

# Volume II



study for J. Michael Ruane Judicial Center  
Salem Trial Court TRC 9910 ST2

Salem, Massachusetts

April 4, 2007



# Volume II



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## A2 Appendix 2

- A2.1 *Salem Probate and Family Court Existing Conditions Report*, Goody Clancy,  
Draft: September 26, 2005, Revised: November 11, 2005
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- A2.3 *Chapter 34 Evaluation Renovation of the Probate and Family Court Building, Salem, Massachusetts, J. Michael Ruane Judicial Center*, Rolf Jensen & Associates, Inc., April 19, 2006;
- A2.4 *Mechanical and Electrical Systems Analysis, Salem Trial Courts*, SEI, February 13, 2007;  
*Mechanical Drawings, Salem New Trial Court*, February 6, 2007; *Plumbing and Fire Protection Systems Analysis, J. Michael Ruane Judicial Center, Salem, Massachusetts*, Draft–February 2007
- A2.5 *Salem Additional Service—Alternate Plan B Draft Study, Task 9—Identify Possible Levels of Partial Renovation of the PFC*, November 21, 2006
- A2.6 *Asbestos, Lead Paint and Other Hazardous Materials Survey, Probate and Family Court Complex*, ATC Associates Inc., April 1, 2006
- A2.7 *MEP HVAC Options for Minimal Renovation to PFC, Salem Courts*, September 27, 2006
- A2.8 *Salem Courts Expansion Study, Salem, Massachusetts, Structural Evaluation*, Green International Affiliates, Inc., July 2003
- A2.9 *Permitting Analysis, J. Michael Ruane Judicial Center and Salem Trial Courts*, Epsilon Associates, November 2005
- A2.10 *Calculation of Water Usage and Discharge in New Court Facilities*, DCAM, March 7, 2007

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## A3 Appendix 3

- A3.1 *Environmental Notification Form, J. Michael Ruane Judicial Center, Salem Trial Courts*, Epsilon Associates, Inc., January 2, 2007
- A3.2 *Certificate of the Secretary of Environmental Affairs on the Environmental Notification Form*, February 22, 2007
- A3.3 *Memo: DCAM, Proposed Trial Courts Expansion, Salem, Massachusetts, Pedestrian Improvement and Accommodations and Traffic Calming*, Earth Tech, Inc., February 7, 2007
- A3.4 *Memo: DCAM, Proposed Trial Courts Expansion, Salem, Massachusetts, MBTA Garage Data—Traffic Analysis*, February 8, 2007
- A3.5 *Functional Design Report, Proposed Construction of a New Trial Court Facility, J. Michael Ruane Judicial Center, Salem, Massachusetts*, Earth Tech, Inc., November 2006
- A3.6 *Salem Trial Courts Transportation Study*, Howard/Stein-Hudson Associates, Inc., May 2002
- A3.7 *Final Geotechnical Data Report, North Street and Bridge Street Ramp Re-Alignment, Salem, Massachusetts*, Nobis Engineering, October 14, 2005
- A3.8 *Phase I and II Site Analysis, Detailed Review*, ICON architecture, inc., July 2003



A1.1 Salem Site Evaluation Study,  
Site Options for  
the New Trial Courts Building

**Goody Clancy**

**Draft June 29, 2006**



## **SALEM SITE EVALUATION STUDY**

### Site options for the new Trial Courts Building

By  
Goody, Clancy & Associates

#### **Introduction**

Goody Clancy was instructed by DCAM to develop and evaluate the feasibility of locating and shaping the proposed Trial Court Building on different site configurations with respect to existing parcels on Federal Street, specifically the First Baptist Church property (56 Federal Street) and the buildings/lots of #58, #60 & #62 Federal Street.

Acknowledging the historical importance of the area, the analysis looked at building size and scale relative to the adjacent structures, pedestrian and vehicular access, civic presence, connections to the existing Probate and Family Court Building, and footprints that would meet the security and circulation requirements of a modern court facility.

#### **Executive Summary**

The study was done in three parts; Part A analyzed four site options; Part B analyzed an additional option and Part C analyzed and compared five site options including some modified by adding a slip ramp on the western boundary to the site to some of the options.

#### **PART A**

##### **Option 1:**

Leaves the Church property untouched, relocates the houses off-site and assumes no slip ramp.

This option examined constructing the new Trial Court Building on the portion of the site to the west of the Church and its property. The configuration of this site would result in a building with a 60-foot high façade on Federal Street and an 86-foot high façade on Bridge Street. The bulk of the new Trial Court Building in such close proximity to the Church would overpower it. The resulting floor plate may not allow for an efficient layout of court functions or required adjacent relationships.

##### **Option 2:**

Relocates the Church on-site, relocates the houses off-site and assumes no slip ramp.

This option examined demolition of the Church's rear addition and moving the building to the southwest corner of the site, constructing a new addition with basement in the rear of the Church in its new location. This option appears to work with a zero lot line between the rear of the Church and the new Trial Court Building. The resulting reduced site will require inter-flooring in the new Trial Court Building, splitting functions between floors. Additional square footage will be needed to accommodate the Law Library.

##### **Option 3A:**

Relocates the Church on-site, relocates the houses off-site and assumes no slip ramp.

This option examined moving the Church without its addition to the southwest corner of the site with side yard dimensions of 5 feet and with a 15 foot set back for the proposed Trial Court Building. The resulting

reduced site will require inter-flooring in the new Trial Court Building, splitting functions between floors. Additional square footage will be needed to accommodate the Law Library.

**Option 3B:**

Relocates the Church on-site, relocates the houses off-site and assumes no slip ramp.

In this option the rear addition of the Church is removed and the building is moved onto a lot on the southwest corner. This option assumes a zero lot line in the rear, though the building itself is kept separate from the proposed Trial Court Building. This scheme could work well with a "bar" scheme for the Trial Court Building. Additional square footage will be required to accommodate the Law Library.

**PART B**

**Option 1B (Scheme D)**

This option leaves the Church property and the three houses untouched and studies the site with and without a slip ramp.

This option has the smallest site of all options considered and results in a building with the smallest footprint, resulting in the tallest building of all options considered. The site becomes infeasible with the addition of a slip ramp. Without a slip ramp, the scale of the resulting building is much greater than that of the surrounding neighborhood. Connections to the Probate and Family Court Bldg. and its pedestrian access and vehicular drop off would not be possible. The severely constrained site could force inefficiencies in program-required relationships and potentially impact construction cost.

**PART C**

Part C modifies some of the options developed in Part A & B of this study by adding a slip ramp and in one scheme relocating the three houses on site. The five schemes are then re-numbered from the smallest footprint to the largest footprint and compared as to how they meet civic goals and court goals. The schemes are as follows:

- Scheme 1: Slip ramp in-place; Church property untouched and houses untouched.
- Scheme 2: Slip ramp in-place; Church moved without addition and houses relocated fronting on the slip ramp.
- Scheme 3: No slip ramp; Church property untouched and houses relocated off-site.
- Scheme 4: Slip ramp in-place; Church moved without addition and houses relocated off-site.
- Scheme 5: No slip ramp; Church moved with new addition constructed and houses relocated off-site.

The comparison shows that the larger the site, the larger the building footprint can be and the lower in height the building can be. The comparison also demonstrates that the larger the site, the more opportunities the building offers to meet the civic goals and the court requirements.

**SALEM SITE EVALUATION STUDY – OPTION 1 (Revised Scheme C)**

Summary: No slip ramp; First Baptist Church untouched; houses relocated off-site. Site area approx. 53,660 SF; building footprint, 32,040 SF  
See figures 1 through 13.



### Option 1 Site Description

This assumes that the First Baptist Church remains on its present site with its current property lines and that the three existing buildings on Federal Street have been relocated off-site. As a result, a new site is created to the west of the Church, bounded by the Church property on the east, Federal Street on the south, North Street on the west and Bridge Street on the north. This scenario works on the assumption that a slip ramp will not be utilized and that traffic will be accommodated on a reconfigured ramp on the other side of North Street.

### Option 1 Design Analysis

#### Building Code

Because of its proximity to the side yard property line (in this case 10 feet), the maximum area of exterior wall openings (windows and doors) allowable by the MBC will be limited to 45%. A more in depth study may allow for a greater side yard setback.

#### Architectural

##### Building Size

Given the site restraints under this scenario, the proposed new Trial Court Building will consist of 9 stories of which three stories would be below the grade Federal Street. This will present a six-story elevation along Federal Street that will be 75 feet high and a nine-story elevation along Bridge Street of 104 feet. The height of the First Baptist Church on the side facing Federal Street, to the top of the gable roof; is approximately 49 feet; and on the Bridge street side is approximately 65 feet. The Probate and Family Court Building on the side facing Federal Street is approximately 67 feet to the top of the gable roof and on the Bridge street side is approximately 59 feet.

##### Scale

The resulting building could be configured to step down one or two stories from back to front to help moderate between the large volume of the building and the scale of Federal Street, and the facades would be articulated to reduce the bulk on Bridge Street and North Street. The scale of the building (bulk and height) with respect to the First Baptist Church is problematic because of its close proximity.

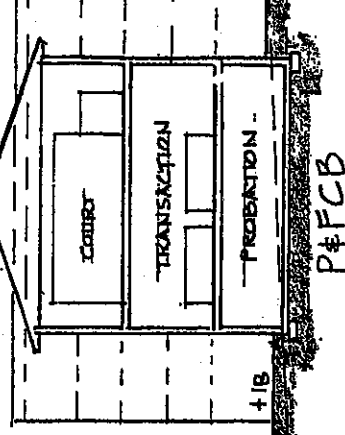
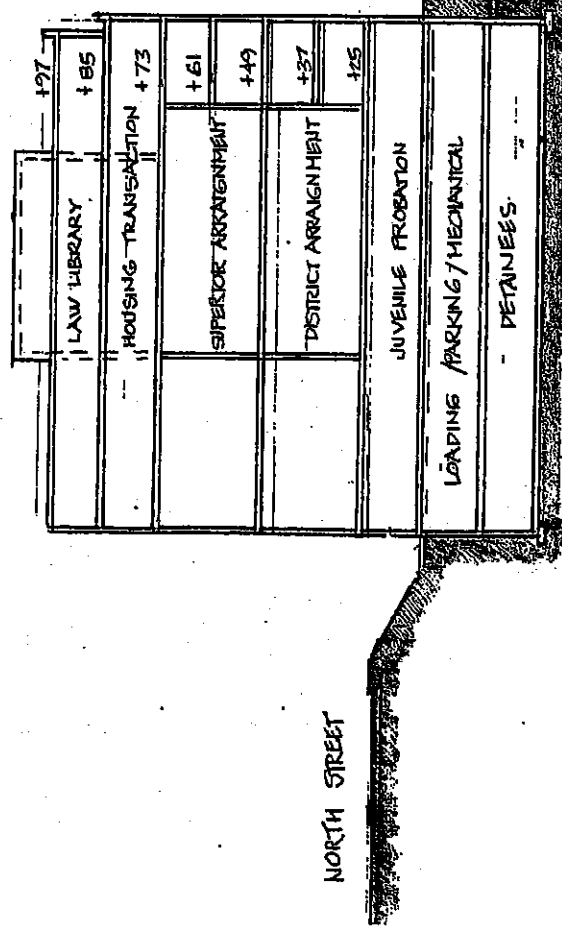
#### Civic Presence/Access

1. A building of this bulk in this historic district in close proximity to adjacent historic structures will seem out of place with its surroundings. Apportioning most of the mass of the building at the Bridge Street end of the site and stepping the building down two stories at the Federal street end of the site could ameliorate the scale difference.
2. It is potentially hazardous to have vehicular drop off close to the corner of an active intersection. Prohibiting parking on the north side of Federal Street for a distance back from the corner with North Street would improve vehicular drop off prospects.
3. The First Baptist Church Property would effectively block the development of any staff or detainee bridge/tunnel or utility connections between the proposed new Trial Court Building and the Probate and Family Court Building, limiting the efficiencies that could be realized by sharing building systems and resources

**Building Function**

1. The building would be a densely packed structure with "interfloors" or "mezzanines" to accommodate the various transaction and judicial functions. Achieving program required adjacencies would be challenging.
2. Vehicular access is problematic with this option.





FEDERAL STREET SIDEWALK  
 BRIDGE STREET BEYOND  
 RAMP FROM BRIDGE ST. TO SALLY FORT  
 AND PARKING

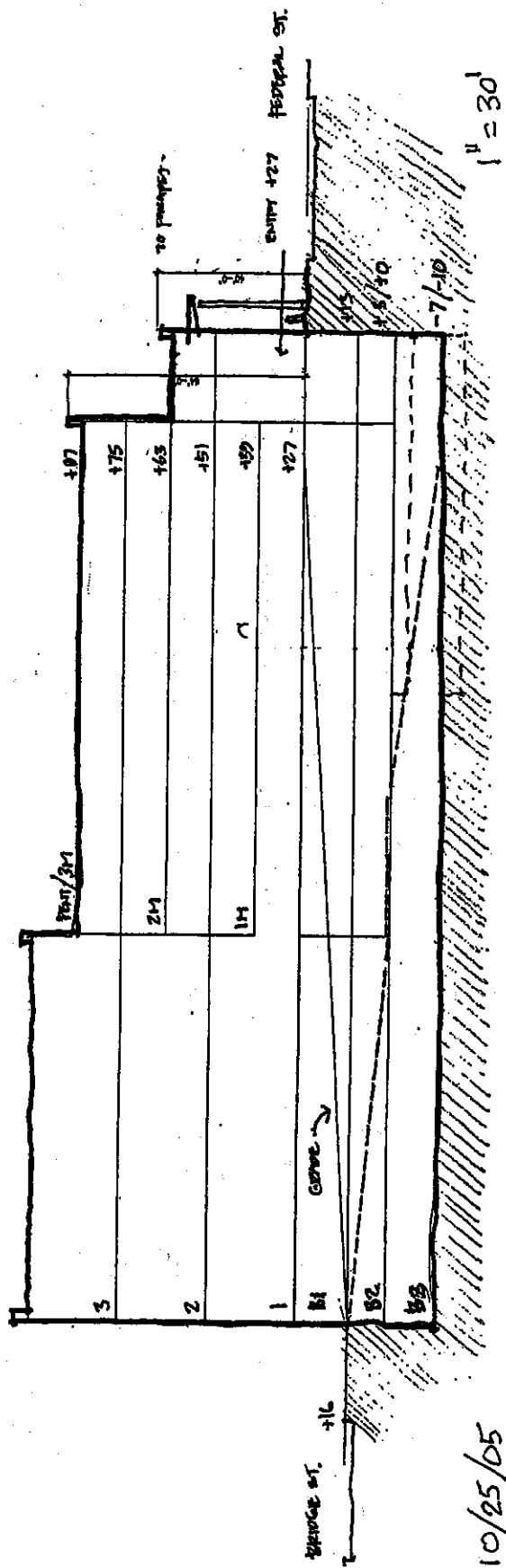
12/22/05

East - West Site Section

SALEM TRIAL COURT

SITE 1 - OPTION 1 (Revised Scheme C)

GOODY CLANCY



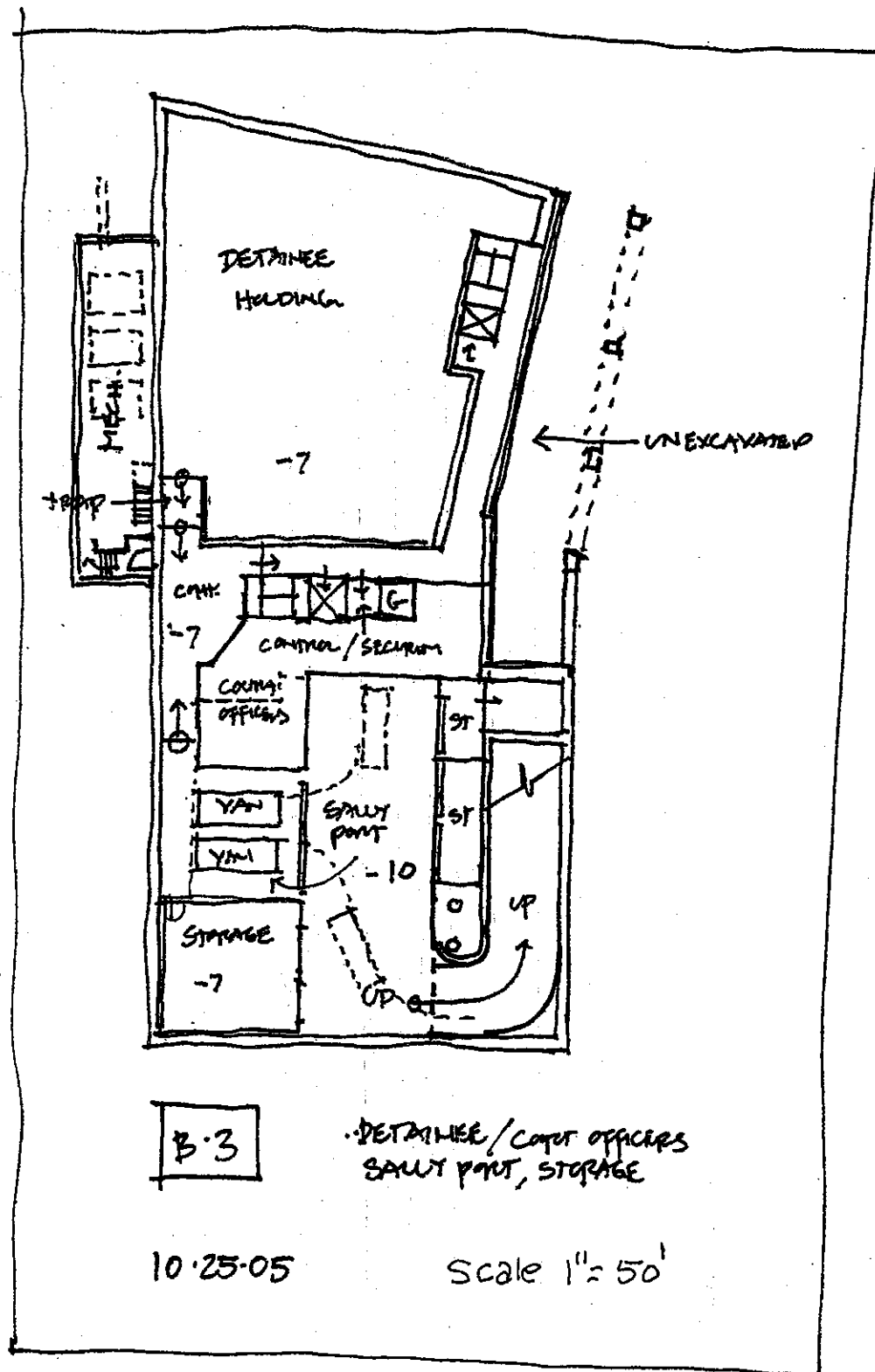
North- South Section

SALEM TRIAL COURT

SITE 1 - OPTION 1 (Revised Scheme C)

GOODY CLANCY

Figure 3

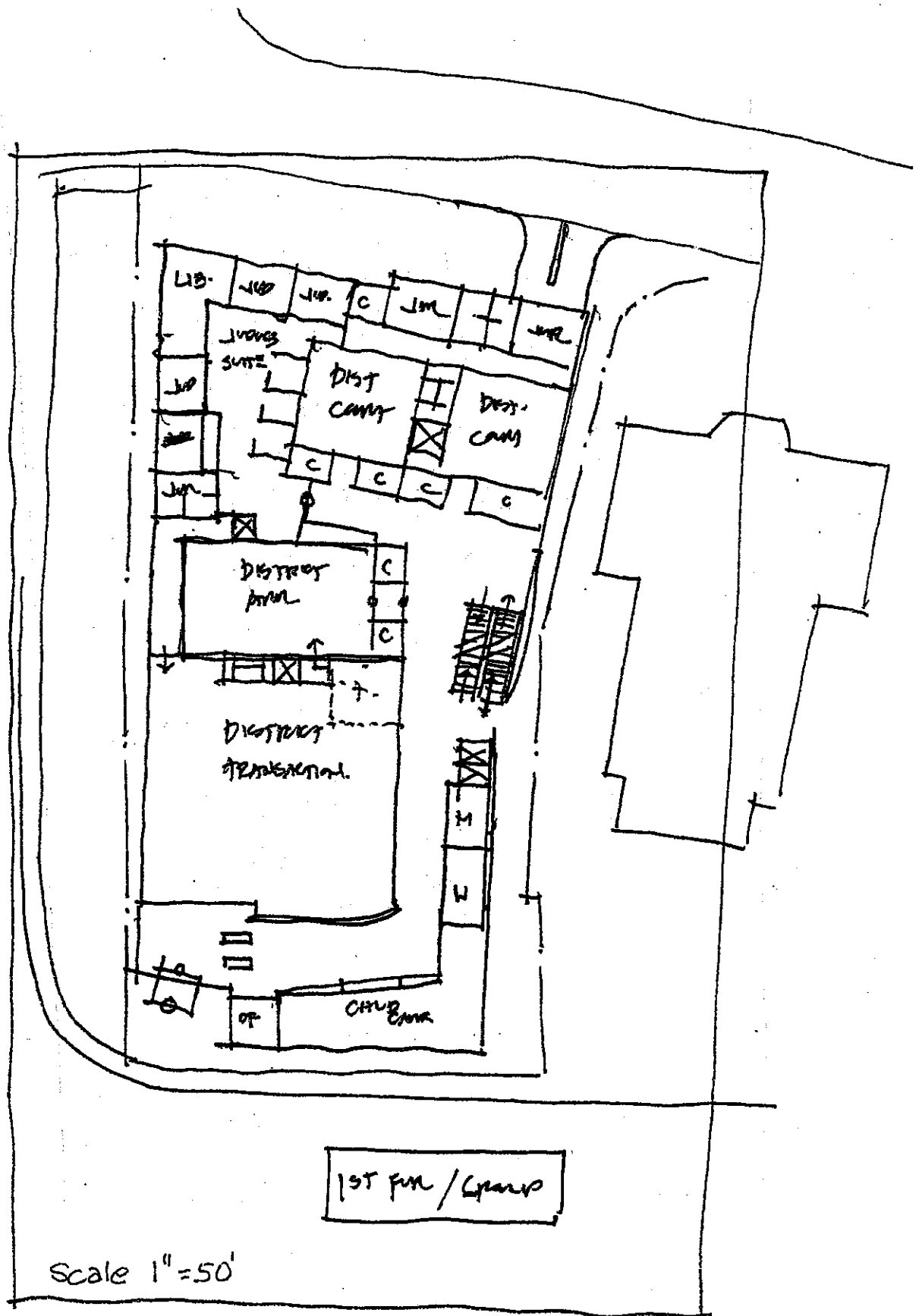


Plan View

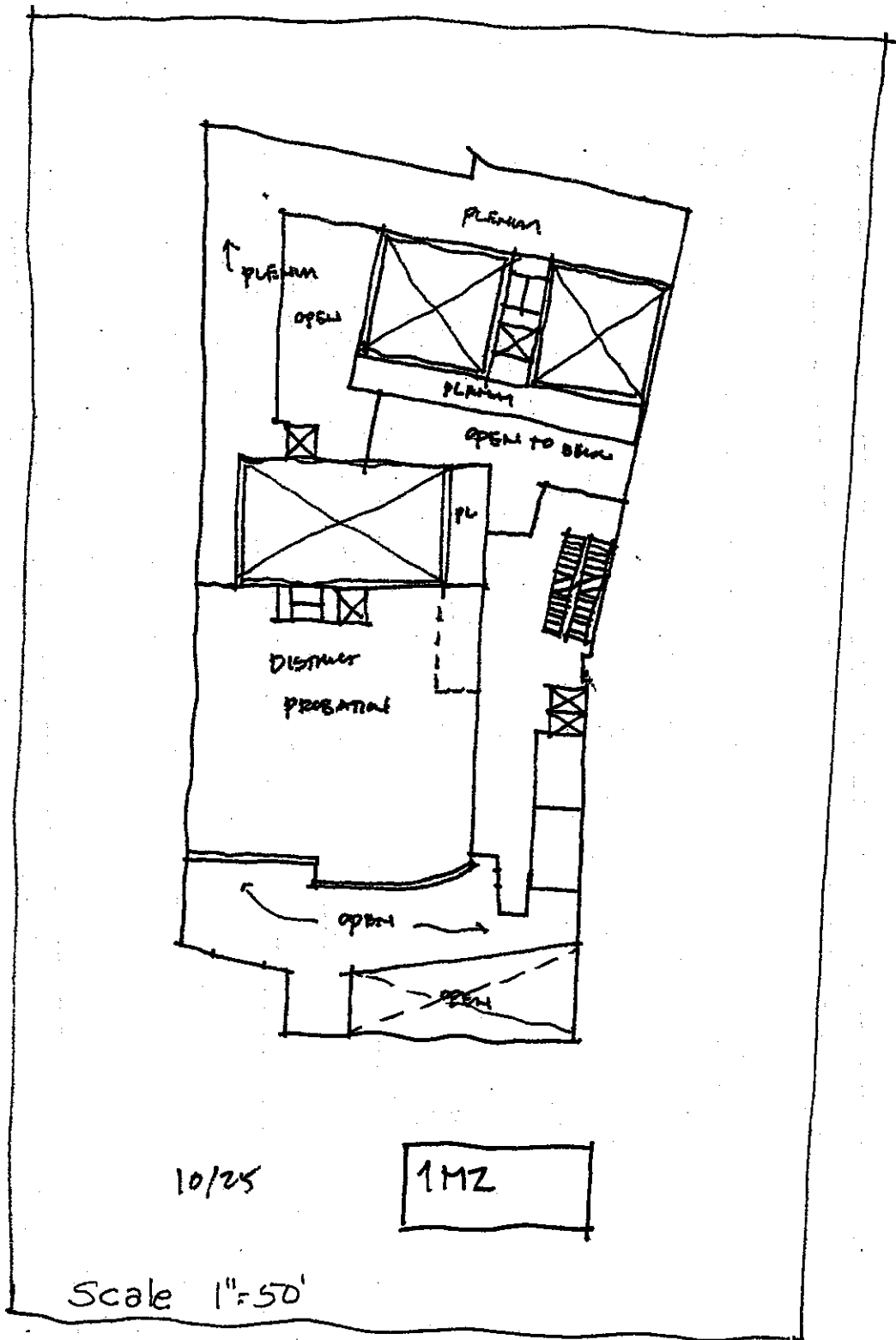


Figure 6

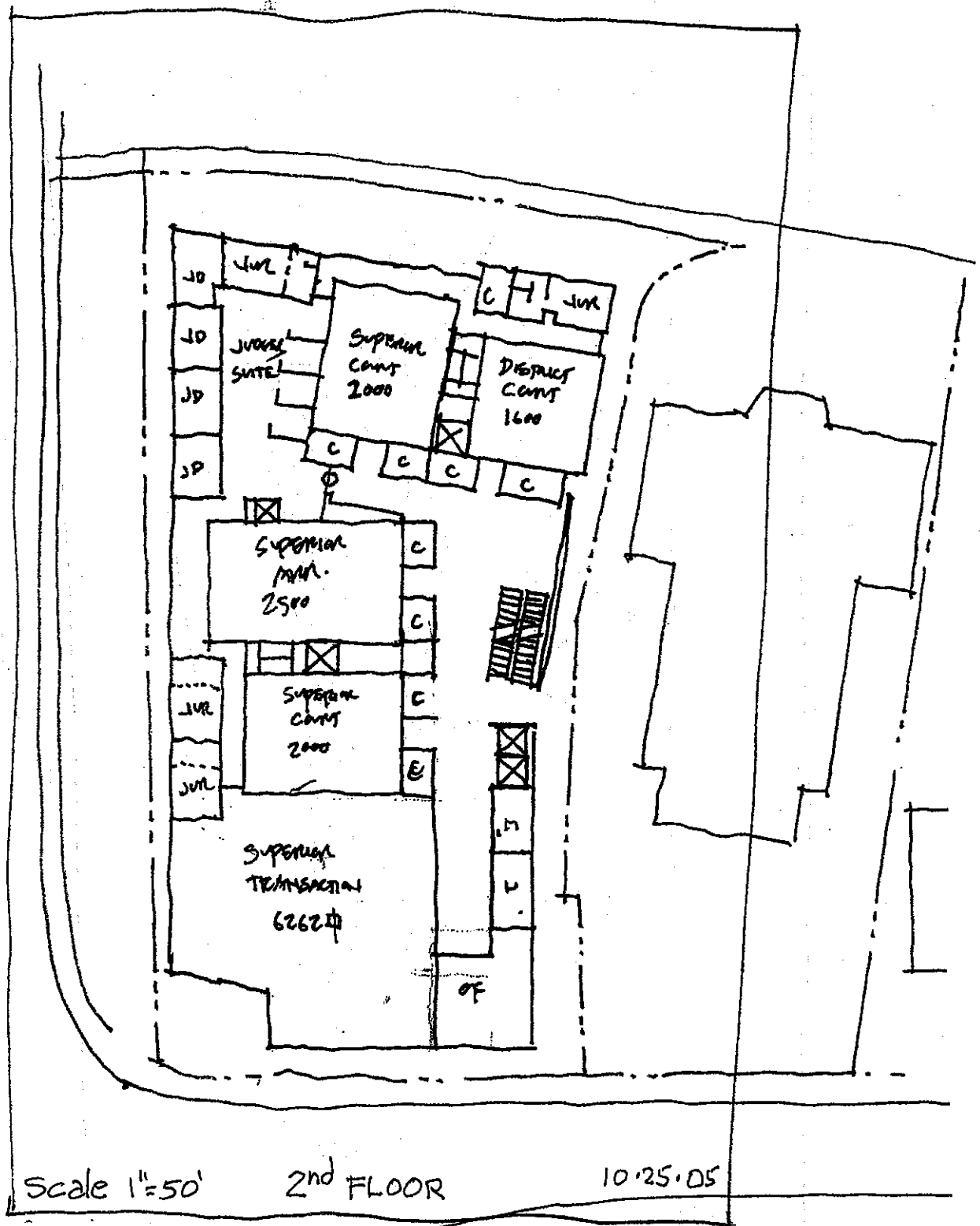




Plan View



Plan View



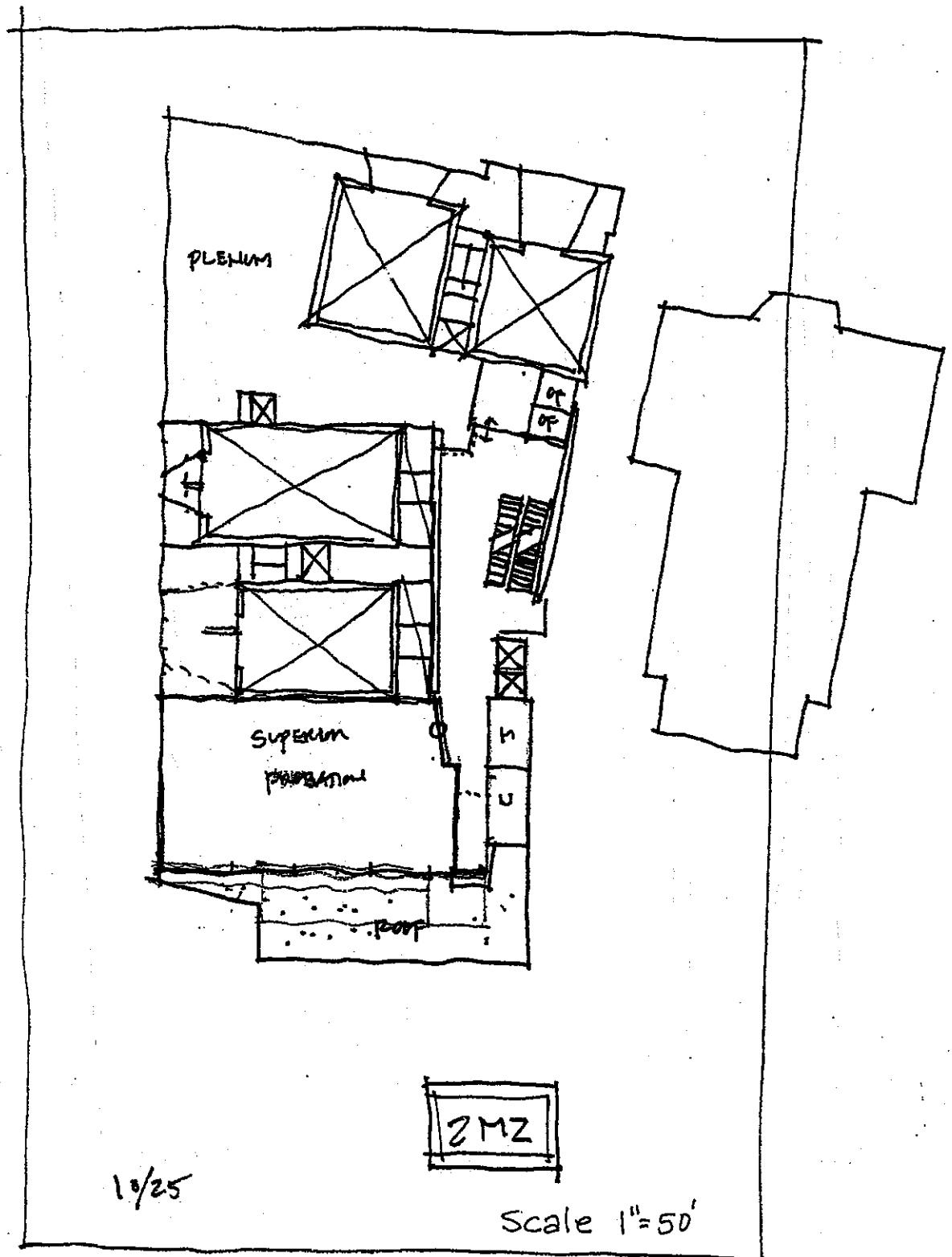
Plan View

SALEM TRIAL COURT

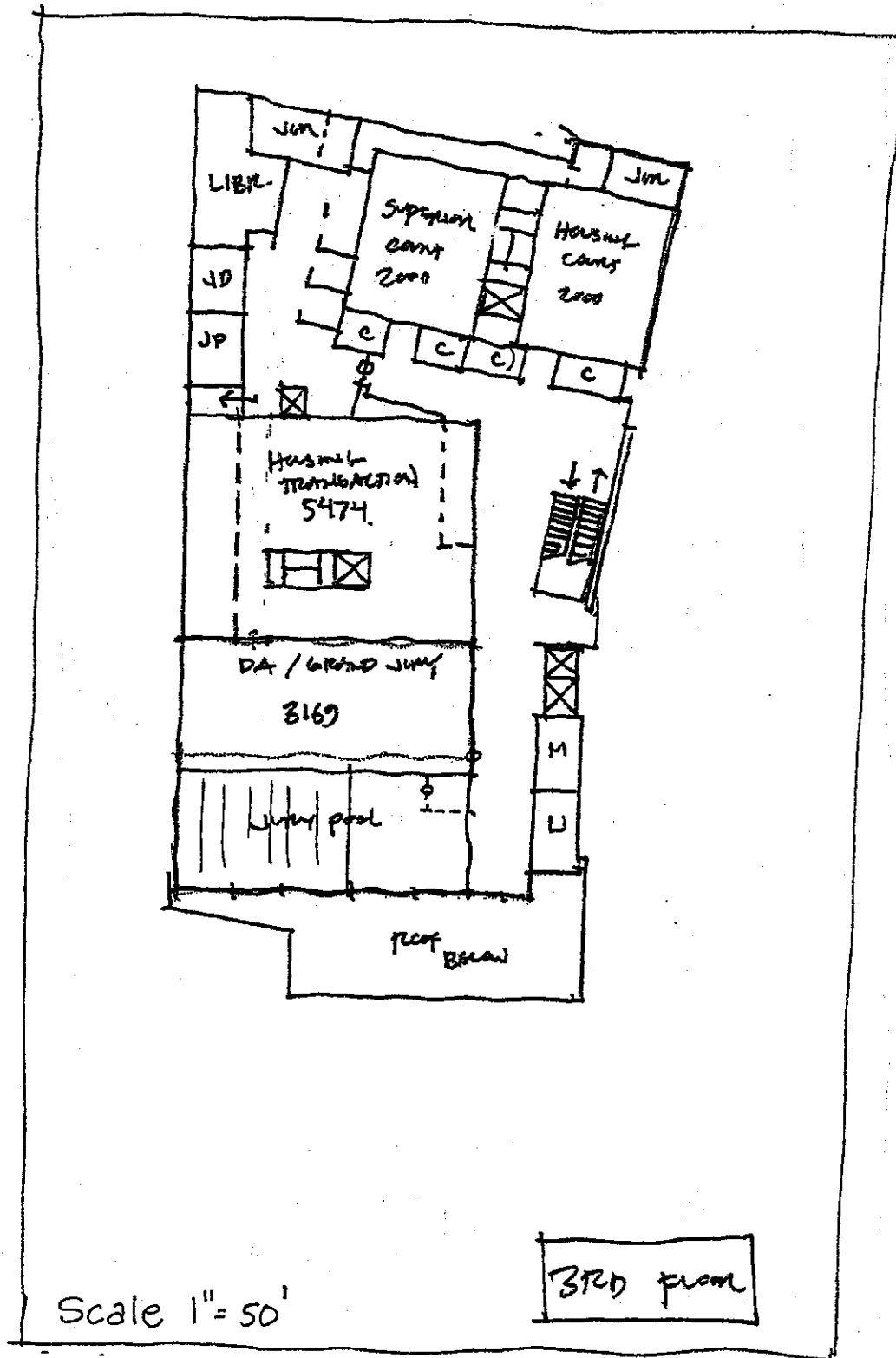
SITE 1 - OPTION 1 (Revised Scheme C)

GOODY CLANCY

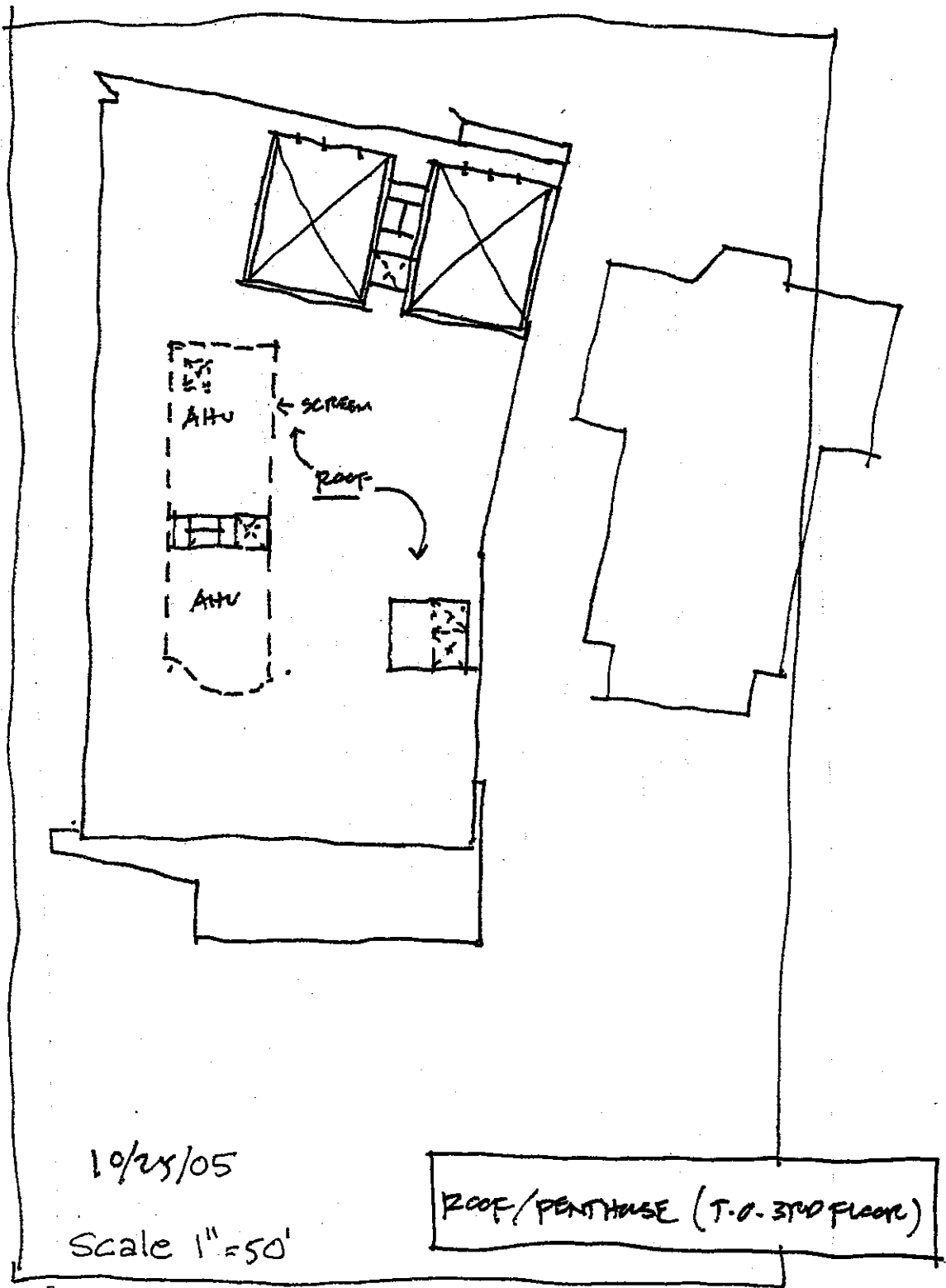
Figure 9



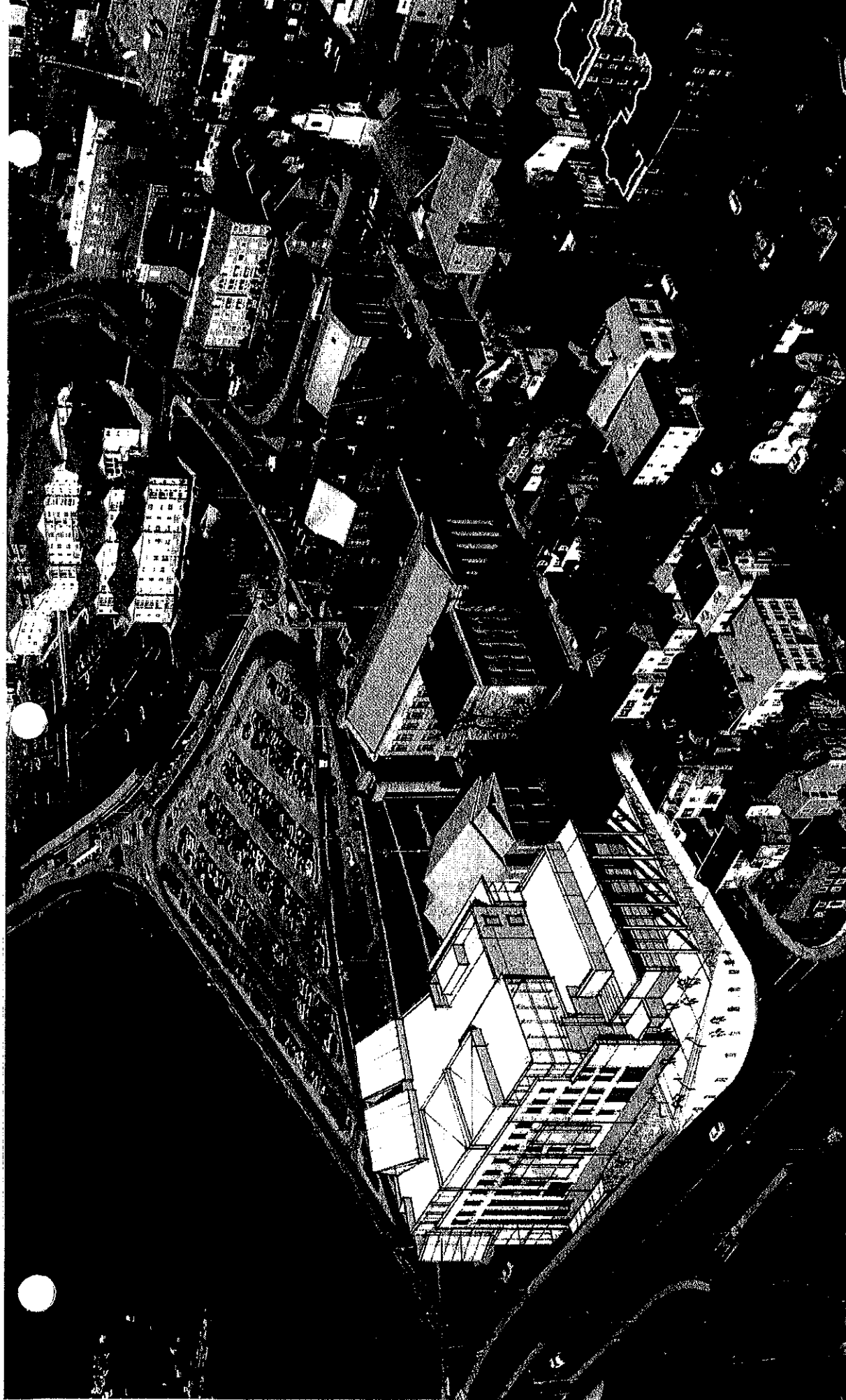
Plan View



Plan View



Plan View



AERIAL VIEW

SALEM TRIAL COURT

SITE 1 - OPTION 1 (Revised Scheme C)

GOODY CLANCY

Figure 13

## SALEM SITE EVALUATION STUDY – OPTION 2

Summary: No slip ramp; houses relocated off-site; First Baptist Church relocated on-site with new addition, Church continued to be used as a church. Site area approx. 66,105 SF, Building footprint 37,084 SF  
See figures 14 & 15

### Option 2: Site Description

This option assumes that the First Baptist Church is moved without its addition, to the southwest corner of the site (Federal Street & North Street) and the three existing buildings on Federal Street have been relocated off-site. It also assumes that a one-story addition with basement will be added to the rear of the Church for Church use. The Church would have a five-foot side yard and a zero lot line in the rear. As a result, the proposed new Trial Courts Building site would be adjacent to the Probate and Family Court Building to the east, front on Federal Street the south and be bounded by North Street to the west and Bridge Street to the north. This scenario works on the assumption that a slip ramp will not be utilized and that traffic will be accommodated on a reconfigured ramp on the other side of North Street.

### Option 2: Design Analysis

#### Building Code

1. Due to the proximity of the east wall of the Church and the west wall of the Trial Court Building, these facades will have limitations on the percentage of openings. To maximize the amount of openings in both buildings, an easement would be required. Under this easement, the side yard property line is officially 5 feet off the east wall of the church, the property line for determining fire ratings and the percentage of openings in the walls will be 15'-1" off the east wall of the Church. This would allow the walls facing each other to have 75% openings on the Church and unlimited openings on the Trial Court Building.

#### Architectural

##### Building Size

The proposed new Trial Court Building will have façades with an approximate height of 63 feet along Federal Street and 80 feet along Bridge Street. For comparative purposes the height of the First Baptist Church on the side facing Federal Street (to the top of the gable roof) is approximately 49 feet; and on the Bridge street side is approximately 65 feet. The Probate and Family Court Building on the side facing Federal Street is approximately 67 feet to the top of the gable roof and on the Bridge street side is approximately 59 feet.

##### Scale

The resulting building volume and height will be in scale with the adjacent Probate and Family Court Building.

##### Civic Presence/Access

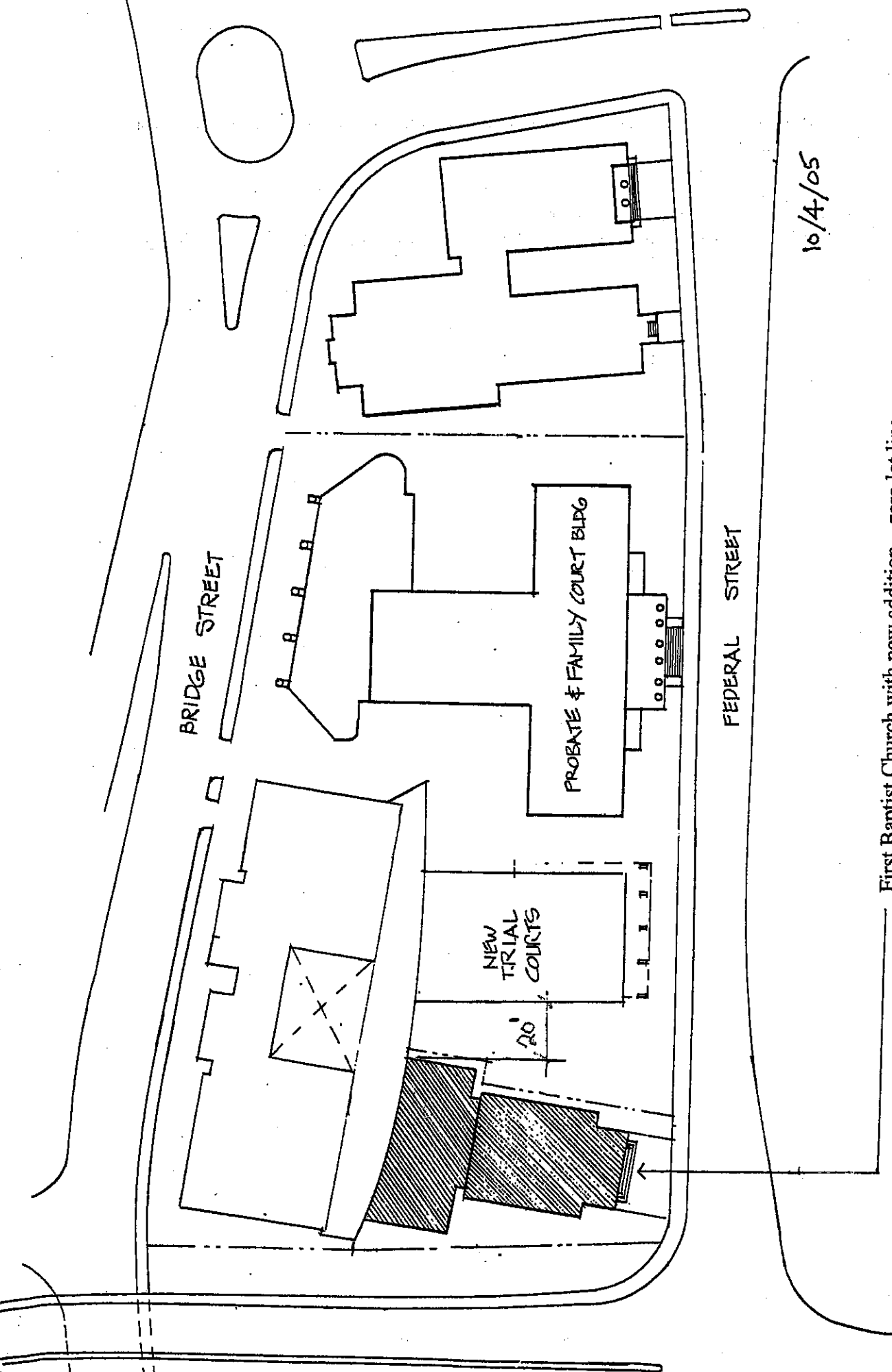
1. The entry façade on Federal Street will have a civic presence on Federal Street that will be in harmony with the adjacent Probate and Family Court Building.
2. Accessible vehicular drop-off area would be located at a curb cut between the new facility and the PFC. This provides shared access to the PFC ramp and the grade entrance for the new Trial Court Building.
3. A staff /detainee bridge/tunnel with utility connections between the proposed new Trial Court Building and the Probate and Family Court Building would be possible under this



scenario, allowing for achievement of greater building efficiency and potential cost savings.

**Building Function**

1. This site works well with Scheme B.
2. Additional building square footage will be required to accommodate the Law Library.



10/4/05

First Baptist Church with new addition - zero lot line

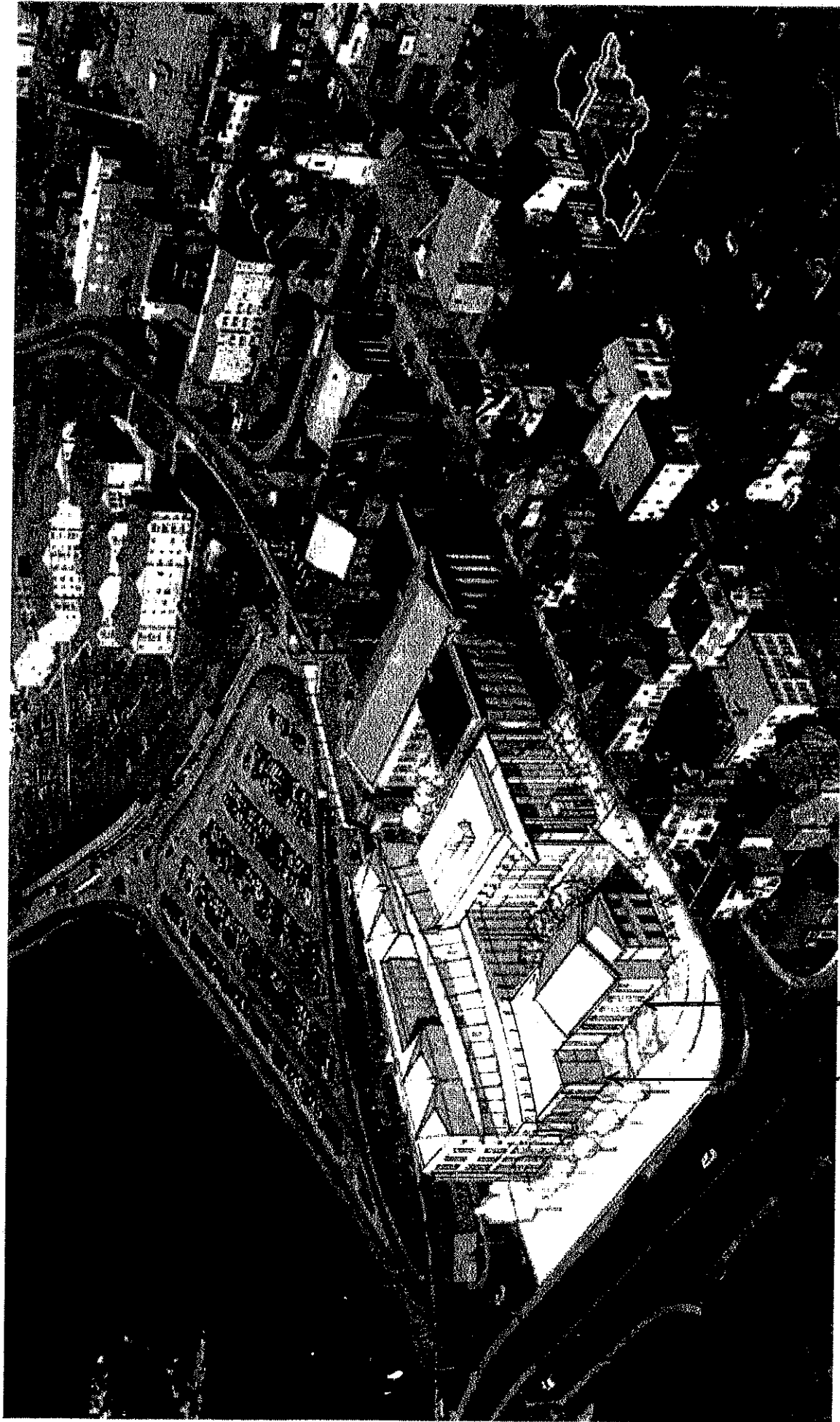
SALEM TRIAL COURT

PLAN VIEW

OPTION 2

Figure 14

GOODY CLANCY



FIRST BAPTIST CHURCH

10/4/05

AERIAL VIEW

SALEM TRIAL COURT

OPTION 2

GOODY CLANCY

Figure 15

## SALEM SITE EVALUATION STUDY – OPTION 3A

Summary: No slip ramp; Church relocated on-site; continued use as a church; houses relocated off-site. Site area approx. 71,510 SF, building footprint 40,860 SF  
See figures 16 & 17.

### Option 3A: Site Description

This scenario assumes that the addition on the rear of the First Baptist Church is demolished and the building relocated on-site to the southwest corner (Federal Street & North Street), and the three existing buildings on Federal Street have been relocated off-site. The Church would maintain its current use as an active congregation. The proposed new Trial Court Building site would be adjacent to the Probate and Family Court Building to the east, front on Federal Street to the south and be bounded by North Street to the west and Bridge Street to the north. The setback between the new facility and the church building is assumed to be 15 feet. This scenario works on the assumption that a slip ramp will not be utilized and that traffic will be accommodated on a reconfigured ramp on the other side of North Street

### Option 3A: Design Analysis

#### Building Code

Due to the proximity of the Church and the new Trial Court Building, the Commonwealth of Massachusetts Building Code will require that the exterior wall openings of the Church walls facing the side yards be limited to 25%. To maximize the amount of openings in both the Church and the proposed new Trial Court building, an easement would be required. Under this easement, though the side yard property line is officially 5 feet off the east and north walls of the Church, the property line for determining fire ratings and the percentage of openings in the walls will be 15'-1" off the east and north walls of the Church. This would allow the walls of each building facing each other to have 75% openings on the Church and unlimited openings on the Trial Courts Building.

#### Architectural

##### Building Size

The proposed new Trial Court Building will have façades with an approximate height of 63 feet along Federal Street and 80 feet along Bridge Street. The height of the First Baptist Church on the side facing Federal Street, to the top of the gable roof, is approximately 49 feet; and on the Bridge street side is approximately 65 feet. The Probate and Family Court Building on the side facing Federal Street is approximately 67 feet to the top of the gable roof and on the Bridge street side is approximately 59 feet.

##### Scale

The resulting building volume and height will be in scale with the adjacent Probate and Family Court Building. The Church building will serve as a transition down to the smaller scale of Federal Street and across North Street.

##### Civic Presence/Access

1. The entry façade on Federal Street will have a civic presence on Federal Street that will be in harmony with the adjacent Probate and Family Court Building.
2. Accessible vehicular drop-off area would be located at a curb cut between the new facility and the PFC. This provides shared access to the PFC ramp and the grade entrance for the new Trial Court Building.

3. A staff /detainee bridge/tunnel with utility connections between the proposed new Trial Court Building and the Probate and Family Court Building would be possible under this scenario, resulting in greater building efficiencies and potential cost savings.

**Building Function**

1. This site works well with Scheme B.
2. Additional building square footage will be required to accommodate the Law Library.

BRIDGE STREET

PROBATE & FAMILY COURT BLDG

NEW  
TRIAL  
COURTS

FEDERAL STREET

1ST BAPTIST CHURCH

10/4/05

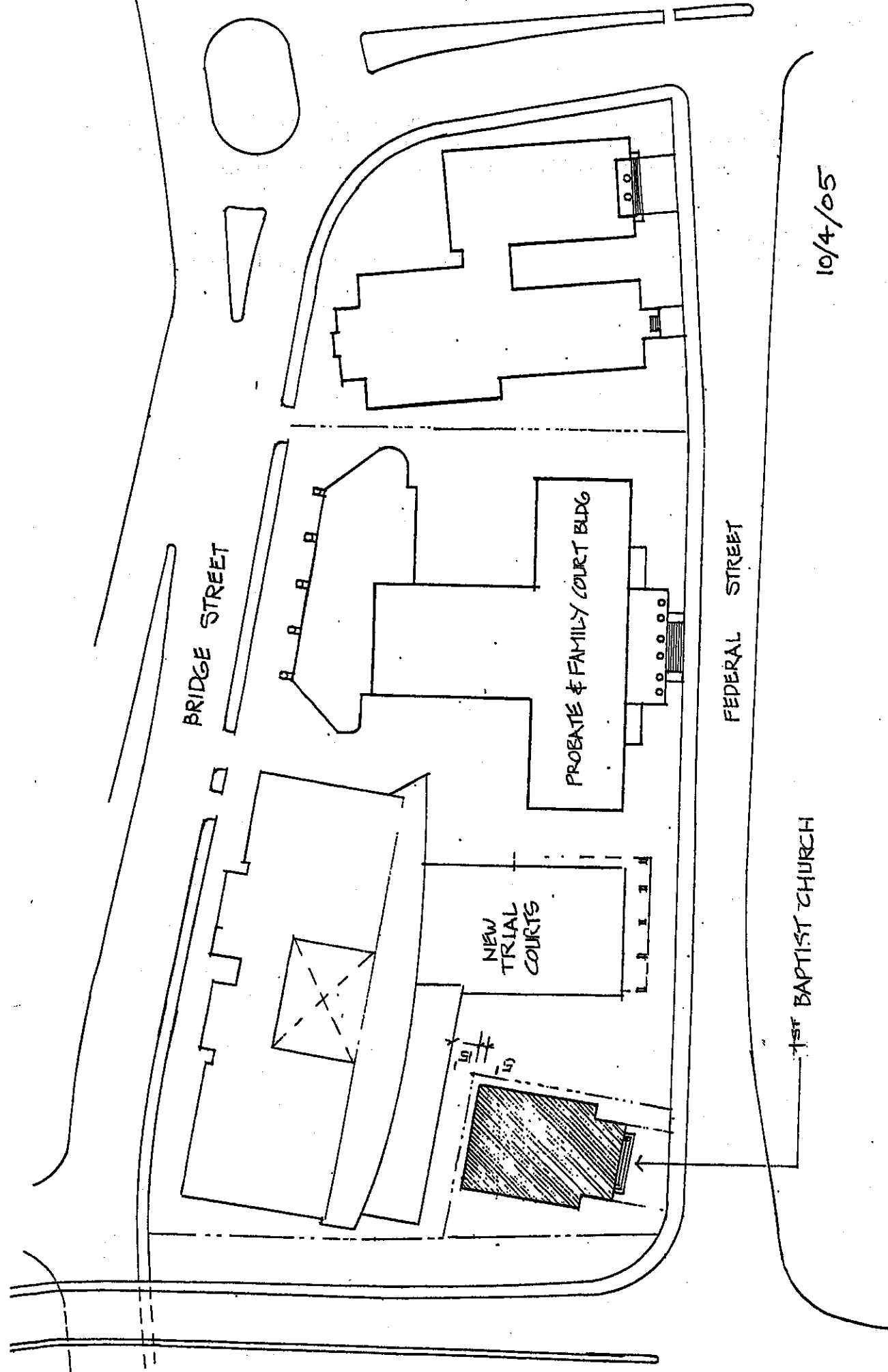
PLAN VIEW

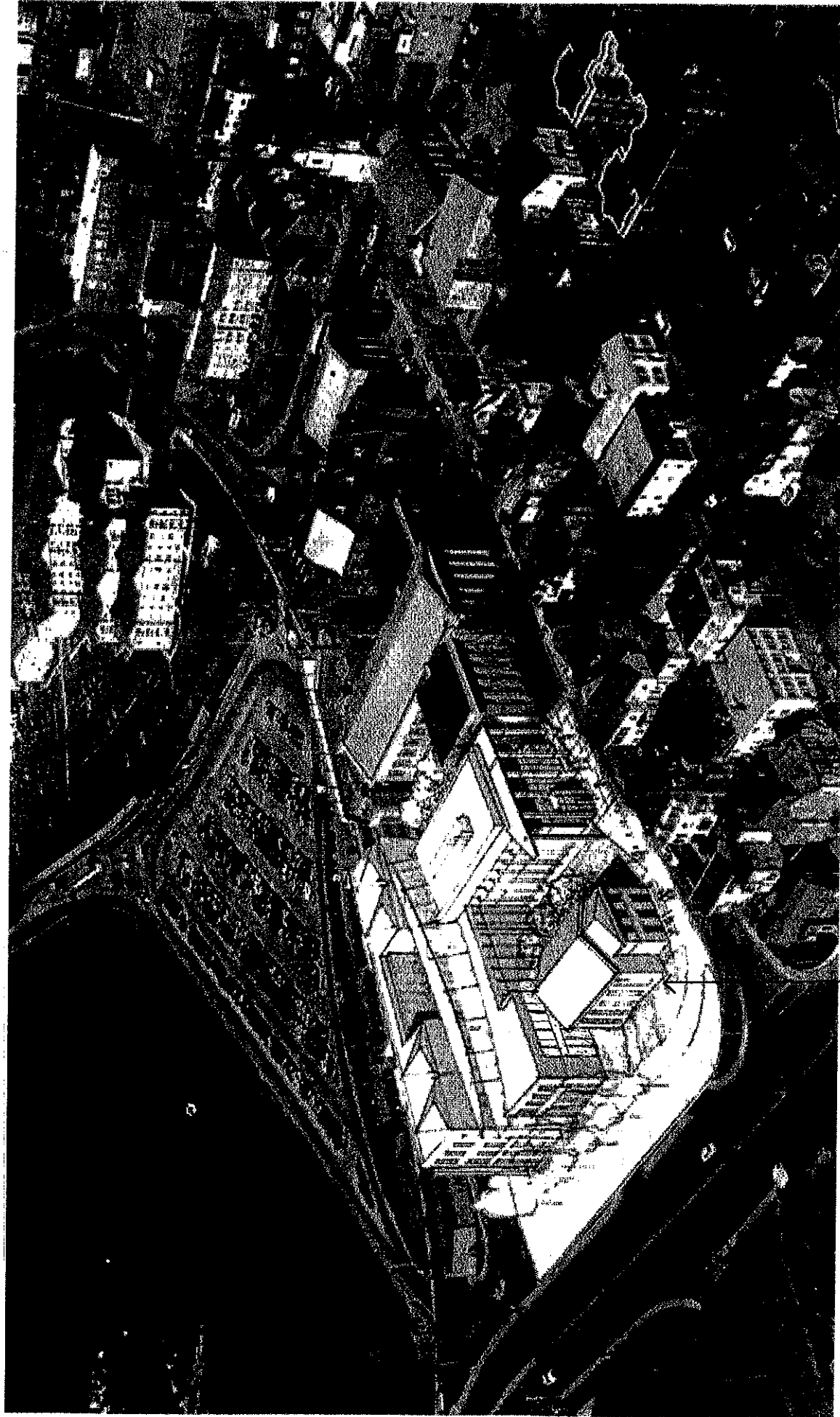
SALEM TRIAL COURT

OPTION 3A

GOODY CLANCY

Figure 16





— FIRST BAPTIST CHURCH

10/4/05

AERIAL VIEW

SALEM TRIAL COURT

OPTION 3A

GOODY CLANCY

Figure 17

## **SALEM SITE EVALUATION STUDY – OPTION 3B**

**Summary:** No slip ramp; Church relocated on-site; continued use as a church; houses relocated off-site. Site area approx. 71,995 SF, building footprint 41,660 SF.  
See figures 18 & 19.

### **Option 3B: Site Description**

This assumes that the First Baptist Church is moved without its addition, to the southwest corner (Federal Street & North Street) and the three existing buildings on Federal Street have been moved to another appropriate site within the City. The Church would have a five-foot side yard on the east and a zero lot line on the north. As a result, the proposed new Trial Courts Building site would be adjacent to the Probate and Family Court Building to the east, front on Federal Street to the south and be bounded by North Street to the west and Bridge Street to the north. This also assumes that the slip ramp will not be needed.

### **Option 3B: Design Analysis**

#### **Zoning**

The proposed Church site would have a 5-foot side yard on the east and a zero lot line to the north. Approval of this must be verified with the City.

#### **Building Code**

1. The Commonwealth of Massachusetts Building Code will require that the exterior wall openings of the Church walls facing the side yard be limited to 25%. To maximize the amount of openings in both the Church and the proposed new Trial Court building, an easement would be required. Under this easement, though the side yard property line is officially 5 feet off the east and north walls of the Church, the property line for determining fire ratings and the percentage of openings in the walls will be 15'-1" off the east and north walls of the Church. This would allow the walls of each building facing each other to have 75% openings on the Church and unlimited openings on the Trial Courts Building.
2. The abutting walls between the new Trial Court Building and the Church will need to be fire rated walls with no openings.

#### **Architectural**

##### **Building Size**

The proposed new Trial Courts Building will have façades with an approximate height of 48 feet along Federal Street and 75 feet along Bridge Street.

##### **Scale**

The resulting building volume and height will be in scale with the adjacent Probate and Family Court Building.

##### **Civic Presence/Access**

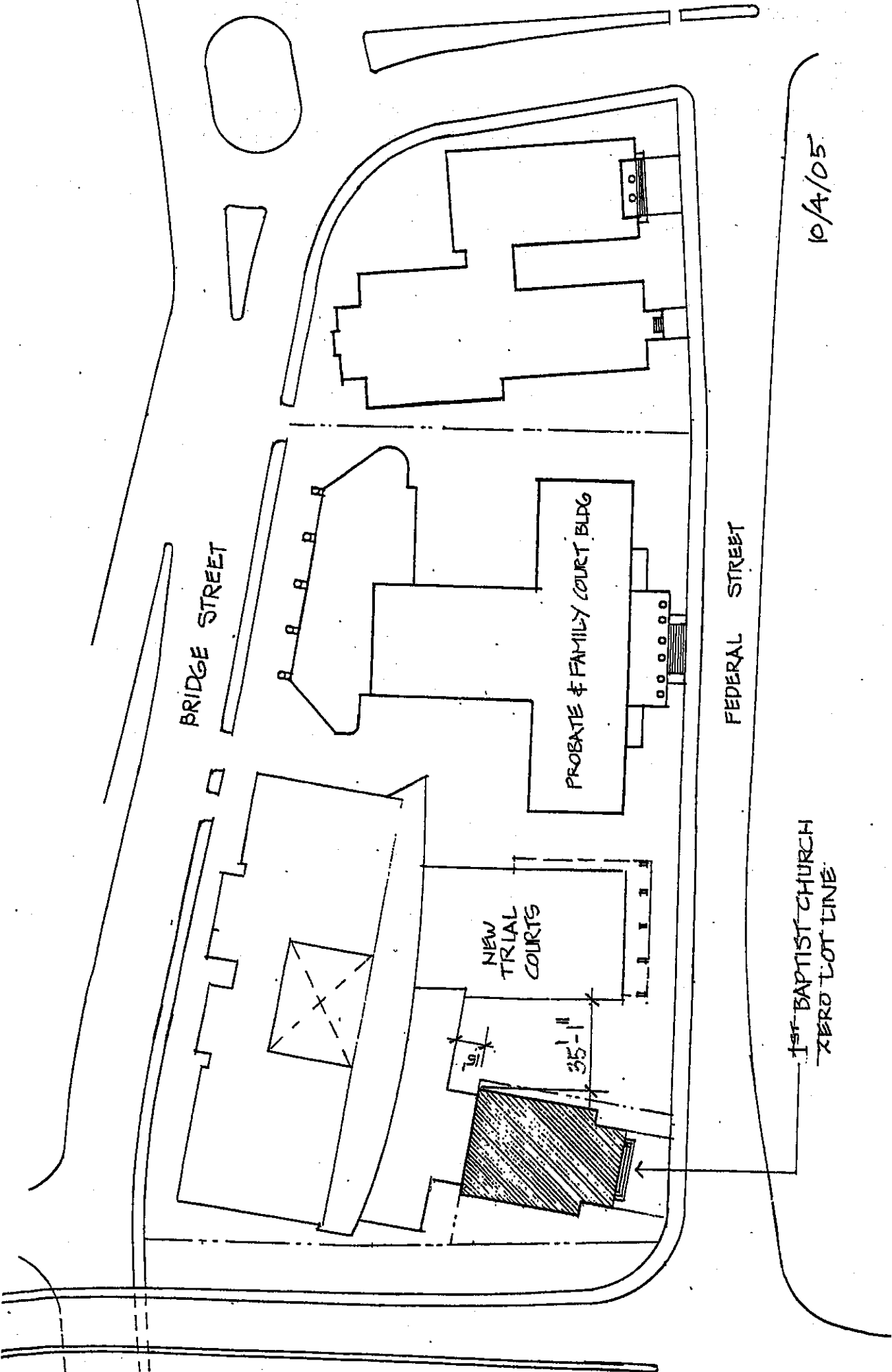
1. The entry façade on Federal Street will provide a civic presence on Federal Street that will be in harmony with the adjacent Probate and Family Court Building.
2. Accessible vehicular drop-off area would be located at a curb cut between the new facility and the PFC. This provides shared access to the PFC ramp and the grade entrance for the new Trial Court Building.



3. A staff /detainee bridge/tunnel with utility connections between the proposed new Trial Court Building and the Probate and Family Court Building would be possible.

