	11.86
0	0	0	2.7500	11.87
0	0	0	2.8334	11.87
0	0	0	2.9167	11.88

Year	Month	Day	Hour	Stage [ft]
0	0	0	3.0000	11.88
0	0	0	3.0834	11.89
0	0	0	3.1667	11.89
0	0	0	3.2500	11.89
0	0	0	3.3333	11.90
0	0	0	3.4167	11.91
0	0	0	3.5000	11.91
0	0	0	3.5834	11.92
0	0	0	3.6667	11.92
0	0	0	3.7500	11.93
0	0	0	3.8334	11.93
0	0	0	3.9167	11.94
0	0	0	4.0000	11.95
0	0	0	4.0834	11.95
0	0	0	4.1667	11.96
0	0	0	4.2501	11.97
0	0	0	4.3334	11.97
0	0	0	4.4167	11.98
0	0	0	4.5000	11.99
0	0	0	4.5834	11.99
0	0	0	4.6667	12.00
0	0	0	4.7500	12.01
0	0	0	4.8334	12.02
0	0	0	4.9167	12.03
0	0	0	5.0000	12.03
0	0	0	5.0833	12.04
0	0	0	5.1667	12.05
0	0	0	5.2500	12.06
0	0	0	5.3334	12.07
0	0	0	5.4167	12.08
0	0	0	5.5000	12.09
0	0	0	5.5833	12.09
0	0	0	5.6667	12.10
0	0	0	5.7500	12.11
0	0	0	5.8333	12.12
0	0	0	5.9167	12.13
0	0	0	6.0000	12.14
0	0	0	6.0834	12.15
0	0	0	6.1667	12.16
0	0	0	6.2500	12.17
0	0	0	6.3333	12.18
0	0	0	6.4167	12.20
0	0	0	6.5000	12.21
0	0	0	6.5833	12.22
0	0	0	6.6667	12.23
0	0	0	6.7500	12.24
0	0	0	6.8334	12.25
0	0	0	6.9167	12.27
0	0	0	7.0000	12.28

Year	Month	Day	Hour	Stage [ft]
0	0	0	7.0834	12.29
0	0	0	7.1667	12.30
0	0	0	7.2500	12.32
0	0	0	7.3334	12.33
0	0	0	7.4167	12.34
0	0	0	7.5000	12.36
0	0	0	7.5833	12.37
0	0	0	7.6667	12.38
0	0	0	7.7500	12.40
0	0	0	7.8333	12.41
0	0	0	7.9167	12.43
0	0	0	8.0000	12.44
0	0	0	8.0834	12.46
0	0	0	8.1667	12.47
0	0	0	8.2500	12.49
0	0	0	8.3334	12.50
0	0	0	8.4167	12.52
0	0	0	8.5000	12.54
0	0	0	8.5833	12.55
0	0	0	8.6667	12.57
0	0	0	8.7500	12.59
0	0	0	8.8333	12.61
0	0	0	8.9167	12.63
0	0	0	9.0000	12.64
0	0	0	9.0833	12.66
0	0	0	9.1667	12.68
0	0	0	9.2500	12.71
0	0	0	9.3333	12.73
0	0	0	9.4167	12.75
0	0	0	9.5000	12.77
0	0	0	9.5833	12.79
0	0	0	9.6667	12.81
0	0	0	9.7500	12.84
0	0	0	9.8333	12.86
0	0	0	9.9167	12.89
0	0	0	10.0000	12.91
0	0	0	10.0833	12.93
0	0	0	10.1667	12.97
0	0	0	10.2500	12.99
0	0	0	10.3333	13.02
0	0	0	10.4167	13.05
0	0	0	10.5000	13.08
0	0	0	10.5833	13.11
0	0	0	10.6667	13.14
0	0	0	10.7500	13.17
0	0	0	10.8333	13.21
0	0	0	10.9167	13.25
0	0	0	11.0000	13.28
0	0	0	11.0833	13.32

Year	Month	Day	Hour	Stage [ft]
0	0	0	11.1667	13.36
0	0	0	11.2500	13.41
0	0	0	11.3333	13.45
0	0	0	11.4167	13.50
0	0	0	11.5000	13.55
0	0	0	11.5834	13.60
0	0	0	11.6667	13.67
0	0	0	11.7500	13.76
0	0	0	11.8334	13.88
0	0	0	11.9167	14.03
0	0	0	12.0000	14.24
0	0	0	12.0833	14.54
0	0	0	12.1667	15.06
0	0	0	12.2500	15.90
0	0	0	12.3334	16.80
0	0	0	12.4167	17.37
0	0	0	12.5000	17.66
0	0	0	12.5833	17.82
0	0	0	12.6667	17.93
0	0	0	12.7500	18.02
0	0	0	12.8333	18.08
0	0	0	12.9167	18.12
0	0	0	13.0000	18.15
0	0	0	13.0833	18.16
0	0	0	13.1667	18.17
0	0	0	13.2500	18.17
0	0	0	13.3333	18.18
0	0	0	13.4167	18.18
0	0	0	13.5000	18.18
0	0	0	13.5834	18.18
0	0	0	13.6667	18.18
0	0	0	13.7500	18.17
0	0	0	13.8334	18.17
0	0	0	13.9167	18.16
0	0	0	14.0000	18.16
0	0	0	14.0834	18.15
0	0	0	14.1667	18.13
0	0	0	14.2500	18.12
0	0	0	14.3334	18.10
0	0	0	14.4167	18.09
0	0	0	14.5000	18.07
0	0	0	14.5834	18.06
0	0	0	14.6667	18.04
0	0	0	14.7500	18.03
0	0	0	14.8334	18.01
0	0	0	14.9167	18.00
0	0	0	15.0000	17.99
0	0	0	15.0834	17.97
0	0	0	15.1667	17.96

Year	Month	Day	Hour	Stage [ft]
0	0	0	15.2500	17.94
0	0	0	15.3334	17.92
0	0	0	15.4167	17.91
0	0	0	15.5000	17.89
0	0	0	15.5834	17.87
0	0	0	15.6667	17.85
0	0	0	15.7500	17.83
0	0	0	15.8334	17.81
0	0	0	15.9167	17.80
0	0	0	16.0000	17.78
0	0	0	16.0834	17.76
0	0	0	16.1667	17.74
0	0	0	16.2500	17.71
0	0	0	16.3334	17.69
0	0	0	16.4167	17.67
0	0	0	16.5000	17.65
0	0	0	16.5834	17.63
0	0	0	16.6667	17.60
0	0	0	16.7500	17.58
0	0	0	16.8334	17.56
0	0	0	16.9167	17.54
0	0	0	17.0000	17.52
0	0	0	17.0834	17.50
0	0	0	17.1667	17.47
0	0	0	17.2500	17.45
0	0	0	17.3334	17.43
0	0	0	17.4167	17.41
0	0	0	17.5000	17.38
0	0	0	17.5834	17.36
0	0	0	17.6667	17.34
0	0	0	17.7500	17.32
0	0	0	17.8334	17.30
0	0	0	17.9167	17.27
0	0	0	18.0000	17.25
0	0	0	18.0834	17.23
0	0	0	18.1667	17.21
0	0	0	18.2500	17.19
0	0	0	18.3334	17.16
0	0	0	18.4167	17.14
0	0	0	18.5000	17.12
0	0	0	18.5834	17.10
0	0	0	18.6667	17.08
0	0	0	18.7500	17.06
0	0	0	18.8334	17.04
0	0	0	18.9167	17.02
0	0	0	19.0000	17.01
0	0	0	19.0834	16.99
0	0	0	19.1667	16.97
0	0	0	19.2500	16.95

Year	Month	Day	Hour	Stage [ft]
0	0	0	19.3334	16.93
0	0	0	19.4167	16.91
0	0	0	19.5000	16.89
0	0	0	19.5834	16.88
0	0	0	19.6667	16.86
0	0	0	19.7500	16.84
0	0	0	19.8334	16.83
0	0	0	19.9167	16.81
0	0	0	20.0000	16.80
0	0	0	20.0834	16.78
0	0	0	20.1667	16.76
0	0	0	20.2500	16.75
0	0	0	20.3334	16.73
0	0	0	20.4167	16.72
0	0	0	20.5000	16.70
0	0	0	20.5834	16.69
0	0	0	20.6667	16.67
0	0	0	20.7500	16.65
0	0	0	20.8334	16.64
0	0	0	20.9167	16.62
0	0	0	21.0000	16.61
0	0	0	21.0834	16.59
0	0	0	21.1667	16.57
0	0	0	21.2500	16.56
0	0	0	21.3334	16.54
0	0	0	21.4167	16.53
0	0	0	21.5000	16.51
0	0	0	21.5834	16.50
0	0	0	21.6667	16.48
0	0	0	21.7500	16.47
0	0	0	21.8334	16.45
0	0	0	21.9167	16.44
0	0	0	22.0000	16.42
0	0	0	22.0834	16.41
0	0	0	22.1667	16.39
0	0	0	22.2500	16.38
0	0	0	22.3334	16.36
0	0	0	22.4167	16.35
0	0	0	22.5000	16.33
0	0	0	22.5834	16.32
0	0	0	22.6667	16.31
0	0	0	22.7500	16.29
0	0	0	22.8334	16.28
0	0	0	22.9167	16.26
0	0	0	23.0000	16.25
0	0	0	23.0834	16.24
0	0	0	23.1667	16.22
0	0	0	23.2500	16.21
0	0	0	23.3334	16.19

Year	Month	Day	Hour	Stage [ft]
0	0	0	23.4167	16.18
0	0	0	23.5000	16.17
0	0	0	23.5834	16.15
0	0	0	23.6667	16.14
0	0	0	23.7500	16.13
0	0	0	23.8334	16.11
0	0	0	23.9167	16.10
0	0	0	24.0000	16.09
0	0	0	24.0834	16.07
0	0	0	24.1667	16.06
0	0	0	24.2500	16.04
0	0	0	24.3334	16.03
0	0	0	24.4167	16.02
0	0	0	24.5000	16.00
0	0	0	24.5834	15.98
0	0	0	24.6667	15.97
0	0	0	24.7500	15.95
0	0	0	24.8334	15.94
0	0	0	24.9167	15.92
0	0	0	25.0000	15.90
0	0	0	25.0834	15.88
0	0	0	25.1667	15.87
0	0	0	25.2500	15.85
0	0	0	25.3334	15.83
0	0	0	25.4167	15.81
0	0	0	25.5000	15.79
0	0	0	25.5834	15.78
0	0	0	25.6667	15.76
0	0	0	25.7500	15.74
0	0	0	25.8334	15.72
0	0	0	25.9167	15.70
0	0	0	26.0000	15.68
0	0	0	26.0834	15.66
0	0	0	26.1667	15.64
0	0	0	26.2500	15.62
0	0	0	26.3334	15.60
0	0	0	26.4167	15.58
0	0	0	26.5000	15.56
0	0	0	26.5834	15.54
0	0	0	26.6667	15.52
0	0	0	26.7500	15.51
0	0	0	26.8334	15.49
0	0	0	26.9167	15.47
0	0	0	27.0000	15.45
0	0	0	27.0834	15.43
0	0	0	27.1667	15.41
0	0	0	27.2500	15.39
0	0	0	27.3334	15.37
0	0	0	27.4167	15.35

Year	Month	Day	Hour	Stage [ft]
0	0	0	27.5000	15.33
0	0	0	27.5834	15.31
0	0	0	27.6667	15.29
0	0	0	27.7500	15.27
0	0	0	27.8334	15.25
0	0	0	27.9167	15.23
0	0	0	28.0000	15.21
0	0	0	28.0834	15.19
0	0	0	28.1667	15.17
0	0	0	28.2500	15.15
0	0	0	28.3334	15.13
0	0	0	28.4167	15.11
0	0	0	28.5000	15.09
0	0	0	28.5834	15.08
0	0	0	28.6667	15.06
0	0	0	28.7500	15.04
0	0	0	28.8334	15.02
0	0	0	28.9167	15.00
0	0	0	29.0000	14.98
0	0	0	29.0834	14.96
0	0	0	29.1667	14.94
0	0	0	29.2500	14.92
0	0	0	29.3333	14.91
0	0	0	29.4167	14.89
0	0	0	29.5000	14.87
0	0	0	29.5833	14.85
0	0	0	29.6667	14.83
0	0	0	29.7500	14.81
0	0	0	29.8333	14.80
0	0	0	29.9167	14.78
0	0	0	30.0000	14.76
0	0	0	30.0834	14.74
0	0	0	30.1667	14.72
0	0	0	30.2500	14.71
0	0	0	30.3334	14.69
0	0	0	30.4167	14.67
0	0	0	30.5000	14.66
0	0	0	30.5834	14.64
0	0	0	30.6667	14.62
0	0	0	30.7500	14.60
0	0	0	30.8334	14.59
0	0	0	30.9167	14.57
0	0	0	31.0000	14.55
0	0	0	31.0834	14.54
0	0	0	31.1667	14.52
0	0	0	31.2500	14.51
0	0	0	31.3333	14.49
0	0	0	31.4167	14.47
0	0	0	31.5000	14.46

