COUNCIL MEETING AGENDA

Pineville Meeting Hut
Tuesday, April 10, 2017
6:30 p.m.

PINEVILLE TOWN COUNCIL AGENDA
6:30 P.M. - PINEVILLE HUT MEETING FACILITY
TOWN OF PINEVILLE, NORTH CAROLINA
TUESDAY, APRIL 10, 2018

1) **Call Meeting To Order:**

   a) **Pledge Allegiance to the Flag:** ***(BM)***
   b) **Moment of Silence:**

2) **Adoption of Agenda:**

3) **Approval of the Minutes from the Regular & Closed Sessions of March 13, 2018 and the Regular and Closed Meetings of the Work Session of March 26, 2018**

4) **Consent Agenda:**
   The following items are included: *a) Financial Report as of 03/31/18 (Richard Dixon); and b) Proclamations: National Police Week, Public Works Week and Municipal Clerks Week (Barbara Monticello).*

5) **Public Comment:**

6) **Public Hearings:**

   A. **Public Hearing for Townhome Project** *(Travis Morgan)* Public hearing to obtain feedback on a proposed townhome community at 508 Main St. ***(ACTION ITEM).***

   B. **Public Hearing for a Single Family Residential Subdivision** *(Travis Morgan)* Public hearing to obtain feedback on a proposed single family residential subdivision at 460 Marie Way. ***(ACTION ITEM).***

7) **Old Business:**

   A. **Approval and Vote on Splash Pad Design** *(Kristy Detwiler)* Discussion and vote on the splash pad design based on renderings and information provided. ***(ACTION ITEM).***

8) **New Business:**

   A. **Discussion of Funding for PCAA Field Lighting** *(Ryan Spitzer)* Discussion and vote on funding for PCAA ballfield lights. ***(ACTION ITEM).***

   B. **Staff Update:**
      1) Managers Report
      2) Calendar of Events

9) **Closed Session** - *Discussion of matters pursuant to NCGS 143-318.11(5).*

10) **Adjourn:**

MINUTES

Minutes from the Regular and Closed Sessions from the Regular Meeting of March 13, 2018 and the Regular and Closed Sessions from the Work Session of March 26, 2018

MINUTES OF THE
TOWN COUNCIL MEETING OF THE
TOWN OF PINEVILLE, NORTH CAROLINA
TUESDAY, MARCH 13, 2018

The Town Council of the Town of Pineville met in Regular Session and Closed Session on Tuesday, March 13, 2018 at 6:30 p.m. at the Hut Meeting Facility in Pineville.

ATTENDANCE
Mayor: Jack Edwards
Mayor Pro-Tem: David Phillips
Council Members: Debbie Fowler, Melissa Davis and Joe Maxim
Town Manager: Ryan Spitzer
Planning Director: Travis Morgan
Planner: Brandon Hackney
Town Clerk: Barbara Monticello
Planning Board Members: Jim Knowles, Amelia Stinson-Wesley, Eric Fransen, Scott Goldsmith and alternate, William Chaney.

CALL TO ORDER
The meeting was called to order by Mayor Edwards at 6:33 p.m. He welcomed those in attendance and asked those that wished to speak to sign the speaker list.

PLEDGE OF ALLEGIANCE TO THE FLAG
Town Manager, Ryan Spitzer, led the group in the Pledge of Allegiance.

MOMENT OF SILENCE
Mayor Edwards called for a moment of silence to remember Linda Crawford's sister who passed. He also asked that everyone remember those that serve our country; both public safety and military personnel.

ORDER OF BUSINESS:

Adoption of the Agenda:
Hearing no changes to the agenda, a motion was made by Council Member Debbie Fowler and seconded by Council Member Melissa Davis to adopt the agenda as is. There were ayes by all and the agenda was adopted as is.

Approval of the Minutes from the Regular and Closed Session Meetings of February 13, 2018 and the Work Session Meeting of February 26, 2018.
Council Member Melissa Davis asked that one change be made to the regular minutes pertaining to her concern that no manufacturing be allowed in the Industrial Subdivision being proposed on Industrial Drive. There were no other corrections to be made. Council Member Melissa Davis moved to approve the minutes with the change with Mayor Pro Tem David Phillips seconding the motion. There were ayes by all and the minutes were approved with the correction.

Consent Agenda:
The following items were included: *a) Financial Report as of 2/28/18; b) Resolution for Surplus Items; and c) Set Public Hearing for proposed town home project at 508 Main St.* Council Member Joe Maxim moved to approve the Consent Agenda as is with Council Member Debbie Fowler seconding the motion. There were ayes by all and the Consent Agenda

was approved.

PUBLIC COMMENT:

Laura Yandell – Ms. Laura Yandell, interim president of the Downtown Merchants Association, introduced two new merchants: Mr. Aravind Duggirala is the new owner of Pintville and Umarin and Todd Davos, purchased the Corner Grind. She was one of the previous owners of Sunflower Baking Company, having several restaurants throughout the Charlotte area. She has since sold that business so that she and Todd could start something new. Their new restaurant should be open in a few weeks and will be called, The Corner Café. They will start out with a breakfast and lunch menu and possibly do dinners on Friday and Saturdays. Anthony Williamson, of the All American Barber, will be retiring and a new salon will be opening in its place. Chiropractor, Steve Henderson, may move back to his old spot on Dover St.

Jane Shutt – Ms. Shutt of the Pineville Neighbor's Place, gave a quick update on the many families they have helped in Pineville recently, especially assisting with payments of their heating bills. The group's next project will be to surprise teachers with homemade treats for Teacher's Appreciation Week.

PUBLIC HEARINGS:

A. Continuation of Public Hearing for New Industrial Subdivision with Warehouse and Cul-de Sac – *(Travis Morgan).* Planning and Zoning Director, Travis Morgan, reviewed the request for a new industrial subdivision on Industrial Drive. The hearing was continued from last month since there was a lot of public feedback. He went over some of the major concerns from the last meeting:

1. The possibility of a **manufacturing** business moving into the subdivision and the noise it would create. The applicant has agreed not to permit any manufacturing unless they go before Council for approval.

2. **Noise** that might be generated from any operation that chooses to move onsite was a concern for some. It was not the intention of the applicant to generate noise. The business is a warehouse for the storage of food. There is heavy vegetation along the southern border of the property which will remain. The current buffer is between 500 – 900 feet to the new street being proposed. The ordinance only requires 100 feet of buffer. The applicant has also agreed not to allow noise producing equipment without the specific approval of Council.

3. **On-street parking** was a big concern amongst the other businesses in the area. The town has agreed to post no parking signs where identified as well as have better patrolling by police officers in the area. The applicant will specify in any of their leases that no on-street parking be allowed. Additionally, the applicant has agreed to narrow the street from 16 foot lanes to 13 foot lanes to make it more difficult to park on the street if all parties were in favor of doing so.

4. **Road strength** for the connection of roadway from the new road to the existing road was of concern to some. Mr. Morgan stated that town road standards have improved with wider and deeper asphalt bases. There will be an asphalt to asphalt connection and it will meet all new road specifications.

5. A **fence** was requested along the property line, which the applicant has agreed to install.

6. The proximity of the **truck turning radius** to the existing property to the south was an issue for that property owner. However, the property owner may have confused the property line stakes with the location of the new road because when all measurements were taken on-site, it was found that the neighboring property was actually closer to Industrial Drive than it was to the new road. Additionally, there was 30-33+/- feet of buffer on each side of the road allowing for plenty of room for turns while not encroaching upon neighboring property.

7. **Traffic** was also a major concern from the last meeting. Mr. Morgan turned it over to the applicant to address

in more detail but first, Council Member Melissa Davis had a concern about the entrance and asked if the applicant would consider doing a 50-foot concrete pad at the entrance. The applicant agreed to do it.

Chris Todd of the Timmons Group explained that they used a program called Auto Turn to determine if a truck can make a turn within a certain distance. The size of a truck is plugged into the program and it determines if that truck can make the turn. In this case, they used the largest sized truck for the study and it had no problems making the turn. Mr. Shawn McDonnell stated that their client, Lance-Snyder, intended the building as a warehouse for the storage of snack food only. He assured the group there was no other intended use for the proposed warehouse. He continued, stating that the traffic study was something that was federally mandated and adopted by the NCDOT.

Lance will have 30 employees working 3 shifts, none of which will be during peak times: 6:15 a.m. to 2:15 p.m.; 2:15 p.m. to 10:15 p.m. and 10:15 p.m. to 6:15 a.m. When an actual count of employee movement was provided by Snyder, it was found that the volume of traffic that they generated, was far less than what the traffic study allows for. In the morning peak hours, they generated 12.4% of the volume of traffic allowed by the study and in the evening peak hours they only generated 9.2% of the volume of traffic allowed.

One of the business owners asked what would happen if the numbers weren't accurate. He found it hard to believe that with 60 bays on the building, that only 19 trucks would be in and out. He asked what recourse he would have if trucks were parked outside. The trucks from the lumber company have destroyed Rodney Street. Council Member Debbie Fowler replied that if Lance-Snyder was planning on being open 24 hours, she didn't think trucks would be lined up on the street waiting to get inside. Town Manager, Ryan Spitzer, stated that the town had purchased "No Parking" signs and were driving through the area to determine where to install them to alleviate some of the parking issues and congestion along the road.

The discussion continued with comments and concerns regarding the condition of Rodney Street, maintaining the infrastructure and the traffic study. Mayor Pro Tem Phillips asked Chief Merchant to be sure his crew check the area often after the signs have been installed. Town Manager, Ryan Spitzer, reminded everyone that the railroad crew would be coming to Pineville soon to perform repairs on the two crossings in town.

Hearing no further comments, Council Member Joe Maxim, moved to close the public hearing with Council Member Debbie Fowler seconding the motion. There were ayes by all and the public hearing was closed at 7:23 p.m. Mayor Edwards asked if there was a motion on the warehouse. Mayor Pro Tem Phillips moved to approve the industrial subdivision with the revisions discussed. Council Member Joe Maxim seconded the motion and there were ayes by all.

B. Joint Public Hearing with Pineville Planning Board to hear proposed changes to the town's sign and lighting ordinances. Council Member Melissa Davis moved to open the public hearing with Council Member Debbie Fowler seconding the motion. There were ayes by all and the hearing was opened at 7:26 p.m.

Planning & Zoning Director, Travis Morgan, stated that he was before both boards to present proposed changes to the sign and lighting ordinances of the town. Signage had to be updated due to a recent court ruling that signs must now be "content neutral" and tied to material, time, place and size. This took some reworking of the ordinance as it was challenging with the new ruling in place. He also clarified window signs to allow more flexibility for signs that are two feet or more behind the glass, clarified restrictions on flashing signs and established a maximum brightness that a sign can be. "Now Hiring" signs are difficult to regulate and can now only be used as part of window signage. Mayor Edwards asked Mr. Morgan if most of the changes were as a result of the new court ruling to which Mr. Morgan replied that they were.

Mr. Morgan opened the discussion up to the Planning Board but there were no additional comments from any of the members so he moved on to the Lighting Ordinance. Changes made to the Lighting Ordinance were necessary due to the information/terminology being outdated. More and more businesses and residences are going with LED lighting so the terminology had to be changed to reflect terms relating to LED lighting such as revising the term "watts" to "lumens" to reflect more current technology. The LED displays have come down in price making it more affordable for businesses and homeowners to switch over to using them. Because LED displays can be very bright, especially at night, he met with a contractor to set brightness guidelines.

The ordinance does not allow any flickering of lights but will allow for display changes on message signs but he turned to the Planning Board to determine how frequently those messages can change. He did not want message signs changing instantaneously so as to be a distraction to motorists but he did want to allow for such businesses as gas stations to be allowed to change their signs when the price of gas changes. The recommendation from the Planning Board was to allow 5 minutes in between message changes. The ordinance was also amended for both the downtown area as well as the BP district to allow for decorative lighting all year round. Dave and Buster's at the mall has "halo-effect" lighting but in the BP district, this lighting must be shielded. The lights in the downtown area must be white. Mayor Pro Tem Phillips asked if it was mandatory that all businesses have them. Mr. Morgan stated that it was difficult to make it mandatory but council could specify that all the lights be of a certain color, tone and/or brightness. Council Member Melissa Davis thought that the lights should all be the same color white in the downtown area.

Mr. Morgan asked the Planning Board if they had any other comments or a recommendation. The Planning Board stated they would like the lights in the DC (downtown corridor) all in the warm white color. Mayor Edwards asked who would determine the brightness of the lights. Mr. Morgan answered that there was a gun that can measure how bright a light is or they could ask a sign company to determine the brightness of a light. Scott Goldsmith of the Planning Board moved to accept the changes to the lighting ordinance with the additional requirement for warm, white lights in the downtown corridor district. William Chaney seconded the motion and there were ayes by all to adopt the sign and lighting ordinance changes. There were ayes by all members of the Planning Board.

Mayor Pro Tem Phillips moved to close the Public Hearing for the Sign and Lighting Ordinances. Council Member Debbie Fowler seconded the motion and there were ayes by all to close the public hearing at 7:45 p.m. Council Member Joe Maxim then motion to adopt the changes to the sign and lighting ordinances, seconded by Mayor Pro Tem Phillips. There were ayes by all and the motion passed.

Council Member Melissa Davis moved to open the Public Hearing for the Disposal of Real Property, seconded by Council Member Debbie Fowler. There were ayes by all and the hearing was opened. Town Manager, Ryan Spitzer, stated that the old police property located at 300 Main Street was being sold to York Development who had plans for a three-story building to include retail, commercial and apartments on the top level. An agreement had been worked up and revised which the town attorney had reviewed and was good with it. Mr. Spitzer stated that council would need to approve their site plan within 150 days or ownership of the property reverts back to the town. Additionally, there would be no out of pocket expenses for the town. Both the developer and the broker were in attendance so if Council had any further questions for them, they would be happy to answer them.

Mayor Edwards asked why the name on the contract was Carolina Investments and not York Development. The developer stated that York Development was owned 100% by Carolina Investments. Mr. Spitzer added that the entrance to the Public Works facility would need to be re-configured to allow for additional parking in that area. Someone in the audience asked how many apartments were going to be on the top floor and where 300 Main Street was. Mr. Spitzer replied that it was the lot where the old police building was and that there would be 28 apartment units on the top floor of the new building.

The discussion continued with residents voicing their concerns about parking during the construction, whether there would be a right-hand turn lane from Church St. onto Main St., and where the town's Christmas tree would be located. Mayor Edwards responded by stating to everyone that there were going to be issues that will make people unhappy but the town was doing the best it could while undergoing such growth. Council Member Joe Maxim asked that the developers keep the lines of communication open so that we can communicate any issues that may arise to our residents. Mayor Pro Tem Phillips was concerned about all the projects happening at once. Mayor Edwards reiterated that there were going to be issues until everything is completed which will take time; it's all part of growth.

Council Member Debbie Fowler moved to close the public hearing, seconded by Mayor Pro Tem Phillips. There were ayes by all to close the public hearing at 8:14 p.m. Mayor Pro Tem Phillips moved to approve the purchase agreement with Council Member Melissa Davis seconding the motion. There were ayes by all to approve the purchase agreement with York Development.

OLD BUSINESS: ***None***

NEW BUSINESS:

A. **Staff Update** *(Ryan Spitzer)* – Mr. Spitzer reported that the request for funding PCAA ballfield lights was on the county's agenda for March 20th. The topics for the next Work Session on 3/26/18 included reviewing a set of splash pad designs; discussion of providing police and fire service to the ETJ area, and on-street parking. He reminded Council that the first budget workshop would be on April 2nd and that he was trying to have them all completed by the end of April. The town purchased 100 "No Parking" signs and they would be put up on Rodney St. during the next few days. He informed the group of an article that appeared in the *Charlotte Observer* about the A&R Workshop located on Main St. in Pineville. The business was so successful that it opened a total of 77 locations across the country.

Travis Morgan provided an update regarding the townhome project across from Town Hall. He had met with GVEST and David Weekley Homes and had a long discussion with them. A few of their models have been approved so they could start pre-selling them. Additionally, the Planning & Zoning section of the website shows the latest plans and projects throughout town. Mayor Edwards added that on April 7th, the town was sponsoring the Paws in the Park event at Lake Park and the Sheltra Run/Walk would be held on the 28th of April. .

AT 8:22 p.m. Mayor Edwards called for a short break before moving into Closed Session.

Closed Session: *Pursuant to NCGS 143-318.11(5),* Mayor Pro Tem Phillips motioned to enter Closed Session, seconded by Council Member Fowler. There were ayes by all and Council entered Closed Session at 8:45 p.m. Andrew Trump of DFI was in attendance to give an update on the most recent developments on an economic development project. Several scenarios were discussed, none of which came without risks so Council will have to consider all the options carefully. Mr. Spitzer mentioned one additional option which Council will also now need to consider as well.

ADJOURNMENT

At 10:13 p.m. a motion was made and seconded to exit the Closed Session and adjourn the meeting. There were ayes by all and the meeting adjourned.

_____

Jack Edwards, Mayor

ATTEST: _____

Barbara Monticello, Town Clerk

MINUTES OF THE
TOWN COUNCIL WORK SESSION OF
MONDAY, MARCH 26, 2018

The Town Council of the Town of Pineville met in a Work Session on Monday, March 26, 2018 at 6:00 p.m. at the Pineville Communications Bldg. at 118 College St. in Pineville.

ATTENDANCE

Mayor: Jack Edwards
Mayor Pro-Tem: David Phillips
Council Members: Debbie Fowler, Melissa Davis and Joe Maxim
Town Manager: Ryan Spitzer
Planning Director: Travis Morgan
Town Clerk: Barbara Monticello
Representatives from Mecklenburg County: Ted Panagiotopoulos, David Gieser, and Ebenezer Gujjarlapudi
Pineville Fire and Police Chiefs: Mike Gerin and Rob Merchant
Pineville Fire Department: Jeffrey Race

CALL TO ORDER

The meeting was called to order by Mayor Edwards at 6:02 p.m. A motion was made by Mayor Pro-Tem, David Phillips and seconded by Melissa Davis to open meeting. There were ayes by all and the meeting was opened.

DISCUSSION ITEMS:

A. **ETJ Discussion (Fire Protection)** – Ryan Spitzer, Town Manager, started the discussion noting that there was $375,000 per year being paid to Carolina Fire by Mecklenburg County. Estimates calculated that it cost about $30,000 per year to run calls down in the ETJ area. Mr. Spitzer stated that if Pineville took over the area to provide fire protection, we would still need to give Carolina Fire 12 months to wind down its operations. Mayor Pro-Tem, David Phillips, asked what would happen to any balances owed on their equipment or assets. Mr. Spitzer replied that the assets must be disposed of. Ebenezer Gujjardlapudi, head of LUESA, stated that six departments made up the LUESA Office, including fire protection services, so there was a lot of responsibility to manage. In an effort to streamline operations, they were looking to contract with Pineville to provide fire service. All the other surrounding Mecklenburg County towns currently service their ETJ districts except for Matthews which does not have one.

   Mayor Pro Tem Phillips asked Mr. Gujjardlapudi what the other towns were receiving as far as funding to which Mr. Gujjardlapudi replied that the other towns were only getting $300,000. It used to be about $200,000 to $250,000, but was upped to $375,000 for Pineville but that is all that will be offered. Council Member, Melissa Davis, stated that it would probably be unlikely that Pineville get any more money. Mr. Gujjardlapudi replied that the amount could only go down, but it would not go up. Council Member Davis noted that $375,000 wouldn't be enough to build a new fire station and purchase a new truck so the town would not be gaining anything for this transaction. , she explained that was not enough to do so. Mr. Gujjardlapudi explained that this would be just a "holding area" until the area is annexed. Mayor Pro Tem Phillips stated that the town wasn't even sure it wanted to annex that area to which Mr. Gujjardlapudi responded that it was just an option to consider. Council Member Davis wanted to know what would happen if the town declined the opportunity to provide fire service – would Carolina Fire continue to operate. Mr. Gujjardlapudi stated that it would. Fire Chief, Mike Gerin, added that most of the calls in the area were EMS and smoke detector calls; about 297 calls a year.

Mayor Pro Tem Phillips stated that if Pineville took over the fire service, it would look as though Carolina Fire was being pushed out by us. Mr. Gujjardlapudi stated that the county had anticipated that annexation would have taken place by now causing Carolina Fire to realize that eventually they would no longer be servicing the area anyway so there was never any intent to make anyone go out of business.

Mayor Pro Tem Phillips asked Chief Gerin if Pineville Volunteer Fire Department could honestly handle the additional ETJ area for the $375,000 the county would pay us. Fire Chief Gerin answered yes, Carolina Fire is doing it so he believed Pineville could do it as well. Mayor Pro Tem Phillips wanted Chief Gerin to think about all the new development in town as well because he did not want him to come back to Council in another year or two asking for more money. Mayor Edwards asked how he would feel in 2020 when he'd have to defund a department. Chief Gerin replied that he already had serious conversations with some of the guys from Carolina Fire and he believed it could be done amicably. Mayor Edwards commented that the brotherhood of fire fighters and police is a lot stronger than any other and to sit down and have to make that decision would not be an easy one.

Chief Gerin stated that Glen Golding wanted to build a new fire station along Lancaster Highway and if they were to get it, he believed they could work something out amicably. Mayor Pro Tem Phillips asked how they would pay it off so quickly. David Gieser from the County responded that someone was interested in purchasing the land they're currently on and possibly make a deal with them to build them a fire station but Mr. Gujjardlapudi added that they were not in a rush to do anything just yet. Council Member Davis was still concerned about the long-term, especially if the town didn't annex the ETJ, then it would be left paying for a building. She asked what they were required to do with all their property. Mr. Gujjardlapudi explained that each volunteer fire department had a charter document that stated how their department would be dissolved. Mr. Ted Panagiotopoulos added that generally property goes to the entity that takes it over.

Mr. Spitzer stated that he thought the only plans for that area were some townhomes going in along Lancaster Highway. Pineville Firefighter, Jeffrey Race, said they had open conversations with Carolina Fire and they knew this was coming and believe that in two years they will be Pineville Fire Department. They have a unified command structure under one chief and their assets would be merged into ours. Council Member Davis asked if that was going to be problematic with two fire chiefs. Chief Gerin answered that their crew would have to meet the same requirements as Pineville does. A lot of these guys want to be part of Pineville Fire. They've got about 30-35 people at Carolina Fire. Mayor Pro Tem Phillips stated that in the last conversation with Chief Gerin, some of the guys at Pineville Fire were not too happy with the employees down there. Fire Chief Gerin assured Mayor Pro Tem Phillips that no one would be turned away that was qualified, especially after developing rigorous standards for the Pineville Fire Department.

Chief Gerin also stated that he would eventually need more people regardless of whether we picked up Carolina Fire or not. Council Member Joe Maxim stated that when a fire department is no longer operational, the fighters will become employees and benefits would have to kick in, there would be inflation, and merit increases, all of which are real expenses to consider. The costs that Pineville would absorb is a concern especially when employees become full-time and permanent. Mr. Gujjardlapudi stated that he does not disregard those concerns.

The discussion turned to helping other departments out. Chief Gerin stated that they all had a mutual aid agreement that allows them to help each other. They have assisted Charlotte Fire on several of their calls in the past. Council Member Maxim asked how often Charlotte has helped the Pineville Fire department in the last year? Chief Gerin stated not many times - not even a handful. Mayor Edwards asked the same question about Flint Hill Fire Department. Chief Gerin replied that Flint Hill has assisted with calls. Council Member Fowler asked if someone was there 24/7? Jeff Race of Pineville Fire Department replied that they had two people 24/7. Mr. Race added that two more trained-certified firefighters would be an asset to the town. Chief Gerin also commented that the two that the county would be paying for would be busier with Pineville Fire. It takes them a mile to get to their area commented Chief Gerin. Mayor Pro Tem Phillips asked if the fire chief could run that department, and that if it

is going to cost the town money it would not make sense. Fire Chief Gerin replied that he is confident his department can run Carolina Fire.

Mayor Pro Tem Phillips asked Manager Spitzer what his thoughts were about the issue. Manager Spitzer stated that he would feel more comfortable if we could negotiate with the county to build another fire station before we took over Carolina Fire. He added that we can run the calls down in the ETJ area for the next couple of years even though we will not receive more money from the county. If tax values increased, then possibly we will get more money from the county, but not likely.

Fire Chief Gerin added that only two firefighters will be funded and set a cap on the amount paid per call. Mr. Spitzer stated that the one-year wind down time starts when Council makes their decision. We have not had any formal conversations with Carolina Fire as yet but there is still time to do that but only if Council is interested. Mayor Pro Tem Phillips still was not convinced that there would be any benefit to the town and did not think we could service that area for $375,000. Manager Spitzer stated that the infrastructure in the ETJ area was terrible and that was why we had not annexed it or anyone else annexed it by now. Mayor Pro Tem Phillips pointed out that they hadn't purchased land yet for a new fire station simply because they were waiting on us to decide if we would take it over. Why would they purchase it before knowing? Mr. Race reiterated that they wanted to be a part of PVFD. Manager Spitzer advised that if there was still uncertainty not to agree to anything until Council was sure they wanted to do this and only if there is a contract. The consensus was to allow the county to service the area for another year until Pineville had an opportunity to formally speak with Carolina Fire. Mayor Edwards agreed that it was necessary to some get answers first before making a final decision.

ETJ Discussion (Police) – There was an increase in real estate values in the ETJ area and a breakdown of costs done by Mr. Spitzer showed that the Pineville Police Department would benefit from getting two more telecommunicators. The county did ask, however, that we provide them justification such as the number of calls we get and what the money will be used for, etc. The cost analysis also showed a need for 4.25 additional officers. Council Member Davis asked if 4.25 would include a CID person and evidence person. Manager Spitzer responded that it would. The town would be funded based on tax values and that amount would not go below $560,000. Council Member Davis was not sold on taking on the policing of this area either. She stated she did not see enough police presence in town now and hoped it wouldn't take away even more. Police Chief Rob Merchant stated that they were already a year into this proposed agreement and that was why some neighborhoods have more trouble than others down in the ETJ area. He added that we would get the tax revenue off of this agreement.

Council Member Fowler thought the call count for that area, 790 calls, was a lot but Mr. Spitzer stated that there were actually a lot of homes in that area. Mayor Edwards noted that he had never had a complaint about police service in Pineville. Council Member Maxim stated that there were a lot of speeding complaints in McCullough. Council Member Davis expressed that she did not want to see police stray away from Pineville to police the ETJ, the concentration should be in Pineville. Council Member Maxim stated that we could not cannot take away those officers from ETJ if they were hired for that service. Chief Merchant stated that his officers have assisted Charlotte because Charlotte had been short of help. Our department had been short of help as well but was now fully staffed.

Mayor Pro Tem Phillips wanted to know if CMPD was getting the same amount of money that they were offering Pineville. Manager Spitzer replied yes. Council Member Maxim asked the Chief Merchant if he felt strapped. The Chief answered that he didn't and that they have handled as many as 17,000 calls in past years. Lieutenant Calhoun did not think the majority of police officers would mind taking over the area. Mayor Pro Tem Phillips asked that should the town take this on and decide to get out in two years, could that be done. Manager Spitzer replied the county wanted a five year agreement. He then asked if the police department would have to buy new cars at five years to which Mr. Spitzer answered, yes. Mayor Pro Tem Phillips stated that the figures made more sense than the figures for the fire department and amounts could go up in the future. Police Chief Merchant added that the numbers did make good business sense. Council Member Maxim stated that at least the figures were tied to a value; he just wished the figures made better sense with the fire department. Mr. Spitzer added that we needed to get the annexation agreement in front of the county. Without an agreement Pineville could only go one

mile outside their jurisdiction but with the agreement, Pineville could go farther to provide services. This would create a sphere of influence as an ETJ area only applies to the Planning & Zoning aspects. Council Member Maxim stated that the money was a lot to walk away from. Both Council Member Maxim and Mayor Pro Tem Phillips agreed that it was a much better deal than with the fire department. Manager Spitzer will continue to pursue.

Council Member Debbie Fowler had to leave at 8:15 p.m.

B. **Splash Pad Design -** Manager Spitzer stated that council would need to vote on the Splash Pad design at the April Council Meeting. Manager Spitzer continued, stating that only 100 people would be allowed in splash pad at one time and that they were considering allowing people to rent out the splash pad. Benensh will manage the contractors once the project begins. Manager Spitzer presented the plans and stated that renderings would also be presented at the April meeting. Everyone seemed to like the plans and were in favor of them.

C. **On Street Parking -** Mayor Edwards was concerned about on street parking because some of the streets, particularly Cone Ave. and Olive St., are so narrow that emergency vehicles would barely be able to get through if they needed to. Council Member Davis agreed that this was a problem. Mayor Pro Tem Phillips said 90% of people that park on the street have room in their driveways. Council Member Davis stated that some driveways were not wide enough to accommodate multiple cars and if you limited parking to just one side of the road, people would get mad. Mayor Edwards added that Planning Director, Travis Morgan's view was that no parking on the street be allowed at all. Manager Spitzer stated the only thing that could be enforced right now was no blocking a driveway.

Council members asked about situations such as having a guest over or family gatherings, holidays and parties. How would these situations be handled? They agreed that the two streets that were the narrowest, Cone and Olive, needed to be addressed, but fairly. Manager Spitzer stated that parking was something that Council had control over but if you decided to go with no parking on the street at all, you would need to consider allowing homeowners to park on the side or rear of their yards. Mayor Edwards didn't want it to appear that we were going after "old town" but that's where the streets are the tightest. They all agreed that if you regulate parking, someone will get angry about it. Mayor Edwards stated that Council needed to do something about it before the townhomes across from Town Hall go in to keep those folks from parking on Johnston and Dover Streets. Mr. Spitzer added that they also needed to take a look at semi's parking on the street as well.

D. **Update on PCAA** – Manager Spitzer stated that the county approved $100,000 be given to the town and then given to PCAA. At April's meeting, council will have to decide on whether to fund our $50,000 part of it or not. He noted that we had not had to touch contingency funds so the money will come out of that. The county donates $100,000 to PCAA, $50,000 comes from the town and the remaining $50,000 is paid by them. Manager Spitzer added that if the school needed to expand, they would go where the trailers are now, but not near the ballfields. There were no plans to expand into the fields. He also stated that approval was received from the school to put up the lights. If Council chose not to pay out from contingency money, it would roll into fund balance, but if they chose to use the money from contingency, it would not affect money for budget.

Council took a ten minute break before going into closed session.

CLOSED SESSION: Council Member Joe Maxim made a motion to go into closed session and Mayor Pro Tem Phillips seconded the motion. Entered closed session at 9:11 p.m. While in closed session, an economic development real estate issued was discussed. Two conceptual renderings of the proposal were shown and positives and negatives of both were discussed. Council was receptive to the proposal but favored the first option over the second.

ADJOURNMENT: A motion was made and seconded to exit the closed session and adjourn the meeting at 9:53 p.m. There were ayes by all and the meeting adjourned.

Jack Edwards, Mayor

ATTEST:

Barbara Monticello, Town Clerk

CONSENT AGENDA ITEMS

a) *Finance Report as of 03/31/18*
b) *Three Proclamations*

Town of Pineville
Budget vs. Actual
3/31/2018

	Budget	Actual	% of Budget
Revenues			
Property Tax	$ 6,301,000	$ 6,449,080	102.35%
Prepared Food Tax	610,000	678,513	111.23%
Room Occupancy	590,000	436,419	73.97%
Franchise Tax	860,000	734,161	85.37%
Sales Tax	1,122,000	1,076,922	95.98%
Storm Water	340,000	272,555	80.16%
Powell Bill	199,000	201,760	101.39%
Other	630,000	1,106,339	175.61%
Appropriated Fund Balance	570,712	570,712	100.00%
Appropriated Storm Water Fund Balance	161,125	161,125	100.00%
Total	$ 11,383,837	$ 11,687,586	102.67%
Expenditures			
Governing Board	$ 519,000	$ 357,011	68.79%
Administration	664,647	478,387	71.98%
Zoning	274,824	200,038	72.79%
Police	5,413,052	3,816,001	70.50%
Fire	1,026,200	804,058	78.35%
Public Works	610,672	439,399	71.95%
Powell Bill	199,000	112,401	56.48%
Storm Water	501,125	377,472	75.32%
Sanitation	425,000	288,188	67.81%
Recreation	455,600	311,861	68.45%
Cultural/Tourism	1,215,717	915,536	75.31%
Cemetery	4,000	3,144	78.60%
Non operating	-	203	-
Contingency	75,000	-	0.00%
Total	$ 11,383,837	$ 8,103,699	71.19%

Town Of Pineville

Johnston Road Realignment

3/31/18

	FY17	FY18	Total Project	Project Budget
Road Realignment Revenue				
DOT grant	-	-	-	1,000,000
General Fund Balance		957,000	957,000	957,000
Total Road Realignment Revenue	-	957,000	957,000	1,957,000
Road Realignment Expense				
Land/Building	-	731,228	731,228	725,000
Engineering	-	41,598	41,598	307,000
Construction	-	-	-	925,000
Total Road Realignment Expense	-	772,827	772,827	1,957,000

Town Of Pineville
Splash Pad/Dog Park
3/31/18

	FY17	FY18	Total Project	Project Budget
Cultural & Tourism Reserves	-	361,460	361,460	361,460
Part F Grant	-	-	-	361,460
Total Part F Grant Revenue	-	361,460	361,460	722,920
Part F Grant Expense				
6201.7200.70	32,656	29,774	62,430	722,920
Total Part F Grant Expense	32,656	29,774	62,430	722,920

Town of Pineville
Electric Fund
3-31-2018

	Budget	Actual	% of Budget
Revenues			
Electric	13,084,266	9,275,970	70.89%
Expenditures			
Administration & Billing Support	484,066	549,469	113.51%
Purchased electricity	9,886,279	6,575,912	66.52%
Operations and Maintenance	2,496,500	2,156,074	86.36%
Transfer to Rate Stabilization Fund	217,421	-	
Total	13,084,266	9,281,455	70.94%

Town of Pineville
ILEC Telephone Fund
3/31/2018

	Budget	Actual	% of Budget
Revenues			
ILEC	2,147,877	2,679,255	124.74%
Expenditures			
Support, Facilities, Operations	966,545	21,809	2.26%
Customer Service	579,927	91,027	15.70%
Executive & Planning	601,405	610,206	101.46%
Total	2,147,877	723,042	33.66%

Town of Pineville
CLEC Telephone Fund
3/31/2018

	Budget	Actual	% of Budget
Revenues			
CLEC	1,633,100	821,481	50.30%
Expenditures			
Support, Facilities, Operations	1,241,156	1,141,578	91.98%
Executive & Planning	391,944	128,060	32.67%
Total	1,633,100	1,269,638	77.74%

Memorandum

To: Mayor and Town Council

From: Barbara Monticello

Date: 4/4/2018

Re: **Consent Agenda Item:** Proclamations for National Police Week, Public Works Week and Municipal Clerks Week

---

Each year at this time, we like to recognize certain employees for the work that they do including law enforcement, public works and municipal clerks.

NATIONAL POLICE WEEK

Attached is a proclamation designating the week of May 13 - May 19, 2018 as National Police Week and May 15th as Peace Officers' Memorial Day. As you know, the Pineville Police Department plays a vital role in protecting the rights and freedom of its citizens. The men and women of our police force work around the clock to protect the community against violence and crime to insure the safety of its residents.

Additionally, May 15th is Peace Officers' Memorial Day honoring those law enforcement officers who have lost their lives or have become disabled in the line of duty. It is important that citizens understand the sacrifices that are made and the hazards that are faced each and every day by these courageous men and women that protect our communities.

PUBLIC WORKS WEEK

This year, the week of May 20th – 26th has been designated as National Public Works Week. This year's theme, "The Power of Public Works" is reflected in the proclamation acknowledging the efforts of our Public Works Department. Each day these employees work hard to ensure that the town runs smoothly and looks good. They assist whenever and wherever needed; whether it's helping with trash pickup and debris removal or aiding Charlotte Water with water and sewer issues. They keep the roads, sidewalks and public areas neat and well-maintained making Pineville a comfortable, healthy and safe place in which to live.

MUNICIPAL CLERKS WEEK

The office of the Municipal Clerk is one of the oldest among public servants. The role of the clerk has changed over the years but it is still a vital part of local government. The Clerk serves as the Historian and information center for the local government, acting as the link between citizens, local governing bodies and other agencies. The week of May 6th – 12th has been declared as Municipal Clerks Week for 2018 and a proclamation recognizing this office has been prepared for your support and approval.

Approving the Proclamations demonstrates support for each department. ***Action Requested:*** *Council approve the proclamations recognizing National Police Week, Public Works Week and Municipal Clerks Week.*

Pineville
NORTH CAROLINA

A PROCLAMATION BY THE MAYOR AND TOWN COUNCIL OF PINEVILLE, N.C. DECLARING THE WEEK OF MAY 13 - 19, 2018 AS NATIONAL POLICE WEEK AND MAY 15TH AS PEACE OFFICER'S DAY

WHEREAS, The Congress and President of the United States have designated the week of May 13 – 19, 2018 as National Police week and May 15th as Peace Officers' Memorial Day; and

WHEREAS, the members of the law enforcement agency of the Town of Pineville play an essential role in safeguarding the rights and freedoms of its citizens; and

WHEREAS, it is important that citizens know and understand the duties, responsibilities, hazards and sacrifices that the members of our law enforcement agency make each day to protect us against violence and disorder, deception and oppression; and

WHEREAS, the men and women of the Pineville Police Department unwaveringly provide a vital public service; and

NOW, THEREFORE, WE THE TOWN COUNCIL AND MAYOR OF THE TOWN OF PINEVILLE, NC call upon its citizens and upon all civic and educational organizations to observe the week of May 13 - 19, 2018 as National Police Week by honoring those loyal and devoted law enforcement officers, past and present, who are dedicated to preserving the rights and security of all.

WE FURTHER CALL UPON the citizens of Pineville to observe May 15th as Peace Officers' Memorial Day in honor of those law enforcement officers who, through their courageous deeds, have made the ultimate sacrifice in service to their community or have become disabled in the performance of duty and let us recognize and pay respect to the survivors of our fallen heroes.

IN WITNESS WHEREOF, we have hereunto set our hand and caused the **GREAT SEAL OF PINEVILLE** to be affixed this 10th day of April in the year of our Lord two thousand and eighteen.

Mayor Jack Edwards

Mayor Pro-Tem David Phillips

Council Member, Debbie Fowler

Council Member, Melissa Davis

Council Member, Joe Maxim

Pineville
NORTH CAROLINA

TOWN OF PINEVILLE PROCLAMATION
DECLARING MAY 20-26, 2018
NATIONAL PUBLIC WORKS WEEK IN PINEVILLE N.C.

WHEREAS, the Town of Pineville wishes to recognize its Public Works Department for the work that they do in keeping the town running smoothly and looking good; and

WHEREAS, the public works services provided in our community are an integral part of keeping the community a healthy, safe; and comfortable place in which to live; and

WHEREAS, our employees are dedicated to serving the neighborhoods of Pineville by assisting in waste collection, keeping our water and sewer systems flowing and maintaining streets, sidewalks, and public areas; and

WHEREAS, our public works program is a community asset that contributes to the quality of life and well-being of our citizens; and

WHEREAS, the support and understanding of informed citizens is a vital part of efficient operations by dedicated and skilled public works officials in their planning, design, and construction efforts;

WE, THEREFORE, DO NOW HEREBY PROCLAIM May 20th – 26th, 2018 as "National Public Works Week" in an effort to acquaint citizens with the issues involved in providing services to residents and recognizing the contributions which public works employees make every day to our health, safety, comfort and quality of life.

IN WITNESS WHEREOF, we have hereunto set our hand and caused the **GREAT SEAL OF PINEVILLE** to be affixed on this 10th day of April in the year of our Lord two thousand and eighteen.

Mayor Jack Edwards

Mayor Pro David Phillips

Council Member Debbie Fowler

Council Member Melissa Davis

Council Member Joe Maxim

Pineville
NORTH CAROLINA

TOWN OF PINEVILLE PROCLAMATION
DECLARING May 6th – 12th, 2018 as
MUNICIPAL CLERKS WEEK

WHEREAS, the Town of Pineville wishes to recognize the Office of the Municipal Clerk as a time-honored and vital part of local government, and;

WHEREAS, The Office of the Municipal Clerk is the oldest among public servants, and;

WHEREAS, The Office of the Municipal Clerk provides the professional link between the citizens, the local governing bodies and other agencies of government, and;

WHEREAS, Municipal Clerks have pledged to be ever mindful of their neutrality and impartiality, rendering service to all, and;

WHEREAS, The Municipal Clerk serves as the Historian and information center for the local governing body, and;

WHEREAS, Municipal Clerks continually strive to improve the administration of the affairs of its office through participation in educational programs, seminars, workshops and annual meetings of its organization.

WE, THE PINEVILLE TOWN COUNCIL, THEREFORE, DO NOW HEREBY PROCLAIM May 6th – 12th, 2018 as "Municipal Clerks Week" recognizing the accomplishments of Municipal Clerks and the vital services they perform along with their dedication to the communities they serve.

IN WITNESS WHEREOF, we have hereunto set our hand and caused the **GREAT SEAL OF PINEVILLE** to be affixed on this 10th day of April in the year of our Lord two thousand and eighteen.

Mayor Jack Edwards

Mayor Pro-Tem David Phillips

Council Member Debbie Fowler

Council Member Melissa Davis

Council Member Joe Maxim

Public Hearings

A. Public Hearing for a Proposed Townhome Project at 508 Main St.

B. Public Hearing for Single Family Home Subdivision at 460 Marie Way

Memorandum

Pineville
PLANNING & ZONING

To: Town Council

From: Travis Morgan

Date: 4/10/2018

Re: **Proposed Cranford Corner Townhome Project** *(Public Hearing)*

PROPOSAL:

Paul Sagadin, Larry Lockhart, and Danish Kumar on behalf of Kinger Homes, seeks your conditional approval for 20 townhomes located at 508 Main Street. The townhomes are a mix of rear-loaded along Main Street and Cranford Drive, with approximately five interior front-loaded townhomes. The applicants seek conditional site plan approval to modify the minimum street frontage and buffer requirements. The building lot frontage is 62% on Main Street rather than 75% and the 20 foot buffer to single family has been reduced as shown in favor of landscaping and building design.

Ordinance Sections:

Lot Setbacks	
Front Setback[2]	Build-to-line from street sections
Side Setback	0 ft
Side Setback on corner lots facing a street[2]	Build-to-line from street sections
Rear Setback	0 ft
Minimum Linear Building Frontage[3]	75%

7.4.2 Screening and Buffering requirements between certain Zoning Districts

C) When a lot in a Residential District or a residential use abuts another lot, which contains a dissimilar institutional use, multi-family development or manufactured home park, screening must be provided on the lot containing the institutional use, multi-family development or manufactured home park in the form of a minimum twenty (20) foot screen/buffer.

DEVELOPMENT SUMMARY:

Location:	**508 Main Street – Western corner of Cranford Dr. and Main St.**
Zoning:	**DC – Downtown Core**
Acreage:	**2.036 acres**
Number of Units:	**20 Units**
Unit Density:	**9.8 units/acre**
Parking calcs:	**20 units x 3.25 spaces (3 bedroom require 3.25 spaces each)**
Parking Minimum:	**65 spaces**
Parking Provided:	**84 spaces**
Height:	**28' 3"**
Trash/Dumpster:	**Private dumpster location on site**

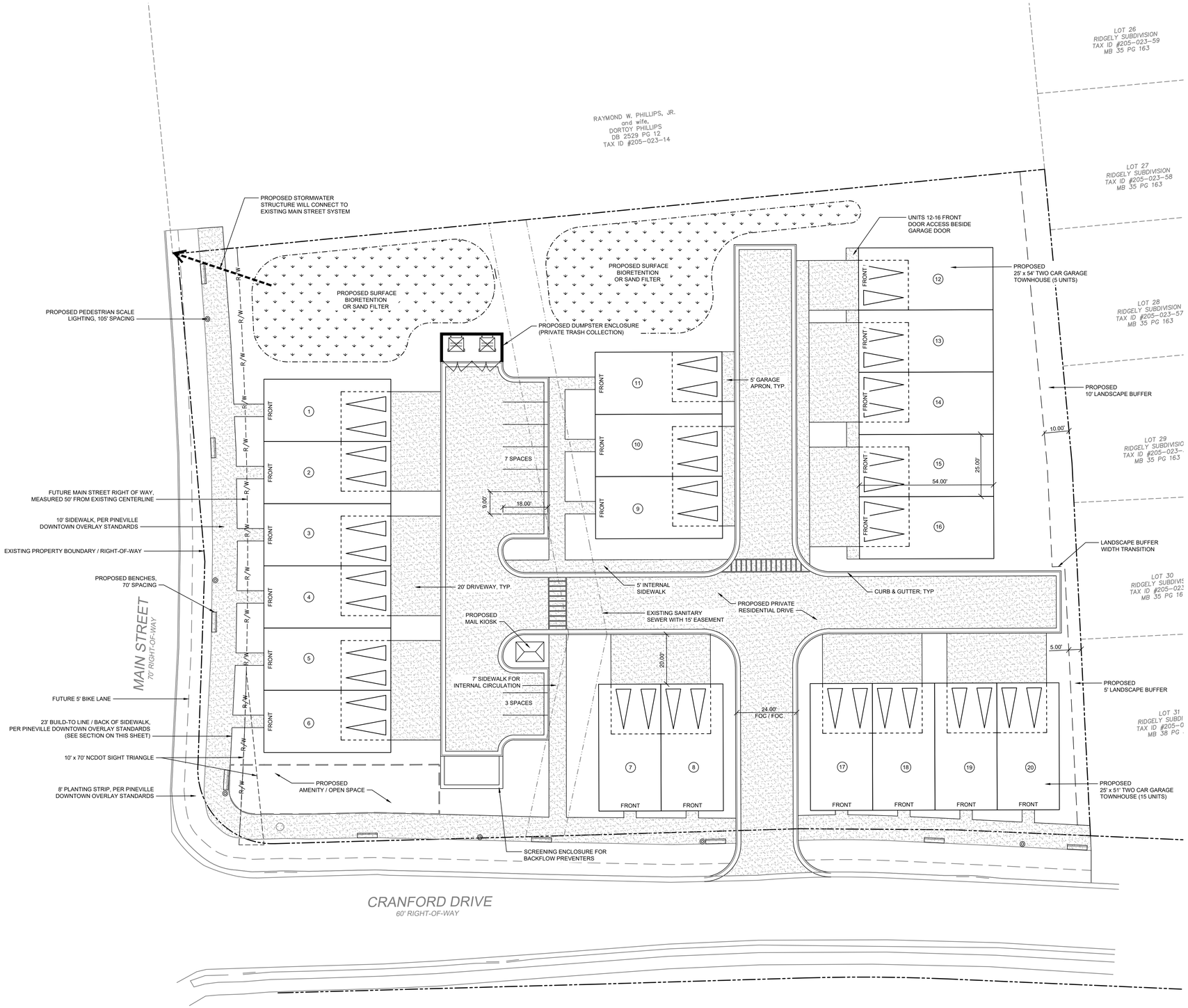
STAFF COMMENTS:

Staff has heard from previous proposals next to Ridgely Green that the residents there prefer a residential rather than a commercial or mixed-use project adjacent to them so staff has taken that into consideration. Staff notes townhomes are a much better use than a retirement home that was originally planned for the site years ago. The plan and use are consistent with the general requirements of the DC zoning district. Staff doesn't object to the reduced buffers as they are consistent with the distances between homes at Ridgely Green and Ridgely were required to have fencing already. Staff supports the proposal with the following notes:

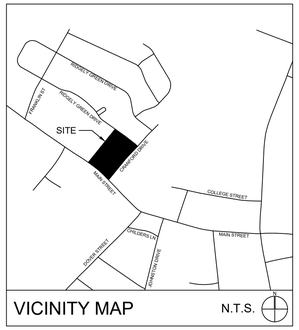
1) Staff recommends the majority brick elevations provided
2) That the dumpster enclosure be screened with brick to match
3) Flood lights or similar to be prohibited from the rear of the units adjacent to Ridgely Green
4) Staff recommends pushing front loaded units back to allow for longer parking spaces and for a planting strip
5) Staff recommends front loaded unit (#12) be screened so as to not be seen from Main Street
6) Staff recommends additional right of way along Cranford to be dedicated to the town and added streetlights
7) Staff recommends evergreen landscaping along Ridgely and evergreen landscaping and/or fencing along Western side of property coming back from Main Street.

PROCEDURE:

This is the public hearing for Council to gain input from staff, public, and the applicant about the proposal. This meeting is to familiarize you with the applicant's request and to hear any public comment. This follows standard legislative approval process. There are no findings of facts needed. If you have all the information needed to make a decision, you may at your discretion close the public hearing and make a vote.



THIS IS A CONCEPTUAL SITE PLAN BASED ON LIMITED PRELIMINARY SURVEY INFORMATION, AND THEREFORE MAY NOT REFLECT FINAL SITE FEATURES.



SURVEY DISCLAIMER

BACKGROUND INFORMATION TAKEN FROM PRELIMINARY SURVEY BY METROLINA ENGINEERING & SURVEYING ASSOCIATES, DATED 8/7/17.

DEVELOPMENT SUMMARY:

TAX PARCEL ID:	205-023-15
TOTAL ACREAGE:	2.03 AC (1.92 AC WITH PROPOSED R/W)
EXISTING ZONING:	DC (DOWNTOWN CORE)
PROPOSED USE:	MULTIFAMILY TOWNHOMES
UNITS PROPOSED:	20 UNITS
DENSITY PROPOSED:	9.8 UNITS / ACRE
FRONT SETBACK:	23' BUILD-TO LINE
SIDE YARD:	0'
REAR YARD:	0'

BUFFERS:

REQUIRED BUFFER:

20' BUFFER ADJACENT TO SF RESIDENTIAL USE

PROPOSED BUFFER:

PLAN NORTH PROPERTY LINE: BUFFER REDUCED TO 0'
PLAN EAST PROPERTY LINE: BUFFER REDUCED TO 5' MINIMUM

108LF 5' LANDSCAPE BUFFER
160LF 10' LANDSCAPE BUFFER

PARKING:

PARKING REQUIRED: 3.25 SPACES PER 3BR UNIT (20 UNITS x 3.25 SPACES) = 65 SPACES REQUIRED

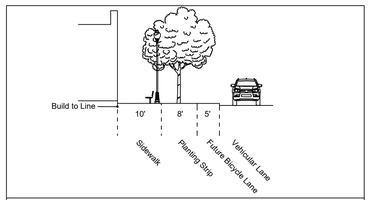
PARKING PROVIDED: 84 SPACES

MAIN STREET BUILDING FRONTAGE:

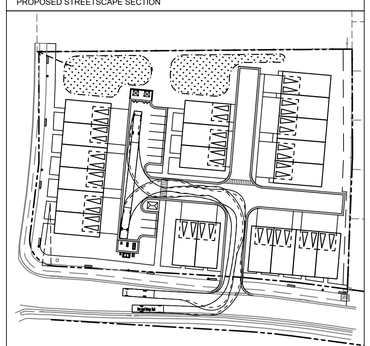
TOTAL MAIN STREET FRONTAGE: 236LF

FRONTAGE REQUIRED: 75% (177LF ALONG MAIN STREET)

FRONTAGE PROVIDED: 62% MIN (150 LF ALONG MAIN STREET)



PROPOSED STREETSCAPE SECTION



TRASH TRUCK TURNING EXHIBIT

Bloc Design
2923 S. Tryon Street, Suite 320
Charlotte, NC 28203
phone: 704-940-2883
www.bloc-nc.com

landscape architecture | planning | civil engineering

REVISIONS

NO.	DATE	DESCRIPTION
	12/21/17	CONCEPT LAYOUT 1
	1/29/18	CONCEPT LAYOUT 2
	03/09/18	CONDITIONAL ZONING SUBMITTAL

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stamp / seal:

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER LARRY LOCKHART

NOT FOR CONSTRUCTION

NC FIRM #: P-1007, C-390

KINGER HOMES
PINEVILLE MULTIFAMILY
Conditional Zoning #:

508 Main St.
Pineville, NC 28134

SCALE: 1"= 20'
0 10' 20' 40'

DATE: 03/09/18	MPIC: WLL
DRAWN BY: ASP	CHECKED BY: WLL

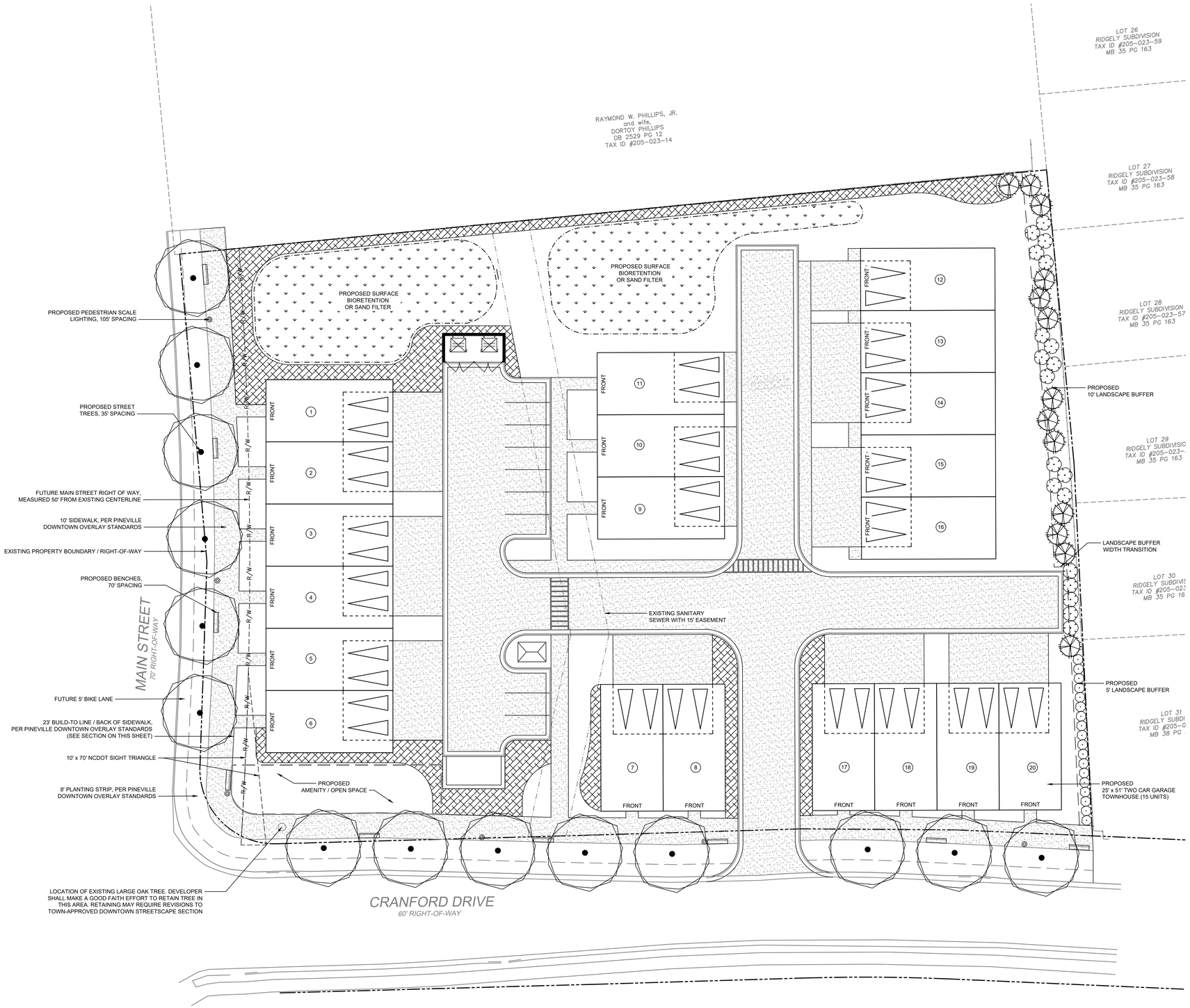
PROJECT NUMBER: 00505.00

SCALE: 1" = 20'

TITLE:
CONCEPTUAL SITE PLAN

SHEET NO.:
C-100

S:\Projects\00505 Kinger Homes Pineville Main St\Plans\Production DWGs\00505 - C100 - Concept Plan.dwg, 3/8/2018 1:55:21 PM, andrew polonus, Bloc Design



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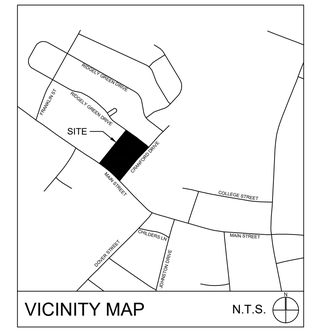

SURVEY DISCLAIMER

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LEGEND:

- UNDERSTORY EVERGREEN TREE
- 4' EVERGREEN SHRUB
- 6' LARGE SHRUB
- ENHANCED LANDSCAPE AREA

NOTE: FINAL LANDSCAPE MATERIALS AND BUFFER DESIGN TO BE DETERMINED

Bloc Design
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Charlotte, NC 28203
phone: 704-940-2883
www.bloc-nc.com

landscape architecture I planning I civil engineering

REVISIONS

NO.	DATE	DESCRIPTION
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NORTH CAROLINA PROFESSIONAL SEAL ENGINEER LARRY LOCKLIAR

NOT FOR CONSTRUCTION

NC FIRM #: P-1007, C-390

KINGER HOMES
PINEVILLE MULTIFAMILY
Conditional Zoning #:

508 Main St.
Pineville, NC 28134

SCALE: 1"= 20'
0 10' 20' 40'

DATE: 03/09/18	MPIC: WLL
DRAWN BY: ASP	CHECKED BY: WLL
PROJECT NUMBER: 00505.00	
SCALE: 1" = 20'	

TITLE:
CONCEPTUAL LANDSCAPE PLAN

SHEET NO.:
L-100

FRONT ELEVATION LOT # — FRONT ELEVATION LOT # — FRONT ELEVATION LOT # — FRONT ELEVATION LOT # — FRONT ELEVATION LOT #

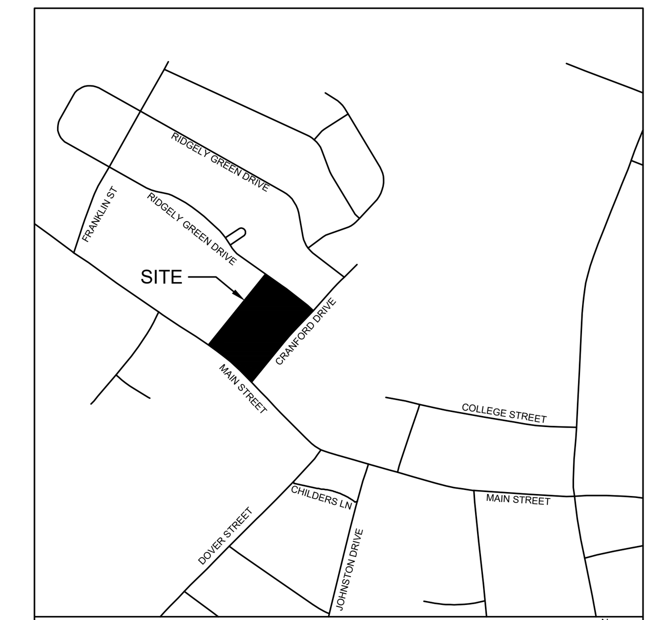
5-UNIT BUILDING FRONT ELEVATION

ARCHITECTURAL ELEVATIONS PROVIDED BY DAN PUVAK

FRONT ELEVATION UNIT 1 — FRONT ELEVATION UNIT 2 — FRONT ELEVATION UNIT 3 — FRONT ELEVATION UNIT 4 — FRONT ELEVATION UNIT 5 — FRONT ELEVATION UNIT 6

6-UNIT BUILDING FRONT ELEVATION (UPTON)

ARCHITECTURAL ELEVATIONS PROVIDED BY DAN PUVAK



VICINITY MAP N.T.S.

