

(1-1)



ATTACHMENT 1

THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Office of the
Vice Chancellor for Finance and Administration

The University of North Carolina at Chapel Hill
CB# 1000, 300 South Building
Chapel Hill, NC 27599-1000
(919) 962-3798 FAX: (919) 962-0647

August 22, 2003

**Mr. Cal Horton, Town Manager
Town of Chapel Hill
306 North Columbia Street
Chapel Hill, North Carolina 27516**

Dear Mr. Horton:

The University proposes the following Amendment to the Development Plan Modification #1 submitted to the Town on April 3, 2003 and the subsequent Addendum #1 submitted on May 23, 2003. The two projects are: the parking deck at Jackson Circle and parking deck and chiller plant near Cobb Dormitory. The University intends to submit this material for entry into the record of the hearing on Monday, August 25, 2003.

The University and Town have engaged in fruitful discussions this summer and significant changes have been made in response to questions and concerns raised by Council Members, neighbors, and concerned citizens. A summary of these changes was presented by Trustee Roger Perry on August 18, 2003. They are as follows:

- The University agrees to move the Chiller Plant and Parking Deck at Cobb Residence Hall north so that we will double the landscaped buffer. This will provide a 20-foot landscaped buffer between the road and the cemetery beyond the Paul Green Theater.**
- The University will construct 500 parking spaces in a deck and surrounding surface lot at Cobb Residence Hall so that the total increase in parking is 129 spaces.**
- The University agrees to make traffic and pedestrian improvements to the road system in the Cobb/Country Club Road area. The traffic improvements will be accomplished within the existing public street section.**

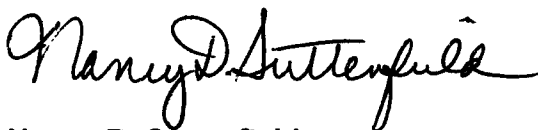
- The Chiller Plant at Cobb Residence Hall will meet the Town of Chapel Hill Noise Ordinance which is 66 percent lower than the criteria for the chiller and deck that the Town/Gown Committee visited at UNC-Greensboro.
- The University will move forward with the Town on the current South Columbia Street improvements. The Town and the University also agree that we will jointly review the effectiveness of the South Columbia improvements after project completion.

It is also understood that the Town agrees that no change will be made to the previously approved number of additional parking spaces to be constructed on main campus during the period of the Development Plan. The approved Development Plan allows for an additional 1550 spaces and approval of this Amendment does not change this total.

With this submittal and our other information currently in the record of the hearing, the University has submitted substantial, competent and material evidence to enable the Town Council to find that the Amendment will maintain the public health, safety, and general welfare and maintain the value of adjacent property and approve this Amendment to the University's Development Plan Modification No. 1 in accordance with the requirements of the OI-4 Ordinance.

We appreciate the opportunity to provide the additional information. Please let us know if you or the members of the Council have additional questions.

Sincerely,



Nancy D. Suttentfield
Vice Chancellor for Finance and Administration

Attachments

- c. Chancellor James Moeser

The University of North Carolina at Chapel Hill
Amendment to Development Plan Modification No. 1
August 22, 2003

Chiller Plant and Parking Deck at Cobb Residence Hall:

This project will construct a parking deck and chiller plant on the surface parking lot behind Cobb Residence Hall and the Paul Green Theater. The project combines these two programs in a single facility. The result is a building design that is compatible with adjacent residence halls and allows for better utilization of the site. The Chiller Plant and Parking Deck elevations are given an architectural treatment, with masonry walls and screened openings. The elevator and stair towers are articulated on the elevations and are located adjacent to major pedestrian paths. The remainder of the site will be developed as new open space with six tennis courts, a basketball court, new pedestrian paths and service roads.

The Amendment shows that the Chiller Plant cooling towers have been lowered one level. The height of the surrounding screen wall is lower than the planned addition to Cobb Residence Hall.

Noise and Light

The project in this Amendment will comply with the Town of Chapel Hill Noise Ordinance and Light Guidelines. Noise abatement features in the design of the Chiller Plant at Cobb Residence Hall will insure compliance. The design of the cooling towers will include the use of high efficiency low speed fans, motor enclosures, tower barrier walls, solid walls opposite air inlets to the tower and tower inlet silencers. In addition to a sealed letter by an acoustical engineer stating that the design meets the noise ordinance, testing will be performed after the tower is completed to verify that the noise ordinance is met. The testing will be done with all cells water flowing at full load conditions and with the fans operating at full speed. To verify the sound level, measurements will be taken four to six feet above the ground at three locations along the property line.

The Parking Deck design will comply with the Light Guidelines. The elevations of the Parking Deck provide window like openings in the masonry wall. These windows are screened with louvers similar to plantation shutters. The fins of the louvers are directed upward to direct daylight into the deck and direct lighting upward from the deck.

Environmental

The Amendment includes the following change:

- **Open Space Improvements:** The revised proposal significantly improves the existing area. There is clear separation of vehicular and service circulation from pedestrian circulation. The plan retains 6 tennis courts and a half basketball court. New planting beds and pedestrian plazas are also shown on the site plan. The proposed development converts half an acre of existing impervious surface to pervious surface.

The project in this Amendment will not adversely affect the environment.

The Chiller Plant cooling tower water contains small amounts of chemicals that are required to control biological growth and to minimize scaling and corrosion in pipes and heat exchangers in the chillers. The water also has higher levels of naturally occurring materials due to the evaporation that occurs during the process.

Water leaves the cooling tower in two forms, distilled water vapor and droplets of water known as drift. A cooling tower dissipates heat to the atmosphere through the evaporation of water. The heat is gathered from the air conditioning systems in campus buildings and is transferred to the cooling tower water by a refrigeration device called a chiller. The warm water is pumped to the top of the cooling tower where it passes through a distribution system and is sprayed over a specially designed plastic material called fill. The water forms a thin layer on the surface of the fill as it falls to the bottom of the tower at the same time as a fan draws air up through the fill. Heat is dissipated as the water evaporates. The cool water from the cooling tower is then pumped back to the chiller to complete the cycle.