Year	Month	Day	Hour	Stage [ft]
0	0	0	31.5833	14.44
0	0	0	31.6667	14.43
0	0	0	31.7500	14.41
0	0	0	31.8333	14.40
0	0	0	31.9167	14.38
0	0	0	32.0000	14.37
0	0	0	32.0833	14.35
0	0	0	32.1667	14.34
0	0	0	32.2500	14.32
0	0	0	32.3334	14.31
0	0	0	32.4167	14.29
0	0	0	32.5000	14.28
0	0	0	32.5834	14.26
0	0	0	32.6667	14.25
0	0	0	32.7500	14.24
0	0	0	32.8334	14.22
0	0	0	32.9167	14.21
0	0	0	33.0000	14.19
0	0	0	33.0834	14.18
0	0	0	33.1667	14.17
0	0	0	33.2500	14.15
0	0	0	33.3333	14.14
0	0	0	33.4167	14.13
0	0	0	33.5000	14.11
0	0	0	33.5833	14.10
0	0	0	33.6667	14.09
0	0	0	33.7500	14.08
0	0	0	33.8333	14.06
0	0	0	33.9167	14.05
0	0	0	34.0000	14.04
0	0	0	34.0833	14.03
0	0	0	34.1667	14.01
0	0	0	34.2500	14.00
0	0	0	34.3333	13.99
0	0	0	34.4167	13.98
0	0	0	34.5000	13.97
0	0	0	34.5833	13.95
0	0	0	34.6667	13.94
0	0	0	34.7500	13.93
0	0	0	34.8333	13.92
0	0	0	34.9167	13.91
0	0	0	35.0000	13.90
0	0	0	35.0833	13.88
0	0	0	35.1667	13.87
0	0	0	35.2500	13.86
0	0	0	35.3333	13.85
0	0	0	35.4167	13.84
0	0	0	35.5000	13.83
0	0	0	35.5833	13.82

Year	Month	Day	Hour	Stage [ft]
0	0	0	35.6667	13.81
0	0	0	35.7500	13.80
0	0	0	35.8333	13.79
0	0	0	35.9167	13.78
0	0	0	36.0000	13.76
0	0	0	36.0833	13.75
0	0	0	36.1667	13.74
0	0	0	36.2500	13.73
0	0	0	36.3333	13.72
0	0	0	36.4167	13.71
0	0	0	36.5000	13.70
0	0	0	36.5833	13.69
0	0	0	36.6667	13.68
0	0	0	36.7500	13.67
0	0	0	36.8334	13.66
0	0	0	36.9167	13.65
0	0	0	37.0000	13.64
0	0	0	37.0834	13.64
0	0	0	37.1667	13.63
0	0	0	37.2500	13.62
0	0	0	37.3334	13.61
0	0	0	37.4167	13.60
0	0	0	37.5000	13.59
0	0	0	37.5834	13.58
0	0	0	37.6667	13.57
0	0	0	37.7500	13.56
0	0	0	37.8334	13.55
0	0	0	37.9167	13.54
0	0	0	38.0000	13.54
0	0	0	38.0834	13.53
0	0	0	38.1667	13.52
0	0	0	38.2500	13.51
0	0	0	38.3334	13.50
0	0	0	38.4167	13.49
0	0	0	38.5000	13.48
0	0	0	38.5834	13.48
0	0	0	38.6667	13.47
0	0	0	38.7500	13.46
0	0	0	38.8334	13.45
0	0	0	38.9167	13.44
0	0	0	39.0000	13.43
0	0	0	39.0834	13.43
0	0	0	39.1667	13.42
0	0	0	39.2500	13.41
0	0	0	39.3334	13.40
0	0	0	39.4167	13.39
0	0	0	39.5000	13.39
0	0	0	39.5834	13.38
0	0	0	39.6667	13.37

Year	Month	Day	Hour	Stage [ft]
0	0	0	39.7500	13.36
0	0	0	39.8334	13.36
0	0	0	39.9167	13.35
0	0	0	40.0000	13.34
0	0	0	40.0834	13.33
0	0	0	40.1667	13.33
0	0	0	40.2500	13.32
0	0	0	40.3334	13.31
0	0	0	40.4167	13.30
0	0	0	40.5000	13.30
0	0	0	40.5834	13.29
0	0	0	40.6667	13.28
0	0	0	40.7500	13.28
0	0	0	40.8334	13.27
0	0	0	40.9167	13.26
0	0	0	41.0000	13.25
0	0	0	41.0834	13.25
0	0	0	41.1667	13.24
0	0	0	41.2500	13.23
0	0	0	41.3334	13.23
0	0	0	41.4167	13.22
0	0	0	41.5000	13.21
0	0	0	41.5834	13.21
0	0	0	41.6667	13.20
0	0	0	41.7500	13.19
0	0	0	41.8334	13.19
0	0	0	41.9167	13.18
0	0	0	42.0000	13.17
0	0	0	42.0834	13.17
0	0	0	42.1667	13.16
0	0	0	42.2500	13.16
0	0	0	42.3334	13.15
0	0	0	42.4167	13.14
0	0	0	42.5000	13.14
0	0	0	42.5834	13.13
0	0	0	42.6667	13.12
0	0	0	42.7500	13.12
0	0	0	42.8334	13.11
0	0	0	42.9167	13.11
0	0	0	43.0000	13.10
0	0	0	43.0834	13.09
0	0	0	43.1667	13.09
0	0	0	43.2500	13.08
0	0	0	43.3334	13.08
0	0	0	43.4167	13.07
0	0	0	43.5000	13.06
0	0	0	43.5834	13.06
0	0	0	43.6667	13.05
0	0	0	43.7500	13.05

Year	Month	Day	Hour	Stage [ft]
0	0	0	43.8334	13.04
0	0	0	43.9167	13.04
0	0	0	44.0000	13.03
0	0	0	44.0833	13.02
0	0	0	44.1667	13.02
0	0	0	44.2500	13.01
0	0	0	44.3333	13.01
0	0	0	44.4167	13.00
0	0	0	44.5000	13.00
0	0	0	44.5833	12.99
0	0	0	44.6667	12.99
0	0	0	44.7500	12.98
0	0	0	44.8334	12.97
0	0	0	44.9167	12.97
0	0	0	45.0000	12.96
0	0	0	45.0833	12.96
0	0	0	45.1667	12.95
0	0	0	45.2500	12.95
0	0	0	45.3333	12.94
0	0	0	45.4167	12.94
0	0	0	45.5000	12.93
0	0	0	45.5833	12.93
0	0	0	45.6667	12.92
0	0	0	45.7500	12.92
0	0	0	45.8334	12.91
0	0	0	45.9167	12.91
0	0	0	46.0000	12.90
0	0	0	46.0834	12.90
0	0	0	46.1667	12.89
0	0	0	46.2500	12.89
0	0	0	46.3334	12.88
0	0	0	46.4167	12.88
0	0	0	46.5000	12.87
0	0	0	46.5833	12.87
0	0	0	46.6667	12.86
0	0	0	46.7500	12.86
0	0	0	46.8333	12.85
0	0	0	46.9167	12.85
0	0	0	47.0000	12.84
0	0	0	47.0834	12.84
0	0	0	47.1667	12.83
0	0	0	47.2500	12.83
0	0	0	47.3333	12.82
0	0	0	47.4167	12.82
0	0	0	47.5000	12.81
0	0	0	47.5833	12.81
0	0	0	47.6667	12.80
0	0	0	47.7500	12.80
0	0	0	47.8333	12.80

Year	Month	Day	Hour	Stage [ft]
0	0	0	47.9167	12.79
0	0	0	48.0000	12.79

Comment: Stage information found in from Bowlees Creek Model
Node BC_C00630_N

Node: ECG-01

Scenario: PCM
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
21.00	1.4100	61420
17.50	1.0300	44867

Comment: From Drawdown Clac.
Wet Pond Excel Sheet:

Weir Width - 1.1'

PERVIOUS 2.40
DCIA 3.31
WATER 1.03

CWL - 1.03 AC 0.00
Breakline - 0.74 AC 3.00
Bottom - 0.56 AC 8.00

Drop Structure Link:		Upstream Pipe		Downstream Pipe	
DSL-01-BC_C00630_N		Invert:	14.29 ft	Invert:	12.90 ft
Scenario:	PCM	Manning's N:	0.0130	Manning's N:	0.0130
From Node:	ECG-01	Geometry: Circular		Geometry: Circular	
To Node:	BC_C00630_N	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Solution:	Combine	Op Table:		Op Table:	
Increments:	0	Ref Node:		Ref Node:	
Pipe Count:	1	Manning's N:	0.0130	Manning's N:	0.0130
Damping:	0.0000 ft	Top Clip			
Length:	47.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	1	Op Table:		Op Table:	

Entr Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Bend Location: 0.00 dec
Energy Switch: Energy

Ref Node:
Manning's N: 0.0130

Ref Node:
Manning's N: 0.0130

Pipe Comment:

Weir Component

Weir: 1
Weir Count: 1
Weir Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Sharp Crested Vertical
Geometry Type: Rectangular
Invert: 17.50 ft
Control Elevation: 17.50 ft
Max Depth: 1.60 ft
Max Width: 1.10 ft
Fillet: 0.00 ft

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:
Top Clip
Default: 0.00 ft
Op Table:
Ref Node:
Discharge Coefficients
Weir Default: 3.200
Weir Table:
Orifice Default: 0.600
Orifice Table:

Weir Comment:

Weir Component

Weir: 2
Weir Count: 1
Weir Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Sharp Crested Vertical
Geometry Type: Rectangular
Invert: 19.10 ft
Control Elevation: 17.50 ft
Max Depth: 99999.00 ft
Max Width: 6.00 ft
Fillet: 0.00 ft

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:
Top Clip
Default: 0.00 ft
Op Table:
Ref Node:
Discharge Coefficients
Weir Default: 3.200
Weir Table:
Orifice Default: 0.600
Orifice Table:

Weir Comment:

Drop Structure Comment:

Simulation: 100YR 24HR

Scenario: PCM
Run Date/Time: 4/8/2025 7:59:32 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 100YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain: Global

Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

Opt:
Rainfall Name: −FLMOD
Rainfall Amount: 10.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR 24HR

Scenario: PCM
Run Date/Time: 4/8/2025 7:59:51 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:	Icpr3	Boundary Stage Set:	100YR 24HR
		Extern Hydrograph Set:	
Unit Hydrograph Folder:	Icpr3	Curve Number Set:	CN
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	Impervious

Tolerances & Options			
Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FLMOD
		Rainfall Amount:	8.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	113 ft2
		Energy Switch (1D):	Energy

Comment:

Manual Basin Runoff Summary [PCM]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ECG-01	100YR 24HR	39.15	12.0000	10.00	9.11	6.7454	92.7	49.05	49.05
ECG-01	25YR 24HR	30.76	12.0000	8.00	7.15	6.7454	92.9	49.05	49.05

Node Max Conditions [PCM]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
BC_C00630_N	100YR 24HR	0.00	18.18	0.0180	11.86	0.00	0
BC_C00630_	25YR 24HR	0.00	18.18	0.0180	7.03	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N							

Node Max Conditions [PCM]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
ECG-01	100YR 24HR	0.00	19.52	0.0010	39.15	11.87	54416
ECG-01	25YR 24HR	0.00	19.20	-0.0010	30.75	7.03	52917

Link Min/Max Conditions [PCM]

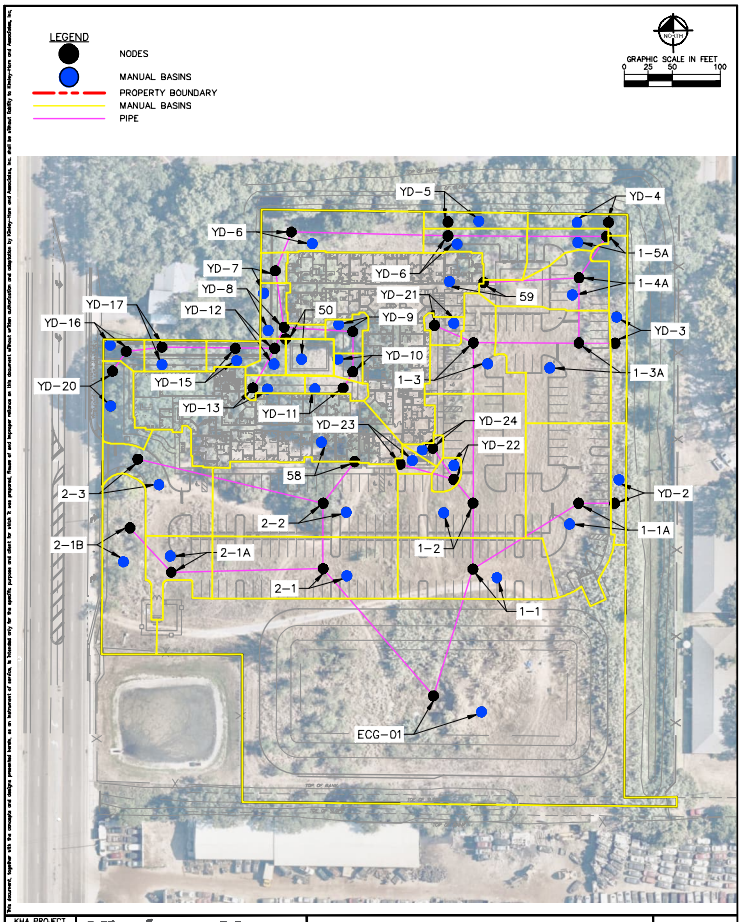
Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DSL-01-BC_C00630_N - Pipe	100YR 24HR	11.86	0.00	-0.03	0.00	0.00	0.00
DSL-01-BC_C00630_N - Weir: 1	100YR 24HR	8.75	0.00	-0.03	4.97	4.97	4.97
DSL-01-BC_C00630_N - Weir: 2	100YR 24HR	5.11	0.00	0.02	2.05	2.05	2.05
DSL-01-BC_C00630_N - Pipe	25YR 24HR	7.03	0.00	-0.02	0.00	0.00	0.00
DSL-01-BC_C00630_N - Weir: 1	25YR 24HR	7.03	0.00	-0.01	4.03	4.03	4.03
DSL-01-BC_C00630_N - Weir: 2	25YR 24HR	0.63	0.00	-0.01	1.02	1.02	1.02

APPENDIX E

INTERNAL STORMWATER HYDRAULIC GRADE LINE (HGL) ANALYSIS

E-1. Internal Stormwater Hydraulic Grade Line

1. Model Input
2. Model Results



Simulation: 100YR 24HR

Scenario: INTERNAL
Run Date/Time: 4/8/2025 2:29:34 PM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 100YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global

Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Rainfall Name: −FLMOD
Rainfall Amount: 10.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR 24HR

Scenario: INTERNAL
Run Date/Time: 4/8/2025 7:58:25 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 25YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Rainfall Name: −FLMOD
Rainfall Amount: 8.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Manual Basin: 1-1