**Building Function**

1. This site works well with Scheme B.
2. Additional square footage will be required for the Law Library.



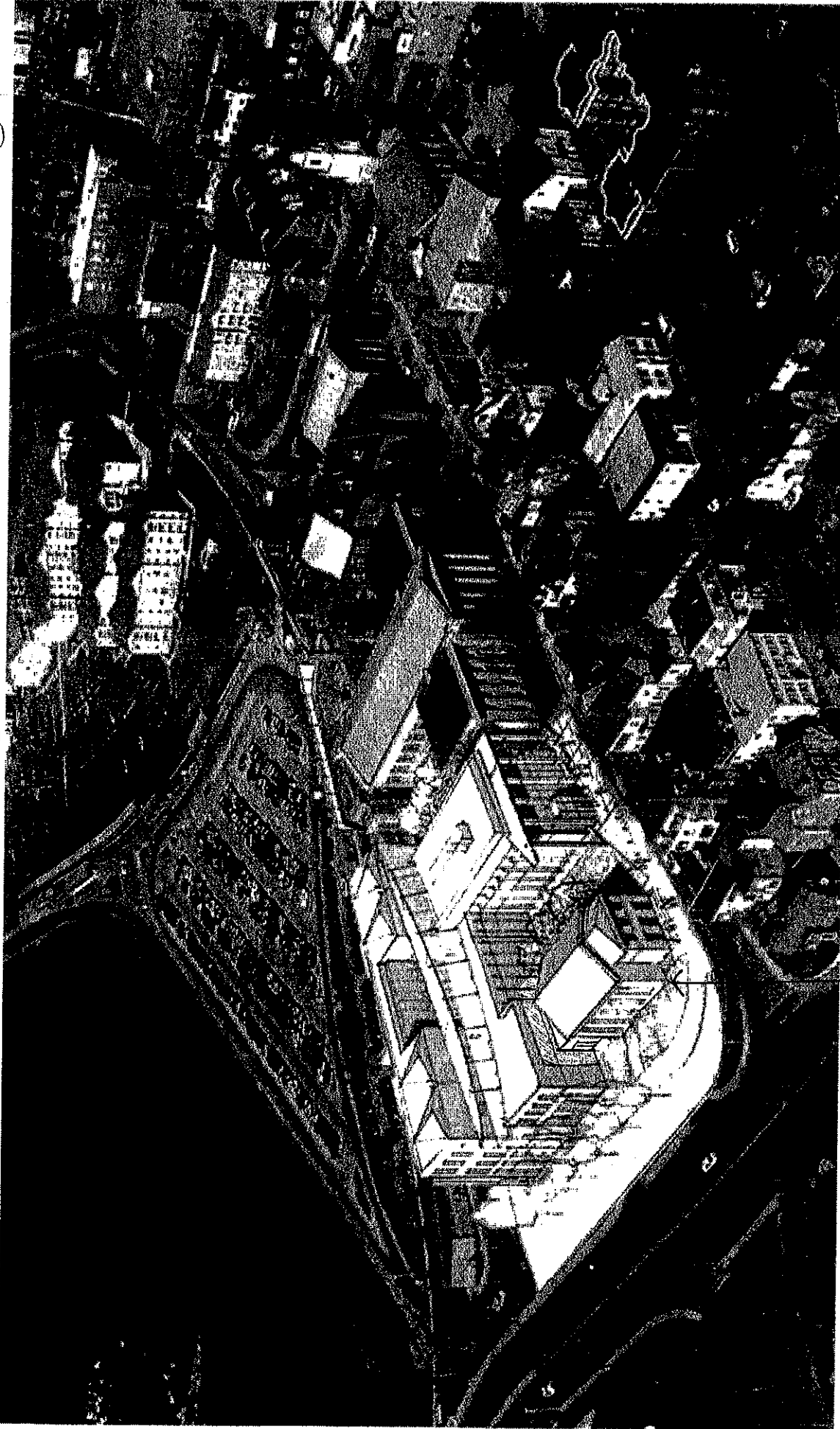
10/4/05

PLAN VIEW

SALEM TRIAL COURT

OPTION 3B

GOODY CLANCY



SALEM TRIAL COURT

10/4/05

AERIAL VIEW

GOODY CLANCY

OPTION 3B

Figure 19

## **SALEM SITE EVALUATION STUDY - PART B**

**Summary:** Church property untouched; houses untouched; Site examined with and without slip ramp. Site area approx. 33,040 SF, building footprint 27,290 SF.  
See figures 20 through 23.

### **Option 1B (Scheme D) Site Description**

This option assumes that the proposed site for the new Trial Court Building would not utilize any of the areas currently occupied by the houses on Federal Street or the First Baptist Church. The site would be a parcel of land bounded by Bridge Street to the north, the First Baptist Church property to the east, the three house properties on Federal Street (#58, #60 & #62) to the south and a slip ramp to the west; under this scenario without a slip ramp the site would be bounded by North Street to the west.

### **Option 1B (Scheme D) Design analysis with the proposed slip ramp**

The three properties at 58, 60 & 68 Federal Street make any realignment of the Federal Street/North Street intersection (to allow for the complete elimination of connecting ramps on the east side of North Street to Bridge Street) impossible. Therefore, without utilizing these properties, the proposed slip ramp down to Bridge Street could not be eliminated. Without the elimination of the slip ramp, the proposed site for the new Trial Court Building would be reduced in size as indicated in figure 24. Figure 26 indicates how the ramp (superimposed over scheme D) would reduce the footprint of scheme D (33,830 GSF) by approximately 24% to 25% yielding a site of approximately 31,000 SF. Option 1B, Scheme D (analyzed below) is considered unacceptable by the Trial Court and the reduction in the footprint area would result in an inefficient high-rise type of court building.

### **Option 1B (Scheme D) Design analysis without the proposed slip ramp**

#### **Building Code**

The Commonwealth of Massachusetts Building Code will require that the south wall facing the rear of the three house properties be limited to 25% maximum area of exterior wall openings. This would present a large blank façade as a backdrop to the three small-scale buildings.

#### **Architectural**

#### **Building size**

The proposed Trial Court Building would be a densely packed structure that rises at least 72 feet above Federal Street and 87 feet above Bridge with two levels below Bridge Street. The non-courtroom portions of the three upper floors would all have "interfloors" or "mezzanines" to accommodate Transaction and other non-court program areas.

#### **Scale**

The resulting volume will loom over both the residential scaled houses on Federal Street and the First Baptist Church.

#### **Civic Presence/Access**

1. The proposed Trial Court Building, situated behind the buildings on Federal Street, would have no presence or recognizable entrance on Federal Street, which is the only acceptable pedestrian entrance. The building would have to be accessed via a narrow strip of land at the

corner of Federal Street and North Street. This entrance would not work for vehicular drop off, impacting handicap access, and would have no relationship to the Probate and Family Court Building.

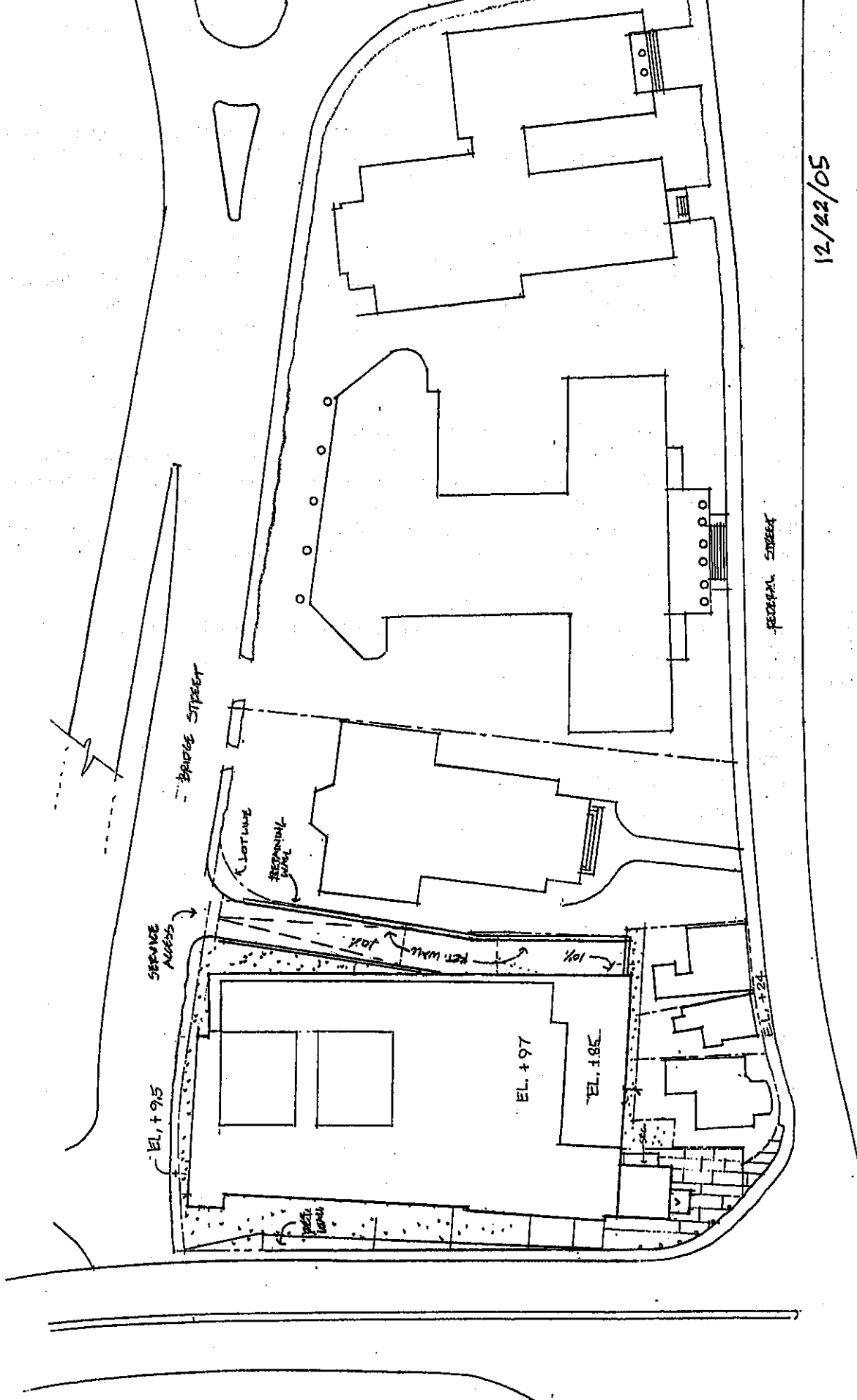
2. The First Baptist Church property in its location between the proposed new facility and the existing PFC would effectively block opportunities for staff or detainee bridge/tunnel or utility connections between the proposed Trial Court Building and the Probate and Family court Building. This will have the effect of reducing efficiencies realized by sharing resources and result in a need for additional square footage in the new facility.

#### Building Function

1. The ramp down into the building on the east side (from Bridge Street), adjacent to the Church and the exterior light well required to bring day light to the first level below Federal Street on the west side, would require significant earth retaining walls (up to two stories high on the east side) with additional cost implications.
2. The restricted footprint of the building on the site forces the various court transaction and probation areas to be spread over two or more floors, contrary to Trial Court adjacency goals and departmental functions.

In summary, Option 1 - Scheme D, results in a site that doesn't work for the new Trial Court Building on many levels, including the following:

- Poor pedestrian access
- No accessible drop-off
- Large scale
- No connections to the PFC
- Poor program related adjacencies
- Potential construction cost impact



12/22/05

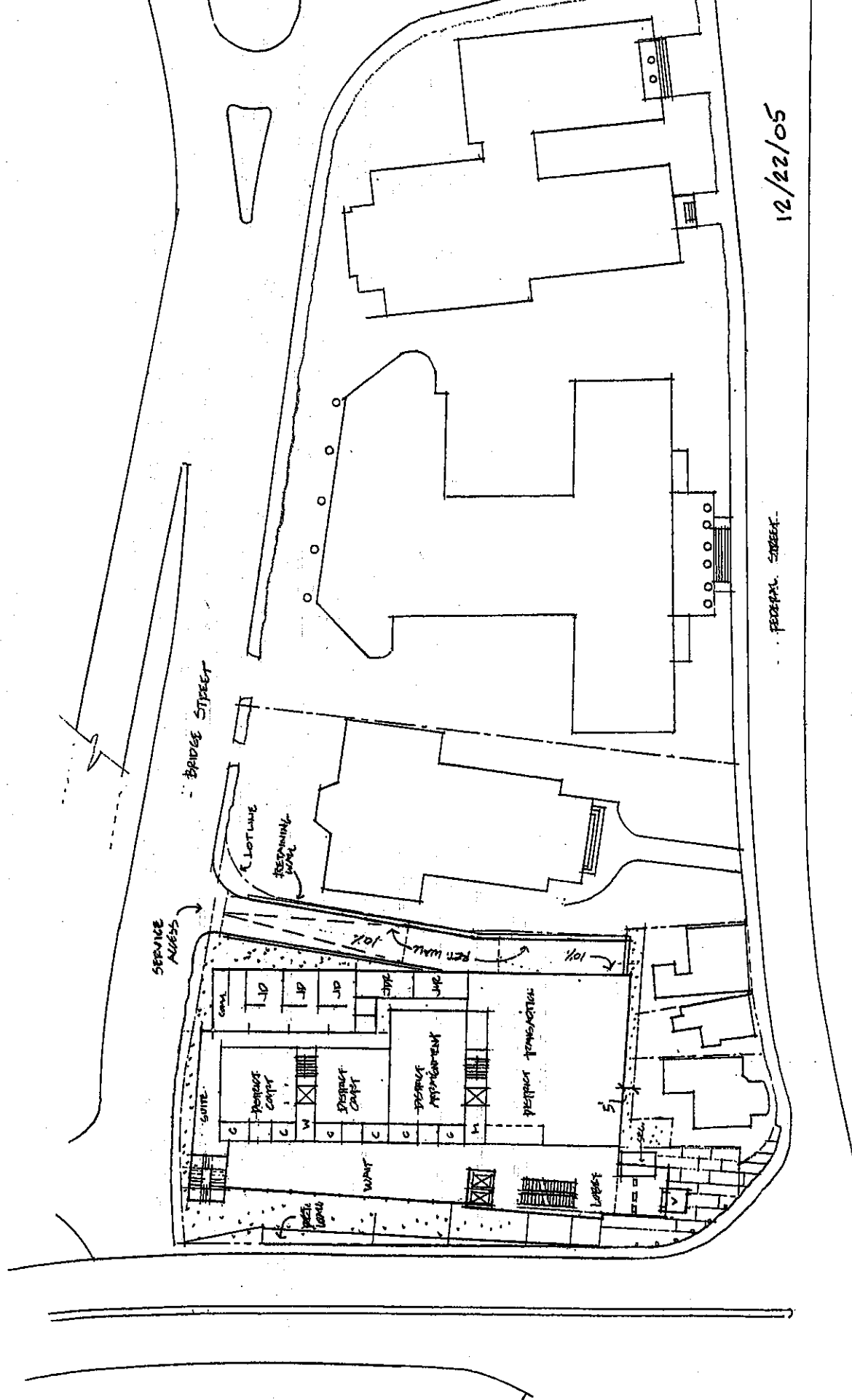
PLAN VIEW - ROOF

GOODY CLANCY

OPTION 1B - Scheme D

SALEM TRIAL COURT

Figure 20



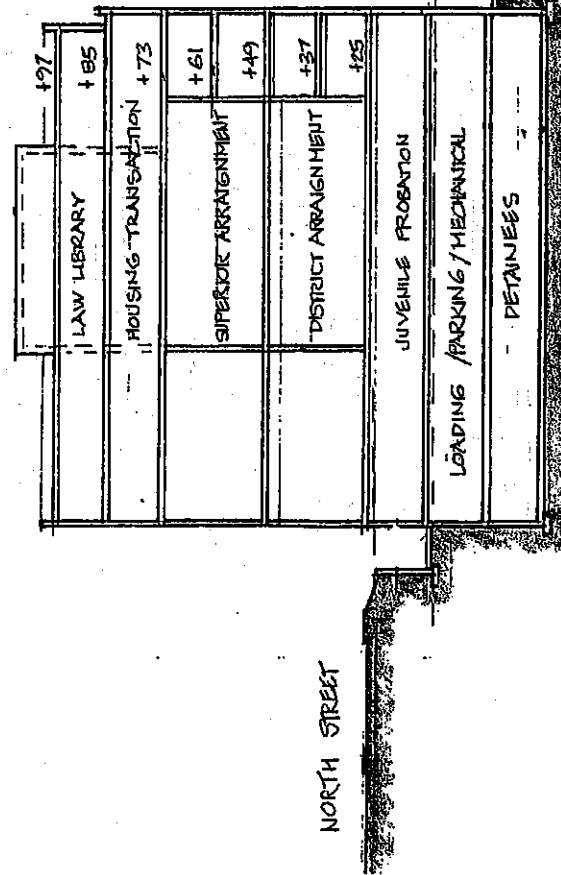
PLAN VIEW - 1<sup>ST</sup> FLOOR / SITE PLAN

SALEM TRIAL COURT

OPTION 1B - Scheme D

GOODY CLANCY

Figure 21



EAST - WEST SITE SECTION

SALEM TRIAL COURT

OPTION 1B - Scheme D

GOODY CLANCY



### OPTION 1B – Scheme D

Figure 23



## **SALEM SITE EVALUATION STUDY - PART C**

This portion of the study developed and compared five schemes suitable for presenting to civic groups in the City of Salem to aid them in understanding the constraints of different site configurations. The five schemes were variations made from the five schemes analyzed in Parts A & B of this study.

The sites for the schemes analyzed and compared were as follows:

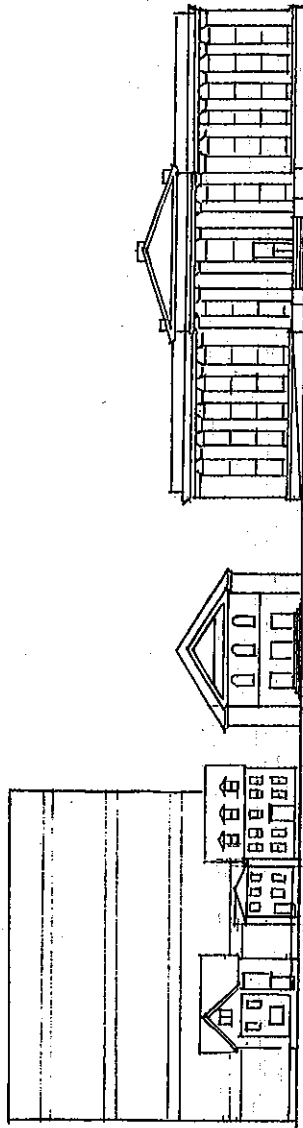
- Scheme 1: Slip ramp in-place; Church property untouched and houses untouched. See figures 24 & 25.
- Scheme 2: Slip ramp in-place; Church moved without addition and houses relocated fronting on the slip ramp. See figures 26 & 27.
- Scheme 3: No slip ramp; Church property untouched and houses relocated off-site. See figures 28 & 29.
- Scheme 4: Slip ramp in-place; Church moved without addition and houses relocated off-site. See figures 30 & 31.
- Scheme 5: No slip ramp; Church moved with new addition constructed and houses relocated off-site. See figures 32 & 33.

Each scheme was analyzed with respect to its impact on civic goals and court goals. See figures 34 & 35.

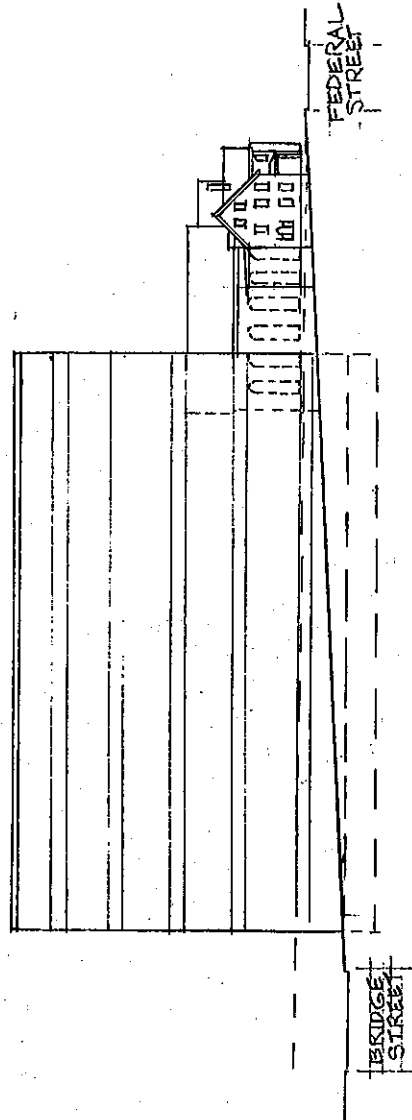
The comparison shows that the larger the site, the larger the building footprint can be and the lower in height the building can be. The comparison also shows that the larger the site the better the building can meet civic goals and court goals.

END





FEDERAL STREET ELEVATION



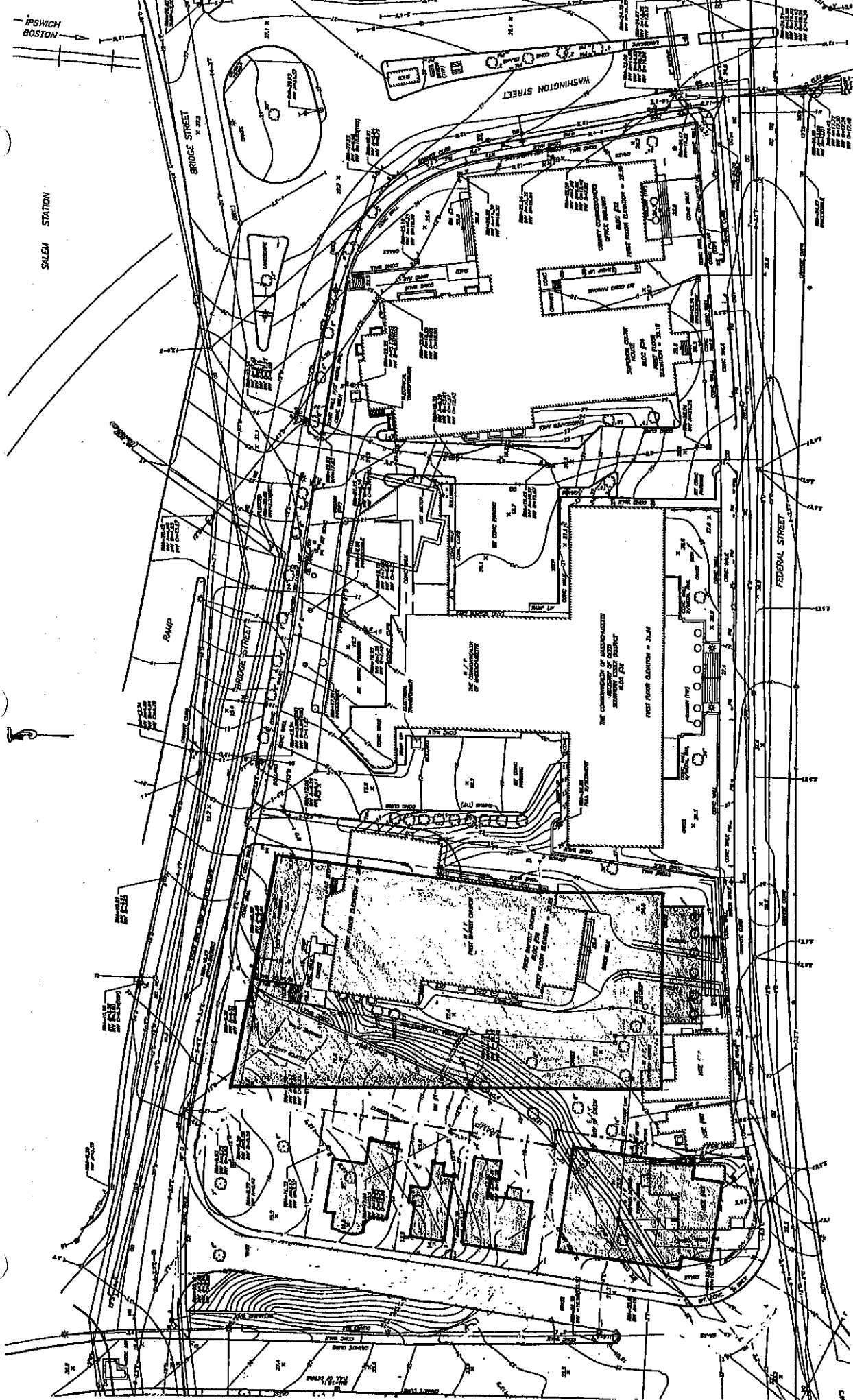
SLIP RAMP ELEVATION

ELEVATIONS

SALEM TRIAL COURT

SCHEME 1

GOODY CLANCY



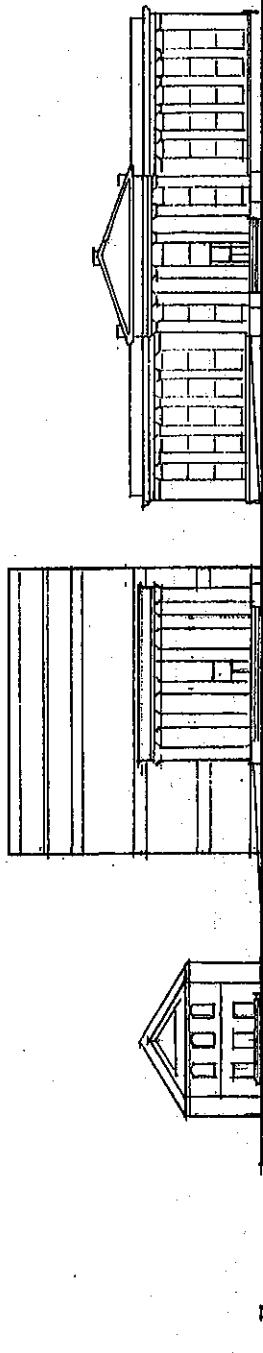
SITE PLAN

SALEM TRIAL COURT

SCHEME 2

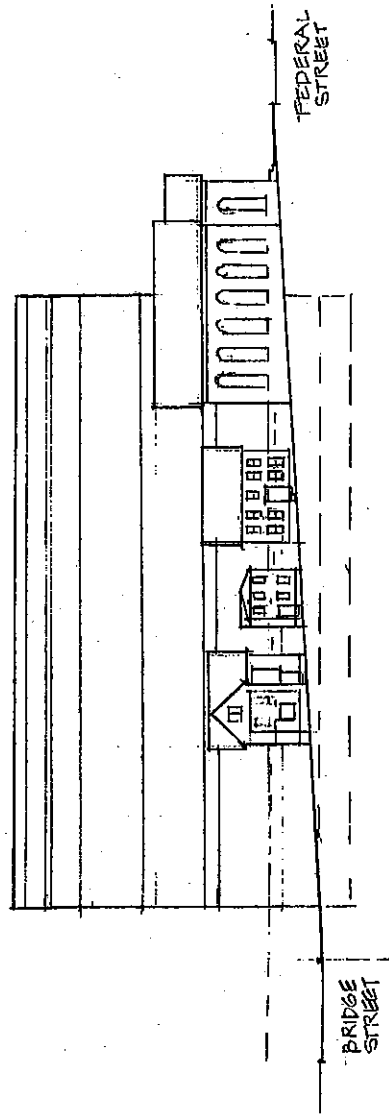
GOODY CLANCY

Figure 26



FEDERAL STREET ELEVATION

NORTH STREET



SLIP RAMP ELEVATION

BRIDGE STREET

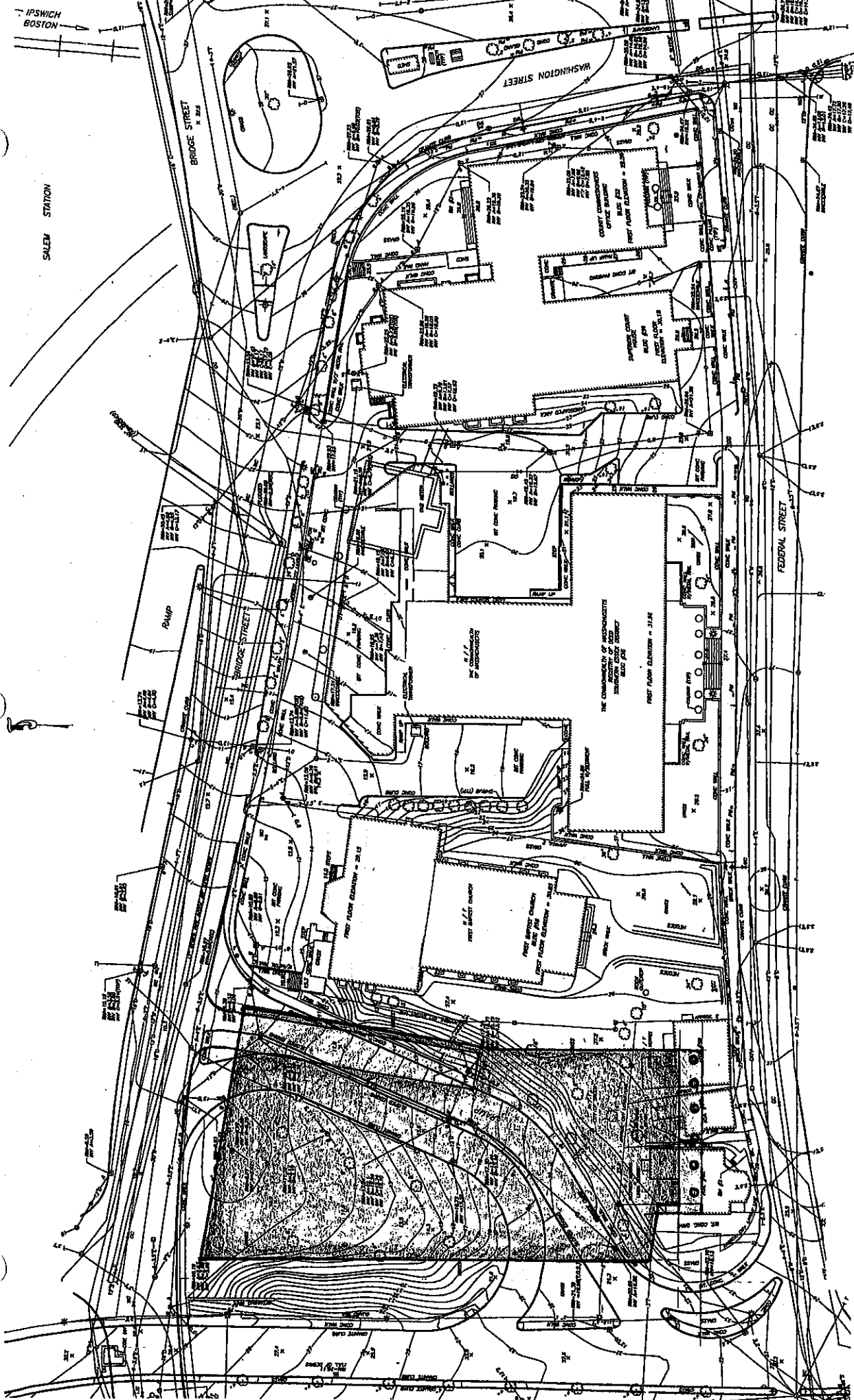
FEDERAL STREET

# ELEVATIONS

SALEM TRIAL COURT

SCHEME 2

GOODY CLANCY



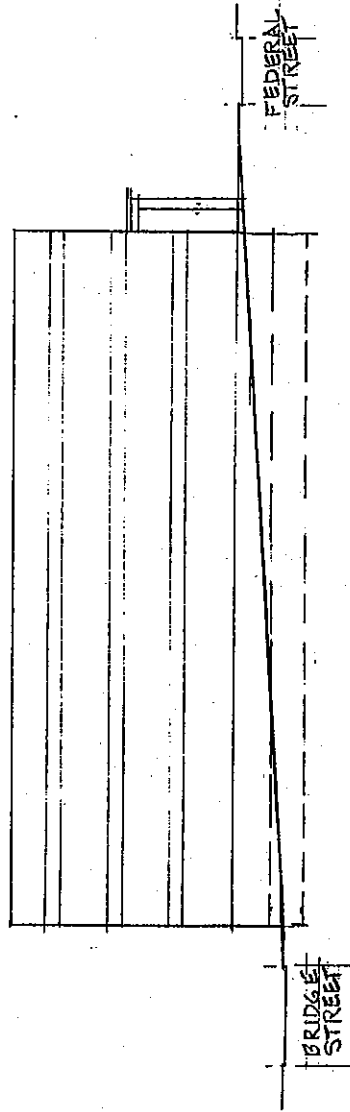
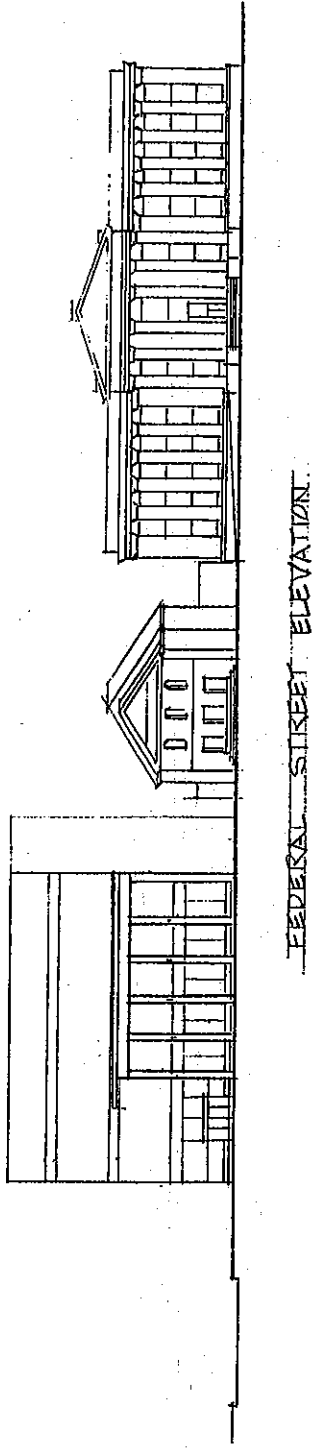
SITE PLAN

SCHEME 3

Figure 28

SALEM TRIAL COURT

GOODY CLANCY



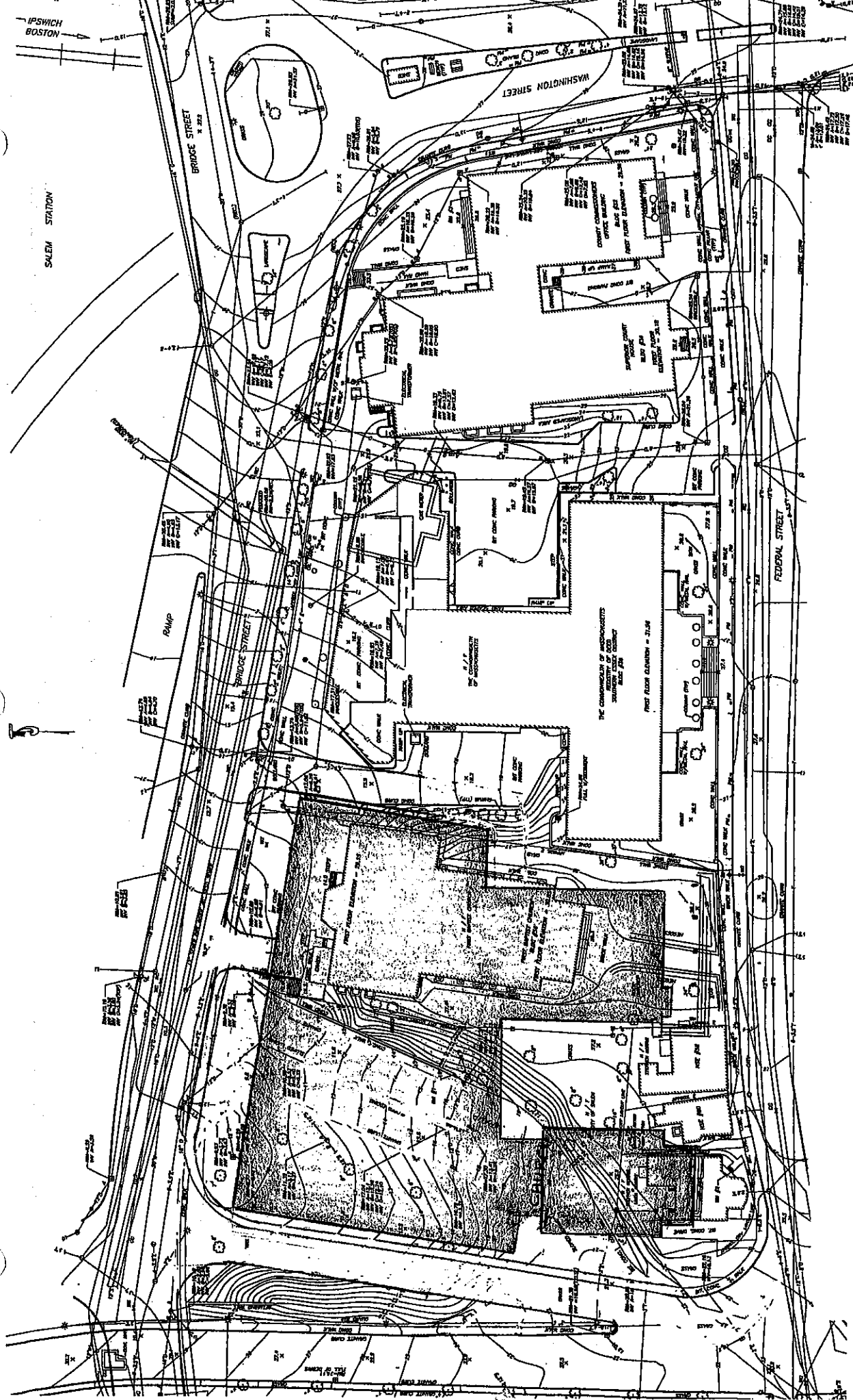
ELEVATIONS

SALEM TRIAL COURT

SCHEME 3

GOODY CLANCY





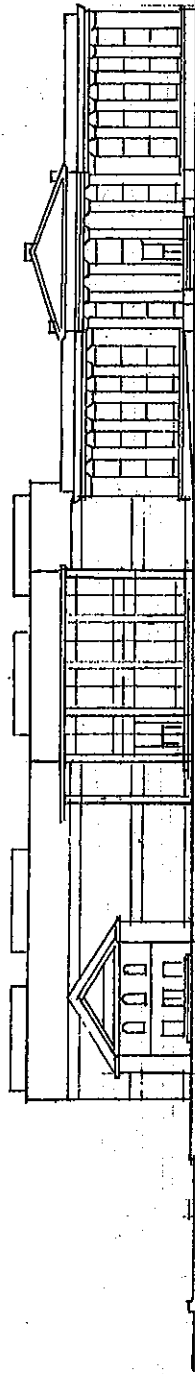
GOODY CLANCY

SITE PLAN

SCHEME 4

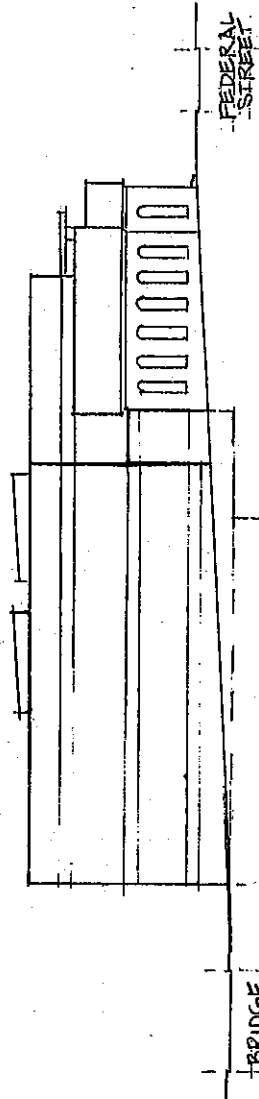
Figure 30

SALEM TRIAL COURT



NORTH  
STREET

FEDERAL STREET ELEVATION



SLIP RAMP ELEVATION

FEDERAL  
STREET

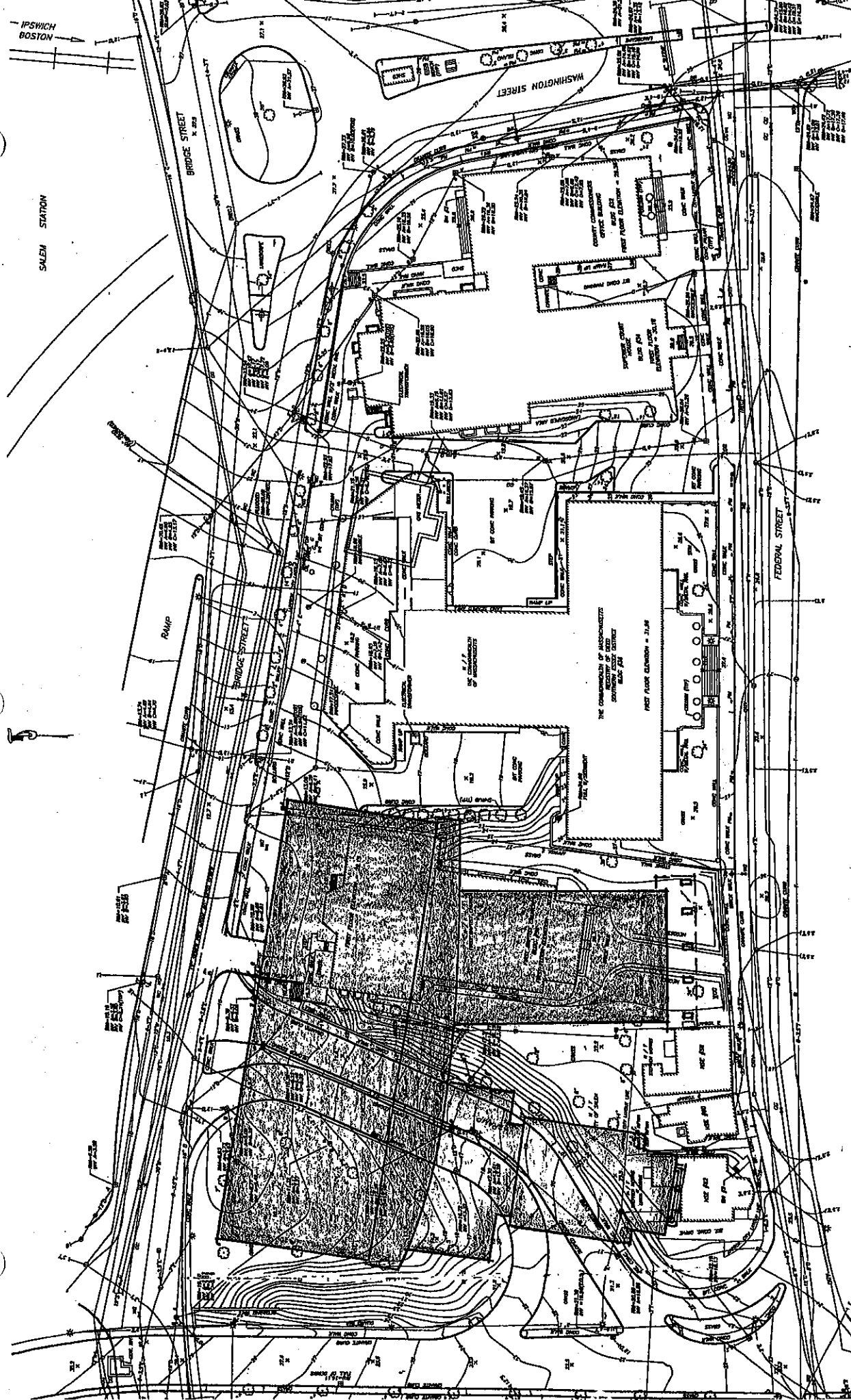
BRIDGE  
STREET

ELEVATIONS

SALEM TRIAL COURT

SCHEME 4

GOODY CLANCY



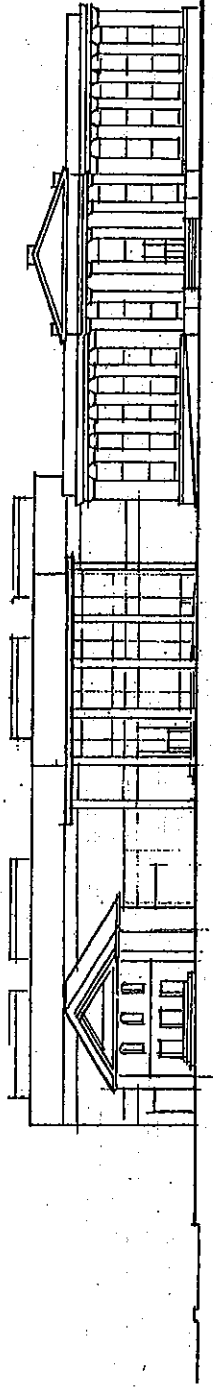
SITE PLAN

SALEM TRIAL COURT

SCHEME 5

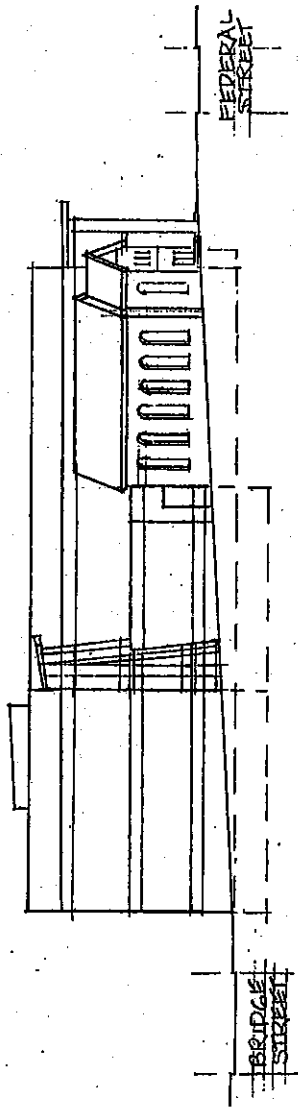
GOODY CLANCY

Figure 32



NORTH STREET

FEDERAL STREET ELEVATION



FEDERAL STREET

NORTH STREET ELEVATION

# ELEVATIONS

SALEM TRIAL COURT

SCHEME 5

GOODY CLANCY

SALEM TRIAL COURT SITE EVALUATION STUDY												
DESCRIPTION	CIVIC GOALS						COURT GOALS					
	Appropriate Scale	Civic Presence on Federal St.	Gateway (North Street)	Traffic Impact	Preservation	Visual Connection Courts to Residential Street Scale	Pedestrian Access	Efficient Floor Plate	Daylight to Major Spaces	Access to Federal Street	Service/ Detainee Access & Circulation	Connection to PFC
1												
Slip Ramp In Place Church Property Unchanged	Negative:  Courthouse looms behind houses Federal St.: 111 ft.	Negative:  No Federal St. frontage	Negative:  No distinct facade	Negative:  Add'l traffic light needed on Bridge St.	Positive/Negative:  Houses and Church remain in orig. loc., setting is compromised w/111' bldg at rear.	Positive/Negative:  Streetscape intact, but setting is compromised w/100' bldg at rear	Negative:  Access to bldg is unclear	Negative:  Difficult layout to achieve daylight to major spaces	Negative:  Difficult layout to achieve daylight to major spaces	Negative:  No frontage on Federal Street, no clear entrance, no pedestrian access, no drop-off	Negative:  Difficult vehicular access to and once inside building; no detainee access to PFC (resulting in duplication of space in both buildings)	Negative:  No connection for staff, detainee access, services or mechanical system, resulting in duplication
Houses Unchanged	Bridge St.: 125 ft.											
2												
Slip Ramp In Place Church Property Moved without Addition	Negative:  Houses would back up to "wall" created by courthouses Federal St.: 99 ft.	Positive:  Court has Federal St. frontage	Negative:  Courthouse behind houses	Negative:  Add'l traffic light needed on Bridge St. no access to relocated houses	Positive/Negative:  Church & Houses relocated; setting of houses compromised	Negative:  New courthouse would dominate Federal St., cut off courts from residences	Positive:  Direct from Federal St.	Negative:  Difficult layout to achieve daylight to major spaces	Positive:  Frontage on Federal Street, clear building entrance	Positive:  Frontage on Federal Street, clear building entrance	Negative:  Difficult vehicular access to and once inside building	Positive:  Connections possible
House Relocated Fronting Slip Ramp	Bridge St.: 116 ft.											
3												
No Slip Ramp Church Property Unchanged	Negative:  Federal St.: 87 ft.	Positive:  Court has Federal St. frontage	Positive:  Strong Gateway presence	Positive/Negative:  Traffic light needed on North but not Bridge St.	Positive/Negative:  Church remains, houses relocated off site.	Negative:  Disconnect with church separating court bldgs	Positive:  Direct from Federal St.	Negative:  Difficult layout to achieve daylight to major spaces	Positive:  Frontage on Federal Street, clear building entrance	Positive:  Frontage on Federal Street, clear building entrance	Negative:  Difficult vehicular access to and once inside building	Negative:  No connection for staff, detainee access, services or mechanical system, resulting in duplication
Houses Removed	Bridge St.: 104 ft.											
4												
Slip Ramp In Place Church Property Moved without Addition	Positive:  Federal St.: 63 ft.	Positive:  Court has Federal St. frontage	Positive/Negative:  Strong Gateway presence, but set back behind slip ramp.	Negative:  Add'l traffic light needed on Bridge St.	Positive/Negative:  Church relocated, houses relocated off site	Positive:  Streetscape connection, appropriate scale	Positive:  Direct from Federal St.	Negative:  Allows for light on perimeter but large central area creates barrier to natural lighting	Positive/Negative:  Allows for light on perimeter but large central area creates barrier to natural lighting	Positive:  Frontage on Federal Street, shared entry plaza with PFC (facilitating universal access)	Positive:  Service/ Detainee Access & Circulation Possible	Positive:  Connections possible
Houses Removed	Bridge St.: 80 ft.											
5												
No Slip Ramp Church Property Moved with New Addition	Positive:  Federal St.: 63 ft	Positive:  Court has Federal St. frontage	Positive:  Strong Gateway presence	Positive/Negative:  Traffic light needed on North, but not Bridge St.	Positive/Negative:  Church relocated, houses relocated off site.	Positive:  Streetscape connection, appropriate scale	Positive:  Direct from Federal St.	Positive:  Efficient courtroom layout (courtroom floor to non-court floor)	Positive:  Provides daylight to all major spaces including courtrooms and transaction areas	Positive:  Frontage on Federal Street, shared entry plaza with PFC (facilitating universal access)	Positive:  Service/ Detainee Access & Circulation Possible	Positive:  Connections possible
Houses Removed	Bridge St.: 80 ft.											

SALEM TRIAL COURT SITE EVALUATION STUDY					
SIZE COMPARISONS					
		Site Area	Building Footprint	Federal Street Height	Bridge Street Height
	Slip Ramp In Place				
	Church Property Untouched	Approx. 33,040 SF	27,290 SF	111 ft	125 ft
	Houses Untouched				
	Slip Ramp In Place				
	Church Property Moved without Addition	Approx. 49,230 SF	27,050 SF	99 ft	116 ft
	House Relocated Fronting Slip Ramp				
	No Slip Ramp				
	Church Property Untouched	Approx. 53,660 SF	32,040 SF	87 ft	104 ft
	Houses Removed				
	Slip Ramp In Place				
	Church Property Moved without Addition	Approx. 70,200 SF	43,920 SF	63 ft	80 ft
	Houses Removed				
	No Slip Ramp				
	Church Property Moved with New Addition	Approx. 89,410 SF	48,480 SF	63 ft	80 ft
	Houses Removed				

figure 35

## A1.2 Salem Trial Courts Mechanical and Electrical Systems Analysis

**SEi Companies**

**[Including renovation of Probate and Family Court Building]**

**January 31, 2006**

## HVAC Drawings

**SEi Companies**

**April 12, 2006**





# **SALEM TRIAL COURTS MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

## **1. Introduction**

- A. The purpose of this mechanical and electrical systems evaluation is to determine the best approach to new engineering systems for the Salem Courts proposed renovation and new construction project. At the request of DCAM we have looked at ways to decouple the Superior Court and County Commissioners Building from the rest of the project. We have also evaluated alternatives of stand alone building operation for the P&FC building and new the construction verses operation from a central utility plant.
- B. Under a separate memorandum dated October 19, 2005, SEi advised of the difficulties of decoupling the Superior Court and County Commissioners Building before it is vacated or sold off. The recommendation is that those buildings remain on the existing steam plant until the buildings are vacated or sold. If that timing becomes problematic, then it is recommended that a temporary exterior steam boiler be provided on the site near those building to heat those buildings as they are cut off form the existing plant. The renovation of those buildings will require an entirely new heating system at that time. These buildings are served by their own combined power transformer, so electrical separation already exists.
- C. Refer to the discussion of the heating plant below for further understanding of the decoupling methodology.

## **2. Approach to the Mechanical and Electrical System Evaluation**

- A. Under a separate report dated October 17, 2005, SEi evaluated the Mechanical and Electrical conditions of the existing court facilities in Salem. In summary there are no systems or equipment suitable for reuse in the proposed renovation or new construction.
- B. As we began to investigate options for the new project, we did take into consideration:
  - Reuse of existing mechanical space
  - Phasing considerations of the project
  - What if only the Probate and Family Court (P&FC) was renovated
  - Access to equipment and maintenance
  - Construction cost and operating efficiencies
- C. We considered stand alone mechanical and electrical systems for the New Trial Court and the P&FC buildings as well and combined systems in the form of a central plant.

## **3. Heating Plant**

- A. As we studied heating plant alternatives we considered:
  - Phasing out of the existing plant and phase in of new
  - Retaining heat to the Superior Court (SC) and County Commissioners Building (CCB)

**SALEM TRIAL COURTS  
MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

- Fuel supply, source and location
- Flue exhausts stacks and emission points
- Equipment redundancy and efficiency
- Load balance

B. The preliminary planning loads for heating break down as follows:

Probate and Family Court with Addition.....	100 BHP
Superior Court and County Commissioners Building .....	100 BHP
New Construction .....	200 BHP
Existing Steam Plant, 3 boilers @ 110 HP each .....	330 BHP

- C. Our recommendation is to provide new gas fired hot water boilers at the existing boiler plant location for the new project. The anticipated boiler sizes, even with a redundant boiler are not especially physically large. If the design approach were to split the boiler plant into two locations, we would hope to realize either a significant first cost saving or energy saving. This is not the case for this project. Given the site constraints, the need for two flue stacks, two fuel source connections and redundancy at two locations; two stand alone plants will be more costly, both in first and operational cost.
- D. More importantly there is a significant advantage to locate the new boilers in the existing boiler room. This room can be used, and phased, for a renovation of the P&FC/Addition only, or it can accommodate the new 190,000SF building as well. This location can also accommodate the interim steam heating requirement for the Superior Court and County and Commissioners Buildings.
- E. Initially the two existing westerly boilers would be removed, yet retaining the existing east steam boiler for use by the SC and CCB buildings. If only the renovation of the P&FC/Addition moves forward, new hot water boilers would be installed for that load. If the complete project moves forward, then two new larger hot water boilers would be installed to carry the full load. Then two sub-options are available, (1) retain the third existing steam boiler until the SC & CCB buildings are sold off knowing that for the short term there is no boiler redundancy on a peak design day or (2) provide a temporary steam boiler to feed the SC & CCB Buildings and install a new third redundant hot water boiler in the existing boiler room.
- F. The condition of the existing stack needs to be inspected as to their suitability for long term reuse and capacity. Should the stack need replacement, its present location makes this an easy task.
- G. The advantages of a central boiler plant scheme include:
- Reuse of existing space without building new square footage
  - Reuse of the existing stack or its space allocation
  - Single fuel source and routing
  - Accommodates both renovation and new contractions options

**SALEM TRIAL COURTS  
MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

- Allows for timely phase out of the SC & CCB steam supply
- Lower first cost
- Energy efficient hot water plant and reduced long term maintenance and operational costs

4. Cooling Plant

A. In reviewing cooling plant alternatives, we considered various options and distribution. Given the renovation nature of existing P&FC building and the size of the new addition we recommend that central chilled water be used as the cooling and distribution medium.

B. As we studied chilled water plant alternatives we considered:

- Physical size, fit, access and maintenance
- Locations of cooling towers, condenser water routing and water treatment
- Noise and vibration
- Proximity to the primary electrical service

C. The preliminary planning loads for chilled water are as follows:

Probate and Family Court with Addition.....	250 tons
New Construction .....	550 tons

D. As with the physical sizes of the boilers, chillers in this size range and not overly large. Further, a chiller of 250 tons vs. 125 tons is only incrementally larger. Accordingly, when considering individual stand alone plants vs. a combined plant in this size range, dual plants will require more space.

E. Our analysis began with a review of an individual plant for the P&FC/Addition. A good location was found on the lower level of the P&FC building. Cooling towers were proposed on the roof of the 1970's addition. This location provides for ground level access for maintenance and this area has a high floor to floor height to accommodate piping.

F. As we investigated a separate plant for the new building we had to duplicate all services yet with no apparent advantage. The location of the P&FC can accommodate the larger equipment for a combined plant with the significant advantage of requiring only one cooling tower location.

G. Our recommendation is to provide a single combined chilled water plant to serve the project. The advantages of this scheme with the location in the P&FC building include:

- Accommodates both the renovation only and/or new construction options
- Provides for a single point of maintenance and service
- Allows ground level access for heavy maintenance and/or equipment removal
- Single cooling tower location and water treatment

**SALEM TRIAL COURTS  
MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

- Close proximity to primary electrical service
- Uses otherwise un-programmed existing space in the P&FC and eliminates new space requirements in the new construction
- Efficient plant with improved redundancy
- Lower first cost
- Lower long term maintenance and operational cost

5. Primary Electrical Service

- A. As we studied the electrical service and distribution alternatives, we considered:
- Phasing considerations of the project
  - System maintainability and reliability
  - New occupancy and load requirements
  - Emergency power and life safety requirements
- B. The existing electrical service for the Superior Court and County Commissioner's Building will remain as is and be reused.
- C. Due to the size, functionality, and phasing considerations, separate electrical services will be provided for the both the existing Probate and Family Court Building and the new construction respectively.
- D. The existing P&FC Building is expected to house the mechanical boiler and cooling plants to provide heating and cooling for both the P&FC and the new construction.
- E. The preliminary electrical load breakdown for the existing P&FC Building and 70's addition is derived as follows:

<b><u>LOAD</u></b>	<b><u>kW</u></b>
Receptacles (2 w/sq.ft.)	140
Lighting (2w/sq.ft.)	140
Mechanical (Heating): 120kW	
Mechanical (Cooling): governs	1000
P&FC (250 tons)	
New Addition (550 tons)	
Mechanical (Air Handling)	100
Elevator (45 hp)	35
Miscellaneous (1w/sq.ft.)	70
<hr/> SUB-TOTAL	1485 kW
0.85 pF	1745 kVA
15% Growth	250 Kva
<hr/> <b>TOTAL</b>	<b>1995 kVA</b>

**SALEM TRIAL COURTS  
MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

F. A new 2000 kVA exterior pad-mounted utility transformer is proposed to serve the existing P&FC Building. The transformer will feed a new 480/277 volt, 4000 amp, 3-Phase, 4-Wire switchboard with a 3000 amp MCB. Distribution throughout the facility will be at 480/277 volt to serve mechanical, elevator, and other major equipment loads, as well as general lighting. The distribution will be further transformed down to 208/120 volts to serve general receptacle loads, incandescent lighting and other loads as dictated by design.

G. The preliminary electrical load breakdown for the new construction is derived as follows:

<b>LOAD</b>	<b>kW</b>
Receptacles (2 w/sq.ft.)	380
Lighting (2w/sq.ft.)	380
Mechanical (2w/sq.ft.)	380
Elevator (75 hp)	55
Miscellaneous (1w/sq.ft.)	190
<b>SUB-TOTAL</b>	<b>1385 kW</b>
0.85 pF	1630 kVA
15% Growth	250 Kva
<b>TOTAL</b>	<b>1880 kVA</b>

H. Similar to the existing P&FC Building, a new 2000 kVA exterior pad-mounted utility transformer will be provided to serve the new construction. The transformer will feed a new 480/277 volt, 4000 amp, 3-Phase, 4-Wire switchboard with a 3000 amp MCB. Distribution throughout the facility will be at 480/277 volt to serve mechanical, elevator, and other major equipment loads, as well as general lighting. The distribution will be further transformed down to 208/120 volts to serve general receptacle loads, incandescent lighting and other loads as dictated by design.

I. A new emergency generator will be provided to serve the loads within the existing P&FC Building as well as the new construction. The generator will be sized to accommodate the emergency egress lighting, fire alarm system, and other related life safety systems, telecommunications systems, security system and other essential systems as dictated by design. The generator would be located on the roof of the P&FC Building.

5. Existing Buildings, HVAC Distribution

A. As we reviewed various concepts for the HVAC distribution schemes in the P&FC and addition, the physical constraints of the existing building were primary in system selection. Such considerations include:

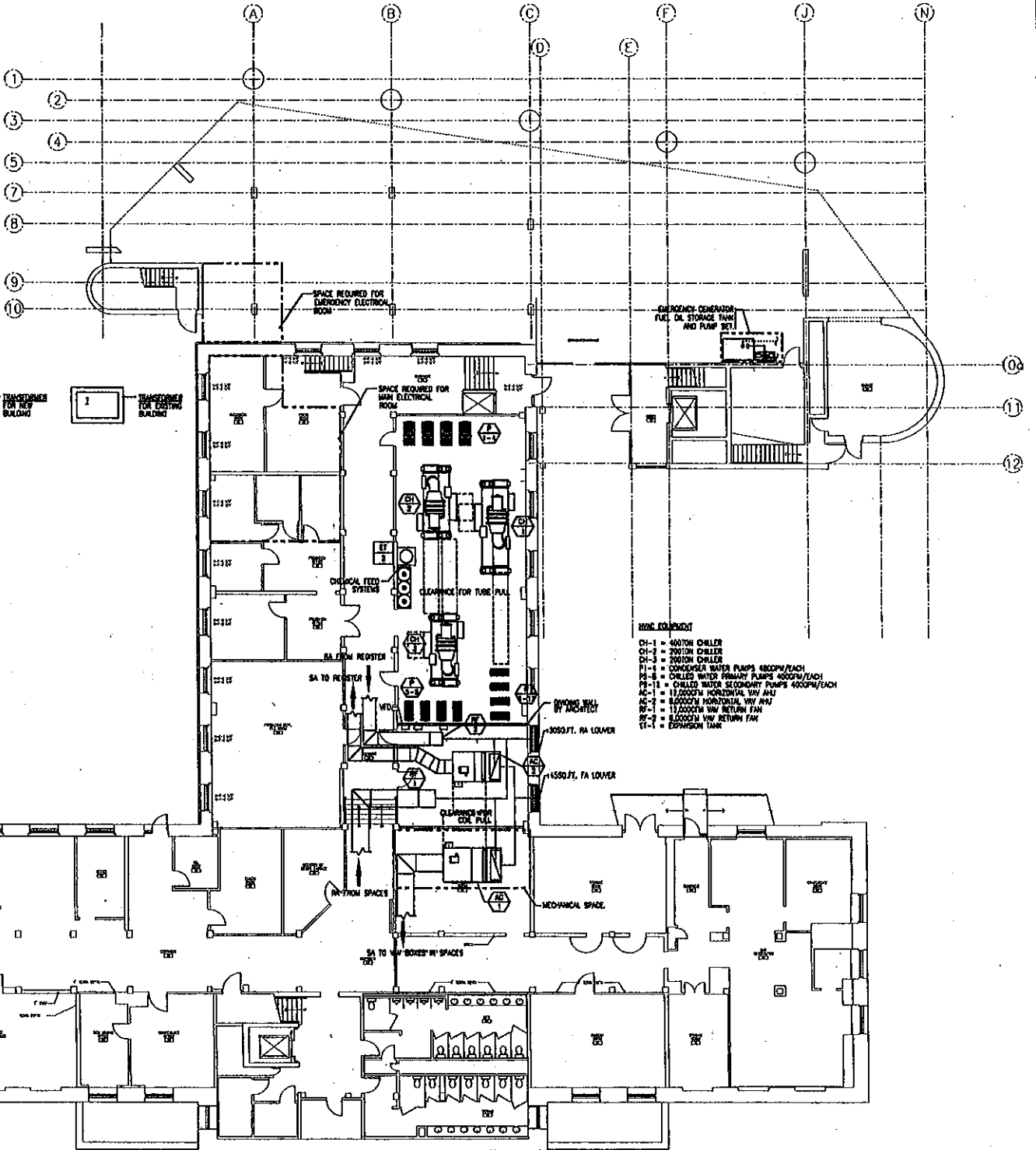
- Low floor to floor height on the lower level south end
- High floor to floor heights on level one and level two
- Limited structural capacity of the large attic area
- Historic preservation of the roofscape

**SALEM TRIAL COURTS  
MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

- Desire to retain much of the architectural detail and high spaces in the P&FC building
  - Reuse of existing vertical chases to the greatest extent possible to limit architectural disturbance
  - Low floor to floor height in the 1970's addition building
- B. Another major factor in the system selection is the varied usage and varying people densities in the different spaces. This characteristic requires proper ventilation to each space type (i.e., courtroom, vs. office vs. conference room) and the ability to control that ventilation in occupied/unoccupied modes for energy efficiency.
- C. Our recommendation brings us to a dual air approach to maximize energy efficiency and to minimize building duct distribution, yet providing superior air quality and temperature control characteristics.
- D. The first air system is a Dedicated Outdoor Air System (DOAS) which will provide the outdoor air ventilation requirement to each of the building spaces. A single 100% OA unit, located in the attic of the P&FC will directly provide OA to each courtroom or building zone for both the P&FC and addition. (See concept air diagram). This unit, complete with enthalpy heat recovery, will be variable volume in control with individual zone air box on/off control according to occupancy. This control assures the exact OA to each space as required yet can be shut off when the zone is not in use to maximize energy savings.
- E. The second air system is comprised of multiple small VAV air handlers providing the individual room air temperature control. The units are small in nature, 6,000 to 12,000 CFM so to limit duct sizes and fit more easily into the existing building. Used in concert with the DOAS system, these VAV air handlers are then fully recirculating units such that heating coils are not necessary in the units eliminating coil HW piping. The units will, however have airside economizer controls (the use of all outdoor air for cooling) to maximize energy efficiency in the intermediate cooling seasons.
- F. The addition building will also be served by the DOAS system located in the P&FC attic with its building's VAV air handlers located on the roof of the addition similar to that which presently exists. Due to the very low floor-to-floor heights in the addition, duct routing and chase locations will image that which presently exists.
- G. When final plan layouts and space usage is defined and envelope characteristics are determined, we will determine if and where baseboard radiation will be needed.
6. New Construction, HVAC Distribution
- A. System considerations for the new construction HVAC system and distribution include:
- Both low and high floor to floor heights
  - Air quality and proper ventilation rates for varying occupancies

## **SALEM TRIAL COURTS MECHANICAL AND ELECTRICAL SYSTEMS ANALYSIS**

- Use of mezzanine levels
  - Clean roofscape
  - Maintainable equipment configurations and locations
- B. Due to the architectural configuration of the proposed new building construction (Goody Clancy's Scheme B), the HVAC air distribution pattern lends itself to four broad air handling zones: two vertical distribution zones along the Bridge Street building axis, one zone for the south wing toward Federal Street and one zone for the church reuse.
- C. For the axis along Bridge Street, the air handling units would be located on the second level mezzanine with distribution running vertical and horizontal from this location. For the south wing toward Federal Street, the air handling units would be located on the first level mezzanine in that wing with distribution running vertical and horizontal from this location. For the church renovation into the law library, it is proposed that those units would be located in the new basement of that building.
- D. Similar to the P&FC building we recommend a dual air approach to maximize energy efficiency, minimize building duct distribution, and provide superior air quality and temperature control characteristics.
- E. Three Dedicated Outdoor Air Systems (DOAS), one for each new construction building zone would provide the outdoor air ventilation requirement to each of the building spaces. These units will be in the 12,000 to 16,000 CFM range. (See concept air diagram) Each unit would be complete with enthalpy heat recovery, hot water heating coils, cooling coils, filters, dampers and variable volume control. Each major temperature control zone would have an individual zone air box for on/off control according to occupancy. This control assures the exact required amount of outdoor air is provided to each space yet can be shut off when the zone is not in use to maximize energy savings.
- F. The second air system is comprised of multiple VAV air handlers providing the individual room air temperature control. These units will be in the 20,000 to 25,000 CFM range so to limit duct sizes and fit more easily into the mezzanine mechanical areas. The Church renovation building would be served by a single VAV air handling system complete with its full outdoor air component. As the building is generally one zone, there is no need to provide two systems for this building. This unit will be in the 12,000 CFM range. When final plan layouts and space usage is defined and envelope characteristics are determined, we will determine if and where baseboard radiation will be needed.



