City Council of Peachtree City

WORKSHOP

February 6, 2008

6:30 p.m.

The Mayor and City Council of Peachtree City will hold a workshop on Wednesday, February 6, 2008, 6:30 p.m., in Council Chambers. The purpose of the workshop is to discuss a sprinkler ordinance, a community forum on the City web site, the Gateway Bridge, and repair of the Police Department building.

This agenda is subject to change at any time up to 24-hours prior to the scheduled meeting.

CITY OF PEACHTREE CITY

INTEROFFICE MEMORANDUM

TO: Mayor & Council Members

VIA: Mr. Bernard McMullen, City Manager
Ms. Betsy Tyler, City Clerk
Ed Eiswerth, Fire Chief EFE

FROM: John Dailey, Fire Marshal

DATE: January 31, 2008

SUBJECT: Sprinkler Ordinance
February 6, 2008, Council Workshop

Discussion:

This is a continuation of the discussion on automatic fire sprinkler system requirements held at the December 3, 2007 Council workshop. At that workshop council requested additional information related to anticipated cost relating to new residential construction and existing residential structures with a proposed remodel or rebuild required to have fire sprinkler retrofitted in accordance with the proposed requirements.

Automatic fire sprinkles have long been a tested and proven method which has the abilities to save lives as well as property. It is a silent firefighter ready to respond immediately.

Fire and the products of combustion (heat, toxic gases, and smoke) expand quickly as time goes by. The key to controlling fire is "time" and the "application of the right amount of cooling agent (water)." The longer a fire has to burn, the more water will be required to put it out, more damage will occur, increased danger to occupants and responding firefighters. Sprinklers are an extremely efficient and cost effective way of controlling fires in their beginning stages. Not only have sprinklers kept a fire from growing bigger, but they have kept the products of combustion (toxic gases, heat and smoke) much less so occupants can escape to safety.

In the commercial and industrial settings the value of a fire sprinkler system can often be reflected by not only controlling a fire but also minimizing down or out of business periods after a fire.

Regarding its use and effectiveness in residential properties, weekly we see apartment buildings and single family homes that are destroyed by fire that could quickly have been brought under control by the actions of one or two sprinkler heads using a minimal amount of water. The average sprinkler head use 7-10 gallons per minute whereas the amount of water coming from nozzles used by firefighting crews can be 90-250 gallons per minute. In a residential fire, it is very rare where more than one or two sprinklers are activated. In today's modern residential properties, a common area of concern is new and ongoing efforts to use

lighter weight and less expensive materials in construction methods which work for providing necessary structural strength, but, have and will likely continue to have severe safety consequences to include a total collapse of a structure when subjected to fire. In Peachtree City we have a number of apartment complexes and commercial buildings that are already equipped with sprinkler systems and have seen them minimize the damage caused by fire.

Recent documentation has shown that sprinkler systems rarely fail and have less of a failure rate than regular plumping due to the fact that the sprinkler piping is usually installed in the interior of a building and does not face the temperature variations that normal plumbing lines are subjected to.

Concerning unfunded mandates, in recent years, the building codes have changed to include the requirement for sheet rock in garages. This was added due to safety issues and fire danger. The staff believes that adding a requirement for sprinklers is a proactive initiative that will lower the risks for occupants and responding firefighters.

Budget Impact:
None expected with the exception of required permitting matters.

ORDINANCE NO: _____

AN ORDINANCE TO AMEND SECTION 38 OF THE CODE OF ORDINANCESOF THE CITY OF PEACHTREE CITY, GEORGIA, SO AS TO ESTABLISH REQUIREMENTS FOR AUTOMATIC FIRE SPRINKLER SYSTEMS; AND FOR OTHER PURPOSES.

NOW THEREFORE BE IT AND IT IS HEREBY ORDAINED BY THE CITY COUNCIL OF PEACHTREE CITY, GEORGIA, THAT:

Section 1. Chapter 38 of the Code of Ordinances of the City of Peachtree City, Georgia, as amended, is hereby further amended by adding Article IV as follows:

Article IV. Automatic Fire Sprinkler Systems

Sec. 38-100. Definitions.

Automatic fire sprinkler systems shall be required as noted in section A. Automatic fire sprinkler systems are defined in those sections of the National Fire Protection Association, Fire Codes, specifically:

NFPA 13 Standard for the Installation of Sprinkler Systems

NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

NFPA 13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height

NFPA 14 Standard for the Installation of Standpipe and Hose Systems 2003 Edition

Sec. 38-101. Authority

The Fire Chief or Fire Marshal or the fire department designated representative for the authority having jurisdiction shall have the authority to require water valves, sprinkler control valves, and / or standpipe connections where in his/her opinion it would benefit firefighters in controlling a fire in any structure. A sprinkler control valve and water flow device shall be provided for each floor. This is not to restrict the fire marshal having jurisdiction from requiring the installation of a water-based fire protection system and/or smoke detection system if, in the opinion of the fire marshal, and for the public interest, the health and welfare of the firefighters, and the protection of human life, such a system would serve to benefit all parties that may be affected by the type of construction, hazard of content, limited access to the structure, and for other purposes. Based on the type of construction and the tenants' ability to evacuate, the fire marshal shall have the authority to designate which system is best suited in each situation, but not less than the standard set by the requirements of the National Fire Protection Association.

Sec. 38-102. Requirements

(a) Buildings of any type construction or occupancy of 5000 square feet or more per floor for commercial buildings and all assembly occupancies where seating is available for 100 or more persons

and / or where live entertainment is planned or allowed, all bars and nightclubs, and residential occupancies, (definition of R3 in the International Building Code), which meet any one or more of the four criteria below:

(1) Greater than 3000 square feet.

(2) Greater than two (2) stories in height or greater than twenty five (25) feet in height from grade to a windowsill of a room used for sleeping purposes and rooms defined as "bonus rooms"

(3) Homes that are built five (5) feet or closer to a property line* or five (5) feet to a significant building; i.e. building owned by another, a commercial establishment (to include accessory buildings used for home based businesses), etc.).

(4) Homes or buildings having fire apparatus access or hose reach of 200 feet or more to the building entrance.

(5) Multifamily buildings; including apartments, town homes, nursing or assisted living homes, row houses, and condominiums.

(b) Existing buildings, when required to have automatic sprinkler protection by Section (a) above, shall be retrofitted for automatic sprinklers as required by the fire marshal in accordance with NFPA Standards when the cost of remodel or renovation exceeds 50 percent of the latest approved assessed value of the building. These buildings shall be required to upgrade to meet all current codes, standards, and ordinances as applicable for required fire protection and life safety systems.

*Section: International Building Code 1996 Edition; Section 3403.1

(c) Historical buildings may require an equivalency concept and working through of the process in conjunction with the historical society and NFPA 914 Code for Fire Protection of Historic Structures

(d) The owner or occupant of any building shall be responsible for having the system inspected and tested in accordance with NFPA 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2002 Edition.

Sec. 38-103. Maintaining Existing Fire Sprinkler Systems or Shutting Off Fire Sprinkler Systems.

(a) Any existing fire sprinkler system in any structure shall be maintained to the extent recognized by the NFPA (National Fire Protection Association).