Scenario: INTERNAL
Node: 1-1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2314 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2159	Impervious	A/D	
0.0155	Pervious	A/D	

Comment:

Manual Basin: 1-1A

Scenario: INTERNAL
Node: 1-1A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3268 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2545	Impervious	A/D	
0.0722	Pervious	A/D	

Comment:

Manual Basin: 1-2

Scenario: INTERNAL
Node: 1-2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3633 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2909	Impervious	A/D	
0.0724	Pervious	A/D	

Comment:

Manual Basin: 1-3

Scenario: INTERNAL
Node: 1-3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.1411 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0995	Impervious	A/D	
0.0416	Pervious	A/D	

Comment:

Manual Basin: 1-3A

Scenario: INTERNAL
Node: 1-3A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2865 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0553	Pervious	A/D	
0.2312	Impervious	A/D	

Comment:

Manual Basin: 1-4A

Scenario: INTERNAL
Node: 1-4A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.1275 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0900	Impervious	A/D	
0.0375	Pervious	A/D	

Comment:

Manual Basin: 1-5A

Scenario: INTERNAL

Node: 1-5A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0590 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0089	Pervious	A/D	
0.0500	Impervious	A/D	

Comment:

Manual Basin: 1-6

Scenario: INTERNAL
Node: 1-6
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0910 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0304	Pervious	A/D	
0.0606	Impervious	A/D	

Comment:

Manual Basin: 2-1

Scenario: INTERNAL
Node: 2-1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2836 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2696	Impervious	A/D	

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0140	Pervious	A/D	

Comment:

Manual Basin: 2-1A

Scenario: INTERNAL
Node: 2-1A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0947 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0845	Impervious	A/D	
0.0103	Pervious	A/D	

Comment:

Manual Basin: 2-1B

Scenario: INTERNAL
Node: 2-1B
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2116 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1849	Pervious	A/D	
0.0267	Impervious	A/D	

Comment:

Manual Basin: 2-2

Scenario: INTERNAL
Node: 2-2

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3444 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3061	Impervious	A/D	
0.0383	Pervious	A/D	

Comment:

Manual Basin: 2-3

Scenario: INTERNAL
Node: 2-3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2093 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1498	Impervious	A/D	
0.0595	Pervious	A/D	

Comment:

Manual Basin: 50

Scenario: INTERNAL
Node: 50
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0436 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0436	Impervious	A/D	

Comment:

Manual Basin: 58

Scenario: INTERNAL
Node: 58
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4489 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4489	Impervious	A/D	

Comment:

Manual Basin: 59

Scenario: INTERNAL
Node: 59
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4980 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4979	Impervious	A/D	
0.0000	Pervious	A/D	

Comment:

Manual Basin: ECG-01

Scenario: INTERNAL
Node: ECG-01
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1450 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2702	Pervious	C/D	
0.8191	Pervious	A/D	
0.2089	Water	C/D	
0.8245	Water	A/D	
0.0222	Impervious	A/D	

Comment:

Manual Basin: YD-10

Scenario: INTERNAL
Node: YD-10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0183 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0116	Pervious	A/D	
0.0068	Impervious	A/D	

Comment:

Manual Basin: YD-11

Scenario: INTERNAL
Node: YD-11
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0145	Pervious	A/D	
0.0125	Impervious	A/D	

Comment:

Manual Basin: YD-12

Scenario: INTERNAL
Node: YD-12
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0269 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0187	Impervious	A/D	
0.0082	Pervious	A/D	

Comment:

Manual Basin: YD-13

Scenario: INTERNAL
Node: YD-13
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0268 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0128	Pervious	A/D	
0.0140	Impervious	A/D	

Comment:

Manual Basin: YD-15

Scenario: INTERNAL
Node: YD-15
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0352 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0101	Impervious	A/D	
0.0251	Pervious	A/D	

Comment:

Manual Basin: YD-16

Scenario: INTERNAL
Node: YD-16
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0271 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0062	Impervious	A/D	
0.0209	Pervious	A/D	

Comment:

Manual Basin: YD-17

Scenario: INTERNAL
Node: YD-17
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0489 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0194	Impervious	A/D	
0.0295	Pervious	A/D	

Comment:

Manual Basin: YD-2

Scenario: INTERNAL
Node: YD-2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0472 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0472	Pervious	A/D	

Comment:

Manual Basin: YD-20

Scenario: INTERNAL
Node: YD-20
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0540 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0429	Pervious	A/D	
0.0111	Impervious	A/D	

Comment:

Manual Basin: YD-21

Scenario: INTERNAL
Node: YD-21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0248 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0175	Pervious	A/D	
0.0073	Impervious	A/D	

Comment:

Manual Basin: YD-22

Scenario: INTERNAL
Node: YD-22
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0205 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0147	Pervious	A/D	
0.0058	Impervious	A/D	

Comment:

Manual Basin: YD-23

Scenario: INTERNAL
Node: YD-23
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0177 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0126	Impervious	A/D	
0.0051	Pervious	A/D	

Comment:

Manual Basin: YD-24

Scenario: INTERNAL

Node: YD-24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0152 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0084	Impervious	A/D	
0.0067	Pervious	A/D	

Comment:

Manual Basin: YD-3

Scenario: INTERNAL
Node: YD-3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0873	Pervious	A/D	
0.0021	Impervious	A/D	

Comment:

Manual Basin: YD-4

Scenario: INTERNAL
Node: YD-4
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0416 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0396	Pervious	A/D	

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0020	Impervious	A/D	

Comment:

Manual Basin: YD-5

Scenario: INTERNAL
Node: YD-5
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0421 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0025	Impervious	A/D	
0.0397	Pervious	A/D	

Comment:

Manual Basin: YD-6

Scenario: INTERNAL
Node: YD-6
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.1728 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1724	Pervious	A/D	
0.0004	Impervious	A/D	

Comment:

Manual Basin: YD-7

Scenario: INTERNAL
Node: YD-7

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0200 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0200	Pervious	A/D	

Comment:

Manual Basin: YD-8

Scenario: INTERNAL
Node: YD-8
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0525 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0335	Pervious	A/D	
0.0190	Impervious	A/D	

Comment:

Manual Basin: YD-9

Scenario: INTERNAL
Node: YD-9
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0317 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0076	Impervious	A/D	
0.0242	Pervious	A/D	

Comment:

Node: 1-1

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 11.79
Desc: VG INLET

Node: 1-1A

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 16.29
Desc: VG INLET

Node: 1-2

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 11.92
Desc: VG INLET

Node: 1-3

Scenario: INTERNAL

Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.13 ft

Comment: Rim Elev: 21.13
Sump Elev: 13.47
Desc: VG INLET

Node: 1-3A

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 13.99
Desc: VG INLET

Node: 1-4A

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 14.13
Desc: VG INLET

Node: 1-5A

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 14.728
Desc: VG INLET

Node: 1-6

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 15.06
Desc: VG INLET

Node: 2-1

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 11.48
Desc: VG INLET

Node: 2-1A

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.08 ft

Comment: Rim Elev: 21.079
Sump Elev: 15.53
Desc: VG INLET

Node: 2-1B

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 15.601
Desc: TYPE D DITCH BOTTOM

Node: 2-2

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.08 ft

Comment: Rim Elev: 21.08
Sump Elev: 11.61
Desc: VG INLET

Node: 2-3

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 19.52 ft

Comment: Rim Elev: 20.86
Sump Elev: 12.338
Desc: VG INLET

Node: 50

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 18.63 ft
Warning Stage: 21.50 ft

Comment: Rim Elev: 19.34
Desc: Null Structure

Node: 58

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 18.50 ft
Warning Stage: 21.00 ft

Comment: Rim Elev: 19.58
Desc: STORM BUILDING CONNECTION(REFER TO PLUMBING PLAN FOR CONTINUATION)

Node: 59

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 18.50 ft
Warning Stage: 21.00 ft

Comment: Rim Elev: 19.58
Desc: STORM BUILDING CONNECTION(REFER TO PLUMBING PLAN FOR CONTINUATION)

Node: ECG-01

Scenario: INTERNAL
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.00 ft
Boundary Stage: ECG-01

Comment: From Drawdown Clac.
Wet Pond Excel Sheet:

Weir Width - 1.1'

PERVIOUS 2.40

DCIA 3.31
WATER 1.03

CWL - 1.03 AC 0.00
Breakline - 0.74 AC 3.00
Bottom - 0.56 AC 8.00

Node: YD-10

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.95 ft
Warning Stage: 21.32 ft

Comment: Rim Elev: 21.32
Sump Elev: 17.95
Desc: YARD DRAIN

Node: YD-11

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.99 ft
Warning Stage: 21.32 ft

Comment: Rim Elev: 21.32
Sump Elev: 17.99
Desc: YARD DRAIN

Node: YD-12

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 19.53 ft
Warning Stage: 21.33 ft

Comment: Rim Elev: 21.325
Sump Elev: 16.19

Desc: YARD DRAIN

Node: YD-13

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 19.14 ft
Warning Stage: 21.07 ft

Comment: Rim Elev: 21.07
Sump Elev: 19.14
Desc: YARD DRAIN

Node: YD-15

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.14 ft

Comment:

Node: YD-16

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.00 ft

Comment: Rim Elev: 21.00
Sump Elev: 16.44
Desc: YARD DRAIN

Node: YD-17

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs

Initial Stage: 17.53 ft
Warning Stage: 21.13 ft

Comment: Rim Elev: 21.13
Sump Elev: 16.501
Desc: YARD DRAIN

Node: YD-2

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.50 ft

Comment: Rim Elev: 20.50
Sump Elev: 16.48
Desc: YARD DRAIN

Node: YD-20

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.60 ft

Comment: Rim Elev: 19.00
Sump Elev: 16.00
Desc: YARD DRAIN

Node: YD-21

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 22.00 ft

Comment: Rim Elev: 22
Sump Elev: 18.19

Desc: YARD DRAIN

Node: YD-22

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.61 ft

Comment: Rim Elev: 21.61
Sump Elev: 17.46
Desc: YARD DRAIN

Node: YD-23

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 22.00 ft

Comment: Rim Elev: 22.00
Sump Elev: 17.74
Desc: YARD DRAIN

Node: YD-24

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.87 ft

Comment: Rim Elev: 21.87
Sump Elev: 18.92
Desc: YARD DRAIN

Node: YD-3

Scenario: INTERNAL

Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 20.63 ft

Comment: Rim Elev: 20.63
Sump Elev: 16.48
Desc: YARD DRAIN

Node: YD-4

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.30 ft

Comment: Rim Elev: 20.16
Sump Elev: 17.29
Desc: YARD DRAIN

Node: YD-5

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.50 ft

Comment: Rim Elev: 20.16
Sump Elev: 16.15
Desc: YARD DRAIN

Node: YD-6

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.80 ft

Comment: Rim Elev: 21.80
Sump Elev: 15.38
Desc: YARD DRAIN

Node: YD-7

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 22.23 ft

Comment: Rim Elev: 22.23
Sump Elev: 15.47
Desc: YARD DRAIN

Node: YD-8

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.53 ft
Warning Stage: 21.51 ft

Comment: Rim Elev: 21.51
Sump Elev: 15.59
Desc: YARD DRAIN

Node: YD-9

Scenario: INTERNAL
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 17.86 ft
Warning Stage: 21.40 ft

Comment: Rim Elev: 21.40
Sump Elev: 17.86
Desc: YARD DRAIN

Pipe Link: PIPE -06		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	14.63 ft	Invert:	14.29 ft
From Node:	1-3	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	167.11 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -07		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	16.78 ft	Invert:	12.79 ft
From Node:	1-1A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	129.83 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.70	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -08		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	11.92 ft	Invert:	11.79 ft
From Node:	1-2	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	68.77 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -09		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	11.79 ft	Invert:	11.62 ft
From Node:	1-1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	ECG-01	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	81.68 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -10		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	14.19 ft	Invert:	13.97 ft
From Node:	1-3A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	109.99 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.90	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -11		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	11.44 ft	Invert:	11.30 ft

From Node:	2-2	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	2-1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	68.40 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -12 (1)		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	12.34 ft	Invert:	11.94 ft
From Node:	2-3	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	2-2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	204.54 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.70	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -13 (1)		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	15.60 ft	Invert:	15.53 ft
From Node:	2-1B	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	2-1A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.60 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.70	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -13 (1) (1)		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	15.53 ft	Invert:	15.19 ft
From Node:	2-1A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	2-1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	173.14 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.90	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -14		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	10.80 ft	Invert:	10.64 ft
From Node:	2-1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	ECG-01	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	81.67 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: RCP

Pipe Link: PIPE -16		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	16.15 ft	Invert:	16.12 ft
From Node:	YD-5	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-6	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	14.67 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.90	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -17		Upstream	Downstream
Scenario:	INTERNAL	Invert: 17.29 ft	Invert: 15.29 ft
From Node:	YD-4	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	1-5A	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	14.81 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -22		Upstream	Downstream
Scenario:	INTERNAL	Invert: 15.65 ft	Invert: 15.59 ft
From Node:	YD-12	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	YD-8	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	32.40 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.20	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -22 (1)		Upstream	Downstream
Scenario:	INTERNAL	Invert: 15.59 ft	Invert: 15.47 ft
From Node:	YD-8	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	YD-7	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	59.47 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.20	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: RCP

Pipe Link: PIPE -24		Upstream	Downstream
Scenario:	INTERNAL	Invert: 15.47 ft	Invert: 15.38 ft
From Node:	YD-7	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	YD-6	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	43.73 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.90	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: RCP

Pipe Link: PIPE -25		Upstream	Downstream
Scenario:	INTERNAL	Invert: 15.38 ft	Invert: 15.06 ft
From Node:	YD-6	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	1-6	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	

Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	163.28 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: RCP