The air filled with water vapor is discharged from the top of the tower by the fan. Under some meteorological conditions, the water vapor is seen as fog, called a plume. The plume dissipates as air absorbs the water vapor so this water never reaches the ground. The plume is essentially distilled water vapor and does not contain chemicals or minerals.

Drift is small droplets of water carried out of the tower by the velocity of the air drawn through the tower. These droplets are much heavier than water vapor and quickly fall to the ground; they are not absorbed into the air. These droplets contain the same chemicals and minerals as the water in the cooling tower. Devices called drift eliminators are used to reduce the amount of water lost to drift. Standard eliminators limit drift to 0.005% of circulating flow rate. The Chiller Plant at Cobb will have high efficiency drift eliminators that hold the drift to 0.003%.

The distance the water droplets carry from the tower is directly related to the velocity of the air leaving the tower. The tower will use low speed fans which at full speed run between 70 and 150 rpm. The air will leave the tower at much lower velocity than with standard tower fans, which at full speed run between 220 and 300 rpm. Most of the drift will fall to the roof of the chiller plant inside the barrier wall. A small amount may fall to the ground in the area directly adjacent to the chiller plant but none will reach the cemetery. The University has not experienced drift problems in its older chiller plants, such as the North Chiller Plant, that is located in the Bell Tower Parking Lot. There is no problem with drift reaching the cars in the parking lot where the closest parking space is only 25 feet from the center of the nearest cooling tower cell. At the Cobb Chiller Plant, the cemetery property line is 111 feet from the center of the nearest cooling tower cell. The drift will not adversely impact the vegetation or headstones in the cemetery.

Transportation and Traffic

The Amendment includes the following changes:

- Parking: One bay of parking in the deck has been eliminated. The number of parking spaces in the site has been reduced to 500. The increase in parking is 129 spaces, 141 less than the original proposal in the Development Plan Modification.
- Access: Three access points for parking and service will be provided; (1) a two way entrance from Paul Green Theater Drive off of Country Club Road; (2) a reversible one way entrance from South Road with an inbound in the morning peak period and outbound in the afternoon peak period; and (3) a two way entrance from Raleigh Street that will be generally open at least from 6:00 am to 6:00 pm, Monday through Friday consistent with University calendar and operating requirements.

- **Traffic Improvements:**

A range of improvements for Country Club Road was considered by the joint committee and these are attached for your information.

The following improvements are now proposed for Country Club Road:

- Installing a traffic signal at the Paul Green Theater Drive/Gimghoul Road intersection, including pedestrian crossings, pedestrian countdown signal heads and a short, raised island on the south of the intersection.
 - Re-striping the road to provide a northbound left-turn lane and southbound left-turn lane at the intersection (no widening is required).
 - Slightly realigning the end of Paul Green Theater drive to better align with Gimghoul Road.
 - Changing the southbound lane closest to the curb on Country Club Road on the north side of South Road from a shared through/right-turn lane to a shared left/through/right-turn lane (to provide two lanes for southbound left-turning traffic).
 - Adding a short, raised island on Country Club Road on the north side of the South Road intersection (no widening is required).
 - Re-striping Country Club Road on the south side of South Road to add an exclusive right-turn lane (no widening is required).
 - Adding a sidewalk on the east side of Country Club Road between Gimghoul Road and South Road.
- **Access to Cemetery:** A metered visitor parking lot is sited west of the Paul Green Theater on Paul Green Drive. The University will make special parking arrangements for funerals and visitors caring for their gravesites. The University agrees to stop noise generating construction activities for funerals during construction of the Chiller Plant and Parking Deck.

Pedestrian Circulation

The parking deck at Cobb Residence Hall is sited to connect to the existing pedestrian networks. The site plan for the parking deck at Cobb Residence Hall provides pedestrian paths and clearly defines pedestrian zones from access and service roads. This will eliminate the current conflicts between pedestrians and vehicles in this area.

The entrances to the parking deck at Cobb Residence Hall connect to this new pedestrian network and will channel people to the existing paths around and through the cemetery. The revised proposal significantly improves the existing area. There is clear separation of vehicular and service circulation from pedestrian circulation.

Historic Districts

Attached please find a letter from Mr. David Brook, Administrator of the State Historic Preservation Office in the North Carolina Department of Cultural Resources. Mr. Brook states, "... The listed properties; the Chapel Hill Historic District, Gimghoul Historic District, Old Chapel Hill Cemetery, are either adjacent to or in close proximity to the proposed new construction. In our opinion the redesigned project will not adversely affect any of these National Register listed properties."

This development will increase the landscaped buffer between the cemetery and the access roads, rebuild the northern and western rock walls, screen the cemetery from activities internal to the site, and direct pedestrian access to existing pathways. This will improve the aesthetics of the site.

The project will be submitted to the Division of Cultural Resources for review and comment at each design phase.

The Amendment includes the following changes:

- **Protecting Town Cemetery:** The existing rock walls on the north and west side of the cemetery will be rebuilt. The buffer between rock wall on the northern boundary and Paul Green Drive will increase to 20 feet. The existing landscape will be supplemented. (See attached site plan.) The existing service area on the west side of the cemetery will be removed and the existing landscape in this buffer will be supplemented.

Jackson Circle Parking Deck

This project will construct an 800 car parking deck in the Jackson Circle area between New East Drive and Odum Village. It will be built on an existing surface parking lot containing 149 spaces. While the increase at this site is 651 spaces, the net increase of parking spaces in the Health Affairs area after construction of the parking is 184.

Noise and Light

The project in this Amendment will comply with the Town of Chapel Hill Noise Ordinance and Light Guidelines.

Environmental

The project in this Amendment will not adversely affect the environment.

Transportation and Traffic

The parking deck will be sited to preserve a future transit alignment as shown on the Campus Master Plan.

Pedestrian Circulation

The parking deck at Jackson Circle will connect to the existing overhead pedestrian bridge that runs from Dogwood Deck across Manning Drive. Existing sidewalks at New East Drive and Mason Farm Road will connect this parking deck to the new development south of Mason Farm Road.