**Salem Probate & Family Court Building**  
**DCAM TRC9910ST2**  
*Salem, MA*  
**NEW HVAC**  
**LOWER LEVEL PLAN**

**Goody Clancy**  
 ARCHITECTURE  
 PLANNING  
 PRESERVATION  
 334 Bayview Street  
 Boston, MA 02116  
 617 242-2740 fax 617 242-9512  
 info@goodyclancy.com  
 www.goodyclancy.com

Stamp:

Consultant:

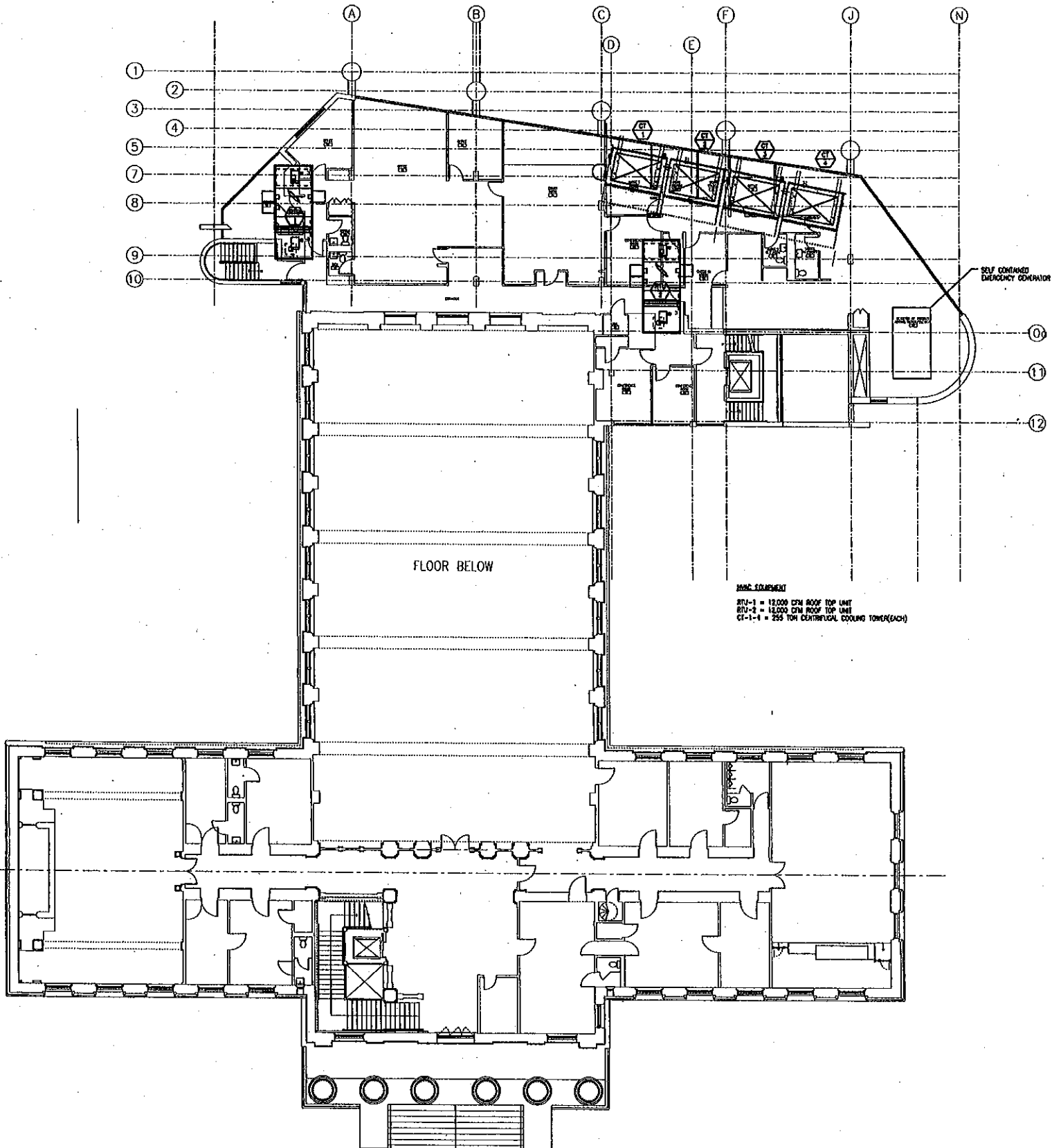
**SEi**  
 COMPANIES  
 88 Bank Street, Suite 200  
 Boston, MA 02110  
 617 552-1100  
 www.seiconsulting.com

EXISTING CONDITIONS

Revised	

M-2





Salem Probate & Family Court Building  
 DCAM TRC9910ST2  
 Salem, MA

NEW MECHANICAL  
 ROOF PLAN

GOODY CLANCY  
 ARCHITECTURE  
 PLANNING  
 PRESERVATION

334 Boylston Street  
 Boston, MA 02116  
 617 353-2100 Fax 617 353-9515  
 info@goodyclancy.com  
 www.goodyclancy.com

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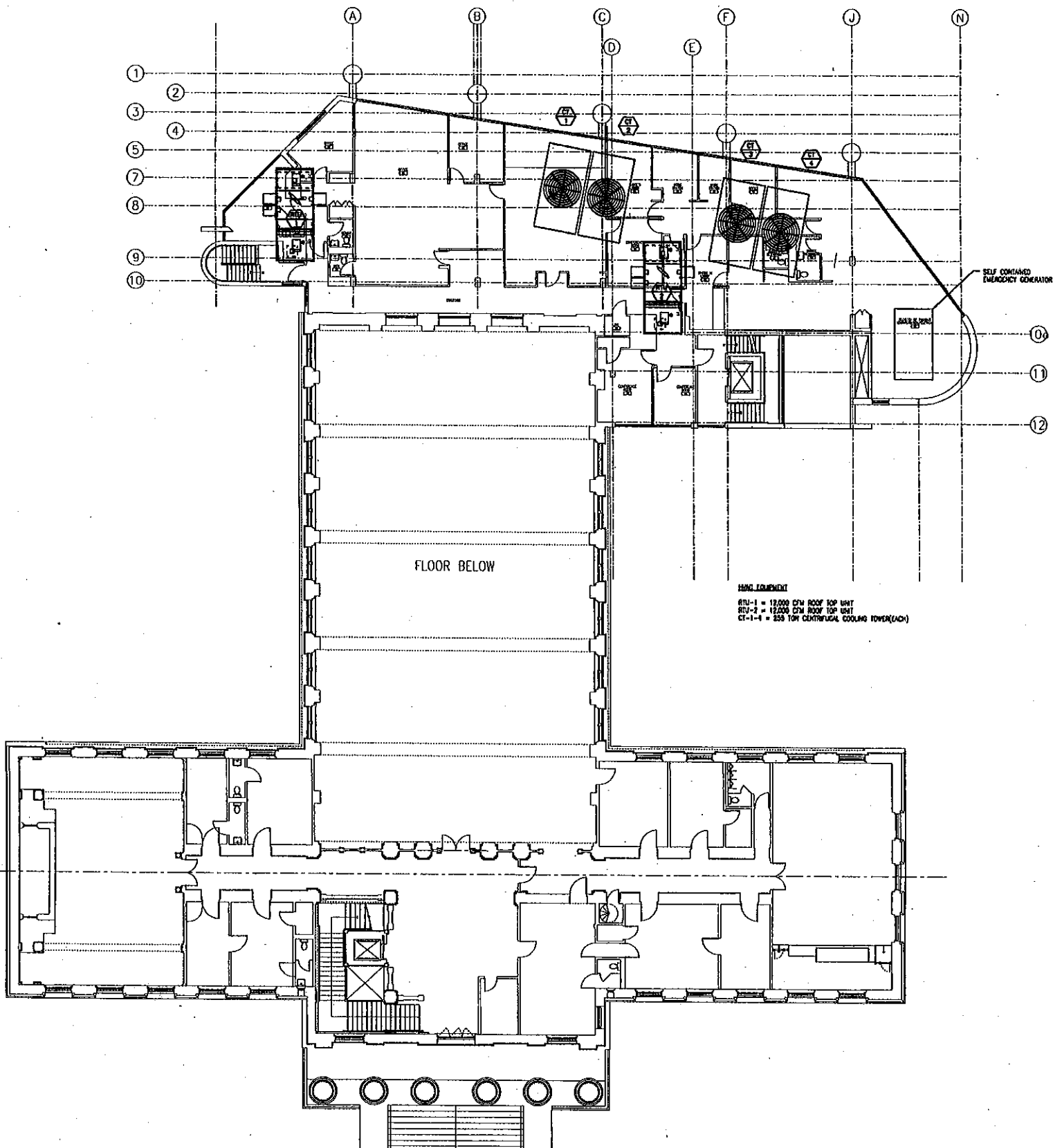
Consultant:

SEI  
 COMPANIES

88 Rock Beach Avenue, Suite 100  
 Boston, Massachusetts 02116  
 617 267-1100  
 100 20 211600  
 www.sei.com

EXISTING CONDITIONS

Revisions					



M-4A

Salem Probate & Family Court Building  
DCAM TRC9910ST2  
Salem, MA

NEW MECHANICAL  
ROOF PLAN

ARCHITECTURAL  
PLANNING  
PERSPECTIVE  
**GOODY CLANCY**

234 Boylston Street  
Boston, MA 02116  
617 242-2750 fax 617 242-9515  
www.goodyclancy.com

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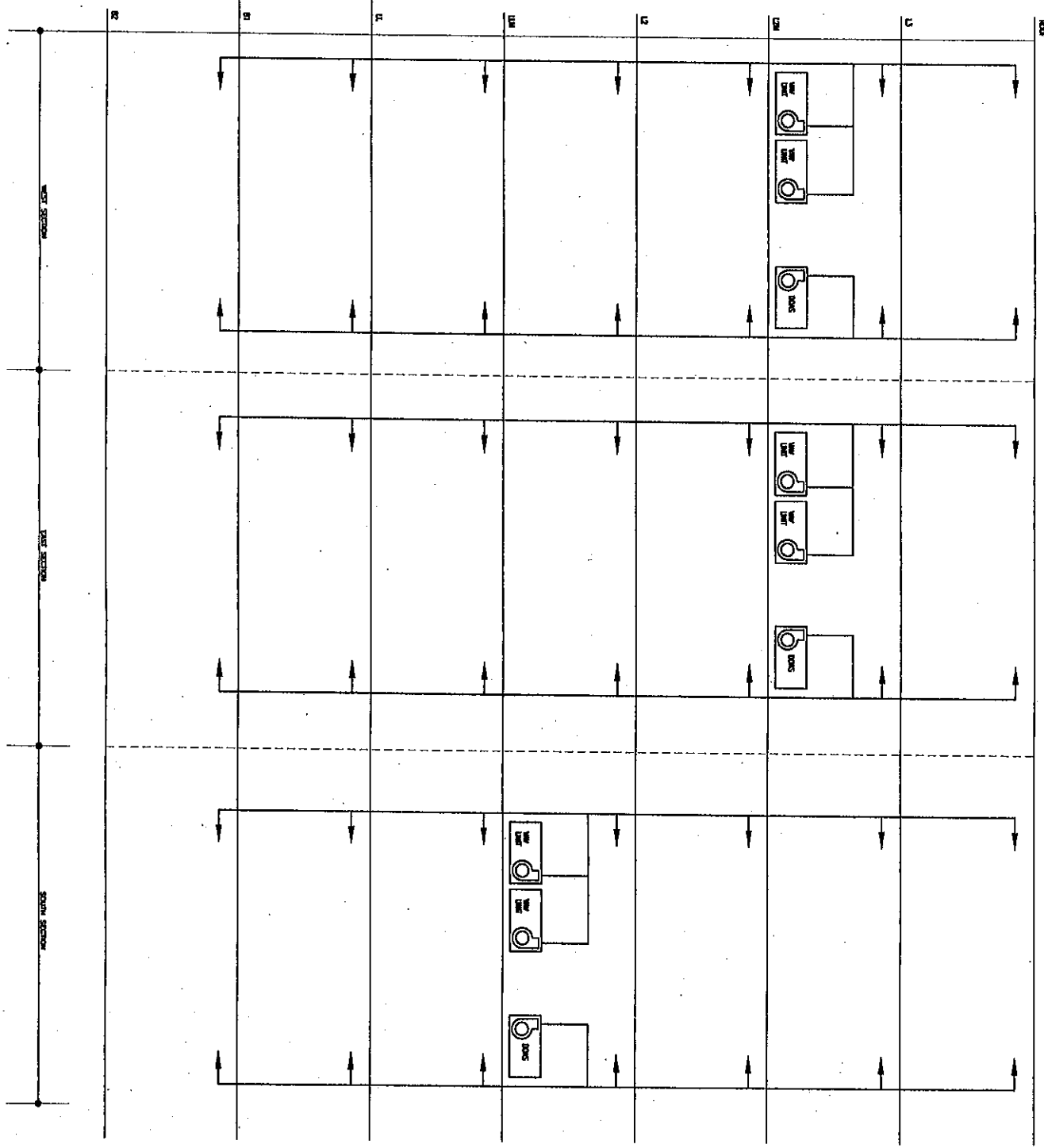
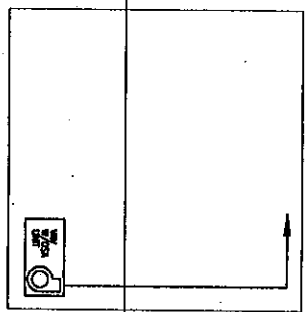
**SEi**  
COMPANIES

25 Black Falcon Avenue, Suite 200  
Somerville, MA 02144  
617 261-1100 fax 617 261-1101  
www.sei.com

EXISTING CONDITIONS

Revisions	



NEW CONSTRUCTION AIR FLOW CONCEPT



Salem Probate & Family Court Building  
DCAM TRC9910ST2  
Salem, MA  
HVAC  
AIRFLOW DIAGRAM

**GOODY CLANCY**  
ARCHITECTURAL PLANNING  
PRESENTATION  
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info@goodyclancy.com  
www.goodyclancy.com  
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Consultant:

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COMPANIES

65 RICE STREET, SUITE 100  
ROSELAND, MASSACHUSETTS 02124  
TEL 617 263-2700  
WWW.SEIARCHITECT.COM

EXISTING CONDITIONS

Revisions	



## CHILLER ROOM EQUIPMENT

- CH-1 = 400TON CENTRIFUGAL CHILLER  
CH-2 = 200TON CENTRIFUGAL CHILLER  
CH-3 = 200TON CENTRIFUGAL CHILLER  
P1-4 = CONDENSER WATER PUMPS 400GPM/EACH  
P5-8 = CHILLED WATER PRIMARY PUMPS 400GPM/EACH  
P9-12 = CHILLED WATER SECONDARY PUMPS 400GPM/EACH  
ET-1 = CHILLED WATER EXPANSION TANK

**BOILER ROOM EQUIPMENT**

- B-1 = 140HP HOT WATER BOILER  
B-2 = 140HP HOT WATER BOILER  
B-3 = 140HP HOT WATER BOILER  
P-1-4 = HOT WATER PRIMARY PUMPS(320GPM)  
P-1-5 = HOT WATER SECONDARY PUMPS(320GPM)  
ET-2 = HOT WATER EXPANSION TANK

## COMBINED PLANT IN NEW BUILDING

Salem Probate & Family Court Building  
DCAM TRC9910ST2

**Salem, MA**

ARCHITECTURE  
PLANNING  
PRESERVATION  
**GOODY  
CLANCY**

334 Boylston Street  
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617 262-2760 fax 617 262-9512  
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**Consultant:**

SEI  
COMPANIES

88 BLACK FALCON AVENUE, SUITE 200  
BOSTON, MASSACHUSETTS 02102-1116  
MAIN TELEPHONE: 617.210.1600  
FAX: 617.210.1803  
WWW.3DCOMPANIES.COM

EXISTING CONDITIONS	
Goody Clancy #205128.0	
FILE NAME:	
DATE: 4.12.06	DR:
SCALE: 1/8"=1'-0"	CHK:
DRAWING:	

**M-8**

88 BLACK FALCON AVENUE, SUITE 200  
BOSTON, MASSACHUSETTS 02102-1114  
MAIN TELEPHONE: 617-210-1600  
FAX: 617-210-1800  
WWW.SECURANS.COM

**EXISTING CONDITIONS**

## Revisions



**CHILLER MECHANICAL SPACE**  
1,450SQ.FT.

EXISTING CONDITIONS	
Goody Clancy #205128.00	
FILE NAME:	
DATE: 4.12.06	DR: EFS
SCALE: 1/8" = 1'-0"	CHEK: DH
DRAWING:	

M-9

3334 Boylston Street  
Boston, Massachusetts 02116  
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urch@goodyclancy.com  
www.goodyclancy.com

ROBERT W. GOODY & COMPANY ASSOCIATES INC. 2005

**Consultant:**

SEI COMPANIES

888 BLACK FALCON AVENUE, SUITE 200  
BOSTON, MASSACHUSETTS 02210-2434  
MAIN TELEPHONE: 617.210.1600  
FAX: 617.210.1800  
WWW.SERCONVANCES.COM



**CONCLUSIONS**

8-1 = NEW 140HP HOT WATER BOILER  
8-2 = NEW 140HP HOT WATER BOILER  
8-3 = NEW 140HP HOT WATER BOILER  
P1-3 = NEW HOT WATER PRIMARY PUMP  
P4-7 = NEW HOT WATER SECONDARY PUMP  
ET-1 = EXPANSION TANK

**TUNNEL TO  
STANDING EQUIP**

**BOILER ROOM**

**OPTION 2, PROVIDE THREE NEW BOILERS**

BOILER MECHANICAL SPACE  
285050 FT

Salem Probate & Family Court Building  
DCAM TRC9910ST2  
Salem, MA

## COMBINED PLANT IN EXISTING MECHANICAL SPACES

**GOODY  
CLANCY**  
ARCHITECTURE  
PLANNING  
PRESERVATION

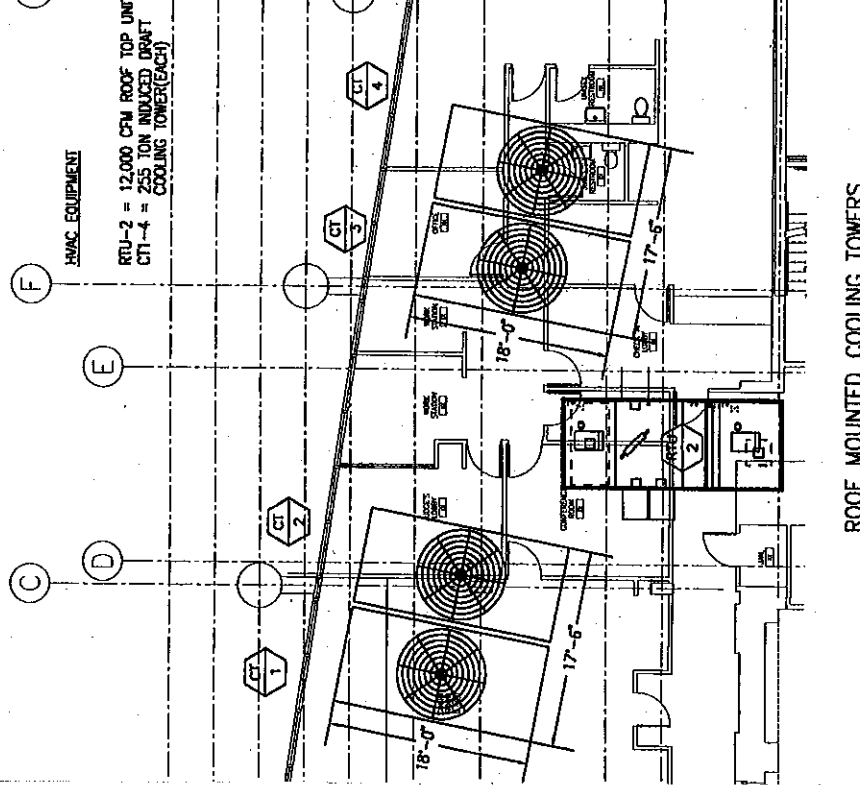
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FAX: 617.210.1800  
[WWW.SECOMPANIES.COM](http://WWW.SECOMPANIES.COM)



## ROOF MOUNTED COOLING TOWERS

### HVAC EQUIPMENT

RTU-2 = 12,000 CFM ROOF TOP UNIT  
CT1-4 = 255 TON INDUCED DRAFT  
COOLING TOWER(EACH)



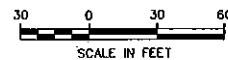
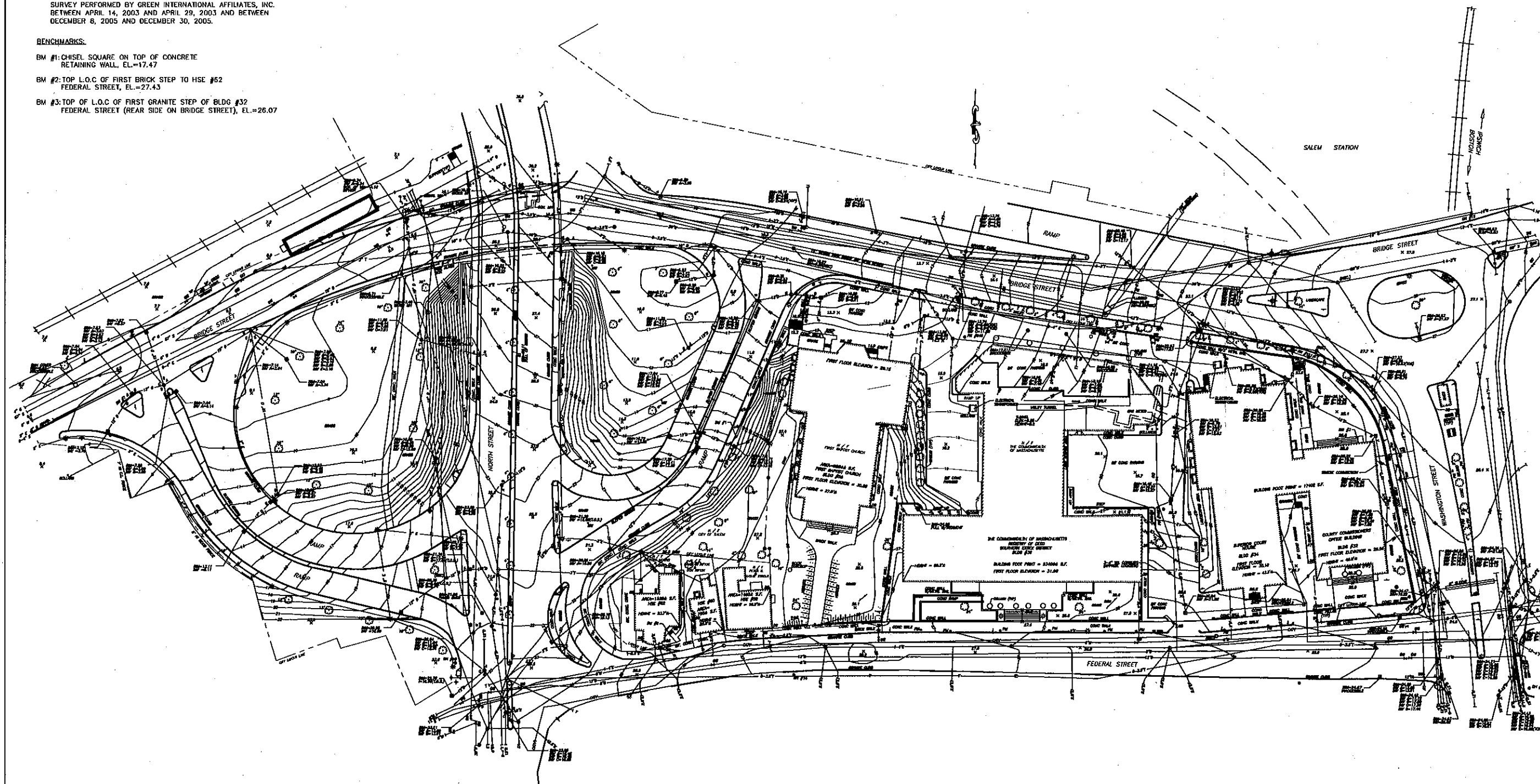
A1.3 Site Survey:  
Existing Conditions Plan  
**Green International Affiliates, Inc.**  
**February 2, 2006**

PLAN NOTES:

1. ALL ELEVATIONS ARE IN FEET AND ARE BASED ON NGVD 1929 DATUM.
2. THIS PLAN WAS DEVELOPED FROM AN ON-THE-GROUND TOPOGRAPHIC SURVEY PERFORMED BY GREEN INTERNATIONAL AFFILIATES, INC. BETWEEN APRIL 14, 2003 AND APRIL 29, 2003 AND BETWEEN DECEMBER 8, 2005 AND DECEMBER 30, 2005.

BENCHMARKS:

- BM #1: CHISEL SQUARE ON TOP OF CONCRETE RETAINING WALL, EL.=17.47
- BM #2: TOP L.O.C. OF FIRST BRICK STEP TO HSE #52 FEDERAL STREET, EL.=27.43
- BM #3: TOP OF L.O.C. OF FIRST GRANITE STEP OF BLDG #32 FEDERAL STREET (REAR SIDE ON BRIDGE STREET), EL.=26.07



			EXISTING CONDITIONS PLAN		
			SCALE: 1"=30'	DATE: 2/2/06	DWG: ARK
			SALEM COURT HOUSE		CHECK: JM
			SALEM, MASSACHUSETTS		GIA J.N.
DATE	REVISION	BY			2544
			CIVIL ENGINEER:	GREEN INTERNATIONAL AFFILIATES, INC.	Dwg. No.
				407 R. MYSTIC AVE., UNIT 25	C2
				MEDFORD, MA 02155	
				(781) 381-5757	

## A1.4 Meeting Minutes



**MEMORANDUM OF MEETING # 1**  
**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**Date: July 8, 2005**  
**Meeting held @ Division of Capital Asset Management**

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM		Via email
↔	Paul Decilio	PD	DCAM		
↔	Craig Degeorgi	CD	DCAM		
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Jean Caroon	JC	Goody Clancy & Associates	GC	

<i>No.</i>	<i>Topic</i>		<i>Action</i>
1.0		This meeting was the Administrative Conference covering the following topics:	
	1.	<p><b>Project Management</b></p> <ul style="list-style-type: none"> <li>• DCAM is the client and manager for the project.</li> <li>• Administrative Agency of the Trial Court (AOTC) is the User Agency.</li> <li>• All project communications are to go through Gail Rosenberg, Project Manager.</li> <li>• The State Project Number must appear on all correspondence and communications: TRC 9910 ST2</li> </ul> <p><b>Consultant Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Meeting minutes will be done on PMAS (Same as Prologue) when participants have been trained. Gail will arrange for training. Until training, minutes may be done in Word and emailed. Minutes must be submitted for approval and resubmitted within 3 business days.</li> <li>• Distribution of Products should be by digital means, followed by hard copies when necessary.</li> <li>• Email Gail when minutes are in PMAS for her approval.</li> <li>• Invoices from consultants named in the Contract as part of basic services are not marked up. Consultants providing extra services are marked up 10%.</li> <li>• Invoices must be submitted with back-up including sub consultants' back up. If not in digital form, it may be faxed. <ol style="list-style-type: none"> <li>1. Gail should review a draft, to check for errors, before it goes into the payment unit.</li> <li>2. Payments go out daily and a Vendor Web allows for tracking payments.</li> <li>3. For extra services, GC&amp;A must submit a written proposal. When approved, a Notice to Proceed will follow from DCAM.</li> <li>4. Funds must be set up by DCAM before payment can be made.</li> <li>5. Do not proceed without approval. (see no. 3 above)</li> <li>6. On last bill say "There will be no more bills on this account."</li> </ol> </li> <li>• Final Design – review period</li> </ul> <p><b>Workshops</b></p> <ul style="list-style-type: none"> <li>• Workshops are integral part of the study/design process. "Global Workshops" gather all the decision makers together for an all day working session facilitated by Gilbane. <ol style="list-style-type: none"> <li>1. Nancy Stack from Gilbane will conduct them.</li> </ol> </li> </ul>	GR

**MEMORANDUM OF MEETING # 2**  
**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**Date: July 28, 2005**  
**Meeting held @ Goody, Clancy & Associates**

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM		Via email
↔	J. Clifton Woodard	CW	Justice Planning Associates, Inc.		
↔	Richard L'Heureux	RL'H	AOTC		
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Paul Dudek	PD	Goody Clancy & Associates	GC	
↔	Judge Greg Flynn	JGF	Massachusetts Judicial System		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of meeting is to discuss program development.	
1.	Cliff Woodward pointed out that by the time this court complex is constructed it would accommodate only 10 years of growth. The Certifiable Building Study will comment on this.	<i>JPA</i>
2.	Gail Rosenberg will update staffing counts.	<i>DCAM</i>
3.	Room Data Sheets will be developed by DCAM. They will be generic. The technical matrix is separate. We can expect to receive them over the next two weeks.	<i>DCAM</i>
4.	Justice Planning Associates will review the Room Data Sheets and comment.	<i>JPA</i>
5.	Cliff Woodward pointed out that the court complex lobby size as noted in the preliminary program does not seem adequate.	
6.	Cliff Woodward thought it would be helpful to visit the existing courts to understand how, for instance records go from file rooms to the courtrooms, as they are different for every court. Richard L'Heureux felt it probably wouldn't be helpful as the existing conditions are bad and there would be no frame of reference. The program as developed by DCAM and AOTC will address this issue.	
7.	Richard L'Heureux will arrange a tour of the Brockton, Lawrence, Brooke and Dorchester Courts. Lobby sizes could be noted and analyzed.	<i>RL'H</i>
8.	Gail Rosenberg wants GC&A to look at how the new Court Program will fit on the site (foot print and bulk) early in the Planning Study, as well as how well the Probate and Family court program will fit in the existing building without the 1970's addition, to identify serious potential problems, quickly.	<i>GC&amp;A</i>
	End of Minutes	

		<ol style="list-style-type: none"> <li>2. Gilbane will take notes and document the workshop.</li> <li>3. We can expect from 2 to 3 global workshops, the first in September, the second in November and the final one when the study is completed.</li> </ol> <ul style="list-style-type: none"> <li>• Goody Clancy can expect to do a couple of community presentations.</li> </ul>	
	2.	<p>Study Scope</p> <p>Typical Tasks/Deliverables:</p> <ul style="list-style-type: none"> <li>• Work Plan               <ol style="list-style-type: none"> <li>1. To be developed by Goody Clancy – target date August 1<sup>st</sup>.</li> <li>2. Gail to review Goody Clancy draft submitted today.</li> </ol> </li> <li>• Existing Conditions               <ol style="list-style-type: none"> <li>1. As per DCAM request, Goody Clancy submitted proposal for Existing Condition Survey for Salem Probate and Family Court. Gail to review.</li> <li>2. Mechanical systems number was high due to lack of existing systems' drawings. Gail will see if she can locate mechanical and electrical drawings from the Stellar Group, Architects and Engineers, who were adding an elevator, ramp, bathroom and overseeing miscellaneous repairs.</li> </ol> </li> <li>• Program Finalization               <ol style="list-style-type: none"> <li>1. DCAM will give us a program template (Excel Spreadsheet)</li> <li>2. Goody Clancy &amp; Associates will do relationship diagrams, perhaps with the assistance of JPA.</li> </ol> </li> <li>• Development of Concept Options               <p>Three options will be studied. A loose cost benefit analysis will be performed on three options.</p> </li> <li>• Development of Preferred Option: Preschematic level               <p>A detailed cost estimate on one option, the preferred option, will be developed.</p> </li> <li>• Project narrative/scope for design; Uniformat cost estimate will be used.</li> <li>• Draft and Final report will be required.</li> <li>• Scope of Study. Gail will send us a table of contents.</li> </ul>	<p>GC GR</p> <p>GR</p> <p>GR</p> <p>GR</p>
	3.	<p>Next Steps:</p> <ul style="list-style-type: none"> <li>• S Conference: Agenda, Attendance by Subs and internal team members.               <ol style="list-style-type: none"> <li>1. All invited participants report on progress for their areas of responsibility.</li> <li>2. Gilbane is assisting DCAM as a Program Manager. Nancy Stack will be coordinating efforts relating to site assemblage and permitting.</li> <li>3. Following the S Conference will be a designer team meeting. Meeting set for July 25<sup>th</sup> at 1:30, McCormack Bldg..</li> </ol> </li> <li>• Coordination Meeting – Epsilon.               <p>Epsilon will be doing the environmental work. Gail will arrange.</p> </li> <li>• Program Verification and Finalization.               <ol style="list-style-type: none"> <li>1. A meeting has been arranged for Thursday the 28<sup>th</sup> with Richard L'Heureux, project manager, AOTC. Joan Goody will contact Cliff Woodward, JPA regarding attending this meeting.</li> </ol> </li> </ul>	<p>GR GR</p> <p>JG</p>
	4.	<p>Regular Client/Designer meetings</p> <ul style="list-style-type: none"> <li>• Reserve Tuesday afternoons, 2:00 PM every other week beginning August 2nd.</li> </ul>	

## MEMORANDUM OF MEETING #3

Project: **Salem Trial Courts**  
GCA Project # 6290

Date: August 11, 2005

Place: DCAM

Present: Jean Caroon, Goody Clancy; John O'Donnell, DCAM; Gail Rosenberg, DCAM; Kim Plunkett, DCAM; Peggy Briggs, Epsilon Associates; Nancy Stack, Gilbane/DCAM; Jerry Blumenthal, JNEI; Doug Kelleher, Epsilon Associates; Christine Scott, Goody Clancy; Paul Dudek, Goody Clancy; Carol Meeker, DCAM; Phillip Schreibman, DCAM

Subject: **Identification of issues and potential permitting needs**

Copies to: Joan Goody, Goody Clancy;

---

### SUMMARY

- Staff member from the Division of Capital Asset Management (DCAM) summarized the project and noted that there are numerous entities involved with the project or associated projects that may trigger permitting requirements. They requested that the Salem Trial Courts project team identify potential issues or triggers associated with a Massachusetts Environmental Policy Act (MEPA) filing, such as Massachusetts Highway Department's (MHD) use of federal funding to complete roadway projects, to identify actions that need to be taken to move the project forward.
- DCAM staff described the project as an effort to consolidate many of the court functions into a single, new facility. Functions that are currently housed in the Superior court and Commissioners Building will be part of the new facility, as well as the Housing Court and the Juvenile Court.
- DCAM is currently working on site assemblage – working to purchase the three houses on the site and relocated them as well as the Baptist Church, which will be moved and incorporated into the new facility.

### HISTORIC PRESERVATION

- Epsilon identified the three court buildings – the Probate & Family Court/Registry of deeds, the Superior Court and the Commissioners Building – as being listed on the National Register. In addition, the entire site is within a State designated Federal Street Historic District.
- Historic preservation issues were discussed as the primary trigger for a MEPA permit, noting that the removal of the Registry of Deeds and the addition of the Juvenile Court will reduce the new project program's impacts from its current level. It was also noted that any new use associated with the Superior Court and Commissioners Building would also have to be accounted for in a MEPA filing.
- It was suggested that the anticipated Memorandum of Agreement (MOA) with Massachusetts Historic Commission (MHC) may require mitigation measures, and this should be considered in the initial design ideas.



## MEMORANDUM OF MEETING

Page 2

- The team noted that a strategy for the disposition process and re-use of the Superior Court and the Commissioners building will be a critical part of gaining approval for this project. The community and MHC will be aware of the Salem Jail's decline and both will insist on a well thought out re-use plan for the court buildings. Goody Clancy also noted that separate heating system will have to be provided for the buildings that are currently on a combined system.

### TRAFFIC & PARKING

- The Phase II traffic Study will be completed by Edwards & Kelsey
- Discussions with MHD are continuing to identify who will build the ramp along the western boundary of the site. DCAM is currently rethinking the initial idea of MHD taking on this responsibility, since this may increase the permitting requirements for the project. Drawings will be provided to the team to establish the western boundary of the site.
- Goody Clancy asked about curb-cuts and requested a determination about how access need could trigger permitting.
- Other studies are being worked on or will be collected for the team including a parking study and a traffic study.
- DCAM has provided \$3 million dollars to the MBTA as part of a commitment for 150 spaces in a new garage being planned for the Salem Commuter Rail lot on the opposite side of Bridge Street. This garage is still in the planning stages, and will be constructed by the MBTA. Pedestrian connections across Bridge Street will be located along North Street and Washington Street (no mid-block crossing) and the city lot was given to the MBTA with an active rail spur that will have to be accommodated by the garage construction. Epsilon agreed to look into this to see if it triggers permitting requirements, since it is likely that the MBTA is receiving federal funding for part of this project. Also, the team agreed to consider the implications of the timing of the projects from a phasing and operational standpoint.
- Structured parking will also be located on the Almy's lot, on the other side of Washington Street in feasibility study at this time. The team noted that that is not a likely option for support of this project, but that parking provided in this location may be considered in the future.

### ENVIRONMENTAL

- DCAM has completed an American Society for Testing Materials (ASTM) Phase I environmental assessment looking specifically at the issues associated with a former manufactured gas facility located in the slip ramp area. The majority of the site is considered clean with minor amounts of lead associated with the former gas facility. Further geo-technical studies will be needed to establish the bearing capacity, etc. for work associated with foundations and construction activities.
- DCAM believes that the site is not a filled tideland or within 250' of a filled tideland and consequently not subject to Chapter 91 requirements. Epsilon agreed to confirm this understanding.
- JNEI will look into the Green International Survey
- A limited observation Hazardous Materials (HASMAT) investigation for the existing court buildings was completed in 2002. The information from the visual survey will need to be supplemented.

# MEMORANDUM OF MEETING

Page 3

## UTILITIES & STORMWATER

- DCAM wondered if the city of Salem had any Combined Sewer Overflow (CSO) issues or sewer separation projects underway. The number of utility lines needed for the project must be determined. Also, DCAM noted that there may be new regulations regarding infiltration and reduction of impervious surfaces that apply to this project if new legislation is passed.
- The team noted that it will be important to establish existing capacity and anticipated need for utilities as well as to coordinate with any on-going utility repair or upgrades. MHD may already know what work is going on since utilities are located in the street.
- Goody Clancy also noted that a new heating plant for the facility might trigger permitting. Epsilon felt that a Department of Environmental Protection (DEP) permit is likely, but that the air quality concerns would not be significant enough to require a MEPA filing.

## ZONING

- DCAM noted that as a state agency, they are not subject to local zoning, but that they are generally respectful of dimensional requirements established by the city. The project should conform generally to local zoning dimensional requirements.

## SUSTAINABILITY

- DCAM has a goal of a Leadership in Energy and Environmental Design (LEED) Silver rating for this project. The team discussed the merits of infiltration onsite and agreed that every effort will be made to reach the LEED Silver goal.

## PUBLIC PROCESS

- DCAM noted that they have formed a local steering committee that will hold its first meeting on August 22<sup>nd</sup>. After discussions with the group, DCAM will to arrange the first public meeting for the end of September. Prior to this public meeting, DCAM will discuss the project with the Massachusetts Historical Commission (MHC).

## NEXT STEPS

- Epsilon and Goody Clancy will begin compiling lists of information they will need from DCAM to proceed.
- DCAM and Goody Clancy will continue to develop the work plan for the project
- DCAM will meet with MHD and ask for information on the site boundary and access constraints as well as getting copies of the 100% complete design for North Street and the 25% complete design for the ramp.
- DCAM will continue to pursue permission for the appraisal of the Baptist Church and other work associated with site assemblage

Prepared by Christine Scott, Goody Clancy

Note: If any attendees feel that these minutes do not accurately reflect discussions, please notify the writer. Amendments will be made at the subsequent meeting.

**MEMORANDUM OF MEETING # 4****DRAFT****J. Michael Ruane Judicial Center****Salem, MA****Massachusetts State Project No.: TRC 9910 ST2****GC&A Project No. 6290****Date: July 28, 2005****Meeting held @ Goody, Clancy & Associates**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Richard L'Heureux	RL'H	AOTC	AOTC	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates		
✓	Michael Joyce	MJ	Goody Clancy & Associates		
↔	Christine Scott	CS	Goody Clancy & Associates		
↔	Geoffrey Morrison-Logan	GML	Goody Clancy & Associates		
↔	Nancy Stack	NS	Gilbane	G	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<b>Purpose of the meeting: To discuss design goals, review space inventory and discuss the public meeting approach</b>	
1.	Gail has made arrangements for GC&A to pick up plans for traffic and roadway improvements to North Street (Route 114) at Mass Highway Department in the Transportation Building	<i>PD</i>
2.	Gail has asked Edwards and Kelcey to create a drawing showing no ramp connection to Bridge Street to help us define the western limits of the site.	<i>GR</i>
	<b>Discussion of Design Goals and Criteria:</b>	
1.	Direct light into the courtrooms is important, and where possible, from exterior windows located in the sidewalls.	
2.	It was agreed that the number of courts and court functions that it is desirable to have located near the building entry would not be physically possible on this constrained site. A priority was established as follows: The District Court including Arraignment, Transaction and Probation, with the heaviest volume of traffic, should be located on the entry floor (ground or 1 <sup>st</sup> floor). Some District Court Rooms may go on the floor above (2 <sup>nd</sup> floor). Superior Courts including Arraignment, Transaction and Probation, with lighter traffic may go on upper floors. Note: Superior Court judges float in and out of sessions. The main record keeper is the Clerk Magistrate. Housing Court could also go on upper floors. Juvenile Court by federal mandate requires sight and sound separation and along with Transaction and Probation could be located on the next level below the 1 <sup>st</sup> floor.	
3.	Juvenile court rooms (1600 SF) are more intimate proceedings and could be smaller, say 1200 SF, allowing for lower ceilings which would be better accommodated on floor levels below the ground floor where floor to floor height will be constrained. Juvenile Transaction and Probation must be on the same floor as the Juvenile court rooms.	
4.	Childcare must be located at grade for evacuation.	
5.	The courthouse will be closed at night. <i>It is unclear at this time if the District Attorney will be allowed to use card access via a side door for after hours entry.</i>	<i>GR</i>

6.	The Law Library in the church will be entered from the courthouse side after going through courthouse security. This entrance will not be available when the courthouse is closed at night. <i>It is unclear at this time if card access through the front door of the church for entry into the Law Library after hours will be allowed.</i>	GR
7.	ADA and the Court Clinic may be located on a lower level or anywhere in the building.	
8.	Judges and staff share the same elevator. Judges could be located on three floors with reception and other shared functions at entry level.	
9.	The Grand Jury room (4100 SF) is a suite adjacent to a security core for witness protection. It is not a court function.	
10.	Probate and Family Court was discussed. Joan reviewed a scheme that placed the four Courtrooms on the 2 <sup>nd</sup> floor, Transaction on the 1 <sup>st</sup> floor and Probation in the basement. Only one pair of courts needs detainee secure circulation.	
11.	Joan discussed how the new Trial Court Building might extend to the Probate and Family Court Building, with some Trial Court functions moving into the 1970's addition. The 1970's addition would get a new exterior skin. Gail mentioned that Salem citizens had expressed concern about a block long wall of building on Bridge Street, so if we proposed this it would have to be broken up and articulated to reduce scale.	
12.	Geoffrey Morrison-Logan presented the proposed traffic/pedestrian realignments as part of the neighborhood master plan for the North River Canal Corridor. He will put the scheme on a CD for Gail	GML
	Discussion on the Public Meeting approach	
1.	The purpose of this meeting is to provide information to the public. This is also seen as an opportunity to get feedback and take input. This is not required by any regulatory process.	
2.	DCAM will do a summary of where we have been and the evolution of the project concept; what we are now looking at and why: taking of houses, disposition and reuse of building to be vacated, the church, the MBTA and the development of space standards for all courts.	
3.	Goody Clancy will discuss DCAM & AOTC's design goals and criteria for the buildings and how we will address them. Goody Clancy will present portions of the power point presentation made to the DSB. No proposed designs will be shown but blocking and stacking diagrams with the three separated circulation systems could be shown to indicate how the design will begin and progress. Goody Clancy will produce a milestone schedule that will indicate how the design will progress through the conceptual study, schematic design, design development and the production of construction documents. Perhaps a spiral diagram showing the iterative loop nature of the design process should be developed and shown. Joan Goody, Jean Caroon, Geoffrey Morrison-Logan and Christine Scott will attend the meeting.	GC
	End of Minutes (Prepared by Paul Dudek)	

**MEMORANDUM OF MEETING # 5****DRAFT****J. Michael Ruane Judicial Center****Salem, MA****Massachusetts State Project No.: TRC 9910 ST2****GC&A Project No. 6290****Date: September 6, 2005****Meeting held @ Goody, Clancy & Associates**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Richard L'Heureux	RL'H	AOTC	AOTC	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates		
✓	Michael Joyce	MJ	Goody Clancy & Associates		
↔	Christine Scott	CS	Goody Clancy & Associates		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<b>Purpose of the meeting: To review design alternatives for Probate &amp; Family Court Building and the Trial Court Building and to review Goody Clancy's Site Analysis</b>	
1.	Court Clinics: One for Juveniles - size to be verified; one for Trial Courts and one for Probate and Family Court – to be verified.	<i>GR/RLH</i>
2.	ADR for Probate & Family Court – need and size to be verified.	<i>GR/RLH</i>
3.	Joan presented schemes A & B for the Probate and Family Court Building. Both schemes place four courts on the 2 <sup>nd</sup> floor of the P&FCB. Scheme A places the fifth court on the 2 <sup>nd</sup> floor in the addition and scheme B places the fifth court on the 1 <sup>st</sup> floor. Both schemes put the Register of Probate on the 1 <sup>st</sup> floor with 3000 SF left over. Scheme A splits Probation on the 1 <sup>st</sup> floor and in the basement and would have an internal stair/elevator connecting the two levels. Scheme B has all of Probation in the basement. DOR and Child Support are placed in the east wing of the 2 <sup>nd</sup> floor.	
4.	Gail & Richard preferred Scheme A because it keeps all courts on the same floor, which is a distinct advantage. Record Storage might also go in the basement (5000 SF area needs to be verified). Gail & Richard are uncertain about splitting probation on two floors and will get back to us on that.	<i>GR/RLH</i>
5.	Goody Clancy's Site Analysis was reviewed. Gail reported that Mass Hiway and DCAM's preference was to remove the ramp down to Bridge Street and have no ramp Edwards & Kelcey seem to think it would work). The slip ramp would be the fall back position. Based on this conversation the "full site" is the preferred site option and the "site with slip ramp" is the secondary site option	
6.	The City of Salem Zoning was reviewed. The only setback required was 5 feet on side yards. The height limitation was 70 feet. The Project would probably exceed the 70 feet on the Bridge street side.	
7.	Site cross section drawings were reviewed. They showed that if the new Trial Courts Building's first floor was aligned with the Probate and Family Court Building's first floor, it appears that it would be possible to get two floors in, between the first floor on Federal Street and Bridge Street below.	
8.	Goody, Clancy asked if there were any State mandated site setbacks for security, similar to Federal requirements. Gail and Richard did not know of any and said to assume there are none.	
9.	Diagrammatic building sections were looked at to judge how the courts and court functions might be distributed over the three levels above grade and the two levels below grade.	
10.	Gail and Richard's comments were as follows: 1. Juvenile courts were acceptable on the first level below the entry level. The Juvenile courts are small (1200 SF) and can function with a lower ceiling height. The courts only need to	

	<p>accommodate family, attorneys and social workers. They will have a raised judges bench, a table each for the prosecutor and the defense, and one or two rows of seating. One court must accommodate a 12 person jury. The jury could use one of the jury deliberation rooms on the upper floors and would use the staff elevator system.</p> <ol style="list-style-type: none"> <li>The first floor with District Arraignment Court should also have the District Clerk/Magistrate and Probation on this floor. The sequence in order of arrival should be Probation, Clerk/Magistrate and Arraignment. Do not split Probation on two levels.</li> <li>Child Care near the entry is good.</li> <li>The remaining District Courts on the 2<sup>nd</sup> floor are acceptable.</li> <li>Superior Courts could start on the 2<sup>nd</sup> floor and finish on the third floor, however as with the District Courts, the preferred arrangement is to have Superior Probation, Clerk/Magistrate and Arraignment on the same floor in the same sequence.</li> <li>It is acceptable to have one core serving 3 different types of courts. Courtrooms don't always have to be paired.</li> <li>The Grand Jury is not a court function. It is in a suite adjacent to a security core for witness protection.</li> <li>Housing Court's preferred location is on the ground floor with access to a detainee core.</li> </ol>	
11.	Scheme A, "L shaped" was reviewed. This scheme assumes the slip ramp defines the west site boundary. The Church stays in place. Childcare is on the first floor, all District Court functions are on the first floor. To accommodate all functions, space is used in the P&FCB addition.	
12.	Scheme B, "doughnut scheme" utilizes the expanded site without the slip ramp. The Church is moved to the corner. Courts receive direct light by backing up to a light well. This scheme also connects to the P&FCB addition.	
13.	Scheme C, "the bar" also utilizes the expanded site. Courts get direct light. The Church moves to the corner.	
14.	<p>Gail &amp; Richard made the following comments:</p> <ol style="list-style-type: none"> <li>Connection to the Probate and Family Court Building is not a priority, but will be acceptable if we need the space in the addition.</li> <li>Scheme B's public circulation is too devious. We must reduce public circulation and keep it simple and direct. (Goody Clancy noted that it is possible to flip the circulation in this scheme to be more direct and straight forward.)</li> <li>The "L shape" scheme is okay but Goody Clancy should look at moving the Church and then flipping the "L" scheme.</li> <li>Whether the Church stays or moves, the priority must a well functioning courthouse.</li> <li>There is need for a generous amount of waiting space adjacent to the arraignment courts.</li> <li>Avoid having judges and jurors cross traffic.</li> <li>Try to have Probation on one level where clients will always be in view.</li> <li>If possible, create a single space for the clerk magistrate or probation. Records generally need to be in a single location. If you need to split these uses identify the most active files, such as the divorce decrees. DCAM/AOTC will verify space required</li> </ol>	GR/RLH
	Other Business:	
1.	DCAM is pursuing the ICON model still. Goody Clancy noted that there may be a model of downtown Salem in the City of Salem. DCAM will inquire with the City.	
2.	Goody Clancy is waiting for response from DCAM on Lim Consultants existing conditions survey proposal	GR
3.	Goody Clancy is waiting for copies of the boring information from DCAM to forward on to Lim Consultants.	GR
4.	Gail will forward the remainder of the Work Plan & the Milestone schedule to Goody Clancy.	GR
5.	Goody Clancy will forward a draft of the Zoning Analysis to DCAM	PD
6.	Goody Clancy requested coordination with DCAM to develop a plan for the production of the planning study	CS
7.	The next meeting will be September 21	
	End of Minutes (Prepared by Paul Dudek)	

**MEMORANDUM OF MEETING # 6****J. Michael Ruane Judicial Center****Salem, MA****Massachusetts State Project No.: TRC 9910 ST2****GC&A Project No. 6290****Date: September 21, 2005****Meeting held @ DCAM**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Richard L'Heureux	RL'H	AOTC	AOTC	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates		
✓	Michael Joyce	MJ	Goody Clancy & Associates		
↔	Nancy Stack	NS	Gilbane	G	
↔	Judge Greg Flynn	JGF	Massachusetts Judicial System		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<b>Purpose of the meeting: To review agenda for Salem Public Meeting; to review design alternatives for Probate &amp; Family Court Building and the Trial Court Building and to review Goody Clancy's Site Analysis</b>	
1.	For the Public Meeting in Salem, Goody Clancy will develop a Power Point presentation showing the following: <ol style="list-style-type: none"> <li>The revised spiral schedule diagram to read, Preliminary Master Plan - 2003; Building Study – early 2006; Schematic Design – Mid 2006; Design Development – early 2007; Construction Documents – late 2007; Construction complete 2010.</li> <li>The Site Analysis slides. Delete reference to Brown field. Change wording to “consider removal of church addition”. Move pedestrian crossing on Bridge Street from MBTA parking lot to the west side of North Street. Show pedestrian circulation from municipal parking lot.</li> <li>Blocking and stacking diagrams.</li> </ol>	GC
2.	Gail requested a CD of the Power Point presentation for a 10:00 AM meeting on 9/27/05.	GC
3.	Goody Clancy showed a preliminary site plan and site section of what configuration the new Trial Court Building would have to take on the parcel of land between the Church and North Street if the Church were not acquired for use of the project. Initial examination demonstrated that building would be 100 feet high and have five stories facing Federal Street and would be 130 feet high and have seven stories facing Bridge Street. The resulting building mass would be inefficient and out of scale with the rest of the area.	
4.	Joan Goody presented the “L scheme” which works with or without the slip ramp. It locates two 1200 SF Juvenile Court Rooms with lower ceiling heights on the first level below the ground floor on Federal Street. Because the site slopes down to Bridge Street allowing for two levels below the ground floor, the first level below the ground floor is not completely below grade and would have windows allowing direct light and views out. The 2 <sup>nd</sup> floor extends into the Probate & Family court Bldg addition. Joan asked whether the size of the Juvenile Courts could be smaller; noting that the lower ceiling height could make a larger courtroom an uncomfortable space and requested program confirmation that this will be acceptable. Richard L'Heureux will get plans of the Lawrence & Brockton Courts for Goody Clancy.	
5.	The priority location of court functions diagram was reviewed with the following comments: <ol style="list-style-type: none"> <li>Juveniles can be one level below the entry level. They need a generous waiting space outside</li> </ol>	

	<p>the courtroom. Finish materials in this area should be extremely durable due to a high level of wear and tear.</p> <p>2. The Child Care area is required to be at ground level for the purposes of emergency egress; being near the entry is preferable but not required. The purpose of the Child Care Area is to provide a place for people to safely leave their children while on court business whether in the courtroom or making use of other court facilities. This allows those people without access to childcare to be able to come to the courthouse and also serves the purpose of keeping children out of situations where they otherwise might be exposed to things they shouldn't see or hear.</p>	
6.	<p>Diagrammatic Sections showing alternate disposition of the courts and court functions were reviewed:</p> <ol style="list-style-type: none"> <li>1. Scheme one had the lowest level (on grade with Bridge Street) serving as a detainee transport and holding area. In this scheme the Juvenile Court area is located one level above Bridge Street (one level below Federal Street). The Federal Street ground floor houses the District Arraignment, Probation and Transaction spaces. The 2<sup>nd</sup> floor above Federal Street contains the Superior Arraignment, Probation and Transaction spaces with the remaining District Courts.</li> <li>2. Scheme two locates the Juvenile Courts on the Federal Street Ground Floor, sharing the level with District Court Arraignment Courtroom. District Court Probation is placed on the level below. This allows for Juvenile Court to have a larger courtroom with higher ceilings and could function as a flexible courtroom space to accommodate future changes in use.</li> </ol> <p>The following comments were made:</p> <ol style="list-style-type: none"> <li>1. DCAM/AOTC did not want juveniles passing through the District Arraignment and Transaction areas on the way to Juvenile Courts.</li> <li>2. The majority of District Court traffic is limited to one or two of the DC sessions; this would allow for the other District Court Courtroom to be more remote. It is preferable to have two District Court Courtrooms located on the first floor.</li> <li>3. The Superior Court Courtrooms are not required to be adjacent to the Superior Court Arraignment session.</li> <li>4. The Commissioner of Probation doesn't want the District and Superior Court Probation areas adjacent to each other.</li> </ol>	
7.	<p>Joan presented the "Bar" Scheme.</p> <p>The following comments were made:</p> <ol style="list-style-type: none"> <li>1. Gail and Richard pointed out that staff in the transaction area must have access to the courtrooms without passing through public space.</li> <li>2. Gail requested that Goody Clancy look at a scheme that pulls the church forward towards Federal Street to allow for more space for the proposed Trial Court Building behind it. She expressed concern about a scheme that connects the new facility with the Probate and Family Court Building on the Bridge Street façade, noting that this would result in a long "wall" on Bridge Street, an issue that has been raised as a concern by the City and local citizens.</li> <li>3. Joan expressed concern about the impact on Federal Street by moving the Church forward and asked that we look at what can be done on the Bridge Street Elevation first.</li> </ol>	
8.	It was agreed that Goody Clancy would try the "L" Scheme on the larger site.	
9.	Joan presented the scheme for the Probate and Family Court. Probation was split between the 1 <sup>st</sup> floor and the lower level. An alternative would be to put all of Probation in the basement. Judges and detainees come over from the Trial Court Building at the Bridge Street level and each has a dedicated elevator.	
10.	<p>The meeting schedule was reviewed as follows:</p> <ol style="list-style-type: none"> <li>1. Thursday, October the 6<sup>th</sup>, 9:30 AM at Goody Clancy</li> <li>2. Tuesday, November 1<sup>st</sup>, 2:00 to 4:00 PM at DCAM</li> <li>3. Monday, November 14<sup>th</sup>, 1:30 to 3:30 PM at Goody Clancy (Judge Flynn will attend)</li> <li>4. Monday November 28<sup>th</sup>, 2:00 PM at DCAM with the Chief Justice and Departmental Chiefs/AOTC</li> <li>5. Monday, December 6<sup>th</sup>, 2:00 to 4:00 PM at Goody Clancy</li> </ol>	
	End of Minutes (Prepared by Paul Dudek)	



**MEMORANDUM OF MEETING # 7**

**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**Date: October 6, 2005**  
**Meeting held @ Goody Clancy**

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Richard L'Heureux	RL'H	AOTC	AOTC	
√	Ron Ferrara	RF	DCAM		
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Paul Dudek	PD	Goody Clancy & Associates		
√	Michael Joyce	MJ	Goody Clancy & Associates		
↔	Polly Welch	PW	DCAM		
↔	Trish Chaput	TC	DCAM		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review design alternatives for Probate & Family Court Building and the new Trial Court Building; to discuss draft Existing Conditions Submission, Design Guidelines, Clarification of Deliverables, Site Analysis to date, updating schedule, Church Site Options and Blocking & Stacking Diagrams for P & FCB and New Trial Courts Building.	
1.	Lim Consultant's proposal for structural investigation the P & FCB existing conditions was discussed. Goody Clancy will have Lim reduce his scope and fee.	GC
2.	Gail is reviewing the Work Plan & Outline terminology to bring them into agreement with one another. Goody Clancy needs this to understand the deliverables and to finalize assigning cost to the deliverables. Chapter 2, Project Design Goals, produced by DCAM is general and applies to all courts and will tailored by Goody Clancy to reflect the specific conditions in Salem.	GR
3.	Polly and Trish gave an explanation of the Courts Design Guideline/Prototype and how we will apply it to our project.	
4.	Joan reviewed what would go into the PowerPoint presentation at the Global Workshop: The spiral schedule diagram, the program adjacencies diagram, and the two blocking and stacking diagrams. Gail will review and get back to us. Goody Clancy will develop a diagram illustrating site constraints.	GR GC
5.	Gail mentioned that there was concern about proposing smaller juvenile courtrooms with lower ceiling heights. Goody Clancy will study schemes incorporating 1600 SF juvenile courtrooms on the lower level.	GC
6.	Joan presented the latest plans for the Probate and Family Court Building. <ul style="list-style-type: none"><li>One original courtroom on the second floor is retained and three new courtrooms fit neatly in the former Registry of Probate file room. The fifth courtroom is in the 1970's addition along with some conference rooms.</li><li>The judge's chambers are also located in the addition, as is active file storage for Register of Probate in Alt. 1</li><li>There are two options for Probation; one having all of Probation in the basement (Alt. 2) and one splitting Probation between the first floor and the basement (Alt. 1).</li></ul>	

	<ul style="list-style-type: none"> <li>There is unassigned space that could be used for the Court Clinic, Social Services and DOR. Gail pointed out that it is still not determined if the Court Clinic needs to be in the building.</li> <li>The addition is necessary to meet the program requirements but not all of the space in the addition is used so it does allow for future expansion.</li> <li>The ground level under the addition could provide 7 secured spaces for judges parking.</li> </ul>	
7.	<p>Gail and Richard had the following comments:</p> <ul style="list-style-type: none"> <li>The program will require 27 secured parking spaces, total, so the additional under the P &amp; FCB addition look good.</li> <li>The issue was raised of how to handle queuing at the main entry, given that up to 300 people show up at once on DOR day. Currently there is one magnetometer. Will a second magnetometers really be used? This needs to be confirmed.</li> <li>The waiting space for the Probation Department should not be a small enclosed space. Parties waiting may be adversaries and it is not appropriate to have them waiting in an enclosed confined room that is difficult to monitor.</li> <li>There needs to be continuous staff secure circulation, separate from public areas.</li> <li>Consider providing a link by installing a raised floor in the basement from Probation to the detainee elevator so staff has access to the elevator, which will rarely be used for detainees (could be keyed for detainee use).</li> <li>Perhaps Chief Probation Officer, Mark J should help with the decision concerning whether probation should be split between the first floor and the basement or all in the basement.</li> <li>Staff and judges could also use the existing elevator in the addition.</li> <li>An extra conference room may fit at the end of the detainee space, facing the public corridor.</li> </ul>	
8.	Gail requested that Goody Clancy do a narrative on the necessity and benefits in keeping the 70's addition. This can be incorporated in the design narrative for the P & FCB.	
9.	<p>Joan presented scheme A1, for the new Trial court Building.</p> <ul style="list-style-type: none"> <li>The Church remains in it's present location with the Church addition removed.</li> <li>Superior Probation is inter-floored above Superior Transaction, between level 2 and level 3.</li> <li>The top floor could have 10-foot ceilings and the courtrooms will pop up above the adjacent roofs. The lower roof effectively hides the higher courtroom roofs from the street level.</li> <li>The combination of inter-flooring and using a ten-foot top floor reduces the height of the building along Federal Street and increases the available SF.</li> </ul>	
10.	Gail expressed concern about the public circulation with it's long travel distances and potential wayfinding difficulties presented by the corridor layout in scheme 1A.	
11.	<p>Joan presented scheme A2. for the new Trial Court Building.</p> <ul style="list-style-type: none"> <li>This scheme is similar to A1 but the Church, without its addition, is pulled forward toward Federal Street, adding available space behind it.</li> <li>Juvenile courts are 1600 SF and are located on the ground floor (Federal Street).</li> <li>The circulation becomes more roundabout in this scheme and a bridge at the second level is used to shorten the circulation.</li> </ul>	
12.	<p>Joan presented scheme B., for the new Trial Court Building</p> <ul style="list-style-type: none"> <li>The "pavilion" fronting on Federal Street is inter-floored with Superior Probation above Superior Transaction.</li> <li>Staff circulation is now connected to the Judges' area.</li> <li>The top floor would be reduced in height with the courtrooms popping up through the adjacent roof.</li> </ul>	
13.	The general consensus was that scheme B seems to fit on the site well and seems to have the most direct public circulation. The corner location for the Church seems appropriate.	
14.	<p>Paul presented studies showing four options for utilizing the site without the DCAM acquiring the First Baptist Church.</p> <ul style="list-style-type: none"> <li>Option 1, leaving the Church on it's present site and utilizing the remaining portion of the site to the west of the Church results in a small footprint for the proposed Trial Court building, leading to a structure 6.5 stories tall. The resulting mass may be out of scale with the existing buildings on Federal Street. Goody Clancy will draw the perspective view of Option 1, as was drawn for options 2, 3A &amp; 3B.</li> <li>Options 2, 3A &amp; 3B which move the Church to the southwest corner do leave the site in a useable configuration to accommodate scheme B keeping in mind space must be found for the law library.</li> </ul>	GC

	End of Minutes (Prepared by Paul Dudek)	
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## MEMORANDUM OF MEETING # 8

DRAFT

J. Michael Ruane Judicial Center

Salem, MA

Massachusetts State Project No.: TRC 9910 ST2

GC&amp;A Project No. 6290

Date: October 19, 2005

Meeting held @ Goody Clancy

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Richard L'Heureux	RL'H	AOTC	AOTC	
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Paul Dudek	PD	Goody Clancy & Associates		
√	Michael Joyce	MJ	Goody Clancy & Associates		
√	Judge Greg Flynn	JGF	Massachusetts Judicial System		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review the alternate designs for the PFC and the new TCB; the property survey; the First Baptist Church alternate schemes; the schedule and the analysis of the PFC/Superior Court Bldg. & County Commissioners Bldg. separation of connecting utilities.	
1.	Gail reported that the traffic study will have to be redone and that it must wait until November, as the month of October is not representative of typical traffic conditions.	
2.	Joan reviewed a cross section drawing through the site from Federal Street to Bridge Street to show how site topographic constraints impact setting the floor levels between the two streets. The ground level 1 entrance off Federal Street must be an accessible entrance, which limits how much this level can be raised above the Federal Street sidewalk. The B2 level off Bridge street is set by the limitations of ramping down. The object is to get as much separation between these two levels as possible to maximize the ceiling height of level B1 so that level B1 can accommodate 1600 SF Juvenile Courtrooms. Joan noted that the cross section drawing explaining the issue would have to be simplified for future presentations. A perspective drawing was reviewed to show that a 1600 SF Courtroom with a 15-foot floor-to-floor dimension would work on level B1.	GC
3.	Joan presented Scheme A1. <ul style="list-style-type: none"> <li>Level B2 was reviewed showing access to the judges parking and the sally port. Gail thought that the vehicular access point off Bridge Street was a problem occurring opposite the entrance to the MBTA parking lot. Gail will look into this matter further and Joan assured her it could be dealt with.</li> <li>Level B1 serving the entire Juvenile program was reviewed. The existing service lane is used for service for both the new TCB and the PFC, as well as access to seven judges parking spaces under the PFC.</li> <li>Level 1 (Federal Street) was reviewed, serving the District Court Arraignment Court, District Probation and District Transaction. An entry plaza was created in front of the church allowing for handicap access on the right to the handicap ramp serving the PFC and handicap access on the left into the proposed TCB.</li> <li>Level 2 was reviewed, serving Superior Court Arraignment and Superior Transaction as well</li> </ul>	GR

	<p>as three district courts. Richard noted that Superior Court Judges and District Court Judges aren't typically grouped together in the same suite.</p> <ul style="list-style-type: none"> <li>• Level 2 Mezzanine was reviewed. Superior Transaction is located above Superior Probation. An internal stair can connect them.</li> <li>• Level 3 was reviewed, serving Housing Court and Housing Transaction and the remaining Superior Courts. The Housing judge is located near the Housing Court.</li> </ul>	
4.	<p>Joan presented Scheme A2.</p> <ul style="list-style-type: none"> <li>• This scheme moves the church forward to Federal Street.</li> <li>• The B2 level is similar to scheme A1.</li> <li>• Level B2 serves District Probation</li> <li>• Level 1 (Federal Street) in addition to District Court Arraignment and District Transaction, accommodates the Juvenile Courts with Juvenile Probation &amp; Transaction.</li> <li>• Level 2 has Superior Court Arraignment along with both Superior Court Probation and Transaction. Circulation is circuitous and a bridge is necessary to connect public circulation between Superior Probation and Transaction.</li> <li>• Level 3 is similar to scheme A1.</li> </ul>	
5.	<p>Joan presented Scheme B, which moves the First Baptist Church to the southwest corner.</p> <ul style="list-style-type: none"> <li>• Level B2 (Bridge Street) has staff parking, Sally Port and Central Detainee Holding. Goody Clancy will look at moving the vehicular entrance away from being opposite the MBTA parking access road.</li> <li>• Level B1 accommodates all the Juvenile Court facilities and in the south wing separate from the DA and Grand Jury.</li> <li>• Level 1 (Federal Street) has the main entry closer to the middle of the block adjacent to the PFC. Handicap accessible routes to both the new TCB and PFC is from a shared plaza. Like previous schemes this level accommodates the District Court Arraignment Court, Probation and Transaction. Childcare is adjacent to the main entry lobby. Jury Pool is also on this level. It was noted that it is desirable for the Jury pool to have access to staff circulation</li> <li>• Level 2 has Superior Court Arraignment Court &amp; Transaction and three District Courts. It also has a green roof located between two pairs of courtrooms that provides daylight into two courtrooms and the staff circulation. It was noted that we might consider providing access onto the green roof. Judge Flynn commented that 2<sup>nd</sup> session in the District Court can often be as busy as the first session so it would be desirable to have one larger District Court.</li> <li>• Superior Probation is located on a mezzanine level immediately above Superior Transaction.</li> <li>• Level 3 has three Superior Court courtrooms, Housing Court and Housing Transaction</li> </ul>	
6.	<p>Gail and Richard commented as follows:</p> <ul style="list-style-type: none"> <li>• Goody Clancy should develop narratives that discusses the merits and drawbacks of each of the three schemes.</li> <li>• Goody Clancy should not develop Scheme A1 or A2 further. It is beginning to appear that scheme B will most probably be the preferred scheme.</li> <li>• Some program elements are still in flux.</li> <li>• There is discussion going on within AOTC about design by department vs. design by function.</li> <li>• DCAM/AOTC to give Goody Clancy further direction after internal discussion.</li> </ul>	
7.	<p>Joan presented the latest alternate designs for the Probate and Family Court Building.</p> <ul style="list-style-type: none"> <li>• The courtroom in the second floor west wing is preserved.</li> <li>• Three new courtrooms are proposed for the second floor main wing. These fit perfectly with the beam layout expressed in the ceiling.</li> <li>• The fifth courtroom is located on the same floor in the addition with a portion of the mezzanine floor above removed to allow for a full ceiling height. This level also has unassigned space</li> <li>• A staff corridor runs on the west side of the floor connecting all the courtrooms and a public corridor runs on the east side.</li> <li>• Judges suites are located on the mezzanine floor above. A staff elevator connects the judge's suites with the staff circulation on the second floor.</li> <li>• The first floor (ground floor off Federal Street) has the Register of Probate straight ahead off the main lobby with active record storage in the addition. Probation is located in the west</li> </ul>	

	<p>wing (alternate 1) with a stair to the lower level connecting to the remainder of Probation. Space is available in the east wing for the Court Clinic.</p> <ul style="list-style-type: none"> <li>• The lower level in addition to the remainder of Probation has unassigned space and seven parking spaces for judges.</li> <li>• Alternate 2 puts all of probation on the lower level. This frees space on the first floor west wing for DOR.</li> <li>• Both alternate 1 &amp; 2 carry a raised floor over to the staff elevator.</li> </ul> <p>Gail commented that Probation would probably want to be all on the lower level with DOR off the main entry on level 1. Probation officers spend a lot of time in the field. Lack of windows may not be a problem. Gail also asked if some of the top floors of the addition could be removed. Goody Clancy to look at this.</p> <p>Richard thought that it would be good if the security area could be designed to accommodate another magnetometer in the future.</p>	
8.	<p>The next steps in the process were discussed. The judge's relationships to courtrooms; transactions relationships to each other are all in flux. There was discussion of a pre-meeting with Judge Mulligan before presenting to all the judges. Joan Goody made the case of why it might be good to have her present options to Judge Mulligan. Program requirements and the ideal functional relationships diagram usually must be shaped by site constraints.</p>	
9.	<p>Richard reviewed the Chelsea District Court and the Brockton District Court plans. See the memo to Joan Goody from Richard L'Heureux dated October 19, 2005, which enumerates the positive elements and the less successful elements of each building.</p> <p>It was noted that there are two types of security officers within the courthouse. "Blue Shirts" are the security officers that greet entrants at the door. "White Shirts" are court officers also known as Bailiffs who always accompany judges when circulating within the courthouse.</p>	
10.	<p>The RFP, developed by DCAM's Office of Real Estate to establish property lines, was discussed. Gail will see that Goody Clancy's original survey scope will be incorporated into this document.</p>	GR
11.	<p>The First Baptist Church options were discussed. Goody Clancy was directed to do the following:</p> <ul style="list-style-type: none"> <li>• Incorporate space (8000 SF) for the Law Library in the footprint of the new Trial Court Building.</li> <li>• Add another floor to Option 1 due to layout inefficiencies caused by the configuration of the footprint or study further to confirm size.</li> <li>• Incorporate a perspective view of Option 1 into the aerial photo similar to what was done for Options 2, 3A &amp; 3B.</li> <li>• Add to narrative why the Superior Court building and the County Commissioner's building can't be moved to the portion of the site west of the First Baptist Church.</li> </ul> <p>Gail will forward her edited copy of the Goody Clancy's draft Church Study. Gail reported that the legal view is that the Church can't be taken by eminent domain. DCAM is putting out an RFP for another site. The homeowners want to sell. DCAM's standard approach is to buy and lease back.</p>	<p>GC</p> <p>GR</p>
12.	<p>Gail advised that Goody Clancy can continue to work in the following areas:</p> <ul style="list-style-type: none"> <li>• Study the access off Bridge Street.</li> <li>• Add color to the plans, but only to the public, staff and detainee circulation areas and the courtrooms.</li> <li>• Continue development of the Probate and Family Court building.</li> <li>• Look at putting a new heating/cooling plant in the basement of the PFC building and underground outside if required, that would serve the PFC and eventually the new Trial Court Building. This would allow the present heating plant under the addition to continue to serve the Superior Court and County Commissioner's building until such time as they are vacated and disposed of.</li> </ul>	
13.	<p>Goody Clancy will have SEi revise their narrative on the options for separating the utilities connecting the PFC building with the Superior Court and County Commissioner's buildings</p>	GC

**MEMORANDUM OF MEETING # 9****DRAFT****J. Michael Ruane Judicial Center****Salem, MA****Massachusetts State Project No.: TRC 9910 ST2****GC&A Project No. 6290****Date: October 27, 2005****Meeting held @ Goody Clancy**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates		
✓	Michael Joyce	MJ	Goody Clancy & Associates		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review a revised Option 1 (Scheme C) which assumes that none of the First Baptist Church property is available and develops a new Trial Court Building on the parcel of land west of the Church without the slip ramp.	
1.	<p>Joan reviewed Option 1(Scheme C) as follows:</p> <ul style="list-style-type: none"> <li>This scheme has three levels below Federal Street and three floors above Federal; Street with two mezzanine levels, one between the first and 2<sup>nd</sup> floor and one between the 2<sup>nd</sup> floor and the 3<sup>rd</sup> floor.</li> <li>It is a densely packed structure that rises 72 feet (three 24-foot floors) above Federal Street.</li> <li>The first level below Federal Street (B1) is devoted solely to the Juvenile Court.</li> <li>Level B2 has staff parking, receiving, storage and mechanical space. It is accessed off Bridge Street via a ramp down.</li> <li>Level B3 has the sally port and detainee holding area and is accessed via a ramp from B2.</li> <li>The ground floor (Federal Street) is devoted to the District Court with the mezzanine above housing District Court Probation.</li> <li>The second floor has the Superior Court courtrooms and transaction with the mezzanine above holding Superior Court Probation.</li> <li>The third floor (top floor) has the Housing Court with another Superior Court courtroom and space for the Grand Jury and DA</li> </ul> <p>Joan noted that the resulting building is stepped down to respect the scale of Federal Street and can be articulated to reduce its bulk on Bridge Street and Main Streets, but it is a large building. Scheme B is preferable, for scale and future flexibility as well as the ability to bring natural light into all courtrooms. This Option is worth further exploration if no better site is available.</p>	
2.	Gail reported that the house, number 62 Federal Street, was built in 1850, and the fact that it doesn't show on the 1890 to 1906 Sanborn Maps means that it was moved to its present location.	
3.	Gail reported that DCAM will put out an RFP for a site and she doesn't expect a response until the middle of January.	
4.	<p>Paul reviewed SEi's memo on Separation of Utilities between the PFC and the Superior Court building and the County Commissioner's building.</p> <ul style="list-style-type: none"> <li>Option 1, providing individual boilers in the SCB and CCB was deemed problematic and disproportionately expensive.</li> <li>Option 2, continue to serve the two buildings from the existing plant until such time as the buildings are vacated, sold and ready for renovation. This is a promising option if further study can show how the PFC can be renovated with a new heating/cooling plant without disrupting service to the SCB &amp; CCB,</li> <li>Option 3, to do nothing and mothball the two buildings after they are vacated without heat,</li> </ul>	

	was not seen as a viable option. Goody Clancy will have SEi investigate Option 2 in more detail.	<i>GC</i>
5.	Gail asked that we keep the meeting with the Chief Justices for November 28 <sup>th</sup> , 2:00PM at DCAM on our calendar.	
6.	Gail reported that she would get her comments on Goody Clancy's existing conditions report out by the end of the day Friday October 28 <sup>th</sup> .	<i>GR</i>
7.	Goody Clancy will update the Church study with the new scheme, incorporating Gail's edits when received.	<i>GR</i>
8.	Gail delivered the revised Table of Contents for the Certifiable Building Study.	
9.	Jean Caroon is contributing material for a "No feasible alternative" document for the Mass Historic package.	<i>JC</i>
	End of Minutes (Prepared by Paul Dudek)	



## MEMORANDUM OF MEETING # 10

DRAFT

J. Michael Ruane Judicial Center

Salem, MA

Massachusetts State Project No.: TRC 9910 ST2

GC&amp;A Project No. 6290

Date: January 4, 2006

Meeting held @ Register of Deeds, Salem MA.

