



CITY OF CAYCE

MAYOR
ELISE PARTIN

MAYOR PRO-TEM
JAMES E. JENKINS

COUNCIL MEMBERS
TARA S. ALMOND
PHIL CARTER
EVA CORLEY

CITY MANAGER
REBECCA VANCE

ASSISTANT CITY MANAGER
SHAUN M. GREENWOOD

City of Cayce Special Council Meeting April 14, 2016

A Special Council Meeting was held this afternoon at 5:00 p.m. at the Cayce Tennis and Fitness Center. Those present included Mayor Elise Partin, Council Members Tara Almond, Phil Carter, Eva Corley, James Jenkins, City Manager Rebecca Vance, Assistant City Manager Shaun Greenwood, Municipal Clerk Mendy Corder and City Treasurer Garry Huddle. Mr. Thomas White, Mr. Layne West, Mr. James Denny, Mr. Leo Redmond and Mr. Mike Clayborn were also in attendance. Mayor Partin asked if members of the press and the public were duly notified of the meeting in accordance with the FOIA. Ms. Corder confirmed they were notified.

Call to Order

Mayor Partin called the meeting to order and Council Member Carter gave the invocation. Mayor Partin led the assembly in reciting the Pledge of Allegiance.

Public Comment Regarding Items in the Agenda

Ms. Corder stated no one had signed up for public comment.

Presentations

A. Presentation by Dee and Diane Pardue re Rental Registration Program

Mr. and Mrs. Pardue did not attend the meeting.

B. Presentation by Ms. Hattie Kenley re Rental Registration Program

Ms. Kenley stated that she owns rental property on Julius Felder Street. She asked Council to waive the yearly business license fee that she is required to pay since she rents a home in the City of Cayce.

C. Presentation by American Engineering Consultants of the Draft Avenues Area Drainage Study

Mr. Bill Bingham of American Engineering Consultants (AEC) presented the draft study of the Avenues Area Drainage. He stated that the purpose of the study was to take a broader look of the watershed that is the Avenues. He stated that the Avenues are made up of three separate drainage areas with a combined acreage of 530 acres. The staff at AEC titled the three areas the Indigo basin, the Naples basin, and the Frink basin. These three basins are how the drainage system divides throughout the City. All three drainage basins contain low lying properties that have insufficient drainage in

them particularly in the Indigo basin between 10th and 7th Street. The Frink basin is between 2nd Street and State Street.

Mr. Bingham stated that the majority of the Avenues were developed in the 20th century. He stated that in 1938 the majority of the land in Cayce was farm land. A large portion of the land that is now the Avenues was not able to be used for crops because it was so low lying and flooded so often. He stated that in 2015 the City experienced three separate two-year rain events. A two-year rain event means that the probability of that storm occurring is once every two years.

Mr. Bingham stated that when the Avenues were built legislation did not require detention ponds. Therefore there are not any detention ponds to handle water runoff. Low lying areas were created to allow rain water to flow into them. Over time the areas dried out and homes were built on these lots. Originally all the roads were dirt, over time the roads were paved which increased run off in certain areas and caused flooding in the low lying areas. Mr. Bingham stated that many of the homes in the Avenues were built below street level.

Mr. Bingham stated that when the Avenues were originally built backyard ditches provided drainage. He stated that the majority of the ditches have not been maintained to their original construction. Over time people have piped the ditches, which has reduced the ditches hydraulic capacity in a storm. Mr. Bingham presented renderings that illustrated how much space was lost in a ditch once it is piped. Once a pipe is put in a ditch the majority of the ditch can no longer carry water. He stated another issue is that there are drainage channels that have been rerouted. Therefore, water is being forced into areas where it was never designed to travel.

Mr. Bingham stated that the detention ponds that were built before homes were built on the Avenues had been filled in. AEC staff considered possibly building detention ponds as an option to help with the drainage issue but a large number of detention ponds would have to be built to help the situation at all.

Mr. Bingham stated that he and his staff looked at three possible improvement options. The first option is a partial ten year improvement. The partial ten year improvement would generally improve upon the existing drainage system and reduce the risk of flooding from what is a common occurrence, to a statistical "once in a decade" problem. The main drawback to this alternative is that flooding north of Knox Abbott Drive is not mitigated at all. The pipe size that would be required to serve the area along with the remaining Indigo basin is beyond what could possibly be constructed thru the Brookland Cayce High School property. The cost for this alternative is \$9.1M.

Mr. Bingham stated that another improvement option is a full ten year design basis. In order for the area north of Knox Abbott Drive to be improved, the Karlaney bypass line would be necessary. This solution makes a significant improvement in the

drainage system and mitigates flooding to an acceptable probability given the current state of the system. This combination would mitigate flooding for a 10-year rain event throughout the entire study area. The cost for this alternative would be \$12,047,328.

Mr. Bingham stated that the last alternative is the 25-year design plan. These improvements would include the construction of three river outfalls and four bypass lines. He stated this plan would be a massive undertaking. For example, the Karlaney bypass ranges in size from 8-feet to 6-feet in diameter and would be close to a mile long. The entire road would have to be dug up to install a pipe that size. The pipe would have to be buried fairly deep in the ground to go below the other utility pipes already in the ground. He stated that the stormwater flow that necessitates these improvements comes only once every 25 years and lasts for a few hours. This solution is the safest alternative at the highest cost. The cost for these improvements would be \$15.3M.

Mr. Bingham stated that all three alternatives would keep the water in the storm drain pipes. These solutions would not help the homes that are built in low lying areas. These homeowners would still have to find a way to get the water off of their property to the storm drains. Council Member Jenkins asked how much of water runoff is coming from West Columbia. Mr. Bingham stated very little of the water was from West Columbia.

Mr. Bingham stated that American Engineering Consultants recommends the potential 10-year alternative. He reminded Council that if any of the improvements fall in another jurisdiction that jurisdiction may require a different alternative. He stated that there are a number of drainage ditches that need to be opened back up but that would not solve the problem. He stated that it would take much larger pipes to get the water to the river. Council Member Carter asked if the cost estimates included putting the road back. Mr. Bingham said they did include that cost and that was one reason the plans were so expensive. Mayor Partin thanked Mr. Bingham for his presentation. His Power Point presentation is attached.