General Information

Transportation Strategy

The University remains true to the transportation philosophy it adopted as part of its three-year campus master planning process – reduce travel to campus in single occupancy vehicles by promoting the use of alternative transportation modes. We promised to increase the proportion of students who live on campus; increase the use of transit, park-and-ride, and carpooling; and improve bicycle and pedestrian access. We set a goal of reducing the percentage of employees who drive alone to campus by a third.

In Fall, 2002, students occupied four new traditional residence halls and apartments for upperclass undergraduates are in design. We will increase on-campus single student housing 37% by the end of our approved construction program. New family housing will accommodate 30% more families than the present Odum Village. Carolina led the effort to make Chapel Hill Transit fare free, and has doubled its annual payment to almost \$4.5 million. Transit ridership has increased 42%. We've already constructed all the new permanent park-and-ride spaces we agreed to provide by 2008 and have more in design. The University is partnering with TTA to increase ridesharing and carpooling. Bicycle lockers are included in our Rams Head project now under construction near Kenan Stadium. The University has hired a full time transportation demand management coordinator to lead the effort to implement our transportation philosophy. Our commuter alternatives program, which provides incentives to commuters to use transit, park-and-ride, bike, or walk, was kicked off last fall. Our goal was to have 750 participate, and we exceeded it by 250%. Our program recently received a national honor – Carolina was designated a Commuter Choice Employer by the Environmental Protection Agency and the U.S. Department of Transportation.

Evidence in Support of Application

Article 3.5.2 (g) (3) A. of the Land Use Management Ordinance provides that:

"The Town Council shall approve a Development Plan unless it finds that the proposed development would not:

- Maintain the public health, safety, and general welfare; or
- Maintain the value of adjacent property."

This provision is also applicable to the approval of the Amendment to the Development Plan Modification No. 1. With respect to the standards that a Development Plan must meet, the University has already submitted competent, material, and substantial evidence showing its compliance with all the Ordinance requirements, evidence that supports the findings that the proposed Amendment to Modification No. 1 to the Development Plan will continue to maintain the public health, safety, and general welfare, and will continue to maintain the value of adjacent property. Moreover, there is no competent, material, and substantial evidence indicating that the proposed modification to development would not maintain the public health, safety, and general welfare or would not maintain the value of adjacent property.

A summary of this evidence and the University's position is set forth below.

Maintenance of Public Health, Safety, and Welfare

The proposed development has been designed and is proposed to be operated so as to maintain or promote public health, safety, and general welfare. Traffic impacts have been addressed through the University's incorporation of Ordinance standards and proposed improvements that will promote good traffic access, circulation, and pedestrian safety. Accordingly, the traffic impacts generated by this modification to development do not raise health, safety, or welfare concerns, because the impacts have been appropriately addressed.

Similarly, with respect to the infrastructure necessary for the proposed development, health, safety, and general welfare issues have been more than adequately addressed. As more fully explained in the examples provided below, the channeling of utilities, water, sewer, the handling

of storm water, and air quality issues associated with traffic all have been addressed with environmentally-sensitive and impact-mitigating accommodations so as to assure the maintenance of or improvement of public health, safety, and general welfare.

Finally, it should be noted that the many amenities included in the proposed modification to the development may, in fact, enhance the general health, safety, and welfare of the community. Aesthetically pleasing architecture, pedestrian circulation, preservation of green space, reduced impervious surface, improved stormwater mitigation and the like will serve to further confirm the positive effect on the public health, safety, and general welfare of the community.

The following examples provide additional specific evidence of the maintenance of public health, safety, and general welfare that will result from the proposed development.

The proposed development in the Amendment to Development Plan Modification No. 1 maintain the general health, safety, and welfare of the community by incorporating the following standards, construction mitigating strategies and campus improvements.

1. The Noise and Light Performance Standards for Development and Redevelopment in the OI-4 Zoning District will insure that noise and light levels from the development proposed in the Development Plan will not exceed those allowed by the Town of Chapel Hill Noise ordinance in effect at the time of the Site Development Permit is approved.
2. The April 2003 Transportation Impact Analysis submitted with the modification in accordance with the Transportation Impact Analysis Guidelines for Development and Redevelopment in the OI-4 Zoning District provides an updated assessment of the transportation implications of the Modification No. 1 to the Development Plan and will develop mitigation measures to address any impacts. Transportation elements addressed by these guidelines include automobile traffic, transit, parking, bicycle and pedestrian traffic and associated air quality issues.
3. The proposed development will be accompanied by measures to mitigate stormwater impacts for both quality and quantity in accordance with the Stormwater Management Performance Standards for Development and Redevelopment in the OI-4 Zoning District. The stormwater management will prevent any increase in the amount of stormwater runoff volume leaving the campus, the rate at which runoff leaves the campus, or the pollutant load conveyed in that runoff. In fact, the stormwater management presented with the development in the amendment reduces the impervious surface by 0.47 acres.
4. The University's construction management procedures are outlined in the University's Construction Guidelines. These procedures ensure that public safety is maintained during construction and also address protection of existing natural features during construction. The following items are addressed:
 - Site development to minimize impact
 - Construction Staging Area
 - Tree Protection
 - Sediment and erosion control
 - Construction and demolition waste

- Pedestrian Safety Plan
- Traffic Control Plan
- Construction Management Plan

5. The Cobb Deck/NE Chiller project provides new open space for that part of north campus. It defines and improves the pedestrian circulation through that residential community and provides much improved recreational space. The revisions outlined in the Amendment increase the buffer between the development and the Old Chapel Hill Cemetery, reduce the increase in the number of parked cars, add vehicular access to the parking deck from Raleigh Street, describes noise and light abatement features of the design, reduces the height of the cooling towers, improves pedestrian safety and circulation along Country Club Road.

Maintenance of the Value of Adjacent Property

For the Development Plan approved on October 3, 2001, the University submitted evidence that the proposed development would be designed to maintain or enhance the value of adjacent property. The University hereby offers the following additional information regarding the continued maintenance or enhancement of property values in support of the University's Amendment to Development Plan Modification No. 1.