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REVISIONS

NO.	DATE	DESCRIPTION
	12/21/17	CONCEPT LAYOUT 1
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NORTH CAROLINA PROFESSIONAL SEAL 036842 ENGINEER LARRY LOCKHART, JR.

NOT FOR CONSTRUCTION

NC FIRM #: P-1007, C-390

KINGER HOMES
PINEVILLE MULTIFAMILY
Conditional Zoning #:

508 Main St.
Pineville, NC 28134

N

SCALE: 1"= 20'

0 10' 20' 40'

DATE: 03/09/18	MPIC: WLL
DRAWN BY: ASP	CHECKED BY: WLL
PROJECT NUMBER: 00505.00	
SCALE: N.T.S.	

TITLE:
ARCHITECTURAL ELEVATIONS

SHEET NO.:
A-100

6-UNIT BUILDING FRONT ELEVATION

5-UNIT BUILDING FRONT ELEVATION

DocuSign Envelope ID: AB6FCA9E-9343-43D0-8A79-0CF20B216D25

Pineville
PLANNING & ZONING

Submit to Planning Department, 200 Dover St, Pineville, NC 28134
Phone (704) 889-2291 Fax (704) 889-2293

Office Use Only: Application #:

Payment Method: Cash___ Check___ Credit Card___ Amount $_____ Date Paid_____

Zoning Application

Note: Application will not be considered until all required submittal components listed have been completed

Applicant's Name: Dhanesh Kumar of Kinger Homes Phone: 6316629068

Applicant's Mailing Address: 215 N Pine Street Unit 2011 Charlotte NC 28202

Property Information:

Property Location: 508 Main Street, Pineville, North Carolina, 28134

Property Owner's Mailing Address: 2400 S. Boulevard, Suite 300, Charlotte, N.C. 28203

Property Owner Name: MPV Pineville, LLC / Bailey W. Patrick Phone: 704-248-2102

Tax Map and Parcel Number: 205-023-15 Existing Zoning: Downtown Core

Which are you applying (Check all that apply):

Rezoning by Right _____ Conditional Zoning X Conditional Rezoning _____ Text Amendment _____

Fill out section(s) that apply:

Rezoning by Right:

Proposed Rezoning Designation N/A

Conditional Zoning:

Proposed Conditional Use: Northeast Property Line Buffer Reduced to 5' Minimum
Northwest Property Line Buffer Eliminated
Reduction of 75% Building Frontage Requirement due to Stormwater & Site Constraints

Acreage 2.03 Square Feet _____ Approximate Height 30' # of Rooms 60 BR

Parking Spaces Required 65 Parking Spaces Provided 84 **Please Attach Site Specific Conditional Plan

Conditional Rezoning:

Proposed Conditional Rezoning Designation N/A

Text Amendment:

Section N/A Reason _____

Proposed Text Change (Attach if needed) _____

I do hereby certify that all information which I have provided for this application is, to the best of my knowledge, correct.

DocuSigned by:
60A02382202840F

Signature of Applicant — Date 3/7/2018

Signature of Property Owner (If not Applicant) — Date 3/7/2018

Signature of Town Official — Date

Memorandum

Pineville
PLANNING & ZONING

To: Town Council

From: Travis Morgan

Date: 4/10/2018

Re: **Proposed 320 unit Single-Family Subdivision** *(Public Hearing)*

BACKGROUND:

Jack Miller, owner of the larger residential property behind the Traditions neighborhood and Cranford Drive has a perspective buyer seeking to develop the property as a single-family residential subdivision. Subdivisions are permitted by right in the RMX zoning district however; the ordinance requires conditional board approval for subdivisions over 100 units.

PROPOSAL:

Mark Eisenbeis on behalf or Meritage Homes seeks your approval for this subdivision. Meritage homes would like to build a 320 unit single family detached rowhome style subdivision that ties into downtown and Main Street. The townhome component has been removed. All homes are rear loaded allowing for more pedestrian friendly streets and offers 3 access points into and out of the development to help calm and disperse traffic. The proposal also requests a portion of isolated General Industrial property to the Northwest of the site be rezoned RMX to allow for homes rather than being left to develop as General Industrial.

DEVELOPMENT SUMMARY:

Location:	**460 Marie Way**
Acreage:	103.69 Miller Parcel 39.82 Industrial Parcel **143.51+/- Total Acres**
Number of Units:	**320 alley loaded lots (Up to)**
Units Per Acre:	**2.23**
Parking Minimum:	**2 per home (640 spaces)**
Parking Provided:	**4 per home. Two in driveway 2 in garage (1,280 spaces)**
Traffic/Connectivity:	**Traffic study was conducted see attached. 3 entrance points.**
Trash Service:	**Public. On public roads and alleys.**
Greenway Park:	**100' Sugar Creek area to be dedicated**
Lot Sizes:	**37' x 101' (minimum)**
Home Sizes:	**Size approx: 1883-2511 square feet owner occupied**

TRAFFIC STUDY:

Much like our previous conditional plan for the Lance warehouse off of Industrial Drive, a similar traffic impact analysis was conducted. The same 2% ambient future growth and recent approved warehouse were taken into consideration. The study found what you may already know: That during peak morning and evening rush traffic Franklin and Cranford perform poorly at a level F service meaning long wait times. No amount of improvement on either Franklin or Cranford will move traffic on Main Street faster was the summary.

The traffic study found that no improvements beyond the already shown connection to Industrial Drive to provide and alternate way out were required.

BUFFERS:

Since this proposal is adjacent to industrial development, buffers have been the longest and most revised item of discussion. The ordinance requires 100 feet of buffer between residential to industrial with landscaping of 4 large maturing trees, 4 small maturing trees, 4 evergreen trees, and 60 evergreen shrubs for every 100 linear feet of buffer area. The buffer area exceeds the ordinance requirement in places such as the mature landscape area near Lance and similar vegetated buffer area adjacent to Red Clay.

Onsite buffer areas of 25'-60' are compensated by buffer areas on industrial properties maintaining the minimum 100' buffer. Extra fencing/landscaping/and berms have been provided by as shown onsite in more confined areas.

Staff is in favor of keeping and using large landscaped areas to satisfy buffer needs where applicable such as to the Northwest of the site. Staff is in favor of berms, fencing, and select larger evergreen plantings instead of the large tree, small tree, and shrub ordinance standard shown. The conditional process allows for the customization of this buffer as the board deems appropriate.

ARCHITECTURAL REQUIREMENTS:

The applicants have been easy to work with and voluntarily submitted the attached elevations. The overall summary is the homes meet our design criteria especially with the porches and rear garage design. Staff had a few notes/clarification/specific requirements we wanted noted along with any additional council input. Below are the recommended notes.

1) Fiber cement siding (generally clapboard and occasional fiber cement shakes for accent).
2) Two types of front siding material, or full width front porch, or all brick.
3) Front facing windows shall be divided glass style with special thick enhanced trim as shown.
4) Front facing gables shall have either: a rectangular vent, a window, or 3 brackets (center top, left, right) except for 2511C type elevation.
5) Triangular front facing gable top vents prohibited.
6) All street facing porches to have railings.
7) Front porches to be minimum standard 6' deep per usual.
8) Otherwise compliant with the Residential Overlay District.

STAFF COMMENTS:

Staff notes that the site is challenging due to existing flood and drainage areas, proximity to industrial development, the railroad, and sewer easements crisscrossing the site. Staff likes the overall flow of the site, home design and rear loaded garages. Overall density averages approximately 2.23 homes per acre due to all the floodplain and easement areas. This qualifies the project as low impact or conservation style subdivision for stormwater purposes.

Access points:

A word about the three access points. The access onto Industrial Drive has always been planned and staff feels is extremely vital to provide an alternate exit route away from 51/Main Street. Access to Industrial will have sidewalks on one side so as to provide decorative fencing and landscaping to shield from the wrecking service to

the West. Cranford Drive has similarly been planned and improved when Traditions was built. Franklin is the third and secondary access point. Franklin has very narrow and limited right-of-way that prohibits any worthwhile improvements without taking property. Staff always supports road improvements but in this instance improvements maybe to the detriment of existing residents there and encourage the use of Franklin Street over Cranford which is the opposite of what we have planned.

STAFF RECOMMENDATION:

Staff recommends the proposal with the following notes:

The plan meets and is consistent with overlay and zoning requirements unless otherwise shown.

1) Council is satisfied with buffer areas. In some cases, such as the center open areas of the site, views to industrial may be helped with evergreen street trees.
2) All construction traffic to utilize Industrial access only. Franklin particularly to be completely blocked until construction of homes in that phase is complete.
3) Roads to be labeled and enforced 'No trucks over 2 axels unless by permit' per usual.
4) If larger trucks/equipment are a significant issue, A steel height restriction bar could be installed where needed. Typical tractor trailers are 13'-6" so a bar could be brightly colored with signage mounted at a lower height if council directed.
5) Architectural requirements stated previously are mutually agreed upon by Council and the applicant.
6) Greenway area is dedicated to Mecklenburg County.

PROCEDURE:

This is the public hearing for Council to gain input from staff, public, and the applicant about the proposal. This meeting is to familiarize you with the applicant's request and to hear any public comment. This follows standard legislative approval process. There are no findings of facts needed. If you have all the information needed to make a decision, you may at your discretion close the public hearing and make a vote.

Pineville
PLANNING & ZONING

Submit to Planning Department, 200 Dover St, Pineville, NC 28134
Phone (704) 889-2291 Fax (704) 889-2293

Office Use Only: Application #:

Payment Method: Cash___ Check___ Credit Card___ Amount $_____ Date Paid_____

Zoning Application

Note: Application will not be considered until all required submittal components listed have been completed

Applicant's Name: Old East Ventures Phone: 404-310-2234

Applicant's Mailing Address: 1763 Meadowdale Ave., NE Atlanta, GA 30306

Property Information:

Property Location: North of Cranford Drive and Franklin Street, South of Industrial Drive

Property Owner's Mailing Address: 202 Sunset Dr. Richmond, VA, 23229

Property Owner Name: John S. Miller Family, LP Phone: _____

Tax Map and Parcel Number: 205-08-102 Existing Zoning: RMX

Which are you applying (Check all that apply):

Rezoning by Right _____ Conditional Zoning ✓ Conditional Rezoning _____ Text Amendment _____

Fill out section(s) that apply:

Rezoning by Right:

Proposed Rezoning Designation _____

Conditional Zoning:

Proposed Conditional Use Residential - Detached

Acreage _____ Square Feet _____ Approximate Height _____ # of Rooms _____

Parking Spaces Required _____ Parking Spaces Provided _____ ****Please Attach Site Specific Conditional Plan**

Conditional Rezoning:

Proposed Conditional Rezoning Designation _____

Text Amendment:

Section _____ Reason _____

Proposed Text Change (Attach if needed) _____

I do hereby certify that all information which I have provided for this application is, to the best of my knowledge, correct.

Mark [illegible] — 2/6/18
Signature of Applicant — Date

John S Miller — 2/5/18
Signature of Property Owner (If not Applicant) — Date

Signature of Town Official — Date

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Zoning Application

Note: Application will not be considered until all required submittal components listed have been completed

Applicant's Name: Old East Ventures Phone: 404-310-2234

Applicant's Mailing Address: 1763 Meadowdale Ave., NE Atlanta, GA 30306

Property Information:

Property Location: West of Industrial Drive

Property Owner's Mailing Address: ~~521 East Morehead St, Ste 400, Charlotte, NC 28202~~ 2400 South Blvd, Ste 300, Charlotte NC 28203

Property Owner Name: Lakemont Property Investors, LLC Phone: _____

Tax Map and Parcel Number: portion (+/- 38.2 ac.) of 205-07-112 Existing Zoning: G-I

Which are you applying (Check all that apply):

Rezoning by Right _____ Conditional Zoning _____ Conditional Rezoning ✓ Text Amendment _____

Fill out section(s) that apply:

Rezoning by Right:

Proposed Rezoning Designation _____

Conditional Zoning:

Proposed Conditional Use _____

Acreage _____ Square Feet _____ Approximate Height _____ # of Rooms _____

Parking Spaces Required _____ Parking Spaces Provided _____ ****Please Attach Site Specific Conditional Plan**

Conditional Rezoning:

Proposed Conditional Rezoning Designation RMX - Residential - Detached

Text Amendment:

Section _____ Reason _____

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Signature of Applicant — Date 2/6/18

Signature of Property Owner (If not Applicant) — Date 2/5/2018

Signature of Town Official — Date

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Property Information:

Property Location: West of Franklin Street

Property Owner's Mailing Address: 202 Sunset Dr. Richmond, VA. 23229

Property Owner Name: John S. Miller, Jr. & Rebecca B. Miller Phone: _____

Tax Map and Parcel Number: 205-02-118 Existing Zoning: RMX

Which are you applying (Check all that apply):

Rezoning by Right _____ Conditional Zoning ✓ Conditional Rezoning _____ Text Amendment _____

Fill out section(s) that apply:

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Proposed Rezoning Designation _____

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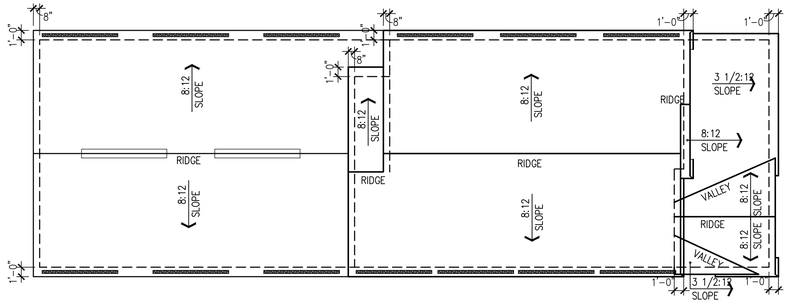
Signature of Applicant Date

Rebecca B. Miller 2/5/18
Signature of Property Owner (If not Applicant) Date

_____ _____
Signature of Town Official Date



Roof Plan

0 4' 8' 16'

ATTIC VENTILATION

AREA 1:			
ATTIC AREA:			878 SQ.FT.
VENT RATIO:			1/300
REQUIRED VENTILATION:			421 SQ. IN.
PROPOSED VENTILATION:			449.8 SQ. IN.
VENT TYPE MFR:	QUAN:	AREA:	TOTAL:
LOWER 50% ATTIC SPACE:			
CONTINUOUS SOFFIT	6	37.5 SQ.IN.	224.8 SQ. IN.
UPPER 50% ATTIC SPACE:			
RIGID ROLL VENT	18	12.5 SQ.IN.	225.0 SQ. IN.

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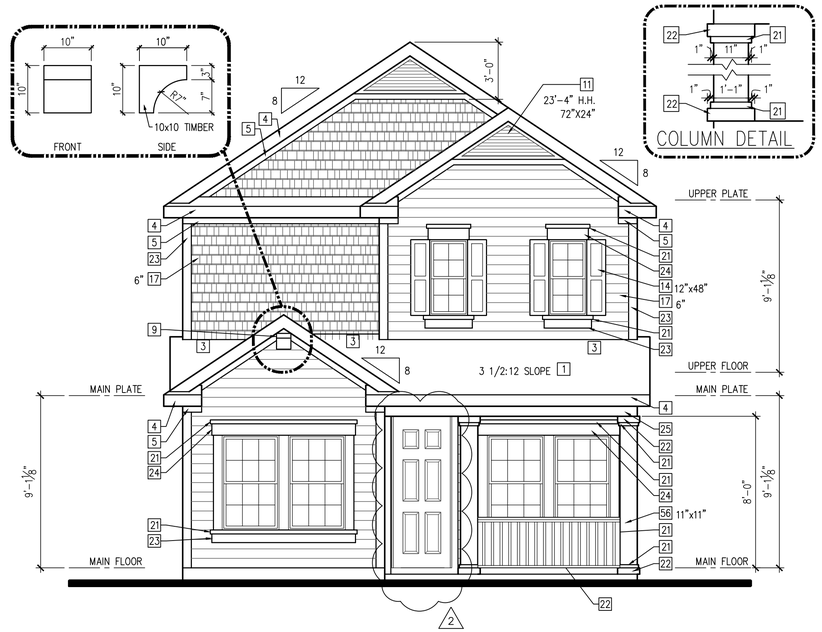

Front Elevation

0 2' 4' 8'

CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. ROOF CONSTRUCTION:
ROOFING PER BUILDER SPEC ON UNDERLAYMENT ON ROOF SHEATHING ON ROOF FRAMING MEMBERS.
CEILING: ½" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONSTRUCTION:
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GENERAL EXTERIOR ELEVATION NOTES:

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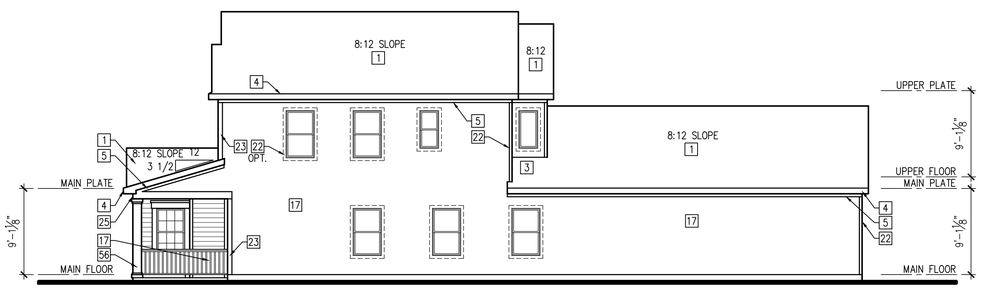
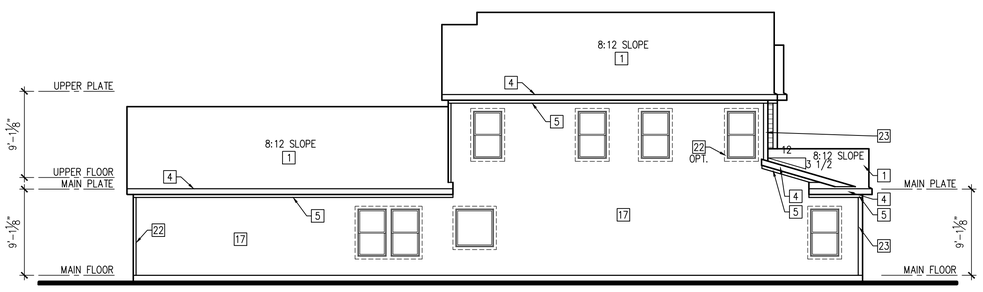


Right Elevation

0 4' 8' 16'



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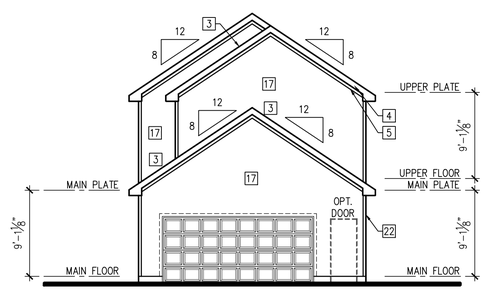


Rear Elevation

0 4' 8' 16'

Elevation A

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

ISSUE DATE: 01-13-2017
REVISIONS
02-01-2017
04/03/2017

Meritage Homes

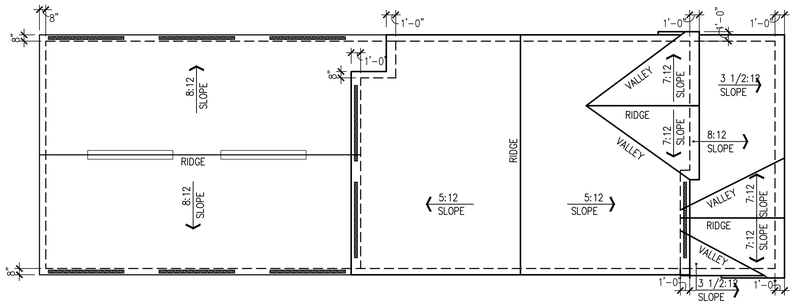
Meritage Homes
24' Single Family Product

JOB NO: SF150542.00 PROJ MGR: CE
DRAWN: TS CHECKED: CE

ELEVATION A
EXTERIROR ELEVATIONS & ROOF PLAN

1979

A3.1A



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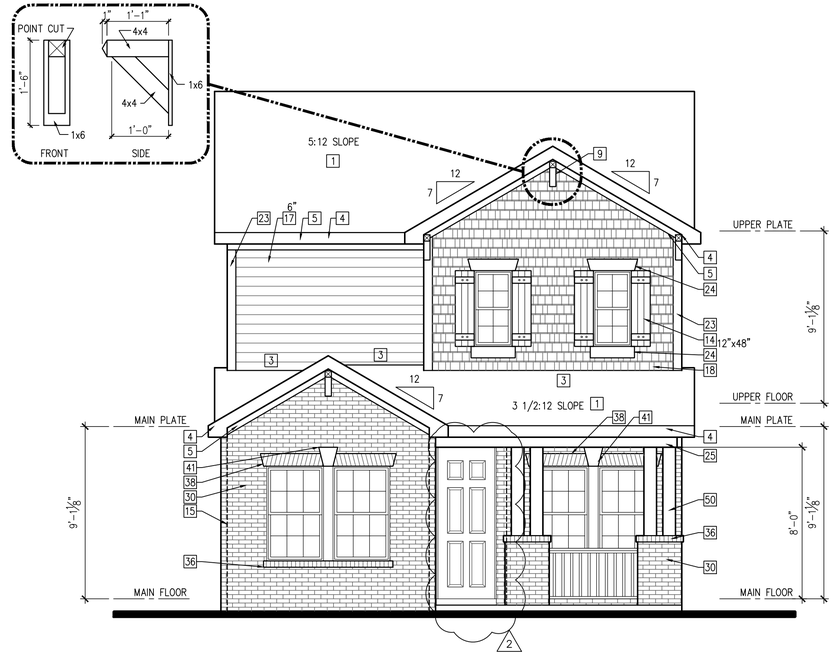

Front Elevation

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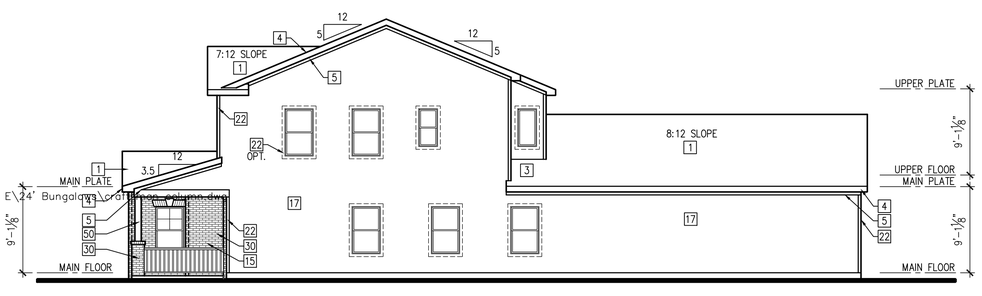
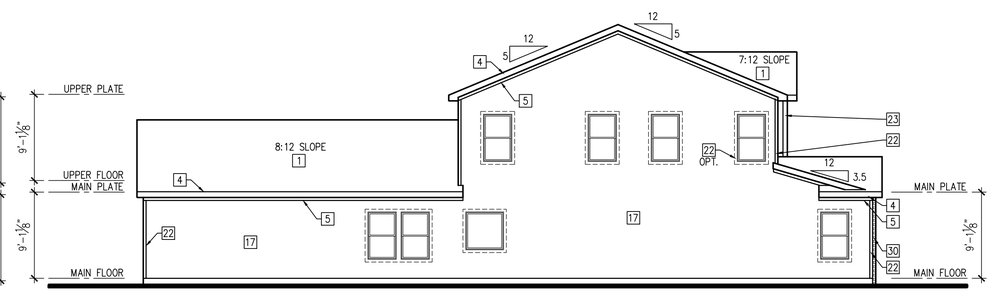


Right Elevation

0 4' 8' 16'



Left Elevation

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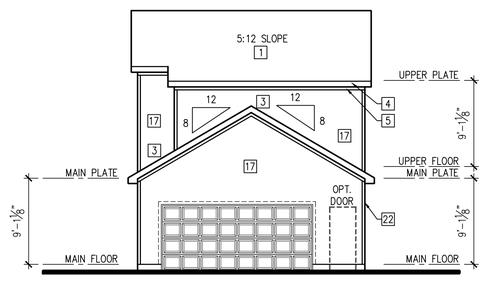

Rear Elevation

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Elevation B

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Meritage Homes

Meritage Homes
24' Single Family Product

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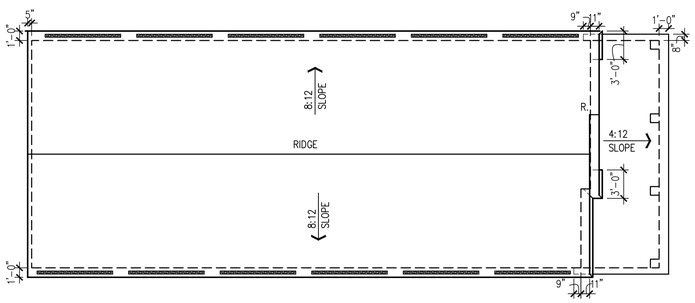

Roof Plan

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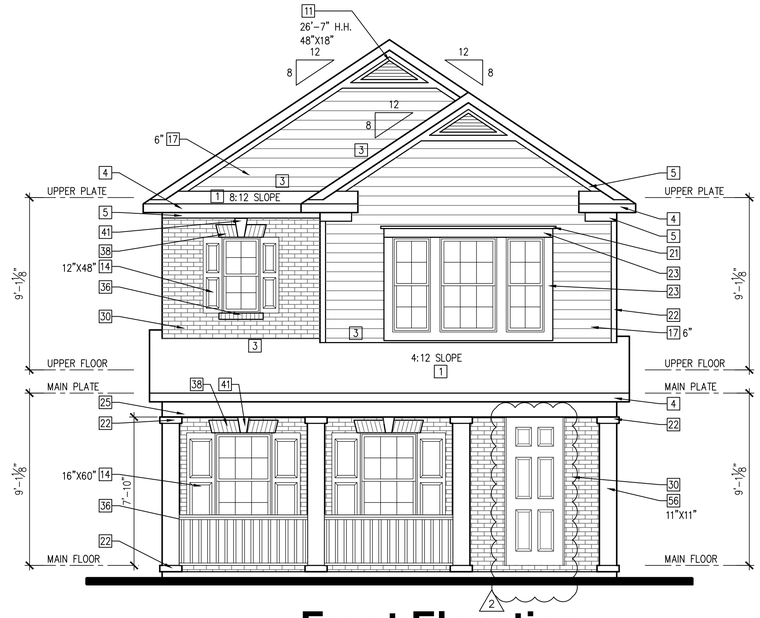

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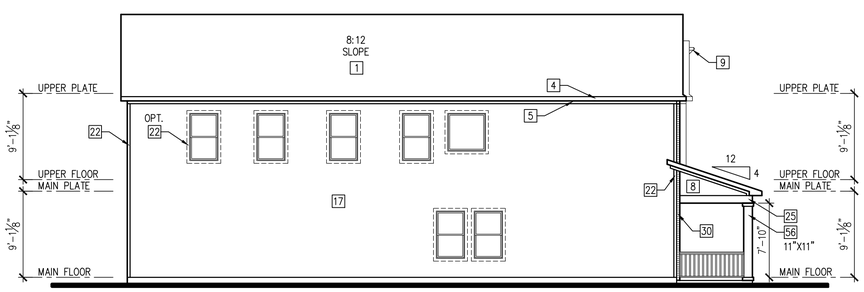
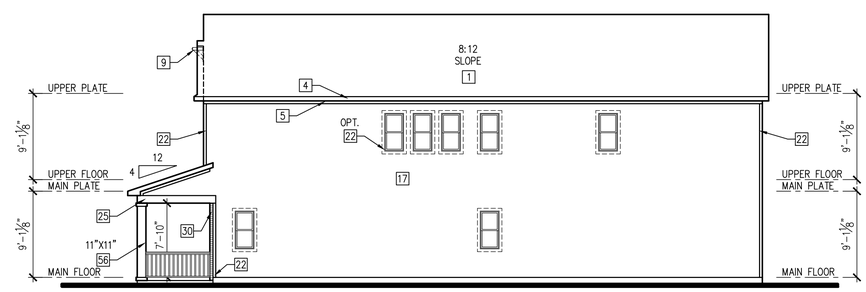


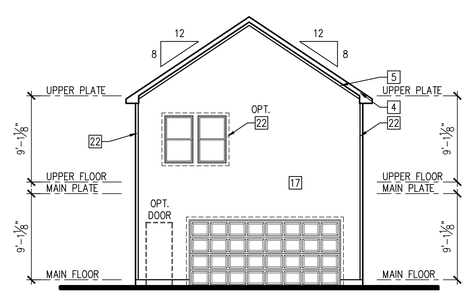
Left Elevation

0 4' 8' 16'



Right Elevation

0 4' 8' 16'



Rear Elevation

0 4' 8' 16'

Elevation A

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

ISSUE DATE: 01-13-2017
REVISIONS
02-01-2017
04/03/2017

Meritage Homes

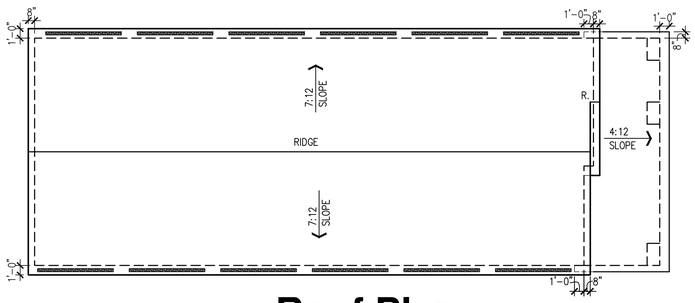
Meritage Homes
24' Single Family Product

JOB NO: SF150542.00 PROJ MGR: CE
DRAWN: JW CHECKED: CE

ELEVATION A
EXTERIOR ELEVATIONS & ROOF PLAN

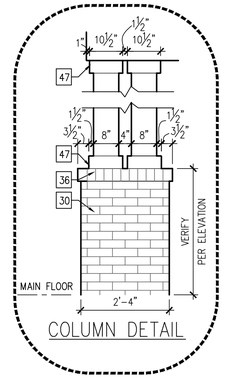
2220

A3.1A

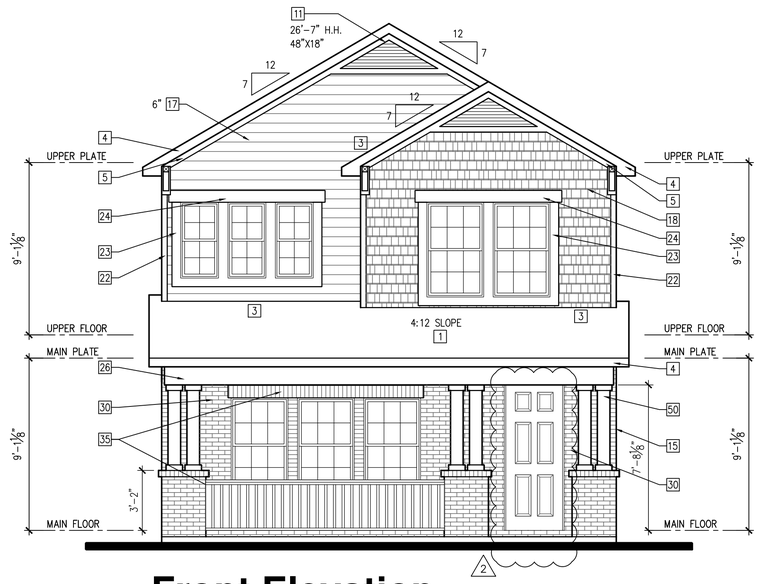


Roof Plan

0 4' 8' 16'



COLUMN DETAIL



Front Elevation

0 2' 4' 8'

CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. ROOF CONSTRUCTION:
ROOFING PER BUILDER SPEC ON UNDERLAYMENT ON ROOF SHEATHING ON ROOF FRAMING MEMBERS.
CEILING: ½" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONSTRUCTION:
SIDING ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD.

B2. TYPICAL STONE VENEER WALL CONSTR.:
ADHERED SYNTHETIC STONE VENEER (INSTALLED PER MFR'S SPECS.) OVER WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD.

B3. TYPICAL BRICK WALL CONSTRUCTION:
BRICK VENEER w/ MASONRY TIES 16" o.c. HORIZONTAL & VERTICAL OVER WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2X4 OR 2X6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD

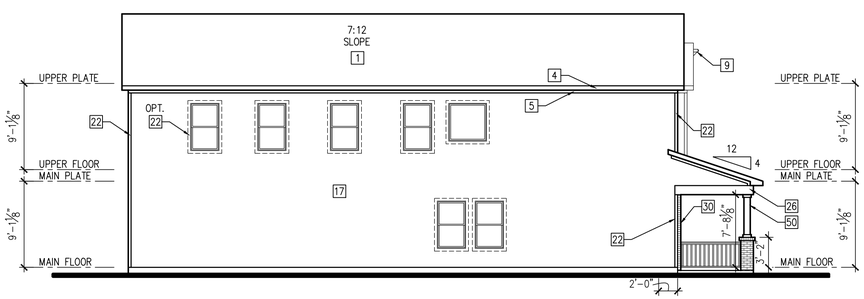
C. TYPICAL FLOOR CONSTRUCTION:
FINISHED FLOORING ON ¾" FLOOR SHEATHING ON FLOOR FRAMING AS NOTED ON STRUCTURAL DRAWINGS.
MAIN FLOOR CEILING: ½" GYPSUM BOARD.

D. CONCRETE SLAB CONSTRUCTION: CONCRETE SLAB OVER 6 MIL. POLYETHYLENE VAPOR BARRIER OVER 4" MINIMUM GRANULAR FILL.

GENERAL EXTERIOR ELEVATION NOTES:

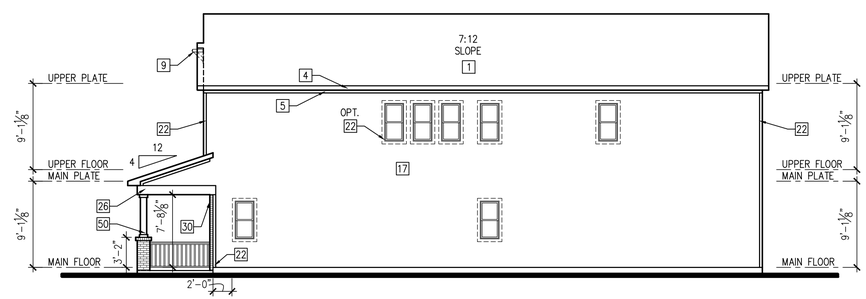
- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN.
- PROVIDE ROOF AND SOFFIT VENTS AS SPECIFIED BY BUILDER.
- PROVIDE GUTTERS AND DOWNSPOUTS AS SPECIFIED BY BUILDER.

FOR EXTERIOR FINISH MATERIALS; SIDING, MASONRY AND TRIM PACKAGES REFER TO BUILDER'S SPECIFICATIONS.
VINYL/ PVC AND FIBER CEMENT BOARD ARE INTERCHANGEABLE PER COMMUNITY.



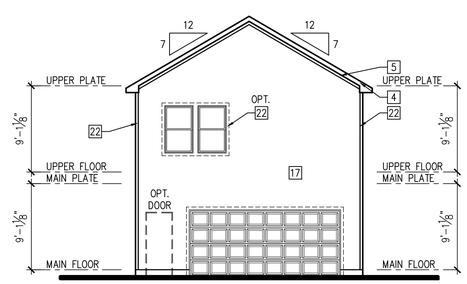
Left Elevation

0 4' 8' 16'



Right Elevation

0 4' 8' 16'



Rear Elevation

0 4' 8' 16'

Elevation B

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

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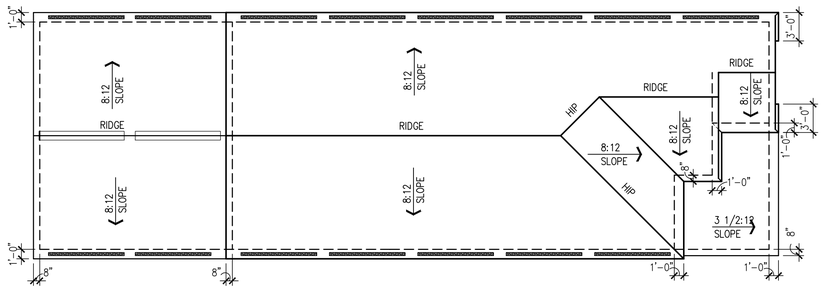
ELEVATION B
EXTERIOR ELEVATIONS & ROOF PLAN

2220

A3.1B



Roof Plan

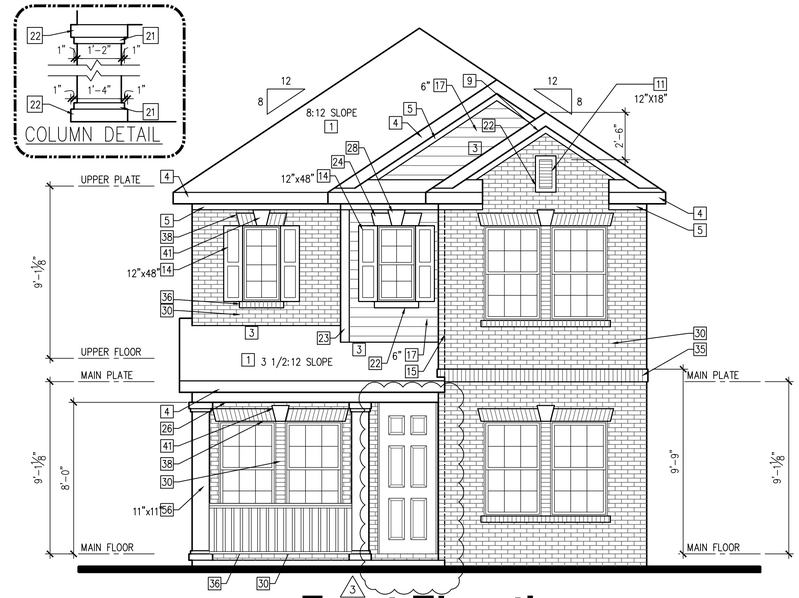
0 4' 8' 16'

ATTIC VENTILATION			
AREA 1:			
ATTIC AREA:			539 SQ.FT.
VENT RATIO:			1/300
REQUIRED VENTILATION:			259 SQ. IN.
PROPOSED VENTILATION:			262.4 SQ. IN.
VENT TYPE MFR:	QUAN:	AREA:	TOTAL:
LOWER 50% ATTIC SPACE:			
CONTINUOUS SOFFIT	4	37.5 SQ.IN.	149.9 SQ. IN.
UPPER 50% ATTIC SPACE:			
RIGID ROLL VENT	9	12.5 SQ.IN.	112.5 SQ. IN.

NOTE: ATTIC AREAS WHICH USE THE 1:300 RATIO HAVE BEEN DESIGNED SO THAT 50% OF THE REQUIRED VENTILATION AREA IS PROVIDED IN THE UPPER PORTION OF THE ATTIC SPACE AND 50% IN THE LOWER PORTION.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED AGAINST THOSE NOTED ABOVE. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO IRC/IBC REQUIREMENTS.



Front Elevation

0 2' 4' 8'

CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. ROOF CONSTRUCTION:
ROOFING PER BUILDER SPEC ON UNDERLAYMENT ON ROOF SHEATHING ON ROOF FRAMING MEMBERS.
CEILING: ½" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONSTRUCTION:
SIDING ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD.

B2. TYPICAL STONE VENEER WALL CONSTR.:
ADHERED SYNTHETIC STONE VENEER (INSTALLED PER MFR'S SPECS.) OVER WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD.

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BRICK VENEER w/ MASONRY TIES 16" o.c. HORIZONTAL & VERTICAL OVER WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2X4 OR 2X6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD

C. TYPICAL FLOOR CONSTRUCTION:
FINISHED FLOORING ON ¾" FLOOR SHEATHING ON FLOOR FRAMING AS NOTED ON STRUCTURAL DRAWINGS.
MAIN FLOOR CEILING: ½" GYPSUM BOARD.

D. CONCRETE SLAB CONSTRUCTION: CONCRETE SLAB OVER 6 MIL POLYETHYLENE VAPOR BARRIER OVER 4" MINIMUM GRANULAR FILL.

GENERAL EXTERIOR ELEVATION NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN.
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- PROVIDE GUTTERS AND DOWNSPOUTS AS SPECIFIED BY BUILDER.

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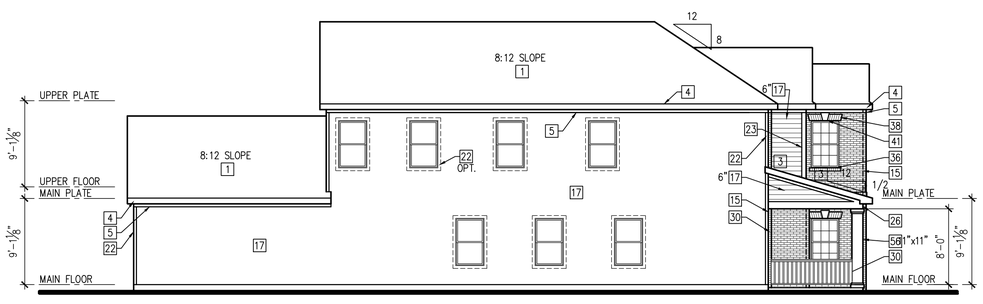
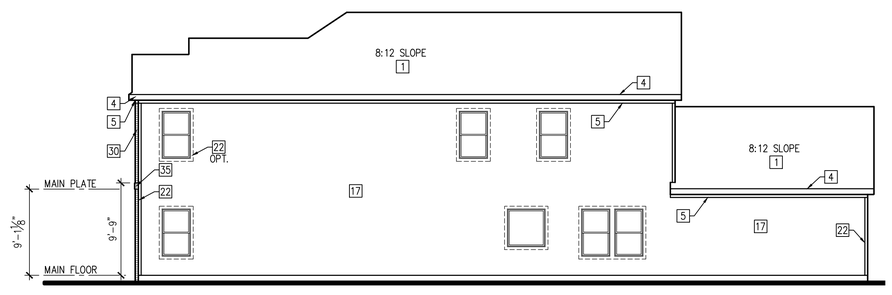


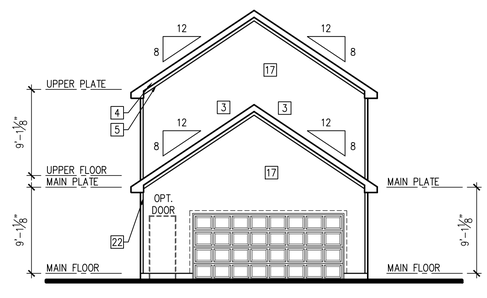
Left Elevation

0 4' 8' 16'



Right Elevation

0 4' 8' 16'



Rear Elevation

0 4' 8' 16'

Elevation A

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

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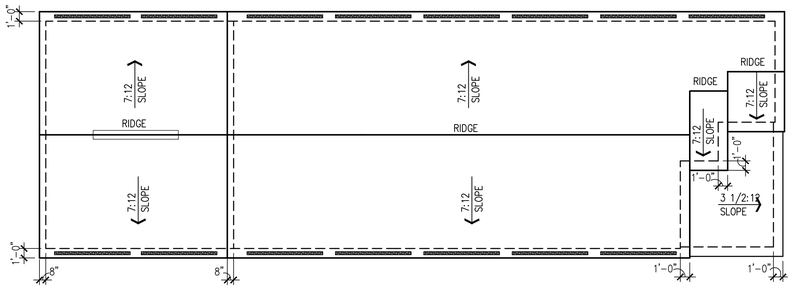
ELEVATION A
EXTERIROR ELEVATIONS & ROOF PLAN

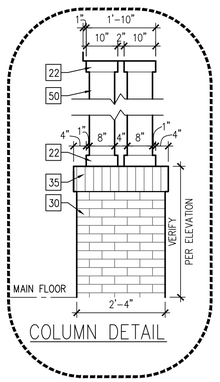
2431

A3.1A

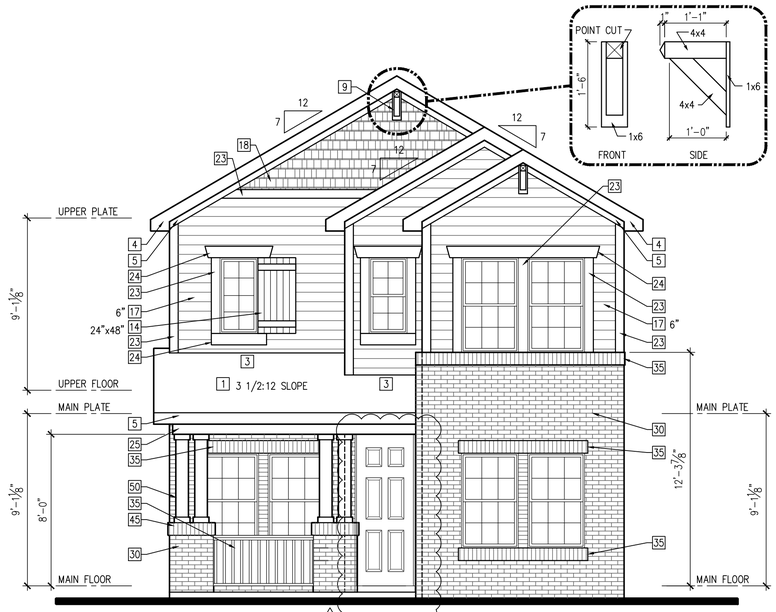


Roof Plan

0 4' 8' 16'

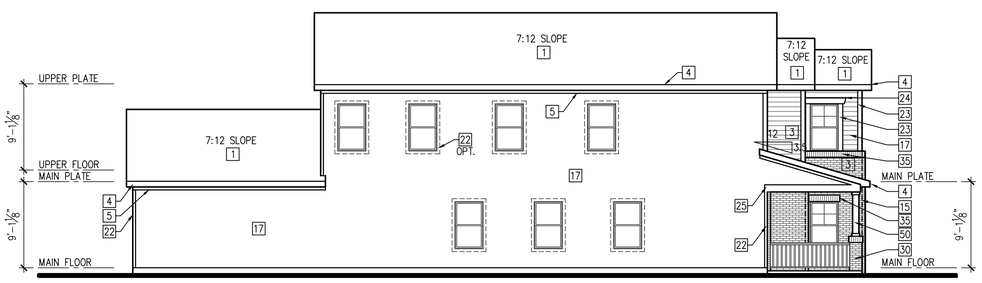


COLUMN DETAIL



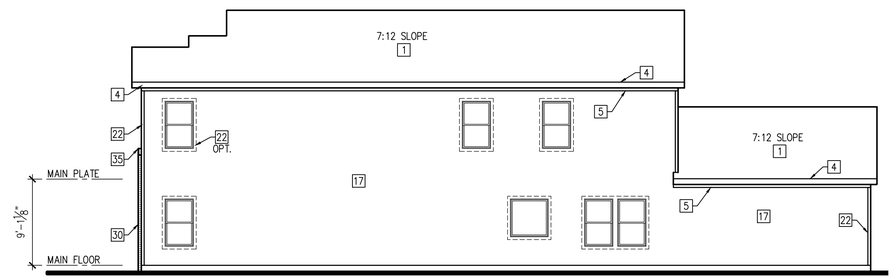
Front Elevation

0 2' 4' 8'



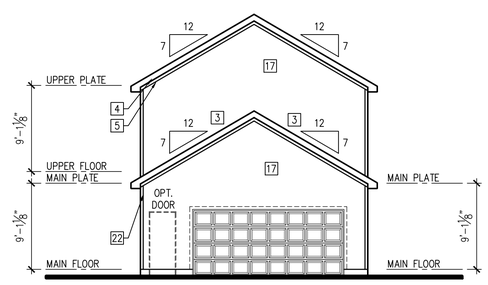
Left Elevation

0 4' 8' 16'



Right Elevation

0 4' 8' 16'



Rear Elevation

0 4' 8' 16'

Elevation B

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

CONSTRUCTION ASSEMBLIES:

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A. ROOF CONSTRUCTION:
ROOFING PER BUILDER SPEC ON UNDERLAYMENT ON ROOF SHEATHING ON ROOF FRAMING MEMBERS.
CEILING: ½" GYPSUM BOARD WITH INSULATION ABOVE.

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B2. TYPICAL STONE VENEER WALL CONSTR.:
ADHERED SYNTHETIC STONE VENEER (INSTALLED PER MFR'S SPECS.) OVER WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
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BRICK VENEER w/ MASONRY TIES 16" o.c. HORIZONTAL & VERTICAL OVER WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2X4 OR 2X6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD

C. TYPICAL FLOOR CONSTRUCTION:
FINISHED FLOORING ON ¾" FLOOR SHEATHING ON FLOOR FRAMING AS NOTED ON STRUCTURAL DRAWINGS.
MAIN FLOOR CEILING: ½" GYPSUM BOARD.

D. CONCRETE SLAB CONSTRUCTION: CONCRETE SLAB OVER 6 MIL POLYETHYLENE VAPOR BARRIER OVER 4" MINIMUM GRANULAR FILL.

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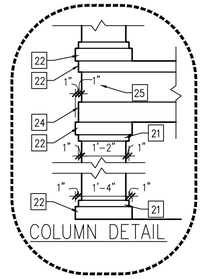
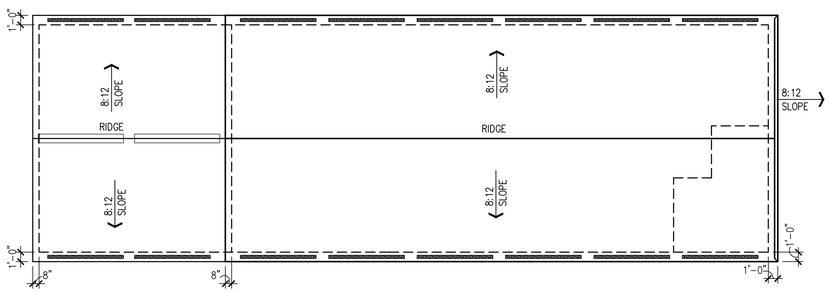
ELEVATION B
EXTERIROR ELEVATIONS & ROOF PLAN

2431

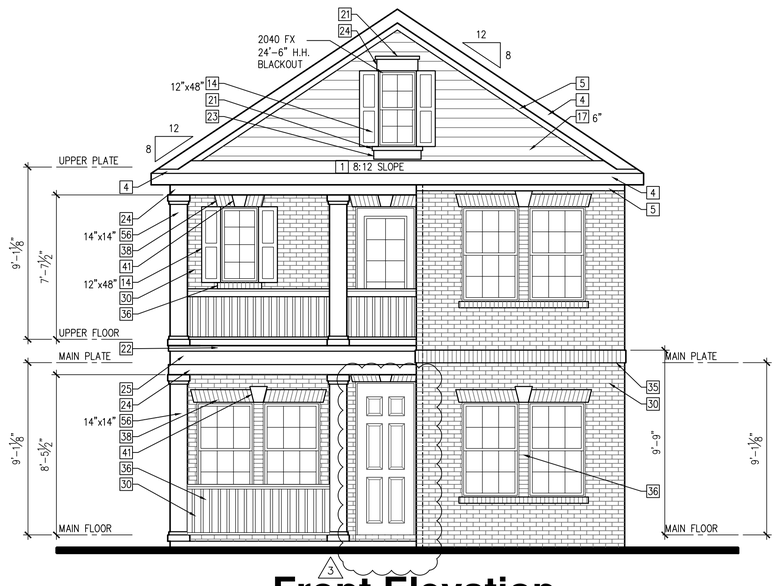
A3.1B





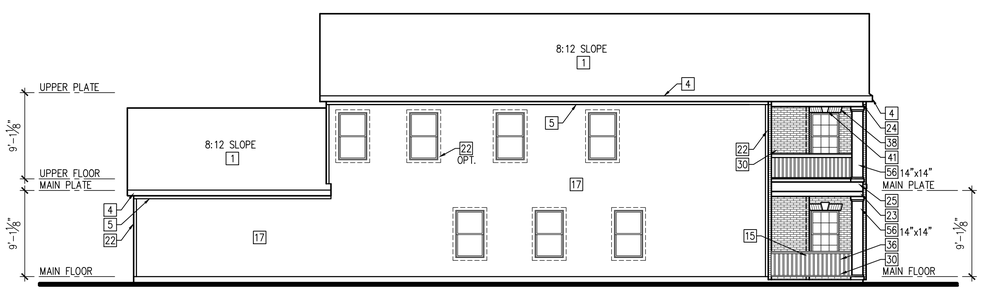
Roof Plan

0 4' 8' 16'



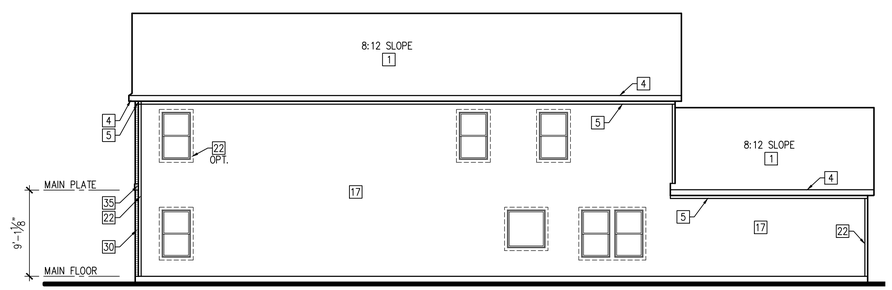
Front Elevation

0 2' 4' 8'



Left Elevation

0 4' 8' 16'



Right Elevation

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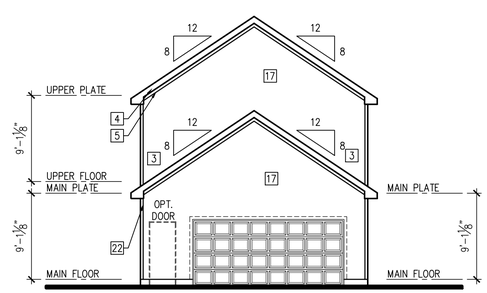

Rear Elevation

0 4' 8' 16'

Elevation D

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

CONSTRUCTION ASSEMBLIES:

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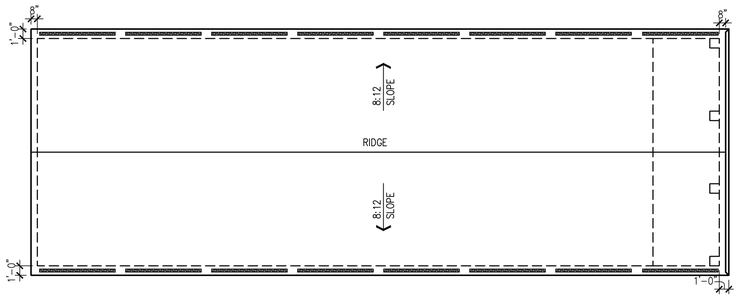
ELEVATION D
EXTERIROR ELEVATIONS & ROOF PLAN

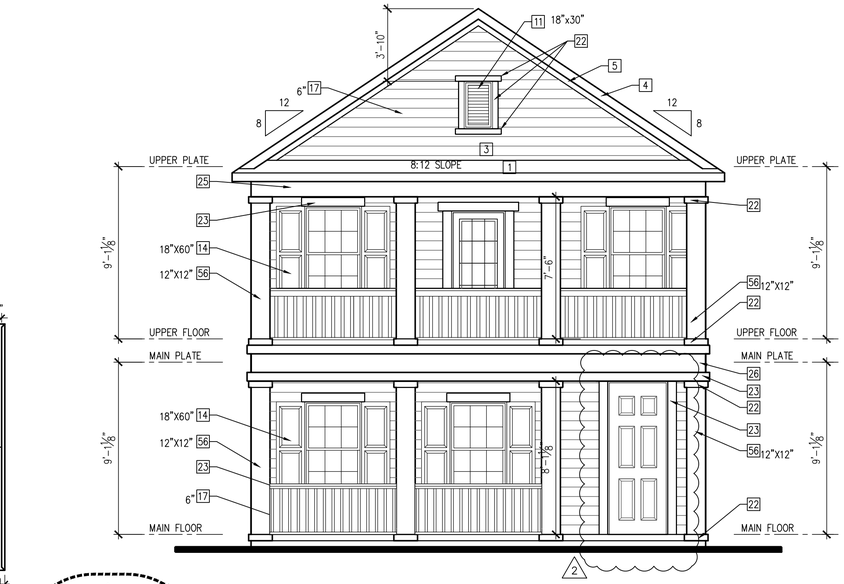
2431

A3.1D



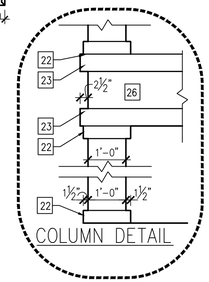
Roof Plan

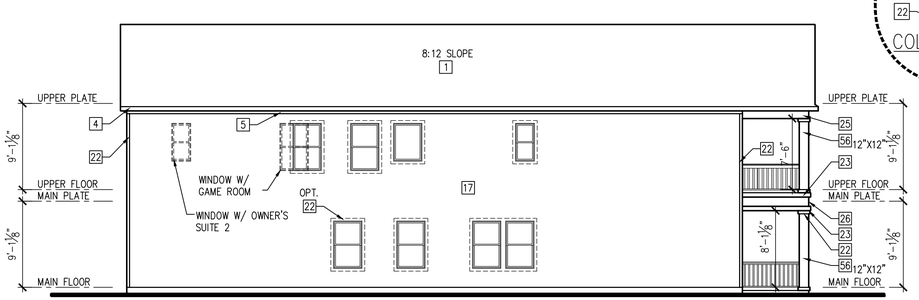
0 4' 8' 16'



Front Elevation

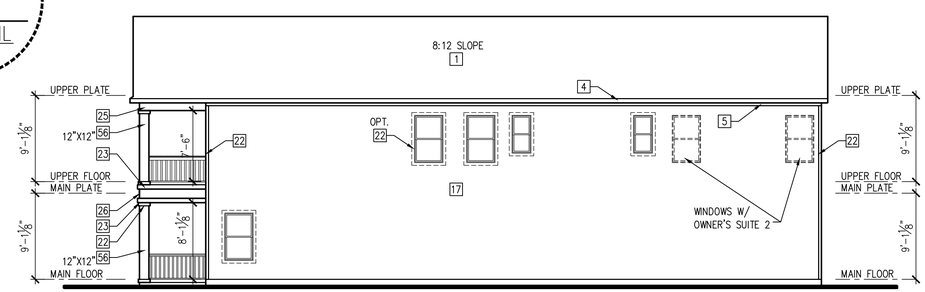
0 2' 4' 8'





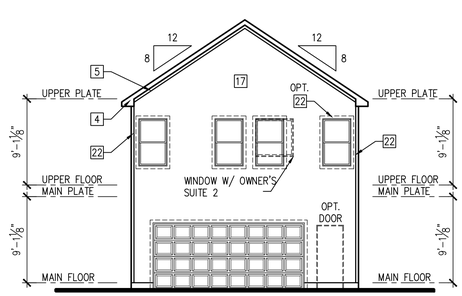
Left Elevation

0 4' 8' 16'



Right Elevation

0 4' 8' 16'



Rear Elevation

0 4' 8' 16'

Elevation A

CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. ROOF CONSTRUCTION:
ROOFING PER BUILDER SPEC ON UNDERLAYMENT ON ROOF SHEATHING ON ROOF FRAMING MEMBERS.
CEILING: ½" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONSTRUCTION:
SIDING ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: ½" GYPSUM BOARD.