Pipe Link: PIPE -26		Upstream	Downstream
Scenario:	INTERNAL	Invert: 16.13 ft	Invert: 16.03 ft
From Node:	YD-16	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	YD-17	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	49.08 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -26 (1)		Upstream	Downstream
Scenario:	INTERNAL	Invert: 16.17 ft	Invert: 16.13 ft
From Node:	YD-20	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	YD-16	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	18.40 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.45	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -29		Upstream	Downstream
Scenario:	INTERNAL	Invert: 16.48 ft	Invert: 14.99 ft
From Node:	YD-3	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	1-3A	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	37.67 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -30		Upstream	Downstream
Scenario:	INTERNAL	Invert: 16.48 ft	Invert: 16.29 ft
From Node:	YD-2	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	1-1A	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	37.67 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.40	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Material: PVC

Pipe Link: PIPE -33		Upstream	Downstream
Scenario:	INTERNAL	Invert: 17.86 ft	Invert: 17.72 ft
From Node:	YD-9	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	YD-8	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	71.72 ft	Op Table:	Op Table:
FHWA Code:	1	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.90	Top Clip	

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -34		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	17.95 ft	Invert:	17.86 ft
From Node:	YD-10	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-9	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	41.99 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -35		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	19.14 ft	Invert:	19.00 ft
From Node:	YD-13	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-12	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	47.06 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -36		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	17.99 ft	Invert:	17.95 ft

From Node:	YD-11	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	19.76 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -41		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	18.63 ft	Invert:	18.57 ft
From Node:	50	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-8	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.30 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -52		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	16.04 ft	Invert:	15.89 ft
From Node:	YD-17	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-15	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	71.70 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE -54		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	18.50 ft	Invert:	12.44 ft
From Node:	58	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	2-2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	54.29 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.40	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: PVC

Pipe Link: PIPE-05		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	14.13 ft	Invert:	13.99 ft
From Node:	1-4A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-3A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	68.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.90	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-15		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	15.06 ft	Invert:	14.73 ft
From Node:	1-6	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-5A	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	165.30 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.90	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-18		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	14.73 ft	Invert:	14.63 ft
From Node:	1-4A	Manning's N:	0.0130	Manning's N:	0.1300
To Node:	1-5A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	51.81 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.40	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-55		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	15.61 ft	Invert:	15.13 ft
From Node:	59	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-4A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	99.62 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.90	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-60		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	18.92 ft	Invert:	18.83 ft
From Node:	YD-24	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-22	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	39.20 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-61		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	17.45 ft	Invert:	13.59 ft
From Node:	YD-22	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-2	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	0.83 ft	Max Depth:	0.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	31.65 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.40	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-62		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	17.74 ft	Invert:	17.62 ft
From Node:	YD-23	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-22	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	58.07 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.40	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-63		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	18.19 ft	Invert:	14.64 ft
From Node:	YD-21	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	1-3	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	0.83 ft	Max Depth:	0.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.40 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.70	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: PIPE-64		Upstream		Downstream	
Scenario:	INTERNAL	Invert:	15.89 ft	Invert:	15.81 ft
From Node:	YD-12	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	YD-15	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	37.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.40	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Simulation: 100YR 24HR

Scenario: INTERNAL
Run Date/Time: 4/8/2025 2:29:34 PM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Icpr3
Unit Hydrograph Folder: Icpr3

Lookup Tables

Boundary Stage Set: 100YR 24HR
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain: Global

Opt:

Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

Rainfall Name: −FLMOD
Rainfall Amount: 10.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR 24HR

Scenario: INTERNAL
Run Date/Time: 4/8/2025 7:58:25 AM
Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:	Icpr3	Boundary Stage Set:	25YR 24HR
		Extern Hydrograph Set:	
Unit Hydrograph Folder:	Icpr3	Curve Number Set:	CN
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	Impervious

Tolerances & Options			
Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FLMOD
		Rainfall Amount:	8.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	113 ft2
		Energy Switch (1D):	Energy

Comment:

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-1	100YR 24HR	1.37	12.0500	10.00	9.82	0.2314	98.6	93.32	93.32
1-1	25YR 24HR	1.10	12.0500	8.00	7.83	0.2314	98.7	93.32	93.32

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-1A	100YR 24HR	1.90	12.0500	10.00	9.44	0.3268	95.5	77.90	77.90
1-1A	25YR	1.50	12.0500	8.00	7.47	0.3268	95.6	77.90	77.90

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	24HR								

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-2	100YR 24HR	2.12	12.0500	10.00	9.50	0.3633	95.9	80.08	80.08
1-2	25YR 24HR	1.68	12.0500	8.00	7.52	0.3633	96.1	80.08	80.08

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-3	100YR 24HR	0.81	12.0500	10.00	9.26	0.1411	94.0	70.50	70.50
1-3	25YR 24HR	0.64	12.0500	8.00	7.29	0.1411	94.1	70.50	70.50

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-3A	100YR 24HR	1.67	12.0500	10.00	9.51	0.2865	96.0	80.68	80.68
1-3A	25YR 24HR	1.33	12.0500	8.00	7.53	0.2865	96.2	80.68	80.68

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-4A	100YR 24HR	0.73	12.0500	10.00	9.26	0.1275	94.0	70.62	70.62
1-4A	25YR 24HR	0.58	12.0500	8.00	7.29	0.1275	94.2	70.62	70.62

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-5A	100YR 24HR	0.35	12.0500	10.00	9.61	0.0590	96.9	84.85	84.85
1-5A	25YR 24HR	0.27	12.0500	8.00	7.63	0.0590	97.0	84.85	84.85

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
1-6	100YR 24HR	0.52	12.0500	10.00	9.16	0.0910	93.2	66.59	66.59
1-6	25YR 24HR	0.41	12.0500	8.00	7.20	0.0910	93.4	66.59	66.59

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
2-1	100YR 24HR	1.69	12.0500	10.00	9.87	0.2836	99.0	95.06	95.06
2-1	25YR 24HR	1.35	12.0500	8.00	7.87	0.2836	99.0	95.06	95.06

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
2-1A	100YR 24HR	0.56	12.0500	10.00	9.72	0.0947	97.8	89.17	89.17
2-1A	25YR 24HR	0.45	12.0500	8.00	7.73	0.0947	97.9	89.17	89.17

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
2-1B	100YR 24HR	1.12	12.0500	10.00	7.82	0.2116	82.5	12.61	12.61
2-1B	25YR 24HR	0.85	12.0500	8.00	5.92	0.2116	82.6	12.61	12.61

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
2-2	100YR 24HR	2.03	12.0500	10.00	9.71	0.3444	97.7	88.89	88.89
2-2	25YR 24HR	1.62	12.0500	8.00	7.73	0.3444	97.8	88.89	88.89

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
2-3	100YR 24HR	1.21	12.0500	10.00	9.28	0.2093	94.2	71.58	71.58
2-3	25YR 24HR	0.88	12.0500	8.00	7.39	0.1935	95.0	74.73	74.73

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
50	100YR 24HR	0.26	12.0500	10.00	9.99	0.0436	100.0	100.00	100.00
50	25YR 24HR	0.21	12.0500	8.00	7.99	0.0436	100.0	100.00	100.00

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
58	100YR	2.69	12.0500	10.00	9.99	0.4489	100.0	100.00	100.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	24HR								
58	25YR 24HR	2.15	12.0500	8.00	7.99	0.4489	100.0	100.00	100.00

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
59	100YR 24HR	2.98	12.0500	10.00	9.99	0.4980	100.0	99.99	99.99
59	25YR 24HR	2.39	12.0500	8.00	7.99	0.4980	100.0	99.99	99.99

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ECG-01	100YR 24HR	13.38	12.0000	10.00	8.74	2.1450	89.7	1.03	1.03
ECG-01	25YR 24HR	10.45	12.0000	8.00	6.79	2.1450	89.9	1.03	1.03

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-10	100YR 24HR	0.10	12.0500	10.00	8.43	0.0183	87.2	36.92	36.92
YD-10	25YR 24HR	0.08	12.0500	8.00	6.49	0.0183	87.4	36.92	36.92

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-11	100YR 24HR	0.15	12.0500	10.00	8.66	0.0270	89.1	46.43	46.43

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-11	25YR 24HR	0.12	12.0500	8.00	6.72	0.0270	89.3	46.43	46.43

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-12	100YR 24HR	0.15	12.0500	10.00	9.23	0.0269	93.7	69.39	69.39
YD-12	25YR 24HR	0.12	12.0500	8.00	7.26	0.0269	93.9	69.39	69.39

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-13	100YR 24HR	0.15	12.0500	10.00	8.81	0.0268	90.3	52.23	52.23
YD-13	25YR 24HR	0.12	12.0500	8.00	6.86	0.0268	90.5	52.23	52.23

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-15	100YR 24HR	0.19	12.0500	10.00	8.22	0.0352	85.6	28.72	28.72
YD-15	25YR 24HR	0.15	12.0500	8.00	6.30	0.0352	85.8	28.72	28.72

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-16	100YR 24HR	0.15	12.0500	10.00	8.07	0.0271	84.4	22.71	22.71
YD-16	25YR	0.11	12.0500	8.00	6.16	0.0271	84.6	22.71	22.71

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	24HR								

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-17	100YR 24HR	0.27	12.0500	10.00	8.49	0.0489	87.8	39.65	39.65
YD-17	25YR 24HR	0.21	12.0500	8.00	6.56	0.0489	88.0	39.65	39.65

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-2	100YR 24HR	0.24	12.0500	10.00	7.51	0.0472	80.0	0.00	0.00
YD-2	25YR 24HR	0.18	12.0500	8.00	5.62	0.0472	80.0	0.00	0.00

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-20	100YR 24HR	0.29	12.0500	10.00	8.02	0.0540	84.0	20.54	20.54
YD-20	25YR 24HR	0.29	12.0500	8.00	6.17	0.0698	84.7	23.38	23.38

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-21	100YR 24HR	0.13	12.0500	10.00	8.24	0.0248	85.8	29.57	29.57
YD-21	25YR 24HR	0.10	12.0500	8.00	6.32	0.0248	86.0	29.57	29.57

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-22	100YR 24HR	0.11	12.0500	10.00	8.22	0.0205	85.6	28.41	28.41
YD-22	25YR 24HR	0.09	12.0500	8.00	6.29	0.0205	85.7	28.41	28.41

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-23	100YR 24HR	0.10	12.0500	10.00	9.28	0.0177	94.1	71.39	71.39
YD-23	25YR 24HR	0.08	12.0500	8.00	7.31	0.0177	94.3	71.39	71.39

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-24	100YR 24HR	0.09	12.0500	10.00	8.89	0.0152	90.9	55.46	55.46
YD-24	25YR 24HR	0.07	12.0500	8.00	6.93	0.0152	91.1	55.46	55.46

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-3	100YR 24HR	0.47	12.0500	10.00	7.57	0.0895	80.5	2.39	2.39
YD-3	25YR 24HR	0.35	12.0500	8.00	5.68	0.0895	80.5	2.39	2.39

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-4	100YR 24HR	0.22	12.0500	10.00	7.63	0.0416	80.9	4.74	4.74
YD-4	25YR 24HR	0.16	12.0500	8.00	5.73	0.0416	81.0	4.74	4.74

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-5	100YR 24HR	0.22	12.0500	10.00	7.66	0.0421	81.1	5.88	5.88
YD-5	25YR 24HR	0.17	12.0500	8.00	5.76	0.0421	81.2	5.88	5.88

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-6	100YR 24HR	0.90	12.0500	10.00	7.52	0.1728	80.0	0.23	0.23
YD-6	25YR 24HR	0.68	12.0500	8.00	5.62	0.1728	80.0	0.23	0.23

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-7	100YR 24HR	0.10	12.0500	10.00	7.51	0.0200	80.0	0.00	0.00
YD-7	25YR 24HR	0.08	12.0500	8.00	5.62	0.0200	80.0	0.00	0.00

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-8	100YR	0.29	12.0500	10.00	8.41	0.0525	87.1	36.14	36.14

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	24HR								
YD-8	25YR 24HR	0.22	12.0500	8.00	6.48	0.0525	87.3	36.14	36.14

Manual Basin Runoff Summary [INTERNAL]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
YD-9	100YR 24HR	0.17	12.0500	10.00	8.10	0.0317	84.7	23.88	23.88
YD-9	25YR 24HR	0.13	12.0500	8.00	6.19	0.0317	84.8	23.88	23.88

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-1	100YR 24HR	20.50	19.60	-0.0015	13.50	13.44	113
1-1	25YR 24HR	20.50	19.23	-0.0014	10.96	10.91	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-1A	100YR 24HR	20.50	19.63	-0.0008	2.07	1.99	113
1-1A	25YR 24HR	20.50	19.24	-0.0010	1.63	1.57	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-2	100YR 24HR	20.50	19.66	0.0013	10.33	10.28	113
1-2	25YR 24HR	20.50	19.25	0.0012	8.42	8.38	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-3	100YR 24HR	21.13	19.89	-0.0010	8.31	8.26	113
1-3	25YR 24HR	21.13	19.36	-0.0010	6.77	6.73	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-3A	100YR 24HR	20.50	20.10	-0.0010	7.55	7.51	113
1-3A	25YR 24HR	20.50	19.49	-0.0010	6.16	6.13	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-4A	100YR 24HR	20.50	20.21	0.0024	5.77	5.75	113
1-4A	25YR 24HR	20.50	19.56	0.0024	4.73	4.71	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-5A	100YR 24HR	20.50	20.34	-0.0009	3.03	3.07	113
1-5A	25YR 24HR	20.50	19.64	-0.0009	2.41	2.41	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
1-6	100YR 24HR	20.50	20.48	0.0010	2.64	2.68	113
1-6	25YR 24HR	20.50	19.74	0.0009	2.32	2.11	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
2-1	100YR 24HR	20.50	19.53	0.0010	8.97	8.91	113
2-1	25YR 24HR	20.50	19.21	0.0010	7.09	7.04	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
2-1A	100YR 24HR	21.08	19.54	-0.0006	1.61	1.55	113
2-1A	25YR 24HR	21.08	19.21	-0.0010	1.25	1.20	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
2-1B	100YR 24HR	20.50	19.55	0.0004	1.12	1.06	113
2-1B	25YR 24HR	20.50	19.22	-0.0005	0.85	0.80	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
2-2	100YR 24HR	21.08	19.54	-0.0010	5.80	5.74	113
2-2	25YR 24HR	21.08	19.21	-0.0010	4.60	4.55	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
2-3	100YR 24HR	19.52	19.54	-0.0008	1.21	1.14	113
2-3	25YR 24HR	19.52	19.21	-0.0007	0.88	0.84	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
50	100YR 24HR	21.50	20.62	-0.0010	0.26	0.18	113
50	25YR 24HR	21.50	19.83	0.0007	0.21	0.16	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
58	100YR 24HR	21.00	19.71	0.0005	2.69	2.62	113
58	25YR 24HR	21.00	19.41	0.0004	2.15	2.15	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
59	100YR 24HR	21.00	20.96	-0.0026	2.98	2.92	113
59	25YR 24HR	21.00	20.02	-0.0026	2.39	2.92	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
ECG-01	100YR 24HR	21.00	19.52	-0.0008	34.17	0.11	0
ECG-01	25YR 24HR	21.00	19.20	-0.0008	27.12	0.26	0