Initially, it should be noted that the "guidelines" and "standards" for mitigation of impacts support not only the public health, safety, and general welfare, but also the maintenance of property values.

Moreover, it is important to acknowledge that the OI-4 zoning does not contemplate new uses. All OI-3 uses are permitted in OI-4, and the only difference in uses between OI-3 and OI-4 is that special use permits are not required for certain uses in OI-4. Thus, the "new" development proposed by the University's Amendment to the Development Plan Modification No. 1 is not development that is different in character from that which is already permitted.

As further evidence to support the conclusion that the proposed amendment will maintain property values, we have (1) identified all properties within a 200-foot radius of the OI-4 Zoning District, (2) obtained the sales records for all transactions since 1995 involving those properties adjacent to the campus and those properties neighboring the adjacent properties, and (3) compiled and reviewed the Orange County Tax Assessor's records of assessed values as of March 1, 2003 for all taxable properties located within the same 200-foot radius of the OI-4 Zoning District. A spreadsheet of our findings was previously submitted on June 20, 2003.

Our findings from the Tax Assessor's records reveal that assessed values have increased approximately 35-50 percent since 1997 in Chapel Hill with the greater percentages occurring the closer to campus the property is located. We found that 2003 assessed values for properties have increased 42.63 percent from 2000 values and 5.5 percent from 2001 values. Please note that the 2003 value for vacant land is equal to the 2001 assessed value (and the 2000 assessed value is equal to the 1997 assessed value) since assessments are generally made only once every four years and are only adjusted during the four-year interim period when there is new construction. During this period from 1997 to 2003, the Development Plan has undergone public consideration, Town approval and the first eighteen months of implementation.

Sales data reveal a continued trend of increased property values and values exceeding the Orange County Tax Assessor's valuations within the same subject area (see Sheet 2 of the attached spreadsheet). Of the six recorded sales during the past eighteen months, two properties were purchased after 1995 and yielded a combined increase of 81.08 percent.

Conclusion

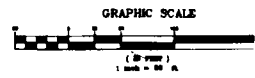
The University has provided competent, material, and substantial evidence of compliance with all the Ordinance requirements, including evidence that the proposed modification to development would maintain the public health, safety, and general welfare and maintain the value of adjacent property. Denial of approval of the proposed Amendment to the Development Plan Modification No. 1 must be based upon contrary findings supported by competent material, and substantial evidence appearing in the record. No such evidence has been produced. Neither oblique references to market values contained in testimony of a few landowners in the vicinity of the campus, nor generalized fears expressed by a very small number of landowners in the vicinity, constitute competent, material, and substantial evidence. Speculatory or mere opinion testimony about possible negative effects is insufficient to establish that the proposed development would not maintain the value of adjacent property. The University has fully complied with the specified standards of the Ordinance, and, as shown above and in all the University's submissions, competent, material, and substantial evidence has been provided by the University that satisfies all the findings necessary for approval of the proposed Amendment to the Development Plan Modification No. 1.

Attachments:

1. Revised Site Plan of Cobb Chiller Plant/Parking Deck
2. Revised Elevations of Cobb Chiller Plant/Parking Deck
3. Letter from Mr. David Brook
4. Country Club Road Improvement Options



MODIFIED- PARKING DECK



1-12



UNC-CHAPEL HILL NE PARKING DECK / CHILLER PLANT STUDY
NORTH ELEVATION



UNC-CHAPEL HILL NE PARKING DECK / CHILLER PLANT STUDY
EAST ELEVATION

1-13



UNC-CHAPEL HILL NE PARKING DECK / CHILLER PLANT STUDY
SOUTH ELEVATION



UNC-CHAPEL HILL NE PARKING DECK / CHILLER PLANT STUDY
WEST ELEVATION

(1-14)



**North Carolina Department of Cultural Resources
State Historic Preservation Office**
David L. S. Brook, Administrator

Division of Historical Resources

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary
Office of Archives and History

August 22, 2003

Mr. Paul Hardin Kapp, ALA
Campus Historic Preservation Manager
Facilities Planning Department
University of North Carolina
CB# 1090, Giles F. Horney Building
Chapel Hill, NC 27599-1090

Re: Northeast Parking Deck/Chiller at UNC-CH, Chapel Hill, Orange County, GS03-1832

Dear Mr. Kapp:

Thank you for your August 21, 2003, memorandum to Renee Gledhill-Earley concerning changes to the original submission of schematic drawings and outline specifications for the proposed construction of the Northeast Parking Deck/Chiller to be located on Theater Drive.

Although the proposed location for the parking deck/chiller is not within the boundaries of a National Register-listed property; we reviewed the project with respect to its potential impact to three National Register-listed properties. The listed properties: the Chapel Hill Historic District, Gimghoul Historic District, Old Chapel Hill Cemetery, are either adjacent to or in close proximity to the proposed new construction. In our opinion the redesigned project will not adversely affect any of these National Register listed properties.

We were concerned that an increase in traffic exiting from Theater Drive might impact the Gimghoul Historic District. While the parking deck will result in an increase of 129 spaces over the current surface parking, we believe directing vehicles to exit the new parking deck to Raleigh Street, South Road, or Country Club will minimize the impact on the historic district.

The National Register property closest in proximity to the proposed chiller/parking deck is the Old Chapel Hill Cemetery, which was individually listed in the National Register in 1994. The revised design increases the distance from the cemetery to the parking deck/chiller structure by ten feet. The increased buffer will be used for additional new plantings between the cemetery and chiller. The revised plan calls for new plantings the entire length of Theater Drive, which will provide

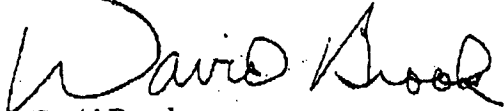
www.hpo.dcr.state.nc.us

| | Location | Mailing Address | Telephone/Fax |
|-------------------|-------------------------------|---|---------------------------|
| ADMINISTRATION | 507 N. Blount St., Raleigh NC | 4617 Mail Service Center, Raleigh NC 27699-4617 | (919) 733-4763 • 733-8653 |
| RESTORATION | 515 N. Blount St., Raleigh NC | 4617 Mail Service Center, Raleigh NC 27699-4617 | (919) 733-6547 • 715-4801 |
| SURVEY & PLANNING | 515 N. Blount St., Raleigh NC | 4617 Mail Service Center, Raleigh NC 27699-4617 | (919) 733-6545 • 715-4801 |

additional buffer for the cemetery from the Paul Green Theater. We are also pleased that the landscaping plan includes the restoration of the perimeter stone rubble walls of the cemetery.