B2. TYPICAL STONE VENEER WALL CONSTR.:
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INTERIOR: ½" GYPSUM BOARD.

B3. TYPICAL BRICK WALL CONSTRUCTION:
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INTERIOR: ½" GYPSUM BOARD

C. TYPICAL FLOOR CONSTRUCTION:
FINISHED FLOORING ON ¾" FLOOR SHEATHING ON FLOOR FRAMING AS NOTED ON STRUCTURAL DRAWINGS.
MAIN FLOOR CEILING: ½" GYPSUM BOARD.

D. CONCRETE SLAB CONSTRUCTION: CONCRETE SLAB OVER 6 MIL. POLYETHYLENE VAPOR BARRIER OVER 4" MINIMUM GRANULAR FILL.

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- PROVIDE ROOF AND SOFFIT VENTS AS SPECIFIED BY BUILDER.
- PROVIDE GUTTERS AND DOWNSPOUTS AS SPECIFIED BY BUILDER.

FOR EXTERIOR FINISH MATERIALS; SIDING, MASONRY AND TRIM PACKAGES REFER TO BUILDER'S SPECIFICATIONS.
VINYL/ PVC AND FIBER CEMENT BOARD ARE INTERCHANGEABLE PER COMMUNITY.

NOTE:
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Meritage Homes

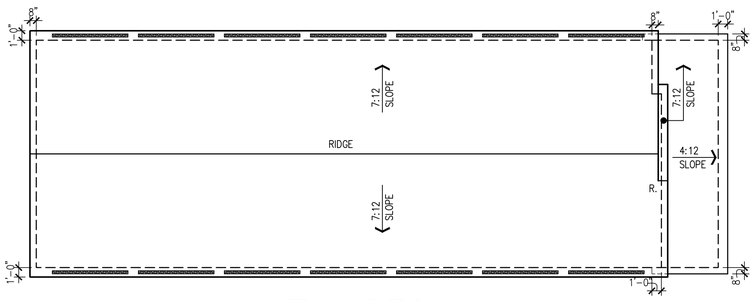
Meritage Homes
24' Single Family Product

JOB NO: SF150542.00 PROJ MGR: CE
DRAWN: TS CHECKED: CE

ELEVATION A
EXTERIOR ELEVATIONS & ROOF PLAN

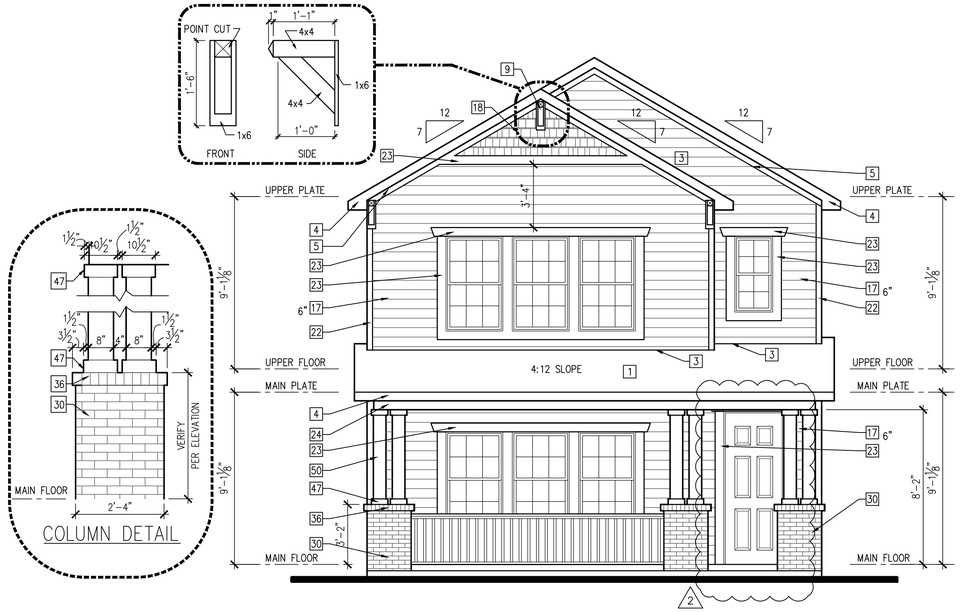
2511

A3.1A



Roof Plan

0 4' 8' 16'



Front Elevation

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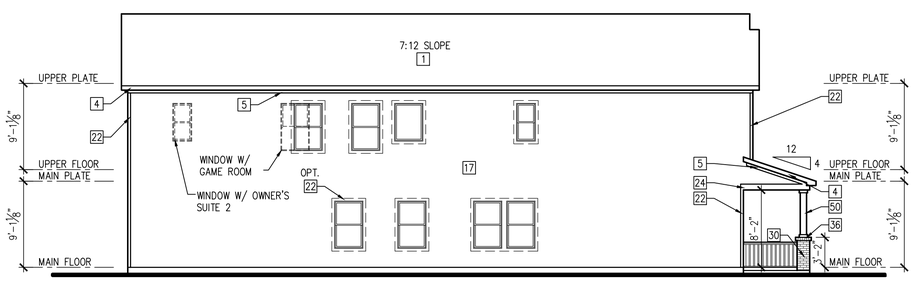
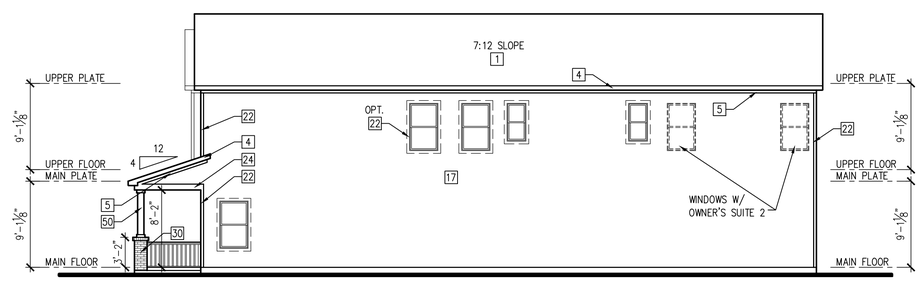


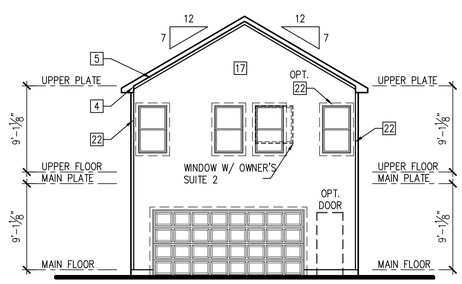
Left Elevation

0 4' 8' 16'



Right Elevation

0 4' 8' 16'



Rear Elevation

0 4' 8' 16'

Elevation B

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

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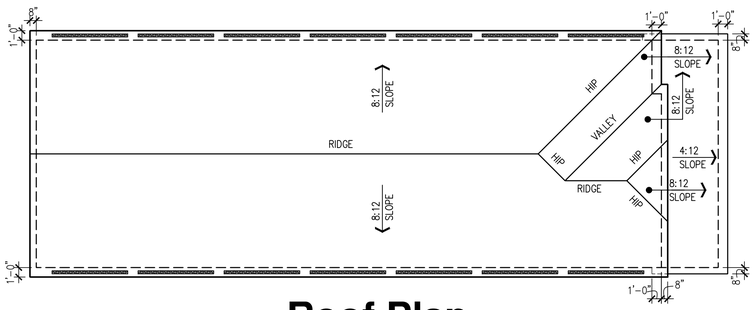
ELEVATION B
EXTERIOR ELEVATIONS & ROOF PLAN

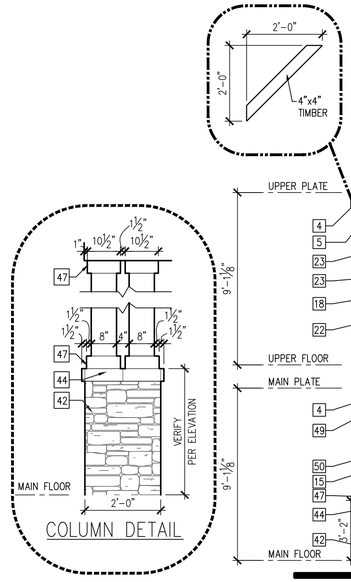
2511

A3.1B

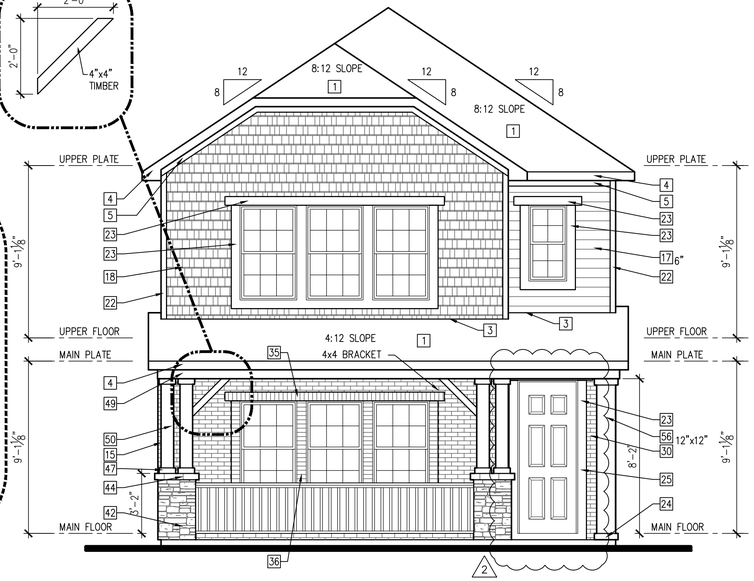


Roof Plan

0 4' 8' 16'



COLUMN DETAIL



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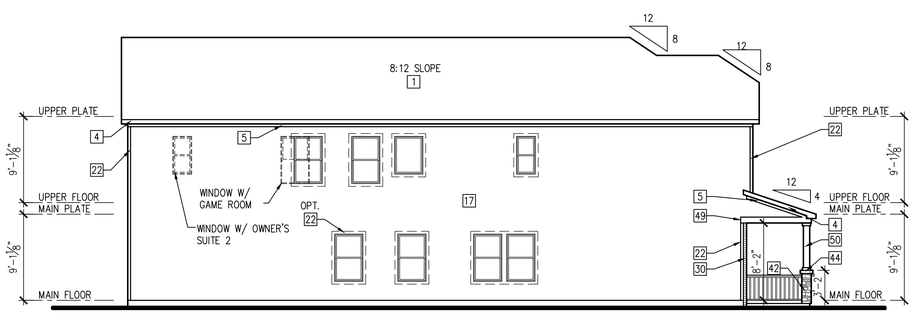
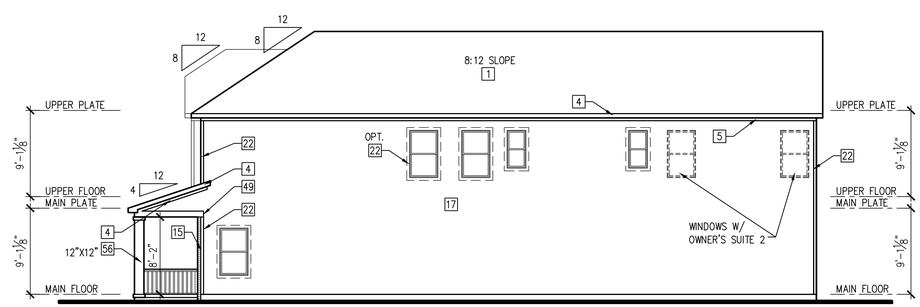


Left Elevation

0 4' 8' 16'



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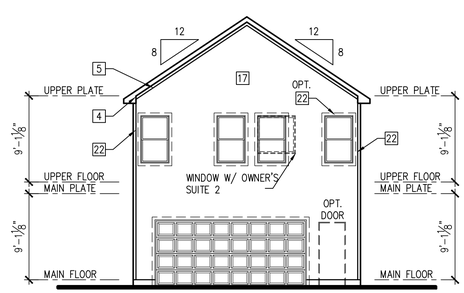

Rear Elevation

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Elevation C

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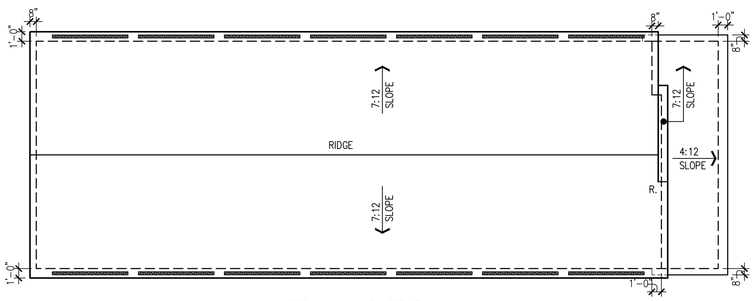
ELEVATION C
EXTERIOR ELEVATIONS & ROOF PLAN

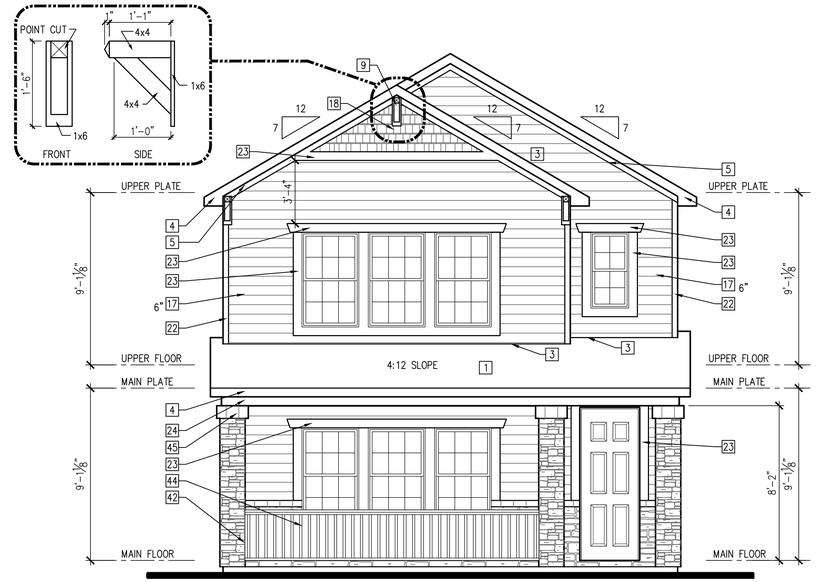
2511

A3.1C



Roof Plan

0 4' 8' 16'



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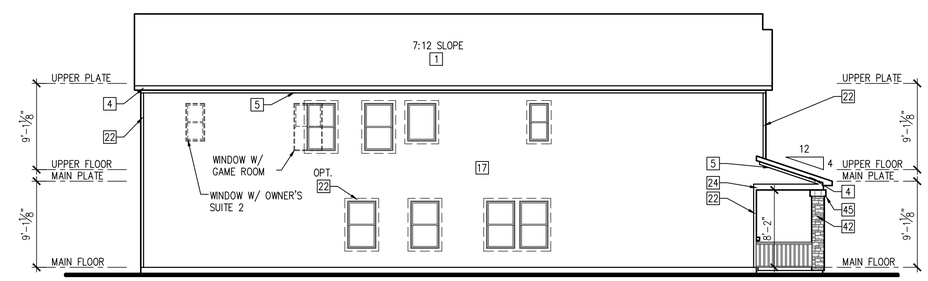
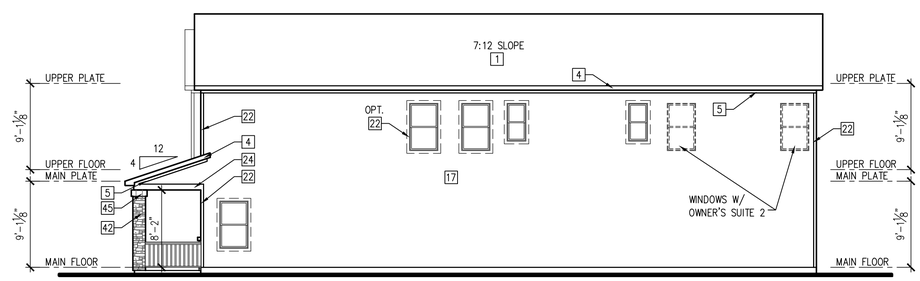


Left Elevation

0 4' 8' 16'



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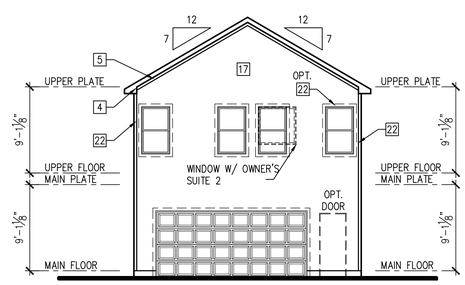

Rear Elevation

0 4' 8' 16'

Elevation E

6

NOTE:
DOUBLE UNDERLAYMENT ON ALL ROOFS WITH A PITCH LESS THAN 4:12 USE CORROSION RESISTANT FLASHING AT ALL ROOF TO WALL INTERSECTIONS

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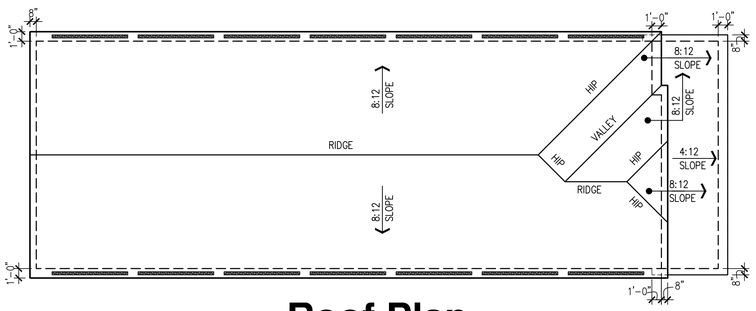
ELEVATION E
EXTERIOR ELEVATIONS & ROOF PLAN

2511

A3.1E



Roof Plan

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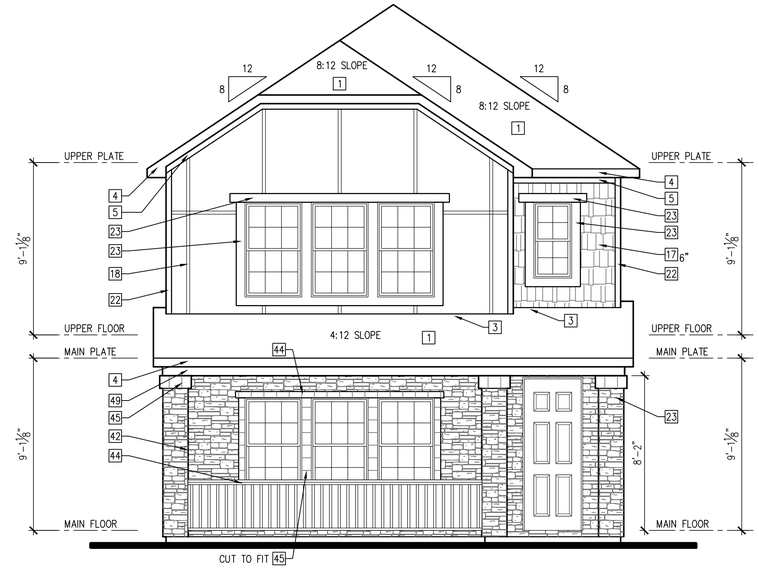

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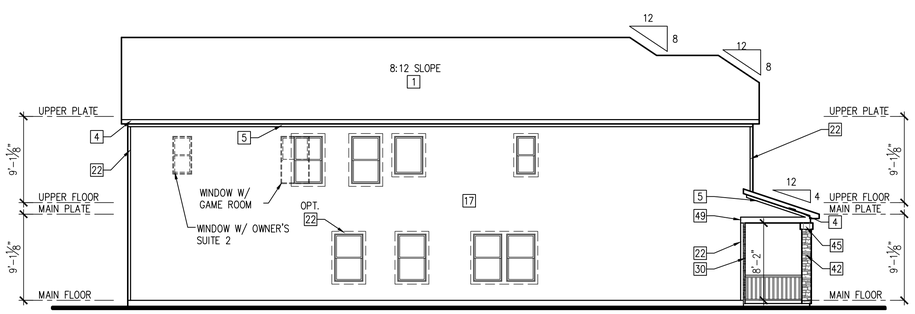
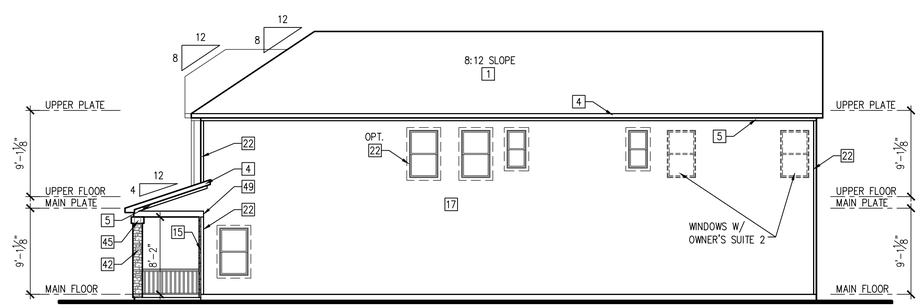


Left Elevation

0 4' 8' 16'



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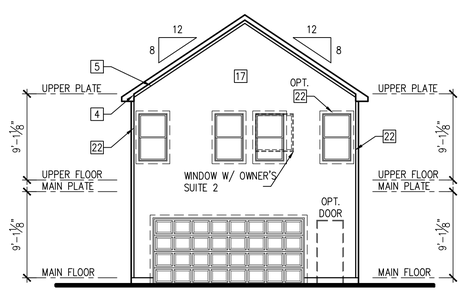

Rear Elevation

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Elevation F

6

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ELEVATION F
EXTERIOR ELEVATIONS & ROOF PLAN

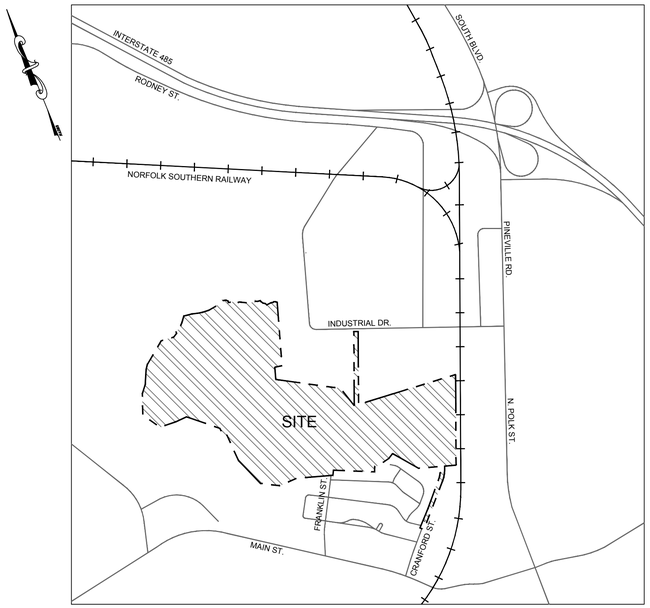
2511

A3.1F

CRANFORD DRIVE RESIDENTIAL

CONDITIONAL SITE PLAN

PINEVILLE, NORTH CAROLINA



VICINITY MAP

SCALE: 1" = 1,000'

Sheet List Table	
Sheet Number	**Sheet Title**
C-000	COVER
C-100	CONDITIONAL SITE PLAN OVERALL
C-101	SITE NOTES AND DETAILS
C-102	BUFFER EXHIBIT
C-103	BUFFER AND LANDSCAPING DETAILS
C-104	FIRE TRUCK TURNING MOVEMENTS

THIS DRAWING PREPARED AT THE
CHARLOTTE OFFICE
610 East Morehead Street, Suite 250 | Charlotte, NC 28202
TEL 704.376.1073 FAX 704.376.1076 www.timmons.com

OLD EAST VENTURES, LLC
1763 WESTOVER AVENUE NE,
ATLANTA, GA 30306

DATE	REVISION DESCRIPTION
04/04/2018	REVISED PER TOWN OF PINEVILLE COMMENTS

DATE 02/08/2018
DRAWN BY A. DALE
DESIGNED BY J. HORTON
CHECKED BY J. HORTON
SCALE AS SHOWN

TIMMONS GROUP YOUR VISION ACHIEVED THROUGH OURS.
NORTH CAROLINA LICENSE NO. C-1652

CRANFORD DRIVE RESIDENTIAL
PINEVILLE, NORTH CAROLINA
COVER

JOB NO. 39915
SHEET NO. C-000

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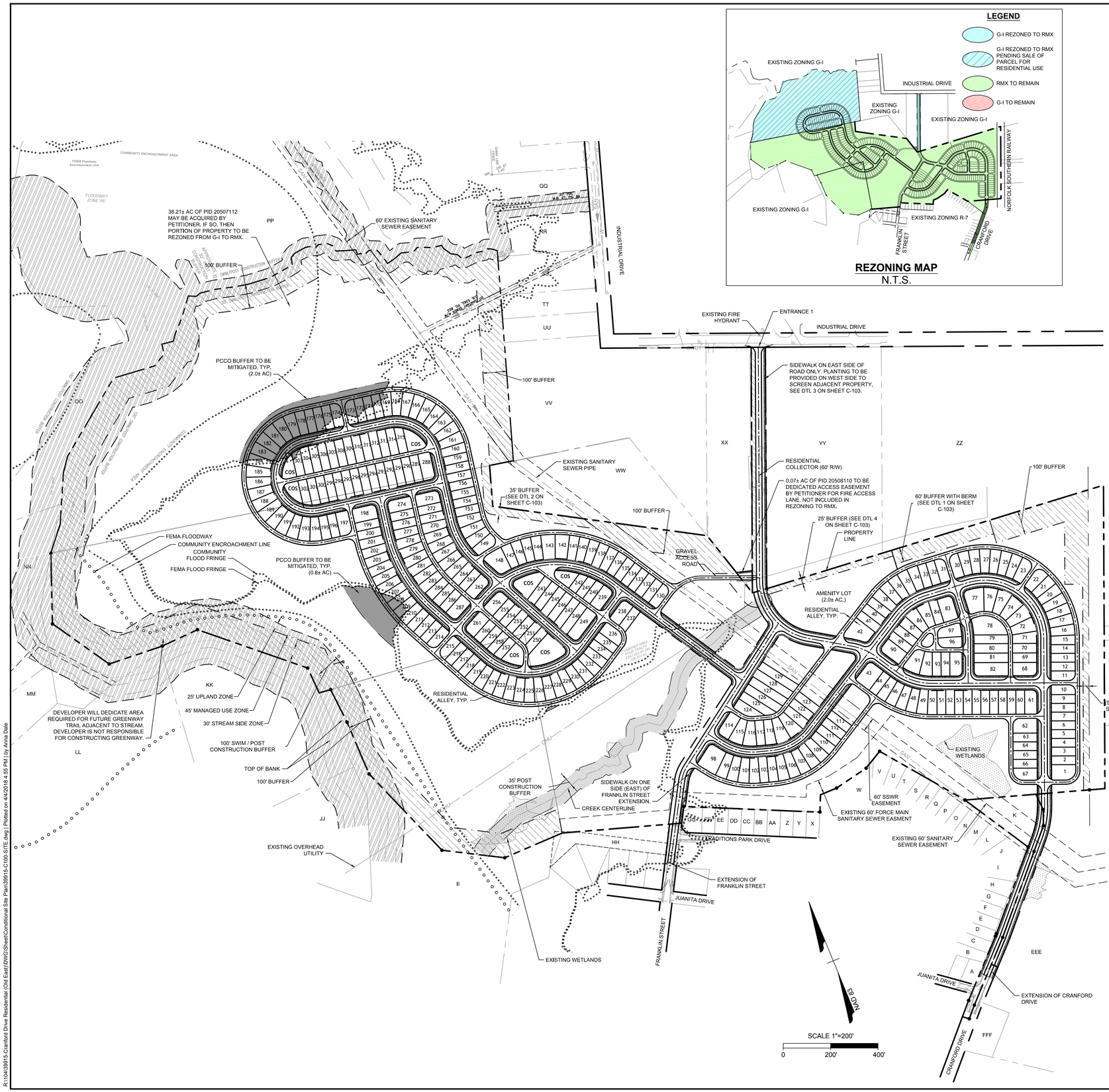
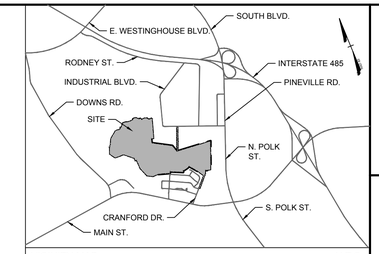
R:\104\39915-Cranford Drive Residential (Old East)\DWG\Sheet\Conditional Site Plan\39915-C100-SITE.dwg | Plotted on 4/4/2018 4:55 PM | by Anna Dale



REZONING MAP
N.T.S.



VICINITY MAP N.T.S.

LEGEND:
- LANDSCAPING BUFFER
- SWIM BUFFER
- PCCO BUFFER

SITE DATA:

PARCEL NUMBERS: 20502118, 20502387, 20508102, 20508109, PORTION OF 20508110, PORTION OF 20507112

JURISDICTION: PINEVILLE, NC

TOTAL SITE ACREAGE: 143.51± AC

EXISTING ZONING: RMX, G-I

PROPOSED ZONING: RMX, G-I

PROPOSED BUFFER MITIGATION: 2.8± AC

MAXIMUM PROPOSED IMPERVIOUS: 24%

SEE STREET TYPE MAP ON C-101.

SEE SITE DEVELOPMENT NOTES ON C-101.

ADJACENT PROPERTY OWNERS

LOT	PARCEL NUMBER	PROPERTY OWNER	PROPERTY OWNER ADDRESS	ZONING
A	20502599	DONALD E. GUNDERSON & RANDEE J. GUBDERSON	241 JUANITA DR, PINEVILLE, NC 28134	R-7
B	20502566	DULIO JAUREGUI ARONES & ANA PALOMINO	314 MARIE WAY, PINEVILLE, NC 28134	R-7
C	20502565	HARIHAR N. PATEL & KUNDEN H. PATEL	318 MARIE WAY, PINEVILLE, NC 28134	R-7
D	20502564	TRISTAN M. MCMANNIS & DANA M. MCMANNIS	322 MARIE WAY, PINEVILLE, NC 28134	R-7
E	20502563	MOHAMMED LATEEFUDDIN & DENISE P. LATEEFUDDIN	3821 CORNERWOOD LN, CHARLOTTE, NC 28211	R-7
F	20502562	HEATHER L. TUTWILER	330 MARIE WAY, PINEVILLE, NC 28134	R-7
G	20502561	HI XUONG LAM	334 MARIE WAY, PINEVILLE, NC 28134	R-7
H	20502560	JOSE L. DELEON	338 MARIE WAY, PINEVILLE, NC 28134	R-7
I	20502559	JOSEPH YARBER & SUSAN PERRY YARBAR	342 MARIE WAY, PINEVILLE, NC 28134	R-7
J	20502558	JULIO LINARES & MERCEDES Y. LINARES	346 MARIE WAY, PINEVILLE, NC 28134	R-7
K	20502387	JOHN S. MILLER FAMILY LP	202 SUNSET DR, RICHMOND, VA 23229	RMX
L	20502557	PAUL E. GRESHAM	400 MARIE WAY, PINEVILLE, NC 28134	R-7
M	20502556	ANGEL R. RODRIGUEZ & JULIE M. RODRIGUEZ	404 MARIE WAY, PINEVILLE, NC 28134	R-7
N	20502555	SYLVIA LILLIA CARO	408 MARIE WAY, PINEVILLE, NC 28134	R-7
O	20502554	CHATCHAI TAOSUWAN & FELICITAS TAOSUWAN	412 MARIE WAY, PINEVILLE, NC 28134	R-7
P	20502553	CHARLES EDWARD JR. WALSH & LISA SKIVER WALSH	416 MARIE WAY, PINEVILLE, NC 28134	R-7
Q	20502552	SHERRY BAHRAINI	420 MARIE WAY, PINEVILLE, NC 28134	R-7
R	20502551	BRIAN W. LONG	424 MARIE WAY, PINEVILLE, NC 28134	R-7
S	20502550	CARLES A. JR. HALL & PARRIS HALL	824 MARIE WAY, PINEVILLE, NC 28134	R-7
T	20502549	JOYCE D. COLES	432 MARIE WAY, PINEVILLE, NC 28134	R-7
U	20502548	JESSICA REED	436 MARIE WAY, PINEVILLE, NC 28134	R-7
V	20502547	KEVEN CHE ADAMS & ELIZABETH INGLES ADAMS	440 MARIE WAY, PINEVILLE, NC 28134	R-7
W	20502546	ASSOCIATION INC. TRADITIONS IN PINEVILLE HOMEOWNERS	PO BOX 553, PINEVILLE, NC 28134	R-7
X	20502545	NATAN FELDMAN & TERESA HICKS FELDMAN	991 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
Y	20502544	JEAN L. TILLY & LESLIE T. WRIGHT	907 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
Z	20502543	DONALD DALE DEACON & MARY SIERER DEACON	903 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
AA	20502542	BOBBY E. REYNOLDS & BETTY REYNOLDS	829 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
BB	20502541	MELISSA M. OVERTON	825 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
CC	20502540	MARK R. MATTHEWS & BARBARA MATTHEWS	821 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
DD	20502539	KAREN M. LOMAS	817 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
EE	20502538	CARLOS I. ZELEYA & WENDY A. ARIETA-ZELEYA	813 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
FF	20502537	RYAN EMORY MARSHBURN	809 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
GG	20502536	SHAUN KNEHER	803 TRADITIONS PARK DR, PINEVILLE, NC 28134	R-7
HH	20502117	JOHN STEPHEN JR. MILLER & REBECCA B. MILLER	202 SUNSET DR, RICHMOND, VA 23229	R-12
II	20502101	COOGAN HOLDINGS LLC	800 MAIN ST, PINEVILLE, NC 28134	RMX
JJ	20503214	DEPARTMENT OF TRANSPORTATION	206 CHARTER ST, ALBEMARLE, NC 28001	G-I
KK	20503212	ROBERT E. LANIER	PO BOX 1028, PINEVILLE, NC 28134	G-I
LL	20503201	KLEVER SANTOS & FRANCISCA TULMIRA SANTOS	1422 LARKFIELD LN, PINEVILLE, NC 28210	G-I
MM	20503203	SUN HEE KIM	5722 RANDOLPH RD, CHARLOTTE, NC 28270	G-I
NN	20519108	KENNETH C. HAMMOND & DENISE H. HAMMOND	16202 MARVIN RD, CHARLOTTE, NC 28277	G-I
OO	20519103	MECKLENBURG COUNTY	600 E. 4TH ST, 11TH FLOOR, CHARLOTTE, NC 28202	G-I
PP	20507112	LAKEMONT PROPERTY INVESTORS	521 EAST MOREHEAD ST, STE 400, CHARLOTTE, NC 28202	G-I
QQ	20509426	LAKEMONT PROPERTY INVESTORS	521 EAST MOREHEAD ST, STE 400, CHARLOTTE, NC 28202	G-I
RR	20509401	JGI OF NC, INC.	6344 DOVERFILED RD, CHARLOTTE, NC 28277	G-I
SS	20509422	PAMAKA HARRIS LLC	6816 N. BALTUSROL LN, CHARLOTTE, NC 28210	G-I
TT	20509418	CHEW PROPERTIES LLC	11180 DOWNS RD, PINEVILLE, NC 28134	G-I
UU	20509420	COUZINS LLC	8500 WATERS POINT CT, CHARLOTTE, NC 28277	G-I
VV	20508113	HAROLD R/T GRIFFITHS	2717 NIAGARA LN # N, MINNEAPOLIS, MN 55447	G-I
WW	20508117	HAROLD F REV/TRUST GRIFFITHS	2717 NIAGARA LN N, PLYMOUTH, MN 55447	G-I
XX	20508110	DELLINGER INVESTMENTS LLC	10256 INDUSTRIAL DR, PINEVILLE, NC 28134	G-I
YY	20508107	10306 INDUSTRIAL LLC	PO BOX 241689, CHARLOTTE, NC 28224	G-I
ZZ	20508116	ESSENTRA PACKAGING US INC	10500 INDUSTRIAL DR, PINEVILLE, NC 28134	G-I
AAA	20508105	HARSH INVESTORS LLC	8703 KENTUCKY DERBY DR, WAXHAW, NC 28173	B-4
BBB	20508101	SCH HOLDINGS LLC	10044 STRIKE THE GOLD LN, WAXHAW, NC 28173	B-4
CCC	20508103	MARSHALL PROPERTIES THIRTEEN LLC	PO BOX 473456, CHARLOTTE, NC 28247	B-3
DDD	20501211	MIRSA 2 LLC	3452 SHARON RD, CHARLOTTE, NC 28211	B-3
EEE	20501107	TRUSTEES OF SOUTH CONGREGATION OF JEHOVA'S WITNESSES CHARLOTTE, NC	C/O GREGORY MYERS, 12128 AUTUMN WINDS LN, PINEVILLE, NC 28134	RMX
FFF	20501108	TRUSTEES OF SOUTH CONGREGATION OF JEHOVA'S WITNESSES CHARLOTTE, NC	C/O GREGORY MYERS, 12128 AUTUMN WINDS LN, PINEVILLE, NC 28134	RMX

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OLD EAST VENTURES, LLC
1763 WEST PEACHTREE AVENUE NE,
ATLANTA, GA 30306

REVISION DESCRIPTION	DATE
REVISED PER TOWN OF PINEVILLE COMMENTS	04/04/2018

DATE	02/08/2018
DRAWN BY	A. DALE
DESIGNED BY	J. HORTON
CHECKED BY	J. HORTON
SCALE	1" = 200'

TIMMONS GROUP YOUR VISION ACHIEVED THROUGH OURS.
NORTH CAROLINA LICENSE NO. C-1652

CRANFORD DRIVE RESIDENTIAL
PINEVILLE, NORTH CAROLINA
CONDITIONAL SITE PLAN OVERALL

JOB NO. 39915
SHEET NO. C-100

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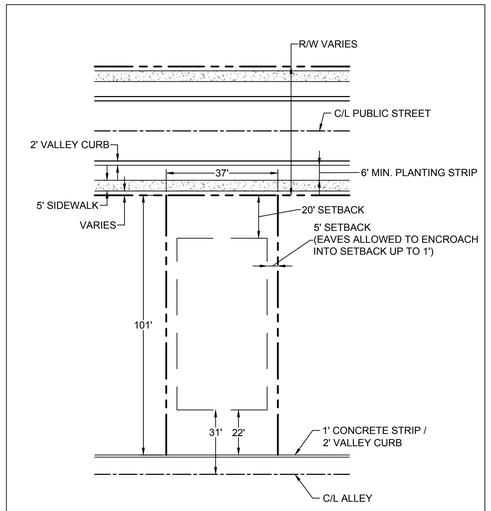
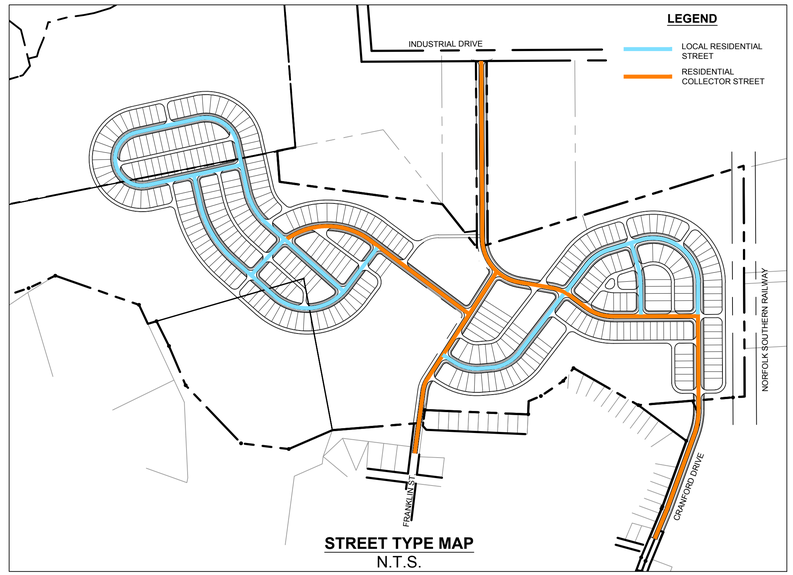
R:\104\39915 Cranford Drive Residential (Old East)\DWG\Sheet\Conditional Site Plan\39915-C100-SITE.dwg | Plotted on 4/4/2018 4:55 PM | by Anna Dale



TYPICAL LOT DIAGRAM



STREET TYPE MAP
N.T.S.

SITE DEVELOPMENT DATA:
--**ACREAGE:** ± 143.51 ACRES
--**TAX PARCEL #:** 20502118, 20502387, 20508102, 20508109, 20508110, PORTION OF 20507112
--**EXISTING ZONING:** RMX, G-I
--**EXISTING USE:** VACANT
--**PROPOSED ZONING:** RMX, G-I
--**PROPOSED USES:** SINGLE FAMILY RESIDENTIAL (MAX. 320 LOTS)
--**MINIMUM LOT SIZE:** 37' X 101' (3,737 SF)
--**PARKING:** PARKING AS REQUIRED BY THE ORDINANCE AND AS ALLOWED BY THE OPTIONAL PROVISIONS BELOW WILL BE PROVIDED. PARKING REQUIREMENTS TO BE MET BY GARAGES & PARKING PADS FOR EACH LOT. ON STREET PARKING WILL ONLY BE PROVIDED AT USPS MAIL KIOSKS. LOCATIONS TO BE DETERMINED.
--**REQUIRED OPEN SPACE:** 35.88± AC. (25%)
--**PROVIDED OPEN SPACE:** 71.76± AC. (50%)
--**REQUIRED UNDISTURBED OPEN SPACE:** 35.88± AC. (25%)
--**PROVIDED UNDISTURBED OPEN SPACE:** 35.88± AC. (25%)

1. GENERAL PROVISIONS:

a. **SITE LOCATION**. THESE DEVELOPMENT STANDARDS FORM A PART OF THE CONDITIONAL SITE PLAN ASSOCIATED WITH THE CONDITIONAL SITE PLAN FILED BY OLD EAST VENTURES, LLC ("PETITIONER") TO ACCOMMODATE THE DEVELOPMENT OF THE PROPOSED RESIDENTIAL SUBDIVISION ON APPROXIMATELY 143.51 ACRE SITE LOCATED ALONG INDUSTRIAL DRIVE (THE "SITE").

b. **ZONING DISTRICTS/ORDINANCE**. DEVELOPMENT OF THE SITE WILL BE GOVERNED BY THE CONDITIONAL SITE PLAN AS WELL AS THE APPLICABLE PROVISIONS OF THE TOWN OF PINEVILLE ZONING ORDINANCE (THE "ORDINANCE").

c. **GRAPHICS AND ALTERATIONS**. THE SCHEMATIC DEPICTIONS OF THE USES, PARKING AREAS, SIDEWALKS, STRUCTURES AND BUILDINGS, DRIVEWAYS, STREETS AND OTHER DEVELOPMENT MATTERS AND SITE ELEMENTS (COLLECTIVELY THE "DEVELOPMENT/SITE ELEMENTS") SET FORTH ON THE CONDITIONAL SITE PLAN SHOULD BE REVIEWED IN CONJUNCTION WITH THE PROVISIONS OF THESE DEVELOPMENT STANDARDS. THE LAYOUT, LOCATIONS, SIZES AND FORMULATIONS OF THE DEVELOPMENT/SITE ELEMENTS DEPICTED ON THE CONDITIONAL SITE PLAN ARE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT/SITE ELEMENTS PROPOSED. CHANGES TO THE CONDITIONAL SITE PLAN NOT ANTICIPATED BY THE CONDITIONAL SITE PLAN WILL BE REVIEWED AND APPROVED.

SINCE THE PROJECT HAS NOT UNDERGONE THE DESIGN DEVELOPMENT AND CONSTRUCTION PHASES, IT IS INTENDED THAT THIS CONDITIONAL SITE PLAN PROVIDE FOR FLEXIBILITY IN ALLOWING SOME ALTERATIONS OR MODIFICATIONS FROM THE GRAPHIC REPRESENTATIONS OF THE DEVELOPMENT/SITE ELEMENTS. THEREFORE, THERE MAY BE INSTANCES WHERE MINOR MODIFICATIONS WILL BE ALLOWED WITHOUT REQUIRING THE ADMINISTRATIVE AMENDMENT PROCESS.

THE PLANNING DIRECTOR WILL DETERMINE IF SUCH MINOR MODIFICATIONS ARE ALLOWED PER THIS AMENDED PROCESS, AND IF IT IS DETERMINED THAT THE ALTERATION DOES NOT MEET THE CRITERIA DESCRIBED ABOVE, THE PETITIONER SHALL THEN FOLLOW THE ADMINISTRATIVE AMENDMENT PROCESS.

d. **NUMBER OF BUILDINGS PRINCIPAL AND ACCESSORY**. THE TOTAL NUMBER OF PRINCIPAL BUILDINGS TO BE DEVELOPED ON THE SITE SHALL NOT EXCEED 320. ACCESSORY BUILDINGS AND STRUCTURES LOCATED ON THE SITE SHALL NOT BE CONSIDERED IN ANY LIMITATION ON THE NUMBER OF BUILDINGS ON THE SITE. ACCESSORY BUILDINGS AND STRUCTURES WILL BE CONSTRUCTED UTILIZING SIMILAR BUILDING MATERIALS, COLORS, ARCHITECTURAL ELEMENTS AND DESIGNS AS THE PRINCIPAL BUILDING LOCATED ON THE SITE. ACCESSORY STRUCTURES AND BUILDINGS INCLUDE STRUCTURES AND BUILDINGS SUCH AS BUT NOT LIMITED TO; A MAIL KIOSK, DUMPSTER ENCLOSURES, GAZEBOS, TRELLISES, STORAGE BUILDINGS.

2. PERMITTED USES & DEVELOPMENT AREA LIMITATION:

a. THE SITE MAY BE DEVELOPED WITH UP TO 320 SINGLE FAMILY DETACHED LOTS, TOGETHER WITH ACCESSORY USES ALLOWED IN THE RMX ZONING DISTRICT.

3. ACCESS AND TRANSPORTATION:

a. ACCESS TO THE SITE WILL BE FROM INDUSTRIAL DRIVE, CRANFORD DRIVE, AND FRANKLIN STREET IN THE MANNER GENERALLY DEPICTED ON THE CONDITIONAL SITE PLAN.
b. THE PETITIONER WILL PROVIDE A SIX (6) FOOT PLANTING STRIP AND A FIVE (5) FOOT SIDEWALK ALONG THE PROPOSED STREETS AS GENERALLY DEPICTED ON THE CONDITIONAL SITE PLAN.
c. THE PLACEMENT AND CONFIGURATION OF THE VEHICULAR ACCESS POINT IS SUBJECT TO ANY MINOR MODIFICATIONS REQUIRED TO ACCOMMODATE FINAL SITE DEVELOPMENT AND CONSTRUCTION PLANS AND TO ANY ADJUSTMENTS REQUIRED FOR APPROVAL BY NCDOT & PINEVILLE IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS.
d. THE ALIGNMENT OF THE INTERNAL VEHICULAR CIRCULATION AND DRIVEWAYS MAY BE MODIFIED BY THE PETITIONER TO ACCOMMODATE CHANGES IN TRAFFIC PATTERNS, PARKING LAYOUTS AND ANY ADJUSTMENTS REQUIRED FOR APPROVAL BY TOWN OF PINEVILLE IN ACCORDANCE WITH PUBLISHED STANDARDS.
e. THERE ARE NO ROAD IMPROVEMENTS RECOMMENDED PER THE TIA DATED JANUARY 25, 2018.
f. DEVELOPER WILL CONTRIBUTE $25,000 TO TOWN OF PINEVILLE TO BE APPLIED TO THE "QUIET NEIGHBORHOOD" INITIATIVE.
g. RESIDENTIAL COLLECTOR STREETS AND RESIDENTIAL LOCAL STREETS ARE NOTED ON THE PLAN.
h. ALLEYS MAY BE PUBLIC OR PRIVATE AND WILL BE DETERMINED DURING THE CONSTRUCTION DRAWING PHASE.

4. STREETSCAPE, BUFFERS, YARDS, LANDSCAPING AND STREET NAMES:

a. WHERE SIDEWALK IS NOT PROPOSED ALONG ENTRANCE 1, BUFFER PLANTING SHALL BE PROVIDED. BUFFER PLANTING TO BE DETERMINED DURING THE CONSTRUCTION DRAWING PHASE.
b. SIDEWALK ALONG THE FRANKLIN STREET EXTENSION IS PROPOSED ON ONE SIDE (EAST) ONLY ALONG THE EXISTING STREAM.
c. ABOVE GROUND BACKFLOW PREVENTERS WILL BE SCREENED FROM PUBLIC VIEW AND WILL BE LOCATED BEHIND THE RIGHT-OF-WAY OF THE PROPOSED INDUSTRIAL STREET, BUT MAY BE LOCATED WITHIN THE SETBACK BEHIND THE PROPOSED SIDEWALK.

5. ENVIRONMENTAL FEATURES:

a. THE PETITIONER SHALL COMPLY WITH THE TOWN OF PINEVILLE APPROVED AND ADOPTED POST CONSTRUCTION CONTROLS ORDINANCE.
b. THE SITE IS PLANNED FOR LESS THAN 24% IMPERVIOUS. STORM WATER MANAGEMENT SYSTEMS ARE NOT PROPOSED AT THIS TIME. STORM WATER MANAGEMENT WILL BE REQUIRED IF FINAL IMPERVIOUS AREA IS GREATER THAN 24% OF THE TOTAL SITE AREA.

6. SIGNAGE:

a. AS ALLOWED BY THE RMX ZONING DISTRICTS.

7. AMENDMENTS TO THE CONDITIONAL SITE PLAN PLAN:

a. FUTURE AMENDMENTS TO THE CONDITIONAL SITE PLAN (WHICH INCLUDES THESE DEVELOPMENT STANDARDS) MAY BE APPLIED FOR BY THE THEN OWNER OR OWNERS OF THE APPLICABLE DEVELOPMENT AREA PORTION OF THE SITE AFFECTED BY SUCH AMENDMENT.

8. BINDING EFFECT OF THE CONDITIONAL SITE PLAN:

a. IF THIS CONDITIONAL SITE PLAN IS APPROVED, ALL CONDITIONS APPLICABLE TO THE DEVELOPMENT OF THE SITE IMPOSED UNDER THE CONDITIONAL SITE PLAN WILL, UNLESS AMENDED IN THE MANNER PROVIDED UNDER THE ORDINANCE, BE BINDING UPON AND INURE TO THE BENEFIT OF THE PETITIONER AND SUBSEQUENT OWNERS OF THE SITE AND THEIR RESPECTIVE HEIRS, DEVISEES, PERSONAL REPRESENTATIVES, SUCCESSORS IN INTEREST OR ASSIGNS.

WATER QUALITY BUFFER MITIGATION NOTES:

1. APPROXIMATELY 2.8 ACRES OF PCCO BUFFER TO BE DISTURBED FOR DEVELOPMENT.

2. MITIGATION OF BUFFER DISTURBANCE TO BE PER SECTION 6.1.1 OF CHARLOTTE WATER QUALITY BUFFER IMPLEMENTATION GUIDELINES:

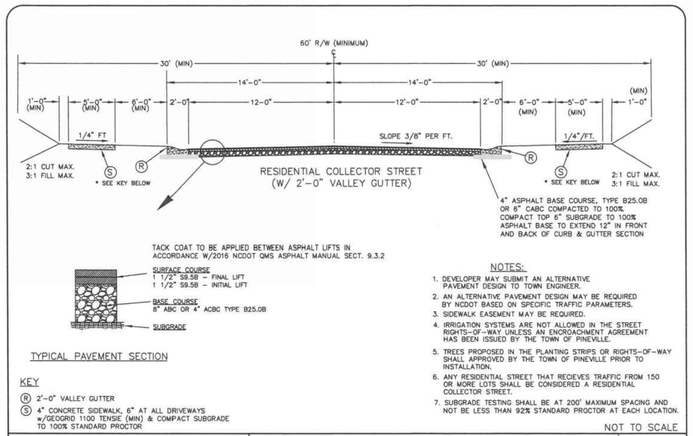
LEVEL 1 REVEGETATION ALLOWS FOR DENSER PLANTING OF SMALLER TREES ON LARGER SITES. AS SUMMARIZED IN TABLE 3 ABOVE, LEVEL 1 REVEGETATION IS ALLOWED FOR ALL VOLUNTARY BUFFER REVEGETATION AND FOR REVEGETATION ASSOCIATED WITH AUTHORIZED DISTURBANCES OF S.W.I.M. AND POST-CONSTRUCTION BUFFERS PROVIDED THE DISTURBED AREA IS GREATER THAN 10,000 SQUARE FEET. LEVEL 1 REVEGETATION IS NOT ALLOWED FOR REVEGETATION ASSOCIATED WITH ILLEGAL BUFFER DISTANCES AND AUTHORIZED DISTURBANCES OF WATER QUALITY WATERSHED, GOOSE AND SIX MILE BUFFERS. THE FOLLOWING CRITERIA APPLY TO A LEVEL 1 REVEGETATION.

1. TREE REQUIREMENTS:
   - 10 TREES MUST BE PLANTED FOR EVERY 1,000 SQUARE FEET (100 SQUARE FEET PER TREE OR 436 TREES PER ACRE)
   - TREES MAY BE LIVE STAKES OR DORMANT CUTTINGS FROM THE PREVIOUS SEASON'S GROWTH. LIVE STAKES MUST BE A MINIMUM OF 3/4 INCH IN DIAMETER AND 3 FEET LONG. DORMANT CUTTINGS MUST BE A MINIMUM OF 1/2 INCH IN DIAMETER AND 2 FEET LONG.
   - 40% TO 60% OF THE TREES MUST BE UNDERSTORY SPECIES.
   - NO GREATER THAN 10% OF THE TREES CAN BE PINES.

2. SHRUB REQUIREMENTS:
   - 20% OF THE AREA TO BE REVEGETATED CAN BE PLANTED IN SHRUBS INSTEAD OF TREES AT A DENSITY OF 30 SHRUBS FOR EVERY 1,000 SQUARE FEET (33 SQUARE FEET/SHRUB OR 1,307 SHRUBS PER ACRE).
   - SHRUBS MUST BE CONTAINERIZED OR BARE ROOT STOCK.
   - SHRUBS MUST BE PLANTED IN GROUPS MORE DENSELY AROUND THE OUTER EDGES OF THE BUFFER TO PREVENT LIGHT PENETRATION AND RECOLONIZATION BY INVASIVE SPECIES.

3. GROUNDCOVER REQUIREMENTS:
   - ACHIEVE 100% GROUNDCOVER OF ALL EXPOSE SOIL (NO BARE AREAS LARGER THAN ONE SQUARE FOOT) USING NATIVE SEED SPECIES, GRASS-LIKE PLANTS, AND FORBS (FROM THE APPROVED PLANT LIST IN APPENDIX 15); OR MULCH IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
   - WHEN MULCH IS USED AS THE GROUNDCOVER OPTION, IT MUST BE MAINTAINED FOR A MINIMUM OF TWO (2) YEARS AT A MINIMUM DEPTH OF TWO (2) INCHES. THE MULCH MUST BE SHREDDED OF CHIPPED WOOD OR LEAF MOULD. SAWDUST, PINE/WHEAT STRAW OR PINE BARK CANNOT BE USED.
   - MULCH MUST BE MAINTAINED AROUND THE BASES OF ALL TREES AND SHRUBS FOR A MINIMUM FIVE (5) YEARS FOLLOWING PLANTING AT A MINIMUM DEPTH OF TWO (2) INCHES. THE MULCH MUST BE SHREDDED OR CHIPPED WOOD OR LEAF MOULD. SAWDUST, PINE/WHEAT STRAW AND PINE BARK CANNOT BE USED.