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Richard L'Heureux	RL'H	AOTC	AOTC	
√	Judge Greg Flynn	JGF	Massachusetts Judicial System	MJS	
√	Jay Leonard	JL	AOTC		
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Michael Joyce	MJ	Goody Clancy & Associates	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review revised and current plans for the Salem Family and Probate Courts with DCAM and Judge Flynn followed by a walk-through of the building to explain and clarify the architectural intent of the plans. Review of Options B for the new TCB was also discussed.	
1.	<p>Joan reviewed the current plans for the Salem Family and Probate Courts entitled Alternate-1 and Alternate-2 as follows:</p> <ul style="list-style-type: none"> <li>Alt-1 proposes that probation is split between the lower level and the first floor plans at the west wing with an internal communicating stair for use of staff between floors. This leaves the lower level and first floor east wings unassigned for possible use by DOR and Court Clinic respectively. The Alt-2 proposes that probation is entirely on the lower level thus allowing the first floor east and west wings to be either unassigned or programmed with DOR and Court Clinic. Both Alt-1 and Alt-2 schemes place mechanical in the lower level with access to seven dedicated staff parking to the rear (north) of the building under the existing 1979 addition. (<i>Gail noted that Probation has already decided it does not want to be on two floors thus Alt-1 was eliminated.</i>)</li> <li>The Register of Probate will be on the 1<sup>st</sup> floor within the full height space of the existing Registry of Deeds room. Total square footage of 13,875 meets the required 13,704 from the program. Joan explained how the existing historic lobby will be preserved while allowing anticipated new security devices adjacent to the lobby.</li> <li>Joan presented the 2<sup>nd</sup> floor of the PFC design. Four courtrooms of 1200sf will enjoy the full height space of the existing 2<sup>nd</sup> floor lined up on axis from south to north. The northern most court room will be within the 1979 addition with a double height space similar in height to the adjoining 3 court rooms.. Two of these adjoining courtrooms will be capable of detainee delivery by a dedicated vertical elevator to the detainee circulation below grade. A public corridor of approximately 16' wide will border the east side of the courtrooms acting also as waiting area for the courts. The west corridor between the courtrooms and the existing facade will be dedicated to staff and judges circulation only. The existing historic courtroom on the west wing will be accessible via the staff circulation to the 5<sup>th</sup> PFC courtroom for the floor.</li> <li>2<sup>nd</sup> floor conference rooms are located proximate but not entirely dedicated to</li> </ul>	

	<p>specific courtrooms to allow flexibility of use a peak times. The east wing indicates an unassigned area possibly for use by social services. The 2<sup>nd</sup> floor historic lobby will also be preserved and add to the waiting space dedicated to the PFC courts.</p> <ul style="list-style-type: none"> <li>Joan explained how the courtrooms will receive natural light from both the east and west via new clerestory glazing above a prescribed wall height in the courtrooms.</li> <li>Re-use of certain mezzanine floors of the 1979 addition allows the design team to program the judges in offices with support space between the 1<sup>st</sup> floor and the courtrooms located on the 2<sup>nd</sup> floor. The judges will access the courtrooms above via stair and elevator. All of these offices have views to the north and the tidal river. The upper mezzanine floor will be used primarily for mechanical equipment so as to keep the height/profile of the equipment low. The northern most court room will however enjoy a double height space on this level. Joan also mentioned that the GC design team have been meeting with SEI to discuss preliminary size, location and feasibility of MEP systems that affect the PFC building and the resulting design of the habitable spaces. The re-use of existing boiler room spaces and the existing chimney for exhaust have been discussed. A reminder to all was made concerning GC-SEI discussions of MEP design to be only preliminary.</li> </ul>	
2.	Gail mentioned her concern about the size of waiting spaces at both 1 <sup>st</sup> and 2 <sup>nd</sup> floor lobbies at the peak time use of the PFC by the DOR.	
3.	Judge Flynn was concerned that certain judges on the review team might want to have separate court rooms in far corners of the building and not follow the basic circulation principles of the AOTC design guidelines. His hope is that a clear explanation of the basic principles will answer most questions.	<i>AOTC</i>
4.	Richard mentioned that most PFC judges on the circuit are familiar with AOTC basic principles of circulation and should be accepting of this design.	<i>AOTC</i>
5.	Richard mentioned that ADR will not be programmed for the PFC. It will be in the new courtroom building however.	<i>GR</i>
6.	Gail mentioned that DOR does not have need for fulltime use of its space which should be considered a dual use conference room/facility as well. She thought it might be best served on the 1 <sup>st</sup> floor.	<i>GR</i>
7.	Gail made the point that Register of Probate record storage is anticipated to have a physical reduction of space at some point in the future.	<i>GR</i>
8.	Joan proceeded to lead the client group in a walk-thru of the building beginning on the lowest level and ending at the 2 <sup>nd</sup> floor. Along the way she illustrated details and conditions of the existing building that will be affected by the proposed design of the PFC.	<i>JC</i>
9.	The team walked up and through the 1979 addition to get a feel for how the inter-floor mezzanine concept would work in the new plan. At the 2 <sup>nd</sup> floor Joan described the width of the public corridor in terms of scale, space and how light would enter the courtrooms via the clerestories.	
10.	Michael Joyce described the scale of the new 1200sf court rooms by asking the team to consider the height, width and depth of the existing historic court room for reference mentioning the width of the new courtrooms would be approximate to putting walls at where the present columns were in the room.	
11.	The team re-adjourned at the meeting room after the walk-through to discuss schedule and strategies on presenting graphic information to the judges group in February. The extra time also allowed the group to go over the new trial court building Option B plans and the affects on parking, loading and other various site issues. Gail and Judge Flynn mentioned that it might be best to show only Option B for the new building (the preferred concept) so as not to confuse the review team. JEG mentioned that the design team will begin to look at sections for both the PFC and the new trial court building in anticipation of graphic quality and coherence for the judges meeting.	
	End of Minutes (Prepared by Michael Joyce)	

J. Michael Ruane Judicial Center  
 Salem, MA  
 Massachusetts State Project No.: TRC 9910 ST2  
 GC&A Project No. 6290

Date: January 9, 2006  
 Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: For DCAM to update Goody Clancy on the status on the project and to review Goody Clancy's current plans for the Salem Family and Probate Courts.	
1.	Gail requested that GC&A send her electronic copies of all the Site Evaluation Studies involving the First Baptist Church property and the three buildings fronting on Federal Street.	GC
2.	Gail will issue an updated project meeting schedule	GR
3.	Gail reported that she met with the Citizen's Steering Committee in Salem on January 6 <sup>th</sup> and will meet again with them on January 13 <sup>th</sup> to discuss site assemblage for the proposed new Trial Courts Building. Gail had them propose project goals and will give us a copy of their comments. She reported that the Steering committee has concern about the future use of the Superior Court and the County Commissioners Building. They would prefer that public access to the buildings be maintained. Joan suggested that the committee be enlisted to research and propose entities that could develop these buildings for public use.	GR
4.	Gail reported that DCAM will arrange for a Pre-Proposal Conference for the representatives of the First Baptist Church and the three buildings on Federal Street. All property owners are in the process of having their properties appraised. It was suggested that perhaps DCAM should issue an RFI (Request for Interest) for entities that may be interested in acquiring and moving the three buildings on Federal Street.	GC
5.	Gail commented on the latest plans for the Probate and Family Court Building as follows: 1. She needs to get Richard L'Heureux's comments on the latest plans. 2. She would like to review the plans with Liz Minis. 3. The layout flows well and accommodates the circulation well. 4. DOR (2441 SF) needs a lot of waiting space that should not be back in the addition. The preferred location would be on the first floor in the front wing.	
6.	Joan stated that we need to add space for Probate and Family Transaction that will expand their space into another wing, making it difficult to accommodate the 2441 SF currently being programmed for DOR on one floor. Gail suggested that perhaps DOR could be split between the first floor and the second floor with an internal stair. Then the question that needs to be answered is what part of DOR should be on the first floor and what can go on the 2 <sup>nd</sup> floor. Gail requested that GC&A do a plan showing DOR split between the 1 <sup>st</sup> and 2 <sup>nd</sup> floor and she	

	would solicit comments.	
7.	<p>Joan had the following comments and questions</p> <ol style="list-style-type: none"> <li>1. The program indicates ADR has staff but no SF assigned. Will it be included?</li> <li>2. Do we know if the Court Clinic is part of our program?</li> <li>3. GC will put Social Services on the 2<sup>nd</sup> floor Addition</li> <li>4. All Record storage could be accommodated on the first floor in the Addition. (Assuming Active Record Storage 5,000 SF, Inactive Record Storage 1000 SF) (this arrangement needs to be reviewed with PFC staff – they don't necessarily want to have their record storage remote from the transaction counters.)</li> <li>5. What level of graphic detail should GC start to develop for the new Trial courts building?</li> </ol>	
8.	<p>Gail had the following comments:</p> <ol style="list-style-type: none"> <li>1. The Space Inventory needs to be approved by Chief Justice Dunphee of the the Probate and Family Court before DCAM/GCA can solicit input from PFC staff. . A meeting to finalize the space inventory is scheduled to take place on Wednesday, January 15<sup>th</sup>.</li> <li>2. She requested that we do not layout the courtrooms yet but do advance the Judges Lobbies (offices and toilet rooms) and Suites (including meeting and support spaces). Note the Robing Room is now called the Off-Bench Judges Conference Rooms. The program will require one per two courtrooms.</li> </ol>	
9.	<p>Gail Set the date of Wednesday March 1<sup>st</sup> for the first Global Workshop. Goody Clancy should invite Structural, Mechanical, Electrical, Civil, Cost Estimating and Code consultants to this workshop.</p> <p>Gail said that DCAM's comments on Edward and Kelcey's Traffic report will be sent out this week.</p>	
10.	<p>Paul Dudek reported that Green International Affiliates has completed the fieldwork and the research for the land survey and expect to deliver the first draft version by the third week in January.</p> <p>Paul Dudek asked when GC could expect to see the results of the Hazards Material Survey for the PFC building. Gail will review. The HazMat Survey Draft Report is expected to be delivered the last week of January.</p>	GR
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 12

DRAFT

J. Michael Ruane Judicial Center  
 Salem, MA  
 Massachusetts State Project No.: TRC 9910 ST2  
 GC&A Project No. 6290

Date: January 25, 2006

Meeting held @ Probate & Family Court Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
✓	John McNichols	JM	P&FC. Admin. Office	P&FCOA	
✓	Sean M. Dunphy	SD	P&FC. Admin. Office	P&FCOA	
✓	Pamela Casey O'Brien	PO	Register of Probate	RofP	
↔	John Cross	JC	Probate Court	PC	
✓	Peter D'Gangi	PDG	Probate Court	PC	
✓	John C. Stevens	JS	Probate Court	PC	
✓	Terri Cafazzo	TC	Probate Court	PC	
✓	Lauren Hale	LH	Administrative Office of the Trial Courts	AOTC	
✓	Richard L'Heureux	RLH	Administrative Office of the Trial Courts	AOTC	
✓	Brian E. Monaghan	BM	Assistant Chief Probation Officer	ACPO	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: For Goody Clancy to work with the users to understand optimal functional space layout and relationships for the Probate Court and Probation.	
1.	<p>Joan Goody reviewed the proposed schematic layout of the five courtrooms on the second floor including the three separate circulation means (judges/staff, public &amp; detainees). Per the requirements of the space inventory, there will be five courtrooms in total.</p> <ul style="list-style-type: none"> <li>Four courtrooms at 1200 SF accommodate about 50 people.</li> <li>One courtroom at 1600 SF accommodates about 75 people.</li> <li>Daylight will be available to the courtrooms via windows or clerestories.</li> <li>Judicial suites are to be located in the Administrative Addition, one floor below the courtrooms (first floor mezzanine).</li> <li>Materials may be transferred between the courtrooms and judicial suites directly via the staff corridor to the elevator serving the judges suites on the floor below.</li> <li>Secure parking (7 spaces) for judges and staff will be provided at grade under the addition. An elevator and stair will provide direct secure access to the judge's suites above.</li> </ul> <p>It was noted that the courtrooms must be acoustically shielded from noise, especially noise emanating from outside dumpsters and snow blowers.</p>	
2.	Joan reviewed the building entrance lobby with proposed circulation loop off to the side for security screening.	

3.	<p>Probate transaction and public reception area was discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• The Dedham Court transaction/reception is a good example of how this area may be planned.</li> <li>• Dedham has a family information center (California Model) where public and staff can interact and the public can be informed as to how to access and navigate the justice system. The Salem Probate &amp; Family Court will be incorporating a Family Information Center as part of the renovation.</li> <li>• A small conference room (4 to 5 people) provides some privacy where volunteers work with pro se litigants. Also, a small room for “one on one” private conversations is helpful. A high percentage of people coming to the court do not have the assistance of lawyers, primarily for economic reasons.</li> <li>• Computer terminals are made available for public use and assist the users in filling out forms through prompting. PFC staff also provide additional assistance. It should be noted that this area is not for research purposes – more “procedural” (How do I...?) These terminals should be designed as workstations where someone can sit at a terminal and have a place to put papers down, etc.</li> <li>• This center should be located adjacent or near to the Register of Probate’s office on the public side of the transaction area, close to the entry where it may be easily found.</li> <li>• The conference room will be shared by others.</li> <li>• Interpreter services should be adjacent to this center (if there will be any added to this program). DCAM/AOTC to advise GC.</li> </ul>	GR&RLH
4.	<p>File storage and access was discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• Currently files are retrieved and brought to the public by staff.</li> <li>• Eventually, as the reservoir of scanned files accumulates, the public will be able to access them by computer, from a research area near the transaction counter.</li> </ul> <p>Joan asked for information about the various ways files are stored and a way of translating program required square footage of files into lineal feet of files. Also what percentage of files needs to be near the transaction counter?</p>	
5.	<p>The Transaction Counter was discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• The current program calls for the transaction counter to accommodate four staff stations, however there was mention that it should be able to accommodate from 6 to 8 staff. Specific counter space for one or two Assistant Registers should be provided. (Goody Clancy will need direction.)</li> <li>• Some staff will be at the counter permanently and others will have a workstation close to the counter. (Goody Clancy will need direction.)</li> <li>• The Cashier is at the transaction counter but separate no with safe. Terry and Pam will tour Dedham and Suffolk County courts and get back to DCAM/GC with further comments.</li> </ul>	GR&RLH
6.	<p>Judicial Suites were discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• Judicial secretaries should be adjacent to judges.</li> <li>• Law clerks work directly with and for the judges</li> <li>• Public access to judges is infrequent and only when accompanied by a court officer.</li> <li>• Sessions clerks work sessions with judges and should be adjacent to judges.</li> <li>• Assistant Registers also need to be accessible to judges, Register of Probate They are hired by the judges and do not work for the Register; they serve as judicial assistants to the public. They go to the public, meaning they do not have to have an office in which to see people. Assistant Registers can be a team, not necessarily associated with a specific judge (this could change); <u>They could be located on the judicial floor but convenient to the Register or they could be on the Register floor but convenient to the judges.</u></li> <li>• Restrooms will be provided in the off-bench conference rooms.</li> </ul>	
7.	<p>Probate/Transaction discussion continued as follows:</p> <ul style="list-style-type: none"> <li>• A public hearing room is located on 2<sup>nd</sup> floor with the courtrooms, near the front of</li> </ul>	

	<p>the building, off the main lobby. It could be used by DOR on block days and available for other uses the majority of the time.</p> <ul style="list-style-type: none"> <li>• DOR staff could have their permanent presence in an office located on the 1<sup>st</sup> floor (to accommodate 2 staff and related office equipment/storage)). The additional staff that come in for block days can be located upstairs, with the DOR offices on the first floor serving as an informational “first stop” area before directing people upstairs.</li> <li>• At least one conference room should be located adjacent to the transaction counter and have access from both the public area and staff circulation.</li> <li>• The Register should be located in a central position, ideally in the center of the staff area..</li> <li>• Public are escorted to meet with the Register as necessary.</li> <li>• The 1<sup>st</sup> Assistant Register works with both the public and judges and preferably should be located adjacent to the Register.</li> <li>• The Transaction Area in the Norfolk Probate &amp; Family Court in Canton was brought up as an example of a successful layout. Register Pamela Casey-O'Brien and Administrative Deputy Assistant Register Terry Cafazzo will visit that facility the week of the 30<sup>th</sup> and get back to DCAM/GC with further comment.</li> <li>• The Administrative Deputy Assistant Register should be located on the transaction floor close to the register.</li> <li>• The Head Administrative Assistant Register requires an office of 120 SF.</li> <li>• Clerical staff (24 people) should be located in one area (like a clerical pool).</li> <li>• Supervisory Clerical (office supervisors, (3)) oversees the clerical staff and should be located nearby. They do not require private offices.</li> <li>• The general arrangement is as follows: Public – Counter (close to the entry) – Records/Clerical space behind counter. Clerical may be in the center of the space with files on each side or on one side with files on the other side. Options will be developed by Goody Clancy.</li> <li>• Staff conference room should be located within the transaction area with privacy from public view or access..</li> <li>• <u>An office to accommodate 209A's (restraining orders) and lawyer for the day <b>will be located for ready public access but not necessarily connected to staff circulation.</b></u></li> </ul>	
8.	<p>Probation was discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• Probation front counter should be close to the entry with clerical space behind it.</li> <li>• The waiting area should be adjacent to the front counter and typically accommodates 20 to 25 people, but up to 40 on busy days.</li> <li>• On an average day 30 cases are sent down to Probation.</li> <li>• Cases are assigned at the front counter.</li> <li>• Probation Officer offices should be separate from the dispute intervention rooms which can be noisy.</li> <li>• Dispute Intervention Rooms should be towards the front, adjacent/close to the waiting area. It should be noted that dispute interventions are not voluntary; they are ordered by a judge.</li> <li>• Probation Officers need access to the clerical area.</li> <li>• Drug testing is supervised by a Probation Officer in a dedicated toilet space. (“Drug Testing / Toilet Room”)</li> <li>• <i>(This is a function of DOR, not Probation)</i></li> <li>• Probation Officers need access to courtrooms and judicial secretaries on occasion via both staff circulation and public circulation.</li> <li>• Suffolk/Brooke was brought up as a successful example for connection between all offices.</li> </ul> <p>With respect to the plan layout for Probation in the lower floor of the Salem Probate and Family Court building, the following comments were made:</p> <ul style="list-style-type: none"> <li>• Probation will need secure access to both the west and east wings without going through public areas.</li> </ul>	

**Deleted:** Located off to the side will be a

	<ul style="list-style-type: none"> <li>• Provide access to as many windows as possible.</li> </ul> <p><b><i>Note: Probation in the PFC in more of a mediation role vs. the supervisory role more related to District/Juvenile Courts. Probation Officers are really “family service officers” dealing with custody/visitation issues rather than criminal issues.</i></b></p>	
9.	It was suggested that the best time to see the court at its busiest would be in the morning on DOR day and on double motion day (Tuesday after a holiday).	
10.	Social Services can share a conference room.	
11.	Court Clinic consists of a clinician’s office, two social service offices and waiting area. A second floor location would be acceptable. In the Salem PFC, there will be one psychologist (clinician) and two social workers.	
	End of Minutes (Prepared by Paul Dudek)	



J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: February 6, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Richard L'Heureux	RLH	Administrative Office of the Trial Courts	AOTC	
↔	Judge Greg Flynn	JGF	Massachusetts Judicial System	MJS	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: For DCAM/AOTC to review alternative layouts for the Probate and Family Court Building developed by Goody Clancy.	
1.	Joan Goody prefaced her presentation of alternate schemes by explaining that these schemes were based on what we had learned at the previous meeting up in Salem with the users and that we are still lacking complete program information that we expect to find when the Room Data Sheets have been completed.	DCAM/ AOTC
2.	The second floor housing five courtrooms was reviewed. The layout works well and remains unchanged. Joan pointed out that there was room to accommodate DOR in the Addition.	
3.	The first floor mezzanine (floor 2 in the addition) accommodates the Judicial Suite. Judges are located along the outer, north wall with the 5 secretaries and clerks adjacent on the interior. It was pointed out that law clerks are assigned to judges. Our current plan shows the judge's conference room located at the east end of the floor in a space with the curving exterior wall. The conference room could also be more centrally located; it was decided to get the opinion of the judges at the next meeting.	
4.	<p>Register of Probate Transaction area was reviewed.</p> <ul style="list-style-type: none"> <li>The public comes directly from the secure side of the entry lobby into the Transaction lobby/waiting area facing the Transaction counter. The counter can handle from 4 to 8 clerks in addition to the cashier located at one end and an Assistant Register at the other end.</li> <li>Research is located directly to the left of the Transaction lobby/waiting area and the conference room is located directly to the right. The conference room has one door for the public and a second door for the staff.</li> <li>A hearing room is located in the west wing with a public entry off the main corridor and a staff entry off the staff circulation.</li> </ul> <p>Joan presented three versions for the layout of space behind the Transaction counter.</p> <ul style="list-style-type: none"> <li>Version 1 has 3,780 SF of files located in the main space directly behind the Transaction counter. Clerks are located behind the files, in the Addition with the Register, Administrative Deputy, 1st Assistant Register and The Assistant Registers located along the outside, north wall of the Addition. 700 SF of files are located in</li> </ul>	

	<p>the east end of the addition.</p> <ul style="list-style-type: none"> <li>Version 2 puts some clerical in the main space behind the Transaction counter with the files down one side of the main space and Offices for the Register, etc. down the other side of the main space. The remaining clerks and the remaining files are located in the Addition.</li> <li>Version 3 has files with some clerks adjacent to the Transaction counter in the main space with the Register etc., remaining clerks and remaining files in the addition similar to Version 1.</li> </ul> <p>The following comments were received:</p> <ul style="list-style-type: none"> <li>Richard suggested that we get Pamela Casey O'Brien's input on the above versions.</li> <li>Richard also suggested that another scenario might be to consider how if it would work to divide up into various sections, Divorce, Probate, Adoption, 209 A, etc. each with their own transaction counter and files.</li> <li>Joan pointed out that Version 1 keeps the files in the main room which can take the file loading. Floors in the Addition will have to be structurally upgraded to carry dense files.</li> <li>Gail expressed concern about access to the Register and suggested that we pull back files near the transaction counter to make room for some of the clerical to be near the transaction counter.</li> <li>Richard suggested another scheme relocating the transaction counter facing the west side of the main space, with files and clerical in the center and in the addition and the east wing.</li> <li>Gail stated that DOR check-in should be close to the entrance and then people could be directed upstairs to the 2<sup>nd</sup> floor (courtroom floor) because some subset will then go to the courtrooms.</li> <li>The Hearing Room could go on the second floor east wing. One day, every other week, the Hearing Room with an adjacent Conference Room could be used as flexible space to accommodate DOR.</li> <li>It was suggested that we should eliminate the door from the main public corridor into research.</li> <li>Gail also suggested that we consider extending the Family Info/Law Center down into the west wing of the building. Joan commented that this will double the size.</li> </ul>	
5.	<p>Joan developed three versions for the layout of Probate on the lower level with the following discussion:</p> <ul style="list-style-type: none"> <li>Version 1 has the Probation lobby directly across from the stair/elevator lobby, with the clerks and files directly behind the transaction counter in the west wing. The Chief and Assistant Chief Probation Offices along with the Staff Conference Room are clustered in the west wing. The Probation Officer's offices are located in the east wing. <i>Subsequent to the meeting this scheme was revised to put the eight Dispute Intervention rooms in the main space leading to the staff/detainee elevator.</i></li> <li>Version 2 is similar but has the Dispute Resolution rooms in the east wing and the Chief, 1<sup>st</sup> Assistant and Assistant Chief of Probation offices in the main space leading to the staff/detainee elevator.</li> <li>Version 3 has the transaction counter facing the main entry into the waiting area, with clerks and files behind it in the main space leading to the staff/detainee elevator with offices to the left and right in the west and east wings.</li> <li>In all schemes staff circulation can cross between wings behind the transaction counter. The layout allows for access to two emergency egress doors, one in each wing. Joan mentioned the difficulty in laying out the space with the increase in Probation Officer's offices from 80 to 120 SF.</li> </ul> <p>Comments were as follows:</p> <ul style="list-style-type: none"> <li>Probation officers keep files in their offices.</li> <li>Richard said that Dispute Resolution belongs in a separate zone and not mixed in</li> </ul>	

	<p>with Probation Officer's offices. Dispute Intervention should be close to the Transaction Counter, reception/waiting area.</p> <ul style="list-style-type: none"> <li>• Richard mentioned another way to plan the Probation Officer's area, but this has not been approved yet; instead of individual offices for the Probation officers have a series of conference rooms for their use.</li> <li>• Probation Officers prefer to meet with clients in a Conference Room/Dispute Intervention room; a ratio of one Dispute Intervention room to two probation officers works.</li> </ul>	
6.	<p>Joan requested information on how to convert file storage in square feet to lineal feet of files. This will vary for the types of file storage.</p> <p>Joan stated that she would:</p> <ul style="list-style-type: none"> <li>• Look at another scheme locating Dispute Intervention in the main wing leading back to the staff/detainee elevator.</li> <li>• Re do DOR on the 2<sup>nd</sup> floor</li> <li>• Take a quick look at putting the Register of Probate Transaction Counter down the side of the main room along with putting more clerical adjacent to the Transaction Counter.</li> </ul>	<p><i>GR</i></p> <p><i>GC</i></p>
7.	<p>Presentation of the proposed new Trial Court Building, Scheme B, to the Chief Justices was discussed as follows:</p> <ul style="list-style-type: none"> <li>• Present the floor plans first.</li> <li>• Move the large Superior Court room and Superior Transaction up with the other Superior Courtrooms on the top floor. Move the housing court and transaction down into the former Superior Court space.</li> <li>• Use color to show circulation types.</li> <li>• Start at Federal Street level and proceed up through upper floors, then go to lower levels.</li> <li>• Next present building sections, preceded by a diagram showing how the inter-floors work.</li> <li>• Start with east west section first, then the north south sections.</li> </ul>	
	End of Minutes (Prepared by Paul Dudek)	

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: February 13, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Richard L'Heureux	RLH	Administrative Office of the Trial Courts	AOTC	
✓	Mary Ann Sahajian	MAS	Associate Justice PFC		
✓	Peter C. DiGangi	PDiG	Associate Justice PFC		
✓	John McNichols	JMcN	PFC Court Administrator		
✓	Pamela Casey O'Brien	PO'B	Register of Probate		
✓	Brian Monaghan	BM	Assistant Chief Probation Officer		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: For Goody Clancy to present alternative layouts for the Probate and Family Court Building to the users and receive feedback.	
1.	Joan Goody prefaced the review of these alternative layouts by stating that these layouts were conceptual designs that would continue to evolve in the next phases of the process, schematic design and design development and would become more detailed as more information is gathered.	
2.	The second floor plan (courtroom floor) and the transverse and longitudinal building sections were reviewed along with the three separate circulation systems (Public, Staff & Detainee). Space and locations for Social Services, the Court Clinic & DOR was indicated. The users saw it as a reasonable layout for the 2 <sup>nd</sup> floor.	
3.	The judges suites located on the first floor mezzanine (2 <sup>nd</sup> floor of the Addition) were reviewed. The five judges are located along the north exterior wall with a conference room at the end and secretaries and law clerks opposite the judge's suites. A receptionist is located adjacent to the existing elevator lobby at the east end of the Addition where the public would be received. A new elevator for use by the judges and staff is located at the west end of the Addition. The users suggested flipping the receptionist with the equipment room so that the receptionist, who could very well be one of the secretaries, was nearer the secretary pool. They also suggested using a glass partition separating the lobby from the secretaries so that secretaries adjacent to the lobby could see who is arriving and function as a receptionist as needed.	
4.	Two schemes for Probate Transaction located on the first floor were reviewed. Option T-1 locates the transaction counter directly opposite the public entry and has space for up to 7 clerks at the counter with a cashier located at one end and an assistant register at the other end. Immediately to the left of the public waiting space is an area for research and to the right a conference room with a separate entry from the staff side.	

	<p>A hearing room is located in the west wing accessed off staff circulation and off the public corridor.</p> <p>DOR along with a shared conference room and the Family Information Center are located in the south portion of the west wing.</p> <p>Files are located in the main room, along with some clerks and a supervisor. The Register, Admin Deputy and Assistant Registers offices are located in the Addition along the north facing outer wall. Clerks are located in the center of the Addition and along with 1,000 SF of files in the east end. Additional files are located in the front east wing.</p>	
5.	Option T-2 was presented. The main variation from option T-1 was that the Register, Admin. Deputy Register, and Assistant Registers are located down the side of the main room along with some clerks and some files. Remaining files are located in the front east wing and also in the Addition along with the remaining clerks and supervisors.	
6.	<p>User Feedback for both options was as follows:</p> <ul style="list-style-type: none"> <li>• DOR: permanent staff should be immediately available on the 1<sup>st</sup> floor when people arrive.</li> <li>• Offices should be located back in the Addition.</li> <li>• Move DOR upstairs so the Family Information Center could have more of a substantial presence. The Hearing Room is not needed here so consider expanding the Family Information Center into the space currently occupied by the Hearing Room and using the existing court on east end of the 2<sup>nd</sup> floor for Hearing Room/DOR.</li> <li>• Break up the hearing room into offices, one for the domestic violence advocate (need two doors), one for the lawyer for the day and one for the family law facilitator.</li> </ul>	
7.	<p>Gail wondered whether operations might benefit if there was a separate transaction counter for a specific function, with their own set of files, i.e. divorce etc.</p> <p>Joan said either scheme could work for dividing up the transaction counter along with the files.</p> <p>Goody Clancy will need further direction from DCAM/AOTC if this becomes a program requirement.</p>	DACM/ AOTC
8.	Richard commented that Goody Clancy should give consideration now, to where egress stairs will be necessary.	GC
9.	The program has no public eating facilities. It is not clear whether vending machines will be provided. Places for staff to eat are in the program. Break rooms could be provided in the two corners of the addition on the first floor, but not on the 2 <sup>nd</sup> floor because of public circulation.	
10.	Some questions were raised about methods to reduce the amount of files. How far back do they want to keep files for ready access?	DCAM/ AOTC
11.	Richard will meet with Pamela Casey O'Brien. Joan said Goody Clancy should wait for feedback before making further changes.	
12.	<p>Joan presented three schemes for laying out Probation in the lower level.</p> <p>Version One:</p> <ul style="list-style-type: none"> <li>• Located seven Dispute Intervention rooms in the main wing with one just off the reception/waiting area.</li> <li>• All Probation Officers are in the east wing, separated by a door from DI and have private circulation to the clerical area.</li> <li>• Four clerical stations are located behind the counter with files immediately adjacent.</li> </ul> <p>It was suggest that the Assistant Chiefs should be near the Chief Probation Officer. Although it may be good to have an Assistant chief over with the Probation Officers.</p> <p>Version Two:</p> <ul style="list-style-type: none"> <li>• Clerks and files placed in the main wing.</li> <li>• Probation Officers are split between the east and west wings.</li> </ul>	

	<p>Version Three:</p> <ul style="list-style-type: none"> <li>The Chief, 1<sup>st</sup> Assistant, and Assistant Chiefs are placed in the main wing.</li> </ul> <p>Gail would like to see more interior offices moved to windows even if it meant moving probation into the main wing reserved for mechanical. She suggested that mechanical could move now under the addition and that staff parking, under the addition, could move around to the east courtyard.</p> <p>Joan explained that she had been reserving this space for mechanical because it offered a very attractive option for an approach to providing heating and cooling to the whole project with little new construction cost. She suggested that option be explored in Schematics when further information on the mechanical systems is available.</p>	
13.	<p>Additional feed back on the schemes was as follows:</p> <ul style="list-style-type: none"> <li>Seven to ten Probation Officers are on duty each day, taking calls in their offices in the morning. Dispute Intervention is assigned new each day and PO's need to get the files once they are assigned a case.</li> <li>Locate supervisor adjacent to the transaction counter, not in the rear.</li> <li>The workflow is as follows: the probation officer reports to the supervisor to get a case assigned. Next the officer picks up the files and goes into Dispute Intervention.</li> <li>There appears to be a bottleneck for staff circulation crossing from one wing to the next. Consider moving the wall a few feet in to the waiting area to relieve potential congestion.</li> <li>Probation will get a break room. The program calls for a shared break room. The staff should not have to leave the floor to find a break room.</li> </ul> <p>Richard and Gail stated that Mark DeGregorian, Chief Probation Officer, needs to review the plans.</p>	DCAM/ AOTC
14.	<p>Joan presented the Judges Lobby layout on the 1<sup>st</sup> floor mezzanine. They following comments were received:</p> <ul style="list-style-type: none"> <li>There may be no budget for a receptionist. It may be that a secretary has a video phone to buzz in guests. A glass wall separating the lobby from the secretaries and clerks would allow them to see who has arrived.</li> <li>Secretaries are assigned to judges and should be close to judges. Clerks and secretaries may be intermingled to achieve the desired adjacencies.</li> </ul>	
15.	<p>Goody Clancy should be prepared to show both the PFC and proposed new trial court building, option B, at the meeting with the judges on the 28<sup>th</sup>.</p> <p>Gail said we would have one hour. Joan stated that there was a lot of material to cover in one hour and that two hours would be better.</p> <p>It was agreed to show only one scheme for the PFC.</p> <p>The following are expected to be present:</p> <p>Honorable Robert Mulligan, Chief Justice for Administration and Management  Robert Panneton, Chief of Staff  Honorable Barbara Rouse, Chief Justice Superior Court Administrative Office  Honorable Sean Dunphy, Chief Justice Probate and Family Court Administrative Office (On vacation)  Honorable Lynda M. Connolly, Chief Justice Administrative Office District Court  Honorable Martha Grace, Chief Justice Juvenile Court</p>	
	End of Minutes (Prepared by Paul Dudek)	

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: February 15, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Richard L'Heureux	RLH	Administrative Office of the Trial Courts	AOTC	
✓	Liz Minis	LM	DCAM	DCAM	
✓	Judge Greg Flynn	JGF	District Court	DC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review current alternatives and decide how and what will be presented to the Chief Justices at the February 28 <sup>th</sup> meeting.	
1.	Joan suggested making the presentation in Power Point and starting with an introduction to the site: <ul style="list-style-type: none"> <li>Use the original Power Point site analysis to understand the constraints and opportunities.</li> <li>Review pedestrian and vehicular circulation and access.</li> <li>Show a site section that explains the elevation difference between Federal Street and Bridge Street</li> <li>Proceed to the three schemes Goody Clancy has studied</li> </ul>	
2.	Joan reviewed schemes A1, A2 & B (the preferred scheme) and how they should be presented: Scheme A1: <ul style="list-style-type: none"> <li>This is an L-shaped scheme designed to work with the First Baptist Church on its present site, with the addition removed.</li> <li>The L-shaped scheme has two courtrooms in each leg</li> <li>District Court Arraignment, Probation and Transaction are located on the first floor (Federal Street Level)</li> <li>Juvenile courts are on the level below</li> <li>More District Courts are on the 2<sup>nd</sup> floor</li> <li>Superior Courts are on the 3<sup>rd</sup> floor along with the Housing Court and Housing Transaction.</li> </ul> Drawbacks to this scheme were noted as follows: <ul style="list-style-type: none"> <li>The location of the Church restricts the footprint of this scheme making it difficult to locate all the functions with required adjacencies on each floor plate.</li> <li>Both public and staff circulation become lengthy.</li> <li>It will be impossible to provide direct daylight into all courtrooms and operable windows with the exception of the Superior courtrooms located on the top floor and those will get daylight through clerestory windows.</li> </ul>	

	<p>Scheme A2:</p> <ul style="list-style-type: none"> <li>Moves the Church forward to make more of the site available for the proposed Trial Court Building.</li> </ul> <p>Draw backs to this scheme were noted as follows:</p> <ul style="list-style-type: none"> <li>Way finding is too circuitous and security monitoring is difficult.</li> <li>It will be impossible to provide direct daylight into all courtrooms and operable windows with the exception of the Superior courtrooms located on the top floor and those will get daylight through clerestory windows.</li> </ul> <p>Show only 1<sup>st</sup> and top floors of this scheme.</p>	
2.	<p>Scheme B:</p> <ul style="list-style-type: none"> <li>Aligns the two pairs of courtrooms per floor along a “bar” with a courtyard/green roof in between which allows daylight to enter all courtrooms</li> <li>Has a public side of the “bar” in the front and a staff/judges/jury side of the “bar” in the back with courtrooms in between.</li> <li>The secretaries are located in an open plan in front of the judges chambers</li> </ul> <p>Comments on this layout were as follows:</p> <ul style="list-style-type: none"> <li>There should be 120 SF offices for Sessions Clerks immediately adjacent to the courtrooms for the Superior Court.</li> <li>Sessions Clerks are the custodian of the case records. The case stays with the clerk. Thus the phrase “Clerk of that session”</li> <li>The judge, clerk &amp; courtroom should be located within working distance of one another.</li> <li>Assistant clerk magistrates are located in the judge’s suites.</li> <li>Jury rooms off to the side of the Judges Lobbies is good.</li> <li>AOTC expressed concern about the distance from transaction areas to the judge’s suites. In a typical day there is a lot of back and forth between the two by court staff. Goody Clancy should have the travel distances.</li> <li>It was suggested that the Housing court Judge’s Lobby be moved to the District Court judge’s area.</li> <li>The District Court and Housing Court will have a collegial lobby, with secretaries and law clerks sharing a bullpen.</li> <li>Two additional judges lobbies should be added to provide for growth.</li> <li>The judge’s library belongs on the floor with the judge’s main reception and conference room.</li> <li>The public must enter the Judges Lobby from a secure access point. This can be accommodated via a corridor from the main public lobby to the judicial reception area.</li> <li>Consider moving Juvenile Courtrooms to the north wall.</li> <li>The Juvenile Court will have a library adjacent to the Juvenile Judges’ Lobbies.</li> <li>The following functions might go on the 1<sup>st</sup> floor (Federal Street level): <ul style="list-style-type: none"> <li>1. Secure waiting</li> <li>2. ADR</li> <li>3. Child care</li> <li>4. Court clinic</li> <li>5. Restrooms</li> <li>6. Other non-court functions</li> </ul> </li> <li>The grand jury should be on secure circulation. Adjacency to the DA is optional.</li> </ul>	
3.	<p>Richard had the following comments:</p> <ul style="list-style-type: none"> <li>He thought the circulation from Juvenile Probation to Juvenile Transaction was circuitous and suggested we look at changing the DA with Juvenile Probation.</li> <li>Move Housing Court to the east end adjacent to Housing Transaction</li> </ul>	



	<ul style="list-style-type: none"> <li>Suggested we may need to add another elevator to reduce staff travel.</li> </ul>	
4.	The Probate Court was reviewed and the question was raised whether to have an open plan for the Probation Officers. Goody Clancy will develop an open plan option utilizing systems office systems offices and designated meeting spaces.	
6.	Gail requested that we put Scheme B on our ftp site with the words DRAFT and the date	
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 16

DRAFT

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: February 28, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Richard L'Heureux	RLH	Administrative Office of the Trial Courts	AOTC	
✓	Liz Minis	LM	DCAM	DCAM	
✓	Judge Greg Flynn	JGF	District Court	DC	
✓	Chief Justice Robert Mulligan		Chief Justice for Administration and Management		
✓	Robert Panneton		Chief of Staff		
✓	Chief Justice Barbara Rouse		Administrative Office Superior Court		
✓	Chief Justice Lynda M. Connolly		Administrative Office District Court		
✓	Chief Justice Martha Grace		Administrative Office Juvenile Court		
✓	Michael Jordan		Court Capitol Projects Director		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To present the conceptual studies of the proposed new Trial Courts Building and the Probate and Family Court Building to be constructed in Salem, to the Chief Justices and receive feedback.	
1.	<p>Liz Minis introduced the project as follows:</p> <ul style="list-style-type: none"> <li>Goody Clancy has been working since last summer developing several options for accommodating the proposed Trail Court program in a new building to be constructed on a site adjacent to the existing Registry of Deeds building, and accommodating the program for the Probate and Family Court in the existing Registry of Deeds building.</li> <li>The program or space inventory and the room data sheets have been developed over the course of the study and will need a final review. The program calls for 11 courtrooms for the proposed Trail Court building and 5 courtrooms for the renovated Probate and Family Court building.</li> <li>The City will give the parcel of land with the roadway cloverleaf to DCAM to enlarge the site. Mass Highway will do the necessary roadway redesign to clear this site.</li> <li>DCAM has received responses from three of the four property owners to the RFP</li> </ul>	

	<p>put out by DCAM to acquire additional properties to assemble the final site.</p> <ul style="list-style-type: none"> <li>• The First Baptist Church has sent a letter indicating a desire to talk with DCAM.</li> <li>• The Certifiable Building Study is scheduled to be completed this May. The target date for the completion of the project is 2010.</li> </ul>	
2.	<p>Joan Goody made the following PowerPoint presentation:</p> <ul style="list-style-type: none"> <li>• Introduction to the historical character of the project's neighborhood.</li> <li>• Project site boundaries.</li> <li>• Discussion of the pedestrian &amp; vehicular points of entry.</li> <li>• Discussion of the civic goals and the diverse edges of Federal, Bridge &amp; North Streets.</li> <li>• Site section with stacking diagrams</li> <li>• Plan view of the site showing houses to be moved off site and the Church to be moved to the corner of the site.</li> <li>• The ideal diagram for a courthouse layout superimposed over the project site and overlapping the existing Probate and Family Court building.</li> <li>• The ideal diagram bent into an L shape superimposed over the project site to avoid conflict with the PFC.</li> <li>• Option B 3<sup>rd</sup> floor on the site, plan view and aerial view.</li> <li>• Options A-1 &amp; A-2 plan and aerial views.</li> <li>• Option B, 3<sup>rd</sup> floor &amp; 2<sup>nd</sup> floor plans with sections.</li> <li>• Option B, 1<sup>st</sup> floor &amp; lower level plans with sections.</li> <li>• Option B, basement plan with section.</li> <li>• Option B, aerial view</li> </ul>	
3.	<p>The following questions and comments were received:</p> <ul style="list-style-type: none"> <li>• Was the lower level of the church below grade? Answer: Yes.</li> <li>• Does the Grand Jury room have windows? Answer: Yes.</li> <li>• Could the Grand Jury join the Law Library in the Church? Answer: No, the Church does not have enough room for both.</li> <li>• Option B does a good job of providing daylight into most spaces.</li> <li>• Wayfinding to Transaction and Probation is as important as to courtrooms.</li> <li>• Has Goody Clancy considered demolishing the 1970's addition to the PFC and rebuilding by extending the proposed new Trial Court building across the rear of the PFC? Answer: Yes, but there are two important considerations: The cost of demolition and new construction on what will be a tight budget and the fact that the Salem community is concerned about presenting a long unbroken façade on Bridge Street.</li> <li>• Goody Clancy should develop an alternate that demolishes the Addition and replaces it with a new structure. Answer: Goody Clancy will do a cost benefit analysis that replaces the Addition with a new structure and compares that to constructing a new façade that covers the existing addition and adds a connecting bridge.</li> <li>• Is the light well/courtyard open to the sky and will courtroom windows be operable? Answer: Yes, this space will not be roofed, but open to the sky.</li> <li>• The elevator/stair core seems to be awkwardly placed in District Probation. Answer: These drawings are conceptual diagrams and relationships will be refined during the design phase.</li> <li>• What is the size of the Jury Pool and how many jurors can it accommodate? Answer: At 2055 net SF. it should accommodate 100.</li> <li>• Lowell accommodates 120. Shouldn't this court accommodate 150?</li> <li>• How many public entrances are there into the court complex? Answer: Only one into the PFC and one into the new Trial Court building. The Law Library is entered from the secure side of public circulation in the Trial Court building. The law library could be entered from the street side if it were deemed desirable during off hours when the Trial Court building was closed, but it will not be a public entry into the Trial Court building.</li> <li>• Would it be possible to have just one public entry to serve both the PFC and the</li> </ul>	

	<p>Trial Court Building? Answer: It would be difficult to have just one public entry but Goody Clancy will study it.</p> <ul style="list-style-type: none"> <li>• Two public entries are not unreasonable for this project.</li> <li>• Would it be possible to have a staff bridge connecting the two buildings? Looking into the future it could be important to have a major connection between the buildings. Answer: Yes a connecting bridge would be possible.</li> <li>• Concern was expressed that daylight coming into the courtroom over a secure corridor would be inadequate. Do we need this secure corridor, or can staff from Transaction or Probation cross public circulation and go through the courtrooms to access the Judicial Suites?</li> <li>• Jury deliberation rooms do not need as much daylight as courtrooms because of the time those rooms are utilized and probably should not occupy choice outside corners. Consider relocating and stacking the Jury rooms.</li> <li>• It is important for workers in Transaction and Probation to have good daylight and these plans seem to provide good access to daylight</li> <li>• Is there a room for alternate Jurors? Answer: The program will include space for them.</li> <li>• Where will Court Reporters be located, inside Judges' Lobbies? The plans provide for 120 SF per Sessions Clerk near the Superior courtrooms.</li> <li>• Locate an off-bench judicial conference room, with toilet, for the judge adjacent to the District Arraignment Courtroom.</li> <li>• The District Attorney could be located on the first floor or elsewhere.</li> </ul>	
4	The general consensus was that Option B provided a good starting layout worth continued development.	
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 17

DRAFT

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: March 1, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Paul Dudek	PD	Goody Clancy & Associates	GC	
√	Liz Minis	LM	DCAM	DCAM	
√	Nancy Stack	NS	Gilbane	G	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To establish a date and an agenda for the Salem Global Workshop with the intent of exploring opportunities and constraints and noting their implications on cost, layout and schedule.	
1.	A list of issues for discussion, prepared by DCAM, was reviewed. It became apparent that some of the issues would be better addressed in separate program and design meetings.	
2	The following tentative list of items for discussion at the Global Workshop was agreed upon: <ul style="list-style-type: none"> <li>1. PFC addition, retain and re-clad or demolish and rebuild?</li> <li>2. HVAC one central system for the PFC and the proposed Trial Courts building or separate systems for each building. Green/sustainable HVAC design opportunities.</li> <li>3. Sustainable/Green Design Project wide (LEED )</li> <li>4. Structural systems including foundation design</li> <li>5. Civil/Site design (grading/retaining, storm water management, Traffic,vehicular &amp; pedestrian entry &amp; curb cuts.)</li> </ul>	
3.	The following tentative dates for programming and the Global Workshop will be held open: Programming meetings – Wednesday March 15 <sup>th</sup> @ 2:30 PM or Thursday March 16 @ 3:00 PM and Wednesday March 22 @ 2:30 PM or Thursday March 23 @ 3:00 PM. Global Workshop Preparation – Tuesday April 4 @ 2:30 PM or Wednesday April 5 @ 2:30 PM. Global Workshop – Tuesday April 11 or Monday April 24.	
4.	Goody Clancy will post plans and sections of the proposed Trial Court building on the FTP site. Plans and Sections each as a separate drawing (capable of being printed on 11" x 17" sheets).	
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 18

DRAFT

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: March 15, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
↔	Liz Minis	LM	DCAM	DCAM	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Judge Greg Flynn	JGF	District Court	DC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review the Richard and Gail's comments and sketches on Goody Clancy's previous submission and to review Goody Clancy's latest version of the Trial Court Building (Scheme B) and the PFC plans.	
1.	Gail's comments on Goody Clancy's scheme, as a result of her meeting at the PFC in Salem, were as follows for the Transaction Register of Probate: <ol style="list-style-type: none"> <li>1. They are pleased to have the offices for the Register, Admin Deputy and Assistant Registers in the Administrative Addition along with the clerical staff. We should also add offices (120 SF, see program) for the HAA and the Adoptions Clerk.</li> <li>2. They would like the clerical staff currently shown located behind the counter moved back with the remaining clerical staff in the Administrative Addition. There should be no clerical staff up front except the permanent clerical staff on the counter.</li> <li>3. Move the conference room shown on the east side of the waiting to allow the transaction counter (for two clerical staff) to wrap around and serve Domestic/Paternity. The conference room could move across to the south side of the east wing/ adjacent the entry.</li> <li>4. Domestic Violence/Restraining Order needs an office and small conference room up front. The conference room should be on both staff and public circulation.</li> <li>5. DOR area requires space for 2 staff and files and should be located on the first floor in the west wing, south side near the lobby.</li> <li>6. Transaction counters should be a minimum of 30 inches deep.</li> </ol>	
2.	Gail's comments on the layout of Probation were as follows: <ol style="list-style-type: none"> <li>1. The clerical and counter area works.</li> <li>2. Make transaction counters deeper to keep a distance between staff and clients (see Lawrence)</li> <li>3. The partition separating waiting from the Dispute Resolution area should be glass, at least from waist up for visibility.</li> <li>4. Relocate the toilet room used for drug testing adjacent to Dispute Resolution.</li> <li>5. Relocate the Interview Rooms to the Dispute Resolution area.</li> <li>6. The waiting area needs to be large enough to hold 50 to 60 people generously. The clients need separation.</li> </ol>	

3.	<p>Richard's floor plan sketches were compared with Goody Clancy's latest plans and sections as follows.</p> <ul style="list-style-type: none"> <li>Both schemes inserted a floor level between the first floor (District Arraignment, District Transaction and District Probation) and the floor above (District Court Floor) to accommodate Superior Transaction, Superior Probation and Housing Transaction. This eliminates a long circuitous staff corridor. Richard's scheme, a full floor, also included the jury pool. Goody Clancy's scheme was an inter-floor which allows the higher ceiling of the District Arraignment Court to poke up, but does not allow for room for the Jury Pool.</li> <li>Goody Clancy will flip the District Arraignment court to the other end as per Richard's scheme.</li> <li>Richard's scheme uses the space on the green roof at the District Court floor for Judicial support with a lower ceiling that allows for clerestory day lighting into the two adjacent District Courts.</li> <li>Richard's scheme has a space for Secure Waiting in the pavilion wing. (Secure waiting for the Trial Courts, accommodates people at risk (victims of domestic violence or witnesses to gang violence, for example). The room should be located to get the users out of view as quickly as possible.</li> <li>Richards scheme put the public elevators in the "bar" to relieve congestion near the public entry. Goody Clancy proposes widening the circulation connecting the public entry to the "bar" public waiting to relieve any congestion.</li> <li>Goody Clancy's scheme moves the jury rooms off the District Court floor to the mechanical mezzanine level above, making room for six judges, a library and a conference room and lots of space for clerks and secretaries in a central pool.</li> <li>Session clerks are located adjacent to courtrooms. Note: On the Superior Court floor, Assistant Clerk Magistrates are session clerks.</li> </ul>	
4	<p>Goody Clancy has public access to the Judge's Lobby via a corridor on the first floor leading to the staff elevator that would take them to the Judge's Lobby reception on the 2<sup>nd</sup> floor. Public would be buzzed into the access to the corridor controlled with a video camera.</p> <p>DCAM/AOTC would like to see if GC could improve on how the public gets to the Judges lobby. Consider moving the staff elevator forward so staff circulation doesn't cross over public circulation. Consider moving the public access corridor to the east side elevator.</p> <p>Another possibility would be to move the public access corridor to the 1<sup>st</sup> floor mezzanine level where Superior Transaction, Superior Probation and Housing Transaction are located.</p>	
5.	DCAM/AOTC reported that judges would like a small room adjacent to the judges lobby for court officers.	
6.	Richard wondered if the Jury Pool located in the Pavilion could be relocated to eliminate the corridor that passes along side the outer wall of the Housing Court.	
7.	A Police Room (150 SF) should be located on the first floor behind the Security Office. This is a place where police officers wait before testifying.	
8.	Childcare requires direct access to grade for emergency egress.	
9.	<p>Comments on the Juvenile floor were as follows:</p> <ul style="list-style-type: none"> <li>The two juvenile courts receive daylight across the staff corridor. Is there any configuration that would allow one or both to be on an outside wall? Richard would not like to see Juvenile Probation staff cross the public area to get to Juvenile Transaction. Goody Clancy will revisit the layout.</li> <li>Would it be possible to move the Juvenile Court into the Pavilion? Joan replied that due to the floor plate size the Juvenile Court would be spread over three floors.</li> <li>Two judges are located on the Juvenile floor. It is possible that they could move up to the collegial lobby. Goody Clancy will investigate the options. If the judges did move up to the collegial lobby, it would allow more window wall for Juvenile Transaction.</li> <li>Goody Clancy's plans may be short one judge in the Judges Lobby. The plans should accommodate 5 judges plus 2 visiting judges. A robbing room will be put adjacent to courtrooms where judges lobbies will be on another floor.</li> </ul>	

10.	The Detainee level was reviewed and seems to work well.	
11.	All space inventories have been updated this week. The Program is out for final review. Goody Clancy was also given a copy of this latest Program edition.	
12.	<p>The Slip ramp was discussed as follows:</p> <ul style="list-style-type: none"> <li>• Goody Clancy reported that it would be difficult for scheme B to accommodate a slip ramp and have been assuming that it will not be required.</li> <li>• Goody Clancy needs to get a decision on the ramp so the landscape design can proceed, and the civil engineer will know what the site grading and drainage will be to finalize their recommendations.</li> <li>• Gail reported that Edwards &amp; Kelcey's traffic study seems to indicate that traffic circulation can work with or without the slip ramp. Edwards and Kelcey propose directing traffic down Lynde Street.</li> <li>• It was decided to have &amp; Kelcey attend the meeting next Thursday at Goody Clancy to discuss the options with Goody Clancy's planner Geoffrey Morrison-Logan.</li> <li>• Edward &amp; Kelcey should also attend the meeting in Salem to present the case for no slip ramp to the steering committee.</li> </ul>	
13.	<p>Topics to be discussed at the Global Workshop should be selected from the following list:</p> <ol style="list-style-type: none"> <li>1. Demolition of Administrative Addition and construction of new addition vs. Renovation of existing Administrative Addition with new screen wall.</li> <li>2. Mechanical options and phasing.</li> <li>3. Cost impact of moving mechanical under Administrative Addition and moving judges' parking to side yard with secure fence and gate.</li> <li>4. Opportunities for sustainable/green design.</li> <li>5. Site civil issues; storm water, sewer connections etc.</li> <li>6. Chapter 34 analysis for the PFC</li> <li>7. Structural systems/foundations.</li> <li>8. Bridge connection and cost.</li> </ol>	
	End of Minutes (Prepared by Paul Dudek)	



## MEMORANDUM OF MEETING # 18

DRAFT

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: March 15, 2006

Meeting held @ Goody Clancy

Deleted: Probate & Family Court  
Building, Salem MA.

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy & Associates	GC	
✓	Paul Dudek	PD	Goody Clancy & Associates	GC	
↔	Liz Minis	LM	DCAM	DCAM	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Judge Greg Flynn	JGF	District Court	DC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review the Richard and Gail's comments and sketches on Goody Clancy's previous submission and to review Goody Clancy's latest version of the Trial Court Building (Scheme B) and the PFC plans.	
1.	<p>Gail's comments on Goody Clancy's scheme, as a result of her meeting at the PFC in Salem, were as follows for the Transaction Register of Probate:</p> <ol style="list-style-type: none"> <li>1. They are pleased to have the offices for the Register, Admin Deputy and Assistant Registers in the Administrative Addition along with the clerical staff. We should also add offices (120 SF, see program) for the HAA and the Adoptions Clerk.</li> <li>2. They would like the clerical staff currently shown located behind the counter moved back with the remaining clerical staff in the Administrative Addition. There should be no clerical staff up front except the permanent clerical staff on the counter.</li> <li>3. Move the conference room shown on the east side of the waiting to allow the transaction counter (for two clerical staff) to wrap around and serve Domestic/Paternity. The conference room could move across to the south side of the east wing/ adjacent the entry.</li> <li>4. Domestic Violence/Restraining Order needs an office and small conference room up front. The conference room should be on both staff and public circulation.</li> <li>5. DOR area requires space for 2 staff and files and should be located on the first floor in the west wing, south side near the lobby.</li> <li>6. Transaction counters should be a minimum of 30 inches deep, possibly more.</li> </ol>	
2.	<p>Gail's comments on the layout of Probation were as follows:</p> <ol style="list-style-type: none"> <li>1. The clerical and counter area works.</li> <li>2. Make transaction counters deeper to keep a distance between staff and clients (see Lawrence)</li> <li>3. The partition separating waiting from the Dispute Resolution area should be glass, at least from waist up for visibility.</li> <li>4. Relocate the toilet room used for drug testing adjacent to Dispute Resolution area.</li> <li>5. Relocate the Interview Rooms.</li> <li>6. The waiting area needs to be large enough to hold 50 to 60 people generously. The clients need separation.</li> </ol>	

3.	<p>Goody Clancy had prepared two sections, showing the similarities and some differences between the approach they had taken in developing option B and Richard's suggestions.</p> <p>Most important, all agreed that a transaction floor could be inserted between the 1<sup>st</sup> floor and the next court floor. This includes Superior Transaction, Probation and Housing Transaction, eliminating the need for exterior corridors.</p> <p>Richard hoped to include the Jury Pool in here as well but there does not seem to be enough room. Goody Clancy will check areas. The Jury Pool is currently located in the pavilion on level two.</p> <p>Goody Clancy will move District Arraignment to the east end of the 1<sup>st</sup> floor, as per Richard's suggestion and will add Secure Waiting in the pavilion.</p>	
4	<p>Public entry to the judges' office was shown through a corridor on the first floor but it interrupted staff circulation. Several options were discussed: Goody Clancy will review and propose an alternate solution.</p> <p>Jury rooms are now shown on mezzanine levels, freeing up space for judicial suites behind the courtrooms.</p> <p>The option of moving the public elevators and "grand stairs" into the bar to relieve congestion in the pavilion was discussed but GCA had widened the public zone in the pavilion so this was not deemed necessary.</p> <p>The option of adding Judicial support at the base of the open area on the District Court floor was discussed. Goody Clancy feels there will be enough area without this and is concerned that they could not get a high enough clerestory into the affected courtrooms to produce good light. If they run out of space they will revisit this idea later.</p>	
5.	DCAM/AOTC reported that judges would like a small room adjacent to the judges lobby for court officers.	
6.	Richard wondered if the Jury Pool located in the Pavilion could be relocated to eliminate the corridor that passes along side the outer wall of the Housing Court.	
7.	A Police Room (150 SF) should be located on the first floor behind the Security Office. This is a place where police officers wait before testifying.	
8.	Childcare requires direct access to grade for emergency egress.	
9.	<p>Comments on the Juvenile floor were as follows:</p> <ul style="list-style-type: none"> <li>The two juvenile courts receive daylight across the staff corridor. Is there any configuration that would allow one or both to be on an outside wall? Richard would not like to see Juvenile Probation staff cross the public area to get to Juvenile Transaction. Goody Clancy will revisit the layout.</li> <li>Would it be possible to move the Juvenile Court into the Pavilion? Joan replied that due to the floor plate size the Juvenile Court would be spread over three floors.</li> <li>Two judges are located on the Juvenile floor. It is possible that they could move up to the collegial lobby. Goody Clancy will investigate the options. If the judges did move up to the collegial lobby, it would allow more window wall for Juvenile Transaction.</li> <li>Goody Clancy's plans may be short one judge in the Judges Lobby. The plans should accommodate 5 judges plus 2 visiting judges. A robbing room will be put adjacent to courtrooms where judges lobbies will be on another floor.</li> </ul>	
10.	The Detainee level was reviewed and seems to work well.	

11.	All space inventories have been updated this week. The Program is out for final review. Goody Clancy was also given a copy of this latest Program edition.	
12.	<p>The Slip ramp was discussed as follows:</p> <ul style="list-style-type: none"> <li>Goody Clancy reported that it would be almost impossible for scheme B to accommodate a slip ramp and have been assuming that it will not be required.</li> <li>Goody Clancy needs to get a decision on the ramp so the landscape design can proceed, and the civil engineer will know what the site grading and drainage will be to finalize their recommendations.</li> <li>Gail reported that Edwards &amp; Kelcey's traffic study seems to indicate that traffic circulation can work with or without the slip ramp, however Edwards and Kelcey propose directing traffic down Lynde Street.</li> <li>It was decided to have someone from Edwards &amp; Kelcey attend the meeting next Thursday at Goody Clancy to discuss the options with Goody Clancy.</li> <li>Edward &amp; Kelcey should also attend the meeting in Salem to present the case for no slip ramp to the steering committee.</li> </ul>	
13.	<p>Topics to be discussed at the Global Workshop should be selected from the following list:</p> <ol style="list-style-type: none"> <li>Demolition of Administrative Addition and construction of new addition vs. Renovation of existing Administrative Addition with new screen wall.</li> <li>Mechanical options and phasing.</li> <li>Cost impact of moving mechanical under Administrative Addition and moving judges' parking to side yard with secure fence and gate.</li> <li>Opportunities for sustainable/green design.</li> <li>Site civil issues; storm water, sewer connections etc.</li> <li>Chapter 34 analysis for the PFC</li> <li>Structural systems/foundations.</li> <li>Bridge connection and cost.</li> </ol>	
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 19

DRAFT

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: March 23, 2006

Meeting held @ Goody, Clancy &amp; Associates

Present √ Present for a portion of the meeting ↔

Deleted: @

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Paul Dudek	PD	Goody Clancy & Associates	GC	
↔	John O'Donnell	JOD	DCAM	DCAM	
√	Michael Joyce	MJ	Goody Clancy & Associates	GC	
√	Richard L'Heureux	RLH	AOTC	AOTC	
√	Judge Greg Flynn	JGF	District Court	DC	
↔	Nancy Stack	NS	Gilbane	G	
↔	Rod Emery	RE	Edwards & Kelcey	EK	
↔	Geoffrey Morrison-Logan	GML	Goody Clancy & Associates	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review the latest plans for the proposed Trail Court Building (Scheme B) and the PFC; to review the schedule and remaining deliverables; to review options for eliminating the slip ramp.	
1.	<p>Joan enumerated the latest revisions to Scheme B starting from the top floor down, as follows:</p> <ul style="list-style-type: none"> <li>Four Jury rooms were moved to the 3<sup>rd</sup> floor mezzanine</li> <li>Judges' Lobbies were moved to the corners on the 3<sup>rd</sup> floor.</li> <li>Jury rooms were moved from the 2<sup>nd</sup> floor to the 2<sup>nd</sup> floor mezzanine.</li> <li>The Jury Pool and the Grand Jury were moved to the pavilion 2<sup>nd</sup> floor mezzanine with a direct access to the staff and detainee elevators via a bridge crossing the two-story public waiting space. This deletes the need for a corridor passing on the east courtroom wall and allows for full height windows on the exterior courtroom wall.</li> <li>All courtrooms from the first floor through the third floor now have access to direct daylight via full height windows.</li> <li>On the 2<sup>nd</sup> floor, the Housing Court was moved to the west end exchanging places with one District Court.</li> <li>On the first floor mezzanine, Housing Transaction, Superior Probation and Superior Transaction were shuffled around to allow for an access corridor for the public to reach the Judges' Lobbies, to be inserted between Housing Transaction and Superior Probation. This eliminated a conflict with public circulation crossing staff circulation. Child Care has direct access to outside grade.</li> <li>1<sup>st</sup> floor is essentially unchanged. A room for Police was added adjacent to security. ADR is in the link to the Law Library.</li> <li>On the Juvenile floor, one juvenile court was moved to have an outside wall and one will get its daylight from a corridor wall. Juvenile Probation is adjacent to Juvenile Transaction, which has direct access to the staff circulation, staff elevator and courtrooms.</li> </ul>	

2.	<p>Joan reviewed the few revisions made to the PFC plans as follows:</p> <ul style="list-style-type: none"> <li>• The Transaction counter for the Register of Probate was wrapped around to provide two clerical stations in the east wing and four stations in the main wing.</li> <li>• There are 22 clerical workstations located in the Administrative Addition.</li> <li>• Code required egress stairs were added on the outside of building at the inside corner of the east and west wings with the main wing.</li> </ul>	
3.	<p>Richard had the following comments:</p> <ul style="list-style-type: none"> <li>• Show a Juvenile Clinic on the Juvenile floor.</li> <li>• The maintenance room in the Trial Court Building must be large enough to accommodate a shop, equipment and storage for servicing all the Essex County courthouses.</li> <li>• Flip the Control Room the other side of the Sally Port to be immediately adjacent to the Detainee area.</li> <li>• Attorneys require access to the Detainee holding area to meet with detainees.</li> <li>• Could we look at making the Judges' Lobby more symmetrical and bump it out to create a more collegial space?</li> <li>• Consider switching one District Court with the Housing Court so that the heavier used District Court can be on an outside wall.</li> </ul>	
4.	<p>There was some discussion that perhaps the number of Jury Rooms could be reduced. For now Goody Clancy will follow the program requirements.</p>	
5.	<p>Elimination of the slip ramp was discussed and the following comments were made:</p> <ol style="list-style-type: none"> <li>1. Goody Clancy requested information on what it will take to eliminate the slip ramp.</li> <li>2. DCAM has recently retained Edwards and Kelcey to commence traffic studies that reflect the current and preferred design scheme for the new court facilities.</li> <li>3. Rod Emery commented as follows regarding the existing traffic options developed to date and impacts of removing the slip ramp: <ul style="list-style-type: none"> <li>• The main problem with elimination of the slip ramp is that it would create a new requirement for northbound vehicles on North Street to turn left onto the (North Street/Bridge Street) cloverleaf. He anticipated that this new traffic movement would impact the storage of vehicles waiting to make the left hand turn onto the cloverleaf. He noted that there is already a limited amount of vehicle storage for northbound traffic south of Federal Street.</li> <li>• There was low demand for westbound vehicles going from Federal Street to the cloverleaf across North Street.</li> <li>• Traffic going across Federal Street would add another movement to the signalization of the intersection and would further slow traffic wanting to make a left turn from North Street to the cloverleaf lane leading to Bridge Street.</li> </ul> </li> <li>4. We need to understand what the traffic impacts will be for these new movements and see if Edwards and Kelcey can develop new scenarios that accommodate the new movements without making the traffic problems worse at this intersection.</li> <li>5. It was agreed that we need to take a second look at going straight across North Street from Federal Street and that we should sit down with the City traffic engineer to get the City input and support for our scheme.</li> <li>6. DCAM must be able to illustrate to the community and Mass Highway that our scheme will work.</li> <li>7. We must understand how the proposed courthouse project will alter traffic patterns in the area with the closing of the present District Courthouse and Jury Pool locations and moving them to the new facility as well as the Registry of Deeds moving out.</li> <li>8. We must establish a "baseline traffic condition" by incorporating the proposed North Street improvements as they are currently conceived so that we can evaluate the true impact of the proposed movements generated by the courthouse facilities. We need to be clear about separating 1) the existing traffic conditions in Salem, 2) the background traffic growth and 3) the proposed improvements from the North Street project so that their associated benefits and impacts are viewed as separate from the courthouse facilities requirements.</li> <li>9. It was understood that our roadway design does not want to be part of the MHD's</li> </ol>	

	<p>Bridge Street project but rather part of MHD's North Street project. The North Street project has opened bids but hasn't awarded the contract. To have our project tacked onto the North Street project will require accelerated design.</p> <p>10. Nancy Stack questioned the need to have the background traffic growth extend to 20 years. What not 5-10?</p> <p>11. Judge Flynn expressed the need to be clear about how the traffic movements are (or are not) changing from the way that people come to the courts today. This needs to be incorporated into our "baseline condition".</p>	
6.	<p>It was decided on the following course of action with respect to eliminating any ramp on the east side of North Street.</p> <ol style="list-style-type: none"> <li>1. Goody Clancy will meet with DCAM on Friday, March 24<sup>th</sup> to collectively develop several roadway and movement scenarios for Edwards and Kelcey analyze over the next several weeks.</li> <li>2. Goody Clancy will then produce a sketch or sketches for a proposed revision to the Federal Street/North Street intersection that would align North Street with a redesigned cloverleaf on the west side of North Street avoiding any right-of-way takings.</li> <li>3. Goody Clancy will pass the design(s) along to DCAM for DCAM's Approval.</li> <li>4. DCAM will pass the design along to Edwards &amp; Kelcey for their review and input and analysis.</li> </ol>	
7.	DCAM passed along a report, to Goody Clancy, produced by the Central Transportation Planning Staff for the Boston Region Metro Planning Organization entitled Transportation Improvement Study for Routes 1A, 114 & 107 & other Major Roadways in Downtown Salem.	
8.	<p>Goody Clancy's Work Plan/Schedule was reviewed with the following comments:</p> <ul style="list-style-type: none"> <li>• Goody Clancy would like approval of scheme B as presented at this meeting to be able to have Goody Clancy's consultants complete their work in time to develop cost estimates to be included in the final report May 1<sup>st</sup> through May 12<sup>th</sup>.</li> <li>• HVAC, Plumbing &amp; Fire Protection, Electrical are well into the project and need to produce an outline specification suitable for pricing.</li> <li>• Landscape, Civil and Structural will start as soon as the building configuration is approved.</li> <li>• Goody Clancy will refine the drawings, reducing excess space to finalize the total area of the building.</li> <li>• Upon DCAM's approval Goody Clancy will produce conceptual elevations of all four sides, a digital massing model, and three eye level perspectives (one from Bridge Street, two from Federal Street, looking from each end).</li> <li>• The key to developing a cost estimate for inclusion in the final report is to finalize the drawings and the consultants work as soon as possible.</li> </ul>	
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 19

DRAFT

J. Michael Ruane Judicial Center

Salem, MA

Massachusetts State Project No.: TRC 9910 ST2

GC&amp;A Project No. 6290

Date: March 23, 2006

Meeting held @ Goody, Clancy &amp; Associates

Present √ Present for a portion of the meeting ↔

Deleted: @

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Joan Goody	JG	Goody Clancy & Associates	GC	
√	Paul Dudek	PD	Goody Clancy & Associates	GC	
↔	John O'Donnell	JOD	DCAM	DCAM	
√	Michael Joyce	MJ	Goody Clancy & Associates	GC	
√	Richard L'Heureux	RLH	AOTC	AOTC	
√	Judge Greg Flynn	JGF	District Court	DC	
↔	Nancy Stack	NS	Gilbane	G	
↔	Rod Emery	RE	Edwards & Kelcey	EK	
↔	Geoffrey Morrison-Logan	GML	Goody Clancy & Associates	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of the meeting: To review the latest plans for the proposed Trail Court Building (Scheme B) and the PFC; to review the schedule and remaining deliverables; to review options for eliminating the slip ramp.	
1.	<p>Joan enumerated the latest revisions to Scheme B starting from the top floor down, as follows:</p> <ul style="list-style-type: none"> <li>• Four Jury rooms were moved to the 3<sup>rd</sup> floor mezzanine</li> <li>• Judges' Lobbies were moved to the corners on the 3<sup>rd</sup> floor.</li> <li>• Jury rooms were moved from the 2<sup>nd</sup> floor to the 2<sup>nd</sup> floor mezzanine.</li> <li>• The Jury Pool and the Grand Jury were moved to the pavilion 2<sup>nd</sup> floor mezzanine with a direct access to the staff and detainee elevators via a bridge crossing the two-story public waiting space. This deletes the need for a corridor passing on the east courtroom wall and allows for full height windows on the exterior courtroom wall.</li> <li>• All courtrooms from the first floor through the third floor now have access to direct daylight via full height windows.</li> <li>• On the 2<sup>nd</sup> floor, the Housing Court was moved to the west end exchanging places with one District Court.</li> <li>• On the first floor mezzanine, Housing Transaction, Superior Probation and Superior Transaction were shuffled around to allow for an access corridor for the public to reach the Judges' Lobbies, to be inserted between Housing Transaction and Superior Probation. This eliminated a conflict with public circulation crossing staff circulation. Child Care has direct access to outside grade.</li> <li>• 1<sup>st</sup> floor is essentially unchanged. A room for Police was added adjacent to security. ADR is in the link to the Law Library.</li> <li>• On the Juvenile floor, one juvenile court was moved to have an outside wall and one will get its daylight from a corridor wall. Juvenile Probation is adjacent to Juvenile Transaction, which has direct access to the staff circulation, staff elevator and courtrooms.</li> </ul>	

2.	<p>Joan reviewed the few revisions made to the PFC plans as follows:</p> <ul style="list-style-type: none"> <li>• The Transaction counter for the Register of Probate was wrapped around to provide two clerical stations in the east wing and four stations in the main wing.</li> <li>• There are 22 clerical workstations located in the Administrative Addition.</li> <li>• Code required egress stairs were added on the outside of building at the inside corner or the east and west wings with the main wing.</li> </ul>	
3.	<p>Richard had the following comments:</p> <ul style="list-style-type: none"> <li>• Show a Juvenile Clinic on the Juvenile floor.</li> <li>• The maintenance room in the Trial Court Building must be large enough to accommodate a shop, equipment and storage for servicing all the Essex County courthouses.</li> <li>• Flip the Control Room the other side of the Sally Port to be immediately adjacent to the Detainee area.</li> <li>• Attorneys require access to the Detainee holding area to meet with detainees.</li> <li>• Could we look at making the Judges' Lobby more symmetrical and bump it out to create a more collegial space?</li> <li>• Consider switching one District Court with the Housing Court so that the heavier used District Court can be on an outside wall.</li> </ul>	
4.	<p>There was some discussion that perhaps the number of Jury Rooms could be reduced. For now Goody Clancy will follow the program requirements.</p>	
5.	<p>Elimination of the slip ramp was discussed and the following comments were made:</p> <ol style="list-style-type: none"> <li>1. Goody Clancy requested information on what it will take to eliminate the slip ramp.</li> <li>2. DCAM has recently retained Edwards and Kelcey to commence traffic studies that reflect the current and preferred design scheme for the new court facilities.</li> <li>3. Rod Emery commented as follows regarding the existing traffic options developed to date and impacts of removing the slip ramp: <ul style="list-style-type: none"> <li>• The main problem with elimination of the slip ramp is that it would create a new requirement for northbound vehicles on North Street to turn left onto the (North Street/Bridge Street) cloverleaf. He anticipated that this new traffic movement would impact the storage of vehicles waiting to make the left hand turn onto the cloverleaf. He noted that there is already a limited amount of vehicle storage for northbound traffic south of Federal Street.</li> <li>• There was low demand for westbound vehicles going from Federal Street to the cloverleaf across North Street.</li> <li>• Traffic going across Federal Street would add another movement to the signalization of the intersection and would further slow traffic wanting to make a left turn from North Street to the cloverleaf lane leading to Bridge Street.</li> </ul> </li> <li>4. We need to understand what the traffic impacts will be for these new movements and see if Edwards and Kelcey can develop new scenarios that accommodate the new movements without making the traffic problems worse at this intersection.</li> <li>5. It was agreed that we need to take a second look at going straight across North Street from Federal Street and that we should sit down with the City traffic engineer to get the City input and support for our scheme.</li> <li>6. DCAM must be able to illustrate to the community and Mass Highway that our scheme will work.</li> <li>7. We must understand how the proposed courthouse project will alter traffic patterns in the area with the closing of the present District Courthouse and Jury Pool locations and moving them to the new facility as well as the Registry of Deeds moving out.</li> <li>8. We must establish a "baseline traffic condition" by incorporating the proposed North Street improvements as they are currently conceived so that we can evaluate the true impact of the proposed movements generated by the courthouse facilities. We need to be clear about separating 1) the existing traffic conditions in Salem, 2) the background traffic growth and 3) the proposed improvements from the North Street project so that their associated benefits and impacts are viewed as separate from the courthouse facilities requirements.</li> <li>9. It was understood that our roadway design does not want to be part of the MHD's</li> </ol>	



	<p>Bridge Street project but rather part of MHD's North Street project. The North Street project has opened bids but hasn't awarded the contract. To have our project tacked onto the North Street project will require accelerated design.</p> <p>10. Nancy Stack questioned the need to have the background traffic growth extend to 20 years. What not 5-10?</p> <p>11. Judge Flynn expressed the need to be clear about how the traffic movements are (or are not) changing from the way that people come to the courts today. This needs to be incorporated into our "baseline condition".</p>	
6.	<p>It was decided on the following course of action with respect to eliminating any ramp on the east side of North Street.</p> <ol style="list-style-type: none"> <li>1. Goody Clancy will meet with DCAM on Friday, March 24<sup>th</sup> to collectively develop several roadway and movement scenarios for Edwards and Kelcey analyze over the next several weeks.</li> <li>2. Goody Clancy will then produce a sketch or sketches for a proposed revision to the Federal Street/North Street intersection that would align North Street with a redesigned cloverleaf on the west side of North Street avoiding any right-of-way takings.</li> <li>3. Goody Clancy will pass the design(s) along to DCAM for DCAM's Approval.</li> <li>4. DCAM will pass the design along to Edwards &amp; Kelcey for their review and input and analysis.</li> </ol>	
7.	DCAM passed along a report, to Goody Clancy, produced by the Central Transportation Planning Staff for the Boston Region Metro Planning Organization entitled Transportation Improvement Study for Routes 1A, 114 & 107 & other Major Roadways in Downtown Salem.	
8.	<p>Goody Clancy's Work Plan/Schedule was reviewed with the following comments:</p> <ul style="list-style-type: none"> <li>• Goody Clancy would like approval of scheme B as presented at this meeting to be able to have Goody Clancy's consultants complete their work in time to develop cost estimates to be included in the final report May 1<sup>st</sup> through May 12<sup>th</sup>.</li> <li>• HVAC, Plumbing &amp; Fire Protection, Electrical are well into the project and need to produce an outline specification suitable for pricing.</li> <li>• Landscape, Civil and Structural will start as soon as the building configuration is approved.</li> <li>• Goody Clancy will refine the drawings, reducing excess space to finalize the total area of the building.</li> <li>• Upon DCAM's approval Goody Clancy will produce conceptual elevations of all four sides, a digital massing model, and three eye level perspectives (one from Bridge Street, two from Federal Street, looking from each end).</li> <li>• The key to developing a cost estimate for inclusion in the final report is to finalize the drawings and the consultants work as soon as possible.</li> </ul>	
	End of Minutes (Prepared by Paul Dudek)	

## MEMORANDUM OF MEETING # 20

DRAFT

J. Michael Ruane Judicial Center  
 Salem, MA  
 Massachusetts State Project No.: TRC 9910 ST2  
 GC&A Project No. 6290

Date: March 24, 2006

Meeting held @ DCAM

Present ✓

Deleted: @

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	John O'Donnell	JOD	DCAM	DCAM	
✓	Nancy Stack	NS	Gilbane	Gilbane	
✓	Michael Joyce	MJ	Goody Clancy & Associates	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	1. <i>Purpose of the meeting:</i> To collectively discuss and develop several roadway and traffic movement scenarios that show the intersection of North and Federal Streets without the proposed slip ramp for Edwards and Kelcey to analyze over the next several weeks.	
1.	Gail reviewed issues brought up at the 3/24 meeting regarding the traffic concerns at the intersection of North Street and Federal Street. DCAM prepared a 1"=30" base plan of the site that now shows the existing west clover leaf ramp.	
2.	<p>Michael produced the GCA intersection overlay sketch from the 3/24 meeting for use in the meeting and reviewed the points made from an earlier morning meeting with Geoffrey Morrison-Logan regarding the Neighborhood Master Plan for the North River Canal Corridor produced by GCA in 2003. The following points were reviewed:</p> <ul style="list-style-type: none"> <li>• South bound slip ramp was proposed at North Street on the north side off the river to bring traffic heading south to Bridge Street and the future MBTA garage. This would effectively and substantially reduce the amount of traffic coming into the Federal Street / North Street intersection pull traffic off of the bridge and clover leaf system.</li> <li>• The current access to the parking lot from below the bridge and off of the west bound lane of Bridge Street would be closed as access to the garage from Bridge Street would occur at the top level of the garage from Bridge Street near the intersection of Bridge and Washington Streets.</li> <li>• Northbound traffic on North Street heading to the garage and Bridge Street would take a left on to the clover leaf ramp. Garage traffic would cross over Bridge Street with the aid of a new traffic light and engage a new road that joins the slip ramp to enter the lower level of the garage on the other side of the bridge. The new road would also offer access to the Leslie Retreat Park.</li> <li>• Traffic direction on existing streets within the study area would remain unchanged.</li> <li>• Pedestrian access would be enhanced and coordinated with the new traffic improvements.</li> </ul>	