These comments are made in accord with G.S. 121-12(a) and Executive Order XVI. If you have questions regarding them, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,



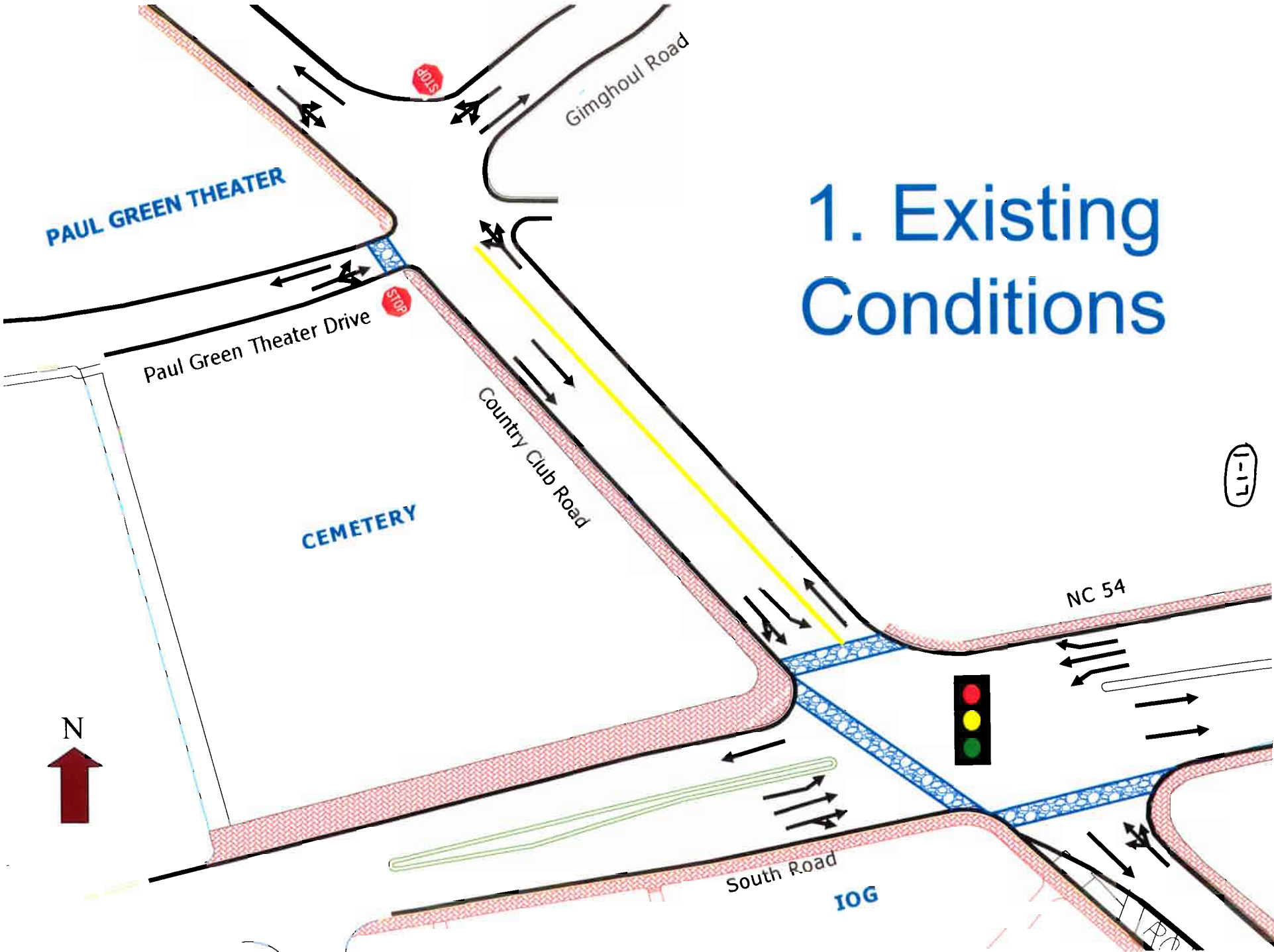
David Brook