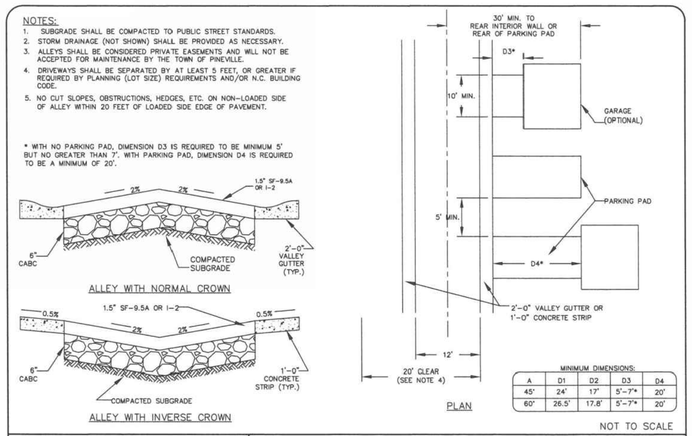
4. ADDITIONAL REQUIREMENTS:
   - ALL TREES AND SHRUBS MUST BE MAINTAINED IN PERPETUITY AND REPLACED AS NECESSARY TO ENSURE THAT THE ORIGINAL PLANTING DENSITY IS MAINTAINED.
   - THE USE OF TREE SHELTERS IS STRONGLY RECOMMENDED TO PROTECT AGAINST DEER GRAZING AND MOWER DAMAGE.
   - EROSION WITHIN THE BUFFER IS STRICTLY PROHIBITED. IF MULCH IS NOT SUFFICIENT TO PREVENT EROSION, A VEGETATIVE GROUND COVER IS REQUIRED.



NOTES:
1. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN TO TOWN ENGINEER.
2. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY NCDOT BASED ON SPECIFIC TRAFFIC PARAMETERS.
3. SIDEWALK EASEMENT MAY BE REQUIRED.
4. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF PINEVILLE.
5. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL APPROVED BY THE TOWN OF PINEVILLE PRIOR TO INSTALLATION.
6. ANY RESIDENTIAL STREET THAT RECIEVES TRAFFIC FROM 150 OR MORE LOTS SHALL BE CONSIDERED A RESIDENTIAL COLLECTOR STREET.
7. SUBGRADE TESTING SHALL BE AT 200' MAXIMUM SPACING AND NOT BE LESS THAN 92% STANDARD PROCTOR AT EACH LOCATION.

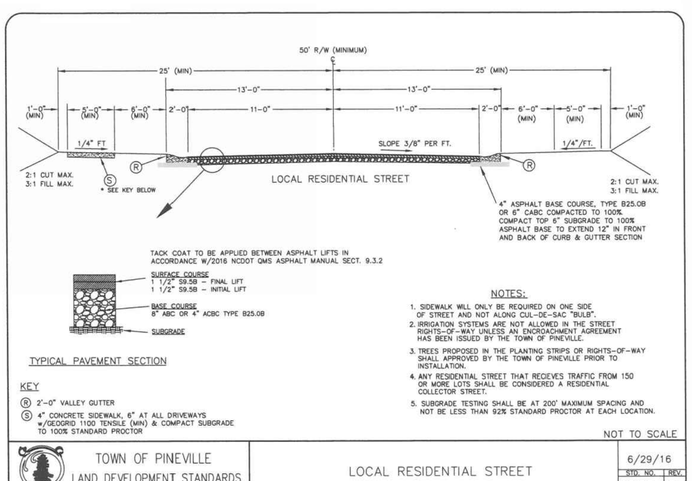
NOT TO SCALE

TOWN OF PINEVILLE LAND DEVELOPMENT STANDARDS	RESIDENTIAL COLLECTOR STREET	6/29/16	STD. NO. 10.07	REV. 2



NOT TO SCALE

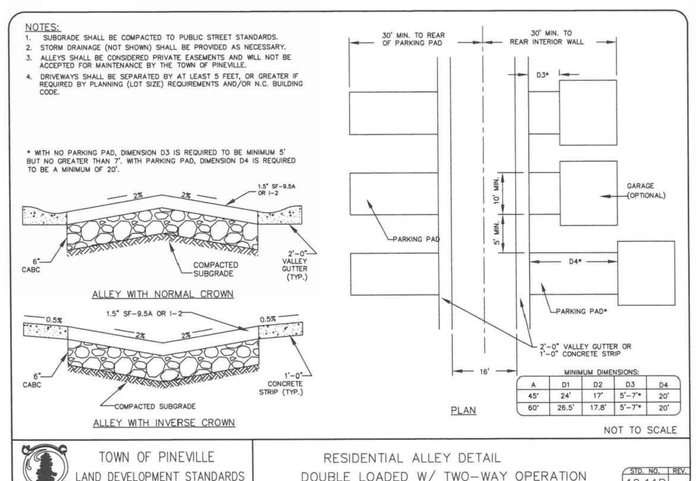
TOWN OF PINEVILLE LAND DEVELOPMENT STANDARDS	RESIDENTIAL ALLEY DETAIL SINGLE LOADED W/ TWO-WAY OPERATION	STD. NO. 10.11C	REV.



NOTES:
1. SIDEWALK WILL ONLY BE REQUIRED ON ONE SIDE OF STREET AND NOT ALONG CUL-DE-SAC "BULB".
2. IRRIGATION SYSTEMS ARE NOT ALLOWED IN THE STREET RIGHTS-OF-WAY UNLESS AN ENCROACHMENT AGREEMENT HAS BEEN ISSUED BY THE TOWN OF PINEVILLE.
3. TREES PROPOSED IN THE PLANTING STRIPS OR RIGHTS-OF-WAY SHALL APPROVED BY THE TOWN OF PINEVILLE PRIOR TO INSTALLATION.
4. ANY RESIDENTIAL STREET THAT RECIEVES TRAFFIC FROM 150 OR MORE LOTS SHALL BE CONSIDERED A RESIDENTIAL COLLECTOR STREET.
5. SUBGRADE TESTING SHALL BE AT 200' MAXIMUM SPACING AND NOT BE LESS THAN 92% STANDARD PROCTOR AT EACH LOCATION.

NOT TO SCALE

TOWN OF PINEVILLE LAND DEVELOPMENT STANDARDS	LOCAL RESIDENTIAL STREET	6/29/16	STD. NO. 10.06	REV. 2



NOT TO SCALE

TOWN OF PINEVILLE LAND DEVELOPMENT STANDARDS	RESIDENTIAL ALLEY DETAIL DOUBLE LOADED W/ TWO-WAY OPERATION	STD. NO. 10.11B	REV.

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OLD EAST VENTURES, LLC
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ATLANTA, GA 30306

REVISION DESCRIPTION	DATE
REVISED PER TOWN OF PINEVILLE COMMENTS	04/04/2018

DATE	02/08/2018
DRAWN BY	A. DALE
DESIGNED BY	J. HORTON
CHECKED BY	J. HORTON
SCALE	NO SCALE

TIMMONS GROUP .
YOUR VISION ACHIEVED THROUGH OURS.
NORTH CAROLINA LICENSE NO. C-1652

CRANFORD DRIVE RESIDENTIAL
PINEVILLE, NORTH CAROLINA
SITE NOTES AND DETAILS

JOB NO.	SHEET NO.
39915	C-101

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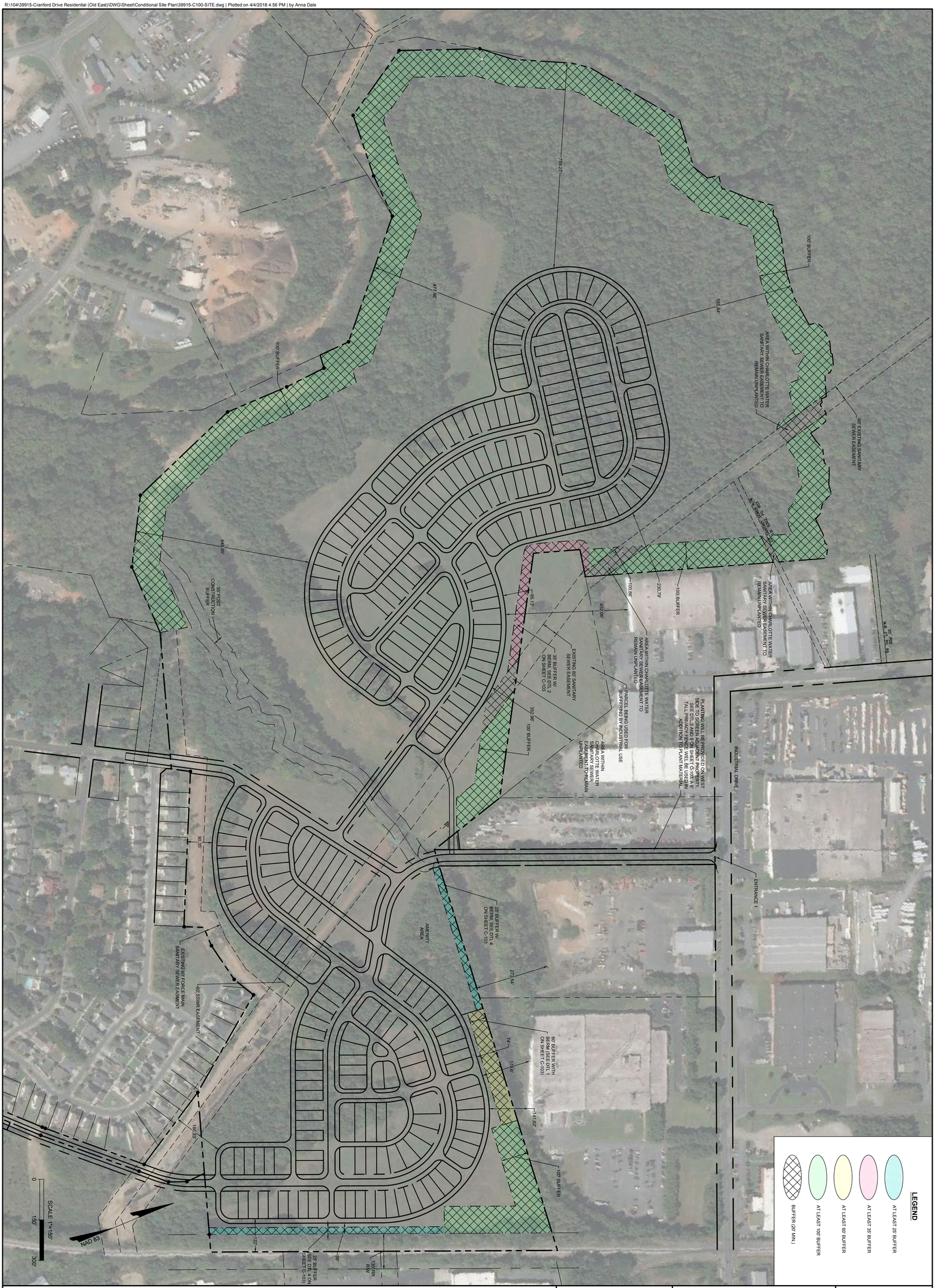

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CRANFORD DRIVE RESIDENTIAL

PINEVILLE, NORTH CAROLINA

BUFFER EXHIBIT

SHEET NO.	JOB NO.	SCALE	CHECKED BY	DESIGNED BY	DRAWN BY	DATE
C-102	39915	1" = 40'	J. HORTON	J. HORTON	A. DALE	02/08/2018

DATE	REVISION DESCRIPTION
04/04/2018	REVISED PER TOWN OF PINEVILLE COMMENTS

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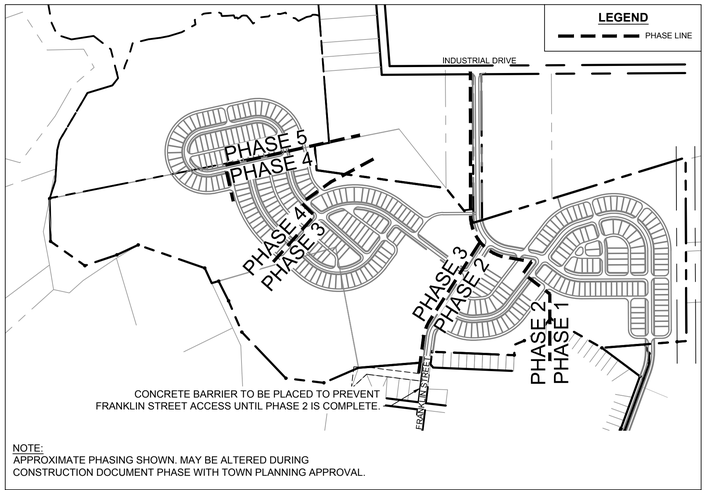
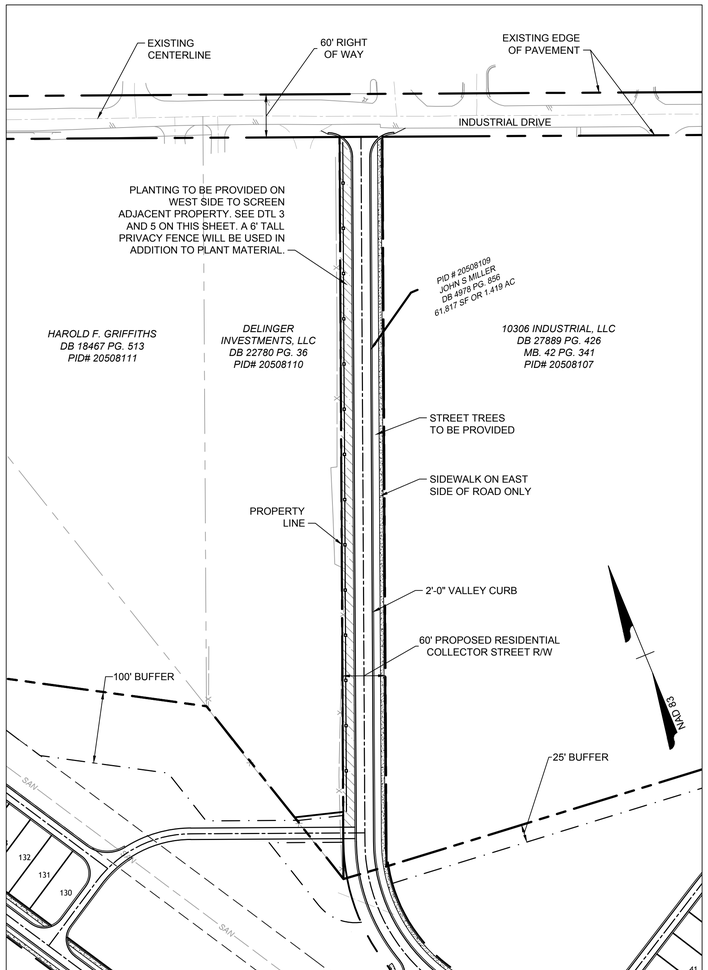


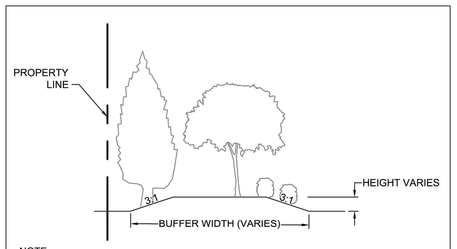
NOTE:
APPROXIMATE PHASING SHOWN. MAY BE ALTERED DURING CONSTRUCTION DOCUMENT PHASE WITH TOWN PLANNING APPROVAL.

PHASING MAP SCALE: 1" = 500'



ENTRANCE 1 - LANDSCAPE AREA SCALE: 1" = 100'

BUFFER NOTE:
PROPOSED BUFFER TO BE USED WHEN EXISTING VEGETATION DOES NOT MEET TOWN'S REQUIREMENTS. TREE QUANTITY AND SPECIES MAY BE ALTERED DURING CONSTRUCTION DOCUMENTS WITH TOWN PLANNING APPROVAL.

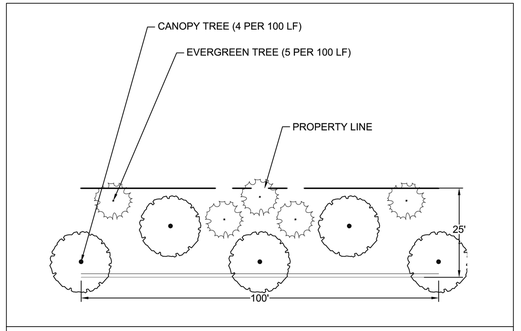


NOTE:
THIS CROSS SECTION ONLY APPLIES TO DETAILS 2 AND 4 ON THIS SHEET

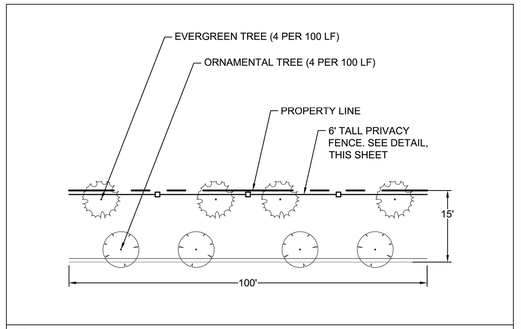
TYPICAL BUFFER CROSS SECTION WITH BERM

NOTE:
CONCEPTUAL EXAMPLE. MAY BE ALTERED DURING CONSTRUCTION DOCUMENT PHASE. REQUIRES APPROVAL FROM TOWN PLANNING.

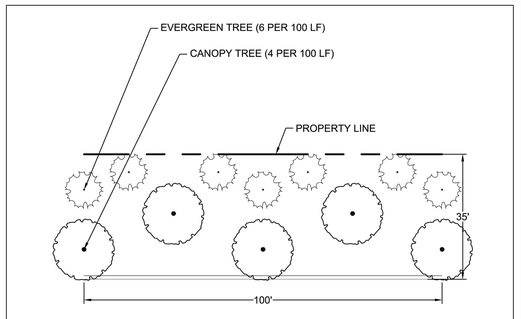
⑤ 6' TALL PRIVACY FENCE



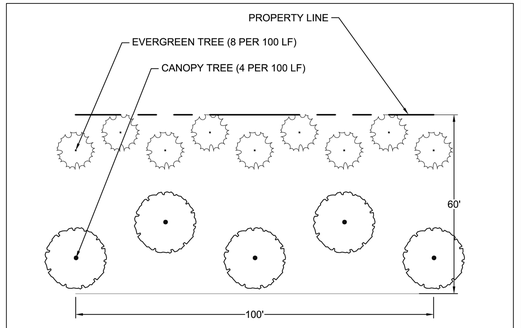
④ 25' WIDE LANDSCAPE BUFFER TYPICAL 100' LENGTH



③ 15' MIN. WIDE LANDSCAPE BUFFER TYPICAL 100' LENGTH WITH PRIVACY FENCE



② 35' WIDE LANDSCAPE BUFFER TYPICAL 100' LENGTH



① 60' & 100' WIDE LANDSCAPE BUFFER TYPICAL 100' LENGTH

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04/04/2018	REVISED PER TOWN OF PINEVILLE COMMENTS

DATE	02/08/2018
DRAWN BY	A. DALE
DESIGNED BY	J. HORTON
CHECKED BY	J. HORTON
SCALE	1" = 40'

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CRANFORD DRIVE RESIDENTIAL
PINEVILLE, NORTH CAROLINA
BUFFER AND LANDSCAPING DETAILS

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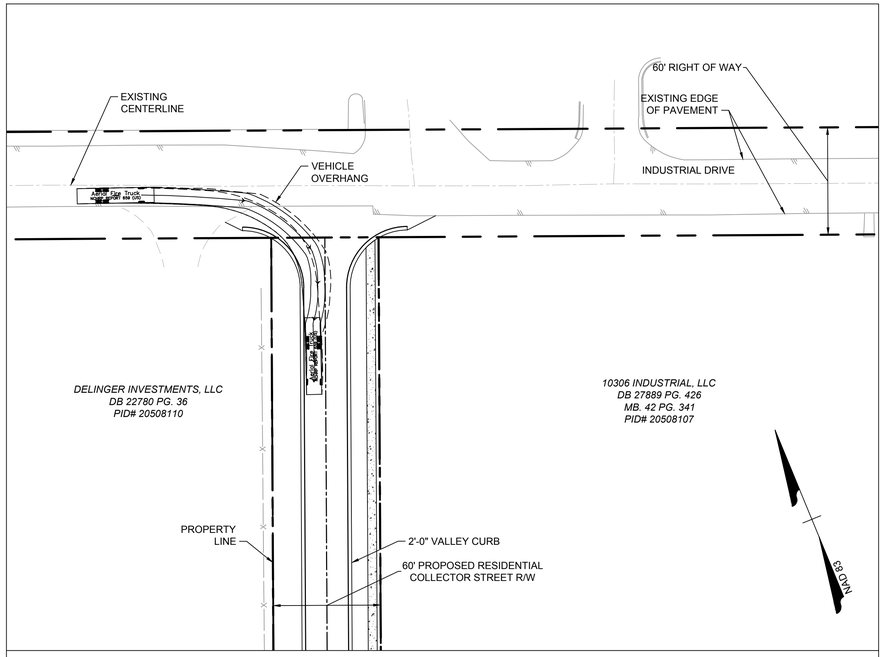

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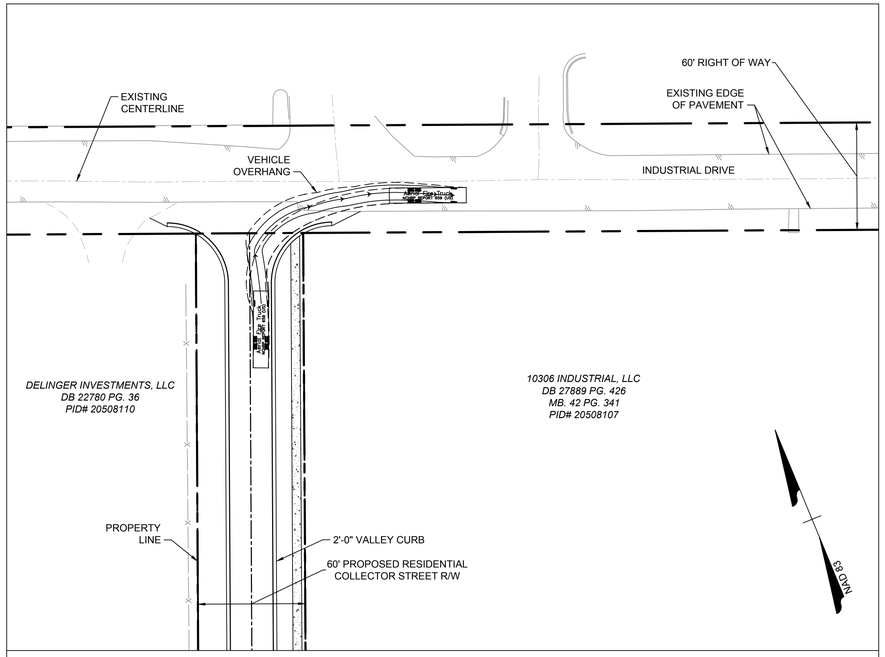

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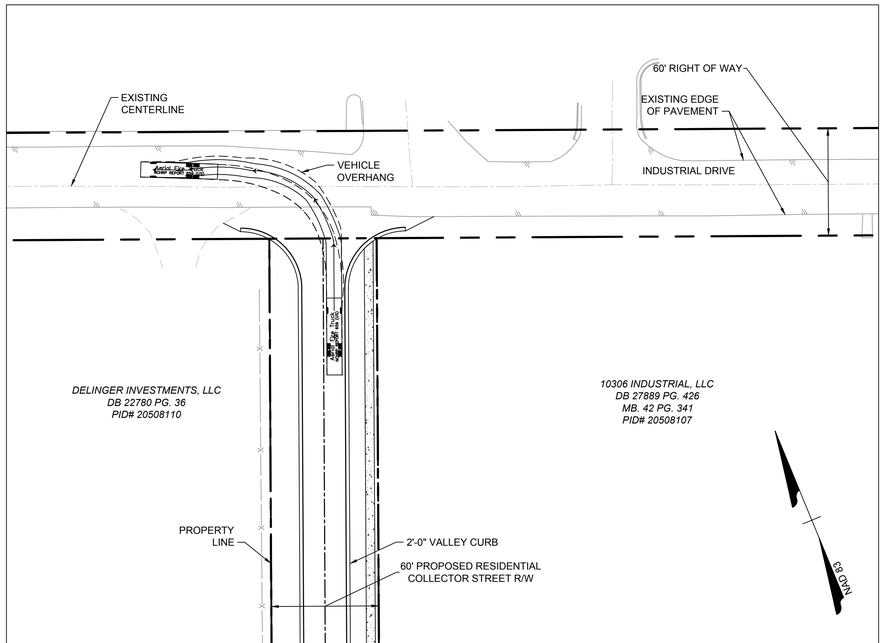

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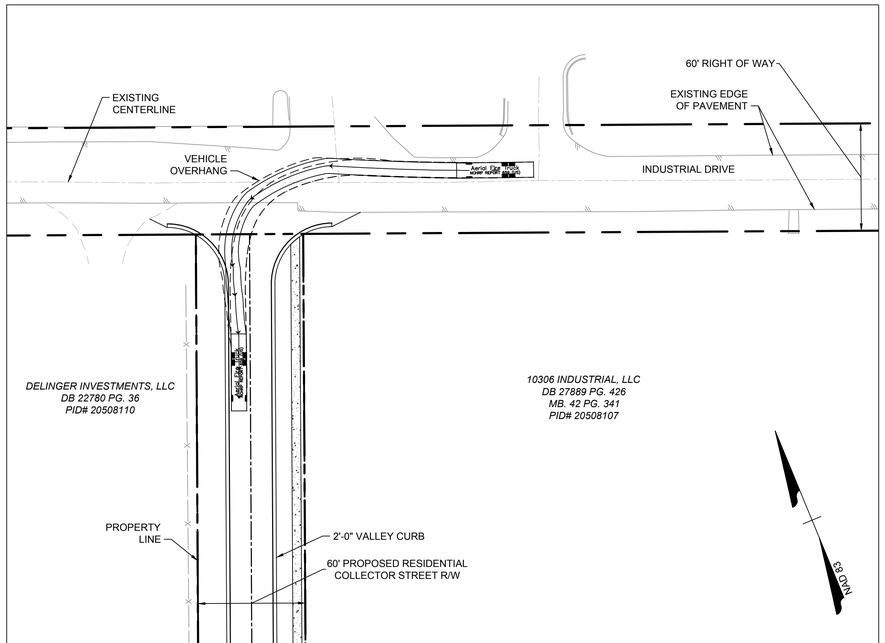

LEFT TURN INGRESS - ENTRANCE 1 SCALE: 1" = 40'

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REVISED PER TOWN OF PINEVILLE COMMENTS	04/04/2018

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CHECKED BY	J. HORTON
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PINEVILLE, NORTH CAROLINA

FIRE TRUCK TURNING MOVEMENTS

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Cranford Drive Residential Development

Traffic Impact Analysis

Pineville, North Carolina

January 25, 2018

NORTH CAROLINA PROFESSIONAL SEAL 28430 ENGINEER JEFFREY P. HOCHANADEL

1/25/18

Prepared for:

Old East Ventures, LLC

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Appendix B – Accident Data

Appendix C – Traffic Signal Plans

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1 INTRODUCTION

This report presents the findings of the traffic impact analysis for the proposed Cranford Drive Residential Development. The development will be located off Main Street, in Pineville, NC (see **Figure 1-1**) and will consist of 320 single family residential units.

Analyses were completed for the 2017 Existing traffic volumes, 2021 Background traffic volumes, and the 2021 Build traffic volumes (background + site trips). The purpose of this assessment is as follows:

1. Verify that the existing geometry provided within the study area is sufficient to accommodate the projected traffic volumes; and

2. Determine what, if any, improvements are necessary at the proposed site driveway connections to Industrial Drive and the intersections of Franklin Street / Main Street and Cranford Drive / Main Street.

The following steps were taken to determine the potential traffic impacts associated with this project:

1. Data Collection – AM (7:00 – 9:00) and PM (4:00 – 6:00) peak hour turning movement counts were collected in April 2017 at the following four (4) intersections:

   - Franklin Street / Main Street (unsignalized);
   - Cranford Drive / Main Street (unsignalized);
   - Polk Street / Main Street / Pineville-Matthews Road (signalized); and
   - Industrial Drive / Pineville Road / Polk Street (signalized).

2. Trip Generation/Future Traffic – Traffic generated by the proposed development was estimated using the 9th edition of the Institute of Transportation Engineers' *Trip Generation Manual*. Trip generation was calculated using the total number of single family residential units (320) as the independent variable, as well as the average rate (per NCDOT guidelines). Projected future traffic volumes were calculated using a 2% ambient growth rate.

3. Trip Distribution and Projections – The distribution of site-generated trips was based on the distribution of existing area traffic. It was assumed, for purposes of analysis, that projected trips would follow the same patterns as existing traffic.

4. Traffic Capacity Analysis – Level of service analyses were performed using SYNCHRO Version 9.1 (Build 912, Rev 4) for the following intersections:

   - Franklin Street / Main Street;
   - Cranford Drive / Main Street;
   - Polk Street / Main Street / Pineville-Matthews Road;
   - Site Driveway #1 / Industrial Drive; and
   - Polk Street / Pineville Road / Industrial Drive.

5. Queuing Analysis – The 95th percentile queue lengths from the capacity analyses were analyzed at the intersections listed above.

6. Review of Proposed Improvements – Roadway improvements proposed to accommodate projected site-generated traffic were evaluated.

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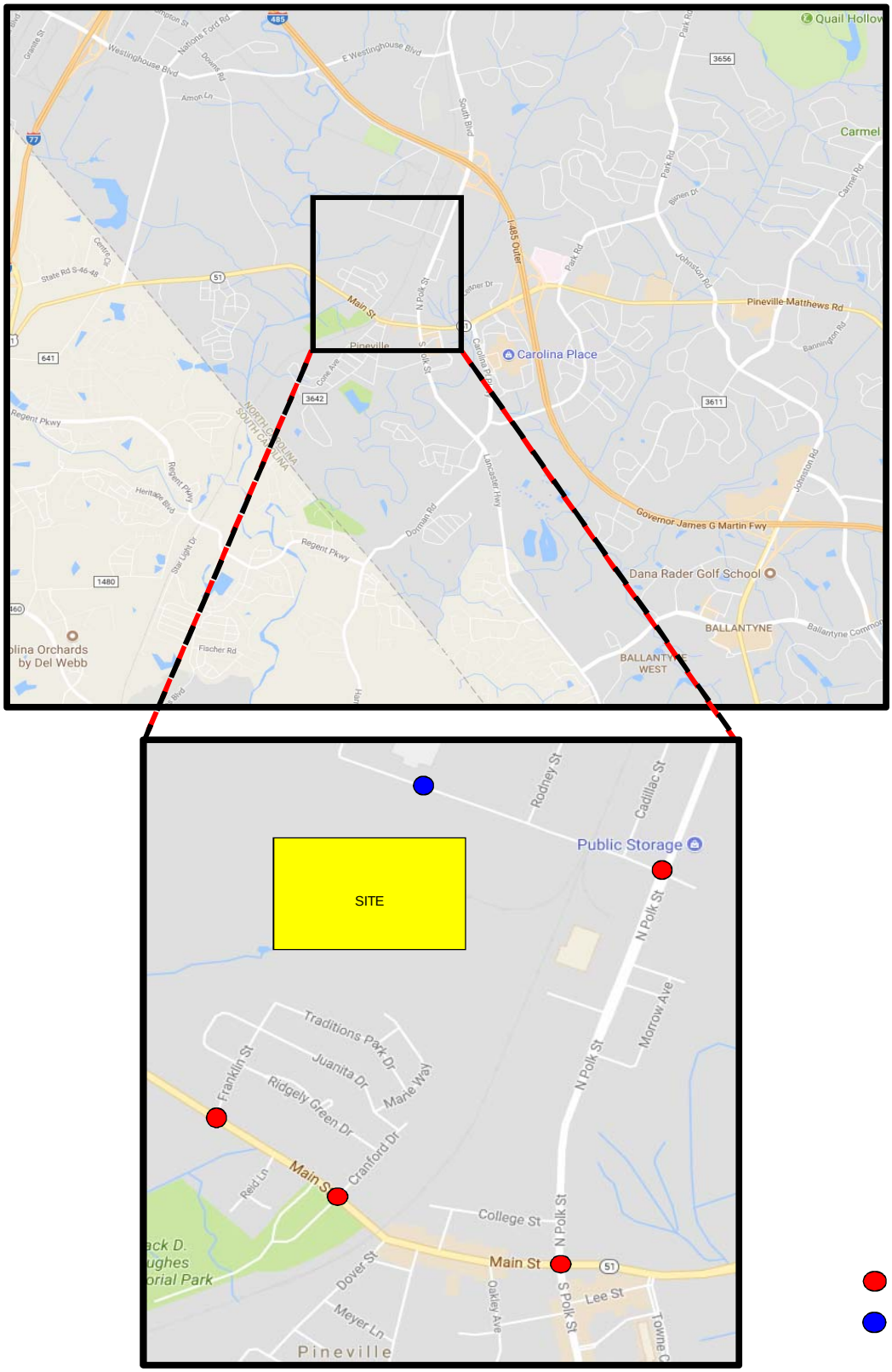

Legend

= Study Area Intersection

= Driveway Intersection

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Cranford Drive
Traffic Impact Analysis

Site Location Map

Figure

1-1

2 EXISTING INFORMATION

The proposed development will be located off Main Street west of Polk Street, in Pineville, NC, as shown on **Figure 1-1**.

2.1 STUDY LIMITS

Access to the proposed site will be provided through three connections to the outside roadway network. One northern connection will be made via Industrial Drive (Site Driveway #1). Two southern connections will be made by connecting to the existing Franklin Street and Cranford Drive roadway stubs. Site Driveway #1 will be located approximately 2,080' (C/L to C/L) west of Polk Street.

The entrances are shown graphically on **Figure 2-1** (all figures are located at the end of their respective chapter). **Figure 2-2** includes the preliminary site layout for the 320-unit development.

The study limits include the following five (5) intersections:

1. Franklin Street / Main Street
2. Cranford Drive / Main Street
3. Polk Street / Main Street / Pineville-Matthews Road
4. Site Driveway #1 / Industrial Drive
5. Polk Street / Pineville Road / Industrial Drive

2.2 EXISTING ROADWAYS

Franklin Street is a minor two-lane facility that runs approximately north-south in the project study area. The facility stretches from Main Street to just north of Traditions Park Drive, eventually ending as a roadway stub. The facility has a posted 20-mph speed limit and serves residential a development. For future project build-out, the subject development will connect to the existing Franklin Street roadway stub.

Cranford Drive is a minor two-lane facility that runs approximately north-south in the project study area. The facility stretches from Main Street to just north of Juanita Drive, eventually ending as a roadway stub. The facility has an assumed 20-mph speed limit and serves a residential development. For future project build-out, the subject development will connect to the existing Cranford Drive roadway stub.

SR 4982 (Polk Street / Pineville Road) is a four-lane facility that runs north-south, east of the project study area. The facility has a posted 45-mph speed limit and serves residential and commercial developments as well as commuter traffic. Polk Street / Pineville Road stretches from downtown Charlotte (beginning as Caldwell Street) southward to US-521 (changing names to Lancaster Highway).

NC-51 (Main Street / Pineville-Matthews Road) is a four-lane facility that runs approximately east-west, south of the project study area. The facility has a posted 45-mph speed limit and serves residential and commercial developments. Main Street / Pineville-Matthews Road stretches from US-21 in Fort Mill, SC (beginning as Rock Hill-Pineville Road) eastward to US-74 in Matthews, NC (eventually changing names to Matthews Township Parkway).

Industrial Drive is a two-lane facility that runs approximately east-west, north of the project study area. The facility has a posted 35-mph speed limit and primarily services the existing industrial park. Industrial Drive runs from Rodney Street to the northwest to Polk Street / Pineville Road to the east.

2.3 EXISTING INTERSECTIONS

Using available aerial imagery and site visits, Timmons Group compiled the existing geometry for each of the study area intersections. The existing intersection geometry is shown on **Figure 2-3** and used throughout all analyses.

Franklin Street / Main Street is an unsignalized intersection with the southbound Franklin Street approach encountering the stopped condition. The southbound Franklin Street approach includes a shared left / right-turn lane. The eastbound approach includes a shared through / left-turn lane and a single through lane. The westbound intersection approach includes a single through lane and a shared through / right-turn lane

Cranford Drive / Police Department Driveway / Main Street is an unsignalized intersection with the northbound Police Department Driveway and southbound Cranford Drive approaches encountering the stopped conditions. The northbound approach includes a single shared left / through / right-turn lane. The southbound Cranford Drive approach includes an exclusive left-turn lane and a shared through / right-turn lane. The east and westbound intersection approaches include a shared through / left-turn lane and a shared through / right-turn lane.

Polk Street / Main Street / Pineville-Matthews Road is an eight-phase signalized intersection with protected only left-turning movements for all four approaches. The northbound intersection approach includes dual left-turn lanes and a shared through / right-turn lane. The southbound intersection approach includes an exclusive left-turn lane, a shared through / left-turn lane, and an exclusive right-turn lane. The eastbound intersection approach includes an exclusive left-turn lane, a through lane, and a shared through / right-turn lane. The westbound intersection approach includes an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane.

Polk Street / Pineville Road / Industrial Drive is an eight-phase signalized intersection with protected / permitted left-turn phasing for all four approaches. The north and southbound intersection approaches each include an exclusive left-turn lane, a through lane, and a shared through / right-turn lane. The east and westbound approaches each include an exclusive left-turn lane and a shared through / right-turn lane.

2.4 TRAFFIC VOLUMES

Timmons Group calculated peak hour volumes for the study area intersections using the AM (7:00 – 9:00) and PM (4:00 – 6:00) peak period turning movement counts undertaken in May / June 2017. Traffic count data is summarized in **Figure 2-4**. The complete traffic count data can be found in **Appendix A**.

2.5 AREA SAFETY REVIEW

Crash data for the past five-year period (May 2012 – April 2017) was provided by the NCDOT. Per **Table 2-1** below, the intersection of Main Street / Polk Street had the greatest number of accidents (91) followed by the intersection of Polk Street / Industrial Drive (28). The unsignalized study area intersections had less than 10 reported crashes during the analyzed period. No fatal crashes were reported for any of the study area intersections. A crash summary (provided in **Appendix B**) has been included for each of the existing study area intersections. **Table 2-1** below summarizes the number of crashes, type of crash (injury / property damage), and year of occurrence for each intersection.

Table 2-1: Crash Information

Location	2012	2013	2014	2015	2016	2017	Injury	Property Damage
Franklin Street / Main Street	1	0	0	2	1	1	0	5
Cranford Drive / Main Street	4	1	1	3	4	0	3	10
Polk Street / Main Street / Pineville-Matthews Road	9	6	12	21	34	9	11	80
Polk Street / Pineville Road / Industrial Drive	2	4	7	8	4	3	10	18

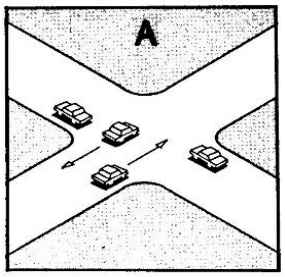
2.6 CAPACITY ANALYSIS

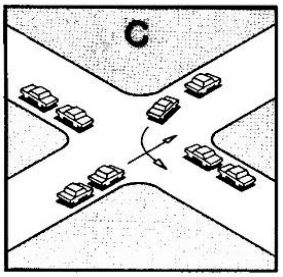
Using field observations, aerial photography, and traffic count data, traffic operations were analyzed during 2017 (existing) and 2021 (without and with the proposed development site trips).

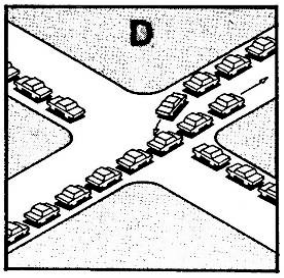
Capacity analysis allows traffic engineers to determine the impacts of traffic on the surrounding roadway network. The Transportation Research Board's (TRB) *Highway Capacity Manual* (HCM) methodologies govern how the capacity analyses are conducted and how the results are interpreted. There are six letter grades of Levels of Service (LOS) from A to F, with LOS A representing the best operating conditions and LOS F the worst operating conditions. At signalized intersections, an overall intersection LOS E is generally considered unacceptable. At unsignalized intersections, a LOS E is generally considered acceptable only if the side street encounters delay. Nevertheless, side streets typically function at a LOS F during peak traffic periods, because the traffic volumes often do not warrant a traffic signal to assist side street traffic. **Table 2-2** shows in detail how each of these levels of service are interpreted.

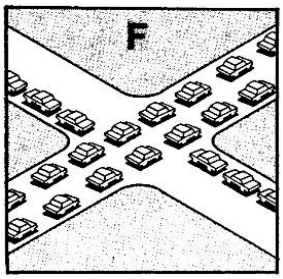
Table 2-2: Level of Service Definitions

Level of Service	Roadway Segments or Controlled Access Highways	Intersections
A	Free flow, low traffic density.	No vehicle waits longer than one signal indication.
B	Delay is not unreasonable, stable traffic flow.	On a rare occasion motorists wait through more than one signal indication.
C	Stable condition, movements somewhat restricted due to higher volumes, but not objectionable for motorists.	Intermittently drivers wait through more than one signal indication, and occasionally backups may develop behind left turning vehicles, traffic flow still stable and acceptable.
D	Movements more restricted, queues and delays may occur during short peaks, but lower demands occur often enough to permit clearing, thus preventing excessive backups.	Delays at intersections may become extensive with some, especially left-turning vehicles waiting two or more signal indications, but enough cycles with lower demand occur to permit periodic clearance, thus preventing excessive backups.
E	Actual capacity of the roadway invloves delay to all motorists due to congestion.	Very long queues may create lengthly delays, especially for left-turning vehicles.
F	Forced flow with demand volumes greater than capacity resulting in complete congestion. Volumes drop to zero in extreme cases.	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a storage ares during part or all of an hour.









SOURCE: *"A Policy on Design of Design of Urban Highways and Arterial Streets"* - AASHTO, 1973 based upon material published in *"Highway Capacity Manual"*, National Academy of Sciences, 1965.

For signalized and unsignalized intersections, level of service is defined in terms of **delay**, a measure of driver discomfort, frustration, fuel consumption and lost travel time. **Table 2-3** summarizes the delay associated with each LOS category:

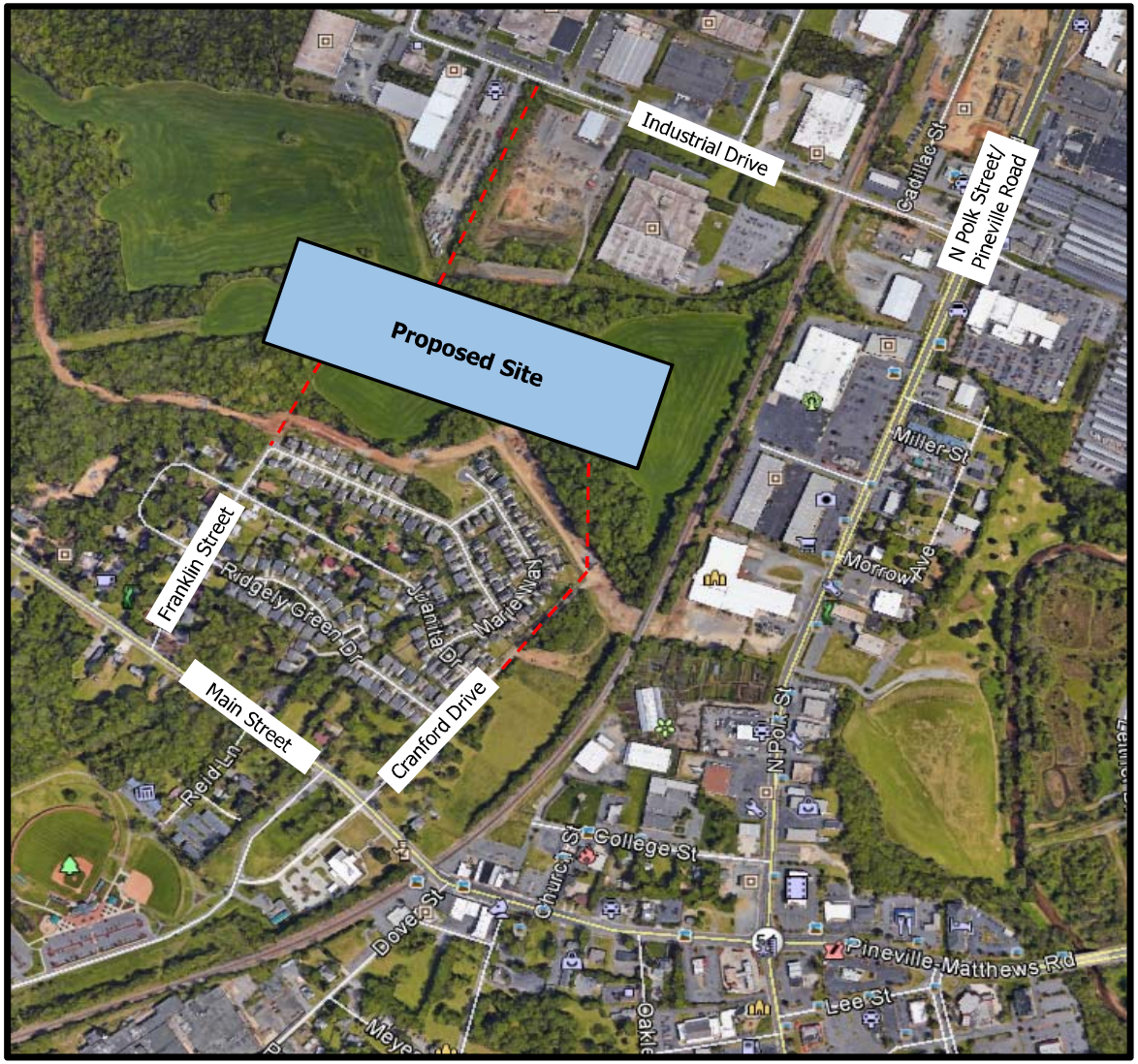
Table 2-3: Signalized and Unsignalized Intersection Level of Service Criteria

Signalized Intersections		Unsignalized Intersections	
Level of Service	Control Delay per Vehicle (sec/veh)	Level of Service	Average Control Delay (sec/veh)
A	≤ 10	A	0 to 10
B	> 10 to ≤ 20	B	> 10 to ≤ 15
C	> 20 to ≤ 35	C	> 15 to ≤ 25
D	> 35 to ≤ 55	D	> 25 to ≤ 35
E	> 55 to ≤ 80	E	> 35 to ≤ 50
F	> 80	F	> 50

Source: Exhibit 16-2 and Exhibit 17-2 from TRB's "Highway Capacity Manual 2000"

Capacity analyses were performed to assess operational conditions. Study area intersections were analyzed using SYNCHRO Version 9.1 (Build 912, Rev 4) based on Highway Capacity Manual (HCM) methodologies with the following assumptions:

- Existing grades;
- 12-foot lane widths;
- No parking activity, bus stops, or pedestrians;
- Peak hour factor (PHF) of 0.90;
- Heavy vehicle percentages 2%; and
- Optimized green splits with timing values found in the provided traffic signal plans (see **Appendix C**).



N

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LEGEND:

- Existing Road
- Proposed Road
- Proposed Site
- Adjacent Site

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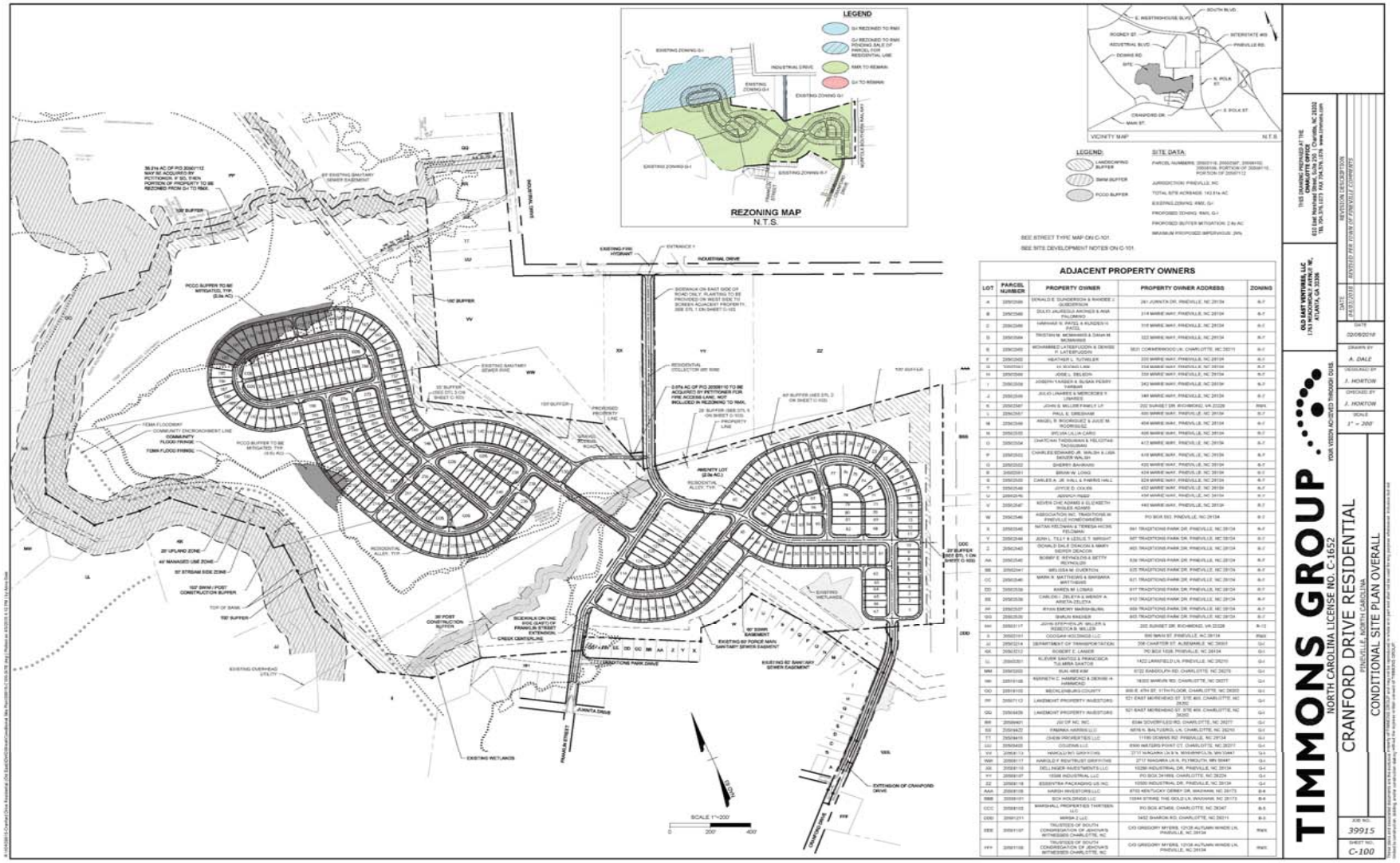
Cranford Drive
Traffic Impact Analysis
Surrounding Road Network

Figure 2-1



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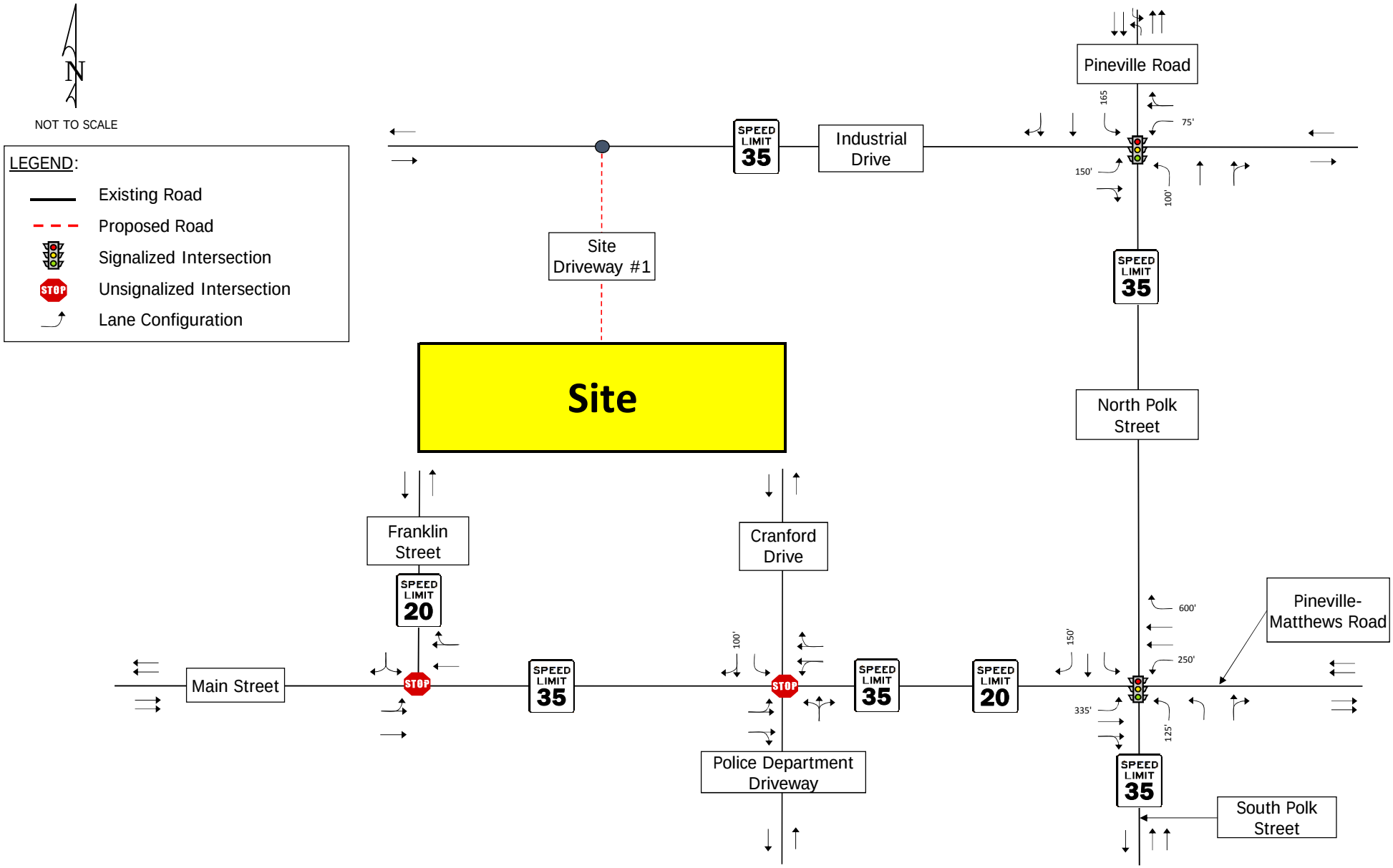
Cranford Drive
Traffic Impact Analysis
Preliminary Site Layout

Figure 2-2



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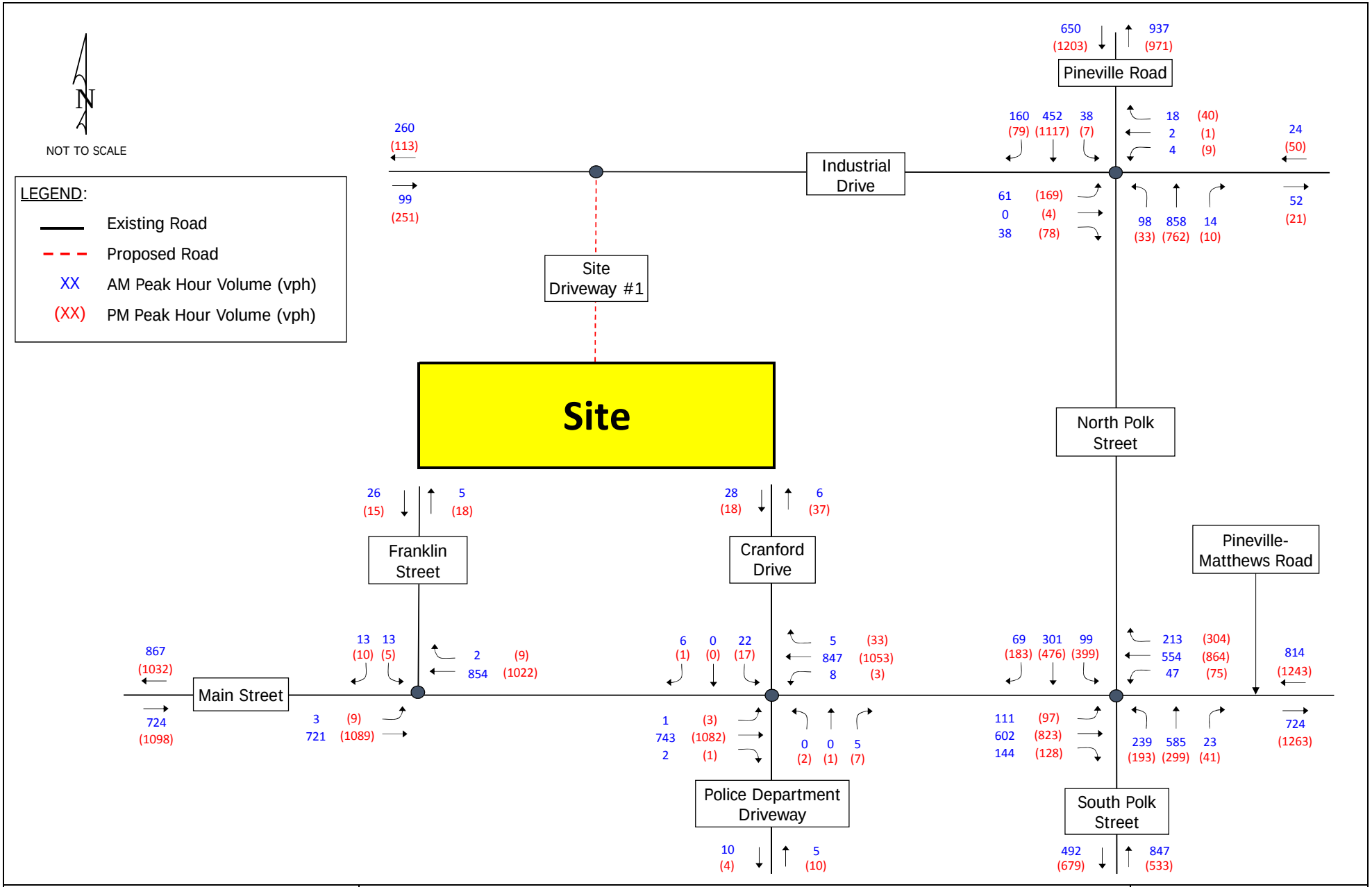
Cranford Drive
Traffic Impact Analysis
2017 Existing Lane Configuration

Figure 2-3



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Cranford Drive
Traffic Impact Analysis
2017 Existing Traffic Volumes

Figure 2-4

3 EXISTING AND BACKGROUND CONDITIONS AND ANALYSIS

3.1 2017 EXISTING ANALYSES

Table 3-1 summarizes the 2017 Existing intersection LOS, delay, and 95th percentile queue lengths based on the geometry shown on **Figure 2-3** and the 2017 Existing traffic volumes shown on **Figure 2-4**. The corresponding SYNCHRO output is included in **Appendix D**.