(b) No person shall shut off, disable, or disarm any automatic fire sprinkler system except for the following purposes:

(1) In order to perform required or necessary service or maintenance to such system. Any such maintenance may be conducted after notice has been given to the fire department.

(2) In the event of accidental damage to the system that causes undo water flow.

(c) In the event that a fire sprinkler system must stay off for an extended time due to repair or maintenance a fire watch may be required during that period. If required the fire watch is to remain in effect until such time that the system is returned to its full capacity.

Section 2. All ordinances or parts thereof which conflict with the provisions of this ordinance are, to the extent of such conflict and except as hereinafter provided, hereby repealed.

Section 3. Should any provision of this ordinance be declared invalid by a Court of competent jurisdiction, such decision shall not affect the validity of this ordinance as a whole or any provision thereof other than the provisions specifically declared to be invalid. The City Council declares that it would have passed this ordinance and each subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more subsections, sentences, clauses or phrases may be declared invalid.

Section 4. This ordinance shall be in full force and effect upon its official adoption by the City Council.

This _____ day of _____ 2008.

_____
Harold K. Logsdon, Mayor

_____

_____

_____

_____

Attest: _____
City Clerk

CITY OF PEACHTREE CITY

INTEROFFICE MEMORANDUM

TO: **Mayor and City Council**

VIA: **Bernard McMullen, City Manager**
Paul Salvatore, Finance Director

FROM: **Matt Robinson, System Administrator**

DATE: **January 31, 2008**

SUBJECT: **Community Forum on Website – Additional Information**

At Council's direction, staff has continued researching the topic of forums on municipal websites. Staff sent a request through the Georgia Chapter of the Government Management Information Sciences on January 9 to survey agencies nationally on the use of blogs and forums on local government web sites. The request was sent out to the group's e-mail mailing list. To date, seven jurisdictions have responded. None of the jurisdictions that responded use forums as proposed by Councilman Haddix, and only one responding jurisdiction has a blog as a part of their web site.

Additionally, staff obtained a report from the IBM Center for The Business of Government that lists 19 blogs by mayors worldwide and 11 blogs for City Managers in the United States as of April 2007. No government sponsored or sanctioned forums were found in the report. In short, staff has had a difficult time finding a municipal government-sponsored equivalent to the proposed forum.

Staff investigated alternatives to hosting forums directly on the City web site and contacted the administrators of FayetteNet.com, a Fayette County based forum site similar in design to the forum Councilman Haddix proposed. Representatives from FayetteNet have agreed in principle to assist the City in utilizing a forum as a part of their web site if Council so chooses. The administrators will be at the workshop on February 6 to discuss the topic with Council.

CITY OF PEACHTREE CITY

INTEROFFICE MEMORANDUM

TO:	**Mayor and City Council**
VIA:	**City Manager** **Developmental Services Director**
FROM:	**City Engineer**
DATE:	**February 4, 2008**
SUBJECT:	**Second Update on Police Station Repairs** ***February 6, 2008 City Council Workshop***

Back in October of 2007, staff updated City Council on the moisture problems with the Police Station (Council Memo – Attachment 1) and provided a recommendation for remediation of the problems. Based on the information staff presented, City Council awarded a construction contract to R.L. Ward on October 18, 2007, for renovations to the Police Station. Specifically the renovations involved modifications to the existing HVAC system, adding an additional vapor barrier to the top of the concrete floor, expanding the evidence room and the replacement of some interior wall/ceiling coverings.

While the City and R.L. Ward were proceeding with the interior renovations outlined above, staff was also working with the architecture firm, Leo A. Daly, on issues with the outside of the building. Staff from the Police Department had reported problems with the roof and outside wall coverings of the building; therefore, staff sought out an expert to inspect the facility and make any appropriate recommendations.

In accordance with the contract with R.L. Ward, staff worked with the contractor to mark and remove drywall in all the suspicious locations identified by the Police Department staff. No mold was discovered in any of the areas, and one sample of drywall that was questionable was tested and came back non-detect for Stachybotrys (Black Mold)Wanting to be absolutely certain, staff did further investigation on the walls and dry wall and discovered some minor spots of mold growing on the inside of the paper on the foil-backed insulation in one of the exterior walls.

Finding some mold, staff continued with the help of the contractor to locate all areas of mold on the back of the insulation paper in all of the exterior walls. The mold that was discovered was concentrated toward the bottom of the walls and got less as you went up. The investigation resulted in approximately 2,800 square feet of affected drywall. Only 800 square feet more than what was originally anticipated.

During the drywall investigation and removal process with the contractor, staff noticed that the bottom metal runner of the outside wall in the training room extended out over the foundation slab, contrary to the approved design (See Figure 1 for Design Detail). Because the wall extended out over the slab, and the wall covering was not properly sealed to the slab, it resulted in a gap that was large enough that you could see outside. When staff discovered this problem in the training room wall, it was finally understood why this room had the worst moisture problem in the building. The HVAC system was pulling moist, outside air in from the gap, up the walls and into the building. This also explains why the mold was more concentrated at the bottom of the walls and was less or non-existent towards the top.

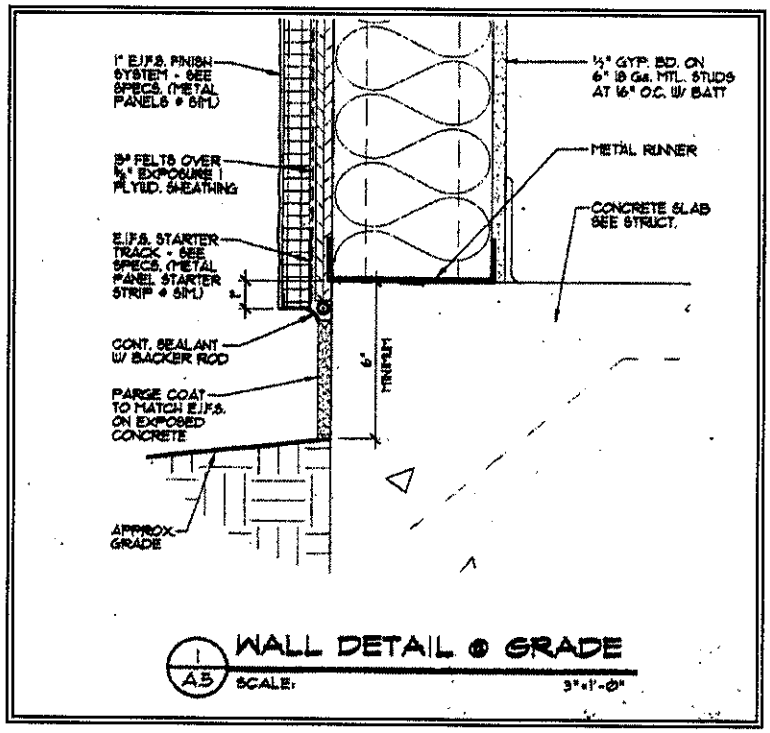


Figure 1

Staff showed this gap in the wall to Mr. Jim Porter of Leo A Daly Architects. Staff also showed Mr. Porter the rest of the building and roof. Mr. Porter and staff visited the site on several occasions and did a thorough review of the entire building. After seeing the building and reviewing pertinent documentation on the building, Mr. Porter recommended additional destructive testing be done on the outside walls.