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-10	100YR 24HR	21.32	20.66	-0.0010	0.20	0.22	113
YD-10	25YR 24HR	21.32	19.86	0.0007	0.15	0.16	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-11	100YR 24HR	21.32	20.66	-0.0010	0.17	0.12	113
YD-11	25YR 24HR	21.32	19.86	0.0007	0.13	0.09	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-12	100YR 24HR	21.33	20.61	-0.0190	0.84	21.47	113
YD-12	25YR 24HR	21.33	19.82	-0.0190	0.72	21.47	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-13	100YR 24HR	21.07	20.61	-0.0010	0.29	0.12	113
YD-13	25YR 24HR	21.07	19.83	0.0007	0.29	0.11	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-15	100YR 24HR	21.14	20.62	0.0054	6.17	1.71	113
YD-15	25YR 24HR	21.14	19.84	0.0054	6.17	1.71	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-16	100YR 24HR	21.00	20.64	0.0010	1.02	0.51	113
YD-16	25YR 24HR	21.00	19.85	0.0007	1.00	0.50	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-17	100YR 24HR	21.13	20.64	-0.0010	1.71	1.02	113
YD-17	25YR 24HR	21.13	19.85	0.0008	1.71	1.00	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-2	100YR 24HR	20.50	19.63	-0.0005	0.24	0.19	113
YD-2	25YR 24HR	20.50	19.24	-0.0008	0.18	0.14	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-20	100YR 24HR	20.60	20.65	-0.0010	0.51	0.27	113
YD-20	25YR 24HR	20.60	19.86	0.0007	0.50	0.20	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-21	100YR 24HR	22.00	19.89	0.0006	0.13	0.10	113
YD-21	25YR 24HR	22.00	19.37	0.0005	0.10	0.07	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-22	100YR 24HR	21.61	19.66	0.0007	0.19	0.20	113
YD-22	25YR 24HR	21.61	19.25	0.0008	0.18	0.14	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-23	100YR 24HR	22.00	19.66	0.0005	0.10	0.06	113
YD-23	25YR 24HR	22.00	19.25	0.0004	0.08	0.04	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-24	100YR 24HR	21.87	19.66	0.0005	0.10	0.07	113
YD-24	25YR 24HR	21.87	19.25	0.0002	0.07	0.07	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-3	100YR 24HR	20.63	20.11	0.0007	0.47	0.37	113
YD-3	25YR 24HR	20.63	19.50	0.0006	0.35	0.29	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-4	100YR 24HR	21.30	20.34	0.0008	0.25	0.16	113
YD-4	25YR 24HR	21.30	19.65	0.0007	0.25	0.12	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-5	100YR 24HR	21.50	20.49	0.0009	0.47	0.16	113
YD-5	25YR 24HR	21.50	19.74	0.0007	0.47	0.13	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-6	100YR 24HR	21.80	20.56	0.0014	3.45	2.32	113
YD-6	25YR 24HR	21.80	19.79	0.0014	3.45	2.32	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-7	100YR 24HR	22.23	20.58	0.0028	5.89	3.45	113
YD-7	25YR 24HR	22.23	19.81	0.0028	5.89	3.45	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-8	100YR 24HR	21.51	20.60	0.0128	15.01	5.92	113
YD-8	25YR 24HR	21.51	19.82	0.0128	15.01	5.92	113

Node Max Conditions [INTERNAL]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
YD-9	100YR 24HR	21.40	20.65	-0.0010	0.30	0.35	113
YD-9	25YR 24HR	21.40	19.85	0.0007	0.23	0.26	113

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -06	100YR 24HR	8.26	-0.06	1.03	2.63	2.63	2.63
PIPE -06	25YR 24HR	6.73	-0.04	1.06	2.14	2.14	2.14

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -07	100YR 24HR	1.99	-0.07	0.36	1.13	1.13	1.13
PIPE -07	25YR 24HR	1.57	-0.07	0.44	0.89	0.89	0.89

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -08	100YR 24HR	10.28	-0.07	2.43	2.09	2.09	2.09
PIPE -08	25YR 24HR	8.38	-0.10	-2.25	1.71	1.71	1.71

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -09	100YR 24HR	13.44	-0.11	1.22	2.74	2.74	2.74
PIPE -09	25YR 24HR	10.91	-0.26	1.13	2.22	2.22	2.22

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -10	100YR 24HR	7.51	-0.01	1.01	2.39	2.39	2.39
PIPE -10	25YR 24HR	6.13	-0.04	0.97	1.95	1.95	1.95

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -11	100YR 24HR	5.74	-0.01	1.31	1.83	1.83	1.83
PIPE -11	25YR 24HR	4.55	-0.03	1.25	1.45	1.45	1.45

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -12 (1)	100YR 24HR	1.14	0.00	-0.33	0.65	0.65	0.65
PIPE -12 (1)	25YR 24HR	0.84	-0.02	-0.28	0.47	0.47	0.47

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -13 (1)	100YR 24HR	1.06	0.00	-0.05	1.34	1.34	1.34
PIPE -13 (1)	25YR 24HR	0.80	0.00	-0.05	1.02	1.02	1.02

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -13 (1) (1)	100YR 24HR	1.55	0.00	0.32	0.88	0.88	0.88
PIPE -13 (1) (1)	25YR 24HR	1.20	0.00	0.32	0.68	0.68	0.68

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -14	100YR 24HR	8.91	0.00	1.21	1.82	1.82	1.82
PIPE -14	25YR 24HR	7.04	0.00	1.17	1.43	1.43	1.43

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -16	100YR 24HR	0.16	-0.47	-0.04	-1.34	-1.34	-1.34
PIPE -16	25YR 24HR	0.13	-0.47	-0.03	-1.34	-1.34	-1.34

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -17	100YR 24HR	0.16	-0.25	-0.04	0.72	-1.73	-1.21
PIPE -17	25YR 24HR	0.12	-0.25	-0.03	0.72	-1.73	-1.21

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -22	100YR 24HR	15.01	-0.03	-0.62	8.49	8.49	8.49
PIPE -22	25YR 24HR	15.01	0.00	0.67	8.49	8.49	8.49

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -22 (1)	100YR 24HR	5.89	-0.01	0.70	3.33	3.33	3.33
PIPE -22 (1)	25YR 24HR	5.89	0.00	0.70	3.33	3.33	3.33

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -24	100YR 24HR	3.45	0.00	-0.49	1.95	1.95	1.95
PIPE -24	25YR 24HR	3.45	0.00	-0.49	1.95	1.95	1.95

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -25	100YR 24HR	2.32	-0.01	-0.37	1.31	1.31	1.31
PIPE -25	25YR 24HR	2.32	-0.01	-0.32	1.31	1.31	1.31

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -26	100YR 24HR	0.33	-1.02	-0.11	-1.30	-1.30	-1.30
PIPE -26	25YR 24HR	0.28	-1.00	-0.04	-1.28	-1.28	-1.28

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -26 (1)	100YR 24HR	0.27	-0.51	-0.18	-0.65	-0.65	-0.65
PIPE -26 (1)	25YR 24HR	0.20	-0.50	-0.02	-0.63	-0.63	-0.63

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -29	100YR 24HR	0.37	-0.35	0.14	0.48	0.48	0.48
PIPE -29	25YR 24HR	0.29	-0.35	-0.15	-0.45	-0.45	-0.45

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -30	100YR 24HR	0.19	-0.02	0.09	0.24	0.24	0.24
PIPE -30	25YR 24HR	0.14	-0.02	-0.06	0.18	0.18	0.18

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -33	100YR 24HR	0.35	-0.12	-0.04	1.00	1.00	1.00
PIPE -33	25YR 24HR	0.26	-0.09	-0.05	0.75	0.75	0.75

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -34	100YR 24HR	0.22	-0.10	0.00	0.63	0.63	0.63
PIPE -34	25YR 24HR	0.16	-0.08	0.00	0.46	0.46	0.46

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -35	100YR 24HR	0.12	-0.29	-0.06	1.22	-2.49	-1.73
PIPE -35	25YR 24HR	0.11	-0.29	-0.05	1.21	-2.49	-1.73

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -36	100YR 24HR	0.12	-0.03	0.00	0.34	0.34	0.34
PIPE -36	25YR 24HR	0.09	-0.02	0.00	0.26	0.26	0.26

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -41	100YR 24HR	0.18	0.00	-0.05	1.38	1.86	1.61
PIPE -41	25YR 24HR	0.16	0.00	-0.05	1.42	1.90	1.65

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -52	100YR 24HR	0.50	-1.71	-0.14	-2.18	-2.18	-2.18
PIPE -52	25YR 24HR	0.42	-1.71	-0.14	-2.18	-2.18	-2.18

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE -54	100YR 24HR	2.62	0.00	0.10	3.34	3.34	3.34
PIPE -54	25YR 24HR	2.15	0.00	0.09	2.86	10.54	6.55

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-05	100YR 24HR	5.75	-0.04	-1.03	1.83	1.83	1.83
PIPE-05	25YR 24HR	4.71	-0.03	-1.02	1.50	1.50	1.50

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-15	100YR 24HR	2.68	-0.28	-0.29	1.52	1.52	1.52
PIPE-15	25YR 24HR	2.11	-0.28	0.27	1.19	1.19	1.19

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-18	100YR 24HR	0.81	-3.07	-0.44	-1.74	-1.74	-1.74
PIPE-18	25YR 24HR	0.81	-2.41	-0.41	-1.36	-1.36	-1.36

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-55	100YR 24HR	2.92	-0.01	0.13	3.72	3.72	3.72
PIPE-55	25YR 24HR	2.92	-0.01	0.12	3.72	3.72	3.72

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-60	100YR 24HR	0.07	-0.02	-0.03	1.09	1.35	1.19
PIPE-60	25YR 24HR	0.07	0.00	0.00	1.08	1.34	1.18

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-61	100YR 24HR	0.20	-0.05	0.14	0.37	0.37	0.37
PIPE-61	25YR 24HR	0.14	-0.02	0.11	0.25	0.25	0.25

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-62	100YR 24HR	0.06	-0.02	-0.03	0.18	0.18	0.18
PIPE-62	25YR 24HR	0.04	-0.01	0.01	0.13	0.13	0.13

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-63	100YR 24HR	0.10	-0.01	-0.06	0.25	0.18	0.18
PIPE-63	25YR 24HR	0.07	-0.01	-0.06	0.26	0.13	0.15

Link Min/Max Conditions [INTERNAL]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
PIPE-64	100YR 24HR	6.17	-0.64	-0.14	7.86	7.86	7.86
PIPE-64	25YR 24HR	6.17	-0.54	-0.12	7.86	7.86	7.86

This document outlines the proper procedures for conducting and recording routine inspections and maintenance activities for the Stormwater Management System associated with **9th Street Apartments Mulit-Family**. Based on the requirements in Sections 12.4.1, 12.5, and 12.6 of the *ERP Applicant's Handbook Volume I*, effective June 28, 2024, this document outlines an Operation and Maintenance (O&M) plan and specifies the record-keeping requirements to maintain compliance with permitted conditions.

A detailed, written log of all preventative and corrective maintenance activities must be maintained, including a record of all inspections and copies of maintenance-related work orders. The responsible O&M entity must retain this maintenance plan, associated logs, and other records, and make them available for review upon request by permitting agency having jurisdiction over the site.

Owner's Certification:

I hereby certify that I and my successors shall perpetually operate and maintain the stormwater management system and associated elements in accordance with the specifications show herein and on the approved plan.

_____ _____
Owner's Signature Date

Permit Information:

Permitting Agency: South West Florida Water Management District (SWFWMD)
Project Name: 9th Street Apartments Mulit-Family
Permit No./Application No.: 908262
Project Description: The project proposes the construction of a 4-story apartment building, along with all associated utility, roadway, and stormwater infrastructure needed to support the project.

Responsible O&M Entity:

Name: 9th Street Apartments Mulit-Family
Address: 1030 16th Ave S, Suite 500, Nashville, TN 37212
Contact Person: C. Hunter Nelson
Phone: 980-417-4288
Email: cnelson@elmingtoncapital.com

Stormwater Management System Type [ex. wet detention, dry retention, swales, pipes, inlets, under drain, list any BMP]
Wet Detention with Inlets, and Pipes

(Refer to the Permitted Plans and Stormwater Management Plan for specific locations and pertinent information about the stormwater system components.)

OPERATION AND MAINTENANCE PLAN

FOR

STORMWATER MANAGEMENT SYSTEMS

9th Street Apartments Mulit-Family

MANATEE COUNTY, FL

Prepared by: ***Patrick M. Healy, P.E.***
Company: Kimley- Horn and Associates Inc.