All unsignalized intersection movements at the intersection of Franklin Street / Main Street are currently operating at a LOS D or better during the AM and PM peak hours.

The southbound left-turn movement at the unsignalized intersection of Cranford Drive / Main Street is currently operating at a LOS F during the AM and PM peak hours. The northbound shared movement is also currently operating unacceptably (LOS E) during the PM peak hour. All other movements are currently operating at a LOS B or better during the AM and PM peak hours.

The signalized intersection of Polk Street / Main Street / Pineville-Matthews Road is currently operating at a LOS D during the AM peak hour and LOS E during the PM peak hour. During the PM peak, Synchro projects that the 95th percentile AM and PM peak hour queue lengths (147-feet during both peaks) for the northbound left-turn lane exceeds available storage (125-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is currently operating at a LOS B in the AM peak hour and LOS C during the PM peak hour. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (171-feet) exceeds available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

Table 3-1: Intersection Level of Service, Delay and 95th Percentile Queue Summary 2017 Existing Traffic Volumes

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
3: Main Street & Franklin Street	EB Left/Thru		0.2	A	0	0.5	A	1
	WB Thru/Right		0.0	0	0	0.0	0	0
	SB Left/Right		23.6	C	11	29.9	D	9
4: Police Department Driveway/Cranford Drive & Main Street	EB Left/Thru/Right		0.0	A	0	0.1	A	0
	WB Left/Thru/Right		0.3	A	1	0.1	A	0
	NB Left/Thru/Right		11.2	B	1	***37.3***	***E***	7
	SB Left		***51.3***	***F***	21	***126.5***	***F***	36
	SB Thru/Right	100	11.8	B	1	13.2	B	0
254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road	EB Left	335	***76.0***	***E***	#193	***114.6***	***F***	#204
	EB Thru/Right		46.1	D	#403	***69.4***	***E***	#616
	EB Approach		49.9	D	--	***73.6***	***E***	--
	WB Left	250	***61.5***	***E***	82	***90.0***	***F***	#150
	WB Thru		44.2	D	289	***55.3***	***E***	#524
	WB Right	600	29.0	C	204	14.7	B	200
	WB Approach		41.2	D	--	47.4	D	--
	NB Dual Lefts	125	***56.5***	***E***	147	***75.7***	***E***	#147
	NB Thru/Right		54.8	D	#729	***88.7***	***F***	#518
	NB Approach		***55.3***	***E***	--	***84.0***	***F***	--
	SB Left		***85.1***	***F***	#191	***90.1***	***F***	#596
	SB Thru		32.6	C	297	41.9	D	522
	SB Right	150	16.8	B	60	20.3	C	150
	SB Approach		41.4	D	--	***56.3***	***E***	--
	Overall		47.7	D	--	***62.0***	***E***	--
966: N Polk Street/Pineville Road & Industrial Drive/Driveway	EB Left	150	19.4	B	55	32.2	C	171
	EB Thru/Right		24.1	C	48	32.1	C	107
	EB Approach		21.2	C	--	32.1	C	--
	WB Left		19.2	B	8	27.3	C	18
	WB Thru/Right	75	29.4	C	32	43.0	D	65
	WB Approach		27.9	C	--	40.2	D	--
	NB Left	100	6.9	A	43	8.4	A	21
	NB Thru/Right		11.7	B	263	11.5	B	246
	NB Approach		11.3	B	--	11.4	B	--
	SB Left	165	6.8	A	21	7.6	A	8
	SB Thru/Right		14.2	B	179	20.3	C	452
	SB Approach		13.7	B	--	20.2	C	--
	Overall		13.0	B	--	18.8	B	--

[1] *Overall intersection LOS and delay reported for signalized intersections and roundabouts only.*

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.

3.2 2021 BACKGROUND TRAFFIC VOLUMES

Currently there are no approved developments in the project study area that will be fully or partially build-out by 2021. 2021 Background traffic volumes were calculated by growing 2017 existing traffic volumes yearly (to 2021) by 2% (see **Figure 3-1**).

3.3 2021 BACKGROUND ANALYSIS

Table 3-2 summarizes the 2021 Background intersection LOS, delay, and 95th percentile queue lengths based on the geometry shown in **Figure 2-3** and the 2021 Background traffic volumes shown in **Figure 3-3**. The corresponding SYNCHRO output is included in **Appendix D**.

All unsignalized intersection movements at the intersection of Franklin Street / Main Street are projected to operate at a LOS D or better during the 2021 Background AM and PM peak hours.

The southbound left-turn movement at the unsignalized intersection of Cranford Drive / Main Street is Projected to operate at a LOS F during the 2021 Background AM and PM peak hours. The northbound shared movement is also projected to operate unacceptably (LOS E) during the PM peak hour. All other movements are projected to operate at a LOS B or better during the AM and PM peak hours.

The signalized intersection of Polk Street / Main Street / Pineville-Matthews Road is projected to operate at a LOS D during the 2021 AM peak hour and LOS E during the PM peak hour. During the AM and PM peaks, Synchro projects that the 95th percentile queue length for the northbound left-turn lanes (147-feet) exceeds available storage (125-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS B during the 2021 Background AM and PM peak hours. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (171-feet) exceeds available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

Table 3-2: Intersection Level of Service, Delay and 95th Percentile Queue Summary
2021 Background Traffic Volumes

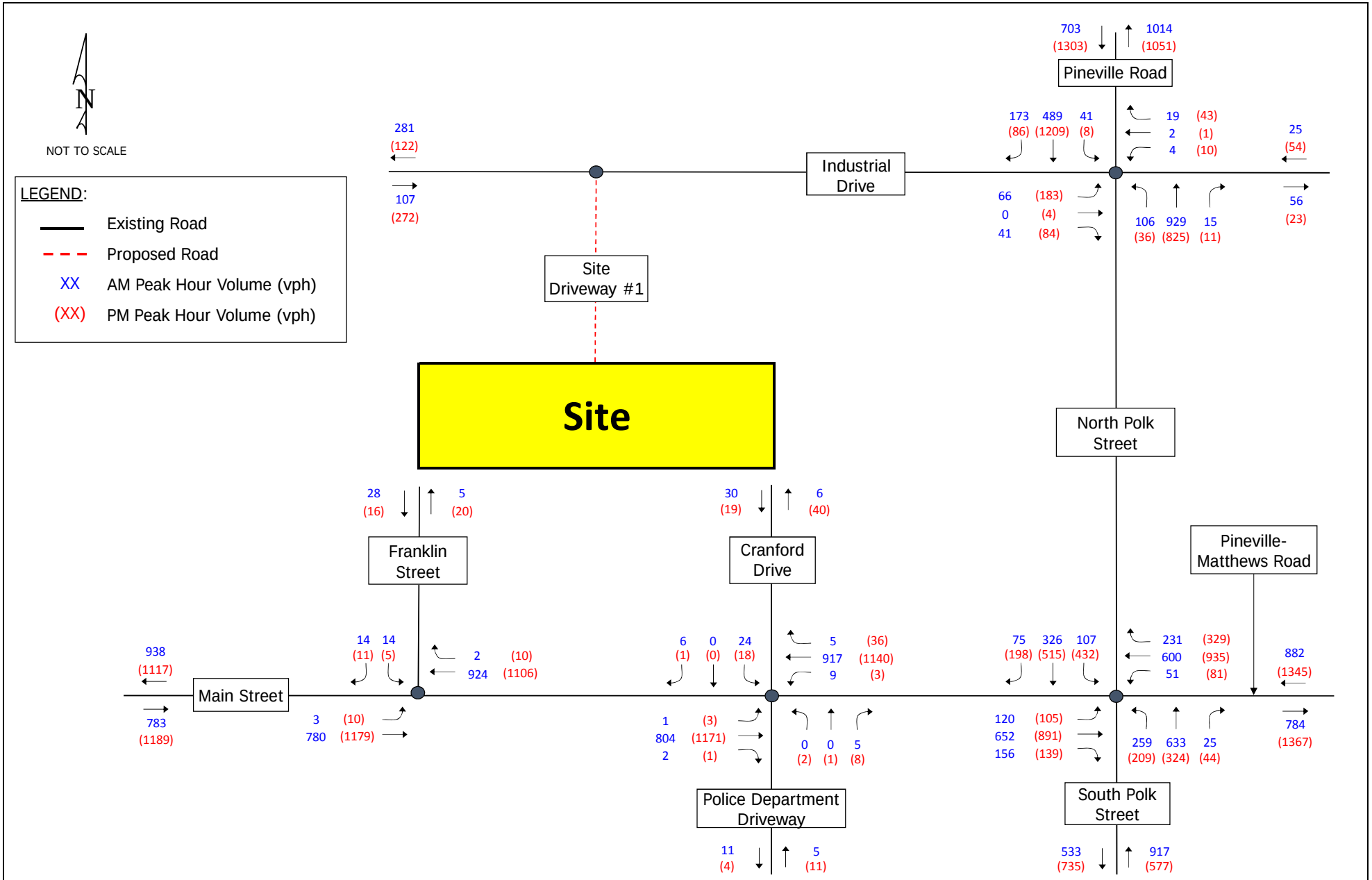
Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
3: Main Street & Franklin Street	EB Left/Thru		0.2	A	0	0.6	A	2
	WB Thru/Right		0.0	0	0	0.0	0	0
	SB Left/Right		27.5	D	15	34.9	D	11
4: Police Department Driveway/Cranford Drive & Main Street	EB Left/Thru/Right		0.0	A	0	0.2	A	0
	WB Left/Thru/Right		0.4	A	1	0.2	A	0
	NB Left/Thru/Right		11.5	B	1	***44.5***	***E***	10
	SB Left		***68.0***	***F***	31	***194.6***	***F***	48
	SB Thru/Right	100	12.2	B	1	13.8	B	0
254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road	EB Left	335	***87.7***	***F***	#213	***126.6***	***F***	#232
	EB Thru/Right		52.8	D	#477	***80.2***	***F***	#721
	EB Approach		***57.3***	***E***	--	***84.5***	***F***	--
	WB Left	250	***65.1***	***E***	88	***109.7***	***F***	#181
	WB Thru		47.5	D	316	***64.5***	***E***	#625
	WB Right	600	30.7	C	222	15.6	B	231
	WB Approach		44.1	D	--	***55.3***	***E***	--
	NB Dual Lefts	125	***60.9***	***E***	159	***84.0***	***F***	#172
	NB Thru/Right		***61.7***	***E***	#824	***112.5***	***F***	#616
	NB Approach		***61.5***	***E***	--	***102.2***	***F***	--
	SB Left		***106.8***	***F***	#208	***110.0***	***F***	#702
	SB Thru		33.7	C	325	48.2	D	620
	SB Right	150	17.1	B	64	22.1	C	175
	SB Approach		46.6	D	--	***67.0***	***E***	--
	Overall		53.2	D	--	***72.8***	***E***	--
966: N Polk Street/Pineville Road & Industrial Drive/Driveway	EB Left	150	22.3	C	61	36.7	D	202
	EB Thru/Right		26.4	C	53	35.3	D	121
	EB Approach		23.9	C	--	36.3	D	--
	WB Left		21.0	C	9	30.5	C	21
	WB Thru/Right	75	32.0	C	34	46.5	D	75
	WB Approach		30.4	C	--	43.5	D	--
	NB Left	100	7.5	A	47	8.2	A	22
	NB Thru/Right		14.8	B	296	11.4	B	273
	NB Approach		14.0	B	--	11.3	B	--
	SB Left	165	7.0	A	22	7.2	A	8
	SB Thru/Right		15.1	B	200	21.0	C	517
	SB Approach		14.6	B	--	20.9	C	--
	Overall		15.0	B	--	19.7	B	--

[1] *Overall intersection LOS and delay reported for signalized intersections and roundabouts only.*

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.



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Cranford Drive
Traffic Impact Analysis
2021 Background Traffic Volumes

Figure 3-1

4 SITE TRIP GENERATION AND DISTRIBUTION

Site trips for the Cranford Drive Residential Development were estimated based on the proposed land use supplied by the developer and subsequently distributed onto the surrounding roadway network.

4.1 TRIP GENERATION

The site-generated trips shown in **Table 4-1** are based on trip generation information provided in the 9th edition of the Institute of Transportation Engineer's (ITE's) *Trip Generation Manual* and the anticipated development of 320 single family houses. The trip generation was calculated using the proposed number of residential units as the independent variable. The provided average rate was used to help generate trips (per NCDOT standards).

Table 4-1: Trip Generation Summary

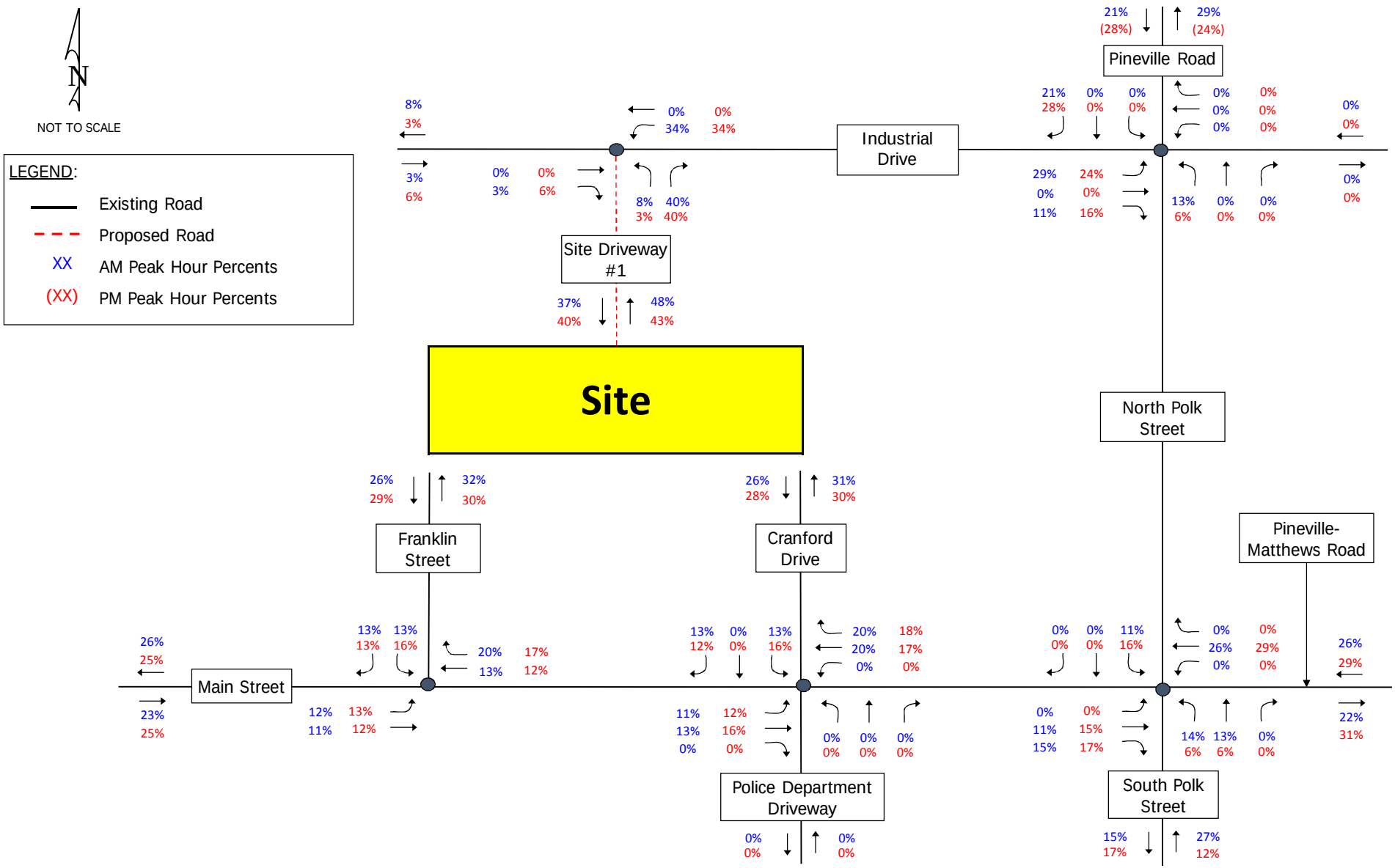
ITE Land Use Code	Independent Variable	Daily			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
210 – Single-Family Detached Housing	320 Units	1,523	1,523	3,046	60	180	240	202	118	320

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 9th Edition (2012)

AM peak hour trips generated totaled 60 incoming and 180 outgoing where PM peak hour trips totaled 202 incoming and 118 outgoing. Average daily traffic (ADT) volumes generated by the development totaled 3,046 vehicles per day. No reduction in trips was included due to internal capture and/or pass-by trips.

4.2 TRIP DISTRIBUTION

The directional traffic patterns, or trip distribution, of the site-generated traffic was determined using the existing AM and PM peak hour traffic characteristics. It was assumed, for purposes of this study, that all site traffic would enter and exit the study area in the same manner as the existing traffic. Area trip distribution is based on traffic counts performed by Timmons Group. Total trips into and out of the study area using Main Street, Polk Street, Pineville-Matthew Road, Industrial Drive, and Pineville Road form the basis for the percentage distribution. Distribution percentages into and out of the study area were calculated using existing traffic volumes entering and exiting the study area. The percentages were routed, via shortest path, to and from the proposed development. The distribution percentages were then applied to the generated trips to predict routes and project traffic volumes for the 2021 build-out scenario. **Figure 4-1** shows the 2021 distribution percentages and **Figure 4-2** shows the 2021 site trip distribution volumes. 2021 Build traffic volumes were determined by applying the total site trip distribution volumes to the Background traffic volumes (see **Figure 3-1**).



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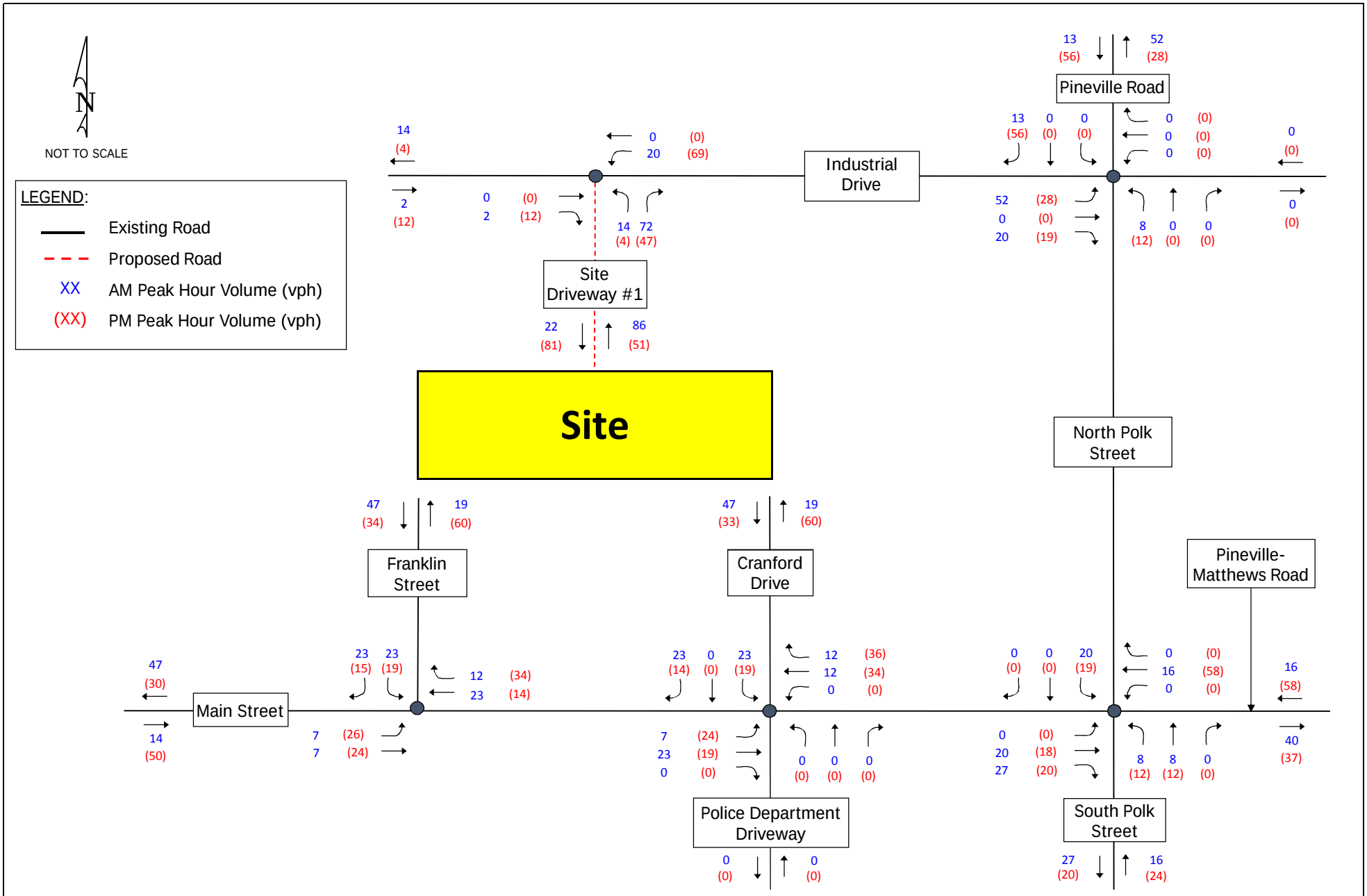
Cranford Drive
Traffic Impact Analysis
2021 Trip Distribution Percentages

Figure 4-1



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Cranford Drive
Traffic Impact Analysis
2021 Trip Distribution Volumes

Figure 4-2

5 2021 BUILD CONDITION AND ANALYSIS

To complete the 2021 Build analyses (including the proposed development), the estimated site trips were added to the 2021 Background traffic volumes. The projected total volumes, along with the existing intersection geometry, were used to complete the capacity and turn lane warrant analyses.

5.1 2021 BUILD TRAFFIC VOLUMES

The Background traffic volumes from **Figure 3-3** were added to the projected site trips from the Cranford Drive Development to generate the 2021 Build traffic volumes (background + site) shown on **Figure 5-1**.

To summarize, the 2021 Build traffic volumes shown on **Figure 5-1** contain the following:

- Existing 2017 turning movement traffic count volumes collected by Timmons Group (May/June 2017) grown exponentially for 4 years at a 2% ambient growth rate; and
- Site trips generated by the subject development.

5.2 2021 BUILD ANALYSIS

Table 5-1 summarizes the intersection LOS, delay, and 95th percentile queue lengths based on the 2021 Build traffic volumes (shown on **Figure 5-1**).

The shared southbound movement at the intersection of Franklin Street / Main Street is projected to operate unacceptably during the 2021 Build AM and PM peak hours. All other unsignalized intersection movements are projected to operate at a LOS A during the 2021 Build AM and PM peak hours. Despite the fact that the stop-controlled southbound movement is projected to operate unacceptably, no intersection improvements are recommended to mitigate delay. As shown in **Table 5-1**, queue lengths are not projected to exceed 3 vehicles during either peak hour. Additionally, projected 2021 volumes do not warrant the installation of a traffic signal.

The southbound left-turn movement at the unsignalized intersection of Cranford Drive / Main Street is Projected to operate at a LOS F during the 2021 Build AM and PM peak hours. The northbound shared movement is also projected to operate unacceptably (LOS F) during the PM peak hour. All other movements are projected to operate at a LOS B or better during the AM and PM peak hours. Despite the fact that the stop-controlled north and southbound movements are projected to operate unacceptably, no intersection improvements are recommended to mitigate delay. As shown in **Table 5-1**, queue lengths are not projected to exceed 5 vehicles during either peak hour. Additionally, projected 2021 volumes do not warrant the installation of a traffic signal.

All unsignalized intersection movements at Industrial Drive / Site Driveway #1 are projected to operate at a LOS B or better during the AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway. Although Industrial Drive is not an NCDOT owned facility, Timmons Group followed standard NCDOT practices to determine the need for an exclusive turn-lane into the proposed site. Per standard NCDOT Policy on Street and Driveway Access to North Carolina Highways Manual:

"Generally left and right turn lanes and tapers shall be considered when:

- *In accordance with G.S. 136-18(29), the average daily traffic meets or exceeds 4,000 vehicles per day on any secondary route (the average daily traffic should include both the existing traffic plus traffic generated by the proposed development)"*

With the projected AADT volumes along Industrial Drive not expecting to exceed 4,000 VPD, the construction of turn lanes is not warranted.

The signalized intersection of Polk Street / Main Street / Pineville-Matthews Road is projected to operate at a LOS E during the 2021 Build AM peak hour and LOS F during the 2021 Build PM peak hour. During both peaks, Synchro projects that the 95th percentile queue length for the northbound left-turn lanes (162-feet and 188-feet, respectively) exceeds available storage (125-feet). Synchro also projects that the 95th percentile queue length for the southbound right-turn lane (177-feet) exceeds available storage (150-feet) during the PM peak hour. Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

Despite the fact that intersection is projected to operate unacceptably during both peak hours, no improvements are recommended to help mitigate capacity. Adequate right-of-way is not available in any of the four intersection quadrants to construct intersection improvements. For the intersection to operate acceptably, dual southbound left-turn lanes are needed as is an exclusive eastbound right-turn lane. Both western intersection quadrants are currently owned and in use (parking lot in the northeast intersection quadrant and gas station in the southeast intersection quadrant).

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS C or better during the 2021 Build AM and PM peak hours. During the PM peak hour (using existing signal timings), Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (235-feet) exceeds available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths. Because this intersection is projected to operate at acceptable levels of service during both peak hours, no improvement recommendations are necessary to help mitigate intersection congestion due to the construction of the proposed development.

Table 5-1: Intersection Level of Service, Delay and 95th Percentile Queue Summary 2021 Build Traffic Volumes

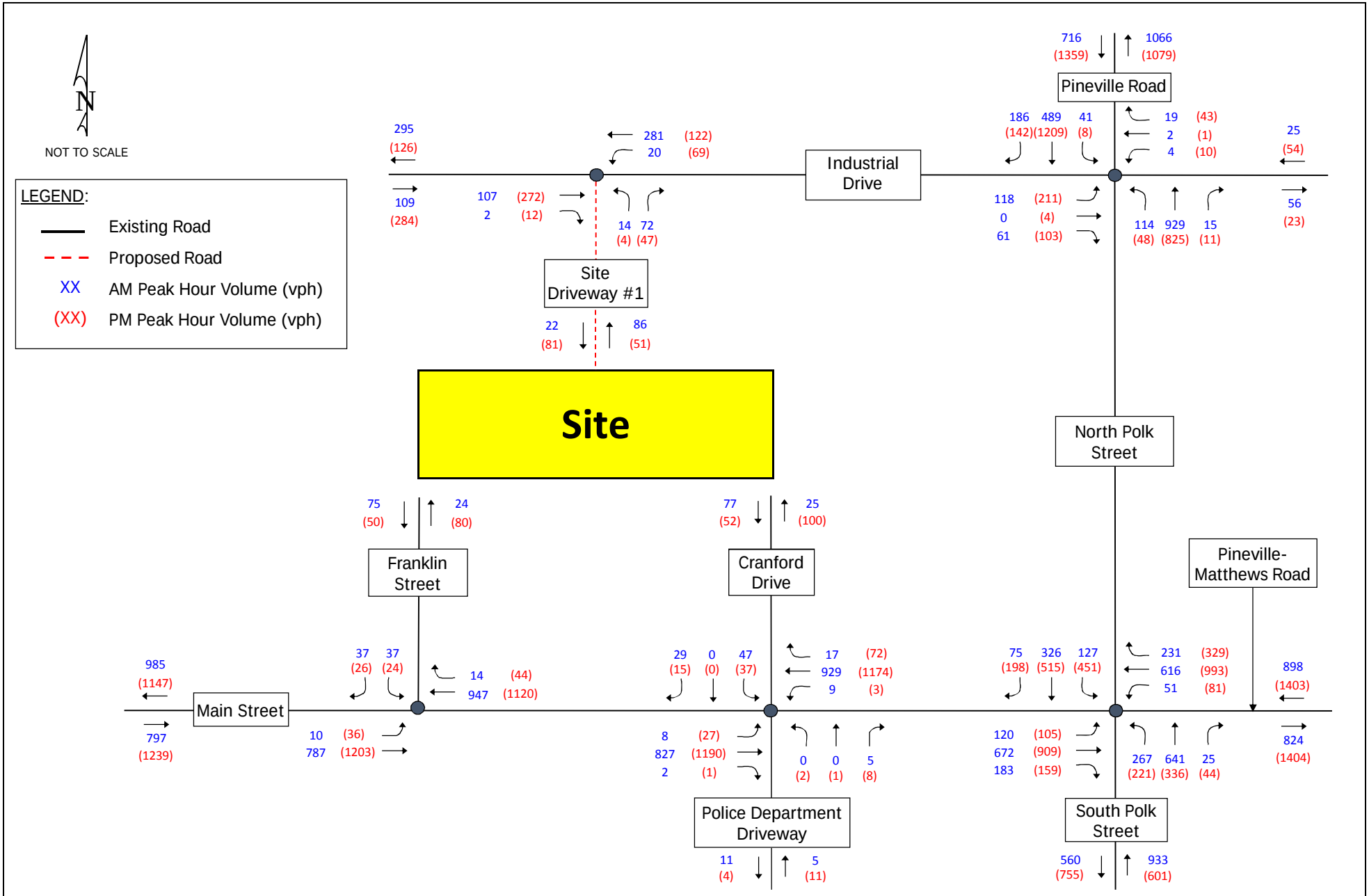
Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
3: Main Street & Franklin Street	EB Left/Thru		0.6	A	1	2.2	A	6
	WB Thru/Right		0.0	0	0	0.0	0	0
	SB Left/Right		***41.9***	***E***	55	***102.2***	***F***	76
4: Police Department Driveway/Cranford Drive & Main Street	EB Left/Thru/Right		0.4	A	1	1.8	A	5
	WB Left/Thru/Right		0.4	A	1	0.2	A	0
	NB Left/Thru/Right		11.6	B	1	***56.8***	***F***	12
	SB Left		***122.5***	***F***	79	***568.9***	***F***	122
	SB Thru/Right	100	12.7	B	5	14.7	B	3
5: Site Driveway #1 & Industrial Drive	EB Thru/Right		0.0	0	0	0.0	0	0
	WB Left/Thru		0.6	A	1	3.3	A	5
	NB Left/Right		9.9	A	10	10.6	B	7
254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road	EB Left	335	***79.9***	***E***	#201	***156.4***	***F***	#244
	EB Thru/Right		***60.3***	***E***	#525	***91.3***	***F***	#766
	EB Approach		***62.7***	***E***	--	***97.2***	***F***	--
	WB Left	250	***65.1***	***E***	88	***109.7***	***F***	#181
	WB Thru		50.2	D	330	***70.5***	***E***	#677
	WB Right	600	30.5	C	222	15.1	B	226
	WB Approach		46.0	D	--	***59.7***	***E***	--
	NB Dual Lefts	125	***59.4***	***E***	162	***87.9***	***F***	#188
	NB Thru/Right		***70.3***	***E***	#851	***121.9***	***F***	#642
	NB Approach		***67.2***	***E***	--	***109.3***	***F***	--
	SB Left		***114.0***	***F***	#242	***124.2***	***F***	#744
	SB Thru		34.4	C	329	48.5	D	620
	SB Right	150	17.0	B	64	22.8	C	177
	SB Approach		51.1	D	--	***73.5***	***E***	--
	Overall		***57.6***	***E***	--	***80.4***	***F***	--
966: N Polk Street/Pineville Road & Industrial Drive/Driveway	EB Left	150	24.3	C	100	41.6	D	#235
	EB Thru/Right		26.8	C	72	37.7	D	144
	EB Approach		25.1	C	--	40.3	D	--
	WB Left		21.5	C	9	31.4	C	21
	WB Thru/Right	75	32.9	C	35	49.5	D	74
	WB Approach		31.2	C	--	46.2	D	--
	NB Left	100	7.9	A	51	9.3	A	28
	NB Thru/Right		15.2	B	298	11.9	B	278
	NB Approach		14.4	B	--	11.8	B	--
	SB Left	165	7.3	A	23	7.4	A	8
	SB Thru/Right		15.7	B	210	26.5	C	577
	SB Approach		15.2	B	--	26.4	C	--

[1] *Overall intersection LOS and delay reported for signalized intersections and roundabouts only.*

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.



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Cranford Drive
Traffic Impact Analysis
2021 Build Traffic Volumes

Figure 5-1

6 CONCLUSIONS AND RECOMMENDATIONS

Capacity analyses were performed for 2017 Existing, 2021 Background (existing + ambient growth), and 2021 Build (background + site trips) traffic volumes

Based on the operational analyses the following is offered:

- The shared stop-controlled southbound movement at the intersection of Franklin Street / Main Street is projected to operate unacceptably during the 2021 Build AM and PM peak hours. Despite this fact, no intersection improvements are recommended to mitigate delay.

- The stop-controlled northbound shared movement is projected to operate unacceptably during the 2021 Build PM peak hour and the stop-controlled southbound left-turn movement at the unsignalized intersection of Cranford Drive / Main Street is projected to operate unacceptably during the 2021 Build AM and PM peak hours. Despite this fact, no intersection improvements are recommended to mitigate delay.

- All unsignalized intersection movements at Industrial Drive / Site Driveway #1 are projected to operate at a LOS B or better during the AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway.

- The signalized intersection of Polk Street / Main Street / Pineville-Matthews Road is projected to operate at a LOS E during the 2021 Build AM peak hour and LOS F during the 2021 Build PM peak hour. Despite this fact, no intersection improvements are recommended to mitigate delay.

- The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS C or better during the 2021 Build AM and PM peak hours. Because this intersection is projected to operate at acceptable levels of service during both peak hours, no improvement recommendations are necessary to help mitigate intersection congestion due to the construction of the proposed development.

Appendix A – Traffic Counts

Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Franklin and Main) AM Peak
Site Code :
Start Date : 5/25/2017
Page No : 1

Groups Printed- Cars + - Trucks

	Franklin Street Southbound			Main Street Westbound			Main Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
07:00	3	2	5	0	194	194	159	1	160	359
07:15	4	7	11	0	215	215	206	1	207	433
07:30	4	3	7	0	222	222	156	1	157	386
07:45	2	1	3	2	223	225	200	0	200	428
Total	13	13	26	2	854	856	721	3	724	1606
08:00	1	2	3	1	153	154	182	2	184	341
08:15	2	2	4	1	188	189	223	1	224	417
08:30	0	2	2	0	135	135	160	0	160	297
08:45	4	4	8	2	132	134	161	1	162	304
Total	7	10	17	4	608	612	726	4	730	1359
Grand Total	20	23	43	6	1462	1468	1447	7	1454	2965
Apprch %	46.5	53.5		0.4	99.6		99.5	0.5		
Total %	0.7	0.8	1.5	0.2	49.3	49.5	48.8	0.2	49	
Cars +	20	23	43	6	1461	1467	1444	7	1451	2961
% Cars +	100	100	100	100	99.9	99.9	99.8	100	99.8	99.9
Trucks	0	0	0	0	1	1	3	0	3	4
% Trucks	0	0	0	0	0.1	0.1	0.2	0	0.2	0.1

Burns Service Inc.

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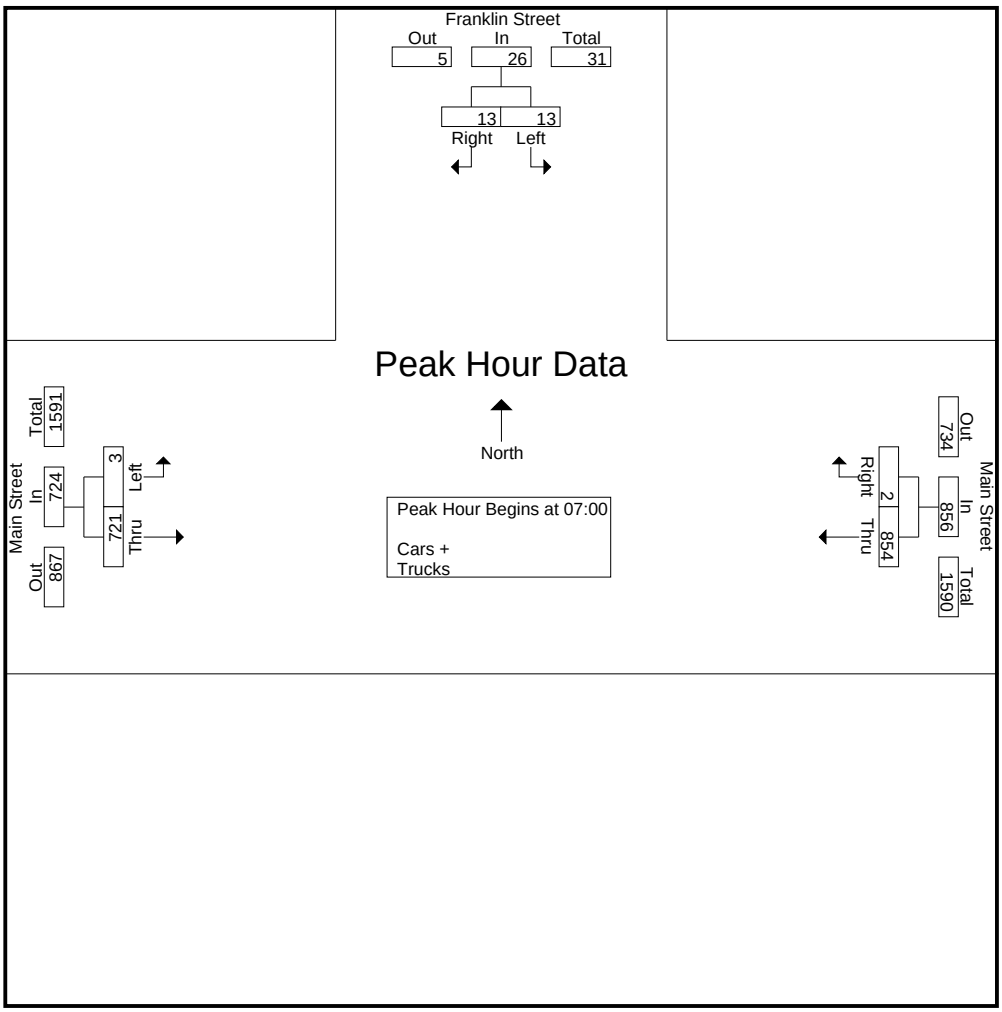
	Franklin Street Southbound			Main Street Westbound			Main Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00										
07:00	3	2	5	0	194	194	159	**1**	160	359
07:15	**4**	**7**	**11**	0	215	215	**206**	1	**207**	**433**
07:30	4	3	7	0	222	222	156	1	157	386
07:45	2	1	3	**2**	**223**	**225**	200	0	200	428
Total Volume	13	13	26	2	854	856	721	3	724	1606
% App. Total	50	50		0.2	99.8		99.6	0.4		
PHF	.813	.464	.591	.250	.957	.951	.875	.750	.874	.927



Burns Service Inc.

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File Name : Pineville(Franklin and Main) PM Peak
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Groups Printed- Cars + - Trucks

	Franklin Street Southbound			Main Street Westbound			Main Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
16:00	2	2	4	1	166	167	195	4	199	370
16:15	4	1	5	2	178	180	237	2	239	424
16:30	0	1	1	4	196	200	289	2	291	492
16:45	5	2	7	1	250	251	249	2	251	509
Total	11	6	17	8	790	798	970	10	980	1795
17:00	2	1	3	3	324	327	309	3	312	642
17:15	3	1	4	1	252	253	242	2	244	501
17:30	4	1	5	5	238	243	231	4	235	483
17:45	3	2	5	1	198	199	246	5	251	455
Total	12	5	17	10	1012	1022	1028	14	1042	2081
Grand Total	23	11	34	18	1802	1820	1998	24	2022	3876
Apprch %	67.6	32.4		1	99		98.8	1.2		
Total %	0.6	0.3	0.9	0.5	46.5	47	51.5	0.6	52.2	
Cars +	23	11	34	18	1797	1815	1994	24	2018	3867
% Cars +	100	100	100	100	99.7	99.7	99.8	100	99.8	99.8
Trucks	0	0	0	0	5	5	4	0	4	9
% Trucks	0	0	0	0	0.3	0.3	0.2	0	0.2	0.2

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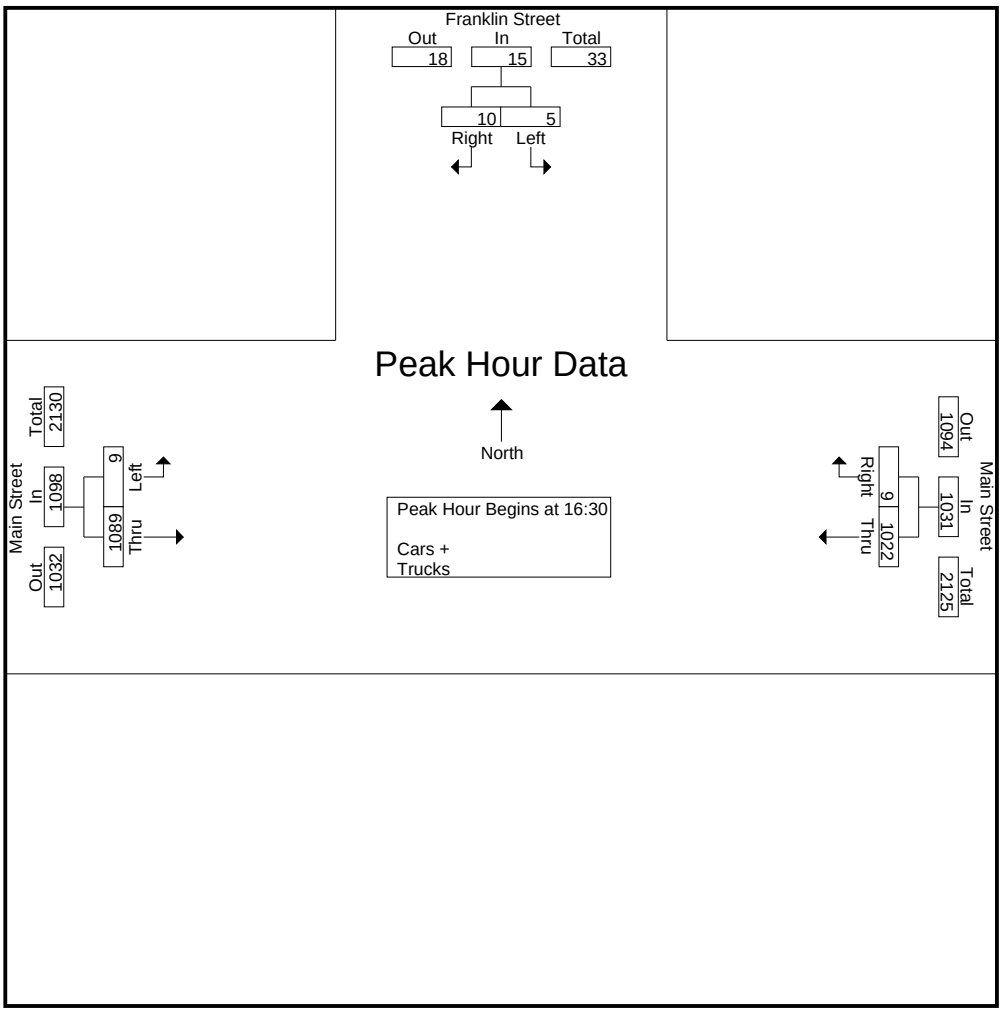
	Franklin Street Southbound			Main Street Westbound			Main Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	0	1	1	**4**	196	200	289	2	291	492
16:45	**5**	**2**	**7**	1	250	251	249	2	251	509
17:00	2	1	3	3	**324**	**327**	**309**	**3**	**312**	**642**
17:15	3	1	4	1	252	253	242	2	244	501
Total Volume	10	5	15	9	1022	1031	1089	9	1098	2144
% App. Total	66.7	33.3		0.9	99.1		99.2	0.8		
PHF	.500	.625	.536	.563	.789	.788	.881	.750	.880	.835



Burns Service Inc.

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Groups Printed- Cars + - Trucks

	Cranford Drive Southbound				Main Street Westbound				Cranford Drive Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00	1	0	6	7	1	174	0	175	0	0	0	0	1	168	0	169	351
07:15	5	0	6	11	0	211	4	215	2	0	0	2	1	200	1	202	430
07:30	0	0	4	4	1	240	0	241	1	0	0	1	0	183	0	183	429
07:45	0	0	6	6	3	222	4	229	2	0	0	2	0	192	0	192	429
Total	6	0	22	28	5	847	8	860	5	0	0	5	2	743	1	746	1639
08:00	0	0	6	6	1	182	2	185	0	0	0	0	0	0	0	0	191
08:15	1	0	10	11	0	168	2	170	0	0	0	0	0	0	0	0	181
08:30	0	0	5	5	1	150	2	153	0	0	0	0	0	0	0	0	158
08:45	0	0	5	5	5	132	3	140	0	0	0	0	0	0	0	0	145
Total	1	0	26	27	7	632	9	648	0	0	0	0	0	0	0	0	675
Grand Total	7	0	48	55	12	1479	17	1508	5	0	0	5	2	743	1	746	2314
Apprch %	12.7	0	87.3		0.8	98.1	1.1		100	0	0		0.3	99.6	0.1		
Total %	0.3	0	2.1	2.4	0.5	63.9	0.7	65.2	0.2	0	0	0.2	0.1	32.1	0	32.2	
Cars +	7	0	48	55	12	1475	17	1504	5	0	0	5	2	733	1	736	2300
% Cars +	100	0	100	100	100	99.7	100	99.7	100	0	0	100	100	98.7	100	98.7	99.4
Trucks	0	0	0	0	0	4	0	4	0	0	0	0	0	10	0	10	14
% Trucks	0	0	0	0	0	0.3	0	0.3	0	0	0	0	0	1.3	0	1.3	0.6

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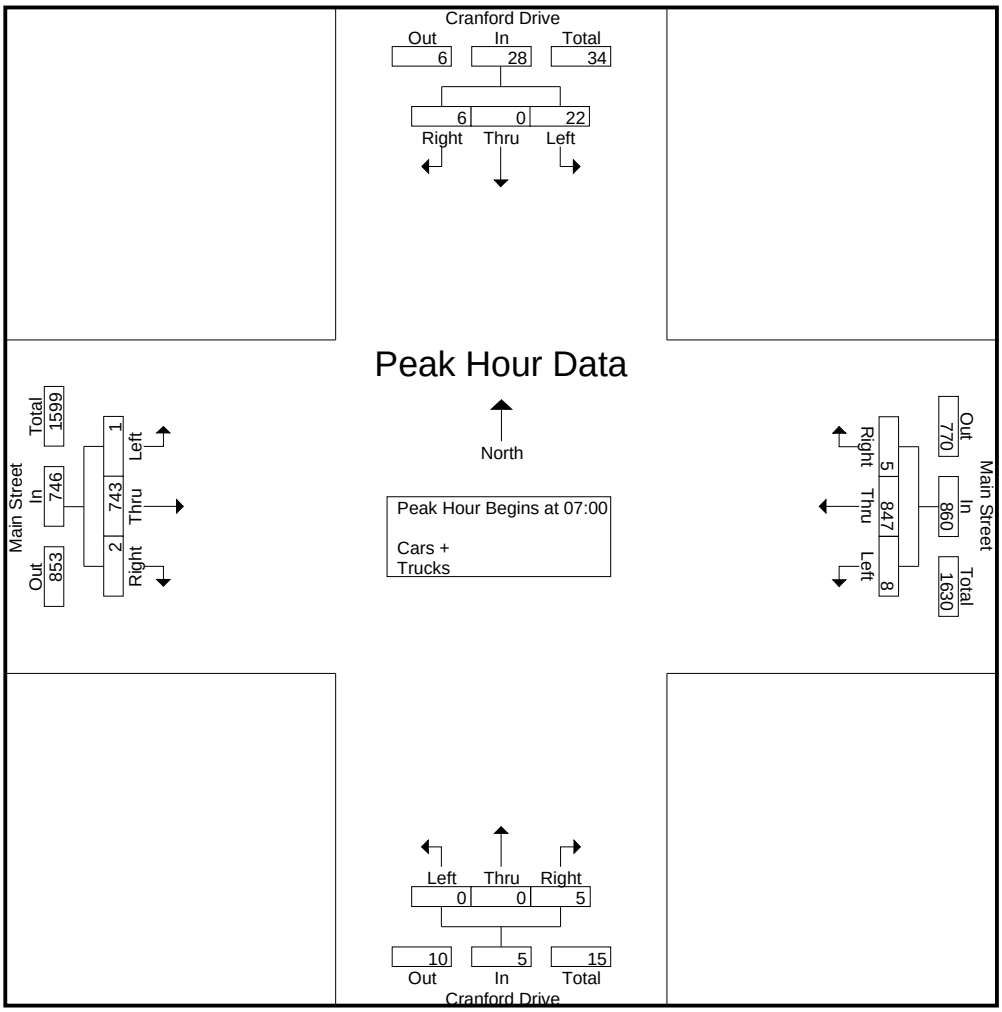
	Cranford Drive Southbound				Main Street Westbound				Cranford Drive Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	**1**	**0**	6	7	1	174	0	175	0	0	0	0	1	168	0	169	351
07:15	5	0	6	11	0	211	**4**	215	**2**	0	0	**2**	1	**200**	**1**	**202**	**430**
07:30	0	0	4	4	1	**240**	0	**241**	1	0	0	1	0	183	0	183	429
07:45	0	0	6	6	**3**	222	4	229	2	0	0	2	0	192	0	192	429
Total Volume	6	0	22	28	5	847	8	860	5	0	0	5	2	743	1	746	1639
% App. Total	21.4	0	78.6		0.6	98.5	0.9		100	0	0		0.3	99.6	0.1		
PHF	.300	.000	.917	.636	.417	.882	.500	.892	.625	.000	.000	.625	.500	.929	.250	.923	.953



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File Name : Pineville(Cranford and Main) PM Peak
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Groups Printed- Cars + - Trucks

	Cranford Drive Southbound				Main Street Westbound				Cranford Drive Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
16:00	0	0	3	3	7	189	3	199	2	0	0	2	3	195	1	199	403
16:15	1	0	2	3	2	175	3	180	0	0	0	0	0	247	0	247	430
16:30	0	0	3	3	9	200	0	209	4	1	1	6	1	278	2	281	499
16:45	0	0	4	4	9	249	0	258	0	0	0	0	0	239	0	239	501
Total	1	0	12	13	27	813	6	846	6	1	1	8	4	959	3	966	1833
17:00	1	0	4	5	8	314	1	323	3	0	1	4	0	302	1	303	635
17:15	0	0	6	6	7	290	2	299	0	0	0	0	0	263	0	263	568
17:30	0	0	1	1	6	260	3	269	1	0	0	1	0	226	0	226	497
17:45	2	0	4	6	9	196	3	208	2	1	1	4	0	240	0	240	458
Total	3	0	15	18	30	1060	9	1099	6	1	2	9	0	1031	1	1032	2158
Grand Total	4	0	27	31	57	1873	15	1945	12	2	3	17	4	1990	4	1998	3991
Apprch %	12.9	0	87.1		2.9	96.3	0.8		70.6	11.8	17.6		0.2	99.6	0.2		
Total %	0.1	0	0.7	0.8	1.4	46.9	0.4	48.7	0.3	0.1	0.1	0.4	0.1	49.9	0.1	50.1	
Cars +	4	0	27	31	56	1868	15	1939	12	2	3	17	4	1986	4	1994	3981
% Cars +	100	0	100	100	98.2	99.7	100	99.7	100	100	100	100	100	99.8	100	99.8	99.7
Trucks	0	0	0	0	1	5	0	6	0	0	0	0	0	4	0	4	10
% Trucks	0	0	0	0	1.8	0.3	0	0.3	0	0	0	0	0	0.2	0	0.2	0.3

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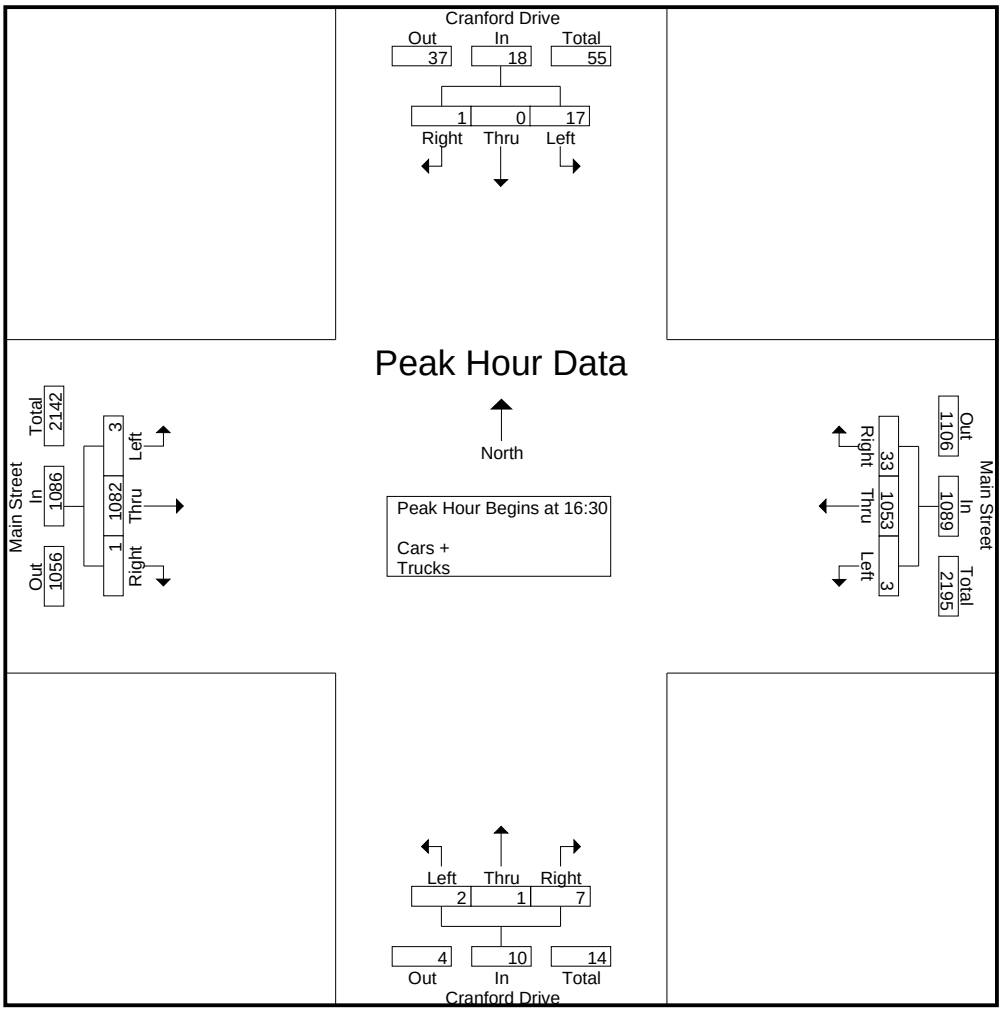
	Cranford Drive Southbound				Main Street Westbound				Cranford Drive Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	**0**	**0**	**3**	**3**	9	200	0	209	4	1	1	**6**	**1**	278	**2**	281	499
16:45	0	0	4	4	9	249	0	258	0	0	0	0	0	239	0	239	501
17:00	**1**	0	4	5	8	**314**	1	**323**	3	0	1	4	0	**302**	1	**303**	**635**
17:15	0	0	**6**	**6**	7	290	**2**	299	0	0	0	0	0	263	0	263	568
Total Volume	1	0	17	18	33	1053	3	1089	7	1	2	10	1	1082	3	1086	2203
% App. Total	5.6	0	94.4		3	96.7	0.3		70	10	20		0.1	99.6	0.3		
PHF	.250	.000	.708	.750	.917	.838	.375	.843	.438	.250	.500	.417	.250	.896	.375	.896	.867



Burns Service Inc.