Once the contractor cut out a section of brick, EFIS, and opened the back of a metal panel, Mr. Porter discovered that the wall coverings have been constructed improperly. Some of the specific deficiencies include improper flashing installation behind the brick walls, lack of proper flashing and weeps around windows, lack of sealant and backer rods at the base of the EFIS and an insufficient air gap between the metal panels and the plywood substrate. All of

these items noted by Mr. Porter are a contributing factor to the moisture problems experienced in the building. All of the specific problems noted by Mr. Porter and his specific recommendations are contained in his January 15, 2008 report (Attachment 2).

Staff has presented the January 15, 2008 report to City Council as well as a preliminary cost assessment (Attachment 3) prepared by U.S. Cost. The report recommends remedial work that will involve a substantial cost. For example, one recommendation calls for demolishing and rebuilding the outside wall coverings from the face of the plywood out. Council has raised concerns about the validity of such expense on this building. In the next section of this memorandum staff will lay out specific costs and time lines associated with the different options of repairing the building or building new on another site.

Option 1 would be to continue to repair the existing facility. Currently staff and Mr. Porter recommend repairing the existing facility. This option would cost an additional $720,476. Break down of cost would be as follows.

Estimated Additional Cost of Completing P.D. Headquarters Renovation
As of January 31, 2008

Additional construction estimate (including contingencies)	$538,476
Architectural Design/Construction Administration	$80,000
Site improvements (drainage, etc.)	$50,000
Additional rent (4 months @ $13K) June-August 2008	$52,000
Total estimated cost of completing renovations *	**$720,476**

* Does not include credit(s) for amounts that may be recovered from other sources.

Timeline

Design exterior repairs & modifications (5 weeks)	April 1, 2008
Award construction contract	June 1, 2008
Construction (16 weeks)	October 1, 2008

Option 2 would be to sell existing building and build new building on a new site. This option would cost an additional $6,456,010 and includes purchasing approximately 6 acres of land, constructing a new 15,000 square foot facility with supporting site amenities. This option

assumes that the existing site and building can be sold for the balance of the loan used to finance the original construction. Break down of cost would be as follows.

Estimated Additional Cost to Abandon Existing P.D. Headquarters & Construct New
Assumes Sale of Existing Site & Building
As of January 31, 2008

New Building Costs		
Estimated construction cost (15,000 s.f.) (assumes January 2010 completion date)	$4,028,696	
Site development and access/egress from roads	$604,304	
Architectural design/engineering	$694,950	
Land acquisition (approx. 6 acres industrial @ $50K)	$300,000	
Furniture & Fixtures (communications, security system, etc.) (assumes some use of existing)	$120,000	
Additional temporary facilities- June 2008 thru Dec 2009 (19 months @ $13K)	$247,000	
Closing costs on new Bricks & Mortar Loan	$75,000	
Other (survey, permits, geotechnical, legal, etc.)	$50,000	
Project contingency @ 5%	$302,248	
Total New Building Costs:		**$6,422,198**
Existing Loan Costs		
Pre-payment of existing loan	$1,366,312	
Breakage fee on loan prepayment (as of 2/1/2008) (can change daily - fluctuates as interest rates move)	$200,000	
Total Existing Loan Costs:		**$1,566,312**
Additional expense to do interior wall repairs		**$45,000**
Total Estimated Costs:		**$8,033,510**
Credits **		
Sale of land - existing site (5.55 acres @ $50K)	$277,500	
Sale of improved building	$1,300,000	
Total Credits:		**$1,577,500**
Net Estimated Cost of New Building:		**$6,456,010**

* Note 5% contingency not calculated on prepayment & financing costs shown above.
** Note: May be difficult to recover market value of land/building based on reasons for abandonment.

Timeline

Identify & procure new site (4 months)	June 1, 2008
Award Architectural Engineering contract for new building (4 months)	June 1, 2008
Design new building (4 - 6 months)	November 1, 2008
Award construction contract (2 months)	January 1, 2009
Construction (12 months)	January 1, 2010

Option 3 would be to demolish the existing building and build a new building on a new site. This option would cost an additional $7,650,260. Break down of cost would be as follows.

Estimated Additional Cost to Abandon Existing P.D. Headquarters & Construct New
Assumes Demolition of Existing Building
As of January 31, 2008

Estimated construction cost (15,000 s.f.) (assumes January 2010 completion date)	$4,028,696	
Site development and access/egress from roads	$604,304	
Architectural design/engineering	$694,950	
Land acquisition (approx. 6 acres industrial @ $50K)	$300,000	
Furniture & Fixtures (communications, security system, etc.) (assumes some use of existing)	$120,000	
Additional temporary facilities- June 2008 thru Dec 2009 (19 months @ $13K)	$247,000	
Closing costs on new Bricks & Mortar Loan	$75,000	
Demolition of existing structure	$85,000	
Other (survey, permits, geotechnical, legal, etc.)	$50,000	
Project contingency @ 5% *	$306,498	
Total New Building & Demolition Costs:		**$6,511,448**
Existing Loan Costs		
Pre-payment of existing loan	$1,366,312	
Breakage fee on loan prepayment (as of 2/1/2008) (can change daily - fluctuates as interest rates move)	$200,000	
Total Existing Loan Costs:		**$1,566,312**
Total Estimated Costs:		**$8,077,760**
Credits		
Sale of land - existing site (5.55 acres @ $50K)	$277,500	

Cost avoidance from cancelling renovation project	$150,000	
Total Credits:		**$427,500**
Net Estimated Cost of New Building:		**$7,650,260**

* Note: 5% contingency not calculated on prepayment & financing costs shown above.

Timeline

Identify & procure new site (4 months)	June 1, 2008
Award Architectural Engineering contract for new building (4 months)	June 1, 2008
Design new building (4 - 6 months)	November 1, 2008
Award construction contract (2 months)	January 1, 2009
Construction (12 months)	January 1, 2010

Staff will now attempt to address some specific questions raised about the site. The first is that that building is located on a landfill. While the property as a whole did have trash pits and was used as a dump site for several years, staff is not aware of any physical evidence that supports that the building itself was constructed over or near a trash site. The Phase I and Phase II Environmental Site Assessment Reports, the boring logs from the geotechnical reports, and the old aerial photographs all support the fact that there is nothing indicating the presence of trash under the slab of the building. The evidence supports the location of the trash pits and debris to be in the area of the current obstacle course. Please refer to Figure 2, Figure 3, and Figure 4 for aerial views of the site.