Inspection Frequencies

Inspections by a Registered Professional:
As determined by *ERP Applicant's Handbook Volume I*, effective June 28, 2024, outlines in Table 12-1, as seen below. A registered professional or qualified inspector shall submit a report to the permitting agency describing and certifying the results within 30 days of the inspection. The results of required inspections shall be filed with the permitting agency using Form 62-330.311(1), "*Operation and Maintenance Inspection Certification".*

From *ERP Applicant's Handbook, Volume I*:

Table 12-1: Inspection Frequencies for common BMPs

Type of System	Inspection Frequency
Dry Retention basins	Once every 3 years
Exfiltration trenches	Once every 2 years
Underground retention	Once every year
Sand or Media Filters	Once every year
Underdrain System	Once every 3 years
Underground vault/chambers	Once every year
Pump Systems	Twice every year
Swales (treatment)	Once every 3 years
Wet Detention systems	Once every 3 years
Wet Detention systems with littoral zones	Once every 2 years
Vegetated Natural Buffers	Once every 5 years
Manufactured Devices	As manufacturer recommends in specifications, minimum once every year
Dam systems	Once every year
All other	Once every year

Inspections by the O&M Entity:
The O&M entity shall perform periodic inspections to identify deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of project that may endanger public health, safety, welfare, or water resources. The O&M entity shall complete the Operation and Maintenance Inspection Record on a monthly basis and retain inspection logs, with potential for record request from the permitting agency.

A formal inspection shall be conducted and submitted to the permitting agency at least once every three (3) years. Within 30 days of the date of the inspection an inspection report shall be submitted to the permitting agency using Form 62-330.311(1) "*Operation and Maintenance Inspection Certification,"* and Form 62-330.311(3) "*Inspection Checklists*". The report may also include and updated O&M cost estimates, summary of updates to the O&M plan, and any monitoring reports required by a specific permit condition.

Within 30 days of any failure of a stormwater management system or deviation from the permit, a report shall be submitted to the permitting agency using Form 62-330.311(1) "*Operation and Maintenance Inspection Certification*".

A regional stormwater management system must notify the permitting agency annually using Form 62-330.311(2), "*Regional Stormwater Management System Annual Report*". This report must include details of all new systems and their associated discharge volumes, as well as confirmation of the maximum allowable treatment volume accepted by the regional stormwater management system.

For information related to inspections and reporting, refer to Sections 12.5 and 12.6 of the *ERP Applicant's Handbook Volume I*.

General Maintenance Information

Preventive maintenance includes functional procedures required to maintain the permitted operation and safe conditions of the stormwater management system. Typical routine procedures include maintaining landscaping, nutrient management practices, mowing, debris removal, and regular inspections of the stormwater management system.

Corrective maintenance includes the functional maintenance procedures needed to correct a problem or malfunction in a stormwater management system. Corrective maintenance must be performed as needed and in emergency situations.

Routine Maintenance Plan

A. Excess Vegetation Removal

All wet ponds with littoral plantings shall be inspected at least once every two years. Vegetation shall be removed or replaced as needed to meet design standards.

All ponds shall be inspected at least once a month for nuisance / exotic vegetation. All nuisance/exotic vegetation shall be properly removed and disposed of when found.

B. Chemical Weed Control

Application of chemicals shall only be used as a last resort in controlling noxious and aquatic weeds. Any herbicides or pesticides shall be applied in accordance with the manufacturer's recommendations and as approved by a State licensed pest control advisor. Limited applications of weed control chemicals shall be performed in such a manner as to not adversely affect the desirable plant species within littoral zones.

C. Algae Control

Inspect all wet ponds one (1) time a year during the summer. Treat with a chemical algaecide as needed. To minimize the potential for lake algae blooms, fertilization practices shall follow Florida Cooperative Extension Service recommendations and be kept to the minimum necessary to maintain adequate plant growth and development.

Copper sulfate, commonly used to control algae, shall include chelating agents. Chelated copper sulfate results in lower copper residue, requires lower application concentrations, and furnishes longer periods of control than copper sulfate.

D. Maintenance of Grassed Areas

Once sodded and established, all grassed areas shall be mowed regularly and maintained free from bare earth conditions to prevent the potential for erosion. Grass clippings shall be collected and disposed of properly. Clippings shall not be disposed of in lakes or preserve areas.

All stormwater ponds areas, conveyance swales, and other grassed parts of the stormwater system shall be mowed a minimum of once every month.

All sidewalks within the development shall be edged a minimum of once every month.

E. Trash and Debris Removal

All stormwater pond areas, conveyance swales, and storm inlets shall be inspected for trash and debris build up a minimum of once every month. All trash and debris shall be removed when found.

F. Maintenance of Underdrain Systems

Underdrains are sometimes provided to minimize stagnant water conditions in on-site detention swales. To be effective, underdrains are required to be free from clogging. If drawdown times are observed to be increased or in excess of 36 hours, underdrains in the affected swale area should be inspected and cleaned and additional needed action shall be taken to obtain drawdown times not greater than 36 hours.

Operation Inspections

A. Dry Ponds

All dry ponds must be inspected every 6 months or after a major storm event and any debris must be removed.

Accumulated sediments must be removed at least once annually from dry ponds. Embankments and side slopes must be inspected every inspected for erosion at least once per month and repair as needed. Control structures must be inspected once a month maintained and repaired as needed.

Fertilizer and pesticide management should be performed as needed.

B. Pipes

Inlet and outlet pipes must be inspected at least once a month and repaired as needed.

All storm structures must be inspected at least once every 6 months and repaired as needed.

All underdrains must be inspected at least once a month and repaired as needed.

C. Grass Swales

The established width should be maintained to ensure the continued effectiveness and capacity of the system. Grassed swales should be mowed at a minimum of once every two months to stimulate vegetative growth, control weeds, and maintain the capacity of the system. Inspections, vegetation maintenance, and debris removal are required at least annually.

Inspect check dams for erosion at least annually.

Sediment removal, reseeding, or resodding should be done once every 5 years on an as needed basis as Owner deems reasonably necessary.

Fertilizer and pesticide management should be performed as needed.

D. ID for repair or replace damaged structures or eroded pond banks

Any damaged structures found during the semi-annual inspection shall be repaired to good working condition. If the damage is too great to be repaired, a licensed engineer shall be contacted for next steps.

All eroded pond banks found during the yearly inspection shall be repaired to originally designed slopes.

E. Cleaning schedule

Mechanical pond cleaning to remove sediment shall be performed once every ten years.

Inlet and outlet pipe cleaning to removed sediment shall be performed by vac truck once every five years.

All necessary fence repairs shall be completed when found during inspections.

Tree trimming shall be completed at a minimum of once a year.

Operation inspections shall be conducted annually to assure that the stormwater management system functions as designed. Spot inspections during rainstorm events may also be periodically warranted.

Future Capital and Maintenance Expenditures

Attached at the end of this report is the estimated yearly stormwater maintenance costs associate with the proposed improvements.

Pricing estimates were based upon the following documents:

Florida Stormwater Association "BMP Life-Cycle Costing Tool"

Operation and Maintenance Inspection Record

OPERATION AND MAINTENANCE INSPECTION RECORD
STORMWATER MANAGEMENT SYSTEM

Name of Project: 9th Street Apartments Mulit-Family

Project Location: 5420 10TH LN E BRADENTON 34203

Type of Inspection: _____

Date of Inspection: _____

Anticipated Operation: Satisfactory _____

Unsatisfactory _____

ITEM	CONDITION		RECOMMENDED MAINTENANCE (If Required)
	ACCEPTABLE	UNACCEPTABLE	
1. Vegetation			
2. Discharge Structures			
3. Grassed Areas			
4. Conveyance System			
5. Lake Areas			
6. Fill Areas			

REMARKS

_____
Signature of Inspector

_____
Name of Organization Being Represented

Form 62-330.311(1) – Operation and Maintenance Inspection Certification

Form 62-330.311(3) – Stormwater Facility Inspection Checklist

Cost Estimate for the Perpetual Operation and Maintenance of the Stormwater Management System

Form 62-330.301(26) – Certification of Financial Capacity for Perpetual Operation and Maintenance Entities

OPERATION AND MAINTENANCE INSPECTION CERTIFICATION

Instructions: Submit this form to the Agency within 30 days of completion of the inspection, or after any failure of a stormwater management system or deviation from the permit. This form will be used to document inspections required under Section 12.5 of Applicant's Handbook Volume I.

Permit No.: _____ Application No.: _____ Date Issued: _____

Identification or Name of Stormwater Management System: _____

Phase of Stormwater Management System (if applicable): _____

Inspection Date: _____

Included Documentation: (check all that are attached)

☐ Form 62-330.311(X) "Inspection Checklist" (Required for permitted inspection frequency)

☐ Updated O&M cost estimate

☐ Updated O&M Plan

☐ Monitoring Reports

Inspection results: (check all that apply)

☐ The undersigned hereby certifies that the works or activities are functioning in substantial conformance with the permit. This certification is based upon on-site observation of the system conducted by me or my designee under my direct supervision and my review of as-built plans.

☐ The following maintenance was conducted since the last inspection (attach additional pages if needed):

_____

☐ The undersigned hereby certifies that I or my designee under my direct supervision has inspected this surface water management system and the system does not appear to be functioning in substantial conformance with the permit. I am aware that maintenance or alteration is required to bring the system into substantial compliance with the terms and conditions of the permit. As appropriate, I have informed the owner of the following:

a) The system does not appear to be functioning properly;
b) That maintenance or repair is required to bring the system into compliance; and
c) If maintenance or repair measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed subsequent to approval by the agency below.

The following components of the system do not appear to be functioning properly (attach additional pages if needed):

_____

Any components of the constructed system that are not in substantial conformance with the permitted system shall require a written request to modify the permit in accordance with the provisions of Rule 62-330.315, F.A.C. If such modification request is not approved by the agency below, the components of the system that are not in conformance with the permit are subject to enforcement action under Sections 373.119, 373.129, 373.136, and 373.430, F.S.

OPERATION AND MAINTENANCE INSPECTION CERTIFICATION

Name of Inspector: _____ Florida Registration Number Or Qualified Inspector Number: _____

Entity providing Inspector Training: _____

Date of completion of Inspector Training: _____

Inspector's Company Name: _____

Mailing Address: _____

City: State: Zip Code:

Phone: Fax: Email:

Signature of Inspector _____ Date_____

Report Reviewed by Permittee:

Name of Permittee: _____

Signature of Permittee_____ Date_____

Title (if any) _____

Stormwater Facility Inspection Checklist

Instructions

Prior to the inspection, the Inspector should review the permit for the facility and the design or as-built drawing for the facility.

This inspection checklist is required for the documentation of the annual inspection of all permitted stormwater systems. Complete all parts of the general data section for the project site. Attach any additional required documentation, if necessary. In the "All Technologies" category, mark all items as "satisfactory" or "unsatisfactory." For all other categories, either select "N/A" and minimize the category or mark all inspection items as "satisfactory" or "unsatisfactory." If the system described does not contain a component that is listed for inspection mark that item as "N/A"

For any item marked unsatisfactory, provide a comment below the BMP technology describing maintenance action needed to bring the system back into compliance. Within 30 days of any failure of a stormwater management system or if any components of the constructed system are found to be not in substantial conformance with the permitted system, a report shall be submitted by the permittee or their authorized representative to the Agency using Form 62-330.311(1), "Operation and Maintenance Inspection Certification," ({effective date}), as per 62-330.331(2) F.A.C., describing the remedial actions taken to resolve the failure or deviation.

Inspection reports will be submitted by the permittee or their authorized representative to the applicable permitting agency. Each inspection report must be signed by a certified inspector or a registered professional to certify its authenticity.

Inspection Checklist

General Data

Inspection Date Project Name
Location Permit Number

Time since last storm event ☐<24 hours ☐24-48 hours ☐48-72 hours ☐>72 hours
Permit Holder Permit Effective Date
Inspector Name
Inspector Contact Information

Multiple BMP types in the system No ☐Yes ☐ List All: _____

Permit drawings have been reviewed No ☐Yes☐
Additional Photos Attached ☐ N/A ☐
Compliance Activity Record Attached ☐ N/A ☐

All (or other unlisted) Technologies

Items for inspection	Satisfactory	Unsatisfactory
General		
BMPs and treatment facilities are in good repair and operational	☐	☐
BMPs and treatment facilities are free from debris buildup that may impair function	☐	☐
Berms, embankments, curbing, or other methods used to impound, divert, and direct discharges are adequate and in good condition	☐	☐
The discharge (if any) is free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam, or any other signs of contamination	☐	☐
Vegetation		
Mowing done when needed	☐	☐
Grass clippings removed	☐	☐
No evidence of erosion	☐	☐
Inlets		
Good condition, no need for repair	☐	☐
No evidence of erosion*	☐	☐
Outlets/overflow spillway		
Good condition, no need for repair	☐	☐
No evidence of erosion*	☐	☐

Comments: _____

Traditional BMPS

Swales N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Swales and contributing areas clear of debris*	☐	☐
Vegetation		
No evidence of erosion*	☐	☐
No weeds or invasive plants present	☐	☐
No evidence of nutrient deficiency	☐	☐
No evidence of disease	☐	☐
Grasses/sod are not in need of replanting/resodding	☐	☐
No signs of drought stress	☐	☐
No signs of plant overgrowth	☐	☐
Recovery		
Swale recovers between storms within permitted timeframe	☐	☐
Swale clean of sediments		
Good condition, no need for repair	☐	☐
No areas of sediment buildup*	☐	☐
No evidence of erosion*	☐	☐
Inlet Structure / Pretreatment:		
Good condition, no need for repair	☐	☐
No trash/debris/sediment in or around inlet structures*	☐	☐
No evidence that runoff is short-circuiting the inlet	☐	☐

Emergency Overflow / Outlet Structure		
Good condition, no need for repair	☐	☐
No evidence of accumulation of trash, debris, or sediment in or around outlet structure(s)*	☐	☐
No evidence of erosion, or flooding around structures*	☐	☐
Swale Blocks N/A ☐		
If swale blocks or other structures are present, there is no evidence of erosion at downstream toe of structure*	☐	☐