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File Name : Pineville(Polk and Main) AM Peak
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Groups Printed- Cars + - Trucks

	Polk Street Southbound				Pineville-Mathews Road Westbound				Polk Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00	10	51	19	80	28	115	19	162	5	156	46	207	14	136	26	176	625
07:15	25	75	20	120	58	157	17	232	3	160	67	230	24	149	26	199	781
07:30	13	84	26	123	43	138	12	193	9	151	57	217	36	135	34	205	738
07:45	21	67	24	112	73	159	16	248	6	155	67	228	40	155	20	215	803
Total	69	277	89	435	202	569	64	835	23	622	237	882	114	575	106	795	2947
08:00	10	75	29	114	39	100	2	141	5	119	48	172	44	163	31	238	665
08:15	19	91	25	135	40	121	9	170	3	141	52	196	35	161	27	223	724
08:30	15	56	23	94	44	87	11	142	5	122	42	169	31	143	22	196	601
08:45	27	64	28	119	36	74	8	118	6	98	47	151	27	114	36	177	565
Total	71	286	105	462	159	382	30	571	19	480	189	688	137	581	116	834	2555
Grand Total	140	563	194	897	361	951	94	1406	42	1102	426	1570	251	1156	222	1629	5502
Apprch %	15.6	62.8	21.6		25.7	67.6	6.7		2.7	70.2	27.1		15.4	71	13.6		
Total %	2.5	10.2	3.5	16.3	6.6	17.3	1.7	25.6	0.8	20	7.7	28.5	4.6	21	4	29.6	
Cars +	137	550	194	881	361	947	94	1402	42	1095	419	1556	248	1137	221	1606	5445
% Cars +	97.9	97.7	100	98.2	100	99.6	100	99.7	100	99.4	98.4	99.1	98.8	98.4	99.5	98.6	99
Trucks	3	13	0	16	0	4	0	4	0	7	7	14	3	19	1	23	57
% Trucks	2.1	2.3	0	1.8	0	0.4	0	0.3	0	0.6	1.6	0.9	1.2	1.6	0.5	1.4	1

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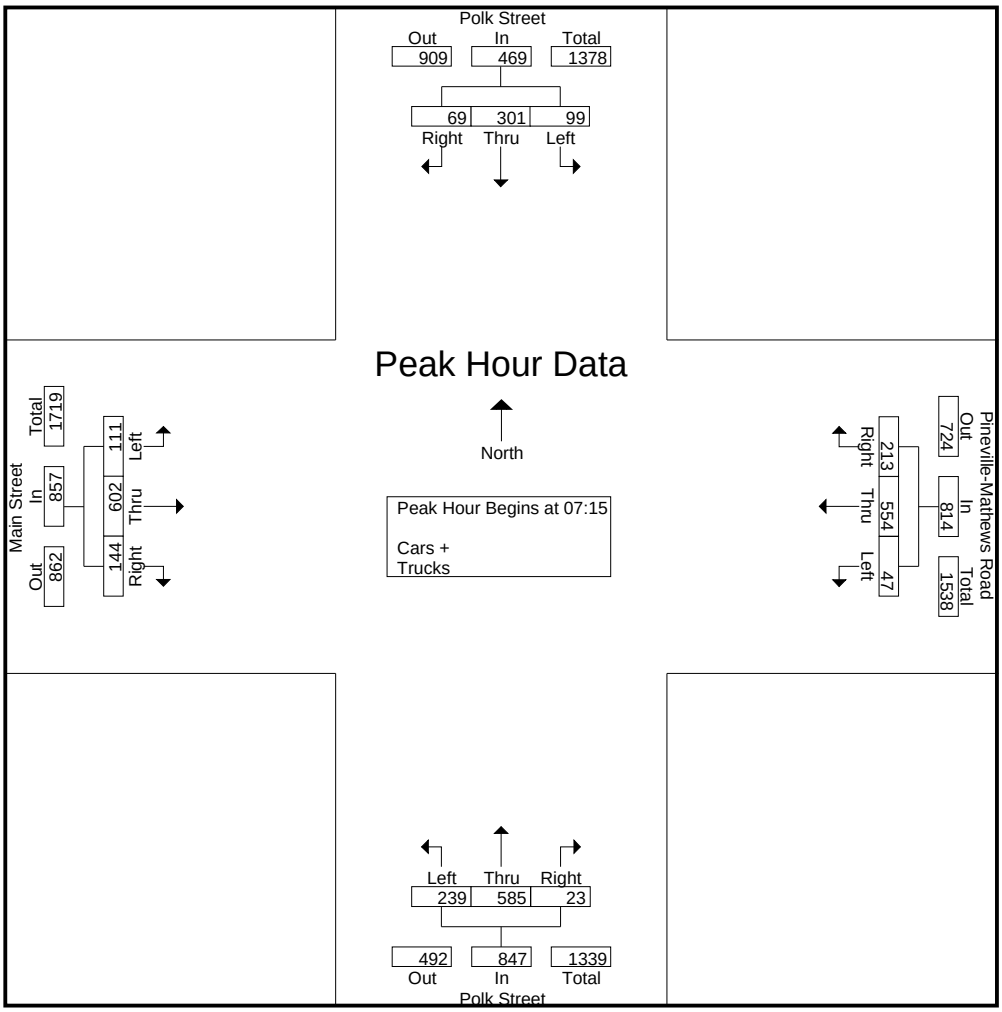
	Polk Street Southbound				Pineville-Mathews Road Westbound				Polk Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	25	75	20	120	58	157	17	232	3	160	67	**230**	24	149	26	199	781
07:30	13	**84**	26	**123**	43	138	12	193	**9**	151	57	217	36	135	**34**	205	738
07:45	21	67	24	112	**73**	**159**	16	**248**	6	155	67	228	40	155	20	215	**803**
08:00	10	75	**29**	114	39	100	2	141	5	119	48	172	**44**	**163**	31	**238**	665
Total Volume	69	301	99	469	213	554	47	814	23	585	239	847	144	602	111	857	2987
% App. Total	14.7	64.2	21.1		26.2	68.1	5.8		2.7	69.1	28.2		16.8	70.2	13		
PHF	.690	.896	.853	.953	.729	.871	.691	.821	.639	.914	.892	.921	.818	.923	.816	.900	.930



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Groups Printed- Cars + - Trucks

	Polk Street Southbound				Pneville-Mathews Road Westbound				Polk Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
16:00	28	130	70	228	53	133	17	203	10	62	40	112	42	174	25	241	784
16:15	41	121	68	230	53	145	22	220	11	63	48	122	40	182	26	248	820
16:30	43	145	101	289	51	142	24	217	8	87	45	140	31	218	24	273	919
16:45	58	128	93	279	70	179	20	269	5	52	42	99	32	221	29	282	929
Total	170	524	332	1026	227	599	83	909	34	264	175	473	145	795	104	1044	3452
17:00	56	116	105	277	80	239	16	335	11	87	56	154	26	196	18	240	1006
17:15	31	113	104	248	101	207	12	320	11	92	56	159	34	215	27	276	1003
17:30	38	119	97	254	53	239	27	319	14	68	39	121	36	191	23	250	944
17:45	48	113	115	276	62	162	23	247	12	81	53	146	17	182	30	229	898
Total	173	461	421	1055	296	847	78	1221	48	328	204	580	113	784	98	995	3851
Grand Total	343	985	753	2081	523	1446	161	2130	82	592	379	1053	258	1579	202	2039	7303
Apprch %	16.5	47.3	36.2		24.6	67.9	7.6		7.8	56.2	36		12.7	77.4	9.9		
Total %	4.7	13.5	10.3	28.5	7.2	19.8	2.2	29.2	1.1	8.1	5.2	14.4	3.5	21.6	2.8	27.9	
Cars +	342	982	747	2071	520	1442	160	2122	82	587	378	1047	258	1572	202	2032	7272
% Cars +	99.7	99.7	99.2	99.5	99.4	99.7	99.4	99.6	100	99.2	99.7	99.4	100	99.6	100	99.7	99.6
Trucks	1	3	6	10	3	4	1	8	0	5	1	6	0	7	0	7	31
% Trucks	0.3	0.3	0.8	0.5	0.6	0.3	0.6	0.4	0	0.8	0.3	0.6	0	0.4	0	0.3	0.4

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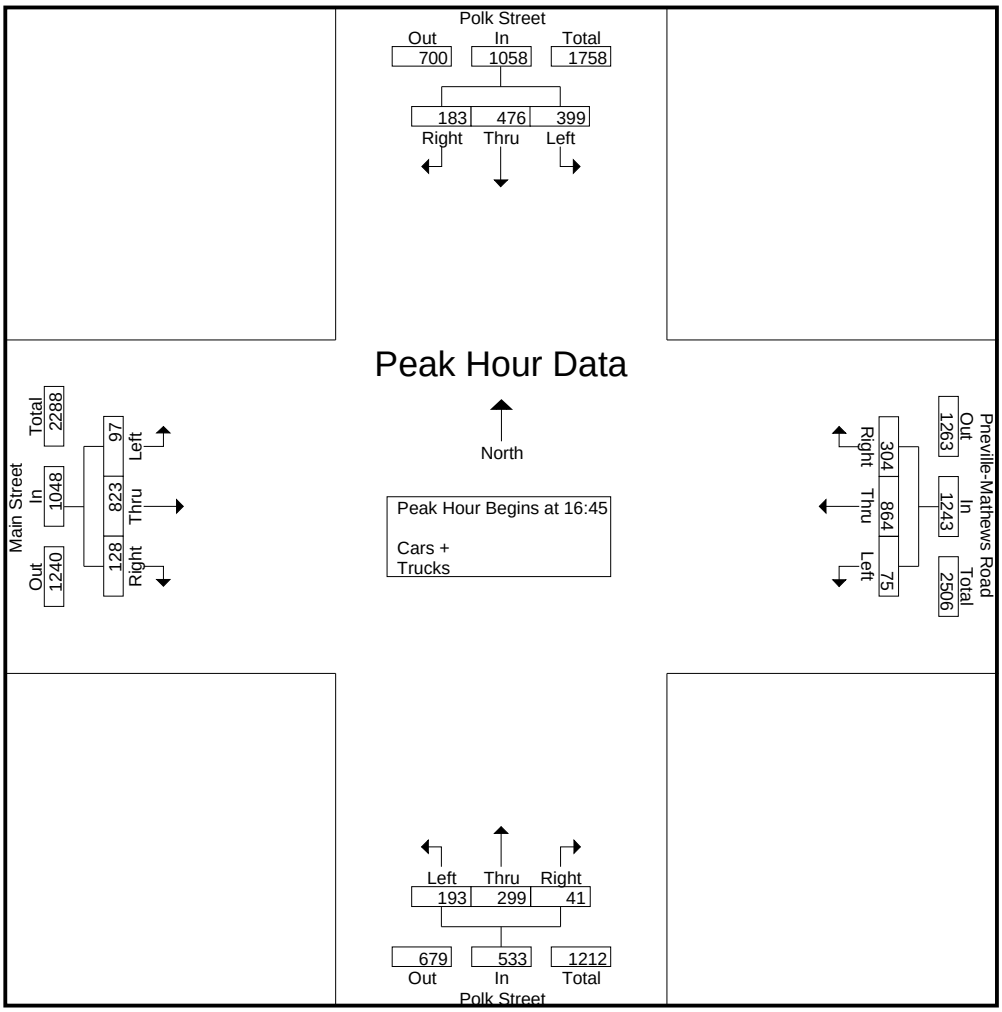
	Polk Street Southbound				Pneville-Mathews Road Westbound				Polk Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	58	128	93	279	70	179	20	269	5	52	42	99	32	221	**29**	**282**	929
17:00	56	116	**105**	277	80	**239**	16	**335**	11	87	**56**	154	26	196	18	240	**1006**
17:15	31	113	104	248	**101**	207	12	320	11	**92**	56	**159**	34	215	27	276	1003
17:30	38	119	97	254	53	239	**27**	319	**14**	68	39	121	**36**	191	23	250	944
Total Volume	183	476	399	1058	304	864	75	1243	41	299	193	533	128	823	97	1048	3882
% App. Total	17.3	45	37.7		24.5	69.5	6		7.7	56.1	36.2		12.2	78.5	9.3		
PHF	.789	.930	.950	.948	.752	.904	.694	.928	.732	.813	.862	.838	.889	.931	.836	.929	.965



Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) AM Peak
Site Code :
Start Date : 5/25/2017
Page No : 1

Groups Printed- Cars + - Trucks

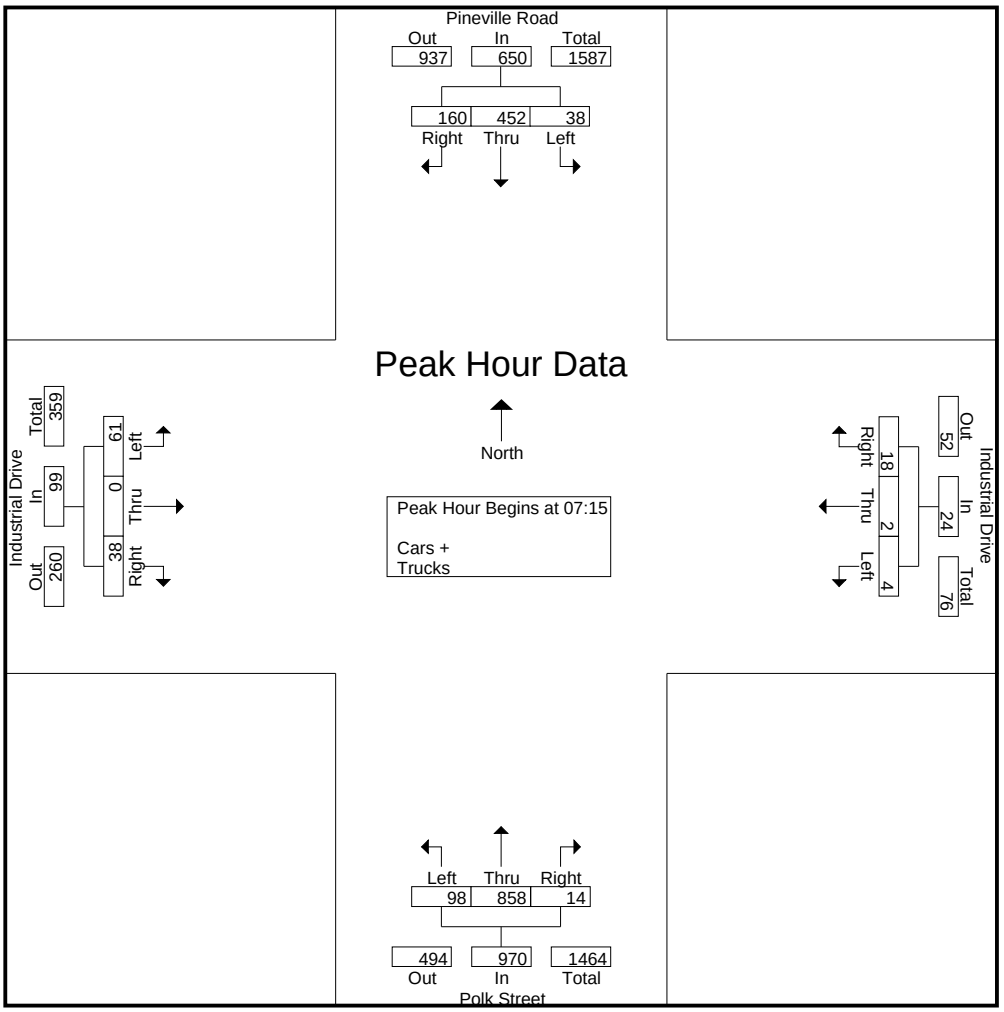
	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00	40	66	3	109	2	0	1	3	5	160	19	184	15	1	26	42	338
07:15	38	129	11	178	10	0	1	11	4	222	36	262	10	0	12	22	473
07:30	24	93	7	124	1	1	0	2	5	219	13	237	9	0	19	28	391
07:45	51	129	16	196	3	0	2	5	4	235	34	273	6	0	14	20	494
Total	153	417	37	607	16	1	4	21	18	836	102	956	40	1	71	112	1696
08:00	47	101	4	152	4	1	1	6	1	182	15	198	13	0	16	29	385
08:15	29	150	3	182	6	1	1	8	2	210	11	223	12	1	26	39	452
08:30	13	109	8	130	2	0	0	2	2	180	15	197	4	1	15	20	349
08:45	26	132	9	167	6	1	0	7	3	138	12	153	9	6	20	35	362
Total	115	492	24	631	18	3	2	23	8	710	53	771	38	8	77	123	1548
Grand Total	268	909	61	1238	34	4	6	44	26	1546	155	1727	78	9	148	235	3244
Apprch %	21.6	73.4	4.9		77.3	9.1	13.6		1.5	89.5	9		33.2	3.8	63		
Total %	8.3	28	1.9	38.2	1	0.1	0.2	1.4	0.8	47.7	4.8	53.2	2.4	0.3	4.6	7.2	
Cars +	248	905	61	1214	33	4	6	43	26	1543	153	1722	77	9	128	214	3193
% Cars +	92.5	99.6	100	98.1	97.1	100	100	97.7	100	99.8	98.7	99.7	98.7	100	86.5	91.1	98.4
Trucks	20	4	0	24	1	0	0	1	0	3	2	5	1	0	20	21	51
% Trucks	7.5	0.4	0	1.9	2.9	0	0	2.3	0	0.2	1.3	0.3	1.3	0	13.5	8.9	1.6

Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) AM Peak
Site Code :
Start Date : 5/25/2017
Page No : 2

	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	**38**	129	11	178	10	0	1	11	4	222	36	262	10	0	12	22	473
07:30	24	93	7	124	1	**1**	0	2	**5**	219	13	237	9	0	**19**	28	391
07:45	**51**	129	**16**	**196**	3	0	**2**	5	4	**235**	34	**273**	6	0	14	20	**494**
08:00	47	101	4	152	4	1	1	6	1	182	15	198	**13**	0	16	**29**	385
Total Volume	160	452	38	650	18	2	4	24	14	858	98	970	38	0	61	99	1743
% App. Total	24.6	69.5	5.8		75	8.3	16.7		1.4	88.5	10.1		38.4	0	61.6		
PHF	.784	.876	.594	.829	.450	.500	.500	.545	.700	.913	.681	.888	.731	.000	.803	.853	.882



Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) PM Peak
Site Code :
Start Date : 5/25/2017
Page No : 1

Groups Printed- Cars + - Trucks

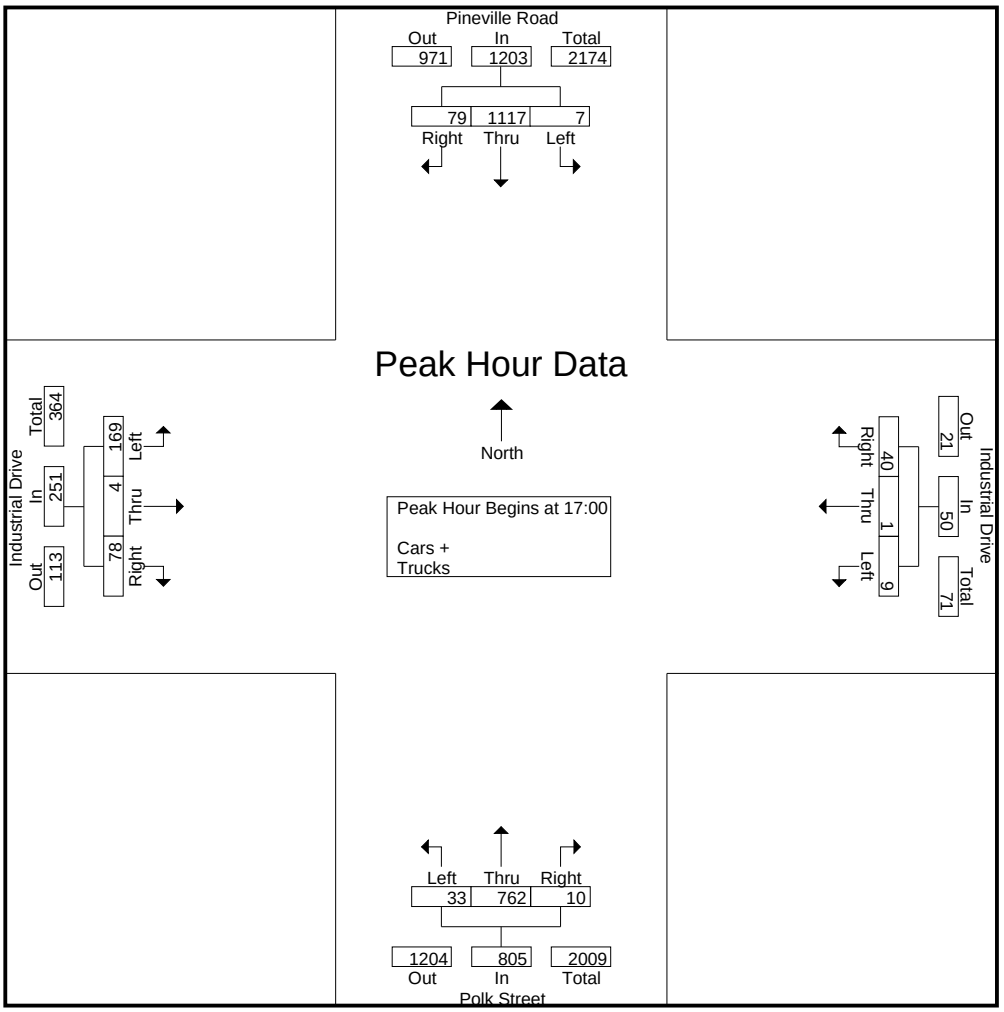
	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
16:00	21	193	2	216	13	2	1	16	3	158	9	170	21	3	43	67	469
16:15	18	251	2	271	6	0	3	9	3	137	3	143	27	4	35	66	489
16:30	11	241	6	258	11	0	0	11	1	158	11	170	43	1	76	120	559
16:45	7	261	3	271	7	0	1	8	1	155	4	160	28	0	50	78	517
Total	57	946	13	1016	37	2	5	44	8	608	27	643	119	8	204	331	2034
17:00	20	255	2	277	13	1	4	18	2	220	8	230	31	0	59	90	615
17:15	16	277	1	294	12	0	3	15	3	213	10	226	15	3	45	63	598
17:30	24	282	3	309	11	0	0	11	2	152	9	163	19	1	49	69	552
17:45	19	303	1	323	4	0	2	6	3	177	6	186	13	0	16	29	544
Total	79	1117	7	1203	40	1	9	50	10	762	33	805	78	4	169	251	2309
Grand Total	136	2063	20	2219	77	3	14	94	18	1370	60	1448	197	12	373	582	4343
Apprch %	6.1	93	0.9		81.9	3.2	14.9		1.2	94.6	4.1		33.8	2.1	64.1		
Total %	3.1	47.5	0.5	51.1	1.8	0.1	0.3	2.2	0.4	31.5	1.4	33.3	4.5	0.3	8.6	13.4	
Cars +	125	2060	20	2205	76	3	14	93	18	1366	59	1443	196	12	363	571	4312
% Cars +	91.9	99.9	100	99.4	98.7	100	100	98.9	100	99.7	98.3	99.7	99.5	100	97.3	98.1	99.3
Trucks	11	3	0	14	1	0	0	1	0	4	1	5	1	0	10	11	31
% Trucks	8.1	0.1	0	0.6	1.3	0	0	1.1	0	0.3	1.7	0.3	0.5	0	2.7	1.9	0.7

Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) PM Peak
Site Code :
Start Date : 5/25/2017
Page No : 2

	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	**20**	**255**	**2**	**277**	13	1	4	18	2	**220**	8	**230**	**31**	0	**59**	**90**	**615**
17:15	16	277	1	294	12	0	3	15	**3**	213	**10**	226	15	**3**	45	63	598
17:30	**24**	282	**3**	309	11	0	0	11	2	152	9	163	19	1	49	69	552
17:45	19	**303**	1	**323**	4	0	2	6	3	177	6	186	13	0	16	29	544
Total Volume	79	1117	7	1203	40	1	9	50	10	762	33	805	78	4	169	251	2309
% App. Total	6.6	92.9	0.6		80	2	18		1.2	94.7	4.1		31.1	1.6	67.3		
PHF	.823	.922	.583	.931	.769	.250	.563	.694	.833	.866	.825	.875	.629	.333	.716	.697	.939



Appendix B – Accident Data

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Fiche, Intersection, and Strip Reports Code Index

T - Type of Accident Codes

0 = UNKNOWN
1 = RAN OFF ROAD - RIGHT
2 = RAN OFF ROAD - LEFT
3 = RAN OFF ROAD - STRAIGHT
4 = JACKKNIFE
5 = OVERTURN/ROLLOVER
13 = OTHER NON-COLLISION
14 = PEDESTRIAN
15 = PEDALCYCLIST
16 = RR TRAIN, ENGINE
17 = ANIMAL
18 = MOVABLE OBJECT
19 = FIXED OBJECT
20 = PARKED MOTOR VEHICLE
21 = REAR END, SLOW OR STOP
22 = REAR END, TURN
23 = LEFT TURN, SAME ROADWAY
24 = LEFT TURN, DIFFERENT ROADWAYS
25 = RIGHT TURN, SAME ROADWAY
26 = RIGHT TURN, DIFFERENT ROADWAYS
27 = HEAD ON
28 = SIDESWIPE, SAME DIRECTION
29 = SIDESWIPE, OPPOSITE DIRECTION
30 = ANGLE
31 = BACKING UP
32 = OTHER COLLISION WITH VEHICLE

F - Road Feature Codes

0 = NO SPECIAL FEATURE
1 = BRIDGE
2 = BRIDGE APPROACH
3 = UNDERPASS
4 = DRIVEWAY, PUBLIC
5 = DRIVEWAY, PRIVATE
6 = ALLEY INTERSECTION
7 = FOUR-WAY INTERSECTION
8 = T-INTERSECTION
9 = Y-INTERSECTION
10 = TRAFFIC CIRCLE/ROUNDABOUT
11 = FIVE-POINT, OR MORE
12 = RELATED TO INTERSECTION
13 = NON-INTERSECTION MEDIAN CROSSING
14 = END OR BEGINNING - DIVIDED HIGHWAY
15 = OFF RAMP ENTRY
16 = OFF RAMP PROPER
17 = OFF RAMP TERMINAL ON CROSSROAD
18 = MERGE LANE BETWEEN ON AND OFF RAMP
19 = ON RAMP ENTRY
20 = ON RAMP PROPER
21 = ON RAMP TERMINAL ON CROSSROAD
22 = RAILROAD CROSSING
23 = TUNNEL
24 = SHARED-USE PATHS OR TRAILS
25 = OTHER

R - Road Condition Codes

1 = DRY
2 = WET
3 = WATER (STANDING, MOVING)
4 = ICE
5 = SNOW
6 = SLUSH
7 = SAND, MUD, DIRT, GRAVEL
8 = FUEL, OIL
9 = OTHER
10 = UNKNOWN

S - Accident Severity Codes

K = FATAL
A = A-LEVEL INJURY
B = B-LEVEL INJURY
C = C-LEVEL INJURY
O = PROPERTY DAMAGE ONLY

L - Light Condition Codes

1 = DAYLIGHT
2 = DUSK
3 = DAWN
4 = DARK - LIGHTED ROADWAY
5 = DARK - ROADWAY NOT LIGHTED
6 = DARK - UNKNOWN LIGHTING
7 = OTHER
8 = UNKNOWN

Ch - Road Character

1 = STRAIGHT, LEVEL
2 = STRAIGHT, HILLCREST
3 = STRAIGHT, GRADE
4 = STRAIGHT, BOTTOM (SAG)
5 = CURVE, LEVEL
6 = CURVE, HILLCREST
7 = CURVE, GRADE
8 = CURVE, BOTTOM (SAG)
9 = OTHER

W - Weather Condition Codes

1 = CLEAR
2 = CLOUDY
3 = RAIN
4 = SNOW
5 = FOG, SMOG, SMOKE
6 = SLEET, HAIL, FREEZING RAIN/DRIZZLE
7 = SEVERE CROSSWINDS
8 = BLOWING SAND, DIRT, SNOW
9 = OTHER

Op - Traffic Control Operating

1 = YES
2 = NO
3 = UNKNOWN

Veh Mnvr - Vehicle Maneuver Codes

1 = STOPPED IN TRAVEL LANE
2 = PARKED OUT OF TRAVEL LANES
3 = PARKED IN TRAVEL LANES
4 = GOING STRAIGHT AHEAD
5 = CHANGING LANES OR MERGING
6 = PASSING
7 = MAKING RIGHT TURN
8 = MAKING LEFT TURN
9 = MAKING U-TURN
10 = BACKING
11 = SLOWING OR STOPPING
12 = STARTING IN ROADWAY
13 = PARKING
14 = LEAVING PARKED POSITION
15 = AVOIDING OBJECT IN ROAD

Dv - Traffic Control Device

0 = NO CONTROL PRESENT
1 = STOP SIGN
2 = YIELD SIGN
3 = STOP AND GO SIGNAL
4 = FLASHING SIGNAL WITH STOP SIGN
5 = FLASHING SIGNAL WITHOUT STOP SIGN
6 = RR GATE AND FLASHER
7 = RR FLASHER
8 = RR CROSSBUCKS ONLY
9 = HUMAN CONTROL
10 = WARNING SIGN
11 = SCHOOL ZONE SIGNS
12 = FLASHING STOP AND GO SIGNAL
13 = DOUBLE YELLOW LINE, NO PASSING ZONE
14 = OTHER

Alchl/Drgs - Driver Alcohol/Drugs Suspected Status Codes

0 = NO
1 = YES - ALCOHOL, IMPAIRMENT SUSPECTED
2 = YES - ALCOHOL, NO IMPAIRMENT DETECTED
3 = YES - OTHER DRUGS, IMPAIRMENT SUSPECTED
4 = YES - OTHER DRUGS, NO IMPAIRMENT DETECTED
5 = YES - ALCOHOL AND OTHER DRUGS, IMPAIRMENT SUSPECTED
6 = YES - ALCOHOL AND OTHER DRUGS, NO IMPAIRMENT DETECTED
7 = UNKNOWN

Ped Actn - Pedestrian Action Codes

1 = ENTERING OR CROSSING SPECIFIED LOCATION
2 = WALKING, RIDING, RUNNING/JOGGING WITH TRAFFIC
3 = WALKING, RIDING, RUNNING/JOGGING AGAINST TRAFFIC
4 = WORKING
5 = PUSHING VEHICLE
6 = APPROACHING OR LEAVING VEHICLE
7 = PLAYING
8 = STANDING
9 = OTHER

Ci - Roadway Contributing Circumstances

0 = NONE (NO UNUSUAL CONDITIONS)
1 = ROAD SURFACE CONDITION
2 = DEBRIS
3 = RUT, HOLES, BUMPS
4 = WORK ZONE (CONSTRUCTION, MAINTENANCE, UTILITY)
5 = WORN TRAVEL-POLISHED SURFACE
6 = OBSTRUCTION IN ROADWAY
7 = TRAFFIC CONTROL DEVICE INOPERATIVE, NOT VISIBLE OR MISSING
8 = SHOULDERS LOW, SOFT OR HIGH
9 = NO SHOULDERS
10 = NON-HIGHWAY WORK
11 = OTHER
12 = UNKNOWN

Obj Strk - Object Struck Codes

14 = PEDESTRIAN
15 = PEDALCYCLIST
17 = ANIMAL
18 = MOVABLE OBJECT
20 = PARKED MOTOR VEHICLE
33 = TREE
34 = UTILITY POLE
35 = LUMINAIRE POLE NON-BREAKAWAY
36 = LUMINAIRE POLE BREAKAWAY
37 = OFFICIAL HIGHWAY SIGN NON-BREAKAWAY
38 = OFFICIAL HIGHWAY SIGN BREAKAWAY
39 = OVERHEAD SIGN SUPPORT
40 = COMMERCIAL SIGN
41 = GUARDRAIL END ON SHOULDER
42 = GUARDRAIL FACE ON SHOULDER
43 = GUARDRAIL END IN MEDIAN
44 = GUARDRAIL FACE IN MEDIAN
45 = SHOULDER BARRIER END
46 = SHOULDER BARRIER FACE
47 = MEDIAN BARRIER END
48 = MEDIAN BARRIER FACE
49 = BRIDGE RAIL END
50 = BRIDGE RAIL FACE
51 = OVERHEAD PART UNDERPASS
52 = PIER ON SHOULDER OF UNDERPASS
53 = PIER IN MEDIAN OF UNDERPASS
54 = ABUTMENT OF UNDERPASS
55 = TRAFFIC ISLAND CURB OR MEDIAN
56 = CATCH BASIN OR CULVERT ON SHOULDER
57 = CATCH BASIN OR CULVERT ON MEDIAN
58 = DITCH
59 = EMBANKMENT
60 = MAILBOX
61 = FENCE OR FENCE POST
62 = CONTRUCTION BARRIER
63 = CRASH CUSHION
64 = OTHER FIXED OBJECT

Unit # - Vehicle Style Codes

1 = PASSENGER CAR
2 = PICKUP
3 = LIGHT TRUCK (MINI-VAN, PANEL)
4 = SPORT UTILITY
5 = VAN
6 = COMMERCIAL BUS
7 = SCHOOL BUS
8 = ACTIVITY BUS
9 = OTHER BUS
10 = SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)
11 = SINGLE UNIT TRUCK (3 OR MORE AXLES)
12 = TRUCK/TRAILER
13 = TRUCK/TRACTOR
14 = TRACTOR/SEMI-TRAILER
15 = TRACTOR/DOULBES
16 = UNKNOWN HEAVY TRUCK
17 = TAXICAB
18 = FARM EQUIPMENT
19 = FARM TRACTOR
20 = MOTORCYCLE
21 = MOPED
22 = MOTOR SCOOTER OR MOTOR BIKE
23 = PEDALCYCLE
24 = PEDESTRIAN
25 = MOTOR HOME/RECREATIONAL VEHICLE
26 = OTHER
27 = ALL TERRAIN VEHICLE (ATV)
28 = FIRETRUCK
29 = EMS VEHICLE, AMBULANCE, RESCUE SQUAD
30 = MILITARY
31 = POLICE
32 = UNKNOWN

Study Criteria Summary

County: MECKLENBURG **City:** All and Rural
Date: 05/01/2012 **to** 04/30/2017 **Study:** 41000047185
Location: NC 51 (Main St) at Cranford Drive **Crash rates contained in this analysis should not be used**

Report Details

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	Injuries A	Injuries B	Injuries C	Condition R	Condition L	Condition W	Road Ch	Road Ci	Trfc Ctl Dv	Trfc Ctl Op
1	103517986	07/26/2012 14:10	ANIMAL	$ 2000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	Alchl/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk: 17										
2	103599564	10/04/2012 05:08	RAN OFF ROAD - RIGHT	$ 2200	0	0	0	0	2	4	3	1	0		
Unit 1 : 1	Alchl/Drgs: 1	Speed: 40 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk: 33										
3	103599559	10/20/2012 16:29	REAR END, SLOW OR STOP	$ 2700	0	0	0	3	1	1	1	1	0		
Unit 1 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 3 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
Unit 4 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
4	103648446	12/07/2012 18:07	ANGLE	$ 2500	0	0	0	0	1	4	2	1	0	1	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: SE	Veh Mnvr / Ped Actn: 1	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 45 MPH	Dir: NW	Veh Mnvr / Ped Actn: 4	Obj Strk:										
5	103788738	05/24/2013 12:13	LEFT TURN, DIFFERENT ROADWAYS	$ 3000	0	0	0	0	1	1	1	1	0	1	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 5 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 25 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
6	104185053	09/03/2014 15:28	FIXED OBJECT	$ 2050	0	0	0	0	1	1	1	1	3		
Unit 1 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk: 64										
7	104440154	07/22/2015 12:54	SIDESWIPE, SAME DIRECTION	$ 600	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 1	Alchl/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	Alchl/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
8	104447827	07/24/2015 21:09	LEFT TURN, SAME ROADWAY	$ 5500	0	0	0	0	1	2	1	1	0	0	
Unit 1 : 4	Alchl/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 9	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	Injuries A	Injuries B	Injuries C	Condition R	Condition L	Condition W	Road Ch	Road Ci	Trfc Ctl Dv	Trfc Ctl Op
9	104525416	10/18/2015 19:18	SIDESWIPE, SAME DIRECTION	$ 1000	0	0	0	0	1	4	1	1	0	0	
Unit 1 : 4	Alchl/Drgs: 0	Speed: 20 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
10	104687210	03/23/2016 10:09	REAR END, SLOW OR STOP	$ 4000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 4	Alchl/Drgs: 0	Speed: 25 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
11	104777158	05/21/2016 15:00	REAR END, SLOW OR STOP	$ 1600	0	0	0	2	1	1	2	1	0	1	1
Unit 1 : 2	Alchl/Drgs: 0	Speed: 25 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
12	104932925	11/29/2016 07:21	REAR END, SLOW OR STOP	$ 2500	0	0	0	0	2	1	2	1	0	0	
Unit 1 : 1	Alchl/Drgs: 0	Speed: 25 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 4	Alchl/Drgs: 0	Speed: 10 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
13	104936939	12/05/2016 18:53	SIDESWIPE, SAME DIRECTION	$ 200	0	0	0	1	2	4	3	1	1	0	
Unit 1 : 4	Alchl/Drgs: 0	Speed: 15 MPH	Dir: NW	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 15 MPH	Dir: NW	Veh Mnvr / Ped Actn: 4	Obj Strk:										

Legend for Report Details:
Acc No - Accident Number
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
Condition: R - Road Surface, L - Ambient Light, W - Weather
Rd Ch - Road Character
Rd Ci - Roadway Contributing Circumstances
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
Alchl/Drgs - Alcohol Drugs Suspected
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	13	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	3	23.08
Total Injury Crashes	3	23.08
Property Damage Only Crashes	10	76.92
Night Crashes	4	30.77
Wet Crashes	3	23.08
Alcohol/Drugs Involvement Crashes	1	7.69

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	13	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	0	0.00
Class C Crashes	3	23.08
Property Damage Only Crashes	10	76.92

Vehicle Exposure Statistics

Annual ADT = 999999

Total Vehicle Exposure = 1826 (MEV)

Crash Rate	Crashes Per 100 Million Vehicles Entered
Total Crash Rate	0.71
Fatal Crash Rate	0.00
Non Fatal Crash Rate	0.16
Night Crash Rate	0.22
Wet Crash Rate	0.16
EPDO Rate	1.93

Miscellaneous Statistics

Severity Index =	2.71
EPDO Crash Index =	35.20
Estimated Property Damage Total = $	29850.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
ANGLE	1	7.69
ANIMAL	1	7.69
FIXED OBJECT	1	7.69
LEFT TURN, DIFFERENT ROADWAYS	1	7.69
LEFT TURN, SAME ROADWAY	1	7.69
RAN OFF ROAD - RIGHT	1	7.69
REAR END, SLOW OR STOP	4	30.77
SIDESWIPE, SAME DIRECTION	3	23.08

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	0	0.00
Class C Injuries	6	100.00
Total Non-Fatal Injuries	6	100.00
Total Injuries	6	100.00

Monthly Summary

Month	Number of Crashes	Percent of Total
Jan	0	0.00
Feb	0	0.00
Mar	1	7.69
Apr	0	0.00
May	2	15.38
Jun	0	0.00
Jul	3	23.08
Aug	0	0.00
Sep	1	7.69
Oct	3	23.08
Nov	1	7.69
Dec	2	15.38

Daily Summary

Day	Number of Crashes	Percent of Total
Mon	1	7.69
Tue	1	7.69
Wed	3	23.08
Thu	2	15.38
Fri	3	23.08
Sat	2	15.38
Sun	1	7.69

Hourly Summary

Hour	Number of Crashes	Percent of Total
0000-0059	0	0.00
0100-0159	0	0.00
0200-0259	0	0.00
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	1	7.69
0600-0659	0	0.00
0700-0759	1	7.69
0800-0859	0	0.00
0900-0959	0	0.00
1000-1059	1	7.69
1100-1159	0	0.00
1200-1259	2	15.38
1300-1359	0	0.00
1400-1459	1	7.69
1500-1559	2	15.38
1600-1659	1	7.69
1700-1759	0	0.00
1800-1859	2	15.38
1900-1959	1	7.69
2000-2059	0	0.00
2100-2159	1	7.69
2200-2259	0	0.00
2300-2359	0	0.00

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	7	1	0	8
Dark	2	2	0	4
Other	1	0	0	1
Total	10	3	0	13

Object Struck Summary

Object Type	Times Struck	Percent of Total
ANIMAL	1	33.33
OTHER FIXED OBJECT	1	33.33
TREE	1	33.33

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
PASSENGER CAR	17	68.00
PICKUP	1	4.00
SPORT UTILITY	7	28.00

Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2012	4	0	1	3
2013	1	0	0	1
2014	1	0	0	1
2015	3	0	0	3
2016	4	0	2	2
2017	0	0	0	0
Total	13	0	3	10

Injury Totals

Year	Fatal Injuries	Class A, B, or C Injuries
2012	0	3
2013	0	0
2014	0	0
2015	0	0
2016	0	3
2017	0	0
Total	0	6

Miscellaneous Totals

Year	Property Damage	EPDO Index
2012	$ 9400	11.40
2013	$ 3000	1.00
2014	$ 2050	1.00
2015	$ 7100	3.00
2016	$ 8300	18.80
2017	$ 0	0.00
Total	$ 29850	35.20

Type of Accident Totals

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2012	0	0	1	1	1	0	1
2013	1	0	0	0	0	0	0
2014	0	0	0	1	0	0	0

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2015	1	0	0	0	0	2	0
2016	0	0	3	0	0	1	0
2017	0	0	0	0	0	0	0
Total	2	0	4	2	1	3	1

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000047185	41000047185			76.8	8.4	999999	

Request Date	Courier Service	Phone No.	Ext.	Fax No.

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
MECKLENBURG	60	10	All and Rural		150	05/01/2012	04/30/2017	5.00

Location Text

NC 51 (Main St) at Cranford Drive **Crash rates contained in this analysis should not be used**

Requestor

Cliff Lawson, PE
Timmons Group

Included Accidents

104936939
104185053
104932925
104687210

Excluded Accidents

103918106

Fiche Roads

Name	Code
NC 51	30000051
MAIN	50018682
ROCK HILL-PINEVILLE	50035876
PINEVILLE MATTHEWS	50024238
CRANFORD	50007267

Intersection Road Combinations

Name	Code	Code	Name
NC 51	30000051	50007267	CRANFORD
MAIN	50018682	50007267	CRANFORD
PINEVILLE MATTHEWS	50024238	50007267	CRANFORD
ROCK HILL-PINEVILLE	50035876	50007267	CRANFORD

Study Criteria Summary

County: MECKLENBURG **City:** All and Rural
Date: 5/1/2012 **to** 4/30/2017 **Study:** 41000047091
Location: NC 51 (Main St) at Franklin St. **Crash rates contained in this analysis should not be used**

Report Details

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
1	103648454	12/14/2012 22:29	ANIMAL	$ 3000	0	0	0	0	1	4	1	1	0	0	
Unit	1 : 4	Alchl/Drgs: 0	Speed: 35 MPH	Dir: SE	Veh Mnvr / Ped Actn: 4				Obj Strk: 17						
2	104337756	04/03/2015 14:15	SIDESWIPE, SAME DIRECTION	$ 1600	0	0	0	0	1	1	1	1	0	0	
Unit	1 : 4	Alchl/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 5				Obj Strk:						
Unit	2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 4				Obj Strk:						
3	104407868	06/11/2015 13:42	REAR END, SLOW OR STOP	$ 200	0	0	0	0	1	1	1	1	0	0	
Unit	1 : 4	Alchl/Drgs: 0	Speed: 2 MPH	Dir: E	Veh Mnvr / Ped Actn: 4				Obj Strk:						
Unit	2 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1				Obj Strk:						
4	104739886	05/21/2016 11:43	SIDESWIPE, SAME DIRECTION	$ 2750	0	0	0	0	1	1	2	1	0	0	
Unit	1 : 2	Alchl/Drgs: 0	Speed: 35 MPH	Dir: SE	Veh Mnvr / Ped Actn: 5				Obj Strk:						
Unit	2 : 1	Alchl/Drgs: 0	Speed: 30 MPH	Dir: SE	Veh Mnvr / Ped Actn: 4				Obj Strk:						
5	105029698	03/06/2017 15:12	SIDESWIPE, OPPOSITE DIRECTION	$ 600	0	0	0	0	1	1	2		0	0	
Unit	1 : 1	Alchl/Drgs: 7	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 4				Obj Strk:						
Unit	2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 4				Obj Strk:						

Legend for Report Details:
Acc No - Accident Number
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
Condition: R - Road Surface, L - Ambient Light, W - Weather
Rd Ch - Road Character
Rd Ci - Roadway Contributing Circumstances
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
Alchl/Drgs - Alcohol Drugs Suspected
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	5	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	0	0.00
Total Injury Crashes	0	0.00
Property Damage Only Crashes	5	100.00
Night Crashes	1	20.00
Wet Crashes	0	0.00
Alcohol/Drugs Involvement Crashes	0	0.00

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	5	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	0	0.00
Class C Crashes	0	0.00
Property Damage Only Crashes	5	100.00

Vehicle Exposure Statistics

Annual ADT = 999999

Total Vehicle Exposure = 1826 (MEV)

Crash Rate	Crashes Per 100 Million Vehicles Entered
Total Crash Rate	0.27
Fatal Crash Rate	0.00
Non Fatal Crash Rate	0.00
Night Crash Rate	0.05
Wet Crash Rate	0.00
EPDO Rate	0.27

Miscellaneous Statistics

Severity Index =	1.00
EPDO Crash Index =	5.00
Estimated Property Damage Total = $	8150.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
ANIMAL	1	20.00
REAR END, SLOW OR STOP	1	20.00
SIDESWIPE, OPPOSITE DIRECTION	1	20.00
SIDESWIPE, SAME DIRECTION	2	40.00

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	0	0.00
Class C Injuries	0	0.00
Total Non-Fatal Injuries	0	0.00
Total Injuries	0	0.00

Monthly Summary

Month	Number of Crashes	Percent of Total
Jan	0	0.00
Feb	0	0.00
Mar	1	20.00
Apr	1	20.00
May	1	20.00
Jun	1	20.00
Jul	0	0.00
Aug	0	0.00
Sep	0	0.00
Oct	0	0.00
Nov	0	0.00
Dec	1	20.00

Daily Summary

Day	Number of Crashes	Percent of Total
Mon	1	20.00
Tue	0	0.00
Wed	0	0.00
Thu	1	20.00
Fri	2	40.00
Sat	1	20.00
Sun	0	0.00

Hourly Summary

Hour	Number of Crashes	Percent of Total
0000-0059	0	0.00
0100-0159	0	0.00
0200-0259	0	0.00
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	0	0.00
0600-0659	0	0.00
0700-0759	0	0.00
0800-0859	0	0.00
0900-0959	0	0.00
1000-1059	0	0.00
1100-1159	1	20.00
1200-1259	0	0.00
1300-1359	1	20.00
1400-1459	1	20.00
1500-1559	1	20.00
1600-1659	0	0.00
1700-1759	0	0.00
1800-1859	0	0.00
1900-1959	0	0.00
2000-2059	0	0.00
2100-2159	0	0.00
2200-2259	1	20.00
2300-2359	0	0.00

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	4	0	0	4
Dark	1	0	0	1
Other	0	0	0	0
Total	5	0	0	5

Object Struck Summary

Object Type	Times Struck	Percent of Total
ANIMAL	1	100.00

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
PASSENGER CAR	5	55.56
PICKUP	1	11.11
SPORT UTILITY	3	33.33

Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2012	1	0	0	1
2013	0	0	0	0
2014	0	0	0	0
2015	2	0	0	2
2016	1	0	0	1
2017	1	0	0	1
Total	5	0	0	5

Injury Totals

Year	Fatal Injuries	Class A, B, or C Injuries
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
Total	0	0

Miscellaneous Totals

Year	Property Damage	EPDO Index
2012	$ 3000	1.00
2013	$ 0	0.00
2014	$ 0	0.00
2015	$ 1800	2.00
2016	$ 2750	1.00
2017	$ 600	1.00
Total	$ 8150	5.00

Type of Accident Totals

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2012	0	0	0	0	0	0	1
2013	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2015	0	0	1	0	0	1	0
2016	0	0	0	0	0	1	0
2017	0	0	0	0	0	1	0
Total	0	0	1	0	0	3	1

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000047091	41000047091			76.8	8.4	999999	

Request Date	Courier Service	Phone No.	Ext.	Fax No.

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
MECKLENBURG	60	10	All and Rural		150	5/1/2012	4/30/2017	5.00

Location Text

NC 51 (Main St) at Franklin St. **Crash rates contained in this analysis should not be used**

Requestor

Cliff Lawson, PE
Timmons Group

Excluded Accidents

104551981
104642803
103814886

Fiche Roads

Name	Code
NC 51	30000051
MAIN	50018682
ROCK HILL-PINEVILLE	50035876
PINEVILLE-MATTHEWS	50024238
FRANKLIN	50011079

Intersection Road Combinations

Name	Code	Code	Name
NC 51	30000051	50011079	FRANKLIN
MAIN	50018682	50011079	FRANKLIN
ROCK HILL-PINEVILLE	50035876	50011079	FRANKLIN
PINEVILLE-MATTHEWS	50024238	50011079	FRANKLIN

Study Criteria Summary

County: MECKLENBURG **City:** All and Rural
Date: 05/01/2012 **to** 04/30/2017 **Study:** 41000047242
Location: US 521 (Polk St-Pineville Rd) at SR 3542 (Industrial Dr). **Crash rates contained in this analysis should not be used**

Report Details

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
1	103473281	05/23/2012 15:13	REAR END, SLOW OR STOP	$ 2000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk:										
2	103600255	10/27/2012 10:30	REAR END, SLOW OR STOP	$ 11200	0	0	0	2	1	1	2	1	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 25 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk: 20										
Unit 3 : 1	Alchl/Drgs: 7	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 2	Obj Strk: 20										
3	103720686	02/15/2013 22:34	ANGLE	$ 3400	0	0	0	0	1	5	1	1	0	3	1
Unit 1 : 4	Alchl/Drgs: 0	Speed: 20 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 10	Alchl/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 7	Obj Strk:										
4	103751319	04/29/2013 13:01	LEFT TURN, SAME ROADWAY	$ 7500	0	0	0	0	1	1	2	3	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 5 MPH	Dir: W	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: SW	Veh Mnvr / Ped Actn: 4	Obj Strk:										
5	103918119	10/17/2013 17:53	REAR END, SLOW OR STOP	$ 7000	0	0	0	2	2	1	3	1	0		
Unit 1 : 1	Alchl/Drgs: 0	Speed: 25 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 5	Alchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
6	103983348	12/27/2013 17:37	REAR END, SLOW OR STOP	$ 1200	0	0	0	0	1	4	1	1	0	0	
Unit 1 : 4	Alchl/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 12	Obj Strk:										
Unit 2 : 4	Alchl/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
7	104009922	02/08/2014 16:24	REAR END, SLOW OR STOP	$ 2500	0	0	0	0	1	1	1	1	0		
Unit 1 : 1	Alchl/Drgs: 0	Speed: 25 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 5 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk:										
8	104028058	03/08/2014 10:22	REAR END, SLOW OR STOP	$ 3250	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	Alchl/Drgs: 0	Speed: 40 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
Unit 2 : 1	Alchl/Drgs: 0	Speed: 40 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk:										
9	104144964	07/18/2014 08:37	RIGHT TURN, SAME ROADWAY	$ 7200	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 14	Alchl/Drgs: 0	Speed: 8 MPH	Dir: N	Veh Mnvr / Ped Actn: 7	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 7	Obj Strk:										
10	104156148	08/12/2014 17:27	REAR END, SLOW OR STOP	$ 3200	0	0	0	1	1	1	1	1	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 20 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 20 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 3 : 2	Alchl/Drgs: 0	Speed: 20 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
11	104244597	11/08/2014 22:36	REAR END, SLOW OR STOP	$ 1000	0	0	0	0	1	4	1	1	0		
Unit 1 : 4	Alchl/Drgs: 1	Speed: 35 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
12	104246853	12/17/2014 17:50	ANGLE	$ 600	0	0	0	0	1	4	1	1	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 10 MPH	Dir: NW	Veh Mnvr / Ped Actn: 4	Obj Strk:										
13	104281833	12/19/2014 16:03	REAR END, SLOW OR STOP	$ 1050	0	0	0	0	1	1	1	1	0		
Unit 1 : 4	Alchl/Drgs: 0	Speed: 20 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
14	104271217	01/17/2015 19:17	RAN OFF ROAD - LEFT	$ 15100	0	0	0	1	1	4	1	1	0	0	
Unit 1 : 2	Alchl/Drgs: 0	Speed: 47 MPH	Dir: N	Veh Mnvr / Ped Actn: 5	Obj Strk: 55										
15	104298852	02/19/2015 18:42	REAR END, SLOW OR STOP	$ 1500	0	0	0	0	1	4	1	1	0	0	
Unit 1 : 1	Alchl/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
16	104438671	07/18/2015 13:19	REAR END, SLOW OR STOP	$ 2000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 4	Alchl/Drgs: 7	Speed: 25 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 7	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
17	104441323	07/24/2015 14:37	REAR END, SLOW OR STOP	$ 2200	0	0	0	1	1	1	1	1	0	3	1
Unit 1 : 5	Alchl/Drgs: 0	Speed: 20 MPH	Dir: NW	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	Alchl/Drgs: 0	Speed: 0 MPH	Dir: NW	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
18	104448464	07/30/2015 12:05	RAN OFF ROAD - RIGHT	$ 1805	0	0	0	1	1	1	1	1	0	5	1
Unit 1 : 2	Alchl/Drgs: 0	Speed: 35 MPH	Dir: NE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: SW	Veh Mnvr / Ped Actn: 4	Obj Strk: 18										
19	104508930	10/05/2015 11:48	REAR END, SLOW OR STOP	$ 9500	0	0	0	1	1	1	2	1	0	3	1
Unit 1 : 5	Alchl/Drgs: 0	Speed: 30 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	Alchl/Drgs: 7	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										
20	104554191	11/12/2015 20:10	LEFT TURN, DIFFERENT ROADWAYS	$ 2000	0	0	0	0	1	4	1	1	0	3	1
Unit 1 : 4	Alchl/Drgs: 0	Speed: 35 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
21	104606113	12/04/2015 23:27	ANGLE	$ 4000	0	0	0	2	1	4	1	1	0	3	1
Unit 1 : 4	Alchl/Drgs: 0	Speed: 35 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 5	Alchl/Drgs: 0	Speed: 4 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
22	104630745	02/01/2016 14:20	ANGLE	$ 9000	0	0	0	1	1	1	1	3	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 35 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	Alchl/Drgs: 0	Speed: 5 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
23	104889056	10/25/2016 15:06	LEFT TURN, SAME ROADWAY	$ 9000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 8 MPH	Dir: N	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 2	Alchl/Drgs: 0	Speed: 30 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
24	104912808	11/10/2016 08:31	REAR END, SLOW OR STOP	$ 3000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 1	Alchl/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 3	Alchl/Drgs: 7	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
25	104932924	11/29/2016 11:53	BACKING UP	$ 1500	0	0	0	0	2	1	2	1	0	3	1
Unit 1 : 2	Alchl/Drgs: 7	Speed: 2 MPH	Dir: N	Veh Mnvr / Ped Actn: 10	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 0	Speed: 1 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										
26	104964447	01/03/2017 13:19	ANGLE	$ 1500	0	0	0	0	1	1	2	1	0	3	1
Unit 1 : 14	Alchl/Drgs: 0	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	Alchl/Drgs: 7	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
27	105035958	03/04/2017 15:43	REAR END, SLOW OR STOP	$ 5500	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	Alchl/Drgs: 0	Speed: 25 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	Alchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
28	105064867	04/11/2017 08:33	ANGLE	$ 15500	0	0	1	0	1	1	1	1	0	3	1
Unit 1 : 2	Alchl/Drgs: 0	Speed: 35 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 3	Alchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 8	Obj Strk: 20										
Unit 3 : 1	Alchl/Drgs: 7	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 2	Obj Strk: 20										
Unit 4 : 1	Alchl/Drgs: 7	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 2	Obj Strk: 20										

Legend for Report Details:

Acc No - Accident Number
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
Condition: R - Road Surface, L - Ambient Light, W - Weather
Rd Ch - Road Character
Rd Ci - Roadway Contributing Circumstances
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
Alchl/Drgs - Alcohol Drugs Suspected
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	28	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	10	35.71
Total Injury Crashes	10	35.71
Property Damage Only Crashes	18	64.29
Night Crashes	8	28.57
Wet Crashes	2	7.14
Alcohol/Drugs Involvement Crashes	1	3.57

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	28	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	1	3.57
Class C Crashes	9	32.14
Property Damage Only Crashes	18	64.29

Vehicle Exposure Statistics

Annual ADT = 999999

Total Vehicle Exposure = 1826 (MEV)

Crash Rate	Crashes Per 100 Million Vehicles Entered
Total Crash Rate	1.53
Fatal Crash Rate	0.00
Non Fatal Crash Rate	0.55
Night Crash Rate	0.44
Wet Crash Rate	0.11
EPDO Rate	5.59

Miscellaneous Statistics

Severity Index =	3.64
EPDO Crash Index =	102.00
Estimated Property Damage Total - $	134205.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
ANGLE	6	21.43
BACKING UP	1	3.57
LEFT TURN, DIFFERENT ROADWAYS	1	3.57
LEFT TURN, SAME ROADWAY	2	7.14
RAN OFF ROAD - LEFT	1	3.57
RAN OFF ROAD - RIGHT	1	3.57
REAR END, SLOW OR STOP	15	53.57
RIGHT TURN, SAME ROADWAY	1	3.57

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	1	7.69
Class C Injuries	12	92.31
Total Non-Fatal Injuries	13	100.00
Total Injuries	13	100.00

Monthly Summary

Month	Number of Crashes	Percent of Total
Jan	2	7.14
Feb	4	14.29
Mar	2	7.14
Apr	2	7.14
May	1	3.57
Jun	0	0.00
Jul	4	14.29
Aug	1	3.57
Sep	0	0.00
Oct	4	14.29
Nov	4	14.29
Dec	4	14.29

Daily Summary

Day	Number of Crashes	Percent of Total
Mon	3	10.71
Tue	5	17.86
Wed	2	7.14
Thu	5	17.86
Fri	6	21.43
Sat	7	25.00
Sun	0	0.00

Hourly Summary

Hour	Number of Crashes	Percent of Total
0000-0059	0	0.00
0100-0159	0	0.00
0200-0259	0	0.00
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	0	0.00
0600-0659	0	0.00
0700-0759	0	0.00
0800-0859	3	10.71
0900-0959	0	0.00
1000-1059	2	7.14
1100-1159	2	7.14
1200-1259	1	3.57
1300-1359	3	10.71
1400-1459	2	7.14
1500-1559	3	10.71
1600-1659	2	7.14
1700-1759	4	14.29
1800-1859	1	3.57
1900-1959	1	3.57
2000-2059	1	3.57
2100-2159	0	0.00
2200-2259	2	7.14
2300-2359	1	3.57

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	18	2	0	20
Dark	8	0	0	8
Other	0	0	0	0
Total	26	2	0	28

Object Struck Summary

Object Type	Times Struck	Percent of Total
MOVABLE OBJECT	1	14.29
PARKED MOTOR VEHICLE	5	71.43
TRAFFIC ISLAND CURB OR MEDIAN	1	14.29

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
LIGHT TRUCK (MINI-VAN, PANEL)	2	3.39
PASSENGER CAR	31	52.54
PICKUP	9	15.25
SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)	1	1.69
SPORT UTILITY	10	16.95
TRACTOR/SEMI-TRAILER	2	3.39
VAN	4	6.78

Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2012	2	0	1	1
2013	4	0	1	3
2014	7	0	1	6
2015	8	0	5	3
2016	4	0	1	3
2017	3	0	1	2
Total	28	0	10	18

Injury Totals

Year	Fatal Injuries	Class A, B, or C Injuries
2012	0	2
2013	0	2
2014	0	1
2015	0	6
2016	0	1
2017	0	1
Total	0	13

Miscellaneous Totals

Year	Property Damage	EPDO Index
2012	$ 13200	9.40
2013	$ 19100	11.40
2014	$ 18800	14.40
2015	$ 38105	45.00
2016	$ 22500	11.40
2017	$ 22500	10.40
Total	$ 134205	102.00

Type of Accident Totals

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2012	0	0	2	0	0	0	0
2013	1	0	2	0	1	0	0
2014	0	1	5	0	1	0	0

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2015	1	0	4	2	1	0	0
2016	1	0	1	0	1	0	1
2017	0	0	1	0	2	0	0
Total	3	1	15	2	6	0	1

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000047242	41000047242			76.8	8.4	999999	

Request Date	Courier Service	Phone No.	Ext.	Fax No.