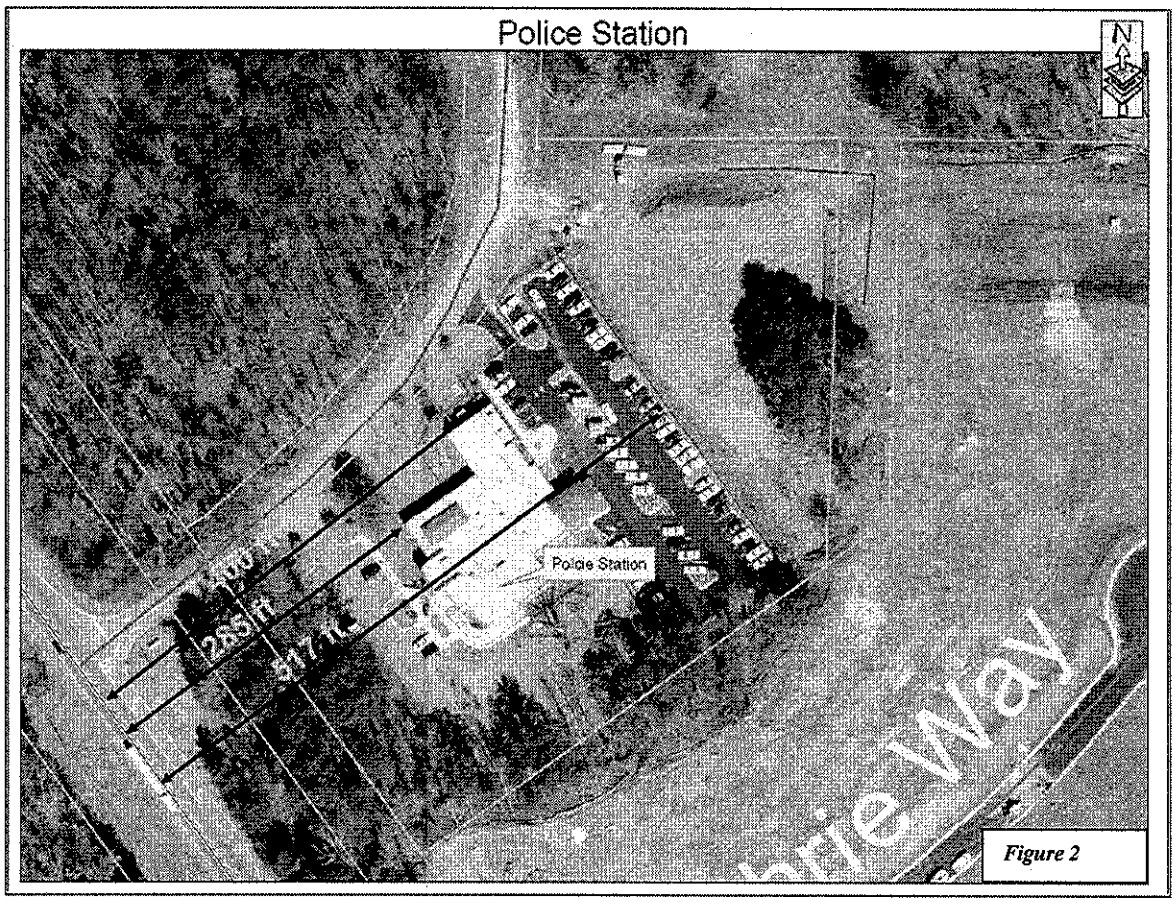


Figure 2

Figure 3

Figure 4

The site does not appear to be sinking. Only one significant crack in the entire slab of the building was observed in the floor of the training room. The crack extends about 15 feet from an existing expansion/contraction joint to edge of the thickened footer for the structural steel support beam. The crack does not appear to be anything significant as the building is of post and beam construction supported on concrete footings. However staff has requested another opinion from United Consulting as a precautionary measure.

The concrete floor appears to have been constructed properly and to be in good shape. A plastic vapor barrier was installed under the concrete slab as required and is shown in Figure 5.

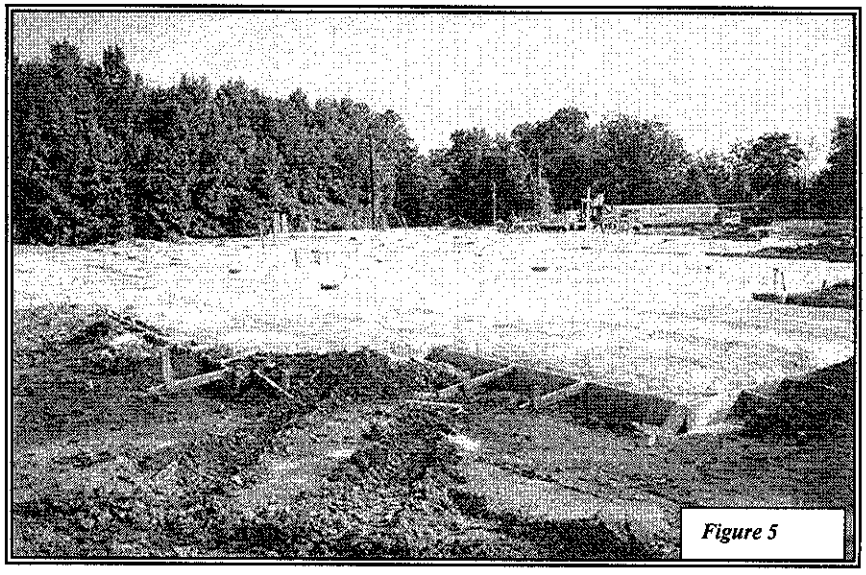


Figure 5

Alkali-silica aggregate (ASR) reactivity tests were performed on the concrete by Mineralogy, Inc. in March and April of 2007. These tests were performed because in the presence of high moisture vapor, hydroxyl ions can penetrate into the alkali-sensitive aggregate grains resulting in an expansion of the crystal lattice. This expansion can crack and weaken the cohesive integrity of the concrete. No evidence of ASR was found in the floor of the Police Station.

There has not been any evidence of liquid water (ground water or outside stormwater) entering the building. Borings were taken on February 2, 1999, June 16, 2004, and August 7, 2006, and August 8, 2006. No groundwater was encountered in any of these borings. Permanent wells were constructed in August of 2006 so staff could monitor groundwater levels in the event recent drought conditions played a factor in groundwater levels. Staff has been monitoring the wells since installation and they have been consistently dry. However in January 2008, staff encountered a small amount of water in a couple of wells. The closest the groundwater has been observed is 6.5 feet below the slab.

There have been statements made that the exterior metals of the building can not be repaired. Jim Porter of Leo A Daly Architects agrees with staff that the metals can all be repaired by being sandblasted down to base metal, primed, and painted. If this is done, the metal should last for several years without any need of maintenance. The problem with most of the exterior metals is that it appears that they were not properly painted when originally installed. This is why most of the exterior metals are corroded now. The repair scope of work and cost estimate includes removal of the exterior metal trellis and stone knee wall on the right front side of the building and installation of a more functional awning.

There have been statements made that the steel support structure in the building and the metal studs in the walls have been severely corroded. Staff has not observed any rusting of any of the steel structure or the wall studs. Staff has walked the entire building and the City Engineer has also climbed above the drop ceiling on various occasions and has not observed any rust. The City Engineer has observed and wiped off mud from the bottom of steel support beams in the ceiling and the bottom metal runners in the walls. The mud appears to be from when the contractor stored the materials outside during construction. From a distance this mud may look like rust.

There have also been statements made that the building is a sick building. The concentrations of mold on the back of the insulation paper appear to be minor and were encapsulated between the paper and the insulation. Also, as part of the current construction contract, all the duct work in the building was scheduled to be cleaned with a chemical to destroy all mold and mildew. The subcontractor informed R.L. Ward that he was completed with the cleaning and reported that he did not find any mold or mildew in the ductwork. Staff has requested a written report or letter from the subcontractor stating this.