Comments: _____

Wet Pond N/A ☐

Type of wet pond _____

Items for inspection	Satisfactory	Unsatisfactory
Vegetation		
No signs of damage from animal activity	☐	☐
No signs of stress or disease	☐	☐
No emergent invasive plant life	☐	☐
No areas need replanting	☐	☐
Dead plant material is removed, if necessary	☐	☐
Upland banks are maintained		
Structural		
Embankment condition	☐	☐
Side slopes are stable	☐	☐
Fences/access repairs		
Fence(s) condition	☐	☐
Lock(s) and gate(s) function are adequate	☐	☐
Inlets		
Inlet(s) condition	☐	☐
Runoff is not short-circuiting the inlet	☐	☐
No evidence of trash/debris/sediment in or around inlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet *	☐	☐
Outlets/overflow spillway/ drain gate		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around outlet *	☐	☐
Weir System: drawdown and overflow weir		
Weir system condition	☐	☐
No evidence of clogging *	☐	☐
Clear of debris*	☐	☐

Comments: _____

Dry Pond N/A ☐

Type of dry pond _____

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Basin bottom clear of debris*	☐	☐
Emergency spillway clear of debris*	☐	☐
Recovery		
Pond recovers between storms	☐	☐
Vegetation		
No signs of damage from animal activity	☐	☐
No signs of stress or disease	☐	☐
No emergent invasive plant life	☐	☐
Does not need replanting	☐	☐
Not overgrown	☐	☐
Sediment cleanout of pond		
No evidence of sedimentation in pond	☐	☐
No evidence of erosion at downstream toe	☐	☐
Structural		
Embankment condition	☐	☐
Side slopes are stable	☐	☐
Fences/access repairs		
Fence(s) condition	☐	☐
Lock(s) and gate(s) function adequate	☐	☐
Underdrain/side bank Filters		
Cleanout caps present and in good condition	☐	☐
No evidence of clogging	☐	☐
No evidence of erosion over or adjacent to filter*	☐	☐
Inlets		
Inlet(s) condition	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet*	☐	☐
Outlets/overflow spillway		
Outlet(s) condition	☐	☐
No evidence of erosion, gullies, rills, or flooding around outlet*	☐	☐

Comments: _____

Exfiltration Trench N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Trench surface clear of debris*	☐	☐
Inlet areas clear of debris*	☐	☐
Inflow pipes clear of debris*	☐	☐
Overflow spillway clear of debris*	☐	☐
Sediment traps or forebays		
Sufficiently trapping sediment	☐	☐
Has additional storage capacity available until next maintenance action	☐	☐
Sediment buildup has been removed	☐	☐
Vegetation		

Water does not stand on vegetative surface	☐	☐
Good vegetative cover exists	☐	☐
Recovery		
Trench recovers between storms	☐	☐
Sediment cleanout of trench		
No evidence of sedimentation in trench*	☐	☐
Inlets		
Inlet intake(s) functioning adequately	☐	☐
Inlet(s) condition	☐	☐
No evidence of flooding around inlet	☐	☐
Outlets/overflow spillway		
Outlet(s) condition	☐	☐
No evidence of flooding around outlet	☐	☐
Structural		
Embankment condition	☐	☐
Side slopes are stable	☐	☐
Aggregate repairs		
Surface of aggregate clean	☐	☐
Top layer of stone does not need replacement	☐	☐
Trench does not need rehabilitation	☐	☐

Comments: _____

Pervious Pavers/Pavement N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Paving area clean of debris*	☐	☐
Site Area		
Drainage area contains stable soil that will not clog pavers	☐	☐
Vegetation on site healthy and glass clippings removed	☐	☐
Runoff is not short-circuiting the pavers	☐	☐
No evidence of erosion, gullies, or rills around site	☐	☐
Infiltration		
Infiltrometer Test meets requirements	☐	☐
Recovery		
Pervious paving recovers between storms	☐	☐
No evidence of clogging or standing water	☐	☐
Sediments		
Pavement area clean of sediments	☐	☐
Area vacuum swept on a periodic basis	☐	☐
Structural Integrity		
No evidence of surface deterioration	☐	☐
No evidence of rutting or spalling	☐	☐
No evidence of pavement settling	☐	☐
No evidence of missing aggregate between pavers	☐	☐

Outlets		
Outlet(s) condition	☐	☐
No evidence of clogging	☐	☐
Clean out caps present if included	☐	☐
Vegetation cells N/A ☐		
Vegetation healthy	☐	☐
Vegetation not overgrown	☐	☐
No grass clippings present *	☐	☐

Comments: _____

Stormwater Vaults or Tanks N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Paving area clean of debris*	☐	☐
Recovery		
Recovers between storms	☐	☐
No evidence of standing water	☐	☐
No nuisance flooding evident	☐	☐
Sediments		
Clear of sediments*	☐	☐
Structural Integrity		
No evidence of surface deterioration	☐	☐
No evidence of cracking	☐	☐
No evidence of rutting or spalling	☐	☐
Safety		
Ladders functioning and in good repair	☐	☐
Adequate venting for access	☐	☐
Contains primary and secondary access	☐	☐
Inlets		
Inlet(s) condition	☐	☐
No evidence of scouring	☐	☐
Outlets		
Outlet(s) condition	☐	☐
No evidence of erosion *	☐	☐
No evidence of clogging	☐	☐

Comments: _____

Constructed Marsh System N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Marsh System clear of debris*	☐	☐
Vegetation		
Appears healthy	☐	☐

No emergent invasive plant life	☐	☐
No signs of damage from animal activity	☐	☐
No signs of stress or disease	☐	☐
No areas need replanting	☐	☐
Dead plant material removed, as necessary	☐	☐
Upland banks are maintained	☐	☐
Flow		
No signs of channeling or erosion *	☐	☐
Maintains minimum permitted water elevation	☐	☐
No signs of drought or short-circuiting	☐	☐
Inlets		
Inlet(s) condition	☐	☐
Runoff is not short-circuiting the inlet	☐	☐
No evidence of trash/debris/sediment in or around inlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet *	☐	☐
Vegetation around inlet in good condition	☐	☐
Outlets/emergency outflow N/A ☐		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around outlet *	☐	☐
Weir System or Level Spreader N/A ☐		
Weir system condition	☐	☐
No evidence of clogging	☐	☐
Clear of debris*	☐	☐

Comments: _____

Vegetative Natural Buffers N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Buffer clear of debris*	☐	☐
Vegetation		
Vegetation healthy	☐	☐
No emergent invasive plant life	☐	☐
No signs of damage from animal activity	☐	☐
No signs of stress or disease	☐	☐
No areas need replanting	☐	☐
Dead plant material removed, as necessary	☐	☐
Upland banks are maintained	☐	☐
Flow		
No signs of channeling or erosion *	☐	☐
Maintain minimum permitted water elevation	☐	☐
No signs of drought or prolonged ponding	☐	☐
Inlets		
Inlet(s) condition	☐	☐
Runoff is not short Circuiting the inlet	☐	☐

No evidence of trash/debris/sediment in or around inlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet *	☐	☐
Vegetation around inlet in good condition	☐	☐
Outlets/emergency outflow N/A ☐		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around outlet *	☐	☐

Comments: _____

Green Roof N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Vegetated area clear of debris*	☐	☐
Dewatering		
Recovers between storms	☐	☐
No evidence of ponding or inundation	☐	☐
Structural		
Constructed elements condition	☐	☐
No evidence of roof leaks	☐	☐
No evidence of exposed or actively eroding areas	☐	☐
Dispersal system/sprinkler N/A ☐		
Dispersal system/sprinkler functioning as intended	☐	☐
Piping in good repair	☐	☐
Pumps functioning as intended	☐	☐
Cistern tank functioning as intended	☐	☐
Overflow functioning as intended	☐	☐
Vegetation		
Vegetation healthy	☐	☐
No emergent invasive plant life	☐	☐
No signs of nutrient deficiency/disease	☐	☐
No areas need replanting	☐	☐
Inlets/Catchments		
Inlet(s) condition	☐	☐
No evidence of erosion*	☐	☐
No evidence of clogging	☐	☐
Outlets		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet*	☐	☐
No evidence of erosion or flooding *	☐	☐
No evidence of bypassing	☐	☐

Comments: _____

Cistern N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Site area		

No evidence of clogging flow paths or pipes *	☐	☐
Structural		
Constructed elements condition	☐	☐
Condition of foundation if above ground	☐	☐
No evidence of leaks	☐	☐
No evidence of algal growth in cistern	☐	☐
No evidence of prolonged storage	☐	☐
Vegetation		
Trees appear healthy	☐	☐
Trees do not need replacing or pruning	☐	☐
No emergent invasive plant life	☐	☐
Inlets		
Inlet(s) condition	☐	☐
Runoff is not bypassing the inlet(s)	☐	☐
No evidence of trash/debris/sediment in or around inlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet *	☐	☐
Screen and/or trap is secured and functioning properly	☐	☐
Screen and/or trap is clear of debris build up *	☐	☐
First flush collector (if present) clear of debris and properly functioning	☐	☐
Outlets/emergency overflow		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet*	☐	☐
No evidence of erosion or flooding *	☐	☐
Pump N/A ☐		
Float switch functional	☐	☐
Pump functional	☐	☐
Healthy vegetation, if used for irrigation	☐	☐

Comments: _____

Tree Box or Tree Well N/A ☐

Items for inspection	Satisfactory	Unsatisfactory
Site area		
Area clear of excess debris*	☐	☐
No evidence of erosion*	☐	☐
Structural		
Constructed elements condition	☐	☐
Device dewaters between storms	☐	☐
No evidence of inundation	☐	☐
No evidence of sediment build up *	☐	☐
Vegetation		
Tree(s) appears healthy	☐	☐
Tree(s) do not need replacing or pruning	☐	☐
No emergent invasive plant life	☐	☐

Inlets		
Inlet(s) condition	☐	☐
Runoff is not bypassing the inlet	☐	☐
No evidence of trash/debris/sediment in or around inlet *	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet *	☐	☐
Outlets/emergency overflow		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet*	☐	☐
No evidence of erosion or flooding *	☐	☐
Underdrain, if installed		
All cleanouts clear from clogging or blockages *	☐	☐
Cleanouts in good condition	☐	☐

Comments: _____

Bioswale or Raingarden N/A ☐

Type of LID(s) _____

Items for inspection	Satisfactory	Unsatisfactory
Site area		
Area clear of excess debris*	☐	☐
No evidence of erosion or sedimentation *	☐	☐
Dewatering		
Ponding dewaters between storms	☐	☐
No evidence of inundation	☐	☐
Sediment cleanout		
No evidence of sedimentation	☐	☐
Structural		
Constructed elements condition	☐	☐
Mulch depth at least 2 inches	☐	☐
No evidence of damage from wildlife	☐	☐
No evidence of erosion*	☐	☐
No sediment build-up*	☐	☐
Vegetation		
Vegetation healthy	☐	☐
No emergent invasive plant life	☐	☐
No areas need replanting	☐	☐
Not overgrown	☐	☐
Inlets		
Inlet(s) condition	☐	☐
Runoff is not short-circuiting the inlet area	☐	☐
No evidence of trash/debris/sediment in or around inlet area*	☐	☐
No evidence of erosion, gullies, rills, or flooding around inlet area*	☐	☐
Plant life around inlets condition	☐	☐
Outlets/overflow spillway		
Outlet(s) condition	☐	☐
No evidence of trash/debris/sediment in or around outlet*	☐	☐

No evidence of erosion or flooding *	☐	☐
Underdrain N/A ☐		
All cleanouts clear form clogging or blockages	☐	☐
Cleanouts in good condition	☐	☐

Comments: _____

Non-Traditional BMPS

Other Manufactured BMPs N/A ☐

Type of System _____

Items for inspection	Satisfactory	Unsatisfactory
Functioning based on permit and manufacturer specifications	☐	☐
No evidence of damage or clogging	☐	☐

Comments: _____

Monitoring Devices and Adaptive Controls N/A ☐

Type of Monitoring Device(s) _____

Items for inspection	Satisfactory	Unsatisfactory
Computer components		
Functioning as intended	☐	☐
Recording data at permitted intervals	☐	☐
No signs of rusting, corrosion, or other weather damage	☐	☐

Comments: _____

* That May Impair Function

Signature

Inspector Name:
Signature of Inspector:
Florida Registration Number:

Prepared By:
Kimley»Horn

FOR INFORMATIONAL PURPOSES ONLY
9TH STREET APARTMENTS MULTI-FAMILY RENTAL DEVELOPMENT ESTIMATED YEARLY MAINTENANCE COSTS

DESCRIPTION	CONSTRUCTION COST	EXPECTED SERVICE LIFE	TYPICAL ANNUAL MAINTENANCE % OF CONSTRUCTION COST	TOTAL AMOUNT
Stormwater Pond	$ 60,000.00	1000	1.5%	$ 900
Piping, Storm Sewer	$ 130,535.00	60	1.0%	$ 1,305
Storm Sewer, Outlet Structure, Fixed	$ 219,137.00	60	0.3%	$ 657
Mowing/Vegetation Control	$ 1,850.00	-	-	$ 1,850
				$ 4,713

Documents:

The assumptions used to develop the annual stormwater maintenance costs for the stormwater infrastructure within 9th Street Apartments Multi-Family Rental Development were developed using the following documents:

1.) This estimated yearly maintenance costs was completed based on the proposed improvements within the 9th Street Apartments Multi-Family Rental Development.

2.) Construction Costs are based upon bid pricing provided by the contractor.

3.) Expected Service Life and Typical Annual Maintenance Percentages have been extracted from Florida Stormwater Association's "BMP Life-Cycle Costing Tool".

Patrick M. Healy, P.E.
State of Florida, Professional Engineer, License
No. 82351

This item has been digitally signed and sealed by Patrick Healy on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Kimley-Horn does not control the cost of labor, materials, equipment of services furnished by others, methods of determining prices, or competitive bidding or market conditions, any opinions rendered as to costs, including but not limited to opinions as to the costs of construction and materials, shall be made on the basis of its experience and represent its judgement as an experienced and qualified professional, familiar with the industry. Kimley-Horn cannot and does not guarantee that proposals, bids or actual costs will not vary from its opinions of cost. If the client wishes greater assurance as to the amount of any cost, it shall employ an independent cost estimator.