County Name	County Code	Div.	Municipality Name	Municipality Code	Y-Line Ft.	Begin Date	End Date	Years
MECKLENBURG	60	10	All and Rural		150	05/01/2012	04/30/2017	5.00

Location Text

US 521 (Polk St-Pineville Rd) at SR 3542 (Industrial Dr). **Crash rates contained in this analysis should not be used**

Requestor

Cliff Lawson, PE
Timmons Group

Included Accidents

103473281
105064867
104156148

Excluded Accidents

103719919
103983408
104009927
104055797
104154613
104185058
104215370
104216414
104242062
104271374
104299565
104372680
104421037

Fiche Roads

Name	Code
US 521	20000521
POLK	50024505
PINEVILLE	50024239
SOUTH	50028612
SR 3542	40003542

Fiche Roads

Name	Code
INDUSTRIAL	50014936
SR 4982	40004982

Intersection Road Combinations

Name	Code	Code	Name
US 521	20000521	40003542	SR 3542
US 521	20000521	50014936	INDUSTRIAL
PINEVILLE	50024239	40003542	SR 3542
PINEVILLE	50024239	50014936	INDUSTRIAL
POLK	50024505	40003542	SR 3542
POLK	50024505	50014936	INDUSTRIAL
SOUTH	50028612	40003542	SR 3542
SOUTH	50028612	50014936	INDUSTRIAL

Study Criteria Summary

County: MECKLENBURG **City:** All and Rural
Date: 05/01/2012 **to** 04/30/2017 **Study:** 41000047187
Location: US 521 (Polk St) at NC 51 (Main St)

Report Details

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
1	103481225	05/27/2012 18:44	ANGLE	$ 4000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 1	AIchl/Drgs: 0	Speed: 1 MPH	Dir: W	Veh Mnvr / Ped Actn: 7	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 30 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
2	103499528	06/05/2012 06:52	REAR END, SLOW OR STOP	$ 4250	0	0	0	0	2	1	2	3	0	0	
Unit 1 : 1	AIchl/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 11	Obj Strk:										
3	103499531	06/09/2012 19:18	REAR END, SLOW OR STOP	$ 2000	0	0	0	4	1	1	2	1	0	0	
Unit 1 : 4	AIchl/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										
4	103500324	06/22/2012 08:40	ANGLE	$ 5500	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	AIchl/Drgs: 7	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 9	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: NE	Veh Mnvr / Ped Actn: 1	Obj Strk:										
5	103516075	07/06/2012 11:06	REAR END, SLOW OR STOP	$ 2000	0	0	0	0	1	1	1	3	0	0	
Unit 1 : 32	AIchl/Drgs: 7	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
6	103516252	07/25/2012 06:51	REAR END, SLOW OR STOP	$ 1800	0	0	0	0	2	1	3	1	0	3	1
Unit 1 : 2	AIchl/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 2	AIchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
7	103601550	10/31/2012 11:52	ANGLE	$ 3000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 10	AIchl/Drgs: 0	Speed: 25 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
8	103626358	11/19/2012 16:45	REAR END, SLOW OR STOP	$ 2100	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 10	AIchl/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 3	AIchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
Unit 3 : 2	AIchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
9	103648445	12/04/2012 01:57	SIDESWIPE, SAME DIRECTION	$ 1650	0	0	0	0	1	4	1	3	0		
Unit 1 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
10	103750960	02/28/2013 16:12	REAR END, SLOW OR STOP	$ 1200	0	0	0	0	2	1	1	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
11	103784057	05/23/2013 14:40	REAR END, SLOW OR STOP	$ 2500	0	0	0	1	1	1	2	3	0	3	1
Unit 1 : 5	AIchl/Drgs: 0	Speed: 19 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 15 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 3 : 4	AIchl/Drgs: 0	Speed: 10 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
12	103825927	07/18/2013 15:40	UNKNOWN	$ 3500	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 5	AIchl/Drgs: 0	Speed: 15 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 15 MPH	Dir: W	Veh Mnvr / Ped Actn: 7	Obj Strk:										
13	103874217	09/01/2013 22:21	REAR END, SLOW OR STOP	$ 6500	0	0	0	0	1	4	2	1	0	12	1
Unit 1 : 4	AIchl/Drgs: 0	Speed: 20 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AIchl/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
14	103873600	09/15/2013 14:13	REAR END, SLOW OR STOP	$ 1000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 12	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
15	103918125	10/22/2013 11:41	ANGLE	$ 6000	0	0	0	0	1	1	2	1	0	0	
Unit 1 : 5	AIchl/Drgs: 0	Speed: 10 MPH	Dir: SE	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 5	AIchl/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
16	103983385	01/14/2014 09:07	REAR END, SLOW OR STOP	$ 3000	0	0	0	1	2	1	3	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
17	104011028	01/21/2014 09:31	REAR END, SLOW OR STOP	$ 4000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 32	AIchl/Drgs: 7	Speed: 30 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
18	104002473	01/28/2014 21:09	ANGLE	$ 5000	0	0	0	0	1	4	4	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
19	104010099	02/25/2014 19:46	REAR END, SLOW OR STOP	$ 4000	0	0	0	0	1	4	1	2	0	3	1
Unit 1 : 4	AIchl/Drgs: 0	Speed: 30 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 30 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
20	104056820	04/19/2014 13:31	SIDESWIPE, SAME DIRECTION	$ 3000	0	0	0	0	1	1	3	3	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 10 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 10 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
21	104084261	05/09/2014 08:14	LEFT TURN, SAME ROADWAY	$ 2600	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 10 MPH	Dir: NW	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 10 MPH	Dir: NW	Veh Mnvr / Ped Actn: 8	Obj Strk:										
22	104154655	08/28/2014 17:08	REAR END, SLOW OR STOP	$ 1500	0	0	0	0	1	1	1	2	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 20 MPH	Dir: W	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
23	104185072	09/13/2014 21:02	REAR END, SLOW OR STOP	$ 1800	0	0	0	3	1	4	1	1	0	0	
Unit 1 : 5	AIchl/Drgs: 1	Speed: 38 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 11	Obj Strk:										
24	104244593	11/08/2014 16:22	SIDESWIPE, SAME DIRECTION	$ 1200	0	0	0	0	1	1	1	2	0	0	
Unit 1 : 4	AIchl/Drgs: 0	Speed: 25 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 35 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
25	104206800	11/10/2014 08:56	REAR END, SLOW OR STOP	$ 300	0	0	0	1	1	1	1	1	0	0	
Unit 1 : 32	AIchl/Drgs: 7	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
26	104246461	11/12/2014 19:20	REAR END, SLOW OR STOP	$ 1700	0	0	0	0	1	1	1	4	0	0	
Unit 1 : 1	AIchl/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
Unit 3 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
27	104229626	11/29/2014 15:01	REAR END, SLOW OR STOP	$ 600	0	0	0	0	1	1	1	3	0	0	
Unit 1 : 4	AIchl/Drgs: 0	Speed: 1 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
28	104270755	01/12/2015 09:27	REAR END, SLOW OR STOP	$ 250	0	0	0	0	2	1	3	1	0	3	1
Unit 1 : 5	AIchl/Drgs: 0	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
29	104271218	01/17/2015 14:21	REAR END, SLOW OR STOP	$ 4500	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 4	AIchl/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
30	104275690	01/23/2015 22:05	ANGLE	$ 3000	0	0	0	0	2	4	3	1	0	3	1
Unit 1 : 1	AIchl/Drgs: 0	Speed: 20 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AIchl/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 8	Obj Strk:										
31	104298846	02/18/2015 20:47	SIDESWIPE, SAME DIRECTION	$ 2000	0	0	0	0	1	4	1	1	0	0	
Unit 1 : 10	AIchl/Drgs: 0	Speed: 20 MPH	Dir: S	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	AIchl/Drgs: 0	Speed: 30 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
32	104454464	04/02/2015 18:10	SIDESWIPE, SAME DIRECTION	$ 200	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 29	AIchl/Drgs: 0	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 6	Obj Strk:										
Unit 2 : 2	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
33	104385630	05/22/2015 16:26	REAR END, SLOW OR STOP	$ 1800	0	0	0	0	1	1	1	4	0	0	
Unit 1 : 1	AIchl/Drgs: 0	Speed: 25 MPH	Dir: E	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 2	AIchl/Drgs: 0	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
34	104408380	06/16/2015 17:30	SIDESWIPE, SAME DIRECTION	$ 200	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 10	AIchl/Drgs: 0	Speed: 5 MPH	Dir: NE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 2	AIchl/Drgs: 0	Speed: 2 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
35	104421036	06/24/2015 07:24	SIDESWIPE, SAME DIRECTION	$ 0	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 10	AIchl/Drgs: 0	Speed: 5 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 11	AIchl/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
36	104466131	08/19/2015 18:02	SIDESWIPE, SAME DIRECTION	$ 1500	0	0	0	0	1	1	2	1	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 10	AlchI/Drgs: 7	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
37	104472809	08/28/2015 19:24	REAR END, SLOW OR STOP	$ 300	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
38	104490435	09/17/2015 12:25	REAR END, SLOW OR STOP	$ 850	0	0	0	0	1	1	1	3	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 5 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
39	104501383	09/23/2015 06:51	SIDESWIPE, SAME DIRECTION	$ 1000	0	0	0	0	1	3	2	1	0	3	1
Unit 1 : 3	AlchI/Drgs: 0	Speed: 5 MPH	Dir: NW	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 5 MPH	Dir: NW	Veh Mnvr / Ped Actn: 8	Obj Strk:										
40	104509315	10/06/2015 07:45	SIDESWIPE, SAME DIRECTION	$ 2300	0	0	0	0	1	1	1	3	0	0	
Unit 1 : 5	AlchI/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
41	104526436	10/14/2015 18:49	REAR END, SLOW OR STOP	$ 200	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
42	104540778	10/28/2015 14:46	REAR END, SLOW OR STOP	$ 100	0	0	0	0	1	2	2	3	0	3	1
Unit 1 : 7	AlchI/Drgs: 0	Speed: 5 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 3 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
43	104548599	11/06/2015 09:52	REAR END, SLOW OR STOP	$ 0	0	0	0	0	2	2	3	3	0	0	
Unit 1 : 2	AlchI/Drgs: 0	Speed: 5 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 7	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
44	104544540	11/07/2015 13:10	SIDESWIPE, SAME DIRECTION	$ 1600	0	0	0	0	2	1	2	1	0	0	
Unit 1 : 4	AlchI/Drgs: 0	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
45	104559366	11/20/2015 15:38	REAR END, SLOW OR STOP	$ 800	0	0	0	1	1	1	1	1	0	0	
Unit 1 : 4	AlchI/Drgs: 0	Speed: 20 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										
46	104593742	12/08/2015 14:50	REAR END, SLOW OR STOP	$ 900	0	0	0	0	1	1	1	3	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 18 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
47	104594105	12/23/2015 15:00	ANGLE	$ 800	0	0	0	0	2	1	3	3	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
48	104600284	12/30/2015 16:41	REAR END, SLOW OR STOP	$ 600	0	0	0	0	2	1	3	1	0	0	
Unit 1 : 5	AlchI/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										
49	104615429	01/09/2016 17:55	ANGLE	$ 4000	0	0	0	0	2	4	3	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: S	Veh Mnvr / Ped Actn: 11	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 15 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
50	104649420	01/18/2016 19:44	SIDESWIPE, SAME DIRECTION	$ 2600	0	0	0	0	1	4	1	1	0	0	
Unit 1 : 2	AlchI/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 30 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
51	104620125	01/20/2016 16:52	REAR END, SLOW OR STOP	$ 1300	0	0	0	0	2	1	2	4	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 8 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 4 MPH	Dir: SE	Veh Mnvr / Ped Actn: 1	Obj Strk:										
52	104631472	02/02/2016 07:22	SIDESWIPE, SAME DIRECTION	$ 1000	0	0	0	0	2	2	5	3	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 3	AlchI/Drgs: 0	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
53	104638077	02/04/2016 10:40	SIDESWIPE, SAME DIRECTION	$ 6000	0	0	0	0	1	1	2	3	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 5	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
54	104663633	02/27/2016 22:07	REAR END, SLOW OR STOP	$ 3000	0	0	0	0	1	4	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 5 MPH	Dir: S	Veh Mnvr / Ped Actn: 12	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										
55	104658545	02/28/2016 11:30	SIDESWIPE, SAME DIRECTION	$ 400	0	0	0	0	1	1	1	3	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										
56	104671455	03/02/2016 10:46	SIDESWIPE, SAME DIRECTION	$ 400	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
57	104673952	03/05/2016 22:05	ANGLE	$ 700	0	0	0	0	1	4	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 20 MPH	Dir: W	Veh Mnvr / Ped Actn: 7	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 18 MPH	Dir: NW	Veh Mnvr / Ped Actn: 8	Obj Strk:										
58	104947222	03/18/2016 15:32	SIDESWIPE, SAME DIRECTION	$ 2800	0	0	0	0	1	1	1	3	0	0	
Unit 1 : 4	AlchI/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
59	104686343	03/29/2016 06:36	RIGHT TURN, SAME ROADWAY	$ 2500	0	0	0	0	1	3	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 7	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: NE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
60	104691068	04/02/2016 19:34	LEFT TURN, SAME ROADWAY	$ 1000	0	0	0	0	1	2	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 5 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 5 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
61	104697173	04/05/2016 18:08	SIDESWIPE, SAME DIRECTION	$ 400	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 8 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
62	104722163	05/04/2016 07:42	REAR END, SLOW OR STOP	$ 500	0	0	0	2	1	1	1	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 5 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
63	104776908	05/26/2016 19:02	SIDESWIPE, SAME DIRECTION	$ 1350	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 20 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
64	104774507	06/04/2016 17:05	SIDESWIPE, SAME DIRECTION	$ 1750	0	0	0	0	1	1	1	3	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
65	104759557	06/10/2016 11:38	REAR END, SLOW OR STOP	$ 1900	0	0	0	1	1	1	1	1	0	3	1
Unit 1 : 11	AlchI/Drgs: 0	Speed: 2 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
66	104776904	06/10/2016 18:21	SIDESWIPE, SAME DIRECTION	$ 500	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 3	AlchI/Drgs: 7	Speed: 35 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
67	104793029	07/08/2016 18:08	LEFT TURN, SAME ROADWAY	$ 1800	0	0	0	0	1	1	1	3	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 35 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 35 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
68	104841593	08/10/2016 15:19	RAN OFF ROAD - RIGHT	$ 5000	0	0	0	0	2	1	3	1	0	0	
Unit 1 : 4	AlchI/Drgs: 7	Speed: 15 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk: 33										
69	104843136	09/01/2016 12:45	LEFT TURN, SAME ROADWAY	$ 1600	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 8 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										
70	104860689	09/27/2016 16:58	ANGLE	$ 1500	0	0	0	0	1	1	2	3	0	3	1
Unit 1 : 2	AlchI/Drgs: 0	Speed: 15 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
71	104879377	10/14/2016 08:37	REAR END, SLOW OR STOP	$ 2700	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 10 MPH	Dir: NW	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: NW	Veh Mnvr / Ped Actn: 1	Obj Strk:										
72	104899694	10/14/2016 10:55	SIDESWIPE, SAME DIRECTION	$ 200	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
Unit 2 : 1	AlchI/Drgs: 7	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 8	Obj Strk:										
73	104888532	10/19/2016 18:14	REAR END, SLOW OR STOP	$ 4000	0	0	0	0	1	1	1	1	0		
Unit 1 : 4	AlchI/Drgs: 0	Speed: 10 MPH	Dir: W	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 1 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
74	104885684	10/20/2016 15:29	SIDESWIPE, SAME DIRECTION	$ 3000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 25 MPH	Dir: N	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 3	AlchI/Drgs: 0	Speed: 25 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
75	104902445	11/04/2016 08:37	ANGLE	$ 15200	0	0	0	3	1	1	1	2	0	3	1
Unit 1 : 4	AlchI/Drgs: 0	Speed: 30 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 3 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
Unit 4 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
76	104902444	11/04/2016 17:12	REAR END, SLOW OR STOP	$ 200	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 2	AlchI/Drgs: 0	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
77	104918669	11/15/2016 15:30	SIDESWIPE, SAME DIRECTION	$ 1800	0	0	0	1	1	1	1	2	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
78	104924661	11/19/2016 09:00	ANGLE	$ 1100	0	0	0	0	1	1	1	4	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 5 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 5 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
79	104927864	11/28/2016 09:17	ANGLE	$ 9500	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: SE	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 3 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: W	Veh Mnvr / Ped Actn: 1	Obj Strk:										
80	104931151	11/30/2016 19:16	REAR END, SLOW OR STOP	$ 4200	0	0	0	1	2	4	3	1	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 0 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
81	104936938	12/01/2016 09:49	LEFT TURN, SAME ROADWAY	$ 800	0	0	0	0	1	1	1	2	0	0	
Unit 1 : 1	AlchI/Drgs: 0	Speed: 25 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
Unit 2 : 5	AlchI/Drgs: 7	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 8	Obj Strk:										
82	104949547	12/17/2016 16:40	REAR END, SLOW OR STOP	$ 1800	0	0	0	0	1	1	2	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
83	104974997	01/13/2017 09:32	SIDESWIPE, SAME DIRECTION	$ 300	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 16	AlchI/Drgs: 7	Speed: 10 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 29	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
84	104988492	01/27/2017 18:21	BACKING UP	$ 850	0	0	0	0	1	4	1	1	0	3	1
Unit 1 : 2	AlchI/Drgs: 0	Speed: 2 MPH	Dir: S	Veh Mnvr / Ped Actn: 10	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										
85	104996761	02/03/2017 20:34	SIDESWIPE, SAME DIRECTION	$ 150	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 2	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
86	105002620	02/08/2017 12:45	SIDESWIPE, SAME DIRECTION	$ 4000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 3	AlchI/Drgs: 0	Speed: 5 MPH	Dir: S	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 4	AlchI/Drgs: 0	Speed: 15 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
87	105010012	02/15/2017 11:52	ANGLE	$ 3400	0	0	0	0	1	1	2	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 25 MPH	Dir: W	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 4 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 3 : 1	AlchI/Drgs: 0	Speed: 1 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
88	105010010	02/15/2017 14:33	SIDESWIPE, SAME DIRECTION	$ 1500	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 1	AlchI/Drgs: 0	Speed: 15 MPH	Dir: E	Veh Mnvr / Ped Actn: 5	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 5 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
89	105033663	03/10/2017 10:41	REAR END, SLOW OR STOP	$ 2000	0	0	0	0	1	1	1	1	0	0	
Unit 1 : 20	AlchI/Drgs: 0	Speed: 10 MPH	Dir: N	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 2	AlchI/Drgs: 0	Speed: 5 MPH	Dir: N	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
90	105067562	04/11/2017 15:44	REAR END, SLOW OR STOP	$ 4000	0	0	0	0	1	1	1	1	0	3	1
Unit 1 : 10	AlchI/Drgs: 0	Speed: 20 MPH	Dir: E	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
Unit 3 : 2	AlchI/Drgs: 0	Speed: 0 MPH	Dir: E	Veh Mnvr / Ped Actn: 1	Obj Strk:										
91	105076101	04/15/2017 15:34	REAR END, SLOW OR STOP	$ 500	0	0	0	0	1	1	1	1	0	3	2
Unit 1 : 1	AlchI/Drgs: 7	Speed: 10 MPH	Dir: S	Veh Mnvr / Ped Actn: 4	Obj Strk:										
Unit 2 : 1	AlchI/Drgs: 0	Speed: 0 MPH	Dir: S	Veh Mnvr / Ped Actn: 1	Obj Strk:										

Legend for Report Details:

Acc No - Accident Number
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
Condition: R - Road Surface, L - Ambient Light, W - Weather
Rd Ch - Road Character
Rd Ci - Roadway Contributing Circumstances
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
AlchI/Drgs - Alcohol Drugs Suspected
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	91	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	11	12.09
Total Injury Crashes	11	12.09
Property Damage Only Crashes	80	87.91
Night Crashes	13	14.29
Wet Crashes	15	16.48
Alcohol/Drugs Involvement Crashes	1	1.10

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	91	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	0	0.00
Class C Crashes	11	12.09
Property Damage Only Crashes	80	87.91

Vehicle Exposure Statistics

Annual ADT = 39500

Total Vehicle Exposure = 72.13 (MEV)

Crash Rate	Crashes Per 100 Million Vehicles Entered
Total Crash Rate	126.17
Fatal Crash Rate	0.00
Non Fatal Crash Rate	15.25
Night Crash Rate	18.02
Wet Crash Rate	20.80
EPDO Rate	239.02

Miscellaneous Statistics

Severity Index =	1.89
EPDO Crash Index =	172.40
Estimated Property Damage Total - $	201800.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
ANGLE	14	15.38
BACKING UP	1	1.10
LEFT TURN, SAME ROADWAY	5	5.49
RAN OFF ROAD - RIGHT	1	1.10
REAR END, SLOW OR STOP	40	43.96
RIGHT TURN, SAME ROADWAY	1	1.10
SIDESWIPE, SAME DIRECTION	28	30.77
UNKNOWN	1	1.10

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	0	0.00
Class C Injuries	19	100.00
Total Non-Fatal Injuries	19	100.00
Total Injuries	19	100.00

Monthly Summary

Month	Number of Crashes	Percent of Total
Jan	11	12.09
Feb	11	12.09
Mar	5	5.49
Apr	6	6.59
May	6	6.59
Jun	8	8.79
Jul	4	4.40
Aug	4	4.40
Sep	7	7.69
Oct	9	9.89
Nov	14	15.38
Dec	6	6.59

Daily Summary

Day	Number of Crashes	Percent of Total
Mon	5	5.49
Tue	16	17.58
Wed	20	21.98
Thu	11	12.09
Fri	20	21.98
Sat	15	16.48
Sun	4	4.40

Hourly Summary

Hour	Number of Crashes	Percent of Total
0000-0059	0	0.00
0100-0159	1	1.10
0200-0259	0	0.00
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	0	0.00
0600-0659	4	4.40
0700-0759	4	4.40
0800-0859	5	5.49
0900-0959	8	8.79
1000-1059	4	4.40
1100-1159	6	6.59
1200-1259	3	3.30
1300-1359	2	2.20
1400-1459	6	6.59
1500-1559	10	10.99
1600-1659	8	8.79
1700-1759	5	5.49
1800-1859	9	9.89
1900-1959	8	8.79
2000-2059	2	2.20
2100-2159	2	2.20
2200-2259	4	4.40
2300-2359	0	0.00

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	62	10	0	72
Dark	10	3	0	13
Other	4	2	0	6
Total	76	15	0	91

Object Struck Summary

Object Type	Times Struck	Percent of Total
TREE	1	100.00

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
EMS VEHICLE, AMBULANCE, RESCUE SQUAD	2	1.06
LIGHT TRUCK (MINI-VAN, PANEL)	6	3.17
MOTORCYCLE	1	0.53
PASSENGER CAR	86	45.50
PICKUP	23	12.17
SCHOOL BUS	1	0.53
SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)	7	3.70
SINGLE UNIT TRUCK (3 OR MORE AXLES)	2	1.06
SPORT UTILITY	47	24.87
UNKNOWN	3	1.59
UNKNOWN HEAVY TRUCK	1	0.53
VAN	10	5.29

Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2012	9	0	1	8
2013	6	0	1	5
2014	12	0	3	9
2015	21	0	1	20
2016	34	0	5	29
2017	9	0	0	9
Total	91	0	11	80

Injury Totals

Year	Fatal Injuries	Class A, B, or C Injuries
2012	0	4
2013	0	1
2014	0	5
2015	0	1
2016	0	8
2017	0	0
Total	0	19

Miscellaneous Totals

Year	Property Damage	EPDO Index
2012	$ 26300	16.40
2013	$ 20700	13.40
2014	$ 28700	34.20
2015	$ 22900	28.40
2016	$ 86500	71.00
2017	$ 16700	9.00
Total	$ 201800	172.40

Type of Accident Totals

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2012	0	0	5	0	3	1	0
2013	0	0	4	0	1	0	1
2014	1	0	8	0	1	2	0

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2015	0	0	11	0	2	8	0
2016	4	1	9	1	6	13	0
2017	0	0	3	0	1	4	1
Total	5	1	40	1	14	28	2

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000047187	41000047187			76.9	8.4	39500	

Request Date	Courier Service	Phone No.	Ext.	Fax No.

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
MECKLENBURG	60	10	All and Rural		150	05/01/2012	04/30/2017	5.00

Location Text	Requestor
US 521 (Polk St) at NC 51 (Main St)	Cliff Lawon, PE Timmons Group

Included Accidents

103825927
103516075
103873600
104673952
103500324
104936938
104649420
105010010
104548599
104996761
104454464
104902444
104421036
104540778
104949547
104776904
104270755
104154655
104697173
104526436
104271218
105067562
104974997
104902445
104927864
105010012
104843136

104615429
104620125
104691068
104501383
104408380
104275690
104002473
103784057
104671455
104860689
104888532
104246461
104631472
104244593
104385630
104056820
104947222
104490435
104774507
104924661
103499528
104638077
104594105
104229626
104593742
104206800
104759557
104918669
103648445
104879377
103601550
105002620
105076101
104600284
105033663
104793029
104010099
103983385
103626358
104466131
104559366

104509315
103481225
104544540
104931151
104472809
104899694
104686343
104663633
104658545
104722163
104084261
103918125
104298846
104988492
104841593
103499531
104885684
104776908
104011028
103516252
104185072
103874217
103750960

Fiche Roads

Name	Code
US 521	20000521
SR 4982	40004982
LANCASTER	50016982
POLK	50024505
PINEVILLE	50024239
NC 51	30000051
MAIN	50018682
PINEVILLE MATTHEWS	50024238
I 1	10000001

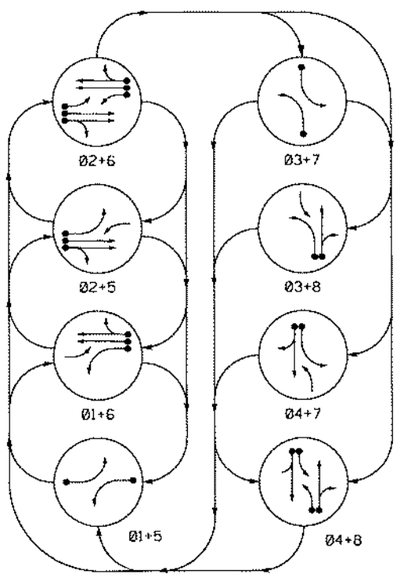
Intersection Road Combinations

Name	Code	Code	Name
I 1	10000001	20000521	US 521

Appendix C – Traffic Signal Plans

PROJECT REFERENCE NO.	SHEET NO.
N/A	Sig. 1

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

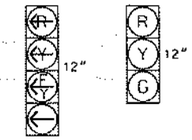
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	FLASH
11	-	-	F Y	F Y	R	R	R	R	Y
21, 22	R	R	G	G	R	R	R	R	Y
31	R	R	R	R	-	-	F Y	F Y	R
41,42	R	R	R	R	R	R	G	G	R
51	-	F Y	-	F Y	R	R	R	R	Y
61, 62	R	G	R	G	R	R	R	R	Y
71	R	R	R	R	-	F Y	-	F Y	R
81,82	R	R	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



11 21, 22
31 41, 42
51 61, 62
71 81, 82

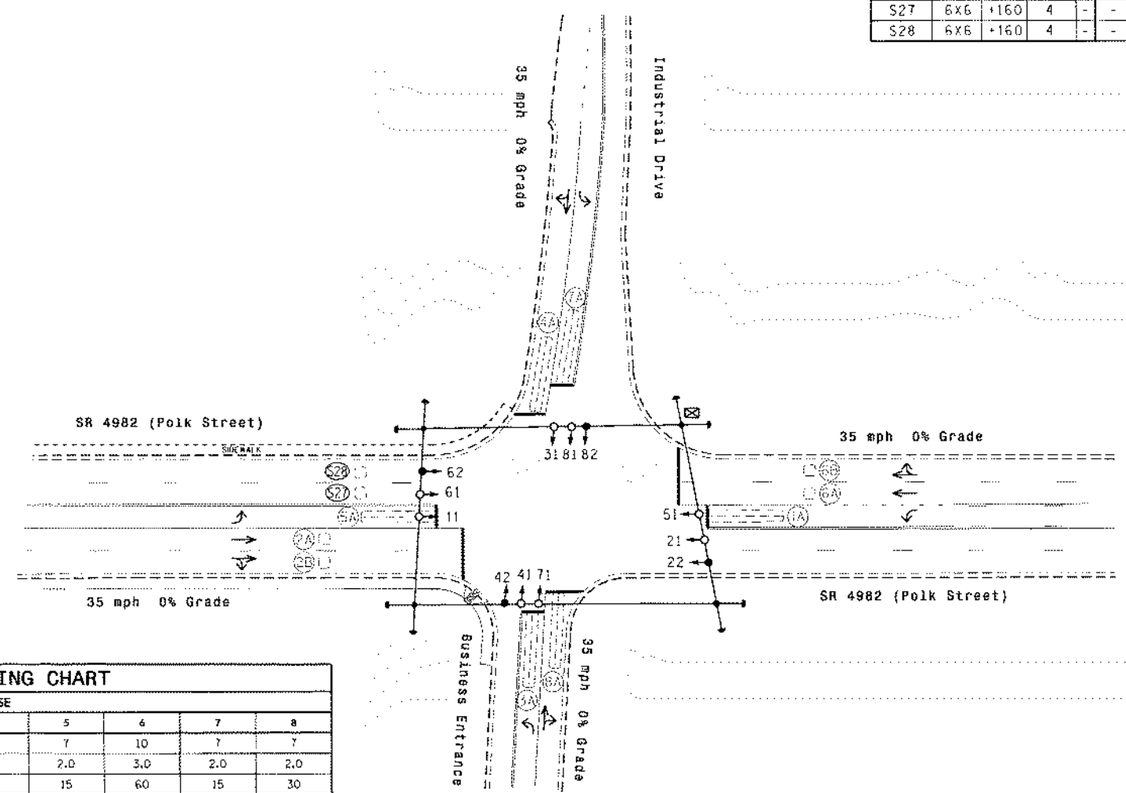
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
					6	Y	Y	-	-	-	-	Y
2A	6X6	70	3	-	2	Y	Y	-	-	-	-	Y
2B	6X6	70	3	-	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	-	3	Y	Y	-	-	15		Y
					8	Y	Y	-	-	3	-	Y
4A	6X40	0	2-4-2		4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
					2	Y	Y	-	-	-	-	Y
6A	6X6	70	3	-	6	Y	Y	-	-	-	-	Y
6B	6X6	70	3	-	6	Y	Y	-		-	-	Y
7A	6X40	0	2-4-2	-	7	Y	Y	-	-	15	-	Y
					4	Y	Y	-	-	3	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	10	-	Y
S27	6X6	+160	4	-	-	-	-	-	-	-	Y	Y
S28	6X6	+160	4	-	-	-	-	-	-	-	Y	Y

8 Phase
Fully Actuated
NC 51 (Pineville-Matthews Rd./
SR 4982 (Polk Street) CLS

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 3 and/or phase 7 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Reposition existing signal heads numbered # 22.42.62.& 82.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Closed loop system data: Controller Asset # 0966.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	

OASIS 2070L TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green 1 *	7	10	7	7	7	10	7	7
Extension 1 *	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Max Green 1 *	15	60	15	30	15	60	15	30
Yellow Clearance	3.0	3.8	3.0	3.8	3.0	3.8	3.0	3.8
Red Clearance	3.3	2.5	2.4	2.0	2.6	2.5	2.8	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

Prepared in the Offices of
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40 1"=40'

SR 4982 (Polk Street) at Industrial Drive / Business Entrance

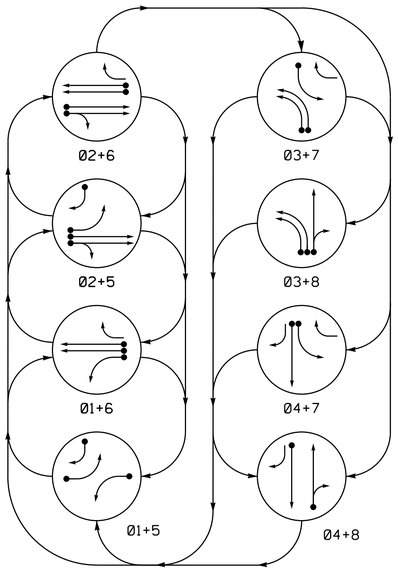
Division 10 Mecklenburg County Pineville

PLAN DATE: September 2013	REVIEWED BY: P.L.A.		
PREPARED BY: C. Pierce	REVIEWED BY:		
REVISIONS		INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 24393 ENGINEER TIMOTHY A. WILLIAMS
SIGNATURE 10/31/13 DATE
SIG. INVENTORY NO. 10-0966

PROJECT REFERENCE NO.	SHEET NO.
B-5105	Sig. 5.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.

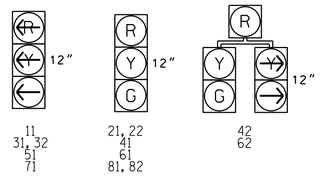


TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21, 22	R	R	G	G	R	R	R	R	Y
31, 32	~~R~~	~~R~~	~~R~~	~~R~~	←	←	~~R~~	~~R~~	~~R~~
41	R	R	R	R	R	R	G	G	R
42	R/←	R	R/←	R	R	R	G	G	R
51	←	~~R~~	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R/←	R	R/←	R	Y
71	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	←	~~R~~	~~R~~
81,82	R	R	R	R	R	G	R	G	R

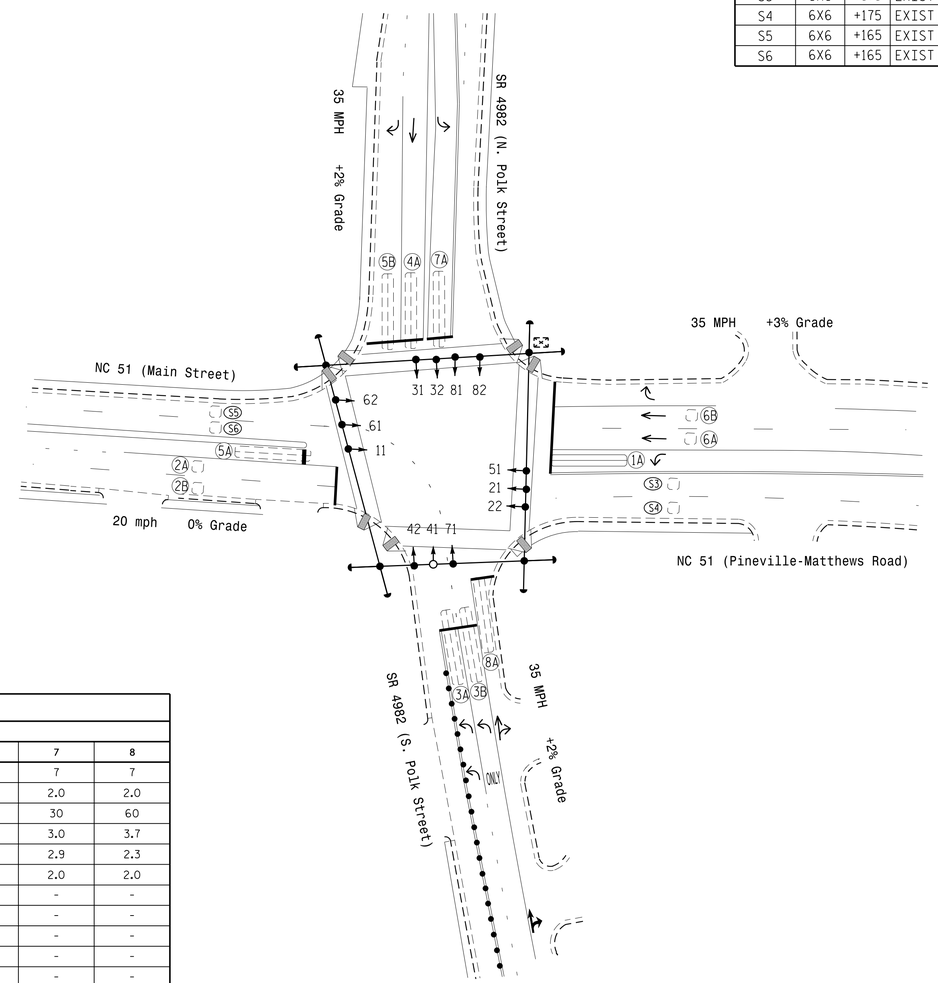
OASIS 2070 LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	3	-	-
2A	6X6	70	EXIST	-	2	Y	Y	-	-	-	-	-
2B	6X6	70	EXIST	-	2	Y	Y	-	-	-	-	-
3A	6X40	+10	2-4-2	-	3	Y	Y	-	-	3	-	-
3B	6X40	+10	2-4-2	-	3	Y	Y	-	-	-	-	-
4A	6X40	+5	2-4-2	-	4	Y	Y	-	-	-	-	-
5A	6X40	+5	2-4-2	-	5	Y	Y	-	-	3	-	-
5B	6X40	+5	2-4-2	-	5	Y	Y	-	-	15	-	-
6A	6X6	70	EXIST	-	6	Y	Y	-	-	-	-	-
6B	6X6	70	EXIST	-	6	Y	Y	-	-	-	-	-
7A	6X40	+5	2-4-2	-	7	Y	Y	-	-	3	-	-
8A	6X40	+5	2-4-2	-	8	Y	Y	-	-	10	-	-
S3	6X6	+175	EXIST	-	-	-	-	-	-	-	Y	-
S4	6X6	+175	EXIST	-	-	-	-	-	-	-	Y	-
S5	6X6	+165	EXIST	-	-	-	-	-	-	-	Y	-
S6	6X6	+165	EXIST	-	-	-	-	-	-	-	Y	-

8 Phase
Fully Actuated
W/Emergency Preemption
NC 51 (Pineville) CLS

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Set all detector units to presence mode.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
7. Closed loop system data: Intersection Number # 254.



OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green 1 *	7	10	7	7	7	10	7	7
Extension 1 *	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Max Green 1 *	25	90	25	60	15	90	30	60
Yellow Clearance	3.0	3.0	3.0	3.7	3.0	3.7	3.0	3.7
Red Clearance	2.8	3.2	3.6	2.0	3.2	2.0	2.9	2.3
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Optical Detector	

Signal Upgrade - Final Design

Prepared in the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

NC 51 (Main Street)/
NC 51 (Pineville-Matthews Road)
at
SR 4982 (Polk Street)
Division 10 Mecklenburg County Pineville

PLAN DATE: March 2015	REVIEWED BY:
PREPARED BY: C. Pierce	REVIEWED BY:

SCALE 0 40 1" = 40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 24393 ENGINEER TIMOTHY J. WILLIAMS

DocuSigned by: T. J. Williams 97AD7926E8934CA... 4/16/2015
DATE

SIG. INVENTORY NO. 10-0254

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Appendix D – Synchro Analysis Outputs

2017 Existing Traffic Volumes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	721	854	2	13	13
Future Volume (Veh/h)	3	721	854	2	13	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	801	949	2	14	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	951				1356	476
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	951				1356	476
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				90	97
cM capacity (veh/h)	718				140	536

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	270	534	633	318	28
Volume Left	3	0	0	0	14
Volume Right	0	0	0	2	14
cSH	718	1700	1700	1700	222
Volume to Capacity	0.00	0.31	0.37	0.19	0.13
Queue Length 95th (ft)	0	0	0	0	11
Control Delay (s)	0.2	0.0	0.0	0.0	23.6
Lane LOS	A				C
Approach Delay (s)	0.1		0.0		23.6
Approach LOS					C

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	743	2	8	847	5	0	0	5	22	0	6
Future Volume (Veh/h)	1	743	2	8	847	5	0	0	5	22	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		1%			-1%			-3%			-2%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	826	2	9	941	6	0	0	6	24	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	947			828			1324	1794	414	1383	1792	474
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	947			828			1324	1794	414	1383	1792	474
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	76	100	99
cM capacity (veh/h)	721			799			112	79	587	101	79	537

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	414	415	480	476	6	24	7
Volume Left	1	0	9	0	0	24	0
Volume Right	0	2	0	6	6	0	7
cSH	721	1700	799	1700	587	101	537
Volume to Capacity	0.00	0.24	0.01	0.28	0.01	0.24	0.01
Queue Length 95th (ft)	0	0	1	0	1	21	1
Control Delay (s)	0.0	0.0	0.3	0.0	11.2	51.3	11.8
Lane LOS	A		A		B	F	B
Approach Delay (s)	0.0		0.2		11.2	42.4	
Approach LOS					B	E	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

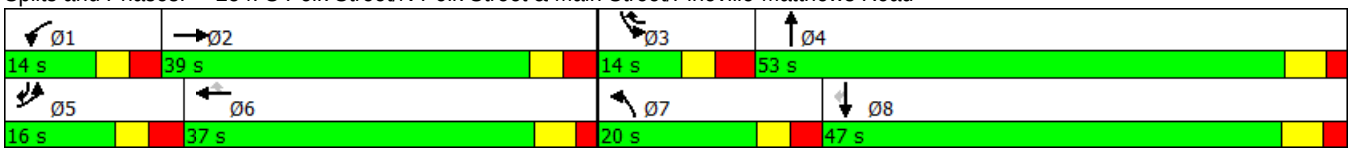
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	602	144	47	554	213	239	585	23	99	301	69
Future Volume (vph)	111	602	144	47	554	213	239	585	23	99	301	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			2%			2%	
Storage Length (ft)	335		0	250		600	125		0	0		150
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.971				0.850		0.994				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3437	0	1743	3486	1560	3399	1833	0	1752	1844	1567
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3437	0	1743	3486	1560	3399	1833	0	1752	1844	1567
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			35			35			35	
Link Distance (ft)		1846			975			1715			3430	
Travel Time (s)		62.9			19.0			33.4			66.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	123	669	160	52	616	237	266	650	26	110	334	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	123	829	0	52	616	237	266	676	0	110	334	77
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	3	7	4		3	8	5
Permitted Phases						6						8
Detector Phase	5	2		1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	20.0		14.0	20.0	14.0	14.0	20.0		14.0	20.0	14.0
Total Split (s)	16.0	39.0		14.0	37.0	14.0	20.0	53.0		14.0	47.0	16.0
Total Split (%)	13.3%	32.5%		11.7%	30.8%	11.7%	16.7%	44.2%		11.7%	39.2%	13.3%
Maximum Green (s)	9.8	32.8		8.2	31.3	7.4	14.1	47.3		7.4	41.0	9.8
Yellow Time (s)	3.0	3.0		3.0	3.7	3.0	3.0	3.7		3.0	3.7	3.0
All-Red Time (s)	3.2	3.2		2.8	2.0	3.6	2.9	2.0		3.6	2.3	3.2
Lost Time Adjust (s)	-1.2	-1.2		-0.8	-0.7	-1.6	-0.9	-0.7		-1.6	-1.0	-1.2
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0		2.0	3.0	2.0	2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min	None	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	10.6	32.6		8.6	27.2	41.4	13.3	43.7		9.2	39.6	55.3
Actuated g/C Ratio	0.10	0.29		0.08	0.25	0.37	0.12	0.39		0.08	0.36	0.50
v/c Ratio	0.73	0.82		0.39	0.72	0.41	0.66	0.94		0.76	0.51	0.10
Control Delay	76.0	46.1		61.5	44.2	29.0	56.5	54.8		85.1	32.6	16.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	76.0	46.1		61.5	44.2	29.0	56.5	54.8		85.1	32.6	16.8
LOS	E	D		E	D	C	E	D		F	C	B
Approach Delay		49.9			41.2			55.3			41.4	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	94	318		39	224	132	102	489		86	203	31
Queue Length 95th (ft)	#193	#403		82	289	204	147	#729		#191	297	60
Internal Link Dist (ft)		1766			895			1635			3350	
Turn Bay Length (ft)	335			250		600	125					150
Base Capacity (vph)	178	1070		143	1021	581	466	806		144	710	788
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.69	0.77		0.36	0.60	0.41	0.57	0.84		0.76	0.47	0.10

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 111
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 47.7 Intersection LOS: D
Intersection Capacity Utilization 81.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road



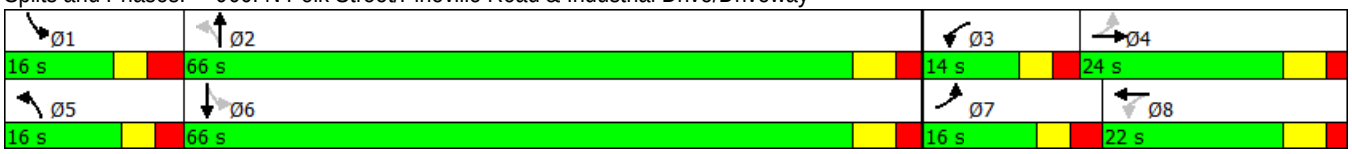
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	0	38	4	2	18	98	858	14	38	452	160
Future Volume (vph)	61	0	38	4	2	18	98	858	14	38	452	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.864			0.998			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1609	0	1770	3532	0	1770	3401	0
Flt Permitted	0.597						0.299			0.257		
Satd. Flow (perm)	1112	1583	0	1863	1609	0	557	3532	0	479	3401	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			3430			1043	
Travel Time (s)		38.2			5.2			66.8			20.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	68	0	42	4	2	20	109	953	16	42	502	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	42	0	4	22	0	109	969	0	42	680	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	12.9	11.6		10.9	9.2		34.1	35.1		31.3	26.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.25	0.22		0.21	0.18		0.66	0.68		0.61	0.50	
v/c Ratio	0.17	0.12		0.01	0.08		0.19	0.40		0.08	0.40	
Control Delay	19.4	24.1		19.2	29.4		6.9	11.7		6.8	14.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.4	24.1		19.2	29.4		6.9	11.7		6.8	14.2	
LOS	B	C		B	C		A	B		A	B	
Approach Delay		21.2			27.9			11.3			13.7	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	15	9		1	5		10	57		4	76	
Queue Length 95th (ft)	55	48		8	32		43	263		21	179	
Internal Link Dist (ft)		1881			186			3350			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	506	696		440	621		677	3256		634	3135	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.06		0.01	0.04		0.16	0.30		0.07	0.22	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 51.7
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 13.0 Intersection LOS: B
Intersection Capacity Utilization 52.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	1089	1022	9	5	10
Future Volume (Veh/h)	9	1089	1022	9	5	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	1210	1136	10	6	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1146				1766	573
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1146				1766	573
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				92	98
cM capacity (veh/h)	605				74	463

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	413	807	757	389	17
Volume Left	10	0	0	0	6
Volume Right	0	0	0	10	11
cSH	605	1700	1700	1700	162
Volume to Capacity	0.02	0.47	0.45	0.23	0.11
Queue Length 95th (ft)	1	0	0	0	9
Control Delay (s)	0.5	0.0	0.0	0.0	29.9
Lane LOS	A				D
Approach Delay (s)	0.2		0.0		29.9
Approach LOS					D

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1082	1	3	1053	33	2	1	7	17	0	1
Future Volume (Veh/h)	3	1082	1	3	1053	33	2	1	7	17	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		1%			-1%			-3%			-2%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	1202	1	3	1170	37	2	1	8	19	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1207			1203			1800	2422	602	1810	2404	604
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1207			1203			1800	2422	602	1810	2404	604
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			96	97	98	60	100	100
cM capacity (veh/h)	574			576			50	32	443	47	33	442

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	604	602	588	622	11	19	1
Volume Left	3	0	3	0	2	19	0
Volume Right	0	1	0	37	8	0	1
cSH	574	1700	576	1700	122	47	442
Volume to Capacity	0.01	0.35	0.01	0.37	0.09	0.40	0.00
Queue Length 95th (ft)	0	0	0	0	7	36	0
Control Delay (s)	0.1	0.0	0.1	0.0	37.3	126.5	13.2
Lane LOS	A		A		E	F	B
Approach Delay (s)	0.1		0.1		37.3	120.8	
Approach LOS					E	F	

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

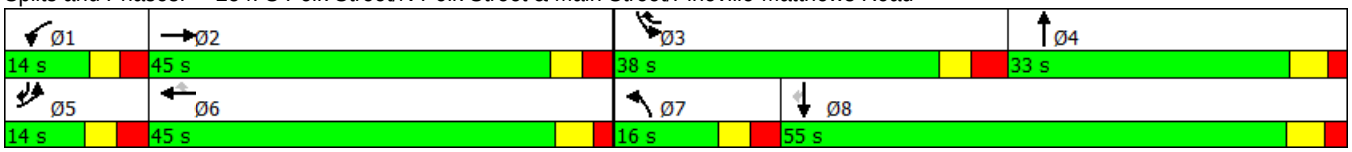
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	823	128	75	864	304	193	299	41	399	476	183
Future Volume (vph)	97	823	128	75	864	304	193	299	41	399	476	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			2%			2%	
Storage Length (ft)	335		0	250		600	125		0	0		150
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.980				0.850		0.982				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3468	0	1743	3486	1560	3399	1811	0	1752	1844	1567
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3468	0	1743	3486	1560	3399	1811	0	1752	1844	1567
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			35			35			35	
Link Distance (ft)		1846			975			1715			3430	
Travel Time (s)		62.9			19.0			33.4			66.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	108	914	142	83	960	338	214	332	46	443	529	203
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	1056	0	83	960	338	214	378	0	443	529	203
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	3	7	4		3	8	5
Permitted Phases						6						8
Detector Phase	5	2		1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	20.0		14.0	20.0	14.0	14.0	20.0		14.0	20.0	14.0
Total Split (s)	14.0	45.0		14.0	45.0	38.0	16.0	33.0		38.0	55.0	14.0
Total Split (%)	10.8%	34.6%		10.8%	34.6%	29.2%	12.3%	25.4%		29.2%	42.3%	10.8%
Maximum Green (s)	7.8	38.8		8.2	39.3	31.4	10.1	27.3		31.4	49.0	7.8
Yellow Time (s)	3.0	3.0		3.0	3.7	3.0	3.0	3.7		3.0	3.7	3.0
All-Red Time (s)	3.2	3.2		2.8	2.0	3.6	2.9	2.0		3.6	2.3	3.2
Lost Time Adjust (s)	-1.2	-1.2		-0.8	-0.7	-1.6	-0.9	-0.7		-1.6	-1.0	-1.2
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0		2.0	3.0	2.0	2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min	None	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	9.0	40.0		8.8	39.8	77.8	10.8	28.0		33.0	50.2	64.2
Actuated g/C Ratio	0.07	0.31		0.07	0.31	0.60	0.08	0.22		0.25	0.39	0.49
v/c Ratio	0.89	0.99		0.71	0.90	0.36	0.76	0.97		1.00	0.74	0.26
Control Delay	114.6	69.4		90.0	55.3	14.7	75.7	88.7		90.1	41.9	20.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	114.6	69.4		90.0	55.3	14.7	75.7	88.7		90.1	41.9	20.3
LOS	F	E		F	E	B	E	F		F	D	C
Approach Delay		73.6			47.4			84.0			56.3	
Approach LOS		E			D			F			E	
Queue Length 50th (ft)	92	466		70	406	138	92	319		375	381	97
Queue Length 95th (ft)	#204	#616		#150	#524	200	#147	#518		#596	522	150
Internal Link Dist (ft)		1766			895			1635			3350	
Turn Bay Length (ft)	335			250		600	125					150
Base Capacity (vph)	122	1069		120	1074	935	288	391		445	713	775
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.89	0.99		0.69	0.89	0.36	0.74	0.97		1.00	0.74	0.26

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 129.8
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 62.0 Intersection LOS: E
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road



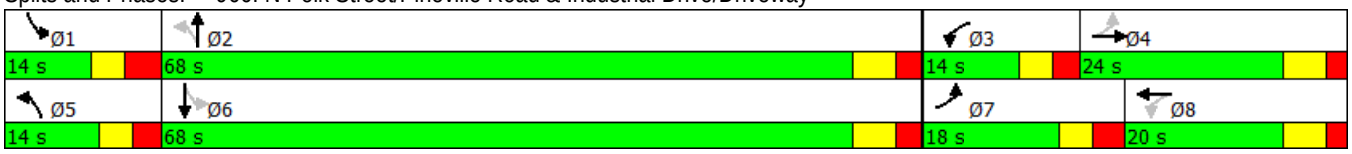
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	4	78	9	1	40	33	762	10	7	1117	79
Future Volume (vph)	169	4	78	9	1	40	33	762	10	7	1117	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.857			0.853			0.998			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1596	0	1770	1589	0	1770	3532	0	1770	3504	0
Flt Permitted	0.409			0.698			0.096			0.272		
Satd. Flow (perm)	762	1596	0	1300	1589	0	179	3532	0	507	3504	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			3430			1043	
Travel Time (s)		38.2			5.2			66.8			20.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	188	4	87	10	1	44	37	847	11	8	1241	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	91	0	10	45	0	37	858	0	8	1329	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	18.0	24.0		14.0	20.0		14.0	68.0		14.0	68.0	
Total Split (%)	15.0%	20.0%		11.7%	16.7%		11.7%	56.7%		11.7%	56.7%	
Maximum Green (s)	12.2	18.2		8.6	14.2		8.4	61.7		7.7	61.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	19.6	17.8		13.1	9.9		43.6	42.4		42.2	38.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.26	0.24		0.17	0.13		0.58	0.56		0.56	0.51	
v/c Ratio	0.51	0.24		0.04	0.22		0.13	0.43		0.02	0.75	
Control Delay	32.2	32.1		27.3	43.0		8.4	11.5		7.6	20.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.2	32.1		27.3	43.0		8.4	11.5		7.6	20.3	
LOS	C	C		C	D		A	B		A	C	
Approach Delay		32.1			40.2			11.4			20.2	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	82	38		4	24		8	123		2	332	
Queue Length 95th (ft)	171	107		18	65		21	246		8	452	
Internal Link Dist (ft)		1881			186			3350			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	425	522		323	370		325	2797		461	2775	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.44	0.17		0.03	0.12		0.11	0.31		0.02	0.48	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 75.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 18.8 Intersection LOS: B
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



2021 Background Traffic Volumes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	780	924	2	14	14
Future Volume (Veh/h)	3	780	924	2	14	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	867	1027	2	16	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1029				1468	514
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1029				1468	514
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				86	97
cM capacity (veh/h)	671				118	505

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	292	578	685	344	32
Volume Left	3	0	0	0	16
Volume Right	0	0	0	2	16
cSH	671	1700	1700	1700	191
Volume to Capacity	0.00	0.34	0.40	0.20	0.17
Queue Length 95th (ft)	0	0	0	0	15
Control Delay (s)	0.2	0.0	0.0	0.0	27.5
Lane LOS	A				D
Approach Delay (s)	0.1		0.0		27.5
Approach LOS					D

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	804	2	9	917	5	0	0	5	24	0	6
Future Volume (Veh/h)	1	804	2	9	917	5	0	0	5	24	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		1%			-1%			-3%			-2%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	893	2	10	1019	6	0	0	6	27	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1025			895			1432	1941	448	1496	1939	512
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1025			895			1432	1941	448	1496	1939	512
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	67	100	99
cM capacity (veh/h)	673			754			92	64	559	83	64	507

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	448	448	520	516	6	27	7
Volume Left	1	0	10	0	0	27	0
Volume Right	0	2	0	6	6	0	7
cSH	673	1700	754	1700	559	83	507
Volume to Capacity	0.00	0.26	0.01	0.30	0.01	0.33	0.01
Queue Length 95th (ft)	0	0	1	0	1	31	1
Control Delay (s)	0.0	0.0	0.4	0.0	11.5	68.0	12.2
Lane LOS	A		A		B	F	B
Approach Delay (s)	0.0		0.2		11.5	56.5	
Approach LOS					B	F	

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

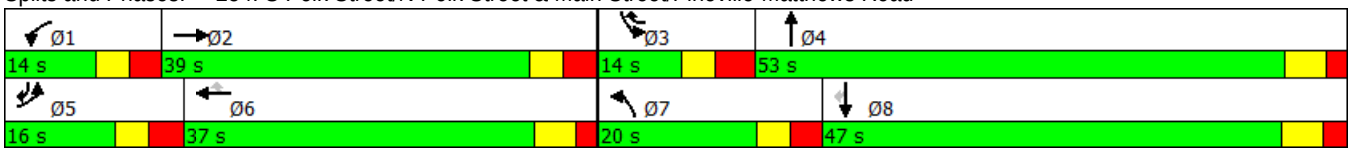
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	652	156	51	600	231	259	633	25	107	326	75
Future Volume (vph)	120	652	156	51	600	231	259	633	25	107	326	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			2%			2%	
Storage Length (ft)	335		0	250		600	125		0	0		150
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.971				0.850		0.994				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3437	0	1743	3486	1560	3399	1833	0	1752	1844	1567
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3437	0	1743	3486	1560	3399	1833	0	1752	1844	1567
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			35			35			35	
Link Distance (ft)		1846			975			1715			3430	
Travel Time (s)		62.9			19.0			33.4			66.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	133	724	173	57	667	257	288	703	28	119	362	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	133	897	0	57	667	257	288	731	0	119	362	83
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	3	7	4		3	8	5
Permitted Phases						6						8
Detector Phase	5	2		1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	20.0		14.0	20.0	14.0	14.0	20.0		14.0	20.0	14.0
Total Split (s)	16.0	39.0		14.0	37.0	14.0	20.0	53.0		14.0	47.0	16.0
Total Split (%)	13.3%	32.5%		11.7%	30.8%	11.7%	16.7%	44.2%		11.7%	39.2%	13.3%
Maximum Green (s)	9.8	32.8		8.2	31.3	7.4	14.1	47.3		7.4	41.0	9.8
Yellow Time (s)	3.0	3.0		3.0	3.7	3.0	3.0	3.7		3.0	3.7	3.0
All-Red Time (s)	3.2	3.2		2.8	2.0	3.6	2.9	2.0		3.6	2.3	3.2
Lost Time Adjust (s)	-1.2	-1.2		-0.8	-0.7	-1.6	-0.9	-0.7		-1.6	-1.0	-1.2
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0		2.0	3.0	2.0	2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min	None	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	10.8	34.2		8.5	29.1	43.1	13.8	48.1		9.0	43.3	59.1
Actuated g/C Ratio	0.09	0.29		0.07	0.25	0.37	0.12	0.41		0.08	0.37	0.50
v/c Ratio	0.81	0.89		0.45	0.77	0.45	0.72	0.97		0.89	0.53	0.10
Control Delay	87.7	52.8		65.1	47.5	30.7	60.9	61.7		106.8	33.7	17.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	87.7	52.8		65.1	47.5	30.7	60.9	61.7		106.8	33.7	17.1
LOS	F	D		E	D	C	E	E		F	C	B
Approach Delay		57.3			44.1			61.5			46.6	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	103	354		43	247	145	111	557		93	225	34
Queue Length 95th (ft)	#213	#477		88	316	222	159	#824		#208	325	64
Internal Link Dist (ft)		1766			895			1635			3350	
Turn Bay Length (ft)	335			250		600	125					150
Base Capacity (vph)	166	1004		134	954	574	436	753		134	681	793
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.80	0.89		0.43	0.70	0.45	0.66	0.97		0.89	0.53	0.10