3.	John noted that it makes sense to allow south bound traffic into the garage while reducing the amount of expected increase in traffic in the clover leaf system.	
4.	Nancy noted that this is a plan that may or may not happen in the long-term future and that we should not hinge our court site related traffic plan on the North River Master Plan. It was agreed that knowledge of the North River Master Plan was probably good in that we were at planning for the immediate and long-term goals of traffic mitigation.	
5.	<p>Considering that the baseline condition will not allow for a north bound slip ramp to Bridge Street because of the required site for the New Trial Court, the group worked out various scenarios on how the traffic will impact the area around the courthouse, the North/Federal intersection and the broader issues of traffic north and south of the general site area. The following issues were discussed. Direction follows in italic</p> <ul style="list-style-type: none"> <li>• Drop-off pick up to the court houses and existing access to the houses along Federal Street. <i>Keep one-way direction of Federal Street unchanged. Current vehicular users understand how to access the courts from Washington Street to Federal Street. It is not clear how much more traffic will be added to the street considering the closing of the existing District Courthouse and the Jury Pool locations now on Washington Street and their relocation to Federal Street.</i></li> <li>• Coordination /alignment of the clover leaf ramp entry and access to Federal Street across North Street. <i>Allow Federal Street to cross North Street and access ramp to take traffic to Bridge Street. Allow a right hand turn onto North Street from Federal to continue north over the bridge</i></li> <li>• Alignment of left hand turn onto North Street to accommodate non-light or wait turn while also allowing enough room on the Courthouse site for the church at the corner. <i>Considering houses are removed from the corner, re-design Federal Street so as to align straight with the clover leaf ramp entry and to allow room for the courthouse site requirements. This is a change to the existing system in that a stop light is required to allow crossing of North Street from Federal Street.</i></li> <li>• The impact and fallout of reversing the direction of travel on Federal Street. <i>Keep one-way direction of Federal Street unchanged. It is best to keep the existing system intact as much as possible.</i></li> <li>• Stacking lane capacity between lights on North Street heading north across the bridge. <i>Consider aligning Federal Street further north with clover leaf ramp allowing more stack space on North Street. Time the proposed left hand turn light onto the ramp so as to keep the traffic flow fluid as possible. The future North River Master Plan when implemented will reduce the amount of south bound traffic on North Street.</i></li> <li>• The impact of allowing a north bound left hand turn (with traffic light) from North Street to the clover leaf on ramp with or without the inclusion of the North River Master Plan. <i>We need to understand what the actual impacts are by further reviewing traffic counts from the baseline traffic conditions at 3 levels of scale: <u>courthouse site related area</u>, the <u>North River Master Plan study area</u> scale and the <u>city wide traffic</u> scale.</i></li> <li>• Pedestrian improvements to the intersection and to the bridge. <i>It was proposed that we align efforts of MHD improvements with courthouse pedestrian access concepts for overall design continuity.</i></li> <li>• Landscape improvements to the green spaces (new and existing) as an abatement to traffic noise and volume. <i>It was proposed that we align efforts of MHD landscape improvements with courthouse landscape design concepts for overall design continuity.</i></li> </ul>	
6.	<p>The group decided that a sketch will need to be produced that incorporates 4 major concepts to coordinate and improve traffic issues at the Courthouse site scale of study:</p> <ul style="list-style-type: none"> <li>• <b>The new slip ramp as proposed by MHD/ Edwards and Kelcey will be removed from the plan so as to accommodate the new courthouse site design.</b></li> <li>• <b>Propose a left hand turn with traffic light from north bound North Street to the clover leaf on-ramp.</b></li> <li>• <b>Direct access from Federal Street to the clover leaf on-ramp by crossing North</b></li> </ul>	

	<p><b>Street by timed traffic light.</b></p> <ul style="list-style-type: none"> <li><b>To not allow a left hand turn onto North Street from Federal Street. It does not exist now this it would be prudent to not change the existing traffic system.</b></li> </ul> <p>Alternate sketches were to be produced between GCA and John O'Donnell to incorporate the above revisions and improvements. Gail would then pass these along to MHD and Edwards and Kelcey for further review.</p>	
7.	<p>There was some discussion on how to frame the traffic study revisions with the courthouse design as part of the overall presentation to take place in late April a the Salem public meeting. Gail was to follow up on this with DCAM.</p>	
	End of Minutes (Prepared by Michael Joyce)	

**MEMORANDUM OF MEETING # 21**  
**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**Date: April 21, 2006**  
**Meeting held @ Goody Clancy & Associates**  
**Present** ✓

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Craig Holmes	CH	DCAM	DCAM	
✓	Joan Goody	JG	Goody, Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review the process for participating in identifying major functional components that will have cost/budget implications and can be used for cost modeling to drastically reduce the construction cost.	
1.	Gail reported that preliminary budget estimates based on a 190,000 GSF building suggest that the project will have a shortfall of \$14 million. Given our present building GSF the project would have a shortfall of \$20.6 million. We must identify functional components that will offer AOTC/DCAM options for reducing this shortfall.	
2.	Joan Goody and Gail offered the following options for consideration for the proposed Trial court Building: <ol style="list-style-type: none"> <li>1. Remove the Juvenile Court from the project, allowing for the elimination of an entire floor. This would not only save the cost of a floor, but would also allow the parking/detainee level to rise up to grade eliminating the need for long entry ramps within the building.</li> <li>2. Remove Childcare from the program. (Gail responded that Childcare is unfunded currently on mandate) This will remove 2,259 SF from the building.</li> <li>3. Remove ADR from the program, eliminating 965 SF.</li> <li>4. Size the Law Library to fit into the main floor of the Church building only. Currently the Law Library program requires the balcony/mezzanine level to be restructured to accommodate some of the additional program. GC&amp;A was directed not to change the balcony/mezzanine to accommodate books.</li> <li>5. Consider reducing the number of secretaries in the Judges' Lobby to reduce floor area.</li> <li>6. Consider reducing the number of jury deliberation rooms from 9 to 5 so that the 3<sup>rd</sup> floor mezzanine level can be eliminated.</li> <li>7. Consider removing the Grand Jury from the program eliminating 1604 SF.</li> </ol>	
3.	Joan Goody offered the following options for the PFC: <ol style="list-style-type: none"> <li>1. Have a higher ceiling over only two thirds of the courtroom located in the 1970's Addition, saving the cost of structural reframing to create a higher ceiling over the entire courtroom.</li> <li>2. Compare the costs for renovating the 70's addition to demolishing it and constructing a new addition on the east side of the original PFC and restoring the exposed north wall of the PFC.</li> </ol>	

4.	Craig Holmes stated that to reach the project budget, an interactive process will be necessary and that the goal is to examine, using a cost model, the cost/budget implications for each functional component identified by the Client, Architect and Consultants. DCAM, Goody Clancy and Faithful & Gould will work through this process together.	
5.	The next meeting is scheduled for 4/27/06	
	End of Minutes (Prepared by Paul Dudek)	

**MEMORANDUM OF MEETING # 22**  
**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**Date: April 27, 2006**

**Meeting held @ DCAM**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Craig Holmes	CH	DCAM	DCAM	
↔	Nancy Stack	NS	Gilbane	G	
✓	Neal Fontana	NF	Faithful & Gould	F&G	
✓	Paul Dudek	PD	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To establish the process for developing costs of major functional components to be used for cost modeling with the objective of testing various options to reduce the project cost.	
1.	<p>For the purposes of the cost modeling exercise, the project was broken down into four options: new construction (as depicted in preferred option); renovation of PFC with 70's addition; renovation of PFC demolishing addition and putting in an infill structure, and putting all functions in a building on a site that does not include Church parcel.</p> <p>The plans for the proposed Trial Court Building and the PFC were marked up level by level identifying areas that will have a similar level of finish where costs can be assigned as a lump sum or on a unit basis, i.e. per square foot, per person, per cell, per car etc.</p> <p>Gail will develop a spread sheet identifying each area</p> <p>Goody Clancy will fill in the square footage for each area on the plans and where area was developed per unit, the number of units, i.e. people, cars or cells etc.</p>	<p>GR</p> <p>GC</p>
2.	<p>The following were additional items identified to assign costs to:</p> <ol style="list-style-type: none"> <li>1. Exterior wall back up; block vs. LMF. (Assume exterior wall will be 18" thick)</li> <li>2. Exterior wall materials; areas of stone, brick, curtain wall, windows, metal etc.</li> <li>3. Raised floor for tel/data &amp; power only.</li> <li>4. Site work: civil and landscape</li> </ol>	
3.	<p>The Probate and Family Court Building was reviewed as above with the following additional elements:</p> <ol style="list-style-type: none"> <li>1. Haz/Mat abatement: \$1,000K. Add file removal to abatement contract.</li> <li>2. Windows – 3 alternatives (Note: contact Jya Leonard for comment) <ol style="list-style-type: none"> <li>a. Do nothing (ongoing maintenance)</li> <li>b. Remedial work in-place (Paint, restore sills, re-caulk and add interior storms) Develop life cycle costs.</li> <li>c. Full replacement</li> </ol> </li> <li>3. Cleaning and repointing exterior masonry. (30% @ \$20/SF)</li> <li>4. HVAC: <ul style="list-style-type: none"> <li>• 8A (base) Central mechanical plant in PFC</li> <li>• 8B Central mechanical plant in TCB. Base plus \$427,000.</li> <li>• 8C Separate mechanical plants for each building Base plus \$565,000.</li> </ul> </li> <li>• Plumbing &amp; Fire Protection:</li> </ol>	

	<ul style="list-style-type: none"> <li>Fully sprinklered</li> <li>Assume lump sum for fire protection of \$470K</li> </ul> <p>5. Electrical: New transformers, new secondary feeder and panel. \$100K min.</p> <p>6. Seismic: Tie walls to floor slab.</p>	
4.	<p>The 70's Addition to the PFC was discussed with a plan to develop the following costs:</p> <ol style="list-style-type: none"> <li>Demolition.</li> <li>Reneovation: <ul style="list-style-type: none"> <li>Cost per secure parking space. (screening with security gate)</li> <li>Cost to bring stair/elevator up to code.</li> <li>Cost to cut out floor to allow partial double height courtroom. (Avoid cutting through beam and having to support slab with columns to grade) Also cost of pop-up (new roof and sidewalls for courtroom below).</li> <li>Cost to remove most of the roof, leaving the front fascia/parapet to screen the mechanical equipment on the floor below. Also cost of structural framing to transfer mechanical load to columns.</li> </ul> </li> <li>Demolition of the Addition and construction of a new infill addition on the east side. Develop the following costs: <ul style="list-style-type: none"> <li>Cost of new construction. Assume simple spread footing with no underpinning.</li> <li>Restore north façade on PFC (assume 50% of exterior wall intact.)</li> <li>Identify premium for seismic joint between buildings.</li> <li>Establish a roof drainage allowance.</li> </ul> </li> </ol>	
5.	<p>Develop Site Costs under the following headings:</p> <ol style="list-style-type: none"> <li>Site Development: Cut &amp; fill, roadways, sidewalks, lighting drainage, planters, retaining walls, ground cover erosion control and hardscape plazas. Goody Clancy will have Landscape and Civil consultants provide information to develop these costs.</li> <li>Special Construction: Demo and dispose of houses; Perform archival documentation of the Church; demo Church addition; construct new Church foundation; move Church to new foundation; construct new rear wall on Church; connect utilities..</li> <li>Roadway construction.</li> </ol>	GC
6.	The next meeting will be Monday, May 8 <sup>th</sup> from 12:30PM until 3:00PM at DCAM.	
	End of Minutes (Prepared by Paul Dudek)	



## MEMORANDUM OF MEETING # 23

Deleted: DRAFT

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: May 8, 2006

Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
↔	Craig Holmes	CH	DCAM	DCAM	
✓	Nancy Stack	NS	Gilbane	G	
✓	Neal Fontana	NF	Faithful & Gould	F&G	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Judge Greg Flynn	JGF	Massachusetts Judicial System	MJS	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Liz Minnis	LM	DCAM	DCAM	
✓	Ron Ferrara	RF	DCAM	DCAM	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review the budget and review the cost modeling process that will allow us to test various options to meet the budget.	
1.	The floor plans of the new facility and the Probate & Family Court building were discussed at length, and distinct spaces within each facility were identified as space types to be used for costing methodologies. This will allow for looking at the project in terms of "pieces", some of which might be added or subtracted (or cannot be eliminated under any circumstance) to help "model" what cost impacts might be realized by doing so. A spreadsheet will be developed that will correspond to the spaces identified in this exercise (see item #6).	
2.	The Salem projected budget was reviewed. See attached spreadsheet. <ul style="list-style-type: none"> <li>DCAM has approval to spend \$106,000,000. (Total project cost)</li> <li>Allowances for the cost of the Study, Site Acquisition, Demolition, Roadway design, Disposition (SC/CCB/DC) and mitigation need to be verified.</li> <li>The total project cost also includes a parking payment of \$3,000,000 (\$20,000/space for 150 spaces) to the MBTA.</li> <li>Initial assumptions that were used in determining the \$106 M figure were that the new facility GSF would be 193,000 SF (including 10,000 SF for the church) and that the 1970's addition to the PFC would be demolished, leaving 60,000 GSF to be renovated</li> </ul>	
3.	The categories of space outlined in the last meeting were reviewed. The following comments were made: <ul style="list-style-type: none"> <li>The present area of the proposed Trial Court Building is 208,481 GSF (including parking) with an additional 8,772 GSF for the ramp down to secured parking and the Sally Port.</li> <li>Courtrooms will need to be described in detail to develop a more accurate cost per square foot.</li> <li>The assumption is that all nine courtrooms will need to have room to accommodate</li> </ul>	

	<p>a 12 person jury box. Not all courtrooms need jury boxes at this time.</p> <ul style="list-style-type: none"> <li>• The question was raised as to what minimal area will be required for the Law Library.</li> <li>• The extent and cost of seismic upgrades to the Church building will need to be determined.</li> <li>• Richard L'Heureux suggested that the server room be moved to a more central location</li> </ul>	
4.	Richard suggested that we should consider deleting the inter-flooring and reduce the double height courtrooms to 17'-0" floor-to-floor with mechanical soffits, as was done in Lawrence.	
5.	<p>Potential program reductions were discussed as follows:</p> <ul style="list-style-type: none"> <li>• Remove Trial Court Secure Waiting</li> <li>• Remove Childcare</li> <li>• Remove the Juvenile Court (alternative location to be discussed).</li> <li>• Remove the DA and the Grand Jury. Note they should stay together whether they stay or go. (alternative location and feasibility to be discussed.)</li> </ul>	
5.	<p>Contingencies were reviewed and discussed as follows:</p> <ul style="list-style-type: none"> <li>• Contractor's General Conditions 10%</li> <li>• Estimating contingency 10%</li> <li>• Overhead and Profit 4%</li> <li>• Insurance, Permits and Fees 3%</li> <li>• The estimated construction cost (ECC) escalated to mid point of construction, say two years at 7 %/year would add another 14%</li> </ul>	
6.	DCAM has approval to spend \$106,000,000. This is the total project cost (TPC). Typically in DCAM projects, 1.4 or 1.5 times the ECC equals the TPC.	
7.	<p>The following actions will be taken in preparation for the next meeting:</p> <ol style="list-style-type: none"> <li>1. Paul will have Goody Clancy will update the excel Space Type – Cost Modeling spread sheet to have a column for the area in square feet and a column for the cost per square foot.</li> <li>2. Gail will add a narrative for each space type, i.e. judicial level of finish, detainee level of finish, office level of finish, public waiting level of finish, etc.</li> <li>3. Neil Fontana will plug in the cost per square foot and develop the ECC</li> <li>4. Liz Minnis will update the project budget spread sheet.</li> </ol>	<p><i>PD</i></p> <p><i>GR</i></p> <p><i>NF</i></p> <p><i>LM</i></p>
7.	The next meeting will be Monday, May 22 <sup>nd</sup> from 1:00 PM until 5:00PM at DCAM.	
	End of Minutes (Prepared by Paul Dudek)	

**MEMORANDUM OF MEETING # 24**

**J. Michael Ruane Judicial Center  
Salem, MA**

**Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290**

**Date: May 22, 2006**

**Meeting held @ DCAM**

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Craig Holmes	CH	DCAM	DCAM	
√	Neal Fontana	NF	Faithful & Gould	F&G	
√	Paul Dudek	PD	Goody Clancy	GC	
√	Judge Greg Flynn	JGF	Massachusetts Judicial System	MJS	
√	Richard L'Heureux	RLH	AOTC	AOTC	
√	Liz Minnis	SM	DCAM	DCAM	
↔	Michael Joyce	MJ	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review the budget and by using the cost modeling process, identify various options and associated costs of each option with the goal of determining scenarios that meet or come close to the budget.	
1.	Liz Minnis reviewed the projected total project budget analysis for the proposed new Trial Court building. The square footage for the new construction was approximately 190,000 gsf when the project was approved by the administration for the TPC of \$106 million. The application of the proposed prototype standards including some program updates brought the building space program s.f. up to 207,320 and the latest GCA design totals 212, 448. A program reduction exercise has not been finalized between AOTC and DCAM yet, however, initial reductions by DCAM (based on the approach taken at Fall River) have resulted in a gsf close to the 190,000 gsf, so for the purposes of establishing a budget, we have used the 190,000 gsf. Using the 190,000 gsf and the baseline cost per s.f. from the Plymouth Trial court escalated to March 2006 , the ECC escalated to the mid point of construction (9/2009) at 6% per year is \$71,088,000. For the Probate & Family Court renovation, the ECC is \$22,609,645 These costs are put forward as an appropriate target budget.. (Please note that the attached spreadsheet has been updated with corrected figures for the PFC.)	
2.	F & G's ECC in the cost model for the new Trial Court Building is \$80,386,000 and \$20,300,000 for the PFC. He recommends using 7% per year escalation factor. These numbers include 10-12% escalation out to 11/07.	
3.	For comparative purposes, the Fall River courthouse is currently \$376.12/SF without the site. Salem is estimated at \$375.61/SF. These computations do not include site costs but do incorporate escalation	
4.	Neil noted that the price of precast concrete, copper and steel have escalated approximately 20 to 40% in the past three months.	
5.	Craig Holmes, using Faithful & Gould's spread sheet, added three columns, one pricing the base program, another pricing priority one items and a third pricing priority two items. The base program is considered essential. Priority one items are items that could perhaps be reduced or relocated. Priority two items are items that could perhaps be removed from the project.	

With this approach the following Options were developed:

**1. Option 1: Trial Court Bldg @ \$102M plus full PFC renovation @ \$28.5M for a total of 130.5M. (Requires \$24.5 million more in additional funds)**

This option reflects the project as currently planned, but would require a significant increase in funding. (note that after the meeting, the figures carried for the PFC renovation did not include design and other fixed costs and the figures have been adjusted according to the attached spreadsheet – full PFC Renovation at \$26.9 mil without temp lease or \$32.9 with temp lease included

**2. Option 2: Trial Court Bldg @ \$102M plus minimal PFC renovation @ \$4M for a total of 106M.**

This option reflects going ahead with the construction of the new facility as planned, but doing only a very minimal renovation in PFC, assuming the Registry of Deeds moves out and PFC takes over all of the building, renovations to accommodate PFC relocating to space formerly occupied by the ROD. The PFC would have only four courtrooms for the short term and not the five as currently programmed.

**3. Option 3: Trial Court Bldg @ \$98.5M plus minimal PFC renovation @ \$7.5M with no Church for a total of \$106M. (Law library would move into the new Trial Court Bldg.)**

This option reflects a new court facility that doesn't make use of the First Baptist Church, assuming DCAM does not acquire the Church property. The resulting building would be located on the parcel created by acquiring the three houses and the city-owned parcel and relocating the cloverleaf ramp from North Street. The minimal renovation of the PFC might include only MEP improvements and some renovations related to relocation to ROD space as noted in option 2 above.

**4. Option 4: Trial Court Bldg. without Juvenile Court @ \$94.1M plus minimal PFC renovation @ \$11.9M for a total of \$106M.**

This option assumes a new facility with the elimination of Juvenile Court, assuming JC stays in a lease situation and/or is relocated to the vacated District Court building on Washington Street. \$11.9 M allows for a somewhat enhanced renovation at PFC as compared to Option 3, while still not meeting all of the programmatic and security needs of the full renovation. The assumption is that the Juvenile Court would stay in their lease until the end of its term – which is until 2013. Costs for renovating the District Court building to house JC at end of their lease are not currently included in this option. Presumably, those costs would be covered in a later appropriation. If this option were selected, the necessary renovations to DC should be scoped and costed.

**5. Option 5: Trial Court Bldg. without Juvenile or Church @ \$89.6M plus reduced PFC renovation @ \$17.5M for a total of \$106M**

This option also works on the assumption that DCAM does not take ownership of the First Baptist Church building or property, and that Juvenile Court remains elsewhere. It allows for a more significant renovation of the PFC building than option 3 or 4.

**6. Option 6: Trial Court Bldg. without Juvenile & Housing Court @ \$85.5M plus full PFC renovation @ \$28.5M for a total of \$114M. (Requires \$8M additional funds.)**

Again – these figures need correction – this option should include acknowledgement that the DC would require some renovation work. How about using the \$26.9 mil estimate for the PFC full reno without lease costs included, and then there needs to be some \$ carried for DC – say \$75/s.f. x 34,500 s.f. x 1.3 multiplier to get to \$3.4 mil) This would change it to \$85.5 M for new plus full reno for \$26.9 + DC for \$3.4 M = total of \$115.9 M – which requires \$9.9 M additional. This option removes Housing Court from the new facility as well as Juvenile Court; however, it does include the Church building and property. The assumption is that the Housing Court and the Juvenile Court could be accommodated in the vacated

	District Court Building.	
6.	<p>The following issues were raised to look at ways of achieving cost reduction. There will need to be further discussion and investigation before any decisions are made.</p> <ul style="list-style-type: none"> <li>• Reducing the number of jury rooms.</li> <li>• Reducing the number of holding cells in central detainee holding.</li> <li>• Changing the courtroom holding from 1 group/ 1 individual holding to 2 individual cells</li> <li>• Moving program elements around to achieve greater building efficiency.</li> <li>• Looking at ways to reduce area devoted to circulation.</li> <li>• Take another look at the grossing factors.</li> <li>• Exploring the possibility and/or feasibility of reusing the existing District Court Building on Washington Street for different program elements, potentially including Juvenile Court; District Attorneys Office and Grand Jury</li> </ul>	
7.	<ul style="list-style-type: none"> <li>• There will be a follow-up meeting with the Trial Court to discuss the issues raised above.</li> </ul>	
	End of Minutes (Prepared by Paul Dudek)	

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: ~~August 16, 2006~~

Deleted: May 22

Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	John O'Donnell	JO'D	DCAM	DCAM	
✓	Laura Rome	LR	Epsilon Associates	EA	
✓	Doug Kelleher	DK	Epsilon Associates	EA	
✓	Dennis Flynn	DF	Earth Tech	ET	
✓	Brian Dunn	BD	Earth Tech		
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To coordinate design for the ramp elimination/Federal Street intersection and to coordinate the environmental notification requirements.	
1.	Earth Tech has been retained by DCAM to redesign the Federal Street/North Street intersection to allow for the elimination of the interchange ramps to Bridge Street on the east side of North Street.	
2.	Earth Tech is studying the traffic volumes in the influence area to understand what the traffic implications will be for removing the existing ramps with the goal of not degrading existing traffic conditions.	
3.	It is DCAM's desire to get this construction work added to the existing Mass Highway Department's North Street Improvement Project, as a change order. Construction work will start on this project at the north end in the Peabody area. Work south of the river is expected to start on July 1, 2007. Earth Tech's goal is to complete the analysis and have the geometry nailed down by the end of August and the construction documents complete by April 4, 2007.	
4.	DCAM is drafting a memorandum of agreement between the City, DCAM and Mass Highway.	
5.	Epsilon Associates is in the process of producing an ENF for the Trial court Project, both Plan A and Plan B, and which will mention the ramp work. Epsilon will need the traffic counts. The Trial Court Project will not add significant number of trips as courthouse traffic is typically off peak. In addition the Registry of Deeds move out will offset the addition of the Juvenile Court.	<i>ET</i>
6.	A signal will be required at the base of the ramp to Bridge Street intersection. It is important that this signal be located in such a manor as to avoid triggering Chapter 91	

7.	Epsilon Associates will need the land alteration information from Goody Clancy, specifically the area of imperious surfaces of the existing site and the area of imperious surfaces for both Plan A and Plan B.	<i>GC</i>
	End of Minutes (Prepared by Paul Dudek)	

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: ~~August 16, 2006~~

Deleted: May 22

Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Judge Greg Flynn	JGF	Massachusetts Judicial System	MJS	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	
↔	Doug Kelleher	DK	Epsilon Associates	EA	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review presentation materials for the meeting with the Salem Steering Committee (8/21/06) and the Meeting with the Chief Justices (9/15/06). To discuss an approach to developing a comparable cost analysis format.	
1.	The following comments were made concerning the Steering Committee Meeting: <ol style="list-style-type: none"> <li>Goody Clancy will bring the new base model without the models for Plan A (scheme B) or Plan B.</li> <li>As there is still a desire the Salem Historical Society to retain the existing houses somewhere on the site, Gail will bring the previous studies and briefly review them.</li> <li>Joan will comment on the difficulty of retaining the existing houses on the site given the Court Program requirements. The following drawings will be presented in order: <ul style="list-style-type: none"> <li>The two Site Plans (Plan A &amp; Plan B)</li> <li>The building sections for Plan B.</li> <li>The aerial perspectives for Plan A and Plan B.</li> <li>The additional floor plans for Plan B will be available.</li> </ul> </li> <li>The Perspective of Plan B from North Street will not be brought to the meeting.</li> <li>The meeting will be at the City Hall Annex (3<sup>rd</sup> floor) on Washington Street just past Essex Street.</li> </ol>	
2.	Gail requested that Jean Caroon attend a meeting with the Historic Commission, September 6 <sup>th</sup> , at the same location. She should bring the same drawings that were brought to the Steering Committee meeting. The purpose of the meeting is informative, to appraise them of the status of the project before filing and ENF.	
3.	The following budget issues were discussed: <ul style="list-style-type: none"> <li>Fall River, Lowell, Taunton &amp; Salem Trial Court Buildings all have budget shortfalls.</li> <li>Gail will have Craig Holmes, DCAM, coordinate with Neil Fontana, Faithful &amp;</li> </ul>	



	<p>Gould, to format and annotate the cost estimate to match the estimate done for the other projects.</p> <ul style="list-style-type: none"> <li>Options must be developed to meet the budget of \$106. Goody Clancy presented an approach to start the process with two possibilities: <ol style="list-style-type: none"> <li>Construct a Trial Court Building of 190,000 GSF and replace the HVAC system in the PFC with a new heating and cooling system.</li> <li>Construct the Trial Court Building without the Juvenile Court and do more renovation of the PFC. The Juvenile Court could go into the vacated District Court. (See the attached spread sheet).</li> </ol> </li> <li>Joan discussed the difficulty of constructing the new Trial Court Building in stages because of the way stacking and blocking works.</li> <li>DCAM will continue to develop strategies for solving the budget shortfall.</li> </ul>	
4.	<p>The plans to be presented to the Judges were reviewed with the following comments:</p> <ul style="list-style-type: none"> <li>The site background should be darker to read better.</li> <li>The site background should be shown on all building plans.</li> </ul>	
	End of Minutes (Prepared by Paul Dudek)	

MEMORANDUM OF MEETING ~~Task 1 Plan B~~ DRAFT

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J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: June 26, 2006

Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
↔	Liz Minnis	SM	DCAM	DCAM	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To update the status of the project and to review and develop the scope of Alternative Plan B Study.	
1.	Gail reviewed the status of land acquisition. DCAM has P&S agreements for two of the residential properties on Federal Street and expects to take the third property by Eminent Domain. DCAM expects to have Site Control by September 1 <sup>st</sup> .	
2.	Gail reviewed the status of the North Street Project. Earth Tech is designing the North Street Project for the City of Salem. They expect to start construction this summer and wrap it up next summer. DCAM may hire Earth Tech to design a new configuration of the Federal Street / North Street intersection that eliminates the North Street / Bridge Street on-off ramps on the east side. The goal would be to add this to the present scope of construction before construction is complete.	
3.	Gail distributed a new Space Inventory for the new Trial Court that has 191,000 GSF. This Inventory dated 3/6/06, revised 6/26/06 has highlighted areas that are in flux. Example: the Housing Court is shrinking. (The main Housing Court Office is located in Lawrence; this will be a satellite office.) DCAM is working to reduce the program further.	
4.	Goody Clancy's proposed scope of work to develop Plan B was reviewed (Plan B calls for a new Trial Court Building on the parcel of land bounded on the east by the First Baptist Church, Bridge street to the north, North Street to the west and Federal Street to the south) <ul style="list-style-type: none"> <li>Goody Clancy's scope should offer adjustment of the cost model to reflect Plan B as an option, as DCAM may do the cost adjustment internally.</li> <li>Goody Clancy should also develop a cost to construct a physical model as an option. The physical model should be @ 1"=30' and include Washington Street to the east, North street to the west, Federal Street to the south (including the houses bordering Federal Street) and Bridge Street to the north. This model should be a good quality, massing model, with just enough detail to properly represent the scale of the buildings. Goody Clancy should investigate extending the model to the west to include some Federal Street Neighborhood buildings on the west side of North Street for scale. (It appears that if the model were extended to include all of the western on-off ramps to Bridge Street it would include three or four buildings.)</li> <li>The scope should include a meeting with the Steering Committee in Salem (not a public meeting) and a meeting with the Judges.</li> <li>The scope should also include investigating partial renovation of the PFC that reflects three possible levels of spending identified in the cost model developed 5/22/06</li> </ul>	

5.	Joan mentioned that to make the typical courtroom floor plate fit on the site, it may be necessary to move the judges up or down one floor. They would have access to the courtroom floor via one flight of stairs or one elevator stop.	
6.	Gail reported that DCAM had an informational, courtesy meeting with MEPA officials two weeks ago to discuss MEPA requirements. DCAM expects to file an expanded PNF in early August.	
7.	Gail also mentioned that DCAM might request (as an Additional Service) a feasibility study for re-use of the existing District Court Building.	← - - -
8.	The following tentative meeting dates were proposed: Wednesday July 12 @ 2:00 PM, Wednesday July 26 @ 2:00 PM and hold the week of August 14 <sup>th</sup> for meeting with the Judges and the Steering Committee. Gail will confirm.	← - - -
	End of Minutes (Prepared by Paul Dudek)	

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MEMORANDUM OF MEETING ~~Workshop #1 Plan B~~ DRAFT

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J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: July 12, 2006GC&A

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review Plan B conceptual options 1 thru 3 and select one for further development.	
1.	Joan presented Plan B, Option 1 with the following comments: <ul style="list-style-type: none"> <li>This is essentially a “cloverleaf” scheme with a courtroom at each of the four corners, a common waiting area in the center with judges lobbies and jury rooms split in two bars on two opposite sides. This configuration theoretically allows each courtroom to have one outside wall for direct daylight. However the site is not shaped to handle this configuration optimally. Program space is needed on one side of the cloverleaf requiring the introduction of light wells to provide daylight into two courtrooms.</li> <li>This option bends the floor plan so that one side of the building is parallel with the Church and the other side pulls away from the North Street embankment.</li> <li>Located one level below Federal Street, Juvenile Probation and most of Juvenile Clerk Magistrate will be windowless. Juvenile courtrooms, which face Bridge Street, will receive daylight.</li> </ul>	
2.	Plan B, Option 2, was presented with the following comments: <ul style="list-style-type: none"> <li>This option is essentially the “bar” scheme with light well, rotated 90 degrees to fit on this site, without the handle of the attached pavilion. The pavilion in this option shares circulation with the “bar”.</li> <li>This option bends at the open light well, and is parallel with the Church on the east side and pulls away from the highest portion of the Bridge Street embankment.</li> <li>The lower height Pavilion portion of the building provides a civic presence on Federal Street and steps down the mass of the building on the Church side.</li> <li>Juvenile Probation and most of Juvenile Clerk Magistrate will be windowless as well as one of the two juvenile courtrooms.</li> </ul>	
3.	Plan B, Option 3, was presented as follows: <ul style="list-style-type: none"> <li>This option is a compact version of the “bar” scheme, which removes the open light well from between the courtrooms, but provides daylight to the two inner courtrooms via a U shaped garden.</li> <li>The lower pavilion portion of the building fronts on Federal Street and steps down the building massing adjacent to the Church. It also is aligned to be parallel with the Church. The taller courtroom portion of the building is aligned parallel with North Street and puts the greatest mass of the structure adjacent to both North Street and Bridge Street.</li> <li>The resulting wedge shaped space between the high mass of the courtroom block</li> </ul>	

	<p>and low mass of the pavilion is used for circulation and waiting.</p> <ul style="list-style-type: none"> <li>• The jury pool is located in the pavilion and is connected to the courtroom block via bridges to secure circulation.</li> <li>• The Law library is located on two levels in the Pavilion block above the main entrance fronting on Federal Street.</li> <li>• The Juvenile Floor is similar to Option 2.</li> </ul>	
4.	<p>Plan B, Option 3, building sections were reviewed:</p> <ul style="list-style-type: none"> <li>• The sections show that there will be three levels below Federal Street (two levels below Bridge Street) and six levels above Federal Street plus a mechanical penthouse on top.</li> <li>• The sections also reveal an internal ramp from Bridge Street to parking and loading one level below and another ramp from Bridge Street to the sally port two levels below.</li> </ul>	
5.	<p>It was agreed by all present that Option 3 should be the preferred scheme. The pro's and con's of Option 3 were listed as follows:</p> <p>Pros:</p> <ul style="list-style-type: none"> <li>• Massing works on site. Entry pavilion is well scaled and well placed providing a civic presence on Federal Street and providing a massing transition to the Church.</li> <li>• Public circulation is very straightforward, opening to distant views of the river and combined with court waiting, fairly compact and efficient.</li> <li>• All courtrooms receive daylight with the exception of one juvenile courtroom.</li> <li>• Jury pool has views out and has good access to courtrooms.</li> <li>• Judges may be located on a collegial floor at the top of the building.</li> <li>• Uses existing curb cuts for vehicular access to building.</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>• Minimal daylight in juvenile areas.</li> <li>• Noise from North Street will require mitigation.</li> <li>• Potential cost impact to support the North Street embankment.</li> <li>• Law library on two levels.</li> <li>• Building Code limitations on openings in walls adjacent to Church.</li> <li>• Potential cost impact to constructing two levels below the Bridge Street grade with internal ramps. Basement levels may be below the water table.</li> <li>• Potential cost impact to ventilating internal loading dock.</li> </ul>	
6.	<p>Gail reported the following:</p> <ul style="list-style-type: none"> <li>• DCAM expects to file an ENF by the middle of September. The ENF will be on two tracks.</li> <li>• DCAM has retained Earthtec to proceed with 25% design of the roadway.</li> <li>• DCAM expects to have shovels in the ground by July of 2007 for the site prep.</li> </ul>	
7.	<p>Next steps:</p> <ul style="list-style-type: none"> <li>• Goody Clancy will refine and develop Plan B, Option 3 as the preferred scheme. The drawings will be done in CAD and the floor plate areas will be confirmed.</li> <li>• Goody Clancy will have Faithful and Gould perform a rough cost estimate on a cost per square foot with costs impacts due to the special conditions of building on this site.</li> <li>• The next meeting (workshop #2) will be at Goody Clancy's office on Wednesday July 26<sup>th</sup> at 2:00 PM.</li> </ul>	<p>GC</p>
	End of Minutes (Prepared by Paul Dudek)	

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MEMORANDUM OF MEETING ~~Workshop #2 Plan B~~ DRAFT

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J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: July 26, 2006GC&A

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Judge Greg Flynn	JGF	Massachusetts Judicial System	MJS	
✓	Neil Fontana	NF	Faithful & Gould	F&G	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review Plan B, Options 3, refined plans with area and cost comparisons to Scheme B.	
1.	Gail reported that DCAM and AOTC are working to revise the program by reducing some program areas and perhaps removing some program spaces. It is expected that the revised program will have somewhere between 181,000 GSF and 190,000 GSF. The grossing factor will be reduced; Housing Court Transaction may be reduced; some conference rooms, Childcare and ADR may be removed altogether.  Removal of the Juvenile Court is the one big move that can really impact the budget.	
2.	The area and cost compared as follows: 1. Scheme B: 208,481 GSF 2. Plan B: 227,845 GSF (an increase of 19,364 GSF) 3. Scheme B: \$80,386,000 4. Plan B: \$89,149,291 (an increase of \$8,763,291) 5. Scheme B Total Cost: \$86,606,000 6. Plan B Total Cost: \$94,155,958 (an increase of \$7,549,958)	
3.	The area and cost comparison above indicates the premium to build on this site. It was agreed that for this site the layout of the building was pretty good. The cost comparison also indicates the value of the Church site for Scheme B.  If we proceed with Scheme B, the area must be reduced to meet the budget. It was pointed out that the new program must recognize that court waiting areas and circulation spaces will require more area.	
4.	DCAM will review and update the costs for acquiring the three properties on Federal Street and the demolition/disposal costs. If Faithful and Gould is given the area or the volume of the structures, they can develop a demo/disposal cost.	
5.	The next steps are as follows: 1. Goody Clancy will develop a rendering of Plan B and will produce a set of plans suitable to be shown to the public, for the meeting in Salem August 21. (It was noted that Goody Clancy must be prepared to discuss the scheme that retains the three houses on Federal Street. This was requested by Meg Touhy, President of the Federal Neighborhood Association. Also attending will be Barbara Cleary current President of Historic Salem.) Jean Caroon from Goody Clancy will also attend. 2. The site base model is underway.	

	<div>3. DCAM will arrange a meeting with the Chief Justice around September 22<sup>nd</sup> .</div> <div>4. DCAM working with Epsilon will file an ENF by September 15<sup>th</sup> for two alternatives.</div>	
	End of Minutes (Prepared by Paul Dudek)	

**MEMORANDUM OF MEETING – Community Preservation Groups - Salem**  
**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**DRAFT**

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**Date: September 5th, 2006**

**Meeting held @ Salem City Hall Annex**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Carol Meeker	CM	DCAM	DCAM	
✓	Richard L'Heureux	RLH	AOTC	AOTC	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Jean Caroon	JC	Goody Clancy	GC	
✓	Doug Kelleher	DK	Epsilon Associates	EA	
✓	Kathleen Winn	KW	Salem Planning Department		
✓	Morris Schopf	MSc	Historic Salem Inc.		
✓	David Hart	DH	Alliance of Salem Neighborhoods Assoc.		
✓	Vicky Sirianni	VS	Historic Salem Inc.		
✓	Patricia Zaido	PZ	Executive Director of the Salem Partnership		
✓	Mike Sosnowski	MS	City Council		
✓	Barbara Cleary	BC	President - Historic Salem Inc.		
✓	Maggie Lemelin	ML	Chair – ASNA/FSNA		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To update community preservation groups on the status of the proposed new Trial Court Building and to present Plans A & B, prior to meeting with the Salem Historic Commission.	
1.	Gail Rosenberg introduced Goody Clancy as project architects.	
2.	Joan Goody reviewed Goody Clancy's preservation credentials and discussed preservation issues in the context of Plans A & B with the following comments: <ul style="list-style-type: none"> <li>The north side of Federal Street, between Washington Street and North Street, has an institutional scale that has gradually developed over time, starting with the County Commissioner's building. Each new courthouse building displaced existing residences.</li> <li>The widening of both North and Washington Streets has created an east and west boundary to this institutional use.</li> <li>Federal Street reverts to a residential scale to the west of North Street. North Street should be the boundary where the institutional scale stops and the residential scale resumes.</li> <li>A wider view of the district shows churches punctuating corners of major intersections.</li> <li>Plan A, the preferred scheme, moves the First Baptist Church to the corner of</li> </ul>	



	<p>Federal Street and North Street continuing this tradition.</p> <ul style="list-style-type: none"> <li>• The goal of Plan A is to place the bulk of the courthouse building on Bridge Street with a lower pavilion entry on Federal Street in keeping with the scale of the existing courthouse buildings on Federal Street.</li> <li>• The Church, located on the corner, will be seen when viewed looking east down Federal Street from the west side of North Street. The Church starts the transition to the residential scale as seen from this view.</li> </ul>	
3.	<p>Gail Rosenberg responded to questions that were raised as to why the three houses were removed and why is the Federal Street/North Street intersection changed, as follows:</p> <ul style="list-style-type: none"> <li>• A lot has changed since the Icon study was done.</li> <li>• The court consolidation mandate has moved more program into the proposed new Trial Court Building.</li> <li>• To remove the ramp interchange, an alternate way for traffic to access Bridge Street must be found.</li> <li>• It may be necessary to modify the Federal Street/North Street intersection, as shown on the model and in the drawings to allow traffic to use the west side ramp interchange to access Bridge Street. This modification of Federal Street may require moving the three houses. Traffic studies are currently underway to determine the best solution. We do not want to make the traffic movement worse.</li> <li>• The Icon study made no provision for traffic adjustments once the ramp interchange was removed and kept the intersection and houses as they currently exist.</li> </ul>	
4.	<p>Constituents from Historic Salem Inc. and the Alliance of Salem Neighborhoods voiced the following:</p> <ul style="list-style-type: none"> <li>• The three houses are important as historic texture of Federal Street.</li> <li>• The houses provide a transition from the institutional scale to the residential scale beyond.</li> <li>• The houses provide continuance of a pedestrian friendly environment.</li> <li>• They were willing to support removing the Church rear addition and moving the Church on the site because they thought the three houses would remain.</li> <li>• They would not like to see the Federal Street intersection changed as indicated on the model and site drawings. Federal Street should be a local street going east.</li> <li>• They would like to see Plan A "tweaked" to accommodate the three houses, the courthouse entry pavilion moved back to create a forecourt and the whole site preserved.</li> <li>• They do not want to set a precedent by supporting the removal of these historic houses in an historic district.</li> </ul>	
5.	<p>Gail responded to the above input as follows:</p> <ul style="list-style-type: none"> <li>• The traffic piece is very difficult but she will have the traffic engineers study the intersection design.</li> <li>• Moving Bridge Street to make more room on the site was studied and found to be unfeasible.</li> </ul>	
6.	<p>Joan Goody responded to the above comments with the following thoughts:</p> <ul style="list-style-type: none"> <li>• If the houses are to be removed from the site, we have to explain very carefully why this change won't be a precedent.</li> <li>• The goal will be to preserve the integrity of the neighborhood and the visual continuity of Federal Street.</li> <li>• Goody Clancy has heard the concerns of the neighbors and the preservationists and will continue to study the site plan with those thoughts and concerns in mind.</li> </ul>	
	End of Minutes (Prepared by Paul Dudek)	

**MEMORANDUM OF MEETING – Salem Historical Commission**  
**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**DRAFT**

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**Date: September 6th, 2006**

**Meeting held @ Salem City Hall Annex**

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM	DCAM	
✓	Carol Meeker	CM	DCAM	DCAM	
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Jean Caroon	JC	Goody Clancy	GC	
✓	Doug Kelleher	DK	Epsilon Associates	EA	
✓	Kathryn Harper		Salem Historic Commission		
✓	Laurie Bellin		Salem Historic Commission		
✓	David Hart		Salem Historic Commission		
✓	Douglas Desrocher		Salem Historic Commission		
✓	Jessica Herbert		Salem Historic Commission		
✓	Hanna Diozzi		Salem Historic Commission		
✓	Laurence Spang		Salem Historic Commission		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To inform the Salem Historic Commission as to the status of the proposed new Trial Court Project and to present Plans A & B.	
1.	Douglas Kelleher introduced the project team and project, which he noted, is located within the National Register-listed Federal Street Historic District.	
2.	Gail Rosenberg gave the following project update: <ul style="list-style-type: none"> <li>Funding for the proposed new Trial Court Building was obtained last year.</li> <li>Goody Clancy with strong preservation credentials was selected as architects for the project.</li> <li>DCAM assembled a steering committee to represent the interests of the City that includes the mayor and representatives from Historic Salem, the Salem Partnership and the Alliance of Salem Neighborhoods. DCAM has been working with this committee for the last year.</li> <li>Significant changes have occurred since the Icon study was done. One was a mandate to consolidate all court functions into one larger building</li> <li>The issue of site acquisition with the First Baptist Church remains unresolved.</li> <li>DCAM has had Goody Clancy develop two options, Plan A, the preferred scheme, utilizes the First Baptist Church and Plan B utilizes the portion of the site to the west of the First Baptist Church.</li> </ul>	

3.	<p>Jean Caroon reviewed the historic setting of the site, the institutional scale of the north side of Federal Street between Washington Street and North Street, the residential scale on the south side of Federal Street and the dominate feature of locating churches on the corners of street intersections in the area.</p> <ul style="list-style-type: none"> <li>• Plan A, the preferred scheme, was described as having the bulk of the building on Bridge Street, an entry pavilion on Federal Street matching the scale of the existing historic court buildings with the Church relocated to the corner of Federal Street and North Street.</li> <li>• Plan B was described as developing a much smaller site currently where the ramp interchange is to the west of the First Baptist Church. This smaller site results in a taller courthouse building.</li> </ul>	
4.	<p>Douglas Kelleher stated that the permitting process has been started and that DCAM expects to be filing an ENF showing both alternatives, within the next month or two. DCAM, Epsilon and Goody Clancy have met with the steering committee, Historic Salem Inc. and the Alliance of Salem Neighborhoods.</p>	
5.	<p>In response to questions from the Salem Historic Commission concerning the schedule and why the County Commissioner's building and Superior Court building can't be incorporated into the project, Gail Rosenberg reported the following:</p> <ul style="list-style-type: none"> <li>• DCAM expects to start construction with site prep the summer of 2007 and have construction complete by the summer of 2010.</li> <li>• The Superior Court and County Commissioner's building were studied and found to be lacking in adequate space to accommodate the three necessary types of separate and secure circulation required by today's courthouses: public circulation, staff circulation and detainee circulation.</li> <li>• These structures will be surplusd and DCAM will work with the City for appropriate redevelopment.</li> <li>•</li> </ul>	
6.	<p>The Commission found it unfortunate that the model did not have the three houses on the site considering the community concern about losing them.</p> <p>The Commission also noted that with Plan B, the building is much closer to North Street than in Plan A. The Commission asked if any thought had been given to having a pedestrian entry to the Courthouse from North Street, as North Street was a pedestrian route.</p>	
7.	<p>The Commission allowed comments from the audience although this was only an informational meeting.</p>	
	<p>End of Minutes (Prepared by Paul Dudek)</p>	

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: October 4, 2006

Deleted: May 22

Meeting held @ Salem City Hall Annex

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Lynn Duncan	LD	City of Salem Planning Dept.		
✓	Meg Twohey	MT	ASNA/FSNA		
✓	Mike Sosnowski	MS	Salem City Council		
✓	Barbara Clearly	BC	Historic Salem Inc.		
✓	Morris Schopf	MS	Historic Salem Inc.		
✓	David Hartley	DH	Salem Alliance of Neighborhoods		
✓	Carol Meeker	CM	DCAM		
✓	Gail Rosenberg	GR	DCAM		
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Jean Carroon	JC	Goody Clancy	GC	
✓	Douglas Kelleher	DK	Epsilon		
✓	Maggie Lemelin	ML	Salem Alliance of Neighborhoods		
✓	Elizabeth Burns	EB	Federal Street Neighborhood Association		

<i>No.</i>	<i>Topic</i>	<i>Action</i>
1.	<p>Joan opened the meeting by stating that:</p> <p>Based on previous meetings we believe the main issue for many of this group – in Scheme A—is the use of the church and the three houses.</p> <p>We listened to these concerns, gave them much thought and have come to the conclusions that will be in the ENF report:</p> <p>While understanding some peoples' desire to keep the three houses in situ—and acknowledging that they give good closure to the view from the west end of Federal Street, but we do not believe it is appropriate to keep them in that location.</p> <p>We believe they should be moved to other appropriate locations in Salem and that the church should be repositioned to give that visual closure—a typical condition in the historic district.</p> <p>We believe this is correct because the NR nomination identifies this side of the street as the institutional side of the street.</p> <ul style="list-style-type: none"> <li>because the scale of the new building behind three small houses destroys any domestic scale one might hope to preserve.</li> <li>that the three vernacular houses diminish the civic presence of what will be an</li> </ul>	

	<p>important building.</p> <ul style="list-style-type: none"> <li>• that the houses' proximity to the court will present a security risk to the courthouse.</li> </ul>	
2.	<p>Comments from those in attendance included:</p> <ul style="list-style-type: none"> <li>– David Hartley: Tweak "C" to make houses fit better.</li> <li>– Meg: A lot of interest in project, people feel that presentation to MHC has been made but not to them.</li> <li>– Morris Schopf: If houses moved, would we help them find good locations.</li> </ul>	
3.	<p>Gail explained the MEPA process: present all info. open for public and written comment (possibly early November)</p>	
4.	<p>Meg said a good model was a "Marketplace": two public meetings first to vent, second was productive.</p>	
5.	<p>Gail noted that if the preferred alternate changes, must notify and have another meeting.</p>	
	End of Minutes (Prepared by Joan Goody)	

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: January 11, 2006

Deleted: May 22

Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Jenna Ide	JI	DCAM – Conservation Planner		
✓	Gail Rosenberg	GR	DCAM		
✓	Carol		DCAM		
✓	Richard L'Heureux	RLH			
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	
✓	Don Haiges	DH	SEi		
✓	Mark Warren	MW	SEi		
✓	William Doyle	WD	Nitsch Engineering	NE	
Not Present	See memorandum dated 1/8/07		Carol R. Johnson Associates	CRJA	

<i>No.</i>	<i>Topic</i>				<i>Action</i>
1.	Purpose of Meeting: To review and generate possibilities for integrated sustainability for the proposed new Salem Trial Court Building.				
2.	<p>Jenna Ide reviewed the Commonwealth's Minimum Standards for Large Projects. The Trial Court Building at 176,000 GSF will be required to adhere to the Massachusetts LEED Plus standard for new construction. Mass LEED Plus requires obtaining the basic U.S. Green Building Council's LEED certification and attainment of specific LEED credits that are referenced in LEED-NC Version 2.2.</p> <p>Massachusetts LEED Plus standard requires achieving LEED certification of 26 points plus six additional specific points that promote energy efficiency, Smart Growth, and water efficiency. The goal for this project will be to attain Silver Certification (minimum 33 points).</p>				
3.	The LEED-NC Version 2.2 was used as a guide to identify LEED areas where credits for the project are required or should be explored or should be rejected, as follows:				
		<b>SUSTAINABLE SITES</b>			
Prereq 1	y	e	s	<b>Construction Activity Pollution Prevention.</b> Bill Doyle reported that as our site exceeds one acre DCAM will have to apply for a National Pollution Discharge Elimination System Permit.	DCAM/ NE
Credit 1	1			<b>Site Selection.</b> Check Flood Plain. Bill Doyle reported that we DCAM will need to document the site on a Map that will be certified.	DCAM /NE
Credit 2	1			<b>Development Density and Community Connectivity.</b> This point should be attainable. Architect will have to document the density of the site development and the density of the surrounding area. MA LEED+	GC
Credit 3		1		<b>Brownfield Redevelopment.</b> Site contaminants may be encountered during Site Prep. MA LEED+	
Credit	1			<b>Alternative Transportation,</b> Public Transportation. Identify commuter rail, bus lines on	GC

4.1			map. MA LEED+	
Credit 4.2	1		<b>Alternative Transportation</b> , Bicycle Storage & Changing Rooms. Need to locate on site. Changing rooms included in program for occupants	<i>GC</i>
Credit 4.3		1	<b>Alternative Transportation</b> , Low-Emitting and Fuel-Efficient Vehicles. DCAM/AOTC to investigate if they want to designate preferred parking for these vehicles.	<i>DCAM /AOTC</i>
Credit 4.4		1	<b>Alternative Transportation</b> , Parking Capacity. Investigate carpooling. Can we get more than 30 parking spaces? Check Zoning requirements, assume business use ( <i>GC</i> )	<i>DCAM /AOTC</i>
Credit 5.1		1	<b>Site Development</b> , Protect and Restore Habitat. Not feasible	
Credit 5.2		1	<b>Site Development</b> , Maximize Open Space. With green roof this may be possible. Green roof will probably be extensive. Check costs for green roof. Check maintenance requirements and policy on providing maintenance.	<i>CRJA/ GC</i>
Credit 6.1	1		<b>Stormwater Design</b> , Quantity Control. Civil will work with landscape architect to determine rate and quantity and develop a plan for storm water management. Currently costs are being carried for storm water detention. The Green Roof may help. Civil will outline three options. The site must be defined to perform the calculations. There are three site options 1. The site includes the new Trial Court building only and stops at the PFC, 2. The site includes the PFC but stops at the Superior Court, 3. The site includes the PFC and the Superior Court and County Commissioner's building. It was suggested that perhaps a Master Plan for drainage be developed.	<i>CJ</i>
Credit 6.2	1		<b>Stormwater Design</b> , Quality Control. Stormwater management plan to address options for infiltration.	<i>JN</i>
Credit 7.1	1		<b>Heat Island Effect</b> , Non Roof. Landscape architect to address.	<i>CRJA</i>
Credit 7.2		1	<b>Heat Island Effect</b> , Roof. A Sarnafil roof membrane would qualify for this credit. We must incorporate the cost for this in our budget. DCAM may require specifying a 2 ply bituminous roof system which would not qualify.	<i>DCAM /GC</i>
Credit 8	1		<b>Light Pollution Reduction</b> . The assumption is that we should be able to design both interior and exterior lighting to meet the requirements for this credit.	<i>GC</i>
			<b>WATER EFFICIENCY</b>	
Credit 1.1	1		<b>Water Efficient Landscaping</b> , Reduce by 50%. MA LEED+ requirement. Landscape architect to address.	<i>CRJA</i>
Credit 1.2	1		<b>Water Efficient Landscaping</b> , No potable Use or No Irrigation. Provide drip irrigation at all planting areas. Use native plants requiring less water. Evaluate captured rainwater for use in irrigation. Confirm costs and perform lifecycle analysis.	<i>CRJA</i>
Credit 2		1	<b>Innovative Wastewater Technologies</b> . Examine the use of rainwater for use in low flush toilets. Consider costs for filtering, holding tanks and maintenance. Perform a life cycle analysis.	
Credit 3.1	1		<b>Water Use Reduction</b> , 20% Reduction. MA LEED+ Requirement. Consider waterless urinals and dual flush 1.6 gallon waterclosets. Plumbing Engineer to review (DMC)	<i>DMC</i>
Credit 3.2		1	<b>Water Use Reduction</b> , 30% Reduction.	<i>SEi/ DMC</i>
			<b>ENERGY &amp; ATMOSPHERE</b>	
Prereq			<b>Fundamental Commissioning of the Building Energy Systems</b> . Ron Ferrara may have information concerning commissioning costs.	
Prereq			<b>Minimum Energy Performance</b> . No cost impact	
Prereq			<b>Fundamental Refrigerant Management</b> . No cost Impact.	
Credit 1	2	8	<b>Optimize Energy Performance</b> . MA LEED+ Requirement. Demonstrate 14 percent improvement in building performance rating compared to the baseline ASHRAE/IESNA 90.1-2004. Need to confirm cost for achieving this credit. Architects to look at maximizing daylight and enhanced building envelope. Mechanical engineers to identify 3 to 5 options (i.e. geothermal, water tanks for heat storage etc.). Develop cost for building energy performance modeling.	<i>SEi</i>
Credit 2	1	2	<b>On-Site Renewable Energy</b> . Achieve 2.5% renewable energy. Mechanical engineers to identify options (i.e. geothermal, photovoltaic, solar system etc.) Potential 3 credits,	<i>SEi</i>

			assume 1.	
Credit 3	1		<b>Enhanced Commissioning.</b> MA LEED+ Requirement. Requires independent commissioning authority prior to the start of construction documents. Identify cost	<i>SEi</i>
Credit 4	1		<b>Enhanced Refrigerant Management.</b> Use no refrigerants or select refrigerants that minimize or eliminate emission of compounds that contribute to ozone depletion.	<i>SEi</i>
Credit 5		1	<b>Measurement &amp; Verification.</b> Identify cost for a measurement and verification program.	<i>SEi</i>
Credit 6		1	<b>Green Power.</b> No possible for the State to purchase green power.	
			<b>MATERIALS &amp; RESOURCES</b>	
Prereq			<b>Storage and Collection of Recyclables.</b>	
Credit 1.1		1	<b>Building Reuse,</b> Maintain 75% of Existing Walls, Floors & Roof. MA LEED +. Architect to see if reuse of First Baptist Church could qualify. Note rear addition is being demolished.	<i>GC</i>
Credit 1.2		1	<b>Building Reuse,</b> Maintain 100% of Existing Walls, Floors & Roof.	
Credit 1.3		1	<b>Building Reuse,</b> Maintain 50% of Interior Non-Structural Elements. Unlikely this requirement could be met with Church.	
Credit 2.1	1		<b>Construction Waste Management,</b> Divert 50% from Disposal. Construction specifications to require.	<i>GC</i>
Credit 2.2		1	<b>Construction Waste Management,</b> Divert 75% from Disposal. Requires input from Construction Manager for feasibility and cost.	
Credit 3.1		1	<b>Materials Reuse,</b> 5%.	
Credit 3.2		1	<b>Materials Reuse,</b> 10%	
Credit 4.1	1		<b>Recycled Content,</b> 10% (post-consumer +1/2 pre-consumer). Consider steel, gypsum wallboard, carpet etc.	<i>GC</i>
Credit 4.2		1	<b>Recycled Content,</b> 20% (post-consumer +1/2 pre-consumer).	<i>GC</i>
Credit 5.1	1		<b>Regional Materials,</b> 10% Extracted, Processed & manufactured Regionally. Consider local stone, block and brick.	<i>GC</i>
Credit 5.2		1	<b>Regional Materials,</b> 12% Extracted, Processed & manufactured Regionally.	<i>GC</i>
Credit 6		1	<b>Rapidly Renewable Materials.</b> 2.5% of the total value of all building materials.	<i>GC</i>
Credit 7		1	<b>Certified Wood.</b> 50% of wood-based materials must be Certified.	<i>GC</i>
			<b>INDOOR ENVIRONMENTAL QUALITY</b>	
Prereq 1			<b>Minimum IAQ Performance.</b>	<i>SEi</i>
Prereq 2			<b>Environmental Tobacco Smoke, (ETS) Control</b>	<i>SEi</i>
Credit 1	1		<b>Outdoor Air Delivery Monitoring.</b> Mechanically ventilated spaces: Monitor carbon dioxide concentrations within all densely occupied spaces. For non-densely occupied spaces provide a direct outdoor airflow measurement device.	<i>SEi</i>
Credit 2		1	<b>Increased Ventilation.</b> Check cost.	<i>SEi</i>
Credit 3.1	1		<b>Construction IAQ Management Plan,</b> During construction. Construction specifications will require.	<i>GC</i>
Credit 3.2		1	<b>Construction IAQ Management Plan,</b> Before Occupancy. Requires input from construction manager for potential cost.	
Credit 4.1	1		<b>Low –Emitting Materials,</b> Adhesives & Sealants. Construction specifications will require	<i>GC</i>
Credit 4.2	1		<b>Low –Emitting Materials,</b> Paints & Coatings. Construction specifications will require.	<i>GC</i>
Credit	1		<b>Low –Emitting Materials,</b> Carpet Systems. Construction specifications will require.	<i>GC</i>





J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: January 17, 2006

Deleted: May 22

Meeting held @ DCAM

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Gail Rosenberg	GR	DCAM		
✓	Ron Ferrara	RF	DCAM		
✓	Craig Holmes	CH	DCAM		
✓	Richard L'Heureux	RLH	AOTC		
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	Neil Fontana	NF	Faithful & Gould	F&G	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of Meeting: To review Cost model for Plan A & Plan B	
1.	Plan A & Plan B gross floor areas were compared. Plan A at 178,523 GSF (second version 175,929 GSF) may be a little short on mechanical space. Plan B at 189,243 GSF requires more space for public circulation and has a less efficient lower level, both due to the schemes' configuration on the site.	
2.	A decision on which will become the preferred plan will be made after Gail, Richard and Michael Jordan have had time review the two plans in detail.	
3.	Neil Fontana's preliminary cost estimate (dated 1/16/07) for Plan A and Plan B was reviewed. Total cost for Plan A is \$75,174,500 (\$421.09/SF) including cost of site work (\$6,490,000). Plan B's cost is \$76,199,000.	
4.	The cost of site work was adjusted to reflect what DCAM has been carrying in a separate account, as part of the Study Costs, as follows:	
	1. Roadway Demo	\$500,000
	2. Houses Demo & Dispose	\$150,000
	3, 3a & 4 Demo/Remove Church Addition. Remedial Work to Back of Church. New Foundation.	\$450,000
	5. Move Church	\$1,500,000
	6, 7 & 8 Demo Drain lines. Construct New Storm Drain System & New Storm Water Detention System.	\$240,000
	Site Development (landscaping), Utility connections & Allowance for Geotech	\$970,000

	Total Site Work Cost	\$3,810,000	
5.	Cost for parking on grade, under the building at \$105,000 was added to the building construction budget increasing that number for Plan A to \$68,789,500.		
6.	Building construction cost escalated out 30 months would be \$81,513,596. Cost escalated out 24 months would be \$78,757,098.		
7.	DCAM reports that the construction budget for the building is \$73,600,000.		
8.	<p>Plan A/B (Plan A with one mezzanine floor taken out and the Jury Pool moved from the fourth level to the top floor of the Pavilion wing and Juvenile Probation moved to the lower level) was discussed. Goody Clancy reported that floor areas were being developed. DCAM requested, as the next step, that a cost model be developed for Plan A/B.</p> <p>Goody Clancy will get plan areas to Faithful &amp; Gould Monday morning January 22<sup>nd</sup>. Neal reported that Faithful &amp; Gould could get the cost modeling completed Wednesday morning January 24<sup>th</sup>, in time for the DCAM/GC meeting in the afternoon (1:30 PM).</p> <p>DCAM/AOTC also requested that Goody Clancy group the areas such that the cost for the Juvenile Court and the cost for the Housing Court could be separated out.</p>		
	End of Minutes (Prepared by Paul Dudek)		

J. Michael Ruane Judicial Center  
Salem, MA  
Massachusetts State Project No.: TRC 9910 ST2  
GC&A Project No. 6290

Date: January 24, 2006

Deleted: May 22

Meeting held @ Goody Clancy

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Judge Greg Flynn	JGF	Massachusetts Judicial System		
✓	Gail Rosenberg	GR	DCAM		
✓	Liz Minnis	LM	DCAM		
✓	Michael Jordan	MJ	AOTC		
✓	Linda Lane Serpino	LLS	AOTC		
✓	Richard L'Heureux	RLH	AOTC		
✓	Paul Dudek	PD	Goody Clancy	GC	
✓	Michael Joyce	MJ	Goody Clancy	GC	
✓	Joan Goody	JG	Goody Clancy	GC	
✓	George Perkins	GP	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	Purpose of Meeting: To select the preferred scheme and receive DCAM/AOTC comments on functional and programmatic issues with the goal of refining and finalizing the plans for cost estimating and inclusion in the Certifiable Building Study report.	
1.	<p>Joan reviewed the revised plans showing the Juvenile Court in the pavilion, with its entry directly off the main circulation immediately after security screening. Juvenile Probation is located in the lower level, Juvenile Clerk Magistrate on the first floor, Juvenile Courts on the first mezzanine level and the Juvenile Judges on level 2. Jury Pool and mechanical are located above on the 2<sup>nd</sup> mezzanine level.</p> <p>Joan also reviewed the diagrammatic building sections showing three possibilities: with mezzanines, without mezzanines and with a mix of mezzanines and no mezzanines (Plan A/B). The building height with mezzanines is 72 feet, without any mezzanines is 84 feet and with the mix (Plan A/B) is 66 feet. Mechanical penthouse are in addition but will be set back from the parapet.</p>	
2.	<p>Joan stated that the building area had been reduced to 178,289 GSF, very close to the programmed area of 176,410 GSF.</p> <p>Judge Flynn asked how the programmed area had been reduced. DCAM's response was that the area had been reduced to meet the budget, some functions were deleted and some were reduced in size.</p>	

3.	<p>Michael Jordan voiced the following concerns after reviewing Plan A/B drawings:</p> <ul style="list-style-type: none"> <li>• AOTC would be reluctant to have Juvenile probation located in the basement where windows would be limited.</li> <li>• First floor main entry was too narrow. Not only does the entry have to accommodate three magnetometers but also people exiting the building. The same security officers monitoring those entering the building way must also control the exit.</li> <li>• The space in front of the magnetometers must be large enough to allow queuing space.</li> <li>• The space behind the magnetometers must also be larger to allow room for tables and space for more in depth searching.</li> <li>• To ease congestion around the core, more space is needed in front of the elevator banks both on the Juvenile side and on the main courtroom side. There is a real choke point in the vicinity of the information desk.</li> <li>• Two jury rooms should be adjacent to the Juvenile courtrooms.</li> <li>• The public waiting and circulation space outside the Juvenile courts is too narrow.</li> <li>• The Juvenile courtrooms do not need a double height ceiling. They can be more intimate.</li> <li>• The toilet rooms should be centrally located, preferably near the elevator core, in the same location on every floor to ease way-finding.</li> </ul> <p>In summary, he felt that Plan A/B was very close to resolving program requirements successfully and that we should make another pass to accommodate the above issues.</p>	
4.	<p>Richard L'Heureux requested that we revisit the design of the courtroom detainee holding areas. The width of our holding area was too narrow to accommodate the functional requirements of transferring detainees from the detainee elevator to the holding cells through the sound lock. Also we shouldn't split the holding cells to be on either side of the elevator. Other courts have needed more width to meet these requirements. Plans showing how other courts designed this area were brought to this meeting for Goody Clancy.</p>	
5.	<p>The light-well/green roof was discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• The light-well roof would be designed as an extensive green roof.</li> <li>• An extensive roof requires very little maintenance.</li> <li>• No irrigation is required.</li> <li>• Plants would be moss, sedum, herbs or grasses.</li> <li>• Cost would be low.</li> <li>• A glass roof would be costly.</li> </ul> <p>Goody Clancy has designed green roofs at Holyoke Community College and for the McCormack building.</p>	
6.	<p>The Housing Court was discussed with the following comments:</p> <ul style="list-style-type: none"> <li>• Circulation via two elevators is not desirable. The court should be reached by one elevator.</li> <li>• This court is more compatible with District Court functions and when not used as a Housing Court, it could be used as a District Court. Exchange its location with Superior Court.</li> <li>• Housing Transaction should be closer to the ground floor. Consider putting it on level 1M.</li> </ul>	
7.	<p>Judge Flynn stated that the DA should have control over the Grand Jury. It was noted that the DA and Grand Jury could be located in the basement of the Pavilion wing.</p>	

8.	<p>DCAM/AOTC continued their review of Plan A/B with the following comments:</p> <ul style="list-style-type: none"> <li>• The truck dock looks too large. The largest truck would be something the size of a UPS delivery truck (Michael Joyce noted that this court serves all the Essex County courthouses, so the shop is fairly large and the facilities personnel report vans arriving in the 40 foot range.)</li> <li>• The District Arraignment Court should be flipped back to the east end of the building.</li> <li>• The Jury Pool is on the wrong side of the building and should be moved to the courtroom "bar". Also deliberating jurors go directly to the jury deliberation room in the morning. It is desirable not to have jurors walk past unoccupied Judges chambers.</li> <li>• The Law Library should have an after hours entrance. Consider entering from the courtyard into the connecting link at the rear of the Law Library. The connecting link door into the Trial Court would be locked after hours. An elevator will have to be provided for accessible entry to the Law Library basement.</li> <li>• It was noted that it would be acceptable to split both Superior Probation and District Probation apart from their respective Clerk Magistrates so that they and the Clerk Magistrates could be stacked over each other. This might make a more compact fit.</li> </ul>	
9.	<p>The Schedule was reviewed and Goody Clancy stated that it would take a week to revise the drawings to reflect the above comments before they could be turned over to the consultants. As there was no slack in the schedule this puts us one week behind. Goody Clancy will get a draft of some sections of the final report to Gail next week for her review.</p>	
	End of Minutes (Prepared by Paul Dudek)	

**Memorandum of Meeting # 33***Study Phase***AOTC PRESENTATION**

J. Michael Ruane Judicial Center

Salem, MA

Massachusetts State Project No.: TRC 9910 ST2

GC&amp;A Project No. 6290

Meeting date: 5 March 2007

Meeting location: AOTC

Present ✓ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
✓	Margaret Cavanaugh	MC	Administrative Office of the Trial Court	AOTC	NA
✓	Richard L'heureux	RLH	Administrative Office of the Trial Court	AOTC	NA
✓	Bill Kane	BK	Administrative Office of the Trial Court	AOTC	NA
✓	Hon. Robert Mulligan	RM	Administrative Office of the Trial Court (Ch. Justice)	AOTC	NA
✓	Robert Panneton	RP	Administrative Office of the Trial Court	AOTC	NA
✓	Hon. Lynda Connolly	LC	District Court (Ch. Justice)	DC	NA
✓	Hon. Greg Flynn	GF	District Court	DC	NA
✓	Paul Burke	PB	Housing Court	HC	NA
✓	Hon. Steven Pierce	SP	Housing Court (Ch. Justice)	HC	NA
✓	Hon. Martha Grace	MG	Juvenile Court (Ch. Justice)	JC	NA
✓	Hon. Peter DiGangi	PDG	Probate and Family Court	PFC	NA
✓	John McNichols	JMN	Probate and Family Court	PFC	NA
✓	Dana Leavitt	DL	Superior Court	SC	NA
✓	Ron Ferrara	RF	Division of Capital Asset Management	DCAM	NA
✓	Gail Rosenberg	GR	Division of Capital Asset Management	DCAM	via email
✓	Liz Minnis	LM	Division of Capital Asset Management	DCAM	NA
✓	David Perini	DP	Division of Capital Asset Management	DCAM	NA
✓	Jim Tanin	JT	Division of Capital Asset Management	DCAM	NA
✓	Brian Novak	BN	Division of Capital Asset Management	DCAM	NA
✓	Joan Goody	JG	Goody Clancy	GC	via email
✓	Michael Joyce	MJ	Goody Clancy	GC	via email
✓	George Perkins	GP	Goody Clancy	GC	via email

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of Meeting: to present project status to AOTC and judges.</i>	
	<b>Site</b>	
33.1	The three houses have been acquired by the state.	
33.2	DCAM is in the process of finalizing details of the purchase and sale agreement with the church.	
33.3	MassHighway has given approval for Earth Tech to proceed with 75% design for the roadway. A 25% Design Public Meeting will be scheduled by MHD shortly.	
33.4	Water table: the site is adjacent to a flood zone but flooding is not an issue because it is elevated. The MBTA parking lot does flood, as do sections of Bridge Street to the west of the project site.	
33.5	Parking: staff parking will not be provided. This is typical of court construction in urban areas. 19 secure judges' spaces will be provided.	
33.6	MBTA garage: still no current funding.	
	<b>Cost</b>	
33.7	LM noted that escalation of construction costs continues. As at Taunton, money will go to new construction, and renovation component will be delayed. Total project cost is \$106M, which	

No.	Topic	Action
	originally was to include renovation. Renovation of Probate and Family Court Building (PFC) is estimated at \$41M.	
33.8	LM observed that in the course of the study cost saving strategies have been identified and implemented. For example, less excavation for parking is now planned. She noted that we have a good, efficient and strong plan.	
33.9	DP said that a major bond bill later this year will hopefully include funds for renovation of the PFC.	
	<b>Permitting</b>	
33.10	Per 2.22.07, Secretary of Environmental Affairs issued a MEPA Certificate on the Environmental Notification Form stating that the project does not require the preparation of an Environmental Impact Report.	
33.11	MassHistoric review process is underway. First MHC Consultation scheduled for March 20.	
	<b>Probate and Family Court</b>	
33.12	PDG said that functioning of the PFC during construction of the new Trial Court is of concern, particularly in terms of noise. JG noted that interior storms can mitigate noise. This issue will be discussed further as we move ahead, and alternatives will be identified to address the situation.	
33.13	Tunnel (for detainees) and/or bridge (for staff) may be provided to link the PFC and the new Trial Court and should be considered during the design process. We will evaluate the need for these links during schematic design.	
	<b>Site Design</b>	
33.14	JG identified key site issues as follows: <ul style="list-style-type: none"> <li>• Historic context</li> <li>• Constrained site does not allow maximum efficiency; the ideal layout being a straight “bar” building.</li> <li>• Site to be enlarged by elimination of ramp</li> <li>• Main pedestrian access from MBTA parking area and station will remain as is from the east.</li> </ul>	
	<b>Building Design</b>	
33.15	JG identified key building design issues as follows: <ul style="list-style-type: none"> <li>• Secure 3-layer circulation system</li> <li>• Clarity of circulation/wayfinding for the public</li> <li>• Universal access</li> <li>• Daylighting in all courtrooms</li> <li>• Maximize daylighting throughout</li> <li>• Sustainable design</li> <li>• Design for long term flexibility</li> </ul>	
33.16	Exterior: RM noted the challenge of how the new building will complement the old court buildings and church. JG said the church is to be seen as a jewel, with the glass and granite of the new Trial Court behind as background to it. The entry/Juvenile pavilion is in scale with the Federal Street courthouses. The courtroom bar on the north side is larger in scale facing the river and Bridge Street. Goody Clancy will work to make the building welcome to the local residents, who are protective of their historic environment.	
33.17	Proposed exterior materials: <ul style="list-style-type: none"> <li>• Pavilion wing at front in stone, glass and metal</li> <li>• Public corridors facing Federal Street in glass</li> <li>• Remainder of building in brick</li> </ul>	
33.18	Jury room: concern was raised that plans as drawn do not allow 2 <sup>nd</sup> day jurors, and jurors returning from lunch, to present themselves at the jury room. (It is not desirable for them to	



<i>No.</i>	<i>Topic</i>	<i>Action</i>
	present themselves at the jury pool.). This is to be addressed in schematic design phase.	
33.19	Grand jury: concern was raised about view into windows in Grand Jury Room from PFC. This could be solved with window shades when a particular witness is present	
33.20	Law Library access: daytime access will be through courthouse security. After hours access would not be through the courthouse. [After hours access might be through card key operated door in link to Trial Court building – to be investigated in SD.] For special events access to the front door of the library may be made available.	
33.21	Law Library design: existing library is an extraordinary/classic space, for which there is great affection in Salem. The design of the new space must be as compelling as the existing, while adding 21 <sup>st</sup> century functionality.	