cc: Jerry U. Guerrier, AIA
Chapel Hill HPC

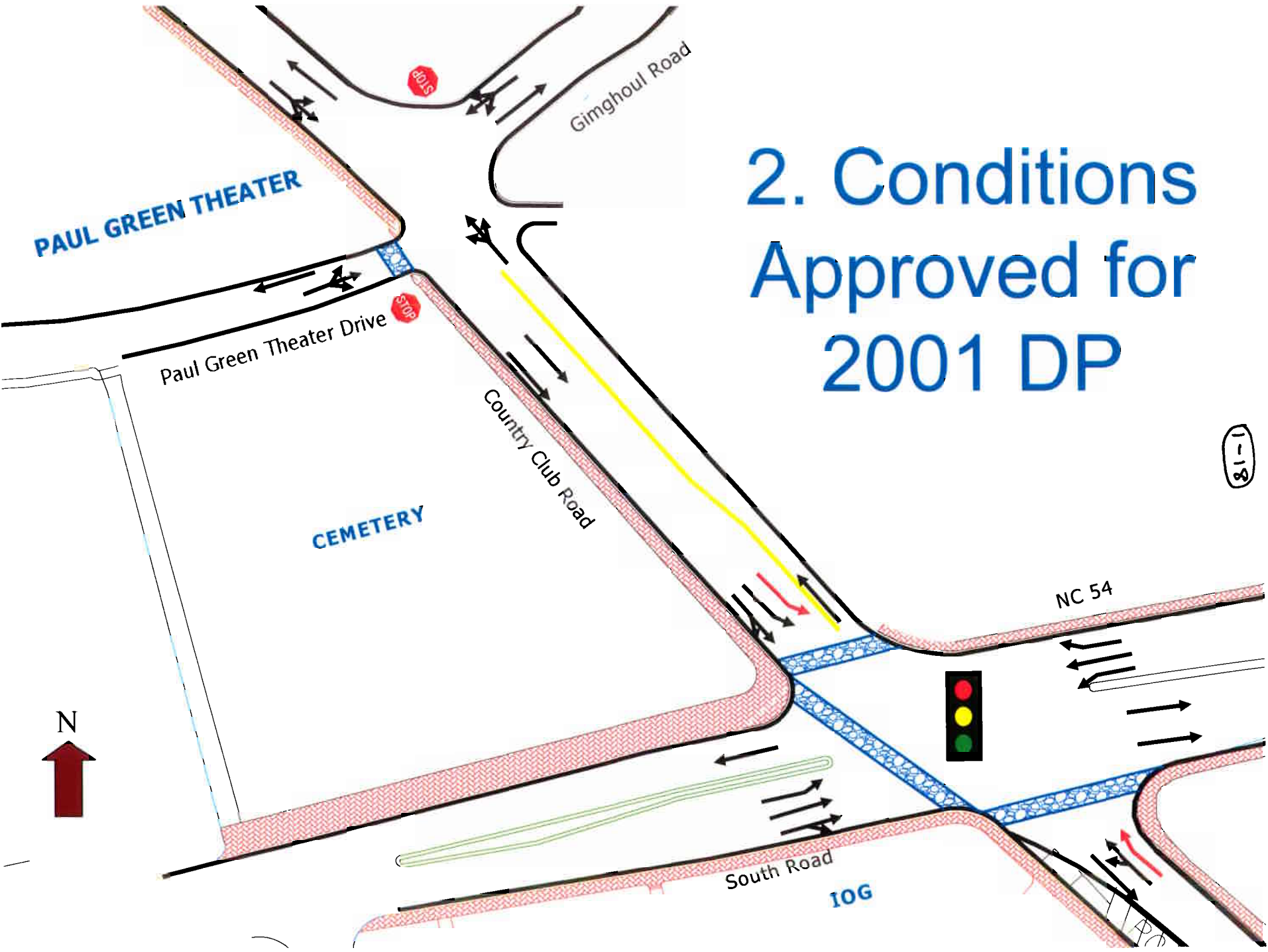
Country Club Road Improvement Options

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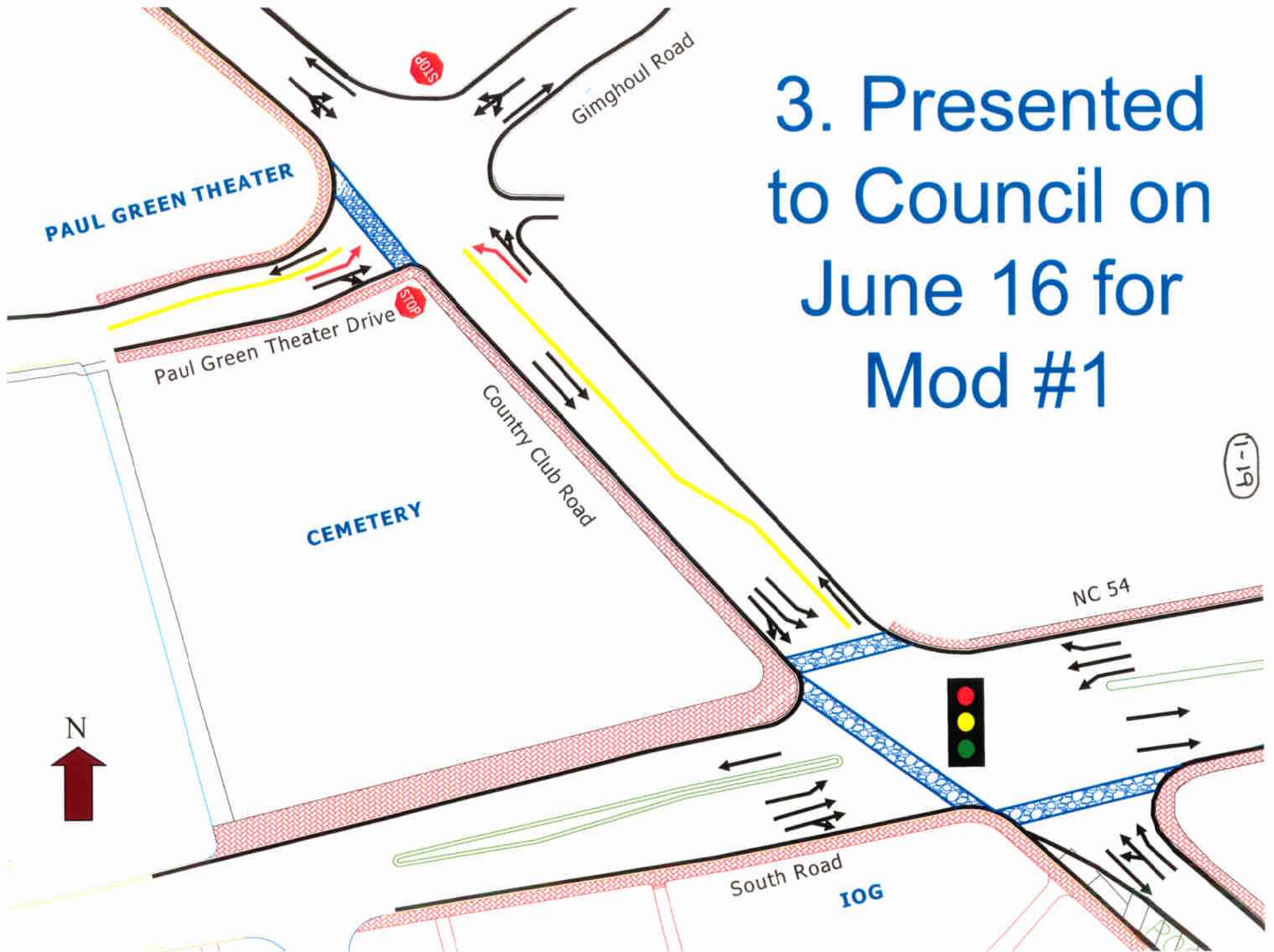
1. Existing Conditions