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 117.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 53.2 Intersection LOS: D
Intersection Capacity Utilization 86.3% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road



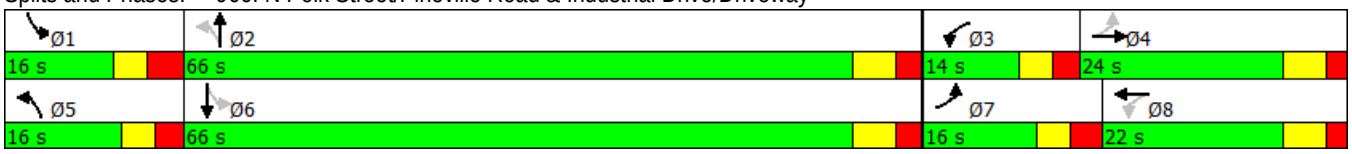
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	0	41	4	2	19	106	929	15	41	489	173
Future Volume (vph)	66	0	41	4	2	19	106	929	15	41	489	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.863			0.998			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1608	0	1770	3532	0	1770	3401	0
Flt Permitted	0.476						0.290			0.189		
Satd. Flow (perm)	887	1583	0	1863	1608	0	540	3532	0	352	3401	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			3430			1043	
Travel Time (s)		38.2			5.2			66.8			20.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	0	46	4	2	21	118	1032	17	46	543	192
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	46	0	4	23	0	118	1049	0	46	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	13.1	11.6		10.7	9.0		35.2	32.7		33.8	29.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.23	0.20		0.19	0.16		0.61	0.57		0.59	0.51	
v/c Ratio	0.21	0.14		0.01	0.09		0.22	0.52		0.10	0.43	
Control Delay	22.3	26.4		21.0	32.0		7.5	14.8		7.0	15.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.3	26.4		21.0	32.0		7.5	14.8		7.0	15.1	
LOS	C	C		C	C		A	B		A	B	
Approach Delay		23.9			30.4			14.0			14.6	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	20	13		1	6		10	136		4	83	
Queue Length 95th (ft)	61	53		9	34		47	296		22	200	
Internal Link Dist (ft)		1881			186			3350			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	436	608		390	540		609	3195		527	3077	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.08		0.01	0.04		0.19	0.33		0.09	0.24	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 57.6
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 15.0 Intersection LOS: B
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	1179	1106	10	5	11
Future Volume (Veh/h)	10	1179	1106	10	5	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	1310	1229	11	6	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1240				1912	620
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1240				1912	620
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				90	97
cM capacity (veh/h)	557				59	431

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	448	873	819	421	18
Volume Left	11	0	0	0	6
Volume Right	0	0	0	11	12
cSH	557	1700	1700	1700	138
Volume to Capacity	0.02	0.51	0.48	0.25	0.13
Queue Length 95th (ft)	2	0	0	0	11
Control Delay (s)	0.6	0.0	0.0	0.0	34.9
Lane LOS	A				D
Approach Delay (s)	0.2		0.0		34.9
Approach LOS					D

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1171	1	3	1140	36	2	1	8	18	0	1
Future Volume (Veh/h)	3	1171	1	3	1140	36	2	1	8	18	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		1%			-1%			-3%			-2%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	1301	1	3	1267	40	2	1	9	20	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1307			1302			1948	2620	651	1959	2601	654
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1307			1302			1948	2620	651	1959	2601	654
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			95	96	98	44	100	100
cM capacity (veh/h)	525			528			38	24	411	36	24	410

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	654	652	636	674	12	20	1
Volume Left	3	0	3	0	2	20	0
Volume Right	0	1	0	40	9	0	1
cSH	525	1700	528	1700	103	36	410
Volume to Capacity	0.01	0.38	0.01	0.40	0.12	0.56	0.00
Queue Length 95th (ft)	0	0	0	0	10	48	0
Control Delay (s)	0.2	0.0	0.2	0.0	44.5	194.6	13.8
Lane LOS	A		A		E	F	B
Approach Delay (s)	0.1		0.1		44.5	186.0	
Approach LOS					E	F	

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		

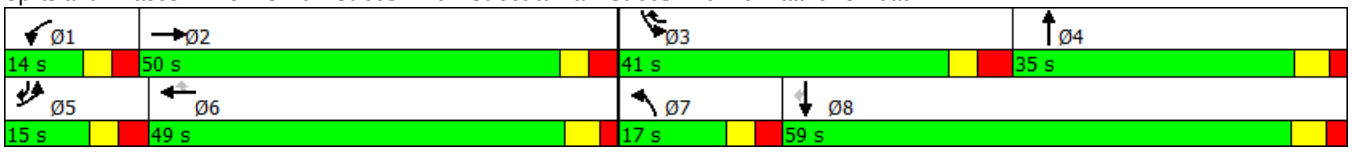
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	891	139	81	935	329	209	324	44	432	515	198
Future Volume (vph)	105	891	139	81	935	329	209	324	44	432	515	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			2%			2%	
Storage Length (ft)	335		0	250		600	125		0	0		150
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.980				0.850		0.982				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3468	0	1743	3486	1560	3399	1811	0	1752	1844	1567
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3468	0	1743	3486	1560	3399	1811	0	1752	1844	1567
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			35			35			35	
Link Distance (ft)		1846			975			1715			3430	
Travel Time (s)		62.9			19.0			33.4			66.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	117	990	154	90	1039	366	232	360	49	480	572	220
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	1144	0	90	1039	366	232	409	0	480	572	220
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	3	7	4		3	8	5
Permitted Phases						6						8
Detector Phase	5	2		1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	20.0		14.0	20.0	14.0	14.0	20.0		14.0	20.0	14.0
Total Split (s)	15.0	50.0		14.0	49.0	41.0	17.0	35.0		41.0	59.0	15.0
Total Split (%)	10.7%	35.7%		10.0%	35.0%	29.3%	12.1%	25.0%		29.3%	42.1%	10.7%
Maximum Green (s)	8.8	43.8		8.2	43.3	34.4	11.1	29.3		34.4	53.0	8.8
Yellow Time (s)	3.0	3.0		3.0	3.7	3.0	3.0	3.7		3.0	3.7	3.0
All-Red Time (s)	3.2	3.2		2.8	2.0	3.6	2.9	2.0		3.6	2.3	3.2
Lost Time Adjust (s)	-1.2	-1.2		-0.8	-0.7	-1.6	-0.9	-0.7		-1.6	-1.0	-1.2
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0		2.0	3.0	2.0	2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min	None	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	10.0	45.0		8.9	43.9	84.9	11.8	30.0		36.0	54.2	69.2
Actuated g/C Ratio	0.07	0.32		0.06	0.31	0.61	0.08	0.21		0.26	0.39	0.49
v/c Ratio	0.93	1.03		0.81	0.95	0.39	0.81	1.05		1.07	0.80	0.28
Control Delay	126.6	80.2		109.7	64.5	15.6	84.0	112.5		110.0	48.2	22.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	126.6	80.2		109.7	64.5	15.6	84.0	112.5		110.0	48.2	22.1
LOS	F	F		F	E	B	F	F		F	D	C
Approach Delay		84.5			55.3			102.2			67.0	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	108	~583		82	486	163	108	~406		~481	461	115
Queue Length 95th (ft)	#232	#721		#181	#625	231	#172	#616		#702	620	175
Internal Link Dist (ft)		1766			895			1635			3350	
Turn Bay Length (ft)	335			250		600	125					150
Base Capacity (vph)	126	1115		112	1096	947	291	388		450	713	774
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.93	1.03		0.80	0.95	0.39	0.80	1.05		1.07	0.80	0.28

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 139.9
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 72.8 Intersection LOS: E
Intersection Capacity Utilization 95.2% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road

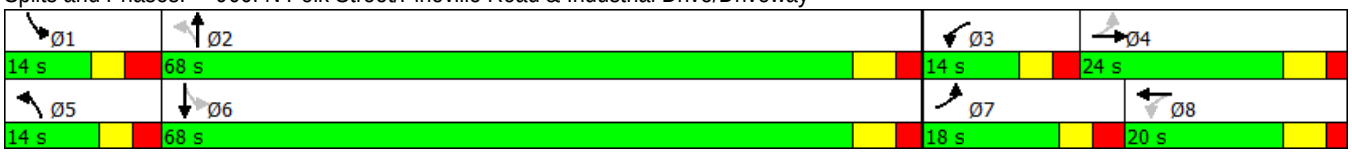


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	4	84	10	1	43	36	825	11	8	1209	86
Future Volume (vph)	183	4	84	10	1	43	36	825	11	8	1209	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.856			0.853			0.998			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1595	0	1770	1589	0	1770	3532	0	1770	3504	0
Flt Permitted	0.415			0.694			0.087			0.245		
Satd. Flow (perm)	773	1595	0	1293	1589	0	162	3532	0	456	3504	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			3430			1043	
Travel Time (s)		38.2			5.2			66.8			20.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	203	4	93	11	1	48	40	917	12	9	1343	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	97	0	11	49	0	40	929	0	9	1439	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	18.0	24.0		14.0	20.0		14.0	68.0		14.0	68.0	
Total Split (%)	15.0%	20.0%		11.7%	16.7%		11.7%	56.7%		11.7%	56.7%	
Maximum Green (s)	12.2	18.2		8.6	14.2		8.4	61.7		7.7	61.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	20.5	18.7		13.5	10.3		48.0	46.8		46.5	42.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.25	0.23		0.17	0.13		0.59	0.58		0.57	0.53	
v/c Ratio	0.56	0.26		0.04	0.24		0.14	0.46		0.02	0.78	
Control Delay	36.7	35.3		30.5	46.5		8.2	11.4		7.2	21.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	36.7	35.3		30.5	46.5		8.2	11.4		7.2	21.0	
LOS	D	D		C	D		A	B		A	C	
Approach Delay		36.3			43.5			11.3			20.9	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	99	45		5	28		9	140		2	382	
Queue Length 95th (ft)	202	121		21	75		22	273		8	517	
Internal Link Dist (ft)		1881			186			3350			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	405	497		308	350		308	2712		437	2679	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.20		0.04	0.14		0.13	0.34		0.02	0.54	

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 81	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



2021 Build Traffic Volumes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	783	941	7	31	31
Future Volume (Veh/h)	6	783	941	7	31	31
Sign Control		Free	Free		Stop	
Grade		0%	0%		-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	870	1046	8	34	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1054				1499	527
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1054				1499	527
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				70	93
cM capacity (veh/h)	656				112	496

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	297	580	697	357	68
Volume Left	7	0	0	0	34
Volume Right	0	0	0	8	34
cSH	656	1700	1700	1700	183
Volume to Capacity	0.01	0.34	0.41	0.21	0.37
Queue Length 95th (ft)	1	0	0	0	40
Control Delay (s)	0.4	0.0	0.0	0.0	36.0
Lane LOS	A				E
Approach Delay (s)	0.1		0.0		36.0
Approach LOS					E

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	821	2	9	922	10	0	0	5	41	0	23
Future Volume (Veh/h)	4	821	2	9	922	10	0	0	5	41	0	23
Sign Control		Free			Free			Stop			Stop	
Grade		1%			-1%			-3%			-2%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	4	912	2	10	1024	11	0	0	6	46	0	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1035			914			1479	1976	457	1520	1972	518
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1035			914			1479	1976	457	1520	1972	518
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	99	42	100	95
cM capacity (veh/h)	667			742			82	60	551	80	61	503

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	460	458	522	523	6	46	26
Volume Left	4	0	10	0	0	46	0
Volume Right	0	2	0	11	6	0	26
cSH	667	1700	742	1700	551	80	503
Volume to Capacity	0.01	0.27	0.01	0.31	0.01	0.58	0.05
Queue Length 95th (ft)	0	0	1	0	1	64	4
Control Delay (s)	0.2	0.0	0.4	0.0	11.6	99.6	12.5
Lane LOS	A		A		B	F	B
Approach Delay (s)	0.1		0.2		11.6	68.1	
Approach LOS					B	F	

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	107	1	9	281	10	51
Future Volume (Veh/h)	107	1	9	281	10	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	119	1	10	312	11	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			120		452	120
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			120		452	120
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	94
cM capacity (veh/h)			1468		562	932

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	120	322	68
Volume Left	0	10	11
Volume Right	1	0	57
cSH	1700	1468	842
Volume to Capacity	0.07	0.01	0.08
Queue Length 95th (ft)	0	1	7
Control Delay (s)	0.0	0.3	9.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	9.6
Approach LOS			A

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	32.3%	ICU Level of Service	A
Analysis Period (min)	15		

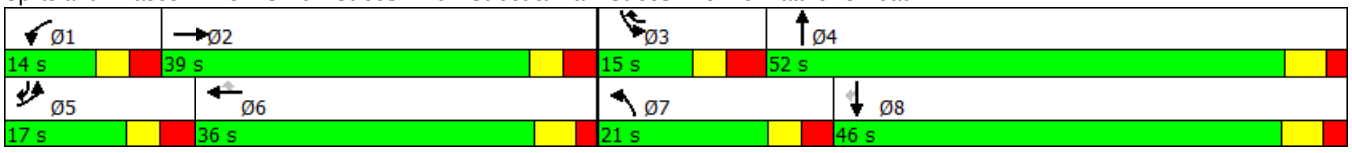
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	666	175	51	607	231	263	636	25	121	326	75
Future Volume (vph)	120	666	175	51	607	231	263	636	25	121	326	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			2%			2%	
Storage Length (ft)	335		0	250		600	125		0	0		150
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.969				0.850		0.994				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3429	0	1743	3486	1560	3399	1833	0	1752	1844	1567
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3429	0	1743	3486	1560	3399	1833	0	1752	1844	1567
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			35			35			35	
Link Distance (ft)		1846			975			1715			3430	
Travel Time (s)		62.9			19.0			33.4			66.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	133	740	194	57	674	257	292	707	28	134	362	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	133	934	0	57	674	257	292	735	0	134	362	83
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	3	7	4		3	8	5
Permitted Phases						6						8
Detector Phase	5	2		1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	20.0		14.0	20.0	14.0	14.0	20.0		14.0	20.0	14.0
Total Split (s)	17.0	39.0		14.0	36.0	15.0	21.0	52.0		15.0	46.0	17.0
Total Split (%)	14.2%	32.5%		11.7%	30.0%	12.5%	17.5%	43.3%		12.5%	38.3%	14.2%
Maximum Green (s)	10.8	32.8		8.2	30.3	8.4	15.1	46.3		8.4	40.0	10.8
Yellow Time (s)	3.0	3.0		3.0	3.7	3.0	3.0	3.7		3.0	3.7	3.0
All-Red Time (s)	3.2	3.2		2.8	2.0	3.6	2.9	2.0		3.6	2.3	3.2
Lost Time Adjust (s)	-1.2	-1.2		-0.8	-0.7	-1.6	-0.9	-0.7		-1.6	-1.0	-1.2
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0		2.0	3.0	2.0	2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min	None	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	11.5	34.1		8.5	28.3	43.4	14.4	47.1		10.0	42.8	59.3
Actuated g/C Ratio	0.10	0.29		0.07	0.24	0.37	0.12	0.40		0.09	0.37	0.51
v/c Ratio	0.77	0.93		0.45	0.80	0.44	0.70	1.00		0.89	0.54	0.10
Control Delay	80.0	57.8		65.1	49.6	30.5	59.2	68.5		104.0	34.3	16.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	80.0	57.8		65.1	49.6	30.5	59.2	68.5		104.0	34.3	16.9
LOS	E	E		E	D	C	E	E		F	C	B
Approach Delay		60.6			45.5			65.9			47.9	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	102	375		43	253	145	112	~606		105	227	34
Queue Length 95th (ft)	#201	#511		88	323	222	159	#841		#227	329	64
Internal Link Dist (ft)		1766			895			1635			3350	
Turn Bay Length (ft)	335			250		600	125					150
Base Capacity (vph)	182	999		134	925	578	466	737		150	674	801
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.73	0.93		0.43	0.73	0.44	0.63	1.00		0.89	0.54	0.10

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 117
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 56.0 Intersection LOS: E
Intersection Capacity Utilization 88.2% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road

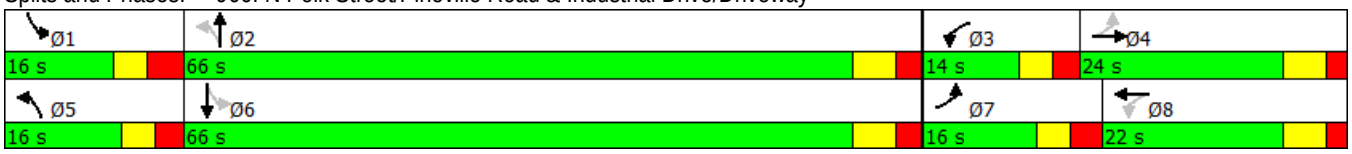


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	0	55	4	2	19	109	929	15	41	489	178
Future Volume (vph)	103	0	55	4	2	19	109	929	15	41	489	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.863			0.998			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1608	0	1770	3532	0	1770	3398	0
Flt Permitted	0.471						0.284			0.190		
Satd. Flow (perm)	877	1583	0	1863	1608	0	529	3532	0	354	3398	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2081			266			3430			1043	
Travel Time (s)		40.5			5.2			66.8			20.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	114	0	61	4	2	21	121	1032	17	46	543	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	61	0	4	23	0	121	1049	0	46	741	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	13.7	12.2		10.7	8.9		36.1	33.4		34.5	29.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.23	0.21		0.18	0.15		0.61	0.57		0.58	0.51	
v/c Ratio	0.32	0.19		0.01	0.10		0.23	0.52		0.11	0.43	
Control Delay	23.8	26.7		21.2	32.8		7.7	15.1		7.2	15.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.8	26.7		21.2	32.8		7.7	15.1		7.2	15.5	
LOS	C	C		C	C		A	B		A	B	
Approach Delay		24.8			31.1			14.3			15.0	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	33	17		1	7		12	144		4	89	
Queue Length 95th (ft)	88	66		9	34		48	297		23	204	
Internal Link Dist (ft)		2001			186			3350			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	426	595		379	524		595	3174		518	3054	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.27	0.10		0.01	0.04		0.20	0.33		0.09	0.24	

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 59	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	26	1194	1113	31	15	19
Future Volume (Veh/h)	26	1194	1113	31	15	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	29	1327	1237	34	17	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1271				1976	636
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1271				1976	636
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				67	95
cM capacity (veh/h)	542				51	421

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	471	885	825	446	38
Volume Left	29	0	0	0	17
Volume Right	0	0	0	34	21
cSH	542	1700	1700	1700	100
Volume to Capacity	0.05	0.52	0.49	0.26	0.38
Queue Length 95th (ft)	4	0	0	0	39
Control Delay (s)	1.6	0.0	0.0	0.0	61.8
Lane LOS	A				F
Approach Delay (s)	0.5		0.0		61.8
Approach LOS					F

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	1181	1	3	1161	58	2	1	8	28	0	8
Future Volume (Veh/h)	18	1181	1	3	1161	58	2	1	8	28	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		1%			-1%			-3%			-2%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	20	1312	1	3	1290	64	2	1	9	31	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1354			1313			2012	2712	656	2034	2681	677
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1354			1313			2012	2712	656	2034	2681	677
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			94	95	98	0	100	98
cM capacity (veh/h)	504			523			33	20	408	30	21	395

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	676	657	648	709	12	31	9
Volume Left	20	0	3	0	2	31	0
Volume Right	0	1	0	64	9	0	9
cSH	504	1700	523	1700	90	30	395
Volume to Capacity	0.04	0.39	0.01	0.42	0.13	1.02	0.02
Queue Length 95th (ft)	3	0	0	0	11	86	2
Control Delay (s)	1.1	0.0	0.2	0.0	51.2	362.7	14.3
Lane LOS	A		A		F	F	B
Approach Delay (s)	0.6		0.1		51.2	284.4	
Approach LOS					F	F	

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	272	7	41	122	2	24
Future Volume (Veh/h)	272	7	41	122	2	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	302	8	46	136	2	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			310		534	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			310		534	306
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		100	96
cM capacity (veh/h)			1250		488	734

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	310	182	29
Volume Left	0	46	2
Volume Right	8	0	27
cSH	1700	1250	709
Volume to Capacity	0.18	0.04	0.04
Queue Length 95th (ft)	0	3	3
Control Delay (s)	0.0	2.3	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.3	10.3
Approach LOS			B

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		

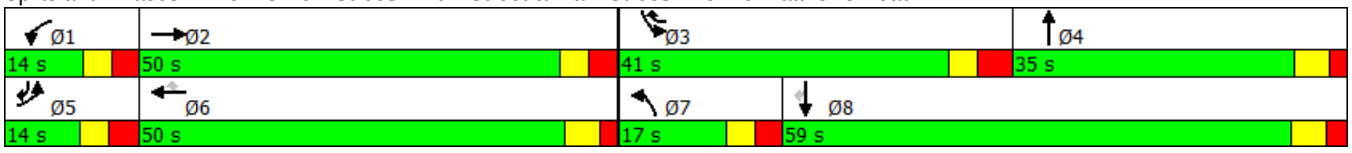
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	900	149	81	970	329	216	331	44	442	515	198
Future Volume (vph)	105	900	149	81	970	329	216	331	44	442	515	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			2%			2%	
Storage Length (ft)	335		0	250		600	125		0	0		150
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.979				0.850		0.982				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3465	0	1743	3486	1560	3399	1811	0	1752	1844	1567
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3465	0	1743	3486	1560	3399	1811	0	1752	1844	1567
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		20			35			35			35	
Link Distance (ft)		1846			975			1715			3430	
Travel Time (s)		62.9			19.0			33.4			66.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	117	1000	166	90	1078	366	240	368	49	491	572	220
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	1166	0	90	1078	366	240	417	0	491	572	220
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	3	7	4		3	8	5
Permitted Phases						6						8
Detector Phase	5	2		1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	20.0		14.0	20.0	14.0	14.0	20.0		14.0	20.0	14.0
Total Split (s)	14.0	50.0		14.0	50.0	41.0	17.0	35.0		41.0	59.0	14.0
Total Split (%)	10.0%	35.7%		10.0%	35.7%	29.3%	12.1%	25.0%		29.3%	42.1%	10.0%
Maximum Green (s)	7.8	43.8		8.2	44.3	34.4	11.1	29.3		34.4	53.0	7.8
Yellow Time (s)	3.0	3.0		3.0	3.7	3.0	3.0	3.7		3.0	3.7	3.0
All-Red Time (s)	3.2	3.2		2.8	2.0	3.6	2.9	2.0		3.6	2.3	3.2
Lost Time Adjust (s)	-1.2	-1.2		-0.8	-0.7	-1.6	-0.9	-0.7		-1.6	-1.0	-1.2
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0		2.0	3.0	2.0	2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min	None	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)	9.0	45.0		8.9	44.9	85.9	11.9	30.0		36.0	54.1	68.1
Actuated g/C Ratio	0.06	0.32		0.06	0.32	0.61	0.09	0.21		0.26	0.39	0.49
v/c Ratio	1.04	1.05		0.81	0.96	0.38	0.83	1.07		1.09	0.80	0.29
Control Delay	155.8	85.8		109.7	66.1	15.1	86.2	118.0		117.1	48.3	22.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	155.8	85.8		109.7	66.1	15.1	86.2	118.0		117.1	48.3	22.8
LOS	F	F		F	E	B	F	F		F	D	C
Approach Delay		92.2			56.5			106.4			70.3	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	~114	~605		82	507	160	112	~421		~502	461	117
Queue Length 95th (ft)	#244	#745		#181	#653	226	#181	#631		#723	620	177
Internal Link Dist (ft)		1766			895			1635			3350	
Turn Bay Length (ft)	335			250		600	125					150
Base Capacity (vph)	113	1114		112	1121	958	291	388		450	712	762
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.04	1.05		0.80	0.96	0.38	0.82	1.07		1.09	0.80	0.29

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 139.9
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 76.7 Intersection LOS: E
Intersection Capacity Utilization 96.7% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 254: S Polk Street/N Polk Street & Main Street/Pineville-Matthews Road

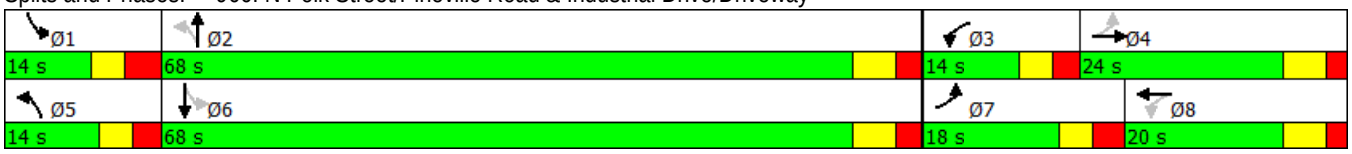


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	4	94	10	1	43	43	825	11	8	1209	120
Future Volume (vph)	197	4	94	10	1	43	43	825	11	8	1209	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.856			0.853			0.998			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1595	0	1770	1589	0	1770	3532	0	1770	3490	0
Flt Permitted	0.482			0.687			0.083			0.243		
Satd. Flow (perm)	898	1595	0	1280	1589	0	155	3532	0	453	3490	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2081			266			3430			1043	
Travel Time (s)		40.5			5.2			66.8			20.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	219	4	104	11	1	48	48	917	12	9	1343	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	219	108	0	11	49	0	48	929	0	9	1476	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	18.0	24.0		14.0	20.0		14.0	68.0		14.0	68.0	
Total Split (%)	15.0%	20.0%		11.7%	16.7%		11.7%	56.7%		11.7%	56.7%	
Maximum Green (s)	12.2	18.2		8.6	14.2		8.4	61.7		7.7	61.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	23.8	21.9		15.5	10.3		50.7	49.3		48.8	44.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.27	0.25		0.18	0.12		0.58	0.57		0.56	0.51	
v/c Ratio	0.58	0.27		0.04	0.26		0.18	0.46		0.02	0.82	
Control Delay	37.7	35.9		31.1	48.3		9.0	12.3		7.2	23.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.7	35.9		31.1	48.3		9.0	12.3		7.2	23.6	
LOS	D	D		C	D		A	B		A	C	
Approach Delay		37.1			45.1			12.1			23.5	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	111	51		5	29		10	140		2	401	
Queue Length 95th (ft)	219	134		21	75		25	274		8	551	
Internal Link Dist (ft)		2001			186			3350			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	418	489		315	322		287	2584		417	2520	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.22		0.03	0.15		0.17	0.36		0.02	0.59	

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 86.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 63.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



OLD BUSINESS

A. Approval and Vote on Splash Pad Design

Memorandum

Pineville
NORTH CAROLINA

To: Mayor and Town Council

From: Ryan Spitzer

Date: 4/5/2018

Re: Splash Pad

Overview:
The Town of Pineville received a Part F Grant from North Carolina for improvements at the park. The grant was for $361,460 with a match coming for the Town for a total project budget of $722,920. The project consisted of the construction of a dog park and splash pad. To date the Town has spent about $62,000.

The dog park was completed last year and is currently heavily used by citizens and people from the surrounding area. The Town is still actively making improvements to the dog park. It is now time to begin the bidding process and construction of the splash pad.

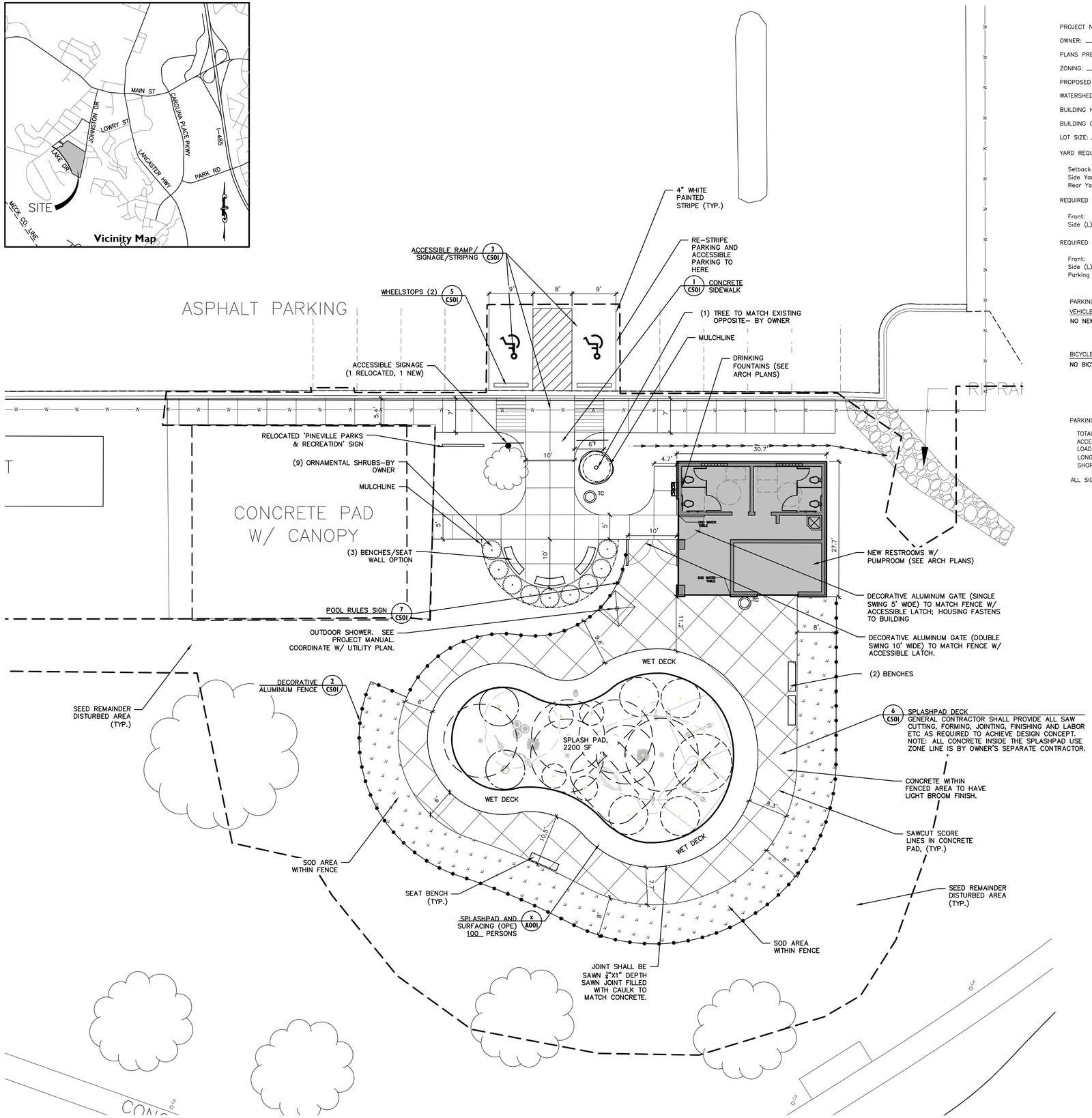
The splash pad is currently at the 95% plan stage. In order to stay on the established timeline of having construction completed in the summer of 2019 Council needs to vote on the plans at the April 10, 2018 Council Meeting. This Work Session will serve as a time for Council to ask questions in order for staff to work with the engineers to remedy any concerns.

The initial splash pad will have 14 features installed across the pad. This includes 2 spray loops, 4 geysers, 4 jet streams, bobble, frog, leaf, and a side winder. As budgets allow the Town will be able to plug-and-play additional features. The spots that will not currently have features attached will spray water up in the air, similar to a fountain.

The Town has included purchasing more items in the upcoming budget year through the CIP.

Attachments:
Building Elevation
Site Plan
Schedule

Recommendation:
Approve the plan as submitted



ZONING CODE SUMMARY

PROJECT NAME: PINEVILLE LAKE PARK – 1000 JOHNSTON DRIVE

OWNER: TOWN OF PINEVILLE PHONE # X

PLANS PREPARED BY: BENESCH PHONE # 704-521-9880

ZONING: R-7 JURISDICTION: PINEVILLE

PROPOSED USE: PARK & RECREATION TAX PARCEL #: PIN 22107521

WATERSHED DISTRICT: LOWER LITTLE SUGAR

BUILDING HEIGHT: 10'-8" Feet, Stories: 1

BUILDING COVERAGE: 810 Sq. Ft. GROSS FLOOR AREA: 810 Sq. Ft.

LOT SIZE: 21.3 Sq. Ft. (Acres) NUMBER OF UNITS/SUITES: 1

YARD REQUIREMENTS:

Setback (front): 0 Ft. from R/W,
Side Yard (L): 0 Ft. Side Yard (R): 0 Ft.
Rear Yard: 0 Ft.

REQUIRED BUFFERS:

Front: (NO) / YES _____ Ft. Rear: (NO) / YES _____ Ft.
Side (L): (NO) / YES _____ Ft. Side (R): (NO) / YES _____ Ft.

REQUIRED SCREENING:

Front: (NO) / YES Rear: (NO) / YES
Side (L): (NO) / YES Side (R): (NO) / YES
Parking Only: (NO) / YES

PARKING DATA:

VEHICLE PARKING DATA:

NO NEW PARKING PROPOSED

BICYCLE PARKING DATA:

NO BICYCLE PARKING PROPOSED

PARKING SUMMARY:

	REQUIRED	PROVIDED
TOTAL # SPACES:	N/A	N/A
ACCESSIBLE SPACES:	N/A	2
LOADING SPACES:	0	0
LONG TERM BICYLE:	N/A	N/A
SHORT TERM BICYCLE:	N/A	N/A

ALL SIGNAGE WILL BE APPROVED AND PERMITTED SEPARATELY.

SITE NOTES

1. DIMENSIONS AND COORDINATE POINTS ARE TO FACE OF CURB, EDGE OF PAVEMENT, OR CORNER OF BUILDING UNLESS OTHERWISE NOTED.
2. ALL IMPROVEMENTS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATE AND LOCAL STANDARDS.
3. ANY DISCREPANCIES FOUND IN THE FIELD SHALL BE CALLED TO THE ATTENTION OF THE OWNER OR ENGINEER PRIOR TO PROCEEDING WITH WORK.
2. PRIOR TO BEGINNING CONSTRUCTION, UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS (BOTH SITE AND BUILDING RELATED) INCLUDING BUT NOT LIMITED TO REGULATORY FEES, LICENSES, AND INSPECTIONS NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK.
3. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES, AND RIGHT-OF-WAYS, PUBLIC AND PRIVATE, PRIOR TO WORKING IN THESE AREAS.
4. GENERAL CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND THE PUBLIC SHALL BE PROTECTED FROM INJURY.
5. SIGHT TRIANGLES SHOWN ARE THE MINIMUM REQUIRED.
6. USE CAUTION WHEN REPRODUCING COPIES OF THE CONSTRUCTION DRAWINGS. COPIES ARE SUBJECT TO DISTORTION AND INACCURACY IN THE SCALE OF DRAWINGS. VERIFY ANY DISCREPANCIES WITH BENESCH.
7. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION AS AMENDED.
8. ALL PAVEMENT MARKINGS SHALL BE FOUR (4) INCHES WIDE UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
9. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS AS SHOWN ON THE PLANS.
10. CONTRACTOR SHALL SAW-CUT EXISTING ASPHALT PAVEMENT AREAS TO TIE IN SMOOTHLY TO PROPOSED PAVEMENT AT DRIVEWAY ENTRANCES.
11. REFER TO ARCHITECTURAL PLANS FOR ACTUAL BUILDING DIMENSIONS.
12. THE ENGINEER WILL PROVIDE THE CONTRACTOR WITH AN ELECTRONIC FILE OF THESE DRAWINGS UPON REQUEST.
13. SITE INSPECTOR MAY REQUIRE ADDITIONAL VEGETATION TO SCREEN PARKING IF UPON SITE VISIT IF IT IS DETERMINED THAT EXISTING VEGETATION AND TOPOGRAPHY DO NOT ADEQUATELY SCREEN PARKING.
14. CONTACT THE UTILITY COMPANY TO RELOCATE ANY EXISTING UTILITY POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE APPLICANT.
15. STOP BEFORE YOU DIG. CALL 811. IT'S THE LAW.

NOTE:
CONTRACTOR SHALL PROVIDE ALL COORDINATION NEEDED TO INTEGRATE SPLASHPAD SYSTEM WITH SITE WORK & BUILDING CONSTRUCTION.

LEGEND

	EXISTING SIGN		EXISTING CURB AND GUTTER
	PROPOSED SIGN		PROPOSED CURB AND GUTTER
EIP	EXISTING IRON PIN		PROPOSED FLUSH CURB AND GUTTER
	EXISTING LIGHT POLE		PROPERTY LINE
	EXISTING UTILITY POLE		EXISTING FENCE
R/W	RIGHT-OF-WAY		PROPOSED FENCE
HC	ACCESSIBLE SPACE	OH/U	EXISTING OVERHEAD UTILITY LINE
	EXISTING TREE TO REMAIN		EXISTING ASPHALT PAVEMENT
	EXISTING FIRE HYDRANT		PROPOSED STANDARD DUTY ASPHALT PAVEMENT
12	# OF PARKING SPACES		PROPOSED HEAVY DUTY ASPHALT PAVEMENT
℄	CENTERLINE		PROPOSED ASPHALT OVERLAY
	ACCESSIBLE RAMP		PROPOSED VEHICULAR CONCRETE PAVEMENT

NORTH

10 0 5 10 20
SCALE: 1"=10'

benesch
Alfred Benesch & Company
2359 Perimeter Pointe Parkway, Suite 350
Charlotte, NC 28208
www.benesch.com
P 704.521.9880

Pineville North Carolina

Seals:

PRELIMINARY NOT FOR CONSTRUCTION

Corp. NC license: F-1320

Pineville Lake Park

1000 Johnston Drive
Pineville, North Carolina

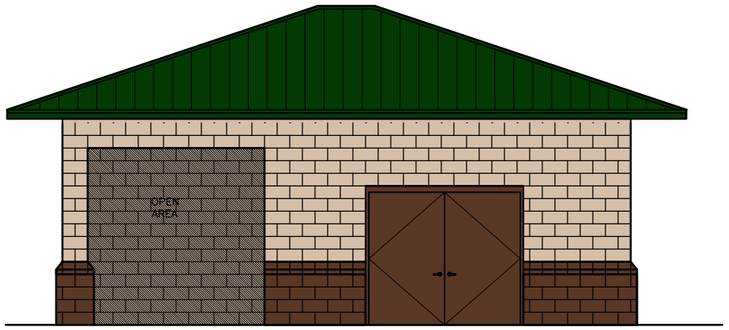
Project no: 17.000212
Date: 01.26.18
Revisions:

Sheet Title:

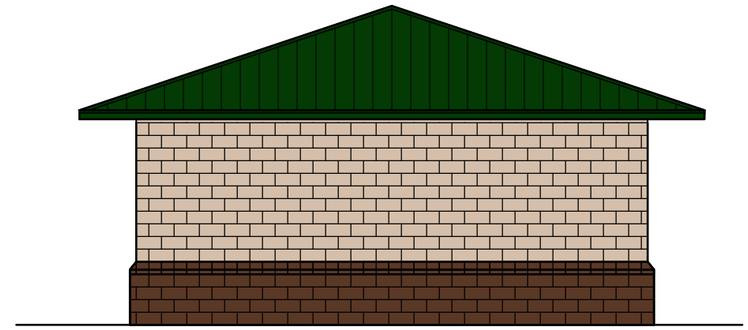
Site Plan

Sheet No:

C200

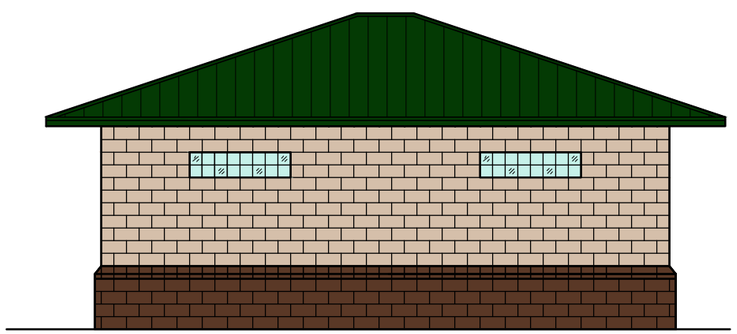


2 A2.1A SOUTH ELEVATION
SCALE: 1/8 = 1'-0"

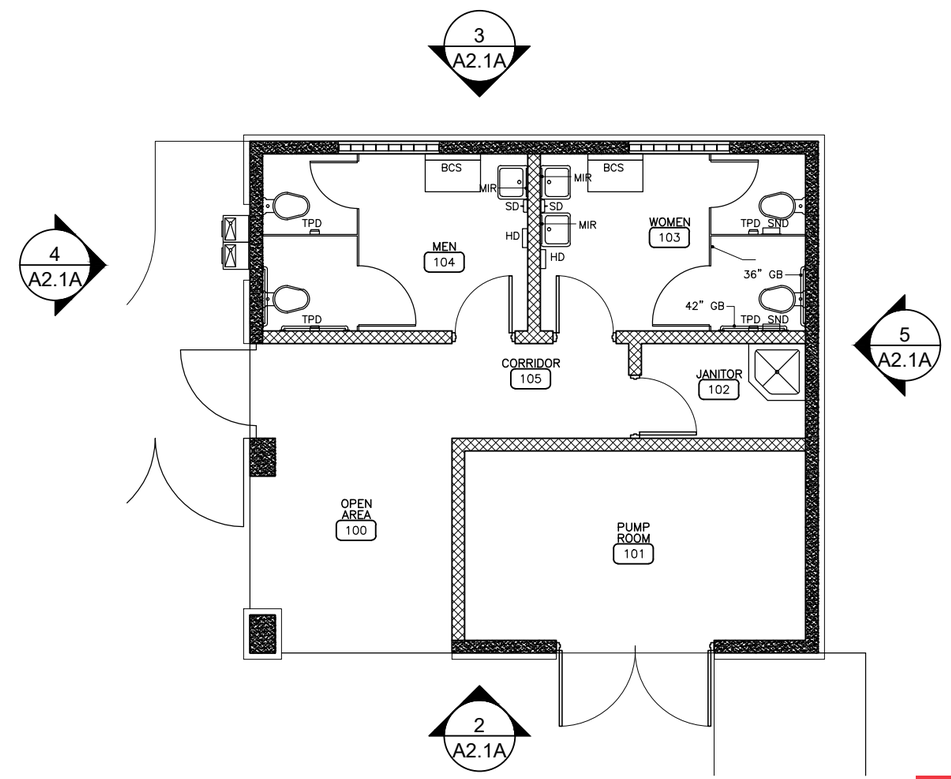


5 A2.1A EAST ELEVATION
SCALE: 1/8 = 1'-0"

3 A2.1A WEST ELEVATION
SCALE: 1/8" = 1'-0"



4 A2.1A NORTH ELEVATION
SCALE: 1/8" = 1'-0"



1 A2.1A FLOOR PLAN
SCALE: 1/8" = 1'-0"

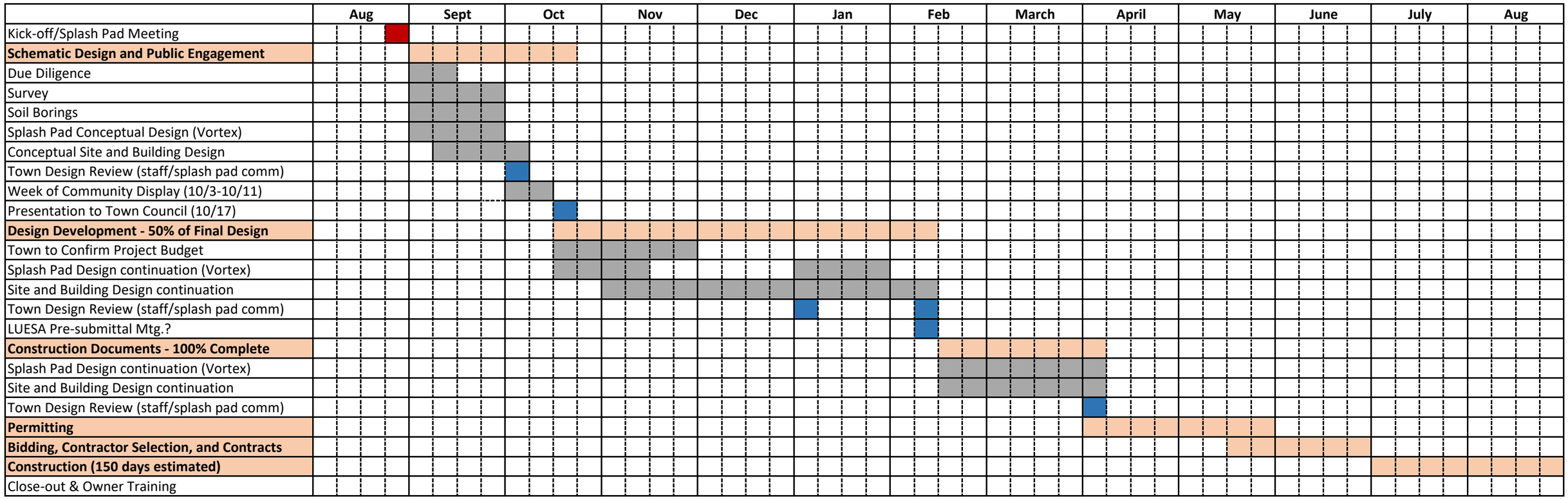
330 W. 10th Street
Charlotte, NC 28202
704.333.9952 phone
704.333.9962 fax
www.whnarch.com
ARCHITECTS
Designs for a changing world

Pineville Lake Park - Toilet Building

Lake Park Splash Pad Schedule

Town of Pineville

January 17, 2018



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Lake Park Splashpad®, NC

Revision 00 - Phase01 - 29162

View 1

VORTEX

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View 2

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View 3

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View 4

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Revision 00 - Phase01 - 29162

View 5

VORTEX

SPLASHPAD® COMPONENTS

Total area: 2206 ft² (205 m²)

Spray area: 1361 ft² (126 m²)

REF	PRODUCT	QTY	GPM	LPM
1	Activator N°1 VOR 612	1	0	0
2	Bobble N°2 VOR 7233	1	21.5	81.4
3	Fountain Spray N°1 VOR 7513	1	5	18.9
4	Frog N°2 VOR 7201	1	4	15.1
5	Geyser VOR 301	4	30	113.6
6	Jet Stream N°1 VOR 7512	4	10	37.9
7	Leaf N°2 VOR 7657	1	5.5	20.8
8	Playsafe Drain N°1 VOR-1001.4000	2	0	0
9	Safeswap N°1 / VOR-55000.0430 Spray Cap Kit / VOR-49000.0356	2	30	113.6
10	Side Winder VOR 7518	1	6.5	24.6
11	Spray Loop VOR 519	2	15	56.8
12	Team Spray N°1 VOR 7640	1	17.5	66.2
13	Tube N°1 VOR 220	2	15	56.8
14	Water Jelly N°1 VOR 7010	1	6	22.7
15	Safeswap N°1 / VOR-55000.0430 Rooster Tail Spray Cap / VOR-49000.0385	1	12.5	47.3
16	Safeswap N°17/ VOR-55000.0800 Spray Cap Kit / VOR-49000.0356	2	30	113.6
	TOTAL WATER FLOW	QTY	GPM	LPM
		27	208.5	789.3

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Revision 00 - Phase01 - 29162

Top View Splashpad®

VORTEX

NEW BUSINESS

A. Discussion of Funding for PCAA

B. Staff Update:

1) Manager's Report

2) Calendar of Events

Memorandum

Pineville
NORTH CAROLINA

To: Mayor and Town Council

From: Ryan Spitzer

Date: 4/5/2018

Re: Lights at the Ballfield

Overview:
PCAA has seen a growth in membership for little league baseball over the last several years. Due to the increase in participation, PCAA has not been able to utilize the fields, as they should. In order to get increased utilization out of the fields they have investigated erecting lights at the three fields between The Hut and Pineville Elementary School. The lights were part of the Master Development Plan when the project began.

The lights for the ballfield are going to cost approximately $200,000. In order to fund this they have asked Mecklenburg County and the Town of Pineville to help. The Mecklenburg County Board of Commissioners voted on March 20th, 2018 to fund $100,000 of the cost of the lights. PCAA is not asking the Town of Pineville to contribute $50,000 to the cost. PCAA will cover the remainder.

If Council finds it appropriate to fund $50,000 for the lights, staff is proposing to take the money from the Contingency line item that Council set up in the FY18 budget. This line item has not had any monies drawn from it yet and there is no anticipation of any monies being drawn from the Contingency line item. The line item currently has $75,000 budgeted and we are currently 75% through the budget year.

Estimated Costs:
$50,000

Attachments:
Letter from Mecklenburg County

Recommendation:
Approve funding of $50,000 for the placement of lights

MECKLENBURG COUNTY
Office of the County Manager

April 1, 2018

Ryan Spitzer
Town Manager
200 Dover Street, P.O. Box 249
Pineville, North Carolina 28134

Dear Mr. Spitzer,

On March 20, 2018, the Mecklenburg Board of County Commissioners approved the Town of Pineville's fund request of $100,000 to be appropriated towards the costs of installing lights at Pineville Memorial Ballpark. As such, the County's Finance Department will be processing payment to be made to the Town of Pineville for this purpose.

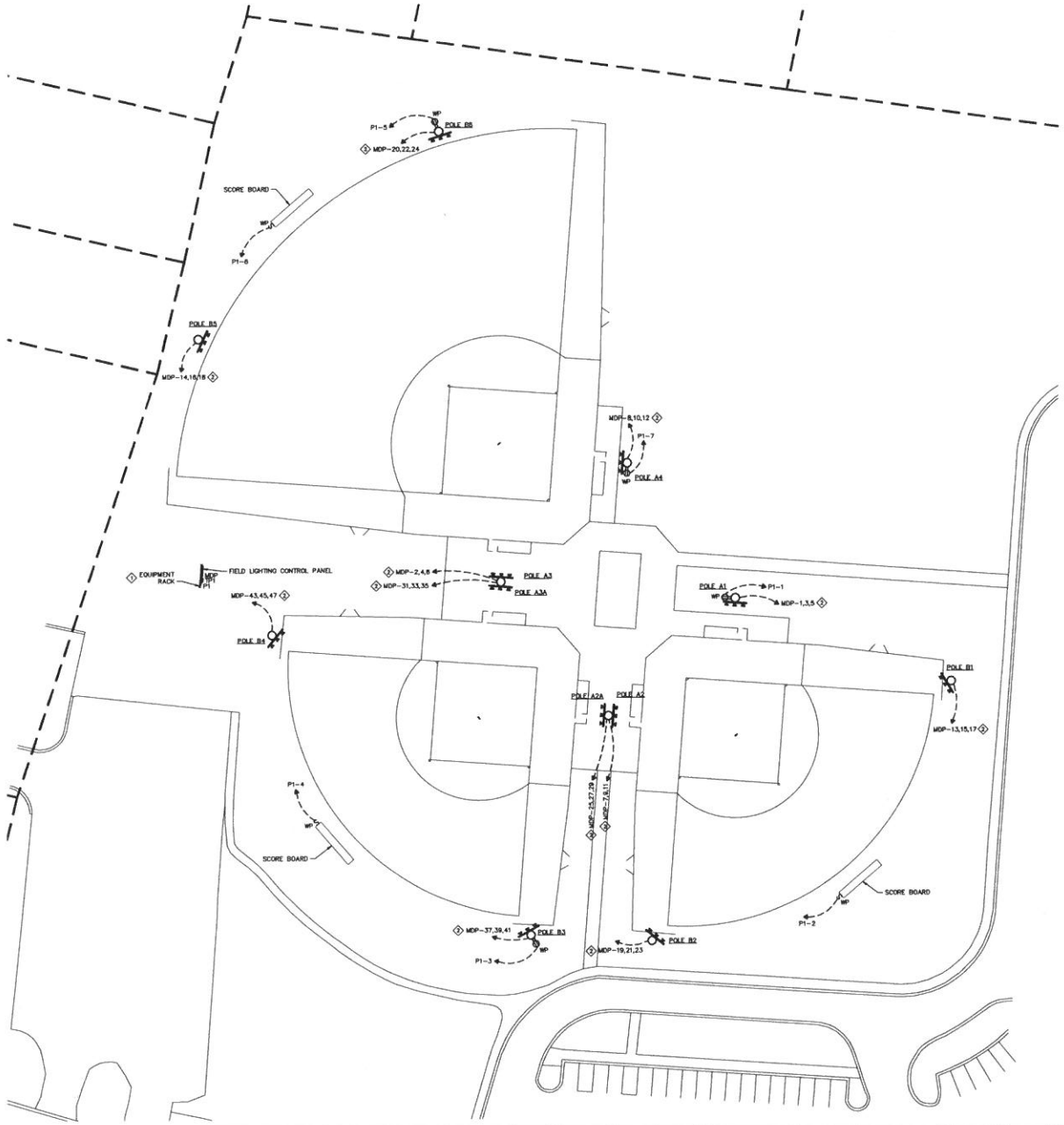
This correspondence also serves as written approval by the Acting Park & Recreation Director at the time. The Field Use and Maintenance Agreement for Pineville Elementary School between Mecklenburg County and the Town of Pineville, Section 3: Paragraph D, indicates that all repairs, maintenance, and modifications or additions to the facility requiring expenditures over $25,000 must have written approval by the Director of Park and Recreation, or his/her designee.

If you have any questions, feel free to contact me.

Sincerely,

Leslie Johnson
Assistant County Manager

CC:
Lee Jones, Park & Recreation Director



1 / E-2 SITE PLAN – ELECTRICAL

SCALE: 1" = 30'-0"

NOTES:

1. REFER TO EQUIPMENT RACK DETAIL FO ADDITIONAL INFORMATION.
2. ROUTE CIRCUIT THROUGH FIELD LIGHTING CONTROL PANEL.

McKNIGHT · SMITH · WARD · GRIFFIN
ENGINEERS, INCORPORATED
PO Box 240826 · 4223 South Boulevard
Charlotte, NC 28224 · 704/527-2112
NC LICENSE NUMBER F-0595

10-14-18

JOB NUMBER	18-006
DRAWN BY	SMB
CHECKED BY	MPA
DATE	01-18-18

REVISION DATES: 1 07-17-17

JOB TITLE
PINEVILLE MEMORIAL BASEBALL PARK
MECKLENBURG COUNTY NORTH CAROLINA

SHEET TITLE
SITE PLAN – ELECTRICAL

SHEET
E-2
2 OF 6

Pineville
NORTH CAROLINA

RESOLUTION NO. 2018-04
IN SUPPORT OF FUNDING
A PORTION OF FIELD LIGHTING FOR THE PCAA

WHEREAS, Mecklenburg County has agreed to fund 50% of the cost of field lighting for the Pineville Community Athletic Association; and

WHEREAS, the total cost of the project is $200,000; and

WHEREAS, PCAA has agreed to fund 25% of the project; and

WHEREAS, the PCAA has come before the Pineville Town Council to consider funding the remaining portion of the project; and

WHEREAS, the Town of Pineville had formed a partnership agreement with the PCAA in 2014; and

WHEREAS, Pineville's portion of the funding would come out of the Contingency Fund so as not to have an effect on the current budget; and

WHEREAS, the **PINEVILLE TOWN COUNCIL** supports the efforts of the PCAA and agrees to fund $50,000 of the field lighting project to the PCAA to allow its members to practice and play longer on the ball fields and enjoy the benefits the PCAA offers children in the area.

NOW THEREFORE, BE IT RESOLVED, that the Town of Pineville hereby supports funding $50,000 to the PCAA for field light at Pineville Memorial Ballfield.

Adopted this _____ day of April, 2018.

_____
Mayor Jack Edwards

April 2018

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
26	27	28	29	30	31	1
2 **Budget Meeting 5:30 p.m. @ Police Dept. Training Room**	3	4	5	6	7 PAWS IN THE PARK 10am -3pm Lake Park	8 Children's Theater @ 2:00 pm @ BJCC
9	10 Council Meeting @ Hut @ 6:30 p.m.	11	12 **Budget Meeting 5:30 p.m. @ Police Dept. Training Room**	13	14	15
16 **Budget Meeting 5:30 p.m. @ Police Dept. Training Room**	17	18	19 **Budget Meeting 5:30 p.m. @ Police Dept. Training Room**	20	21 PCAA Spring Fling 9am-4pm Jack Hughes Park	22 Children's Theater @ 2:00 pm @ BJCC
23	24 Tentative Council Work Session 6:00 pm @ Tele Bldg.	25	26	27	28 SHELTRA MEMORIAL RUN/WALK 7:00 a.m.	29
30	1	2	3	4	5	6

Notes:

May 2018

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
30	1	2	3 Children's Theater @ 10:30 am @ BJCC	4	5 Community Yard Sale Lake Park 7:00 am until noon	6
7	8	9	10	11	12	13 Mother's Day
14 J	15 U	16 N K	17 W	18 E	19 E K Music, Dance and Que at Polk Site 11-3	20
21	22	23	24	25	26	27
28 Memorial Holiday Offices Closed *see note	29	30	31	1	2	3
4	5	6	7	8	9	10

Notes:

*4th Monday of the month falls on Memorial Day. If a work session is needed, Council will need to decide on an alternate date for that meeting.

CLOSED SESSION

Discussion of matters pursuant to NCGS 143-318.11(5)

ADJOURNMENT