Other

A. Discussion of Proposed FY2016/2017 General Fund Budget

Ms. Vance stated that the Sanitation, Parks, Planning & Development, Museum and Garage department's budgets were going to be presented. The remaining General Fund budgets would be presented at the May 3, 2016 Council Meeting. Ms. Vance reminded Council that staff still did not have the new health insurance costs so those numbers will change in the future. She also stated that a new line item had been added to each department's budget to reflect capital items under \$5,000.

Mr. Thomas White, the manager of the Sanitation Department, thanked Council for approving the addition of a new office/storage building for the Parks and Sanitation

Departments. He stated that his Safety Supplies line item increased slightly because the City purchases reflective winter jackets and safety boots bi-annually for the Sanitation Department employees. He stated he requested a new rear loader garbage truck. The current rear loader should have been replaced two years ago and is very expensive to repair. He stated he requested a pickup truck to replace a truck with over 200,000 miles on it. Mr. White stated he also requested a limb grappler truck. The current limb grappler truck has been in use for twenty years and has been rebuilt multiple times. Council Member Carter asked if the new rear loader truck would be replacing another truck. Mr. White stated it would replace the current rear loader which will be used as a recycling truck. The old recycling truck will be sold at auction.

Mr. Layne West, the Director of Planning and Development, stated that his department plans to hire one new position and also acquired one position that was transferred from Public Safety. He stated his employee training budget increased due to his staff being required to maintain certifications and training. He stated he also requested two pickup trucks for the new positions. Council Member Carter asked how many City vehicles his department currently had. He stated that the Building Official has a City truck.

Mr. Leo Redmond, the Director of the Museum, thanked Council and the City Manager for approving hospitality tax funds to renovate the Museum. He stated that the roof was replaced and the exterior of the Museum was recently painted. He stated he requested \$40,800 in the FY2016-2017 budget to continue the renovations and upgrades. The caboose exhibit will be upgraded and exhibits will be added to it. The antique fire truck will be restored and the firehouse exhibit building will be finished. He stated that 2016 was the Museum's 25th Anniversary.

Mr. James Denny, the Manager of the Parks Department, thanked Council for approving the new office/storage building for the Parks and Sanitation Departments. He stated his department had increased over the past few years from six to twelve employees due to the large size of the Riverwalk. He stated he requested a Ford F150 with a back-up camera to be used in the Riverwalk. The Riverwalk is so large that two crews work opposite ends of the Park therefore an additional truck is needed. He stated he also requested a stump grinder and additional attachments for the Vectrac.

Mr. Mike Clayborn, the manager of the City's Garage, stated that he requested two truck jacks to raise the large trucks so the mechanics can get below them to repair them. The truck jack the garage currently has is nine years old. He stated he requested a new truck since staff often travels out of town to pick up parts and equipment. He also requested funds to insulate and repair the garage doors. He requested an electric gate with an opener for the back gate so the Parks and Sanitation trucks can use that gate when their new office is built. Therefore, they won't have to travel through City Hall's parking lot.

Mayor Partin thanked all the managers and their staff for their hard work. She stated Council constantly receives compliments on their departments for all that their staff does to make the City great.

Committee Matters

A. Appointments and Reappointments

Mayor Partin stated that Ms. Therese Griffin's term expired on the Beautification Foundation in April and she would like to serve again. Ms. Yvonne Smith's term expired on the Municipal Election Commission in April and she would like to serve again. The Planning Commission currently has one open position. The City has received a potential member application from Mr. Chris Jordan. The Public Safety Foundation currently has one open position and received a potential member application form Ms. Casey Crook. Council Member Carter made a motion to reappoint Ms. Griffin and Ms. Smith and appoint Mr. Jordan to the Planning Commission and Ms. Crook to the Public Safety Foundation. Council Member Corley seconded the motion which was unanimously approved by roll call vote.

Council Comments

There were not any comments made by Council.

Executive Session

Council Member Carter made a motion to move into Executive Session. Council Member Almond seconded the motion which was unanimously approved by roll call vote.

- A. Receipt of legal advice relating to claims and potential claims by the City and other matters covered by the attorney-client privilege

Reconvene

After the Executive Session was concluded, Council Member Carter made a motion to reconvene the Regular meeting. Council Member Almond seconded the motion which was unanimously approved by roll call vote. Mayor Partin announced that no vote was taken in Executive Session other than to adjourn and resume the Regular meeting.

Possible Actions by Council in follow up to Executive Session

There was not any action in follow up to Executive Session.

Adjourn

Council Member Almond made a motion to adjourn the meeting. Council Member Carter seconded the motion which was unanimously approved by roll call vote. There being no further business, the meeting adjourned at 6:40 p.m.

Elise Partin, Mayor

ATTEST:

Mendy Corder, Municipal Clerk

IF YOU WOULD LIKE TO SPEAK ON A MATTER APPEARING ON THE MEETING AGENDA, PLEASE COMPLETE THE INFORMATION BELOW PRIOR TO THE START OF THE MEETING.* *THANK YOU.*

COUNCIL MEETING SPEAKERS' LIST

Date of Meeting April 14, 2016

Name	Address	Agenda Item

***Appearance of citizens at Council meetings - City of Cayce Code of Ordinances, Sec. 2-71.** Any citizen of the municipality may speak at a regular meeting of the council on a matter pertaining to municipal services and operation, with the exception of personnel matters, by notifying the office of the city manager at least five working days prior to the meeting and stating the subject and purpose for speaking. Additionally, during the **public comment period** as specified on the agenda of a regular meeting of the council, a member of the public may speak on a matter appearing on the meeting agenda, with the exception of personnel matters by signing a speakers list maintained by the city clerk prior to the start of the public comment period. At the discretion of the mayor or presiding officer, the length of time for any speaker's presentation may be limited and the number speakers also may be limited.