Finally, there have been many concerns raised about the condition of the existing roof. Staff and Mr. Porter have inspected the roof on several occasions. It is the consensus that the roof will be serviceable for a few more years and there is no need for a total replacement now. New seals are being provided around the existing HVAC units under the current contract with R.L. Ward. Staff has also inspected the building after recent rain events and could not find evidence of any roof leaks.

Based on the comparison of costs for the repair option versus replacement of the building and current information on the conditions of the site, staff is recommending that Council proceed with repairing the existing building. Staff will place the proposal for Architectural services on the February 21st Council agenda and authorize Leo-A-Daly to assist staff with development of the change order with R.L. Ward for the additional interior was and insulation work specified in the Architects report.

cc: City Engineer
City Manager
Acting Chief of Police

CITY OF PEACHTREE CITY

INTEROFFICE MEMORANDUM

TO: **Mayor and City Council**

VIA: **City Manager**
Developmental Services Director

FROM: **City Engineer**

DATE: **October 9, 2007**

SUBJECT: **Council Update on Police Department Moisture Problems**

The following information is being provided in response to several inquires and news articles concerning the upcoming renovation and repair of the Police Department Building on South Highway 74. The Police Department originally moved into this facility in May, 2001. Staff started investigating problems located at the current Police Department Headquarters (located at 350 Highway 74 South) back in 2005. The initial problem was assumed to be excessive moisture in the building because of the symptoms being observed which included mold and mildew growing on books in the records room, some rusting of weapons in the weapons room, mold and mildew on some ceiling tiles, surface damage to dry wall, delamination of some carpet glue, the blistering (bubbles under the epoxy filled with liquid) of the epoxy floor coverings in some areas, and temperatures in various area of the building that could not be regulated to comfortable conditions.

The road to a final solution to the cause of these symptoms has taken over two years due to the complexity of the problem, the fact that there was not a single cause, but multiple problems that have been identified, and the long process of elimination that was needed. Staff started with the most obvious construction problems which are outlined below.

The first action in the process of elimination started with the construction of the foundation slab. Staff cored holes in the building floor to verify that there was a vapor barrier (plastic sheeting to help prevent water vapor from coming up) intact between the soil and the concrete foundation. The presence of a vapor barrier was verified by the cores and by photographs taken during the construction process.

Once it was verified that the vapor barrier was installed, staff started investigating for other sources of moisture. Staff cut off landscaping irrigation to the building. Staff also reworked some drainage around the south side of the building and investigated the possibility of leaking water lines or sewer lines under the building. Staff determined the source of water was not from any utility.

Not finding any significant source of moisture to explain the symptoms in the building staff requested assistance from GeoRay, Inc., and from United Consulting. After meeting with

GeoRay and United Consulting and bringing them up to speed on what was done by staff, the consultants recommended that several more test/investigations be performed. Some of the tests/investigations included verifying insulation in the walls, coring the roof to determine insulation value, reviewing the test and balance of the heating and air conditioning (HVAC) system, reviewing the design of the HVAC system with a Mechanical Engineer, and advancing borings through the slab and around the building to try to find groundwater. The consultants also recommended sending cores of the concrete floor of to a laboratory for more extensive tests on the concrete and epoxy.

Completing all the recommended tests took several months to complete. Locating a proper laboratory and running the appropriate tests on the concrete also took a considerable amount of time.

During the course of the investigation the blistering of epoxy floor covering was discovered to be a known problem in the concrete and floor covering industry, called osmotic blistering. The blistering occurs when just the right amounts of moisture, potassium, silicates and other constituents are in place below a floor covering. The chemical reaction that takes place creates a very high pH liquid that causes debonding of the adhesives and creates blisters in the epoxy.

There have been repeated statements that the building was constructed on a landfill. A review of the Phase 1 and Phase 2 Environmental Site Assessment (ESA) reports that were completed as part of the original design for the building show there is evidence that the North East part of the site was used as a dumping site. Trash pits were discovered on site during the foundation excavation for the Satellite Auto Shop that was originally sited in this North East corner of the property. The reports and aerial photos show the trash pits located in the rear of property by the obstacle course and parking lot. The recent borings in the building and around the perimeter help confirm this as there was no debris reported in the boring logs. Also, no groundwater contamination was reported in the Phase 2 ESA report.

All the information from the test/investigation reports were reviewed by staff and the consultants. Based on all the data, the consultants and staff came to the conclusion that there was no "magic bullet" or single answer to the moisture problem as there was no groundwater found below the building. Instead the consensus was that there were several issues that needed to be addressed to solve the moisture problem. The combined solution is as follows:

1. Rework the existing HVAC system with Makeup Air Units to precondition the outside air before it is supplied to the building and reduce the cooling load on the existing, undersized equipment. The decision was made to use the existing equipment as much as possible because the existing equipment should last several more years before needing to be replaced.

2. Combat the blistering and delamination of the floor coverings by installing a vapor barrier system that will hold up under high pH conditions and osmotic moisture transmission through the slab.
3. Continually monitor the inside (borings in floor) and outside of the building for proper drainage.
4. Repair any openings in the roof or elsewhere that may allow moisture to enter.

Since the consensus on the solution was reached staff has prepared design drawings of the needed HVAC modifications and has prepared a detailed cost estimate of the repairs (see attached spreadsheet). The cost estimate includes the proposed HVAC modifications, the removal of existing floor coverings, the installation of the new vapor barrier, the repairs to the inside of the facility that have been damaged due to moisture, expansion of the evidence room, repair of the exterior EFIS, roof repairs, and temporary facility rental and relocation costs. The cost estimate also includes a 15% contingency.

Again, there is no single issue which we could attribute the issues to. Some of the issues were design issues, some were construction-related, and some related to the materials used as per the plan specifications. Claims against the architect, under Georgia law, have to be raised within two (2) years of the completion of design work. Contractual claims against either the contractor or the architect have to be raised within six (6) years from the date of substantial completion of the project. Our records indicate that the project was substantially completed in March, 2001. It should be emphasized, however, that there is no single design or construction issue which the problems could be attributed to, therefore making any claim difficult, if not impossible, to substantiate from a legal perspective.

The project is currently out to bid and bids are due back on October 9, 2007. During the prebid conference there were questions if the interior of the walls had been checked for mold or mildew present in the wall cavities. Since then staff has opened up the walls in several areas and found no evidence of mold or mildew. The interior of the drywall in one of the areas did show signs of being exposed to moisture and this sample is being tested as a precautionary measure.

The total cost projection from staff for the entire repair/modifications project is $859,289 of which $531,734 is directly related to the repairs/modifications to the existing building. Of the remaining $327,555, rent and modifications to the temporary leased building on Commerce Drive is estimated to cost $215,473 and $112,081 is included as project contingency. The City paid $2,397,766 for the land and construction of the current building in 2000. Based on current cost figures, the cost of procuring land, and the design and construction of a comparable building is estimated to be $3,155,460.

Attachment

cc: City Engineer's File
Chief of Police

CITY OF PEACHTREE CITY

INTEROFFICE MEMORANDUM

TO: **Mayor & Council Members**

VIA: **City Manager**

FROM: **City Planner**

DATE: **February 5, 2008**

SUBJECT: **SR 54 W multi-use bridge and gateway feature**
February 6, 2008 City Council workshop

Brief overview

In May 1999, the Atlanta Regional Commission (ARC) Board adopted policies in the Regional Transportation Plan (RTP) to include investment policy studies and transportation projects for activity and town centers. The Livable Centers Initiative (LCI) program was implemented to encourage the planning and development of mixed-use projects that enhance connectivity at the activity and town center level as one alternative to standard suburban sprawl or strip development.