*Minutes prepared by George Perkins/Goody Clancy*

MEMORANDUM OF MEETING – Workshop #1, Reduced Program Alternative - DRAFT

**J. Michael Ruane Judicial Center**  
**Salem, MA**  
**Massachusetts State Project No.: TRC 9910 ST2**  
**GC&A Project No. 6290**

**Date: December 14, 2006 @ GC&A**

Present √ Present for a portion of the meeting ↔

<i>Present</i>	<i>Name</i>	<i>Initials</i>	<i>Group</i>	<i>Initials</i>	<i>Distribution</i>
√	Gail Rosenberg	GR	DCAM	DCAM	
√	Richard L'Heureux	RLH	AOTC	AOTC	
√	Liz Minnis	LM	DCAM	DCAM	
√	Michael Jordan	MJ	AOTC - Court Capitol Projects	CCP	
√	Joan Goody	JG	Goody Clancy	GC	
√	Paul Dudek	PD	Goody Clancy	GC	
√	Michael Joyce	MJ	Goody Clancy	GC	

<i>No.</i>	<i>Topic</i>	<i>Action</i>
	<i>Purpose of the meeting:</i> To review three alternative conceptual plans for reducing the size of the proposed new Trial Court building and to select one or two for cost modeling	
1.	<p>Joan Goody reviewed a scaled down version of the original Plan A (Courtroom “bar” parallel to Bridge Street with a “Pavilion” wing extending to Federal Street) with the following observations:</p> <ul style="list-style-type: none"> <li>• The Juvenile floor was removed from the lower level to the top floors at the west end of the “bar”. This allows the loading dock, sally port, detainee area, mechanical and storage areas to be on grade with Bridge Street, eliminating a costly lower level with long ramps. Parking is on grade with some spaces under the building but open to the outside. The parking area can be behind a secure fence.</li> <li>• The “bar” was moved forward towards Federal Street, reducing the size of the entry “pavilion” wing facing Federal Street.</li> <li>• The building entry on Federal Street was moved back under the pavilion towards the “bar” and the public elevators were moved back to a more central location at the intersection of the entry/security with the main “bar” circulation. This reduces and/or eliminates the need for circulation corridors on the upper floors of the pavilion wing.</li> <li>• The Jury Pool and the Housing Court are located in the pavilion wing.</li> <li>• There are two options for access to the Juvenile floor: take the main public elevators to the third floor and walk past the Superior Courtroom to a Juvenile lobby or take a dedicated elevator from the first floor directly to the Juvenile lobby on the 3<sup>rd</sup> floor.</li> <li>• The massing is lowest on Federal Street and highest at the west end of the “bar”</li> <li>• The Church is located on the corner of Federal Street and North Street and will be shifted further to the corner to allow for a larger central courtyard.</li> <li>• A preliminary takeoff indicates that this scheme comes very close to the revised program area of 176,410 GSF.</li> </ul>	
2.	<p>Gail, Richard and Michael Jordan had the following observations on Plan A:</p> <ul style="list-style-type: none"> <li>• Circulation to the Juvenile area should be as short and direct as possible. It should not weave its way through other courtroom circulation/waiting areas. Juveniles can be volatile and can make a mess of the spaces where they are confined. Confrontations with parties in the waiting area are possible, so response time is</li> </ul>	

	<p>important when they occur.</p> <ul style="list-style-type: none"> <li>• If the District Arraignment Court were shifted to the east end, juveniles would not be mixing with District Arraignment Court waiting area.</li> <li>• Consider moving the juvenile elevator to shorten the distance.</li> </ul> <p><i>Note: Subsequent to this meeting, Goody Clancy was informed that it would not be acceptable to have the juveniles circulating through the building and that the location of the Juvenile Court on the top floors was unacceptable. Goody Clancy should explore putting the Juveniles in the pavilion wing. They should enter it immediately after going through security. (12/20/06)</i></p> <ul style="list-style-type: none"> <li>• Should there be temporary holding cells for juveniles on the juvenile Courtroom floor?</li> <li>• See what can be done to eliminate the choke point at the elevator bank.</li> <li>• The Church is in the right location.</li> <li>• This reduced version of Plan A improves the original Plan, A which was the preferred scheme.</li> </ul>	
3.	<p>Joan reviewed Plan B2 with the following comments:</p> <ul style="list-style-type: none"> <li>• In this scheme the main courtroom “bar” is rotated 90 degrees to be perpendicular to Bridge Street.</li> <li>• The main circulation/waiting spine is entered directly off Federal Street and offers a view north to the river.</li> <li>• Juveniles are located in a separate wing, along with the Housing Court and the Jury Pool.</li> <li>• The Church is on the corner where it should be. It could and should be moved closer to North Street to form a courtyard with the Trial Court building.</li> </ul> <p>Joan expressed the following concerns with this scheme:</p> <ul style="list-style-type: none"> <li>• The mass of the courtroom “bar” now fronts on Federal Street, creating a scale problem with the Church on one side and the PFC on the other side.</li> <li>• It may have excess square footage due to circulation at the Juvenile wing</li> </ul>	
4.	<p>Gail, Richard and Michael Jordan had the following observations on Plan B2:</p> <ul style="list-style-type: none"> <li>• The elevators are well located, central to the courtroom “bar” and the Juvenile/Housing Court wing.</li> <li>• Circulation through the Juvenile waiting area to the Library is not desirable.</li> <li>• It is not necessary to utilize the balcony of the Church, so the second floor access corridor should be deleted. DCAM/AOTC was planning on utilizing the basement of the Church for stacks and as a climate-controlled area for collections.</li> </ul>	
5.	<p>Joan reviewed Plan B1 with the following comments:</p> <ul style="list-style-type: none"> <li>• Plan B1 is essentially Plan B2 mirrored on the site, but it is less successful.</li> <li>• The mass of the building is now on the corner of Federal Street and North Street and will not be favorably received by the residents looking east down from the west end of Federal Street, especially when we made the case for having the Church on the Corner.</li> <li>• Access to the parking is less successful and the parking is now completely under the building, adding to the cost.</li> </ul>	
6.	<p>Gail, Richard and Michael Jordan had the following observations on Plan B2:</p> <ul style="list-style-type: none"> <li>• The Church will not be properly showcased.</li> <li>• There will be no easy way to connect to the Trial Court building to the PFC.</li> </ul>	
7.	DCAM/AOTC will take a day or two to review the Plans and get back to Goody Clancy with any additional comments or directions.	DCAM AOTC
8.	<p>Gail gave the following project update:</p> <ul style="list-style-type: none"> <li>• DCAM is in the process of developing an RFQ for selecting a Construction Manager.</li> <li>• For the final report, the focus will be on the proposed new Trial Court building with its own mechanical and electrical plant. No level of renovation for the PFC is</li> </ul>	

MEMORANDUM OF MEETING – Workshop #1, Reduced Program Alternative - DRAFT

	<p>proposed at this time.</p> <ul style="list-style-type: none"> <li>• The expected cost of construction is \$73,181,000, which includes a design contingency but no escalation.</li> </ul>	
9.	<p>The following meetings and milestones are proposed:</p> <ul style="list-style-type: none"> <li>• LEED workshop: Morning Jan. 11, 2007 @ DCAM</li> <li>• Review Cost Model: Wednesday January 17, 2007</li> <li>• DCAM comments to GC on existing material: Jan 29 – Feb 5, 2007</li> <li>• Civil/Landscape drawings/narratives to DCAM: Feb 7, 2007</li> <li>• Cost estimate to DCAM: Feb. 20, 2007</li> <li>• Meet with Justices: February 23, 26 or 28, 2007</li> <li>• DCAM comment on draft report to GC: March 2, 2007</li> <li>• Final draft report to DCAM: March 9, 2007</li> <li>• Certify Building Study: week of March 12, 2007</li> <li>• DSB continuation: March 21, 2007</li> </ul>	
10.	Goody Clancy will update Excel schedule and forward to DCAM	GC
	End of Minutes (Prepared by Paul Dudek)	

A1.5 Global Workshop Presentation:  
J. Michael Ruane Justice Center and  
Salem Trial Court

**Goody Clancy**





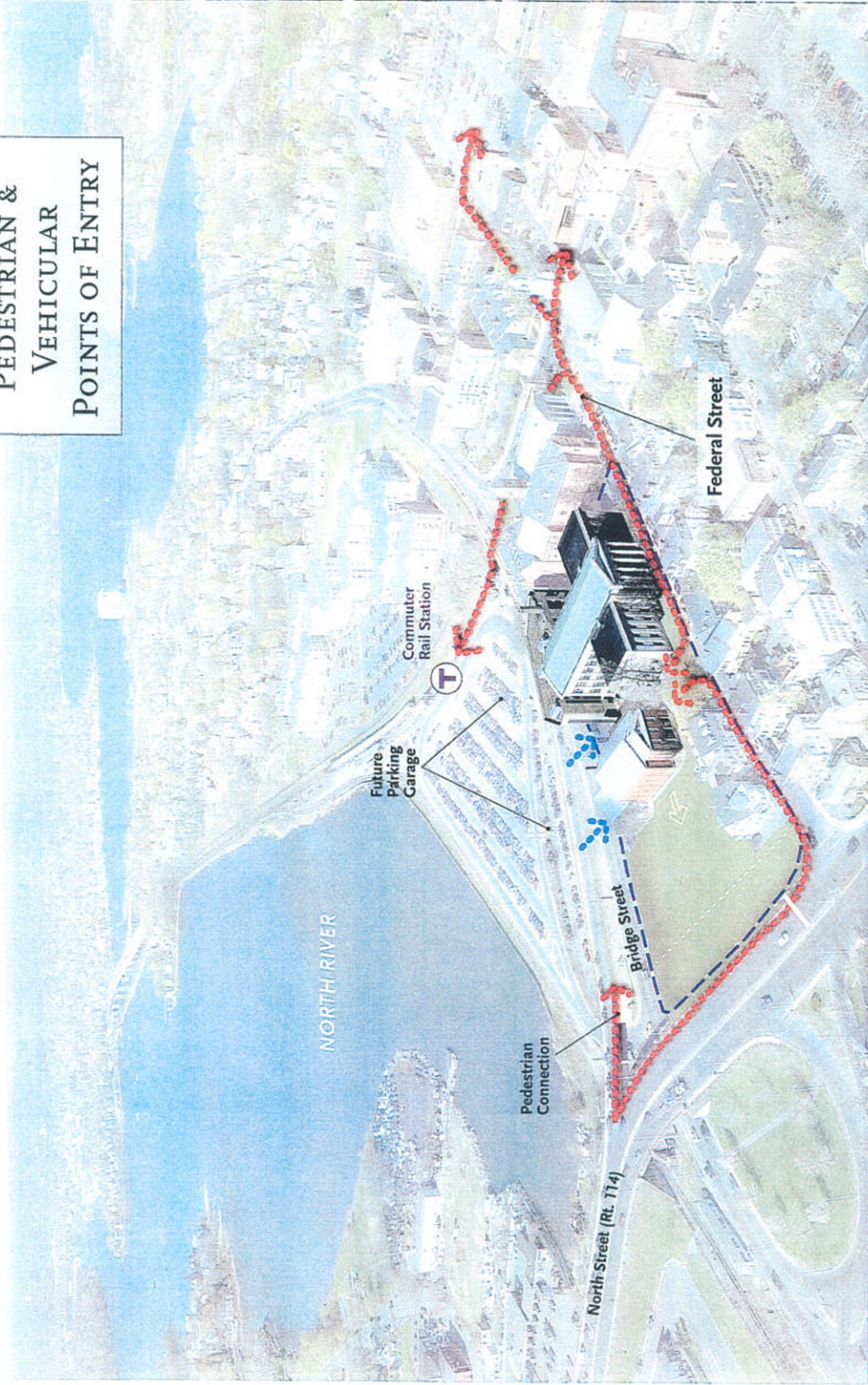
An aerial photograph of a historic city street, likely in Salem, Massachusetts, showing a row of multi-story brick buildings with gabled roofs and a central church with a prominent steeple. The image is in a dark, monochromatic blue tone.

# J. MICHAEL RUANE JUSTICE CENTER & SALEM TRIAL COURTS

ARCHITECTURE  
PLANNING  
PRESERVATION  
GOODY  
CLANCY



PEDESTRIAN &  
VEHICULAR  
POINTS OF ENTRY



GOODY  
CLANCY  
ARCHITECTURE  
PLANNING  
PRESERVATION

J. MICHAEL RUANE JUSTICE CENTER & SALEM TRIAL COURTS





VIEW LOOKING EAST  
DOWN FEDERAL STREET



VIEW LOOKING WEST  
DOWN FEDERAL STREET





FEDERAL STREET VIEW OF PFC



VIEW OF PFC ADDITION

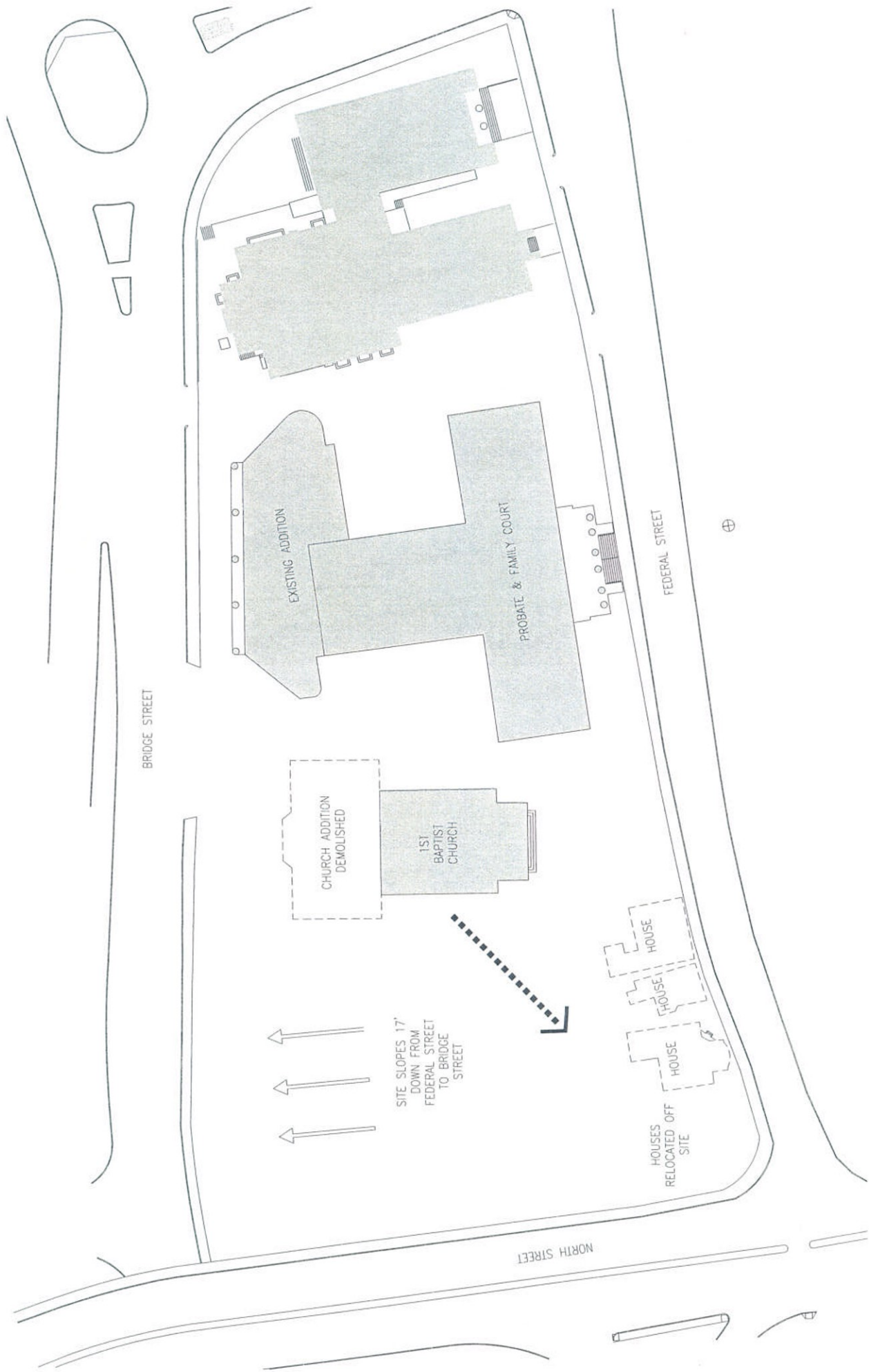




FEDERAL STREET VIEW  
OF FIRST BAPTIST CHURCH



BRIDGE STREET VIEW  
OF FIRST BAPTIST CHURCH & PFC



# Salem New Trial Court Site Modifications

April 12, 2006

GOODY  
CLANCY





April 12, 2006

Scale: 1' = 80'

## Salem New Trial Court Plan - 1



# Salem New Trial Court Lower Level

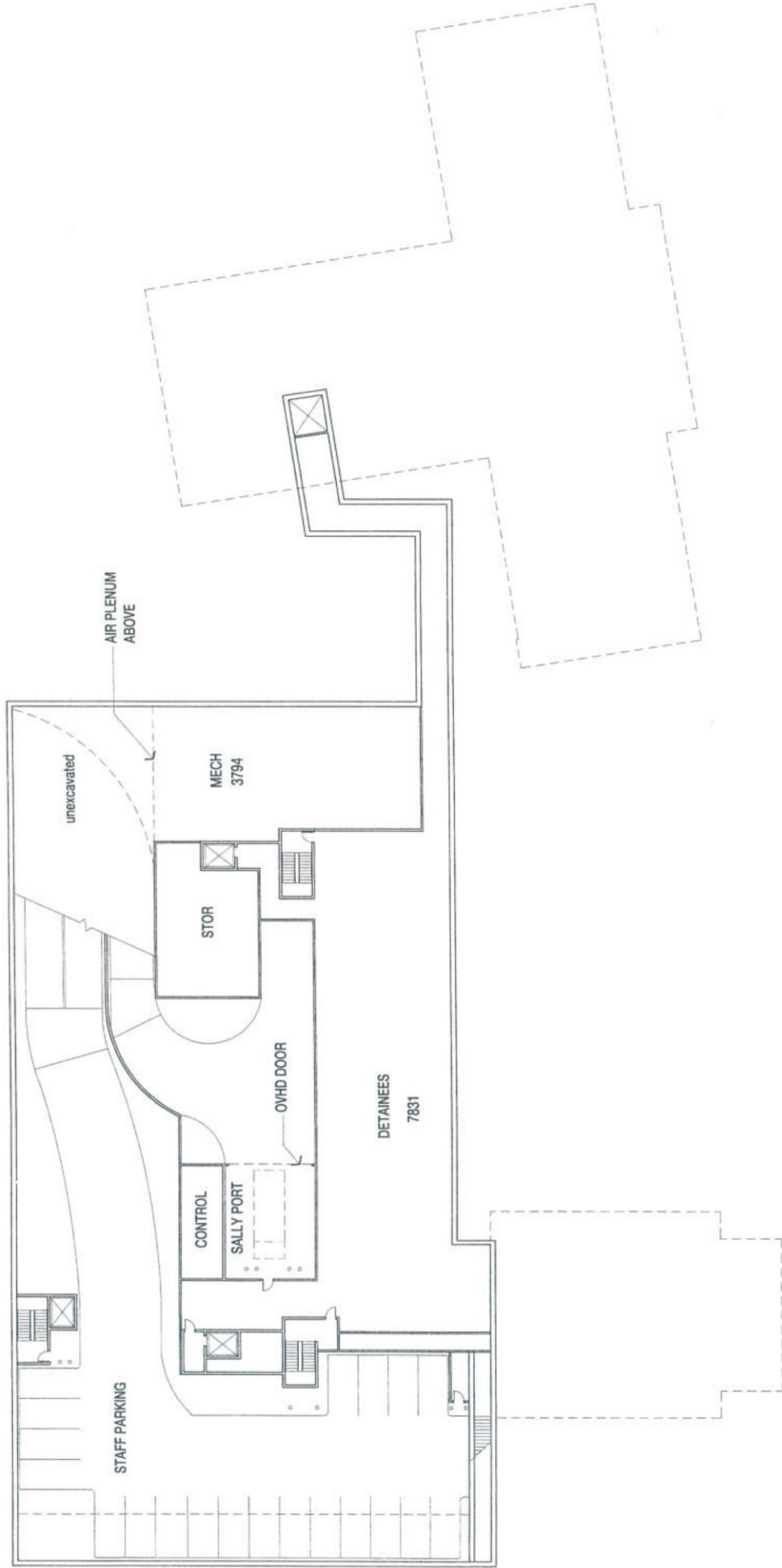




J. MICHAEL RUANE JUSTICE CENTER & SALEM TRIAL COURTS

ARCHITECTURE  
PLANNING  
PRESERVATION  
GOODY  
CLANCY

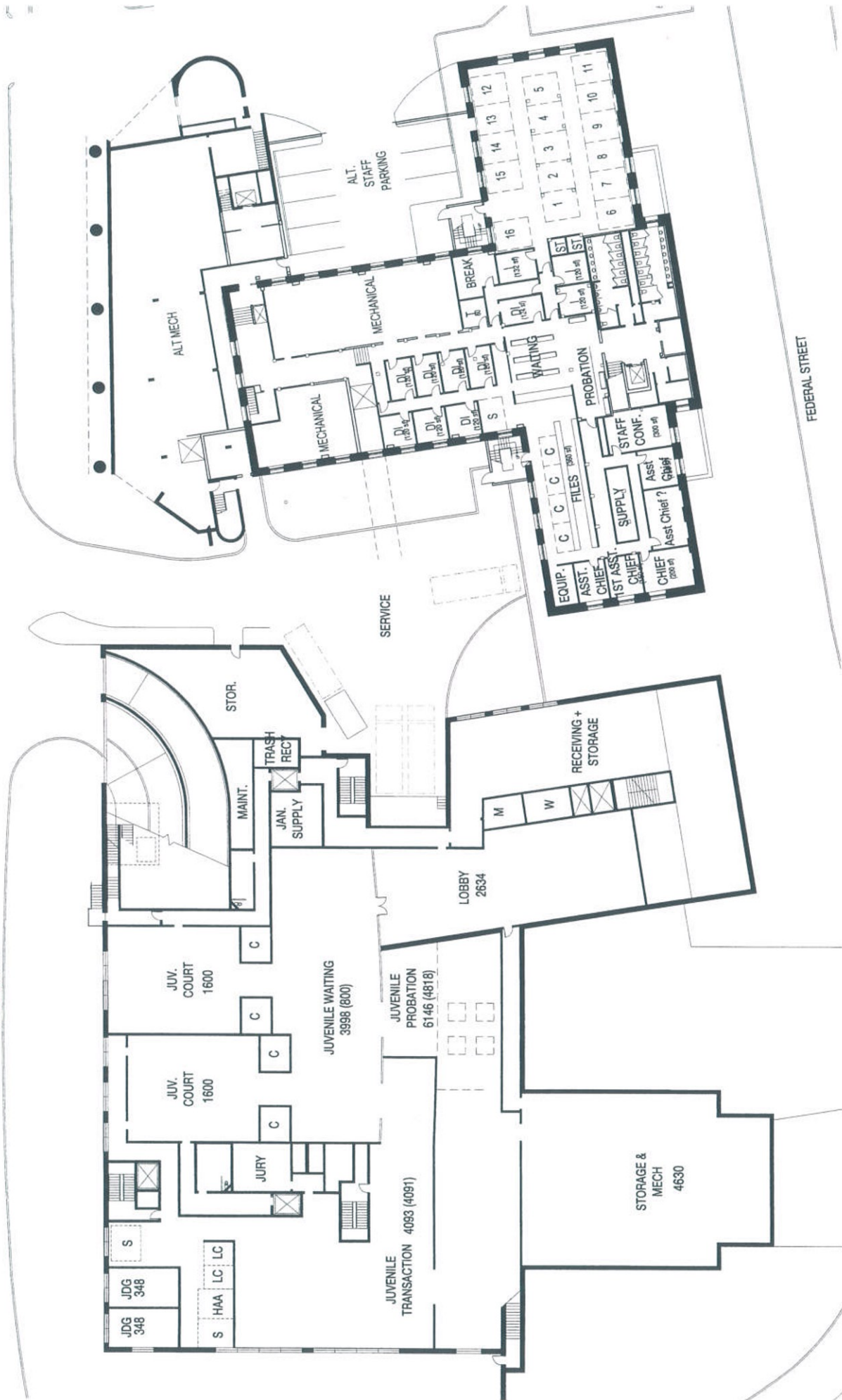




# Salem New Trial Court Plan - Basement



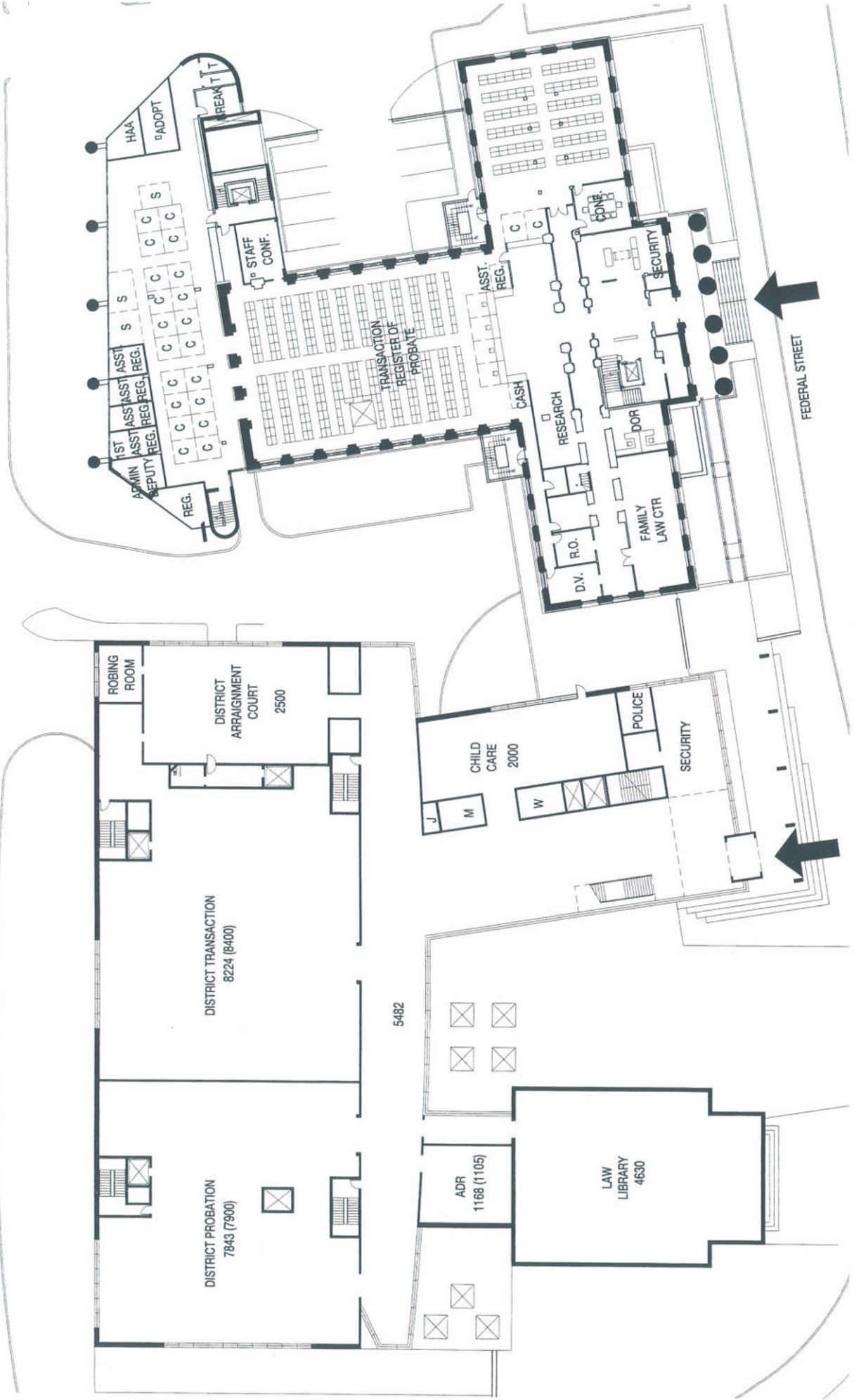
BRIDGE STREET



FEDERAL STREET

# Salem New Trial Court Plan - Lower Level

BRIDGE STREET

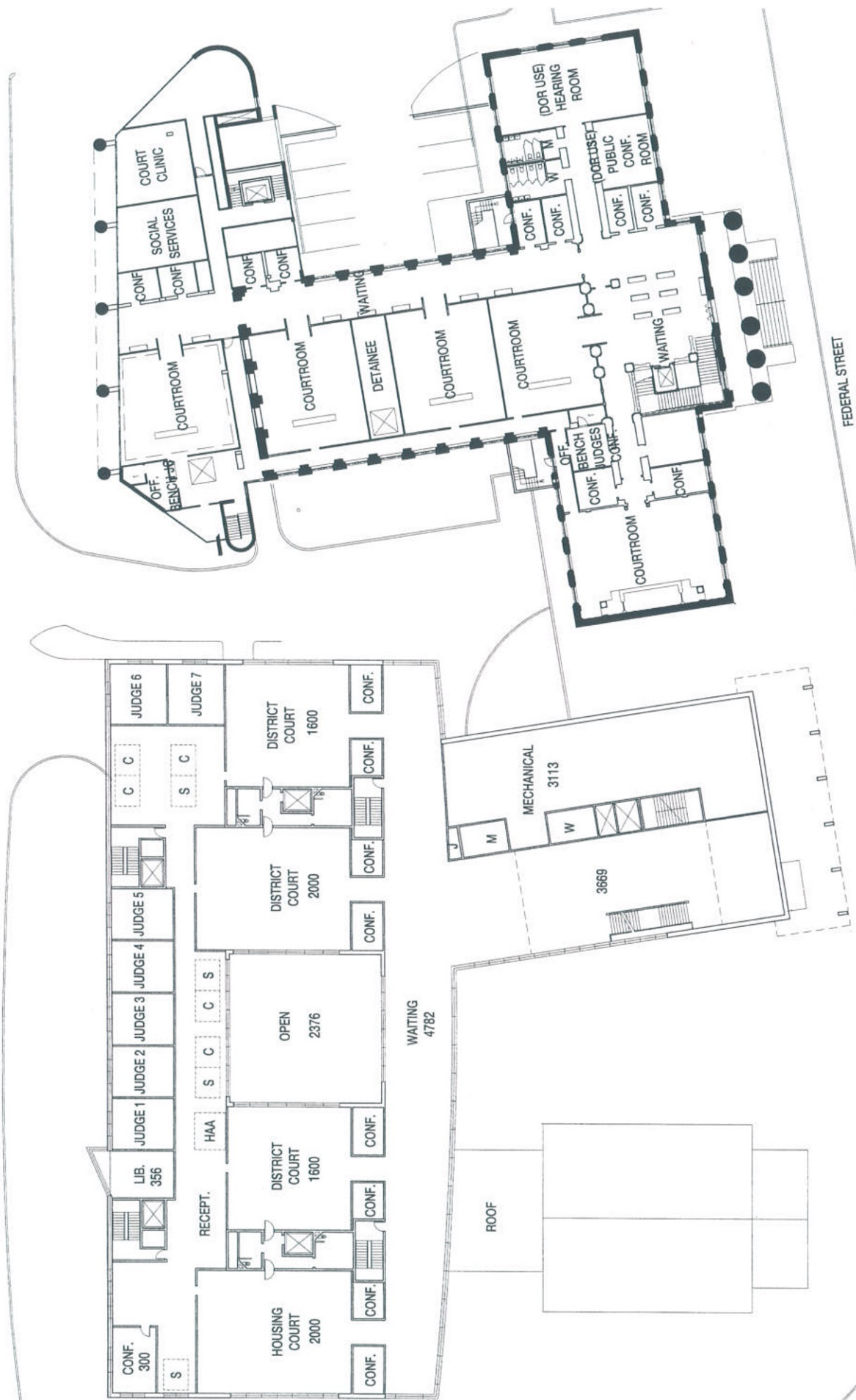


# Salem New Trial Court Plan - 1





BRIDGE STREET



FEDERAL STREET



April 12, 2006

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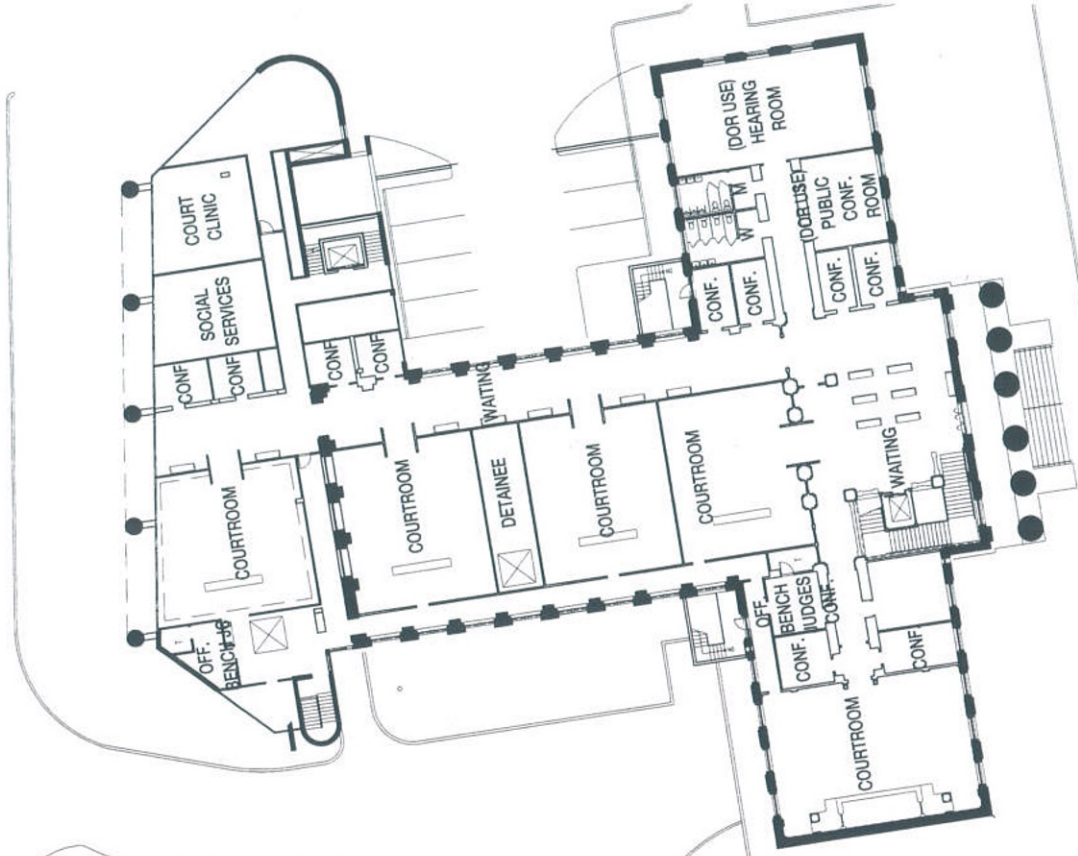
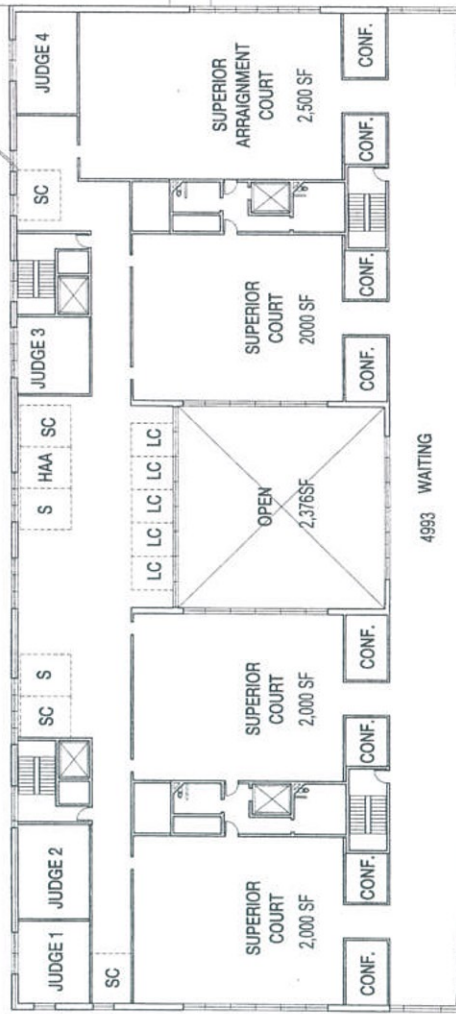
# Salem New Trial Court Plan - 2



## April 12, 2006



BRIDGE STREET



FEDERAL STREET

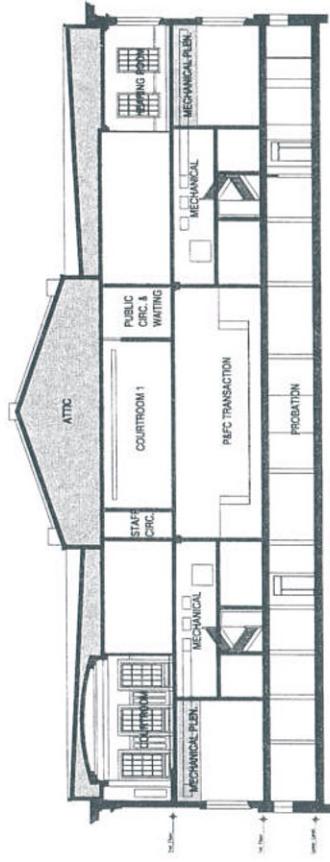


# Salem New Trial Court Plan - 3

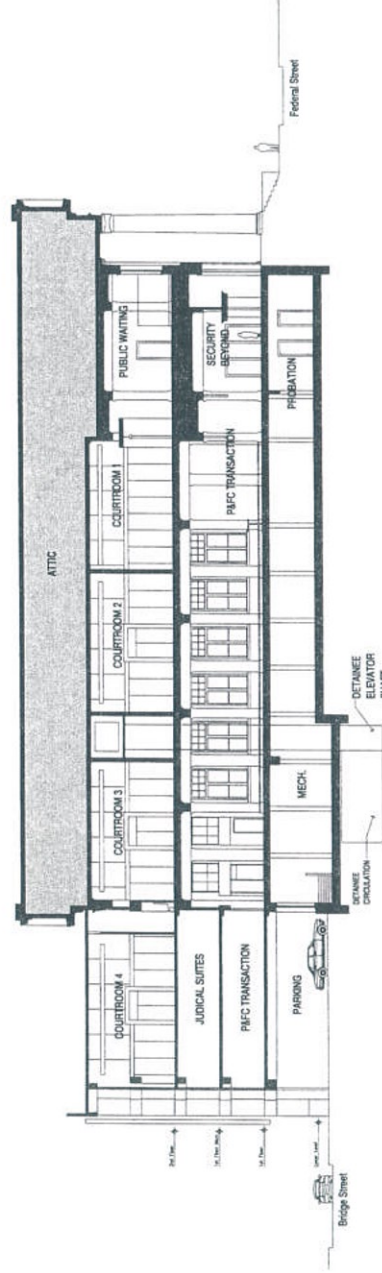
April 12, 2006

Goody Clancy





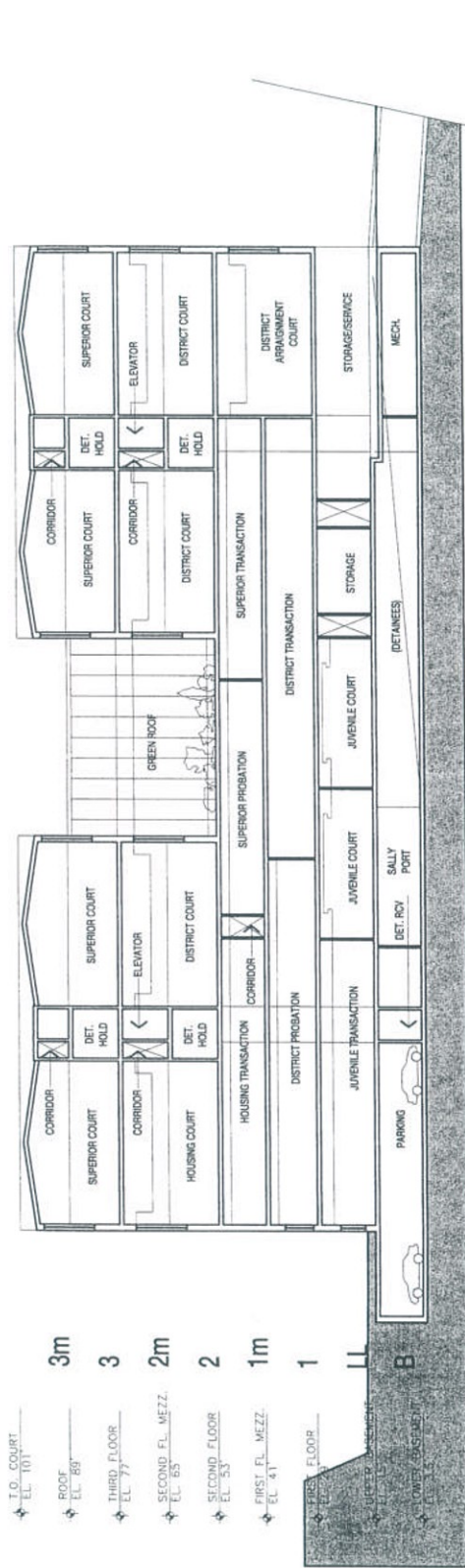
Probate & Family Court - Transverse Section



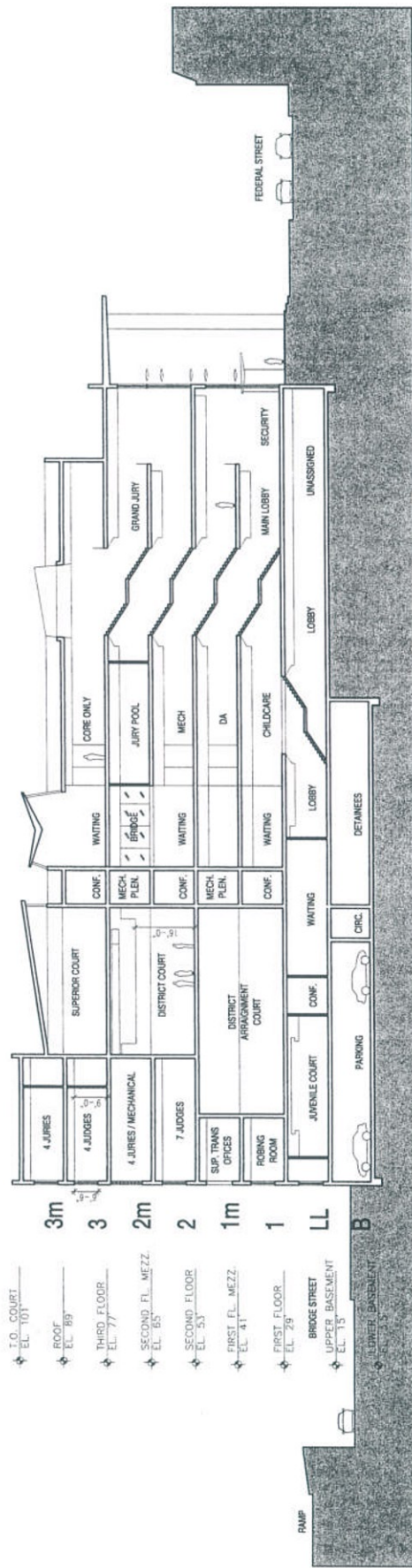
Probate & Family Court - Longitudinal Section







Section Looking North



Section Looking East





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www.goodyclancy.com

## SITE/UTILITY PLAN

**Salem Family &  
Probate Courts**  
Salem,  
Massachusetts

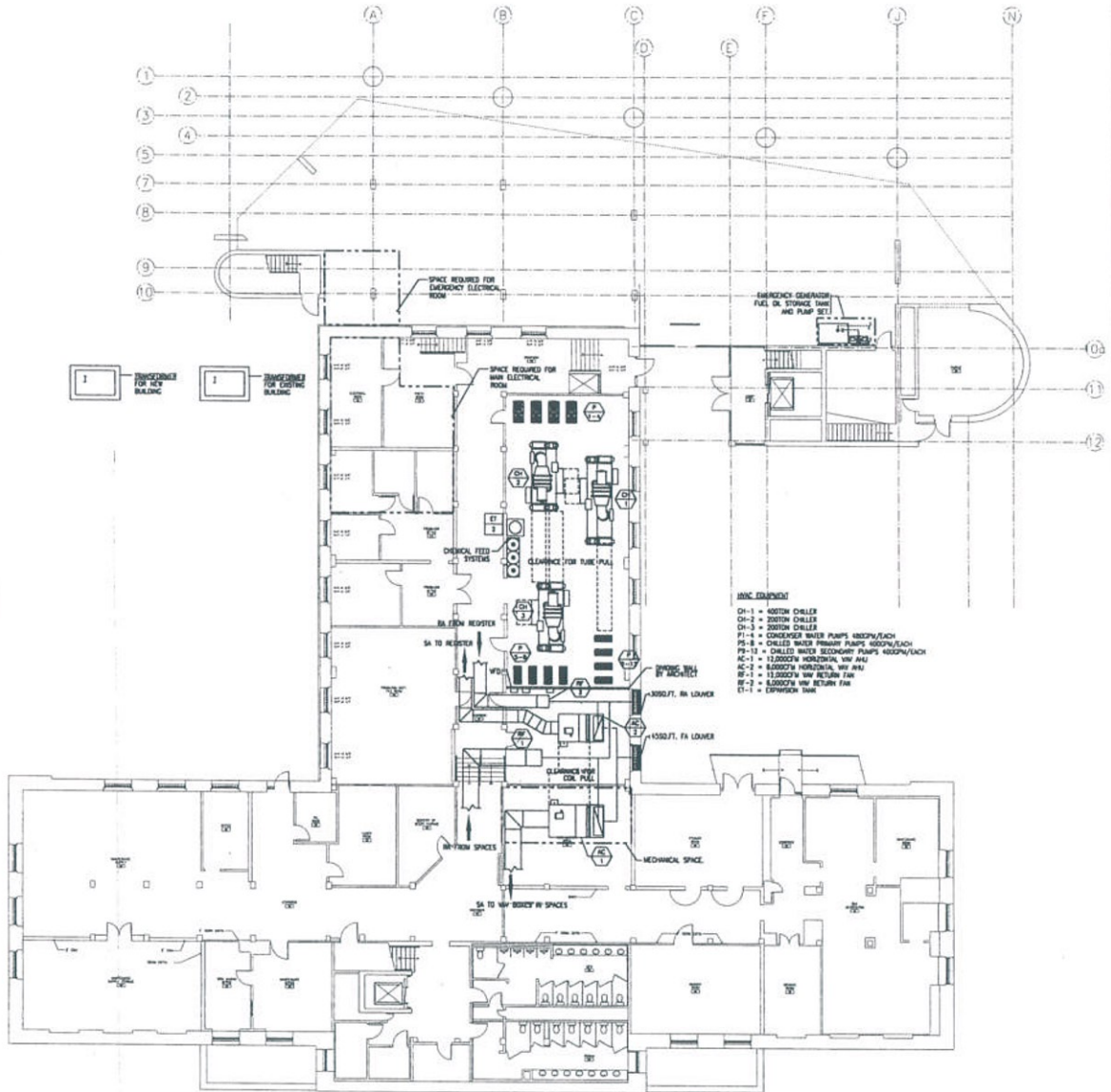
DCAM  
One Ashburton Place  
Boston, Massachusetts  
TRC9910ST2

GOODY CLANCY PROJECT NO. 6290.00

FILE NAME:

DRAWN:	CHECKED:	DATE:
JTM	RFG	4/11/06





M-2

Salem Probate & Family Court Building  
DCAM TRC9910ST2  
Salem, MA  
NEW HVAC  
LOWER LEVEL PLAN

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617 352 2740 fax 617 352 9512  
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Stamp:

Consultant:

**SEI**  
COMPANIES  
55 East Austin Avenue, Suite 200  
Boston, MA 02118  
www.sei.com

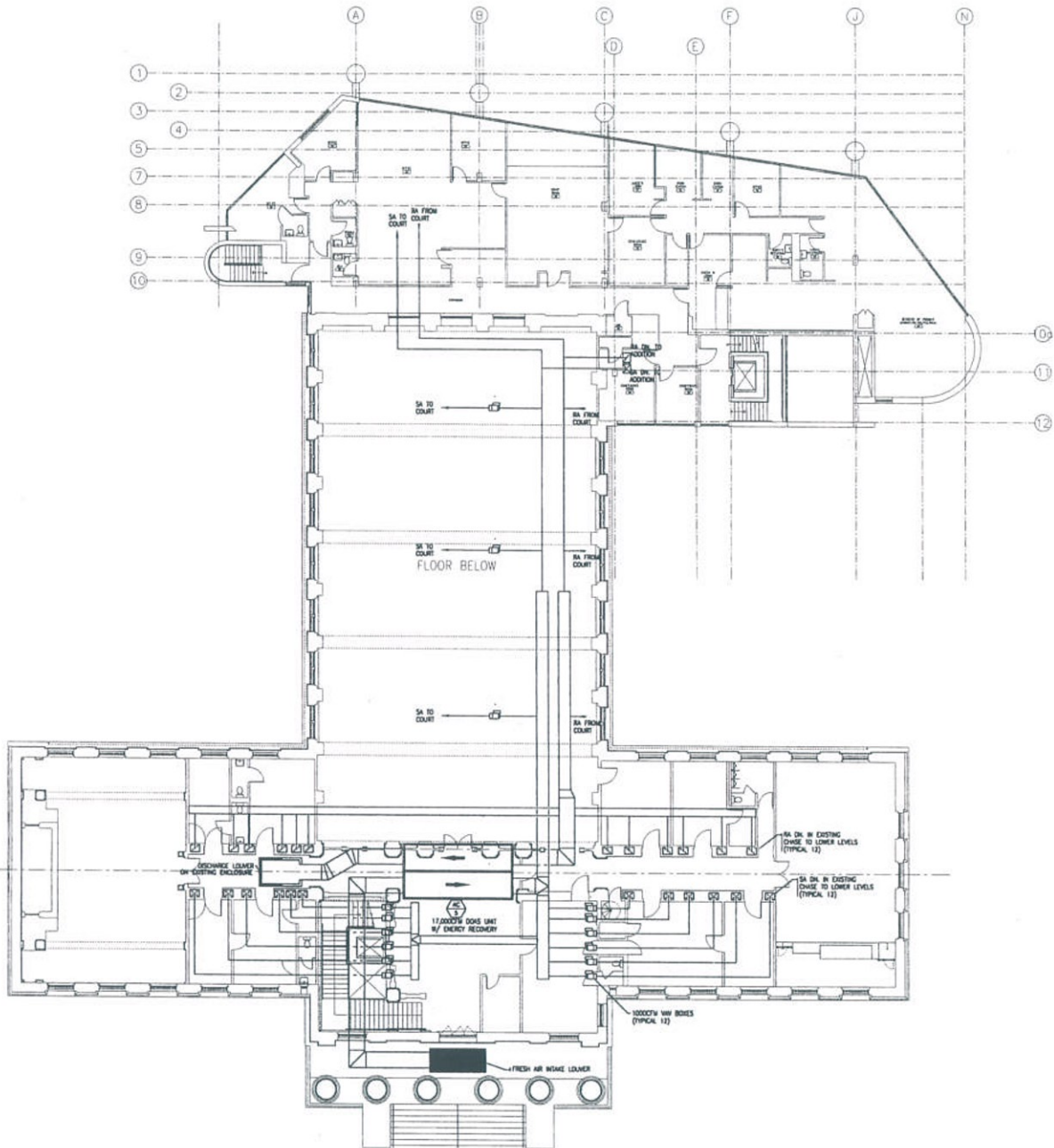
EXISTING CONDITIONS

Revisions	









<b>M-5</b>	<b>Salem Probate &amp; Family Court Building</b> <b>DCAM TRC9910ST2</b> Salem, MA <b>NEW MECHANICAL</b> <b>ATTIC PLAN</b>	<b>GOODY CLANCY</b> 234 Boston Street Boston, Massachusetts 02116 617.352.2700 fax 617.352.9112 info@goodyclancy.com www.goodyclancy.com <small>Copyright © 2009 Goody Clancy &amp; Associates, Inc. All Rights Reserved.</small>	Stamp:	Consultant: <b>SEi</b> COMPANIES <small>60 Rock Harbor Avenue, Suite 200          Boston, Massachusetts 02116          617.352.2700 fax 617.352.9112          www.sei.com</small>	EXISTING CONDITIONS Reckless
	PROJECT NO. 09-001 DATE 11/11/09 DRAWN BY J. L. B.		CHECKED BY J. L. B. APPROVED BY J. L. B.	SCALE 1/8" = 1'-0"	SHEET NO. 5 OF 5





Salem Probate & Family Court Building  
DCAM TRC9910ST2  
*Salem, MA*

---

COMBINED PLANT IN EXISTING  
MECHANICAL SPACES

EXISTING CONDITIONS	
Goody Clancy #205128.00	
FILE NAME:	
DATE: 4.12.06	DR: EFS
SCALE: 1/8" = 1'-0"	CHK: DH
DRAWING:	

M-9

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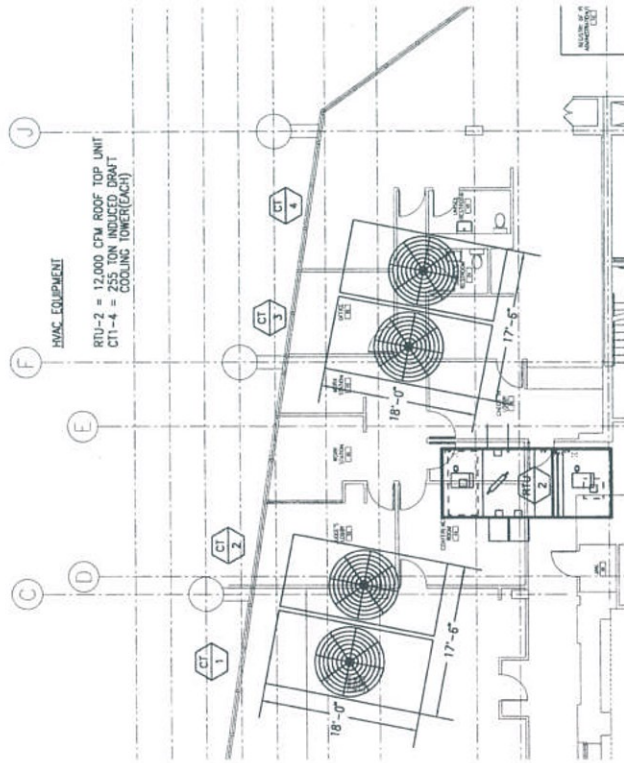
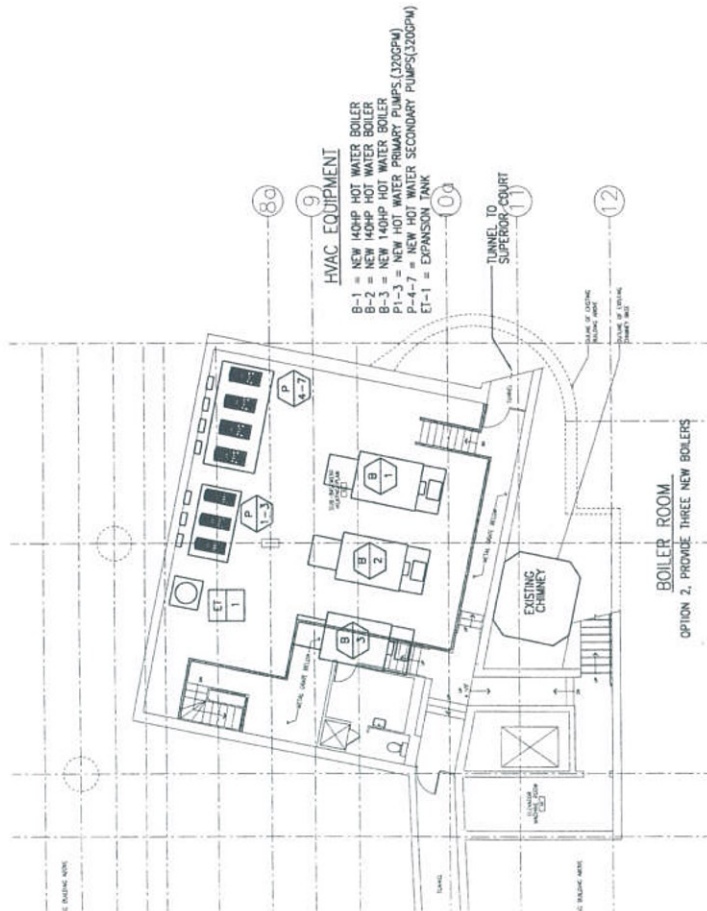
SEI COMPANIES

88 BLACK FALCON AVENUE, SUITE 210  
BOSTON, MASSACHUSETTS 02210-2414  
FAX: 617 210 1800  
WWW.SECORP.NET

### EXISTING CONDITIONS

[illegible]





Salem Probate & Family Court Building

DCAM TRC9910ST2

Salem, MA

COMBINED PLANT IN EXISTING  
MECHANICAL SPACES

EXISTING CONDITIONS  
Goody Clancy #205128.00

FILE NAME:  
DATE: 4.12.06 DR: EFS  
SCALE: 1/8" = 1'-0" CHK: DH  
DRAWING:

M-9A

Stamp:

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MAINTENANCE BUILDING  
FAX: 617.215.1800  
WWW.SECOMANAGEMENT.COM

EXISTING CONDITIONS

Revisions

[illegible]



CH-1 = 400TON CENTRIFUGAL CHILLER  
CH-2 = 200TON CENTRIFUGAL CHILLER  
CH-3 = 200TON CENTRIFUGAL CHILLER  
P1-4 = CONDENSER WATER PUMPS 4800  
P5-8 = CHILLED WATER PRIMARY PUMPS  
P9-12 = CHILLED WATER SECONDARY PUMPS  
ET-1 = CHILLED WATER EXPANSION TANK

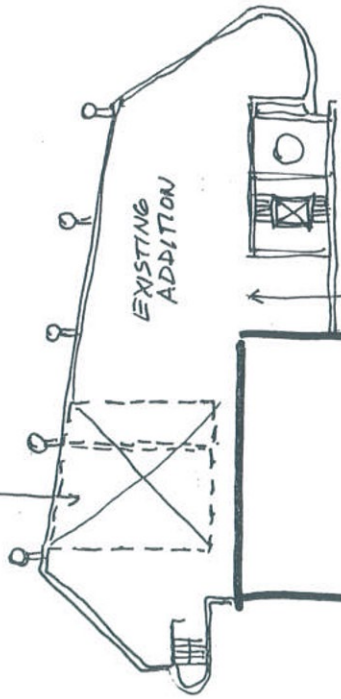
B-1 = 140HP HOT WATER BOILER  
B-2 = 140HP HOT WATER BOILER  
B-3 = 140HP HOT WATER BOILER  
P-1-4 = HOT WATER PRIMARY PUMPS(320GPM)  
P-5-8 = HOT WATER SECONDARY PUMPS(320GPM)  
ET-2 = HOT WATER EXPANSION TANK



M-8



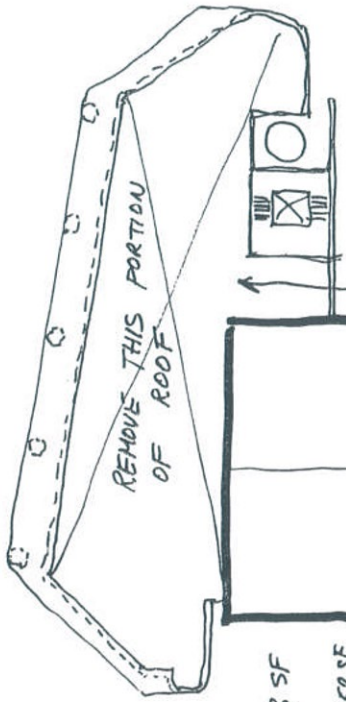
REMOVE SLAB FOR  
COURTROOM BELOW



EXISTING  
ADDITION

LEVEL 2 M  
BECOMES ROOF  
FOR MECHANICAL  
EQUIPMENT

EXISTING PFC



REMOVE THIS PORTION  
OF ROOF

DEMO ROOF PLAN  
EXISTING ADDITION

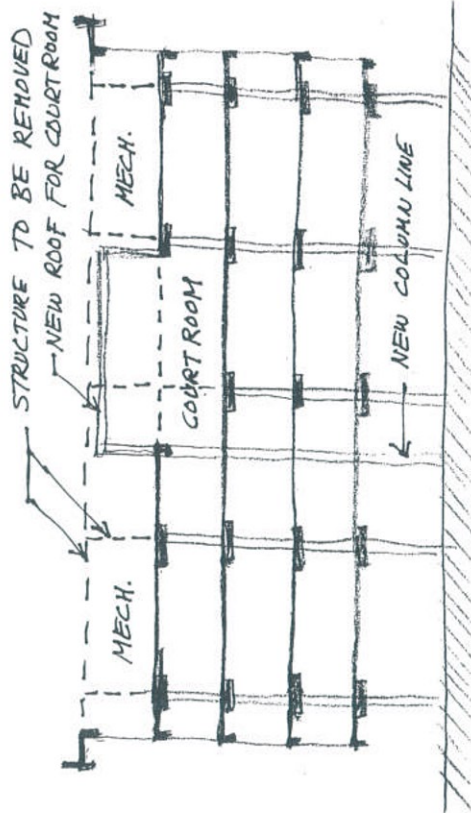
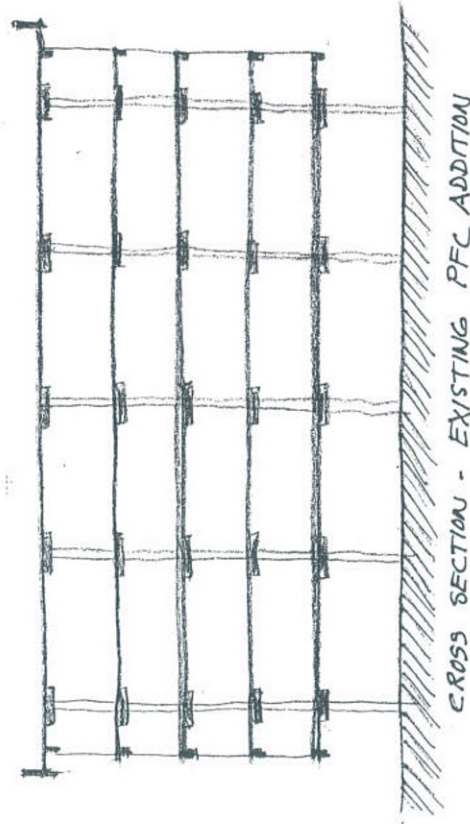
EXISTING PFC

ROOF AREA 6,413 SF  
+ FLOOR AREAS - 25,652 SF  
GROUND FLOOR - 6413  
"OPEN"

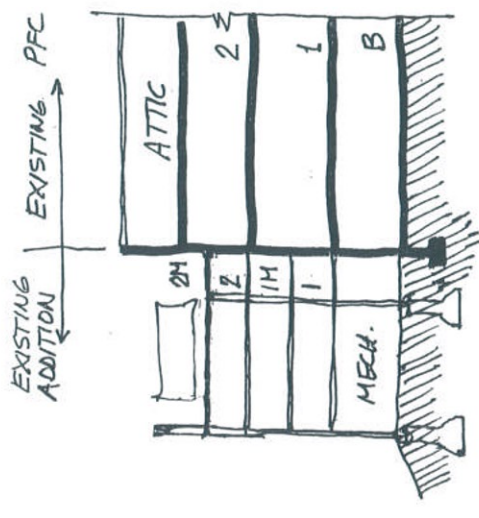
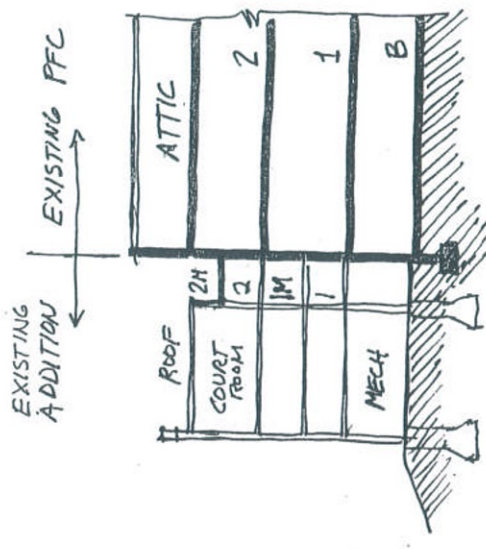
GOODY CLARK

4/6/06

SAI/FM



EXISTING PFC ADDITION WITH STRUCTURAL MODIFICATIONS

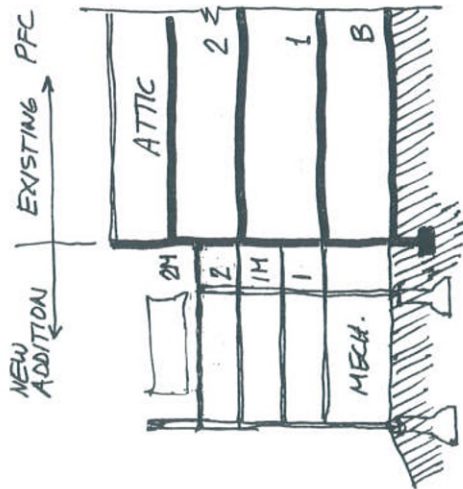
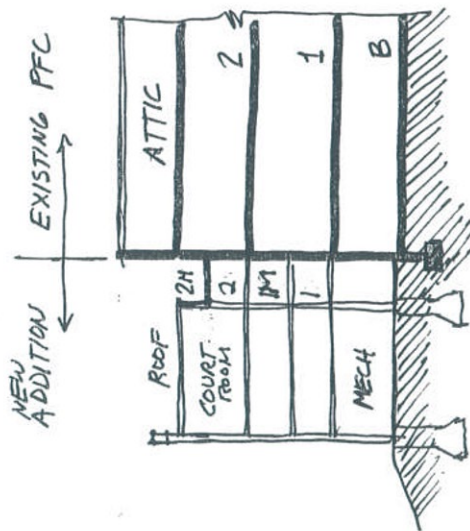
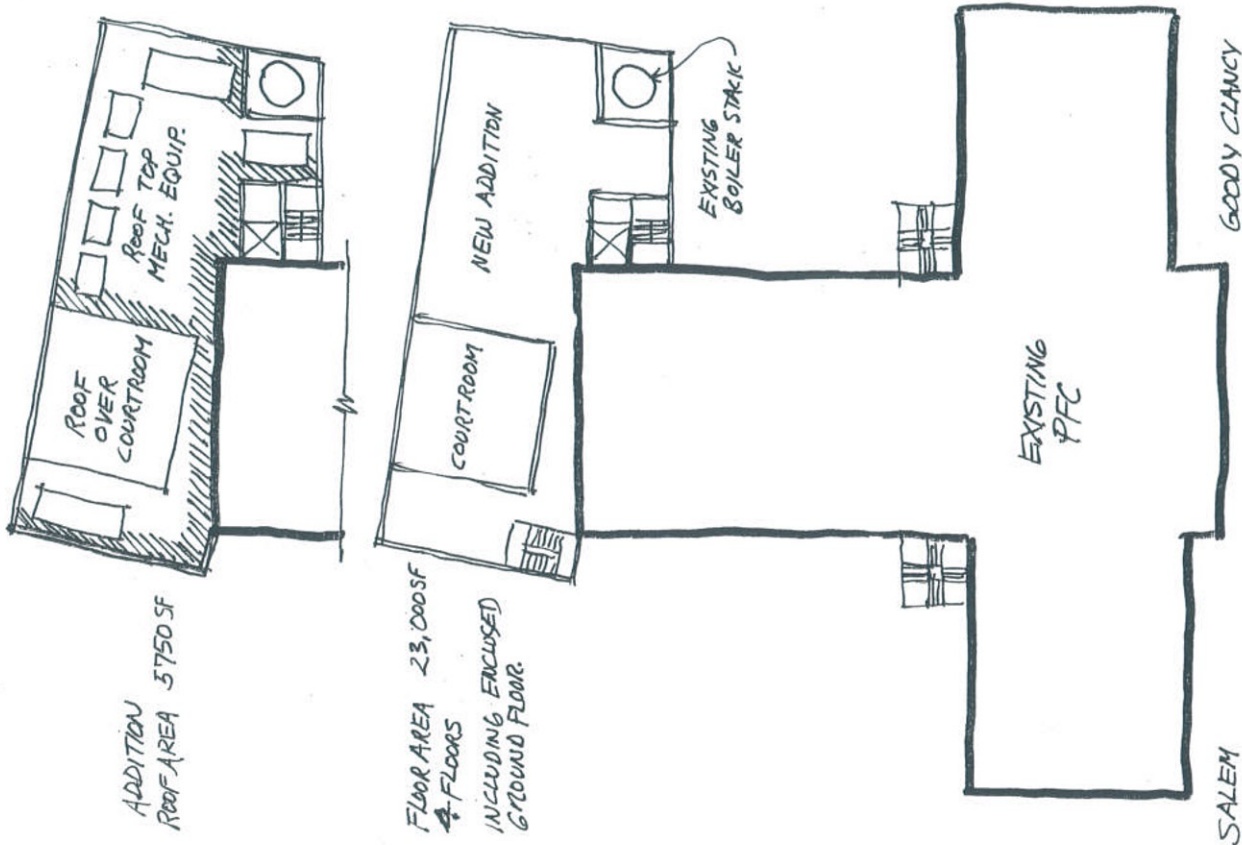


STRUCTURAL MODIFICATIONS  
TO ADDITION  
SALEM PFC

SALEM

4/6/08

GOODY CLAWCY



OPTIONAL REPLACEMENT  
TO ADDITION  
SALEM PFC



Civil - Site Issues

Runoff Rates

Pre-site Development Run-off	
Two year rate	7.5 CFS
Ten year rate	12 CFS
100 year rate	18 CFS
Post Site Development Run-off Rates	
Two year rate	8.5 CFS
Ten year rate	12.5 CFS
100 year rate	19.5 CFS

- 1 **Storm Water Option 1** Detention (Base Option)  
 Potential LEED Points for Peak Rate Reduction  
**Pros** Can be located anywhere on site

**Cons**

- 2 **Storm Water Option 2** Retention/Infiltration  
 Potential LEED Points for Peak Rate Reduction  
**Pros** Potential LEED Points for Stormwater Treatment  
 Smaller system than in option 1  
 Need additional stormwater treatment to protect groundwater resources  
 Highly dependent on Soils/Have to remove clays  
 Requires crushed stone backfill (more \$\$\$)  
 Needs to be located above the groundwater table

**Cons**

- 3 **Storm Water Option 3** Water Reuse  
**Pros** Potential LEED Points for Peak Rate Reduction  
 Potential LEED Points for Water Reuse  
 Cost savings because of reduced water demand from City system  
 Need additional storage - need storage for rate mitigation as well as reuse  
**Cons** Cost of Pumping systems  
 Cost of Treatment systems (different required for site drainage and roof drainage)

1. Existing 12" Sewer from North Street to Bridge Street within footprint and will need to be relocated

Mechanical

1 **Central Mechanical Plant in PFC**

**Pros**

Reuse of existing boiler plant space and chimney  
 Available space exists for one central chiller plant  
 Consolidated location for improved maintenance, efficiency and operation  
 Cooling towers all on existing PFC Addition building roof  
 Helps balance electrical loads  
 Lower first cost

**Cons**

Some phasing required to keep temporary steam system for Superior Court and County Commissioner's Building  
 Some logistics of installation still to be resolved

2 **Central Mechanical Plant in New Trial Court Building**

**Pros**

Consolidated location for improved maintenance, efficiency and operation  
 Existing steam plant serves only the SC and CCB  
 Plant can be easily configured within a new space

**Cons**

PFC can not become operational until Trial Court Bldg is complete  
 Additional new square footage required  
 Unused existing boiler plant  
 Cooling towers on roof of new building  
 New chimney required for new boiler plant  
 Probably more expensive than location in PFC  
 Unbalanced electrical service between new and PFC buildings

\$427,000

3 **Two separate independent Mechanical Plants, one in PFC & one in Trial court Bldg.**

**Pros**

Smaller equipment - sized for each building configuration

Flexibility for when buildings come on line

**Cons**

Largest square footage requirement  
 Highest first cost  
 Highest maintenance and operational cost  
 Largest installed equipment capacity  
 Duplication required of some large equipment including all ancillary equipment  
 Dual cooling tower configurations for increased maintenance  
 Cost premium for construction of mechanical space and duplicate mechanical equipment

\$565,000

4 Sustainable/Green Issues	
a	Optimize energy performance
b	Controllability of systems - perimeter
c	Carbon Dioxide (CO2) monitoring
d	Water use reduction
e	Ozone depletion
f	Thermal comfort - comply with ASHRAE 55-1992
g	Thermal comfort - permanent monitoring system
h	Operable windows vs. Optimal HVAC performance
i	Sun Screen louvers and performance glazing to reduce heat
j	Measurement & verification plan
k	Additional commissioning
l	Heat recovery

Structural	
1	Steel Frame - Braced
Pros	Lowest cost structural system Allows for future renovation
Cons	Potential LEED Points for recycled content Less flexible plan layout, as bracing must extend from roof to foundations in line.
2	Steel Frame - Moment Connections
Pros	Most planning flexibility Allows for future renovation
Cons	Potential LEED Points for recycled content Cost Premium estimated at \$1,146,000
3	Concrete Structure
Pros	Good sound insulation
Cons	Potential LEED points for local materials Cost premium estimated at \$2,674,000 Needs shear walls roof to foundations, in line, restricts flexibility of space layout Will require heavier foundations Difficult for future renovation
4	Foundations: Steel frame will provide a lighter load on pile foundations

PFC Addition Renovation vs. Demolition and Reconstruction				
1	Renovation			
	Screen Wall Renovation	7,000 SF	\$150 /SF	\$1,050,000
	Premium for Demolition	32,065 SF	\$250 /SF	\$8,016,250
	Premium for Structural Work			\$100,000
	Courtroom Roof			\$80,000
	Premium for Structural support of Mech Equip			\$70,000
				<u>\$100,000</u>
				\$9,416,250
	Pros	Less Cost vs Demo and Reconstruction LEED points (1 to 2 points) Building Reuse Community Sentiment against building appearance		
	Cons			
2	Demolition & New Construction			
	Demolition		\$12 /SF	\$400,000
	New Construction	23,000 SF	\$400 /SF	\$9,200,000
				<u>\$9,600,000</u>
	Pros	Better space for court functions and for mechanical equipment layout Architectural appearance and scale of new addition will be compatible with the PFC and the new Trial Court Building LEED points (0 to 1) Building Reuse Cost Premium		
	Cons	Cost premium greater if screen wall deleted from		





RAM Steel v10.0  
DataBase: 2040  
Building Code: IBC

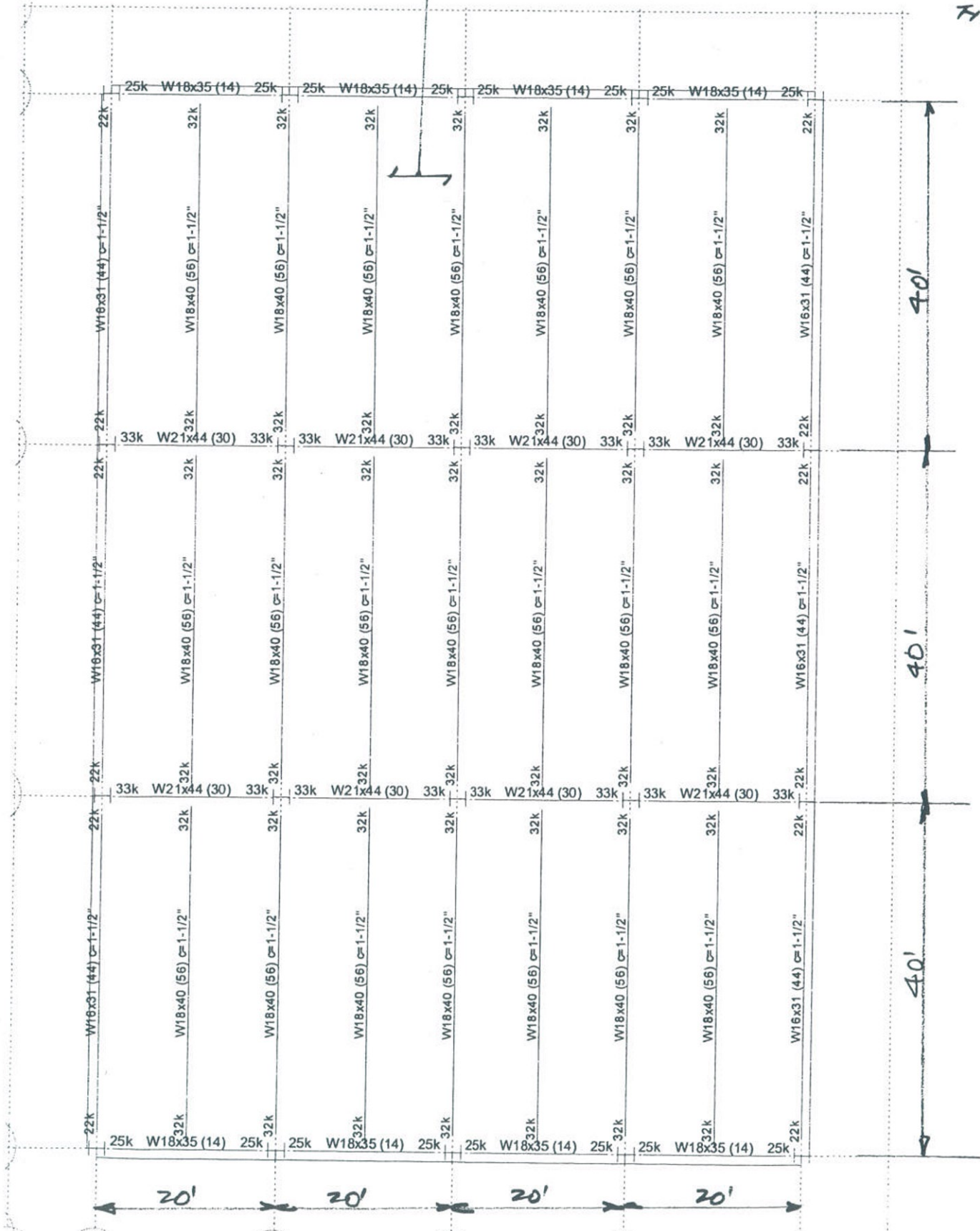
## Floor Map

STEEL SCHEME "A"

04/11/06 17:23:29  
Steel Code: ASD 9th Ed.