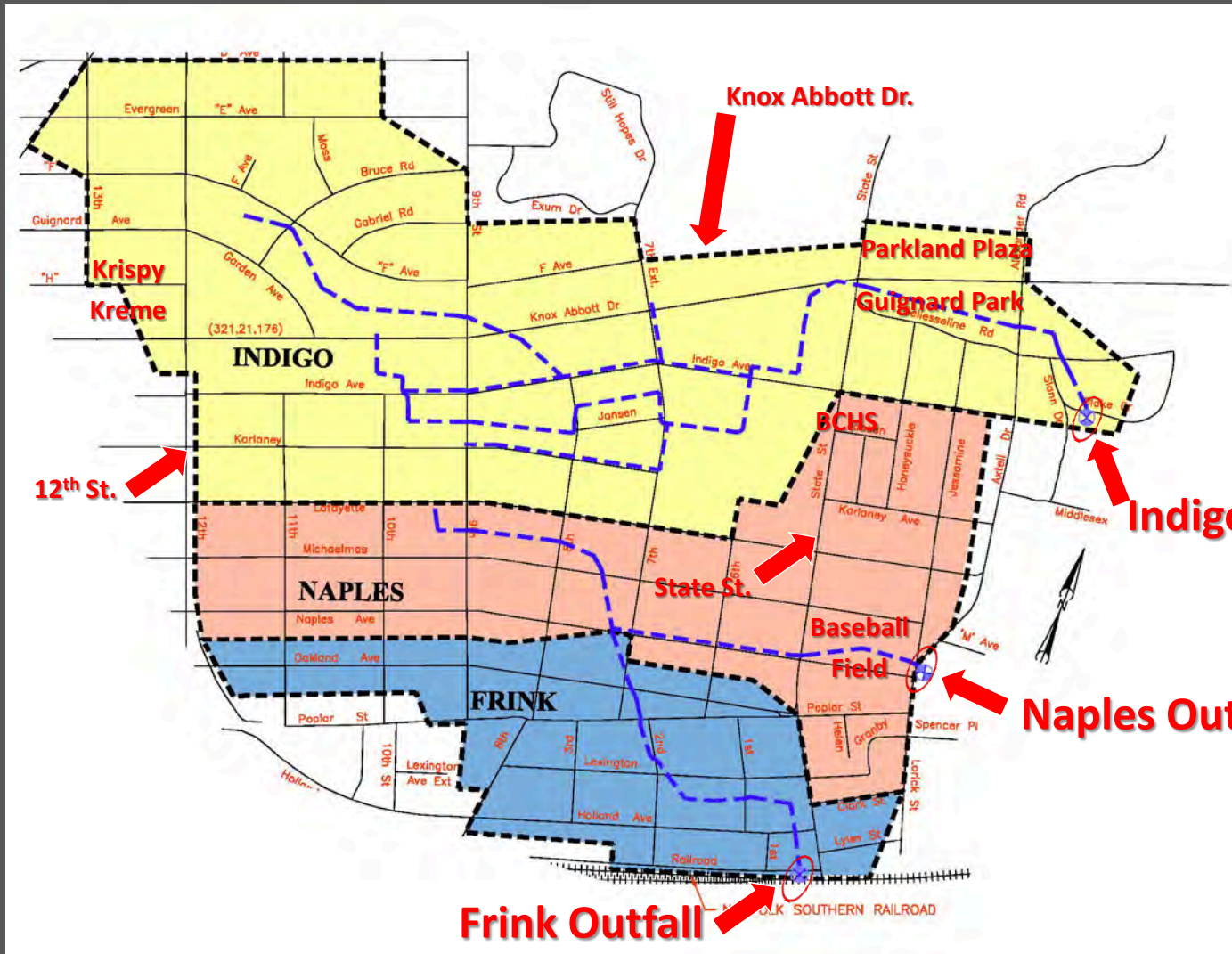
Avenues Drainage Study



April 2016



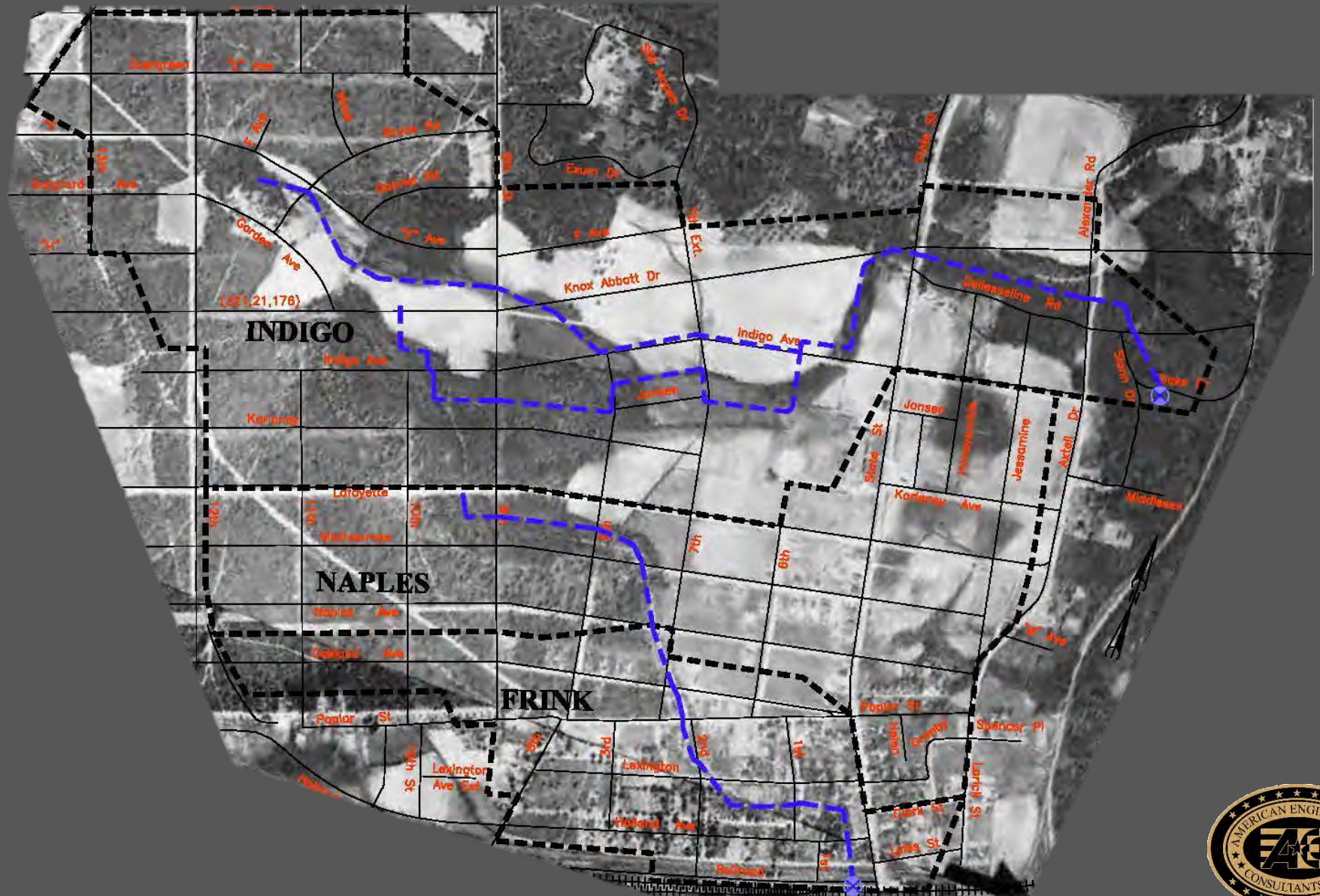
Map – Project Area



1938 Aerial Photo



1938 Aerial Photo



September 24, 2015 Flooding



Deliesseline Road



Indigo Avenue



Blake Drive



Blake Drive



Blake Drive



Blake Drive



9th Street



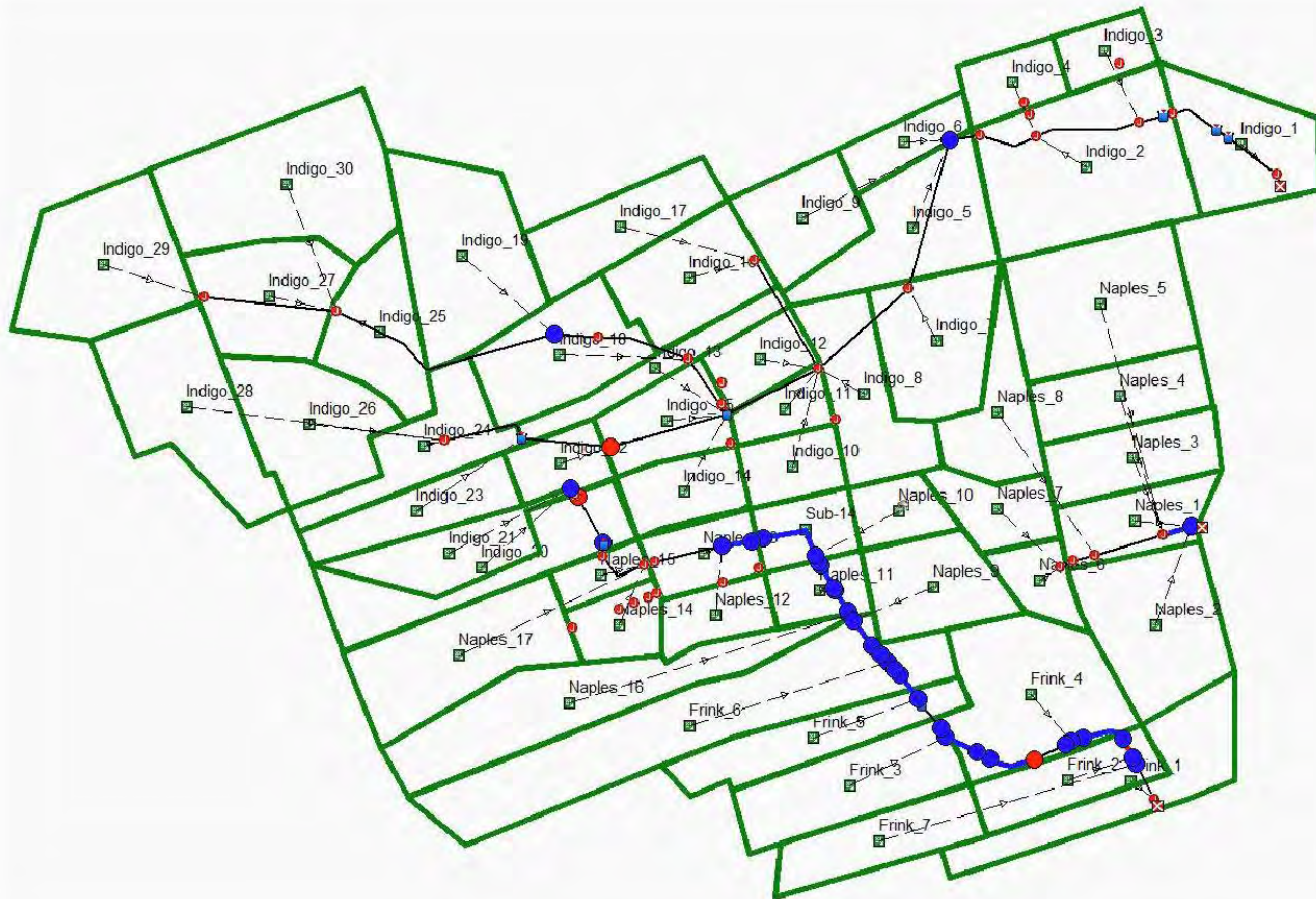
8th Street



7th Street



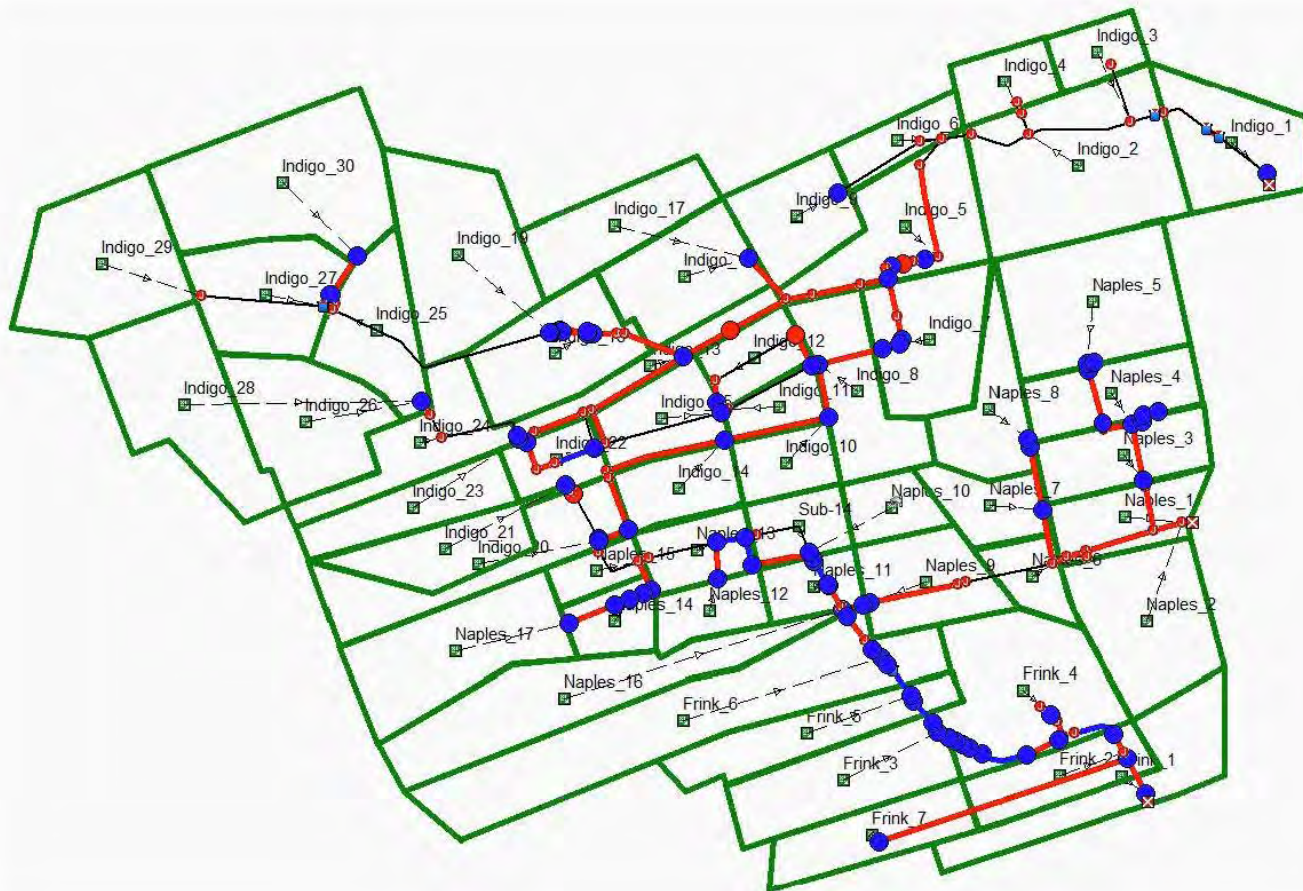
Predicted 1938 Flooding



*Blue dots represent flooding



Predicted Present Day Flooding



*Blue dots represent flooding

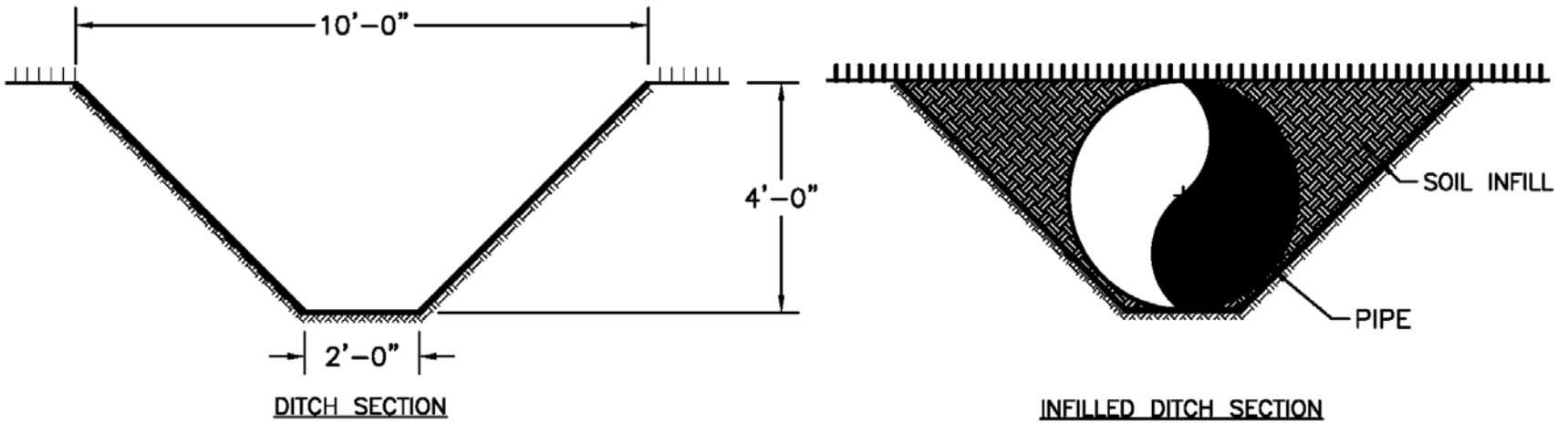


Ditch Infill

- The piping of drainage ditches in many locations has led to reduced hydraulic capacity.
- The following figure illustrates the impact of piping ditches.



Ditch Infill



Section	Ditch	4-Foot Pipe	2-Foot Pipe
Area (SF)	24	13	3
Capacity (CFS)	220	150	24



Re-routing of Drainage Channels

- As roads were constructed and drainage channels were re-routed, attempts have been made to force water into areas that are not natural drainage channels.



Design Storm

- To estimate stormwater runoff, the amount of rainfall in a given area must be defined. This rainfall is based upon a **theoretical** event that has an **intensity** (inches of rain) and **duration** (rainfall time) that are statistically calculated to occur on a selected **frequency**.



Design Storm (continued)

- For example, a 100-year storm refers to rainfall totals that have a **one percent** chance of occurring **at that location in that year**. In other words, there is a **1 in 100** or 1% chance that a storm will reach this **intensity** in any given year. If a stormwater system is designed for a 100-year rainfall, it will **theoretically** fail once every 100-years. However, it is possible that multiple 100-year rainfalls could occur in a given year, but it is not statistically likely to occur.