Peachtree City was one of twelve (12) communities within the metropolitan Atlanta region selected to participate in the first round of funding for this innovative program. The city was awarded funding in the amount of $17,360 to develop a master plan for the emerging SR 54 West corridor, with the intent of establishing a master plan to connect existing, proposed, and future development between SR 74 and the city limits.

The master plan and associated public improvement program was prepared by City Staff with the assistance of a citizen advisory committee, property owners and developers within the study area. Following approximately fourteen months of public meetings, charettes and meetings, the SR 54 West Master Plan was presented to and unanimously approved by City Council on October 4, 2001.

One of the primary focuses of the master plan was to develop a plan that provided interconnectivity between all parcels and to encourage the use of alternate transportation to reach destinations within the corridor. The thought was that, if a multi-use path was available, residents would most likely travel within the corridor without using SR 54 and increasing traffic within the area with local automobile trips.

The master plan identified numerous multi-use path projects, including a multi-use bridge spanning the CSX rail line that would connect existing and proposed retail developments in the four quadrants on the eastern boundary of the study area surrounding the SR 54/ CSX intersection. Additionally, the plan identified numerous extensions of the multi-use path system in the area, which have been programmed into the city's multi-use path system master plan.

The advisory board also included the design and construction of a multi-use bridge and gateway feature at the westernmost boundary of the study area, with the intent of interconnecting existing and proposed retail developments on both sides of SR 54 to residential areas, the Line Creek Nature Area, the Peachtree City Tennis Center, as well as the existing multi-use path system on both sides of the highway. As the study developed, it was felt this bridge should be designed in such a manner to provide a "gateway" into the city as you enter from the west.

LCI Construction grants

As a part of the LCI program, ARC established construction funding grants for projects identified within the adopted LCI study areas. In an effort to offset anticipated design and construction costs in the amount of $600,000 for the multi-use bridge and gateway feature, city staff applied for and received funding in the amount of $480,000. The remaining $120,000 (20% of the total cost) was required as a local match and was budgeted within the FY04 PIP.

In addition to this project, staff also applied for and received funding for the design and construction of the sidewalk and multi-use path connections to the multi-use bridge spanning the CSX rail line. The anticipated cost for this project was $457,000, and the city requested $320,000 in federal funds with a local match of $117,000. This project was budgeted in the FY04 PIP as well.

The developer of the retail buildings on the north side of SR 54 agreed to design and construct the sidewalk and multi-use path connections in front of the retail buildings as the multi-use path connection from the retail buildings adjacent to BestBuy to the multi-use tunnel underneath SR 54. The remaining sidewalk and multi-use path connections are predominantly on-grade and should not use all of the funding awarded for this project ($457,000). At the request of the city, ARC has agreed to re-allocate any remaining funding from this project to the SR 54 West multi-use bridge and gateway feature once construction is complete on the sidewalk and multi-use path connections.

A total of $623,295 was carried over in the SPLOST Fund from FY 2007. Of this amount there is an outstanding purchase order to QK4 for $9,616.67 against this amount, leaving a balance of $613,678.33. The budget currently available for this project is $613,678.

Project status

To date, the city has completed the Categorical Exclusion, Section 106, Historic Evaluation, Archaeological and Environmental documentation and submitted this information to GDOT for review and approval. The next step in this process is to develop construction plans and right-of-way plans, both of which must be submitted to GDOT for review and approval prior to bidding this project for construction.

Prior to moving forward with these plans, Staff was asked to prepare a preliminary cost estimate for the project and then present this to Council for discussion. The city hired Qk4 several months ago to assist us in preparing the necessary submittals to GDOT and other agencies. As a part of their contact, Qk4 entered into a subcontract with B+C Studios to assist with developing the alignment for the bridge and associated path connections as well as develop the landscaping and 'gateway' component of the project.

Attached are copies of the proposed site plan, including the multi-use path connections, bridge location and other amenities. Because of the extreme grade on the north side of the highway and the height requirements of the bridge as it spans SR 54, the path connection was designed in such a manner to maintain slopes and to access the existing multi-use tunnel underneath MacDuff Parkway.

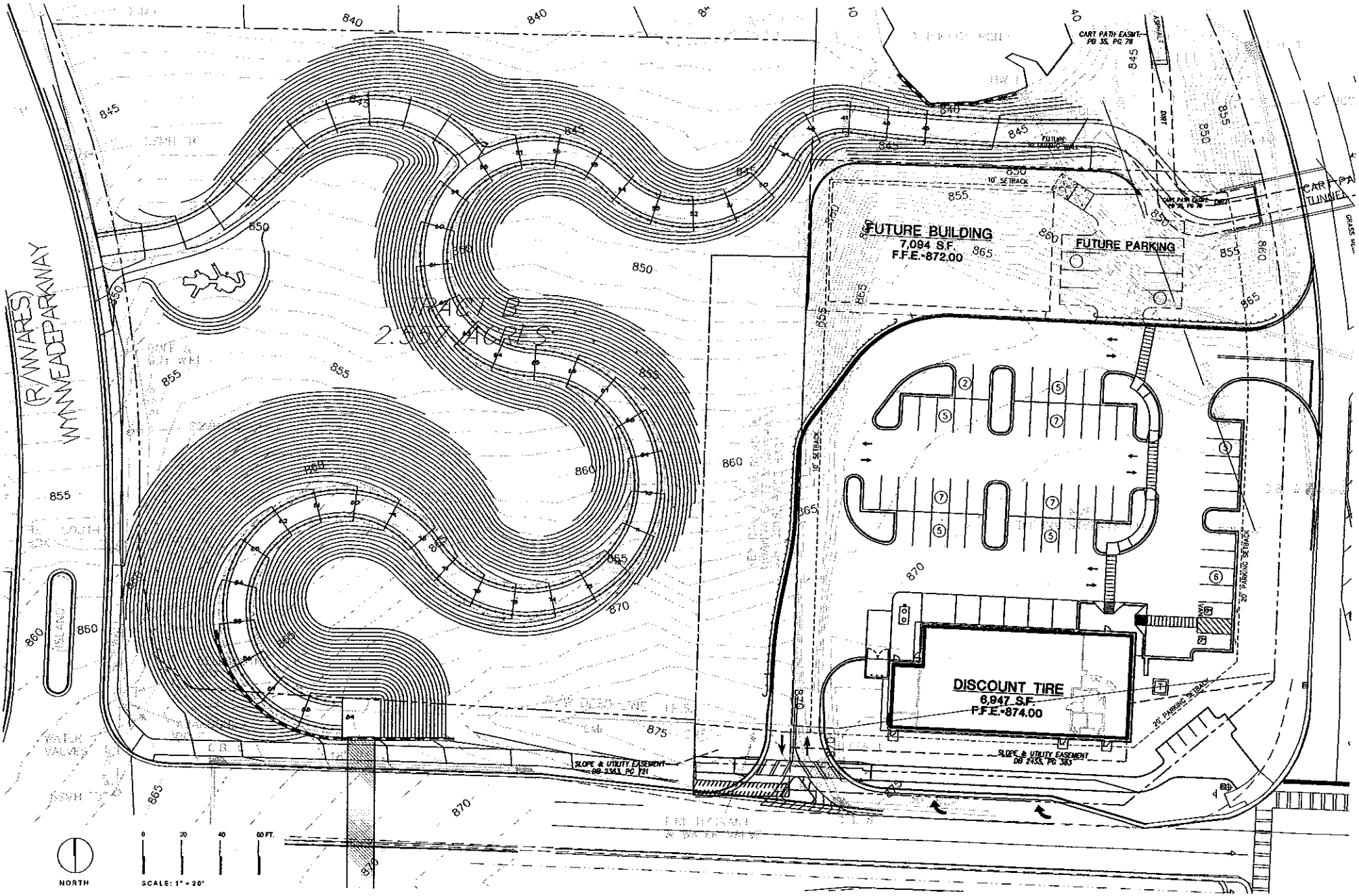
We have also worked with the developer of the Shoppes at the Village Piazza retail development on the south side of SR 54 to identify a location for the path to enter their property.