Floor Type: TYP

3/4" LW CONC ON 3" DEEP X 20 GA COMPOSITE  
STEEL DECK. TOTAL SLAB THICKNESS = 6 1/4"  
TYP



## Floor Map

STEEL SCHEME "B"

04/11/06 17:09:33

Steel Code: ASD 9th Ed.

**Floor Type: TYP**

SPAN OF 34" LW CONC ON 3" DEEP X 20GA COMPOSITE  
STEEL DECK. TOTAL SLAB THICKNESS = 66" TYP







RAM Steel v10.0  
DataBase: 2040  
Building Code: IBC

## Floor Map

STEEL SUMMER 'C'

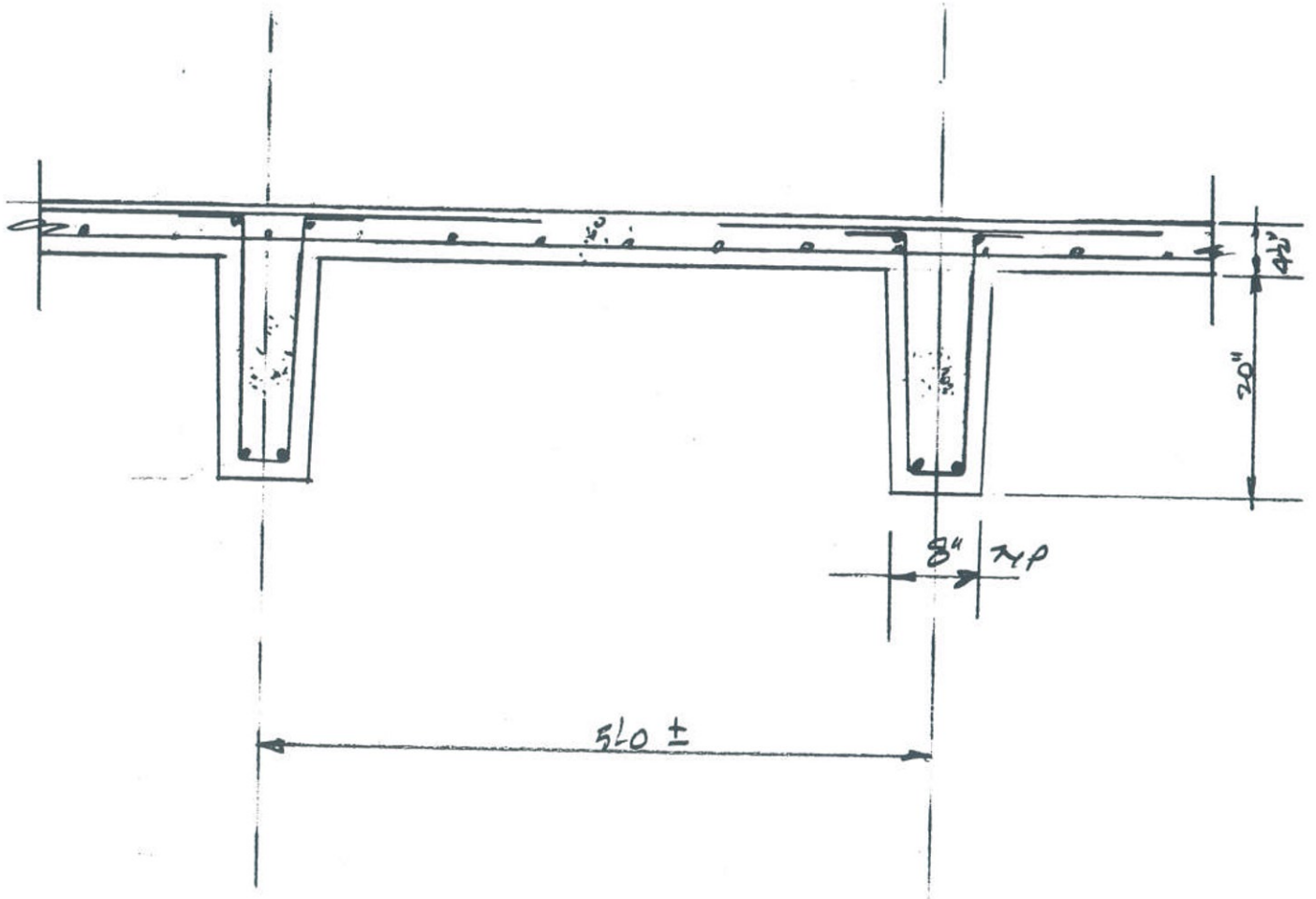
04/11/06 17:21:20  
Steel Code: ASD 9th Ed.

Floor Type: TYP

SPAN OF 34" LW CONC ON 3" DEEP X 20 GA COMPOSITE STEEL  
DECK. TOTAL SLAB THICKNESS = 6 1/2" TYP



Lim Consultants	Project <b>SALEM COURTHOUSE</b>			
	Subject <b>CONCRETE SCHEME</b>			
	Job No.	By	Date <b>4-11-06</b>	Sheet#



WIDE-MODULE JOIST CONSTRUCTION

## A1.6 Global Workshop Minutes: Summary of Meeting

**J. Michael Ruane Justice Center and Salem Trial Court  
Global Workshop  
April 13, 2006**



## **Summary of Meeting: J. Michael Ruane Justice Center & Salem Trial Courts Global Workshop**

John Adams Courthouse- 5<sup>th</sup> Floor Social Law Library Conference Suite

April 13, 2006

### **Welcome and Introductions (DCAM)**

**Gail Rosenberg**

*Review of project background of the renovation and new construction. Gail addressed site challenges presented by the project including the acquisition of parcels to build, removal of the buildings and occupants, and road re-configuration. She identified goals of the global workshop to be recognizing implications and alternatives to plans; cost perspective; short and long-term analysis; and community impact. Gail identified the evaluation criteria to include security, sustainability, cost, flexibility, community impact and historic issues.*

### **Cost Objectives**

**Liz Minnis (DCAM)**

*DCAM received approval for the Salem project from the administration during early 2005 for \$106 million total project cost, utilizing the information we had at the time for the Plymouth Trial Court. Working with the updated Plymouth bid costs we are projecting about \$296/ SF and escalating to the midpoint of construction. Given the recent high escalation, that was not fully anticipated, and other unforeseen costs on the project, we are now at a point where we will need to address the major cost concerns before certification of the study. We face this issue on all of the four major projects in development now and have very limited resources for adding to the budgets. Liz encouraged participants to be alert to the potential for phasing, cutting costs, and future development and asked that the workshop be used to determine the big cost issues now for the purpose of making projections.*

### **Review of Agenda & Ground Rules**

**Nancy Stack (Gilbane)**

*Ground rules for the workshop were outlined, establishing a “parking lot” list for issues. Nancy Stack proposed two questions to shape the discussion, asking participants to consider what additional information is needed to make evaluations of proposed alternatives, and whether items are likely to result in cost premiums or potential savings.*

### **Architectural Overview**

**Joan Goody (Goody, Clancy Associates)**

#### **Orientation to Project Site/ Building Concept/ Access**

Joan Goody oriented participants to the site by utilizing the “Pedestrian & Vehicular Points of Entry” board to indicate Federal Street, Bridge Street, and North Street. She indicated a major traffic pattern flowing from the commuter rail station down Federal Street. Joan highlighted the 17’ drop from Federal Street to Bridge Street as a benefit to the project. Joan described the pictures in the handout as follows:

- View looking west down Federal Street- shows the 1912 Probate and Family Court
- View looking east down Federal Street- three houses to be relocated off site
- View of PFC Addition- 1970s addition on the rear of the PFC; issue of renovation vs. demolition and new construction
- Federal Street View of First Baptist Church- demolish church addition; relocate building on corner of North Street and Federal Street

Plan 1- Reconfigures Federal Street and North Street intersection and eliminates the existing purpose of fitting the new courthouse with steep grading on the site. The Church/law library entrance is located inside the building but gives the appearance of opening to the street.

Lower Level- Location for vehicular entries of judges and staff; Trucks can move in and out for services; Possibility of 7 parking spaces in the area to the right of the Probate and Family Court Building

Preferred Option- Church relates in scale to town buildings; Pavilion building provides entry to non-court functions; Bar scheme layout for courtroom sets and transaction areas.

Basement- Parking; Underground tunnel linking the PFC and new Trial Court buildings

Salem New TC Plan- Lower Level- Juvenile Court functions; Mechanical space in PFC

Salem New TC Plan- Level 1- Level 1 provides two points of entry from Federal Street. District Court functions; PFC transaction register of probate

Salem New TC Plan- Level 1M- Housing and Superior Court functions; PFC- location for judges offices

Salem New TC Plan- Level 2- District and Housing Courts; PFC- courtrooms

Salem New TC Plan- Level 2M- Jury space; PFC- courtrooms and other court functions

Salem New TC Plan- Level 3- Superior Court functions with light from four sides; PFC- courtrooms

Salem New TC Plan- Level 3M- Roof; PFC- attic and membrane roofs

Sectional Views of New Trial Court- Green roof provides opening/ skylight to allow daylight into courtrooms

Joan summarized the design as being a tight pack due to the physical constraints, the historical district, and the location.



## **Architectural Overview Issues to be Addressed**

**Paul Dudek (Goody, Clancy Associates)**

Paul Dudek outlined the issues to be addressed, asking participants to assess the direction, scope, budget and potential impact for the following topics:

Site/Civil Issues- Stormwater management options for the site of 83,000 sq. ft. with a building footprint of 46,000 sq. ft

### Mechanical Issues-

- The location of mechanical systems with the option for one central mechanical plant or splitting the systems between the PFC and new building
- Structural issues- steel framing vs. concrete  
renovating vs. demolition and new construction for the PFC addition

## **MEP/HVAC Issues/ Opportunities Options for Locations and Systems**

**Don Haiges (SEI)**

In their review of existing buildings SEI found:

- County Commissioner (CC) and Superior Court (SC) buildings are tied into the existing PFC mechanical plant- uses steam; renovations were made more than 50 years ago and half of the heating coils do not work
- SEI considered cutting buildings off to create their own system but nothing would meet code (issue of heating interaction, boiler location being 200-300% larger because the old systems were so inefficient, issue of a steam boiler or changing everything to hot water)
- SEI concluded it was best not to decouple the mechanical systems until they get rid of the buildings (SC/CC).
- SEI reviewed options for the location of the primary mechanical plant- including roof or below new addition to PFC

- Three Approaches:

### 1) Central Mechanical Plant in PFC

- Reuses existing boiler plant space below 1970's addition and chimney (if inspection confirms feasibility), implies lower first cost and efficient maintenance (*Note: 2 bldgs.*)
- Replace 2 boilers to refeed PFC and new building; replace 3<sup>rd</sup> redundant boiler in phasing after the SC/CC occupants move over and the buildings are vacated
- Chiller plant for the whole complex can fit in PFC, below 1912 building
- Cooling towers all on roof of existing 1970's addition, recessed below roof line

- 2) Central Mechanical Plant in New Trial Court Building  
(Refer to M4A and M5 drawing in packet)
  - 1 large air handler provides all air to PFC and 1970s addition
  - Indexed to individual rooms and volume of air controlled
  - 2 boxes: A/C and ventilation
  - Existing steam plant serves only the Superior Court and Court Commissioners Building
  - Approximately \$427,000
  - Roof top air handling
  - Option of air handling down low for cost saving of interior equipment would require flip-flopping
- 3) 2 separate independent Mechanical Plants- 1 in PFC and 1 in new trial court
  - Refer to M-8 for mechanical plans
  - Smaller equipment can be used because it is sized for each building configuration
  - Provides greatest flexibility for when buildings come on line
  - Approximately \$565,000- most costly option b/c largest square footage requirement; highest first cost; high maintenance and operation costs for 2 separate systems, some duplication of equipment

### **Comments and Discussion**

- Mechanical Options Information Needed/ Questions and Issues Raised
  - 1) Check the condition of the existing chimney
  - 2) Utility company regarding transformers
  - 3) Question of the light well/ green roof for equipment (check McCormack Federal Courthouse)
  - 4) Explore chiller locations- clearance/ height needed vs. footprint
  - 5) Air intake location- security? (street level not allowed by federal regulations- does this apply?)
  - 6) Air side economizer vs. dedicated outdoor air
  - 7) Ventilation- cooling needs (air); courthouse occupancy
  - 8) Courtroom- air handling outside air vs. variable occupancy
  - 9) Non-courtroom- "2-box" system VAV box
  - 10) Dedicated Air- % outside air/ load (varies with occupancy)
  - 11) Check winter vs. summer conditions regarding controls and selection of systems, CO2 sensors
  - 12) Access to attic? (if used for mechanical)- use stairway in addition; connect over?
  - 13) Parking level- 5,000 gallon storage tank below 1970s addition is still there and a portable boiler is used on the oil to gas conversion
  - 14) PFC Attic- Ltd. locations for equipment
  - 15) Air-cooled- lower first costs vs. chilled water- higher operating costs
- Q: Why are the costs for the renovation of the 1970s addition so high?
- Q: Remove top floor vs. raise parapet (money, structural, Foundations (+) 120,000 lbs for equipment and (-) 500,000 lbs. for roof

- Q: fuel source- gas vs. gas and oil (AOTC preference is gas only); new plumbing regs; pilot appliances
- Q: Cost premiums for dual system: Are there any utility company incentives? Would project qualify for any rebates from National Grid?

## **Summary of Site Issues Stormwater Options, Utility Capacity**

**Jay Mazalewski (JNEI)**

### Civil Site Issues

- Major issue is management of stormwater runoff with the 83,000SF site and the 46,000 SF building

#### Site/ Utility Summary

- Federal Street- 6'' watermain; no sanitary sewer; gas line
- Bridge Street- 12'' and 20'' watermain; sewer; gas line
- Large roof area/ impervious surface on site
- Cannot discharge more stormwater runoff than today
- Existing 12'' sewer from North Street to Bridge Street within building footprint and will need to be relocated, tying back into city sewer line
  - Issue of timing with ramp construction
  - Manhole is parallel to North Street and city needs an easement for future maintenance
  - Elevation may be ok

#### Stormwater Management Options

- 1) Detention (Base option)
  - Approximately 200 – 300' 36'' pipe
  - Can be located anywhere on site
  - Closed pipe into city storm drainage system
  - 1 LEED point (peak rate reduction)
  - Maintenance- annual inspection and cleaning
  - Proposed location where sand is (200 – 300ft of 36'' plastic pipe footprint will accommodate); geotechnical reports show sandy soil
- 2) Retention/Infiltration
  - Perforated pipes filter into groundwater; Smaller system than option 1
  - 1-2 LEED points (peak rate reduction and stormwater treatment)
  - Cost premium b/c gravel backfill system needed to not clog pipe and location of ground water in relation to pipe; Highly dependent on soils and have to remove clays
  - Maintenance- annual inspection and cleaning
- 3) Water Reuse
  - Collects into tight tank and does not bleed off

- Irrigation system and toilet flushing with separate plumbing system are potential uses
- Most costly option- first costs
- 2+ LEED points (peak rate reduction and water reuse)
- Need less water from city system, which would reduce operating costs;  
Discussion with plumbing designer for feasibility to review demand and operating volumes

#### Comments and Discussion

- Jay Leonard of the Court Facilities Bureau discussed drain on the PFC roof and stated that the interior pipe was redone 6 years ago.
- Elevations at the basement- ejector may be needed
- Will INI study be needed?
- Paul Dudek of Goody Clancy suggested adjusting curb cuts
- Liz Minnis inquired as to life cycle costing for a gray water analysis.
- Grading may include retaining walls because close to the street.
- Life cycle cost analysis regarding gray water, etc.
  - Other than toilets?
  - Public only- ltd. redundancy, plumbing
- Jay Leonard discussed the electrical utility entering from the circle on Bridge Street that floods with heavy rains on the manhole cover and they lose power. The courts need to shut off three phase motors. Need to check on the MHD project as to how much of the utility system is getting rebuilt in their projects.

#### Green Roof: Discussion and Comments

- Removal/replacement concerns for plant materials
- Question of the use of lightwell/ green roof for equipment for mechanical system
- Maintenance- leaf/dirt materials need to be removed
  - Joan Goody discussed the McCormack Federal Courthouse building where the extensive roof does not require much maintenance
- Potential for a skylight above the lightwell
- Planting min. xeroscape- groundcover
  - Intensive (more soil- more maintenance)
  - Extensive (clean out drain once a year)
- Window wash access provided on planted roof
- Extensive roof (green) system- minor grading, not thick soils, no trees, low shrub/groundcover, drainage system

- GCA noted that in one of their federal projects for the EPA, there will be 2 demonstration areas, 1 featuring an intensive planting approach and 1 with an extensive system

## **Structural Systems**

**Lee Lim (Lim Consultants)**

Lee Lim distributed a handout to illustrate the options for steel and concrete schemes.

- Steel Scheme A uses 20' X 40' bay widths and was used as a base measurement.
- Steel Scheme B uses 30' X 40' bay widths and increases the price by \$1 per sq/ft.
- Steel Scheme C uses 40' X 40' bay widths and increases the price by \$2 per sq/ft.

### Steel Frame- Braced

**Pros-** lowest cost structural system; allows for future renovation; potential LEED points for recycled content

**Cons-** less flexible plan layout, as bracing extends from roof to foundations in line

- Staggered floor to floor?- Possible; look at in schematic design (Could it be lower level/ different layouts may be more or less impacted by locations of brace framing)

### Steel Frame- Moment Connections

**Pros-** flexibility in room layout; allows for future renovation; potential LEED points for recycled content

**Cons-** requires more steel; cost premium 4 lbs/SF is estimated at \$1.1M

### Concrete Structure

**Pros-** Reduced costs for sound insulation and fireproofing; potential LEED points for local materials

**Cons-** \$14 or \$15 more a SF with a cost premium estimated at \$2.7M; disciplined design required for shear walls, heavier foundations required

### Comments and Discussion

- Brian Novak addressed the issue of loadings as basing logic and they are using 100 lbs for the Lawrence, Plymouth, and Worcester Trial Courts.
- Subsurface conditions (sand vs. clay) will determine where caissons are needed
- Combination of moment and brace frame possible
- Floor to floor 12'6''; May need to increase for mechanical systems +6''
- During schematic design the Juvenile floor daylight constraints need to be addressed.
- L-shape: treat as one building (seismic code issues)
- Settlement (subsurface conditions of clay soils) needs to be reviewed
- Net reduction- total loading renov/reuse option

## **1) PFC Renovation: Old Building and New Addition**

Paul Dudek introduced GCA's approach to the renovation of both the 1912 PFC building and its later 1970's addition. He presented sketch plans and sections to illustrate the

current proposal. He noted that the total program space required for Probate and Family Court functions exceeds the square footage available in the 1912 building, which has 20' floor to floor heights. The floor to floor heights in the 1970's addition are approximately 10', which is adequate for office space floors. In order to accommodate a fourth courtroom for the Probate and Family Court in the 1970's addition, a portion of the floor slab would be removed to accommodate the courtroom height of approximately 20'. Additional structural framing would be required in this area.

- The existing roof of the 1970's addition would be removed to create space for mechanical equipment below a parapet of the existing wall.

#### Cost Summary

Renovation	\$8,000,000
Demolition premium	\$ 100,000
New structural work (courtroom)	\$ 80,000
Courtroom roof	\$ 70,000
New structural (mechanical equipment support)	\$ 100,000
	<hr/>
	\$8.5M
Screen wall (steel / glass)	<u>\$1.0 M</u>
	<b>\$9.5 M</b>

## **2) PFC Renovation: Demolition and New Construction**

### *A. Introduction*

Paul Dudek outlined a second option that would demolish the 1970's addition and construct new space. Some advantages include more efficient layout of spaces for court functions and mechanical equipment. The location of the new addition would be constrained by the existing street and the chimney for the boiler (assuming that testing confirms its reuse).

#### Cost Summary

Demolition	\$12 / SF	\$ 400,000
New Construction- 23,000SF	\$400 / SF	<u>\$9,200,000</u>
		<b>\$9,600,000</b>

### *B. Comments*

- Brian Novak- consider an addition on either side of courtrooms on the Probate and Family Court
- Gail Rosenberg- semi-secure access; can you flip layout to put the circulation on the other side
- Joan Goody- Revisit the idea of the existing 1970s addition: Is there a less intensive renovation of the 1912 building and is there a less expensive new addition?
- Brian Novak questioned the relocation of the church and its costs to the project. The reasons given for the relocation decision included: 1) the negative implication for layouts

of the floor of courts if it remained 2) community involvement concerns 3) need to respond to scale of Federal Street facades.

- \$1.5M rough estimate of relocating the church - \$1M relocation and \$.5M foundations

*C. Summary of Costs Premiums (+) / Potential Cost Savings (-): (CR = courtroom)*

**Renovation**

**Demo/New**

- |     |   |     |  |
|-----|---|-----|--|
| (+) | <ul style="list-style-type: none"><li>• Add Screen wall (+ 1M)</li><li>• Structural Reinforcement- CR</li><li>• Demo- roof removal open floor</li><li>• New roof- CR</li><li>• Foundation improvements?</li><li>• Mechanical- support roof</li></ul>                      | (+) | <ul style="list-style-type: none"><li>• Demo- historical building adjacent</li><li>• Site constraints</li><li>• Interface- new and old</li><li>• Stabilization of PFC during construction? Geotech/structural</li></ul>  |
| (-) | <ul style="list-style-type: none"><li>• Reduce structural changes</li><li>• New glass</li><li>• Reduce amount demo/roof floor</li><li>• More mech. under building to reduce distribution and costs</li><li>• Can you avoid roof demo?</li><li>• Parking outside</li></ul> | (-) | <ul style="list-style-type: none"><li>• Reduced distribution- mechanical</li><li>• Reduced total SF- due to greater efficiency</li><li>• Allocate costs by use “back of the house”/ Mech.</li><li>• More mech. under building to reduce distribution</li><li>• Parking outside</li></ul> |

**Renovation of 1912 building**

- Change loading in response to courts use vs. Registry of Deeds
- Seismic code conformance will add costs (historic 1912 building not required to meet)
- Recommend attaching floor and walls to preserve the building but there are slight premiums; AOTC and DCAM to respond

**Civil/Site Potential Premiums:**

- 1) Option 2- retention/infiltration will have a premium that is not yet determined
- 2) Water reuse through a gray water system carries more first time costs
- 3) INI requirement by the city for the sewer
- 4) Relocation of sewer manhole from existing ramp

**Mechanical Cost Issues:**

- 1) PFC base cost- central mechanical plant in PFC addition
- 2) Central mechanical plant in new court building –adds \$427,000 for development of new space
- 3) Two separate mechanical systems—PFC and New—adds \$565,000 for new space and duplicate mechanical equipment
- 4) Mechanical/ LEED costs for:
  - Controllability of the system
  - Carbon dioxide monitoring
  - Thermal comfort permanent monitoring system

- Ozone depletion
- Additional measurement and verification plant that the system is meeting sustainable guidelines
- Additional commissioning
- Heat recovery
- Airing out the building (2 weeks unoccupied, with possibility of 4 weeks)
- Payback of lifecycle cost

#### Parking and Circulation Cost Issues:

- Stairwell configuration because of relationship with parking
  - Ramp access to parking below building adds 8,000SF (additional money for site premium grading)
  - Currently 14 parking spaces under 1970's Addition (Ask Jay Leonard for a list)

#### Structural Costs

- 1) \$1.14M premium for steel moment frame construction VS. steel braced frame (Braced framing is the preference, as used on the Brockton Courthouse)
- 2) Need more comprehensive geotechnical information to confirm foundation requirements and soil loading capacity

#### Potential Costs:

- 1) Gail Rosenberg- hazmat inside the existing buildings (paint, plaster, ceiling needs to be mitigated)
- 2) Brian Novak- Existing ramp off of Federal St. instead of Bridge St.
- 3) Traffic management- police details; premium on general conditions allowance; traffic/access; staging areas for dense urban site
- 4) Level of finishes- confirm DCAM/AOTC expectation and standards
- 5) 3<sup>rd</sup> steam boiler and operational cost until SC/CC buildings disposed/renovated
- 6) Issue of stabilization of PFC
- 7) Lease for PFC for a relocation in Salem
  - Goody Clancy is taking an inventory of the items to be relocated to leased space
  - Storage for furniture and equipment to be determined

#### Next Steps (the sequence is not determined):

- 1) New information- site issues allowance/ system money
- 2) "Half-way" estimate- create baseline for analysis
- 3) Refine program- DCAM/AOTC
- 4) Cost model- evaluate options and tradeoffs including long-term costs
- 5) Use standard types- courts – grossing factors
- 6) Clarify LEED goals/ costs- allowance
- 7) Separation/ Disposition Program for SC/ CC Buildings
  - Allowance- replace 3<sup>rd</sup> steam boiler with hot water

#### *D. General Cost Issues*



- It was noted that GCA will need to confirm DCAM's format for how costs were developed for the Fall River courthouse analysis before costs are developed for Salem.
- GCA noted that the \$400/ SF cost for new construction is closer to \$375/ SF in today's dollars
- Liz Minnis explained that building construction cost of \$300/ SF had been used by DCAM for Fall River, using data from Plymouth Courthouse
- Allocation of site cost premiums will need to be developed to support further analysis
- Craig Holmes explained that Liz Minnis' \$300/ SF figure for building-related costs is derived by taking off site-specific activities and carrying the site development cost as lump sum allowances, recognizing that other site costs will need to be added as more information is made available.

### **Salem J. Michael Ruane Courthouse Global Workshop Participants**

#### **Paul Dudek**

Project Manager  
Goody, Clancy and Associates

#### **Ronald Ferrara**

Project Manager  
Division of Capital Asset Management (DCAM)

#### **Judge Gregory Flynn**

Presiding Judge, Waltham District Court  
Administrative Office of the Trial Court

#### **Neal Fontana**

Cost estimator  
Hanscomb Faithful & Gould

#### **Mike Fournier**

SEI

#### **Joan Goody**

Principal  
Goody, Clancy Associates

#### **Don Haiges**

SEI

#### **Craig Holmes**

Cost Estimator, DCAM

#### **Michael Joyce**

Project Architect  
Goody, Clancy Associates

**James Leonard**  
Regional Manager for Essex County Courthouses  
Court Facilities Bureau

**Richard L'Heureux**  
Manager, Program Planning  
Administrative Office of the Trial Court

**Lee Lim**  
Lim Consultants

**Siobhan Mangan**  
Courts planning assistant, DCAM

**Jay Mazalewski**  
JNEI

**Liz Minnis**  
Director, Court Facilities Unit  
Division of Capital Asset Management (DCAM)

**Brian Novak**  
Deputy Director  
Division of Capital Asset Management (DCAM)

**John O'Donnell**  
Deputy Director, Environmental  
Division of Capital Asset Management (DCAM)

**Gail Rosenberg**  
Project Manager, Court Facilities Unit  
Division of Capital Asset Management

**Ann Schiro**  
Division of Capital Asset Management

**Linda Serino**  
Administrative Office of the Trial Court (AOTC)

**Nancy Stack**  
Program Manager  
Gilbane

**Mark Swingle**  
Division of Capital Asset Management

**Tom Tagan**

Office of Facilities Maintenance, DCAM



## A1.7 Results of Limited Subsurface Investigation

**Salem Department of Public Works  
North Road and Bridge Street Interchange  
Salem, Massachusetts  
February 20, 2003**





**RANSOM**  
Environmental  
Consultants, Inc.

COPY

February 20, 2003

Project 031001

Mr. Mark C. Roberts, P.E.  
Massachusetts Division of Capital Asset Management  
Room 1501  
One Ashburton Place, 15<sup>th</sup> Floor  
Boston, Massachusetts 02108

RE: Results of Limited Subsurface Investigation  
Salem Department of Public Works  
North Road and Bridge Street Interchange  
Salem, Massachusetts

Dear Mr. Roberts:

Ransom Environmental Consultants, Inc. (Ransom) has prepared this letter for the Massachusetts Division of Capital Asset Management (DCAM) summarizing the results of a Limited Subsurface Investigation (LSI) performed at the above-referenced location in Salem, Massachusetts (the Site). The LSI included the advancement of five soil borings and the collection of soil samples for chemical analysis to determine if manufactured gas plant (MGP)-related wastes may be present in soils at the Site.

For purposes of this report, the Site is defined as the approximately 15,000-square-foot area centered at the North Road and Bridge Street interchange. A Site Location Map and a Site Plan are provided as Figures 1 and 2, respectively.

## BACKGROUND

During a review of historical Sanborn Fire Insurance Maps for the Site area, a former MGP gasometer (gas holder) was identified in the vicinity of the Site between 1890 and 1950. Subsequent Sanborn maps did not depict the presence of this structure. Copies of the Sanborn maps provided to Ransom by DCAM are provided as Attachment A. Based on the former existence of the gas holder and the possibility of soil contamination related to its former presence, DCAM requested an LSI be performed to determine if past MGP-related activities had adversely impacted the soils at the Site.

## FIELD INVESTIGATION

On January 31 and February 3, 2003 Ransom observed the advancement of five soil borings (B101 through B105) across the Site by Earth Exploration, Inc. (Earth Ex) of Wrentham, Massachusetts. Soil boring locations are depicted on Figure 2. Soil borings B101 through B103 were advanced on January 31, 2002, utilizing hollow-stem auger drilling techniques; soil borings B104 and B105 were

- Brown's Wharf, Newburyport, Massachusetts 01950, Tel (978) 465-1822, Fax (978) 465-2986  
200 High Street, Portland, Maine 04101, Tel (207) 772-2891  
195 Commerce Way, Portsmouth, New Hampshire 03801, Tel (603) 436-1490  
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090  
1445 Wampanoag Trail, Suite 108A, East Providence, Rhode Island 02915, Tel (401) 433-2160

Mr. Mark C. Roberts, P.E.  
Massachusetts Division of Capital Asset Management

advanced on February 3, 2003, using GeoProbe direct-push drilling methods. The borings were advanced to depths ranging from 6 to 20 feet below the ground surface (bgs). Soil boring logs are provided as Attachment B.

During the advancement of the soil borings, soil samples were continuously collected (either through the use of a split-spoon sampler or macrocore sampler, depending on the drilling method) to the top of the ground water table. Soil sample characteristics were documented and logged by Ransom personnel and the samples were field screened for the presence of organic vapors using the Massachusetts Department of Environmental Protection's (MA DEP) Jar Headspace Analytical Screening Procedure (DEP Policy # WSC-402-96) and a photoionization detector (PID). As shown on the soil boring logs, organic vapors were not detected in the soil samples collected during the advancement of the soil borings at concentrations above 100 parts per million volume/volume (ppmv).

Based on field observations and the results of the field screening, one sample from each soil boring was selected and submitted to Toxikon Corporation (Toxikon) of Bedford, Massachusetts, for chemical analysis. A total of five soil samples were submitted to Toxikon and analyzed for the following:

1. Extractable petroleum hydrocarbons (EPH), including polynuclear aromatic hydrocarbons (PAHs), by MA DEP Method EPH-98-1;
2. Volatile petroleum hydrocarbons (VPH), including benzene, toluene, ethylbenzene, and total xylenes (BTEX), by MA DEP Method VPH-98-1;
3. Physiologically Available Cyanide (PAC) by U.S. EPA Method 9012A (Modified);
4. Phenols by U.S. EPA Method 8270C (acid-extractable only);
5. Target Analyte List (TAL) Metals by U.S. EPA Method 6010B/7471A;
6. Hexavalent chromium by U.S. EPA Method 7196A;
7. Sulfide by Standard Method 9030B;
8. Sulfate by U.S. EPA Method 9038; and
9. Ammonia by Standard Method 4500.

## RESULTS OF FIELD INVESTIGATION

### Site Geology

At soil borings B101 and B103, ground water was encountered at a depth of approximately 6 feet bgs, while at soil borings B102 and B104, ground water was observed at a depth of between 10 and 12 feet



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bgs; at soil boring B105, ground water was observed at a depth of approximately 18 to 20 feet bgs. Fill material including red brick fragments, coal pieces, and ash was observed in boring B101 at a depth interval of approximately 2 to 4 feet bgs. This fill material was not observed in the other four borings. Generally, soils observed during the advancement of the borings consisted of a dense brown/tan medium to fine sand above the water table to a dense, gray, fine sand, silt, and clayey silt at and below the water table.

### Soil Sample Chemical Analysis

As shown in Table 1, with the exception of the sample collected from B102, EPH fractions were not detected in the soil samples at concentrations above laboratory reporting limits. At B102, C<sub>11</sub>-C<sub>22</sub> aromatics were detected at a concentration of 120 milligrams/kilogram (mg/kg). Low concentrations (less than 15 mg/kg) of VPH fractions were detected in each of the soil samples. With the exception of the sample collected from B101, PAHs were not detected in the samples at concentrations above laboratory reporting limits. At B101, PAHs, including phenanthrene, anthracene, fluoranthene, pyrene, and benzo(k)fluoranthene, were detected at concentrations of 1.1 mg/kg or less. PAC, phenols, hexavalent chromium, and sulfide were not detected in the samples at concentrations above laboratory reporting limits. With the exception of the sample collected from B105, sulfate was not detected in the samples collected from the borings at concentrations above laboratory reporting limits. Sulfate was detected in the sample collected from B105 at a concentration of 26 mg/kg. Numerous metals, including aluminum, arsenic, barium, beryllium, calcium, chromium (trivalent), cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, sodium, vanadium, and zinc were detected in the samples at varying concentrations.

A copy of the Toxikon lab report is provided as Attachment C.

### Nature and Extent of Contamination

Based field observations made during the advancement of the soil borings and the results of soil sample chemical analyses, Ransom has not identified evidence of MGP-related wastes at the Site.

## **REGULATORY STATUS**

In order to determine whether a notification obligation to the MA DEP exists pursuant to the Massachusetts Contingency Plan (MCP), measured concentrations of contaminants are compared to the Reportable Concentrations (RC) in the category that best characterizes the current use of the Site. Designation of the appropriate reporting category is based on site conditions (e.g., distance to residentially zoned properties and schools, presence of water resources, etc.). Once the soil reporting categories have been determined, the concentrations of contaminants are then compared to their corresponding RCs. When contaminants are present at concentrations greater than their applicable RC, a 120-day reportable condition exists, as defined by the MCP, and written notification to the MA DEP is required.

Mr. Mark C. Roberts, P.E.  
Massachusetts Division of Capital Asset Management

### Soil Reporting Category

Because several residential buildings are located within 500 feet of the Site, soil at the Site meets the criteria of soil Reporting Category RCS-1, as defined by the MCP.

### Comparison to Reportable Concentrations

As shown in Table 1, the concentration of lead detected in the sample collected from soil boring B101, 660 mg/kg exceeds its corresponding RCS-1 reportable concentration of 300 mg/kg. In addition, beryllium was detected in the soil sample collected from B103 at a concentration of 0.77 mg/kg, which exceeds the RCS-1 reportable concentration 0.70 mg/kg. No other constituents were detected at concentrations above their corresponding RCS-1 reportable concentrations.

A review of the MA DEP publication entitled *Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil* and dated May 23, 2002, indicates that the concentration of lead detected in the sample collected from B101 (660 mg/kg) exceeds the MA DEP's background level for lead in soil containing coal ash or wood ash associated with fill material (600 mg/kg). Although the concentration of beryllium detected in the sample collected from boring B103 is below the background level of fill material of 0.9 mg/kg, Ransom did not observe the presence of urban fill materials at this boring location.

### Reporting Obligation

As defined in the MCP, a release indicated by the presence of OHM in soil and/or ground water at concentrations above the applicable MCP RCs requires notification of site conditions to the MA DEP within 120 days of the responsible party obtaining knowledge of such conditions. DCAM obtained knowledge of the reportable condition on February 10, 2003. Written notification of the reportable condition is therefore due to MA DEP on or before June 10, 2003.

## **RECOMMENDATIONS**

Based on the presence of elevated concentrations of lead and beryllium in soils at two locations at the Site, Ransom makes the following recommendations:

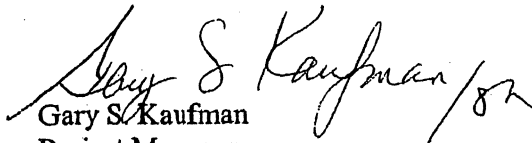
1. Notification to the MA DEP on or before June 10, 2003; and
2. Additional response actions to determine the extent of lead and beryllium impacts to soil at the Site.

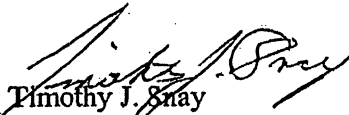
Mr. Mark C. Roberts, P.E.  
Massachusetts Division of Capital Asset Management

Ransom appreciates the opportunity to provide environmental consulting services to DCAM. Should you have any questions related to this letter, please contact either Gary Kaufman or Timothy Snay.

Sincerely,

**RANSOM ENVIRONMENTAL CONSULTANTS, INC.**

  
Gary S. Kaufman  
Project Manager

  
Timothy J. Snay  
Licensed Site Professional

GSK/TJS:sh

Attachments

**TABLE 1: SUMMARY OF SOILSAMPLE CHEMICAL ANALYSIS RESULTS**

Limited Subsurface Investigation  
 Salem Department of Public Works  
 North Road and Bridge Street Interchange  
 Salem, Massachusetts

Sample Location	B101	B102	B103	B104	B105	Reportable Concentration
Sample Designation	031001- B101-S2- 013103	031001- B102-S2- 013103	031001- B103-S1- 013103	031001- B104-S1B- 013103	031001- B105-S2B- 013103	
Sample Depth (feet)	2-4	2-4	0-2	2-4	6-8	RCS-1
beryllium	0.26	0.27	0.77	0.4	0.51	0.7
cadmium	BRL (0.58)	0.77	1.5	0.56	BRL (0.6)	30
calcium	28,000	2,500	3,000	1,500	1,300	--
chromium	12	8.9	37	15	16	1,000
cobalt	4.2	7.8	11	7.5	7.3	500
copper	38	9.8	22	11	9.4	500
iron	6,700	15,000	27,000	13,000	13,000	--
lead	660	9.2	78	18	5.9	300
magnesium	1,700	2,400	5,500	3,600	3,400	--
manganese	220	360	450	270	280	--
nickel	9.8	8.0	31	17	17	300
potassium	580	400	1,900	810	800	--
sodium	180	140	440	67	57	--
vanadium	18	21	45	22	21	400
zinc	68	36	69	36	28	2,500
Phenols (Acid Extractables)	Concentrations in mg/kg					
all phenols	BRL (0.4- 0.96)	BRL (0.38- 0.86)	BRL (0.42- 1.0)	BRL (0.37- 0.9)	BRL (0.4- 0.96)	--

**NOTES:**

1. Samples were collected by Ransom Environmental Consultants, Inc., on January 31, 2003, and analyzed by Toxikon of Bedford, Massachusetts.
2. BRL ( ) = below reporting limit indicated in parentheses.
3. Reportable Concentrations taken from 310 CMR 40.1600
4. Values in boldface type indicate concentrations exceeding the Reportable Concentration.

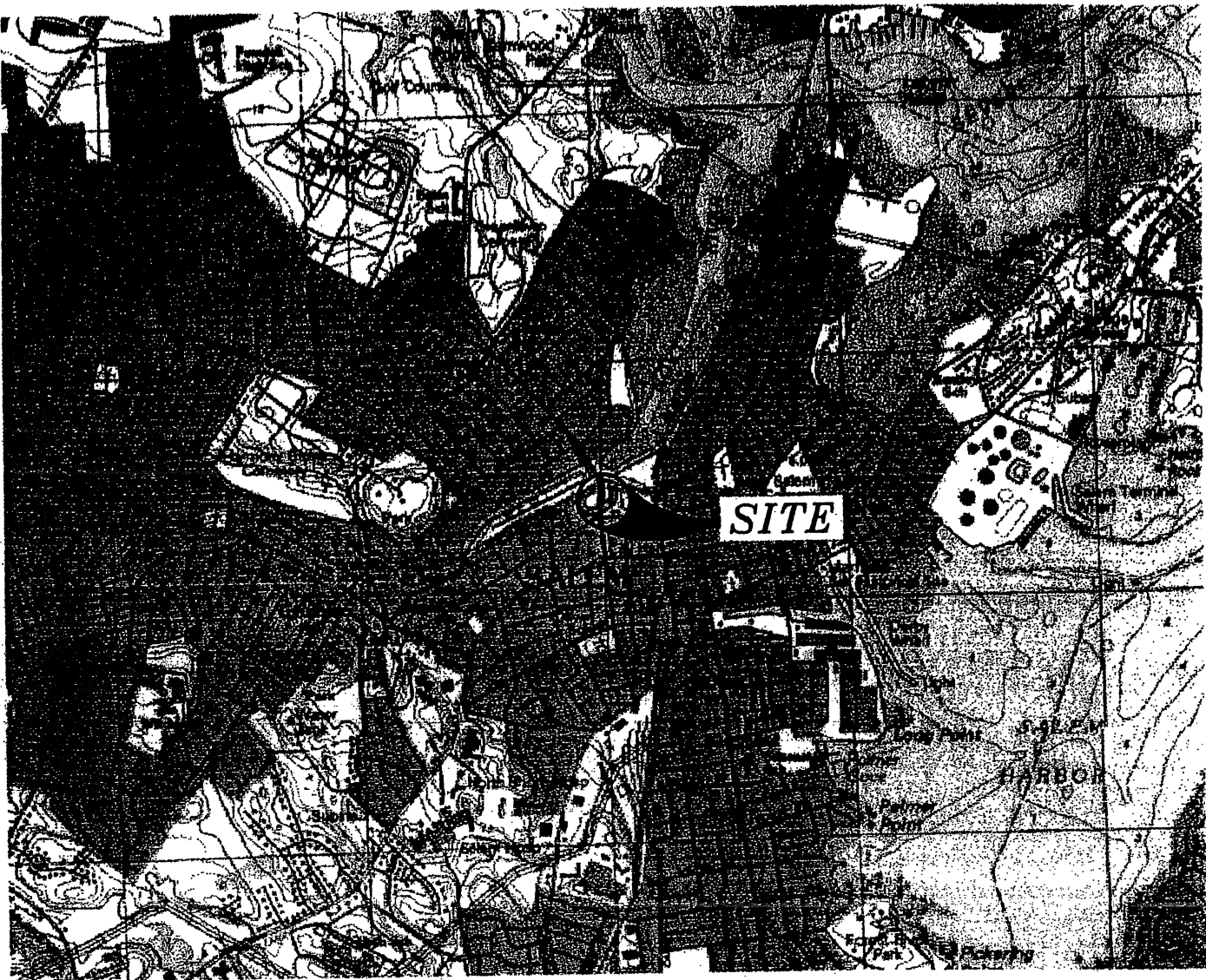
**TABLE 1: SUMMARY OF SOILSAMPLE CHEMICAL ANALYSIS RESULTS**

Limited Subsurface Investigation  
Salem Department of Public Works  
North Road and Bridge Street Interchange  
Salem, Massachusetts

Sample Location	B101	B102	B103	B104	B105	Reportable Concentration
Sample Designation	031001- B101-S2- 013103	031001- B102-S2- 013103	031001- B103-S1- 013103	031001- B104-S1B- 013103	031001- B105-S2B- 013103	
Sample Depth (feet)	2-4	2-4	0-2	2-4	6-8	RCS-1
Cyanide	Concentrations in mg/kg					100
	BRL (0.6)	BRL (0.53)	BRL (0.64)	BRL (0.56)	BRL (0.5)	
Hexavalent chromium	Concentrations in mg/kg					200
	BRL (6.0)	BRL (5.3)	BRL (6.4)	BRL (5.6)	BRL (6.0)	
Ammonia (as nitrogen)	Concentration in ppm					100
	9.7	13	43	12	17	
Sulfate	Concentrations in ppm					--
	BRL (24)	BRL (21)	BRL (26)	BRL (22)	26	
Sulfide	Concentrations in ppm					--
	BRL (1.2)	BRL (1.1)	BRL (1.3)	BRL (1.1)	BRL (1.2)	

**NOTES:**

1. Samples were collected by Ransom Environmental Consultants, Inc., on January 31, 2003, and analyzed by Toxikon of Bedford, Massachusetts.
2. BRL ( ) = below reporting limit indicated in parentheses.
3. Reportable Concentrations taken from 310 CMR 40.1600
4. Values in boldface type indicate concentrations exceeding the Reportable Concentration.

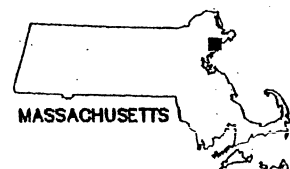


TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC  
MAP OF SALEM, MASSACHUSETTS-1985.

CONTOUR INTERVAL IS 3 METERS

SITE COORDINATES: LATITUDE 43°21'26"  
LONGITUDE 70°53'57"

UTM COORDINATES: 47:09:472mN  
3:44:016mE



QUADRANGLE LOCATION



SCALE in FEET  
1:25,000

**RANSOM**

Environmental  
Consultants, Inc.

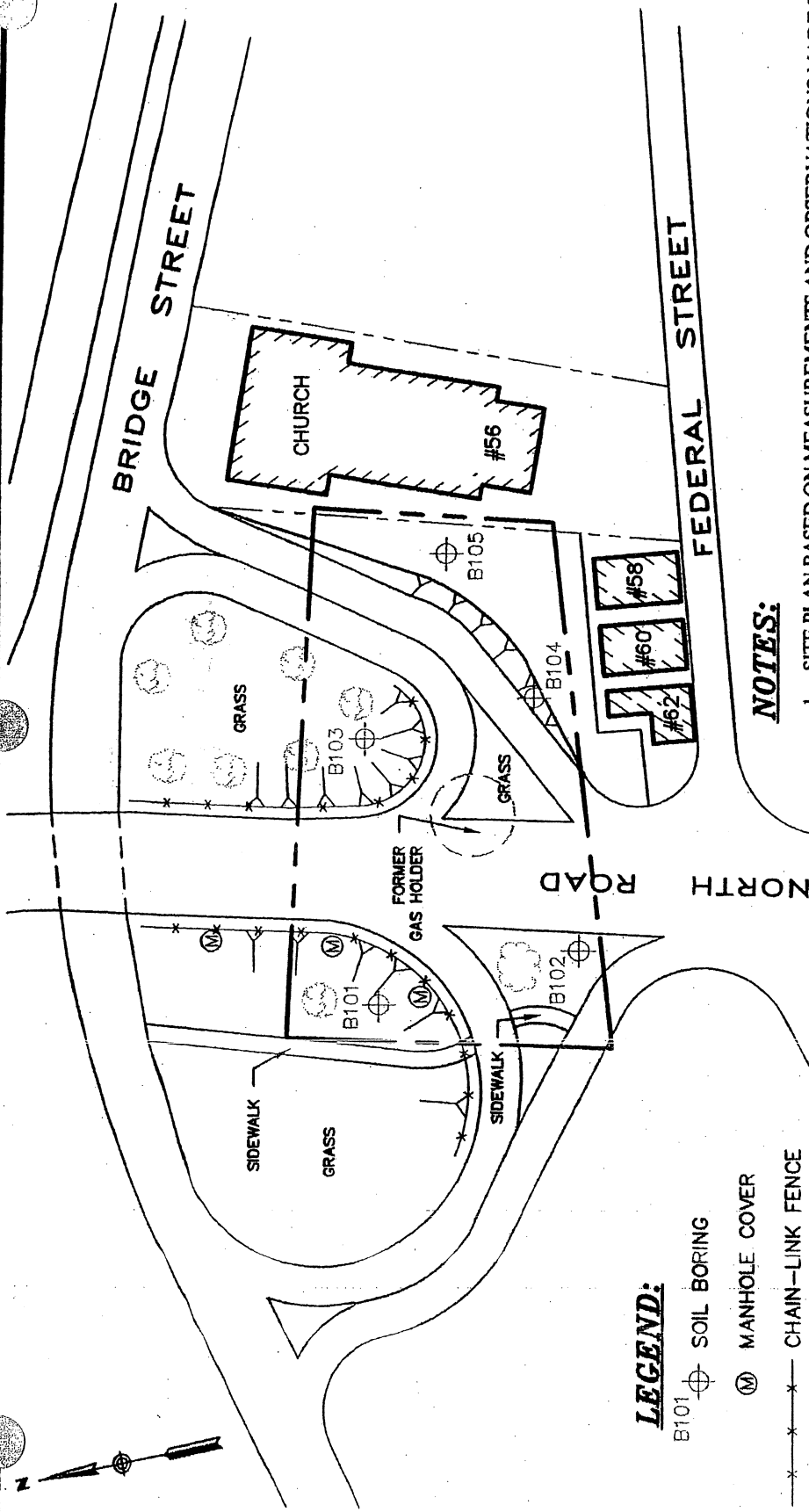
PREPARED FOR:  
MASSACHUSETTS DIVISION OF  
CAPITAL ASSET MANAGEMENT  
ONE ASHBURTON PLACE  
BOSTON, MASSACHUSETTS

SITE:

NORTH STREET RAMP  
TO BRIDGE ROAD  
SALEM, MASSACHUSETTS

**SITE LOCATION MAP**

DATE: FEBRUARY 2003  
PROJECT: 031001  
FIGURE: 1



# **LEGEND:**

- B101 ⊕ SOIL BORING
- ⊕ MANHOLE COVER
- \*— CHAIN-LINK FENCE
- <— DIRECTION OF SLOPE
- - - - SITE BOUNDARY



SCALE in FEET  
1"=50'

## **NOTES:**

1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM ENVIRONMENTAL CONSULTANTS, INC. ON JANUARY 14, 2003.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR THE MASSACHUSETTS DIVISION OF CAPITAL ASSET MANAGEMENT. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM ENVIRONMENTAL CONSULTANTS, INC.

<b>RANSOM</b> Environmental Consultants, Inc.		<b>SITE PLAN</b>	
PREPARED FOR: MASSACHUSETTS DIVISION OF CAPITAL ASSET MANAGEMENT ONE ASHBURTON PLACE BOSTON, MASSACHUSETTS		SITE: NORTH STREET RAMP TO BRIDGE ROAD SALEM, MASSACHUSETTS	
		DATE: FEBRUARY 2003 PROJECT: 031001 FIGURE: 2	

**ATTACHMENT A**

**Sanborn Map Report**

**Results of Limited Subsurface Investigation  
Salem Department of Public Works  
North Road and Bridge Street Interchange  
Salem, Massachusetts**



1050 #1  
Salmon, MA  
100 Salmon

**NORTHERN DEPOSIT**

ESSEX COUNTY COURT HO.

Chapel  
Tavernacle  
Song

**BRIDGE**

ODELL SQ.

**FEDERAL**

**CRTH**

**SHEET**

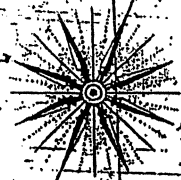


**SALÉM, MASS.**

335

21

1890 Sanborn  
Map of  
Boston, MA



NORTH

Riding  
School

NORTH  
CHURCH

41

42

FEDERAL

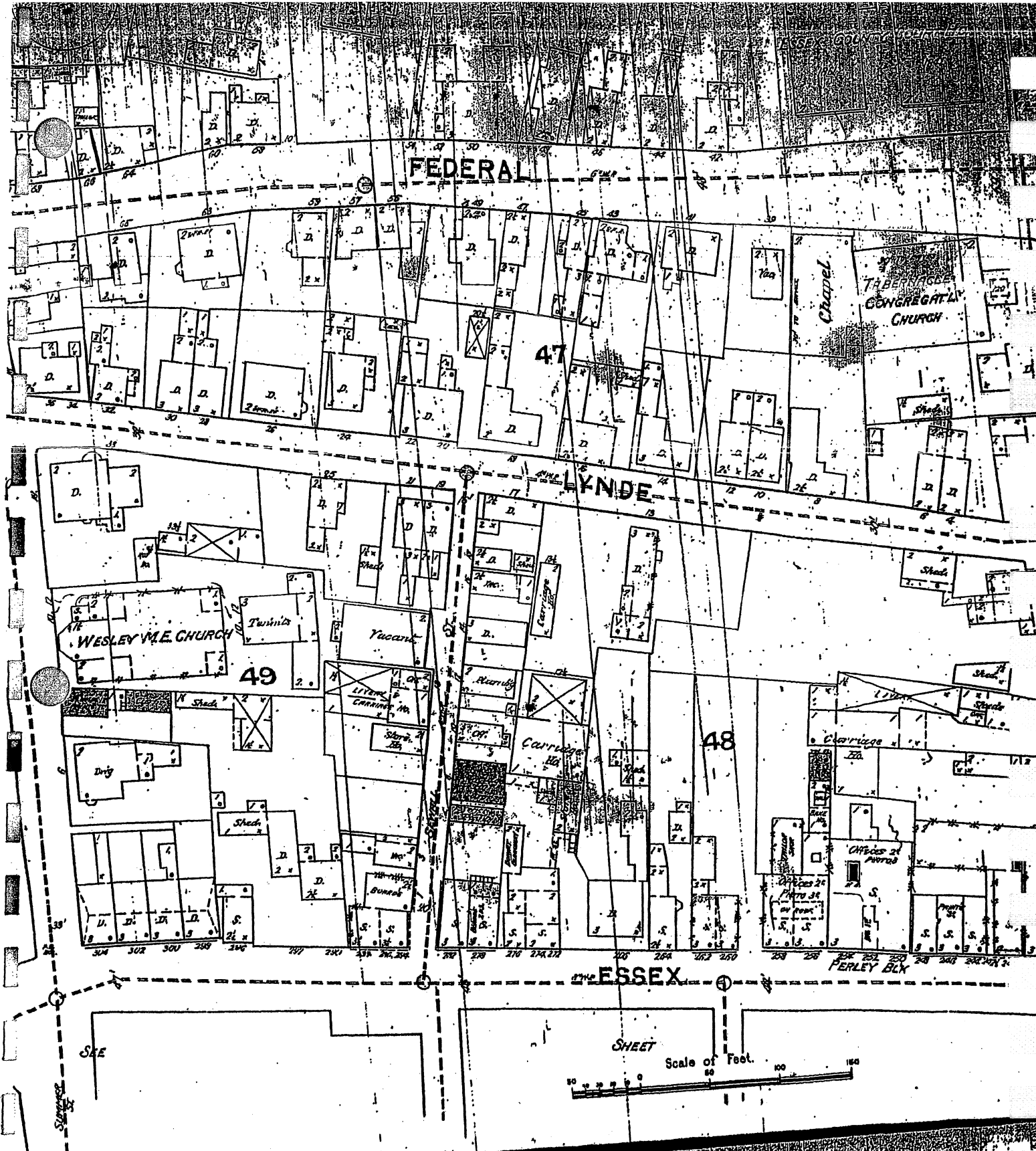
FEDERAL ST

SUMMIT ST

SHEET

SEE

SEE



031001

WASHINGTON

1906 Sanborn  
Salem, MA

1" = 50'

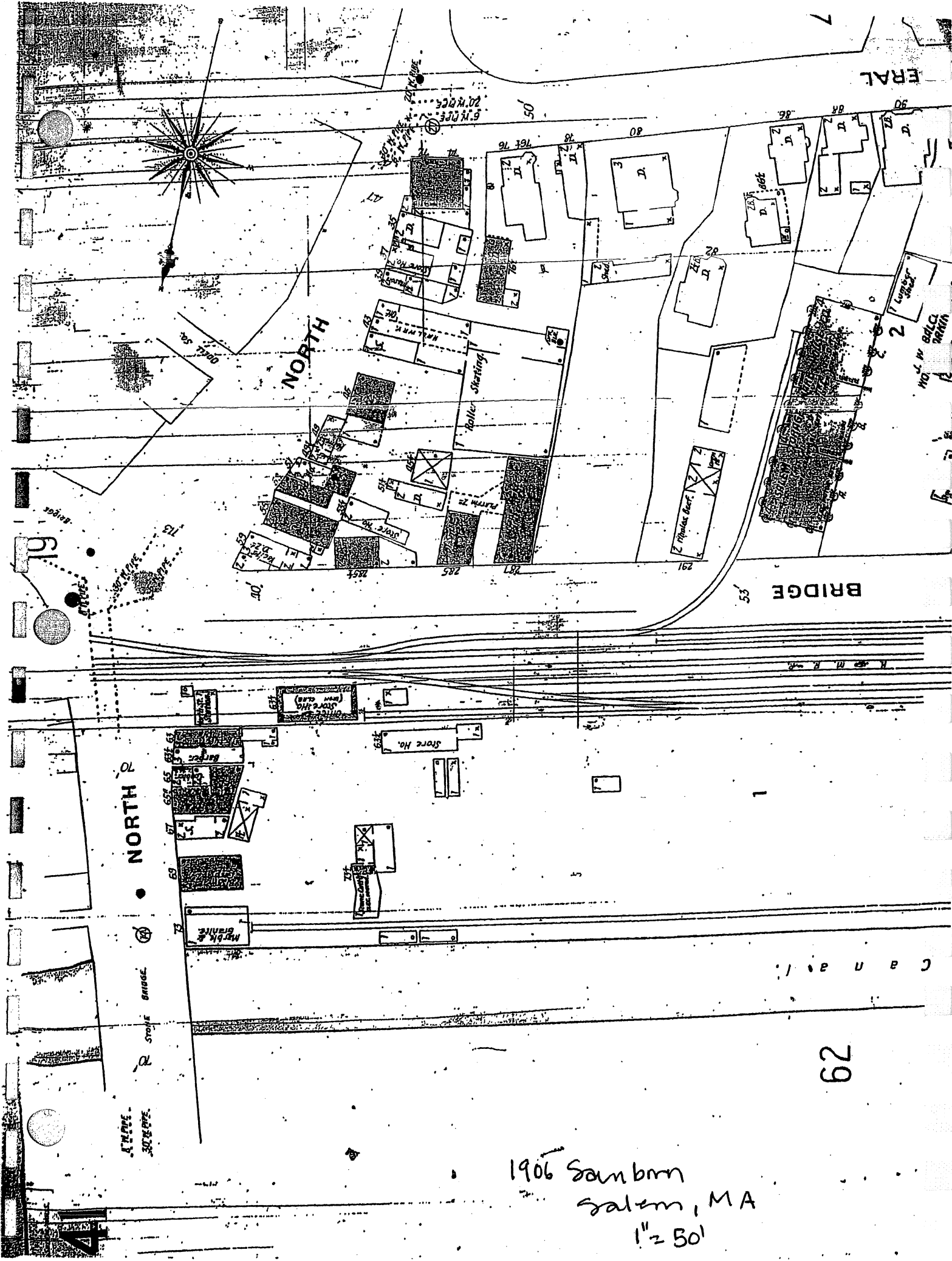
BRIDGE

FEDERAL

NORTH

ORTH





62

1906 Sanborn  
Salem, MA  
1" = 50'

42

19

NORTH

21

55

8-

309

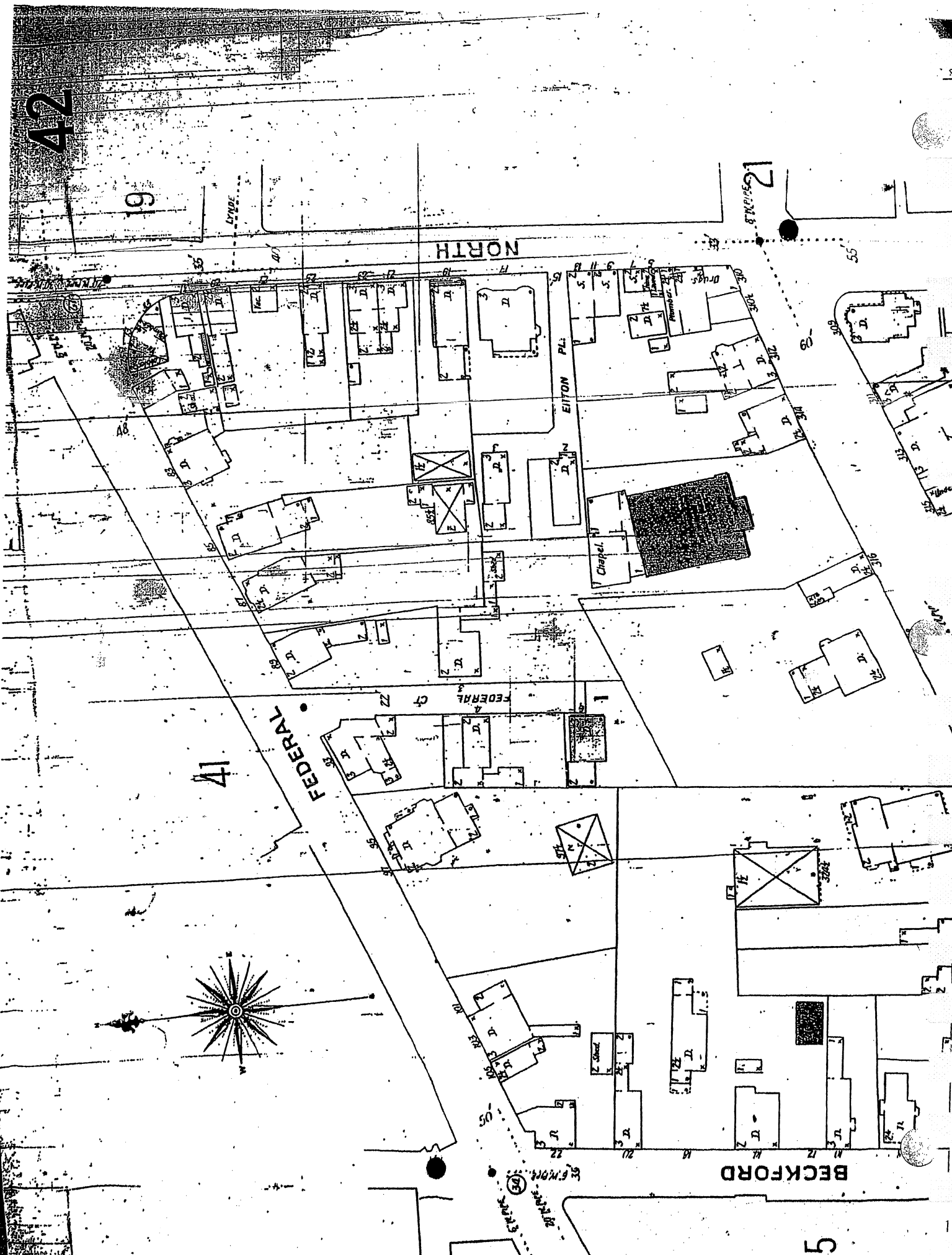
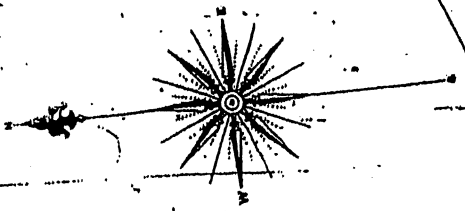
316

FEDERAL

17

BECKFORD

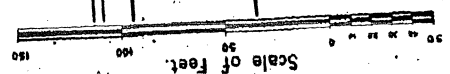
45





Clanai.

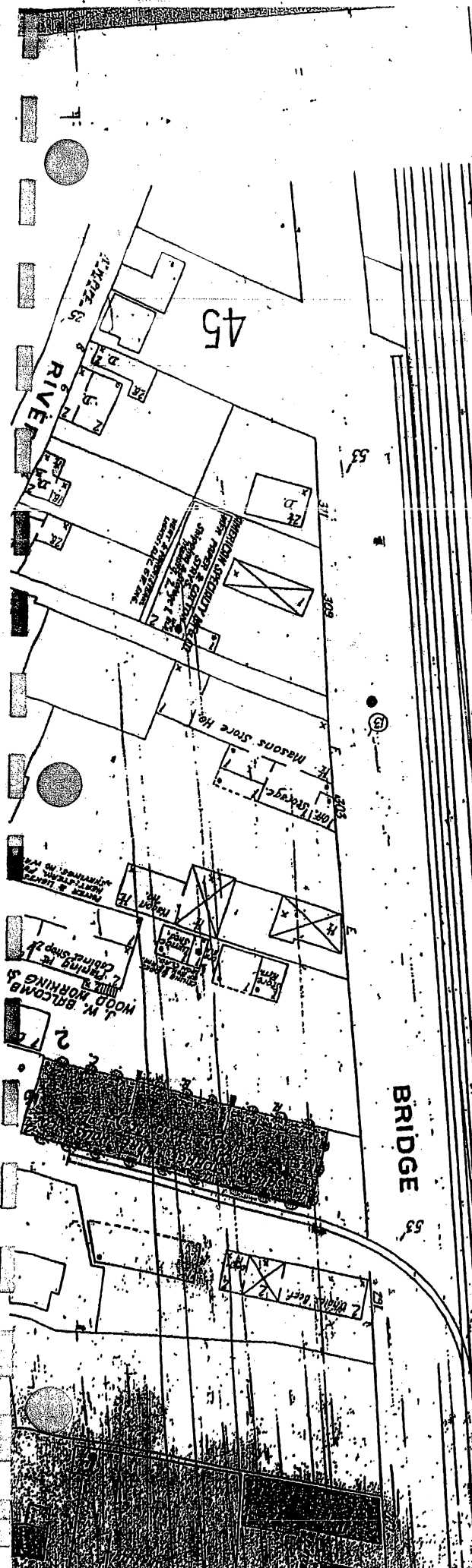
Scale of Feet.