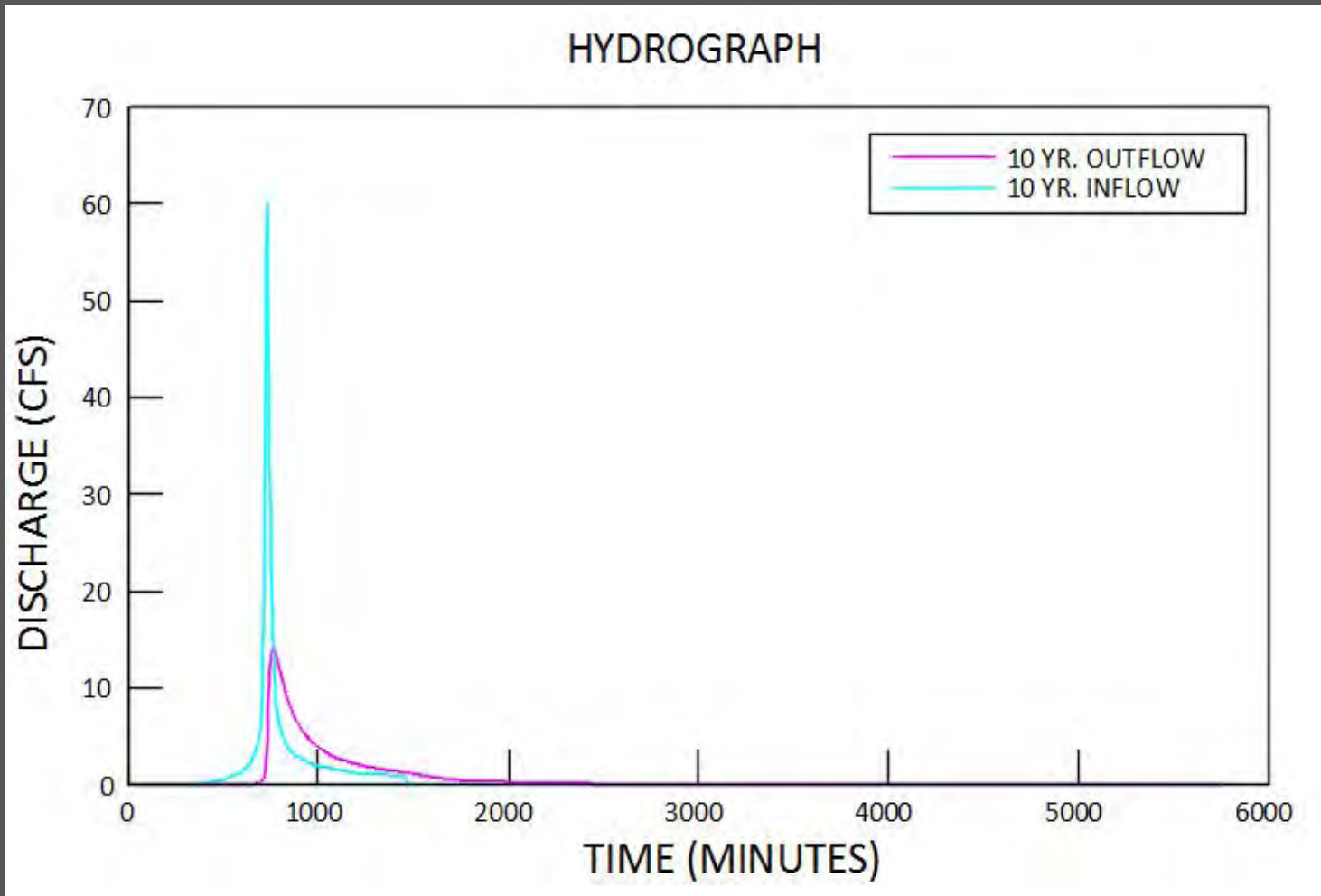


Stormwater Detention

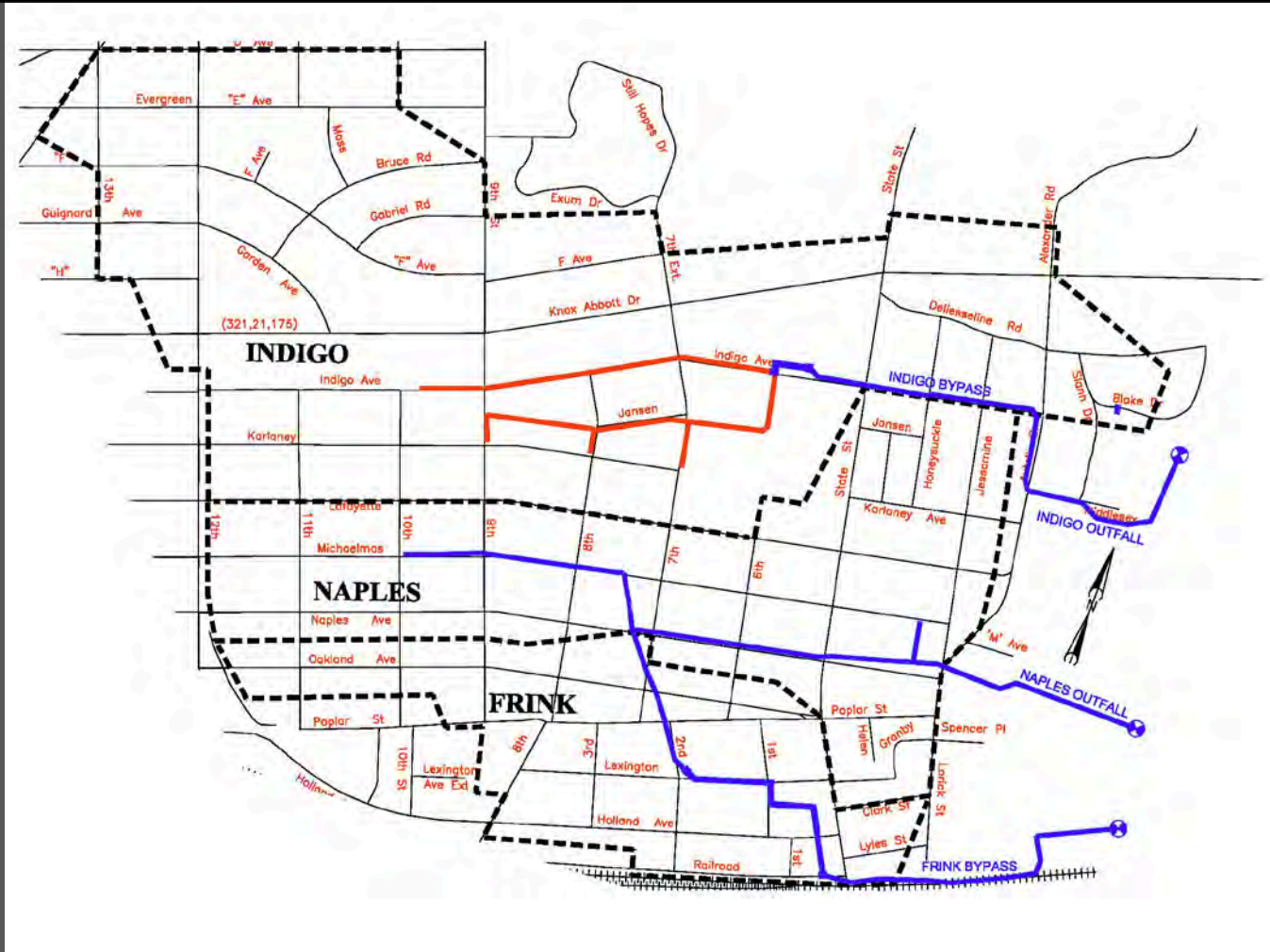
- A detention pond is a depression that stores rainfall and slowly releases stormwater from a large drainage area.
- They are essentially dry basins that store stormwater runoff and release it slowly into downstream drainages. The peak rainfall and runoff occur over a relatively short period of time. Therefore, if peak rainfall can be stored close to its source, the downstream drainage system can be much smaller and more efficient.