Additionally, we have provided a preliminary cost estimate for the proposed bridge and approach paths based on current dollars.

SR 54 West multi-use bridge

150' clear span, premanufactured bridge

Description	Quantity	Unit	Unit price	Amount
Site preparation				
Topsoil removal	2,239.0	CY	$17.50	$39,182.50
Erosion control	1.0	LS	$10,000.00	$10,000.00
Clearing and grubbing	2.5	AC	$5,000.00	$12,500.00
Import fill/ backfill/ embankment	27,000.0	CY	$12.00	$324,000.00
Subtotal - site preparation				**$385,682.50**
Superstructure				
Pre-manufactured bridge	1	LS	$220,000.00	$220,000.00
Concrete decking	1	LS	$10,000.00	$10,000.00
Erection cost	1	LS	$40,000.00	$40,000.00
Shop drawings	1	LS	$40,000.00	$40,000.00
Subtotal - superstructure				**$310,000.00**
Abutments				
Bridge abutments	1	LS	$195,000.00	$195,000.00
Retaining walls (modular)	4,500	SF	$55.00	$247,500.00
Geotech/ construction testing	1	LS	$15,000.00	$15,000.00
Subtotal - abutments				**$457,500.00**
Approach paths				
2" asphalt path (10' wide)	205	tons	$75.00	$15,375.00
4" graded aggregate base (GAB)	290	tons	$20.00	$5,800.00
Fencing/ rails	3,000	LF	$4.00	$12,000.00
Sodding	3,735	SY	$5.00	$18,675.00
Trees, shrubs, groundcover	1	LS	$50,000.00	$50,000.00
Subtotal - approach paths				**$101,850.00**
SUBTOTAL				**$1,255,032.50**
Contingincy (15%)				$188,254.88
Engineering (under contract with Qk4)				$46,090.00
Overhead/ profit (10%)				$125,503.25
TOTAL ESTIMATED COST				**$1,614,880.63**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FUTURE PARKING
DISCOUNT TIRE
6,947 S.F.
F.F.E.-874.00
10' SETBACK
20' PARKING SETBACK
SLOPE & UTILITY EASEMENT
DB 2363, PG 721
SLOPE & UTILITY EASEMENT
DB 2455, PG 383
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ASPHALT
NORTH
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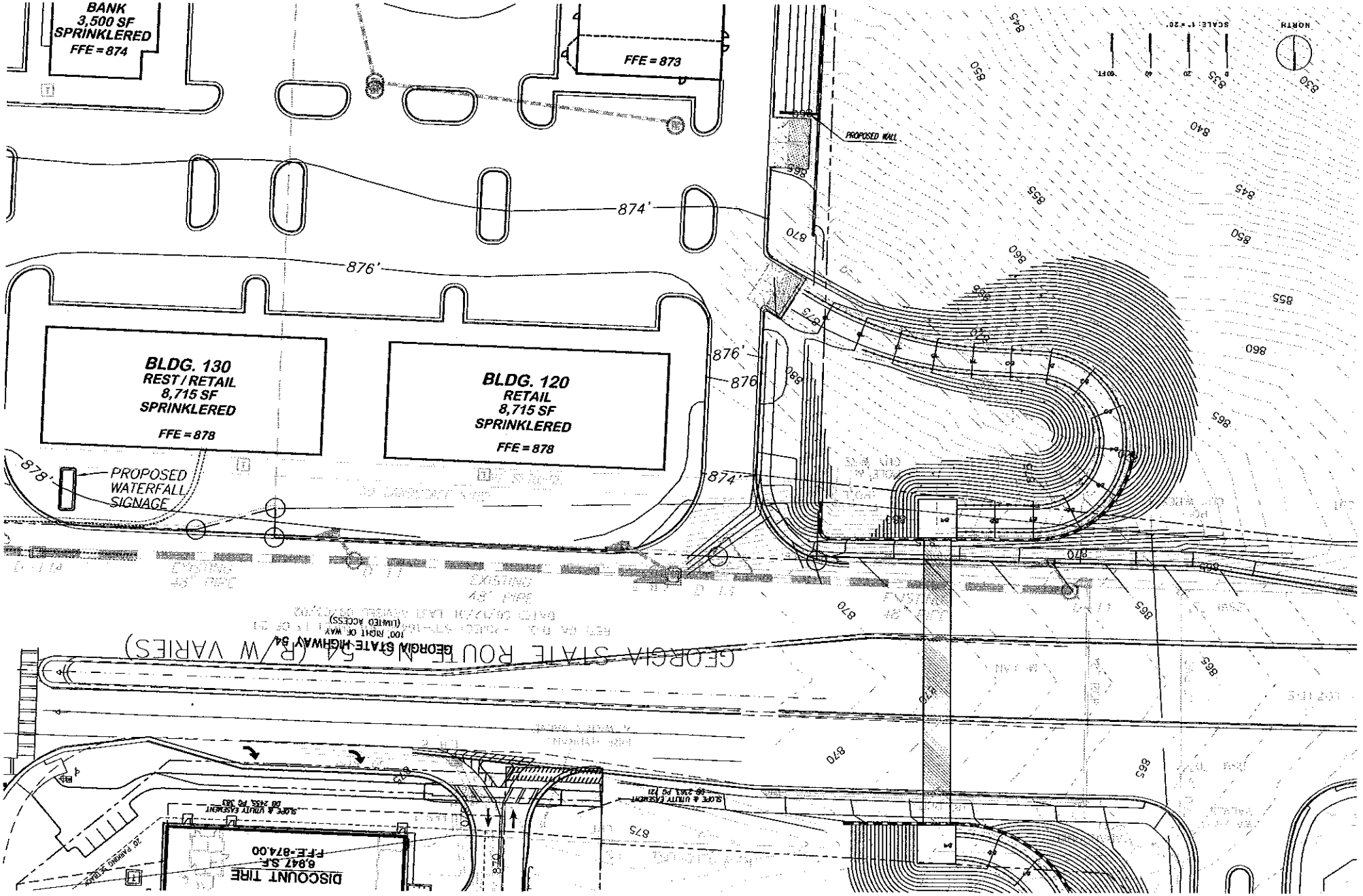
20
40
60 FT.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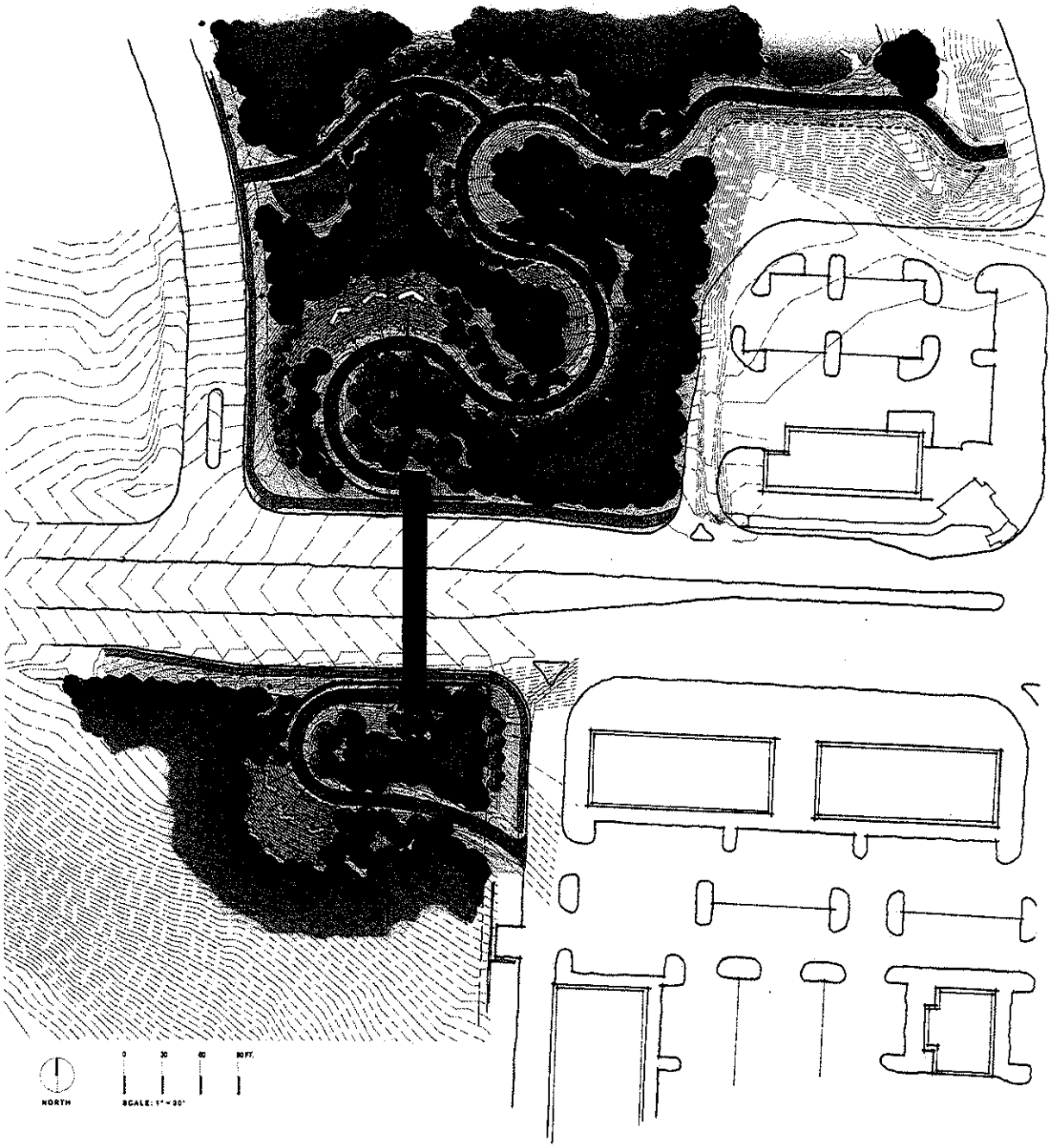
SPRINKLERED
FFE = 874
FFE = 873
874'
876'
BLDG. 130
REST / RETAIL
8,715 SF
SPRINKLERED
FFE = 878
BLDG. 120
RETAIL
8,715 SF
SPRINKLERED
FFE = 878
876'
876
878'
874'
PROPOSED
WATERFALL
SIGNAGE
PROPOSED WALL
NORTH
SCALE: 1" = 20'
GEORGIA STATE ROUTE NO. 54 (R/W VARIES)
GEORGIA STATE HIGHWAY 54
DISCOUNT TIRE
8,947 S.F.
FFE=874.00