BRIDGE

45

W. RIVER



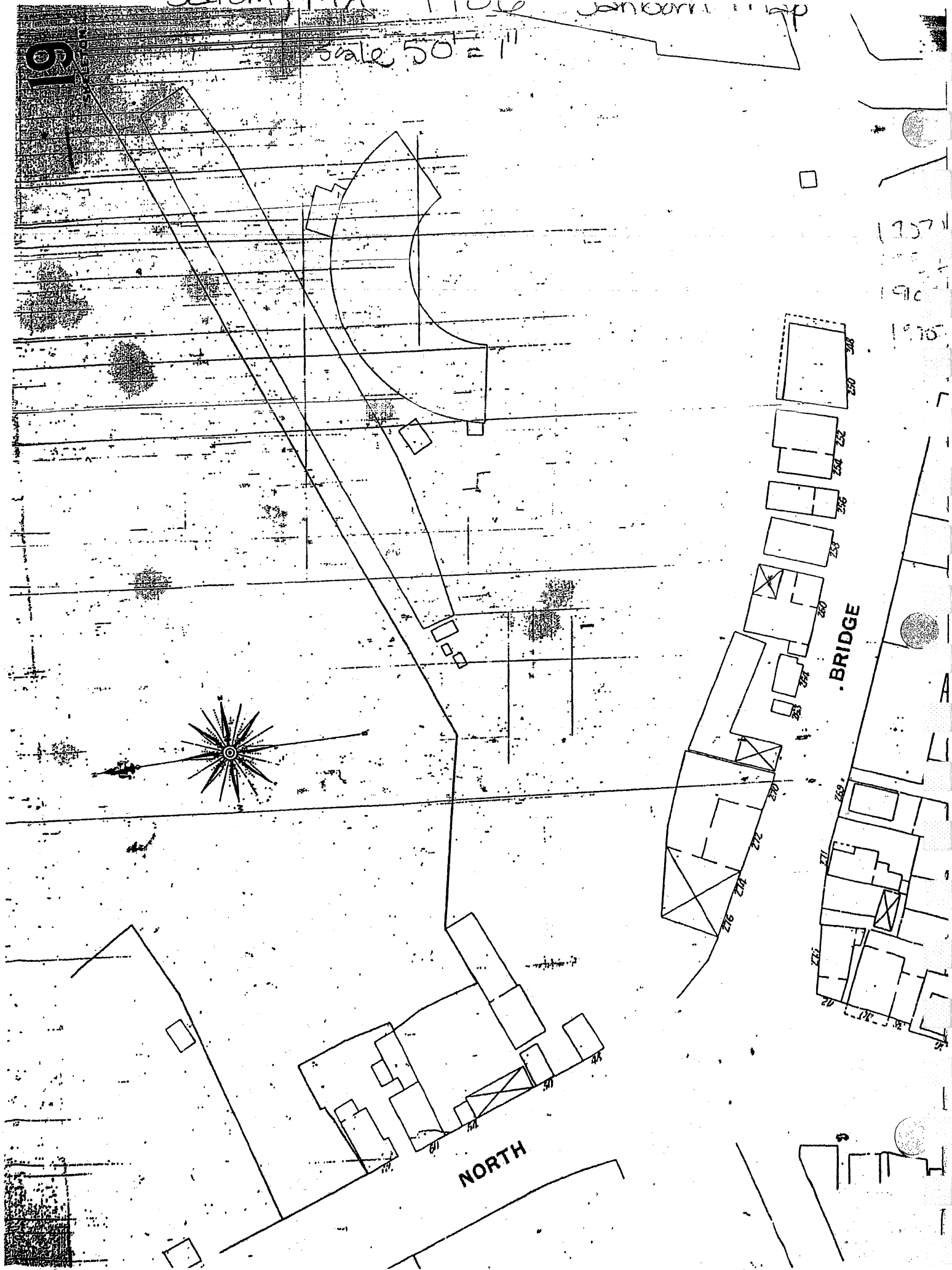
19

Scale 50' = 1"

BRIDGE

NORTH

1957  
1960  
1970





Salem, MA  
Scale 1" = 5'

NORTH

Scale of Feet  
0 50 100 150

21

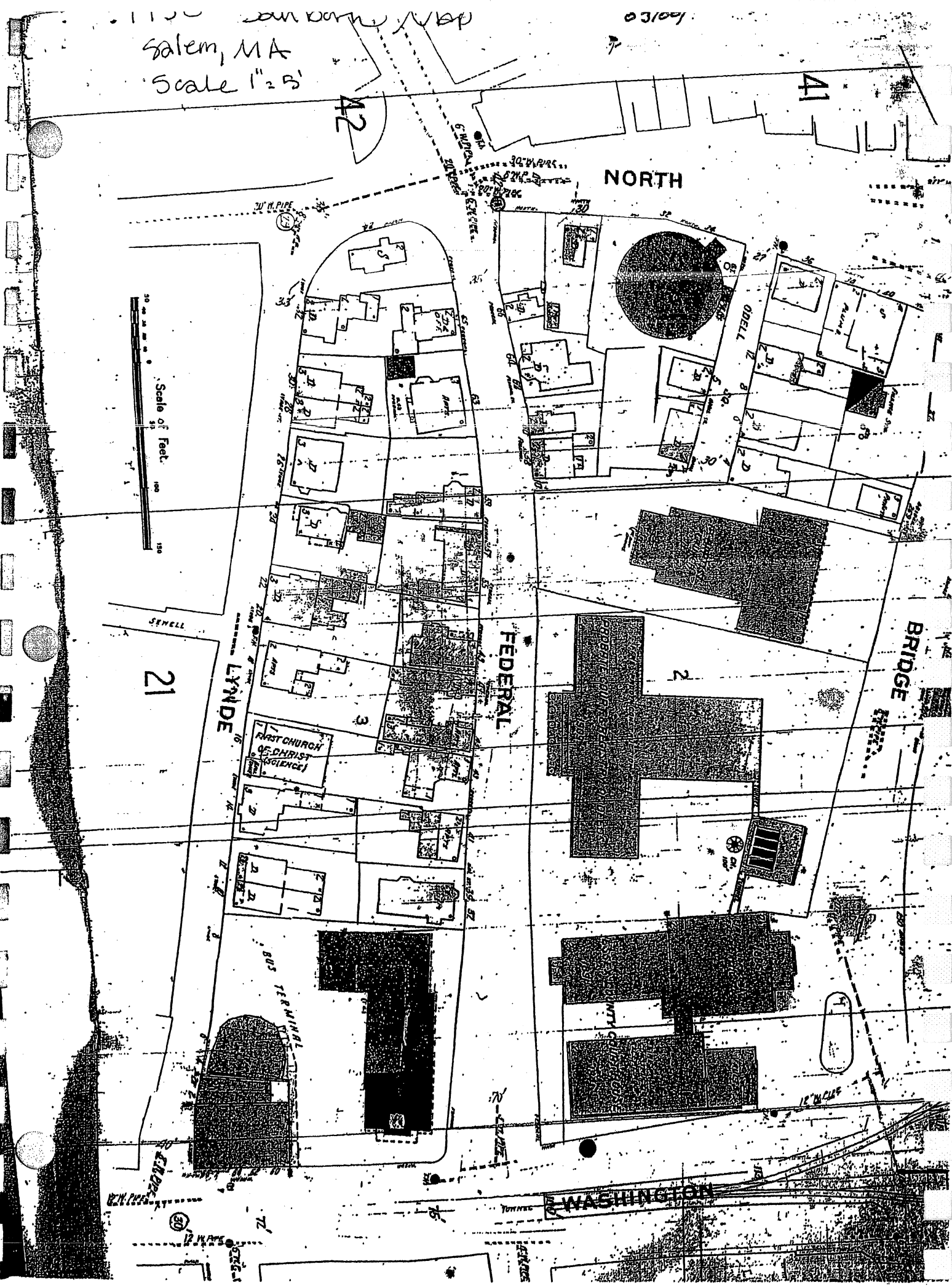
LYNDE

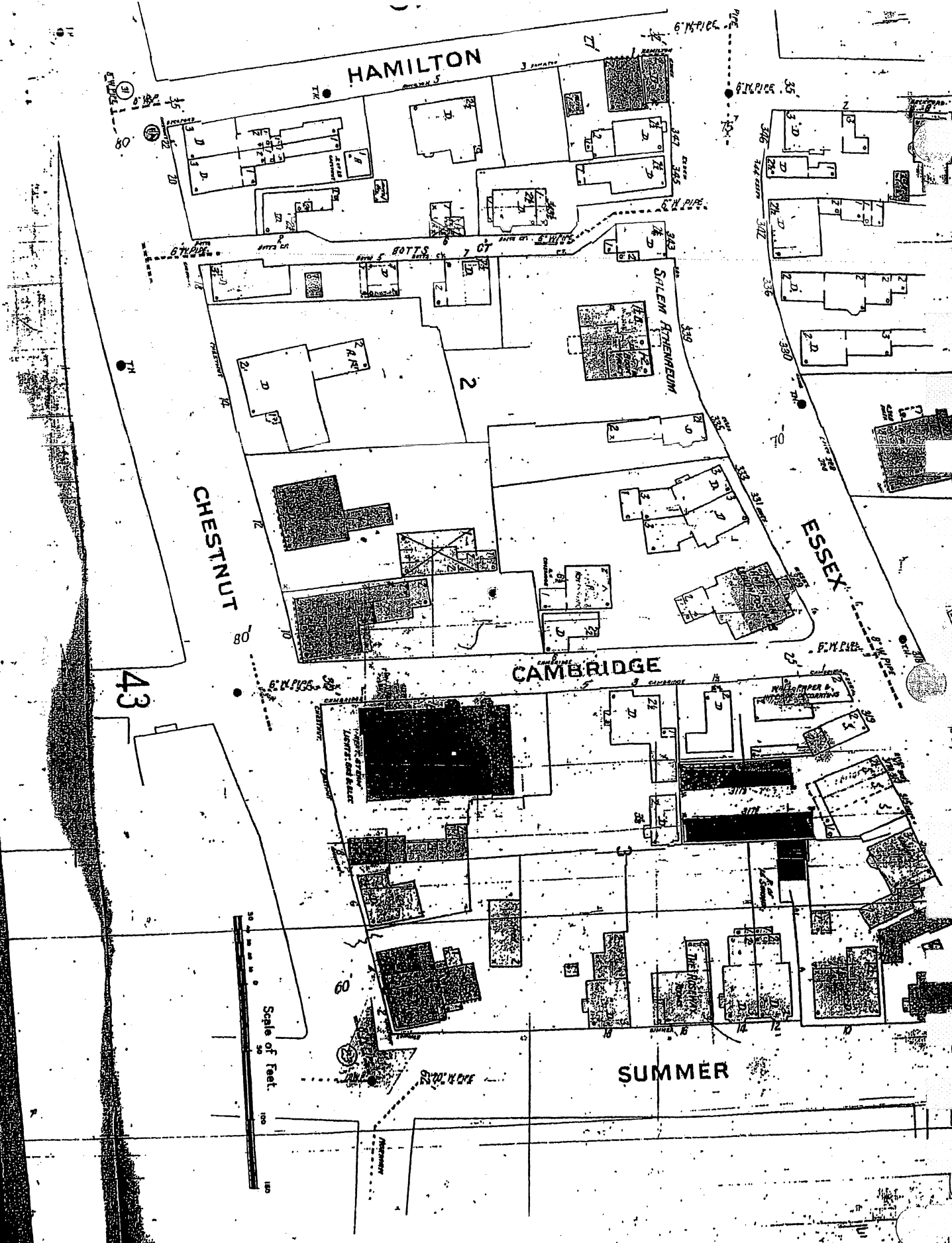
FIRST CHURCH  
OF CHRIST  
(GLENCE)

FEDERAL

BRIDGE

WASHINGTON





1950 Sanborn Map  
Salem, MA  
Scale 1" = 50'

С а н а л.

**BRIDGE**

FEDERAL

42

1950 Sanborn Map  
- Salem, MA.

1950 Sanborn  
Salem, MA  
Scale 1" = 5'



## BORING LOG:

### B101

Ground Elevation: NM Feet	Total Depth: 6 Feet	Logged By: D. Gallant
Ground Water Elevation: NM Feet	Boring Diameter: 4 Inches	Date Drilled: 01/31/03 to 01/31/03
GW Elevation Date: NA	Well Stickup: NA	Driller: Earth Ex., Inc.

DEPTH	DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	DEXSIL (ppm)	DEPTH
	S1 (0.0'-2.0') - Top 3" - Ice. Next 8" - Very dense, brown fine SAND, frozen. Next 12" - Very dense, grey fine SAND, frozen.		S1	21,31, 48,43	24/24	<1	NM	
	S2 (2.0'-4.0') - Top 11" - Very dense, light brown SAND mixed with coal ash, coal, and red brick (fill), Dry. Next 2" - Medium dense, light tan fine to medium SAND, Dry.		S2	27,18, 13,14	24/13	<1	NM	
5	S3 (4.0'-6.0') - Soft, brown SILT, very loose, brown fine SAND, and some shells, trace coal, Wet.		S3	4,4, 4,4	24/8	3.0	NM	5
	Bottom of boring 6 feet.							
								10
15								15

#### NOTES:

- 1) Boring advanced using hollow stem auger drilling techniques.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Ground water observed at 4 feet bgs.
- 4) NA = Not Applicable; NM = Not Measured

#### CLIENT:

Massachusetts DCAM

#### SITE:

Limited Subsurface Investigation  
North Street Off-Ramp at Bridge Street  
Salem, MA 01970

Project No.: 031001

Page: 1

## BORING LOG:

**B102**

Ground Elevation: NM Feet	Total Depth: 12 Feet	Logged By: D. Gallant
Ground Water Elevation: NM Feet	Boring Diameter: 4 inches	Date Drilled: 01/31/03 to 01/31/03
GW Elevation Date: NA	Well Stickup: NA	Driller: Earth Ex., Inc.

DEPTH	DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	DEXSIL (ppm)	DEPTH
	S1 (0.0'-2.0') - Very dense, light brown to brown fine SAND, frozen. Rock in tip of spoon. Auger down to 2 feet.		S1	36,150 @ 3", x,x	9/10	0.2	NM	
	S2 (2.0'-4.0') - Top 1" - Dense, brown fine SAND, Dry. Next 9" - Very dense, brownish-orange medium SAND, trace medium Gravel, Dry.		S2	28,31, 28,21	24/10	85.7	NM	
5	S3 (4.0'-6.0') - Top 5" - Loose, brown fine SAND. Next 13" - Loose, light brownish-tan, fine SAND, trace coal, Moist. Rock in tip of spoon. Auger down to 6 feet.		S3	6,6, 150 @ 1",x	13/18	49.4	NM	5
	S4 (6.0'-8.0') - Very dense, grey, medium SAND and fine to medium GRAVEL, Moist. Rock in tip of spoon. Auger down to 8 feet.		S4	40,45, 90, 150 @ 0"	18/4	17.0	NM	
	S5 (8.0'-10.0') - No recovery.		S5	6,7, 6,8	24/0	NM	NM	
10	S6 (10.0'-12.0') - Top 3" - Loose, brown, fine SAND, crushed cobble, Moist. Next 21" - Stiff, light brownish-tan, clayey SILT; Wet at 11-12 feet.		S6	8,9, 9,12	24/24	11.2	NM	10
	Bottom of boring 12 feet.							
15								15

### NOTES:

- 1) Boring advanced using hollow stem auger drilling techniques.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Ground water observed at 11 feet bgs.
- 4) NA = Not Applicable; NM = Not Measured

### CLIENT:

Massachusetts DCAM

### SITE:

Limited Subsurface Investigation  
North Street Off-Ramp at Bridge Street  
Salem, MA 01970

Project No.: 031001

Page:

1



## BORING LOG:

**B103**

Ground Elevation: NM Feet	Total Depth: 6 Feet	Logged By: D. Gallant
Ground Water Elevation: NM Feet	Boring Diameter: 4 Inches	Date Drilled: 01/31/03 to 01/31/03
GW Elevation Date: NA	Well Stickup: NA	Driller: Earth Ex., Inc.

DEPTH	DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	DEXSIL (ppm)	DEPTH
	S1 (0.0'-2.0') - Top 12" - Very dense, brown fine SAND, frozen. Next 12" - Stiff, light brownish-tan SILT, frozen.		S1	40, 12, 8, 4	24/24	1.6	NM	
	S2 (2.0'-4.0') - Very stiff, light brownish-tan, clayey SILT, mottled with brown and rust, Moist at 2 feet and more Saturated with depth.		S2	10, 12, 10, 8	24/24	<1	NM	
-5	S3 (4.0'-6.0') - Stiff, light brownish-tan clayey SILT, mottled with brown and rust, Moist.		S3	8, 8, 11, 6	24/24	<1	NM	5
	Bottom of boring 6 feet.							
								10
-15								15

### NOTES:

- 1) Boring advanced using hollow stem auger drilling techniques.
  - 2) Sample designated with solid fill submitted for laboratory analysis.
  - 3) Ground water observed at 3-4 feet bgs.
- NA = Not Applicable; NM = Not Measured

### CLIENT:

Massachusetts DCAM

### SITE:

Limited Subsurface Investigation  
North Street Off-Ramp at Bridge Street  
Salem, MA 01970



## BORING LOG:

**B104**

Ground Elevation: NM Feet	Total Depth: 12 Feet	Logged By: D. Gallant
Ground Water Elevation: NM Feet	Boring Diameter: 2 Inches	Date Drilled: 02/03/03 to 02/03/03
GW Elevation Date: NA	Well Stickup: NA	Driller: Earth Ex., Inc.

DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION RECOVERY	QVM (ppmv)	DEXSIL (ppm)	DEPTH
S1 (0.0'-4.0') S1A Top 9" - Medium dense, brown fine to medium SAND, frozen. Next 9" - Medium dense, brown and light brown medium SAND, Dry. Next 8" - Medium dense, brownish-orange, coarse SAND and fine GRAVEL, Moist. Next 9" - Medium stiff, tan SILT, Moist.		S1A	NA	48/35	1.2	NM	
		S1B			7.2	NM	
S2 (4.0'-8.0') - Medium stiff, tan clayey SILT, mottled with brown and rust, Moist.		S2	NA	48/48	3.9	NM	5
S3 (8.0'-12.0') - Top 17" - Medium stiff, tan clayey SILT, Wet. Next 31" - Stiff, grey CLAY, Wet.		S3	NA	48/48	1.8	NM	10
Bottom of boring 12 feet.							15

### NOTES:

- 1) Boring advanced using direct-push (Geo Probe) drilling techniques.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Ground water observed at 4-8 feet bgs. 4) Density assessment based on field observations. 5) NA = Not Applicable; NM = Not Measured

### CLIENT:

Massachusetts DCAM

### SITE:

Limited Subsurface Investigation  
North Street Off-Ramp at Bridge Street  
Salem, MA 01970

## BORING LOG:

**B105**

Ground Elevation: NM Feet	Total Depth: 20 Feet	Logged By: D. Gallant
Ground Water Elevation: NM Feet	Boring Diameter: 2 Inches	Date Drilled: 02/03/03 to 02/03/03
GW Elevation Date: NA	Well Stickup: NA	Driller: Earth Ex., Inc.

DEPTH	DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	DEXSIL (ppm)	DEPTH
	S1 (0.0'-4.0') - Top 26" - Medium dense, brown, fine to medium SAND, Dry; shell fragments at 20-21 inches. Bottom 12" - Medium dense, brownish-orange, medium SAND, some fine Gravel, Dry.		S1	NA	48/38	2.0	NM	
5	S2 (4.0'-8.0') S2A Top 16", S2B Bottom 19" - Top 16" - Medium dense, brownish-orange to light brown medium coarse SAND, Dry. Bottom 19" - Medium stiff, tan SILT, mottled with rust and brown, Moist.		S2A	NA	48/35	5.8	NM	5
			S2B			6.2	NM	
	S3 (8.0'-12.0') - Top 6" - Medium stiff, tan SILT, Moist. Bottom 42" - Medium stiff, tan clayey SILT, Moist.		S3	NA	48/42	2.4	NM	10
	S4 (12.0'-16.0') - Top 24" - Medium stiff, grey-tan CLAY, Wet. Bottom 24" - Medium stiff, grey-tan, silty CLAY, Wet.		S4	NA	48/48	3.2	NM	
15								15
	S5 (16.0'-20.0') - Medium stiff, grey-tan silty CLAY, Wet.		S5	NA	48/48	2.0	NM	
	Bottom of boring 20 feet.							

### NOTES:

- 1) Boring advanced using direct-push (Geo Probe) drilling techniques.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Ground water observed at 8-12 feet bgs. 4) Density assessment based on field observations. 5) NA = Not Applicable; NM = Not measured

### CLIENT:

Massachusetts DCAM

### SITE:

Limited Subsurface Investigation  
North Street Off-Ramp at Bridge Street  
Salem, MA 01970

Project No.:

031001

Page:

1

**ATTACHMENT C**

**Laboratory Analysis Data Sheets**

**Results of Limited Subsurface Investigation  
Salem Department of Public Works  
North Road and Bridge Street Interchange  
Salem, Massachusetts**

TOXIKON CORPORATION  
15 WIGGINS AVENUE  
BEDFORD, MA 01730  
TEL: (781) 275-3330

February 07, 2003

Gary Kaufman  
RANSOM ENVIRONMENTAL, INC.  
BROWN'S WHARF  
NEWBURYPORT, MA 01950

TEL: (978) 465-1822

FAX (978) 465-2986

RE: 031001 / SALEM, MA

Dear Gary Kaufman:

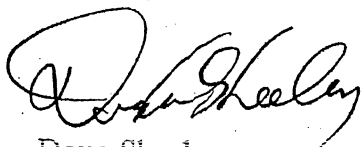
Order No.: 0302005

Toxikon received 4 samples on 2/3/03 for the analyses presented in the following report.

Unless noted in the report, there were no problems with the analyses and all data for associated QC met EPA or laboratory specifications.

If you have any questions regarding these test results, please feel free to call.

Sincerely,



Doug Sheeley

---

Certifications: MA: MA 064, NH: 204099D and 204099E, ME: MA064, RI: 55, VT: MA064, TN: MA064  
NY: 10778, FL: E87143 and 87394, NC: 286, PA 68-461, CT: PH 0563, NJ: 59538, MD:

**Toxikon**

**Date: 07-Feb-03**

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Project:** 031001 / SALEM, MA  
**Lab Order:** 0302005

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0302005-01A	031001-B101-S2-013103		1/31/03 8:05:00 AM	2/3/03
0302005-02A	031001-B102-S2-013103		1/31/03 9:20:00 AM	2/3/03
0302005-03A	031001-B102-S6-013103		1/31/03 10:20:00 AM	2/3/03
0302005-04A	031001-B103-S1-013103		1/31/03 11:30:00 AM	2/3/03

**Toxikon**

Date: 07-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.

Project: 031001 / SALEM, MA

Lab Order: 0302005

**CASE NARRATIVE**

**Massachusetts EPH/VPH Certification**

Were all QA/QC procedures REQUIRED by the VPH method followed? Yes ☒ No ☐

Were all QA/QC procedures REQUIRED by the EPH method followed? Yes ☒ No ☐

Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes ☒ No ☐

Were VPH soil samples received fully immersed in methanol? Yes ☒ No ☐

Were samples received at 4 degrees C? Temperature at receipt 4 C.

Details regarding any answer "No" above are provided below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Were any significant modifications made to the EPH/VPH methods as specified in Section 11.3? Yes ☐ No ☒

Surrogate recoveries for all samples are indicated on each result sheet.  
EPH range results are blank corrected for SPE cartridge contamination.  
No target compounds were found in the method blanks.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report it, to the best of my knowledge and belief, accurate and complete.

Signature: Douglas Sheeley Position: Laboratory Manager

Printed Name: Douglas Sheeley Date: 2/7/03

# Toxikon

Date: 07-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.  
Lab Order: 0302005  
Project: 031001 / SALEM, MA  
Lab ID: 0302005-01A

Client Sample ID: 031001-B101-S2-013103  
Tag Number:  
Collection Date: 1/31/03 8:05:00 AM  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MA EPH</b>		<b>MAEPH</b>		<b>Analyst: AQ</b>		
C9-C18 Aliphatic Hydrocarbons	ND	120		mg/Kg-dry	1	2/4/03 10:08:00 PM
C19-C36 Aliphatics	ND	120		mg/Kg-dry	1	2/4/03 10:08:00 PM
C11-C22 Aromatics	ND	120		mg/Kg-dry	1	2/4/03 10:08:00 PM
Unadjusted C11-C22 Aromatics	ND	120		mg/Kg-dry	1	2/4/03 10:08:00 PM
Naphthalene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
2-Methylnaphthalene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Acenaphthylene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Acenaphthene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Fluorene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Phenanthrene	1.0	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Anthracene	1.0	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Fluoranthene	1.1	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Pyrene	1.0	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Benzo(a)Anthracene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Chrysene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Benzo(b)Fluoranthene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Benzo(k)Fluoranthene	0.61	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Benzo(a)Pyrene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Indeno(1,2,3-cd)Pyrene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Dibenz(a,h)Anthracene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Benzo(g,h,i)Perylene	ND	0.60		mg/Kg-dry	1	2/4/03 10:08:00 PM
Surr: Aliphatic Surrogate COD	98.4	40-140		%REC	1	2/4/03 10:08:00 PM
Surr: Fractionation Surrogate 2BN	90.5	40-140		%REC	1	2/4/03 10:08:00 PM
Surr: Aromatic Surrogate OTP	101	40-140		%REC	1	2/4/03 10:08:00 PM
Surr: Fractionation Surrogate 2FB	95.8	40-140		%REC	1	2/4/03 10:08:00 PM
<b>VOLATILE PETROLEUM HYDROCARBONS</b>		<b>MAVPH</b>		<b>Analyst: AQ</b>		
C5-C8 Aliphatics	5.2	1.2		mg/Kg-dry	1	2/4/03
C9-C12 Aliphatics	ND	1.2		mg/Kg-dry	1	2/4/03
C9-10 Aromatics	3.2	1.2		mg/Kg-dry	1	2/4/03
Unadjusted C5-C8 Aliphatics	5.2	1.2		mg/Kg-dry	1	2/4/03
Unadjusted C9-C12 Aliphatics	ND	1.2		mg/Kg-dry	1	2/4/03
Benzene	ND	0.12		mg/Kg-dry	1	2/4/03
Toluene	ND	0.12		mg/Kg-dry	1	2/4/03
Ethylbenzene	ND	0.12		mg/Kg-dry	1	2/4/03
m+p-Xylene	ND	0.12		mg/Kg-dry	1	2/4/03
o-Xylene	ND	0.12		mg/Kg-dry	1	2/4/03
MTBE	ND	0.12		mg/Kg-dry	1	2/4/03
Naphthalene	ND	0.12		mg/Kg-dry	1	2/4/03
Surr: FID Surrogate 2,5-DBT	106	70-130		%REC	1	2/4/03
Surr: PID Surrogate 2,5-DBT	106	70-130		%REC	1	2/4/03

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Toxikon**

Date: 07-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.  
Lab Order: 0302005  
Project: 031001 / SALEM, MA  
Lab ID: 0302005-01A

Client Sample ID: 031001-B101-S2-013103  
Tag Number:  
Collection Date: 1/31/03 8:05:00 AM  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY, TOTAL</b>		<b>SW7471A</b>				<b>Analyst: JR</b>
Mercury	8.0	0.48		mg/Kg-dry	5	2/5/03 11:22:28 AM
<b>ICP METALS, TOTAL</b>		<b>SW6010B</b>				<b>Analyst: AI</b>
Aluminum	4600	58		mg/Kg-dry	5	2/5/03 11:39:00 AM
Antimony	ND	5.8		mg/Kg-dry	1	2/5/03 10:42:00 AM
Arsenic	6.7	5.8		mg/Kg-dry	1	2/5/03 10:42:00 AM
Barium	170	12		mg/Kg-dry	1	2/5/03 10:42:00 AM
Beryllium	0.26	0.23		mg/Kg-dry	1	2/5/03 10:42:00 AM
Cadmium	ND	0.58		mg/Kg-dry	1	2/5/03 10:42:00 AM
Calcium	28000	58		mg/Kg-dry	5	2/5/03 11:39:00 AM
Chromium	12	0.58		mg/Kg-dry	1	2/5/03 10:42:00 AM
Cobalt	4.2	1.2		mg/Kg-dry	1	2/5/03 10:42:00 AM
Copper	38	1.2		mg/Kg-dry	1	2/5/03 10:42:00 AM
Iron	6700	23		mg/Kg-dry	1	2/5/03 10:42:00 AM
Lead	660	1.2		mg/Kg-dry	1	2/5/03 10:42:00 AM
Magnesium	1700	5.8		mg/Kg-dry	1	2/5/03 10:42:00 AM
Manganese	220	5.8		mg/Kg-dry	1	2/5/03 10:42:00 AM
Nickel	9.8	4.6		mg/Kg-dry	1	2/5/03 10:42:00 AM
Potassium	580	29		mg/Kg-dry	1	2/5/03 10:42:00 AM
Selenium	ND	14		mg/Kg-dry	1	2/5/03 10:42:00 AM
Silver	ND	0.58		mg/Kg-dry	1	2/5/03 10:42:00 AM
Sodium	180	23		mg/Kg-dry	1	2/5/03 10:42:00 AM
Thallium	ND	4.6		mg/Kg-dry	1	2/5/03 10:42:00 AM
Vanadium	18	1.2		mg/Kg-dry	1	2/5/03 10:42:00 AM
Zinc	68	4.6		mg/Kg-dry	1	2/5/03 10:42:00 AM
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
2,4,5-Trichlorophenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2,4,6-Trichlorophenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2,4-Dichlorophenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2,4-Dimethylphenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2,4-Dinitrophenol	ND	960		µg/Kg-dry	1	2/4/03 3:13:00 PM
2,6-Dichlorophenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2-Chlorophenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2-Methylphenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
2-Nitrophenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
4,6-Dinitro-2-methylphenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
4-Chloro-3-methylphenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
4-Methylphenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
4-Nitrophenol	ND	960		µg/Kg-dry	1	2/4/03 3:13:00 PM
Pentachlorophenol	ND	960		µg/Kg-dry	1	2/4/03 3:13:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



**Toxikon**

Date: 07-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302005  
**Project:** 031001 / SALEM, MA  
**Lab ID:** 0302005-01A

**Client Sample ID:** 031001-B101-S2-013103  
**Tag Number:**  
**Collection Date:** 1/31/03 8:05:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
Phenol	ND	400		µg/Kg-dry	1	2/4/03 3:13:00 PM
Surr: 2,4,6-Tribromophenol	67.0	10-123		%REC	1	2/4/03 3:13:00 PM
Surr: 2-Fluorophenol	60.8	21-110		%REC	1	2/4/03 3:13:00 PM
Surr: Phenol-d5	57.7	10-110		%REC	1	2/4/03 3:13:00 PM
<b>CYANIDE, PHYSIOLOGICALLY AVAILABLE</b>		<b>SOPPAC</b>				<b>Analyst: CK</b>
Cyanide, Physiologically Available	ND	0.60		mg/Kg-dry	1	2/4/03
<b>HEXAVALENT CHROMIUM</b>		<b>SW7196A</b>				<b>Analyst: CK</b>
Chromium, Hexavalent	ND	6.0		mg/Kg-dry	1	2/5/03
<b>AMMONIA AS N SOIL</b>		<b>E350.1</b>				<b>Analyst: CK</b>
Nitrogen, Ammonia (As N)	9.7	2.4		mg/Kg-dry	1	2/6/03
<b>PERCENT MOISTURE</b>		<b>D2216</b>				<b>Analyst: AK</b>
Percent Moisture	17			wt%	1	2/4/03
<b>SULFATE SOIL</b>		<b>E375.4</b>				<b>Analyst: AQ</b>
Sulfate	ND	24		mg/Kg-dry	1	2/4/03
<b>SULFIDE</b>		<b>SW9030</b>				<b>Analyst: AQ</b>
Sulfide	ND	1.2		mg/Kg-dry	1	2/6/03

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**Toxikon**

Date: 07-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302005  
**Project:** 031001 / SALEM, MA  
**Lab ID:** 0302005-02A

**Client Sample ID:** 031001-B102-S2-013103  
**Tag Number:**  
**Collection Date:** 1/31/03 9:20:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MA EPH</b>		<b>MAEPH</b>		<b>Analyst: AQ</b>		
C9-C18 Aliphatic Hydrocarbons	ND	110		mg/Kg-dry	1	2/4/03 11:00:00 PM
C19-C36 Aliphatics	ND	110		mg/Kg-dry	1	2/4/03 11:00:00 PM
C11-C22 Aromatics	120	110		mg/Kg-dry	1	2/4/03 11:00:00 PM
Unadjusted C11-C22 Aromatics	120	110		mg/Kg-dry	1	2/4/03 11:00:00 PM
Naphthalene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
2-Methylnaphthalene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Acenaphthylene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Acenaphthene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Fluorene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Phenanthrene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Anthracene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Fluoranthene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Pyrene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Benzo(a)Anthracene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Chrysene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Benzo(b)Fluoranthene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Benzo(k)Fluoranthene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Benzo(a)Pyrene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Indeno(1,2,3-cd)Pyrene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Dibenz(a,h)Anthracene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Benzo(g,h,i)Perylene	ND	0.53		mg/Kg-dry	1	2/4/03 11:00:00 PM
Surr: Aliphatic Surrogate COD	71.8	40-140		%REC	1	2/4/03 11:00:00 PM
Surr: Fractionation Surrogate 2BA	115	40-140		%REC	1	2/4/03 11:00:00 PM
Surr: Aromatic Surrogate OTP	108	40-140		%REC	1	2/4/03 11:00:00 PM
Surr: Fractionation Surrogate 2FB	99.5	40-140		%REC	1	2/4/03 11:00:00 PM
<b>VOLATILE PETROLEUM HYDROCARBONS</b>		<b>MAVPH</b>		<b>Analyst: AQ</b>		
C5-C8 Aliphatics	6.4	1.1		mg/Kg-dry	1	2/4/03
C9-C12 Aliphatics	ND	1.1		mg/Kg-dry	1	2/4/03
C9-10 Aromatics	12	1.1		mg/Kg-dry	1	2/4/03
Unadjusted C5-C8 Aliphatics	6.4	1.1		mg/Kg-dry	1	2/4/03
Unadjusted C9-C12 Aliphatics	4.5	1.1		mg/Kg-dry	1	2/4/03
Benzene	ND	0.11		mg/Kg-dry	1	2/4/03
Toluene	ND	0.11		mg/Kg-dry	1	2/4/03
Ethylbenzene	ND	0.11		mg/Kg-dry	1	2/4/03
m+p-Xylene	ND	0.11		mg/Kg-dry	1	2/4/03
o-Xylene	0.43	0.11		mg/Kg-dry	1	2/4/03
MTBE	ND	0.11		mg/Kg-dry	1	2/4/03
Naphthalene	ND	0.11		mg/Kg-dry	1	2/4/03
Surr: FID Surrogate 2,5-DBT	113	70-130		%REC	1	2/4/03
Surr: PID Surrogate 2,5-DBT	107	70-130		%REC	1	2/4/03

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**Toxikon**

Date: 07-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302005  
**Project:** 031001 / SALEM, MA  
**Lab ID:** 0302005-02A

**Client Sample ID:** 031001-B102-S2-013103  
**Tag Number:**  
**Collection Date:** 1/31/03 9:20:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY, TOTAL</b>		<b>SW7471A</b>				<b>Analyst: JR</b>
Mercury	ND	0.084		mg/Kg-dry	1	2/5/03 11:04:25 AM
<b>ICP METALS, TOTAL</b>		<b>SW6010B</b>				<b>Analyst: AI</b>
Aluminum	5500	53		mg/Kg-dry	5	2/5/03 11:32:00 AM
Antimony	ND	5.3		mg/Kg-dry	1	2/5/03 10:35:00 AM
Arsenic	7.0	5.3		mg/Kg-dry	1	2/5/03 10:35:00 AM
Barium	35	11		mg/Kg-dry	1	2/5/03 10:35:00 AM
Beryllium	0.27	0.21		mg/Kg-dry	1	2/5/03 10:35:00 AM
Cadmium	0.77	0.53		mg/Kg-dry	1	2/5/03 10:35:00 AM
Calcium	2500	11		mg/Kg-dry	1	2/5/03 10:35:00 AM
Chromium	8.9	0.53		mg/Kg-dry	1	2/5/03 10:35:00 AM
Cobalt	7.8	1.1		mg/Kg-dry	1	2/5/03 10:35:00 AM
Copper	9.8	1.1		mg/Kg-dry	1	2/5/03 10:35:00 AM
Iron	15000	21		mg/Kg-dry	1	2/5/03 10:35:00 AM
Lead	9.2	1.1		mg/Kg-dry	1	2/5/03 10:35:00 AM
Magnesium	2400	5.3		mg/Kg-dry	1	2/5/03 10:35:00 AM
Manganese	360	5.3		mg/Kg-dry	1	2/5/03 10:35:00 AM
Nickel	8.0	4.2		mg/Kg-dry	1	2/5/03 10:35:00 AM
Potassium	600	26		mg/Kg-dry	1	2/5/03 10:35:00 AM
Selenium	ND	13		mg/Kg-dry	1	2/5/03 10:35:00 AM
Silver	ND	0.53		mg/Kg-dry	1	2/5/03 10:35:00 AM
Sodium	140	21		mg/Kg-dry	1	2/5/03 10:35:00 AM
Thallium	ND	4.2		mg/Kg-dry	1	2/5/03 10:35:00 AM
Vanadium	21	1.1		mg/Kg-dry	1	2/5/03 10:35:00 AM
Zinc	36	4.2		mg/Kg-dry	1	2/5/03 10:35:00 AM
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
2,4,5-Trichlorophenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2,4,6-Trichlorophenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2,4-Dichlorophenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2,4-Dimethylphenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2,4-Dinitrophenol	ND	860		µg/Kg-dry	1	2/4/03 4:25:00 PM
2,6-Dichlorophenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2-Chlorophenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2-Methylphenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
2-Nitrophenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
4,6-Dinitro-2-methylphenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
4-Chloro-3-methylphenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
4-Methylphenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
4-Nitrophenol	ND	860		µg/Kg-dry	1	2/4/03 4:25:00 PM
Pentachlorophenol	ND	860		µg/Kg-dry	1	2/4/03 4:25:00 PM

**Qualifiers:** ND - Not Detected at the Reporting Limit  
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Date: 07-Feb-03

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Lab ID: 0302005-02A

Client Sample ID: 031001-B102-S2-013103  
Tag Number:  
Collection Date: 1/31/03 9:20:00 AM  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				Analyst: PC
Phenol	ND	350		µg/Kg-dry	1	2/4/03 4:25:00 PM
Surr: 2,4,6-Tribromophenol	72.2	10-123		%REC	1	2/4/03 4:25:00 PM
Surr: 2-Fluorophenol	66.4	21-110		%REC	1	2/4/03 4:25:00 PM
Surr: Phenol-d5	62.0	10-110		%REC	1	2/4/03 4:25:00 PM
<b>CYANIDE, PHYSIOLOGICALLY AVAILABLE</b>		<b>SOPPAC</b>				Analyst: CK
Cyanide, Physiologically Available	ND	0.53		mg/Kg-dry	1	2/4/03
<b>HEXAVALENT CHROMIUM</b>		<b>SW7196A</b>				Analyst: CK
Chromium, Hexavalent	ND	5.3		mg/Kg-dry	1	2/5/03
<b>AMMONIA AS N SOIL</b>		<b>E350.1</b>				Analyst: CK
Nitrogen, Ammonia (As N)	13	2.1		mg/Kg-dry	1	2/6/03
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: AK
Percent Moisture	6.5			wt%	1	2/4/03
<b>SULFATE SOIL</b>		<b>E375.4</b>				Analyst: AQ
Sulfate	ND	21		mg/Kg-dry	1	2/4/03
<b>SULFIDE</b>		<b>SW9030</b>				Analyst: AQ
Sulfide	ND	1.1		mg/Kg-dry	1	2/6/03

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

# Toxikon

Date: 07-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.  
Lab Order: 0302005  
Project: 031001 / SALEM, MA  
Lab ID: 0302005-04A

Client Sample ID: 031001-B103-S1-013103  
Tag Number:  
Collection Date: 1/31/03 11:30:00 AM  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MA EPH</b>		<b>MAEPH</b>		<b>Analyst: AQ</b>		
C9-C18 Aliphatic Hydrocarbons	ND	130		mg/Kg-dry	1	2/4/03 11:52:00 PM
C19-C36 Aliphatics	ND	130		mg/Kg-dry	1	2/4/03 11:52:00 PM
C11-C22 Aromatics	ND	130		mg/Kg-dry	1	2/4/03 11:52:00 PM
Unadjusted C11-C22 Aromatics	ND	130		mg/Kg-dry	1	2/4/03 11:52:00 PM
Naphthalene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
2-Methylnaphthalene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Acenaphthylene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Acenaphthene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Fluorene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Phenanthrene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Anthracene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Fluoranthene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Pyrene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Benzo(a)Anthracene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Chrysene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Benzo(b)Fluoranthene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Benzo(k)Fluoranthene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Benzo(a)Pyrene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Indeno(1,2,3-cd)Pyrene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Dibenz(a,h)Anthracene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Benzo(g,h,i)Perylene	ND	0.64		mg/Kg-dry	1	2/4/03 11:52:00 PM
Surr: Aliphatic Surrogate COD	98.0	40-140		%REC	1	2/4/03 11:52:00 PM
Surr: Fractionation Surrogate 2BH	95.9	40-140		%REC	1	2/4/03 11:52:00 PM
Surr: Aromatic Surrogate OTP	107	40-140		%REC	1	2/4/03 11:52:00 PM
Surr: Fractionation Surrogate 2FB	98.6	40-140		%REC	1	2/4/03 11:52:00 PM
<b>VOLATILE PETROLEUM HYDROCARBONS</b>		<b>MAVPH</b>		<b>Analyst: AQ</b>		
C5-C8 Aliphatics	3.0	1.3		mg/Kg-dry	1	2/4/03
C9-C12 Aliphatics	ND	1.3		mg/Kg-dry	1	2/4/03
C9-10 Aromatics	3.3	1.3		mg/Kg-dry	1	2/4/03
Unadjusted C5-C8 Aliphatics	3.0	1.3		mg/Kg-dry	1	2/4/03
Unadjusted C9-C12 Aliphatics	ND	1.3		mg/Kg-dry	1	2/4/03
Benzene	ND	0.13		mg/Kg-dry	1	2/4/03
Toluene	ND	0.13		mg/Kg-dry	1	2/4/03
Ethylbenzene	ND	0.13		mg/Kg-dry	1	2/4/03
m+p-Xylene	ND	0.13		mg/Kg-dry	1	2/4/03
o-Xylene	ND	0.13		mg/Kg-dry	1	2/4/03
MTBE	ND	0.13		mg/Kg-dry	1	2/4/03
Naphthalene	ND	0.13		mg/Kg-dry	1	2/4/03
Surr: FID Surrogate 2,5-DBT	108	70-130		%REC	1	2/4/03
Surr: PID Surrogate 2,5-DBT	108	70-130		%REC	1	2/4/03

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Toxikon**

Date: 07-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302005  
**Project:** 031001 / SALEM, MA  
**Lab ID:** 0302005-04A

**Client Sample ID:** 031001-B103-S1-013103  
**Tag Number:**  
**Collection Date:** 1/31/03 11:30:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY, TOTAL</b>		<b>SW7471A</b>				<b>Analyst: JR</b>
Mercury	ND	0.10		mg/Kg-dry	1	2/5/03 11:11:48 AM
<b>ICP METALS, TOTAL</b>		<b>SW6010B</b>				<b>Analyst: AI</b>
Aluminum	16000	120		mg/Kg-dry	10	2/5/03 11:43:00 AM
Antimony	ND	6.1		mg/Kg-dry	1	2/5/03 10:46:00 AM
Arsenic	6.2	6.1		mg/Kg-dry	1	2/5/03 10:46:00 AM
Barium	47	12		mg/Kg-dry	1	2/5/03 10:46:00 AM
Beryllium	0.77	0.24		mg/Kg-dry	1	2/5/03 10:46:00 AM
Cadmium	1.5	0.61		mg/Kg-dry	1	2/5/03 10:46:00 AM
Calcium	3000	12		mg/Kg-dry	1	2/5/03 10:46:00 AM
Chromium	37	0.61		mg/Kg-dry	1	2/5/03 10:46:00 AM
Cobalt	11	1.2		mg/Kg-dry	1	2/5/03 10:46:00 AM
Copper	22	1.2		mg/Kg-dry	1	2/5/03 10:46:00 AM
Iron	27000	240		mg/Kg-dry	10	2/5/03 11:43:00 AM
Lead	78	1.2		mg/Kg-dry	1	2/5/03 10:46:00 AM
Magnesium	5500	6.1		mg/Kg-dry	1	2/5/03 10:46:00 AM
Manganese	450	6.1		mg/Kg-dry	1	2/5/03 10:46:00 AM
Nickel	34	4.8		mg/Kg-dry	1	2/5/03 10:46:00 AM
Potassium	1900	30		mg/Kg-dry	1	2/5/03 10:46:00 AM
Selenium	ND	15		mg/Kg-dry	1	2/5/03 10:46:00 AM
Silver	ND	0.61		mg/Kg-dry	1	2/5/03 10:46:00 AM
Sodium	440	24		mg/Kg-dry	1	2/5/03 10:46:00 AM
Thallium	ND	4.8		mg/Kg-dry	1	2/5/03 10:46:00 AM
Vanadium	46	1.2		mg/Kg-dry	1	2/5/03 10:46:00 AM
Zinc	69	4.8		mg/Kg-dry	1	2/5/03 10:46:00 AM
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
2,4,5-Trichlorophenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2,4,6-Trichlorophenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2,4-Dichlorophenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2,4-Dimethylphenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2,4-Dinitrophenol	ND	1000		µg/Kg-dry	1	2/4/03 5:40:00 PM
2,6-Dichlorophenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2-Chlorophenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2-Methylphenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
2-Nitrophenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
4,6-Dinitro-2-methylphenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
4-Chloro-3-methylphenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
4-Methylphenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
4-Nitrophenol	ND	1000		µg/Kg-dry	1	2/4/03 5:40:00 PM
Pentachlorophenol	ND	1000		µg/Kg-dry	1	2/4/03 5:40:00 PM

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

# Toxikon

Date: 07-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.  
Lab Order: 0302005  
Project: 031001 / SALEM, MA  
Lab ID: 0302005-04A

Client Sample ID: 031001-B103-S1-013103  
Tag Number:  
Collection Date: 1/31/03 11:30:00 AM  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				Analyst: PC
Phenol	ND	420		µg/Kg-dry	1	2/4/03 5:40:00 PM
Surr: 2,4,6-Tribromophenol	54.6	10-123		%REC	1	2/4/03 5:40:00 PM
Surr: 2-Fluorophenol	51.3	21-110		%REC	1	2/4/03 5:40:00 PM
Surr: Phenol-d5	47.0	10-110		%REC	1	2/4/03 5:40:00 PM
<b>CYANIDE, PHYSIOLOGICALLY AVAILABLE</b>		<b>SOPPAC</b>				Analyst: CK
Cyanide, Physiologically Available	ND	0.64		mg/Kg-dry	1	2/4/03
<b>HEXAVALENT CHROMIUM</b>		<b>SW7196A</b>				Analyst: CK
Chromium, Hexavalent	ND	6.4		mg/Kg-dry	1	2/5/03
<b>AMMONIA AS N SOIL</b>		<b>E350.1</b>				Analyst: CK
Nitrogen, Ammonia (As N)	43	2.6		mg/Kg-dry	1	2/6/03
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: AK
Percent Moisture	22			wt%	1	2/4/03
<b>SULFATE SOIL</b>		<b>E375.4</b>				Analyst: AQ
Sulfate	ND	26		mg/Kg-dry	1	2/4/03
<b>SULFIDE</b>		<b>SW9030</b>				Analyst: AQ
Sulfide	ND	1.3		mg/Kg-dry	1	2/6/03

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

15 Wiggins  
Newford, MA 01730  
Telephone: (781) 275-3330  
Fax: (781) 275-7478

HA I C TC Y C C D

WK OR  
DUE DATE : 02-12-03

COMPANY: RANDOM ENVIRONMENTAL  
ADDRESS: BROWN'S WHARF  
NEWBURYPORT, MA 01950  
PHONE #: (978) 465 1822 FAX #: (978) 465 2996  
P.O. #: 031001-013103  
PROJECT MANAGER: GARY S. KAUFMAN  
PROJECT ID/LOCATION: 031001 / SALEM, MA

TOXICON #	SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER		PRESERVATIVE	CONTAINER TYPE		ANALYSES		SPECI INSTRUCTION COMMENT
			SIZE	#		1. WASTEWATER	2. SOIL	3. SLUDGE	4. OIL	
1	031001-B101-52-013103	2	1L	G	1	1/31/03 0805	0805			
2	031001-B101-52-013103	2	2oz	G	1	1/31/03 0806	0806			
3	031001-B102-52-013103	2	1L	G	1	1/31/03 0920	0920			
4	031001-B102-56-013103	2	2oz	G	1	1/31/03 0920	0920			
5	031001-B102-56-013103	2	1L	G	1	1/31/03 1020	1020			
6	031001-B103-51-013103	2	1L	G	1	1/31/03 1130	1130			
7	031001-B103-51-013103	2	2oz	G	1	1/31/03 1130	1130			

SAMPLED BY: DEREK GALANT  
RELINQUISHED BY: DEREK GALANT  
RELINQUISHED BY: DEREK GALANT  
METHOD OF SHIPMENT: FAST. ROAD

DATE: 1 - 31 - 03  
TIME: 14 - 45  
DATE: 1 - 31 - 03  
TIME: 14 - 45  
DATE: 2 - 3 - 03  
TIME: 4 - 55  
DATE: 02 - 03 - 03  
TIME: 11:11 AM

RECEIVED BY: Alvin Gray  
RECEIVED FOR LAB: LABORATORY  
COOLER TEMPERATURE: 11.11 C

☐ RUSH ..... BUSINESS DAY TURN AROUND  
☐ ROUTINE  
Sample disposal information  
Are there any other known or suspected contaminants in these samples other than those listed above?  
Yes No If Yes 1st Known



TOXIKON CORPORATION  
15 WIGGINS AVENUE  
BEDFORD, MA 01730  
TEL: (781) 275-3330

February 10, 2003

Gary Kaufman  
RANSOM ENVIRONMENTAL, INC.  
BROWN'S WHARF  
NEWBURYPORT, MA 01950

TEL: (978) 465-1822

FAX: (978) 465-2986

RE: 031001 / Salem, MA

Order No.: 0302010


Dear Gary Kaufman:

Toxikon received 2 samples on 2/4/2003 for the analyses presented in the following report.

Unless noted in the report, there were no problems with the analyses and all data for associated QC met EPA or laboratory specifications.

If you have any questions regarding these test results, please feel free to call.

Sincerely,



Paul Lezberg

---

Certifications: MA: MA 064, NH: 204099D and 204099E, ME: MA064, RI: 55, VT: MA064, TN: MA064  
NY: 10778, FL: E87143 and 87394, NC: 286, PA 68-461, CT: PH 0563, NJ: 59538, MD:

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**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Project:** 031001 / Salem, MA  
**Lab Order:** 0302010

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**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0302010-01A	031001-B104-S1B-020303		2/3/2003 8:20:00 AM	2/4/2003
0302010-02A	031001-B105-S2B-020303		2/3/2003 9:05:00 AM	2/4/2003

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CLIENT: RANSOM ENVIRONMENTAL, INC.

Project: 031001 / Salem, MA

Lab Order: 0302010

## CASE NARRATIVE

## Massachusetts EPH/VPH Certification

Were all QA/QC procedures REQUIRED by the VPH method followed? Yes ☒ No ☐Were all QA/QC procedures REQUIRED by the EPH method followed? Yes ☒ No ☐Were all performance/acceptance standards for the required QA/QC procedures achieved? Yes ☒ No ☐Were VPH soil samples received fully immersed in methanol? Yes ☒ No ☐Were samples received at 4 degrees C? Temperature at receipt 2.0 C.

Details regarding any answer "No" above are provided below.

Were any significant modifications made to the EPH/VPH methods as specified in Section 11.3?

Yes ☐ No ☒

Surrogate recoveries for all samples are indicated on each result sheet.

EPH range results are blank corrected for SPE cartridge contamination.

No target compounds were found in the method blanks.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Signature: [Signature] Position: LAB MANAGERPrinted Name: Paul Lazzarini Date: 2/10/03

**Toxikon**

Date: 10-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302010  
**Project:** 031001 / Salem, MA  
**Lab ID:** 0302010-01A

**Client Sample ID:** 031001-B104-S1B-020303  
**Tag Number:**  
**Collection Date:** 2/3/2003 8:20:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MA EPH</b>		<b>MAEPH</b>		<b>Analyst: AQ</b>		
C9-C18 Aliphatic Hydrocarbons	ND	110		mg/Kg-dry	1	2/5/2003 2:48:00 PM
C19-C36 Aliphatics	ND	110		mg/Kg-dry	1	2/5/2003 2:48:00 PM
C11-C22 Aromatics	ND	110		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Unadjusted C11-C22 Aromatics	ND	110		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Naphthalene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
2-Methylnaphthalene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Acenaphthylene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Acenaphthene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Fluorene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Phenanthrene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Anthracene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Fluoranthene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Pyrene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Benzo(a)Anthracene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Chrysene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Benzo(b)Fluoranthene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Benzo(k)Fluoranthene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Benzo(a)Pyrene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Indeno(1,2,3-cd)Pyrene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Dibenz(a,h)Anthracene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Benzo(g,h,i)Perylene	ND	0.56		mg/Kg-dry	1	2/5/2003 2:48:00 PM
Surr: Aliphatic Surrogate COD	97.9	40-140		%REC	1	2/5/2003 2:48:00 PM
Surr: Fractionation Surrogate 2BN	79.4	40-140		%REC	1	2/5/2003 2:48:00 PM
Surr: Aromatic Surrogate OTP	91.6	40-140		%REC	1	2/5/2003 2:48:00 PM
Surr: Fractionation Surrogate 2FB	84.2	40-140		%REC	1	2/5/2003 2:48:00 PM
<b>VOLATILE PETROLEUM HYDROCARBONS</b>		<b>MAVPH</b>		<b>Analyst: AQ</b>		
C5-C8 Aliphatics	1.8	1.0		mg/Kg-dry	1	2/4/2003
C9-C12 Aliphatics	ND	1.0		mg/Kg-dry	1	2/4/2003
C9-10 Aromatics	2.5	1.0		mg/Kg-dry	1	2/4/2003
Unadjusted C5-C8 Aliphatics	1.8	1.0		mg/Kg-dry	1	2/4/2003
Unadjusted C9-C12 Aliphatics	ND	1.0		mg/Kg-dry	1	2/4/2003
Benzene	ND	0.10		mg/Kg-dry	1	2/4/2003
Toluene	ND	0.10		mg/Kg-dry	1	2/4/2003
Ethylbenzene	ND	0.10		mg/Kg-dry	1	2/4/2003
m+p-Xylene	ND	0.10		mg/Kg-dry	1	2/4/2003
o-Xylene	ND	0.10		mg/Kg-dry	1	2/4/2003
MTBE	ND	0.10		mg/Kg-dry	1	2/4/2003
Naphthalene	ND	0.10		mg/Kg-dry	1	2/4/2003
Surr: FID Surrogate 2,5-DBT	87.0	70-130		%REC	1	2/4/2003
Surr: PID Surrogate 2,5-DBT	81.5	70-130		%REC	1	2/4/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Toxikon

Date: 10-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.

Client Sample ID: 031001-B104-S1B-020303

Lab Order: 0302010

Tag Number:

Project: 031001 / Salem, MA

Collection Date: 2/3/2003 8:20:00 AM

Lab ID: 0302010-01A

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY, TOTAL</b>						
	SW7471A					
Mercury	ND	0.086		mg/Kg-dry	1	Analyst: JR 2/10/2003 11:06:01 AM
<b>ICP METALS, TOTAL</b>						
	SW6010B					
Aluminum	9900	56		mg/Kg-dry	5	Analyst: AI 2/6/2003 3:57:00 PM
Antimony	ND	5.6		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Arsenic	5.6	5.6		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Barium	23	11		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Beryllium	0.40	0.22		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Cadmium	0.56	0.56		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Calcium	1500	11		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Chromium	15	0.56		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Cobalt	7.5	1.1		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Copper	11	1.1		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Iron	13000	22		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Lead	18	1.1		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Magnesium	3600	5.6		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Manganese	270	5.6		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Nickel	17	4.5		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Potassium	810	28		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Selenium	ND	14		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Silver	ND	0.56		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Sodium	67	22		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Thallium	ND	4.5		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Vanadium	22	1.1		mg/Kg-dry	1	2/6/2003 3:10:00 PM
Zinc	36	4.5		mg/Kg-dry	1	2/6/2003 3:10:00 PM
<b>8270 ACID EXTRACTABLE</b>						
	SW8270C					
2,4,5-Trichlorophenol	ND	370		µg/Kg-dry	1	Analyst: PC 2/5/2003 2:29:00 PM
2,4,6-Trichlorophenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2,4-Dichlorophenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2,4-Dimethylphenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2,4-Dinitrophenol	ND	900		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2,6-Dichlorophenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2-Chlorophenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2-Methylphenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
2-Nitrophenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
4,6-Dinitro-2-methylphenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
4-Chloro-3-methylphenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
4-Methylphenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
4-Nitrophenol	ND	900		µg/Kg-dry	1	2/5/2003 2:29:00 PM
Pentachlorophenol	ND	900		µg/Kg-dry	1	2/5/2003 2:29:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level

**Toxikon**

Date: 10-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302010  
**Project:** 031001 / Salem, MA  
**Lab ID:** 0302010-01A

**Client Sample ID:** 031001-B104-S1B-020303  
**Tag Number:**  
**Collection Date:** 2/3/2003 8:20:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
Phenol	ND	370		µg/Kg-dry	1	2/5/2003 2:29:00 PM
Surr: 2,4,6-Tribromophenol	49.4	10-123		%REC	1	2/5/2003 2:29:00 PM
Surr: 2-Fluorophenol	50.4	21-110		%REC	1	2/5/2003 2:29:00 PM
Surr: Phenol-d5	45.4	10-110		%REC	1	2/5/2003 2:29:00 PM
<b>CYANIDE, PHYSIOLOGICALLY AVAILABLE</b>		<b>SOPPAC</b>				<b>Analyst: CK</b>
Cyanide, Physiologically Available	ND	0.56		mg/Kg-dry	1	2/4/2003
<b>HEXAVALENT CHROMIUM</b>		<b>SW7196A</b>				<b>Analyst: CK</b>
Chromium, Hexavalent	ND	5.6		mg/Kg-dry	1	2/5/2003
<b>AMMONIA AS N SOIL</b>		<b>E350.1</b>				<b>Analyst: CK</b>
Nitrogen, Ammonia (As N)	12	2.2		mg/Kg-dry	1	2/6/2003
<b>PERCENT MOISTURE</b>		<b>D2216</b>				<b>Analyst: AK</b>
Percent Moisture	11			wt%	1	2/4/2003
<b>SULFATE SOIL</b>		<b>E375.4</b>				<b>Analyst: AQ</b>
Sulfate	ND	22		mg/Kg-dry	1	2/4/2003
<b>SULFIDE</b>		<b>SW9030</b>				<b>Analyst: AQ</b>
Sulfide	ND	1.1		mg/Kg-dry	1	2/6/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Toxikon**

Date: 10-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302010  
**Project:** 031001 / Salem, MA  
**Lab ID:** 0302010-02A

**Client Sample ID:** 031001-B105-S2B-020303  
**Tag Number:**  
**Collection Date:** 2/3/2003 9:05:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MA EPH</b>						
		<b>MAEPH</b>				<b>Analyst: AQ</b>
C9-C18 Aliphatic Hydrocarbons	ND	120		mg/Kg-dry	1	2/5/2003 3:39:00 PM
C19-C36 Aliphatics	ND	120		mg/Kg-dry	1	2/5/2003 3:39:00 PM
C11-C22 Aromatics	ND	120		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Unadjusted C11-C22 Aromatics	ND	120		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Naphthalene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
2-Methylnaphthalene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Acenaphthylene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Acenaphthene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Fluorene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Phenanthrene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Anthracene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Fluoranthene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Pyrene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Benzo(a)Anthracene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Chrysene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Benzo(b)Fluoranthene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Benzo(k)Fluoranthene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Benzo(a)Pyrene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Indeno(1,2,3-cd)Pyrene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Dibenz(a,h)Anthracene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Benzo(g,h,i)Perylene	ND	0.60		mg/Kg-dry	1	2/5/2003 3:39:00 PM
Surr: Aliphatic Surrogate COD	97.4	40-140		%REC	1	2/5/2003 3:39:00 PM
Surr: Fractionation Surrogate 2BN	78.2	40-140		%REC	1	2/5/2003 3:39:00 PM
Surr: Aromatic Surrogate OTP	97.5	40-140		%REC	1	2/5/2003 3:39:00 PM
Surr: Fractionation Surrogate 2FB	85.2	40-140		%REC	1	2/5/2003 3:39:00 PM
<b>VOLATILE PETROLEUM HYDROCARBONS</b>						
		<b>MAVPH</b>				<b>Analyst: AQ</b>
C5-C8 Aliphatics	1.8	1.0		mg/Kg-dry	1	2/4/2003
C9-C12 Aliphatics	ND	1.0		mg/Kg-dry	1	2/4/2003
C9-10 Aromatics	2.4	1.0		mg/Kg-dry	1	2/4/2003
Unadjusted C5-C8 Aliphatics	1.8	1.0		mg/Kg-dry	1	2/4/2003
Unadjusted C9-C12 Aliphatics	ND	1.0		mg/Kg-dry	1	2/4/2003
Benzene	ND	0.10		mg/Kg-dry	1	2/4/2003
Toluene	ND	0.10		mg/Kg-dry	1	2/4/2003
Ethylbenzene	ND	0.10		mg/Kg-dry	1	2/4/2003
m+p-Xylene	ND	0.10		mg/Kg-dry	1	2/4/2003
o-Xylene	ND	0.10		mg/Kg-dry	1	2/4/2003
MTBE	ND	0.10		mg/Kg-dry	1	2/4/2003
Naphthalene	ND	0.10		mg/Kg-dry	1	2/4/2003
Surr: FID Surrogate 2,5-DBT	92.0	70-130		%REC	1	2/4/2003
Surr: PID Surrogate 2,5-DBT	83.0	70-130		%REC	1	2/4/2003

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\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Toxikon**

Date: 10-Feb-03

CLIENT: RANSOM ENVIRONMENTAL, INC.  
Lab Order: 0302010  
Project: 031001 / Salem, MA  
Lab ID: 0302010-02A

Client Sample ID: 031001-B105-S2B-020303  
Tag Number:  
Collection Date: 2/3/2003 9:05:00 AM  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY, TOTAL</b>		<b>SW7471A</b>				<b>Analyst: JR</b>
Mercury	ND	0.094		mg/Kg-dry	1	2/10/2003 11:10:56 AM
<b>ICP METALS, TOTAL</b>		<b>SW6010B</b>				<b>Analyst: AI</b>
Aluminum	11000	60		mg/Kg-dry	5	2/6/2003 4:08:00 PM
Antimony	ND	6.0		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Arsenic	ND	6.0		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Barium	28	12		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Beryllium	0.51	0.24		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Cadmium	ND	0.60		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Calcium	1300	12		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Chromium	16	0.60		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Cobalt	7.3	1.2		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Copper	9.4	1.2		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Iron	13000	24		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Lead	8.9	1.2		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Magnesium	3400	6.0		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Manganese	280	6.0		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Nickel	17	4.8		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Potassium	800	30		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Selenium	ND	15		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Silver	ND	0.60		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Sodium	57	24		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Thallium	ND	4.8		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Vanadium	21	1.2		mg/Kg-dry	1	2/6/2003 3:18:00 PM
Zinc	28	4.8		mg/Kg-dry	1	2/6/2003 3:18:00 PM
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
2,4,5-Trichlorophenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2,4,6-Trichlorophenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2,4-Dichlorophenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2,4-Dimethylphenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2,4-Dinitrophenol	ND	960		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2,6-Dichlorophenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2-Chlorophenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2-Methylphenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
2-Nitrophenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
4,6-Dinitro-2-methylphenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
4-Chloro-3-methylphenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
4-Methylphenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
4-Nitrophenol	ND	960		µg/Kg-dry	1	2/5/2003 3:31:00 PM
Pentachlorophenol	ND	960		µg/Kg-dry	1	2/5/2003 3:31:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



**Toxikon**

Date: 10-Feb-03

**CLIENT:** RANSOM ENVIRONMENTAL, INC.  
**Lab Order:** 0302010  
**Project:** 031001 / Salem, MA  
**Lab ID:** 0302010-02A

**Client Sample ID:** 031001-B105-S2B-020303  
**Tag Number:**  
**Collection Date:** 2/3/2003 9:05:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>8270 ACID EXTRACTABLE</b>		<b>SW8270C</b>				<b>Analyst: PC</b>
Phenol	ND	400		µg/Kg-dry	1	2/5/2003 3:31:00 PM
Surr: 2,4,6-Tribromophenol	34.8	10-123		%REC	1	2/5/2003 3:31:00 PM
Surr: 2-Fluorophenol	31.9	21-110		%REC	1	2/5/2003 3:31:00 PM
Surr: Phenol-d5	29.4	10-110		%REC	1	2/5/2003 3:31:00 PM
<b>CYANIDE, PHYSIOLOGICALLY AVAILABLE</b>		<b>SOPPAC</b>				<b>Analyst: CK</b>
Cyanide, Physiologically Available	ND	0.60		mg/Kg-dry	1	2/4/2003
<b>HEXAVALENT CHROMIUM</b>		<b>SW7196A</b>				<b>Analyst: CK</b>
Chromium, Hexavalent	ND	6.0		mg/Kg-dry	1	2/5/2003
<b>AMMONIA AS N SOIL</b>		<b>E350.1</b>				<b>Analyst: CK</b>
Nitrogen, Ammonia (As N)	17	2.4		mg/Kg-dry	1	2/6/2003
<b>PERCENT MOISTURE</b>		<b>D2216</b>				<b>Analyst: AK</b>
Percent Moisture	17			wt%	1	2/4/2003
<b>SULFATE SOIL</b>		<b>E375.4</b>				<b>Analyst: AQ</b>
Sulfate	26	24		mg/Kg-dry	1	2/4/2003
<b>SULFIDE</b>		<b>SW9030</b>				<b>Analyst: AQ</b>
Sulfide	ND	1.2		mg/Kg-dry	1	2/6/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

Wig Ave., 1730  
Telephone: (781) 275-3330  
Fax: (781) 275-7478

DUE DATE : 2-17-03

COMPANY: RAYSON ENVIRONMENTAL  
ADDRESS: BROWNS WATERS  
NEWBURYPORT, MA  
PHONE #: (978) 465-1822 FAX #: (978) 465-7986  
PO # 031001-020302  
PROJECT MANAGER: GARY KAVEMAN  
PROJECT ID/LOCATION: 031001/SALEM, MA

COMPANY: <u>PARSONS ENVIRONMENTAL</u>										ANALYSES									
ADDRESS: <u>BROWNS WATKRE</u>										CONTAINER TYPE									
NEWBURYPORT, MA										P - PLASTIC									
PHONE #: <u>(978) 465-1822</u> FAX #: <u>(978) 465-7986</u>										G - GLASS									
PO #: <u>031001-020302</u>										V - VOA									
PROJECT MANAGER: <u>GARY KAFMAN</u>										PH (Deliver)									
PROJECT ID/LOCATION: <u>031001/SALEM, MA</u>										PHYSIOLOGICAL (Deliver)									
										HEAVY METALS (Deliver)									
										CHLORIDES (Deliver)									
										SULFIDE (Deliver)									
										SULFIDE (Deliver)									
										AMMONIA (4500)									
										VPH DELUXE (VPH 98-1)									

QUOTATION #:

SAMPLED BY: DATE: 2-3-2003 TIME: 11-00

REINQUISHED BY: DATE: 2-3-2003 TIME: 16-00

REINQUISHED BY: DATE: 2-3-2003 TIME: 17-30

METHOD: DATE: 2-11-03

RECEIVED BY: DATE: 2-3-2003 TIME: 16-00

RECEIVED FOR: DATE: 2-3-2003 TIME: 17-30

COOLER TEMPERATURE: 2-04-03

☐ RUSH ..... BUSINESS DAY TURN AROUND

☐ ROUTINE

Sample disposal information  
Are there any other known or suspected contaminants in these samples than those listed above?

If Yes, 1st Known

A1.8 Salem Courts Expansion Study  
**Salem, Massachusetts**

Evaluation of Site Utilities

**Green International Affiliates, Inc.**

**July 2003**



**Salem Courts  
Expansion Study  
Salem, MA**

**Evaluation of Site Utilities**

Prepared for:

**ICON architecture**

**July, 2003**

Prepared by:



**GREEN INTERNATIONAL AFFILIATES, INC.  
CONSULTING ENGINEERS, MEDFORD, MA**

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## 1. Data Collection:

### 1.1. Review of Existing Documents

All available utility records showing the existing utilities in the vicinity and within the site were obtained from the City of Salem Engineering Department, Engineering Office at the Registry of Deeds, and utility companies including Keyspan, Mass Electric, Verizon, and Comcast Cable TV. The review of the available records indicated very little information with respect to the size, material, age, and location of the utility service connections for each building.

### 1.2. Site Visits

Two site visits to the project location took place during June, 2003 to verify the information obtained from utility records and to document and review the existing utility systems servicing each building. The site visits included an interview with the on-site facility maintenance person who has provided the information related to the utility service connections to each building.

Based on the review of the existing documents and the site visits, the existing utility systems in the vicinity of the site and utility connections to each building are described below:

## 2. Water Systems

### 2.1. Water Systems in the Vicinity of the Site:

Several water distribution systems owned and maintained by the City of Salem supply water to the site facilities. The water distribution systems exist along the southern, eastern and northern sides of the site as shown on Figure C-1. A 6-inch municipal water main runs along Federal Street. A 12-inch water main runs along Washington Street, and then turns west into Bridge Street, and a 20-inch municipal water main also exists along Bridge Street. Material and age of these water distribution mains are unknown.

### 2.2. County Commissioner's Building

2-inch and 4-inch water service lines, for domestic and fire respectively, enter through the eastern side of the foundation wall and supply water to the building from the 12-inch water main in Washington Street. There is no sprinkler system for the building, although there is a siamese connection for fire protection. Material and age of these service lines are unknown.

### 2.3. Superior Court Building

A 2-inch water service line enters through the southern side of the basement wall and supplies water from the 6-inch water main in Federal Street. Material and age of the water service line are unknown.

### 2.4. Registry of Deeds/Probate and Family Building

According to the maintenance personnel, two water service lines enter through the north side of



the mechanical room from Bridge Street. Material, size, age, and points of connection to the water distribution systems are unknown. The sprinkler system located in the lobby area under the new 1979 addition to the Registry of Deeds is the only system within the complex.

### 3. Sewer Systems

#### 3.1. Sewer Systems in the Vicinity of the Site:

There are several sewer systems owned and operated by the City of Salem around the site. The sewer services from the site connect to the sewer trunk line that runs along the northern side of the site as shown on Figure C-1. The 12-inch polyethylene municipal sewer line is slip-lined into the abandoned 60-inch Southern Essex Sanitary District (SESD) pipe and runs westerly along Bridge Street. The record plan indicates that the 12-inch sewer line has a slope of 0.006 ft/ft. Based on the diameter and slope of the sewer pipe, the full flow capacity is estimated to be approximately 3.5 cubic feet per second (cfs).

#### 3.2. County Commissioner's Building

A 4-inch cast iron sewer service pipe services the building which penetrates through the northern side of the foundation wall and connects to the existing sewer trunk line in Bridge Street. The age of the pipe is unknown.

#### 3.3. Superior Court Building

A 4-inch cast iron sewer service pipe services the building which penetrates through the northern side of the foundation wall and connects to the existing sewer trunk line in Bridge Street. The age of the pipe is unknown.

#### 3.4. Registry of Deeds/Probate and Family Building

A 6-inch cast iron sewer service pipe services the building which penetrates through the northern side of the foundation wall and connects to the existing sewer trunk line in Bridge Street. The age of the pipe is unknown.

#### **4. Drainage Systems**

##### *4.1. Drainage Systems in the Vicinity of the Site:*

There are several drainage systems owned and maintained by the City of Salem around the project site as shown on Figure C-1. There are 12-inch and 18-inch drain lines that run along Washington Street. The 12-inch drain line becomes 18-inch as it turns into Bridge Street. Storm water runoff from the site connects to the municipal storm drain system in Bridge Street.

##### *4.2. County Commissioner's Building*

Site record plans indicate that there is an existing 12-inch drain line that runs along the east side of the building. The 12-inch drain line conveys storm water runoff from the roof top and the grass areas around the building. The 12-inch drain connects to the existing 12-inch drain line in Bridge Street. Material and age of the drain line are unknown.

##### *4.3. Superior Court Building*

Site record plans indicate that there is an existing drainage system that collects storm water runoff from the roof top and paved parking areas around the building. The system consists of 8-inch and 12-inch drain lines, catch basins, and area drains. The drainage system connects to the existing 12-inch drain line in Bridge Street in front of the building. Material and age of the drain lines discharging drainage from the building are unknown.

##### *4.4. Registry of Deeds/Probate and Family Building*

Runoff from the paved parking areas around the building is conveyed to the existing 12-inch drain line in Bridge Street. Runoff from the paved parking area along the east side of the building is collected by the same drainage system for the Superior Court Building. There is no record plan for the drainage system on the north and west sides of the building.

#### **5. Electrical Systems**

##### *5.1. Electrical Systems in the Vicinity of the Site:*

Massachusetts Electric supplies electricity to the site. Electrical record plans obtained from Massachusetts Electric indicate that there are underground electrical ducts along the southern, eastern and northern side of the site as shown in Figure C-1. There are four 4-inch electrical ducts along Bridge Street, nine 4-inch ducts in the east and west sides along Washington Street, and nine 3.5-inch and nine 4-inch ducts along Bridge Street. Material and age of these ducts are not indicated on the record plans.

##### *5.2. County Commissioner's Building*

There is an electrical transformer located at the north side of the Superior Court Building along Bridge Street. The electrical record plans indicate that the electrical transformer is a standard three phase transformer and is rated for 500 Kilo Volt Ampere (KVA). Also, the record plans indicate that the transformer receives power from an electrical manhole located to the west of the

northwestern corner of Registry of Deeds via an unknown size and material electrical duct. According to the maintenance personnel the electrical transformer supplies power to the County Commissioner's and Superior Court Buildings.

5.3. Superior Court Building

The electrical transformer described above also supplies power to the Superior Court Building.

5.4. Registry of Deeds/Probate and Family Building

There is an electrical transformer located along the west side of the Registry of Deeds. The electrical record plans indicate that the electrical transformer is a standard three phase transformer and is rated for 300 KVA. Also, the record plans indicate that the transformer receives power from an electrical manhole located to the west of the northwestern corner of Registry of Deeds via two 4-inch electrical ducts, and it shows two electrical ducts of unknown size entering through the northeastern side of the mechanical room. According to the maintenance personnel the electrical transformer supplies power to the building.

6. Telephone/Telecommunication Systems

6.1. Telephone Systems in the Vicinity of the Site:

Verizon owns and maintains the telephone systems around the site. Telephone record plans show underground telephone ducts along the south, east and north sides of the site as shown on Figure C-1. There are eight 3.5-inch multi-tile telephone ducts in Federal Street, two 4-inch ducts in Washington Street (1986), and four 3-inch cement lined ducts in Bridge Street (1896). According to the maintenance personnel, the telecommunication lines enter the buildings with the telephone lines.

6.2. County Commissioner's Building

There is no information available with respect to the telephone service for the building.

6.3. Superior Court Building

The record plans show a 3-inch creosote wood telephone line that delivers service to the building from Federal Street. Age of the telephone line is unknown.

6.4. Registry of Deeds/Probate and Family Building

The record plans show a 3-inch creosote wood (1932) line that delivers service to the building from Bridge Street.

7. Natural Gas Distribution Systems

7.1. Gas Systems in the Vicinity of the Site:

Gas distribution mains around the site are owned and maintained by Keyspan. The gas distribution mains surround the site from the south, east and north as shown on Figure C-1. There is an 8-inch high pressure (1941) and a 12-inch low pressure (1932) gas main along Federal Street, a 16-inch low pressure (1908) gas main along Washington Street, and a 12-inch high pressure (1952) and 16-inch low pressure (1912) gas main along Bridge Street. There is a gas meter located at the southeastern corner of the 1979 addition of the Registry of Deeds which receives service from Federal Street via 3-inch gas line. According to the maintenance personnel the 3-inch gas line is approximately 5 years old and the line services a centralized heating system located in the mechanical room. The centralized heating system serves the Court Buildings. There is an abandoned in-place oil tank in the parking lot area to the north of the Registry of Deeds. The tank was abandoned when the heating system was converted to natural gas approximately 5 years ago.

## **8. Cable TV Systems**

### **8.1. Cable Systems in the Vicinity of the Site:**

Comcast owns and maintains the cable TV system in Federal Street. A cable TV record plan obtained from Comcast indicates that there is an underground conduit that runs along Federal Street as shown on Figure C-1. A review of the plans indicates little information with respect to conduit size, age and material of the underground conduits in Federal Street. According to maintenance personnel, currently the buildings do not have cable TV services.