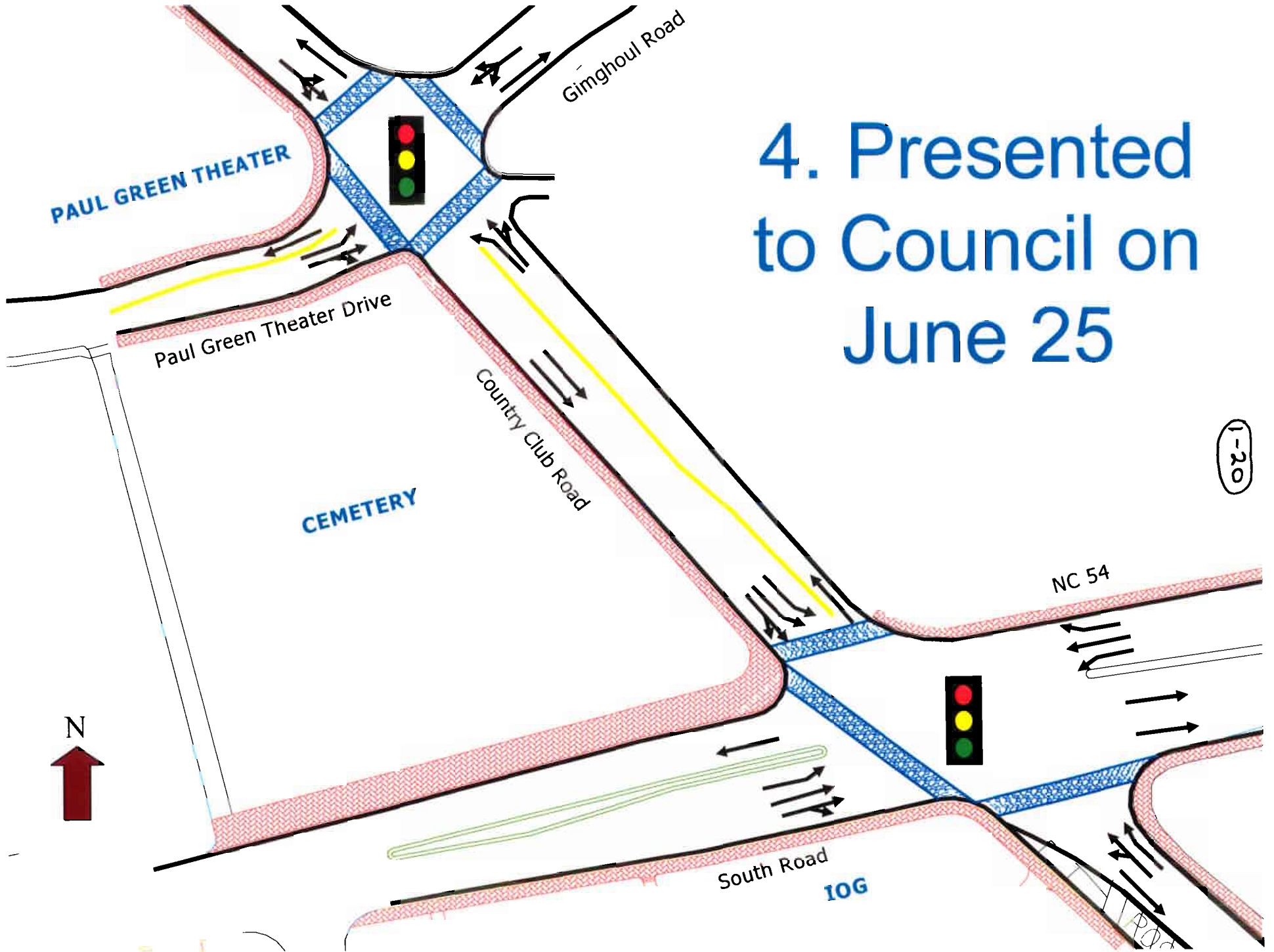
2. Conditions Approved for 2001 DP



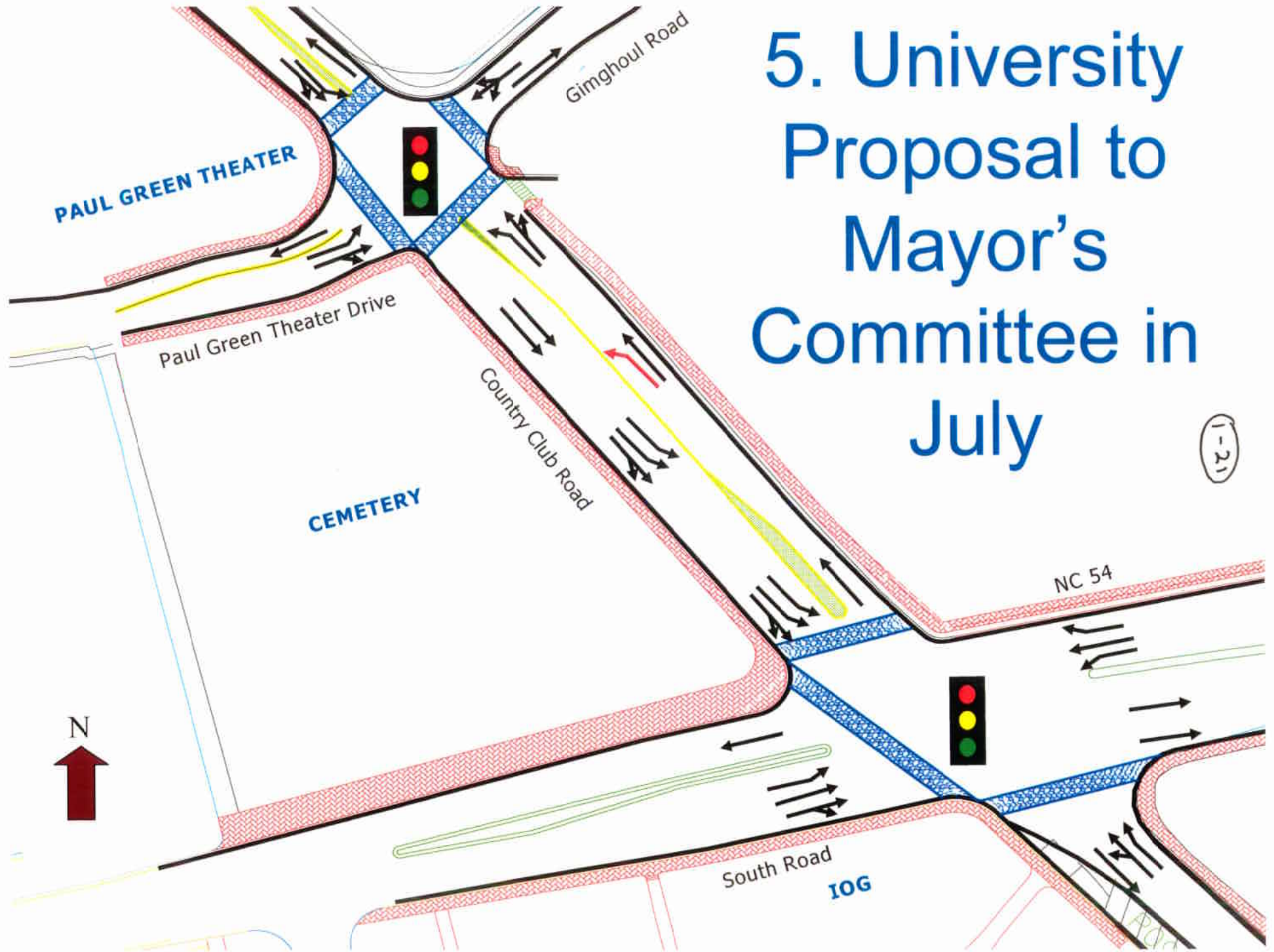
3. Presented to Council on June 16 for Mod #1



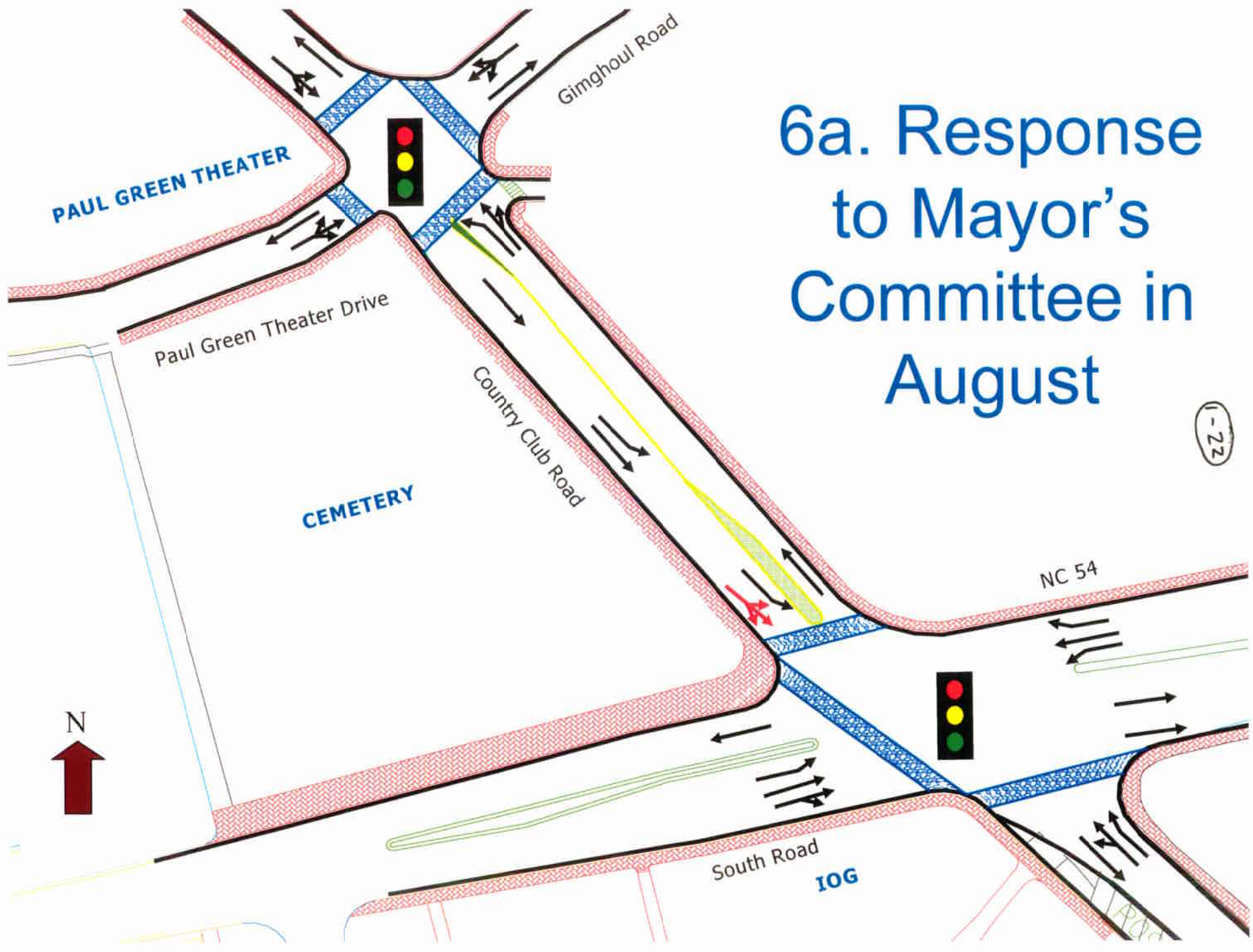
4. Presented to Council on June 25



5. University Proposal to Mayor's Committee in July



6a. Response to Mayor's Committee in August



6b. Response to Mayor's Committee in August