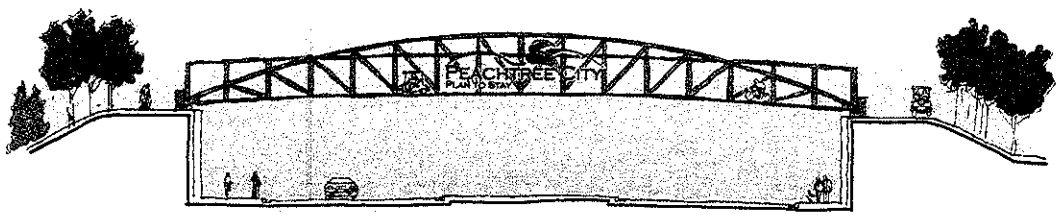
PEACHTREE CITY
PLAN TO STAY

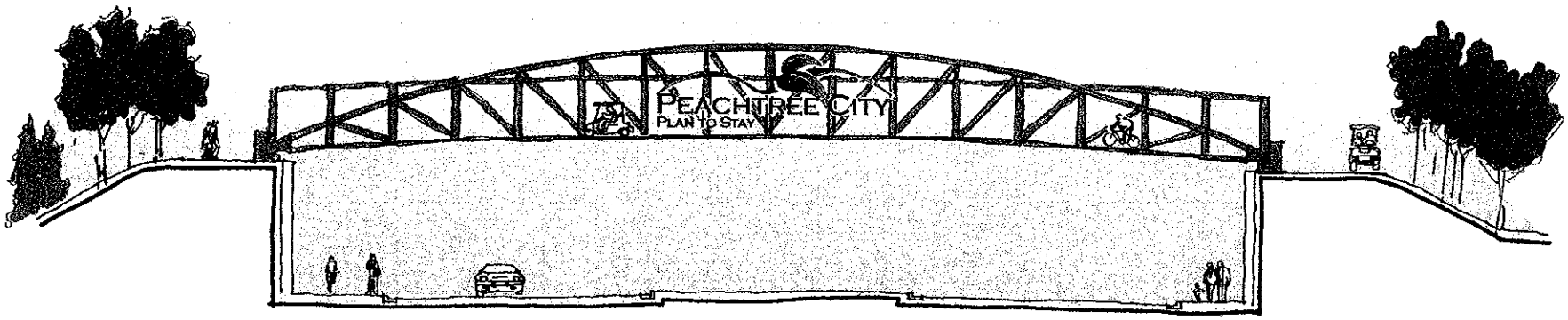
Peachtree City Multi-Use Path

Peachtree City, Georgia

January 07, 2008






PEACHTREE CITY
PLAN TO STAY