Certification Of Financial Capability For Perpetual Operations And Maintenance Entities

Permit No.: _____ Application No.: 908262 Date Issued (if modification): _____

Identification or Name of Stormwater Management System: 9th Street Apartments Multi-Family Rental Development

Phase of Stormwater Management System (if applicable): _____

Name of Operation and Maintenance Entity: Elmington Capital Group, LLC

Address of Operation and Maintenance Entity: 1030 16 th Ave South Nashville, TN, 37212

☑ Cost estimate attached

Total annual operating expenses, including maintenance costs, for the estimated remaining useful life of the system accounting for annualized capital or replacement costs or deferred maintenance expenses for the system, including those components where maintenance or replacement frequencies are less frequent that once per year, for each BMP in the stormwater management system and any associated infrastructure, in current year dollars.

Operation and Maintenance Entity (Select All That Apply):

☐ Local, state, or federal government agencies; municipal service other special taxing units, water control or drainage districts; community development, special assessment, or water management districts

☐ Communication, water, sewer, stormwater, electrical, or other public utility

☑ Construction permittee (see Section 12, Volume I)

☐ Non-profit corporations, including homeowners' associations, property owners' associations, condominium owners' or master associations

☐ Other (Describe the Other Operation and Maintenance Entity below)

_____

Certification by Operation and Maintenance Entity:

Certification Provisions for the Operation and Maintenance Entity (Select All That Apply):

☐ Municipal Separate Storm Sewer System (MS4) permittee subject to Chapter 62-624, F.A.C. (Identify the applicable Florida Department of Environmental MS4 permit below:)

_____

☐ Non-profit corporation subject to the Homeowners' Association Act under Chapter 720, Florida Statutes

_____

Certification Of Financial Capability For Perpetual Operations And Maintenance Entities

☐ Construction permittee that will not be the Operation and Maintenance Entity. (Identify the intended Operation and Maintenance Entity below:)

_____

☐ Other: Operation and Maintenance Entity not otherwise selected for this section. Describe the Other Operation and Maintenance Entity below, such as State or federal agency, Property Owners' Association, etc.:

_____

The below Permittee or Operation and Maintenance Entity certifies that this form is true, accurate, and complete; and that it has the financial capability to operate and maintain the system in perpetuity including costs of inspections, operation, repair, and replacement of the system once the system meets its expected life. The signee below will be responsible for all maintenance, operation, and repair costs for the stormwater system of the above permit in perpetuity, until such time the system is properly abandoned, or the permit is transferred to a new operation and maintenance entity.

Name of Permittee or Operation and Maintenance Entity: Elmington Capital Group, LLC

Name: C. Hunter Nelson Title: Managing Member of ECG Florida 2023 GP, LLC

Signature: _____ Date 1/22/20

BEST MANAGEMENT PRACTICES

GUIDELINES MANUAL

FORWARD

This manual has been prepared *9th Street Apartments Multi-Family Rental Development* to address the rules of the Southwest Florida Water Management District. The manual is divided into five (5) sections addressing the following areas:

1. Protection of preserved/conserved upland habitats during construction.
2. General erosion control.
3. Protection of surface water quality during and after construction.
4. Control of wind erosion.
5. Turbidity monitoring.

The various techniques or actions identified are cross-referenced to specific BMP FIGURES on Sheet C-401 of the attached Construction Plans. A plan sheet showing the FIGUREs shall be incorporated into each set of site construction plans with clear indication of which BMP's are applicable to the specific project.

BMP's
BEST MANAGEMENT PRACTICES

SECTION 1 PROTECTION OF PRESERVED/CONSERVED UPLAND HABITATS

1.2 Barricades shall be placed around all protected (preserved) habitats including wetland-fringing hammocks and uplands during construction.

SECTION 2 GENERAL EROSION CONTROL

2.1 General erosion control BMP's shall be employed to minimize soil erosion and potential lake slope cave-ins. While the various techniques required will be site and plan specific, they should be employed as soon as possible during construction activities.

2.2 Cleared site development areas not continually scheduled for construction activities shall be covered with hay or overseeded and periodically watered sufficient to stabilize the temporary ground cover.

2.3 Slopes of banks of lakes shall be constructed not steeper than 4H:1V from top of bank to two feet below normal water level as shown in FIGURE 6 or as indicated on the construction plans.

2.4 All grass slopes constructed steeper than 6H:1V shall be sodded as soon as practical after their construction as shown in FIGURE 13.

2.5 Sod shall be placed for a 2-foot wide strip adjoining all curbing and around all inlets as shown in FIGURE 14. Sod shall be placed before silt barriers, shown in FIGURE 7, are removed.

2.6 Where required to prevent erosion from sheet flow across bare ground from entering a lake or swale, a temporary sediment sump shall be constructed, as shown in FIGURE 15. The temporary sediment sump shall remain in place until vegetation is established on the ground draining to the sump.

2.7 If dewatering during construction results in any temporary standing water body of more than 72 hours duration, the Contractor shall notify the Mosquito Control District by phone (941) 861-9740.

SECTION 3 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION

3.1 Surface water quality shall be maintained by employing the following BMP's in the design and construction of all improvements.

3.2 Where practical, stormwater shall be conveyed by swales. Swales shall be constructed as shown in FIGURE 3.

3.3 Erosion control measures shall be employed to minimize turbidity of surface waters located downstream of any construction activity. While the various measures required will be site specific, they shall be employed as needed in accordance with the following:

a. In general, erosion shall be controlled at the furthest practical upstream location.

b. Stormwater inlets shall be protected during construction as shown in FIGURES 7 and 8. Protection measures shall be employed as soon as practical during the various stages of inlet construction. Silt barriers shall remain in place until sodding around inlets is complete.

c. Stormwater piping connecting to existing lakes shall be constructed in accordance with the protective measures shown in FIGURE 9. The silt fence shall be installed prior to laying storm pipe and shall remain in place until disturbed areas of the lake bank are sodded.

d. Stormwater piping connecting to existing ditches shall be constructed in accordance with the protective measures shown in FIGURE 10. The silt barrier shall be installed prior to laying storm pipe and shall remain in place until disturbed areas of the lake bank are sodded.

e. Swales or ditches connecting to existing ditches shall be constructed in accordance with the protective measures shown in FIGURE 11. The silt barrier shall be installed prior to excavating the proposed ditch or swale and shall remain in place until the proposed ditch or swale is sodded.

f. Underground pipe crossings of ditches shall require the use of the protective measures shown in FIGURE 12. Silt fences shall be installed prior to construction of temporary earth berms and shall remain in place until temporary berms are removed and until disturbed areas of ditch bank are sodded.

3.4 Heavy construction equipment parking and maintenance areas shall be designed to prevent oil, grease, and lubricants from entering site drainage features including stormwater collection and treatment systems. Contractors shall provide broad dikes, hay bales or silt screens around, and sediment sumps within, such areas as required to contain spills of oil, grease or lubricants. Contractors shall have available, and shall use, absorbent filter pads to clean up spills as soon as possible after occurrence.

SECTION 4 CONTROL OF WIND EROSION

4.1 Employing the following methods as necessary and appropriate shall control wind erosion:

a. Bare earth areas shall be watered during construction as necessary to minimize the transport of fugitive dust. It may be necessary to limit construction vehicle speed if bare earth has not been effectively watered.

b. After completion of construction, bare earth areas shall be grassed or landscaped, as soon as practical.

c. At any time that watering and/or vegetation are not effective in controlling wind erosion and/or transport of fugitive dust, other methods as are necessary for such control shall be employed. If required, dust control fences shall be constructed in accordance with the detail for a silt fence shown in FIGURE 2 except the minimum height shall be 4 feet.

SECTION 5 PROCEDURE FOR TURBIDITY MONITORING

5.1 Turbidity is a quick and efficient method for measuring the relative amount of interference of light on the water column of any aquatic system due to particles held in suspension. Thus, measurements of turbidity can indicate relative levels of material introduced into an aquatic system through anthropogenic and/or natural processes.

5.2 During periods of normal flows, monitoring of turbidity levels shall be performed as follows:

a. All measurements of turbidity shall be performed as deemed necessary by the Environmental Consultant, at the locations specified on the Best Management Practices Plan.

i. Monitoring shall always start at stations upstream of any construction.

ii. All monitoring at stations downstream of construction shall be done last.

b. Measurements of turbidity shall not be necessary for the following:

i. High density vegetation areas where development is occurring >500 ft. from a natural body of water.

ii. All other areas where development is occurring at >1000 ft. from a natural body of water.

c. A visual check of the entire area shall be performed daily.

i. Any suspicious observations made shall be immediately checked by turbidimeter at both upstream and downstream locations as described in Section 6.2.

d. Any station where turbidity levels are out of compliance with County and Florida Water Management Districts standards shall be reported immediately by telephone to the County Pollution Control Division and the corresponding Florida Water Management District and development shall be suspended until turbidity levels reach County and Florida Water Management District standards.

5.3 Monitoring during periods of rainfall shall be performed more frequently.

a. Only total accumulations of rainfall >0.5" over a two-hour period shall be monitored three times per day until turbidity levels go back to background (i.e., prior to the rain event). As soon as turbidity levels are in violation of County and Florida Water

Management District standards, development shall cease. Monitoring of turbidity shall be performed at all development sites regardless of a 500-1000 buffer zone.

b. After the rain event, once turbidity levels are in compliance with County or Florida Water Management District standards, daily monitoring can resume (as outlined in 6.2).

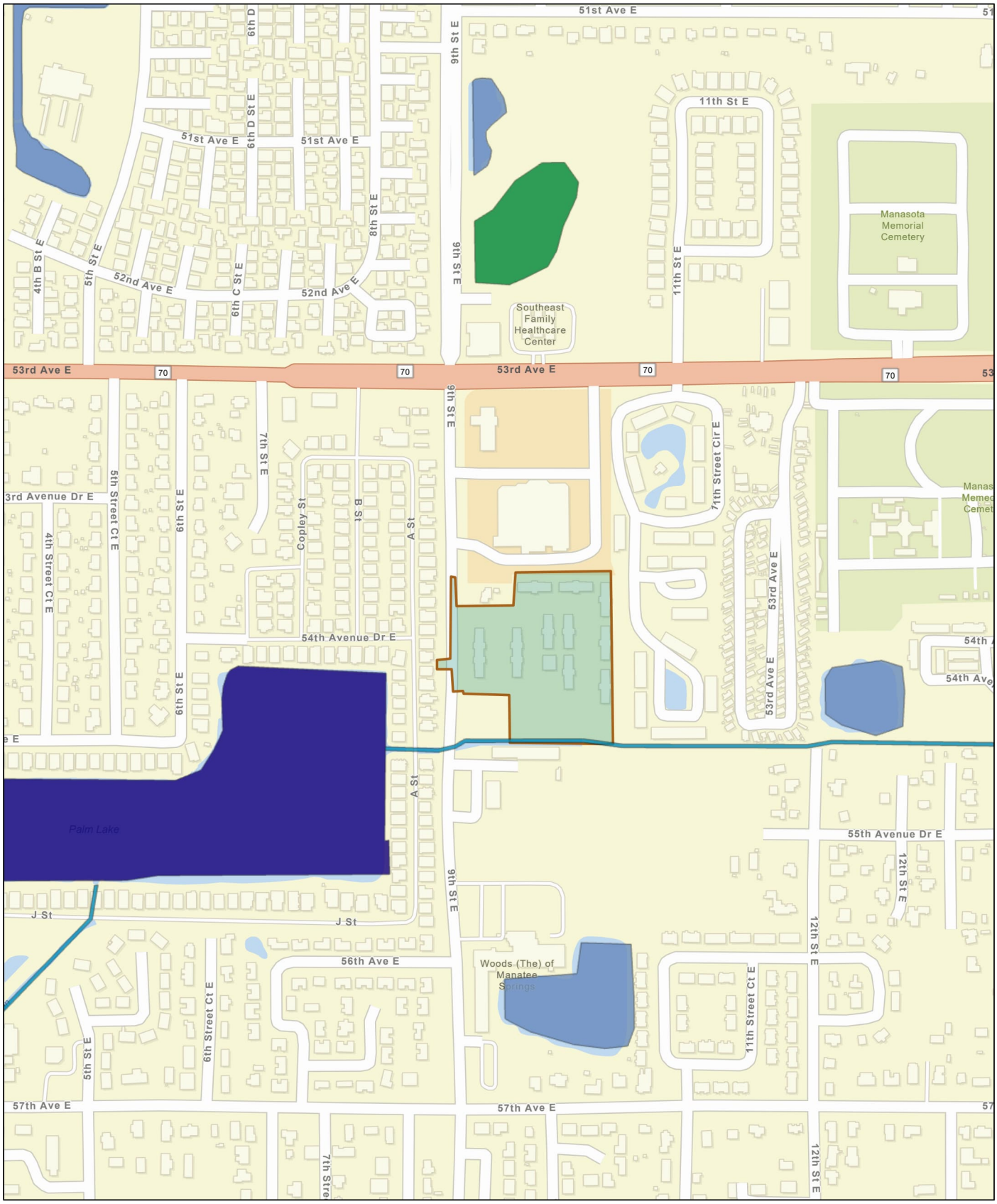
c. Rain events with accumulations <-0.5" over a two-hour period will be monitored as described in 6.2.

5.4 Dried-up streambeds shall not be monitored until water levels rise sufficiently to warrant any turbidity measurements.

Appendix C

Wetlands Documentation

NWI Wetlands



March 28, 2025

Wetlands

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Project 1

1:4,514

0 0.04 0.09 0.18 mi

0 0.07 0.15 0.3 km

Appendix D

Early Notice and Public Review

Appendix E

Final Notice and Public Explanation