Effect of Stormwater Detention



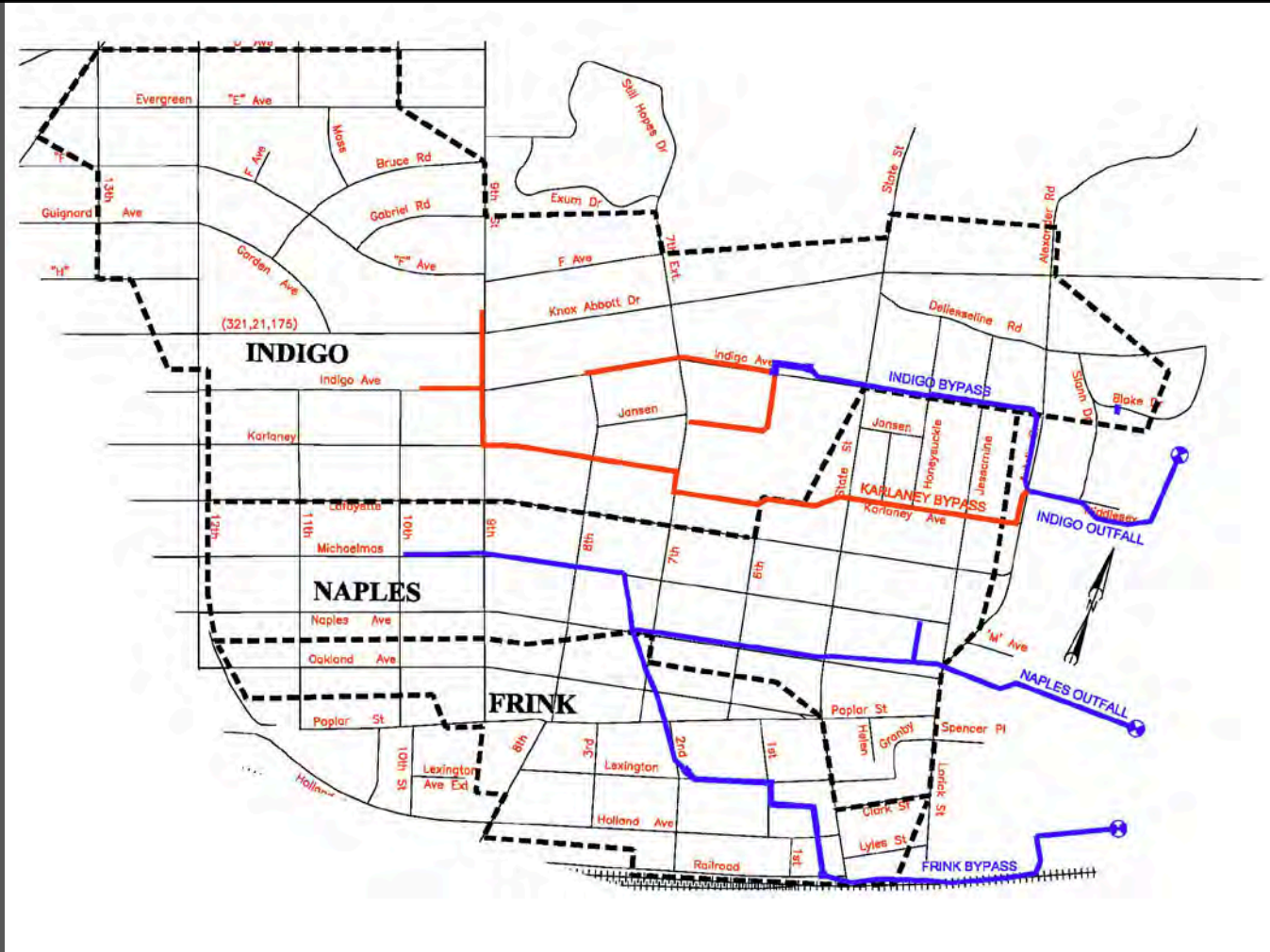
Proposed Improvements: Partial 10-Year



\$9.1-M Estimated Construction Cost



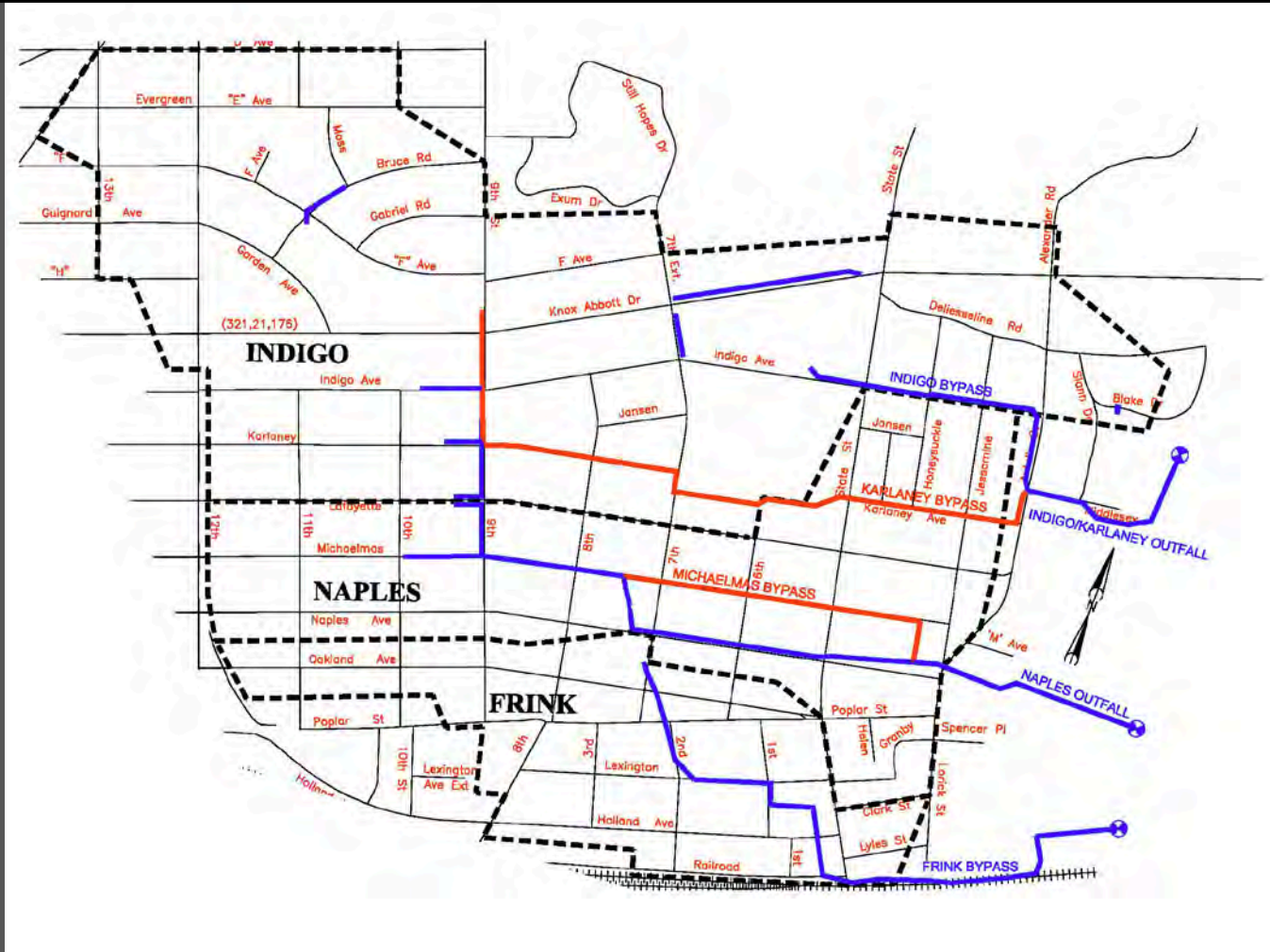
Proposed Improvements: Full 10-Year



\$12.0-M Estimated Construction Cost



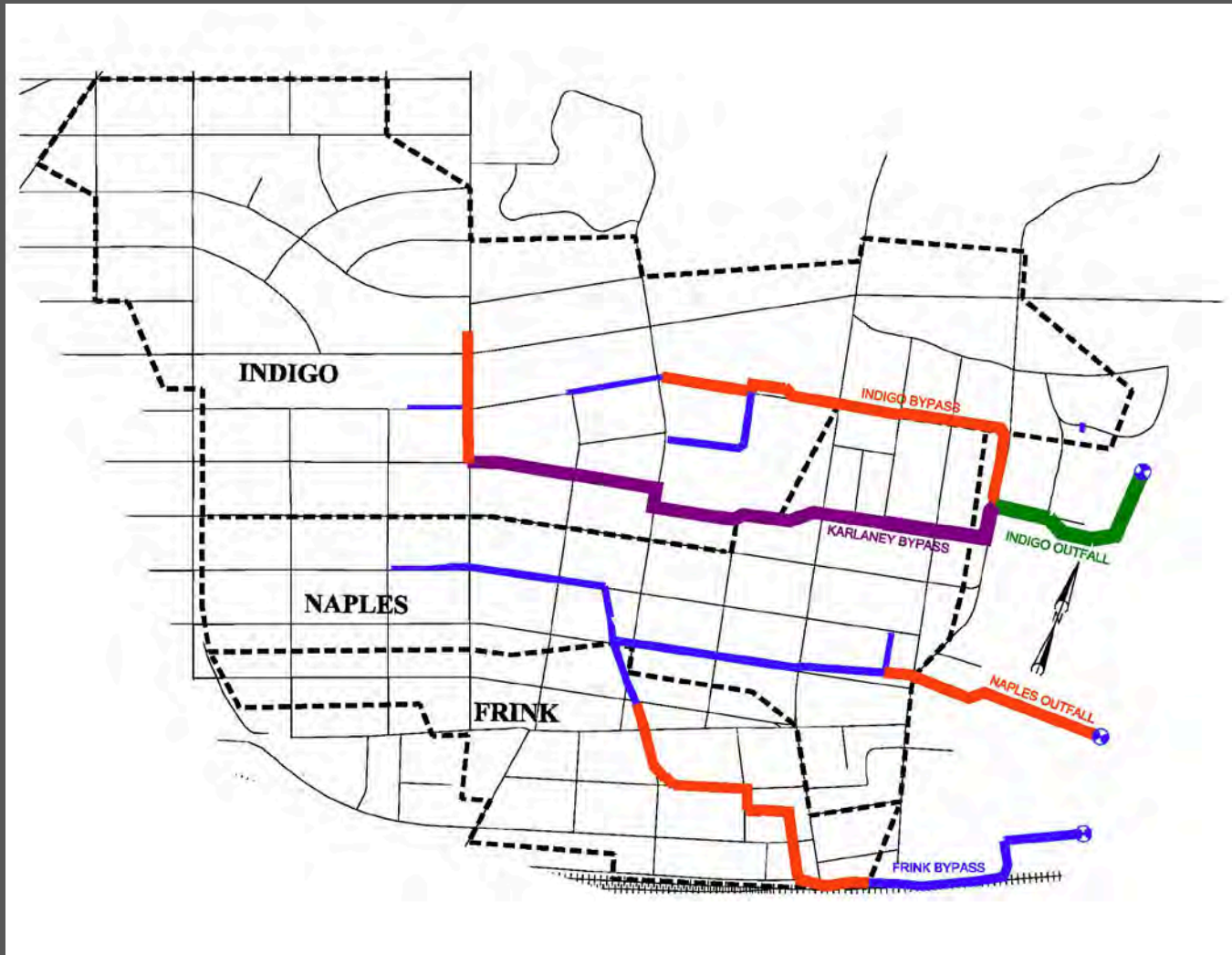
Proposed Improvements: 25-Year



\$15.3-M Estimated Construction Cost



Pipe Size



84-Inch Pipe



Summary

- This report is not intended to be a final design but rather a study of the problem with potential solutions
- While it would be preferable to nominally upgrade the existing drainage system it is not sufficient for even a minor storm, and thus not capable of appreciable improvement.
- The Full 10-Year Design represents the recommended solution.
- These recommendations are subject to the review and approval of the entity/s having jurisdiction (i.e. SCDOT or Lexington County).

